

KIC 007672215

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})
007672215-01	OBS	5411.01	11.173612	142.589477	51.6	5.029	8.6	8.7	1.75	7372	1.45	632.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007672215-01	OBS	PC	0.90	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.

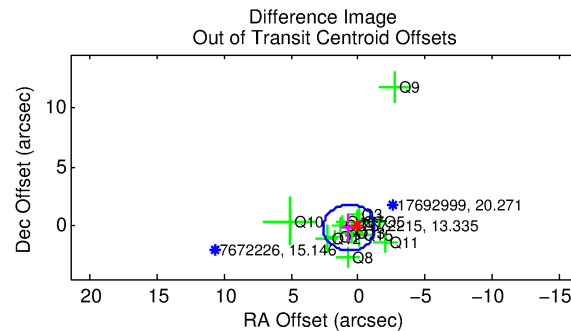
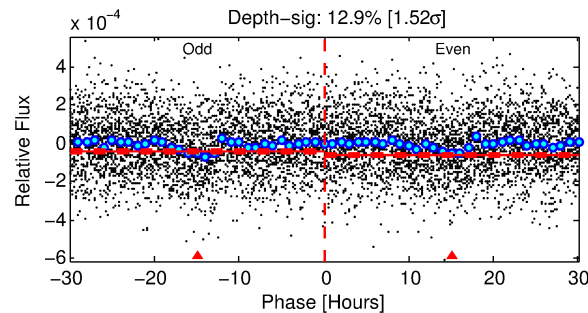
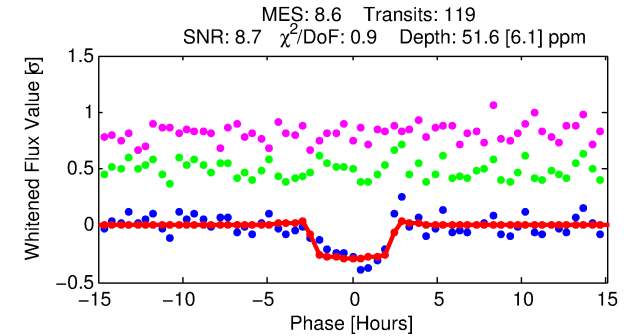
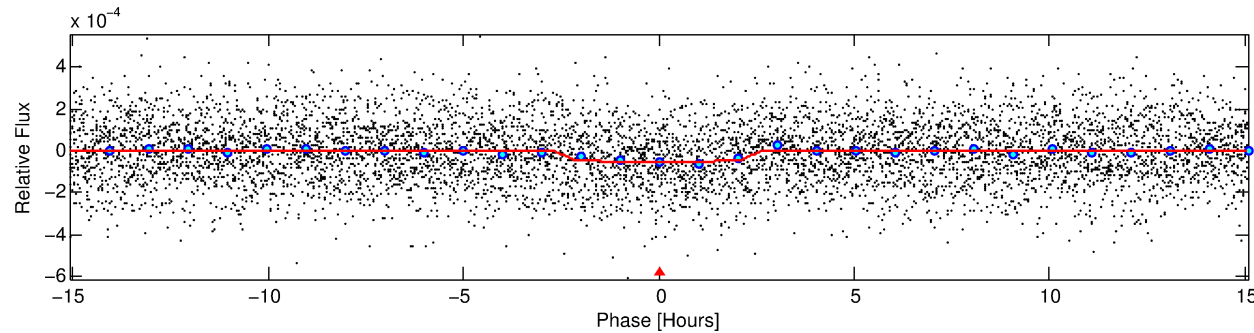
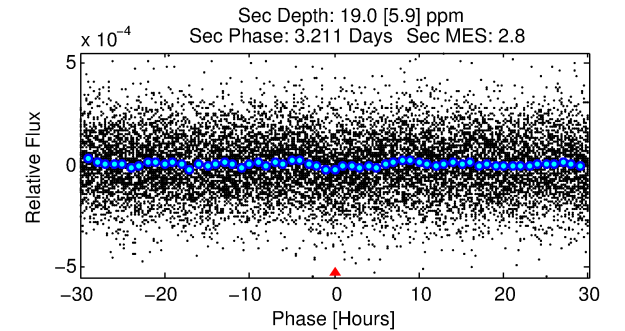
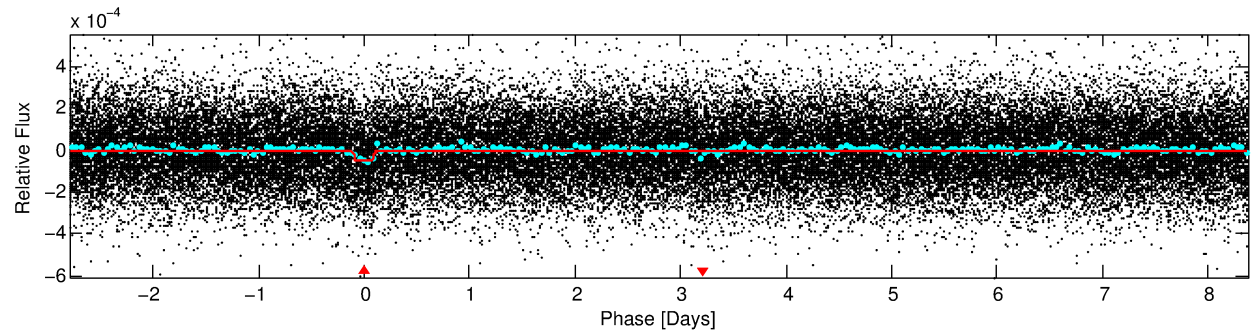
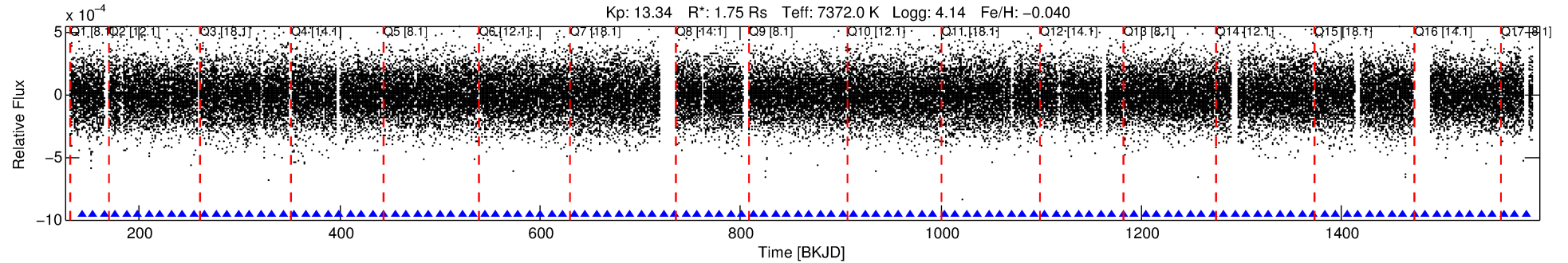
Ephemeris Match Information For 007672215-01

No Significant Match Found

DV One-Page Summary

KIC: 7672215 Candidate: 1 of 1 Period: 11.174 d

KOI: K05411.01 Corr: 0.938



DV Fit Results:

Period = 11.17361 [0.00013] d
Epoch = 142.5895 [0.0091] BKJD
Rp/R* = 0.0076 [0.0024]
a/R* = 8.03 [15.89]
b = 0.89 [0.47]
Seff = 632.90 [266.92]
Teq = 1279 [135] K
Rp = 1.45 [0.66] Re
a = 0.1133 [0.0306] AU
Ag = 63.81 [51.07] [1.23σ]
Teffp = 5589 [1016] K [4.21σ]

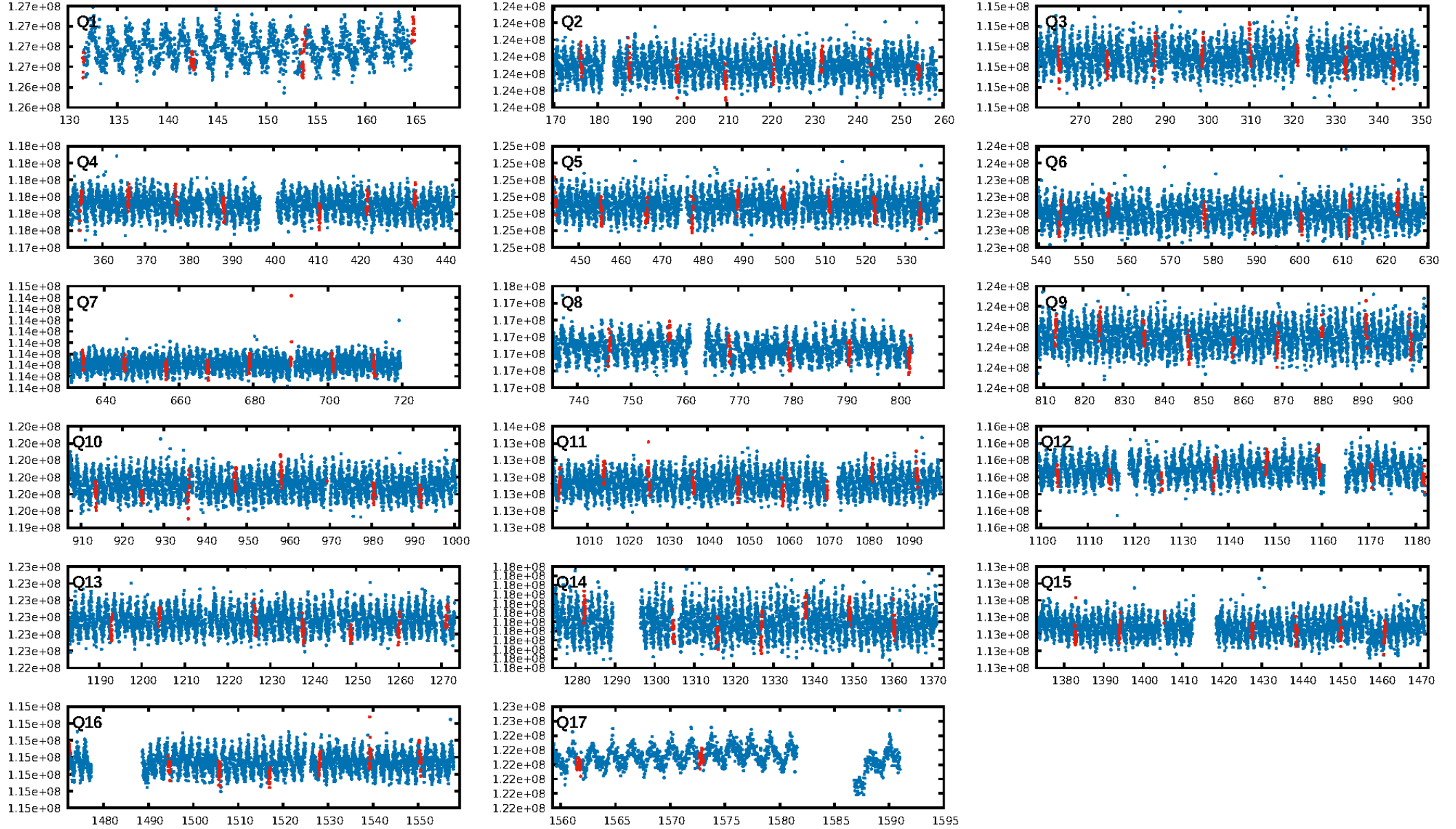
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.87e-17
RollingBand-fgt: 1.00 [113/113]
GhostDiagnostic-chr: 1.698
Centroid-sig: 8.2%
Centroid-so: 1.626 arcsec [1.58σ]
OotOffset-rm: 0.701 arcsec [1.08σ]
KicOffset-rm: 0.805 arcsec [1.37σ]
OotOffset-st: 2/4/3/4 [13]
KicOffset-st: 2/4/3/4 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

