

KIC 008587886

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})
008587886-01	OBS	No	1.104475	131.722181	88.9	2.914	7.8	8.3	0.68	5373	0.93	956.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008587886-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

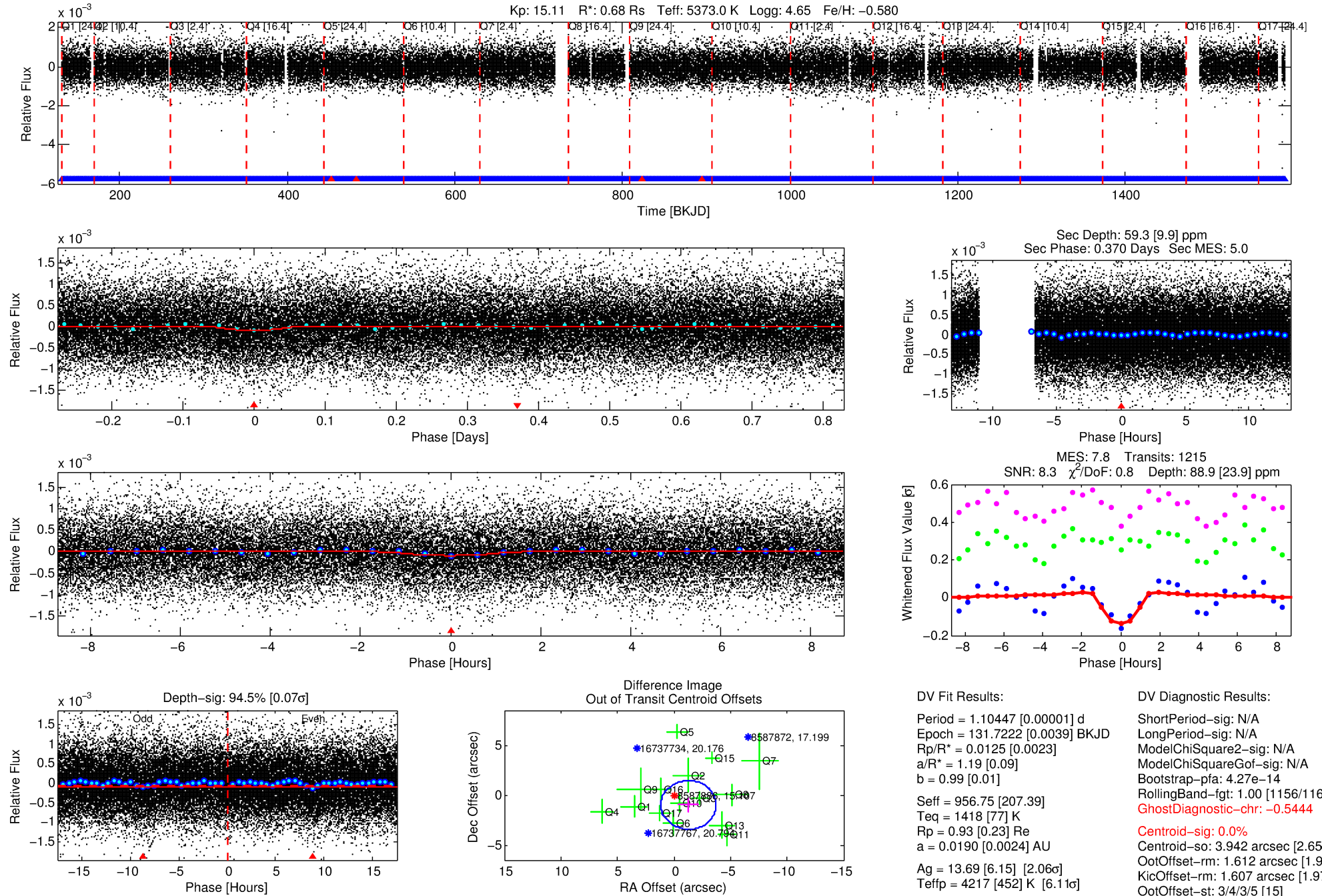
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008587886-01

No Significant Match Found

DV One-Page Summary

KIC: 8587886 Candidate: 1 of 1 Period: 1.104 d



DV Fit Results:

Period = 1.10447 [0.00001] d
Epoch = 131.7222 [0.0039] BKJD
Rp/R* = 0.0125 [0.0023]
a/R* = 1.19 [0.09]
b = 0.99 [0.01]
Seff = 956.75 [207.39]
Teq = 1418 [77] K
Rp = 0.93 [0.23] Re
a = 0.0190 [0.0024] AU
Ag = 13.69 [6.15] [2.06σ]
Teffp = 4217 [452] K [6.11σ]

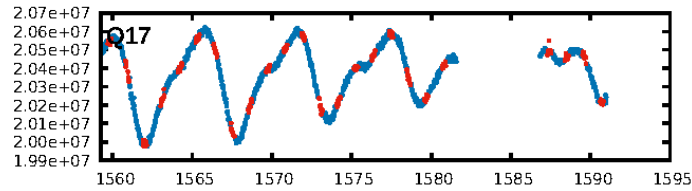
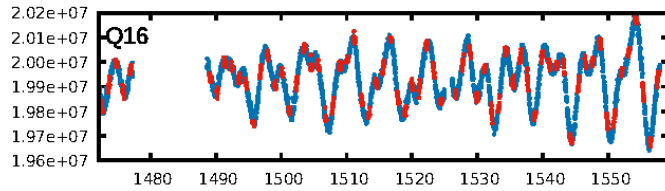
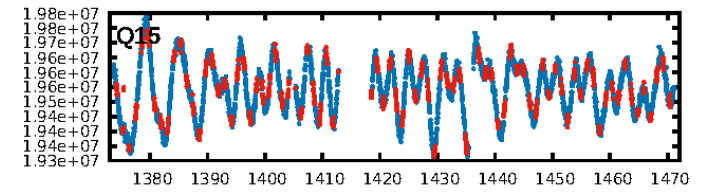
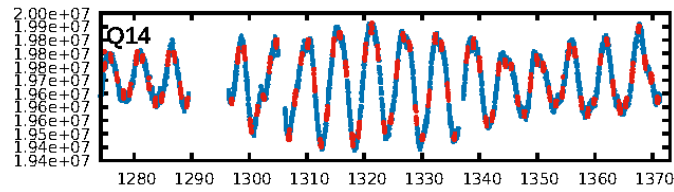
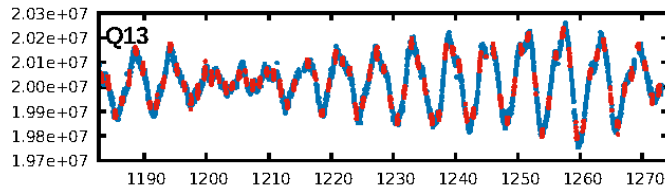
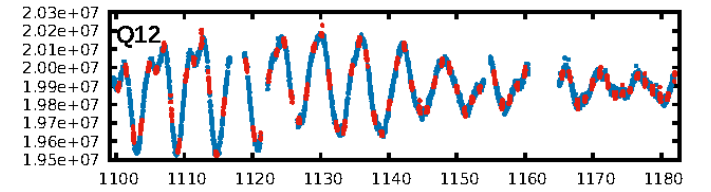
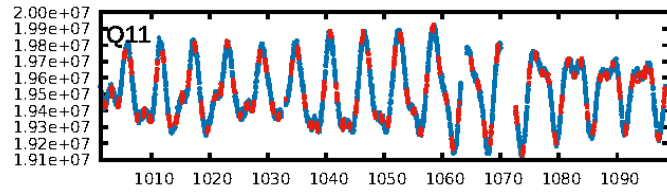
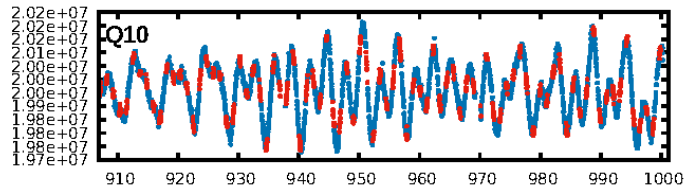
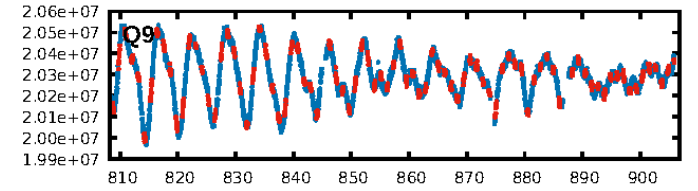
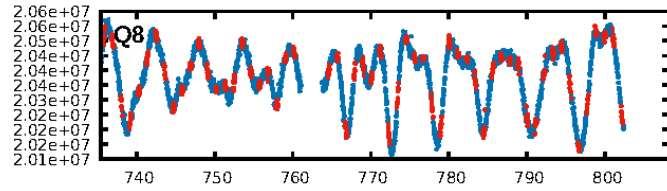
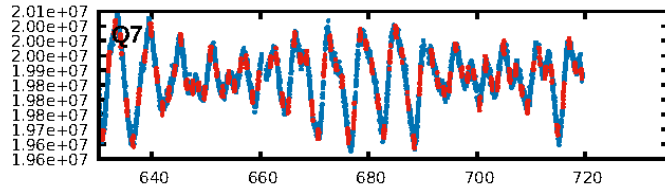
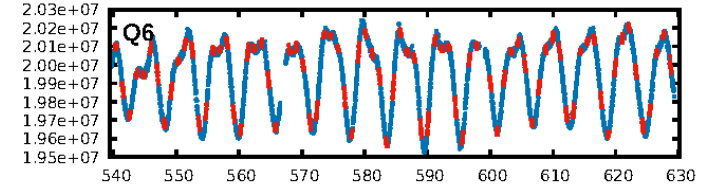
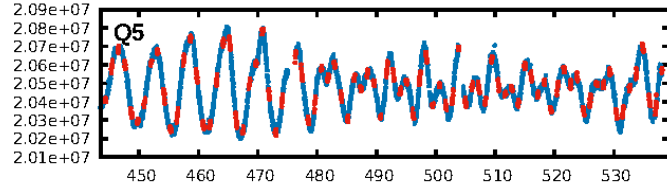
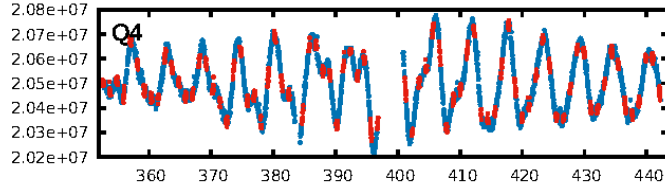
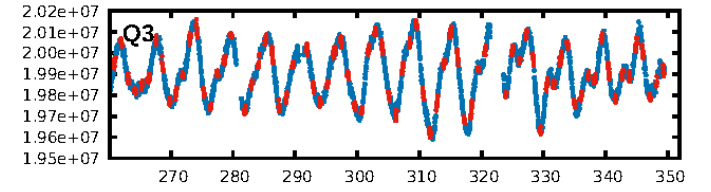
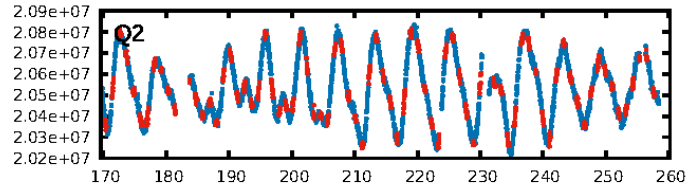
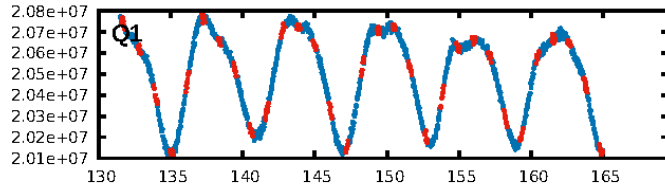
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.27e-14
RollingBand-fgt: 1.00 [1156/1160]
GhostDiagnostic-chr: -0.5444
Centroid-sig: 0.0%
Centroid-so: 3.942 arcsec [2.65σ]
OotOffset-rm: 1.612 arcsec [1.98σ]
KicOffset-rm: 1.607 arcsec [1.97σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

