

KIC 010585738

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})
010585738-01	OBS	3032.01	0.636407	131.702172	121.0	1.279	14.0	12.0	0.89	5343	1.04	2752.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010585738-01	OBS	PC	0.97	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 010585738-01

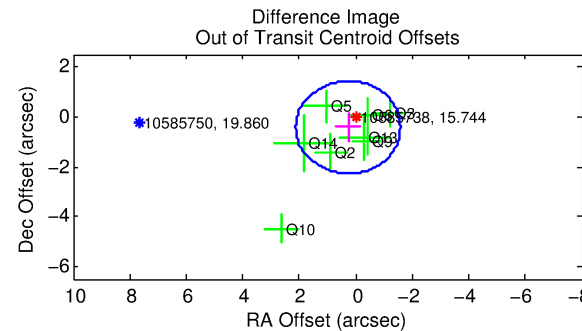
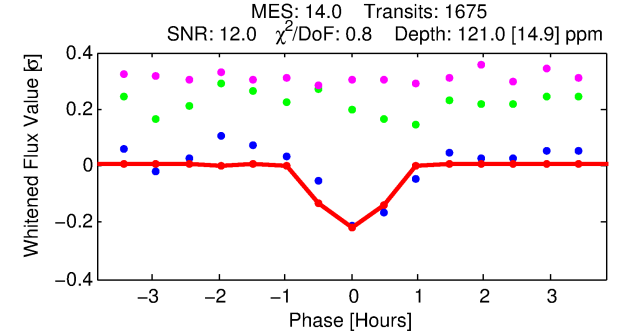
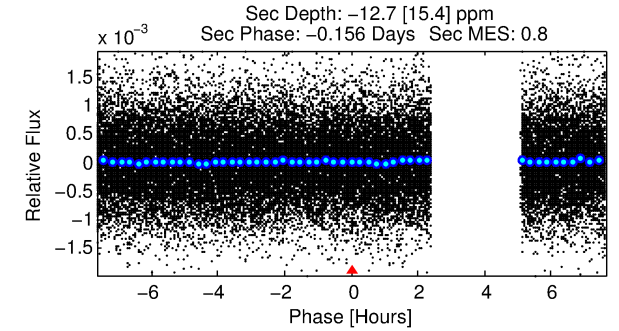
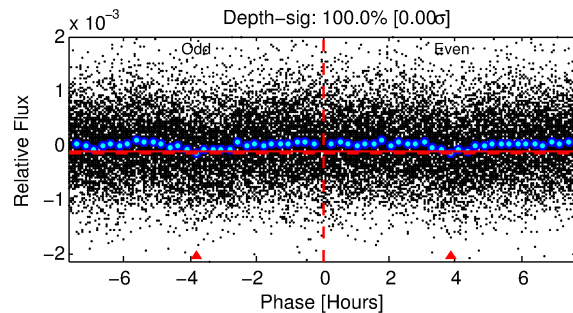
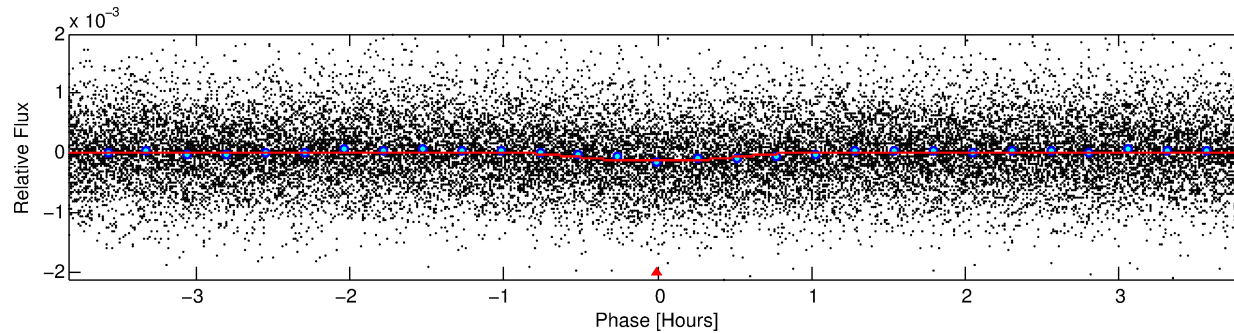
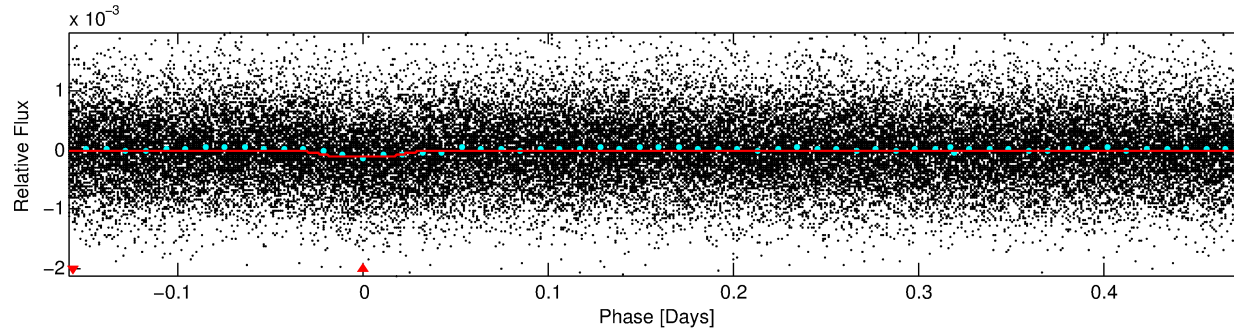
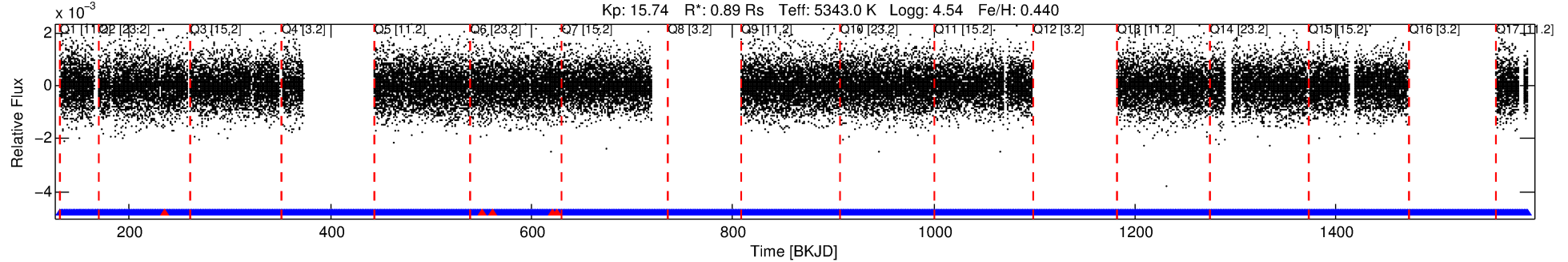
No Significant Match Found

DV One-Page Summary

KIC: 10585738 Candidate: 1 of 1 Period: 0.636 d

KOI: K03032.01 Corr: 0.770

Kp: 15.74 R*: 0.89 Rs Teff: 5343.0 K Logg: 4.54 Fe/H: 0.440



DV Fit Results:

Period = 0.63641 [0.00001] d
Epoch = 131.7022 [0.0018] BKJD
Rp/R* = 0.0108 [0.0065]
a/R* = 2.89 [5.62]
b = 0.70 [1.64]
Seff = 2752.22 [844.63]
Teq = 1847 [142] K
Rp = 1.05 [0.67] Re
a = 0.0144 [0.0026] AU
Ag = N/A
Teffp = N/A

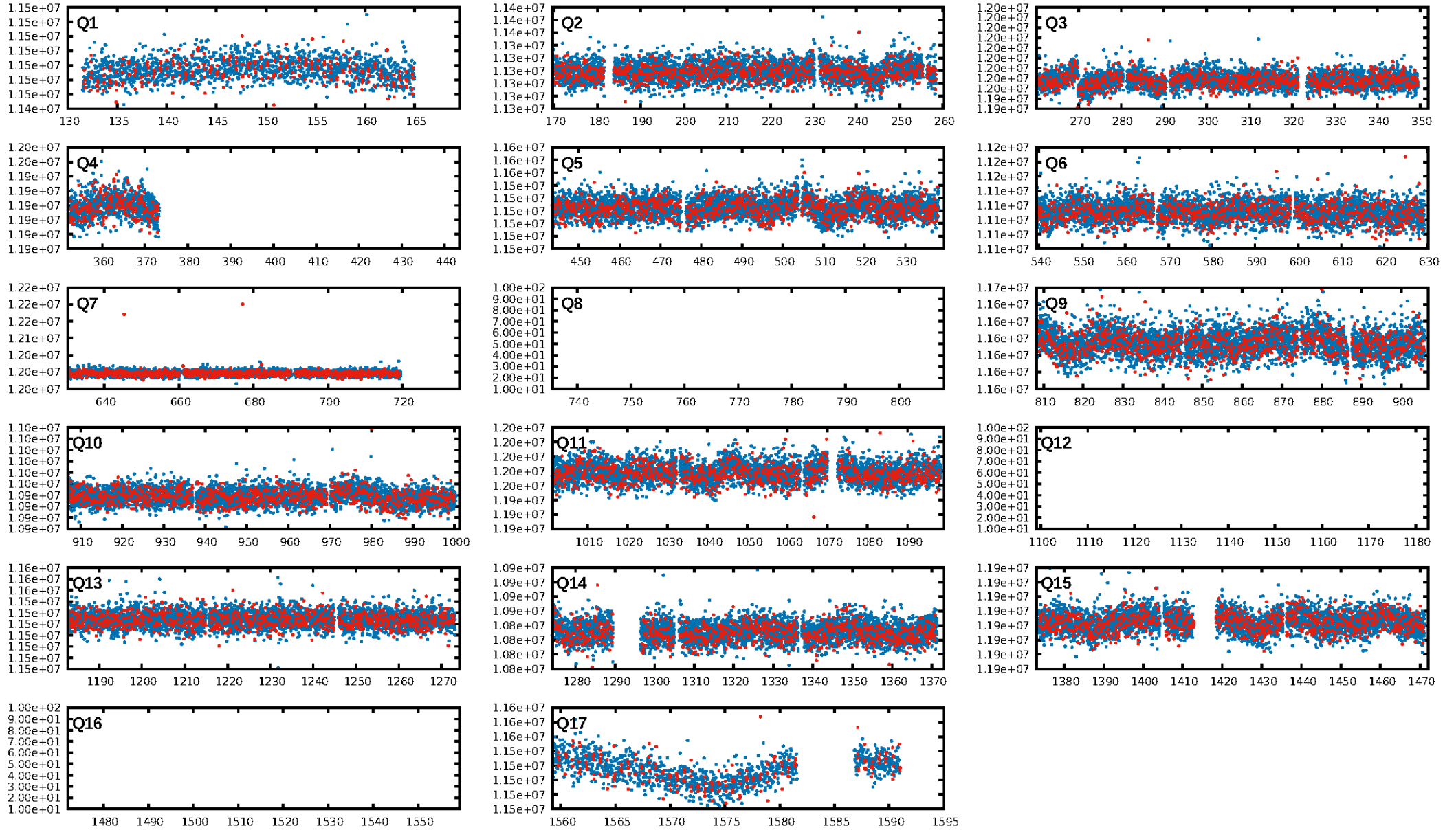
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.23e-44
RollingBand-fgt: 1.00 [1542/1547]
GhostDiagnostic-chr: 2.197
Centroid-sig: 0.1%
Centroid-so: 2.955 arcsec [2.24σ]
OotOffset-rm: 0.502 arcsec [0.81σ]
KicOffset-rm: 0.492 arcsec [0.90σ]
OotOffset-st: 4/1/0/3 [8]
KicOffset-st: 4/1/0/3 [8]
DiffImageQuality-fgm: 0.62 [5/8]
DiffImageOverlap-fno: 1.00 [14/14]

