

KIC 005389234

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})
005389234-01	OBS	No	0.823818	132.164481	288.9	9.886	12.4	18.6	1.61	7223	3.17	16920.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005389234-01	OBS	FP	0.00	1	0	0	0	LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

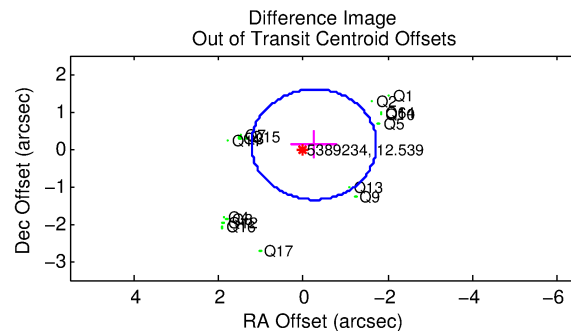
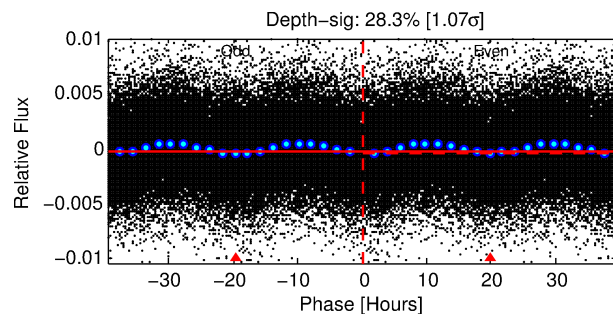
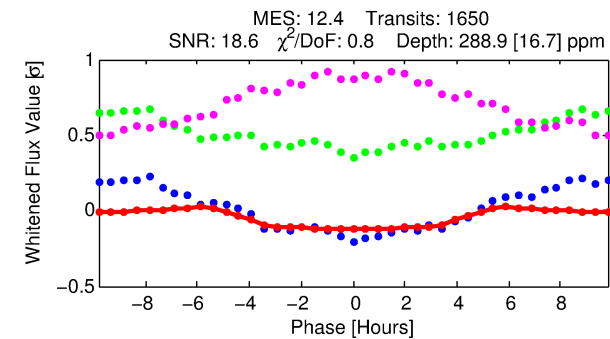
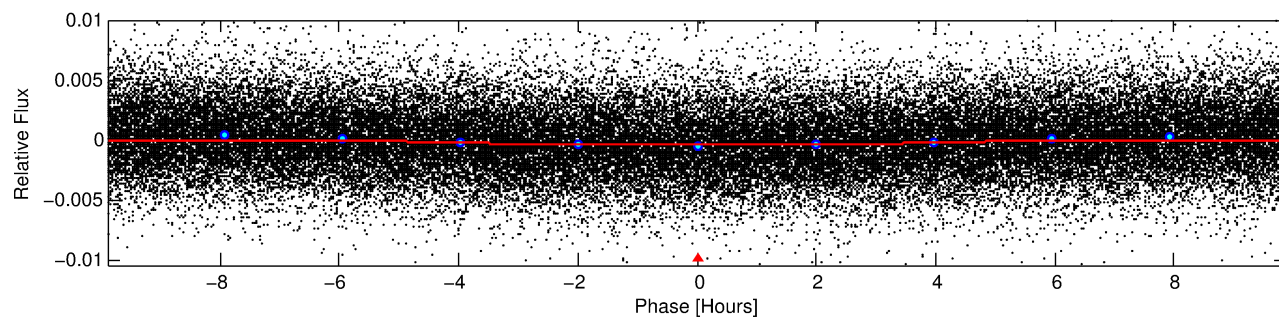
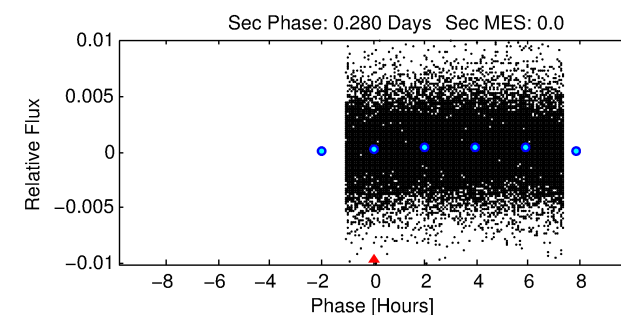
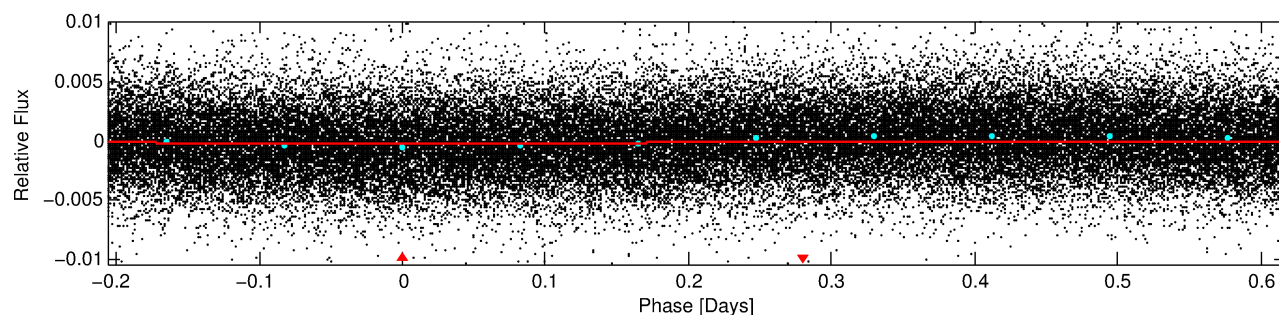
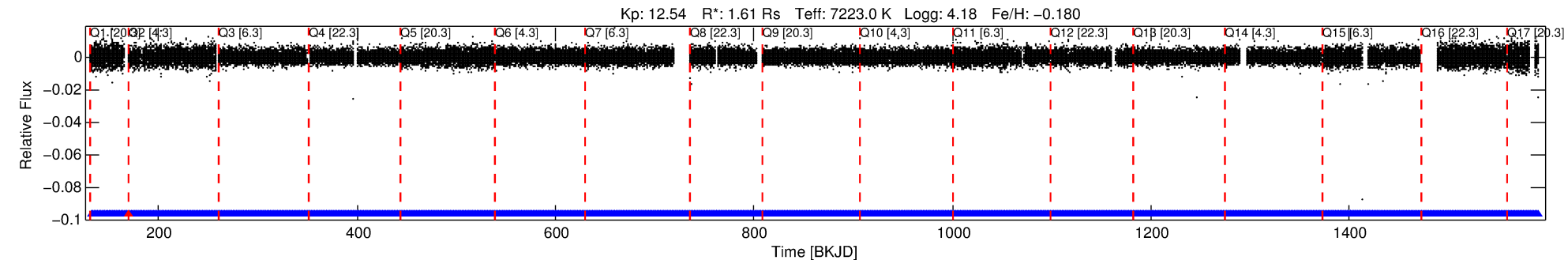
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005389234-01

No Significant Match Found

DV One-Page Summary

KIC: 5389234 Candidate: 1 of 1 Period: 0.824 d



DV Fit Results:

Period = 0.82382 [0.00001] d
Epoch = 132.1645 [0.0066] BKJD
Rp/R* = 0.0180 [0.0014]
a/R* = 1.00 [0.00]
b = 0.90 [0.10]
Seff = 16920.47 [6744.97]
Teq = 2908 [290] K
Rp = 3.18 [1.07] Re
a = 0.0194 [0.0051] AU
Ag = N/A
Teffp = N/A

