

KIC 007031767

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
007031767-01	OBS	6806.01	0.566782	131.834110	484.1	2.000	9.3	-1.0	0.91	5674	1.98	4374.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007031767-01	OBS	FP	0.00	1	0	1	1	MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST—EPHEM_MATCH

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.

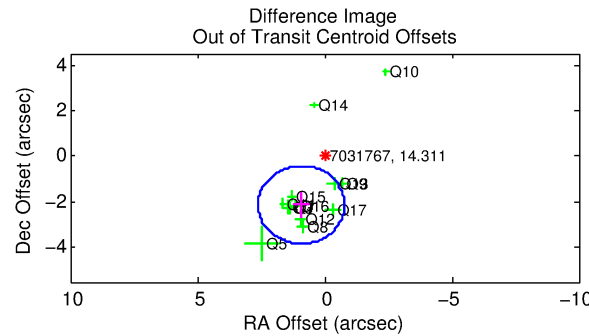
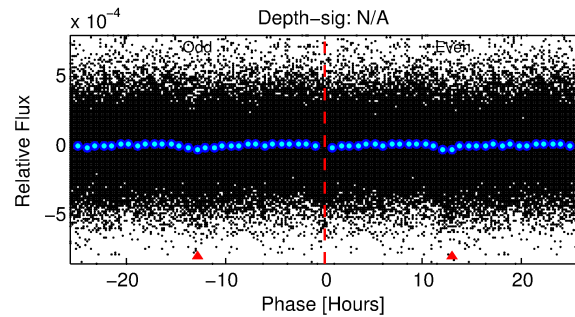
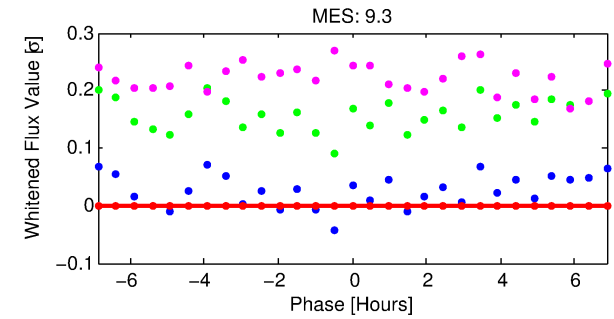
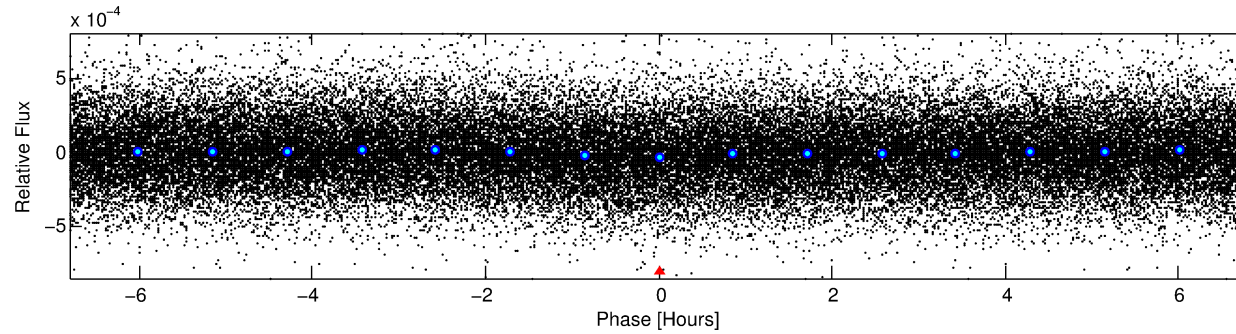
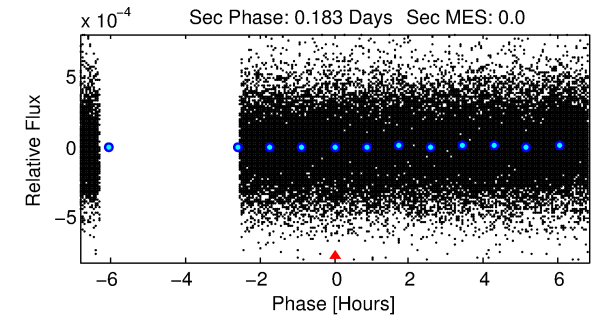
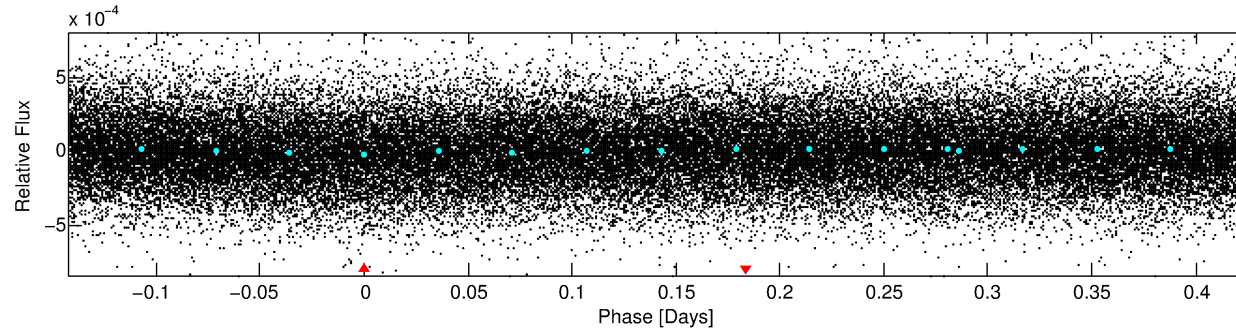
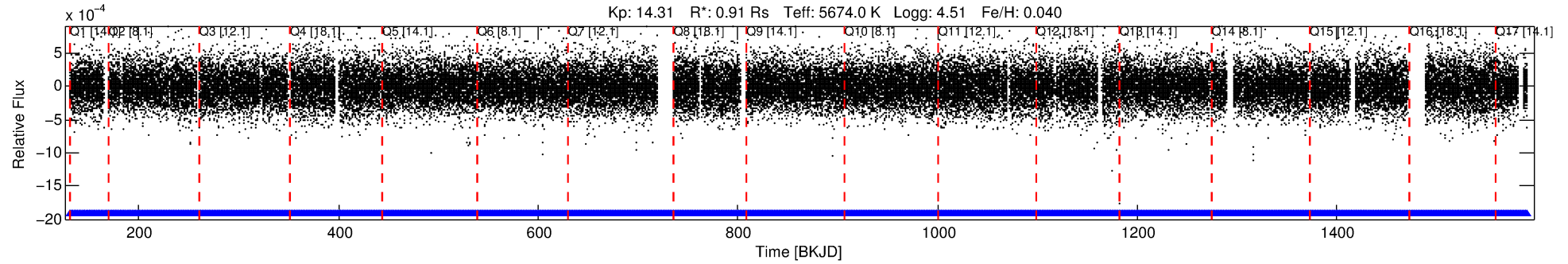
Ephemeris Match Information For 007031767-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
007031767-01	7031767	RR-Lyr-pri	7198959	1:1	1022.9	138	-217	7.86	14.31	1287.80	Direct-PRF	0	3.23	18.15

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7031767 Candidate: 1 of 1 Period: 0.567 d
KOI: K06806.01 Corr: 0.779



TPS TCE Results:

Period = 0.56678 d
Epoch = 131.8341 BKJD

DV fit results are unavailable

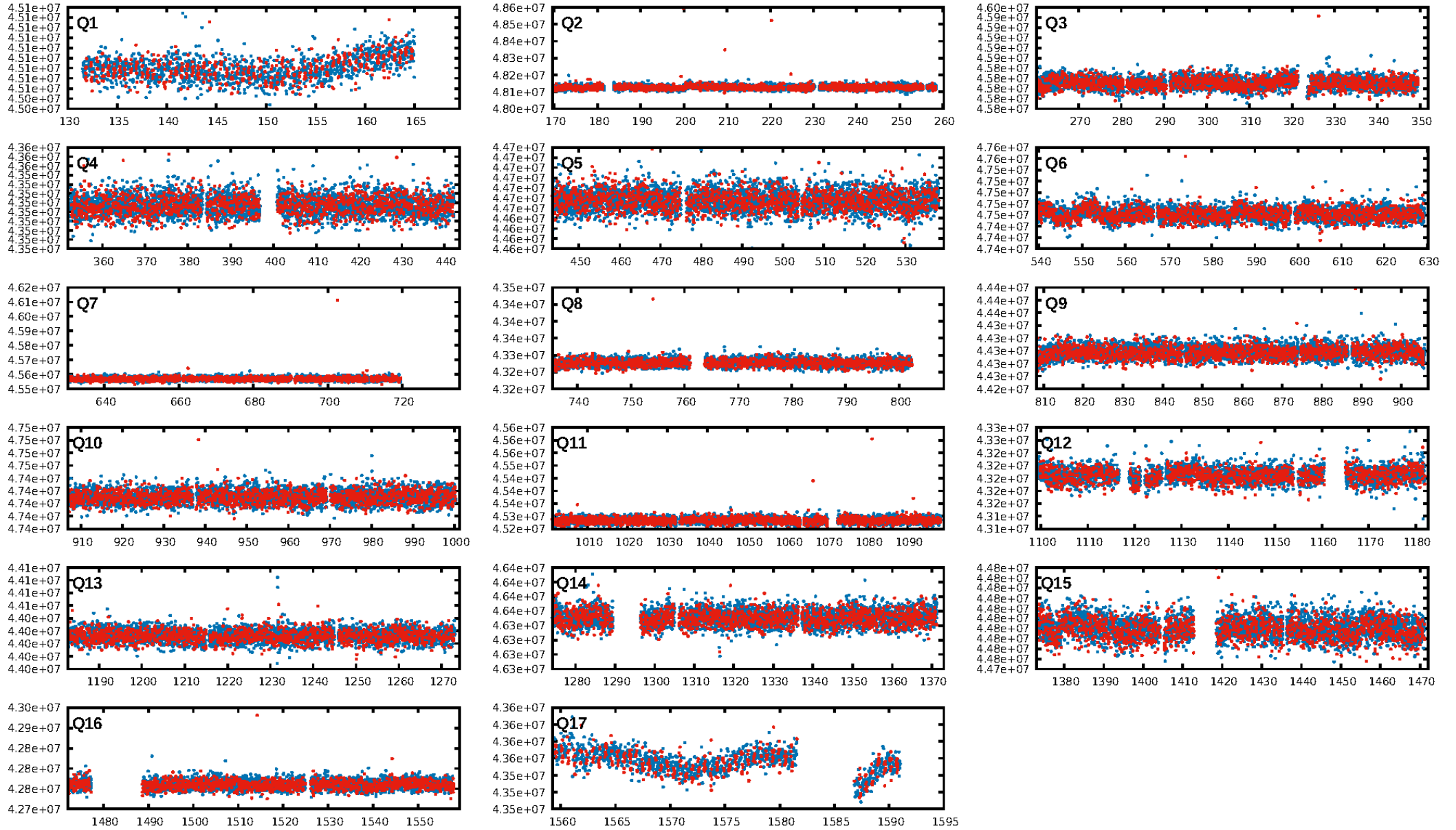
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.27e-20
RollingBand-fgt: 1.00 [2270/2270]
GhostDiagnostic-chr: 0.09471
Centroid-sig: 2.1%
Centroid-so: 1.663 arcsec [1.74σ]
OotOffset-rm: 2.315 arcsec [4.08σ]
KicOffset-rm: 2.249 arcsec [3.61σ]
OotOffset-st: 2/4/3/4 [13]
KicOffset-st: 2/4/3/4 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 1.00 [17/17]

