

KIC 006364200

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})
006364200-01	OBS	6692.01	5.243795	132.707567	89.9	11.413	9.6	10.4	0.93	6060	1.02	294.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006364200-01	OBS	FP	0.00	0	0	0	1	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.

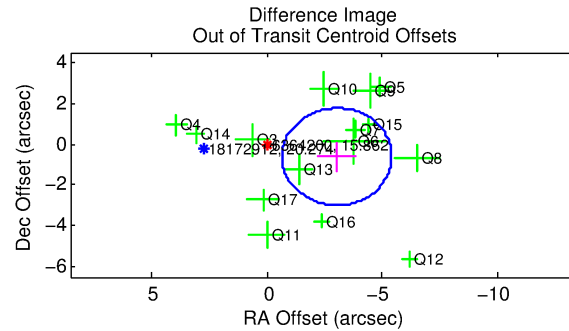
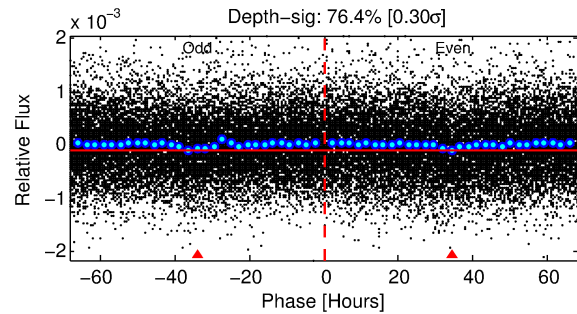
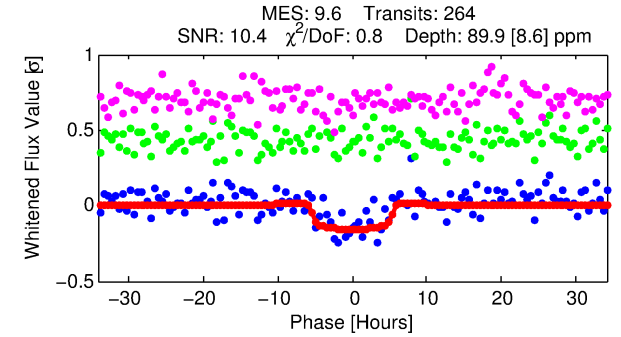
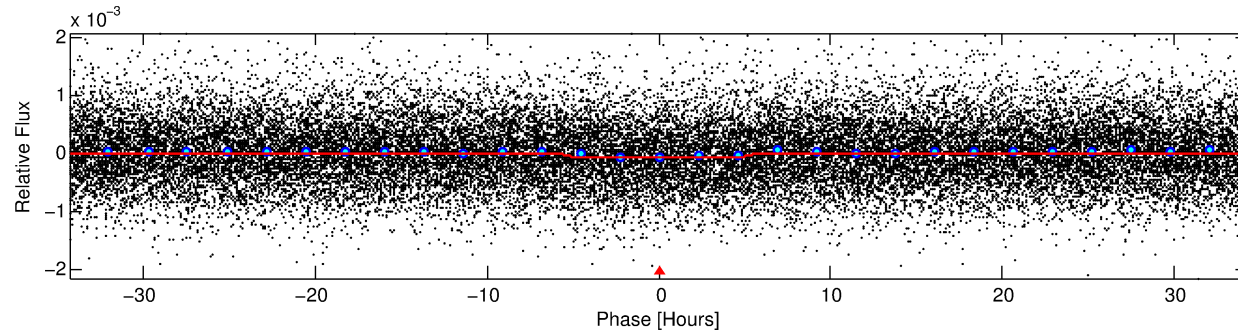
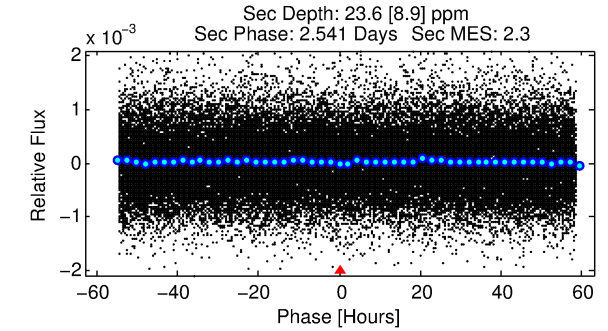
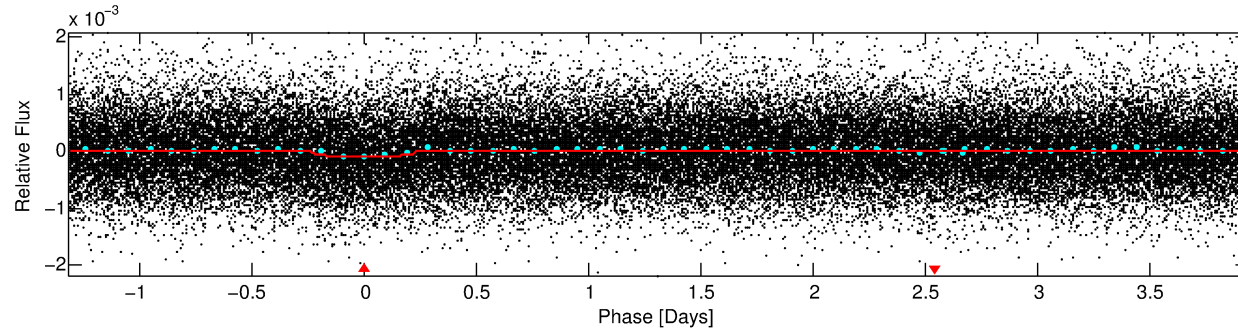
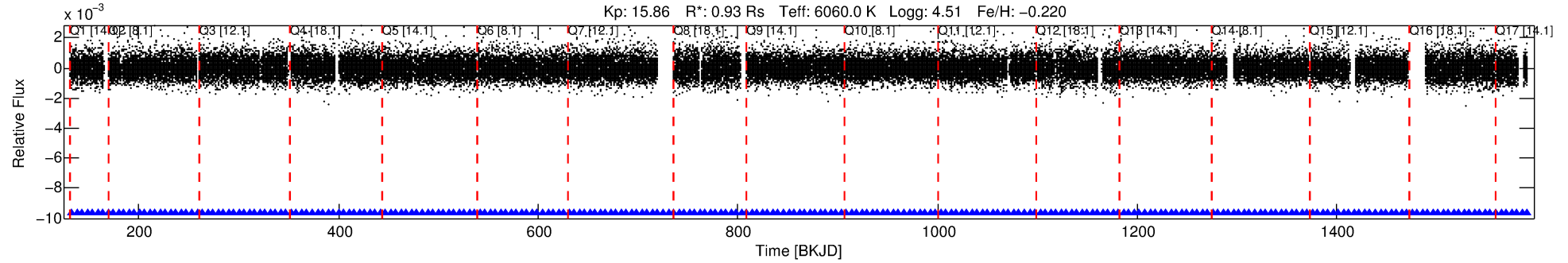
Ephemeris Match Information For 006364200-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
006364200-01	6364200	TT-Lyr-pri	6364290	1:1	324.9	-78	25	9.49	15.86	9490.20	Direct-PRF	0	0.64	0.52

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col 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 $\sigma_P < 5.0$ and $\sigma_T < 5.0$. 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: 6364200 Candidate: 1 of 1 Period: 5.244 d
KOI: K06692.01 Corr: 0.938



DV Fit Results:

Period = 5.24380 [0.00010] d
Epoch = 132.7076 [0.0147] BKJD
Rp/R* = 0.0101 [0.0023]
a/R* = 1.93 [1.68]
b = 0.89 [0.29]
Seff = 294.68 [105.52]
Teff = 1056 [95] K
Rp = 1.02 [0.36] Re
a = 0.0592 [0.0134] AU
Ag = 43.77 [29.65] [1.44σ]
Teffp = 4201 [635] K [4.90σ]

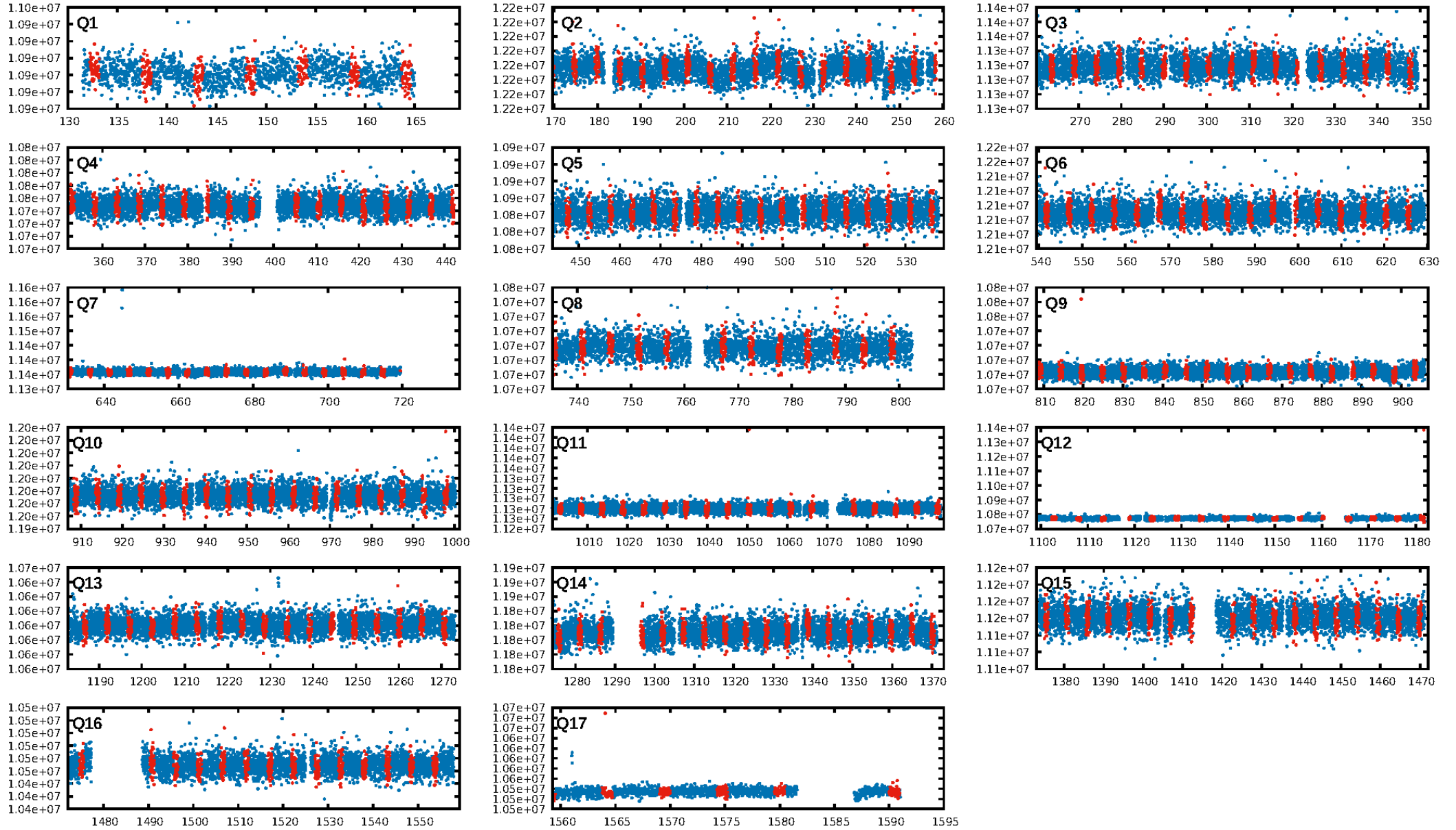
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.49e-22
RollingBand-fgt: 1.00 [251/251]
GhostDiagnostic-chr: 0.436
Centroid-sig: 0.1%
Centroid-so: 1.942 arcsec [1.71σ]
OotOffset-rm: 3.086 arcsec [3.89σ]
KicOffset-rm: 3.098 arcsec [3.95σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 1.00 [17/17]

