

KIC 003849187

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})
003849187-01	OBS	4780.01	6.601840	137.471836	246.4	3.488	8.9	10.1	0.86	5591	1.82	138.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003849187-01	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS

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.

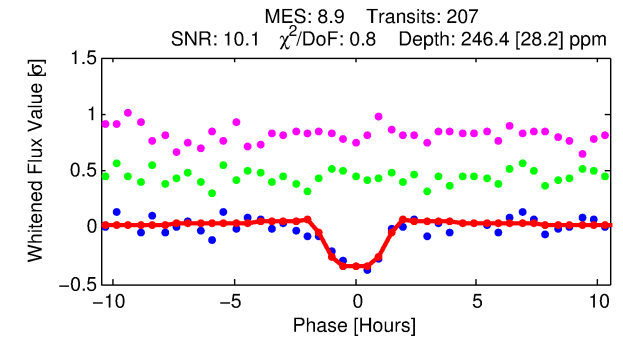
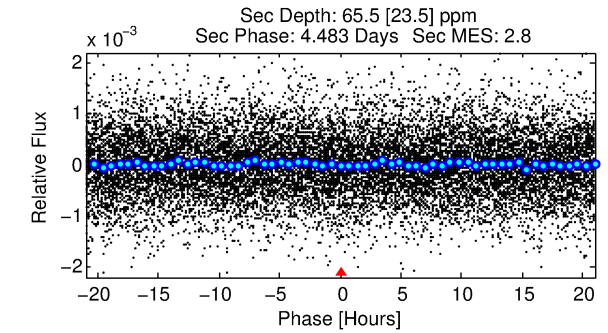
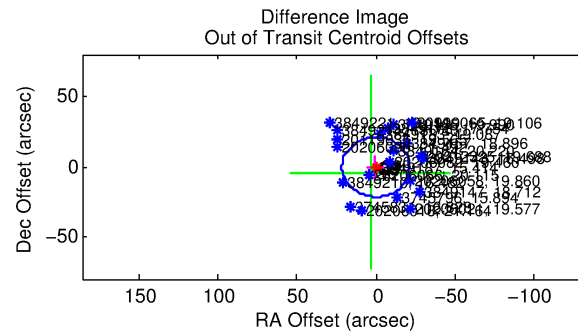
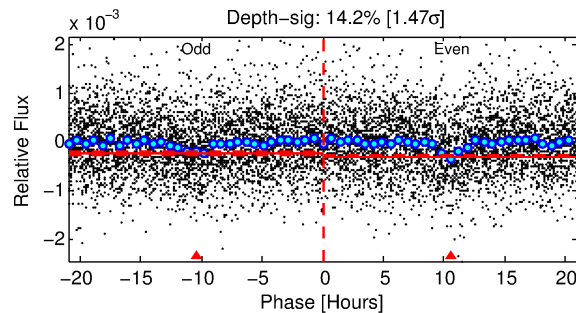
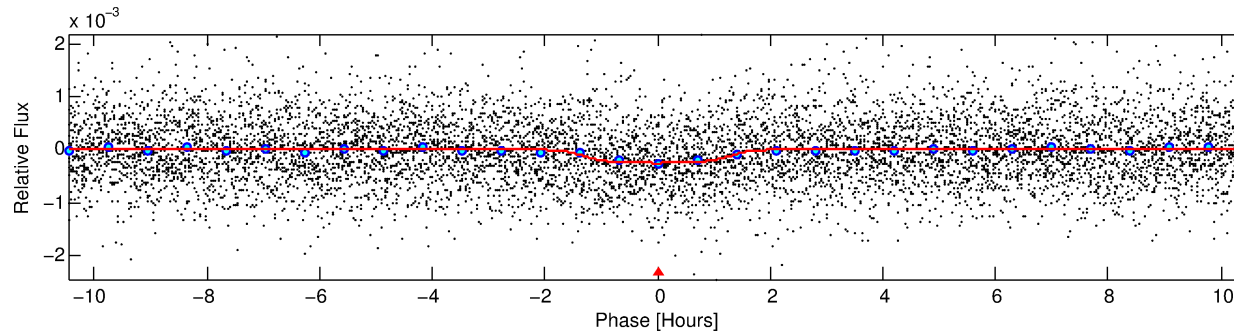
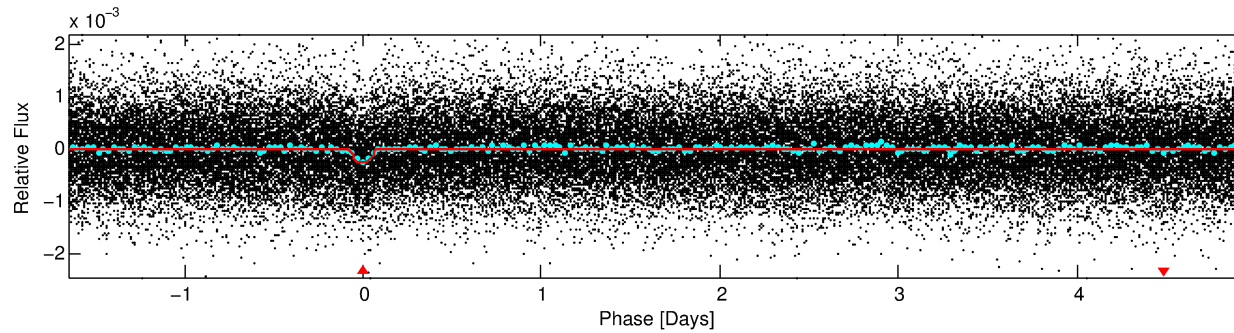
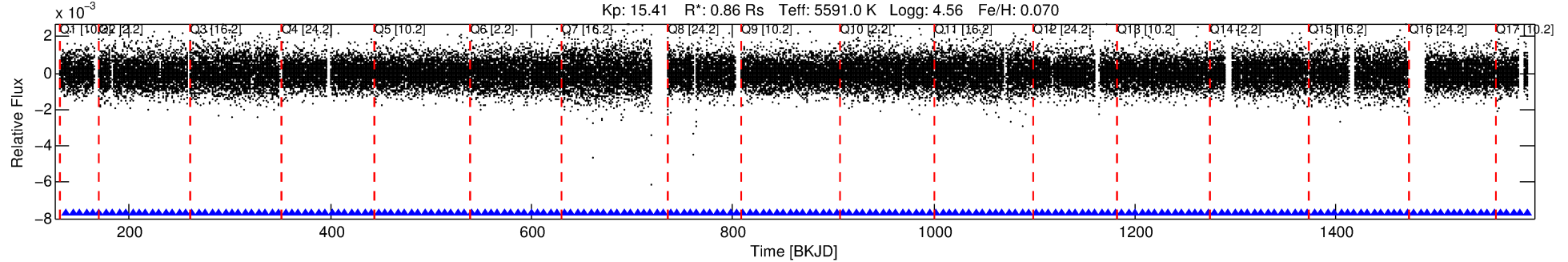
Ephemeris Match Information For 003849187-01

No Significant Match Found

DV One-Page Summary

KIC: 3849187 Candidate: 1 of 1 Period: 6.602 d
KOI: K04780.01 Corr: 0.869

Kp: 15.41 R*: 0.86 Rs Teff: 5591.0 K Logg: 4.56 Fe/H: 0.070



DV Fit Results:

Period = 6.60184 [0.00006] d
Epoch = 137.4718 [0.0066] BKJD
Rp/R* = 0.0194 [0.0019]
a/R* = 4.65 [1.35]
b = 0.97 [0.02]
Seff = 138.56 [47.06]
Teq = 875 [74] K
Rp = 1.82 [0.47] Re
a = 0.0684 [0.0144] AU
Ag = 51.02 [26.36] [1.90σ]
Teffp = 3615 [383] K [7.02σ]

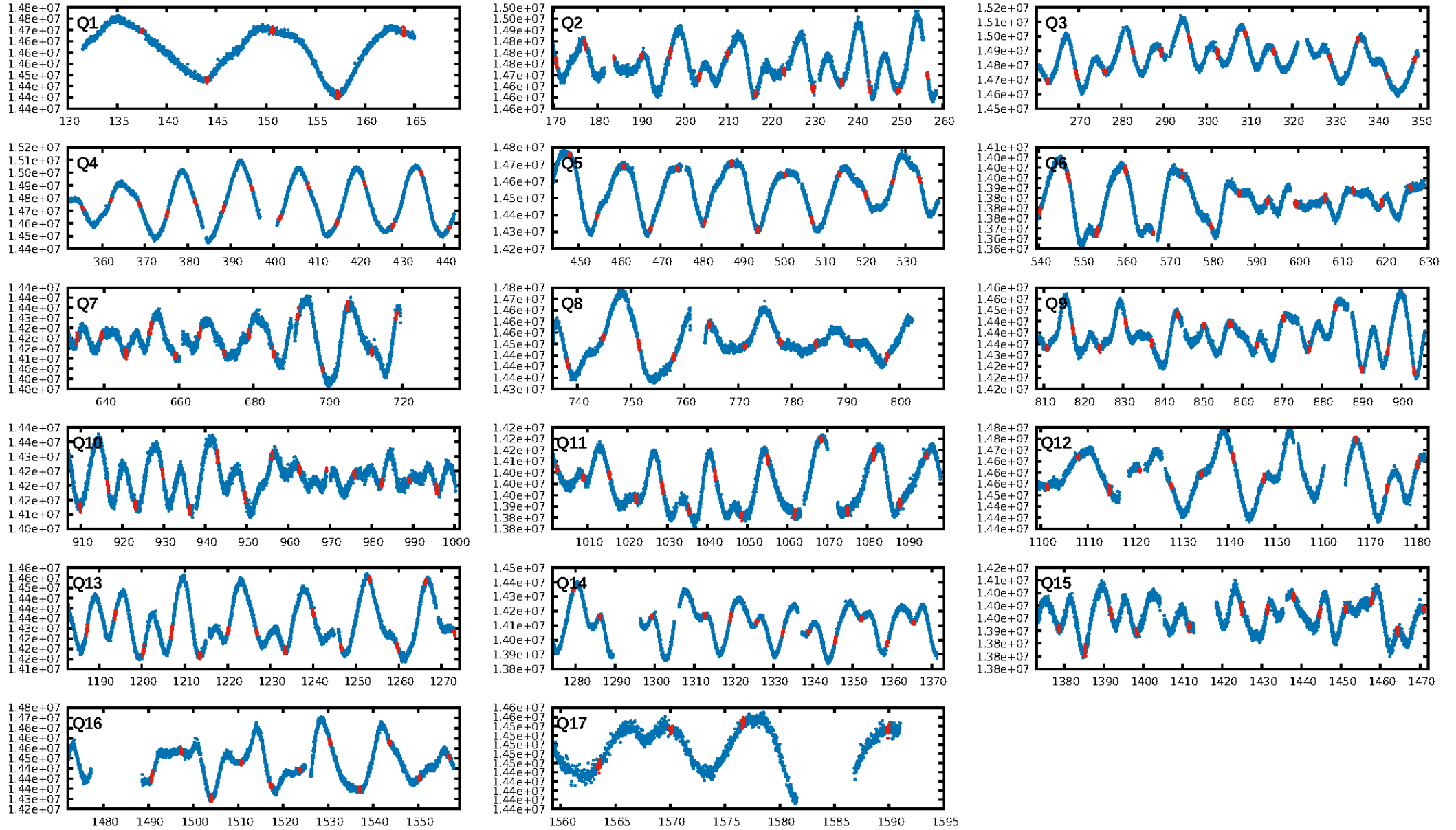
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.35e-18
RollingBand-fgt: 1.00 [198/198]
GhostDiagnostic-chr: 0.7675
Centroid-sig: 96.5%
Centroid-so: 0.159 arcsec [0.13σ]
OotOffset-rm: 0.368 arcsec [0.05σ]
OotOffset-st: 2/1/3/3 [9]
KicOffset-rm: 0.376 arcsec [0.05σ]
KicOffset-st: 2/1/3/3 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 1.00 [17/17]

