

KIC 008197653

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})
008197653-01	OBS	No	1.328450	131.572760	29.3	5.971	11.9	13.5	2.12	8218	1.33	21104.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008197653-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

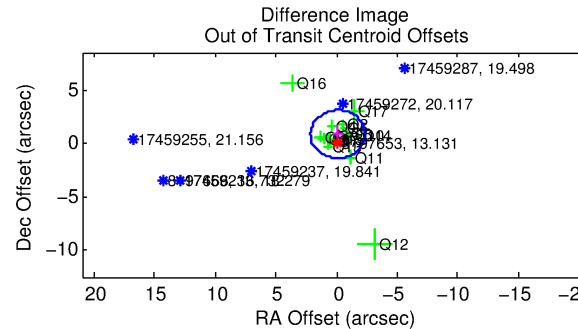
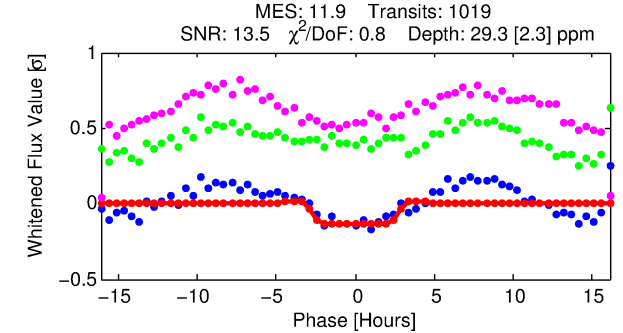
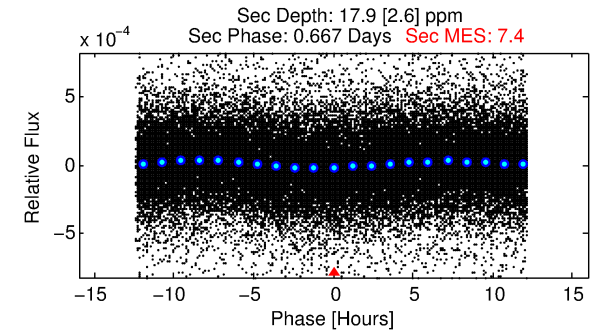
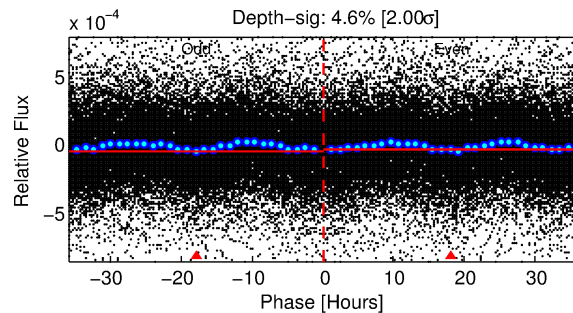
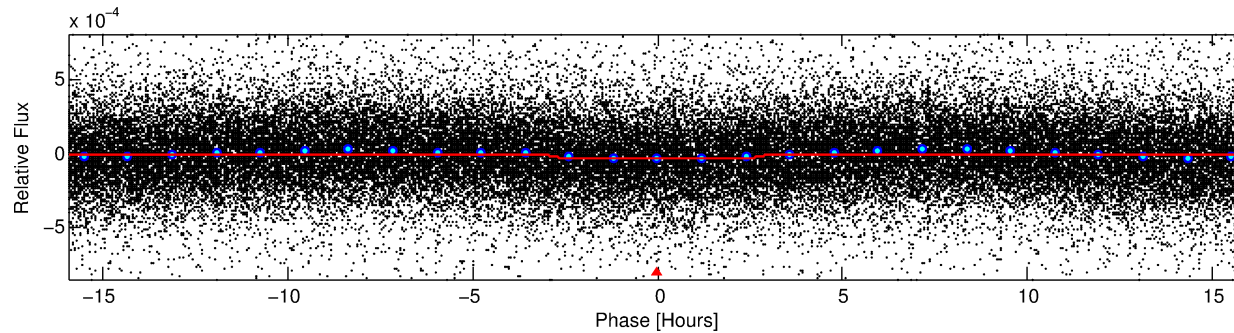
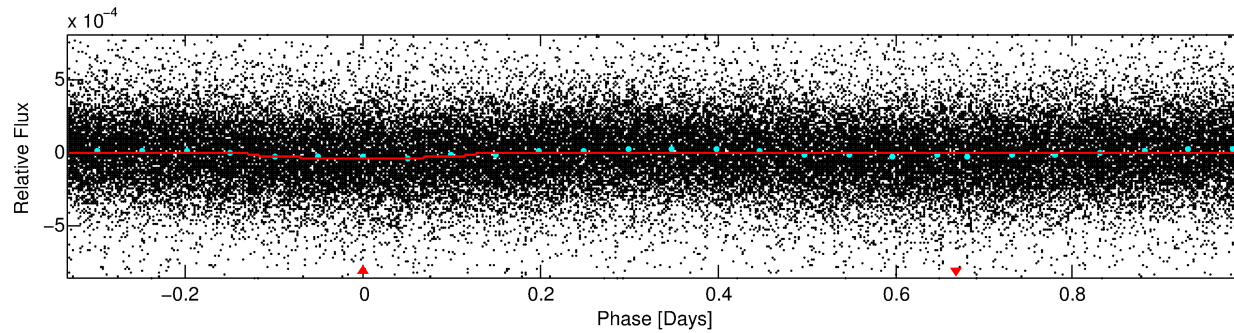
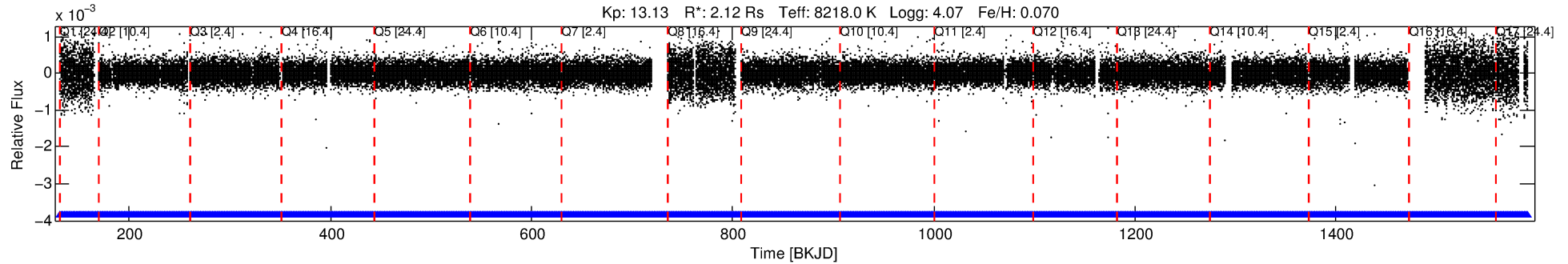
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008197653-01

No Significant Match Found

DV One-Page Summary

KIC: 8197653 Candidate: 1 of 1 Period: 1.328 d



DV Fit Results:

Period = 1.32845 [0.00001] d
Epoch = 131.5728 [0.0046] BKJD
Rp/R* = 0.0058 [0.0018]
a/R* = 1.20 [0.73]
b = 0.90 [0.40]
Seff = 21104.36 [6981.92]
Teq = 3073 [254] K
Rp = 1.33 [0.51] Re
a = 0.0294 [0.0057] AU
Ag = 4.78 [3.27] [1.16 σ]
Teffp = 7026 [1141] K [3.38 σ]

