

KIC 005197233

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})
005197233-01	OBS	4178.01	7.016063	133.951262	164.1	3.823	12.3	13.3	1.14	6642	1.70	397.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005197233-01	OBS	PC	1.00	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.

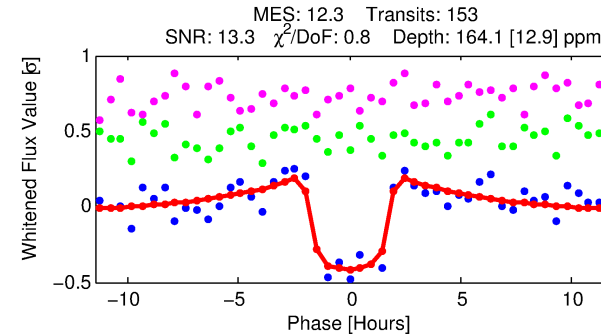
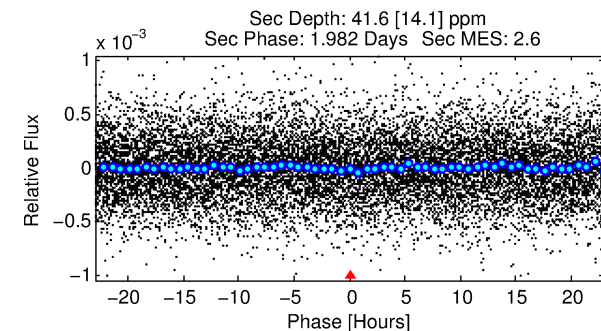
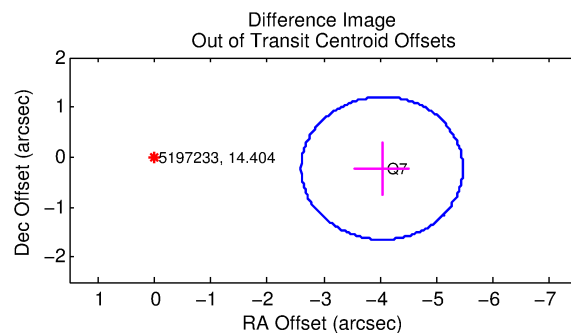
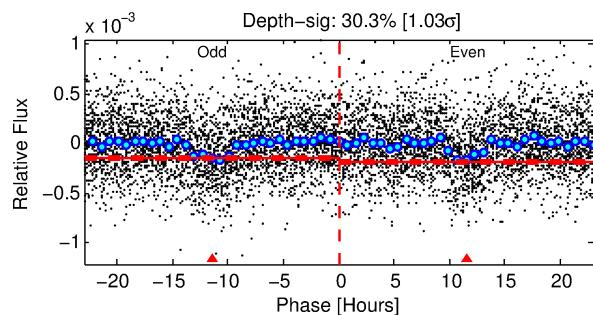
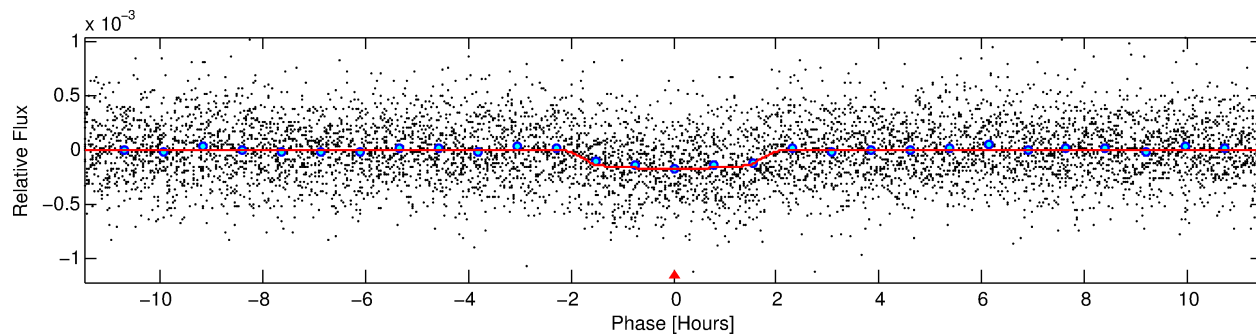
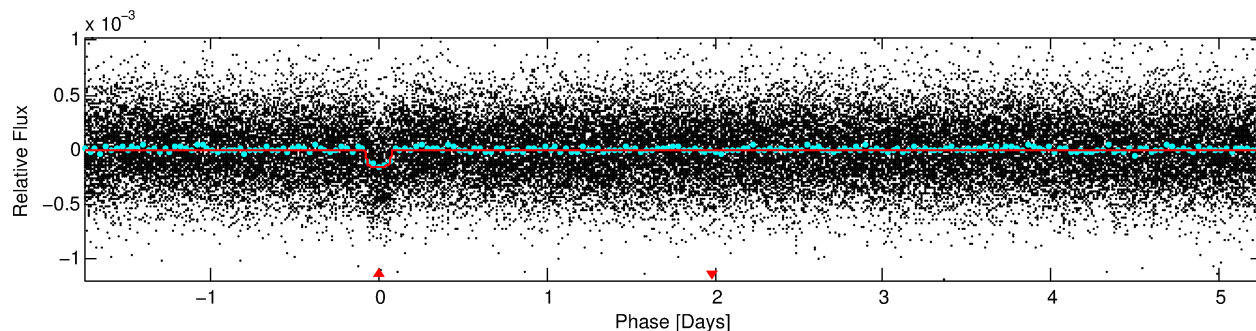
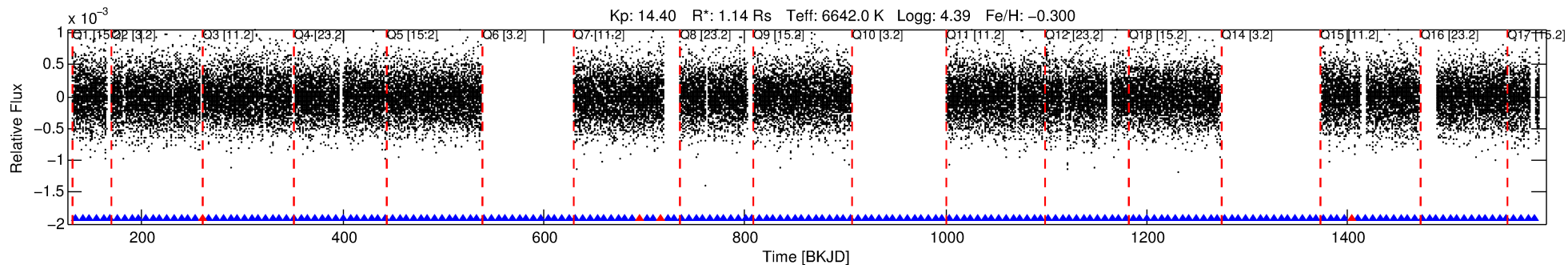
Ephemeris Match Information For 005197233-01

No Significant Match Found

DV One-Page Summary

KIC: 5197233 Candidate: 1 of 1 Period: 7.016 d
KOI: K04178.01 Corr: 0.968

Kp: 14.40 R*: 1.14 Rs Teff: 6642.0 K Logg: 4.39 Fe/H: -0.300



DV Fit Results:

Period = 7.01606 [0.00004] d
Epoch = 133.9513 [0.0040] BKJD
Rp/R* = 0.0137 [0.0031]
a/R* = 6.61 [8.36]
b = 0.90 [0.28]
Seff = 397.09 [147.42]
Teq = 1138 [106] K
Rp = 1.70 [0.63] Re
a = 0.0753 [0.0183] AU
Ag = 45.14 [29.89] [1.48σ]
Teffp = 4562 [660] K [5.12σ]

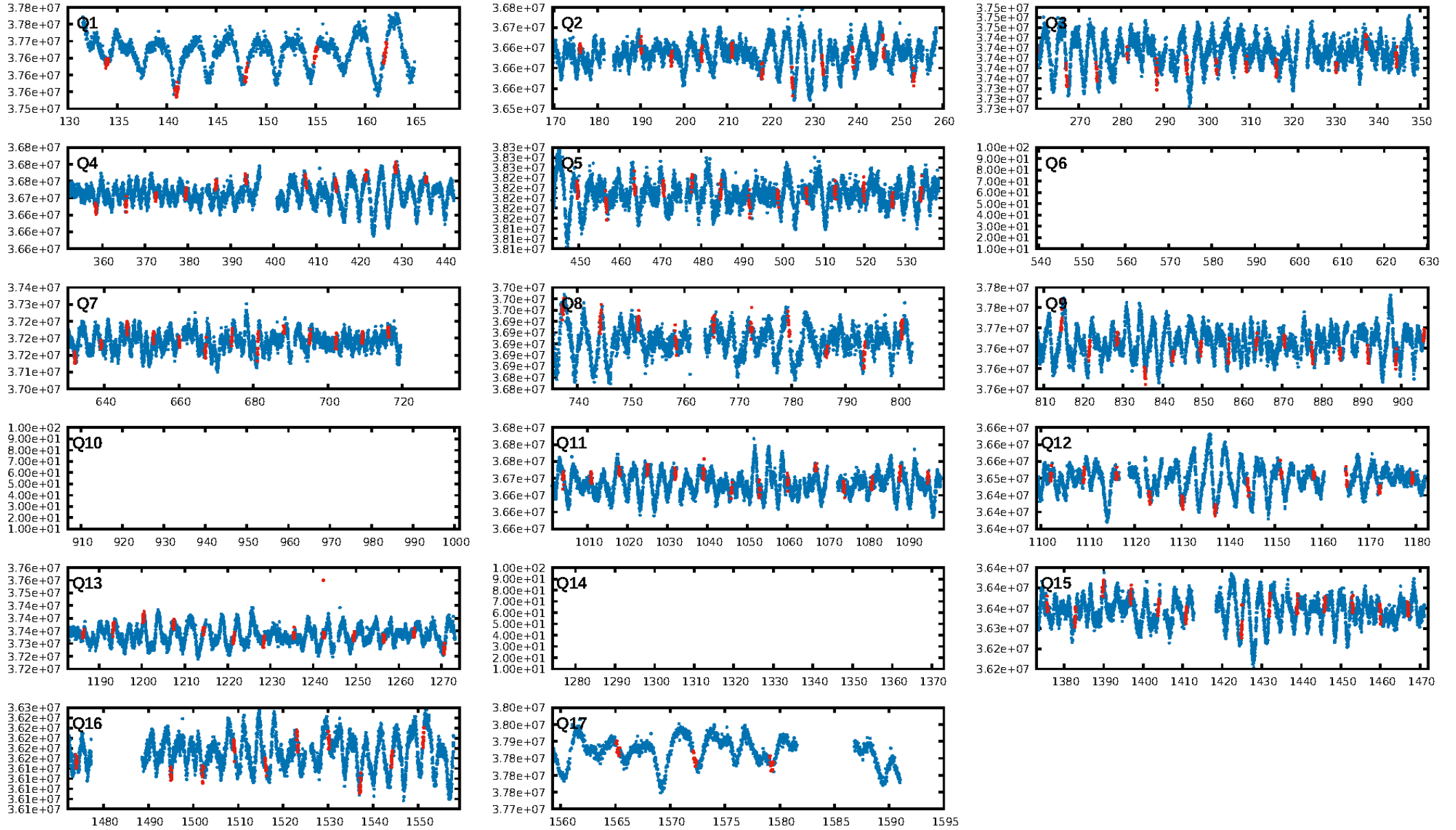
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.78e-35
RollingBand-fgt: 0.97 [141/145]
GhostDiagnostic-chr: 1.592
Centroid-sig: 0.0%
Centroid-so: 3.751 arcsec [5.02σ]
OotOffset-rm: 4.038 arcsec [8.48σ]
KicOffset-rm: 2.864 arcsec [14.14σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 1/1/1/3 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 1.00 [14/14]

