

KIC 005698339

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})
005698339-01	OBS	No	610.632900	285.988786	136.9	6.528	7.4	6.8	1.12	5900	1.54	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005698339-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

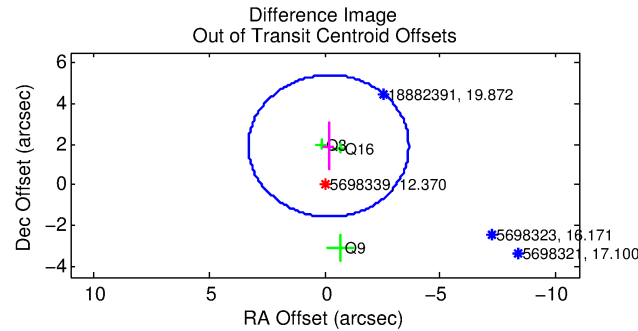
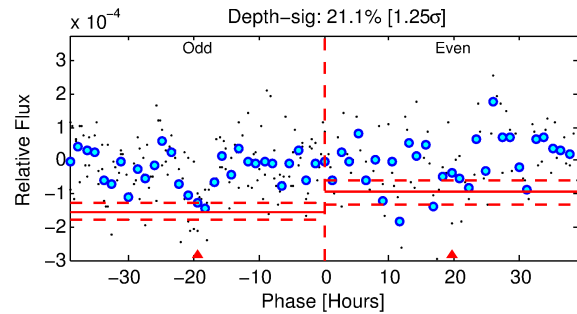
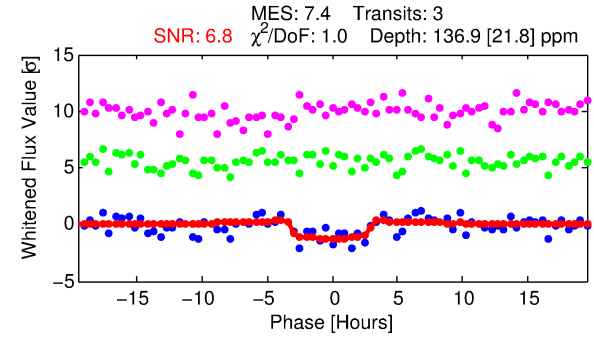
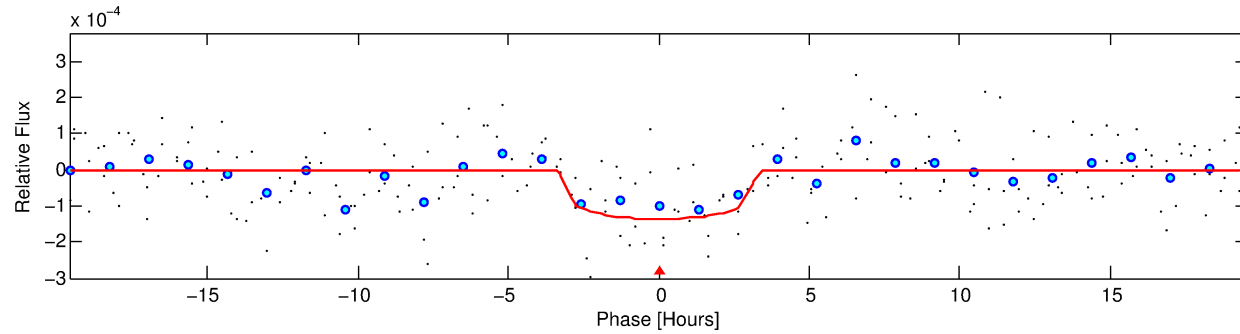
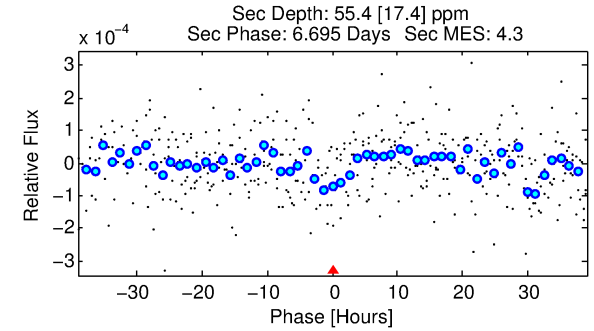
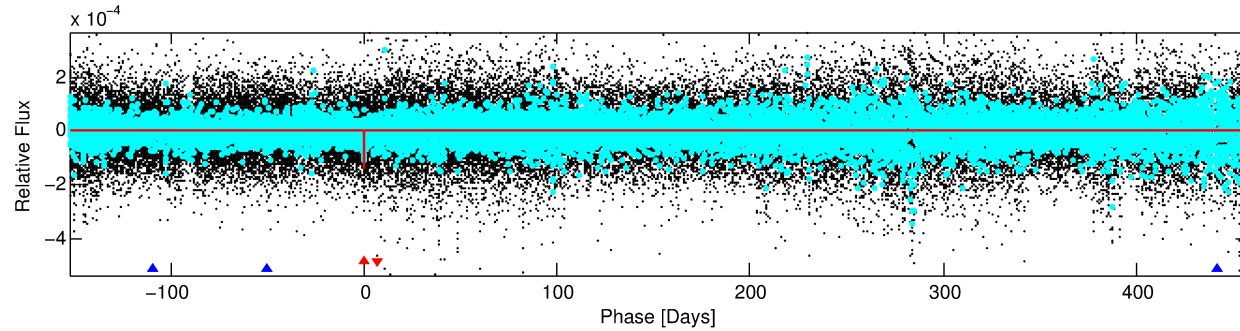
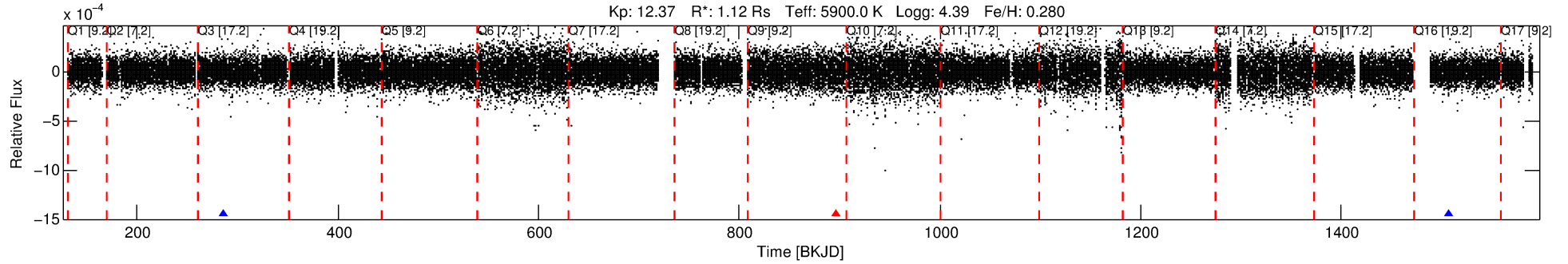
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005698339-01

No Significant Match Found

DV One-Page Summary

KIC: 5698339 Candidate: 1 of 2 Period: 610.633 d



DV Fit Results:

Period = 610.63290 [0.00978] d
Epoch = 285.9888 [0.0127] BKJD
Rp/R* = 0.0126 [0.0066]
a/R* = 348.75 [853.44]
b = 0.89 [0.59]
Seff = 0.64 [0.26]
Teq = 228 [23] K
Rp = 1.54 [0.93] Re
a = 1.4609 [0.3697] AU
Ag = 27399.80 [31728.57] [0.86 σ]
Teffp = 4535 [1251] K [3.44 σ]

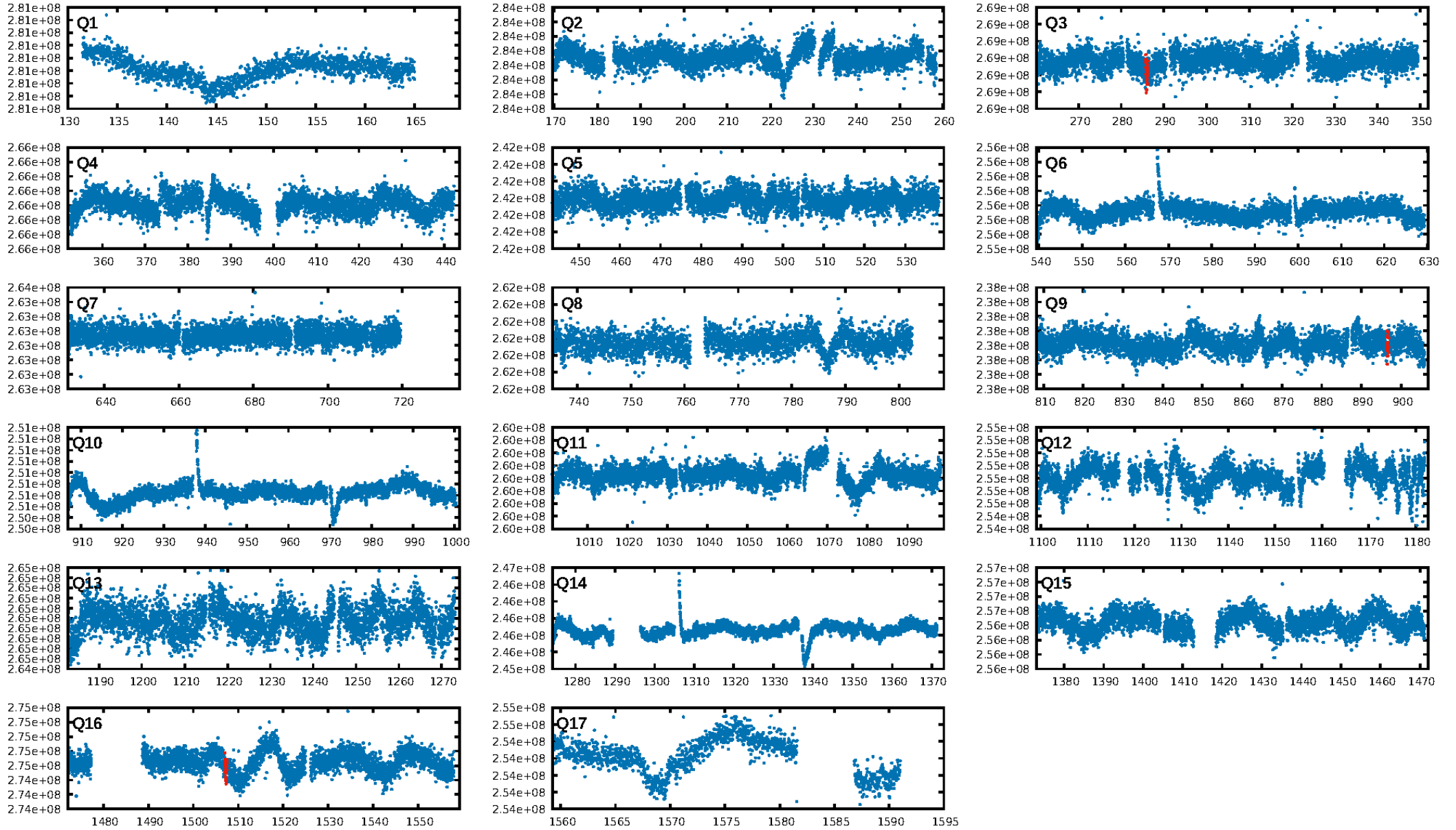
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [60.51 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 51.0%
ModelChiSquareGof-sig: 95.6%
Bootstrap-pfa: 1.68e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 5.047
Centroid-sig: 7.9%
Centroid-so: 1.862 arcsec [1.17 σ]
OotOffset-rm: 1.922 arcsec [1.66 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 1.229 arcsec [1.00 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

