

KIC 006115516

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})
006115516-01	OBS	3134.01	0.865755	131.580662	163.5	0.660	13.4	14.6	1.08	6249	1.50	4607.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006115516-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

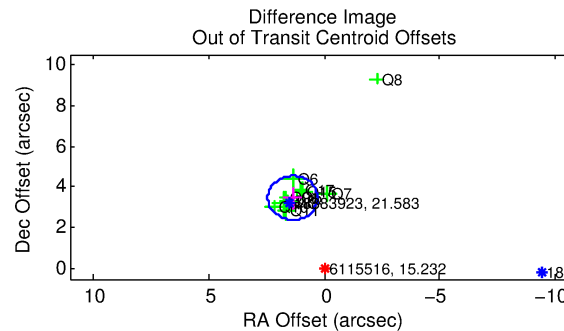
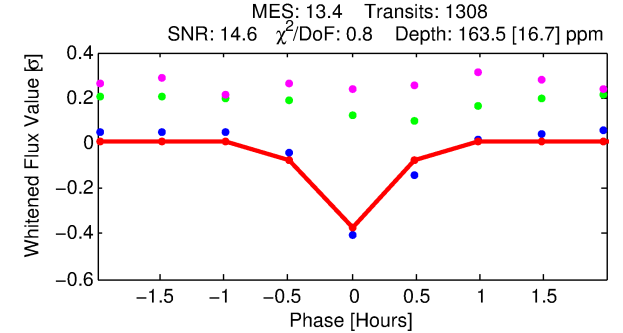
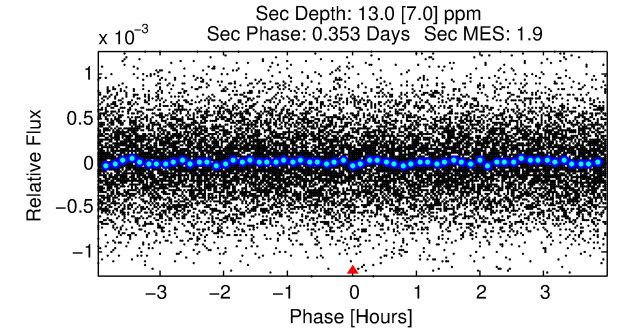
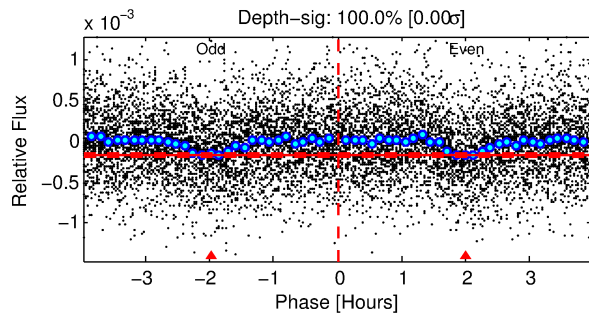
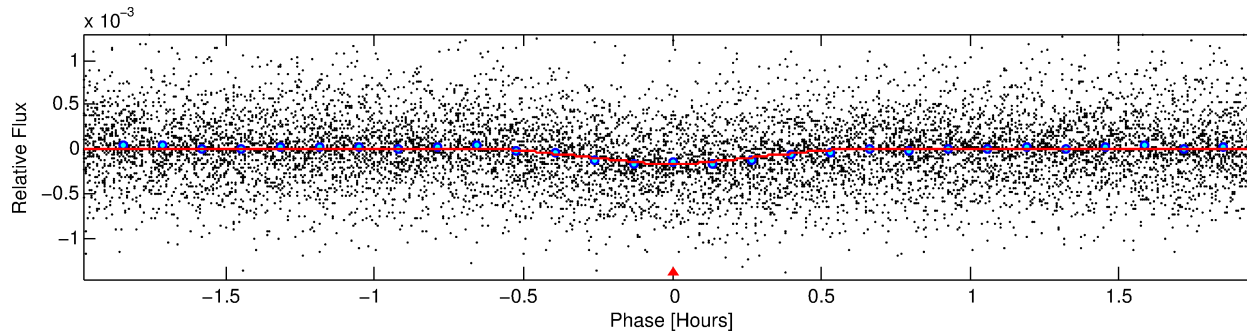
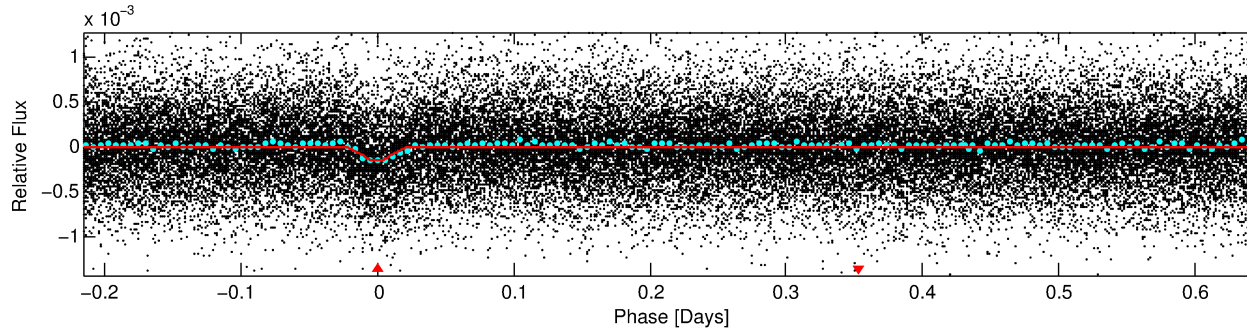
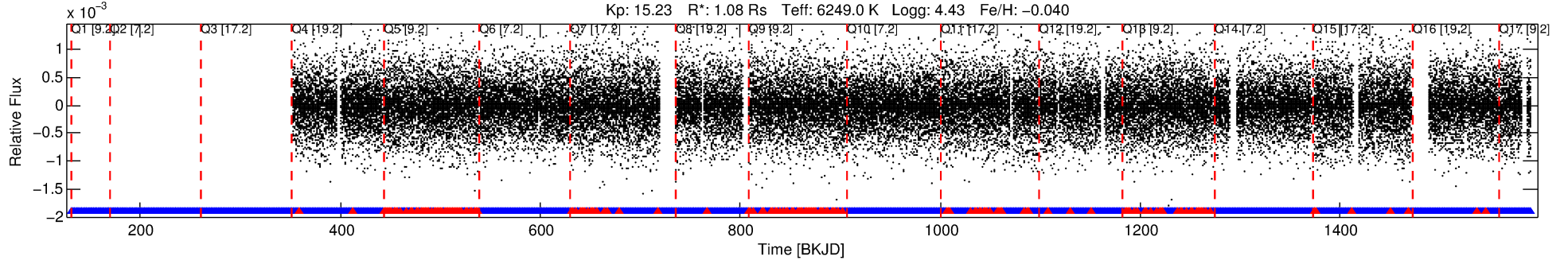
Ephemeris Match Information For 006115516-01

No Significant Match Found

DV One-Page Summary

KIC: 6115516 Candidate: 1 of 1 Period: 0.866 d
KOI: K03134.01 Corr: 0.859

Kp: 15.23 R*: 1.08 Rs Teff: 6249.0 K Logg: 4.43 Fe/H: -0.040



DV Fit Results:

Period = 0.86575 [0.00001] d
Epoch = 131.5807 [0.0009] BKJD
Rp/R* = 0.0128 [0.0041]
a/R* = 7.39 [11.87]
b = 0.70 [1.21]
Seff = 4607.71 [2042.26]
Teq = 2101 [233] K
Rp = 1.50 [0.70] Re
a = 0.0185 [0.0052] AU
Ag = 1.08 [1.01] [0.08σ]
Teffp = 3315 [709] K [1.63σ]

