

KIC 011350118

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})
011350118-01	OBS	4509.01	12.003638	134.706904	273.6	3.107	10.9	11.7	0.59	4328	1.13	15.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350118-01	OBS	PC	0.94	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 011350118-01

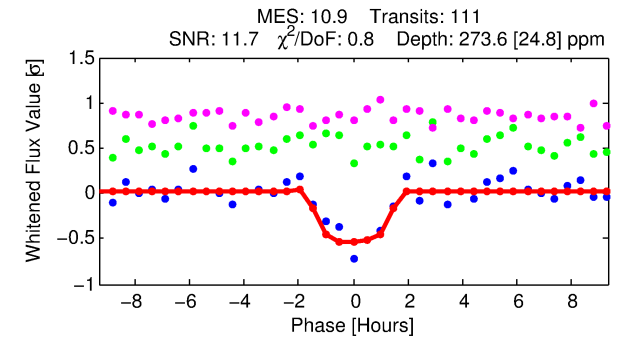
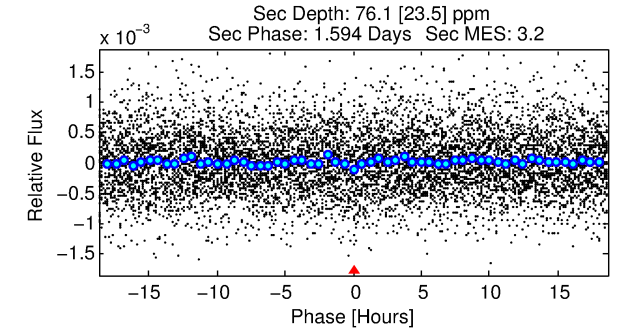
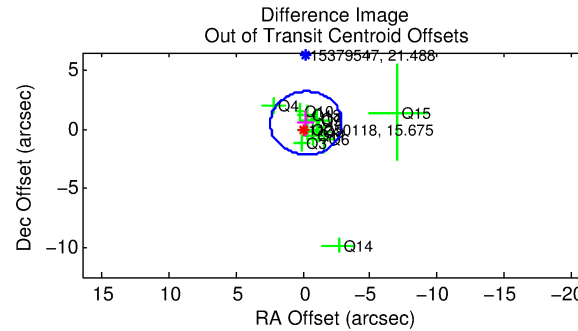
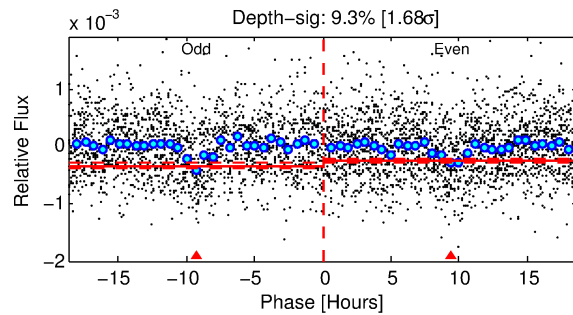
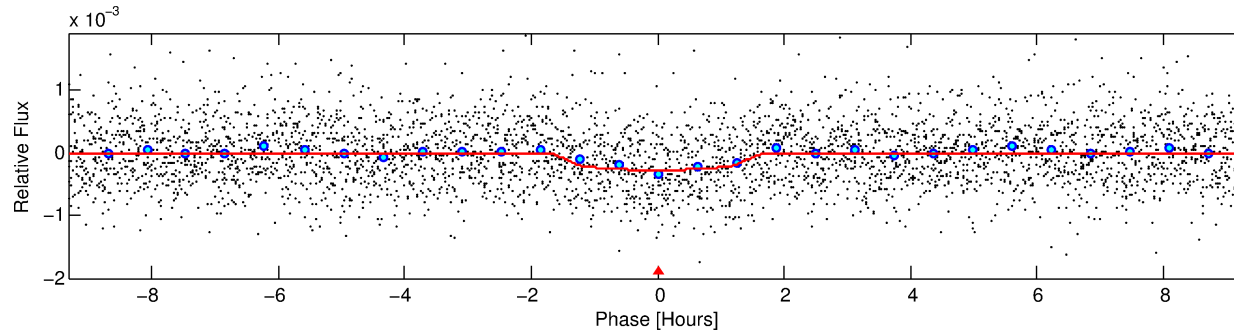
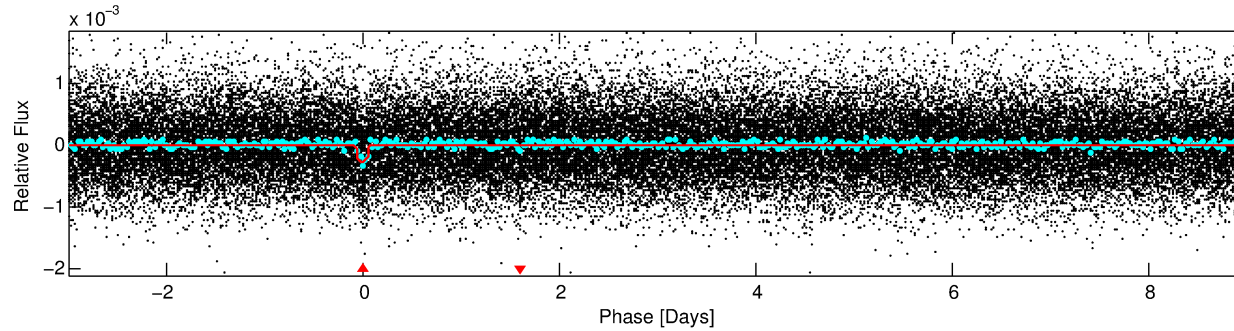
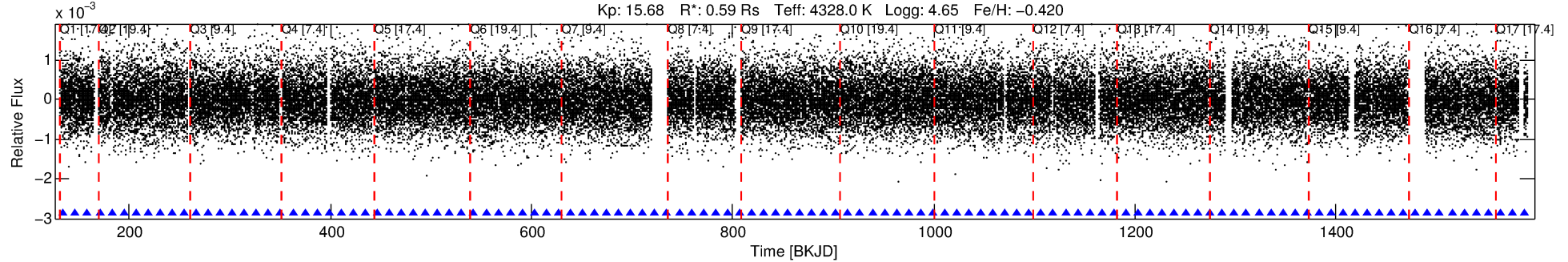
No Significant Match Found

DV One-Page Summary

KIC: 11350118 Candidate: 1 of 1 Period: 12.004 d

KOI: K04509.01 Corr: 0.961

Kp: 15.68 R*: 0.59 Rs Teff: 4328.0 K Logg: 4.65 Fe/H: -0.420



DV Fit Results:

Period = 12.00364 [0.00009] d
Epoch = 134.7069 [0.0062] BKJD
Rp/R* = 0.0174 [0.0149]
a/R* = 17.09 [56.18]
b = 0.84 [1.21]
Seff = 15.14 [2.44]
Teq = 503 [20] K
Rp = 1.13 [0.97] Re
a = 0.0856 [0.0065] AU
Ag = 241.11 [419.37] [0.57σ]
Teff = 3064 [1333] K [1.92σ]

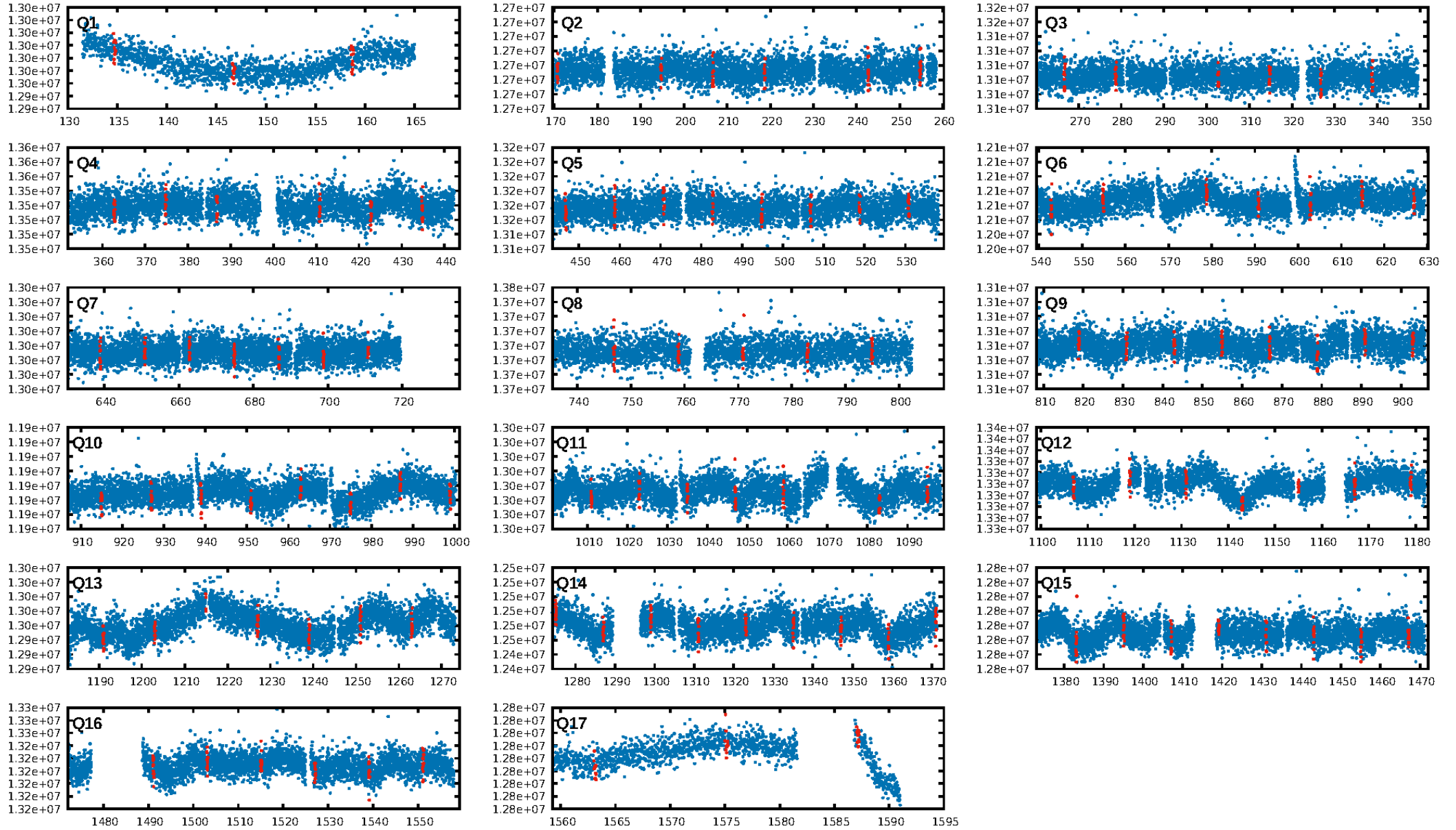
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.03e-28
RollingBand-fgt: 1.00 [105/105]
GhostDiagnostic-chr: 1.272
Centroid-sig: 2.0%
Centroid-so: 1.939 arcsec [1.75σ]
OotOffset-rm: 0.561 arcsec [0.63σ]
KicOffset-rm: 0.874 arcsec [1.07σ]
OotOffset-st: 4/4/2/2 [12]
KicOffset-st: 4/4/2/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

