

KIC 006369845

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})
006369845-01	OBS	7777.01	27.675736	144.991374	270.5	4.903	7.1	7.7	3.22	5123	7.38	193.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006369845-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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

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

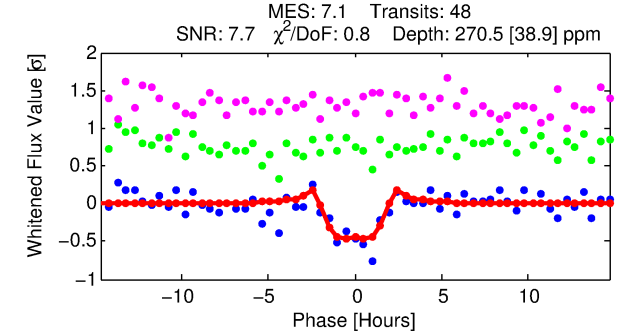
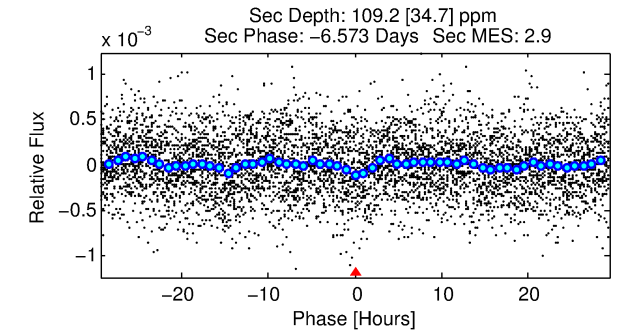
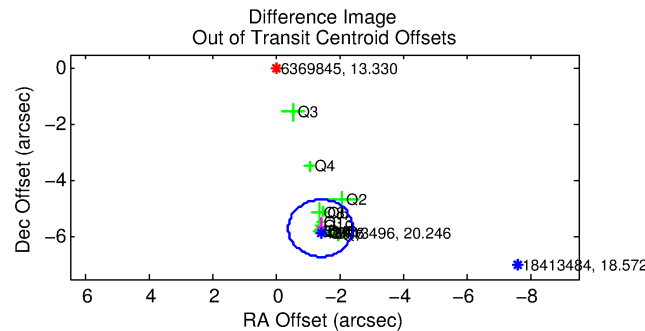
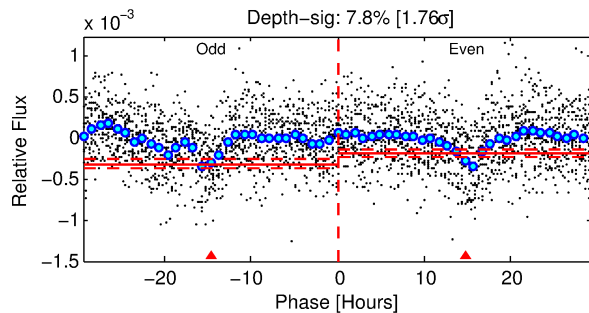
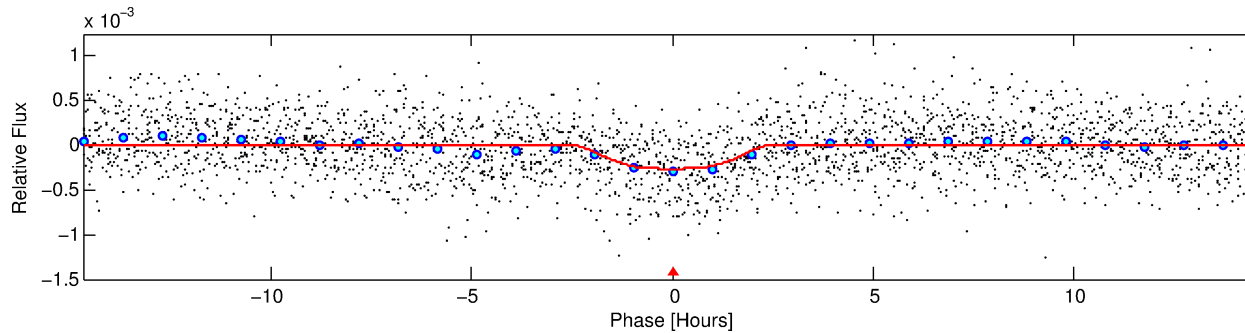
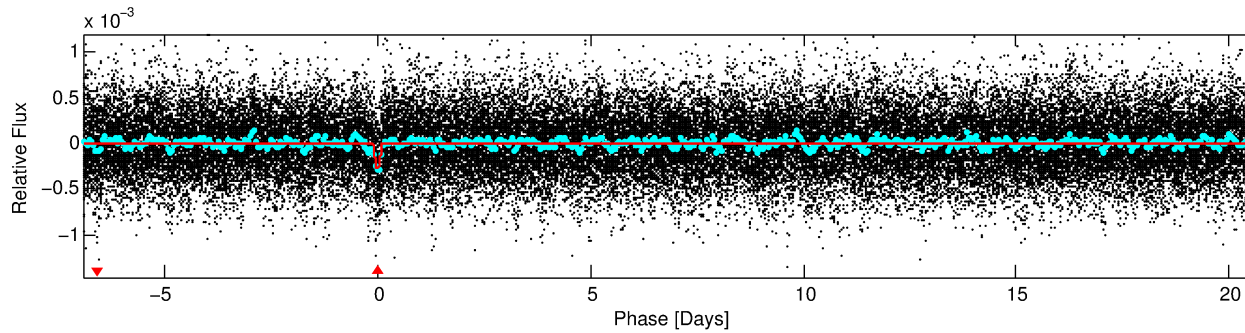
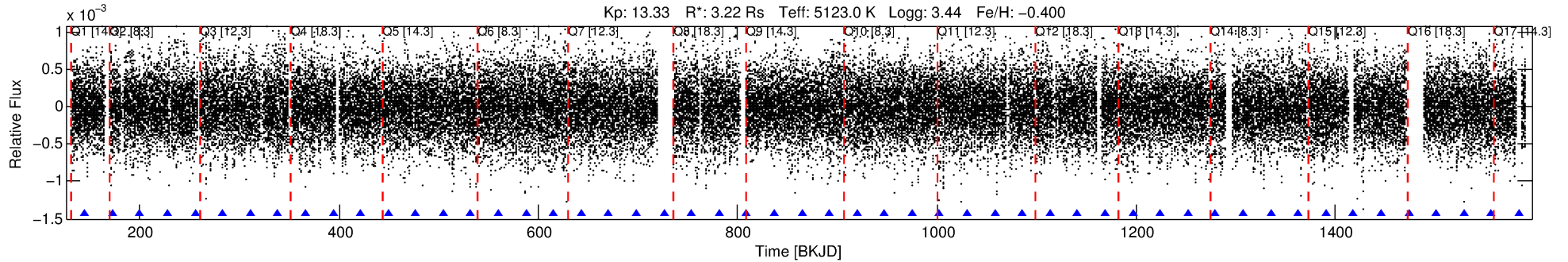
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006369845-01

No Significant Match Found

DV One-Page Summary

KIC: 6369845 Candidate: 1 of 1 Period: 27.676 d



DV Fit Results:

Period = 27.67574 [0.00033] d
Epoch = 144.9914 [0.0099] BKJD
Rp/R* = 0.0210 [0.0018]
a/R* = 13.04 [1.49]
b = 0.98 [0.01]
Seff = 193.70 [112.47]
Teq = 951 [138] K
Rp = 7.38 [3.16] Re
a = 0.1820 [0.0682] AU
Ag = 36.54 [24.70] [1.44 σ]
Teffp = 3616 [338] K [7.29 σ]

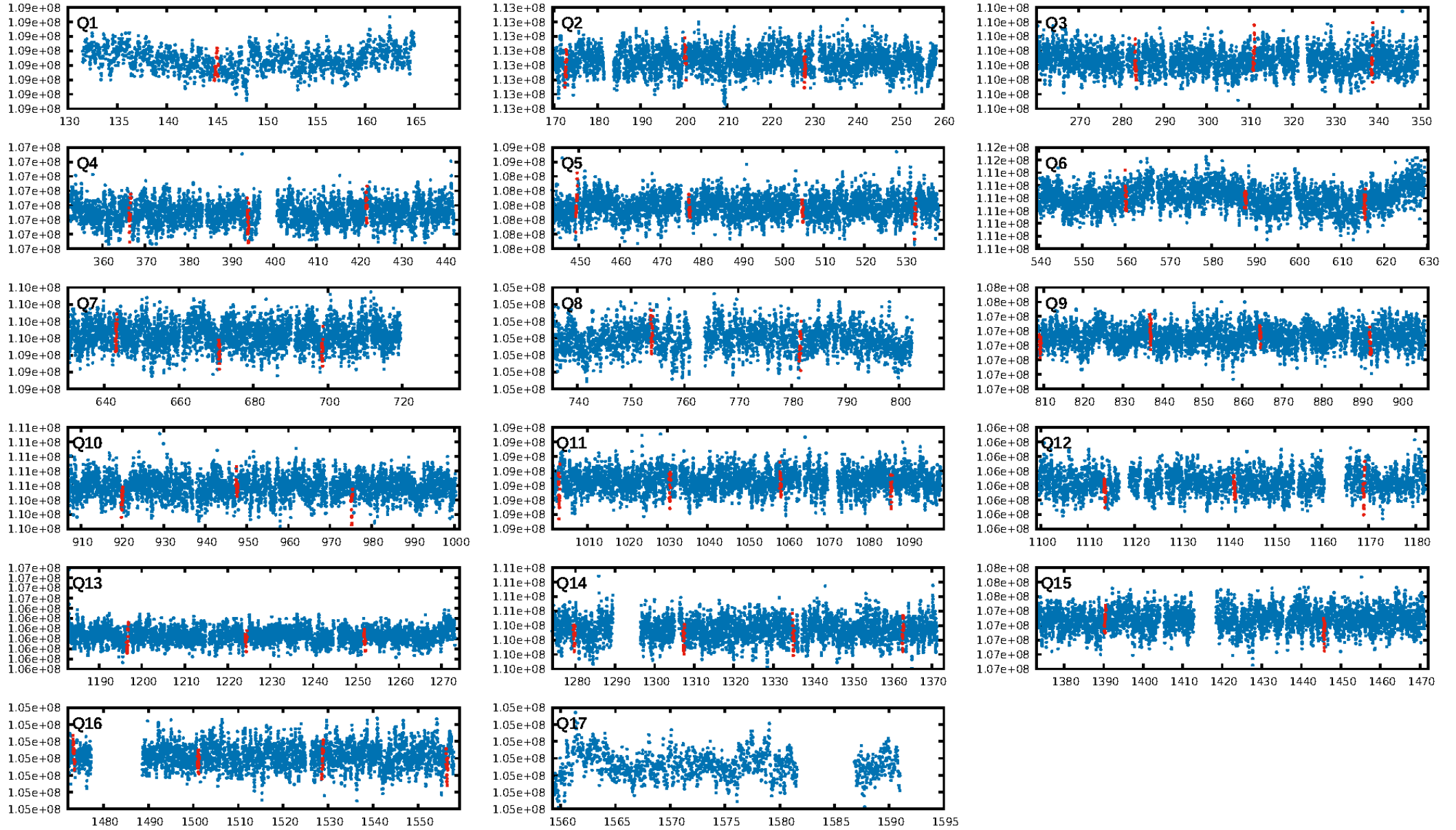
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.35e-12
RollingBand-fgt: 1.00 [47/47]
GhostDiagnostic-chr: 0.3541
Centroid-sig: 0.0%
Centroid-so: 6.519 arcsec [15.32 σ]
OotOffset-rm: 5.861 arcsec [17.28 σ]
KicOffset-rm: 5.960 arcsec [16.84 σ]
OotOffset-st: 4/3/4/2 [13]
KicOffset-st: 4/3/4/2 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [16/16]

