

KIC 005255939

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})
005255939-01	OBS	No	1.520122	131.544527	213.8	3.000	7.9	-1.0	3.41	6619	5.03	21219.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005255939-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

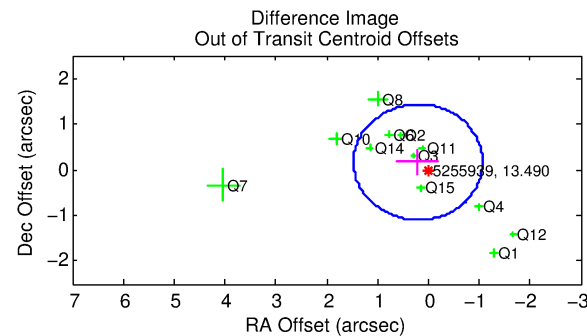
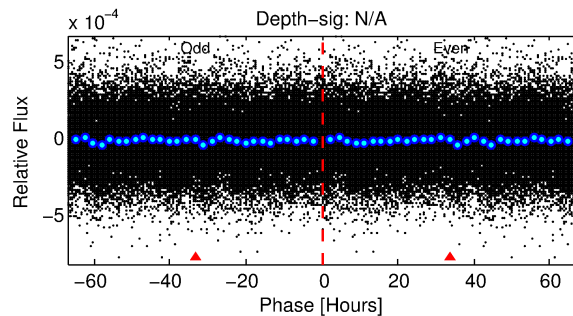
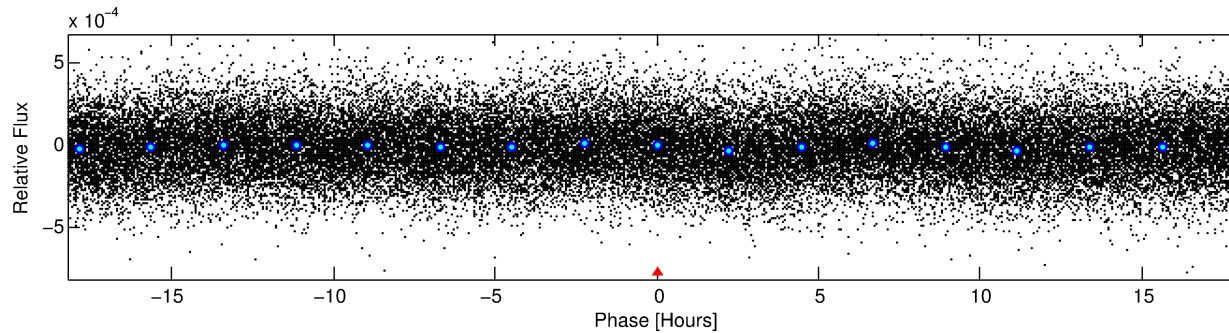
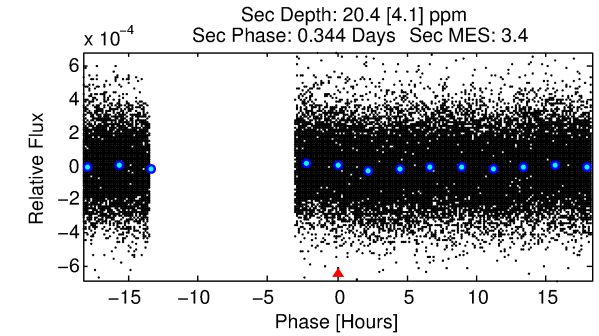
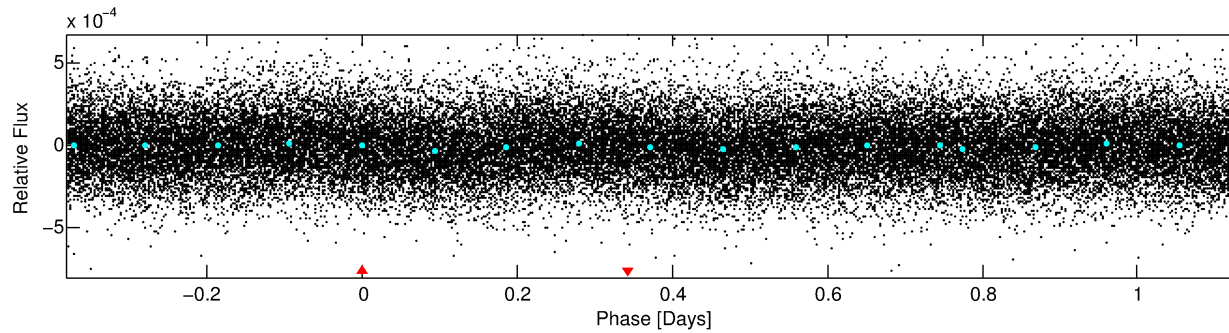
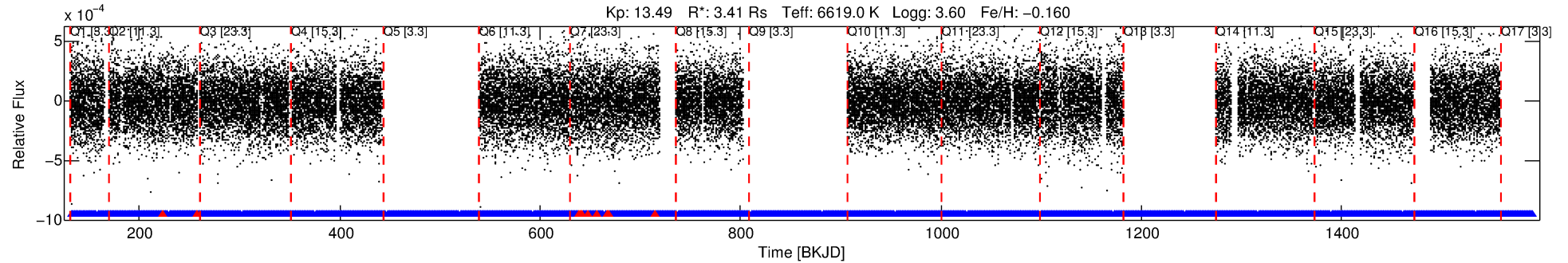
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005255939-01

No Significant Match Found

DV One-Page Summary

KIC: 5255939 Candidate: 1 of 1 Period: 1.520 d



TPS TCE Results:

Period = 1.52012 d
Epoch = 131.5445 BKJD

DV fit results are unavailable

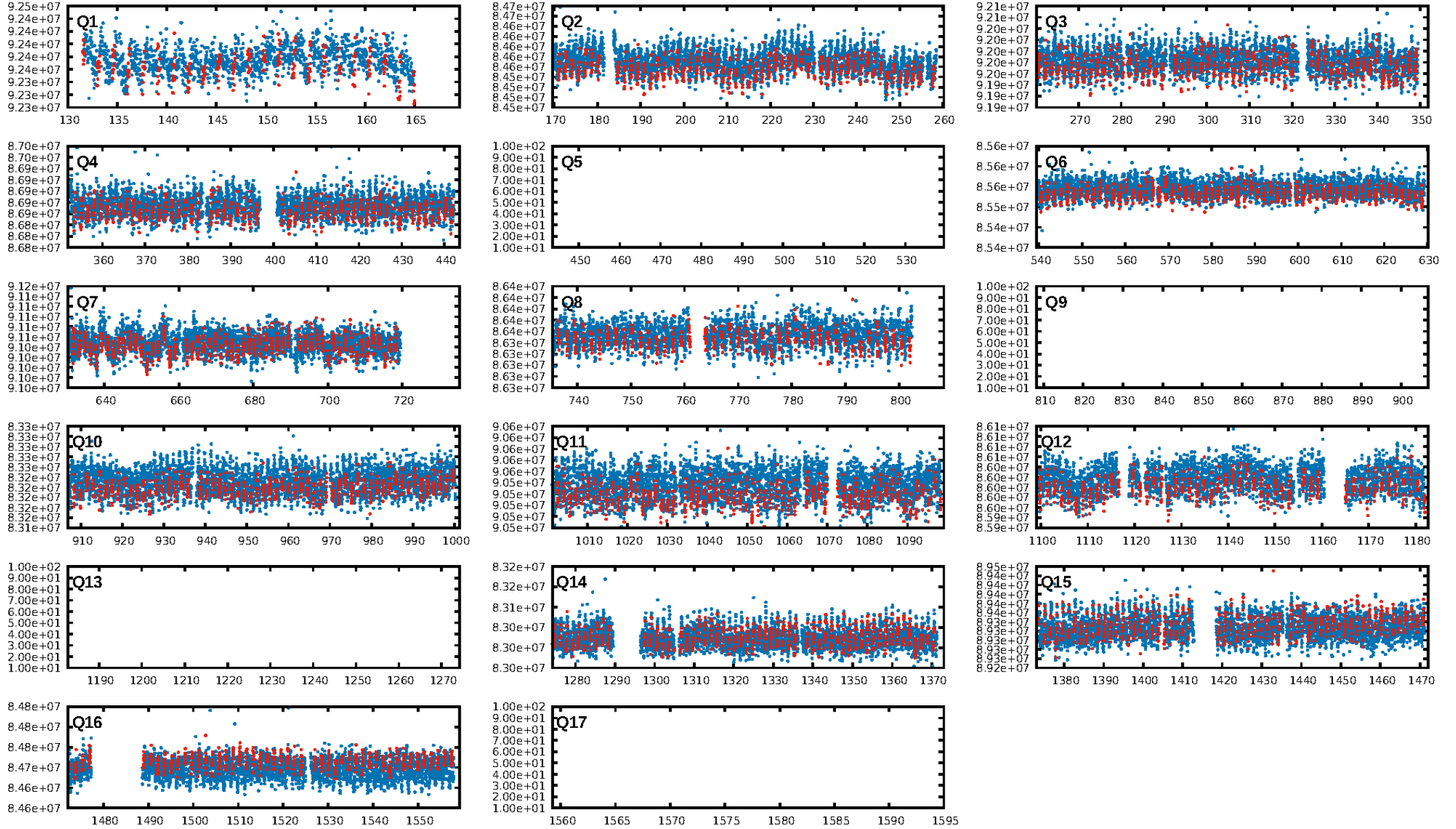
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.50e-13
RollingBand-fgt: 0.99 [659/669]
GhostDiagnostic-chr: 1.1
Centroid-sig: 85.3%
Centroid-so: 0.108 arcsec [0.54 σ]
OotOffset-rm: 0.264 arcsec [0.63 σ]
KicOffset-rm: 0.314 arcsec [0.93 σ]
OotOffset-st: 4/4/3/1 [12]
KicOffset-st: 4/4/3/1 [12]
DiffImageQuality-fgm: 0.83 [10/12]
DiffImageOverlap-fno: 1.00 [13/13]