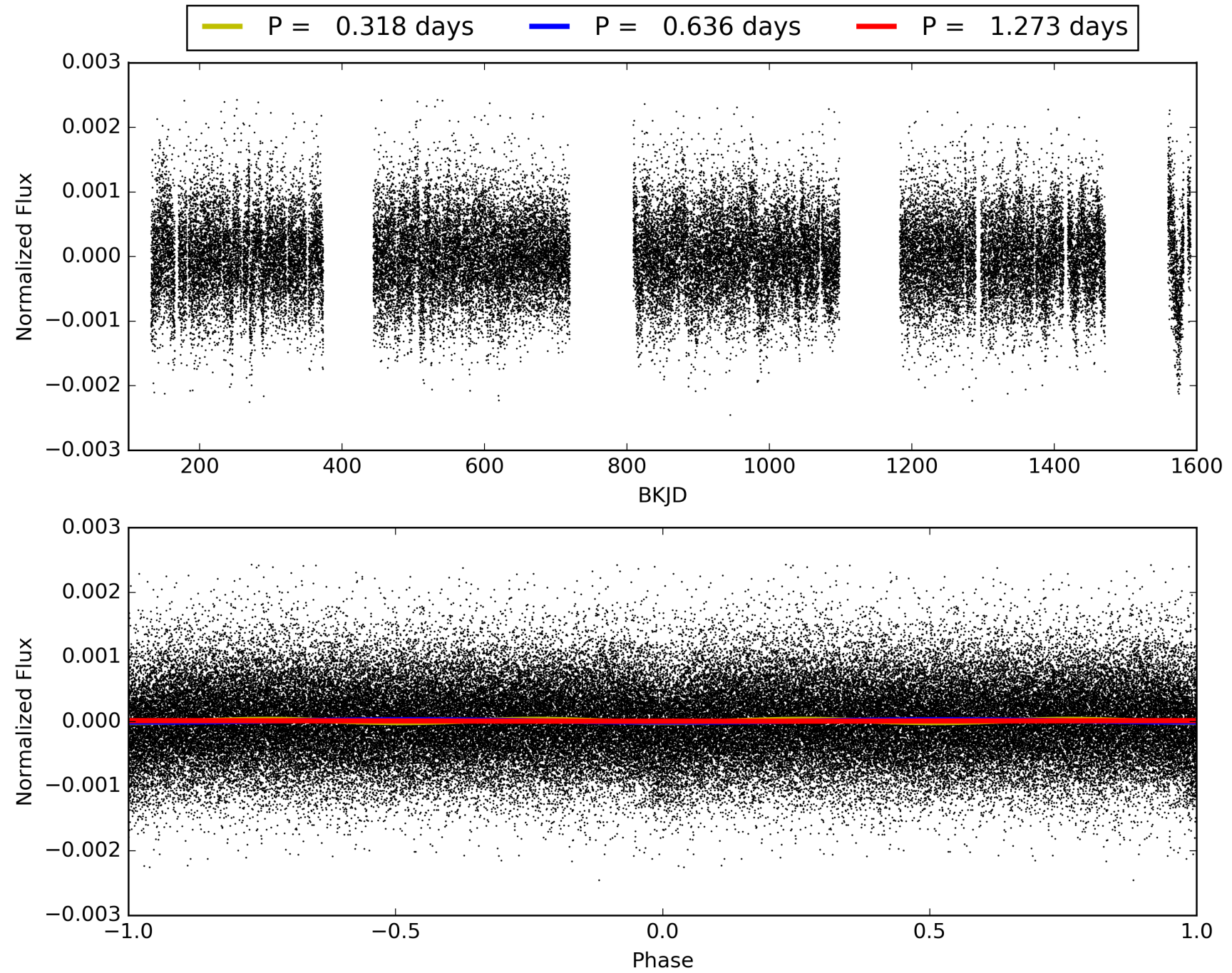
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:17:17 Z