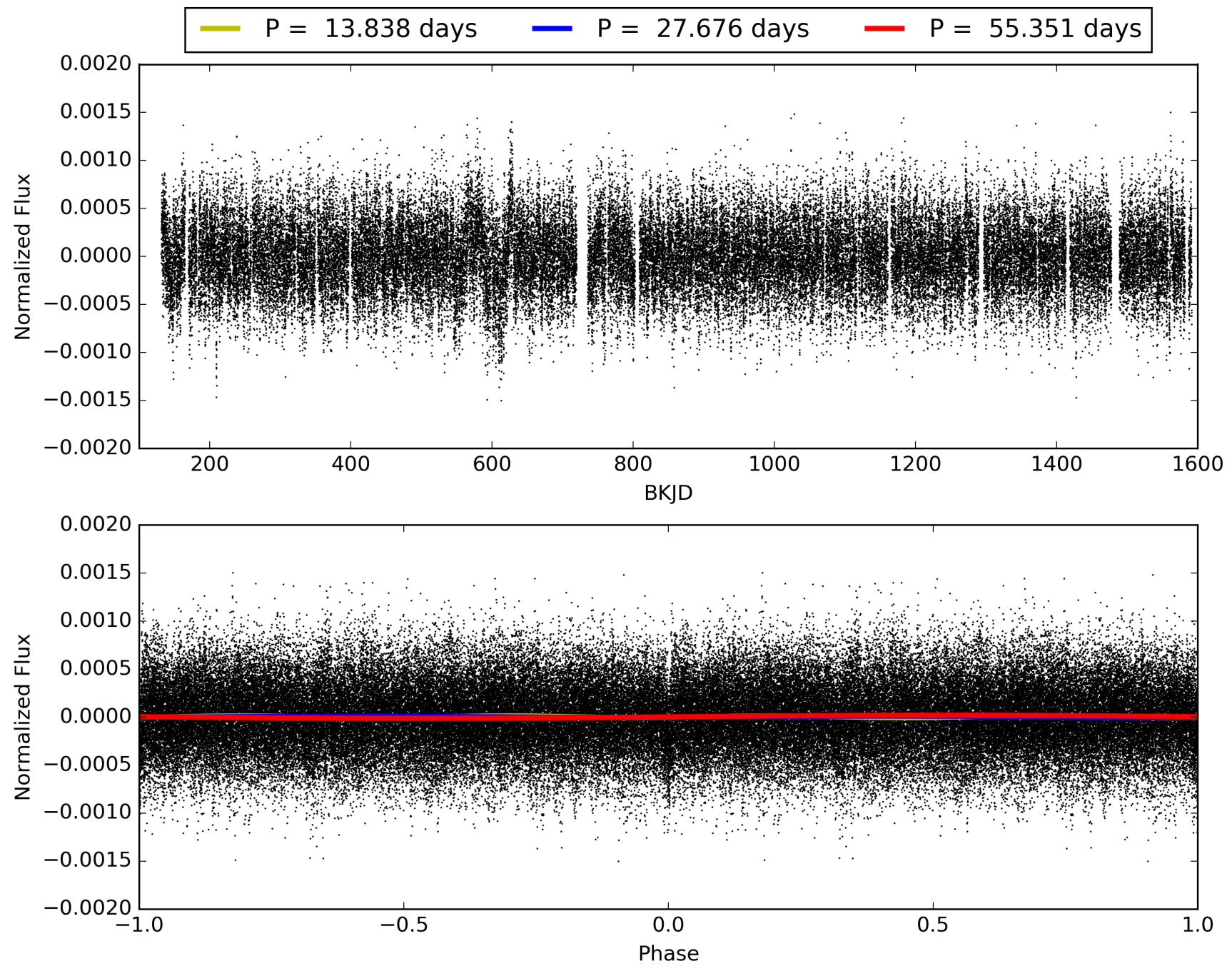
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:13:08 Z