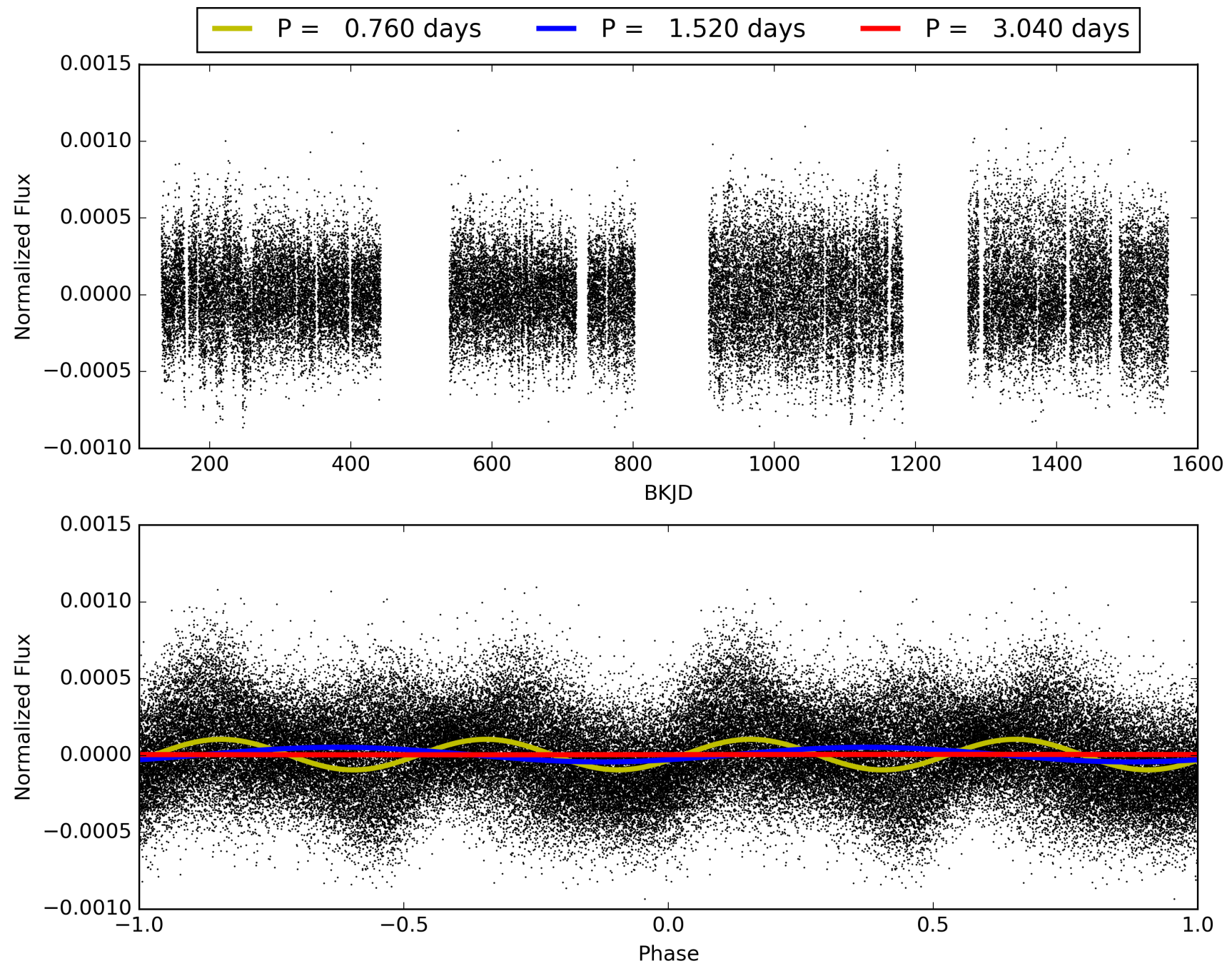
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:44:36 Z

