

KIC 007888957

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})
007888957-01	OBS	8147.01	363.343942	175.949237	850.3	4.614	7.4	6.1	7.62	4994	24.27	19.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007888957-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

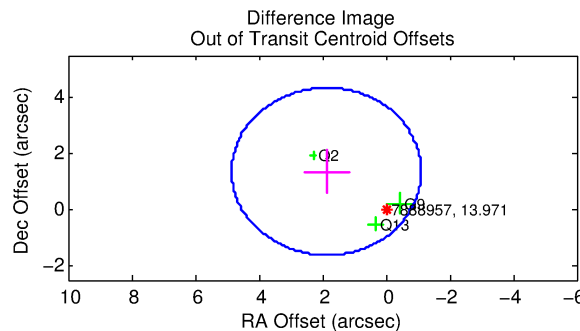
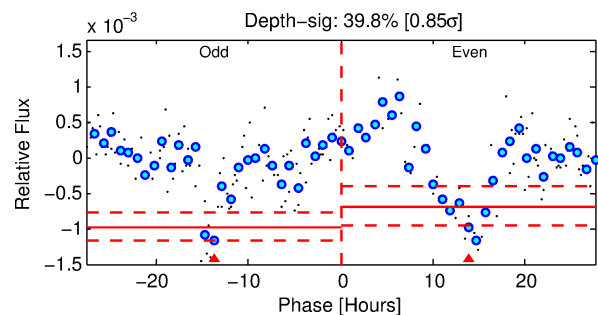
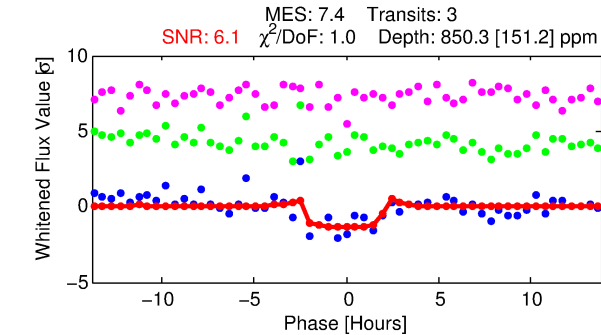
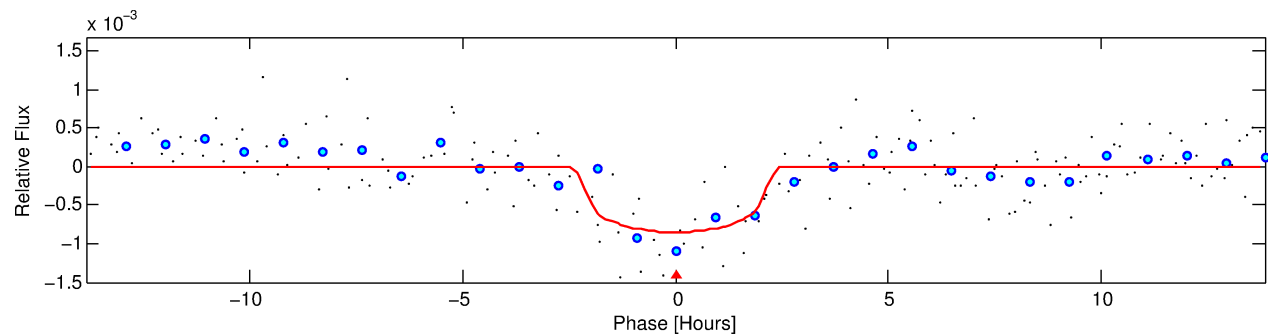
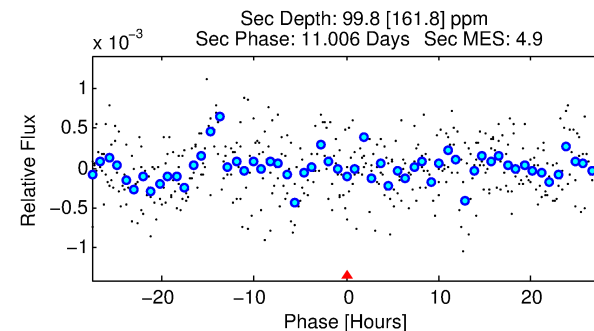
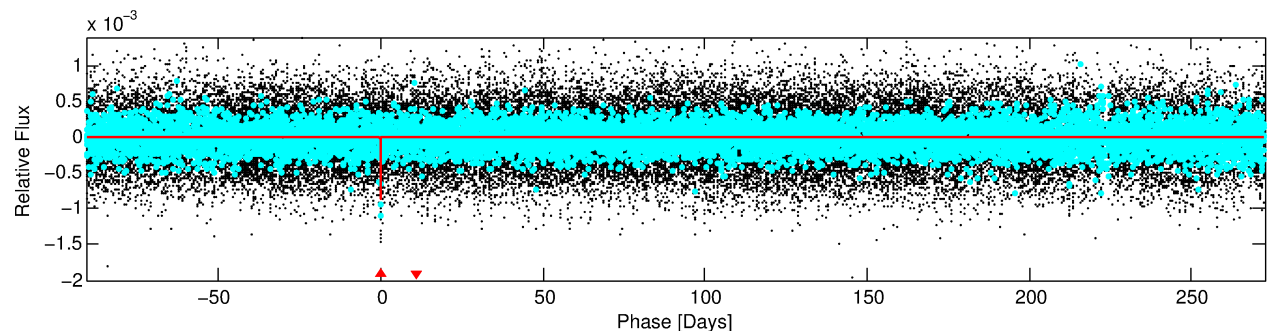
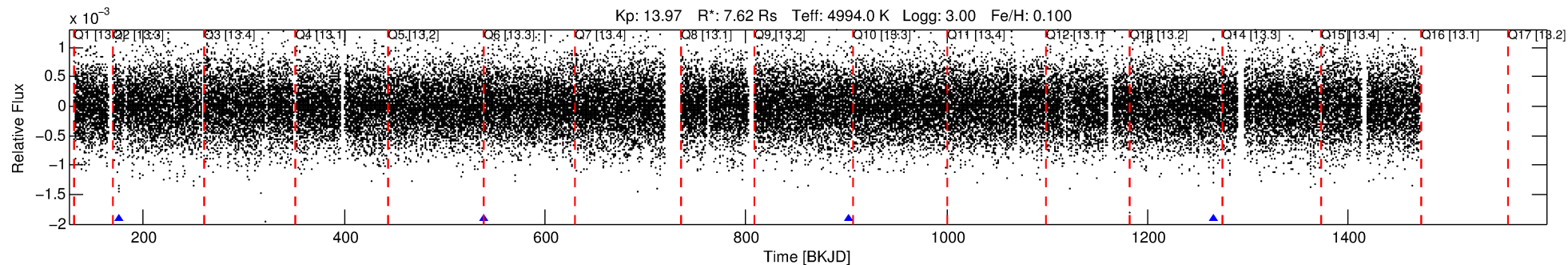
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007888957-01

No Significant Match Found

DV One-Page Summary

KIC: 7888957 Candidate: 1 of 1 Period: 363.344 d



DV Fit Results:

Period = 363.34394 [0.00443] d
Epoch = 175.9492 [0.0086] BKJD
Rp/R* = 0.0292 [0.0219]
a/R* = 420.83 [1115.35]
b = 0.75 [1.53]
Seff = 19.69 [4.66]
Teff = 537 [32] K
Rp = 24.27 [19.35] Re
a = 1.2819 [0.2323] AU
Ag = 153.11 [339.45] [0.45 σ]
Teffp = 2921 [1617] K [1.47 σ]

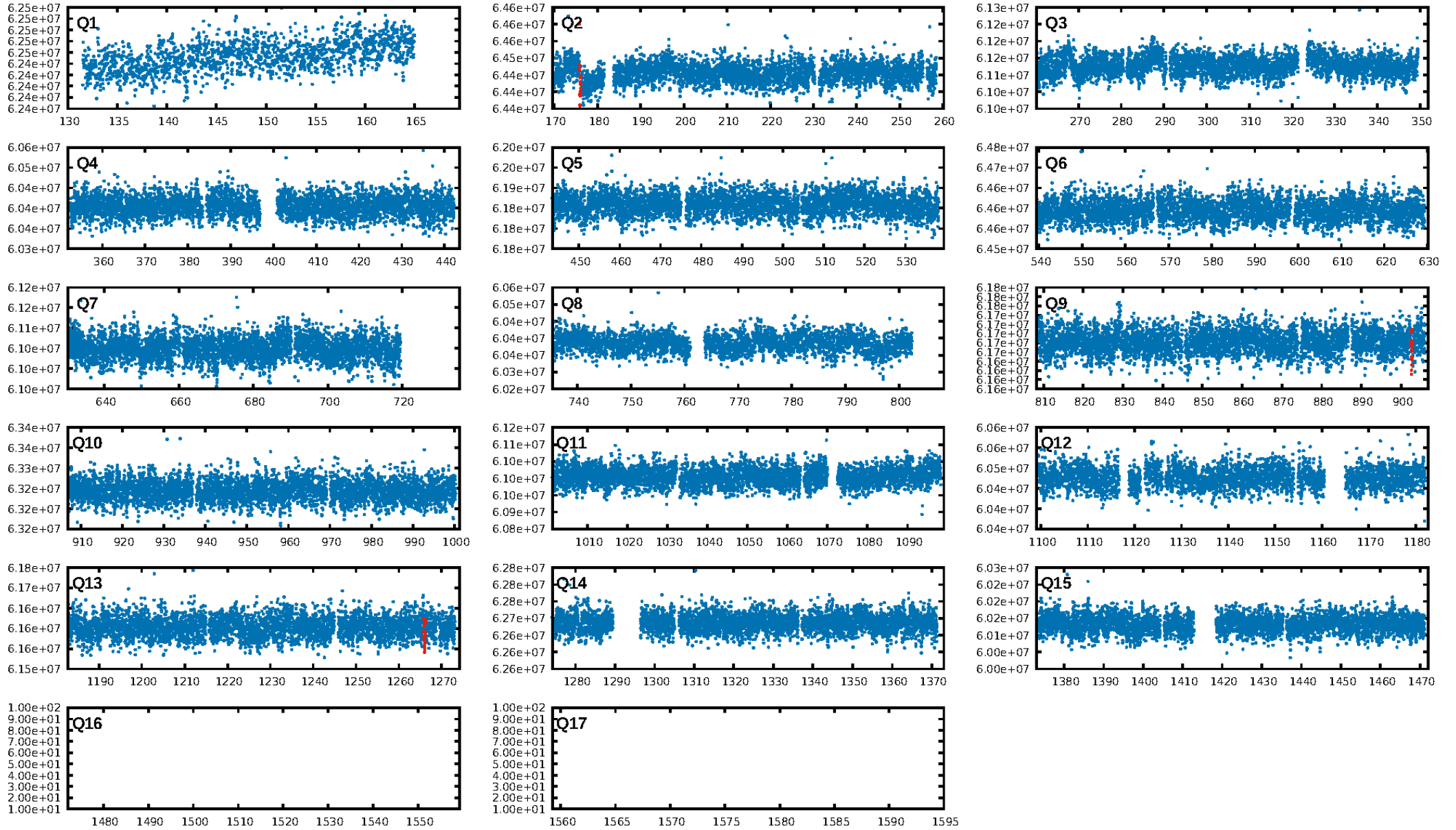
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 40.7%
ModelChiSquareGof-sig: 95.3%
Bootstrap-pfa: 7.52e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.59
Centroid-sig: 19.4%
Centroid-so: 1.164 arcsec [1.32 σ]
OotOffset-rm: 2.318 arcsec [2.33 σ]
KicOffset-rm: 2.305 arcsec [2.97 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

