

KIC 007833164

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})
007833164-01	OBS	No	372.431091	228.083523	441.1	11.910	7.4	7.3	0.95	6231	2.35	1.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007833164-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

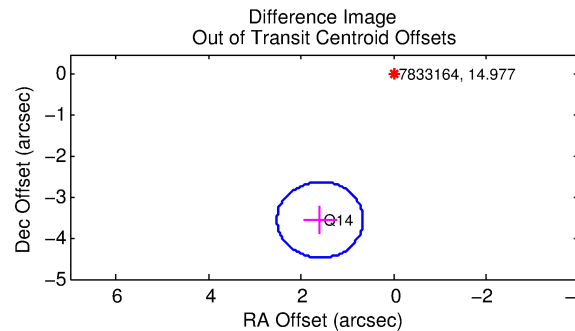
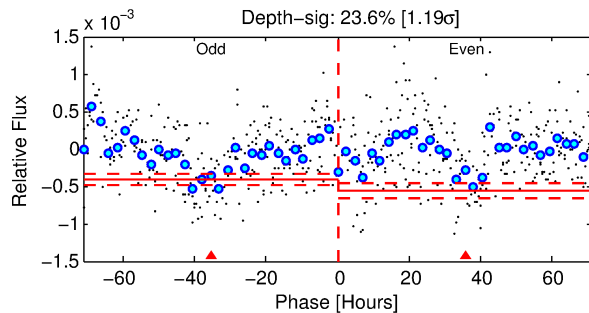
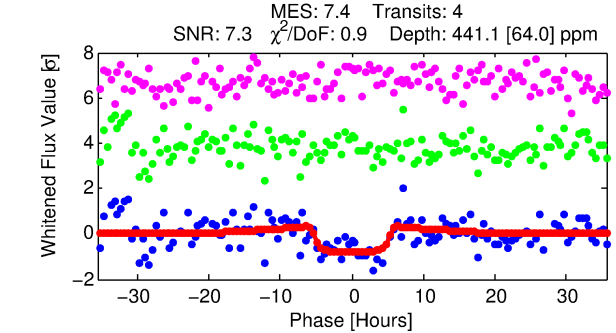
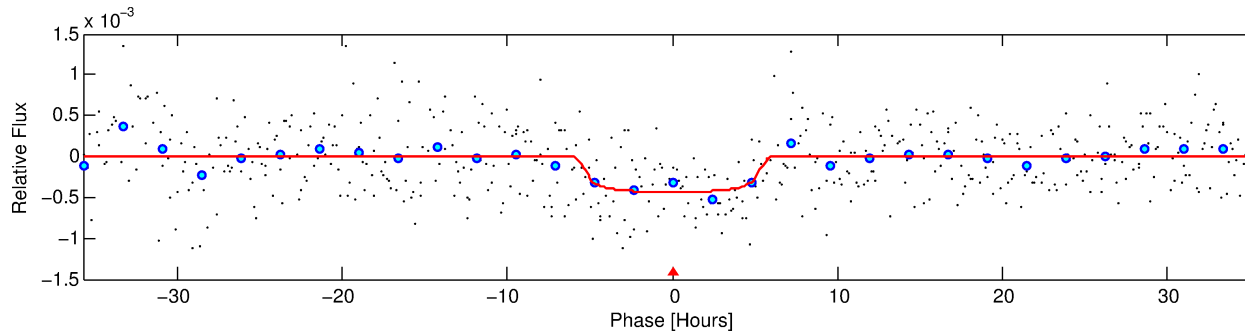
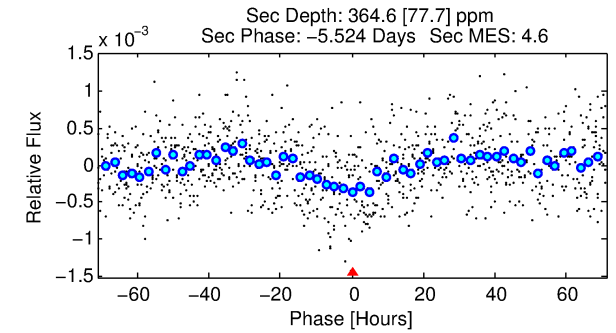
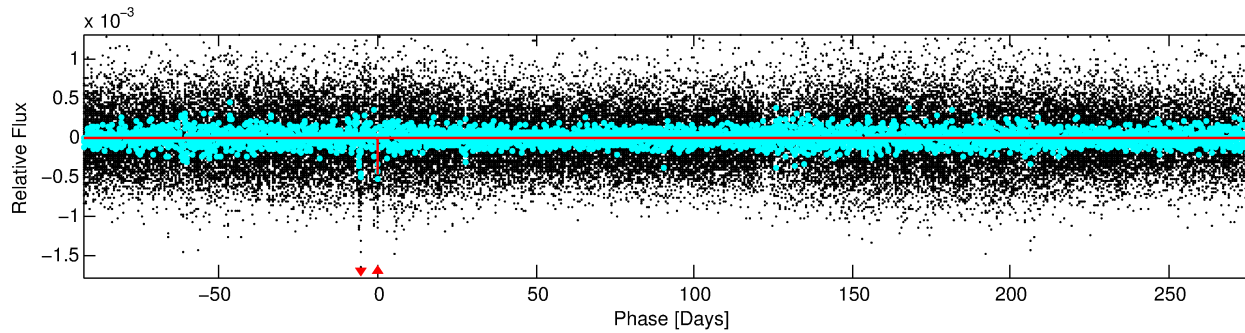
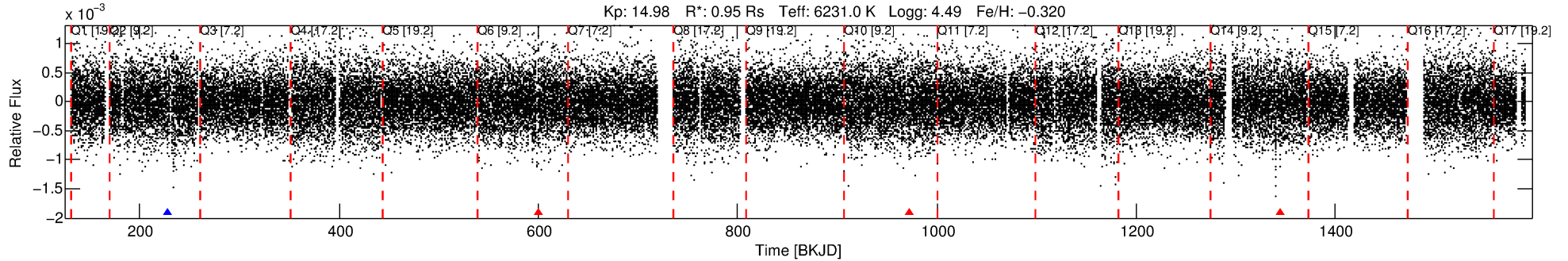
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007833164-01

No Significant Match Found

DV One-Page Summary

KIC: 7833164 Candidate: 1 of 1 Period: 372.431 d



DV Fit Results:

Period = 372.43109 [0.01158] d
Epoch = 228.0835 [0.0219] BKJD
Rp/R* = 0.0226 [0.0031]
a/R* = 115.41 [68.06]
b = 0.90 [0.12]
Seff = 1.18 [0.51]
Teq = 266 [29] K
Rp = 2.35 [0.82] Re
a = 1.0211 [0.2819] AU
Ag = 37795.76 [20318.93] [1.86σ]
Teffp = 5731 [538] K [10.14σ]

