

KIC 008695311

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})
008695311-01	OBS	3042.01	31.025639	158.574285	357.2	5.612	9.6	11.1	0.97	6075	2.09	29.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008695311-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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 008695311-01

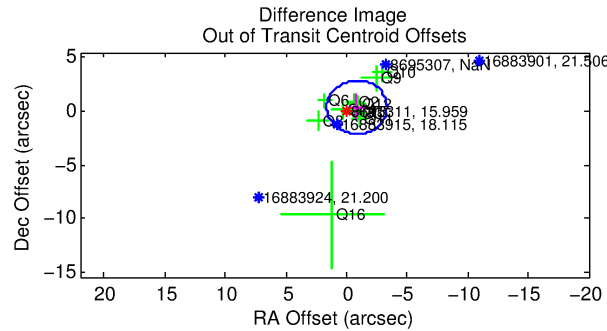
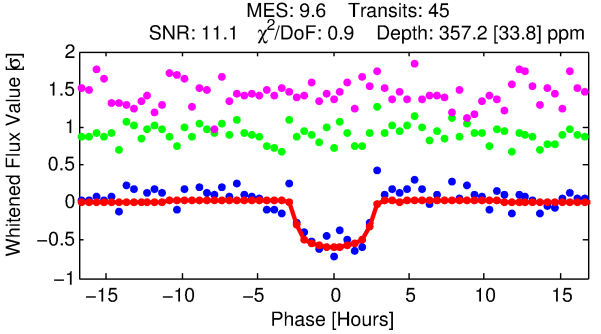
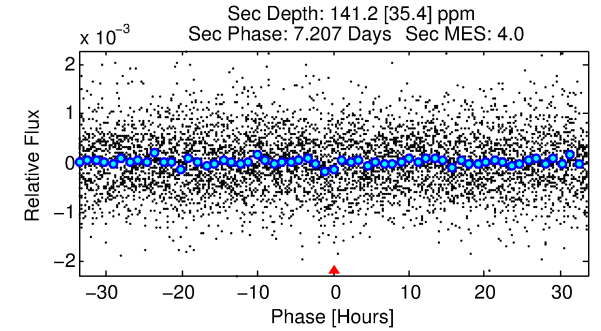
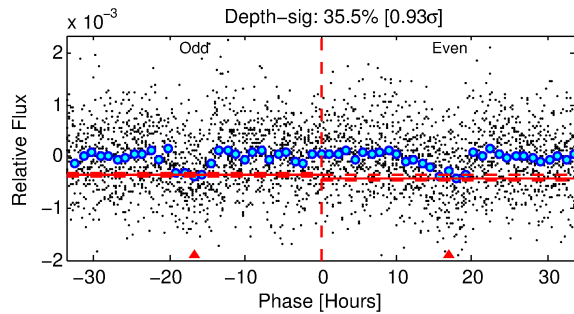
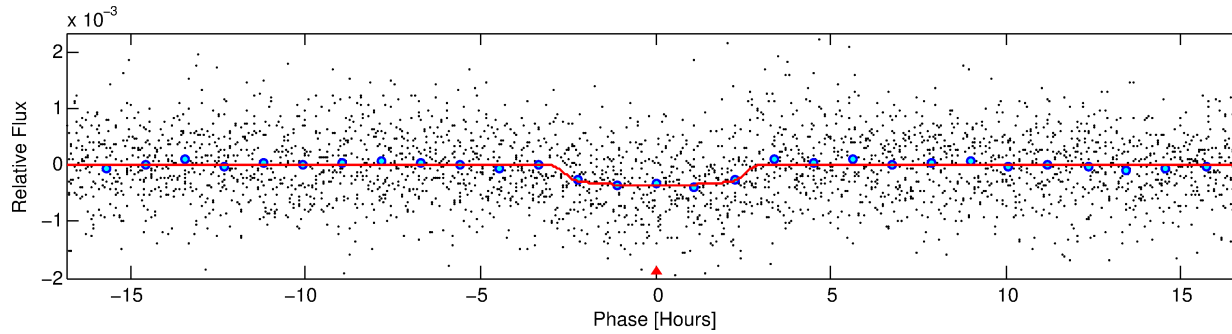
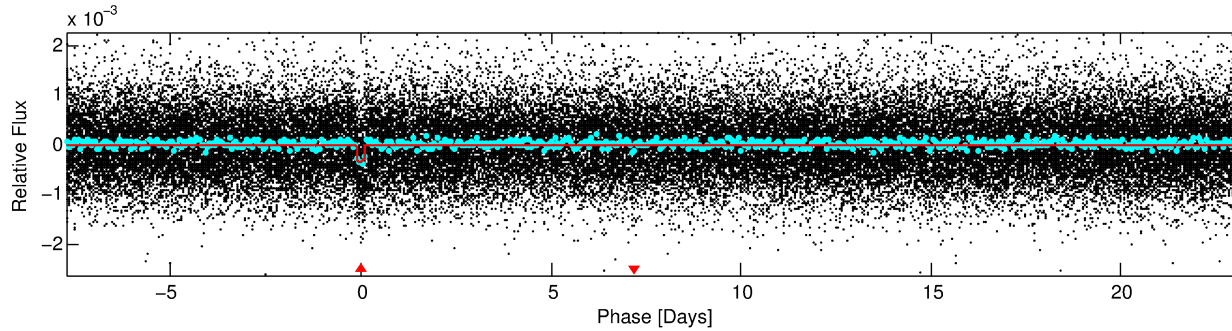
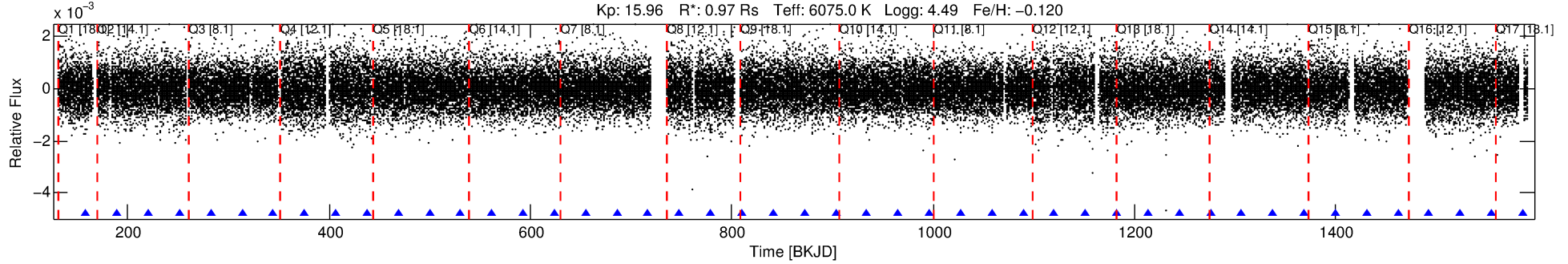
No Significant Match Found

DV One-Page Summary

KIC: 8695311 Candidate: 1 of 1 Period: 31.026 d

KOI: K03042.01 Corr: 0.986

Kp: 15.96 R*: 0.97 Rs Teff: 6075.0 K Logg: 4.49 Fe/H: -0.120



DV Fit Results:

Period = 31.02564 [0.00040] d
Epoch = 158.5743 [0.0107] BKJD
Rp/R* = 0.0197 [0.0065]
a/R* = 23.50 [38.30]
b = 0.85 [0.52]
Seff = 29.72 [11.46]
Teq = 595 [57] K
Rp = 2.09 [0.92] Re
a = 0.1964 [0.0482] AU
Ag = 687.98 [540.21] [1.27σ]
Teffp = 4714 [845] K [4.86σ]

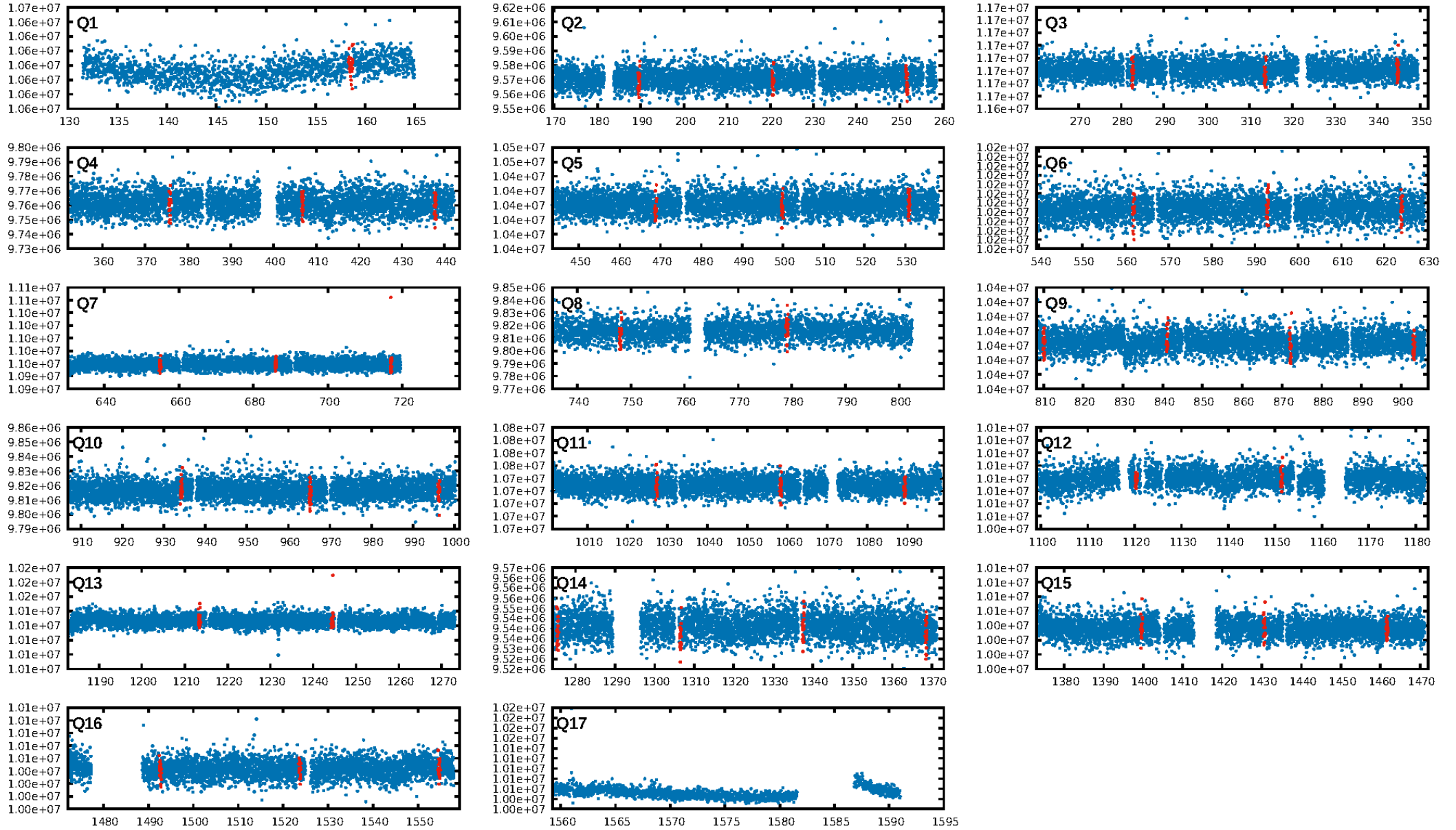
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 73.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.42e-22
RollingBand-fgt: 1.00 [44/44]
GhostDiagnostic-chr: 10.15
Centroid-sig: 41.4%
Centroid-so: 1.224 arcsec [1.07σ]
OotOffset-rm: 0.923 arcsec [1.11σ]
KicOffset-rm: 1.261 arcsec [1.29σ]
OotOffset-st: 4/3/3/1 [11]
KicOffset-st: 4/3/3/1 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [16/16]

