

KIC 007919867

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})
007919867-01	OBS	7858.01	1.603724	132.178999	43.3	1.708	10.8	9.6	1.12	5818	0.86	1921.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007919867-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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

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

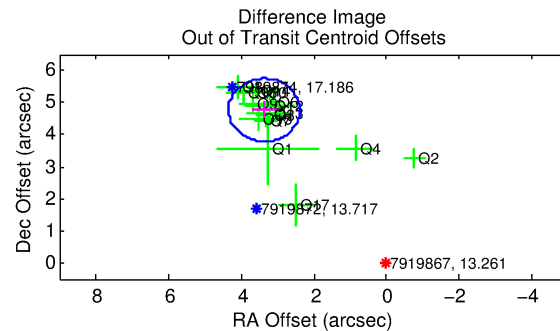
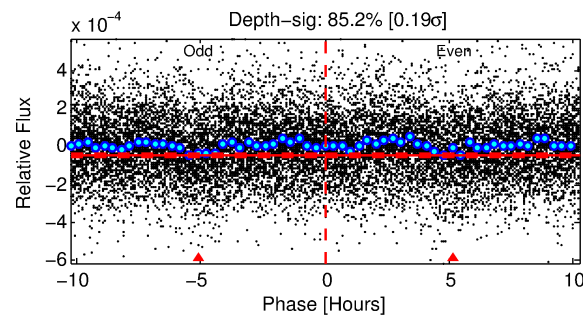
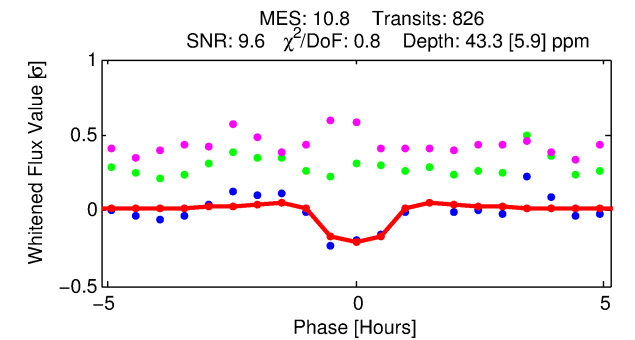
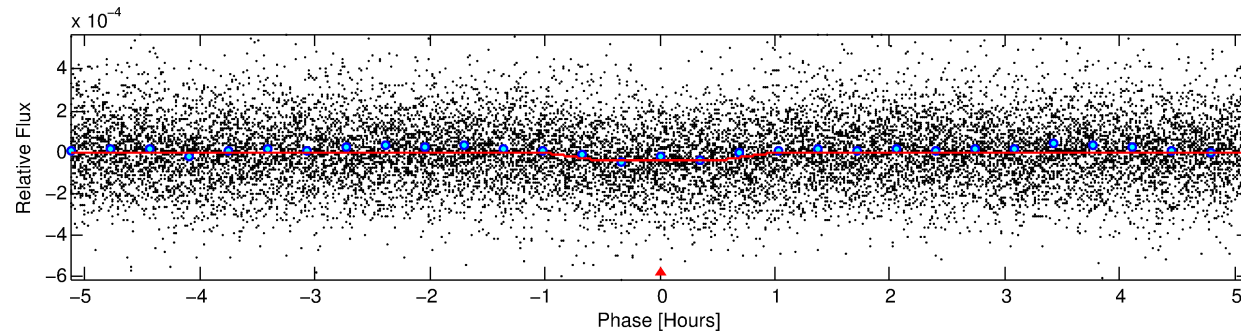
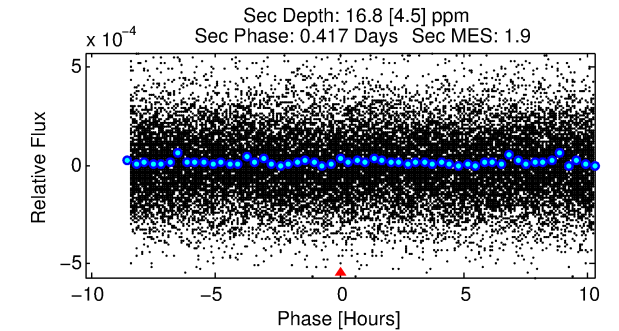
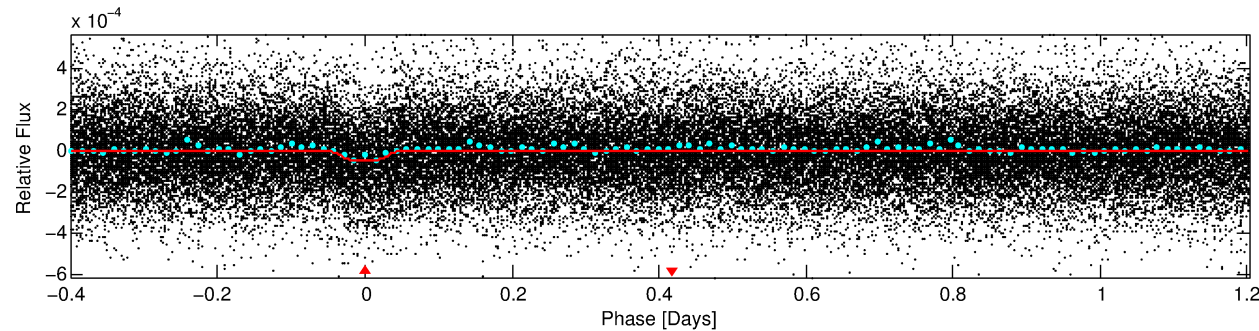
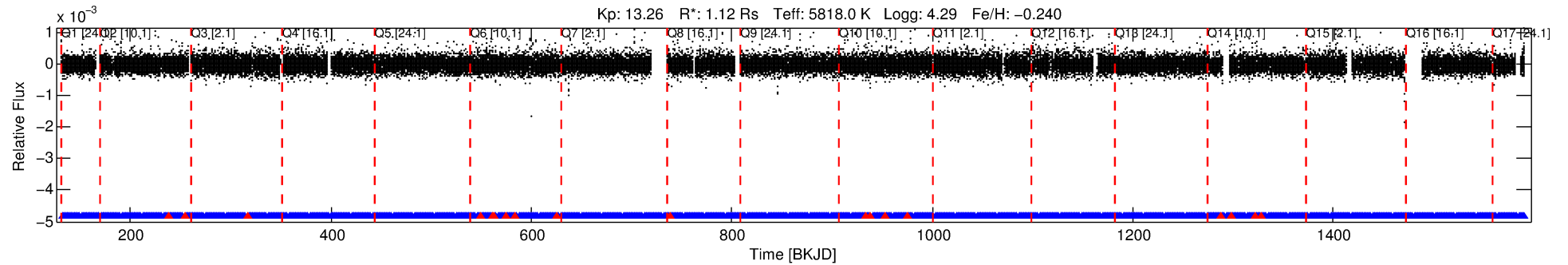
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007919867-01

No Significant Match Found

DV One-Page Summary

KIC: 7919867 Candidate: 1 of 1 Period: 1.604 d



DV Fit Results:

Period = 1.60372 [0.00001] d
Epoch = 132.1790 [0.0022] BKJD
Rp/R* = 0.0071 [0.0033]
a/R* = 3.55 [7.54]
b = 0.89 [0.57]
Seff = 1921.29 [744.27]
Teq = 1688 [163] K
Rp = 0.86 [0.47] Re
a = 0.0258 [0.0064] AU
Ag = 8.28 [8.65] [0.84σ]
Teff = 4428 [1086] K [2.49σ]

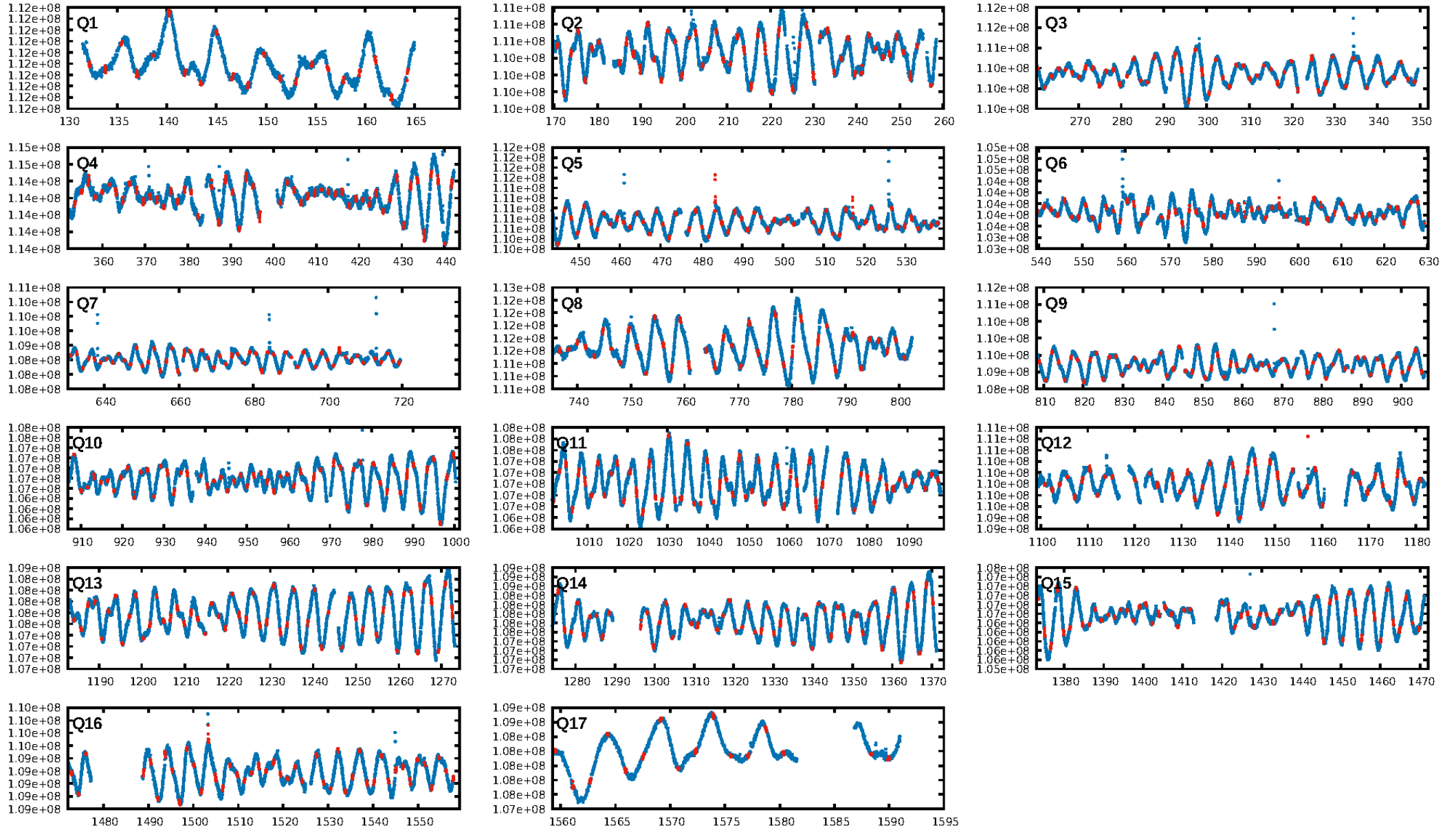
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.60e-24
RollingBand-fgt: 0.98 [771/789]
GhostDiagnostic-chr: 0.4327
Centroid-sig: 0.0%
Centroid-so: 7.860 arcsec [7.50σ]
OotOffset-rm: 5.835 arcsec [17.88σ]
KicOffset-rm: 5.832 arcsec [15.53σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [17/17]