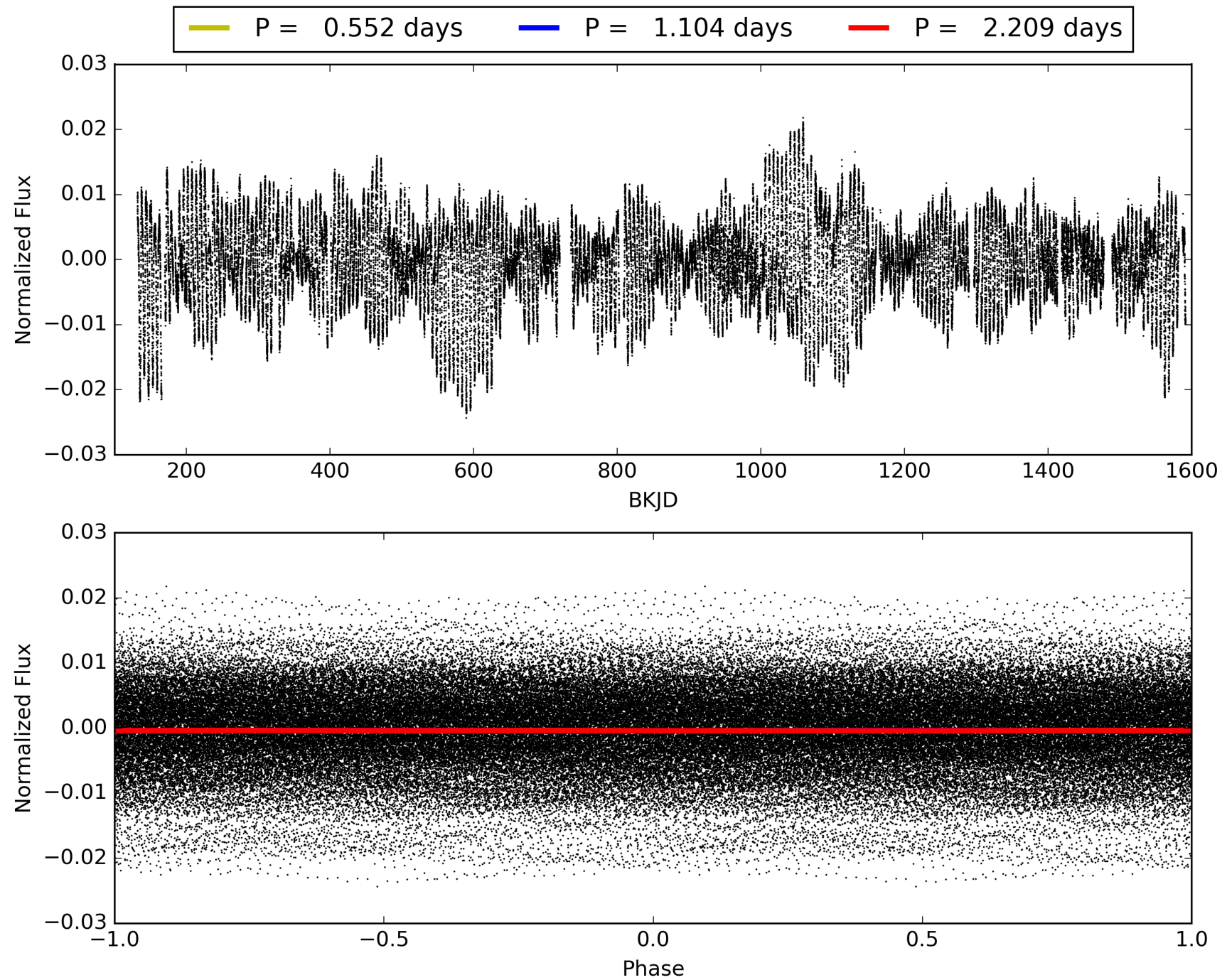
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:05:13 Z