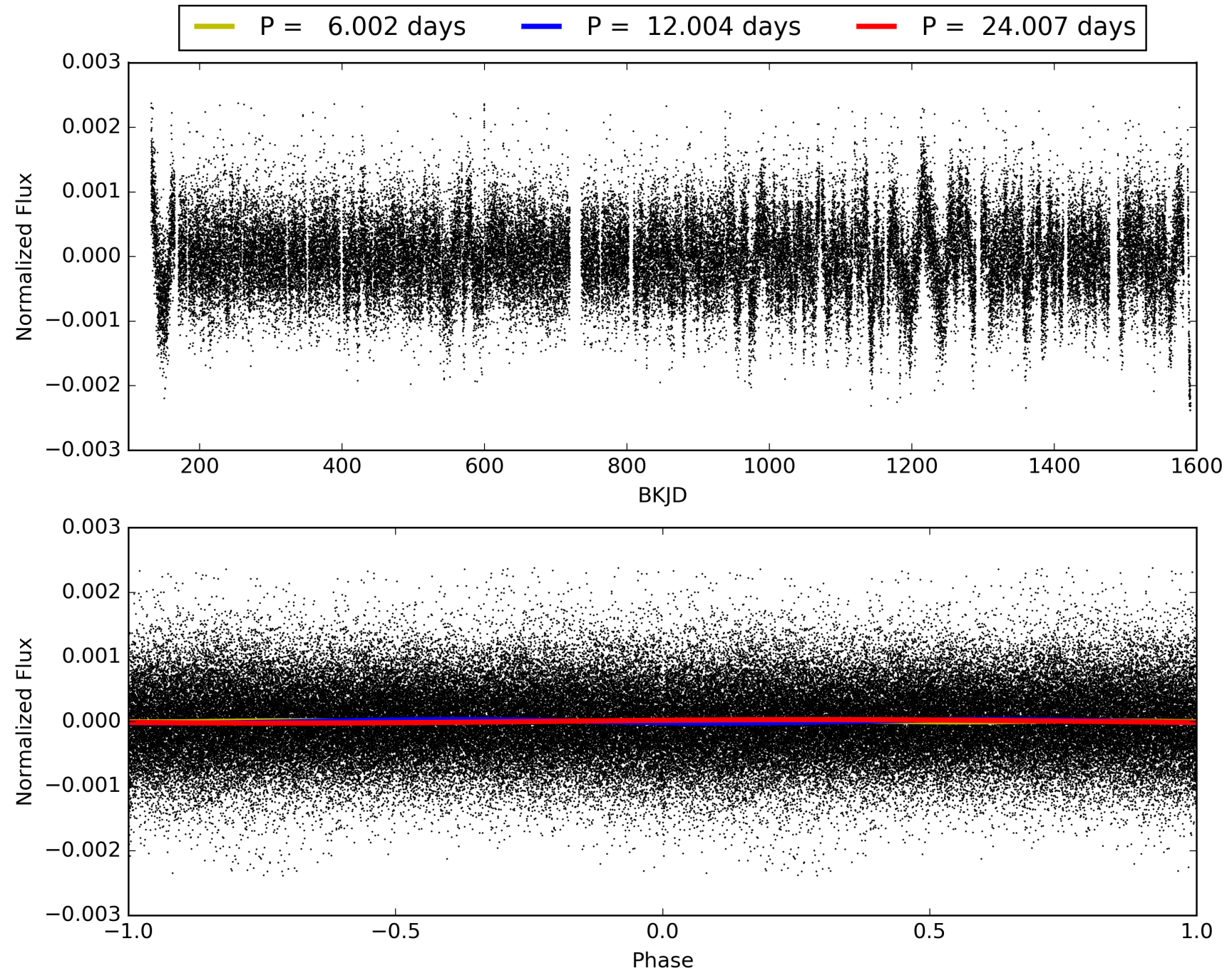
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:23:18 Z