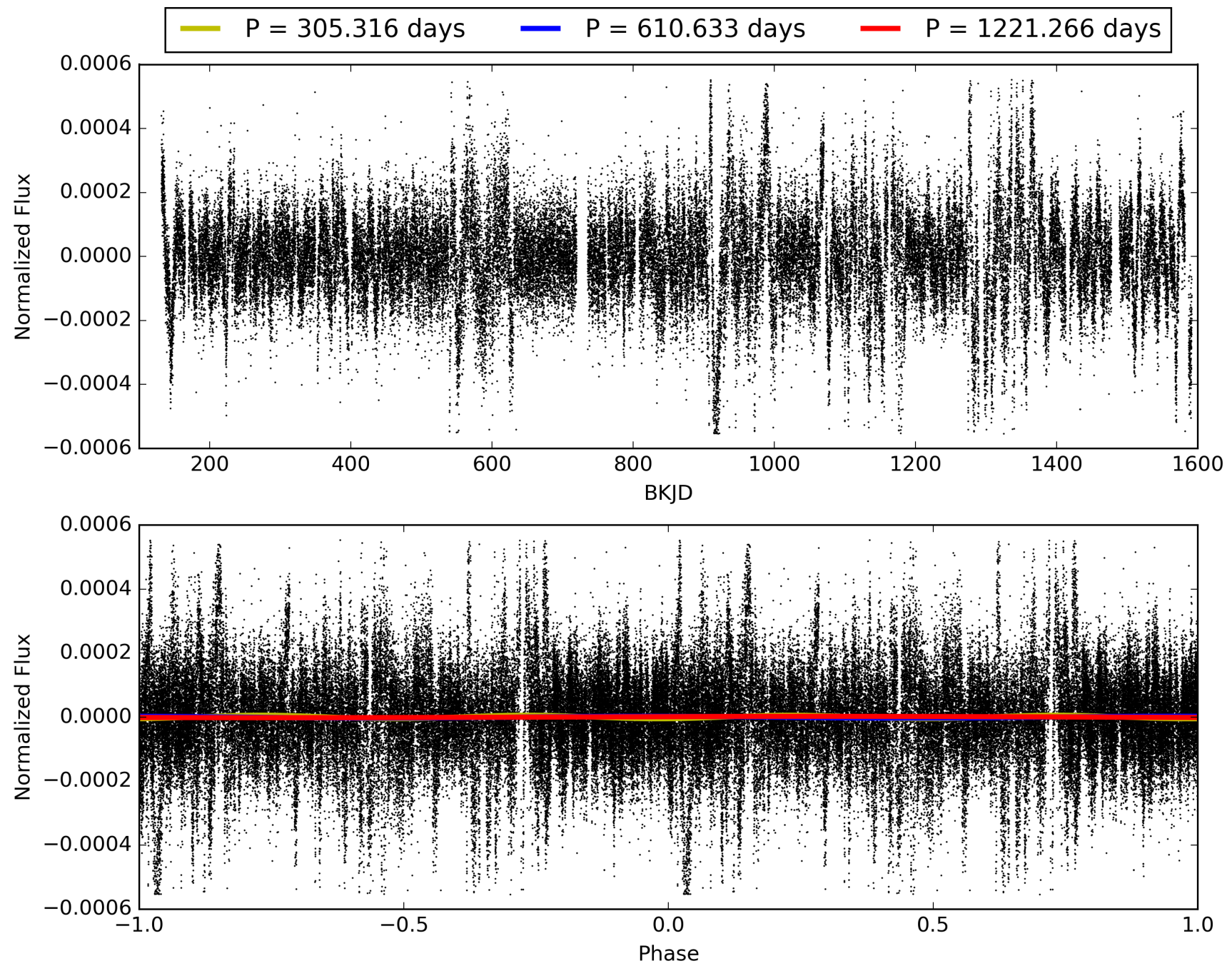
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:00:11 Z