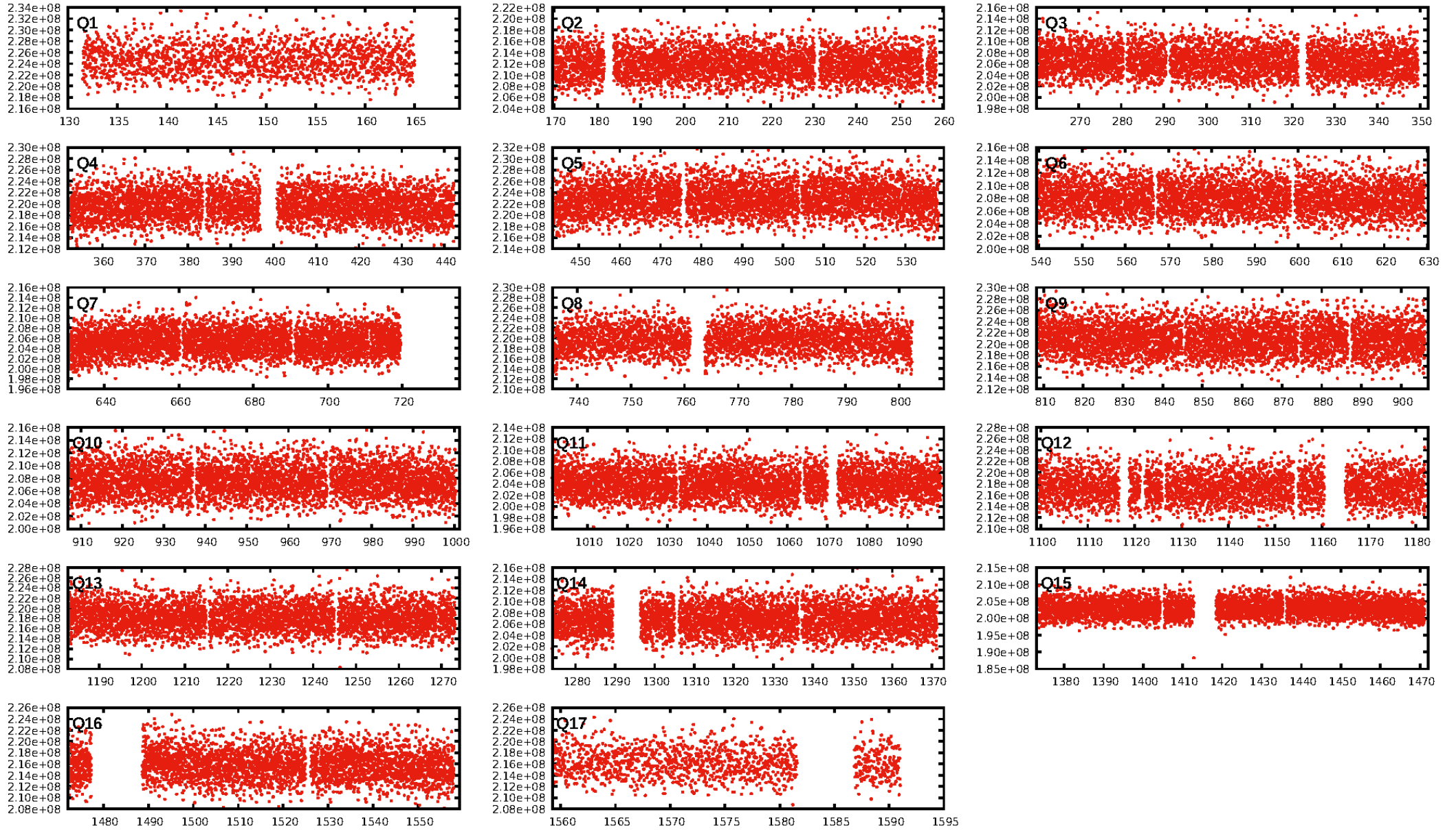
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1574/1575]
GhostDiagnostic-chr: 1.432
Centroid-sig: 0.5%
Centroid-so: 0.150 arcsec [3.75σ]
OotOffset-rm: 0.284 arcsec [0.58σ]
KicOffset-rm: 0.396 arcsec [0.83σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

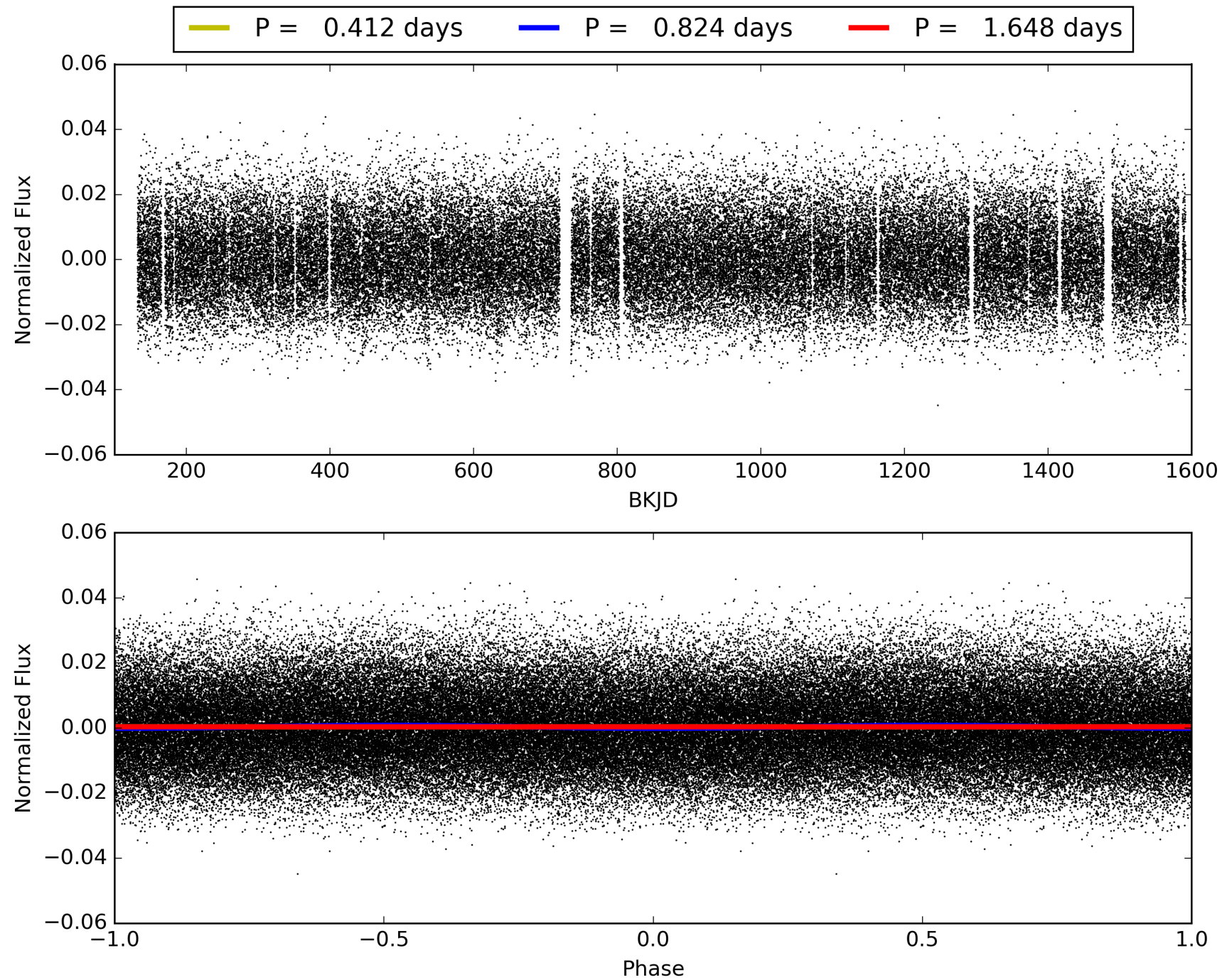
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:40:11 Z

