

KIC 003860441

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})
003860441-01	OBS	1188.01	2.988090	133.271496	677.6	3.352	38.0	39.3	0.81	5497	3.95	347.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003860441-01	OBS	FP	0.00	0	1	1	0	MOD_ODDEVEN_DV—CENT_KIC_POS—HALO_GHOST

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 003860441-01

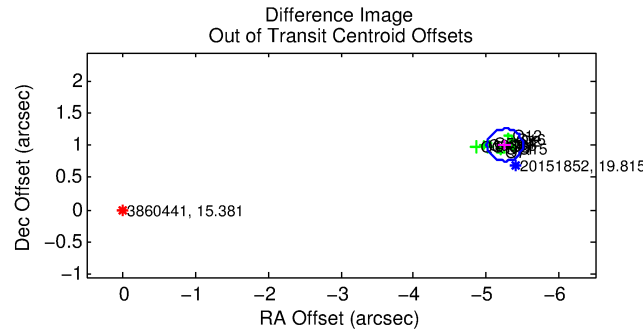
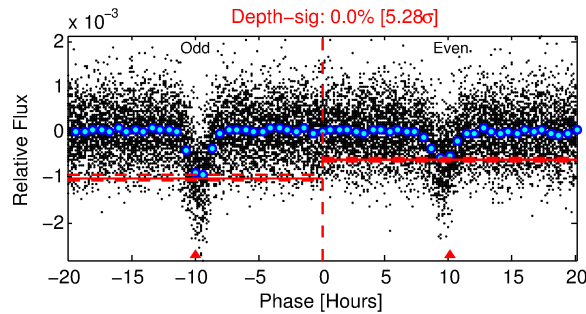
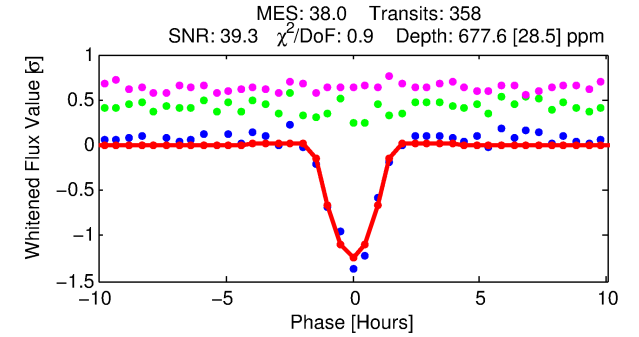
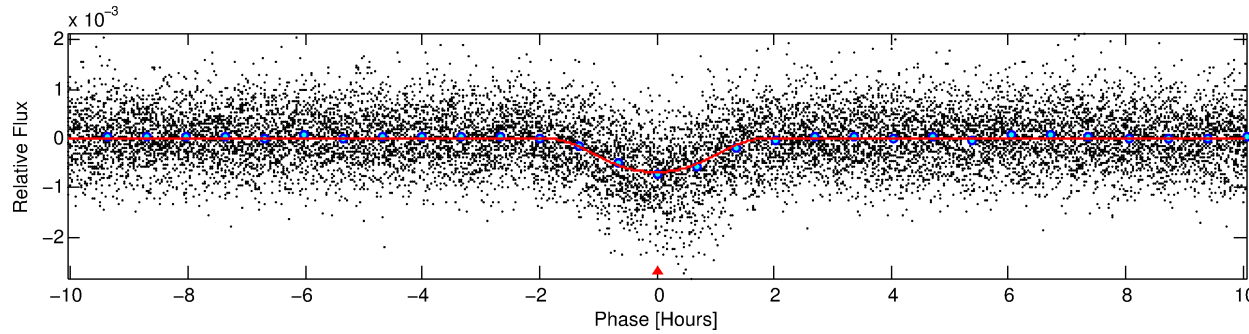
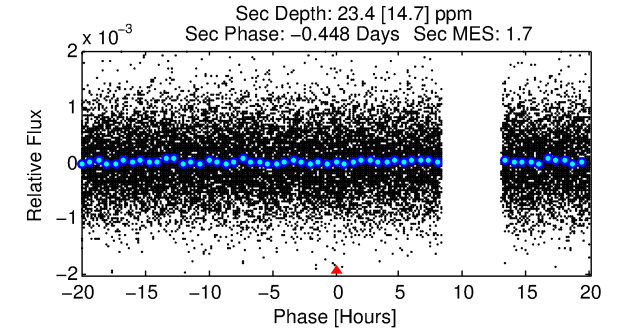
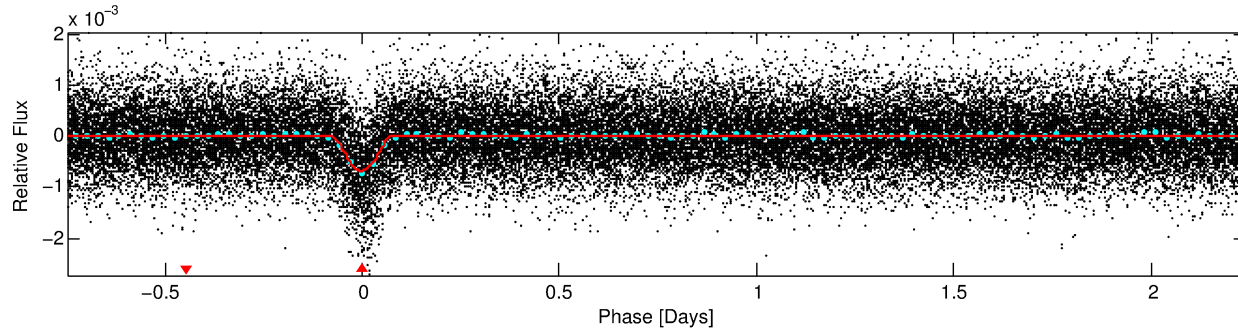
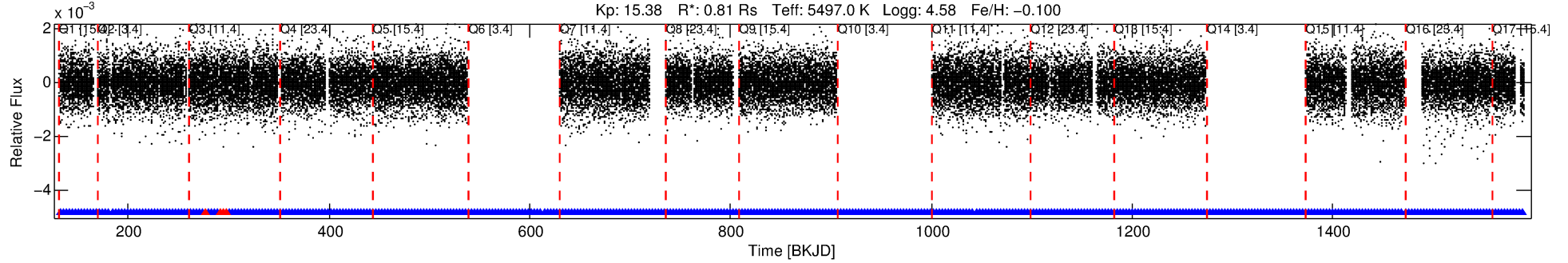
No Significant Match Found

DV One-Page Summary

KIC: 3860441 Candidate: 1 of 1 Period: 2.988 d

KOI: K01188.01 Corr: 0.947

Kp: 15.38 R*: 0.81 Rs Teff: 5497.0 K Logg: 4.58 Fe/H: -0.100



DV Fit Results:

Period = 2.98809 [0.00001] d
Epoch = 133.2715 [0.0017] BKJD
Rp/R* = 0.0448 [0.0425]
a/R* = 2.39 [0.48]
b = 1.00 [0.07]
Seff = 347.94 [105.93]
Teq = 1101 [84] K
Rp = 3.95 [3.87] Re
a = 0.0392 [0.0076] AU
Ag = 1.27 [2.56] [0.10σ]
Teff = 1806 [906] K [0.78σ]

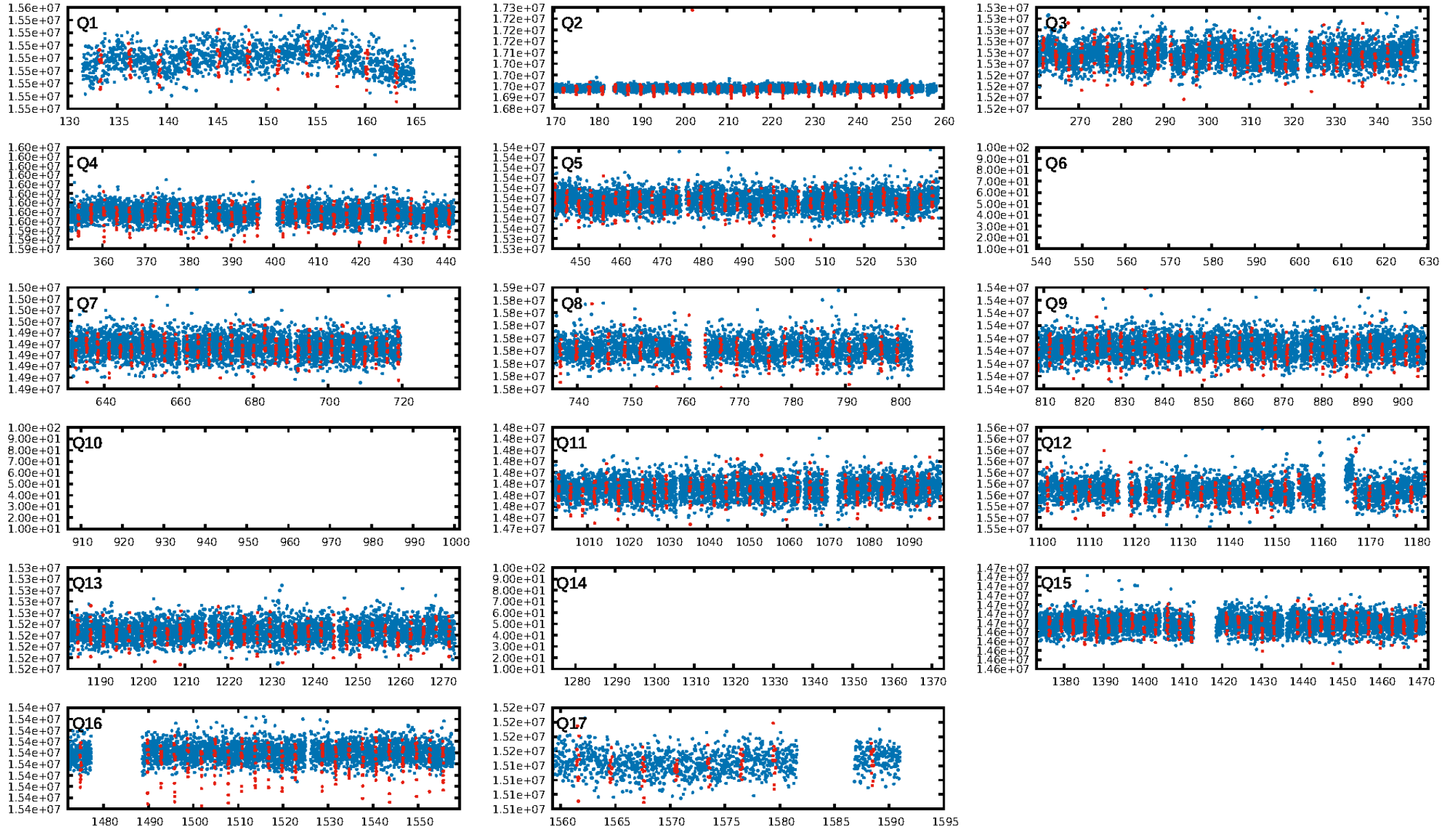
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 2.19e-305
RollingBand-fgt: 0.99 [335/339]
GhostDiagnostic-chr: -0.2044
Centroid-sig: 0.0%
Centroid-so: 21.302 arcsec [63.67σ]
OotOffset-rm: 5.350 arcsec [64.26σ]
KicOffset-rm: 5.465 arcsec [67.46σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

