

KIC 006342980

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})
006342980-01	OBS	No	375.259764	238.188418	385.2	2.884	7.4	7.6	1.65	5880	3.73	2.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006342980-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

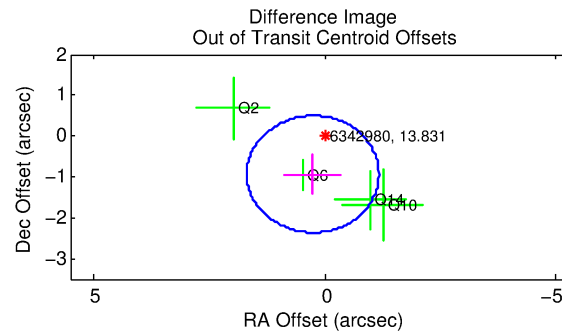
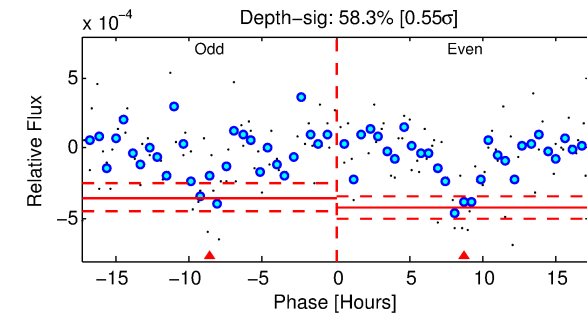
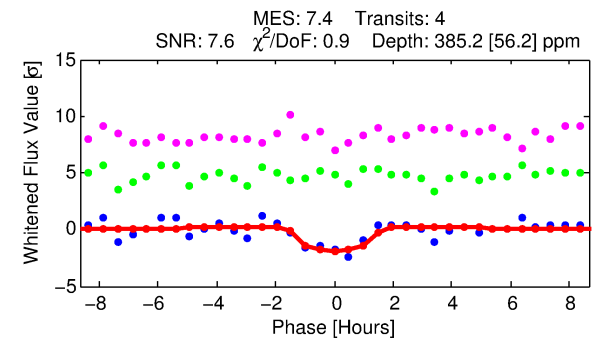
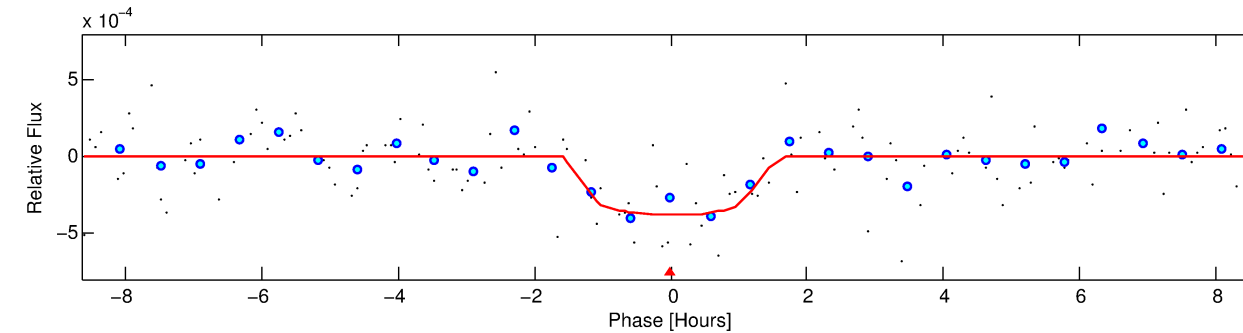
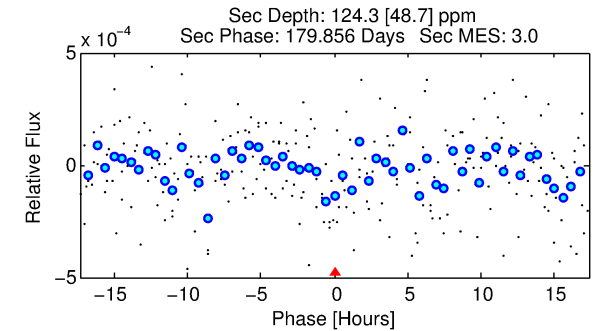
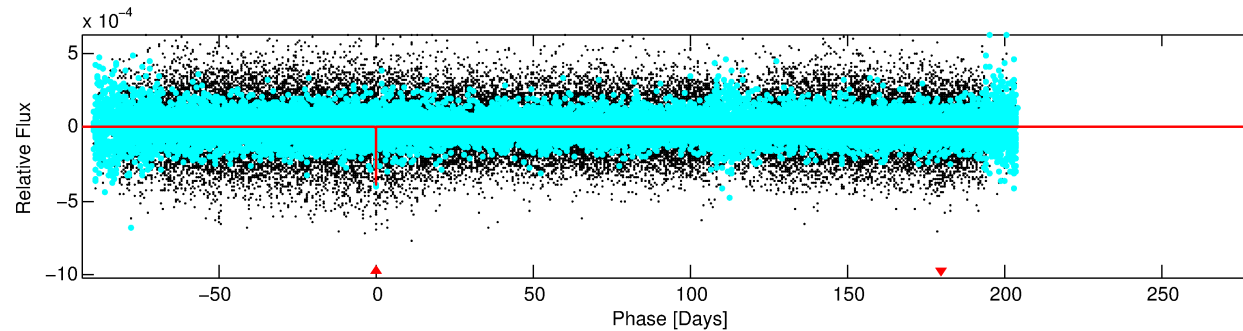
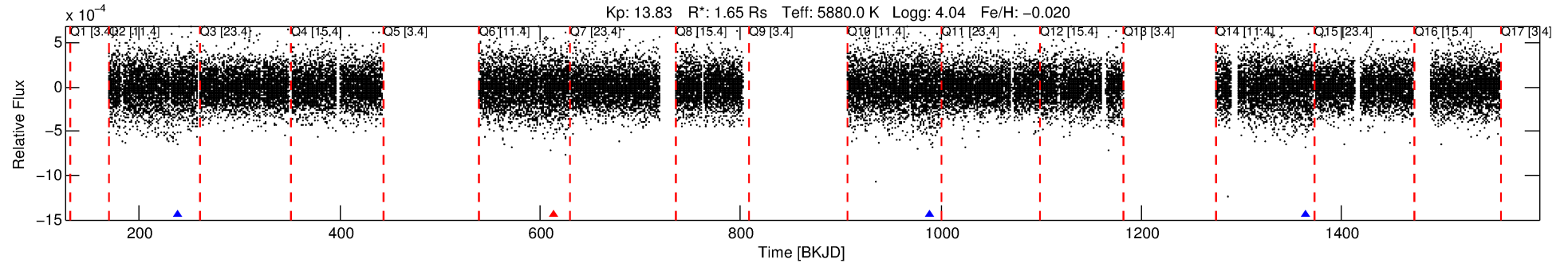
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006342980-01

No Significant Match Found

DV One-Page Summary

KIC: 6342980 Candidate: 1 of 1 Period: 375.260 d
KOI: K05263 Corr: No Ephemeris Match



DV Fit Results:

Period = 375.25976 [0.00410] d
Epoch = 238.1884 [0.0071] BKJD
Rp/R* = 0.0207 [0.0189]
a/R* = 542.19 [2360.64]
b = 0.86 [1.32]
Seff = 2.68 [1.74]
Teq = 326 [53] K
Rp = 3.72 [3.68] Re
a = 1.0437 [0.4019] AU
Ag = 5369.50 [10613.58] [0.51σ]
Teffp = 4317 [2024] K [1.97σ]

