

KIC 007834425

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})
007834425-01	OBS	No	368.810598	233.350206	706.7	22.403	8.8	9.6	0.83	5849	4.23	0.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834425-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

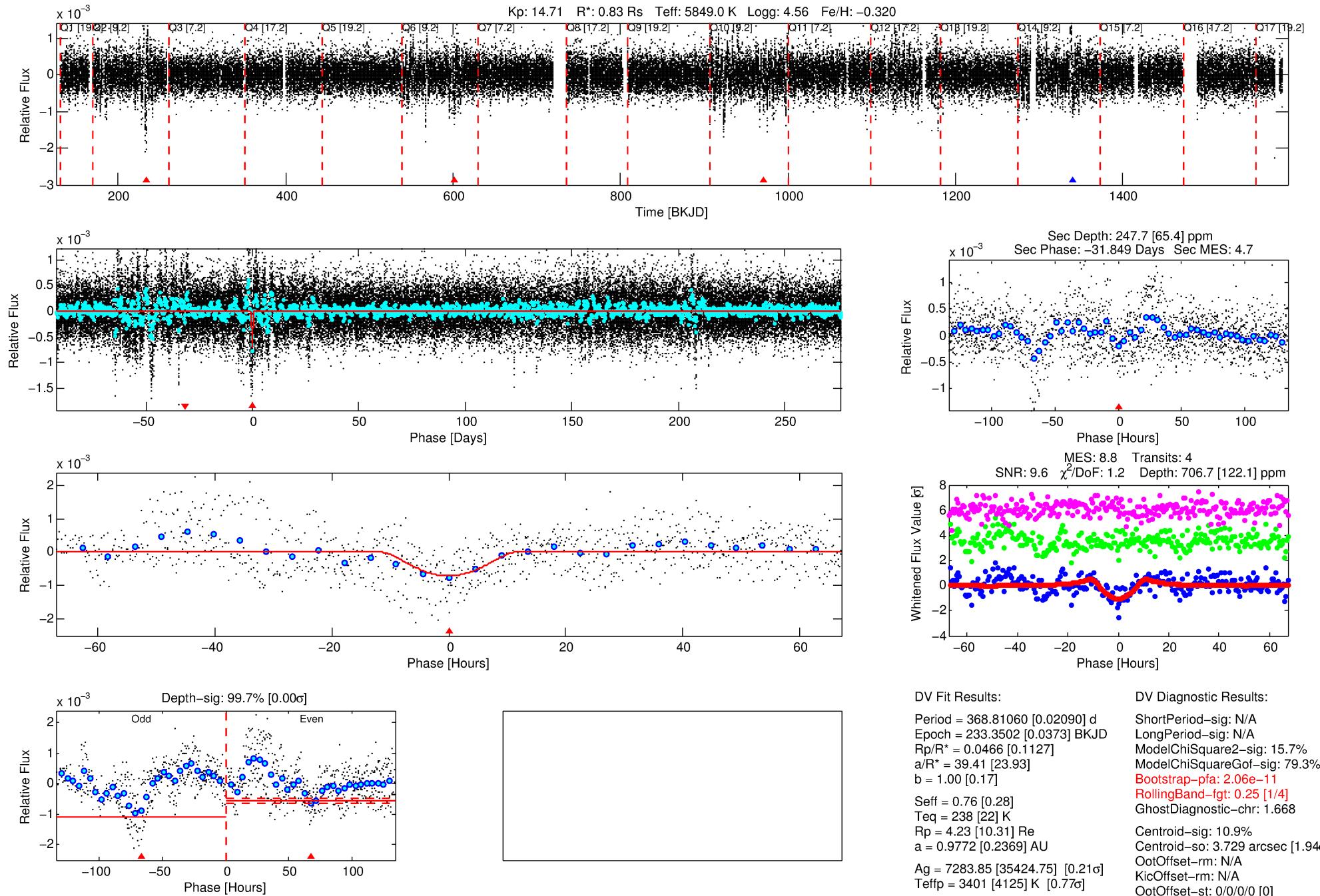
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834425-01

No Significant Match Found

DV One-Page Summary

KIC: 7834425 Candidate: 1 of 1 Period: 368.811 d



DV Fit Results:

Period = 368.81060 [0.02090] d
Epoch = 233.3502 [0.0373] BKJD
Rp/R* = 0.0466 [0.1127]
a/R* = 39.41 [23.93]
b = 1.00 [0.17]
Seff = 0.76 [0.28]
Teq = 238 [22] K
Rp = 4.23 [10.31] Re
a = 0.9772 [0.2369] AU
Ag = 7283.85 [35424.75] [0.21 σ]
Teffp = 3401 [4125] K [0.77 σ]

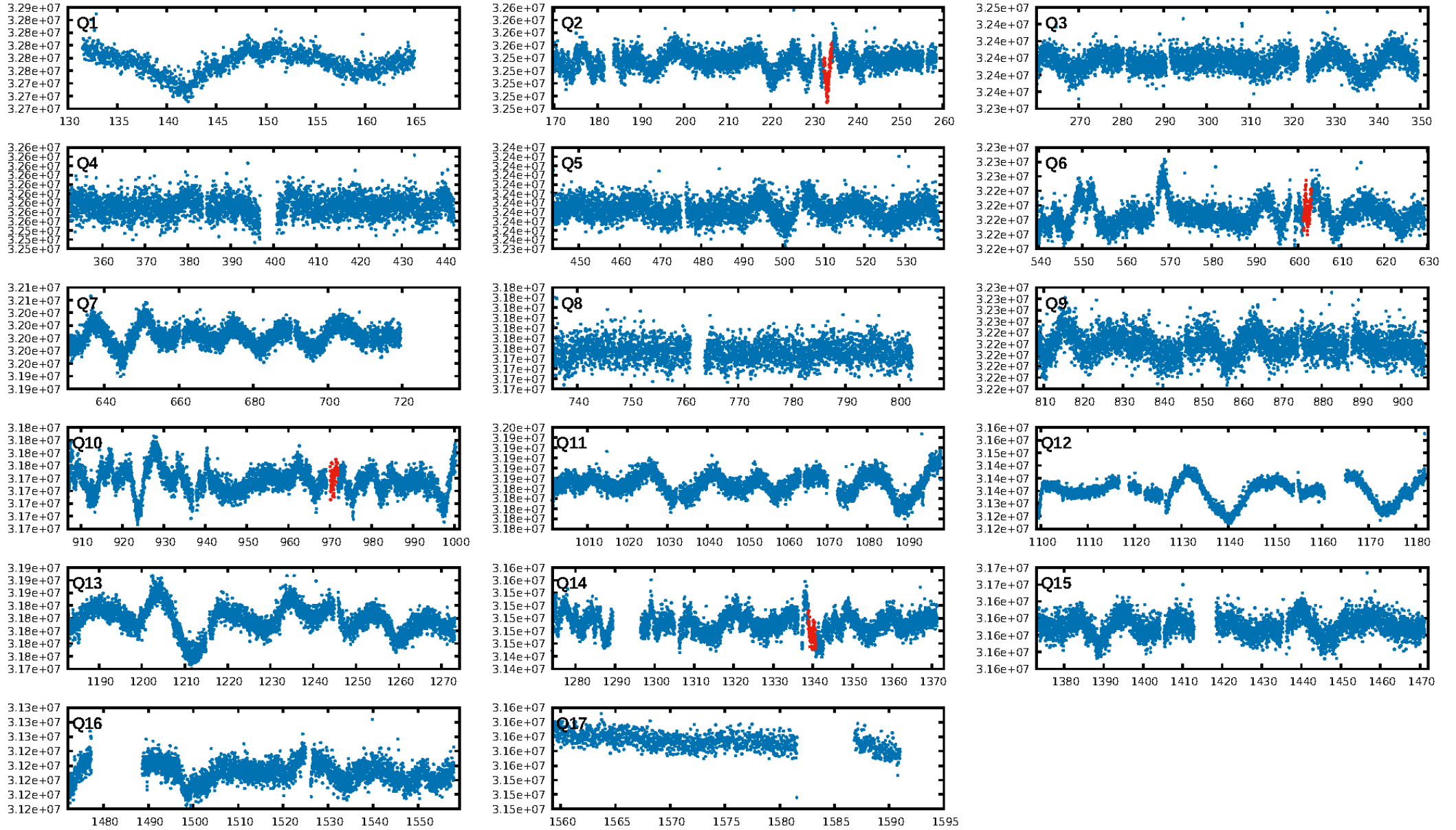
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 15.7%
ModelChiSquareGof-sig: 79.3%
Bootstrap-pfa: 2.06e-11
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.668
Centroid-sig: 10.9%
Centroid-so: 3.729 arcsec [1.94 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