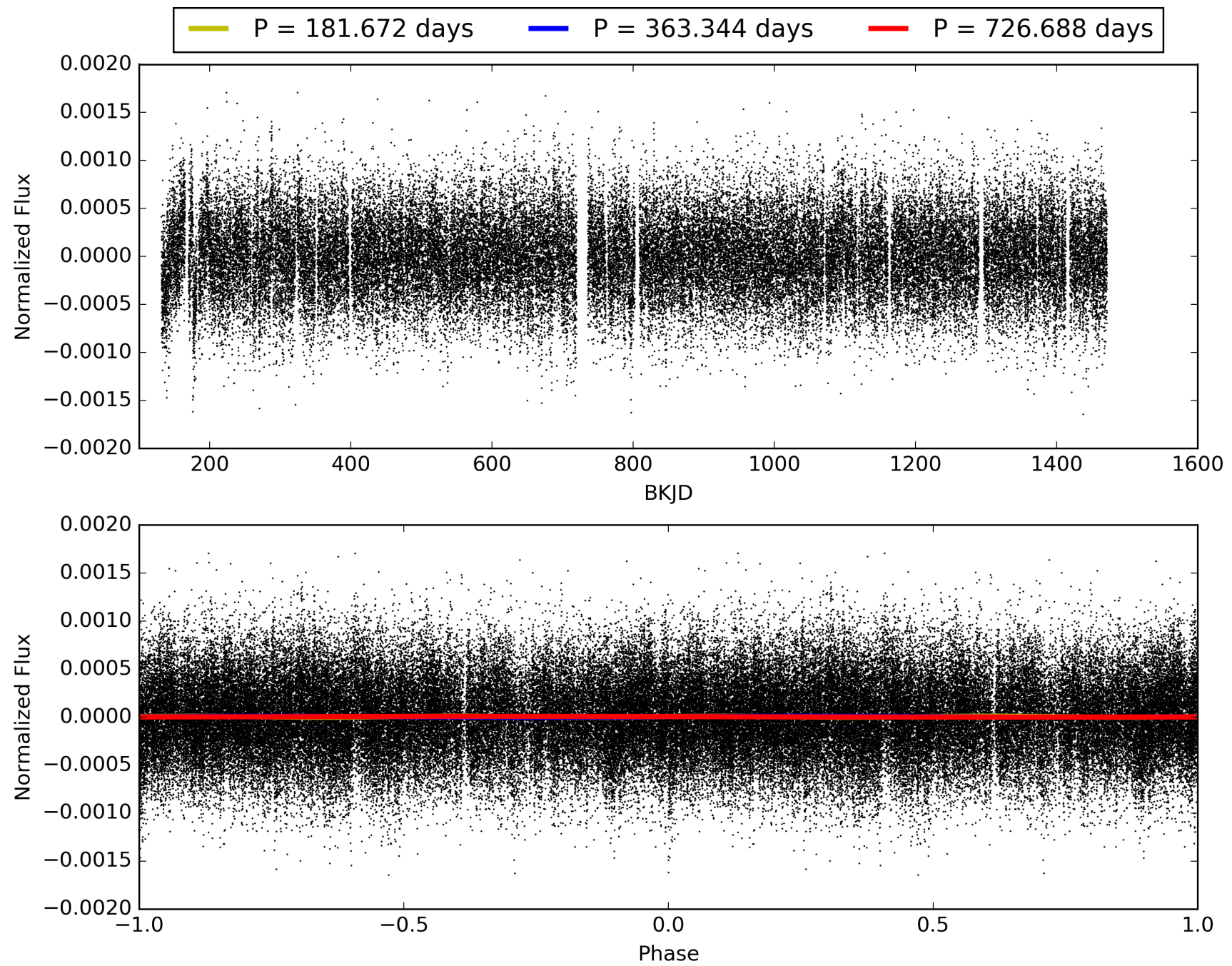
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:31:10 Z