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

TCE 006369845-01, PDC Light Curves

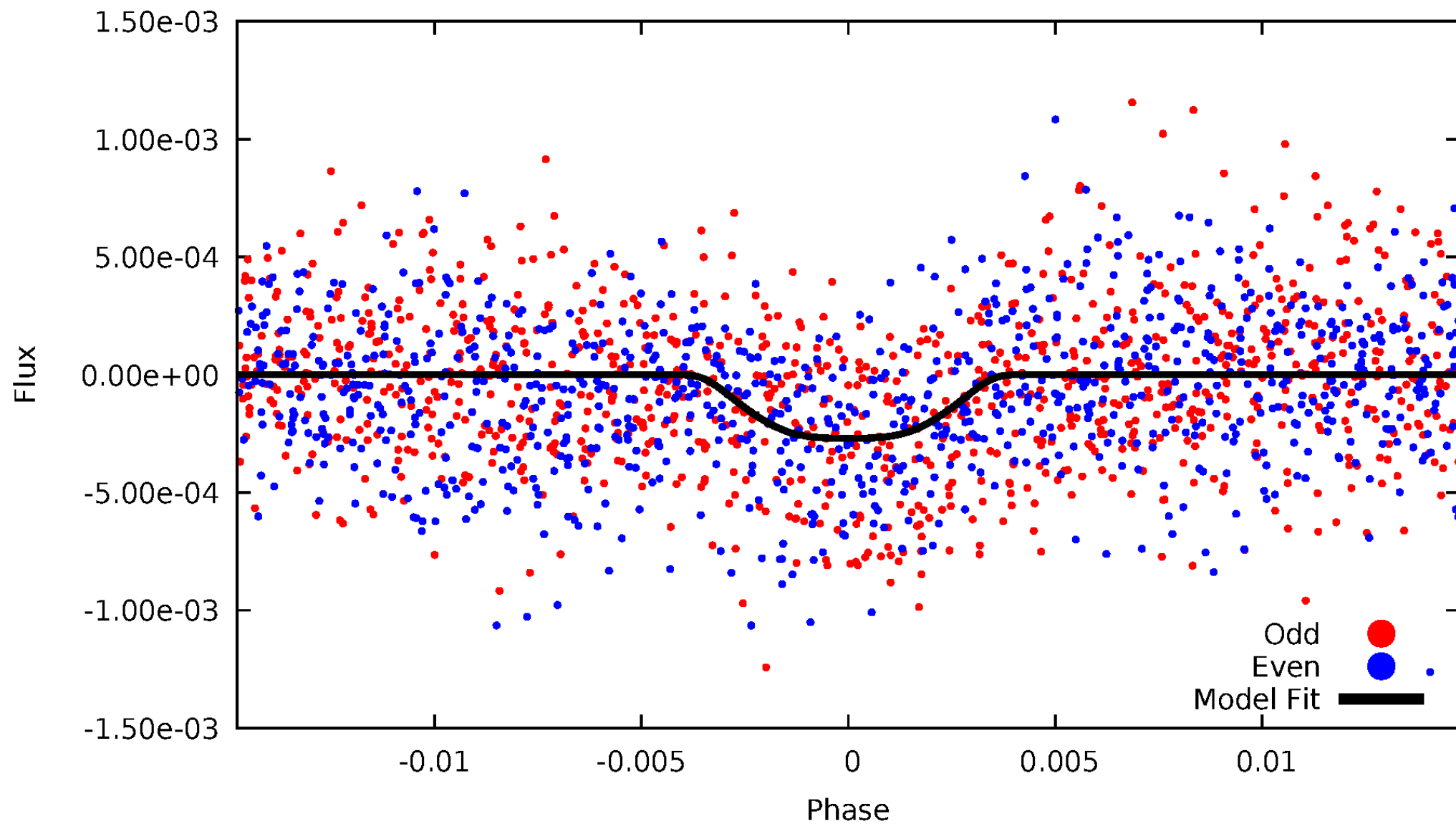


TCE 006369845-01



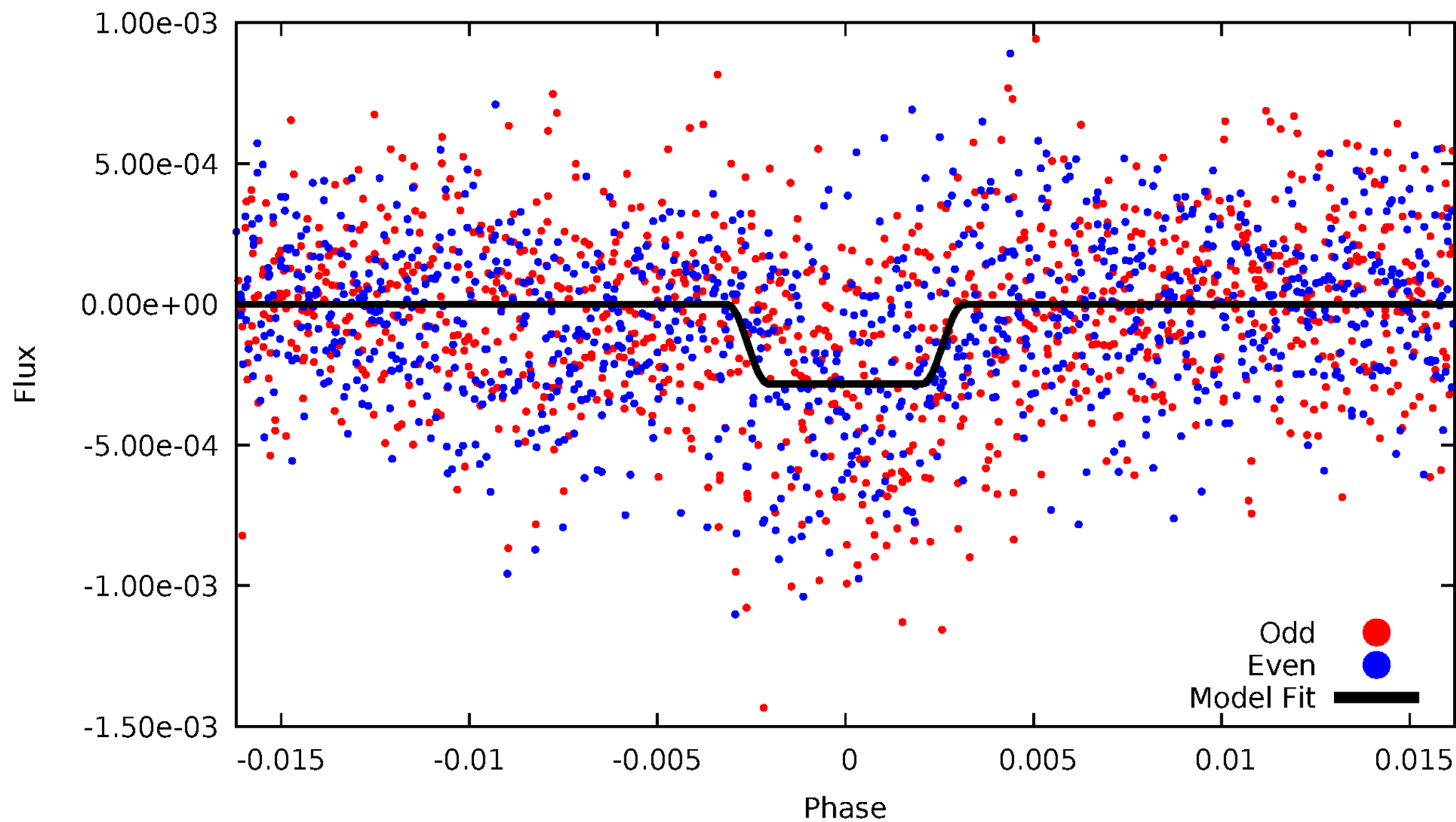
DV Odd/Even

TCE 006369845-01

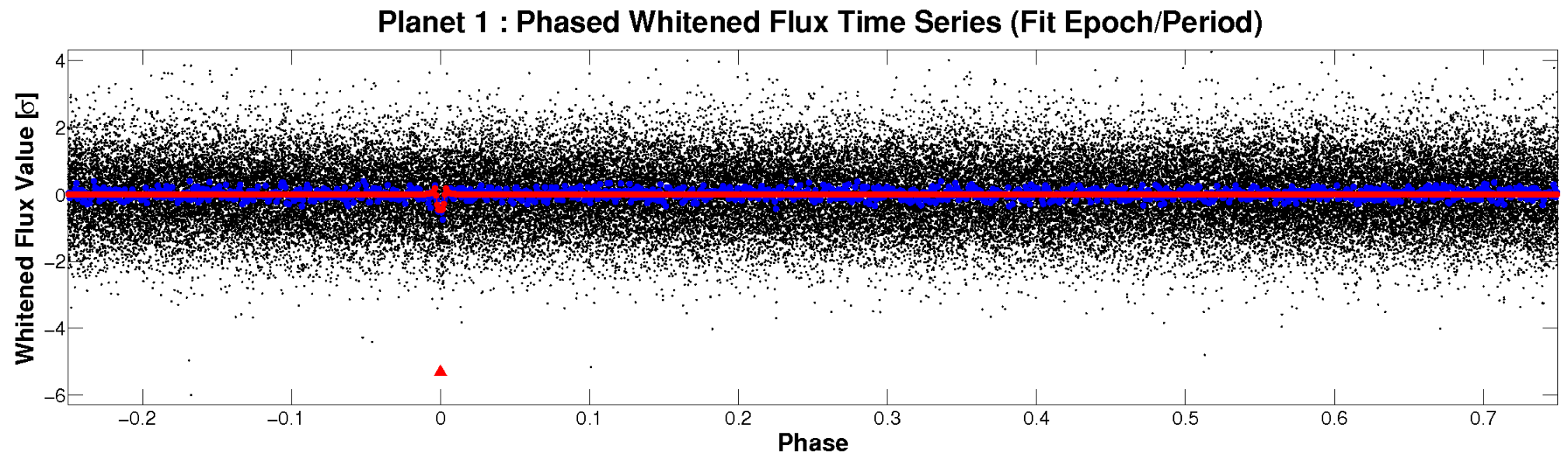
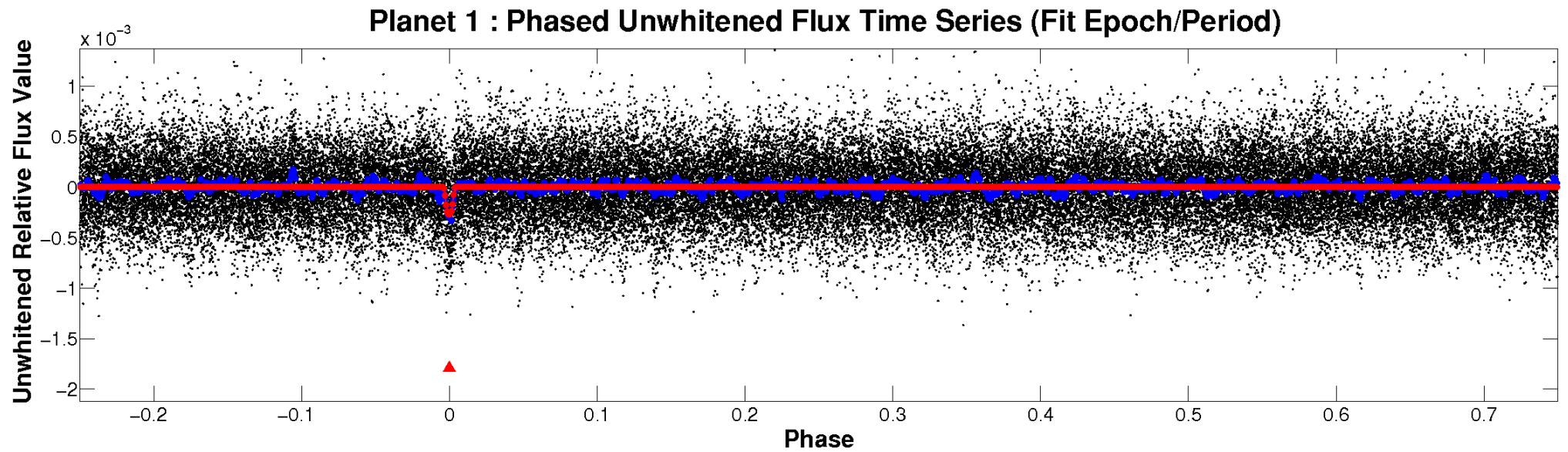