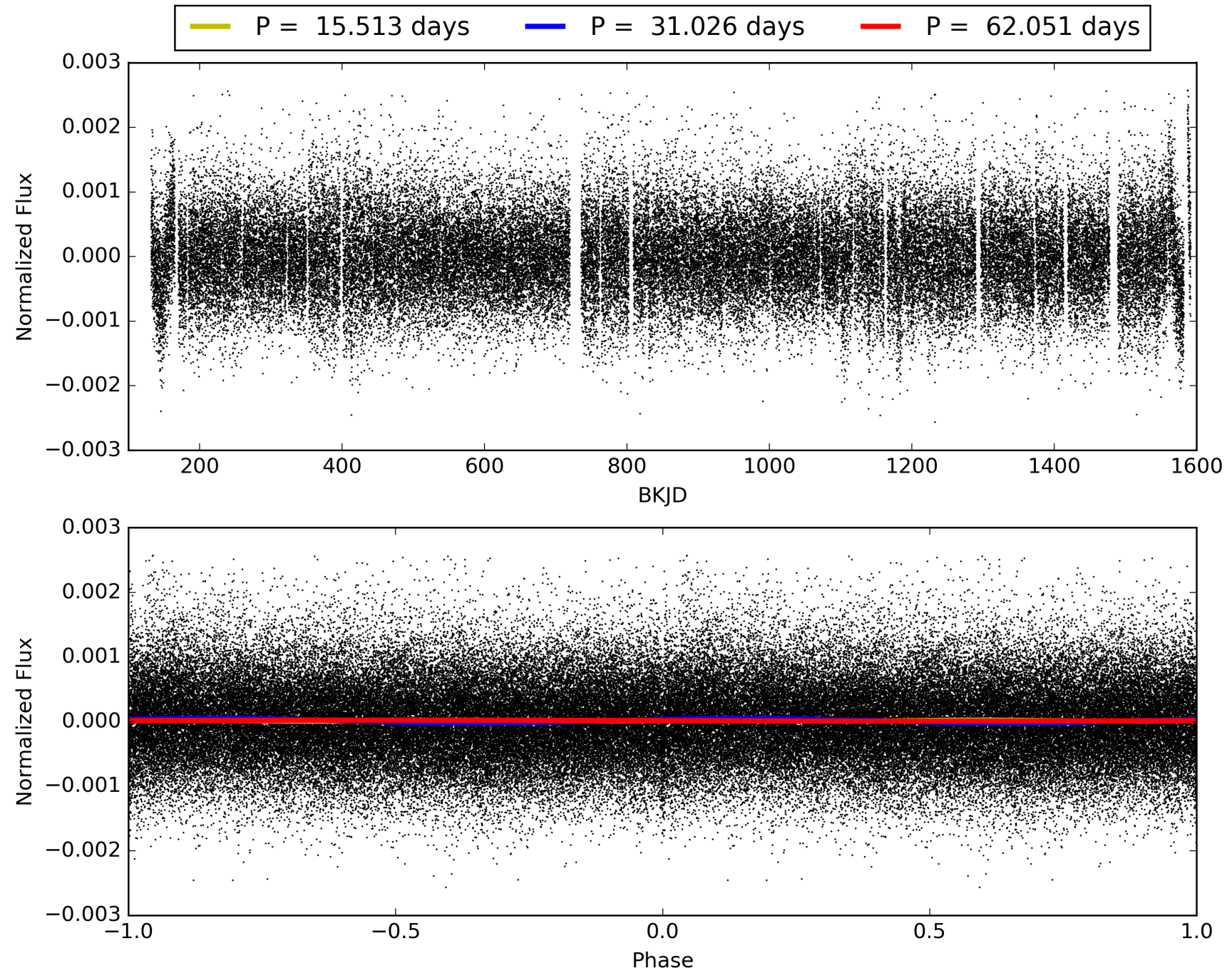
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:06:42 Z

