

KIC 007668663

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})
007668663-01	OBS	1898.01	6.498005	136.001632	188.2	2.386	33.2	36.2	1.10	5727	1.80	262.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007668663-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

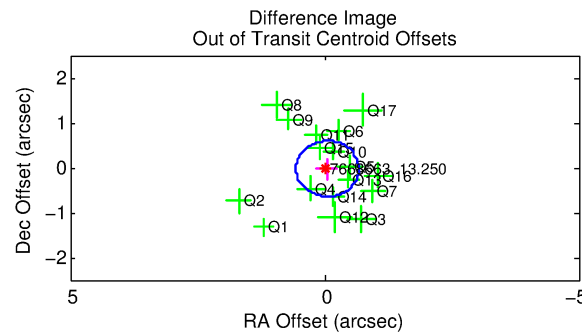
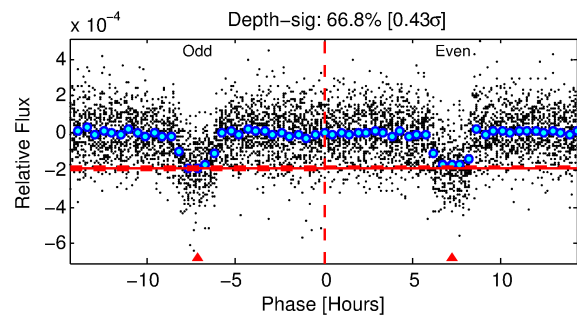
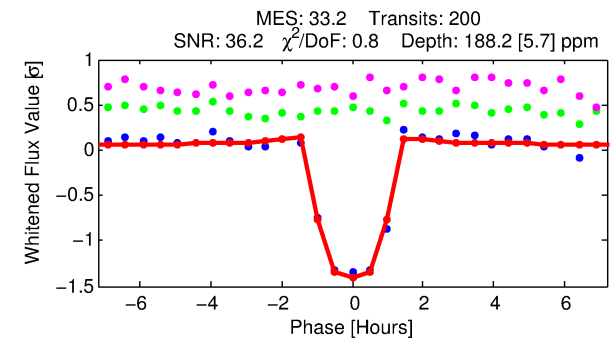
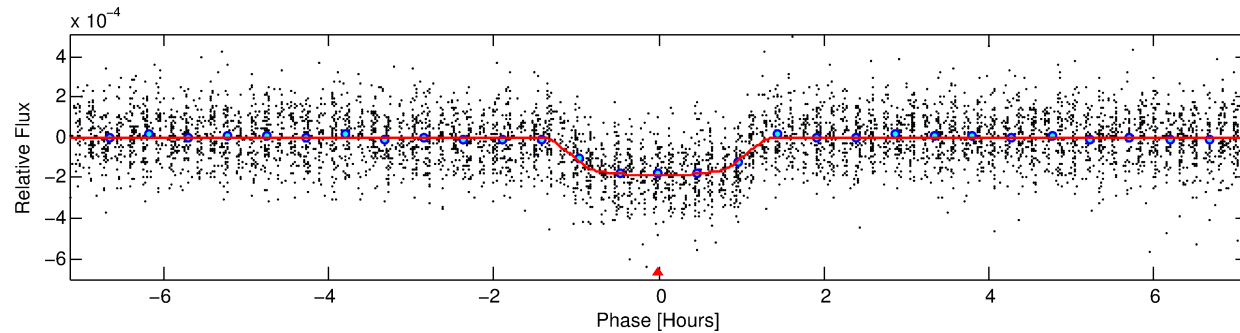
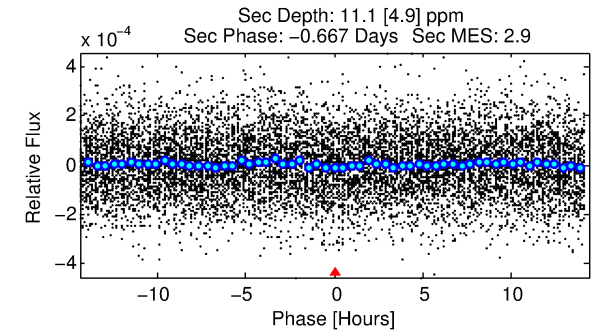
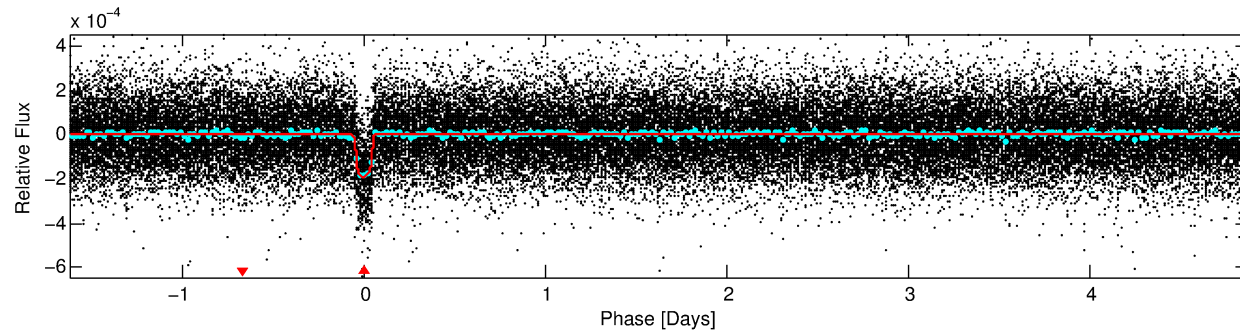
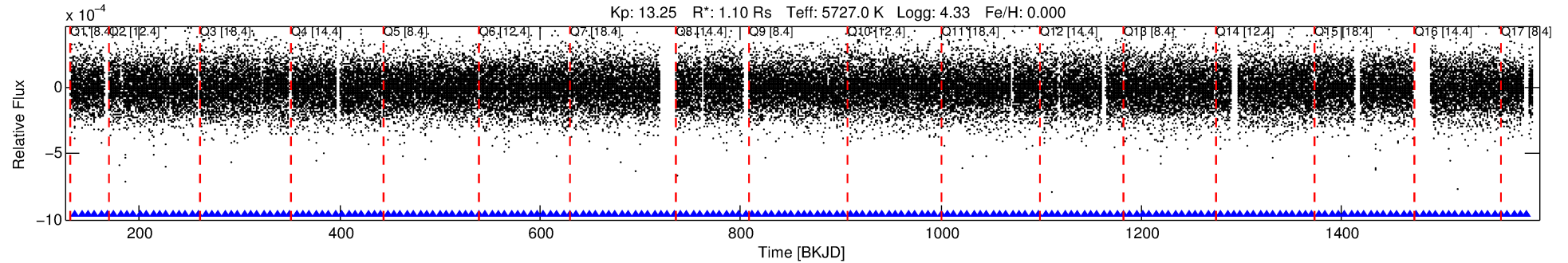
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007668663-01

No Significant Match Found

DV One-Page Summary

KIC: 7668663 Candidate: 1 of 1 Period: 6.498 d
KOI: K01898.01 Corr: 0.985



DV Fit Results:

Period = 6.49801 [0.00001] d
Epoch = 136.0016 [0.0013] BKJD
Rp/R* = 0.0150 [0.0027]
a/R* = 9.79 [8.06]
b = 0.90 [0.18]
Seff = 262.35 [64.52]
Teq = 1026 [63] K
Rp = 1.81 [0.42] Re
a = 0.0669 [0.0097] AU
Ag = 8.41 [5.13] [1.44σ]
Teffp = 2702 [385] K [4.29σ]

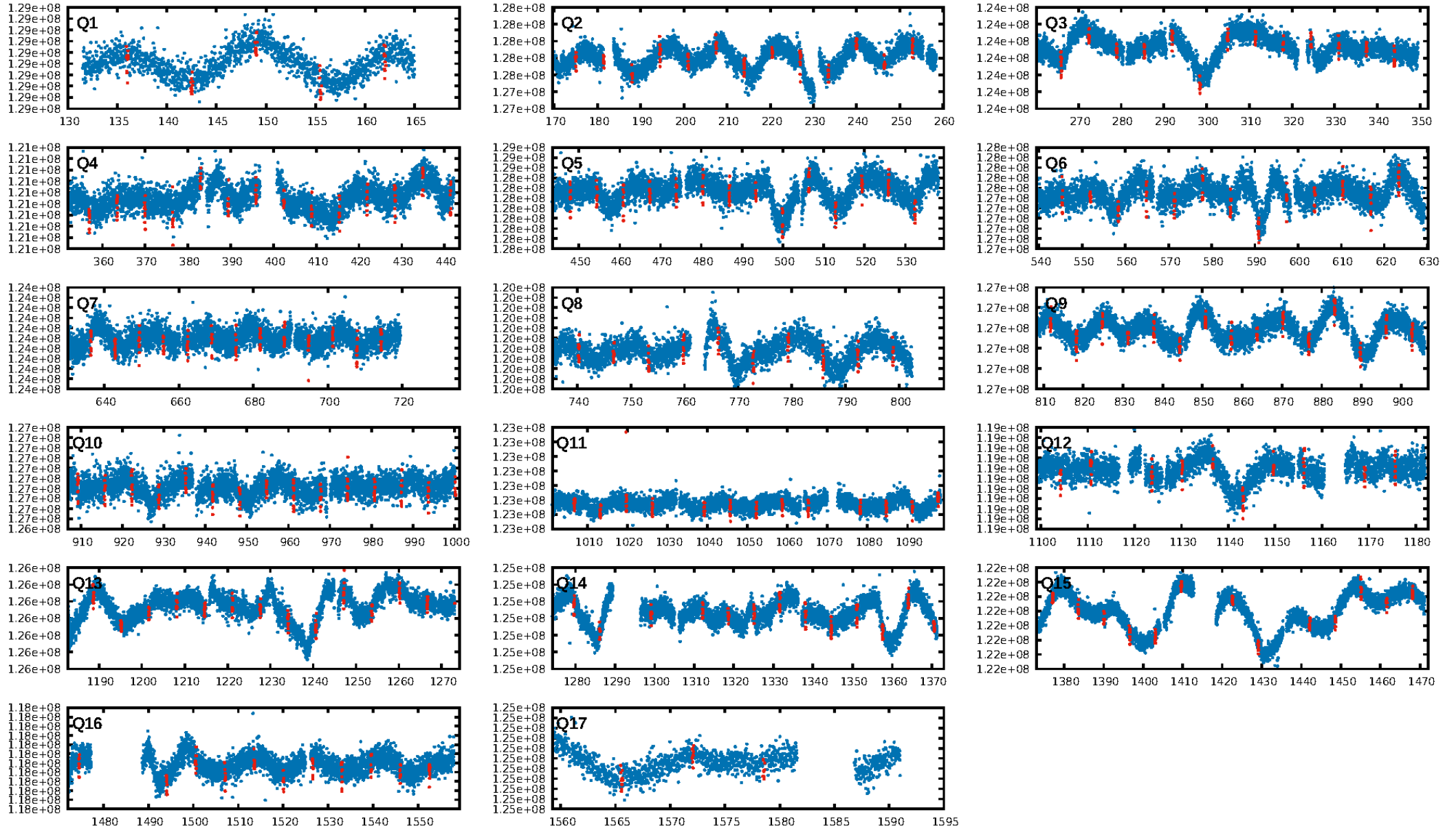
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.36e-232
RollingBand-fgt: 1.00 [192/192]
GhostDiagnostic-chr: 11.04
Centroid-sig: 91.8%
Centroid-so: 0.209 arcsec [0.68σ]
OotOffset-rm: 0.059 arcsec [0.29σ]
KicOffset-rm: 0.299 arcsec [1.43σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