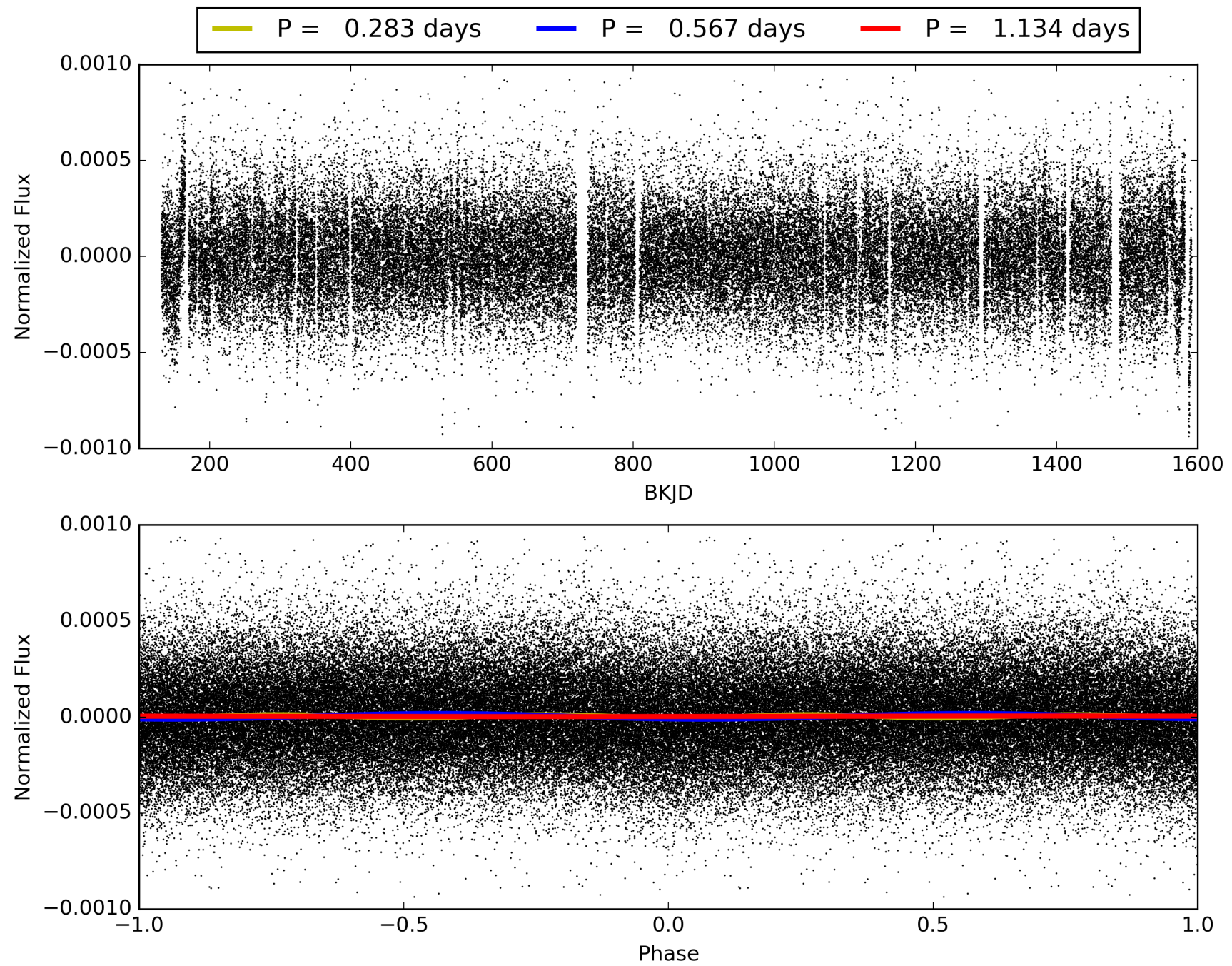
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:05:35 Z