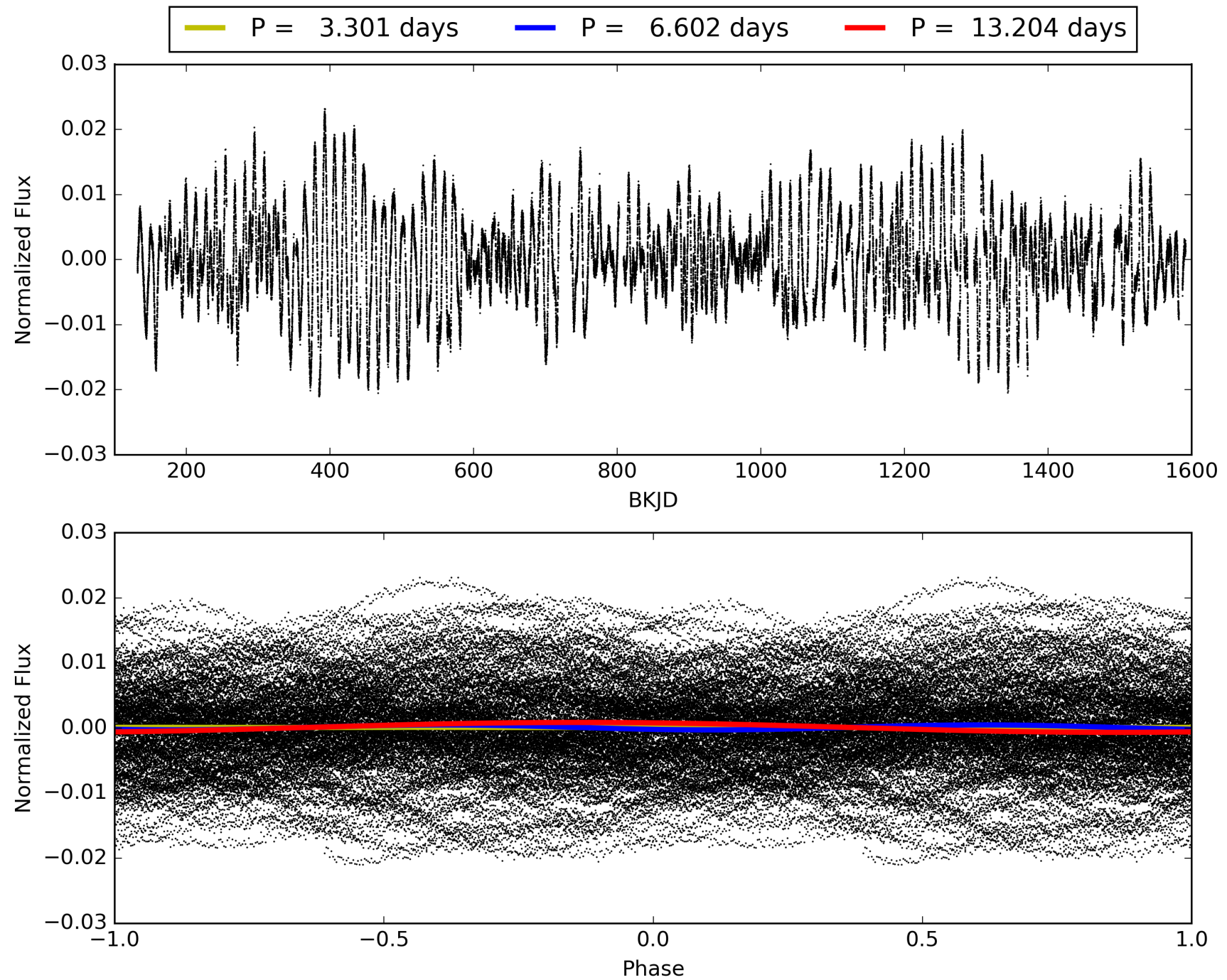
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:50:31 Z