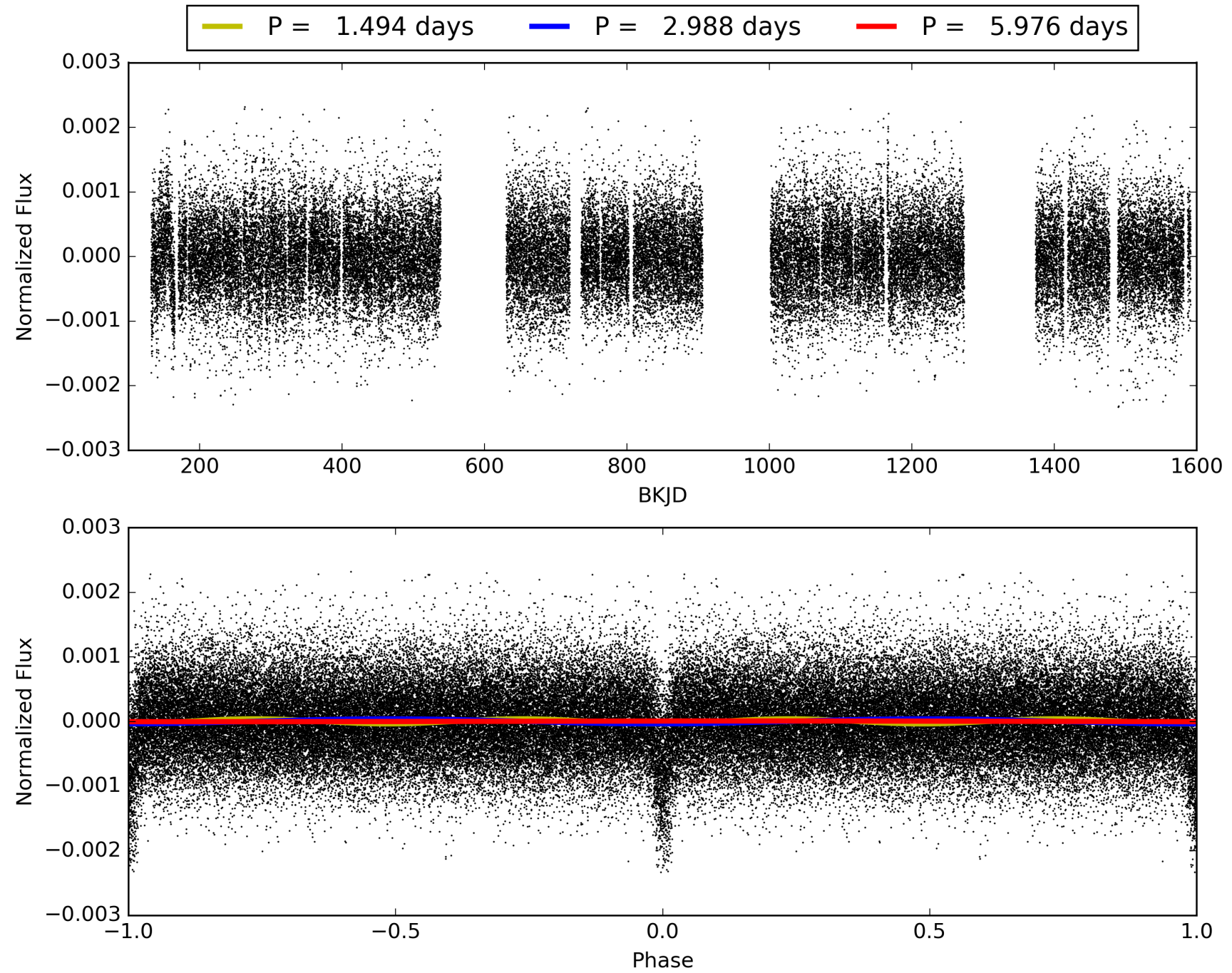
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:59:18 Z

