

KIC 007900367

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})
007900367-01	OBS	No	3.748574	132.000932	122.0	26.782	10.9	14.1	1.84	7201	3.87	2617.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007900367-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

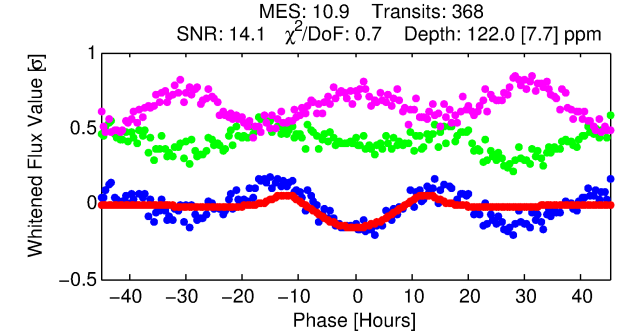
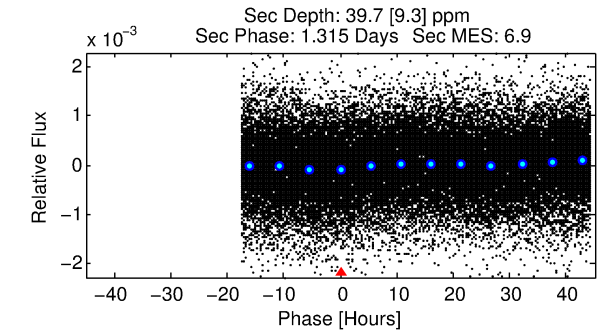
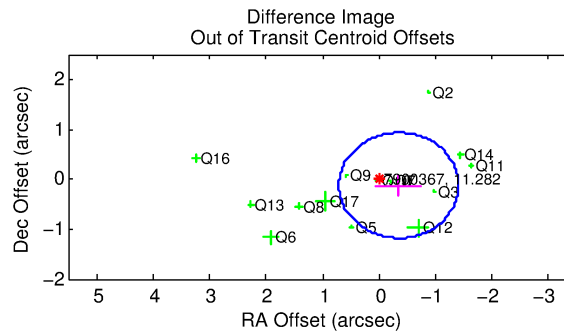
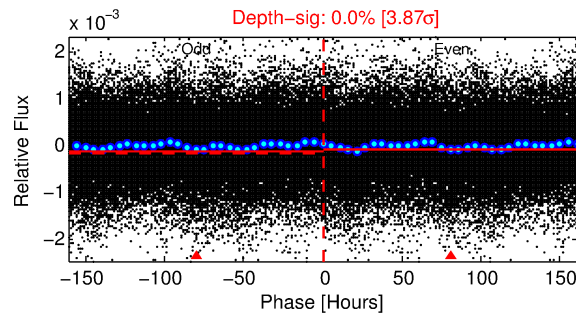
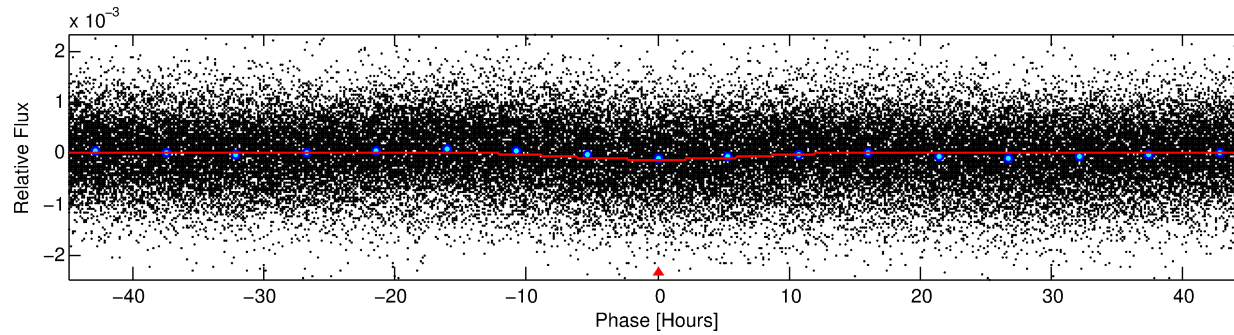
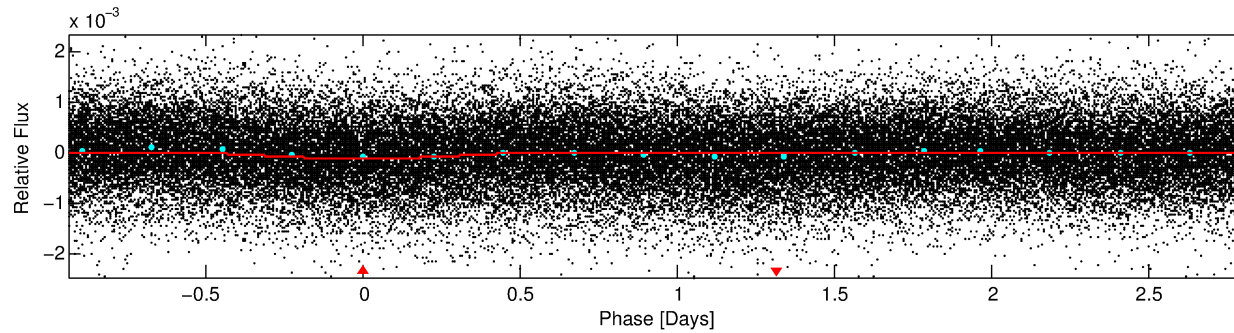
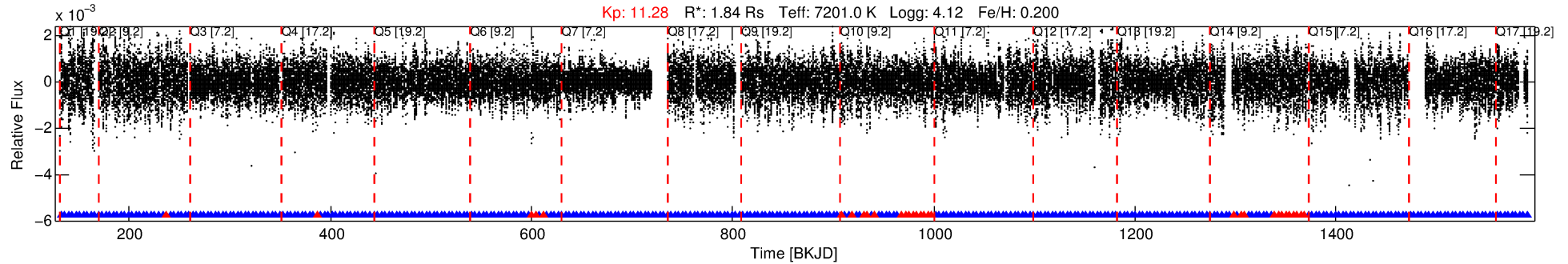
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007900367-01

No Significant Match Found

DV One-Page Summary

KIC: 7900367 Candidate: 1 of 1 Period: 3.749 d



DV Fit Results:

Period = 3.74857 [0.00013] d
Epoch = 132.0009 [0.0255] BKJD
 R_p/R^* = 0.0193 [0.0110]
 a/R^* = 1.03 [0.01]
 b = 1.00 [0.02]
 Seff = 2617.54 [1032.60]
 T_{eq} = 1824 [180] K
 R_p = 3.87 [2.50] R_e
 a = 0.0557 [0.0142] AU
 A_g = 4.53 [5.51] [0.64 σ]
 T_{eff} = 4114 [1205] K [1.88 σ]