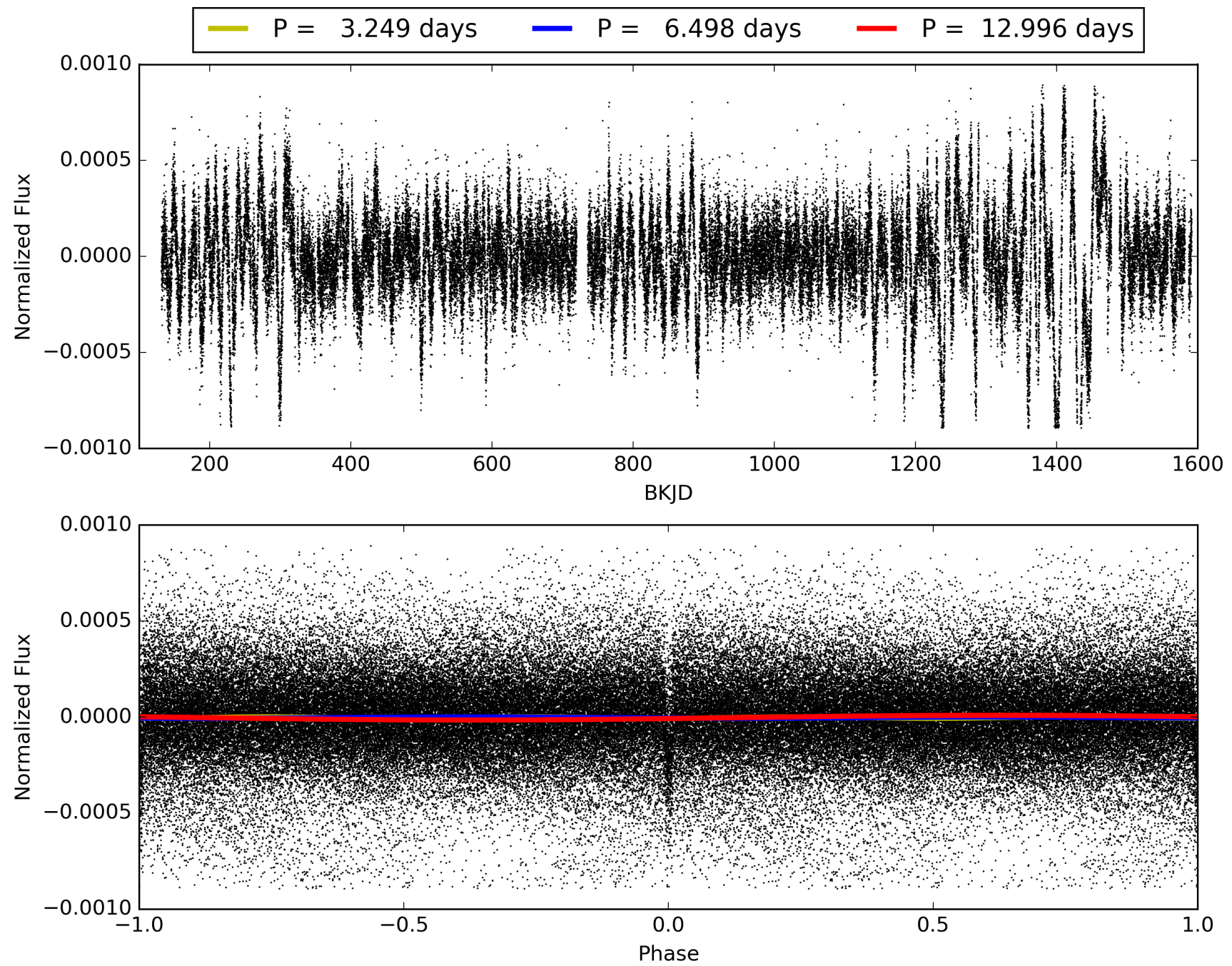
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:06:03 Z