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

TCE 003860441-01, PDC Light Curves

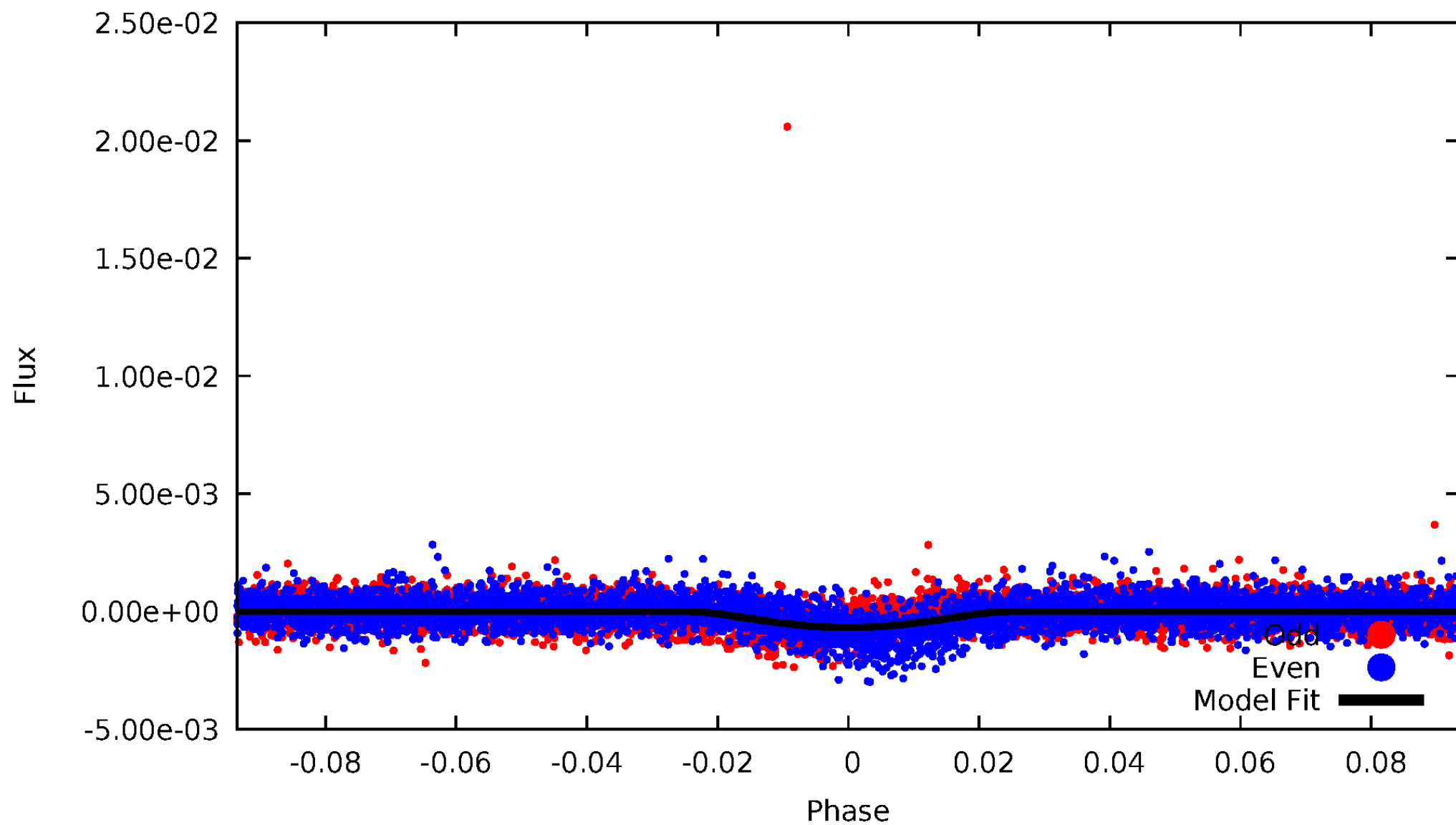


TCE 003860441-01



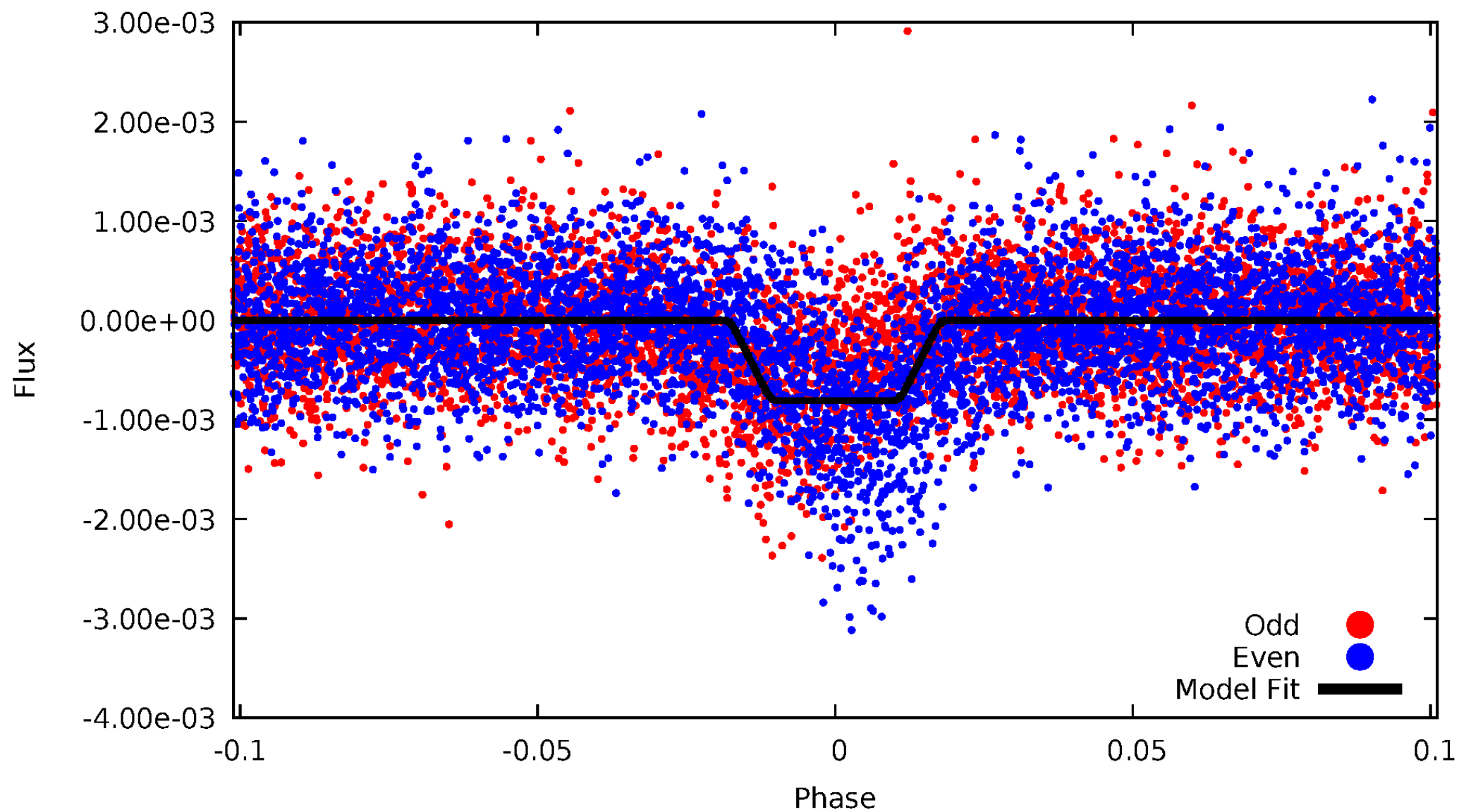
DV Odd/Even

TCE 003860441-01

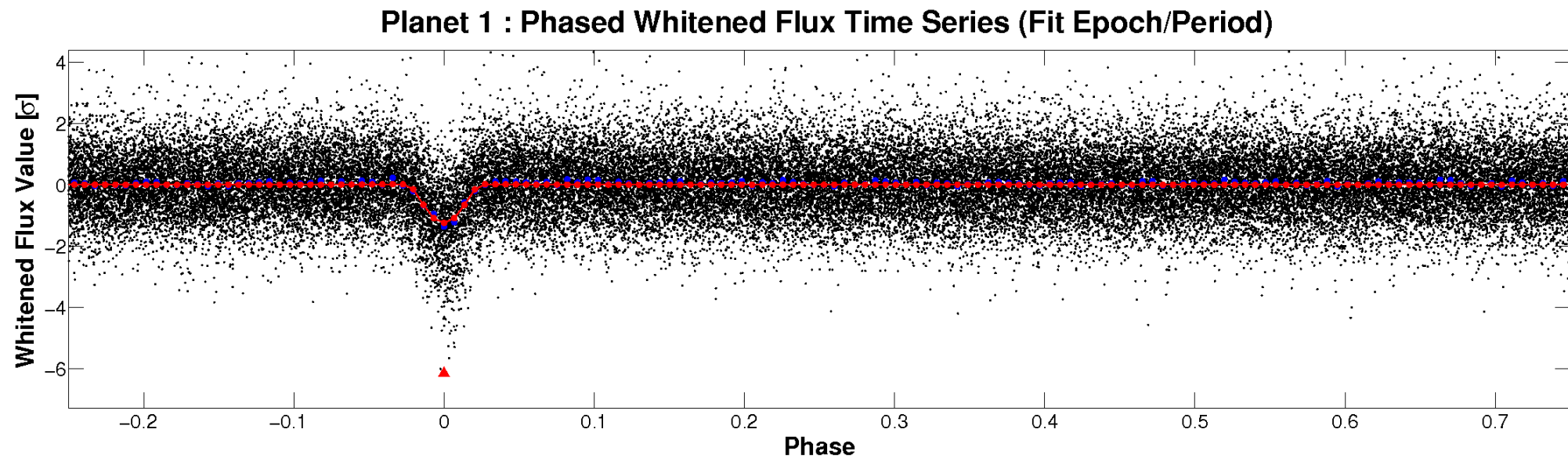
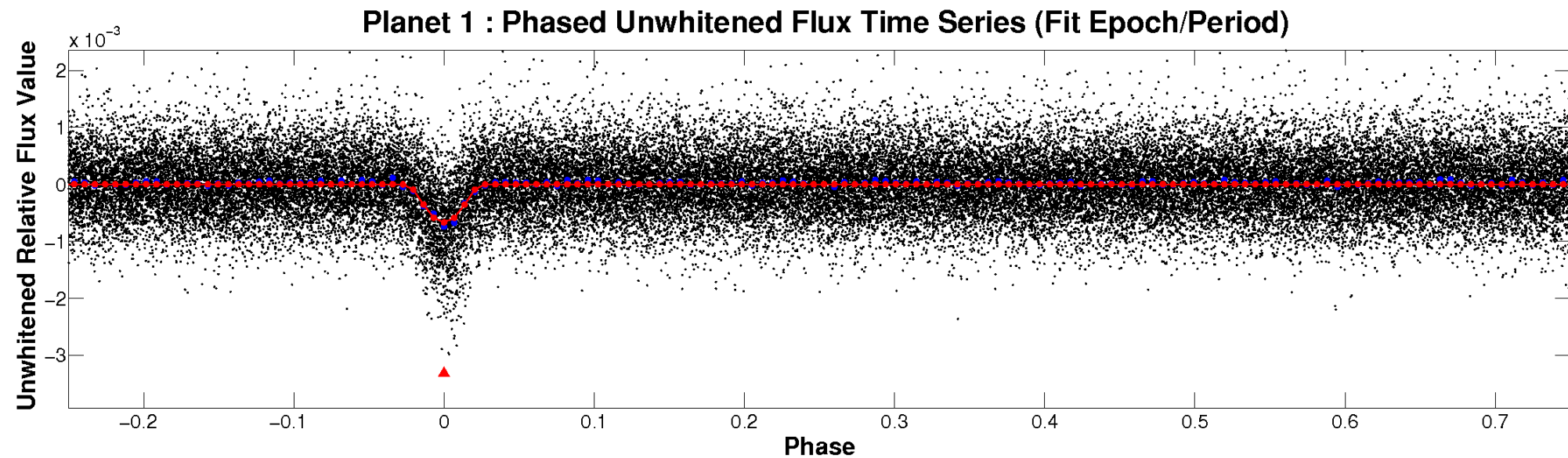