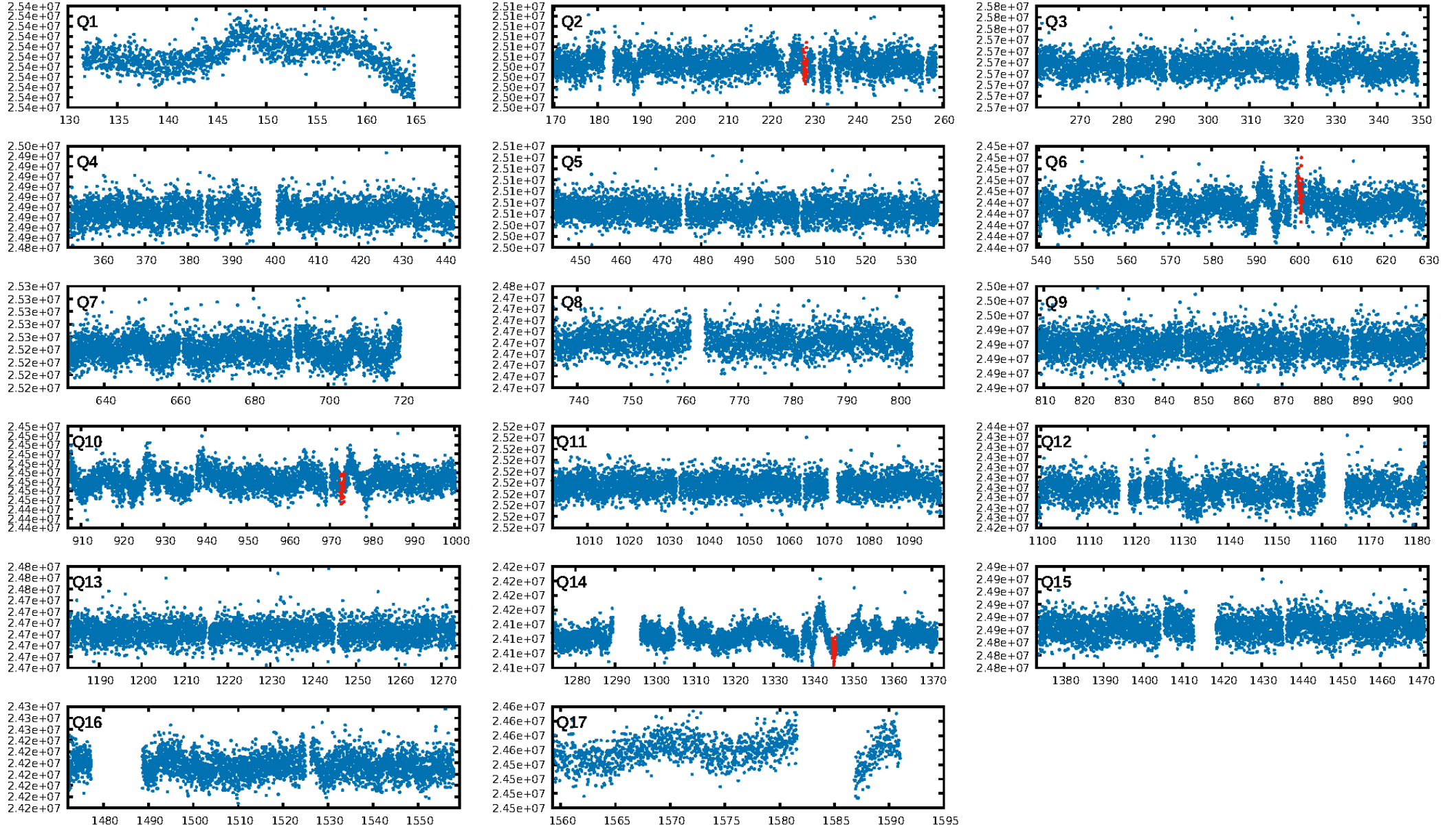
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 51.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 8.97e-11
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.702
Centroid-sig: 0.0%
Centroid-so: 10.490 arcsec [3.09σ]
OotOffset-rm: 3.895 arcsec [12.58σ]
KicOffset-rm: 3.883 arcsec [12.54σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

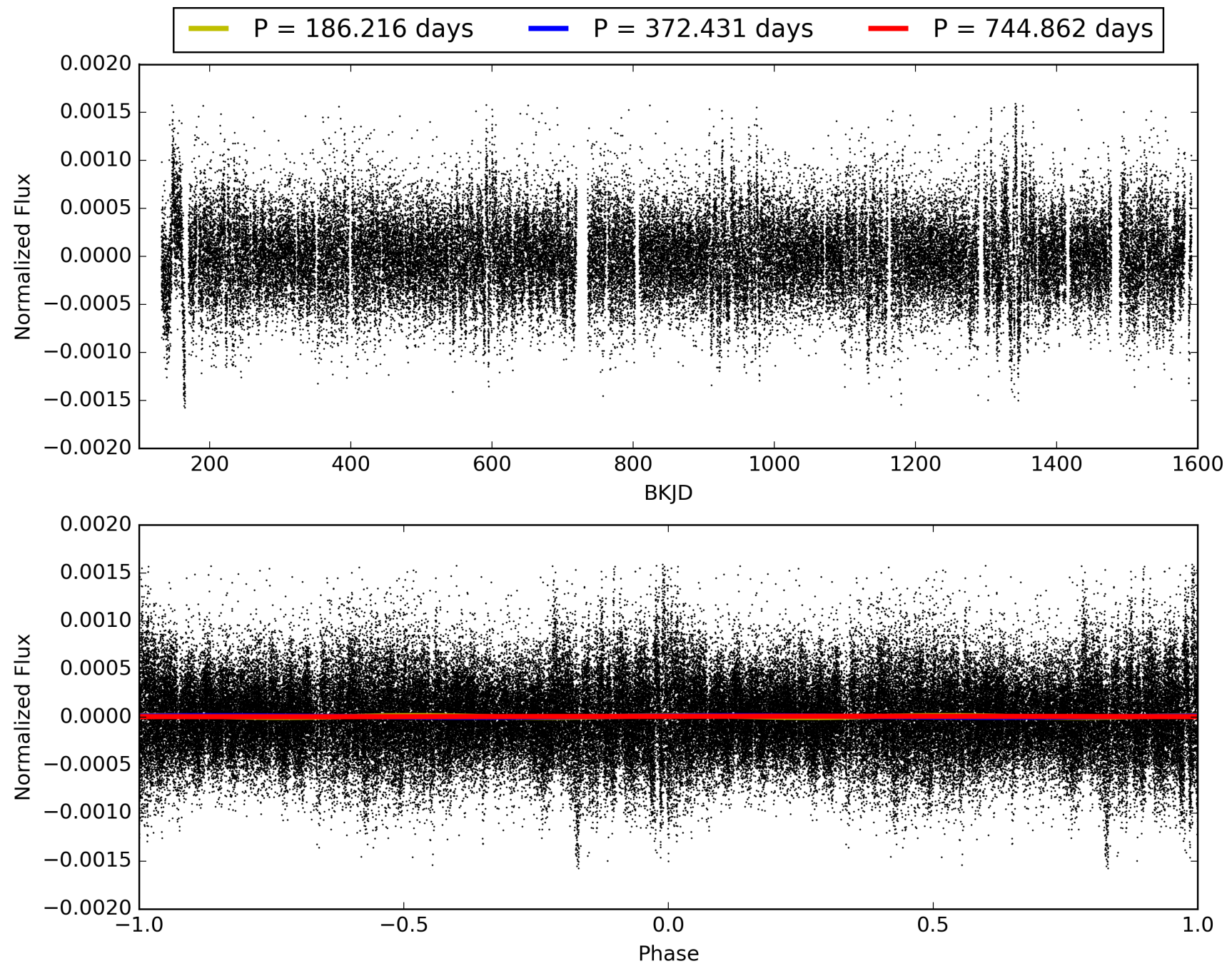
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:08:45 Z

