

KIC 007832105

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})
007832105-01	OBS	No	654.824617	236.119750	753.8	8.318	8.9	9.1	0.73	5778	2.10	0.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007832105-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

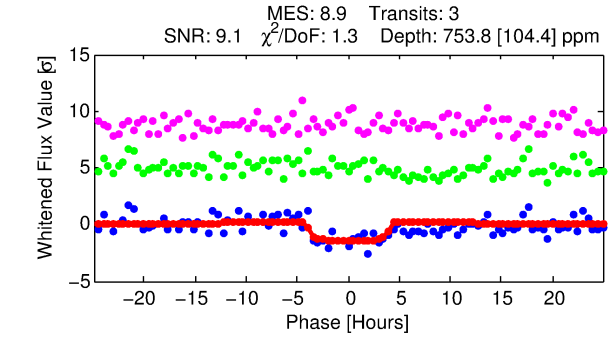
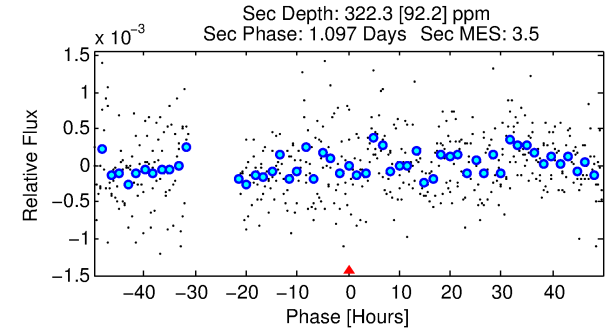
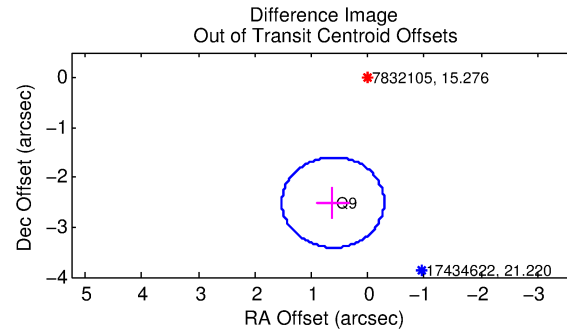
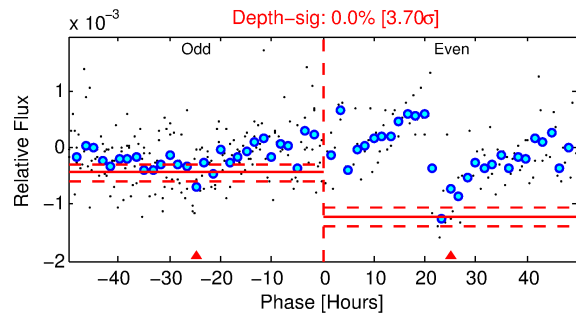
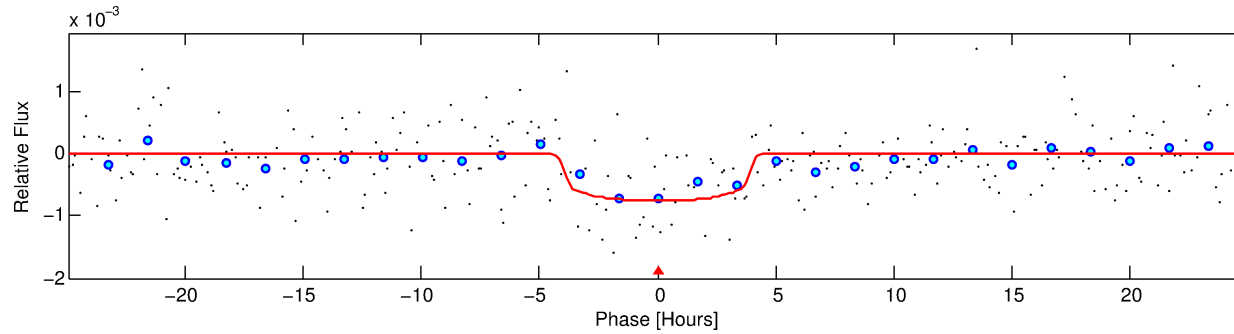
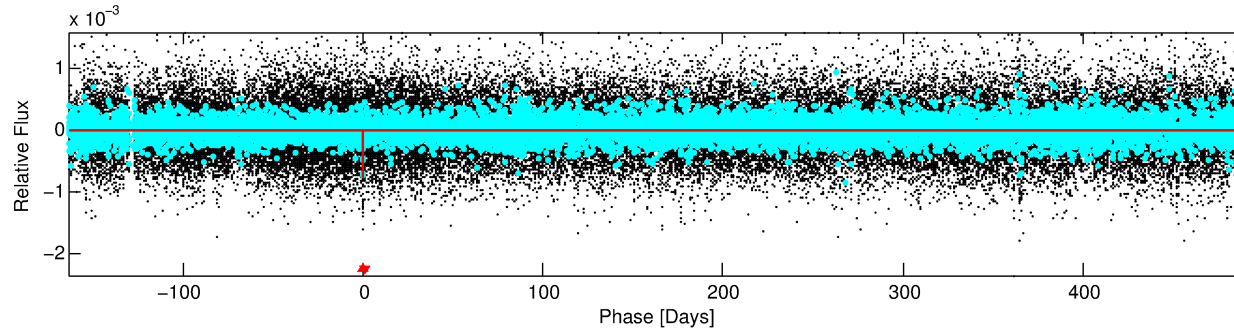
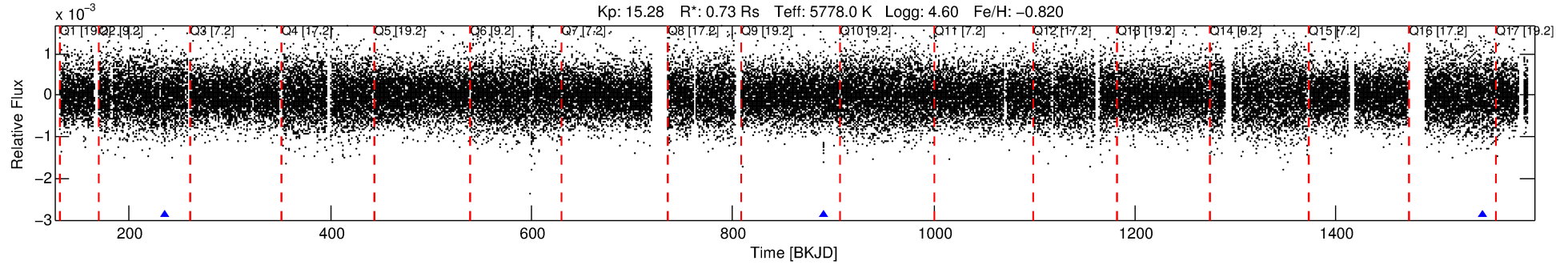
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007832105-01

No Significant Match Found

DV One-Page Summary

KIC: 7832105 Candidate: 1 of 1 Period: 654.825 d



DV Fit Results:

Period = 654.82462 [0.01346] d
Epoch = 236.1197 [0.0160] BKJD
Rp/R* = 0.0265 [0.0176]
a/R* = 484.35 [1602.97]
b = 0.64 [3.12]
Seff = 0.29 [0.07]
Teq = 187 [12] K
Rp = 2.10 [1.45] Re
a = 1.3506 [0.2076] AU
Ag = 73027.97 [100771.44] [0.72 σ]
Teff = 4756 [1626] K [2.81 σ]