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

TCE 005389234-01, PDC Light Curves

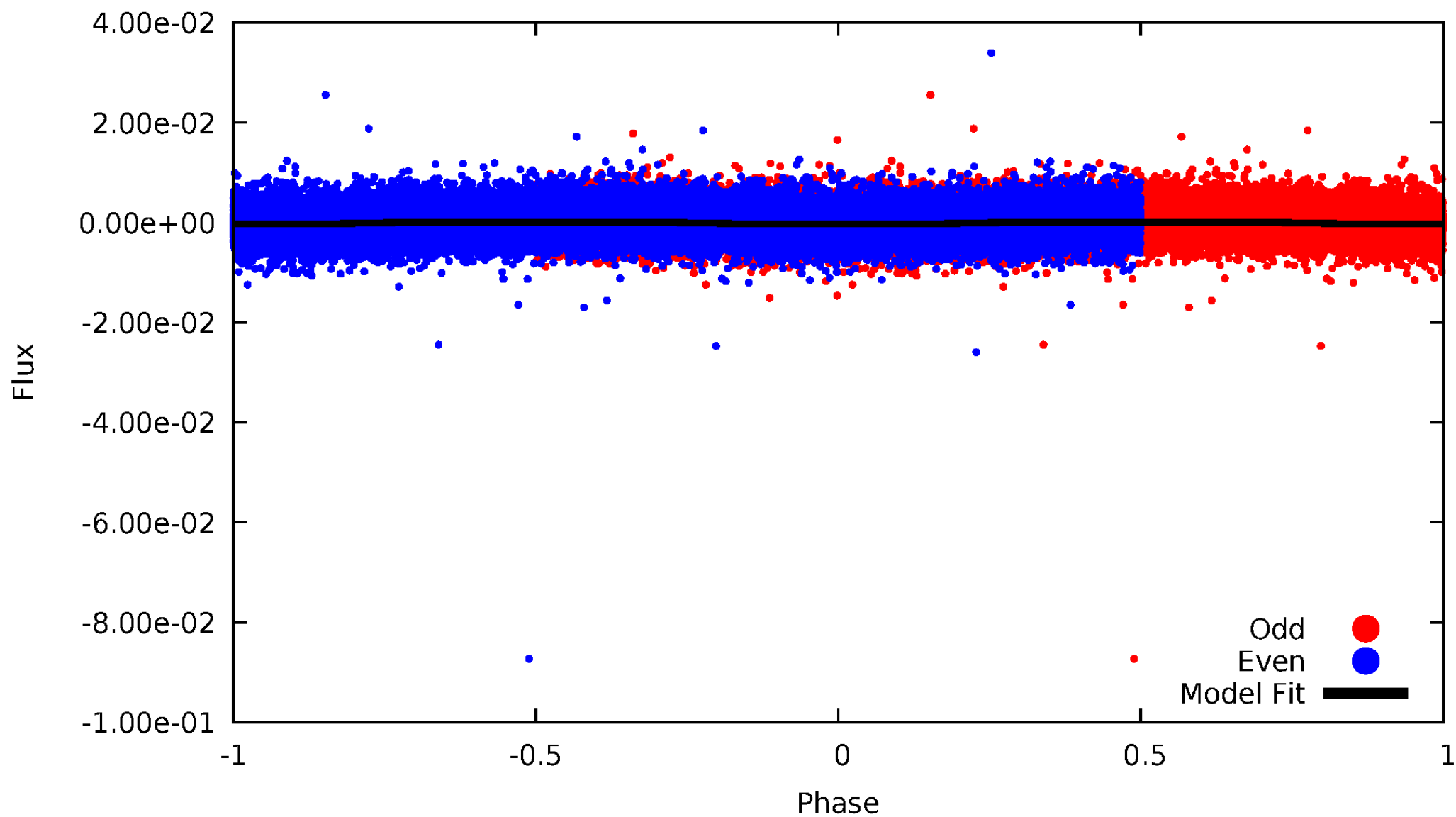


TCE 005389234-01



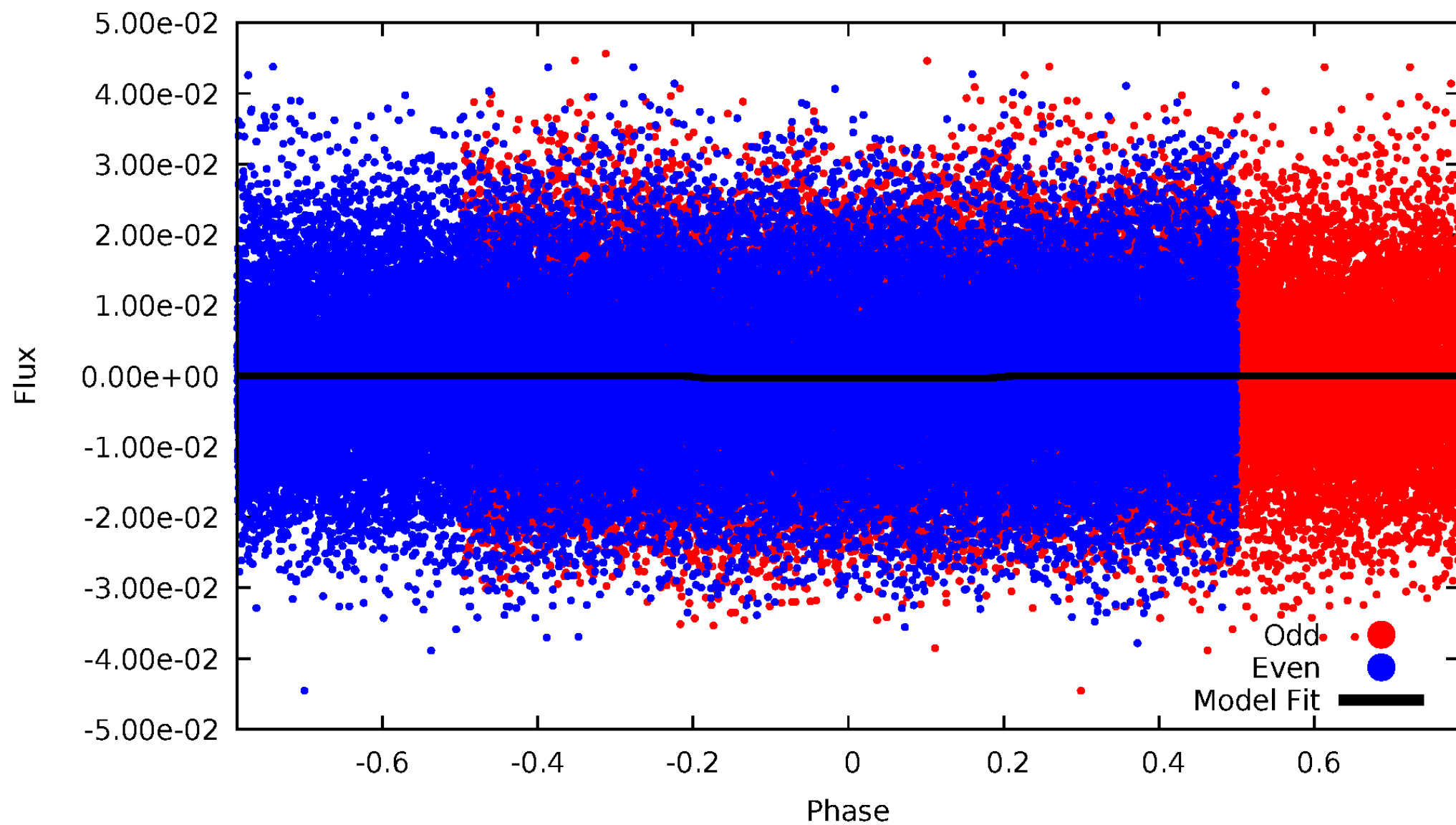
DV Odd/Even

TCE 005389234-01



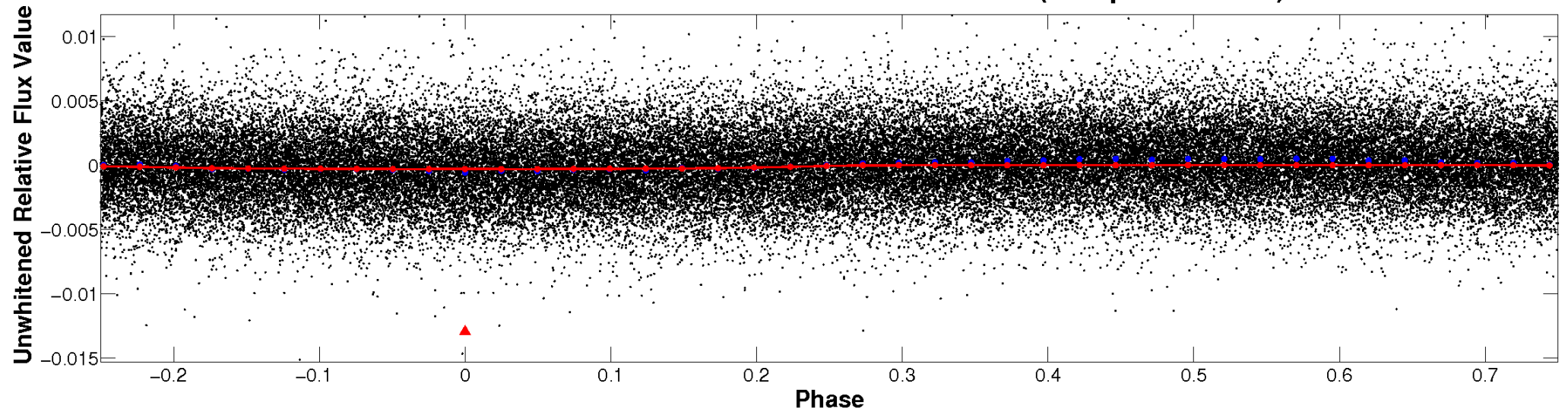
ALT Odd/Even

TCE 005389234-01

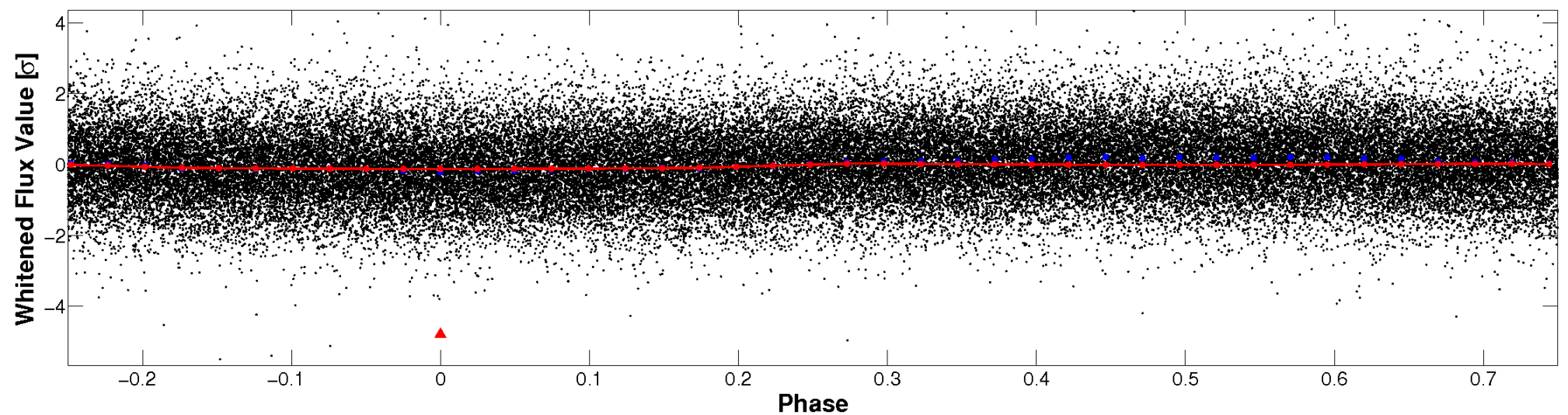