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

TCE 008695311-01, PDC Light Curves

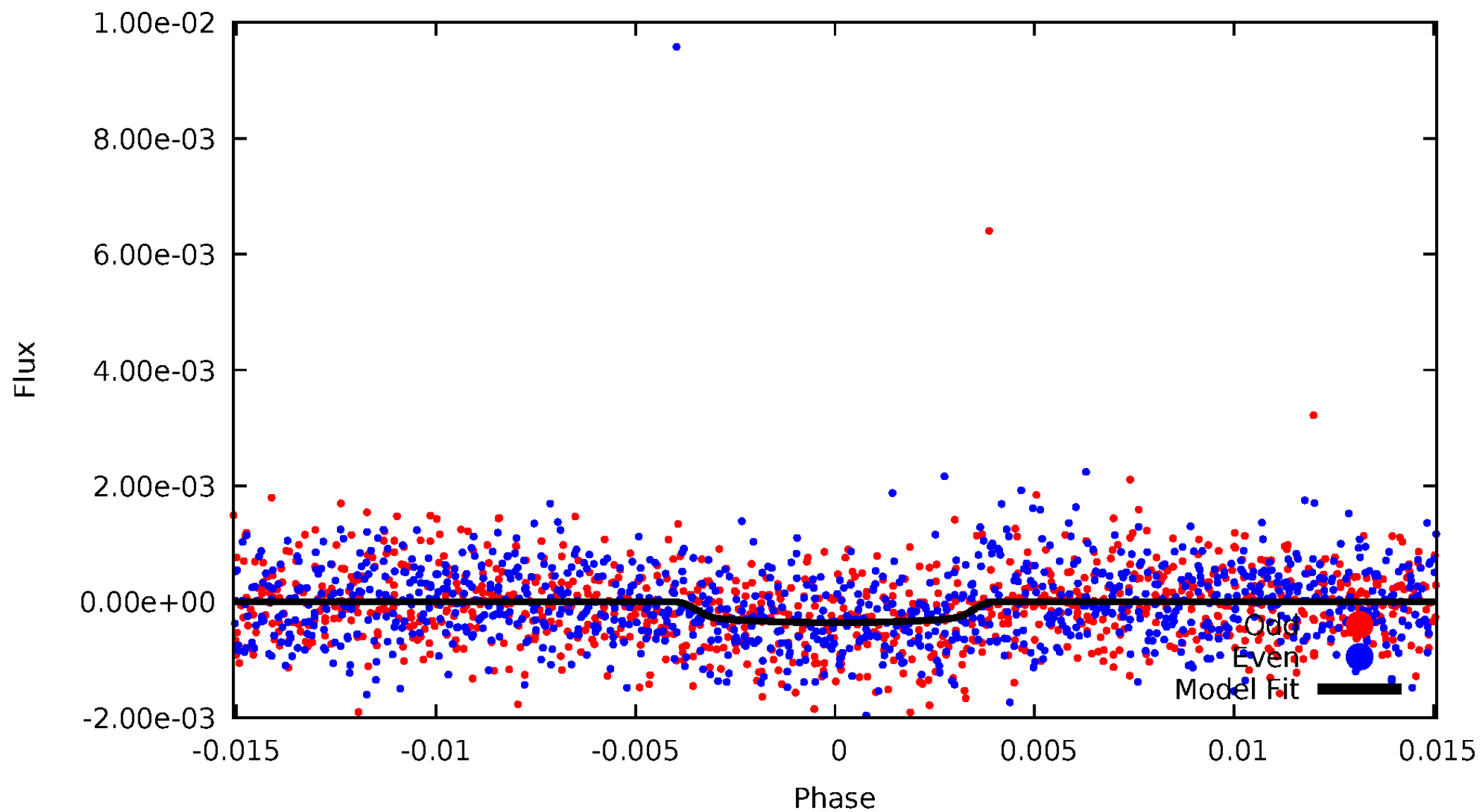


TCE 008695311-01



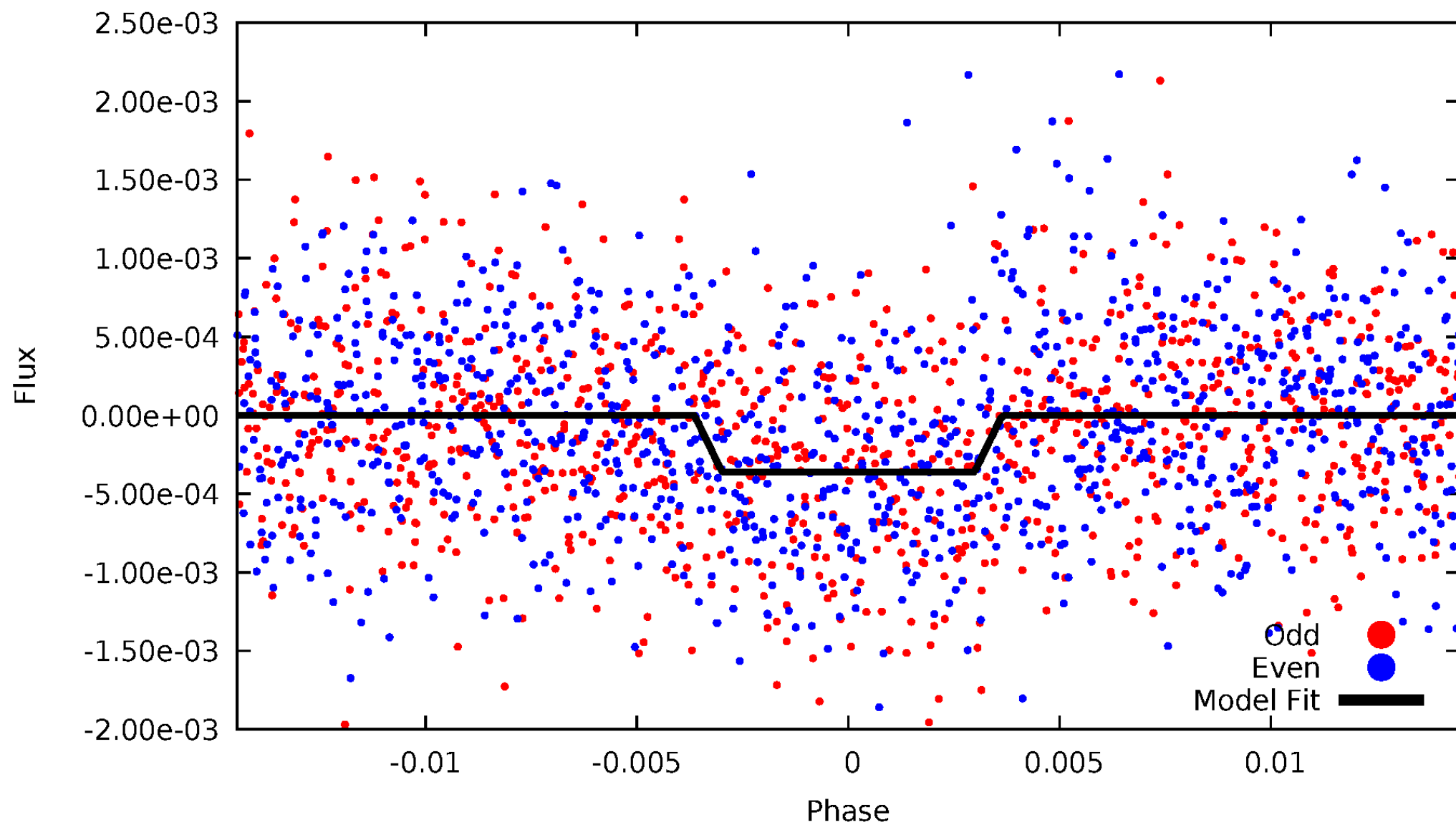
DV Odd/Even

TCE 008695311-01

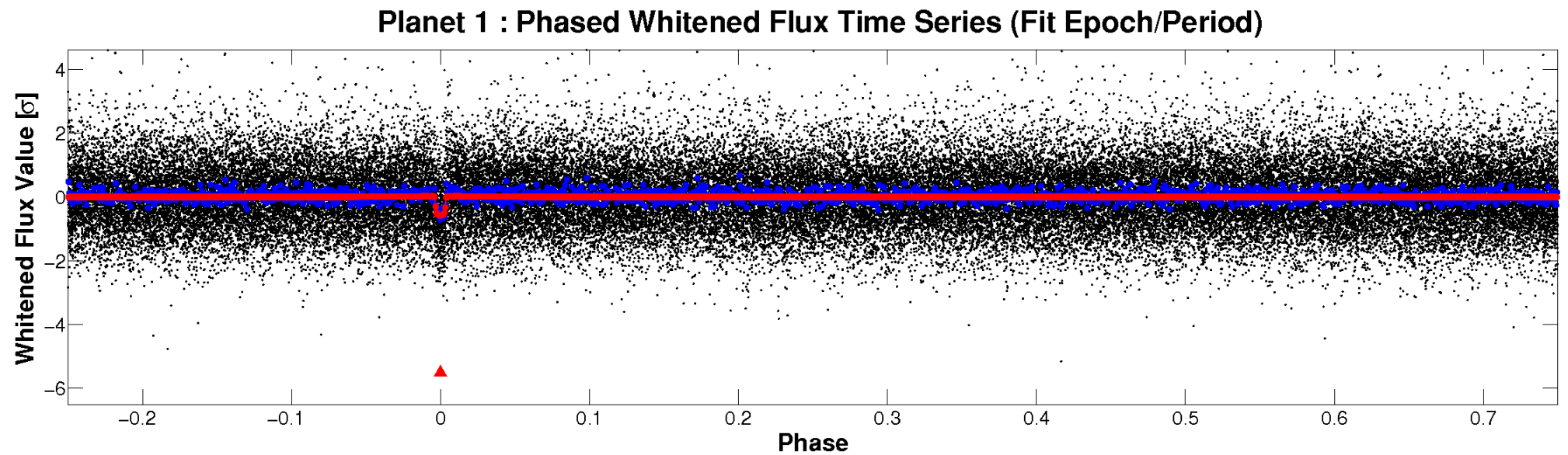
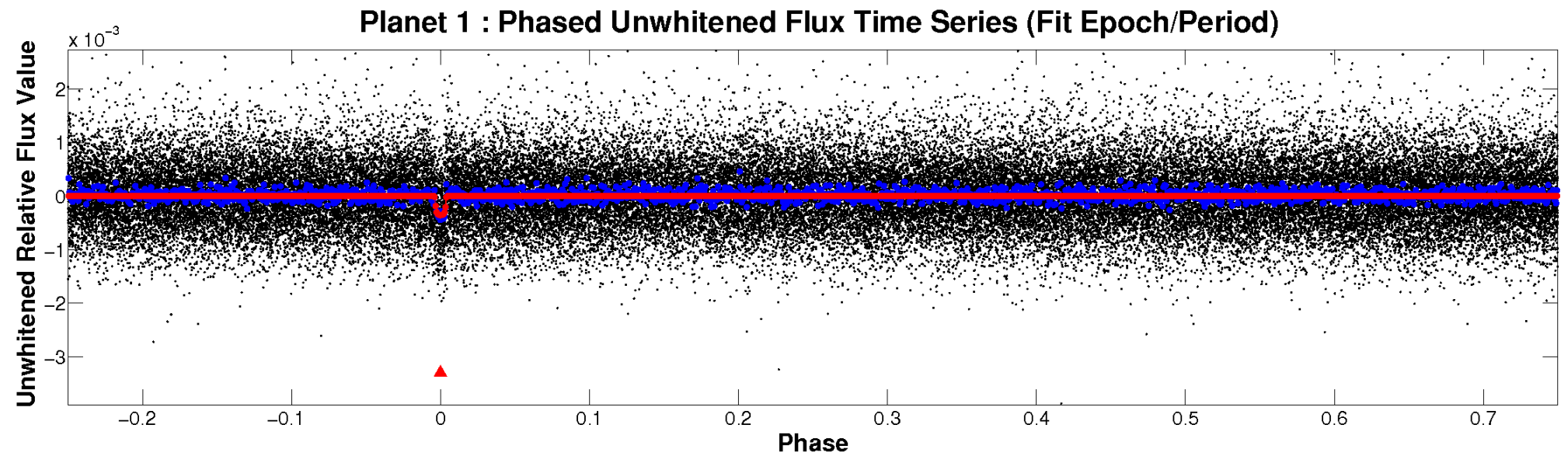