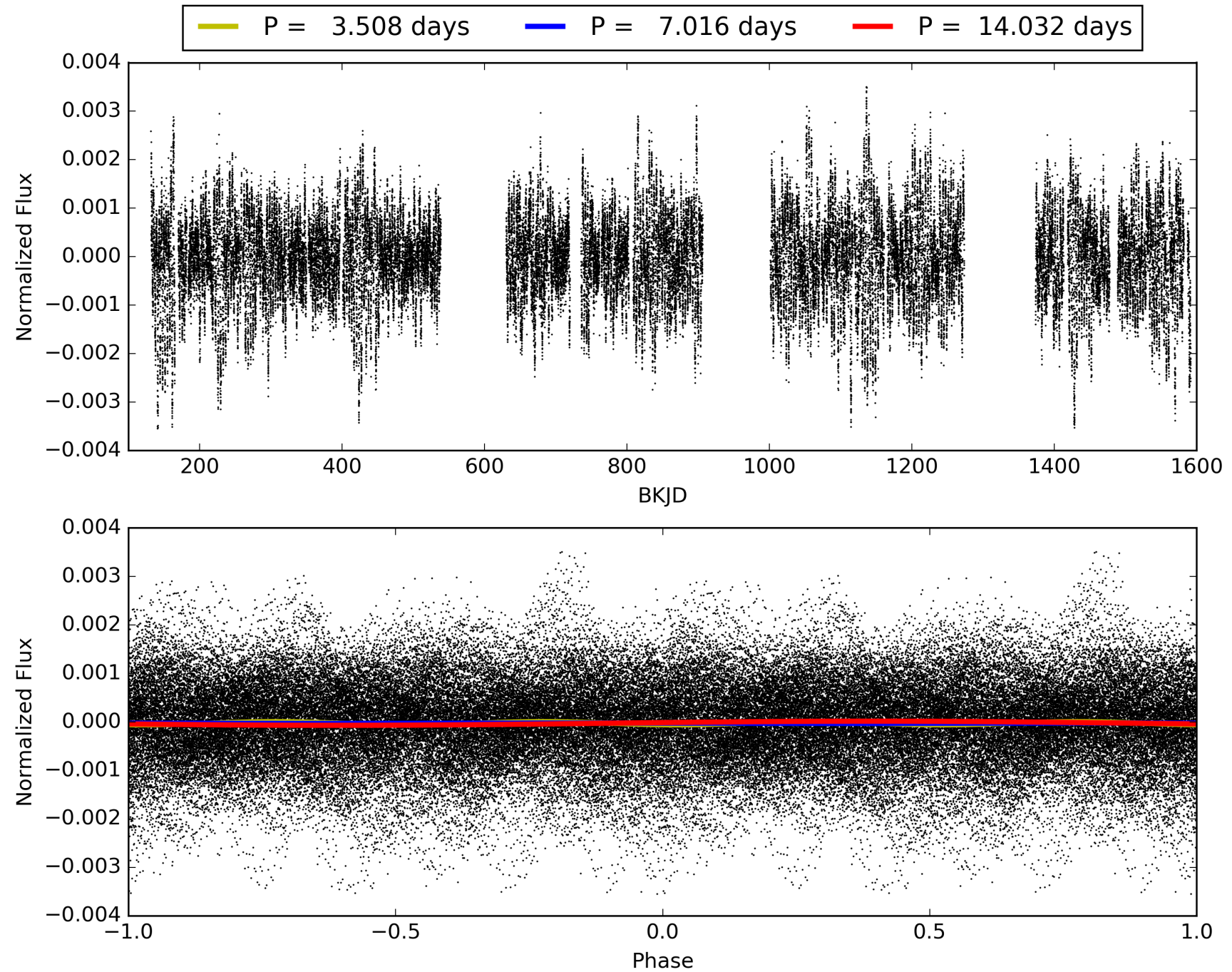
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:43:51 Z