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

TCE 008587886-01, PDC Light Curves

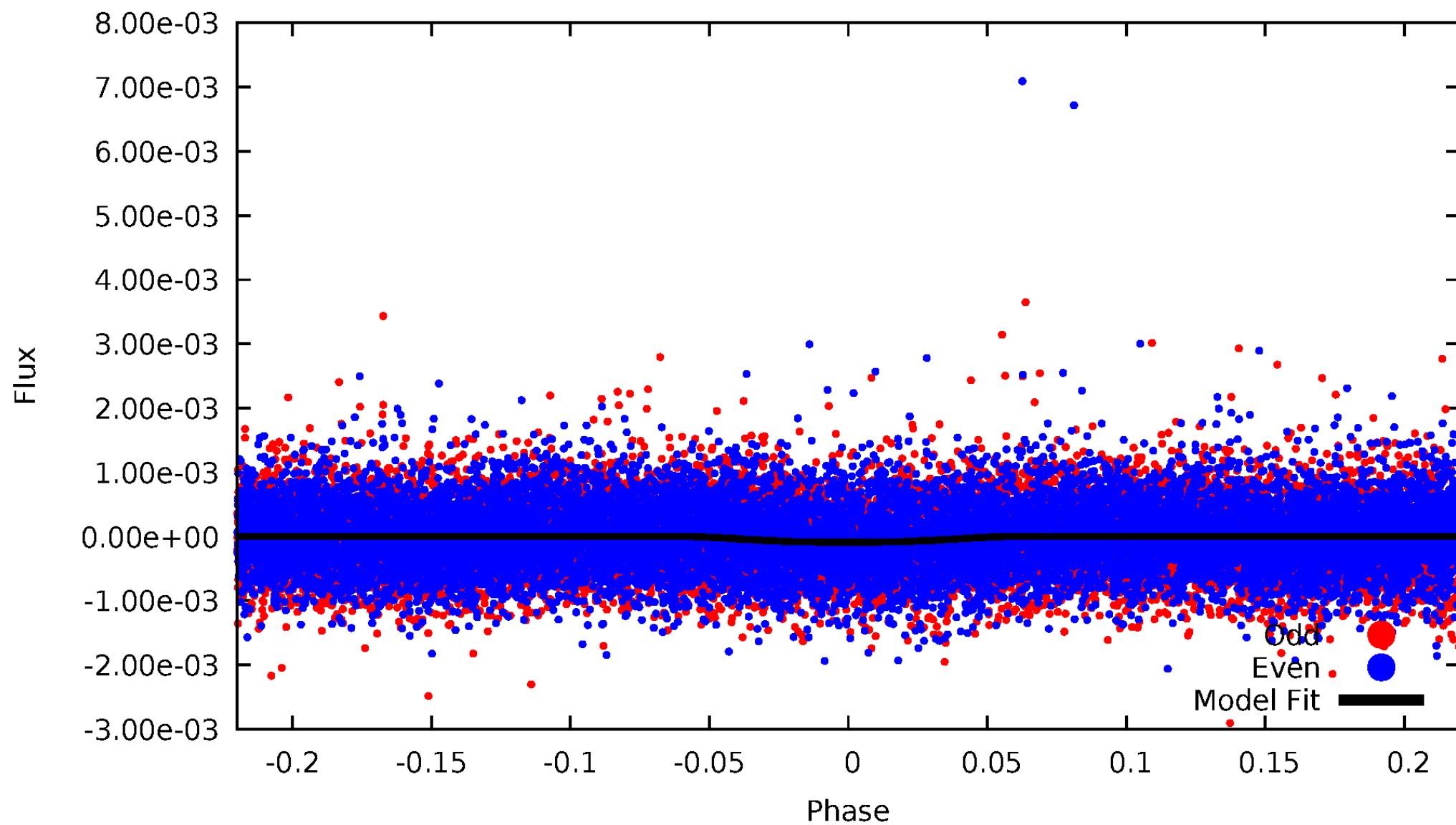


TCE 008587886-01



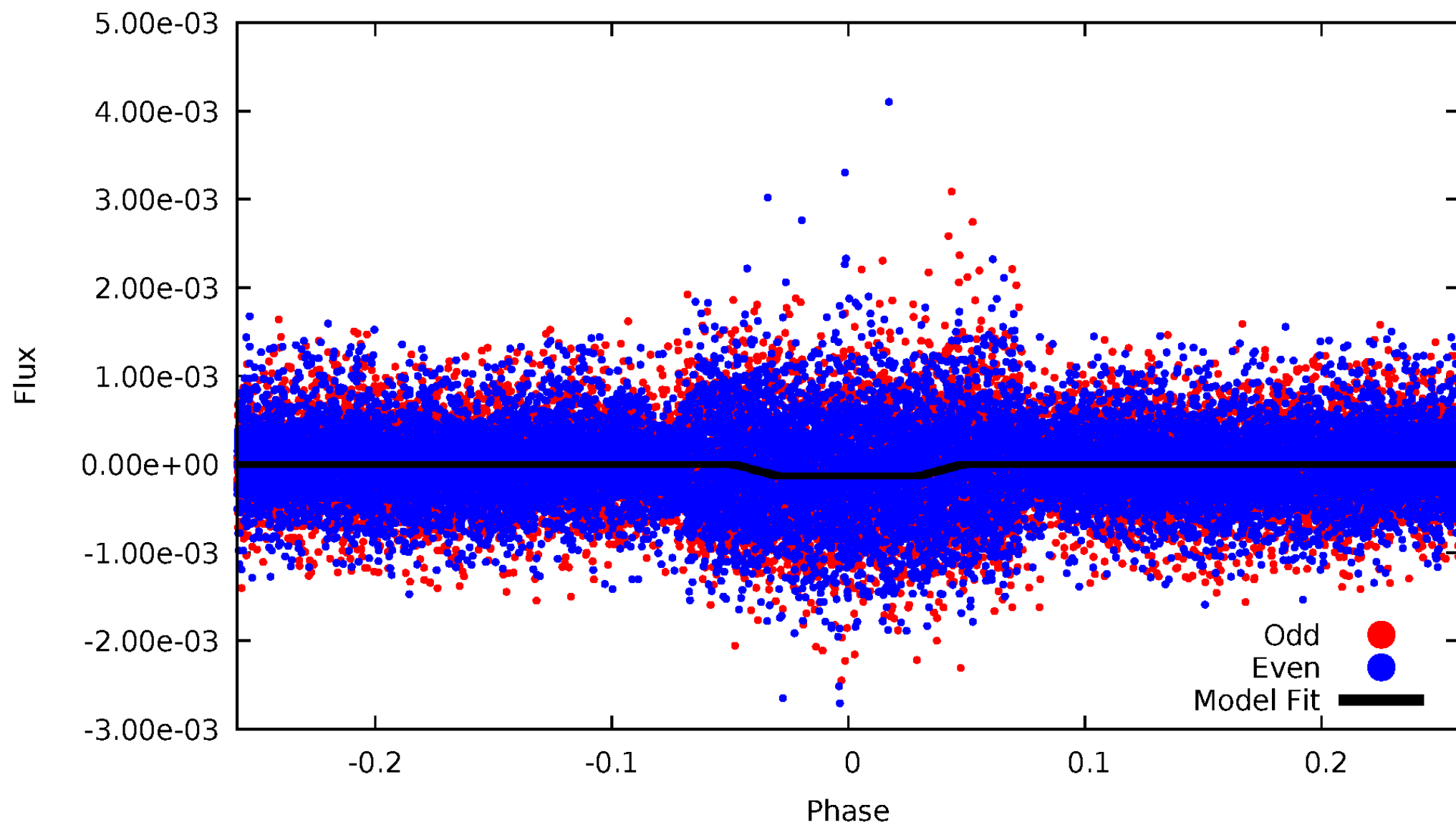
DV Odd/Even

TCE 008587886-01



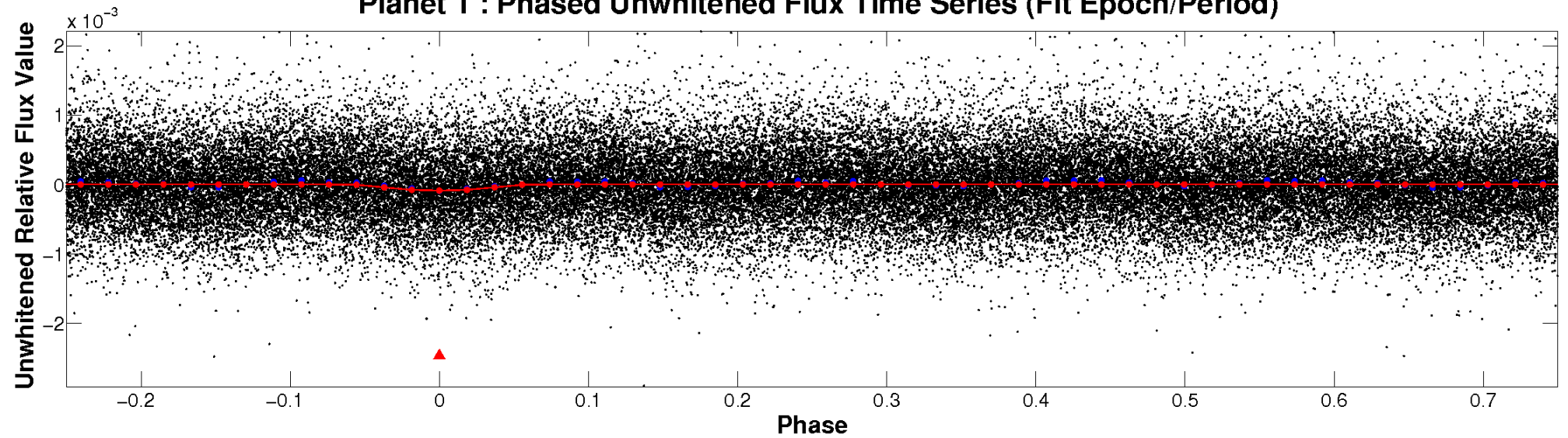
ALT Odd/Even

TCE 008587886-01

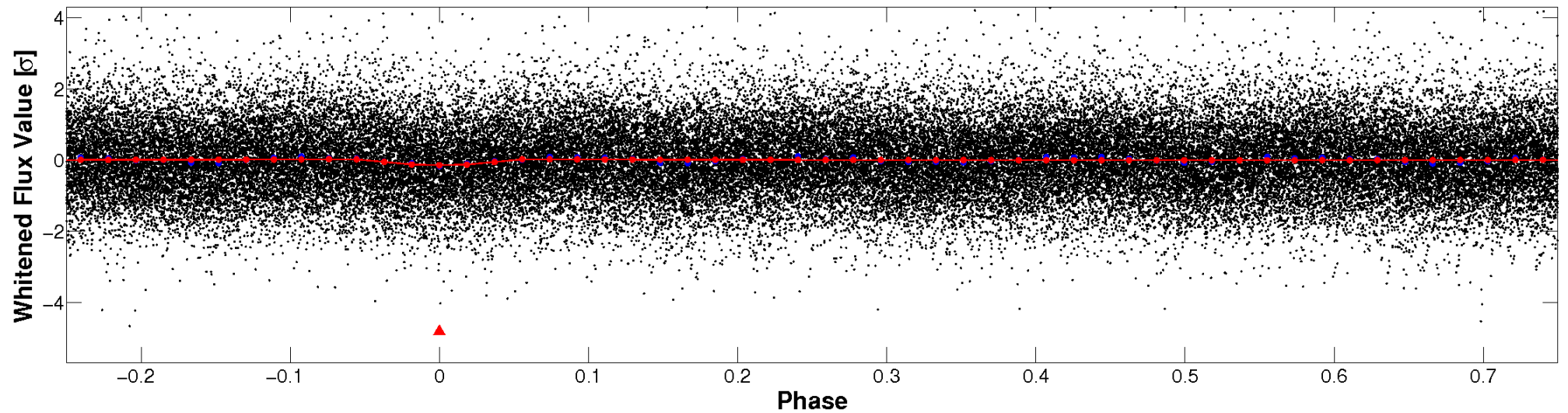