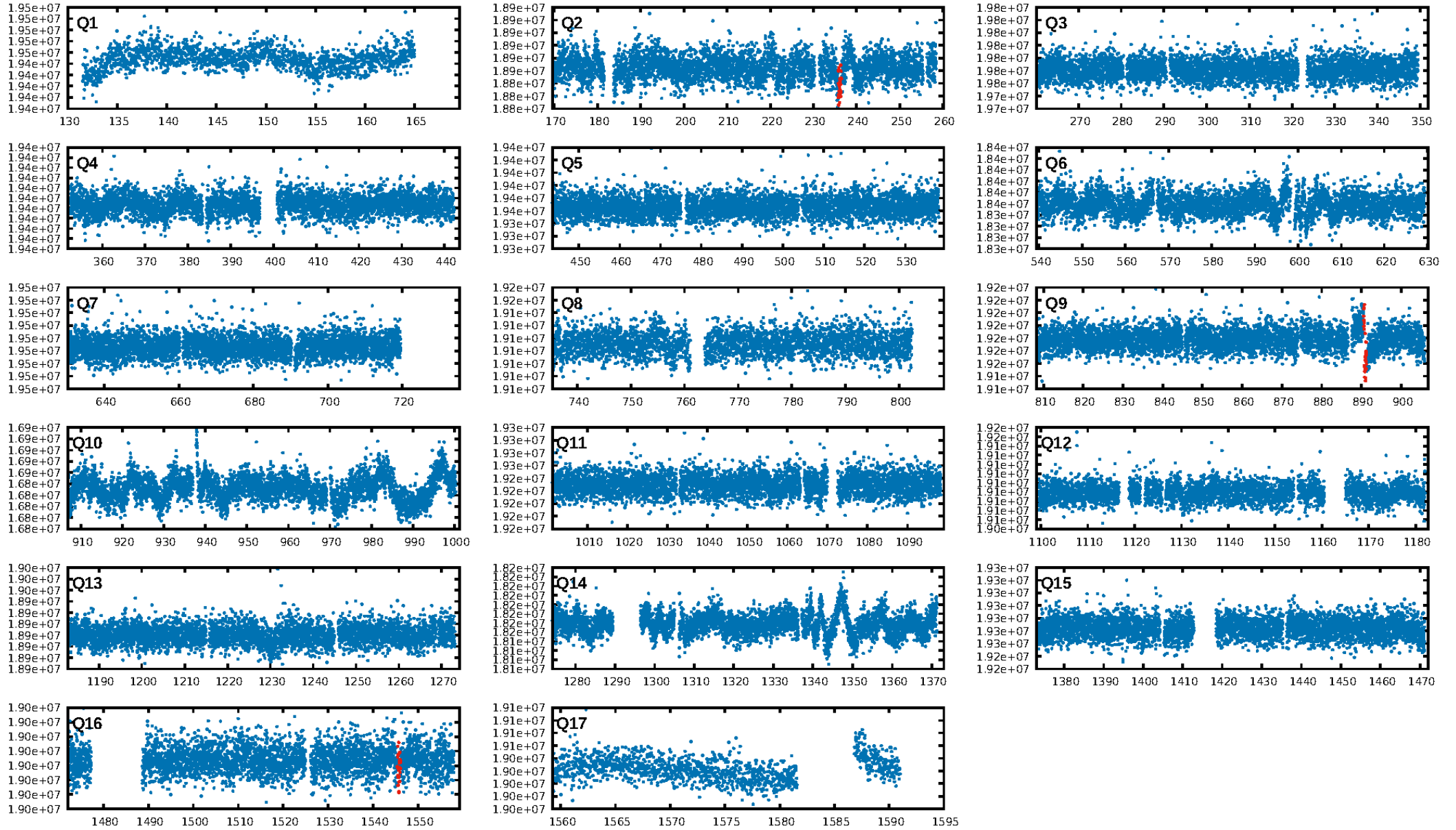
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.6%
ModelChiSquareGof-sig: 89.1%
Bootstrap-pfa: 1.66e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.01
Centroid-sig: 8.5%
Centroid-so: 2.518 arcsec [1.33 σ]
OotOffset-rm: 2.580 arcsec [8.56 σ]
KicOffset-rm: 2.692 arcsec [8.93 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

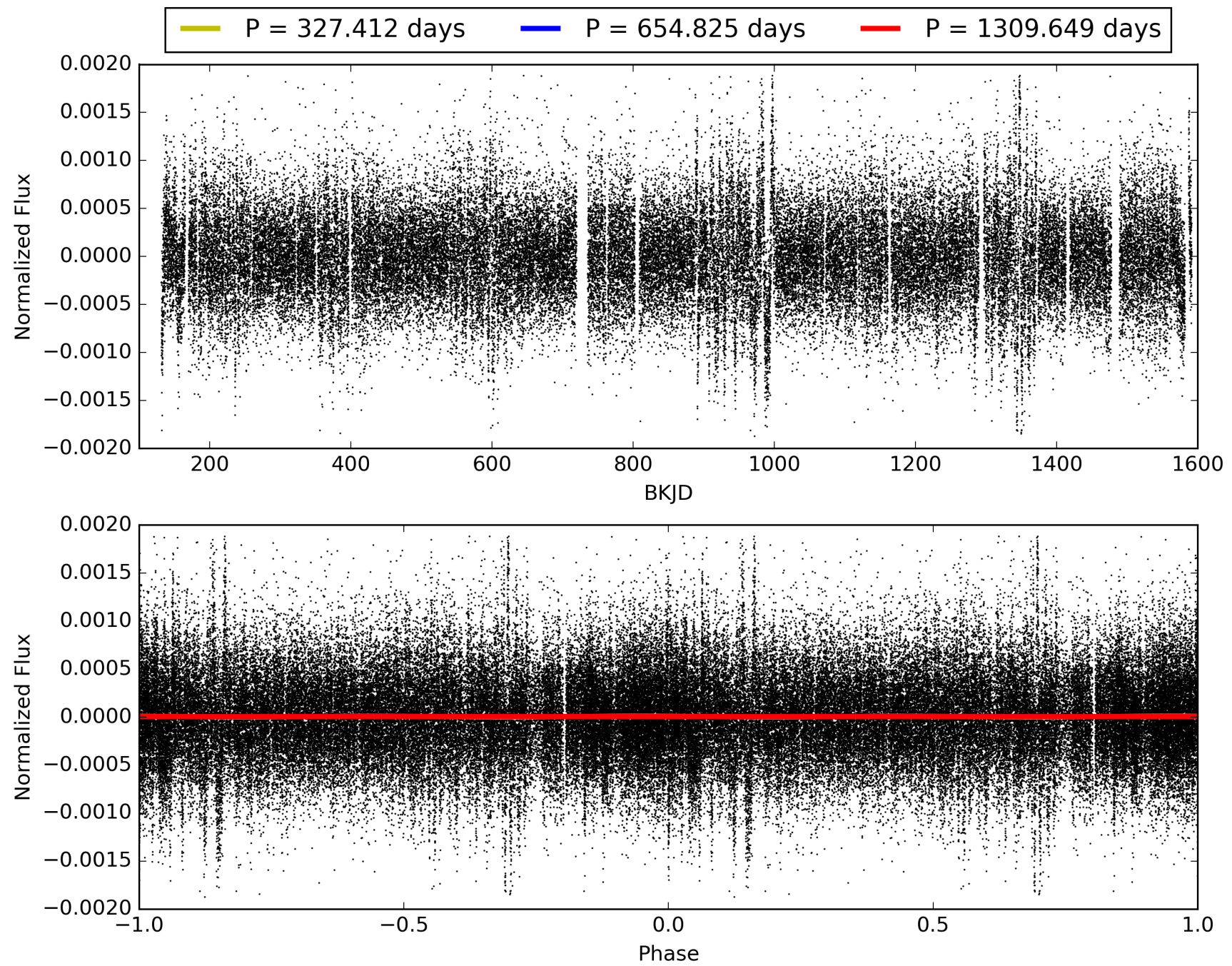
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:24:34 Z