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

TCE 011350118-01, PDC Light Curves

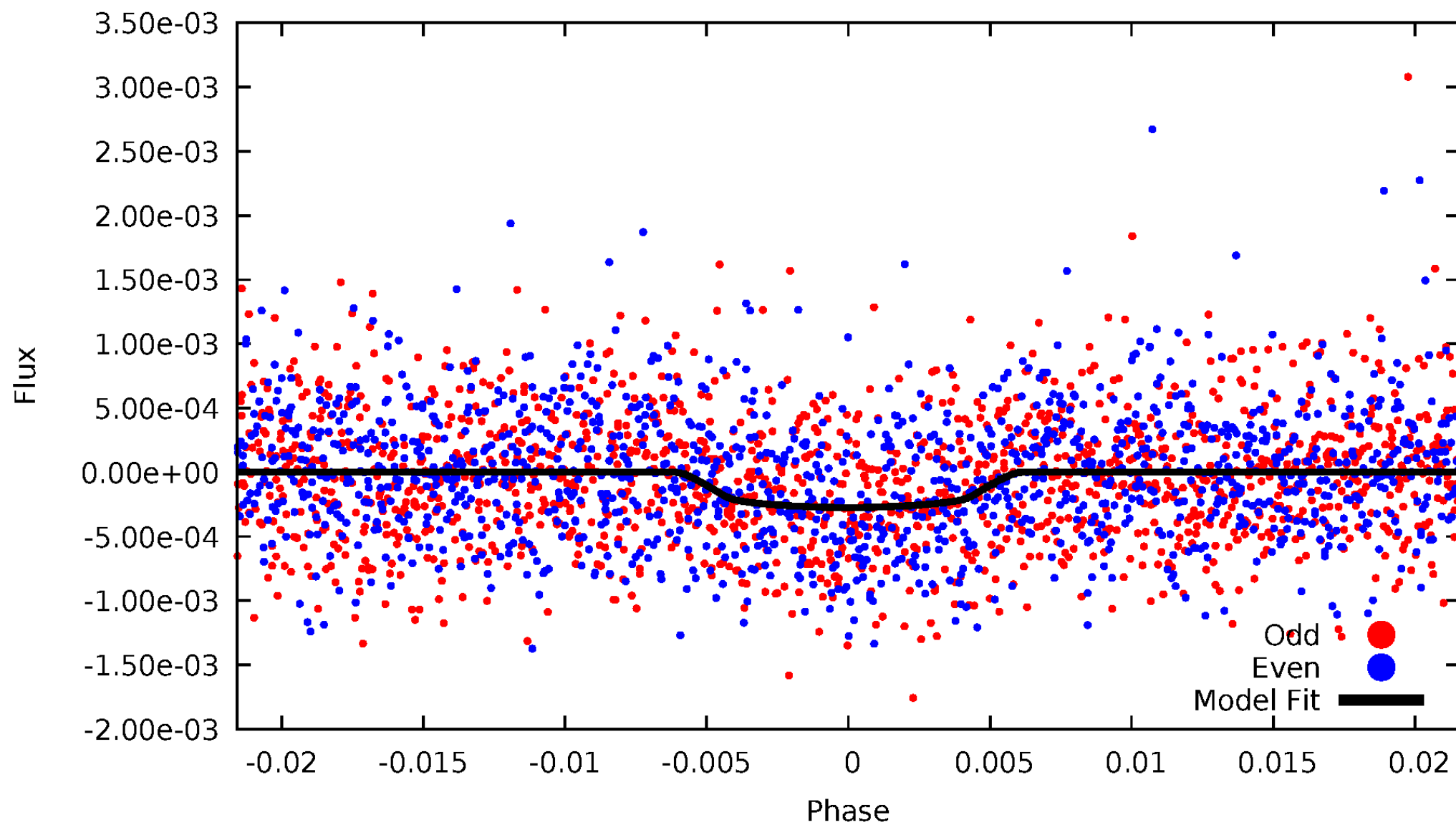


TCE 011350118-01



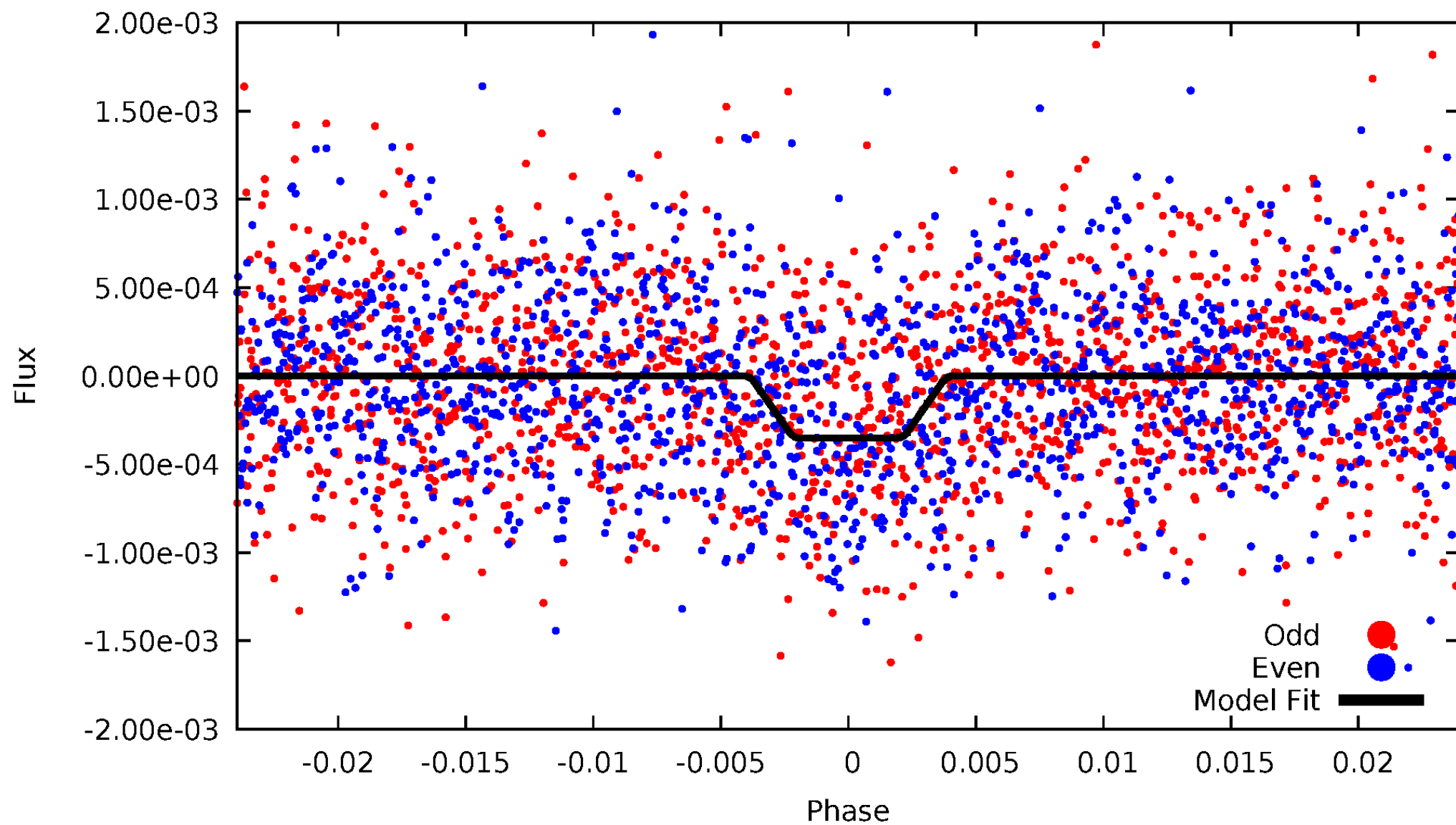
DV Odd/Even

TCE 011350118-01

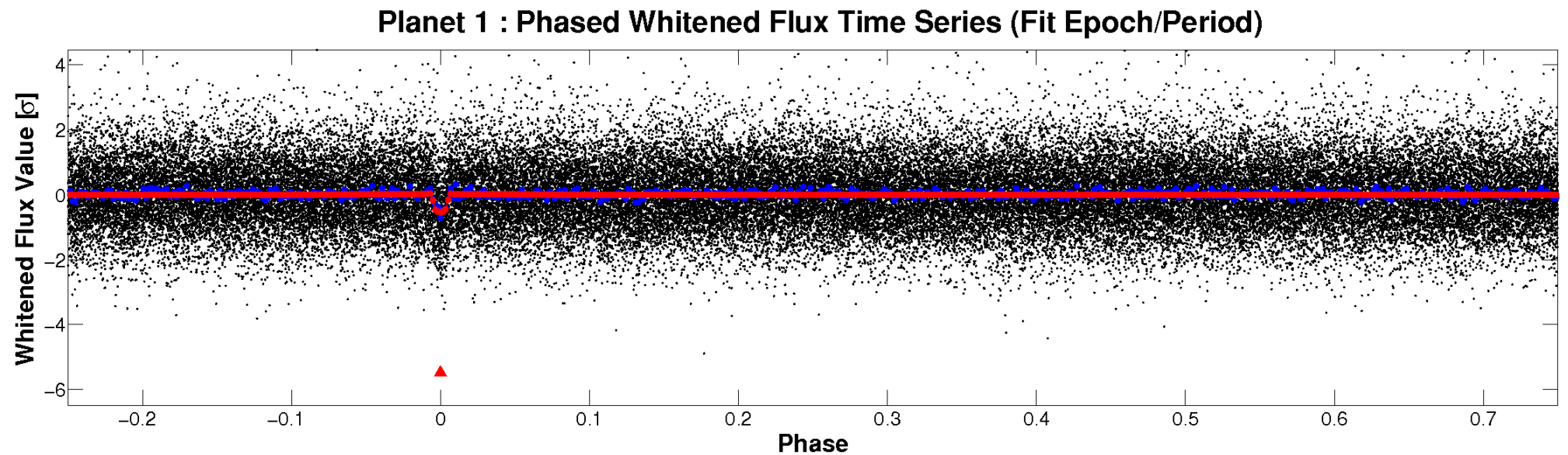
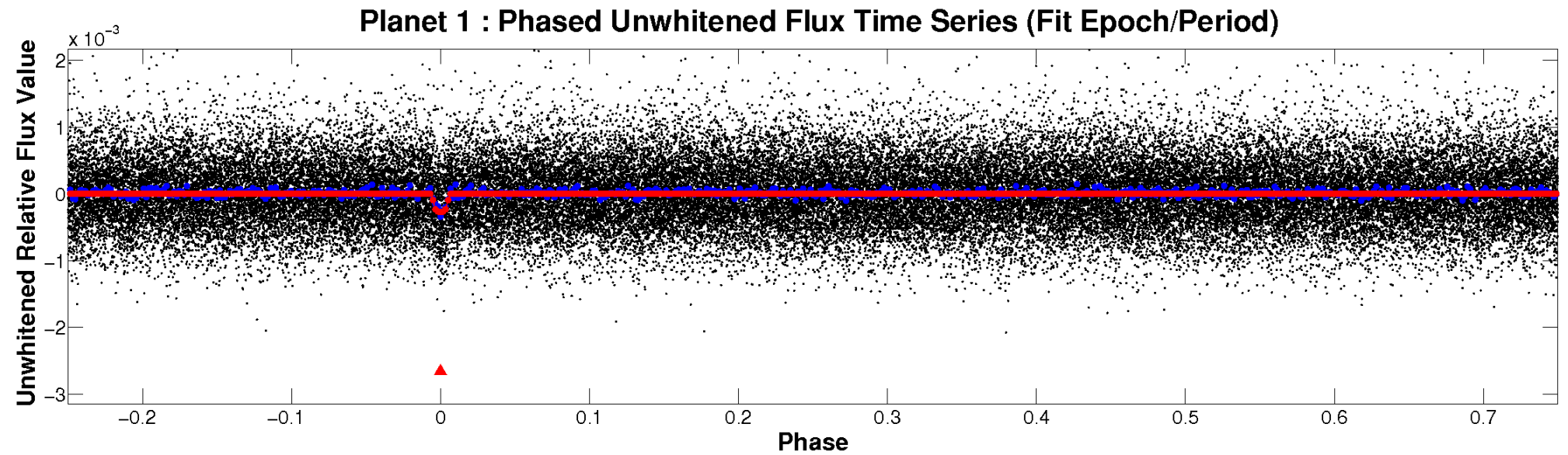


ALT Odd/Even

TCE 011350118-01

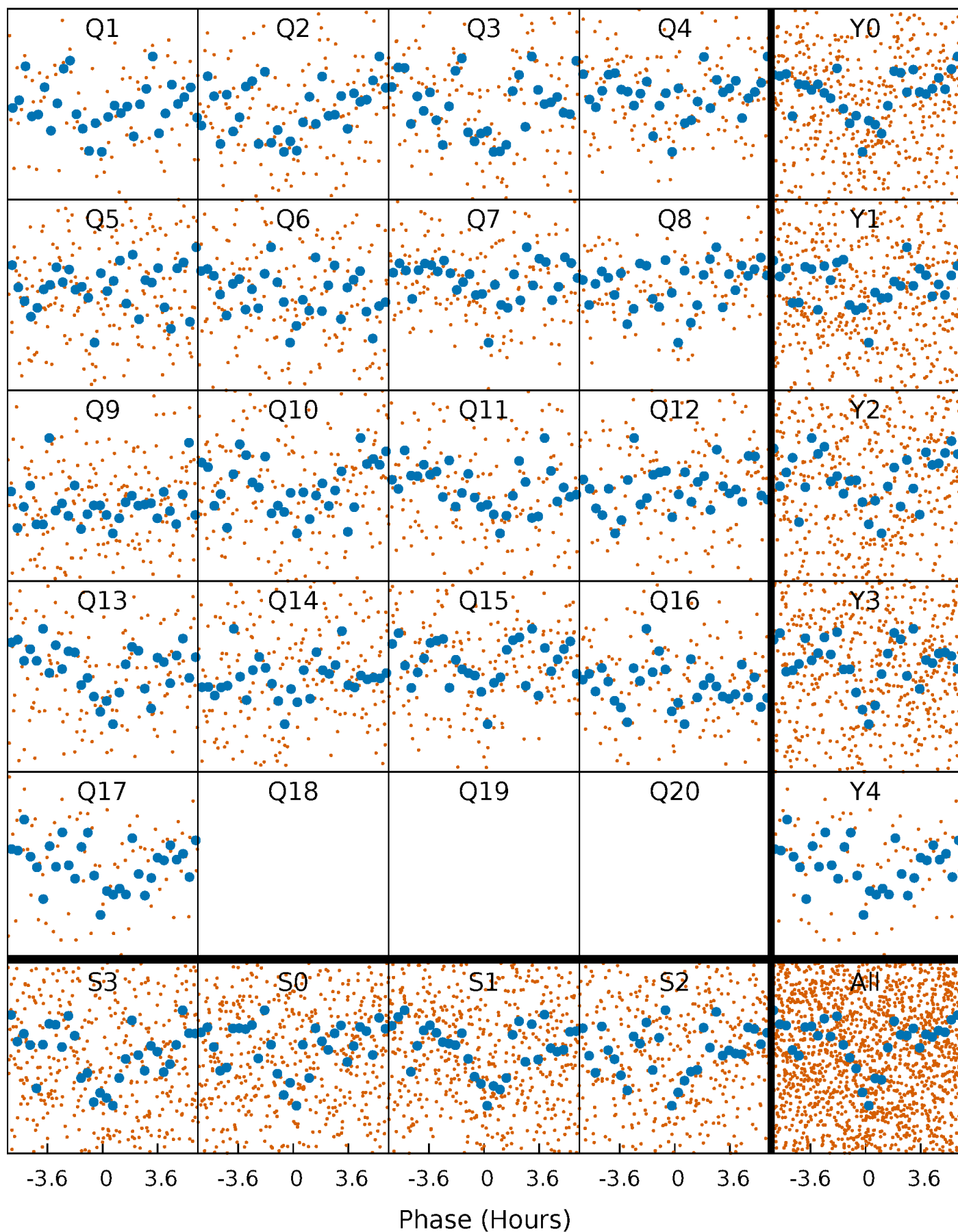


Non-Whitened Vs. Whitened Light Curve



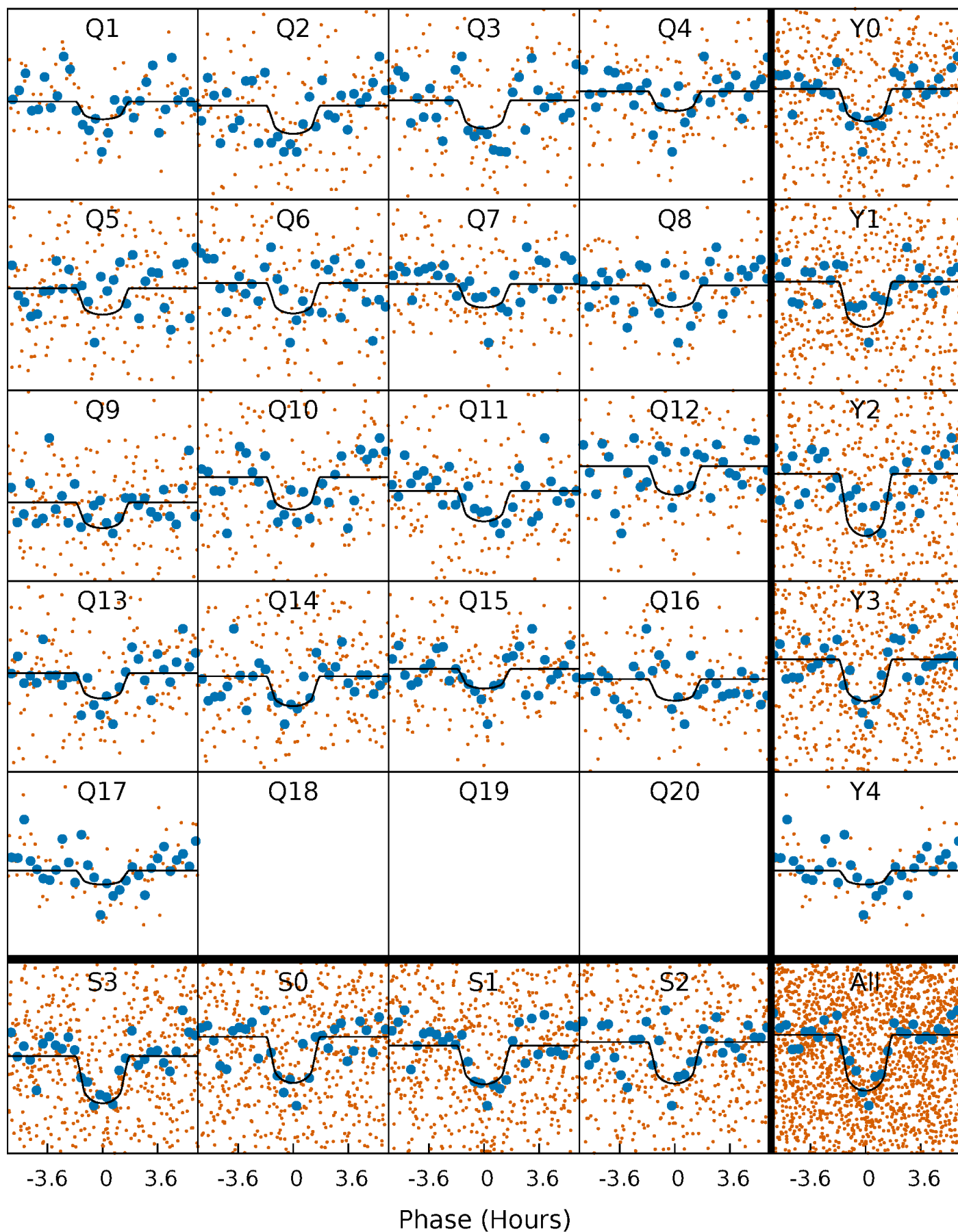
PDC Quarter-Phased Transit Curves

TCE 011350118-01 P= 12.003638 Days $T_0=134.706904$ (BKJD)