Non-Whitened Vs. Whitened Light Curve

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

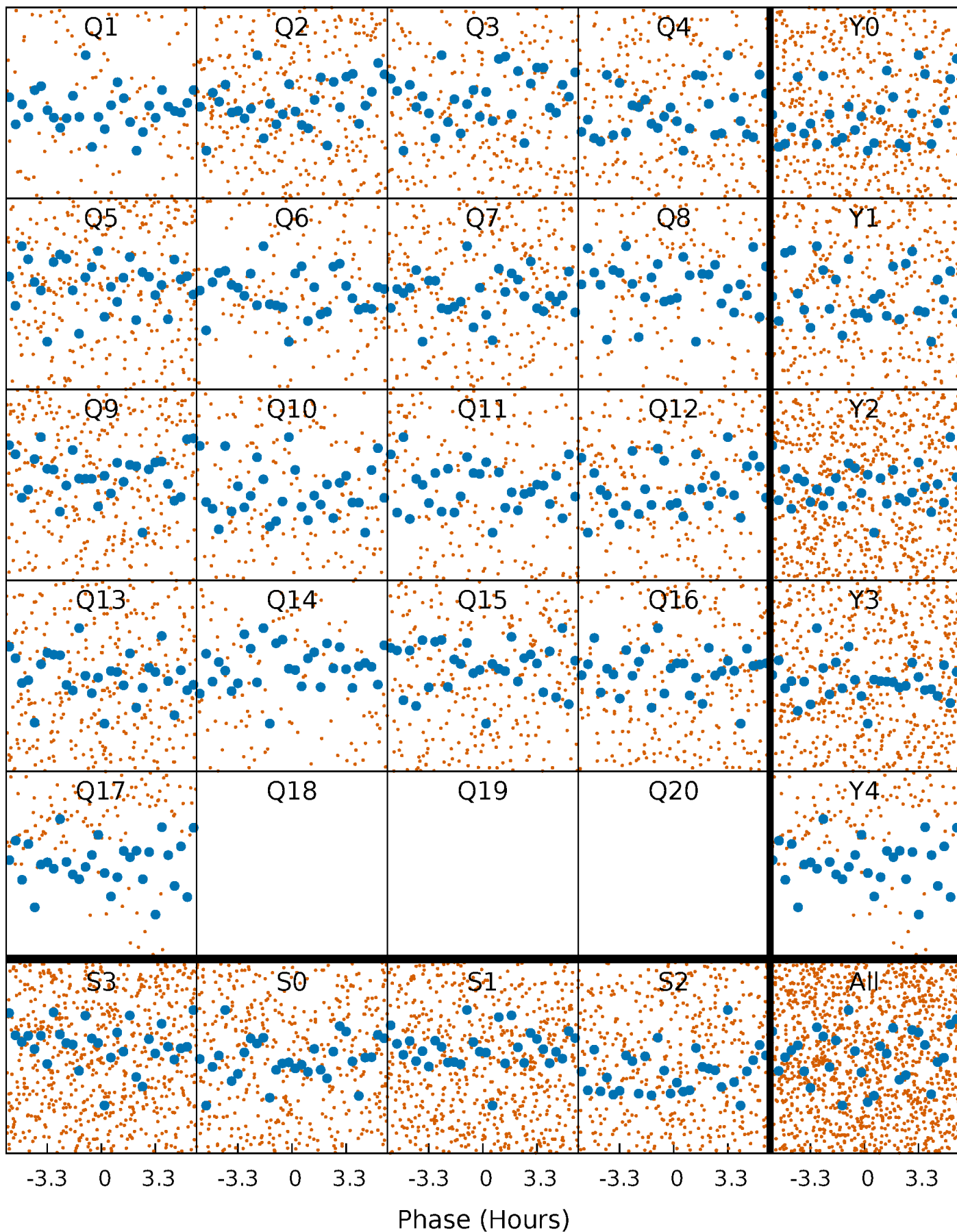


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



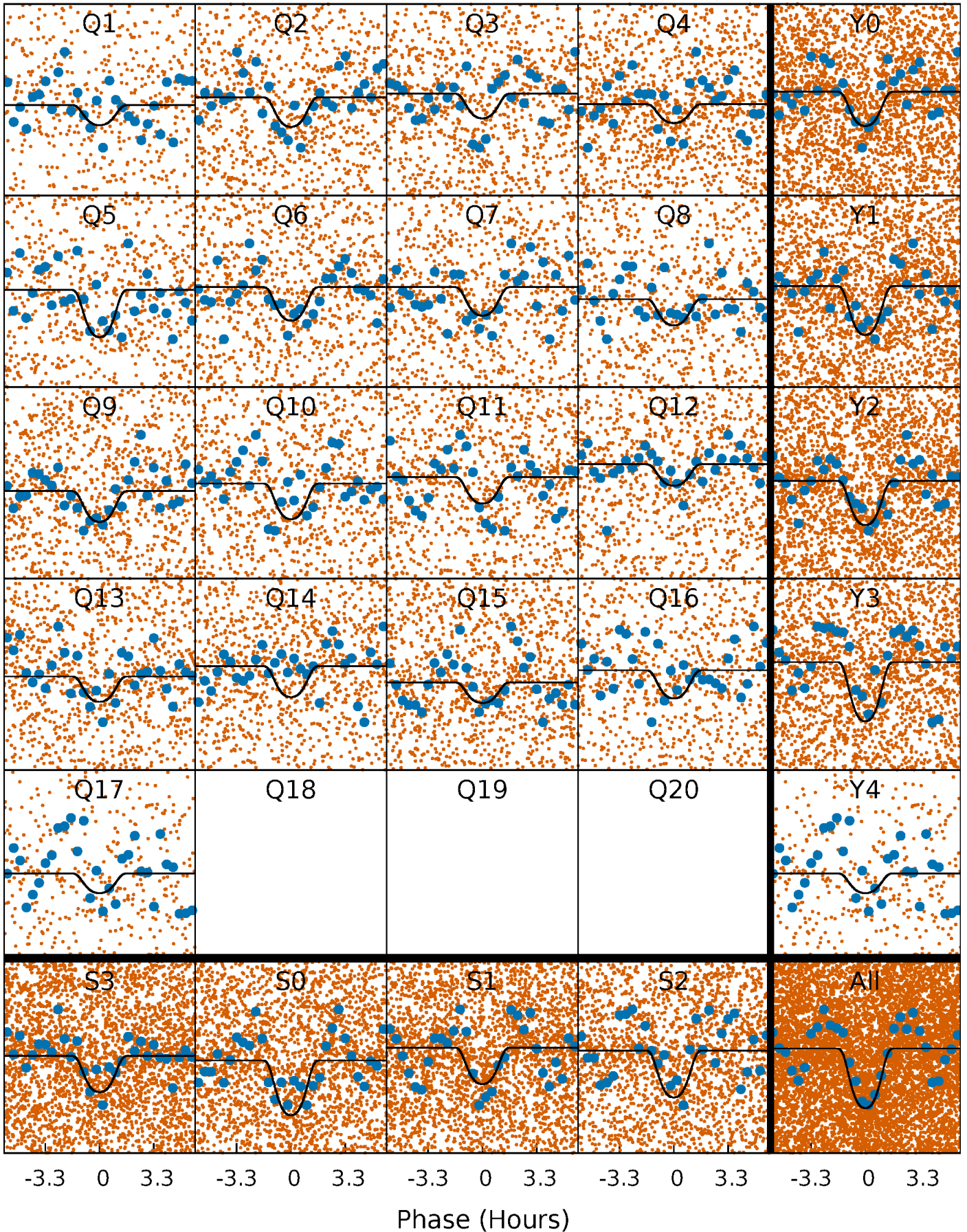
PDC Quarter-Phased Transit Curves

TCE 008587886-01 P= 1.104475 Days $T_0=131.722181$ (BKJD)