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

TCE 007833164-01, PDC Light Curves

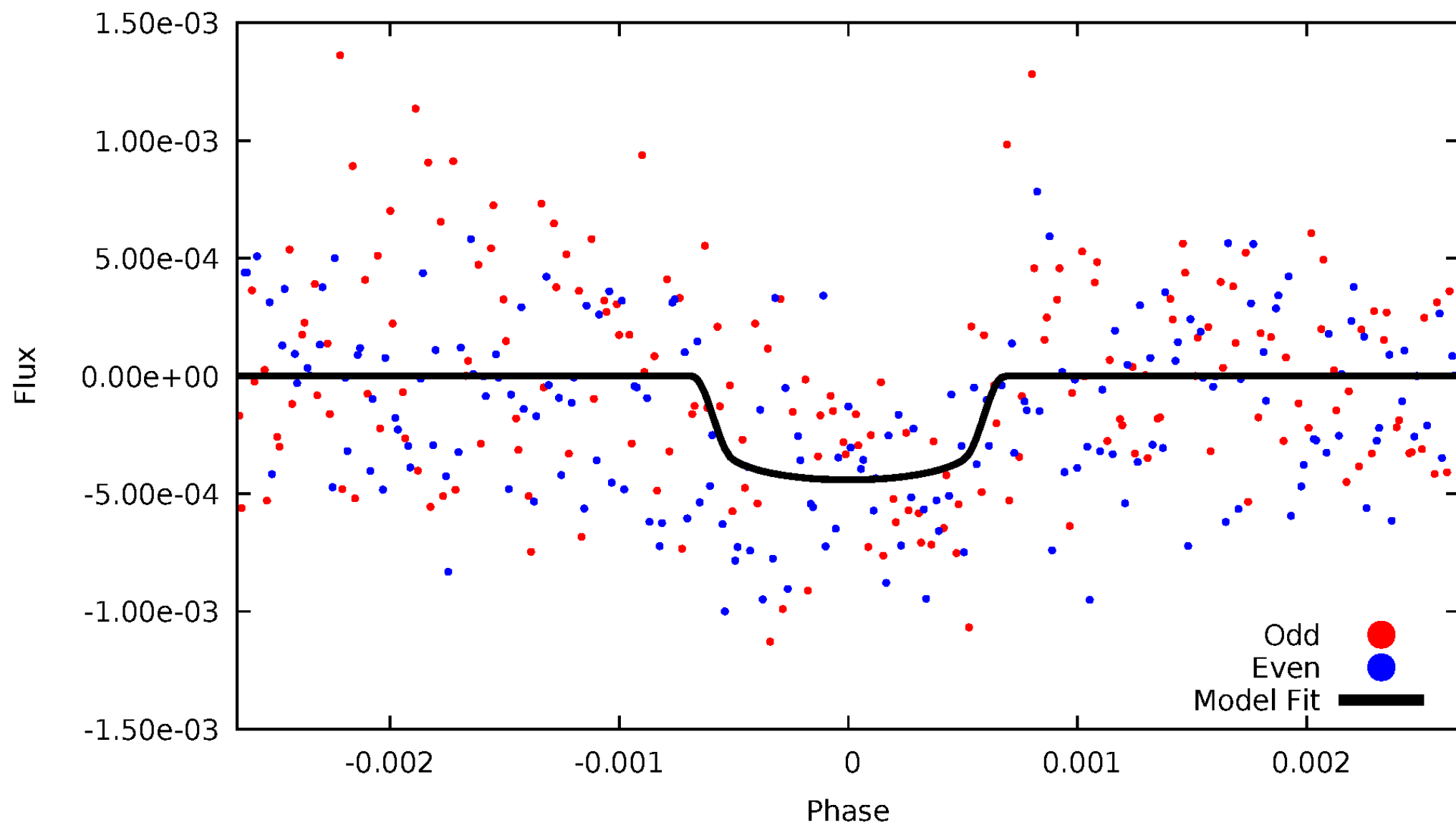


TCE 007833164-01



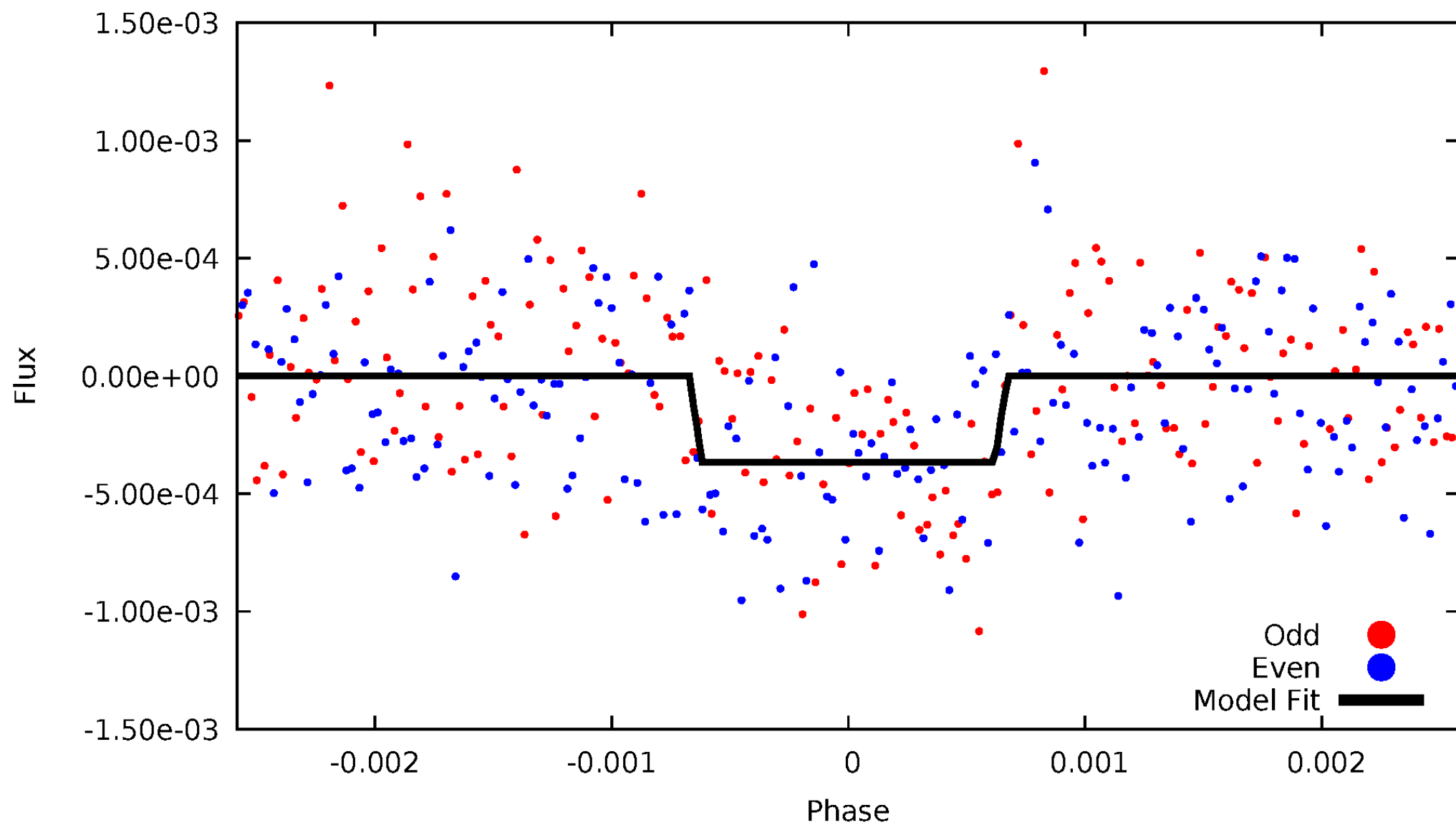
DV Odd/Even

TCE 007833164-01

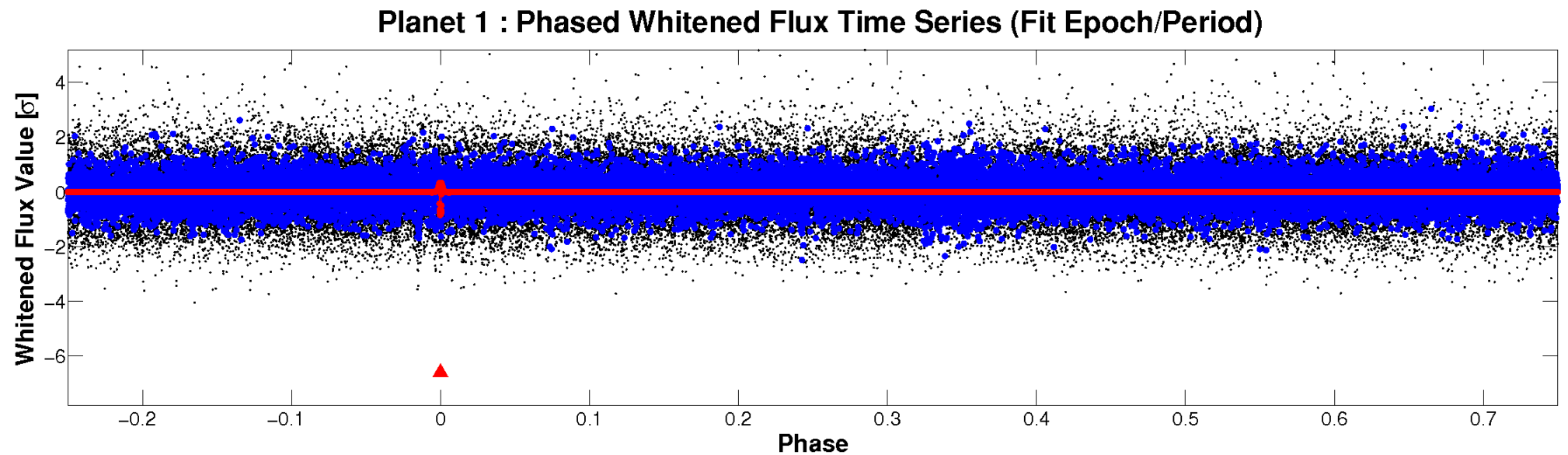
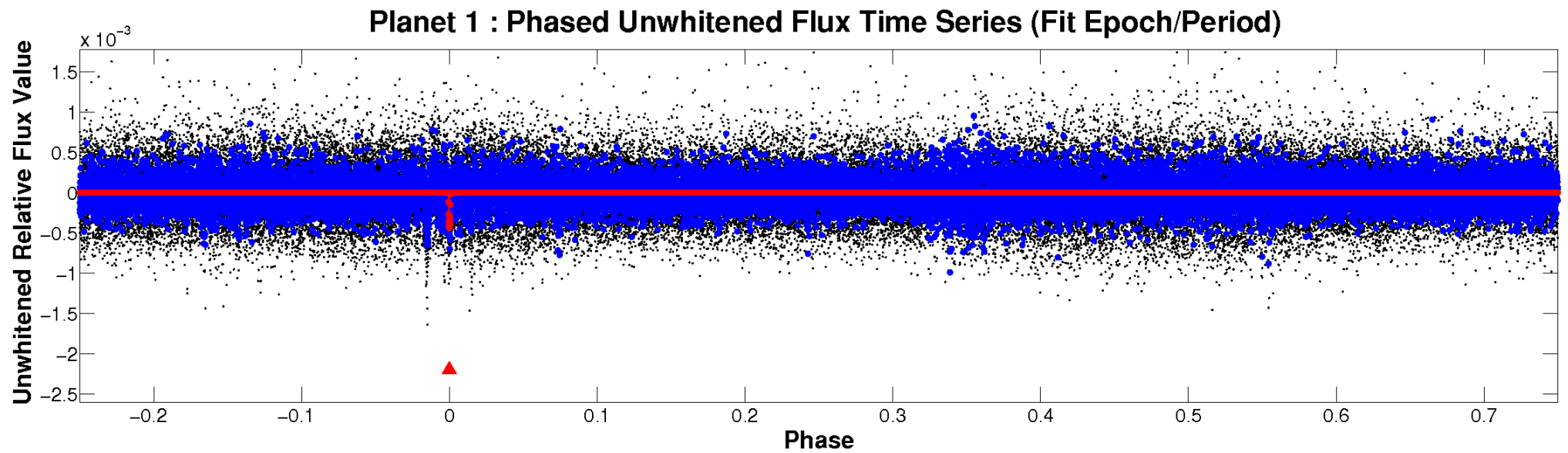


