

KIC 007583208

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})
007583208-01	OBS	No	0.544508	132.013934	113.2	1.719	7.8	5.5	1.90	7345	2.35	42110.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007583208-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

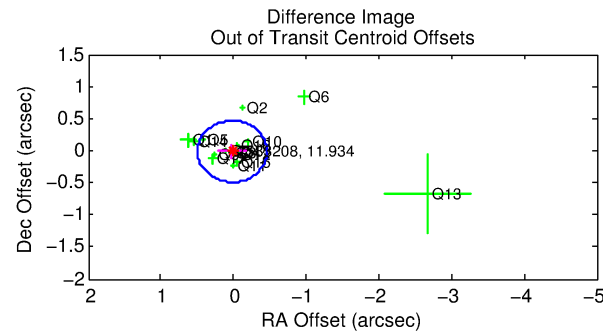
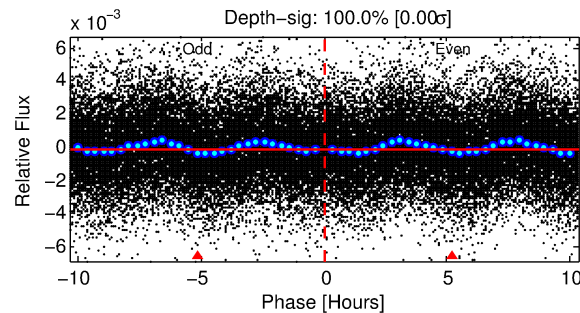
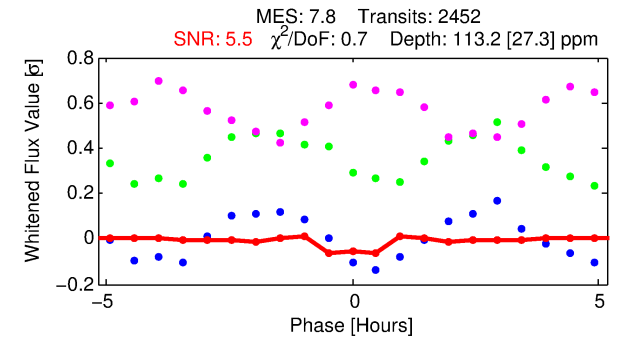
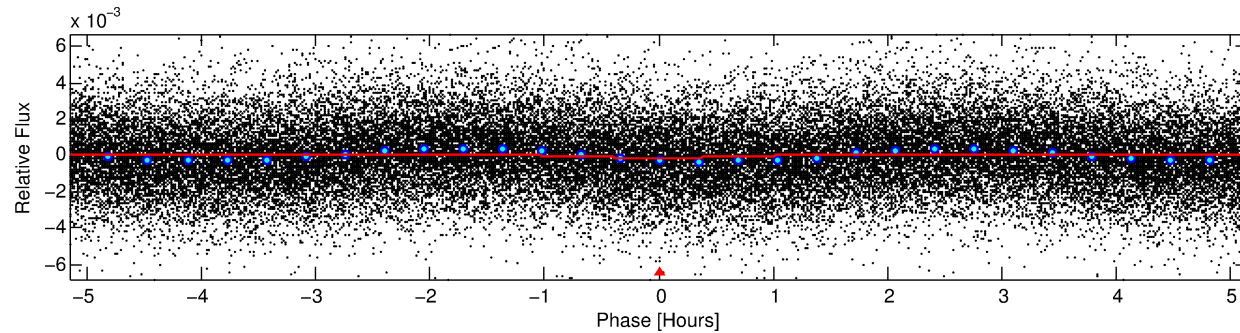
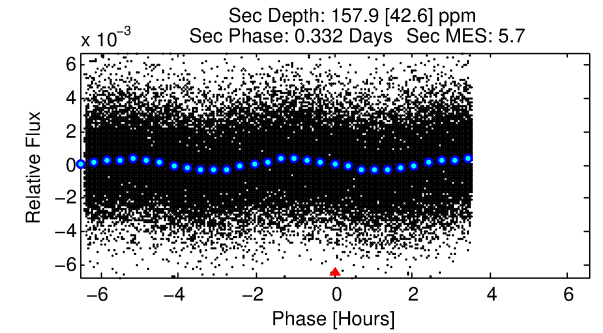
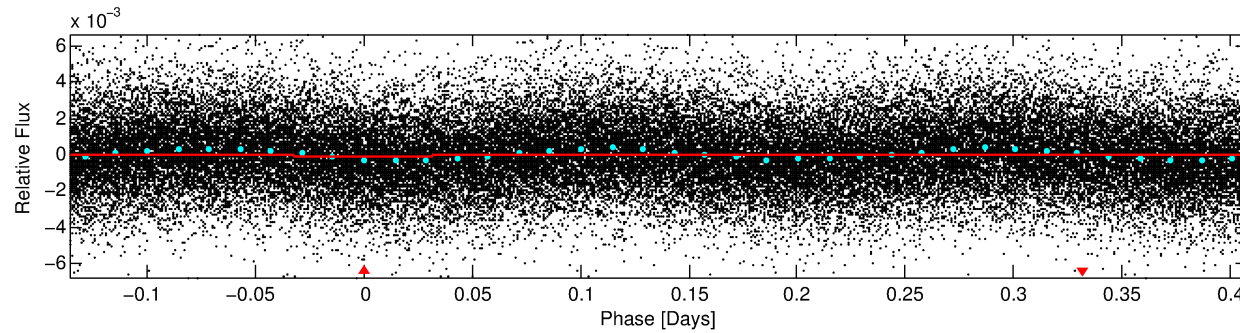
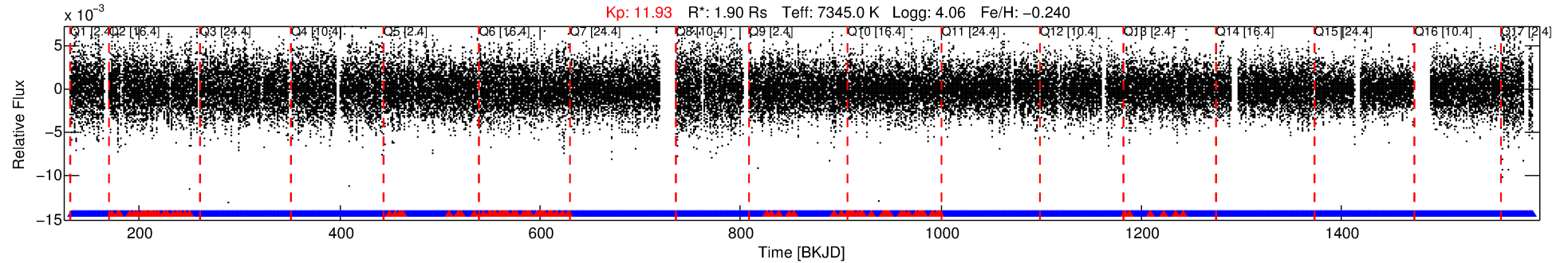
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007583208-01

No Significant Match Found

DV One-Page Summary

KIC: 7583208 Candidate: 1 of 1 Period: 0.545 d



DV Fit Results:

Period = 0.54451 [0.00002] d
Epoch = 132.0139 [0.0024] BKJD
 R_p/R^* = 0.0114 [0.0056]
 a/R^* = 1.46 [2.25]
 b = 0.90 [0.62]
 S_{eff} = 42110.13 [17075.66]
 T_{eq} = 3653 [370] K
 R_p = 2.35 [1.35] R_{e}
 a = 0.0149 [0.0037] AU
 A_g = 3.50 [3.79] [0.66σ]
 T_{eff} = 7724 [1990] K [2.01σ]

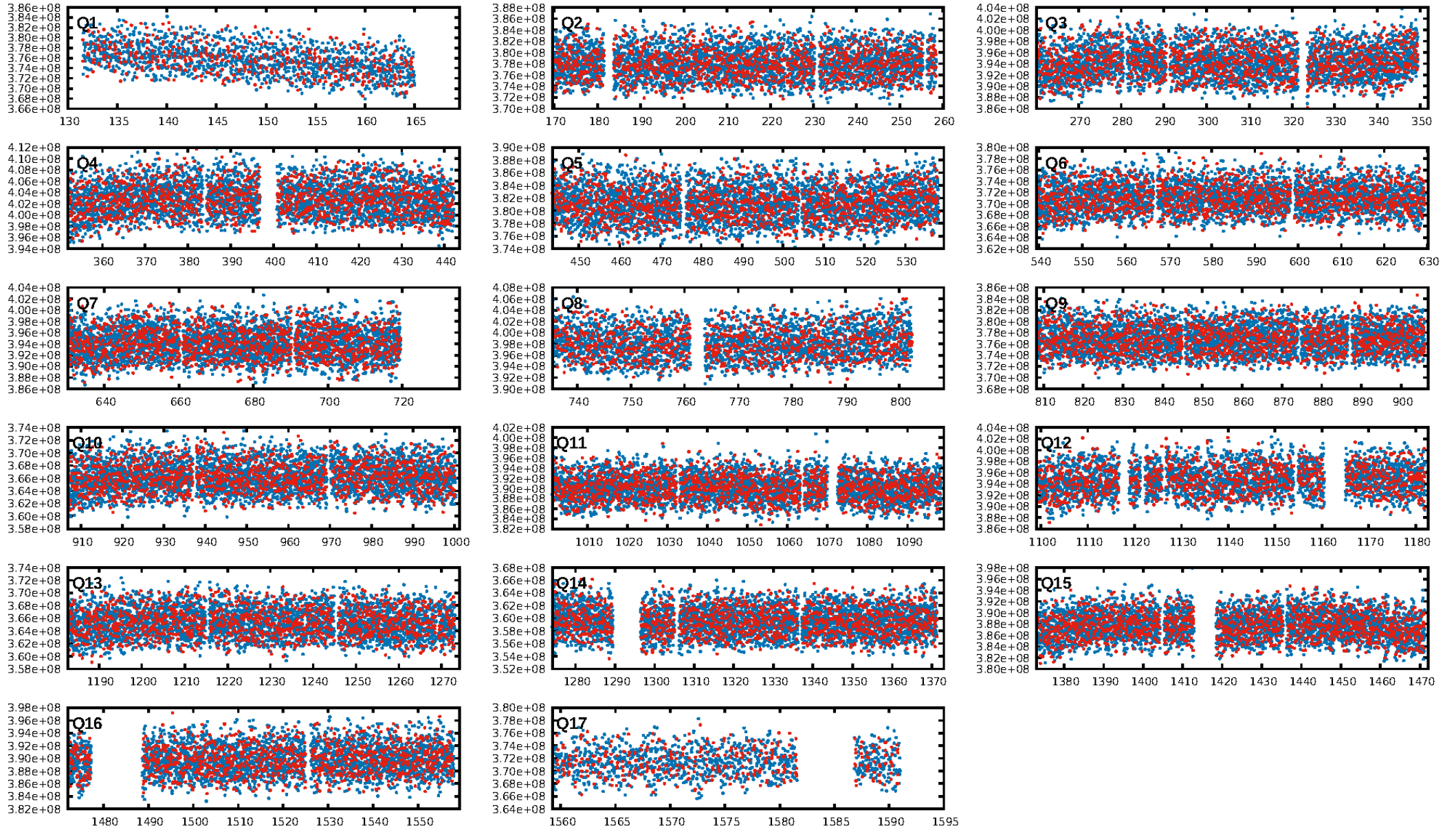
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.81e-16
RollingBand-fgt: 0.95 [2228/2341]
GhostDiagnostic-chr: 1.186
Centroid-sig: 29.6%
Centroid-so: 0.072 arcsec [0.61σ]
OotOffset-rm: 0.026 arcsec [0.16σ]
KicOffset-rm: 0.033 arcsec [0.16σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