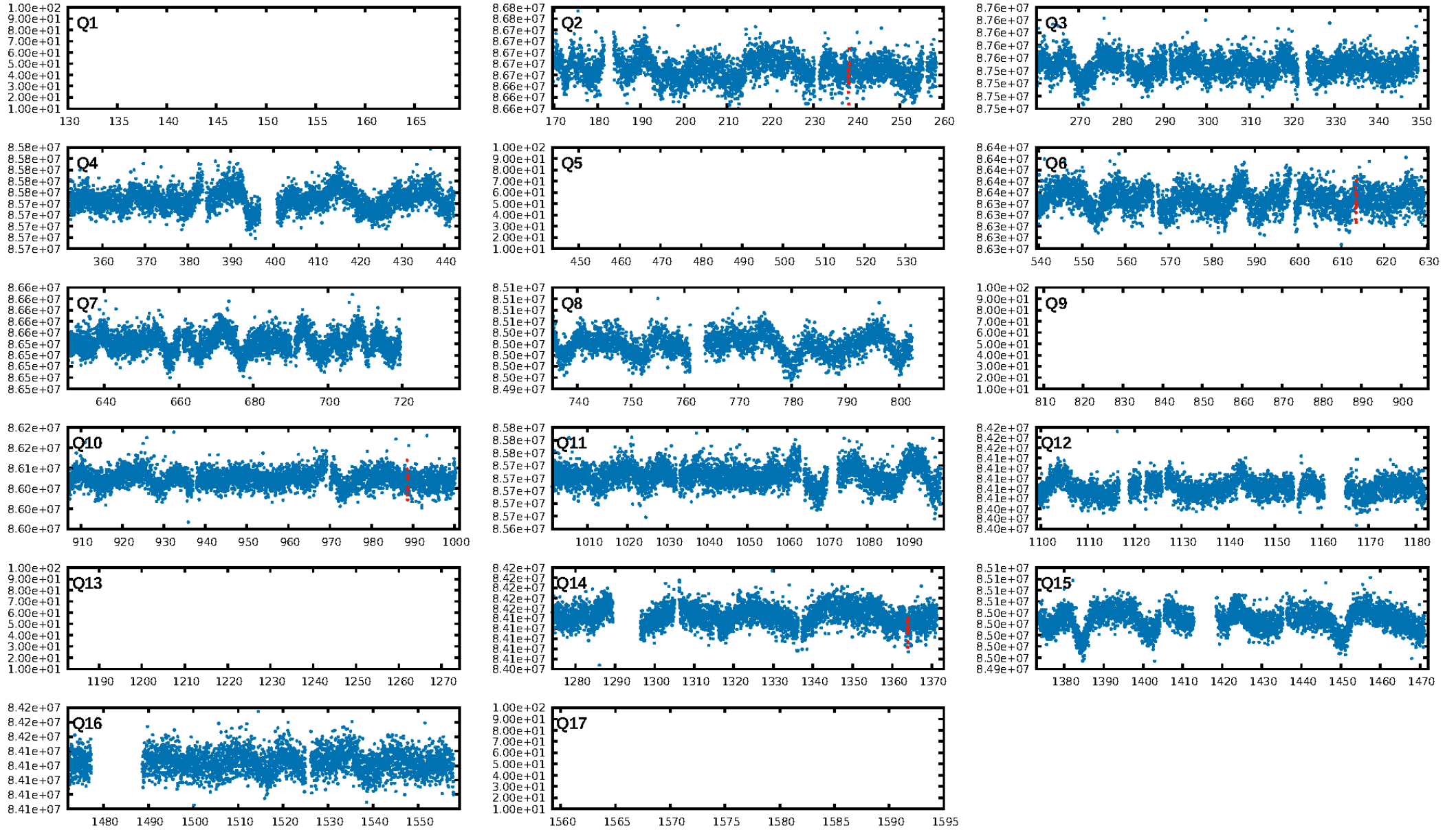
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 87.8%
ModelChiSquareGof-sig: 93.2%
Bootstrap-pfa: 5.21e-13
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 1.881
Centroid-sig: 56.2%
Centroid-so: 1.565 arcsec [0.74σ]
OotOffset-rm: 0.968 arcsec [2.03σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-rm: 0.888 arcsec [1.98σ]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

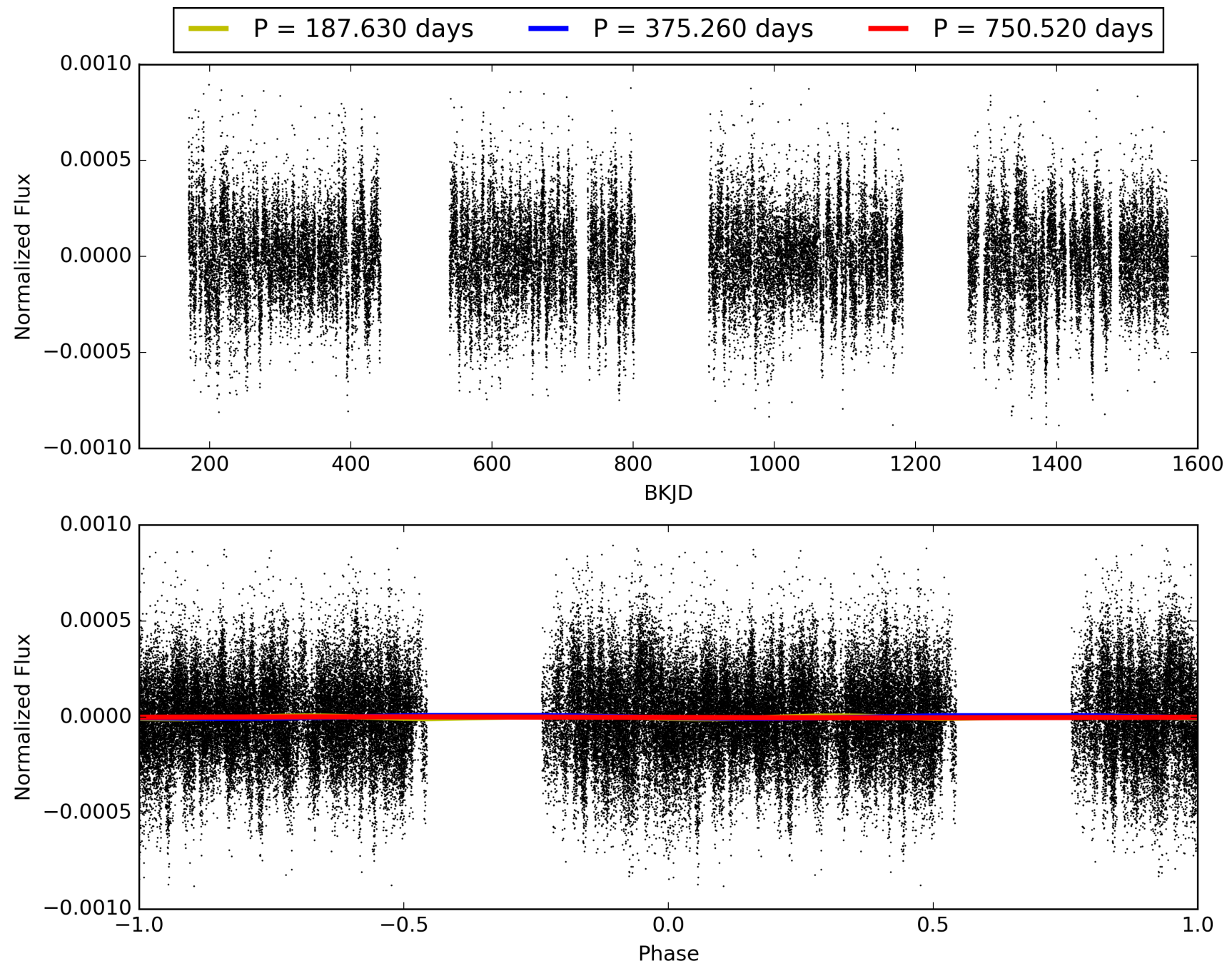
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:35:31 Z