ALT Odd/Even

TCE 006369845-01

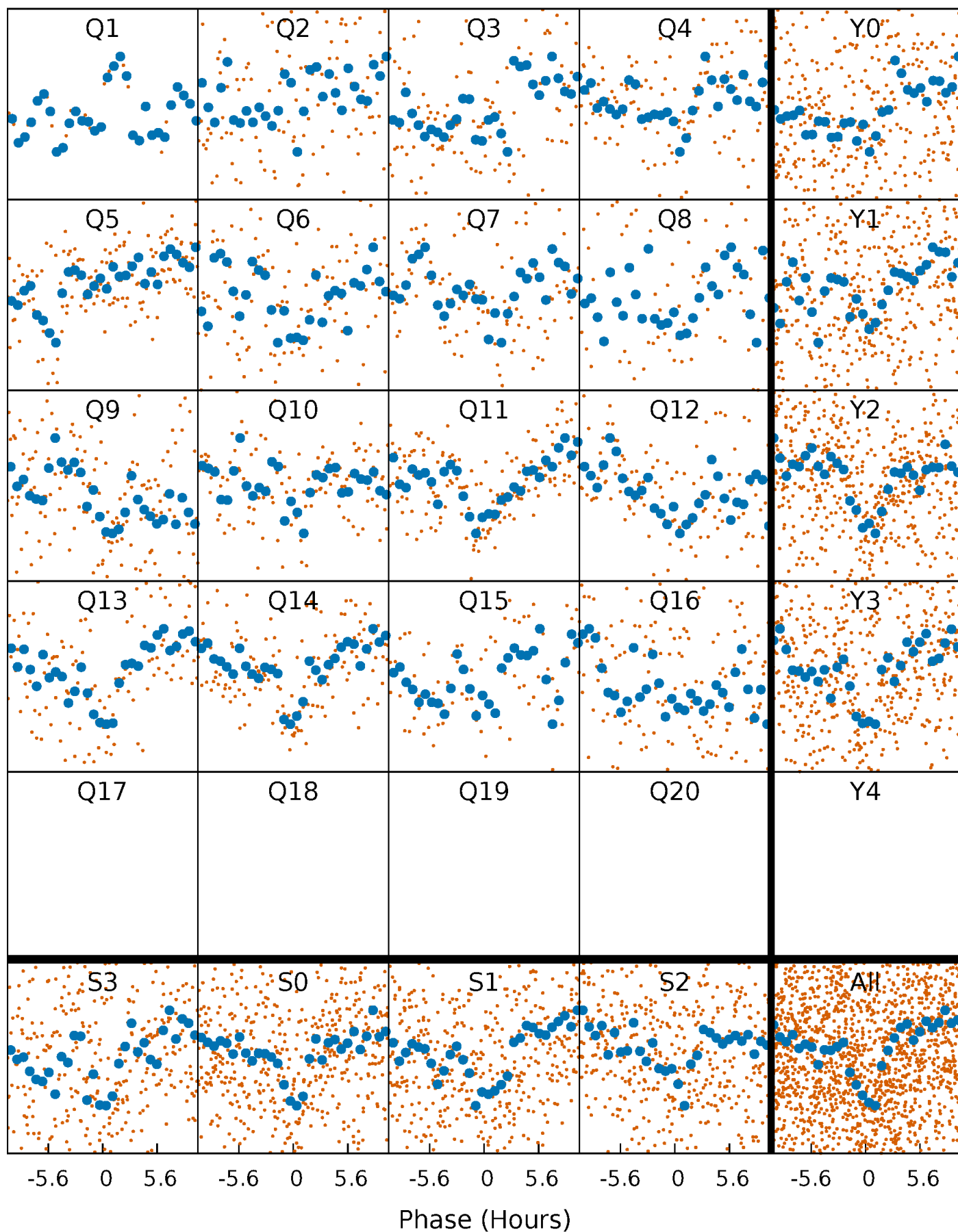


Non-Whitened Vs. Whitened Light Curve



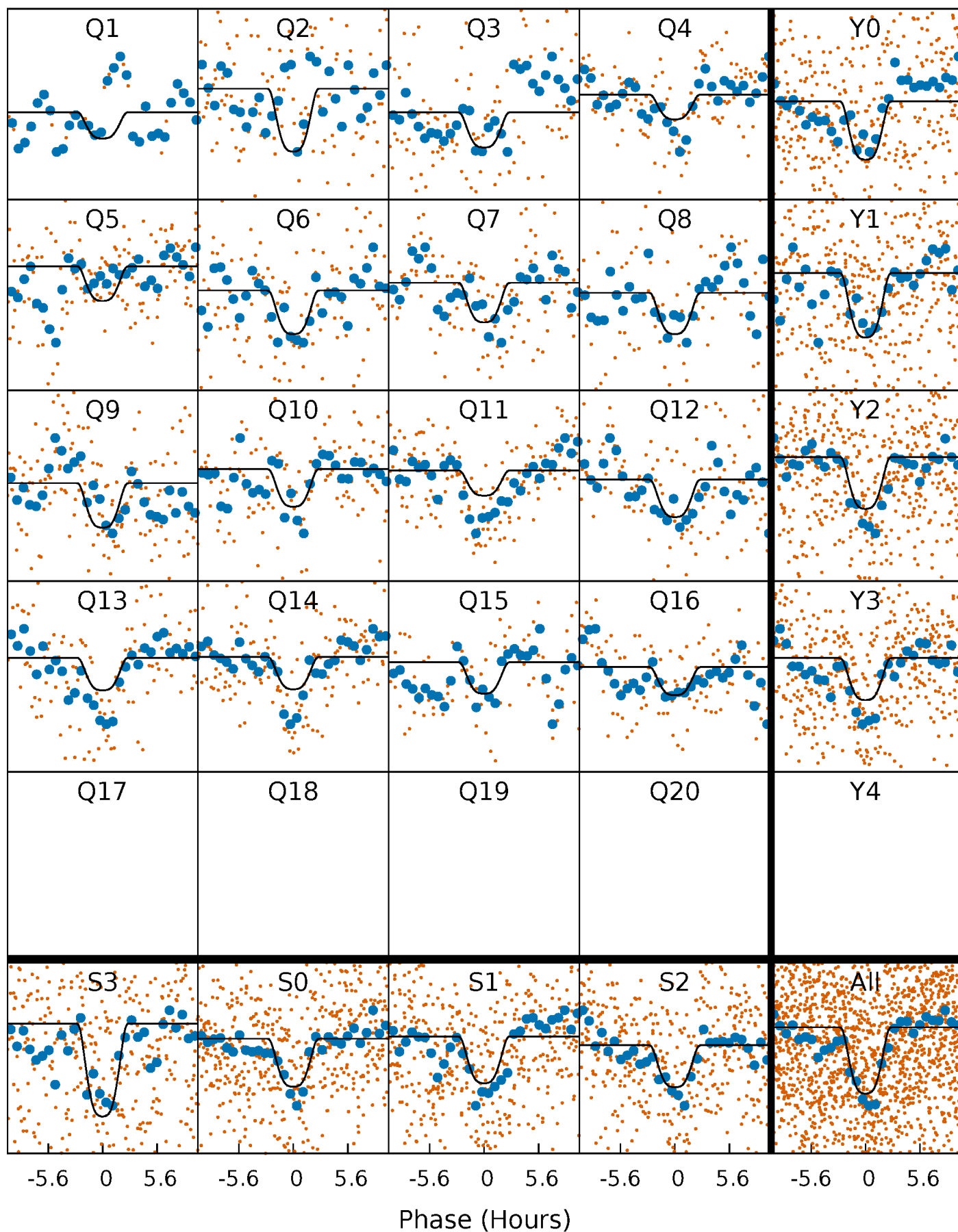
PDC Quarter-Phased Transit Curves

TCE 006369845-01 P= 27.675736 Days $T_0=144.991374$ (BKJD)



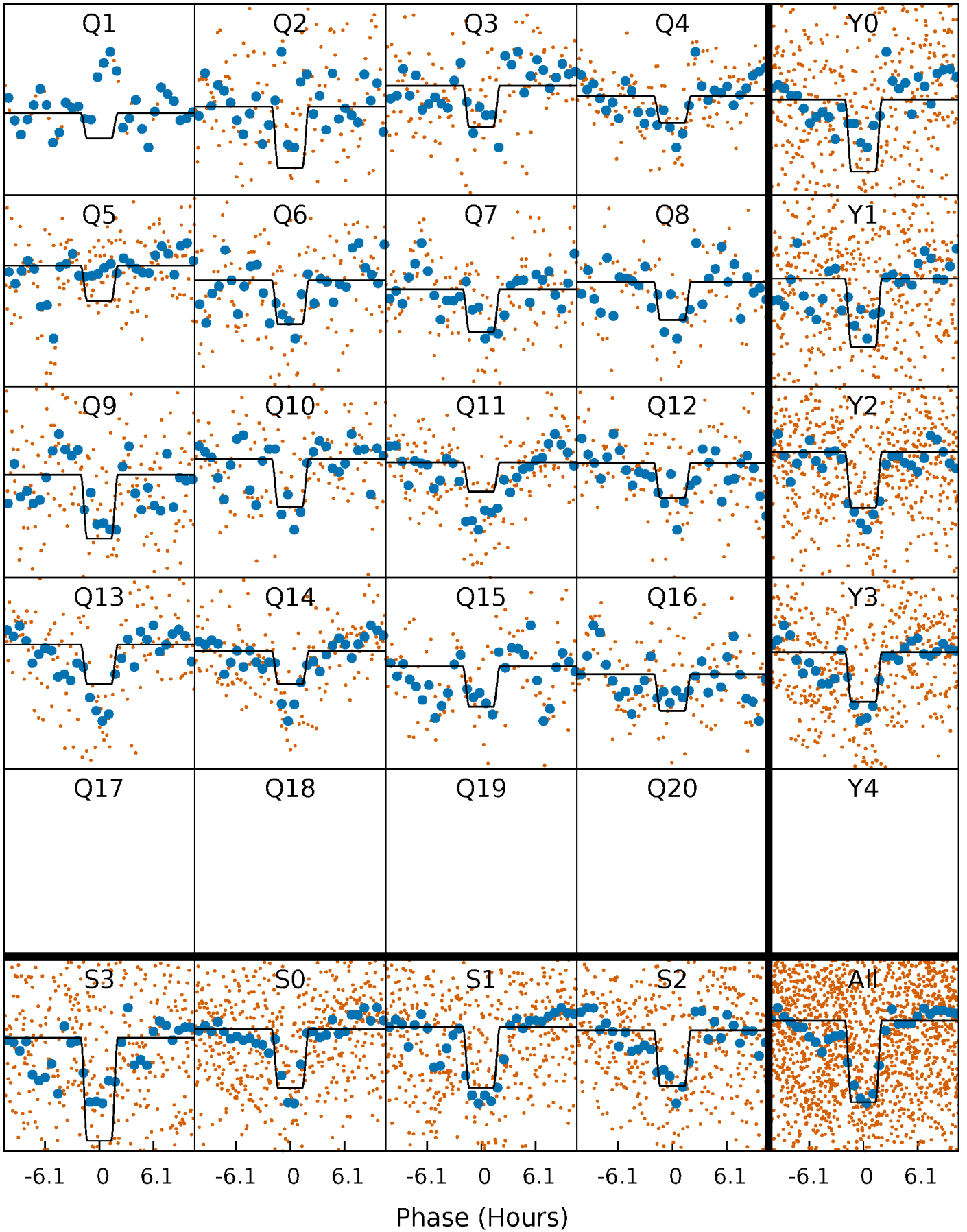
DV Quarter-Phased Transit Curves

TCE 006369845-01 P= 27.675736 Days $T_0=144.991374$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