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

TCE 003849187-01, PDC Light Curves

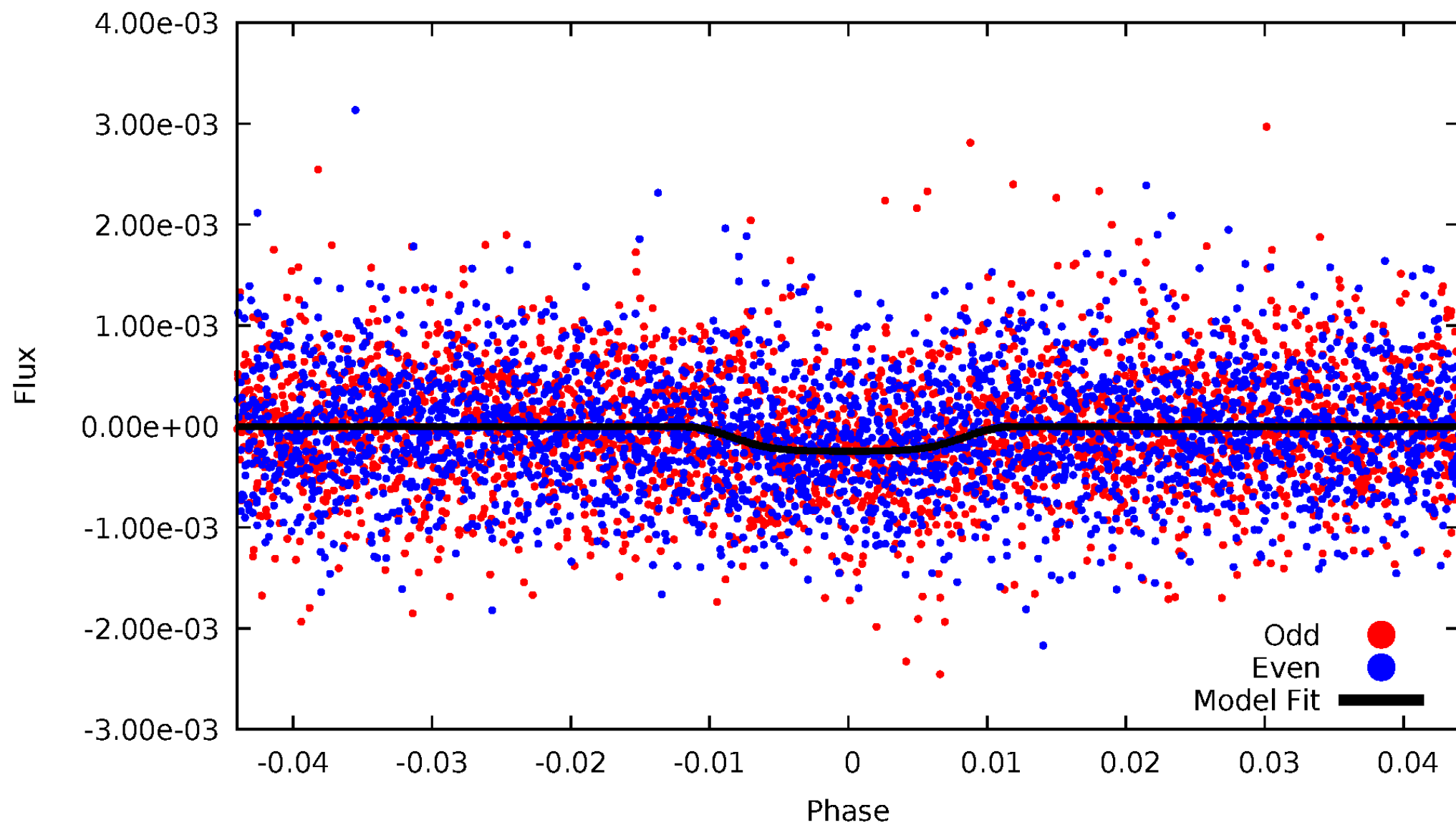


TCE 003849187-01



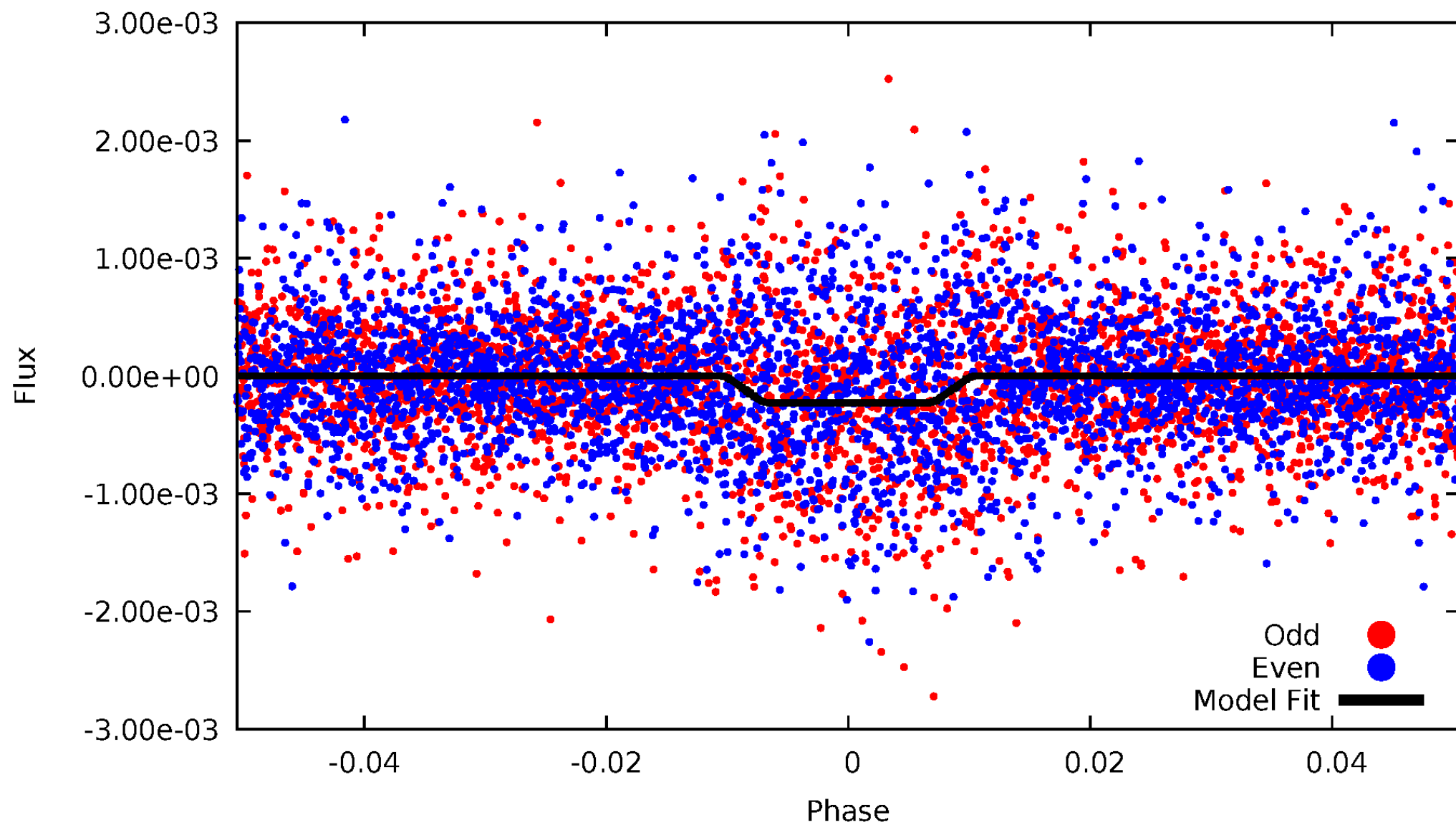
DV Odd/Even

TCE 003849187-01



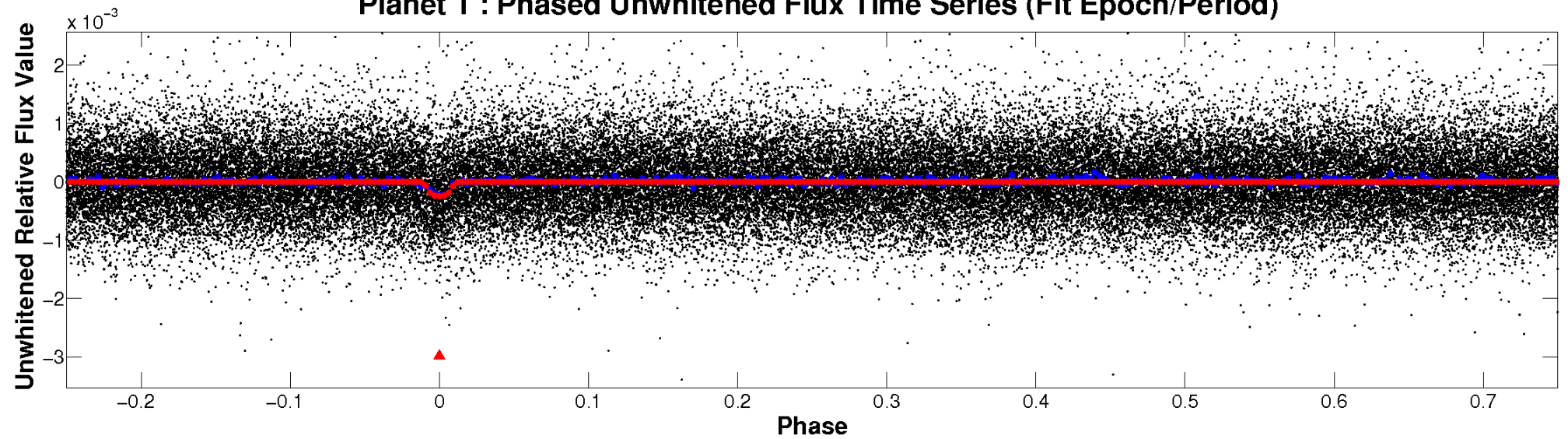
ALT Odd/Even

TCE 003849187-01

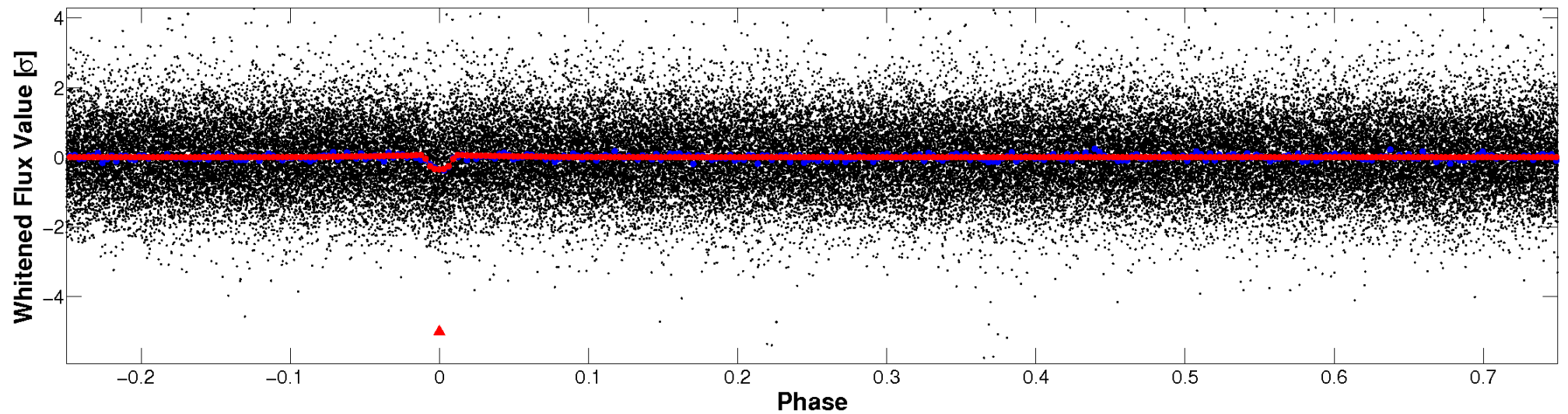


Non-Whitened Vs. Whitened Light Curve

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

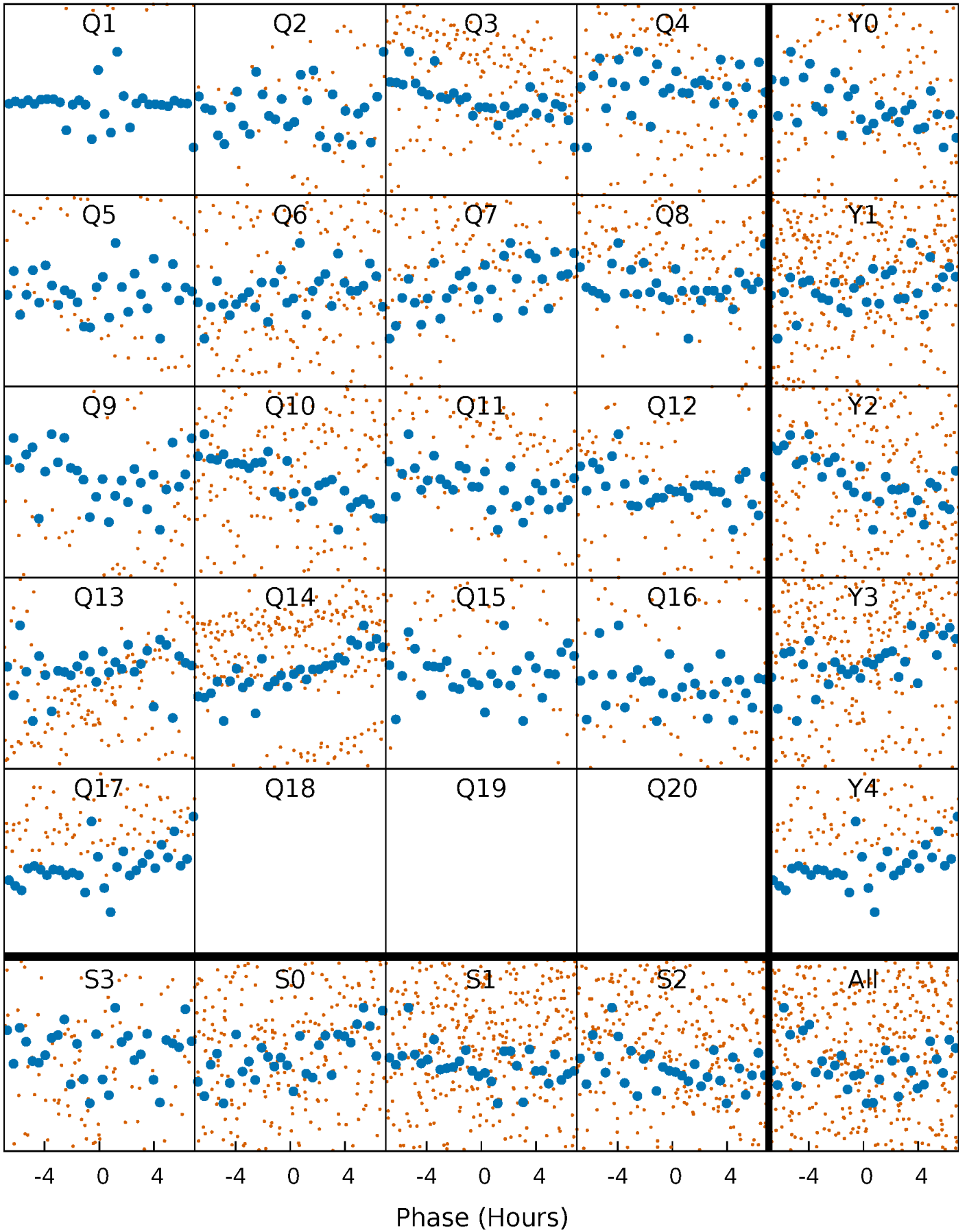


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



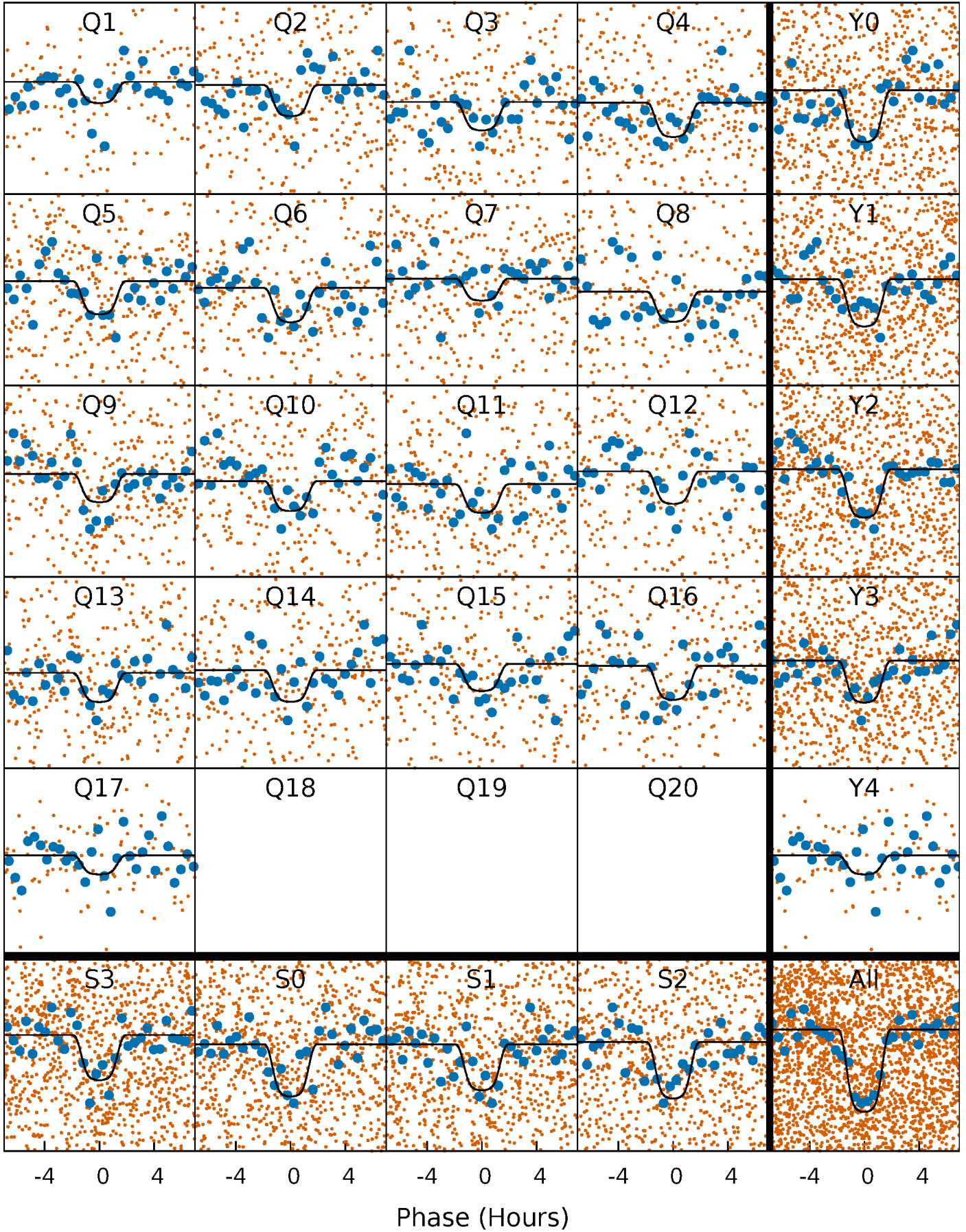
PDC Quarter-Phased Transit Curves

TCE 003849187-01 P= 6.601840 Days $T_0=137.471836$ (BKJD)