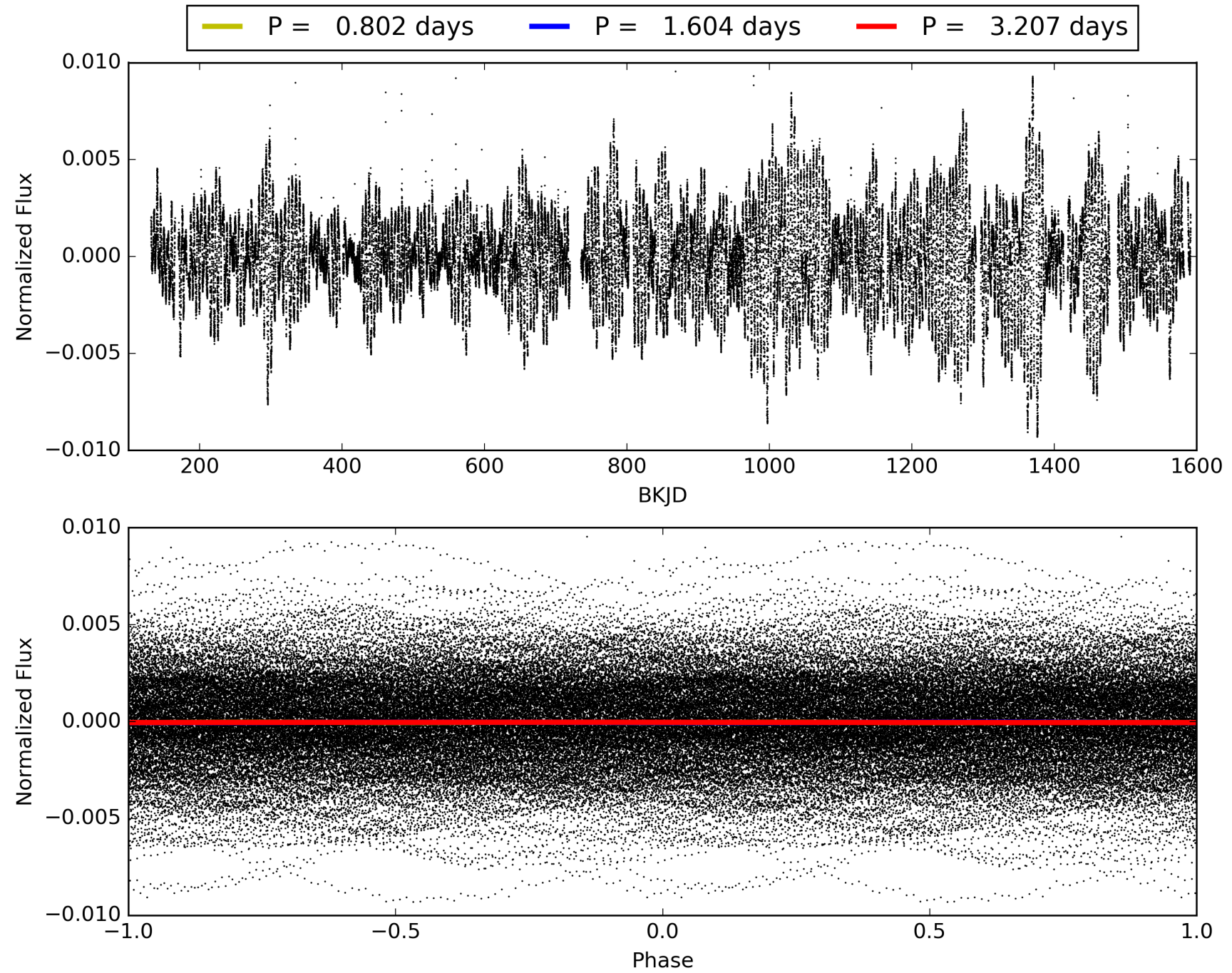
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:39:07 Z