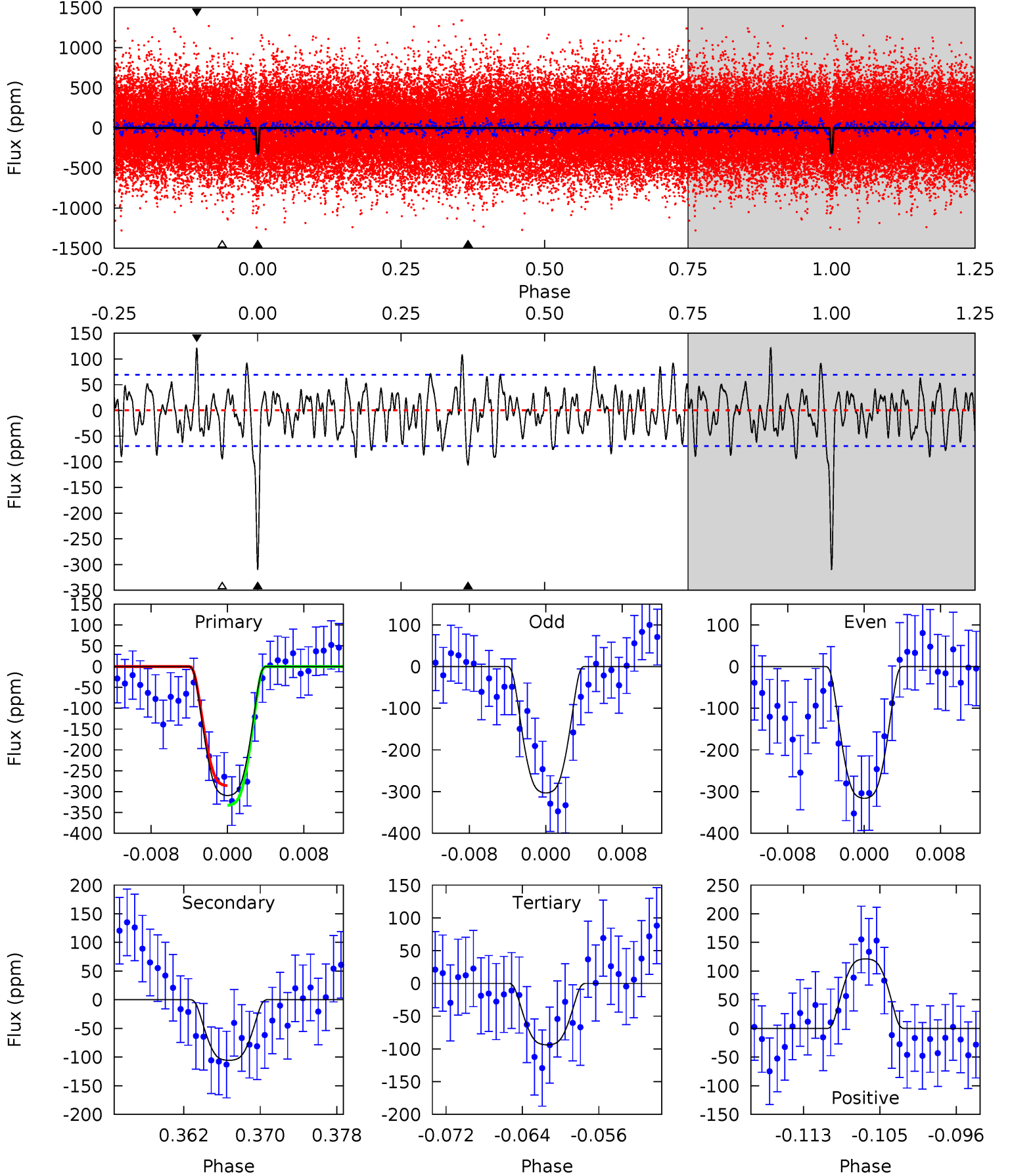
TCE 006369845-01 P= 27.675256 Days $T_0=145.011420$ (BKJD)



DV Model-Shift Uniqueness Test

006369845-01, $P = 27.675736$ Days, $E = 117.315638$ Days

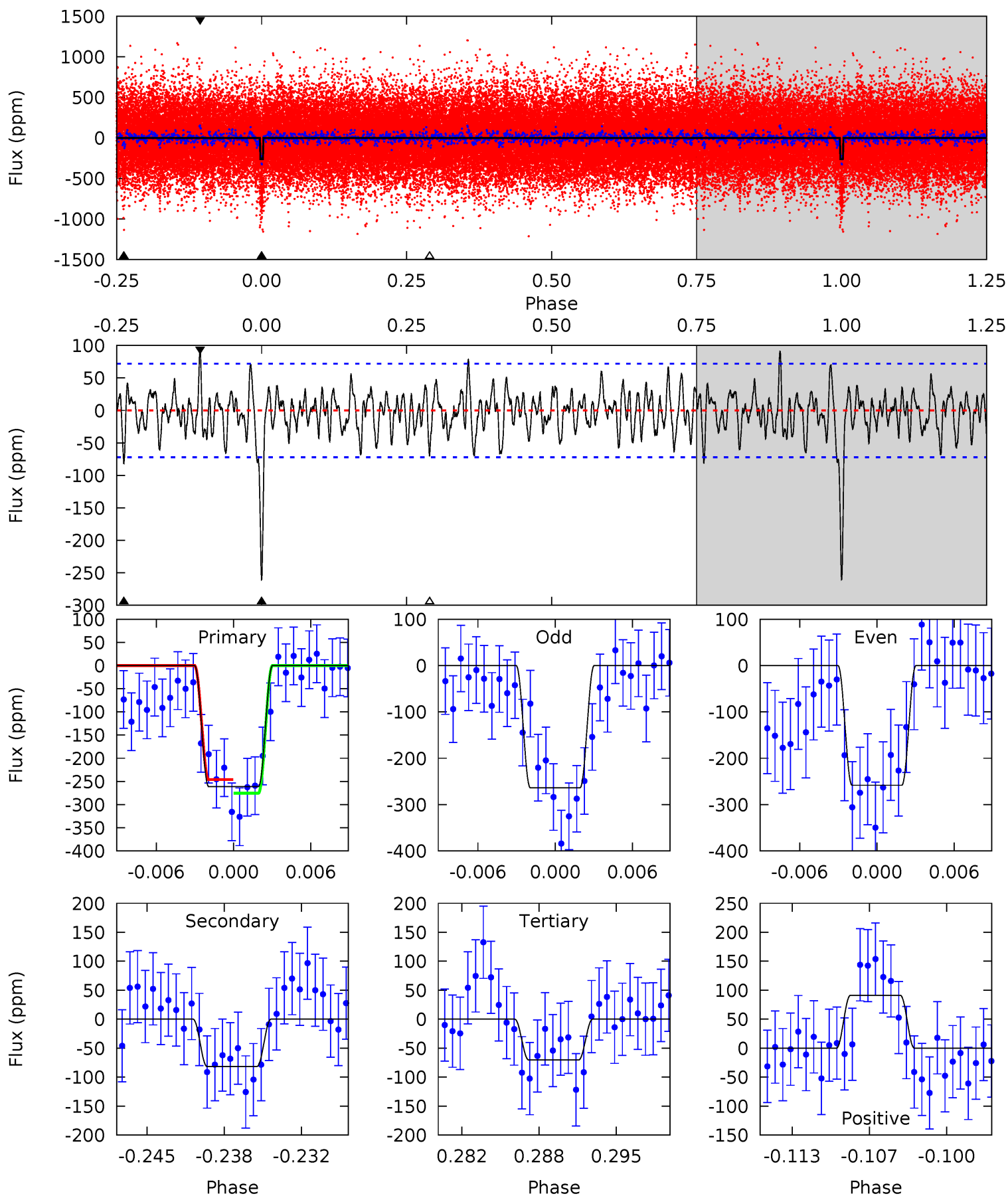
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	7.73	6.86	8.87	5.07	2.65	2.61	15.8	13.8	0.87	-1.14	0.47	1.14	0.28	1.73



Alt Model-Shift Uniqueness Test

006369845-01, P = 27.675256 Days, E = 117.336164 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	5.80	5.00	6.48	5.12	2.73	1.88	13.5	12.1	0.80	-0.68	0.19	1.10	0.26	1.04



Stellar Parameters For KIC 006369845

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5123^{+128}_{-128}	$3.442^{+0.325}_{-0.266}$	$-0.400^{+0.300}_{-0.200}$	$3.224^{+1.353}_{-1.107}$	$1.051^{+0.244}_{-0.183}$	$0.044^{+0.094}_{-0.027}$
	+2%/-2%	+9%/-8%	+75%/-50%	+42%/-34%	+23%/-17%	+213%/-60%
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 006369845-01 / KOI 7777.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-106 ± 14	$7.37^{+1.99}_{-1.66}$	1325^{+147}_{-151}	3884^{+175}_{-150}	36^{+24}_{-13}
Alt.	-82 ± 14	$6.00^{+1.61}_{-1.39}$	1335^{+148}_{-133}	4018^{+211}_{-217}	41^{+28}_{-16}

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 $A_{obs} \gg 1.0$

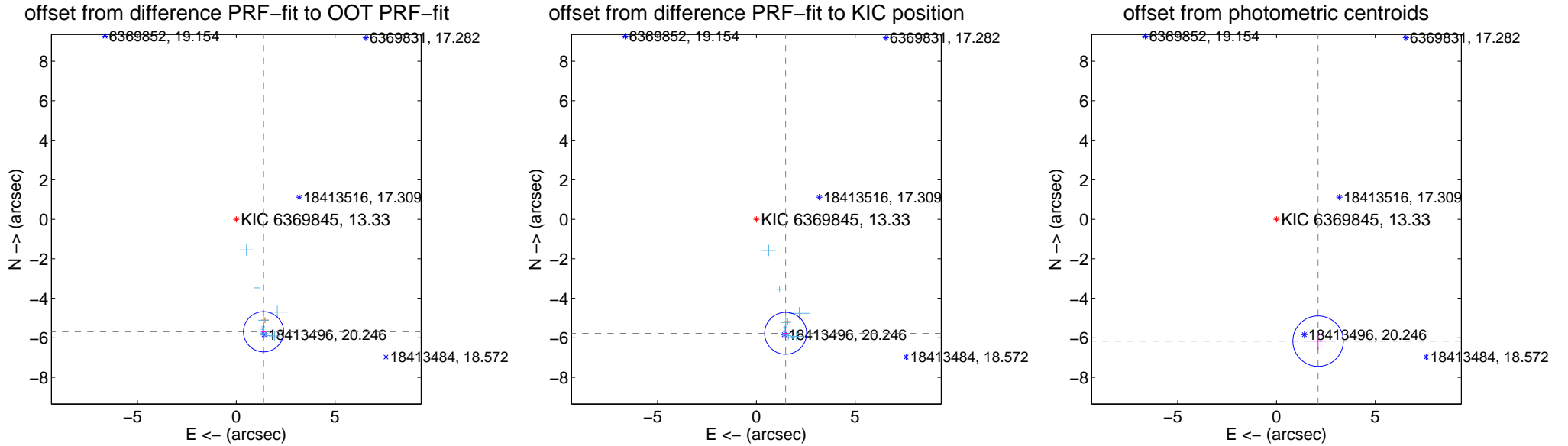
DV Centroid Data

Supplemental centroid analysis for 006369845-01. Kepler magnitude: 13.33. Transit SNR 7.70

