

KIC 008219151

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})
008219151-01	OBS	No	281.838618	392.955245	286.9	3.905	7.1	7.7	1.71	7163	3.33	7.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008219151-01	OBS	FP	0.02	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

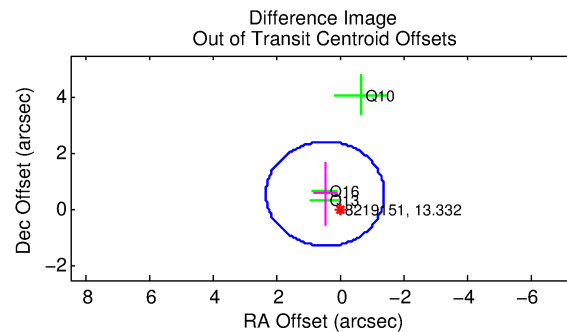
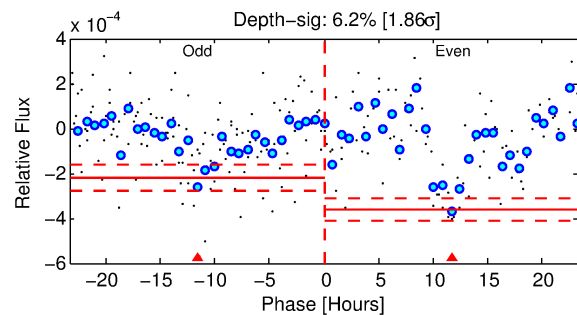
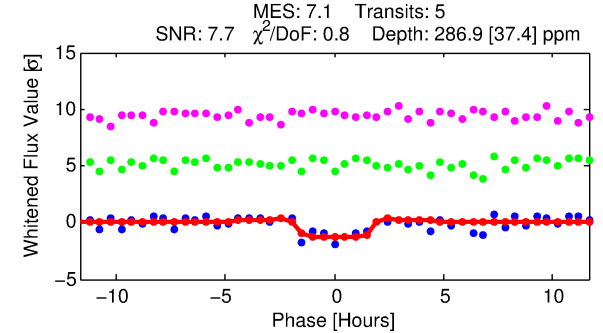
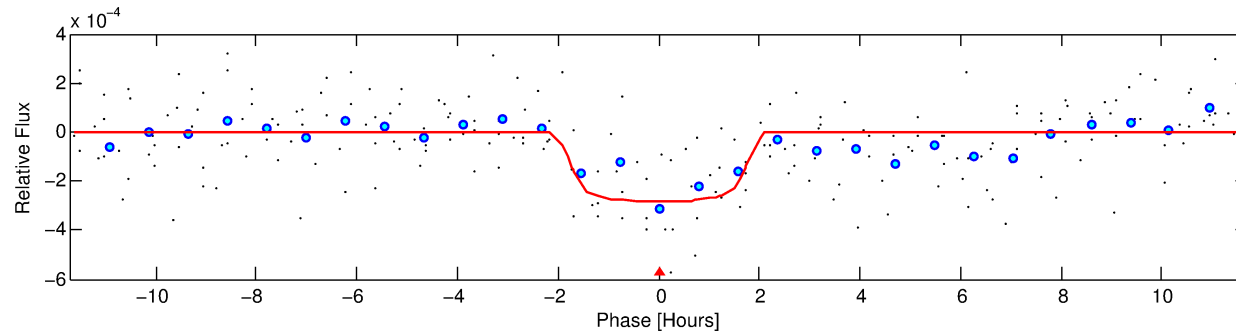
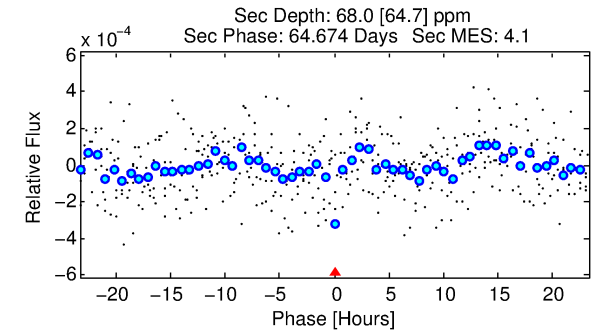
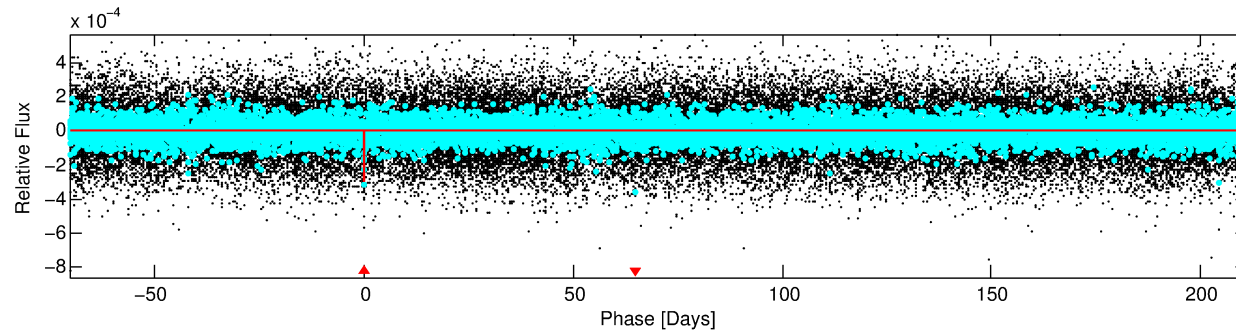
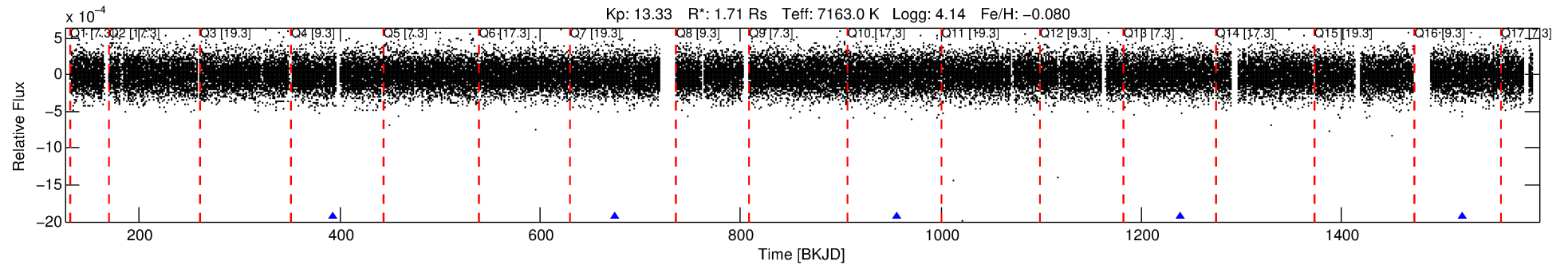
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008219151-01

No Significant Match Found

DV One-Page Summary

KIC: 8219151 Candidate: 1 of 1 Period: 281.839 d



DV Fit Results:

Period = 281.83862 [0.00284] d
Epoch = 392.9552 [0.0076] BKJD
Rp/R* = 0.0179 [0.0051]
a/R* = 274.56 [465.59]
b = 0.89 [0.41]
Seff = 7.48 [2.97]
Teq = 422 [42] K
Rp = 3.33 [1.40] Re
a = 0.9583 [0.2446] AU
Ag = 3104.16 [3628.15] [0.86σ]
Teffp = 4867 [1363] K [3.26σ]