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

TCE 006342980-01, PDC Light Curves

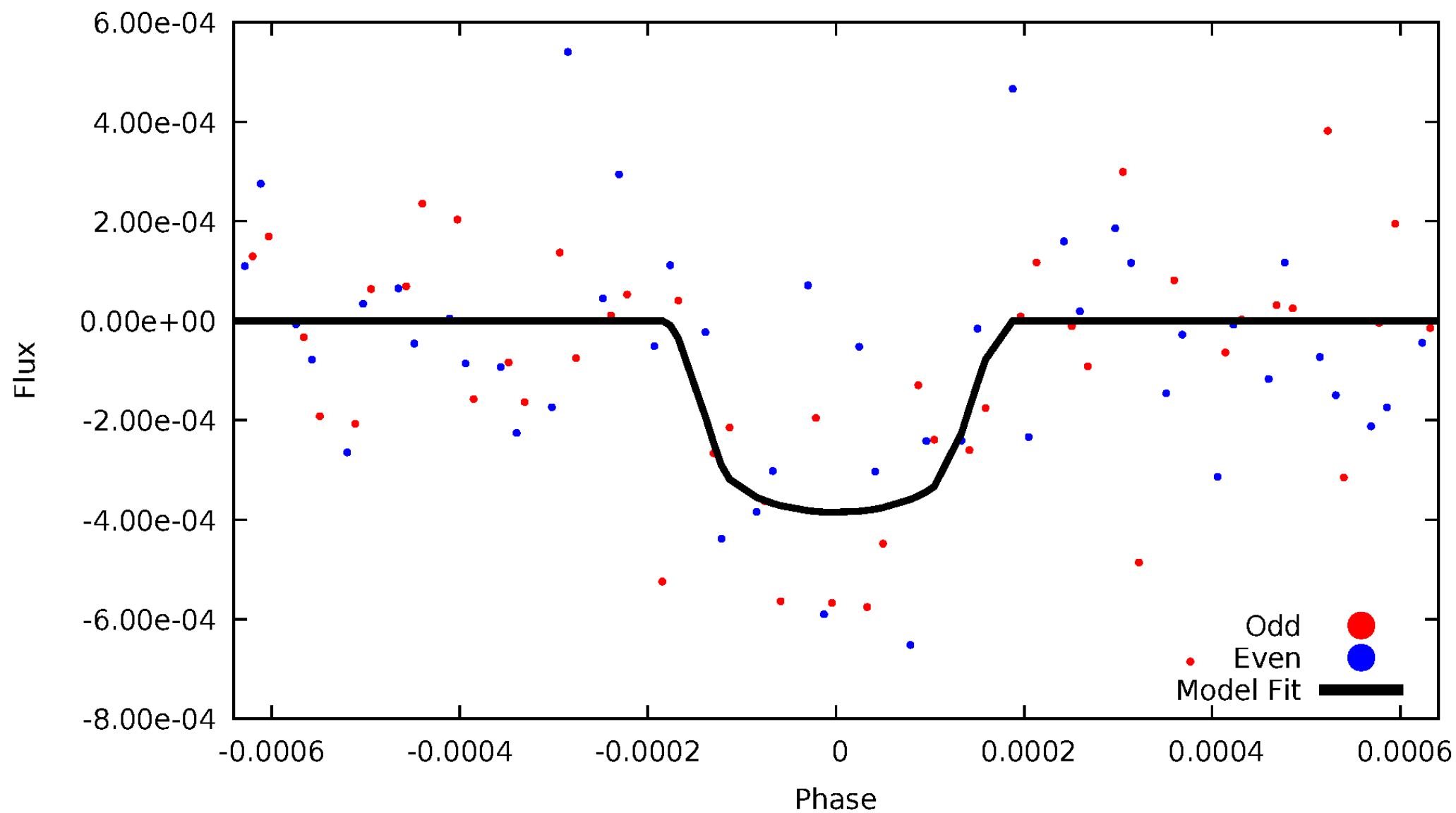


TCE 006342980-01



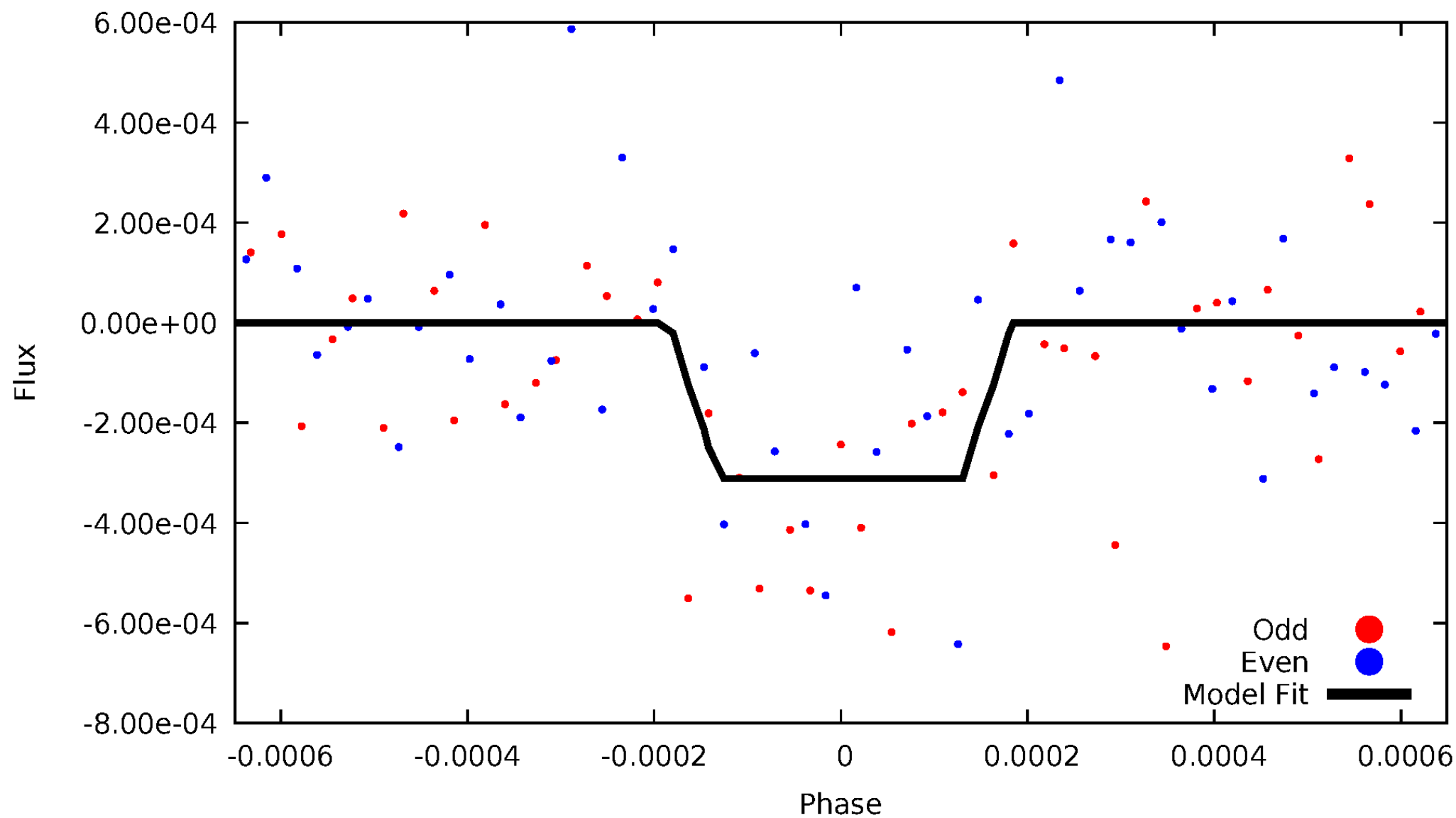
DV Odd/Even

TCE 006342980-01



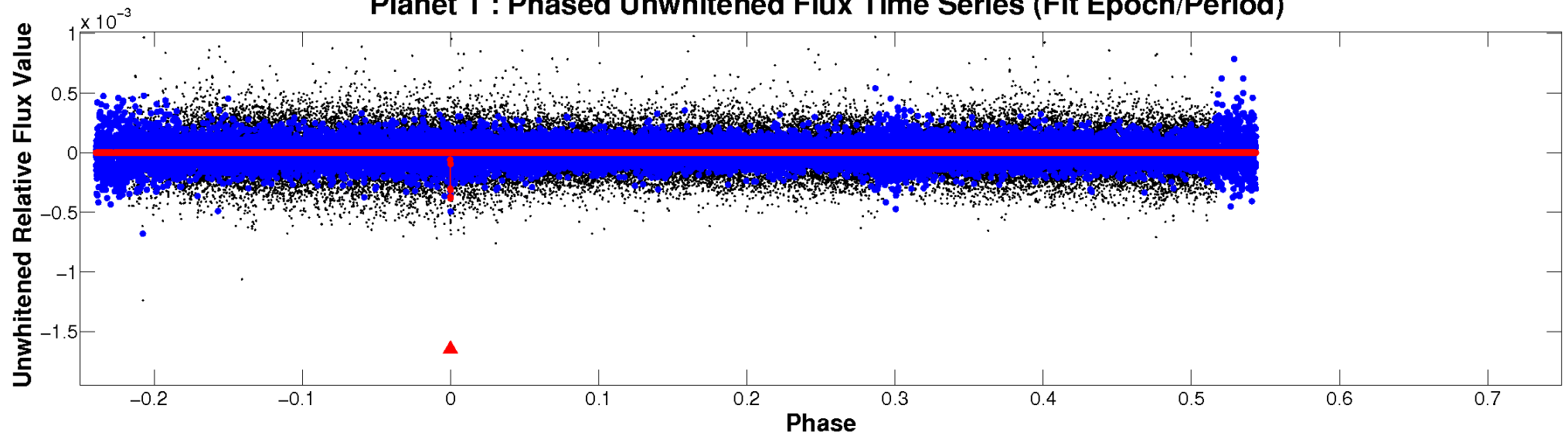
ALT Odd/Even

TCE 006342980-01

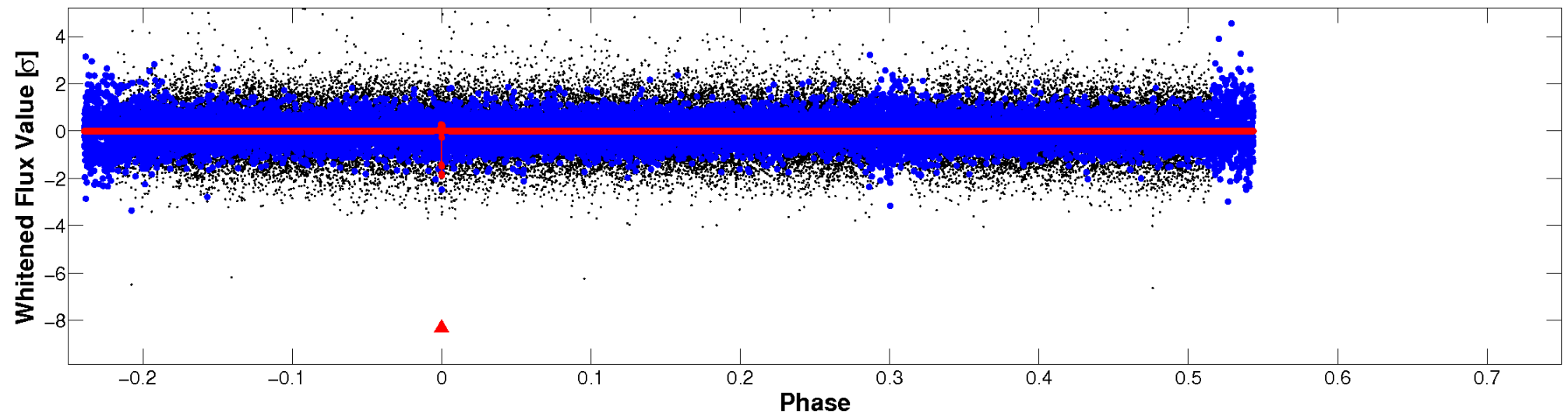


