

KIC 008490980

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})
008490980-01	OBS	No	375.149971	174.731794	586.6	54.566	11.7	14.8	1.07	6335	4.95	1.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008490980-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

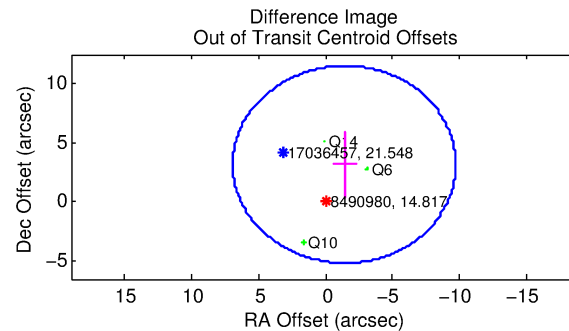
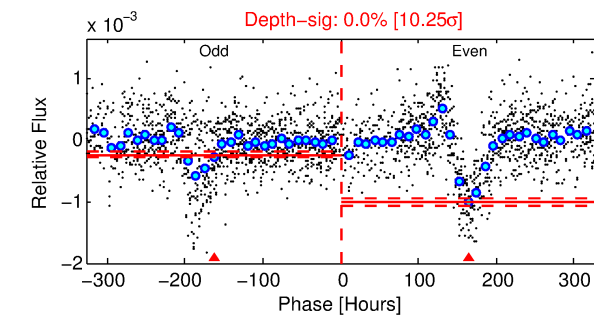
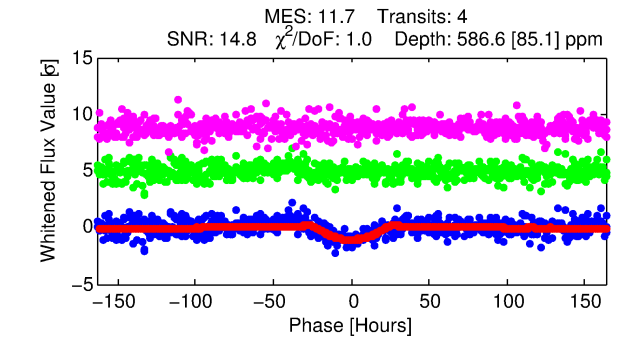
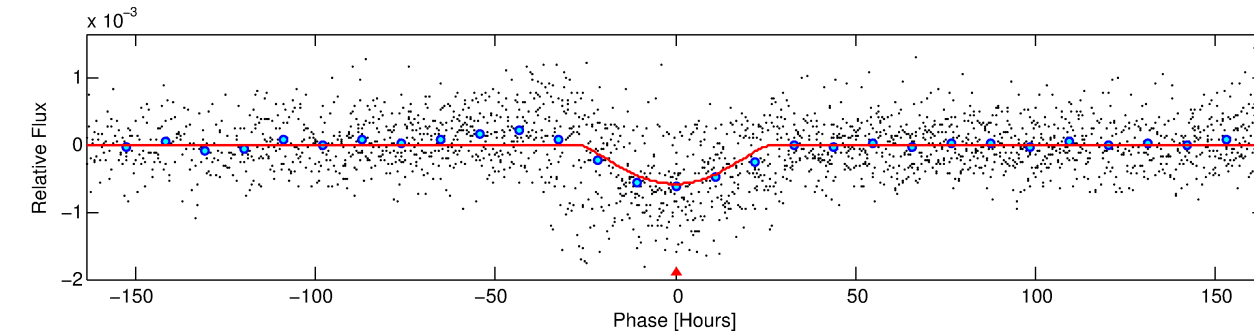
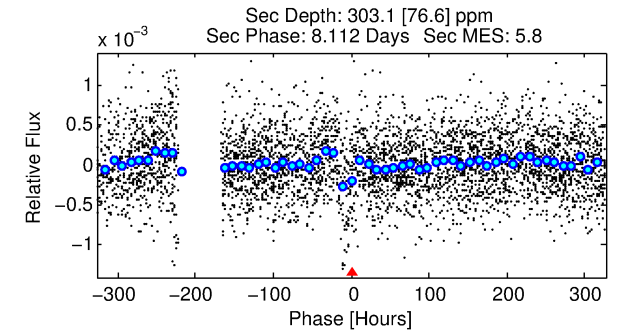
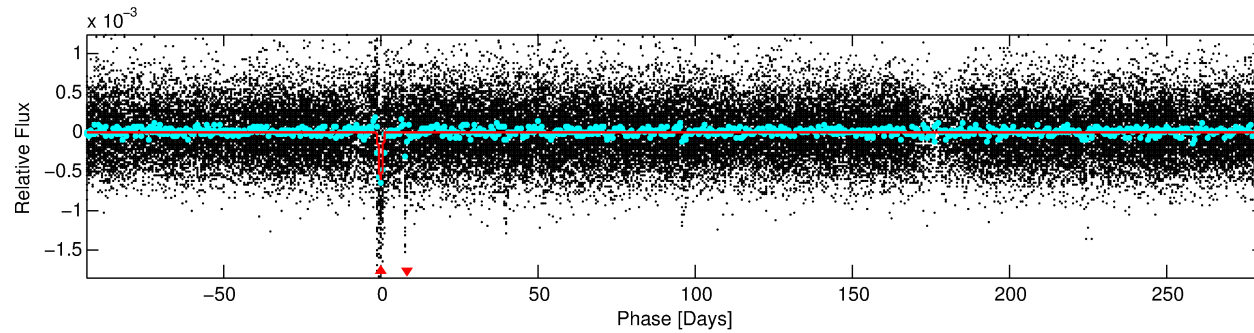
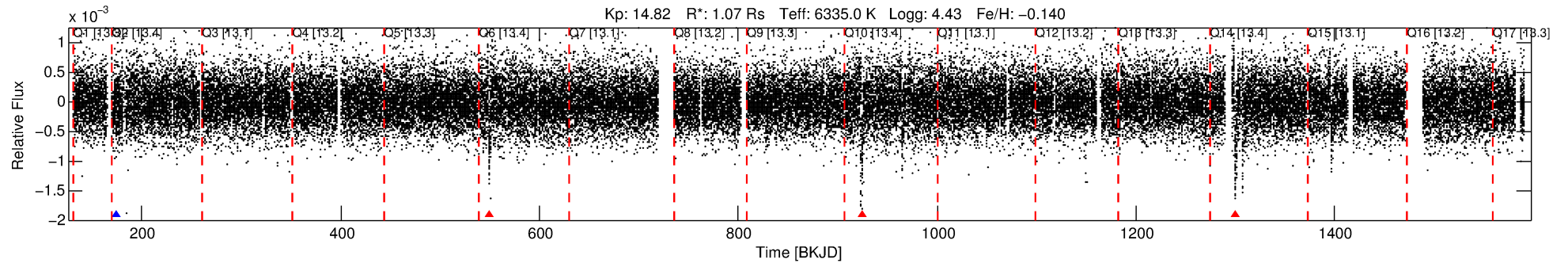
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008490980-01

No Significant Match Found

DV One-Page Summary

KIC: 8490980 Candidate: 1 of 1 Period: 375.150 d



DV Fit Results:

Period = 375.14997 [0.03933] d
Epoch = 174.7318 [0.0627] BKJD
Rp/R* = 0.0423 [0.0779]
a/R* = 15.60 [7.24]
b = 1.00 [0.12]
Seff = 1.48 [0.64]
Teff = 281 [30] K
Rp = 4.95 [9.27] Re
a = 1.0575 [0.3006] AU
Ag = 7599.62 [28217.56] [0.27 σ]
Teffp = 4062 [3750] K [1.01 σ]