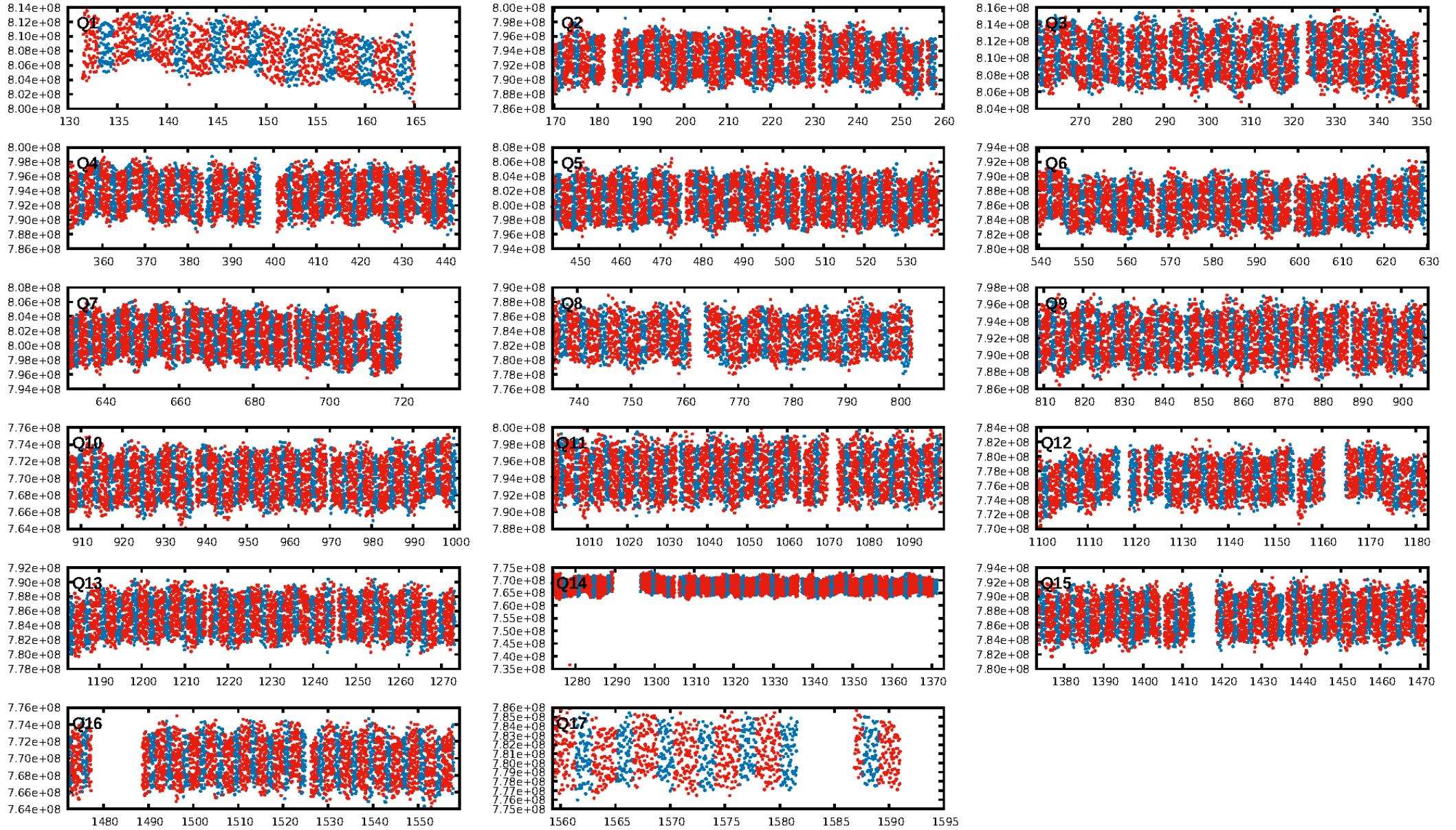
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.91 [320/351]
GhostDiagnostic-chr: 1.424
Centroid-sig: 0.1%
Centroid-so: 0.236 arcsec [3.08 σ]
OotOffset-rm: 0.368 arcsec [1.05 σ]
KicOffset-rm: 0.295 arcsec [0.79 σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.79 [11/14]
DiffImageOverlap-fno: 1.00 [17/17]

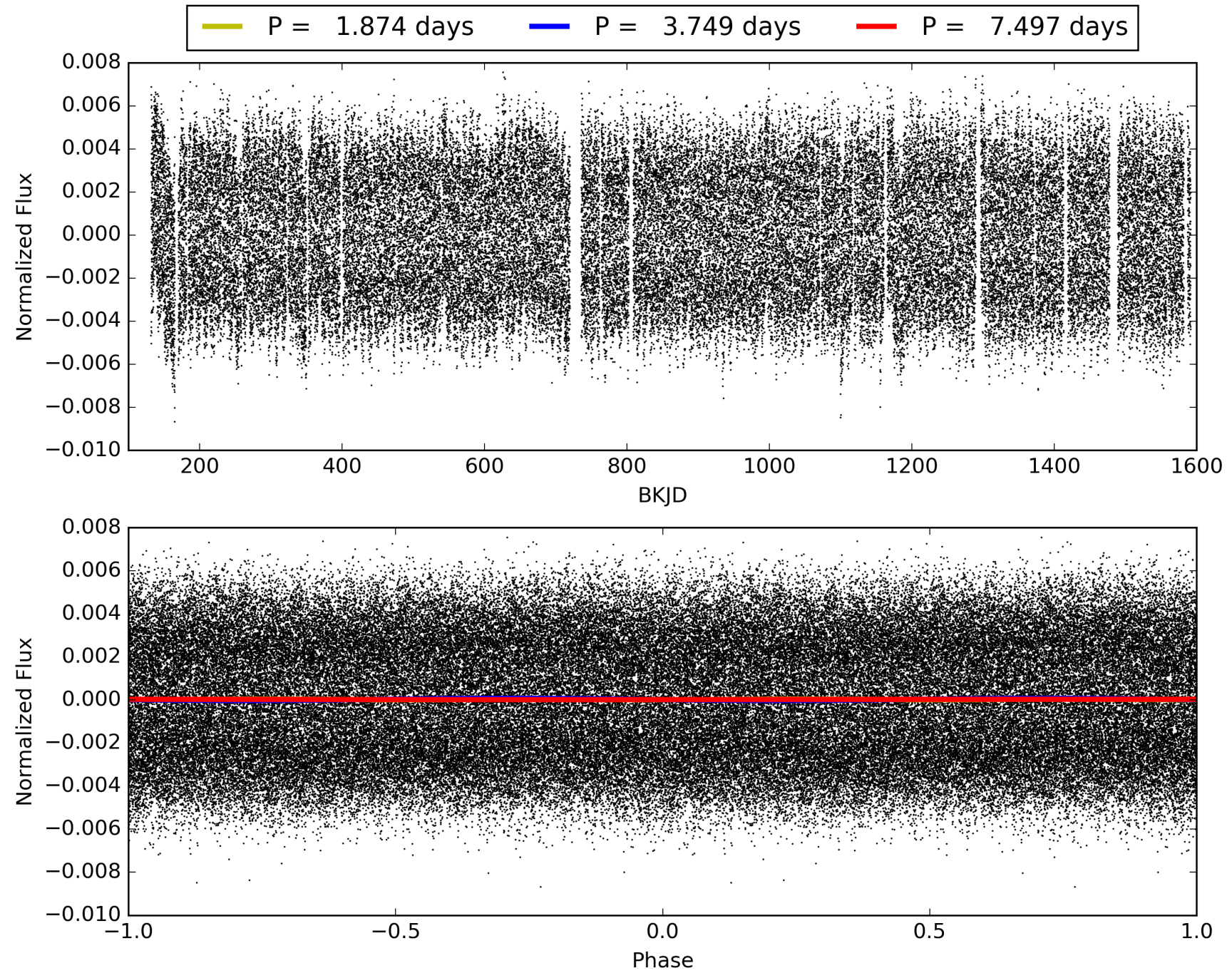
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:46:00 Z