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

TCE 010585738-01, PDC Light Curves

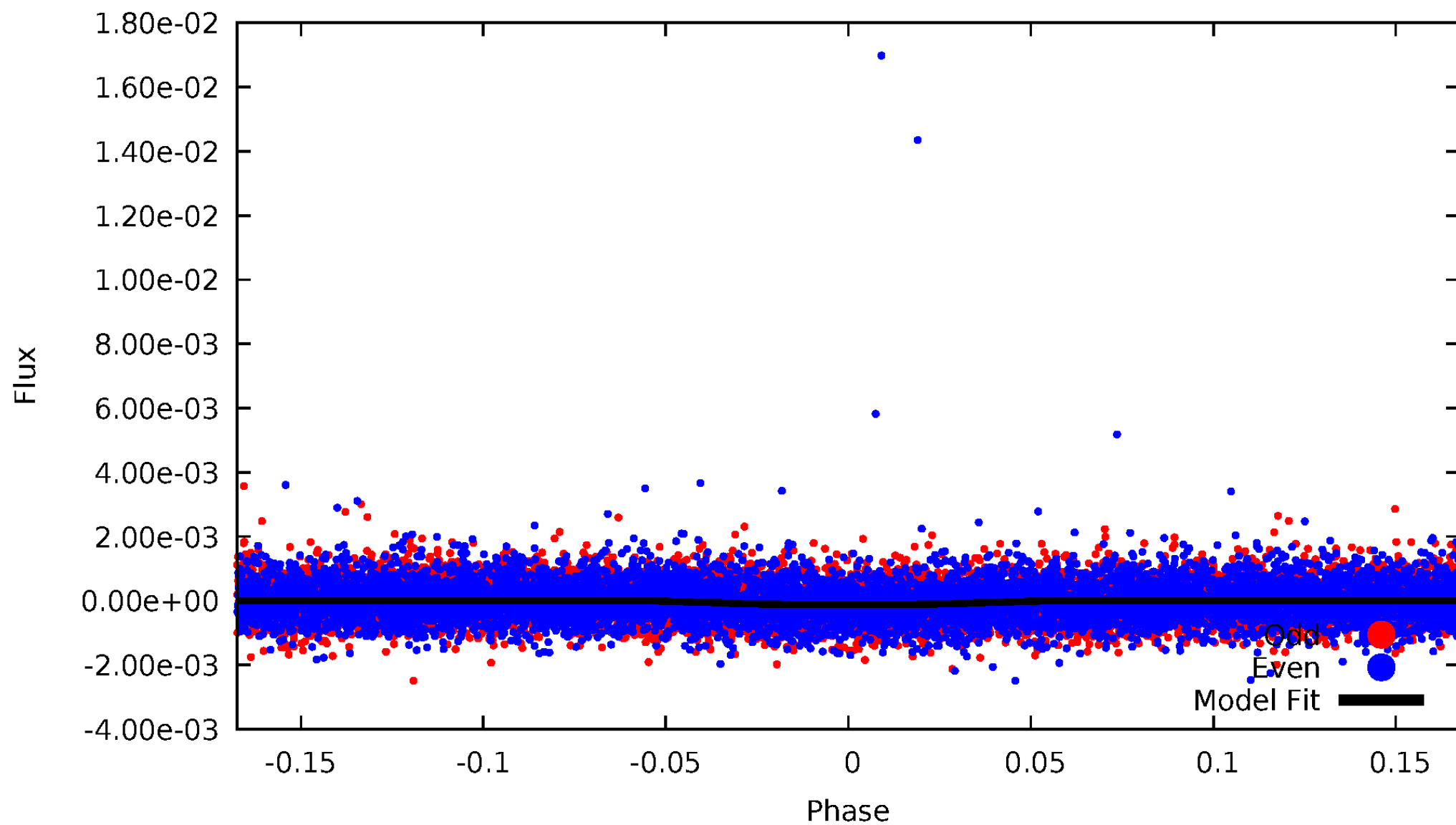


TCE 010585738-01



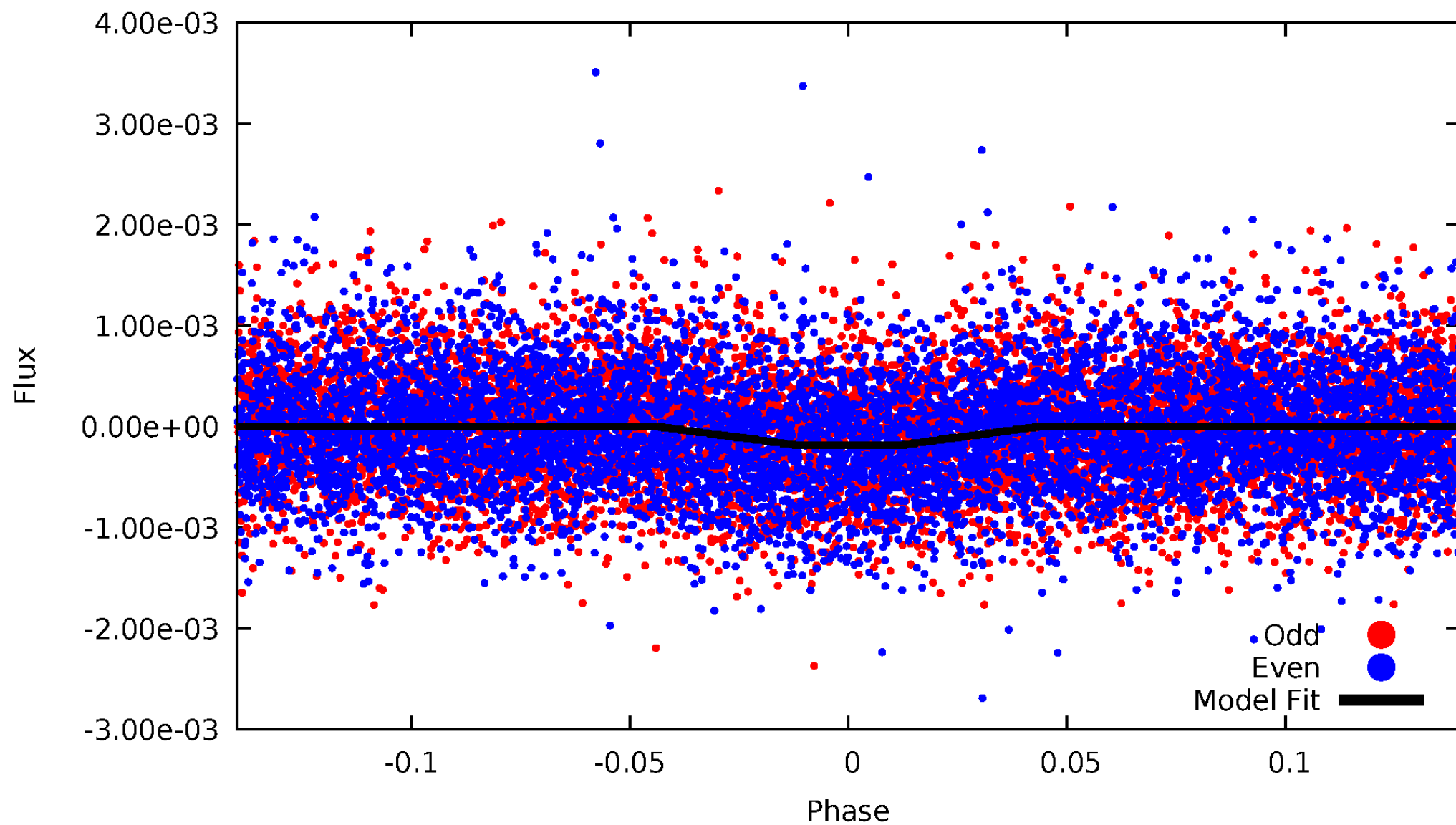
DV Odd/Even

TCE 010585738-01

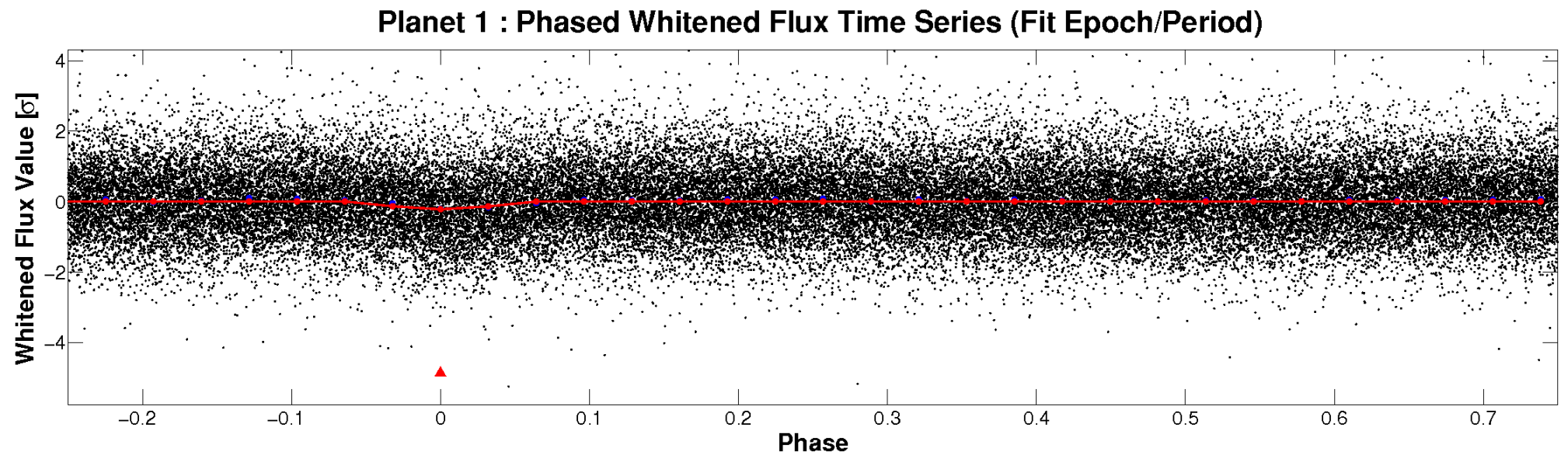
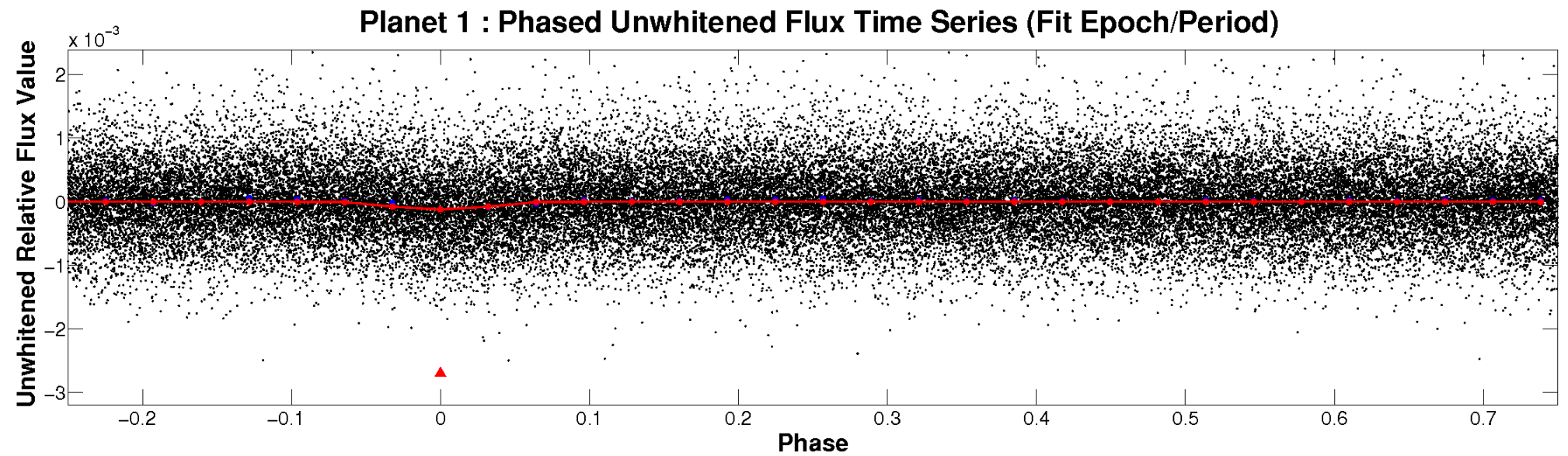


ALT Odd/Even

TCE 010585738-01

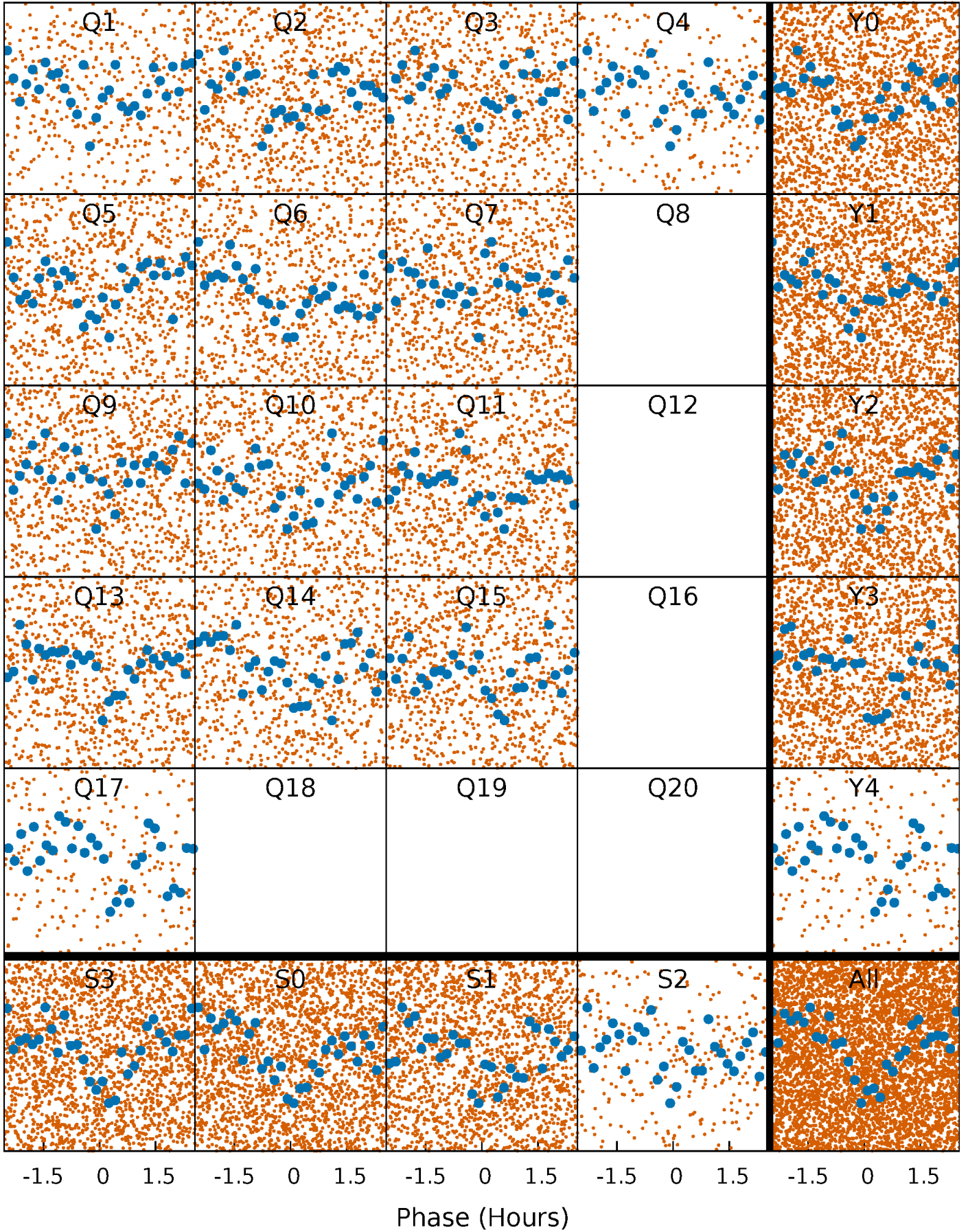


Non-Whitened Vs. Whitened Light Curve



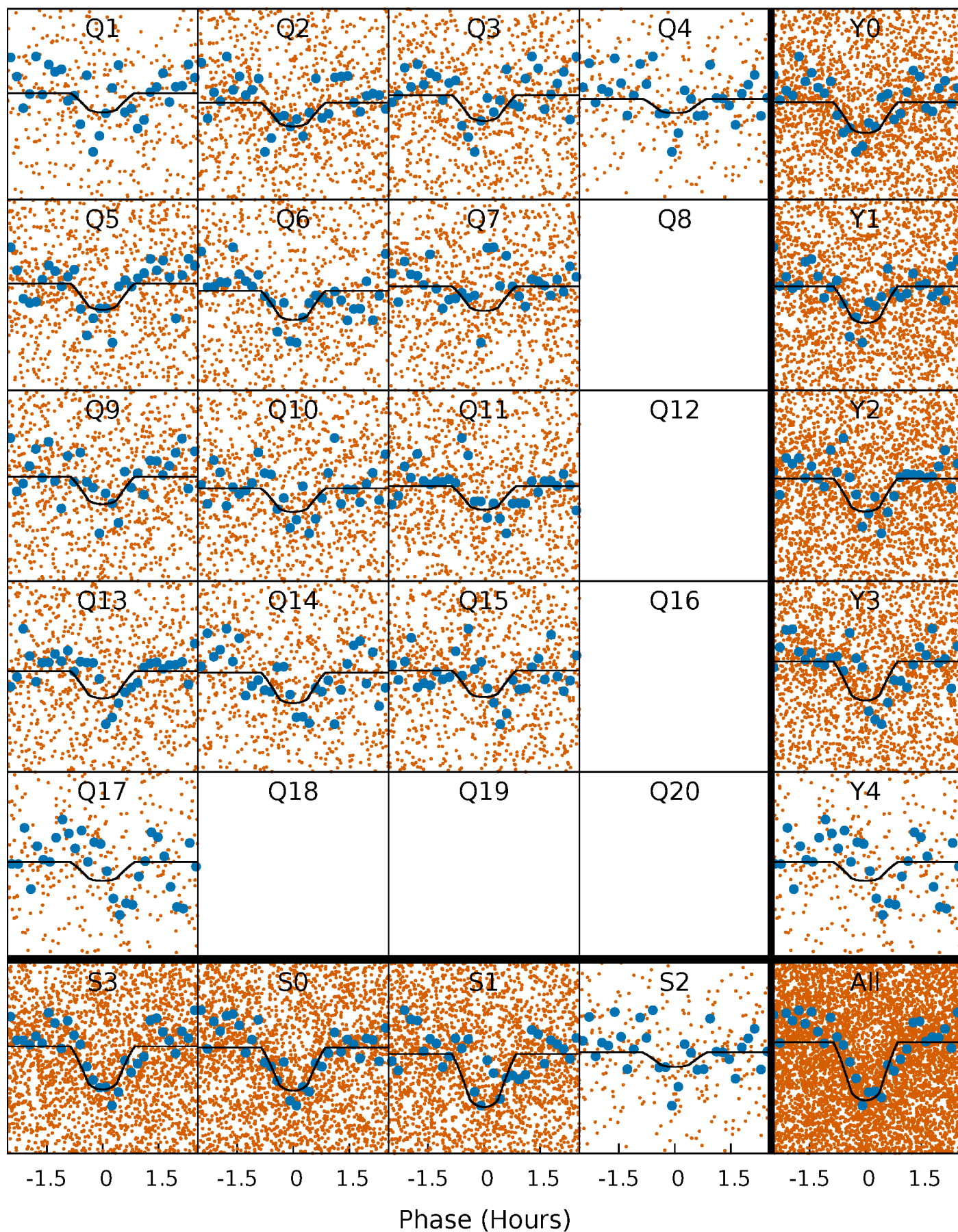
PDC Quarter-Phased Transit Curves

TCE 010585738-01 P= 0.636407 Days $T_0=131.702172$ (BKJD)



