

KIC 007515336

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})
007515336-01	OBS	4663.01	5.656930	131.577291	30.5	3.740	8.1	8.6	1.32	5687	0.87	426.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007515336-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

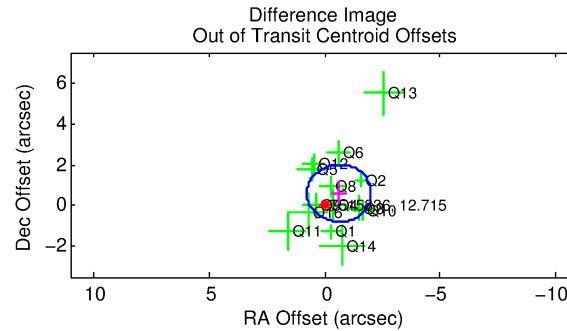
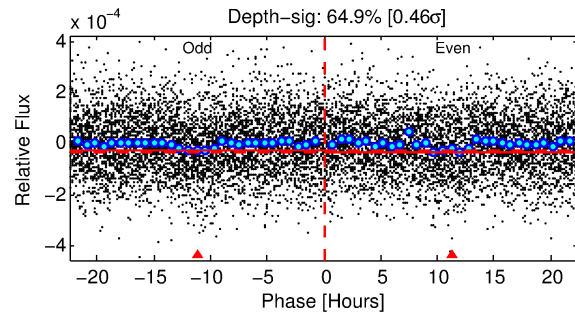
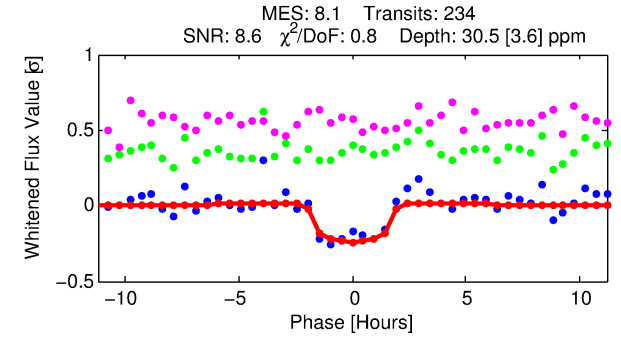
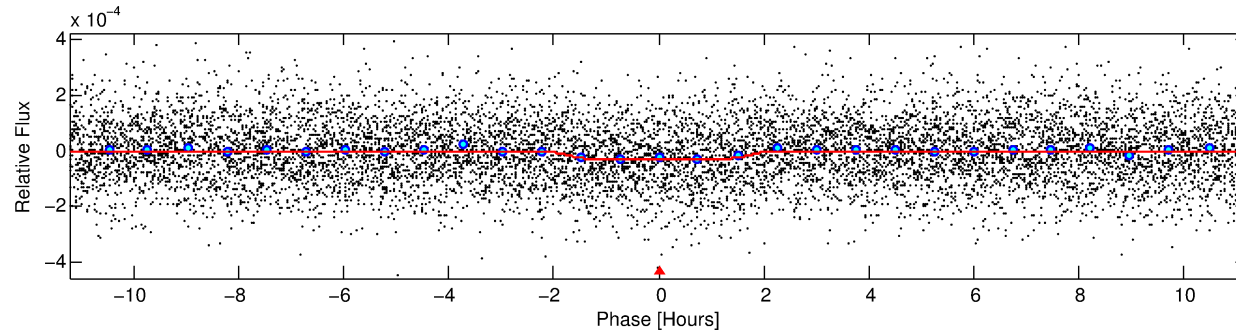
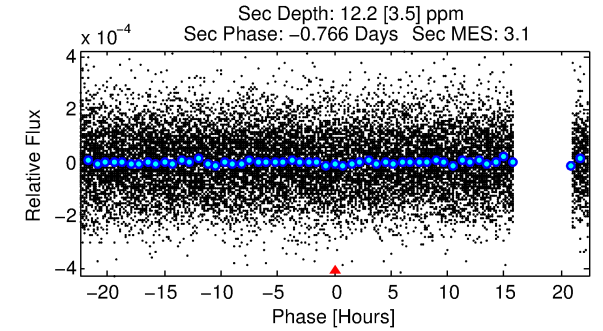
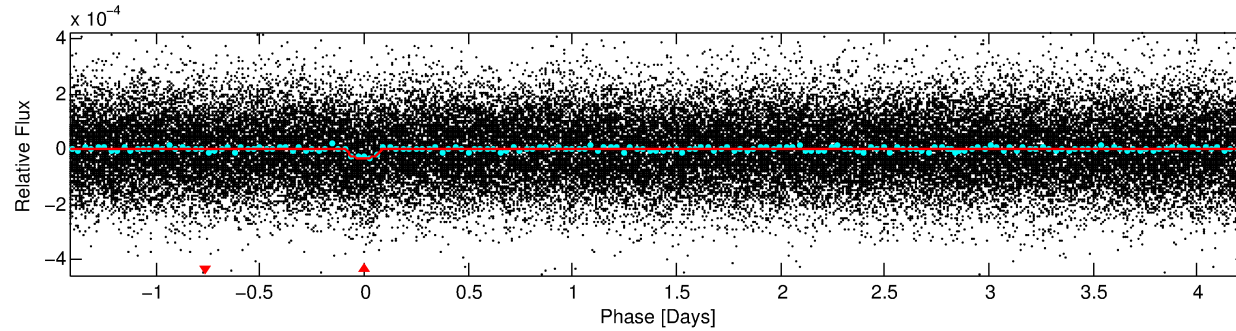
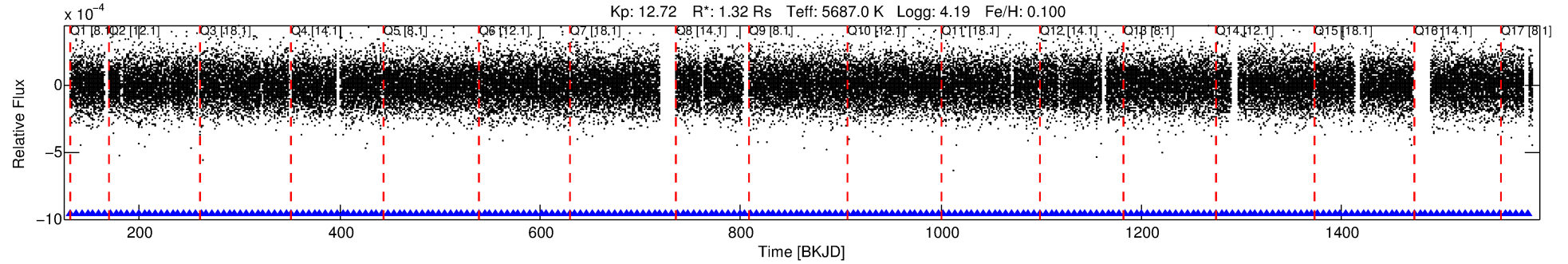
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007515336-01

No Significant Match Found

DV One-Page Summary

KIC: 7515336 Candidate: 1 of 1 Period: 5.657 d
KOI: K04663.01 Corr: 0.943



DV Fit Results:

Period = 5.65693 [0.00005] d
Epoch = 131.5773 [0.0069] BKJD
Rp/R* = 0.0060 [0.0032]
a/R* = 5.28 [12.86]
b = 0.90 [0.54]
Seff = 426.61 [134.25]
Teq = 1159 [91] K
Rp = 0.87 [0.50] Re
a = 0.0619 [0.0120] AU
Ag = 34.02 [39.03] [0.85σ]
Teffp = 4327 [1196] K [2.64σ]

