

KIC 007618650

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})
007618650-01	OBS	No	368.571409	234.101120	1059.6	11.806	8.2	8.4	1.06	6260	4.20	1.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007618650-01	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.

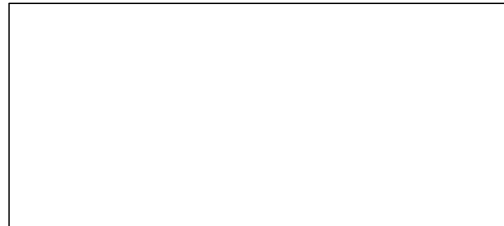
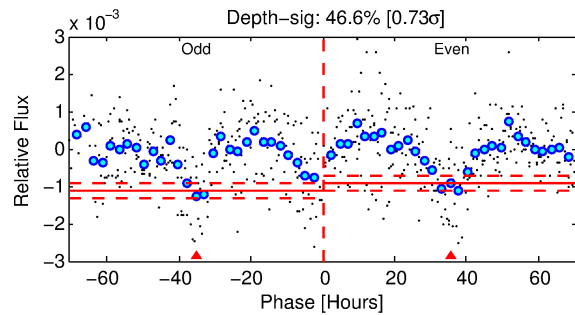
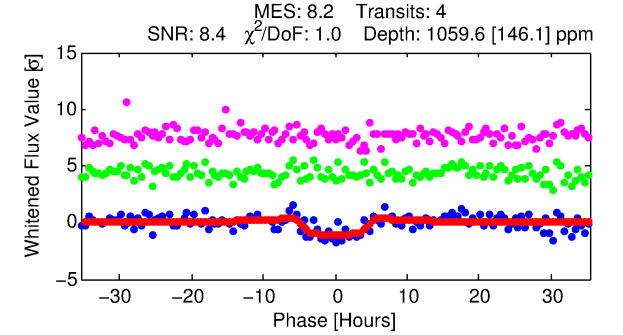
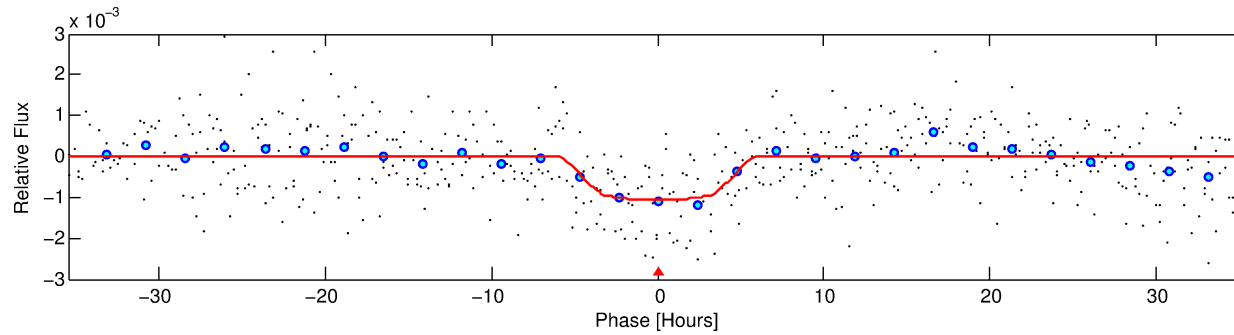
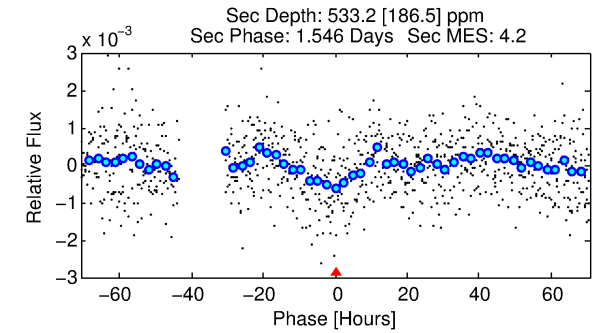
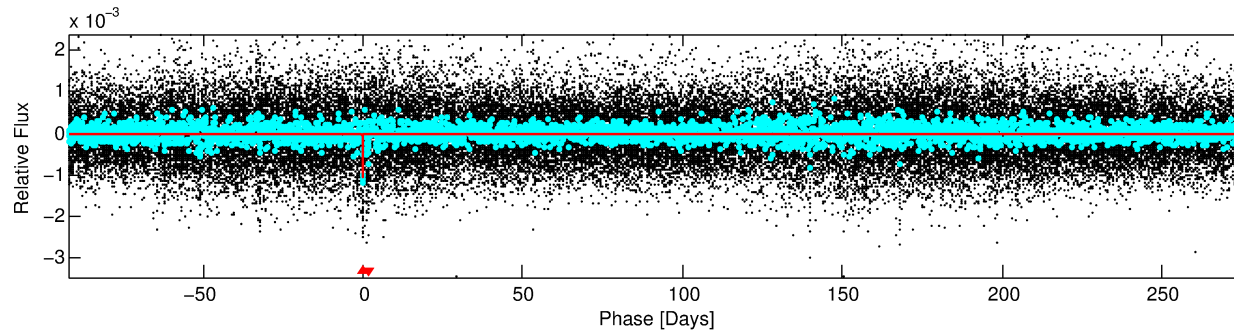
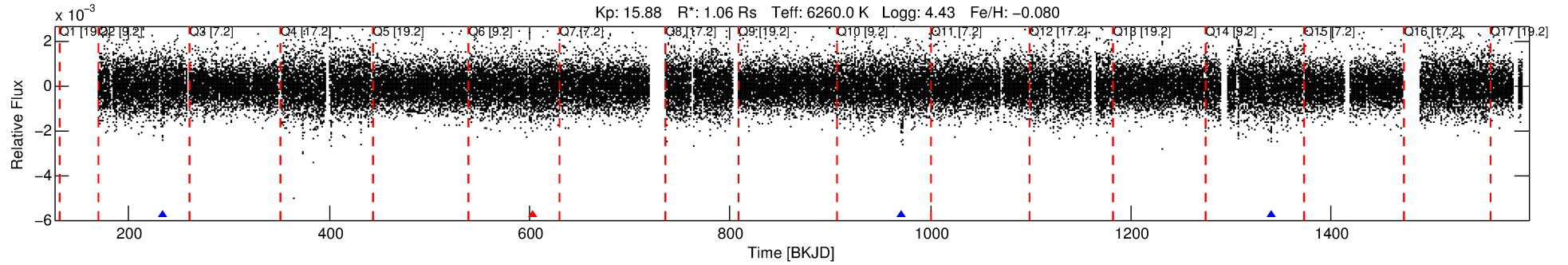
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007618650-01

No Significant Match Found

DV One-Page Summary

KIC: 7618650 Candidate: 1 of 1 Period: 368.571 d



DV Fit Results:

Period = 368.57141 [0.01263] d
Epoch = 234.1011 [0.0236] BKJD
Rp/R* = 0.0362 [0.0036]
a/R* = 108.33 [31.22]
b = 0.93 [0.04]
Seff = 1.43 [0.59]
Teq = 279 [29] K
Rp = 4.20 [1.39] Re
a = 1.0441 [0.2755] AU
Ag = 18113.87 [10042.84] [1.80σ]
Teffp = 4998 [537] K [8.78σ]