ALT Odd/Even

TCE 007833164-01

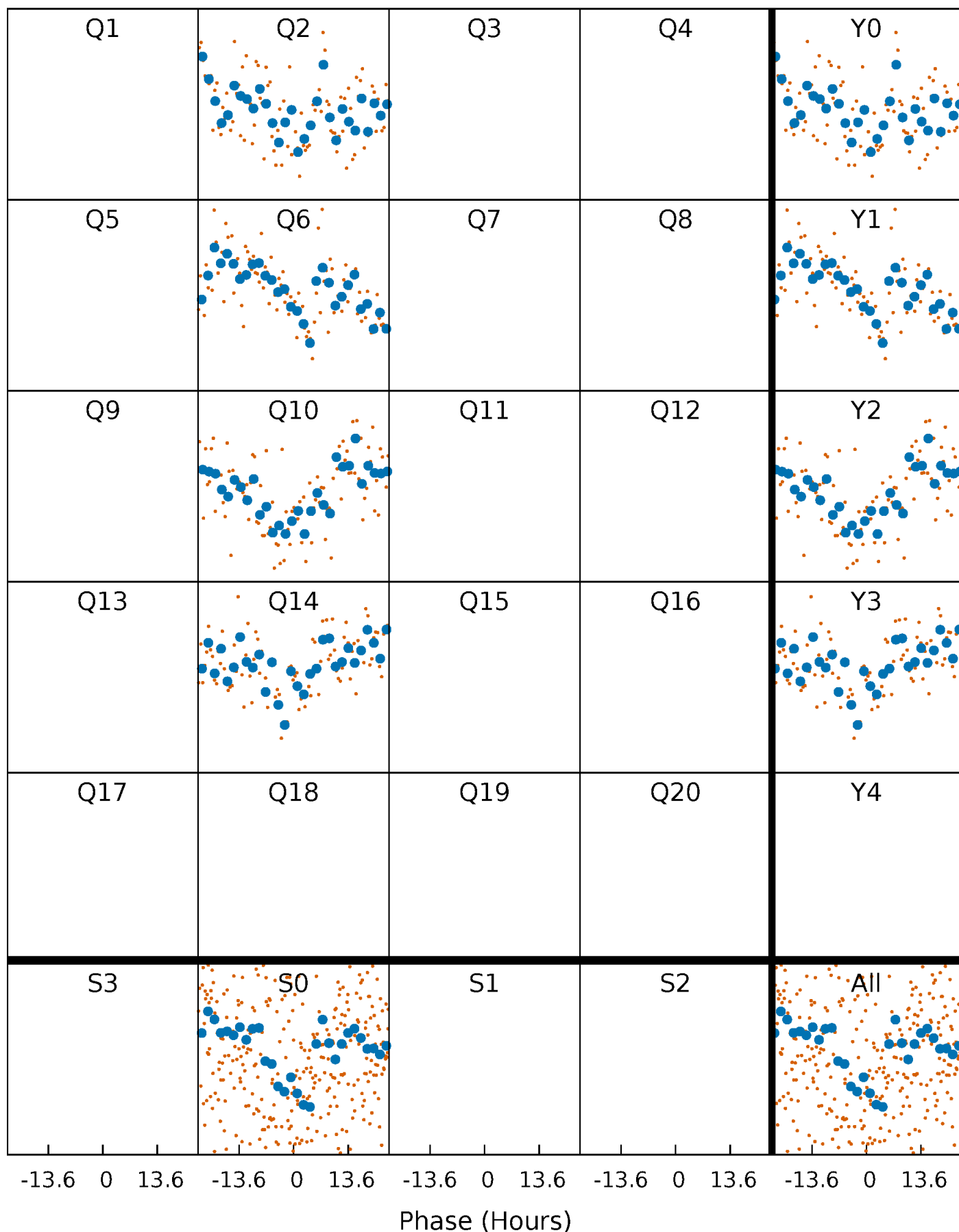


Non-Whitened Vs. Whitened Light Curve



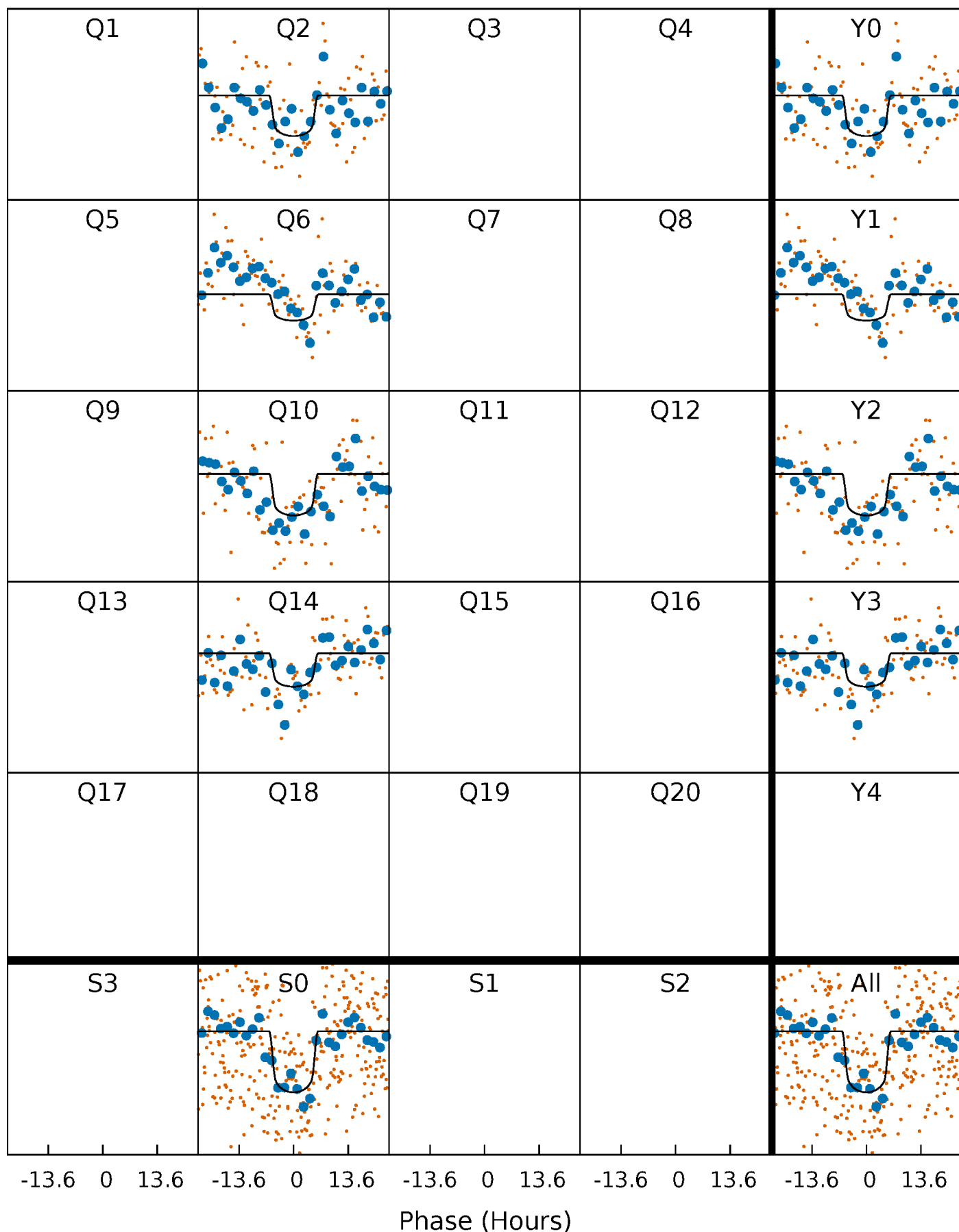
PDC Quarter-Phased Transit Curves

TCE 007833164-01 P=372.431091 Days $T_0=228.083524$ (BKJD)



