

KIC 007969462

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})
007969462-01	OBS	No	369.286948	233.481783	469.5	9.172	7.4	6.7	1.06	6274	2.47	1.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007969462-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

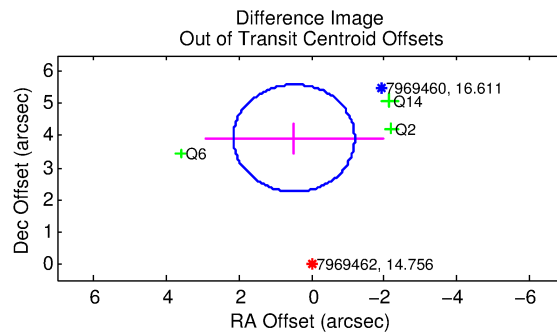
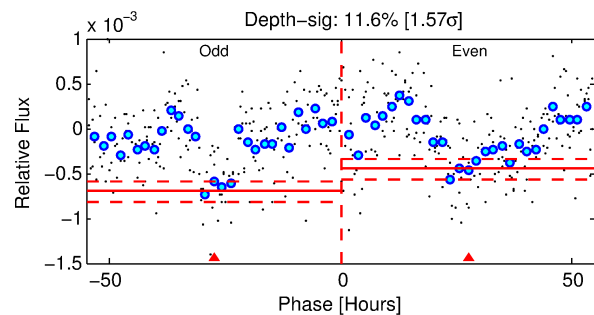
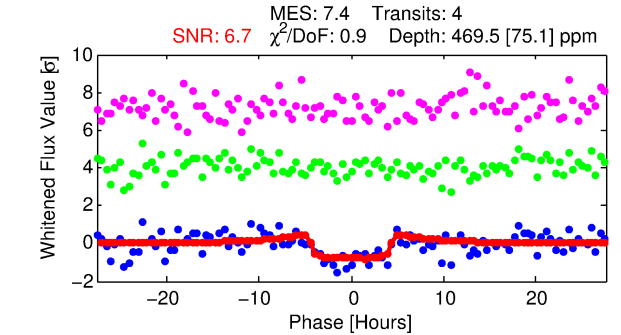
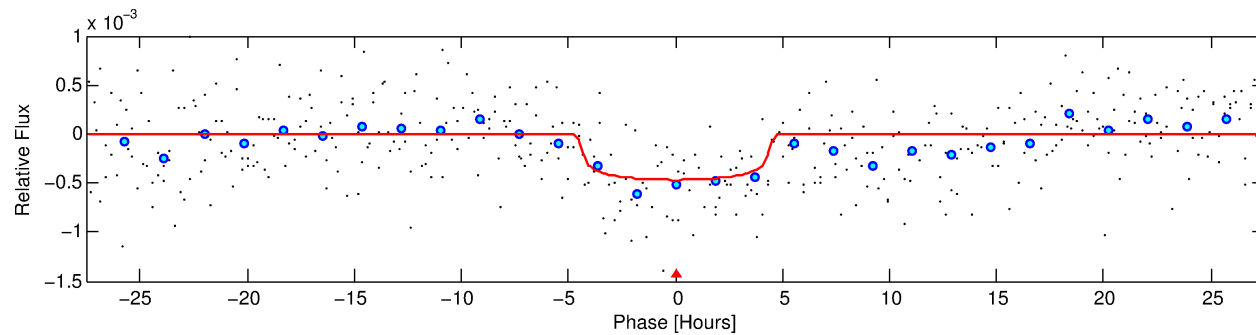
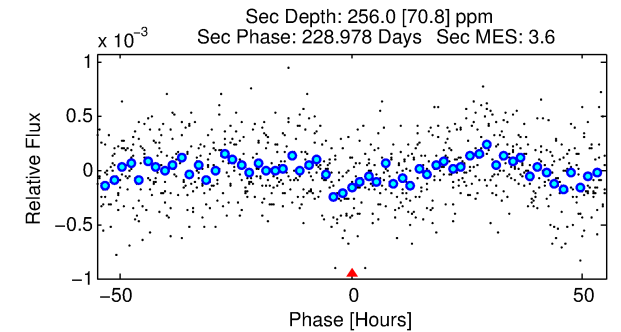
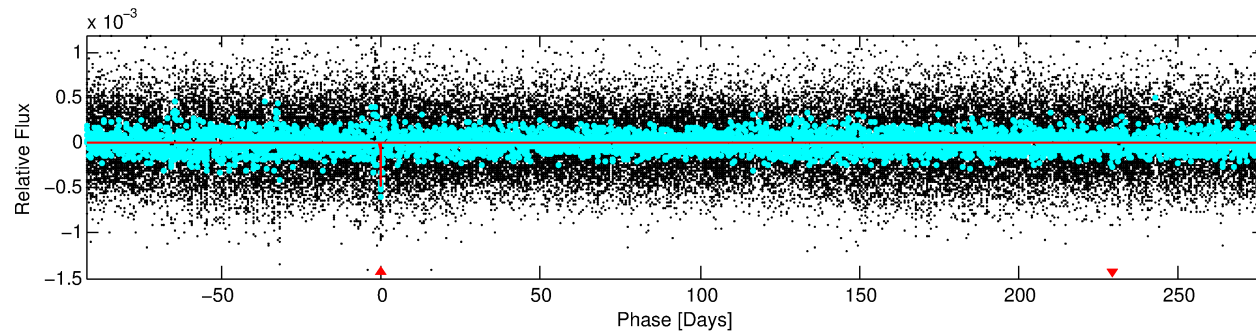
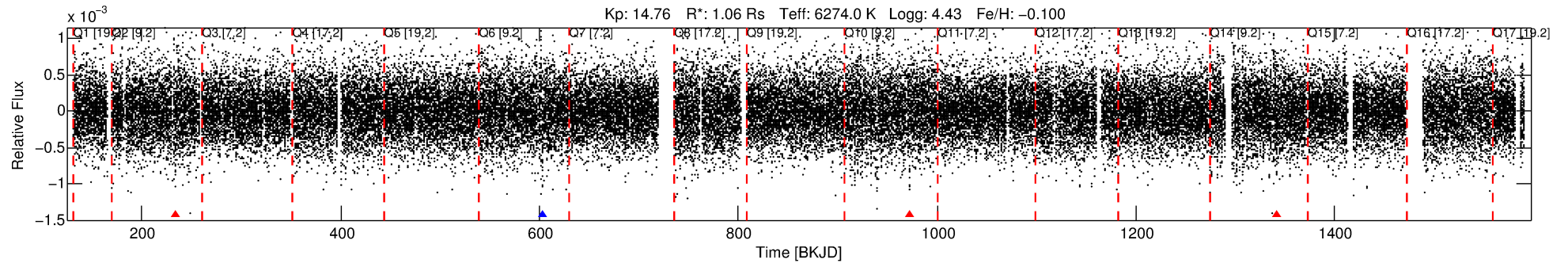
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007969462-01

No Significant Match Found

DV One-Page Summary

KIC: 7969462 Candidate: 1 of 1 Period: 369.287 d



DV Fit Results:

Period = 369.28695 [0.00744] d
Epoch = 233.4818 [0.0152] BKJD
Rp/R* = 0.0213 [0.0128]
a/R* = 225.07 [678.97]
b = 0.71 [2.11]
Seff = 1.43 [0.63]
Teq = 279 [31] K
Rp = 2.47 [1.70] Re
a = 1.0456 [0.2974] AU
Ag = 25256.85 [32739.13] [0.77 σ]
Teff = 5437 [1684] K [3.06 σ]

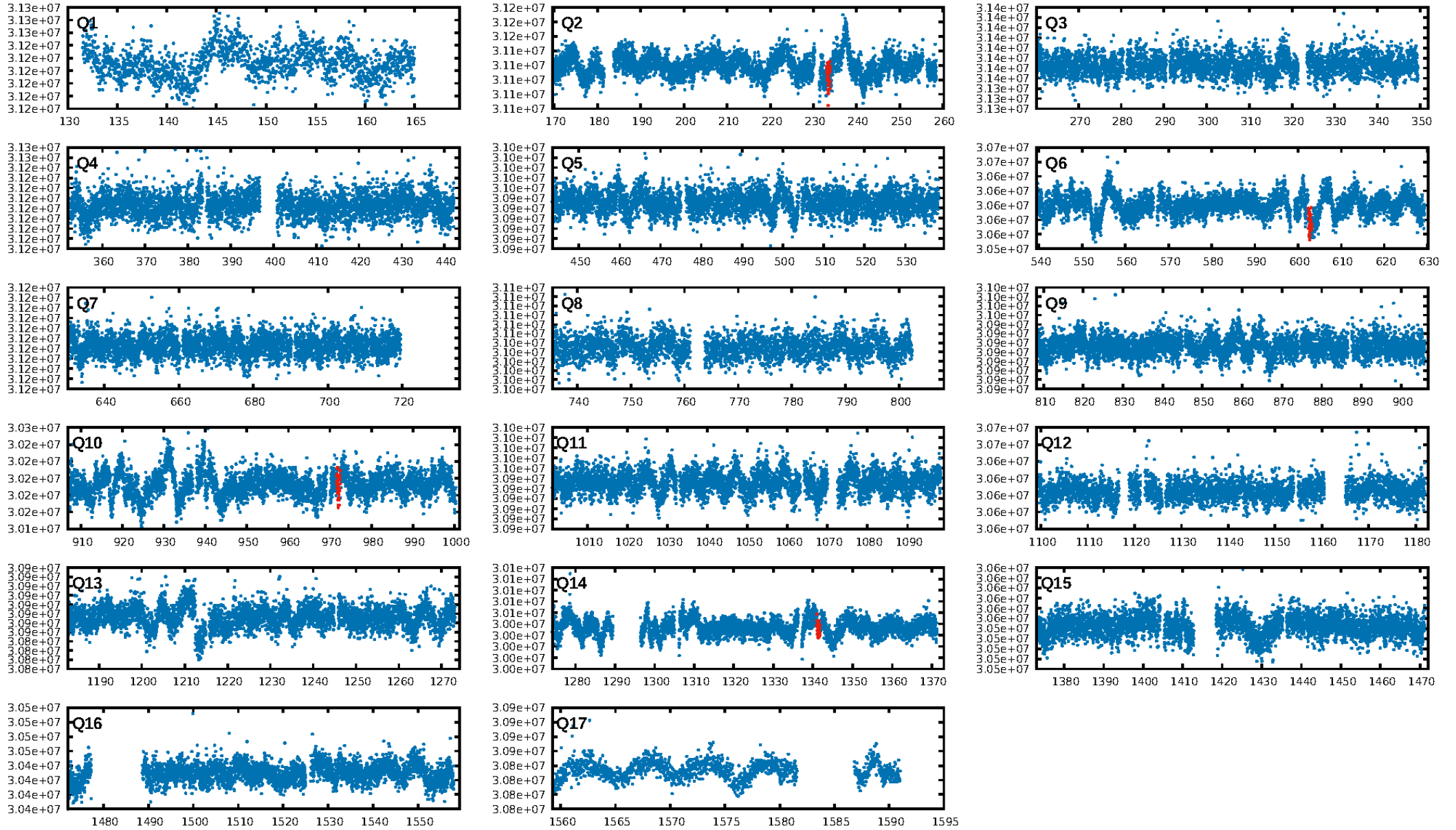
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 66.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.39e-09
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.064
Centroid-sig: 1.0%
Centroid-so: 4.740 arcsec [1.82 σ]
OotOffset-rm: 3.948 arcsec [7.08 σ]
KicOffset-rm: 3.938 arcsec [6.85 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