Non-Whitened Vs. Whitened Light Curve

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

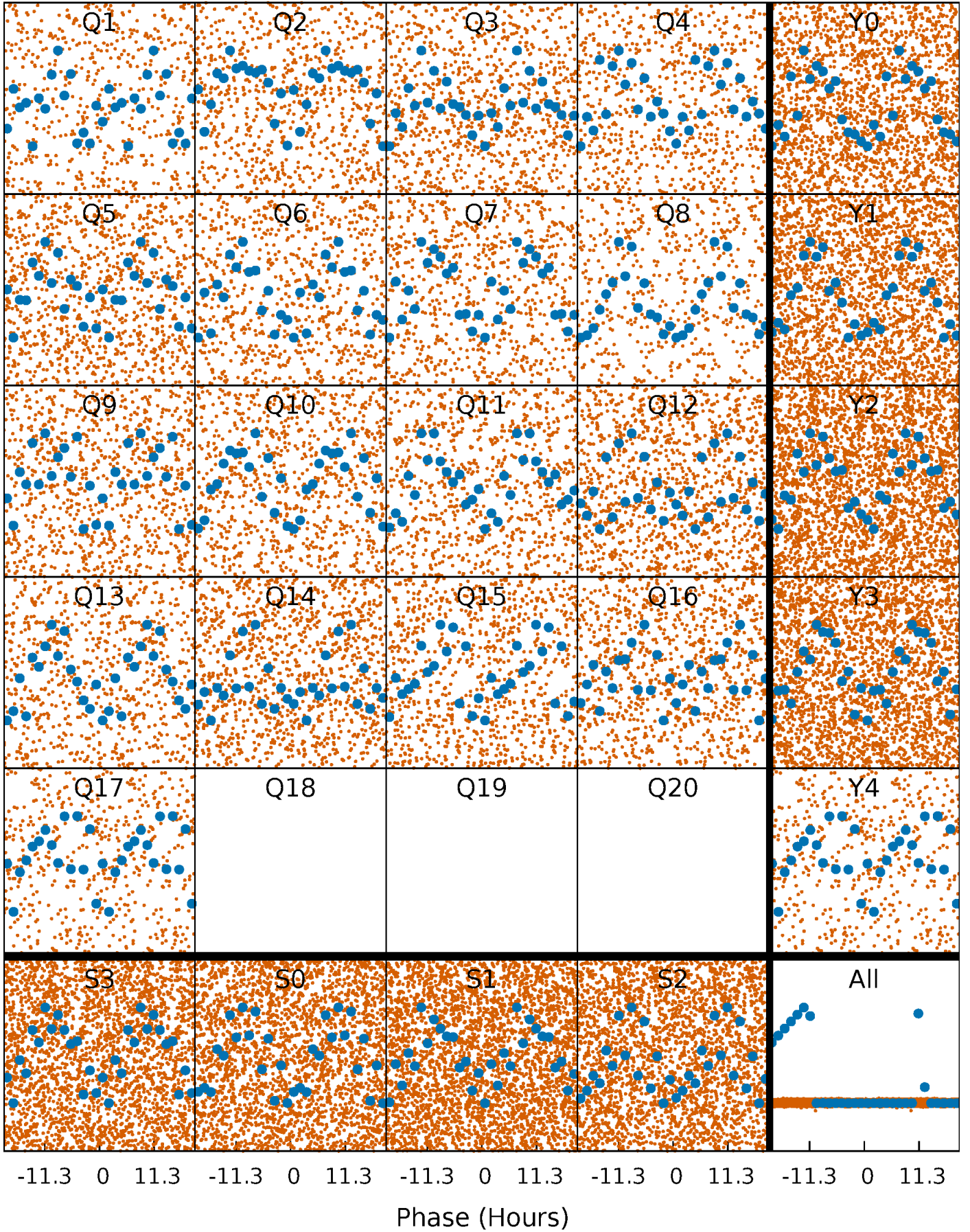


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



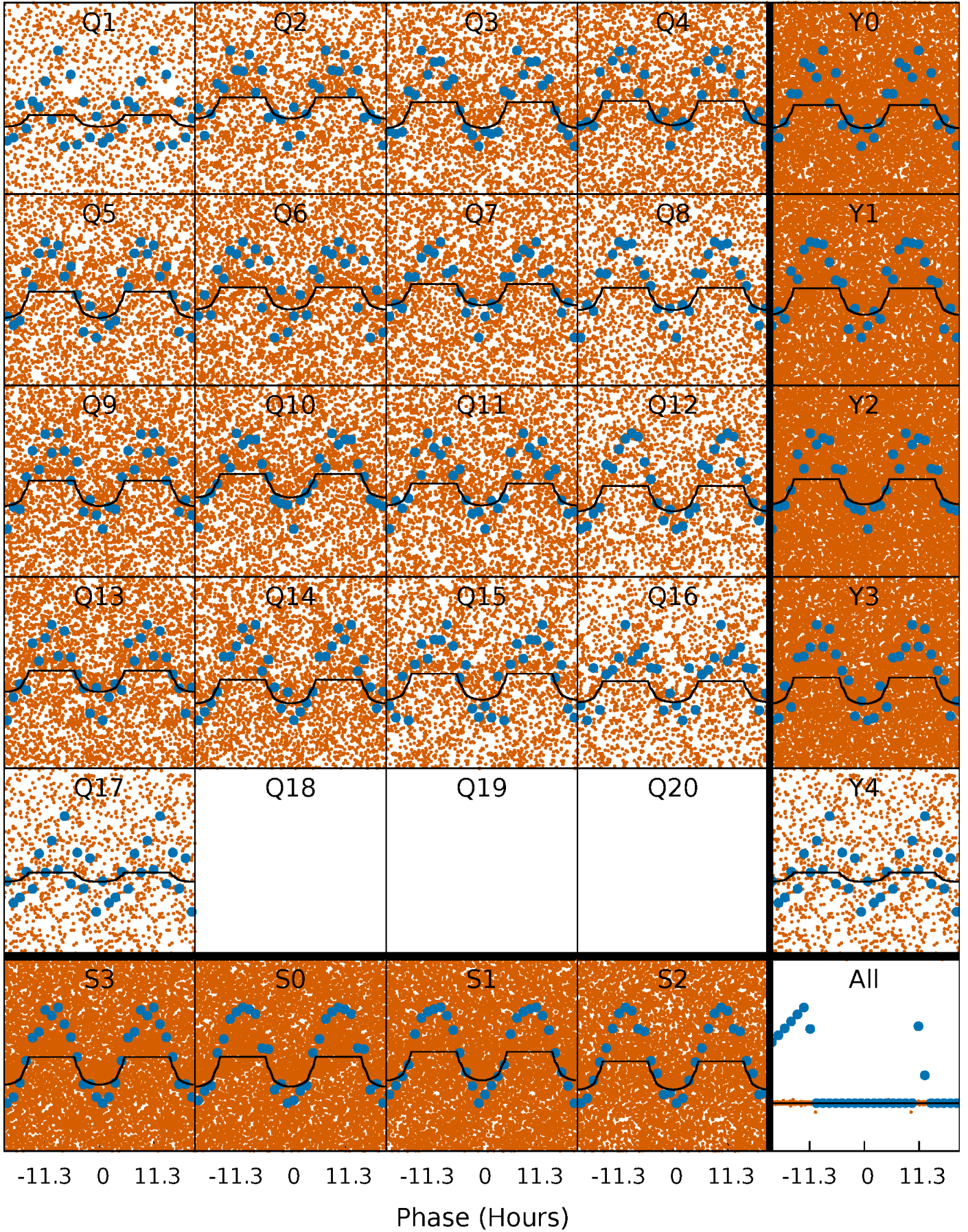
PDC Quarter-Phased Transit Curves

TCE 005389234-01 P= 0.823818 Days $T_0=132.164481$ (BKJD)