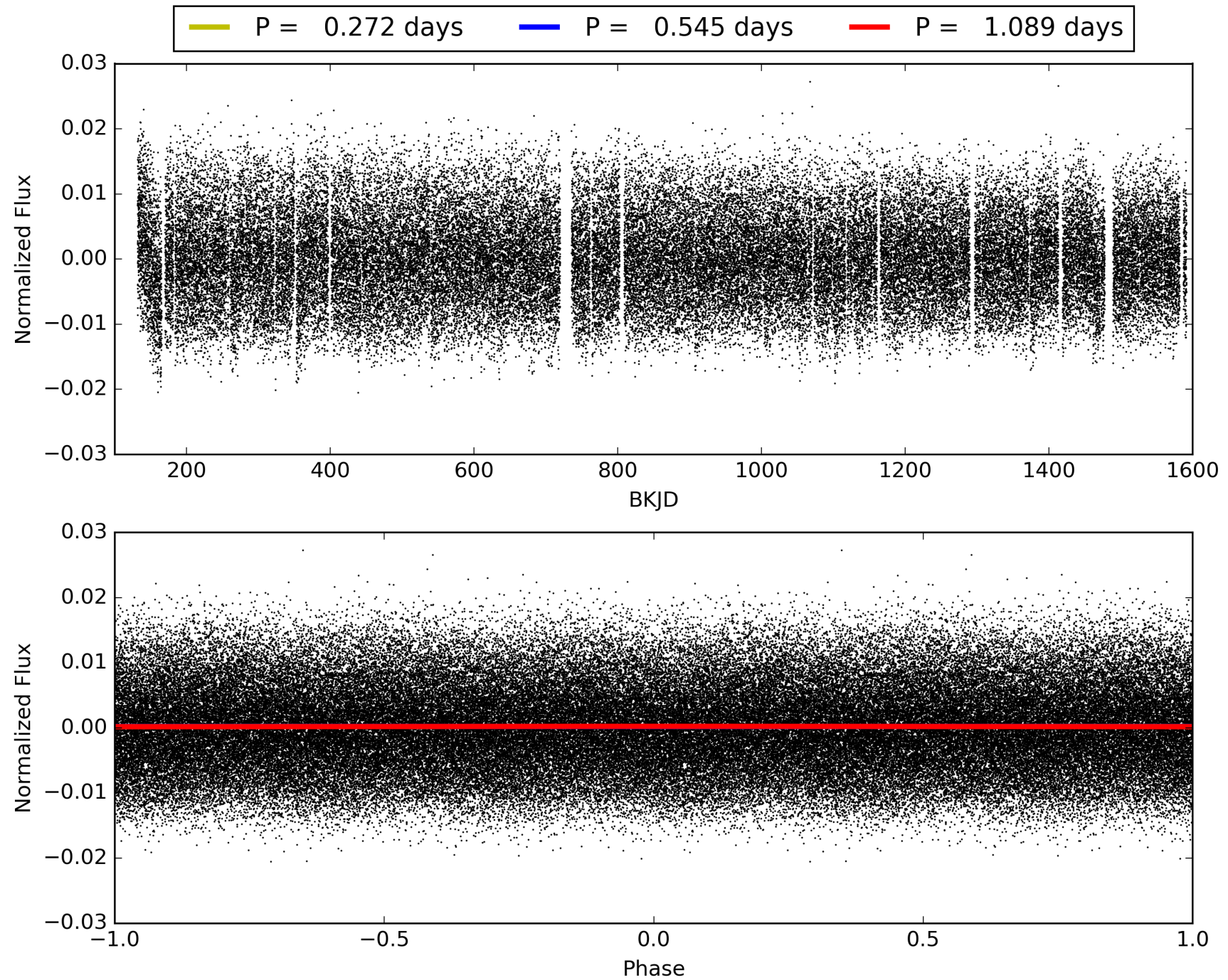
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:52:36 Z