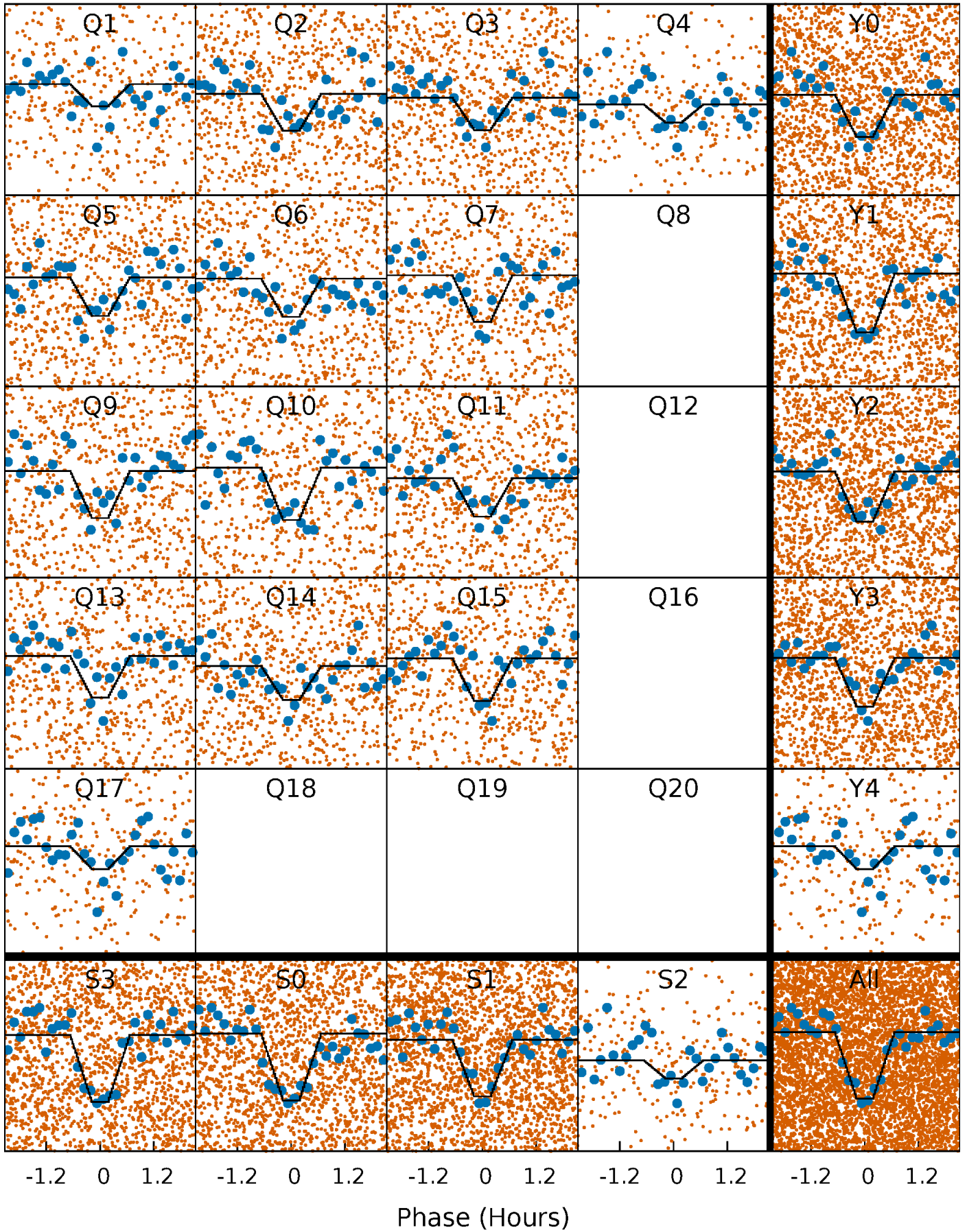
DV Quarter-Phased Transit Curves

TCE 010585738-01 P= 0.636407 Days $T_0=131.702172$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

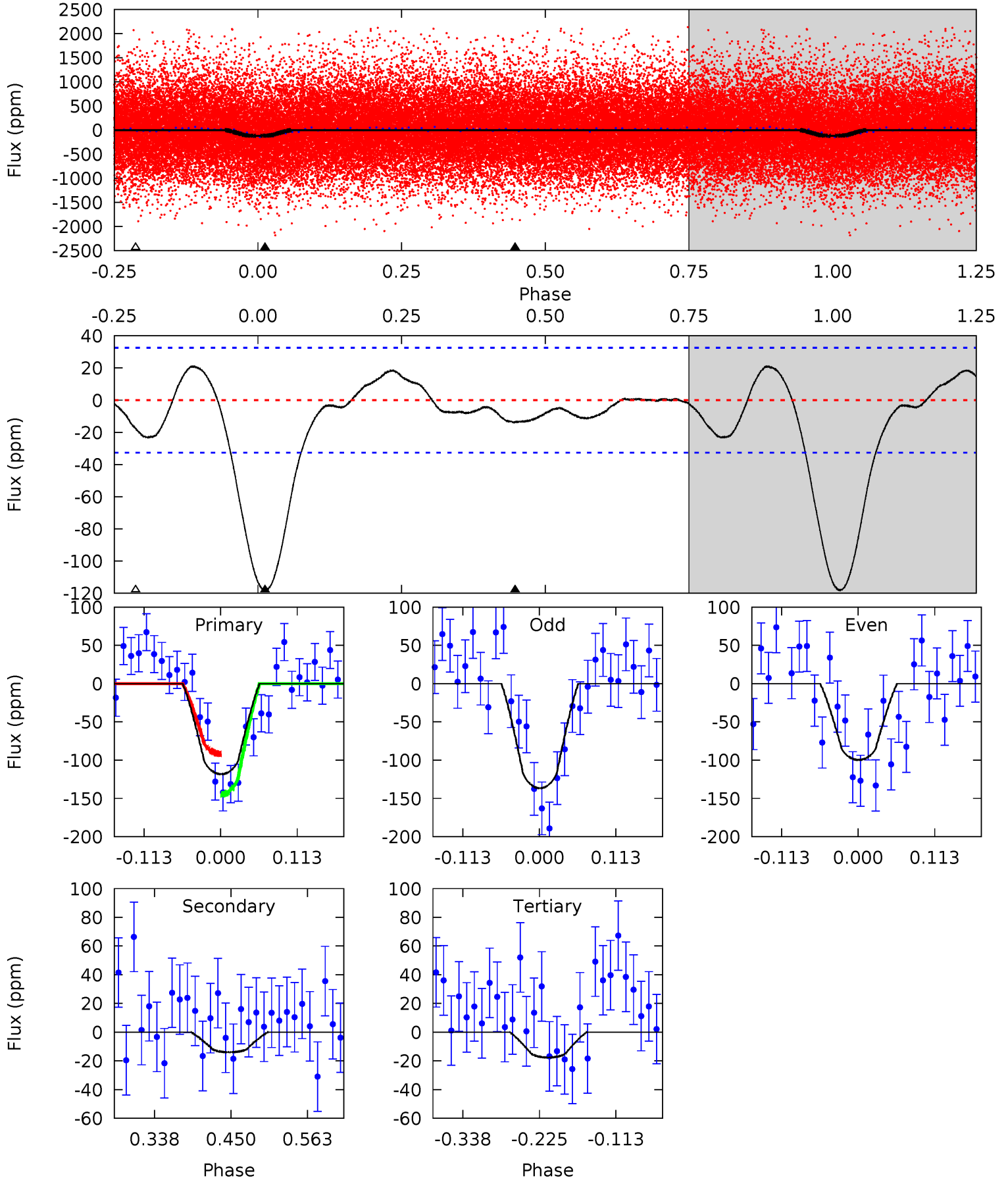
TCE 010585738-01 P= 0.636419 Days $T_0=131.694348$ (BKJD)