ALT Odd/Even

TCE 008695311-01

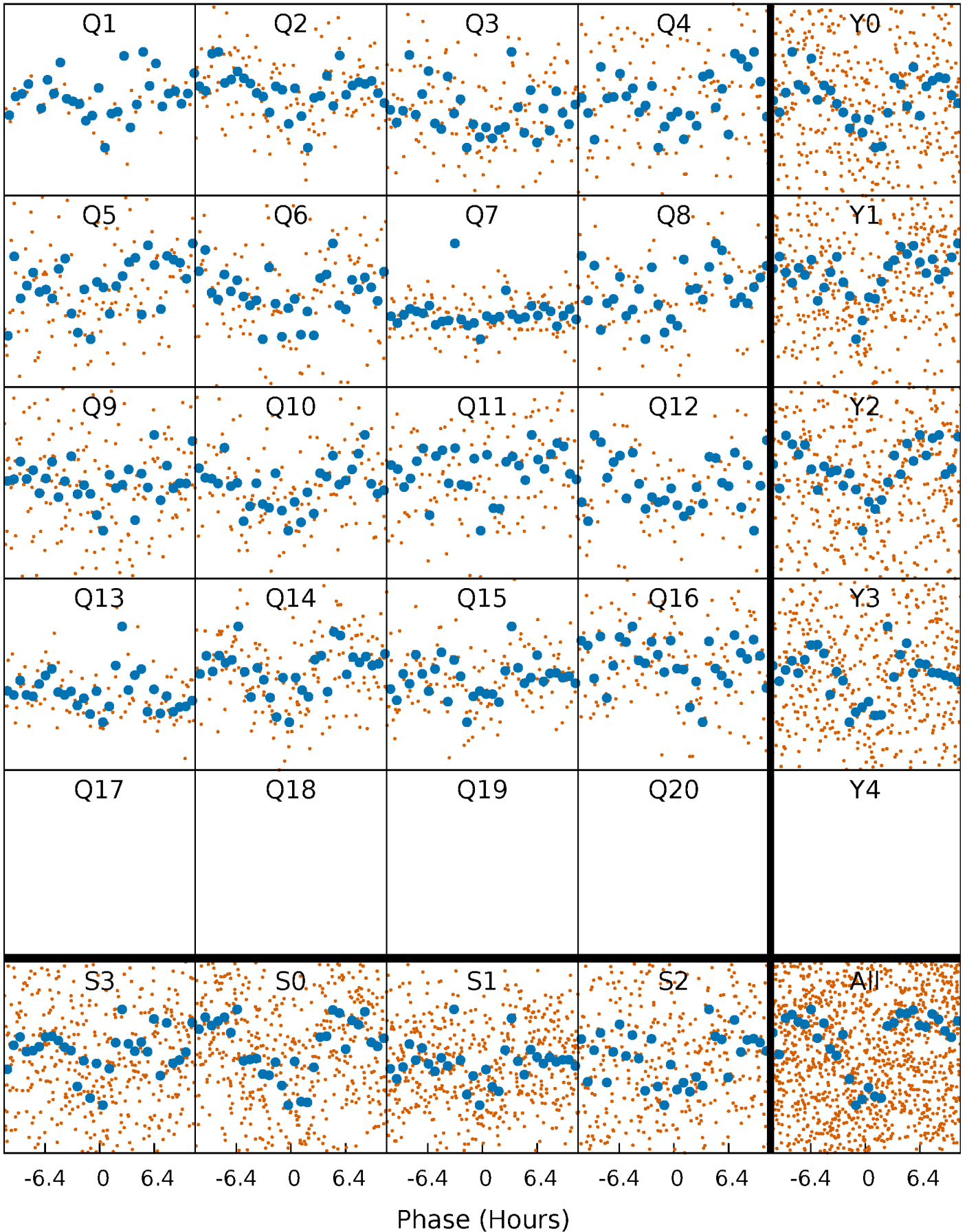


Non-Whitened Vs. Whitened Light Curve



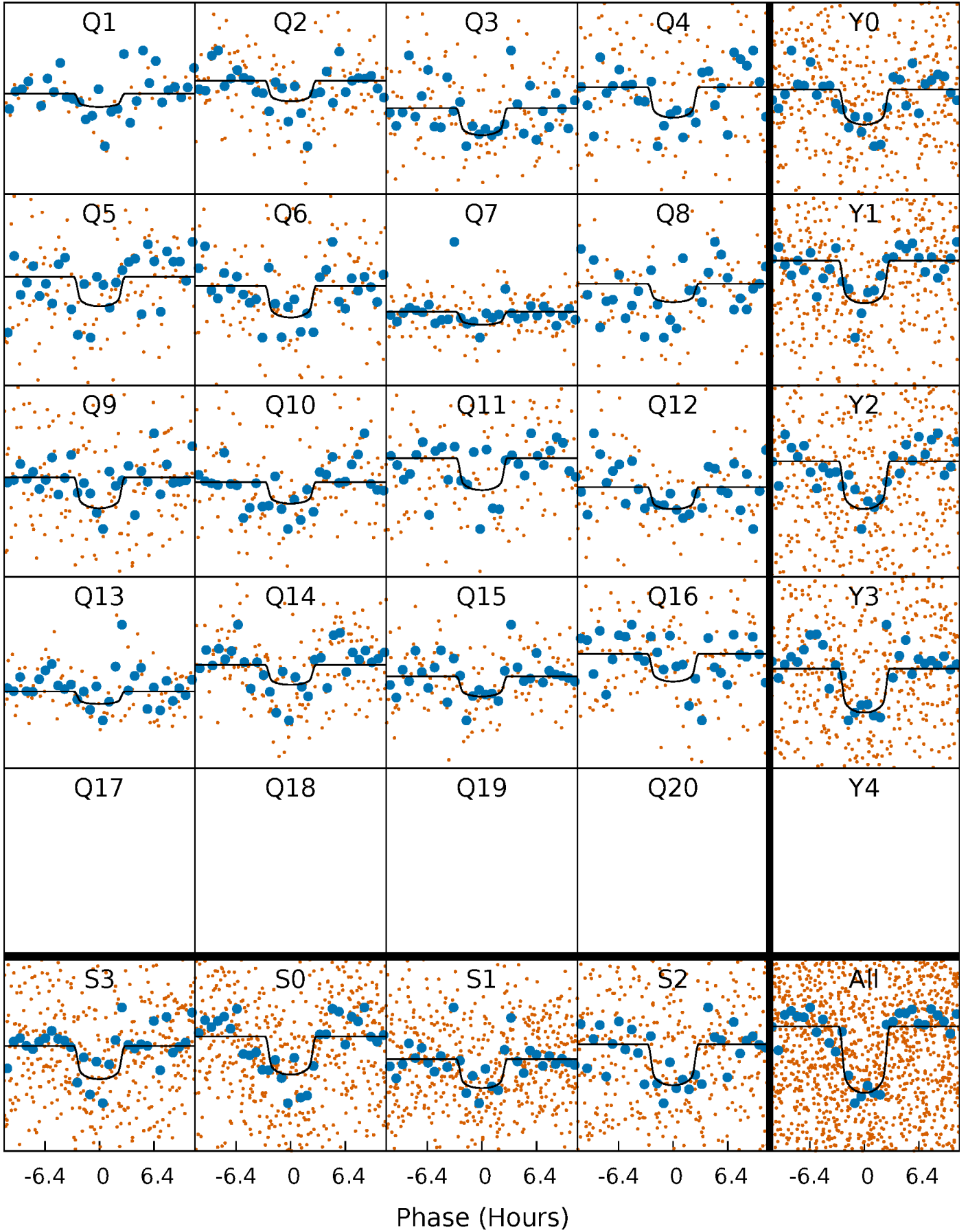
PDC Quarter-Phased Transit Curves

TCE 008695311-01 P= 31.025639 Days $T_0=158.574285$ (BKJD)



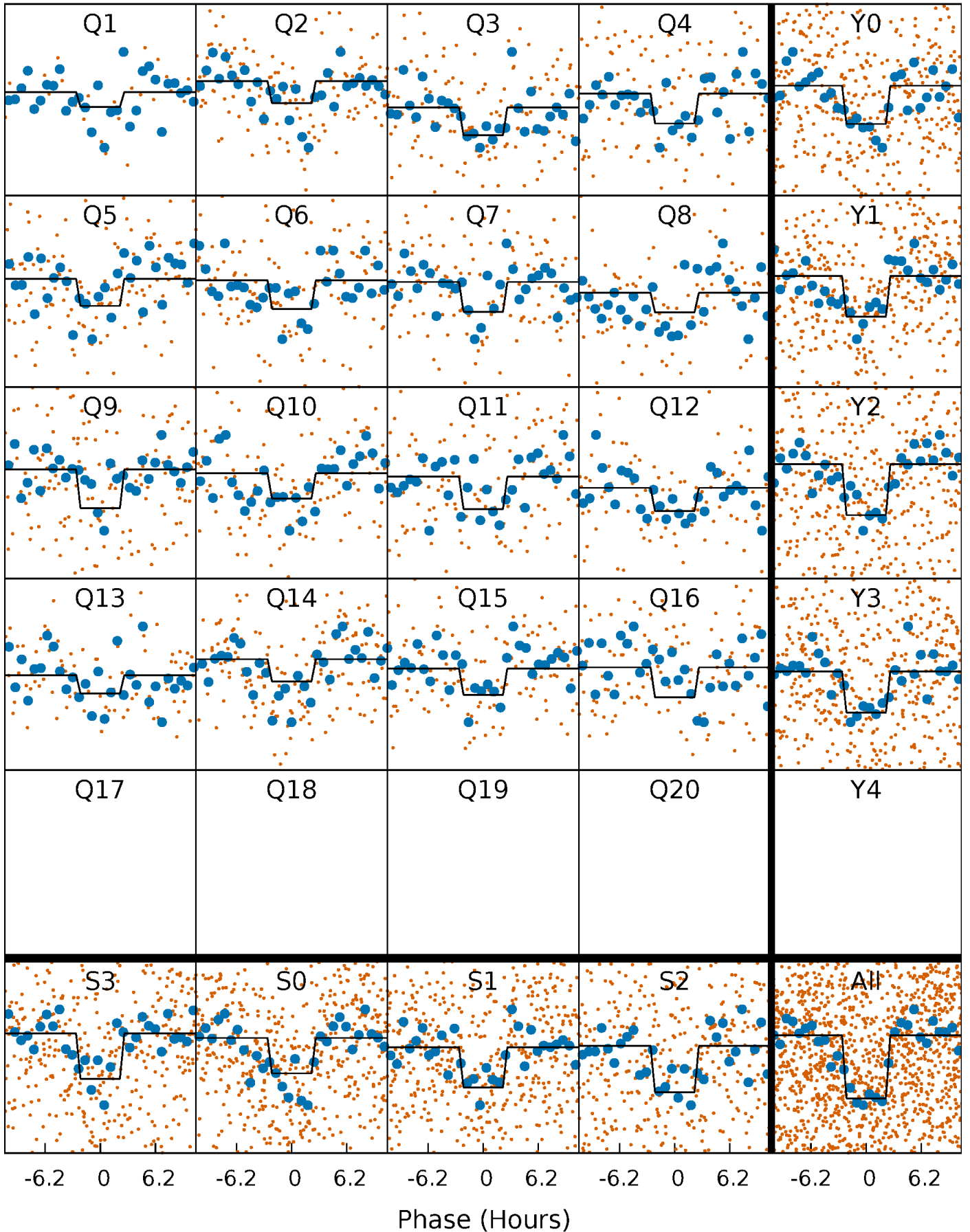
DV Quarter-Phased Transit Curves

TCE 008695311-01 P= 31.025639 Days $T_0=158.574285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

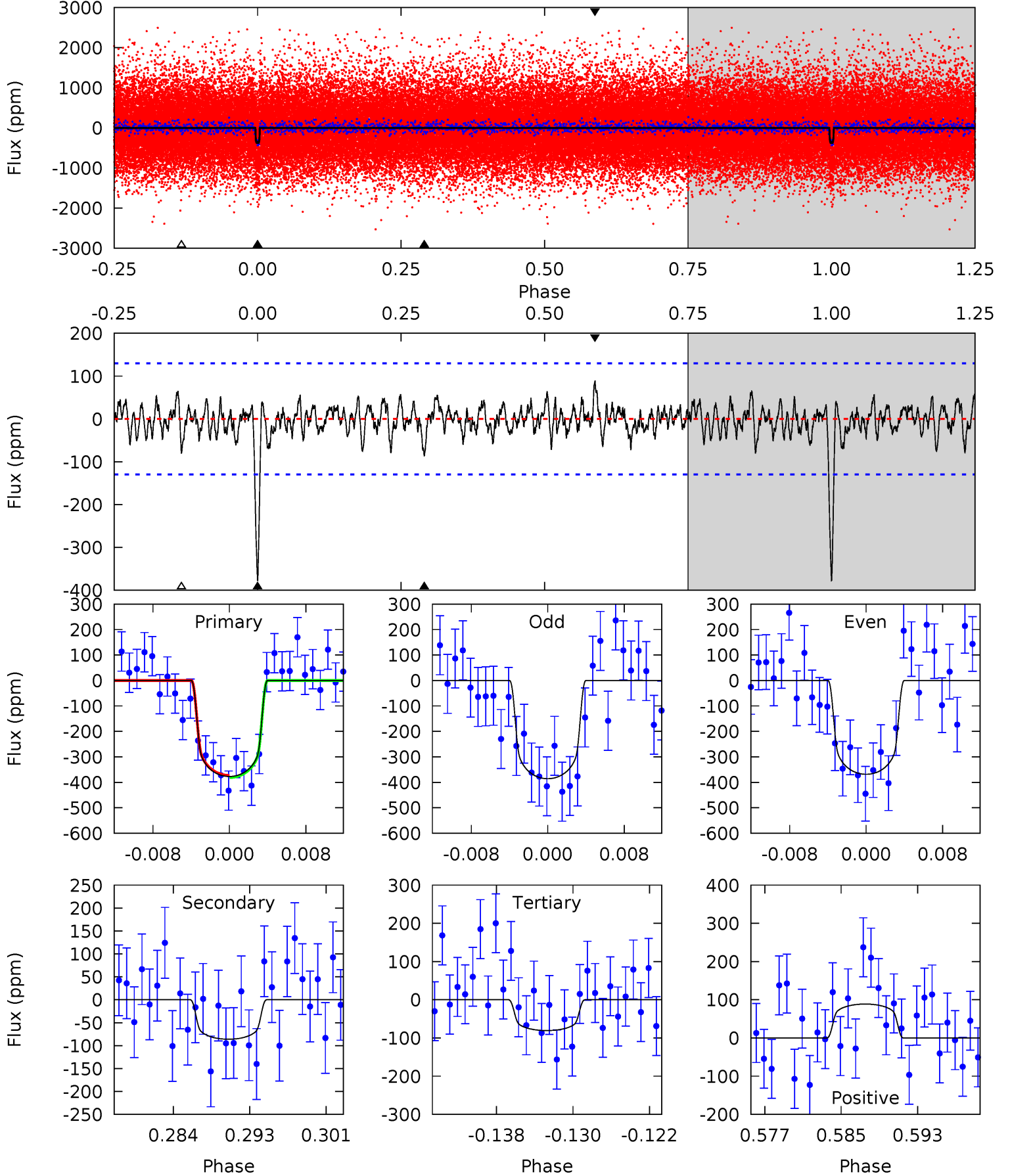
TCE 008695311-01 P= 31.025316 Days $T_0=158.582261$ (BKJD)