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

TCE 007919867-01, PDC Light Curves

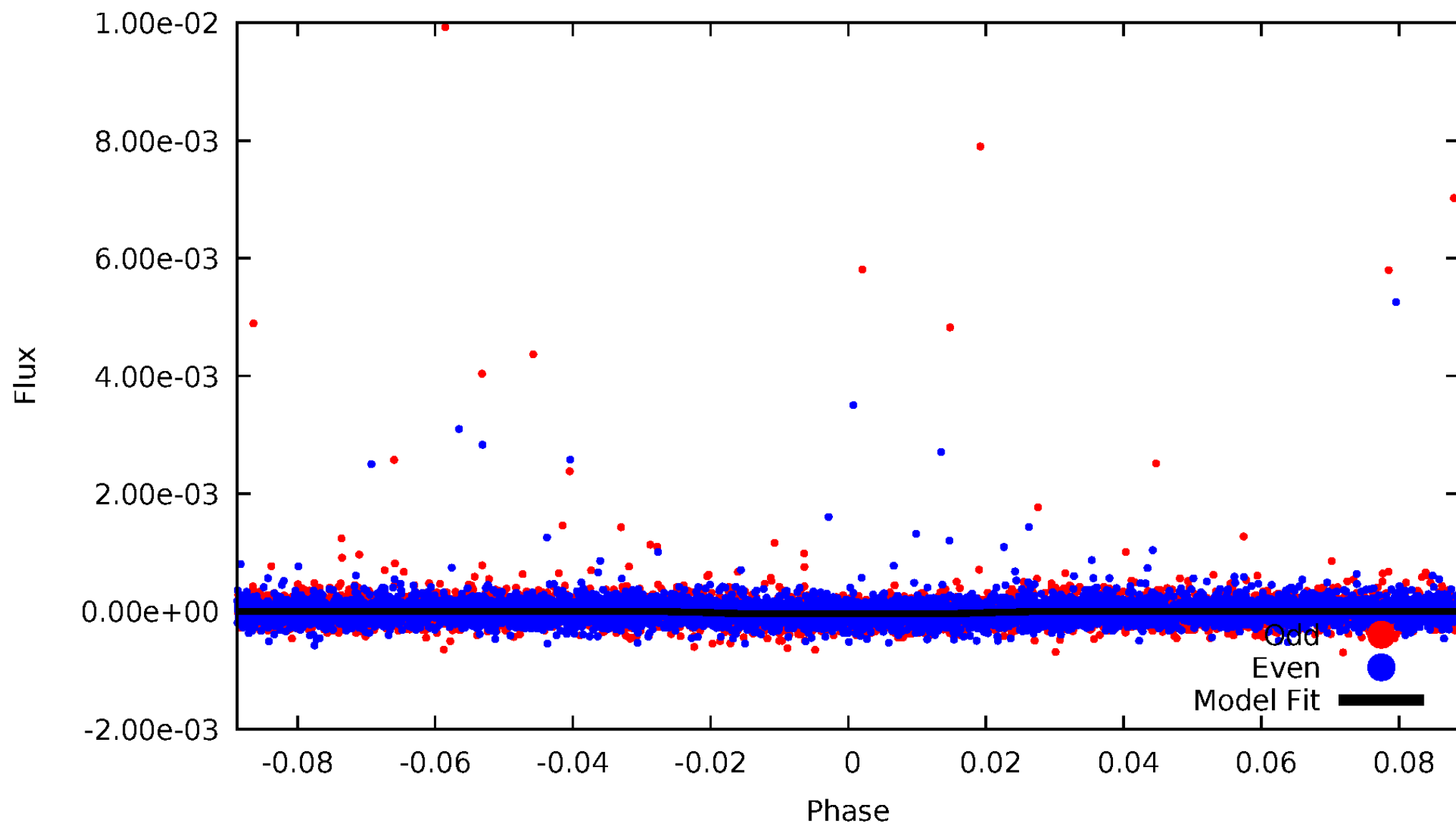


TCE 007919867-01



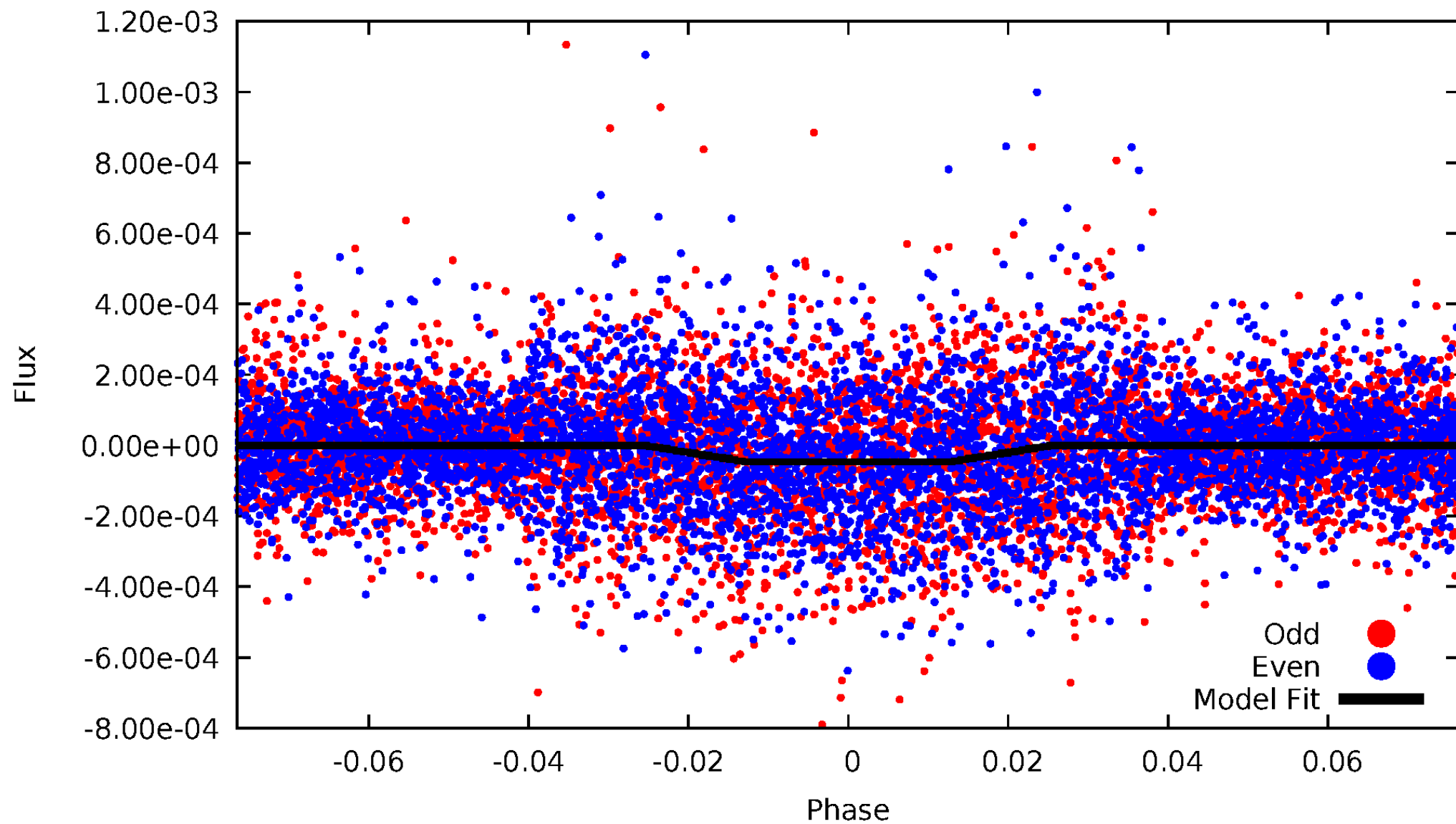
DV Odd/Even

TCE 007919867-01



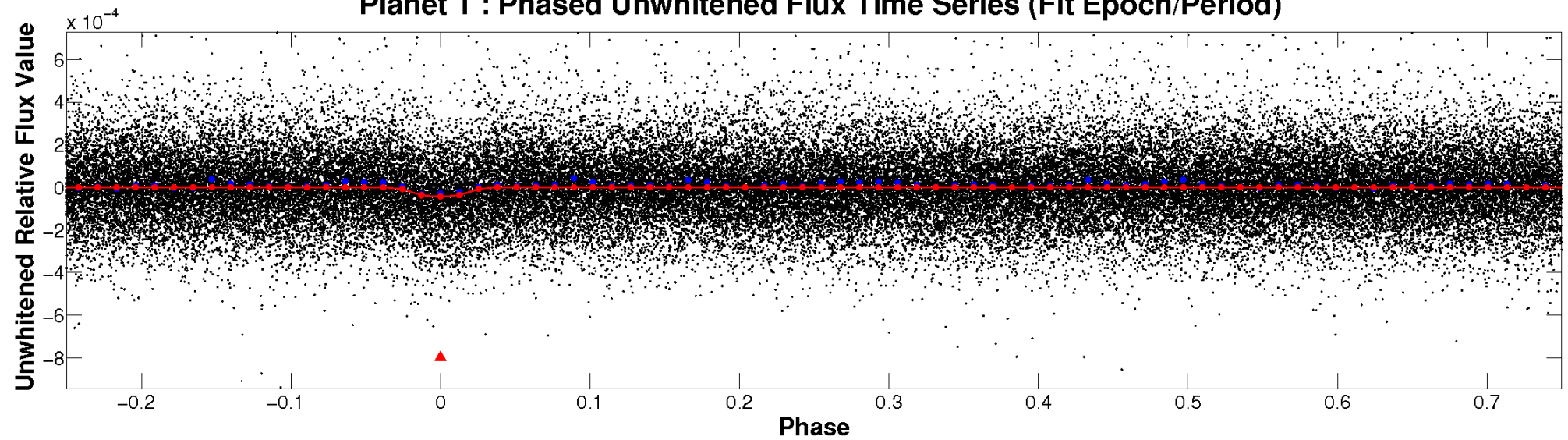
ALT Odd/Even

TCE 007919867-01

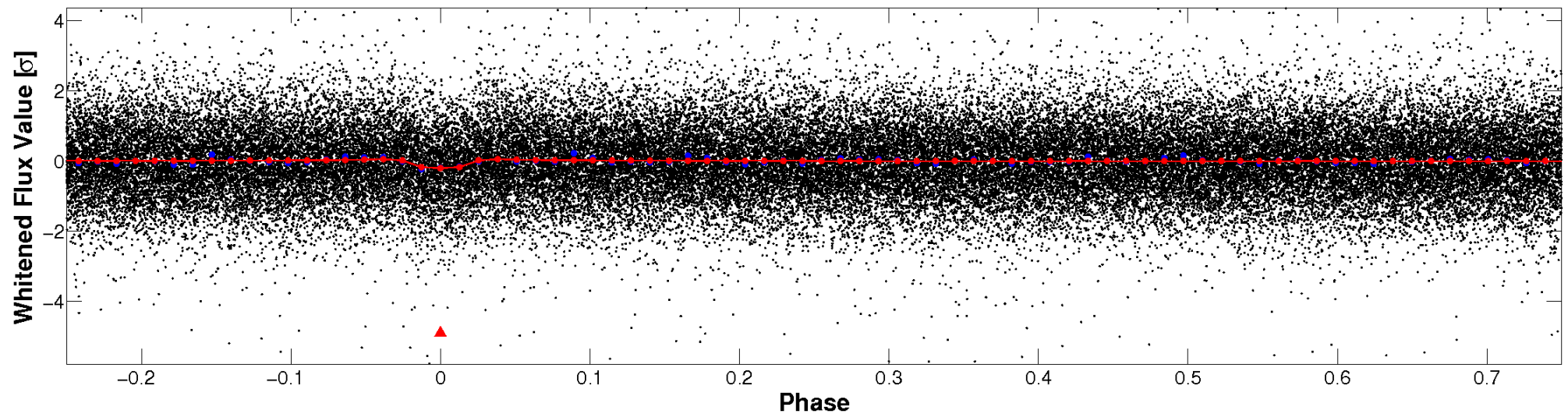


Non-Whitened Vs. Whitened Light Curve

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