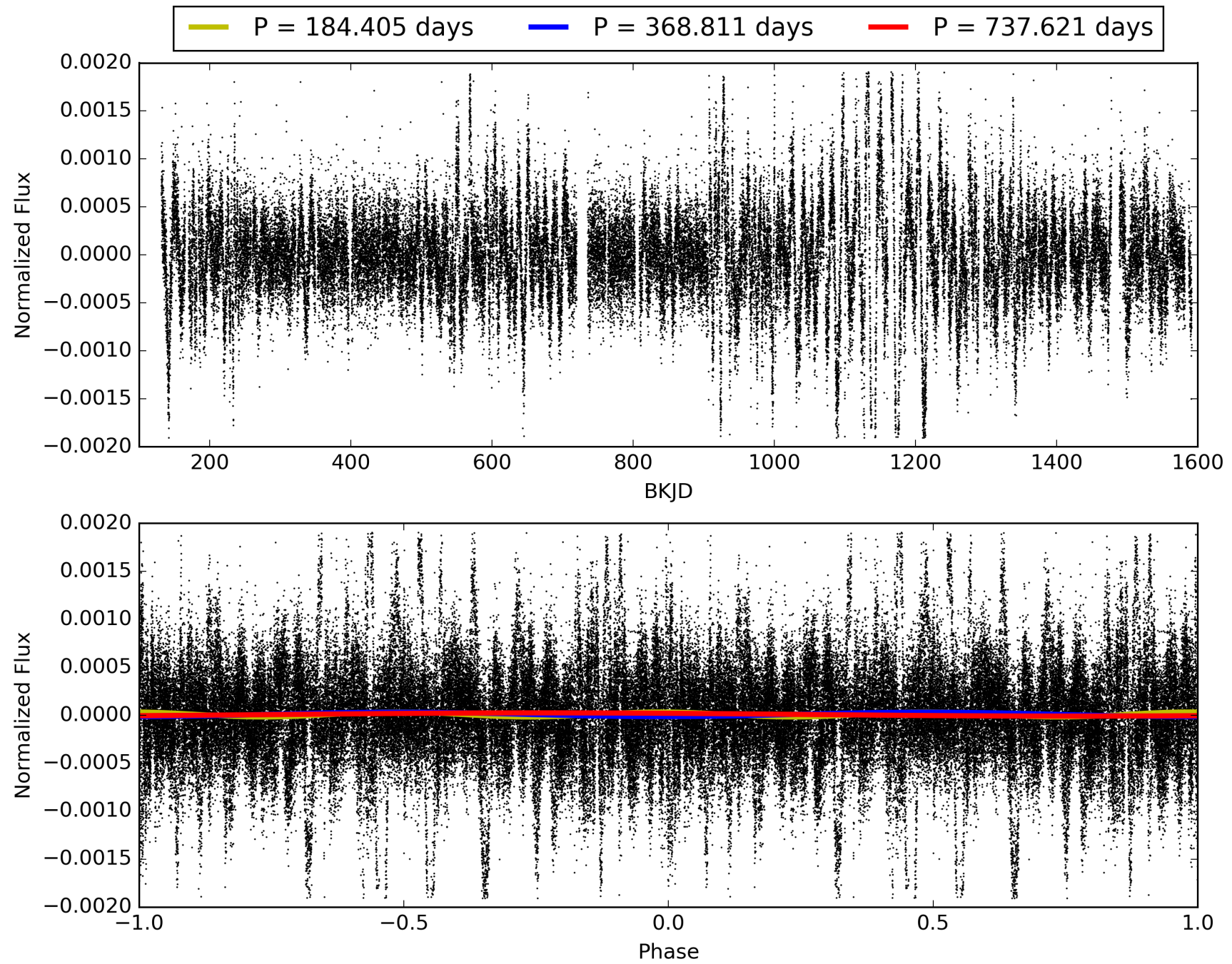
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:34:09 Z