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

TCE 005698339-01, PDC Light Curves

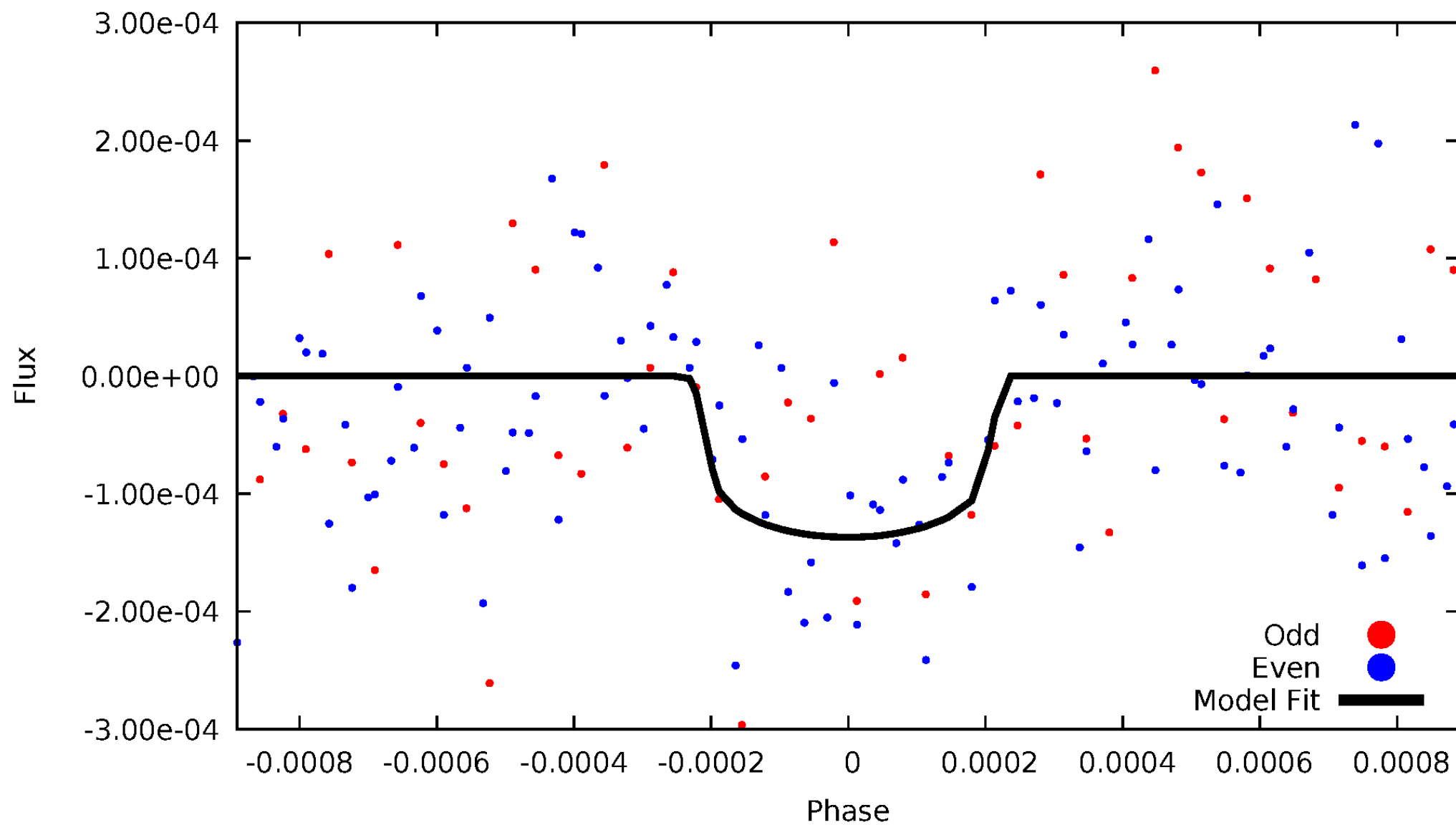


TCE 005698339-01



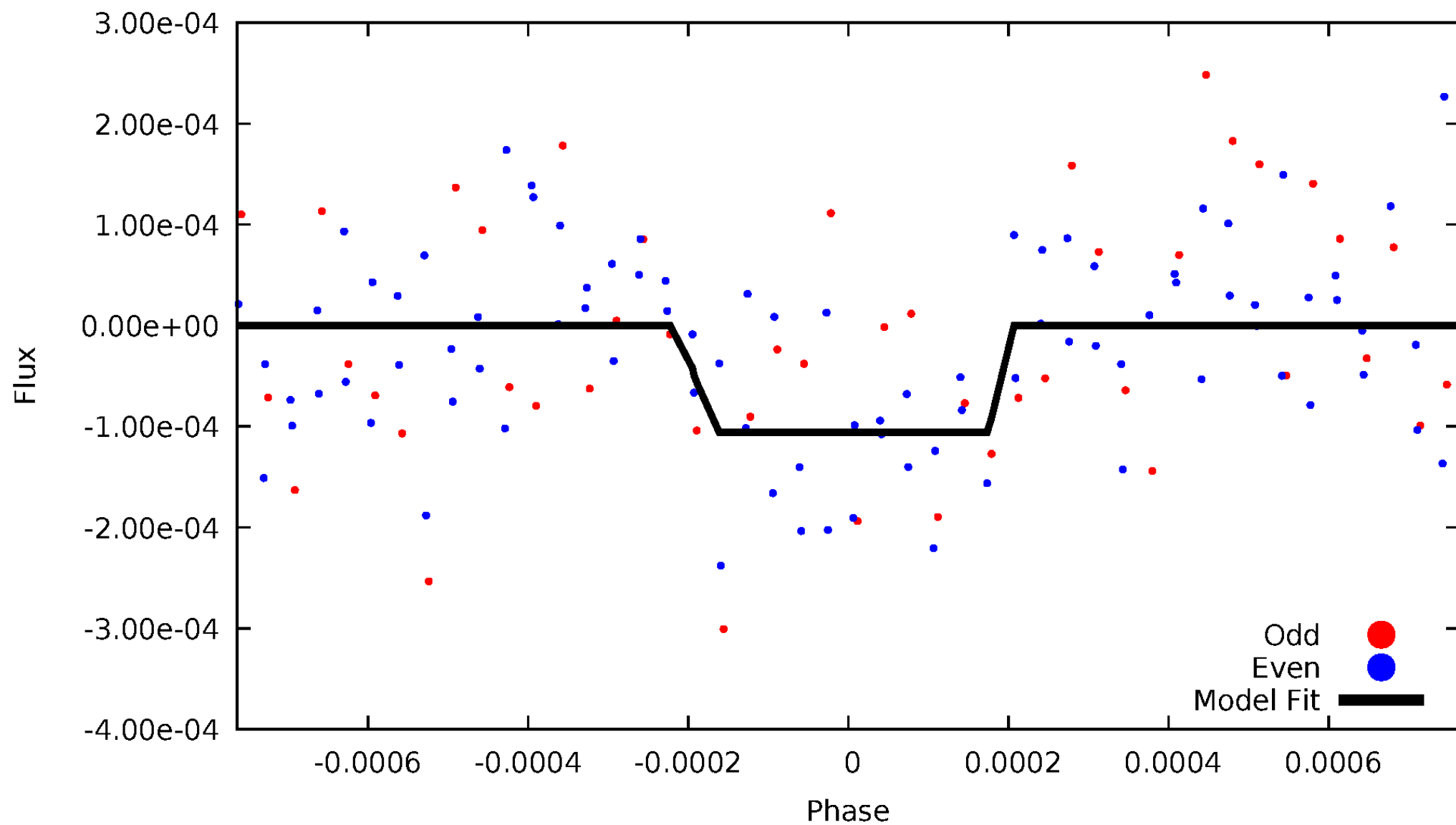
DV Odd/Even

TCE 005698339-01

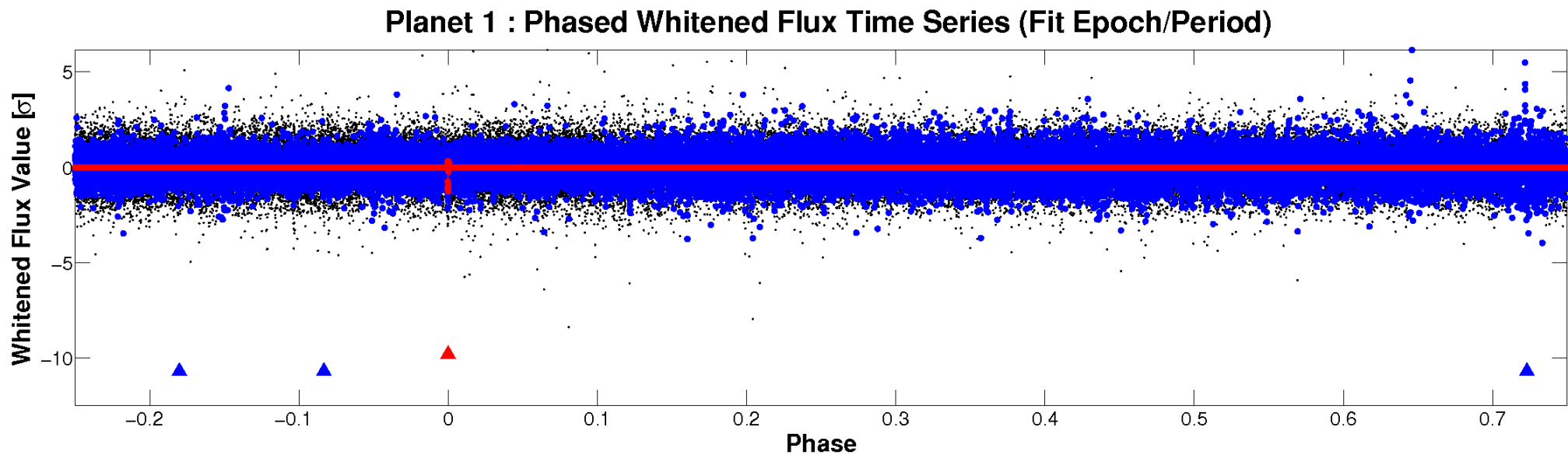
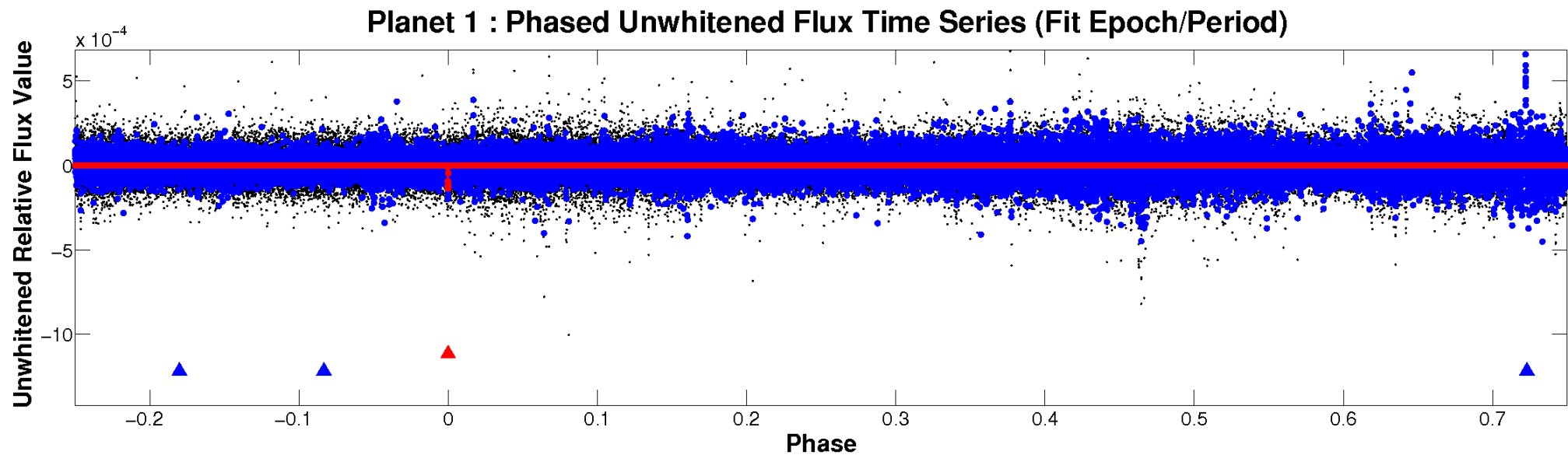