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

TCE 007031767-01, PDC Light Curves

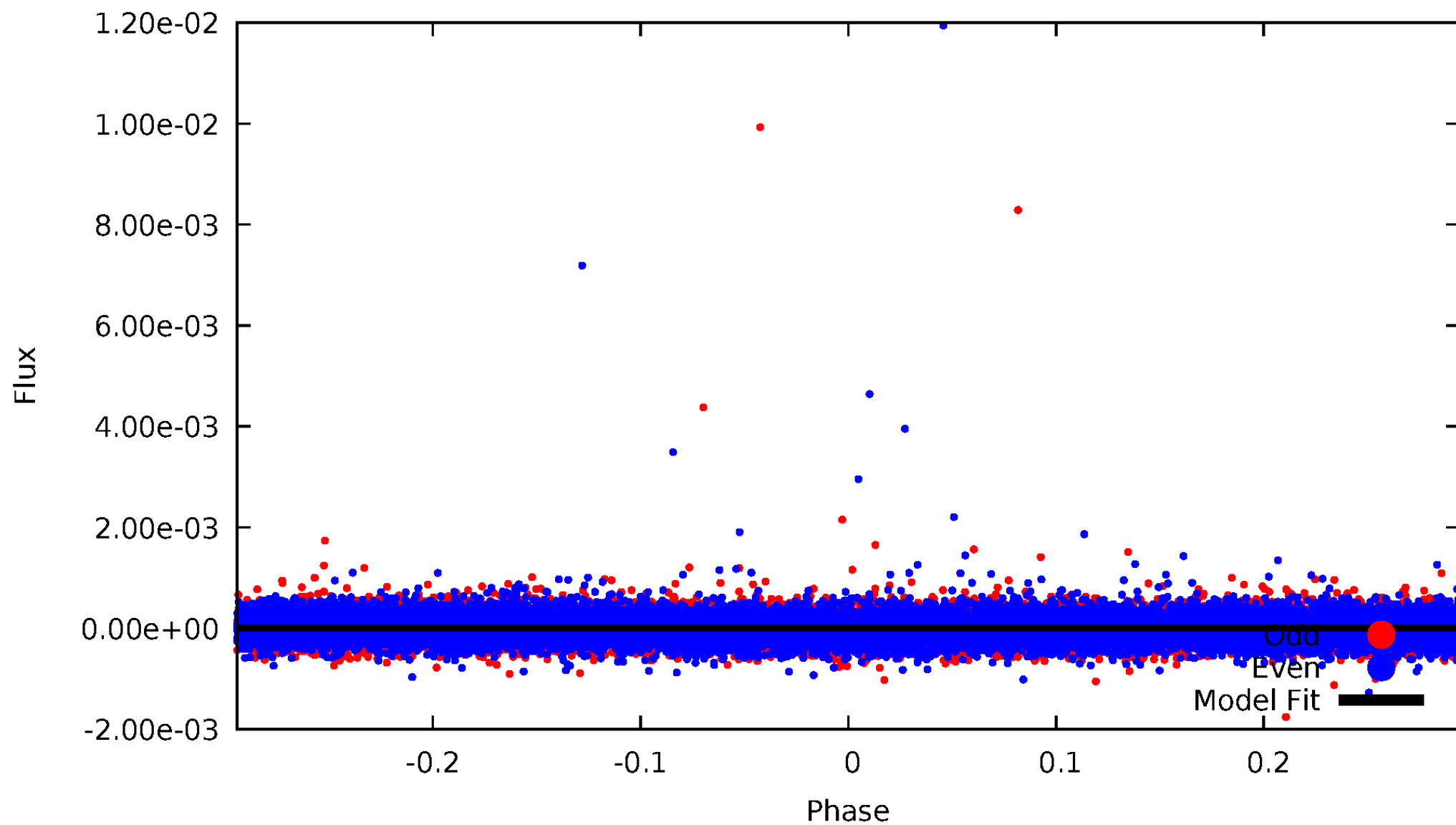


TCE 007031767-01



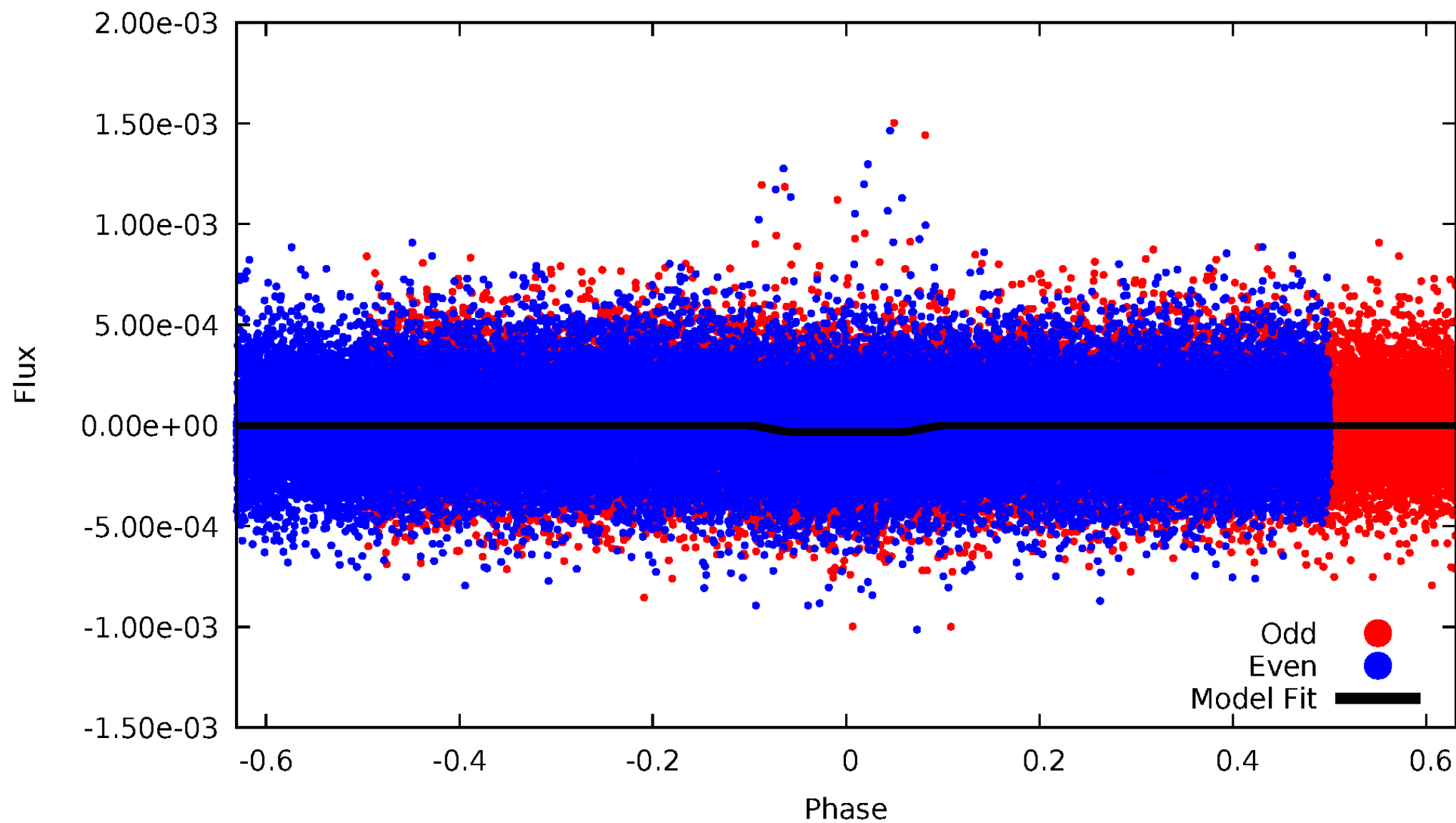
DV Odd/Even

TCE 007031767-01

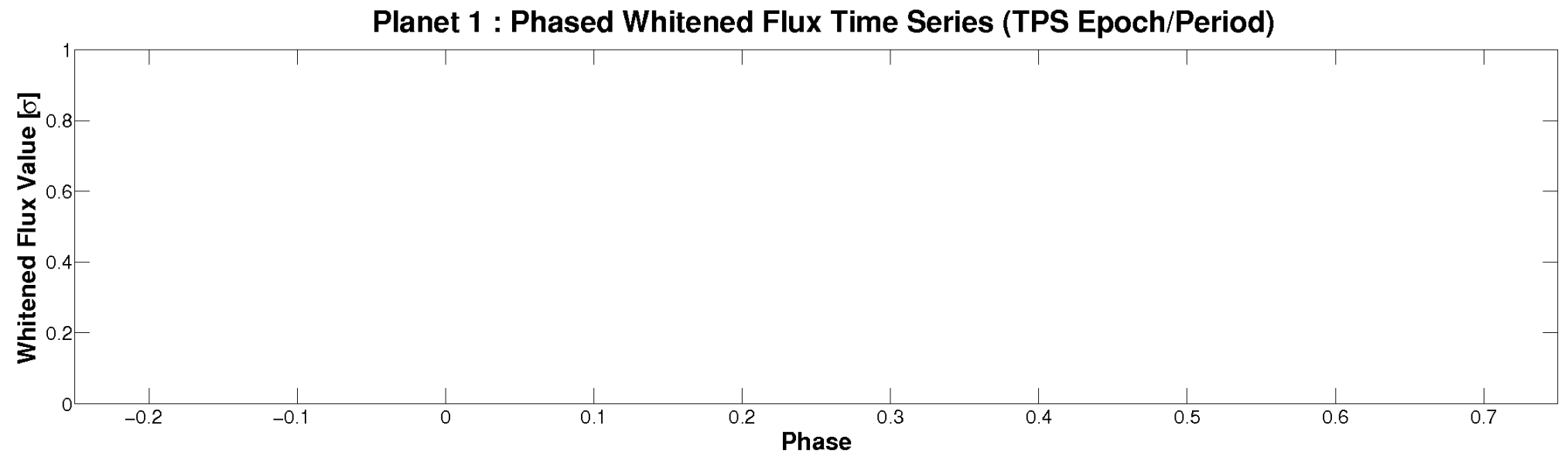
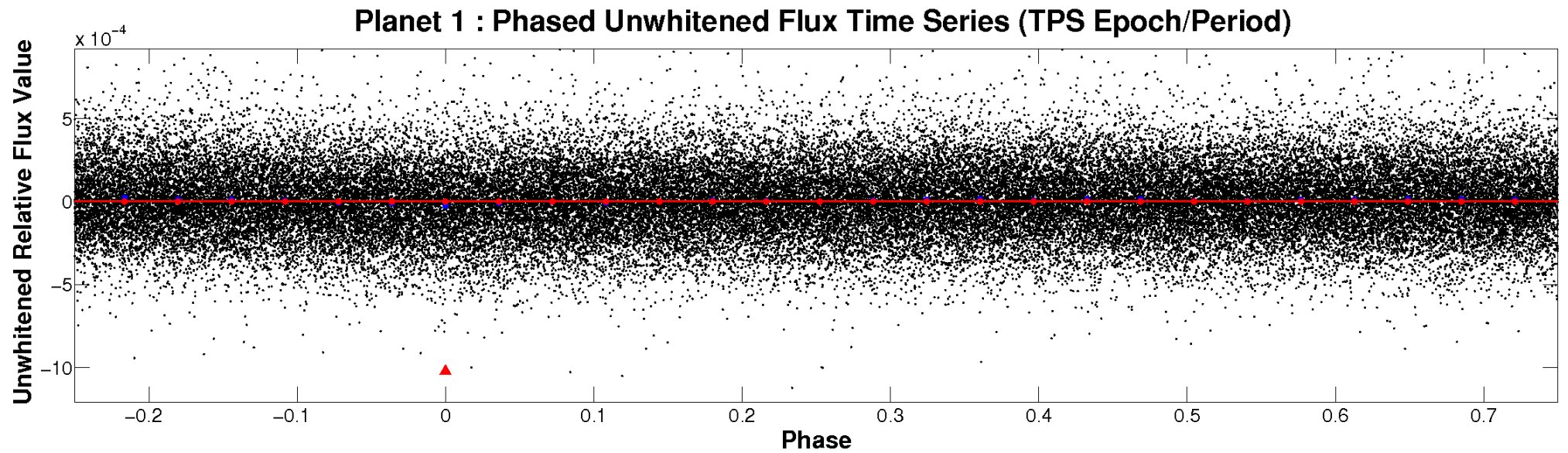


ALT Odd/Even

TCE 007031767-01

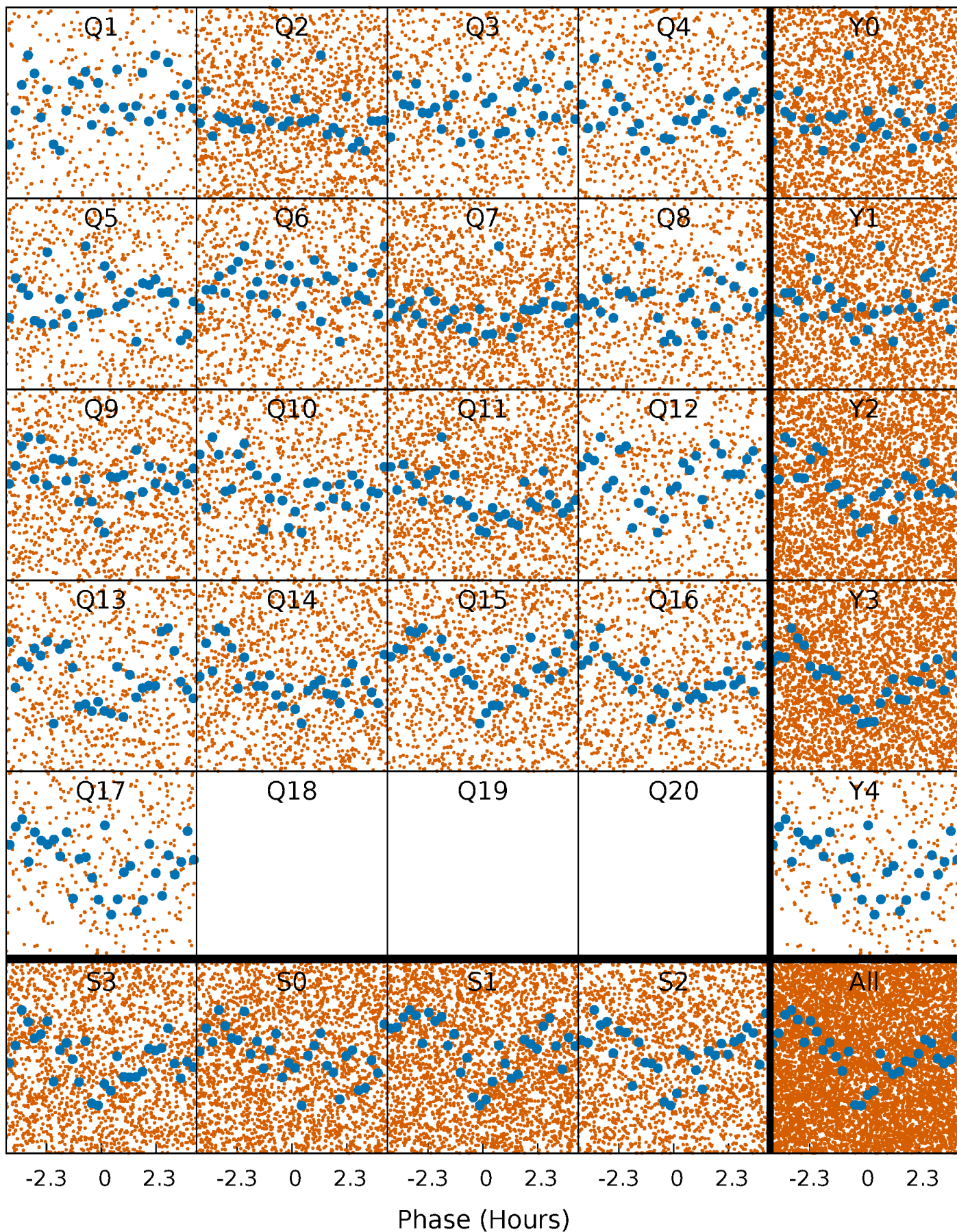


Non-Whitened Vs. Whitened Light Curve



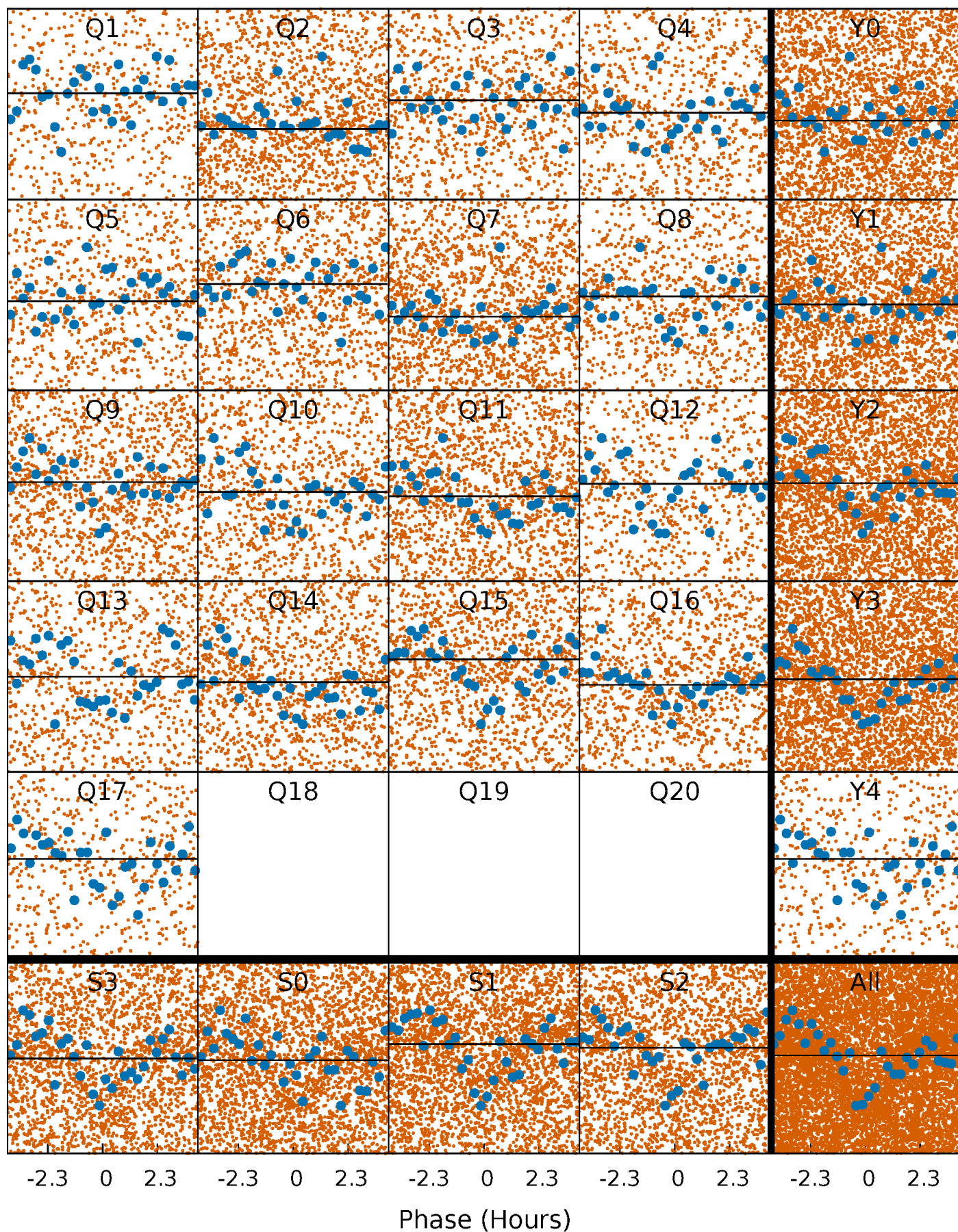
PDC Quarter-Phased Transit Curves

TCE 007031767-01 P= 0.566782 Days $T_0=131.834111$ (BKJD)