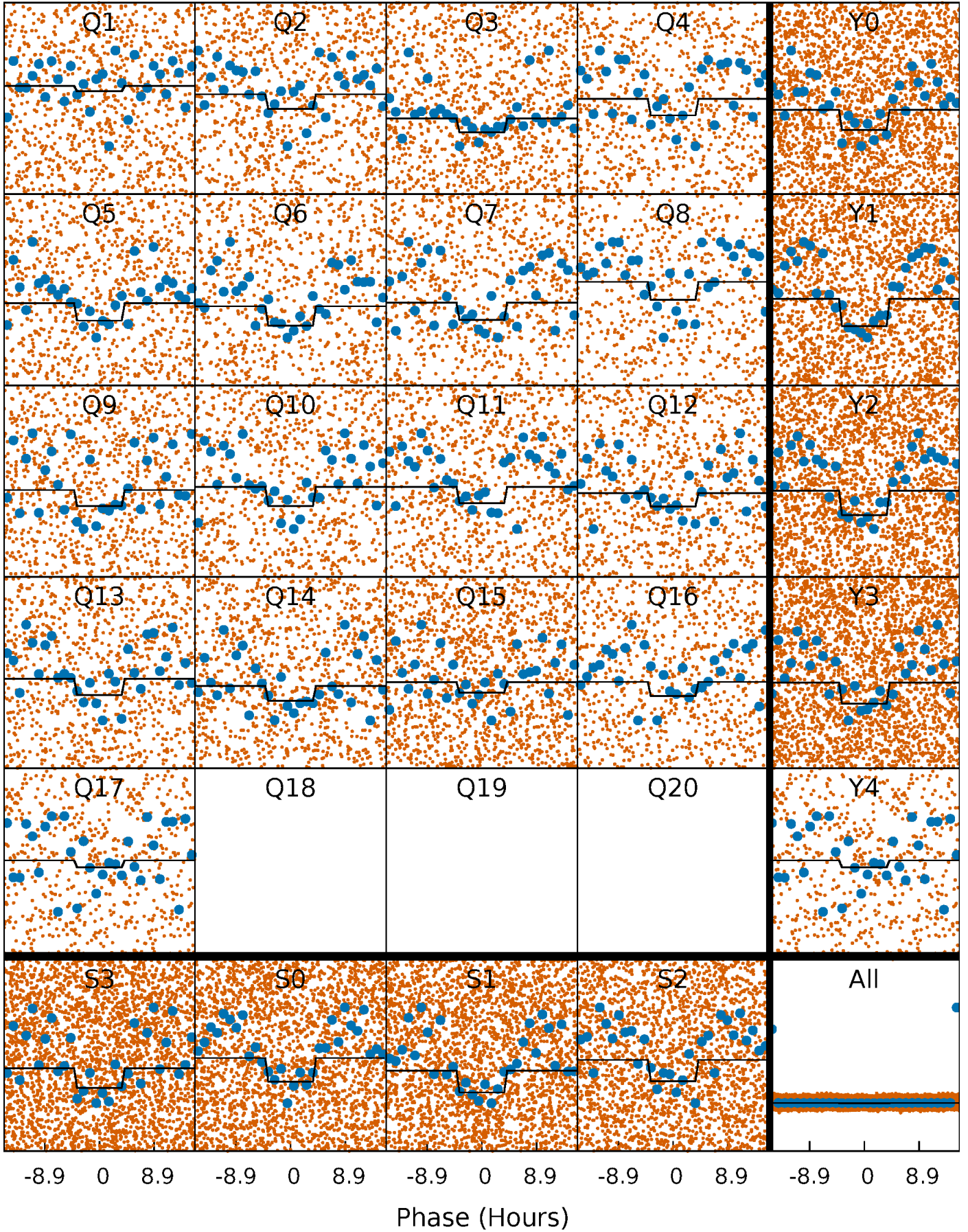
DV Quarter-Phased Transit Curves

TCE 005389234-01 P= 0.823818 Days $T_0=132.164481$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

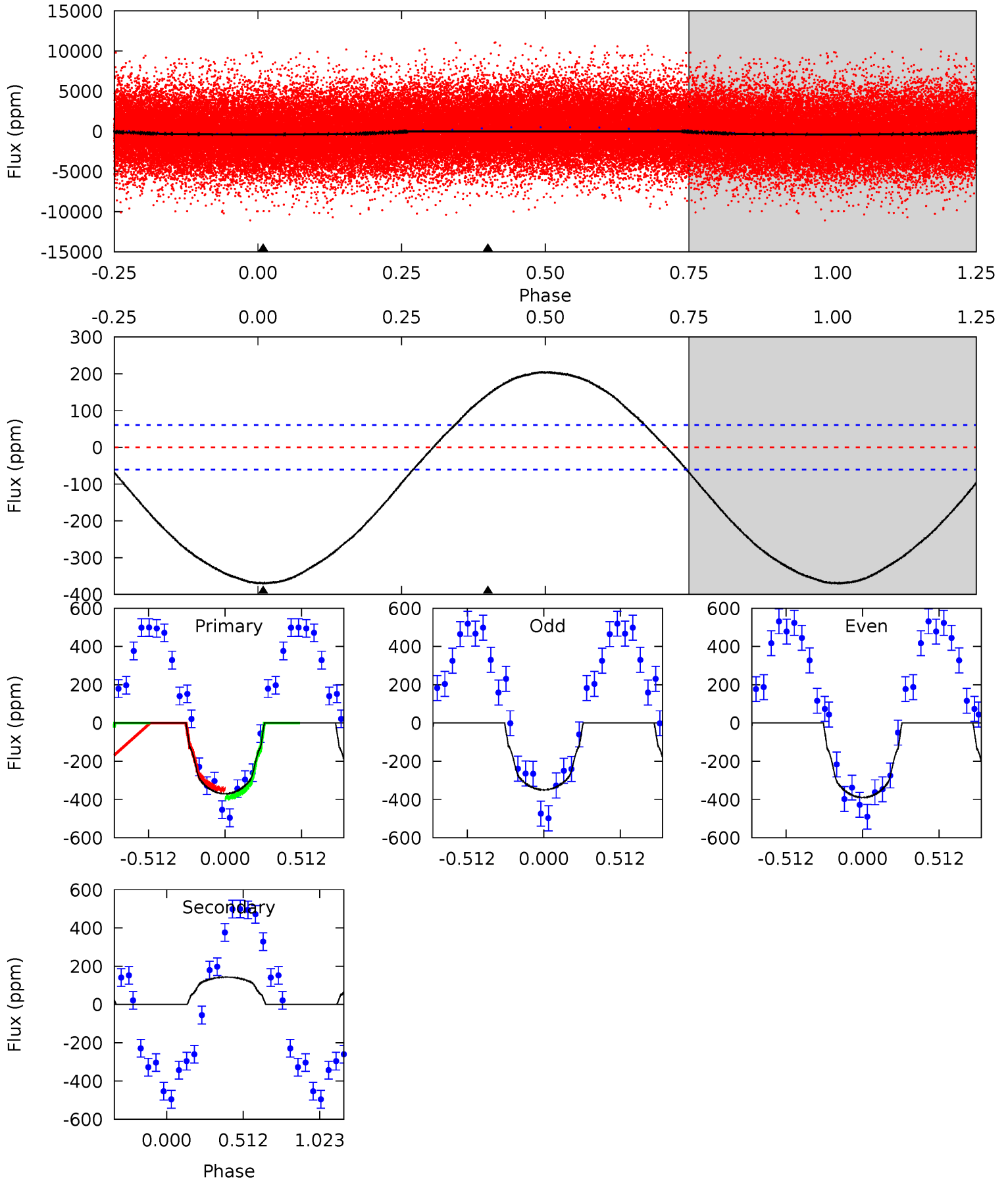
TCE 005389234-01 P= 0.823857 Days $T_0=132.144655$ (BKJD)



DV Model-Shift Uniqueness Test

005389234-01, P = 0.823818 Days, E = 131.340663 Days

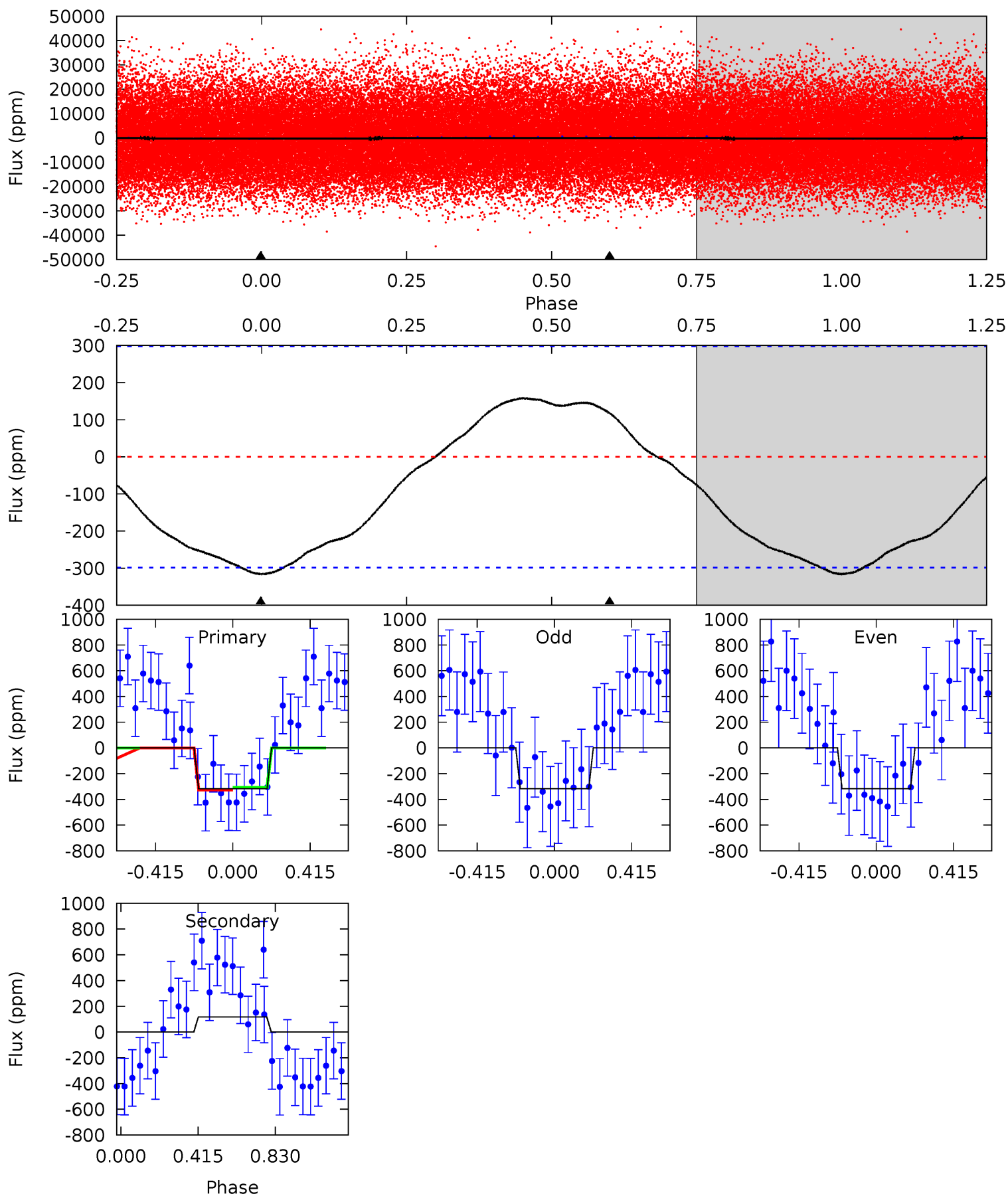
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.7	-9.95	0	0	4.21	0.66	3.43	25.7	25.7	-9.95	-9.95	1.39	0.90	0.36	1.43