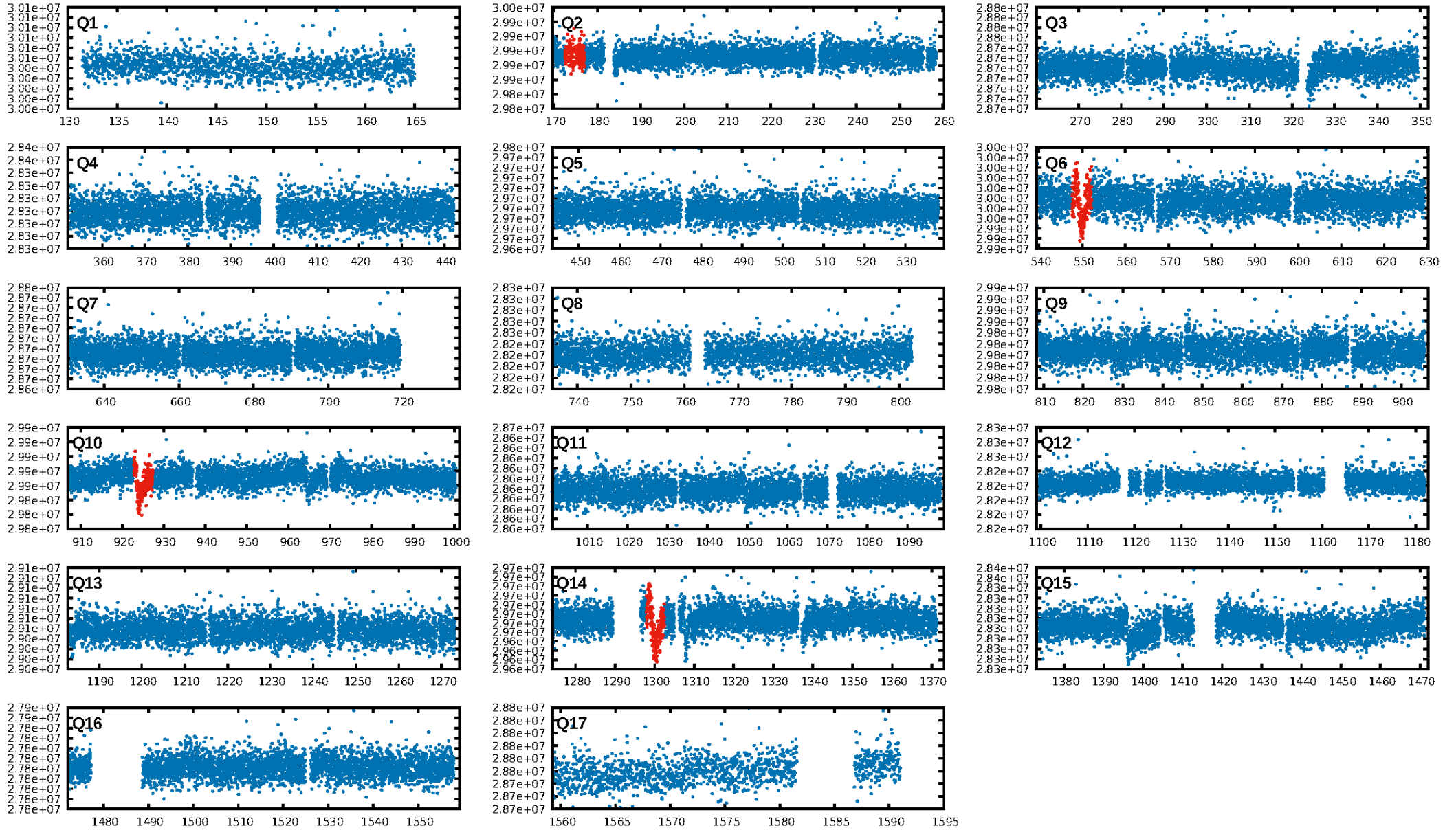
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.05e-23
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 0.2431
Centroid-sig: 0.0%
Centroid-so: 2.661 arcsec [3.38 σ]
OotOffset-rm: 3.484 arcsec [1.25 σ]
KicOffset-rm: 3.434 arcsec [1.57 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

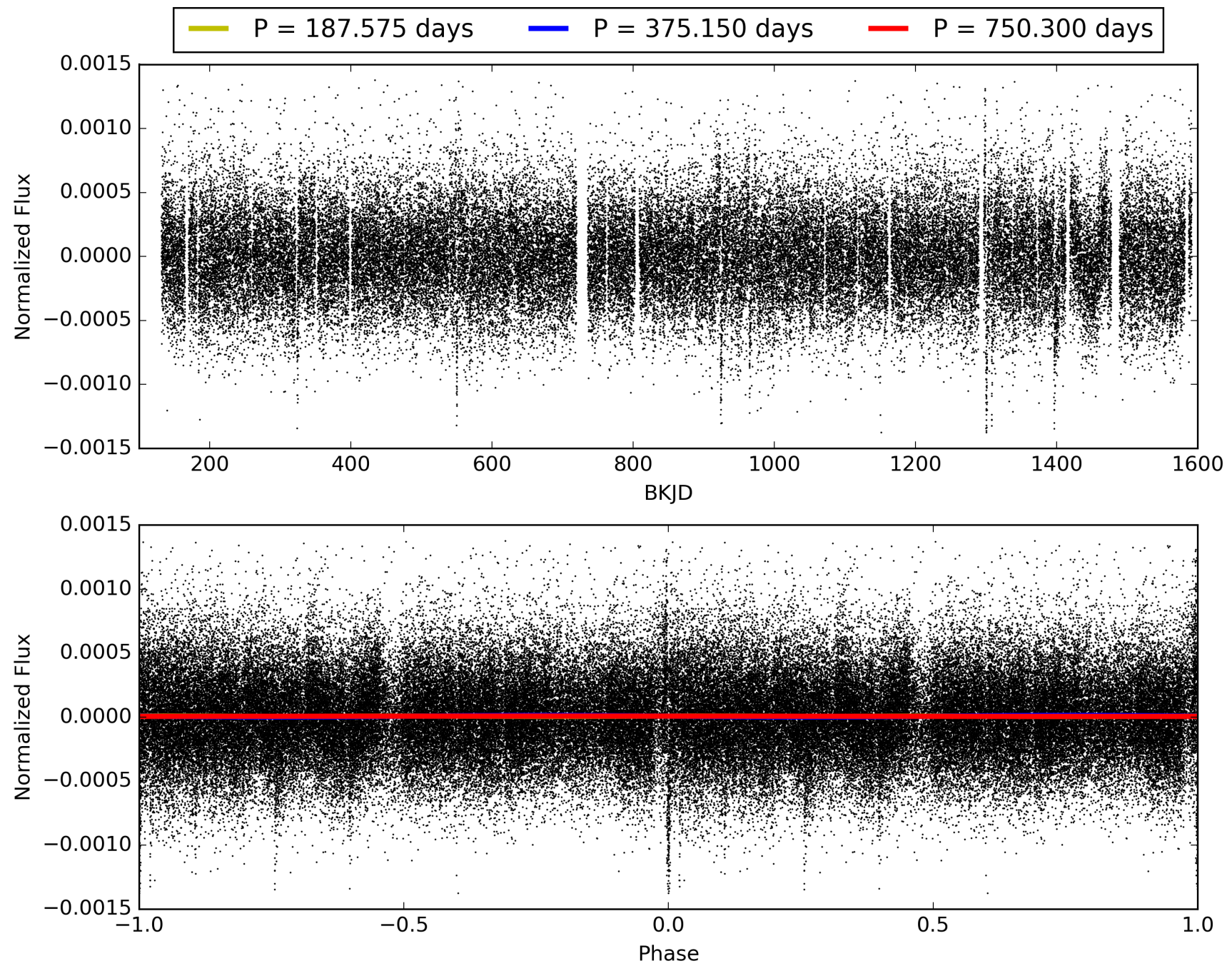
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:02:23 Z