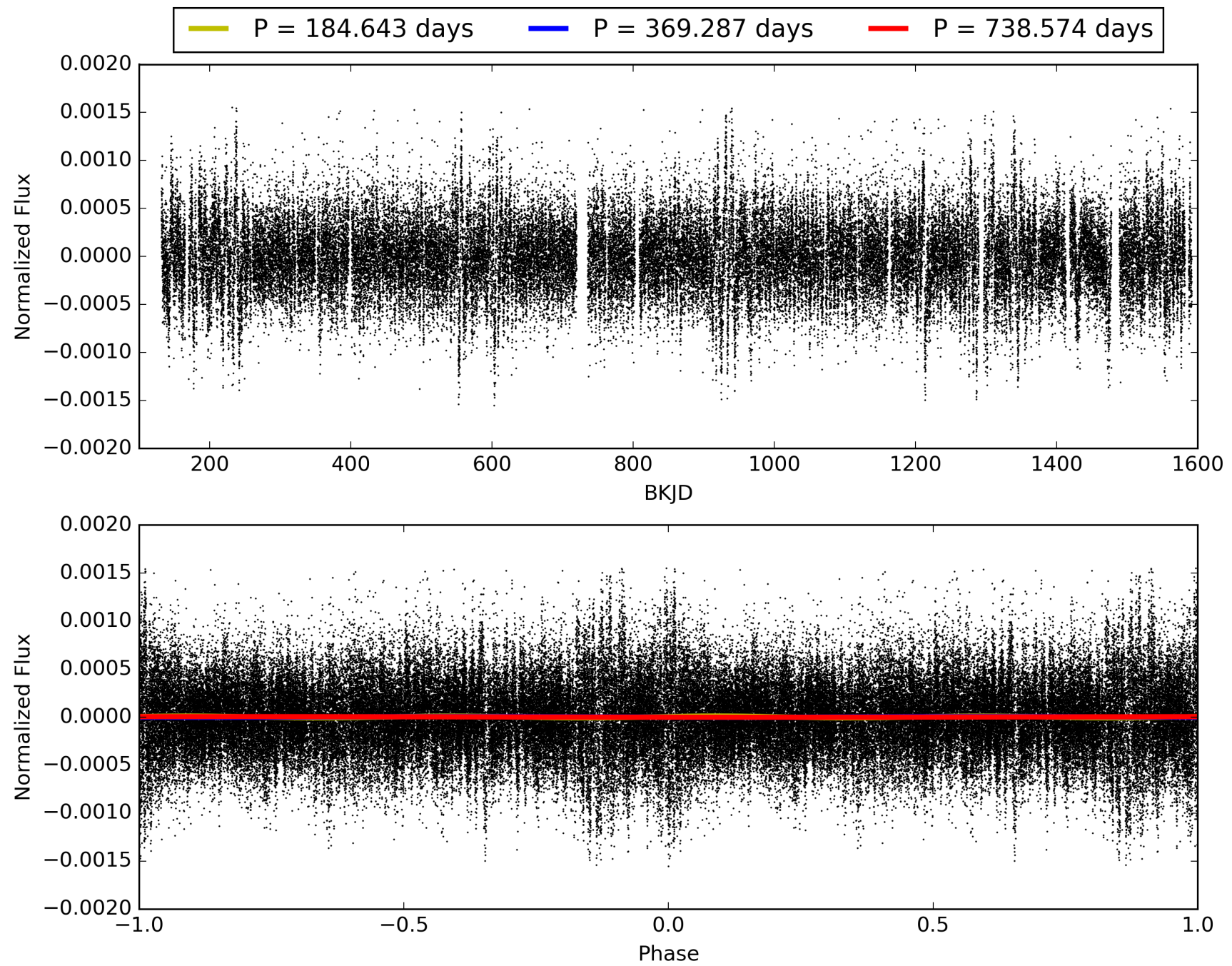
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:06:36 Z