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

TCE 007834425-01, PDC Light Curves

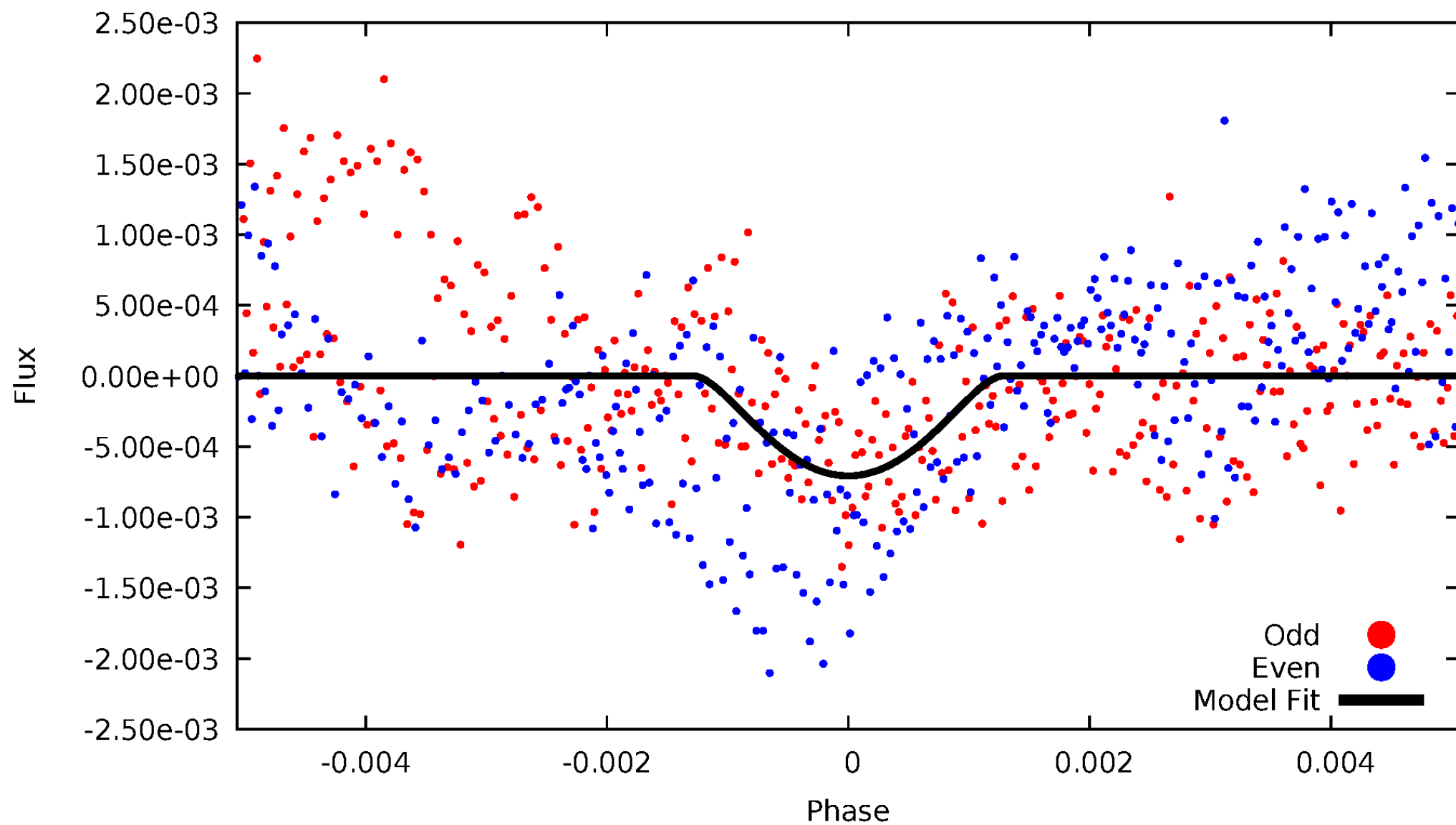


TCE 007834425-01



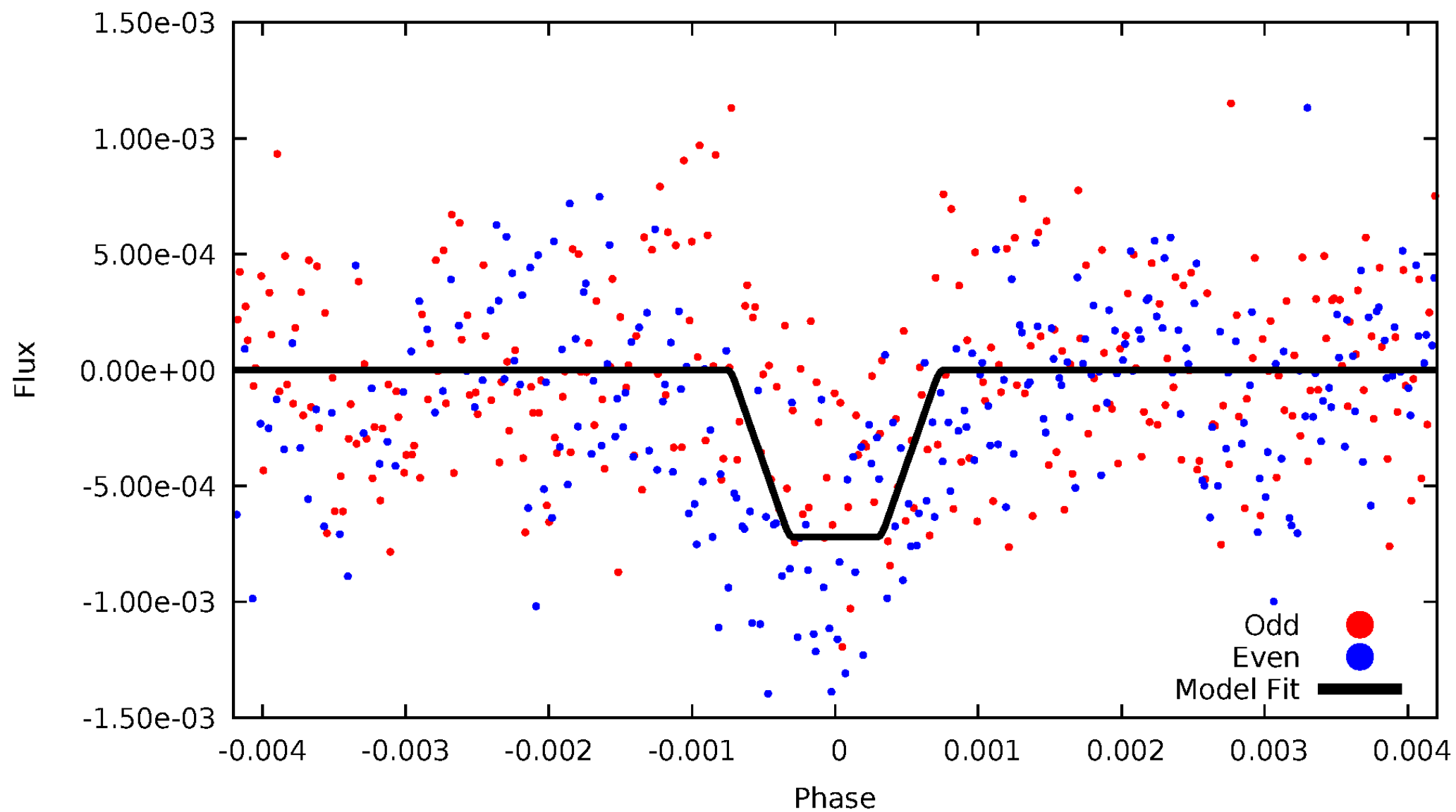
DV Odd/Even

TCE 007834425-01



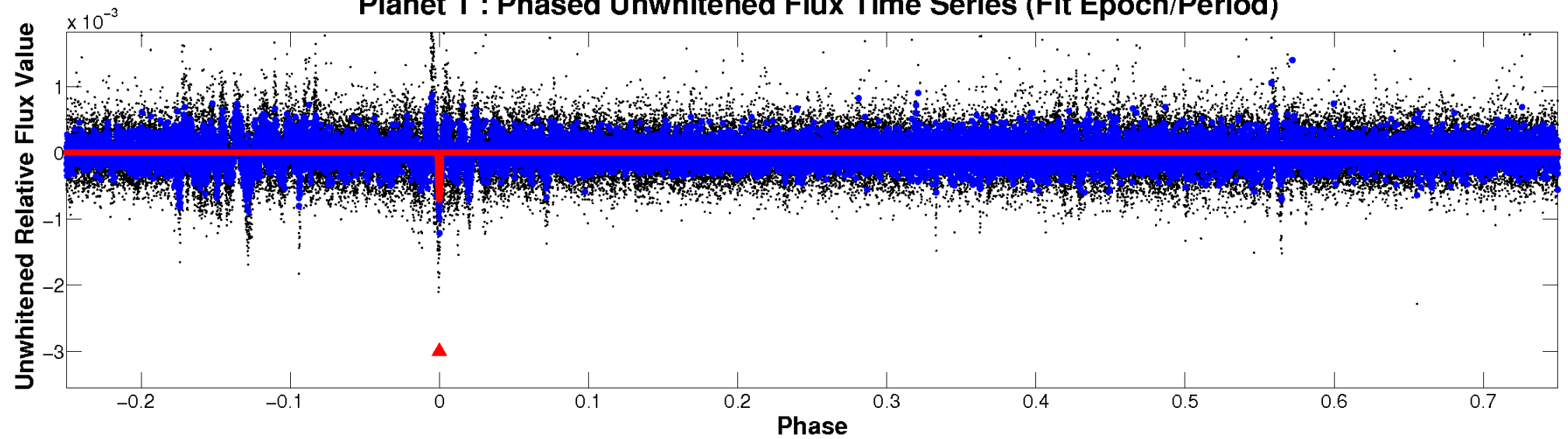
ALT Odd/Even

TCE 007834425-01

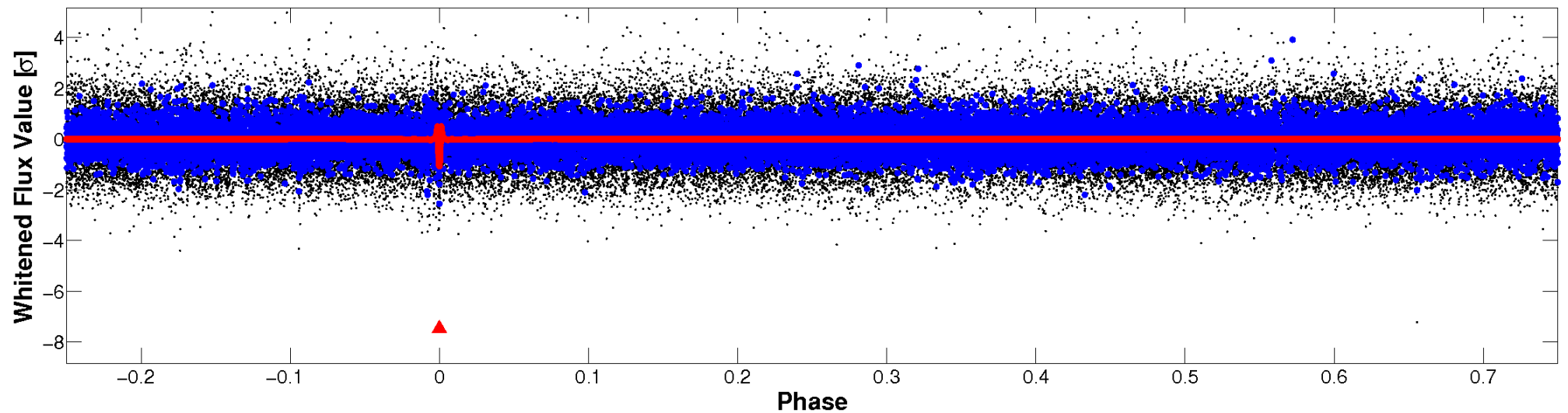