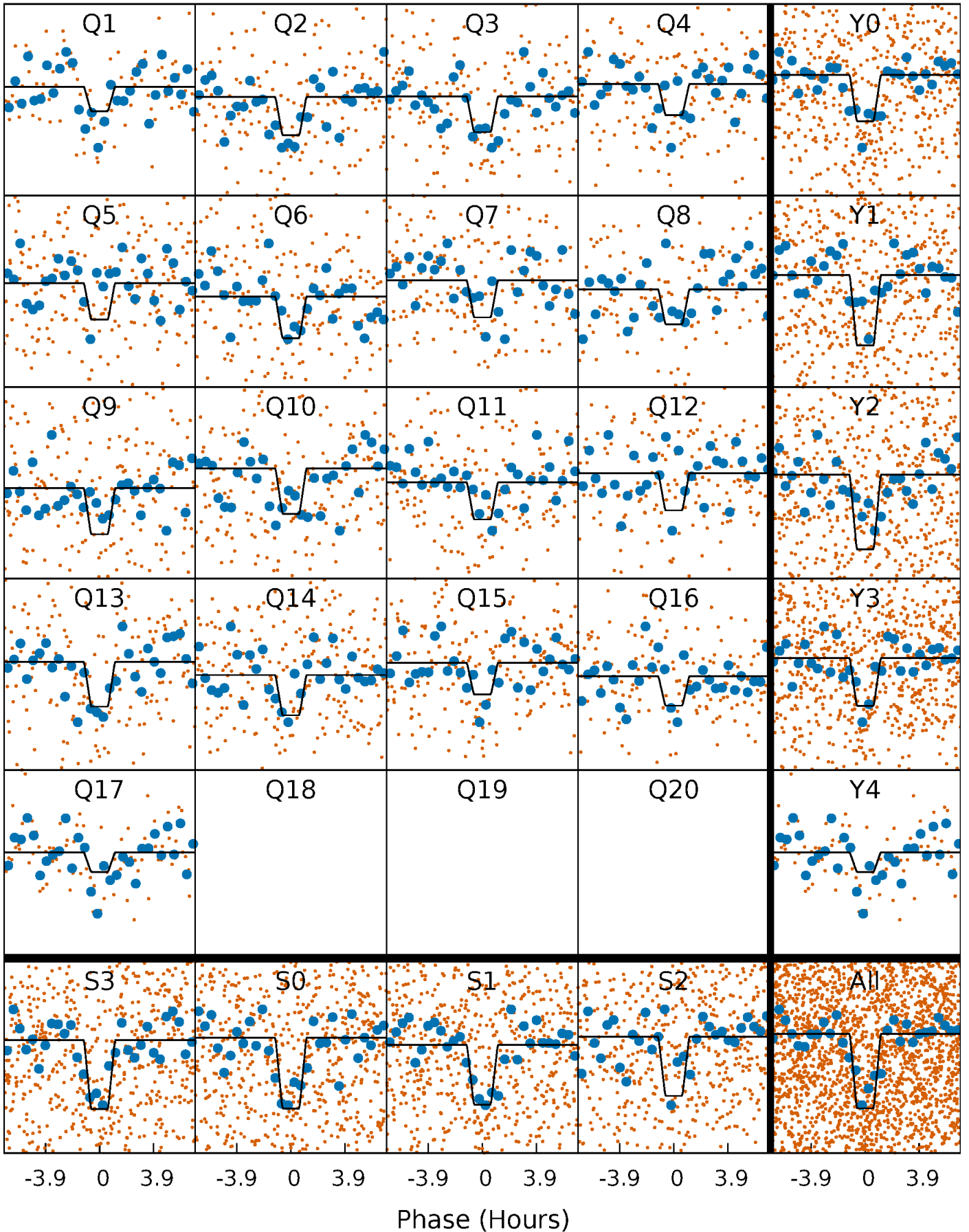
DV Quarter-Phased Transit Curves

TCE 011350118-01 P= 12.003638 Days $T_0=134.706904$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

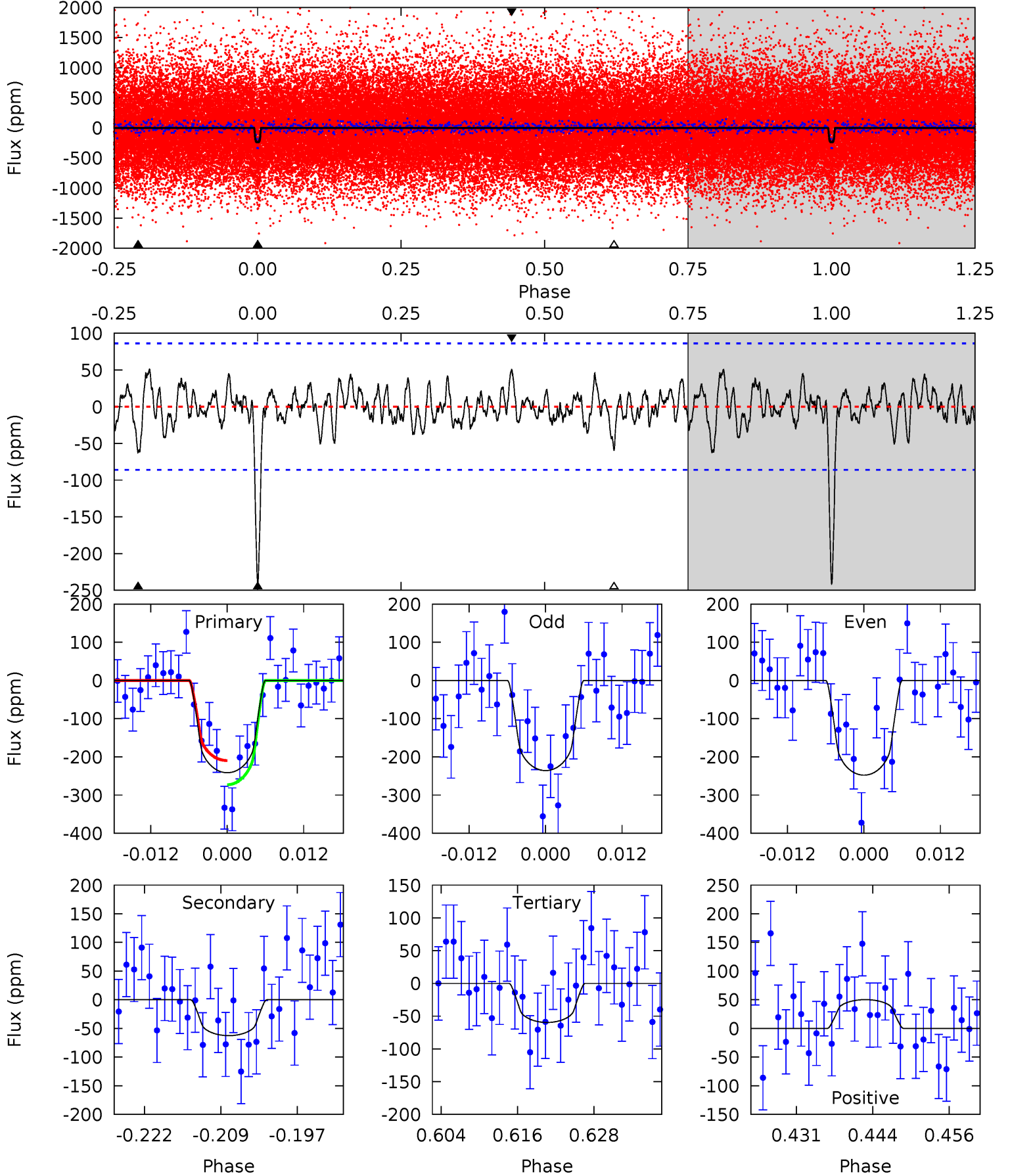
TCE 011350118-01 P= 12.003697 Days $T_0=134.707482$ (BKJD)



DV Model-Shift Uniqueness Test

011350118-01, $P = 12.003638$ Days, $E = 122.703266$ Days

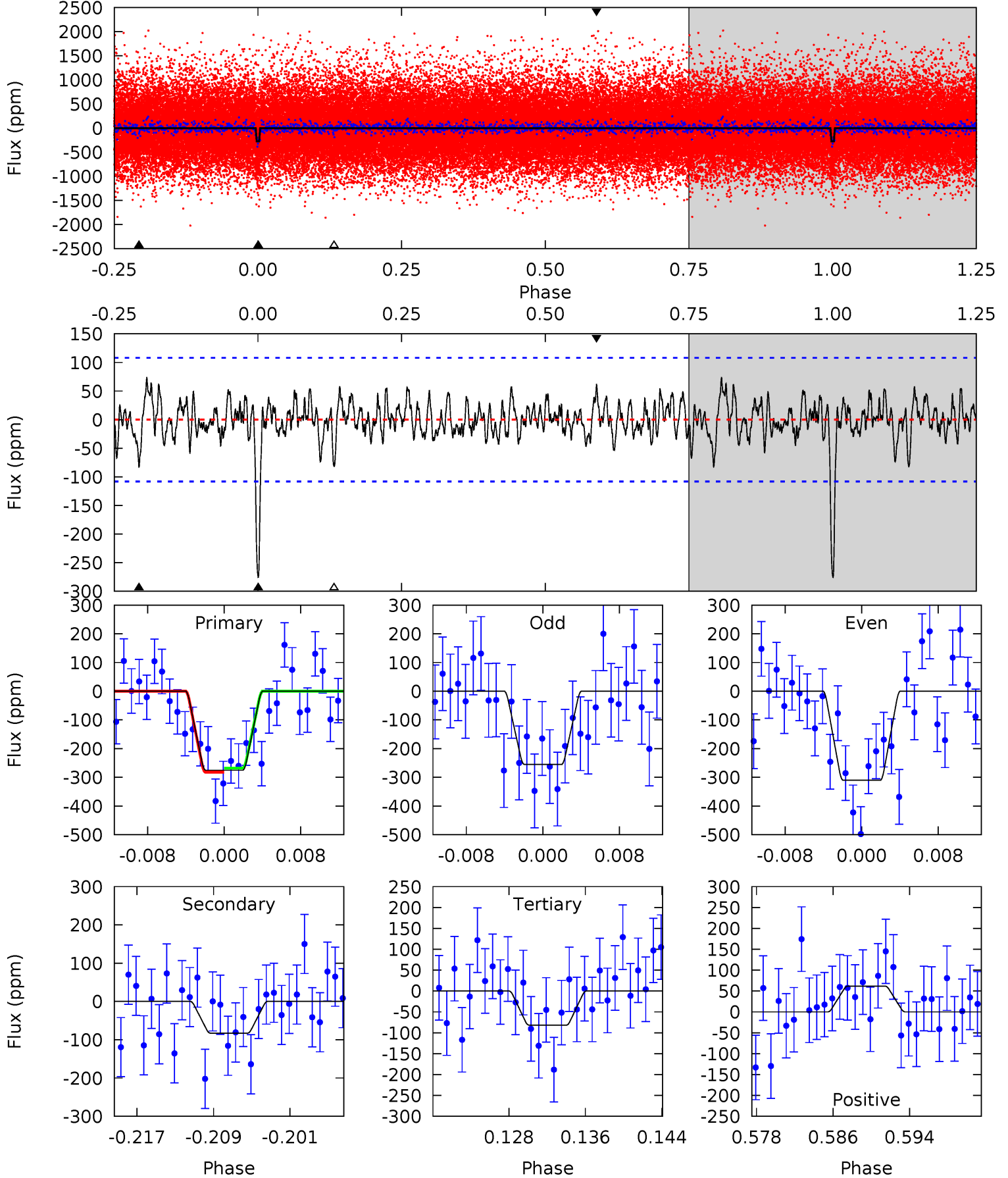
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	3.63	3.46	2.91	4.99	2.50	1.10	10.5	11.1	0.17	0.72	0.35	0.98	0.17	1.83