DV Model-Shift Uniqueness Test

010585738-01, P = 0.636407 Days, E = 131.065765 Days

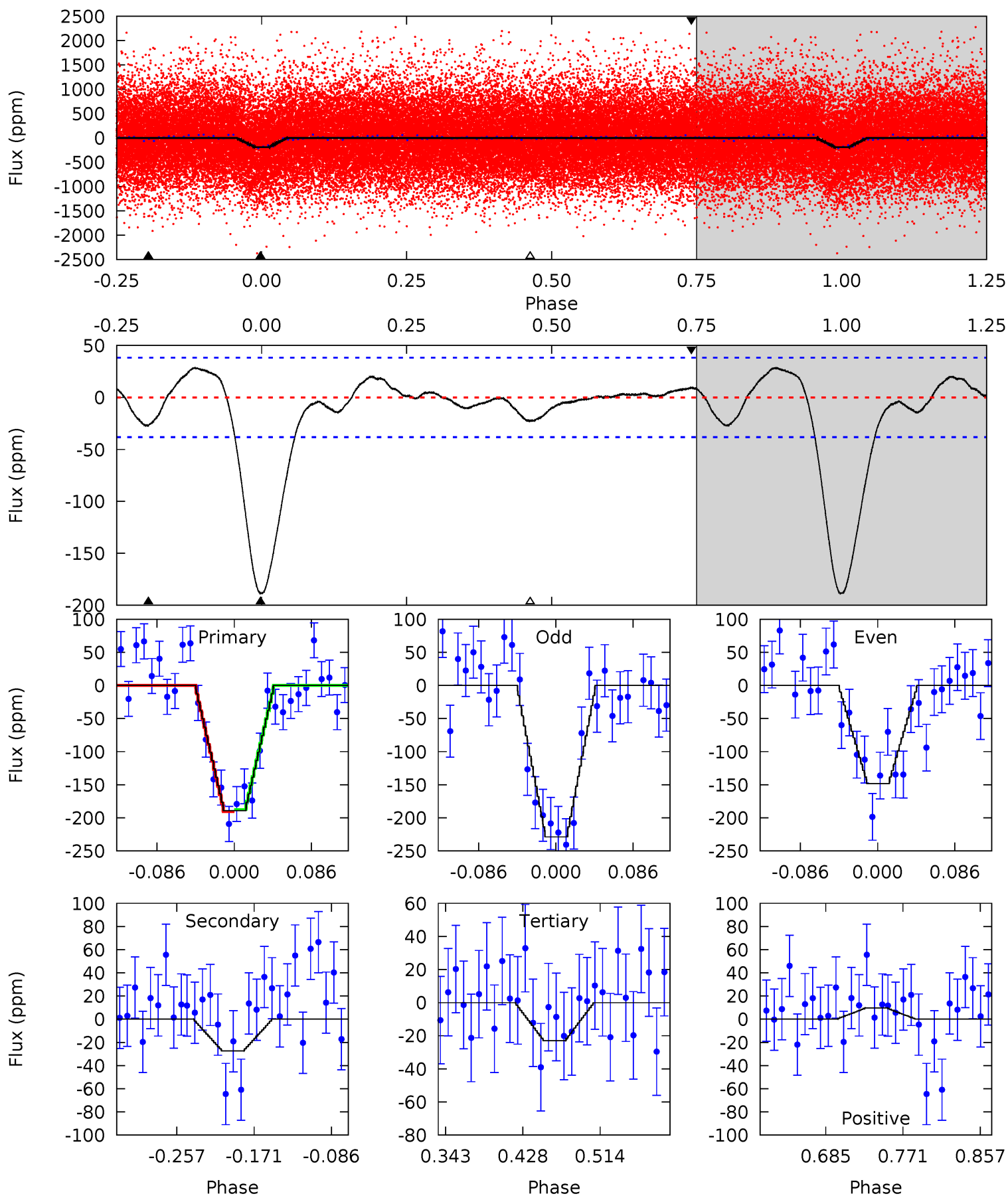
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	1.95	2.46	0	4.54	1.59	1.52	14.0	16.5	-0.51	1.95	2.58	0.81	0.15	3.70



Alt Model-Shift Uniqueness Test

010585738-01, P = 0.636419 Days, E = 131.057929 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	3.30	2.78	1.16	4.60	1.72	1.21	20.0	21.6	0.53	2.14	4.85	1.03	0.13	0.20



Stellar Parameters For KIC 010585738

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5343^{+186}_{-186}	$4.538^{+0.027}_{-0.153}$	$0.440^{+0.050}_{-0.300}$	$0.885^{+0.186}_{-0.062}$	$0.988^{+0.063}_{-0.102}$	$2.005^{+0.360}_{-0.821}$
	+3%/-3%	+1%/-3%	+11%/-68%	+21%/-7%	+6%/-10%	+18%/-41%
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 010585738-01 / KOI 3032.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-14 ± 7	$1.10^{+0.66}_{-0.59}$	2628^{+159}_{-117}	3362^{+1287}_{-954}	$1.170^{+4.828}_{-0.790}$
Alt.	-27 ± 8	$1.37^{+0.66}_{-0.65}$	2623^{+141}_{-106}	3553^{+1030}_{-605}	$1.585^{+4.389}_{-0.897}$

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

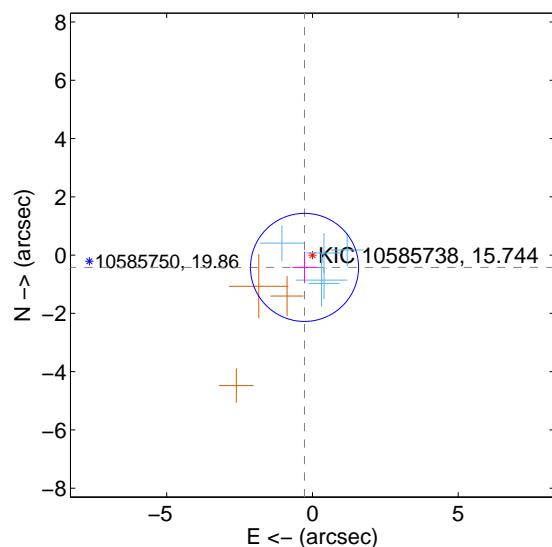
Supplemental centroid analysis for 010585738-01. Kepler magnitude: 15.74. Transit SNR 11.96

There are 5 quarters with good PRF difference image offsets

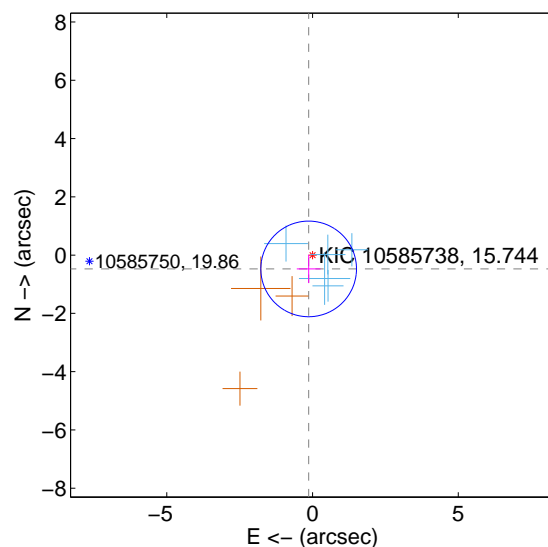
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.502 ± 0.618	0.81	0.272 ± 0.416	-0.422 ± 0.538
PRF-fit source offset from KIC position	0.492 ± 0.547	0.90	0.133 ± 0.407	-0.474 ± 0.487
photometric centroid source offset	2.95 ± 1.32	2.24	-1.15 ± 1.35	2.72 ± 1.32

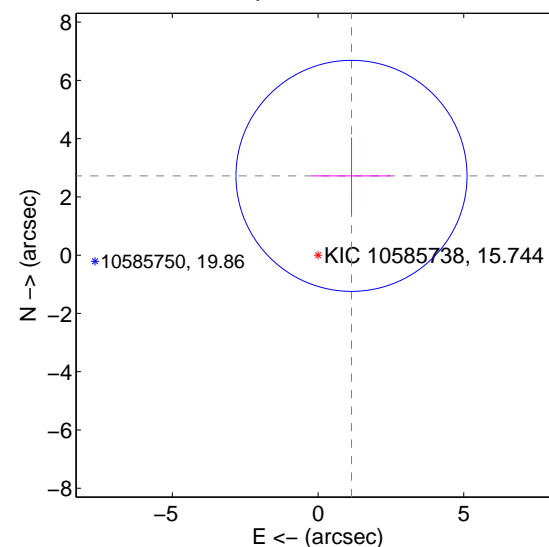
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

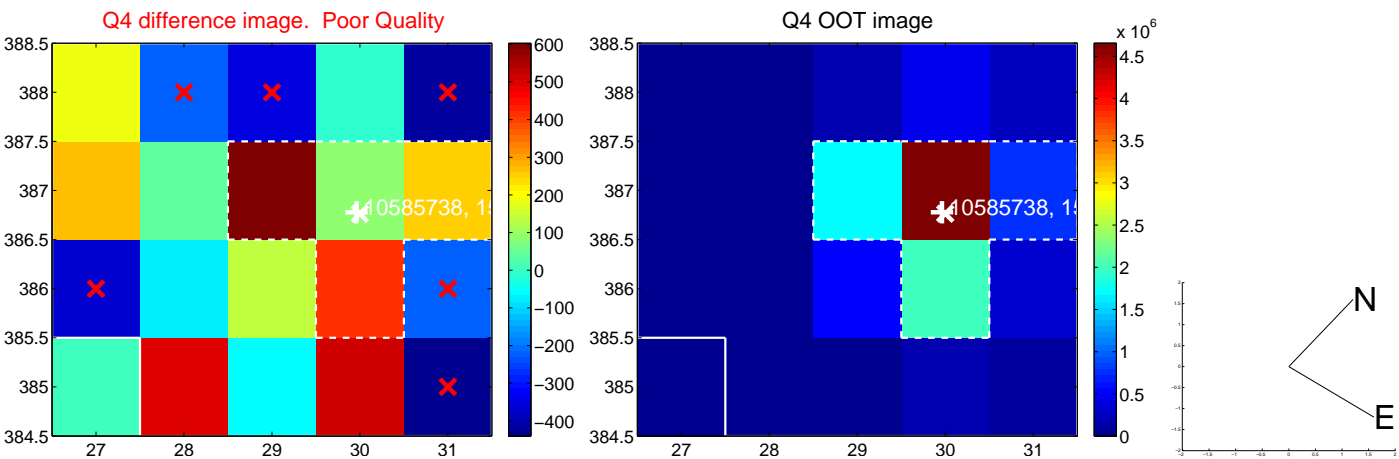
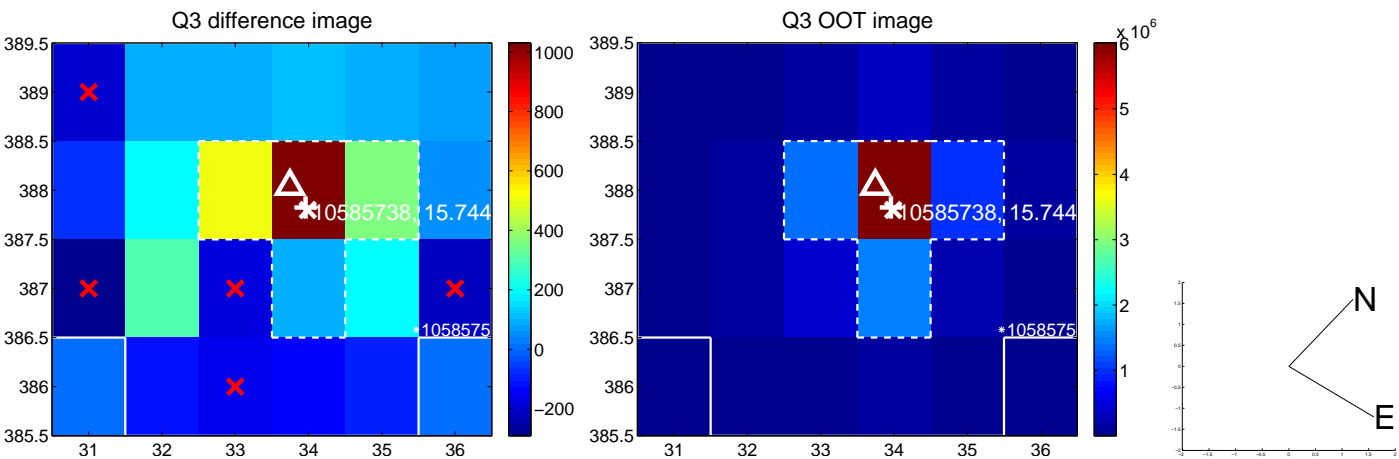
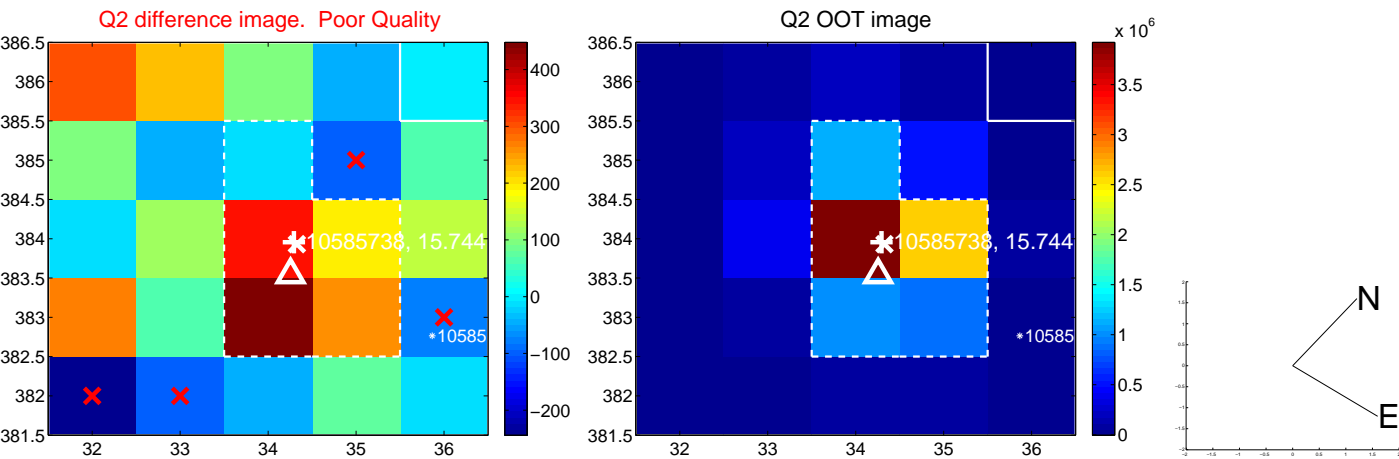
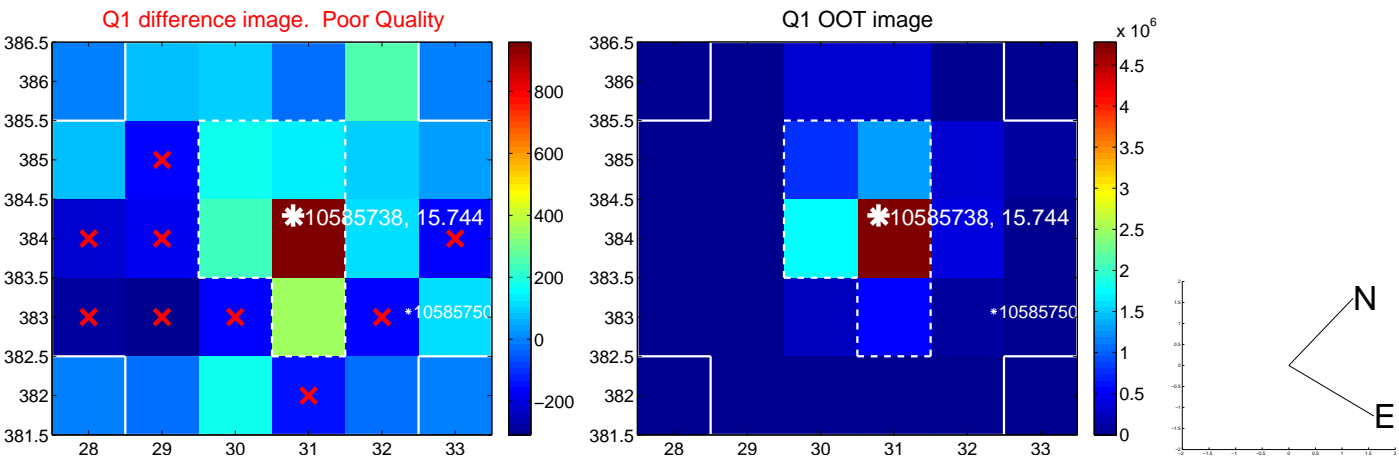