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

TCE 007969462-01, PDC Light Curves

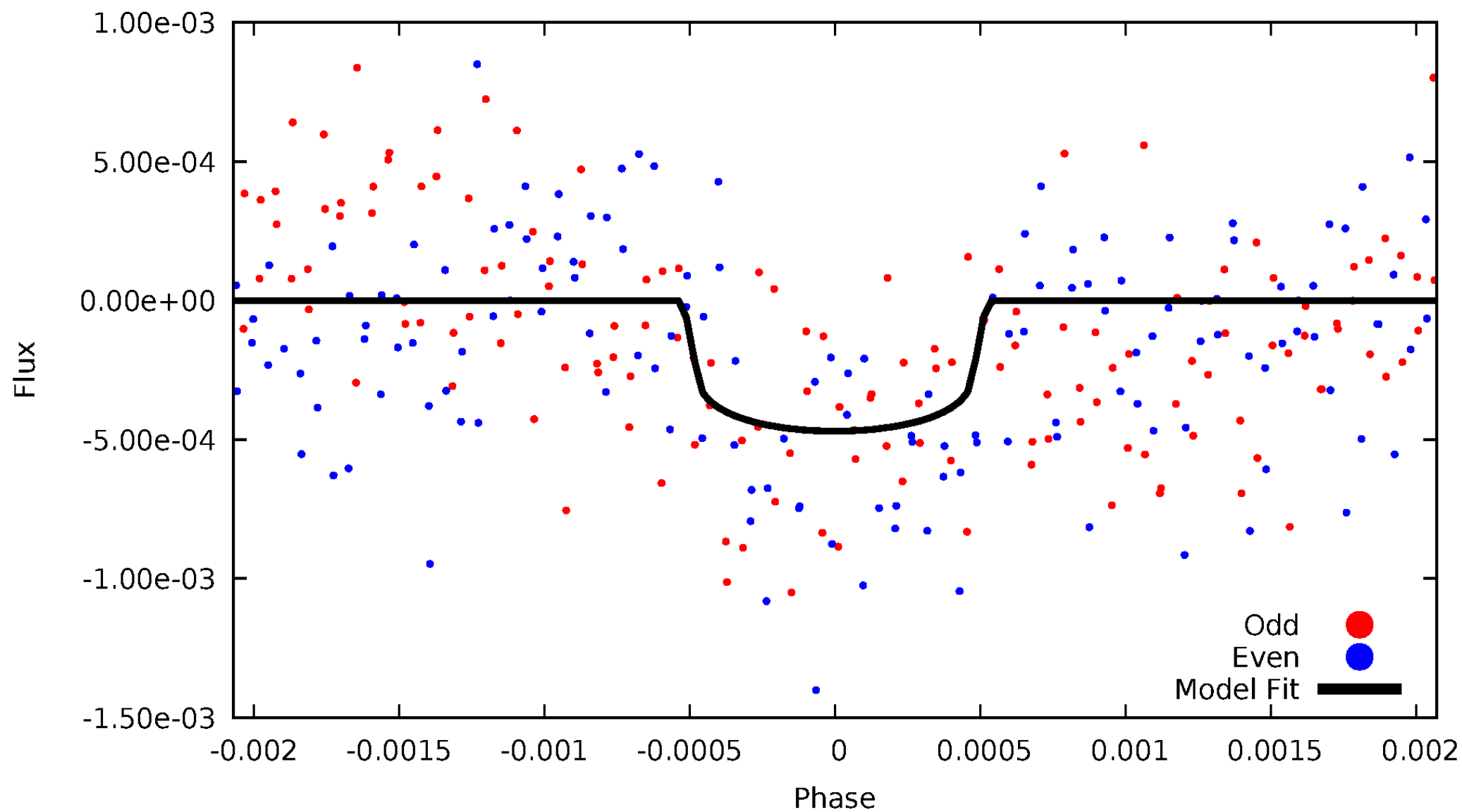


TCE 007969462-01



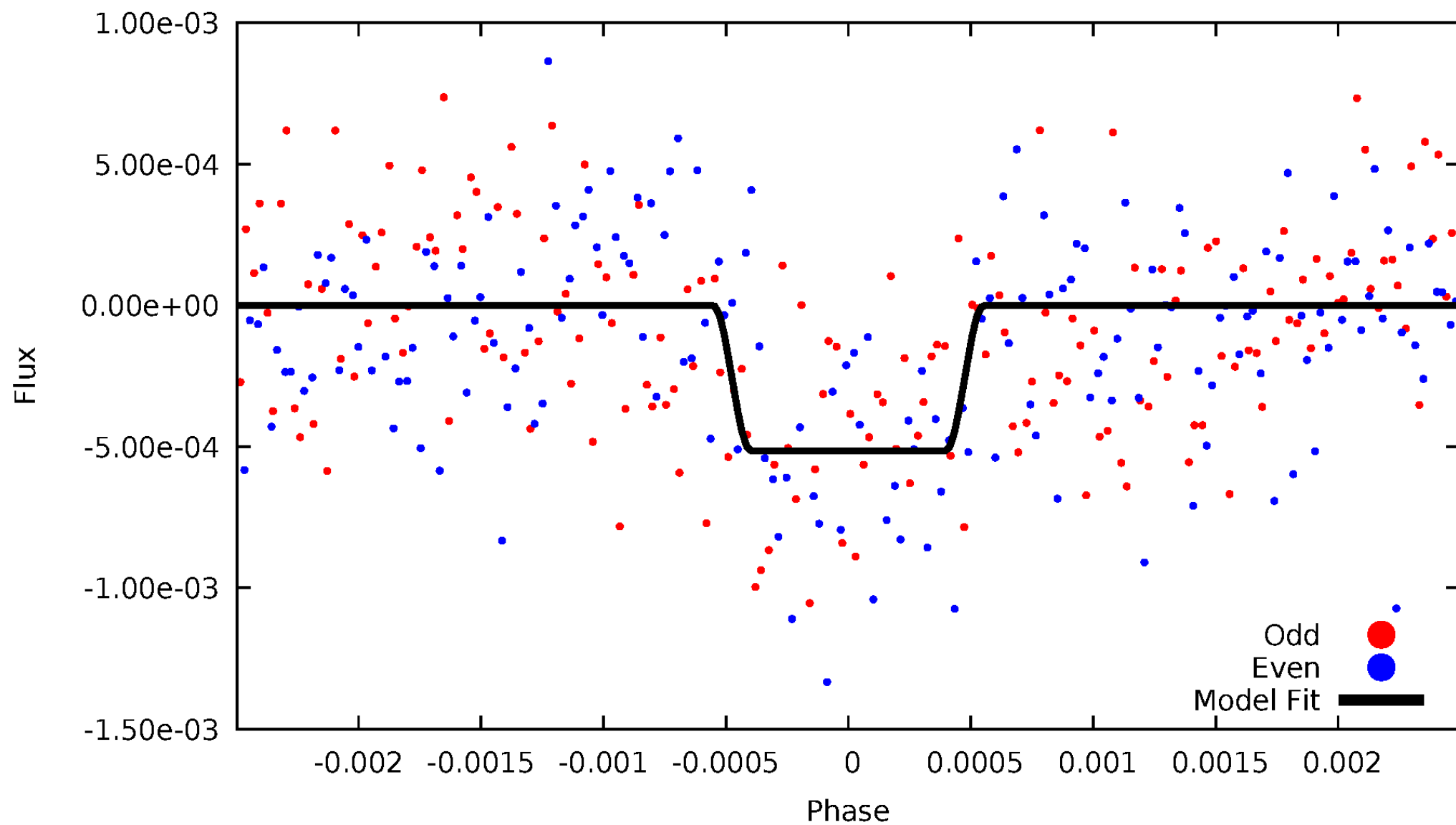
DV Odd/Even

TCE 007969462-01



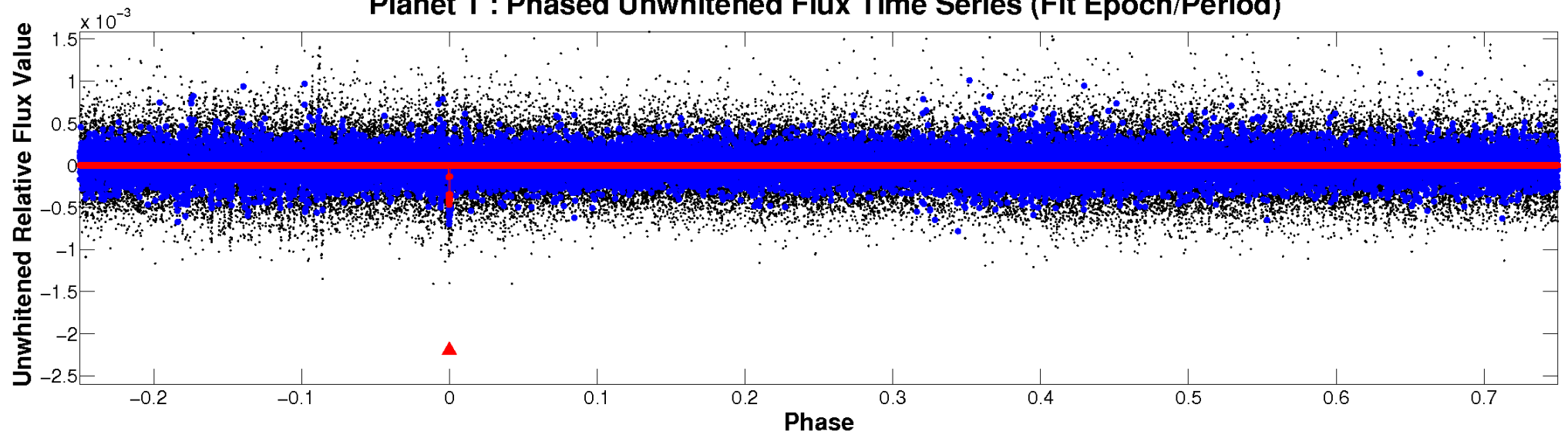
ALT Odd/Even

TCE 007969462-01

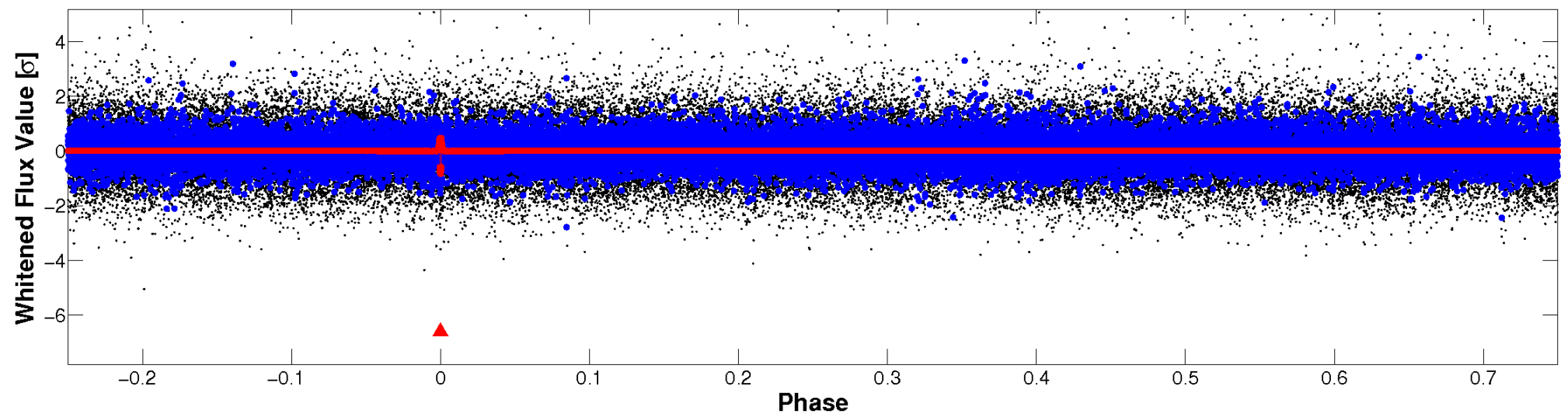


Non-Whitened Vs. Whitened Light Curve

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

