

KIC 005791786

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})
005791786-01	OBS	No	0.958193	131.858009	191.9	5.785	12.9	12.5	2.40	7191	3.88	25989.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005791786-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_SATURATED

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.

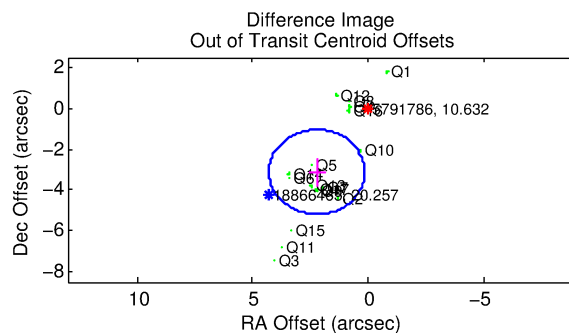
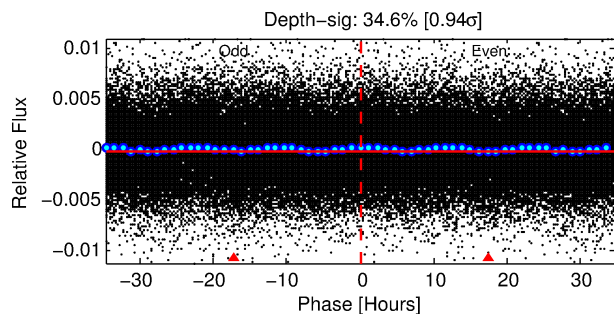
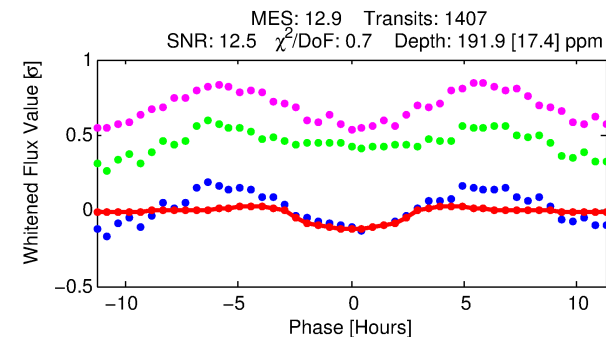
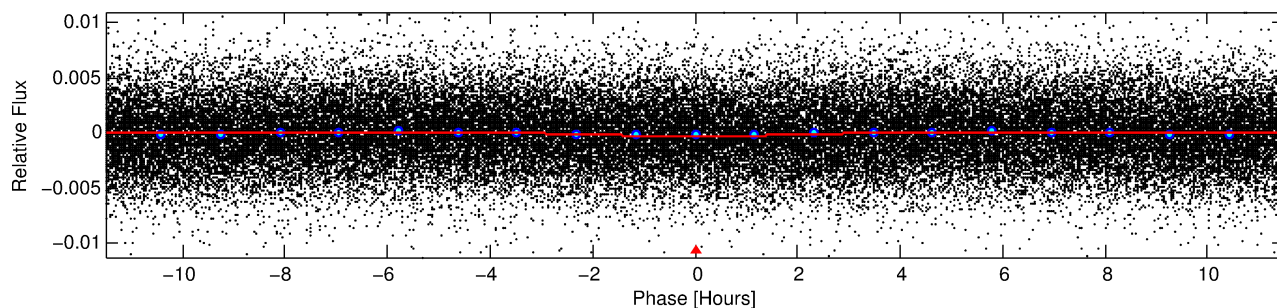
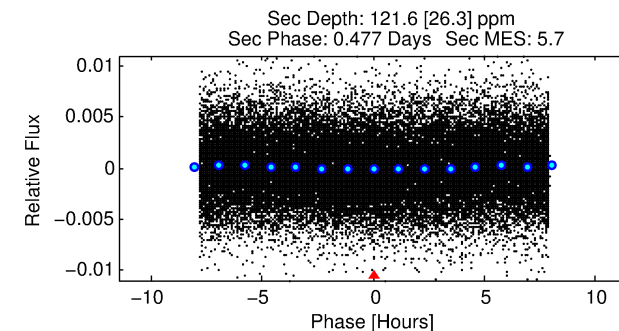
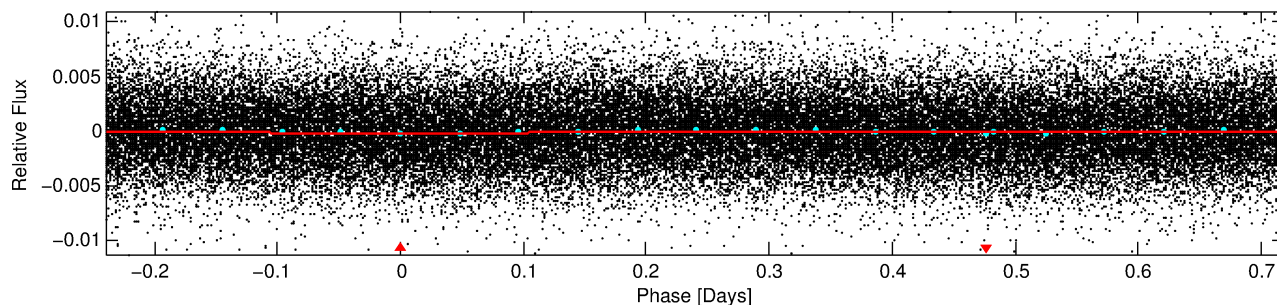
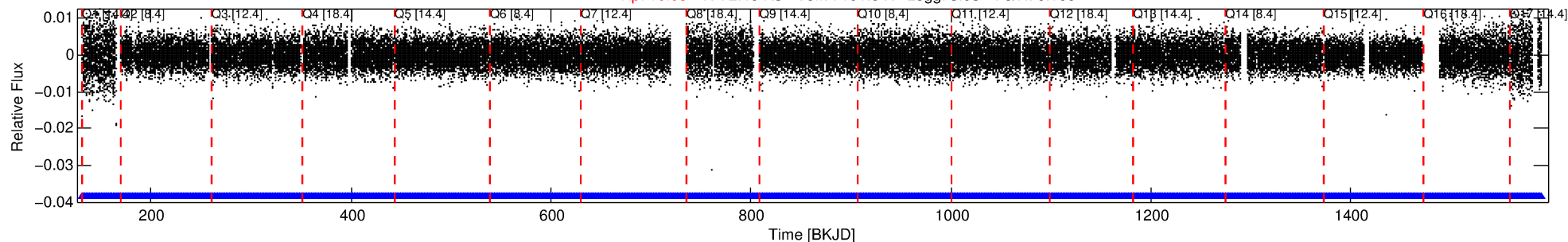
Ephemeris Match Information For 005791786-01

No Significant Match Found

DV One-Page Summary

KIC: 5791786 Candidate: 1 of 1 Period: 0.958 d

Kp: 10.63 R*: 2.40 Rs Teff: 7191.0 K Logg: 3.93 Fe/H: 0.100



DV Fit Results:

Period = 0.95819 [0.00001] d
Epoch = 131.8580 [0.0062] BKJD
Rp/R* = 0.0148 [0.0031]
a/R* = 1.11 [0.26]
b = 0.91 [0.25]
Seff = 25989.68 [8284.52]
Teq = 3238 [258] K
Rp = 3.88 [1.25] Re
a = 0.0230 [0.0049] AU
Ag = 2.36 [1.34] [1.02σ]
Teff = 6206 [733] K [3.82σ]