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

TCE 005255939-01, PDC Light Curves

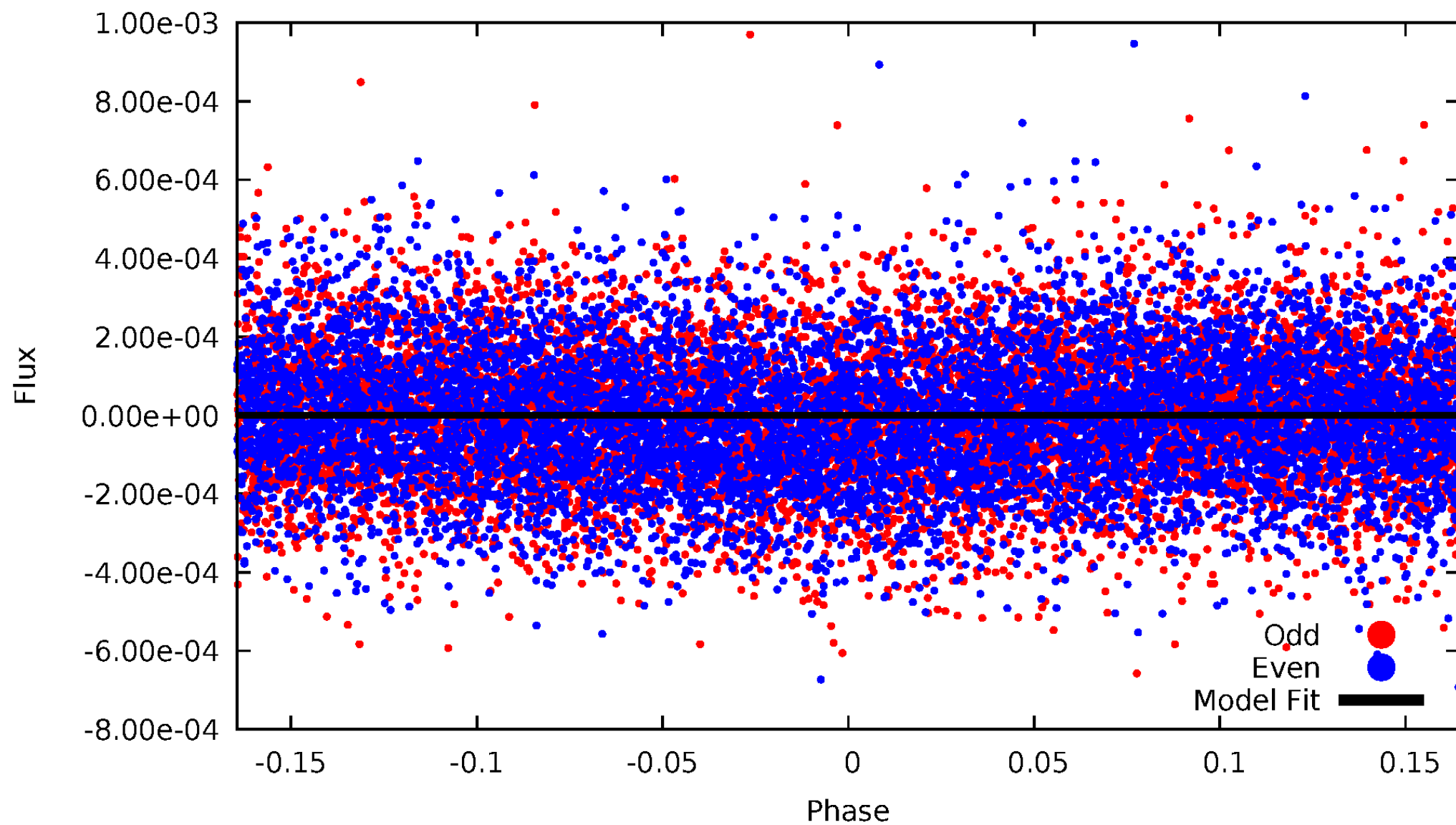


TCE 005255939-01



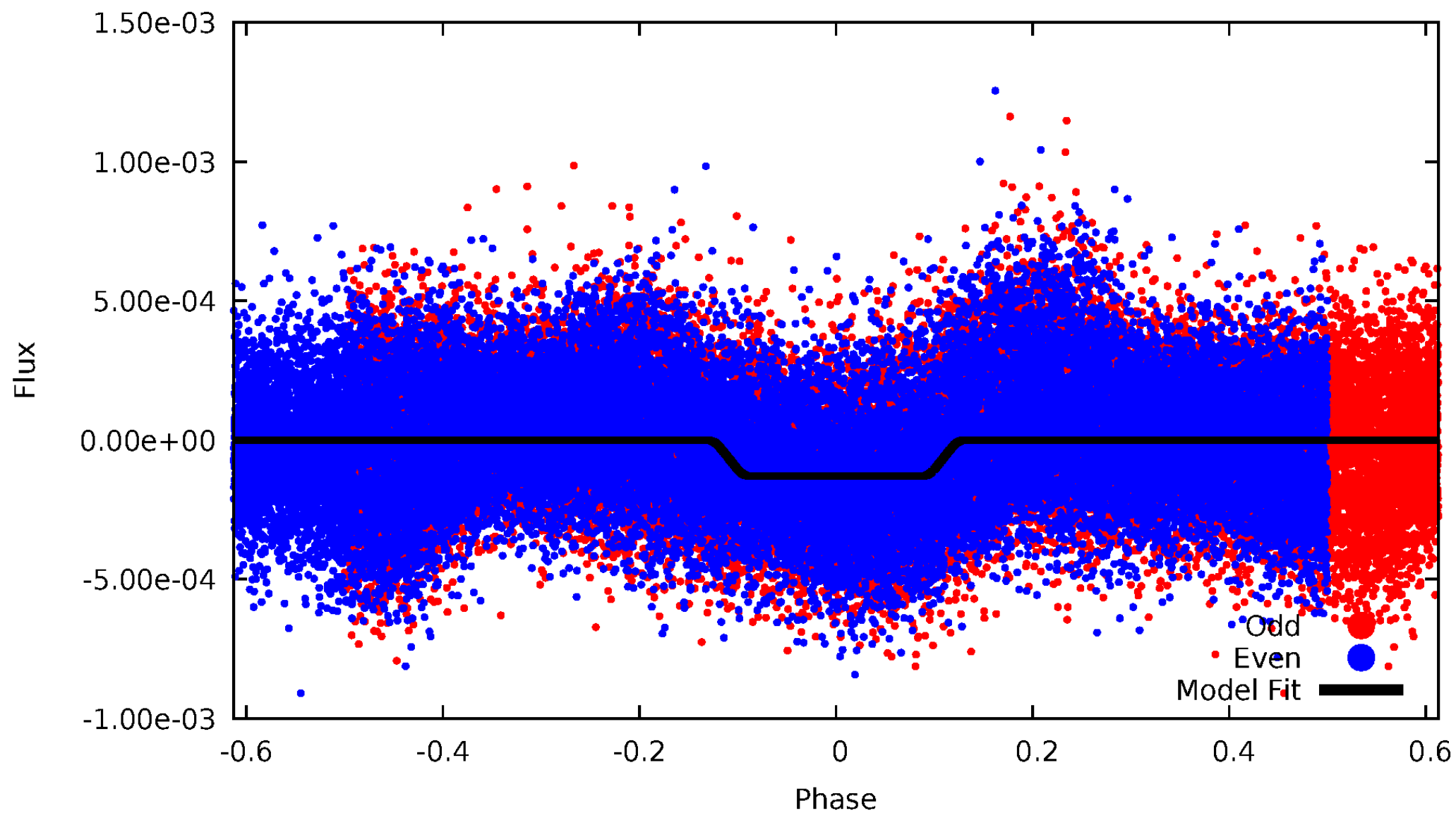
DV Odd/Even

TCE 005255939-01



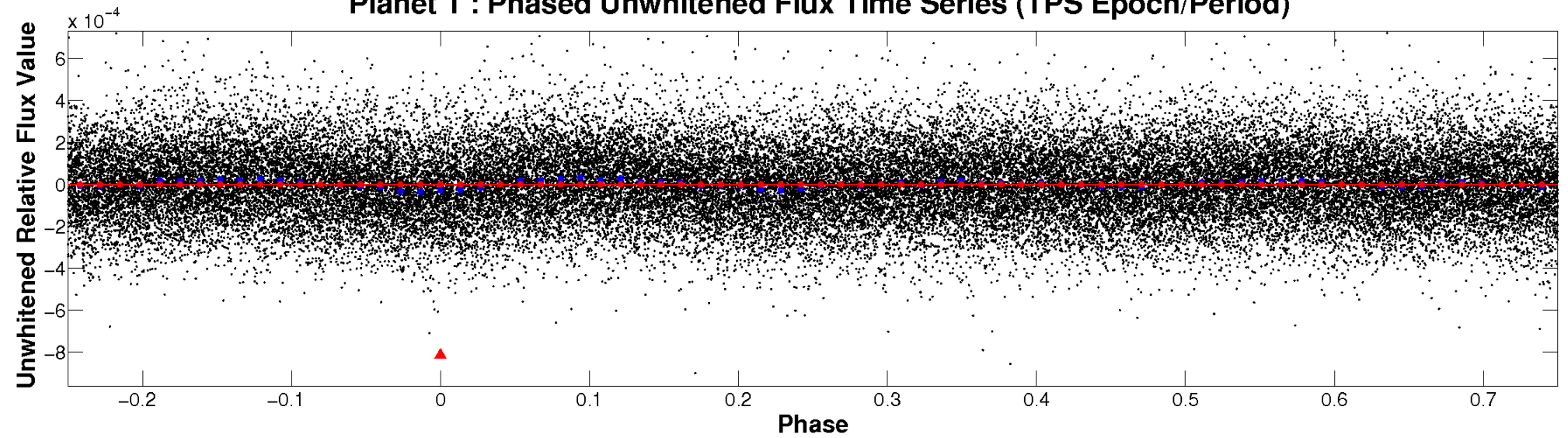
ALT Odd/Even

TCE 005255939-01

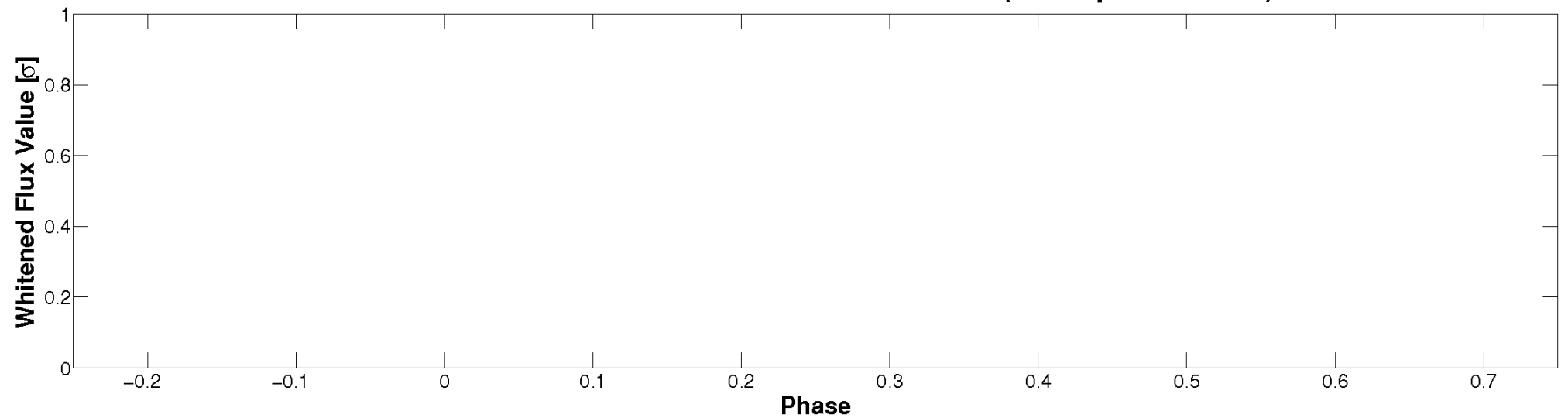


Non-Whitened Vs. Whitened Light Curve

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