Non-Whitened Vs. Whitened Light Curve

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

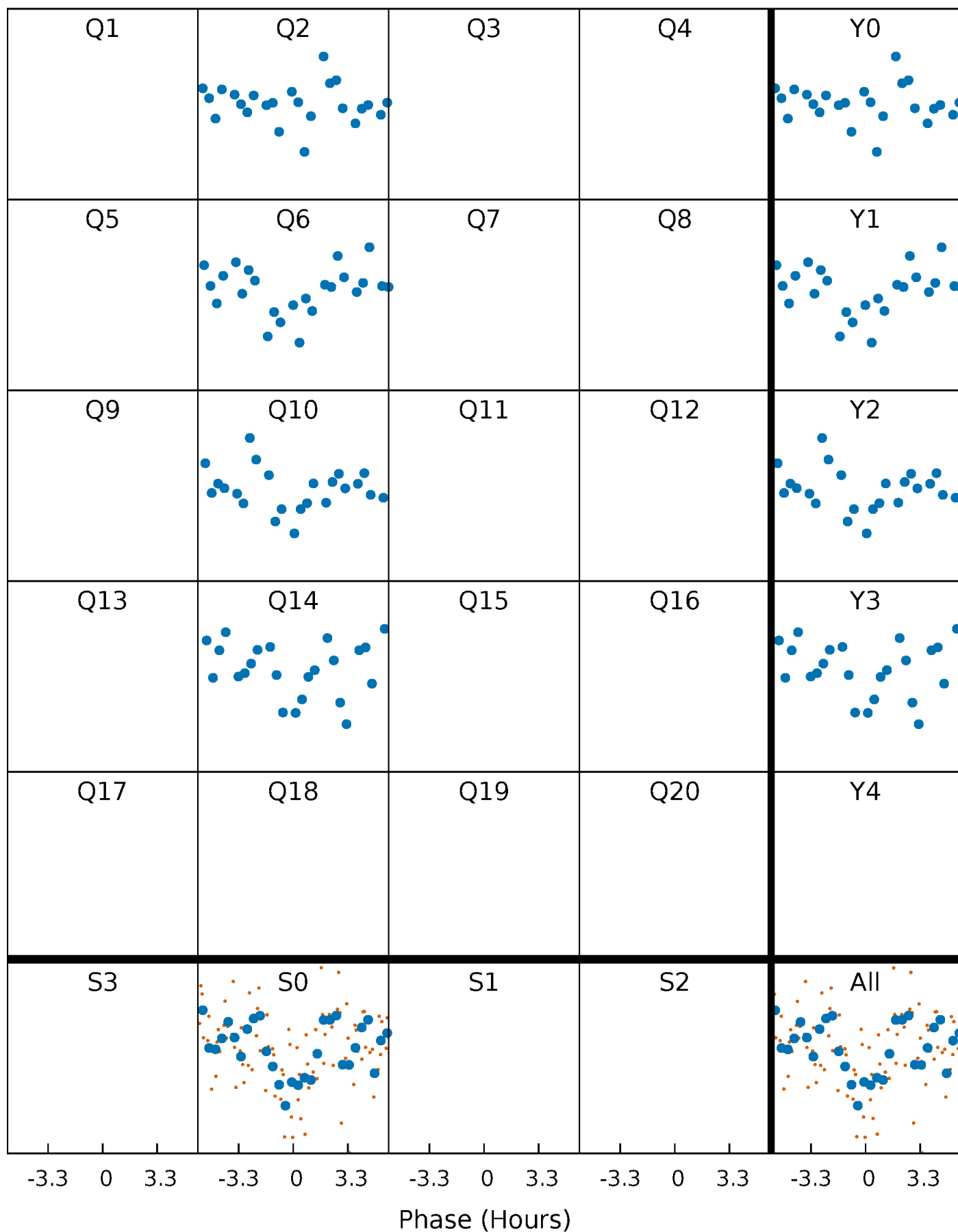


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



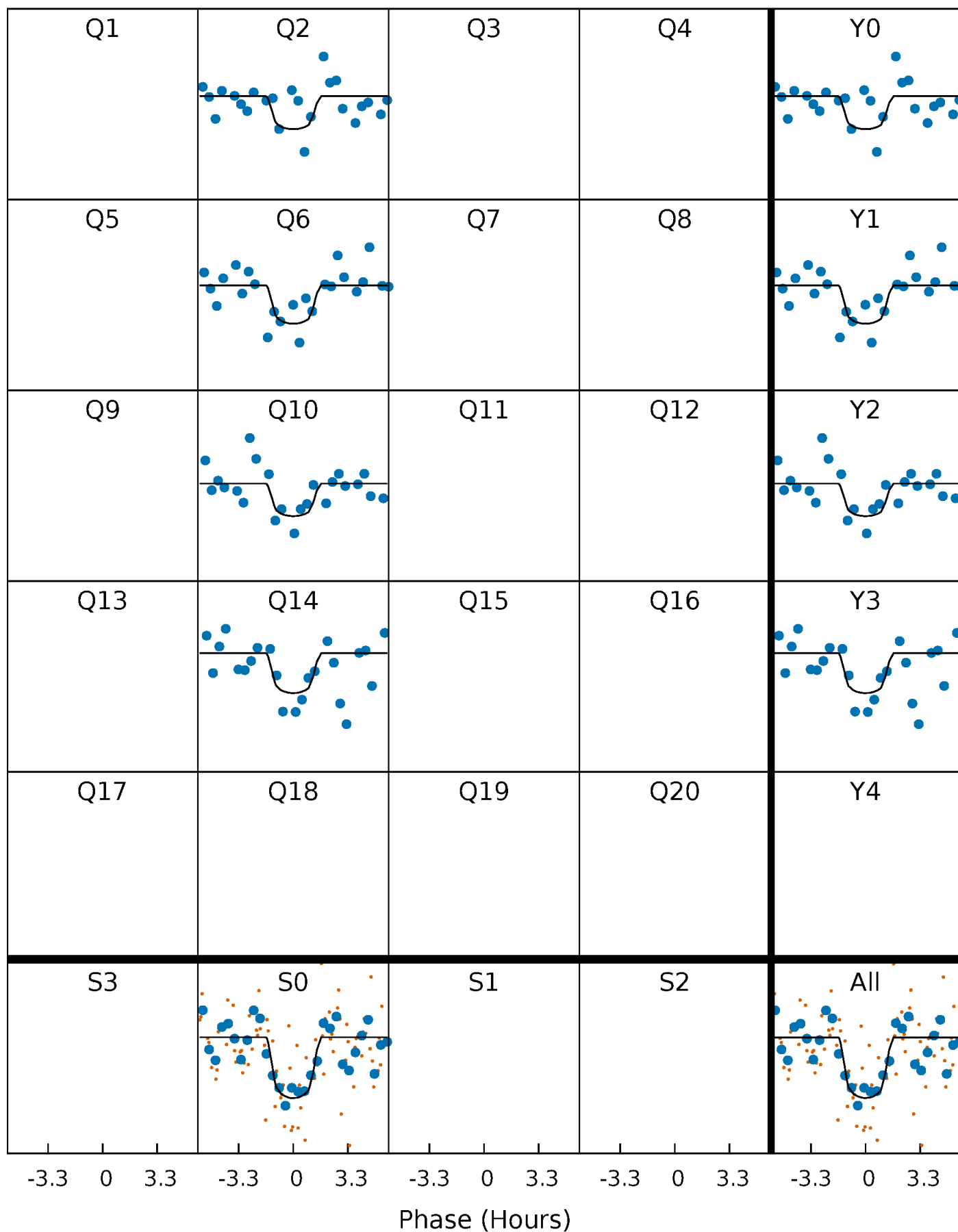
PDC Quarter-Phased Transit Curves

TCE 006342980-01 P=375.259764 Days $T_0=238.188418$ (BKJD)