Non-Whitened Vs. Whitened Light Curve

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

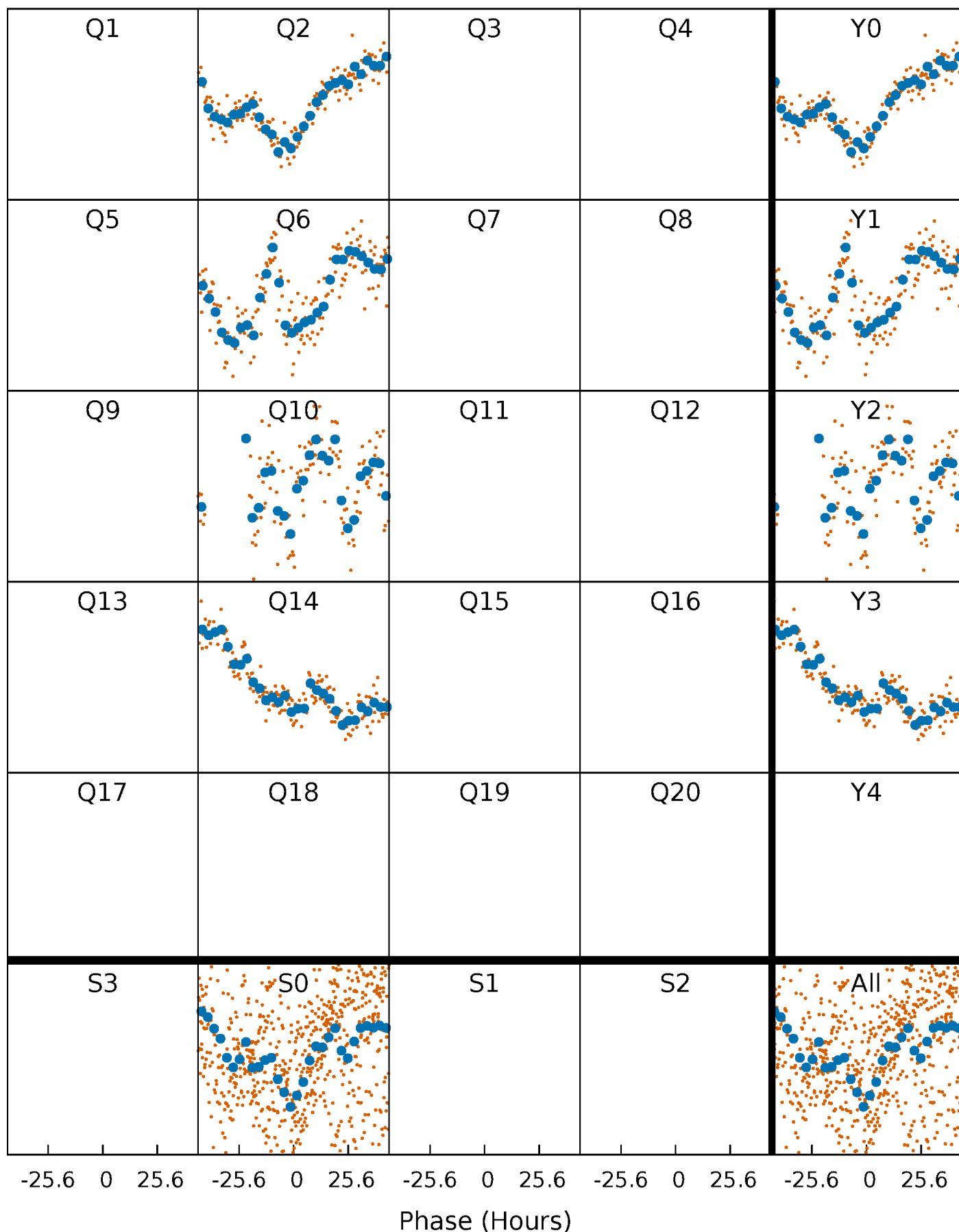


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



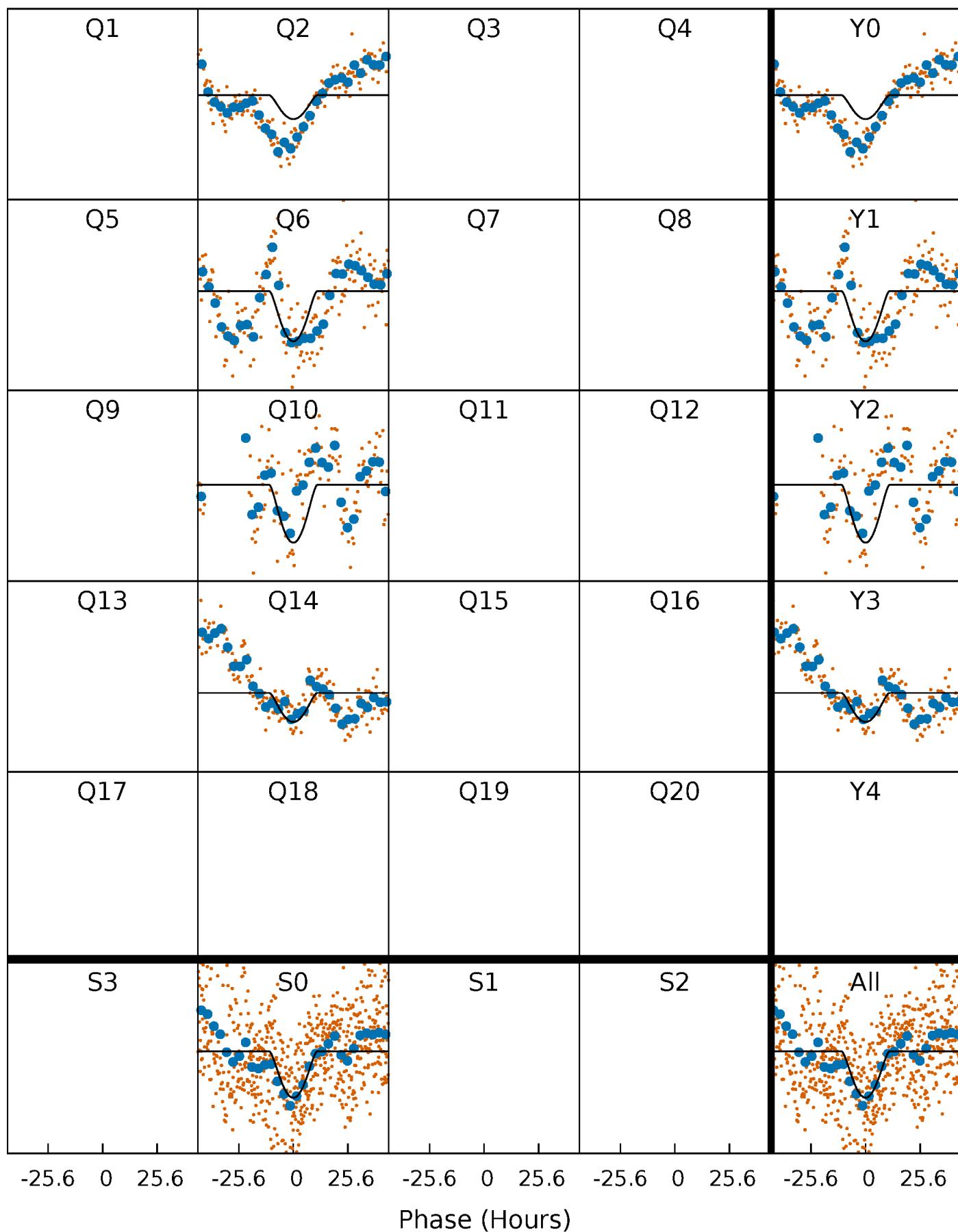
PDC Quarter-Phased Transit Curves

TCE 007834425-01 P=368.810598 Days $T_0=233.350206$ (BKJD)