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

TCE 005197233-01, PDC Light Curves

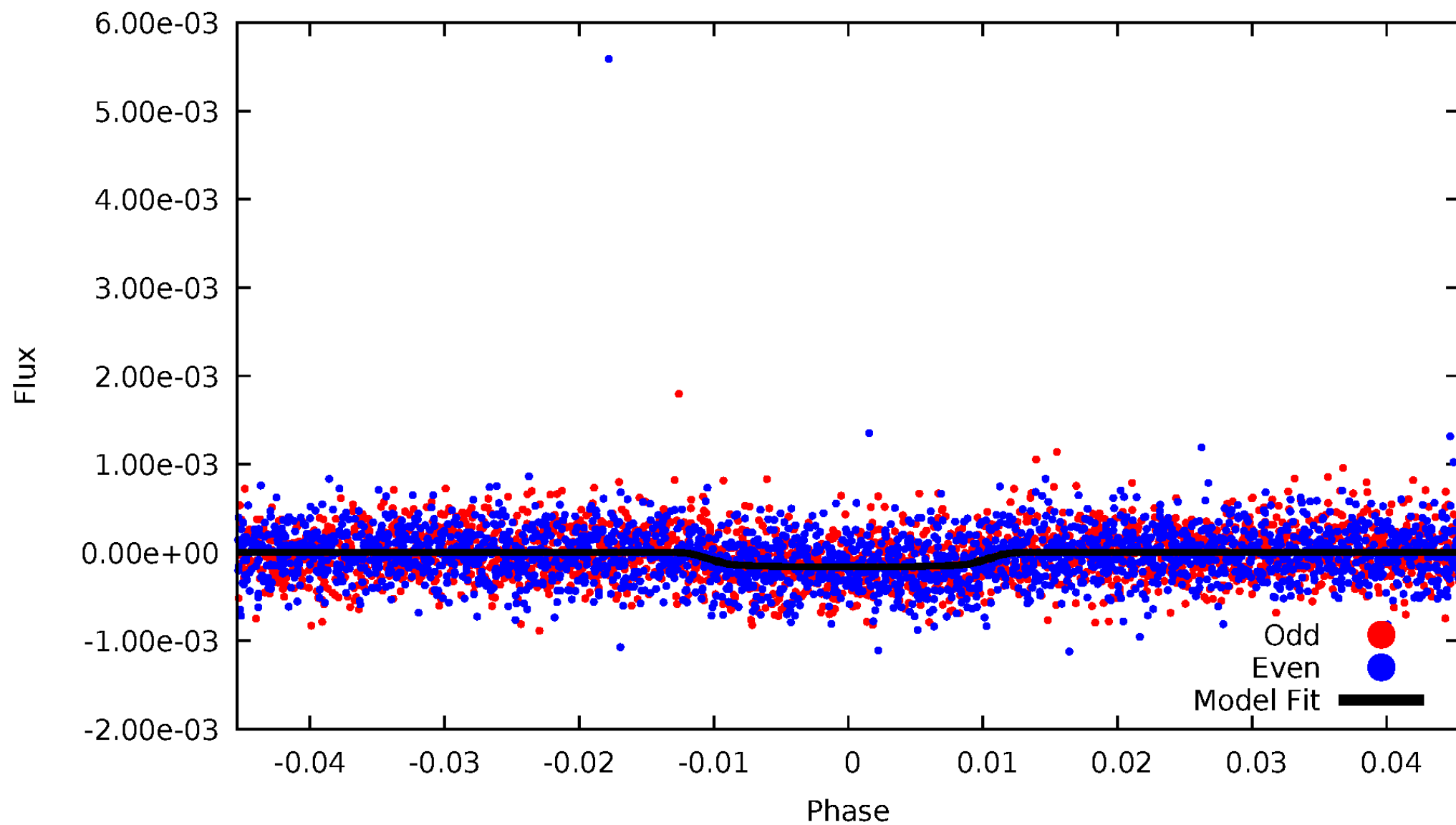


TCE 005197233-01



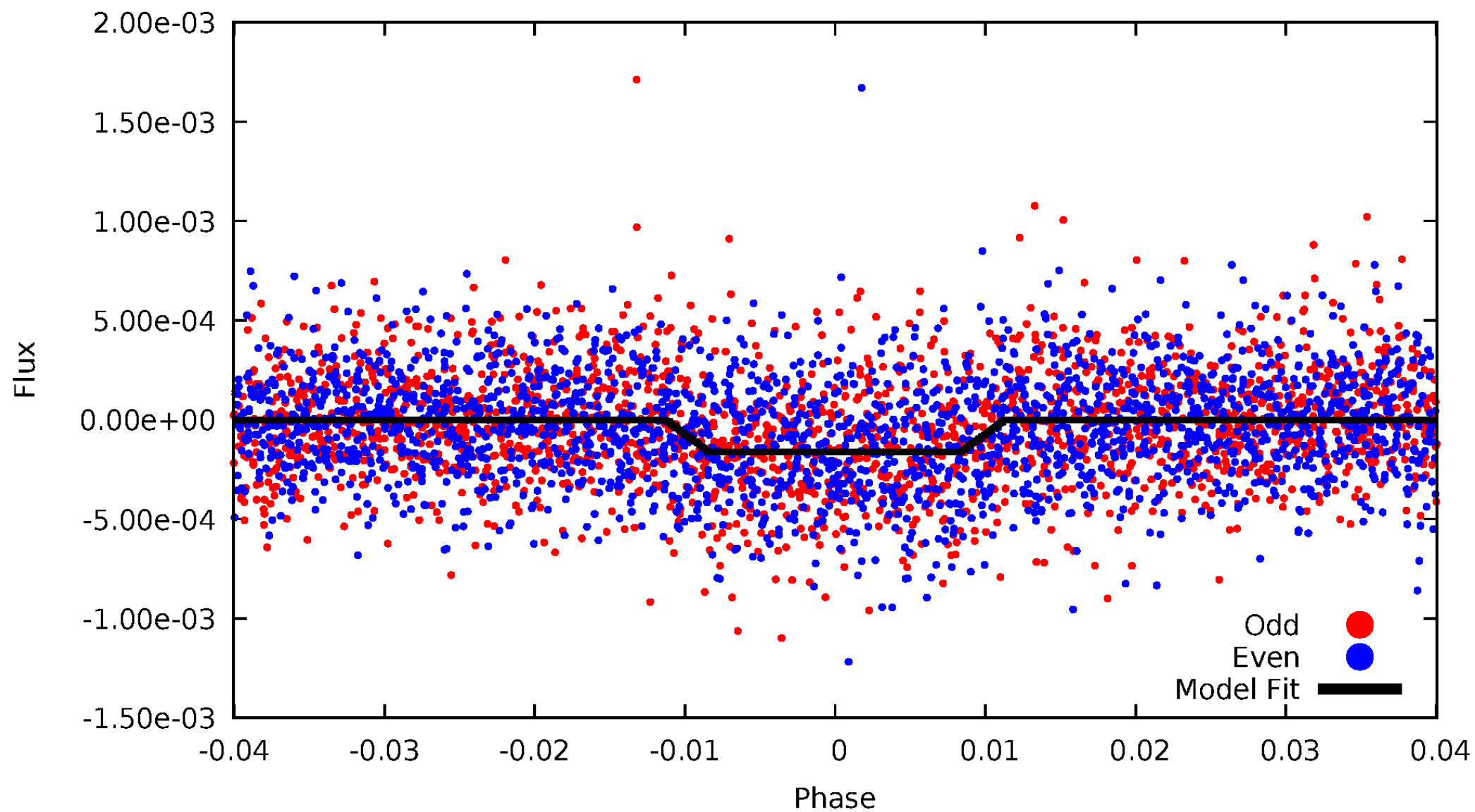
DV Odd/Even

TCE 005197233-01

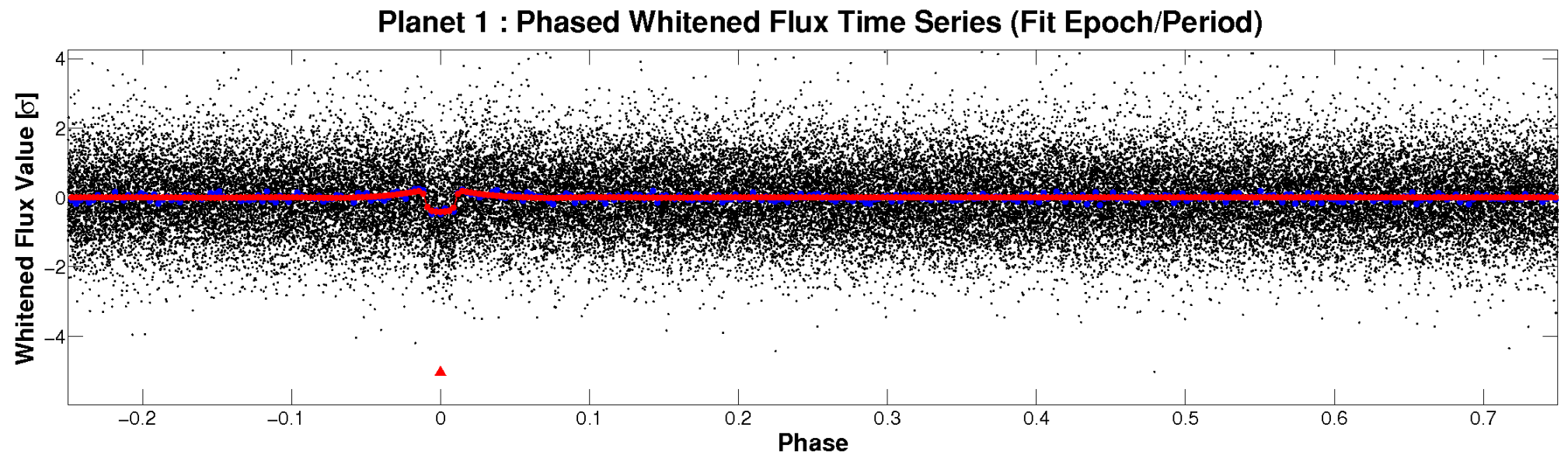
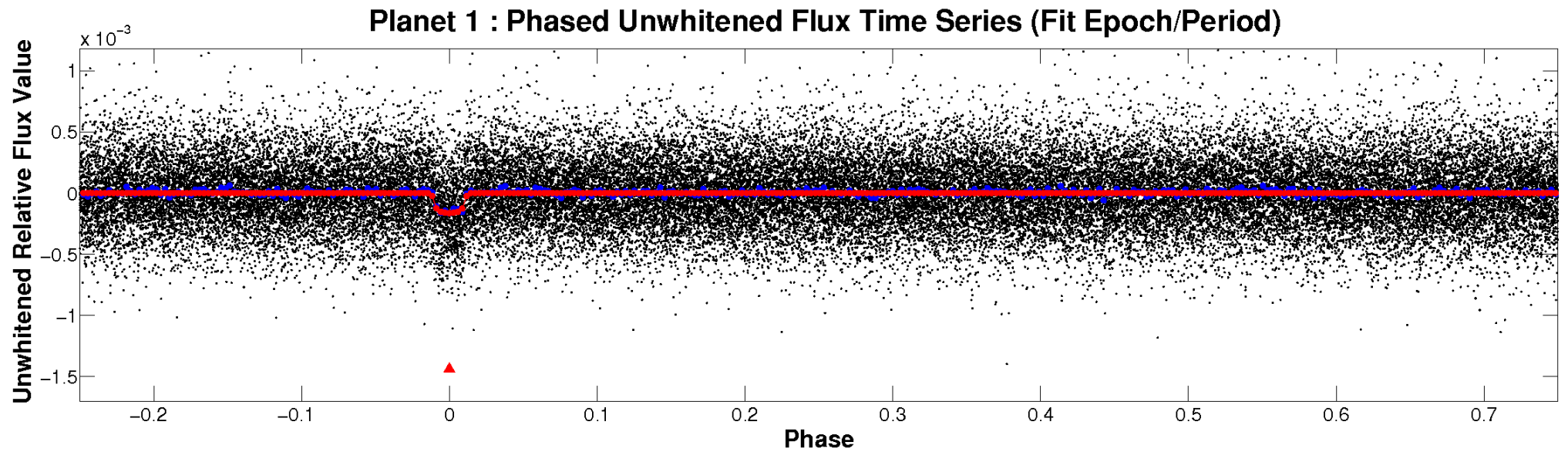


ALT Odd/Even

TCE 005197233-01

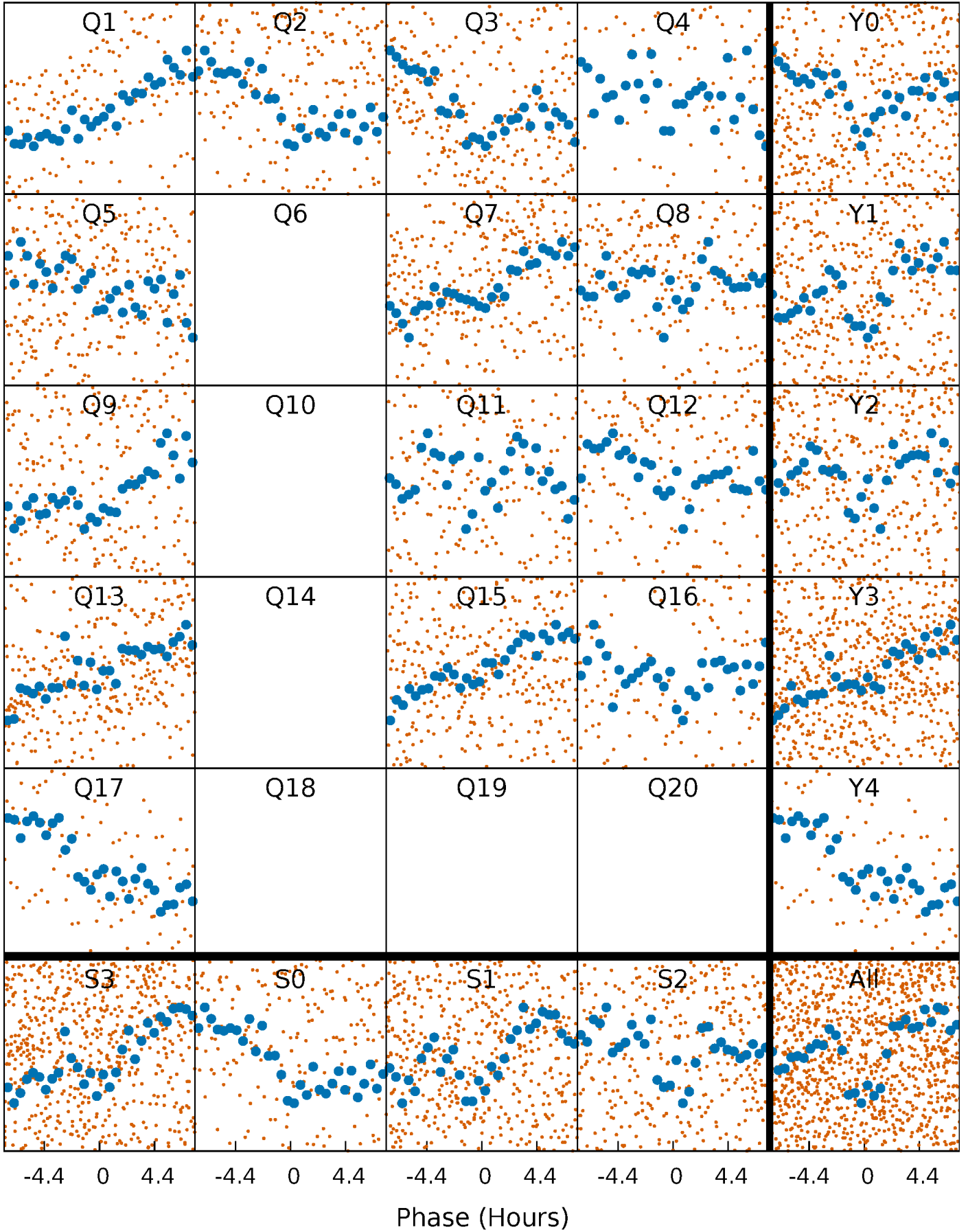


Non-Whitened Vs. Whitened Light Curve



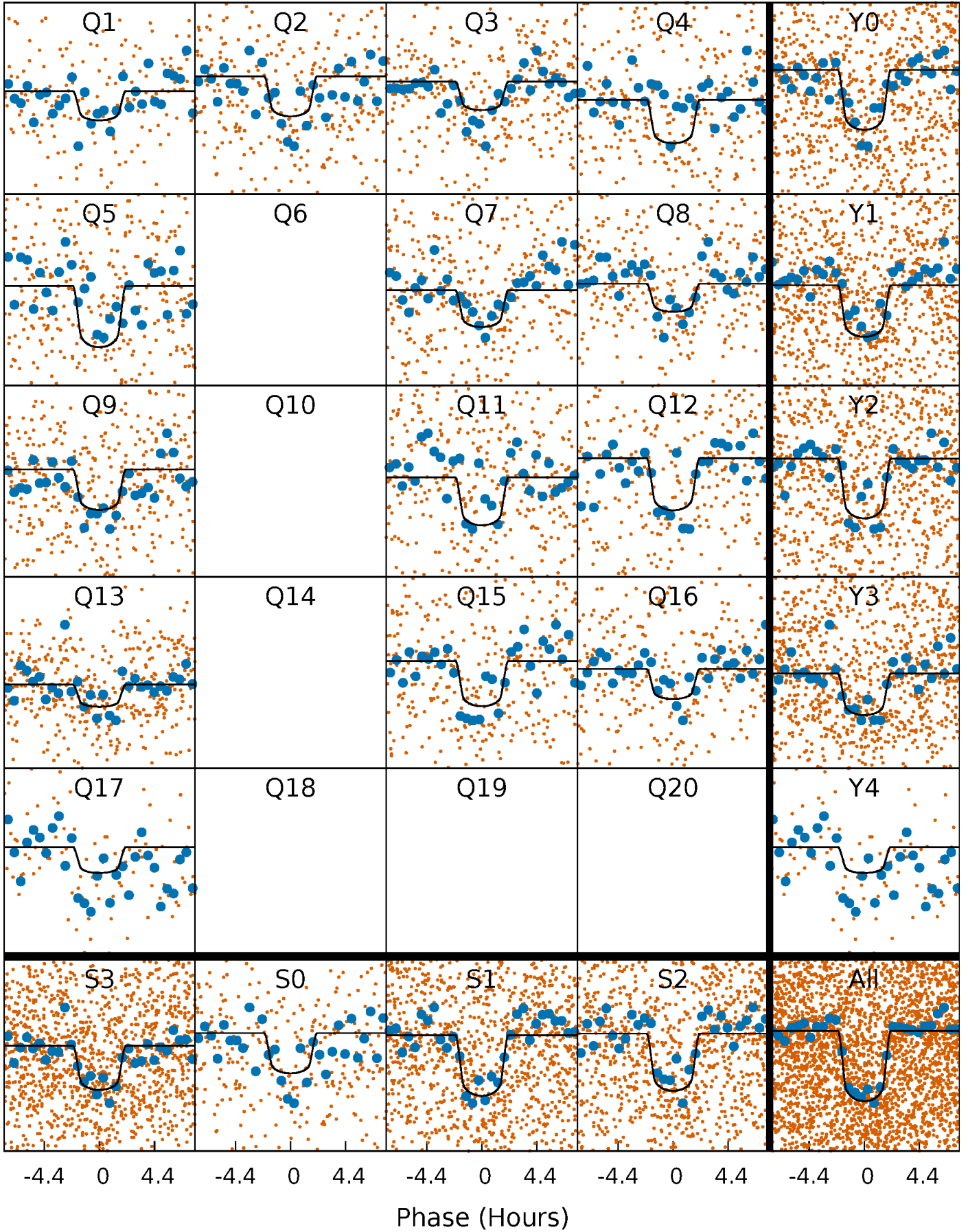
PDC Quarter-Phased Transit Curves

TCE 005197233-01 P= 7.016063 Days $T_0=133.951262$ (BKJD)