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

TCE 007900367-01, PDC Light Curves

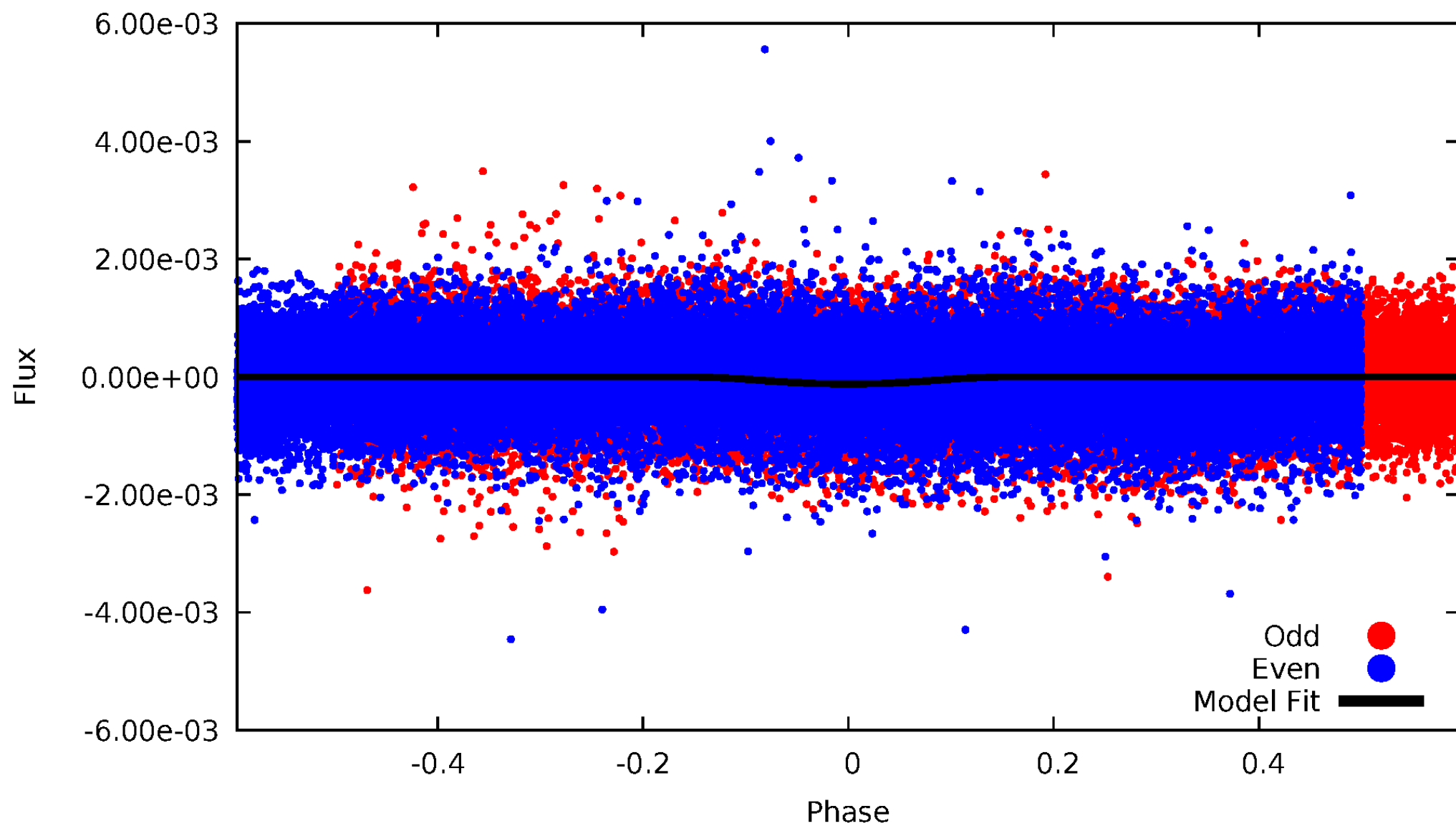


TCE 007900367-01



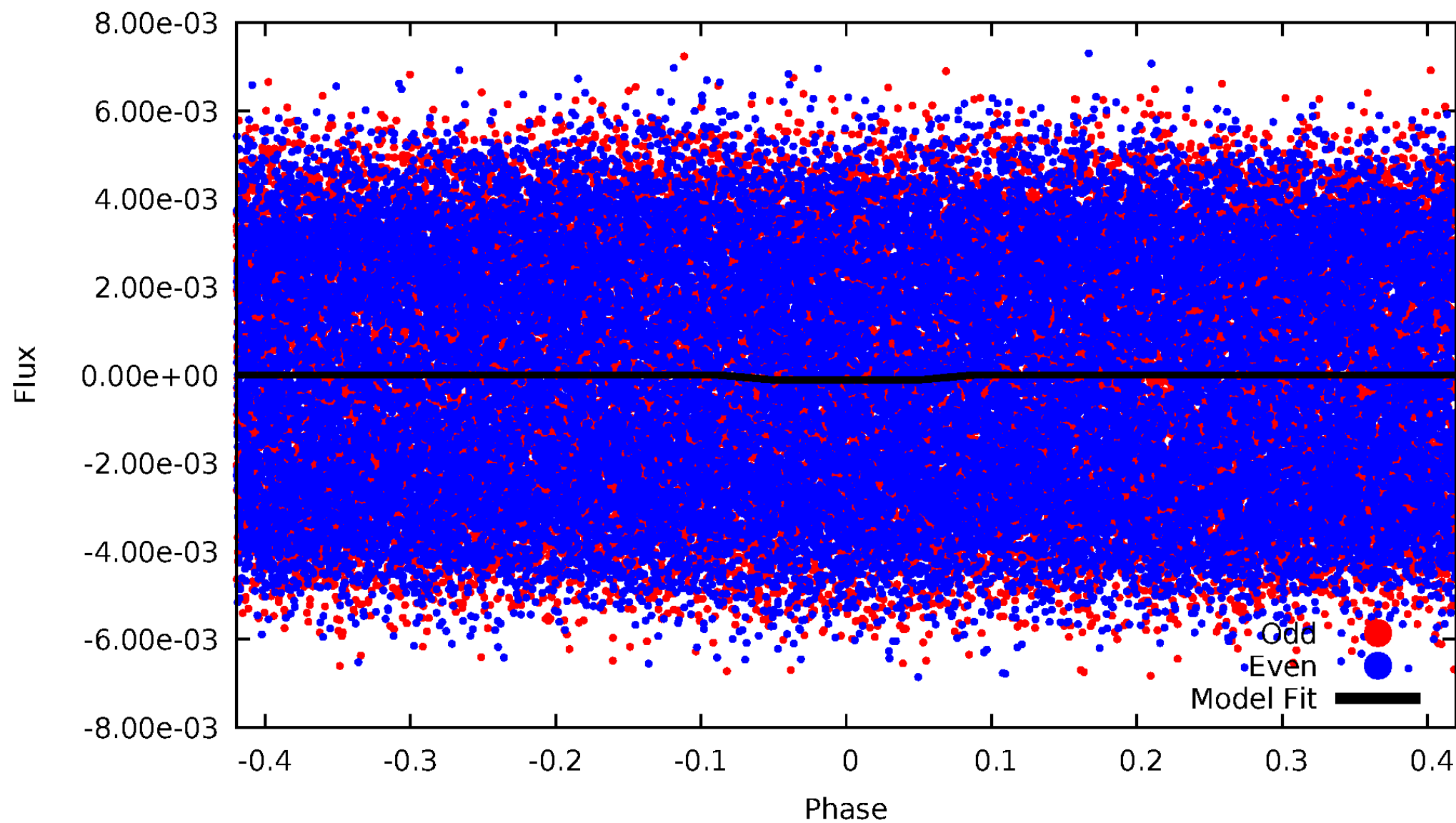
DV Odd/Even

TCE 007900367-01



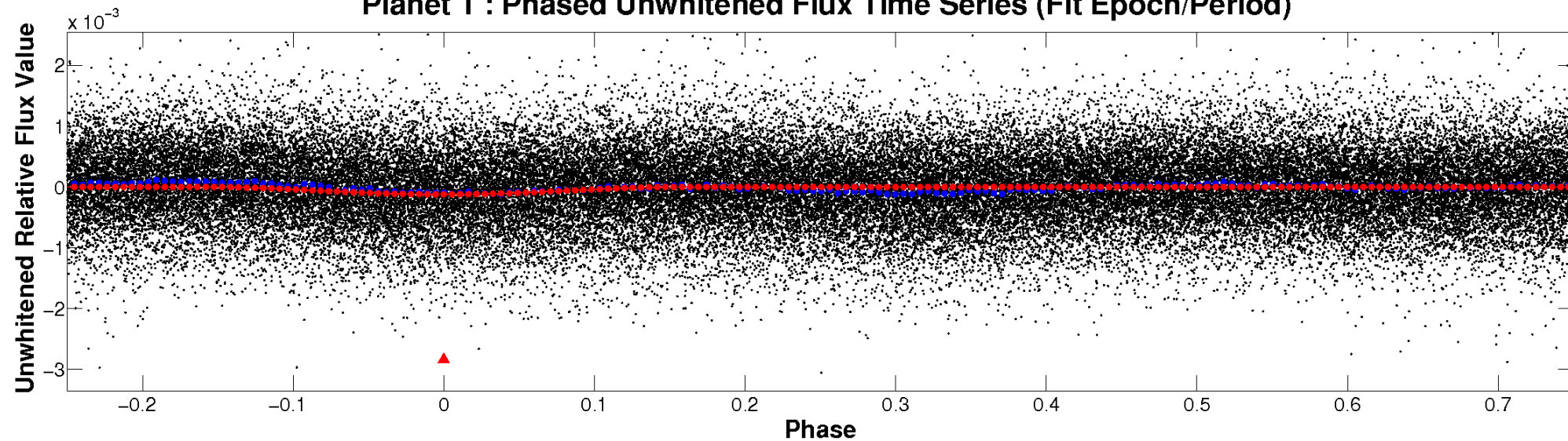
ALT Odd/Even

TCE 007900367-01

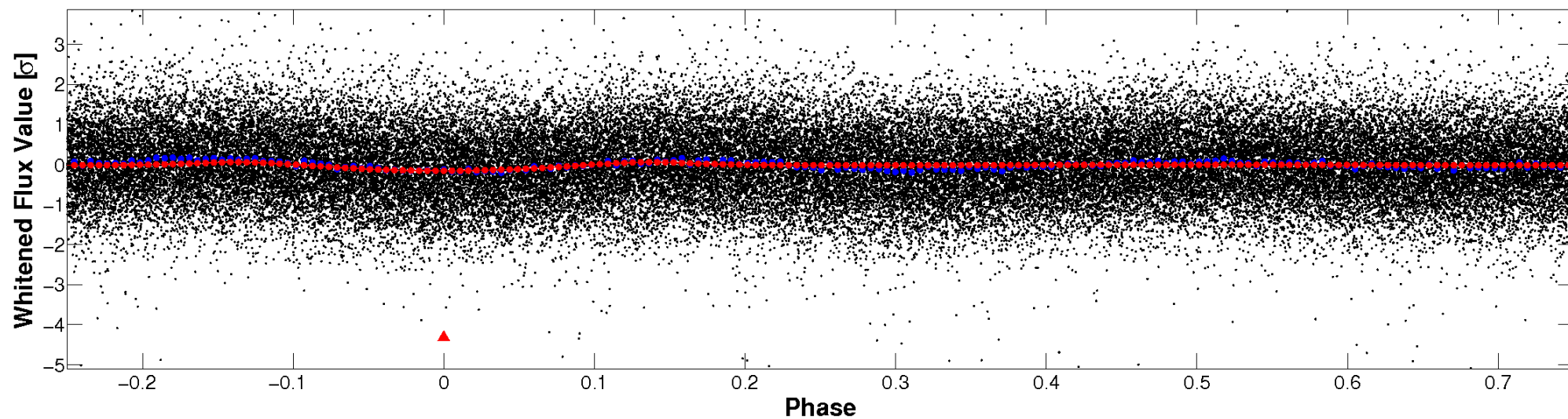