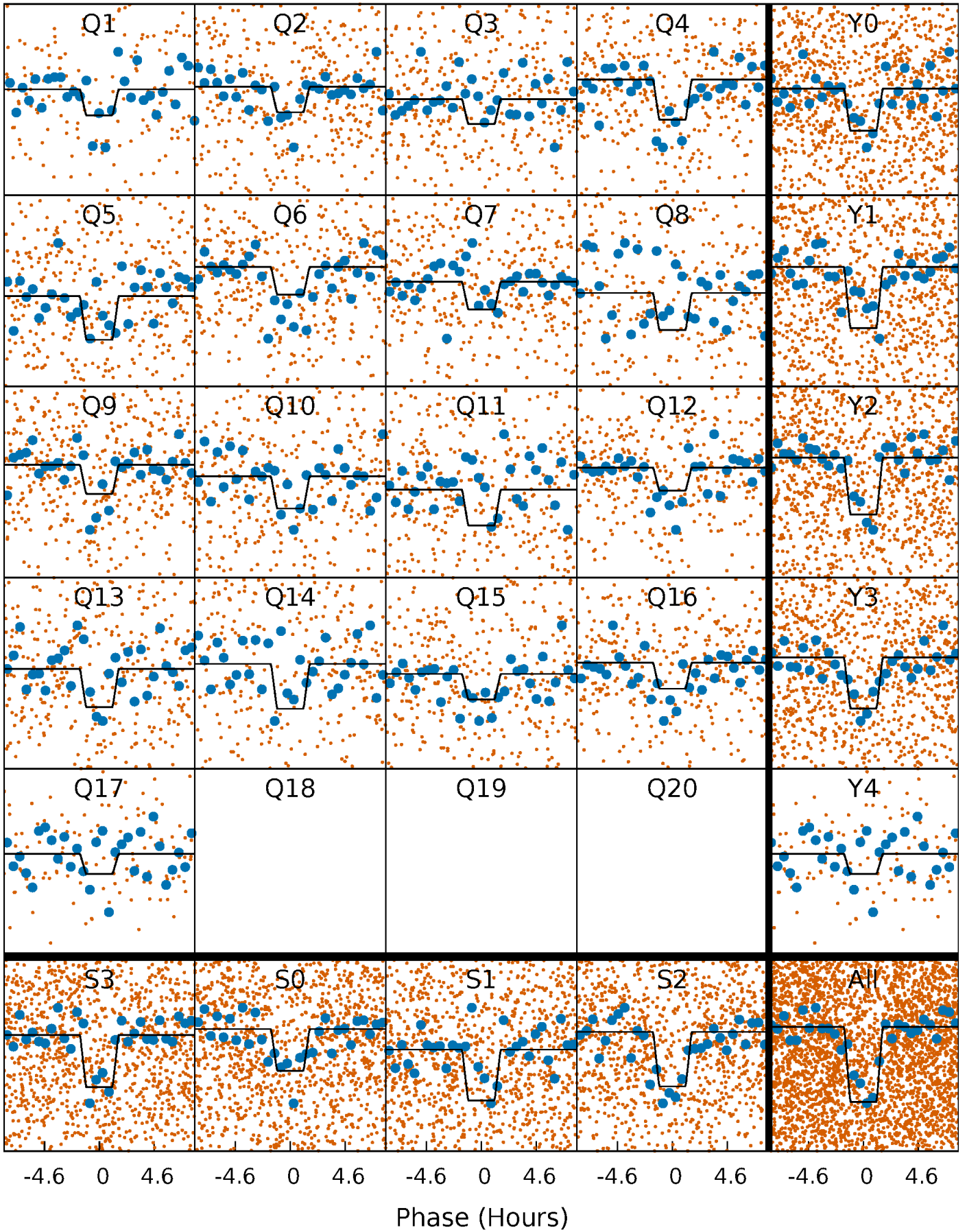
DV Quarter-Phased Transit Curves

TCE 003849187-01 P= 6.601840 Days $T_0=137.471836$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

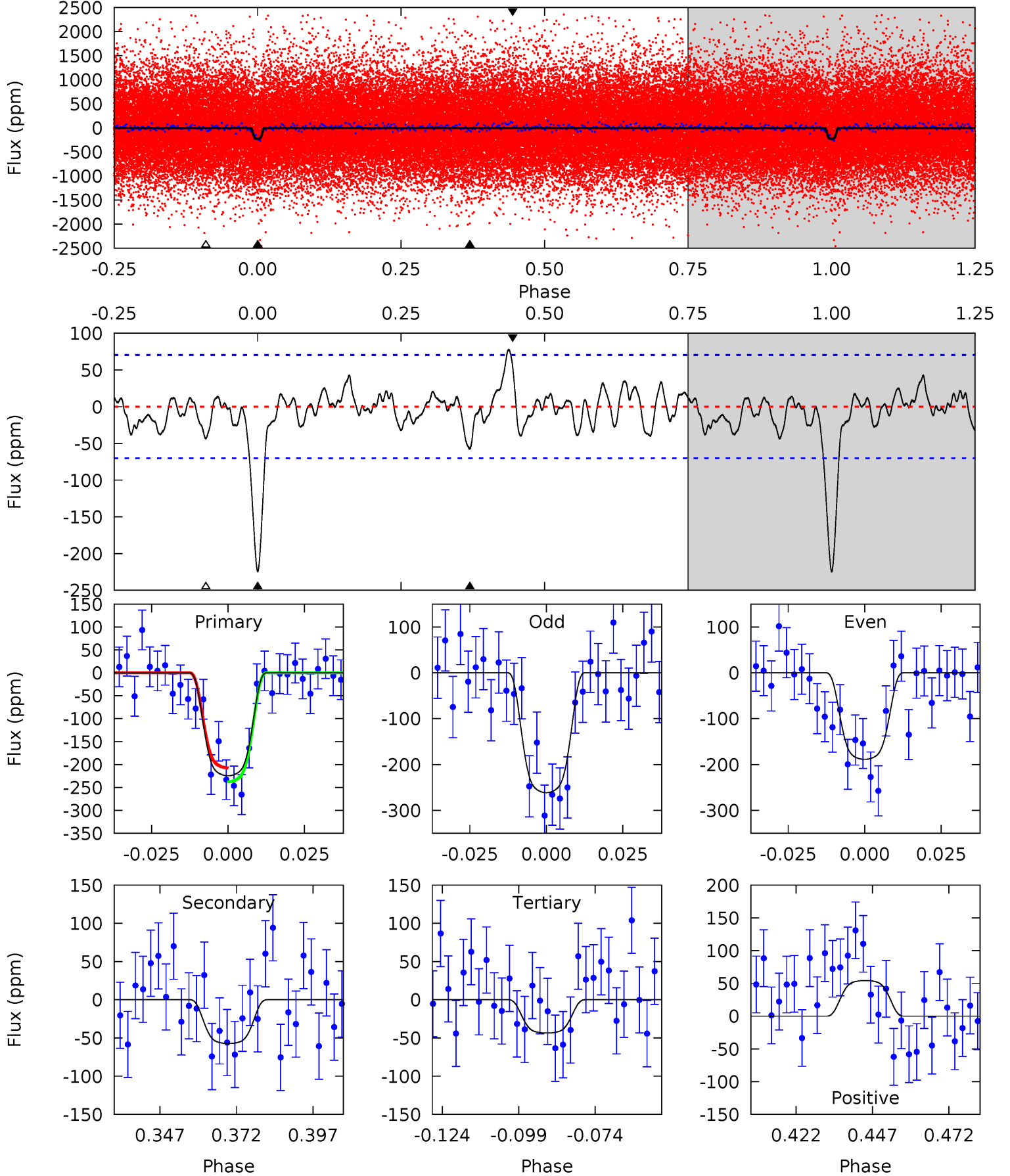
TCE 003849187-01 P= 6.601810 Days $T_0=137.469601$ (BKJD)



DV Model-Shift Uniqueness Test

003849187-01, P = 6.601840 Days, E = 130.869996 Days

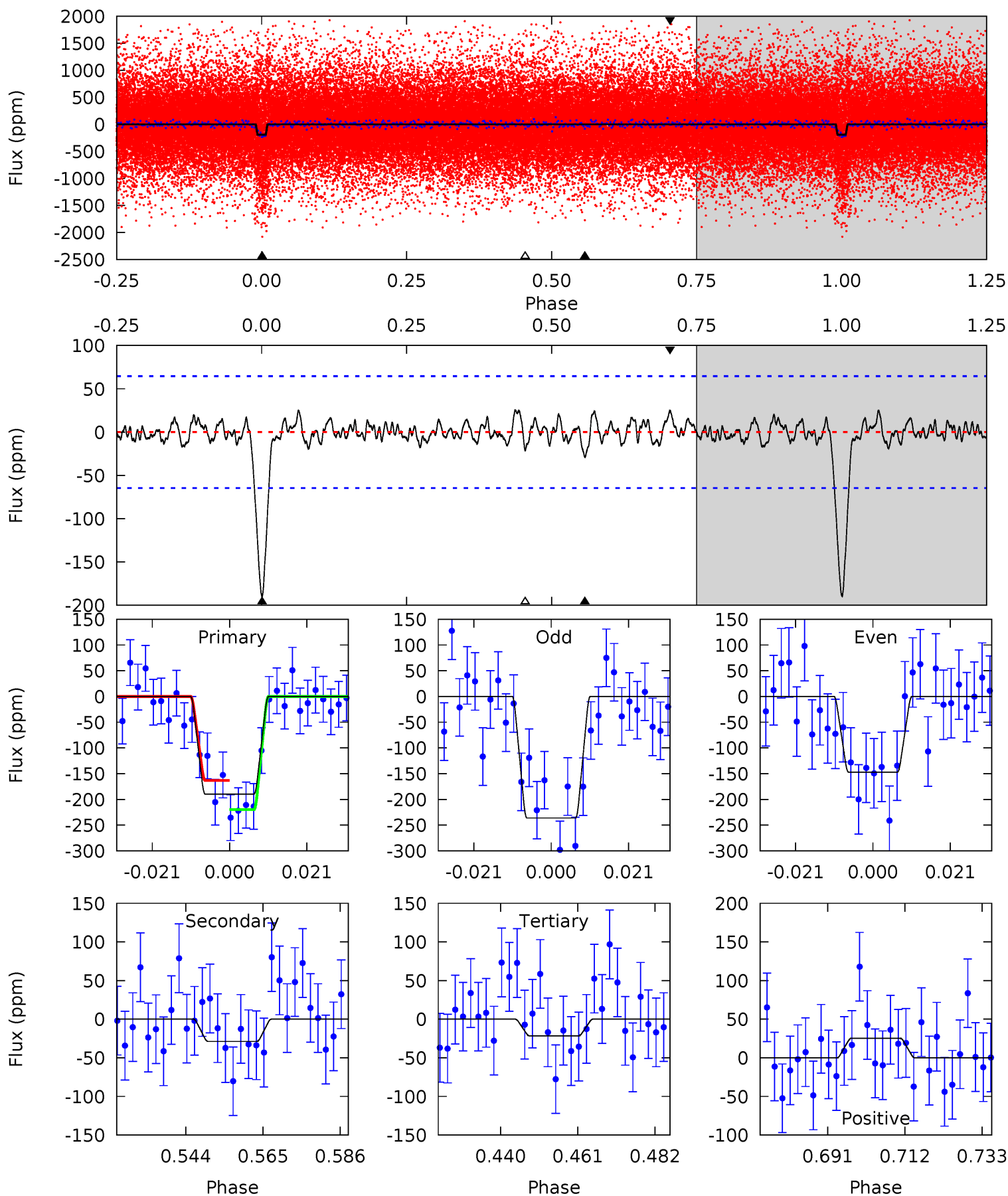
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	3.95	3.01	3.75	4.85	2.24	1.40	12.5	11.7	0.95	0.20	2.51	0.93	0.26	1.05