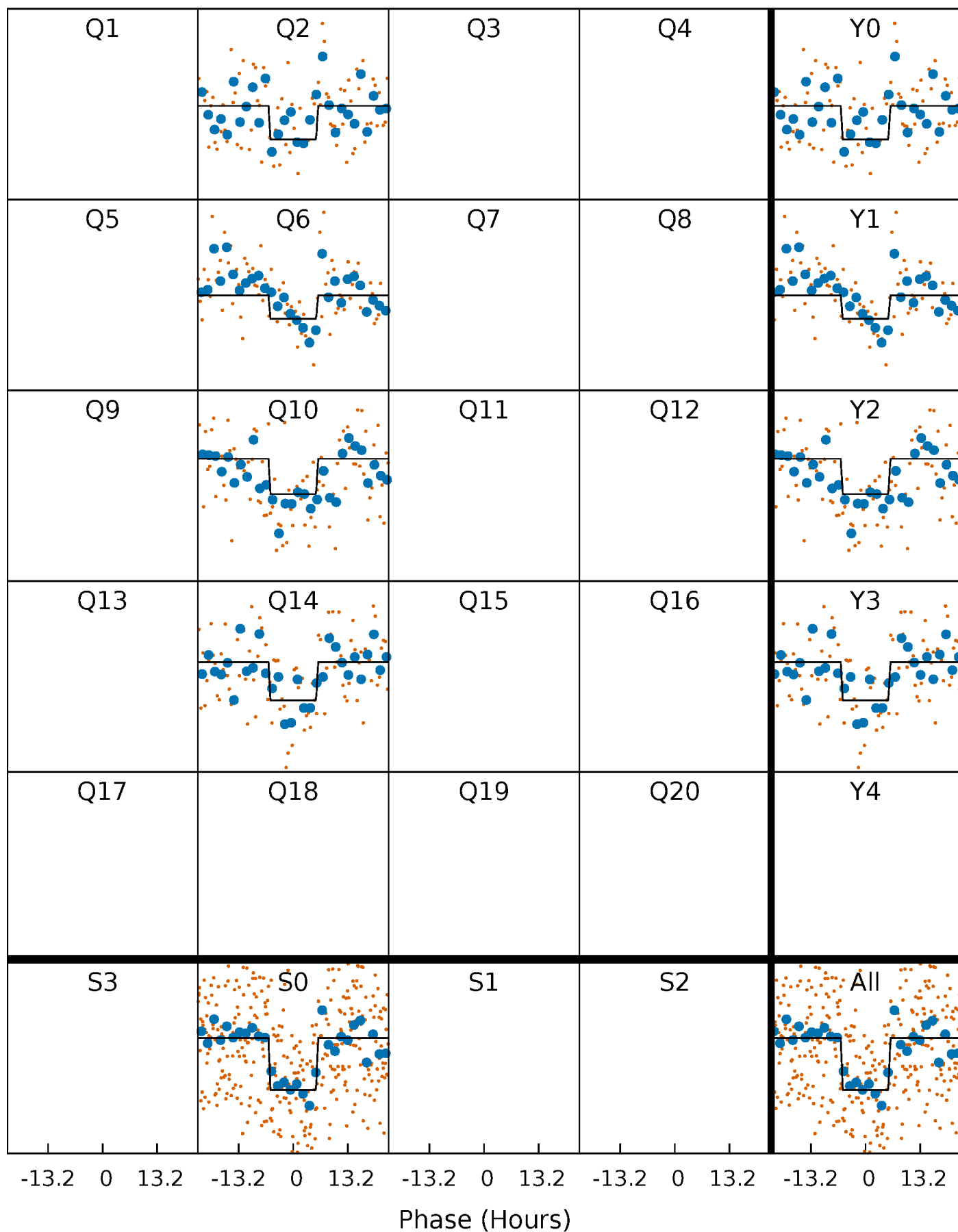
DV Quarter-Phased Transit Curves

TCE 007833164-01 P=372.431091 Days $T_0=228.083524$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

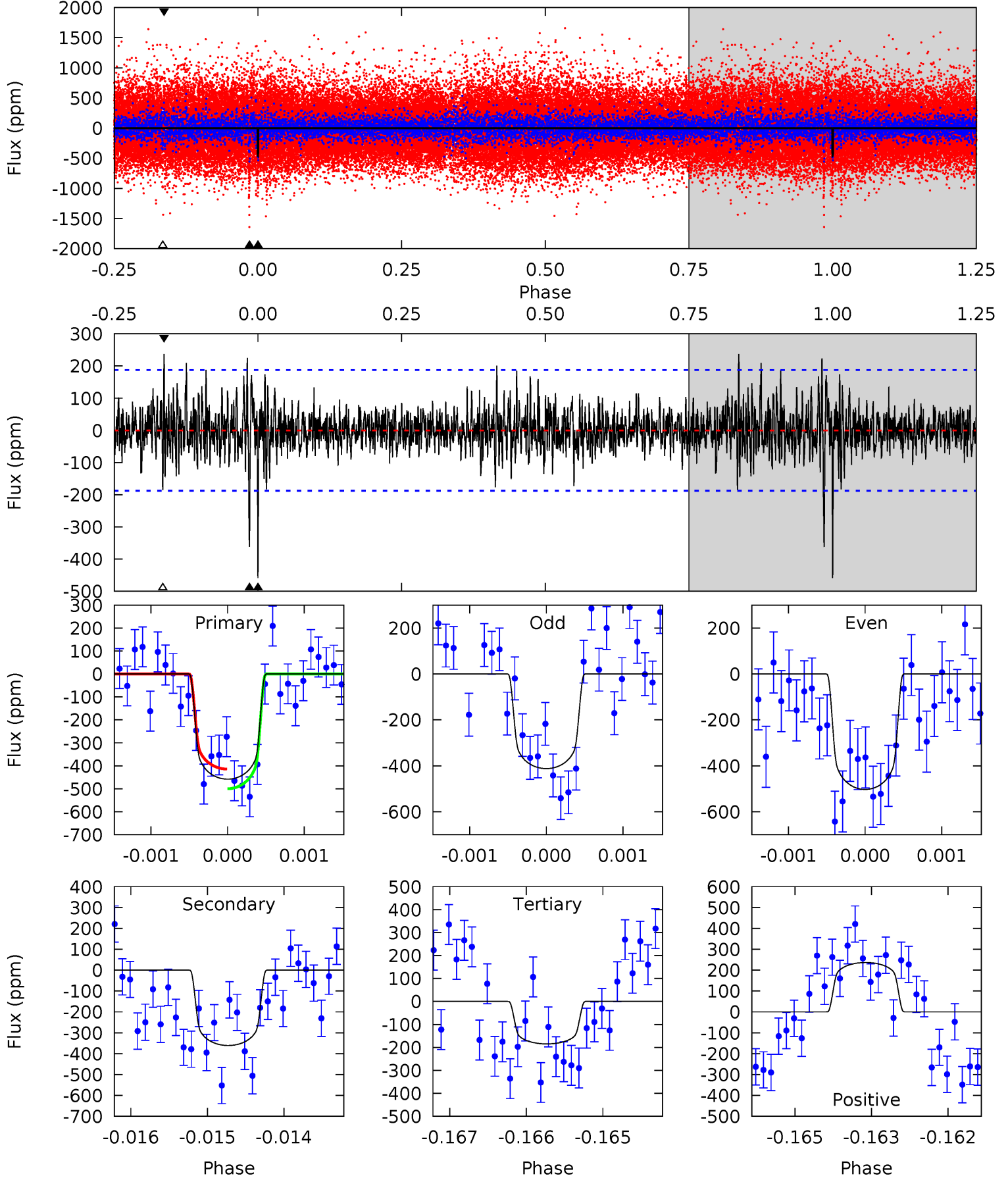
TCE 007833164-01 P=372.408442 Days $T_0=228.096506$ (BKJD)



DV Model-Shift Uniqueness Test

007833164-01, P = 372.431091 Days, E = 228.083524 Days

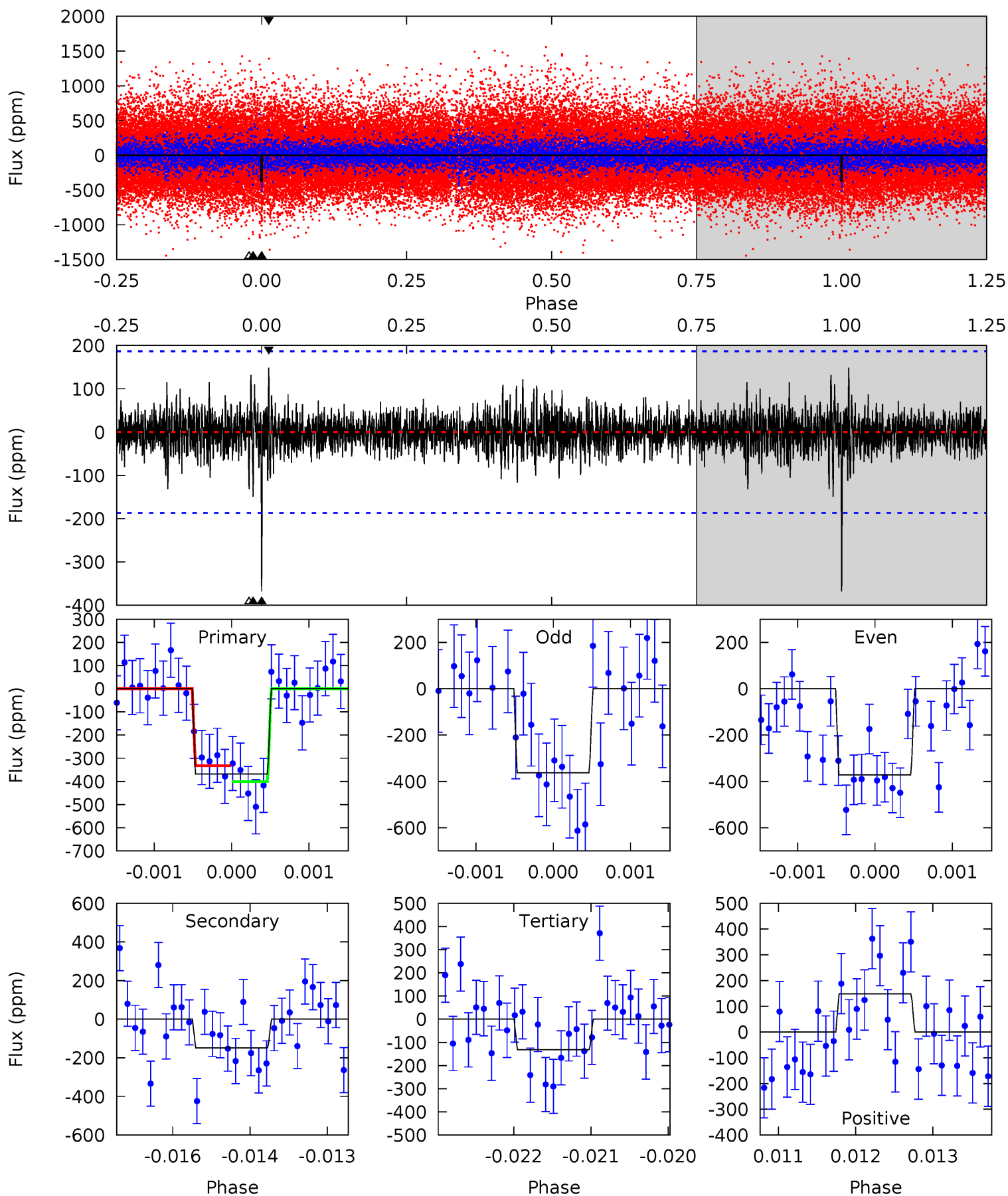
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	10.4	5.32	6.81	5.39	3.20	1.46	7.87	6.38	5.08	3.59	1.31	0.95	0.34	1.23