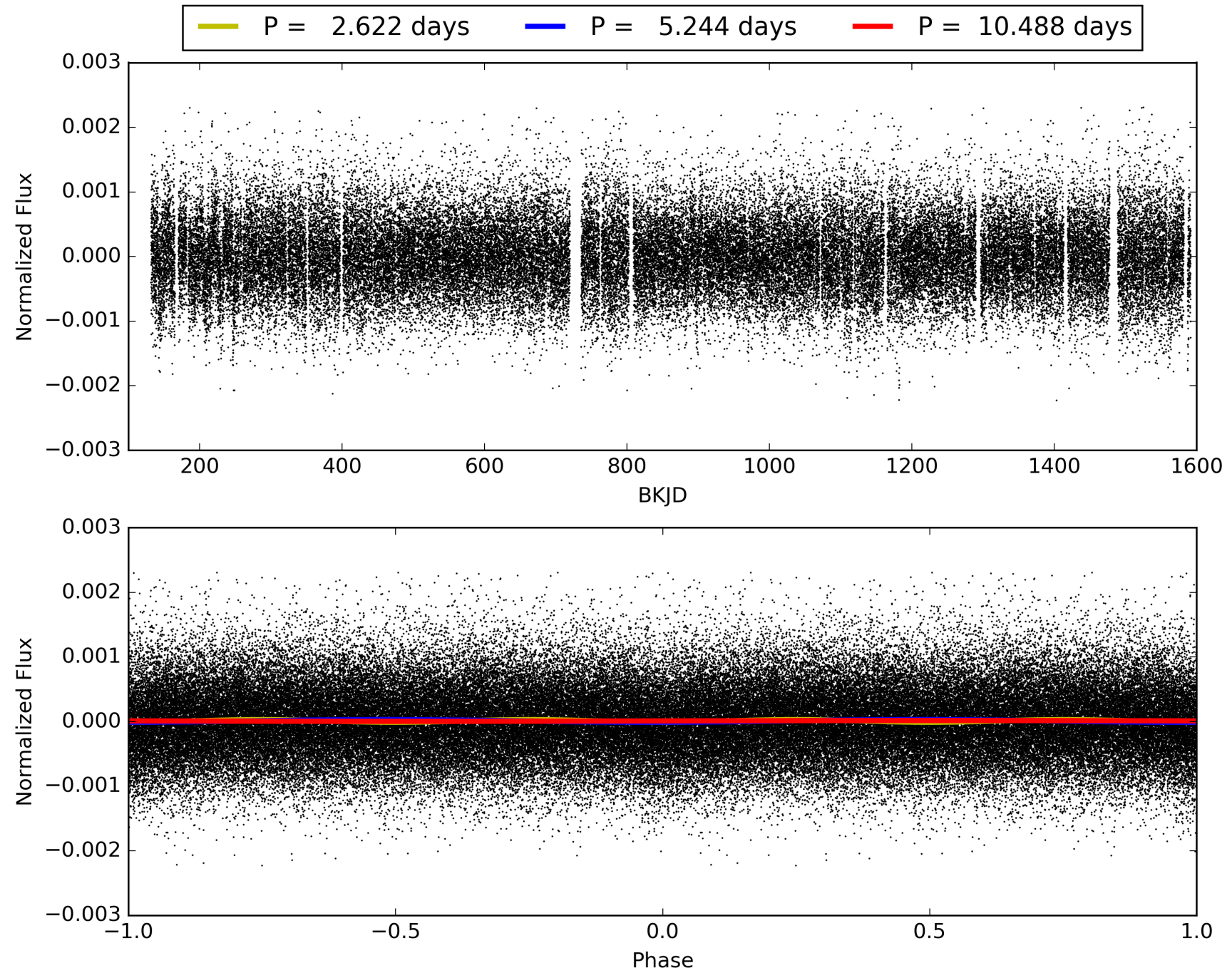
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:21:48 Z