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

TCE 007668663-01, PDC Light Curves

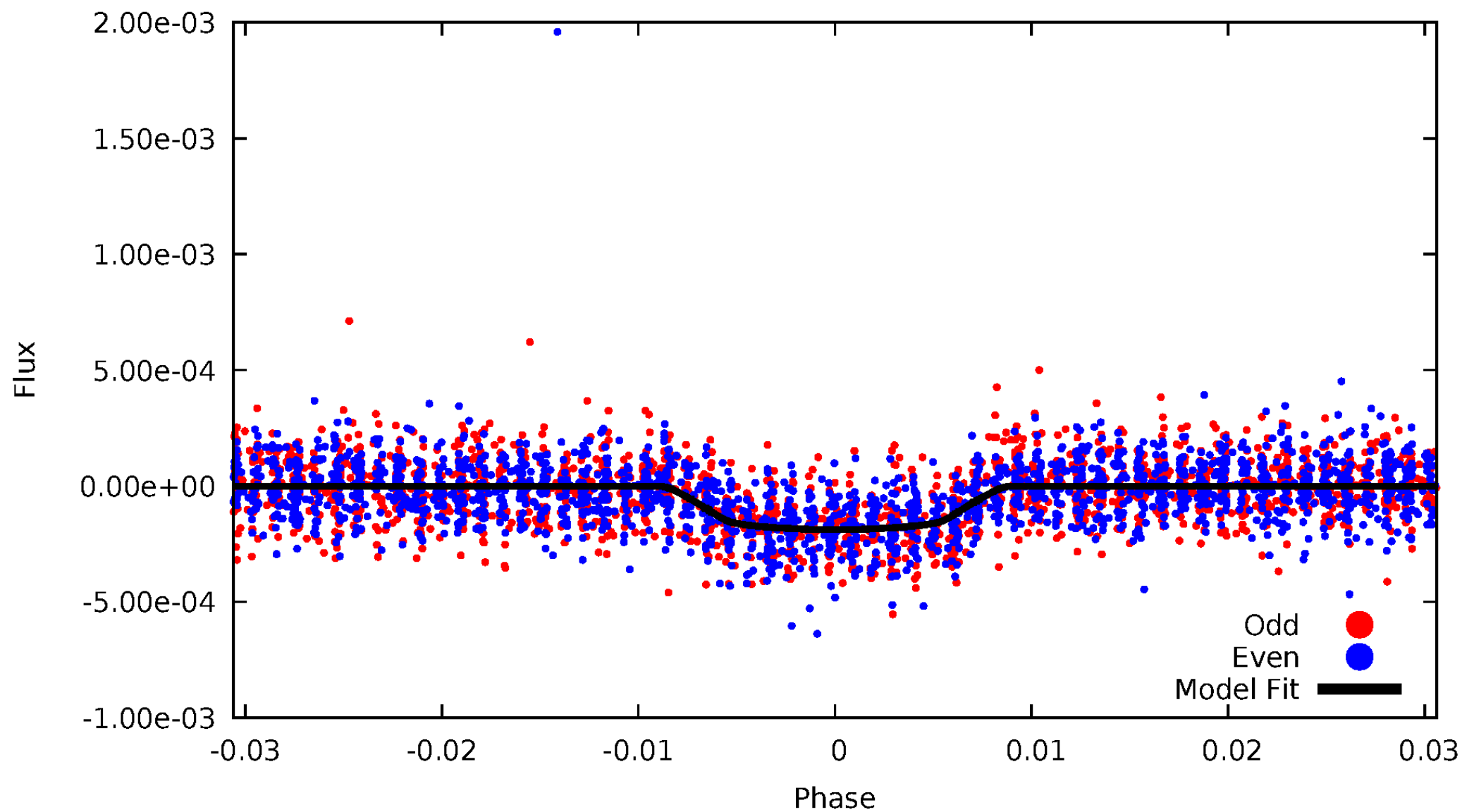


TCE 007668663-01



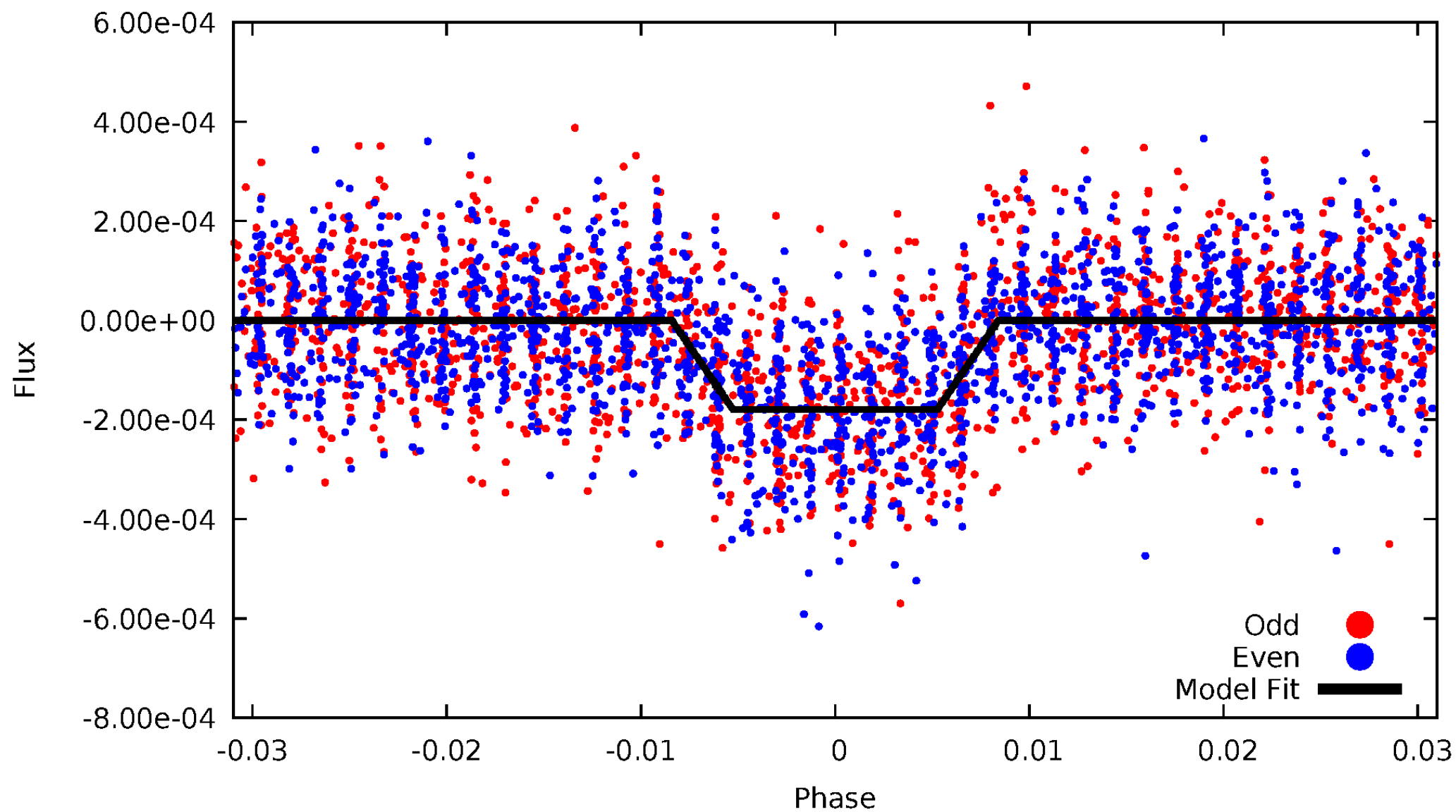
DV Odd/Even

TCE 007668663-01



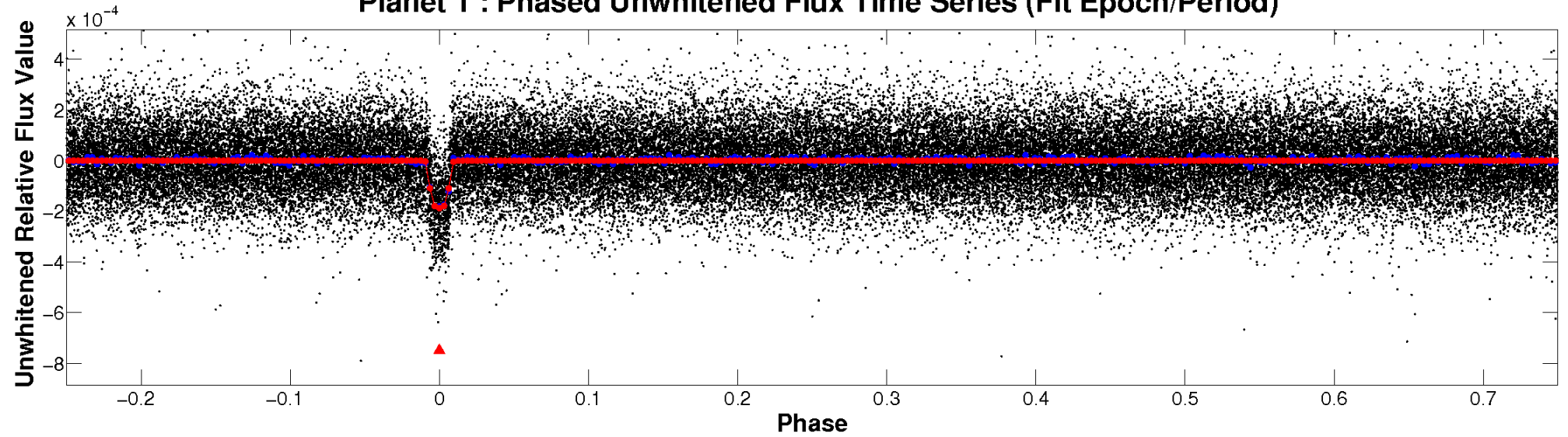
ALT Odd/Even

TCE 007668663-01

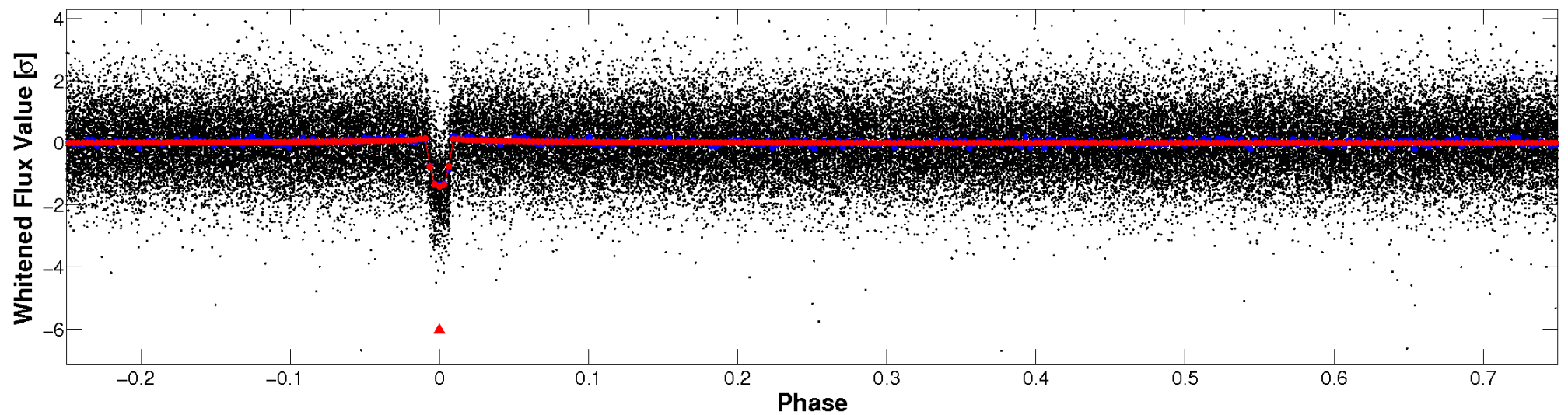


Non-Whitened Vs. Whitened Light Curve

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

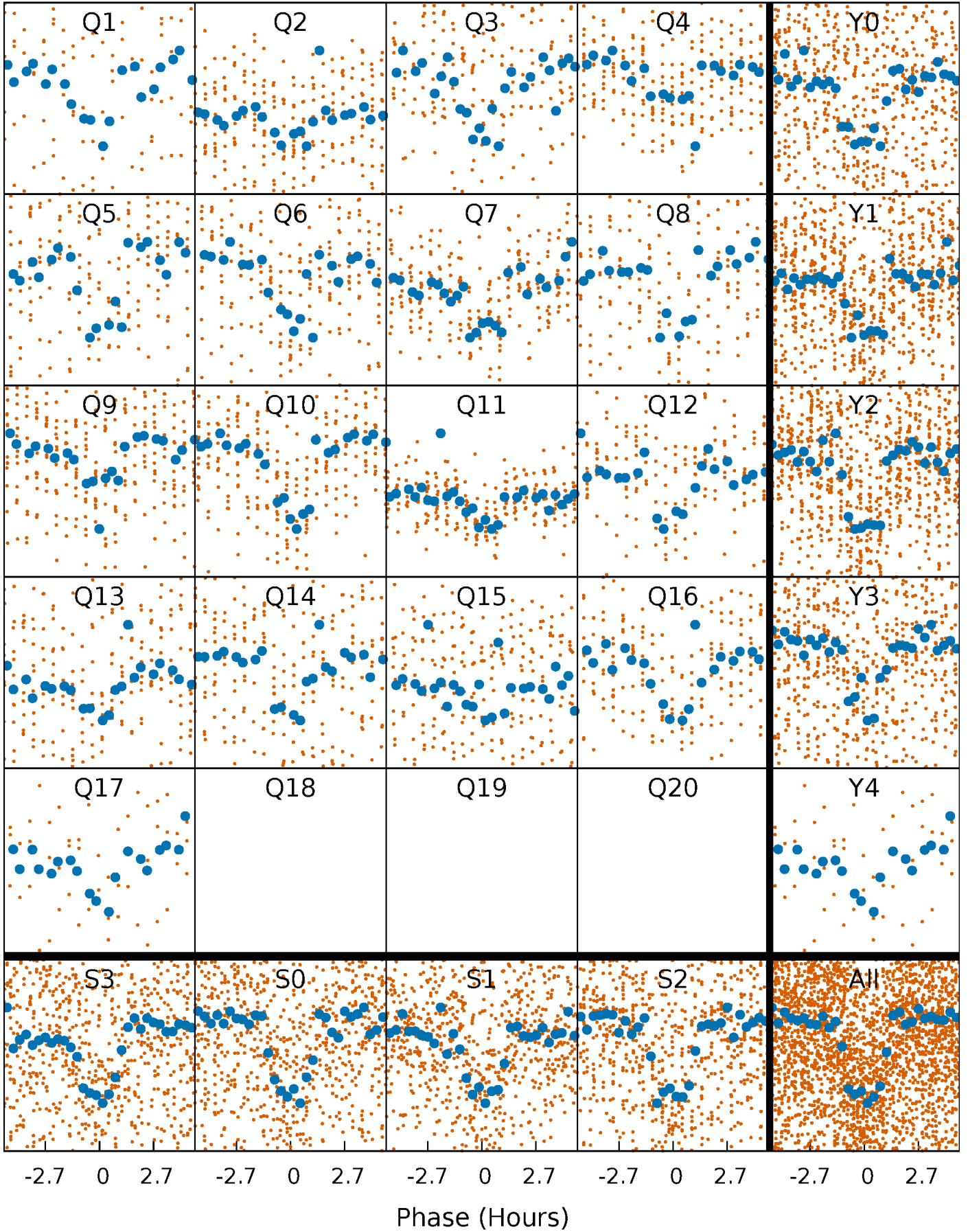


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



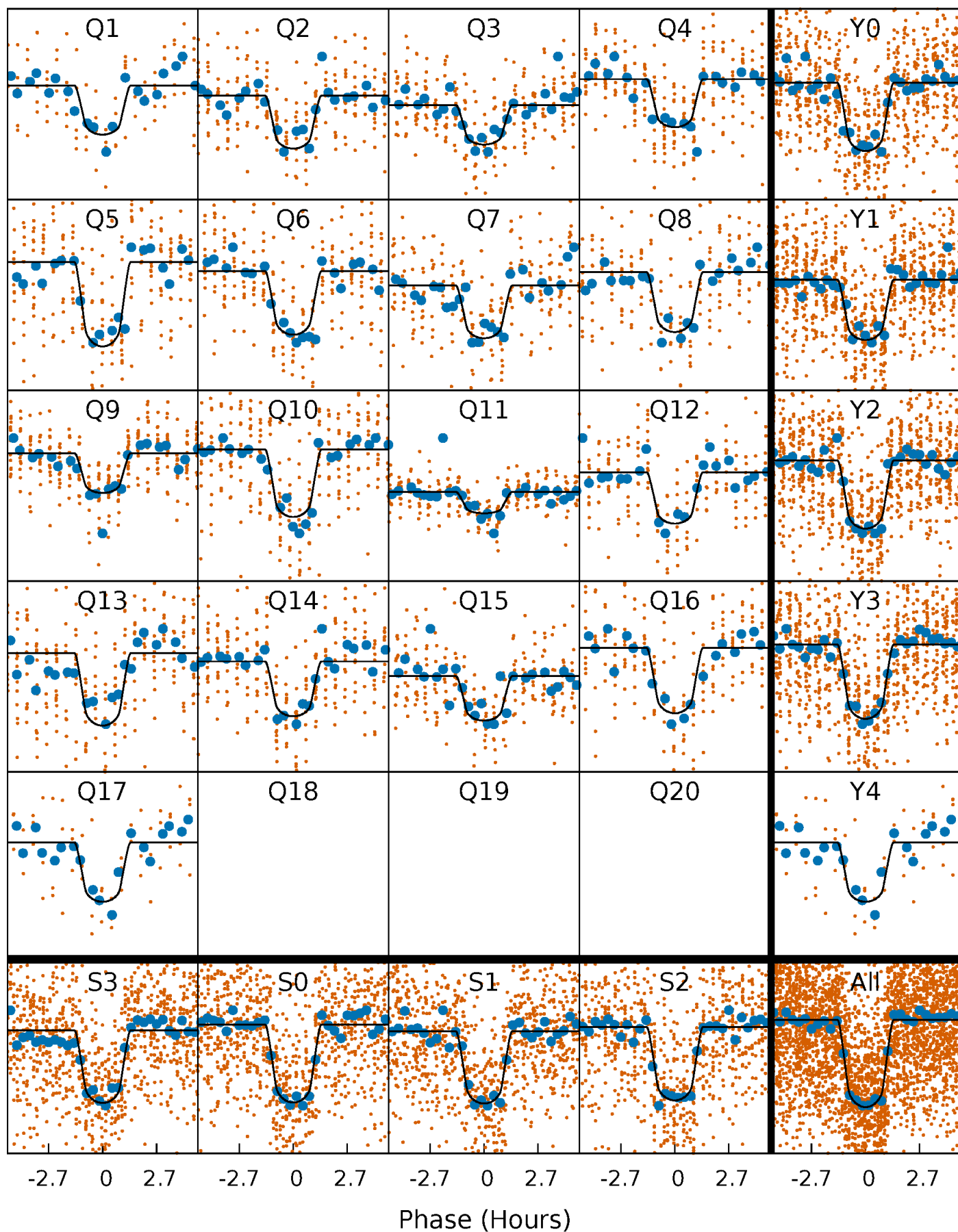
PDC Quarter-Phased Transit Curves

TCE 007668663-01 P= 6.498005 Days $T_0=136.001632$ (BKJD)