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

TCE 007888957-01, PDC Light Curves

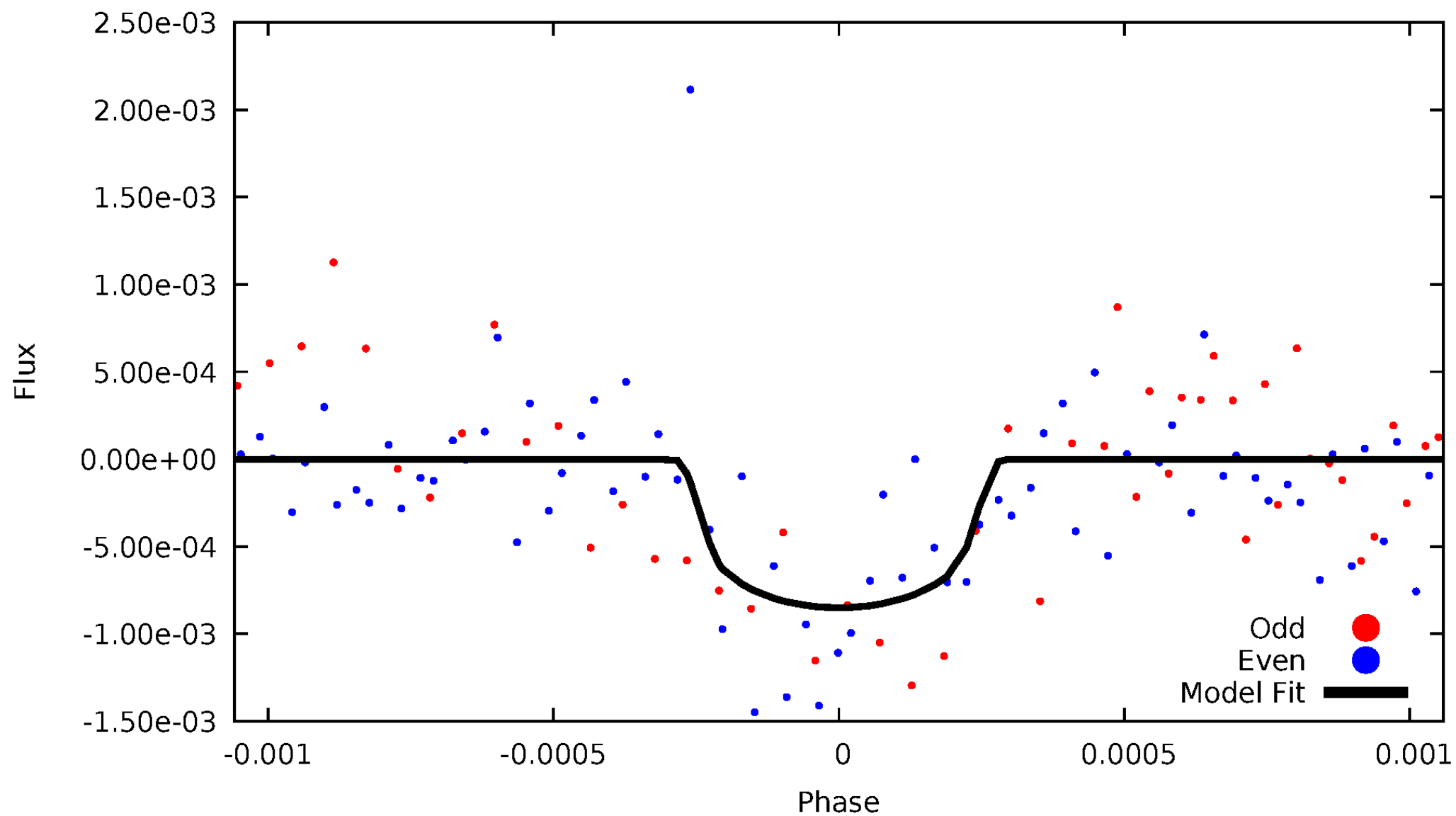


TCE 007888957-01



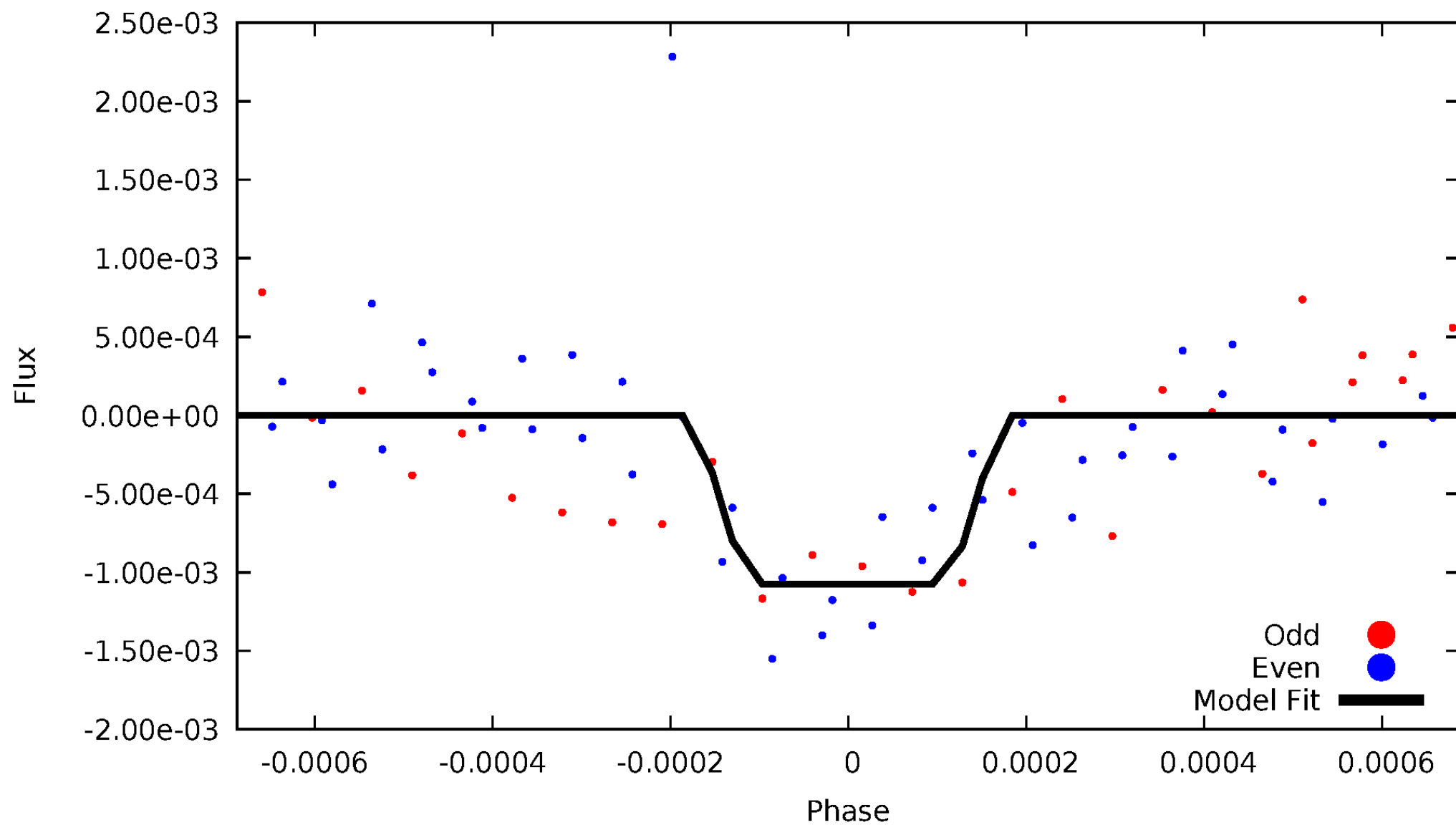
DV Odd/Even

TCE 007888957-01



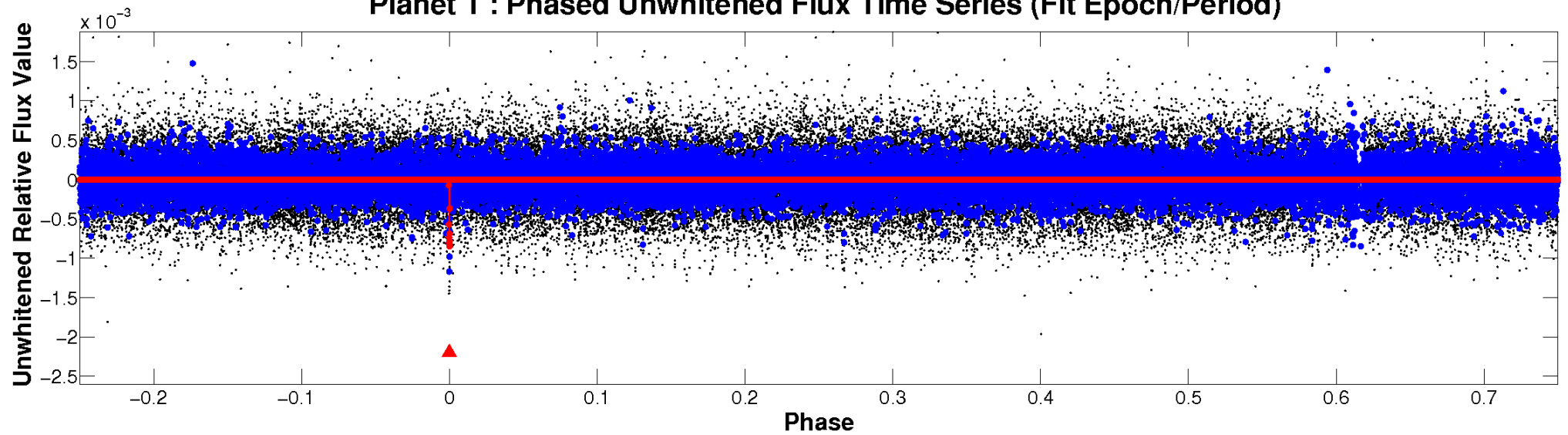
ALT Odd/Even

TCE 007888957-01

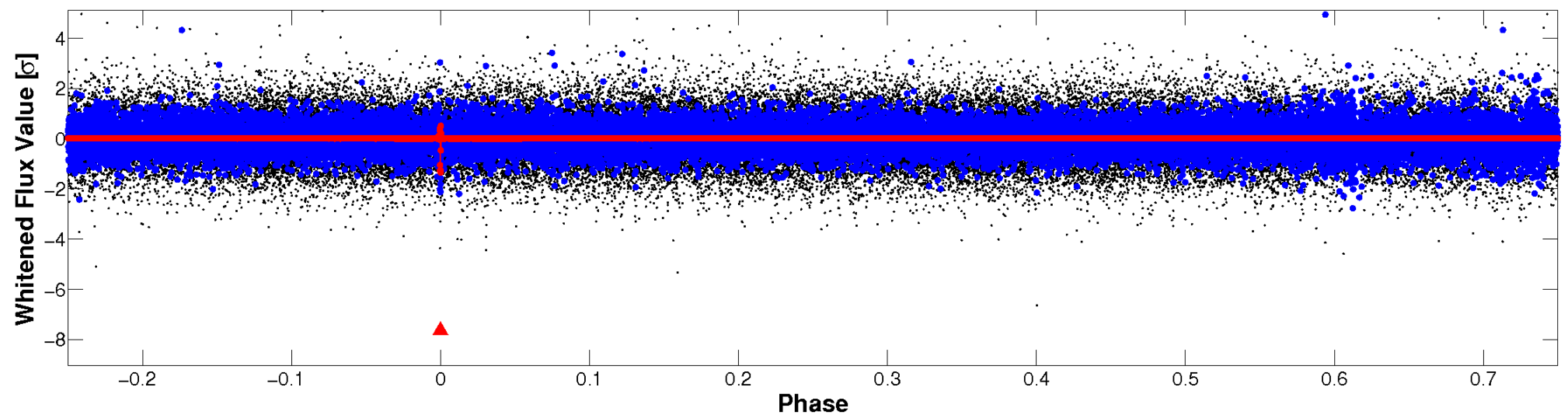


Non-Whitened Vs. Whitened Light Curve

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