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

TCE 008490980-01, PDC Light Curves

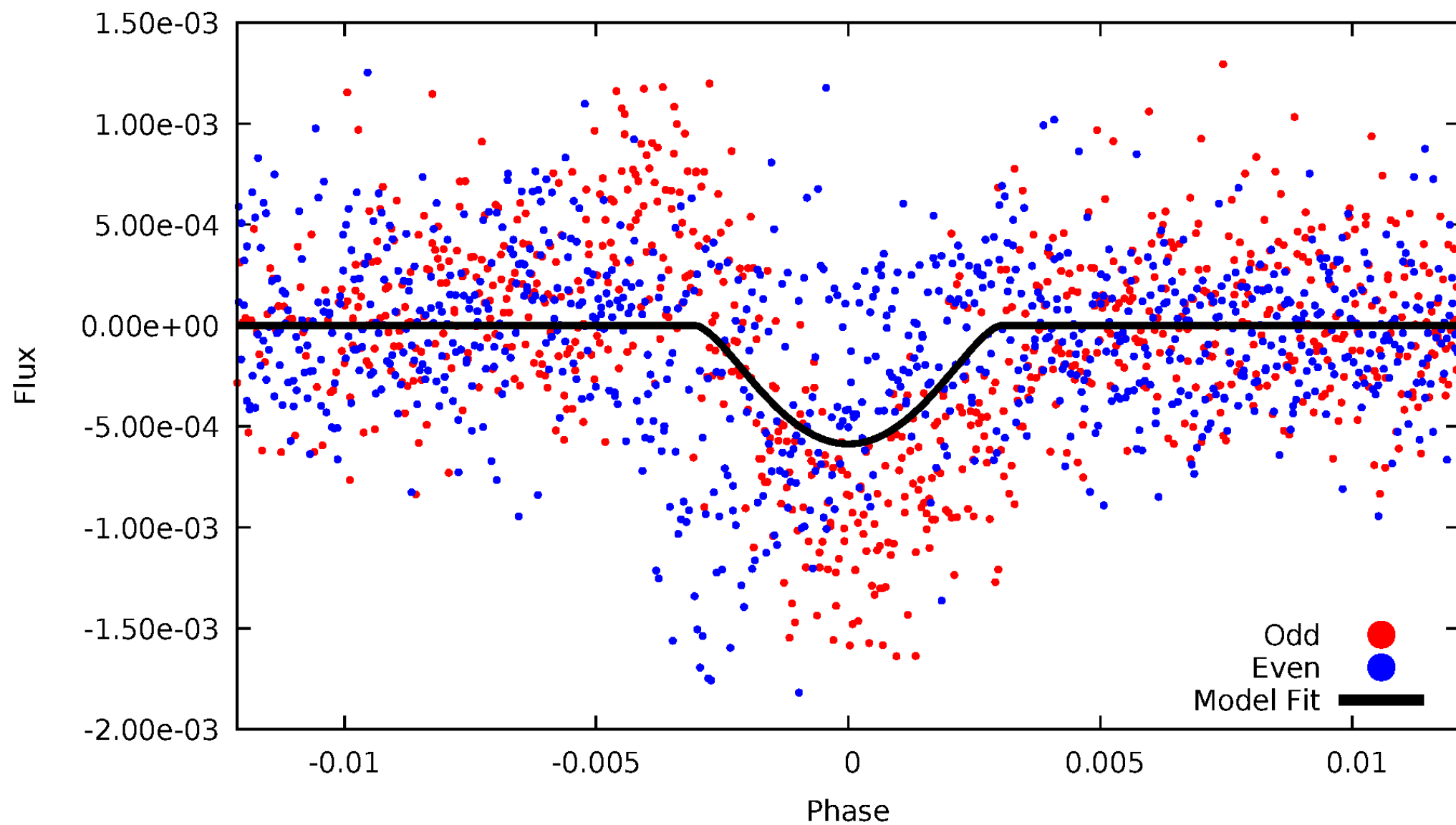


TCE 008490980-01



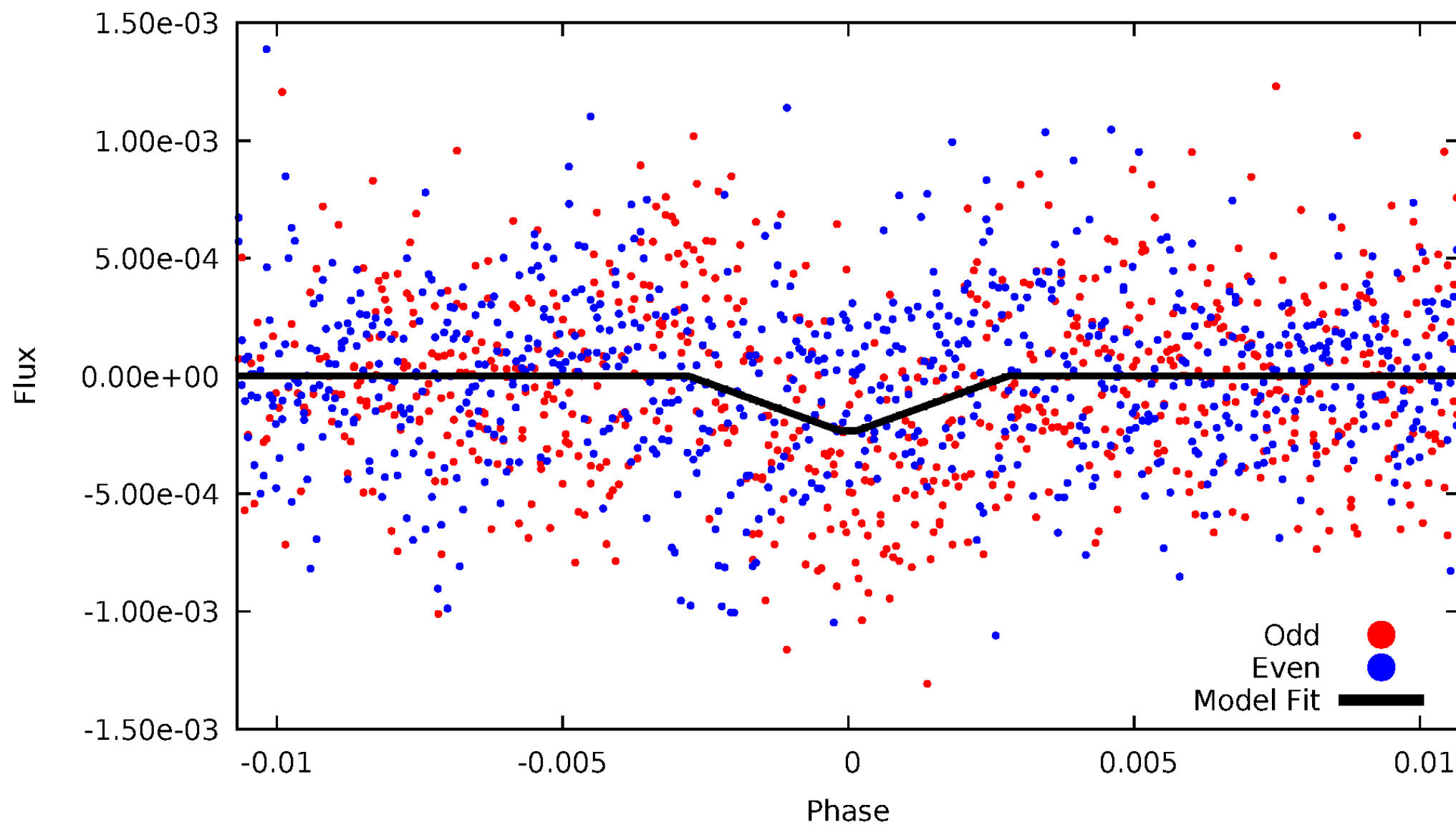
DV Odd/Even

TCE 008490980-01



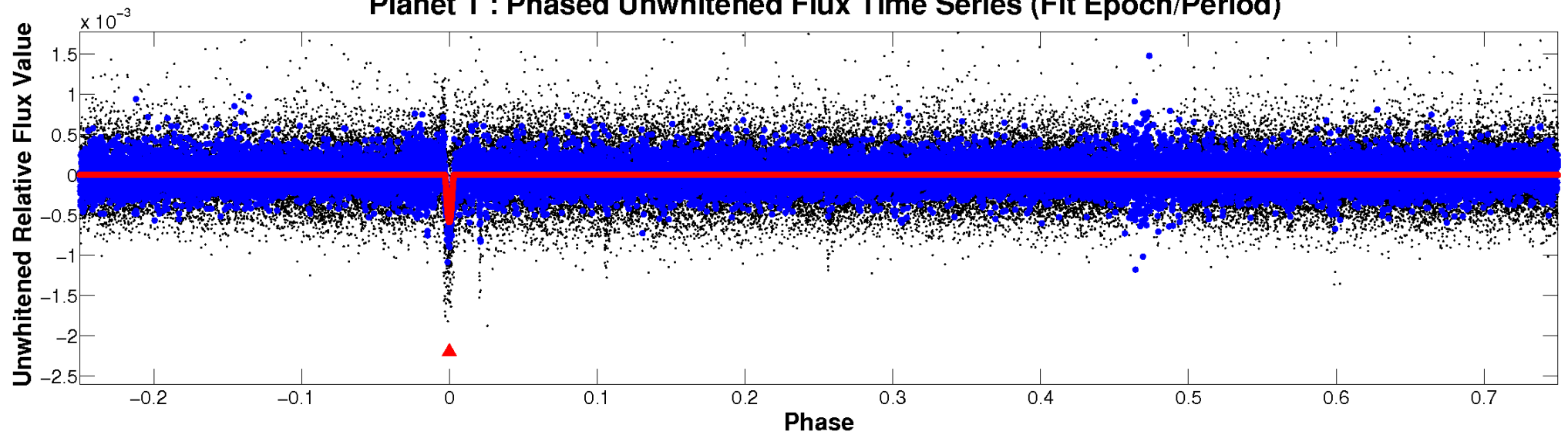
ALT Odd/Even

TCE 008490980-01

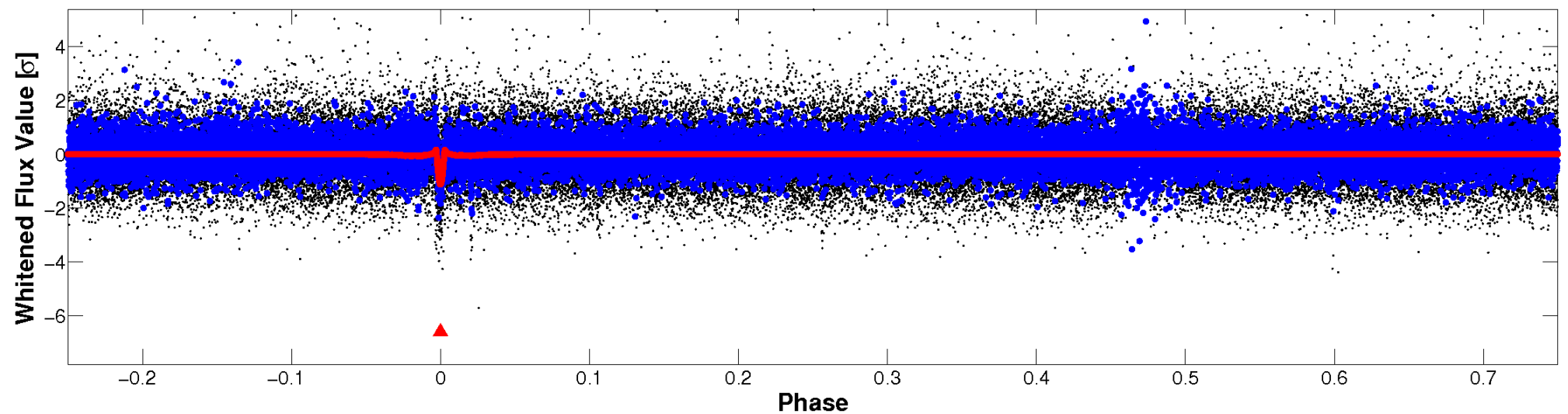