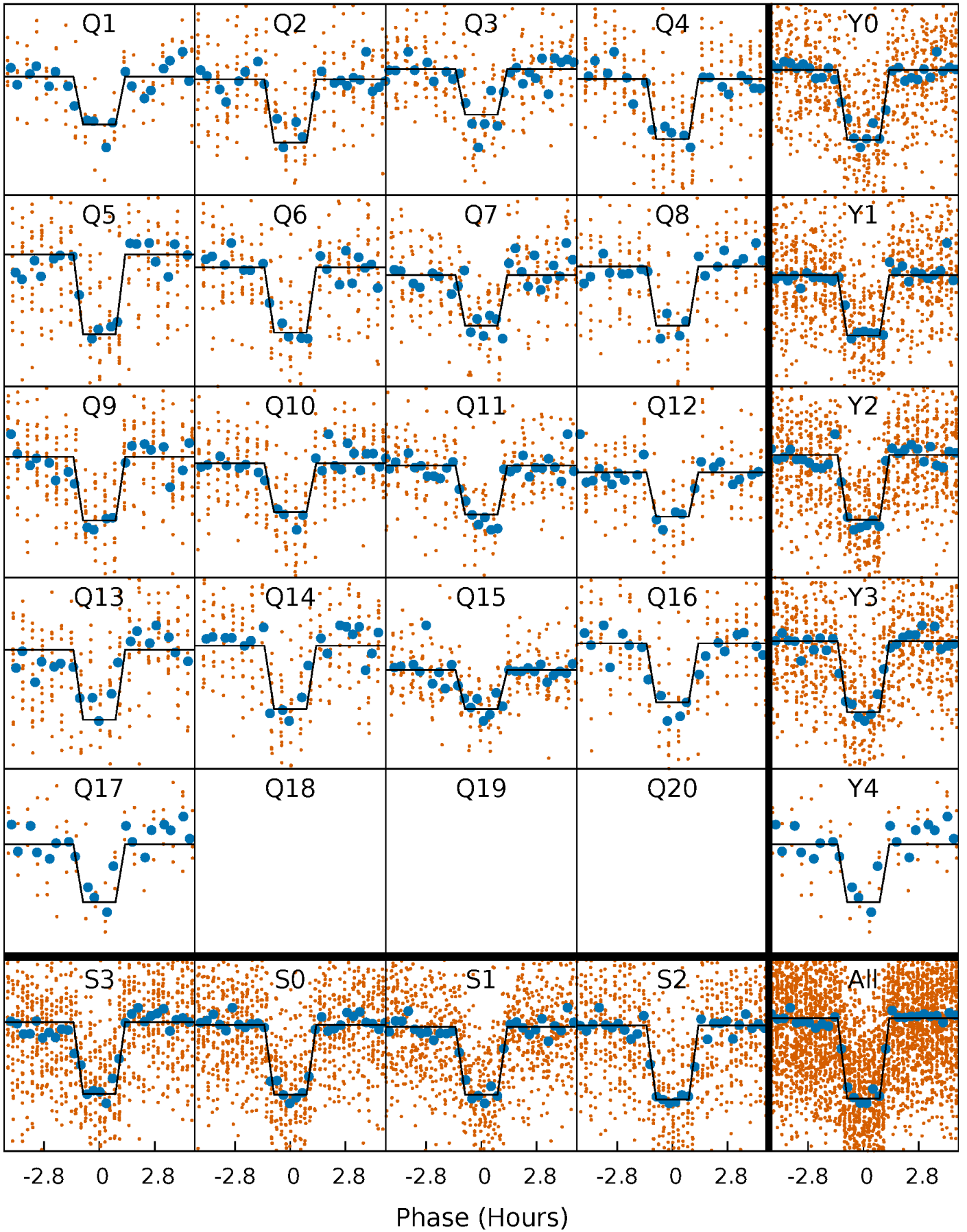
DV Quarter-Phased Transit Curves

TCE 007668663-01 P= 6.498005 Days $T_0=136.001632$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

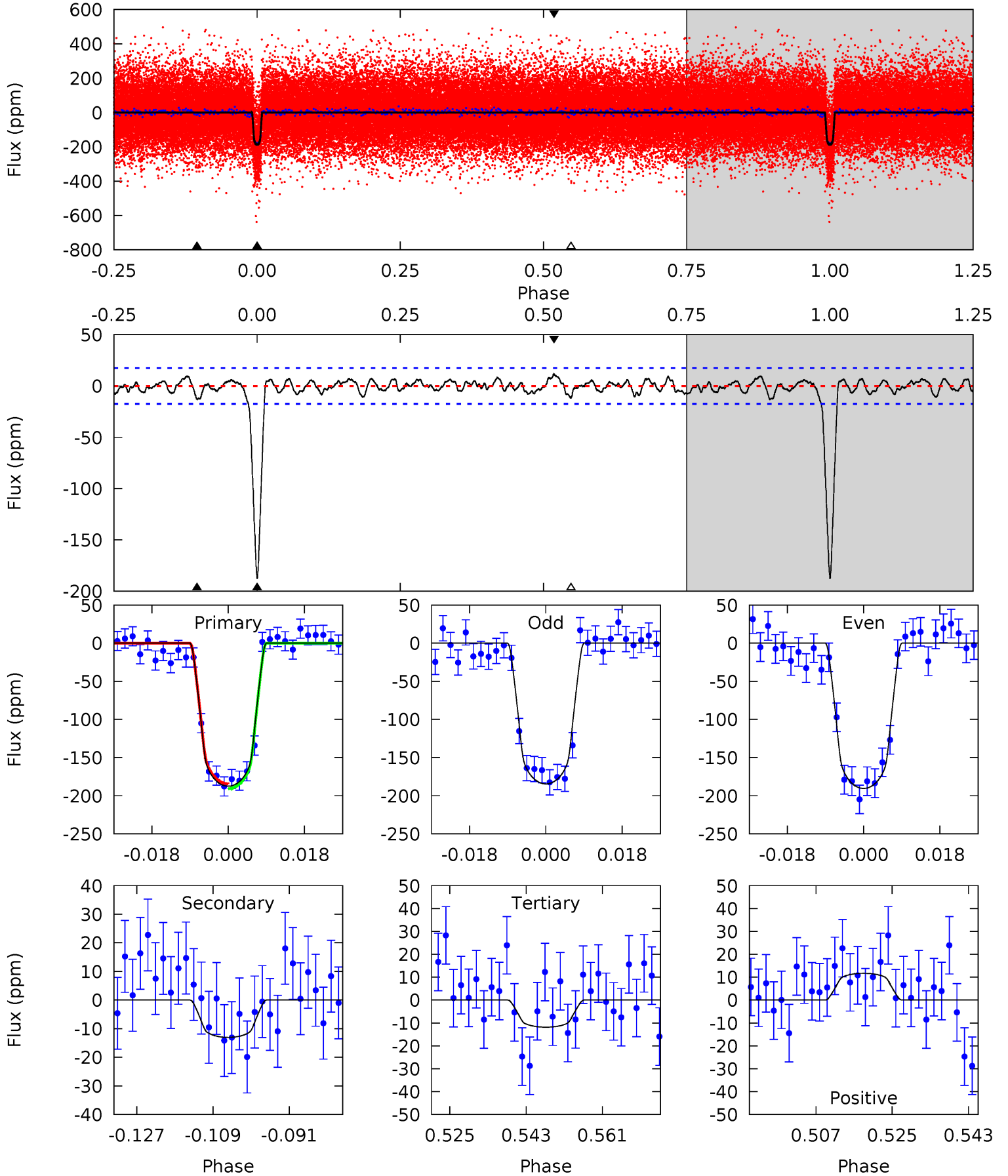
TCE 007668663-01 P= 6.498053 Days $T_0=135.997115$ (BKJD)



DV Model-Shift Uniqueness Test

007668663-01, P = 6.498005 Days, E = 129.503627 Days

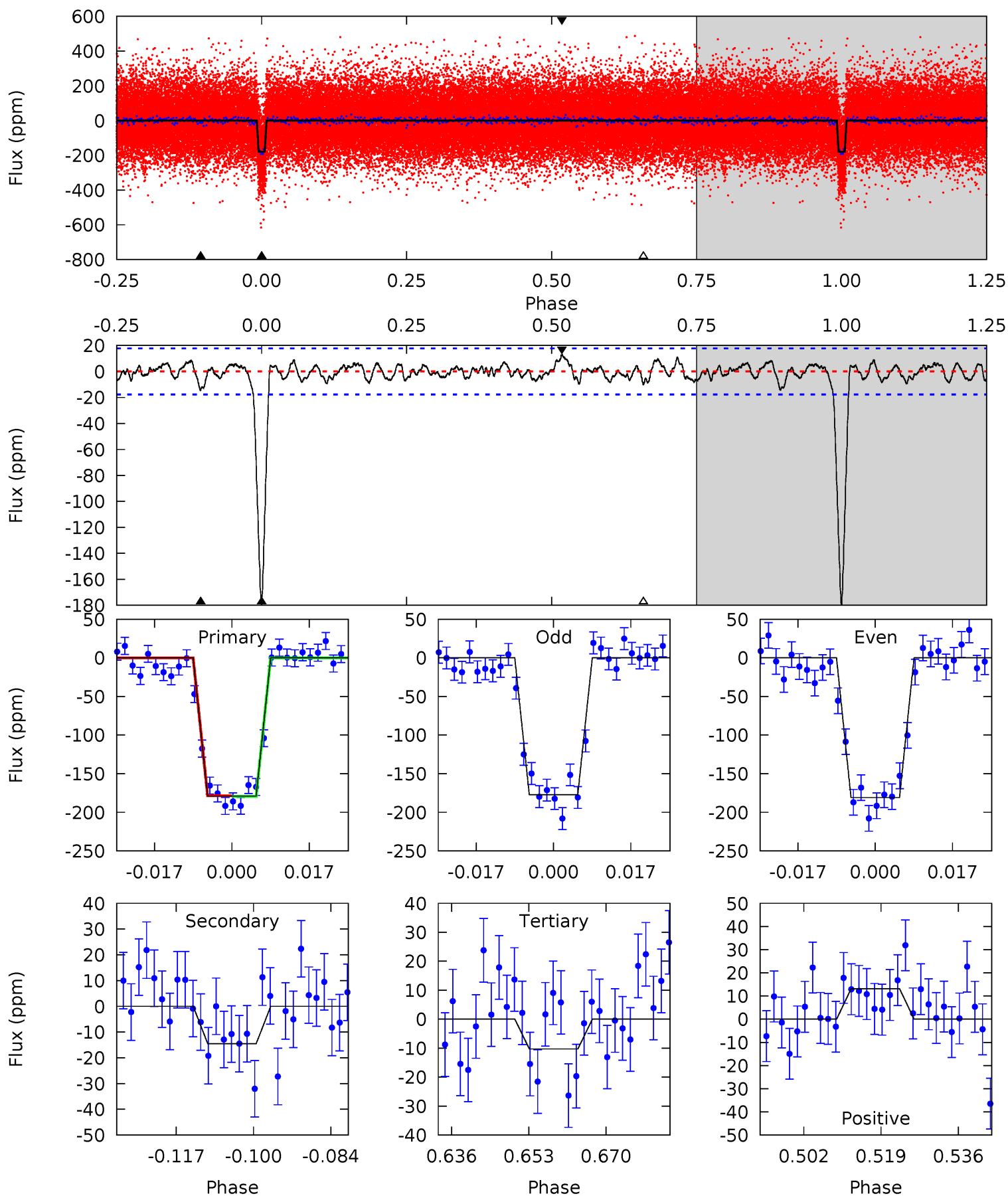
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.8	3.68	3.34	3.29	4.91	2.36	1.26	49.4	49.5	0.34	0.39	0.83	0.99	0.06	0.90



