

KIC 012417739

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})
012417739-01	OBS	No	3.209796	133.224144	5.8	23.366	9.3	6.7	2.35	7910	0.63	6913.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012417739-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

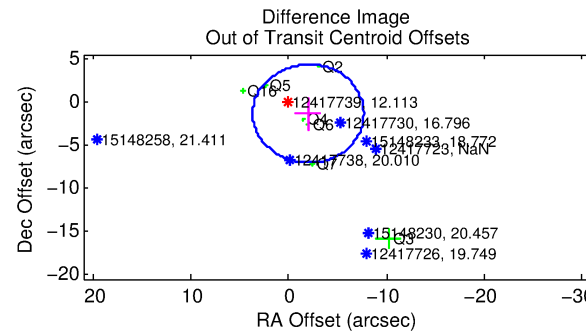
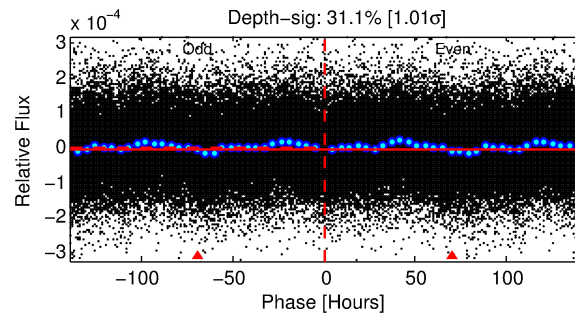
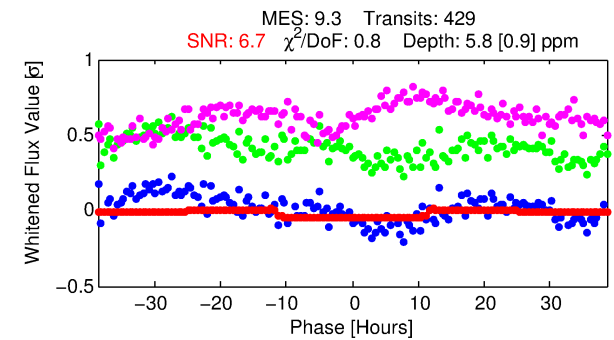
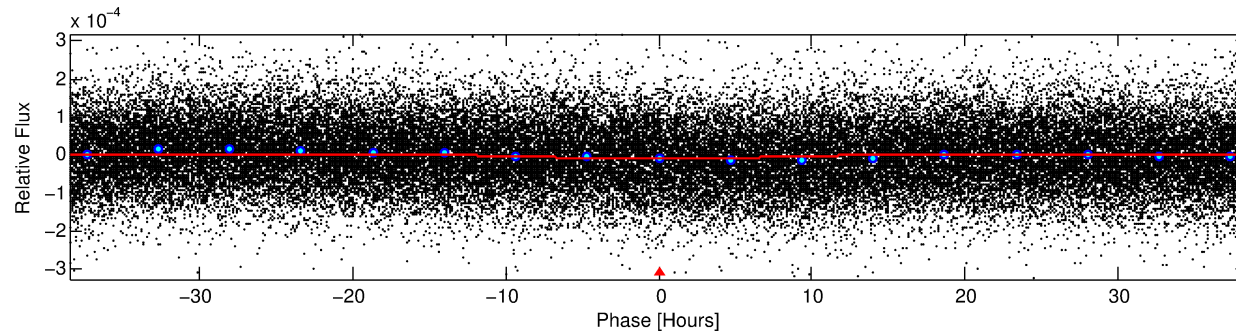
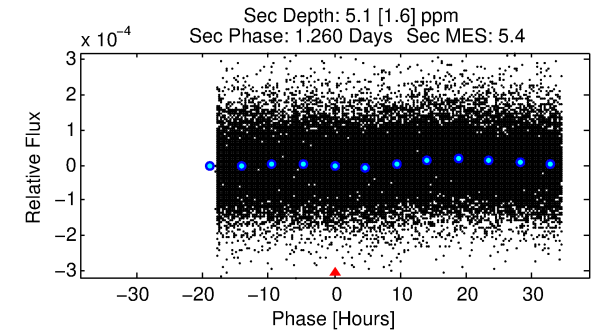
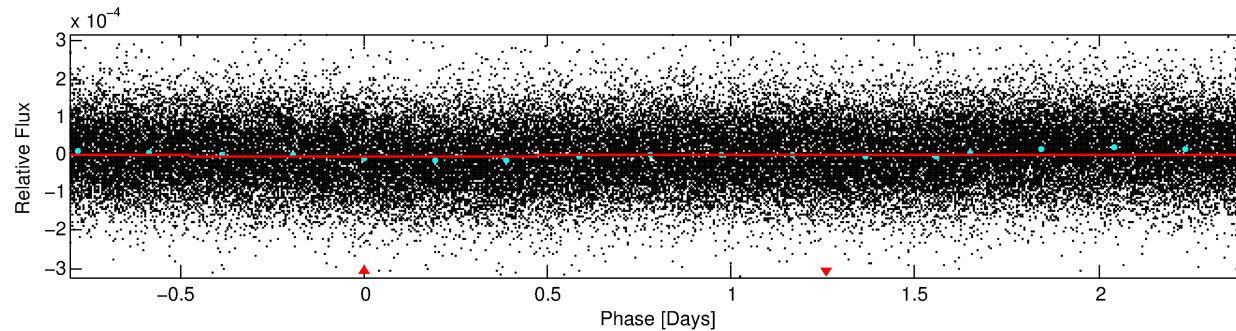
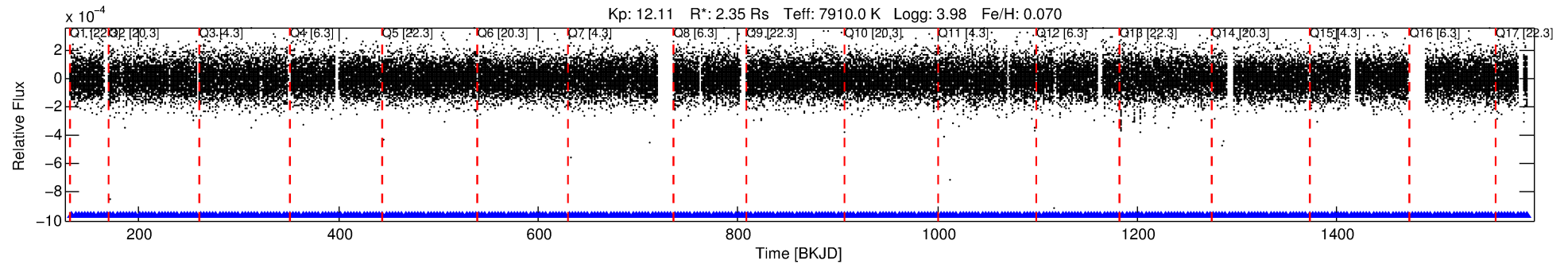
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012417739-01

No Significant Match Found

DV One-Page Summary

KIC: 12417739 Candidate: 1 of 1 Period: 3.210 d



DV Fit Results:

Period = 3.20980 [0.00011] d
Epoch = 133.2241 [0.0218] BKJD
Rp/R* = 0.0024 [0.0012]
a/R* = 1.09 [0.54]
b = 0.80 [1.42]
Seff = 6913.15 [2617.12]
Teq = 2325 [220] K
Rp = 0.63 [0.35] Re
a = 0.0529 [0.0123] AU
Ag = 20.14 [22.04] [0.87σ]
Teffp = 7616 [2005] K [2.62σ]

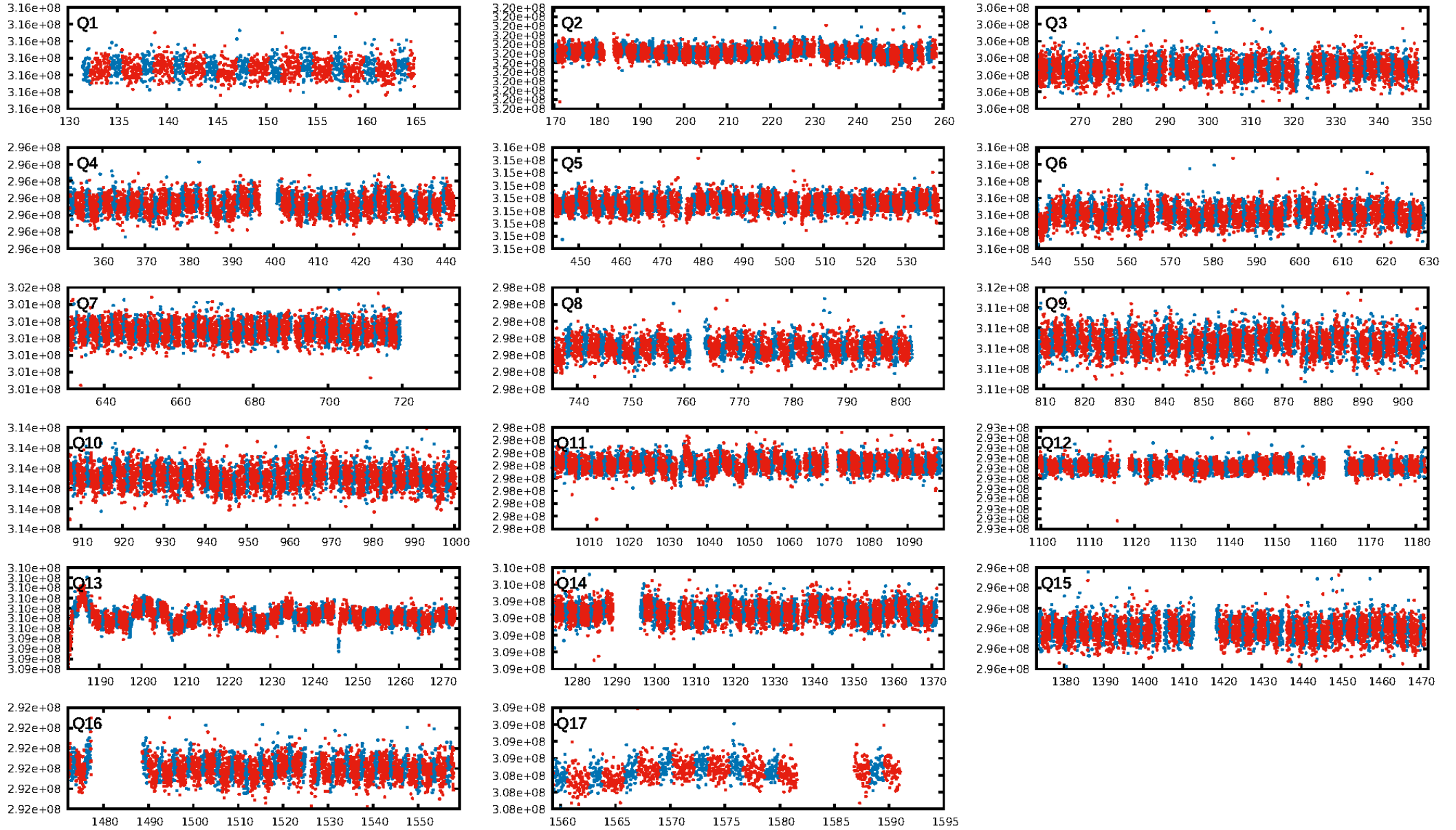
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [409/409]
GhostDiagnostic-chr: 3.596
Centroid-sig: 64.9%
Centroid-so: 1.245 arcsec [0.40σ]
OotOffset-rm: 2.427 arcsec [1.28σ]
KicOffset-rm: 2.411 arcsec [0.83σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 1.00 [17/17]