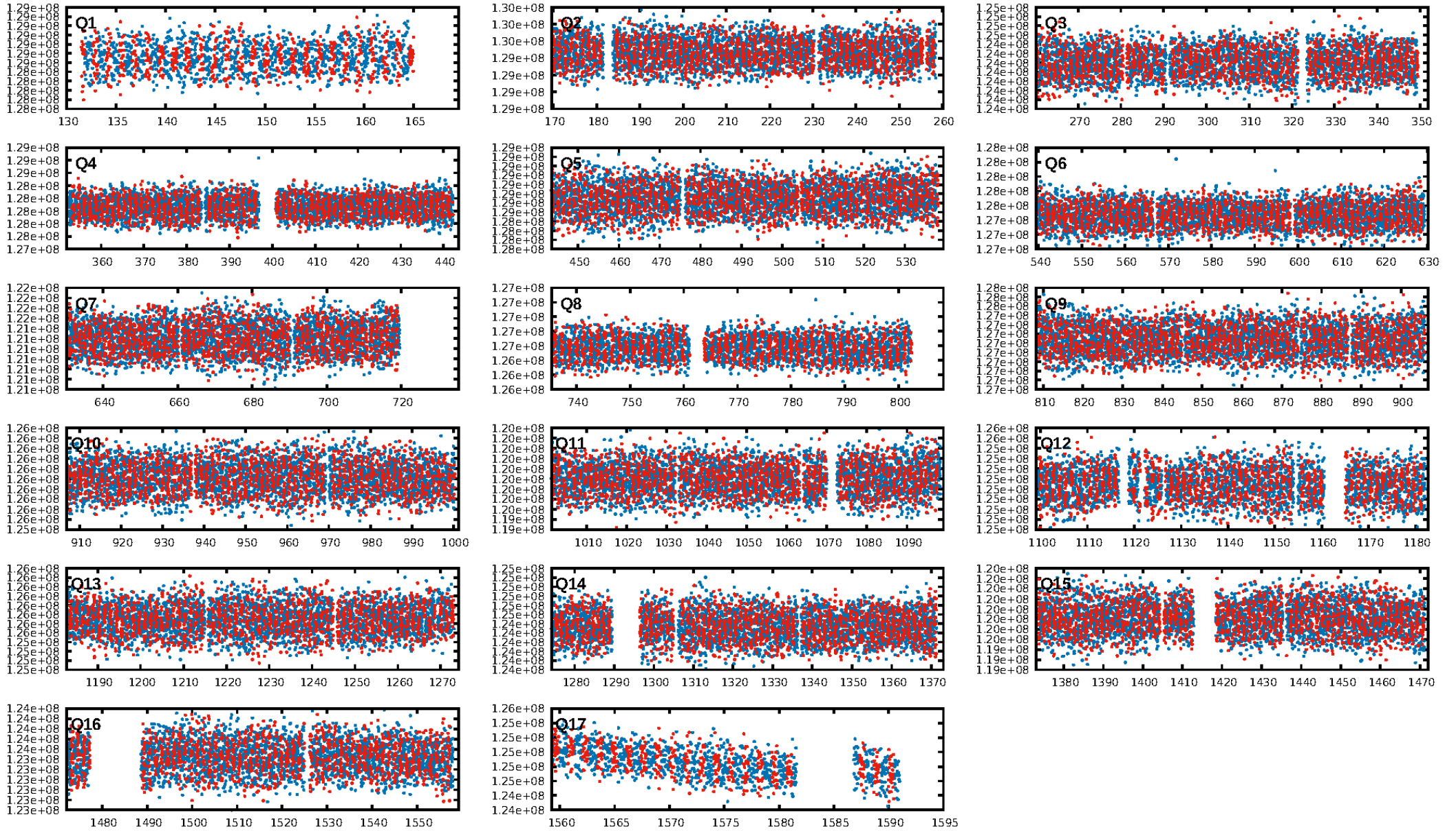
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.21e-24
RollingBand-fgt: 1.00 [973/973]
GhostDiagnostic-chr: 2.952
Centroid-sig: 0.4%
Centroid-so: 2.098 arcsec [2.12 σ]
OotOffset-rm: 0.852 arcsec [1.14 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.881 arcsec [1.26 σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 1.00 [17/17]

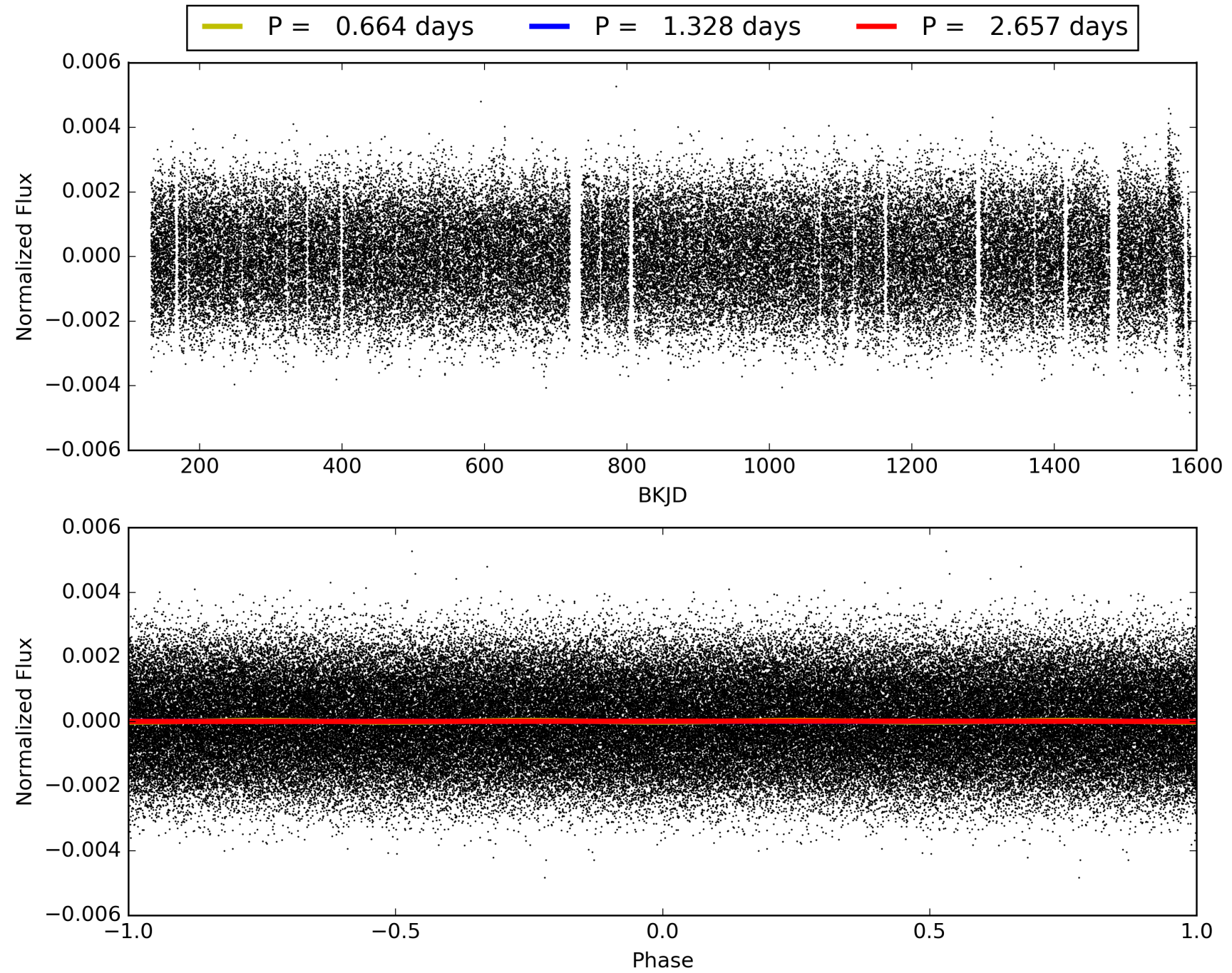
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:03:56 Z