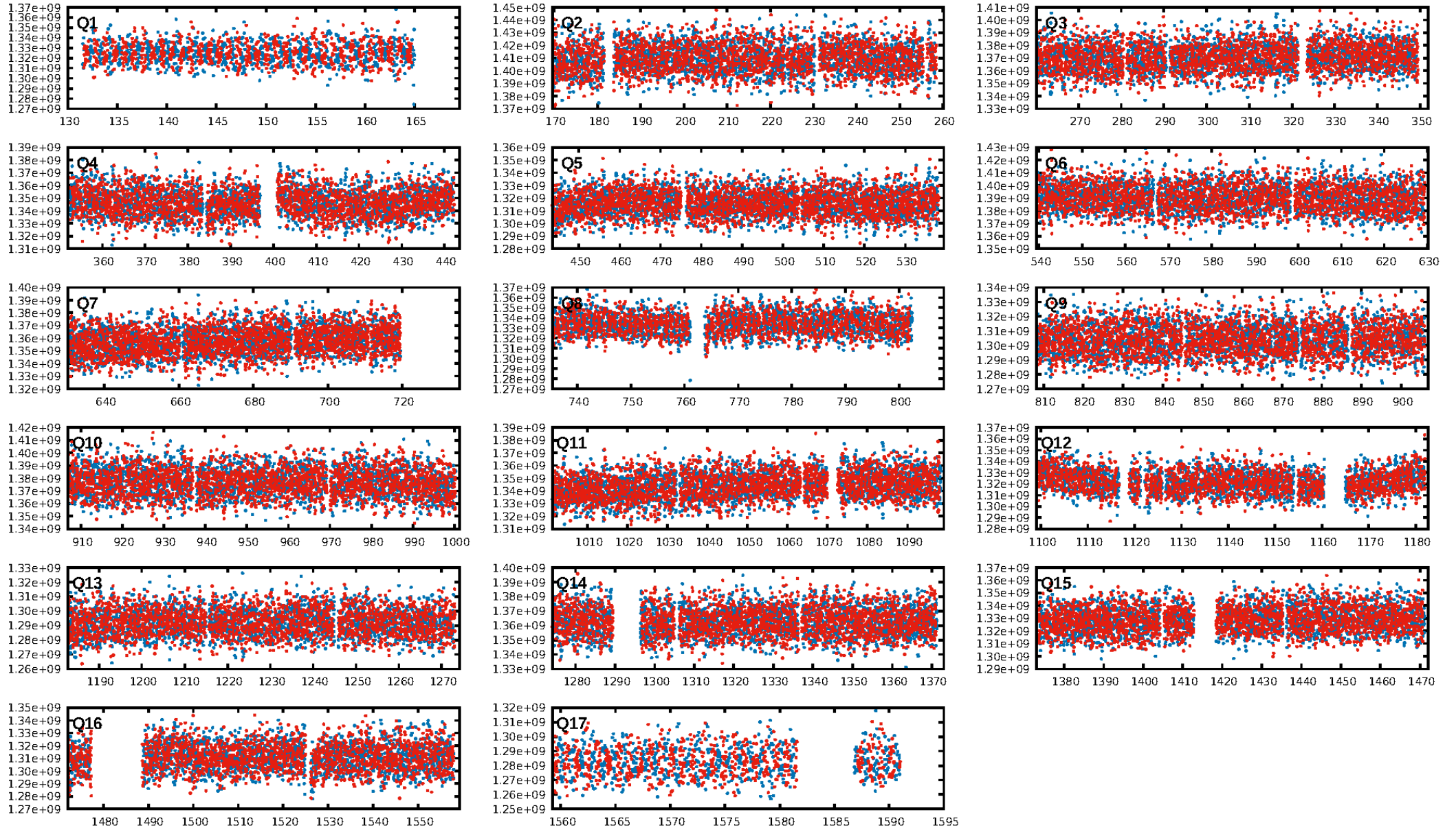
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.99e-34
RollingBand-figt: 1.00 [1344/1344]
GhostDiagnostic-chr: 1.53
Centroid-sig: 0.0%
Centroid-so: 0.742 arcsec [3.58σ]
OotOffset-rm: 3.834 arcsec [5.55σ]
KicOffset-rm: 3.759 arcsec [5.80σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

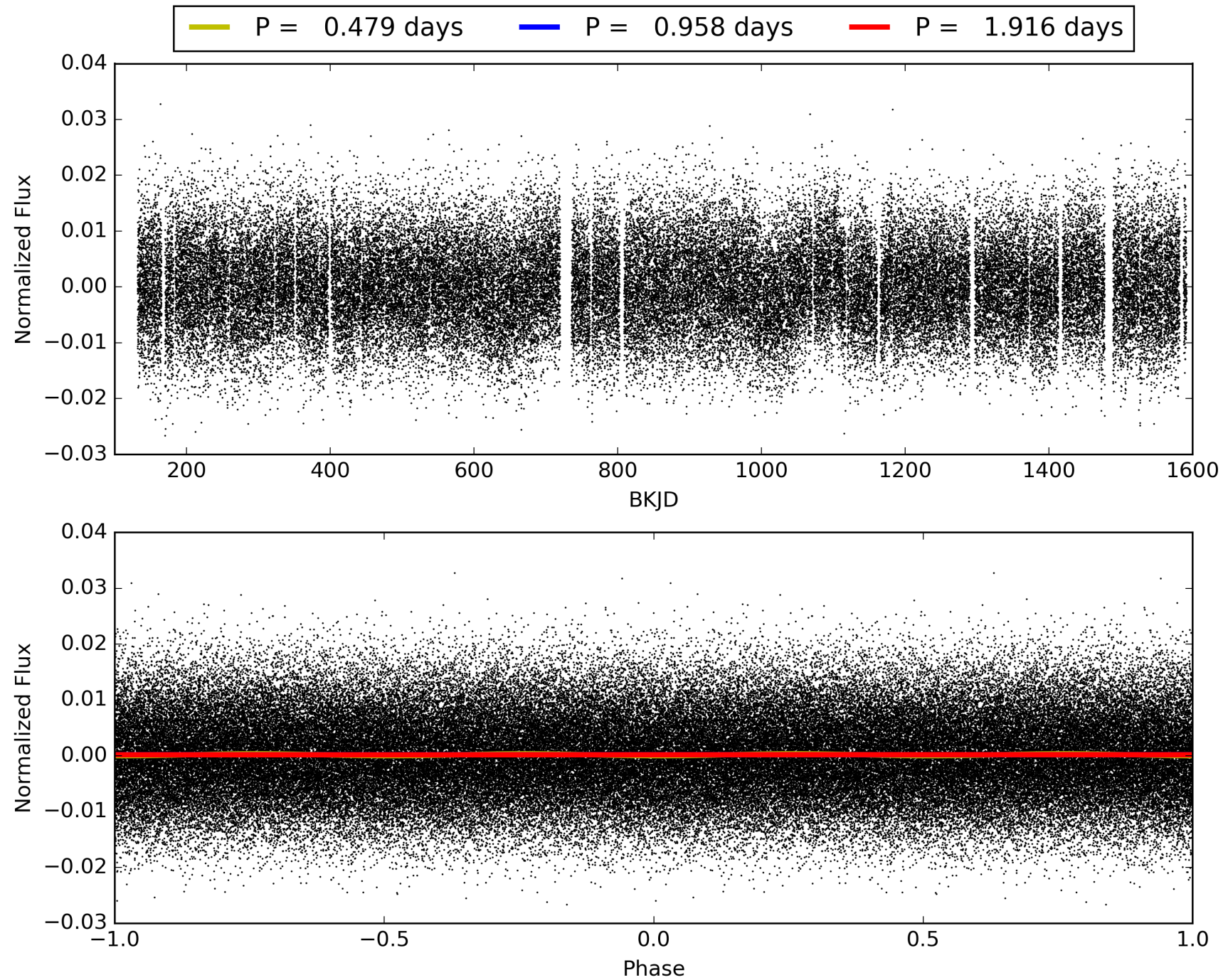
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:25:49 Z