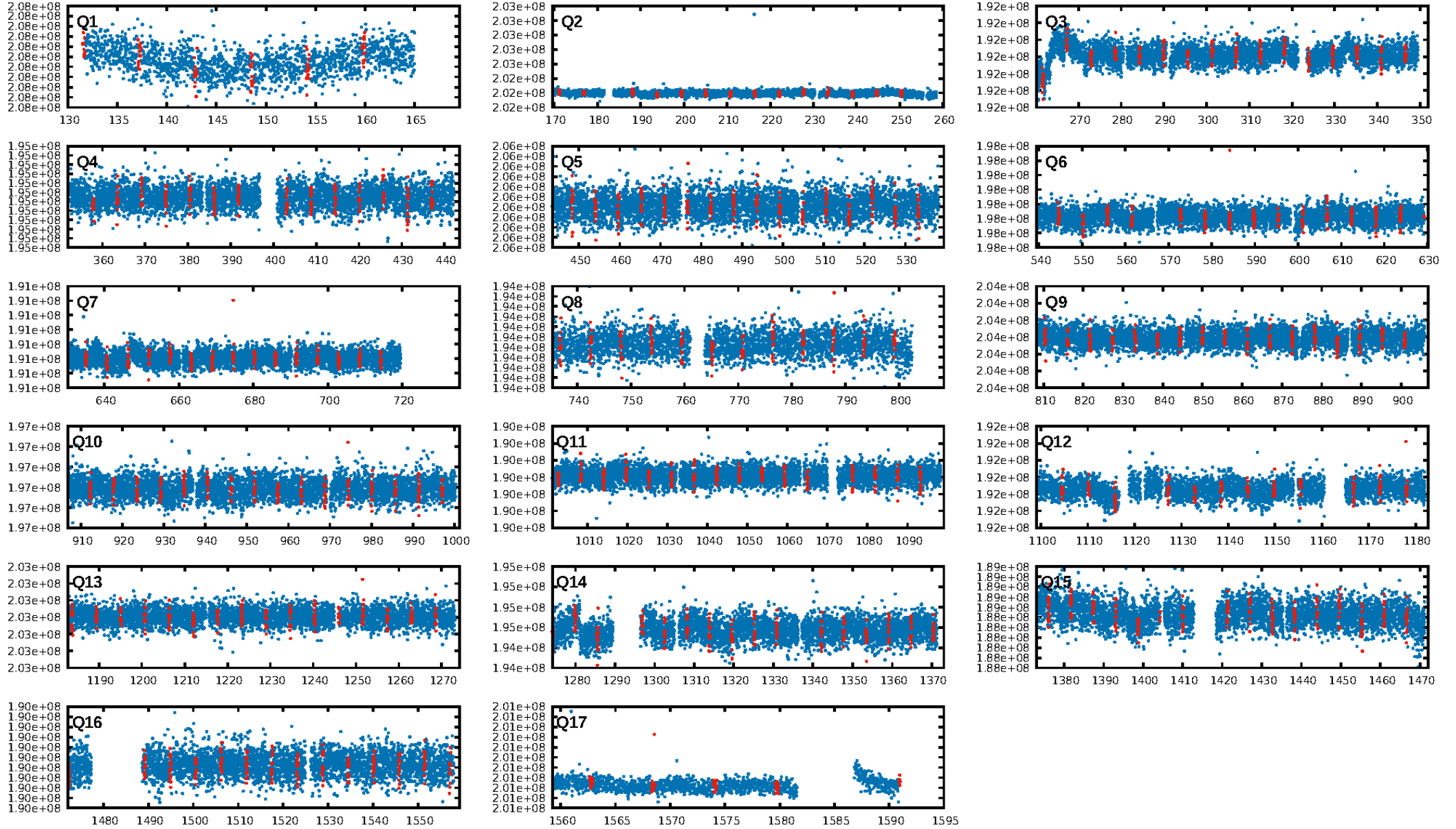
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.09e-15
RollingBand-fgt: 1.00 [223/223]
GhostDiagnostic-chr: -2.464
Centroid-sig: 0.3%
Centroid-so: 2.707 arcsec [2.60σ]
OotOffset-rm: 0.862 arcsec [1.85σ]
KicOffset-rm: 0.804 arcsec [1.71σ]
OotOffset-st: 4/2/4/4 [14]
KicOffset-st: 4/2/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [17/17]

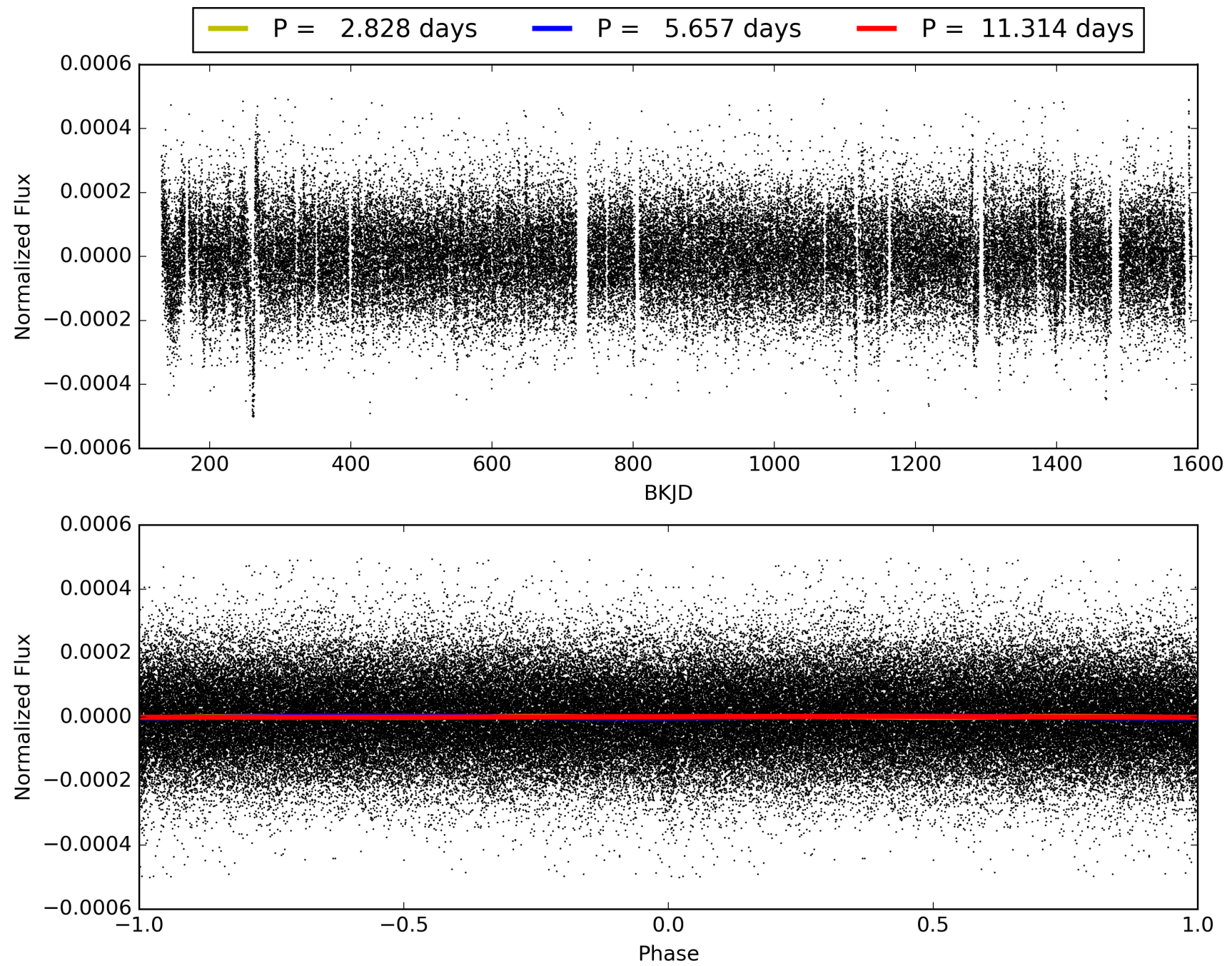
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:27:34 Z