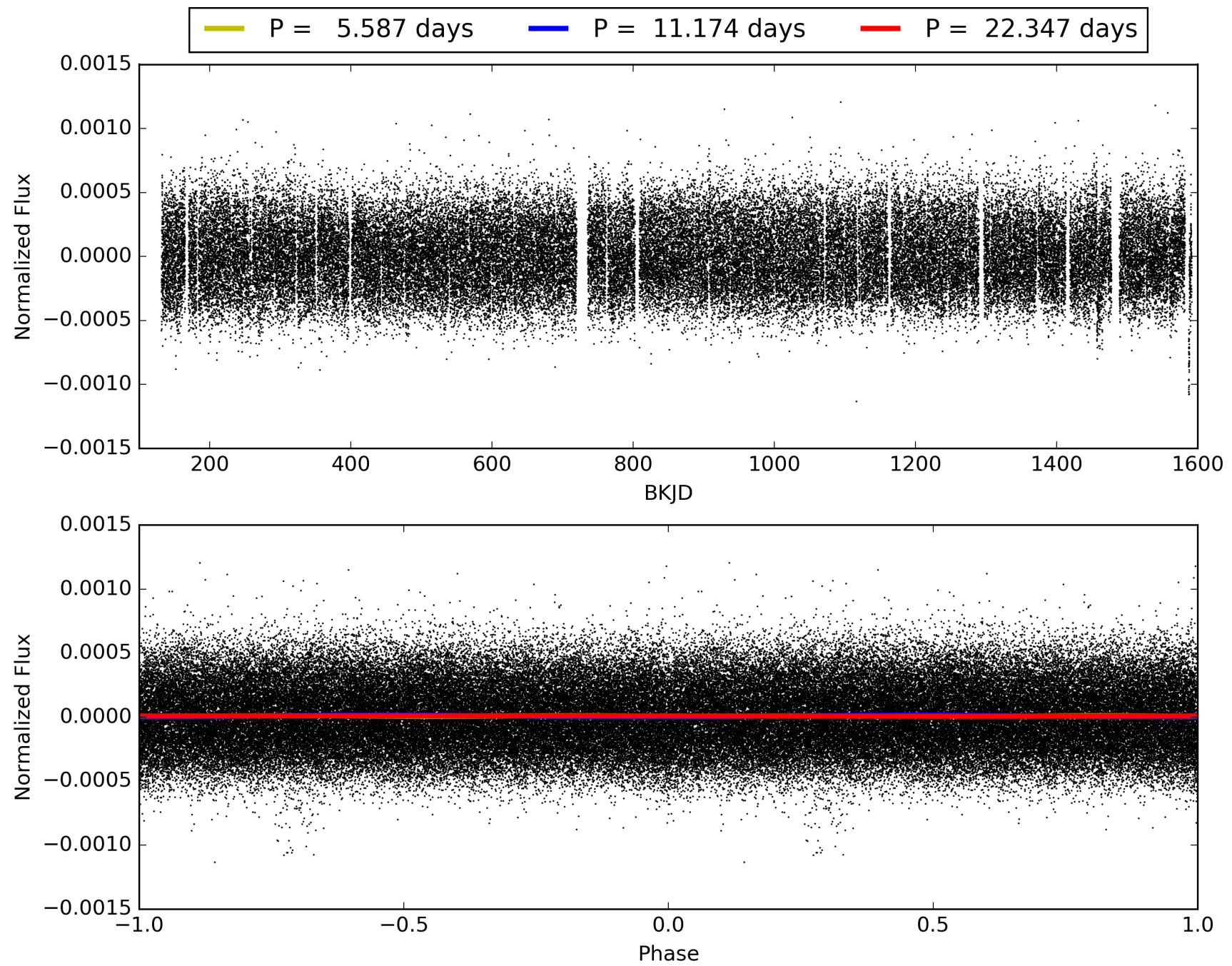
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:03:21 Z