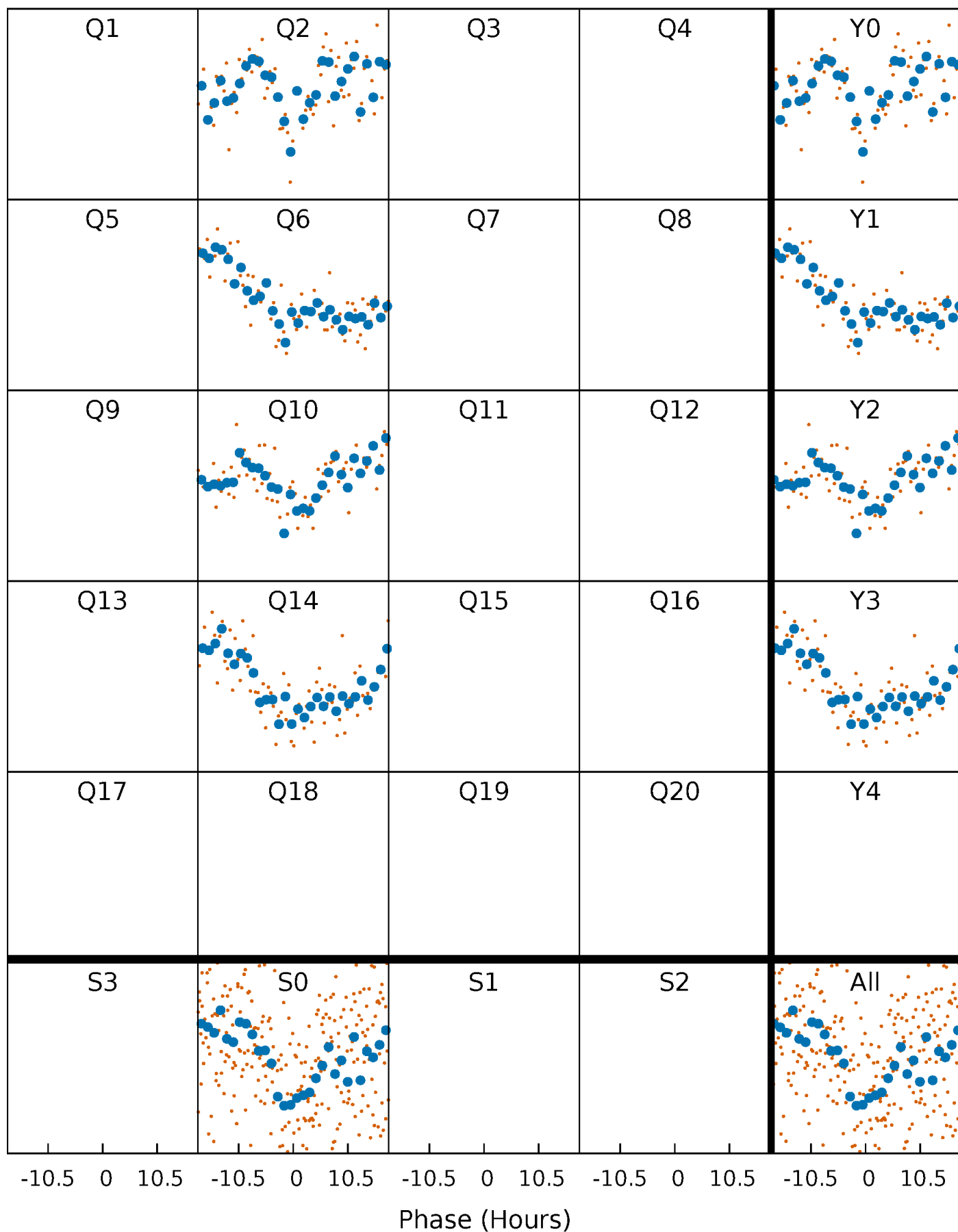


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



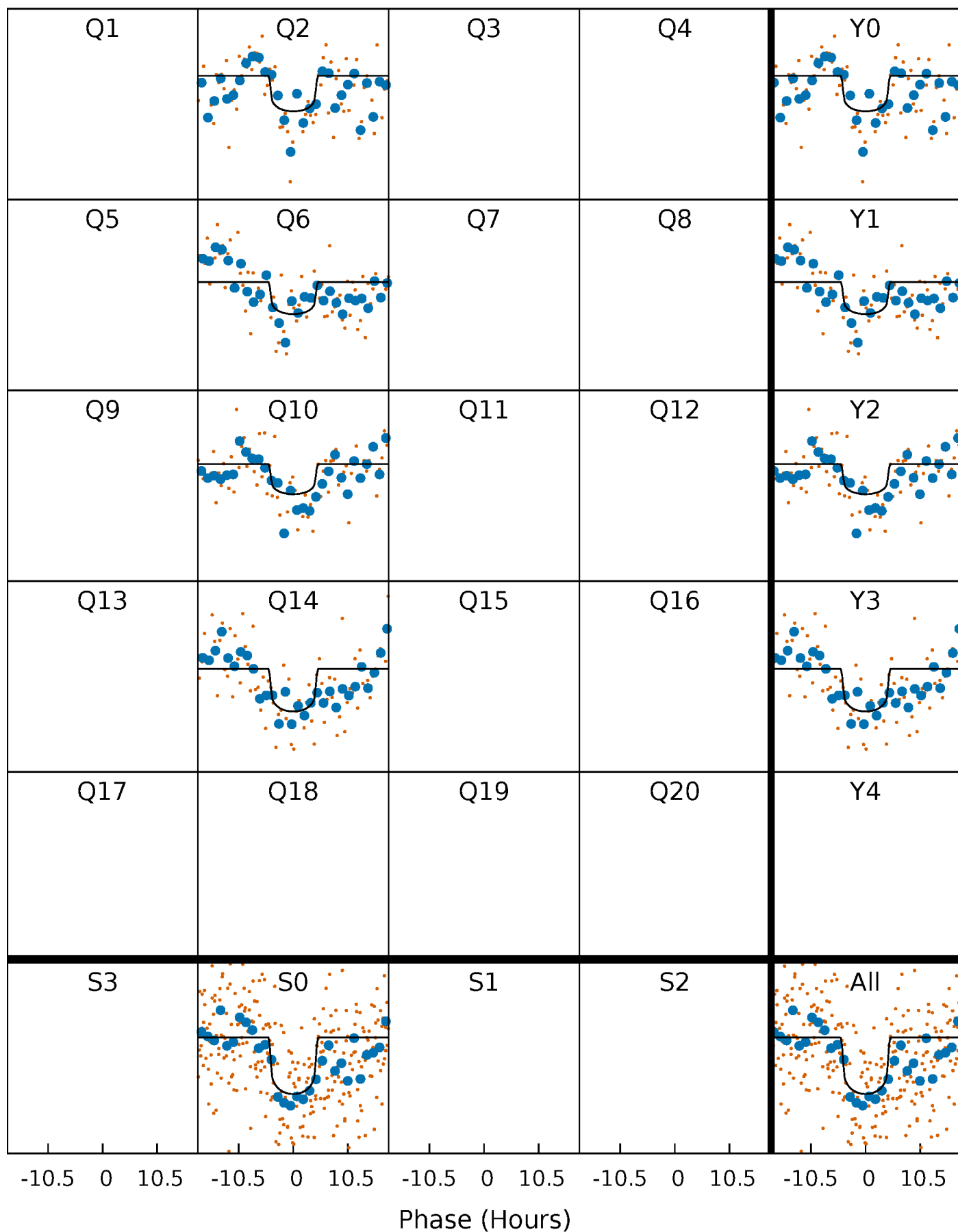
PDC Quarter-Phased Transit Curves

TCE 007969462-01 P=369.286948 Days $T_0=233.481784$ (BKJD)



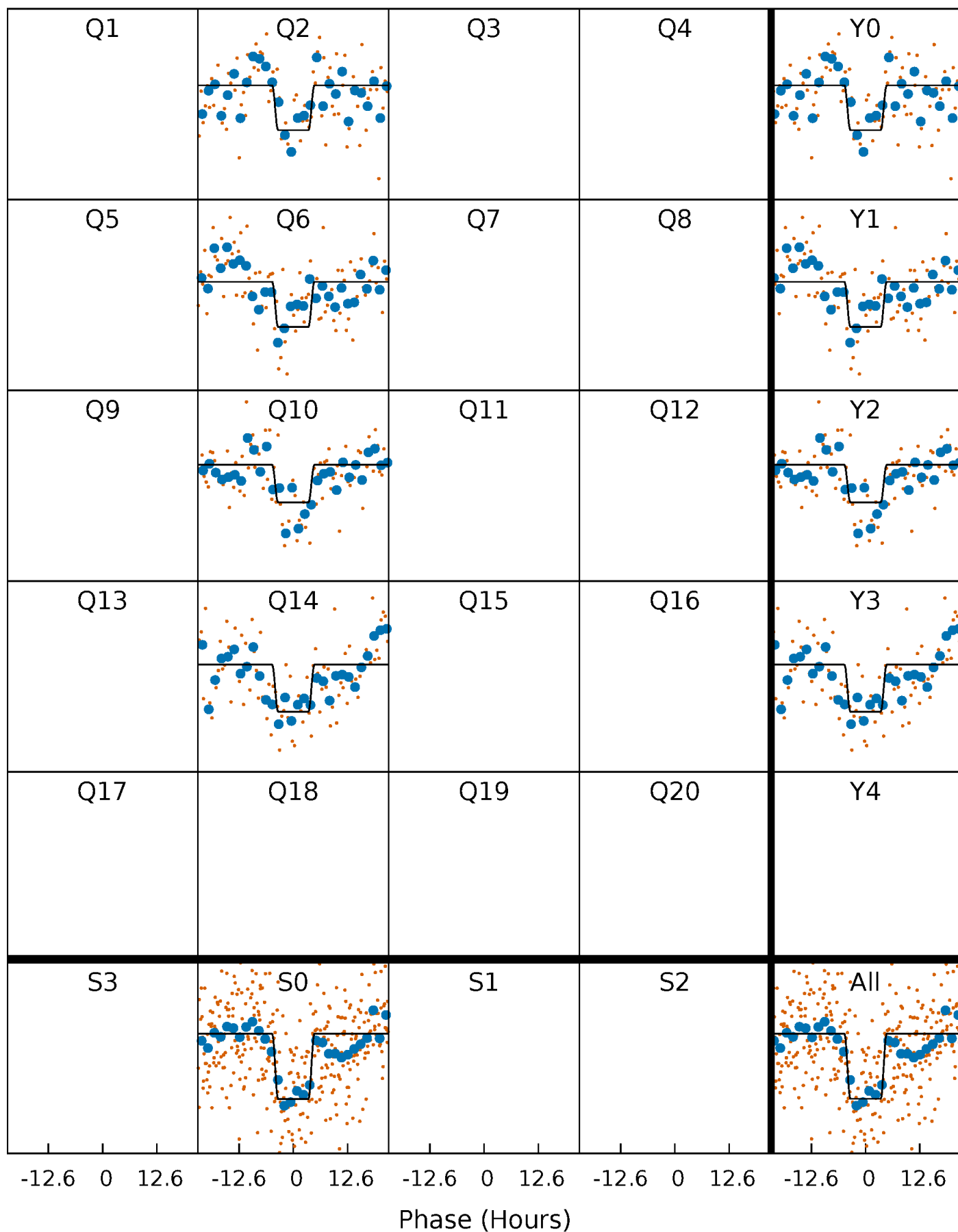
DV Quarter-Phased Transit Curves

TCE 007969462-01 P=369.286948 Days $T_0=233.481784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