Non-Whitened Vs. Whitened Light Curve

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

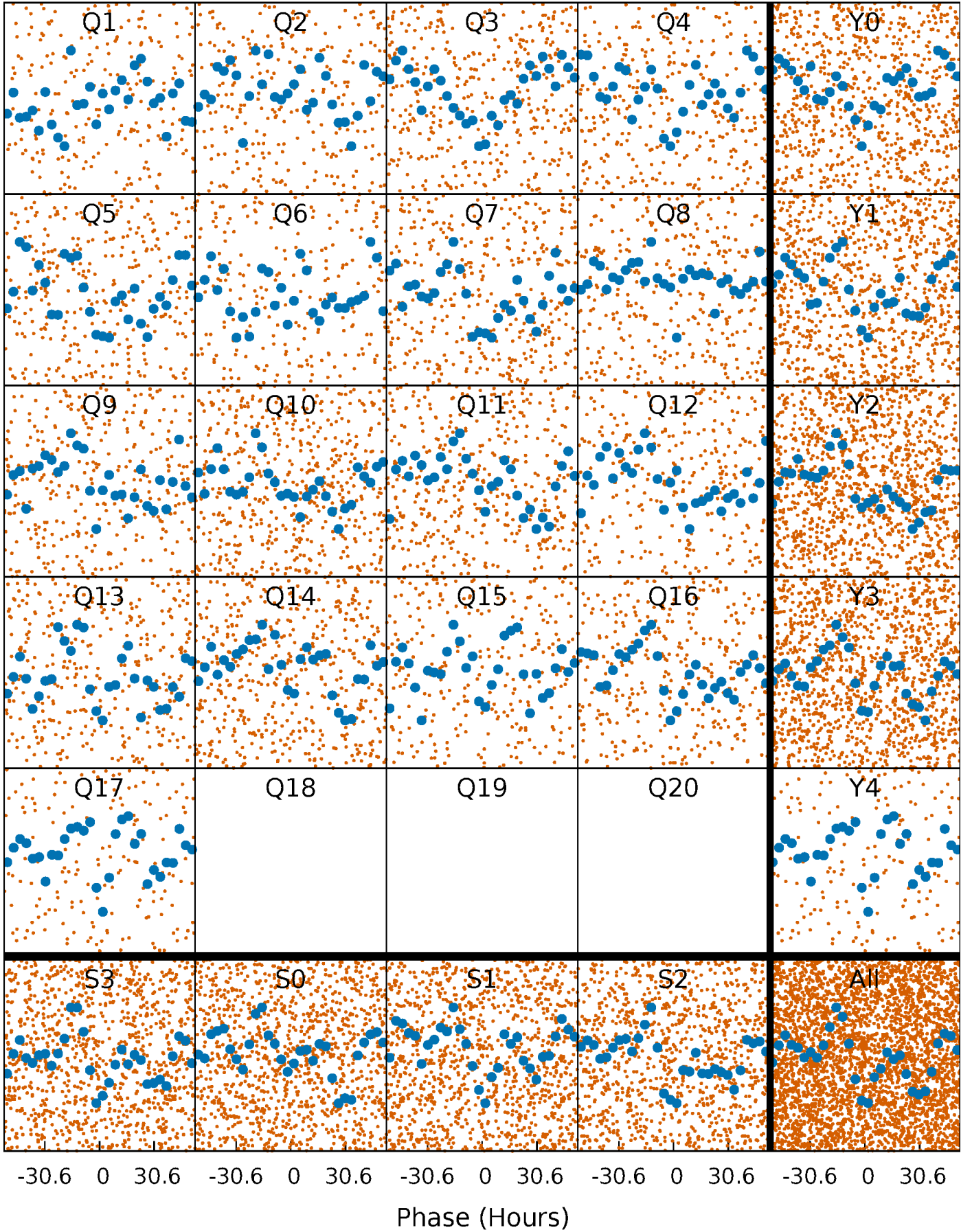


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



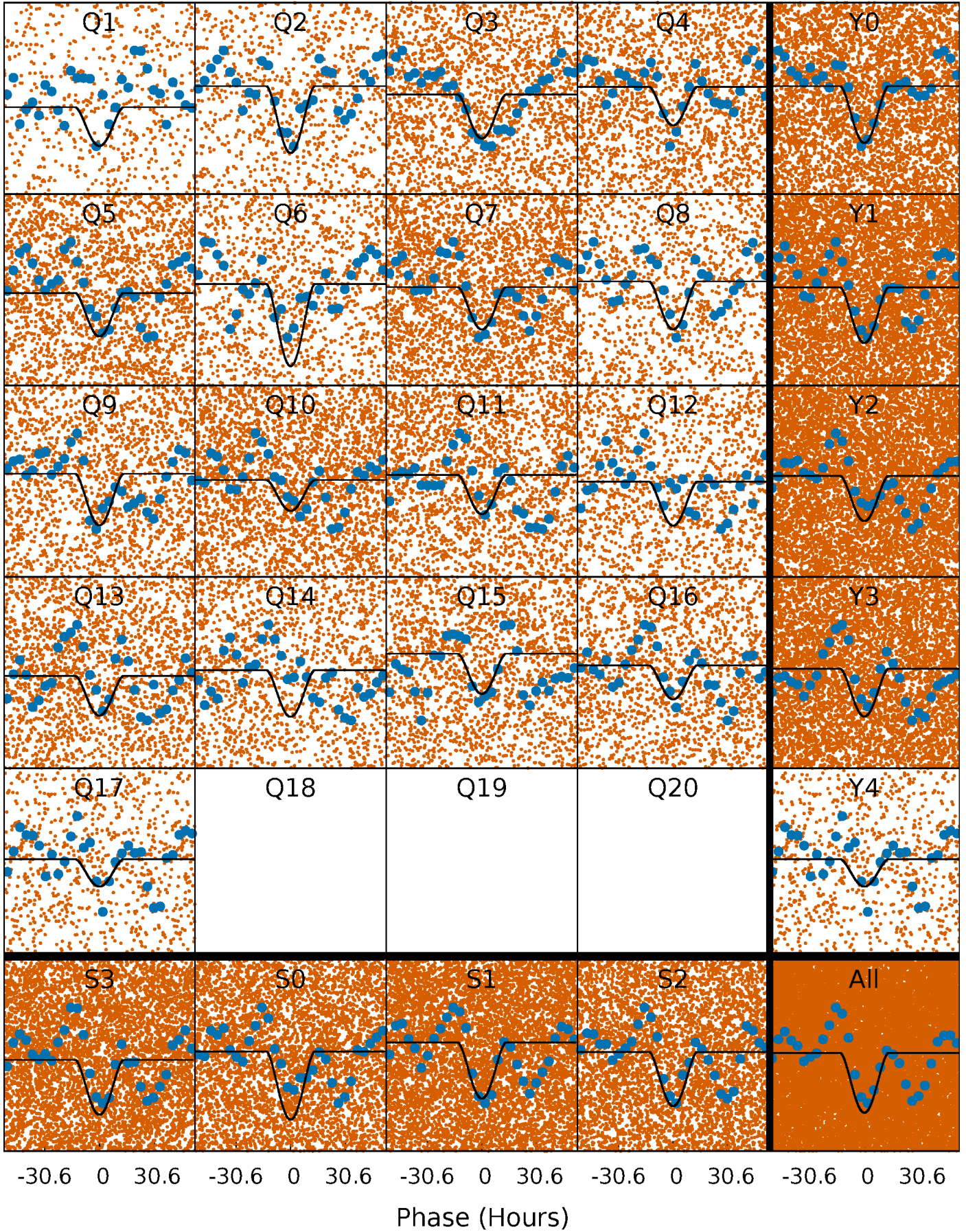
PDC Quarter-Phased Transit Curves

TCE 007900367-01 P= 3.748574 Days $T_0=132.000932$ (BKJD)