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

TCE 007672215-01, PDC Light Curves

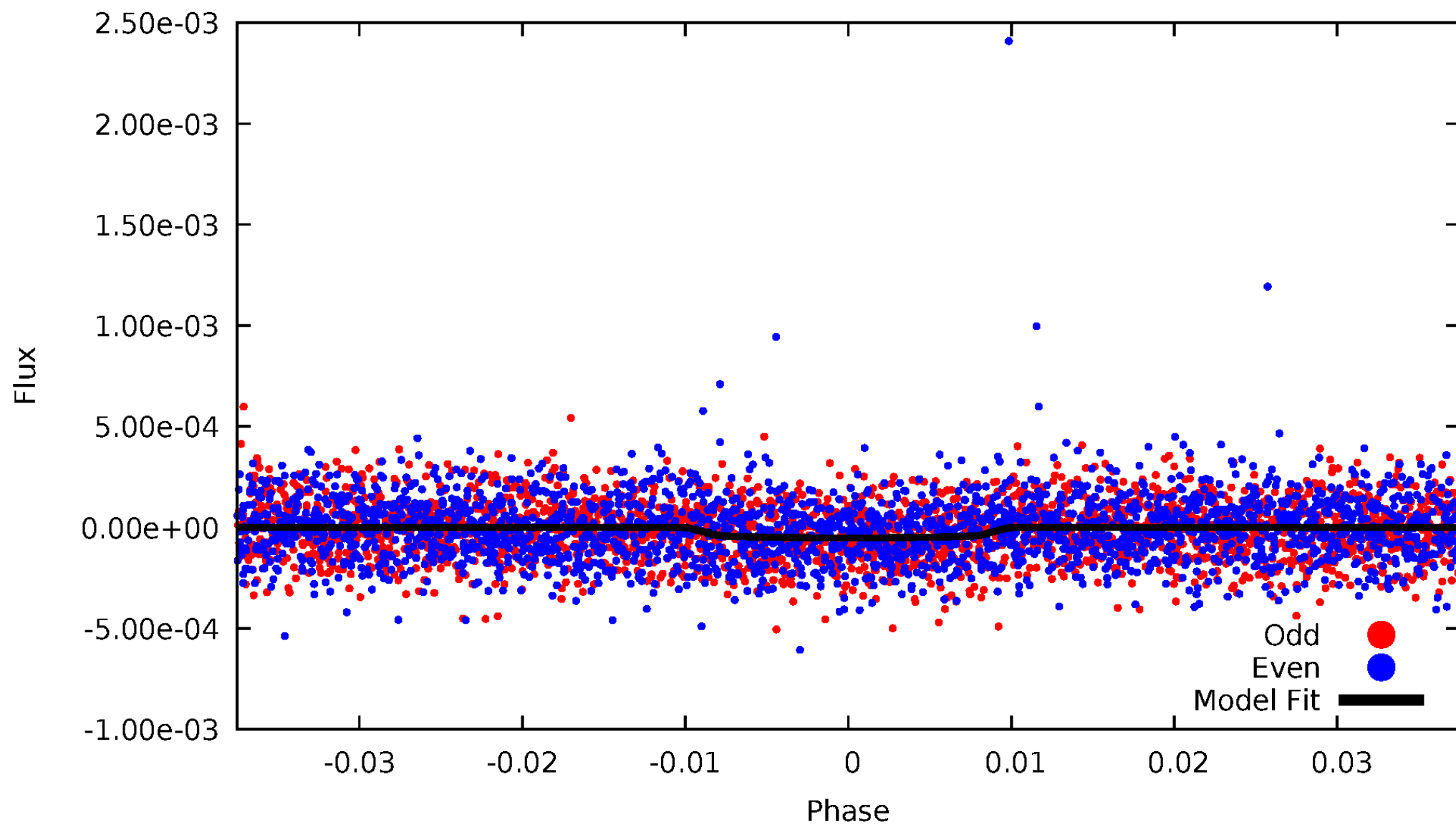


TCE 007672215-01



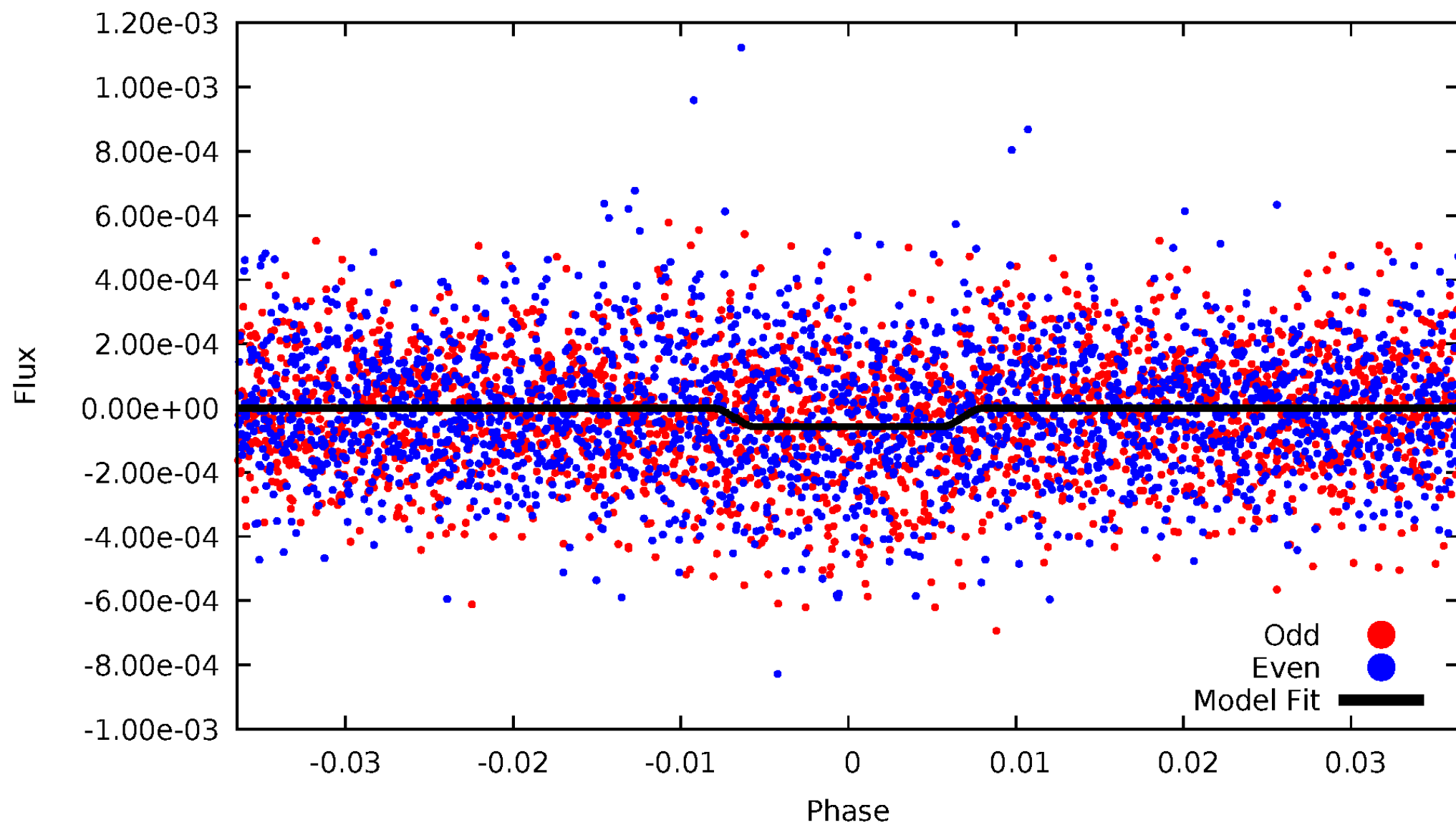
DV Odd/Even

TCE 007672215-01



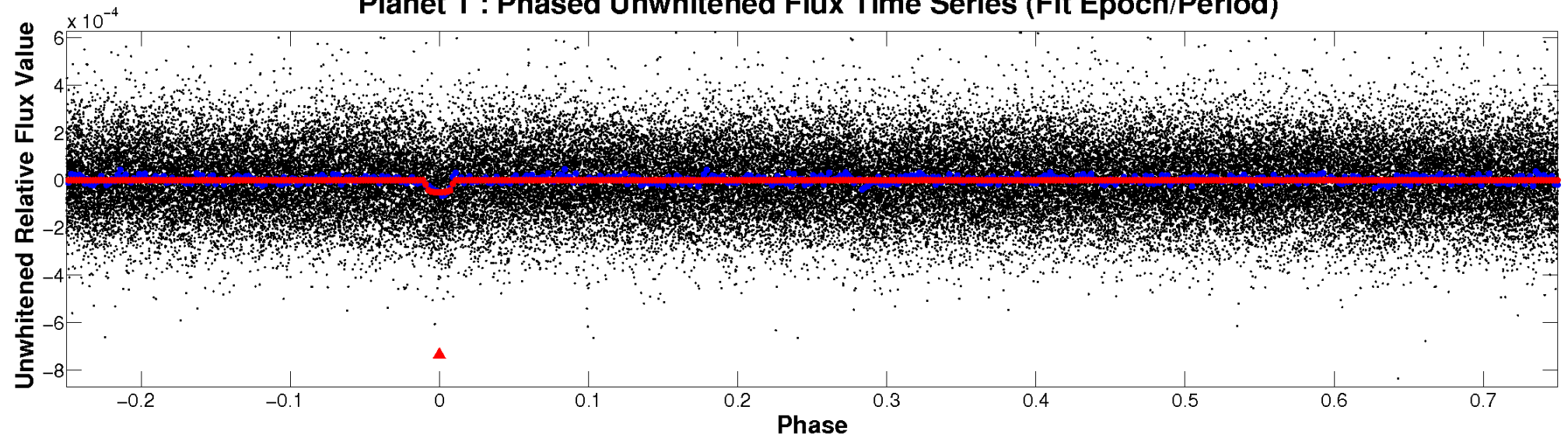
ALT Odd/Even

TCE 007672215-01

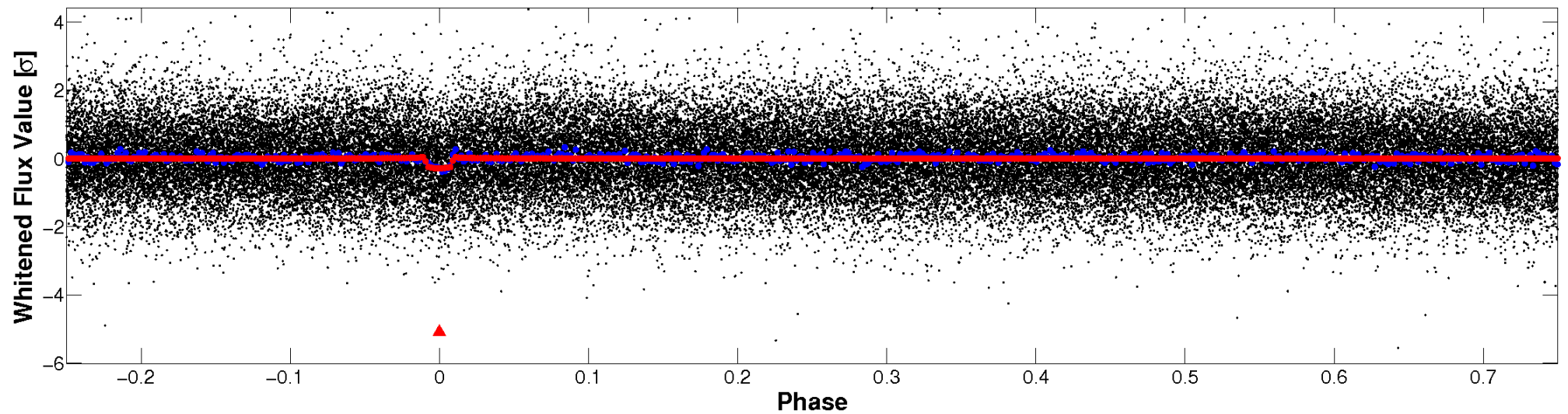


Non-Whitened Vs. Whitened Light Curve

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

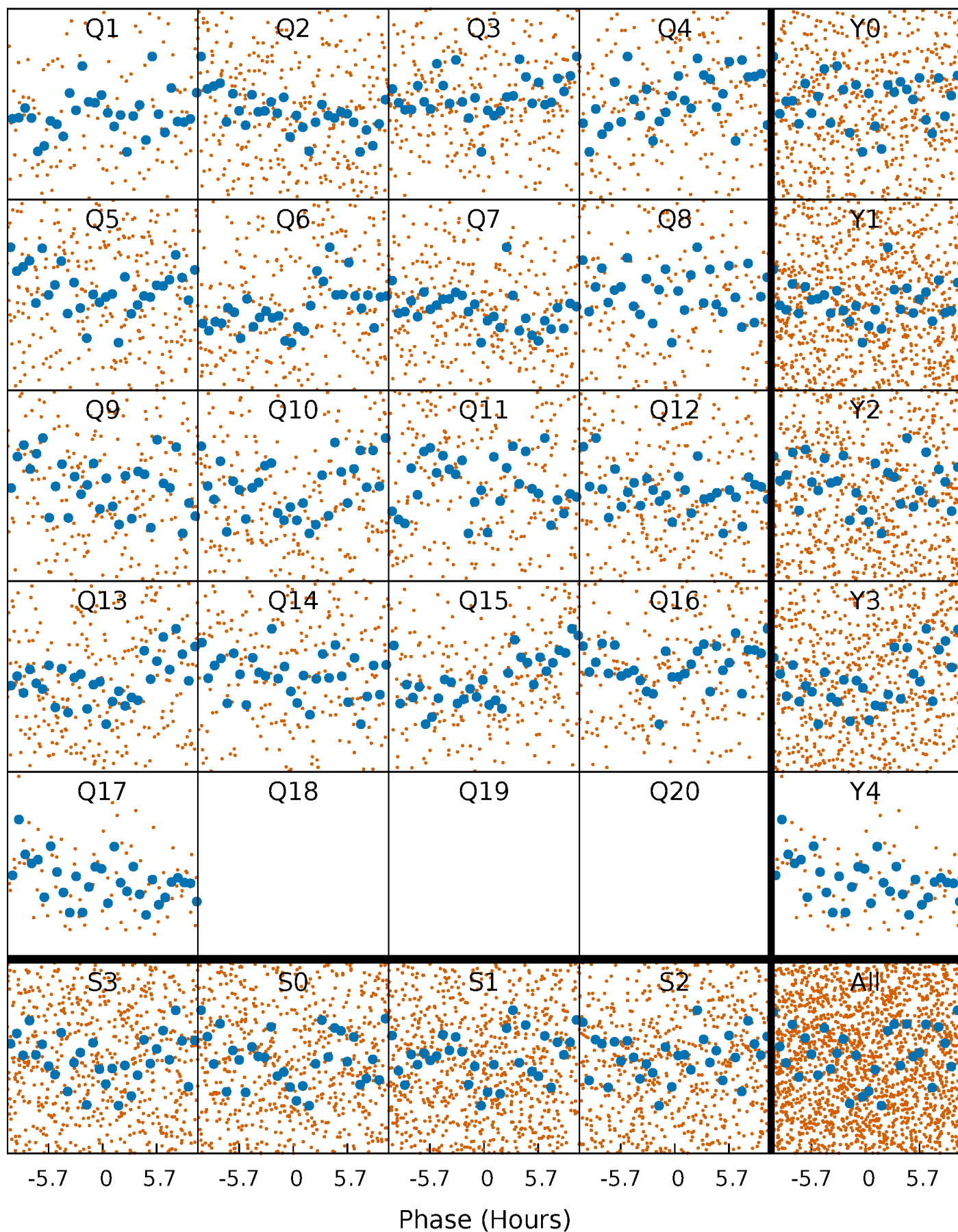