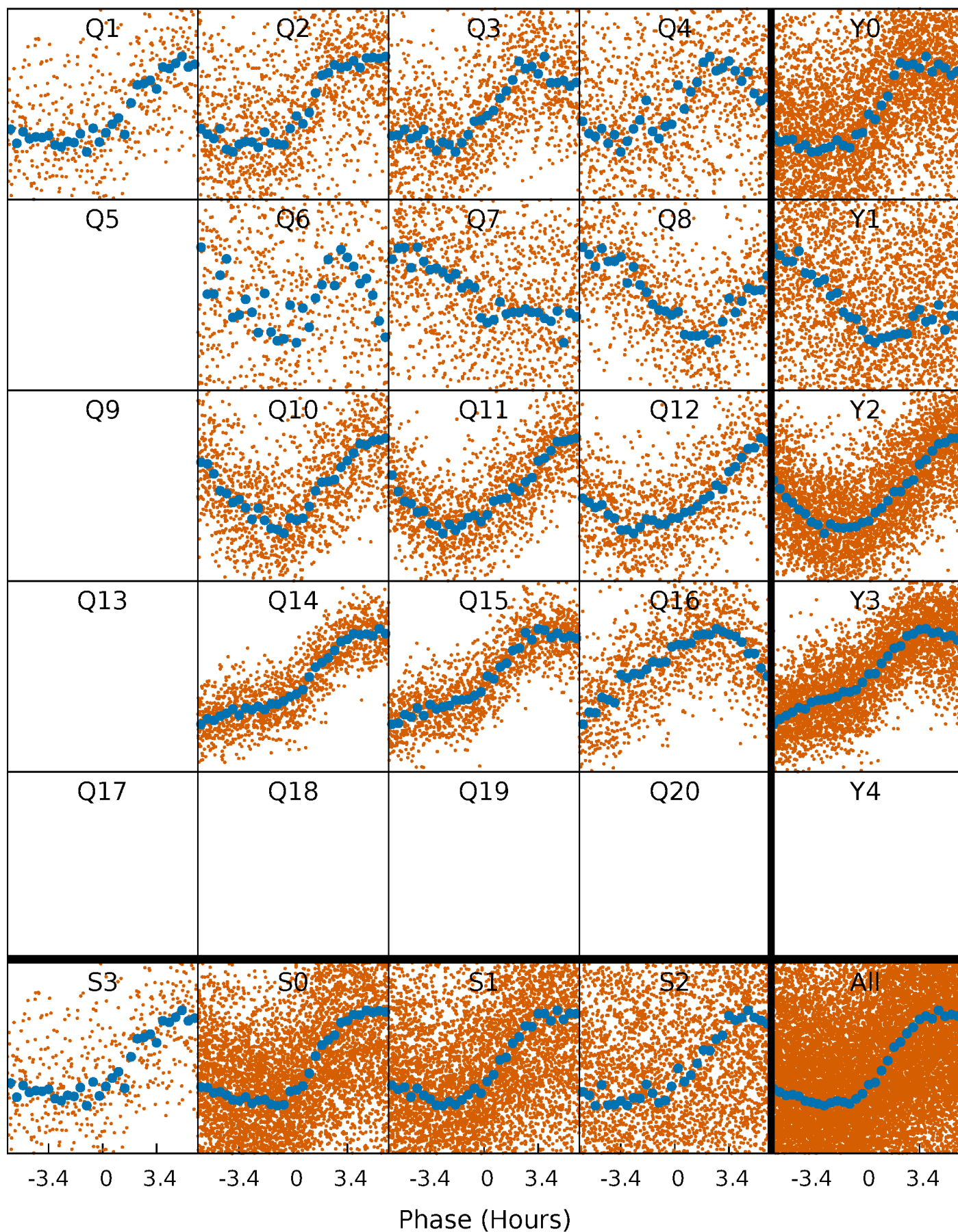


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



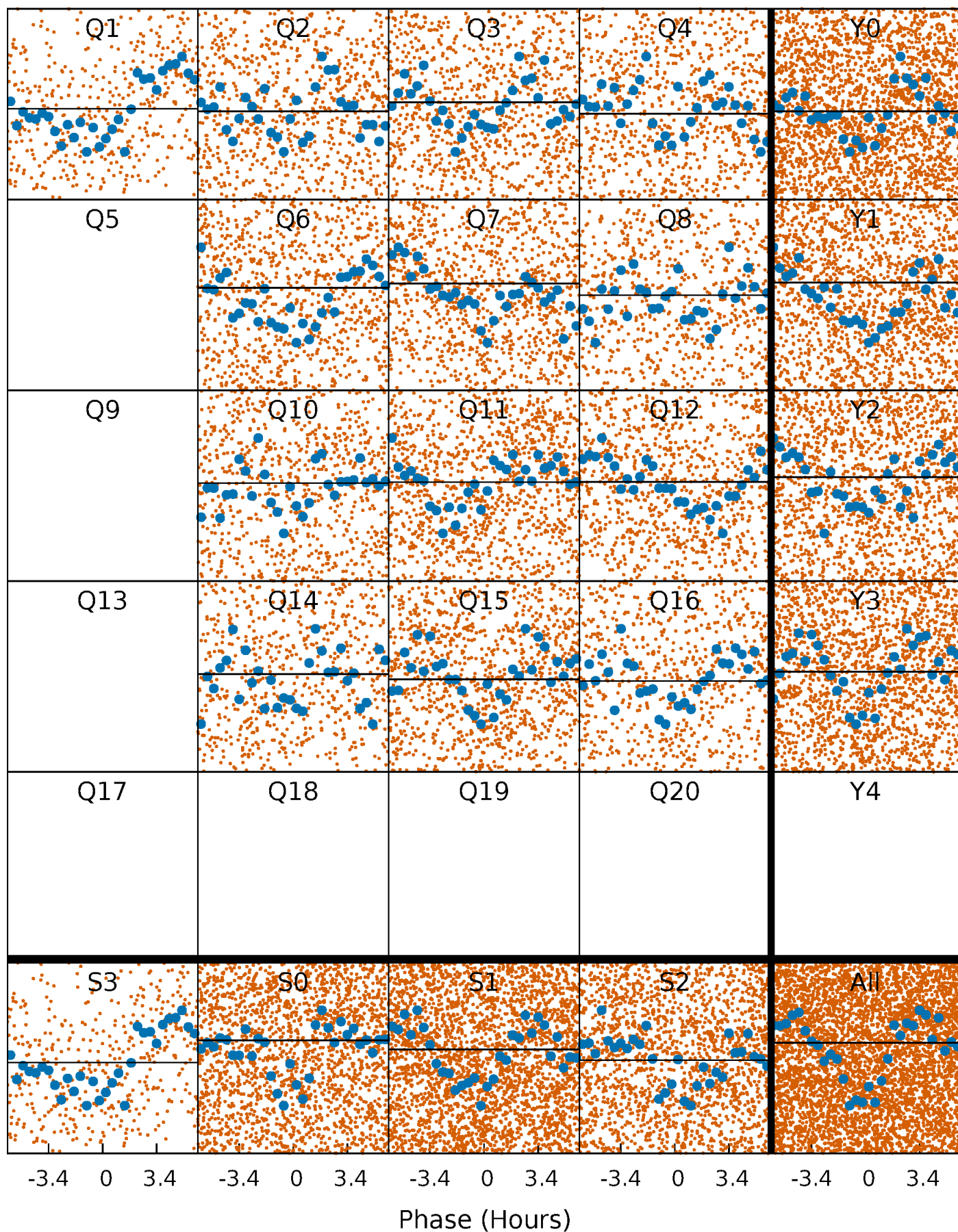
PDC Quarter-Phased Transit Curves

TCE 005255939-01 P= 1.520122 Days $T_0=131.544527$ (BKJD)



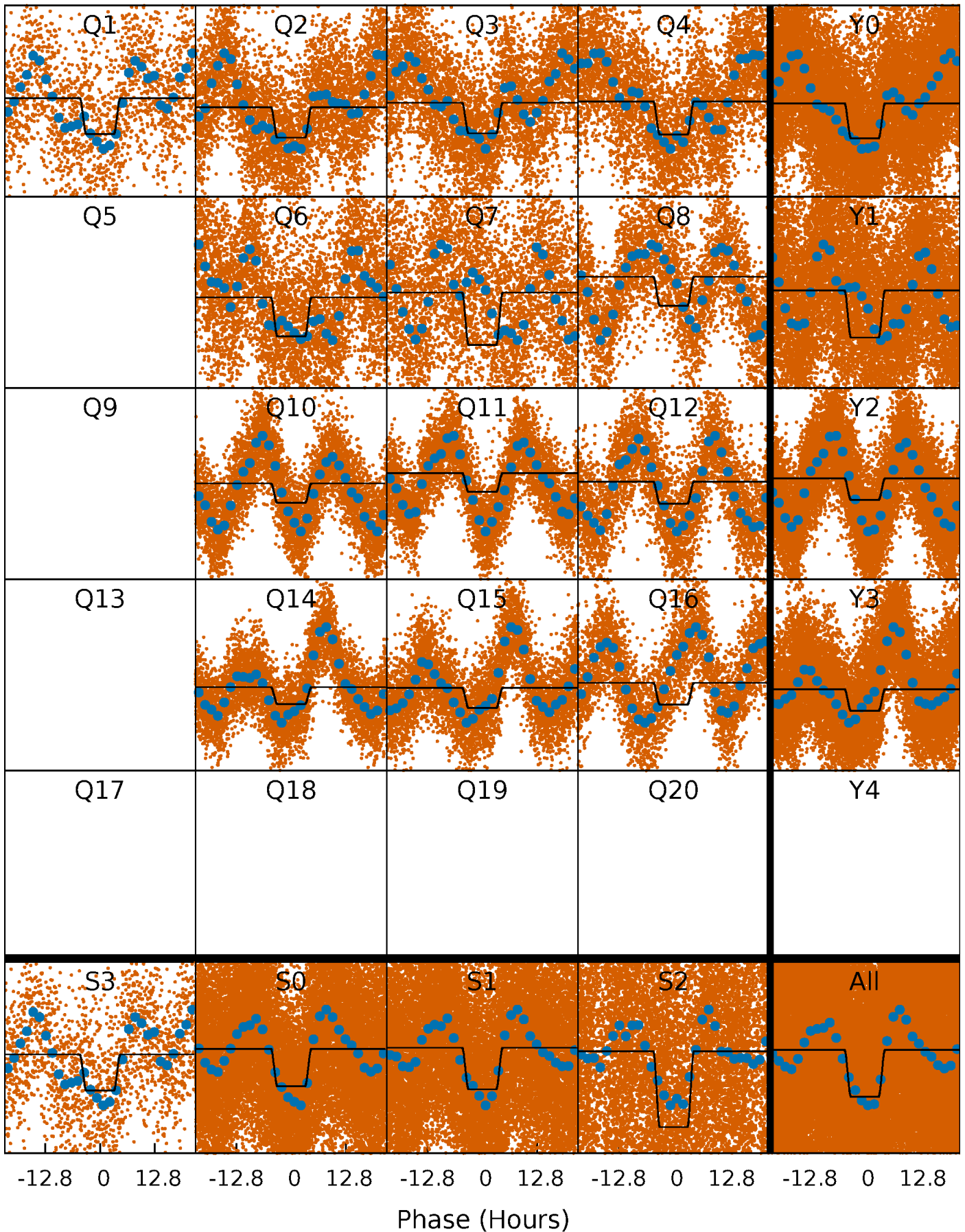
DV Quarter-Phased Transit Curves

TCE 005255939-01 P= 1.520122 Days $T_0=131.544527$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