offset from photometric centroids

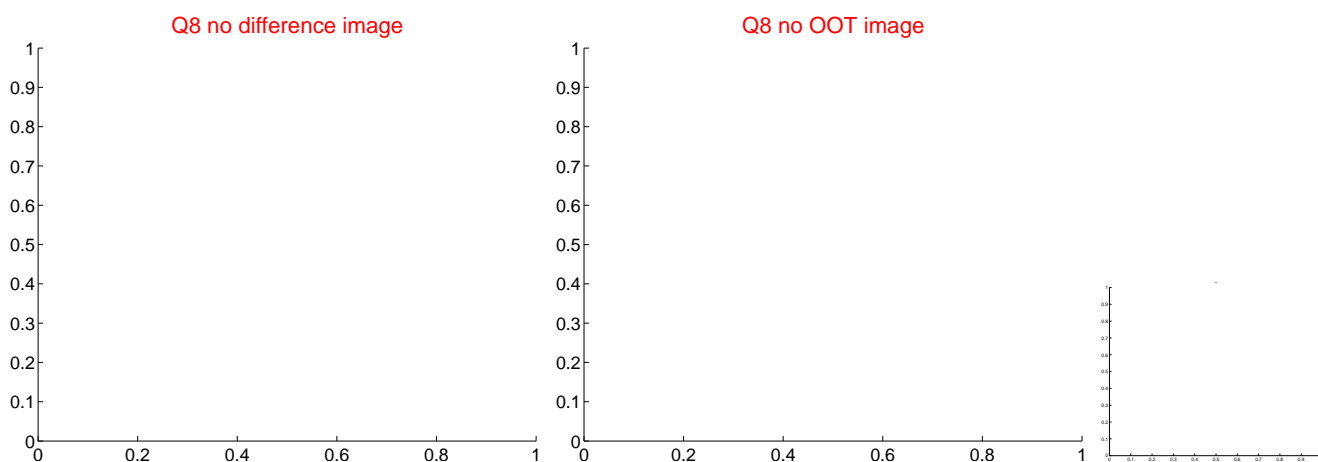
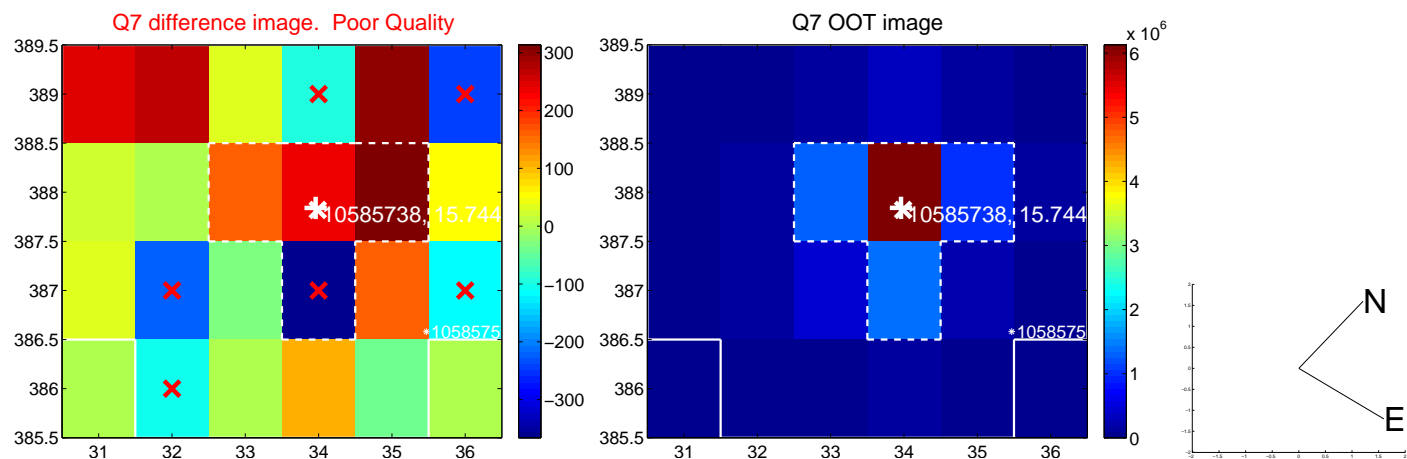
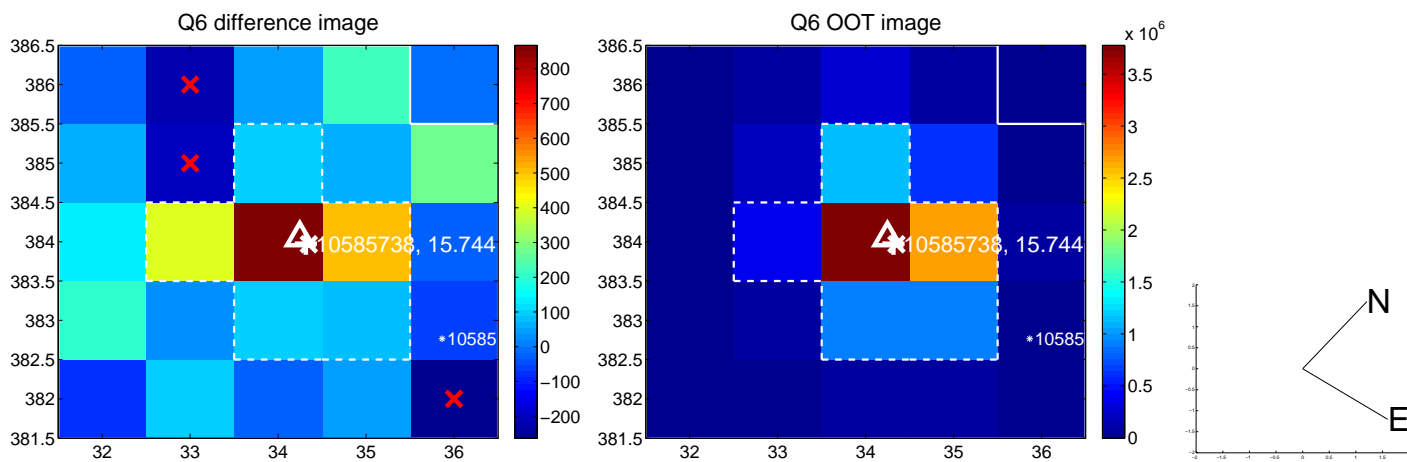
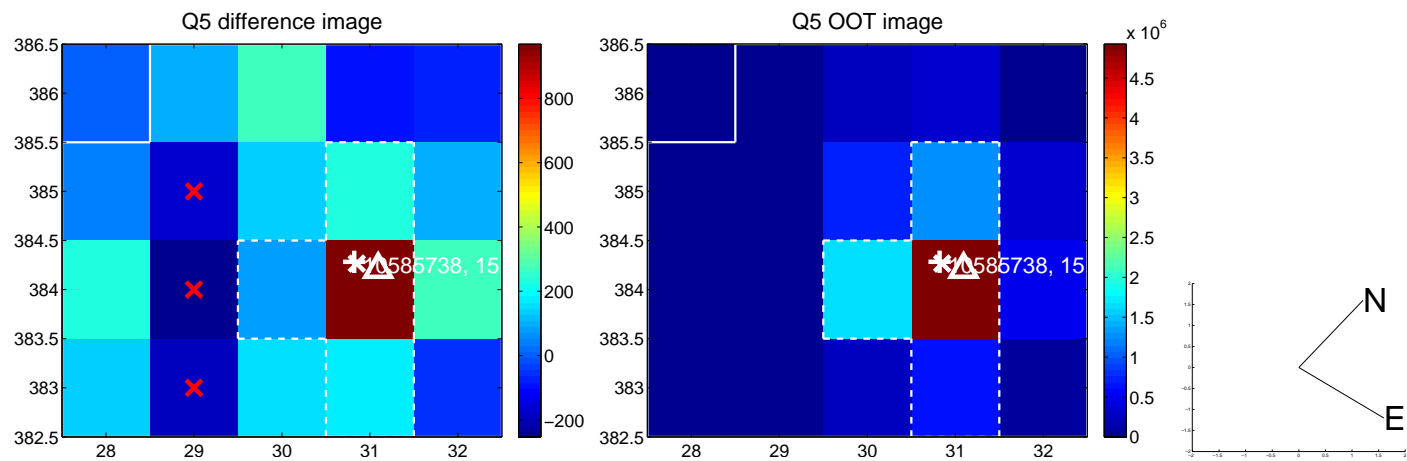