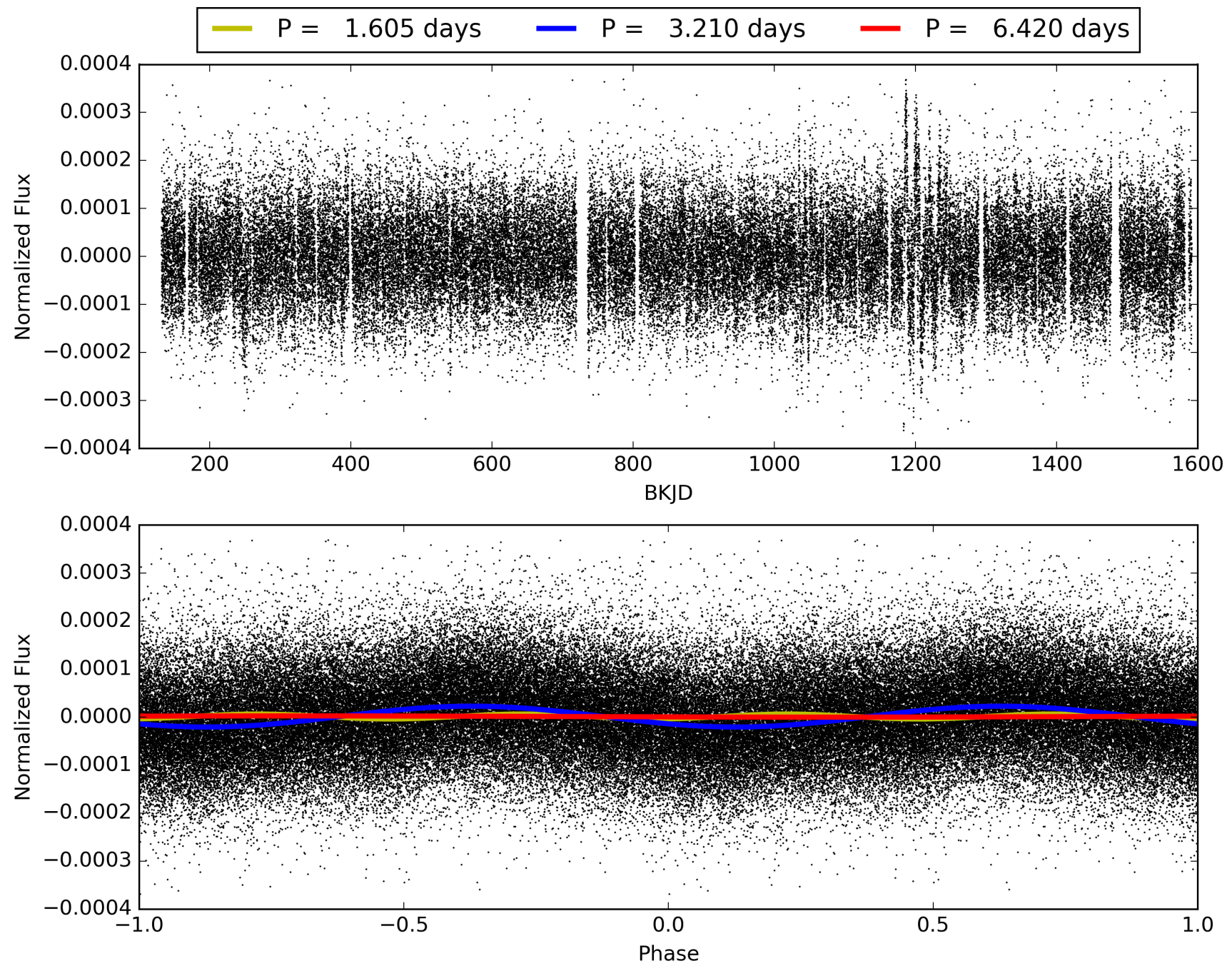
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:49:13 Z