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

TCE 006364200-01, PDC Light Curves

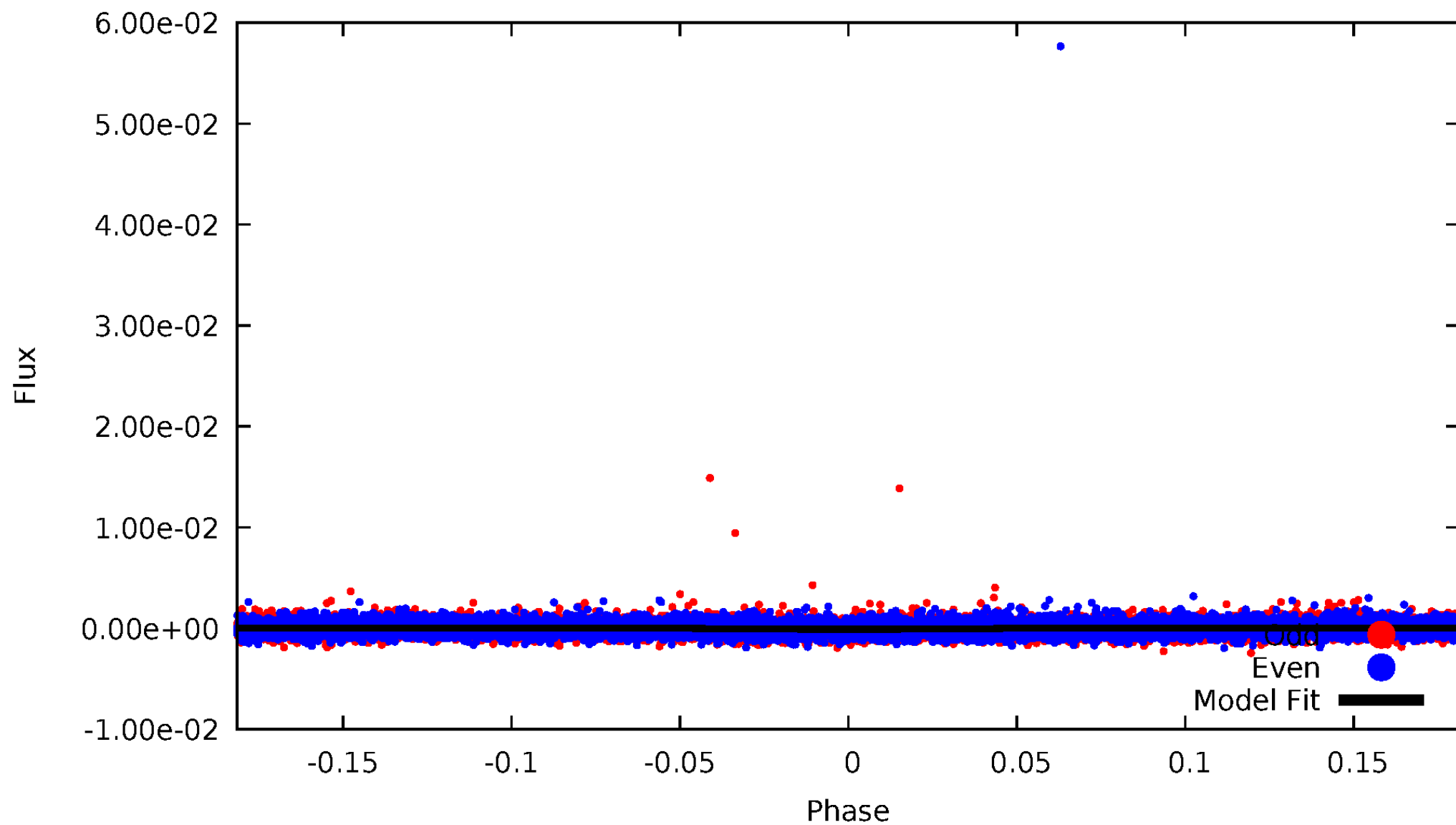


TCE 006364200-01



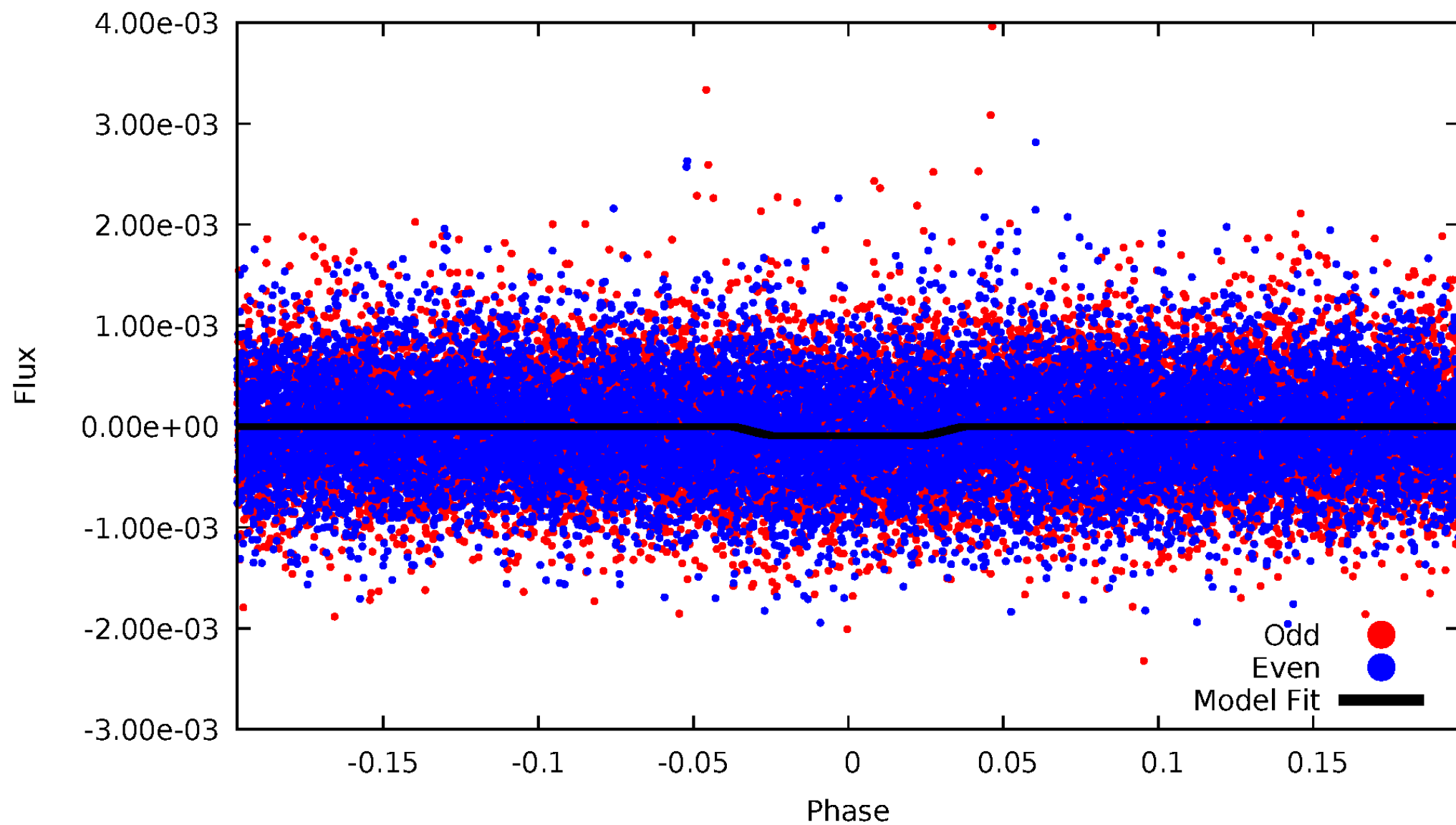
DV Odd/Even

TCE 006364200-01



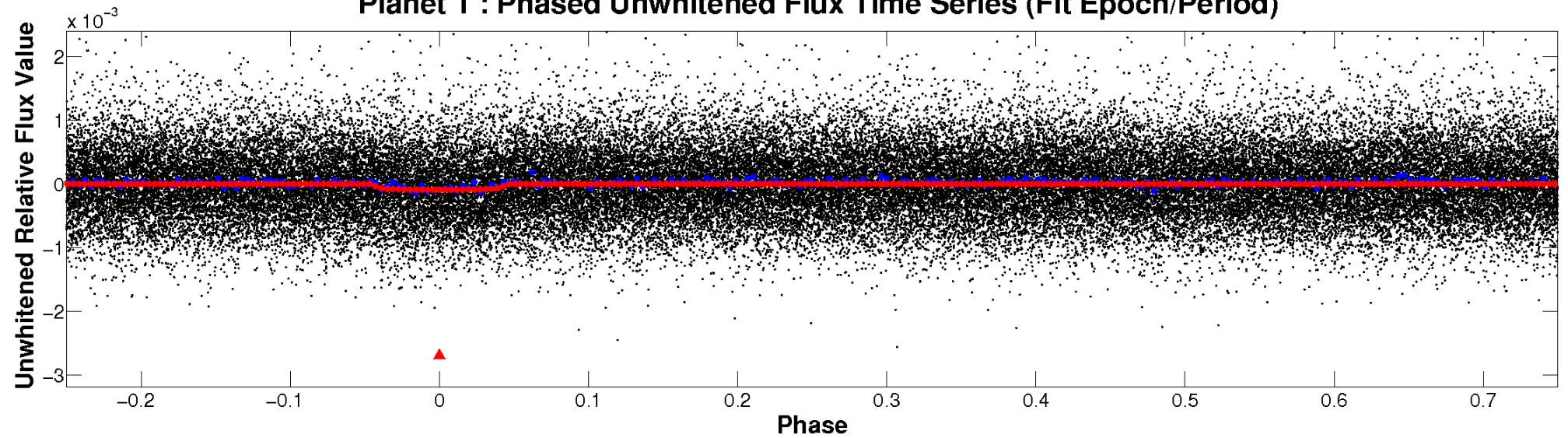
ALT Odd/Even

TCE 006364200-01

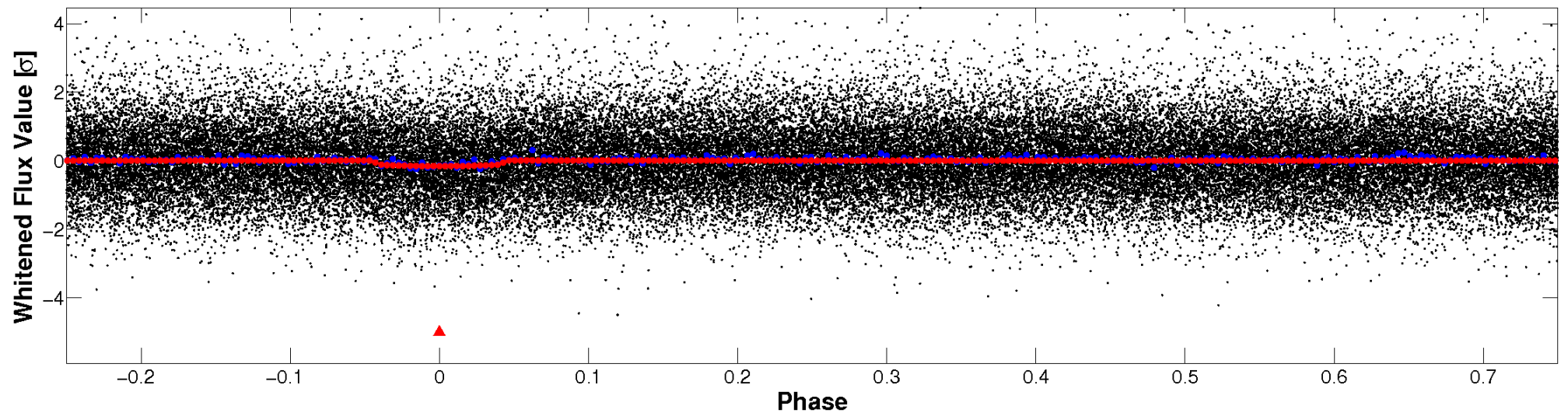


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

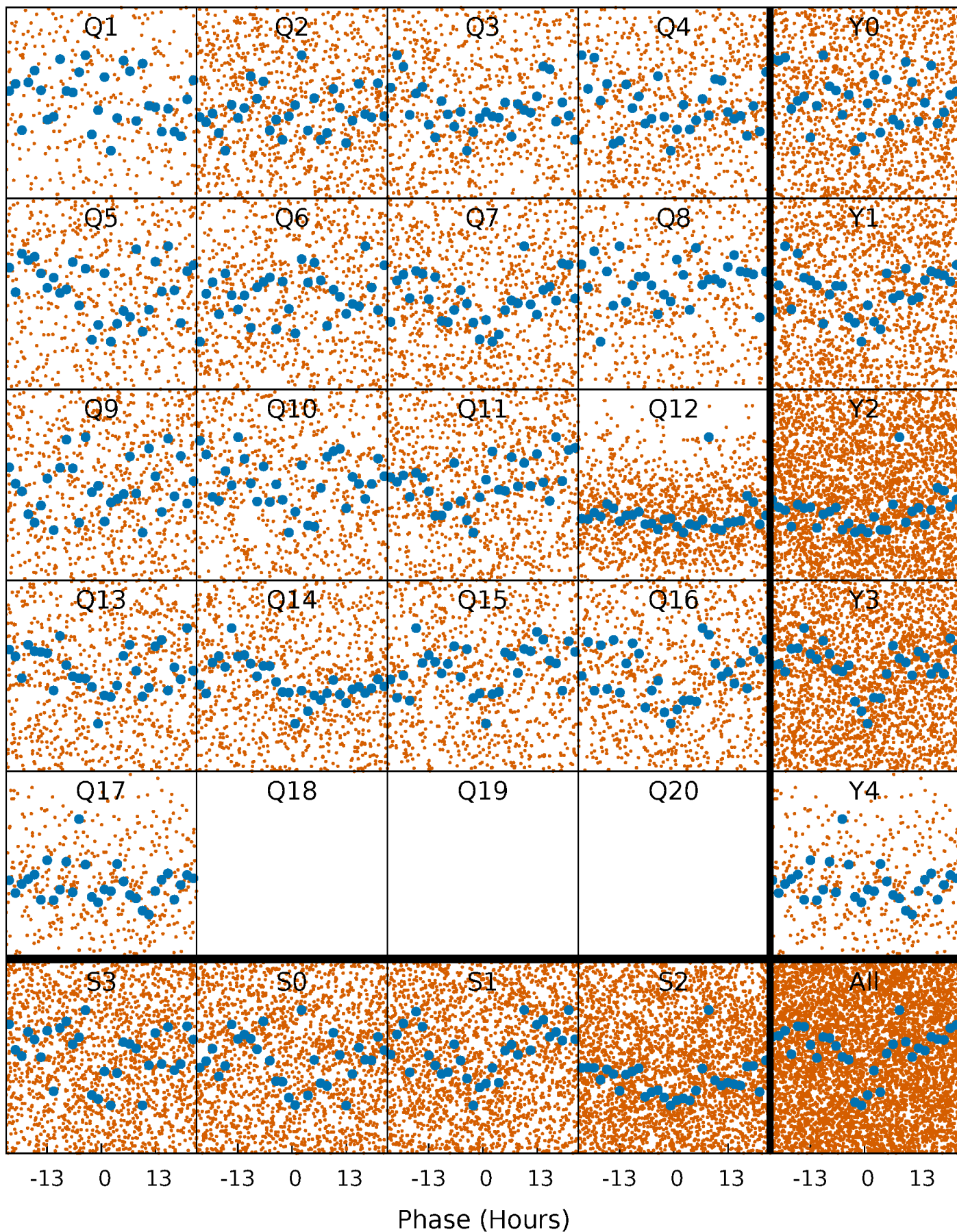


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



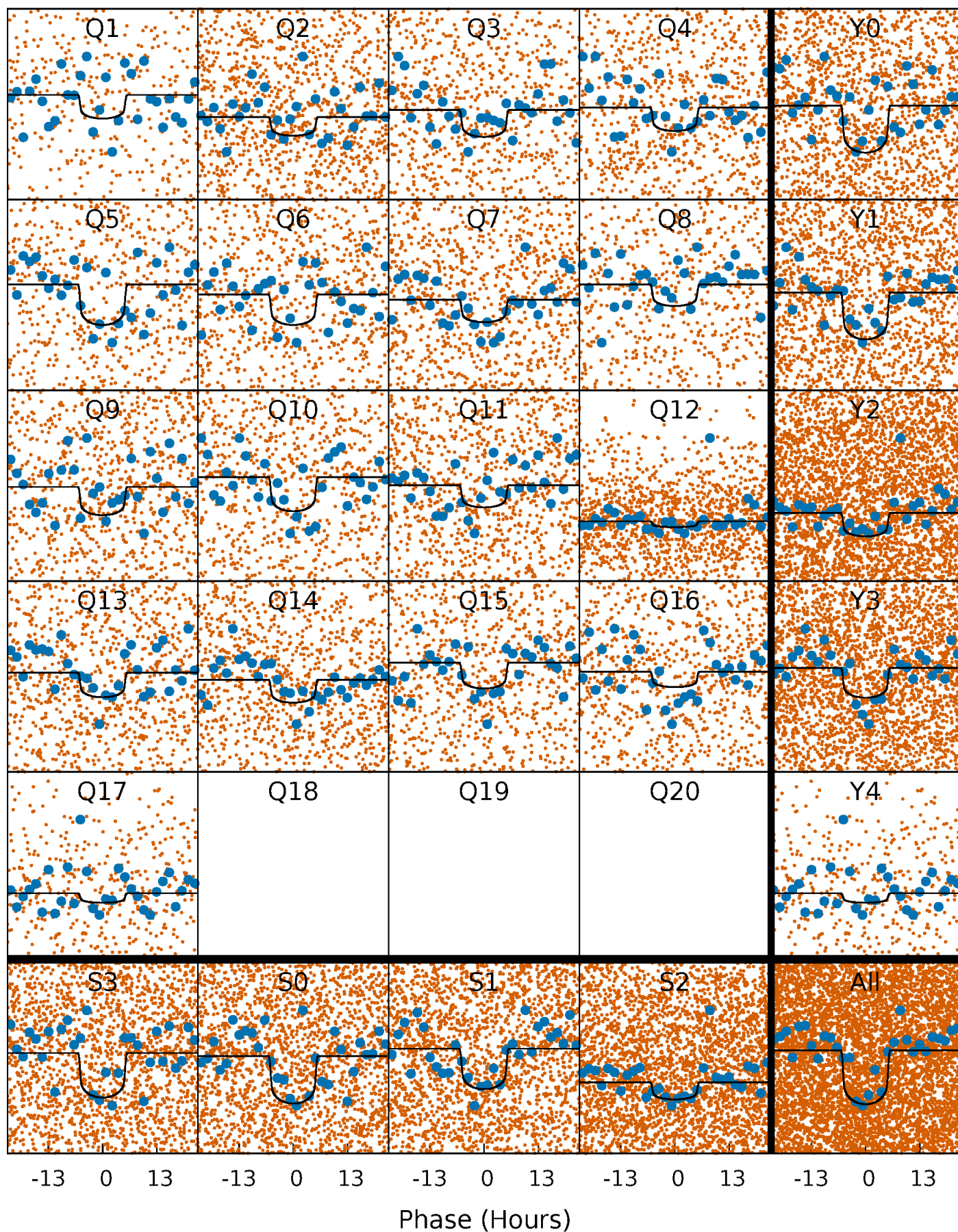
PDC Quarter-Phased Transit Curves

TCE 006364200-01 P= 5.243795 Days $T_0=132.707567$ (BKJD)