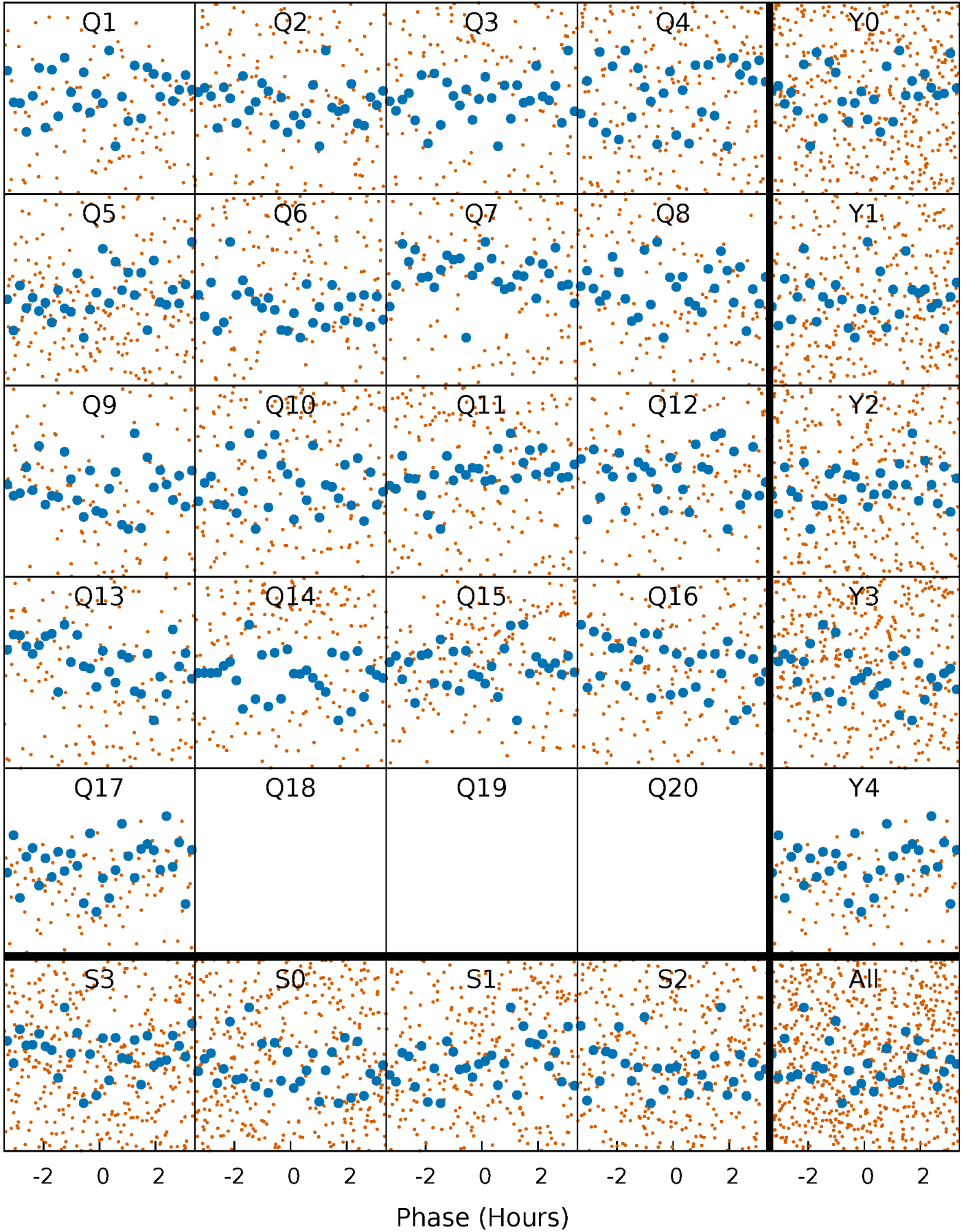


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



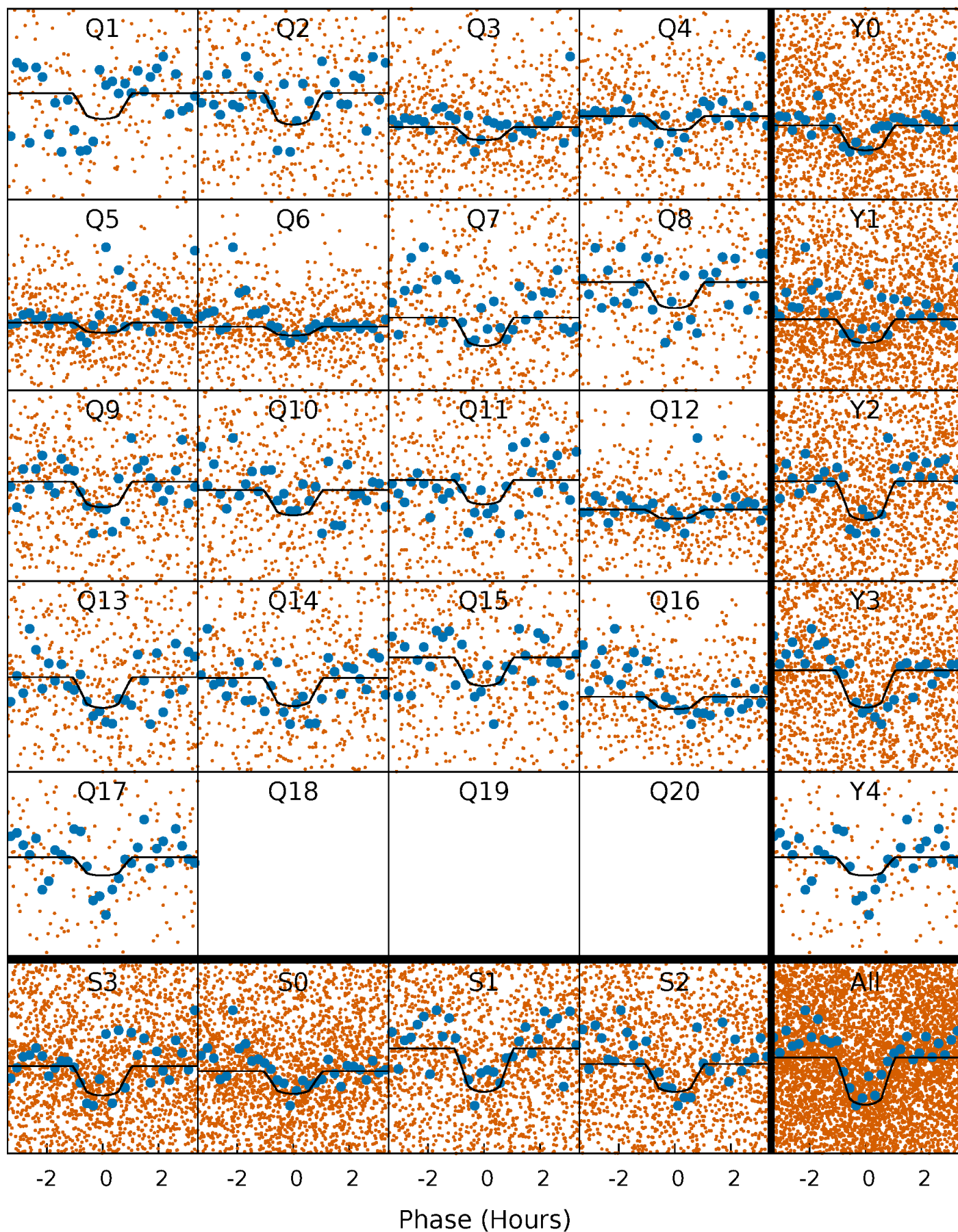
PDC Quarter-Phased Transit Curves

TCE 007919867-01 P= 1.603724 Days $T_0=132.178999$ (BKJD)



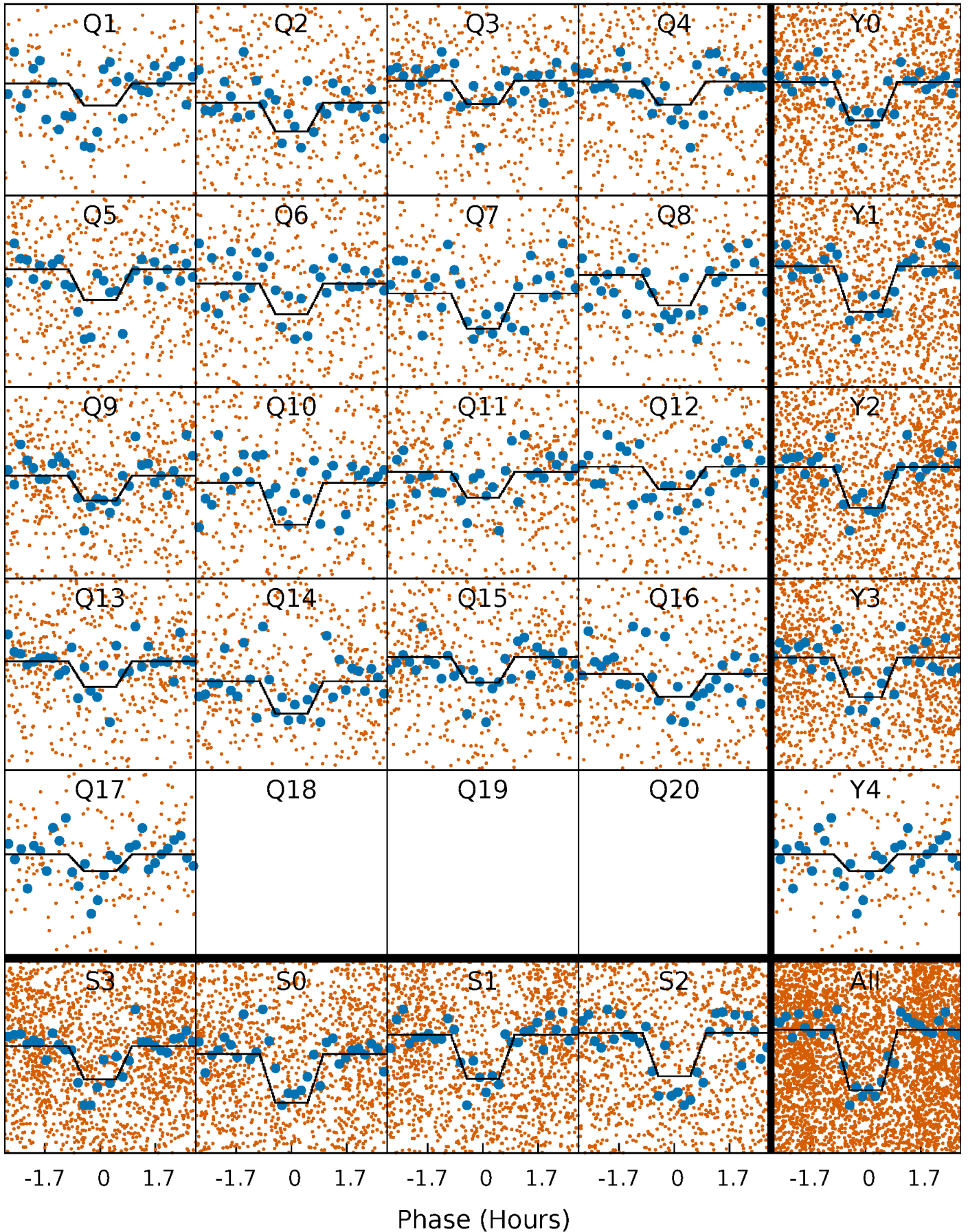
DV Quarter-Phased Transit Curves

TCE 007919867-01 P= 1.603724 Days $T_0=132.178999$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