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

TCE 012417739-01, PDC Light Curves

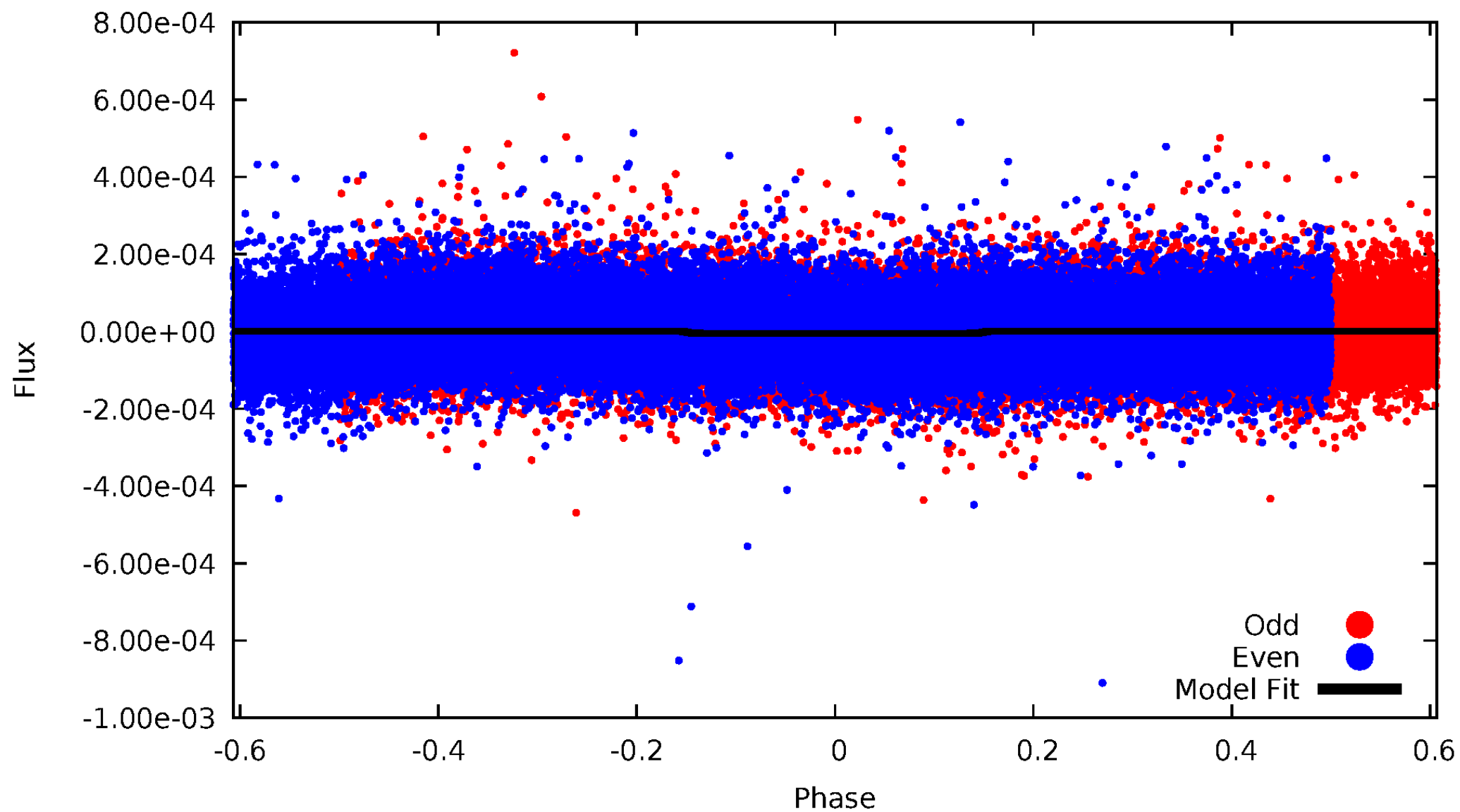


TCE 012417739-01



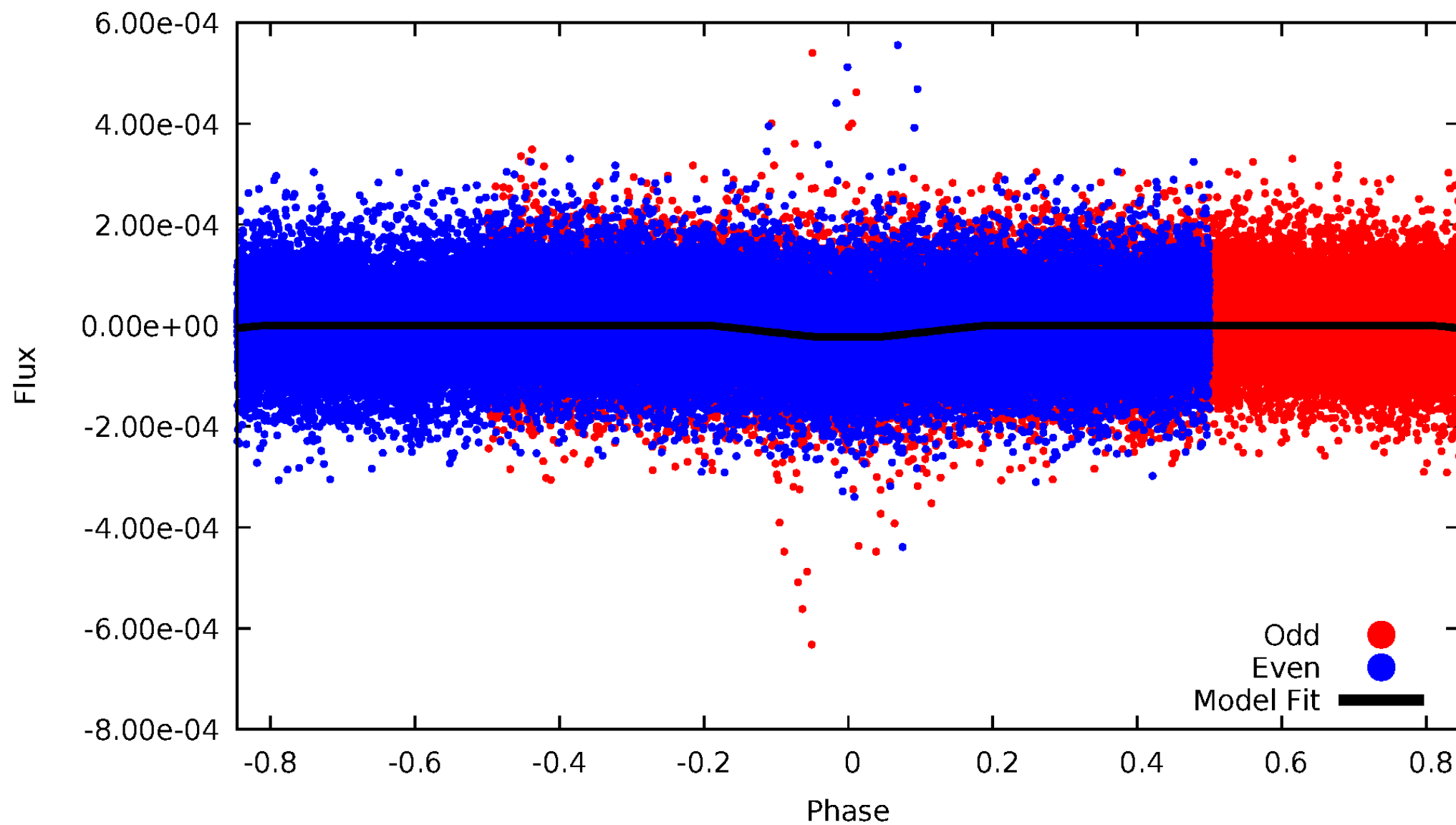
DV Odd/Even

TCE 012417739-01

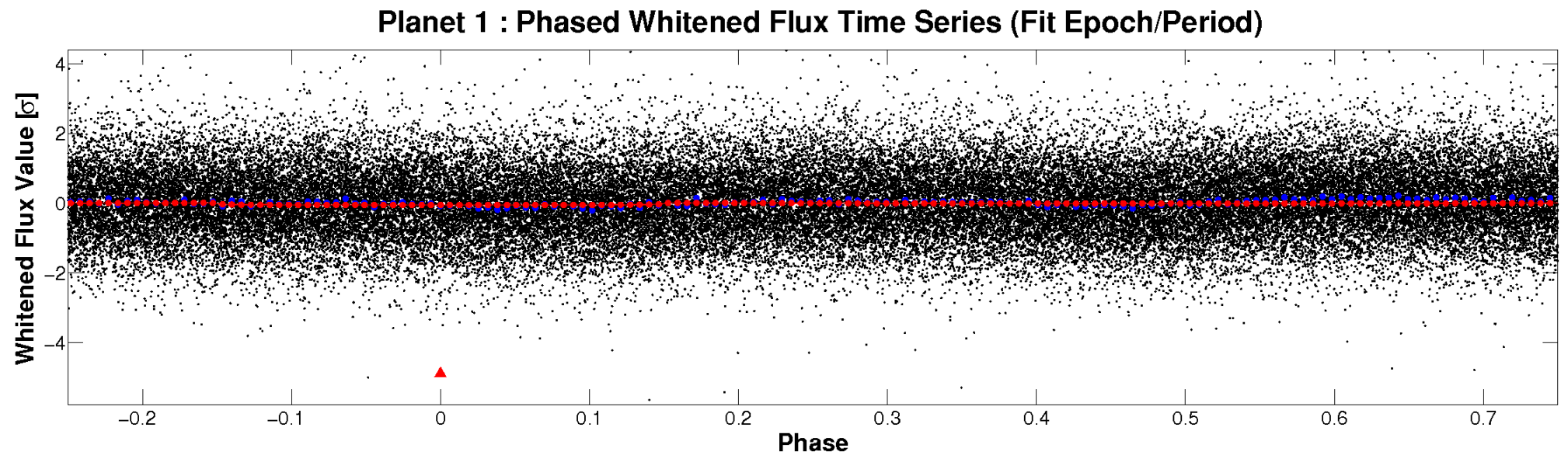
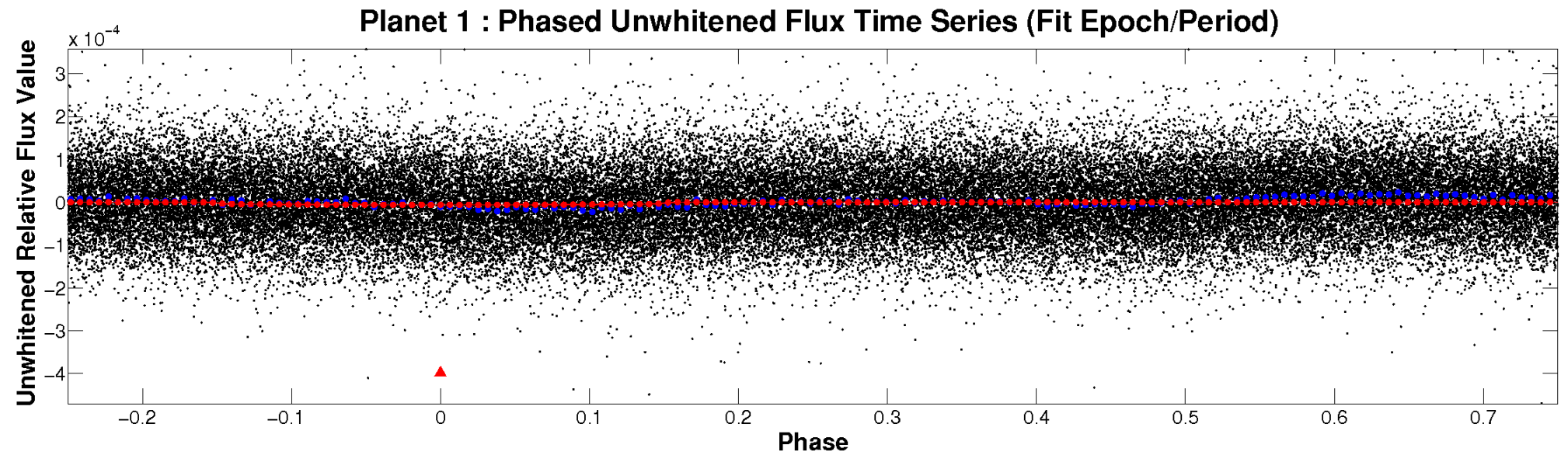