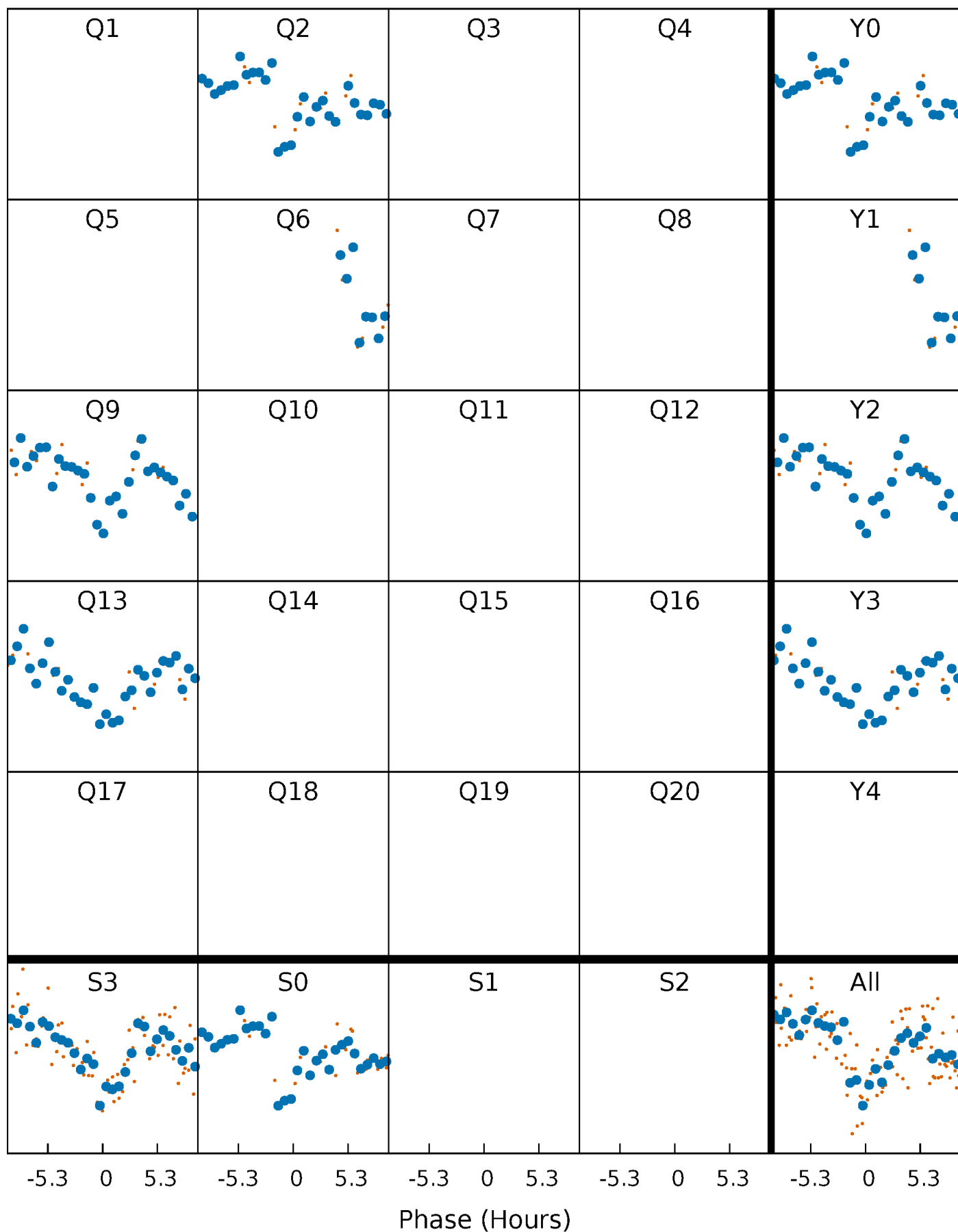


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



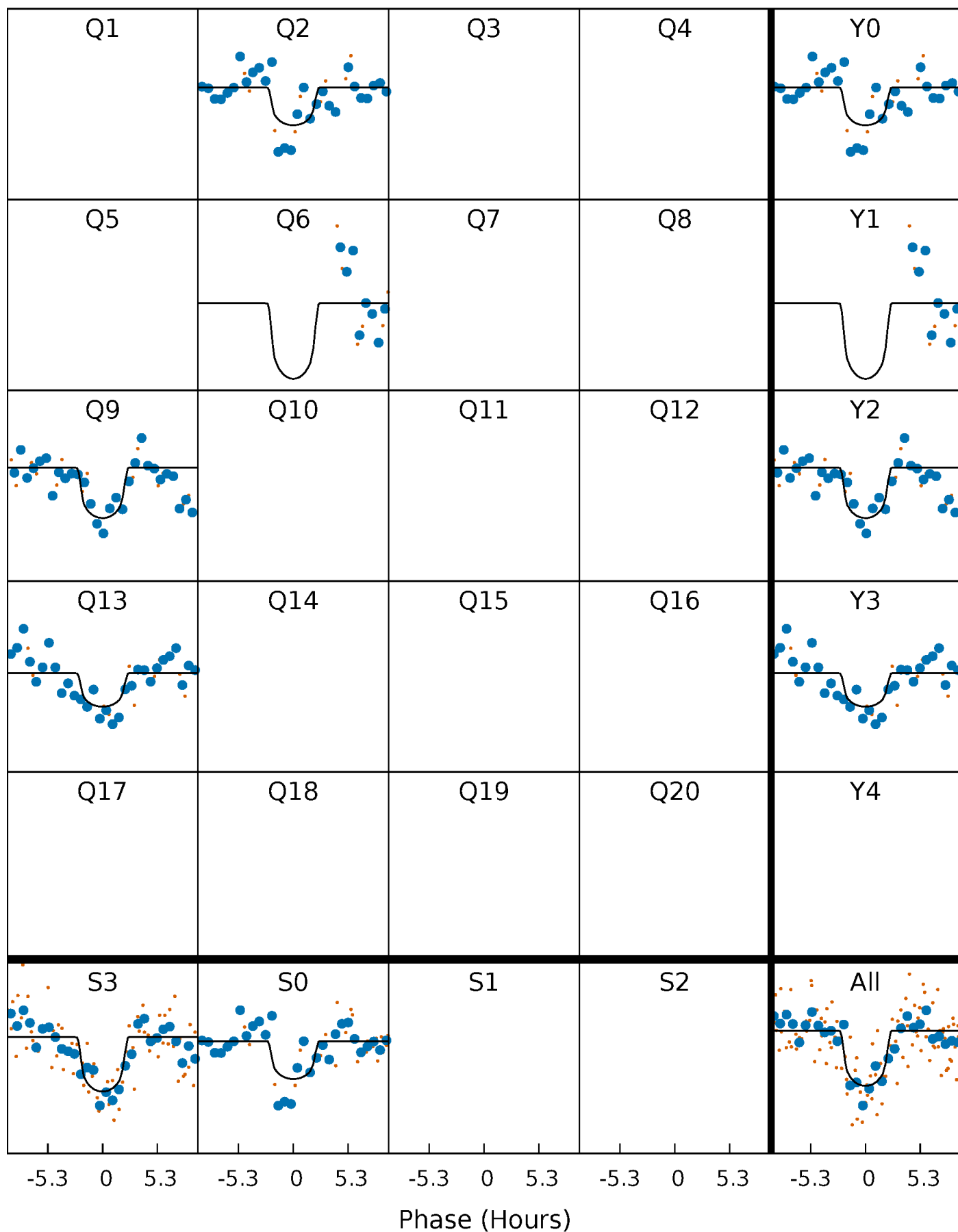
PDC Quarter-Phased Transit Curves

TCE 007888957-01 P=363.343942 Days $T_0=175.949237$ (BKJD)



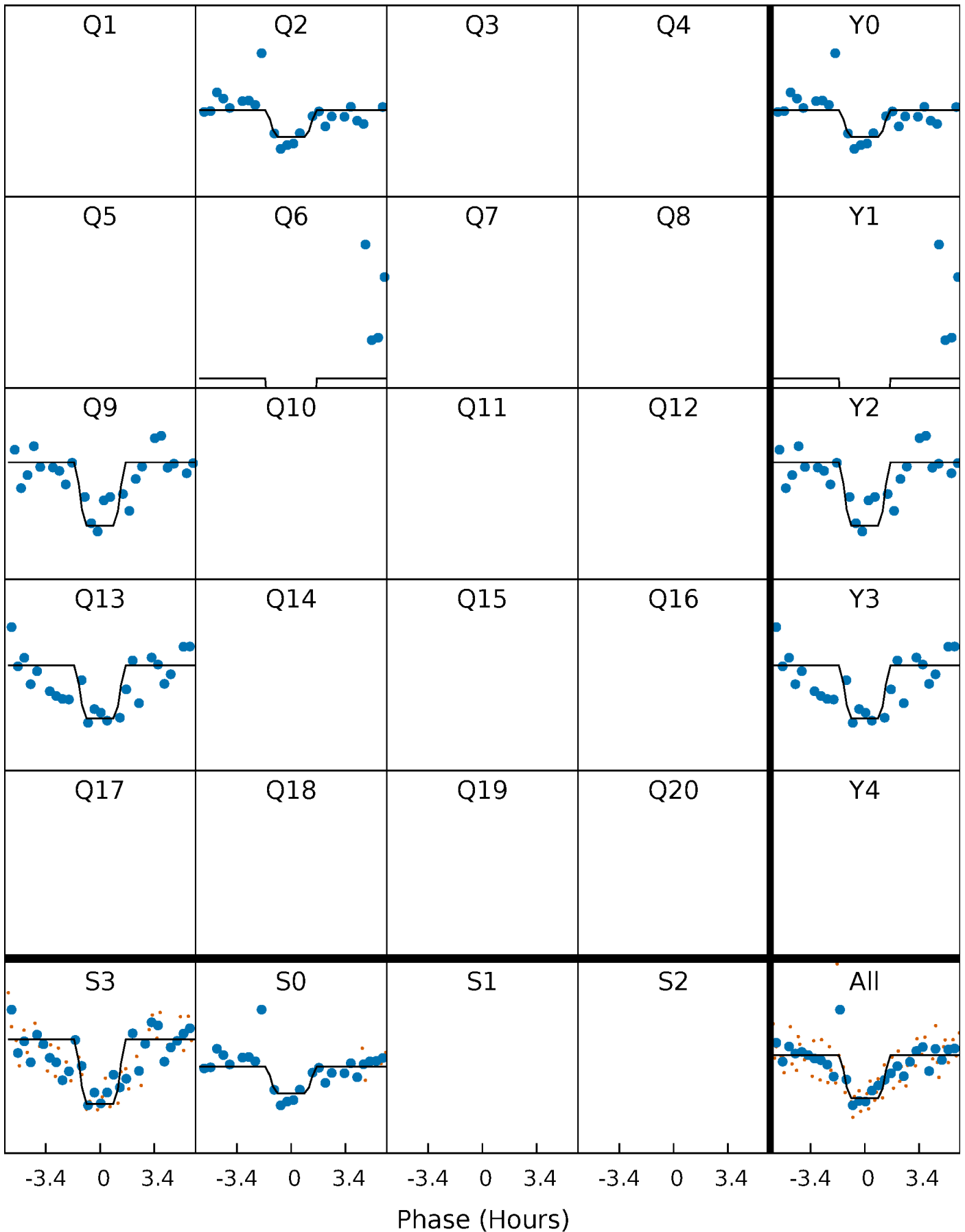
DV Quarter-Phased Transit Curves

TCE 007888957-01 P=363.343942 Days $T_0=175.949237$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