ALT Odd/Even

TCE 003860441-01

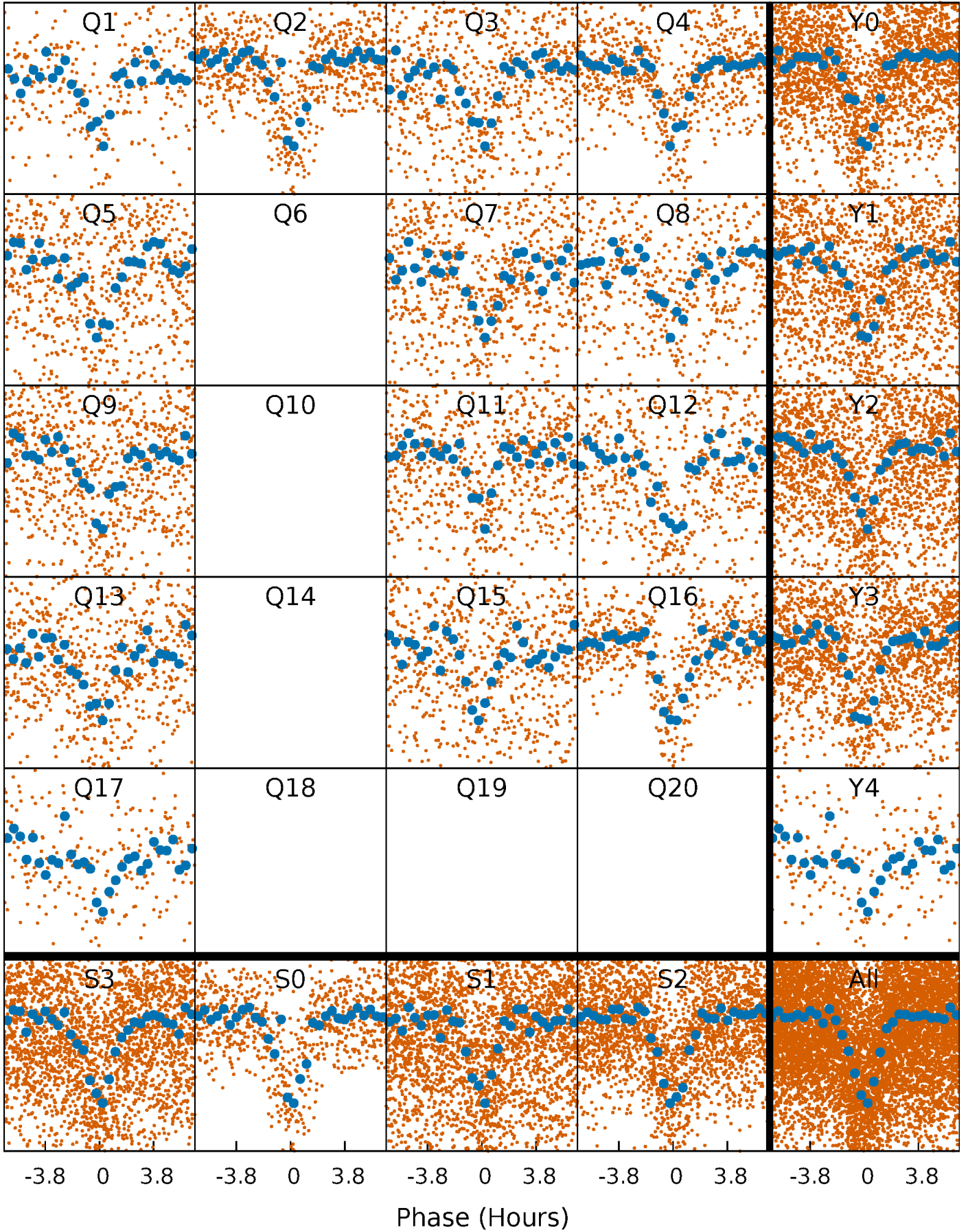


Non-Whitened Vs. Whitened Light Curve



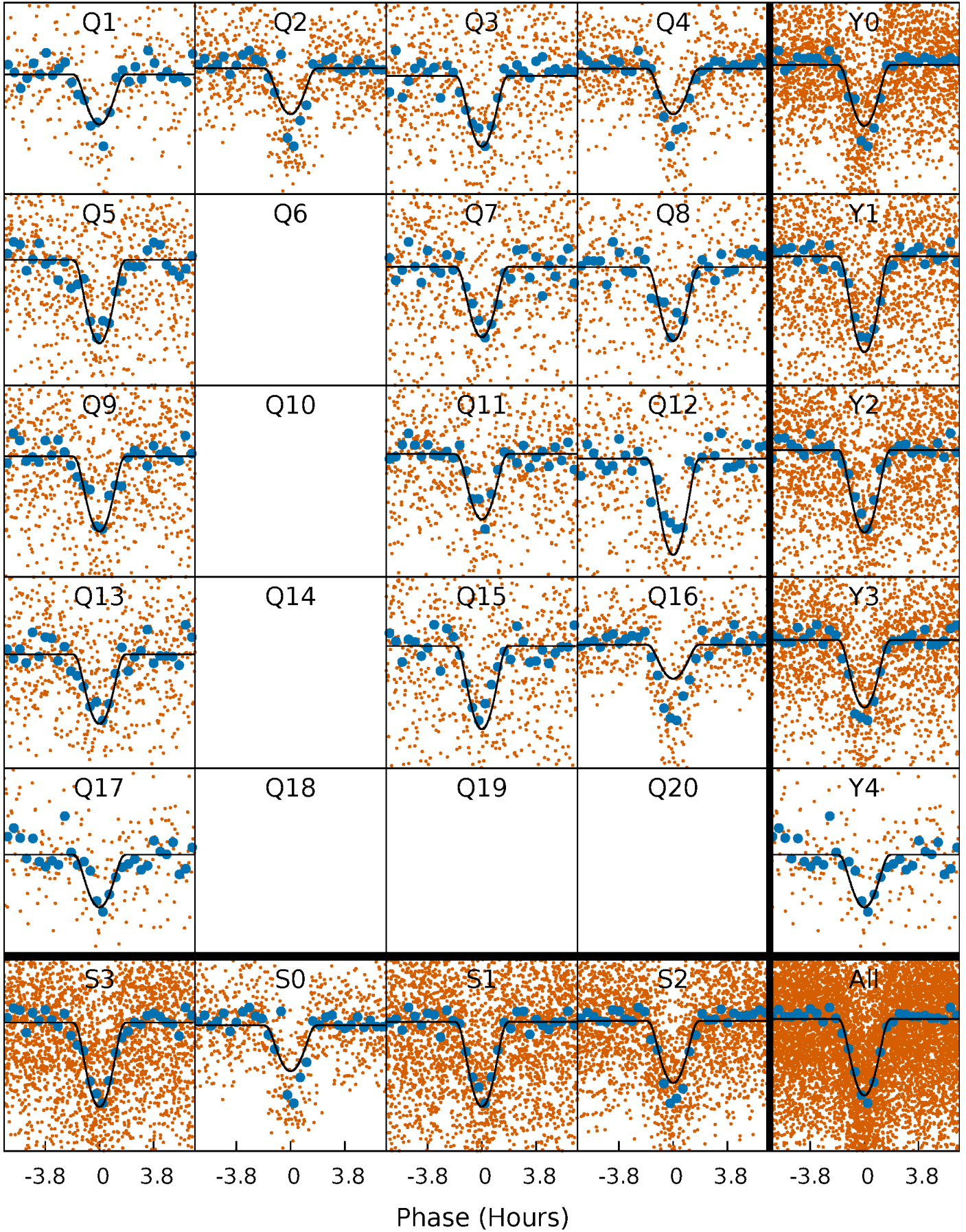
PDC Quarter-Phased Transit Curves

TCE 003860441-01 P= 2.988090 Days $T_0=133.271497$ (BKJD)



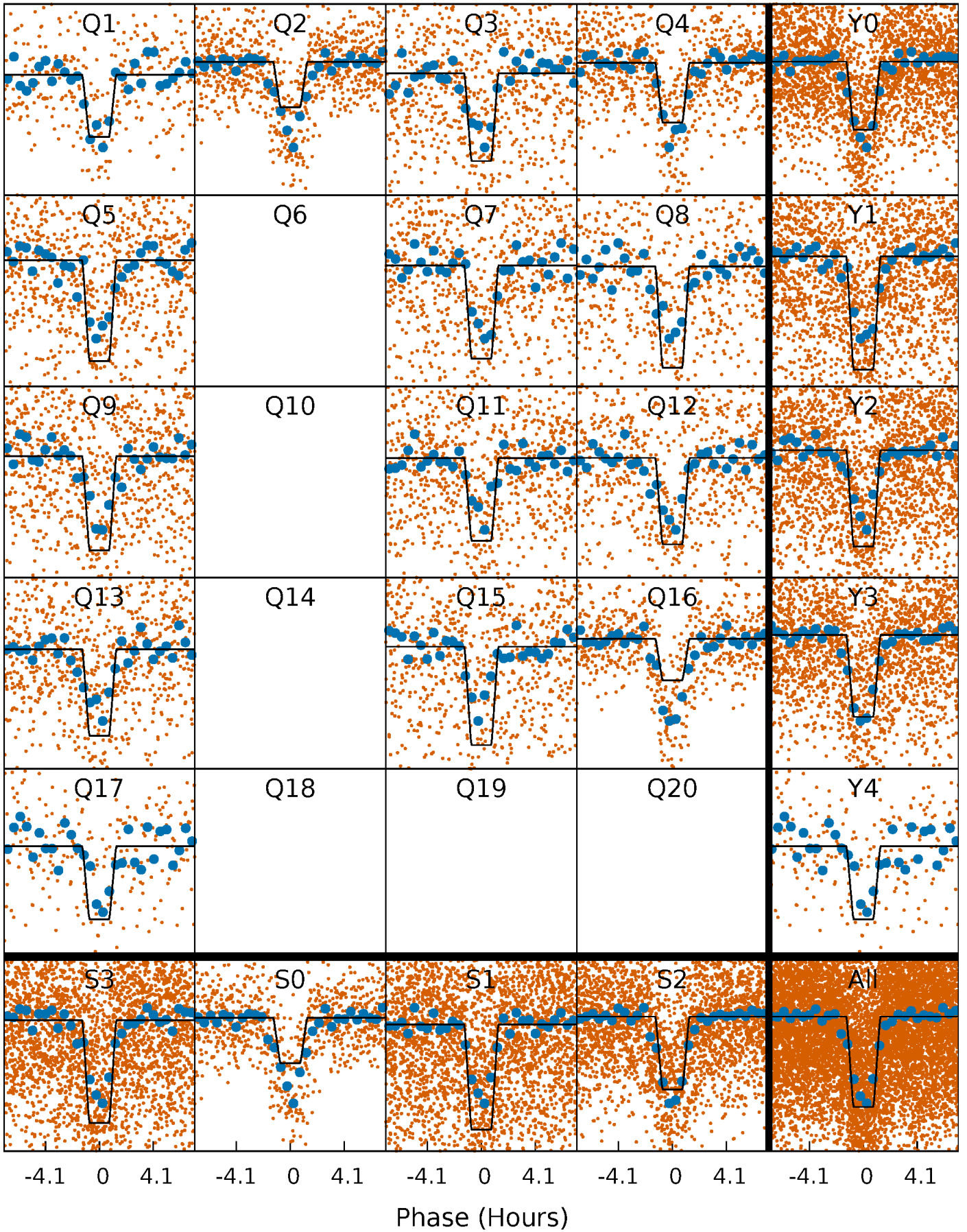
DV Quarter-Phased Transit Curves

TCE 003860441-01 P= 2.988090 Days $T_0=133.271497$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

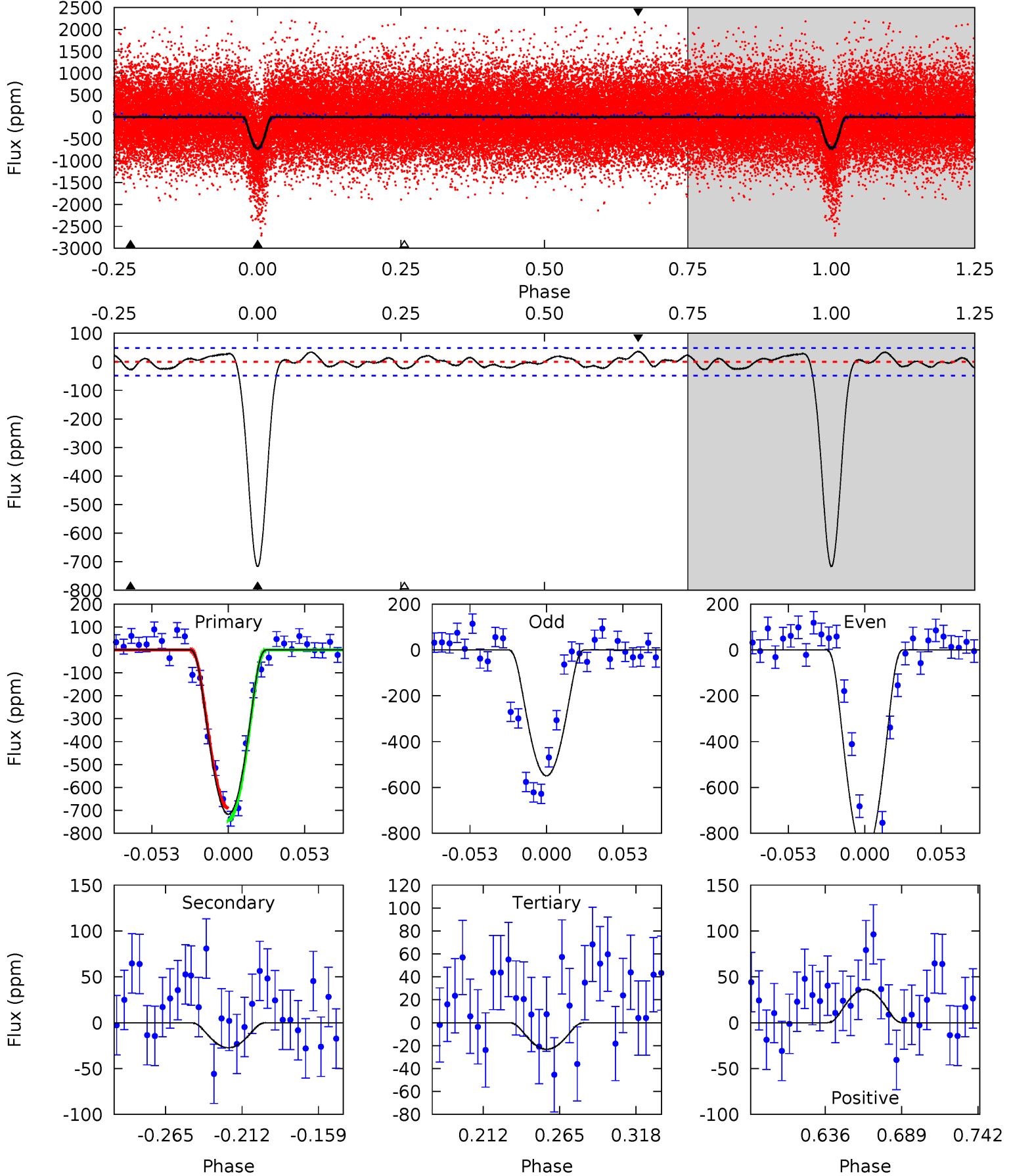
TCE 003860441-01 P= 2.988097 Days $T_0=133.270253$ (BKJD)