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

TCE 007583208-01, PDC Light Curves

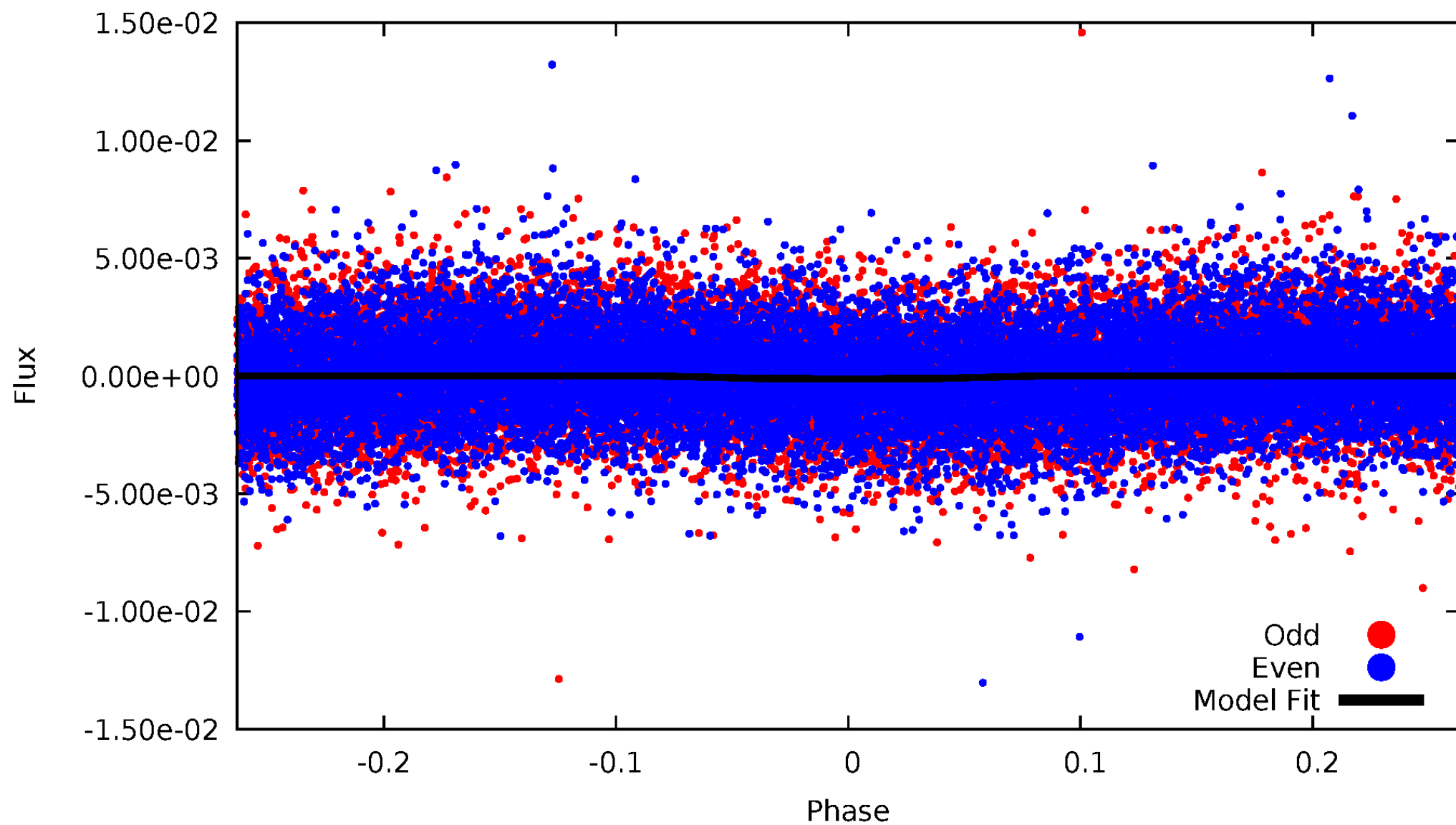


TCE 007583208-01



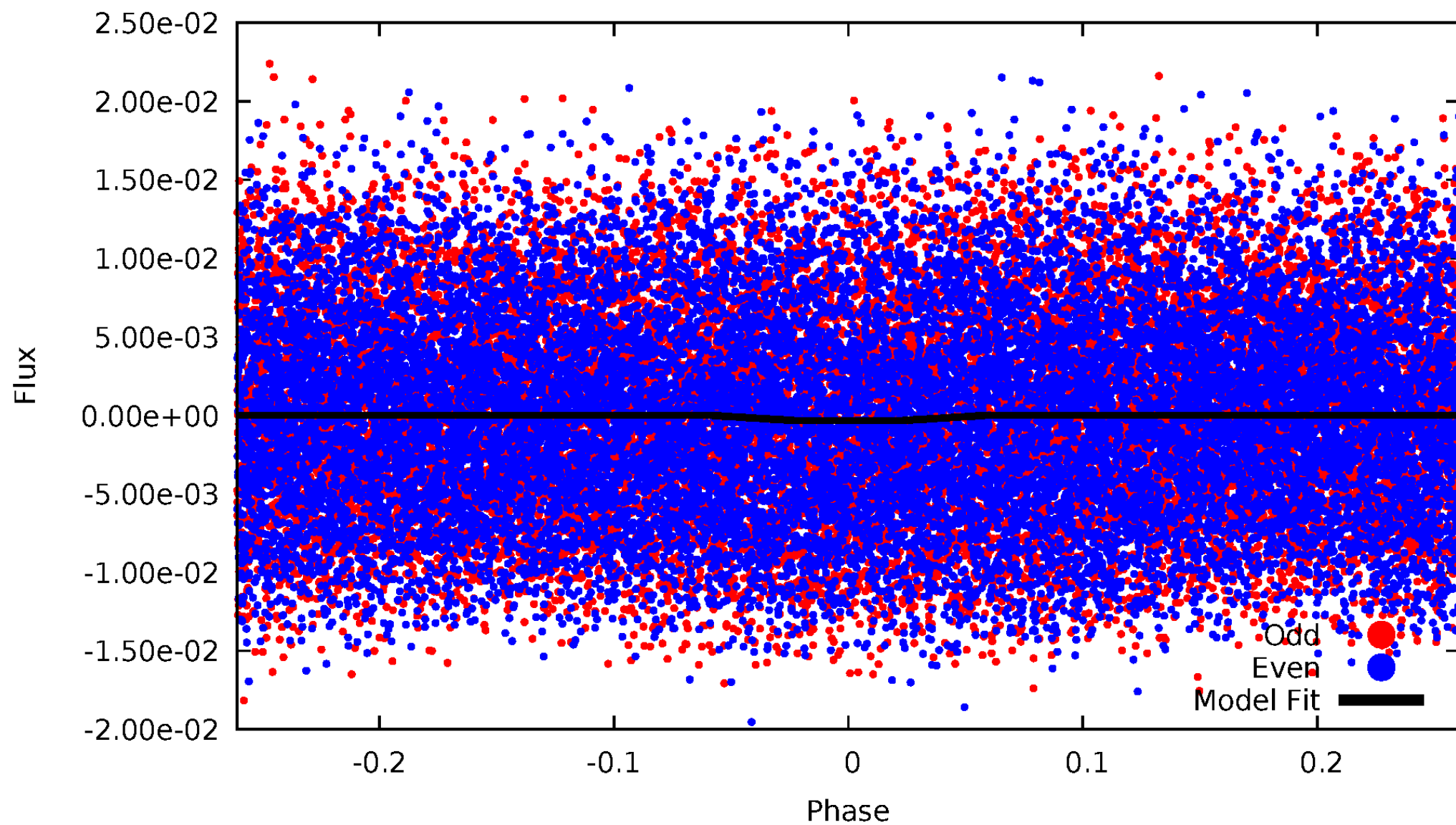
DV Odd/Even

TCE 007583208-01

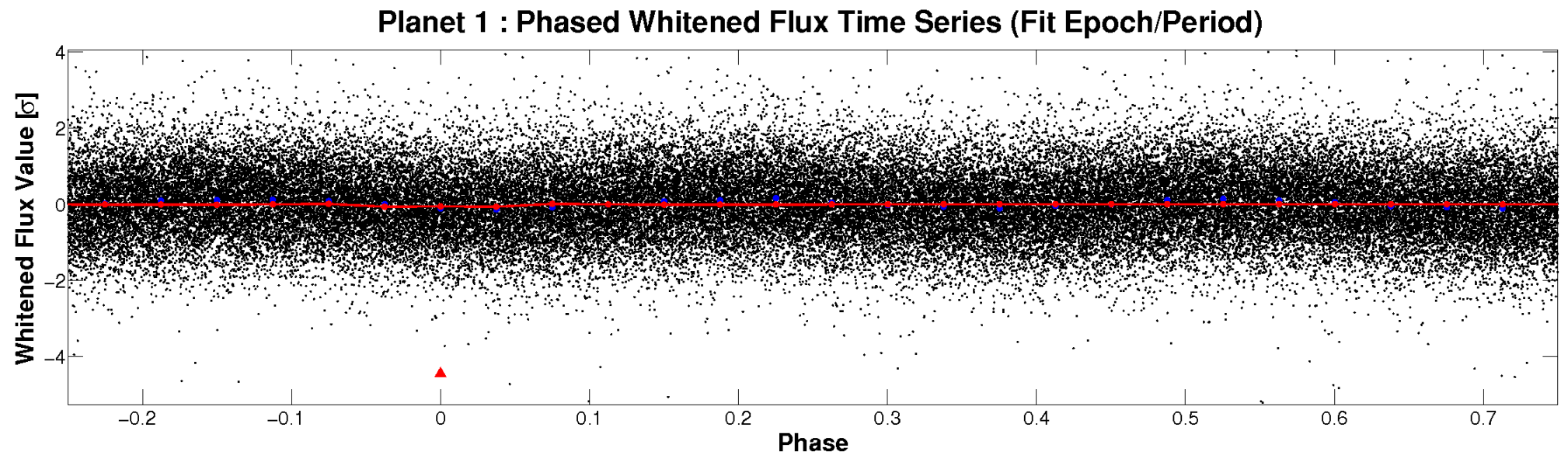
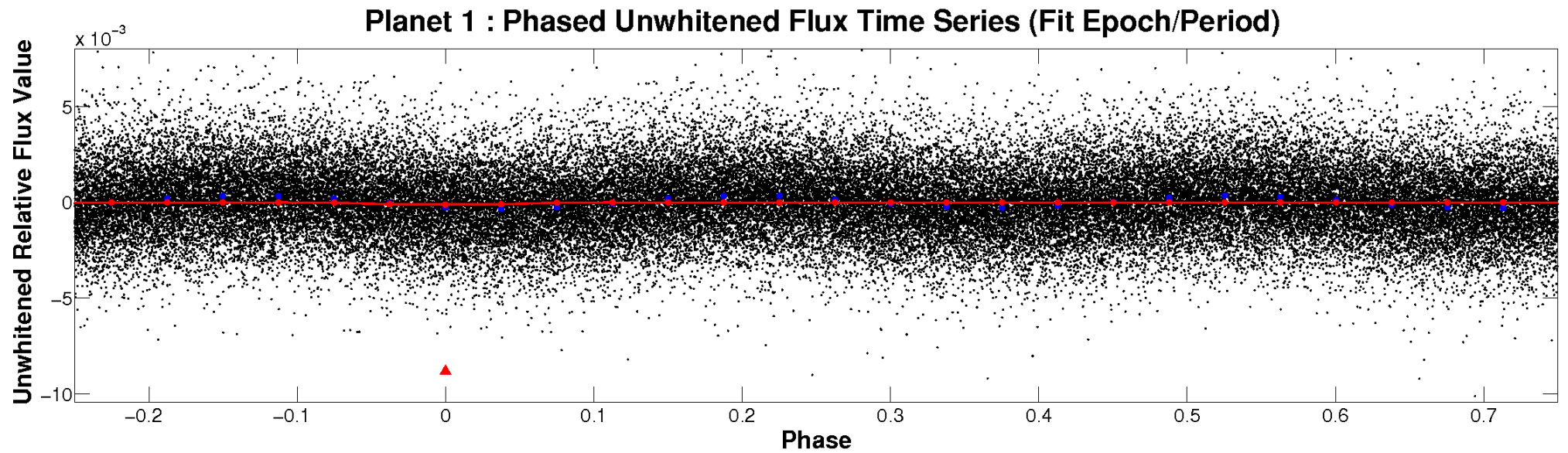