ALT Odd/Even

TCE 005698339-01

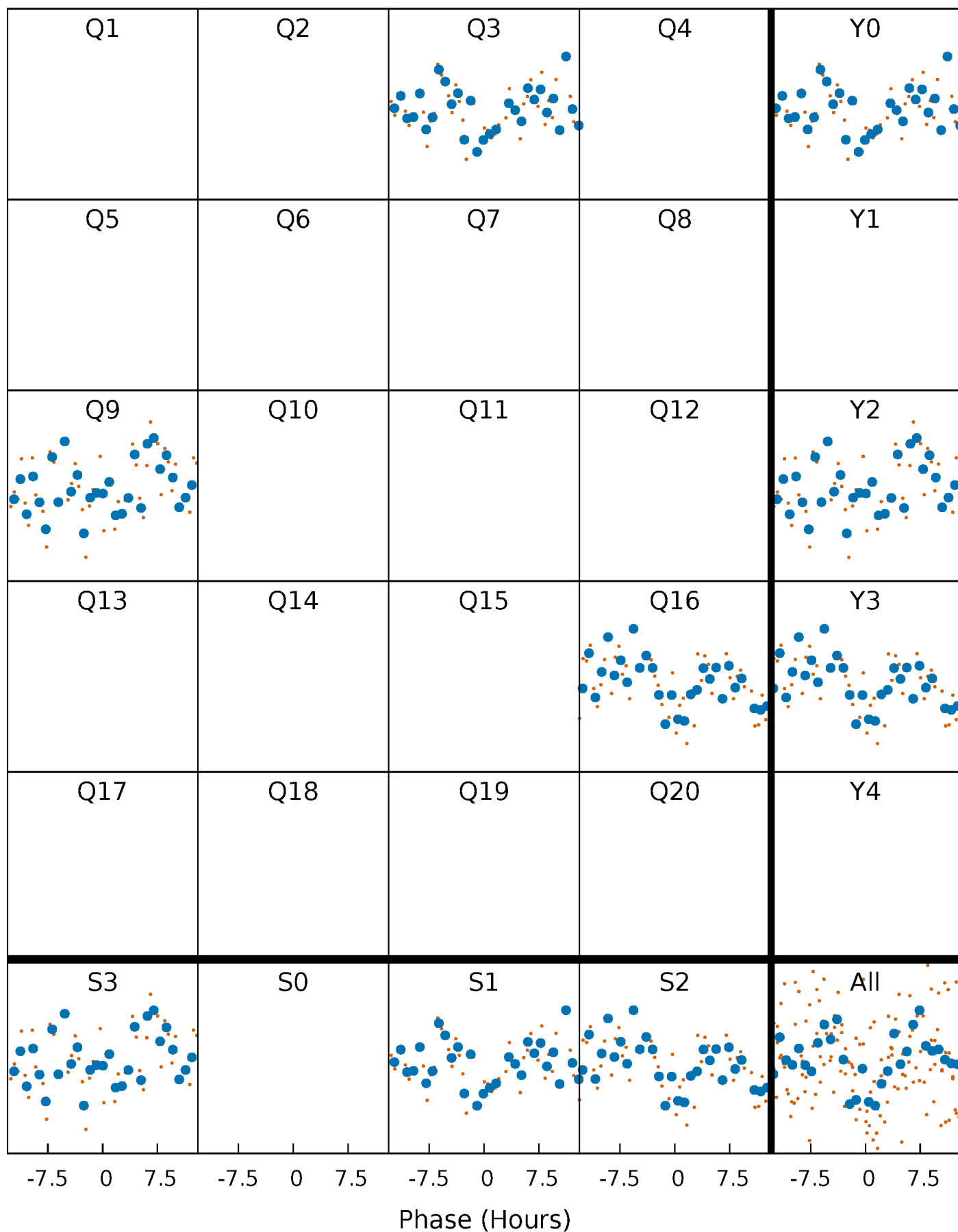


Non-Whitened Vs. Whitened Light Curve



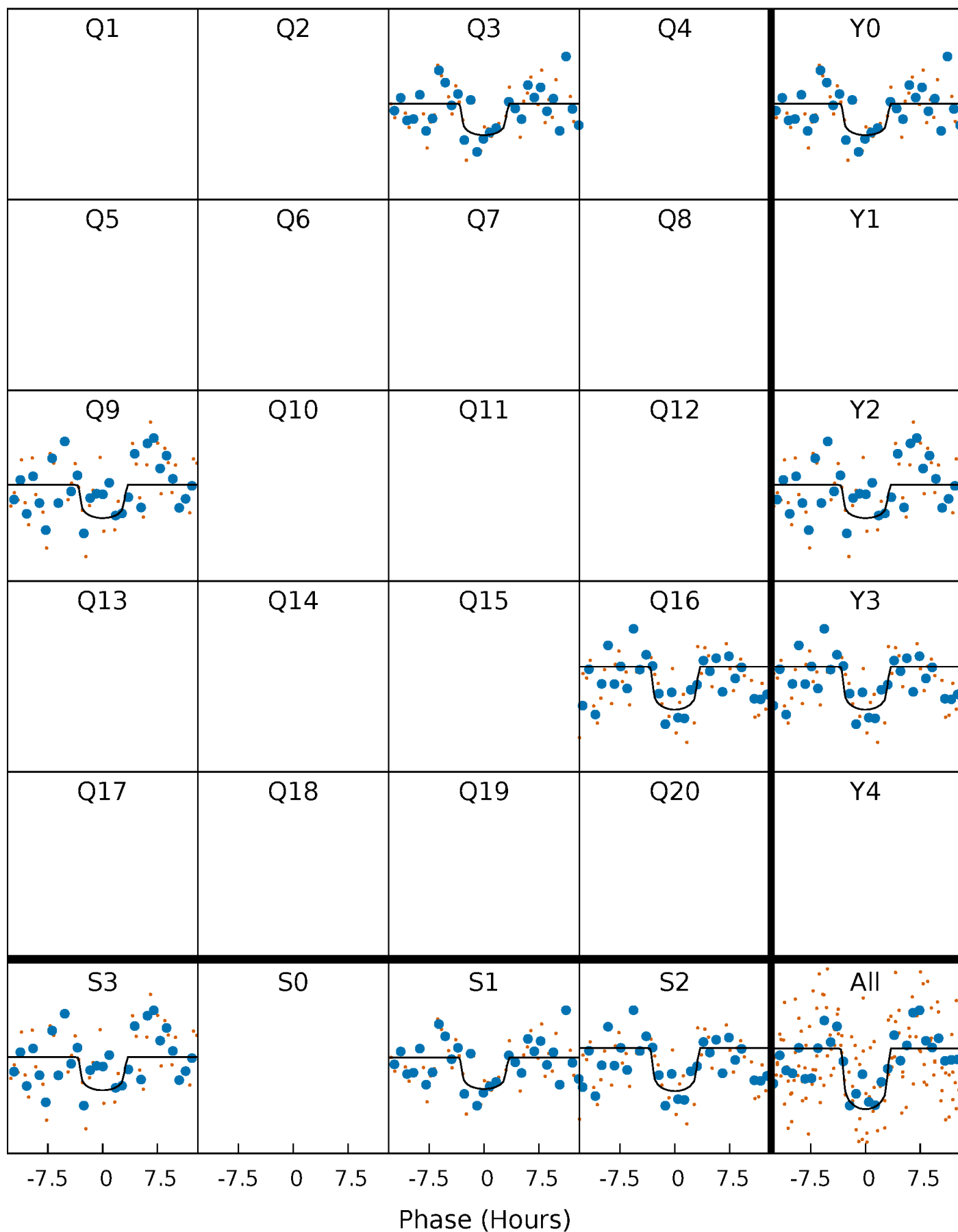
PDC Quarter-Phased Transit Curves

TCE 005698339-01 P=610.632900 Days $T_0=285.988786$ (BKJD)



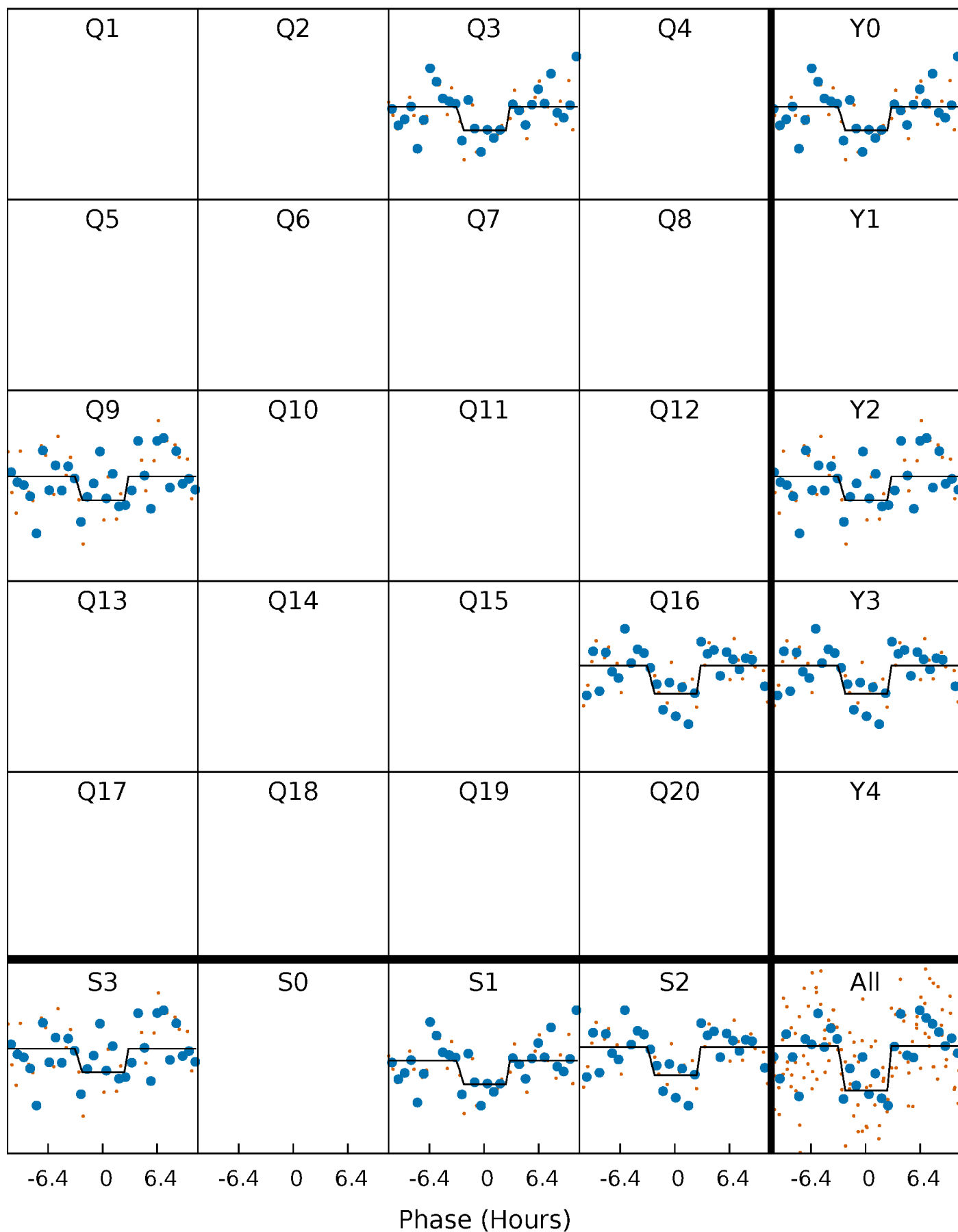
DV Quarter-Phased Transit Curves

TCE 005698339-01 P=610.632900 Days $T_0=285.988786$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