Non-Whitened Vs. Whitened Light Curve

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

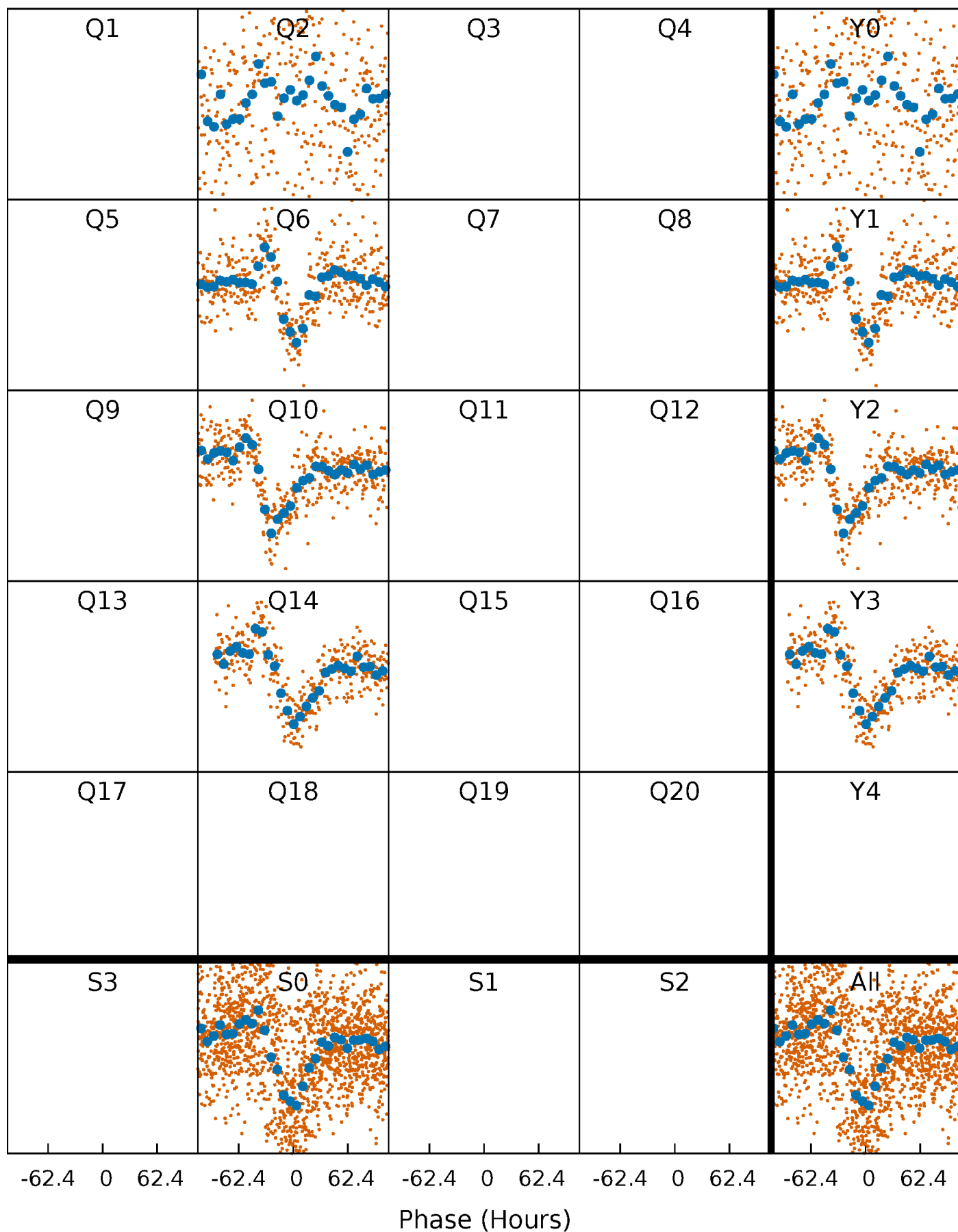


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



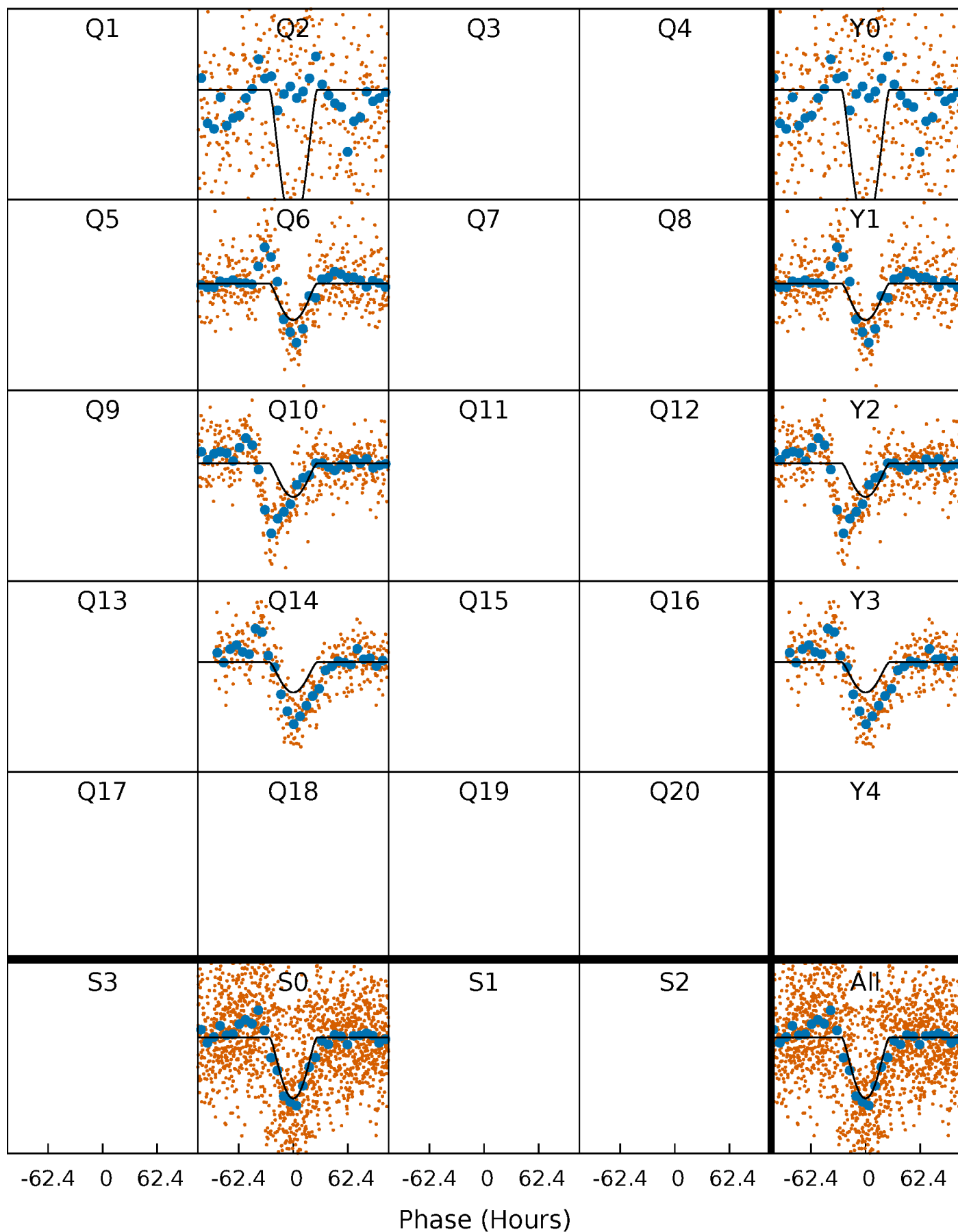
PDC Quarter-Phased Transit Curves

TCE 008490980-01 P=375.149971 Days $T_0=174.731794$ (BKJD)