ALT Odd/Even

TCE 012417739-01

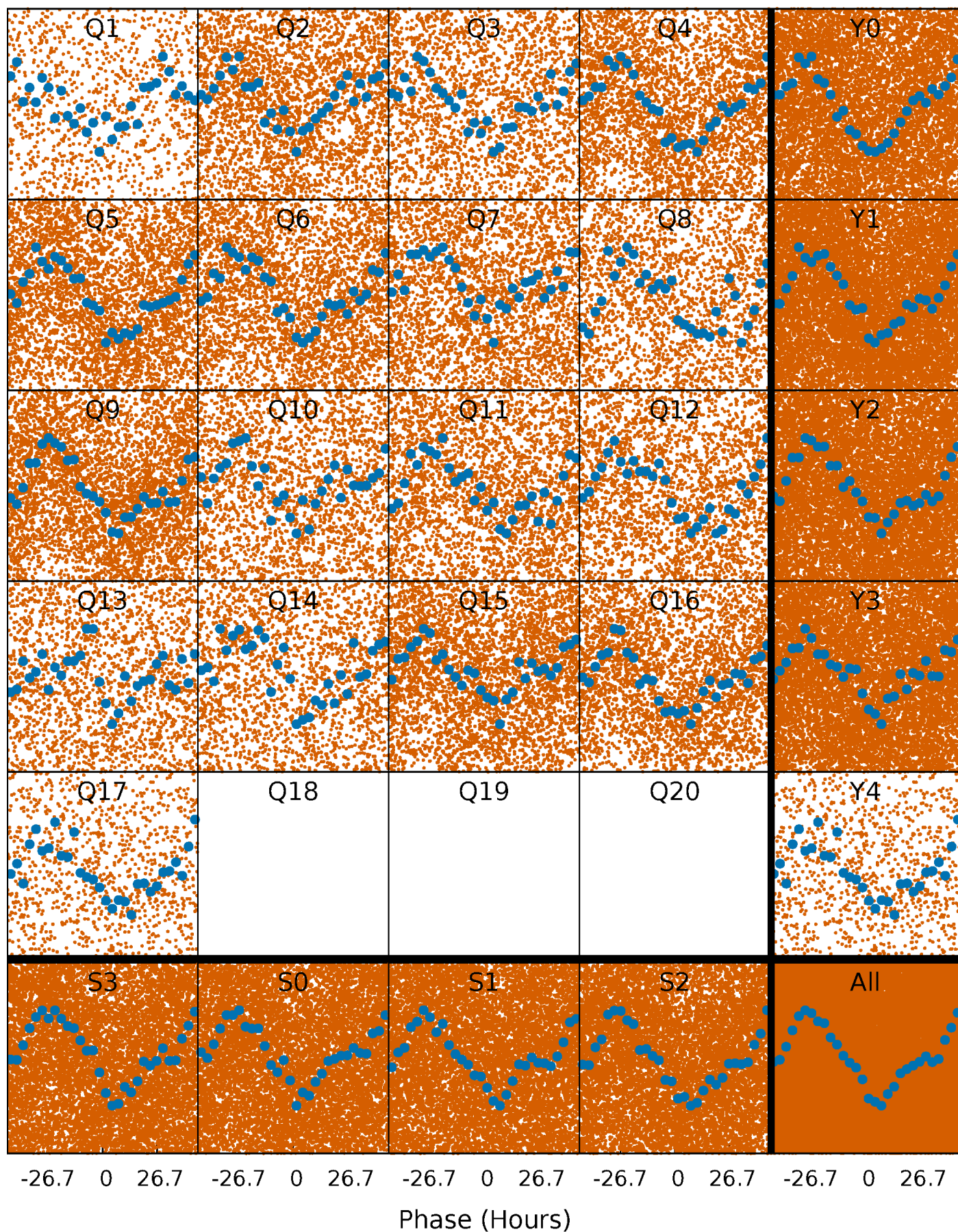


Non-Whitened Vs. Whitened Light Curve



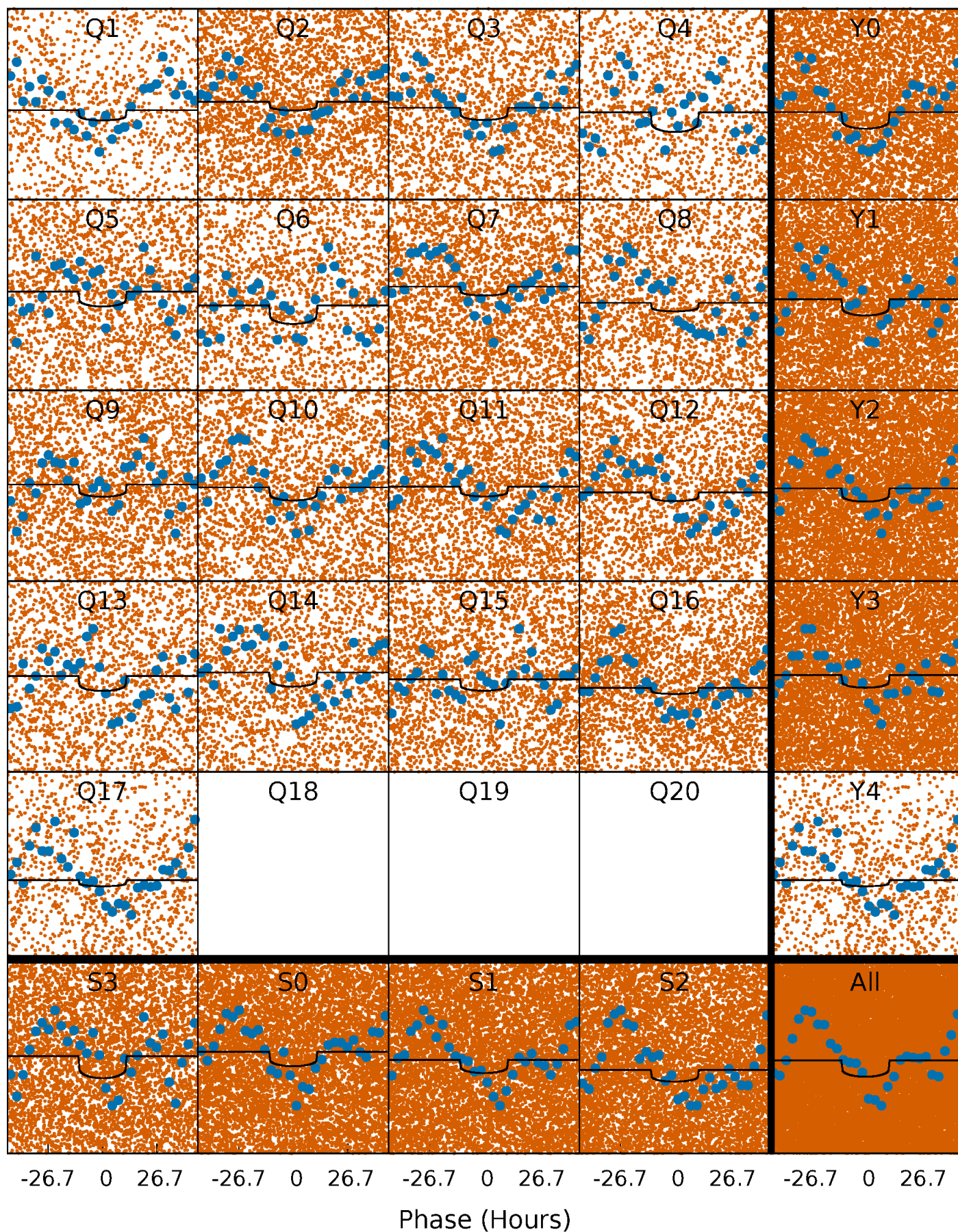
PDC Quarter-Phased Transit Curves

TCE 012417739-01 P= 3.209796 Days $T_0=133.224144$ (BKJD)



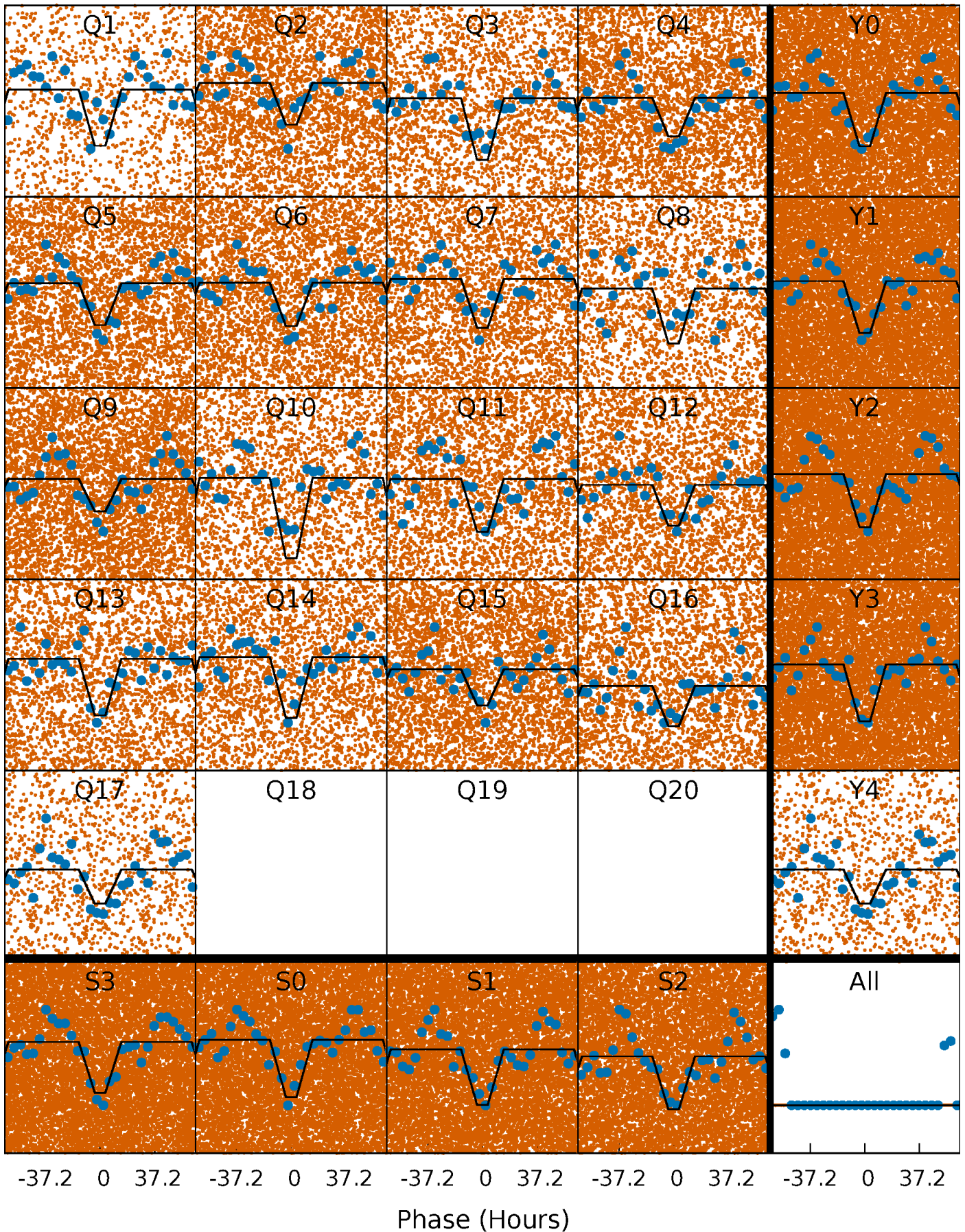
DV Quarter-Phased Transit Curves

TCE 012417739-01 P= 3.209796 Days $T_0=133.224144$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