DV Model-Shift Uniqueness Test

003860441-01, P = 2.988090 Days, E = 130.283407 Days

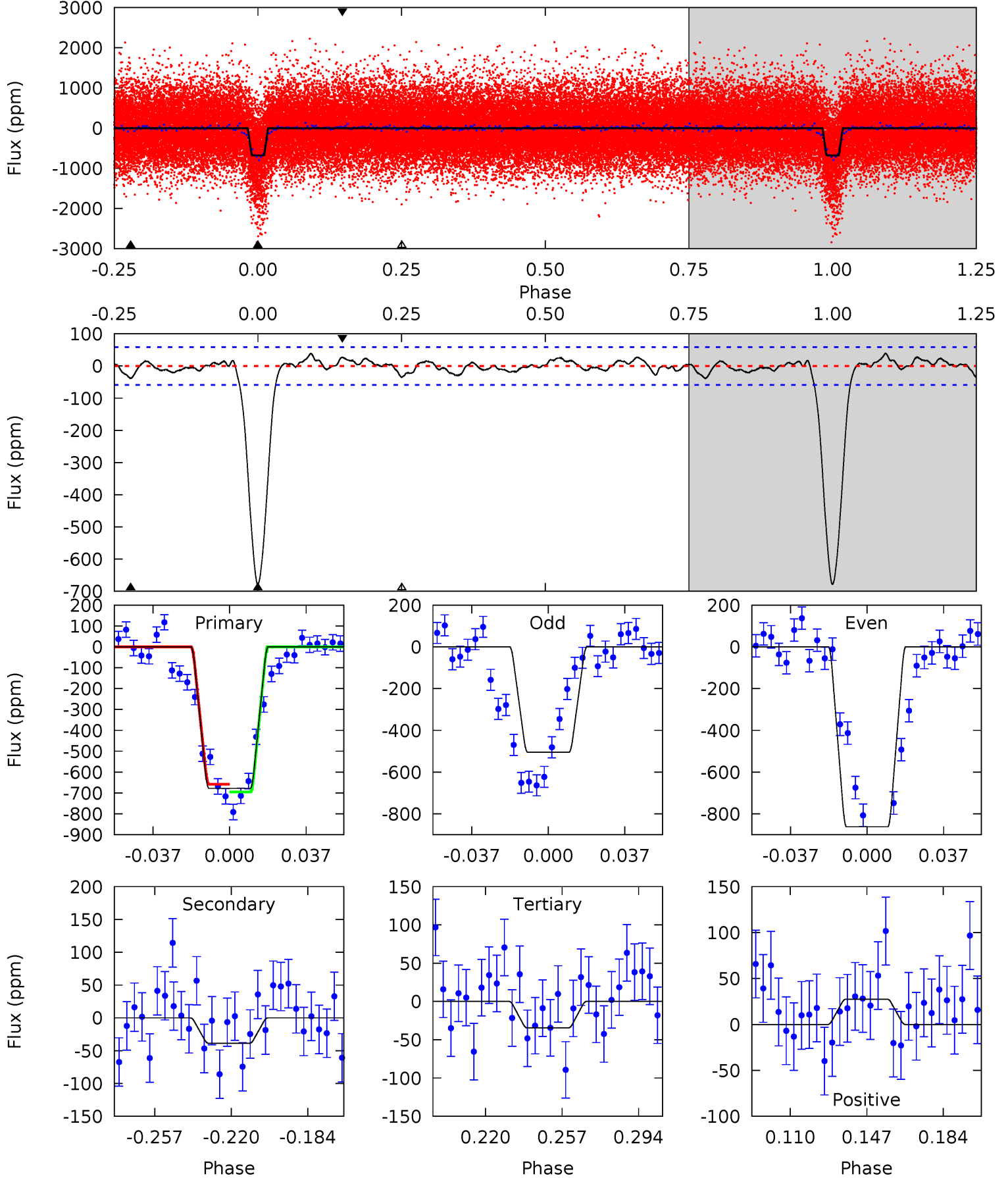
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
69.6	2.65	2.25	3.52	4.70	1.94	1.43	67.3	66.0	0.40	-0.88	16.9	1.06	0.05	2.54



Alt Model-Shift Uniqueness Test

003860441-01, P = 2.988097 Days, E = 130.282156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.1	3.13	2.81	2.24	4.77	2.09	1.11	52.3	52.8	0.33	0.90	14.6	1.06	0.05	1.49



Stellar Parameters For KIC 003860441

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5497^{+164}_{-164}	$4.577^{+0.028}_{-0.152}$	$-0.100^{+0.300}_{-0.300}$	$0.809^{+0.188}_{-0.075}$	$0.907^{+0.082}_{-0.101}$	$2.412^{+0.373}_{-1.058}$
	+3%/-3%	+1%/-3%	+300%/-300%	+23%/-9%	+9%/-11%	+15%/-44%
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 003860441-01 / KOI 1188.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 10	$4.98^{+3.83}_{-3.04}$	1578^{+81}_{-63}	2416^{+873}_{-4221}	$0.920^{+5.599}_{-0.657}$
Alt.	-39 ± 12	$3.65^{+3.48}_{-2.28}$	1570^{+95}_{-63}	2820^{+1049}_{-588}	$2.372^{+14.344}_{-1.788}$

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 $A_{\text{obs}} \gg 1.0$

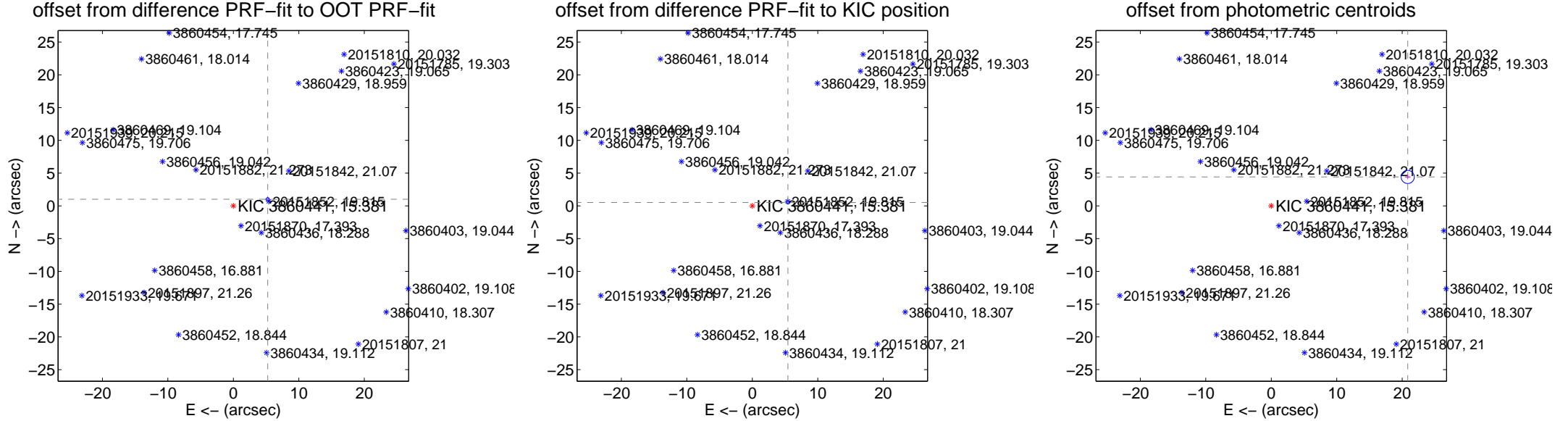
DV Centroid Data

Supplemental centroid analysis for 003860441-01. Kepler magnitude: 15.38. Transit SNR 39.25