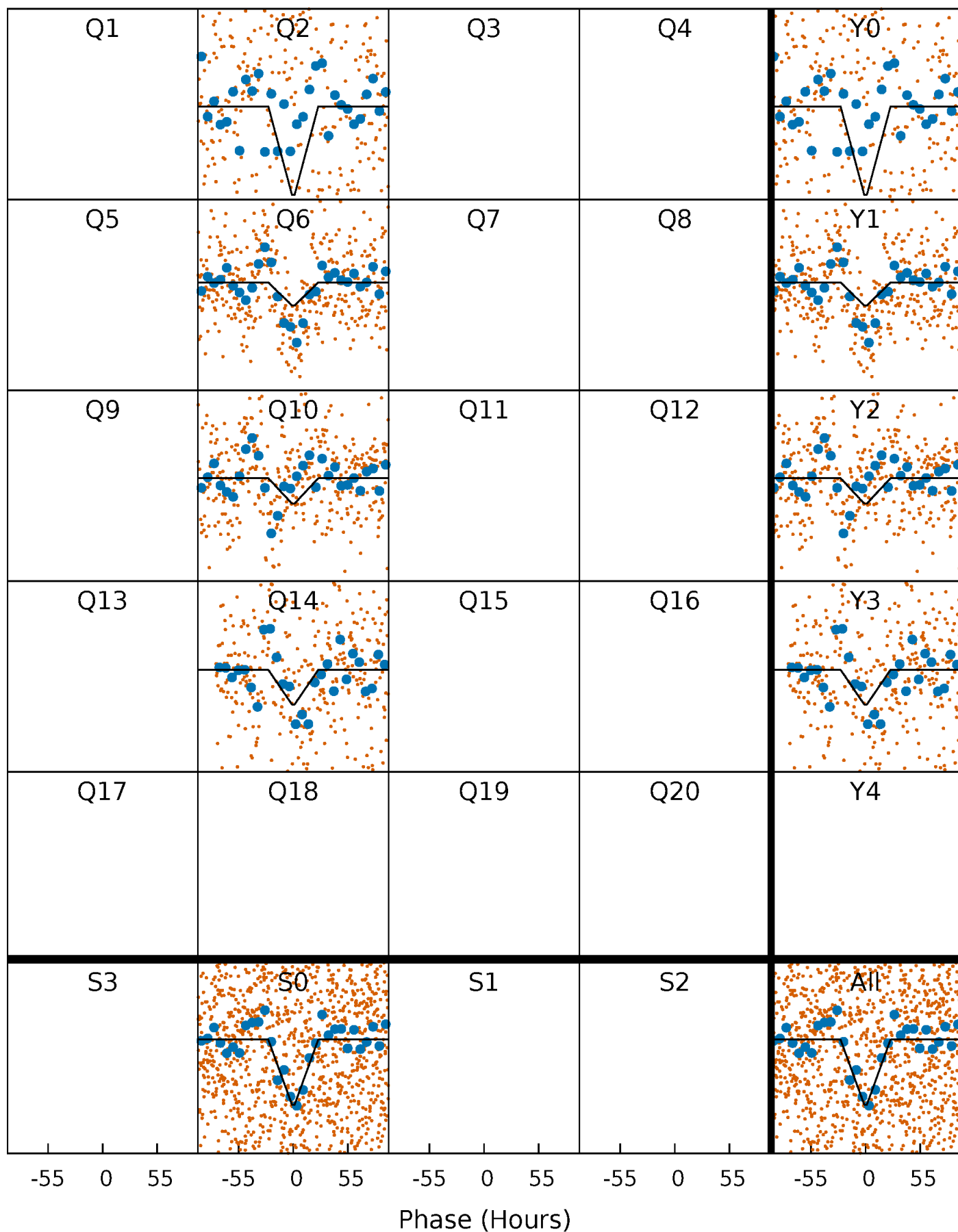
DV Quarter-Phased Transit Curves

TCE 008490980-01 P=375.149971 Days $T_0=174.731794$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

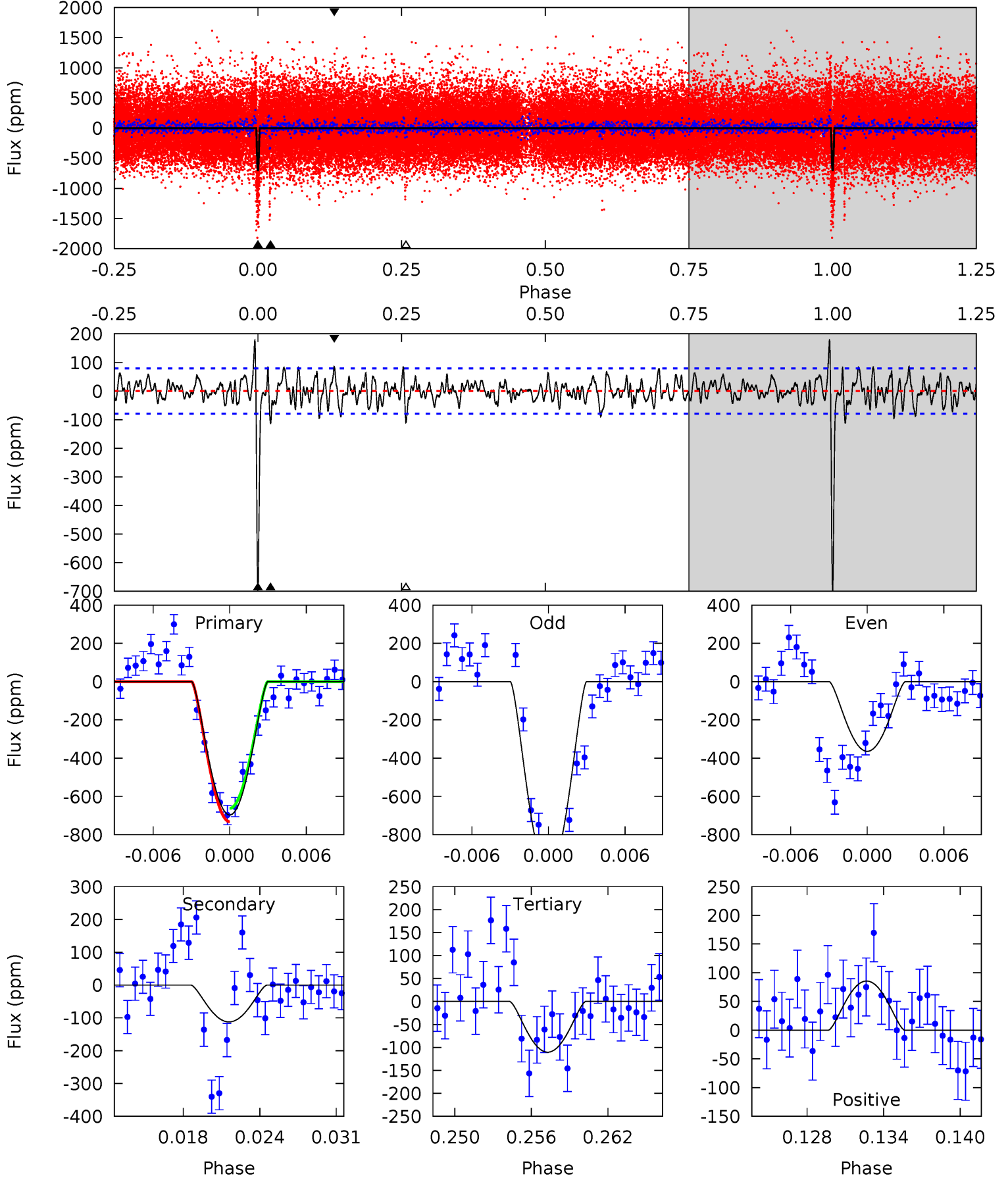
TCE 008490980-01 P=374.894525 Days $T_0=174.970566$ (BKJD)