ALT Odd/Even

TCE 007583208-01

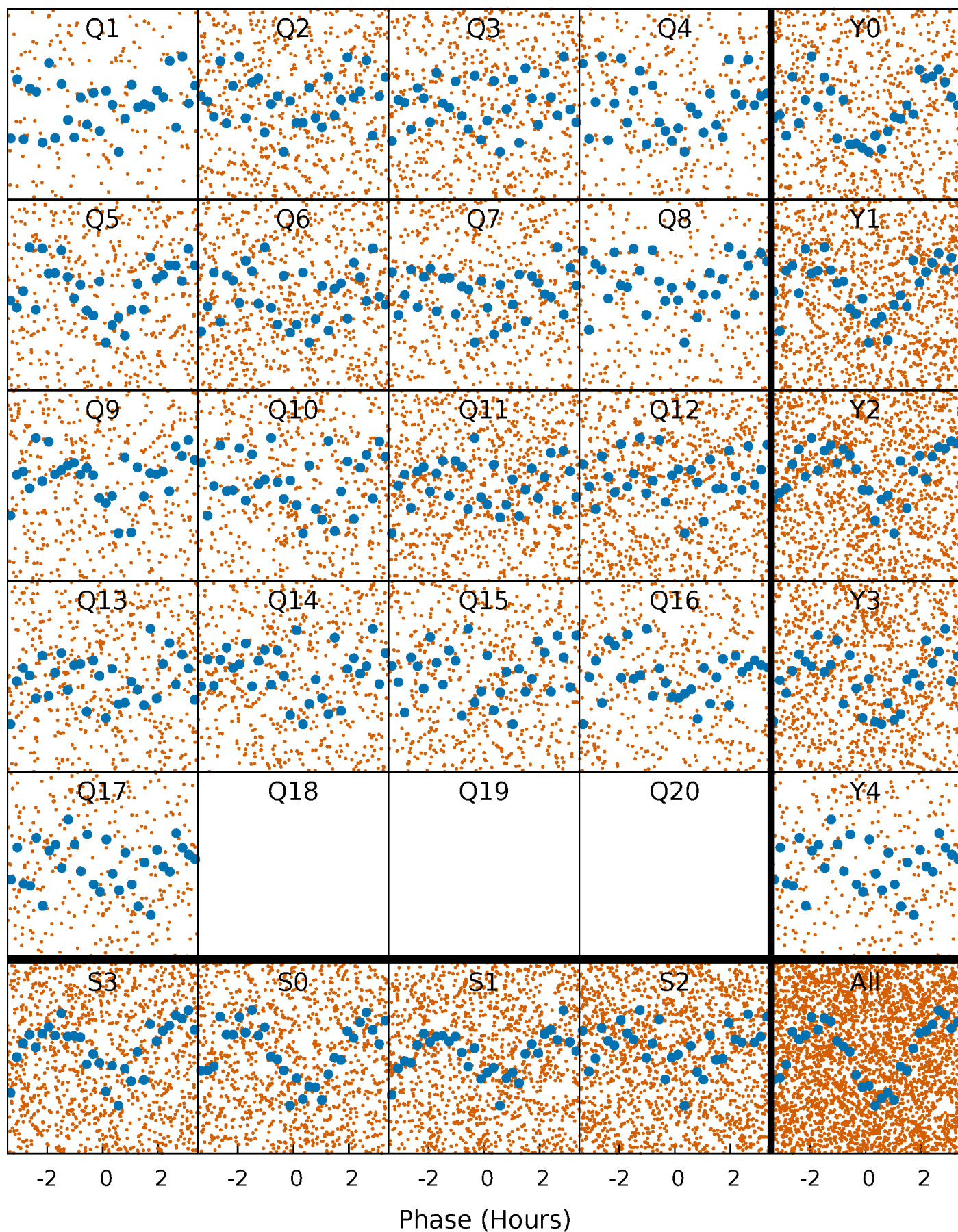


Non-Whitened Vs. Whitened Light Curve



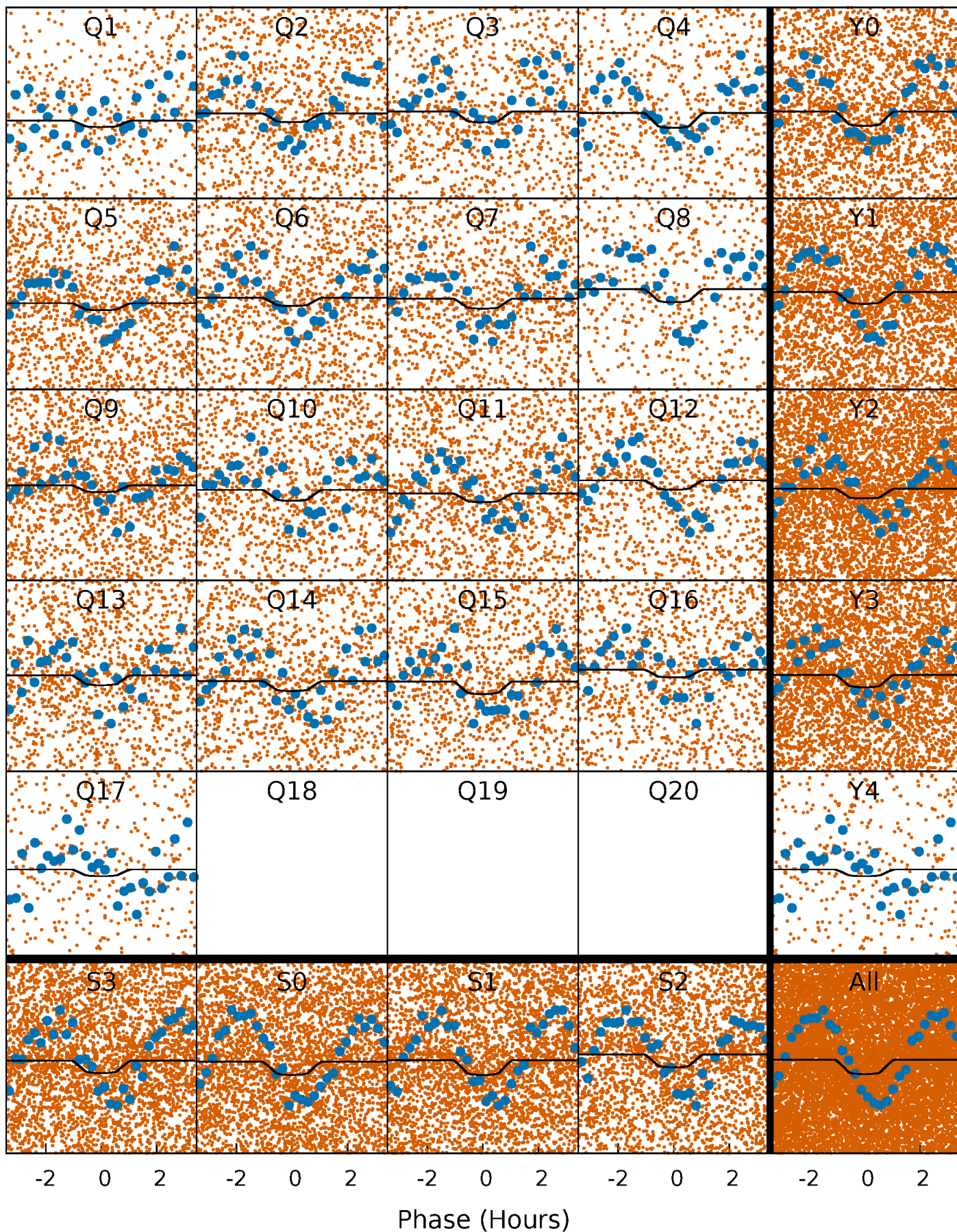
PDC Quarter-Phased Transit Curves

TCE 007583208-01 P= 0.544508 Days $T_0=132.013934$ (BKJD)



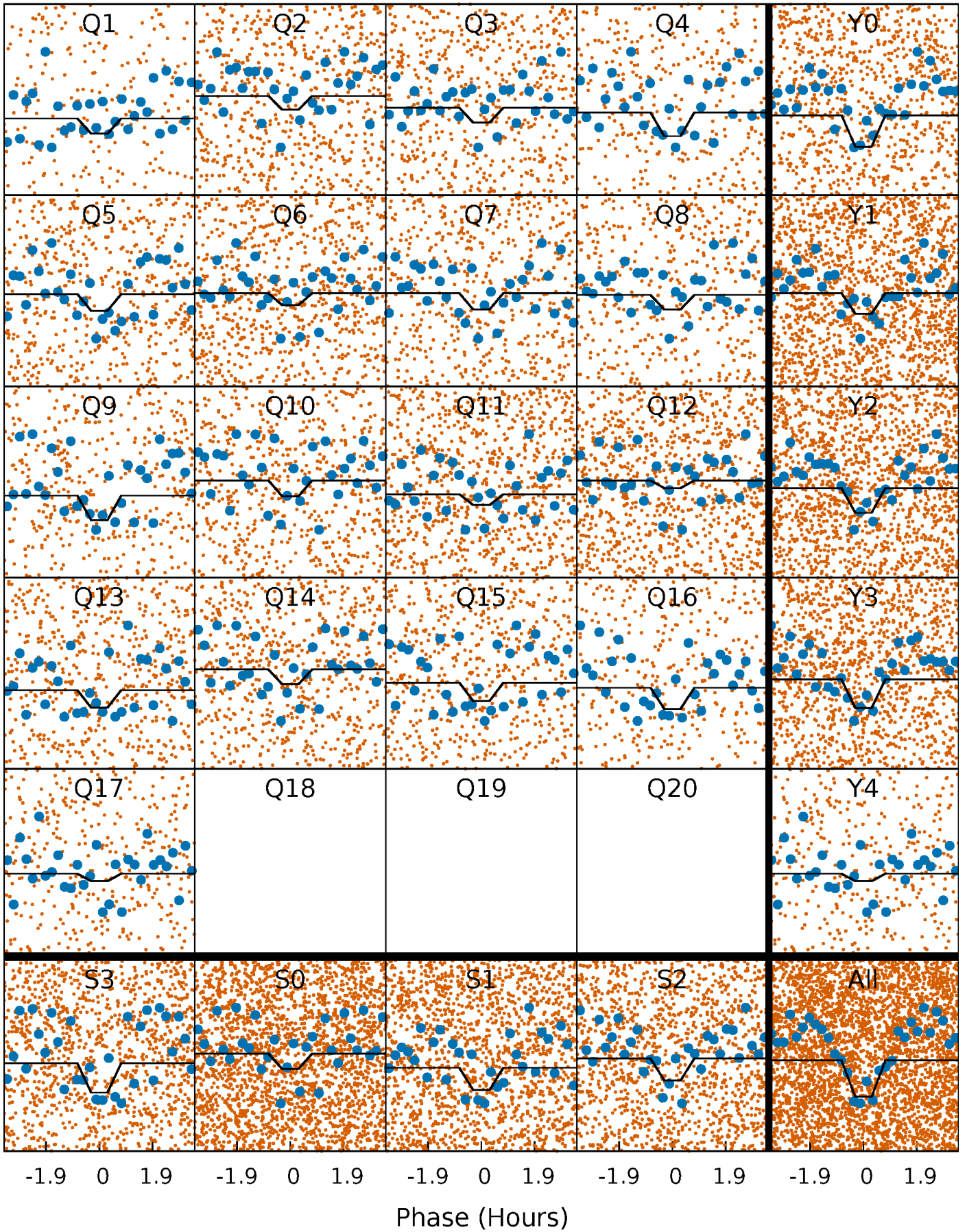
DV Quarter-Phased Transit Curves

TCE 007583208-01 P= 0.544508 Days $T_0=132.013934$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