Alt Model-Shift Uniqueness Test

007833164-01, P = 372.408442 Days, E = 228.096506 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	4.30	3.80	4.29	5.40	3.21	0.90	6.82	6.34	0.49	0.01	0.14	1.01	0.29	1.00



Stellar Parameters For KIC 007833164

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6231^{+188}_{-225}	$4.488^{+0.054}_{-0.229}$	$-0.320^{+0.300}_{-0.300}$	$0.955^{+0.305}_{-0.102}$	$1.025^{+0.144}_{-0.129}$	$1.655^{+0.370}_{-0.916}$
	+3%/-4%	+1%/-5%	+94%/-94%	+32%/-11%	+14%/-13%	+22%/-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 007833164-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-361 ± 35	$2.45^{+0.51}_{-0.39}$	379^{+28}_{-20}	5723^{+486}_{-424}	33556^{+14084}_{-10199}
Alt.	-149 ± 35	$2.11^{+0.52}_{-0.42}$	381^{+31}_{-21}	5034^{+510}_{-413}	18396^{+10494}_{-6975}

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

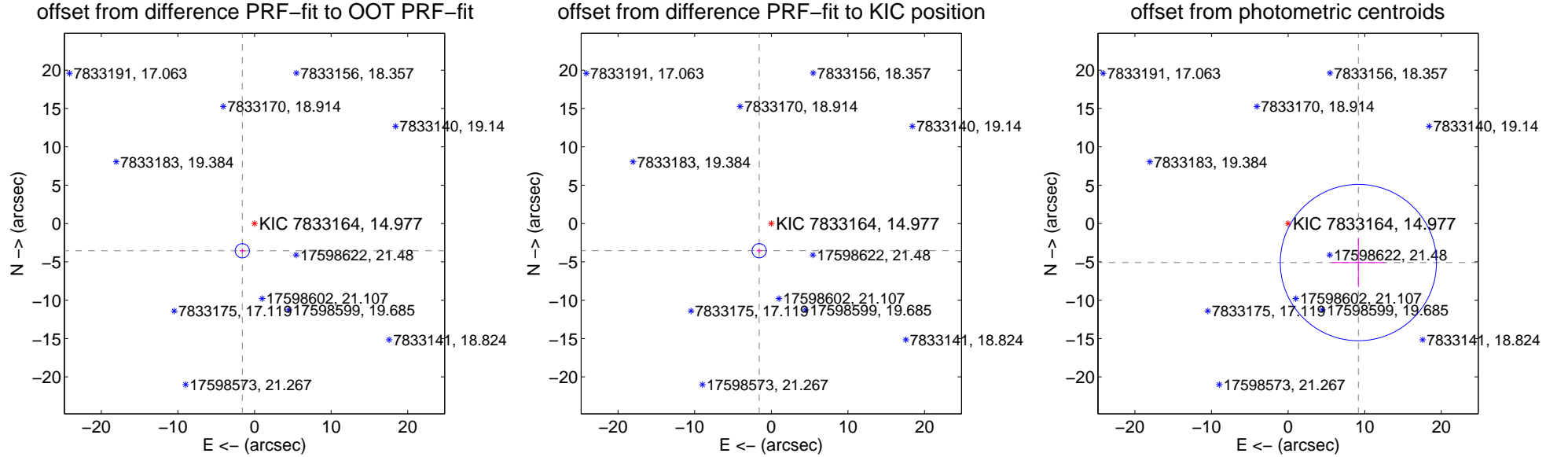
DV Centroid Data

Supplemental centroid analysis for 007833164-01. Kepler magnitude: 14.98. Transit SNR 7.27

There are 0 quarters with good PRF difference image offsets

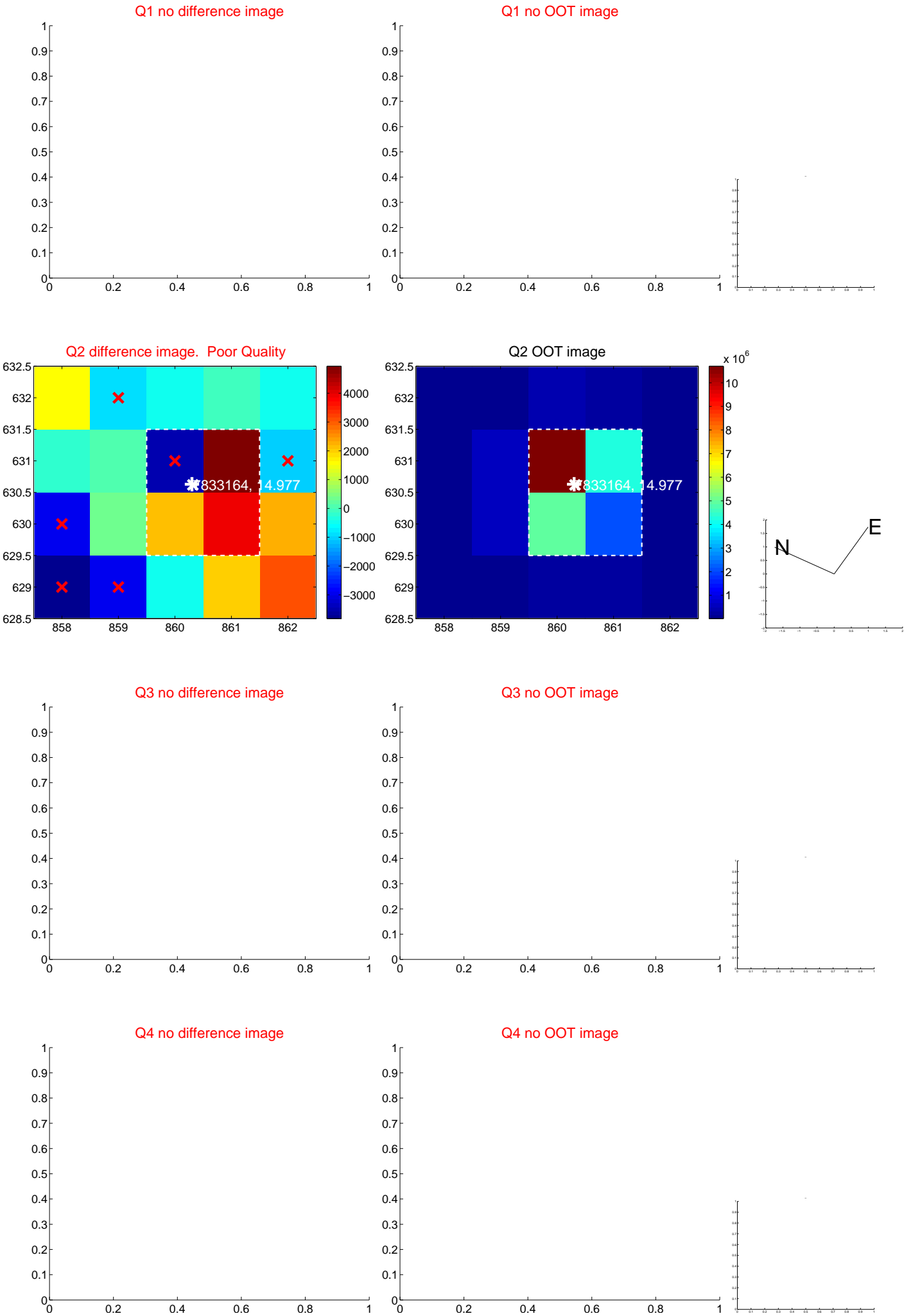
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.895 ± 0.310	12.58	1.591 ± 0.335	-3.555 ± 0.304
PRF-fit source offset from KIC position	3.883 ± 0.310	12.54	1.581 ± 0.335	-3.547 ± 0.304
photometric centroid source offset	10.49 ± 3.40	3.09	-9.17 ± 3.45	-5.09 ± 3.21



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.