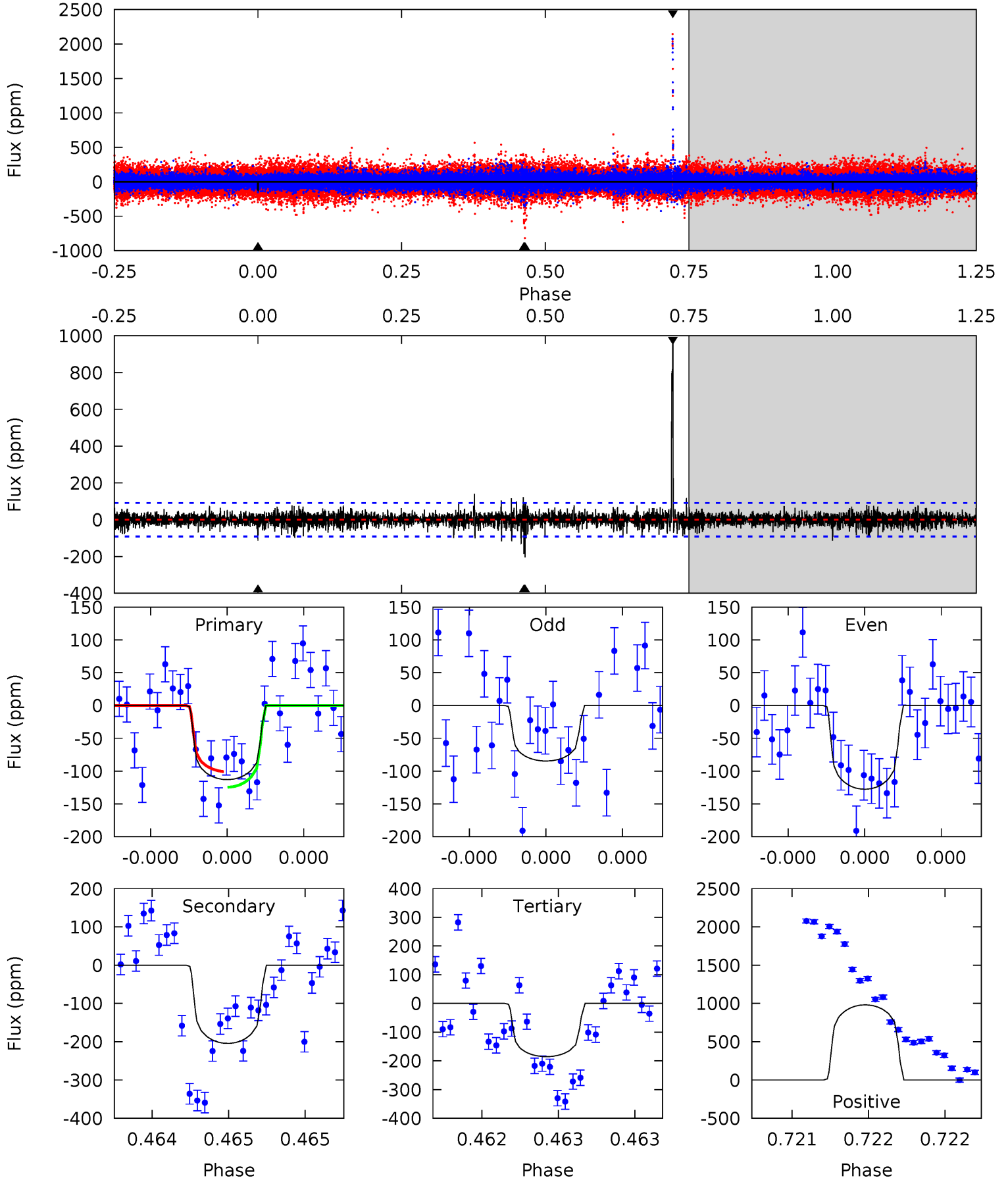
TCE 005698339-01 P=610.636507 Days $T_0=285.985636$ (BKJD)



DV Model-Shift Uniqueness Test

005698339-01, P = 610.632900 Days, E = 285.988786 Days

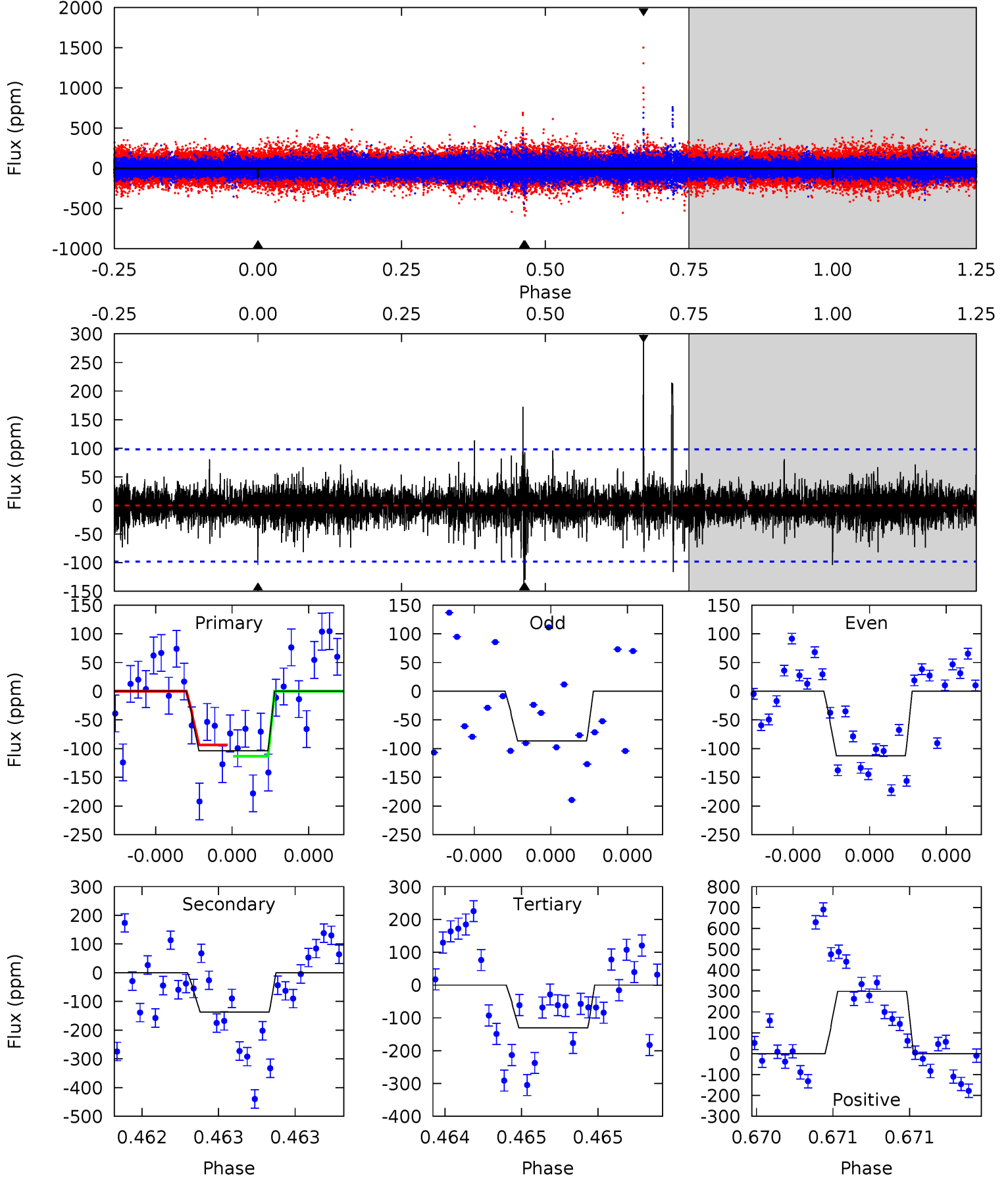
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.93	12.5	11.4	60.2	5.58	3.50	1.91	-4.43	-53.3	1.17	-47.7	1.24	0.91	0.83	0.73



Alt Model-Shift Uniqueness Test

005698339-01, P = 610.636507 Days, E = 285.985636 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.95	7.87	7.47	17.1	5.62	3.56	1.19	-1.51	-11.2	0.41	-9.25	0.69	0.95	0.69	0.56



Stellar Parameters For KIC 005698339

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5900^{+159}_{-195}	$4.386^{+0.084}_{-0.210}$	$0.280^{+0.150}_{-0.300}$	$1.121^{+0.328}_{-0.151}$	$1.117^{+0.121}_{-0.145}$	$1.115^{+0.420}_{-0.588}$
	+3%/-3%	+2%/-5%	+54%/-107%	+29%/-13%	+11%/-13%	+38%/-53%
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 005698339-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-204 ± 16	$1.59^{+0.89}_{-0.82}$	323^{+24}_{-18}	6274^{+3368}_{-1120}	$93167^{+318971}_{-54343}$
Alt.	-137 ± 17	$1.42^{+0.80}_{-0.75}$	324^{+26}_{-19}	5996^{+3266}_{-1097}	$78744^{+279858}_{-46853}$