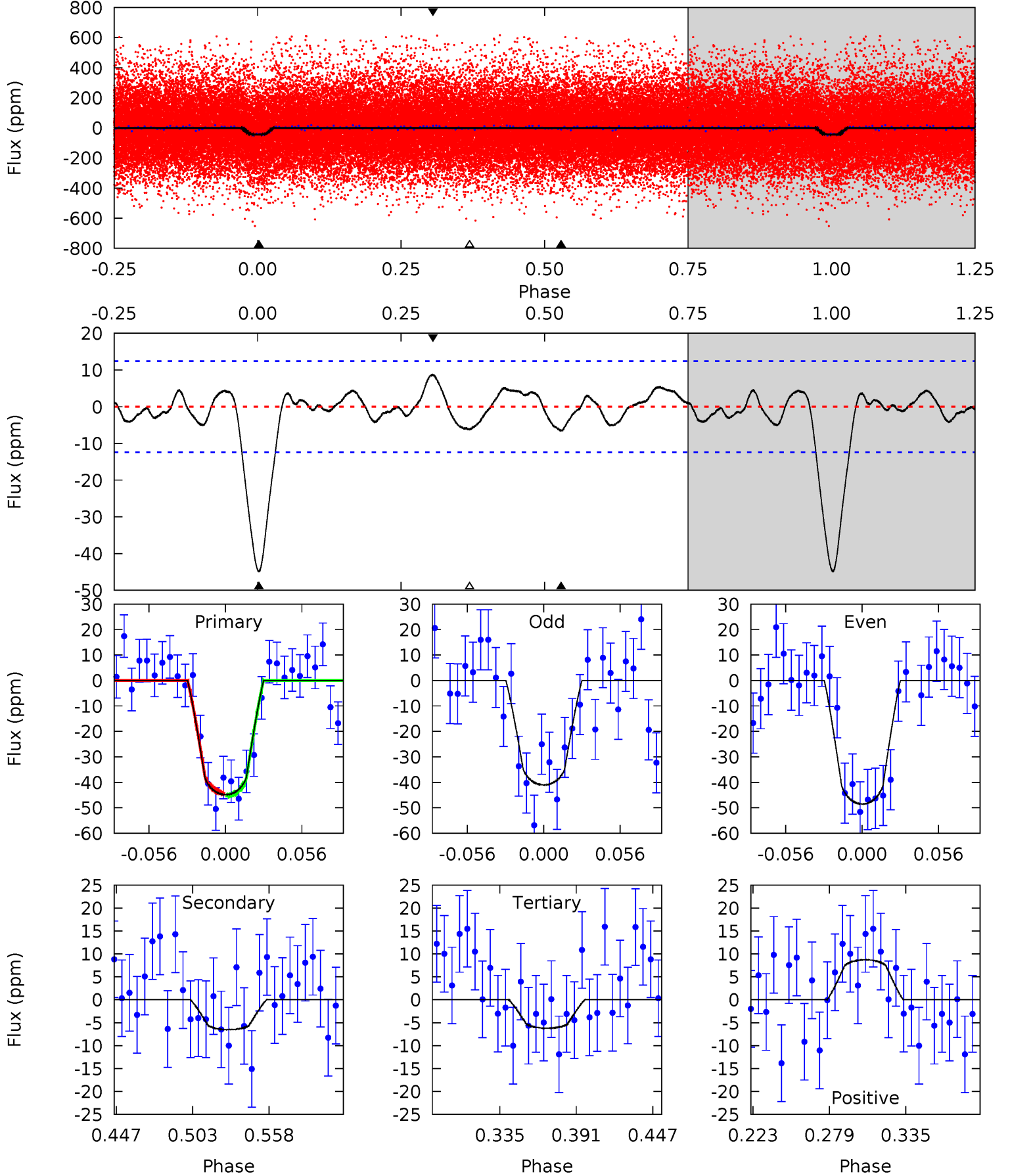
TCE 007919867-01 P= 1.603752 Days $T_0=132.167577$ (BKJD)



DV Model-Shift Uniqueness Test

007919867-01, P = 1.603724 Days, E = 130.575275 Days

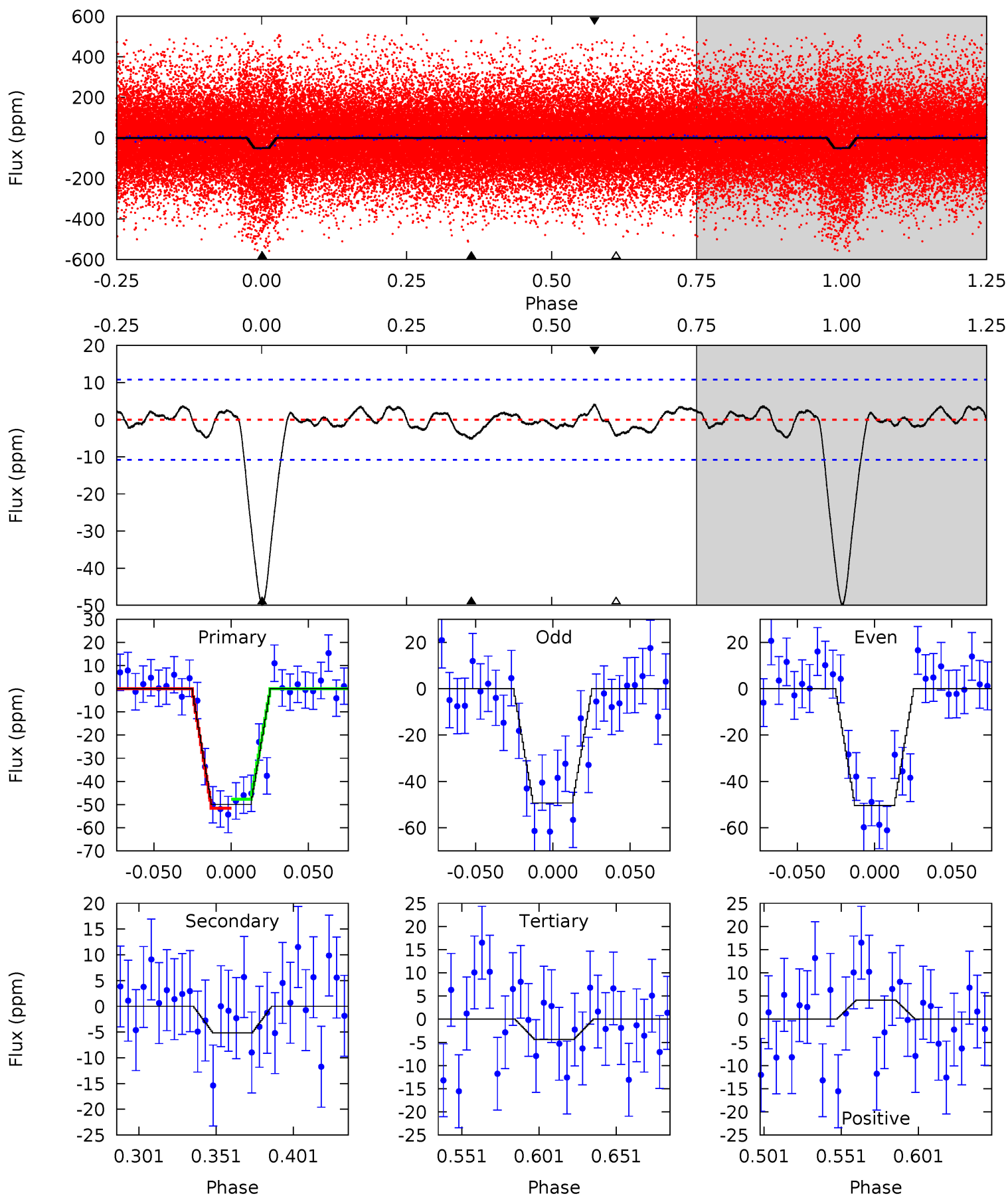
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	2.46	2.34	3.29	4.69	1.91	1.24	14.6	13.6	0.12	-0.83	1.42	0.69	0.16	0.19



Alt Model-Shift Uniqueness Test

007919867-01, P = 1.603752 Days, E = 130.563825 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	2.24	1.90	1.79	4.71	1.96	0.88	19.9	20.0	0.34	0.45	0.24	0.98	0.08	0.85



Stellar Parameters For KIC 007919867

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5818^{+145}_{-159}	$4.292^{+0.209}_{-0.190}$	$-0.240^{+0.300}_{-0.300}$	$1.116^{+0.314}_{-0.257}$	$0.891^{+0.132}_{-0.088}$	$0.902^{+1.010}_{-0.443}$
	+2%/-3%	+5%/-4%	+125%/-125%	+28%/-23%	+15%/-10%	+112%/-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 007919867-01 / KOI 7858.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 3	$0.87^{+0.47}_{-0.39}$	2354^{+187}_{-156}	3729^{+988}_{-606}	$2.989^{+7.620}_{-1.838}$
Alt.	-5 ± 2	$0.82^{+0.46}_{-0.38}$	2369^{+186}_{-180}	3664^{+994}_{-661}	$2.568^{+7.385}_{-1.643}$