Alt Model-Shift Uniqueness Test

003849187-01, P = 6.601810 Days, E = 130.867791 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	2.18	1.64	1.91	4.88	2.31	0.69	12.7	12.5	0.54	0.27	3.36	0.99	0.12	2.14



Stellar Parameters For KIC 003849187

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5591^{+150}_{-166}	$4.559^{+0.032}_{-0.179}$	$0.070^{+0.250}_{-0.300}$	$0.860^{+0.207}_{-0.069}$	$0.977^{+0.085}_{-0.113}$	$2.163^{+0.358}_{-1.038}$
	+3%/-3%	+1%/-4%	+357%/-429%	+24%/-8%	+9%/-12%	+17%/-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 003849187-01 / KOI 4780.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-57 ± 14	$1.88^{+0.29}_{-0.23}$	1248^{+76}_{-51}	3845^{+211}_{-250}	40^{+16}_{-13}
Alt.	-29 ± 13	$1.46^{+0.26}_{-0.20}$	1248^{+69}_{-54}	3725^{+321}_{-396}	32^{+22}_{-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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

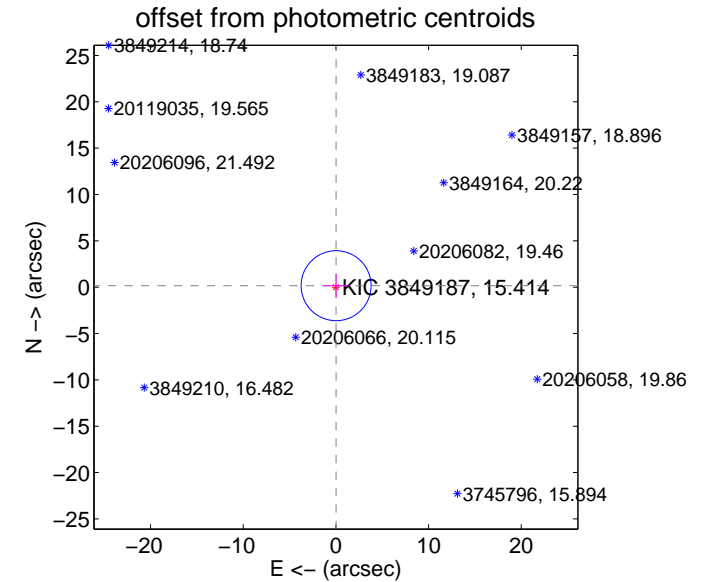
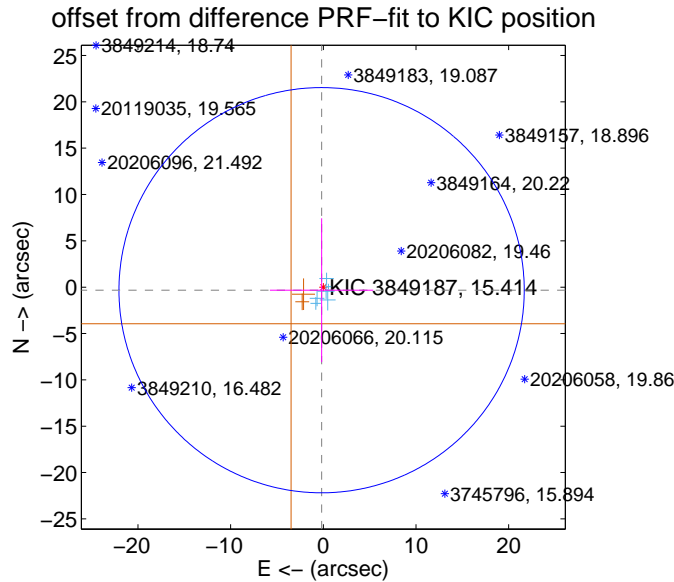
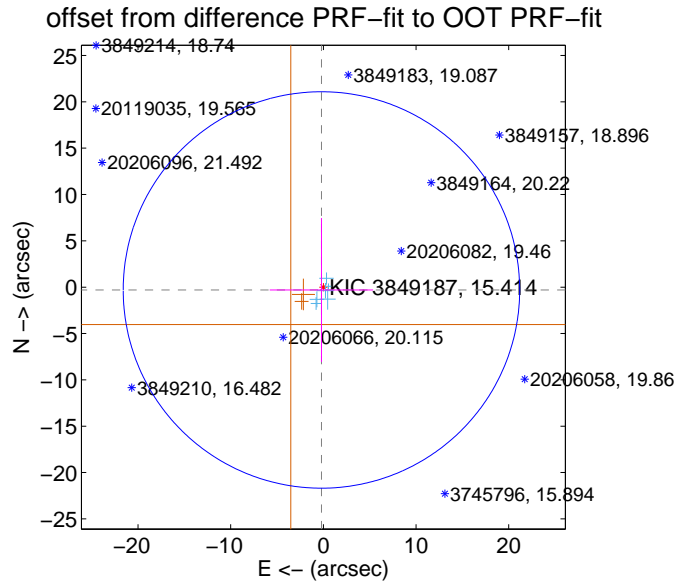
DV Centroid Data

Supplemental centroid analysis for 003849187-01. Kepler magnitude: 15.41. Transit SNR 10.13

There are 6 quarters with good PRF difference image offsets

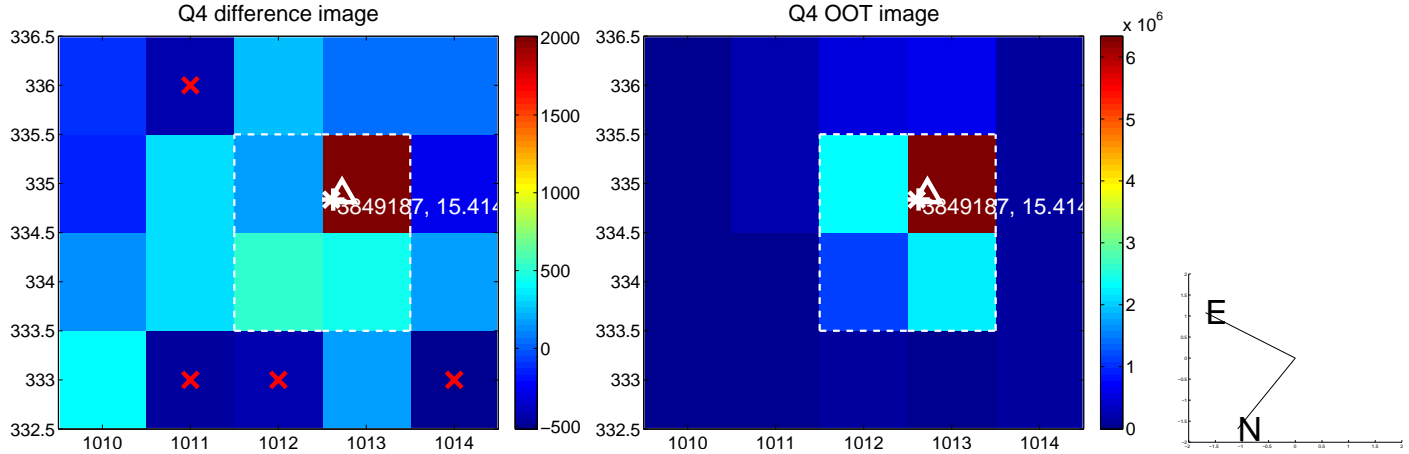
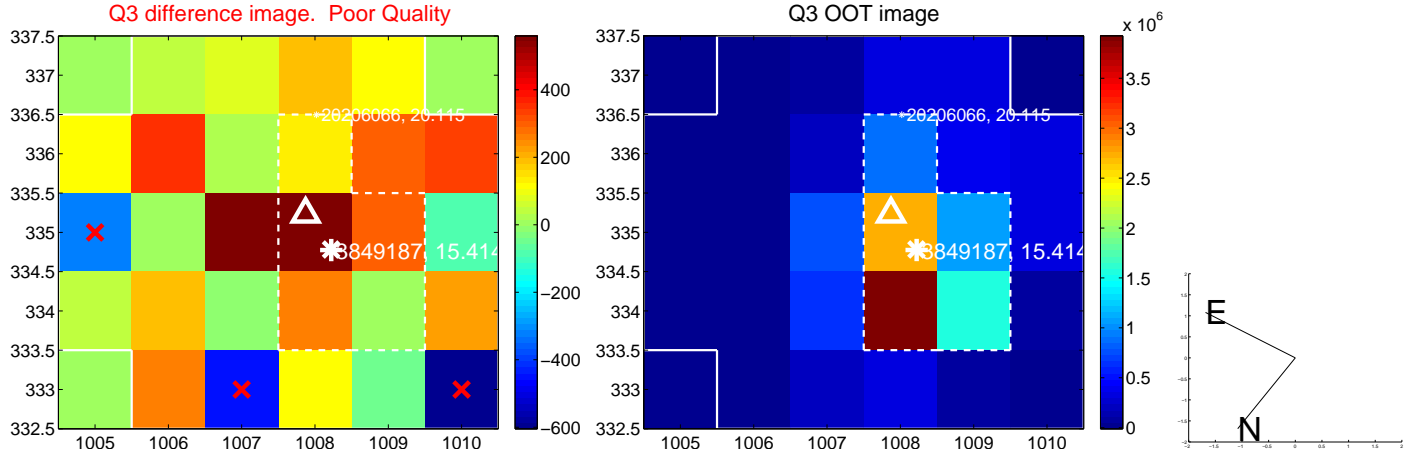
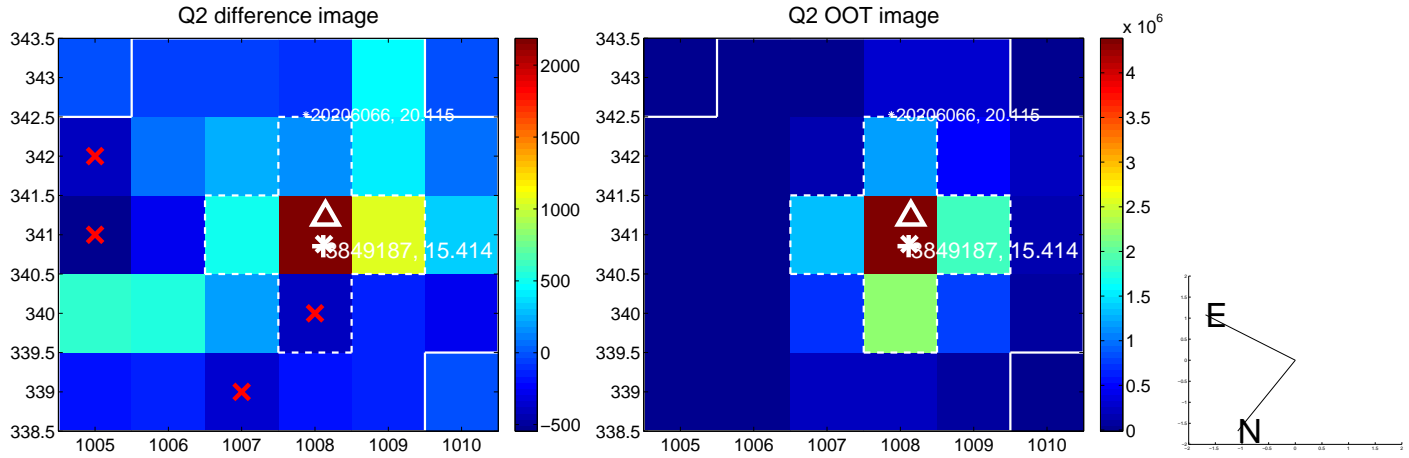
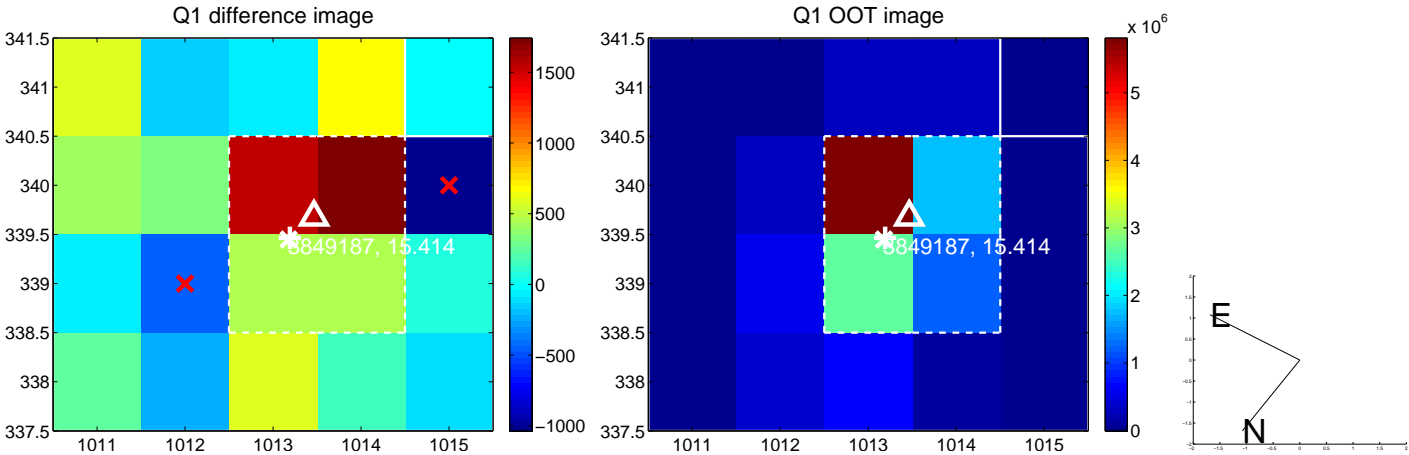
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.368 ± 7.129	0.05	0.208 ± 5.576	-0.303 ± 7.756
PRF-fit source offset from KIC position	0.376 ± 7.287	0.05	0.185 ± 5.576	-0.327 ± 7.756
photometric centroid source offset	0.16 ± 1.26	0.13	-0.02 ± 1.35	0.16 ± 1.26