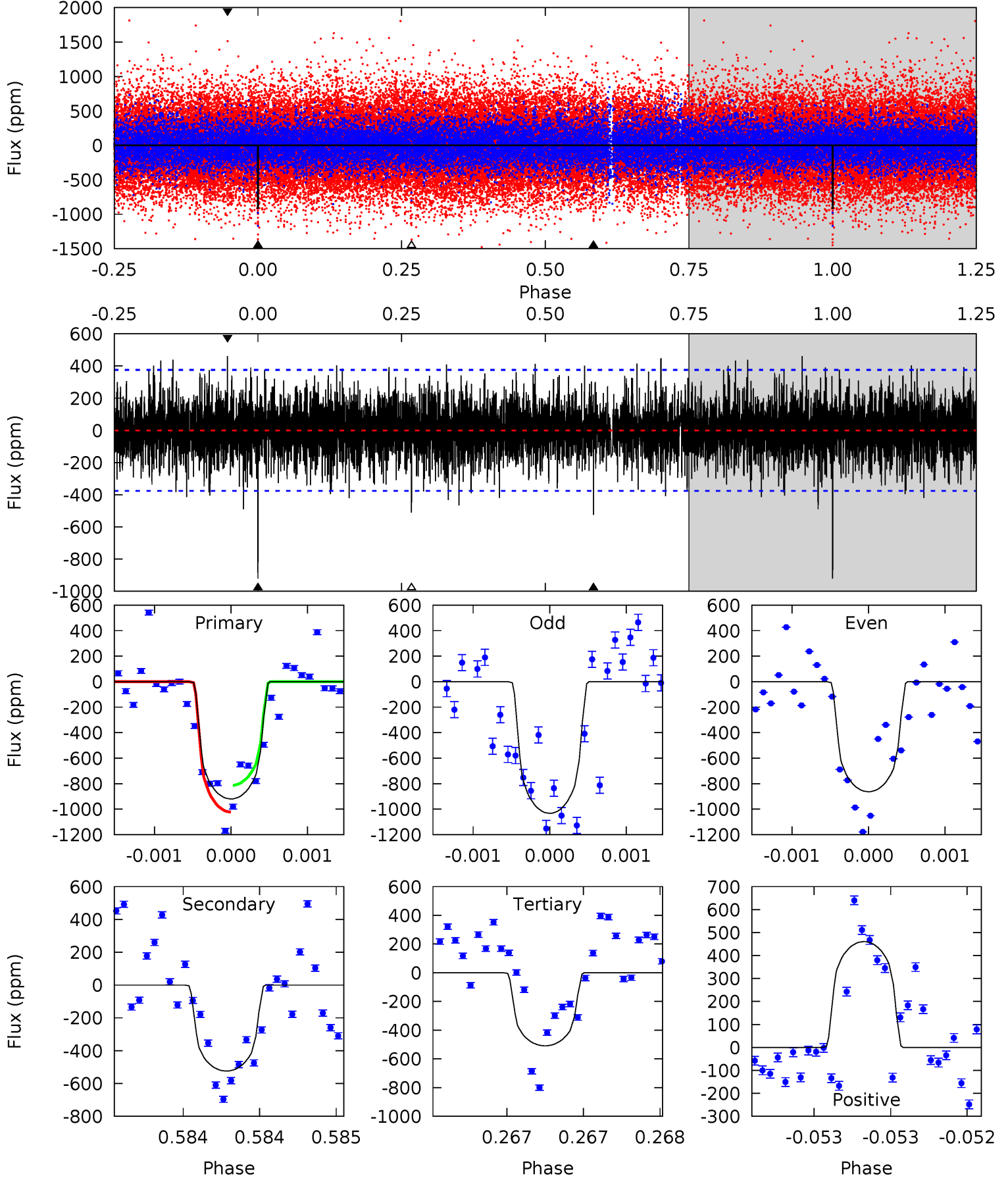
TCE 007888957-01 P=363.358186 Days $T_0=175.926708$ (BKJD)



DV Model-Shift Uniqueness Test

007888957-01, P = 363.343942 Days, E = 175.949237 Days

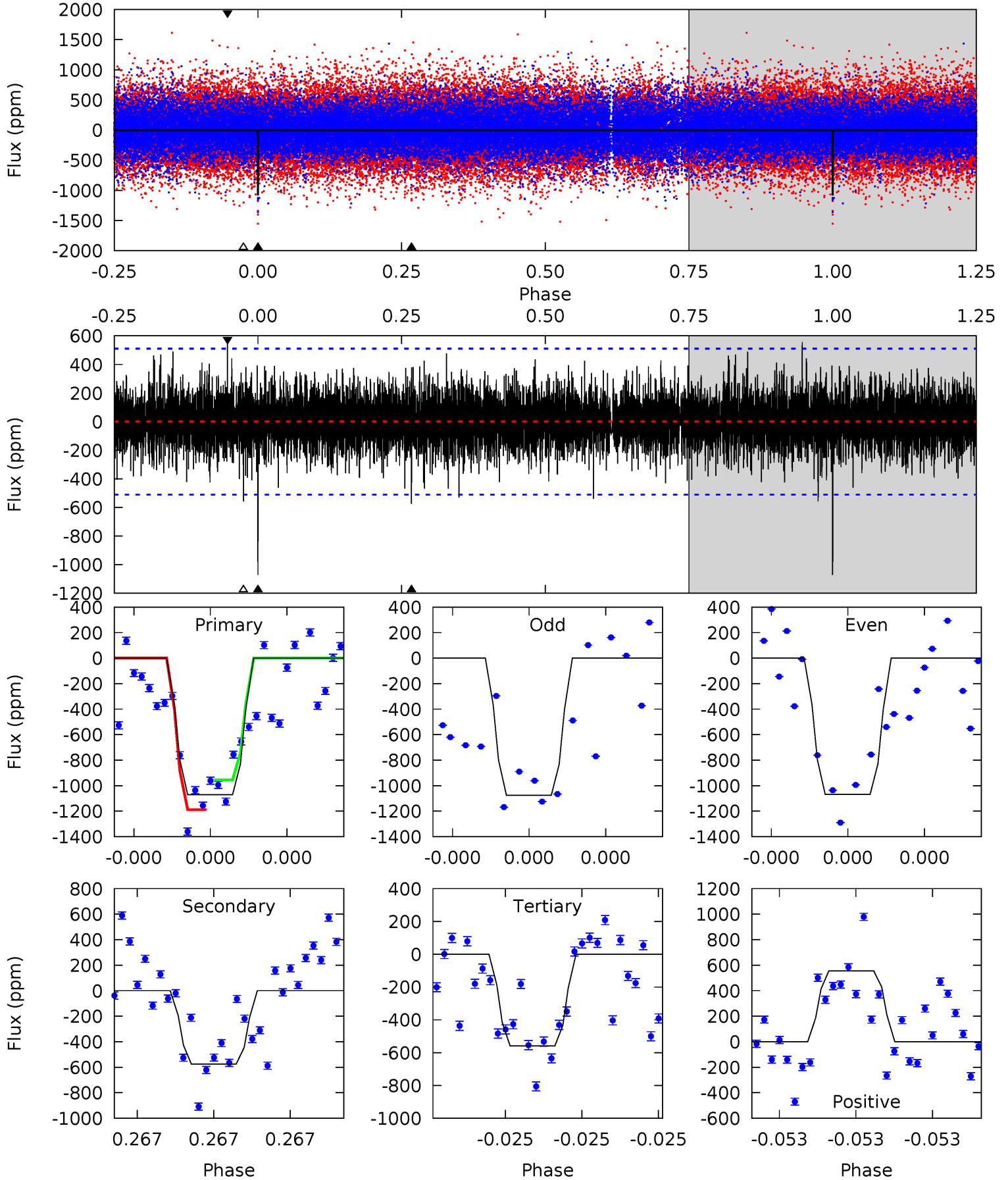
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	7.73	7.51	6.79	5.55	3.44	1.89	6.06	6.78	0.22	0.94	1.19	0.98	0.33	1.54



Alt Model-Shift Uniqueness Test

007888957-01, P = 363.358186 Days, E = 175.926708 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.35	6.17	6.14	5.65	3.59	1.49	5.67	5.70	0.18	0.21	0.03	1.00	0.34	1.28



Stellar Parameters For KIC 007888957

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4994^{+72}_{-182}	$3.002^{+0.033}_{-0.030}$	$0.100^{+0.150}_{-0.350}$	$7.619^{+0.362}_{-2.051}$	$2.124^{+0.106}_{-0.950}$	$0.007^{+0.003}_{-0.001}$
	+1%/-4%	+1%/-1%	+150%/-350%	+5%/-27%	+5%/-45%	+42%/-8%
Source	PHO1	AST9	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 007888957-01 / KOI 8147.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-524 ± 68	$26.29^{+17.44}_{-14.77}$	749^{+16}_{-29}	4332^{+1791}_{-701}	675^{+2818}_{-428}
Alt.	-574 ± 90	$28.97^{+17.99}_{-16.00}$	750^{+15}_{-30}	4247^{+1706}_{-659}	619^{+2444}_{-390}