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

TCE 007515336-01, PDC Light Curves

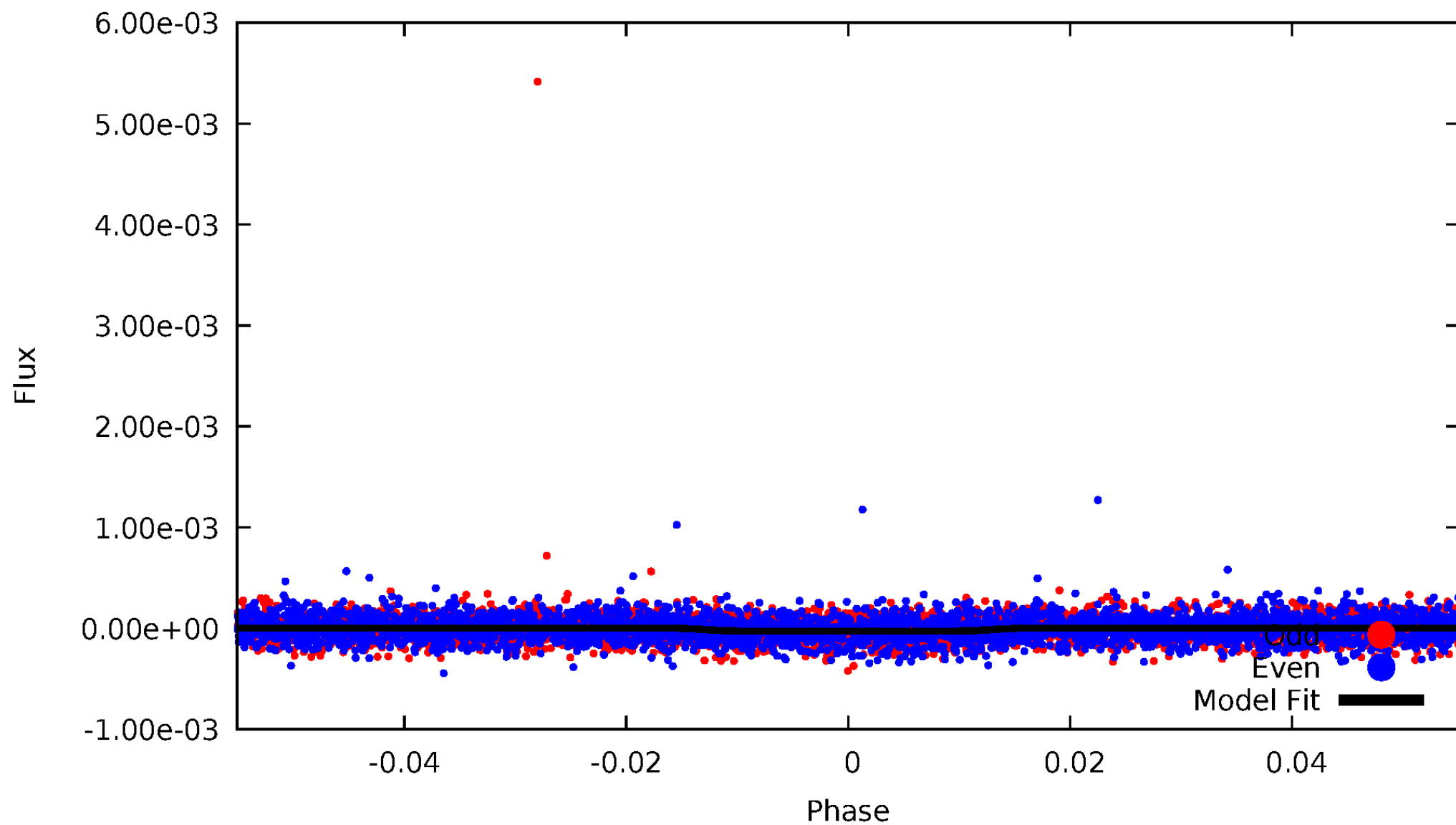


TCE 007515336-01



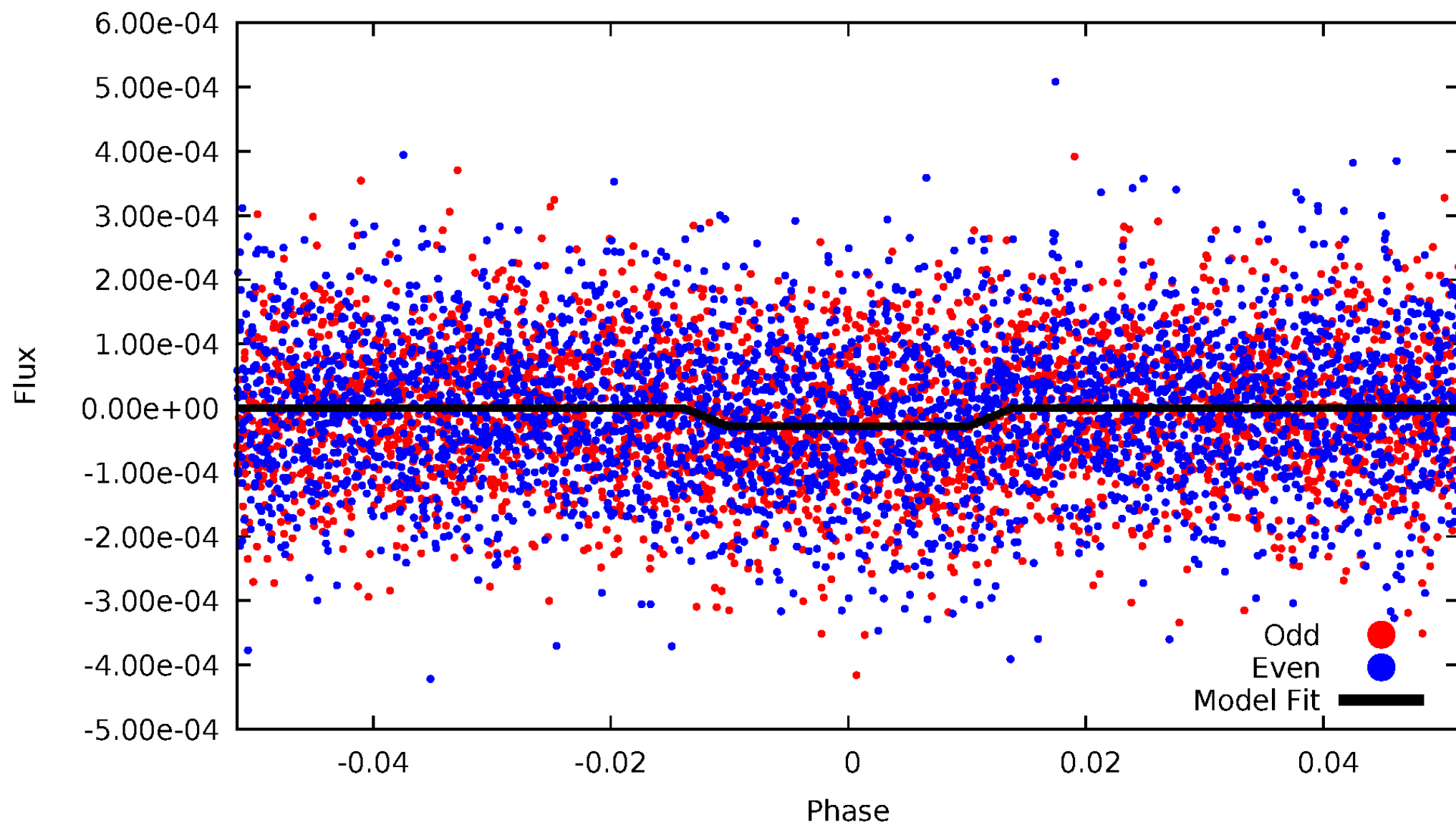
DV Odd/Even

TCE 007515336-01

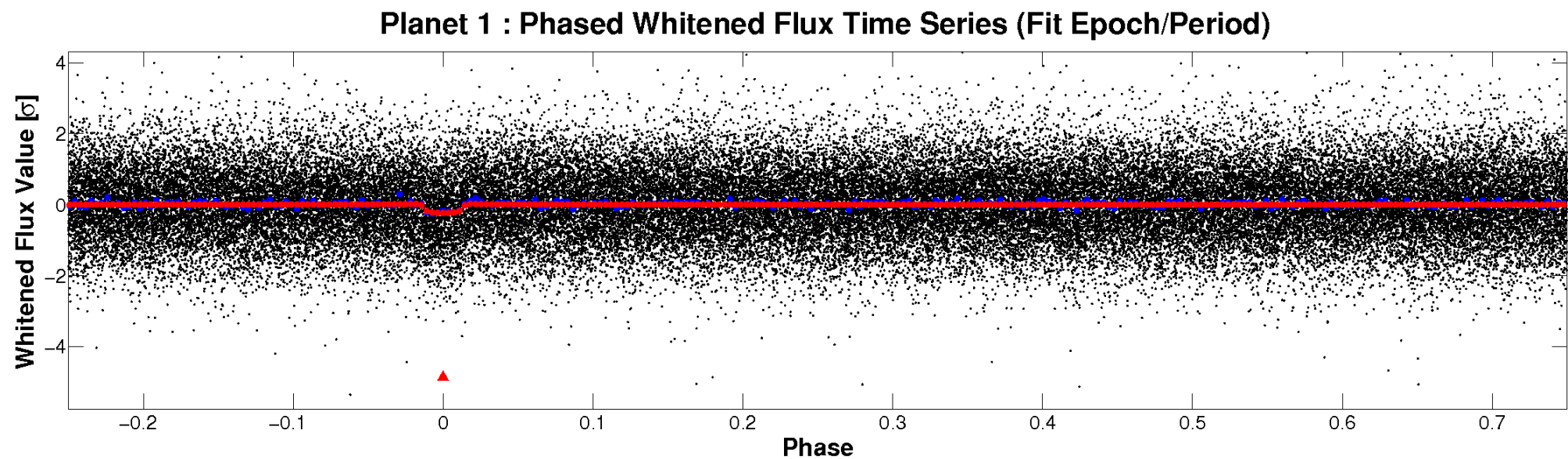
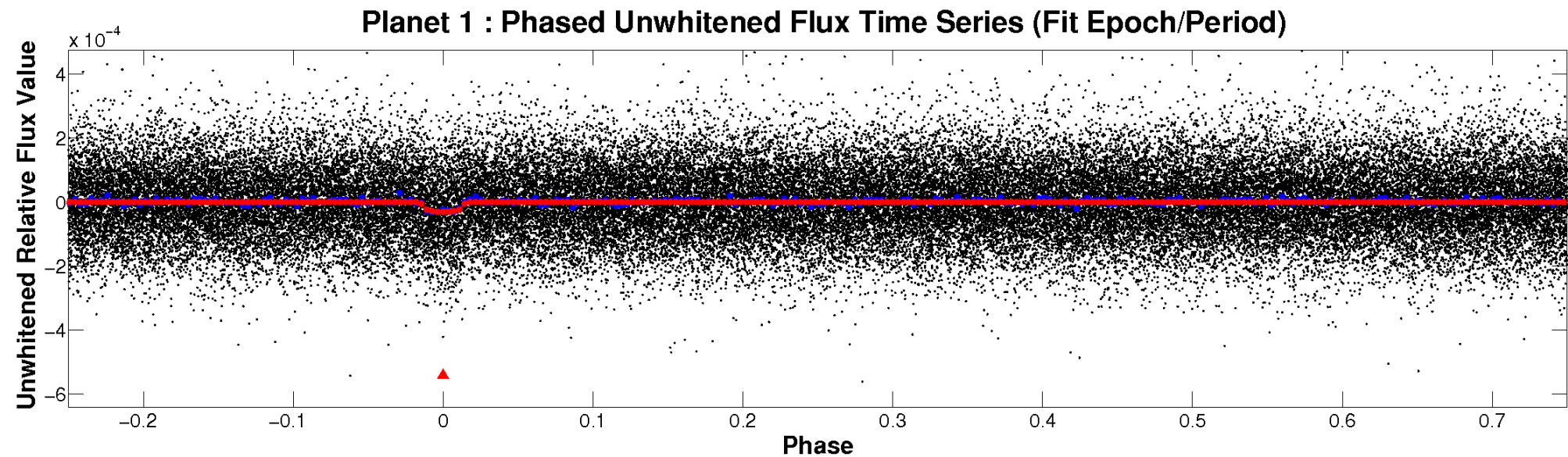