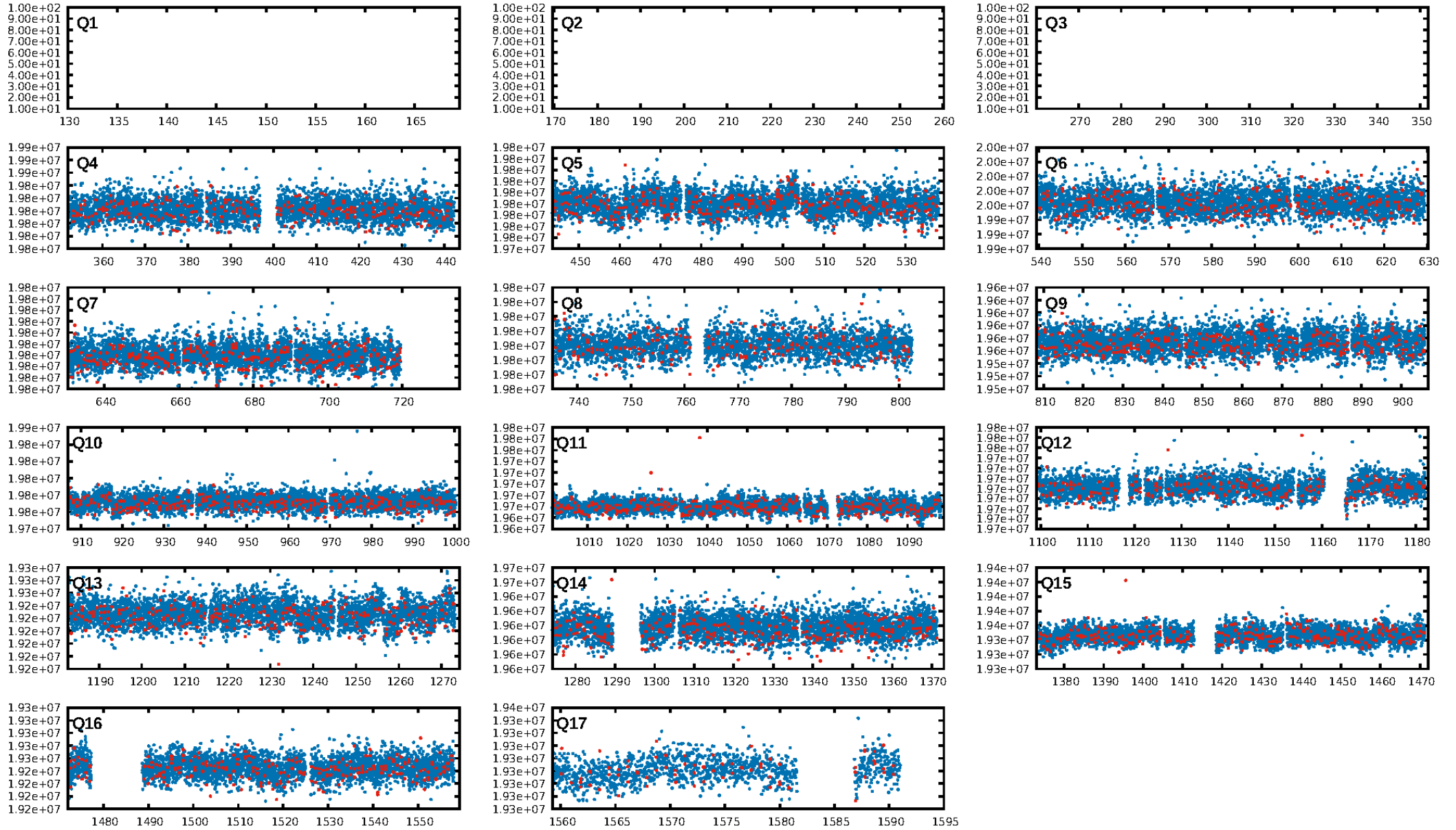
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.61e-42
RollingBand-fgt: 0.85 [1083/1277]
GhostDiagnostic-chr: 0.9488
Centroid-sig: 0.0%
Centroid-so: 3.166 arcsec [4.90σ]
OotOffset-rm: 3.737 arcsec [10.42σ]
KicOffset-rm: 3.394 arcsec [22.88σ]
OotOffset-st: 3/3/1/4 [11]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

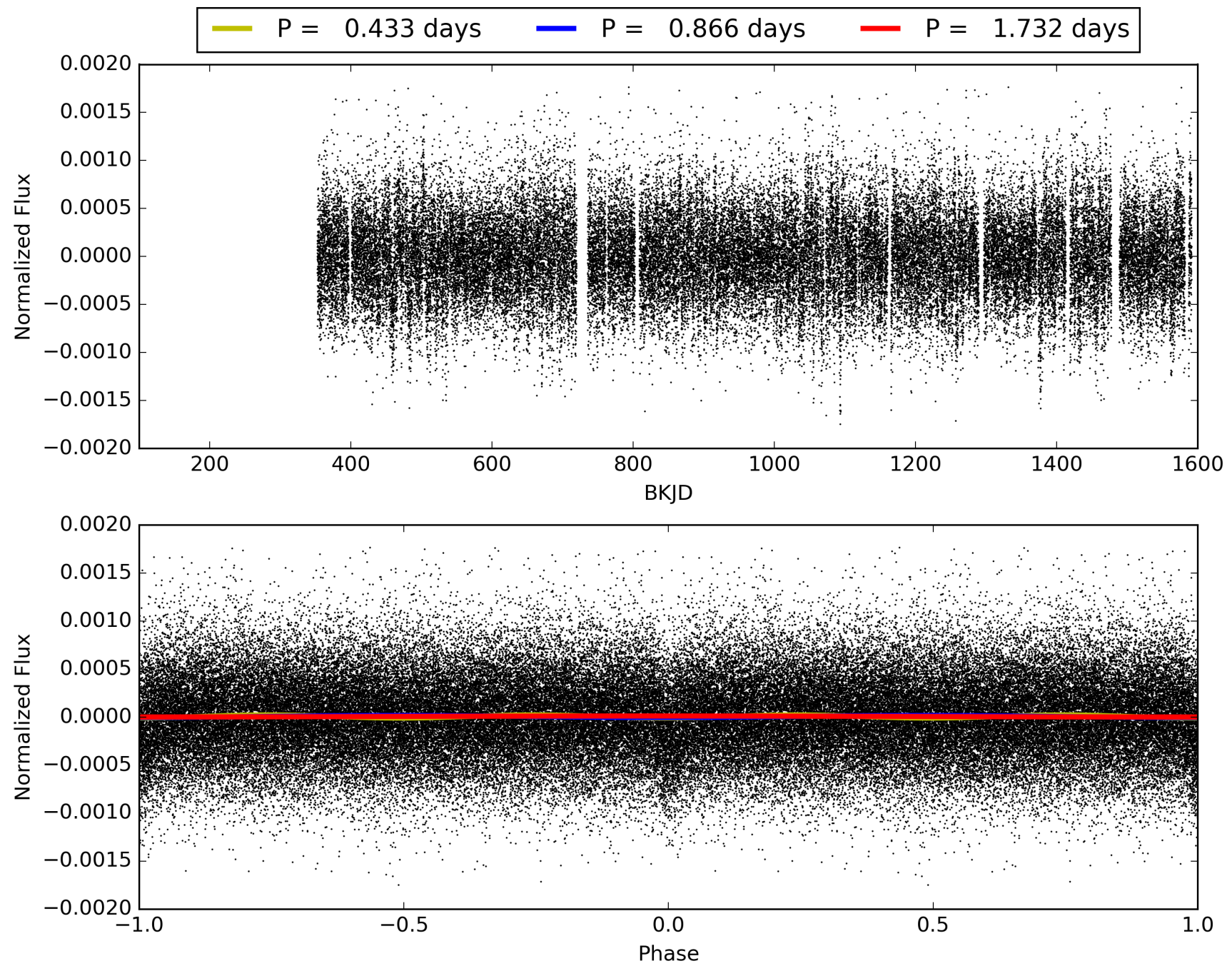
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:31:16 Z