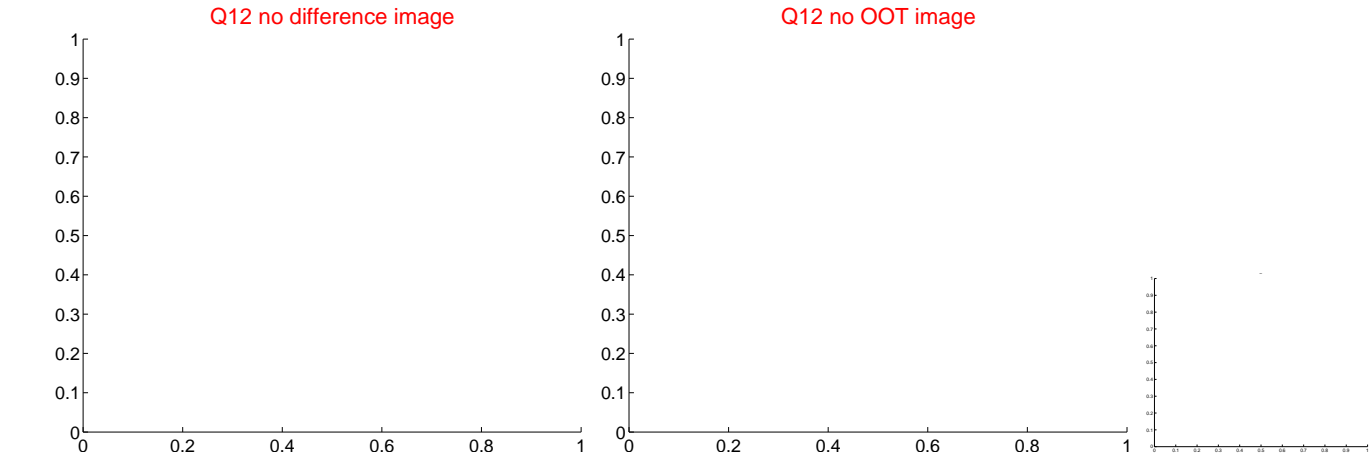
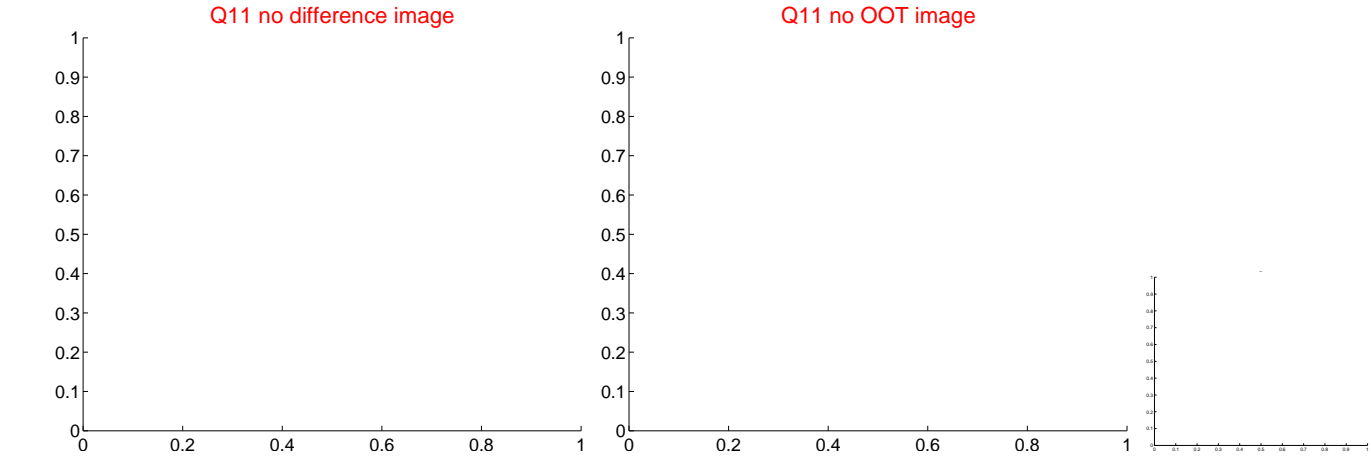
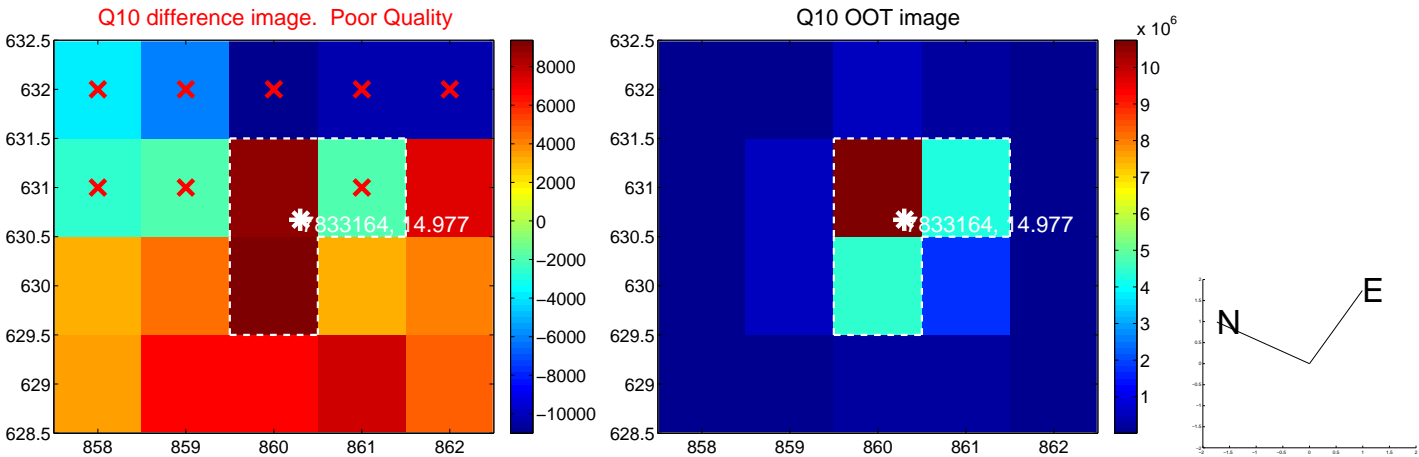
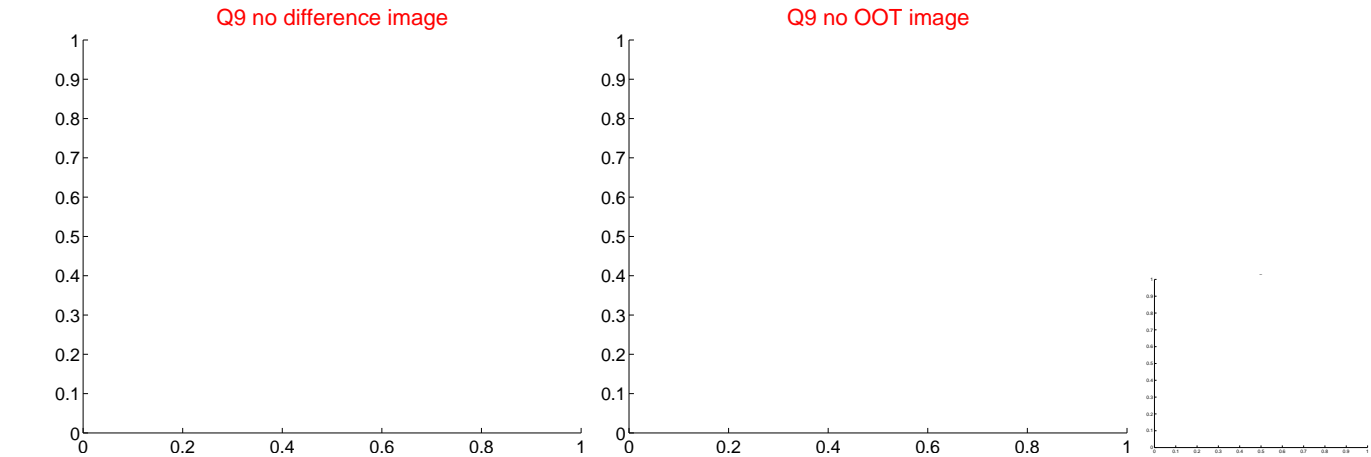
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