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

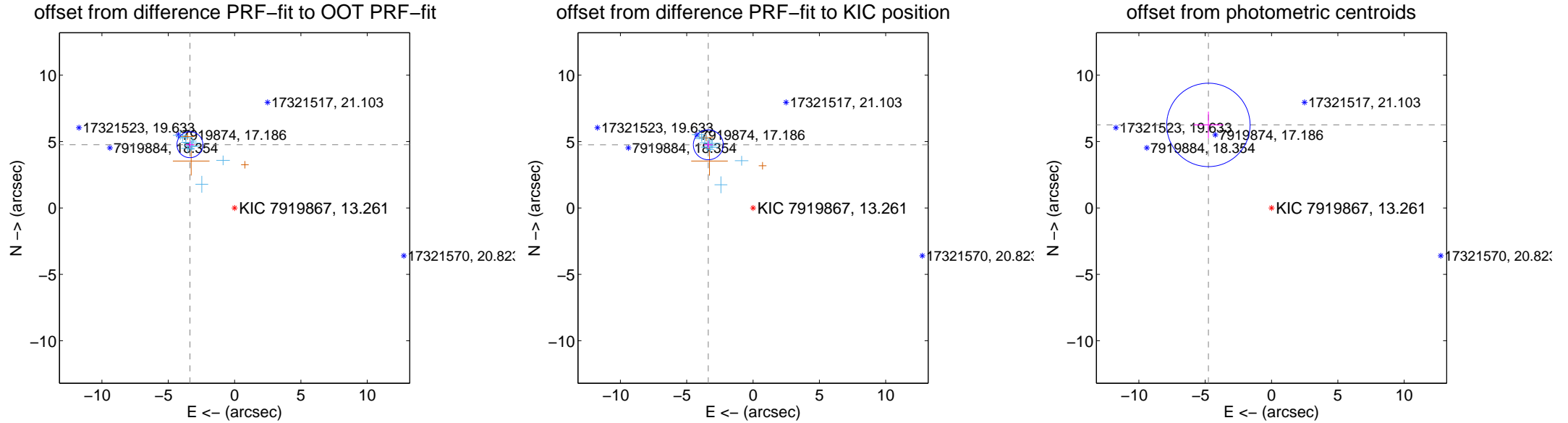
DV Centroid Data

Supplemental centroid analysis for 007919867-01. Kepler magnitude: 13.26. Transit SNR 9.63

There are 12 quarters with good PRF difference image offsets

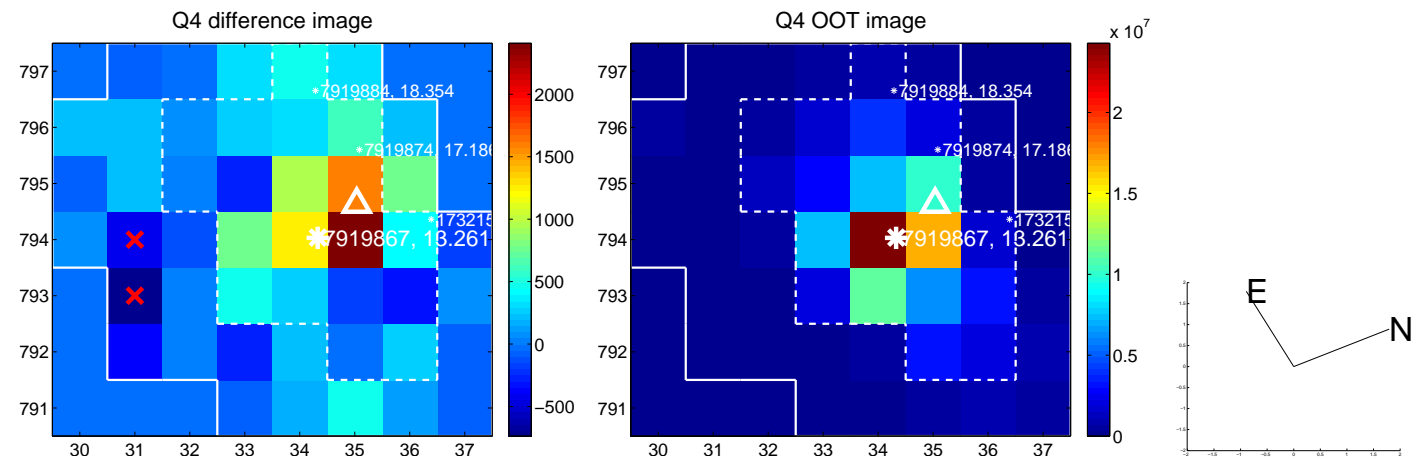
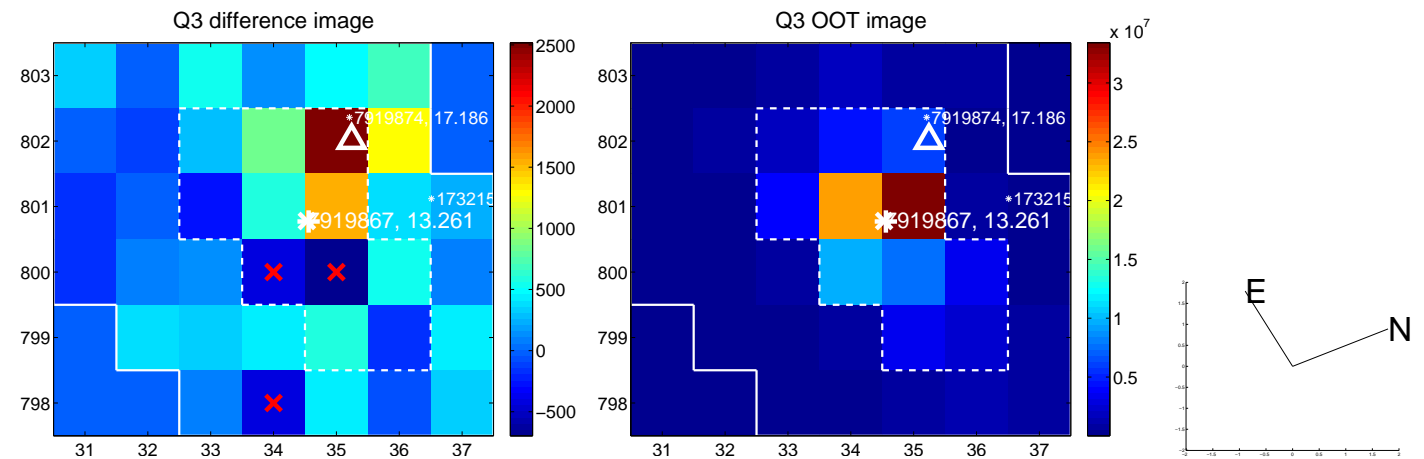
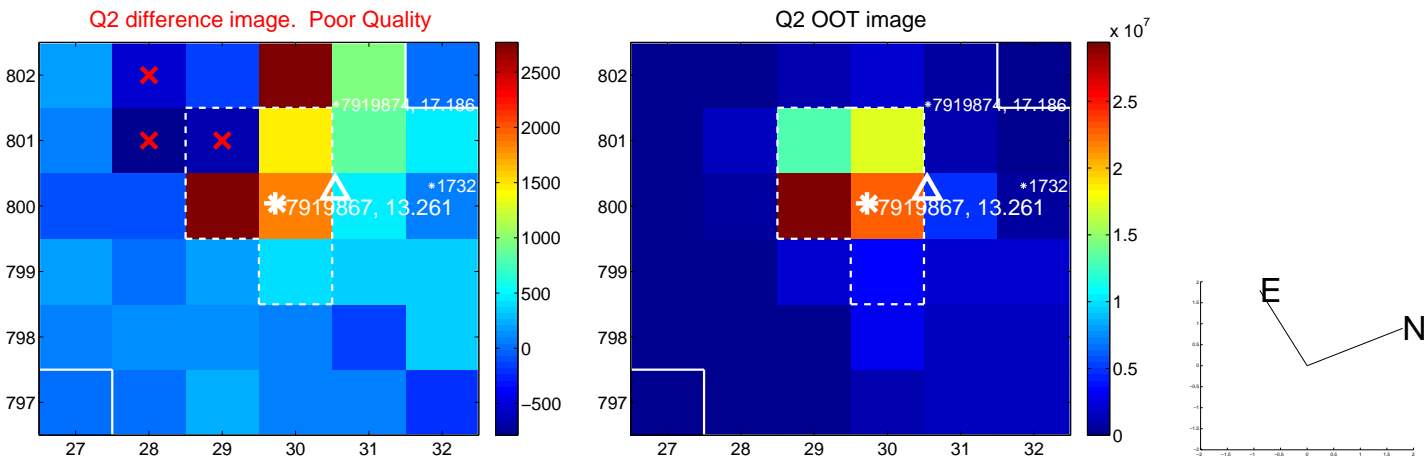
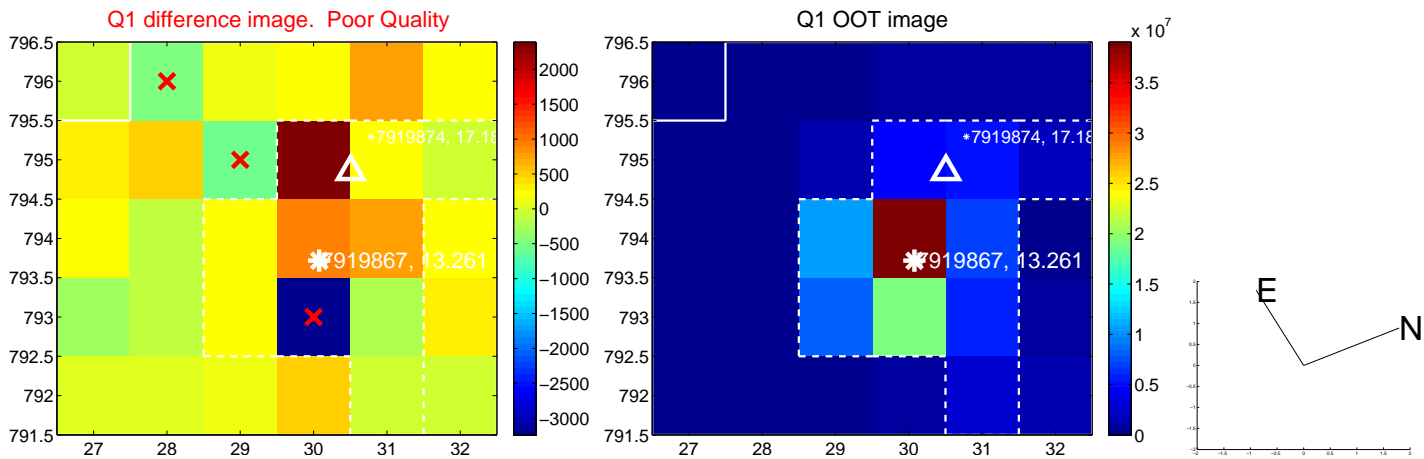
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.835 \pm 0.326	17.88	3.367 \pm 0.300	4.766 \pm 0.242
PRF-fit source offset from KIC position	5.832 \pm 0.376	15.53	3.374 \pm 0.329	4.757 \pm 0.279
photometric centroid source offset	7.86 \pm 1.05	7.50	4.76 \pm 1.12	6.26 \pm 1.00