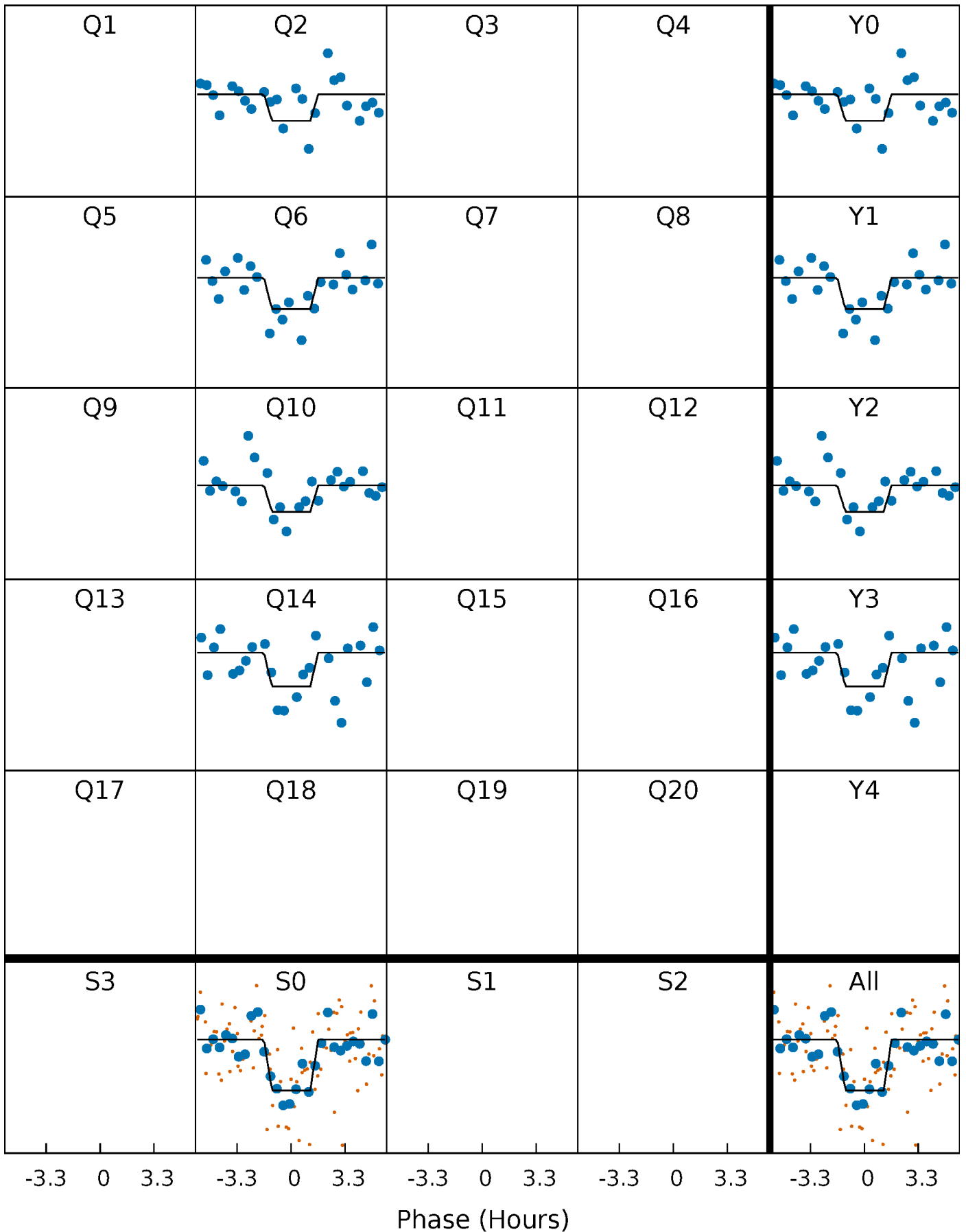
DV Quarter-Phased Transit Curves

TCE 006342980-01 P=375.259764 Days $T_0=238.188418$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

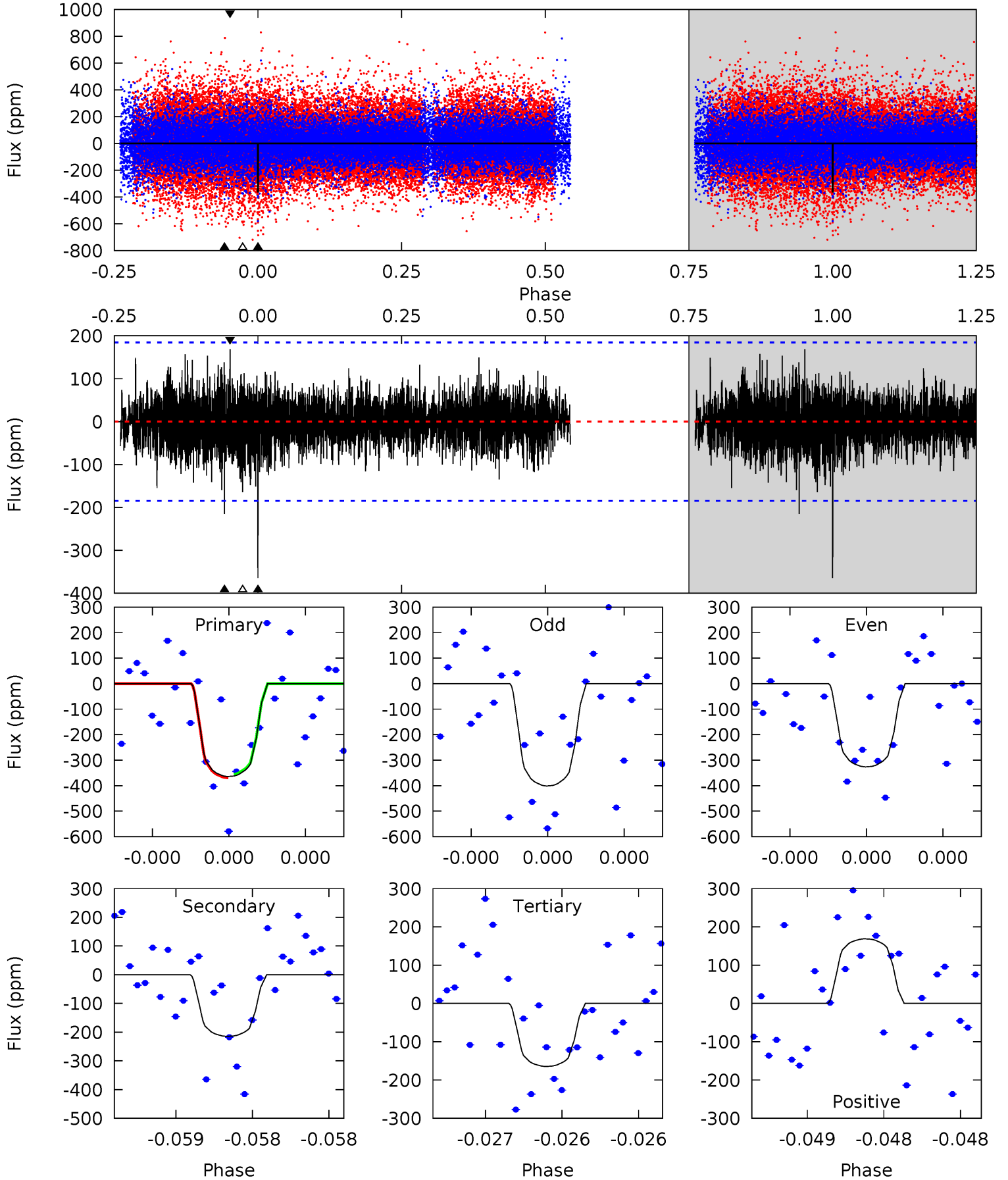
TCE 006342980-01 P=375.269141 Days $T_0=238.170984$ (BKJD)