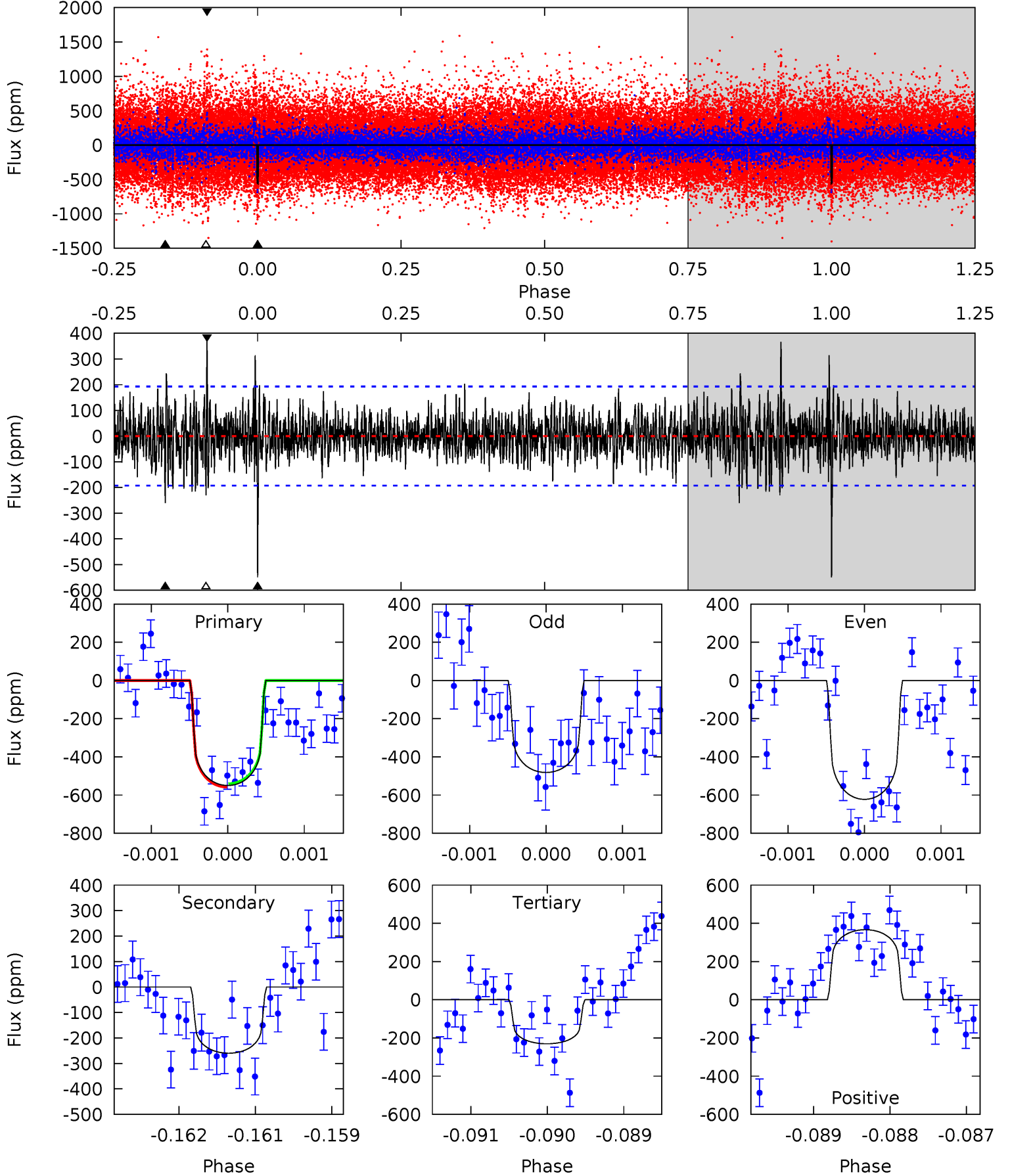
TCE 007969462-01 P=369.282107 Days $T_0=233.489491$ (BKJD)



DV Model-Shift Uniqueness Test

007969462-01, P = 369.286948 Days, E = 233.481784 Days

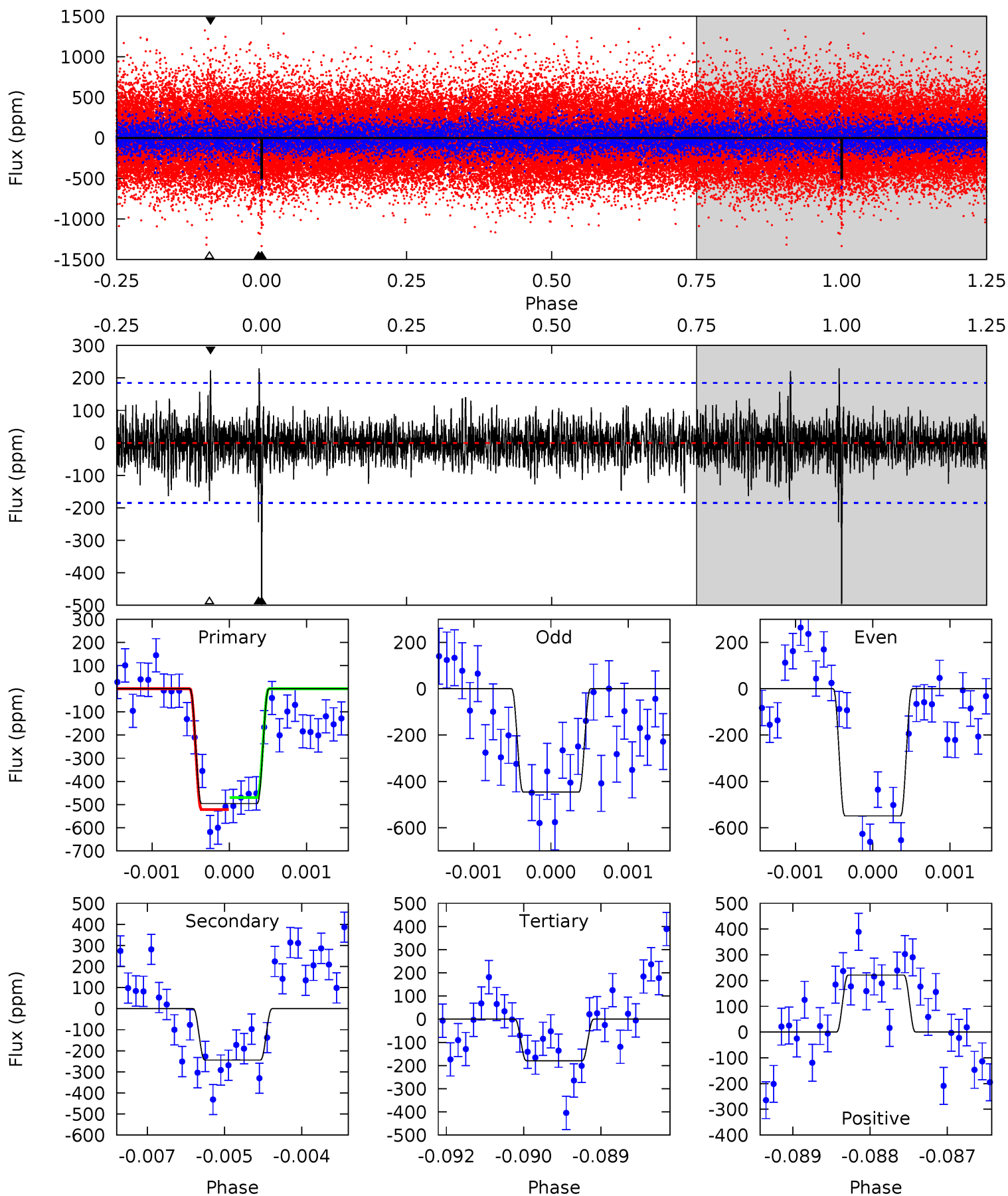
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	7.32	6.49	10.3	5.44	3.27	1.81	9.00	5.16	0.83	-3.01	2.00	0.99	0.40	0.24



Alt Model-Shift Uniqueness Test

007969462-01, $P = 369.282107$ Days, $E = 233.489491$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	7.18	5.28	6.50	5.44	3.27	1.30	9.30	8.07	1.90	0.67	1.51	1.03	0.32	0.76



Stellar Parameters For KIC 007969462

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6274^{+174}_{-240}	$4.434^{+0.056}_{-0.224}$	$-0.100^{+0.250}_{-0.300}$	$1.062^{+0.361}_{-0.120}$	$1.115^{+0.156}_{-0.156}$	$1.313^{+0.379}_{-0.693}$
	+3%/-4%	+1%/-5%	+250%/-300%	+34%/-11%	+14%/-14%	+29%/-53%
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 007969462-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-260 ± 35	$2.71^{+1.67}_{-1.55}$	398^{+28}_{-21}	5372^{+2793}_{-942}	20533^{+89630}_{-12629}
Alt.	-244 ± 34	$2.89^{+1.71}_{-1.49}$	399^{+30}_{-22}	5140^{+2154}_{-852}	17013^{+53217}_{-10292}