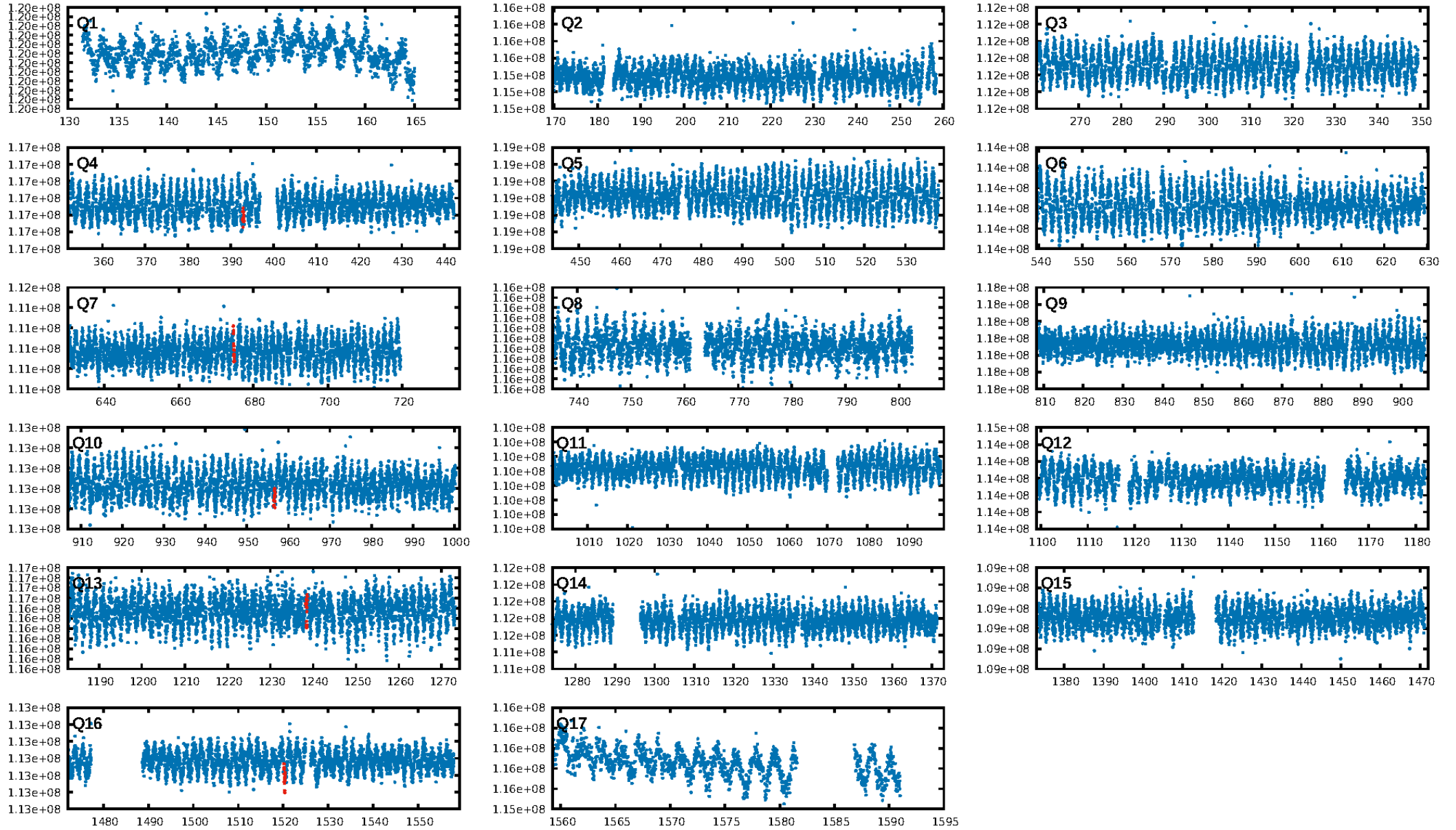
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.4%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 6.53e-10
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -35.7
Centroid-sig: 54.6%
Centroid-so: 0.632 arcsec [0.70σ]
OotOffset-rm: 0.746 arcsec [1.20σ]
KicOffset-rm: 1.092 arcsec [1.20σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [5/5]

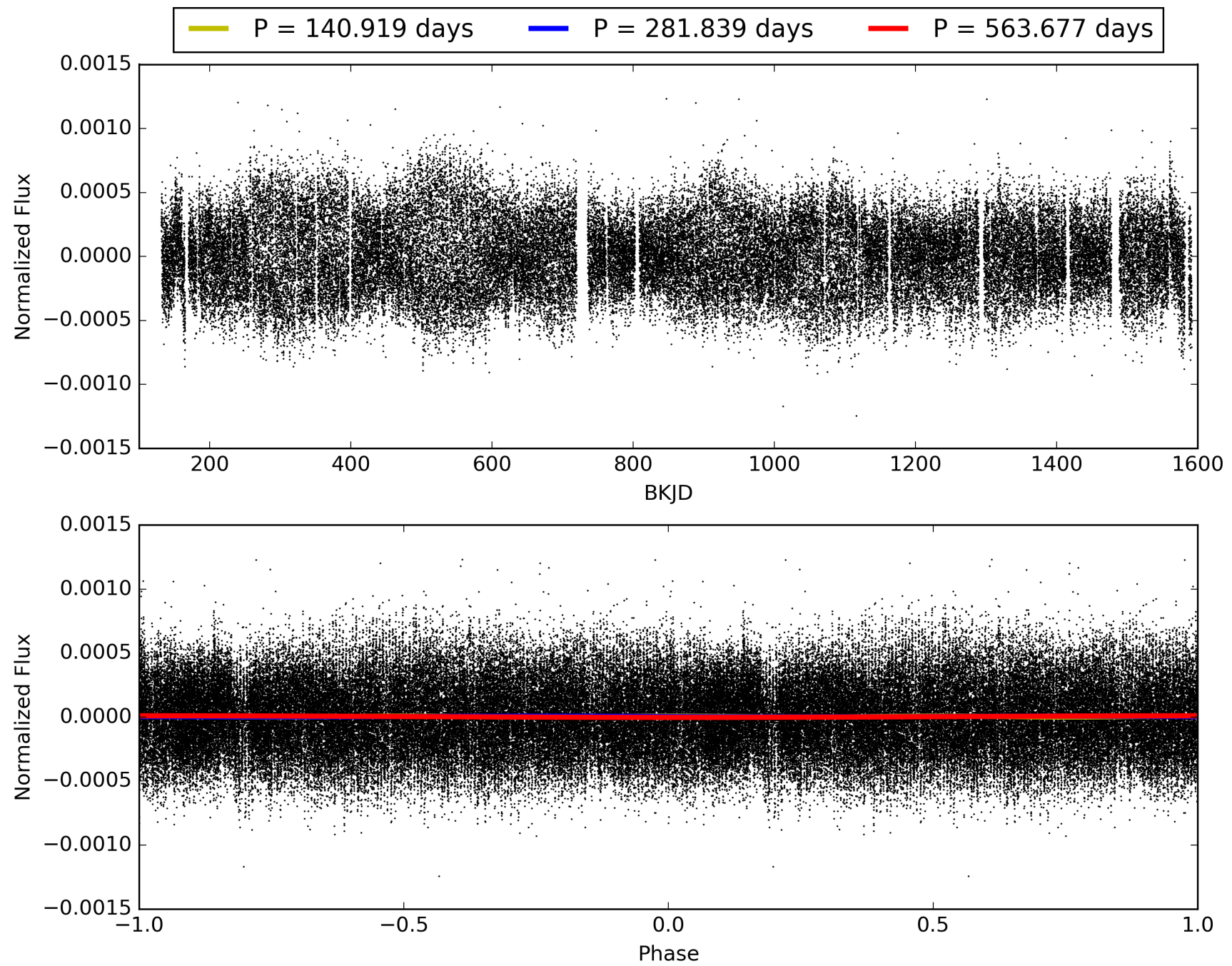
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:48:36 Z