DV Model-Shift Uniqueness Test

006342980-01, P = 375.259764 Days, E = 238.188418 Days

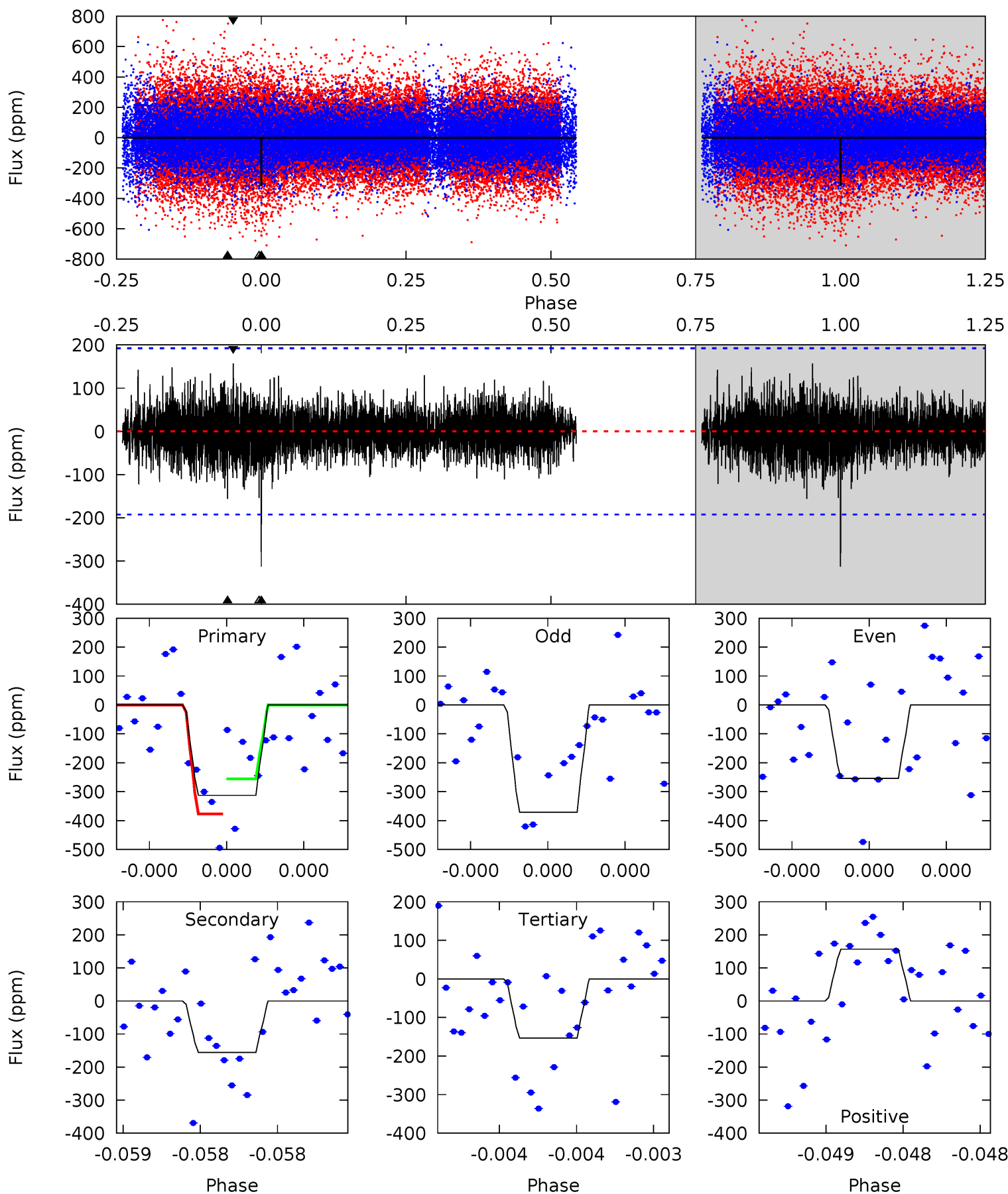
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	6.54	5.02	5.15	5.62	3.56	1.24	6.08	5.95	1.53	1.40	1.14	0.97	0.32	0.19



Alt Model-Shift Uniqueness Test

006342980-01, P = 375.269141 Days, E = 238.170984 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.17	4.57	4.50	4.59	5.64	3.58	1.09	4.67	4.58	0.07	-0.02	1.72	0.97	0.33	1.72



Stellar Parameters For KIC 006342980

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5880^{+176}_{-193}	$4.035^{+0.382}_{-0.127}$	$-0.020^{+0.250}_{-0.300}$	$1.650^{+0.412}_{-0.618}$	$1.077^{+0.159}_{-0.159}$	$0.338^{+0.889}_{-0.142}$
	+3%/-3%	+9%/-3%	+1250%/-1500%	+25%/-37%	+15%/-15%	+263%/-42%
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 006342980-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-215 ± 33	$4.16^{+3.32}_{-2.64}$	448^{+32}_{-47}	4683^{+2944}_{-873}	7764^{+46910}_{-5520}
Alt.	-156 ± 34	$3.66^{+3.04}_{-2.38}$	444^{+35}_{-45}	4625^{+2817}_{-908}	7094^{+44198}_{-5002}

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 $A_{obs} \gg 1.0$

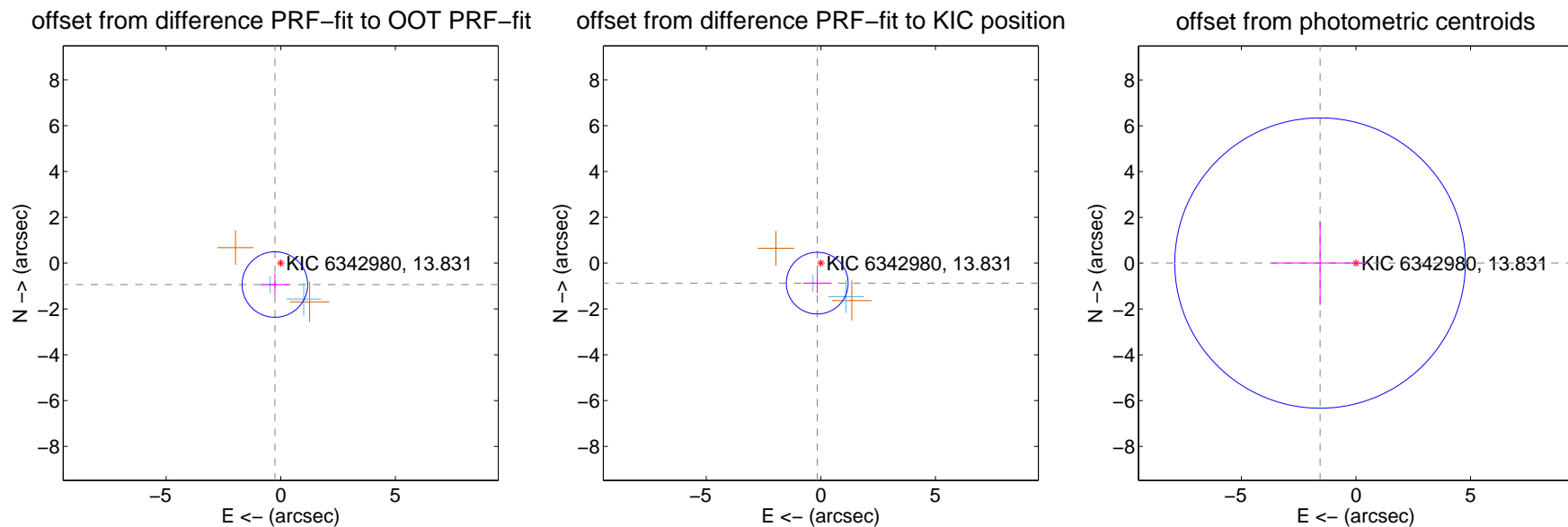
DV Centroid Data

Supplemental centroid analysis for 006342980-01. Kepler magnitude: 13.83. Transit SNR 7.57