ALT Odd/Even

TCE 007515336-01

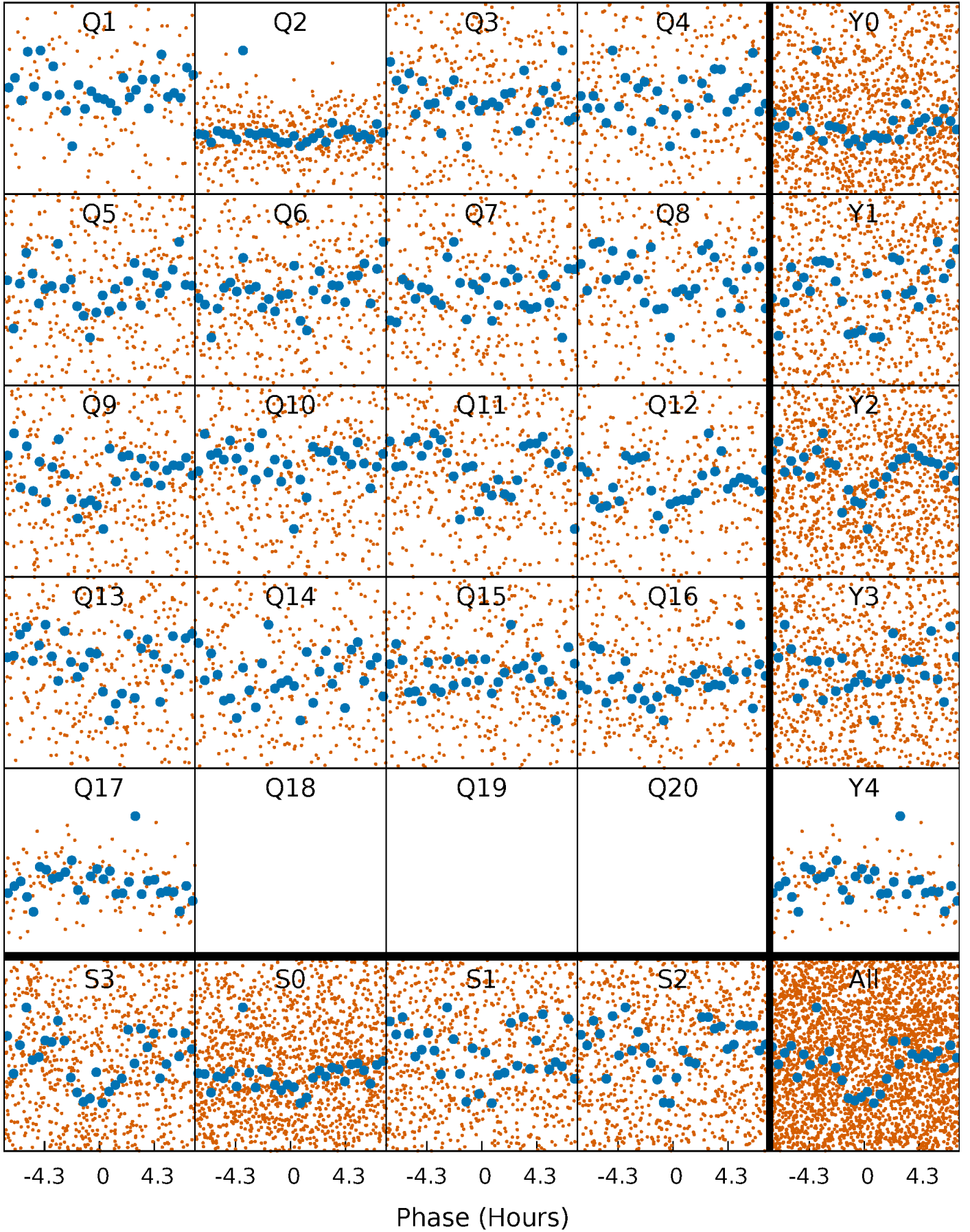


Non-Whitened Vs. Whitened Light Curve



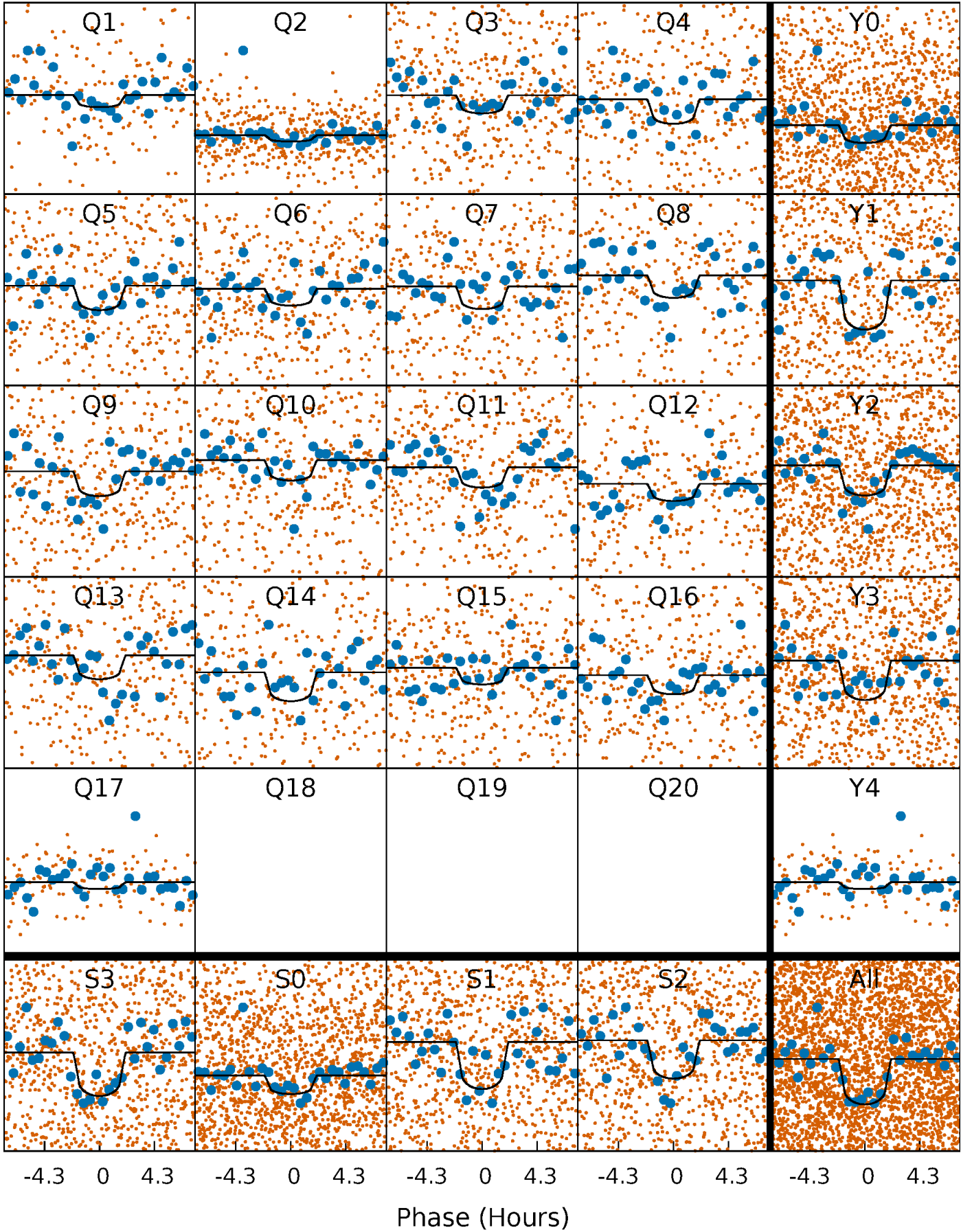
PDC Quarter-Phased Transit Curves

TCE 007515336-01 P= 5.656930 Days $T_0=131.577291$ (BKJD)