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

TCE 005791786-01, PDC Light Curves

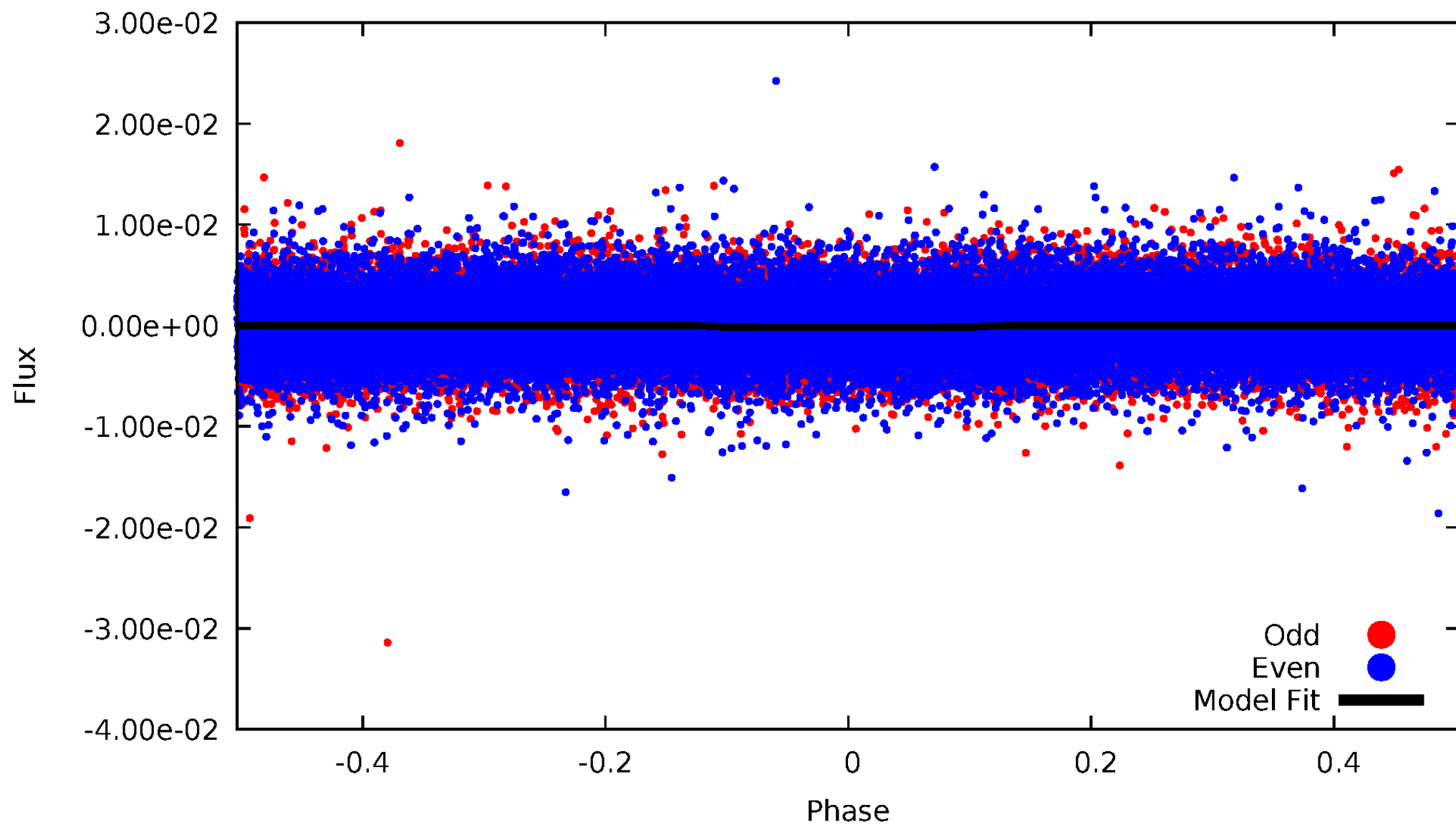


TCE 005791786-01



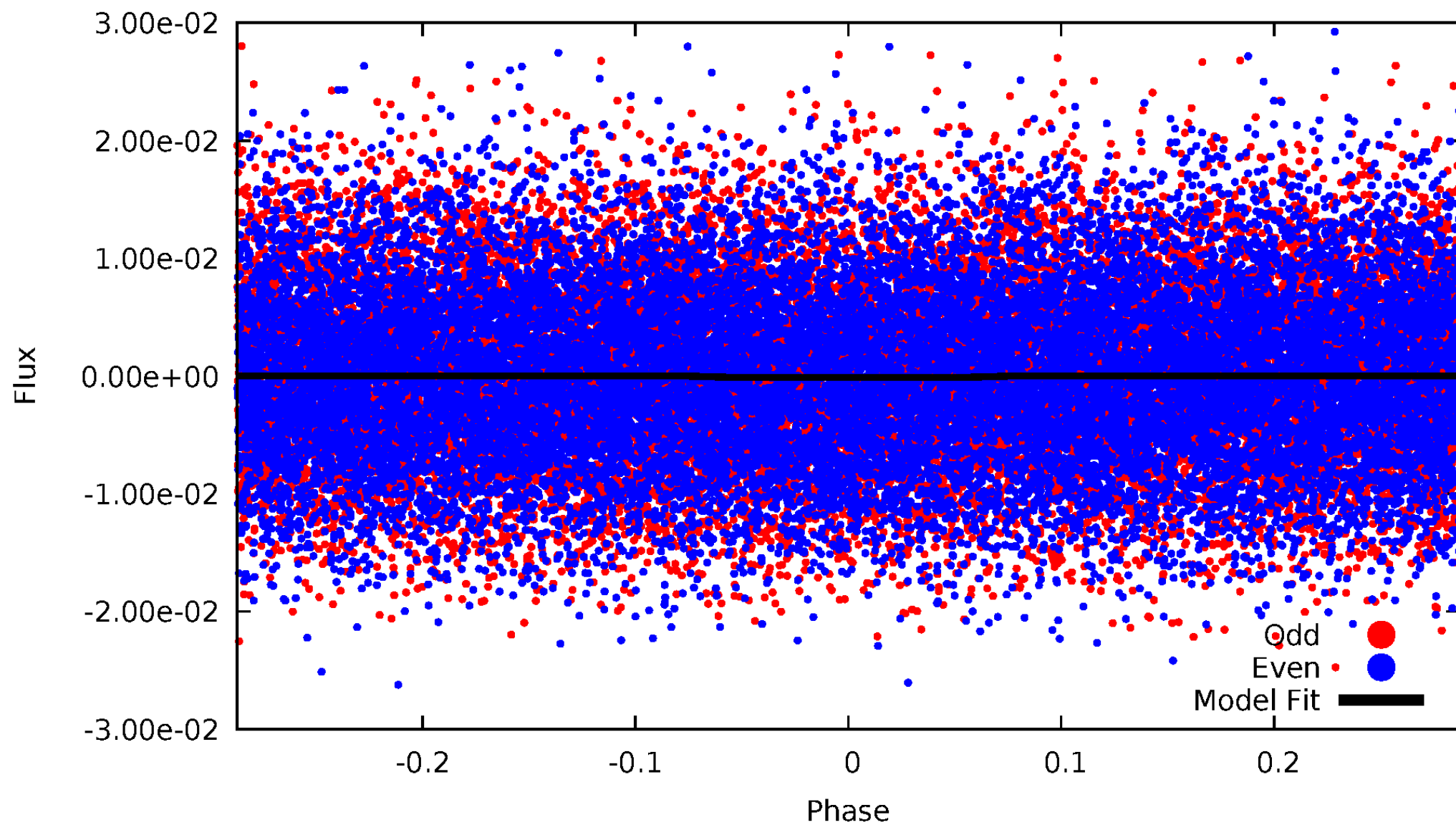
DV Odd/Even

TCE 005791786-01



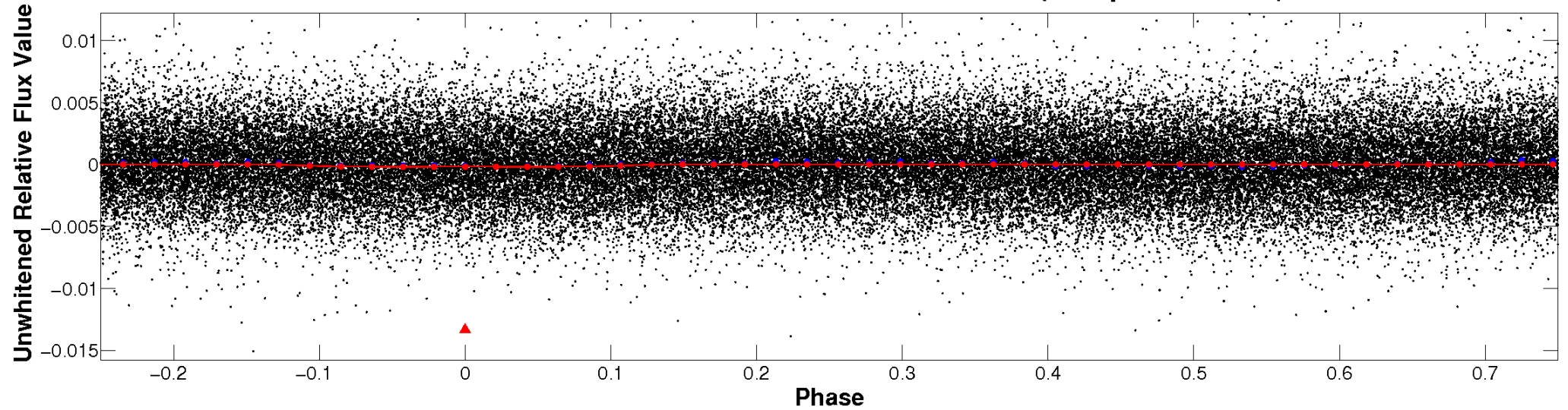
ALT Odd/Even

TCE 005791786-01

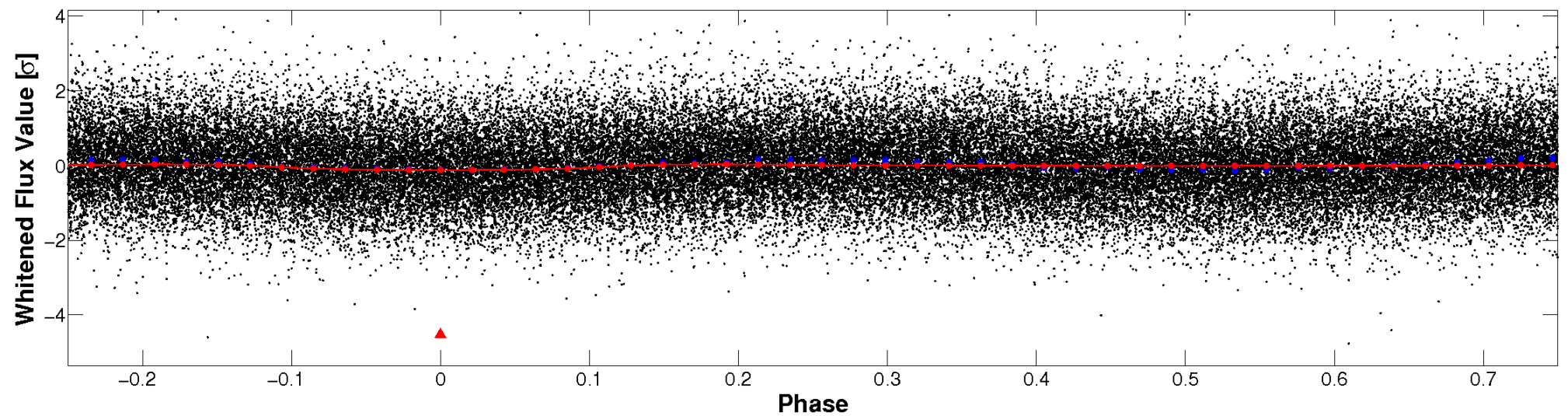