DV Model-Shift Uniqueness Test

008490980-01, P = 375.149971 Days, E = 174.731794 Days

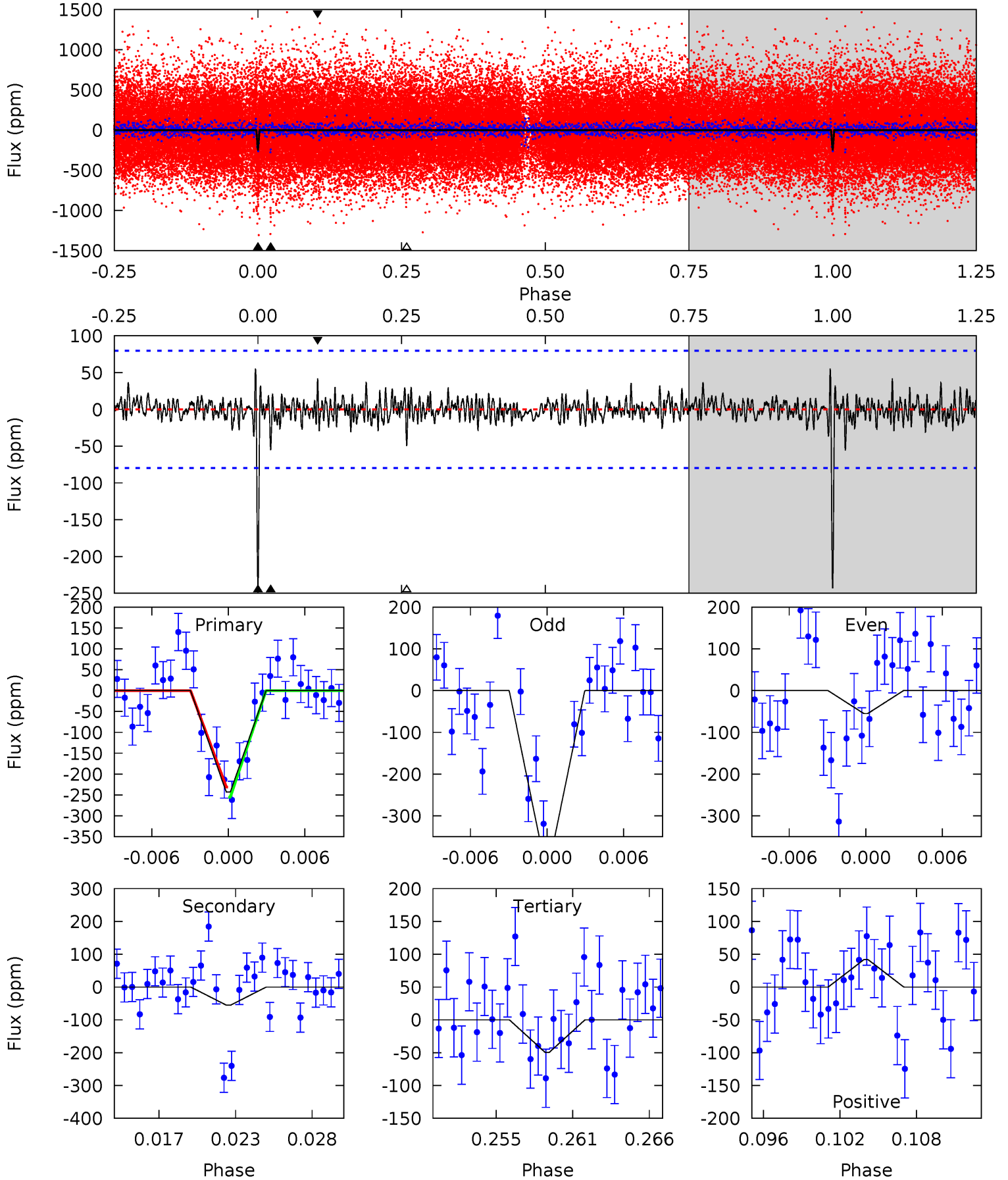
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.2	7.29	7.16	5.55	5.12	2.74	2.01	38.0	39.7	0.13	1.74	20.6	0.89	0.20	2.26



Alt Model-Shift Uniqueness Test

008490980-01, P = 374.894525 Days, E = 174.970566 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	3.57	3.20	2.70	5.13	2.77	0.71	12.5	13.0	0.37	0.87	11.7	1.39	0.19	0.78



Stellar Parameters For KIC 008490980

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6335^{+169}_{-206}	$4.427^{+0.056}_{-0.224}$	$-0.140^{+0.250}_{-0.300}$	$1.072^{+0.364}_{-0.121}$	$1.120^{+0.154}_{-0.154}$	$1.280^{+0.388}_{-0.709}$
	+3%/-3%	+1%/-5%	+179%/-214%	+34%/-11%	+14%/-14%	+30%/-55%
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 008490980-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-112 ± 15	$9.08^{+9.27}_{-6.01}$	404^{+31}_{-22}	3043^{+1323}_{-495}	786^{+6436}_{-589}
Alt.	-55 ± 16	$7.09^{+8.52}_{-4.81}$	403^{+33}_{-21}	2925^{+1379}_{-530}	605^{+5889}_{-476}

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

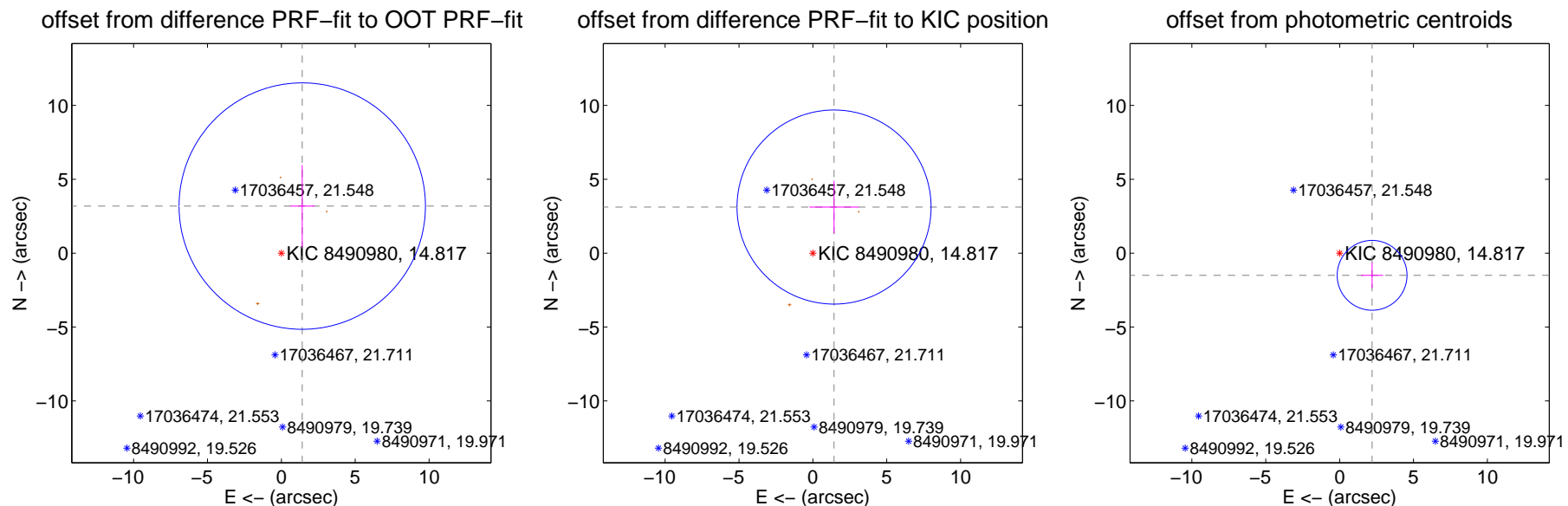
DV Centroid Data

Supplemental centroid analysis for 008490980-01. Kepler magnitude: 14.82. Transit SNR 14.79