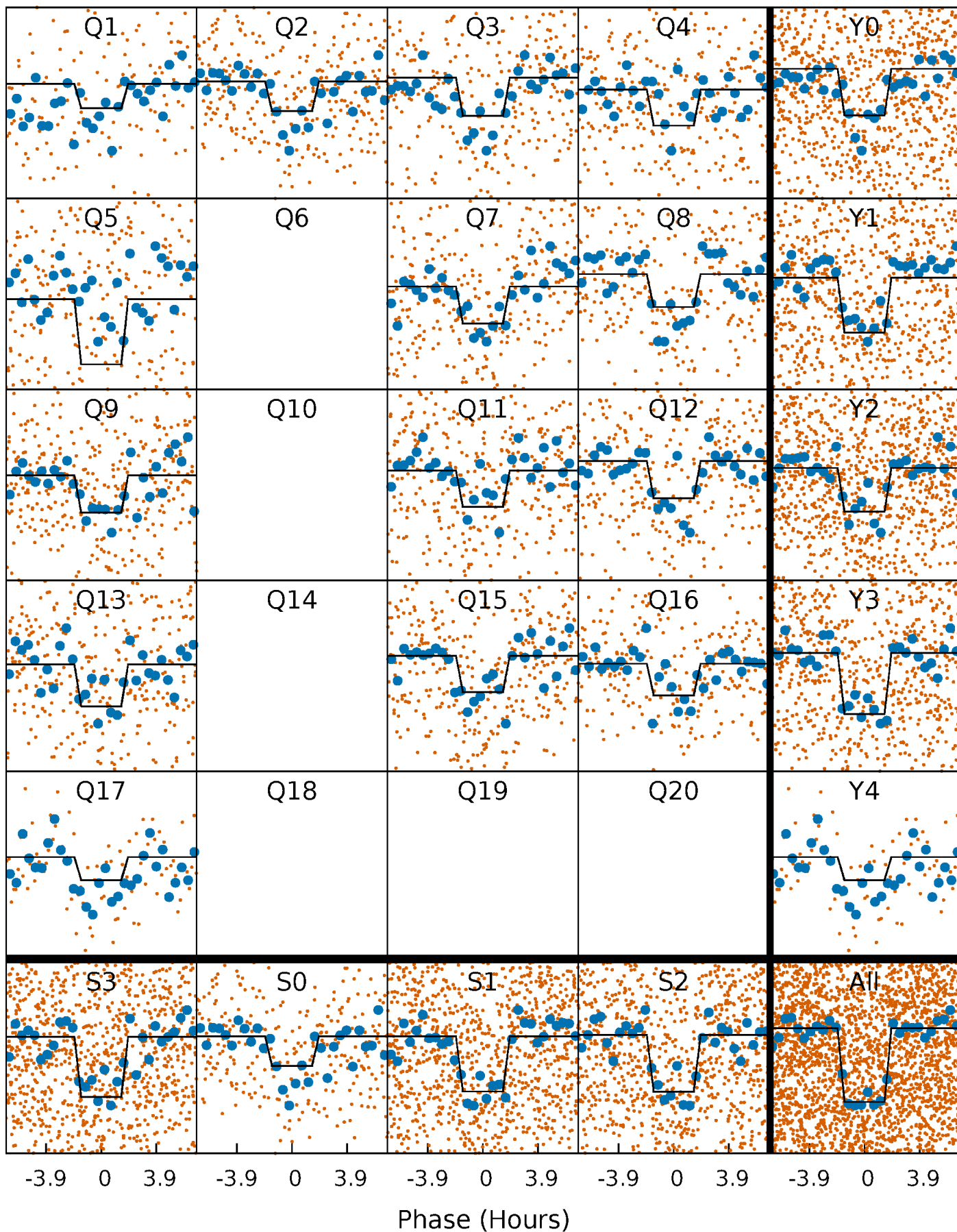
DV Quarter-Phased Transit Curves

TCE 005197233-01 P= 7.016063 Days $T_0=133.951262$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

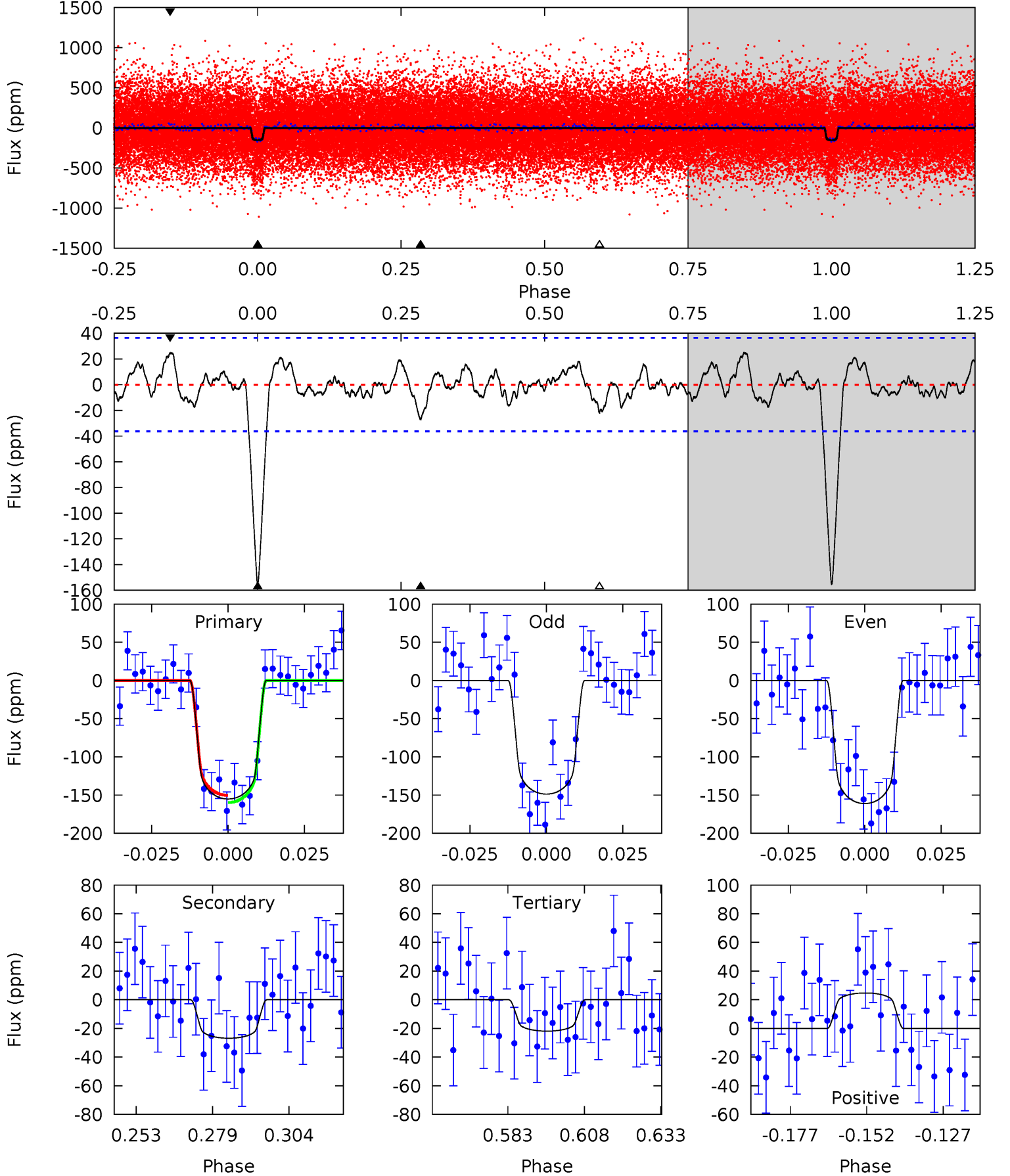
TCE 005197233-01 P= 7.015996 Days $T_0=133.962044$ (BKJD)



DV Model-Shift Uniqueness Test

005197233-01, P = 7.016063 Days, E = 126.935199 Days

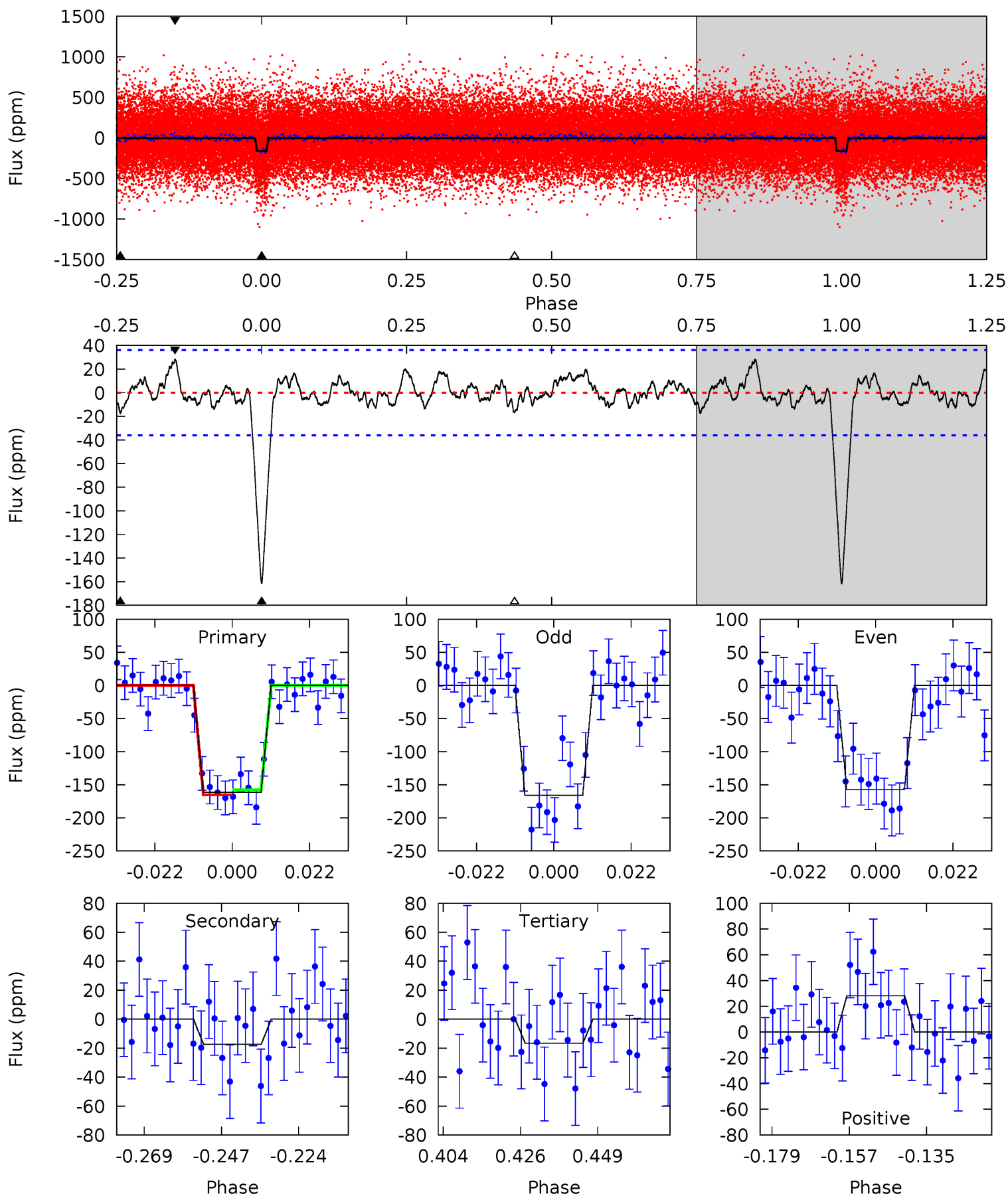
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	3.58	2.92	3.30	4.84	2.24	1.19	17.7	17.4	0.66	0.28	0.83	0.99	0.14	0.62