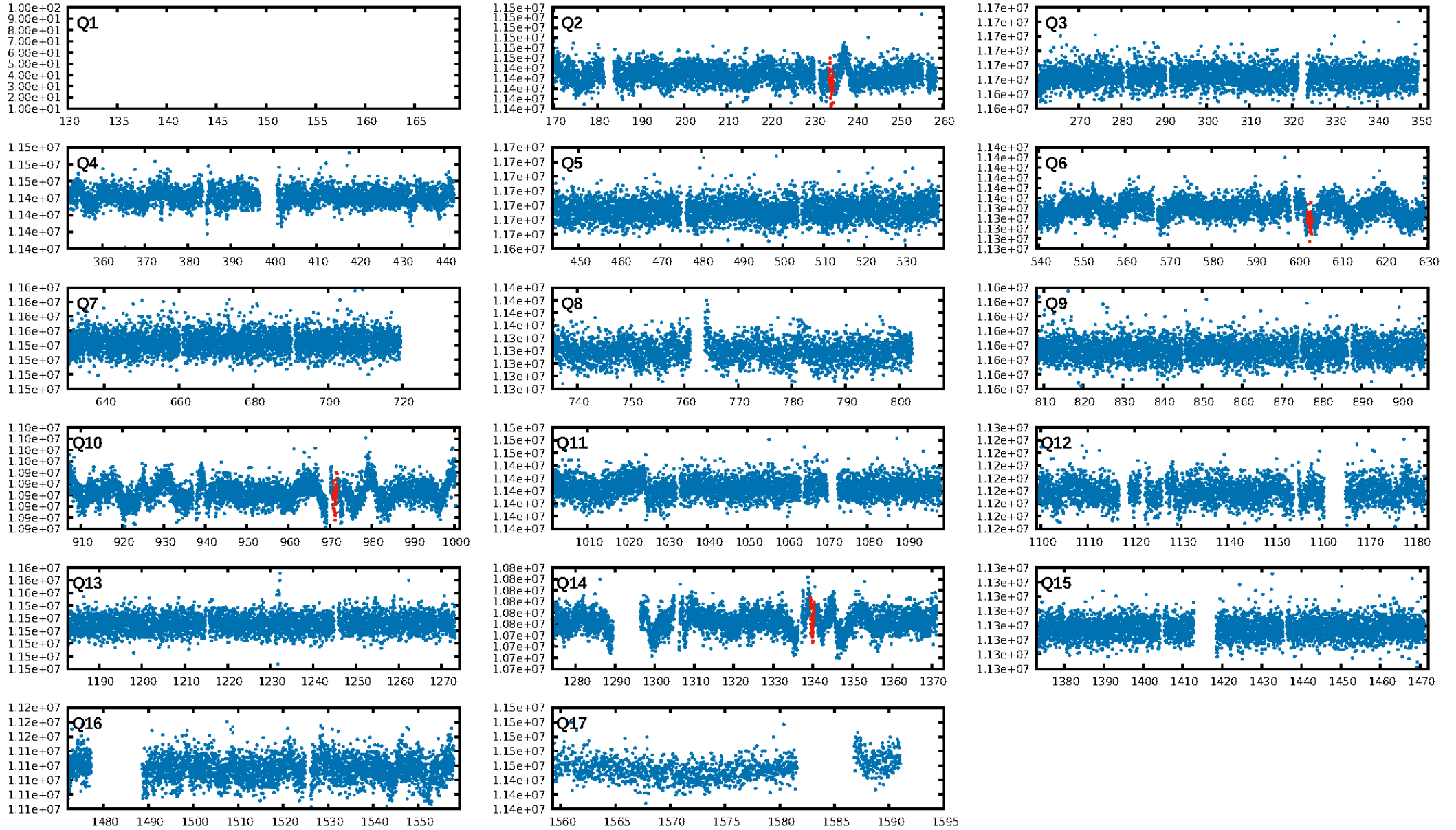
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 24.3%
ModelChiSquareGof-sig: 93.2%
Bootstrap-pfa: 3.04e-10
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 1.24
Centroid-sig: 0.8%
Centroid-so: 5.605 arcsec [1.94σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

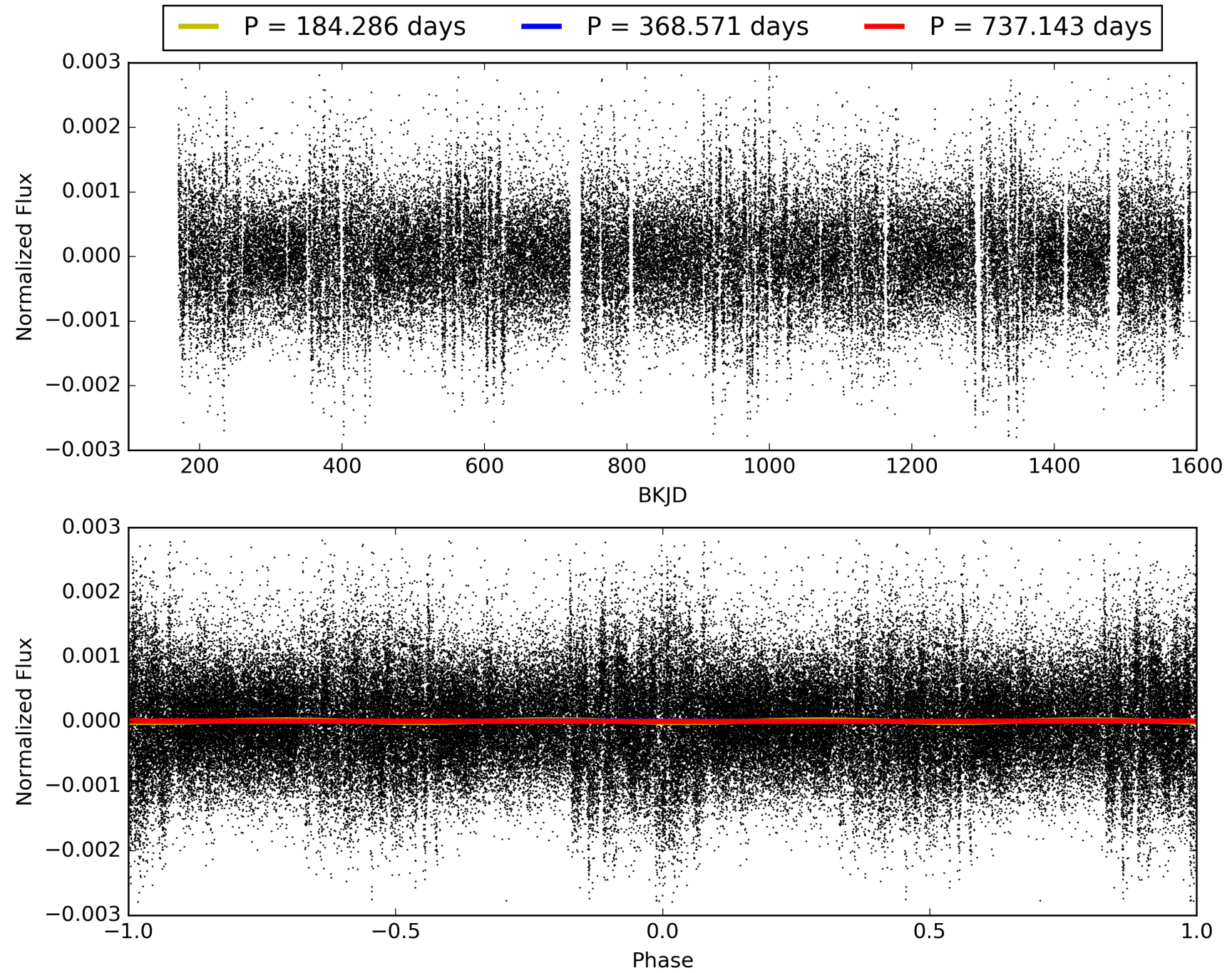
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:30:11 Z