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

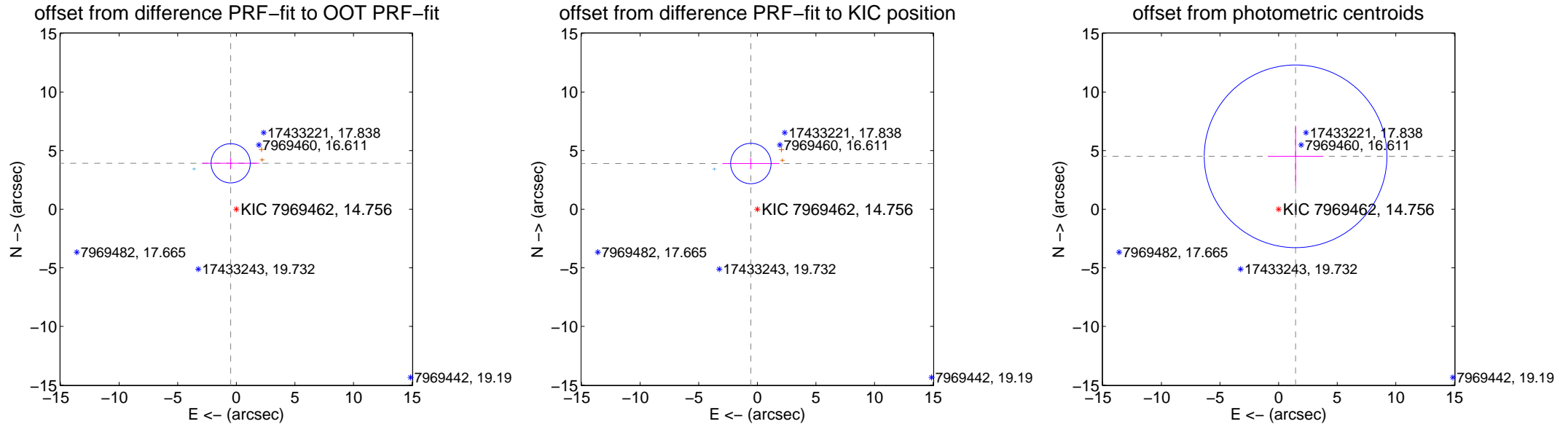
DV Centroid Data

Supplemental centroid analysis for 007969462-01. Kepler magnitude: 14.76. Transit SNR 6.67

There are 1 quarters with good PRF difference image offsets

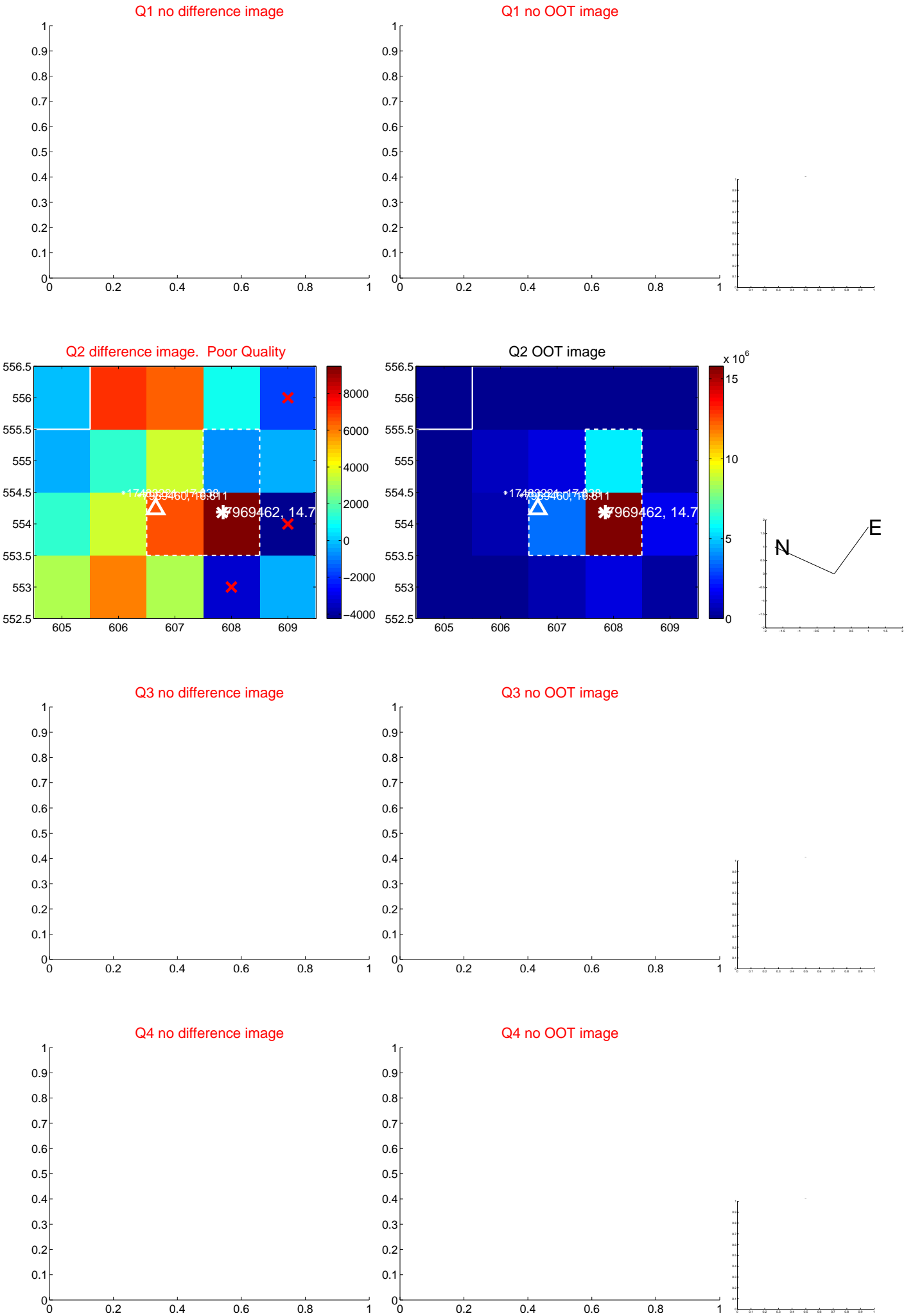
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.948 ± 0.557	7.08	0.480 ± 2.443	3.918 ± 0.475
PRF-fit source offset from KIC position	3.938 ± 0.575	6.85	0.551 ± 2.432	3.899 ± 0.467
photometric centroid source offset	4.74 ± 2.60	1.82	-1.45 ± 2.38	4.51 ± 2.62