Alt Model-Shift Uniqueness Test

005197233-01, P = 7.015996 Days, E = 126.946048 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	2.34	2.23	3.80	4.87	2.28	1.12	19.5	18.0	0.11	-1.46	0.60	0.95	0.15	0.51



Stellar Parameters For KIC 005197233

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6642^{+178}_{-218}	$4.390^{+0.062}_{-0.187}$	$-0.300^{+0.250}_{-0.300}$	$1.136^{+0.333}_{-0.143}$	$1.157^{+0.162}_{-0.146}$	$1.112^{+0.370}_{-0.547}$
	+3%/-3%	+1%/-4%	+83%/-100%	+29%/-13%	+14%/-13%	+33%/-49%
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 005197233-01 / KOI 4178.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 8	$1.77^{+0.48}_{-0.41}$	1617^{+111}_{-75}	4268^{+509}_{-389}	26^{+20}_{-11}
Alt.	-17 ± 7	$1.66^{+0.44}_{-0.38}$	1625^{+102}_{-81}	4078^{+522}_{-517}	19^{+19}_{-10}

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

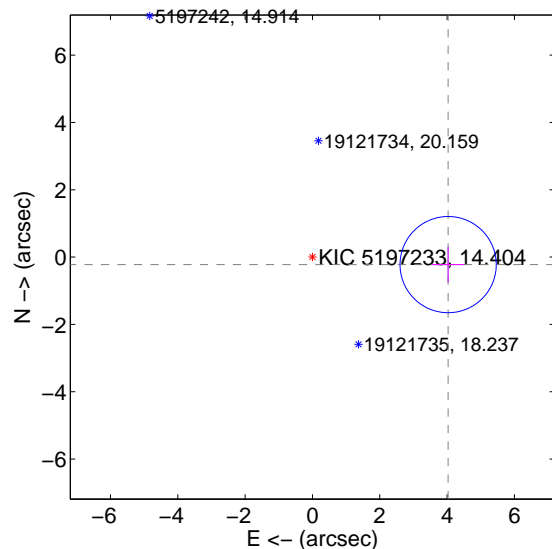
Supplemental centroid analysis for 005197233-01. Kepler magnitude: 14.40. Transit SNR 13.25

There are 3 quarters with good PRF difference image offsets

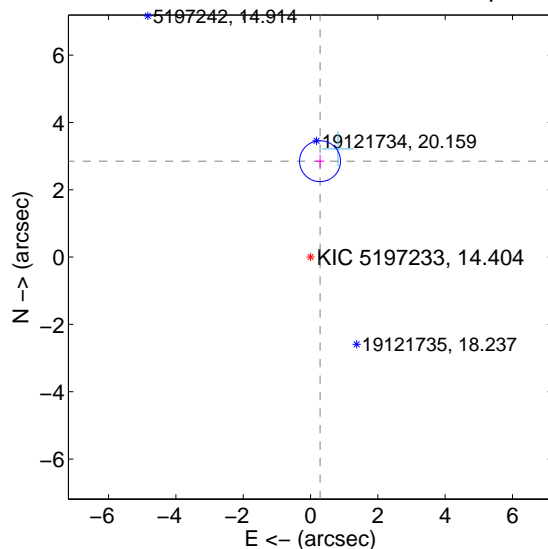
The OOT PRF centroid is offset from the target star catalog position by about 4.71 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.038 ± 0.476	8.48	-4.032 ± 0.476	-0.223 ± 0.526
PRF-fit source offset from KIC position	2.864 ± 0.203	14.14	-0.283 ± 0.130	2.850 ± 0.195
photometric centroid source offset	3.75 ± 0.75	5.02	0.38 ± 0.74	3.73 ± 0.75

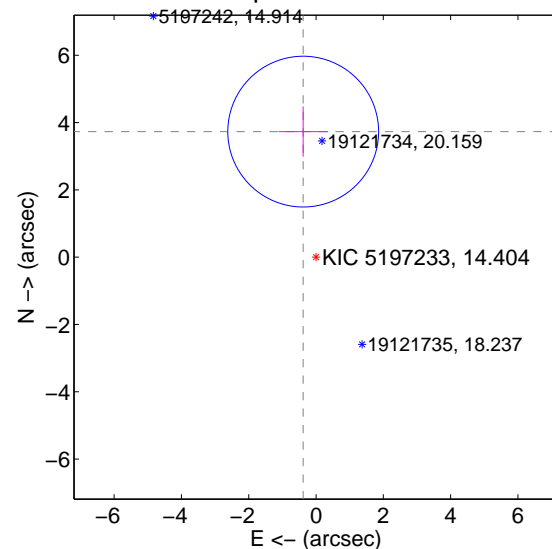
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

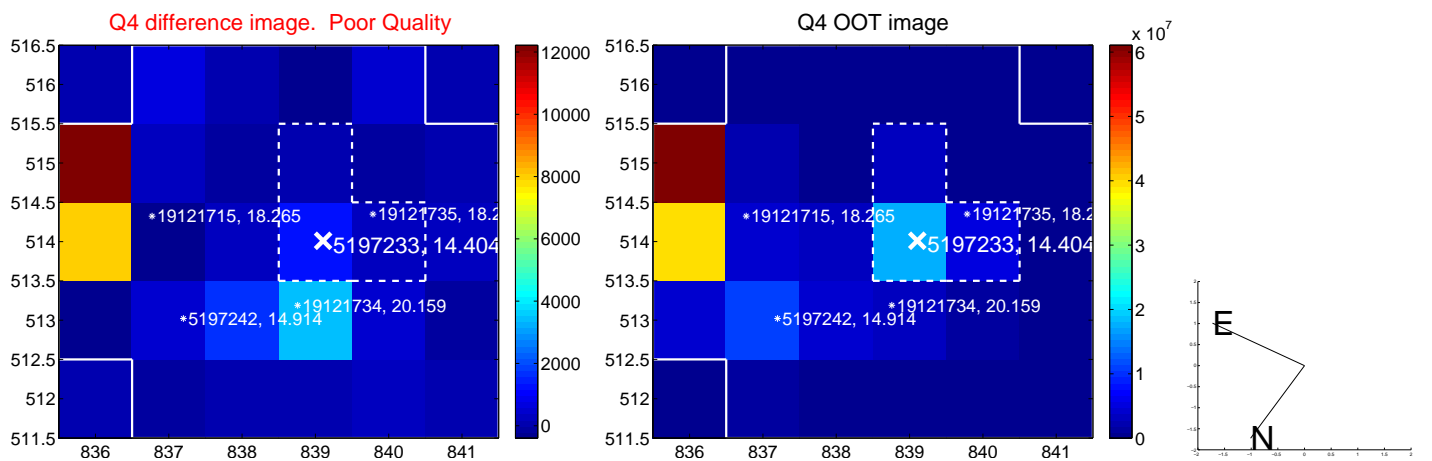
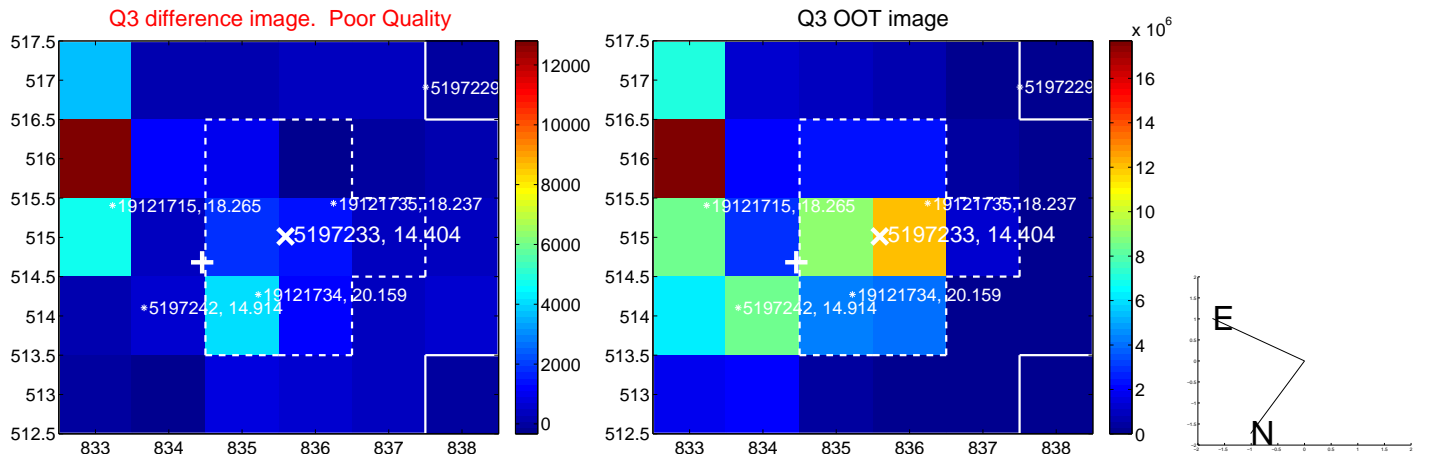
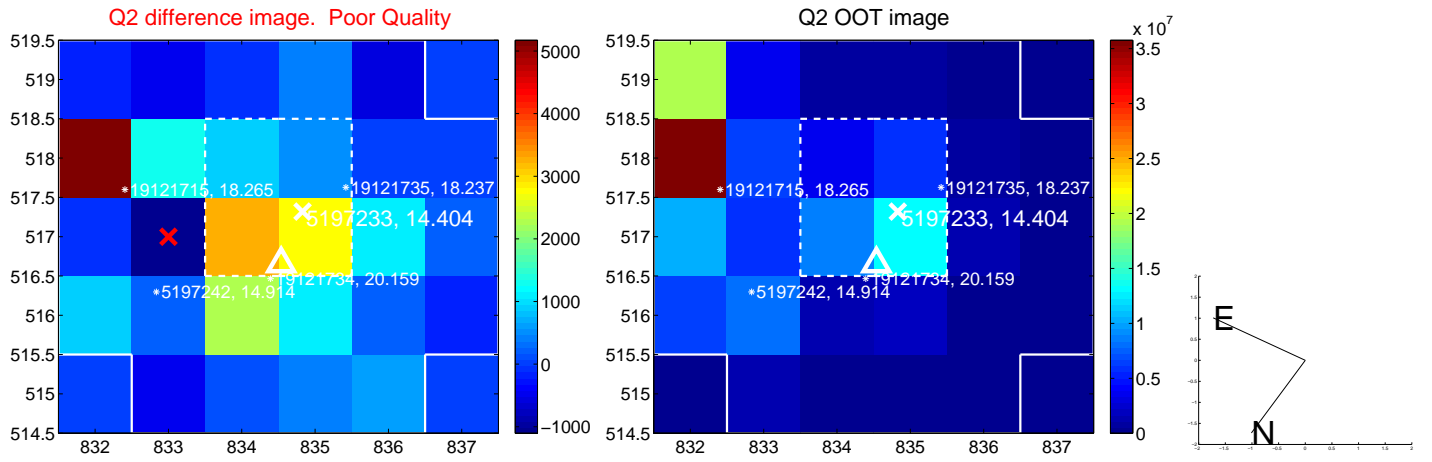
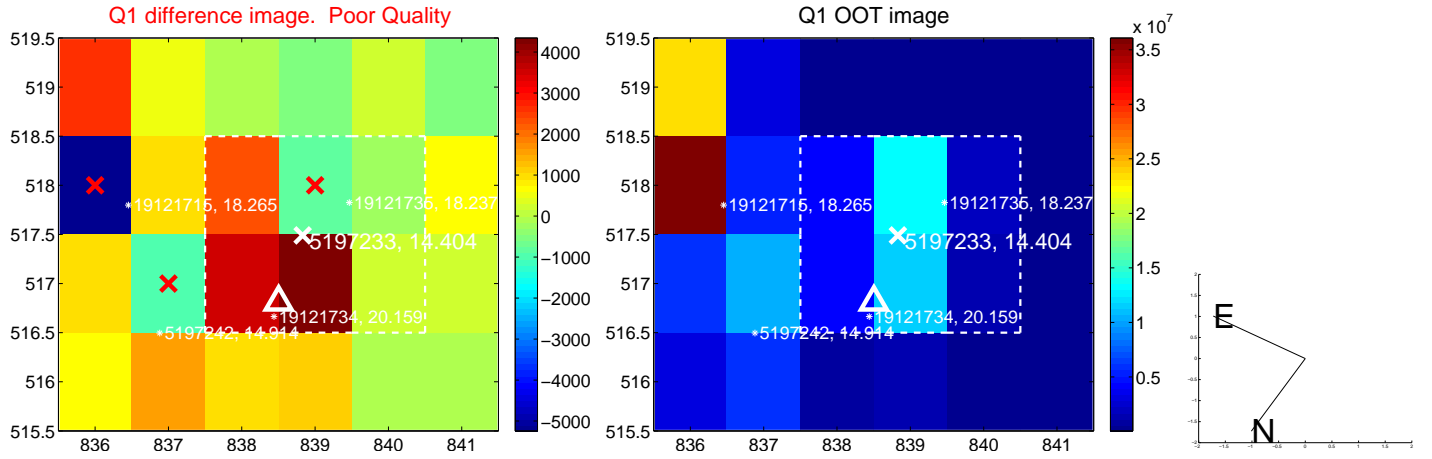