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 $A_{obs} \gg 1.0$

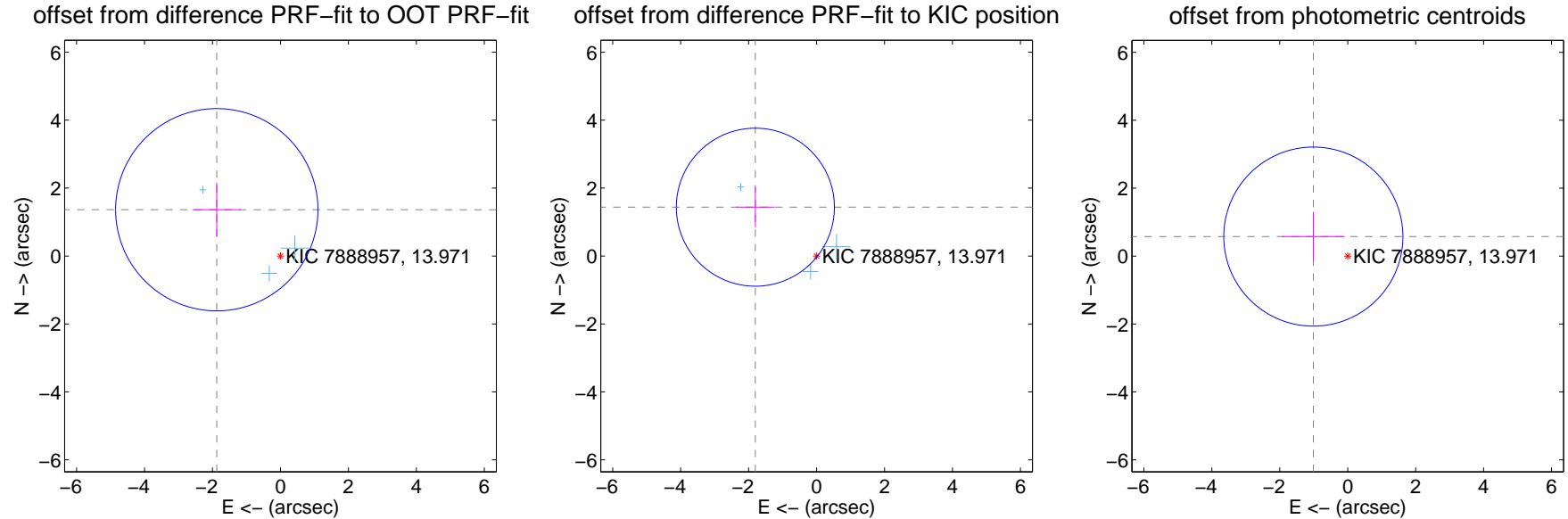
DV Centroid Data

Supplemental centroid analysis for 007888957-01. Kepler magnitude: 13.97. Transit SNR 6.12

There are 3 quarters with good PRF difference image offsets

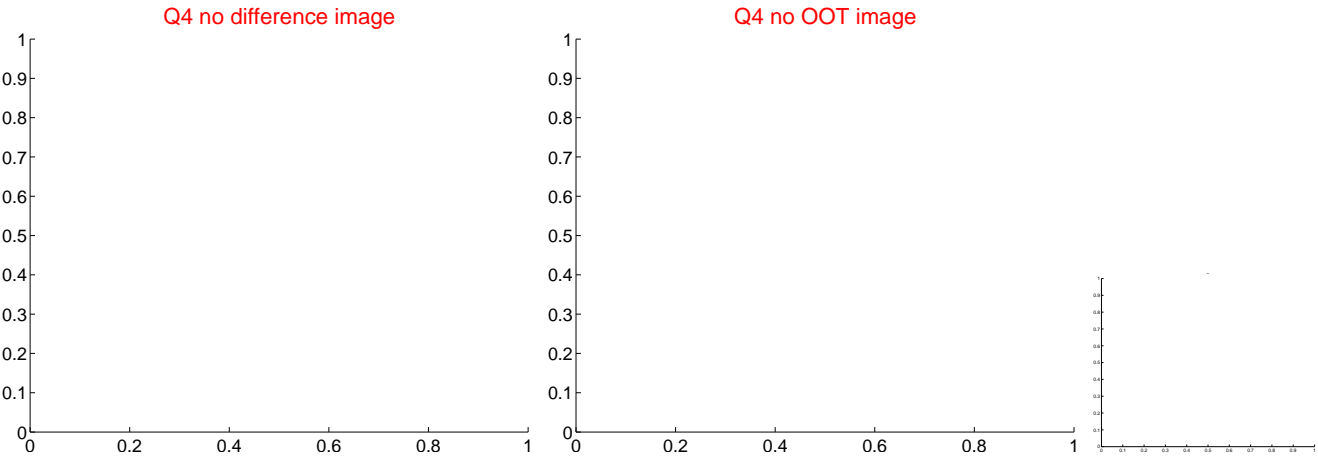
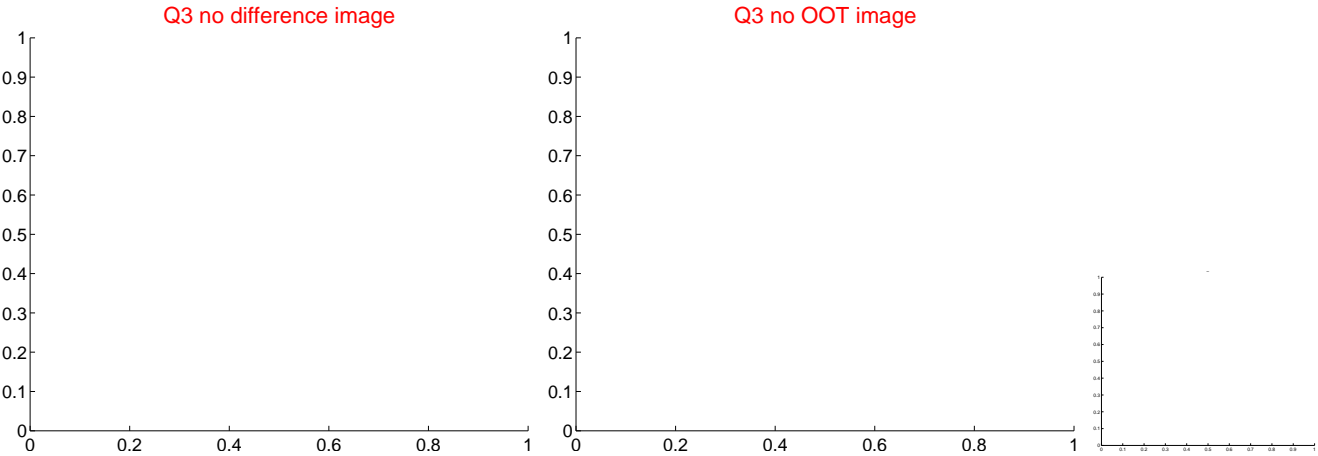
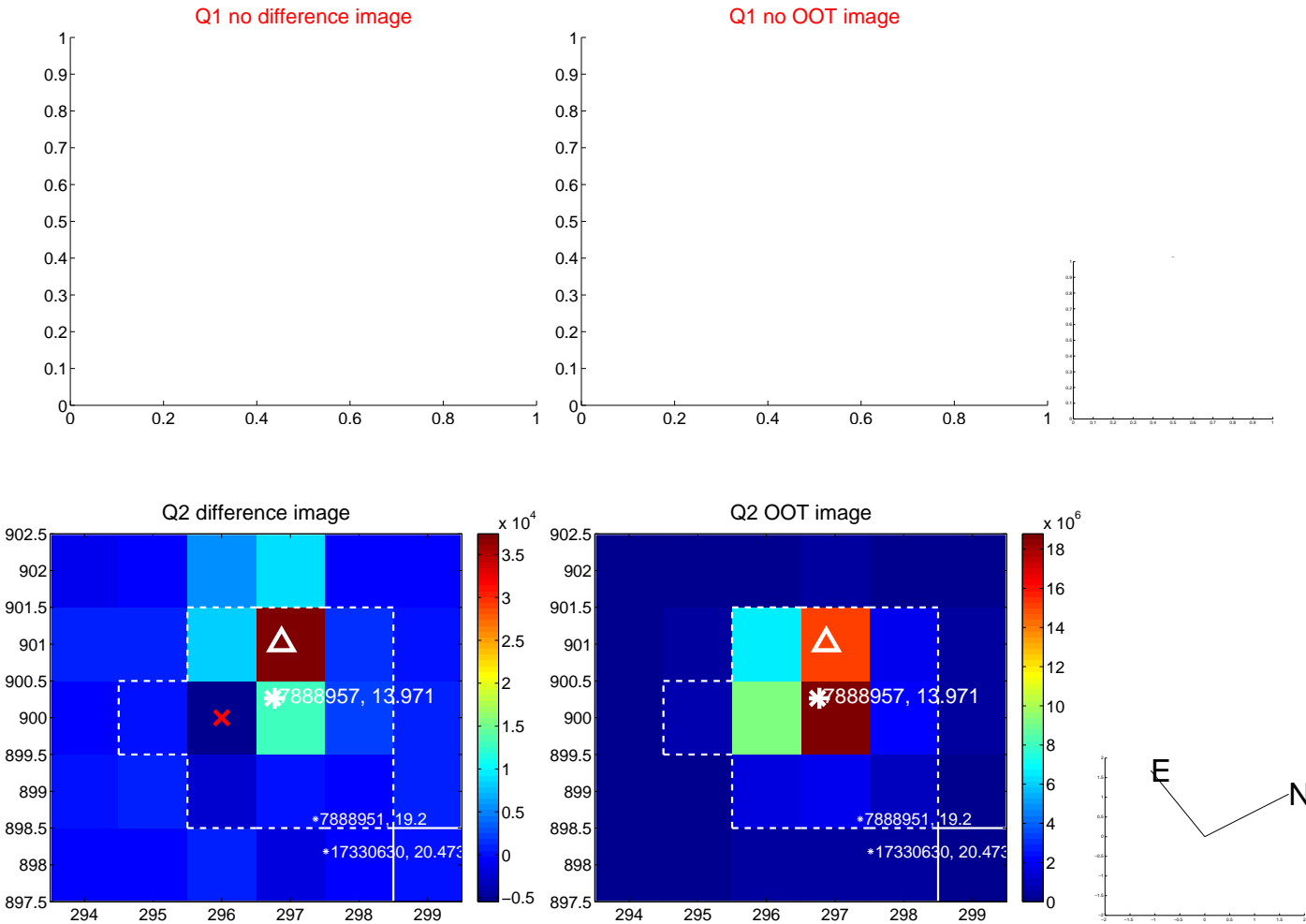
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.318 ± 0.993	2.33	1.875 ± 0.707	1.363 ± 0.794
PRF-fit source offset from KIC position	2.305 ± 0.776	2.97	1.802 ± 0.566	1.438 ± 0.590
photometric centroid source offset	1.16 ± 0.88	1.32	1.01 ± 0.92	0.57 ± 0.72