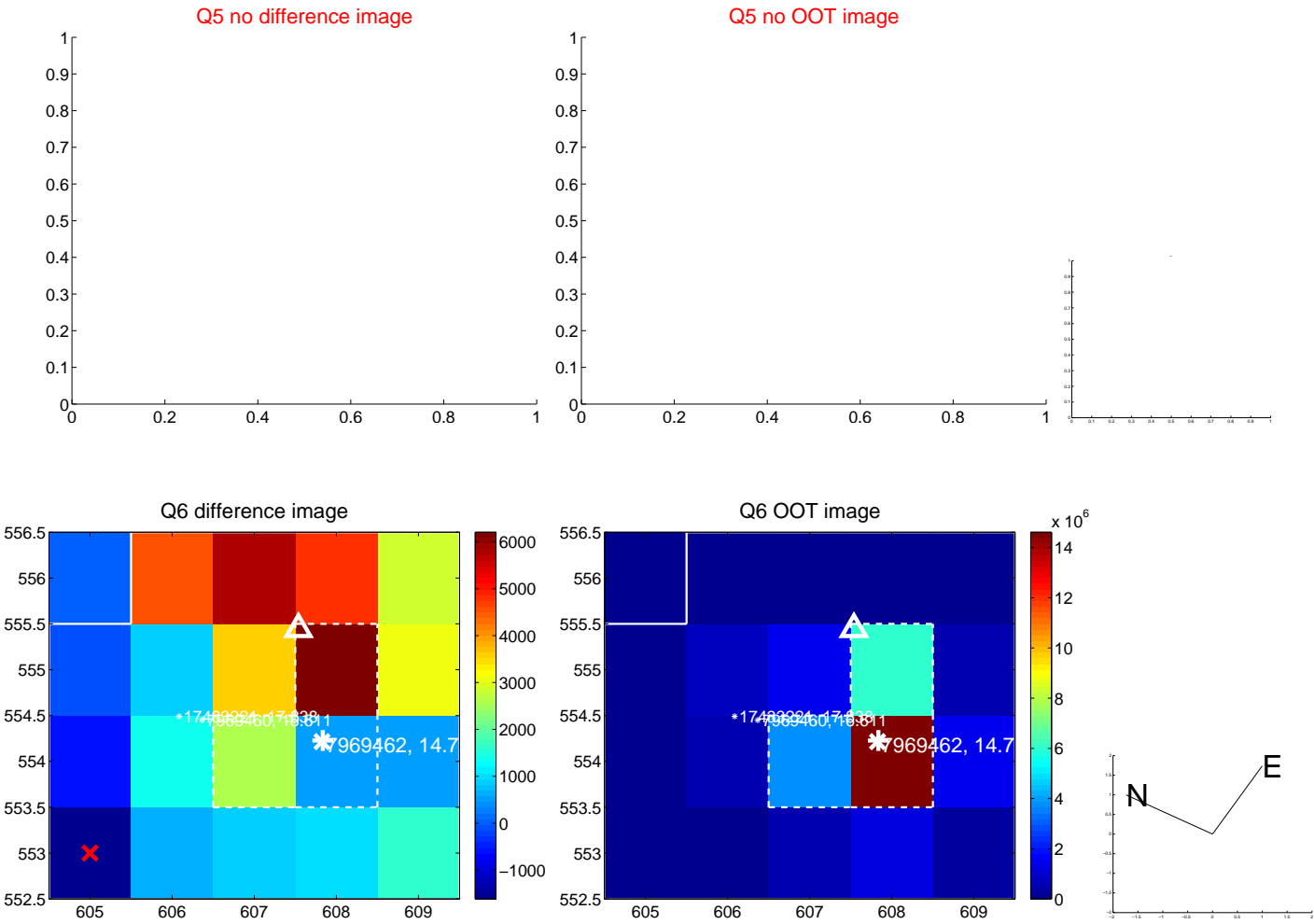


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

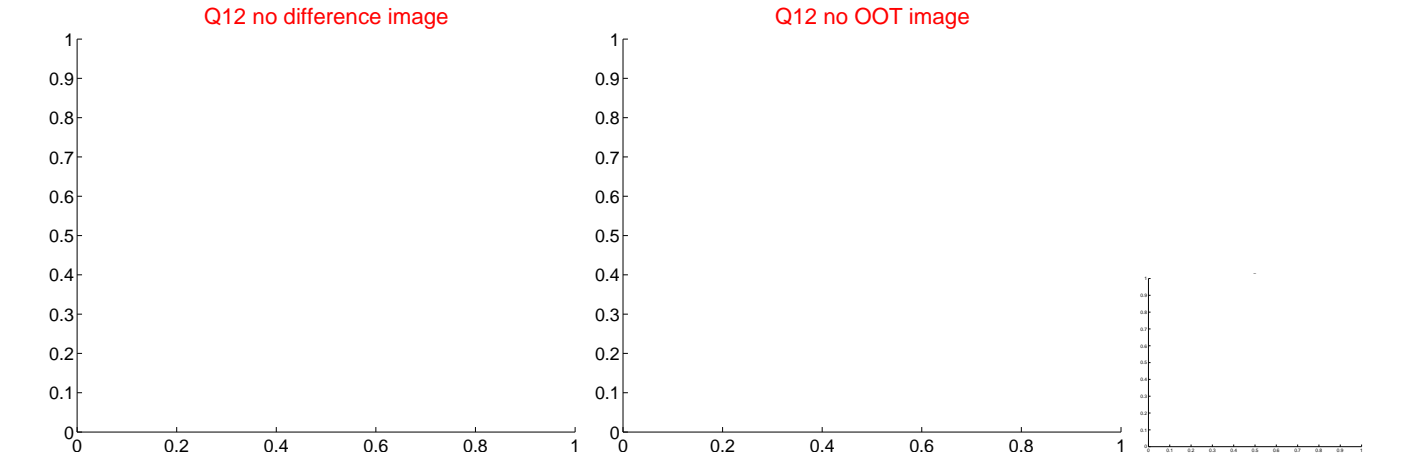
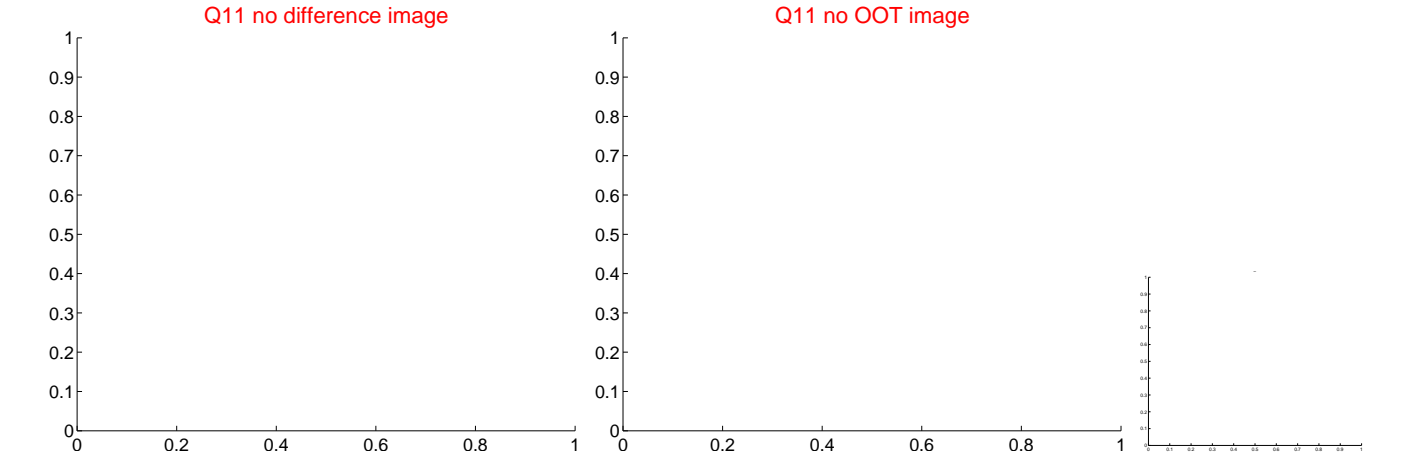
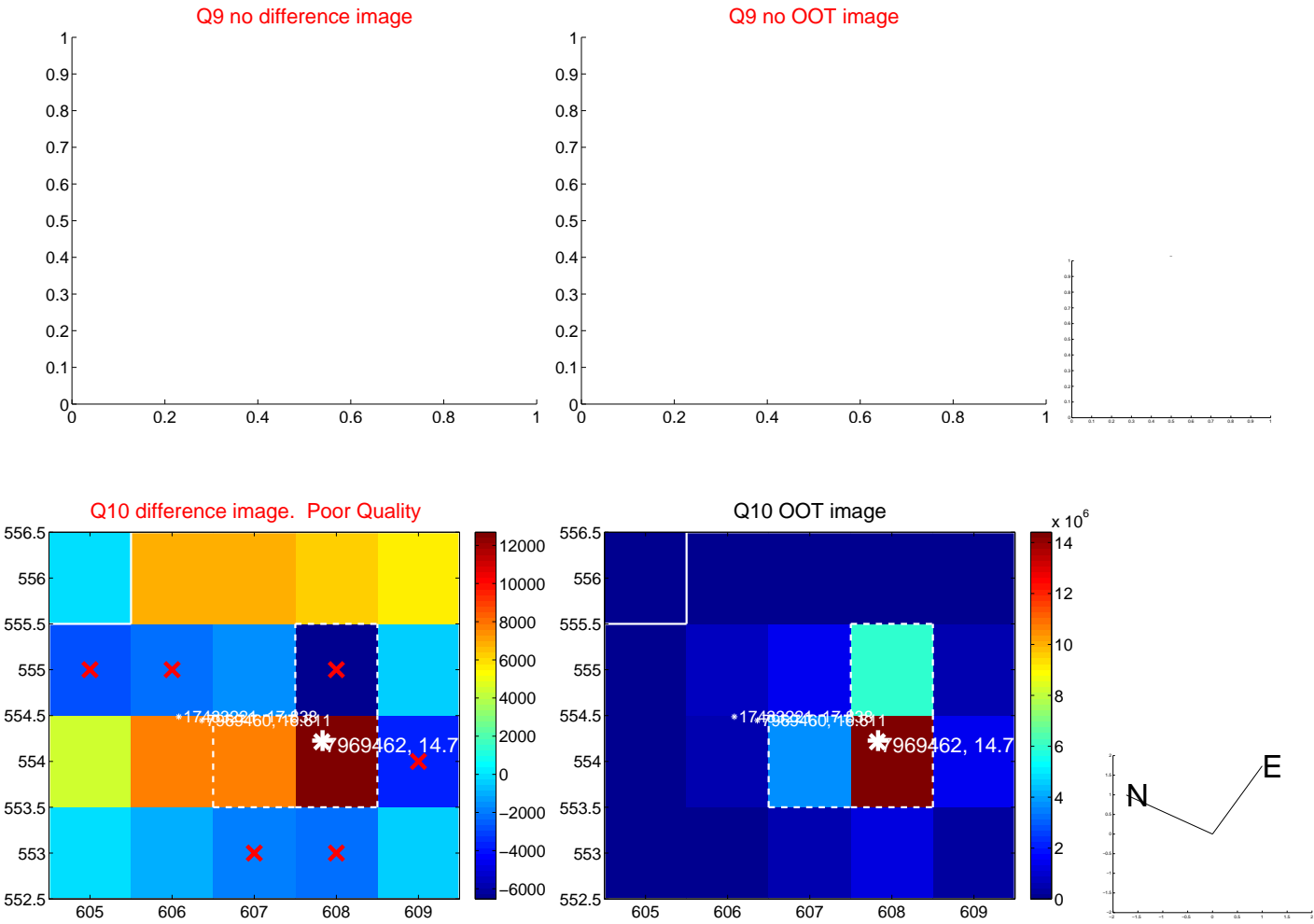
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