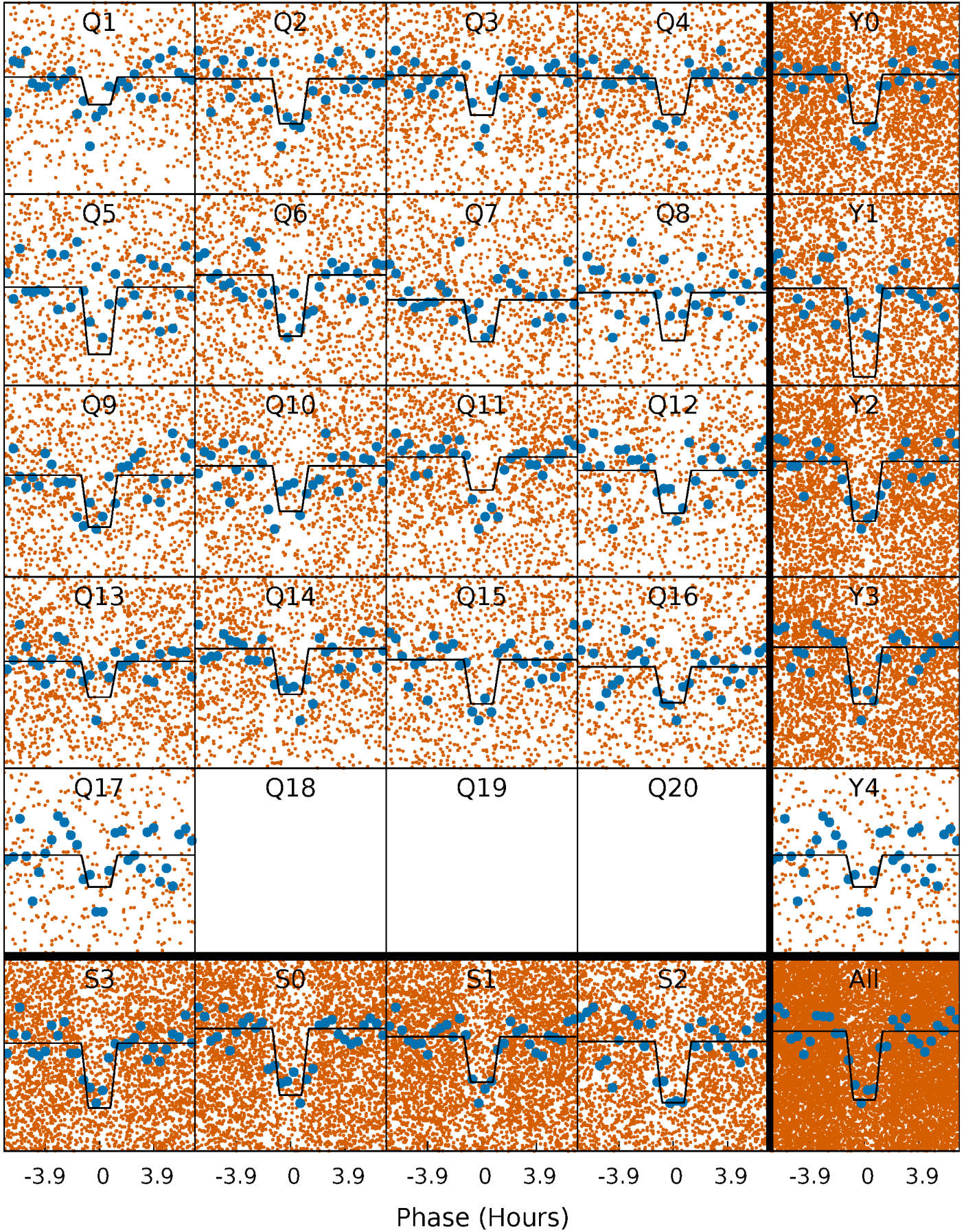
DV Quarter-Phased Transit Curves

TCE 008587886-01 P= 1.104475 Days $T_0=131.722181$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

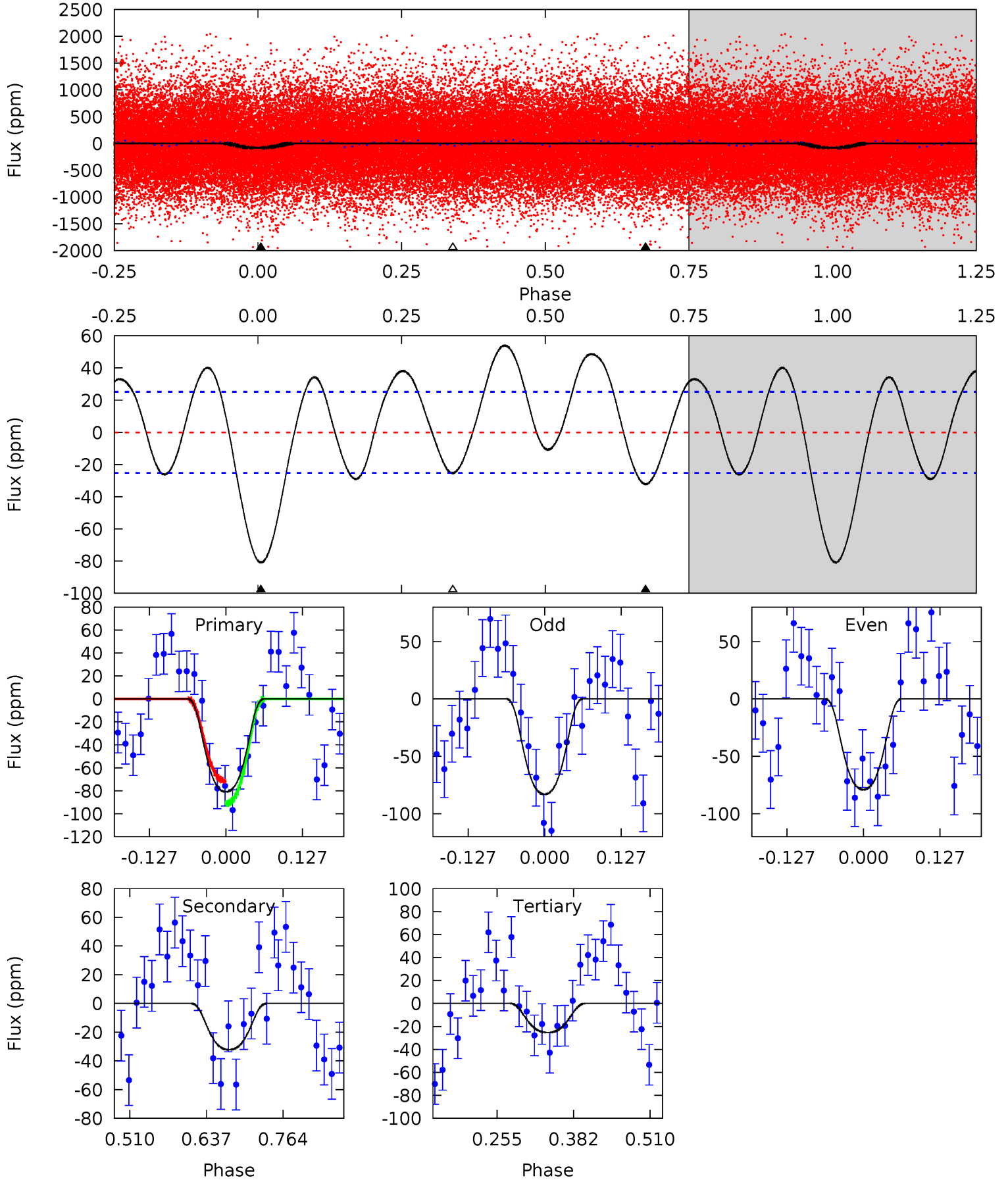
TCE 008587886-01 P= 1.104498 Days $T_0=131.713877$ (BKJD)