Alt Model-Shift Uniqueness Test

011350118-01, $P = 12.003697$ Days, $E = 122.703785$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	3.88	3.83	2.90	5.07	2.65	1.16	9.07	10.0	0.05	0.98	1.30	0.91	0.21	0.34



Stellar Parameters For KIC 011350118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4328^{+131}_{-131}	$4.654^{+0.056}_{-0.024}$	$-0.420^{+0.300}_{-0.300}$	$0.594^{+0.050}_{-0.056}$	$0.580^{+0.065}_{-0.047}$	$3.902^{+0.968}_{-0.473}$
	+3%/-3%	+1%/-1%	+71%/-71%	+8%/-9%	+11%/-8%	+25%/-12%
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 011350118-01 / KOI 4509.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-63 ± 17	$1.27^{+0.90}_{-0.76}$	697^{+26}_{-25}	3173^{+1079}_{-450}	151^{+807}_{-100}
Alt.	-83 ± 21	$1.35^{+0.91}_{-0.80}$	698^{+25}_{-25}	3259^{+1139}_{-461}	181^{+907}_{-120}

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

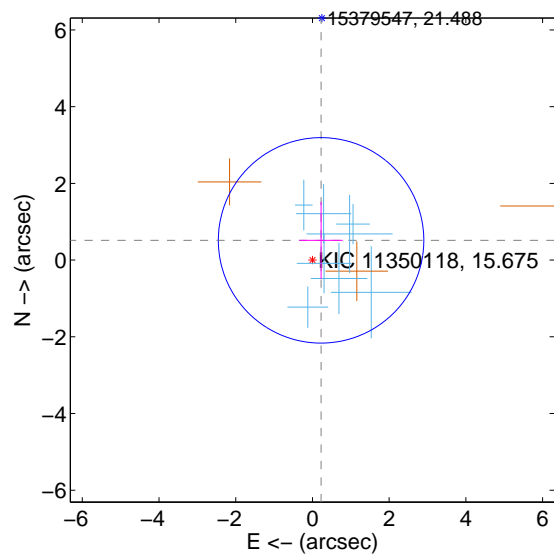
Supplemental centroid analysis for 011350118-01. Kepler magnitude: 15.68. Transit SNR 11.66

There are 8 quarters with good PRF difference image offsets

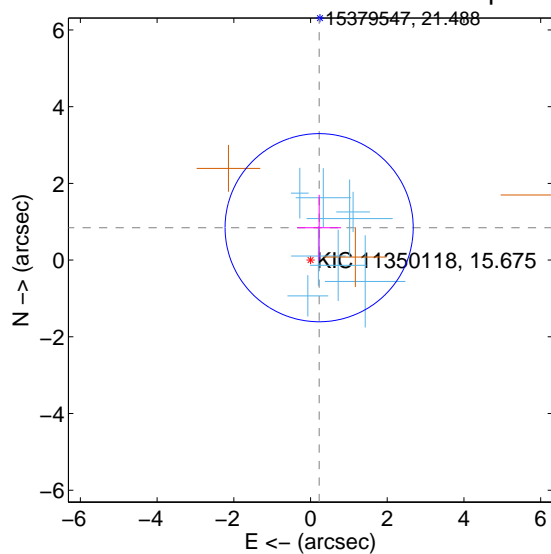
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.561 ± 0.893	0.63	-0.225 ± 0.565	0.514 ± 1.002
PRF-fit source offset from KIC position	0.874 ± 0.817	1.07	-0.225 ± 0.570	0.845 ± 0.858
photometric centroid source offset	1.94 ± 1.11	1.75	-0.50 ± 1.18	1.87 ± 1.10

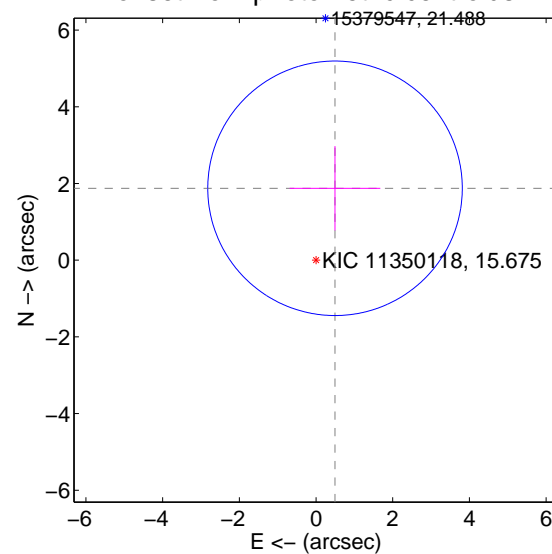
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

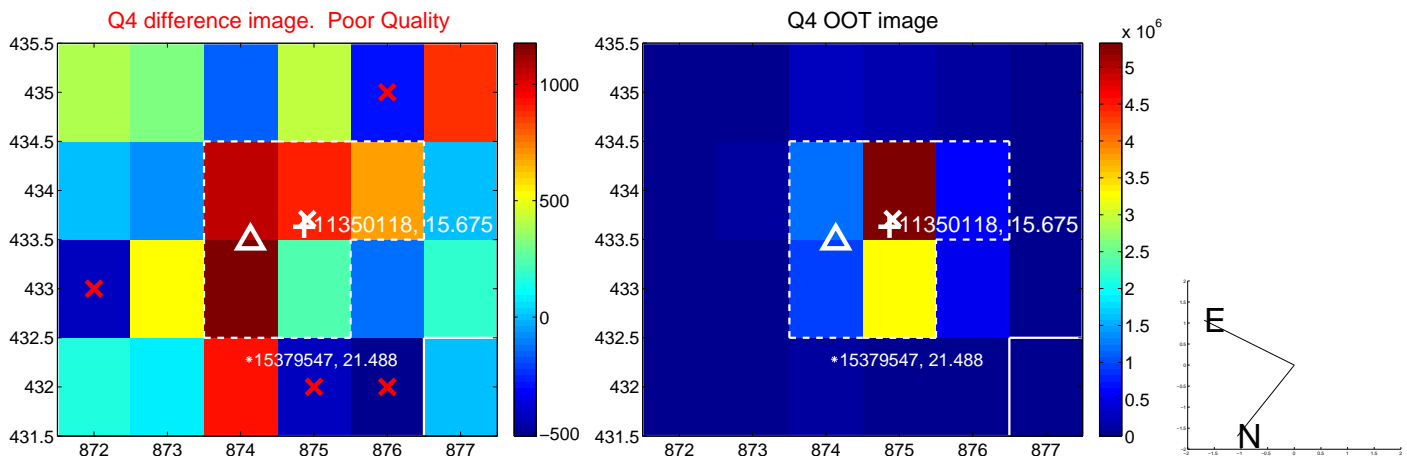
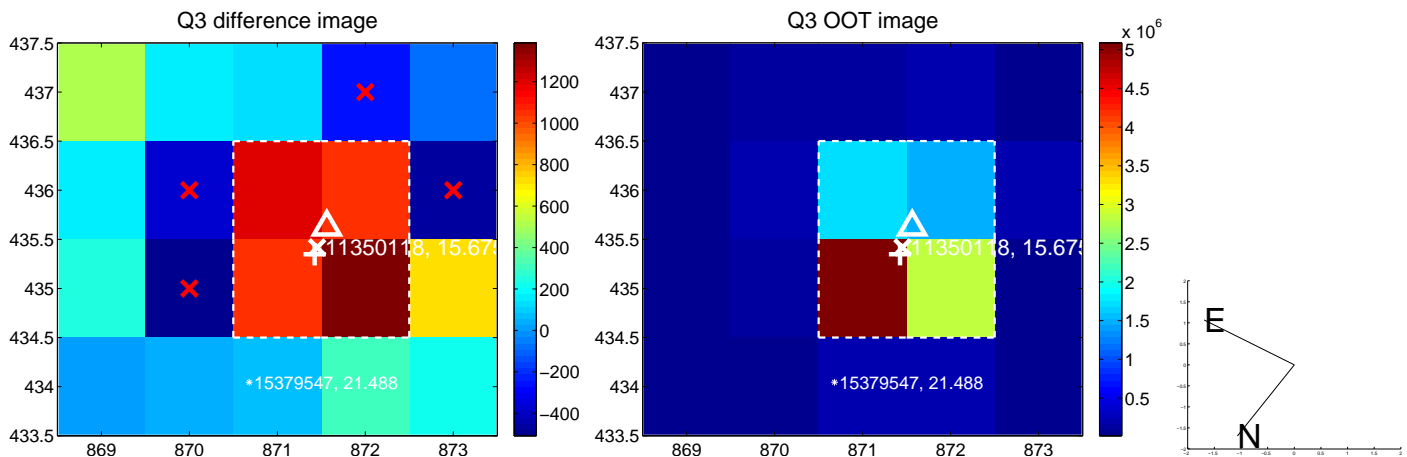
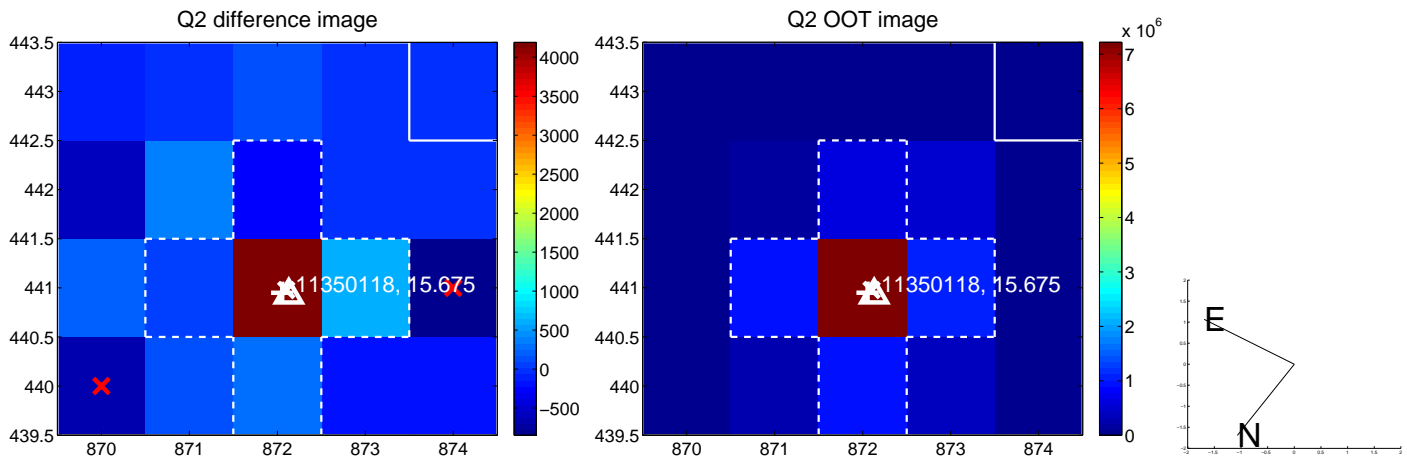
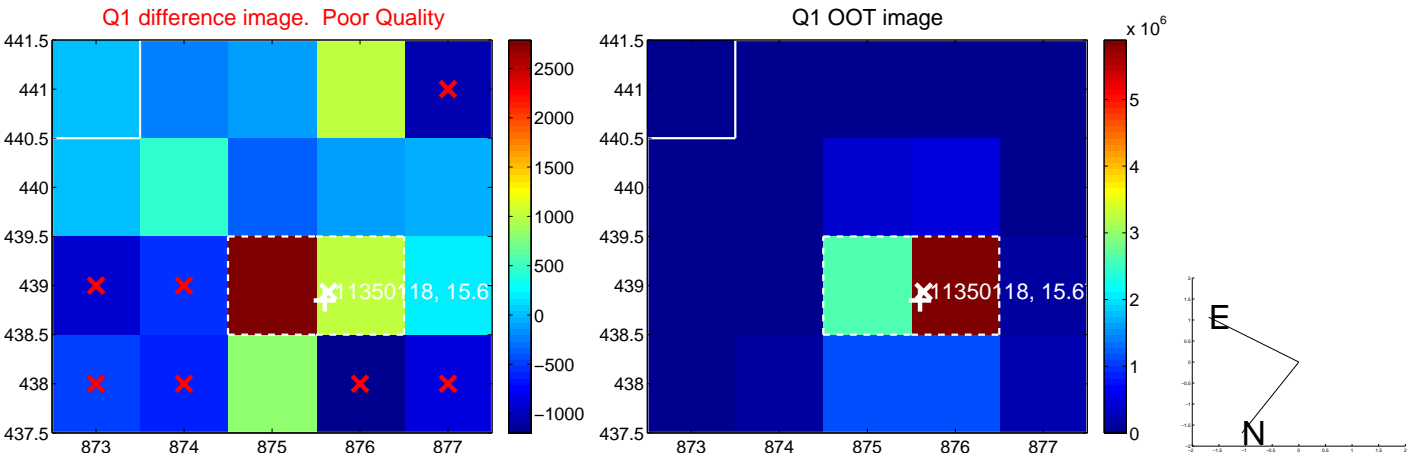