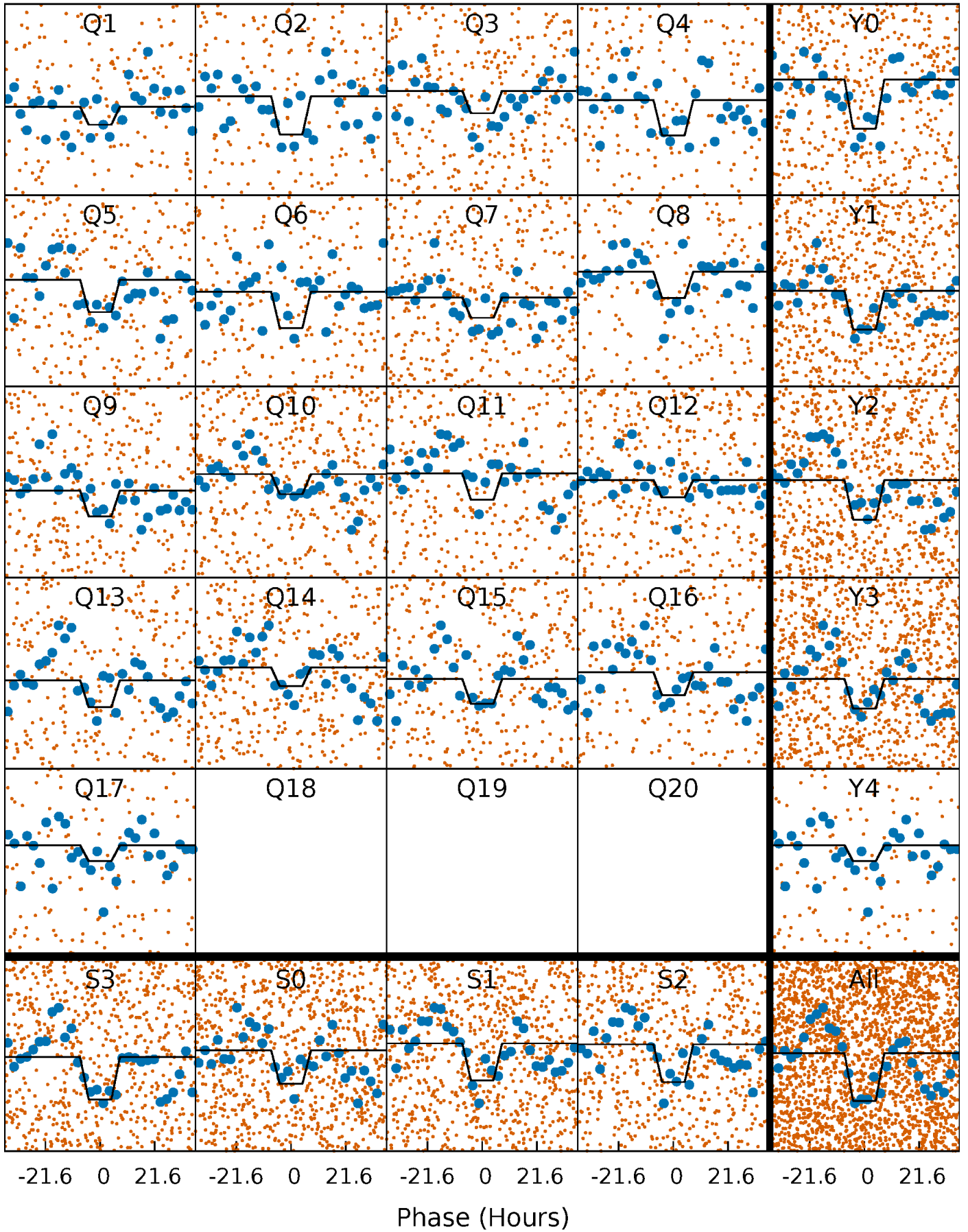
DV Quarter-Phased Transit Curves

TCE 007900367-01 P= 3.748574 Days $T_0=132.000932$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

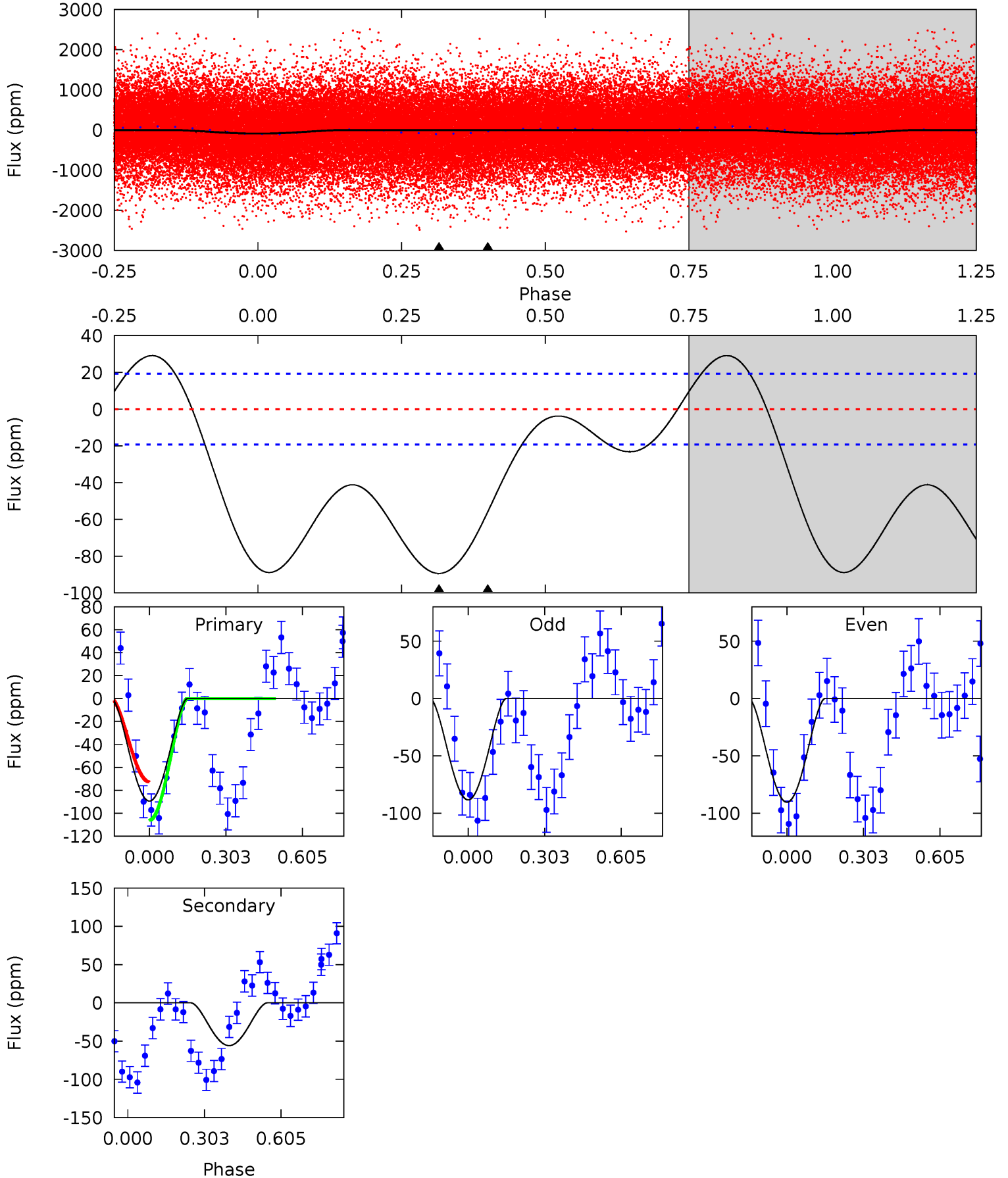
TCE 007900367-01 P= 3.748387 Days $T_0=132.087439$ (BKJD)



DV Model-Shift Uniqueness Test

007900367-01, P = 3.748574 Days, E = 128.252358 Days

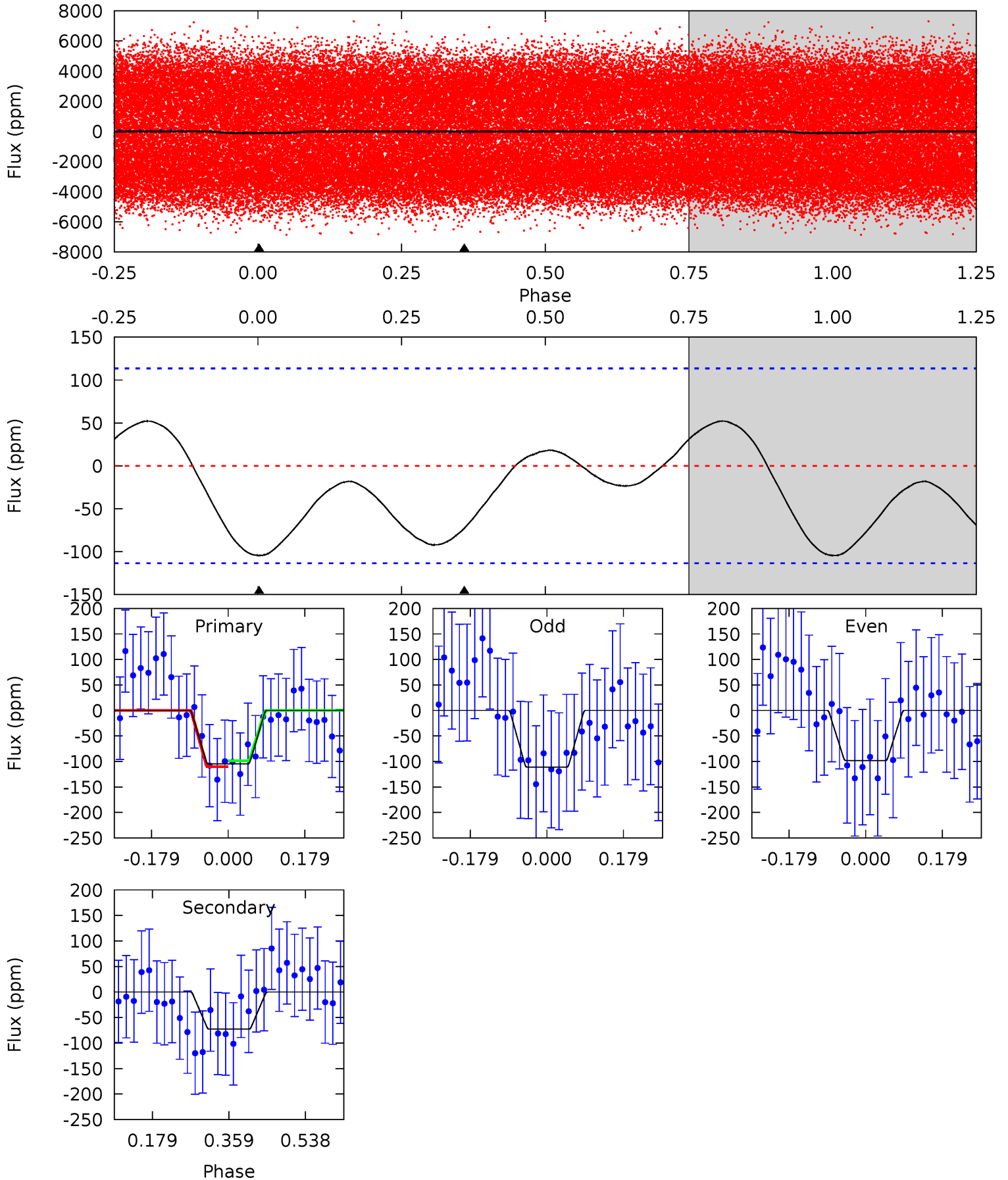
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	12.5	0	0	4.33	1.03	8.68	20.1	20.1	12.5	12.5	0.23	0.77	0.25	3.73