Alt Model-Shift Uniqueness Test

007668663-01, P = 6.498053 Days, E = 129.499062 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.6	4.01	2.84	3.63	4.93	2.39	1.22	46.8	46.0	1.17	0.38	0.53	0.98	0.07	0.10



Stellar Parameters For KIC 007668663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5727^{+104}_{-115}	$4.328^{+0.137}_{-0.112}$	$0.000^{+0.150}_{-0.150}$	$1.104^{+0.164}_{-0.164}$	$0.946^{+0.072}_{-0.057}$	$0.989^{+0.583}_{-0.311}$
	+2%/-2%	+3%/-3%	+inf%/-inf%	+15%/-15%	+8%/-6%	+59%/-31%
Source	SPE57	SPE57	SPE57	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007668663-01 / KOI 1898.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 4	$1.80^{+0.35}_{-0.35}$	1429^{+62}_{-67}	3330^{+270}_{-218}	$9.887^{+6.379}_{-3.621}$
Alt.	-14 ± 4	$1.62^{+0.36}_{-0.35}$	1430^{+70}_{-60}	3498^{+306}_{-259}	14^{+10}_{-6}

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

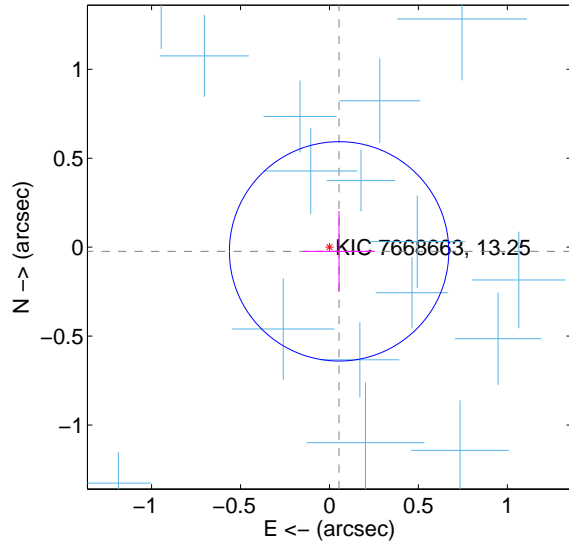
Supplemental centroid analysis for 007668663-01. Kepler magnitude: 13.25. Transit SNR 36.24

There are 17 quarters with good PRF difference image offsets

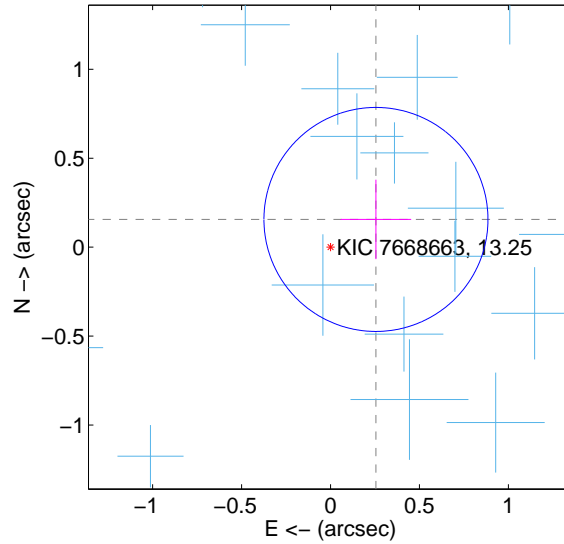
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.059 ± 0.206	0.29	-0.054 ± 0.201	-0.024 ± 0.227
PRF-fit source offset from KIC position	0.299 ± 0.210	1.43	-0.255 ± 0.198	0.156 ± 0.223
photometric centroid source offset	0.21 ± 0.31	0.68	-0.13 ± 0.29	0.16 ± 0.32

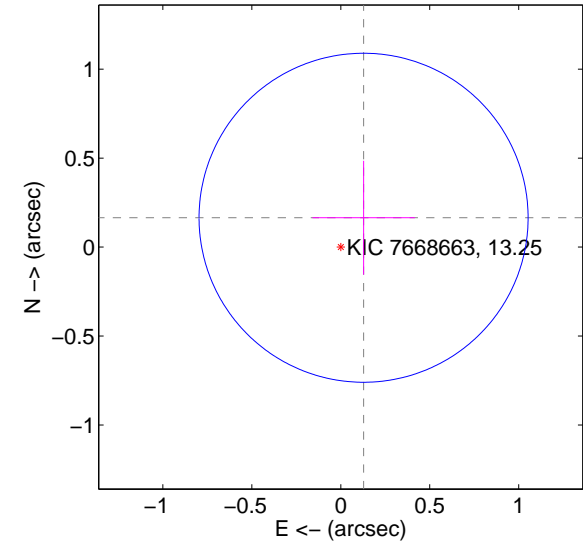
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

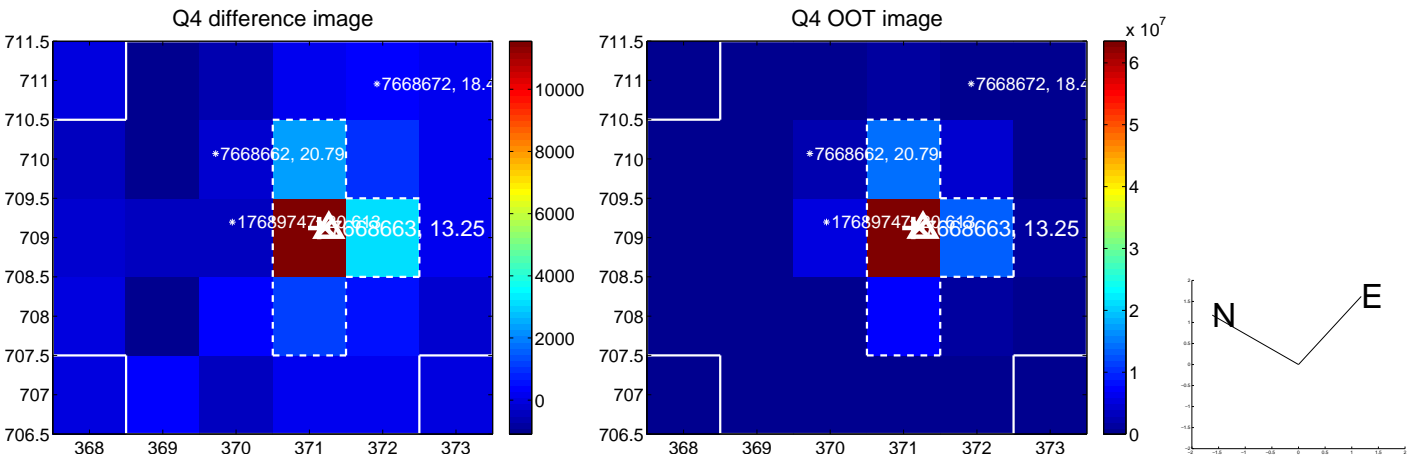
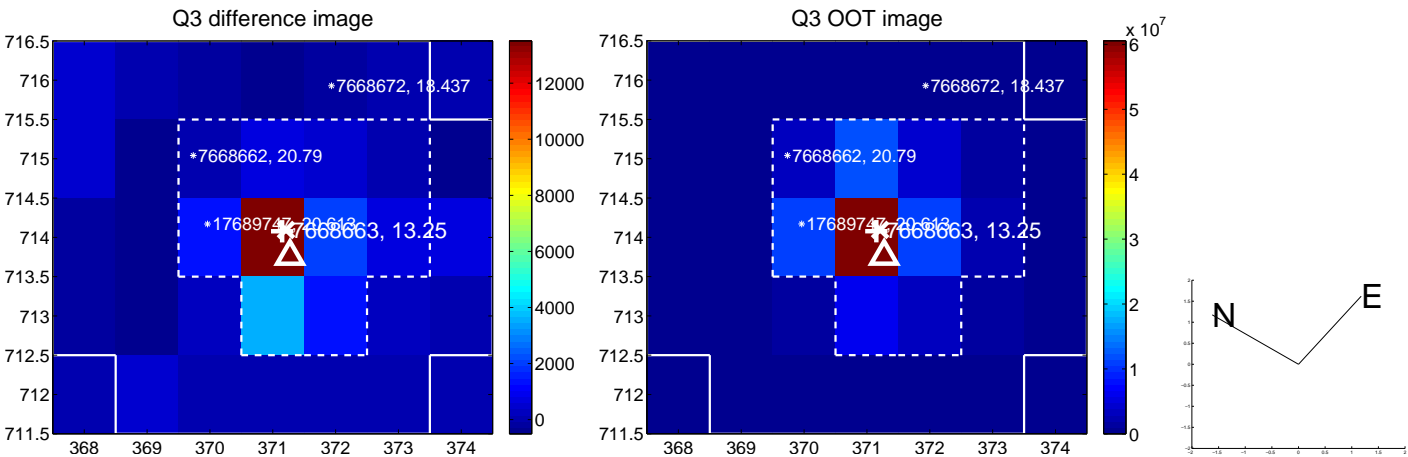
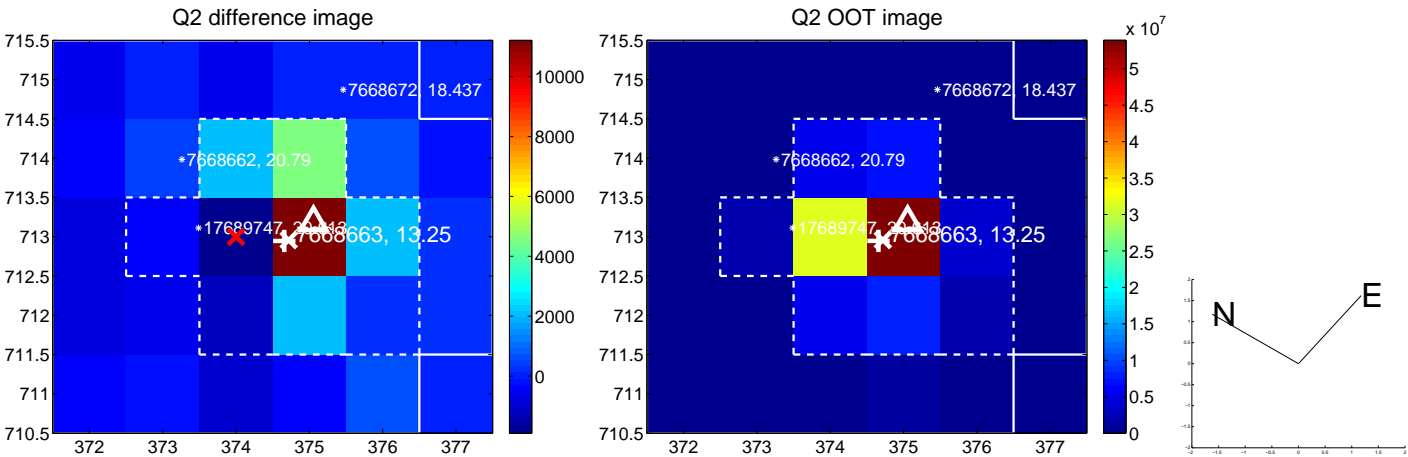
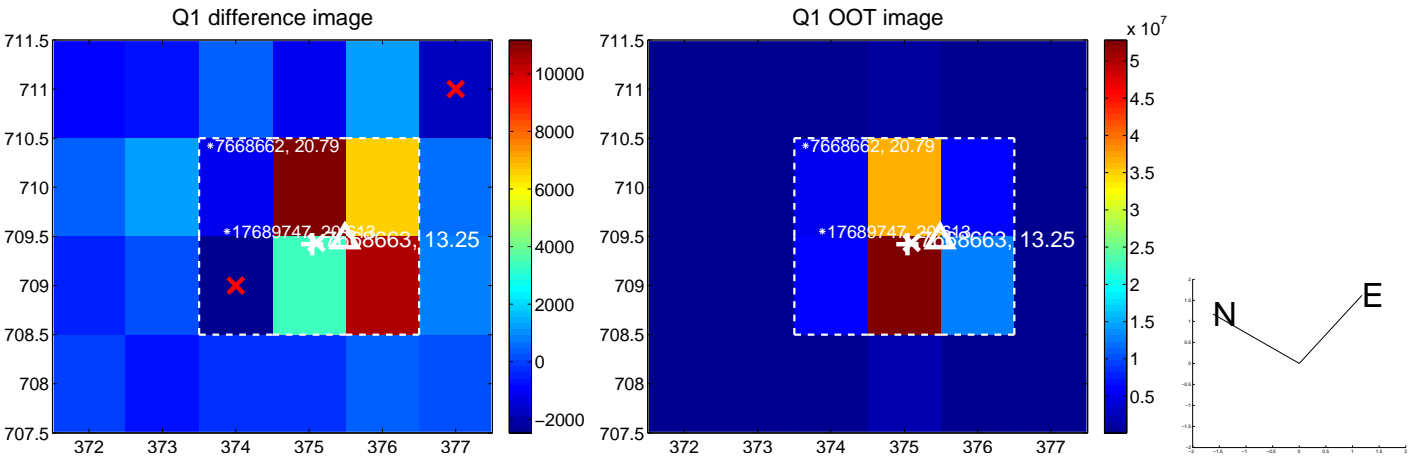