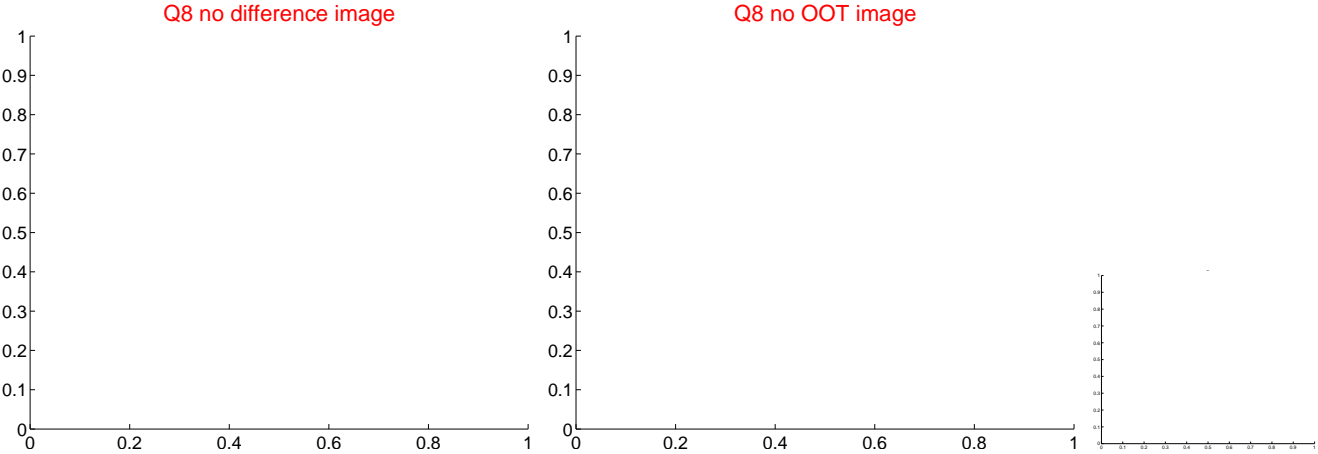


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

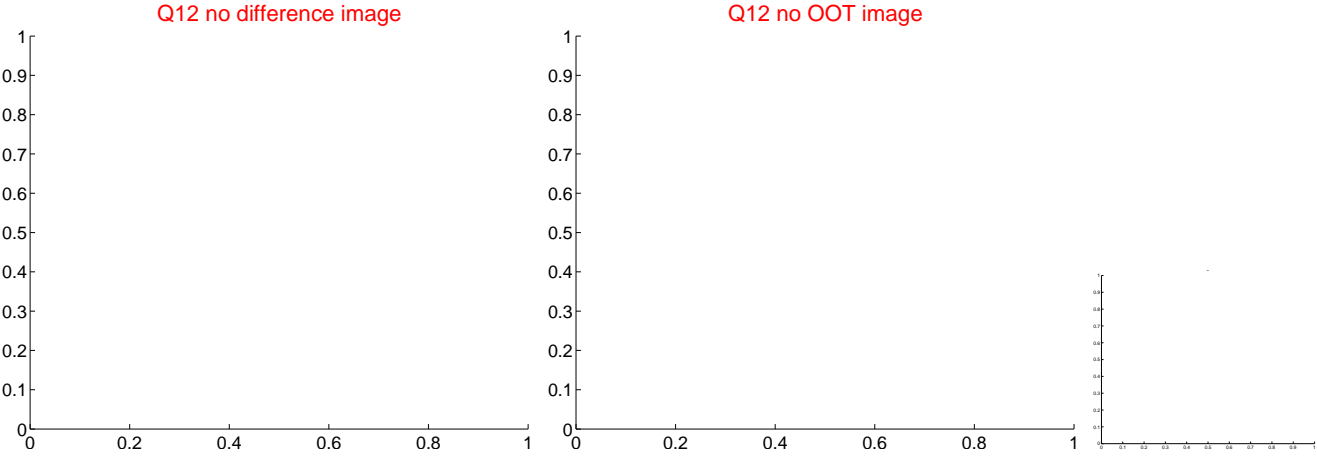
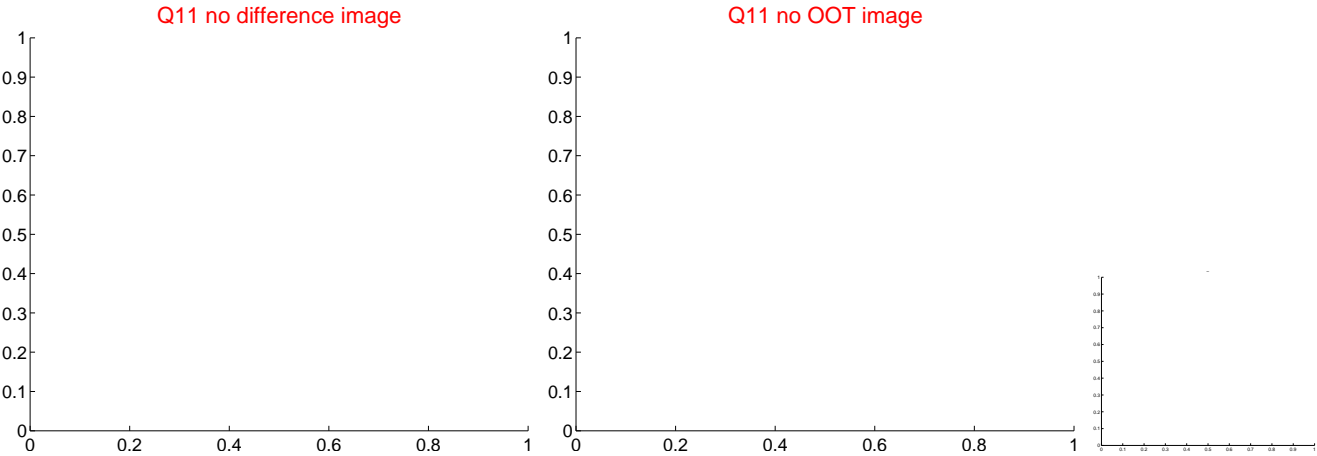
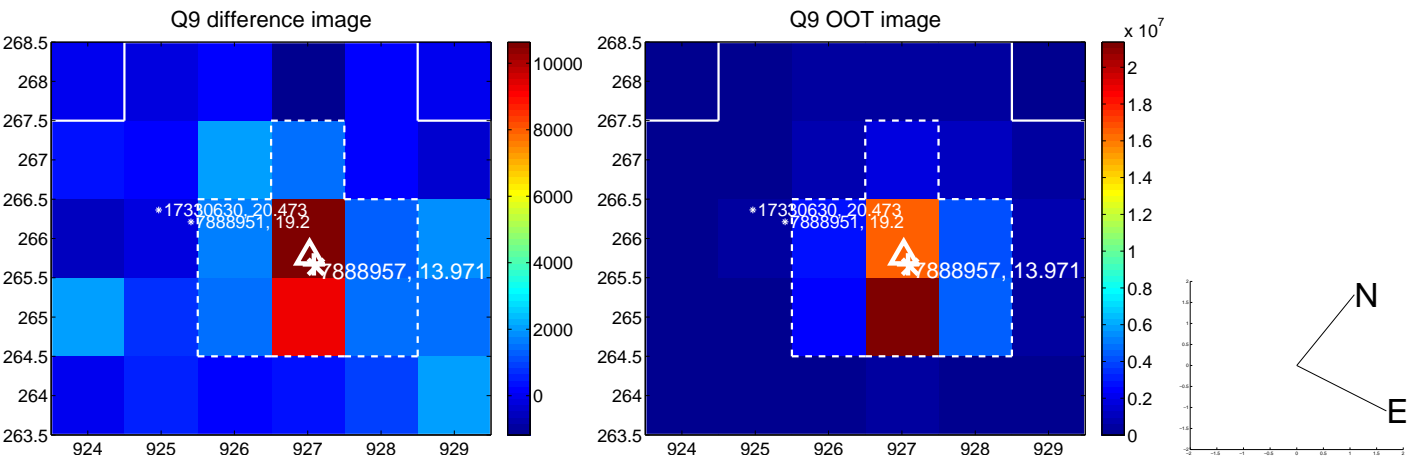
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