Alt Model-Shift Uniqueness Test

005389234-01, P = 0.823857 Days, E = 131.320798 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.52	-1.67	0	0	4.26	0.81	0.49	4.52	4.52	-1.67	-1.67	0.00	1.16	0.33	0.14



Stellar Parameters For KIC 005389234

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7223^{+228}_{-279}	$4.177^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.350}$	$1.613^{+0.531}_{-0.327}$	$1.429^{+0.219}_{-0.219}$	$0.480^{+0.304}_{-0.251}$
	+3%/-4%	+3%/-5%	+139%/-194%	+33%/-20%	+15%/-15%	+63%/-52%
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 005389234-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	143 ± 14	$3.17^{+0.58}_{-0.45}$	4076^{+309}_{-265}	-5956^{+305}_{-328}	$-2.823^{+0.731}_{-1.065}$
Alt.	117 ± 70	$3.18^{+0.57}_{-0.43}$	4099^{+313}_{-260}	-5708^{+943}_{-761}	$-2.209^{+1.470}_{-2.005}$

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 $A_{obs} \gg 1.0$

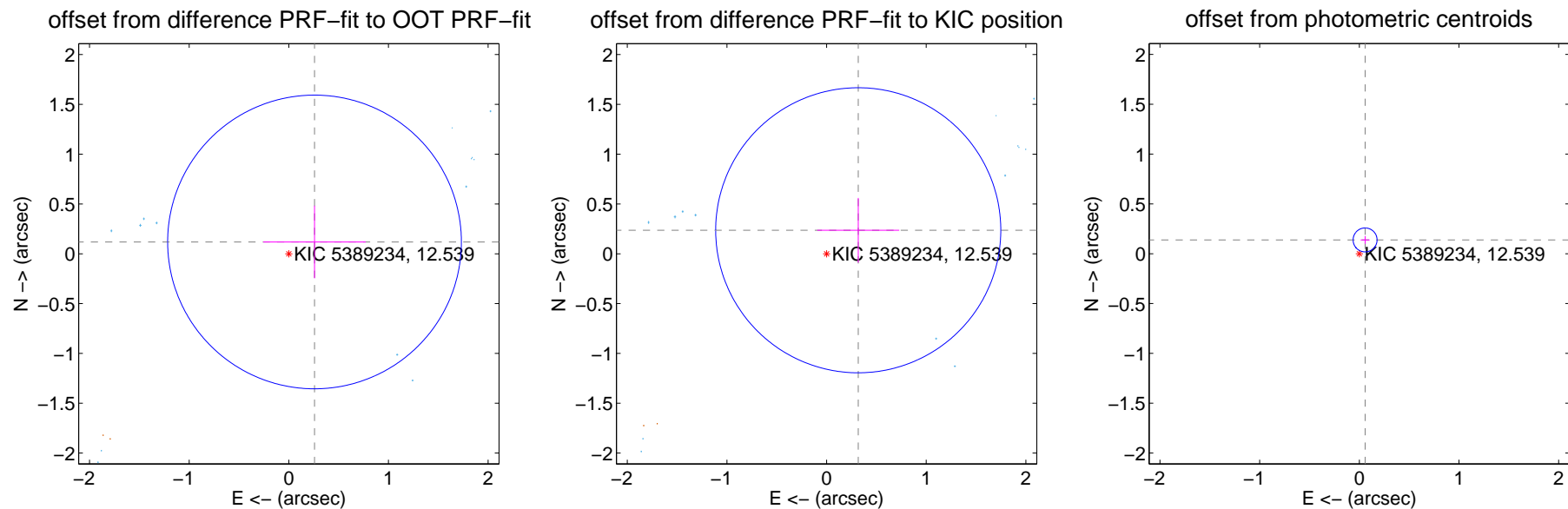
DV Centroid Data

Supplemental centroid analysis for 005389234-01. Kepler magnitude: 12.54. Transit SNR 18.57

There are 15 quarters with good PRF difference image offsets

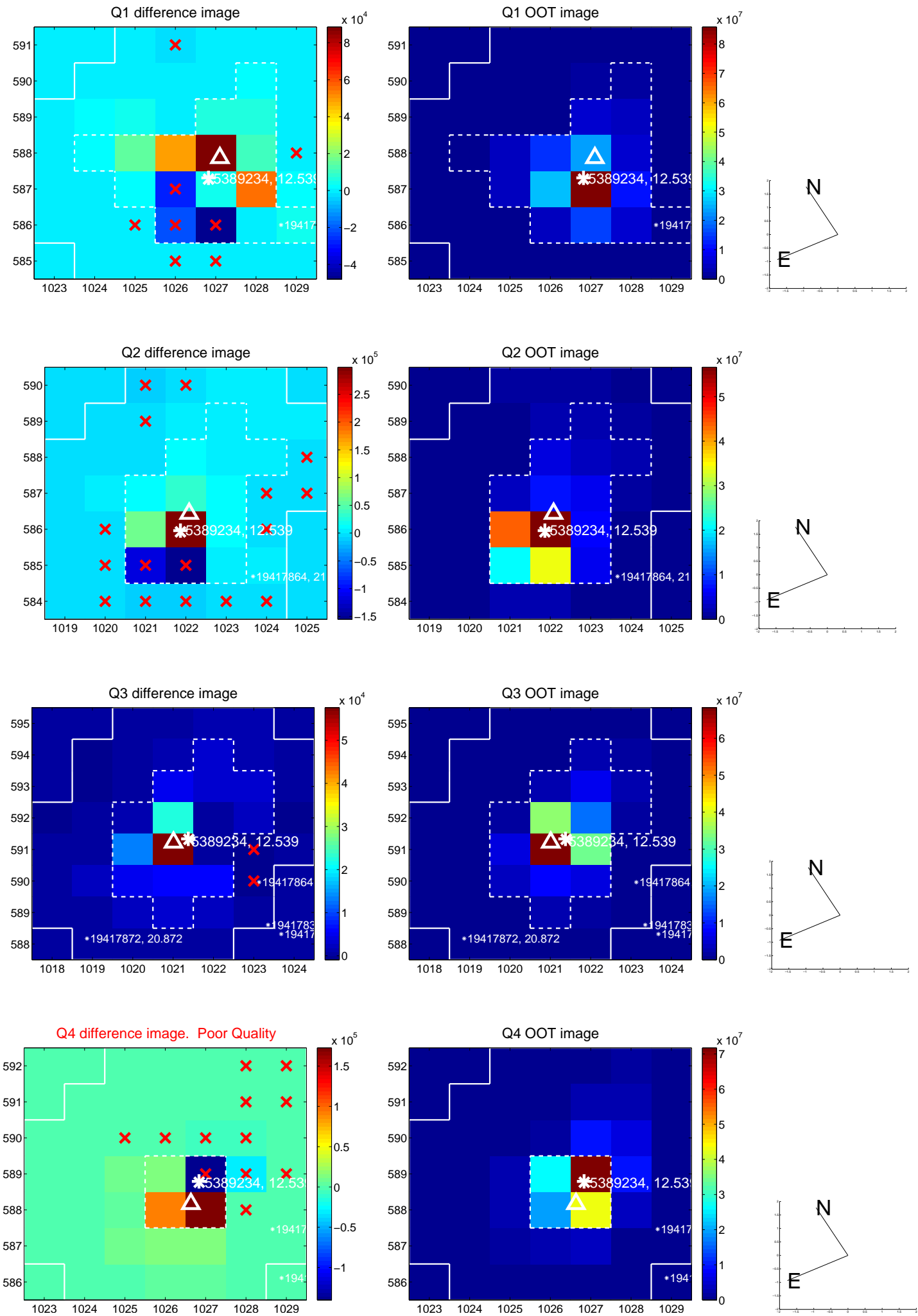
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.284 ± 0.491	0.58	-0.258 ± 0.514	0.119 ± 0.364
PRF-fit source offset from KIC position	0.396 ± 0.477	0.83	-0.318 ± 0.412	0.236 ± 0.325
photometric centroid source offset	0.15 ± 0.04	3.75	-0.06 ± 0.04	0.14 ± 0.04