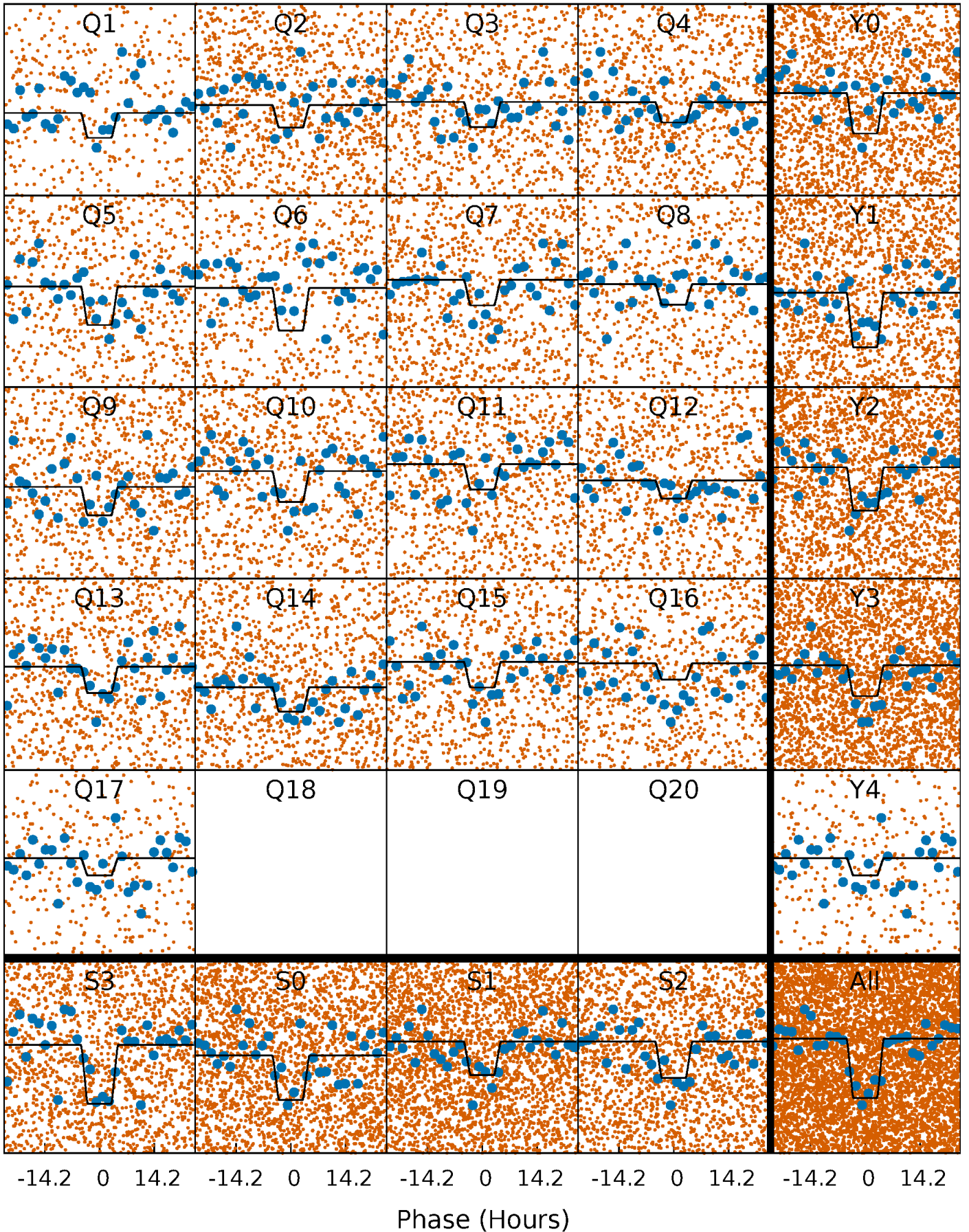
DV Quarter-Phased Transit Curves

TCE 006364200-01 P= 5.243795 Days $T_0=132.707567$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

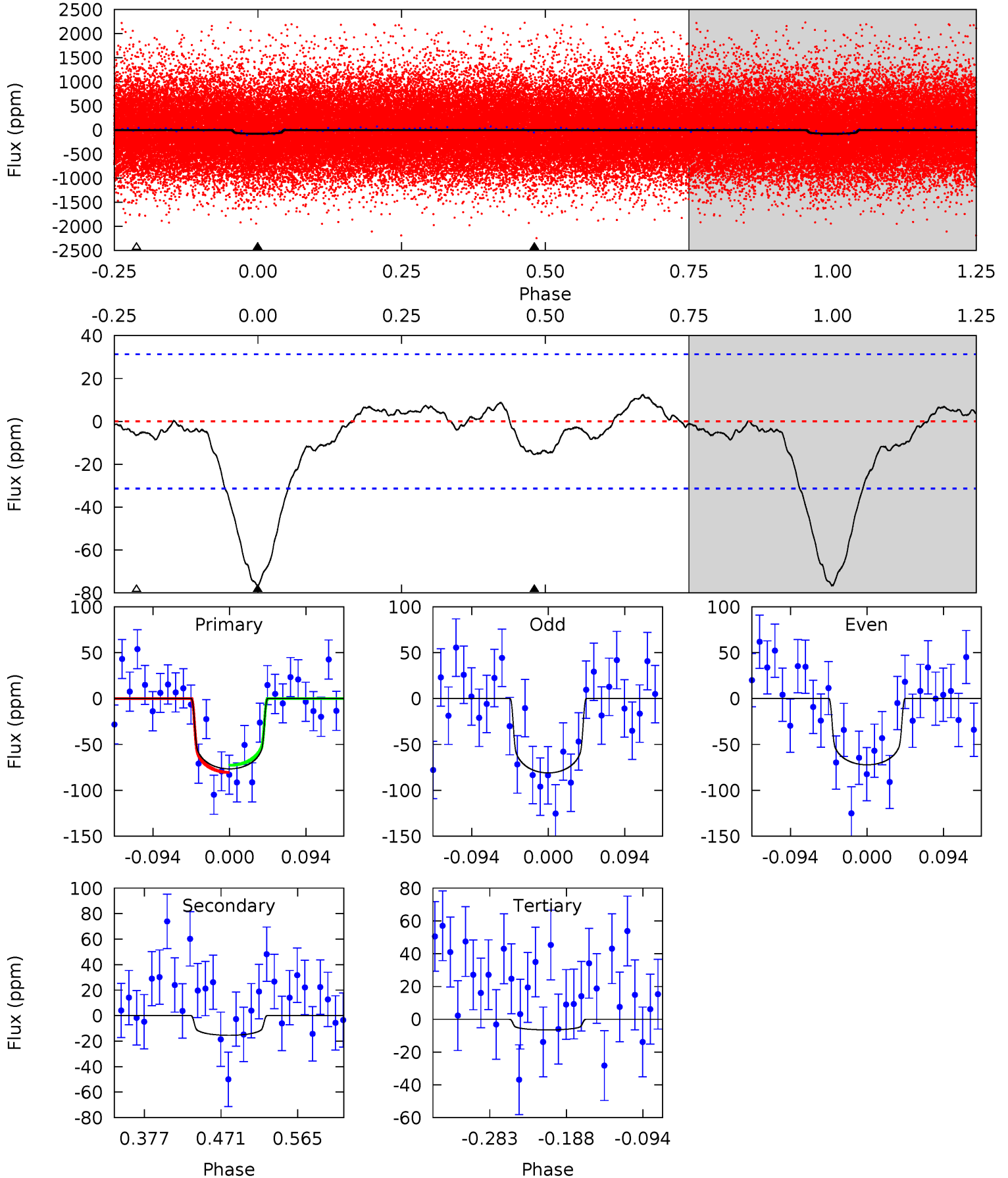
TCE 006364200-01 P= 5.243867 Days $T_0=132.684582$ (BKJD)



DV Model-Shift Uniqueness Test

006364200-01, P = 5.243795 Days, E = 127.463772 Days

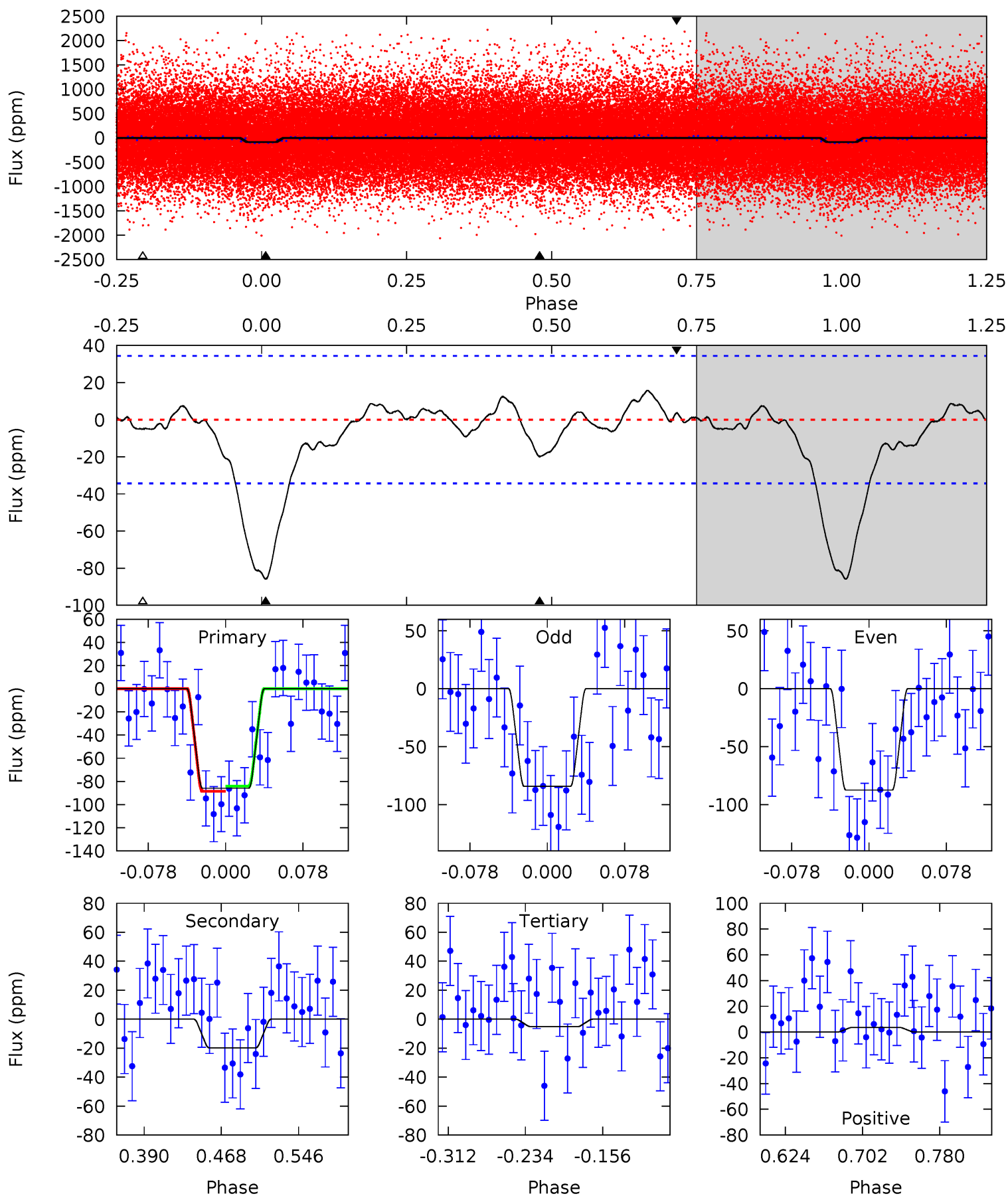
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	2.26	0.95	0	4.58	1.67	0.85	10.3	11.2	1.31	2.26	0.64	0.96	0.14	0.57