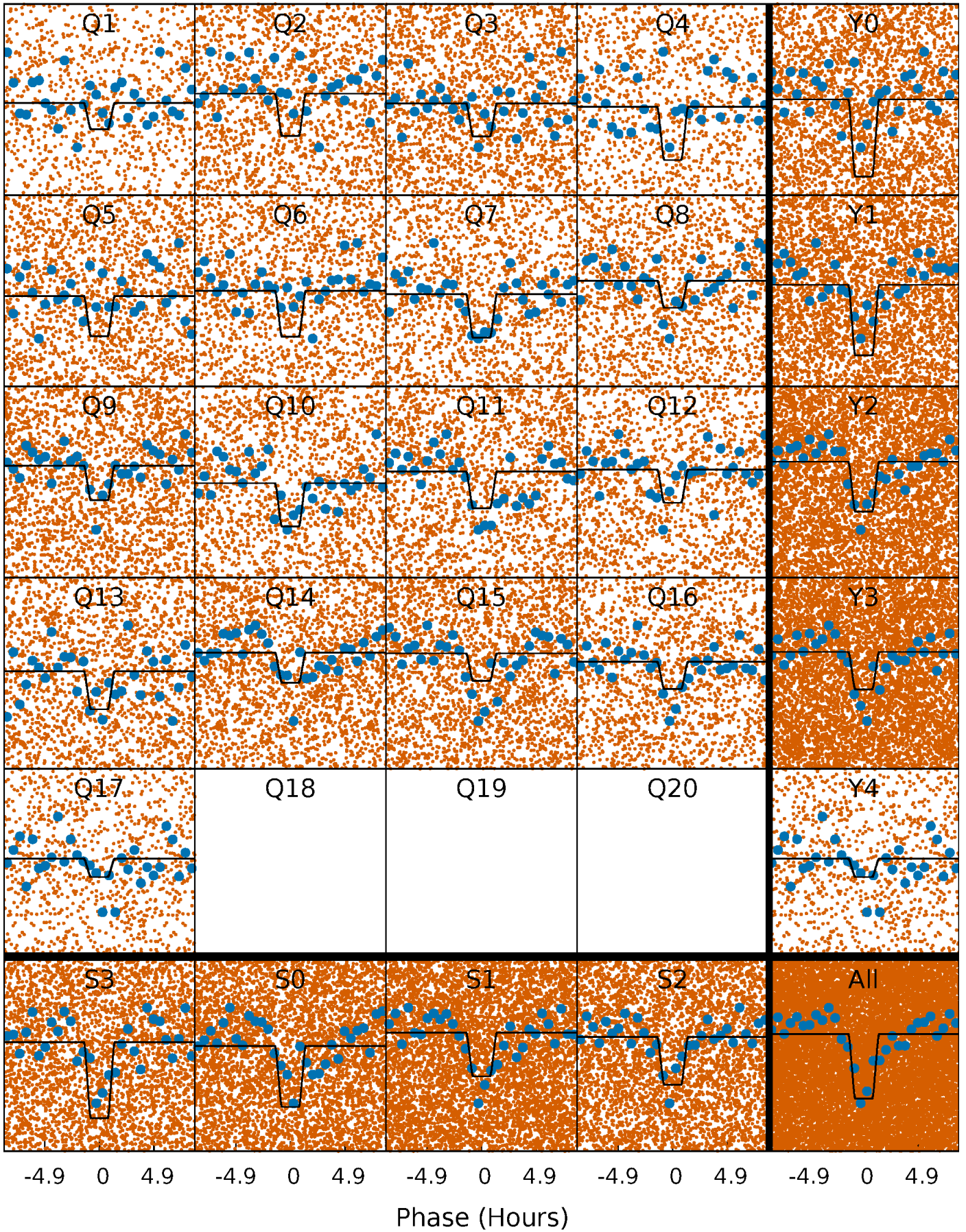
DV Quarter-Phased Transit Curves

TCE 007031767-01 P= 0.566782 Days $T_0=131.834111$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

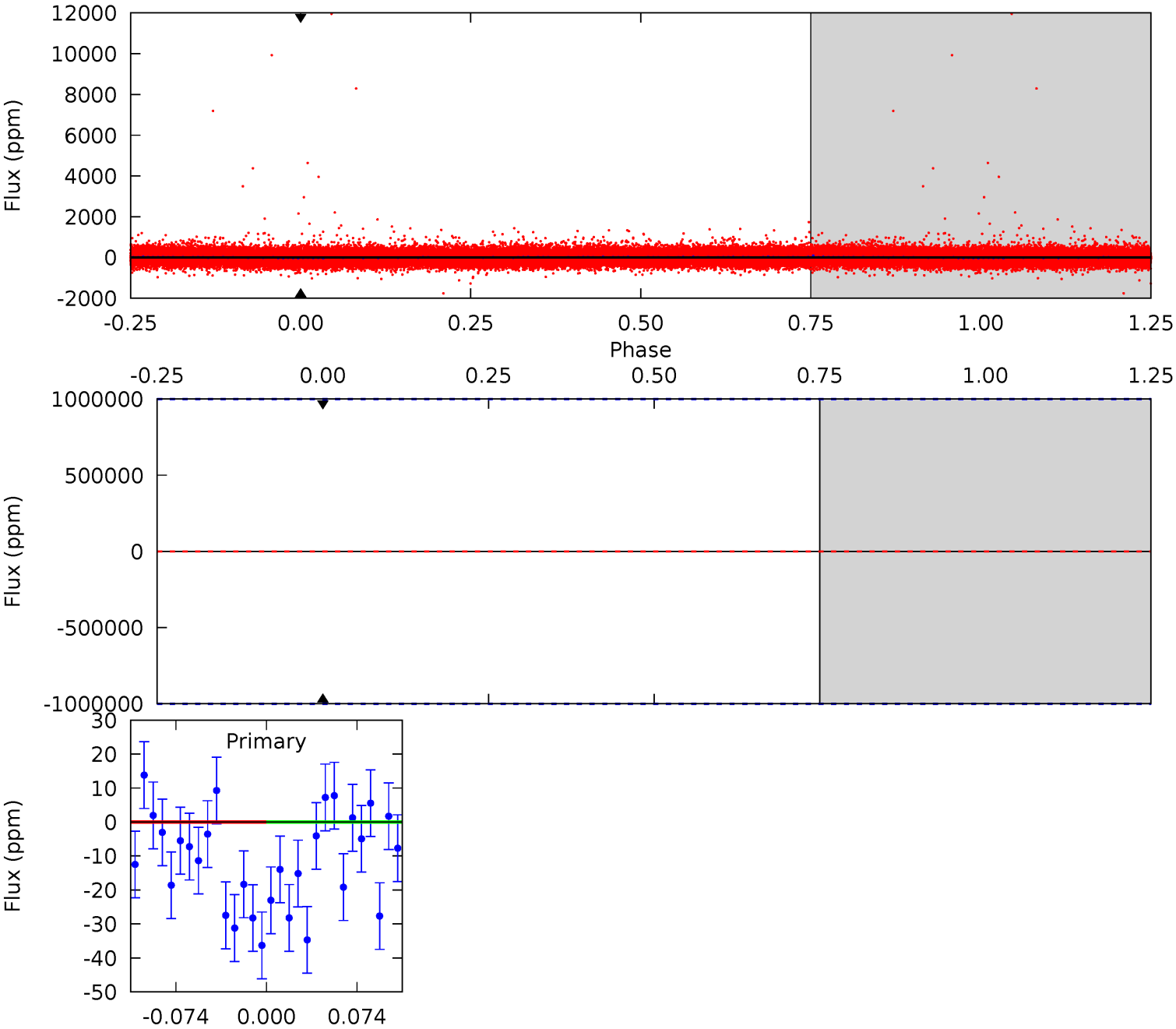
TCE 007031767-01 P= 0.566782 Days $T_0=131.840326$ (BKJD)



DV Model-Shift Uniqueness Test

007031767-01, P = 0.566782 Days, E = 131.267329 Days

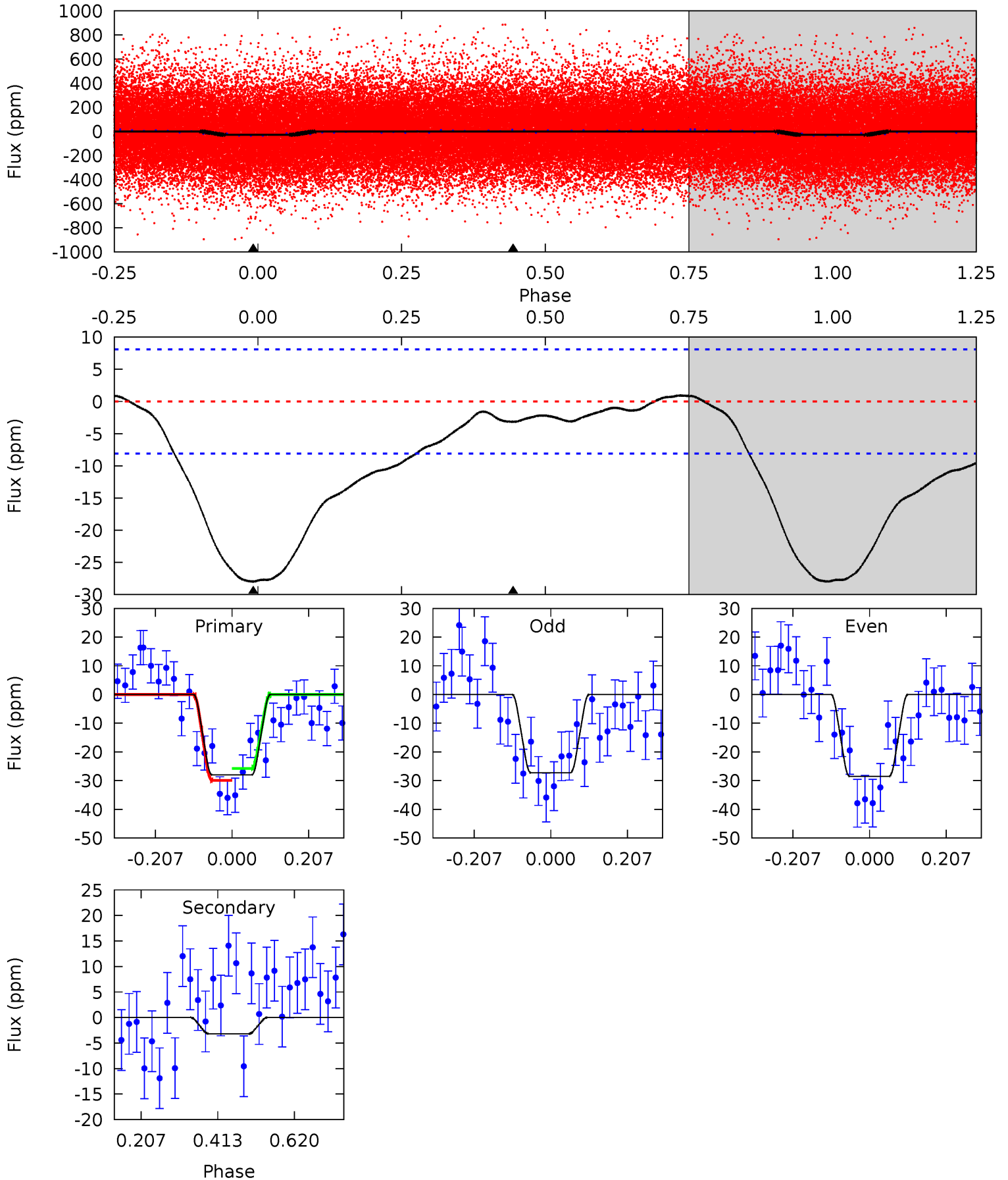
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007031767-01, P = 0.566782 Days, E = 131.273544 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	1.73	0	0	4.41	1.26	2.46	15.2	15.2	1.73	1.73	0.34	0.91	0.03	1.12