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

TCE 007832105-01, PDC Light Curves

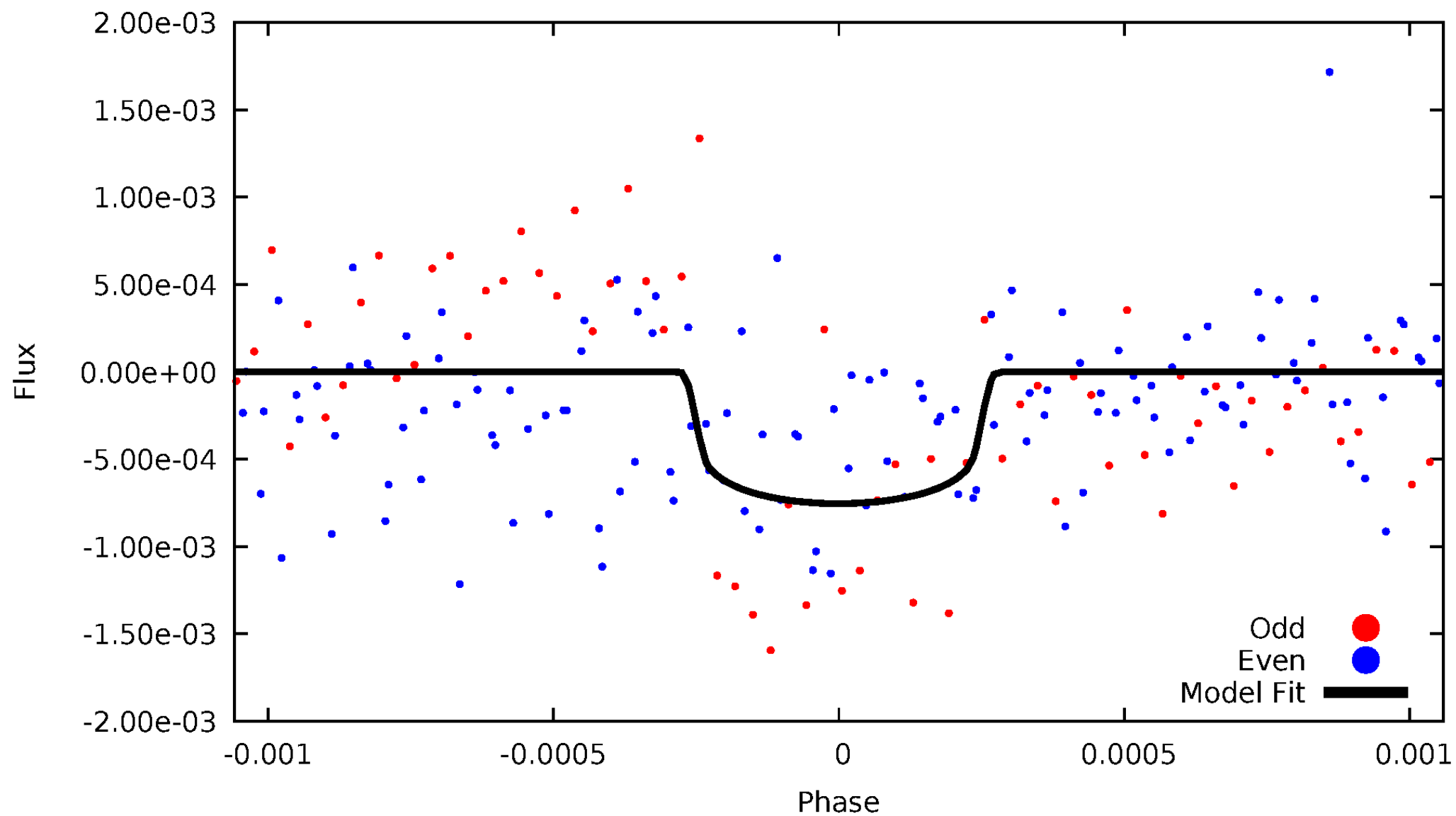


TCE 007832105-01



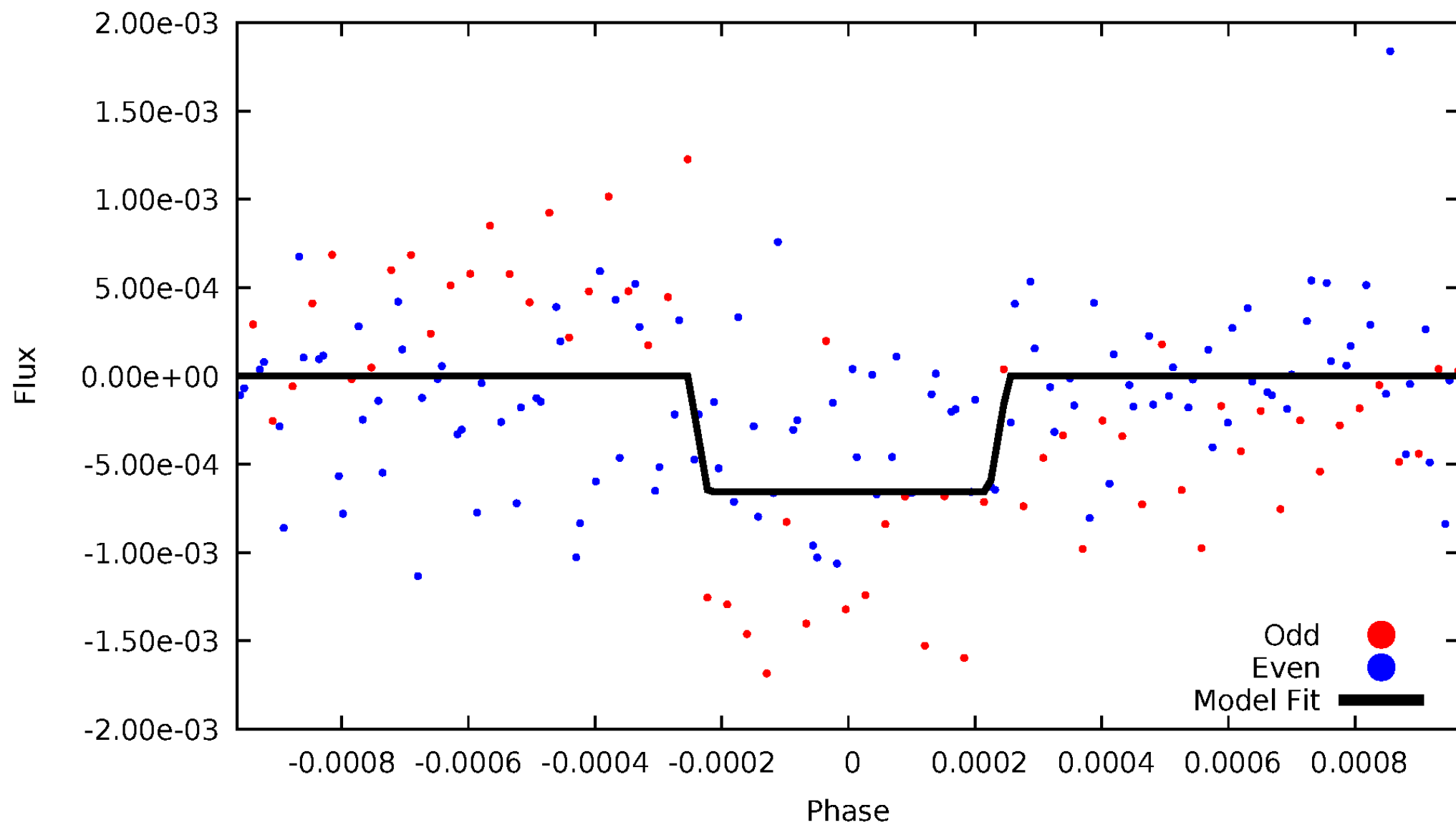
DV Odd/Even

TCE 007832105-01



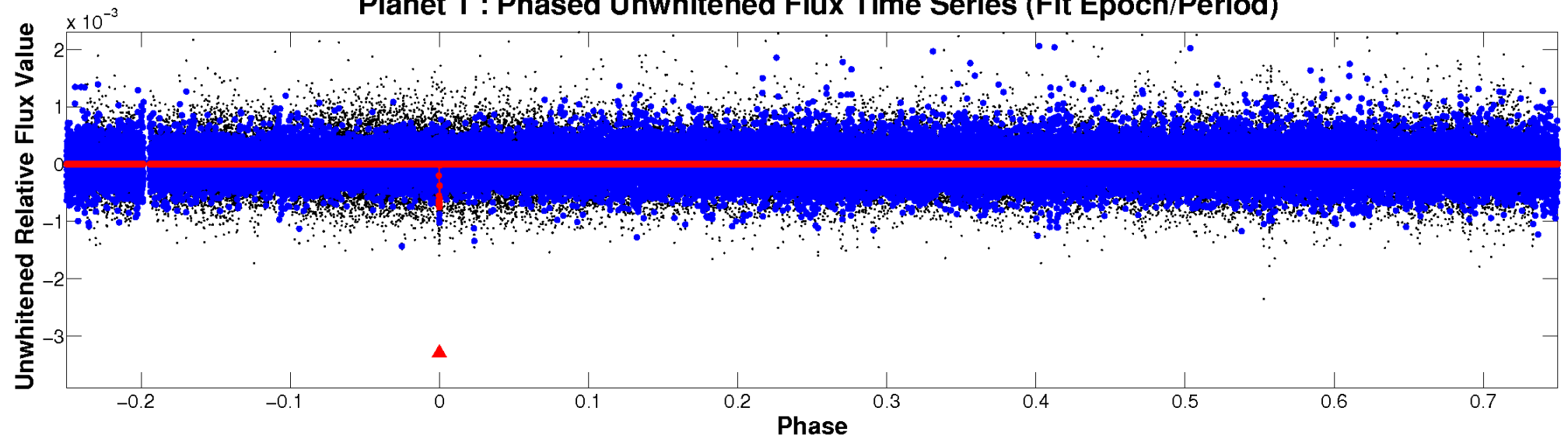
ALT Odd/Even

TCE 007832105-01