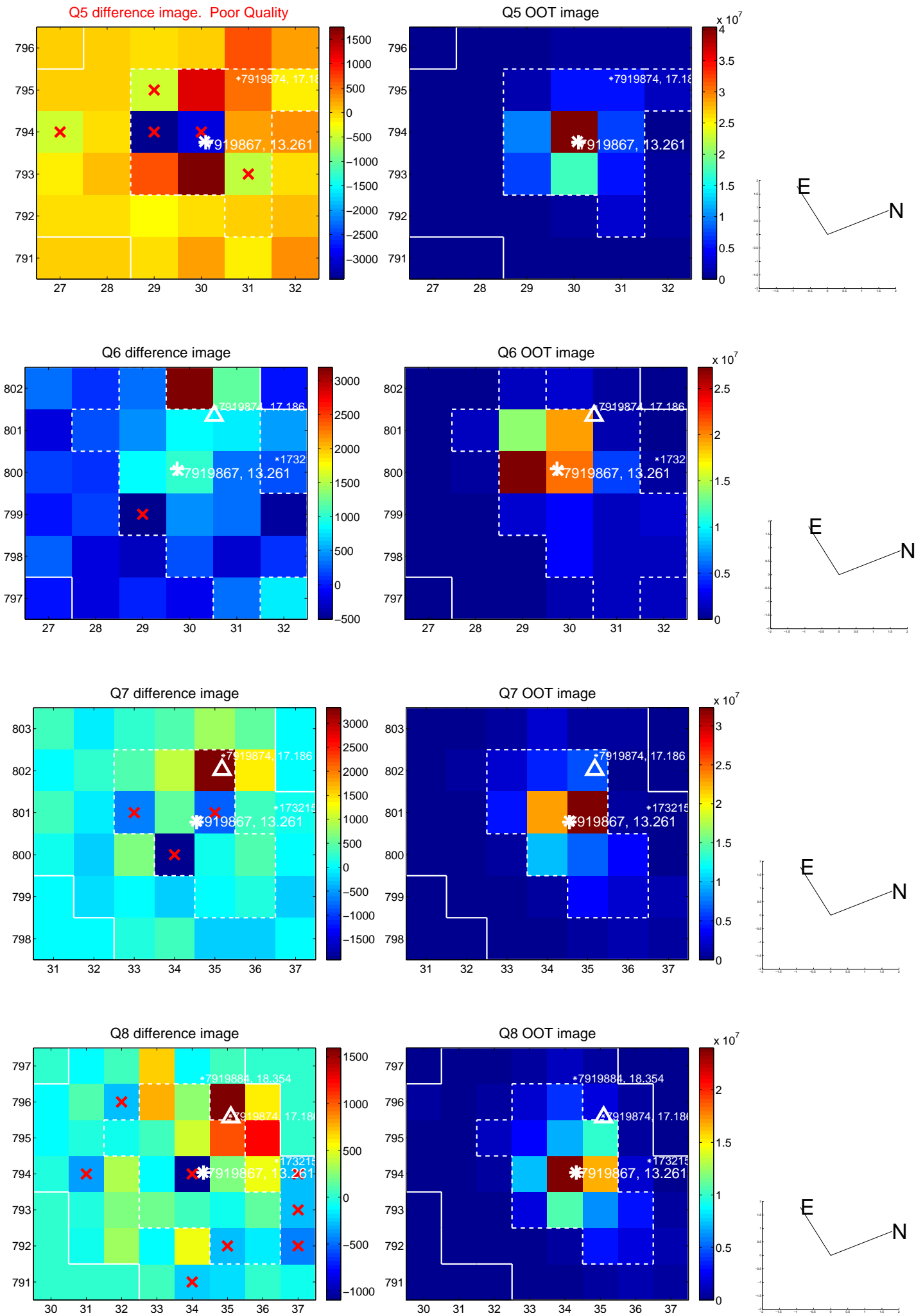


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

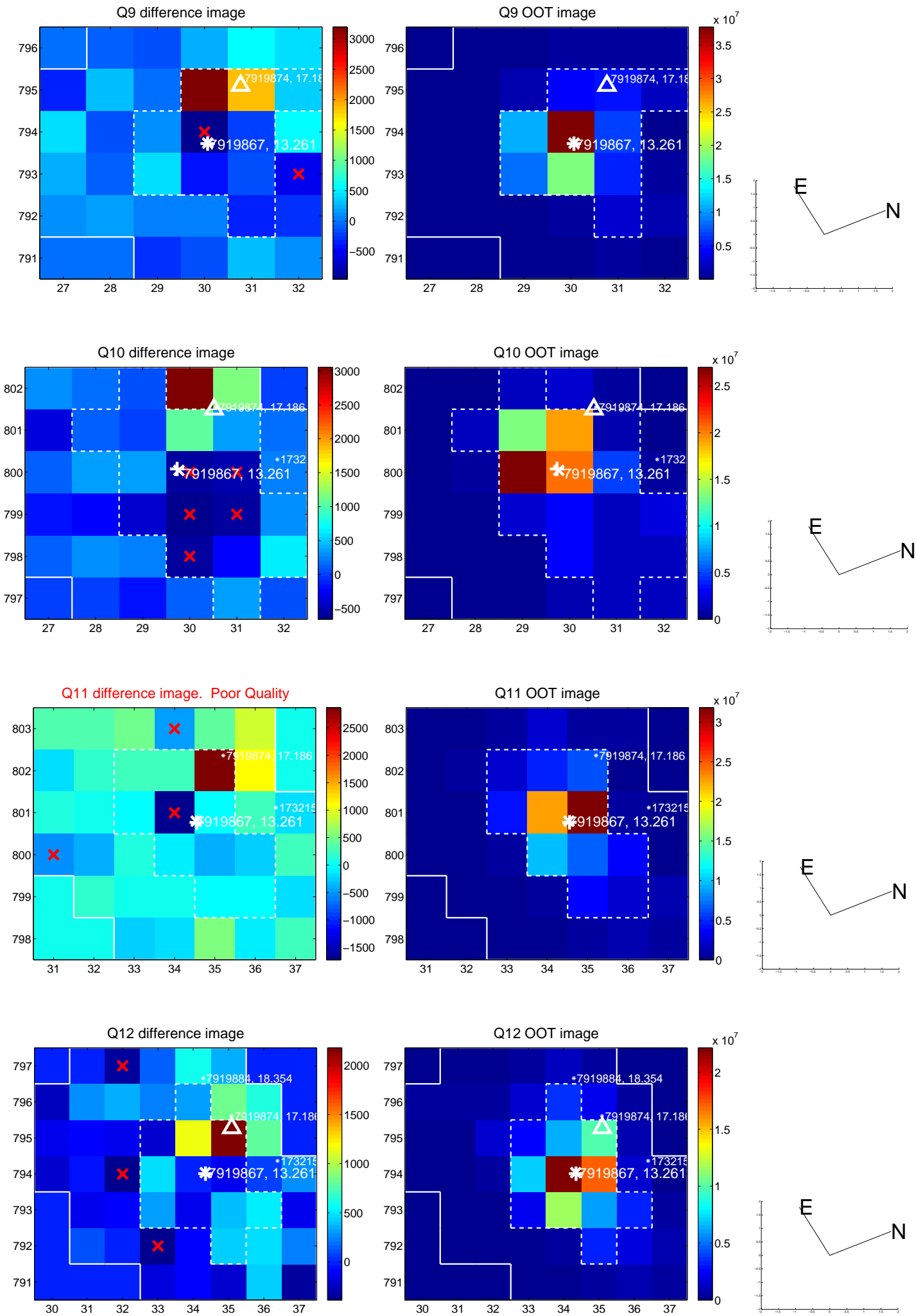
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