Stellar Parameters For KIC 007031767

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5674^{+152}_{-152}	$4.506^{+0.048}_{-0.192}$	$0.040^{+0.250}_{-0.300}$	$0.911^{+0.259}_{-0.086}$	$0.970^{+0.104}_{-0.104}$	$1.809^{+0.449}_{-0.874}$
	+3%/-3%	+1%/-4%	+625%/-750%	+28%/-9%	+11%/-11%	+25%/-48%
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 007031767-01 / KOI 6806.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$7.44^{+8.09}_{-5.32}$	2952^{+207}_{-129}	-3526^{+25177}_{-18879}	$-0.492^{+349.448}_{-341.172}$
Alt.	-3 ± 2	$6.63^{+8.06}_{-4.67}$	2965^{+195}_{-140}	-3029^{+133}_{-129}	$0.006^{+0.069}_{-0.005}$

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 $A_{obs} \gg 1.0$

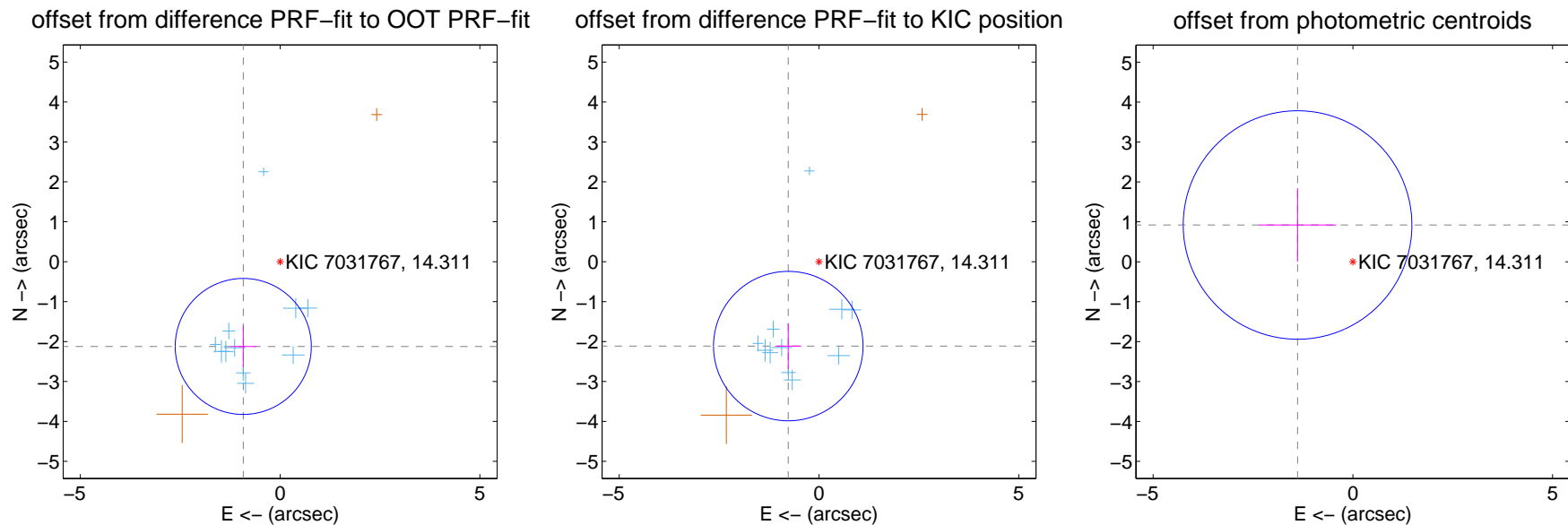
DV Centroid Data

Supplemental centroid analysis for 007031767-01. Kepler magnitude: 14.31. Transit SNR -1.00

There are 11 quarters with good PRF difference image offsets

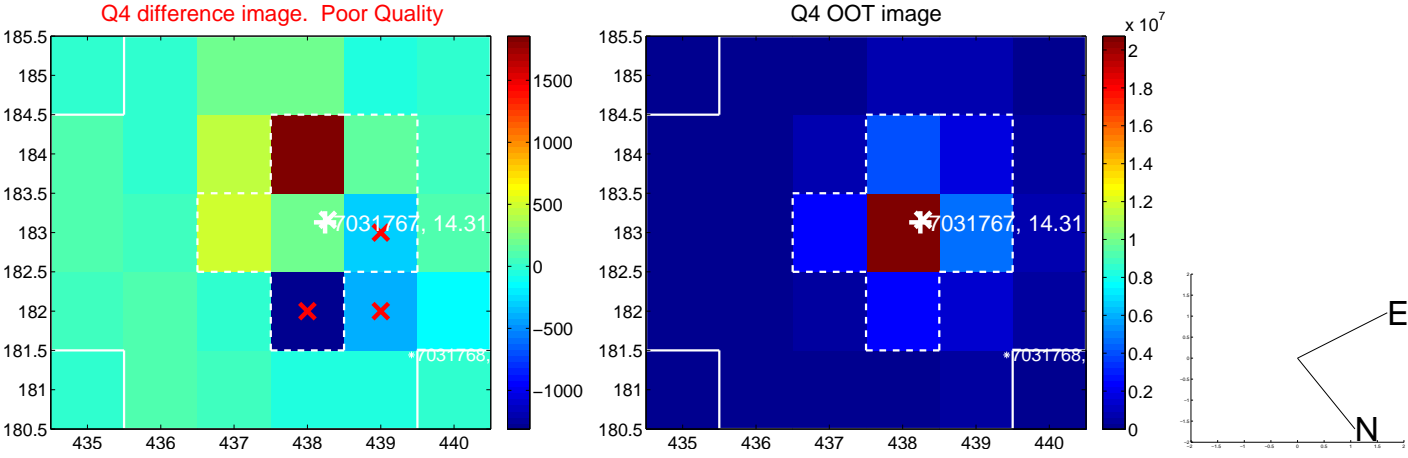
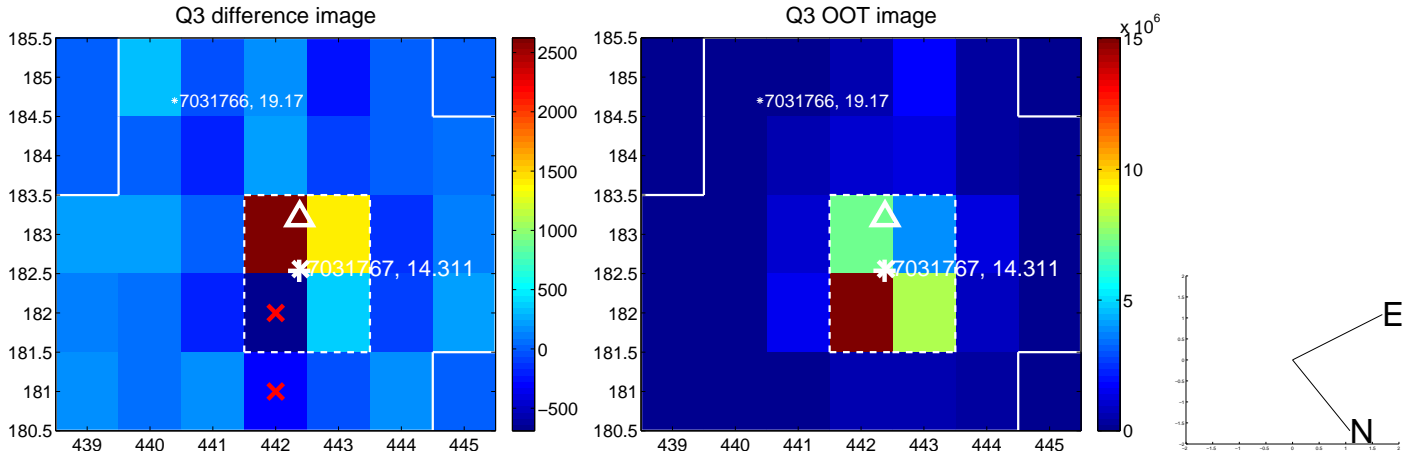
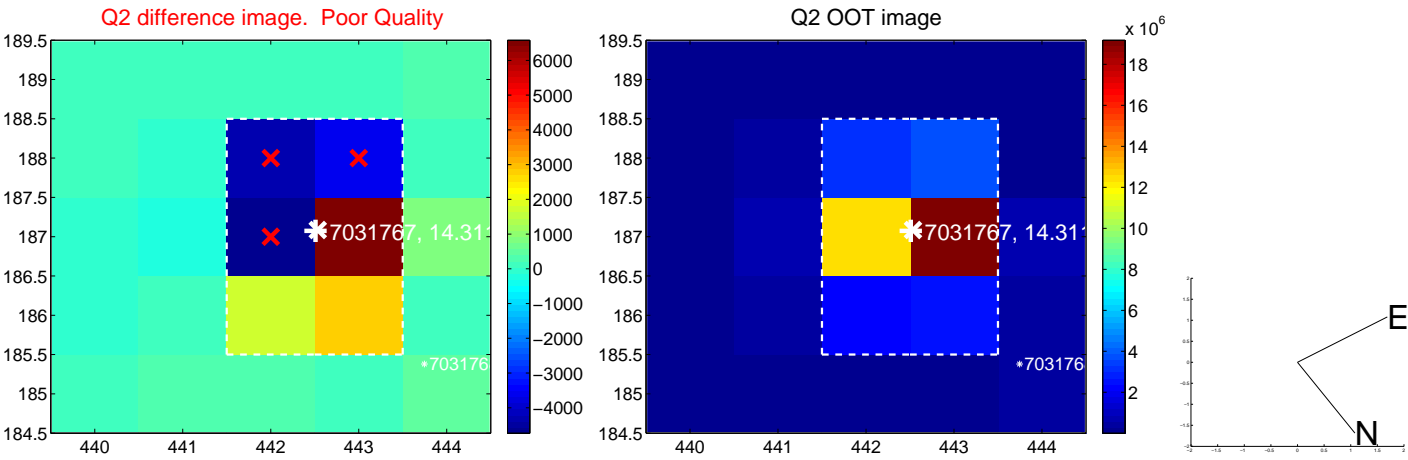
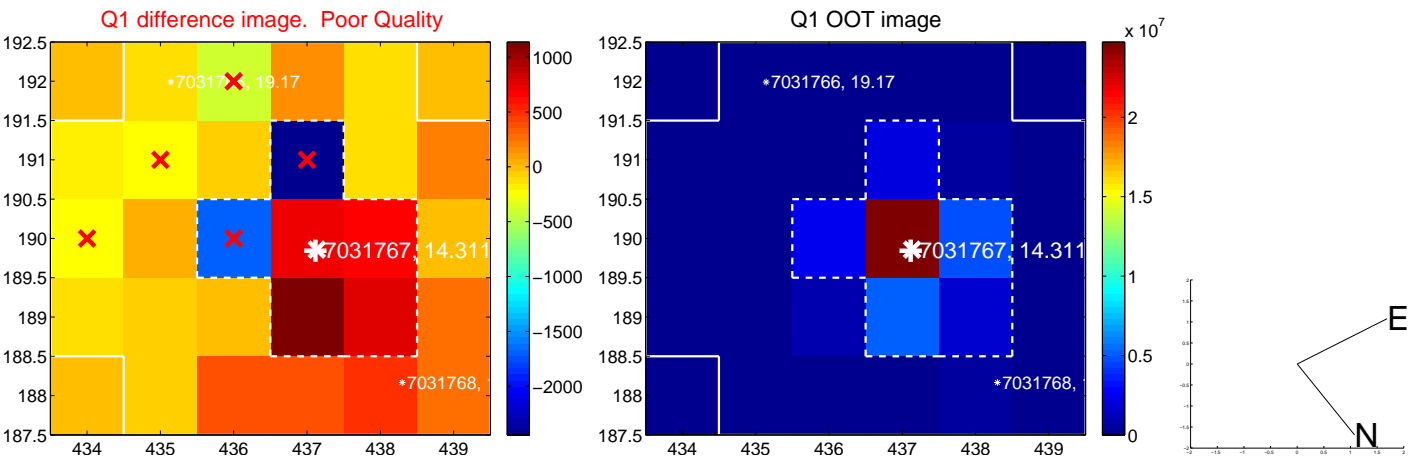
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.315 \pm 0.568	4.08	0.922 \pm 0.321	-2.123 \pm 0.519
PRF-fit source offset from KIC position	2.249 \pm 0.624	3.61	0.769 \pm 0.328	-2.114 \pm 0.571
photometric centroid source offset	1.66 \pm 0.95	1.74	1.38 \pm 0.97	0.92 \pm 0.92