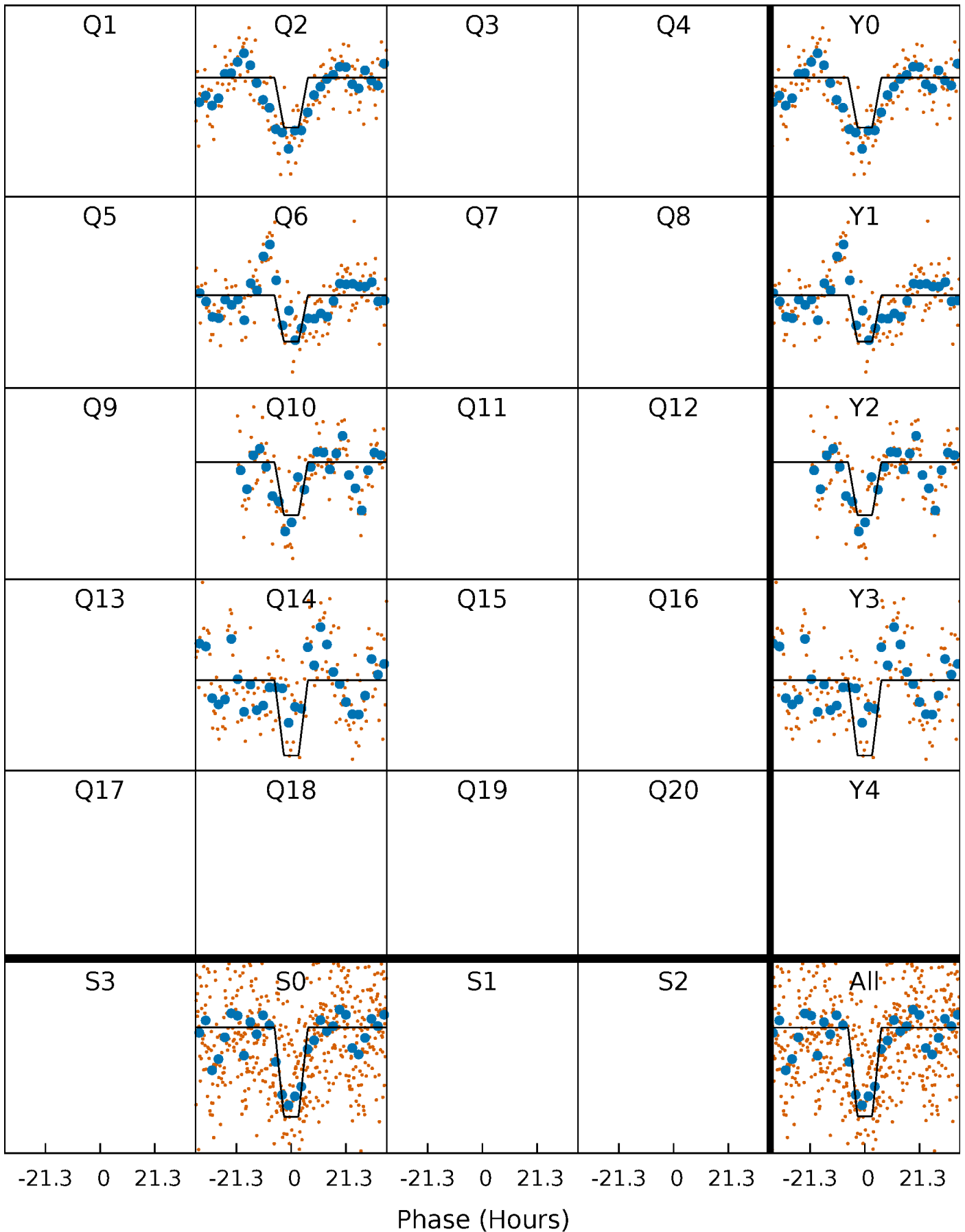
DV Quarter-Phased Transit Curves

TCE 007834425-01 P=368.810598 Days $T_0=233.350206$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

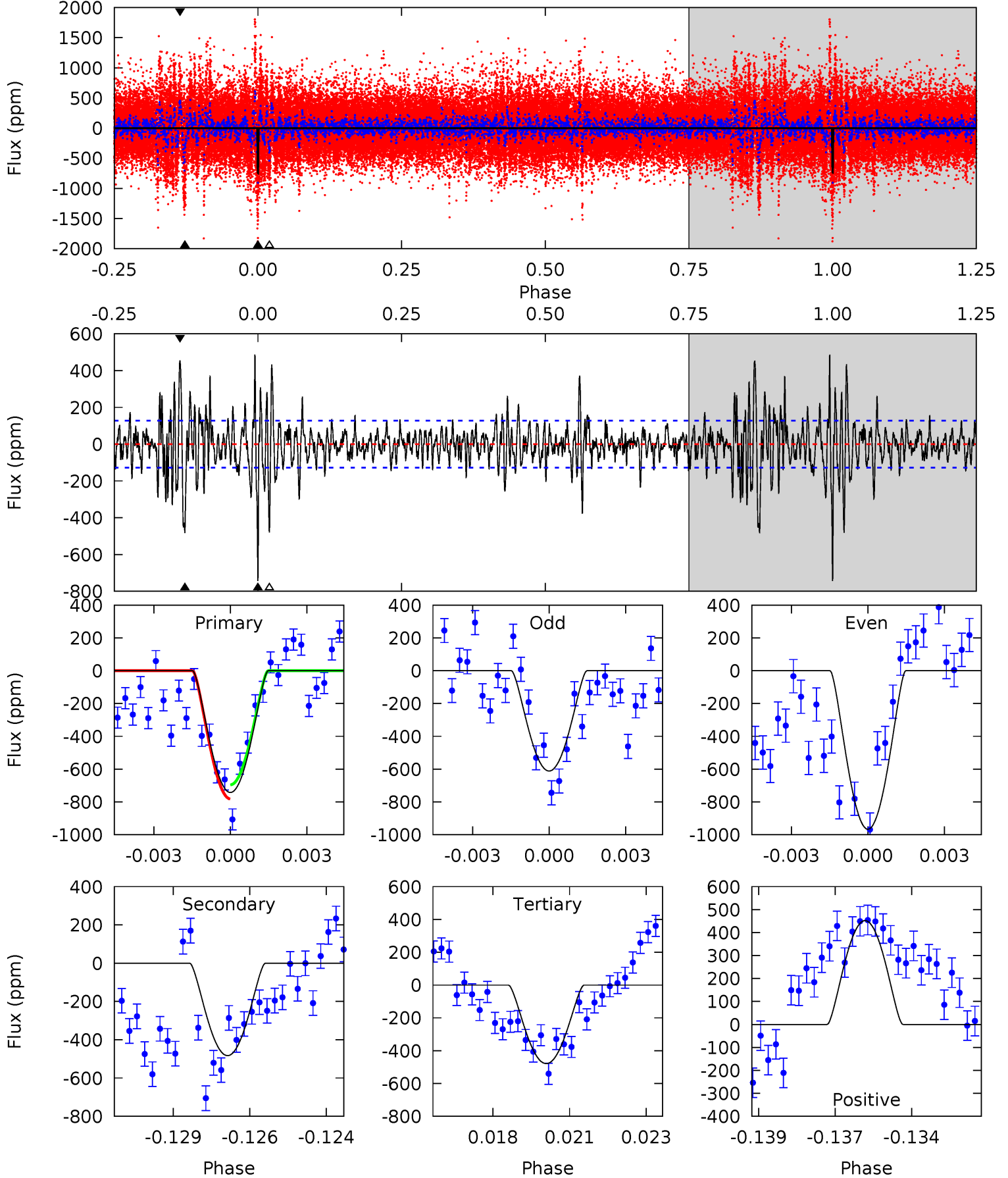
TCE 007834425-01 P=368.839380 Days $T_0=233.283058$ (BKJD)