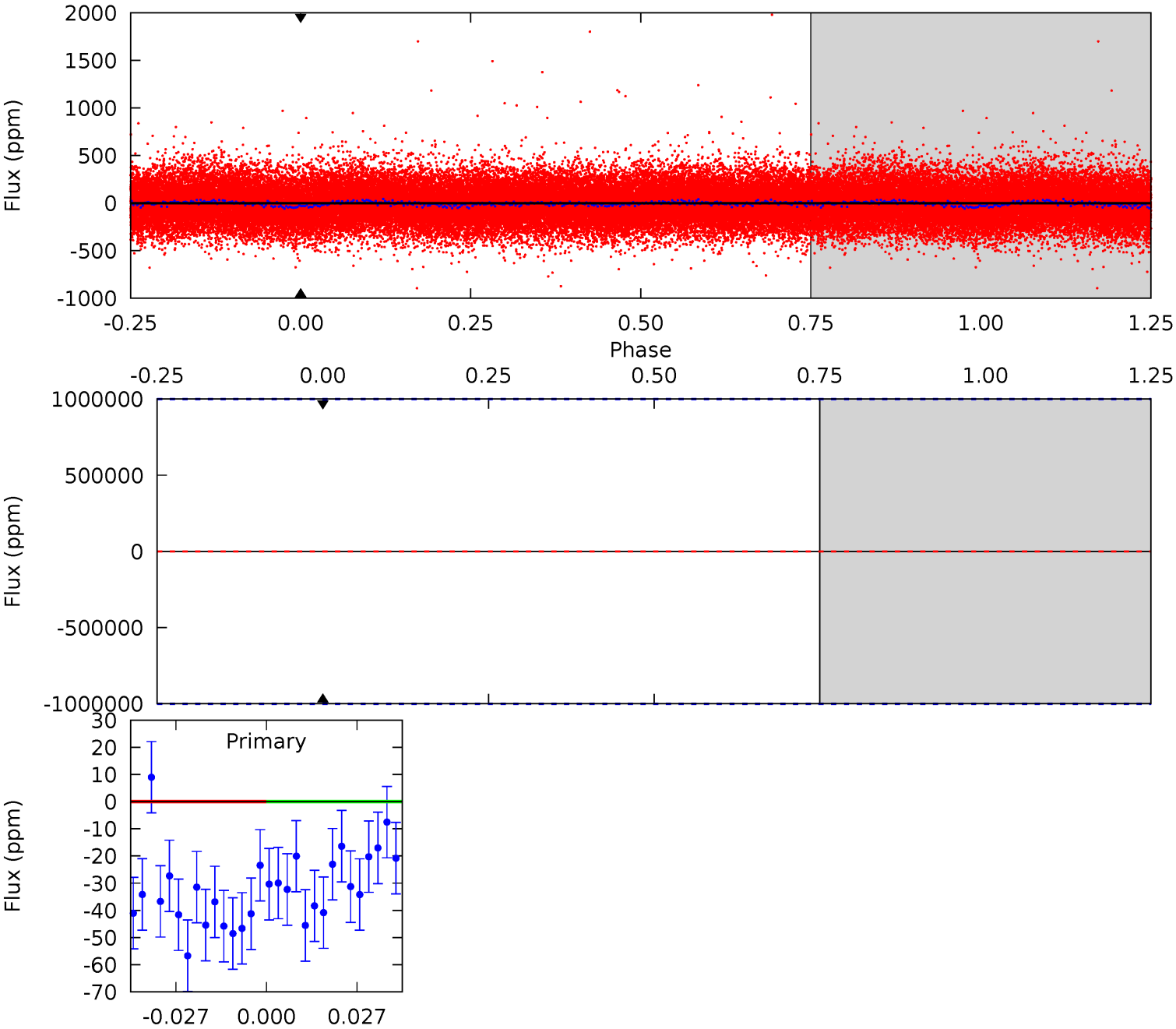
TCE 005255939-01 P= 1.520122 Days $T_0=132.934951$ (BKJD)



DV Model-Shift Uniqueness Test

005255939-01, P = 1.520122 Days, E = 130.024405 Days

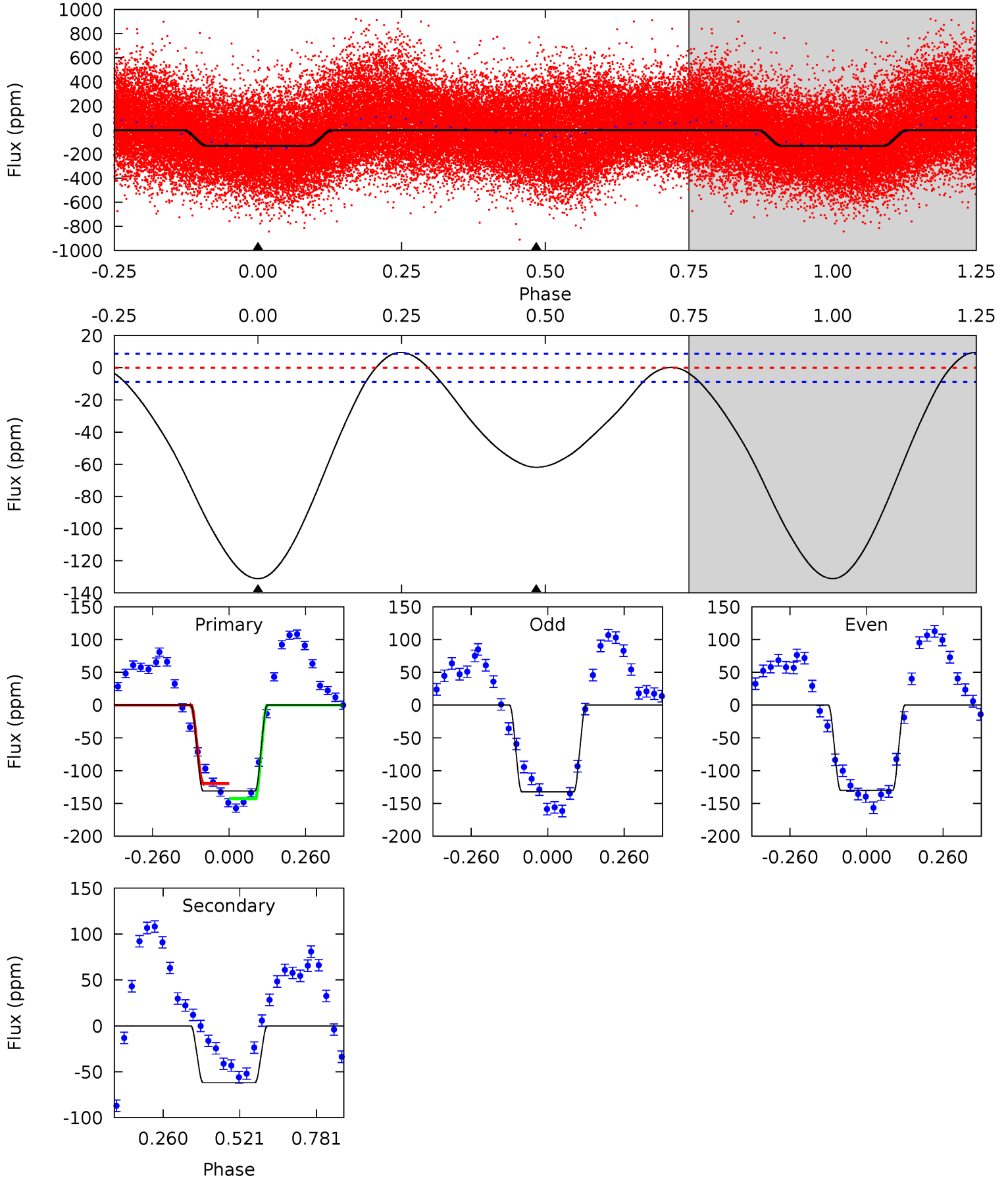
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005255939-01, P = 1.520122 Days, E = 131.414829 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.8	31.0	0	0	4.36	1.13	3.24	65.8	65.8	31.0	31.0	0.54	0.90	0.07	5.56