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

TCE 007618650-01, PDC Light Curves

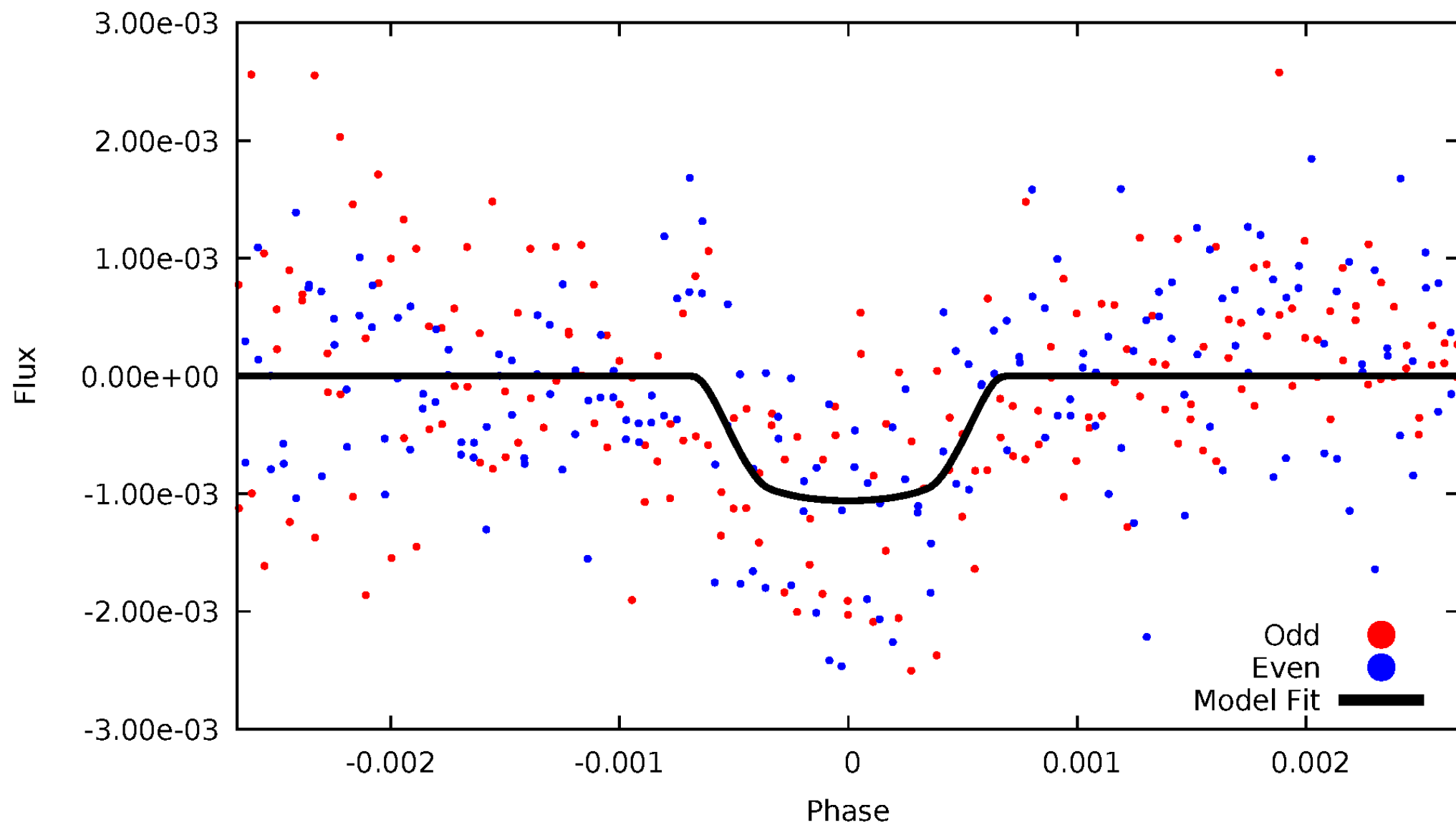


TCE 007618650-01



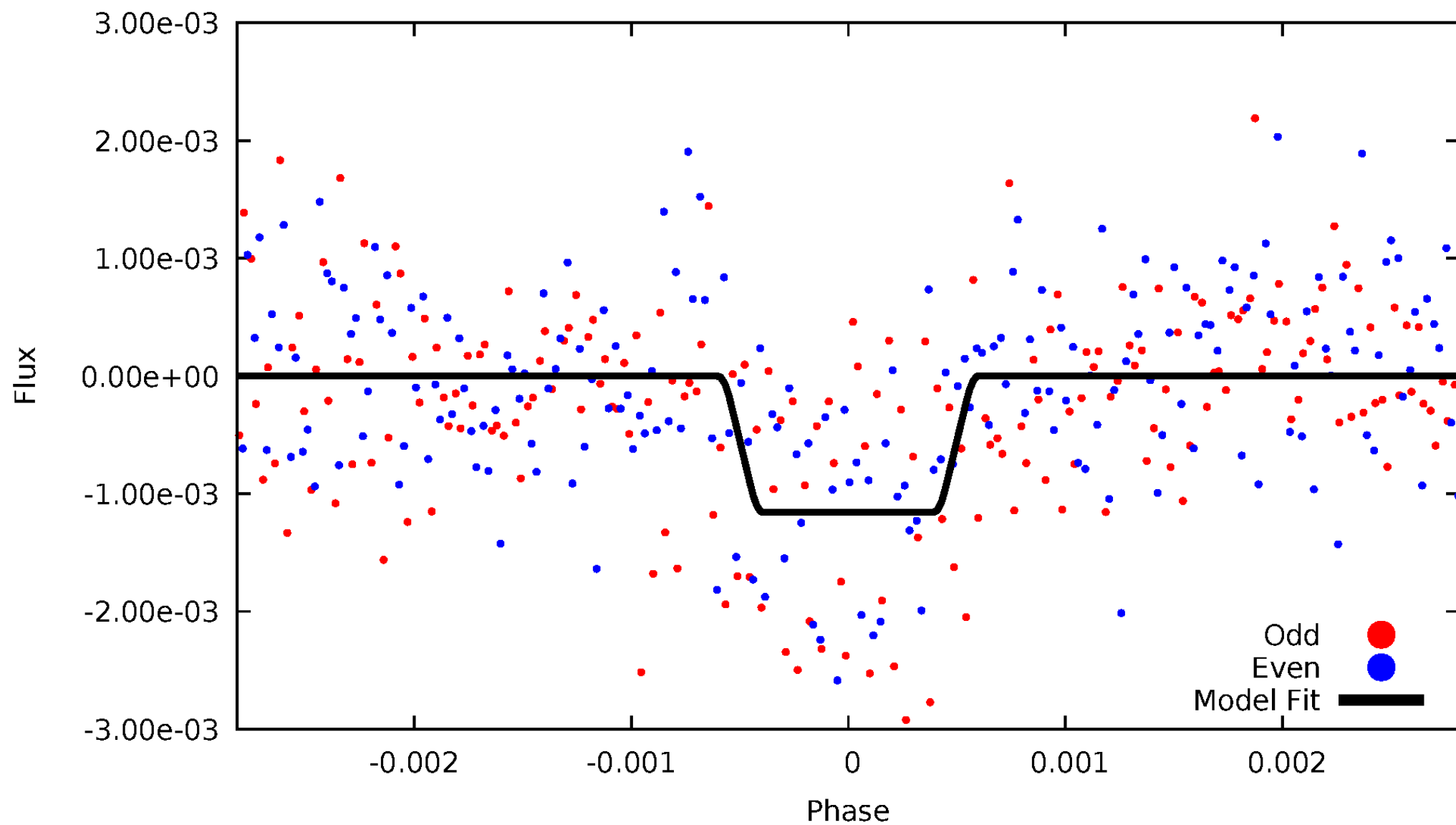
DV Odd/Even

TCE 007618650-01



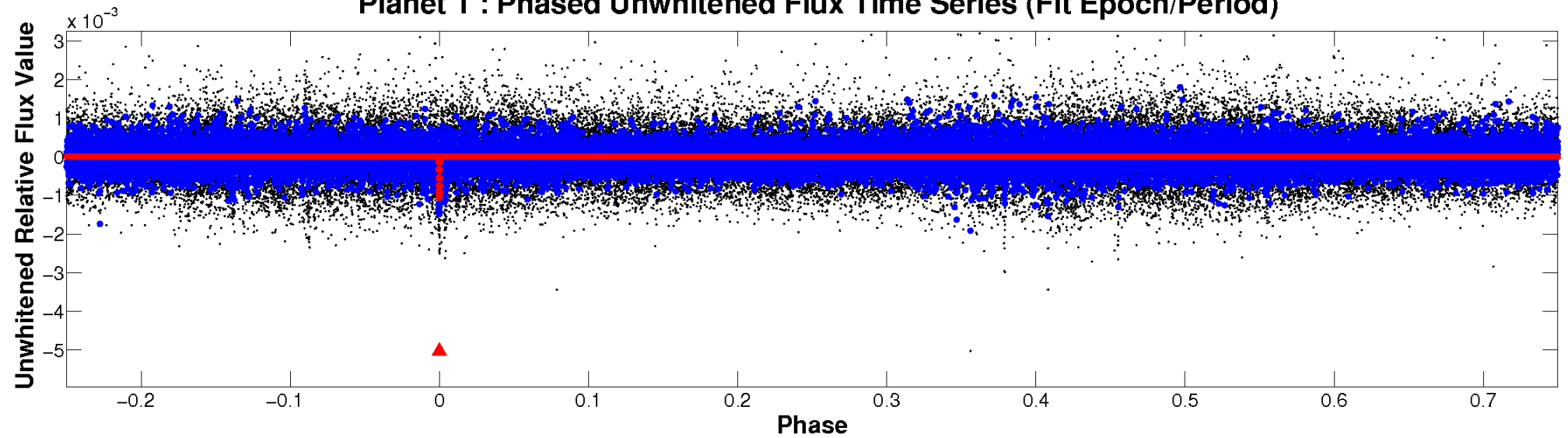
ALT Odd/Even

TCE 007618650-01

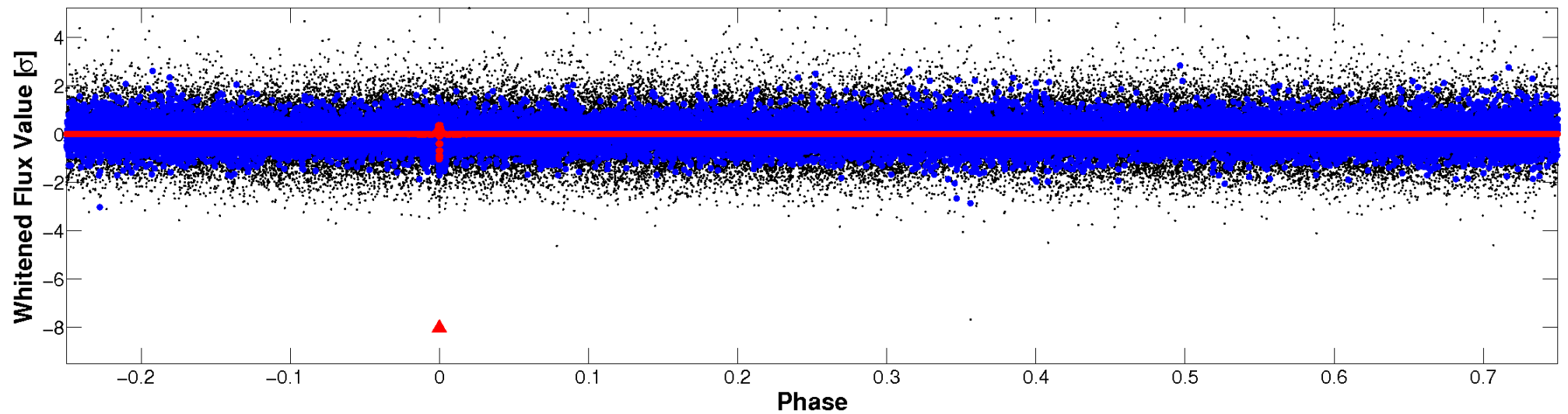