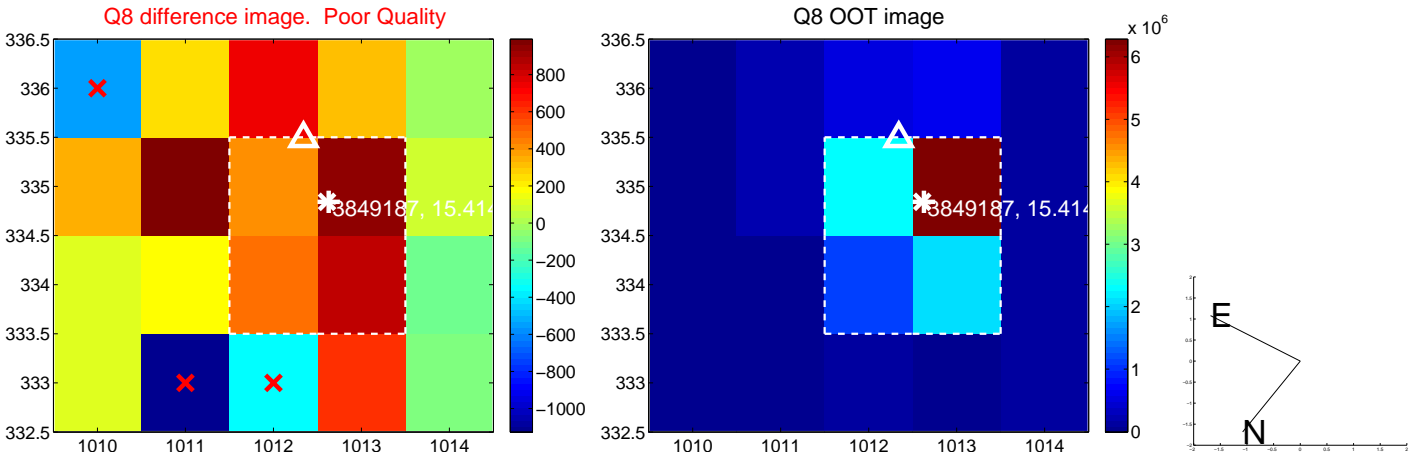
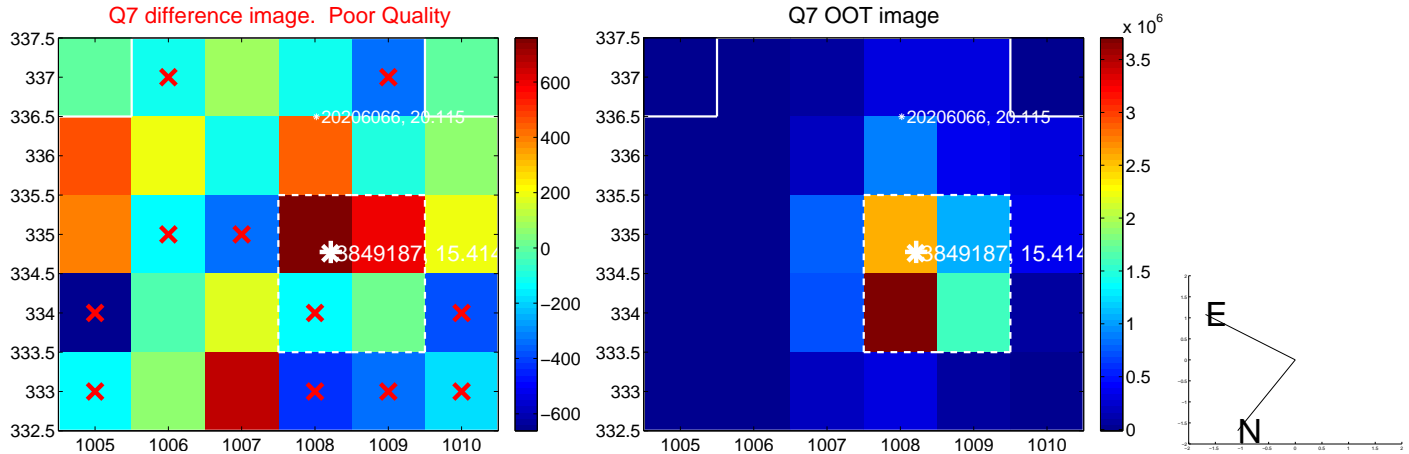
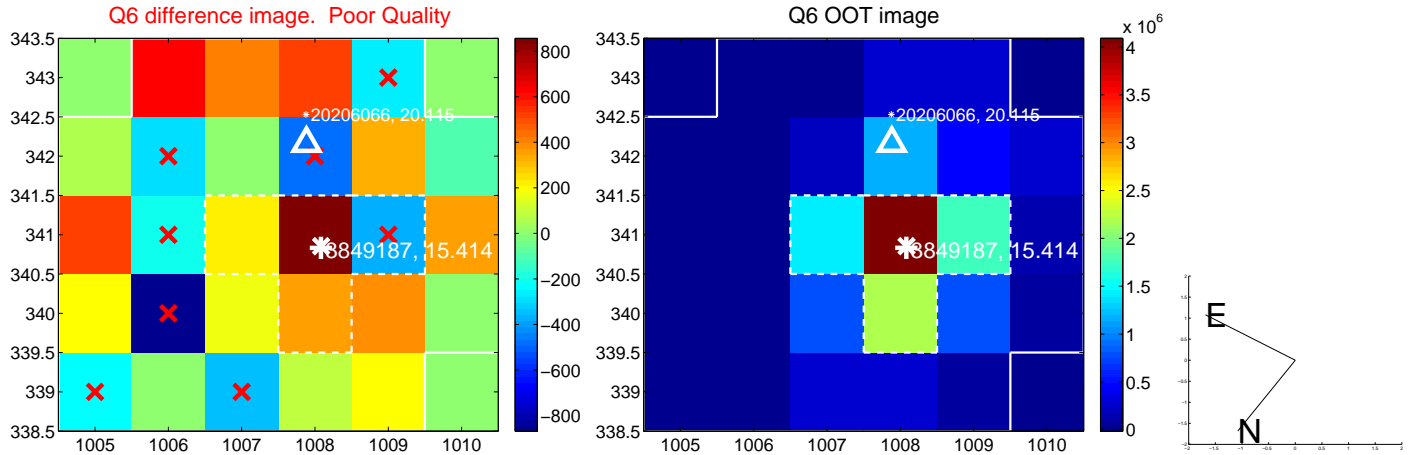
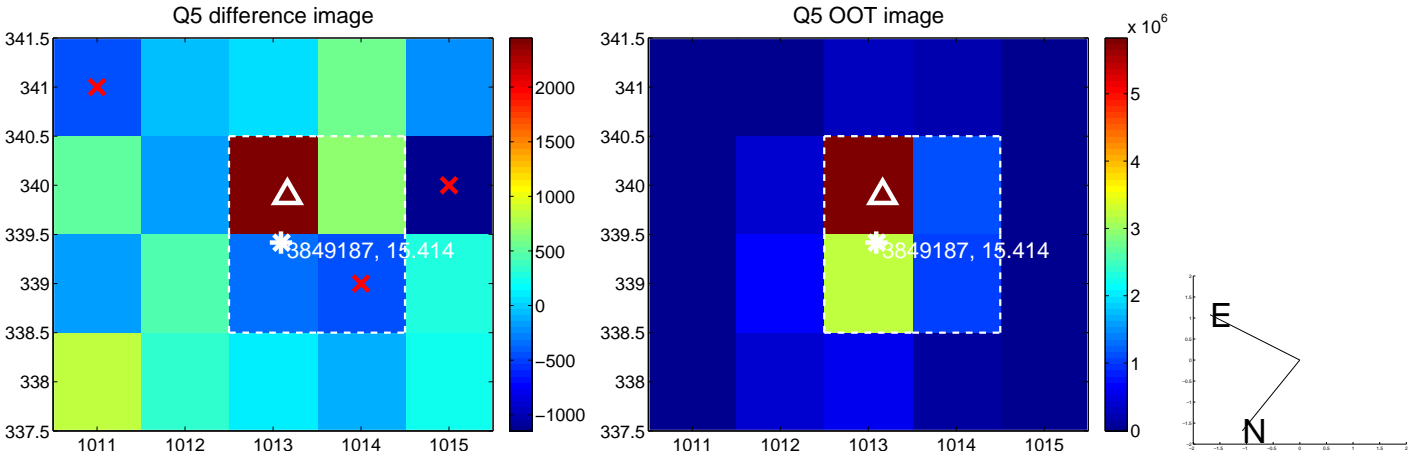