offset from photometric centroids

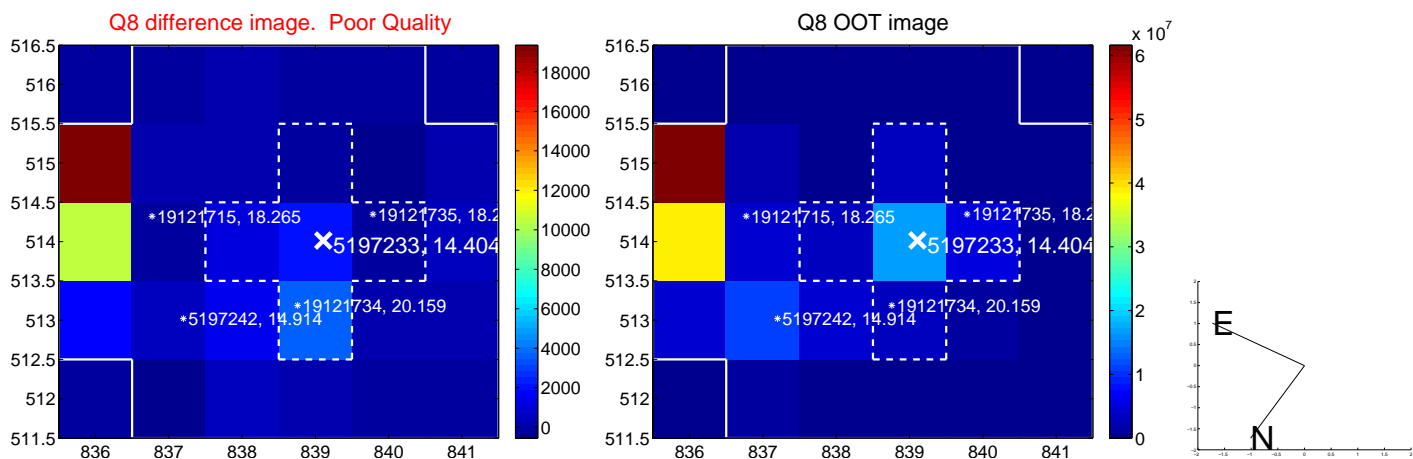
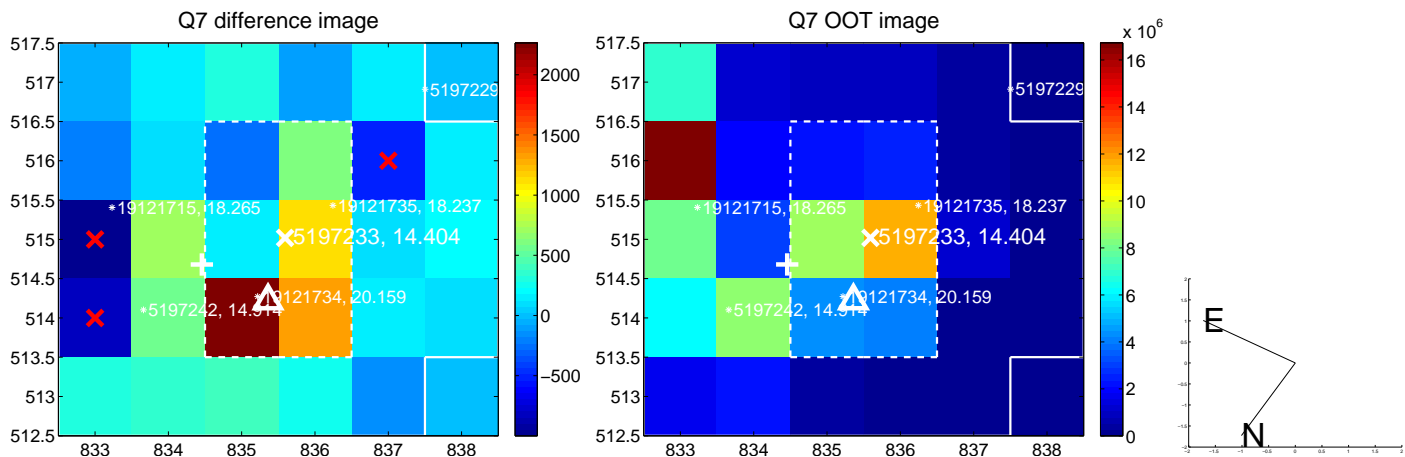
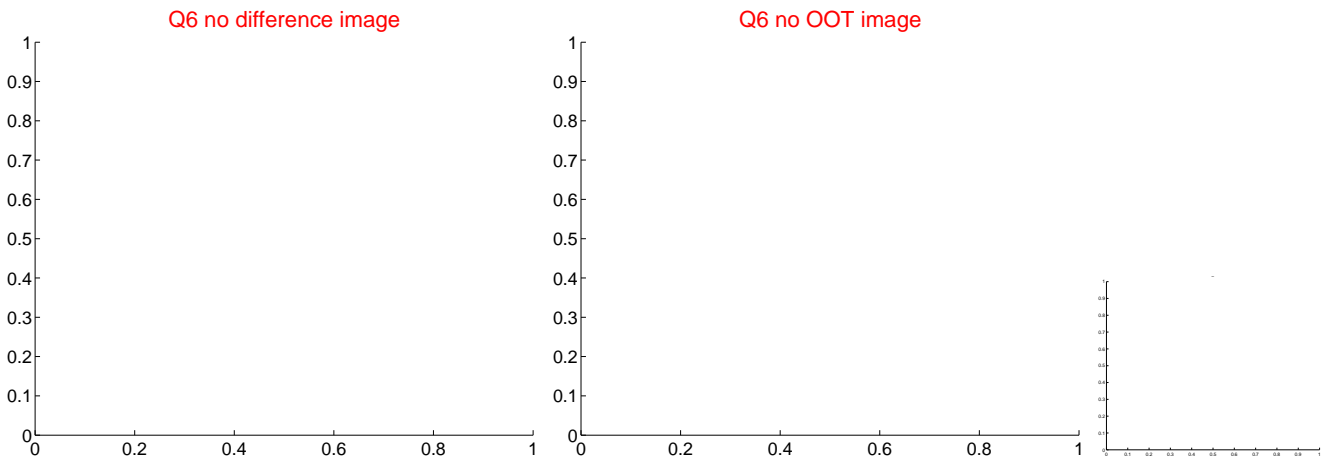
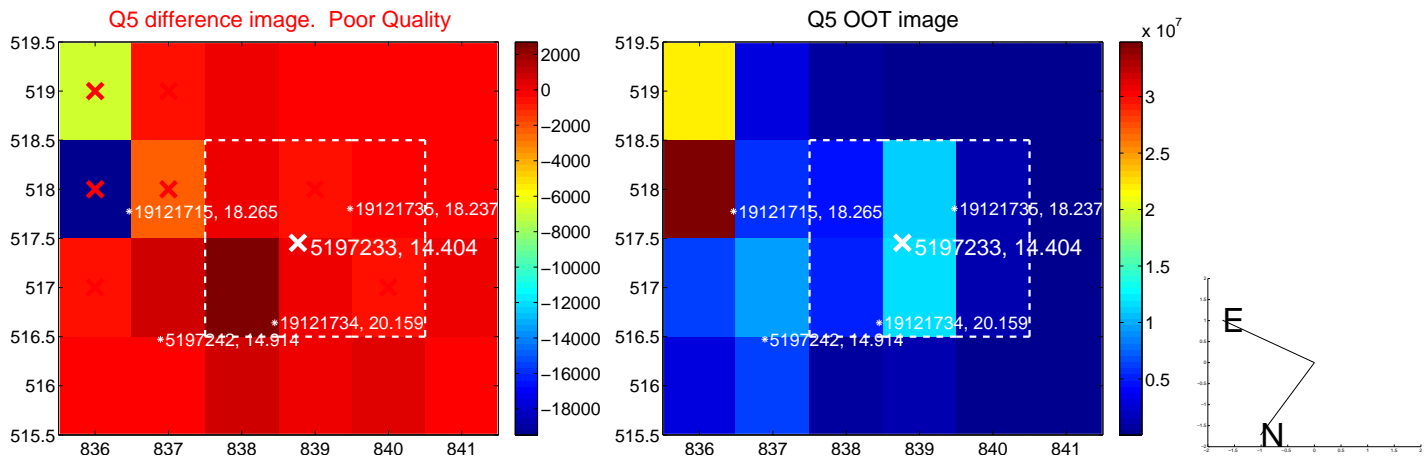