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

TCE 008219151-01, PDC Light Curves

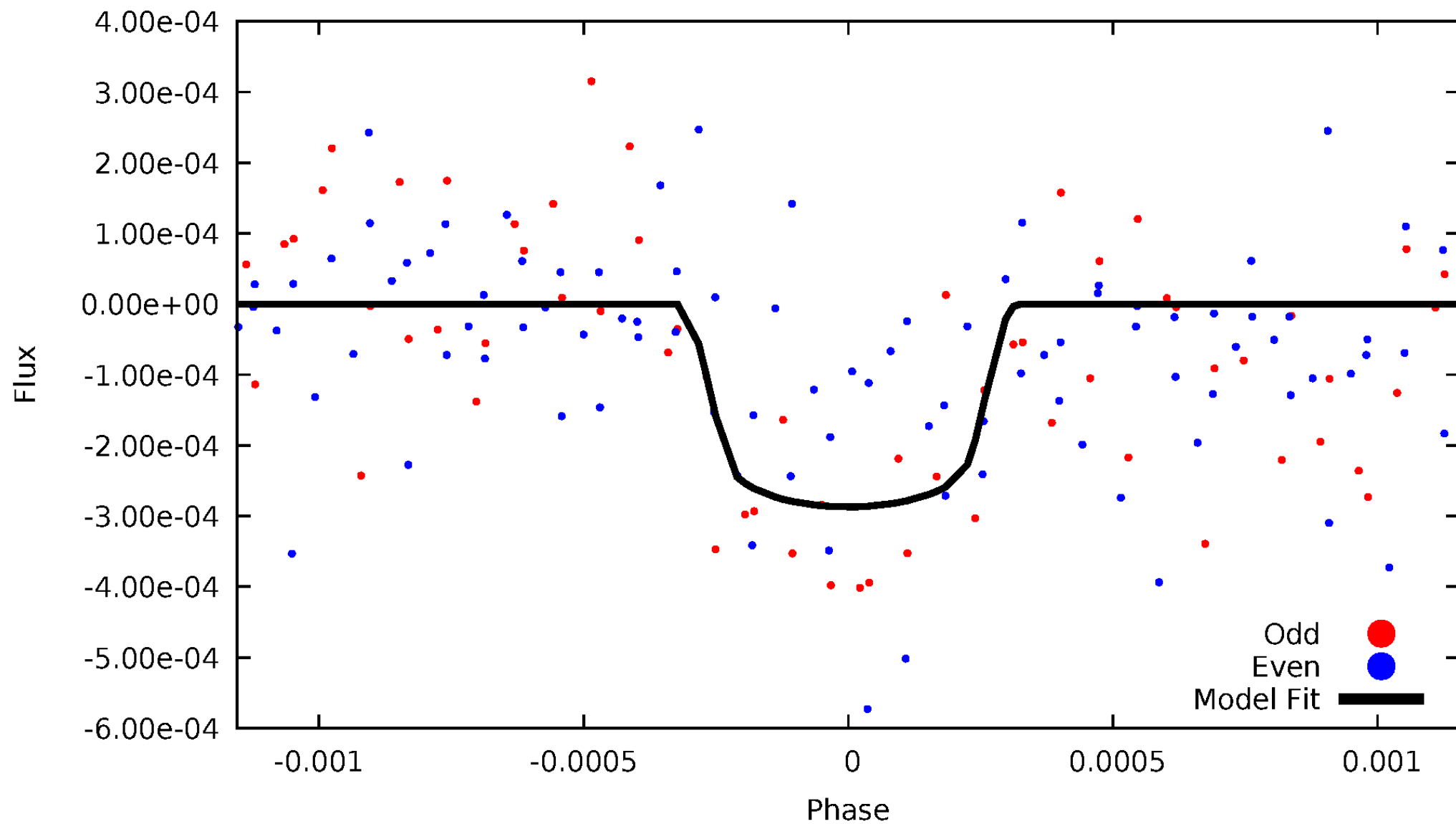


TCE 008219151-01



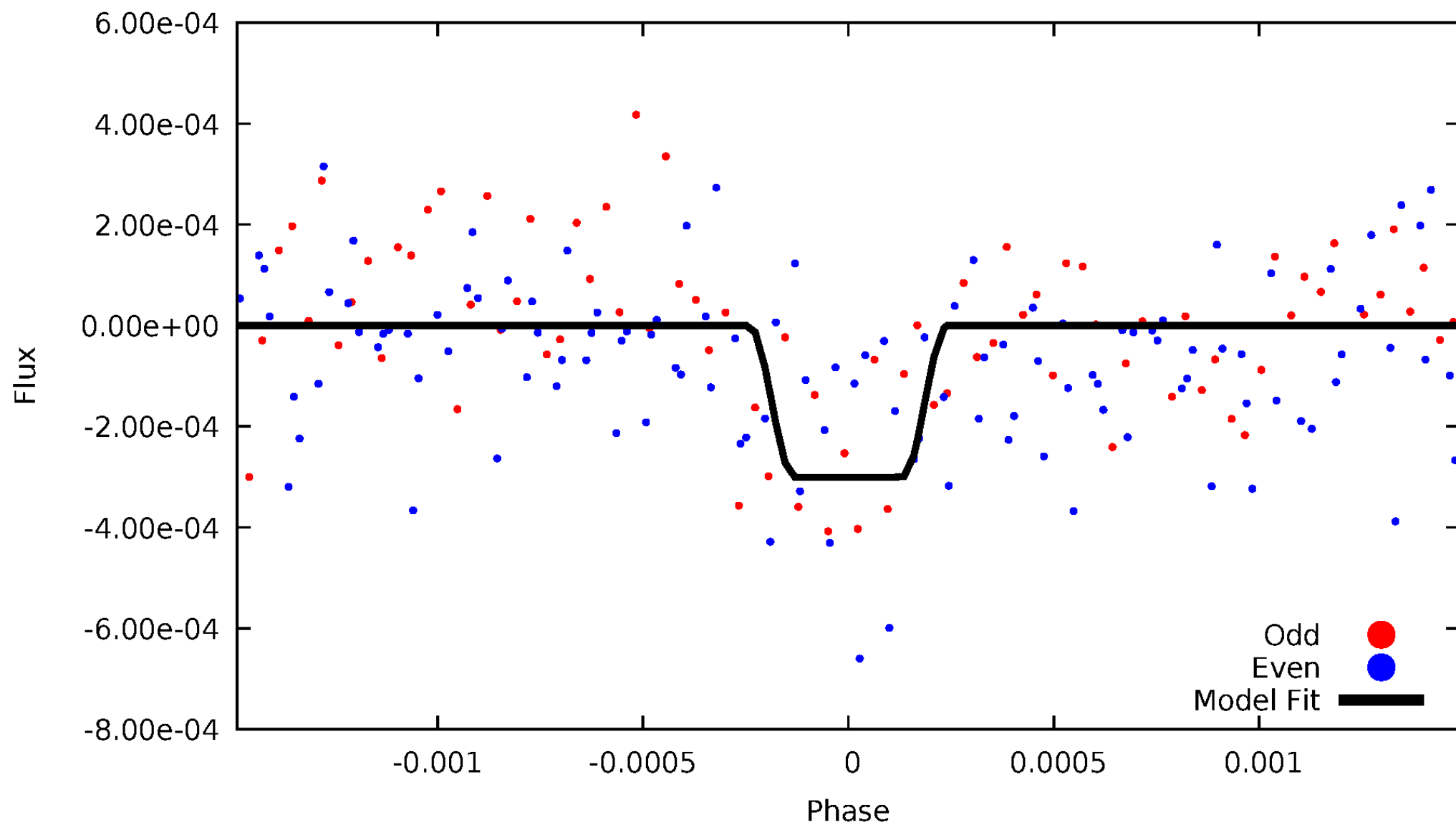
DV Odd/Even

TCE 008219151-01



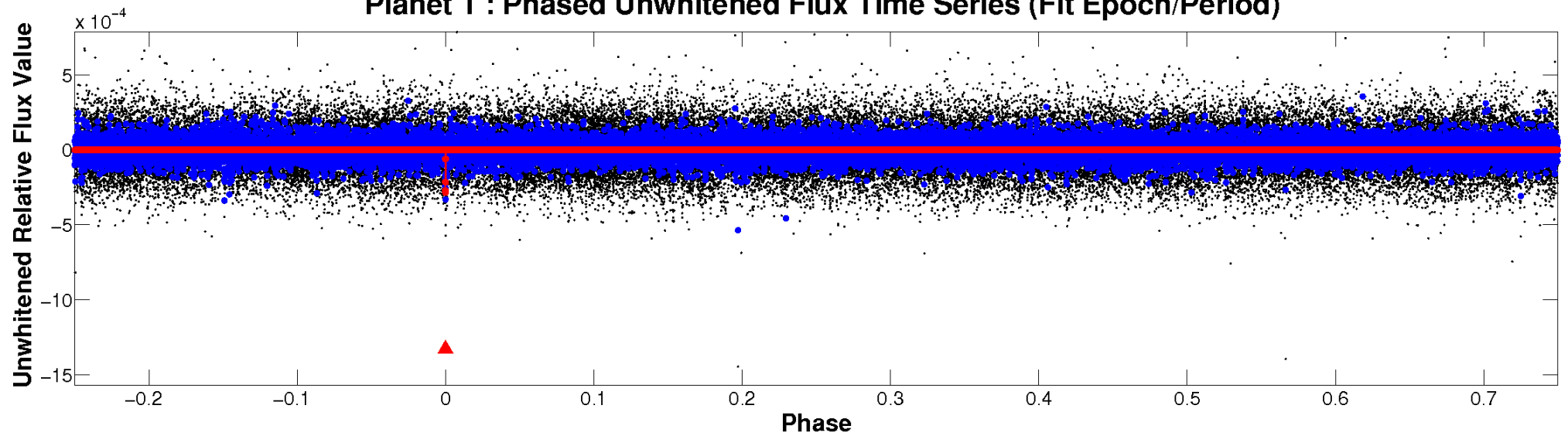
ALT Odd/Even

TCE 008219151-01

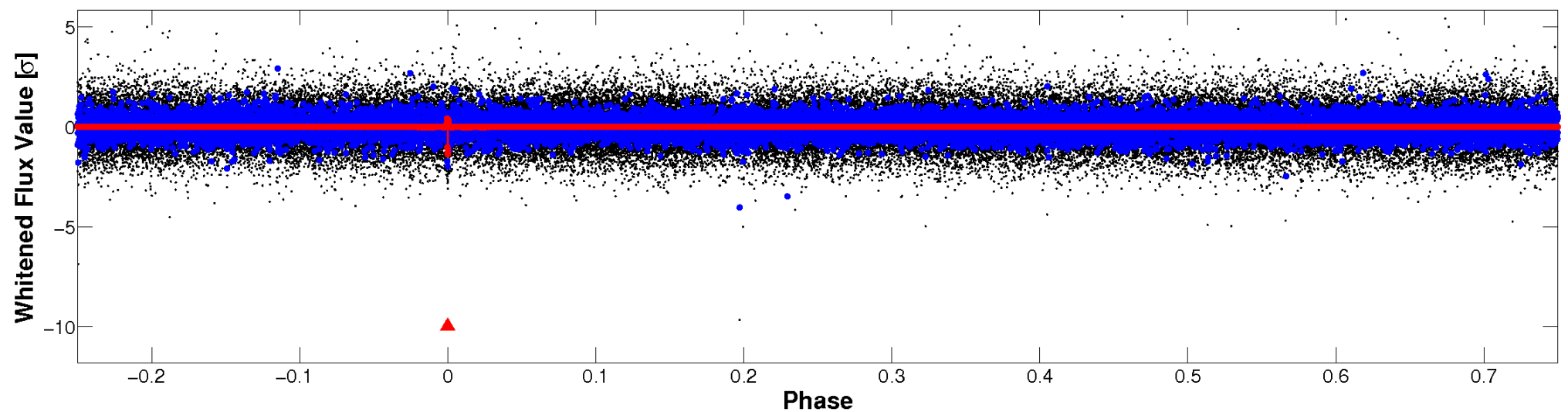