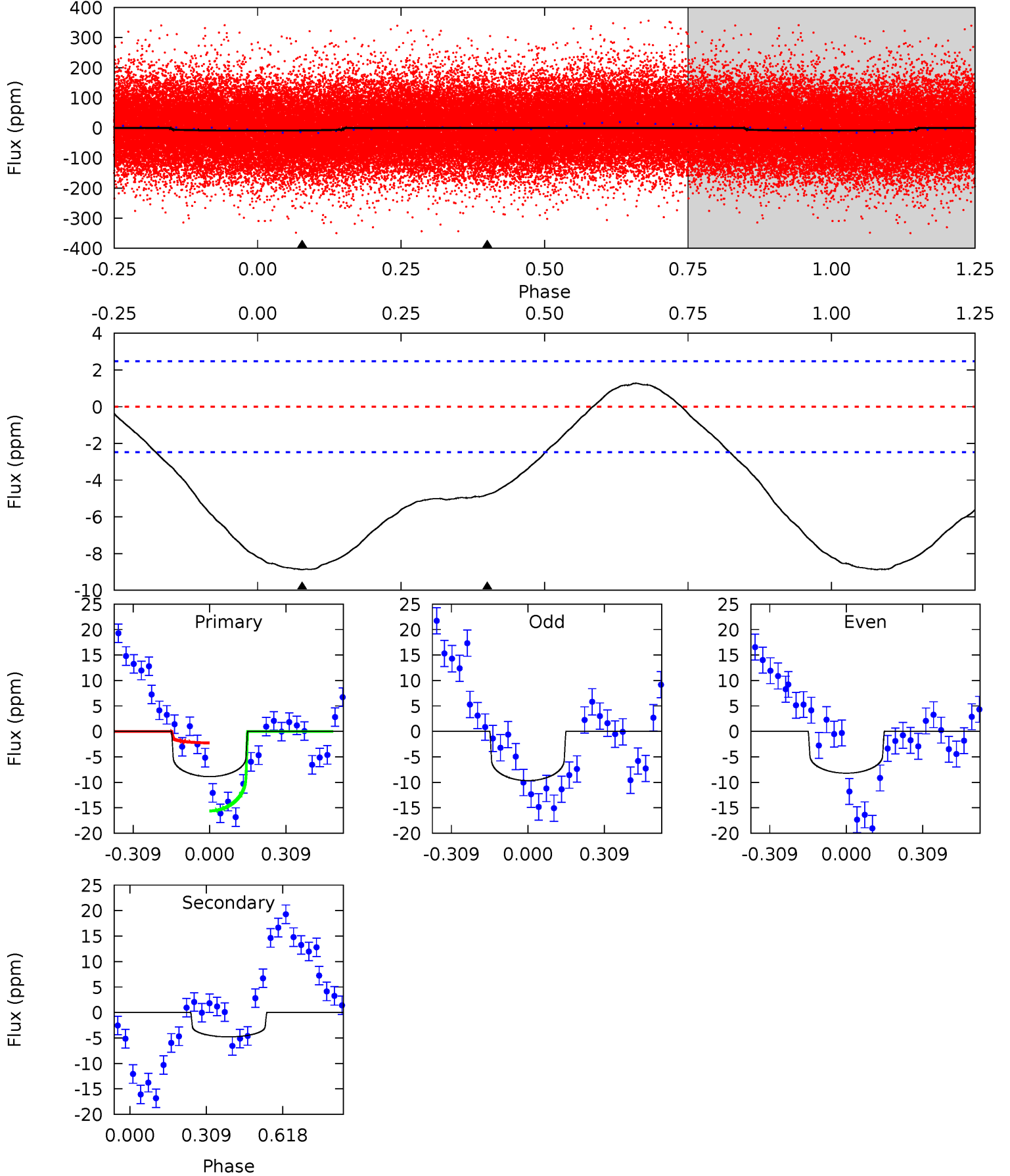
TCE 012417739-01 P= 3.209974 Days $T_0=133.401106$ (BKJD)



DV Model-Shift Uniqueness Test

012417739-01, P = 3.209796 Days, E = 130.014348 Days

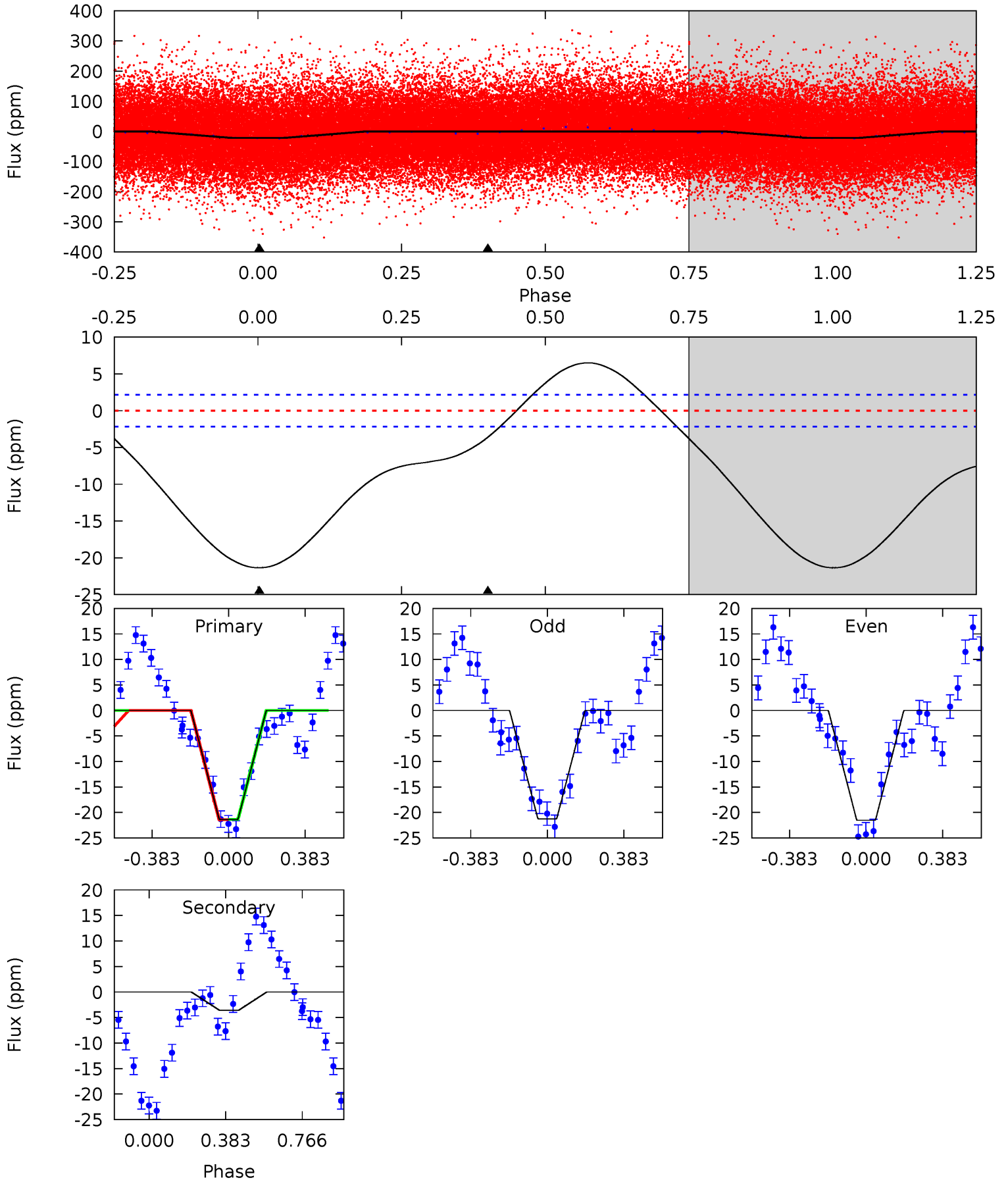
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	8.36	0	0	4.32	1.02	1.35	15.5	15.5	8.36	8.36	1.27	1.11	0.13	11.6



Alt Model-Shift Uniqueness Test

012417739-01, P = 3.209974 Days, E = 130.191132 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.2	7.13	0	0	4.27	0.87	4.35	42.2	42.2	7.13	7.13	0.27	1.04	0.23	0.07



Stellar Parameters For KIC 012417739

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7910^{+220}_{-330}	$3.979^{+0.187}_{-0.136}$	$0.070^{+0.200}_{-0.350}$	$2.350^{+0.524}_{-0.641}$	$1.922^{+0.235}_{-0.381}$	$0.208^{+0.249}_{-0.086}$
	+3%/-4%	+5%/-3%	+286%/-500%	+22%/-27%	+12%/-20%	+119%/-41%
Source	KIC0	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 012417739-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-5 ± 1	$0.62^{+0.34}_{-0.29}$	3218^{+201}_{-211}	7241^{+3711}_{-1394}	19^{+46}_{-11}
Alt.	-4 ± 1	$1.15^{+0.41}_{-0.32}$	3224^{+216}_{-244}	4889^{+770}_{-500}	$4.003^{+3.811}_{-1.724}$