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

TCE 008197653-01, PDC Light Curves

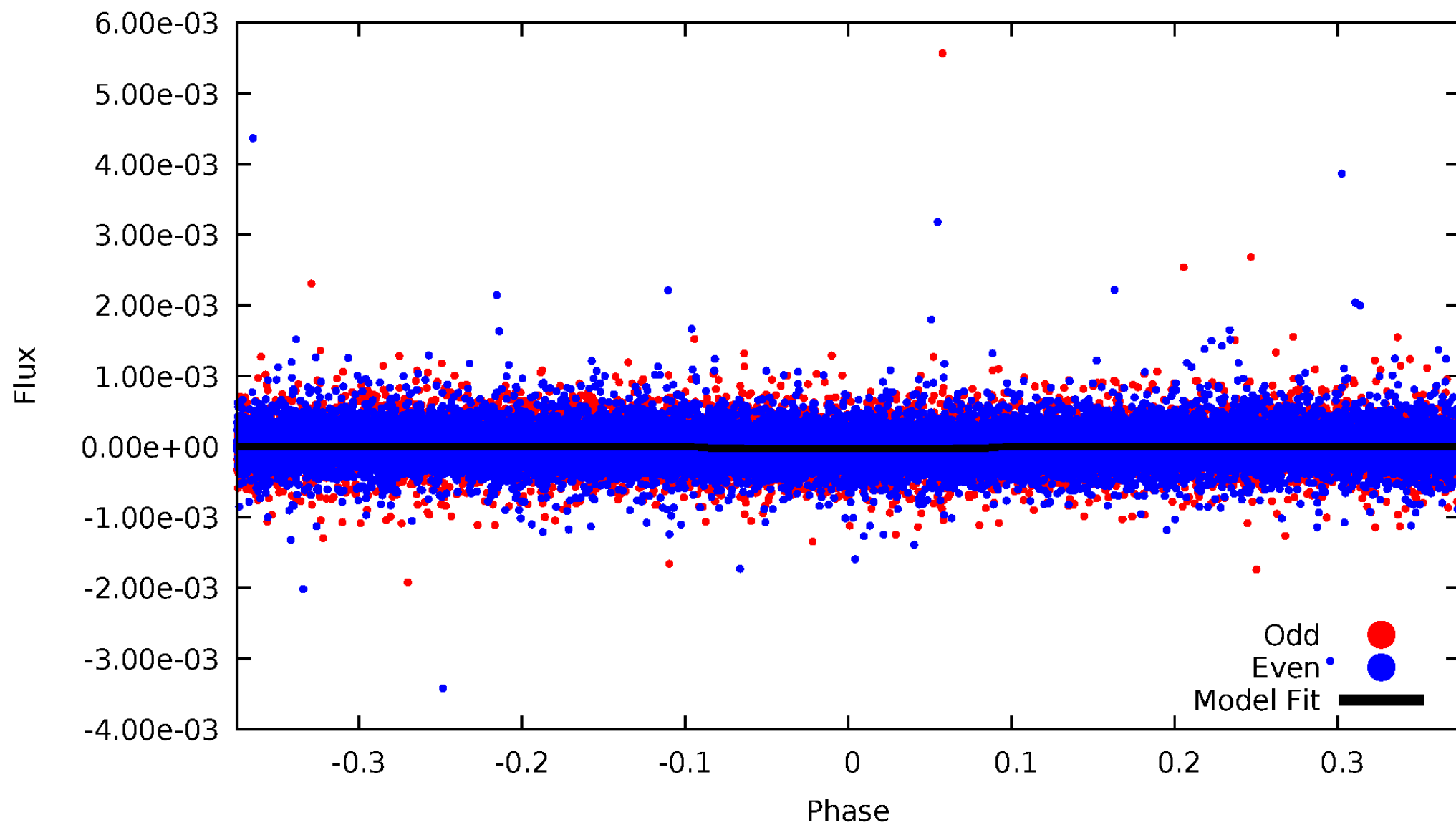


TCE 008197653-01



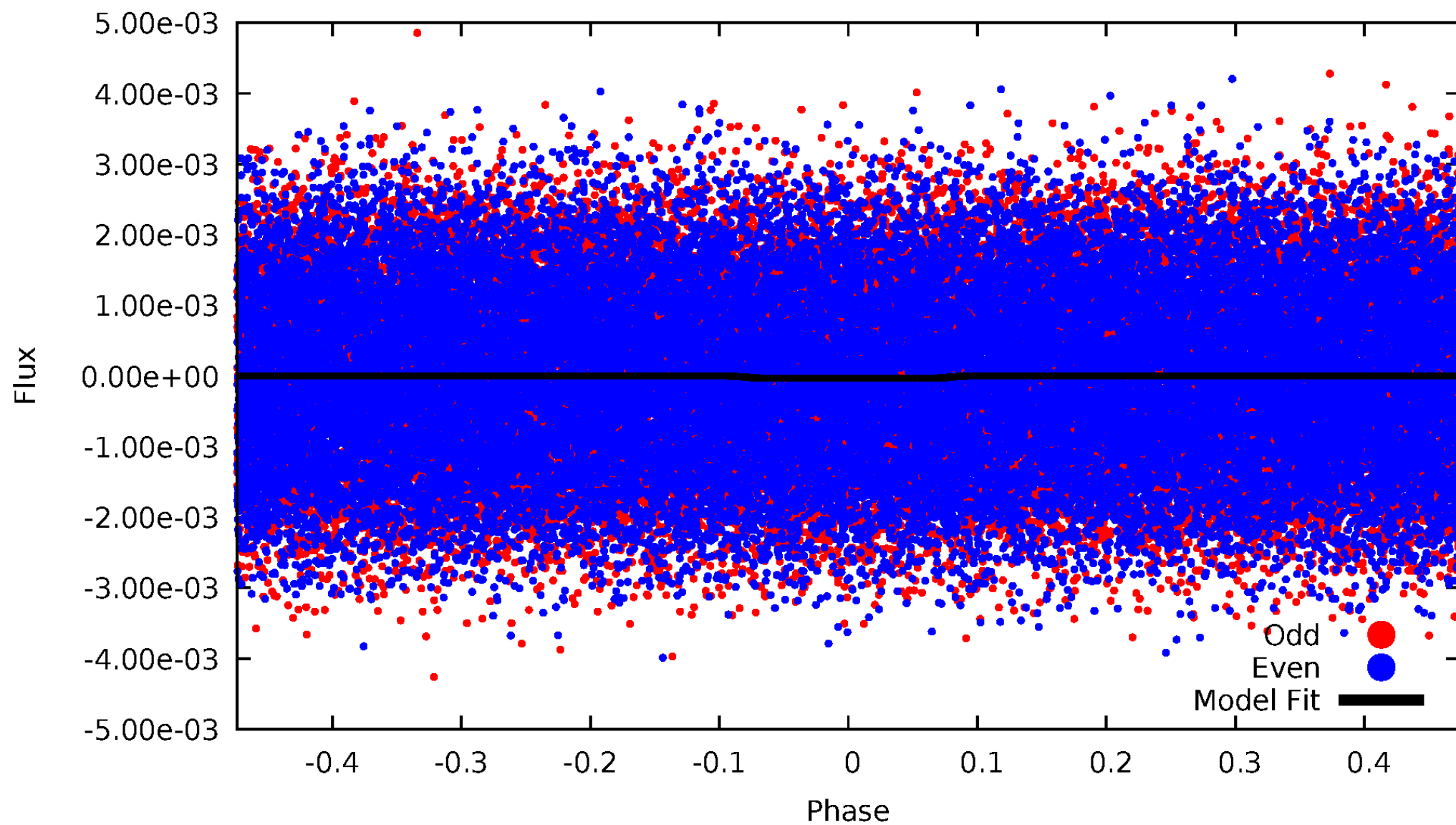
DV Odd/Even

TCE 008197653-01