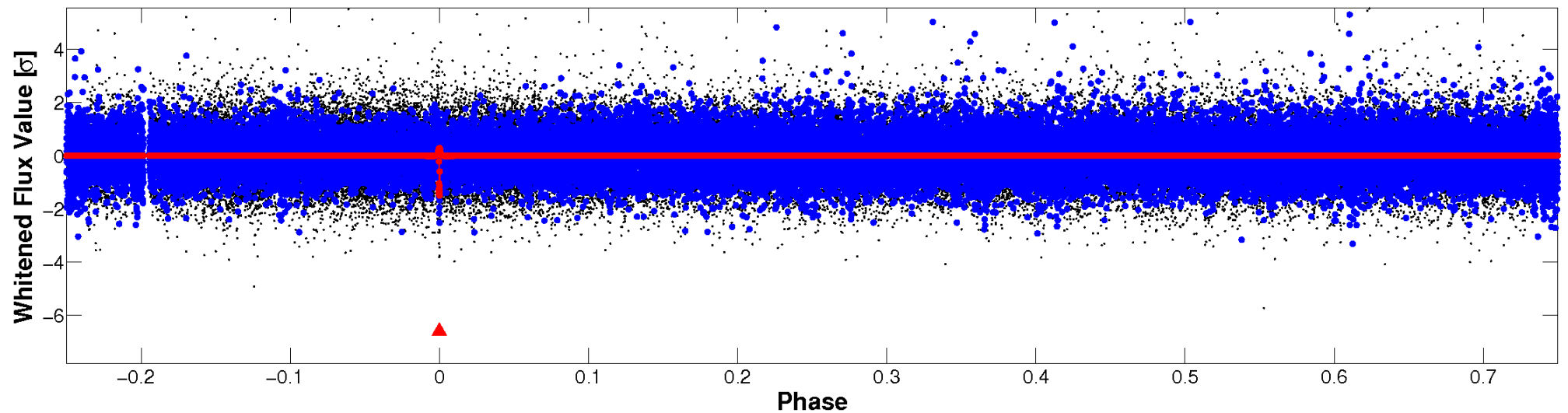


Non-Whitened Vs. Whitened Light Curve

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

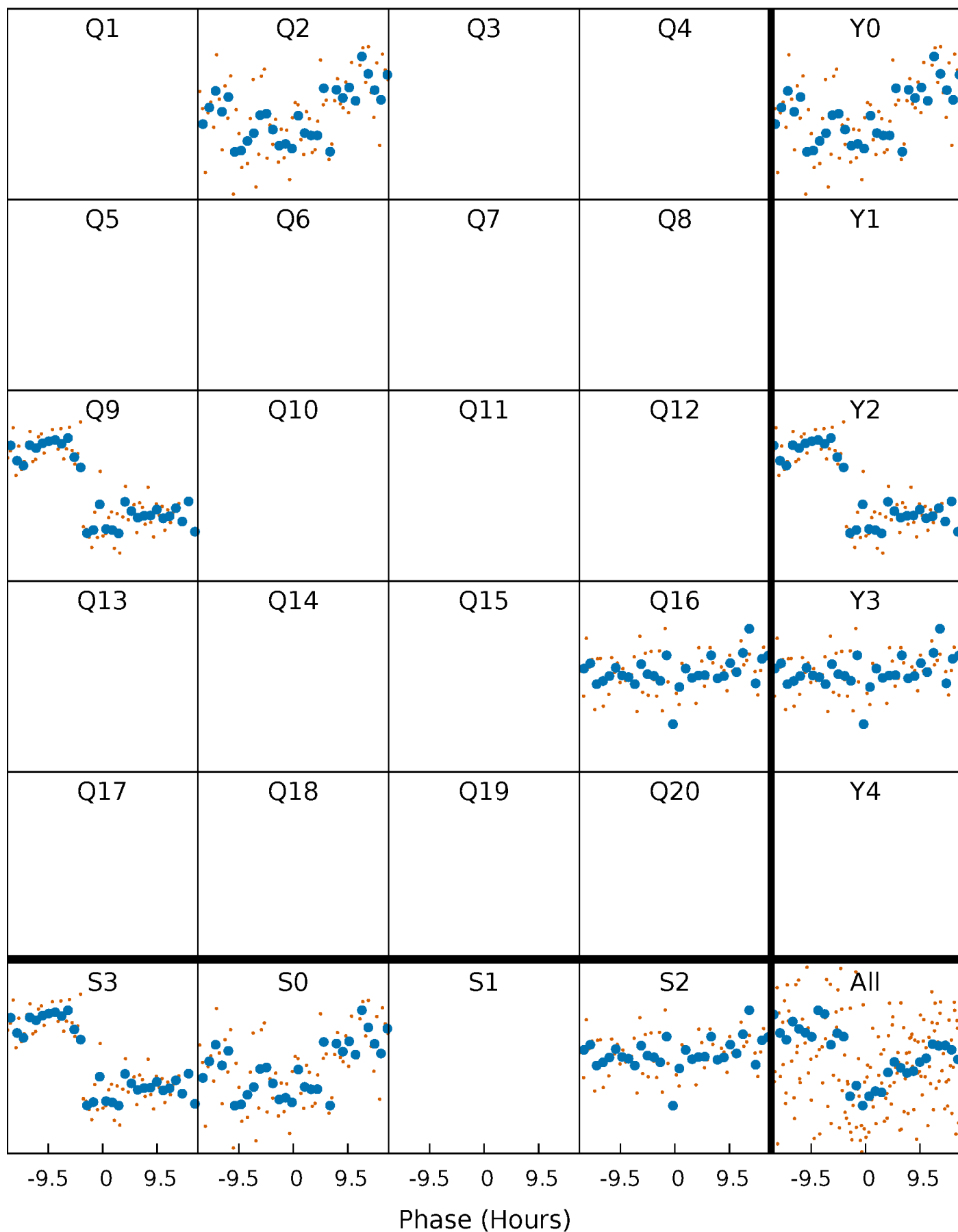


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



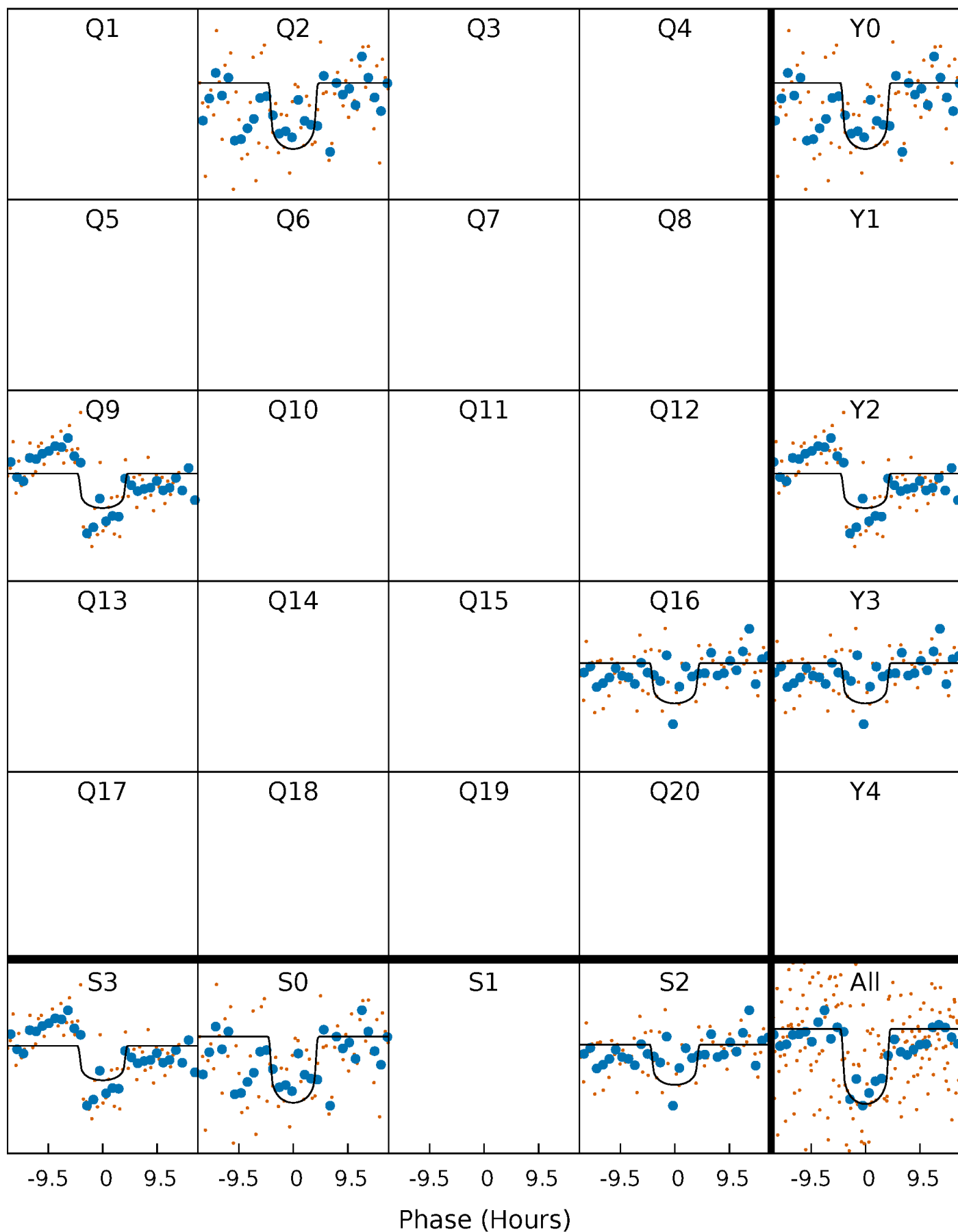
PDC Quarter-Phased Transit Curves