DV Model-Shift Uniqueness Test

008695311-01, $P = 31.025639$ Days, $E = 127.548646$ Days

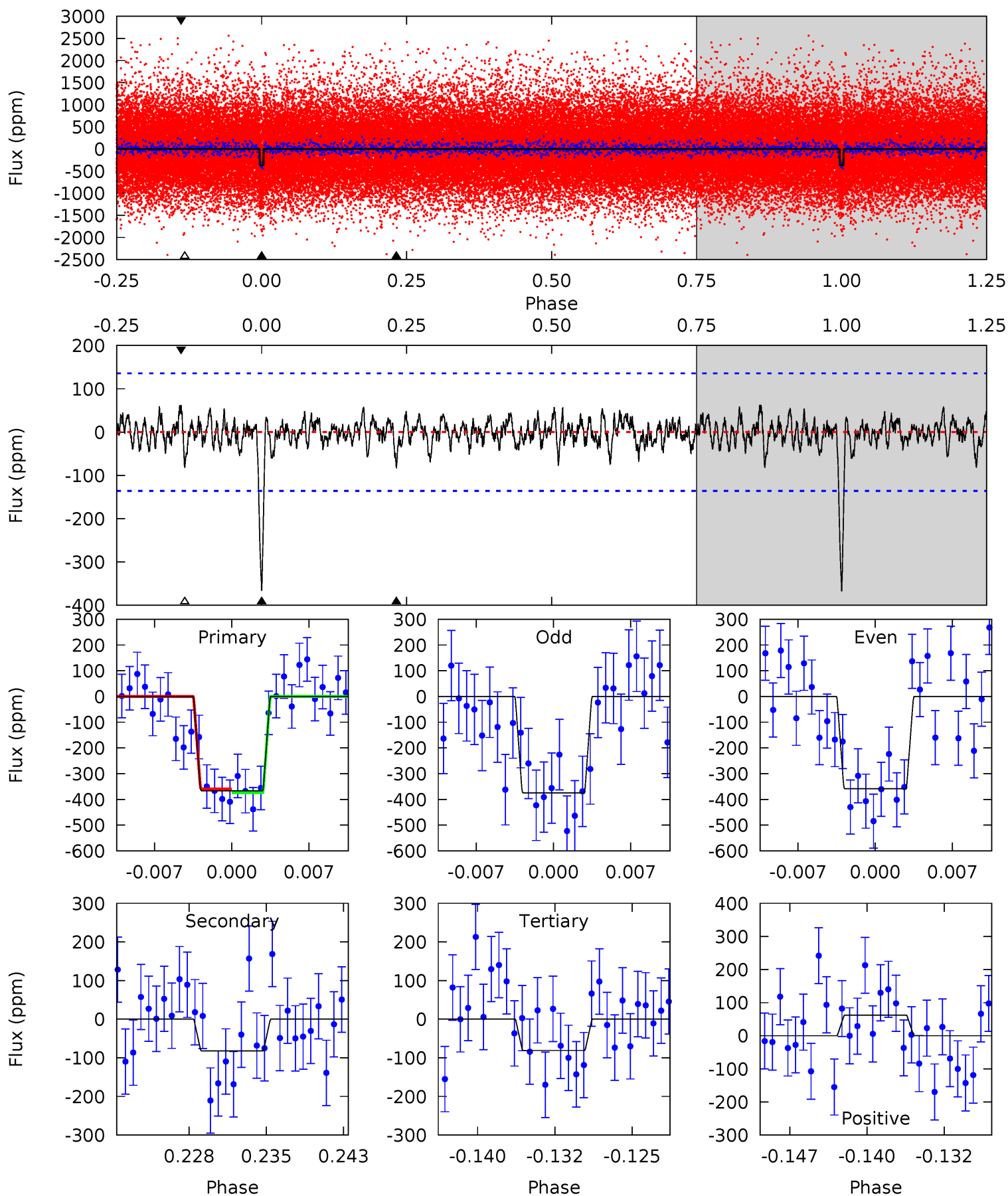
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	3.36	3.15	3.47	5.07	2.65	1.01	11.6	11.3	0.21	-0.10	0.34	0.94	0.19	0.16



Alt Model-Shift Uniqueness Test

008695311-01, P = 31.025316 Days, E = 127.556945 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	3.07	3.03	2.33	5.08	2.68	0.88	10.7	11.4	0.04	0.74	0.30	0.97	0.15	0.27



Stellar Parameters For KIC 008695311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6075^{+189}_{-232}	$4.486^{+0.048}_{-0.192}$	$-0.120^{+0.300}_{-0.300}$	$0.969^{+0.285}_{-0.114}$	$1.048^{+0.129}_{-0.142}$	$1.622^{+0.422}_{-0.813}$
	+3%/-4%	+1%/-4%	+250%/-250%	+29%/-12%	+12%/-14%	+26%/-50%
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 008695311-01 / KOI 3042.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-86 ± 26	$2.19^{+0.80}_{-0.71}$	854^{+62}_{-47}	4352^{+816}_{-506}	357^{+474}_{-182}
Alt.	-82 ± 27	$2.08^{+0.82}_{-0.68}$	853^{+59}_{-41}	4397^{+841}_{-506}	378^{+543}_{-200}

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

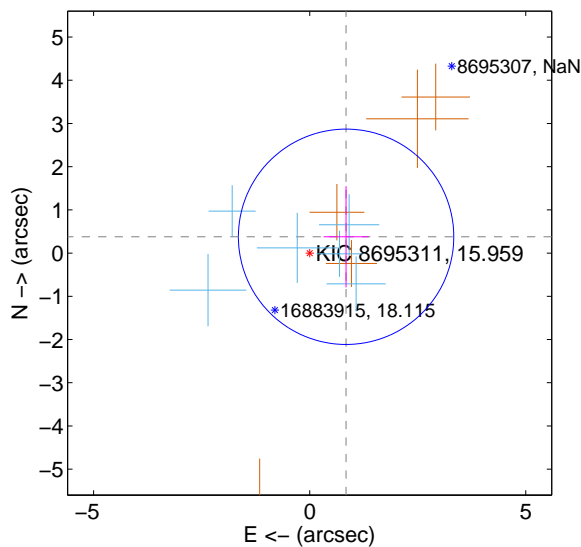
Supplemental centroid analysis for 008695311-01. Kepler magnitude: 15.96. Transit SNR 11.12

There are 6 quarters with good PRF difference image offsets

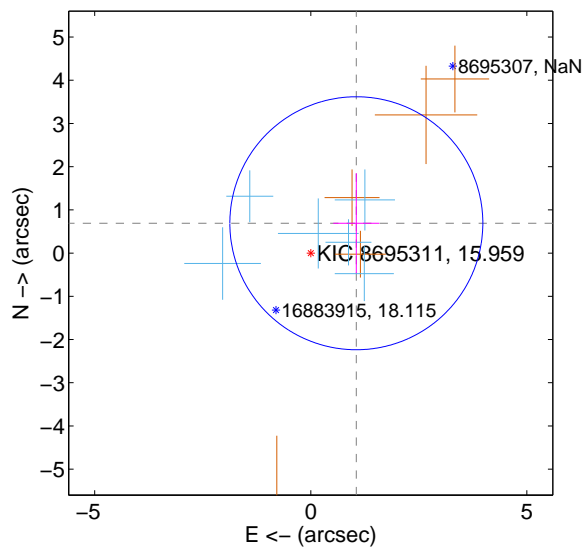
The direct PRF centroid is offset from the target star catalog position by about 0.65 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.923 ± 0.831	1.11	-0.842 ± 0.520	0.377 ± 1.172
PRF-fit source offset from KIC position	1.261 ± 0.976	1.29	-1.055 ± 0.533	0.691 ± 1.157
photometric centroid source offset	1.22 ± 1.15	1.07	-1.16 ± 1.13	-0.40 ± 1.30

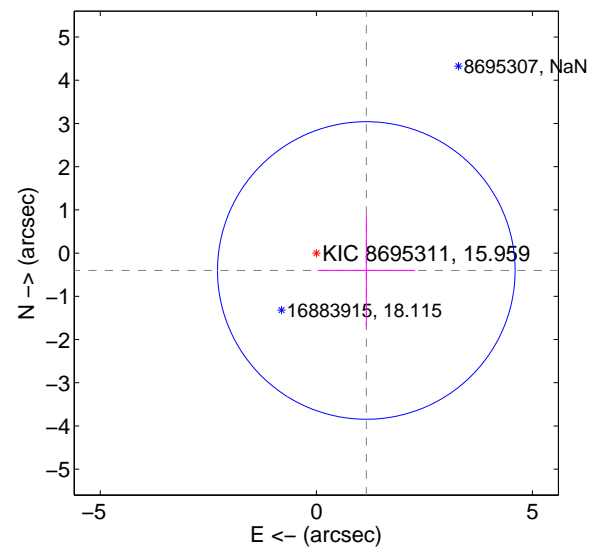
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