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

TCE 006115516-01, PDC Light Curves

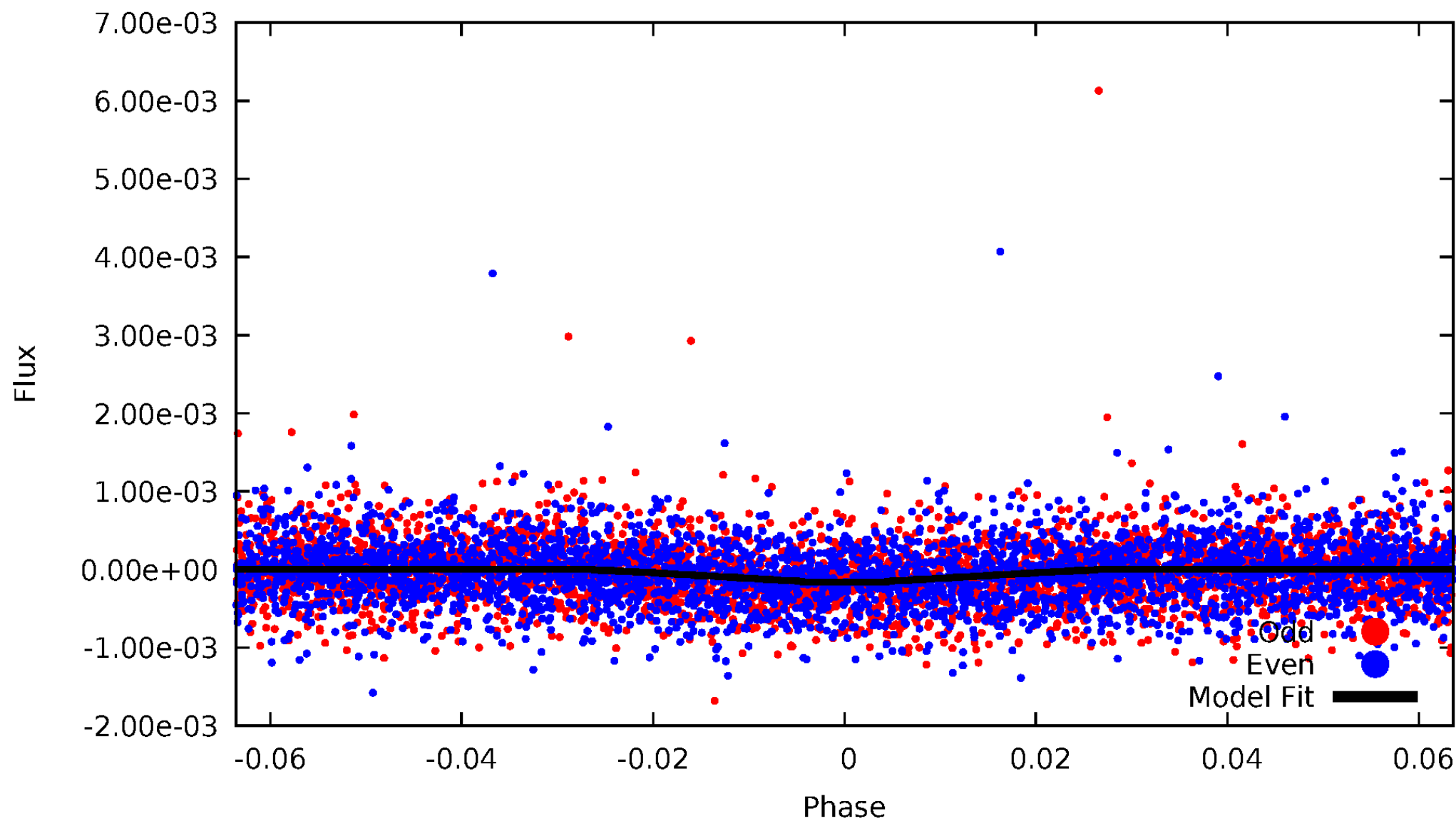


TCE 006115516-01



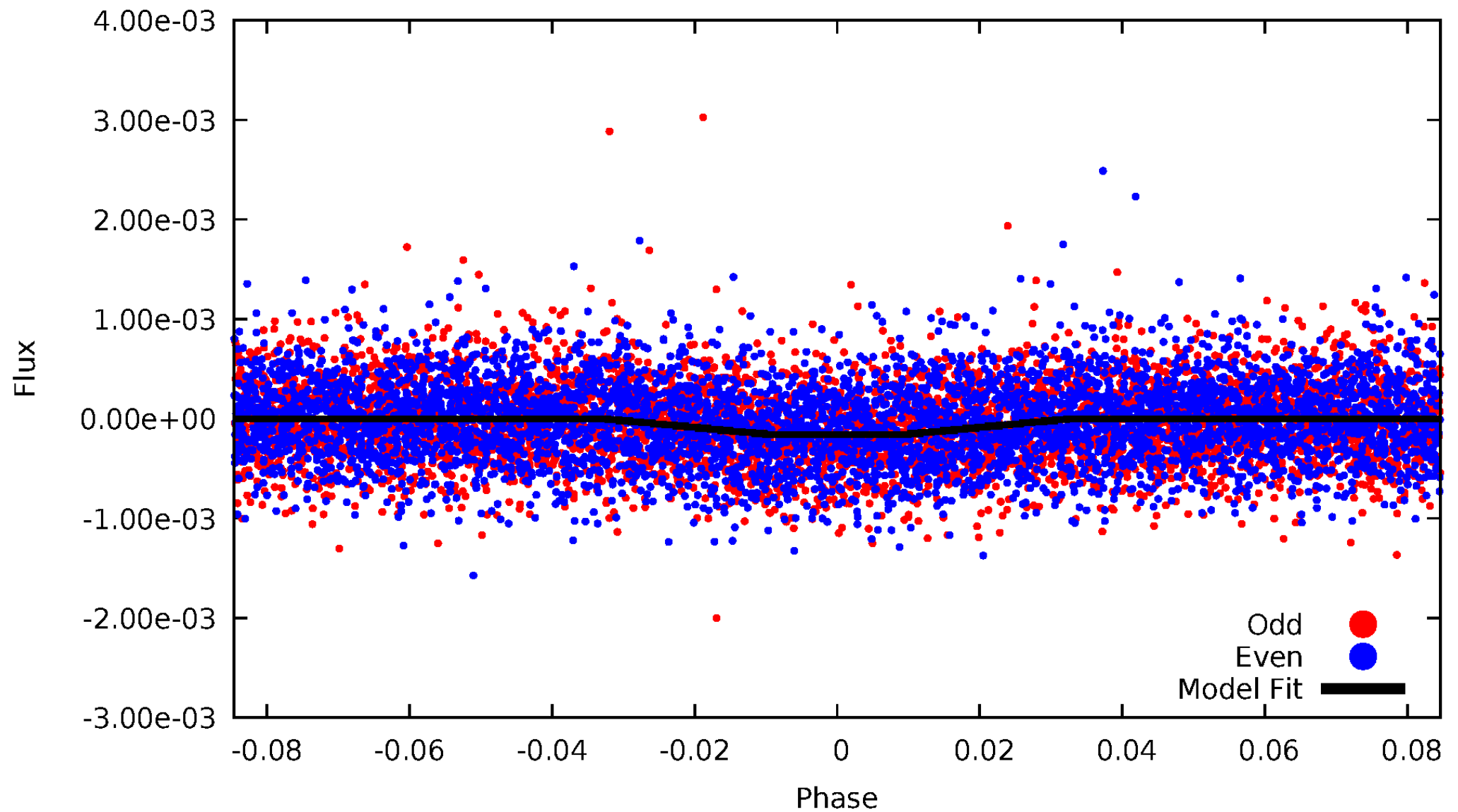
DV Odd/Even

TCE 006115516-01

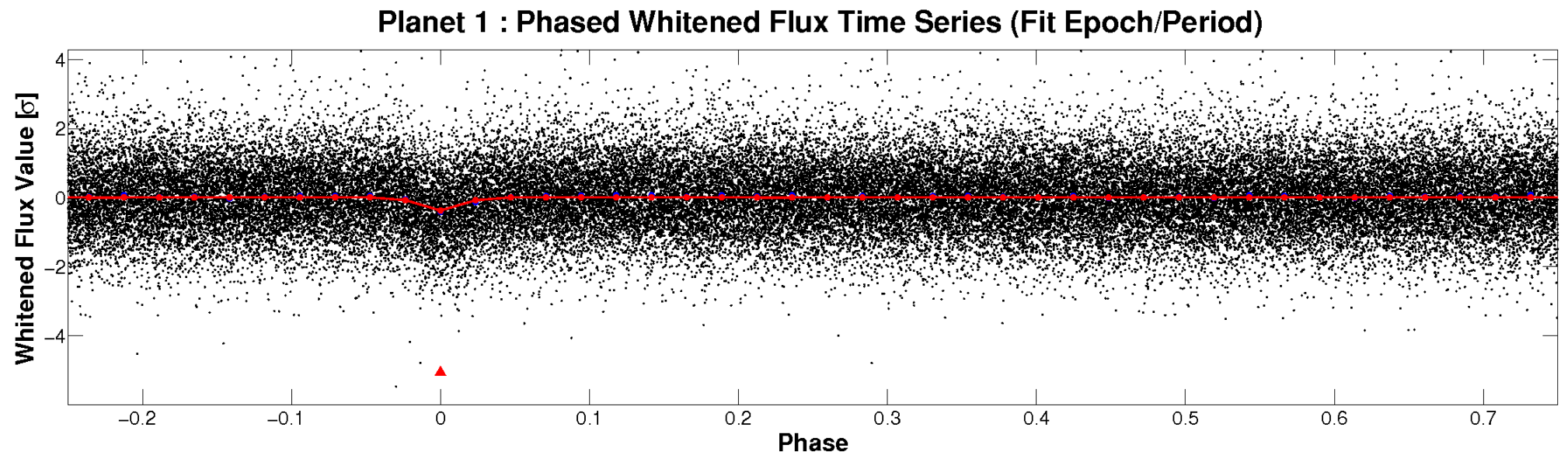
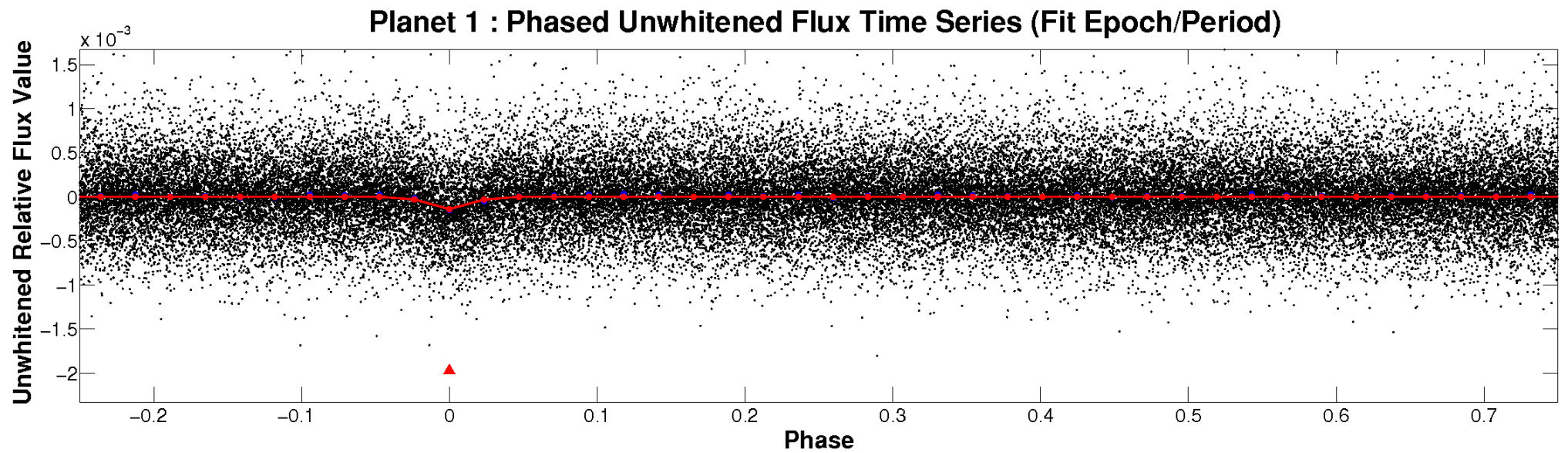