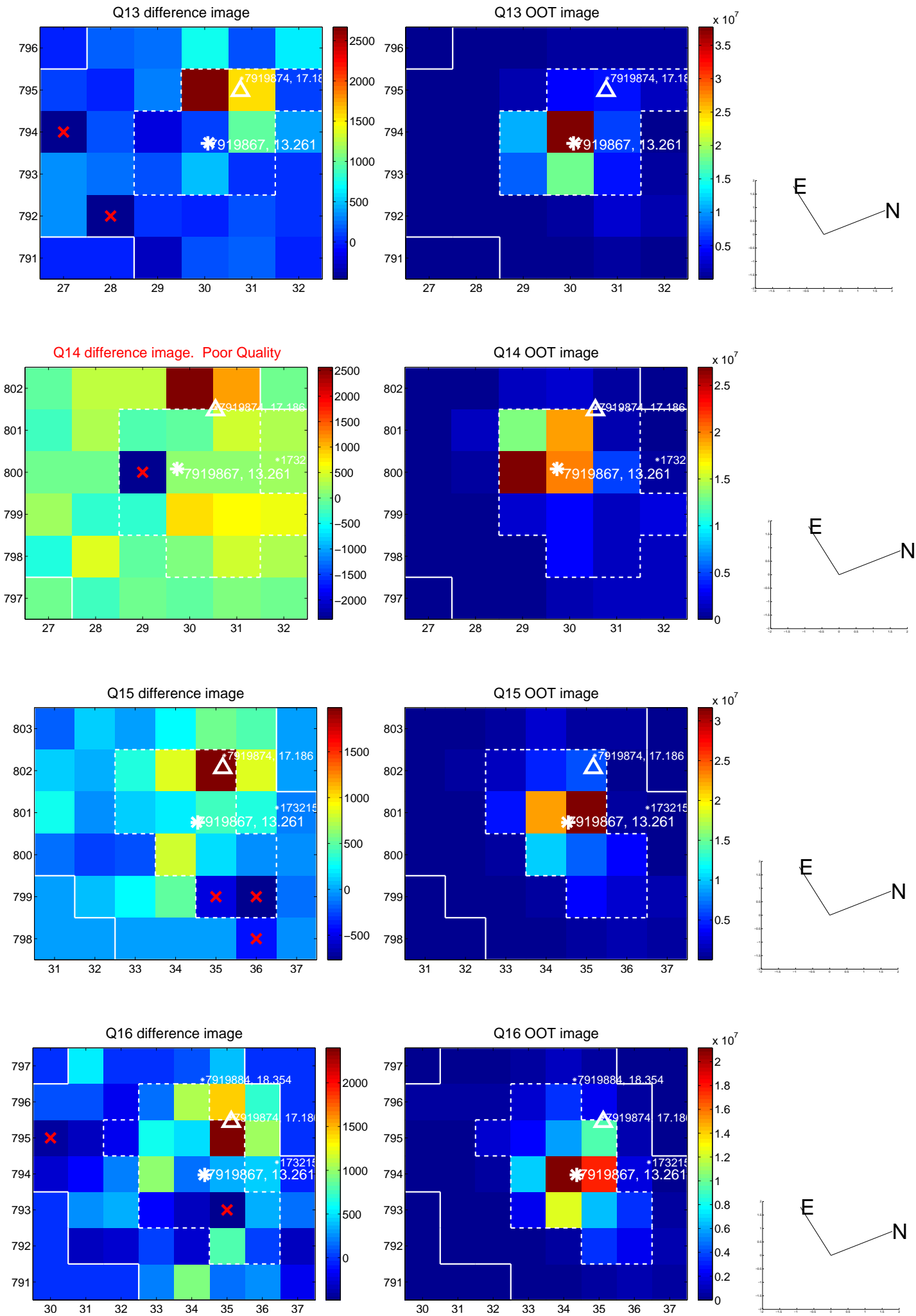
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



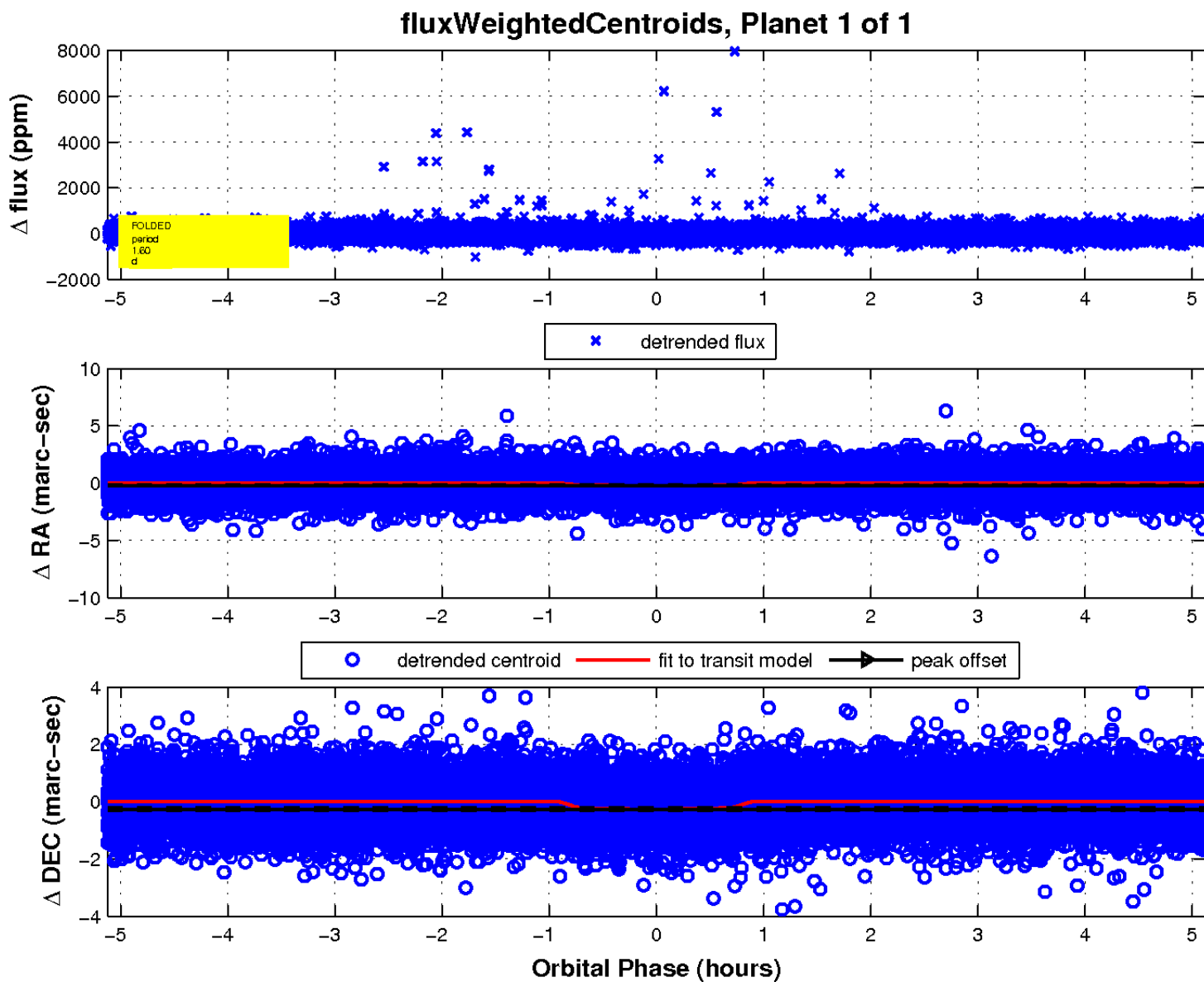
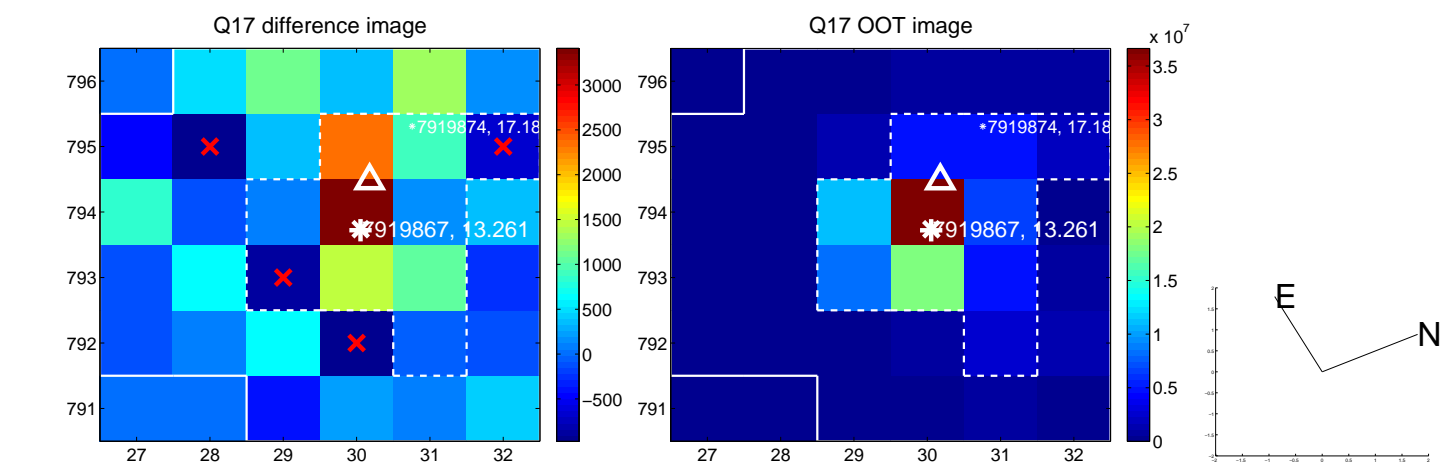
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