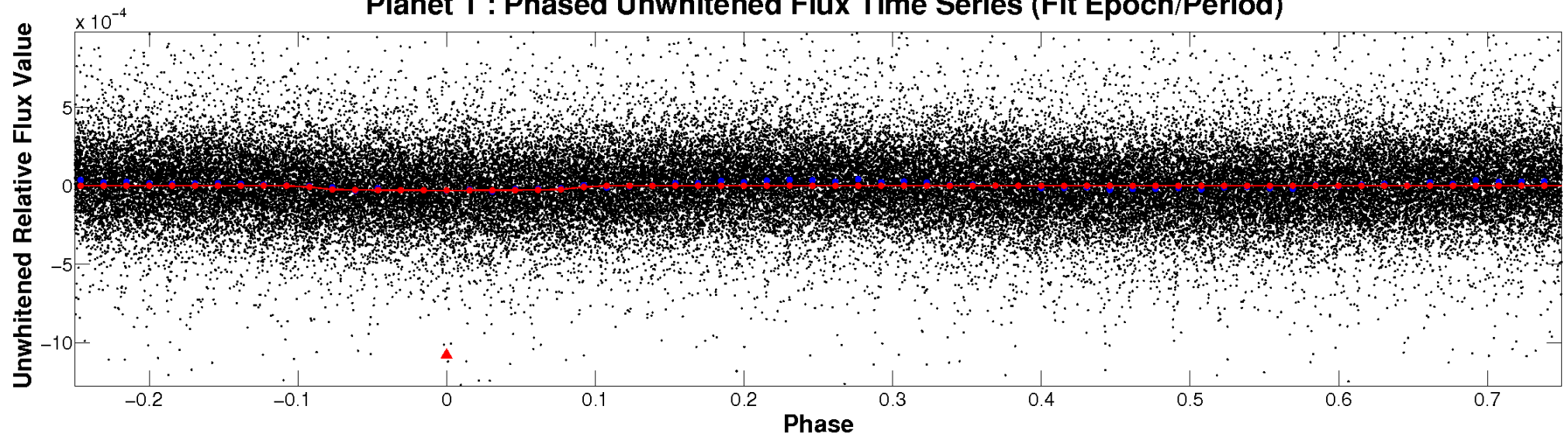
ALT Odd/Even

TCE 008197653-01

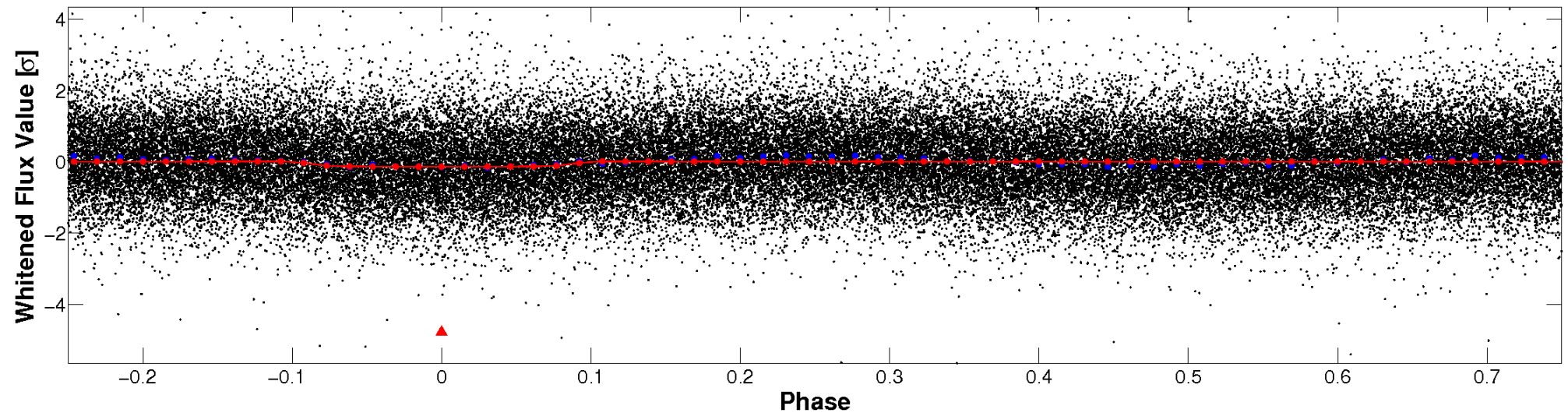


Non-Whitened Vs. Whitened Light Curve

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