Alt Model-Shift Uniqueness Test

006364200-01, P = 5.243867 Days, E = 127.440715 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	2.66	0.70	0.49	4.62	1.76	0.87	10.8	11.0	1.96	2.17	0.22	1.07	0.16	0.29



Stellar Parameters For KIC 006364200

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6060^{+181}_{-199}	$4.509^{+0.046}_{-0.184}$	$-0.220^{+0.300}_{-0.300}$	$0.925^{+0.245}_{-0.088}$	$1.008^{+0.120}_{-0.132}$	$1.795^{+0.433}_{-0.902}$
	+3%/-3%	+1%/-4%	+136%/-136%	+26%/-10%	+12%/-13%	+24%/-50%
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 006364200-01 / KOI 6692.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 7	$1.05^{+0.29}_{-0.23}$	1506^{+99}_{-69}	4034^{+544}_{-476}	25^{+23}_{-13}
Alt.	-20 ± 7	$1.00^{+0.27}_{-0.26}$	1506^{+98}_{-71}	4320^{+634}_{-477}	36^{+34}_{-18}

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 $A_{obs} \gg 1.0$

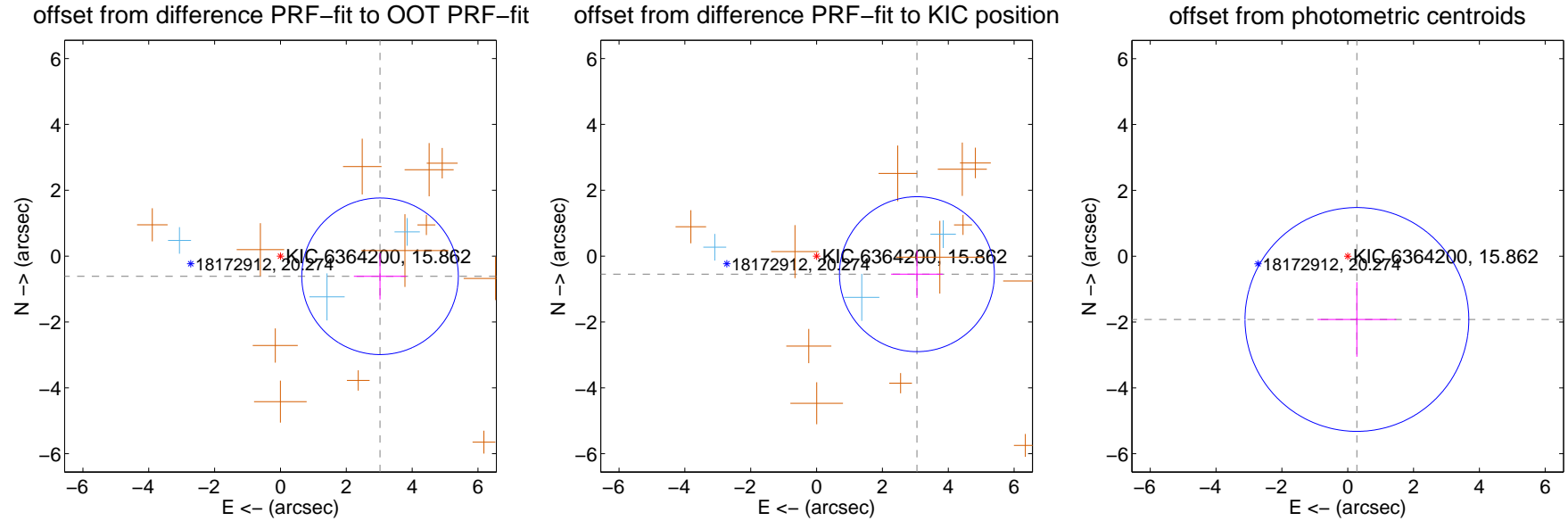
DV Centroid Data

Supplemental centroid analysis for 006364200-01. Kepler magnitude: 15.86. Transit SNR 10.39

There are 3 quarters with good PRF difference image offsets

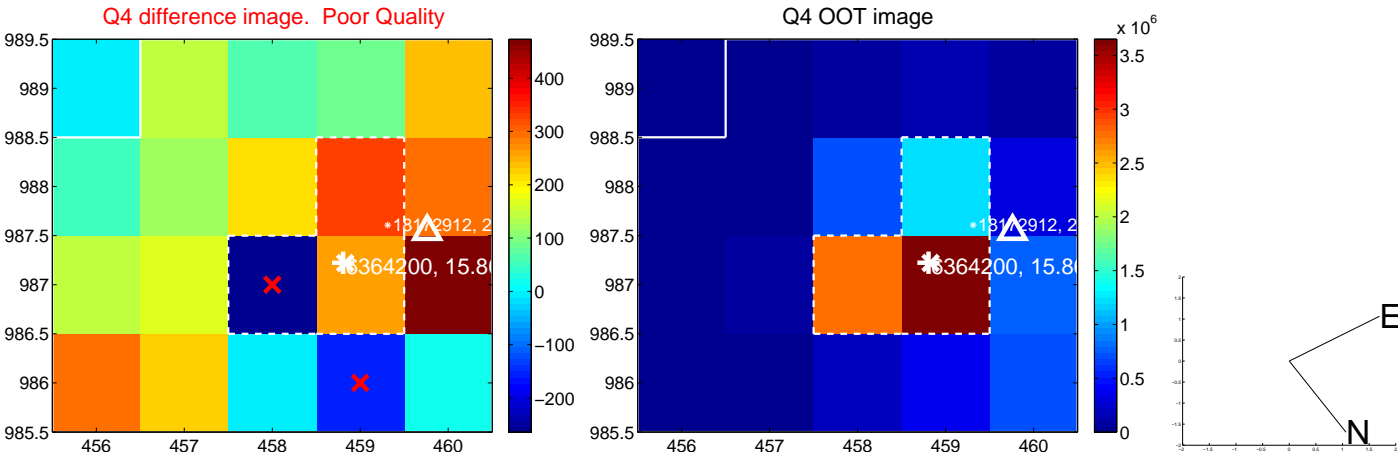
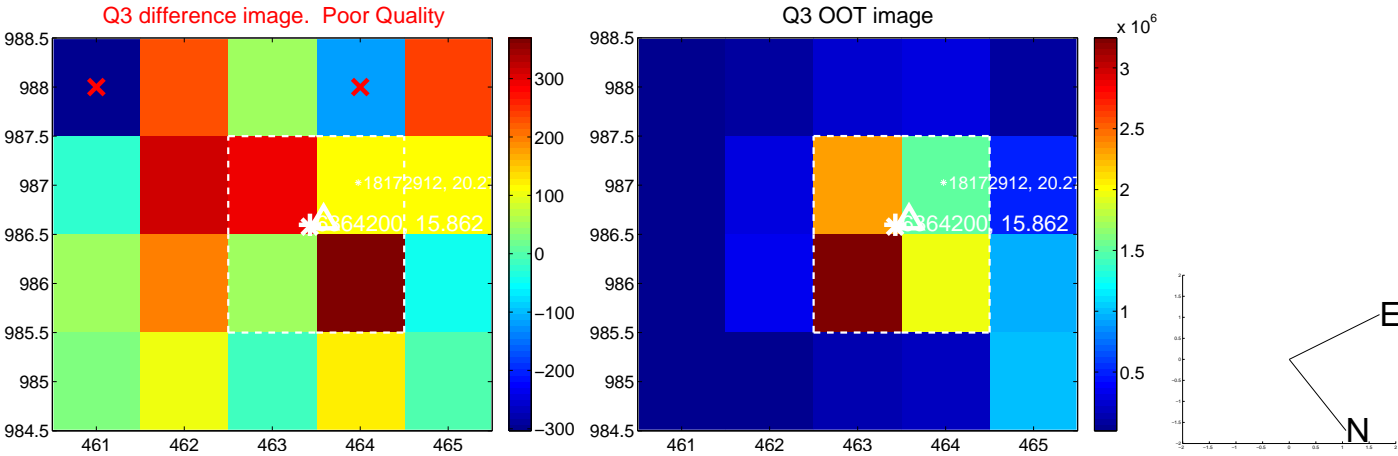
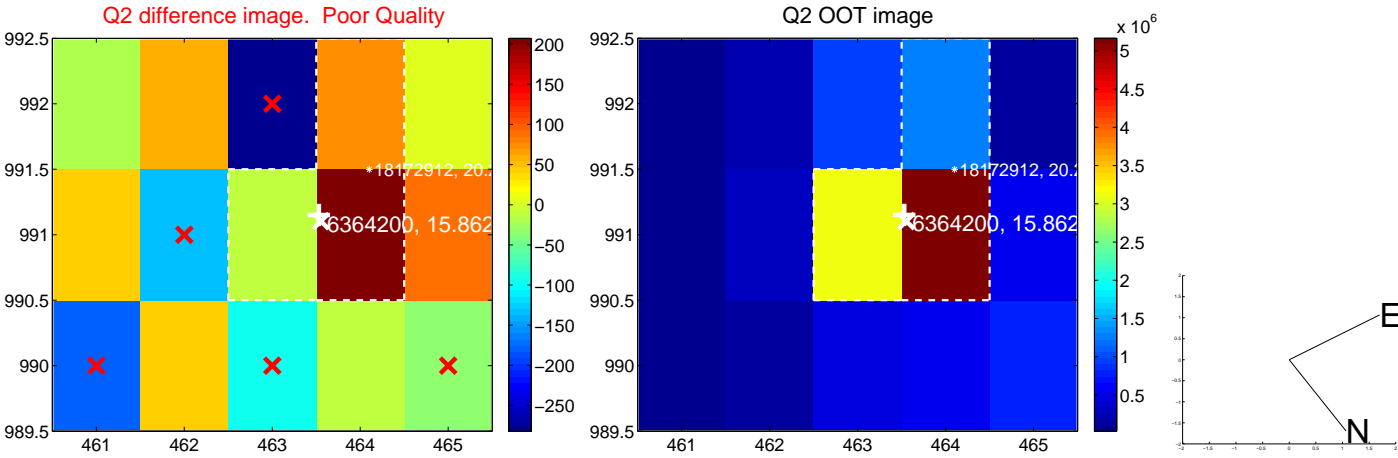
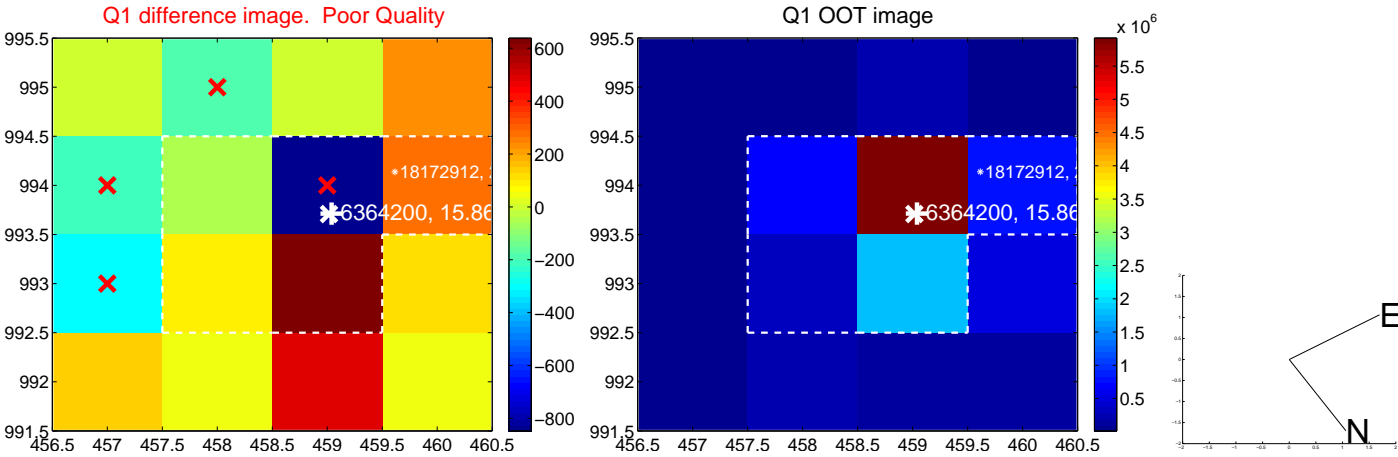
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.086 ± 0.793	3.89	-3.025 ± 0.795	-0.612 ± 0.707
PRF-fit source offset from KIC position	3.098 ± 0.784	3.95	-3.049 ± 0.786	-0.548 ± 0.722
photometric centroid source offset	1.94 ± 1.13	1.71	-0.28 ± 1.20	-1.92 ± 1.13