DV Model-Shift Uniqueness Test

007834425-01, P = 368.810598 Days, E = 233.350206 Days

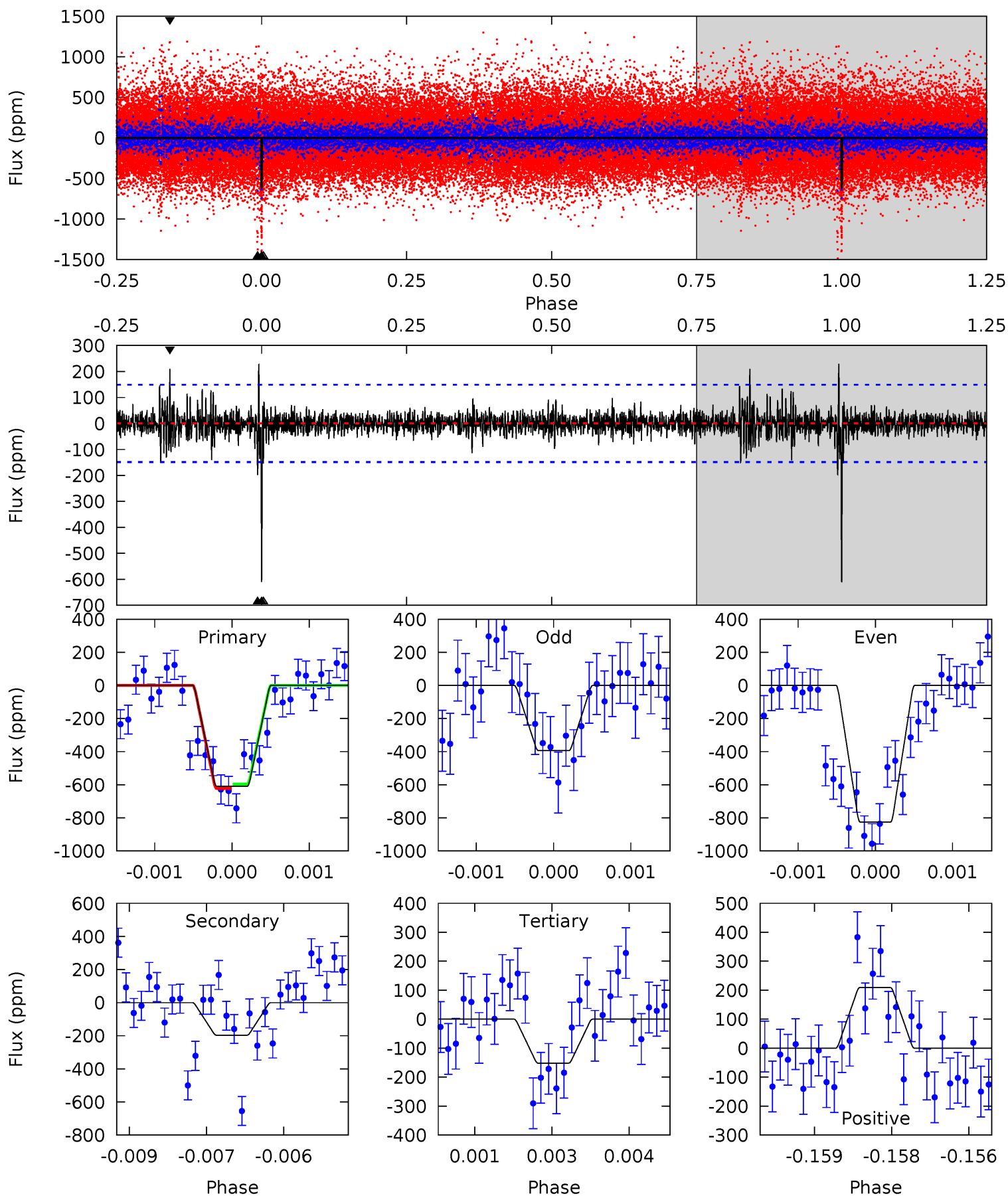
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.7	19.9	19.8	18.7	5.28	3.01	4.20	10.9	12.0	0.17	1.28	7.41	1.31	0.40	1.76



Alt Model-Shift Uniqueness Test

007834425-01, P = 368.839380 Days, E = 233.283058 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	7.12	5.49	7.57	5.38	3.18	1.12	16.6	14.5	1.63	-0.45	7.85	1.00	0.27	0.47



Stellar Parameters For KIC 007834425

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5849^{+158}_{-175}	$4.559^{+0.046}_{-0.195}$	$-0.320^{+0.300}_{-0.300}$	$0.832^{+0.238}_{-0.074}$	$0.914^{+0.097}_{-0.108}$	$2.233^{+0.425}_{-1.119}$
	+3%/-3%	+1%/-4%	+94%/-94%	+29%/-9%	+11%/-12%	+19%/-50%
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 007834425-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-483 ± 24	$8.96^{+9.24}_{-5.96}$	340^{+21}_{-17}	3357^{+1456}_{-617}	3125^{+23386}_{-2369}
Alt.	-197 ± 28	$8.42^{+8.95}_{-5.92}$	338^{+23}_{-15}	2970^{+1436}_{-497}	1376^{+13869}_{-1048}

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

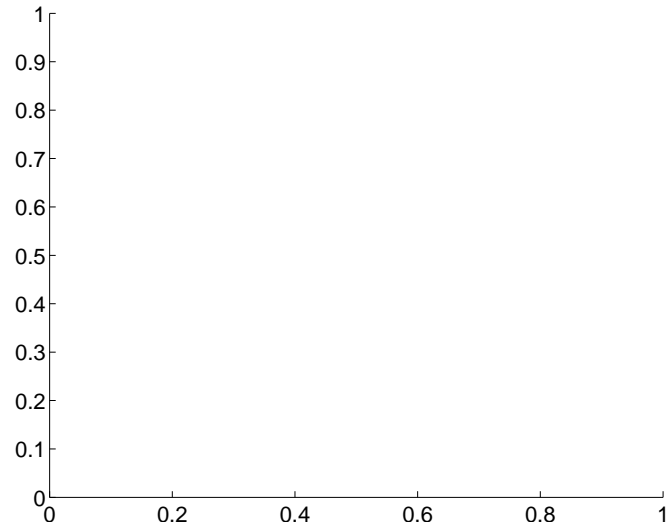
Supplemental centroid analysis for 007834425-01. Kepler magnitude: 14.71. Transit SNR 9.56

There are 0 quarters with good PRF difference image offsets

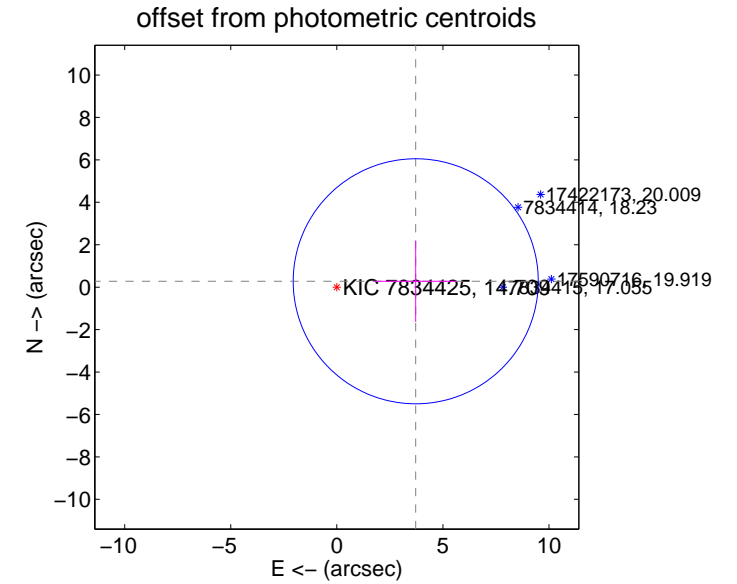
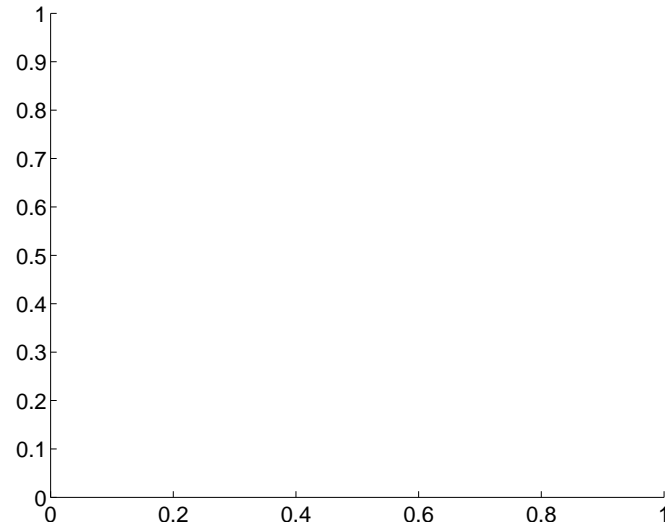
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.73 ± 1.93	1.94	-3.72 ± 1.93	0.28 ± 1.91