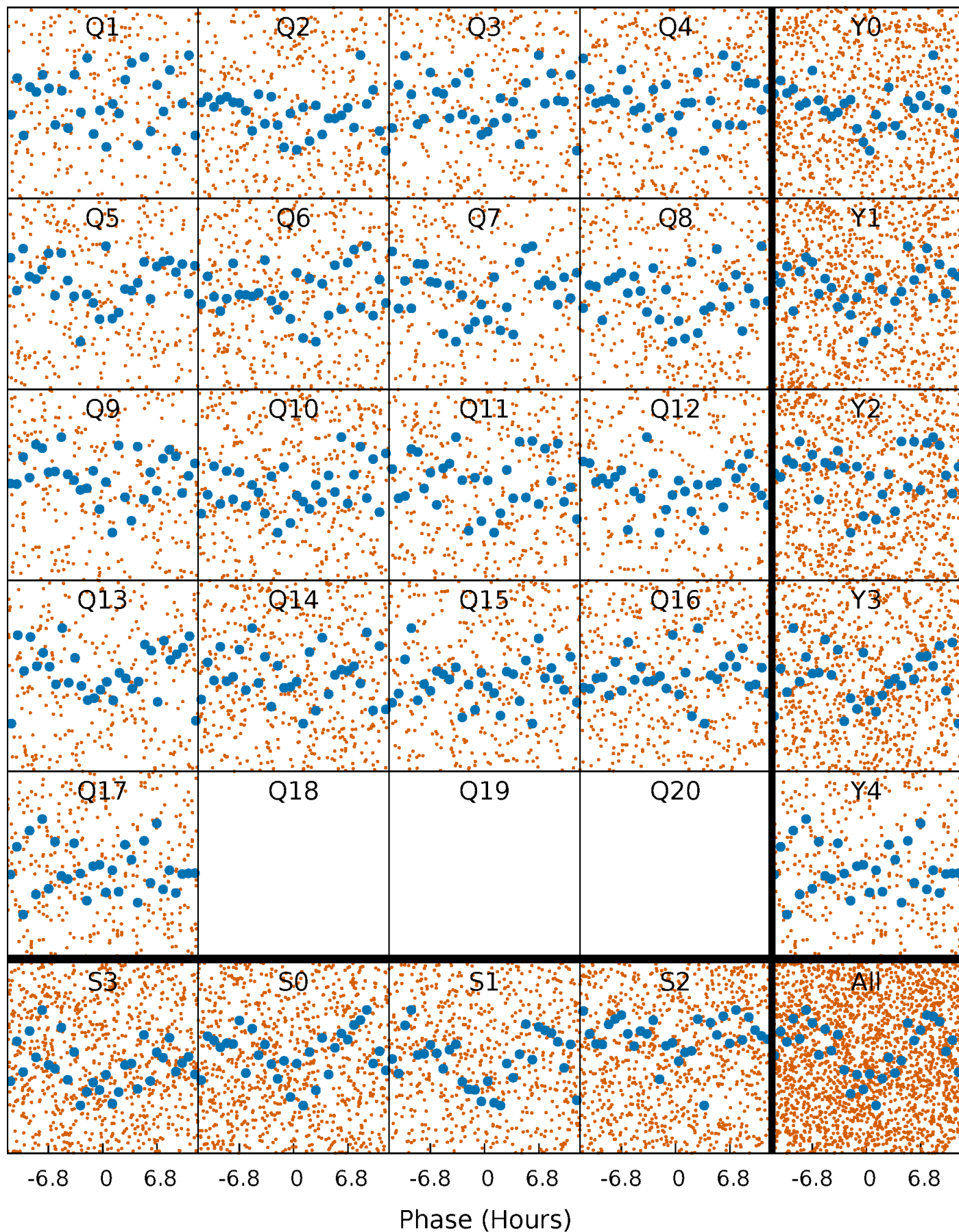


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



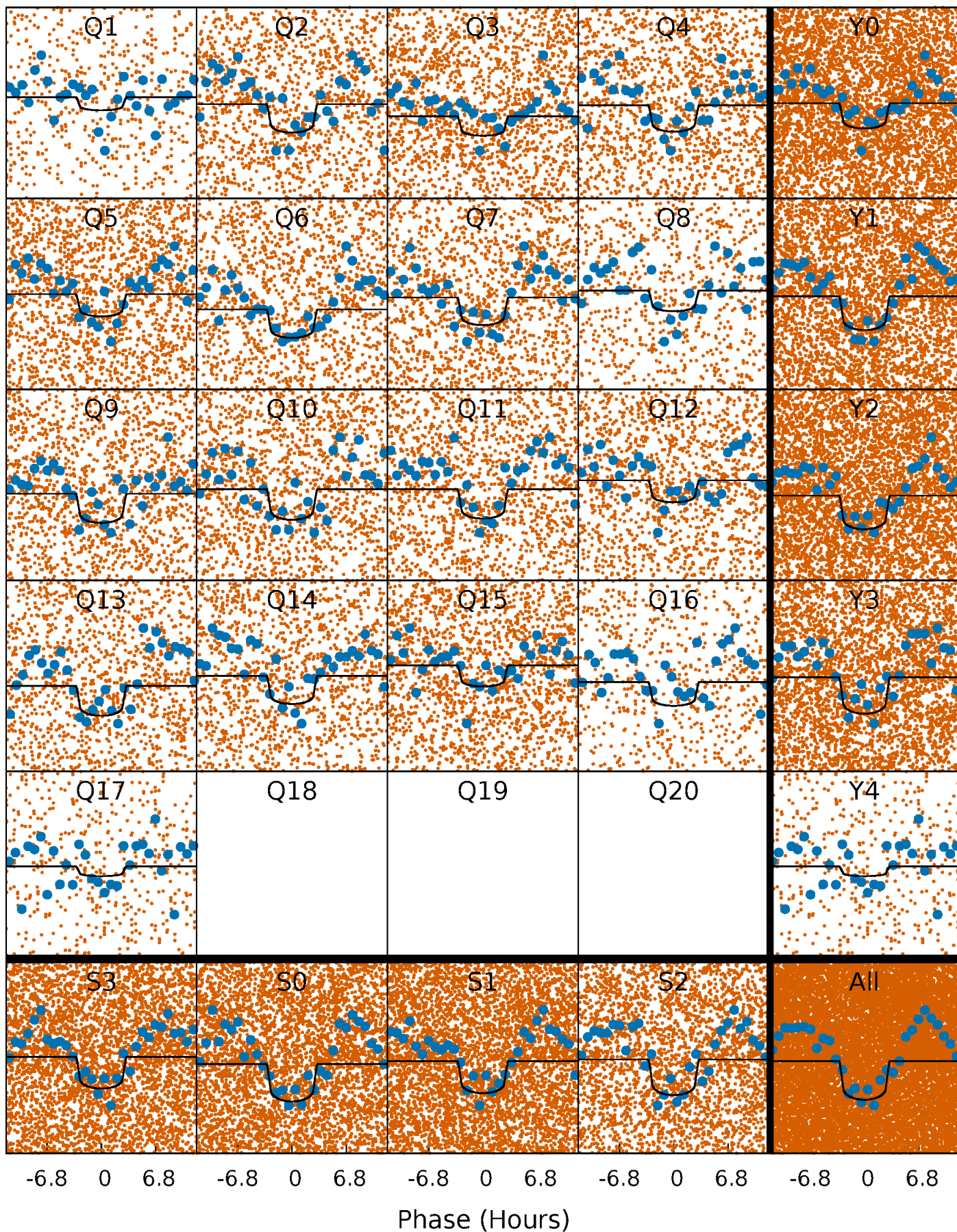
PDC Quarter-Phased Transit Curves

TCE 008197653-01 P= 1.328450 Days $T_0=131.572760$ (BKJD)