Non-Whitened Vs. Whitened Light Curve

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

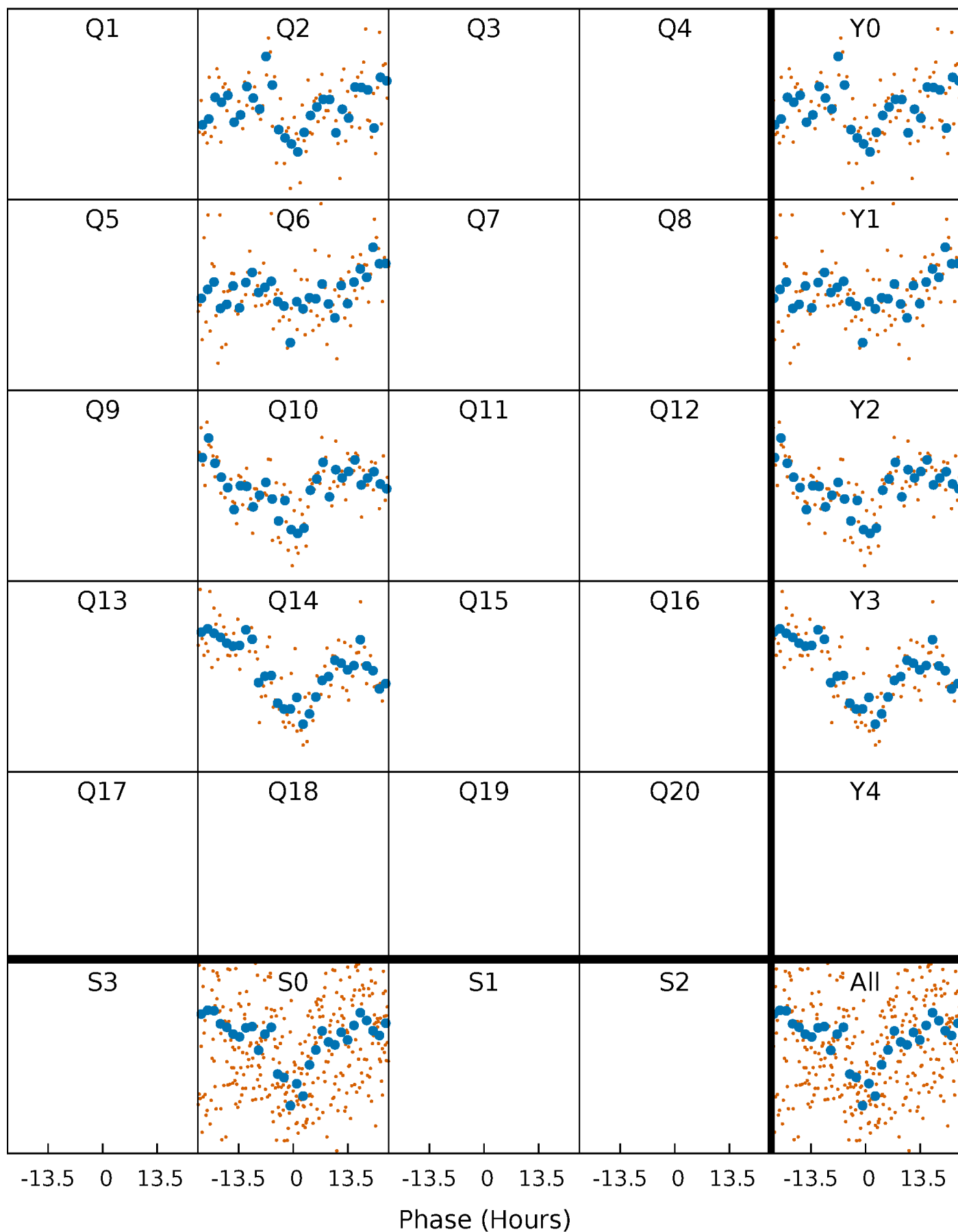


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



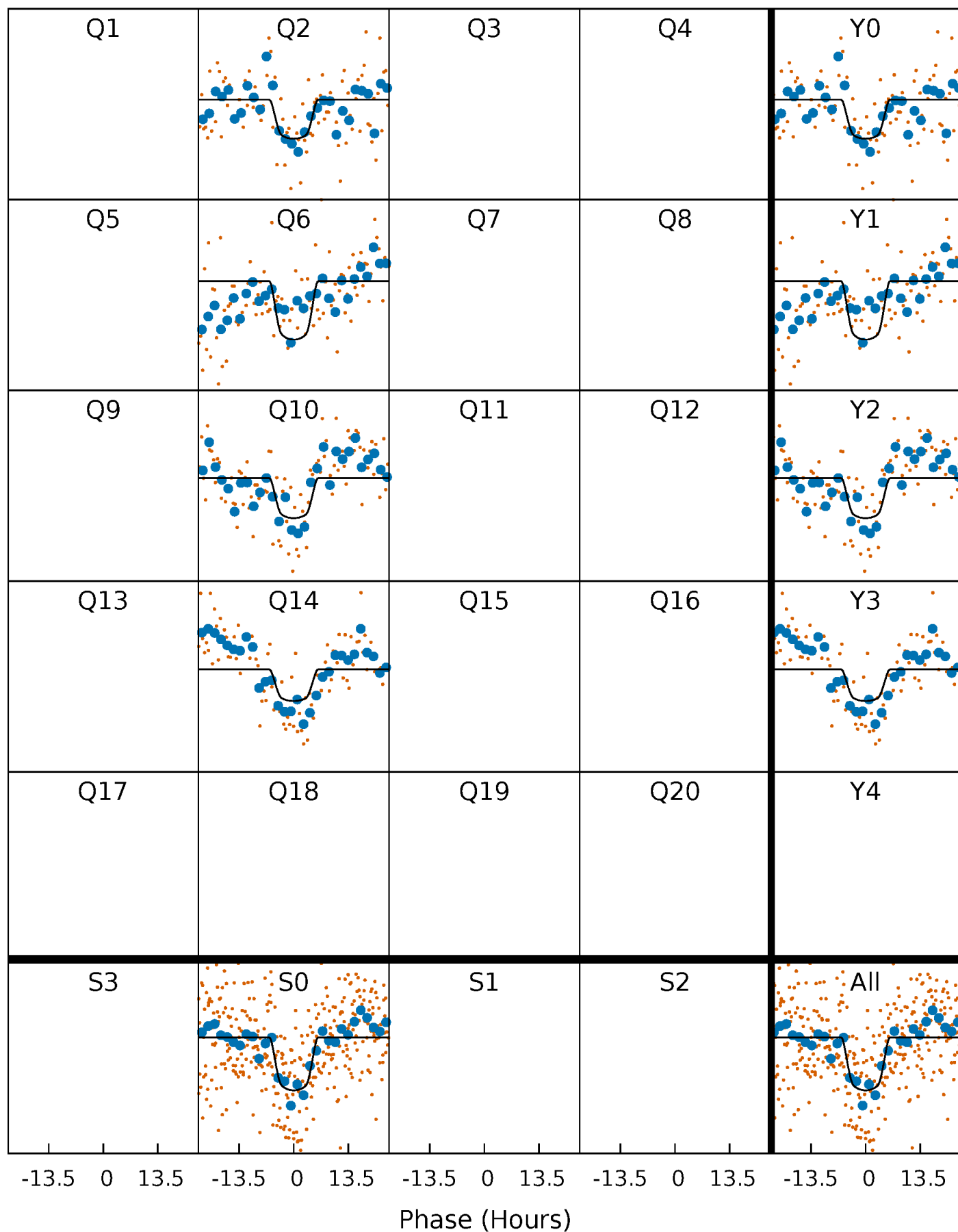
PDC Quarter-Phased Transit Curves

TCE 007618650-01 P=368.571409 Days $T_0=234.101120$ (BKJD)