TCE 007832105-01 P=654.824617 Days $T_0=236.119750$ (BKJD)



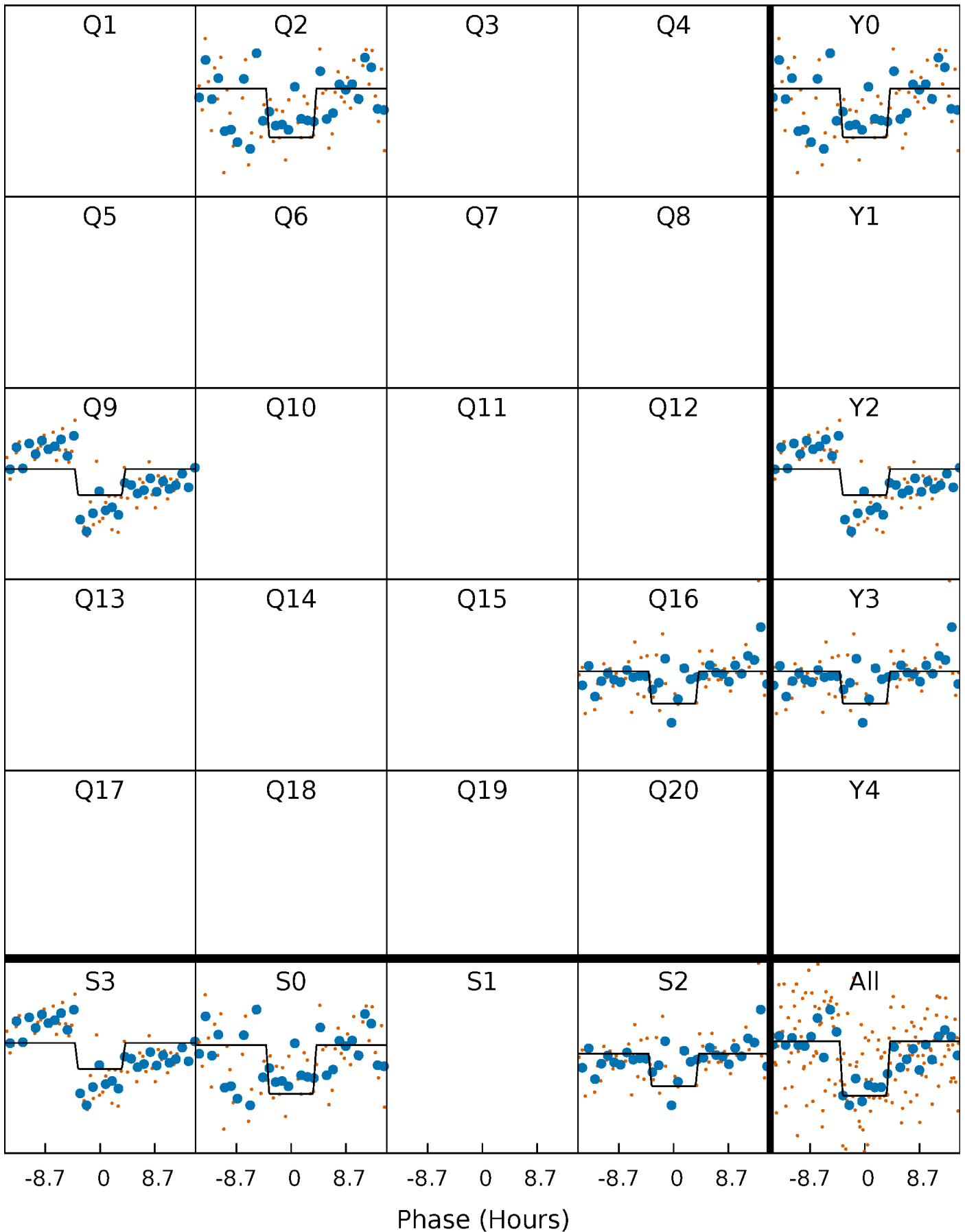
DV Quarter-Phased Transit Curves

TCE 007832105-01 P=654.824617 Days $T_0=236.119750$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

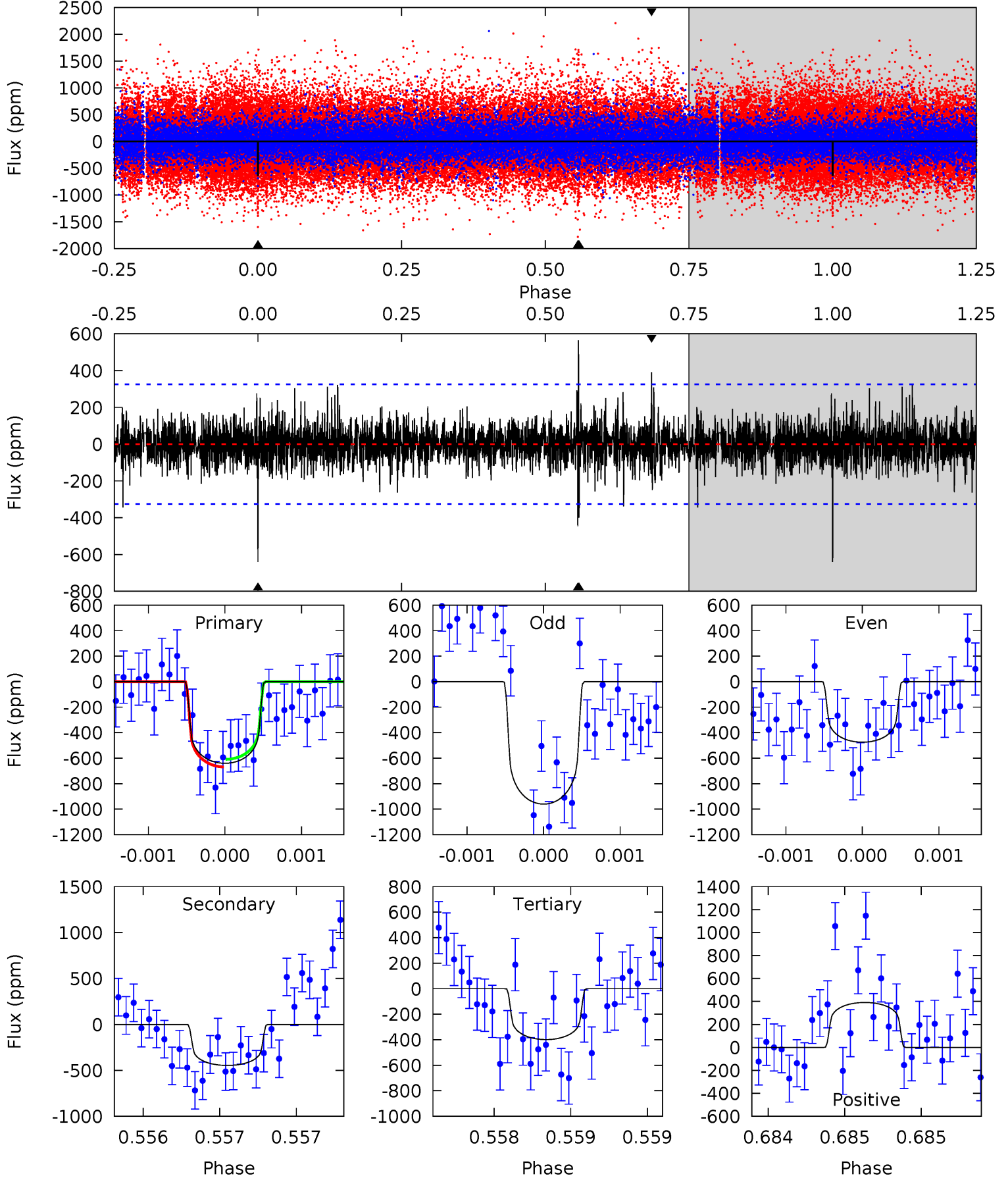
TCE 007832105-01 P=654.820675 Days $T_0=236.129964$ (BKJD)