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

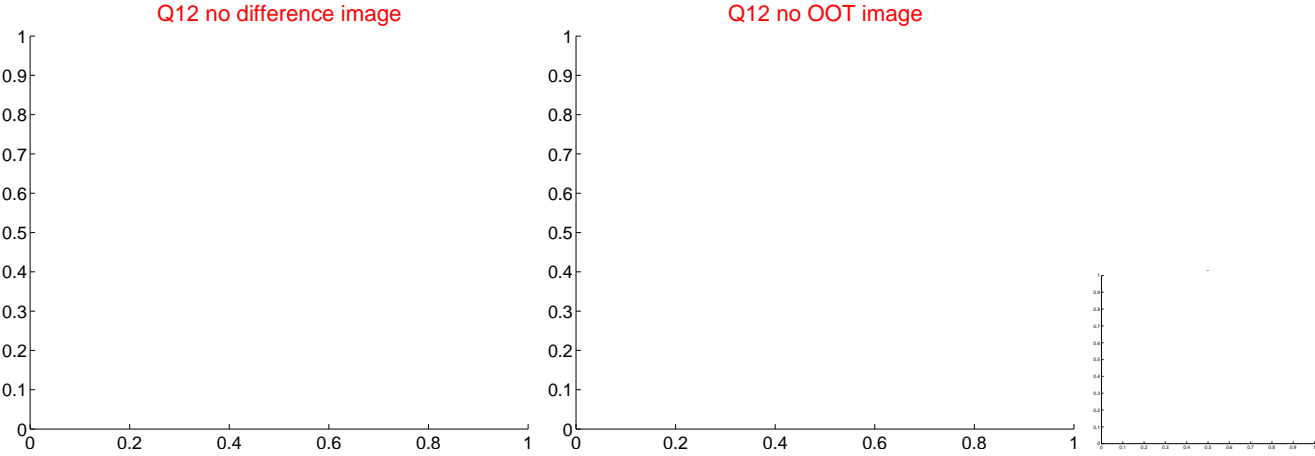
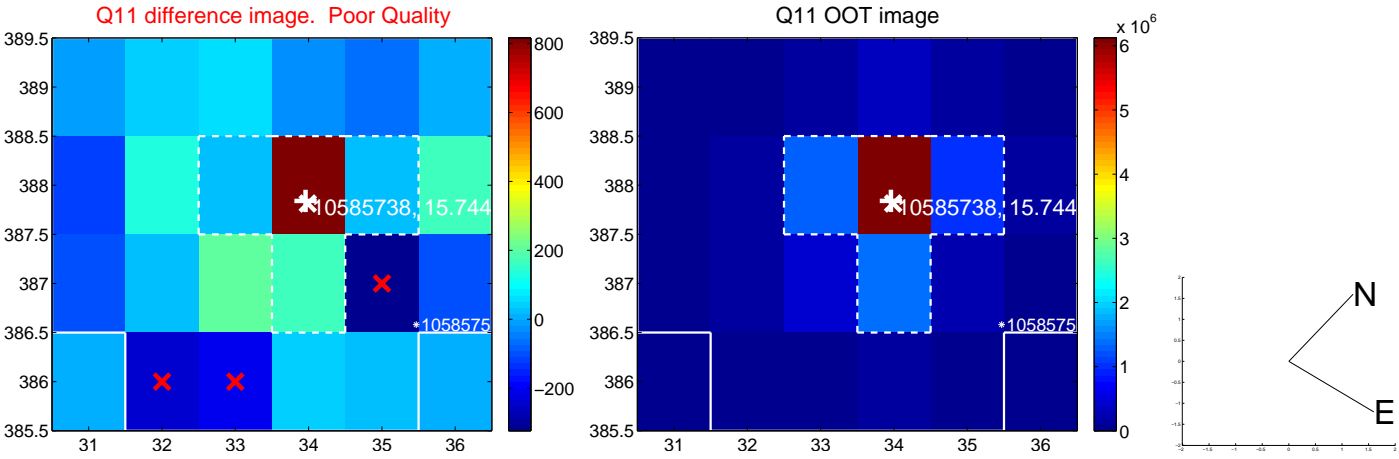
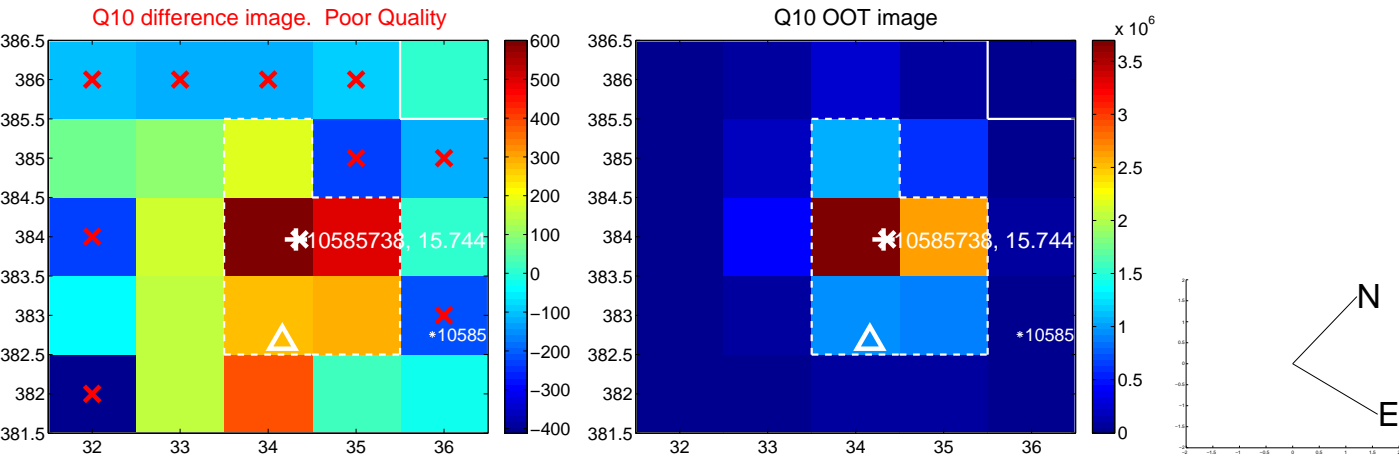
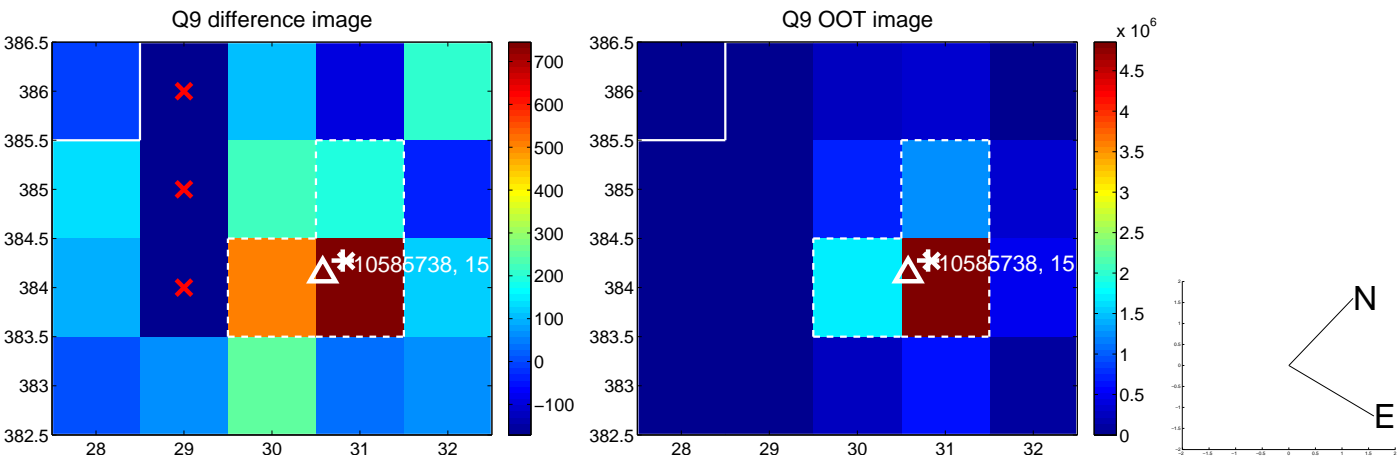
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