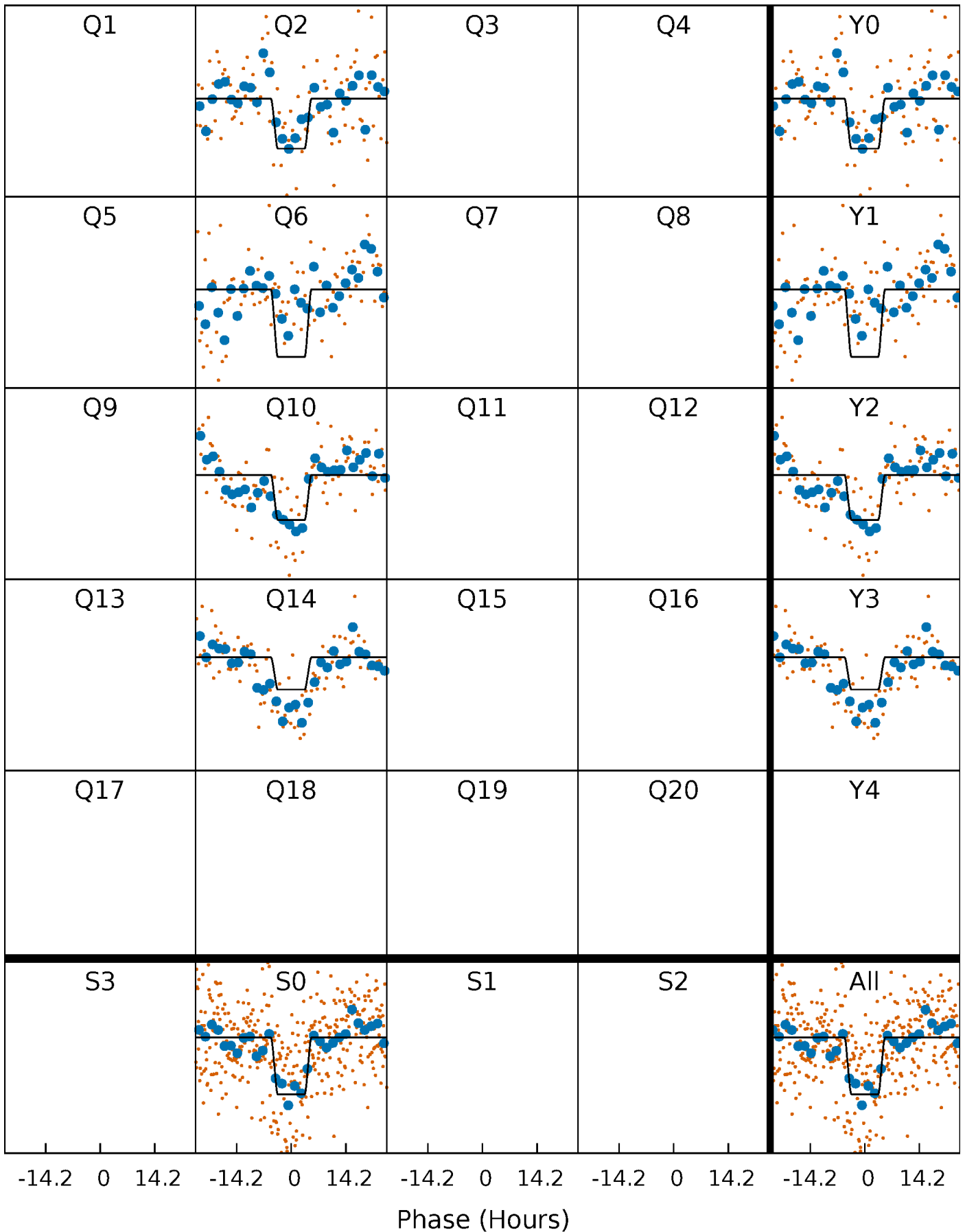
DV Quarter-Phased Transit Curves

TCE 007618650-01 P=368.571409 Days $T_0=234.101120$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

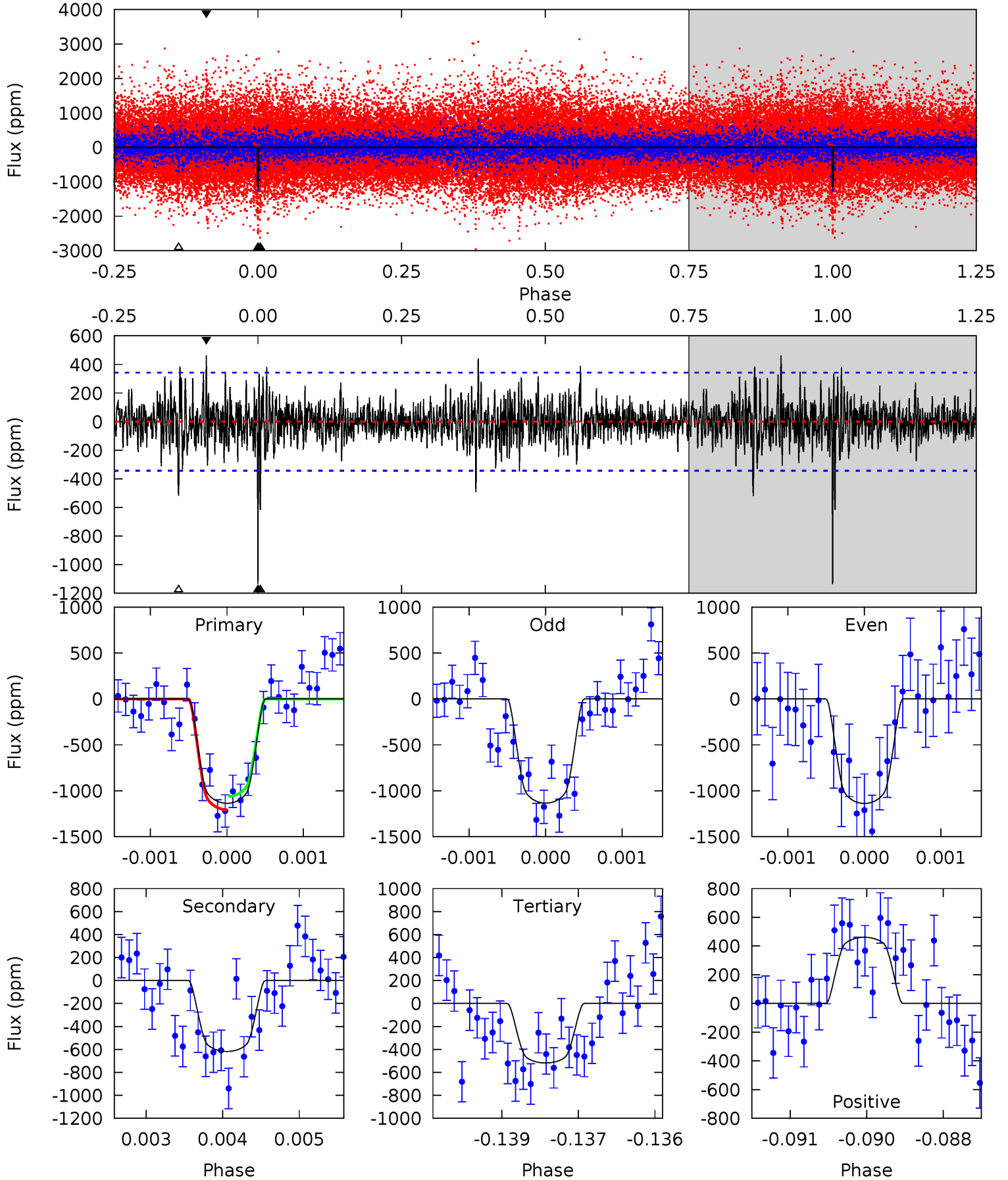
TCE 007618650-01 P=368.566933 Days $T_0=234.117966$ (BKJD)