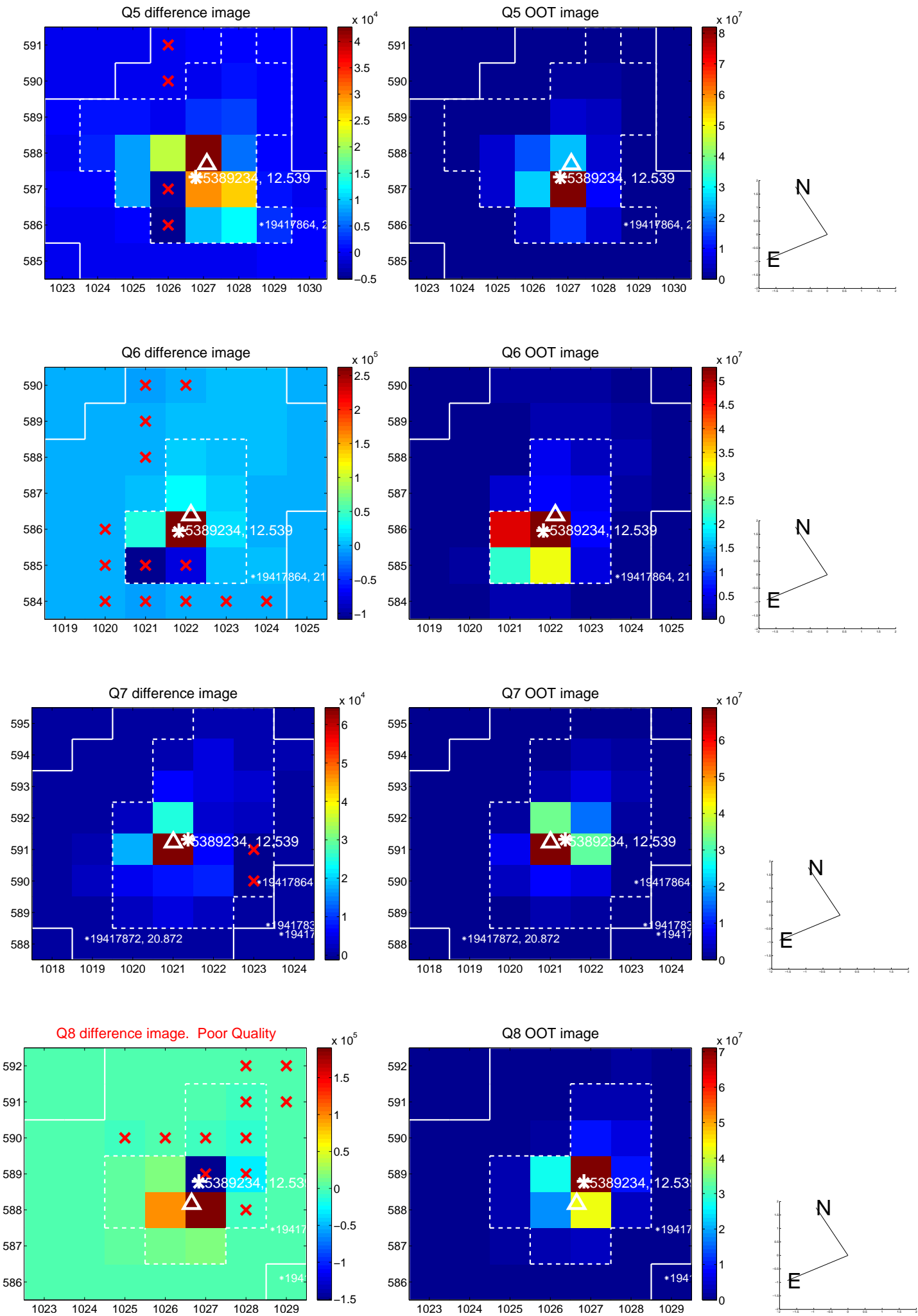


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

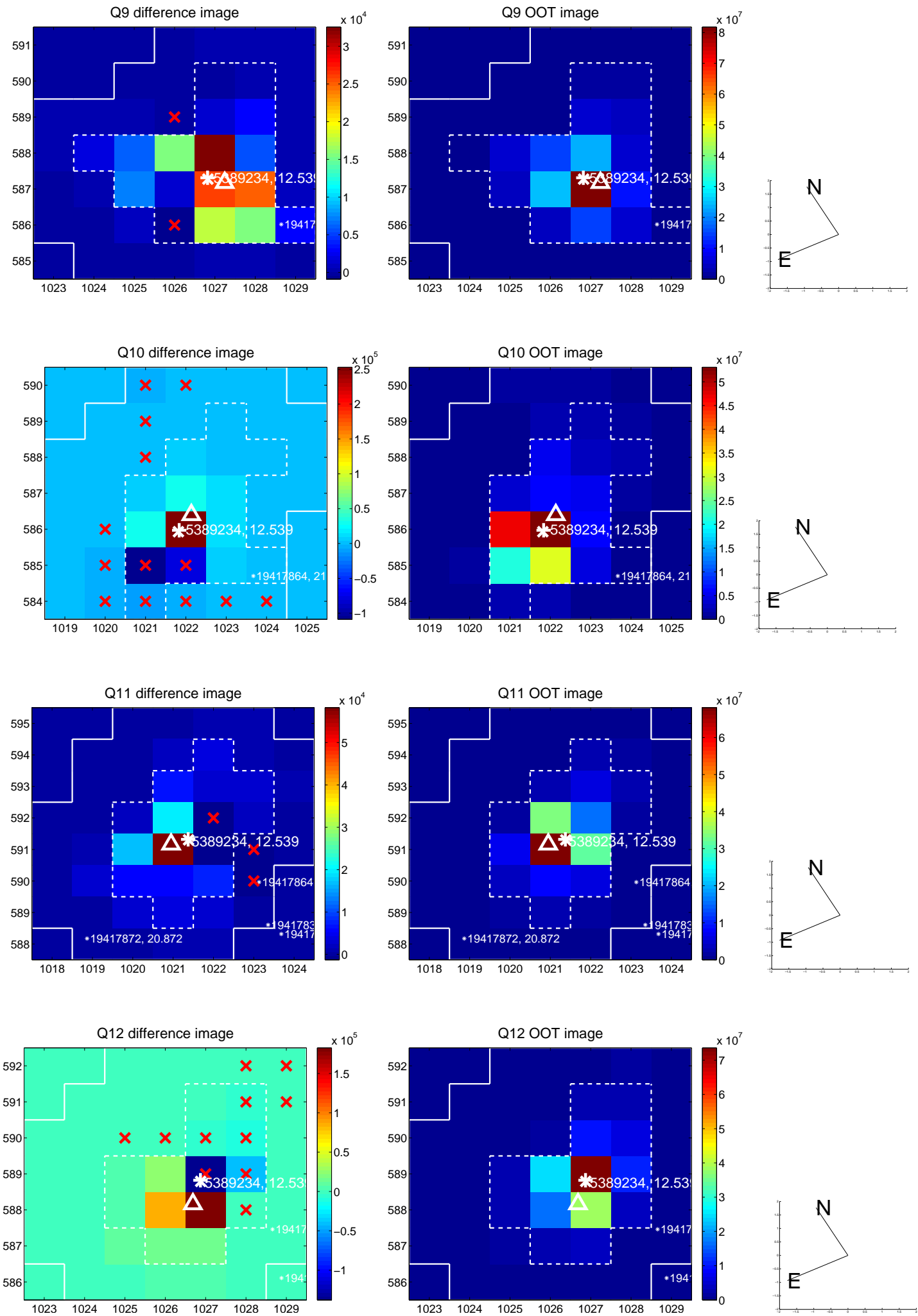
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