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

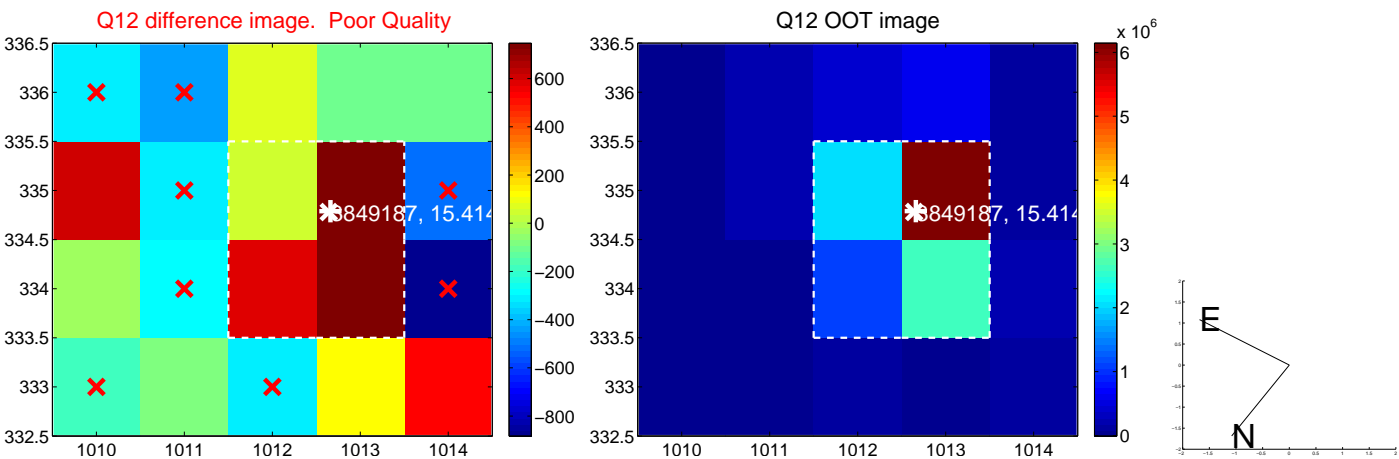
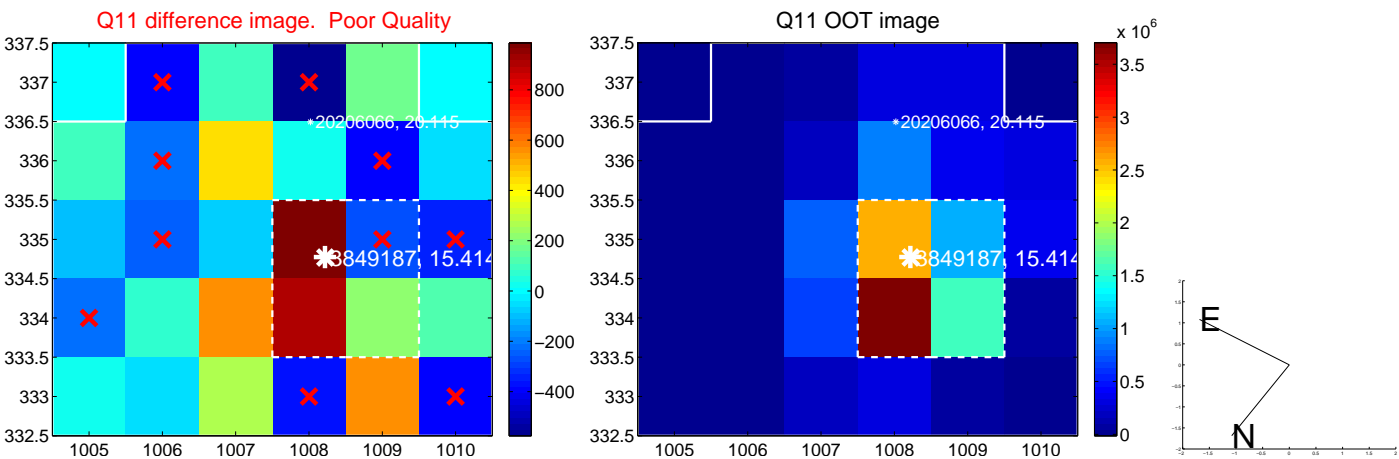
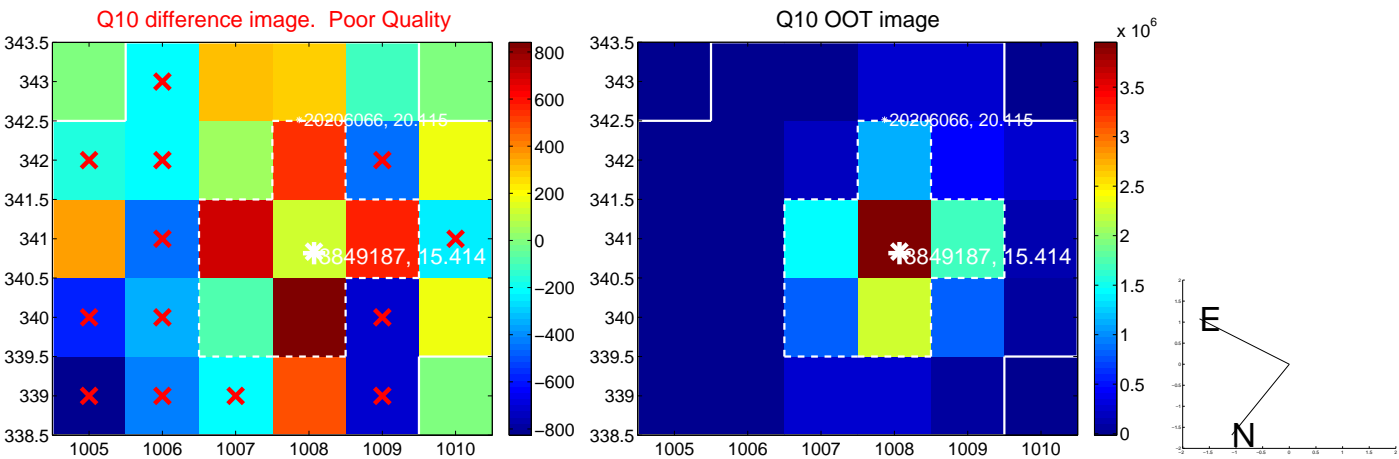
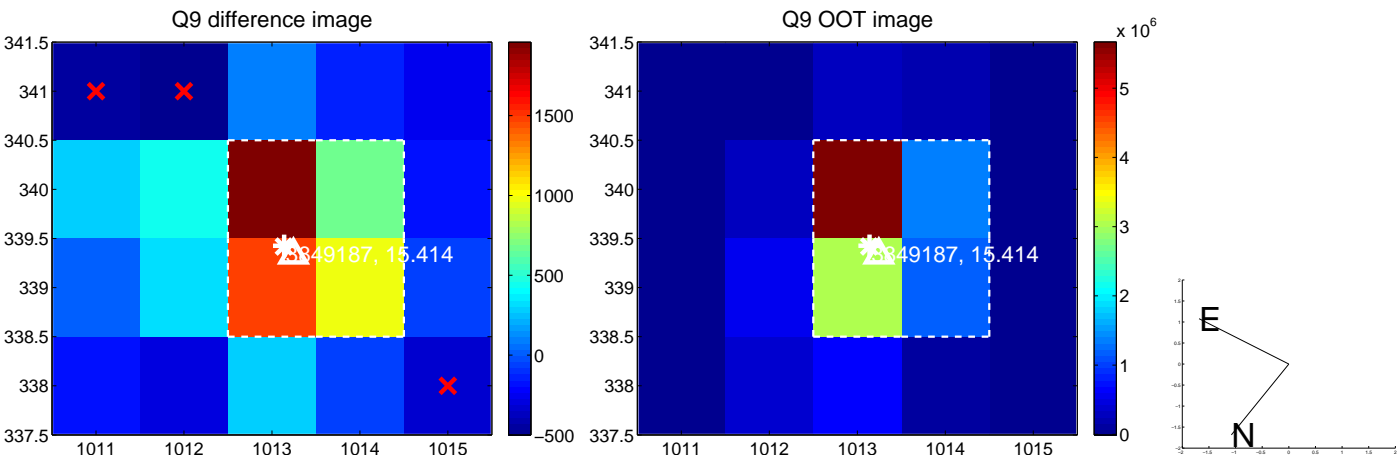
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