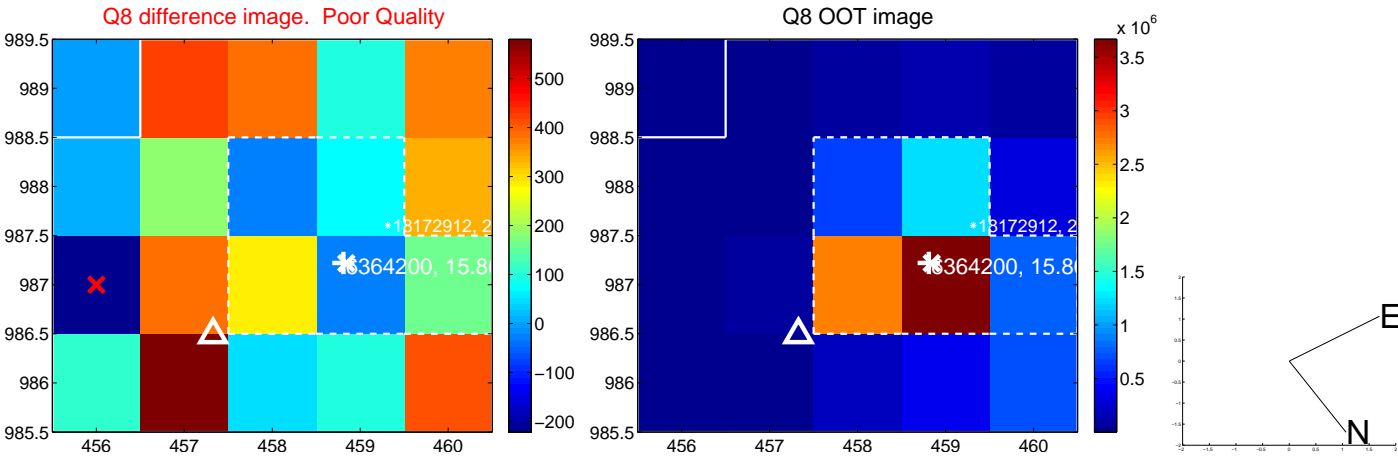
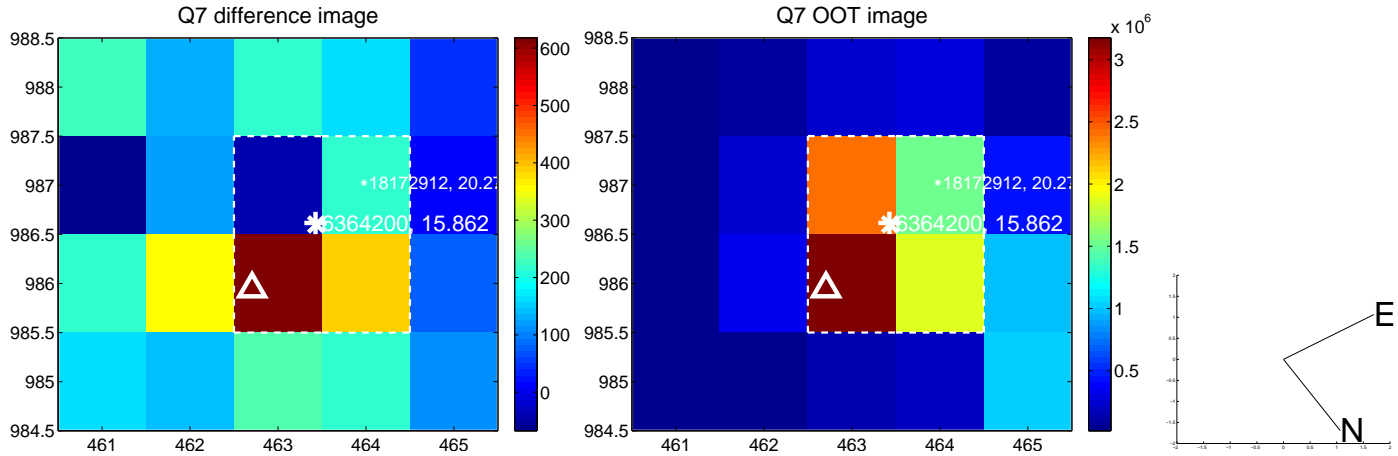
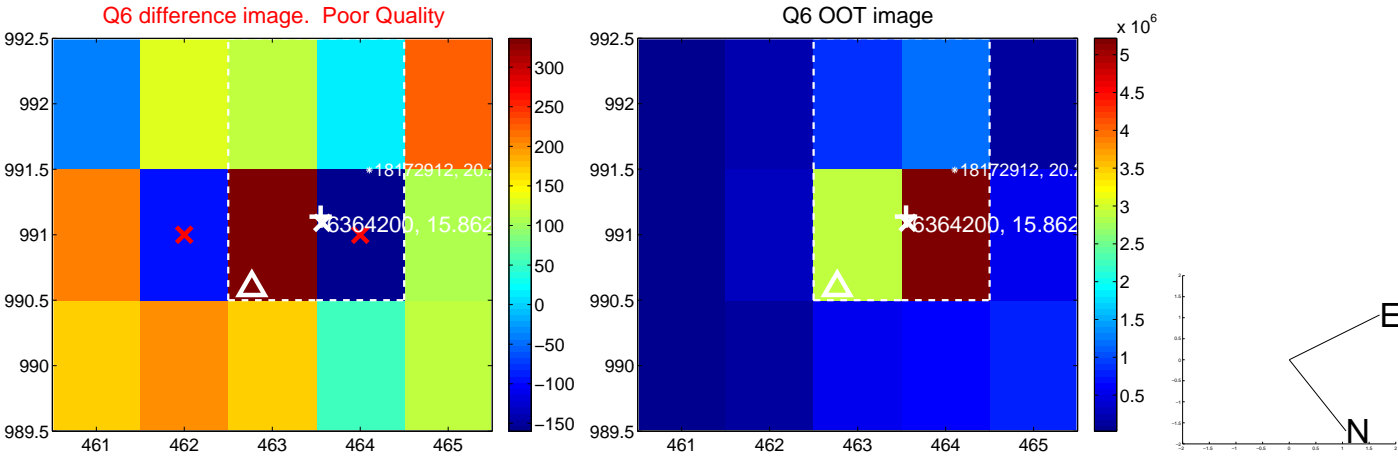
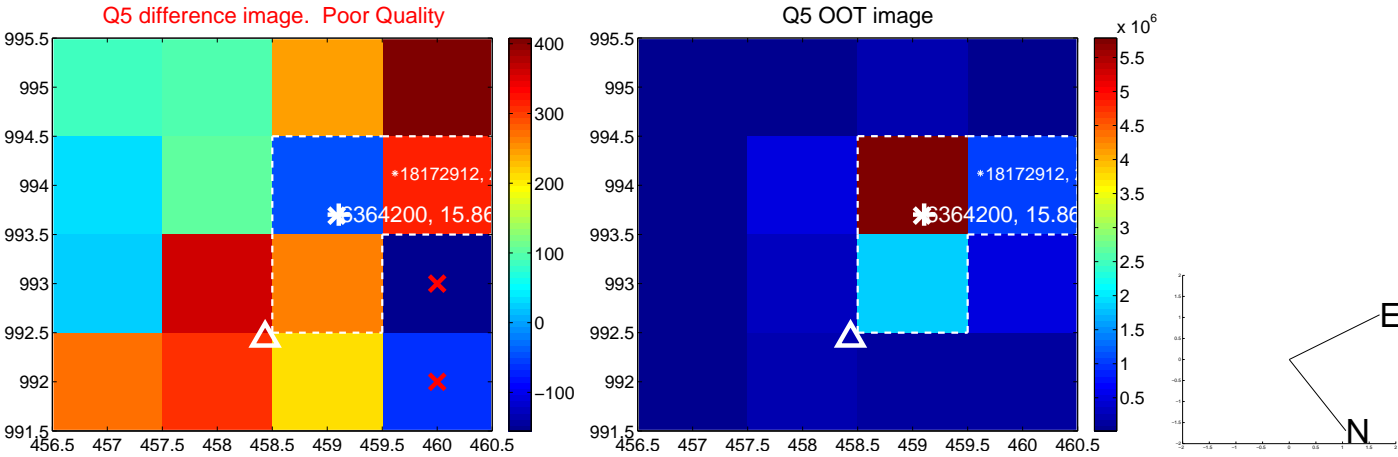