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 $A_{obs} \gg 1.0$

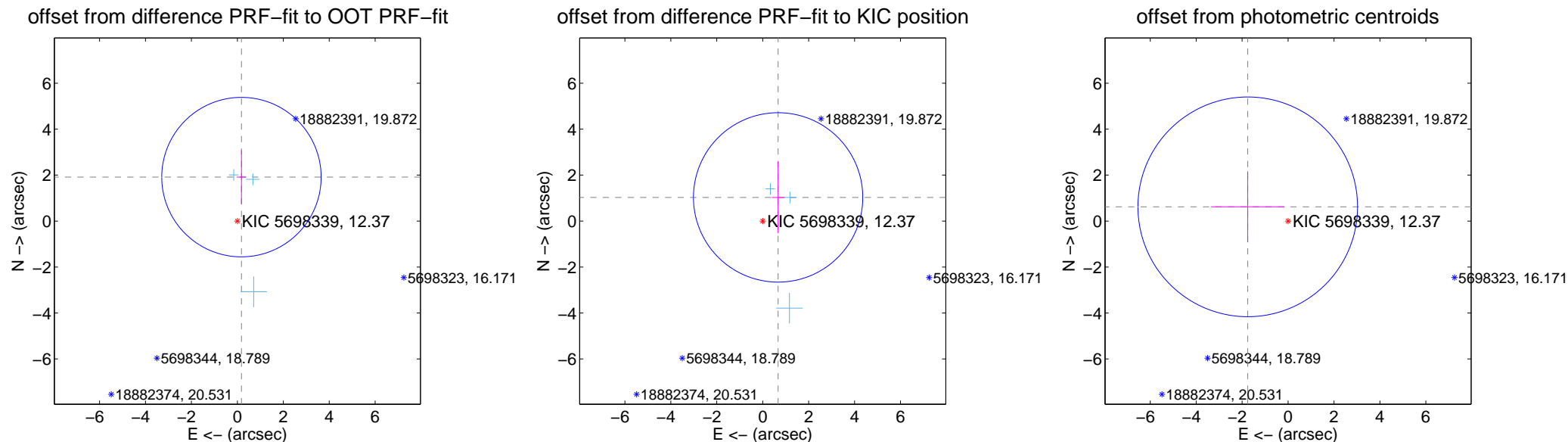
DV Centroid Data

Supplemental centroid analysis for 005698339-01. Kepler magnitude: 12.37. Transit SNR 6.77

There are 3 quarters with good PRF difference image offsets

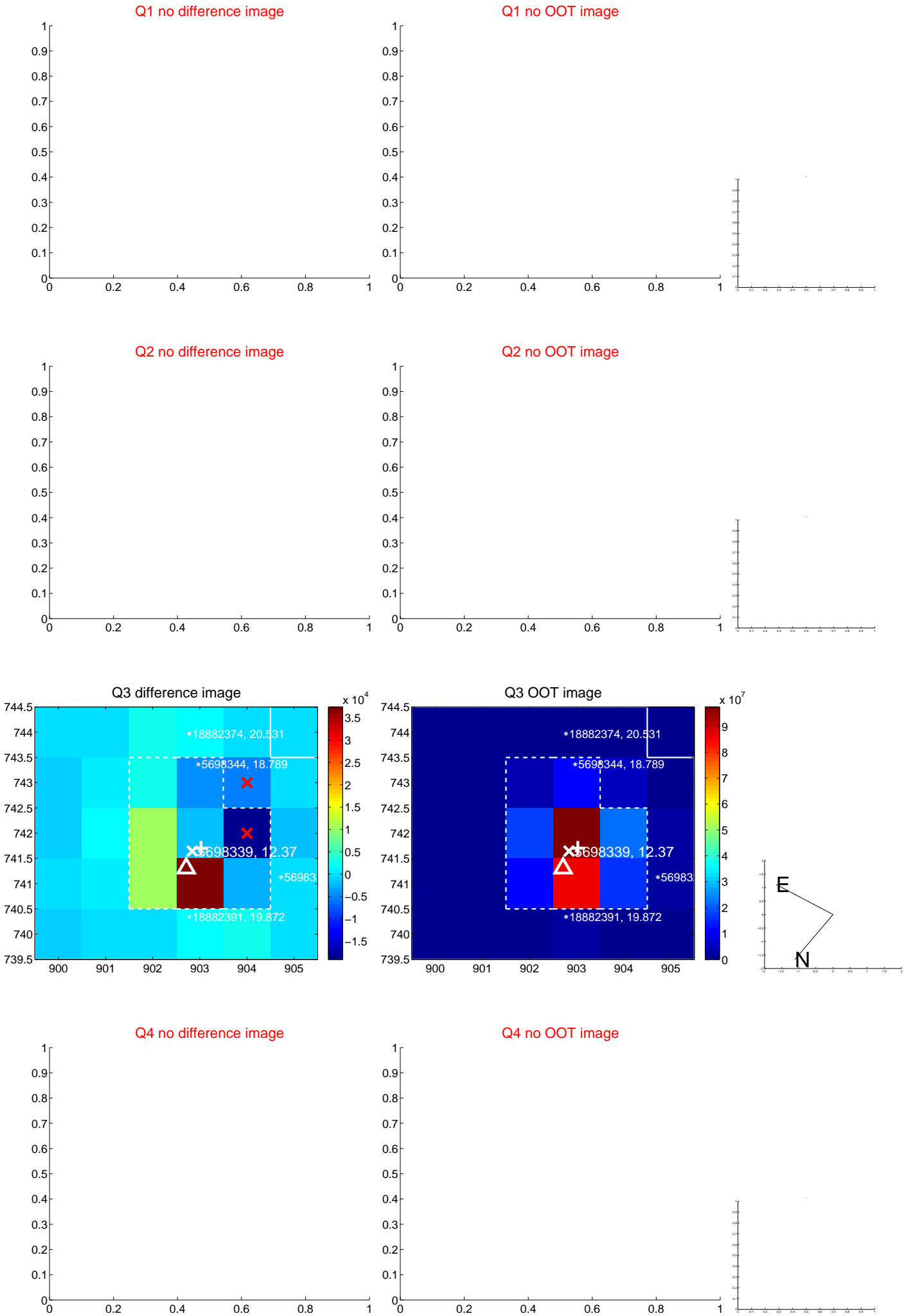
The direct PRF centroid is offset from the target star catalog position by about 0.94 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.922 ± 1.157	1.66	-0.178 ± 0.210	1.914 ± 1.168
PRF-fit source offset from KIC position	1.229 ± 1.229	1.00	-0.671 ± 0.281	1.030 ± 1.558
photometric centroid source offset	1.86 ± 1.59	1.17	1.76 ± 1.60	0.62 ± 1.55