Alt Model-Shift Uniqueness Test

007900367-01, P = 3.748387 Days, E = 128.339052 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.09	2.85	0	0	4.44	1.34	1.02	4.09	4.09	2.85	2.85	0.25	1.07	0.33	0.23



Stellar Parameters For KIC 007900367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7201^{+175}_{-275}	$4.125^{+0.105}_{-0.195}$	$0.200^{+0.150}_{-0.350}$	$1.836^{+0.569}_{-0.306}$	$1.642^{+0.190}_{-0.233}$	$0.373^{+0.211}_{-0.182}$
	+2%/-4%	+3%/-5%	+75%/-175%	+31%/-17%	+12%/-14%	+56%/-49%
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 007900367-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-56 ± 4	$4.06^{+2.34}_{-2.10}$	2574^{+183}_{-168}	4512^{+1712}_{-742}	$5.881^{+19.296}_{-3.564}$
Alt.	-73 ± 26	$2.76^{+2.09}_{-1.76}$	2567^{+182}_{-142}	5561^{+4423}_{-1224}	16^{+106}_{-11}

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 $A_{obs} \gg 1.0$

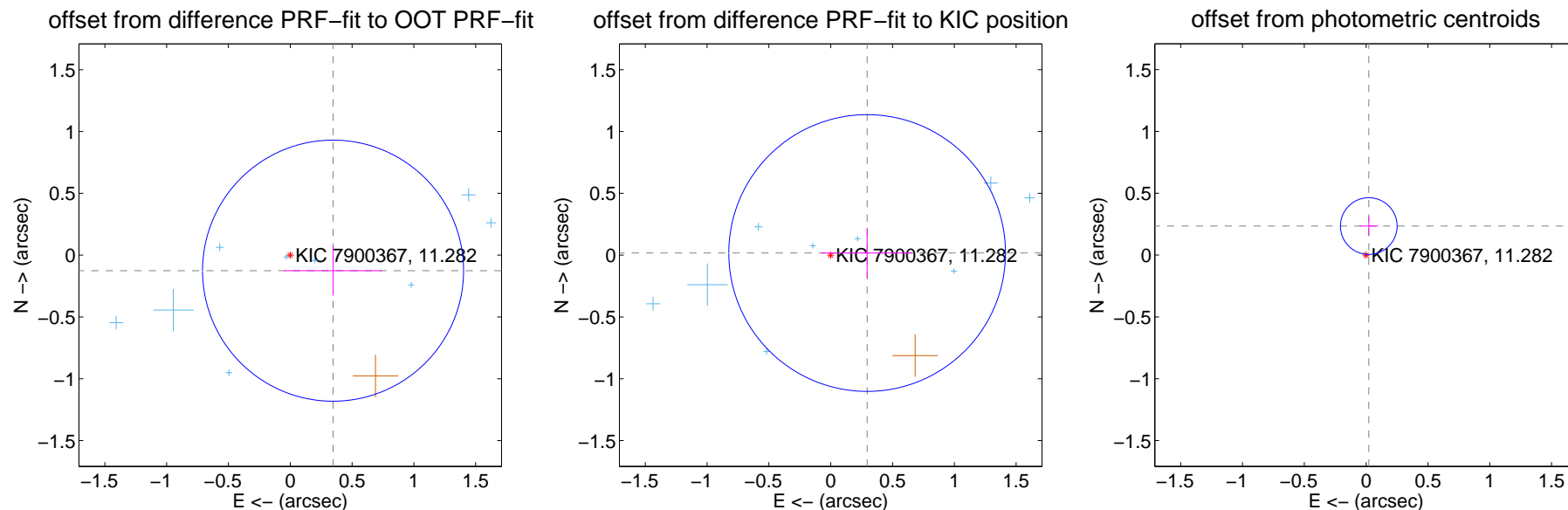
DV Centroid Data

Supplemental centroid analysis for 007900367-01. **Kepler magnitude: 11.28.** Transit SNR 14.13

There are 11 quarters with good PRF difference image offsets

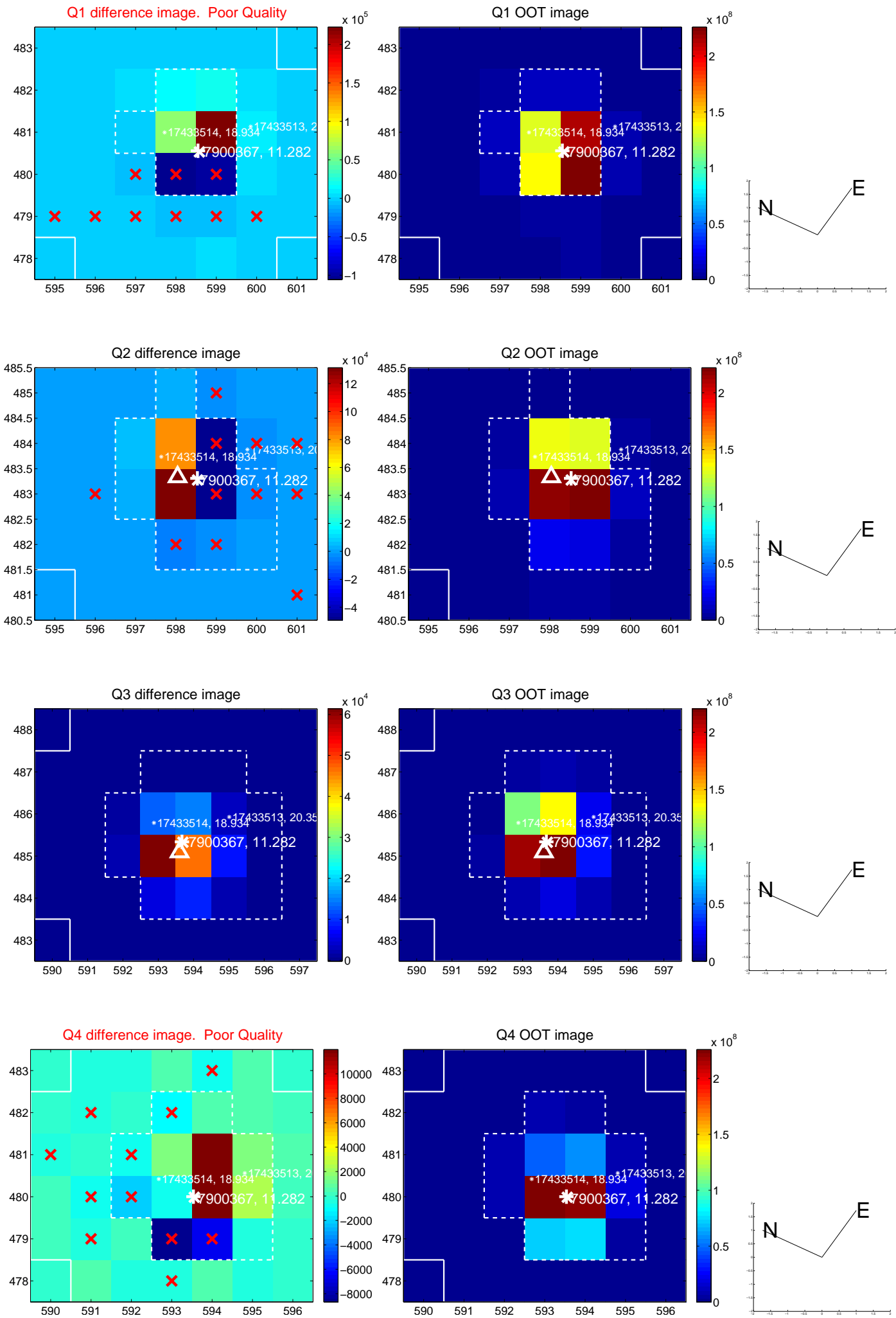
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.368 ± 0.352	1.05	-0.346 ± 0.396	-0.126 ± 0.202
PRF-fit source offset from KIC position	0.295 ± 0.373	0.79	-0.295 ± 0.371	0.017 ± 0.203
photometric centroid source offset	0.24 ± 0.08	3.08	-0.02 ± 0.08	0.23 ± 0.08