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



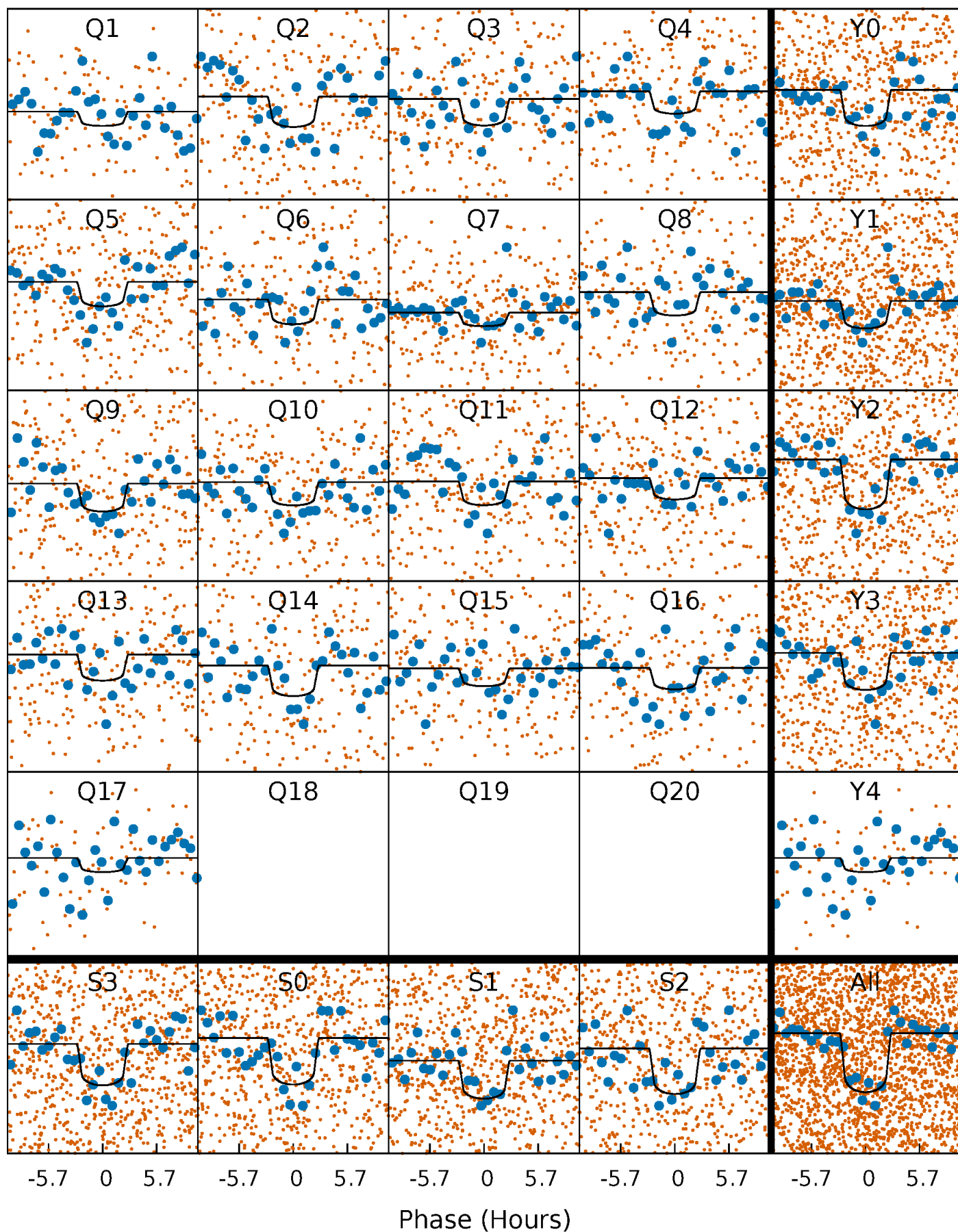
PDC Quarter-Phased Transit Curves

TCE 007672215-01 P= 11.173612 Days $T_0=142.589477$ (BKJD)



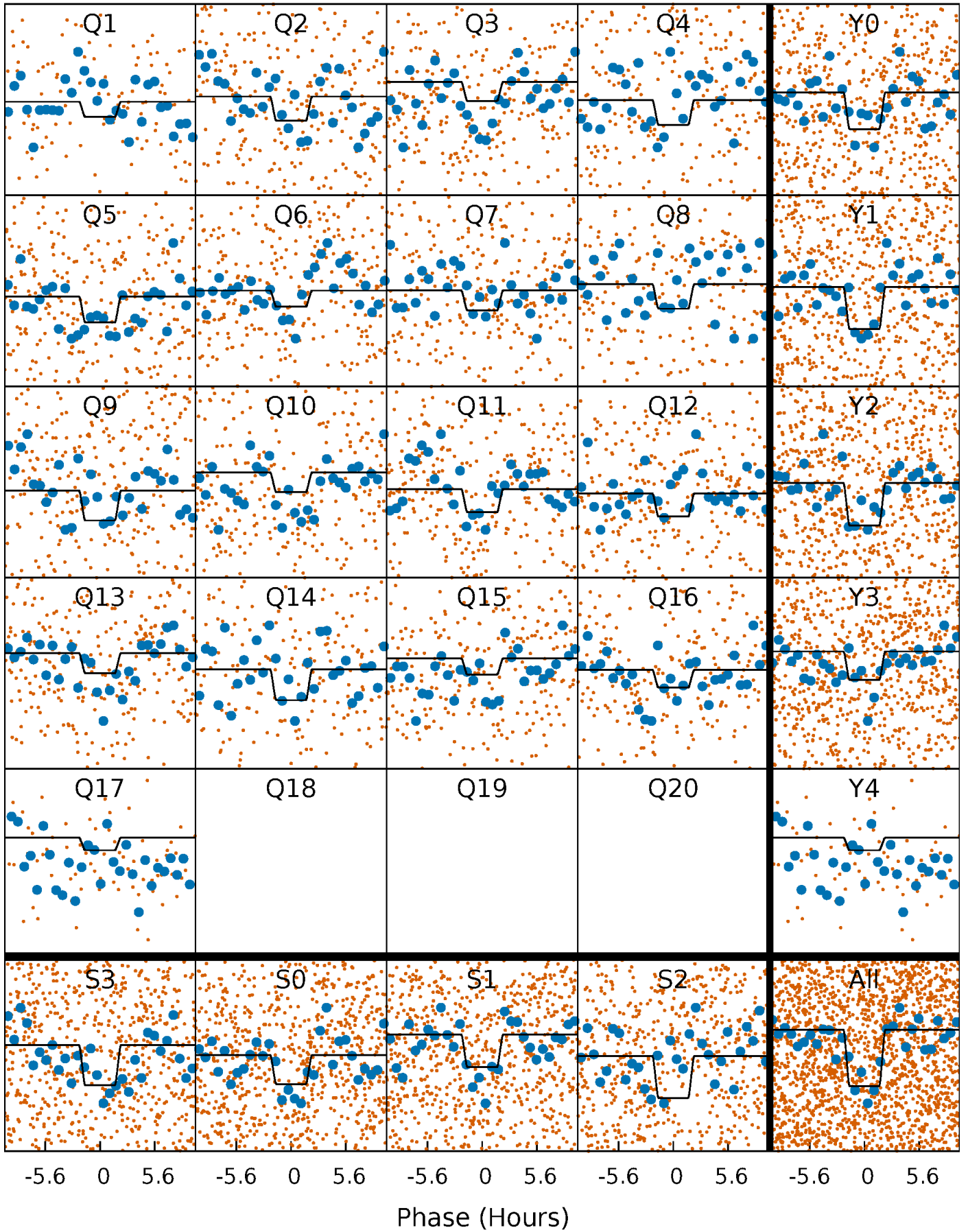
DV Quarter-Phased Transit Curves

TCE 007672215-01 P= 11.173612 Days $T_0=142.589477$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

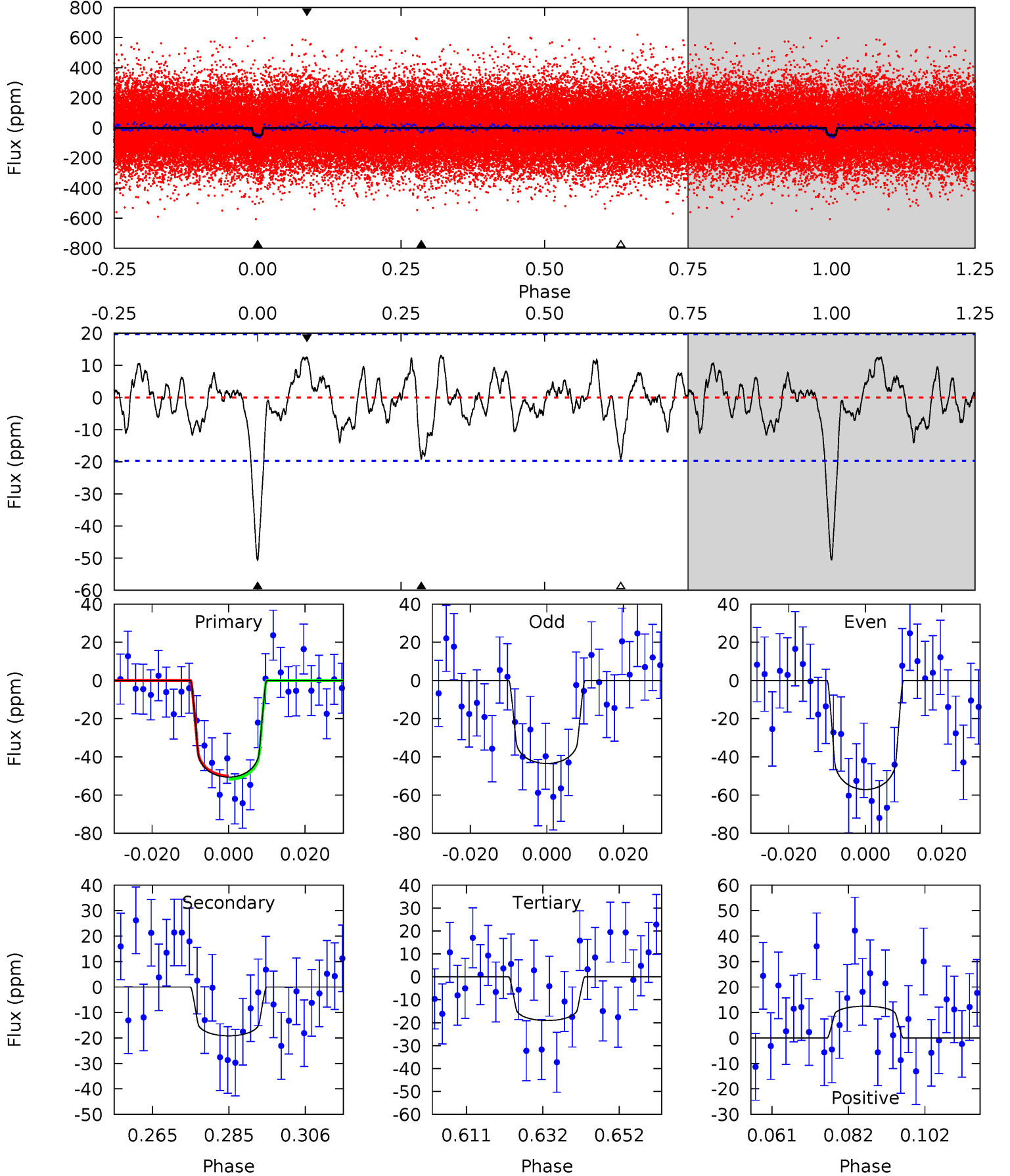
TCE 007672215-01 P= 11.173761 Days $T_0=142.592861$ (BKJD)