There are 2 quarters with good PRF difference image offsets

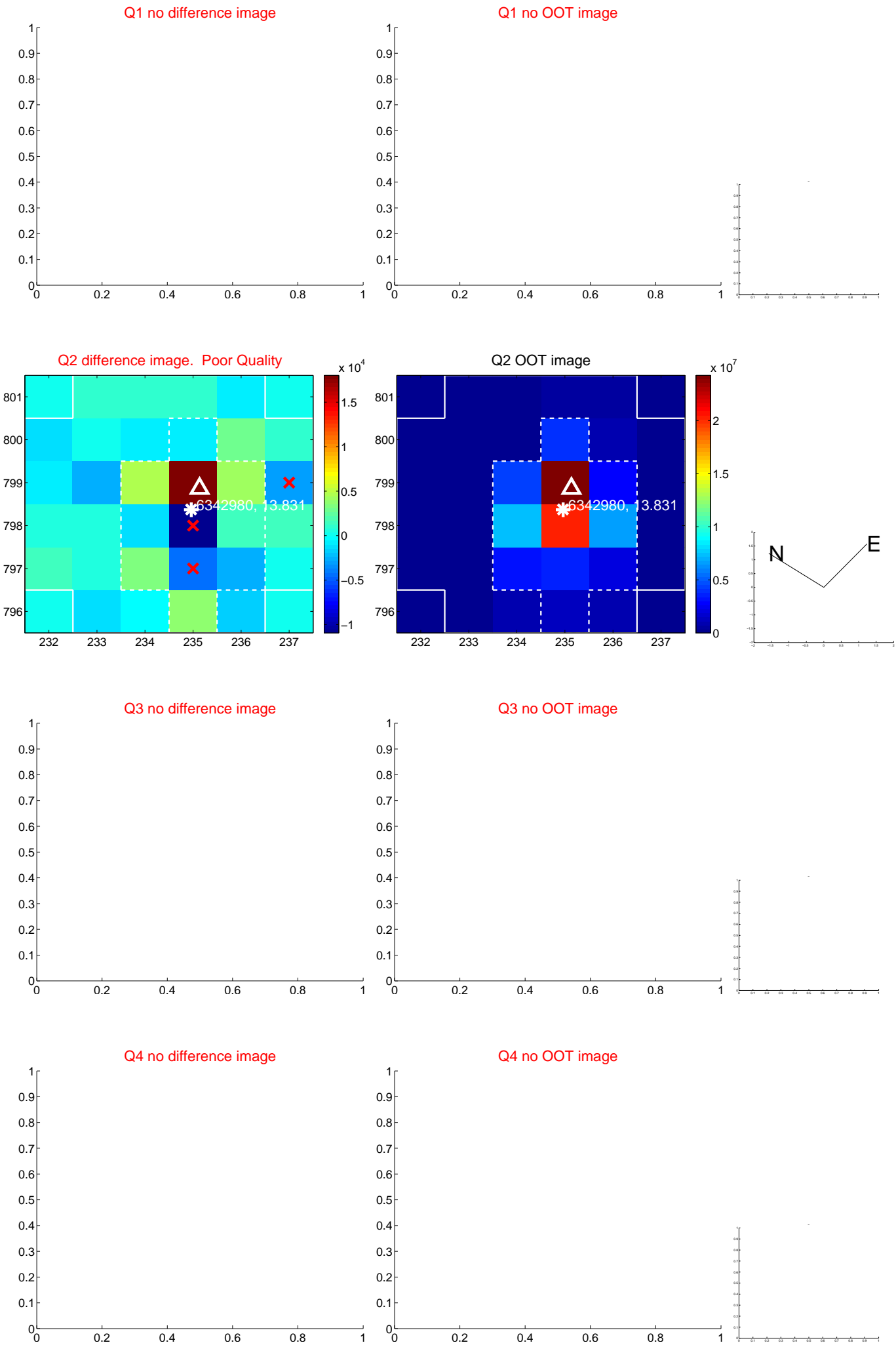
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.968 ± 0.477	2.03	0.256 ± 0.616	-0.934 ± 0.464
PRF-fit source offset from KIC position	0.888 ± 0.449	1.98	0.159 ± 0.627	-0.873 ± 0.442
photometric centroid source offset	1.57 ± 2.11	0.74	1.57 ± 2.11	0.01 ± 1.83

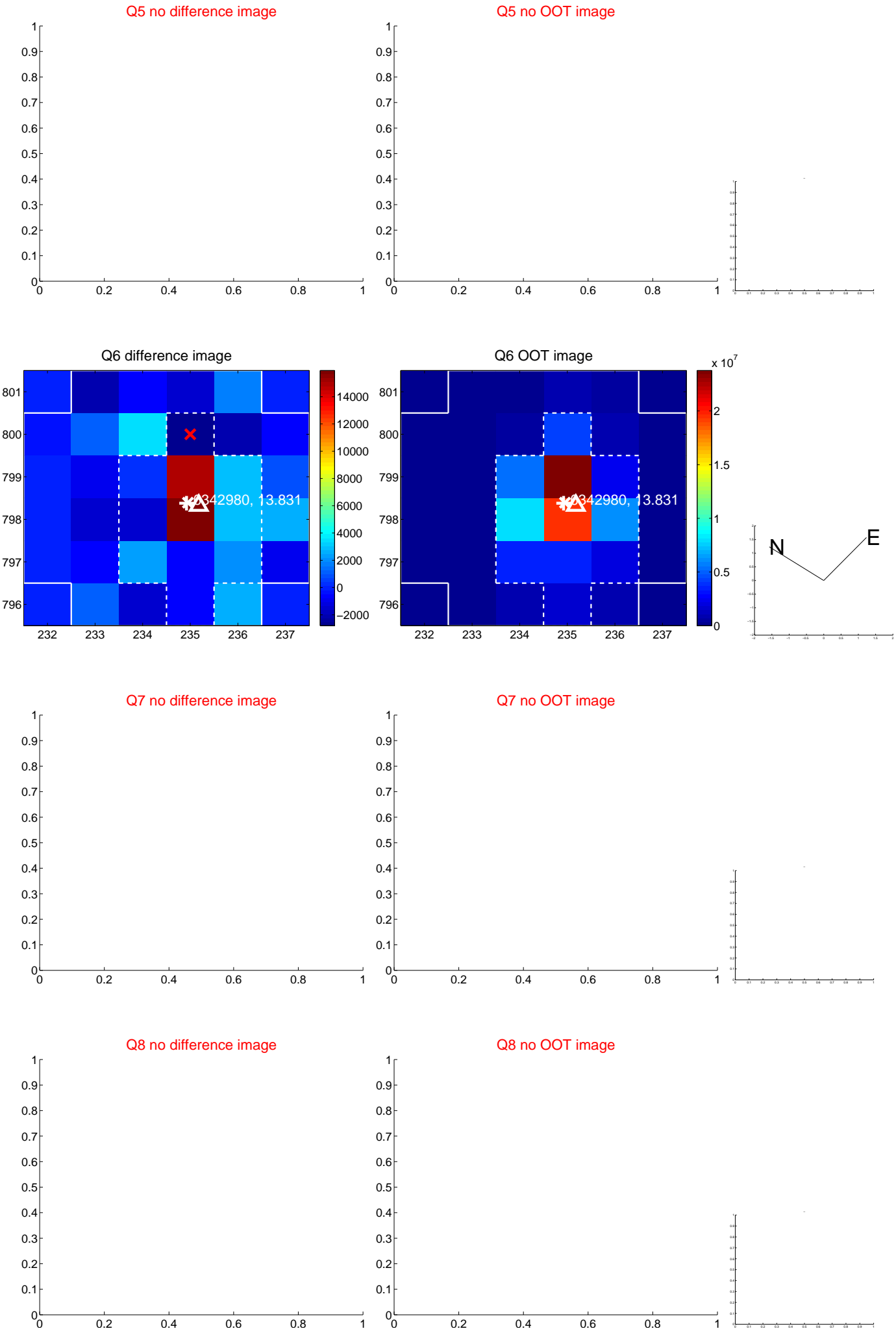


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

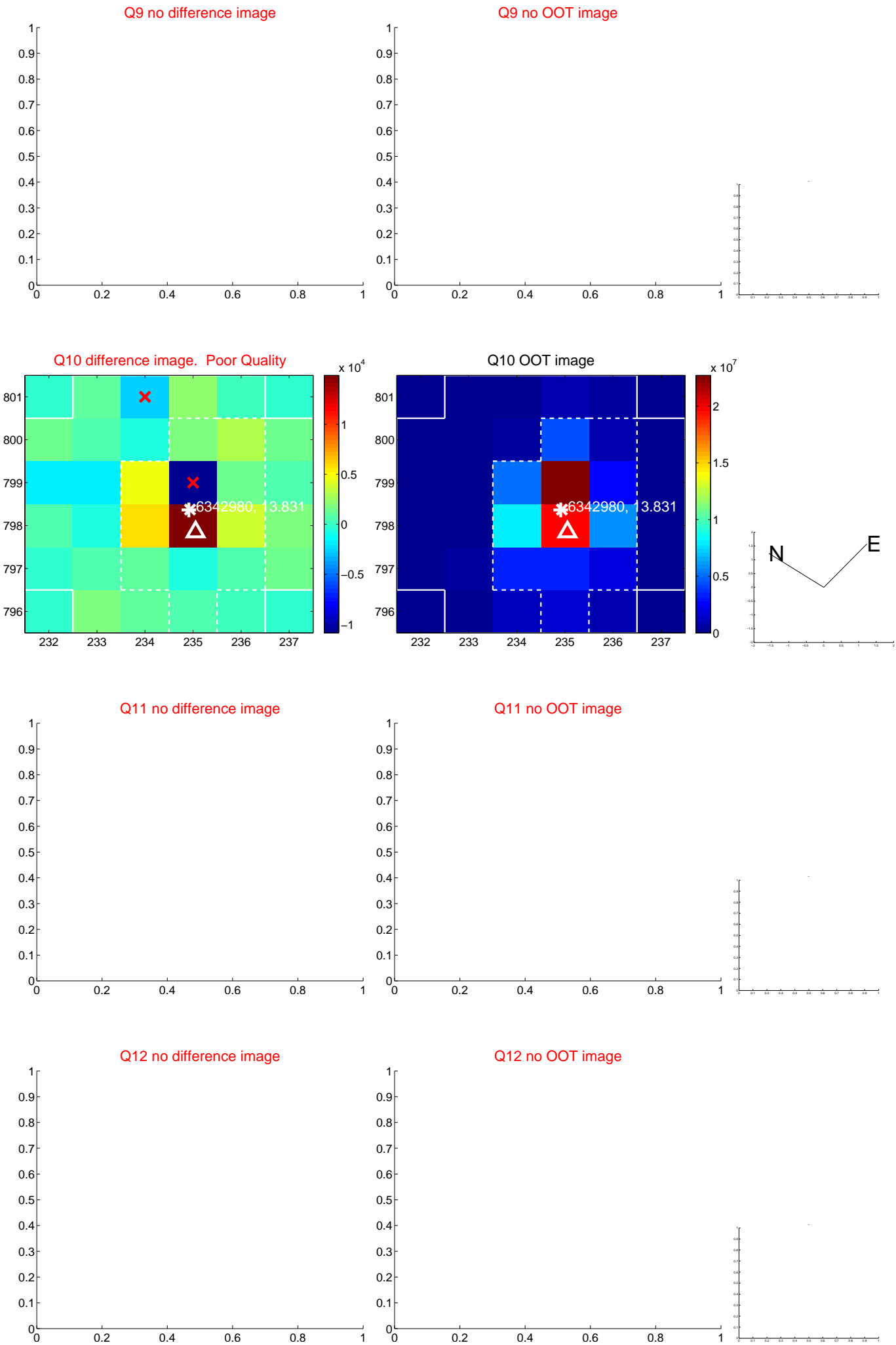
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