There are 12 quarters with good PRF difference image offsets

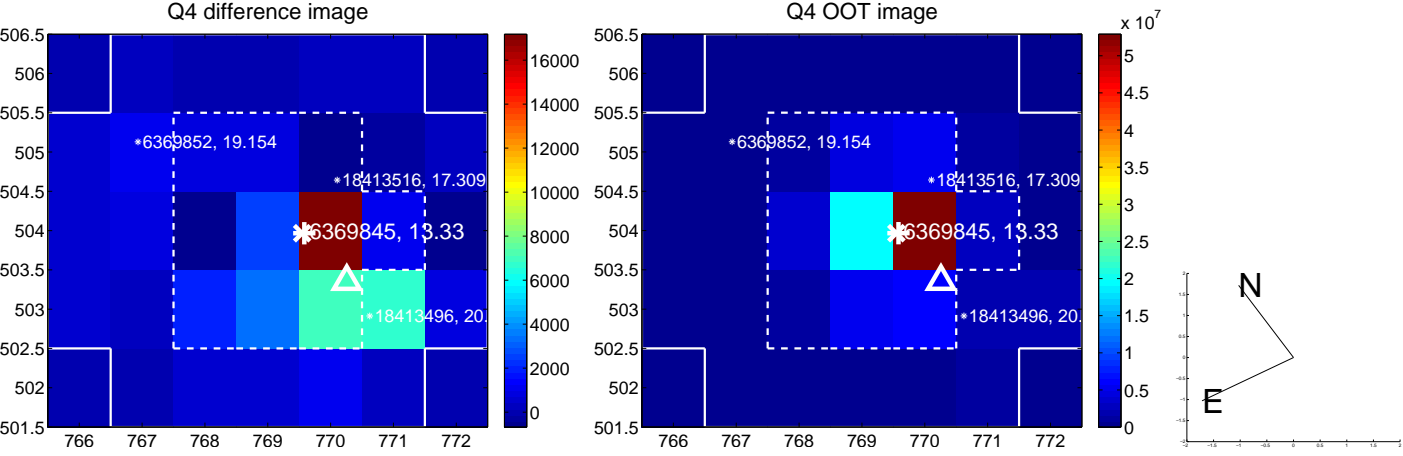
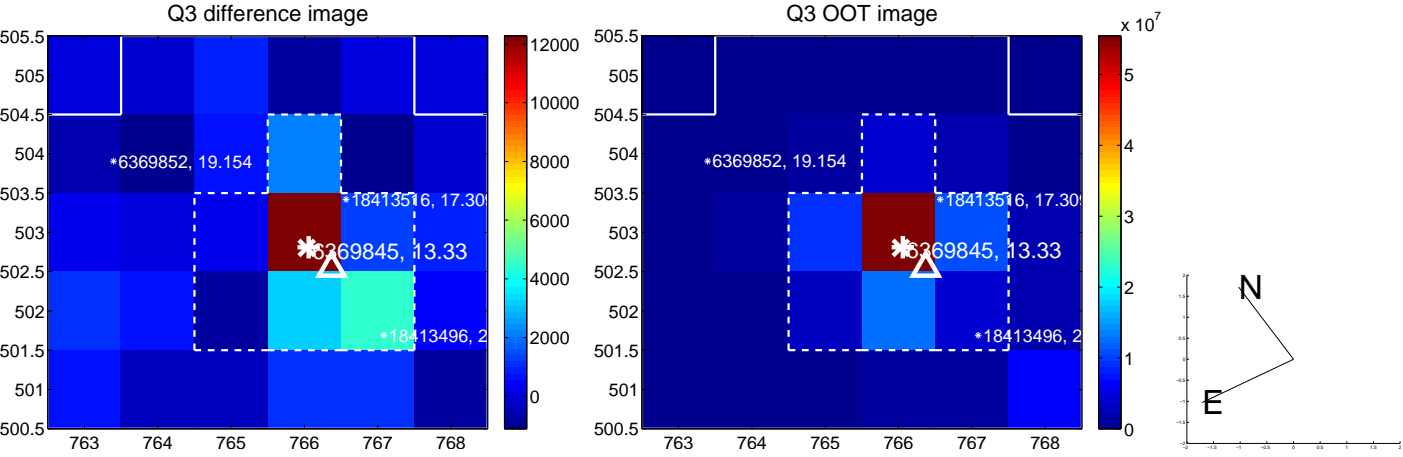
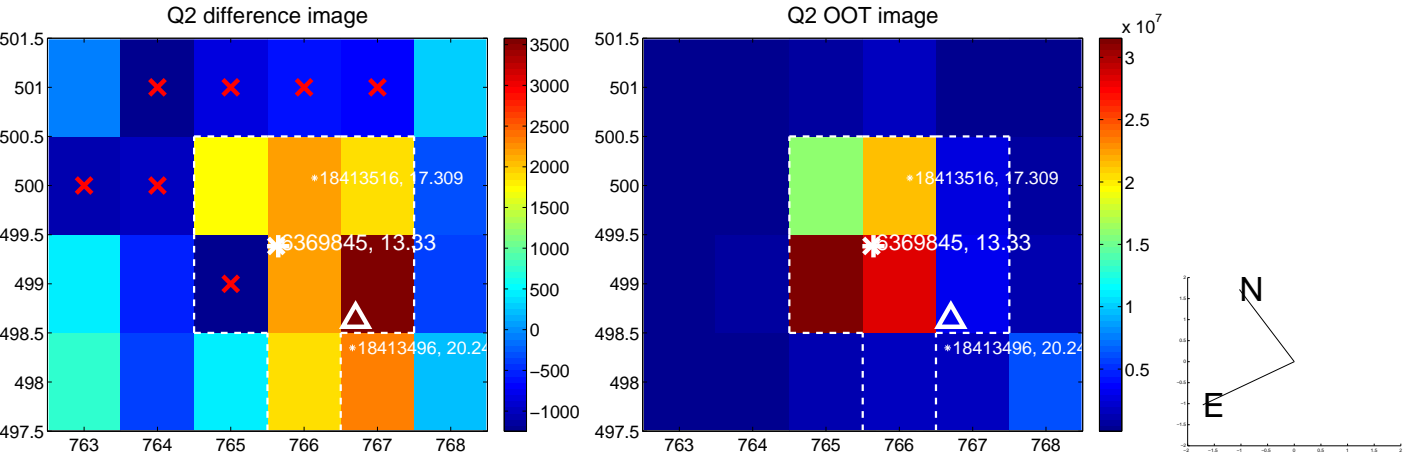
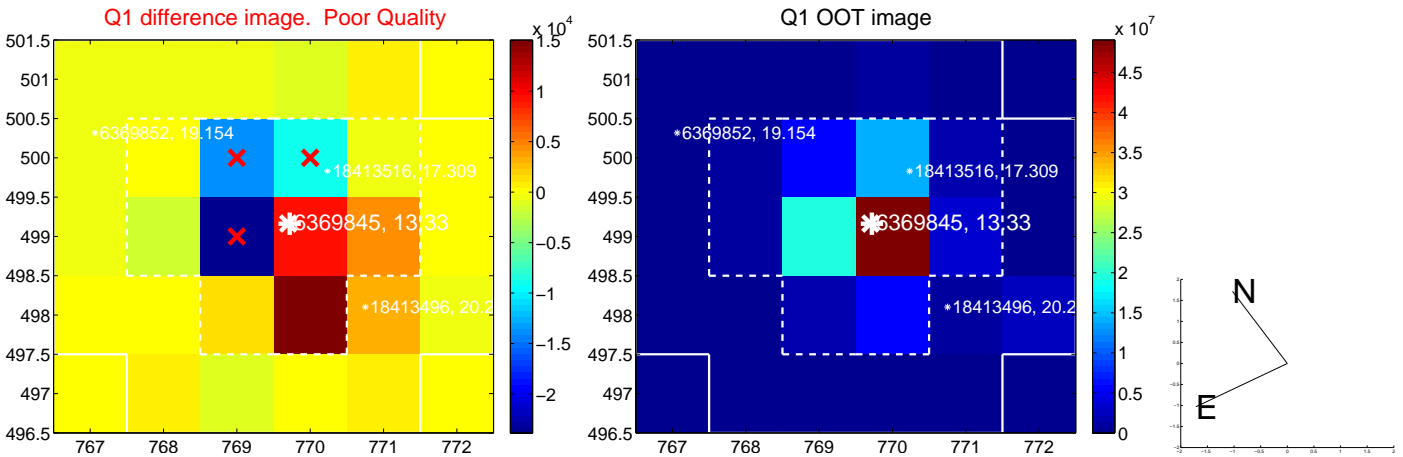
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.861 ± 0.339	17.28	-1.383 ± 0.116	-5.696 ± 0.334
PRF-fit source offset from KIC position	5.960 ± 0.354	16.84	-1.481 ± 0.122	-5.774 ± 0.346
photometric centroid source offset	6.52 ± 0.43	15.32	-2.11 ± 0.40	-6.17 ± 0.43