DV Model-Shift Uniqueness Test

007672215-01, P = 11.173612 Days, E = 131.415865 Days

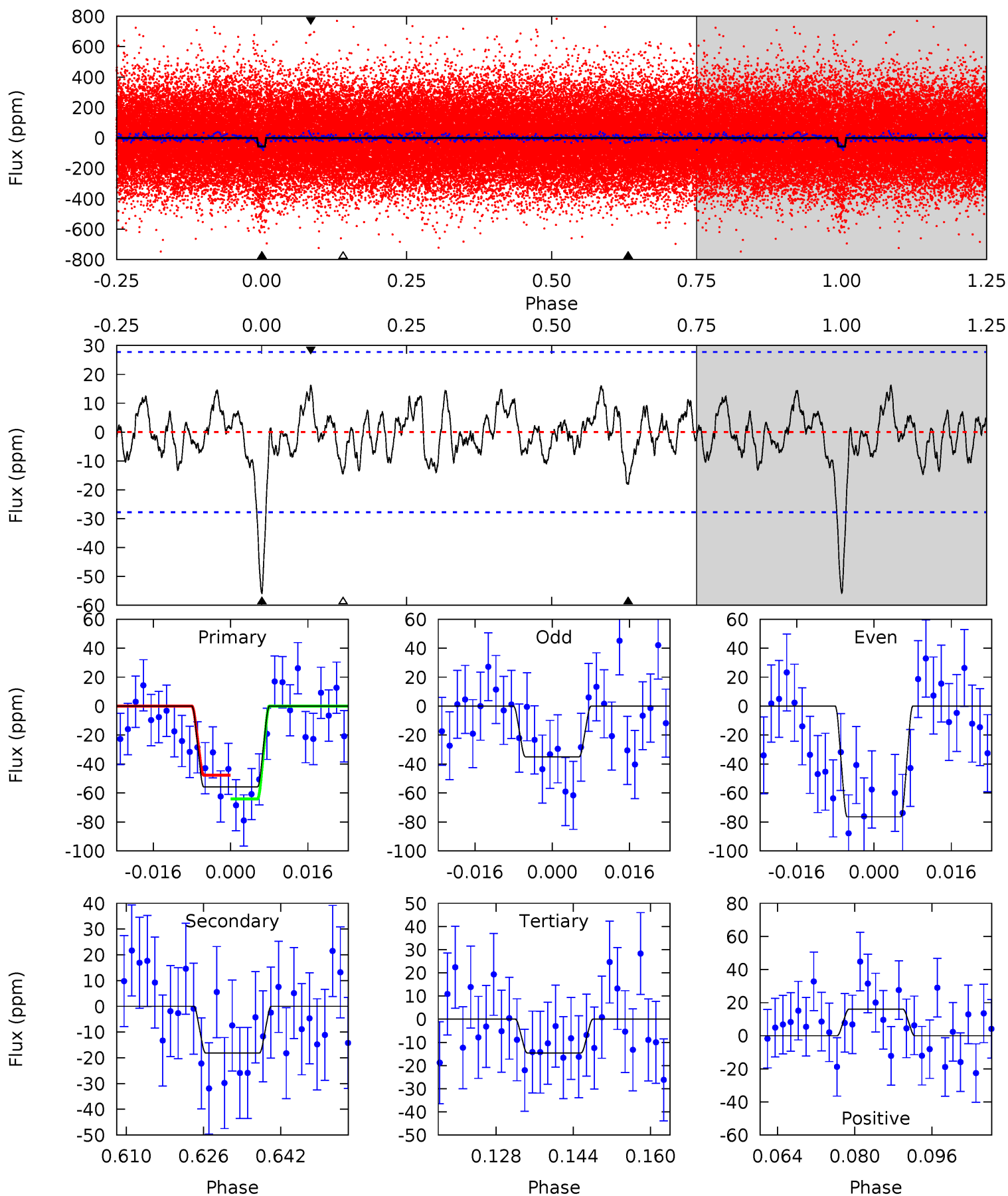
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	4.75	4.73	3.09	4.89	2.32	1.41	7.82	9.46	0.02	1.66	1.69	1.04	0.20	0.22



Alt Model-Shift Uniqueness Test

007672215-01, P = 11.173761 Days, E = 131.419100 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.92	3.23	2.59	2.87	4.93	2.41	1.17	7.33	7.06	0.64	0.37	3.68	1.07	0.22	1.46



Stellar Parameters For KIC 007672215

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7372^{+231}_{-334}	$4.142^{+0.124}_{-0.202}$	$-0.040^{+0.200}_{-0.350}$	$1.752^{+0.581}_{-0.358}$	$1.552^{+0.219}_{-0.241}$	$0.406^{+0.253}_{-0.209}$
	+3%/-5%	+3%/-5%	+500%/-875%	+33%/-20%	+14%/-16%	+62%/-51%
Source	KIC0	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 007672215-01 / KOI 5411.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 4	$1.48^{+0.54}_{-0.50}$	1808^{+143}_{-118}	5534^{+1147}_{-727}	60^{+72}_{-29}
Alt.	-18 ± 6	$1.52^{+0.53}_{-0.49}$	1800^{+159}_{-126}	5338^{+1207}_{-677}	52^{+70}_{-26}

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

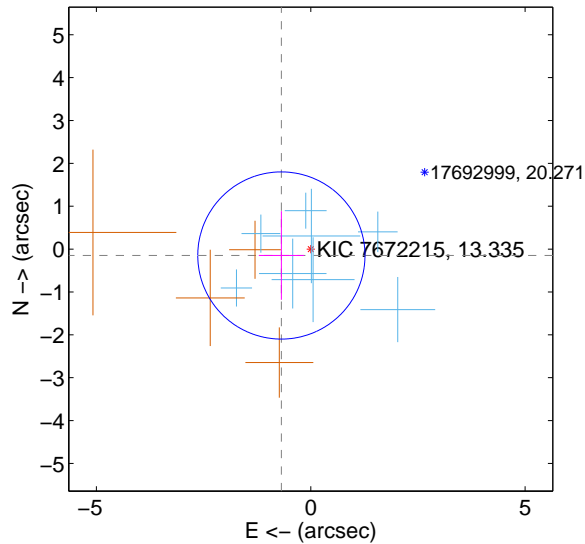
Supplemental centroid analysis for 007672215-01. Kepler magnitude: 13.34. Transit SNR 8.72

There are 8 quarters with good PRF difference image offsets

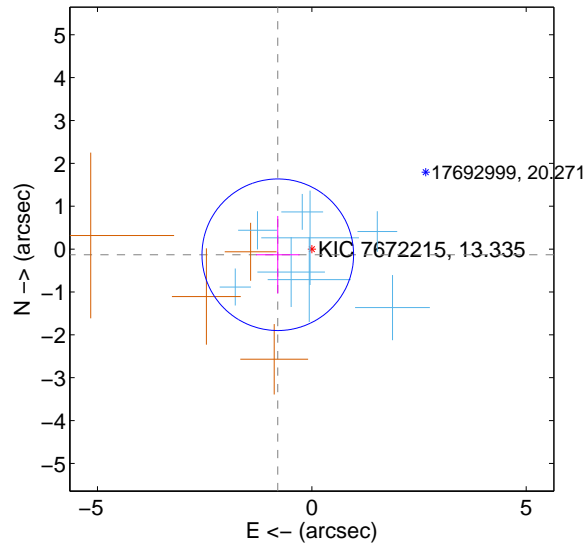
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.701 ± 0.650	1.08	0.685 ± 0.527	-0.149 ± 1.034
PRF-fit source offset from KIC position	0.805 ± 0.589	1.37	0.794 ± 0.506	-0.132 ± 0.904
photometric centroid source offset	1.63 ± 1.03	1.58	1.13 ± 1.03	1.17 ± 1.02

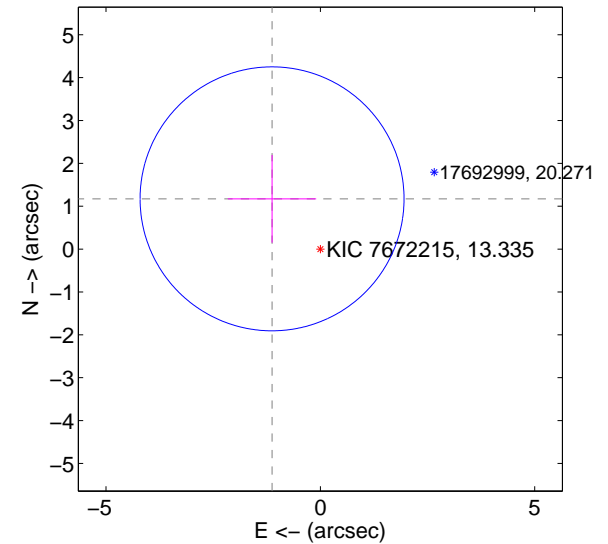
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