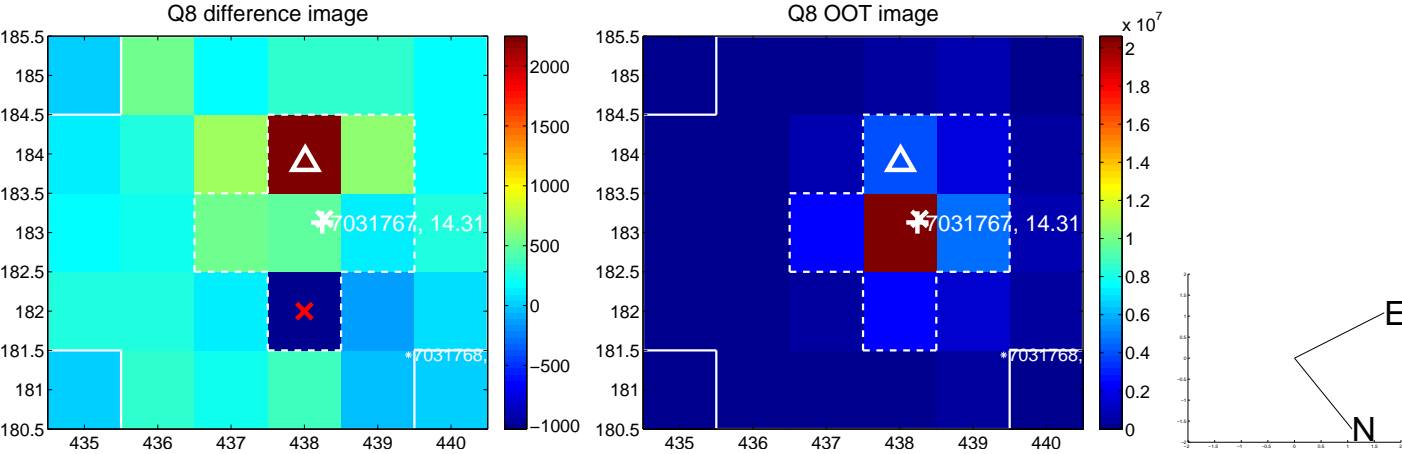
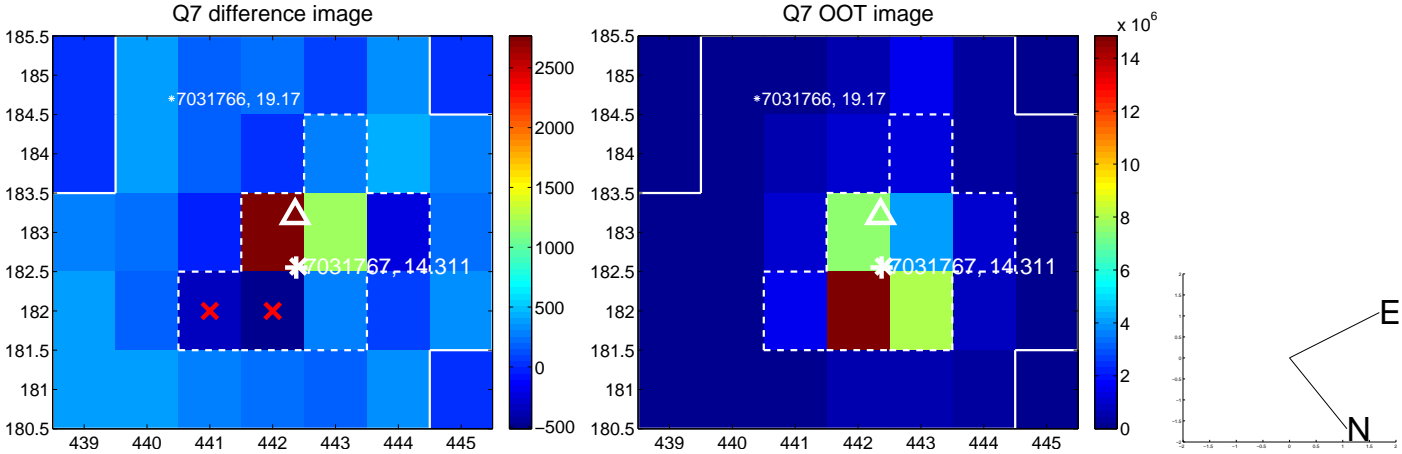
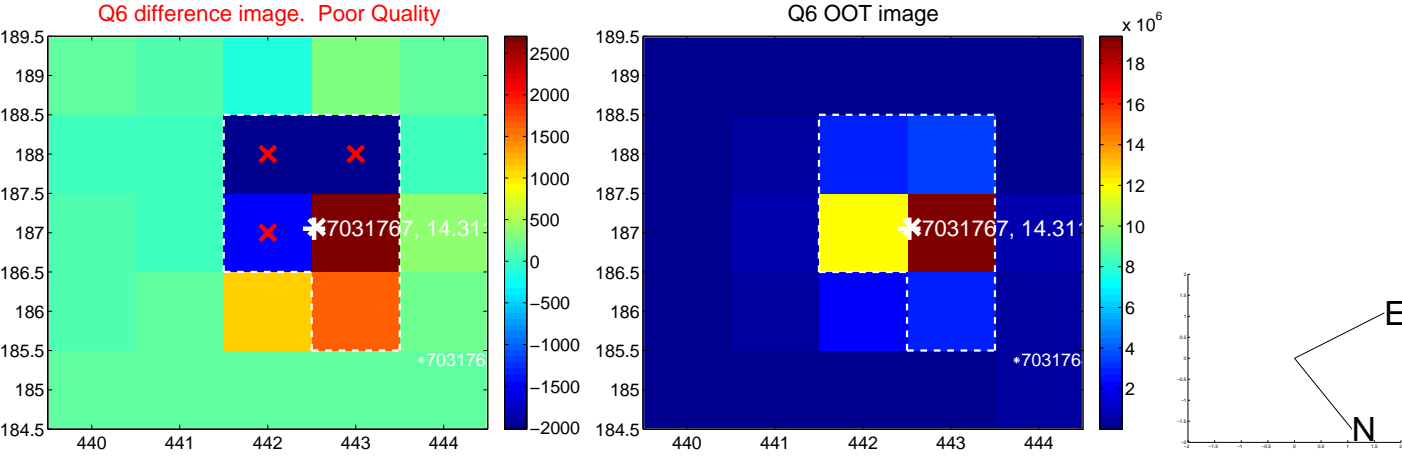
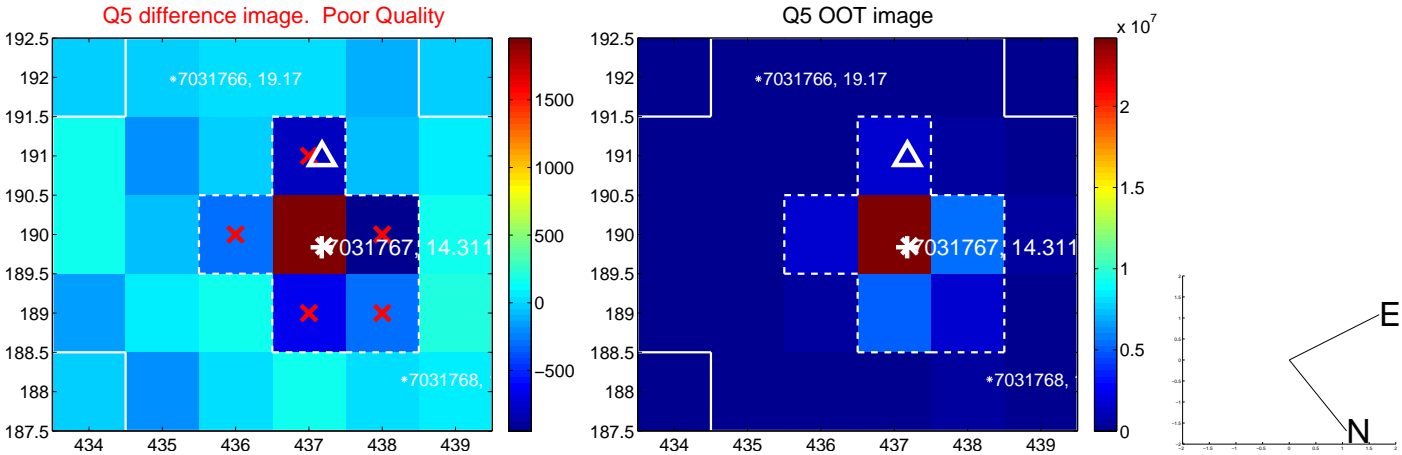