DV Model-Shift Uniqueness Test

007618650-01, P = 368.571409 Days, E = 234.101120 Days

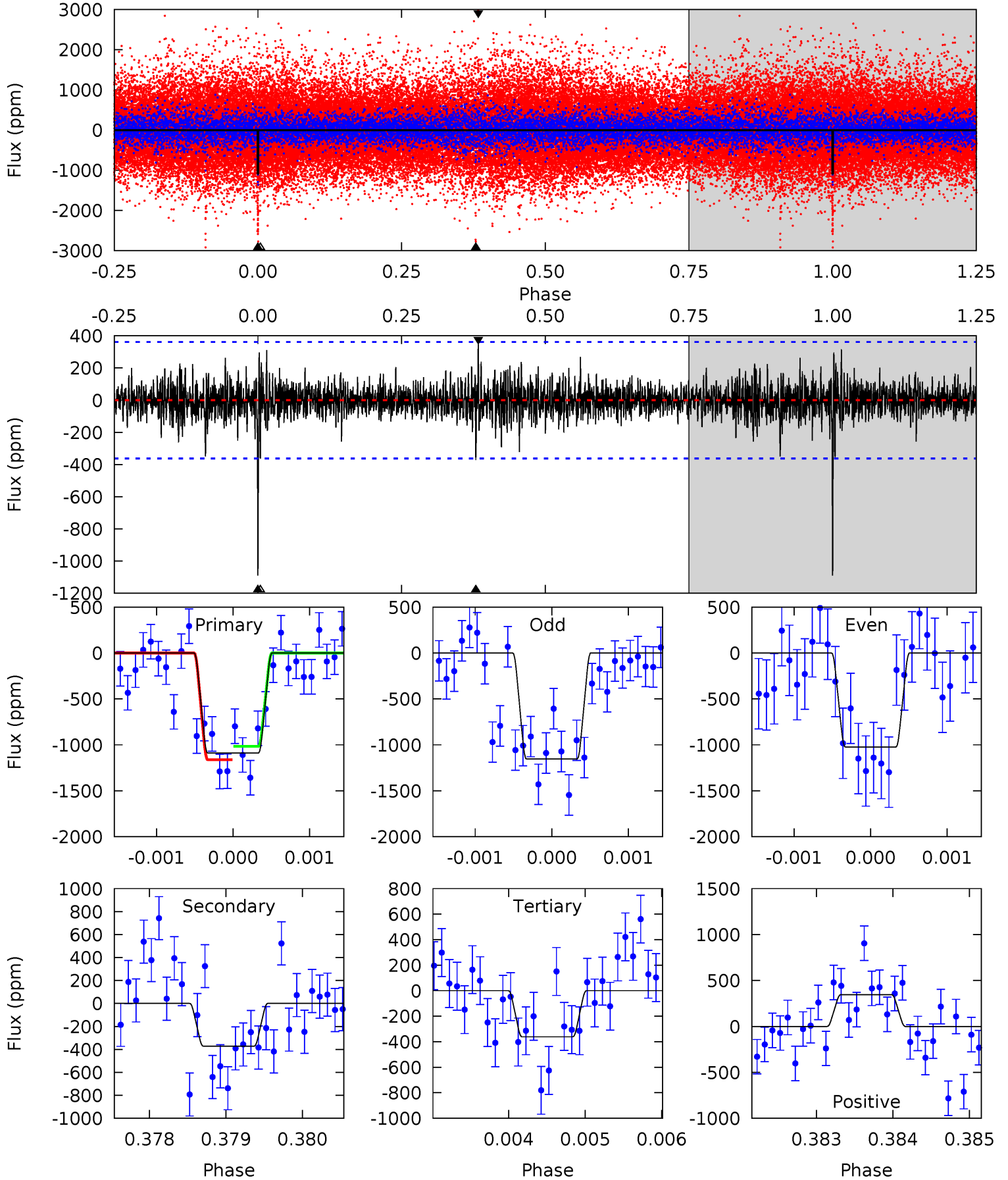
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	9.73	8.16	7.26	5.40	3.20	1.65	9.73	10.6	1.57	2.47	0.03	1.00	0.29	1.13



Alt Model-Shift Uniqueness Test

007618650-01, $P = 368.566933$ Days, $E = 234.117966$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	5.57	5.42	5.19	5.42	3.24	1.10	10.9	11.1	0.15	0.38	0.98	1.06	0.24	1.09



Stellar Parameters For KIC 007618650

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6260^{+196}_{-239}	$4.433^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.063^{+0.335}_{-0.134}$	$1.118^{+0.159}_{-0.159}$	$1.310^{+0.369}_{-0.689}$
	+3%/-4%	+1%/-5%	+312%/-375%	+32%/-13%	+14%/-14%	+28%/-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 007618650-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-618 ± 64	$4.34^{+0.83}_{-0.59}$	396^{+28}_{-21}	5220^{+341}_{-295}	19046^{+6732}_{-5232}
Alt.	-372 ± 67	$4.10^{+0.79}_{-0.59}$	397^{+30}_{-21}	4836^{+320}_{-312}	12872^{+5319}_{-3896}

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

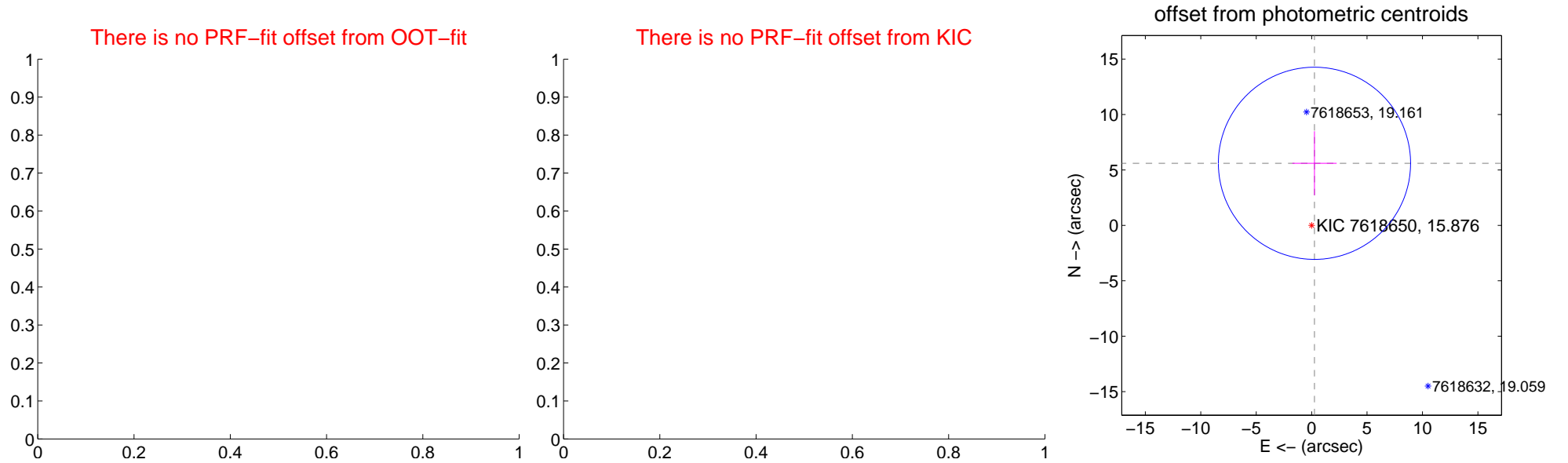
DV Centroid Data

Supplemental centroid analysis for 007618650-01. Kepler magnitude: 15.88. Transit SNR 8.43

There are 0 quarters with good PRF difference image offsets

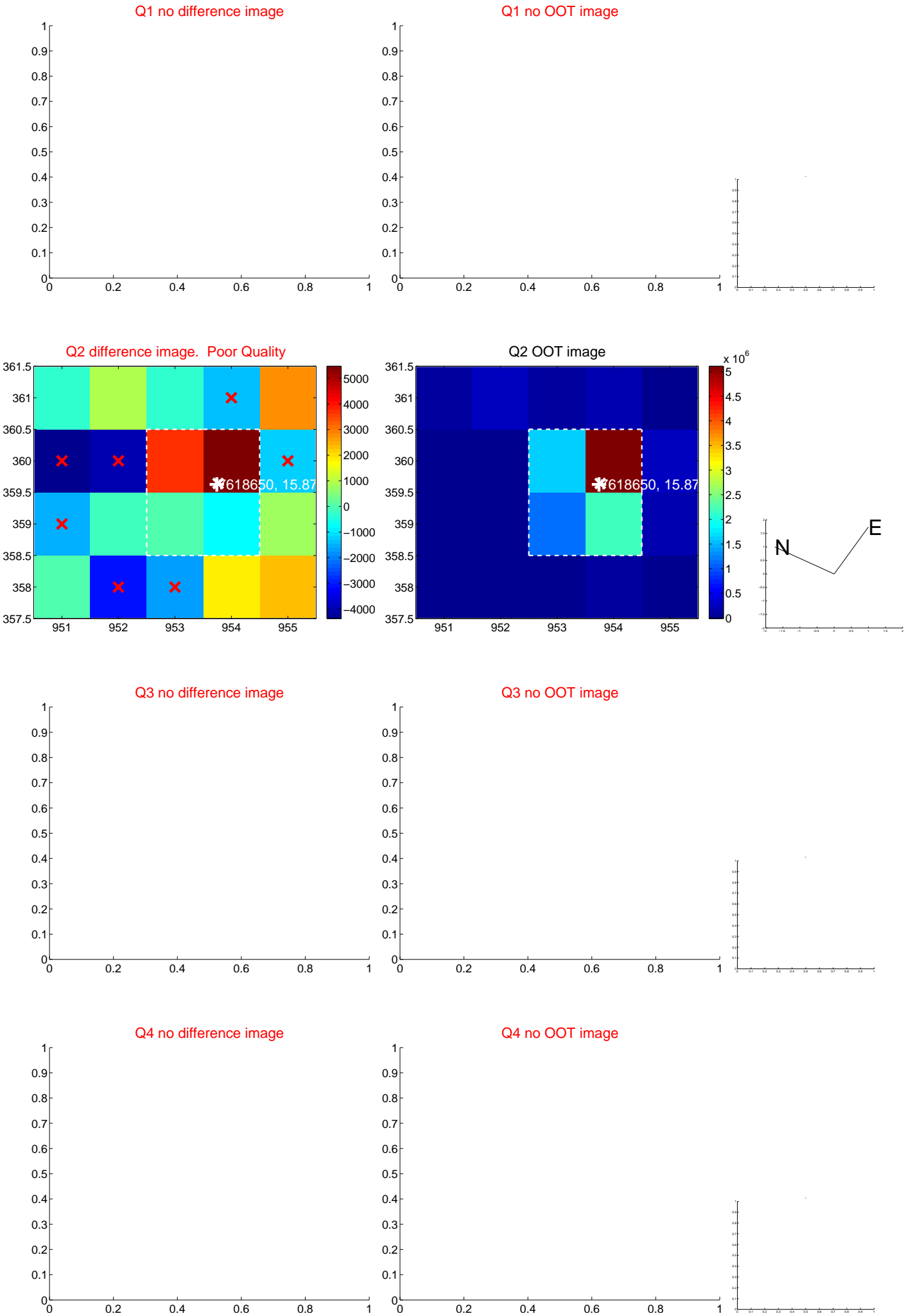
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	5.60 ± 2.89	1.94	-0.26 ± 2.00	5.60 ± 2.89