offset from photometric centroids

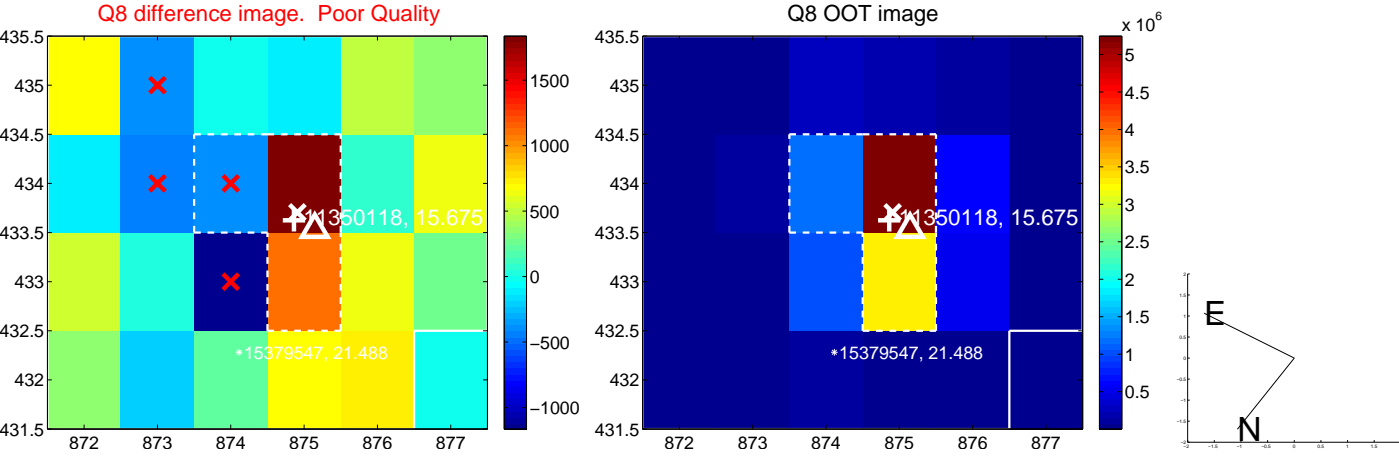
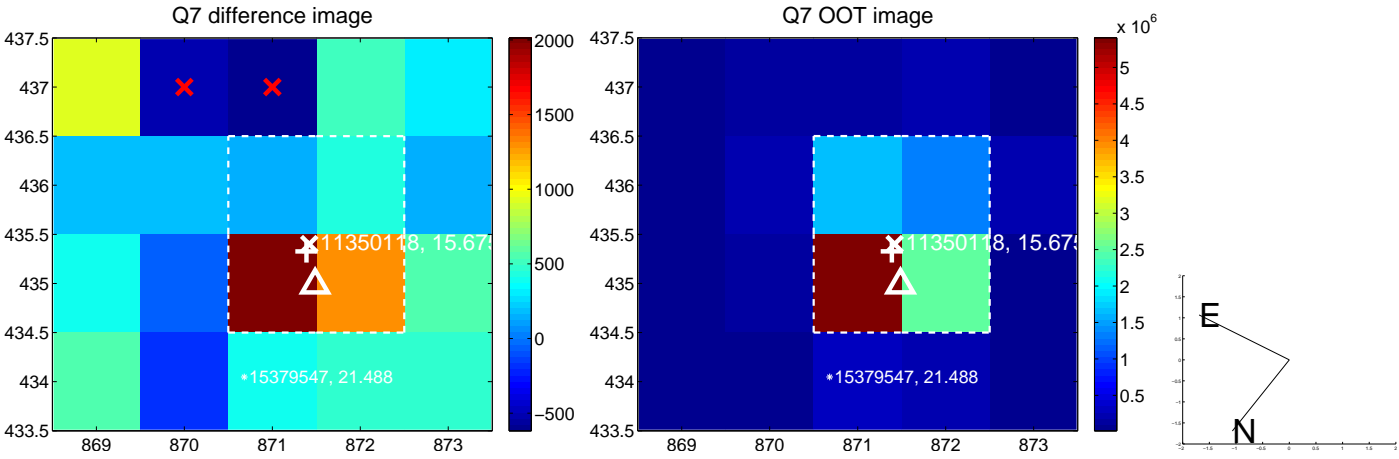
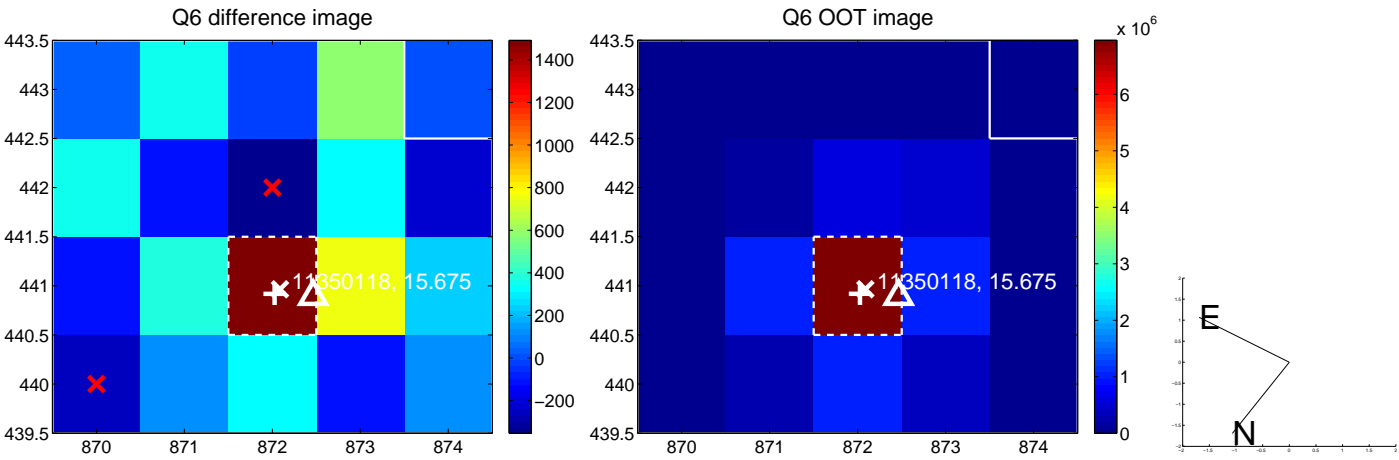
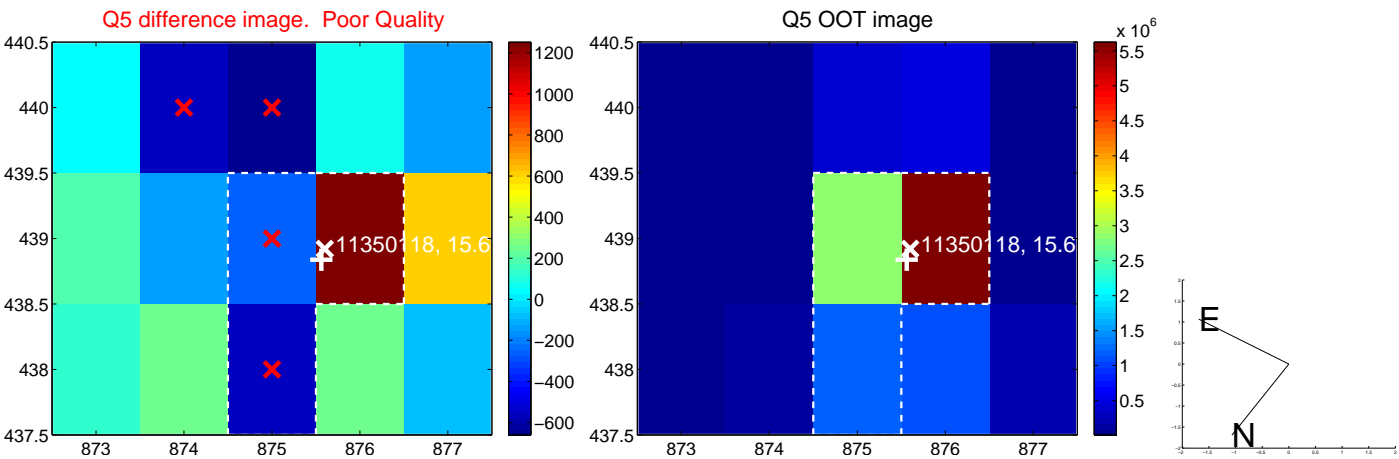