Non-Whitened Vs. Whitened Light Curve

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

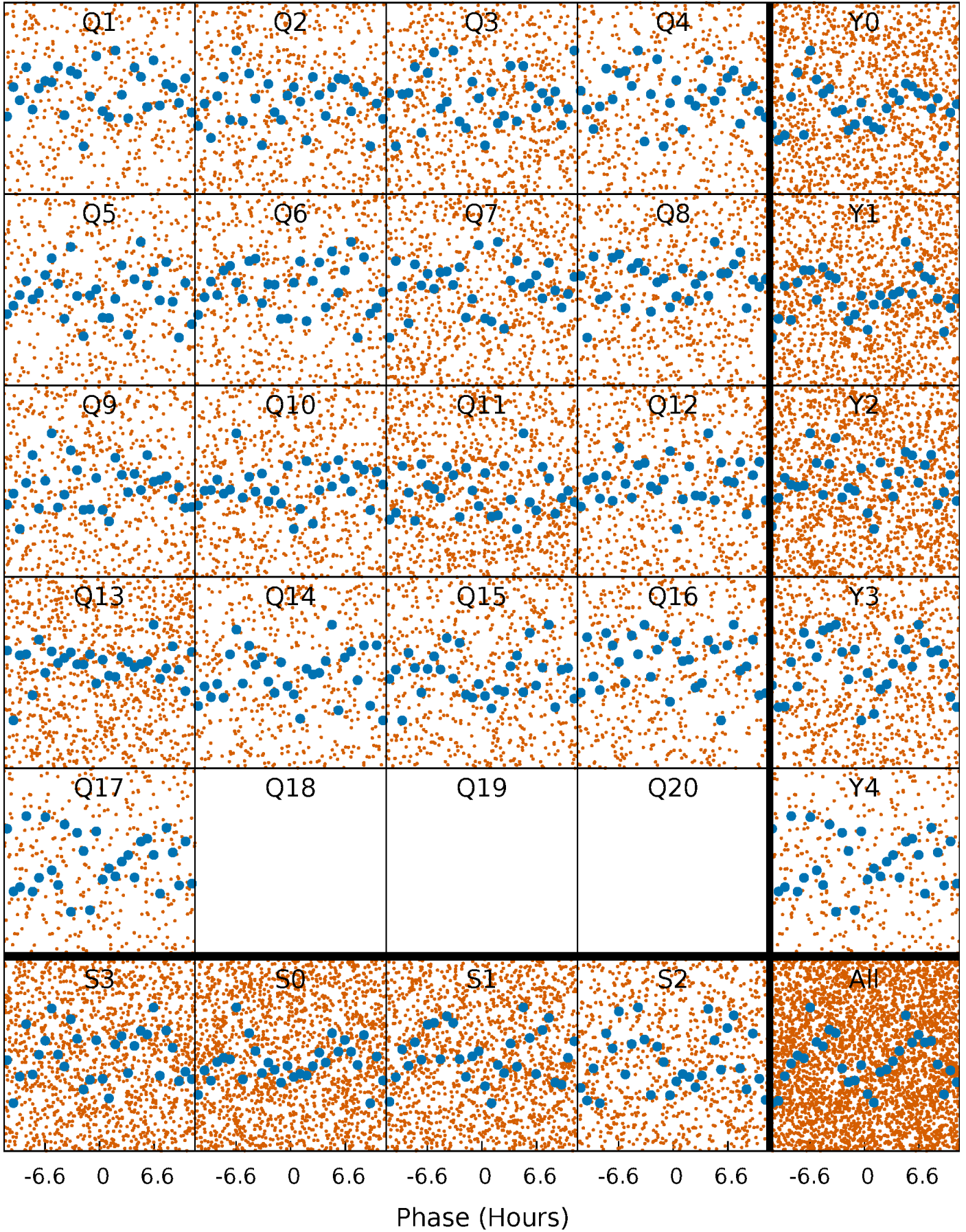


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



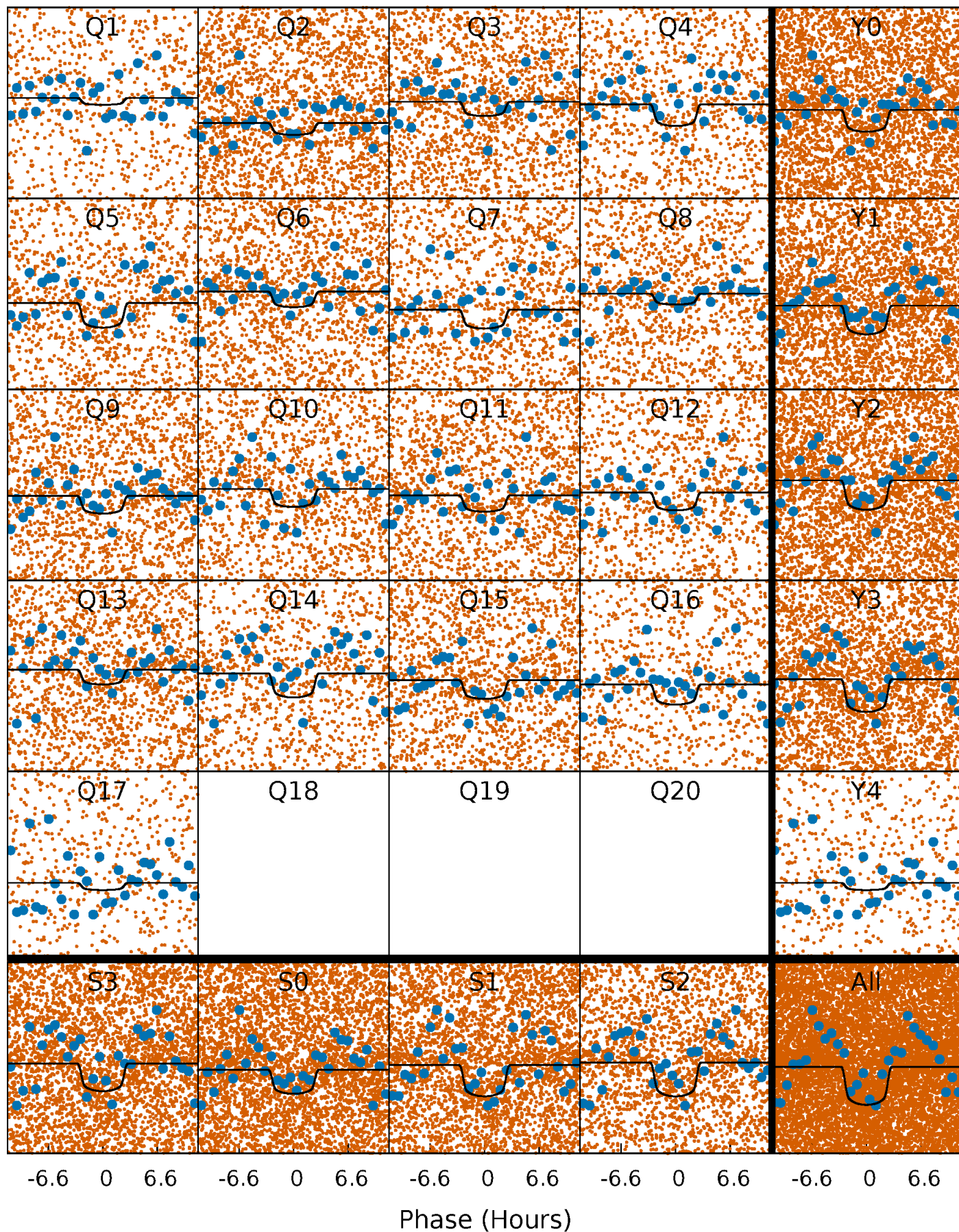
PDC Quarter-Phased Transit Curves

TCE 005791786-01 P= 0.958193 Days $T_0=131.858009$ (BKJD)