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

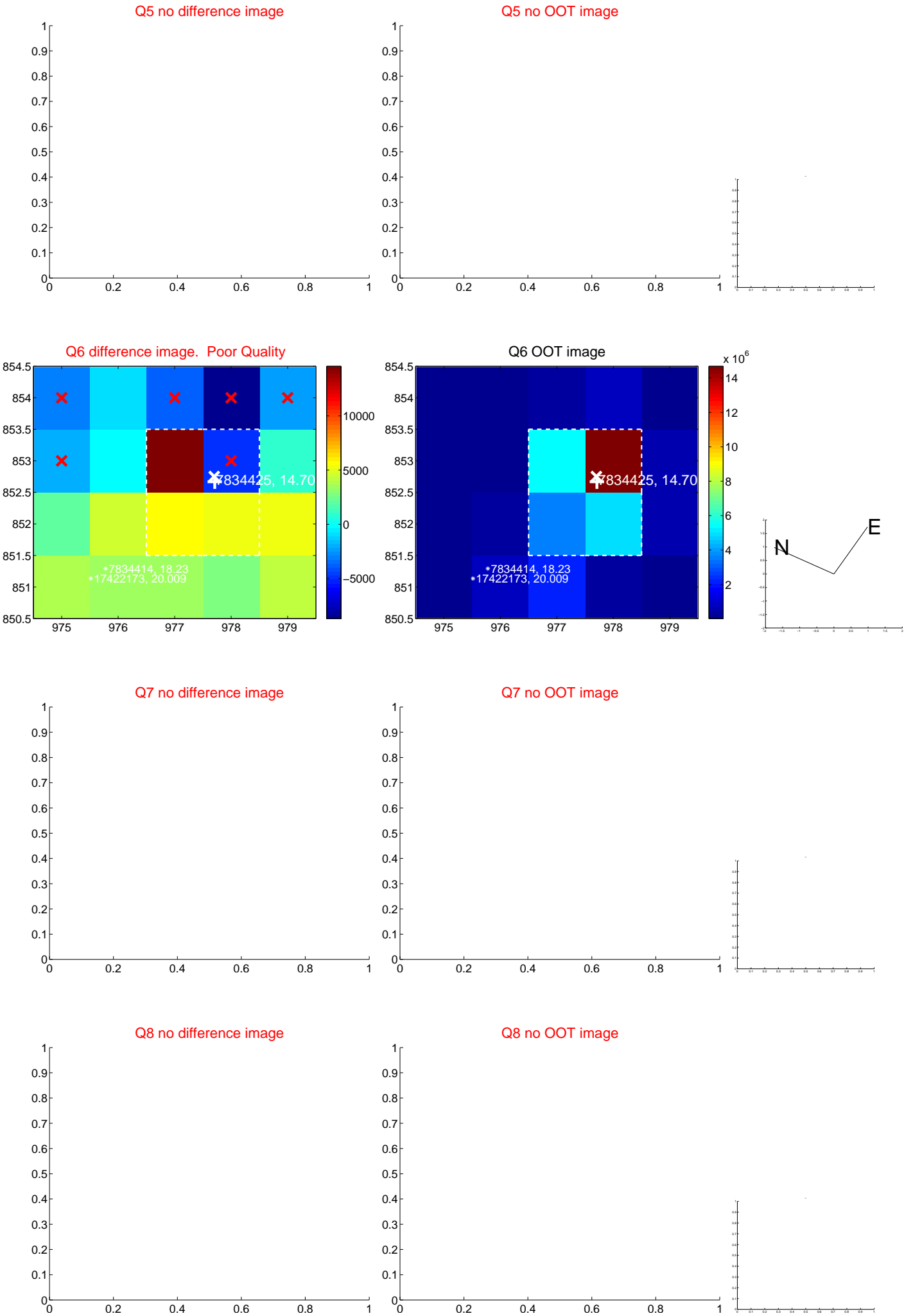


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



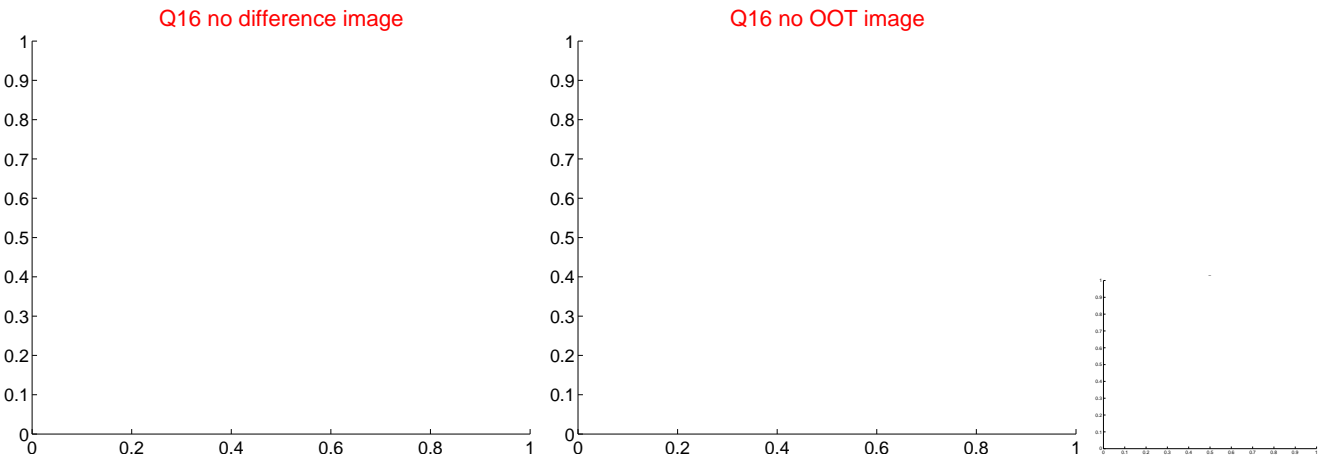
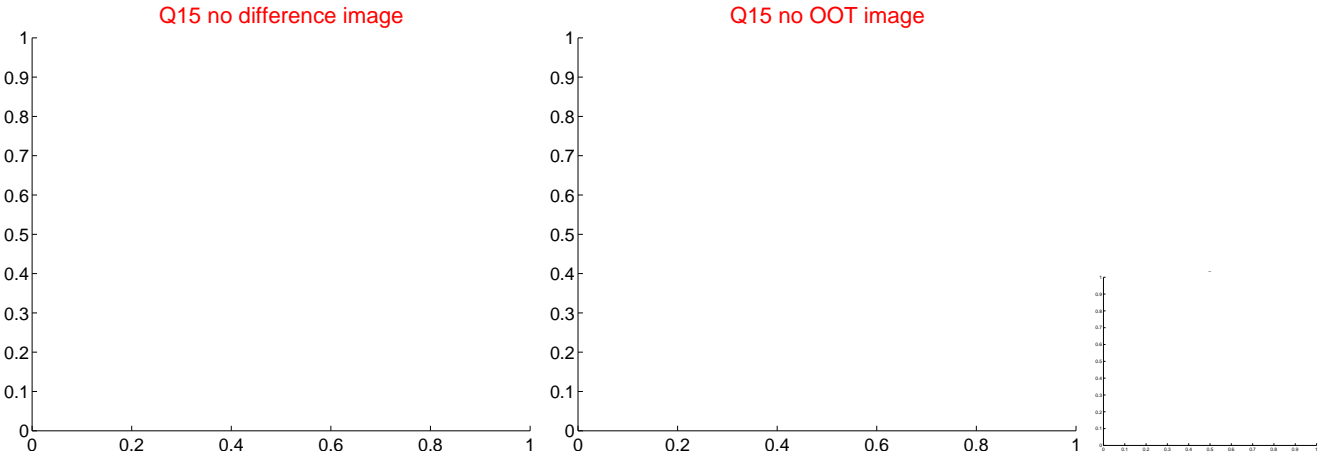