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

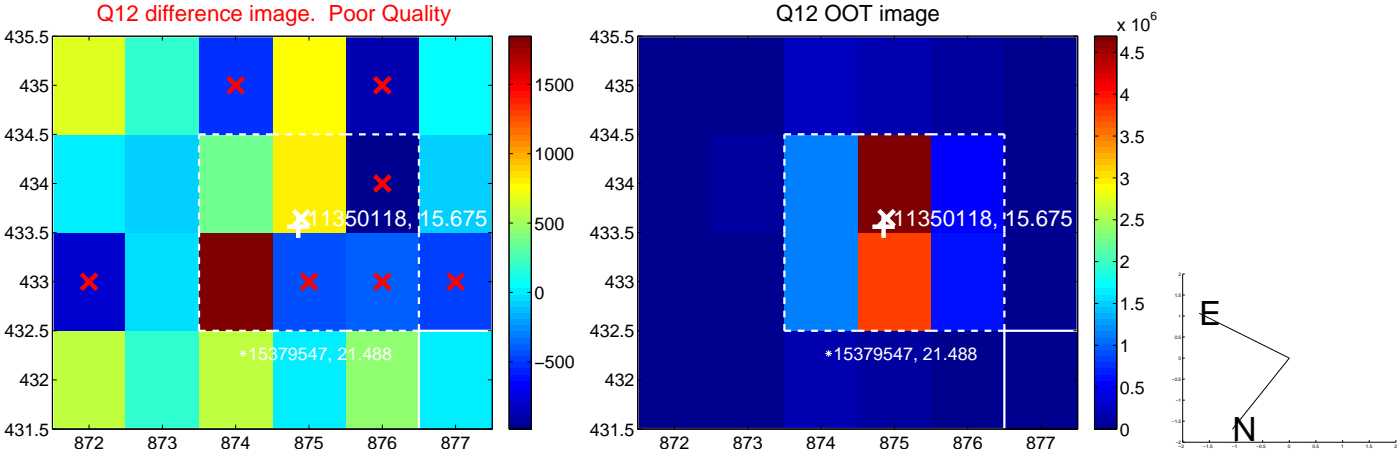
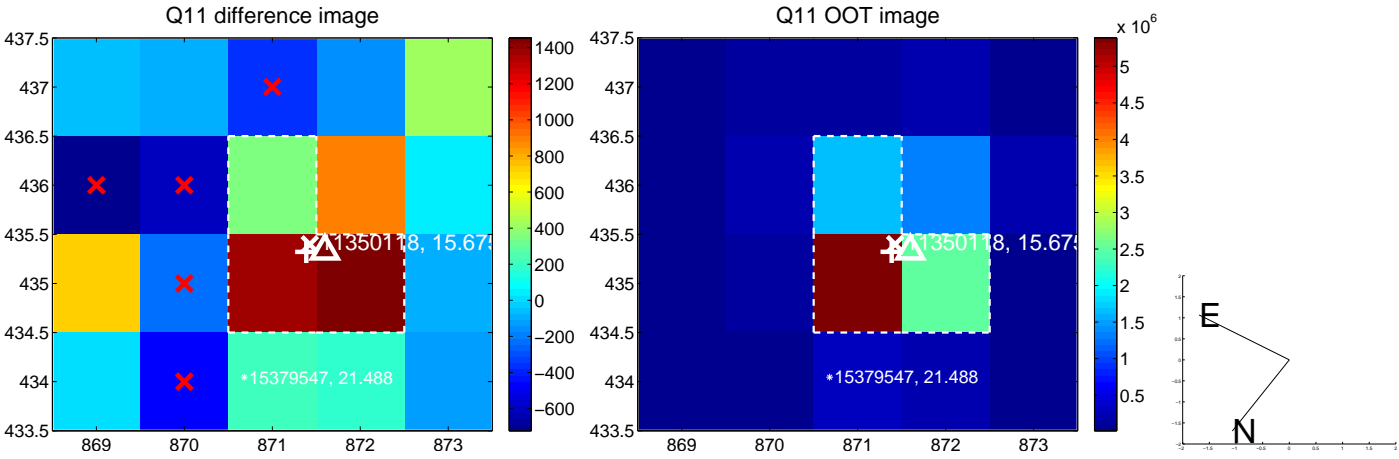
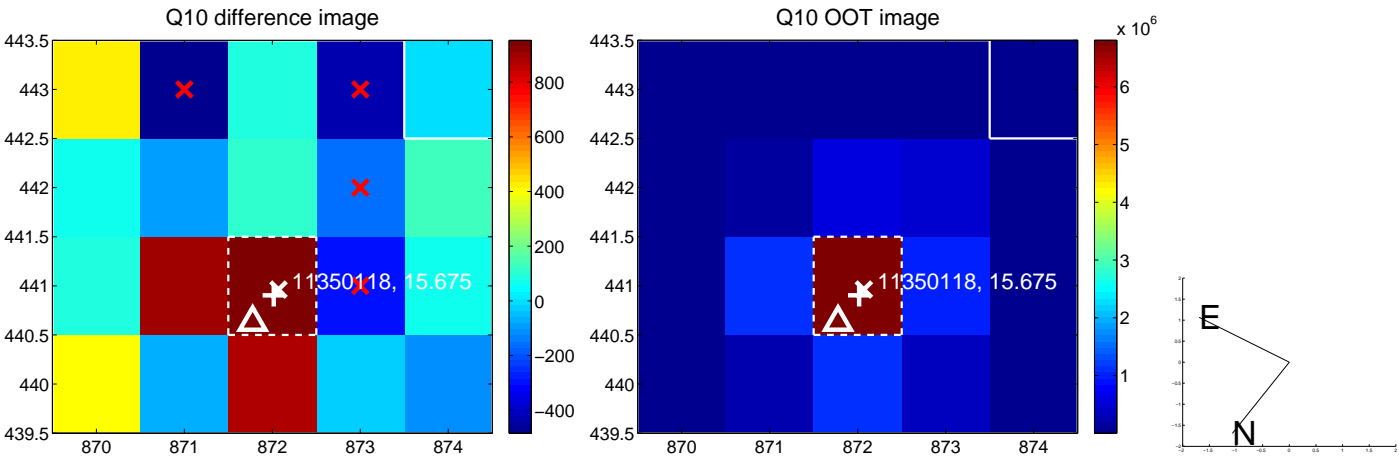
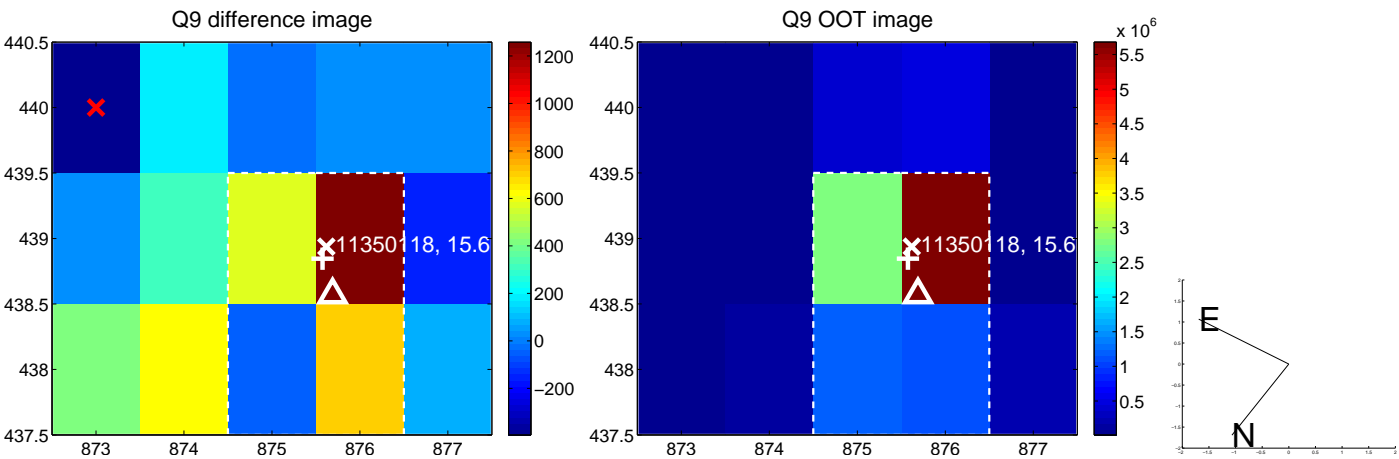
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