DV Model-Shift Uniqueness Test

007832105-01, P = 654.824617 Days, E = 236.119750 Days

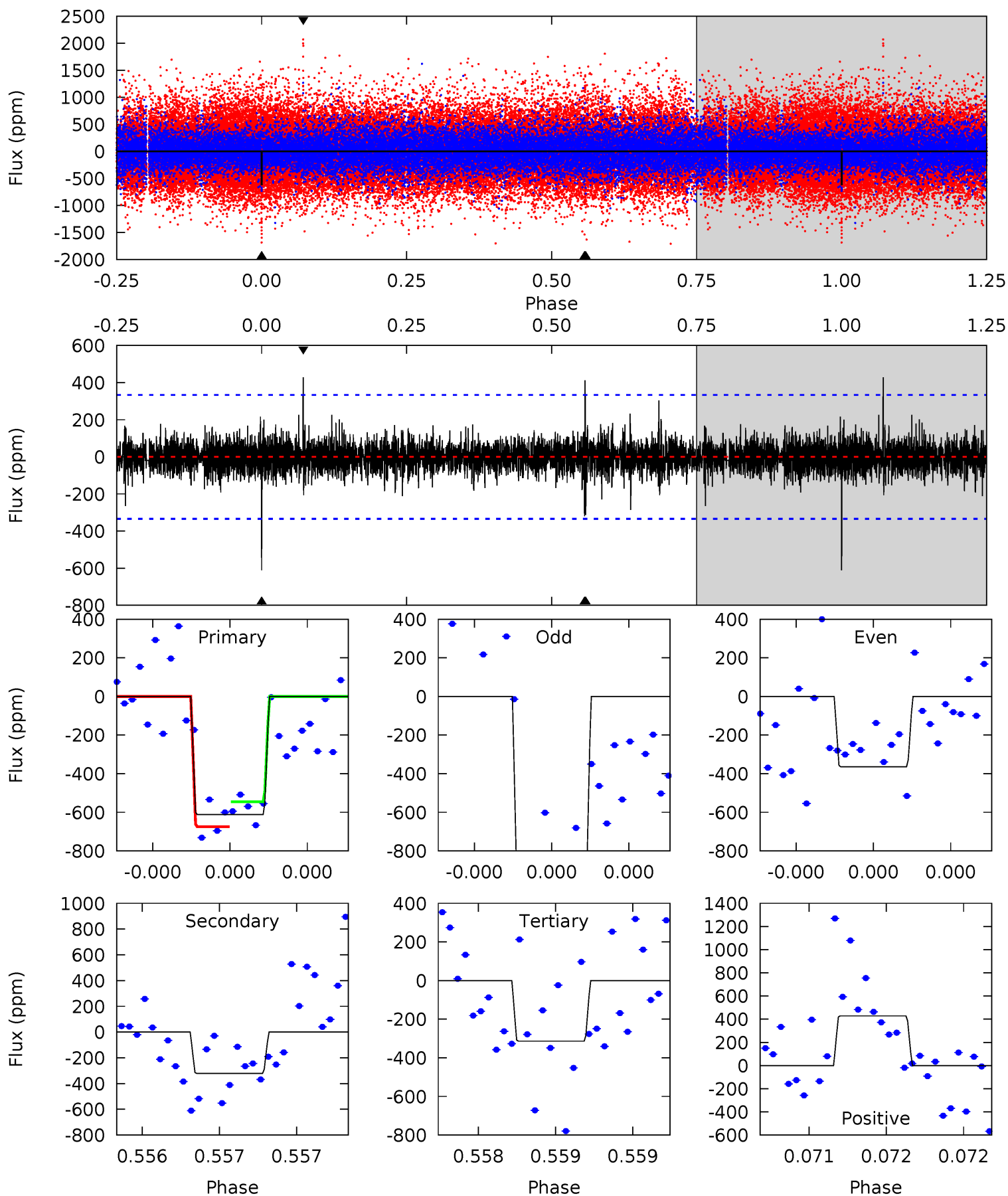
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	7.63	6.82	6.69	5.56	3.46	1.31	4.12	4.26	0.81	0.95	3.94	1.28	0.47	0.51



Alt Model-Shift Uniqueness Test

007832105-01, P = 654.820675 Days, E = 236.129964 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	5.35	5.24	7.14	5.57	3.48	0.98	4.97	3.07	0.11	-1.79	5.73	1.50	0.41	1.08



Stellar Parameters For KIC 007832105

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+173}_{-173}	$4.598^{+0.043}_{-0.119}$	$-0.820^{+0.300}_{-0.300}$	$0.728^{+0.135}_{-0.058}$	$0.766^{+0.076}_{-0.055}$	$2.798^{+0.578}_{-1.050}$
	+3%/-3%	+1%/-3%	+37%/-37%	+19%/-8%	+10%/-7%	+21%/-38%
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 007832105-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-446 ± 58	$2.25^{+1.57}_{-1.17}$	265^{+12}_{-11}	5148^{+2351}_{-991}	$88353^{+301135}_{-57636}$
Alt.	-321 ± 60	$2.14^{+1.50}_{-1.20}$	265^{+12}_{-11}	4870^{+2265}_{-895}	$70691^{+275669}_{-46767}$

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

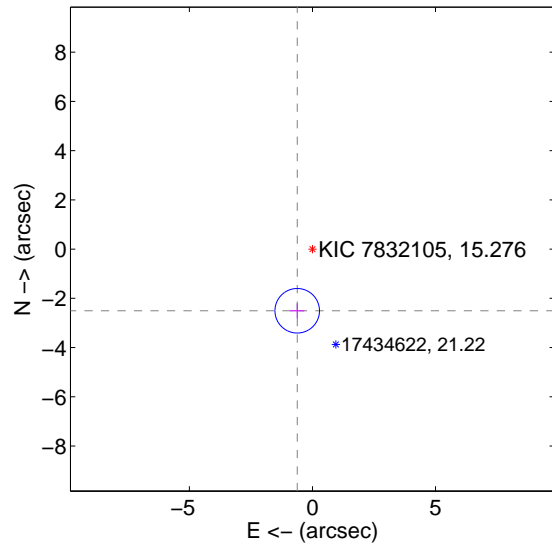
Supplemental centroid analysis for 007832105-01. Kepler magnitude: 15.28. Transit SNR 9.11

There are 1 quarters with good PRF difference image offsets

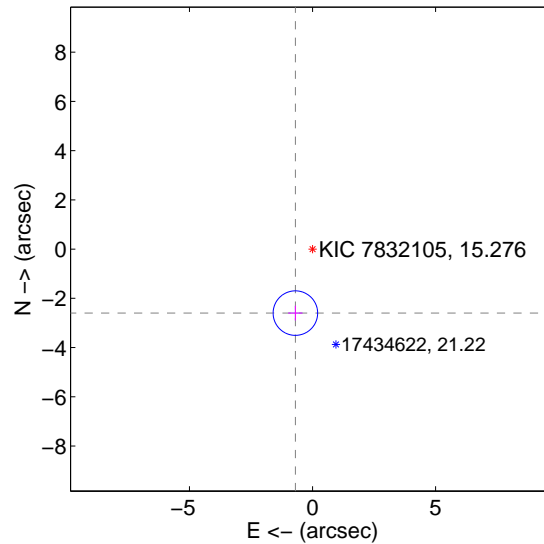
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.580 ± 0.302	8.56	0.618 ± 0.290	-2.505 ± 0.302
PRF-fit source offset from KIC position	2.692 ± 0.301	8.93	0.696 ± 0.290	-2.600 ± 0.302
photometric centroid source offset	2.52 ± 1.89	1.33	1.94 ± 1.61	-1.61 ± 2.23