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

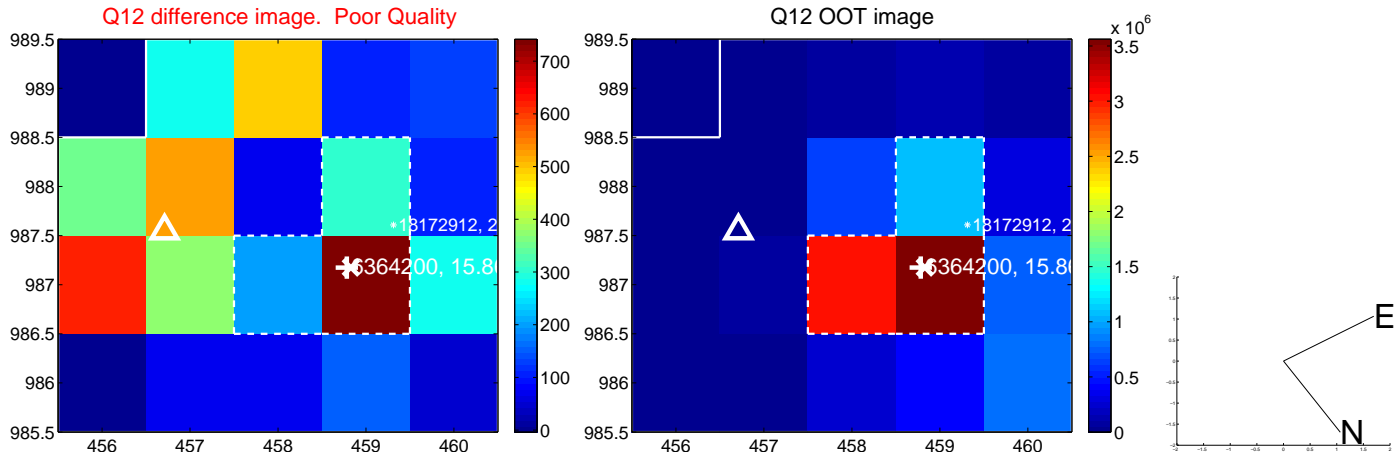
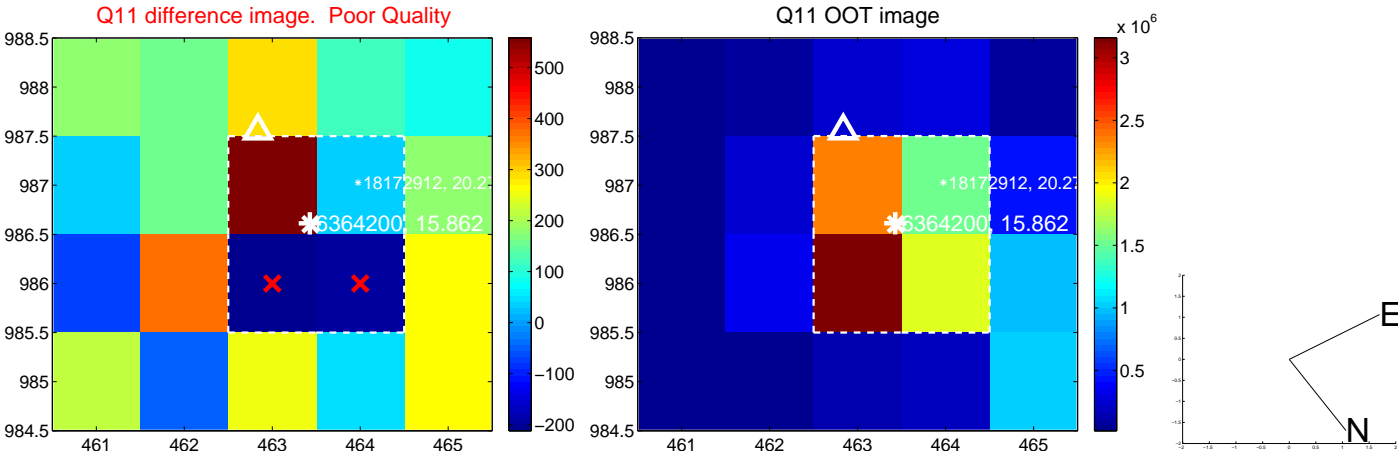
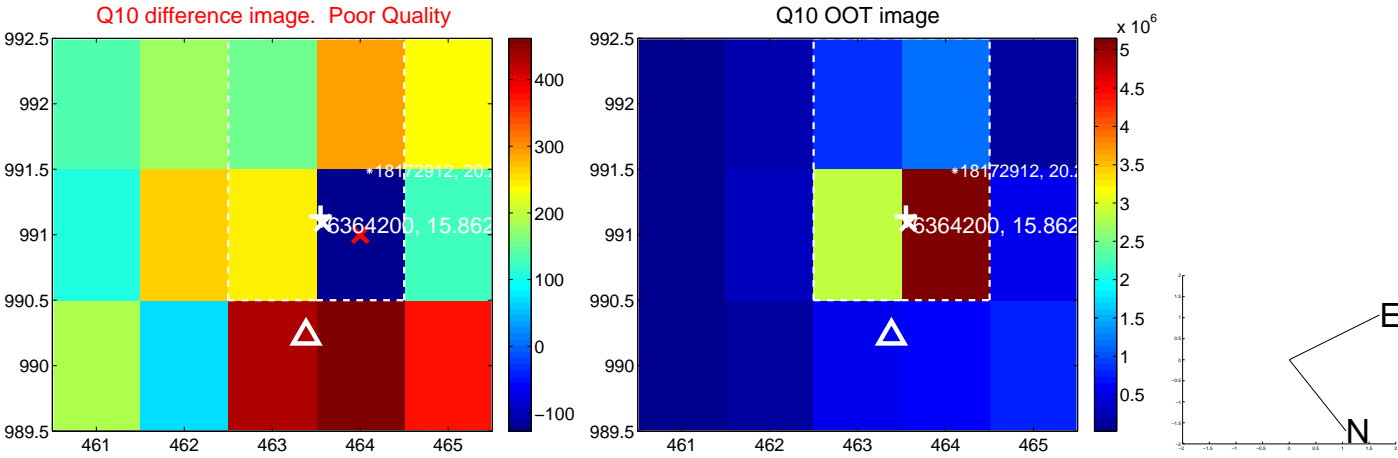
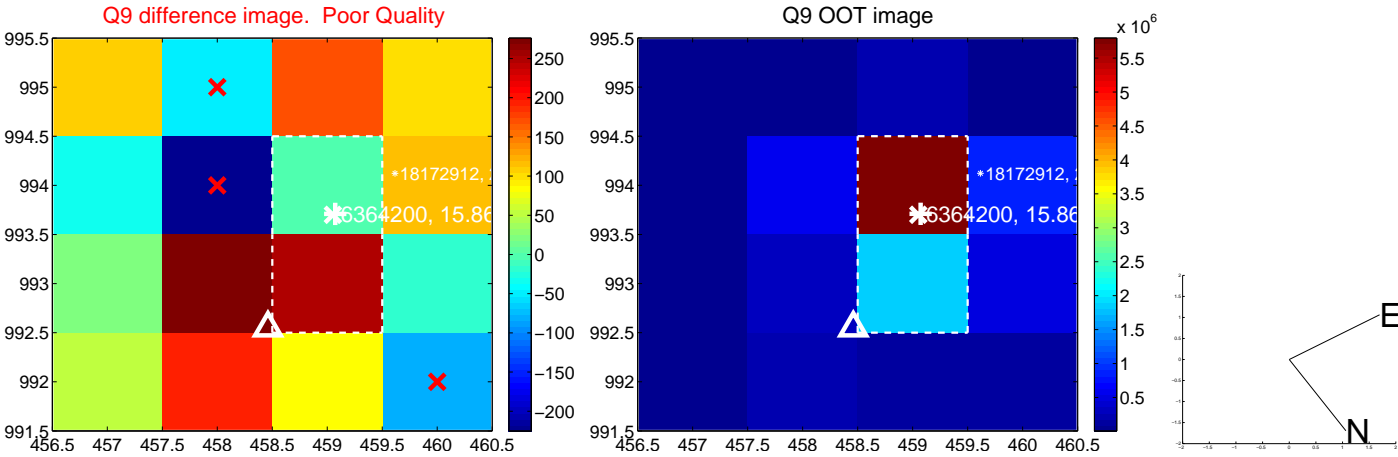
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