There are 14 quarters with good PRF difference image offsets

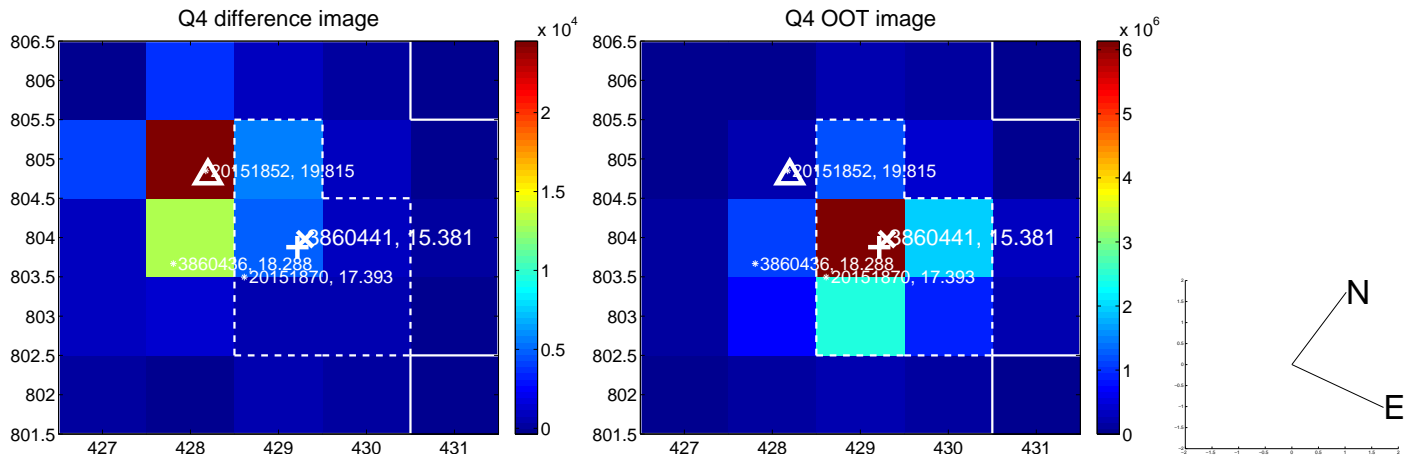
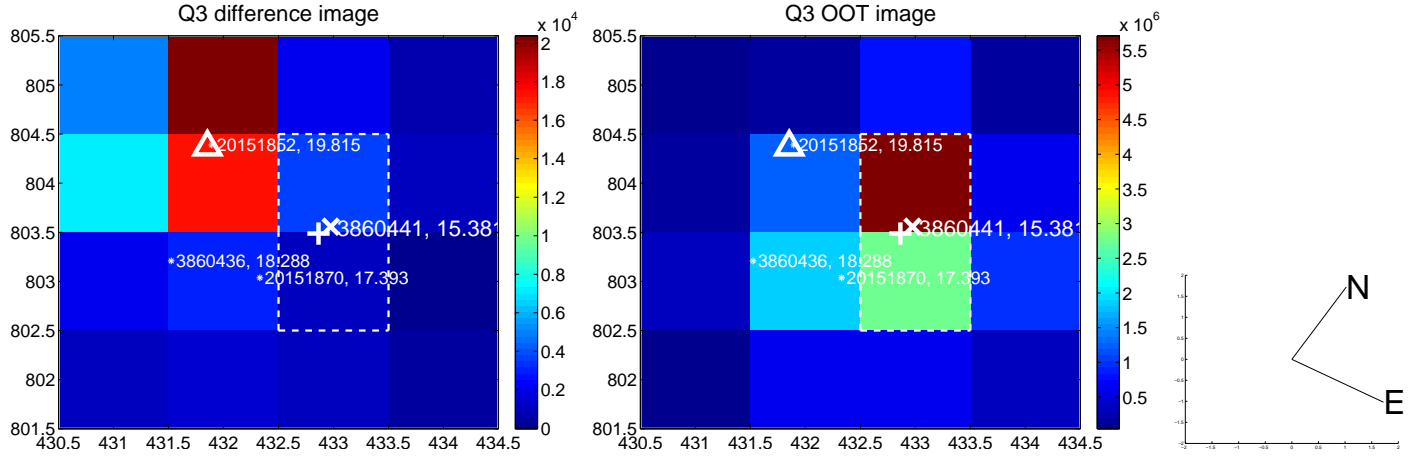
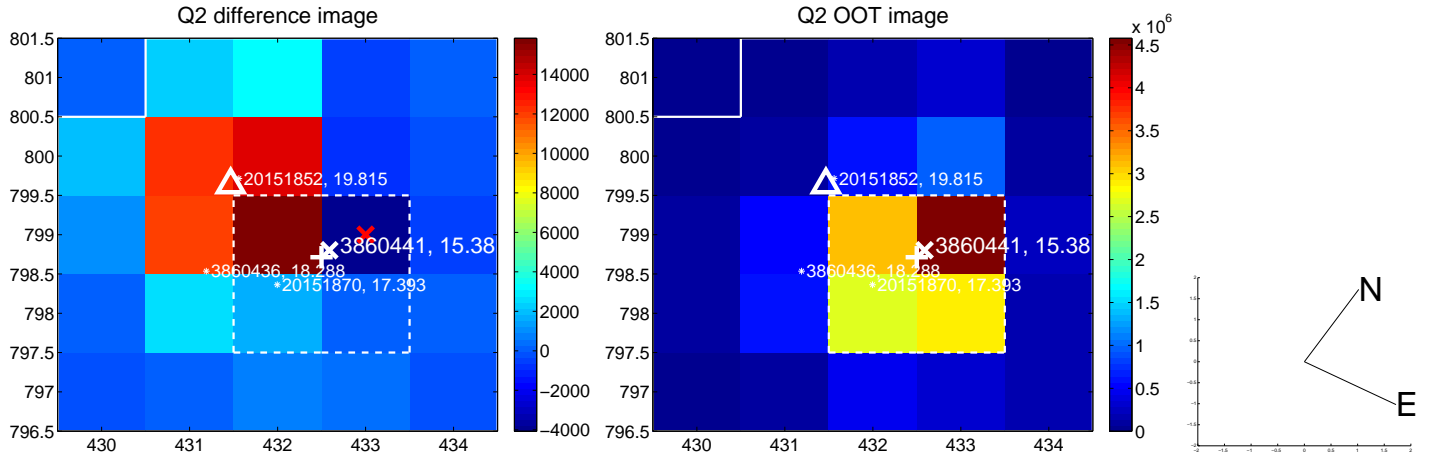
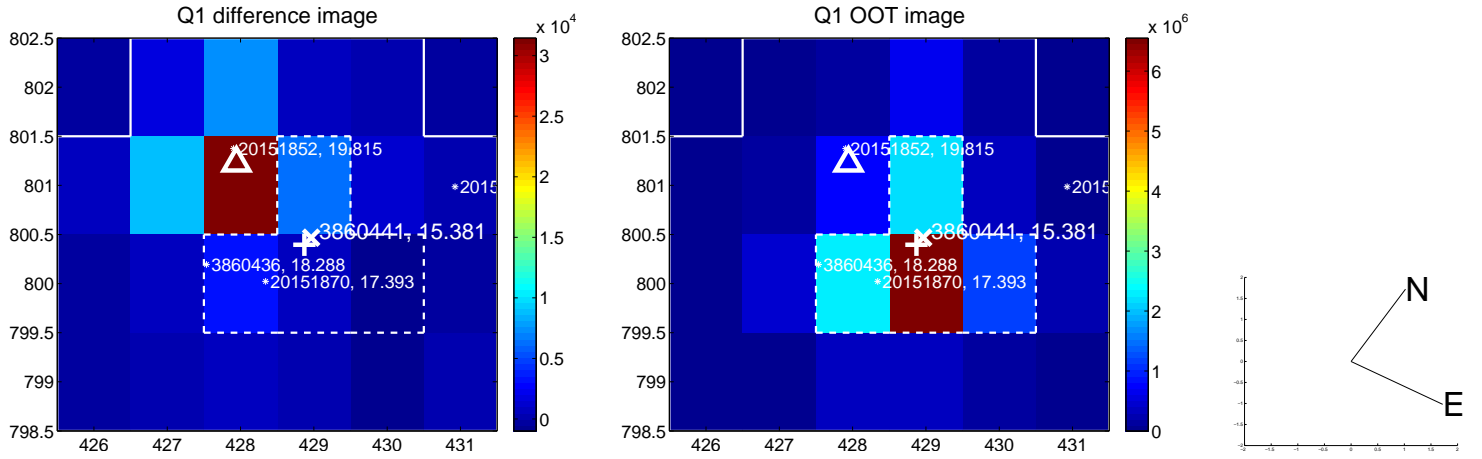
The direct PRF centroid is offset from the target star catalog position by about 0.50 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.350 \pm 0.083	64.26	-5.254 \pm 0.083	1.008 \pm 0.069
PRF-fit source offset from KIC position	5.465 \pm 0.081	67.46	-5.440 \pm 0.081	0.519 \pm 0.069
photometric centroid source offset	21.30 \pm 0.33	63.67	-20.84 \pm 0.33	4.41 \pm 0.35

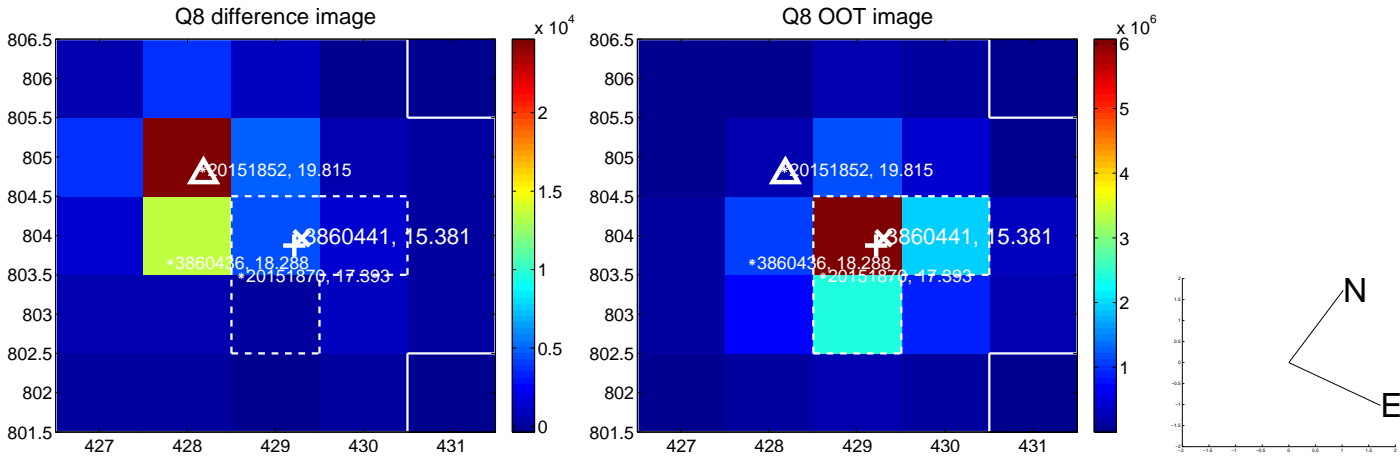
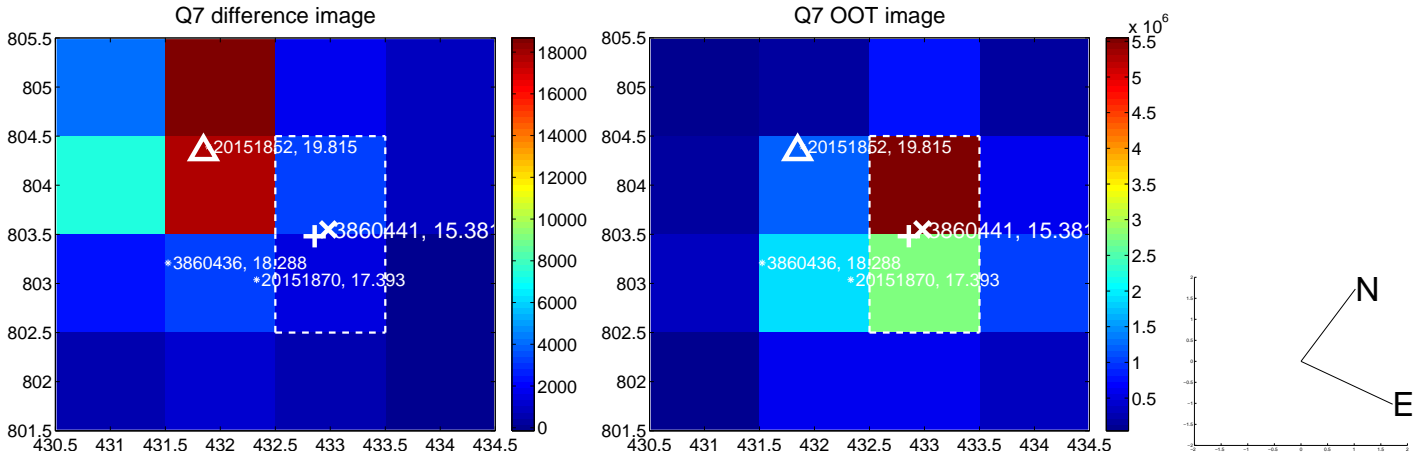
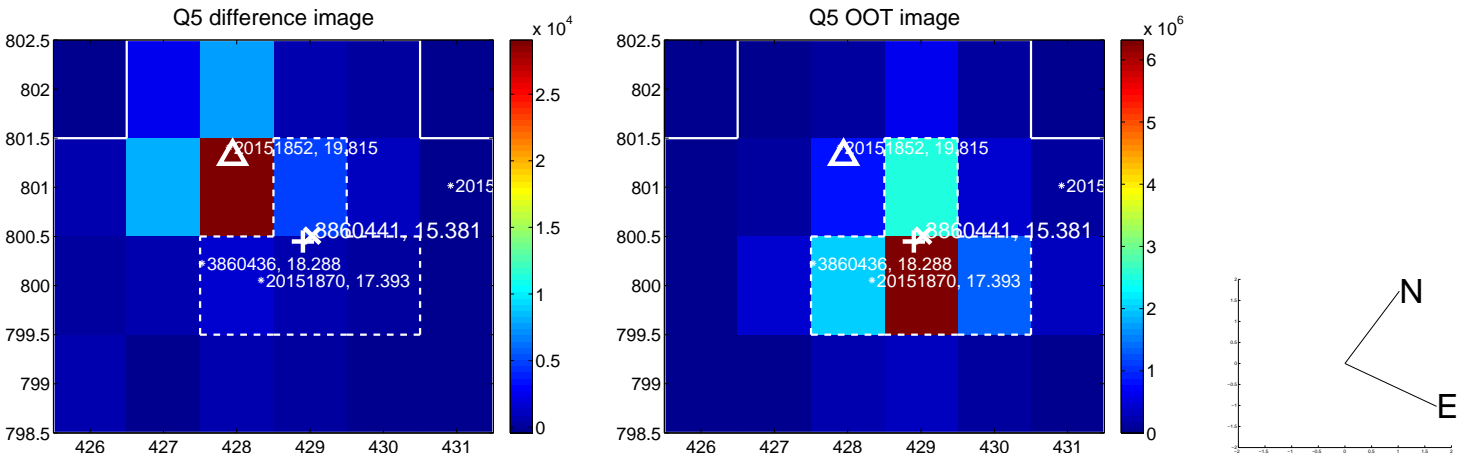