DV Model-Shift Uniqueness Test

008587886-01, P = 1.104475 Days, E = 130.617706 Days

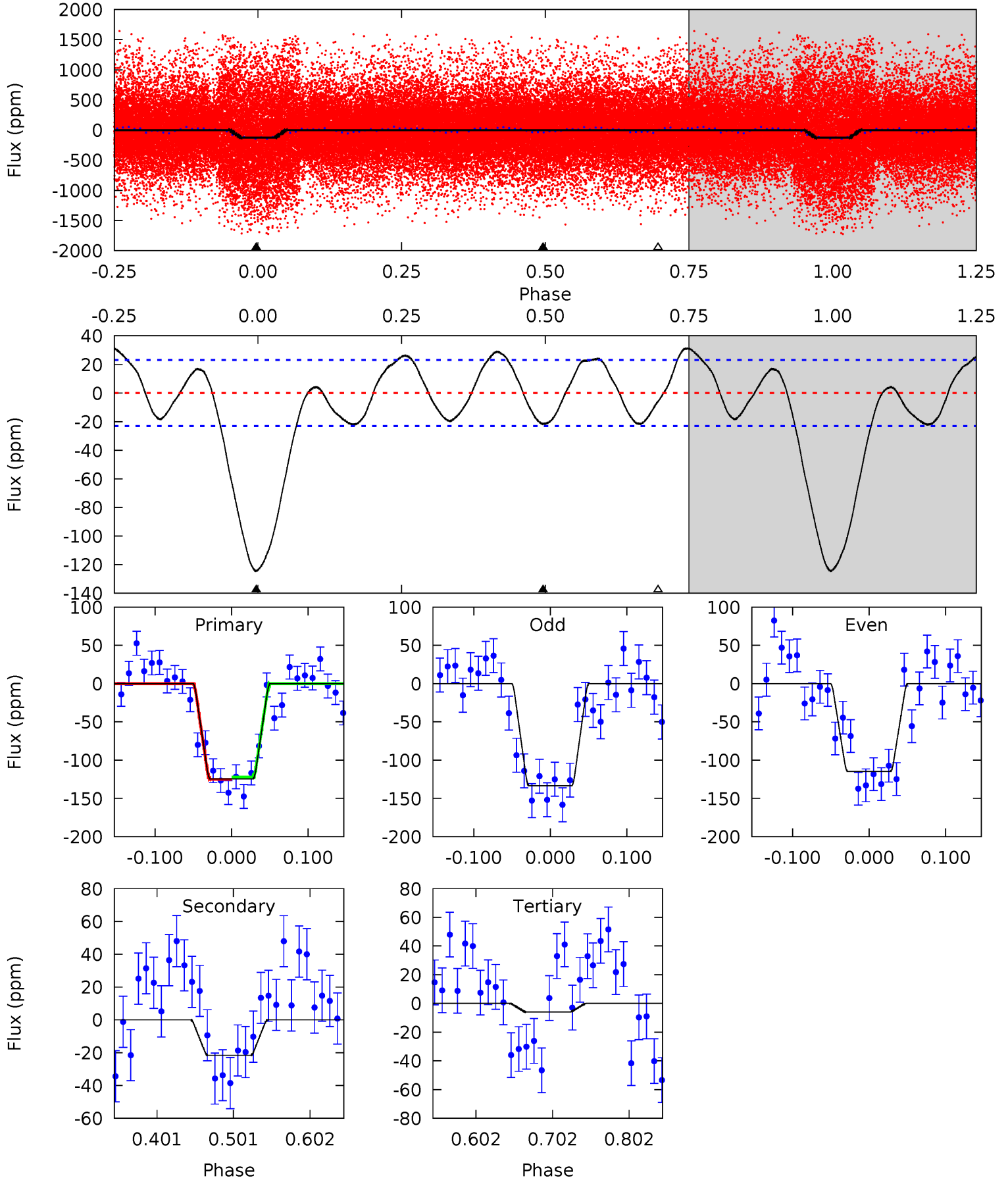
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	5.78	4.55	0	4.51	1.52	4.37	9.94	14.5	1.23	5.78	0.36	1.04	0.40	1.77



Alt Model-Shift Uniqueness Test

008587886-01, P = 1.104498 Days, E = 130.609379 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	4.28	1.19	0	4.56	1.64	3.15	23.4	24.6	3.09	4.28	1.84	1.03	0.20	0.31



Stellar Parameters For KIC 008587886

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5373^{+160}_{-160}	$4.647^{+0.032}_{-0.097}$	$-0.580^{+0.350}_{-0.300}$	$0.679^{+0.105}_{-0.045}$	$0.758^{+0.072}_{-0.072}$	$3.418^{+0.457}_{-1.011}$
	+3%/-3%	+1%/-2%	+60%/-52%	+15%/-7%	+9%/-9%	+13%/-30%
Source	PHO1	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 008587886-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-32 ± 6	$0.95^{+0.21}_{-0.18}$	2006^{+84}_{-75}	3895^{+354}_{-289}	$7.070^{+3.979}_{-2.542}$
Alt.	-22 ± 5	$0.89^{+0.19}_{-0.19}$	2011^{+86}_{-82}	3717^{+385}_{-267}	$5.316^{+3.805}_{-1.820}$

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

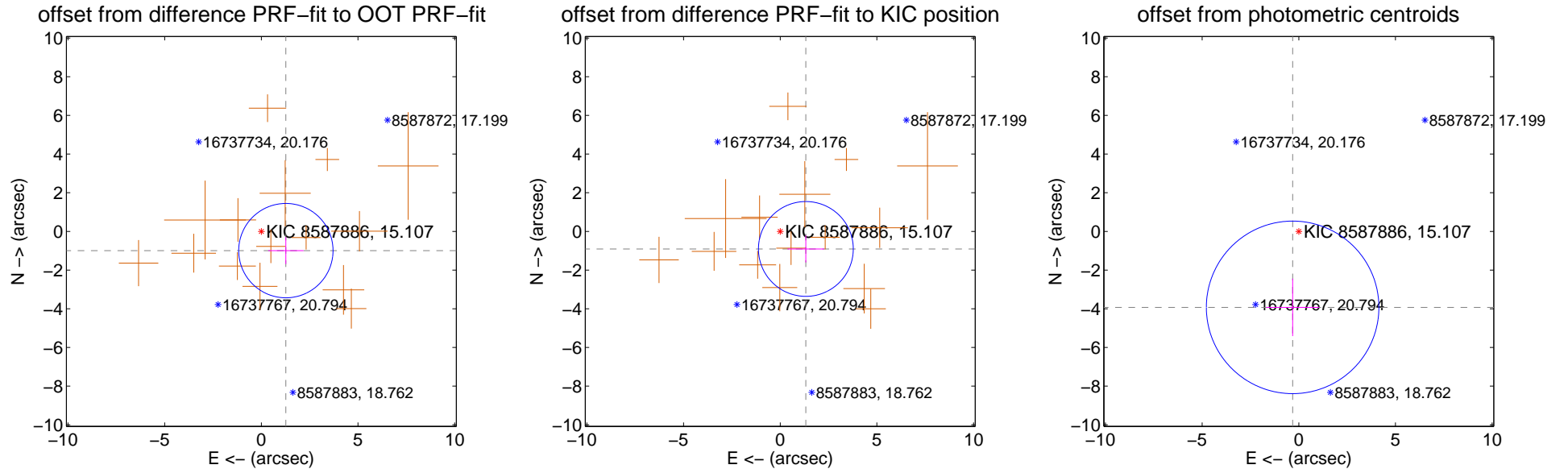
DV Centroid Data

Supplemental centroid analysis for 008587886-01. Kepler magnitude: 15.11. Transit SNR 8.28

There are 0 quarters with good PRF difference image offsets

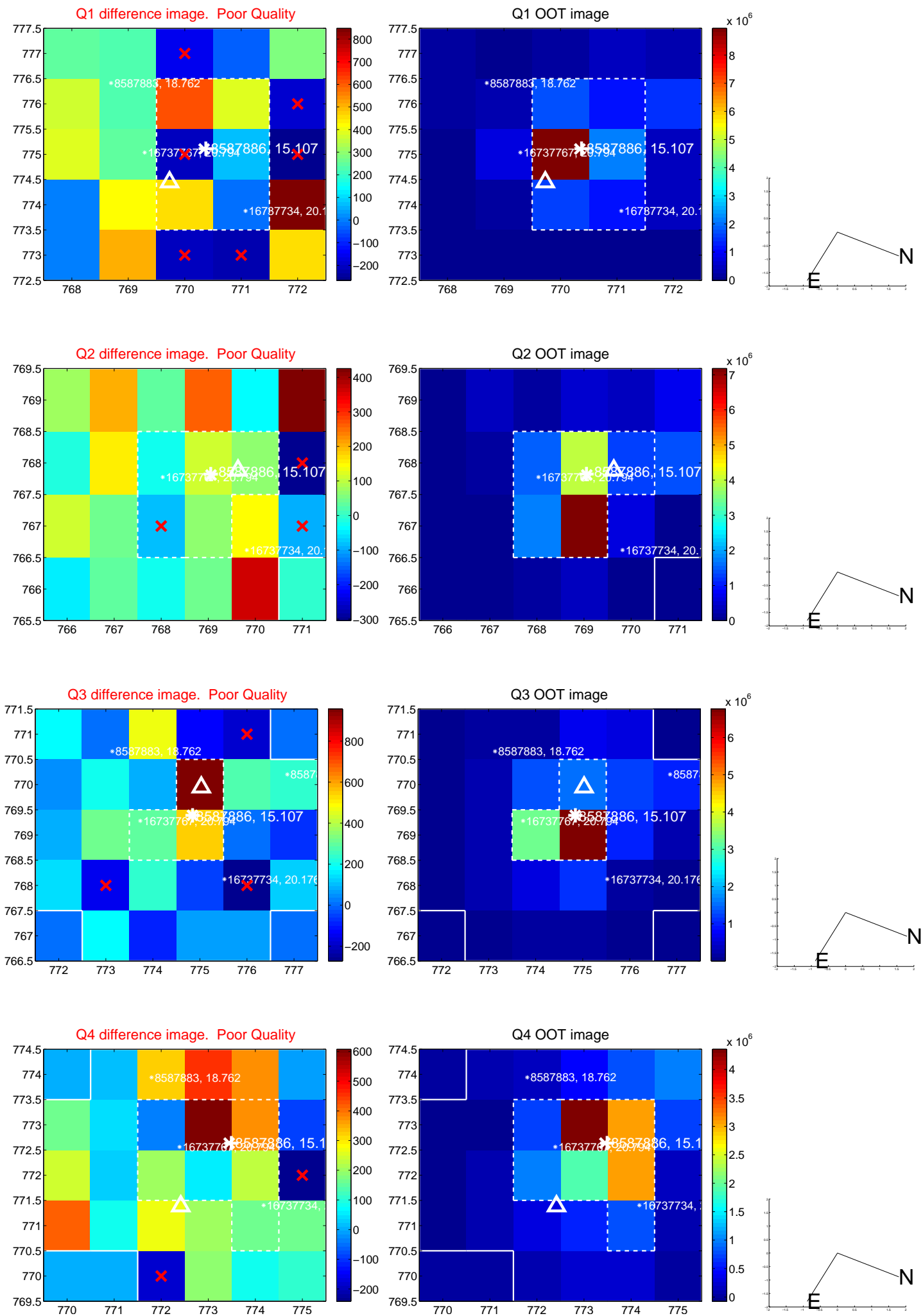
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.612 ± 0.813	1.98	-1.269 ± 0.913	-0.993 ± 0.695
PRF-fit source offset from KIC position	1.607 ± 0.817	1.97	-1.327 ± 0.949	-0.907 ± 0.701
photometric centroid source offset	3.94 ± 1.49	2.65	0.32 ± 1.37	-3.93 ± 1.49