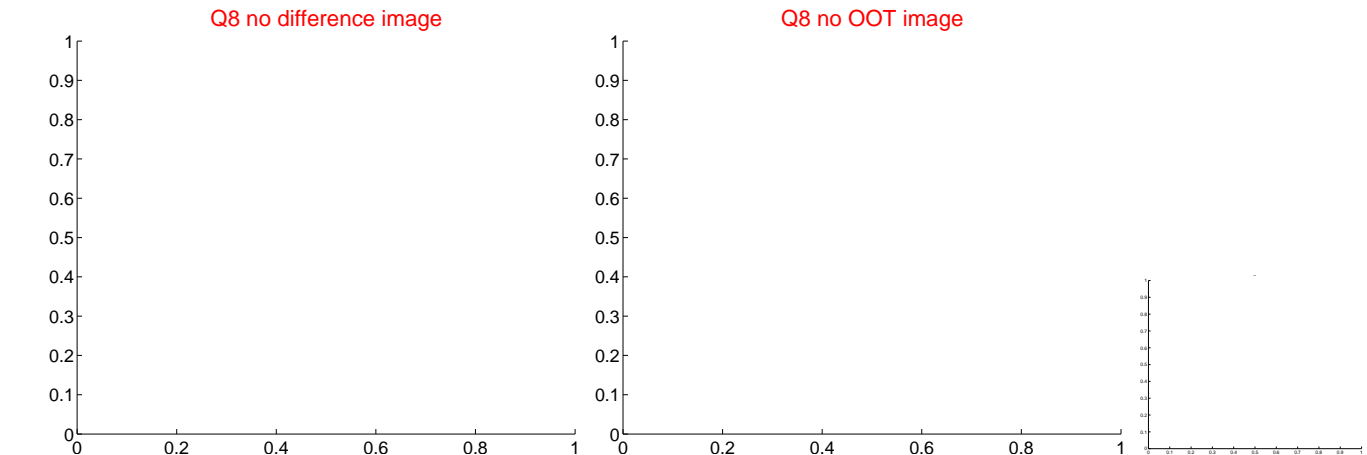
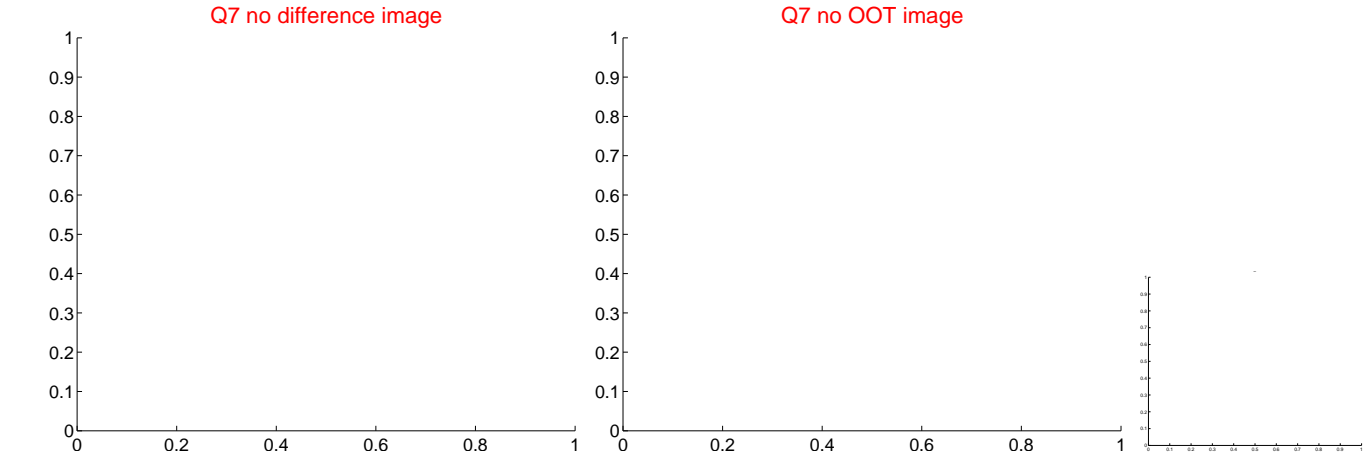
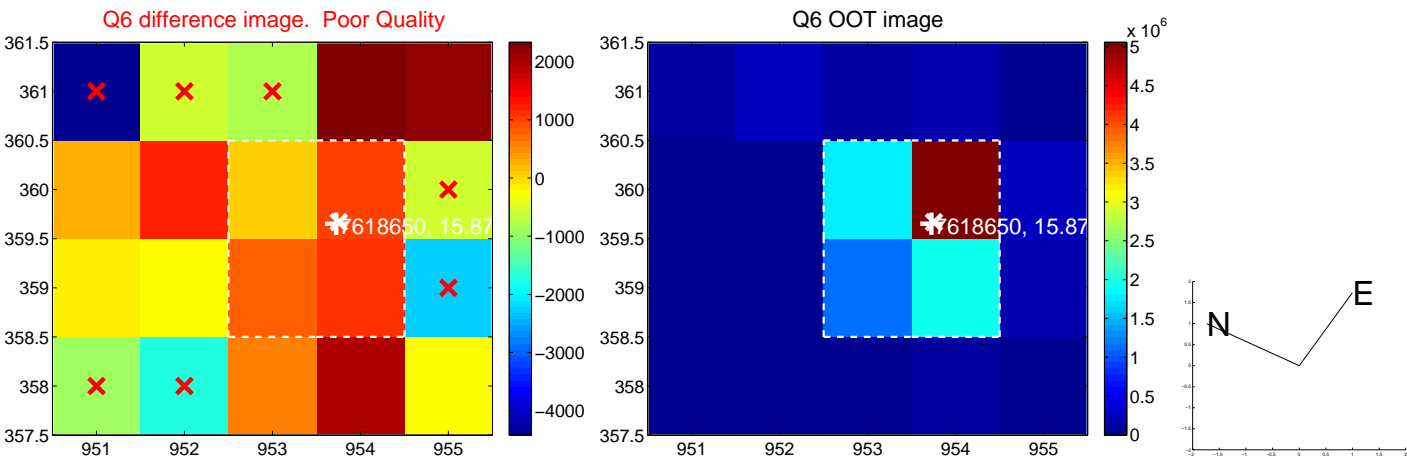
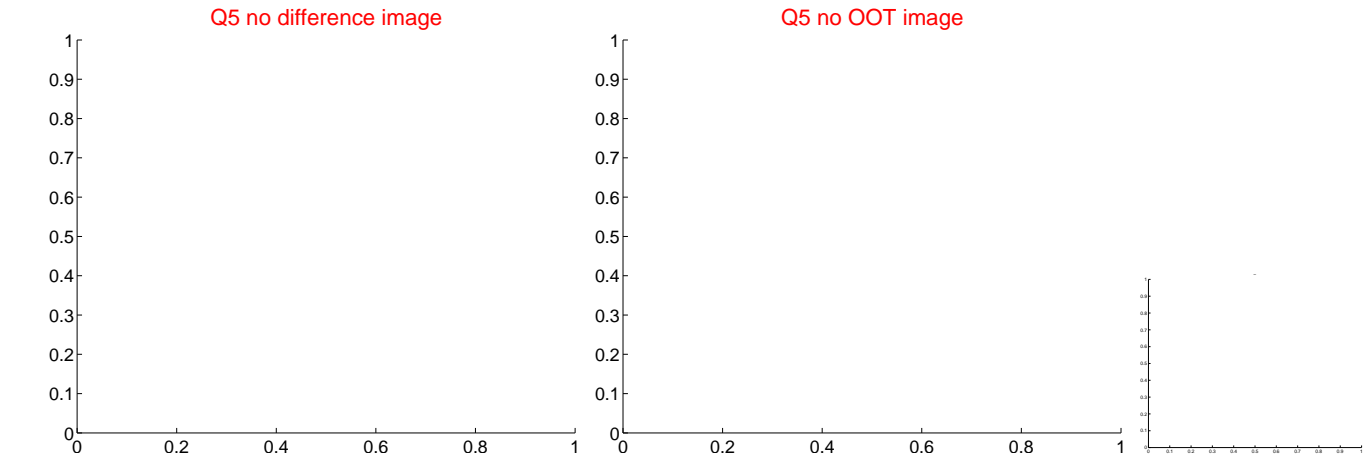