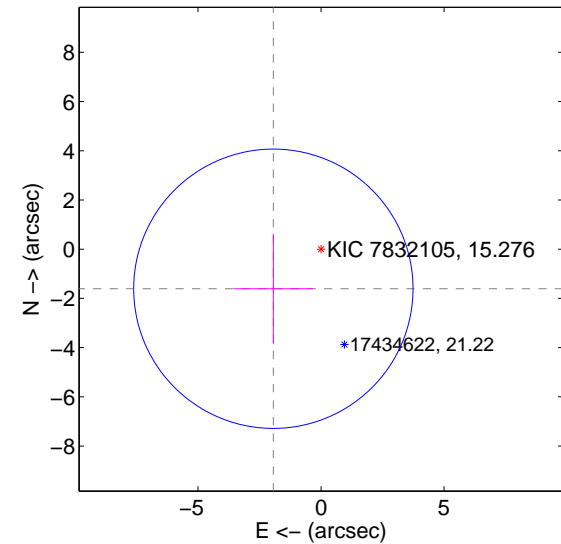
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

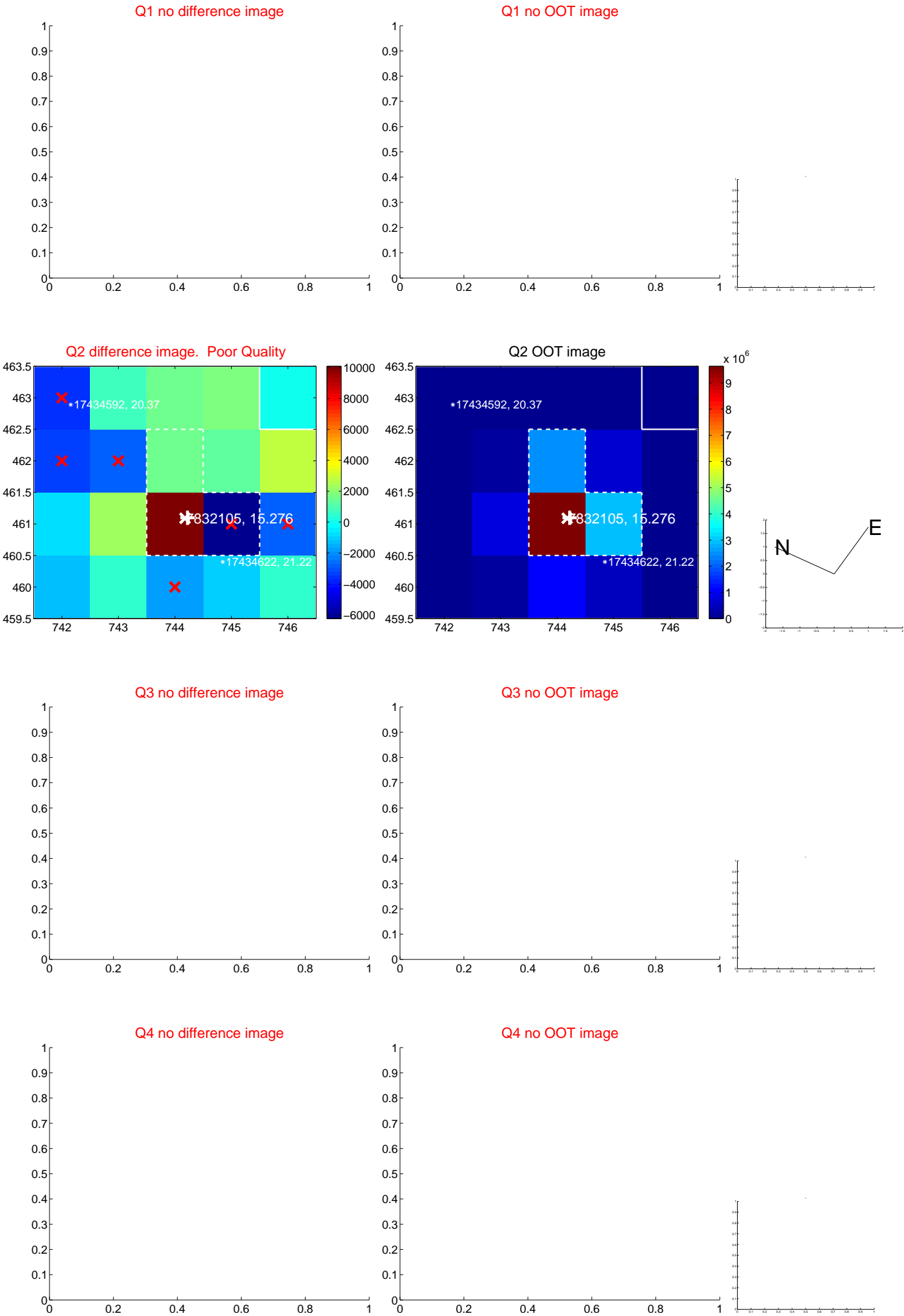


offset from photometric centroids



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.

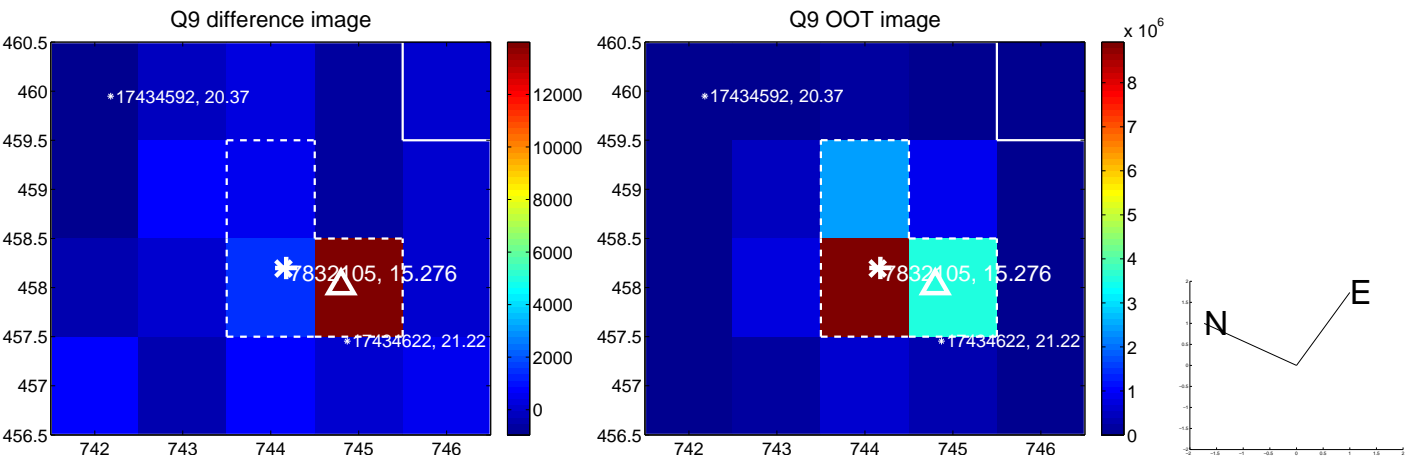
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