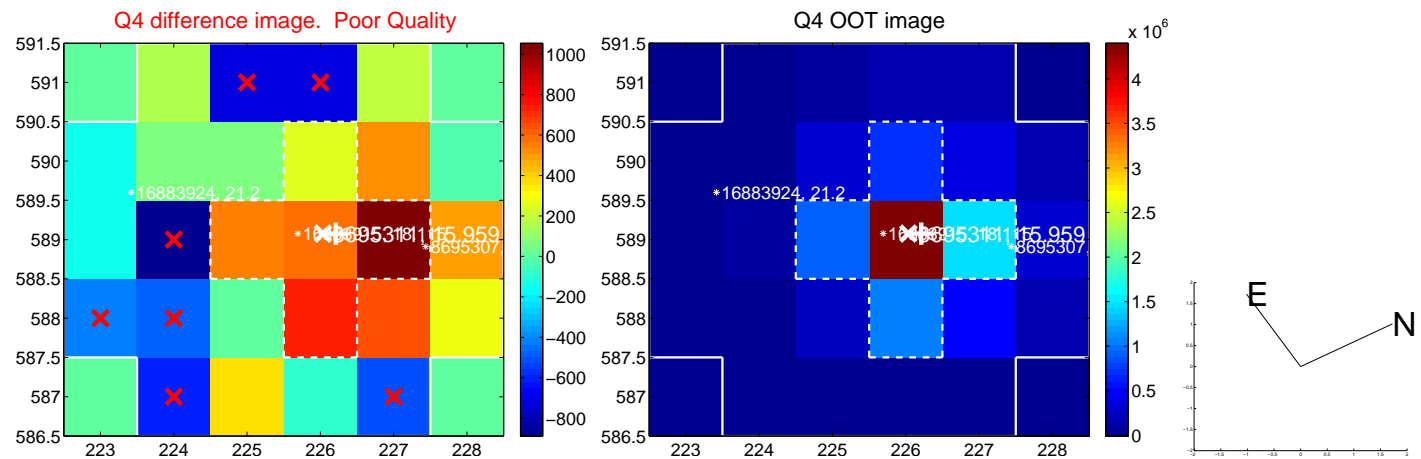
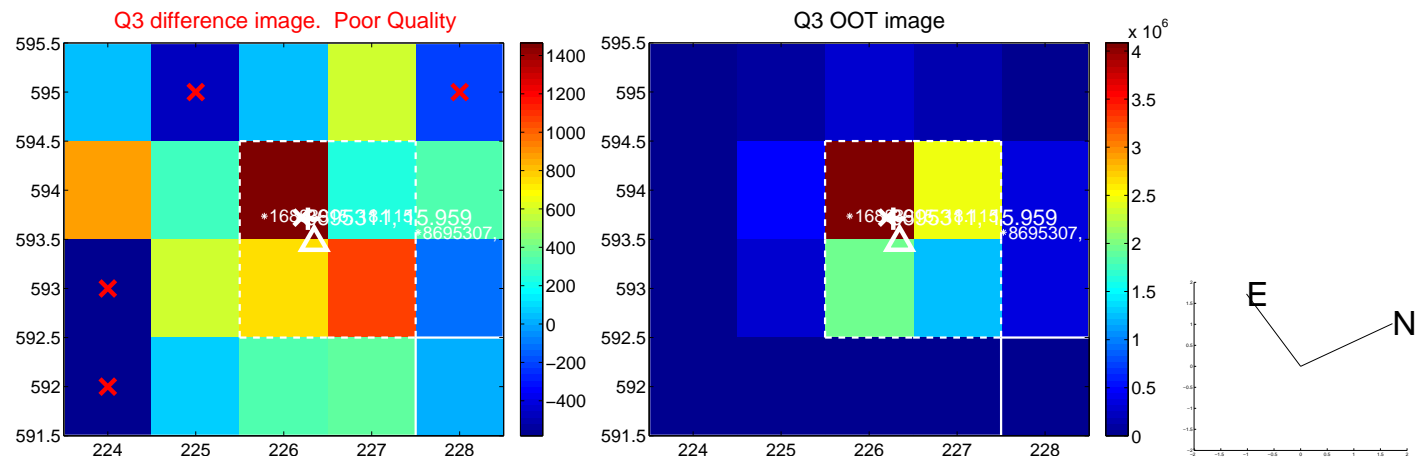
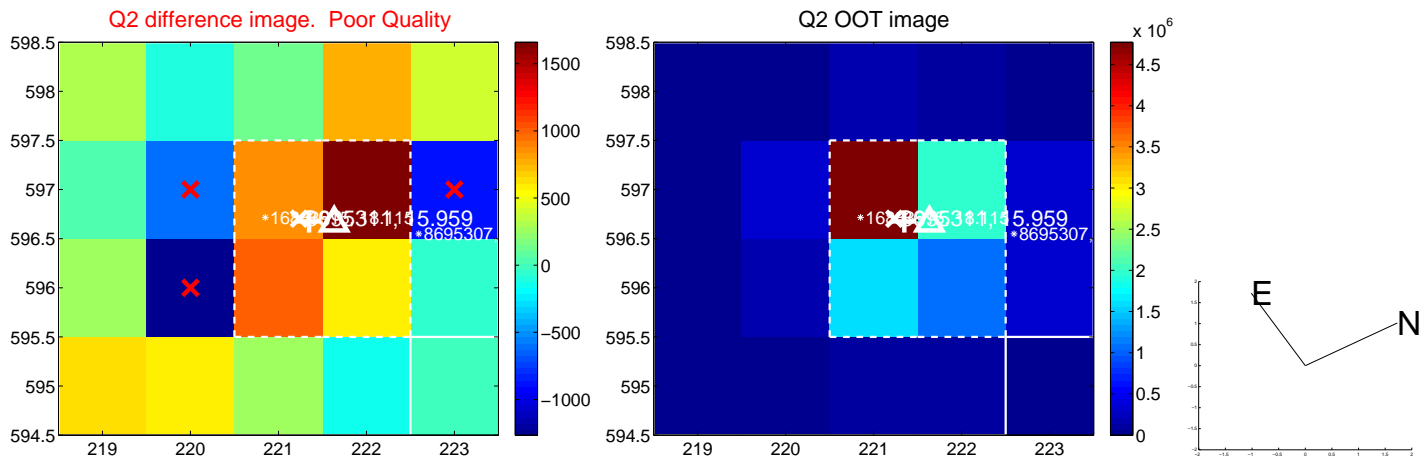
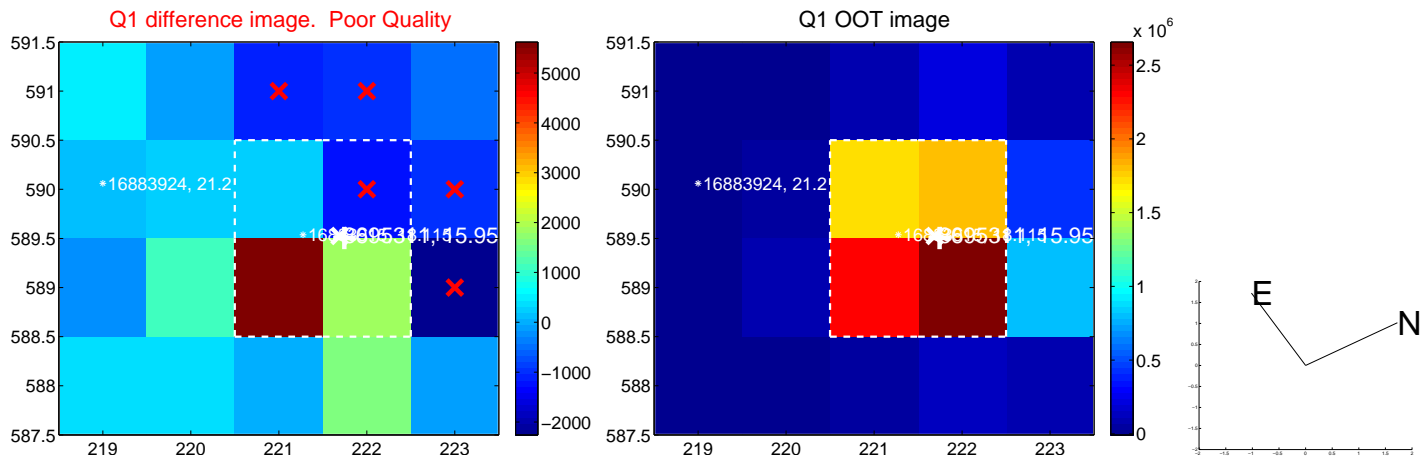


offset from photometric centroids

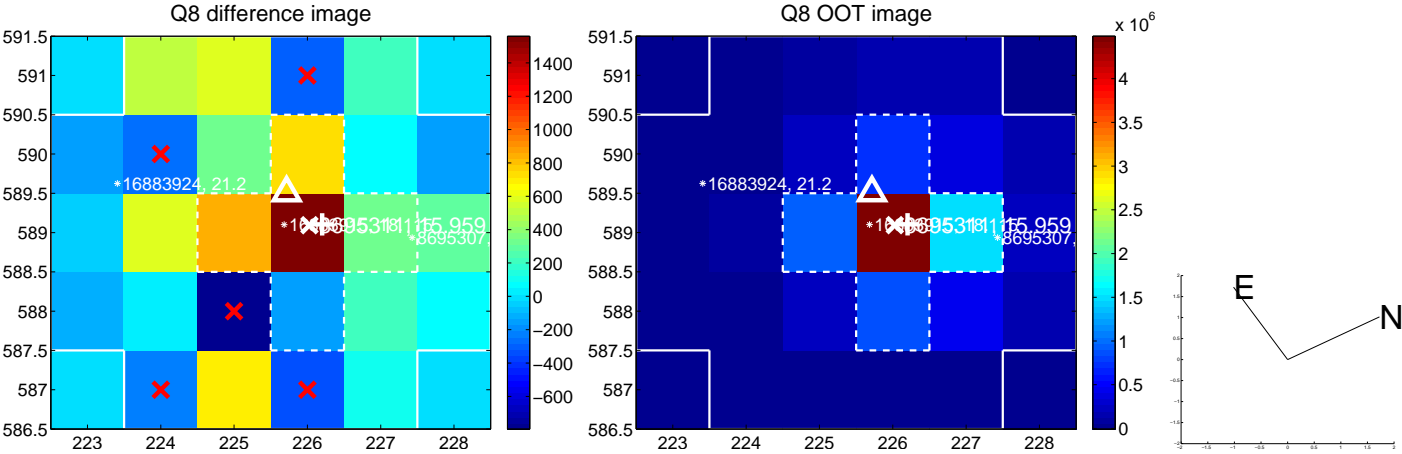
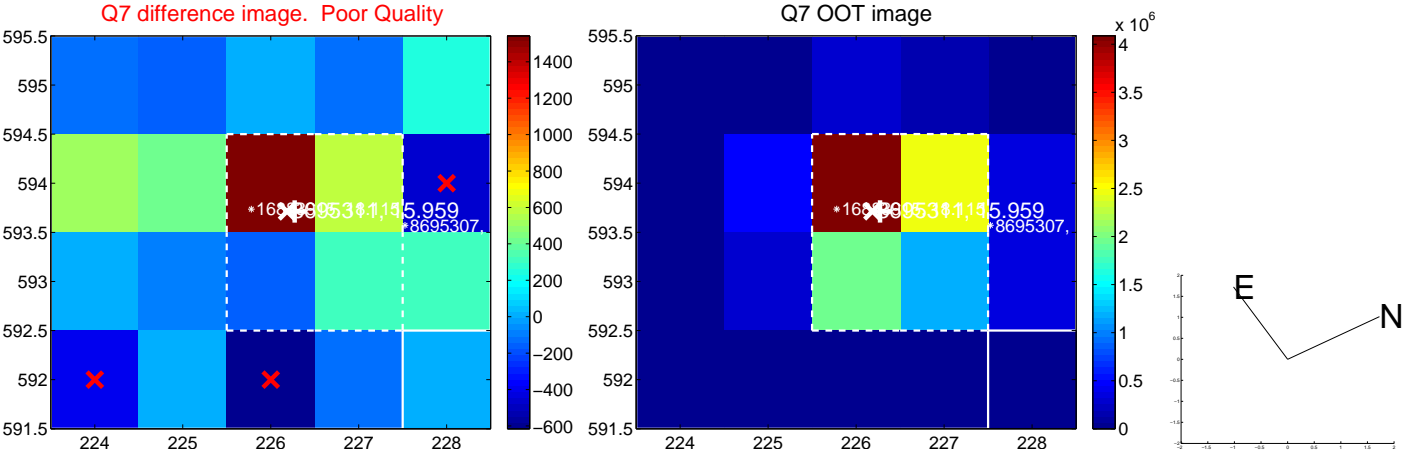
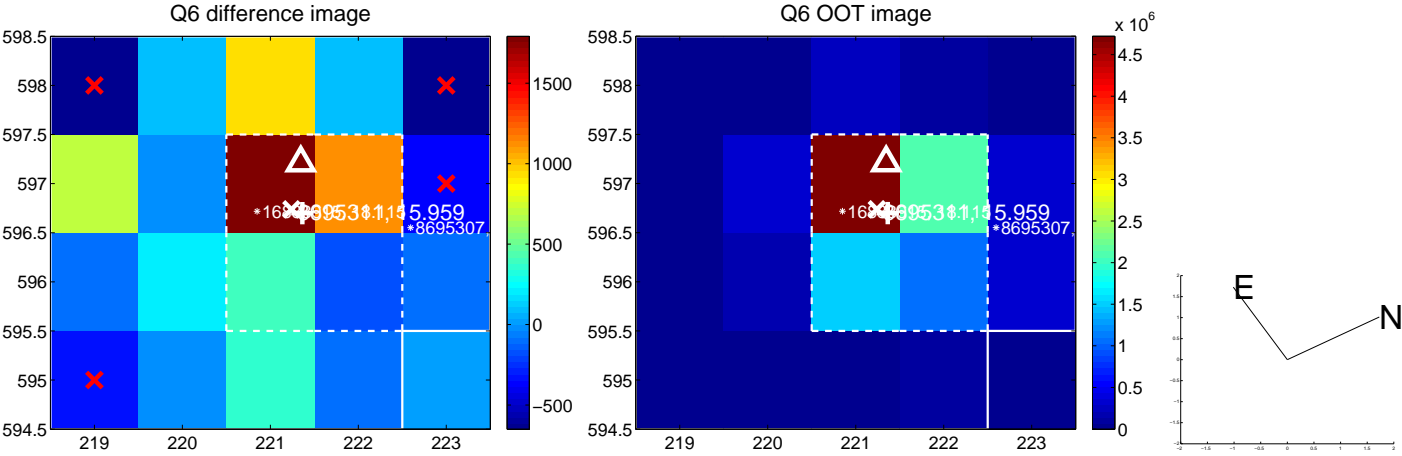
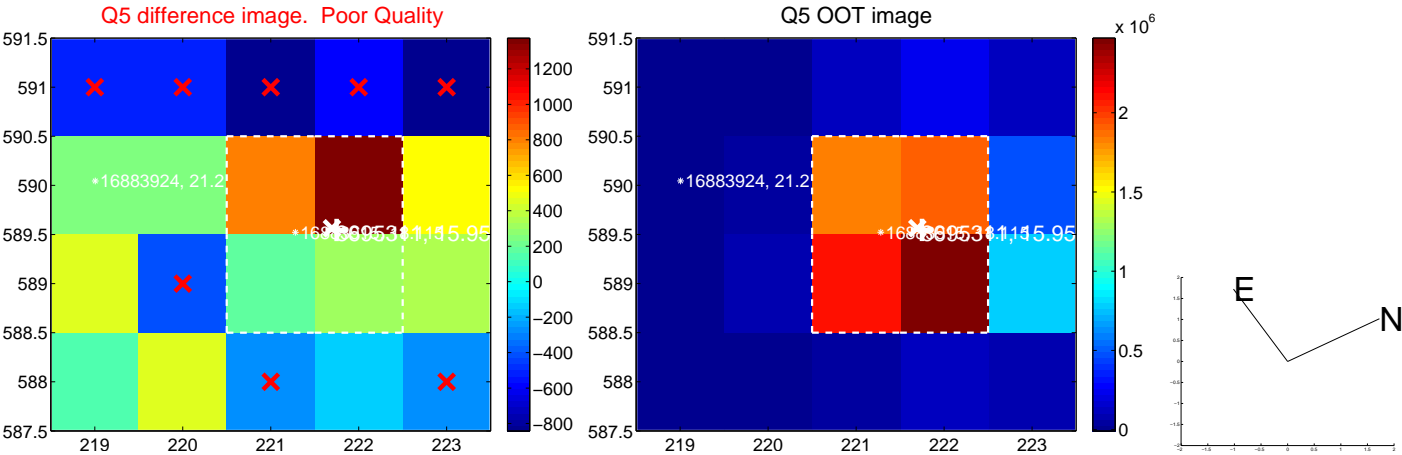