Non-Whitened Vs. Whitened Light Curve

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

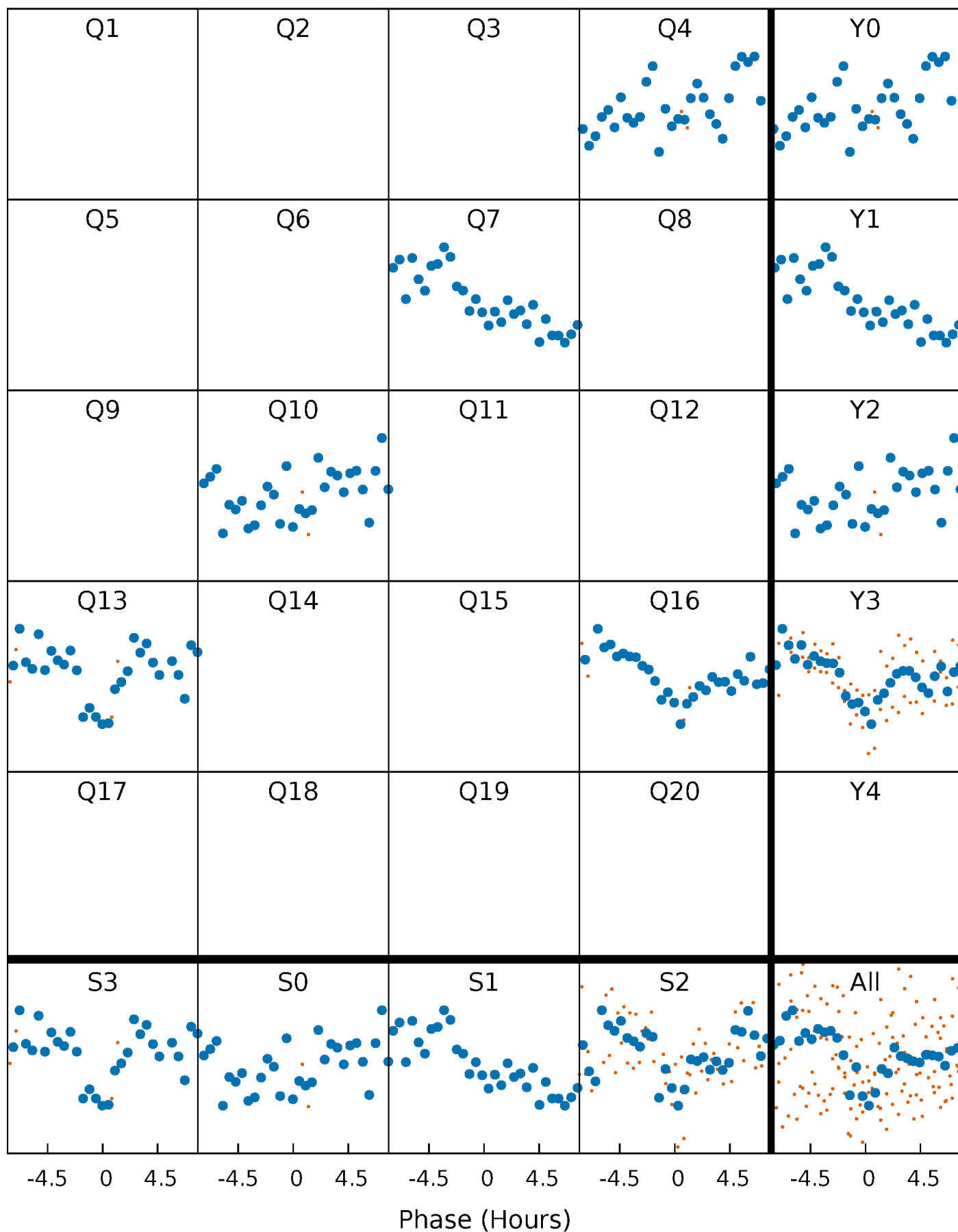


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



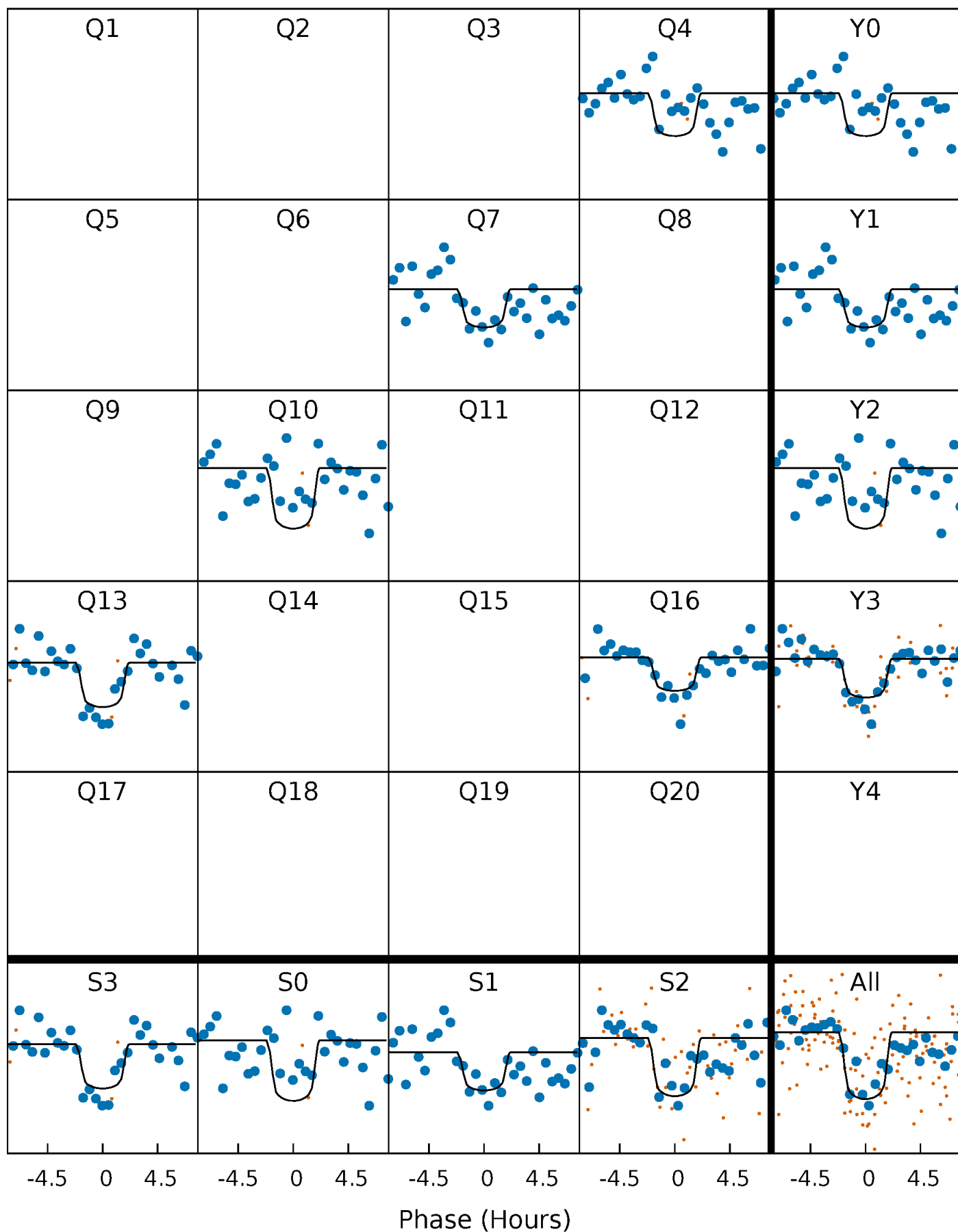
PDC Quarter-Phased Transit Curves

TCE 008219151-01 P=281.838618 Days $T_0=392.955245$ (BKJD)