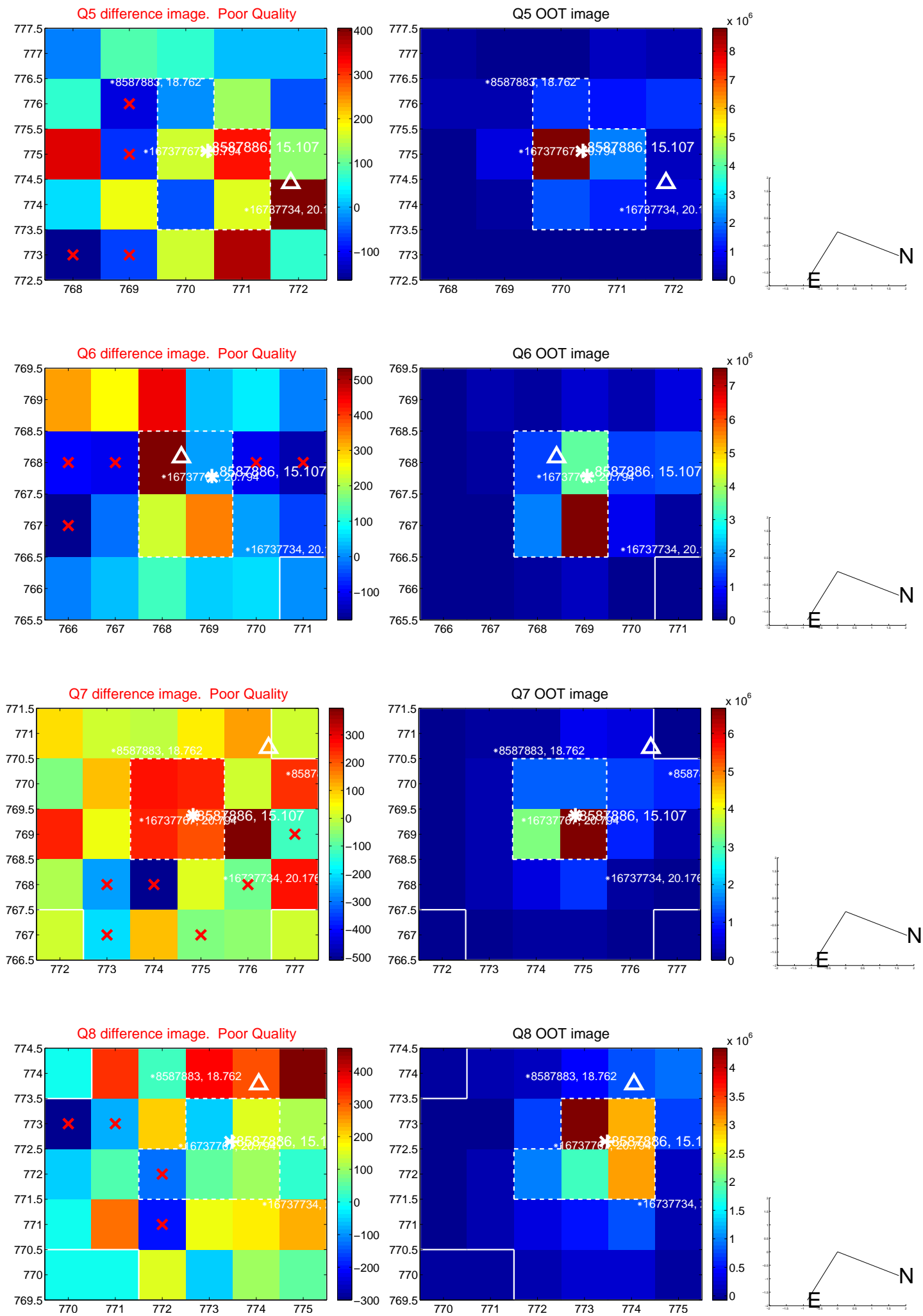


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

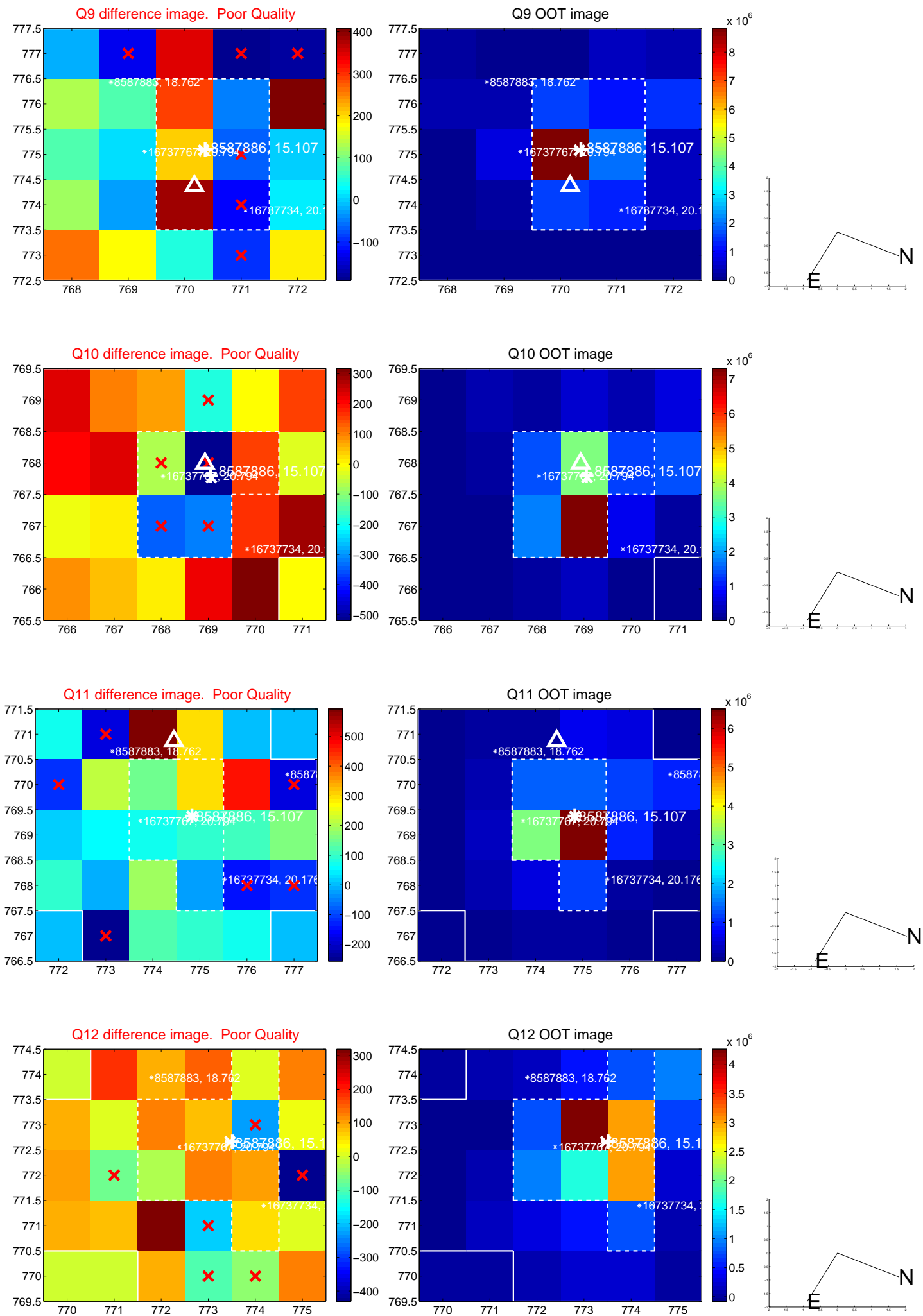
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