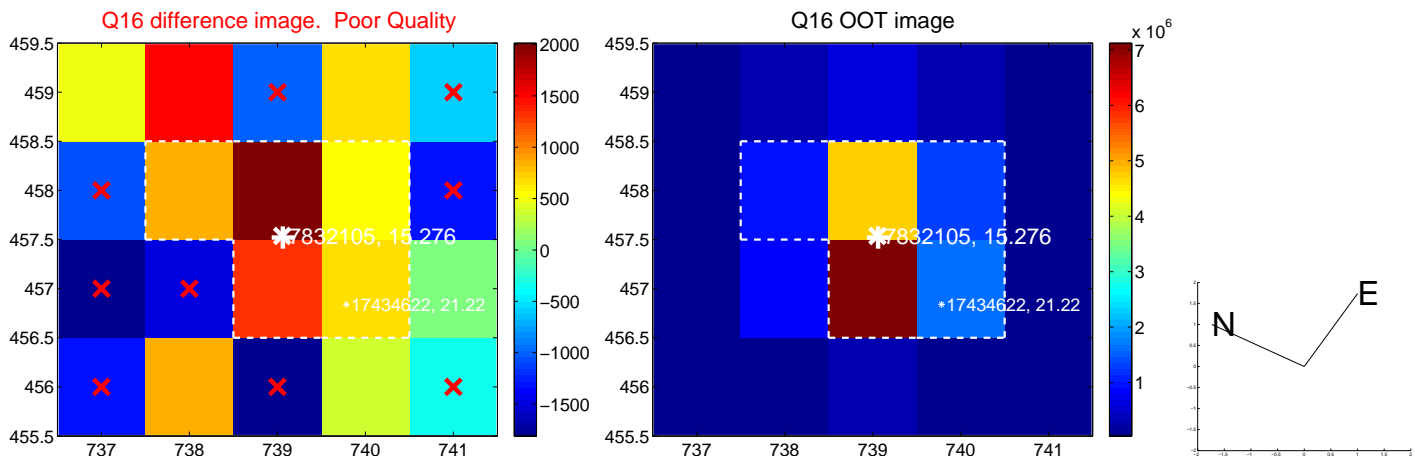
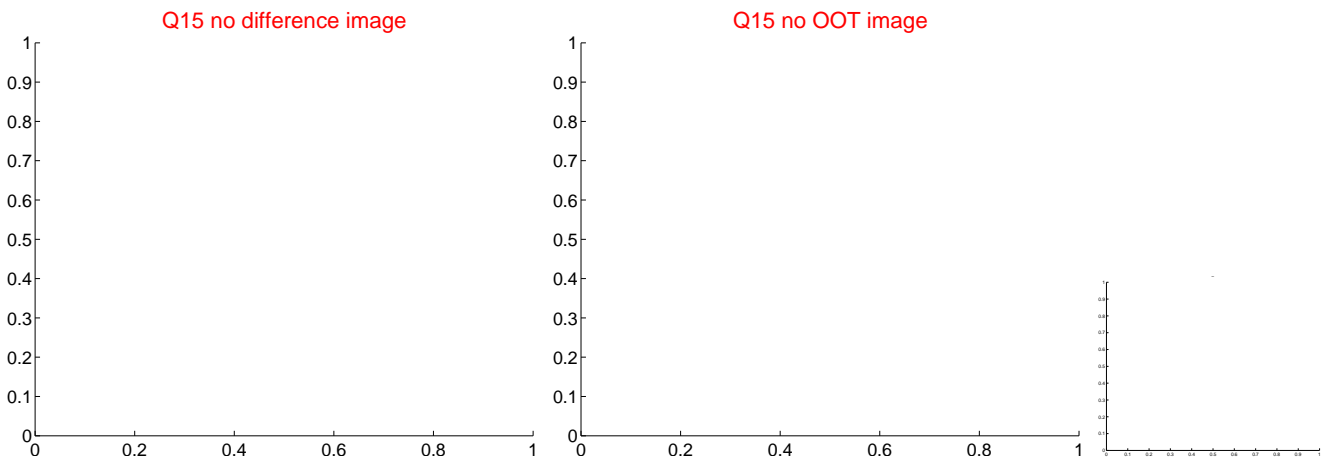
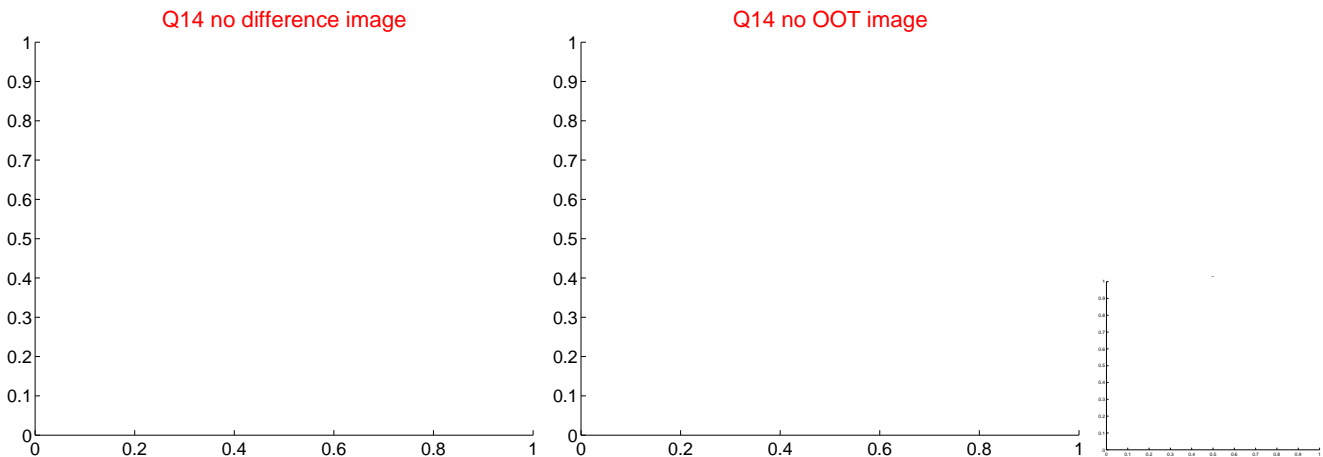
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



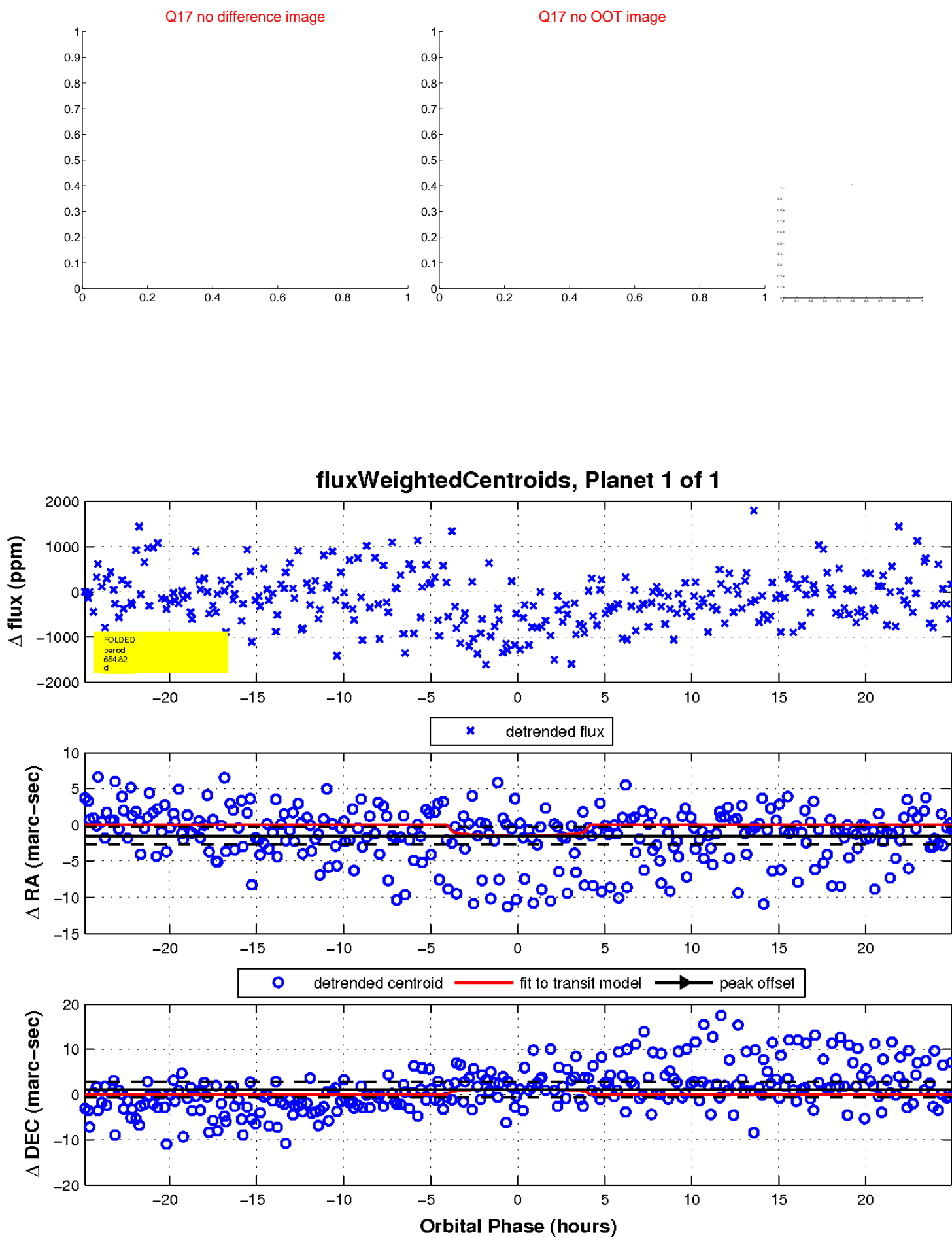
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