offset from photometric centroids

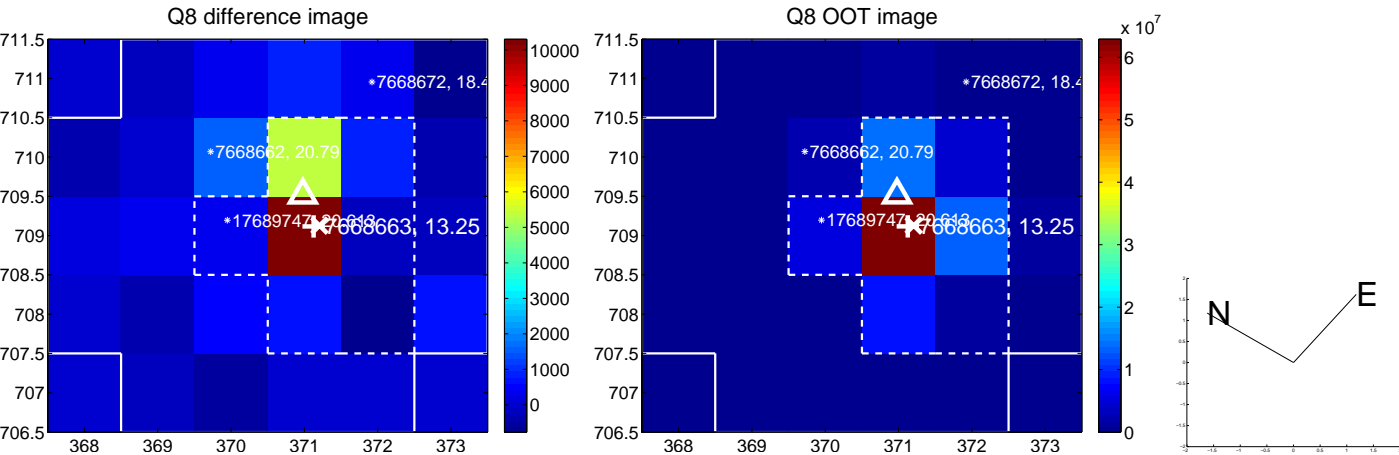
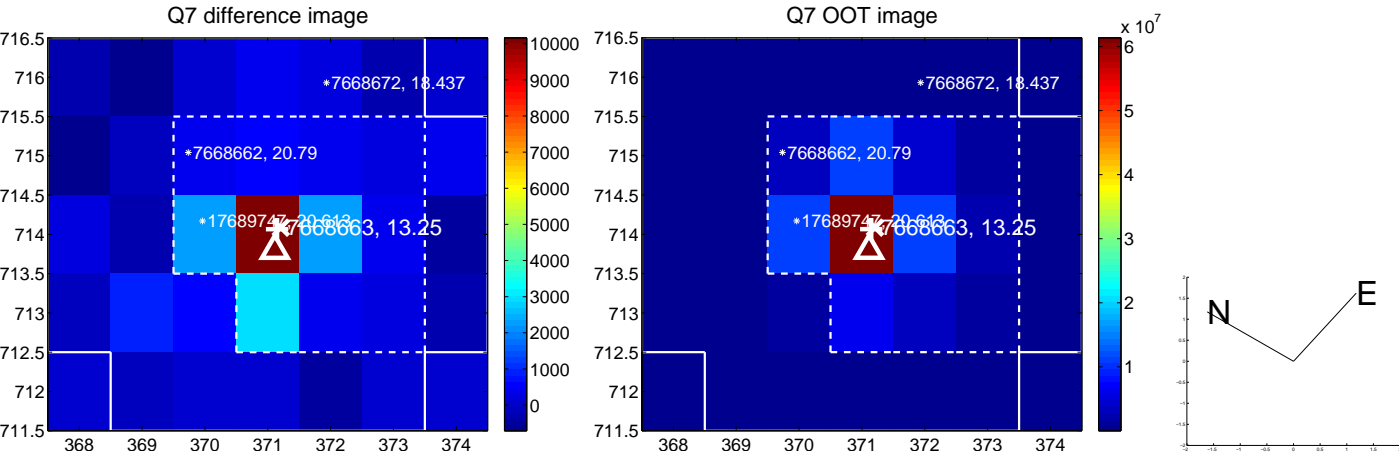
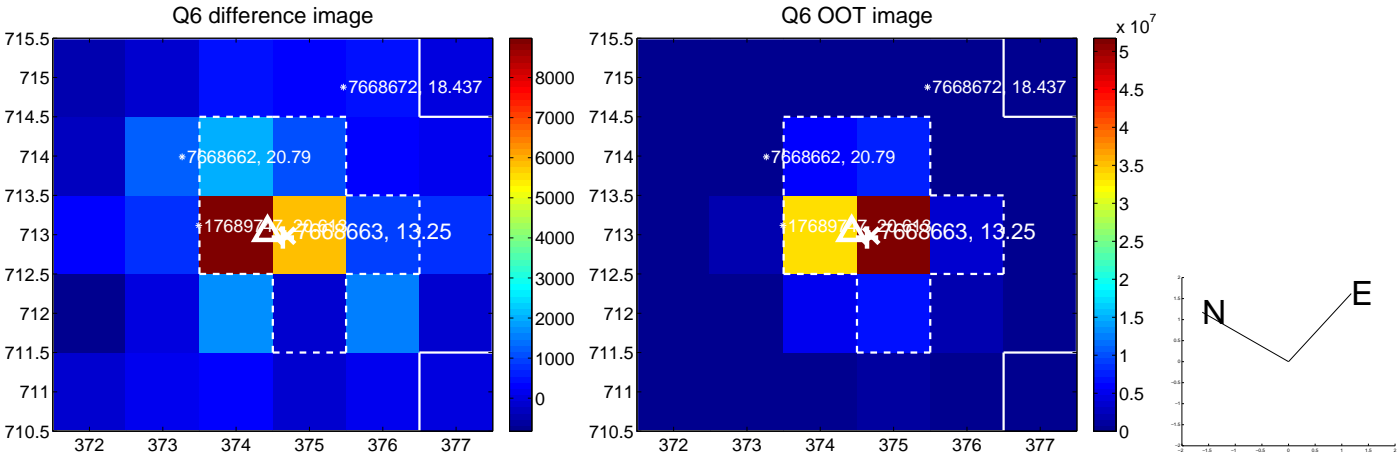
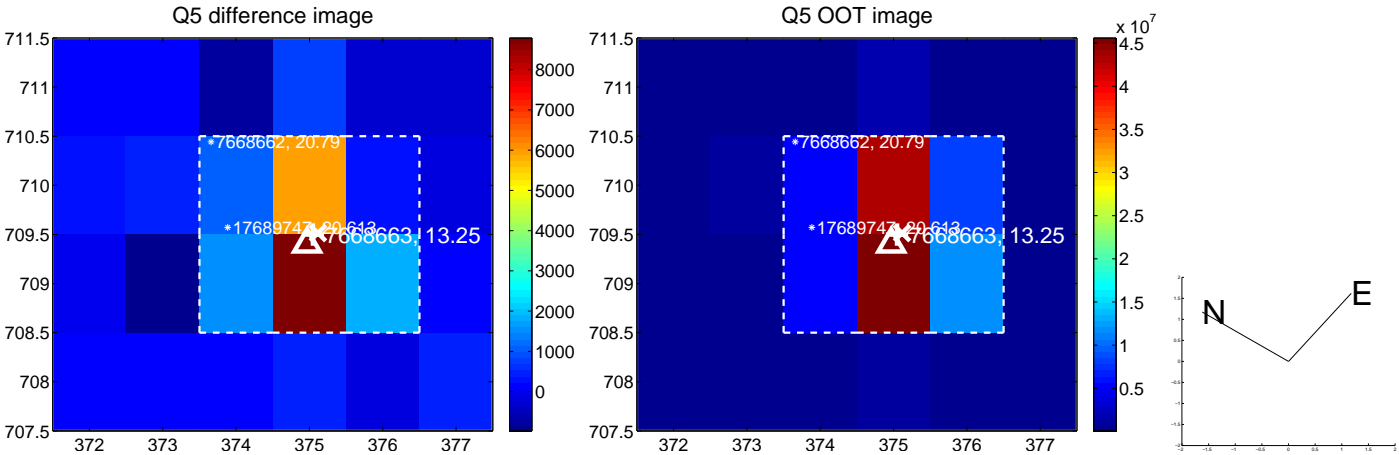