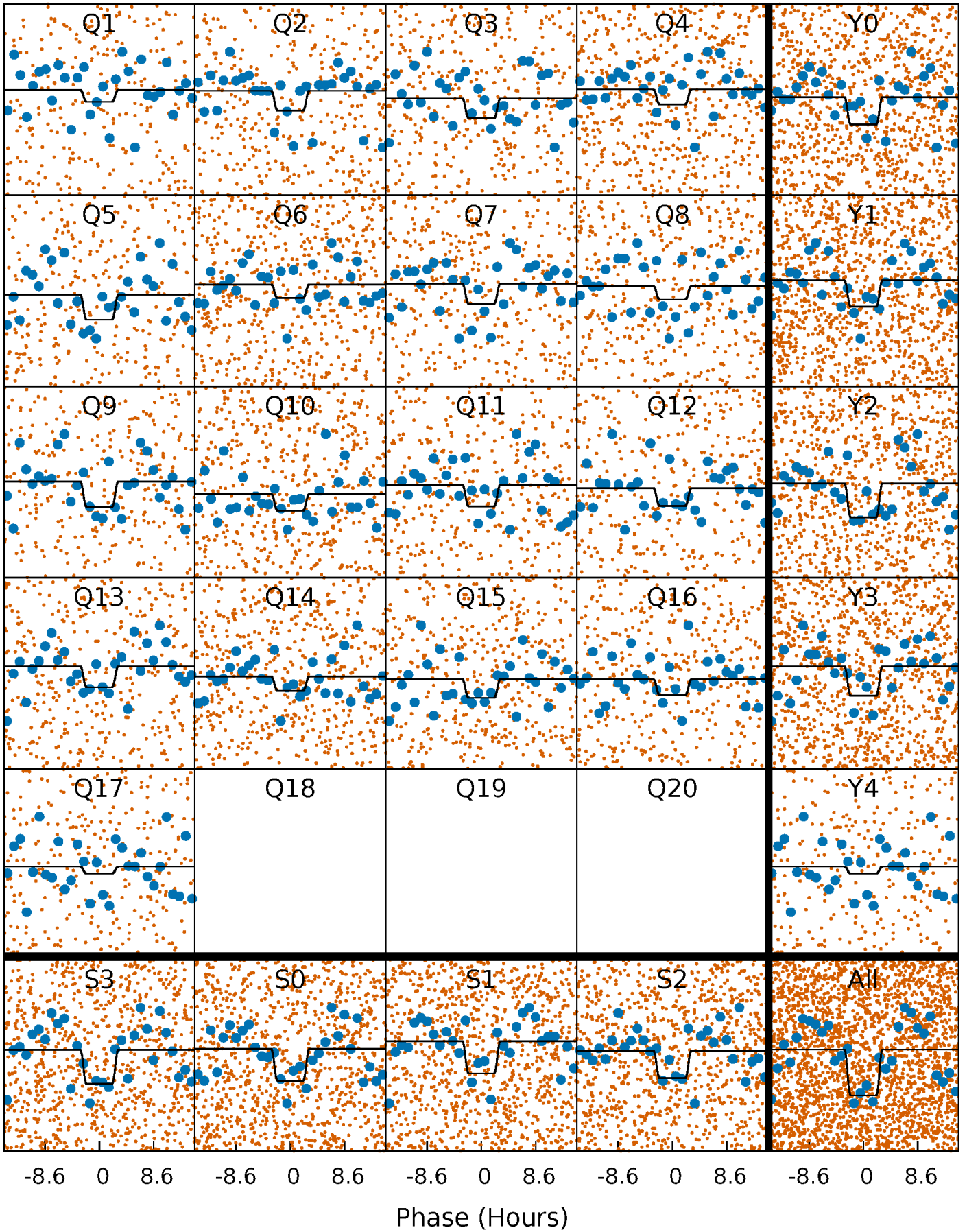
DV Quarter-Phased Transit Curves

TCE 008197653-01 P= 1.328450 Days $T_0=131.572760$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

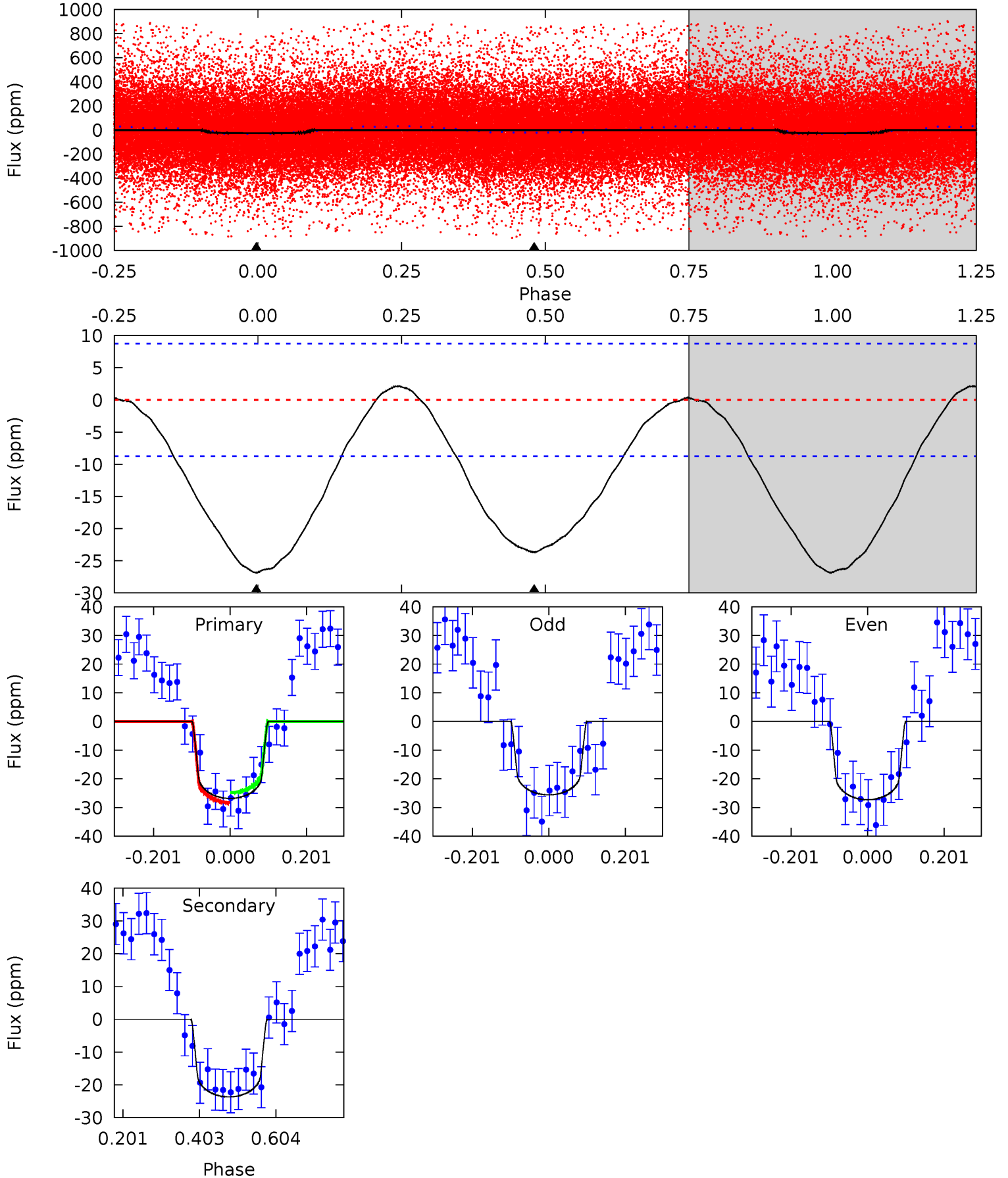
TCE 008197653-01 P= 1.328448 Days $T_0=131.579945$ (BKJD)