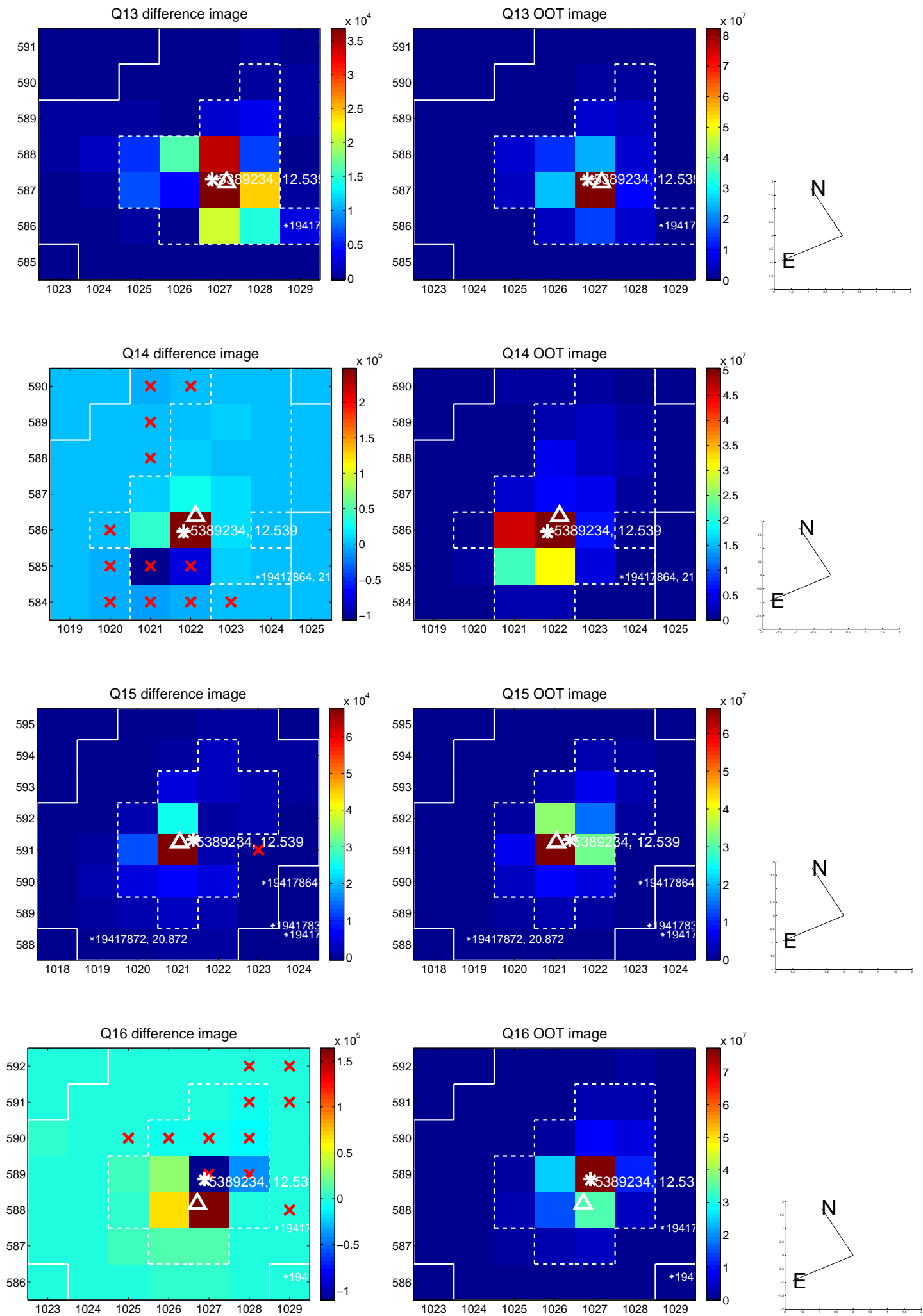
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



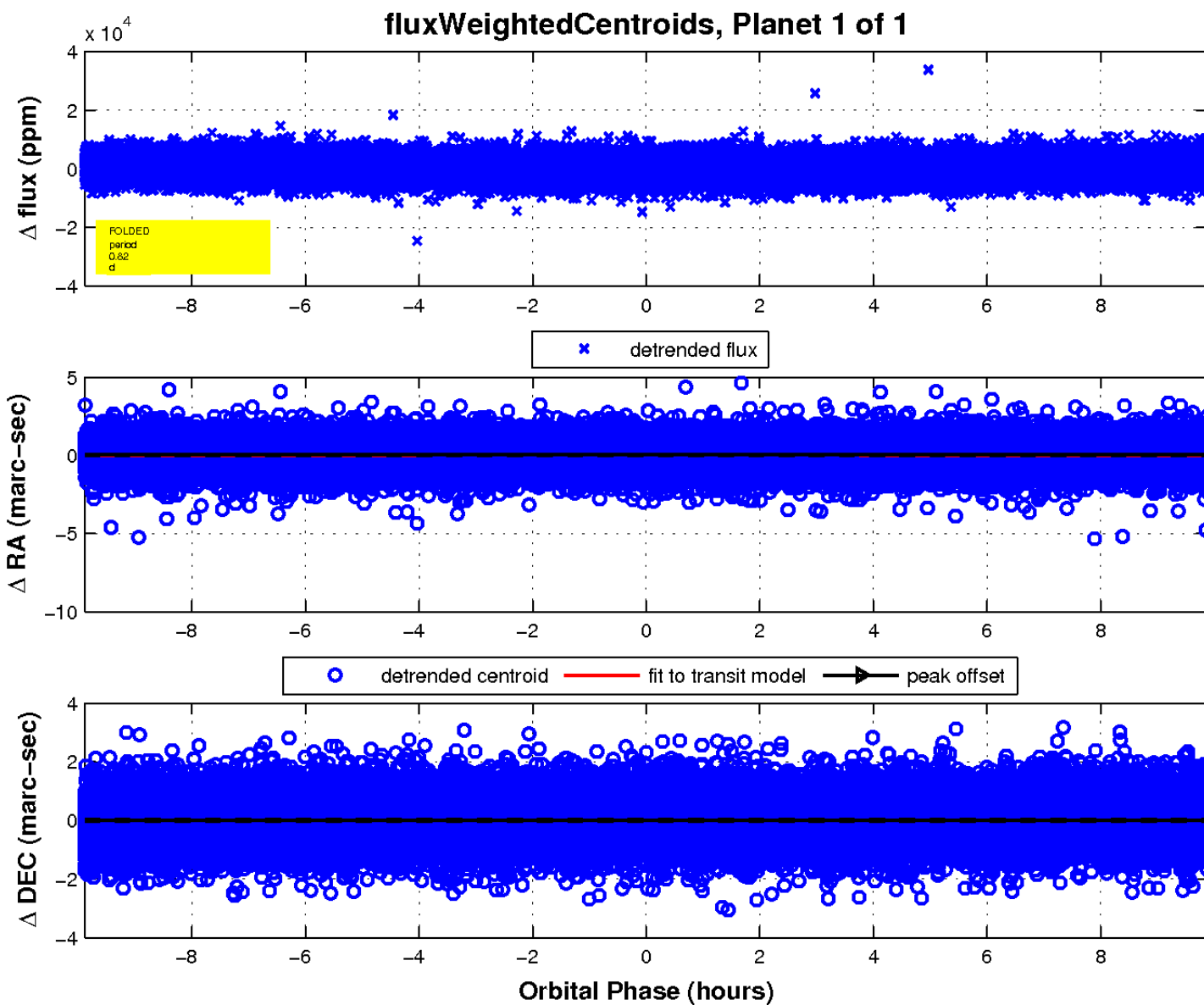
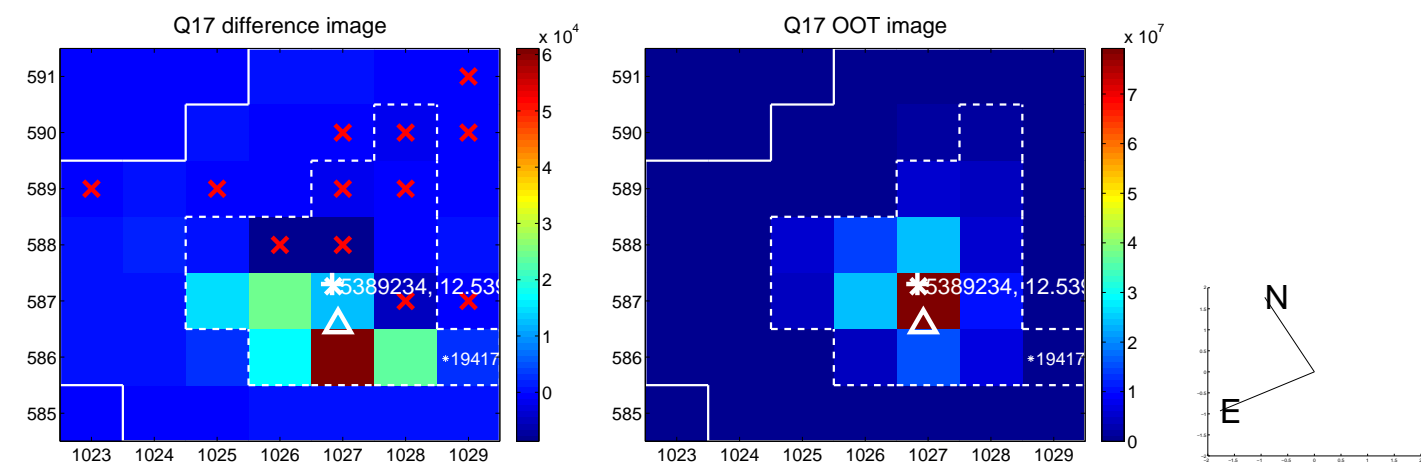
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