ALT Odd/Even

TCE 006115516-01

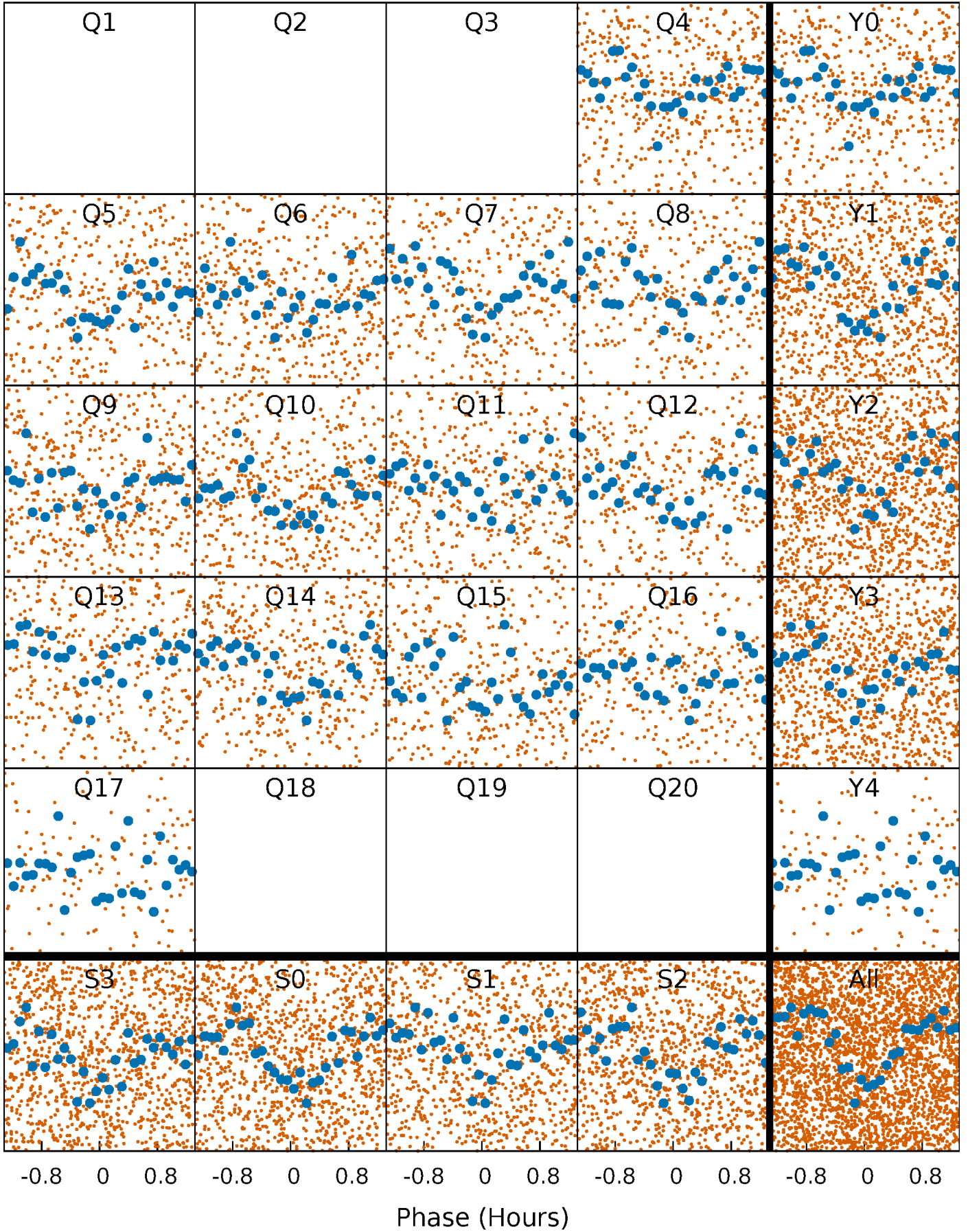


Non-Whitened Vs. Whitened Light Curve



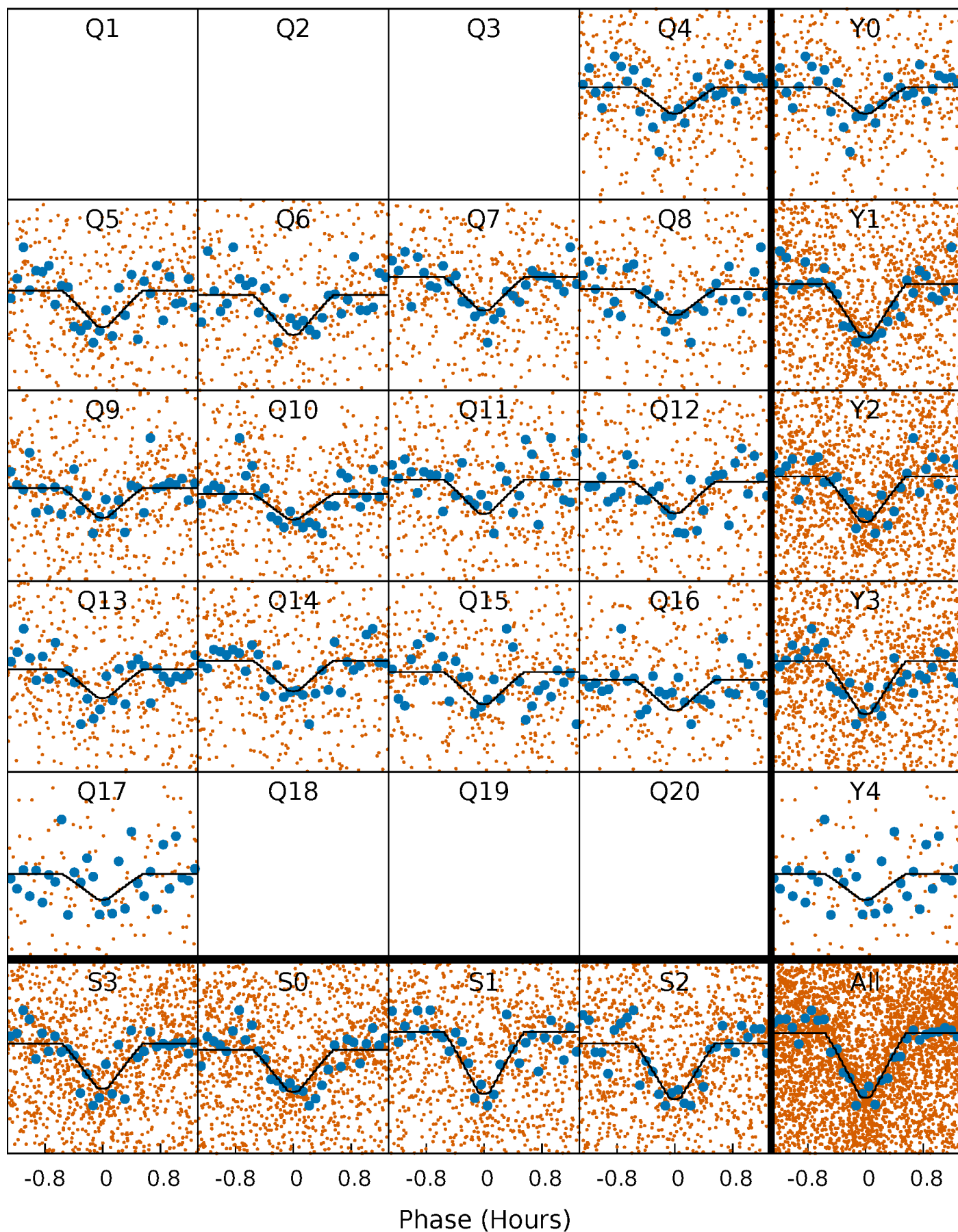
PDC Quarter-Phased Transit Curves

TCE 006115516-01 P= 0.865755 Days $T_0=131.580662$ (BKJD)