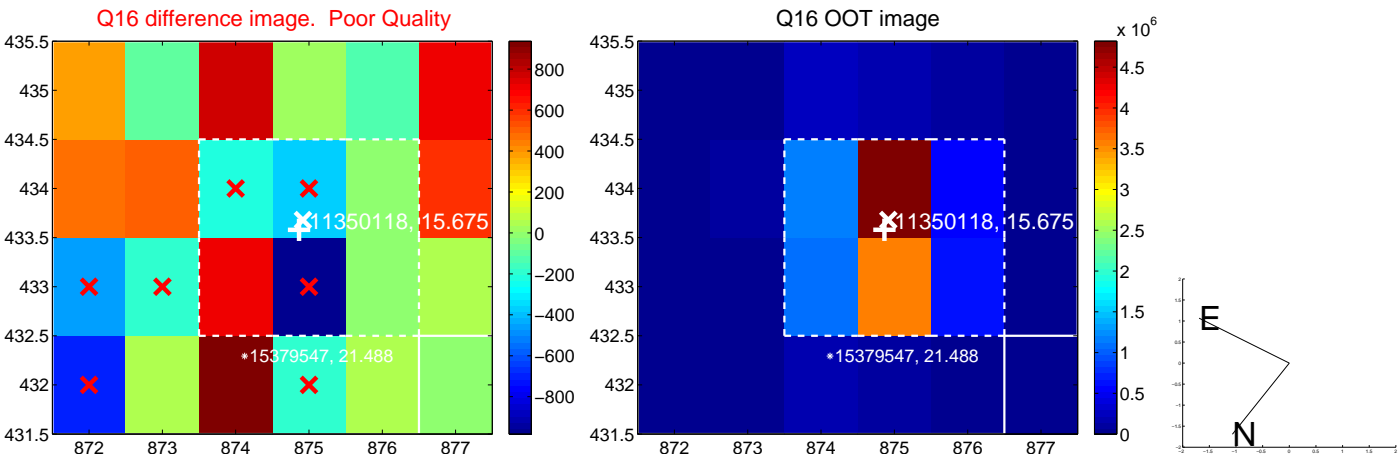
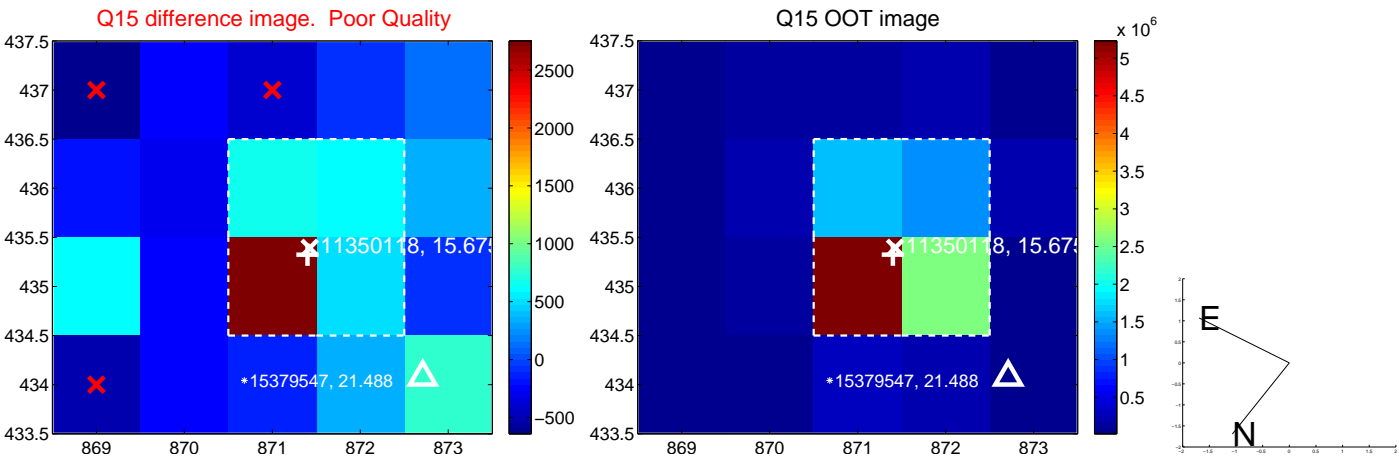
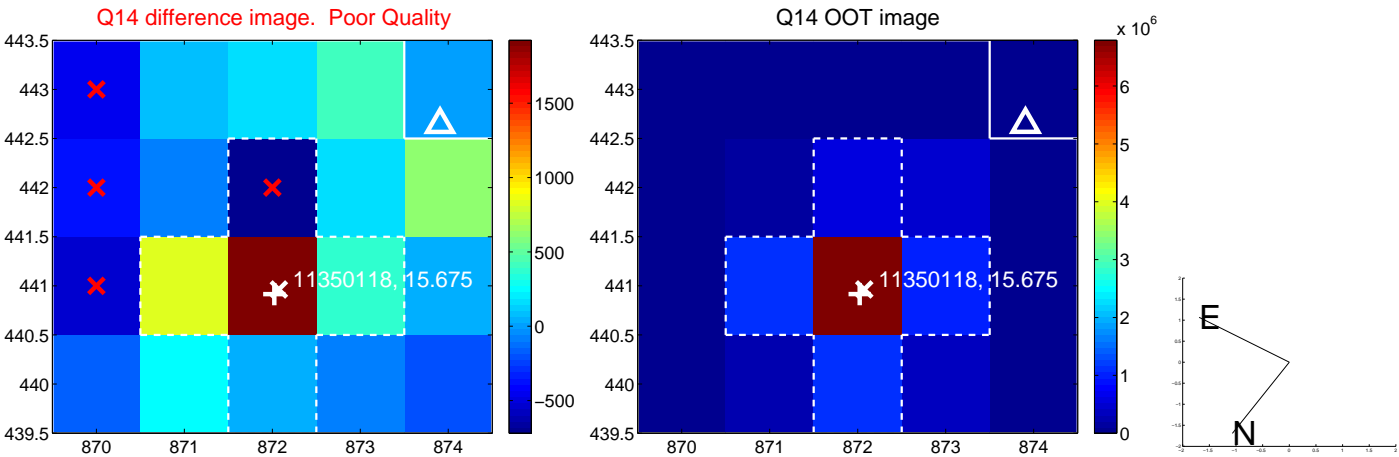
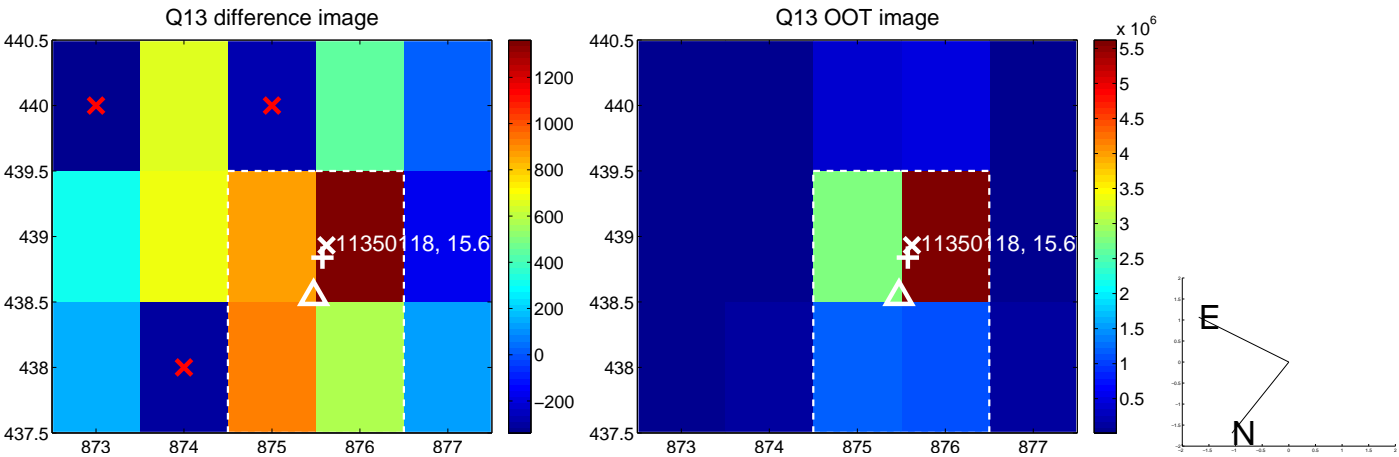
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



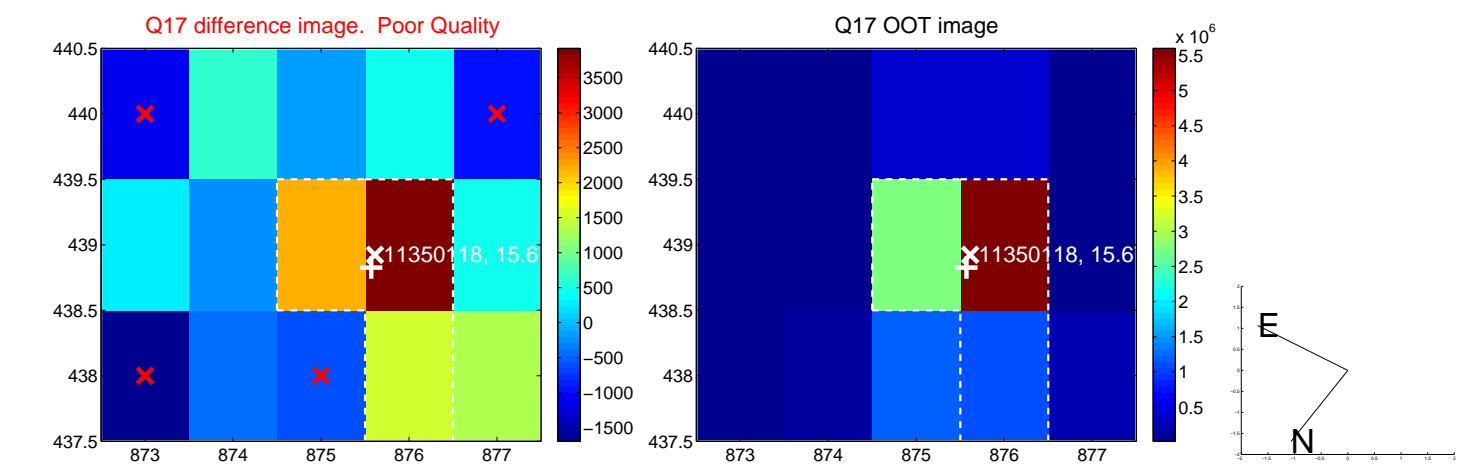
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



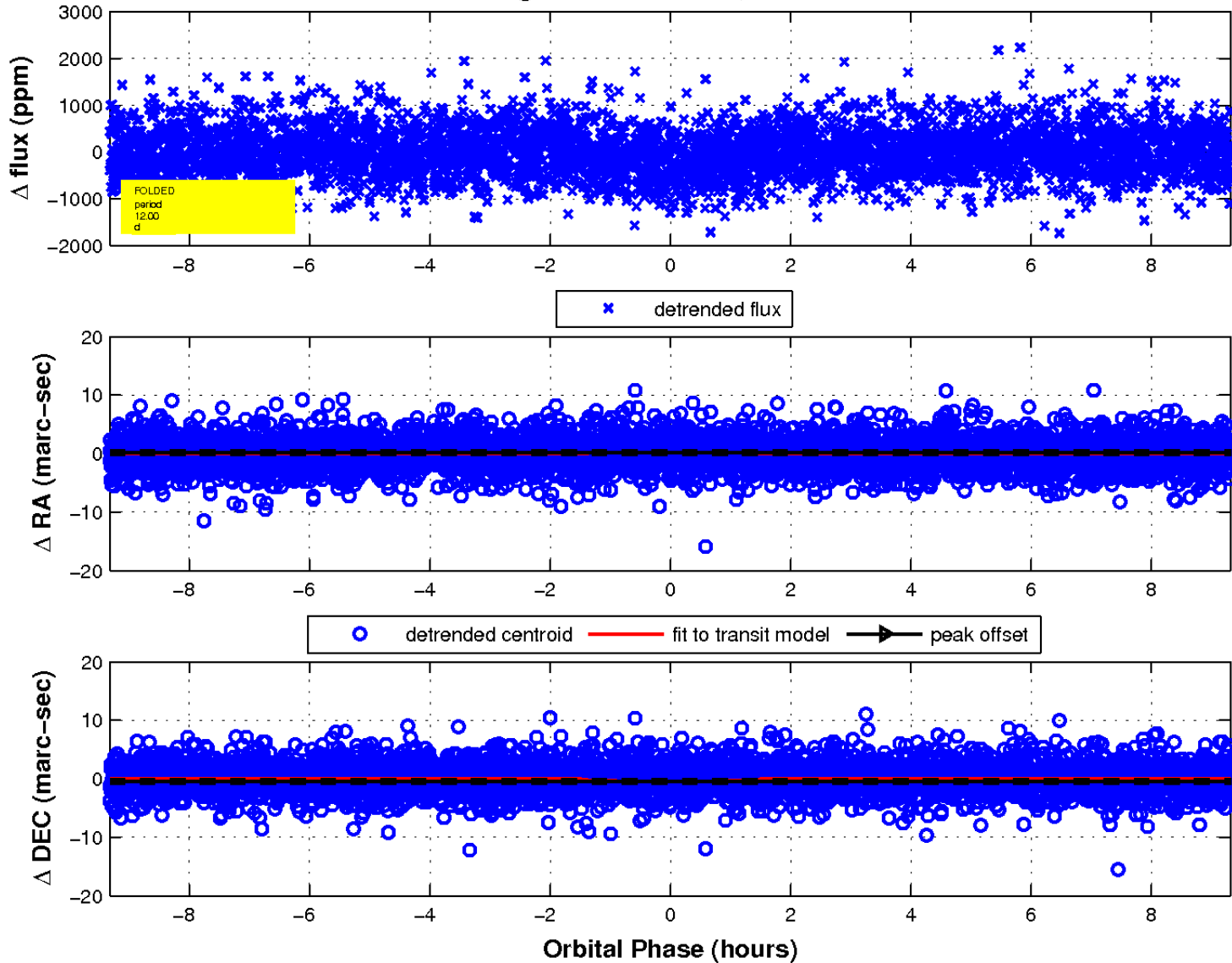
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