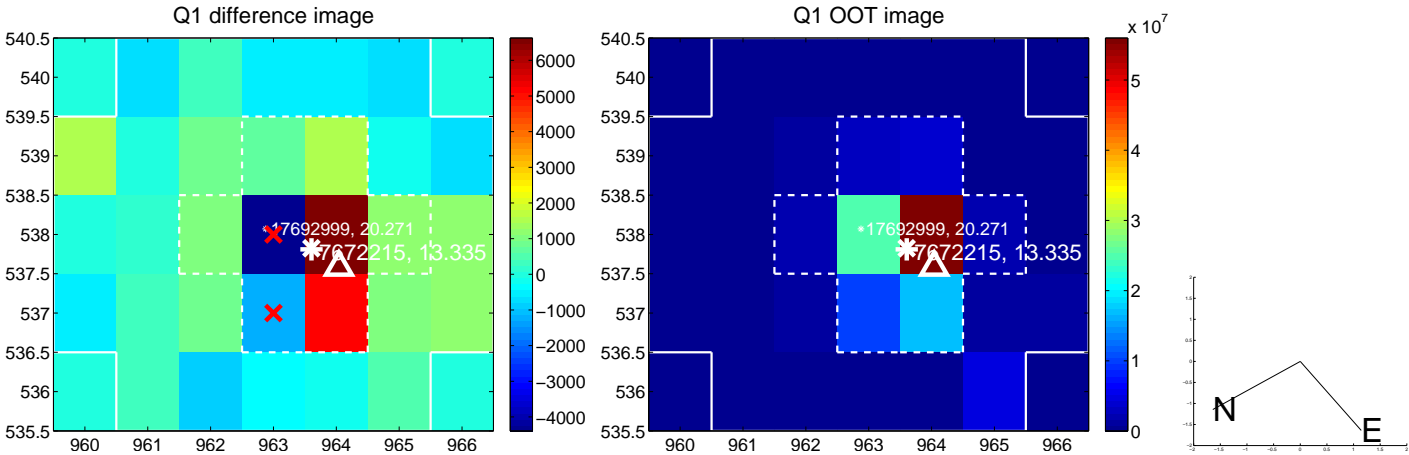


offset from photometric centroids

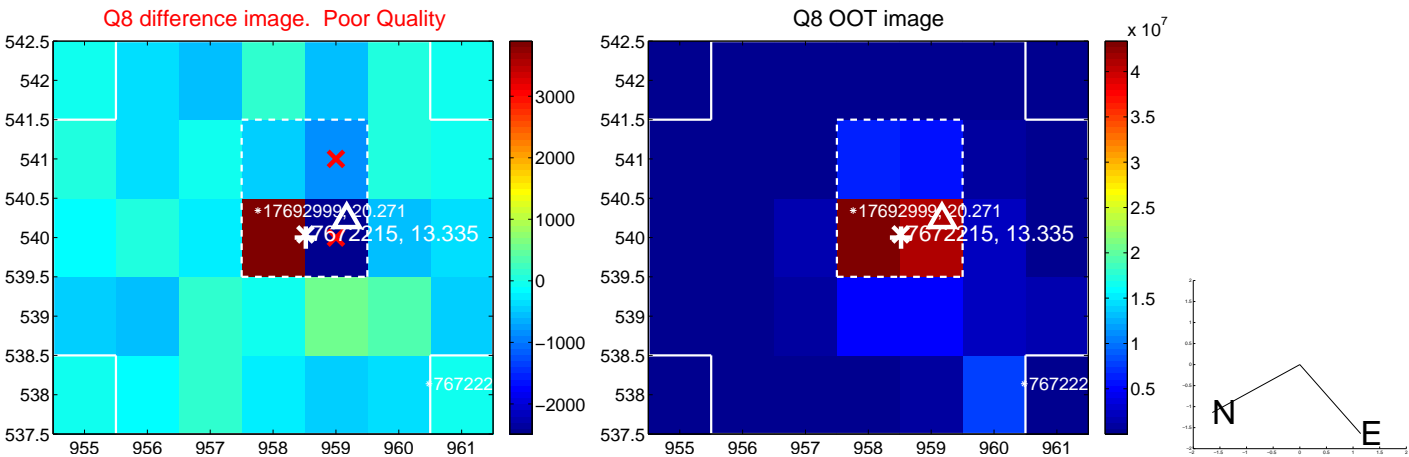
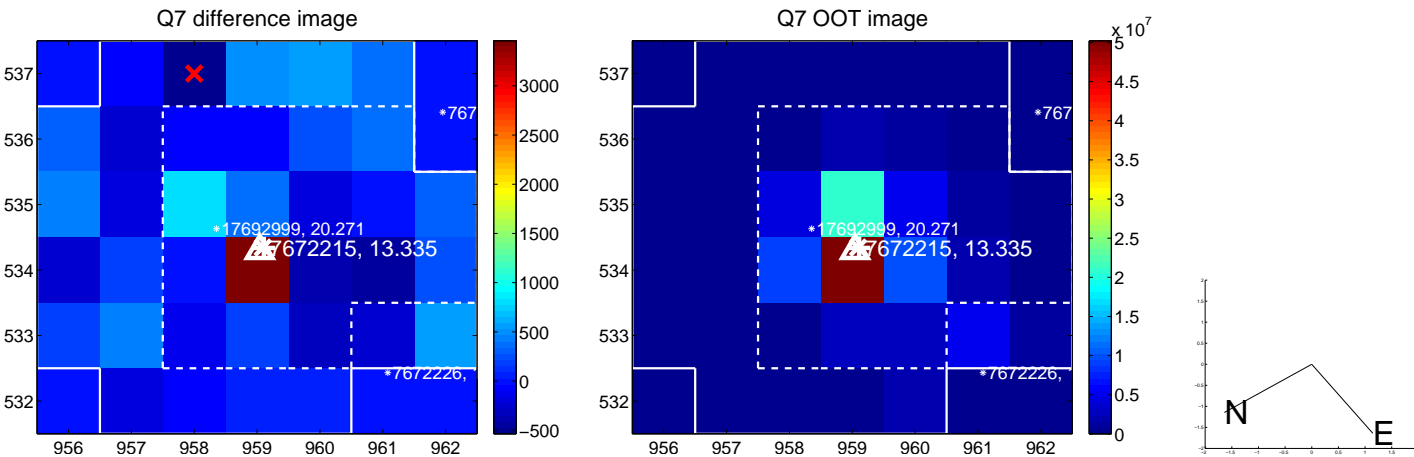
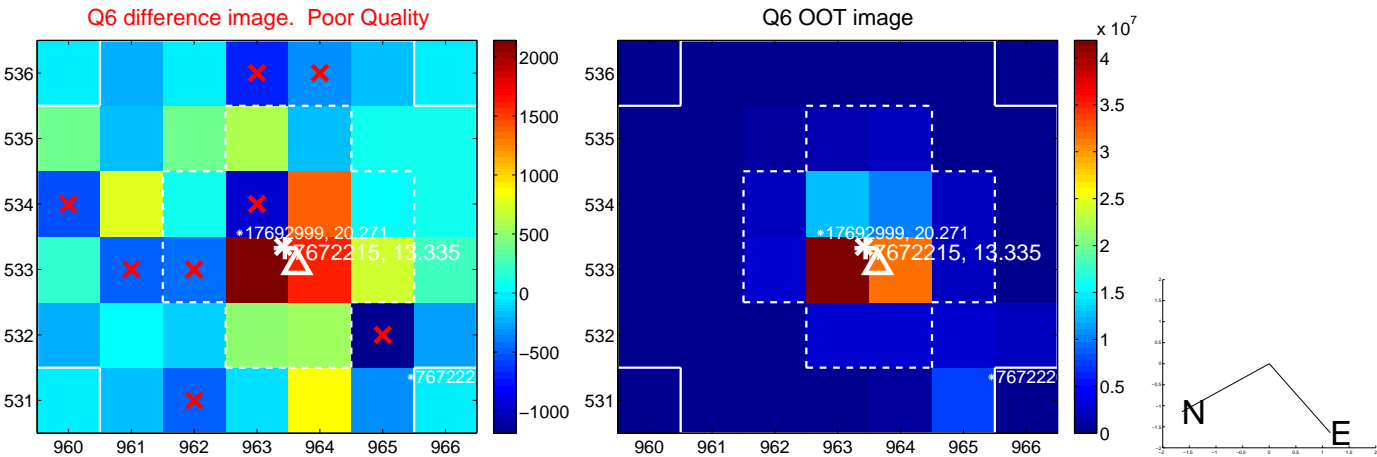
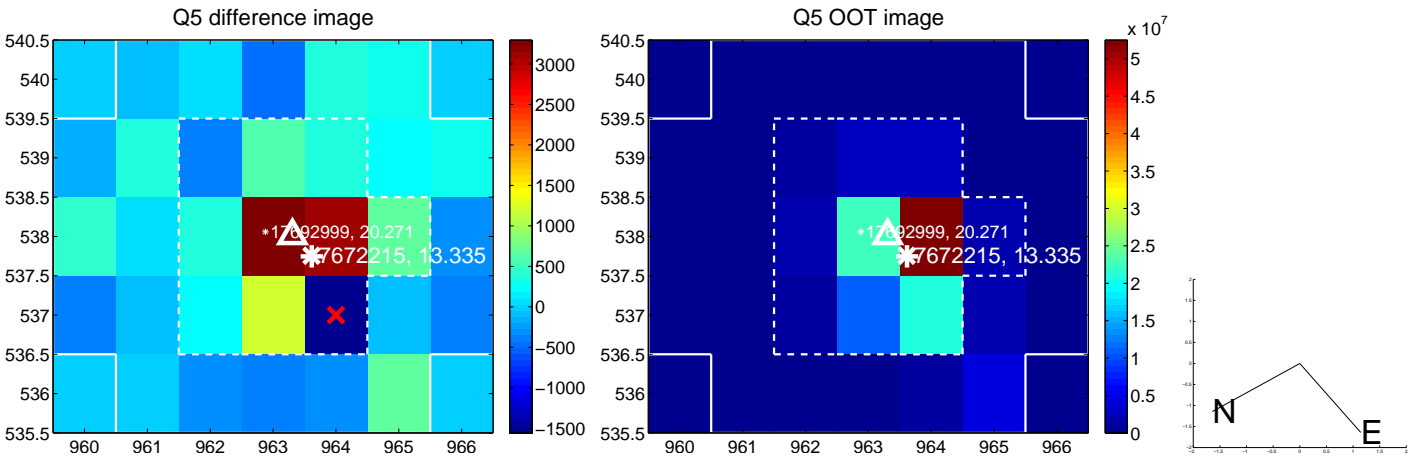