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

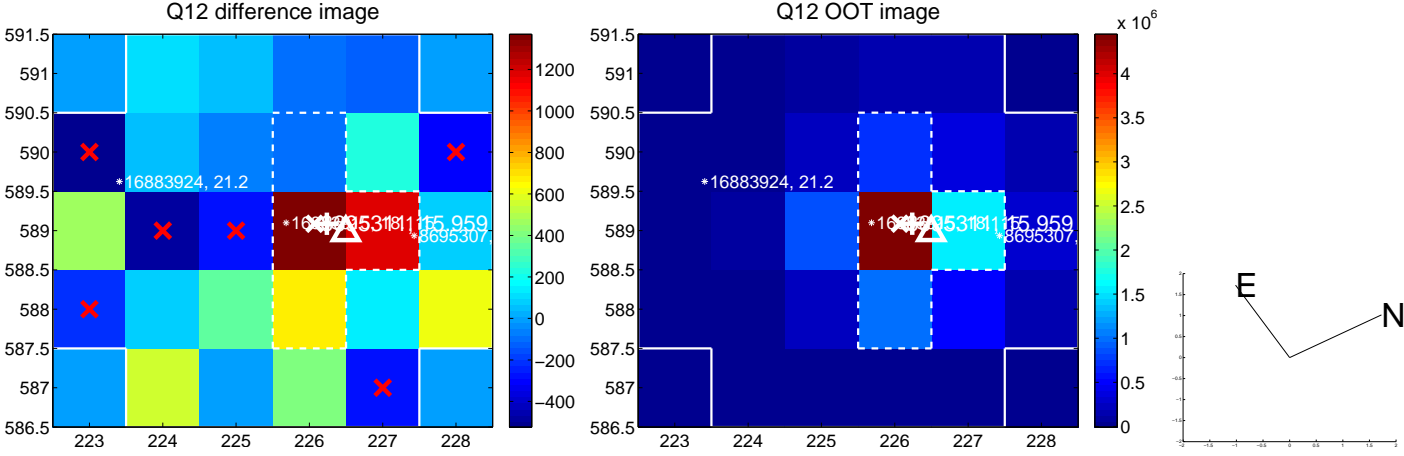
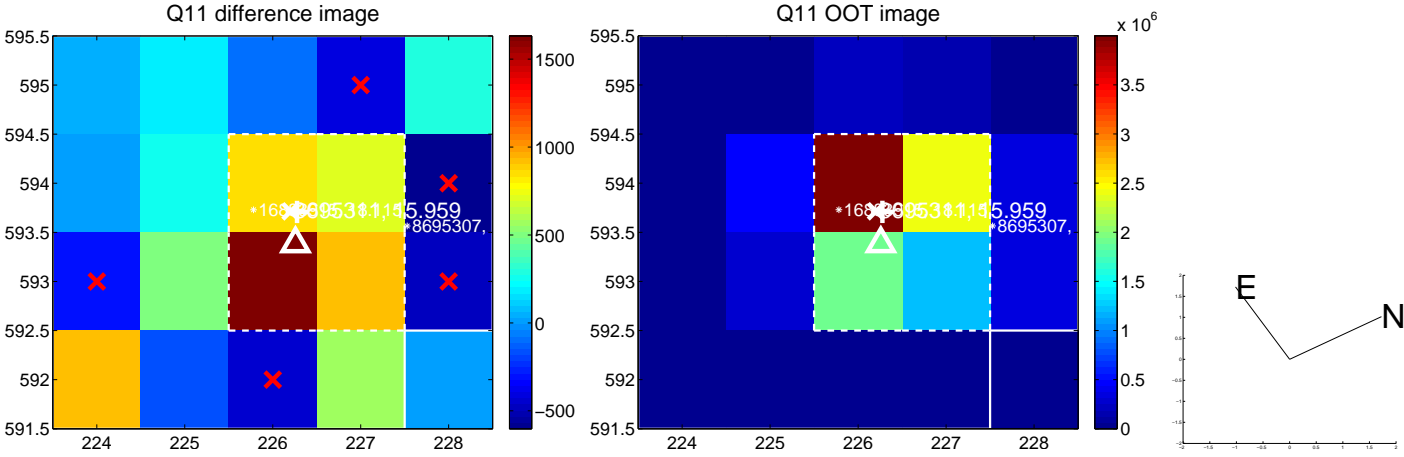
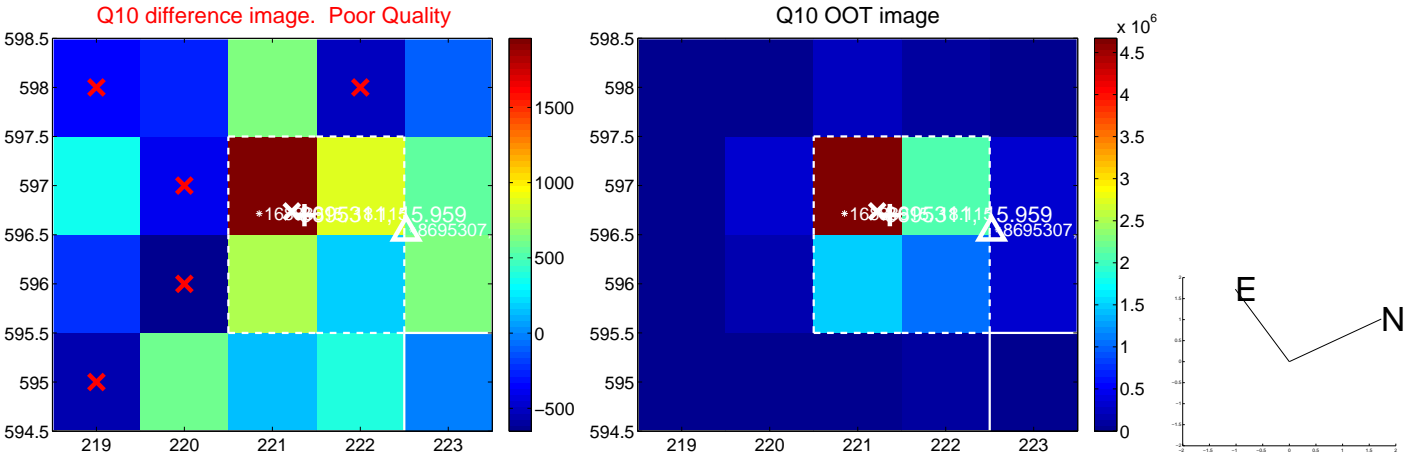
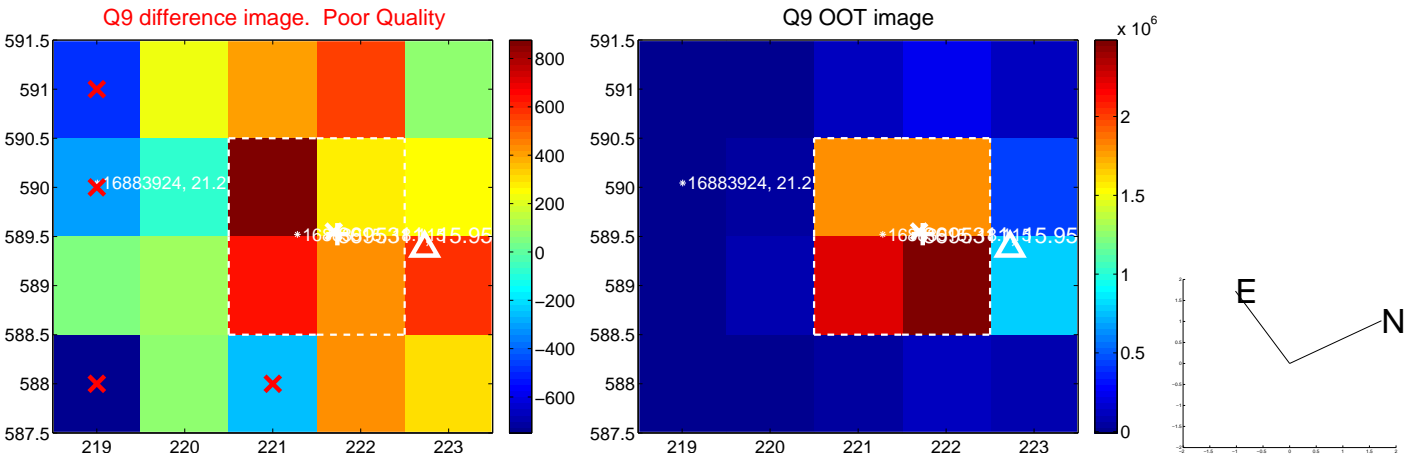
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