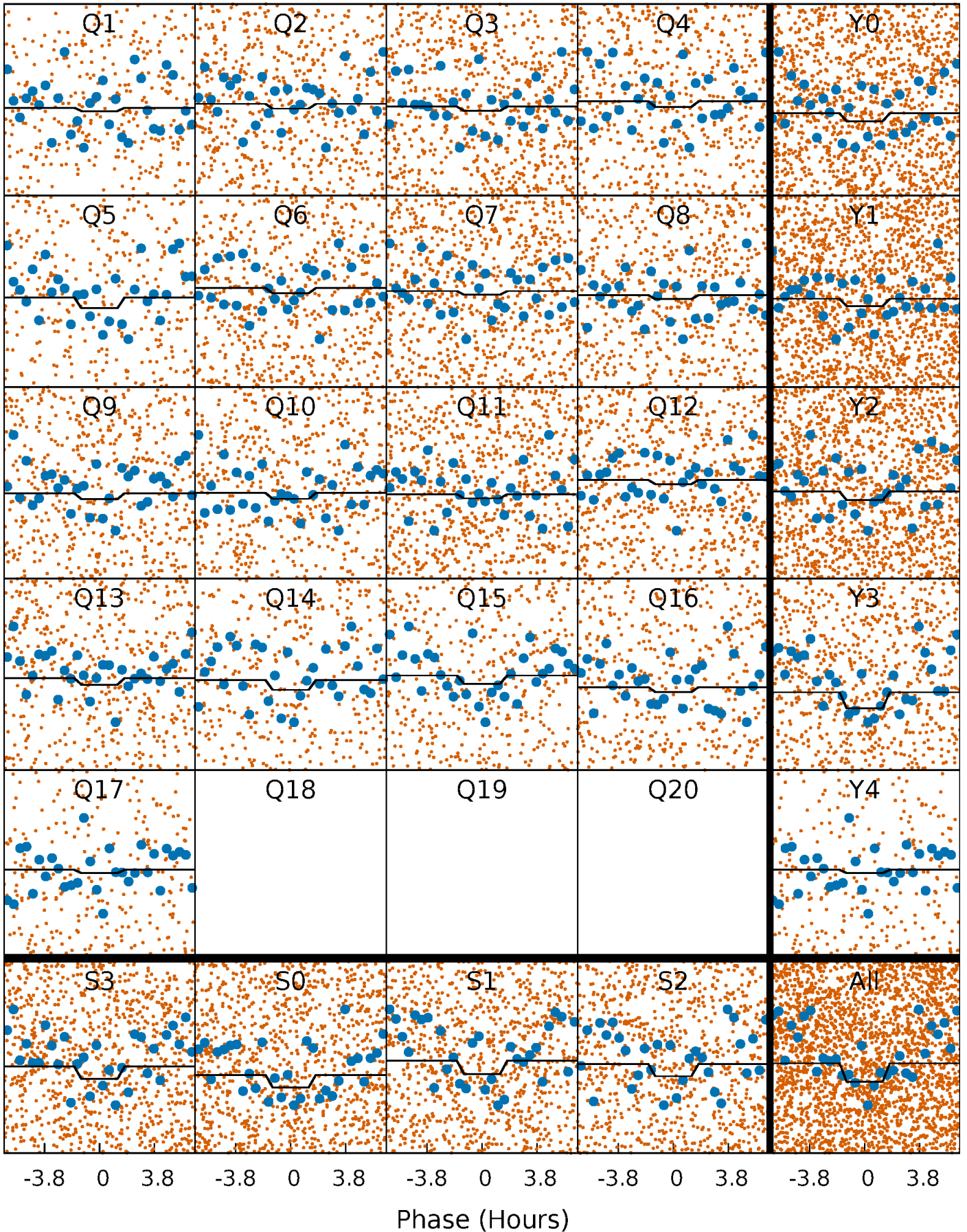
DV Quarter-Phased Transit Curves

TCE 005791786-01 P= 0.958193 Days $T_0=131.858009$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

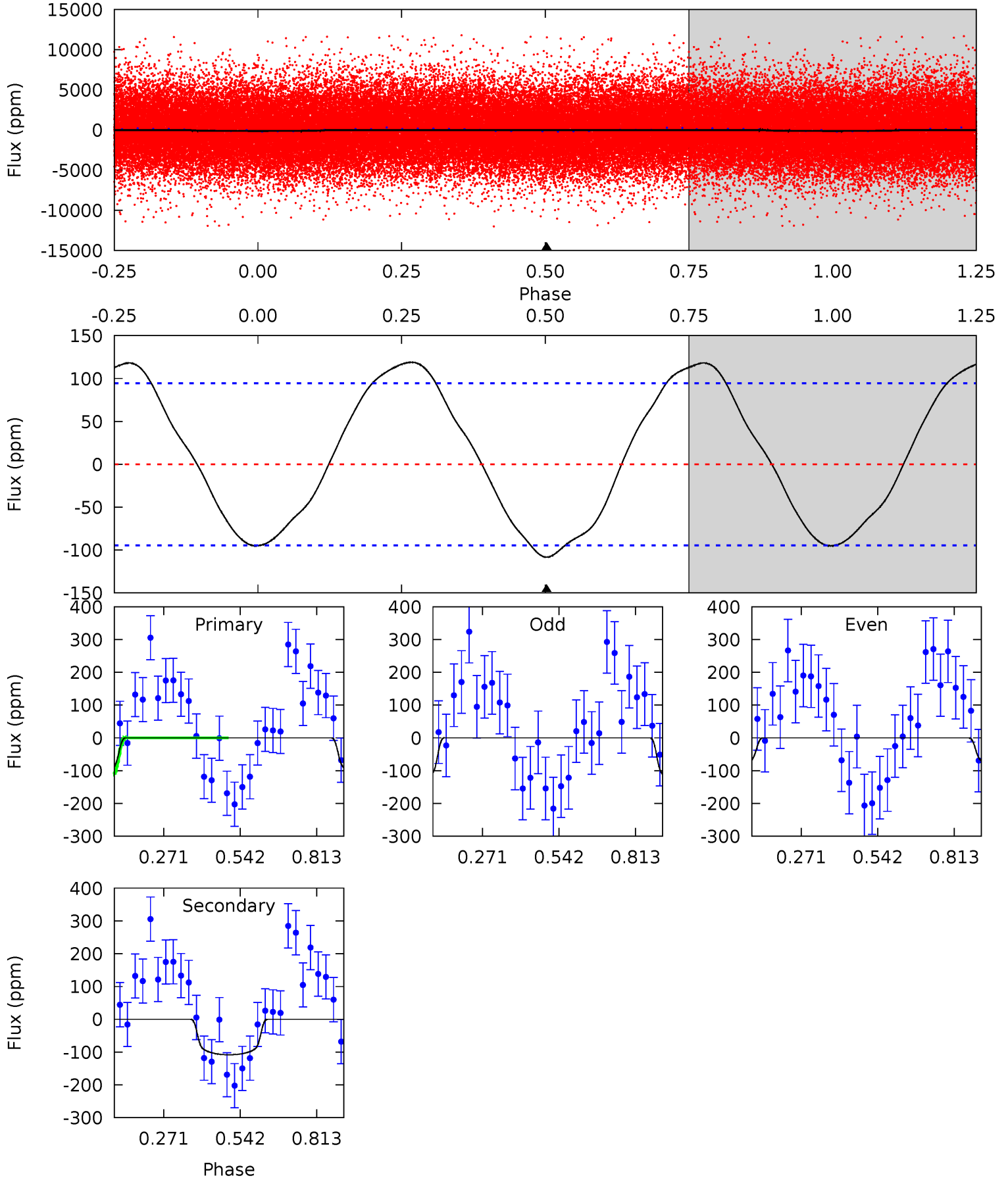
TCE 005791786-01 P= 0.958231 Days $T_0=131.831575$ (BKJD)



DV Model-Shift Uniqueness Test

005791786-01, P = 0.958193 Days, E = 130.899816 Days

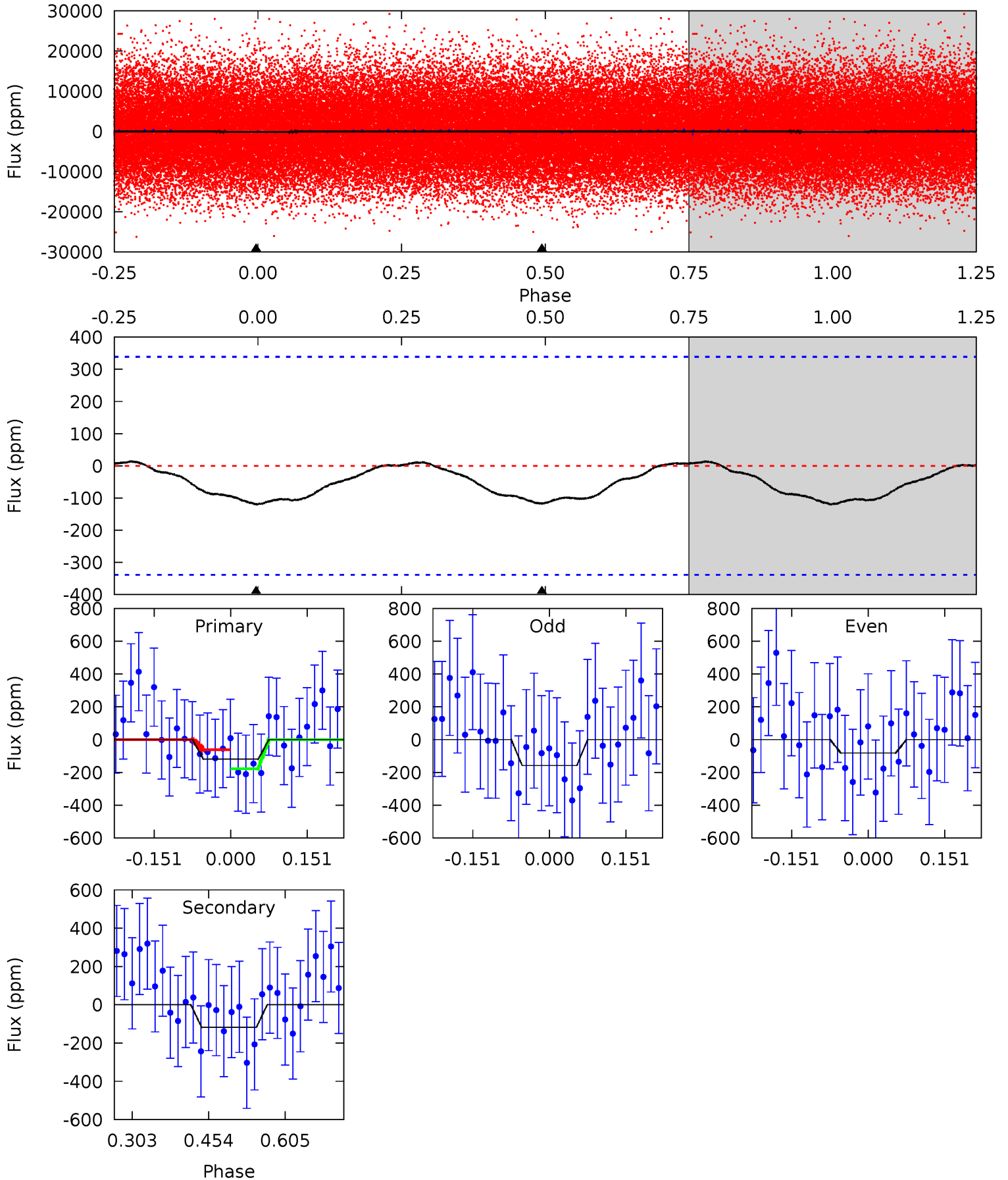
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.99	4.99	0	0	4.35	1.10	3.29	4.99	4.99	4.99	4.99	1.13	1.06	0.52	1.33