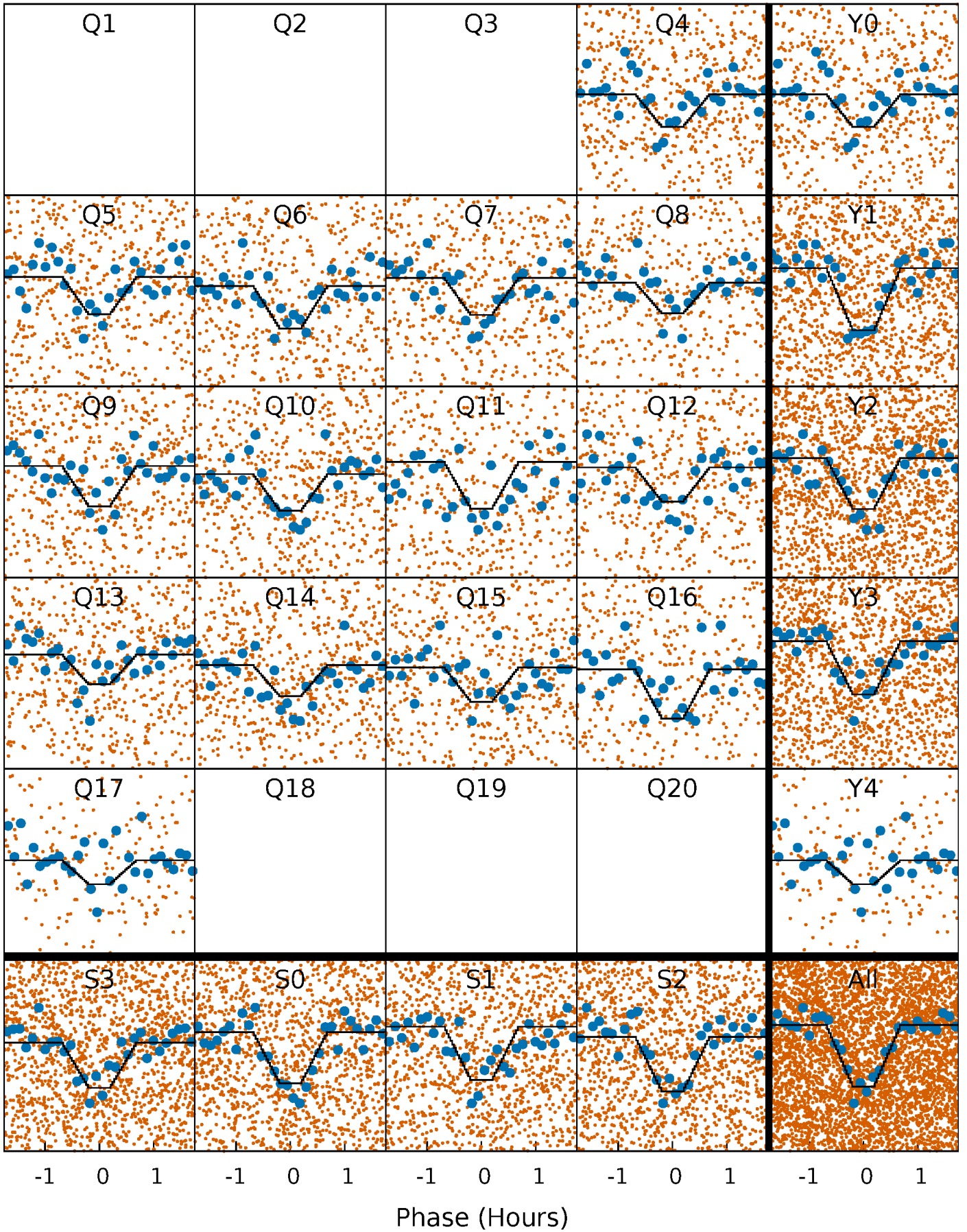
DV Quarter-Phased Transit Curves

TCE 006115516-01 P= 0.865755 Days $T_0=131.580662$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

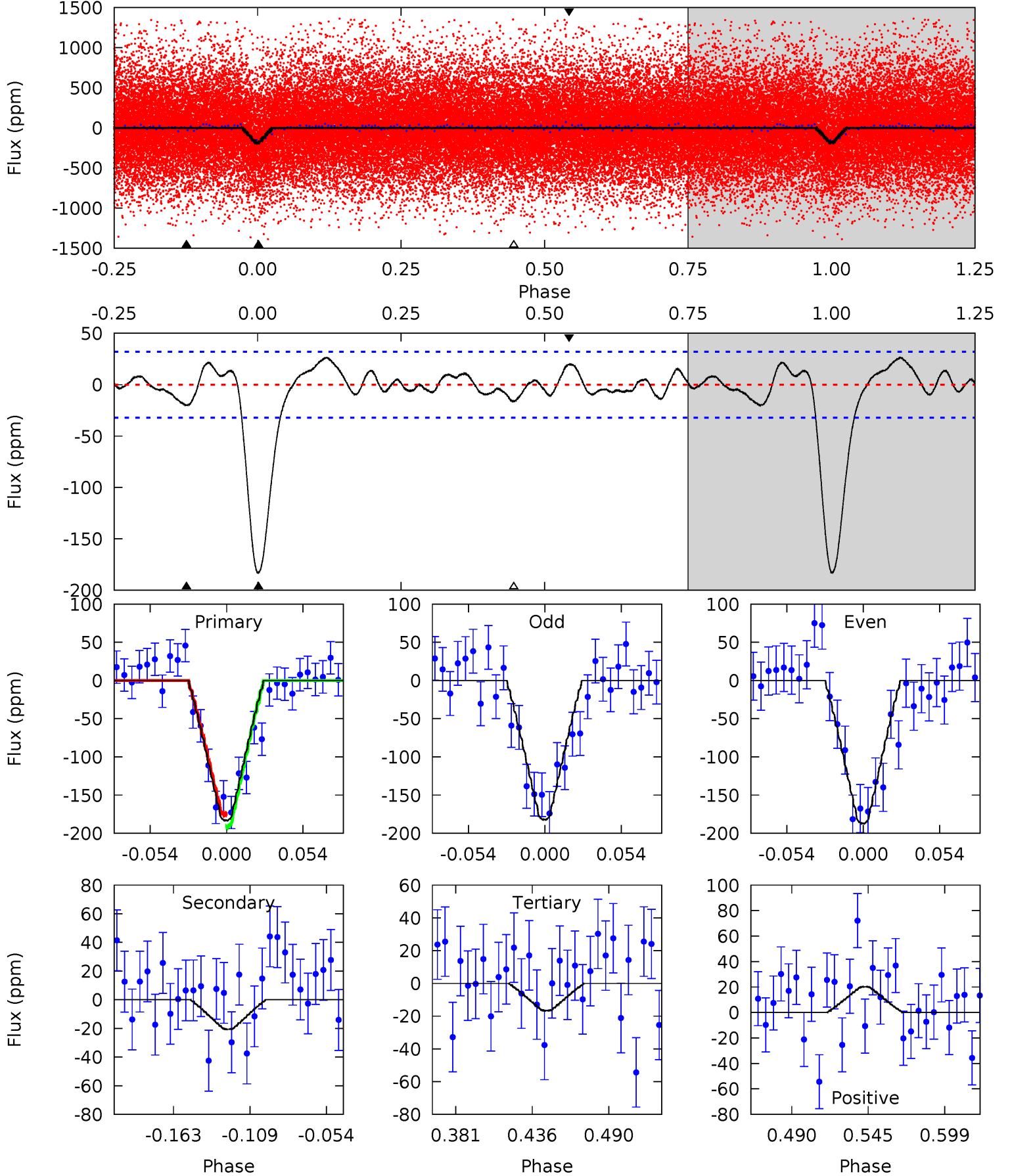
TCE 006115516-01 P= 0.865757 Days $T_0=131.580717$ (BKJD)



DV Model-Shift Uniqueness Test

006115516-01, P = 0.865755 Days, E = 131.580662 Days

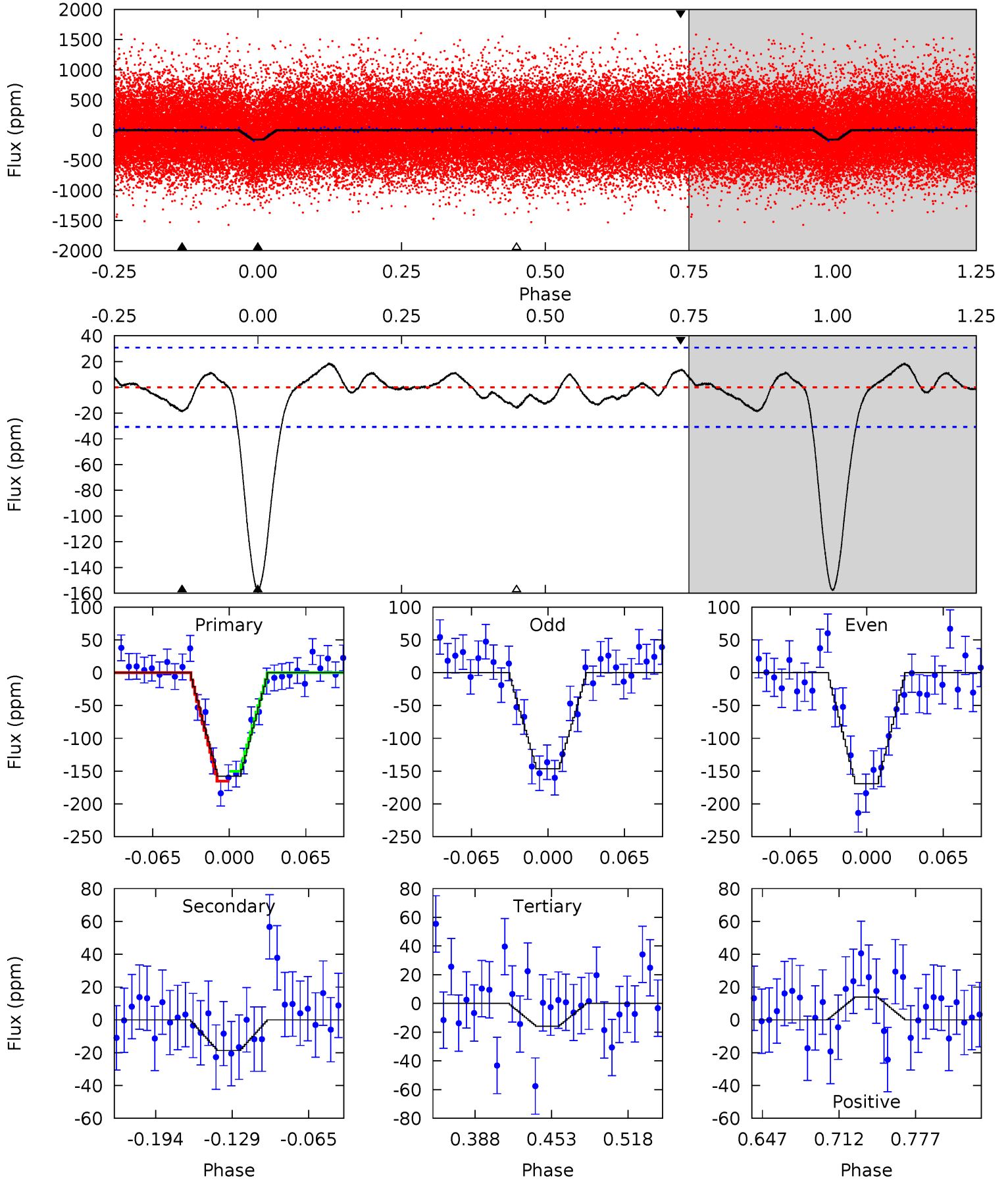
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.8	3.00	2.43	2.95	4.69	1.92	1.35	24.4	23.8	0.57	0.05	0.37	1.03	0.13	1.18