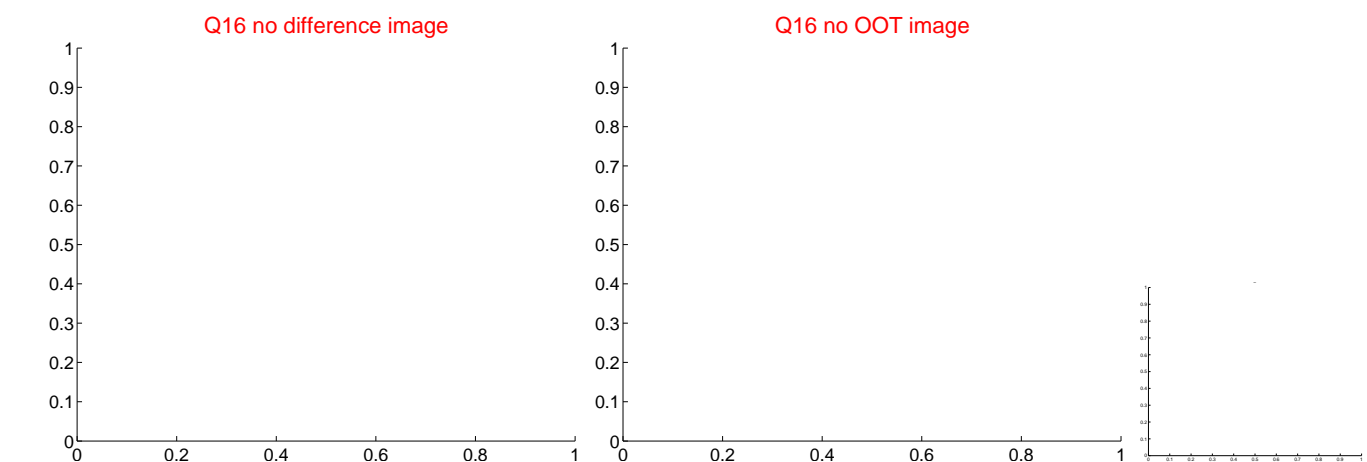
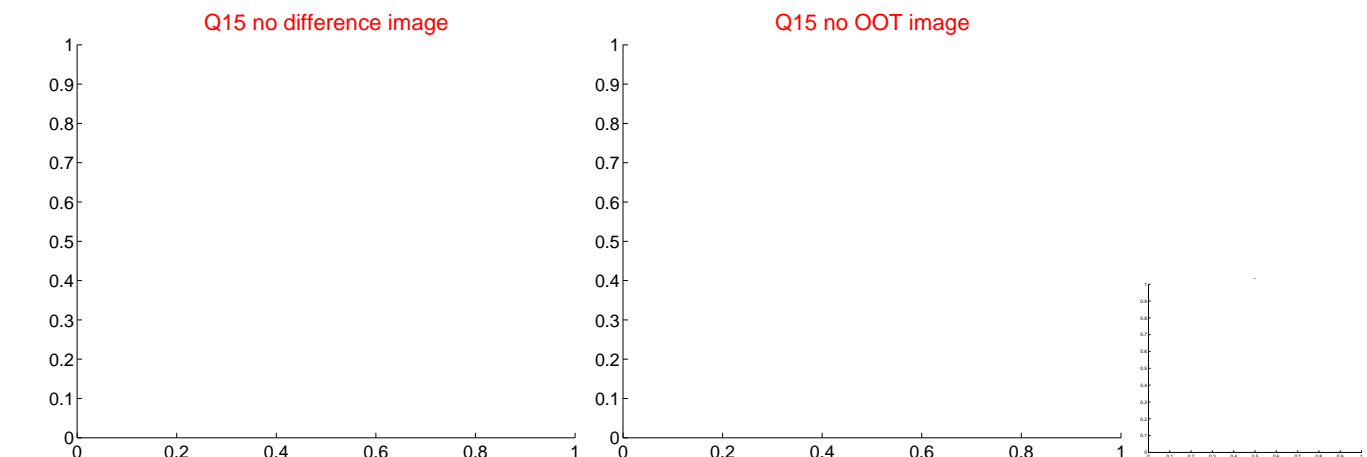
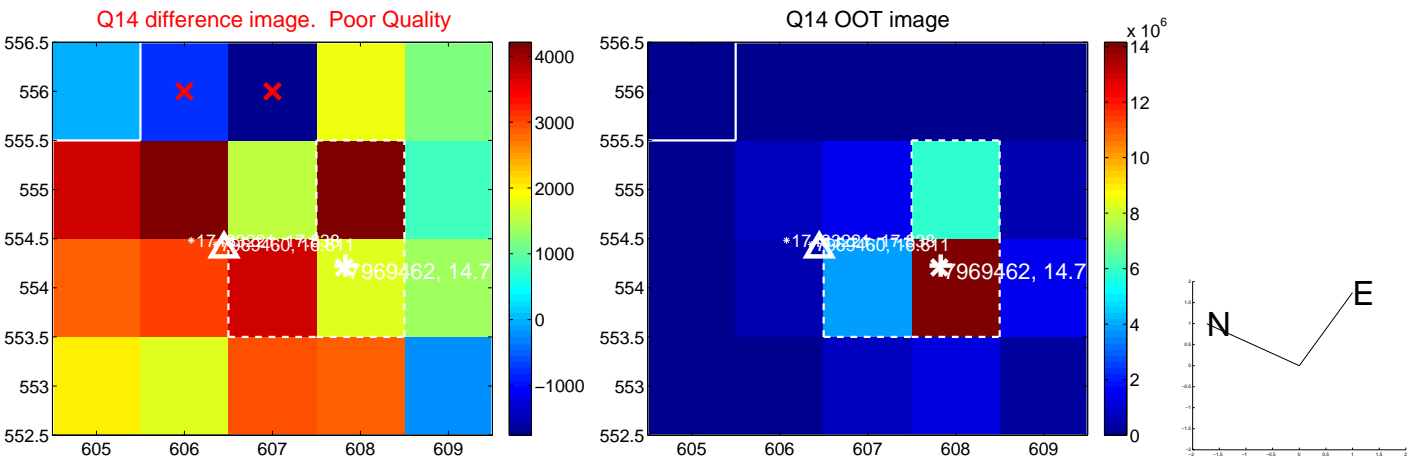
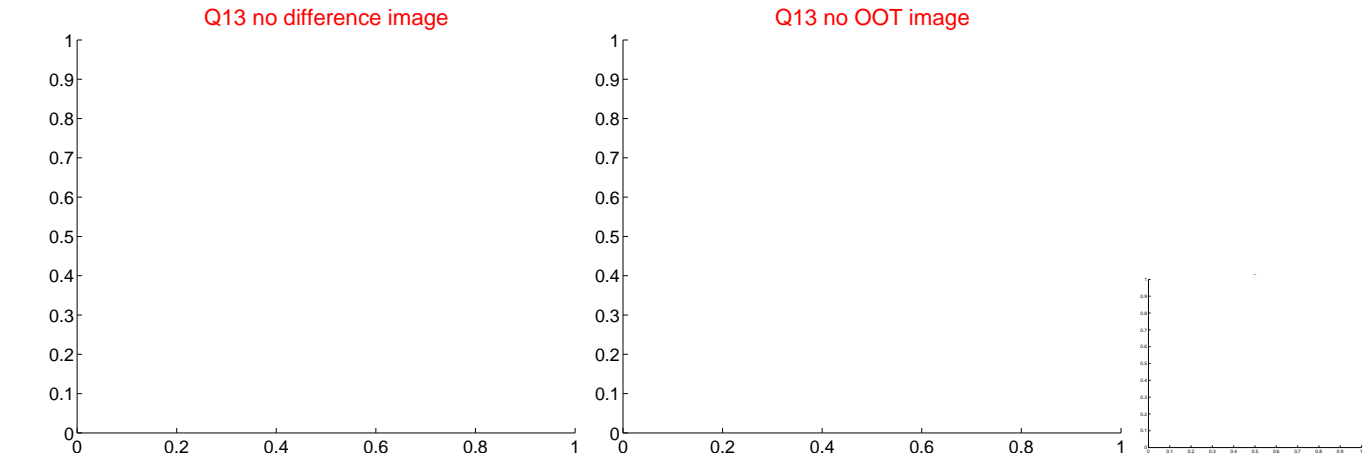
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



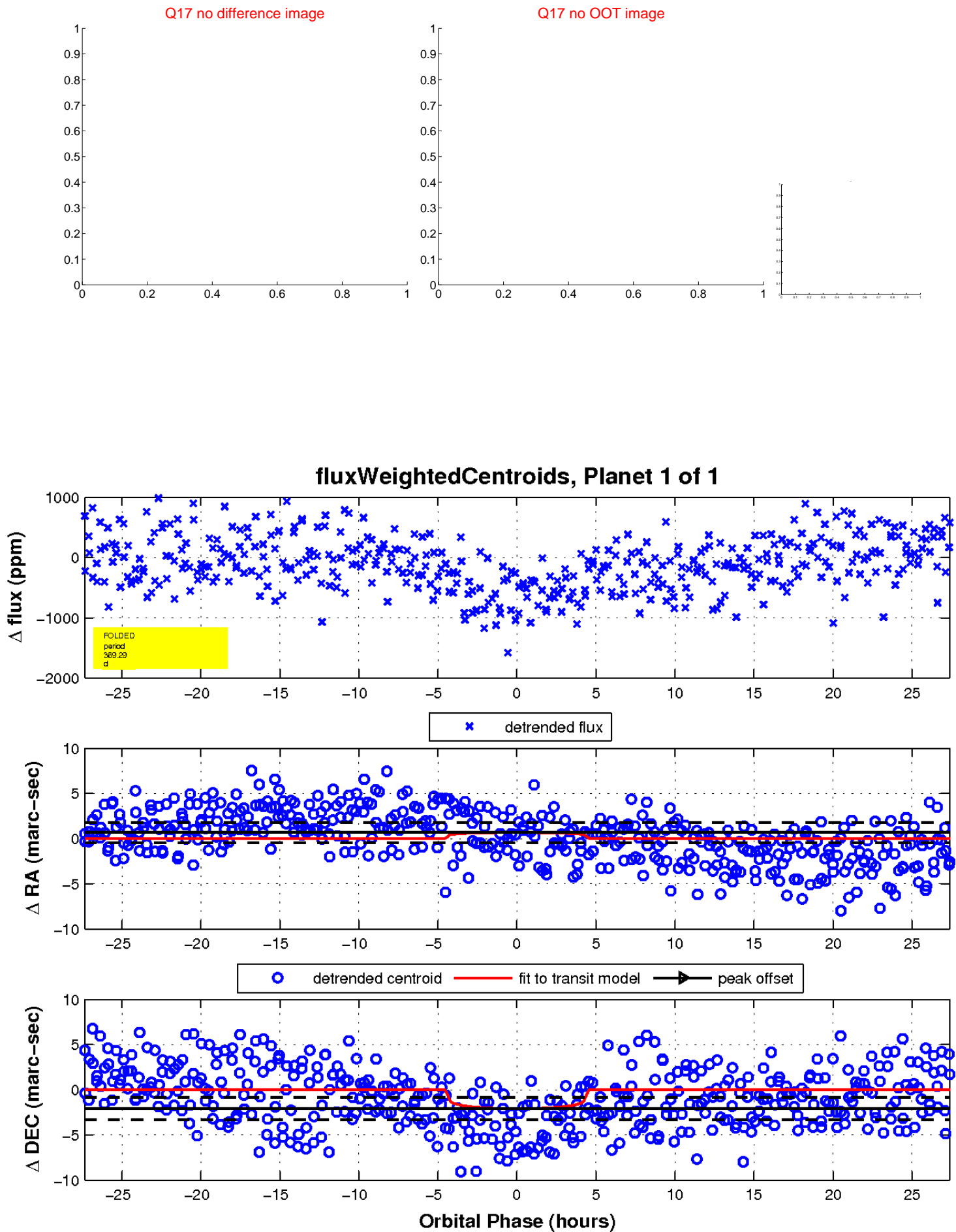
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