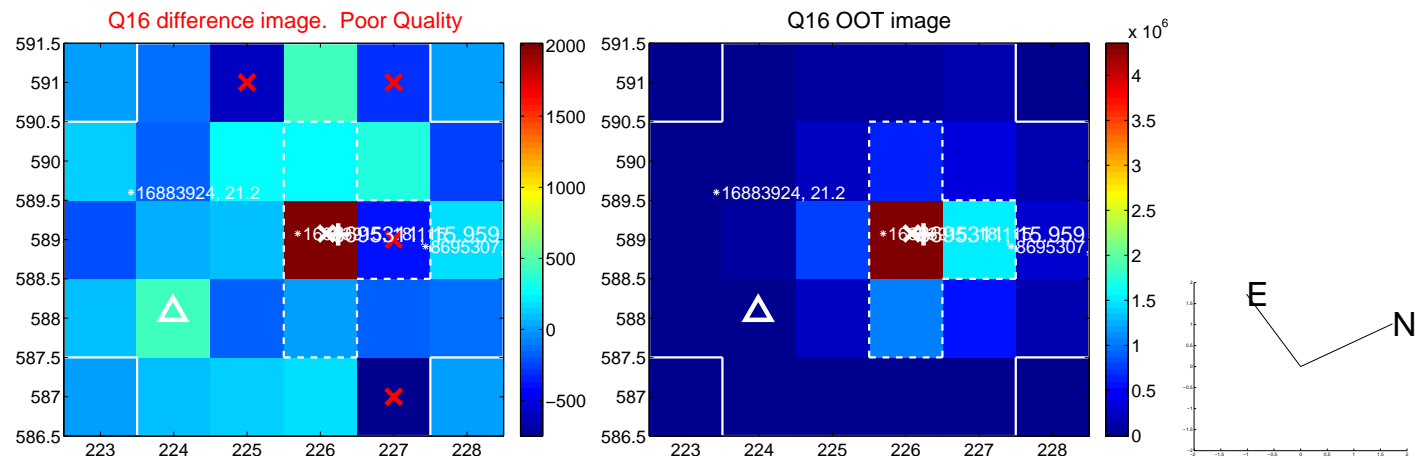
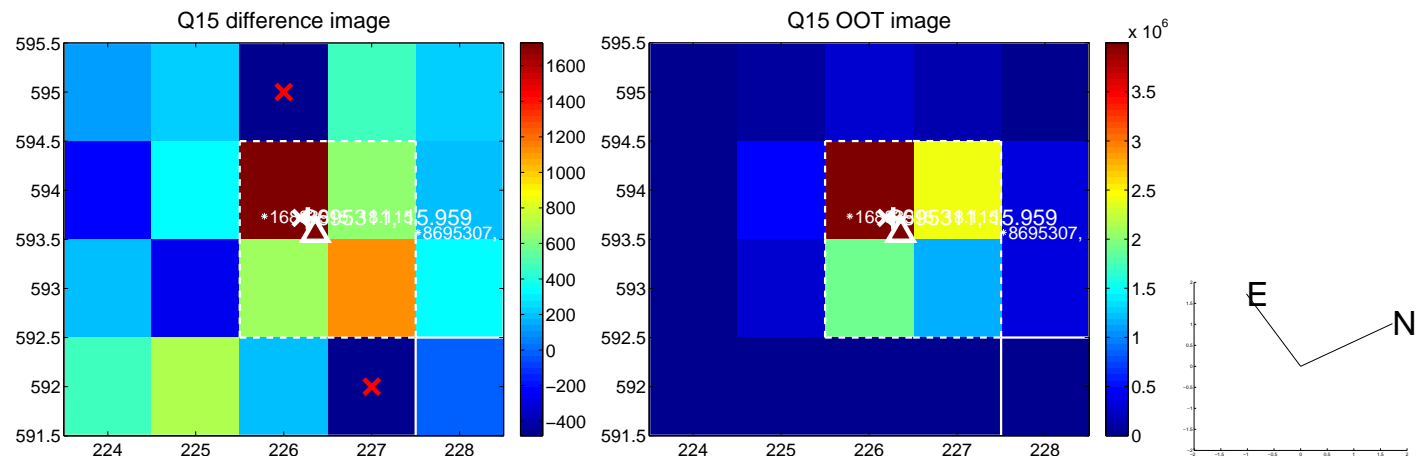
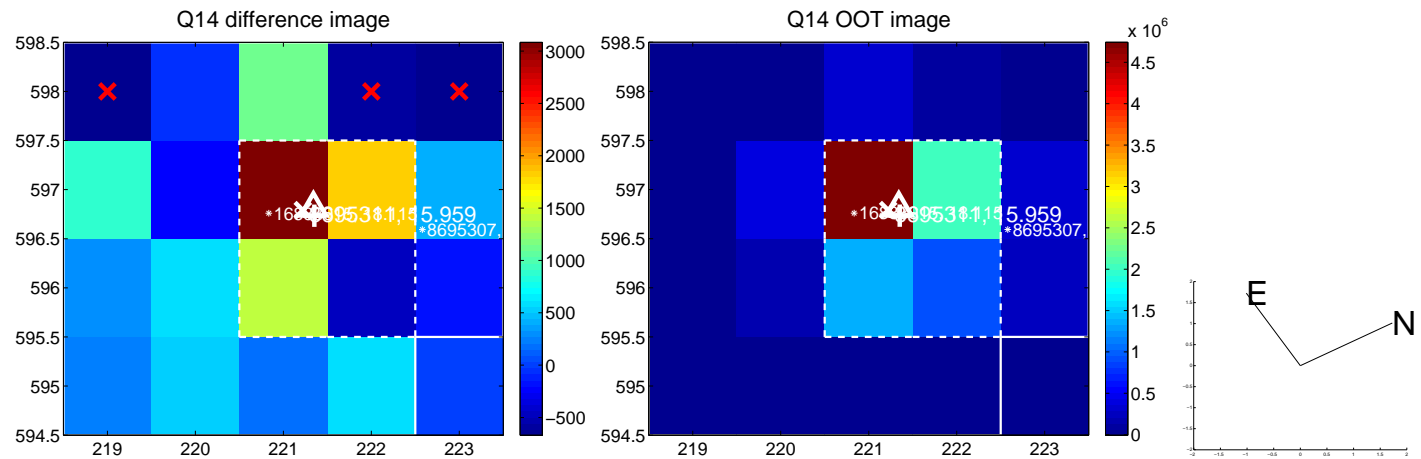
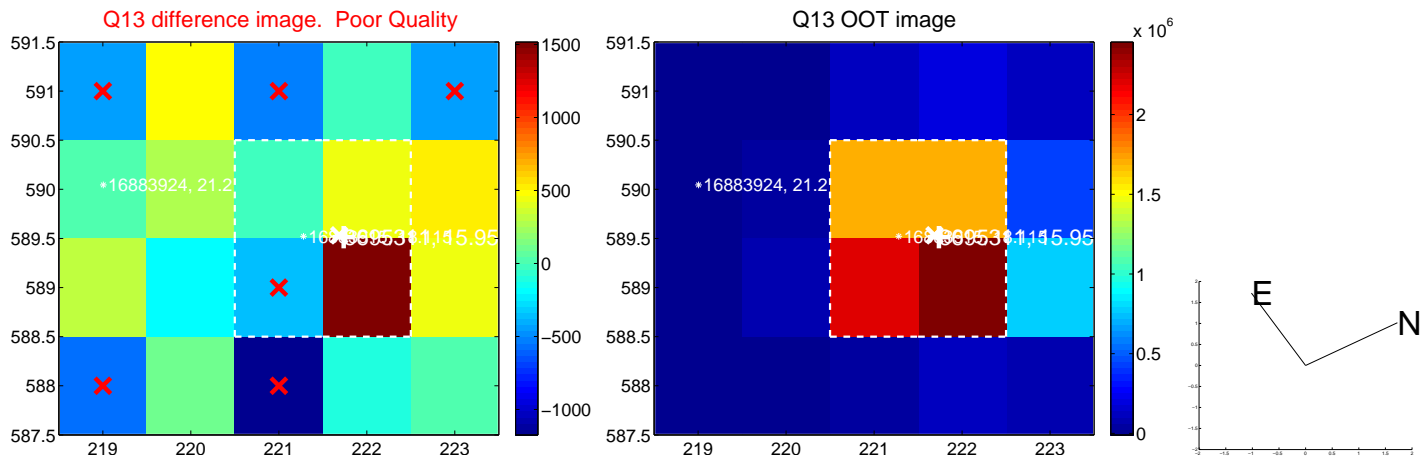
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



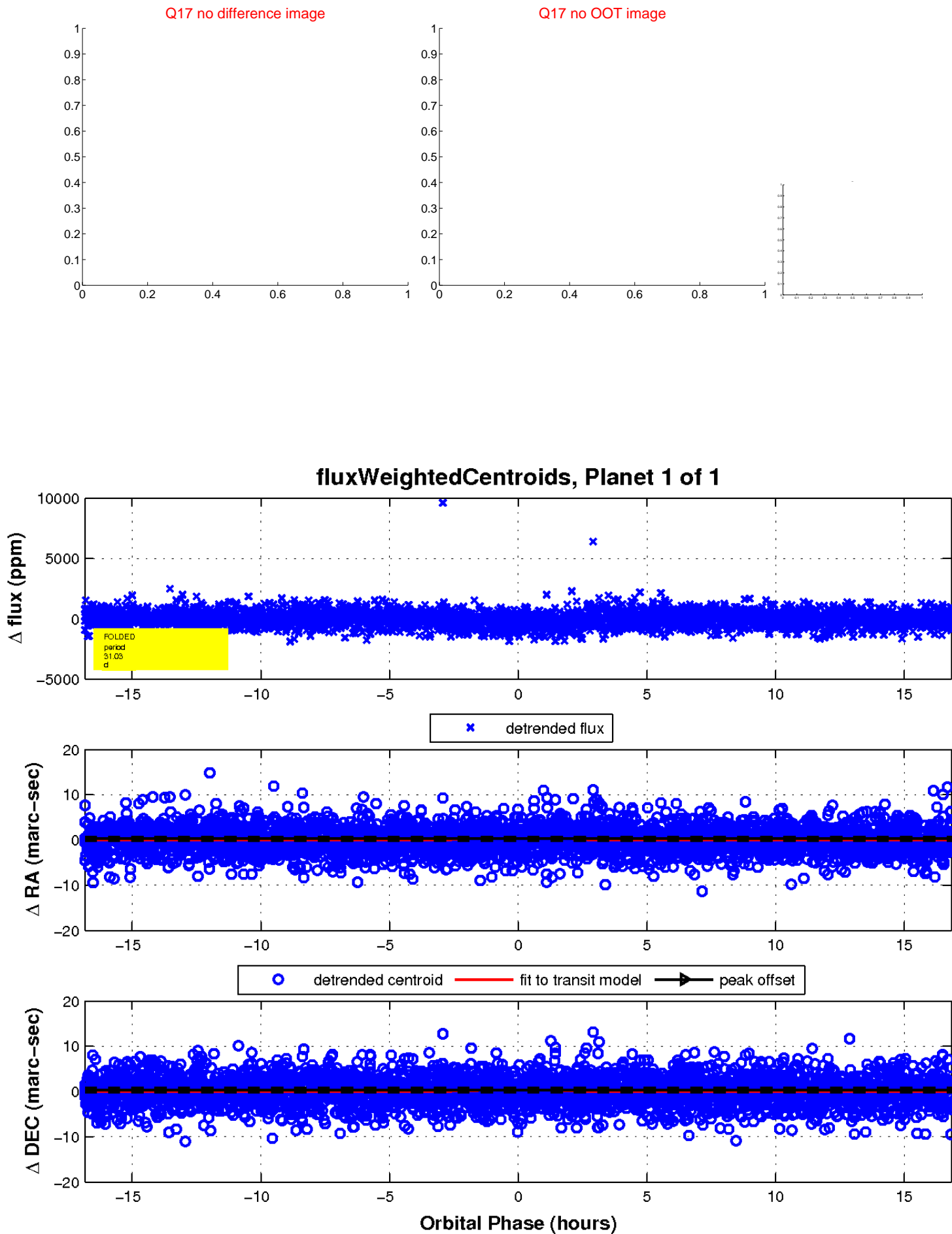
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