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

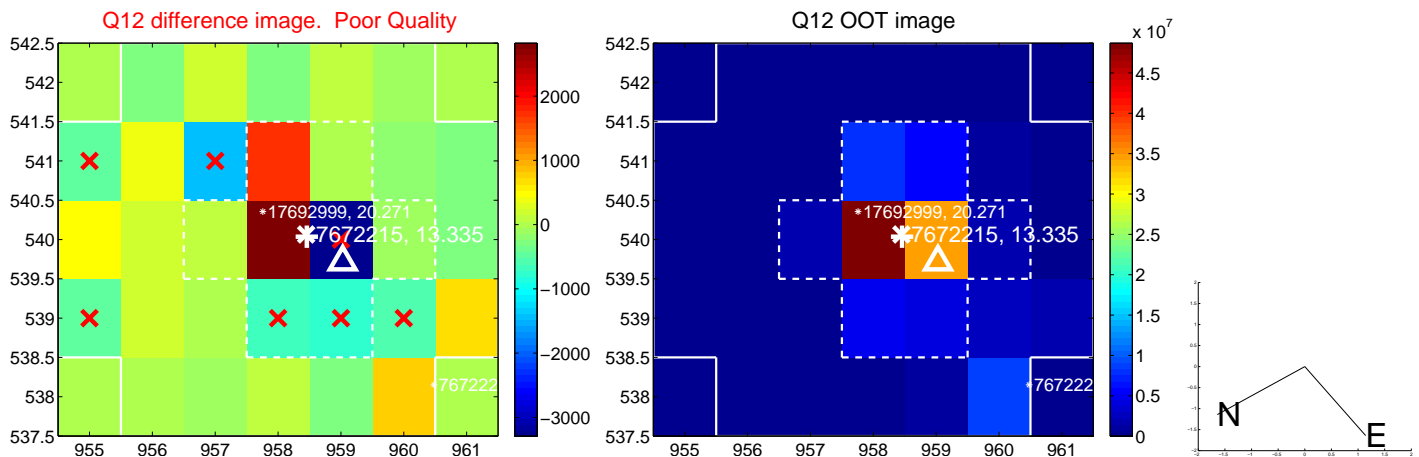
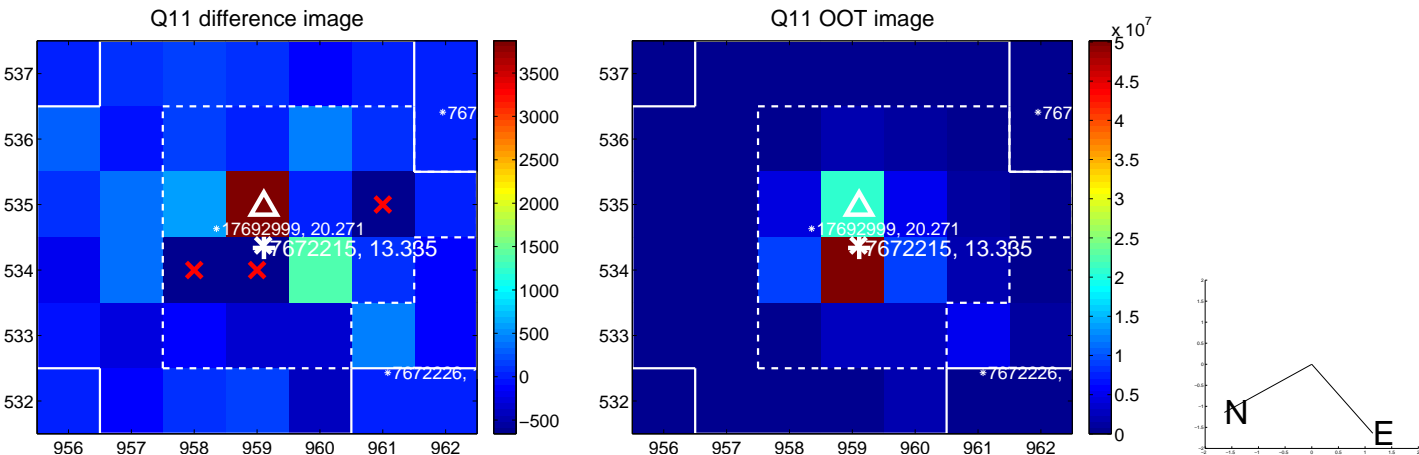
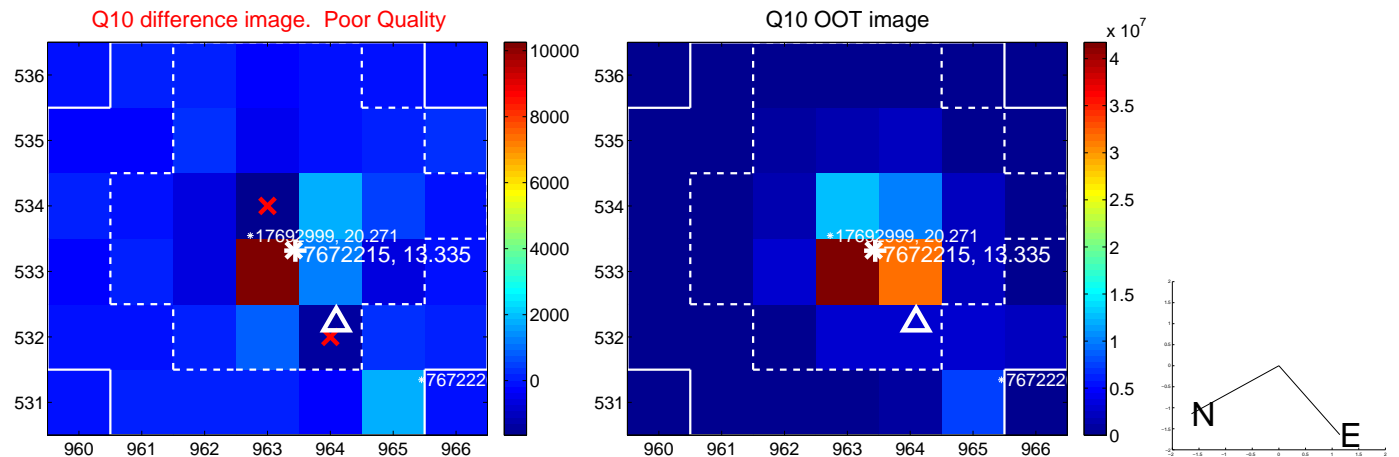
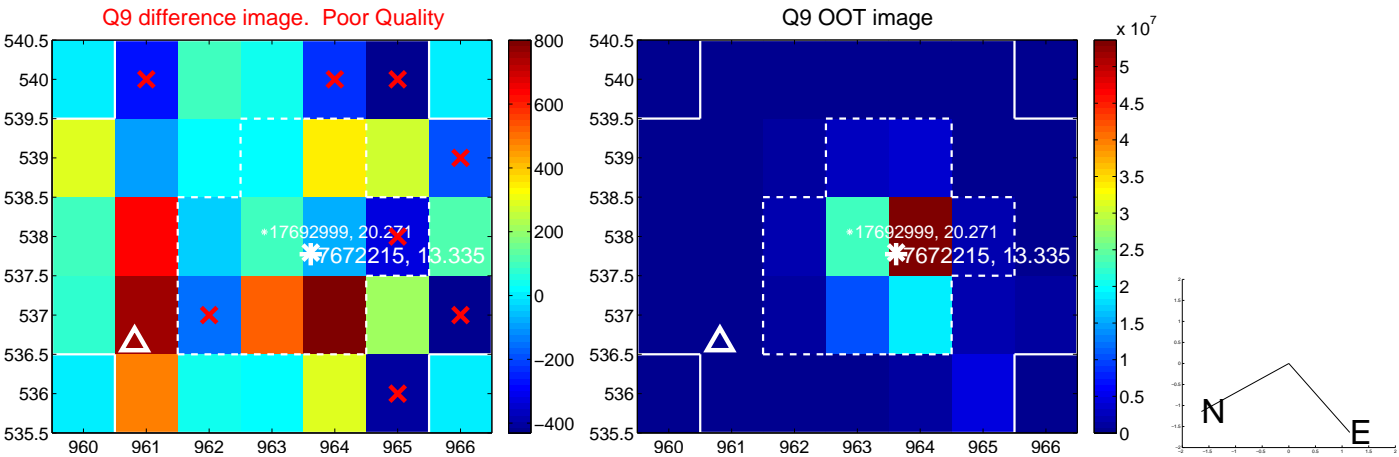
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