Alt Model-Shift Uniqueness Test

005791786-01, P = 0.958231 Days, E = 130.873344 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.58	1.55	0	0	4.48	1.43	0.21	1.58	1.58	1.55	1.55	0.50	0.74	0.10	0.77



Stellar Parameters For KIC 005791786

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7191^{+75}_{-86}	$3.927^{+0.175}_{-0.094}$	$0.100^{+0.100}_{-0.200}$	$2.399^{+0.319}_{-0.593}$	$1.772^{+0.064}_{-0.223}$	$0.181^{+0.174}_{-0.055}$
	+1%/-1%	+4%/-2%	+100%/-200%	+13%/-25%	+4%/-13%	+96%/-31%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005791786-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-108 ± 22	$3.76^{+0.85}_{-0.89}$	4513^{+177}_{-246}	5790^{+913}_{-687}	$2.182^{+1.726}_{-0.820}$
Alt.	-118 ± 76	$2.79^{+0.88}_{-0.81}$	4505^{+195}_{-268}	6884^{+1995}_{-1914}	$3.997^{+5.583}_{-2.819}$

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 $A_{obs} \gg 1.0$

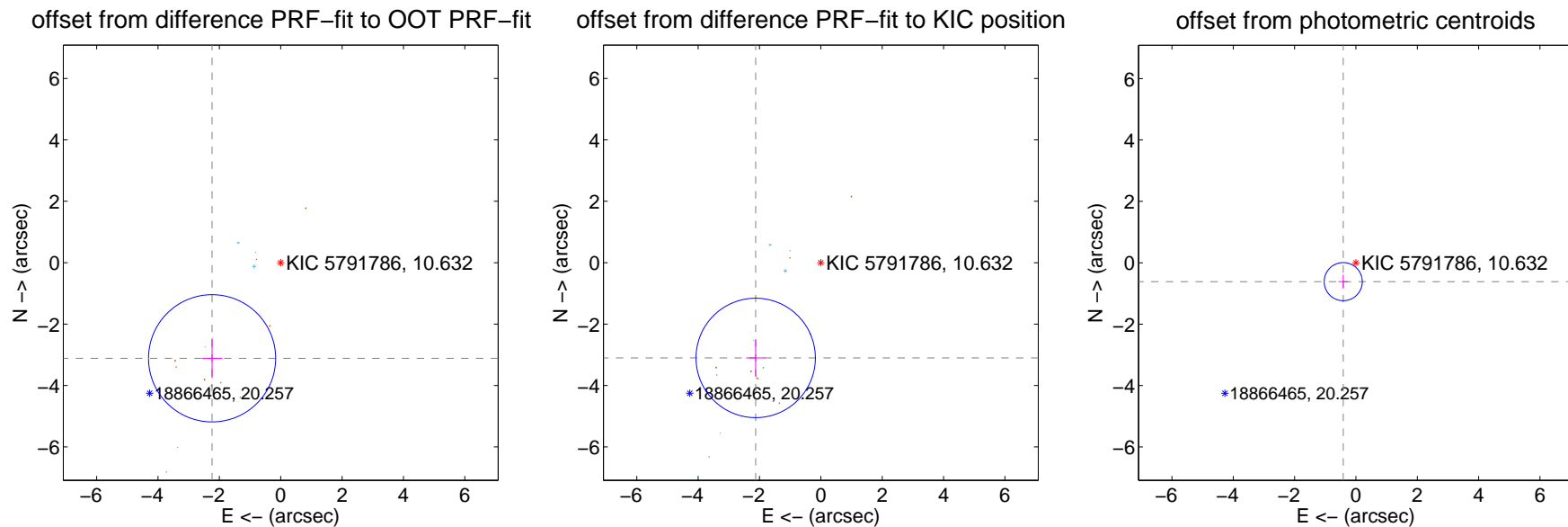
DV Centroid Data

Supplemental centroid analysis for 005791786-01. **Kepler magnitude: 10.63.** Transit SNR 12.54

There are 9 quarters with good PRF difference image offsets

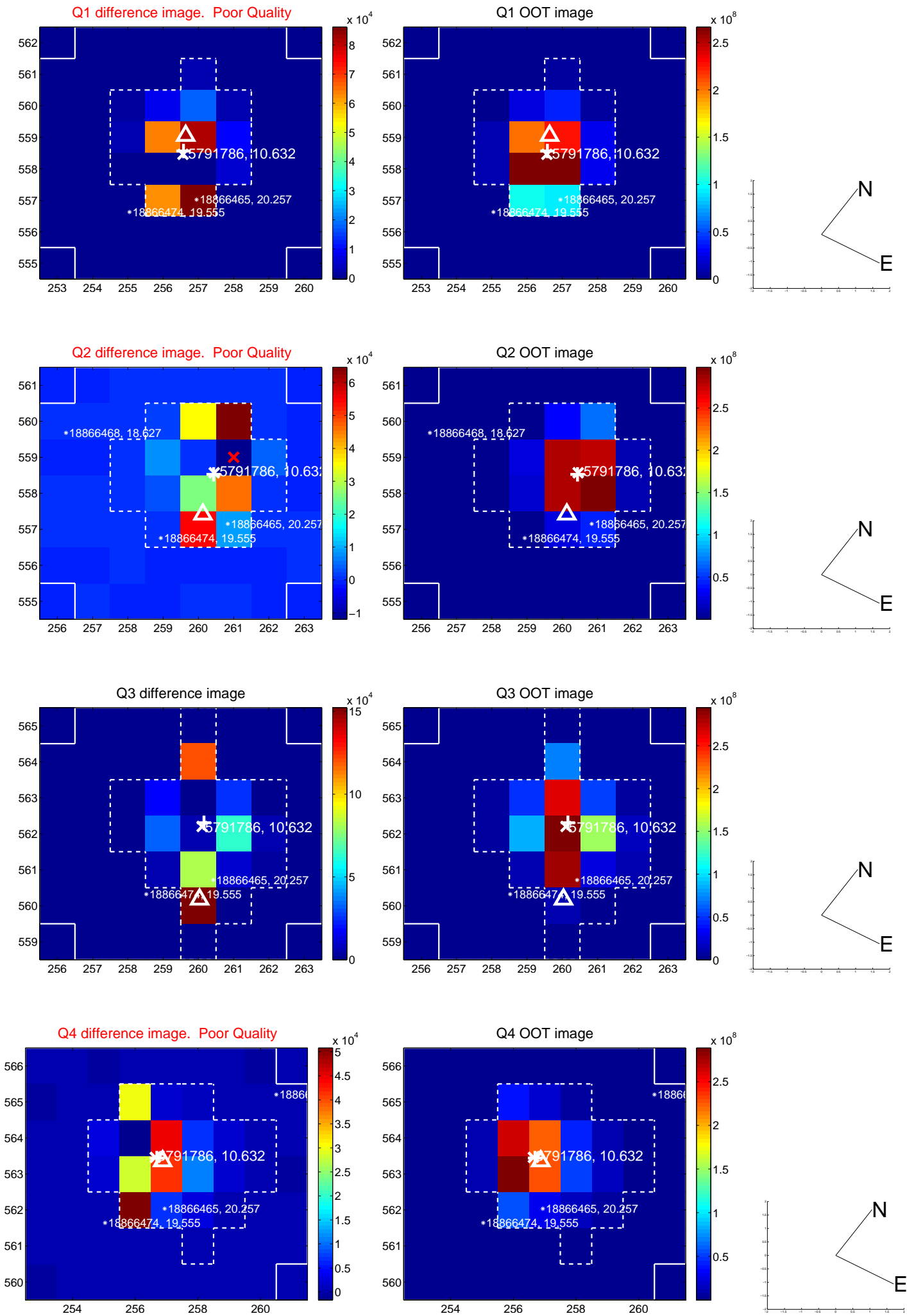
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.834 ± 0.691	5.55	2.238 ± 0.327	-3.113 ± 0.646
PRF-fit source offset from KIC position	3.759 ± 0.648	5.80	2.124 ± 0.309	-3.101 ± 0.605
photometric centroid source offset	0.74 ± 0.21	3.58	0.41 ± 0.16	-0.62 ± 0.23