Alt Model-Shift Uniqueness Test

006115516-01, P = 0.865757 Days, E = 131.580717 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	2.82	2.41	2.10	4.66	1.85	1.18	21.5	21.8	0.42	0.72	1.70	0.99	0.11	1.13



Stellar Parameters For KIC 006115516

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6249^{+196}_{-261}	$4.428^{+0.056}_{-0.224}$	$-0.040^{+0.250}_{-0.300}$	$1.076^{+0.362}_{-0.129}$	$1.130^{+0.169}_{-0.152}$	$1.279^{+0.388}_{-0.701}$
	+3%/-4%	+1%/-5%	+625%/-750%	+34%/-12%	+15%/-13%	+30%/-55%
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 006115516-01 / KOI 3134.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21 ± 7	$1.55^{+0.57}_{-0.52}$	2989^{+219}_{-162}	3856^{+772}_{-581}	$1.557^{+2.060}_{-0.839}$
Alt.	-19 ± 7	$1.57^{+0.57}_{-0.52}$	3013^{+229}_{-177}	3827^{+738}_{-679}	$1.413^{+1.939}_{-0.798}$

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

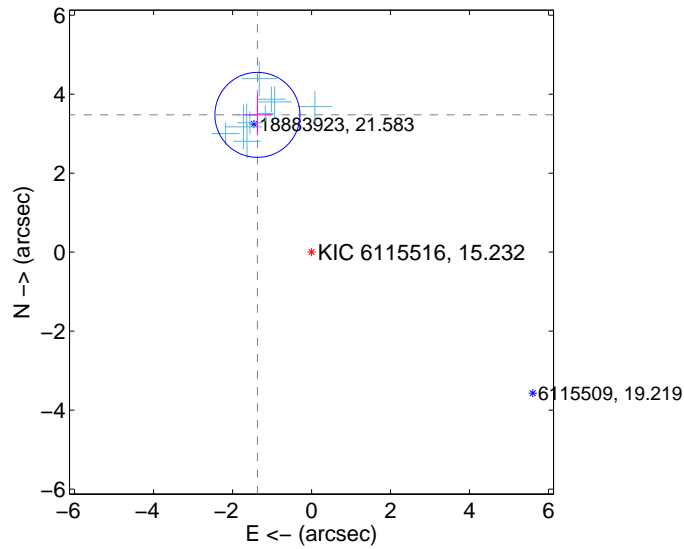
Supplemental centroid analysis for 006115516-01. Kepler magnitude: 15.23. Transit SNR 14.58

There are 12 quarters with good PRF difference image offsets

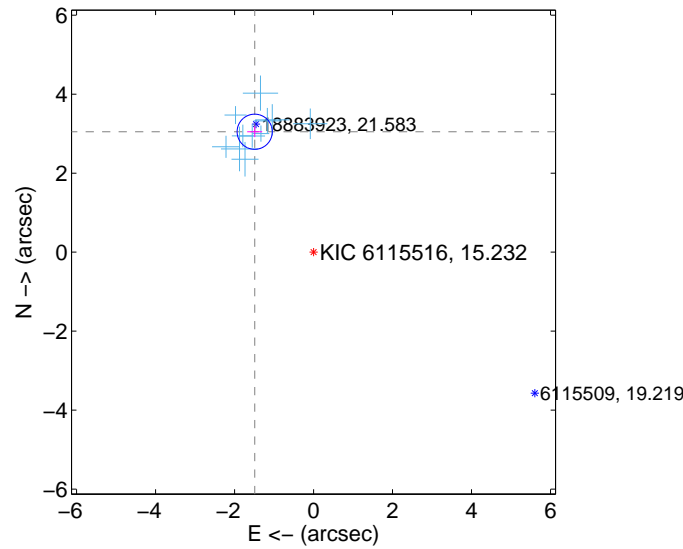
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.737 ± 0.359	10.42	1.371 ± 0.362	3.476 ± 0.512
PRF-fit source offset from KIC position	3.394 ± 0.148	22.88	1.490 ± 0.190	3.050 ± 0.136
photometric centroid source offset	3.17 ± 0.65	4.90	-0.90 ± 0.68	3.04 ± 0.64

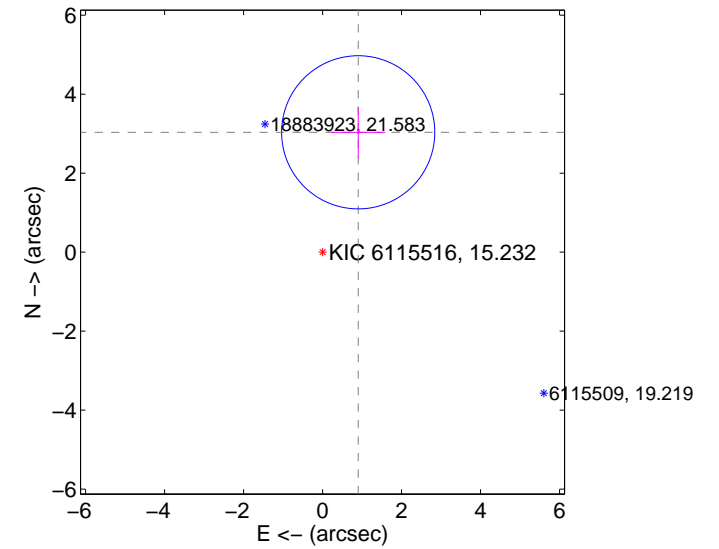
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