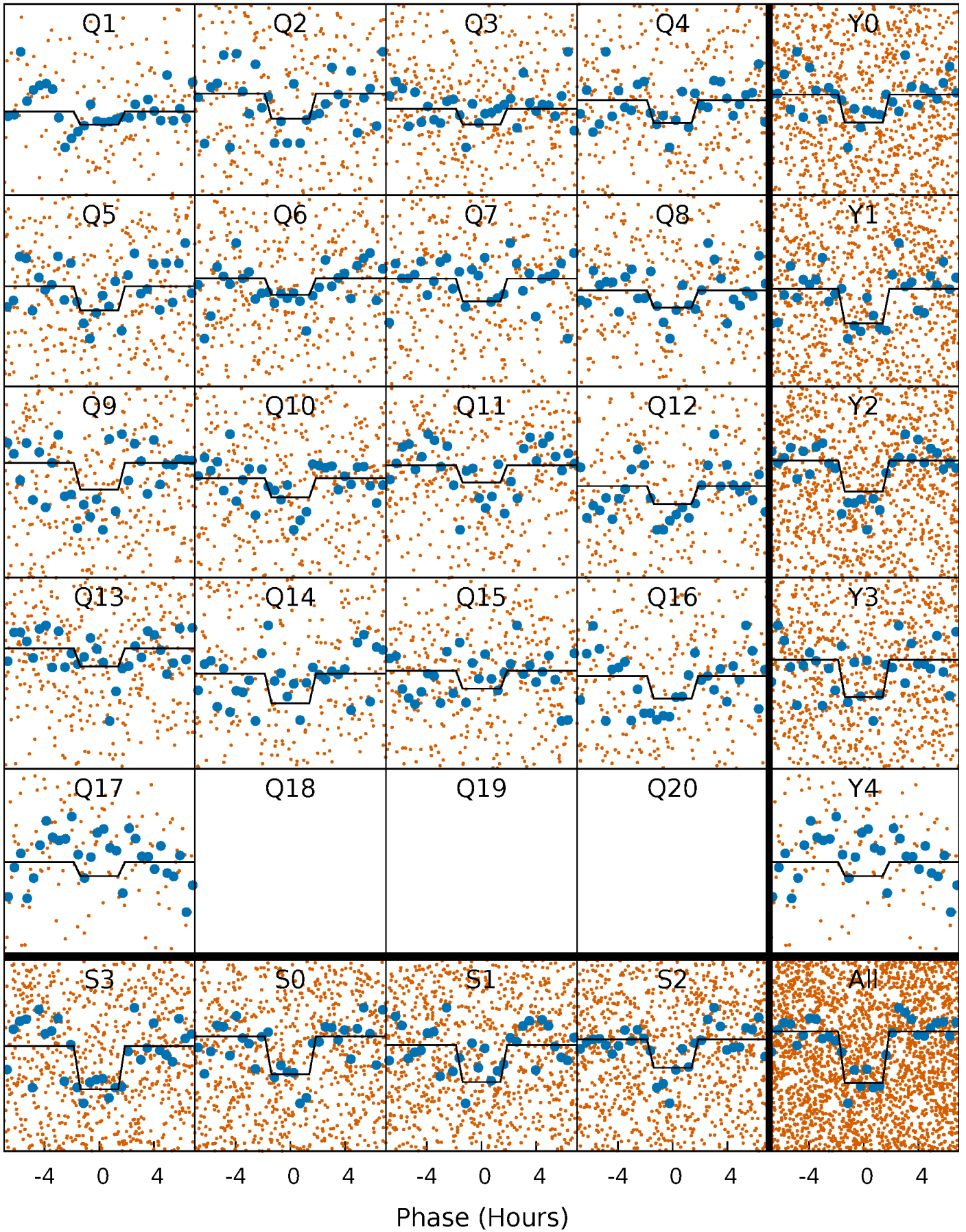
DV Quarter-Phased Transit Curves

TCE 007515336-01 P= 5.656930 Days $T_0=131.577291$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

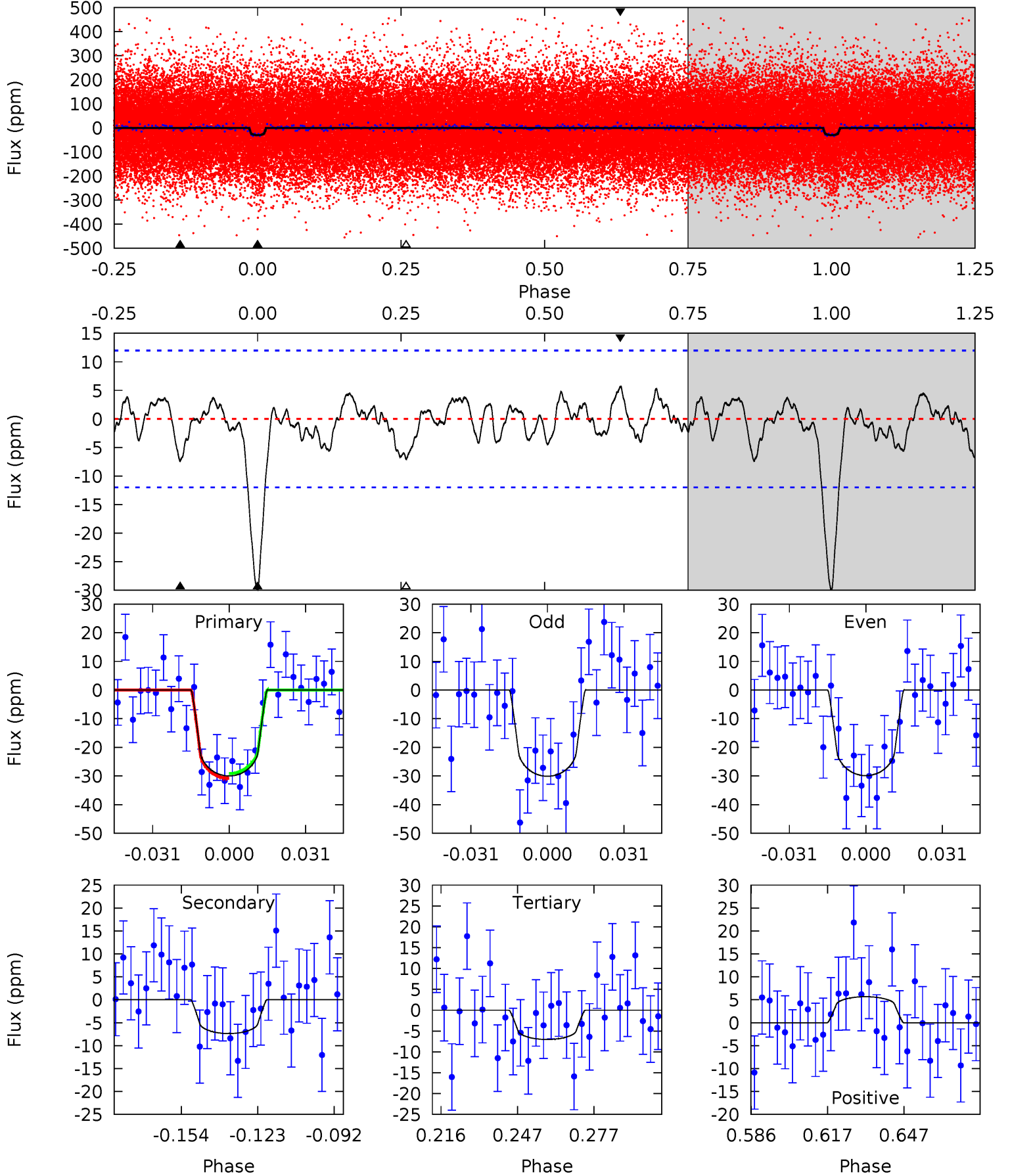
TCE 007515336-01 P= 5.656892 Days $T_0=131.579520$ (BKJD)