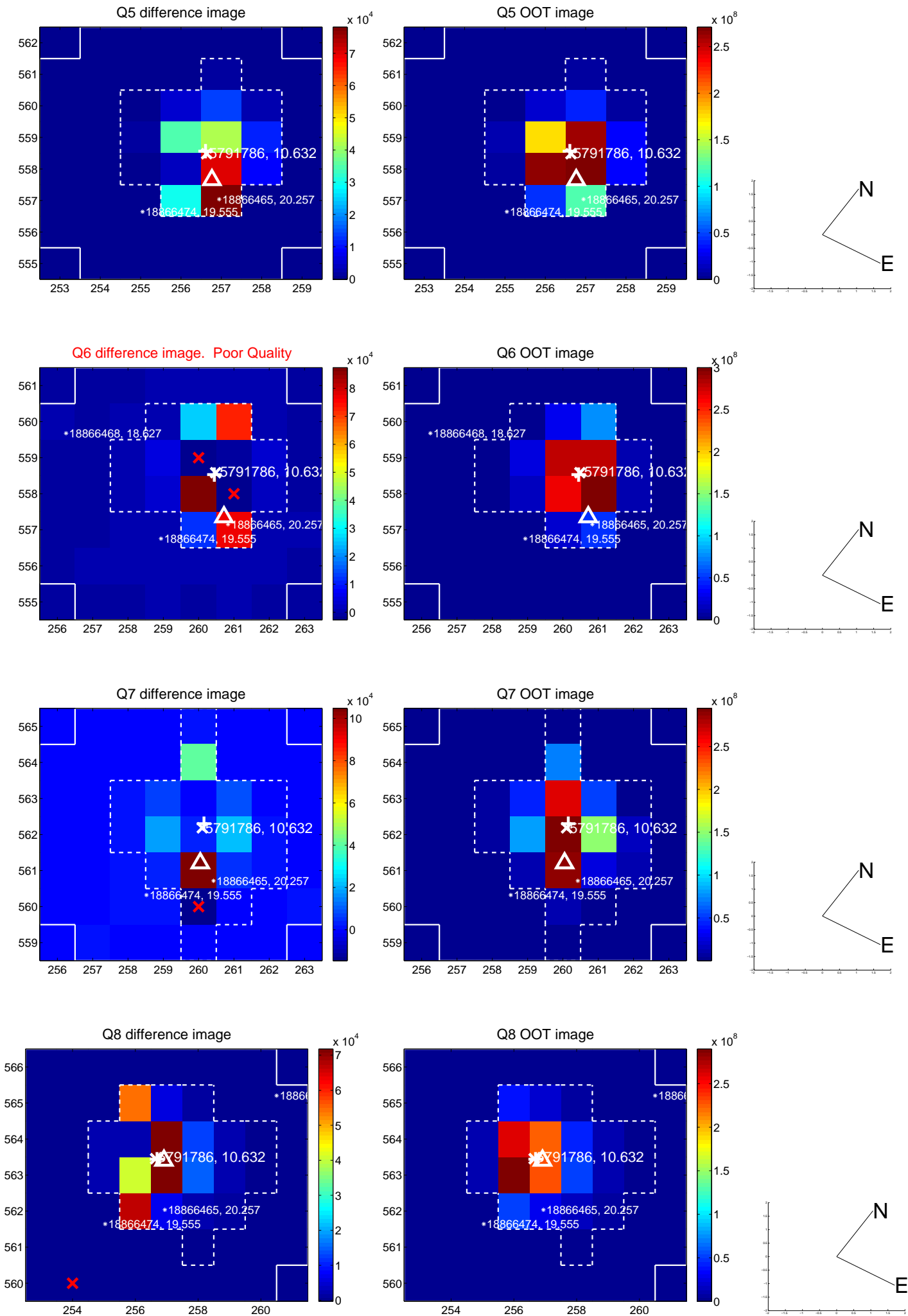


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

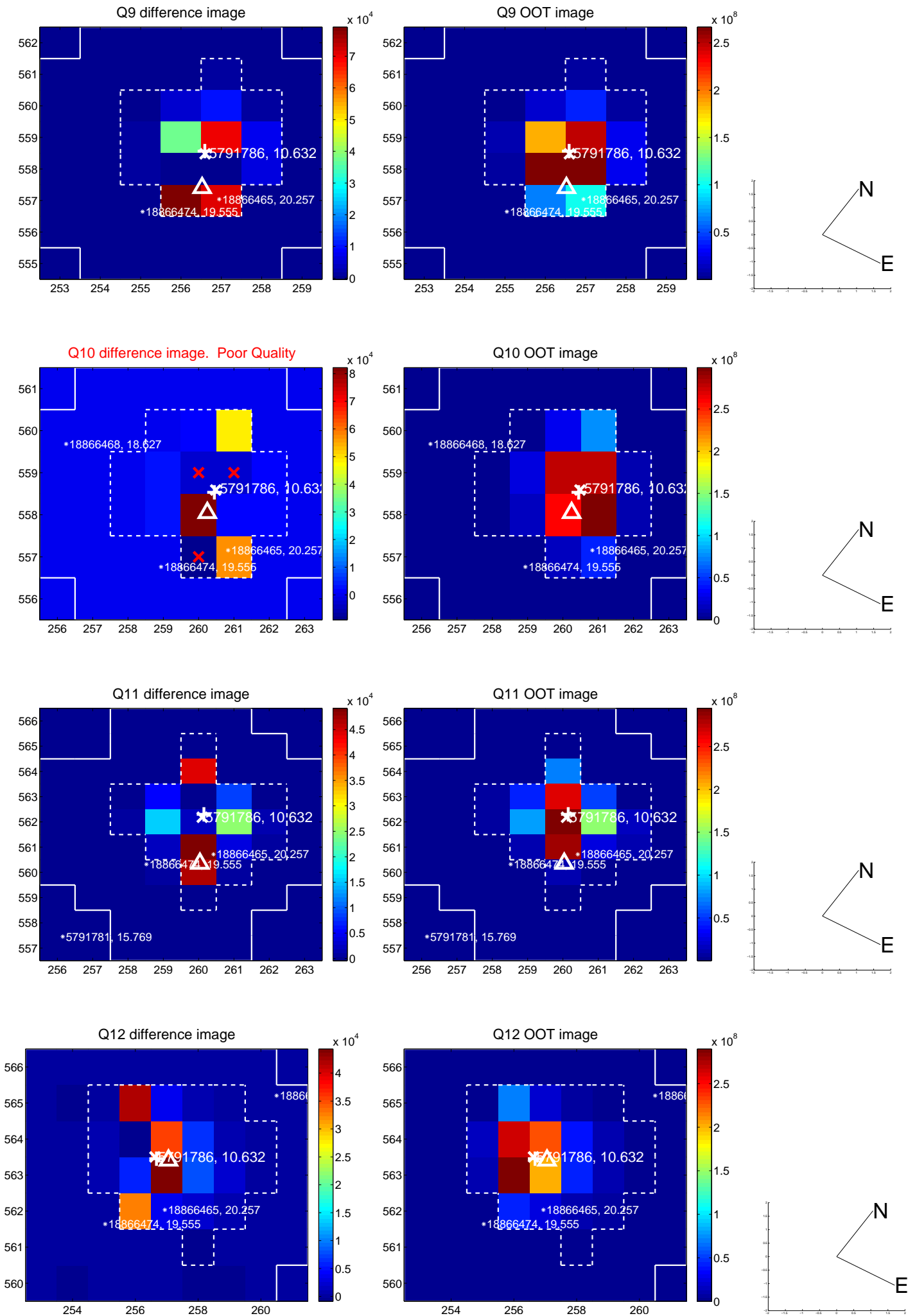
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