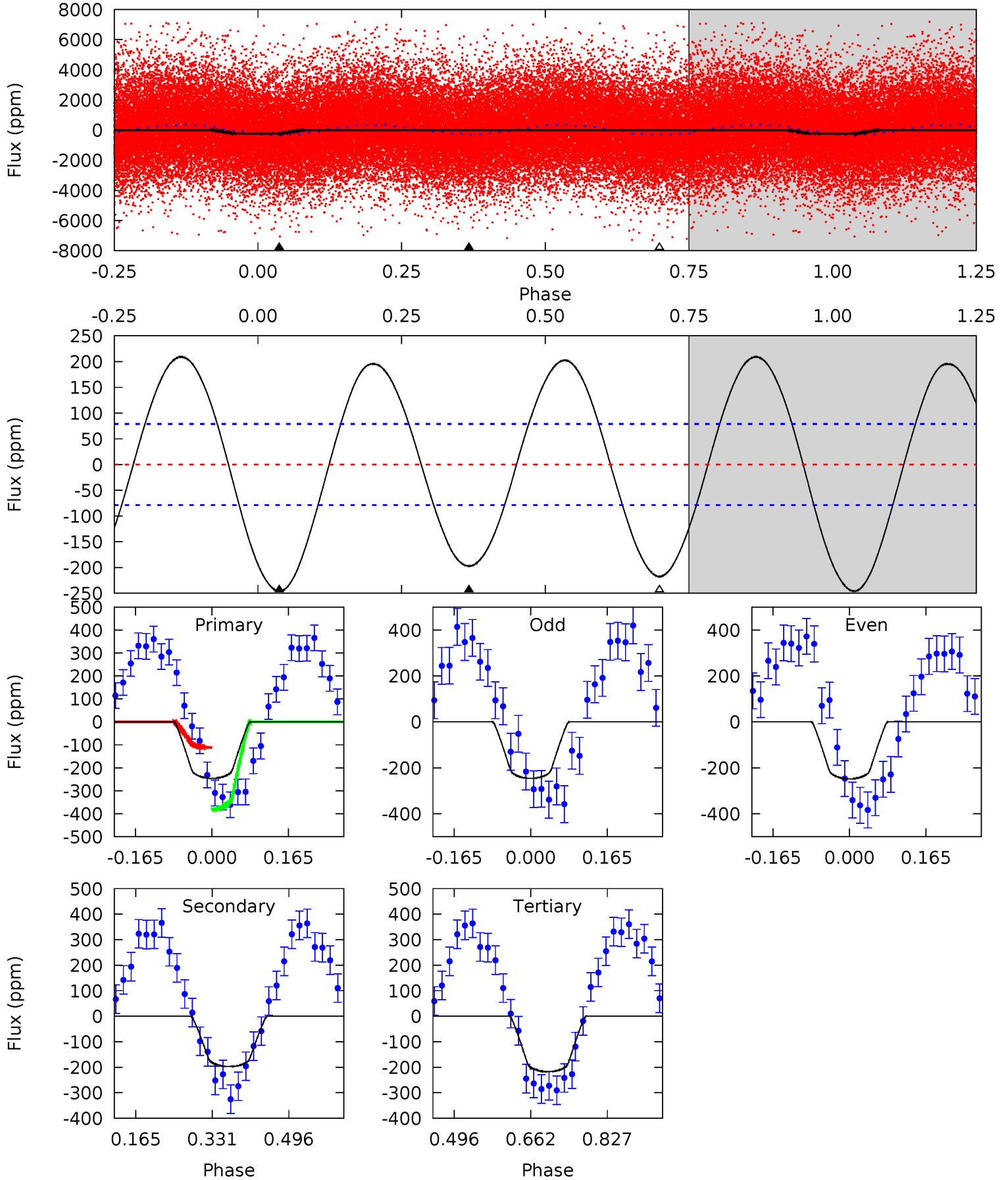
TCE 007583208-01 P= 0.544524 Days $T_0=132.012328$ (BKJD)



DV Model-Shift Uniqueness Test

007583208-01, P = 0.544508 Days, E = 131.469426 Days

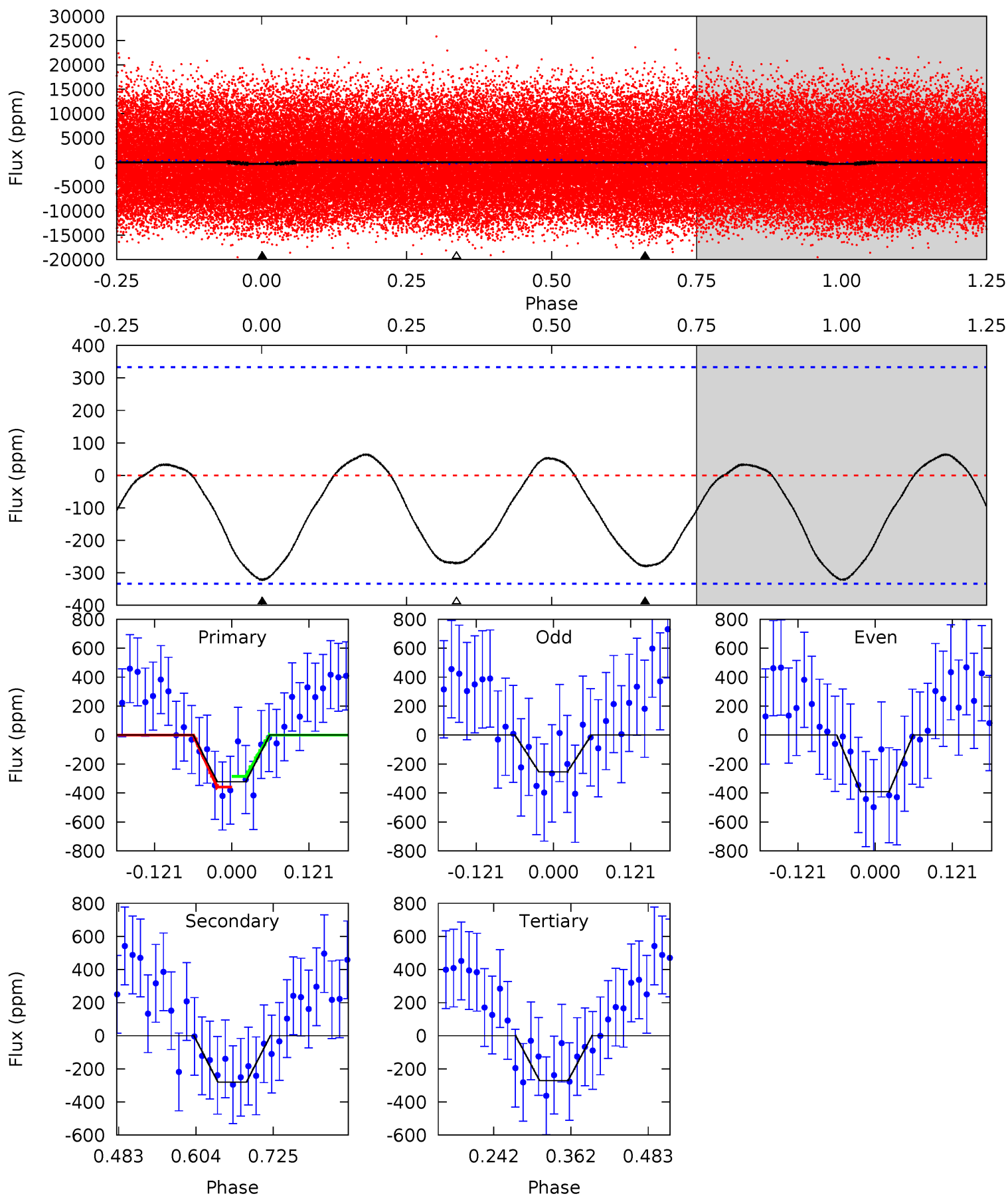
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	11.2	12.3	0	4.46	1.39	8.52	1.61	13.9	-1.16	11.2	0.06	1.07	0.46	7.72



Alt Model-Shift Uniqueness Test

007583208-01, P = 0.544524 Days, E = 131.467804 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.38	3.80	3.68	0	4.53	1.55	1.56	0.70	4.38	0.12	3.80	0.93	0.54	0.17	0.49



Stellar Parameters For KIC 007583208

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7345^{+230}_{-307}	$4.057^{+0.204}_{-0.167}$	$-0.240^{+0.250}_{-0.350}$	$1.898^{+0.558}_{-0.507}$	$1.496^{+0.222}_{-0.247}$	$0.308^{+0.356}_{-0.143}$
	+3%/-4%	+5%/-4%	+104%/-146%	+29%/-27%	+15%/-17%	+115%/-46%
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 007583208-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-197 ± 18	$2.30^{+1.25}_{-1.16}$	5064^{+386}_{-391}	8155^{+5464}_{-1878}	$4.480^{+13.415}_{-2.551}$
Alt.	-280 ± 74	$3.71^{+1.45}_{-1.18}$	5080^{+361}_{-426}	6662^{+1739}_{-1134}	$2.466^{+3.142}_{-1.248}$