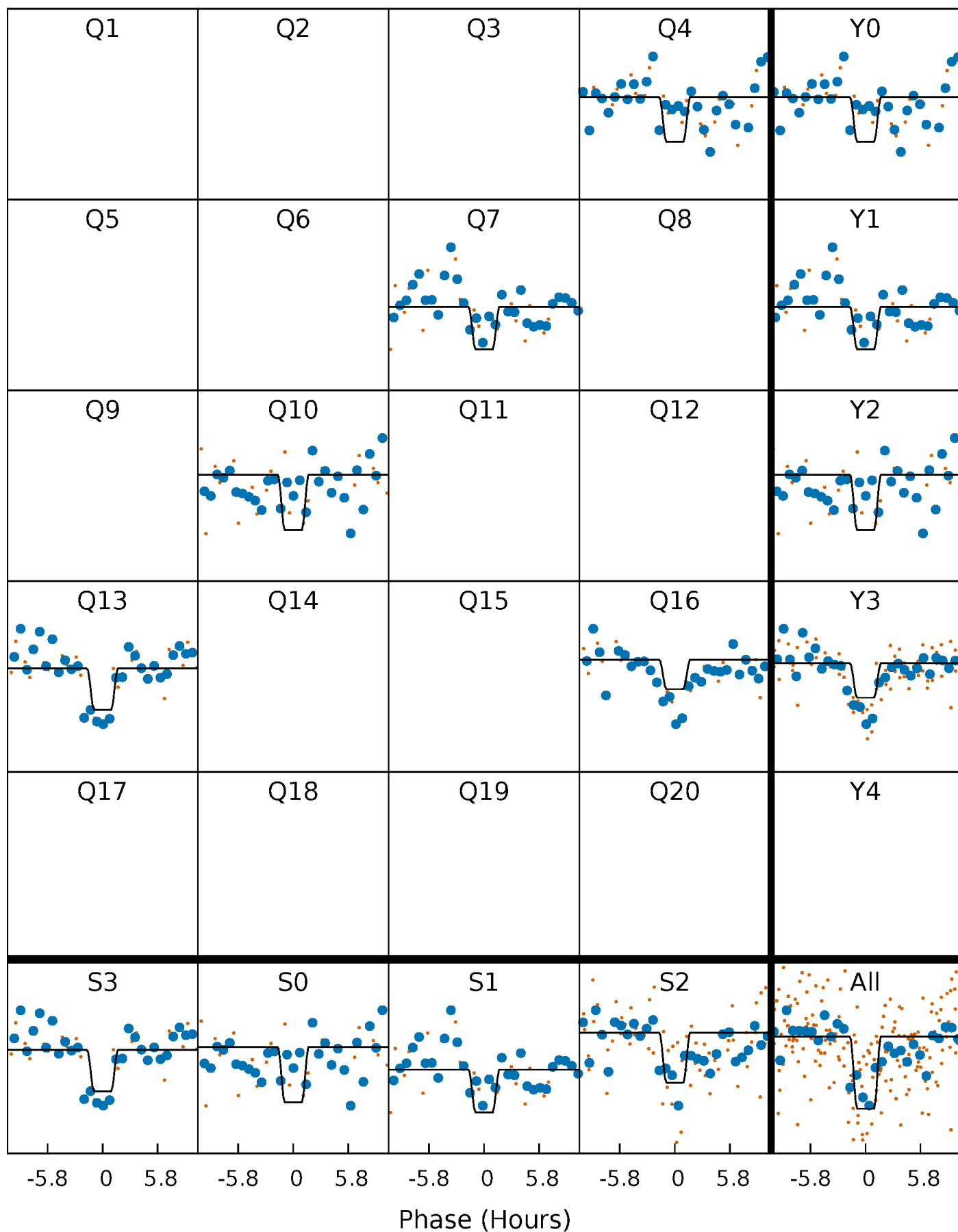
DV Quarter-Phased Transit Curves

TCE 008219151-01 P=281.838618 Days $T_0=392.955245$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

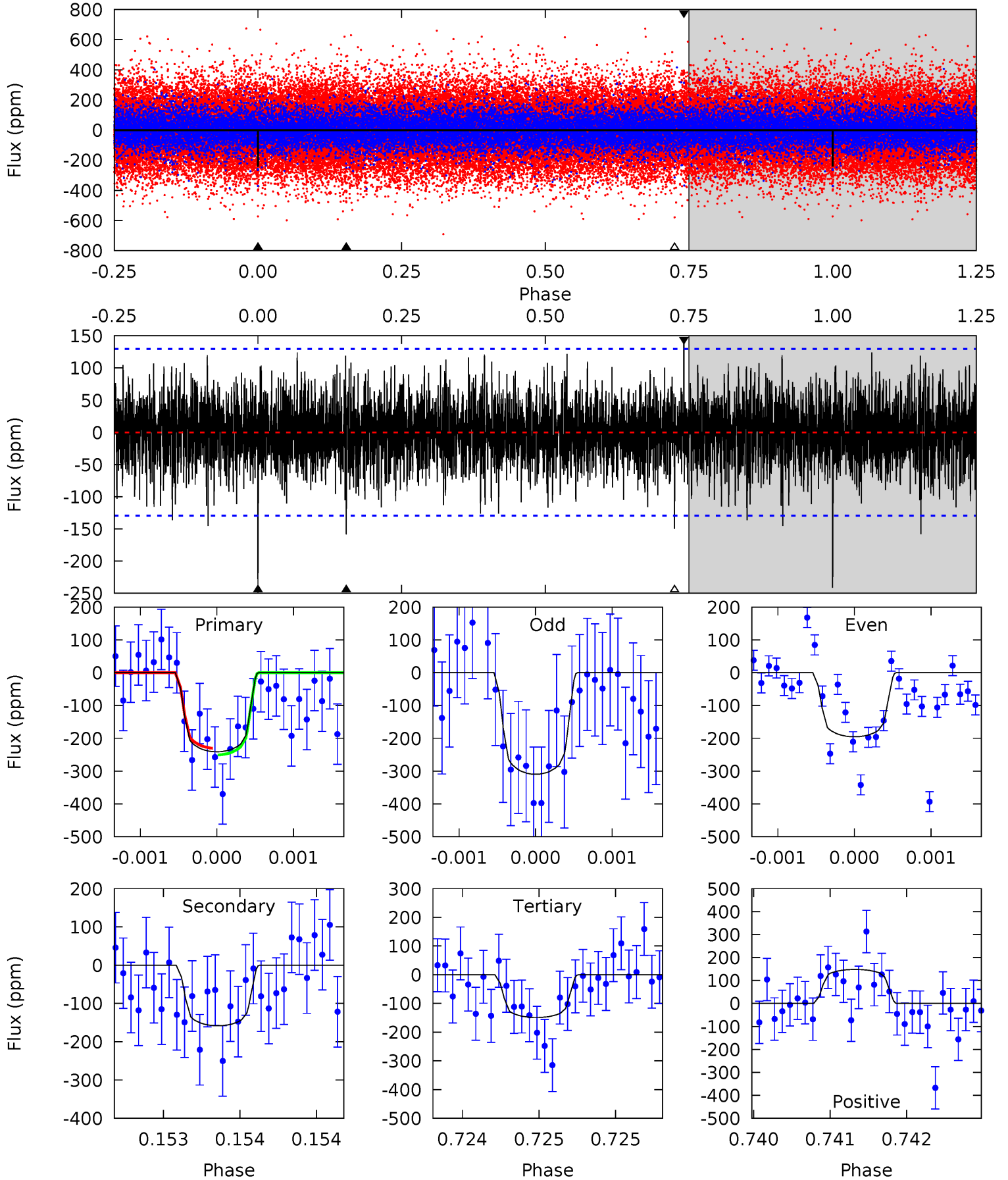
TCE 008219151-01 P=281.836500 Days $T_0=392.966156$ (BKJD)



DV Model-Shift Uniqueness Test

008219151-01, P = 281.838618 Days, E = 111.116627 Days

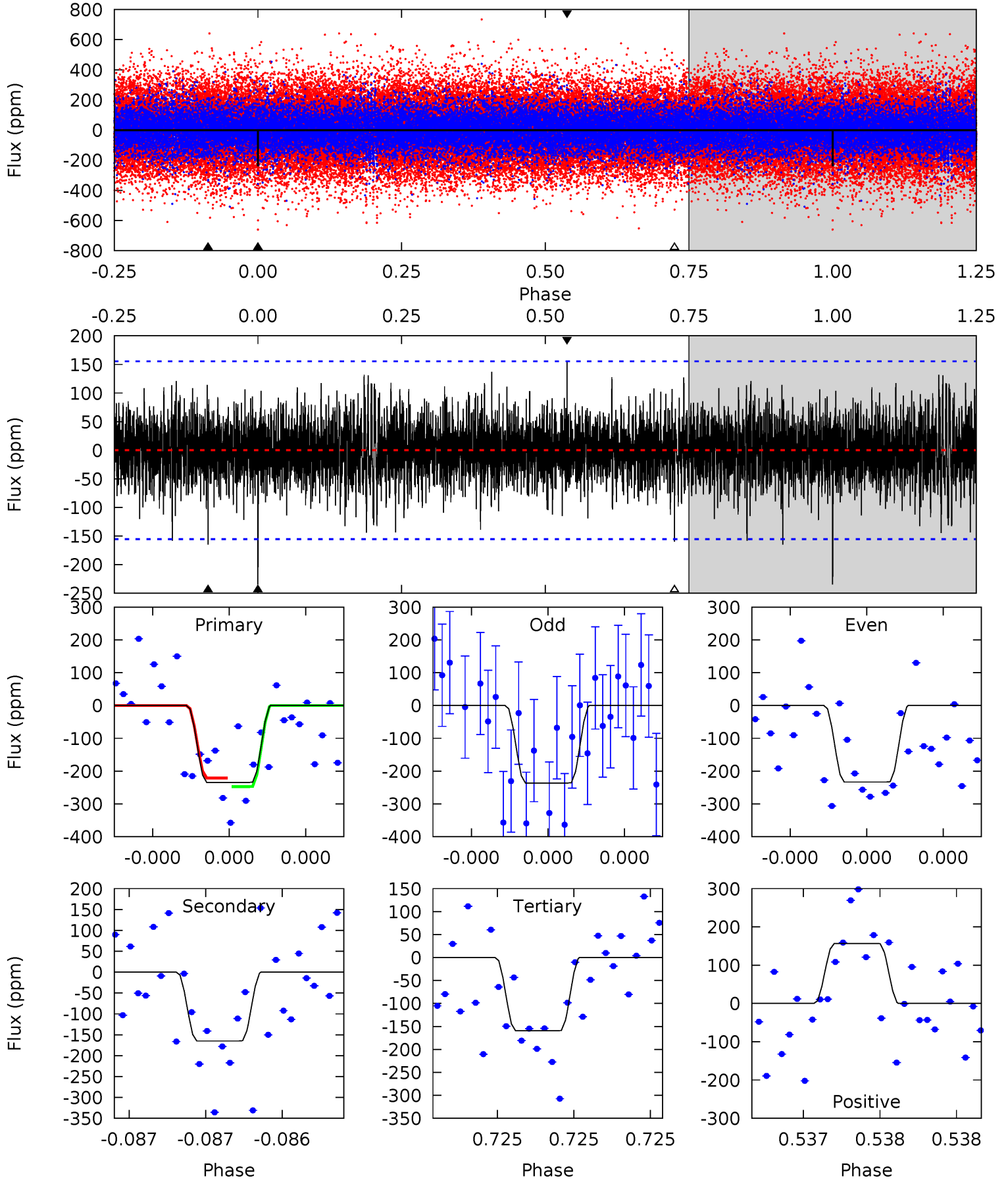
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	6.78	6.38	6.35	5.54	3.43	1.66	3.95	3.99	0.40	0.43	2.43	0.82	0.38	0.43