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

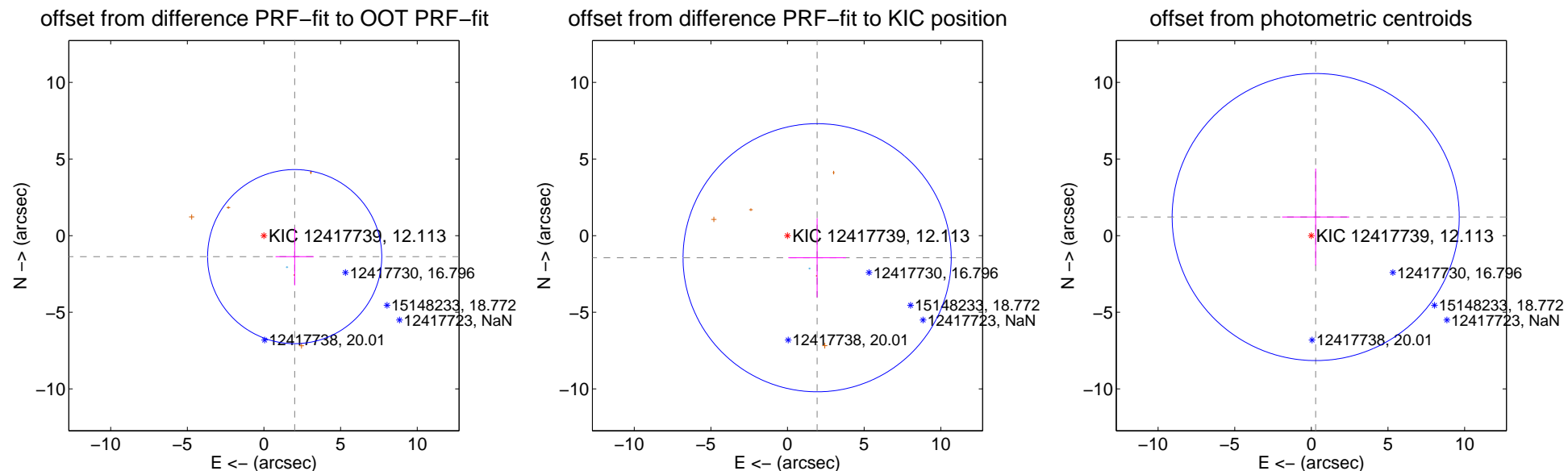
DV Centroid Data

Supplemental centroid analysis for 012417739-01. Kepler magnitude: 12.11. Transit SNR 6.71

There are 1 quarters with good PRF difference image offsets

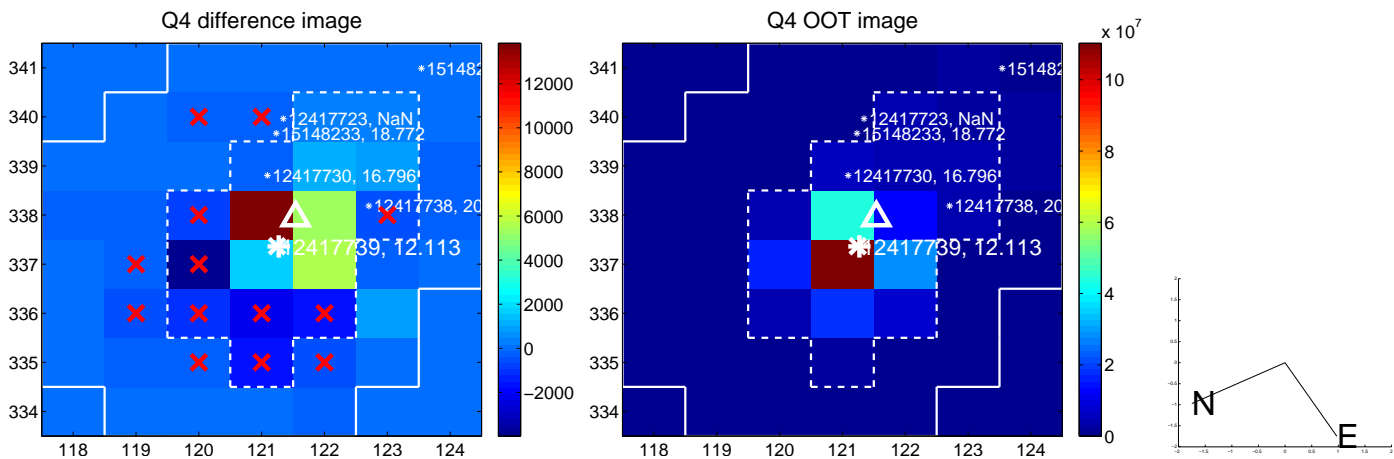
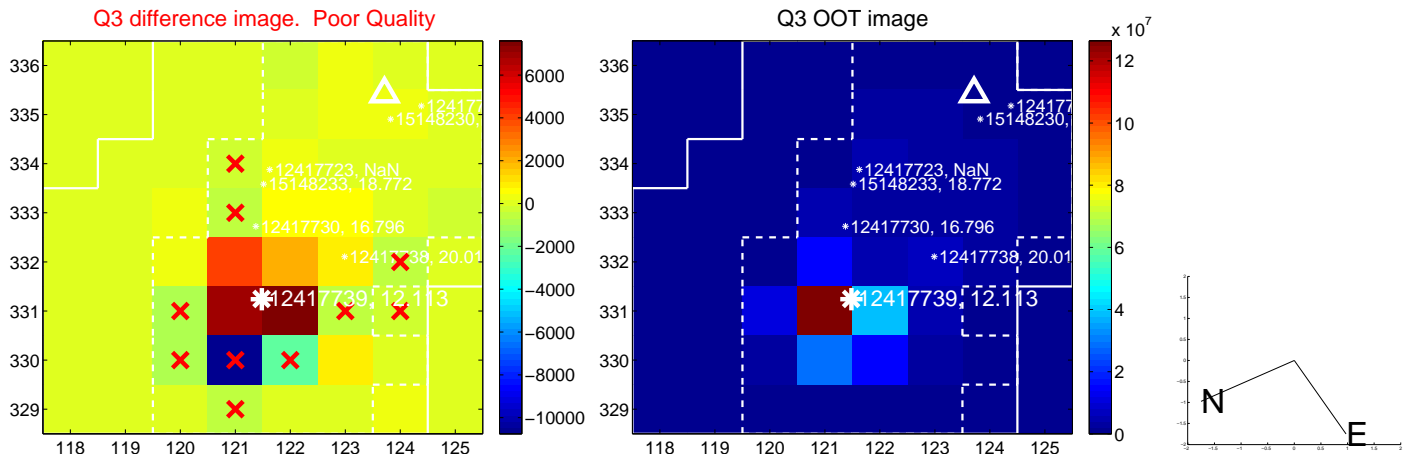
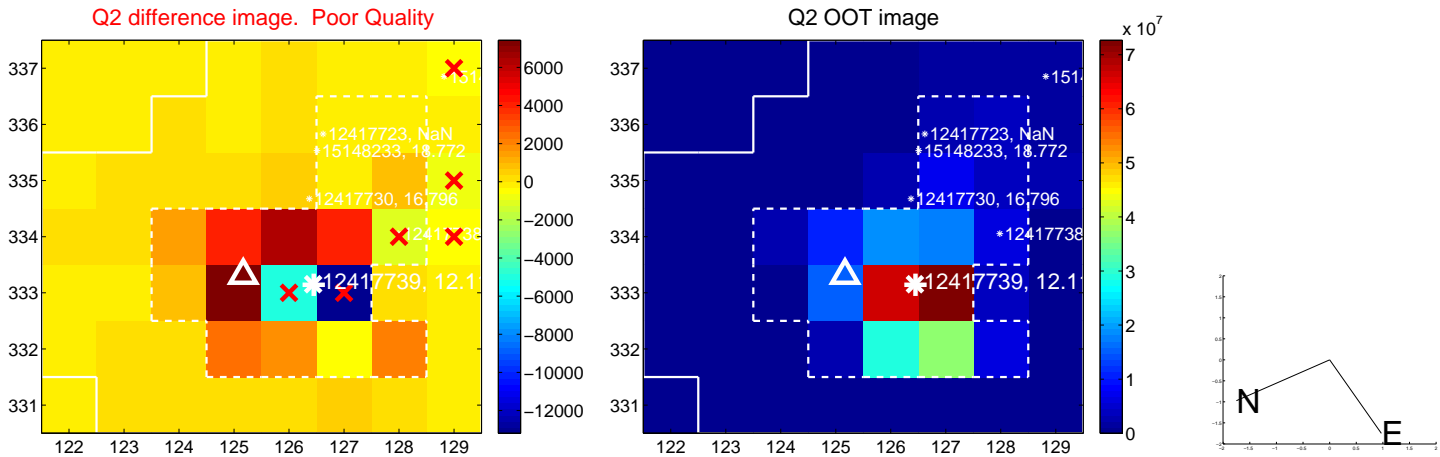
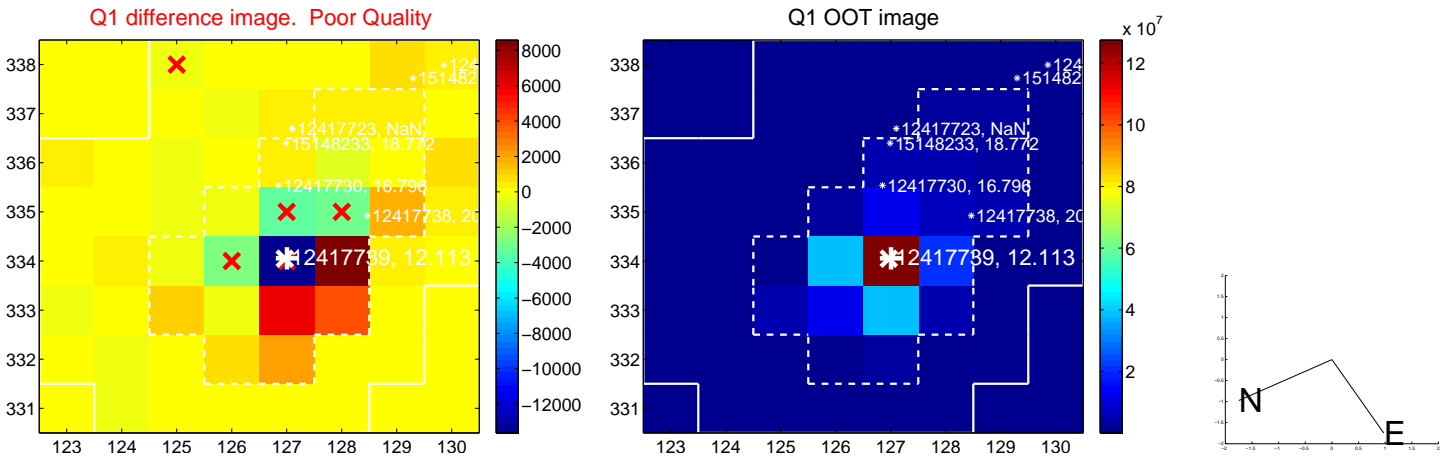
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.427 ± 1.894	1.28	-2.004 ± 1.248	-1.368 ± 1.875
PRF-fit source offset from KIC position	2.411 ± 2.916	0.83	-1.932 ± 1.879	-1.442 ± 2.578
photometric centroid source offset	1.25 ± 3.12	0.40	-0.28 ± 2.19	1.21 ± 3.17