DV Model-Shift Uniqueness Test

008197653-01, P = 1.328450 Days, E = 130.244310 Days

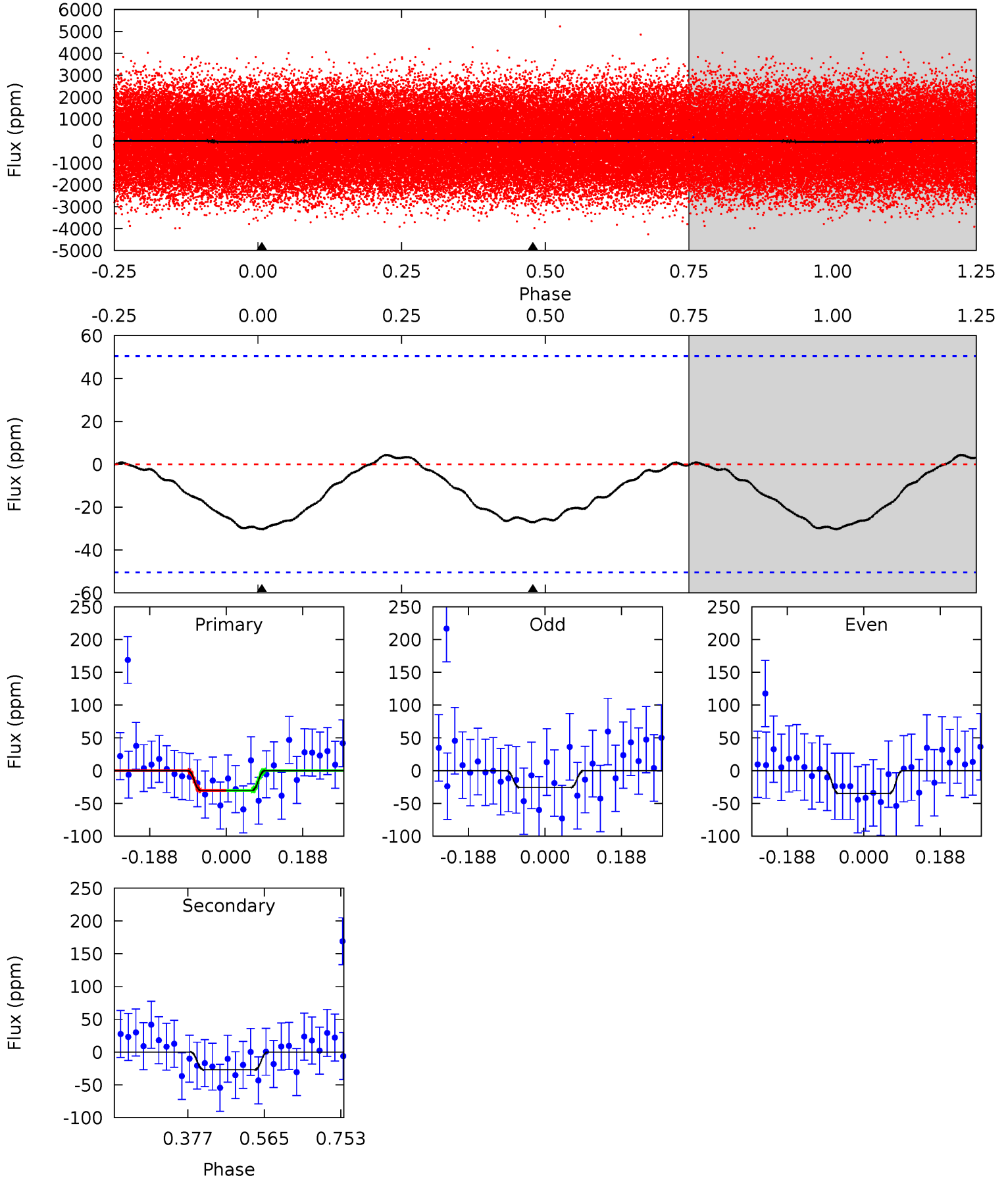
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	11.9	0	0	4.42	1.28	0.64	13.5	13.5	11.9	11.9	0.43	1.05	0.07	0.89



Alt Model-Shift Uniqueness Test

008197653-01, P = 1.328448 Days, E = 130.251497 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.66	2.38	0	0	4.43	1.32	0.21	2.66	2.66	2.38	2.38	0.40	1.03	0.13	0.00



Stellar Parameters For KIC 008197653

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8218^{+198}_{-368}	$4.072^{+0.150}_{-0.150}$	$0.070^{+0.250}_{-0.500}$	$2.115^{+0.446}_{-0.495}$	$1.923^{+0.269}_{-0.403}$	$0.286^{+0.252}_{-0.115}$
	+2%/-4%	+4%/-4%	+357%/-714%	+21%/-23%	+14%/-21%	+88%/-40%
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 008197653-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 2	$1.32^{+0.46}_{-0.44}$	4282^{+259}_{-282}	7245^{+2156}_{-1049}	$6.493^{+7.785}_{-2.989}$
Alt.	-27 ± 11	$1.35^{+0.42}_{-0.44}$	4285^{+286}_{-265}	7500^{+2431}_{-1457}	$6.931^{+9.341}_{-3.704}$

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 $A_{obs} \gg 1.0$

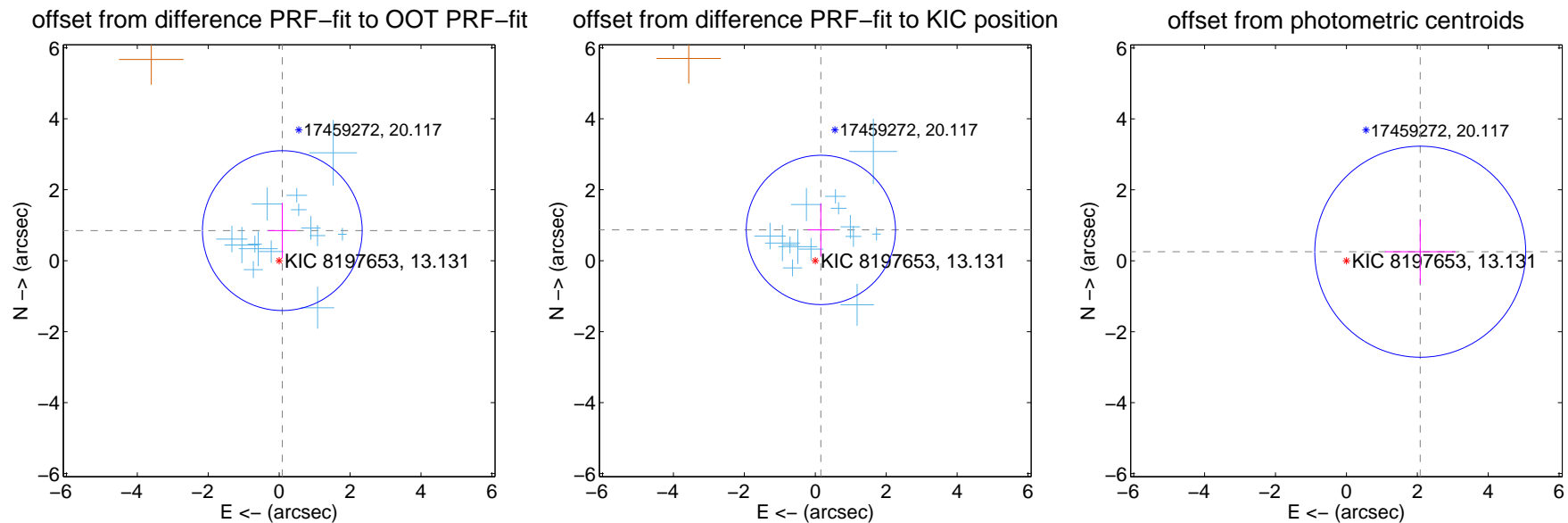
DV Centroid Data

Supplemental centroid analysis for 008197653-01. Kepler magnitude: 13.13. Transit SNR 13.50