DV Model-Shift Uniqueness Test

007515336-01, P = 5.656930 Days, E = 125.920361 Days

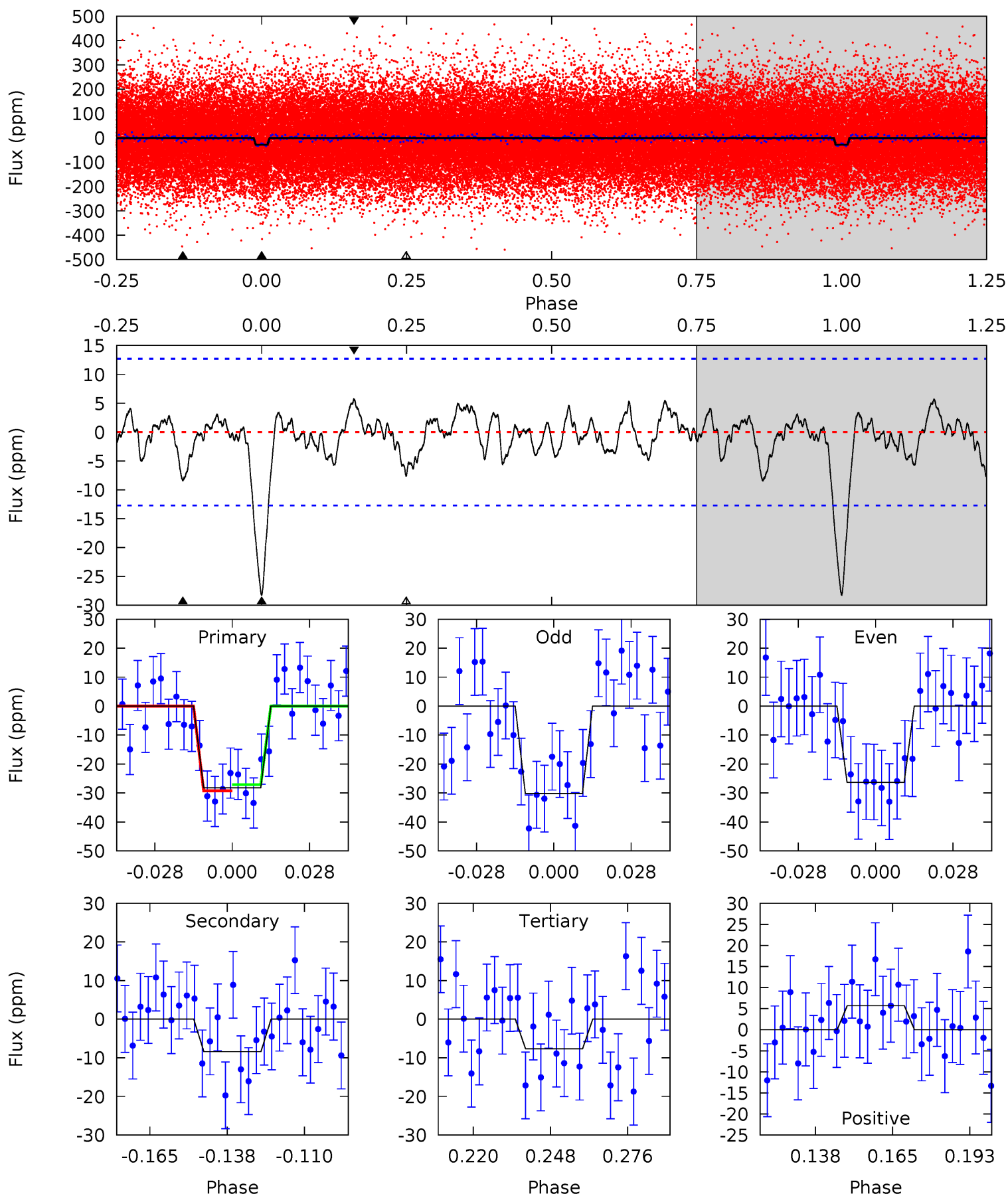
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	2.96	2.82	2.27	4.81	2.16	1.05	9.21	9.75	0.14	0.68	0.05	1.06	0.16	0.33



Alt Model-Shift Uniqueness Test

007515336-01, P = 5.656892 Days, E = 125.922628 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	3.19	2.90	2.17	4.83	2.20	1.00	7.82	8.56	0.29	1.02	0.74	1.07	0.17	0.40



Stellar Parameters For KIC 007515336

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5687^{+77}_{-77}	$4.191^{+0.182}_{-0.098}$	$0.100^{+0.150}_{-0.150}$	$1.320^{+0.218}_{-0.266}$	$0.986^{+0.079}_{-0.064}$	$0.604^{+0.559}_{-0.179}$
	+1%/-1%	+4%/-2%	+150%/-150%	+17%/-20%	+8%/-6%	+93%/-30%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007515336-01 / KOI 4663.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-7 ± 2	$0.85^{+0.47}_{-0.45}$	1611^{+72}_{-85}	4077^{+1362}_{-626}	21^{+67}_{-13}
Alt.	-8 ± 3	$0.77^{+0.43}_{-0.43}$	1613^{+70}_{-93}	4295^{+1786}_{-637}	29^{+124}_{-17}

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 $A_{obs} \gg 1.0$

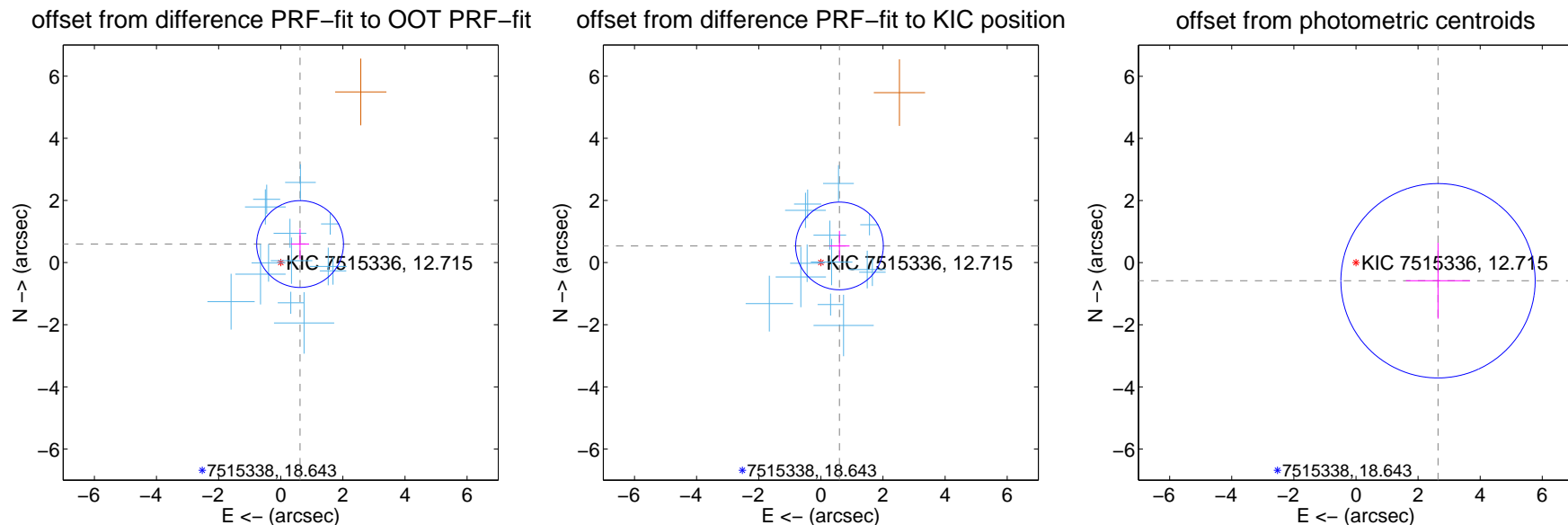
DV Centroid Data

Supplemental centroid analysis for 007515336-01. Kepler magnitude: 12.71. Transit SNR 8.59

There are 13 quarters with good PRF difference image offsets

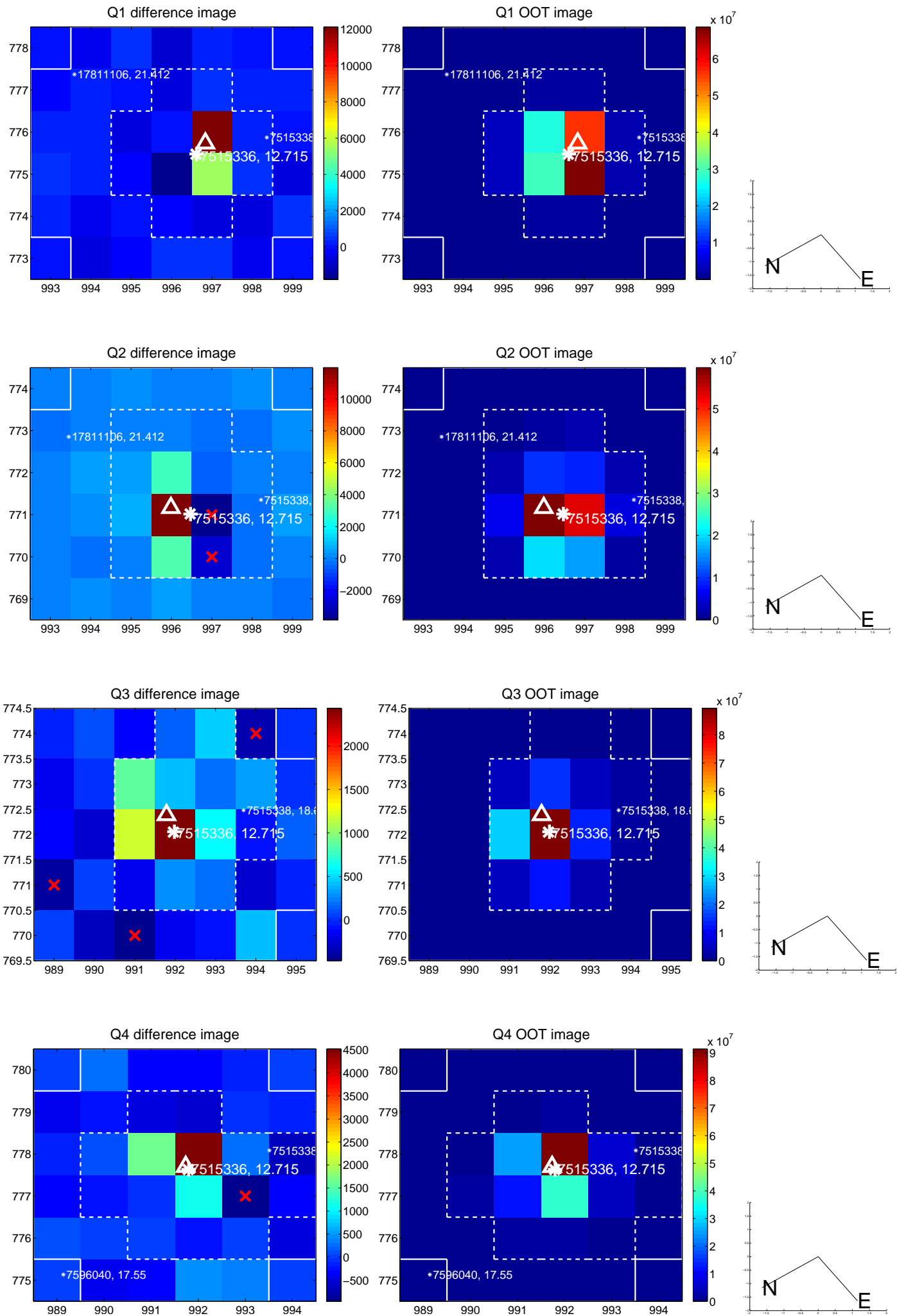
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.862 ± 0.466	1.85	-0.622 ± 0.291	0.597 ± 0.492
PRF-fit source offset from KIC position	0.804 ± 0.470	1.71	-0.600 ± 0.322	0.536 ± 0.487
photometric centroid source offset	2.71 ± 1.04	2.60	-2.64 ± 1.03	-0.58 ± 1.22