Stellar Parameters For KIC 005255939

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6619^{+180}_{-180}	$3.595^{+0.320}_{-0.060}$	$-0.160^{+0.300}_{-0.250}$	$3.410^{+0.401}_{-1.282}$	$1.670^{+0.229}_{-0.343}$	$0.059^{+0.135}_{-0.012}$
	+3%/-3%	+9%/-2%	+188%/-156%	+12%/-38%	+14%/-21%	+227%/-20%
Source	PHO1	FLK73	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 005255939-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$24.09^{+26.11}_{-16.46}$	4207^{+216}_{-378}	6257^{+27721}_{-33095}	$3.720^{+173.688}_{-120.922}$
Alt.	-62 ± 2	$26.05^{+26.00}_{-18.35}$	4195^{+218}_{-401}	-3599^{+7274}_{-244}	$0.049^{+0.494}_{-0.037}$

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 $A_{obs} \gg 1.0$

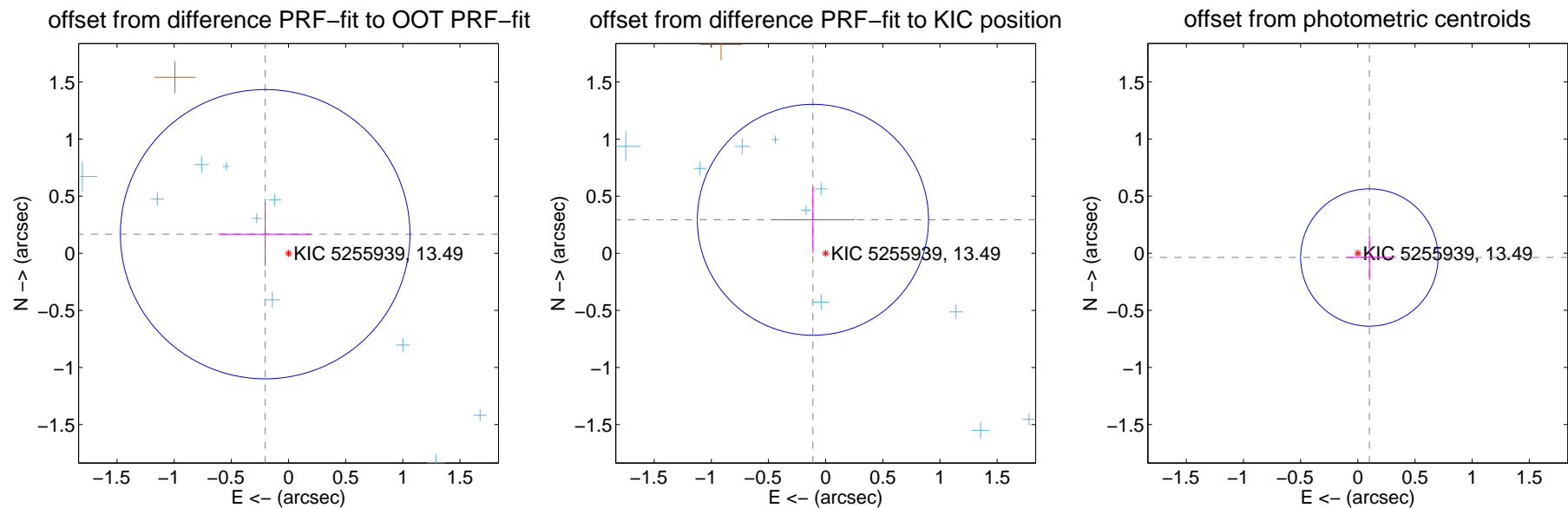
DV Centroid Data

Supplemental centroid analysis for 005255939-01. Kepler magnitude: 13.49. Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

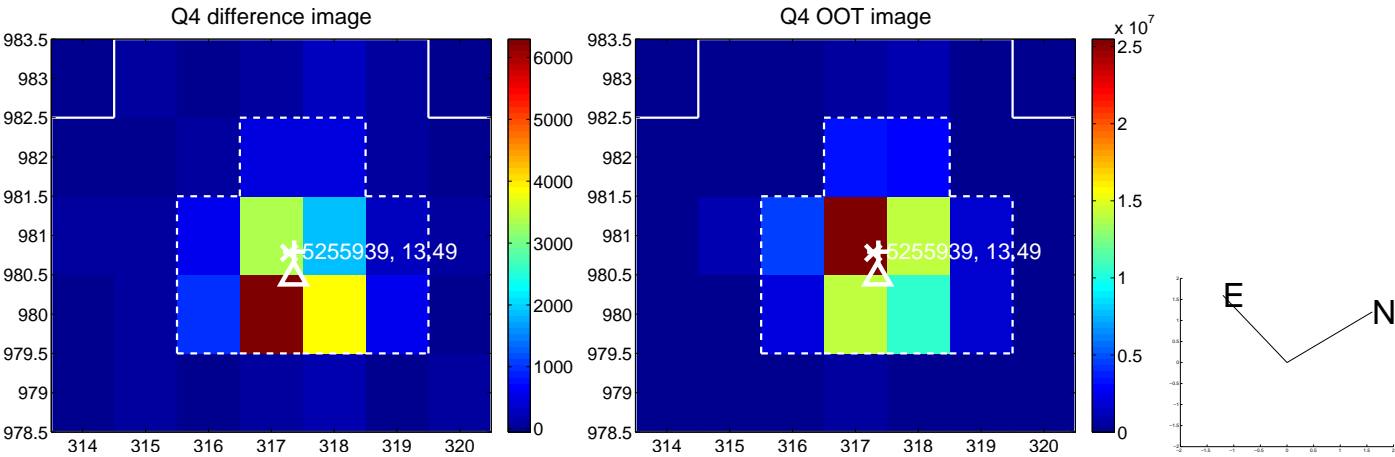
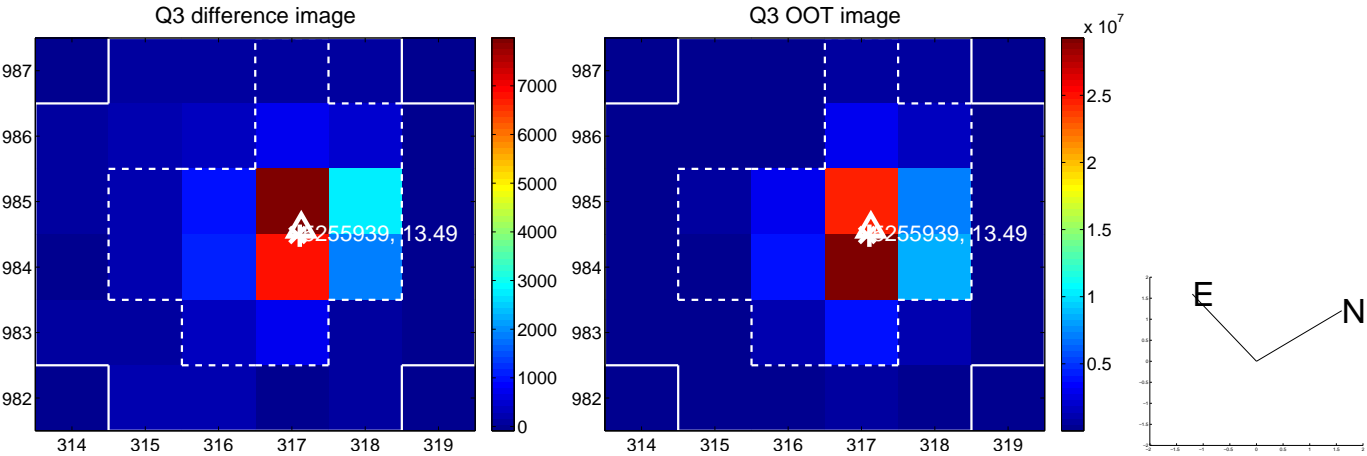
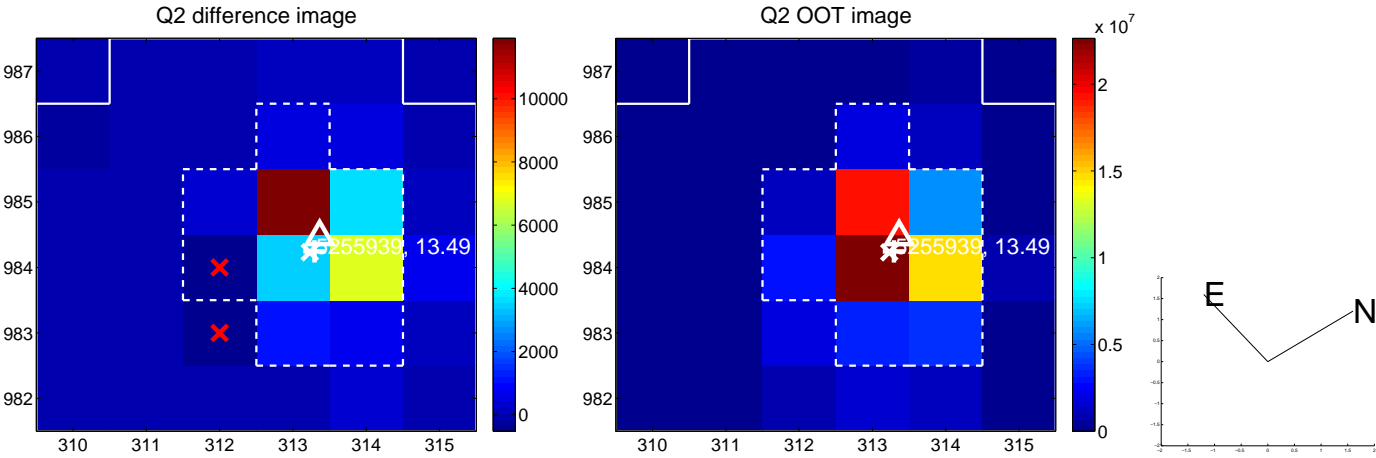
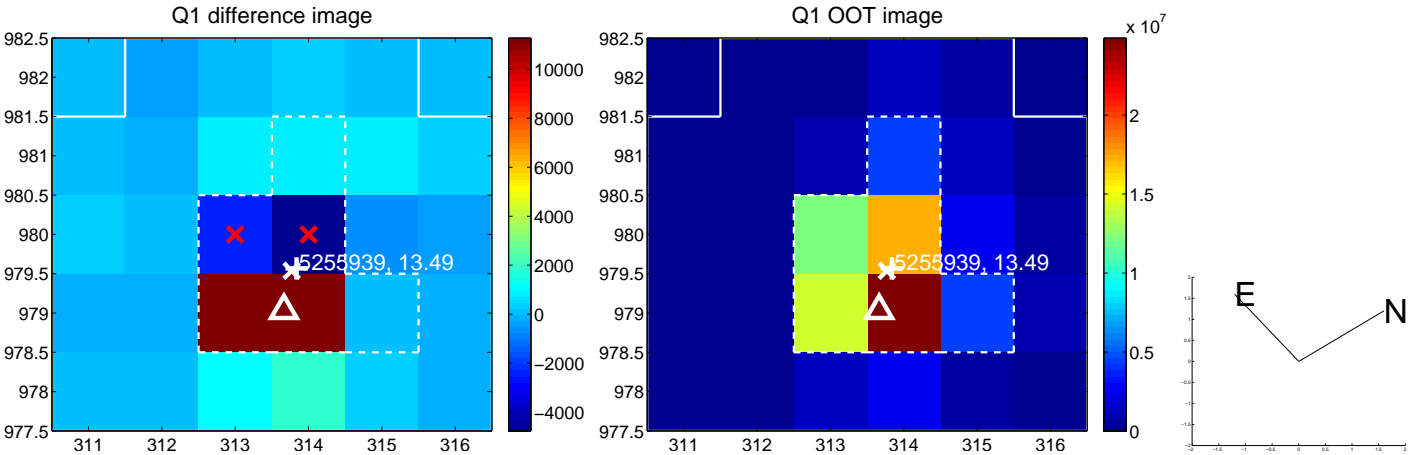
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.264 ± 0.422	0.63	0.204 ± 0.405	0.167 ± 0.279
PRF-fit source offset from KIC position	0.314 ± 0.337	0.93	0.111 ± 0.367	0.293 ± 0.289
photometric centroid source offset	0.11 ± 0.20	0.54	-0.10 ± 0.20	-0.04 ± 0.20