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

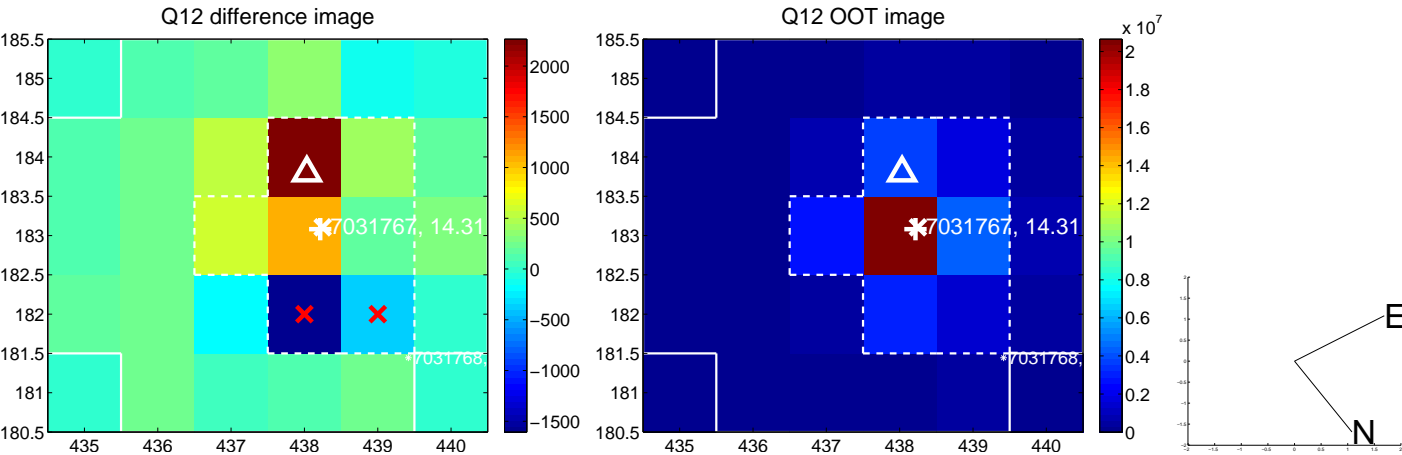
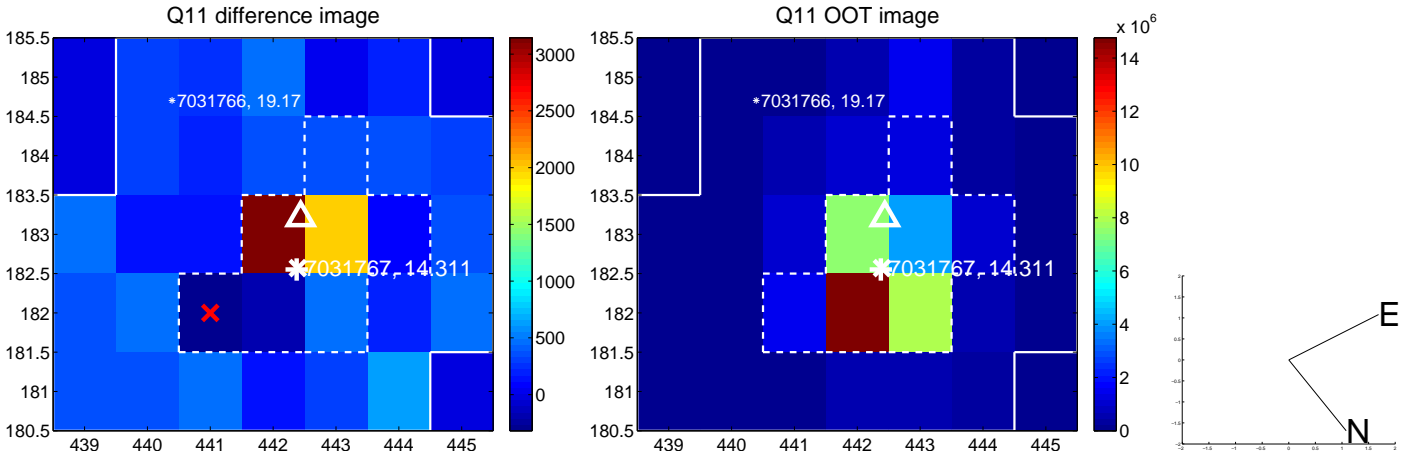
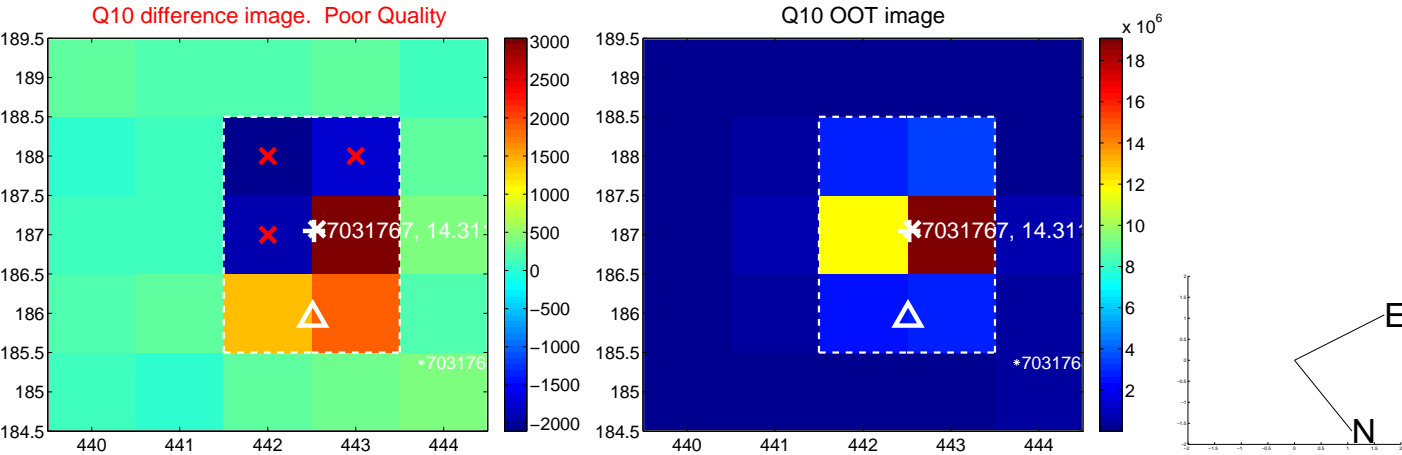
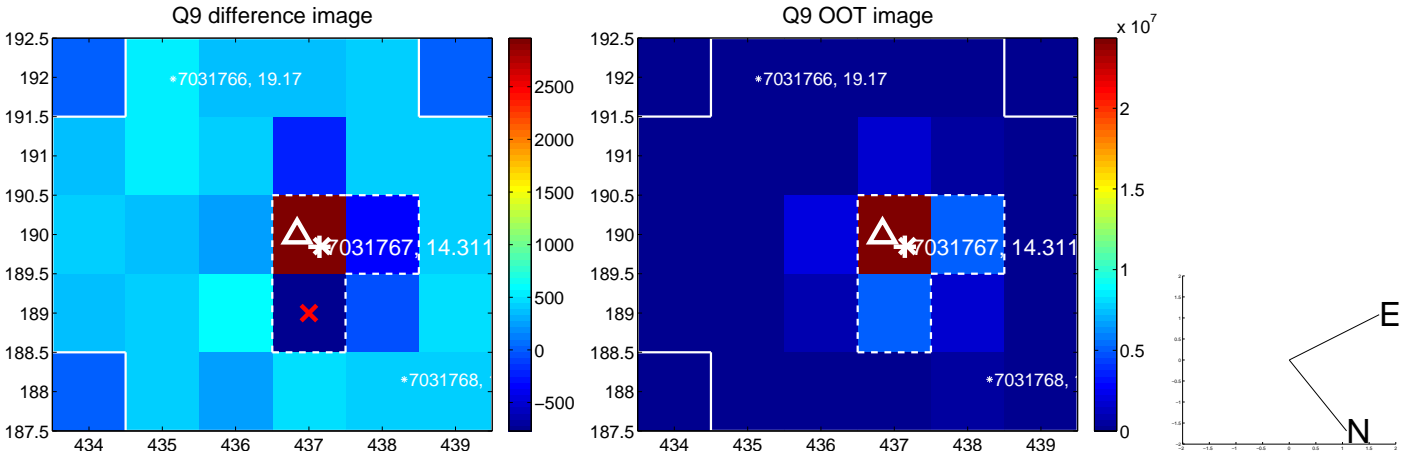
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