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

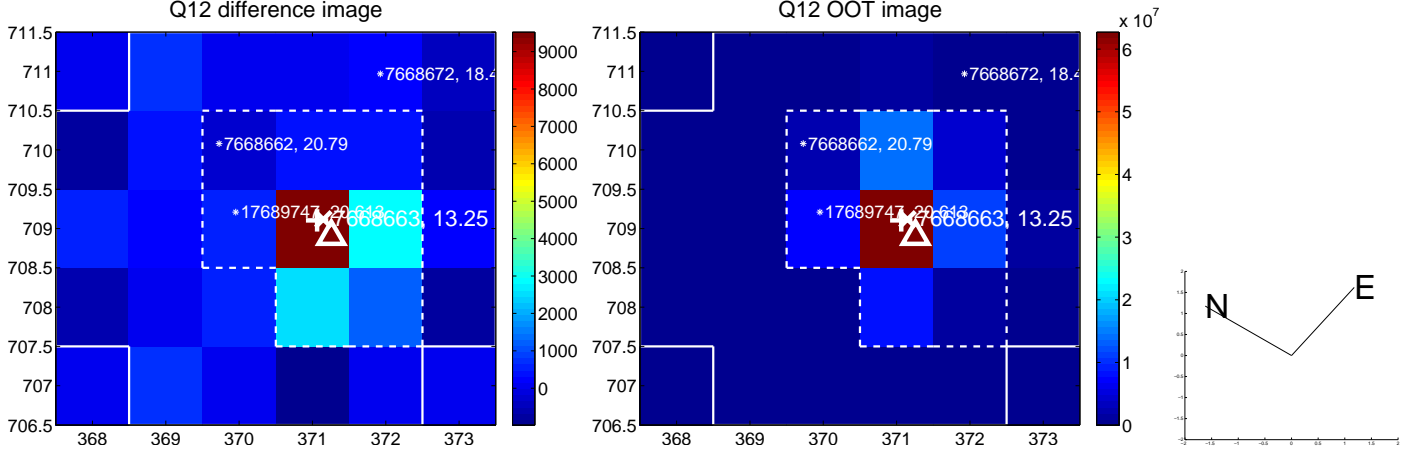
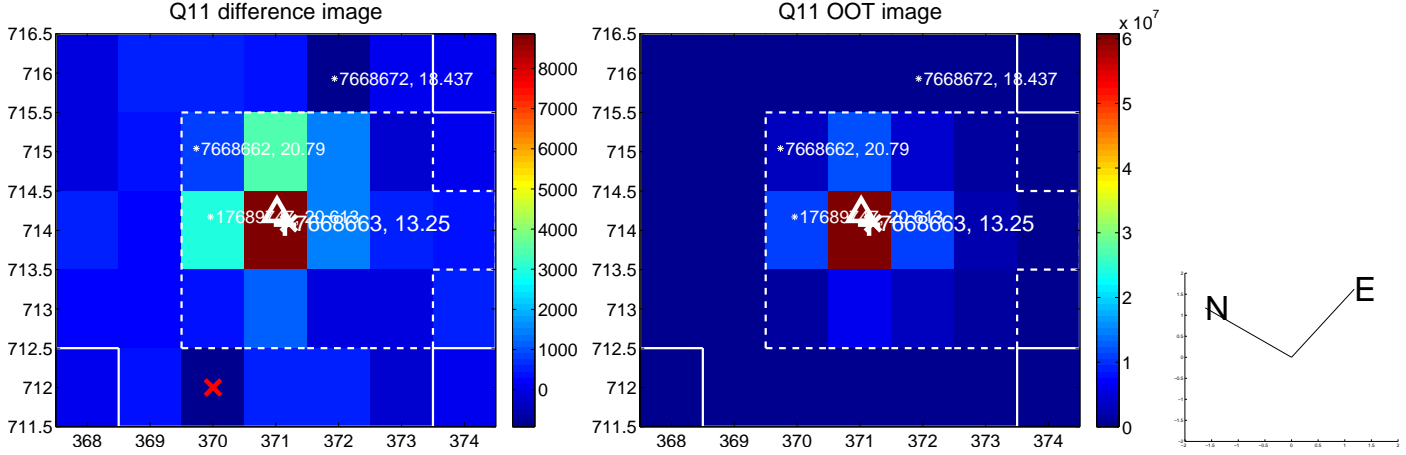
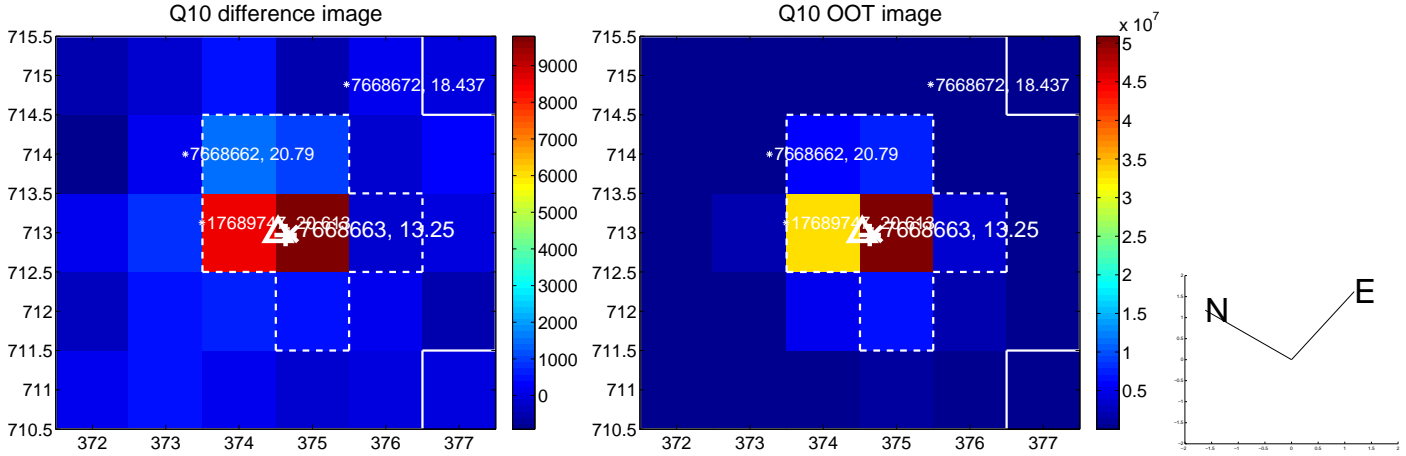
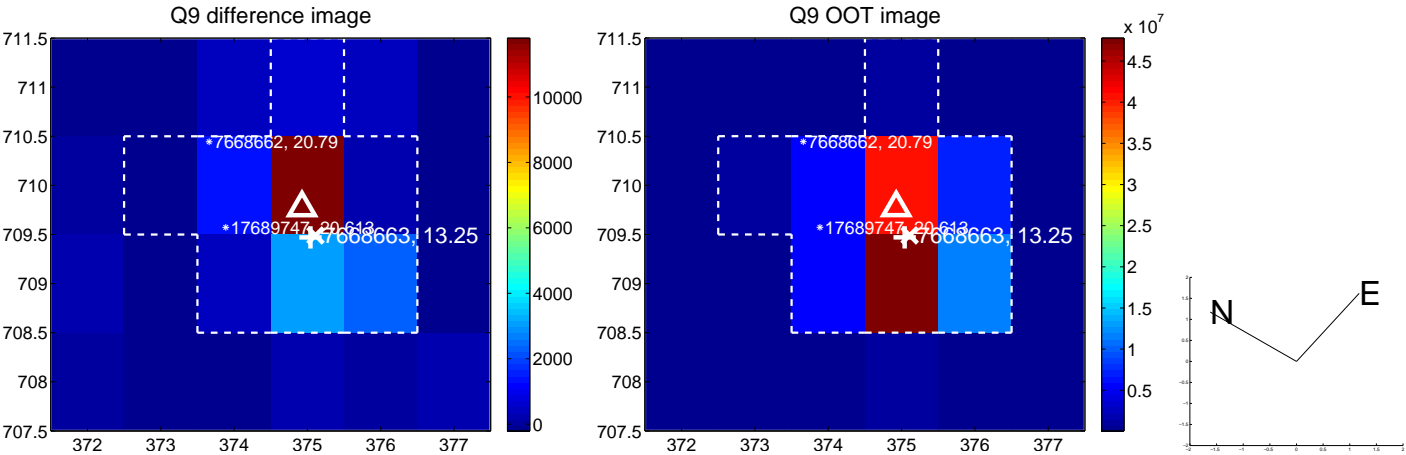
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