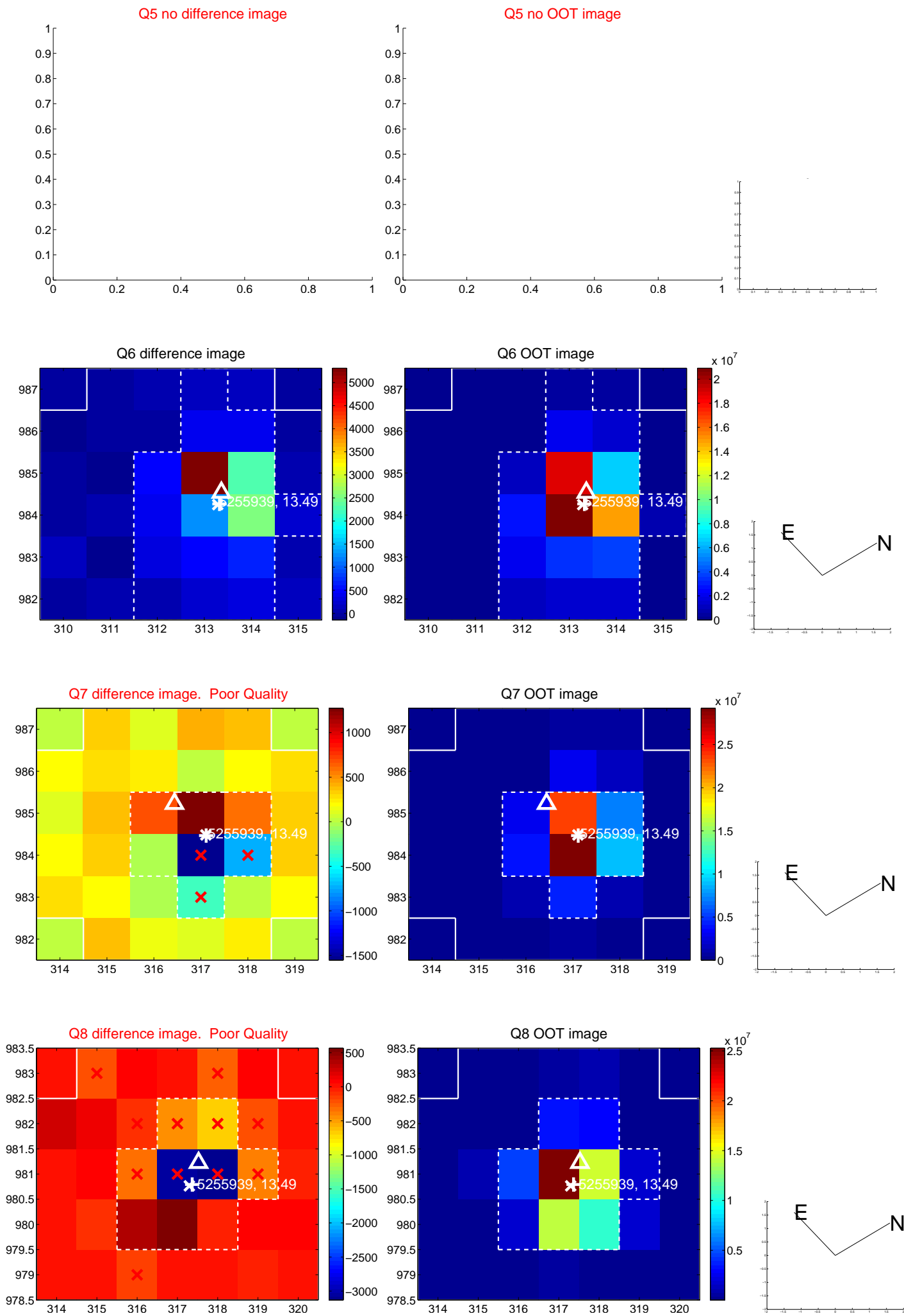


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

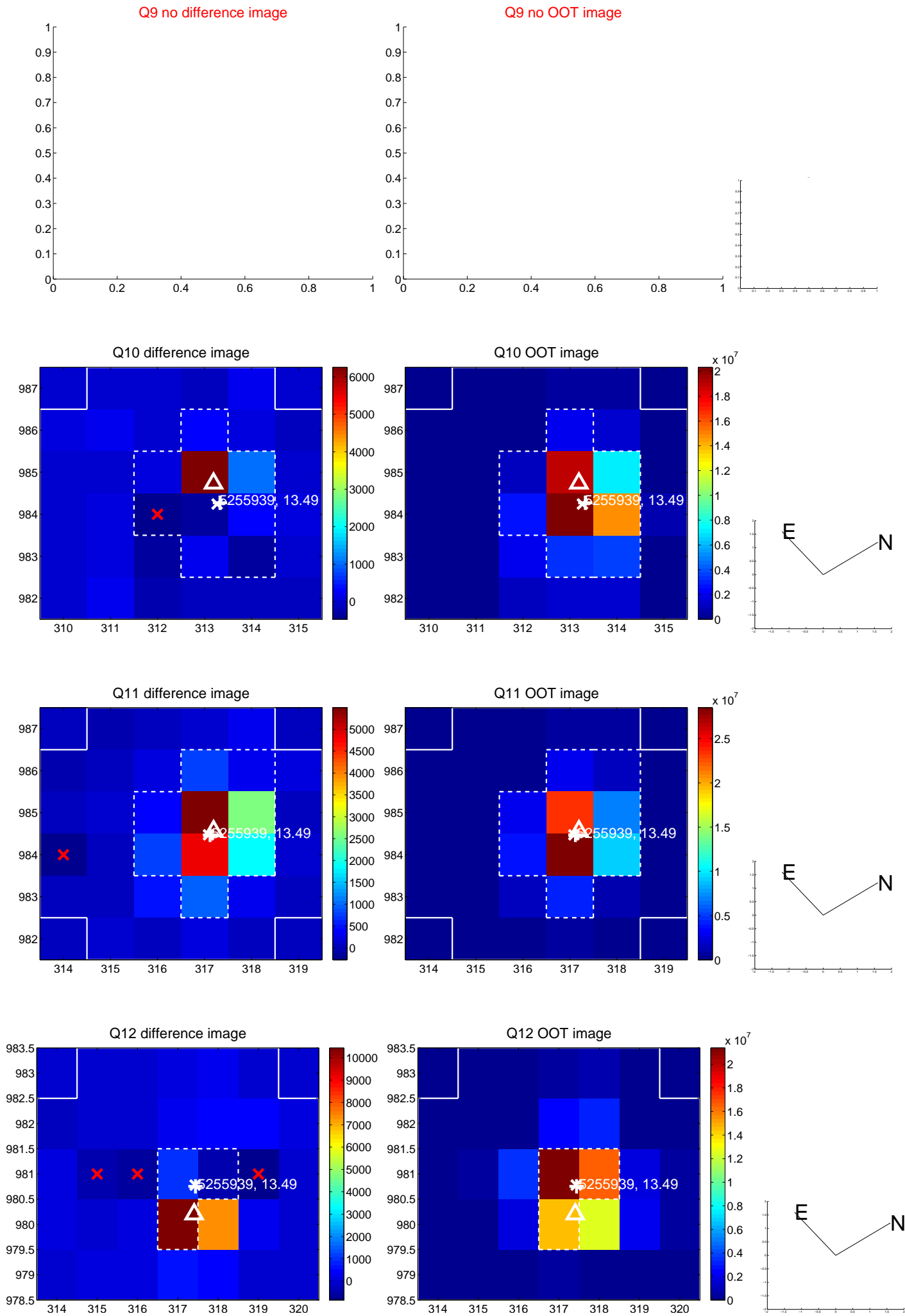
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