Alt Model-Shift Uniqueness Test

008219151-01, P = 281.836500 Days, E = 111.129656 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.44	5.93	5.74	5.64	5.59	3.51	1.39	2.70	2.80	0.19	0.29	0.06	1.86	0.40	0.48



Stellar Parameters For KIC 008219151

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7163^{+200}_{-275}	$4.143^{+0.132}_{-0.198}$	$-0.080^{+0.250}_{-0.350}$	$1.707^{+0.525}_{-0.350}$	$1.478^{+0.218}_{-0.239}$	$0.418^{+0.316}_{-0.206}$
	+3%/-4%	+3%/-5%	+312%/-438%	+31%/-21%	+15%/-16%	+76%/-49%
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 008219151-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-158 ± 23	$3.44^{+1.14}_{-1.13}$	595^{+47}_{-41}	5914^{+1191}_{-698}	6833^{+7677}_{-3173}
Alt.	-165 ± 28	$3.35^{+1.17}_{-1.09}$	590^{+44}_{-38}	6016^{+1355}_{-783}	7522^{+9619}_{-3618}

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 $A_{obs} \gg 1.0$

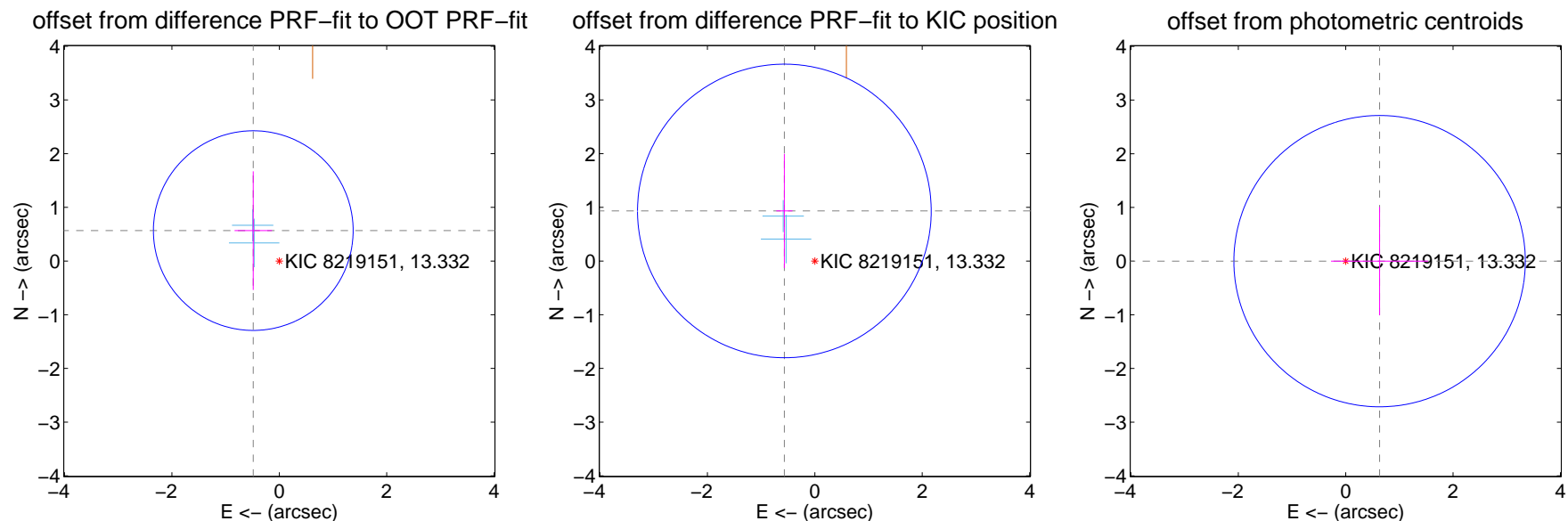
DV Centroid Data

Supplemental centroid analysis for 008219151-01. Kepler magnitude: 13.33. Transit SNR 7.70

There are 2 quarters with good PRF difference image offsets

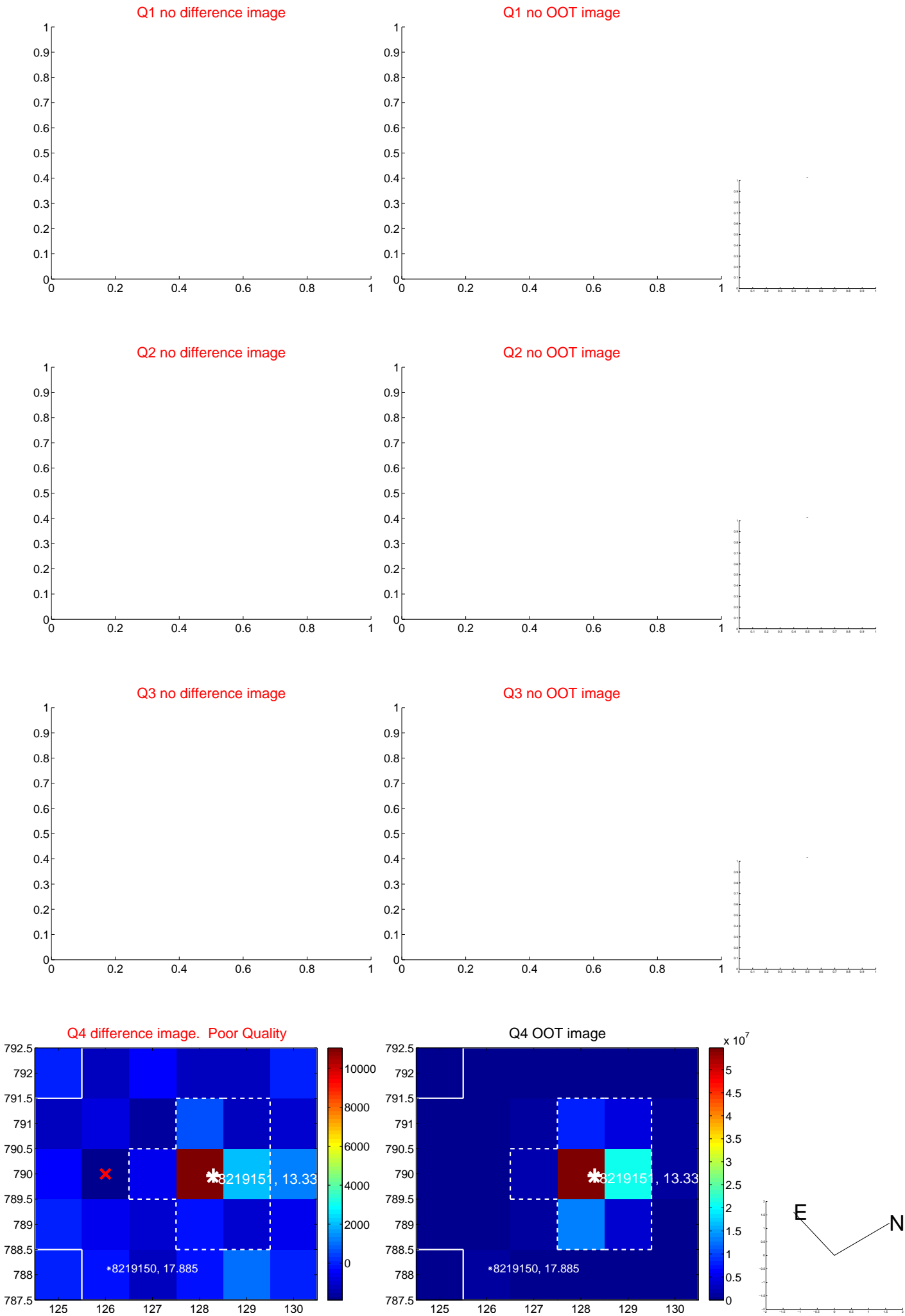
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.746 ± 0.620	1.20	0.485 ± 0.348	0.567 ± 1.105
PRF-fit source offset from KIC position	1.092 ± 0.911	1.20	0.567 ± 0.150	0.933 ± 1.062
photometric centroid source offset	0.63 ± 0.90	0.70	-0.63 ± 0.90	-0.00 ± 1.01