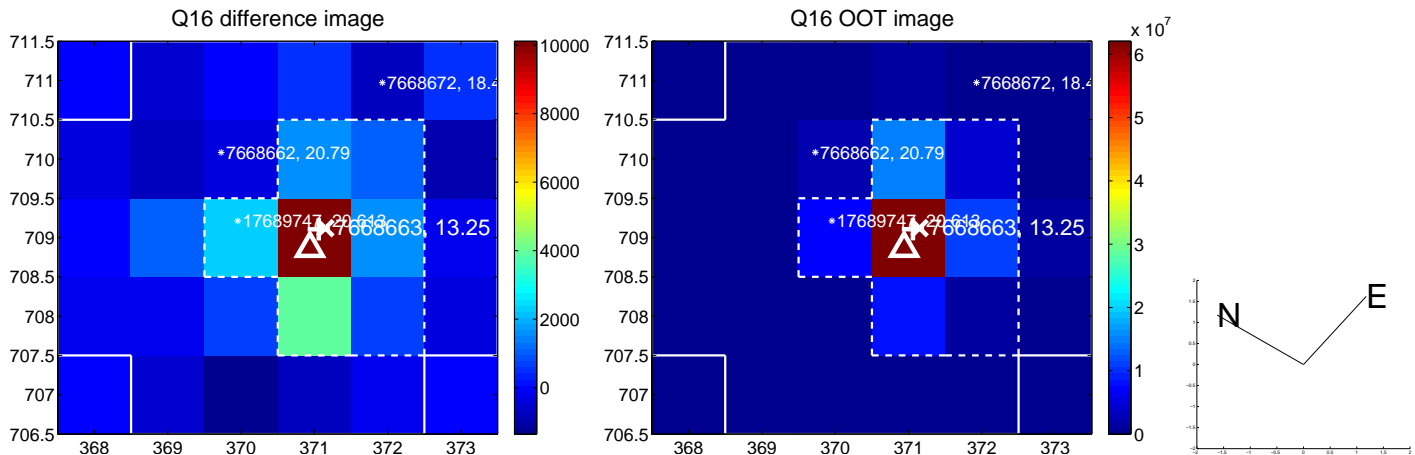
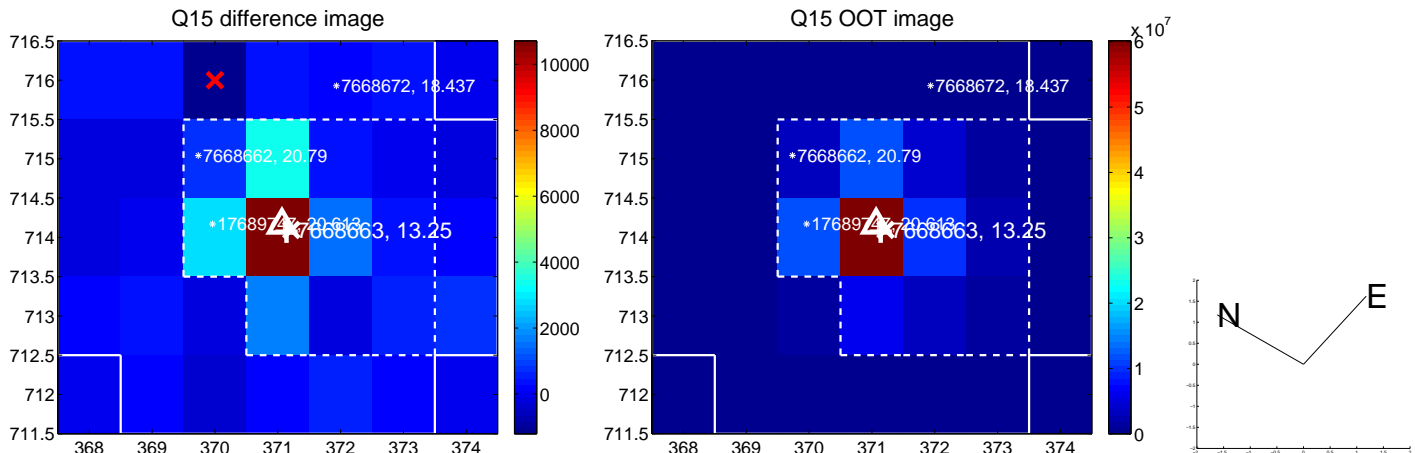
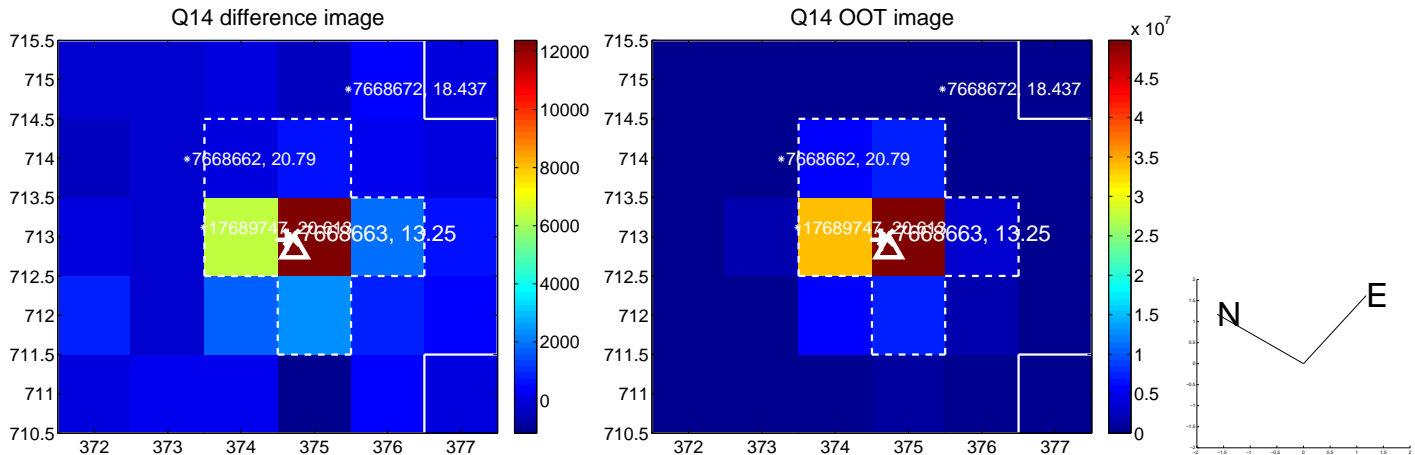
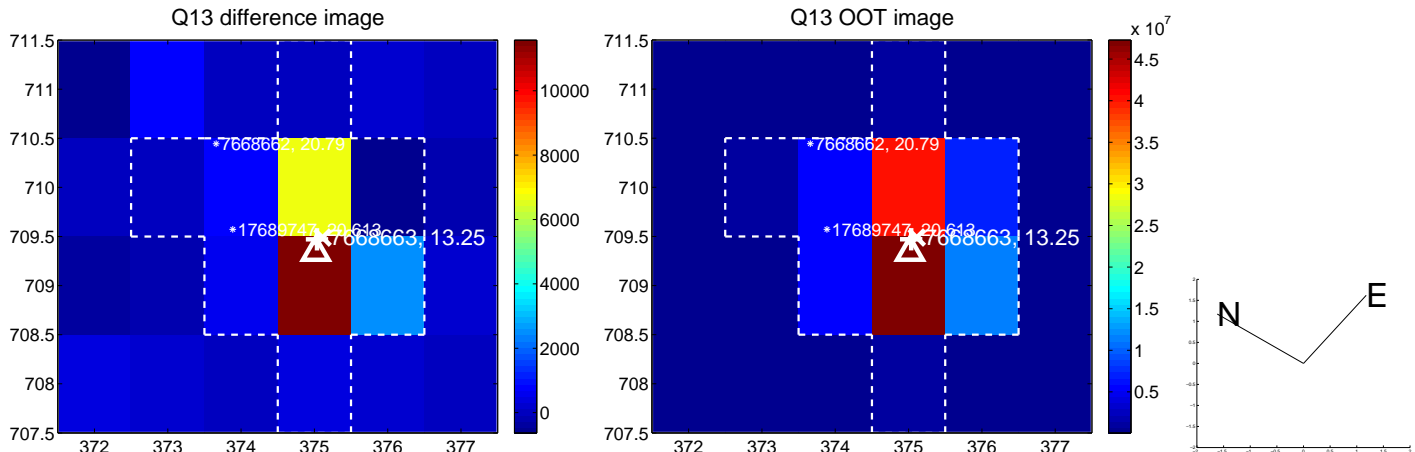
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



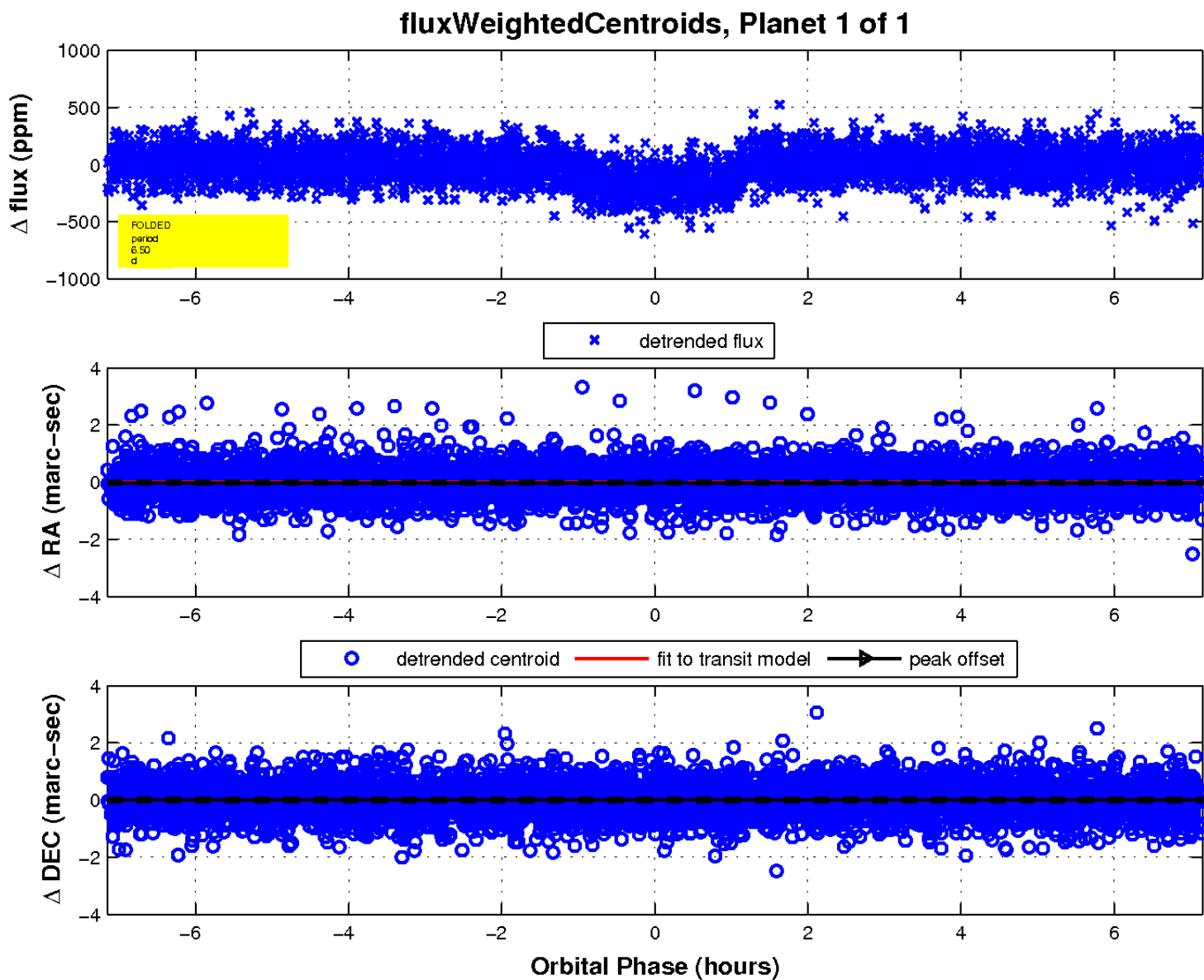
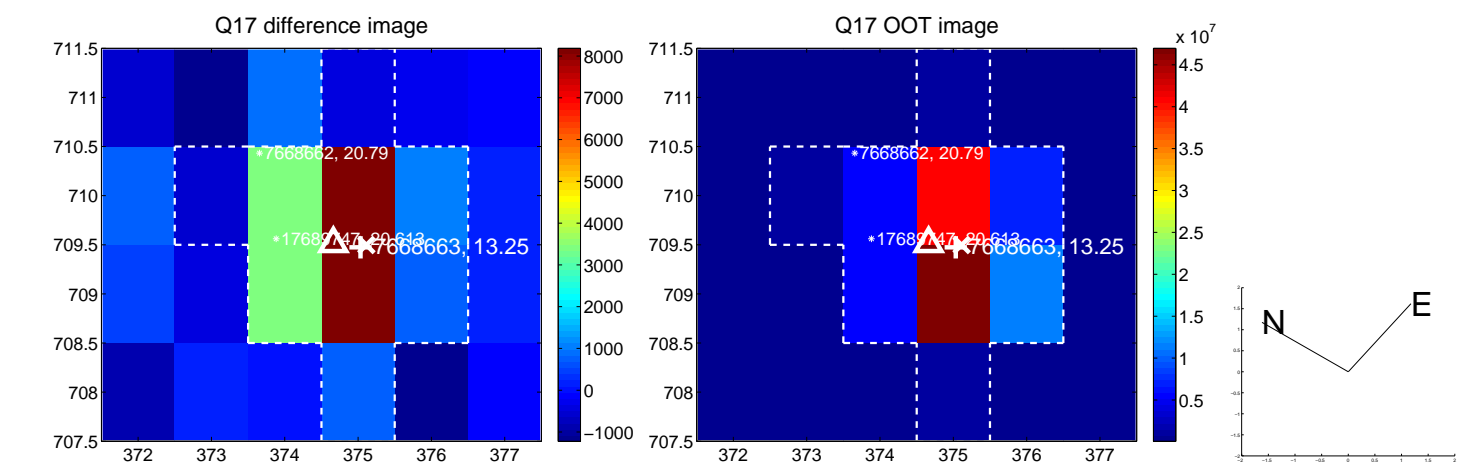
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