There are 0 quarters with good PRF difference image offsets

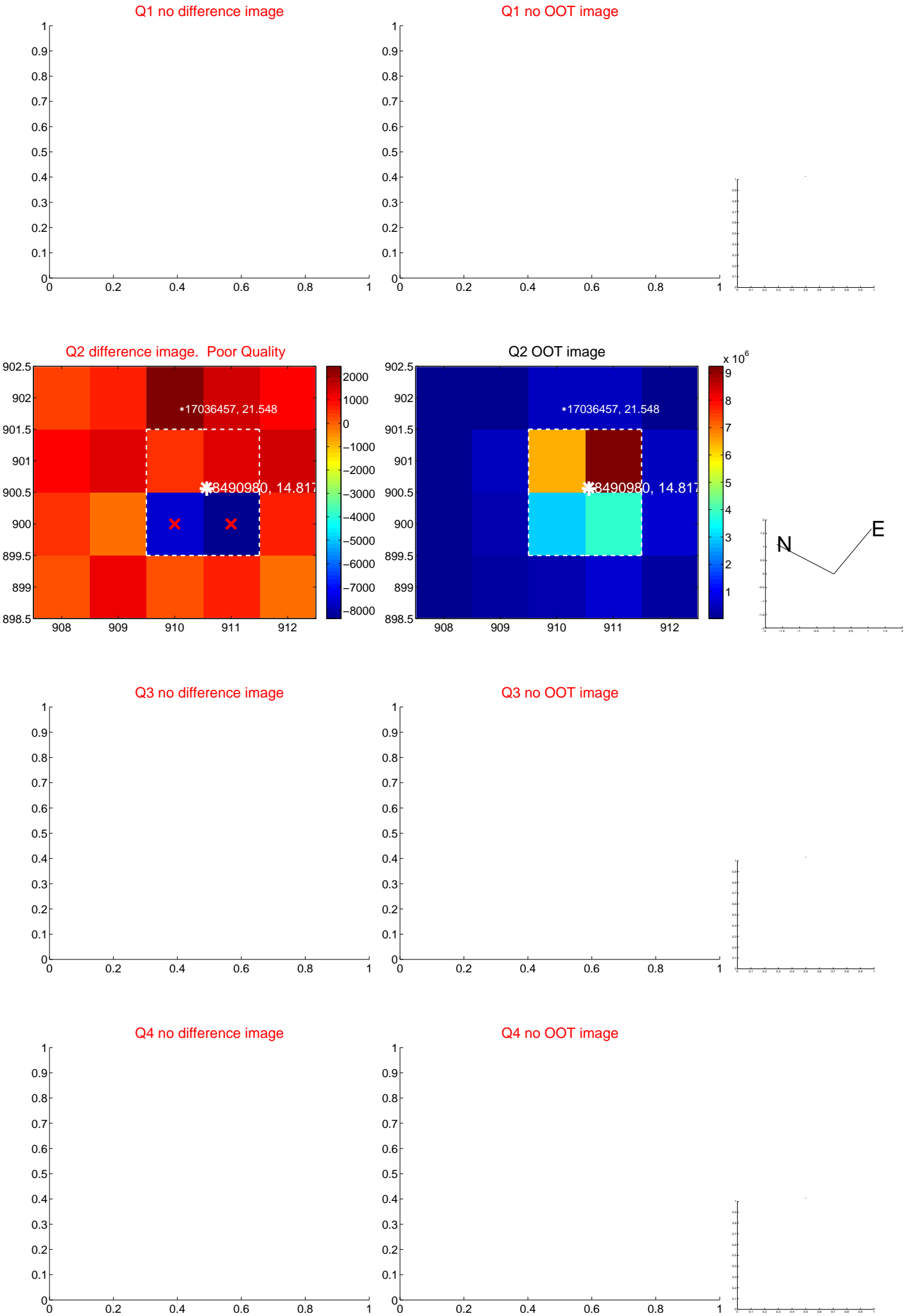
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.484 ± 2.779	1.25	-1.414 ± 0.822	3.184 ± 2.776
PRF-fit source offset from KIC position	3.434 ± 2.189	1.57	-1.433 ± 1.671	3.120 ± 1.786
photometric centroid source offset	2.66 ± 0.79	3.38	-2.20 ± 0.75	-1.50 ± 0.87

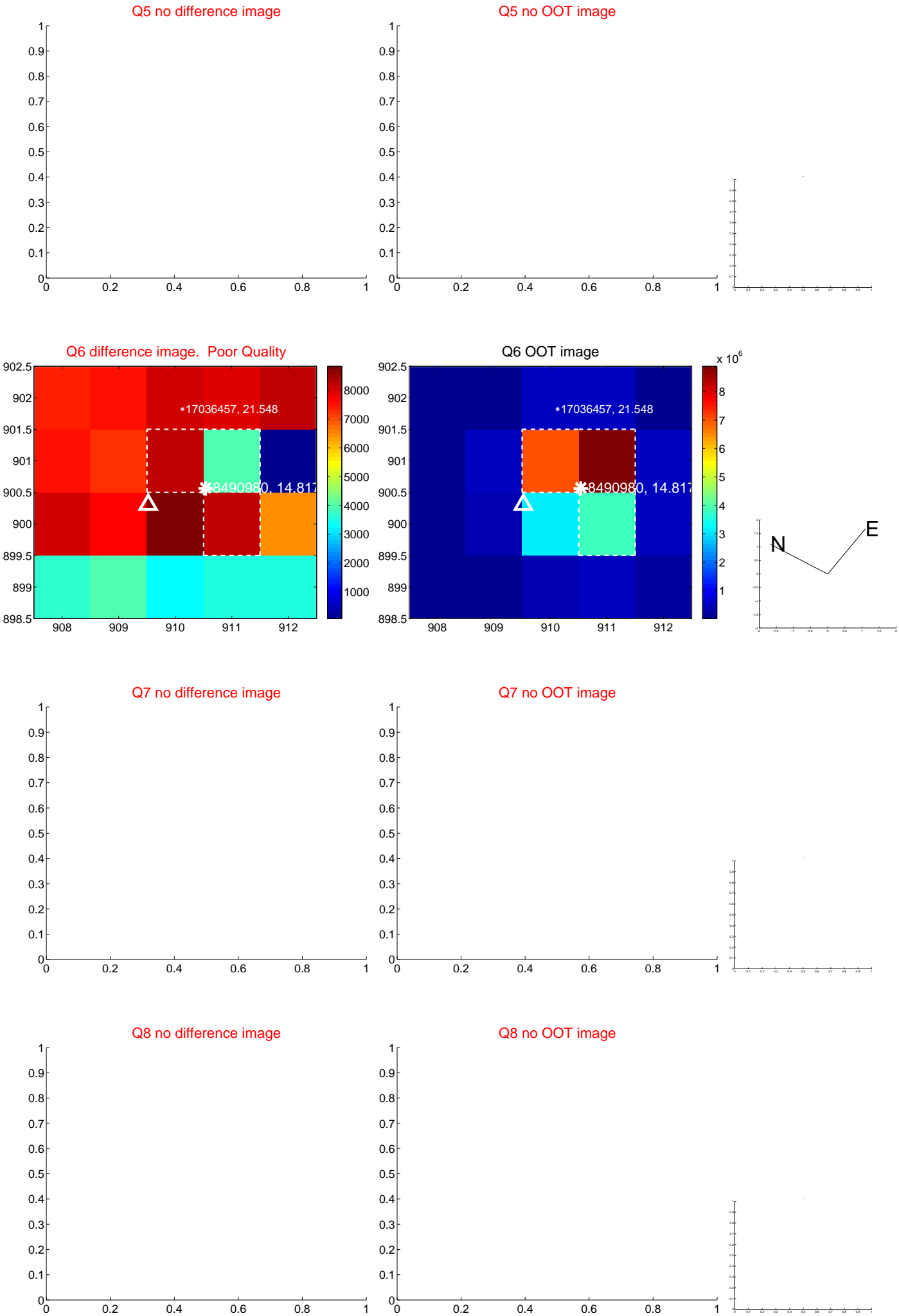


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

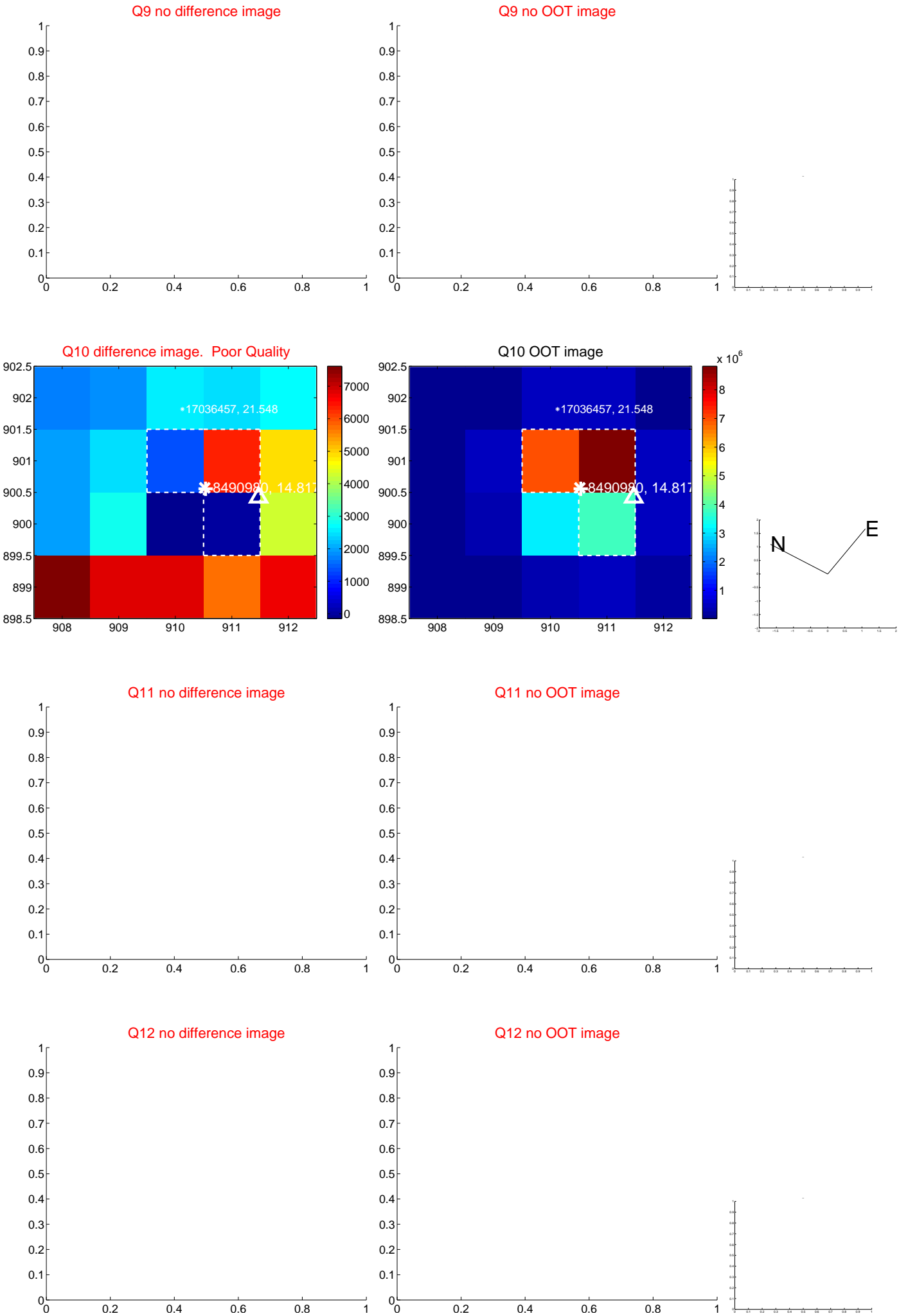
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