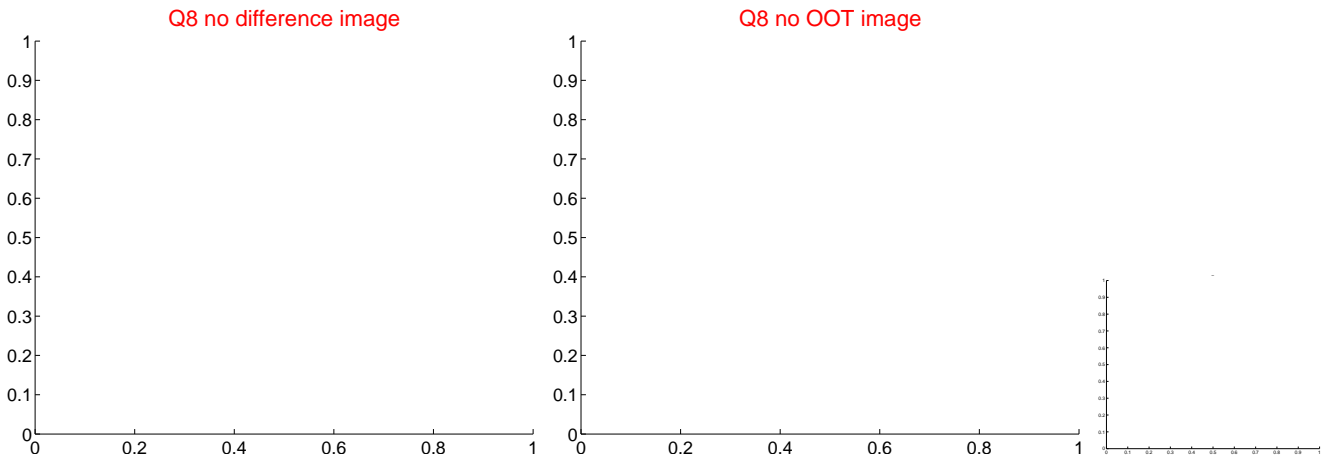
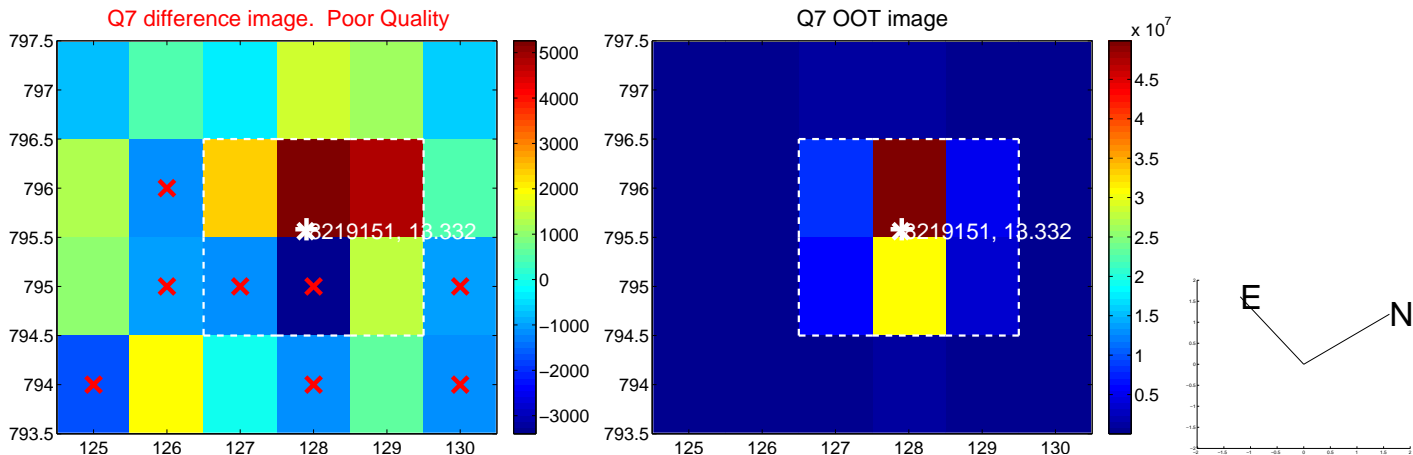
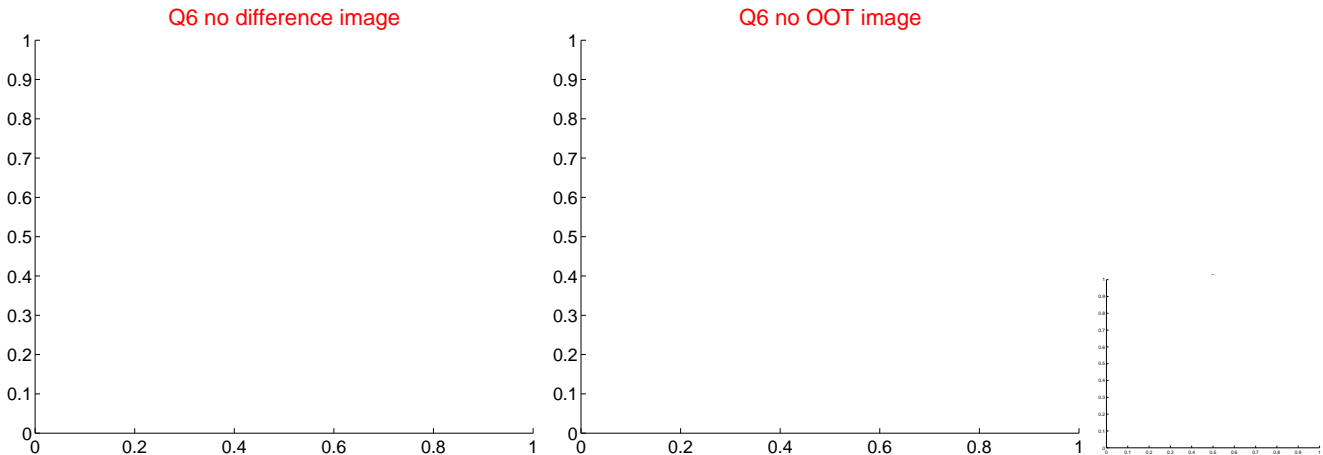
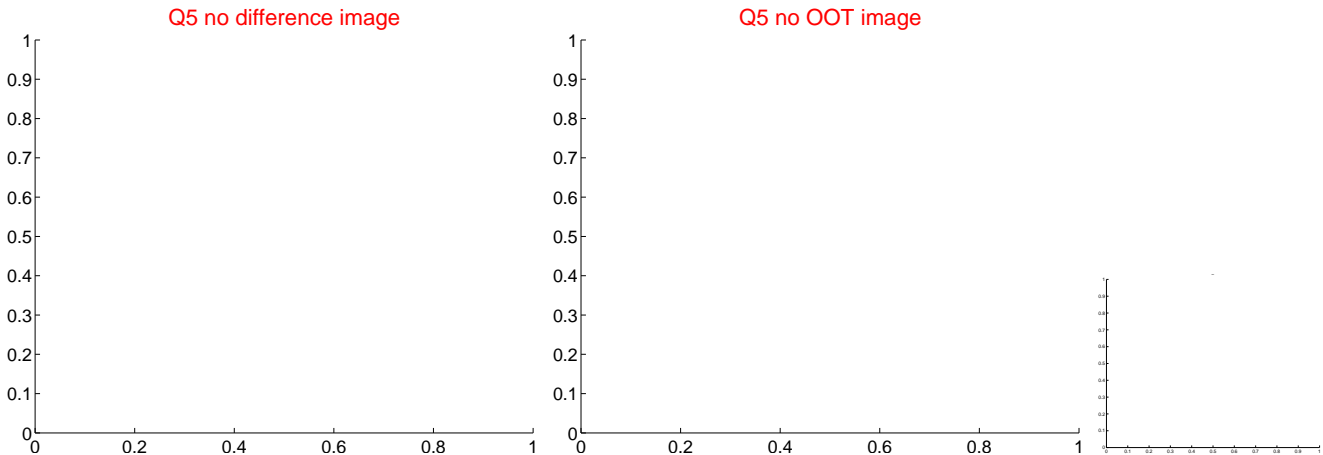


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

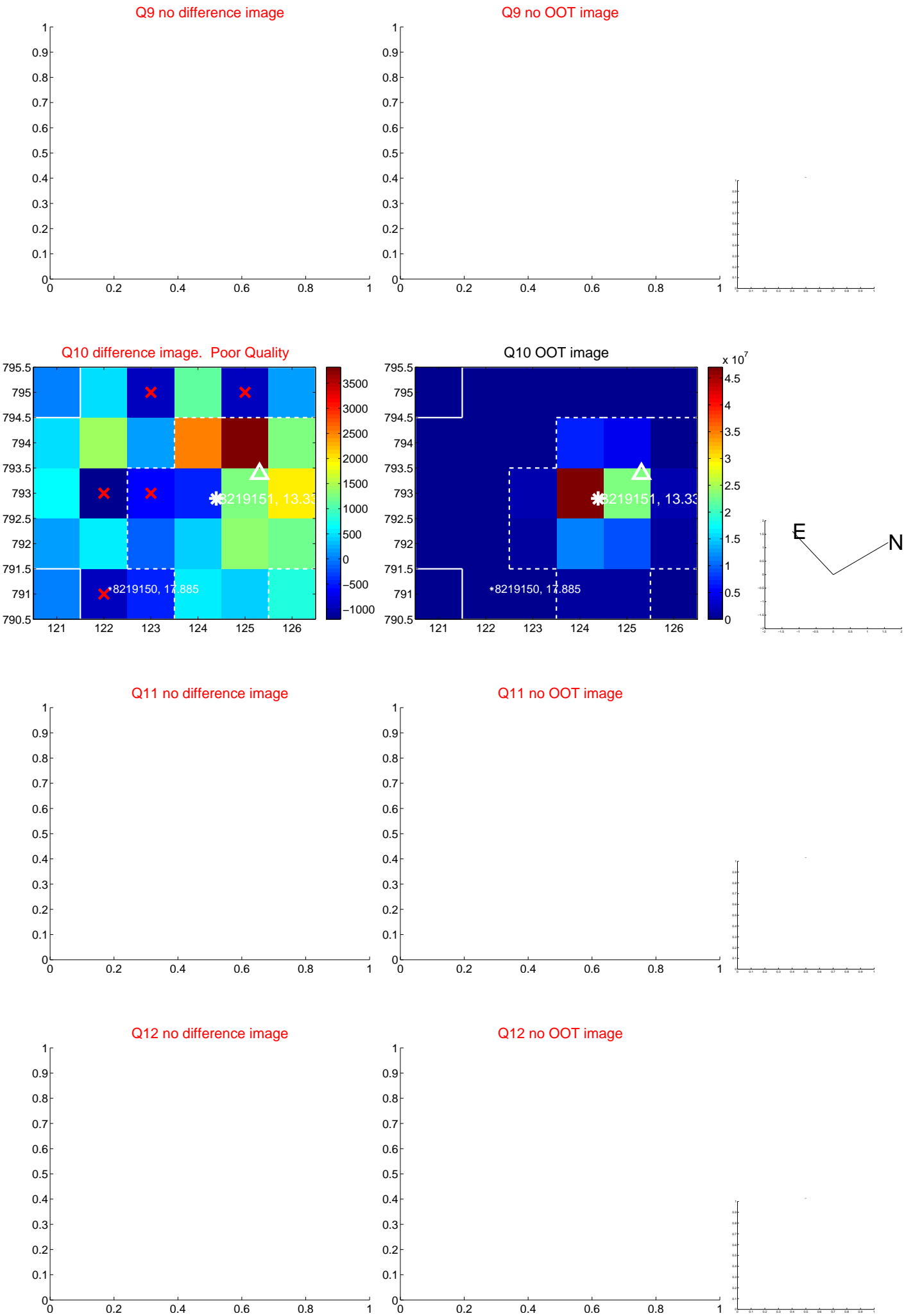
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