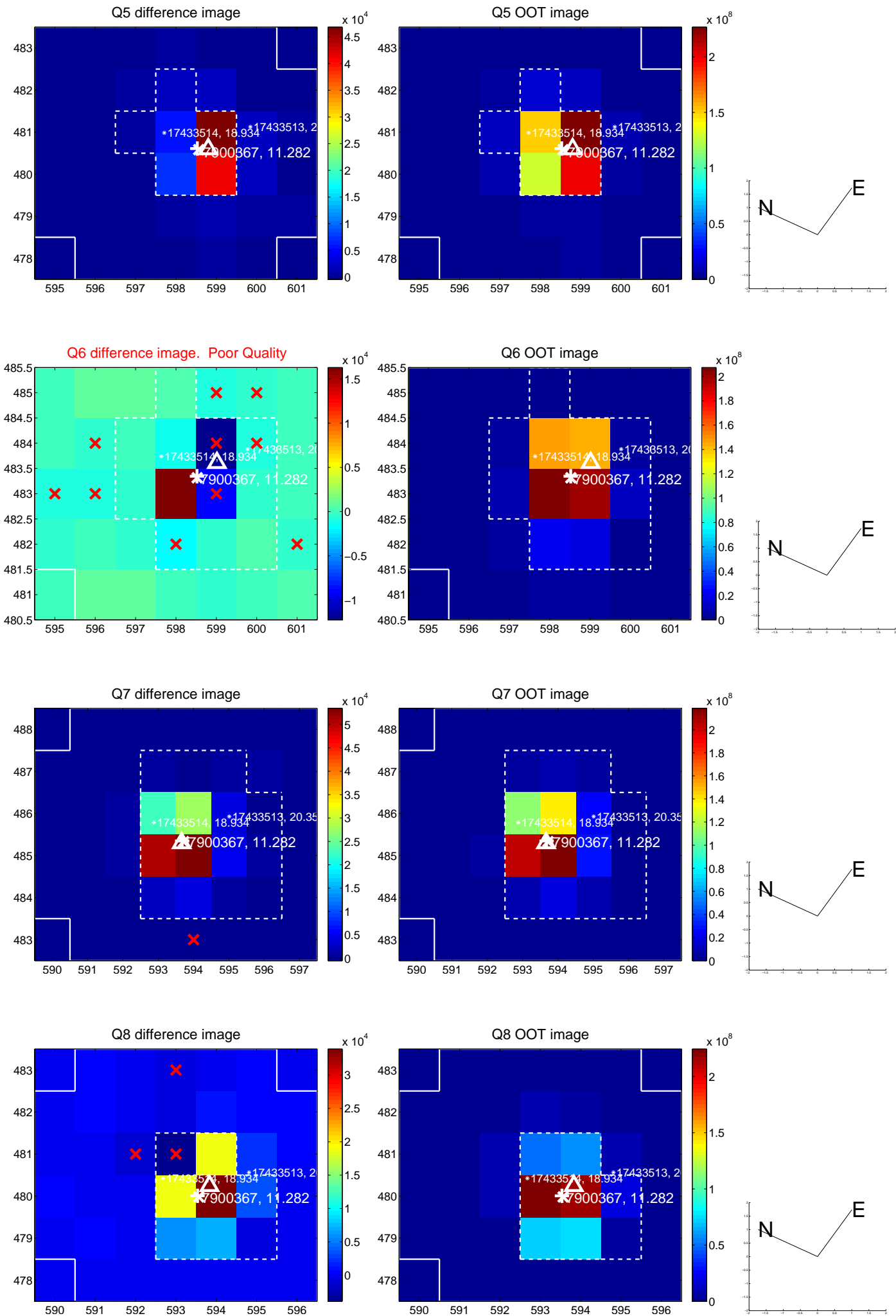


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

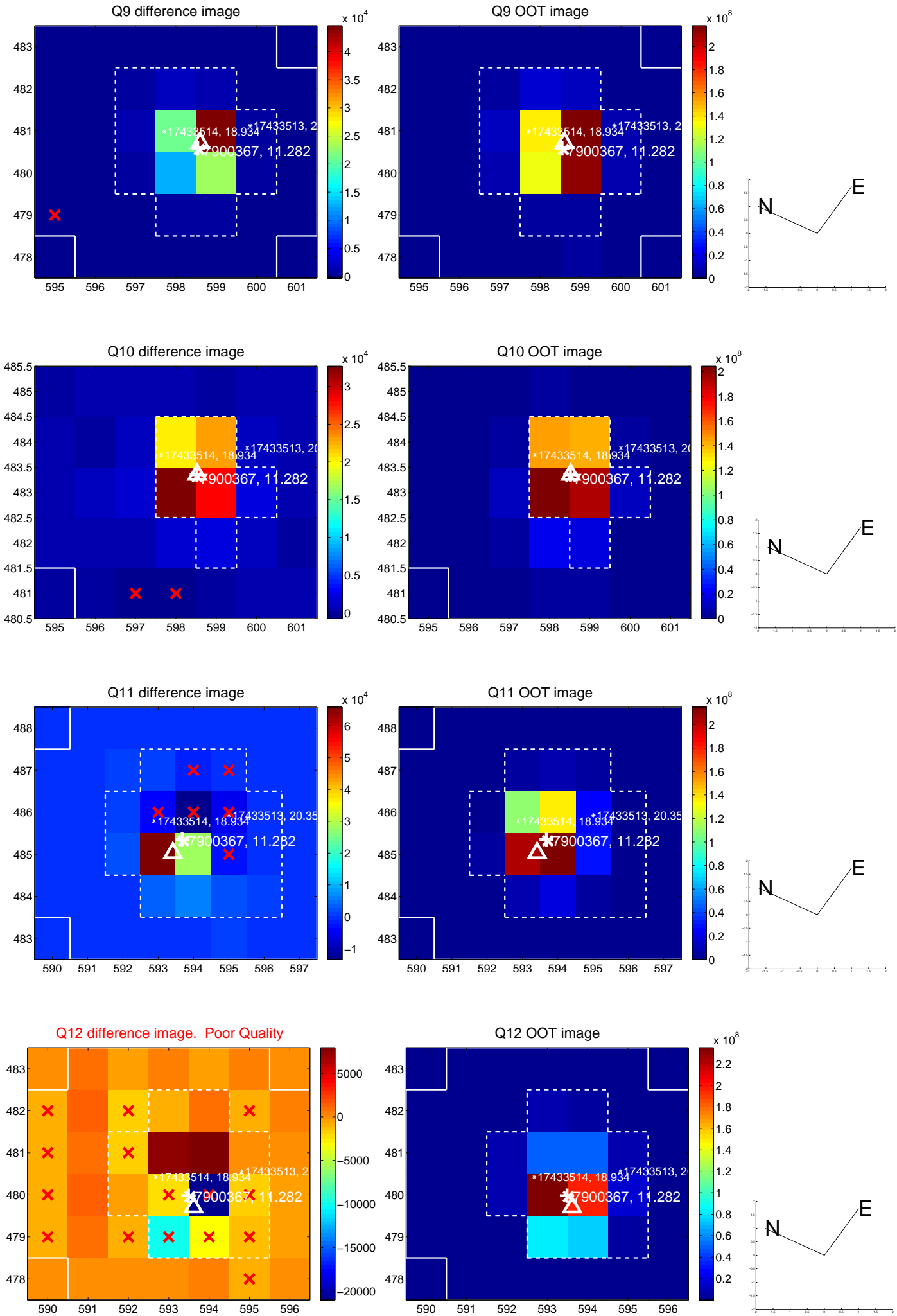
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