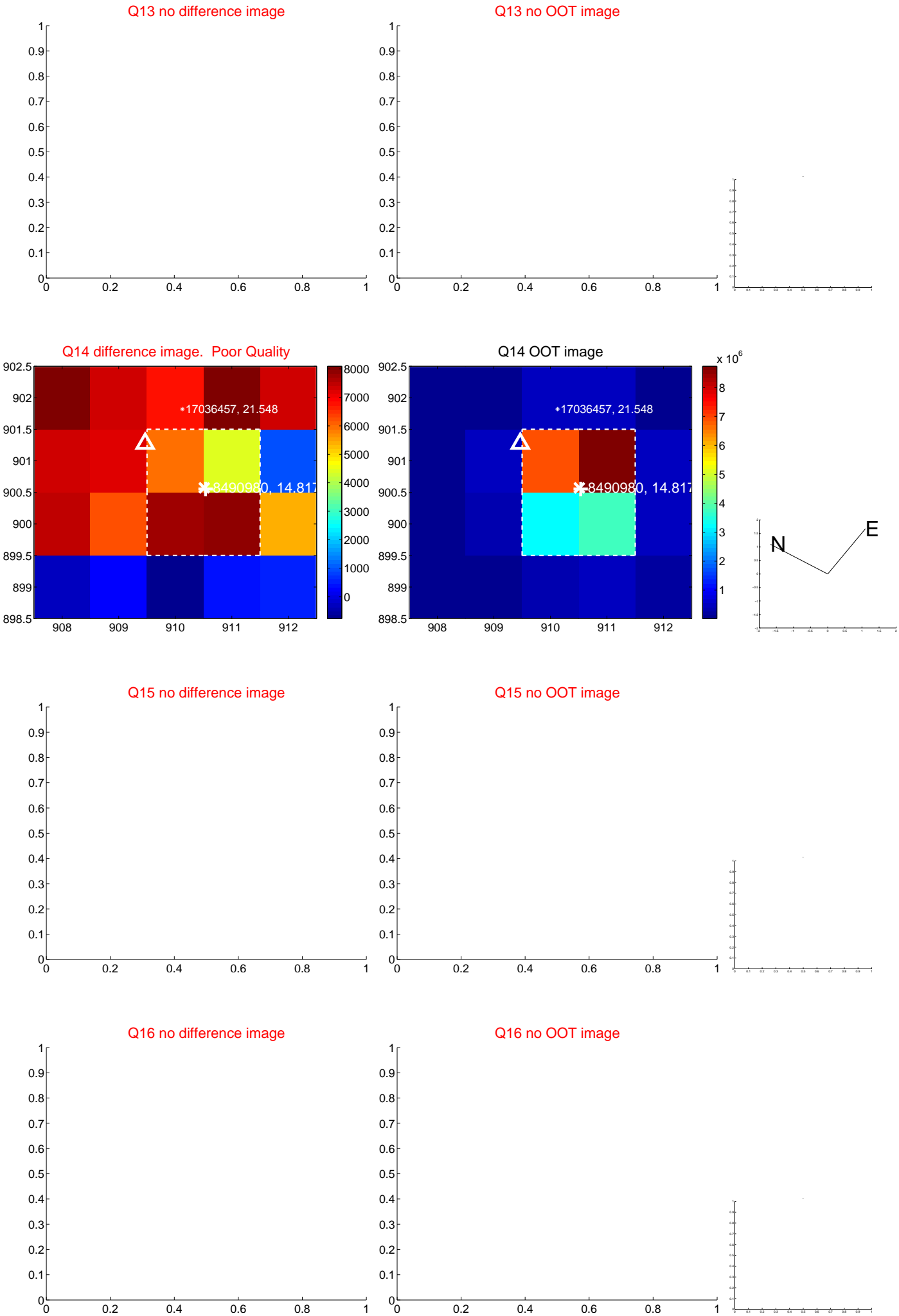
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



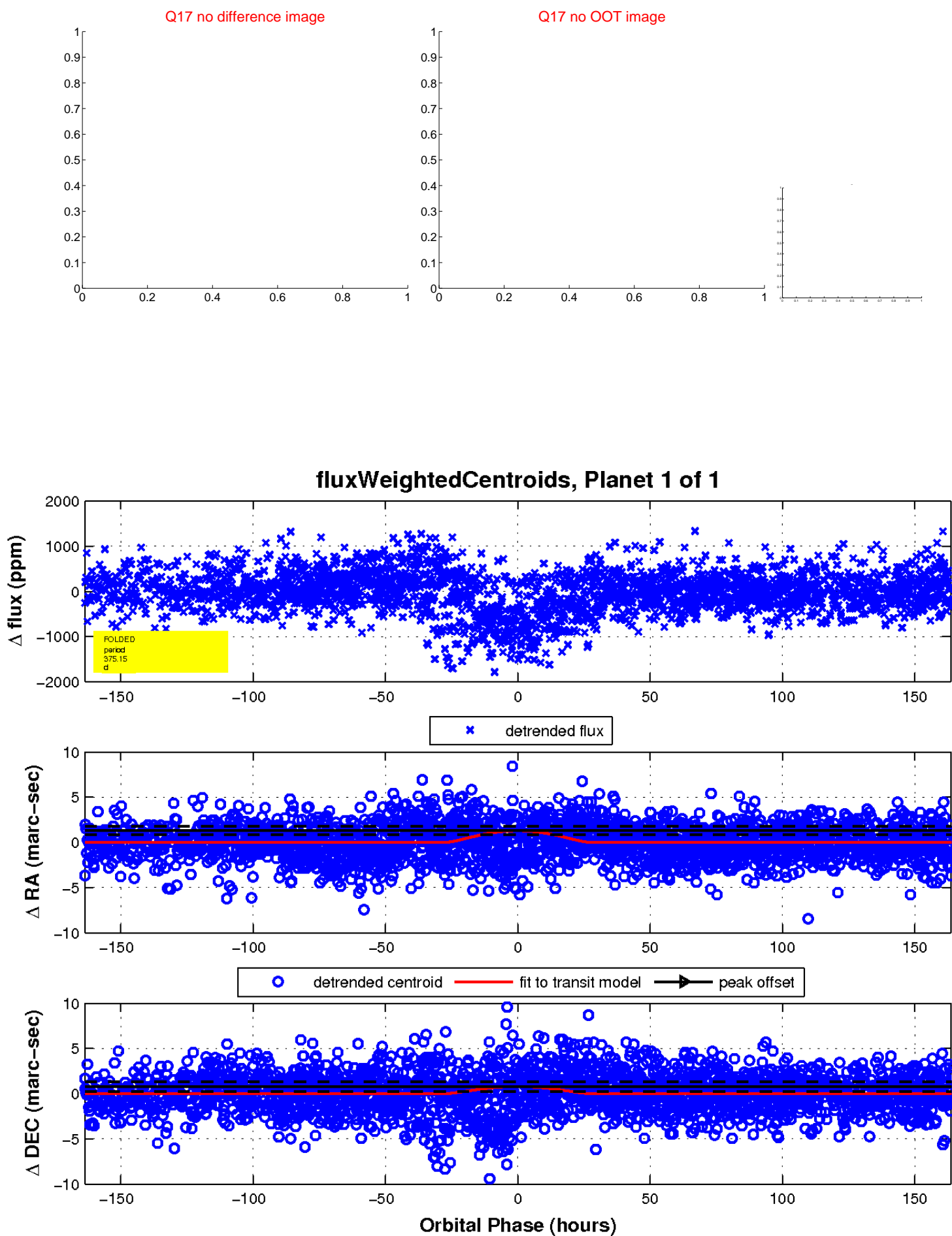
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