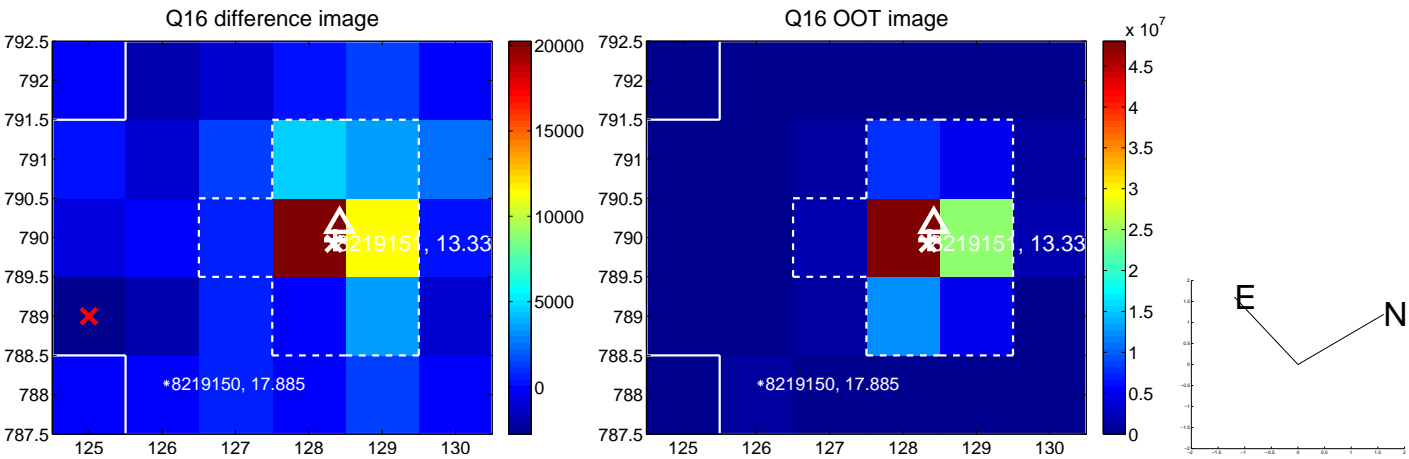
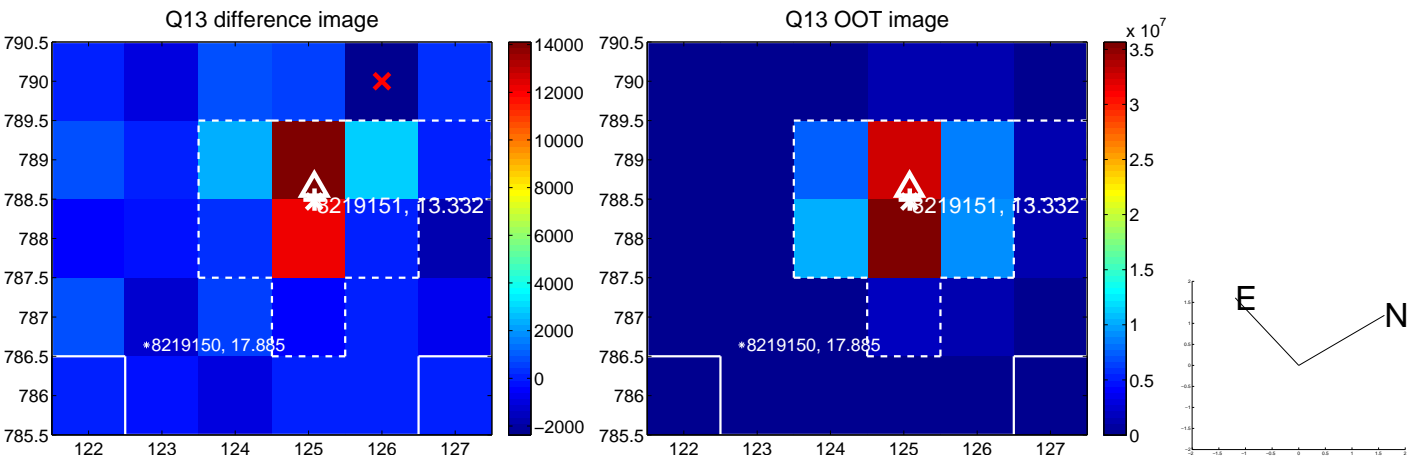
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



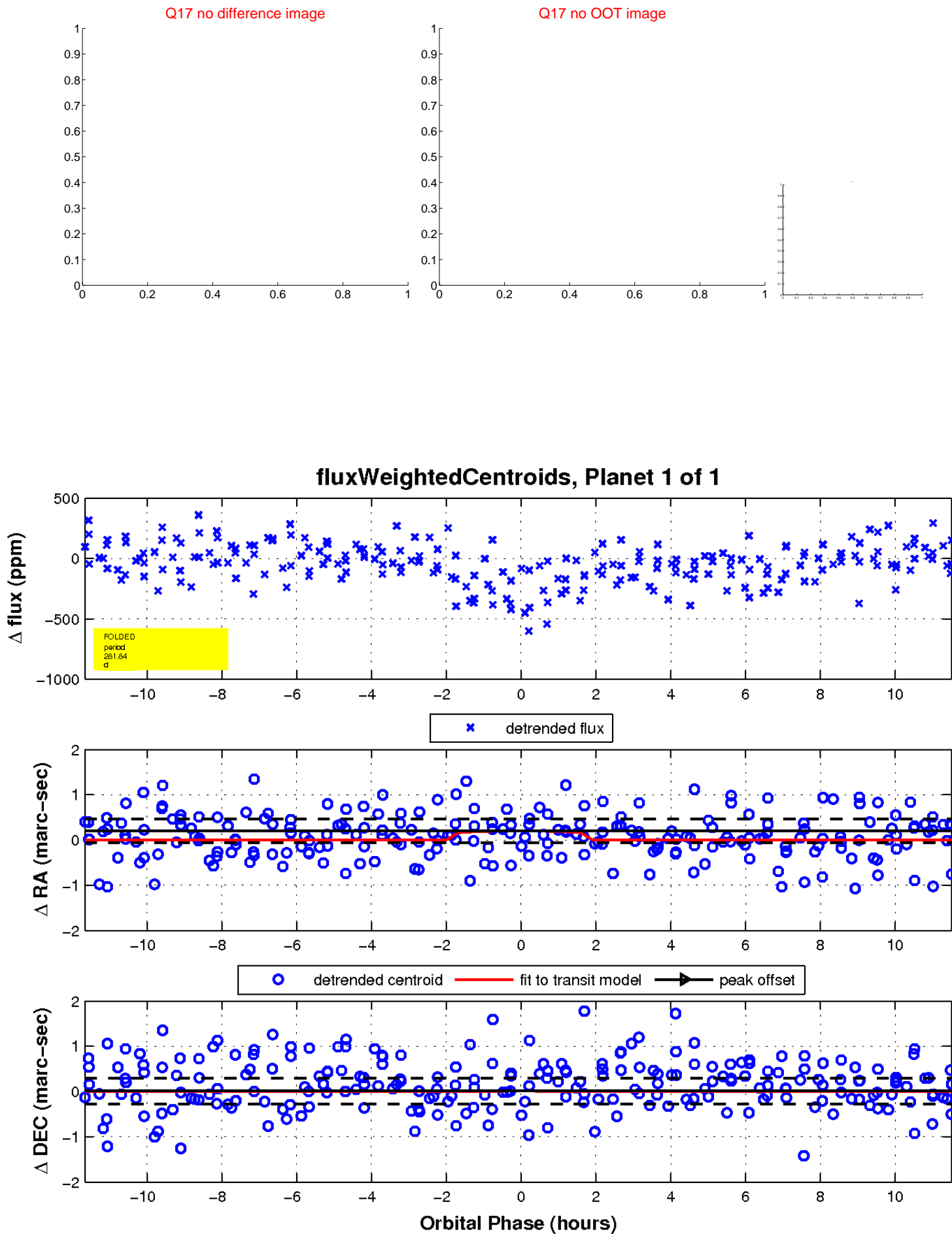
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