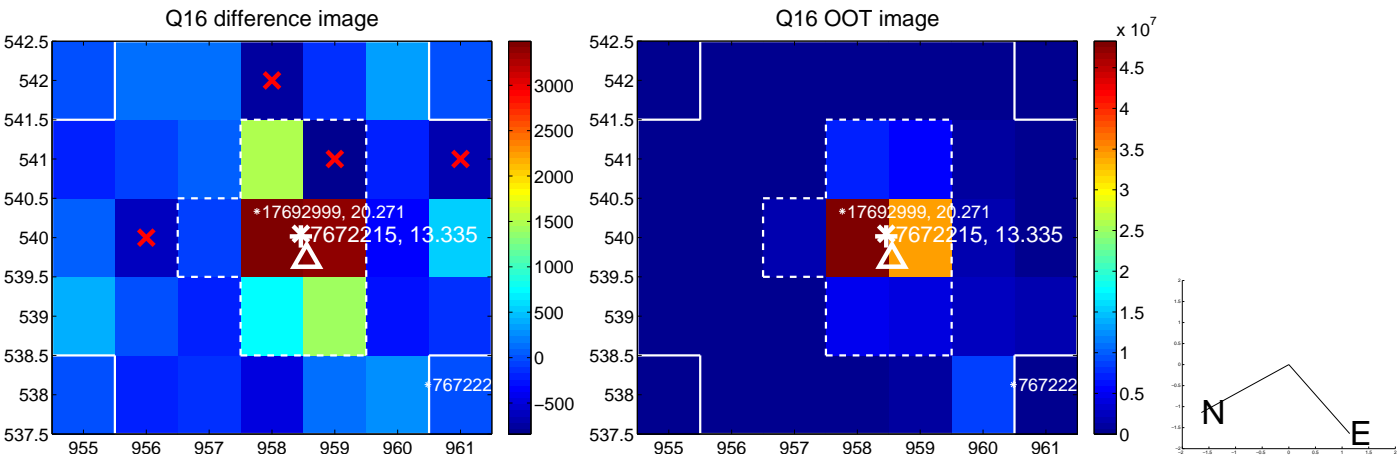
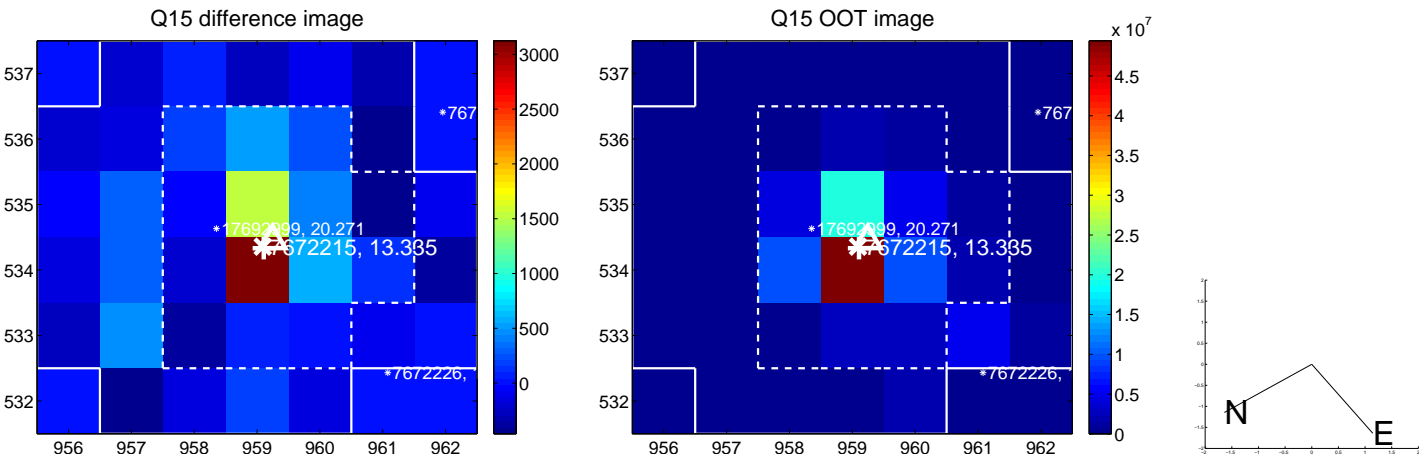
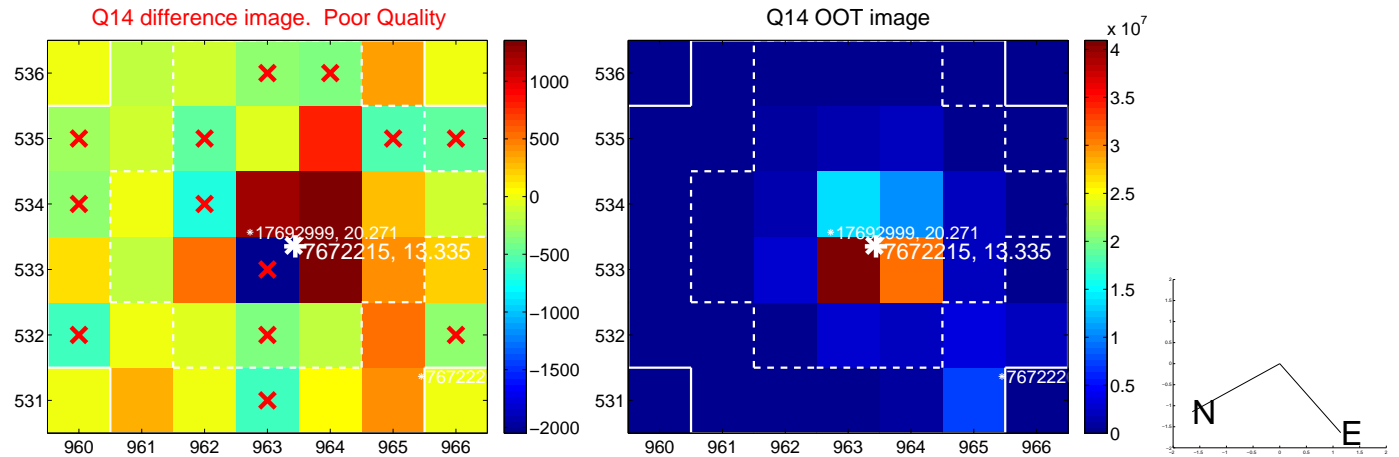
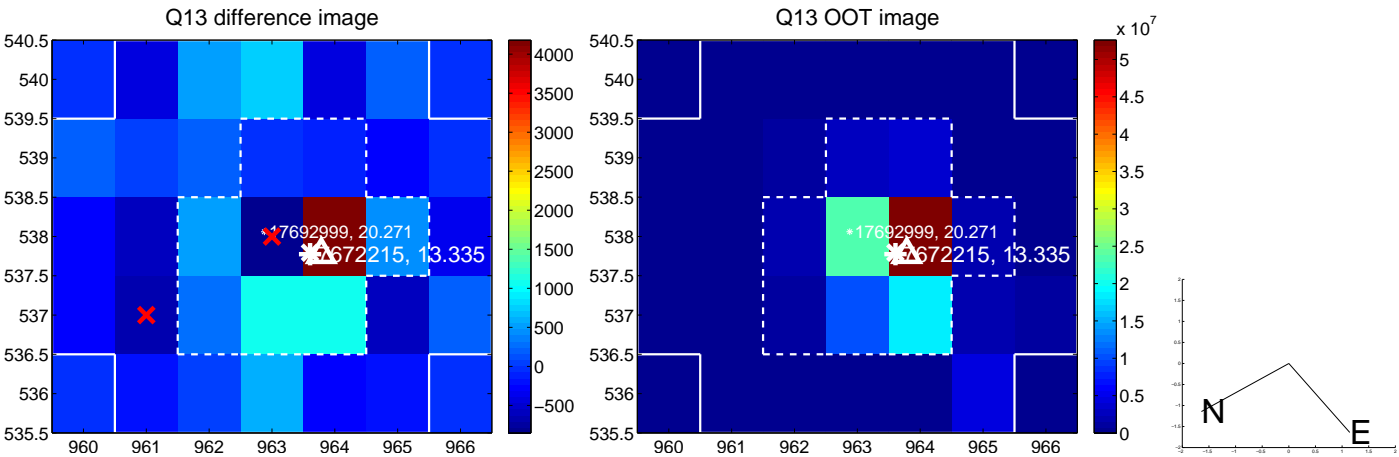
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



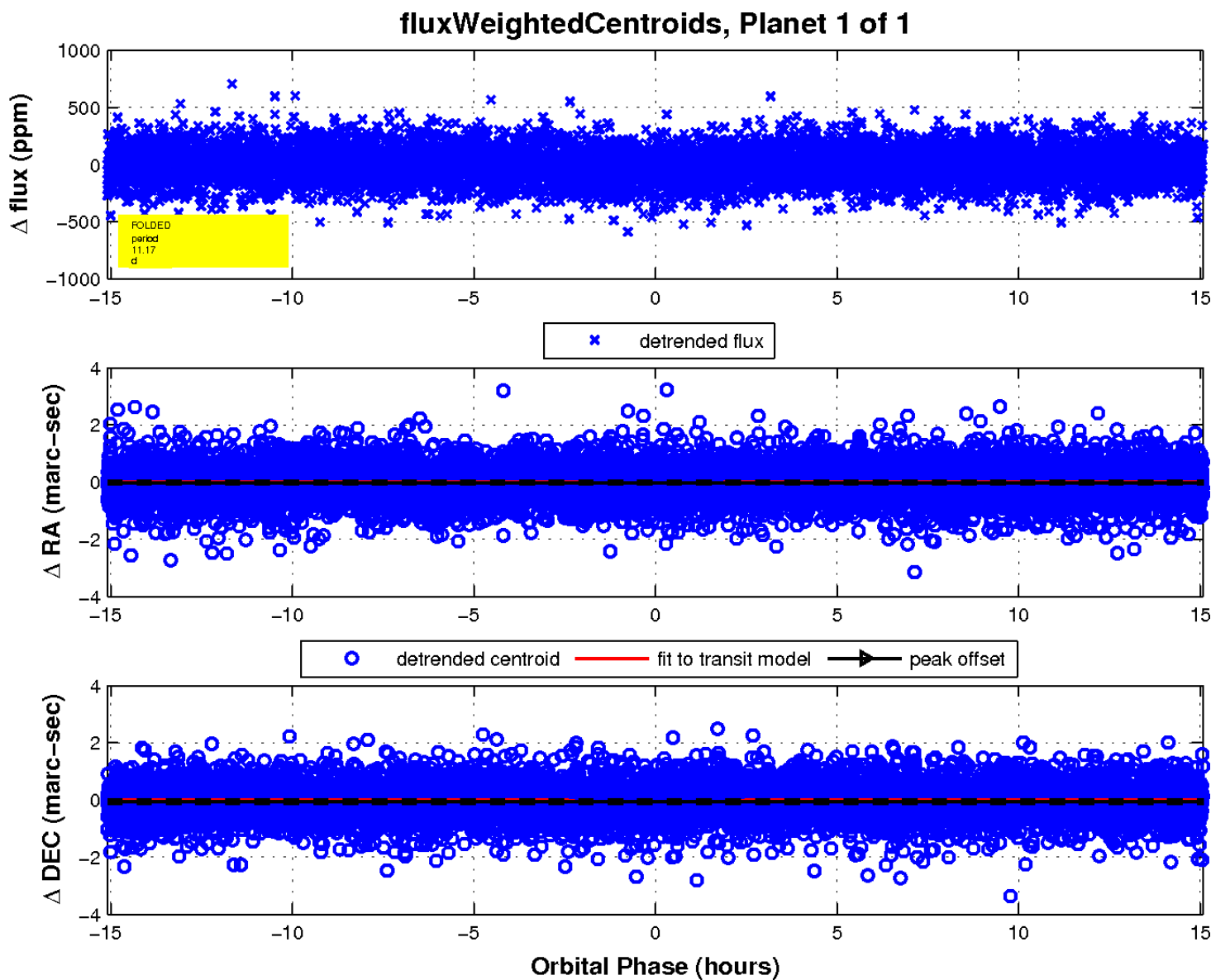
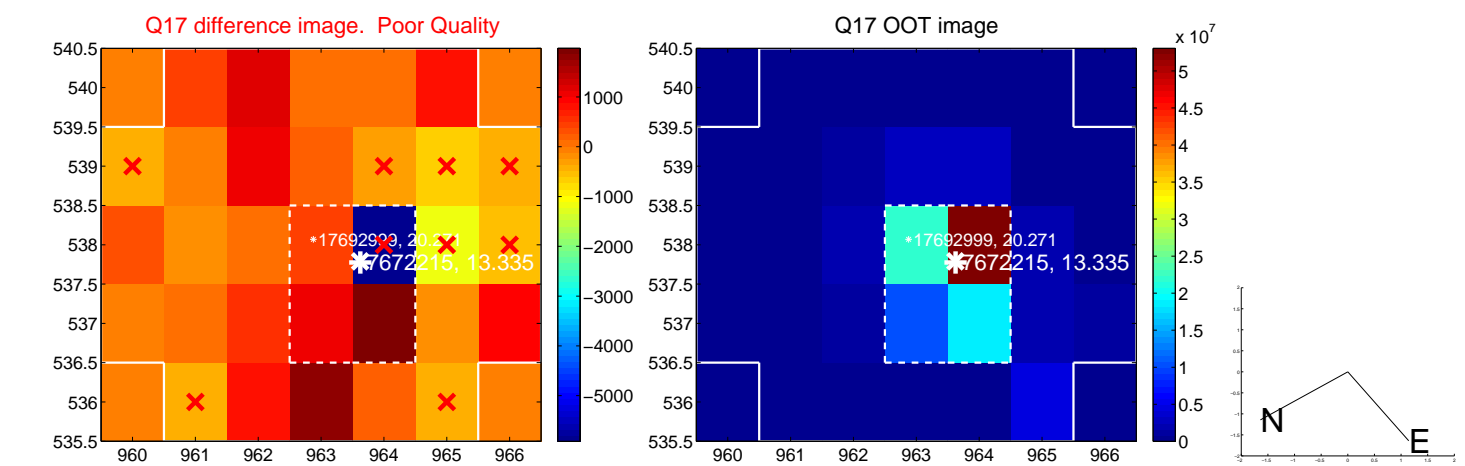
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