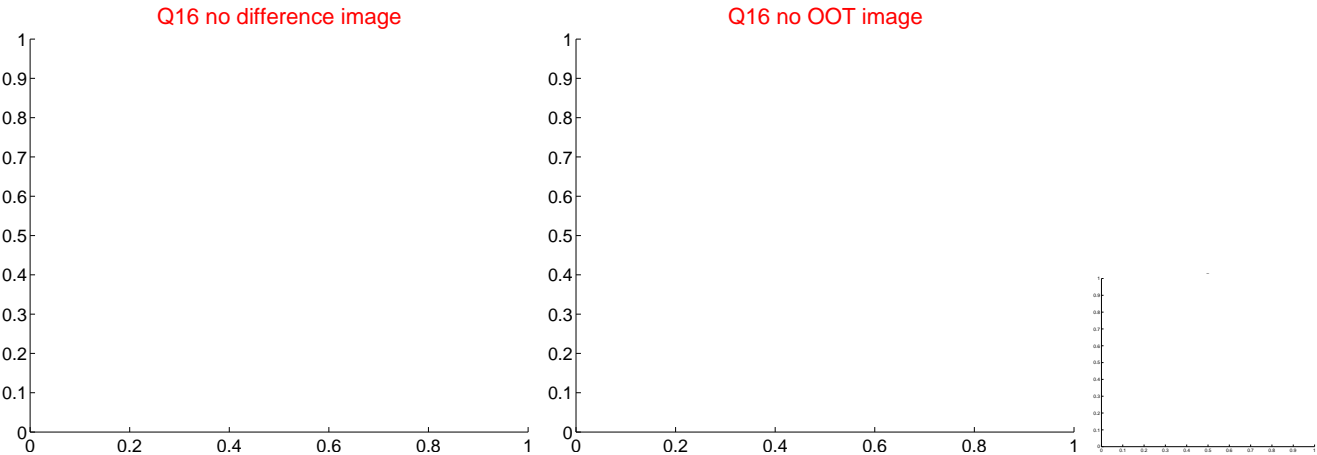
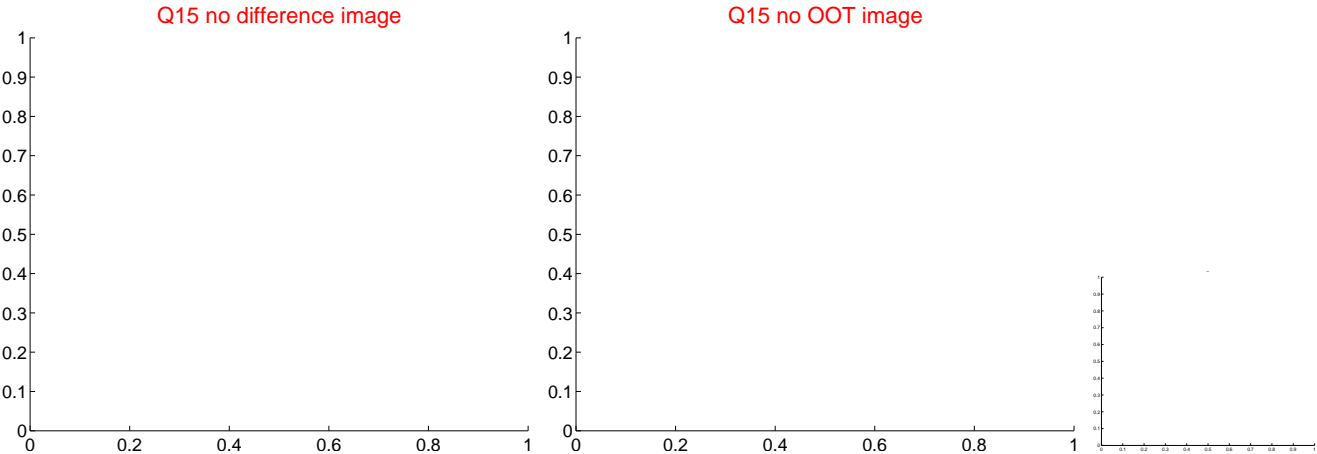
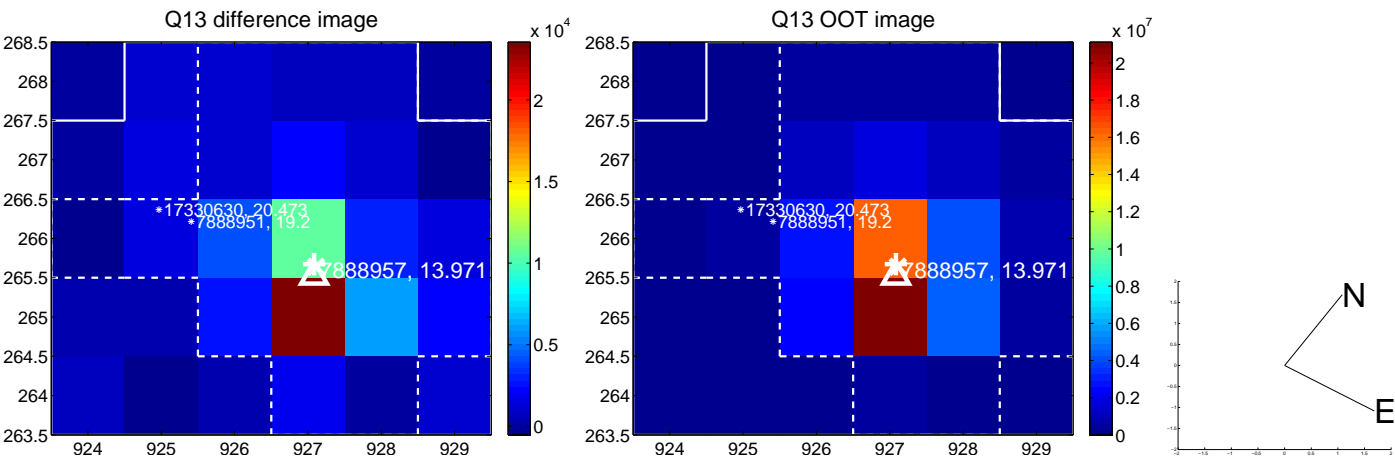
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



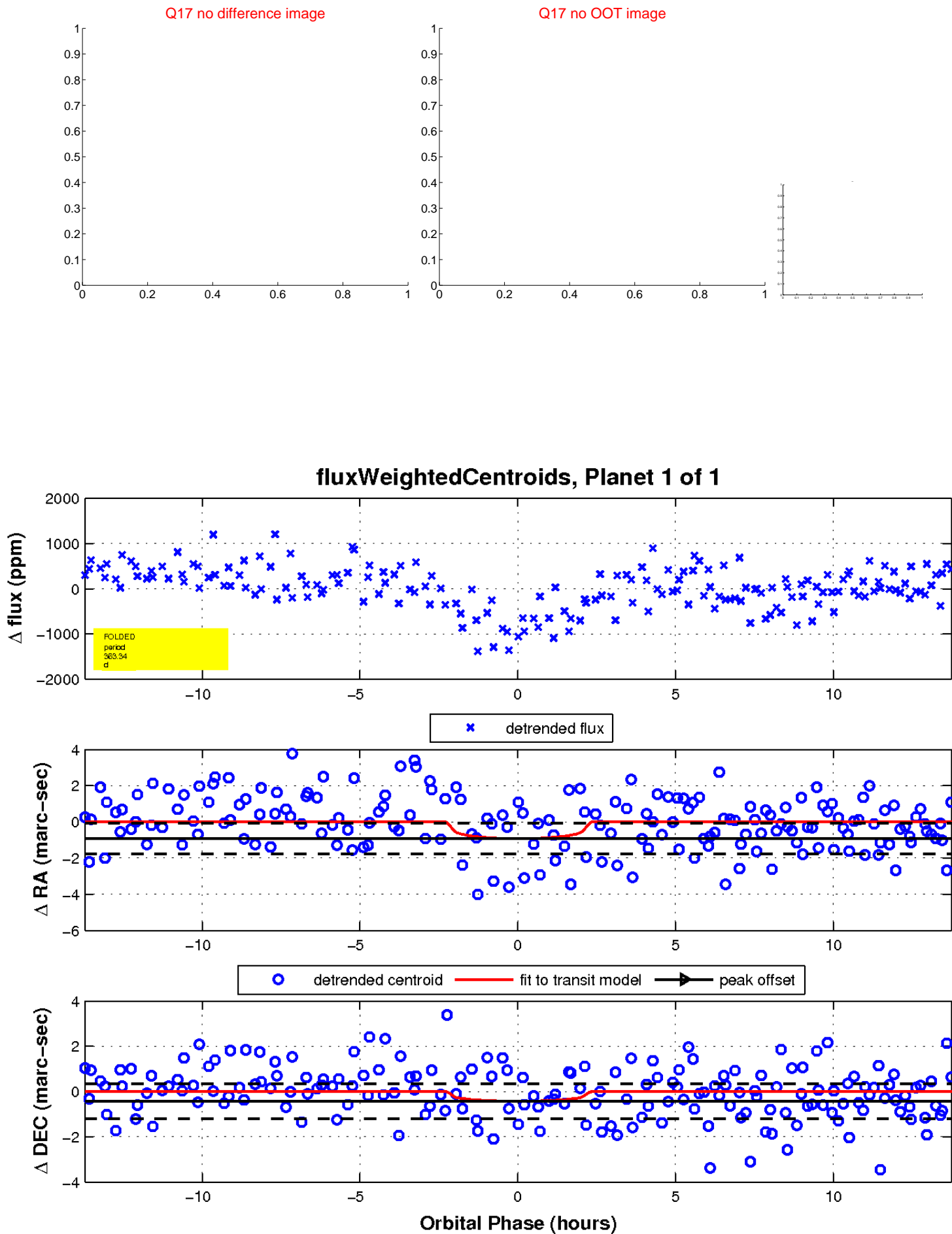
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