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

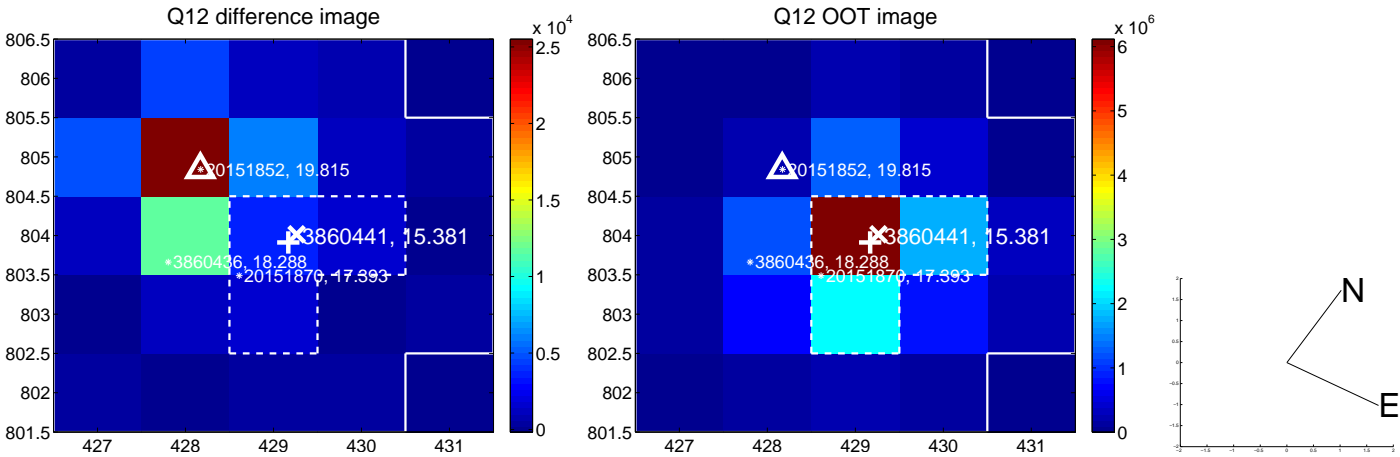
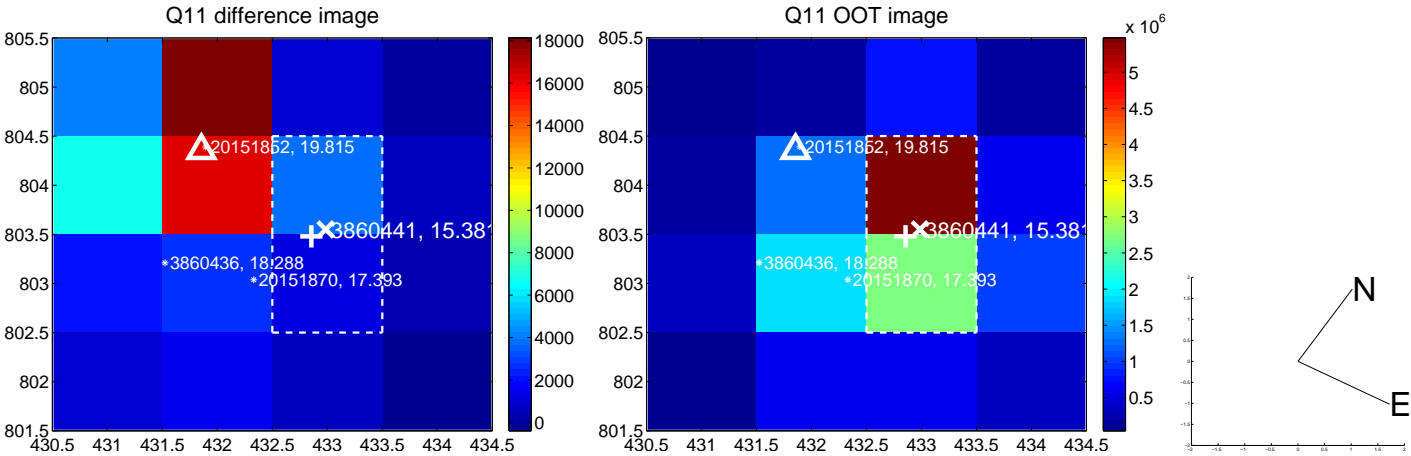
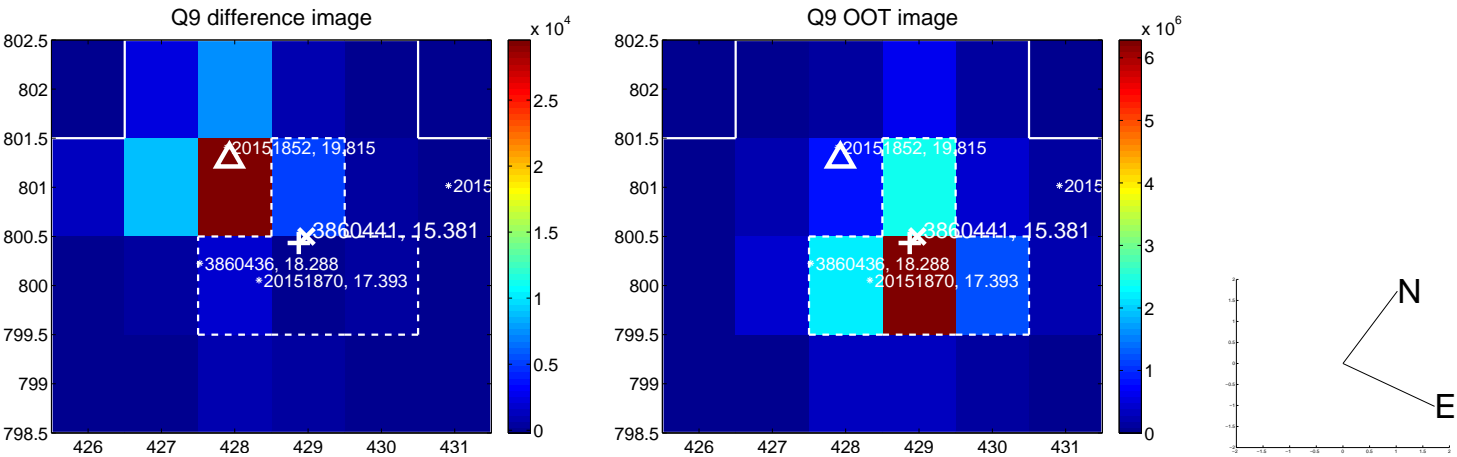
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