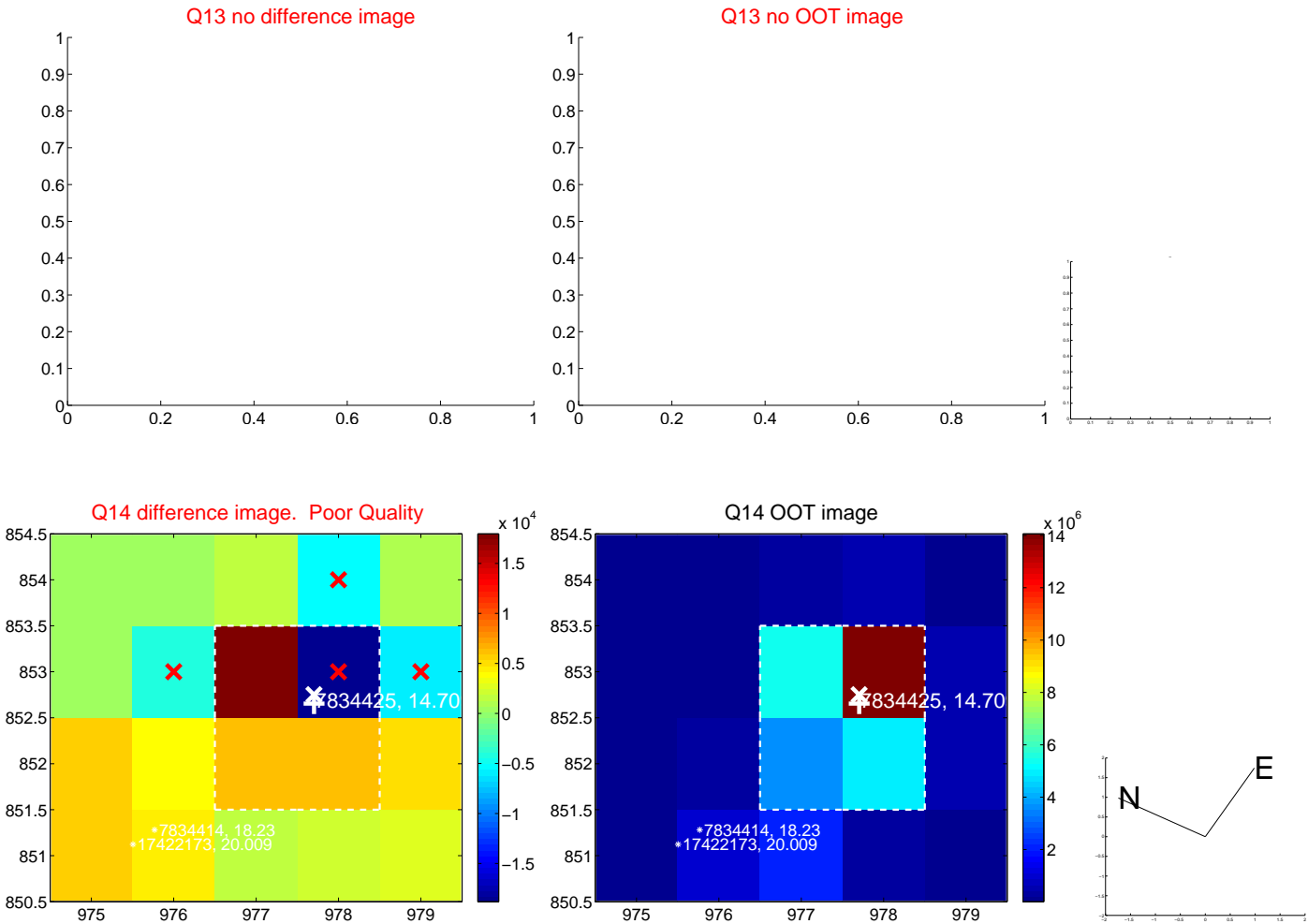
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



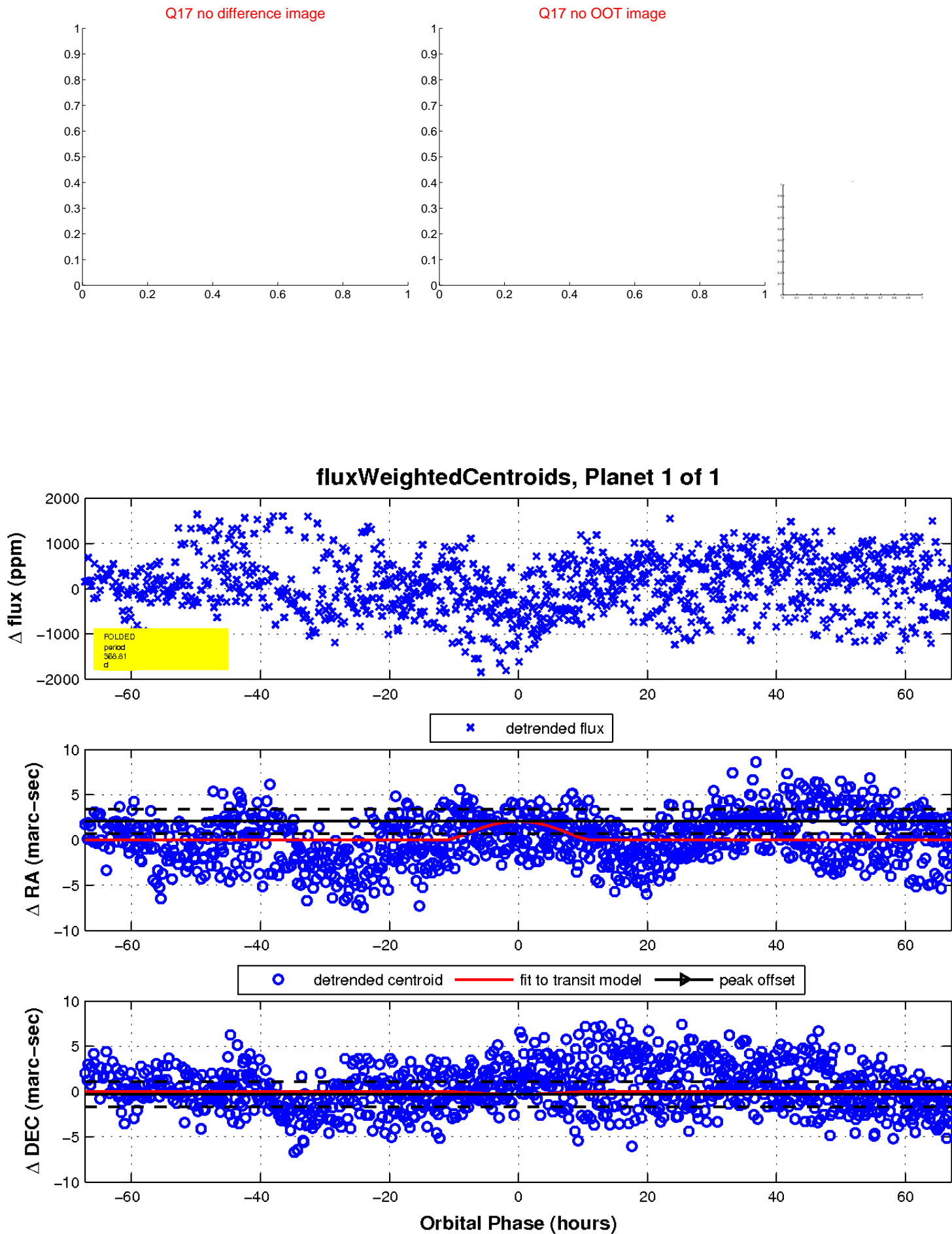
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UKIRT Image