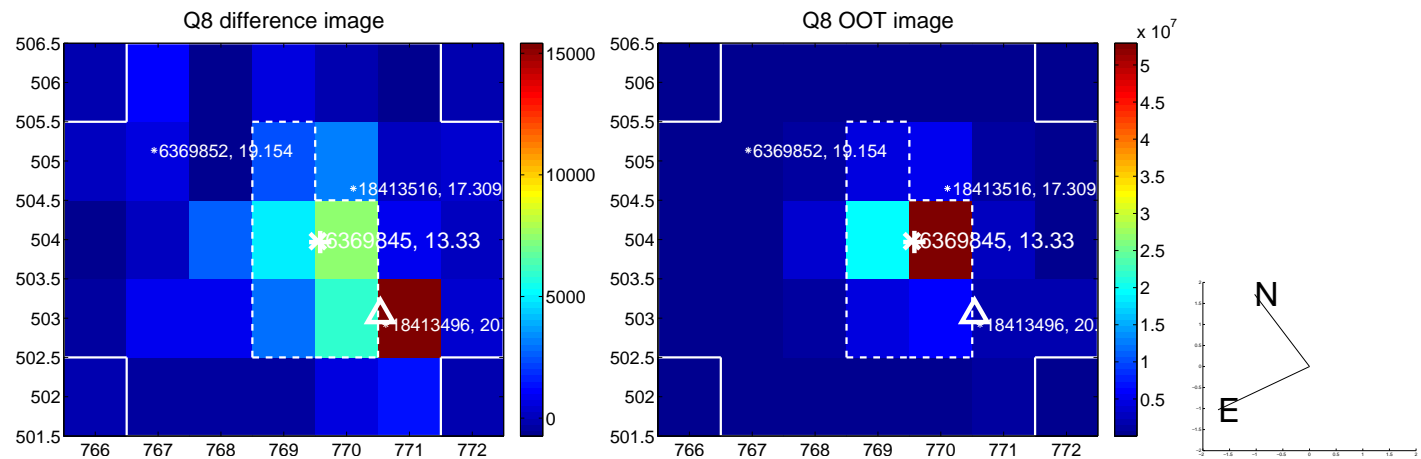
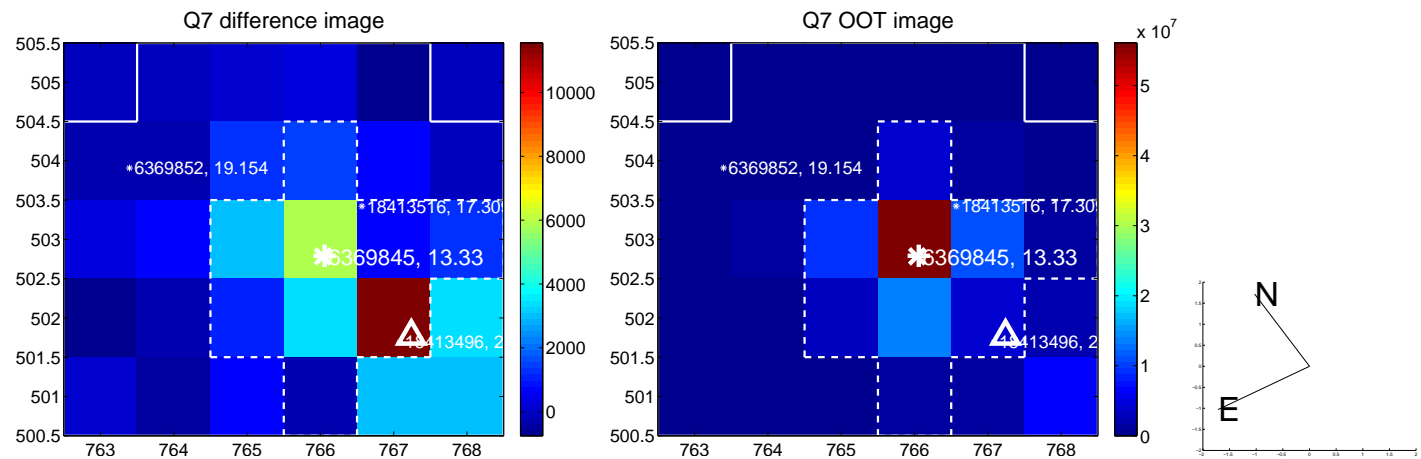
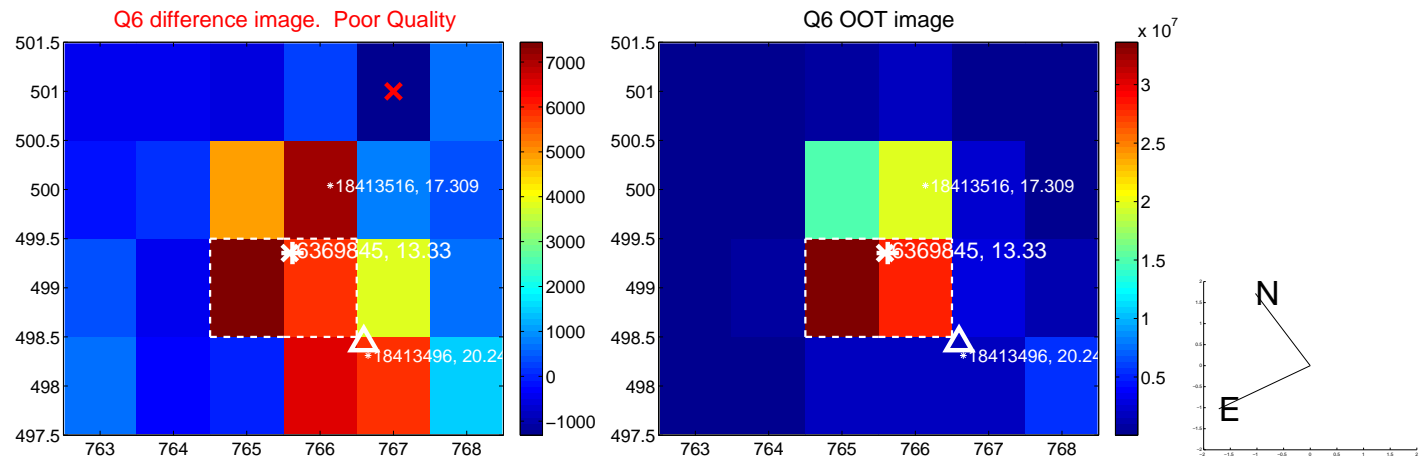
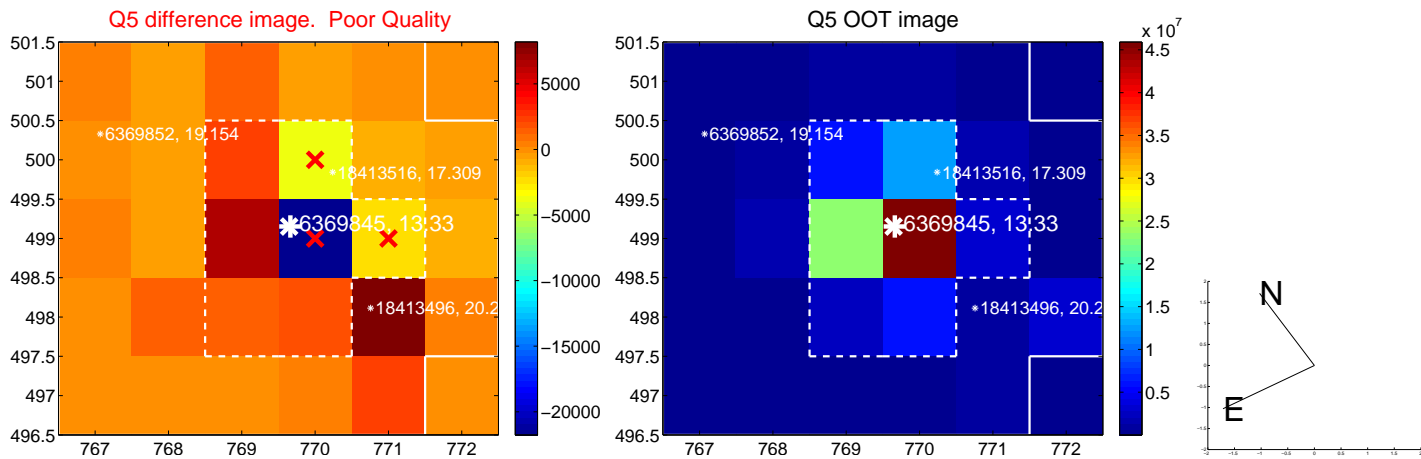