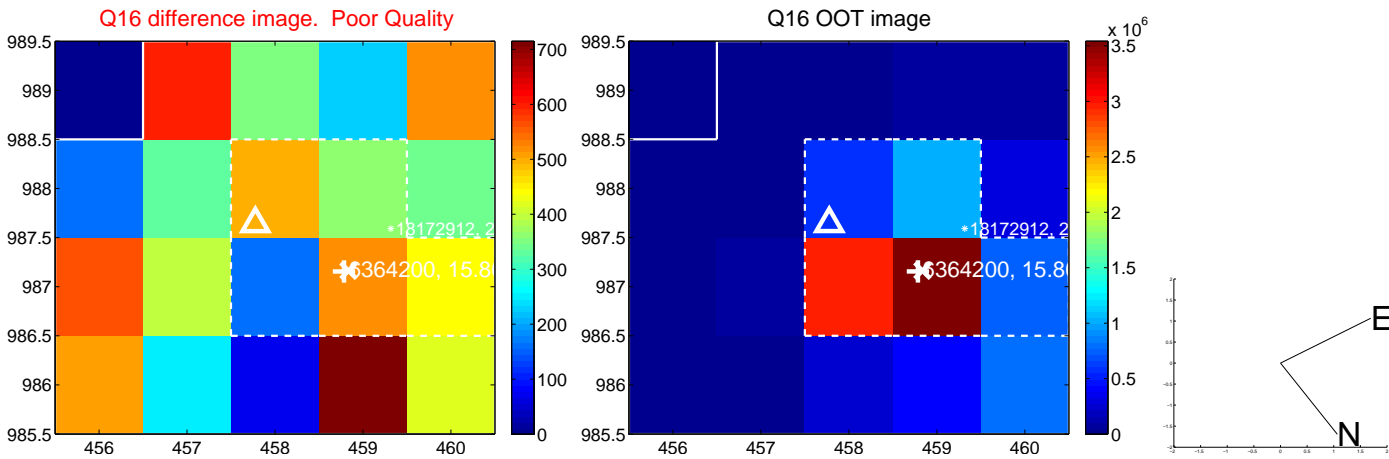
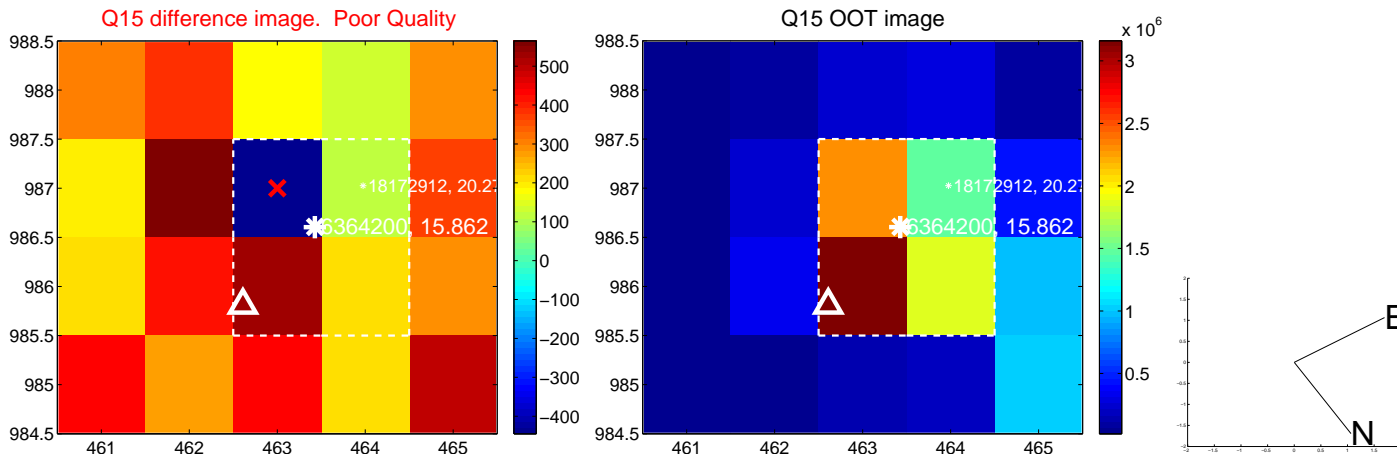
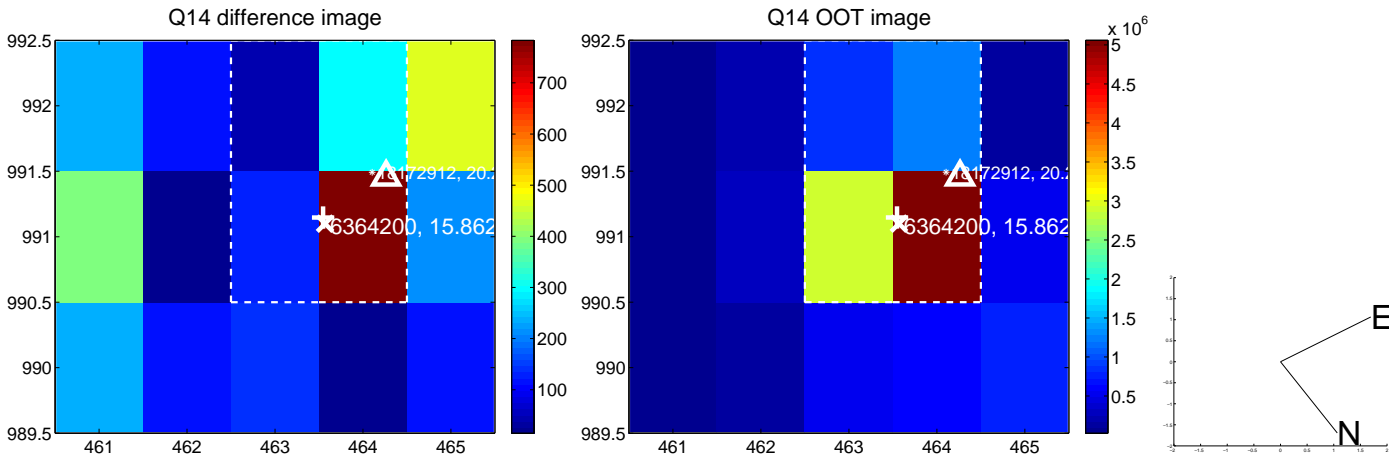
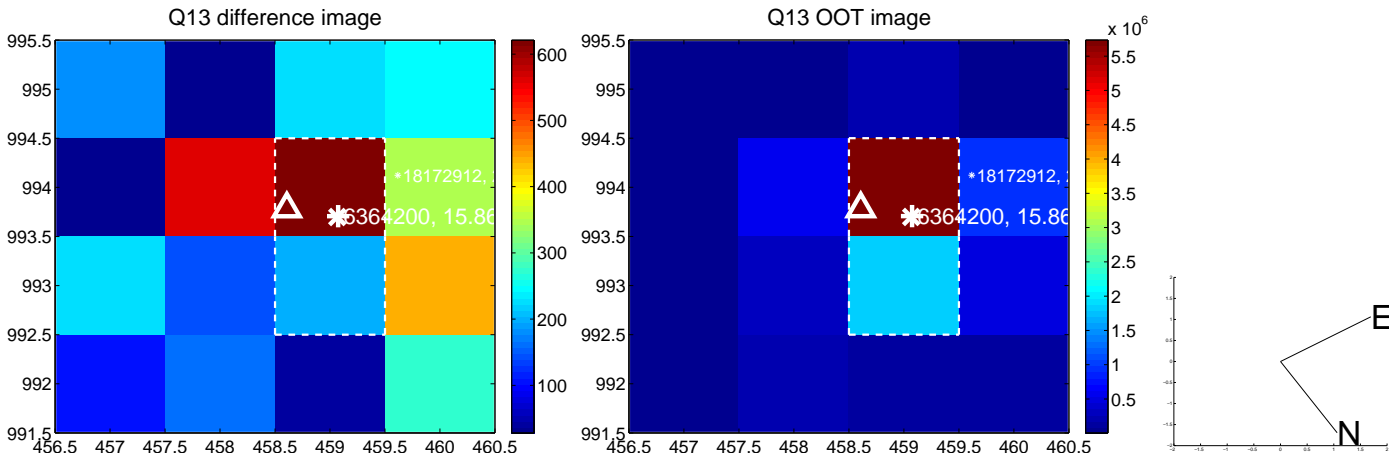
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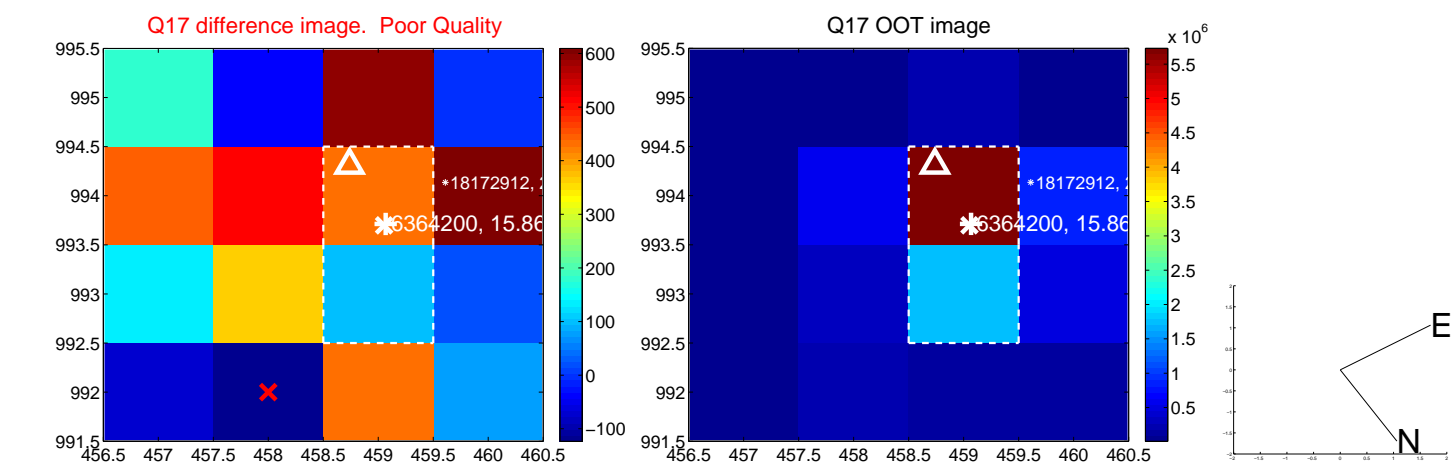
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



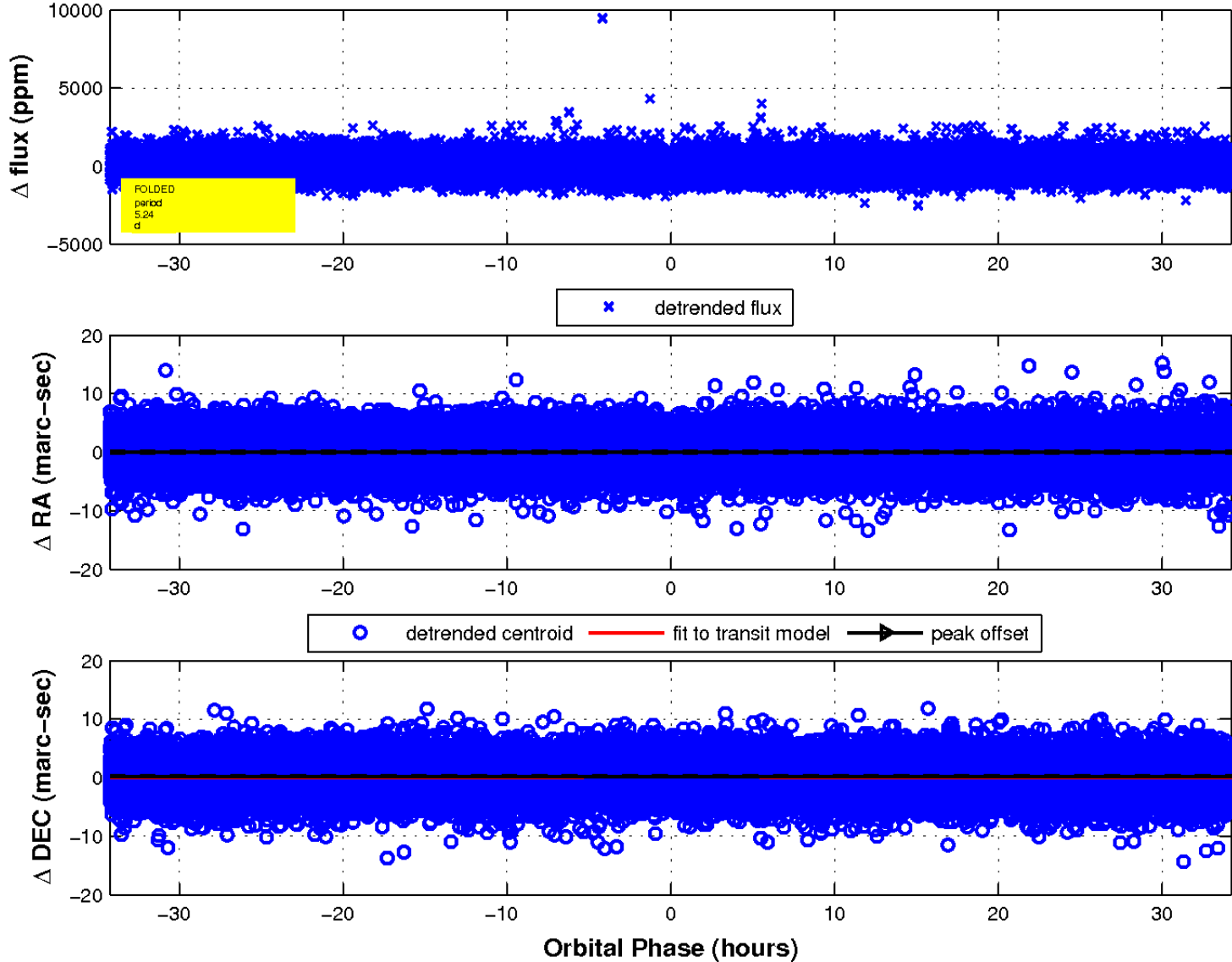
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