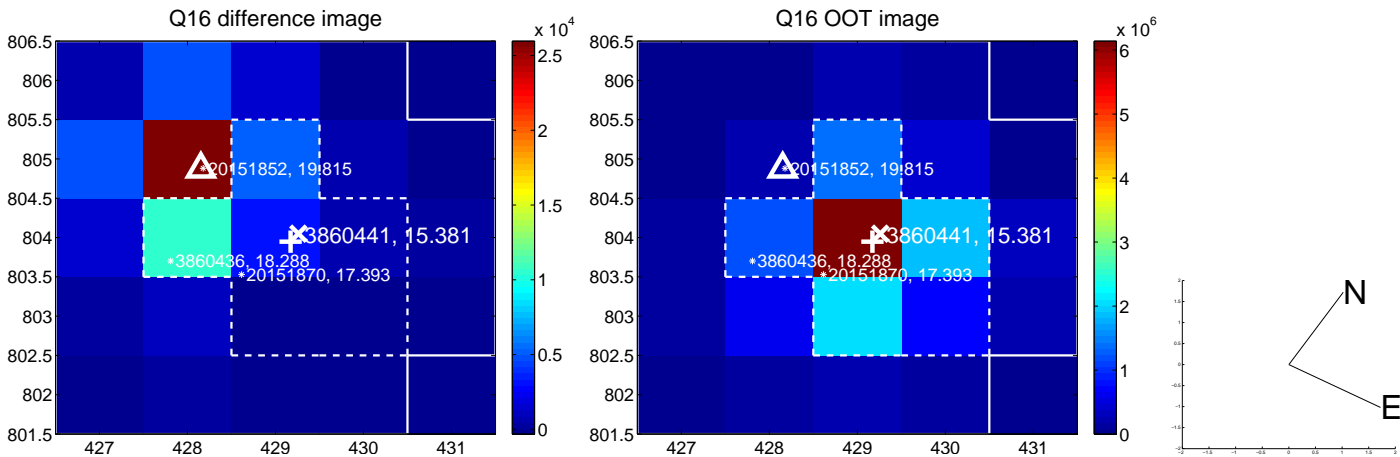
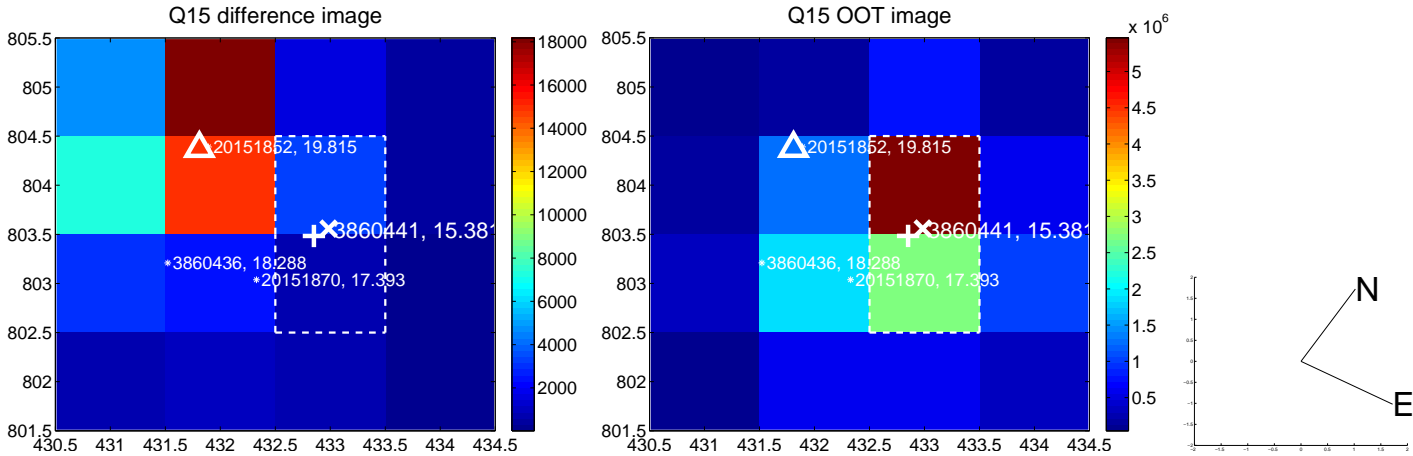
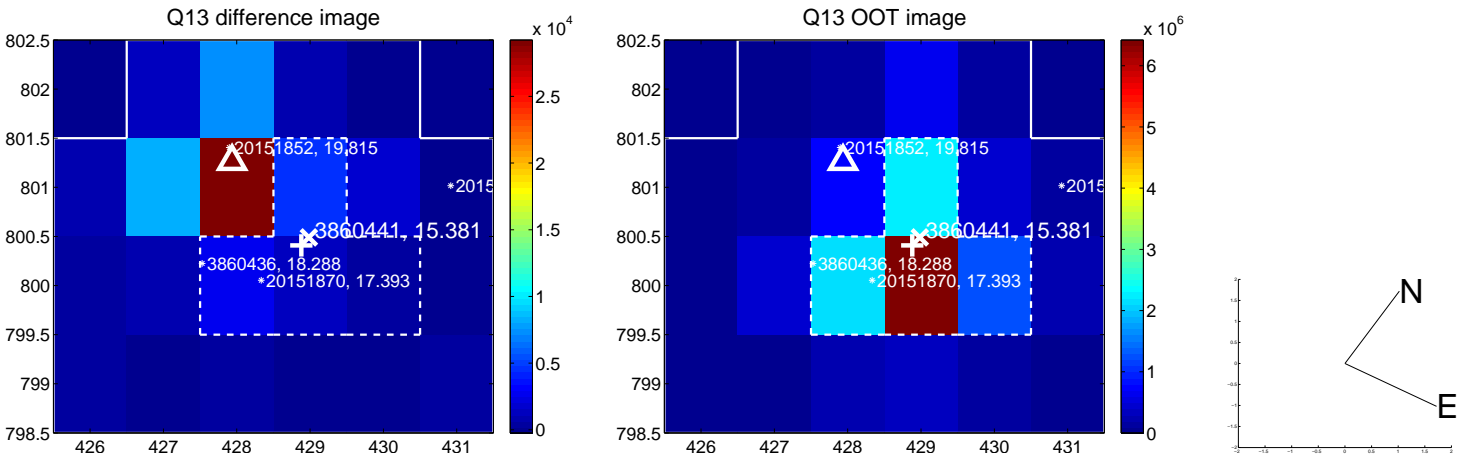
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



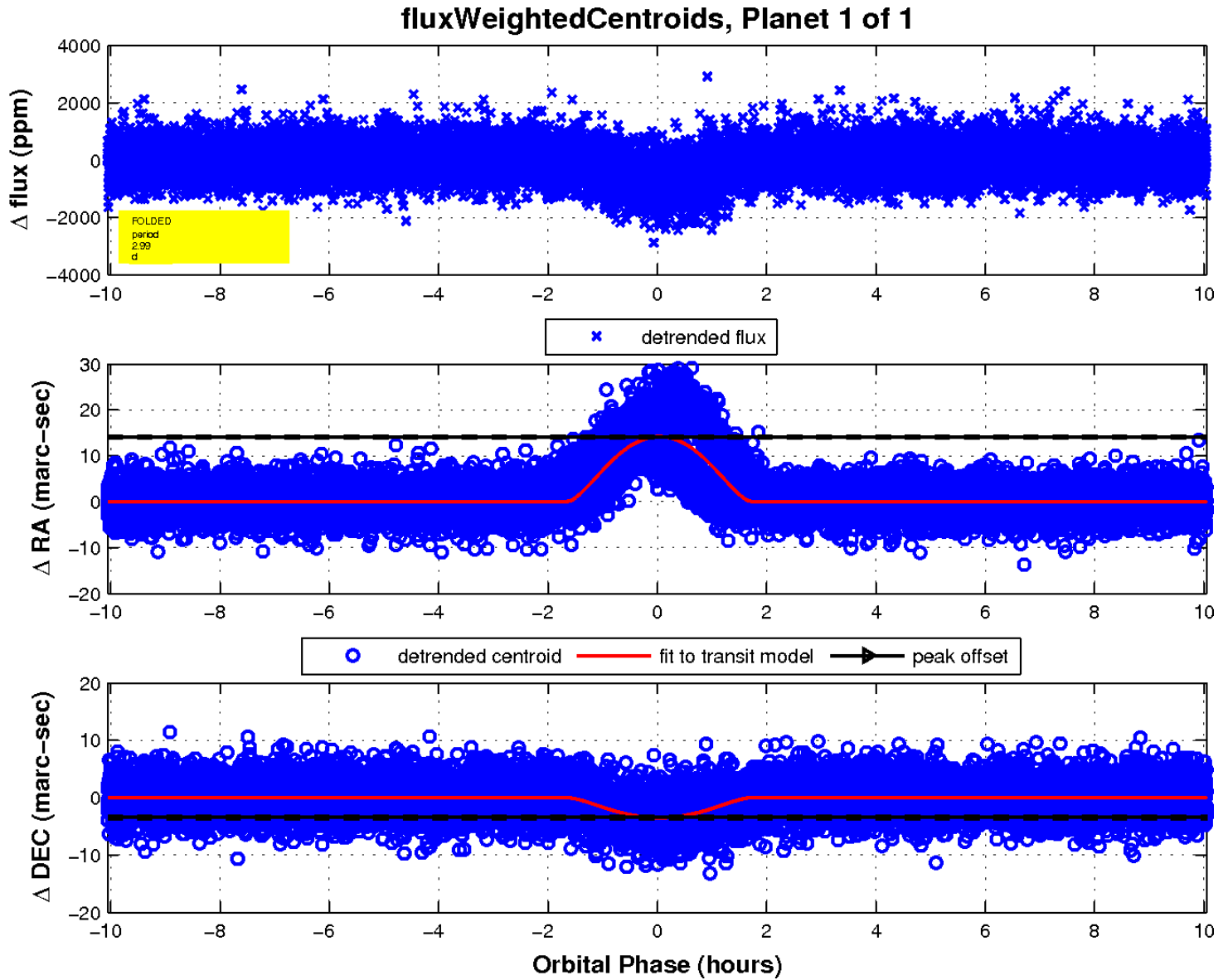
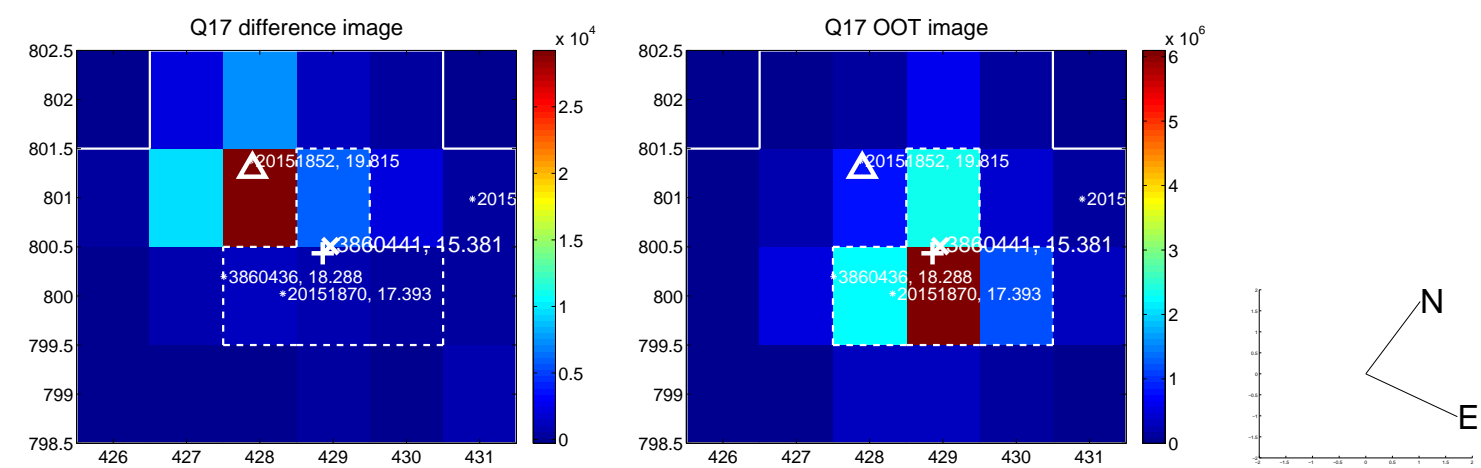
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