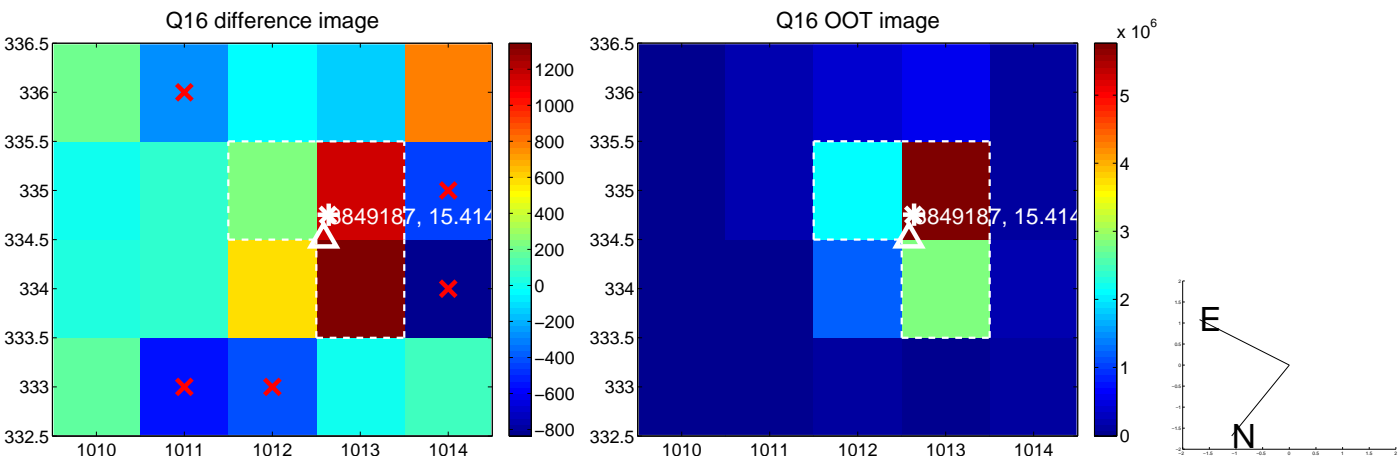
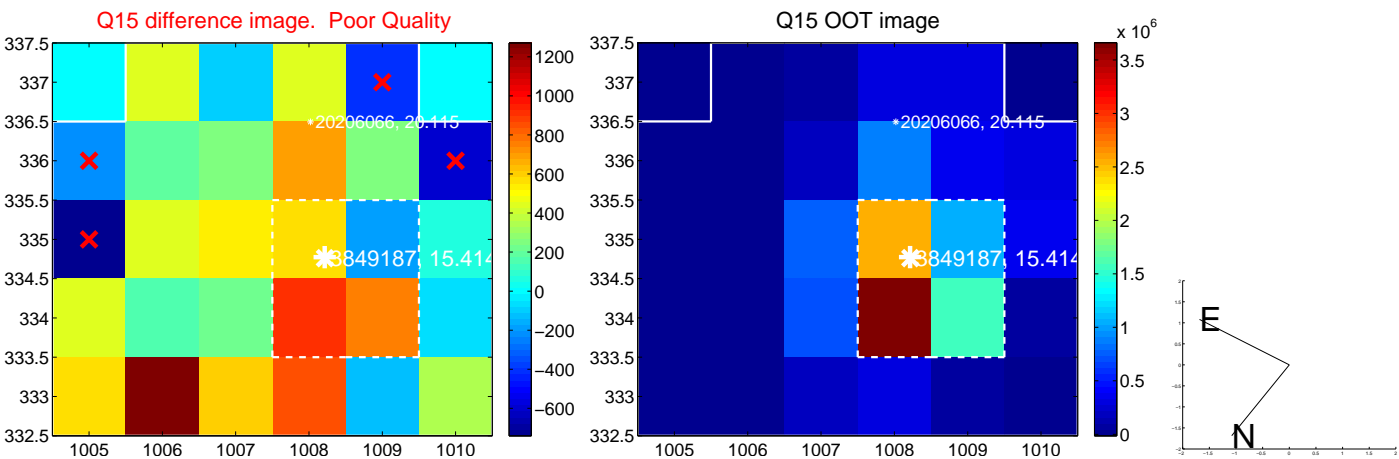
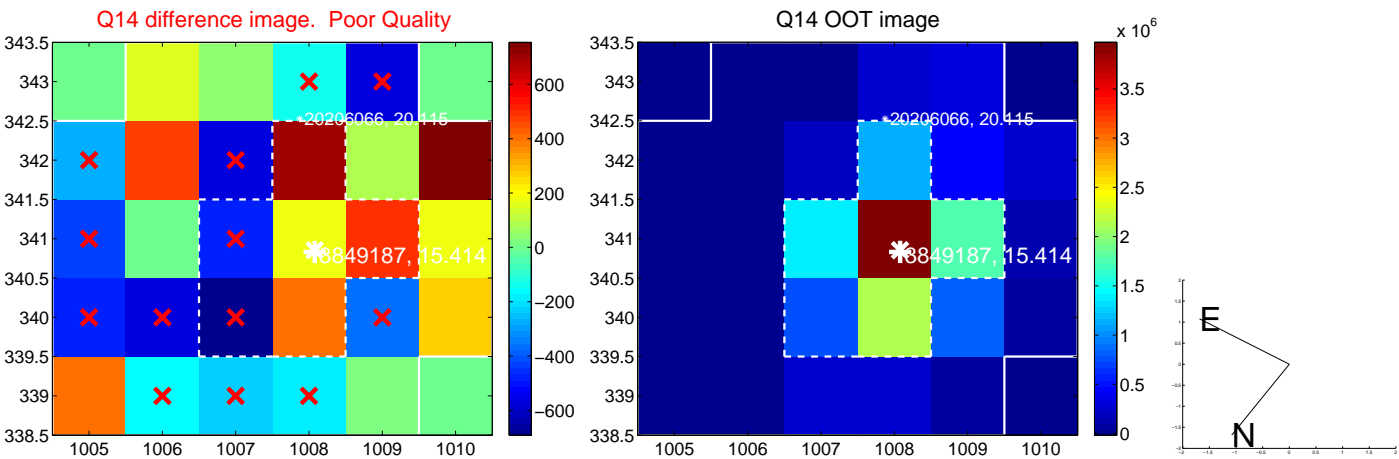
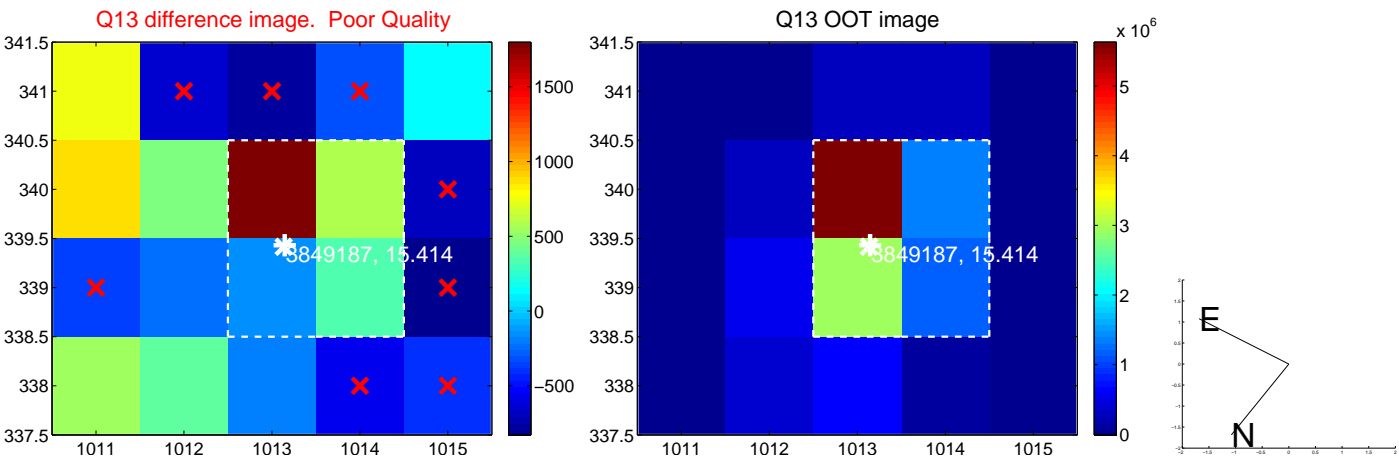
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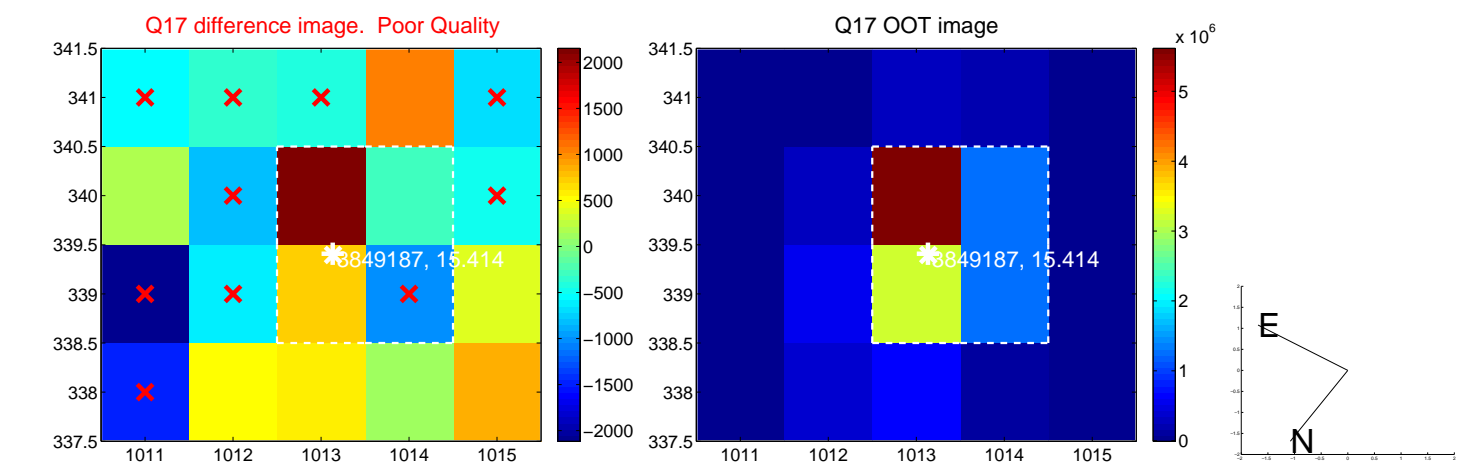
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



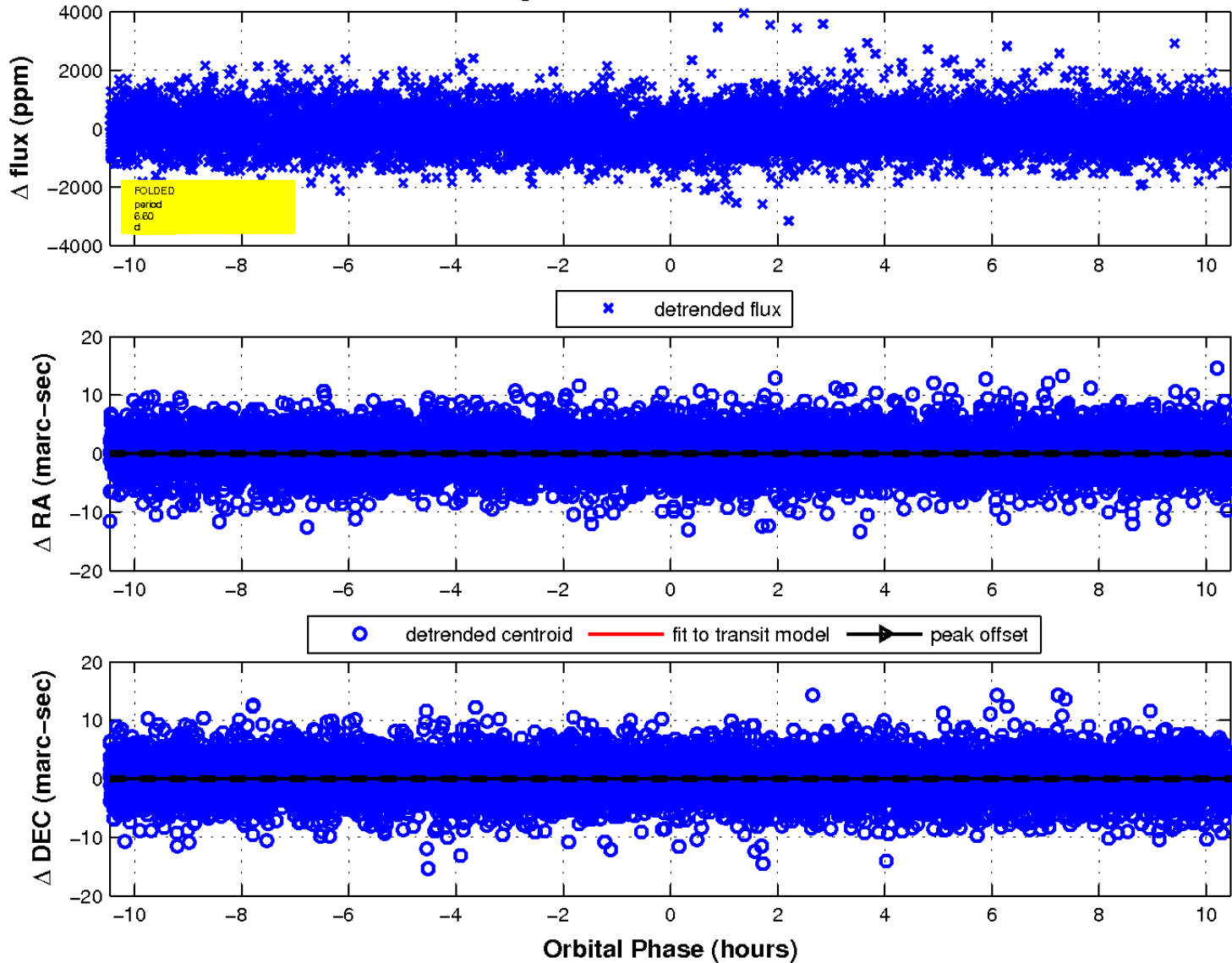
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