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

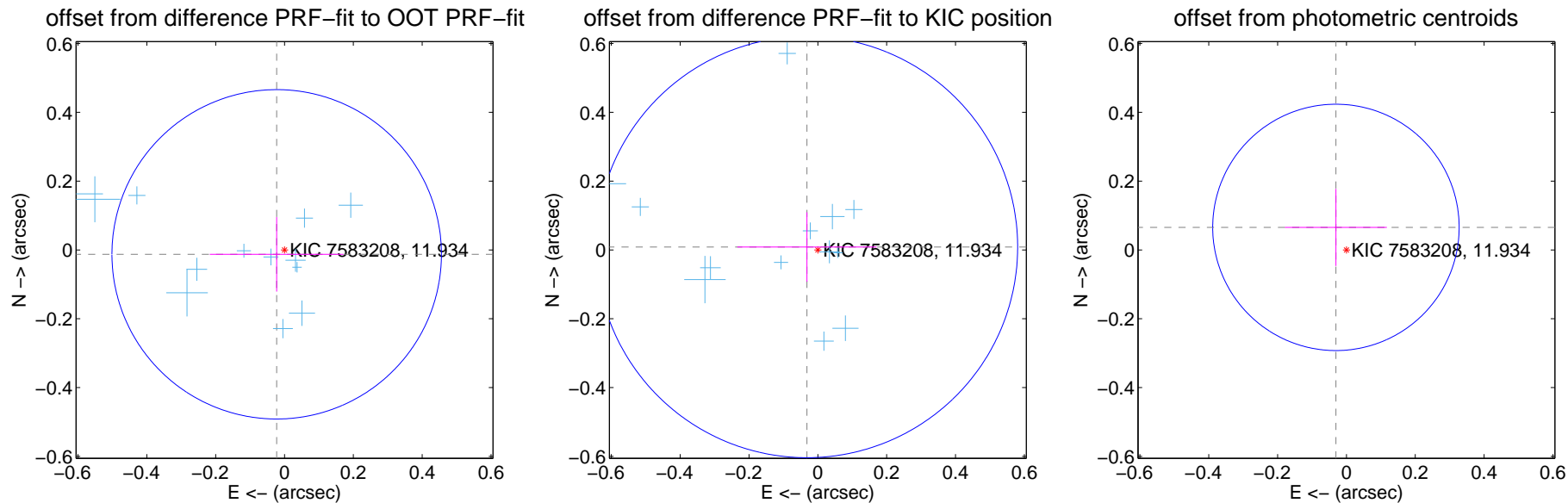
DV Centroid Data

Supplemental centroid analysis for 007583208-01. **Kepler magnitude: 11.93.** Transit SNR 5.53

There are 16 quarters with good PRF difference image offsets

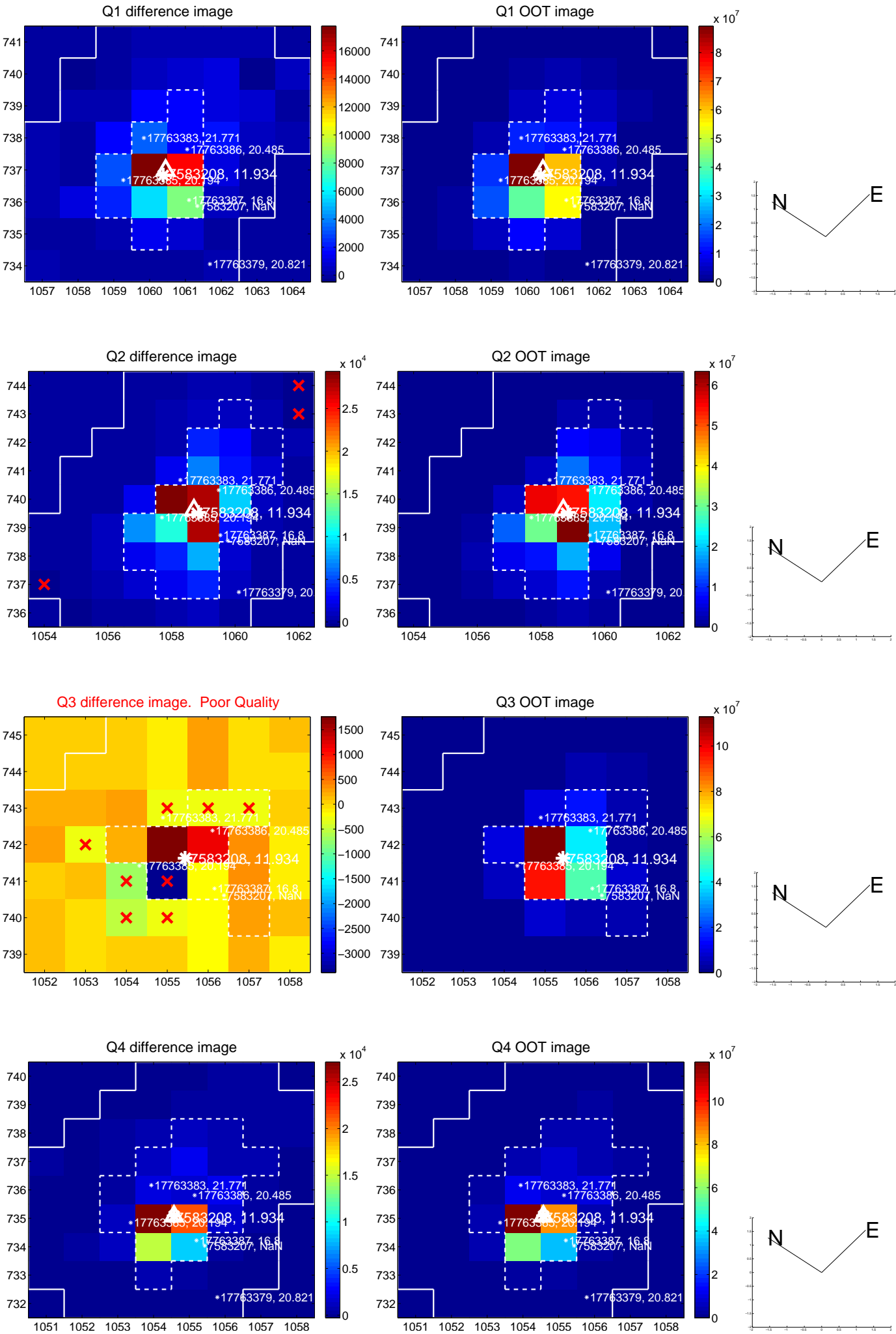
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.026 ± 0.160	0.16	0.023 ± 0.194	-0.013 ± 0.108
PRF-fit source offset from KIC position	0.033 ± 0.204	0.16	0.032 ± 0.202	0.008 ± 0.101
photometric centroid source offset	0.07 ± 0.12	0.61	0.03 ± 0.15	0.07 ± 0.11