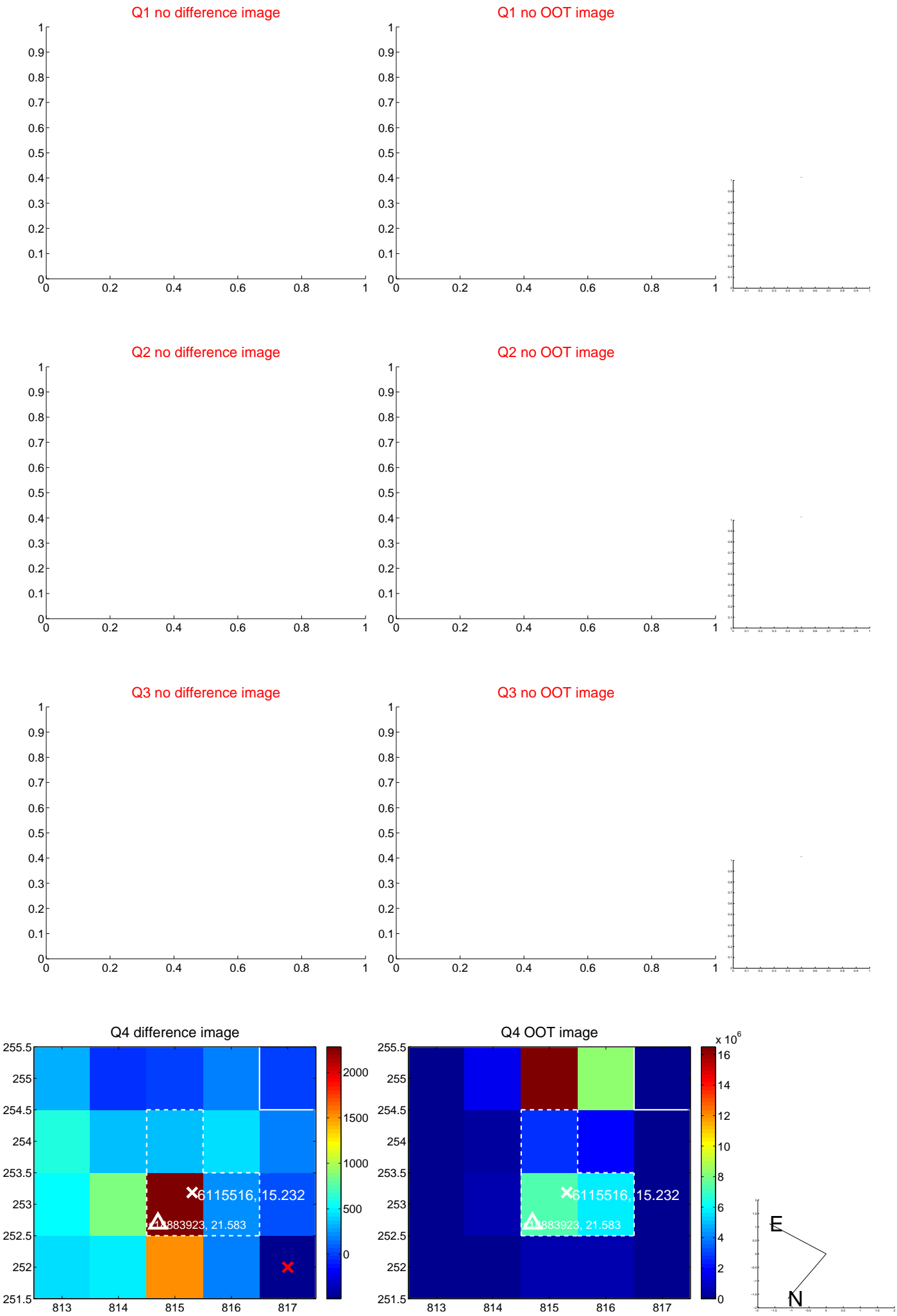


offset from photometric centroids

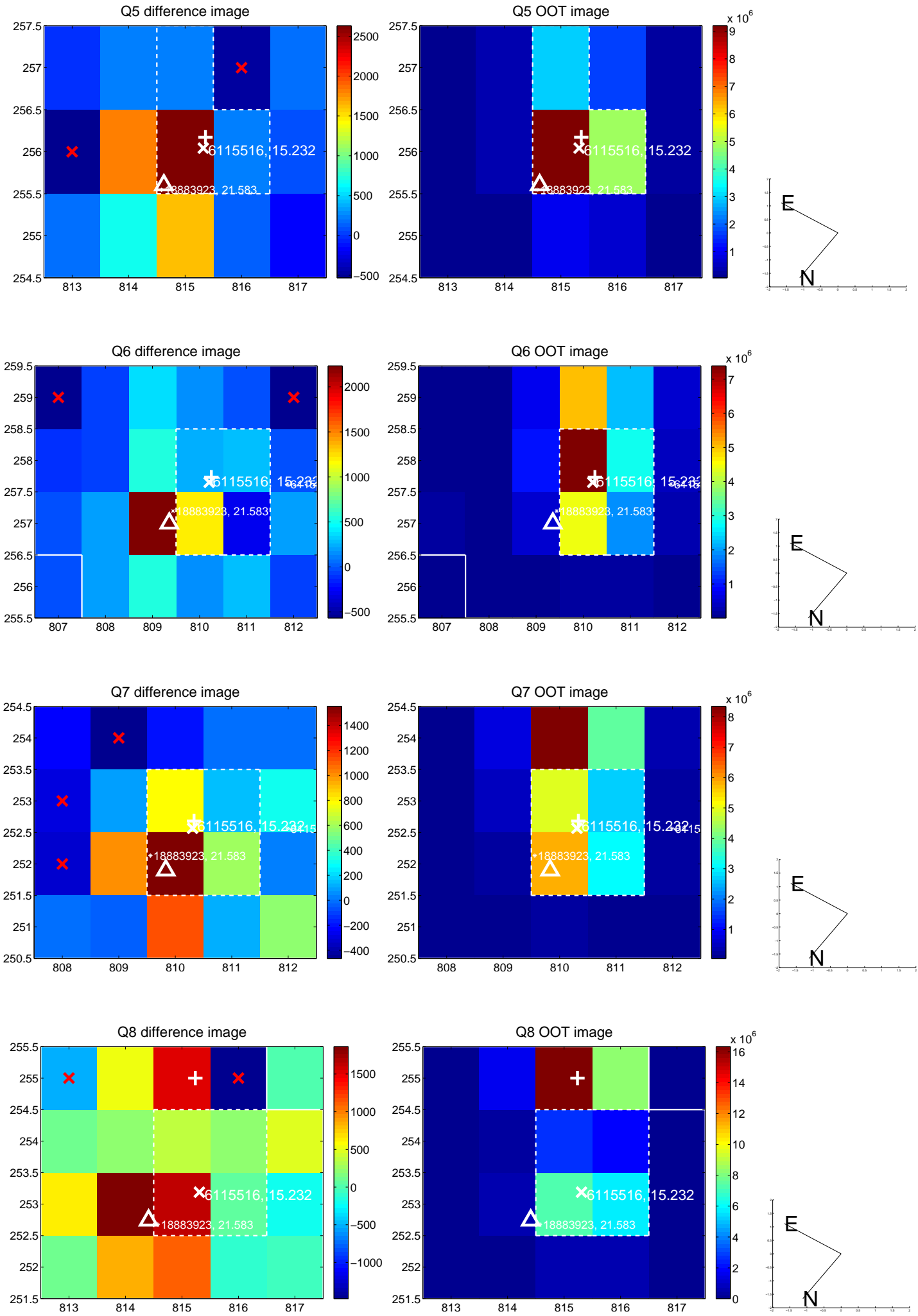


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

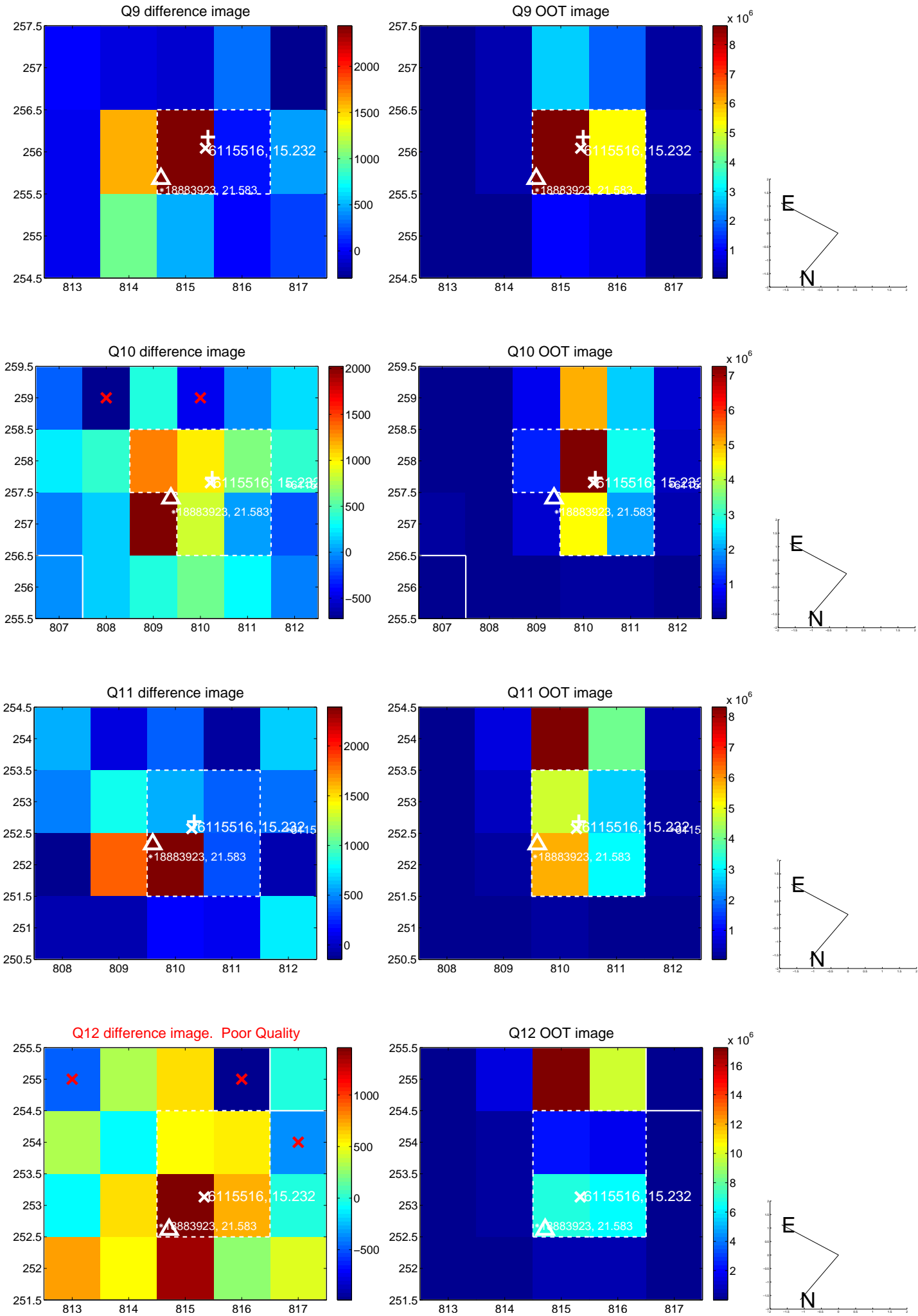
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