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



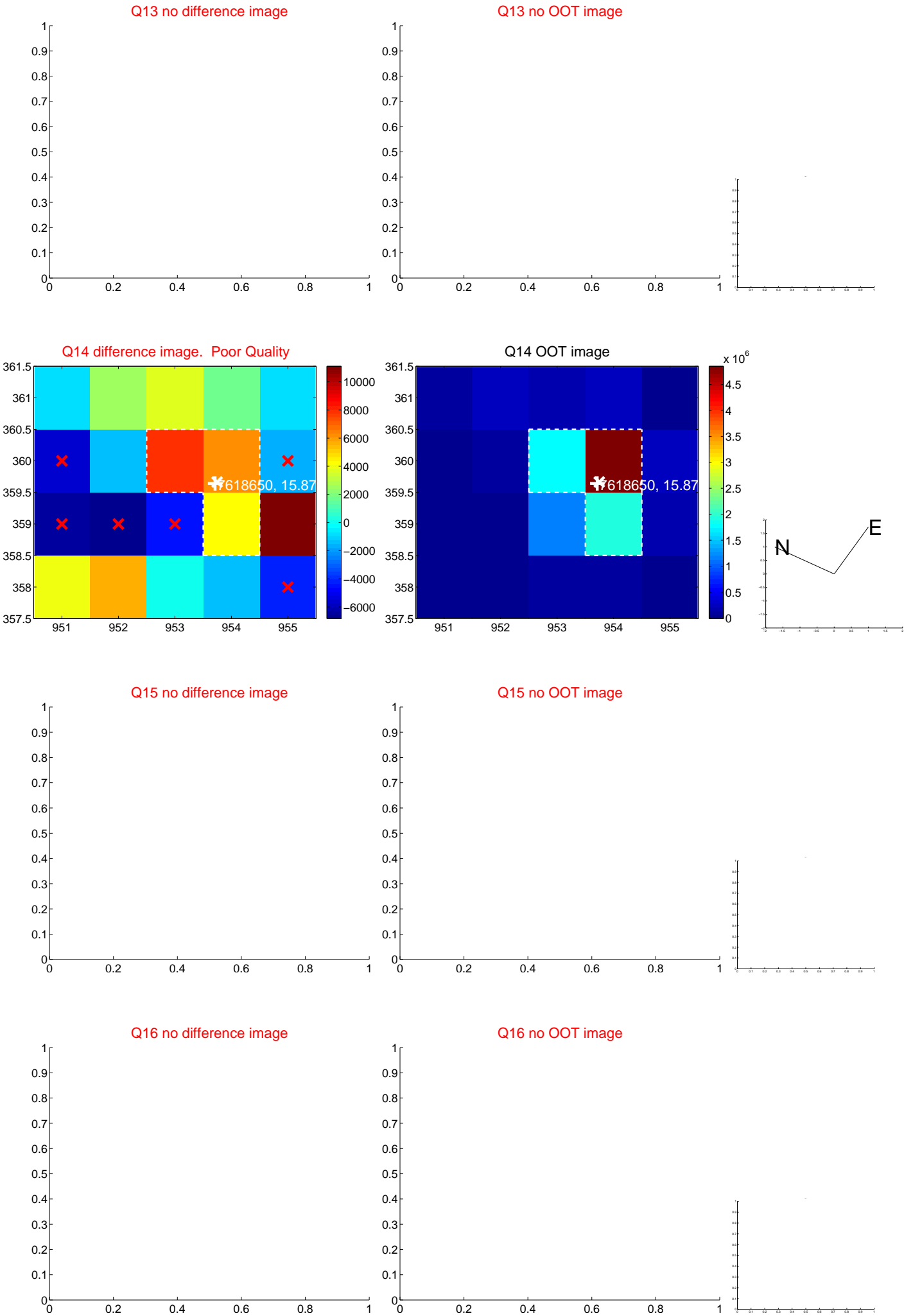
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



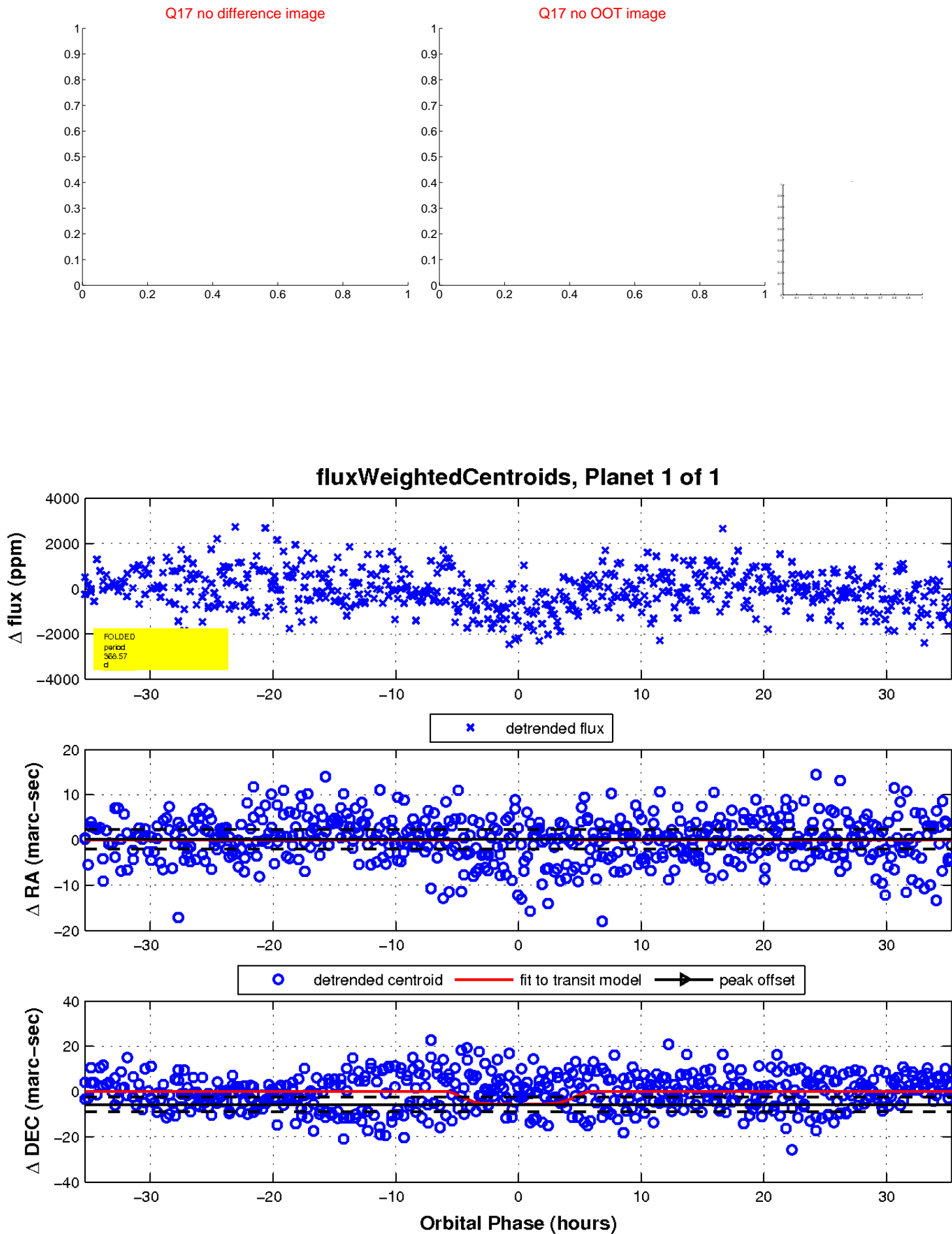
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