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

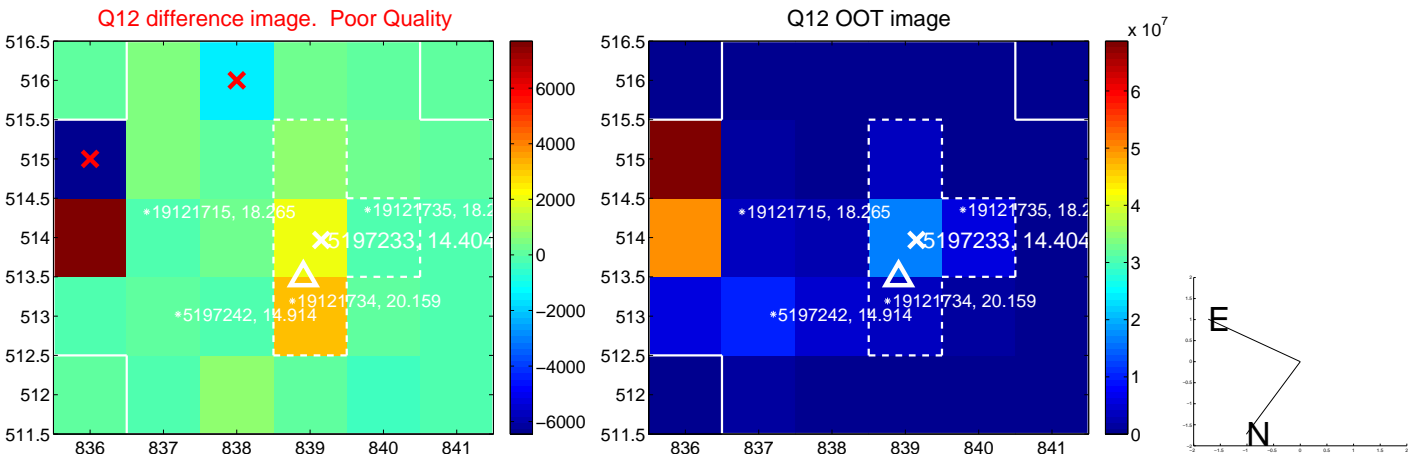
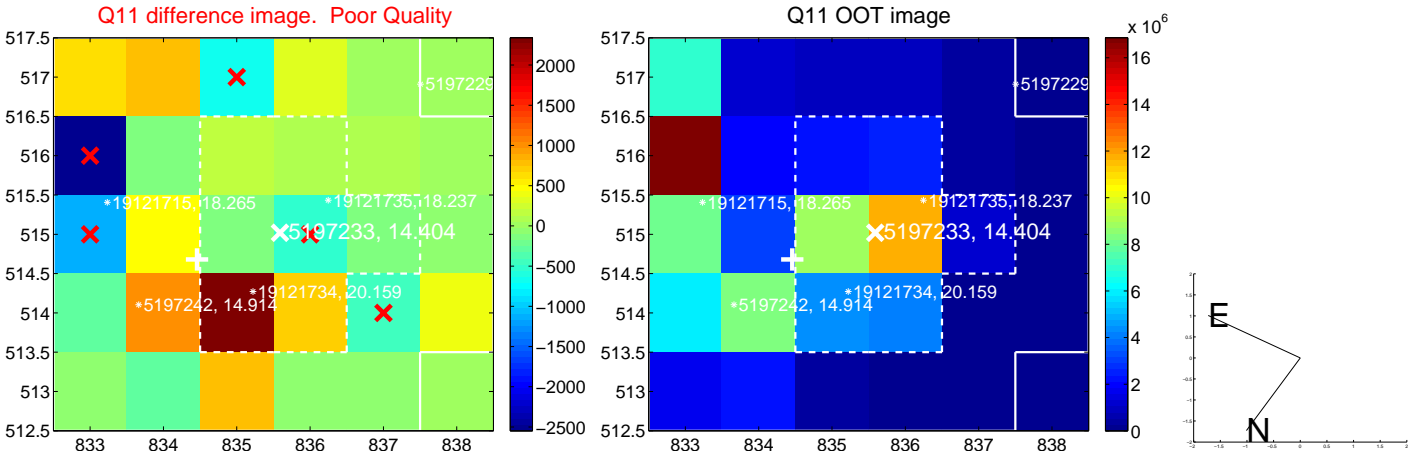
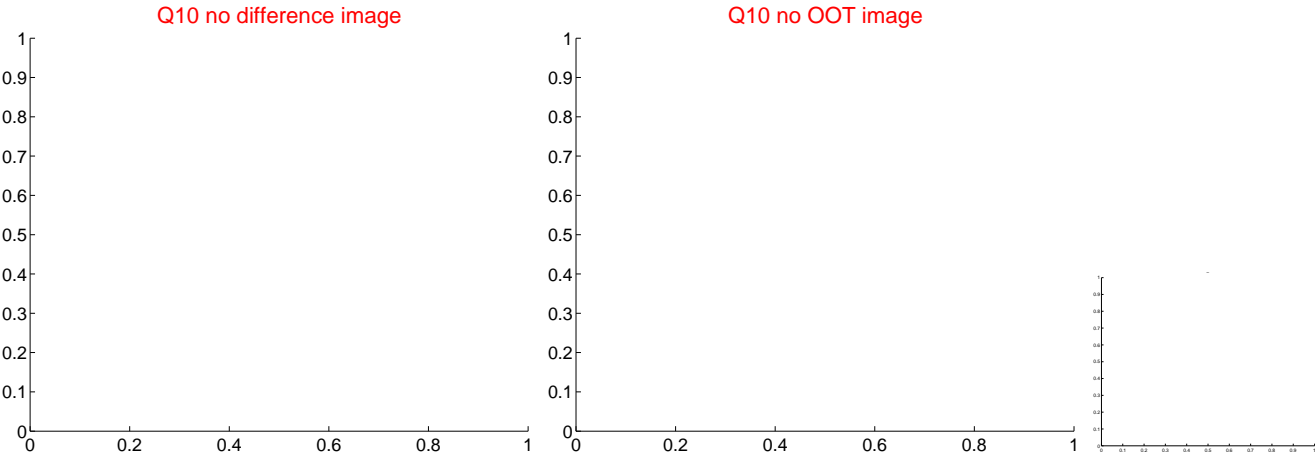
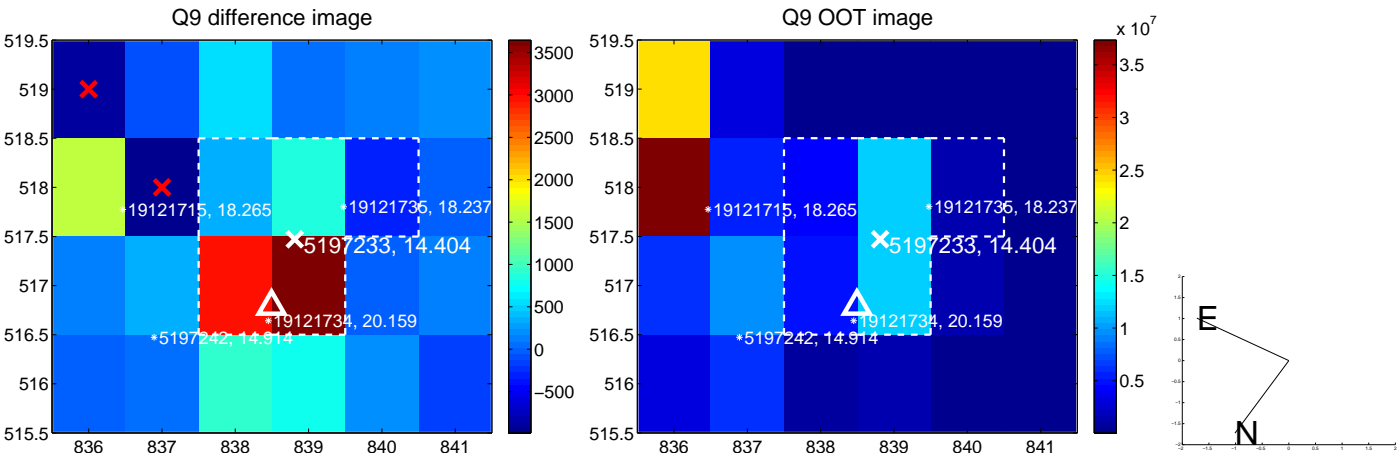
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