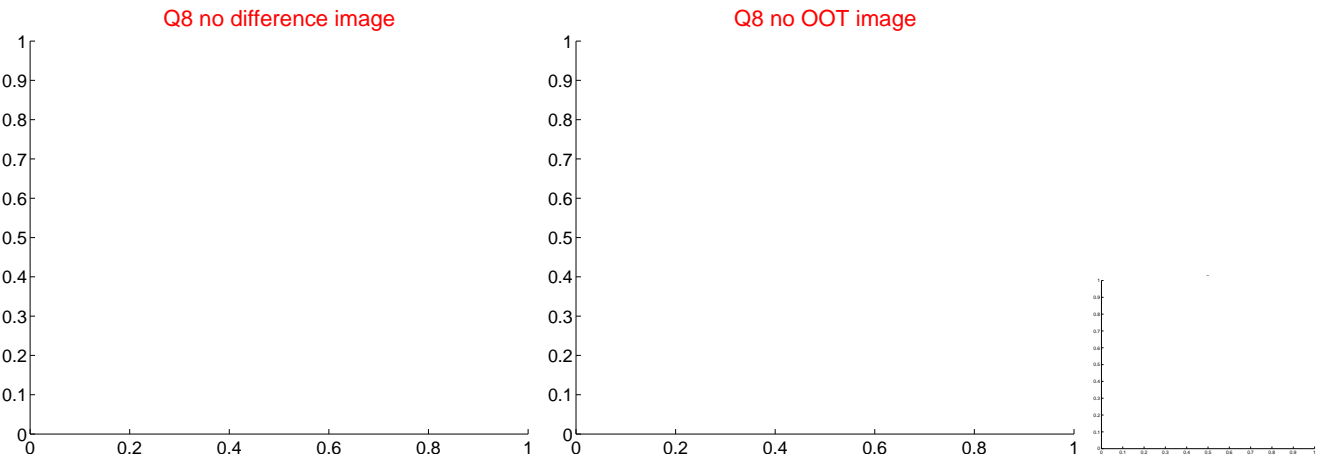
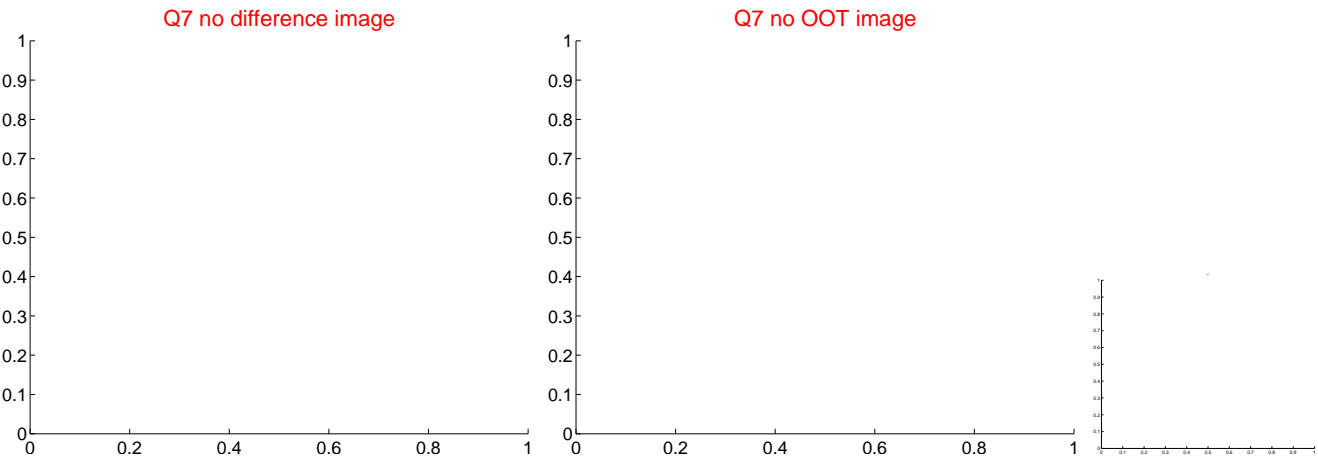
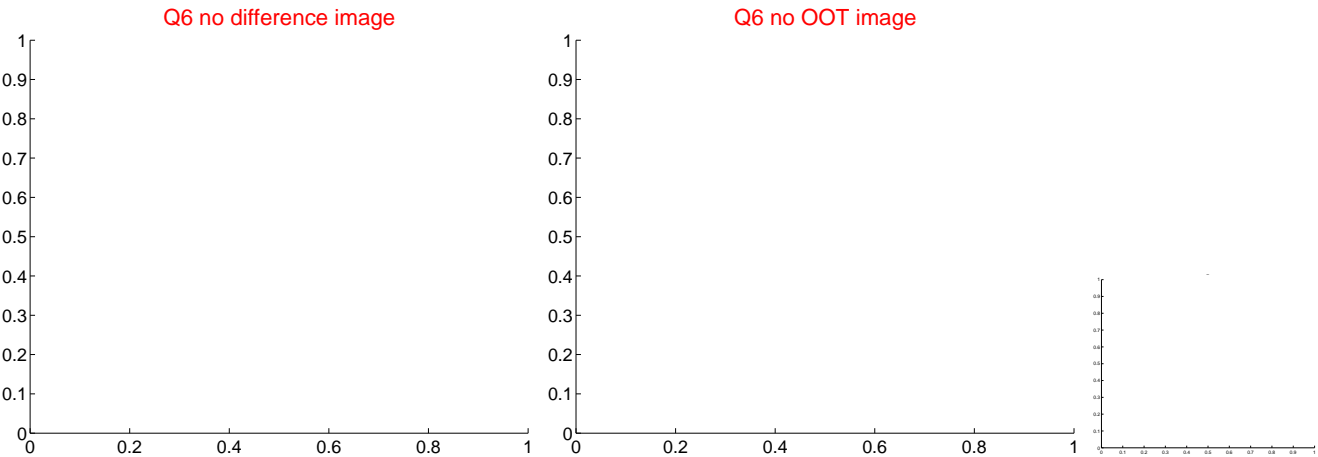
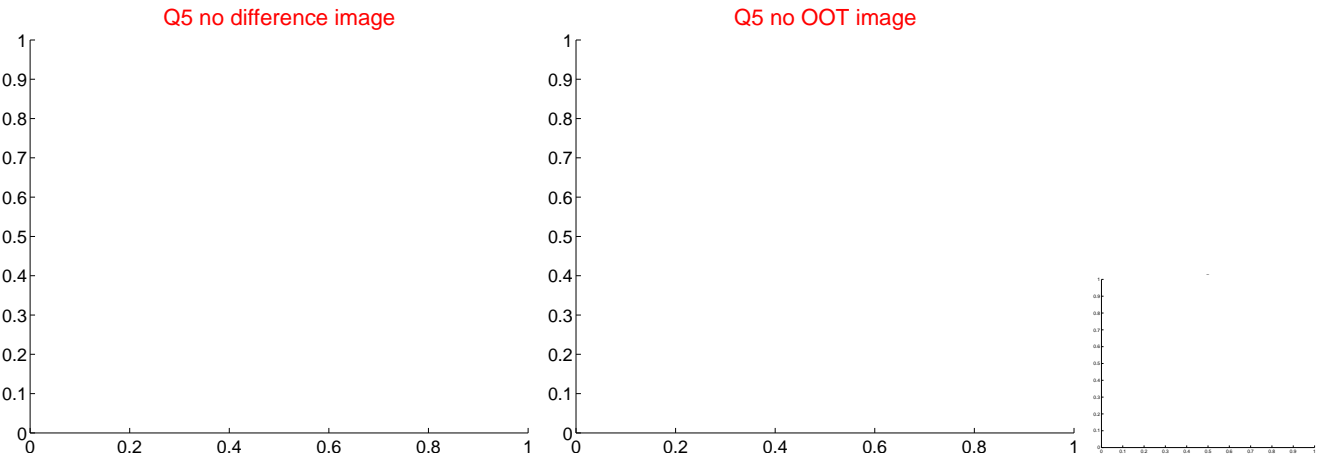


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

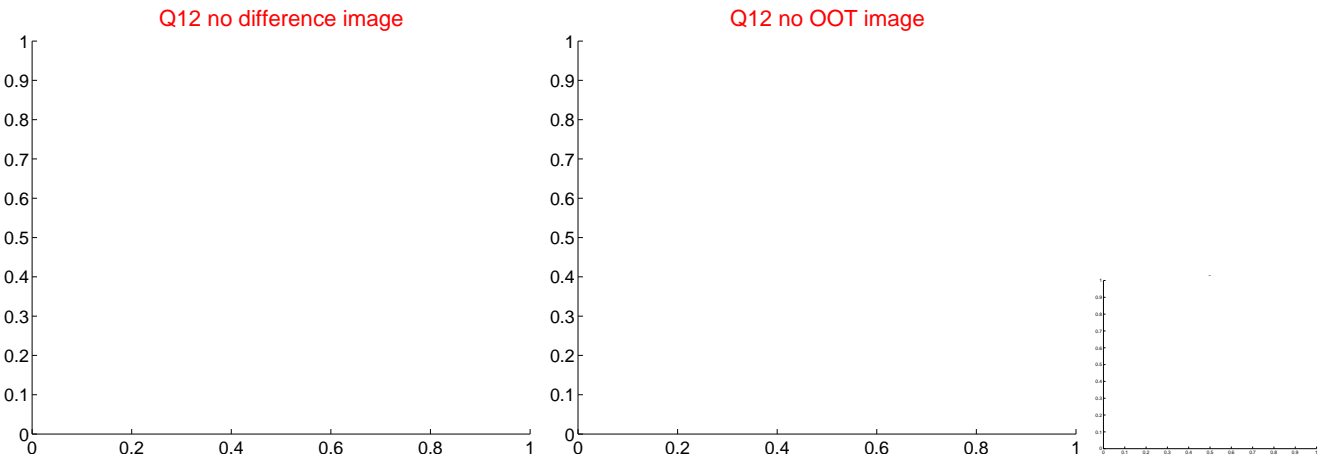
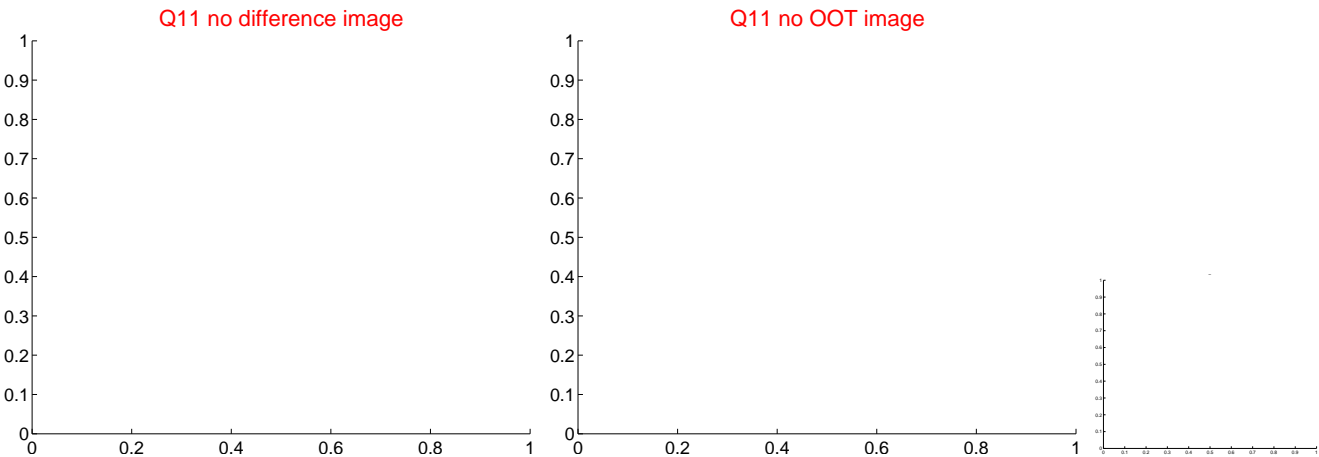
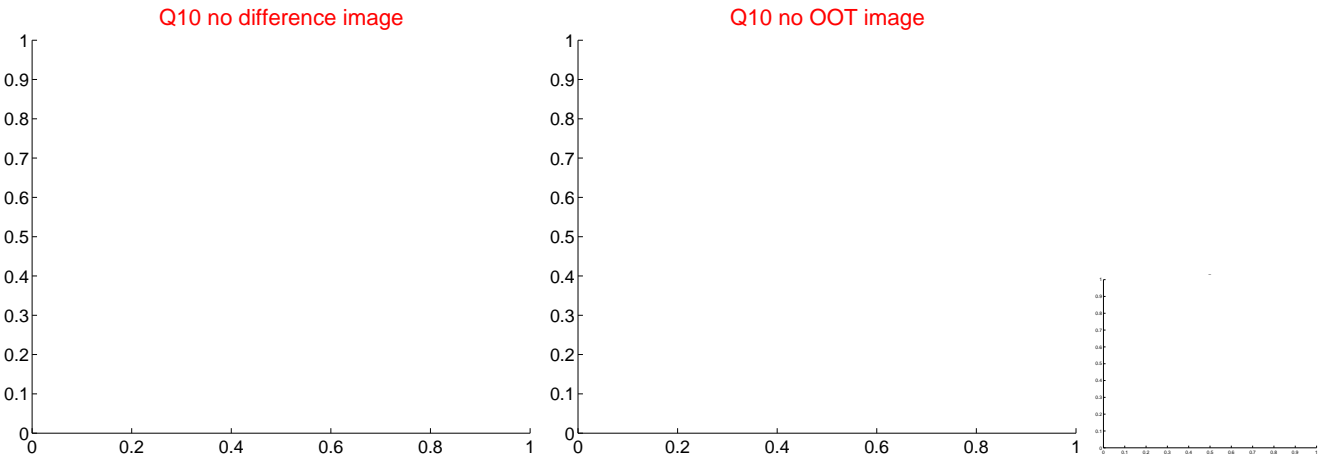
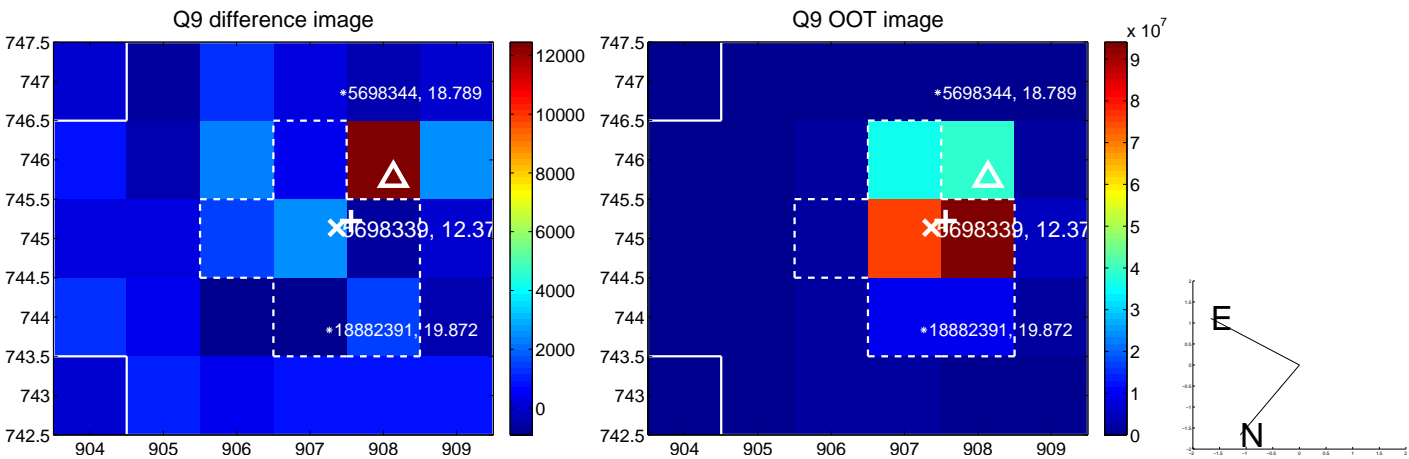
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