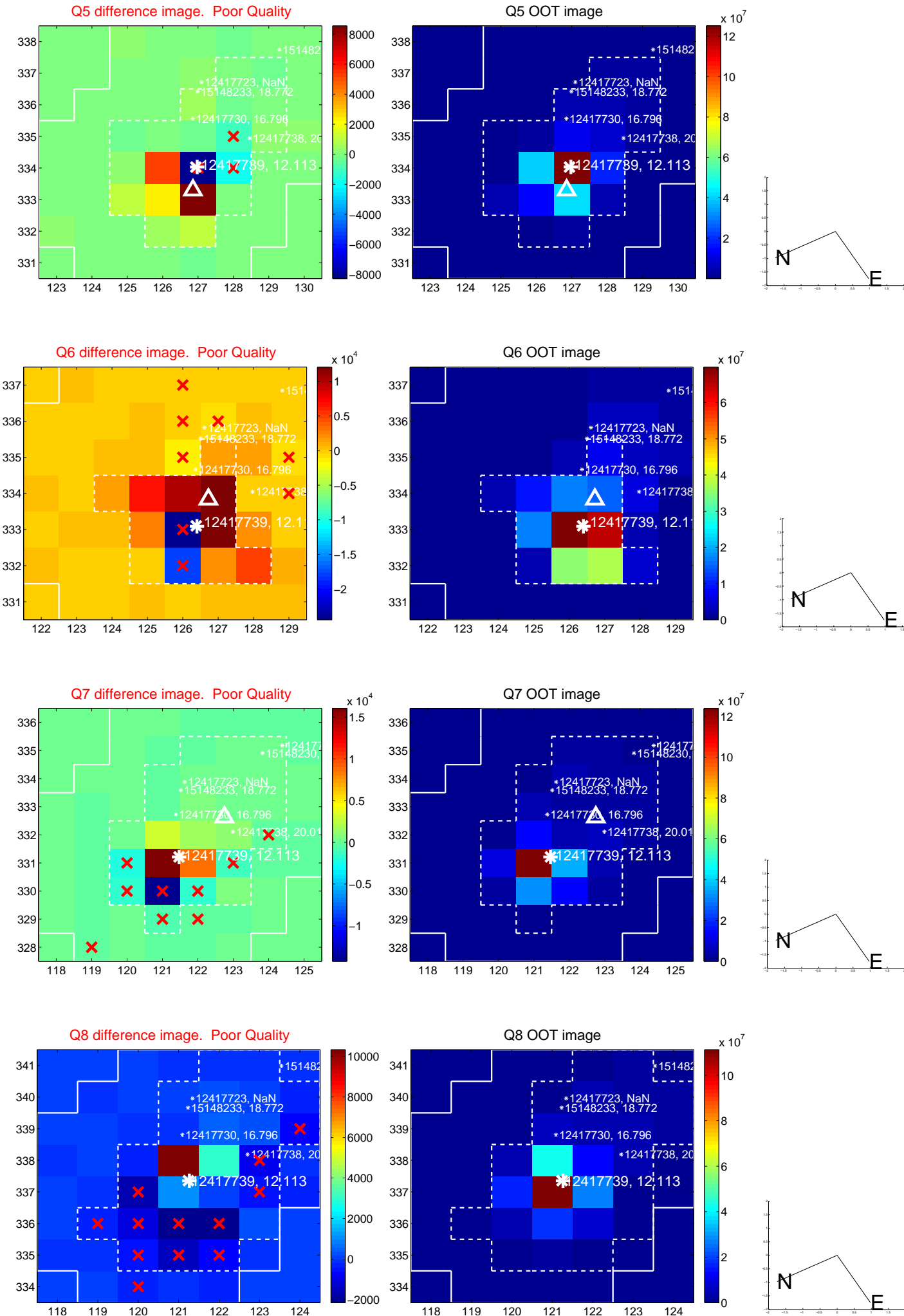


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

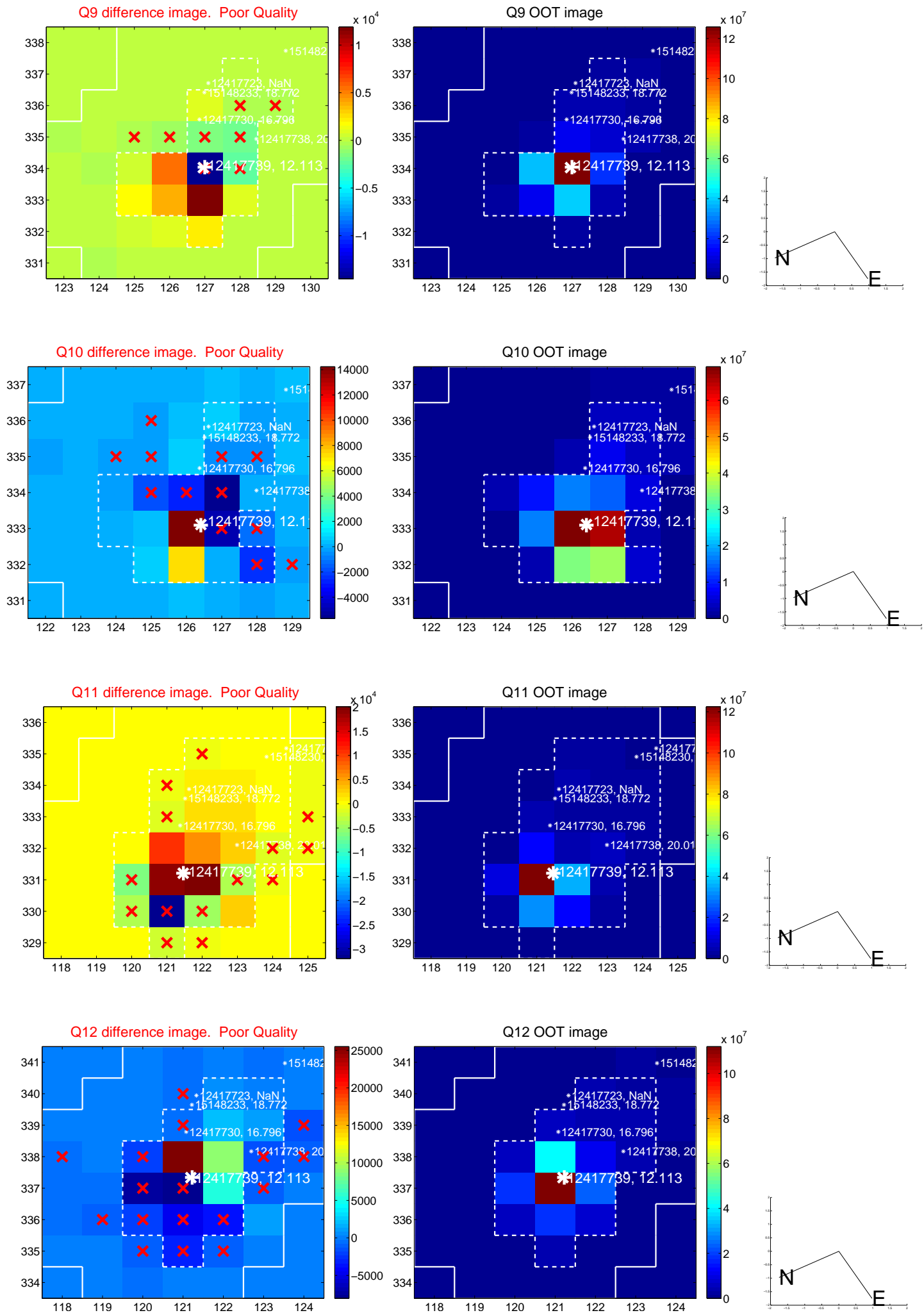
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