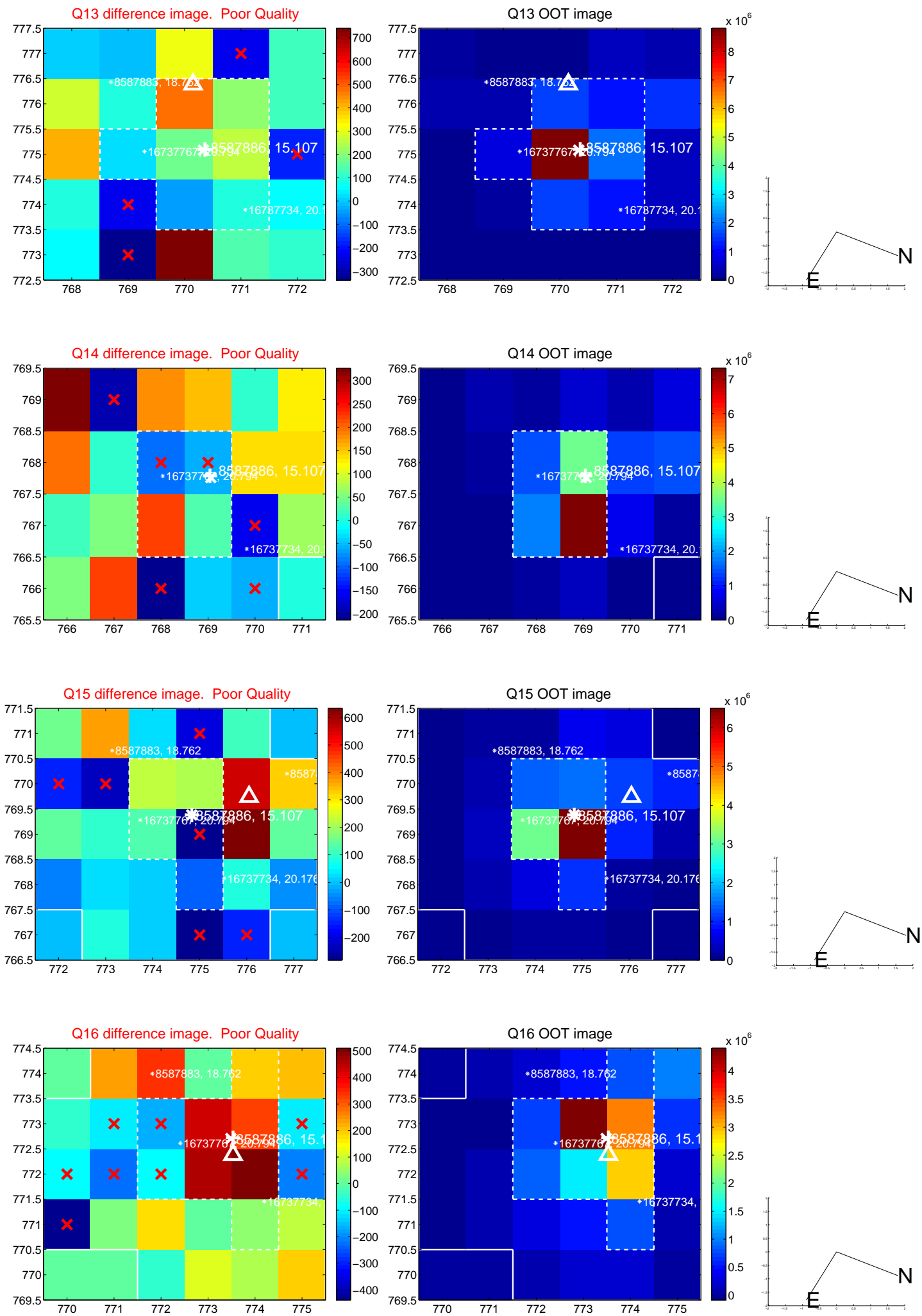
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



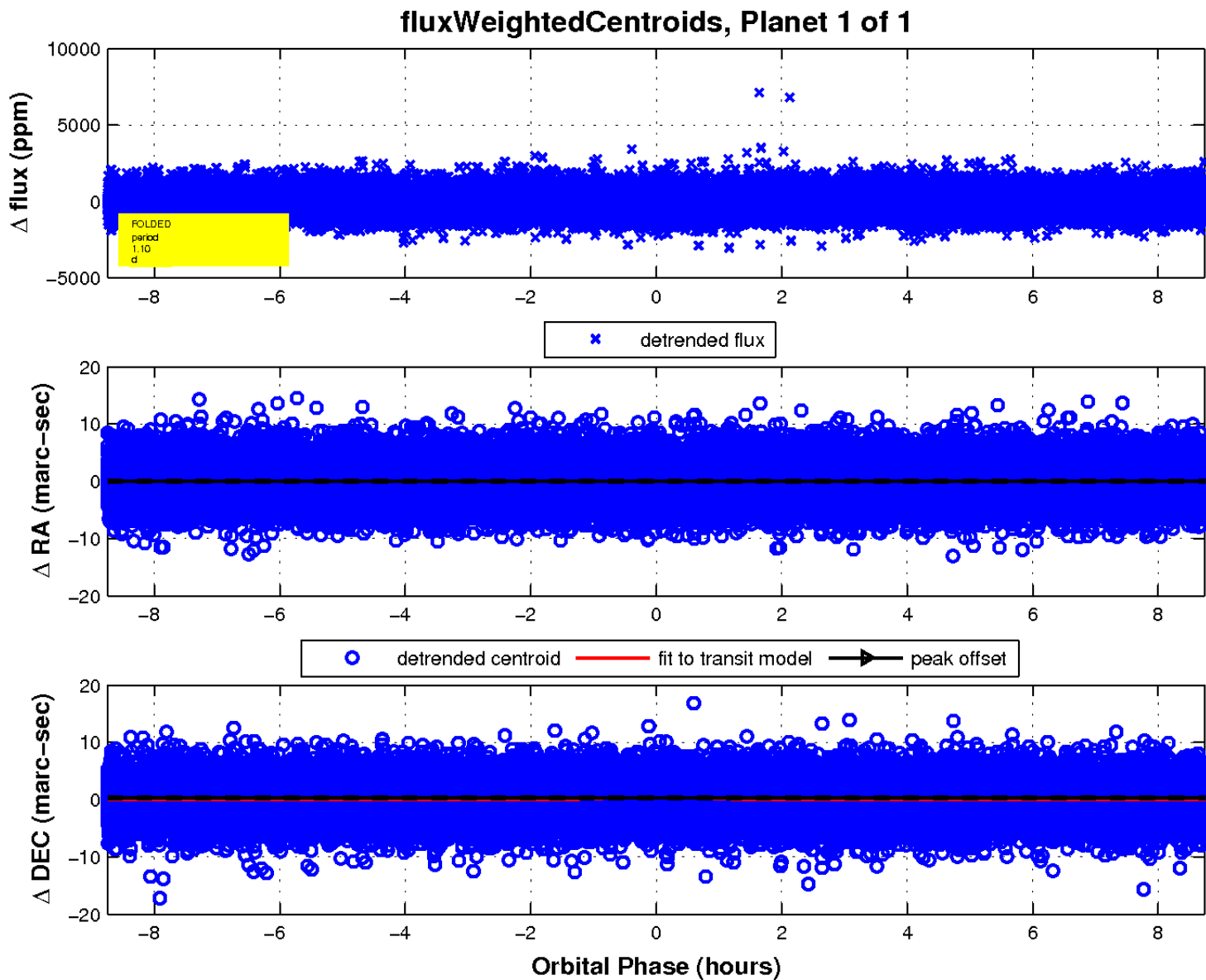
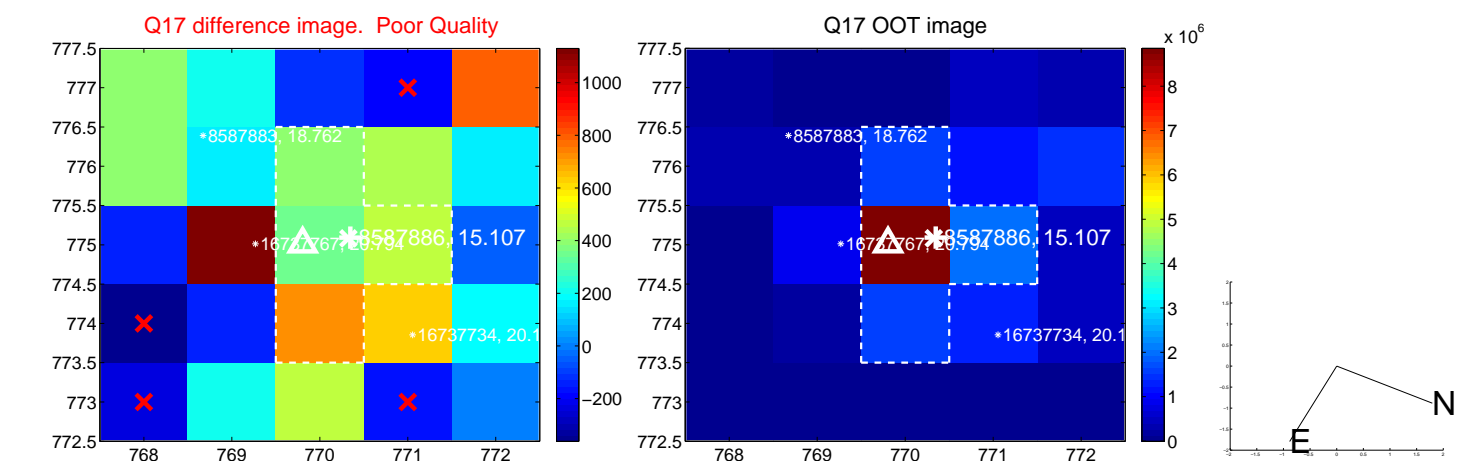
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