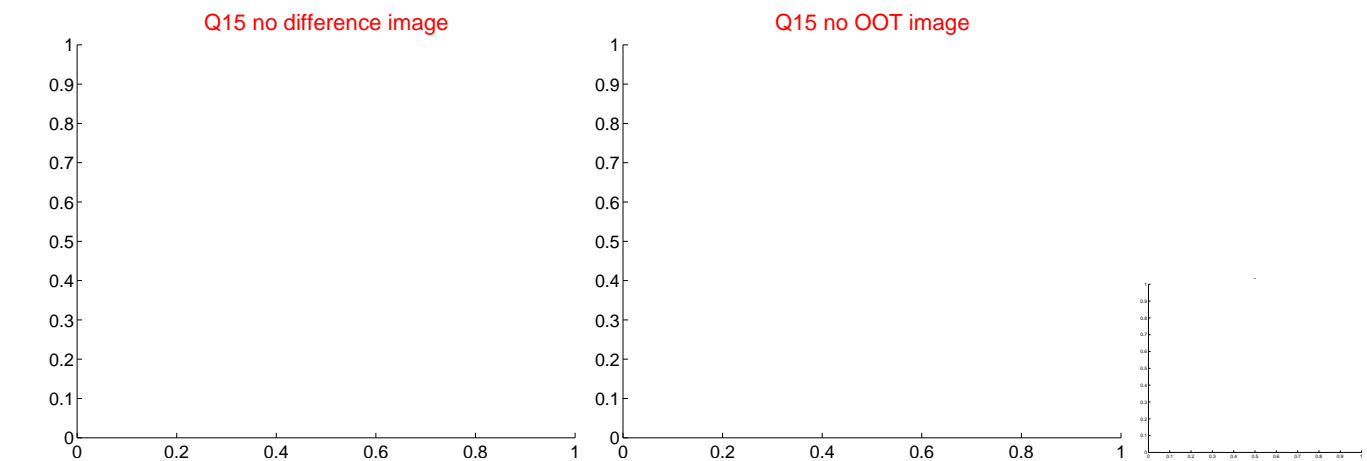
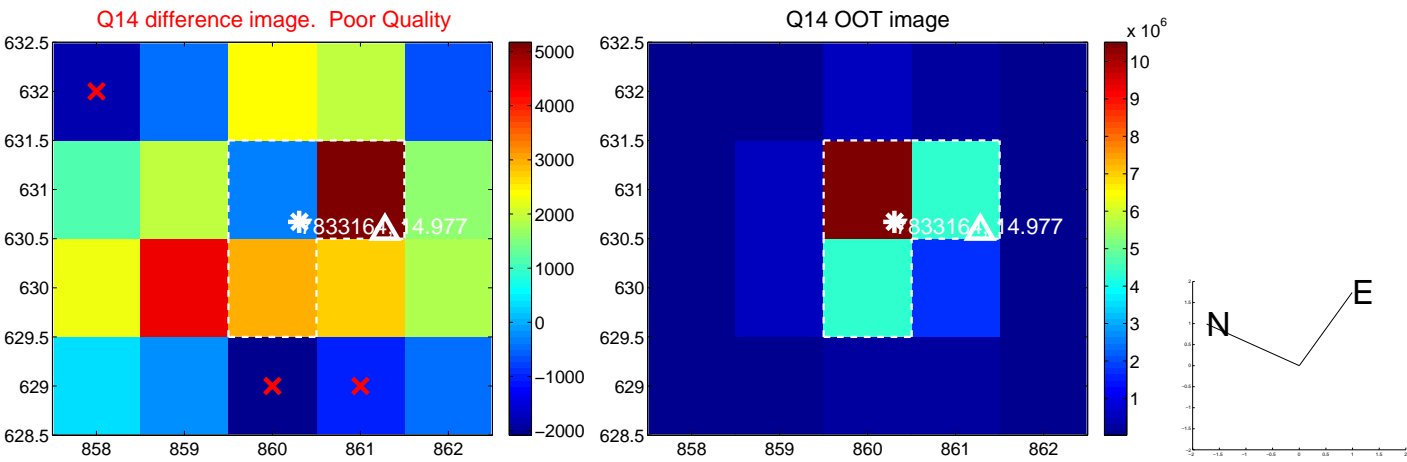
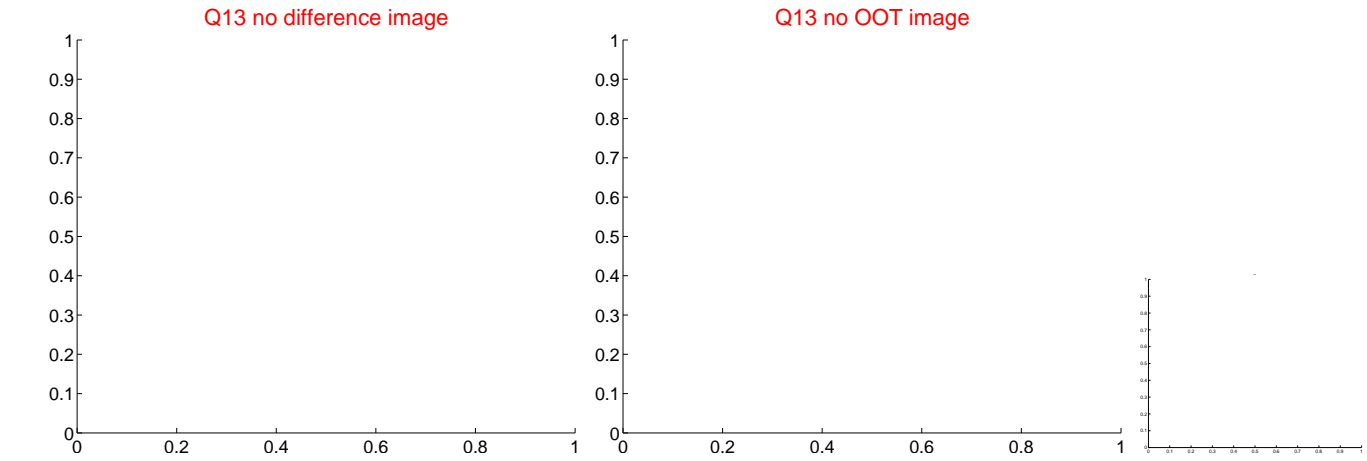
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



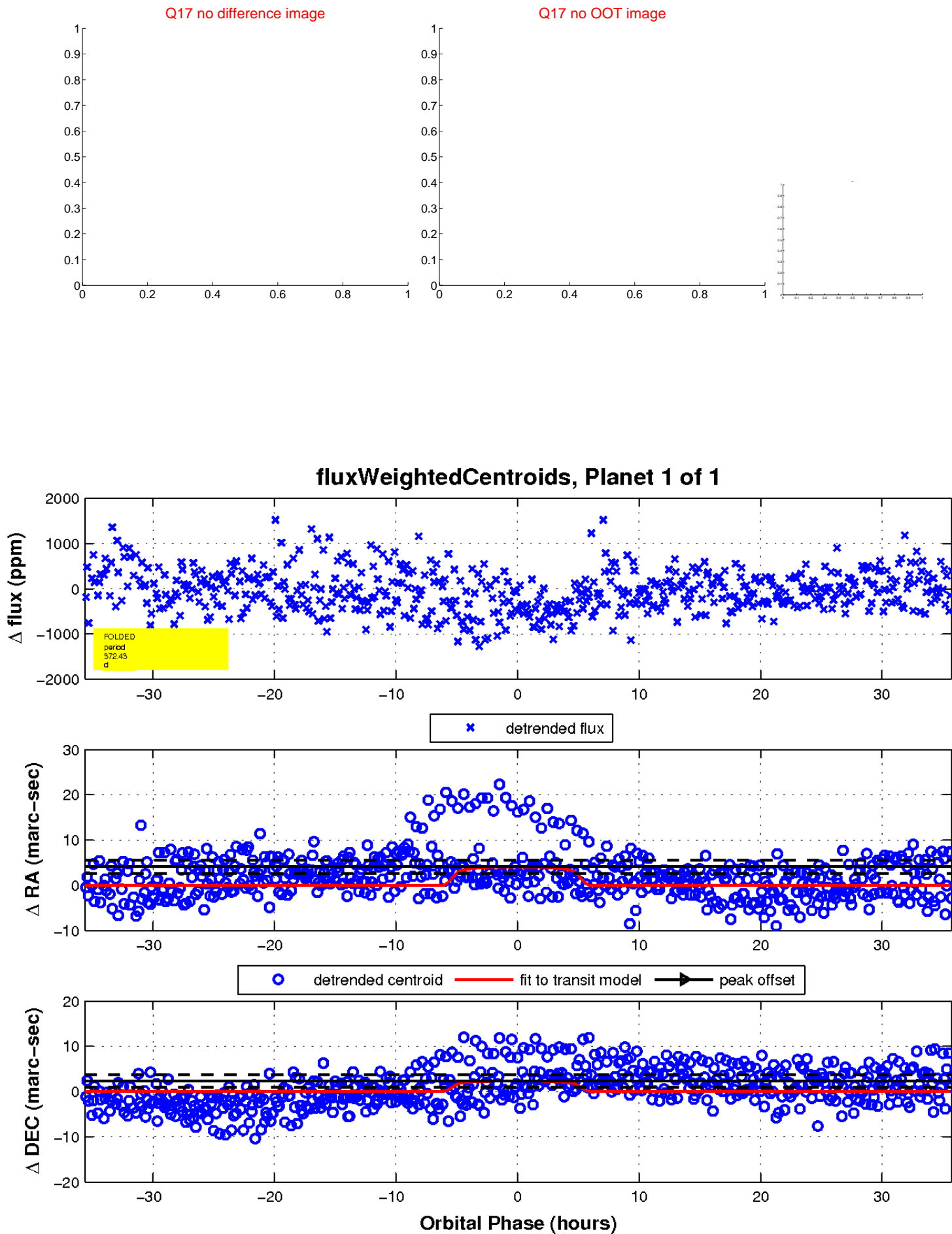
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