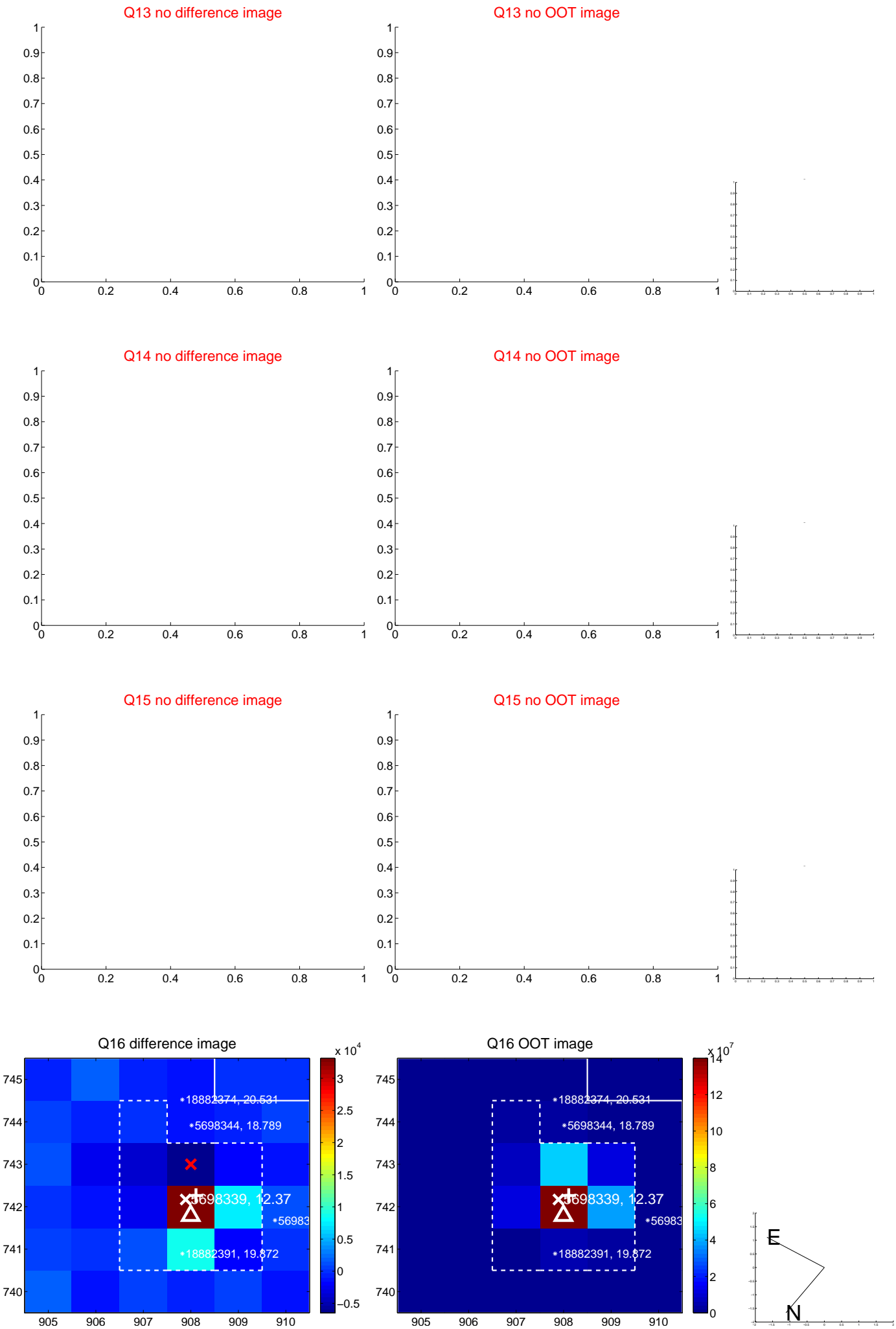
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



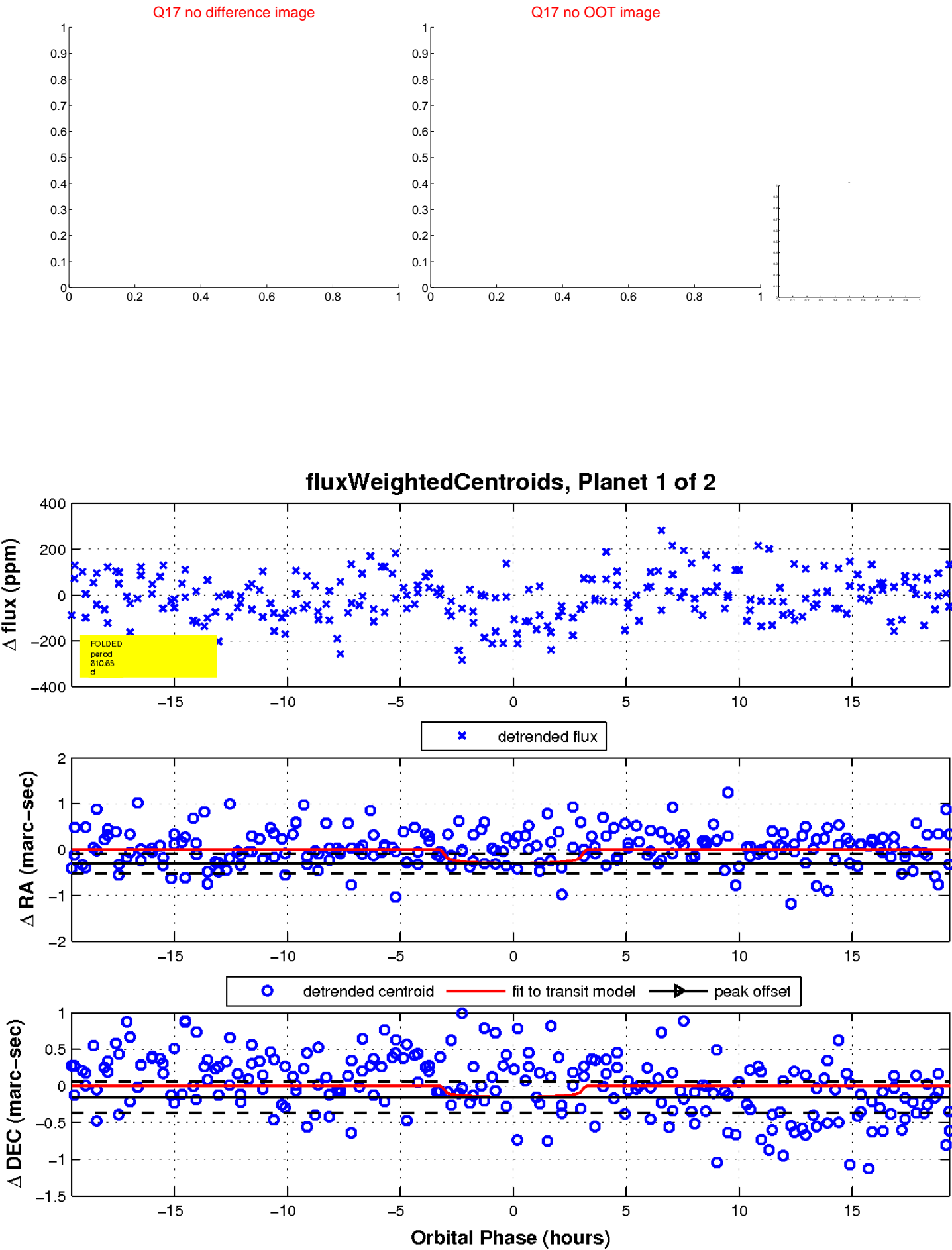
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