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

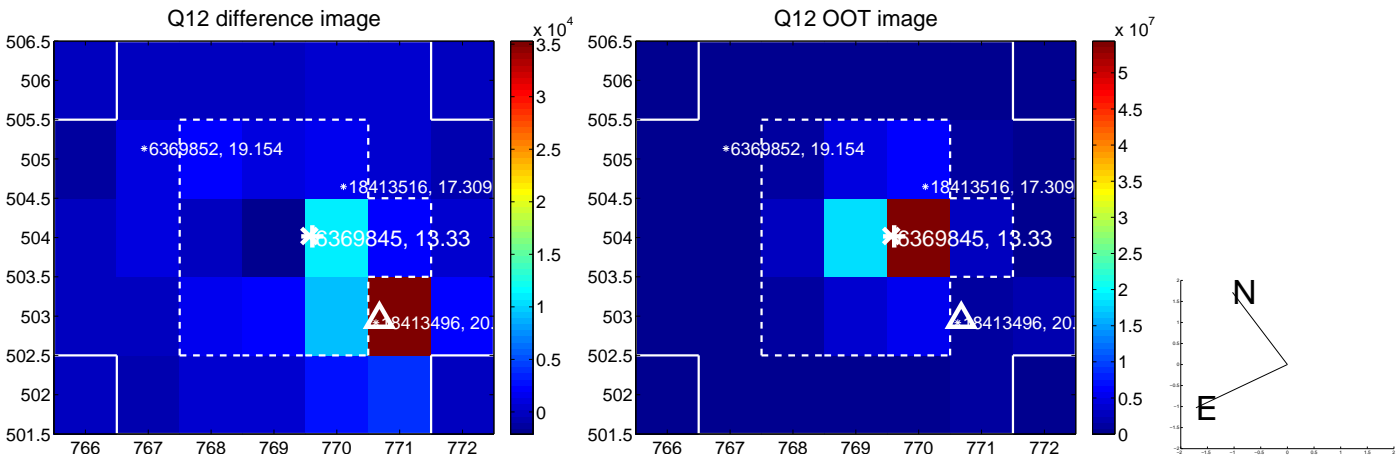
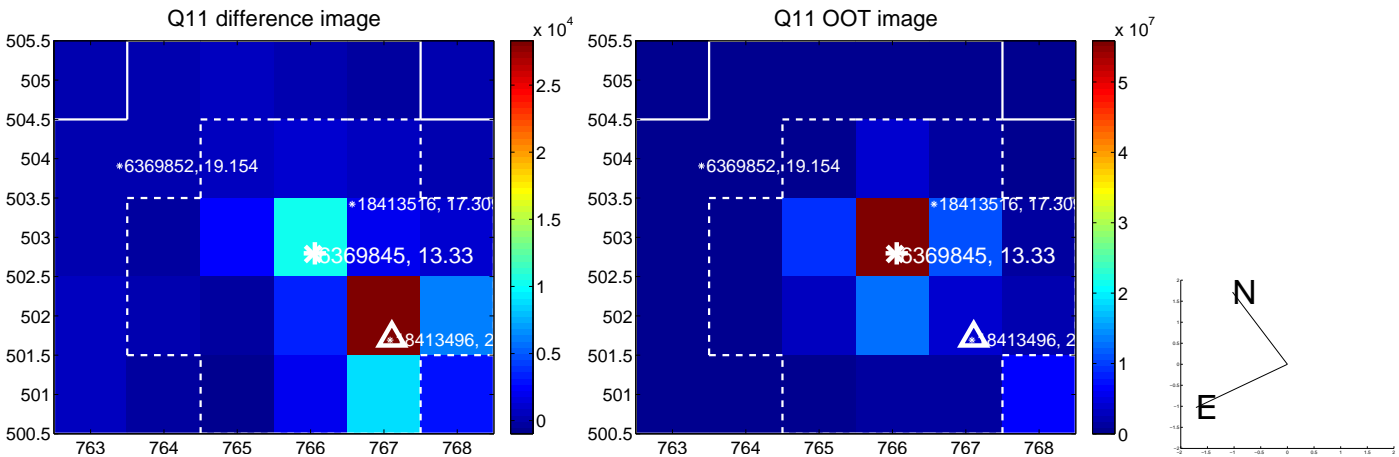
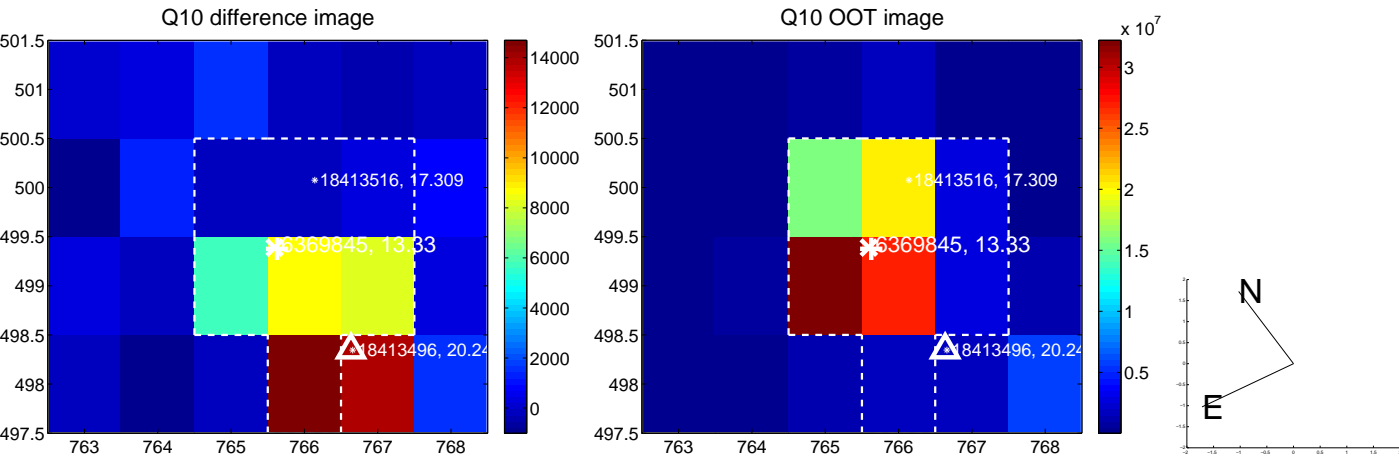
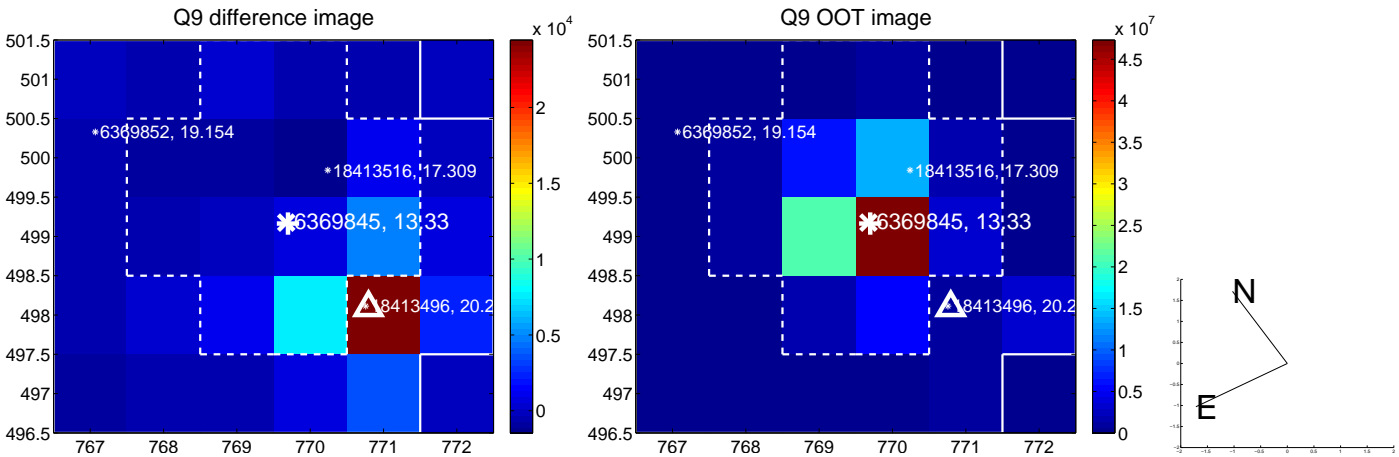
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



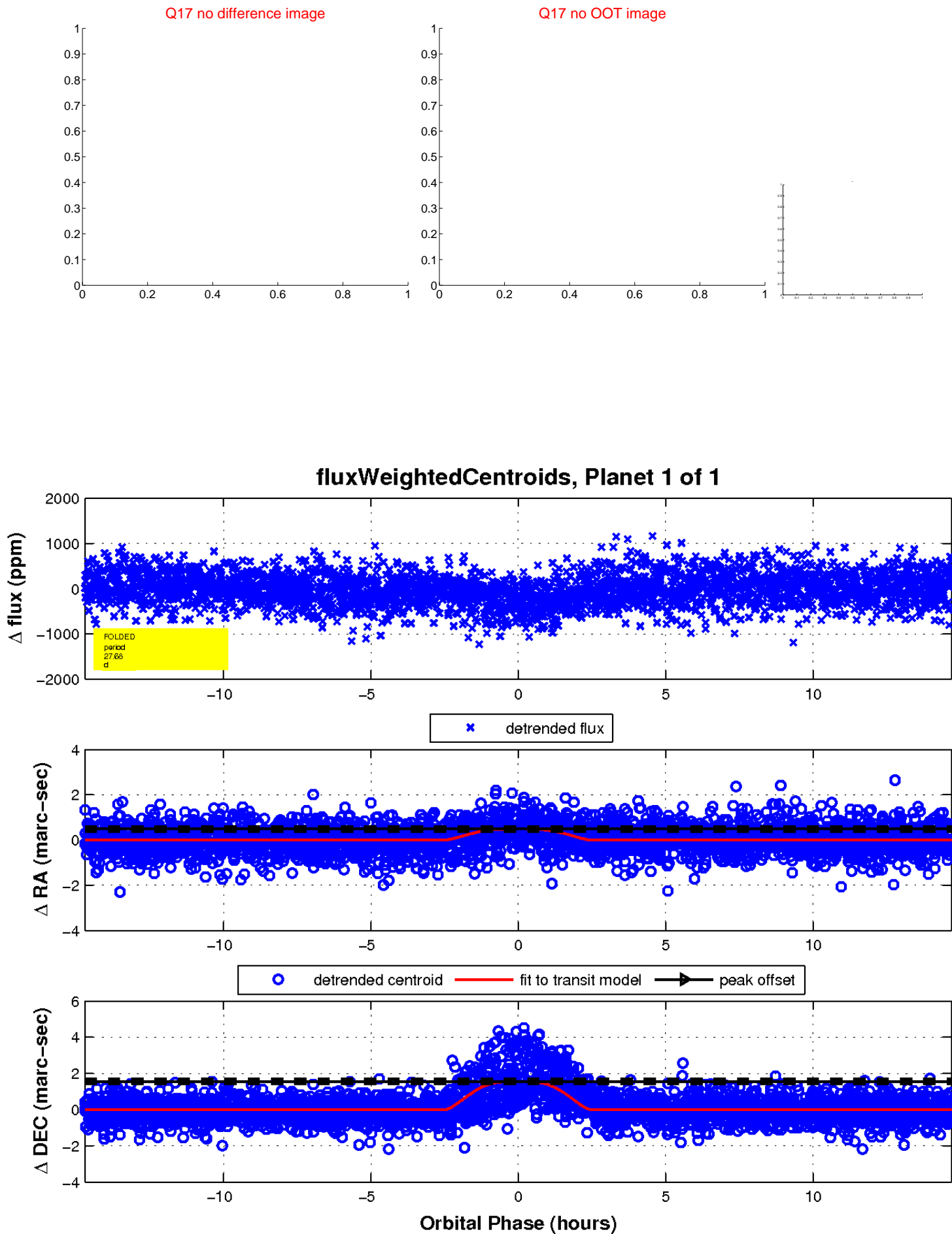
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