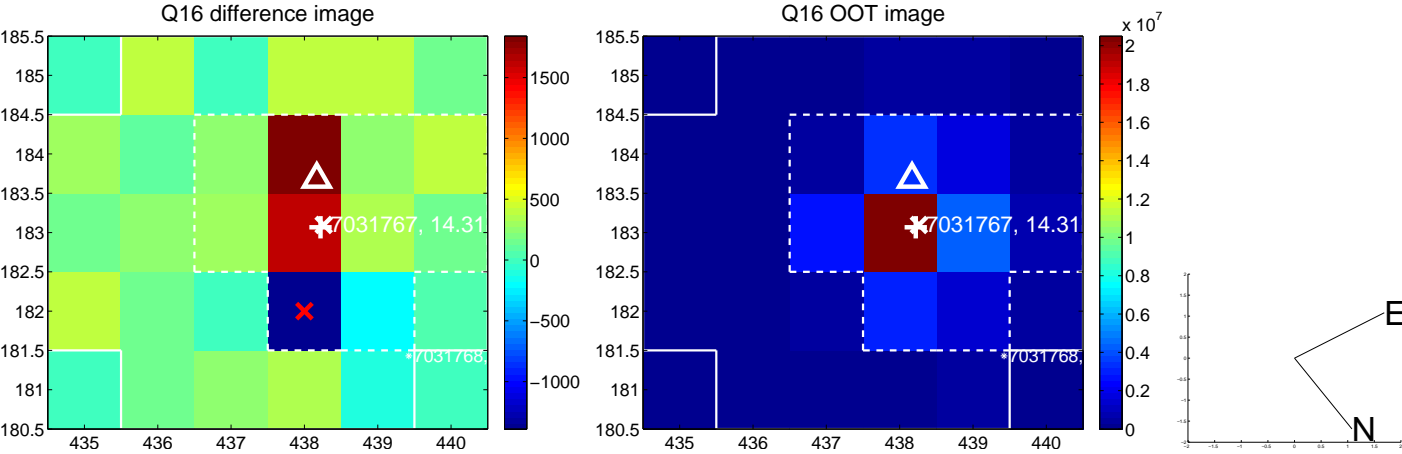
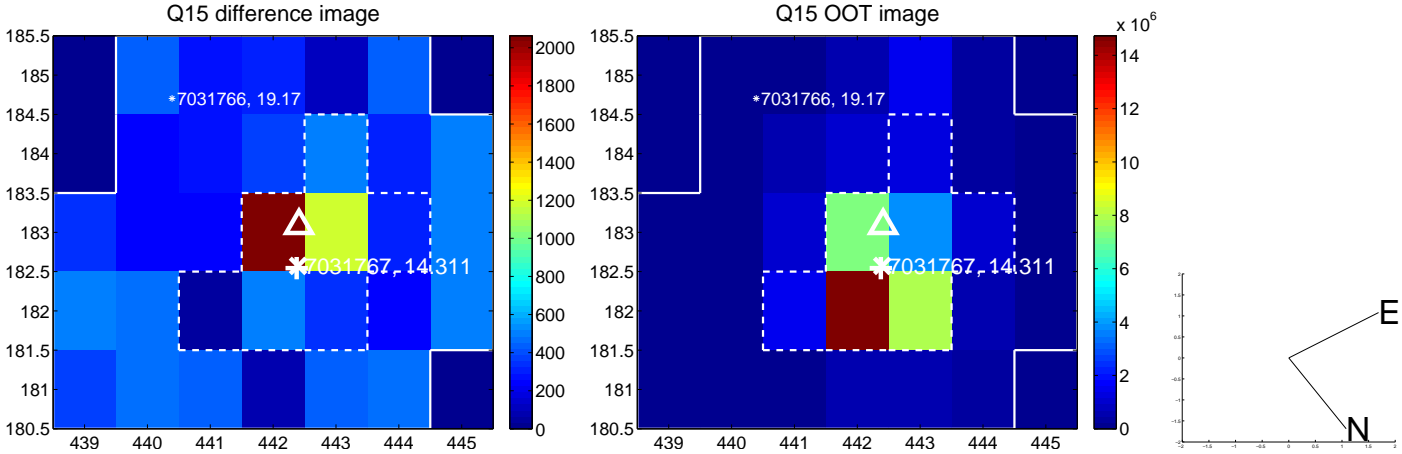
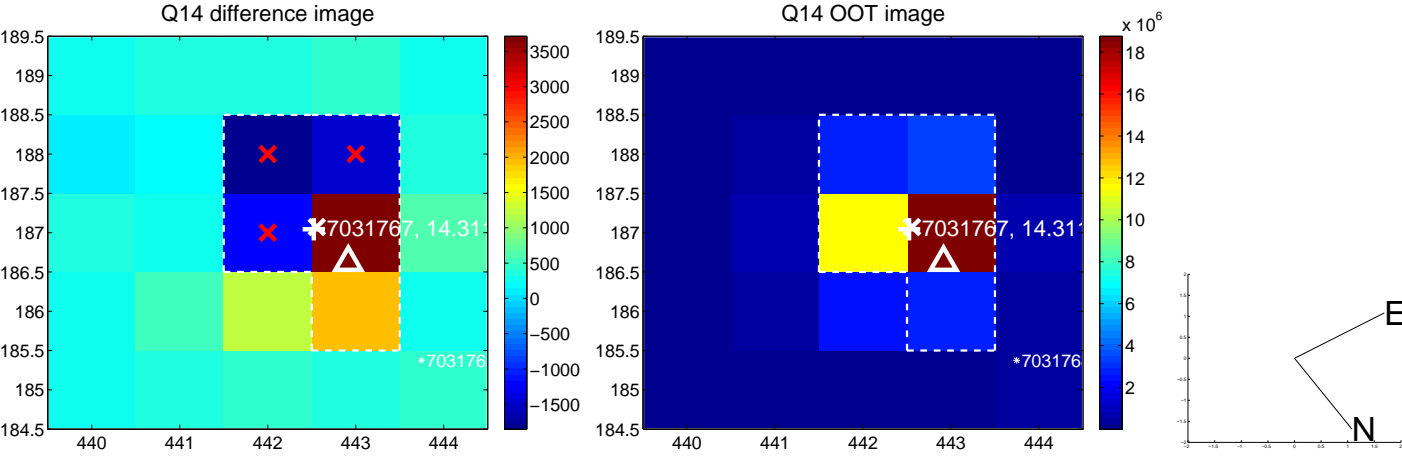
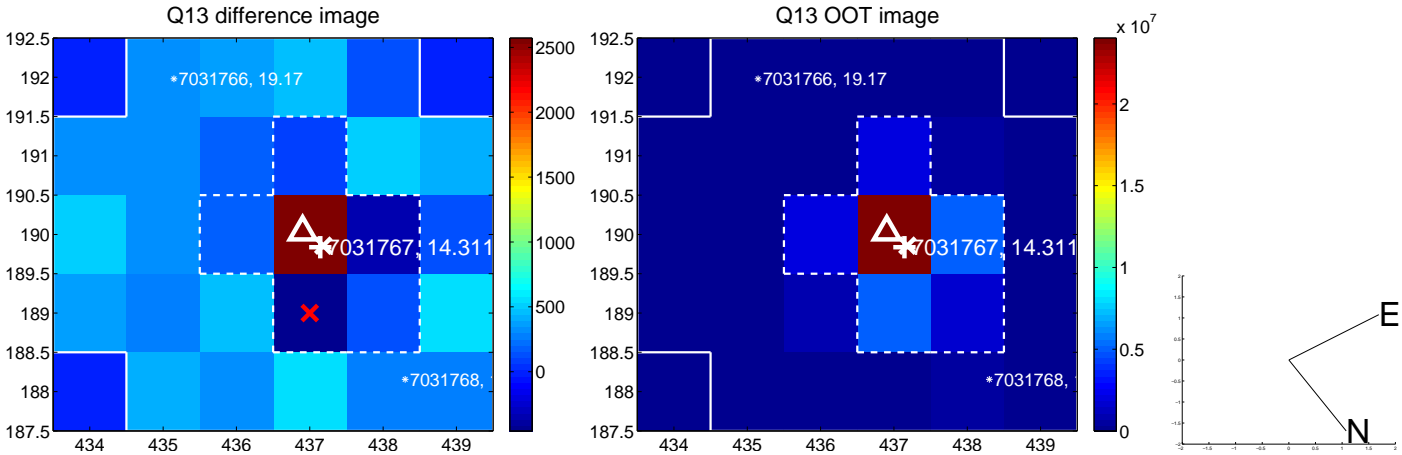
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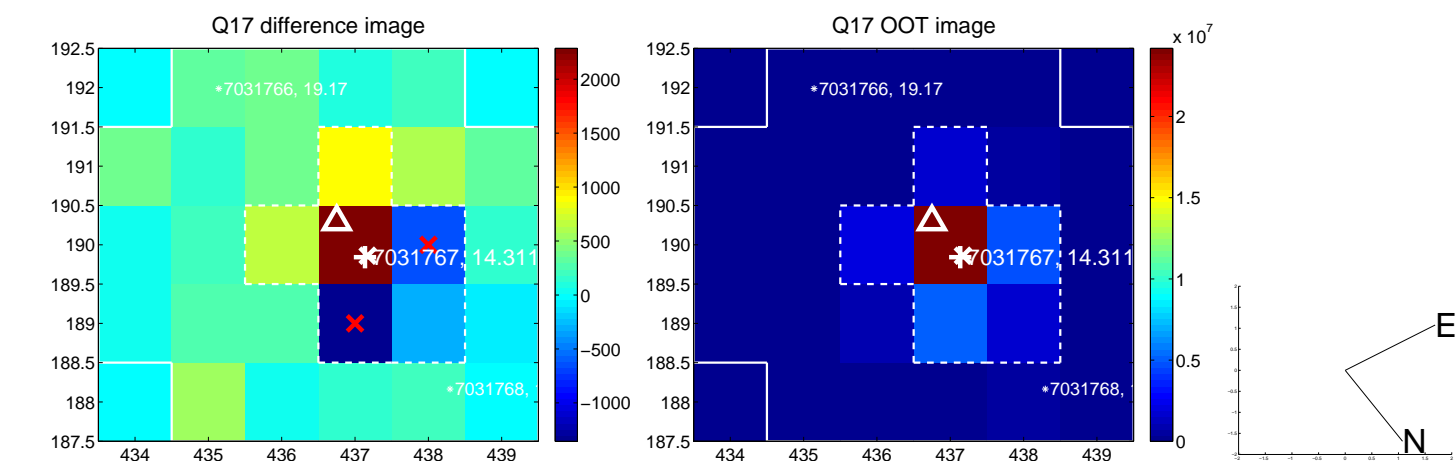
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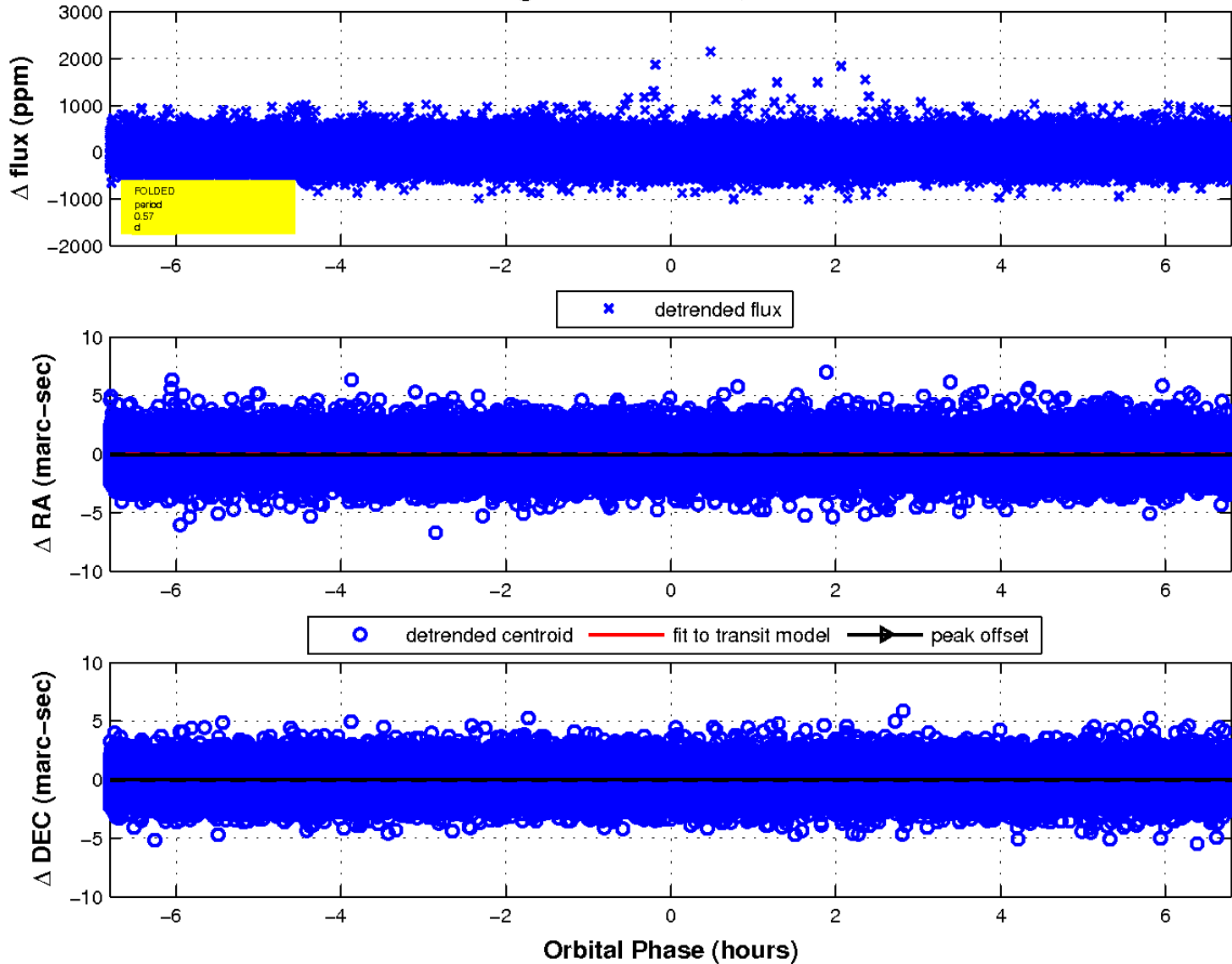
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