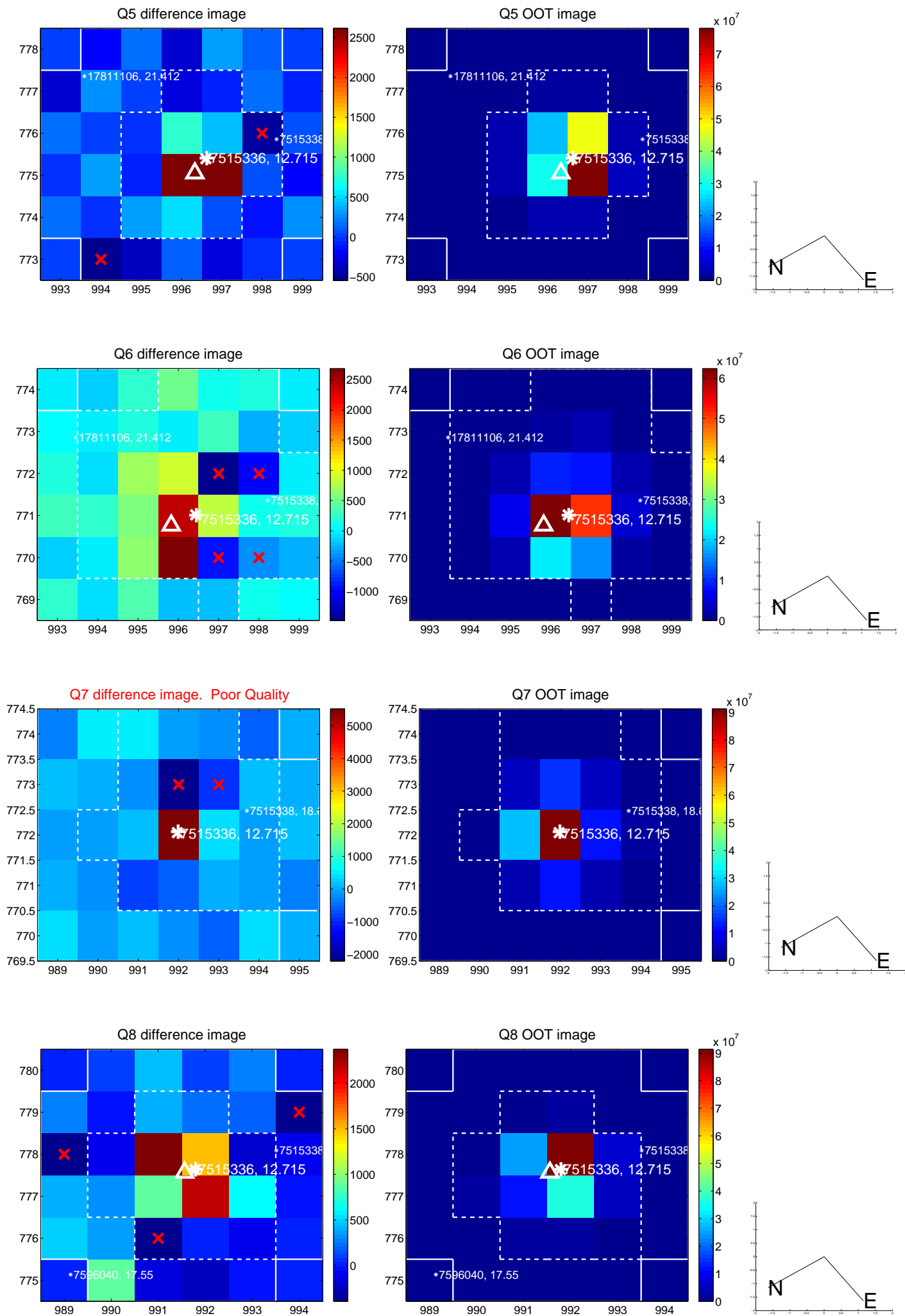


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

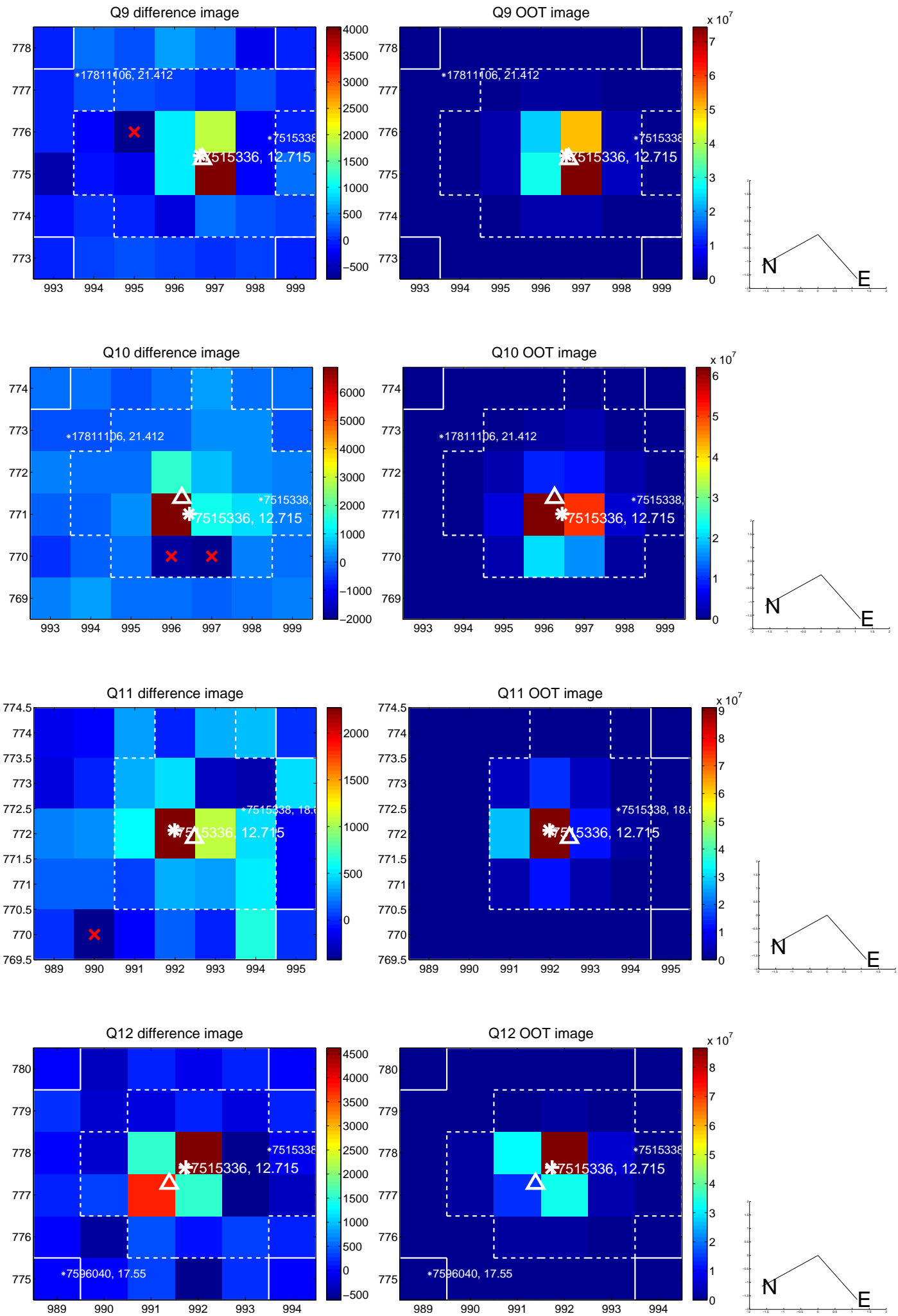
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