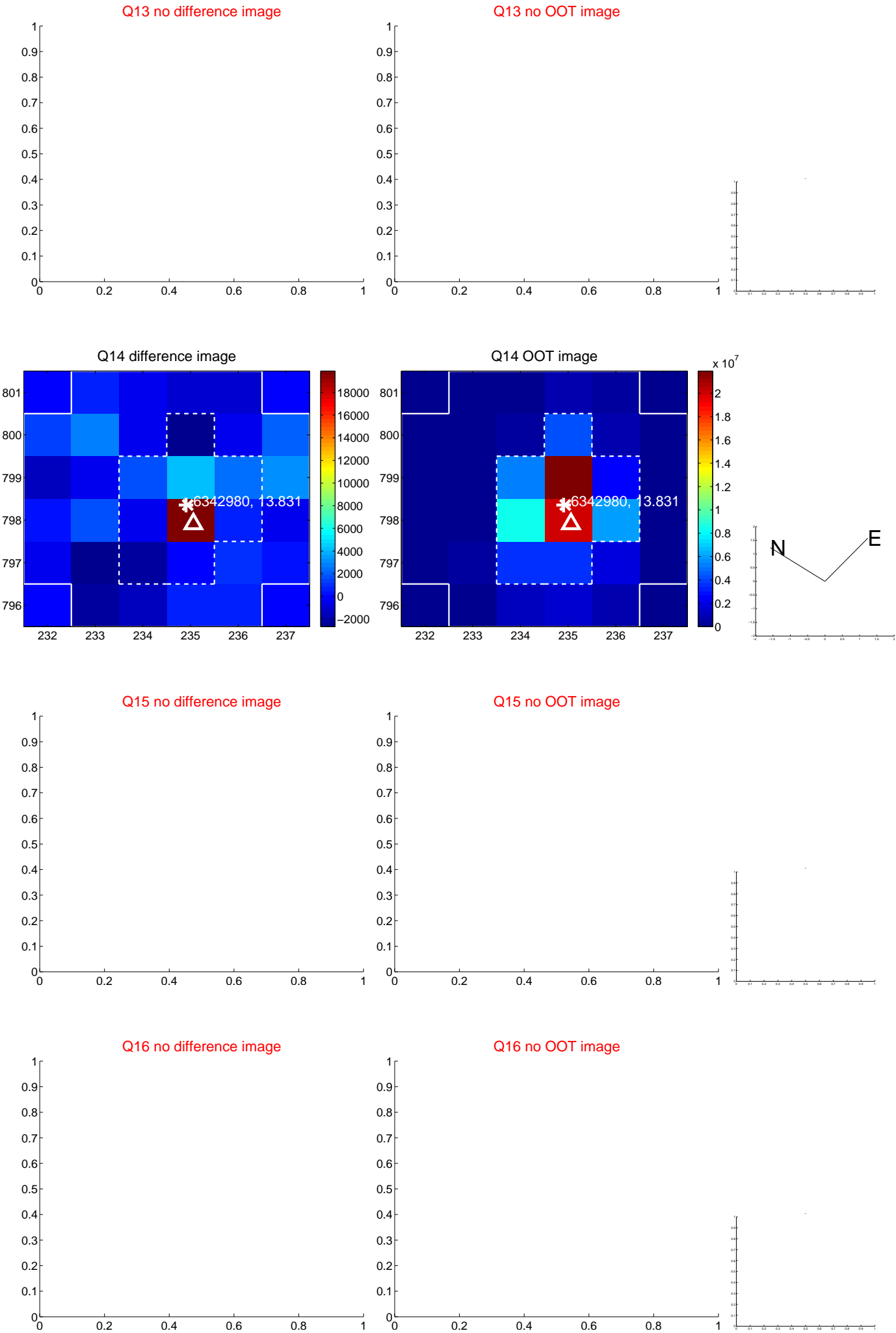
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



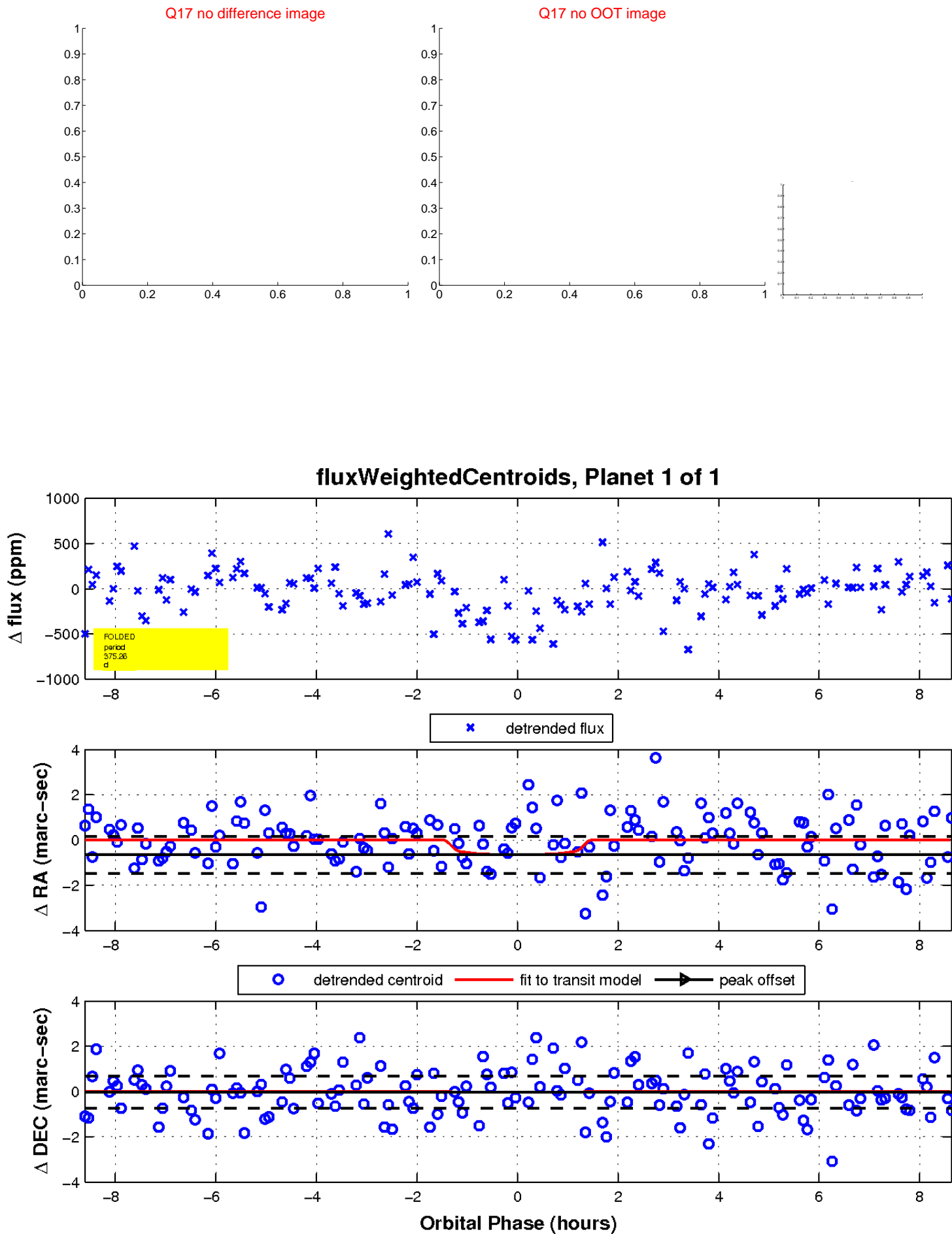
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