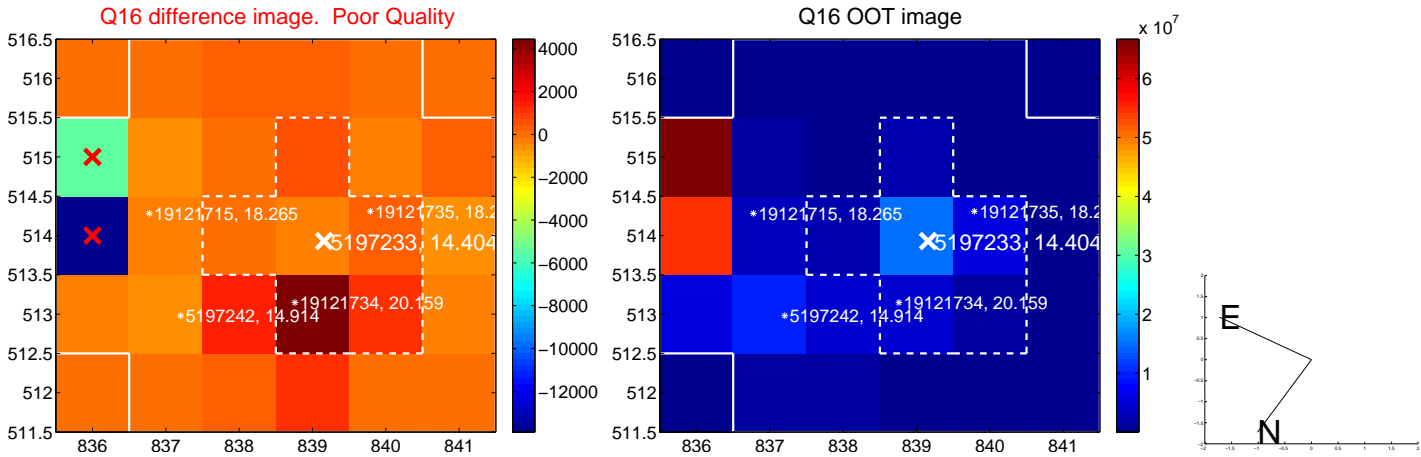
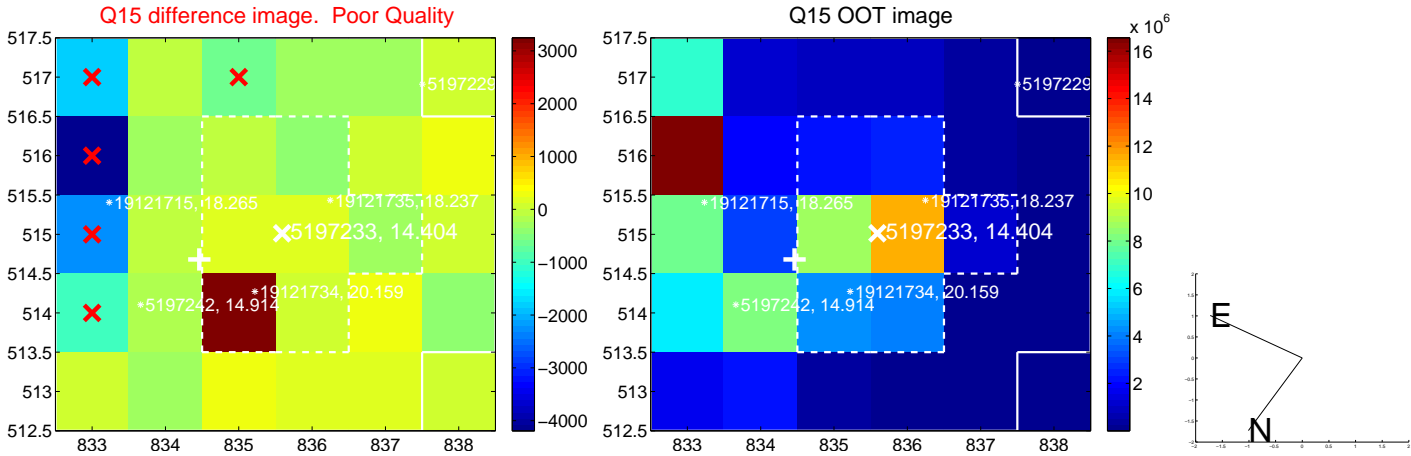
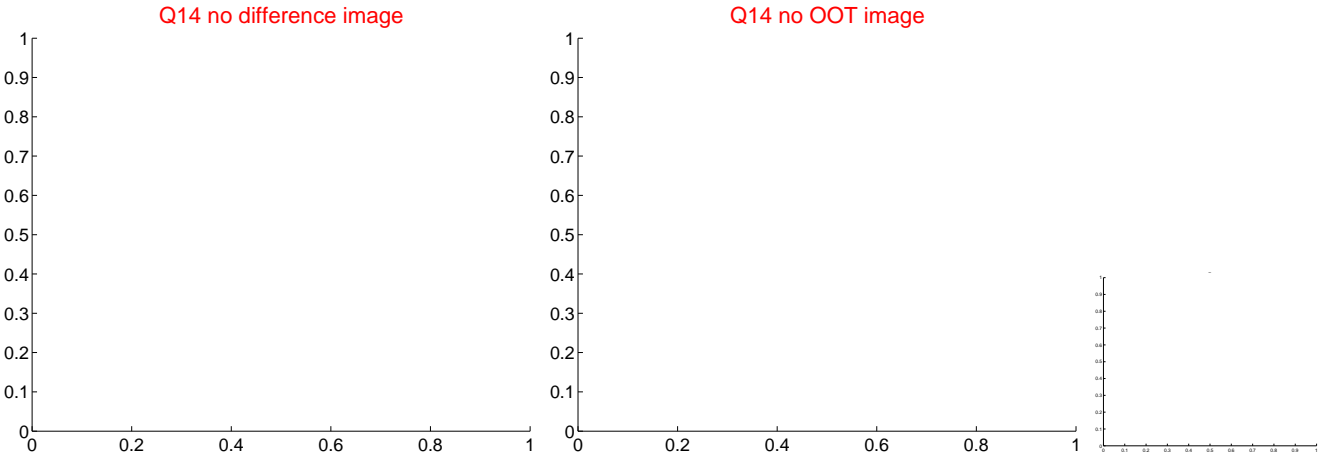
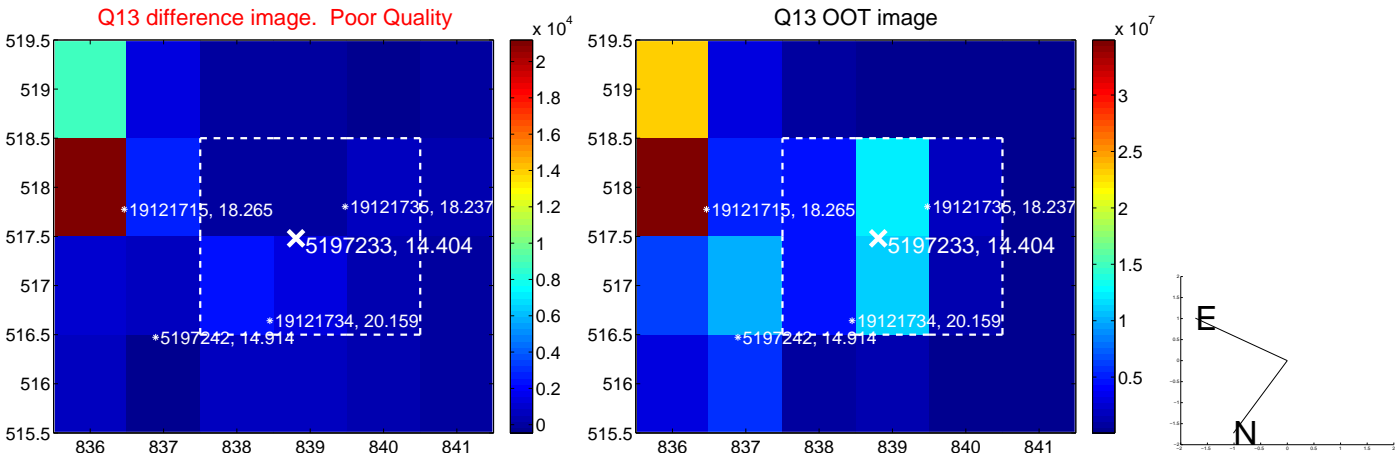
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



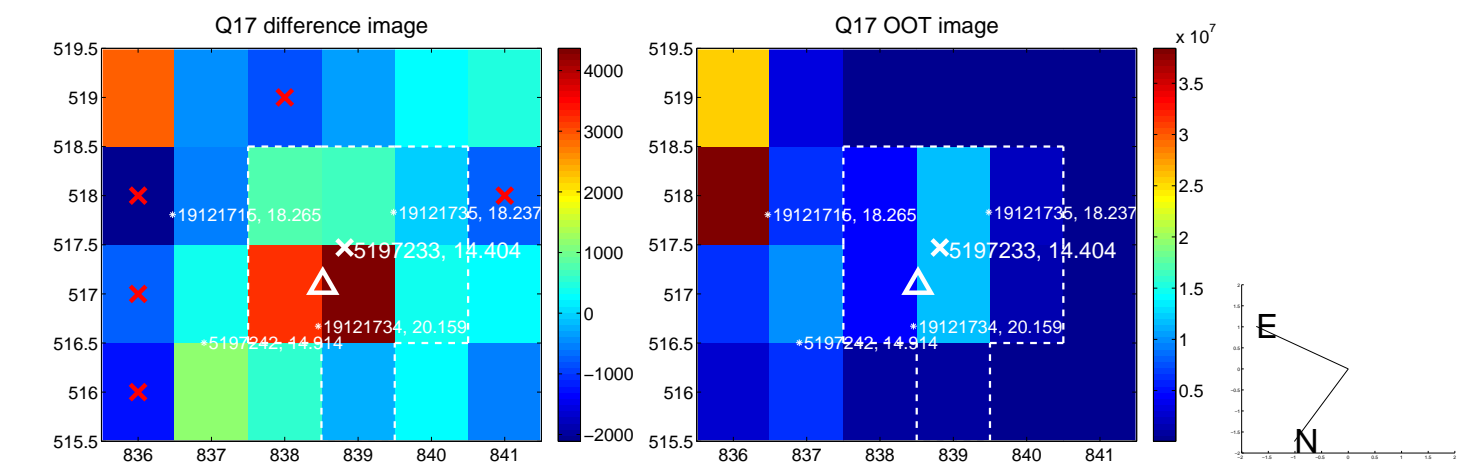
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



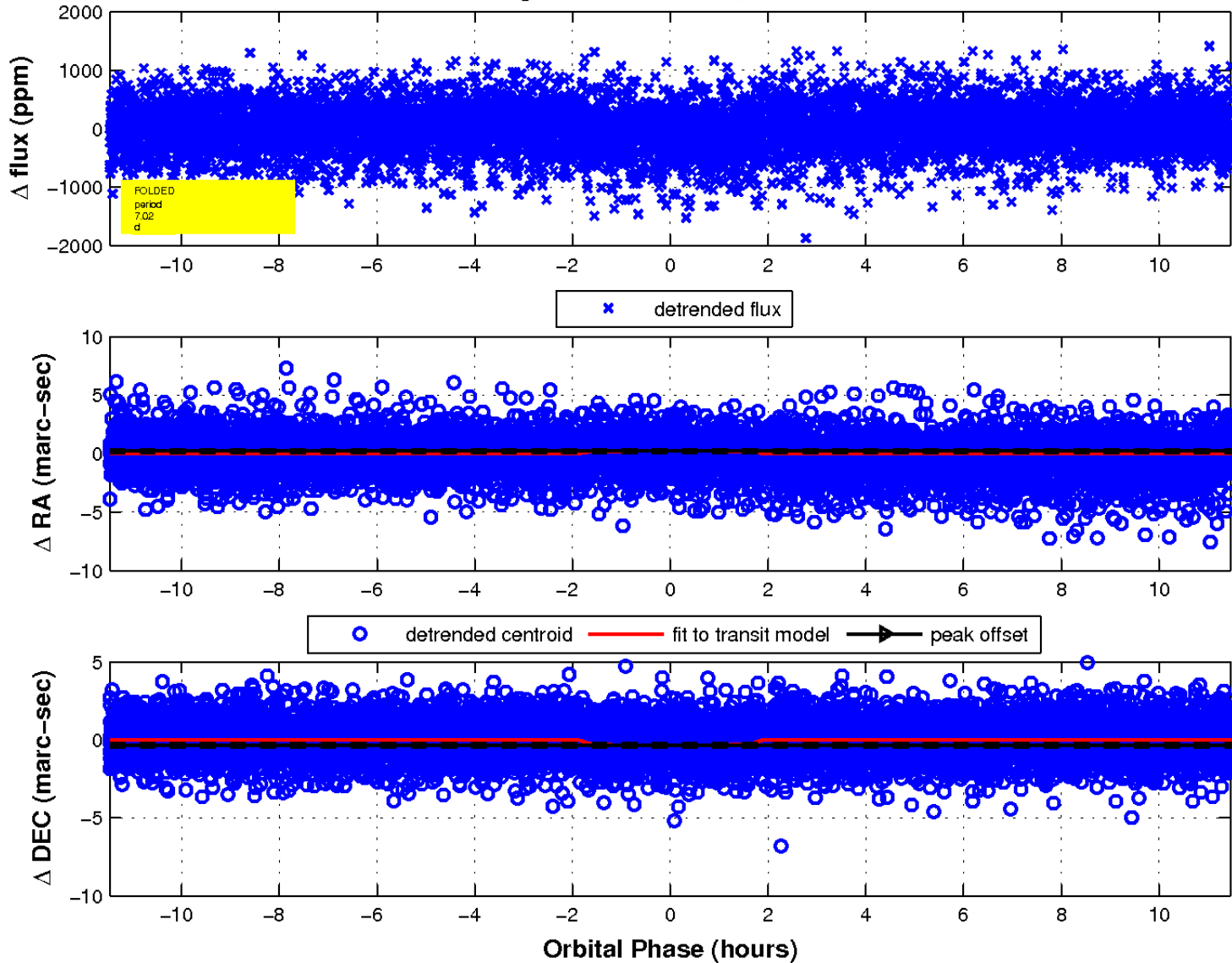
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