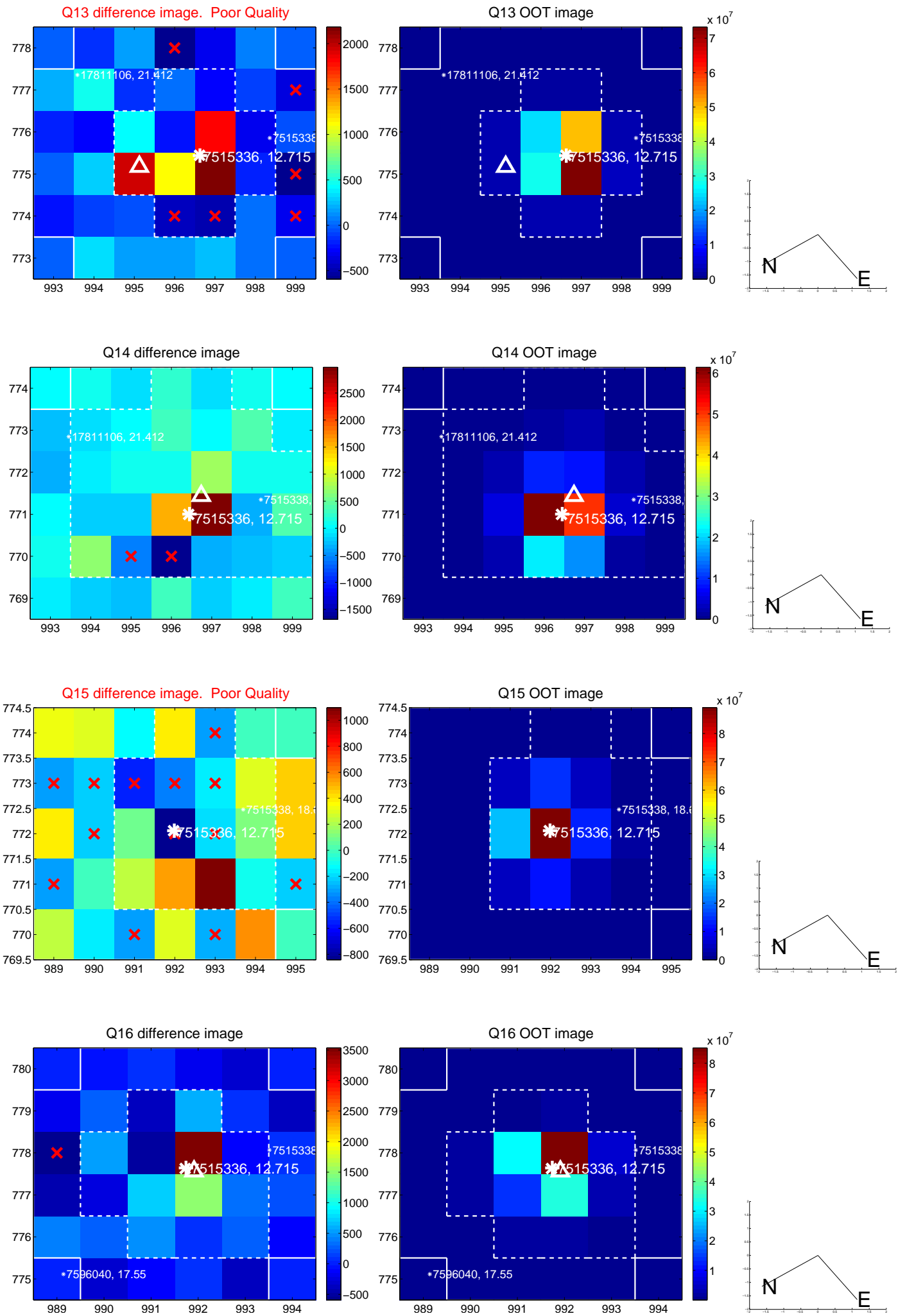
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



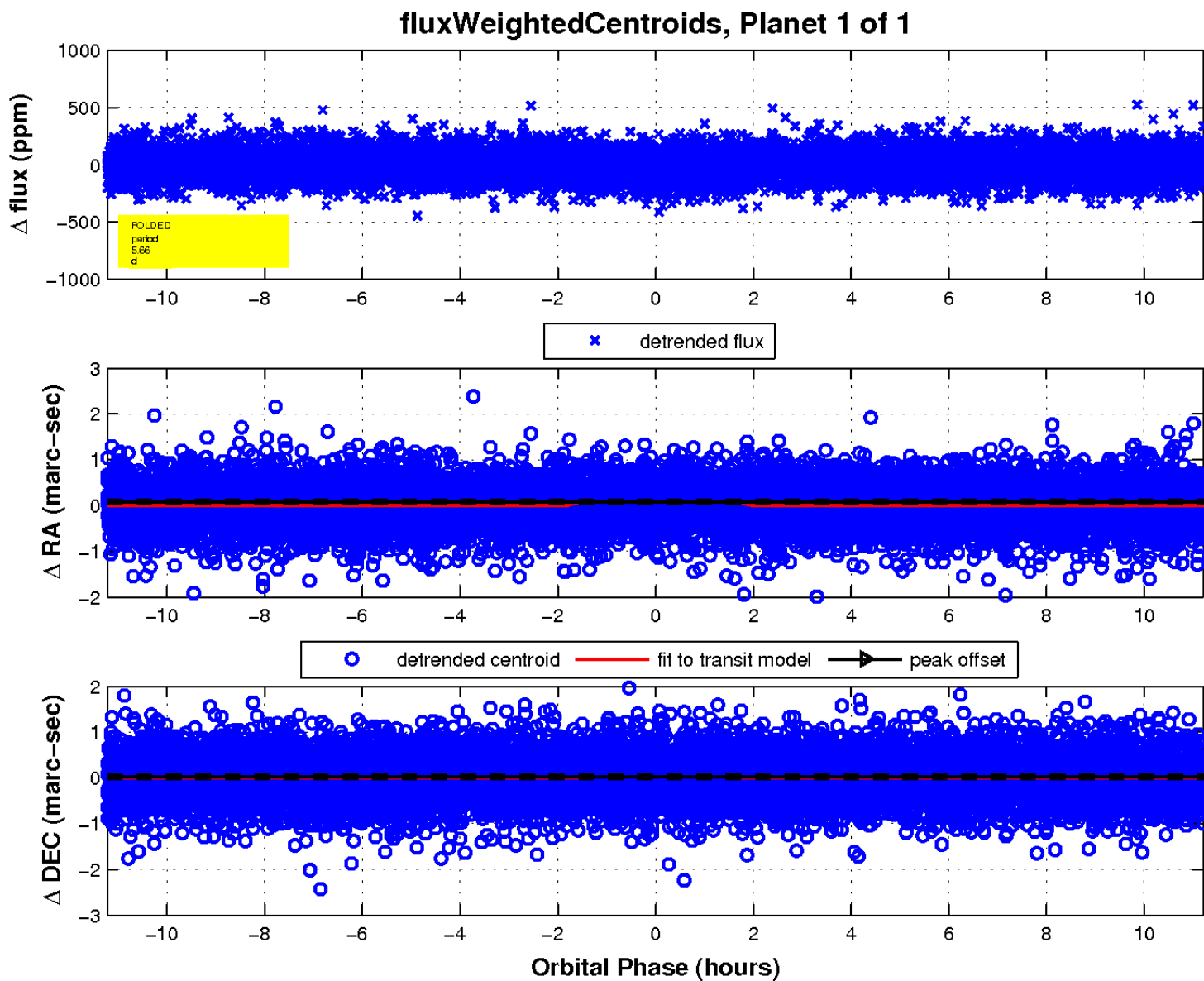
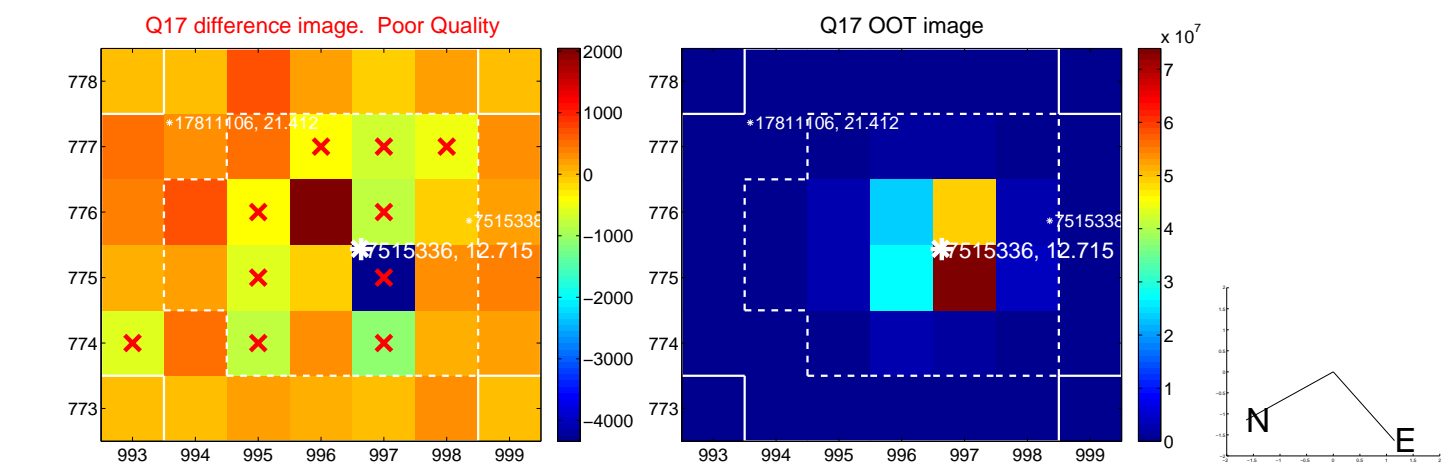
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