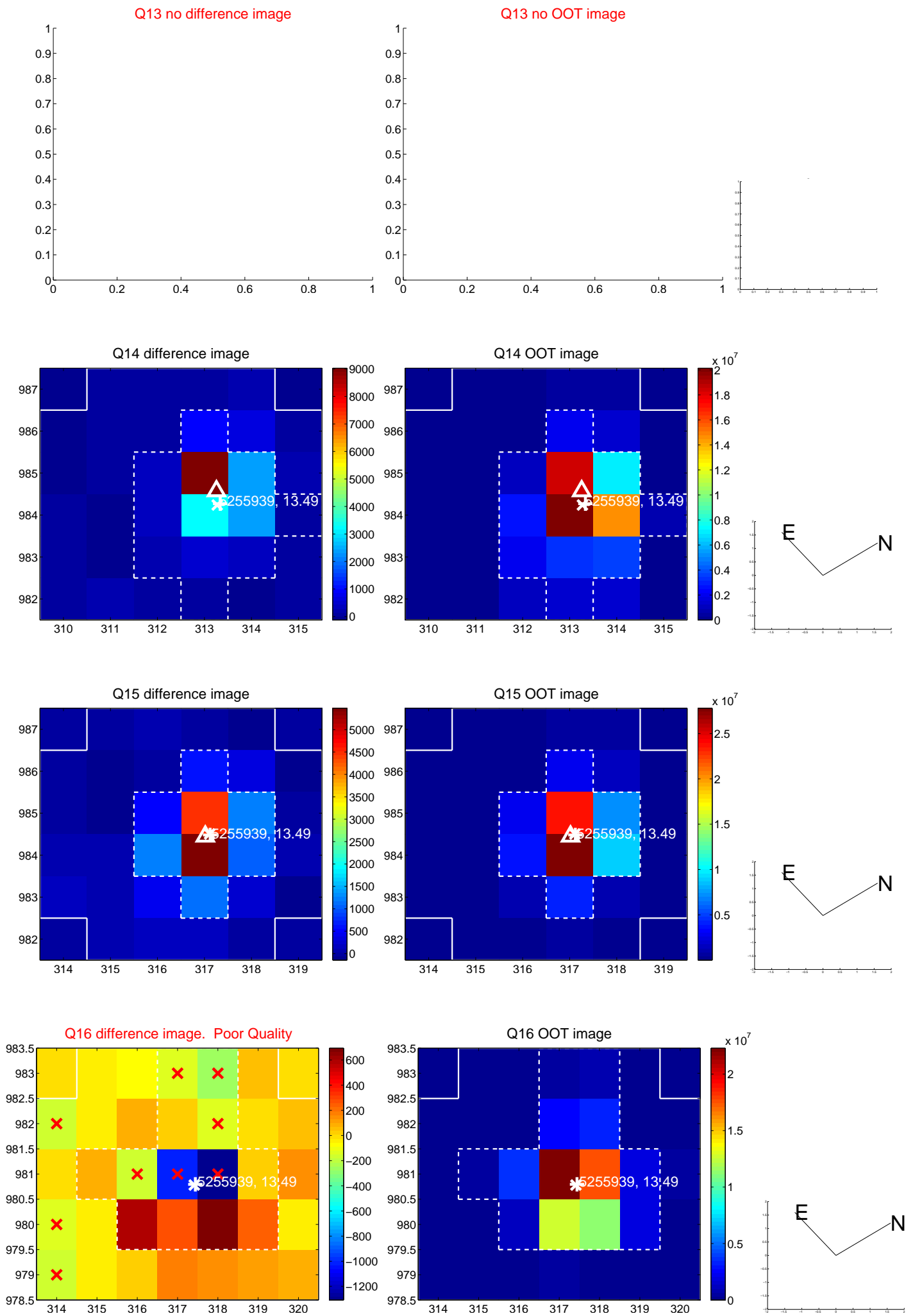
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



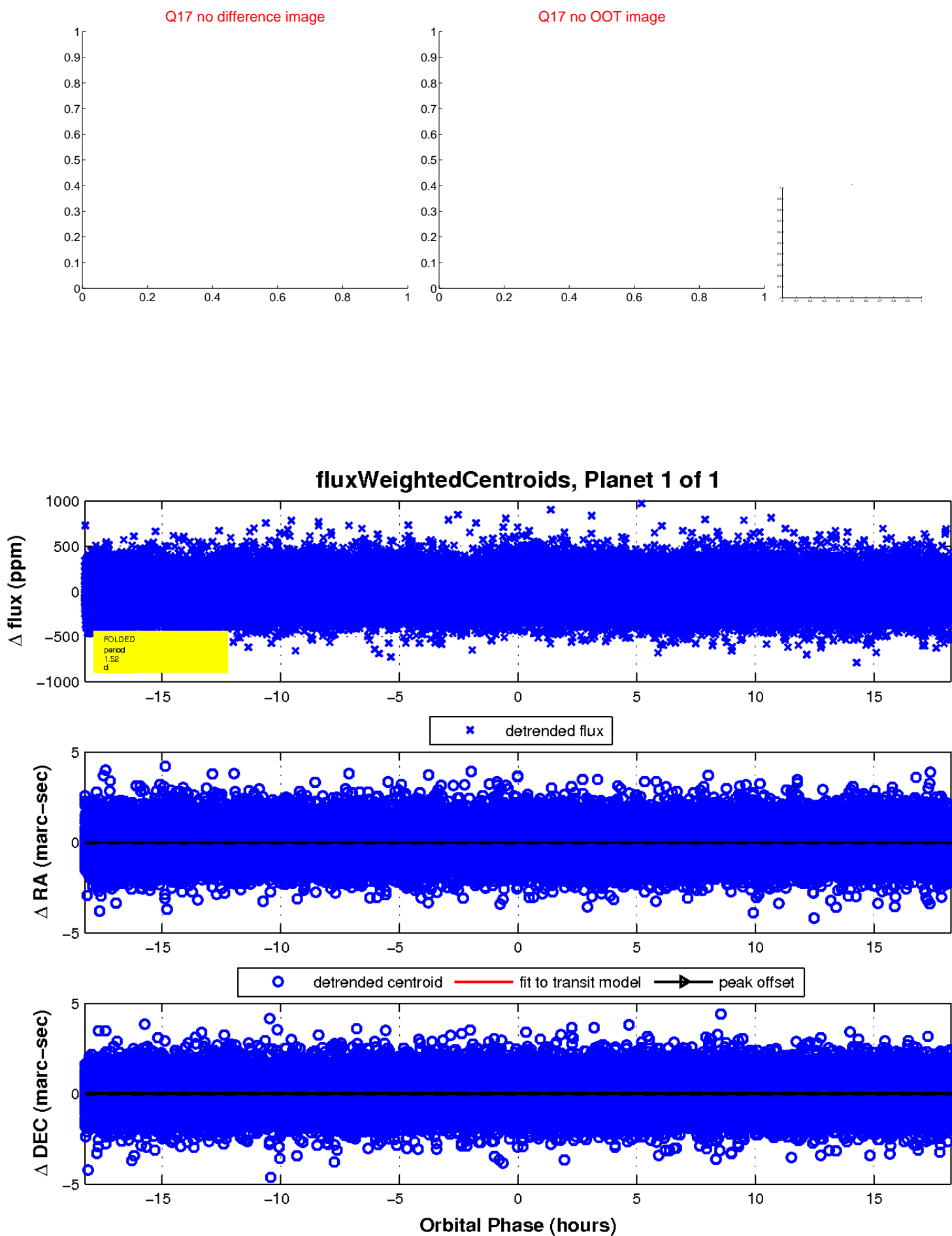
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