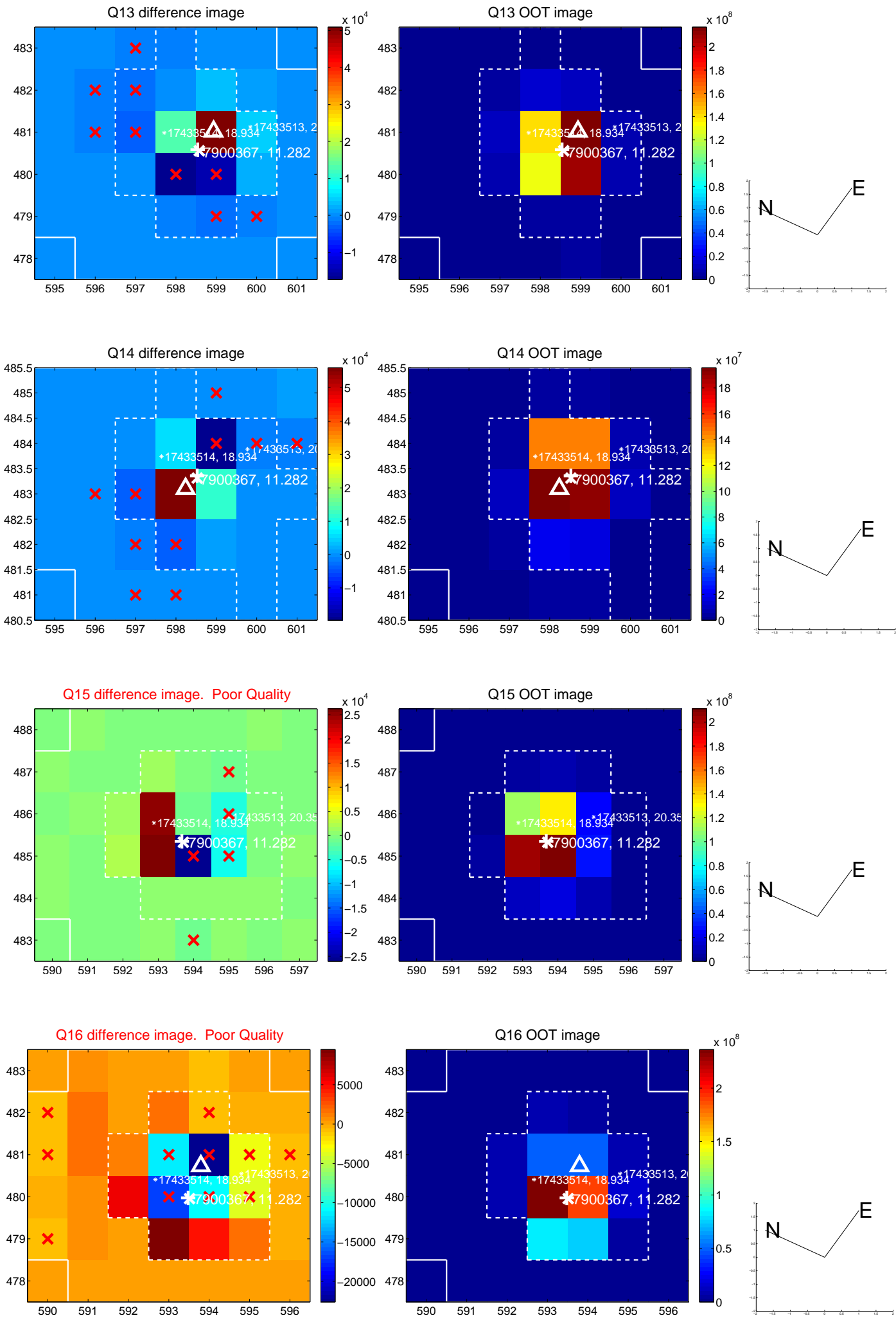
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



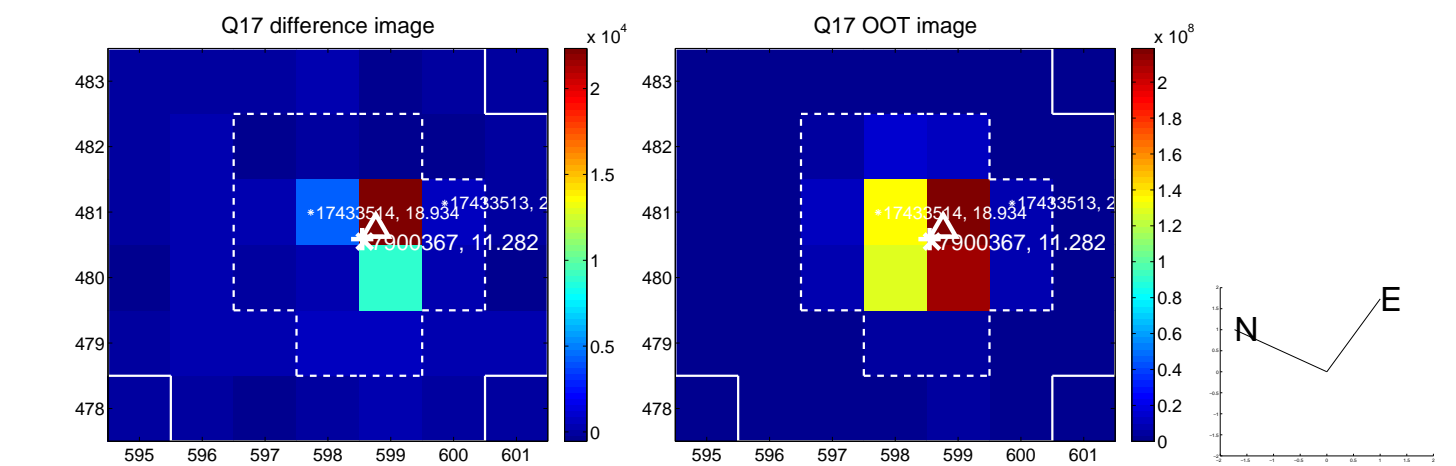
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



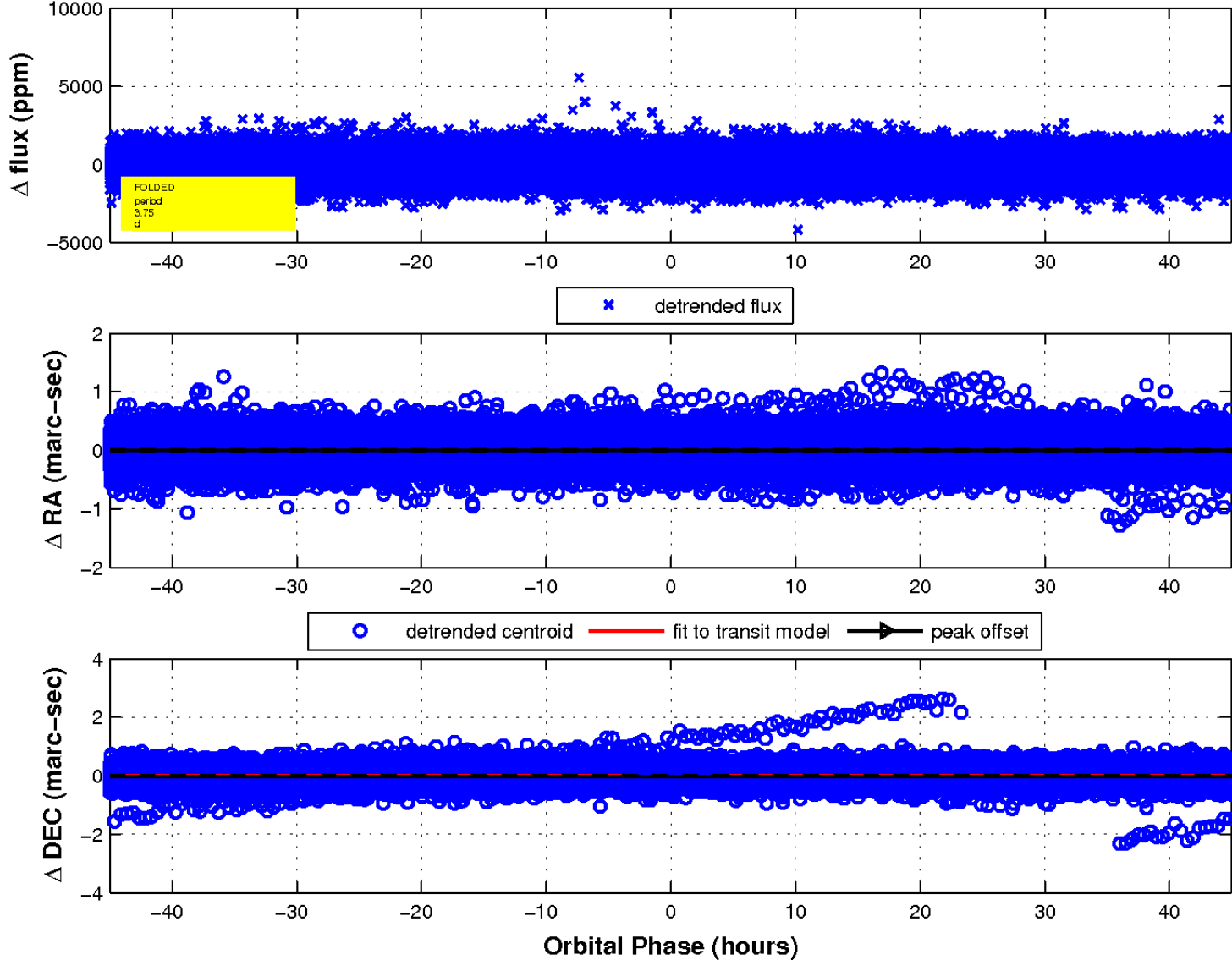
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