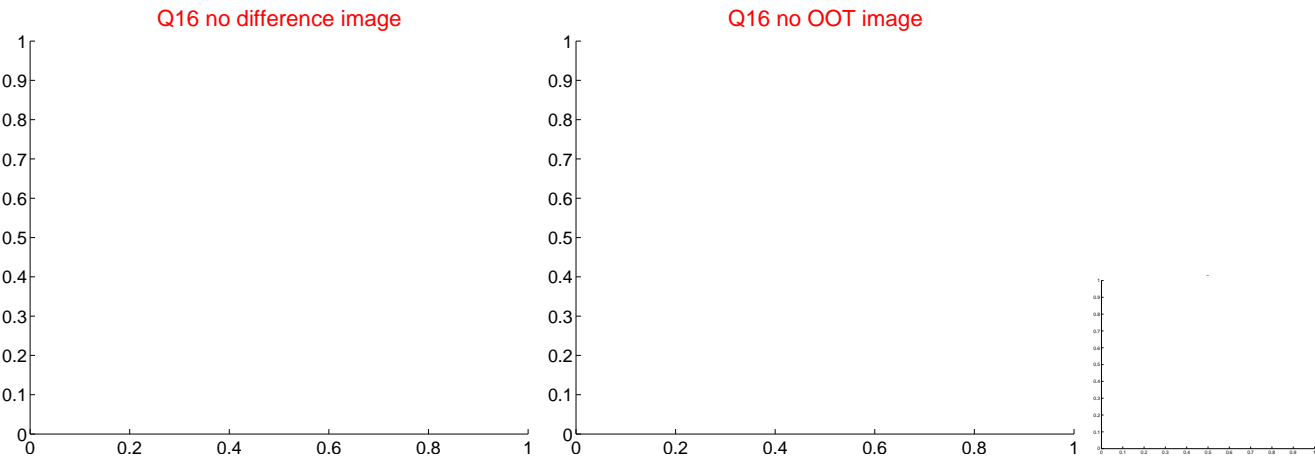
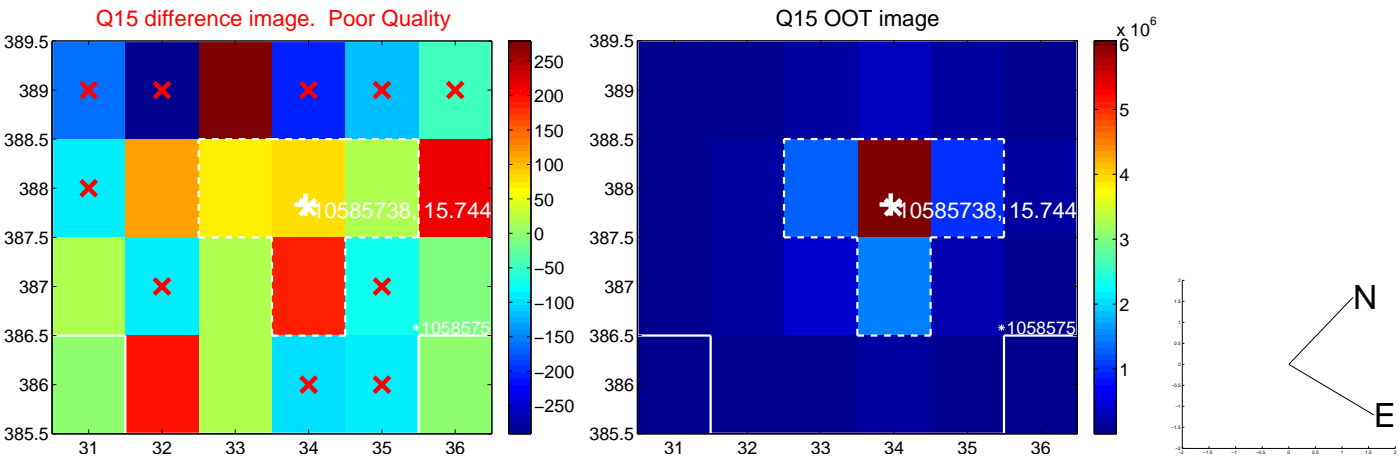
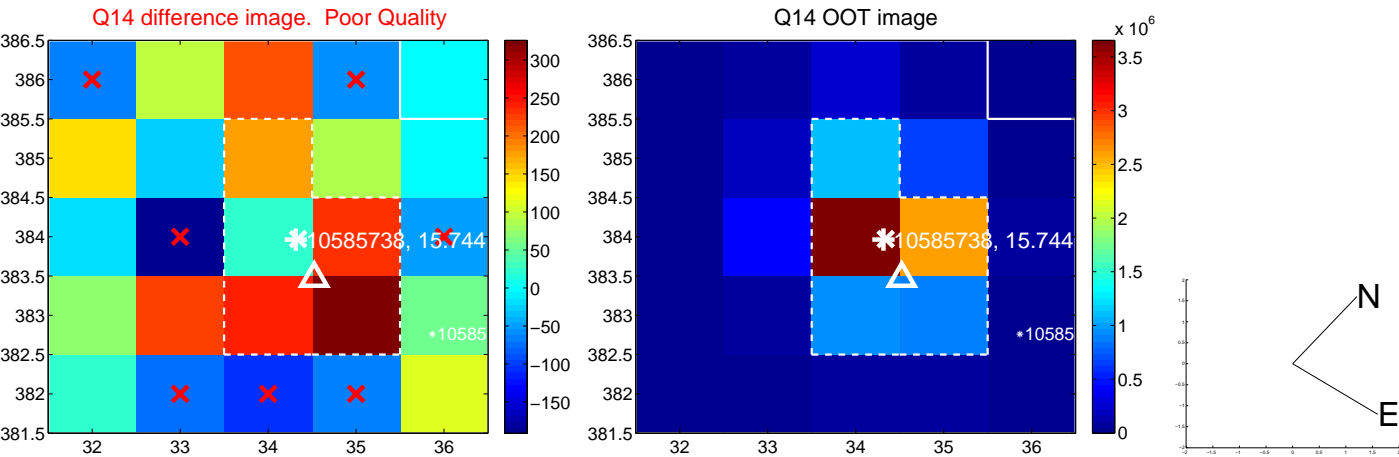
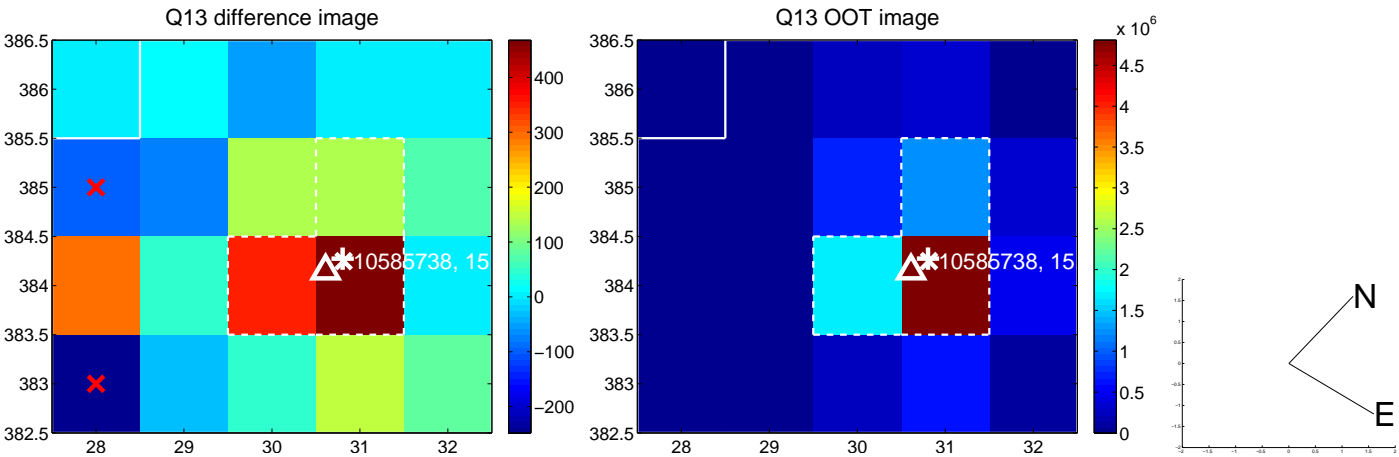
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



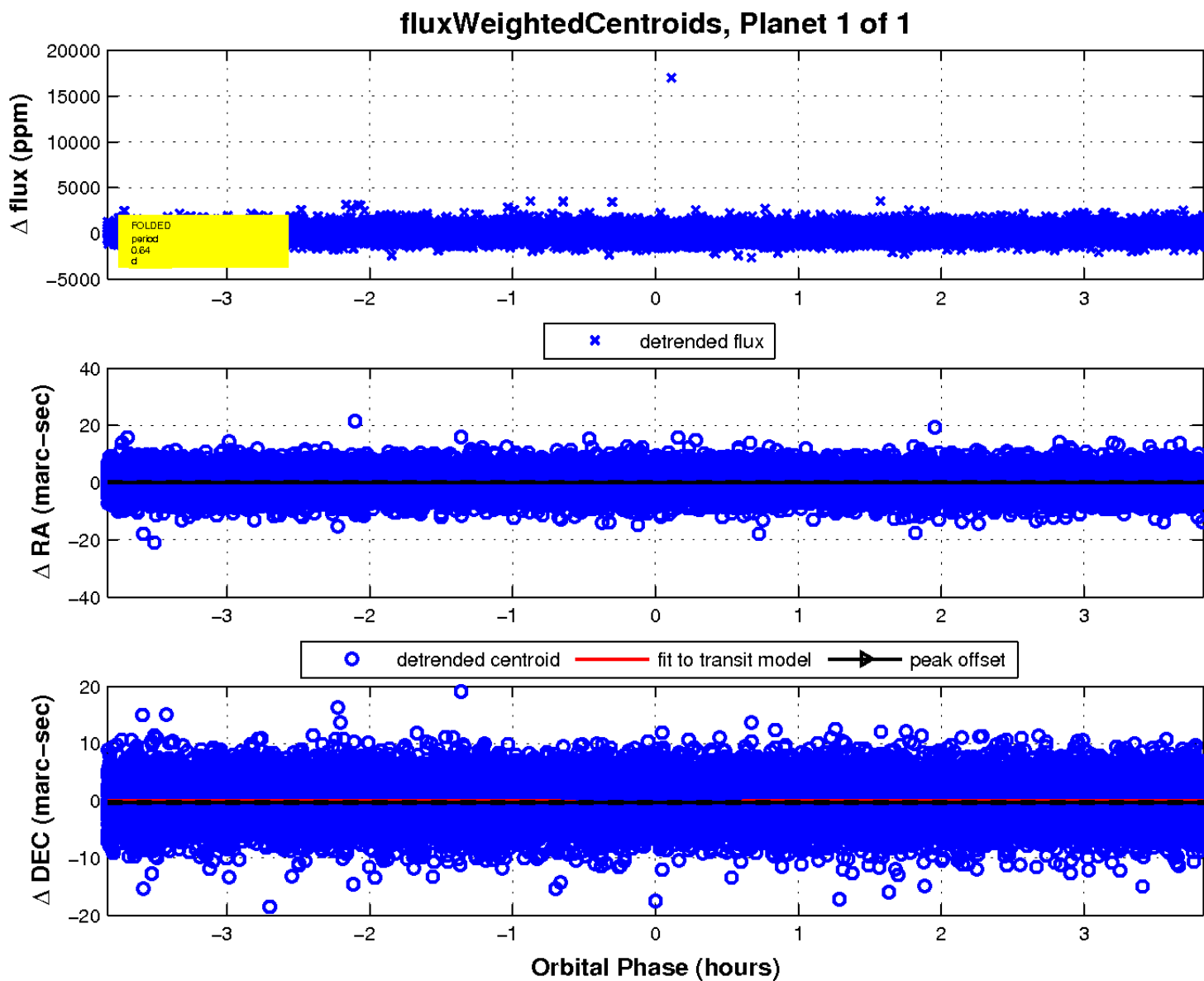
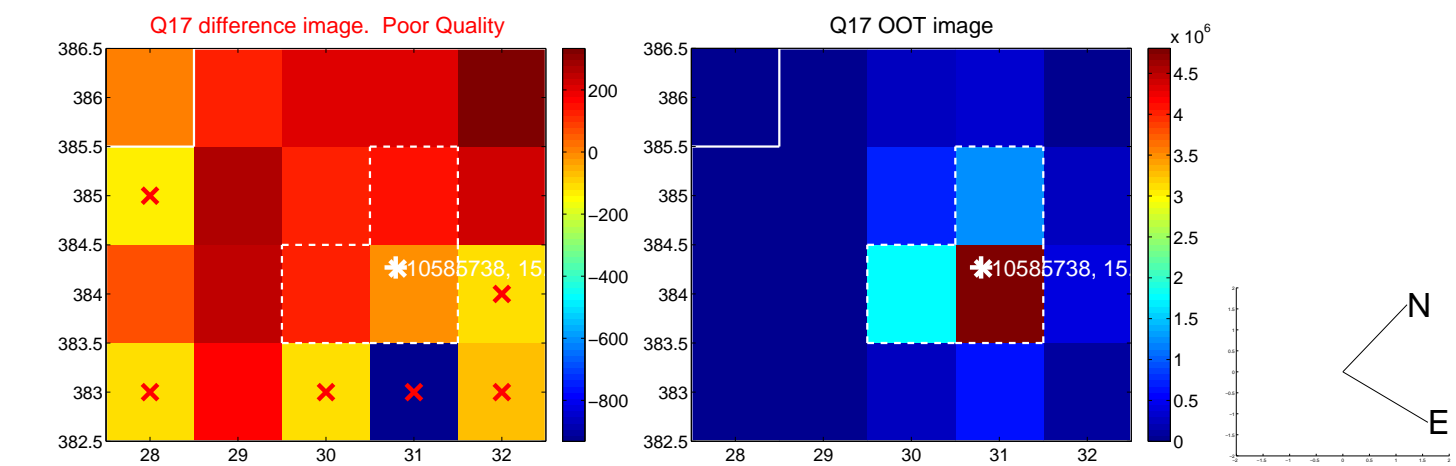
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



UKIRT Image

Declination