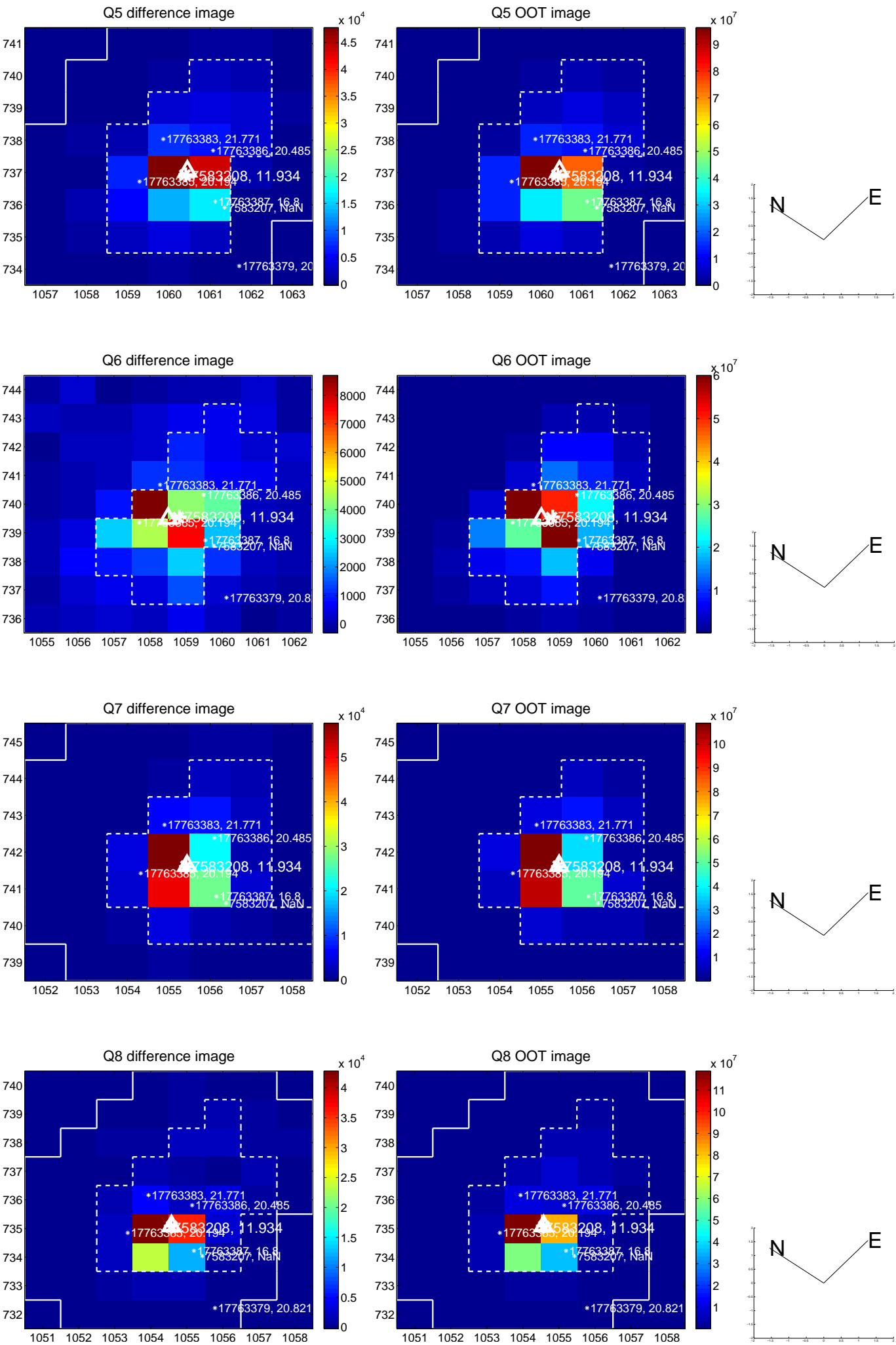


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

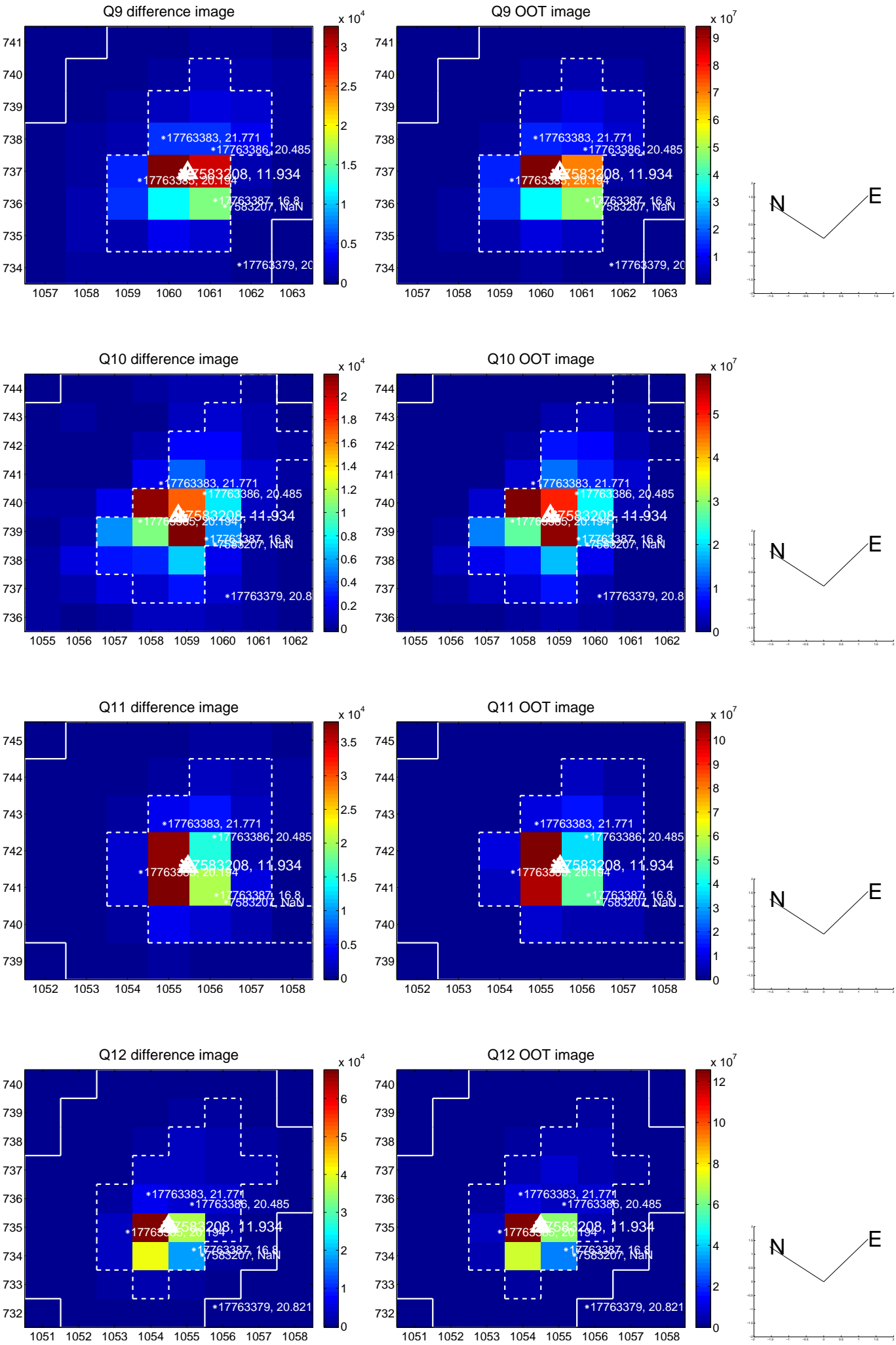
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



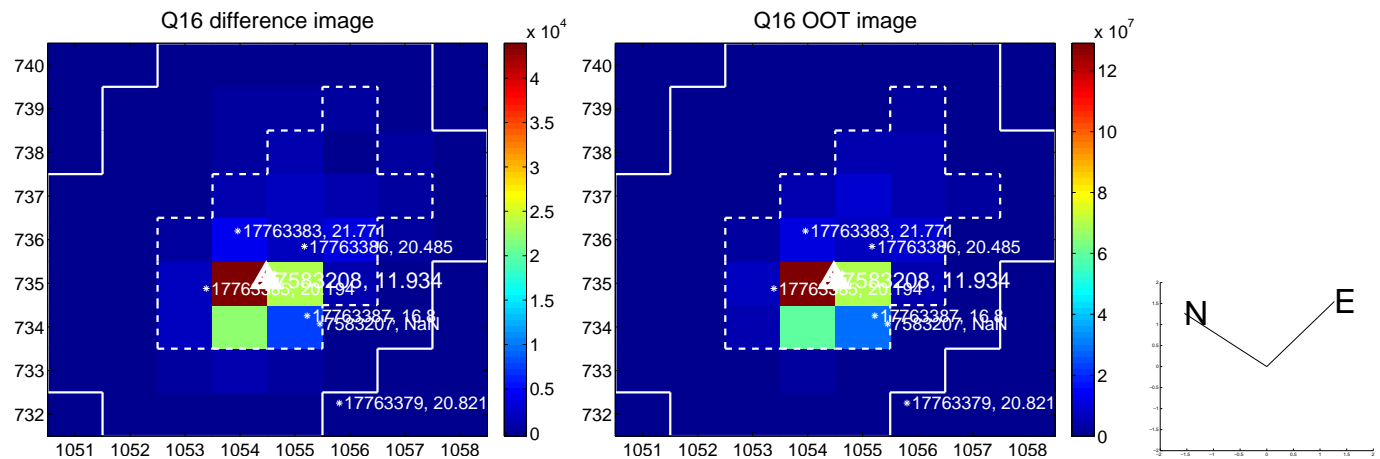
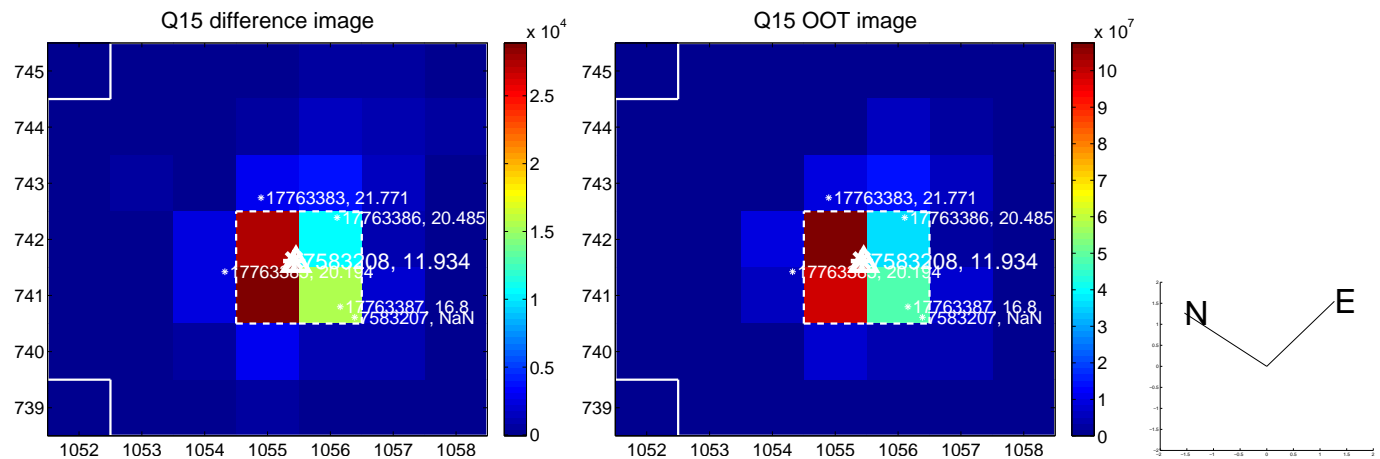
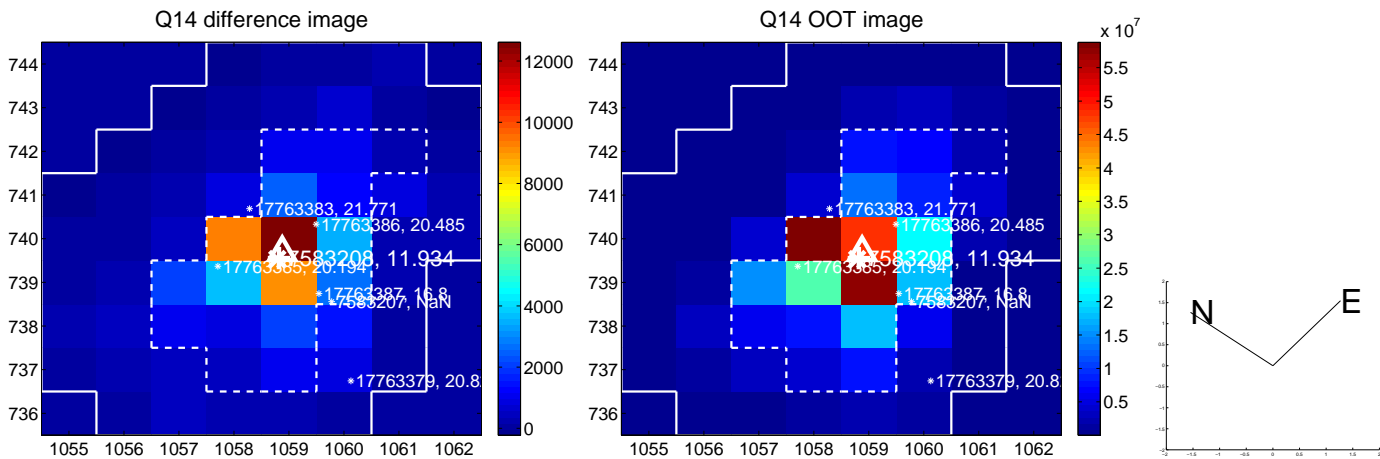
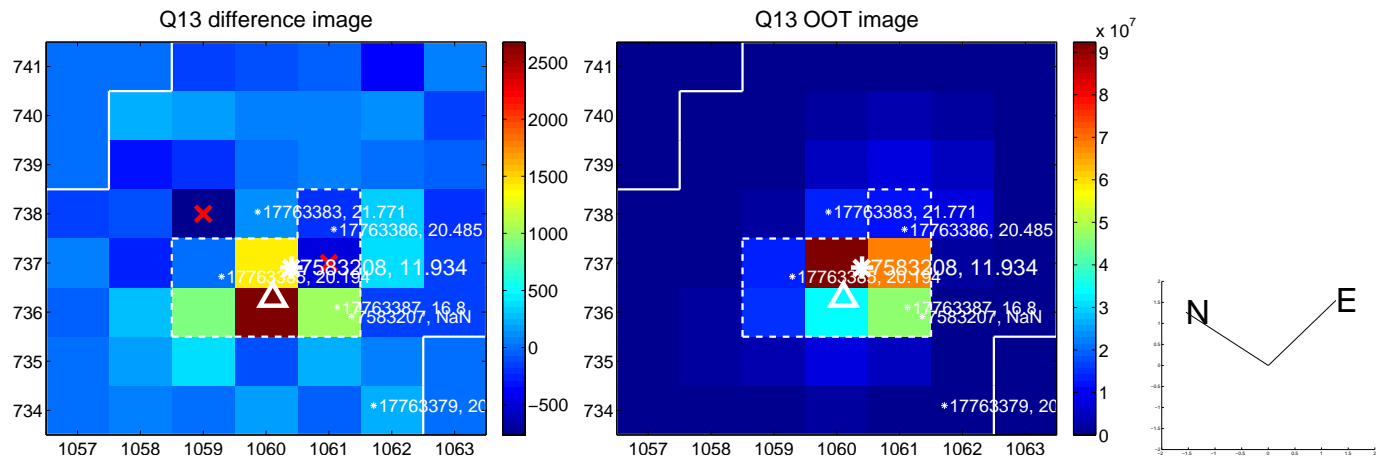
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