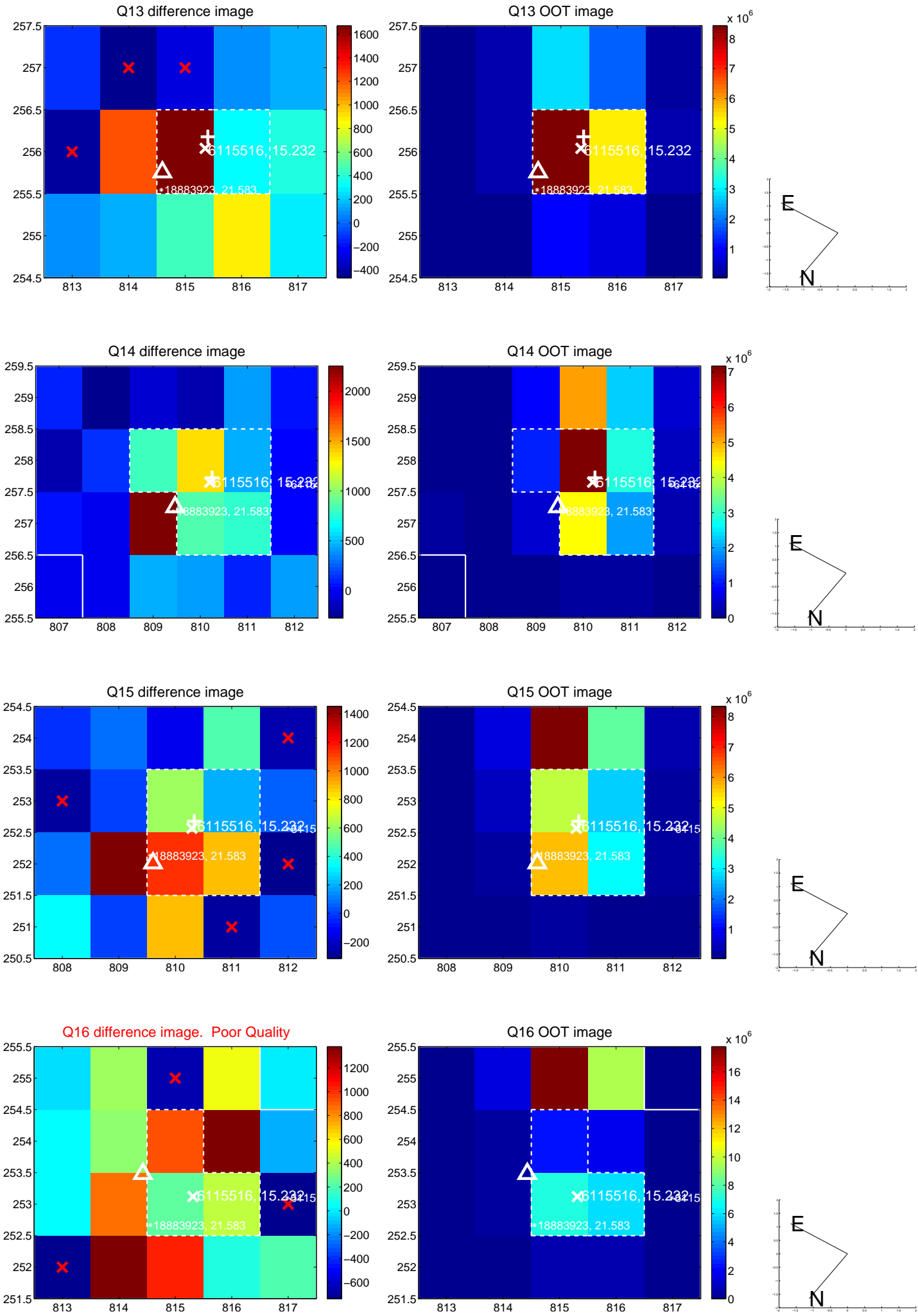
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



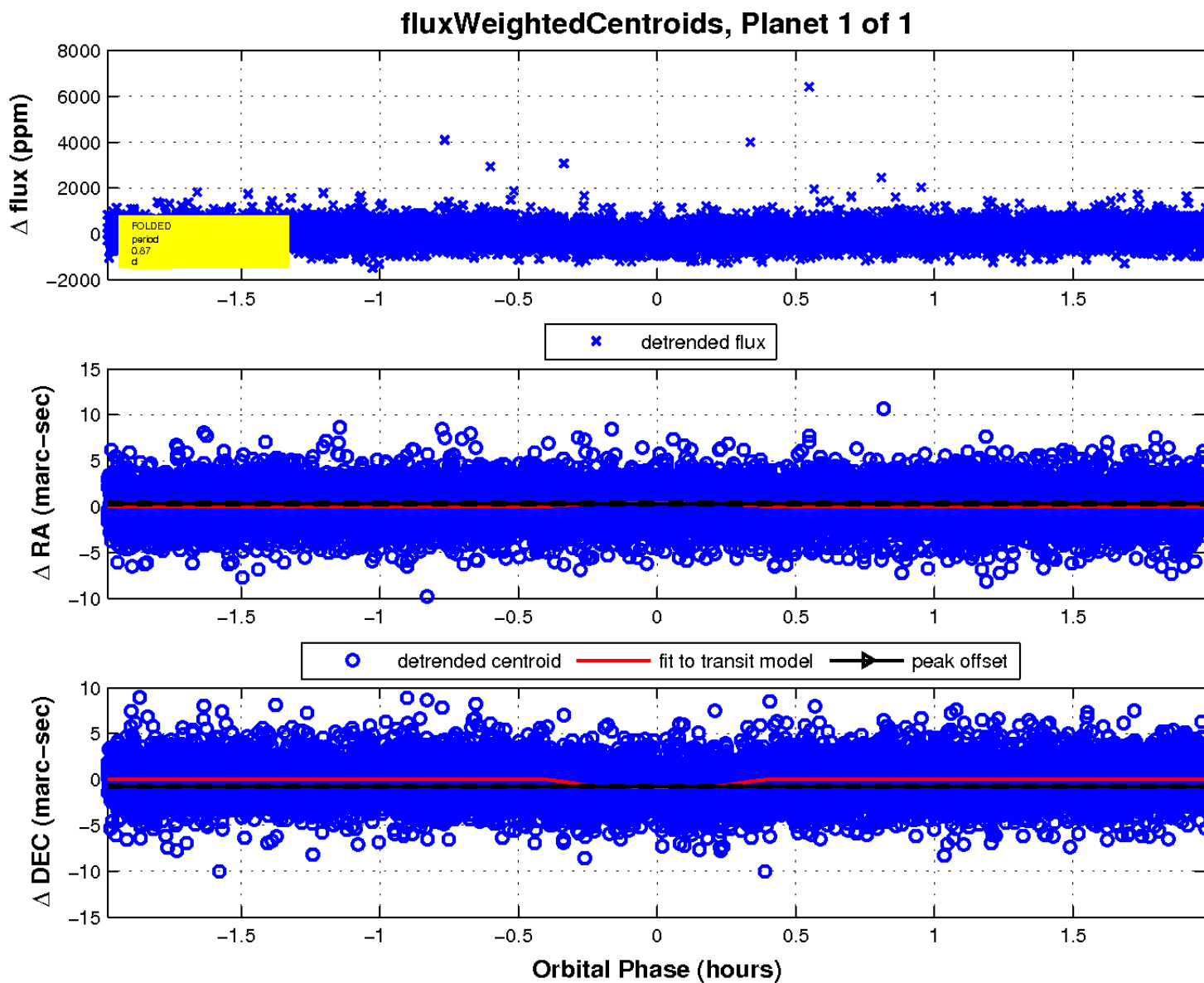
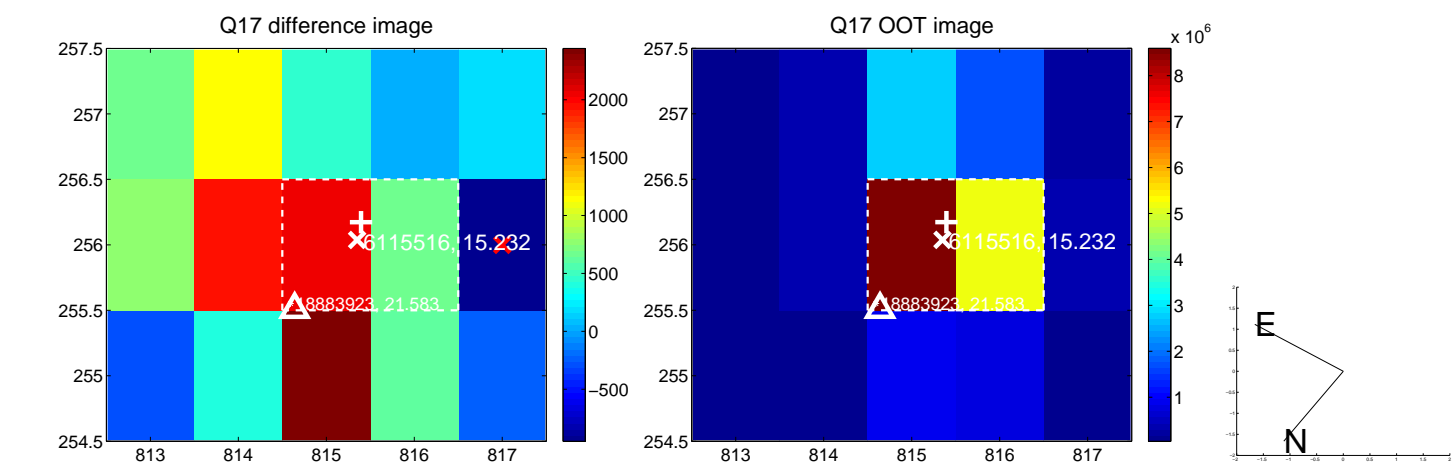
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UKIRT Image

Declination