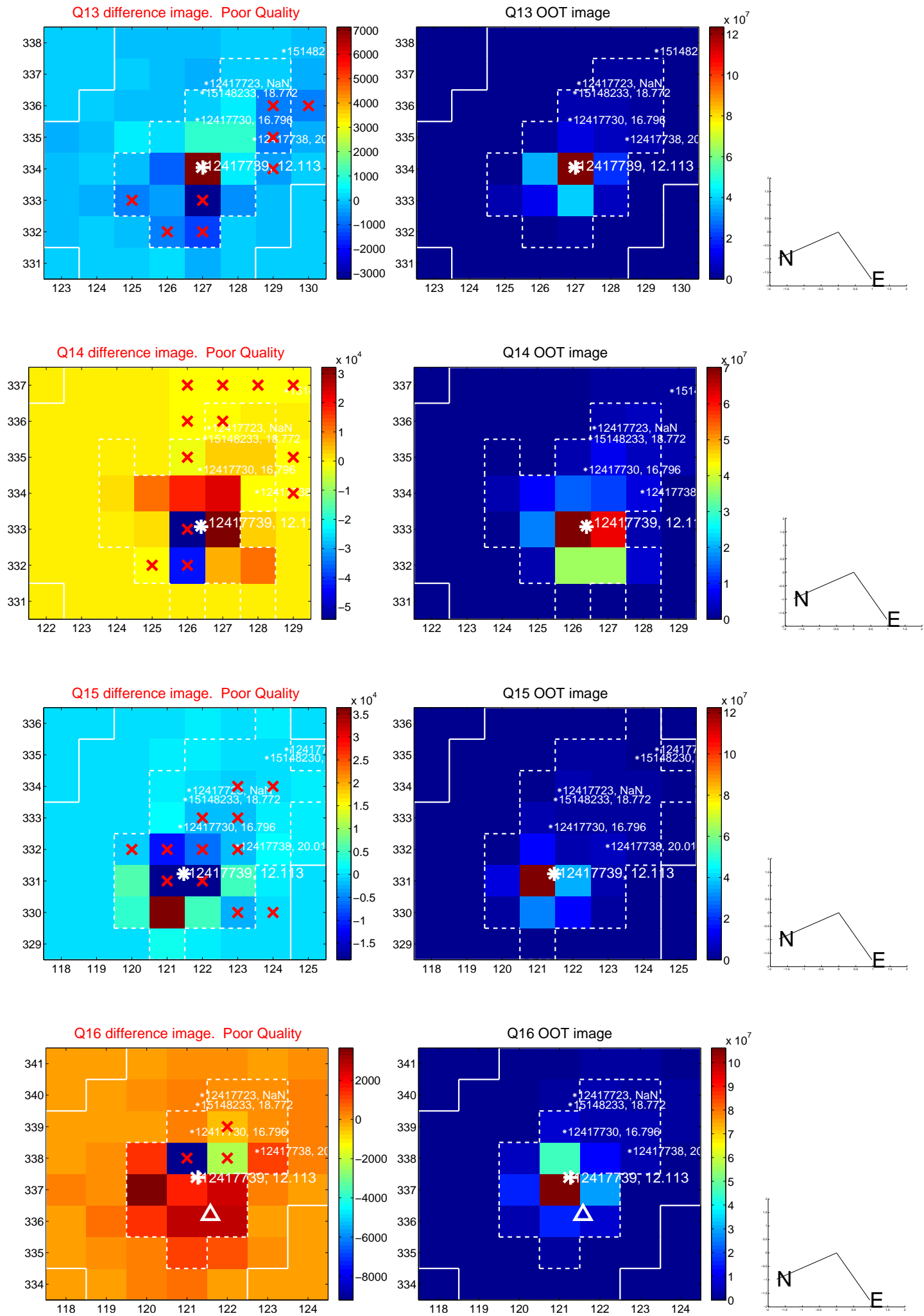
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



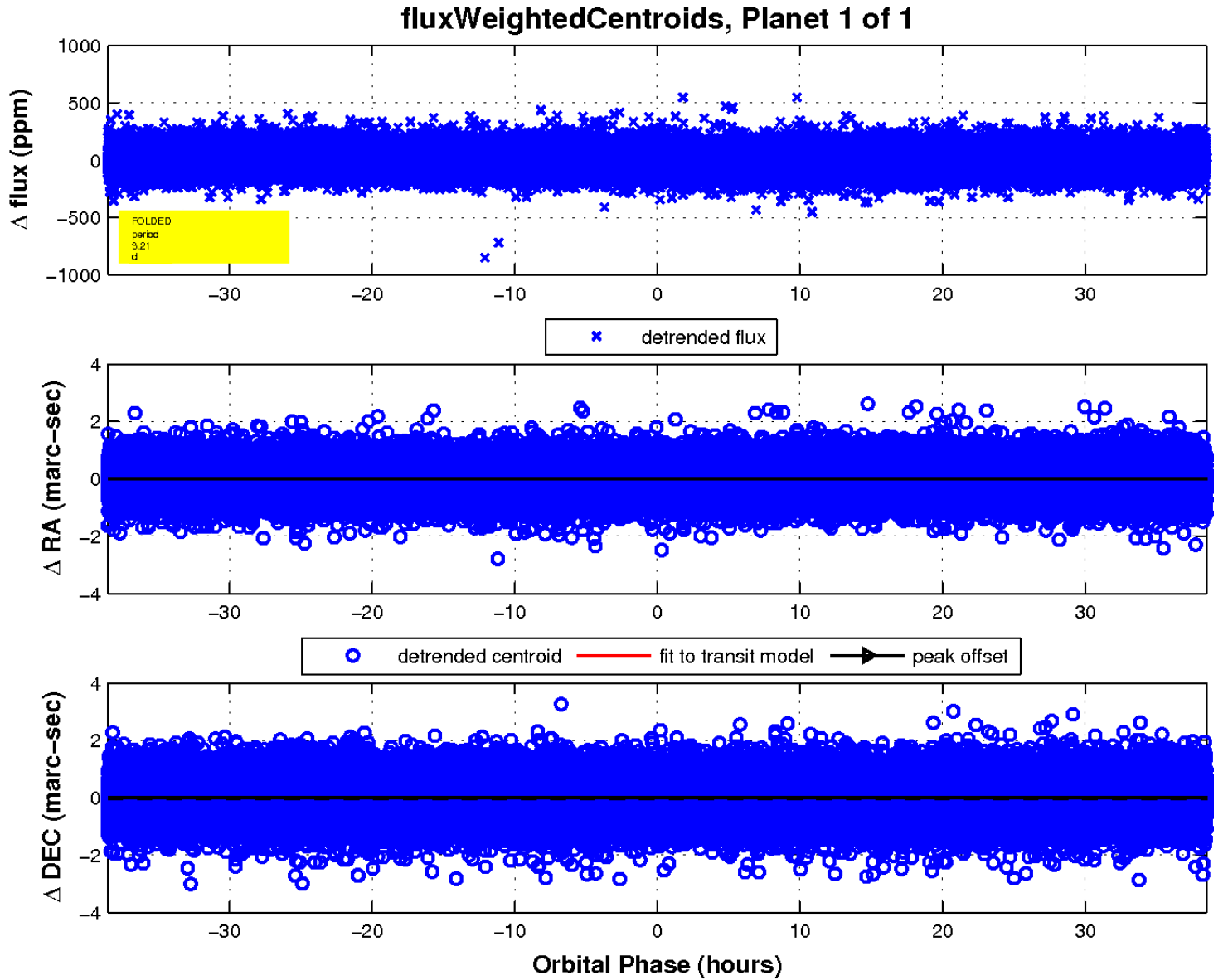
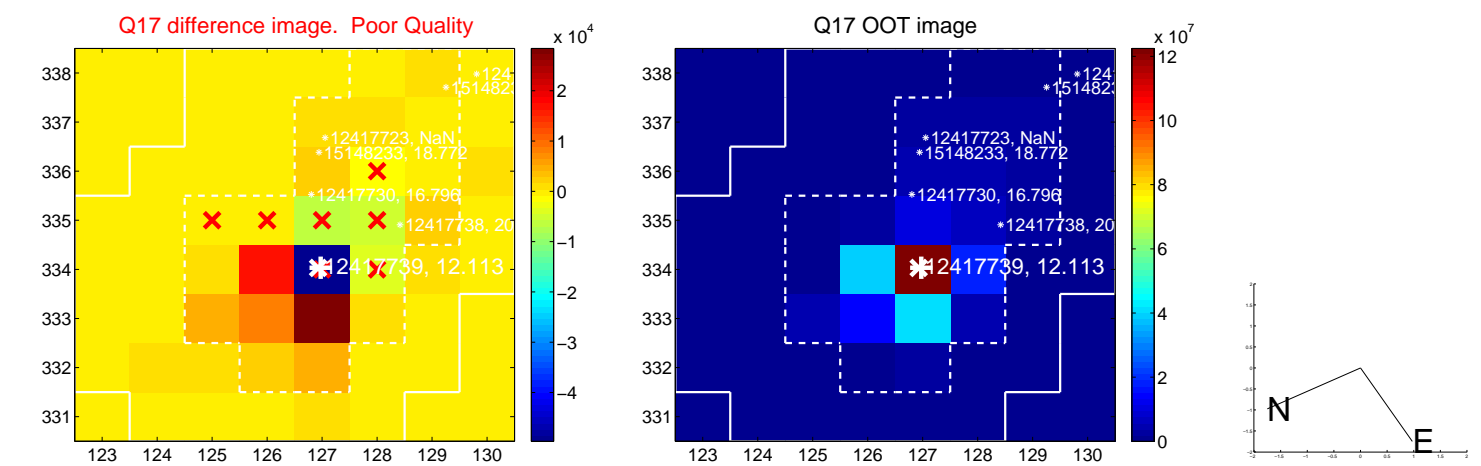
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