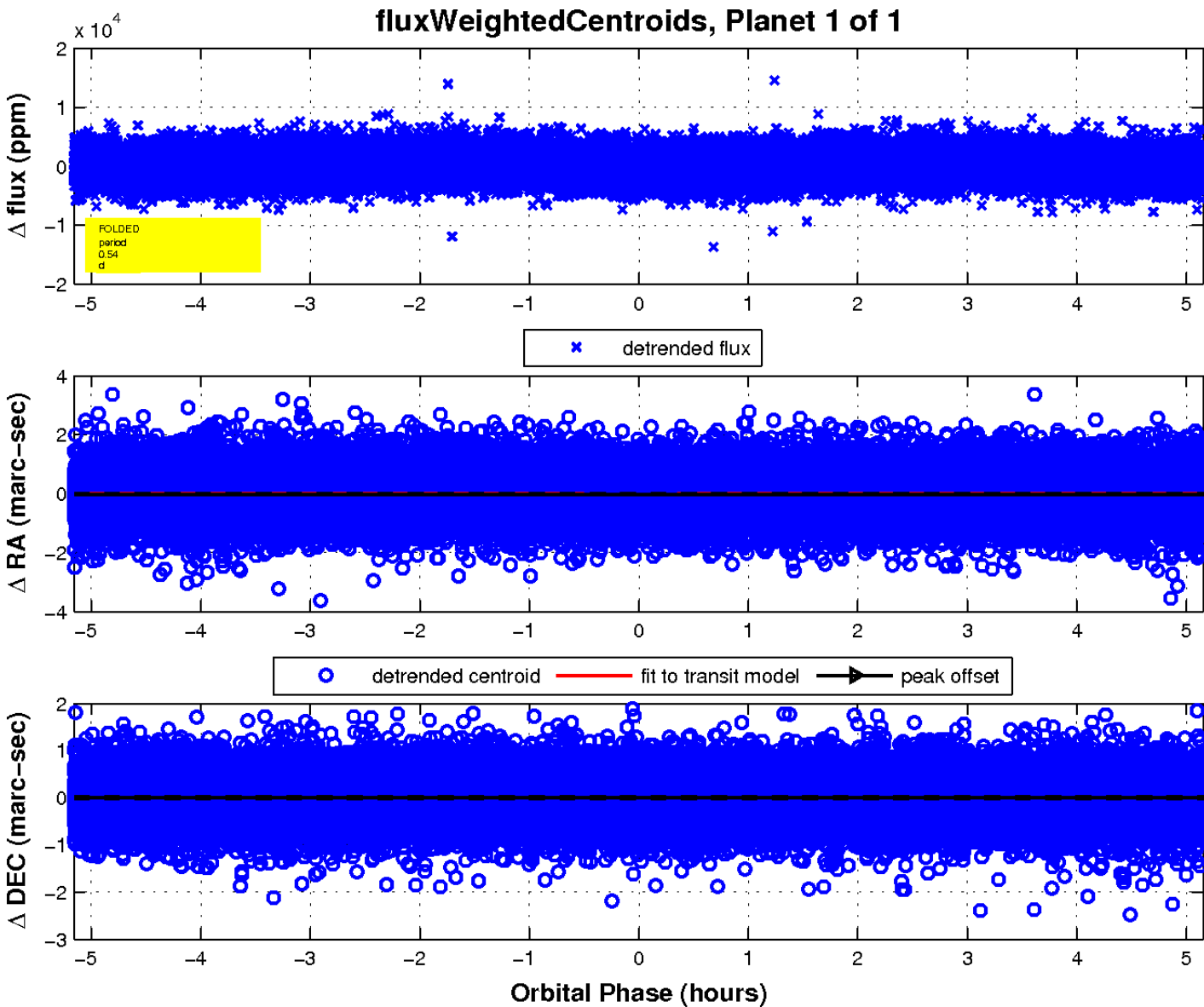
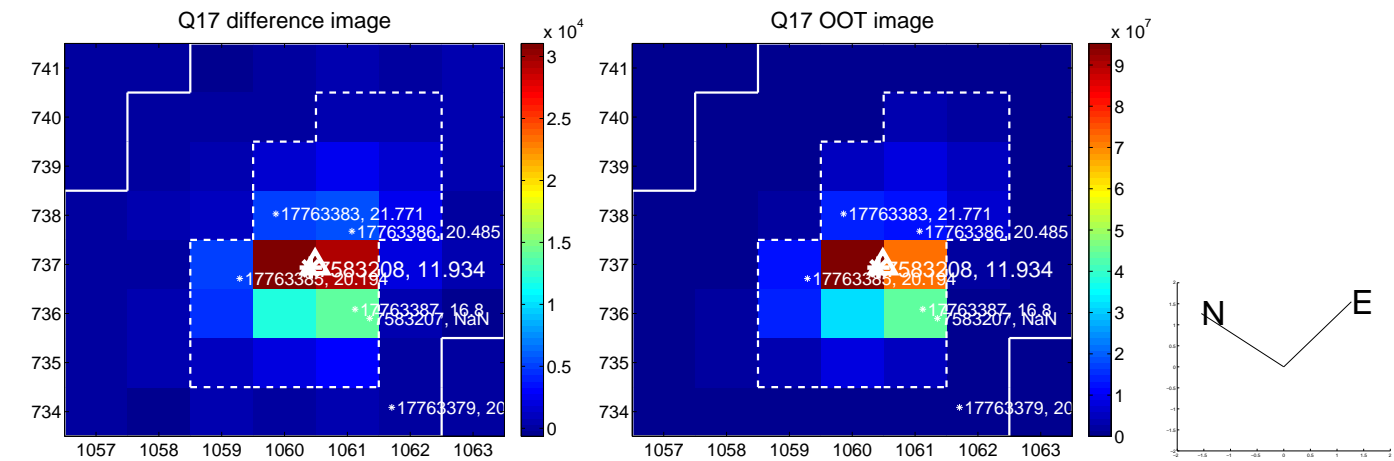
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