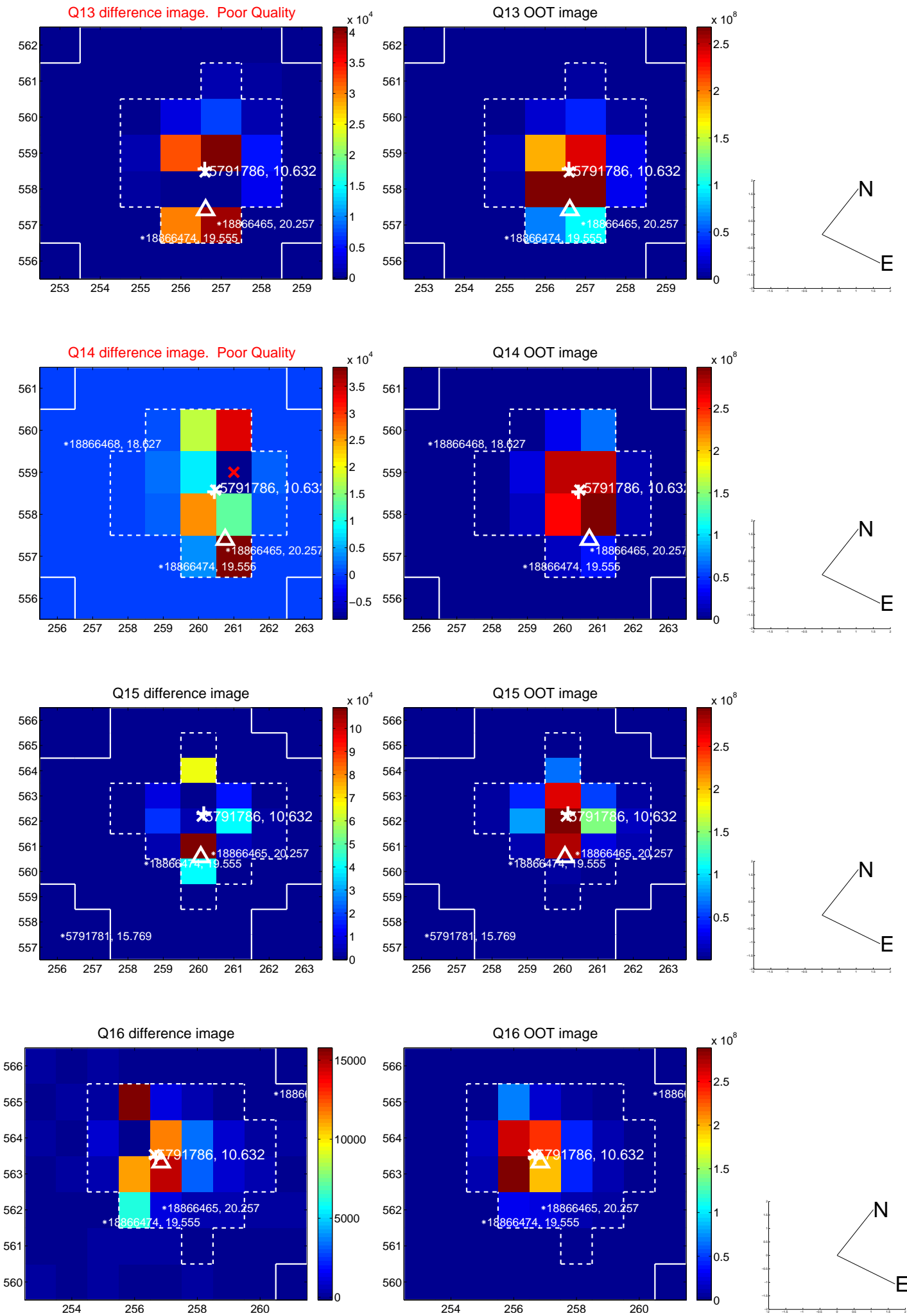
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



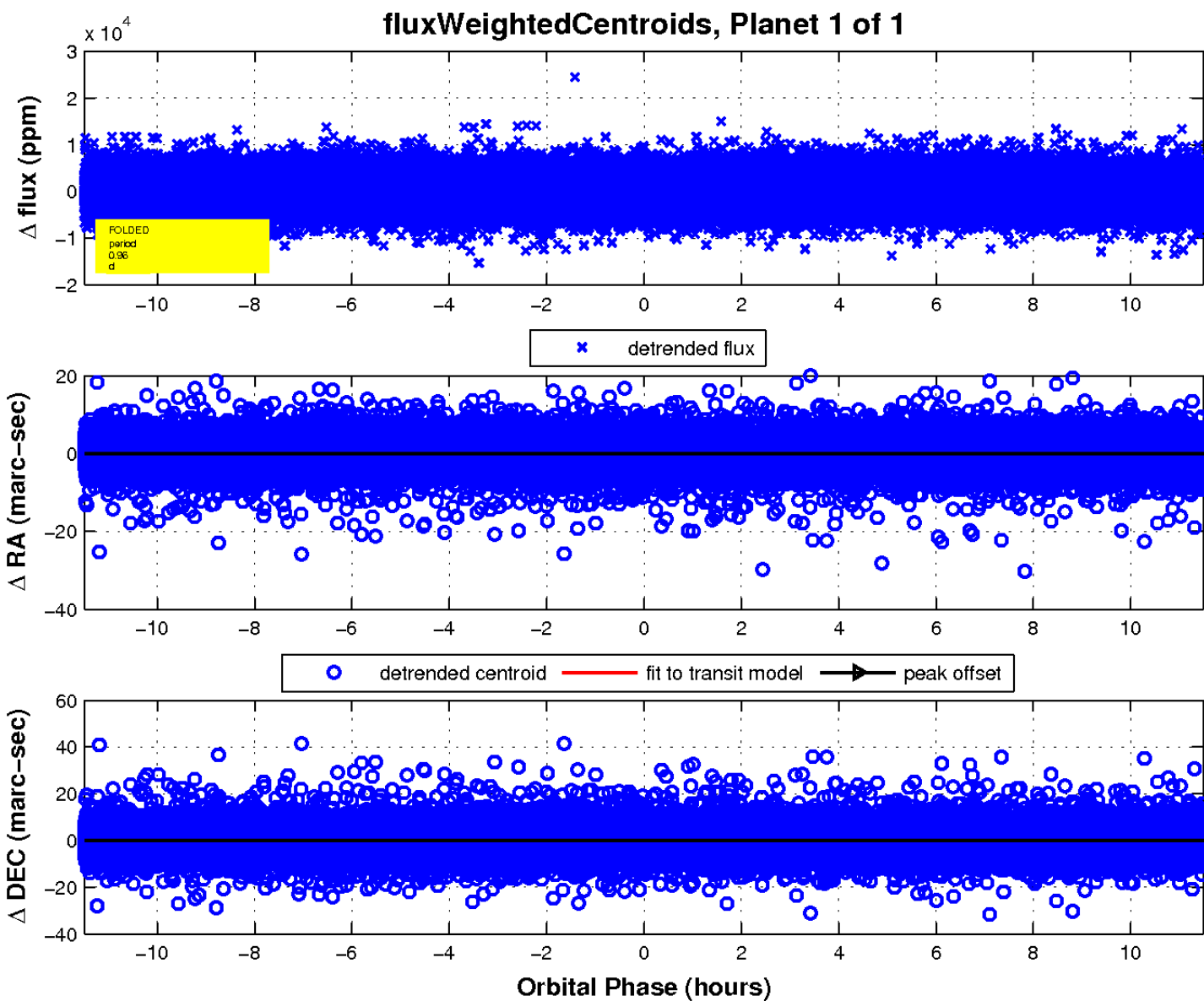
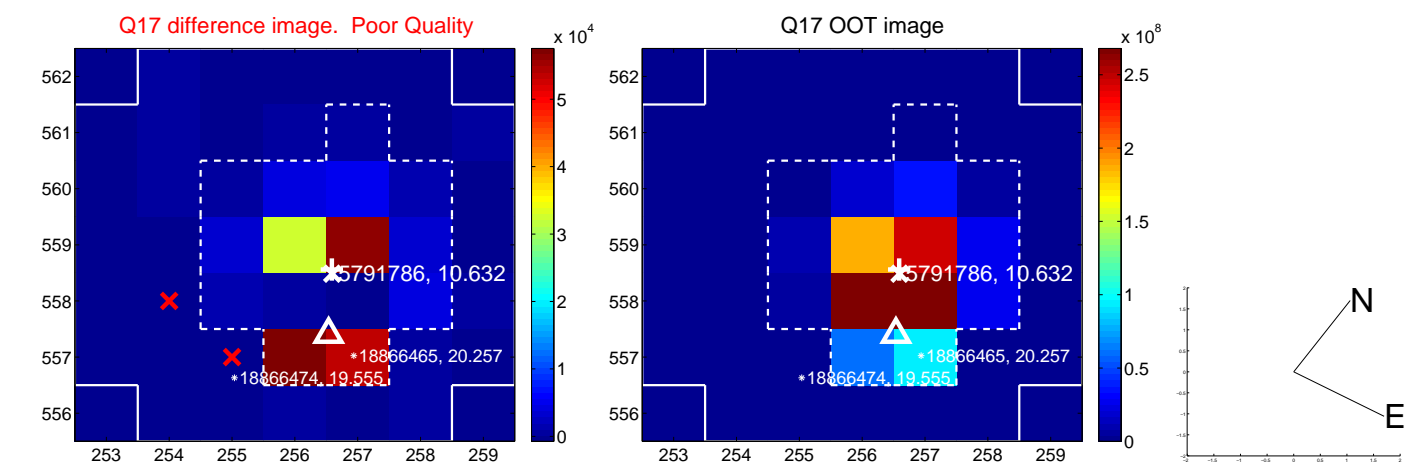
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