There are 14 quarters with good PRF difference image offsets

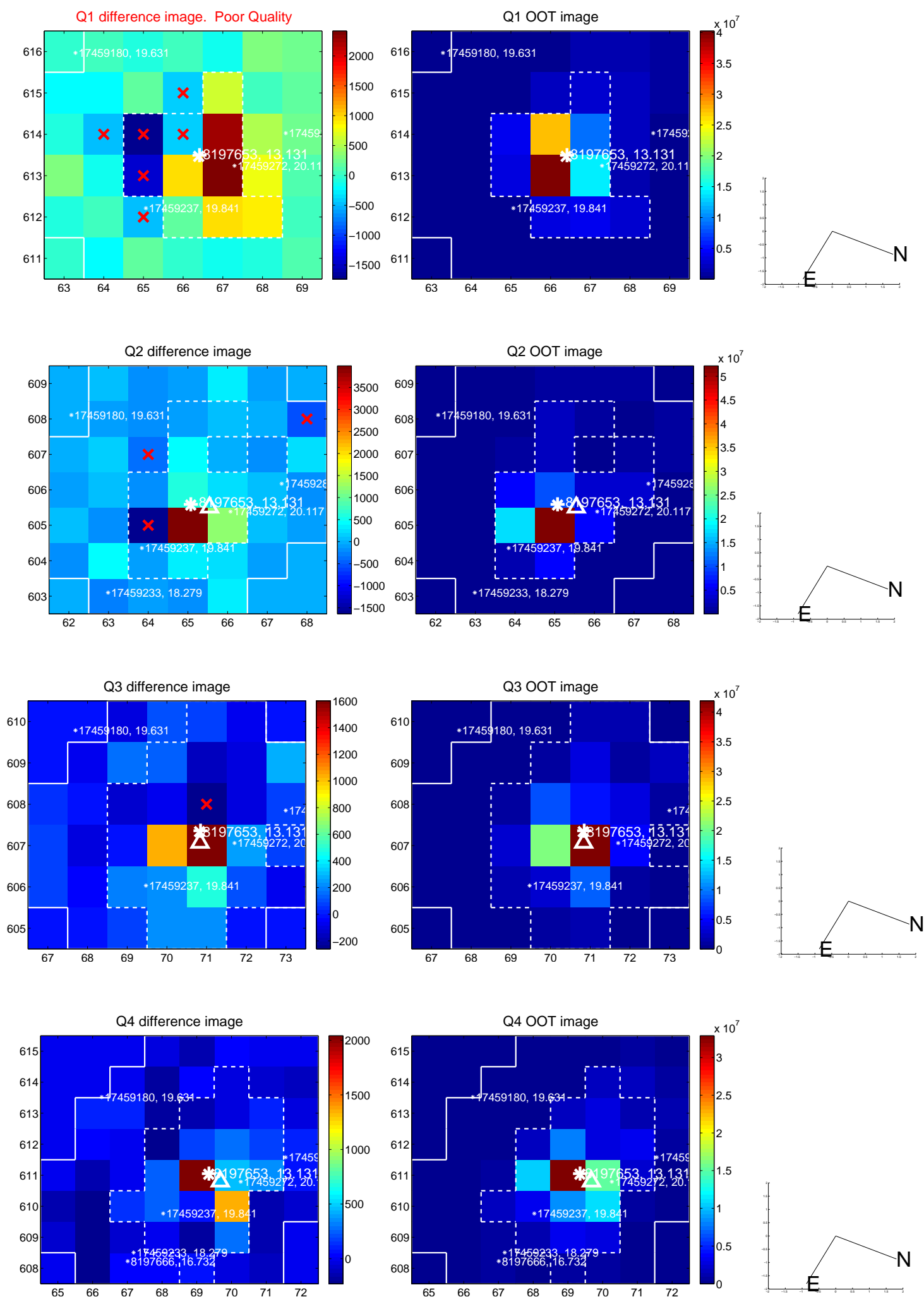
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.852 ± 0.751	1.14	-0.089 ± 0.395	0.848 ± 0.783
PRF-fit source offset from KIC position	0.881 ± 0.701	1.26	-0.158 ± 0.376	0.867 ± 0.753
photometric centroid source offset	2.10 ± 0.99	2.12	-2.08 ± 0.99	0.26 ± 0.91

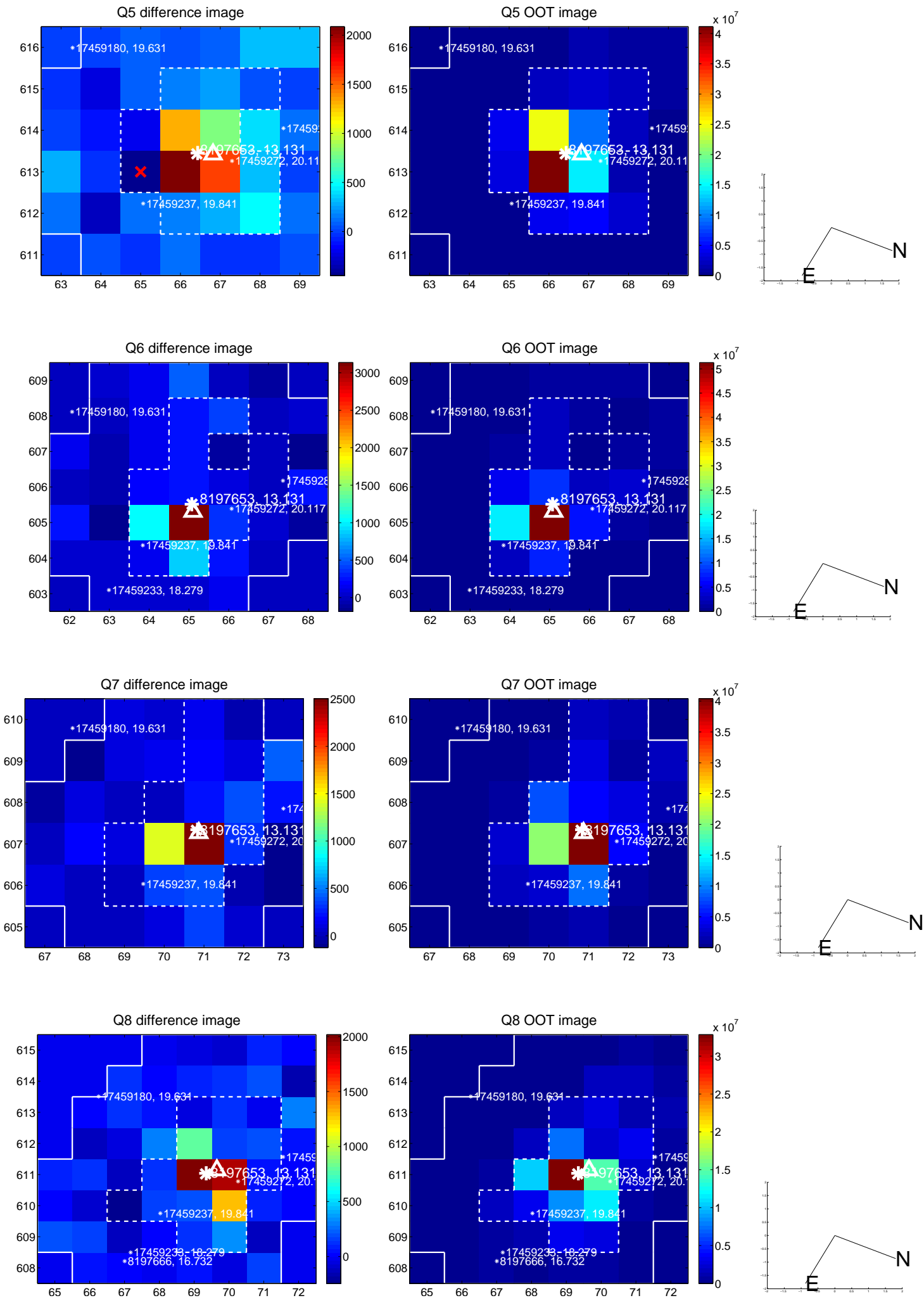


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

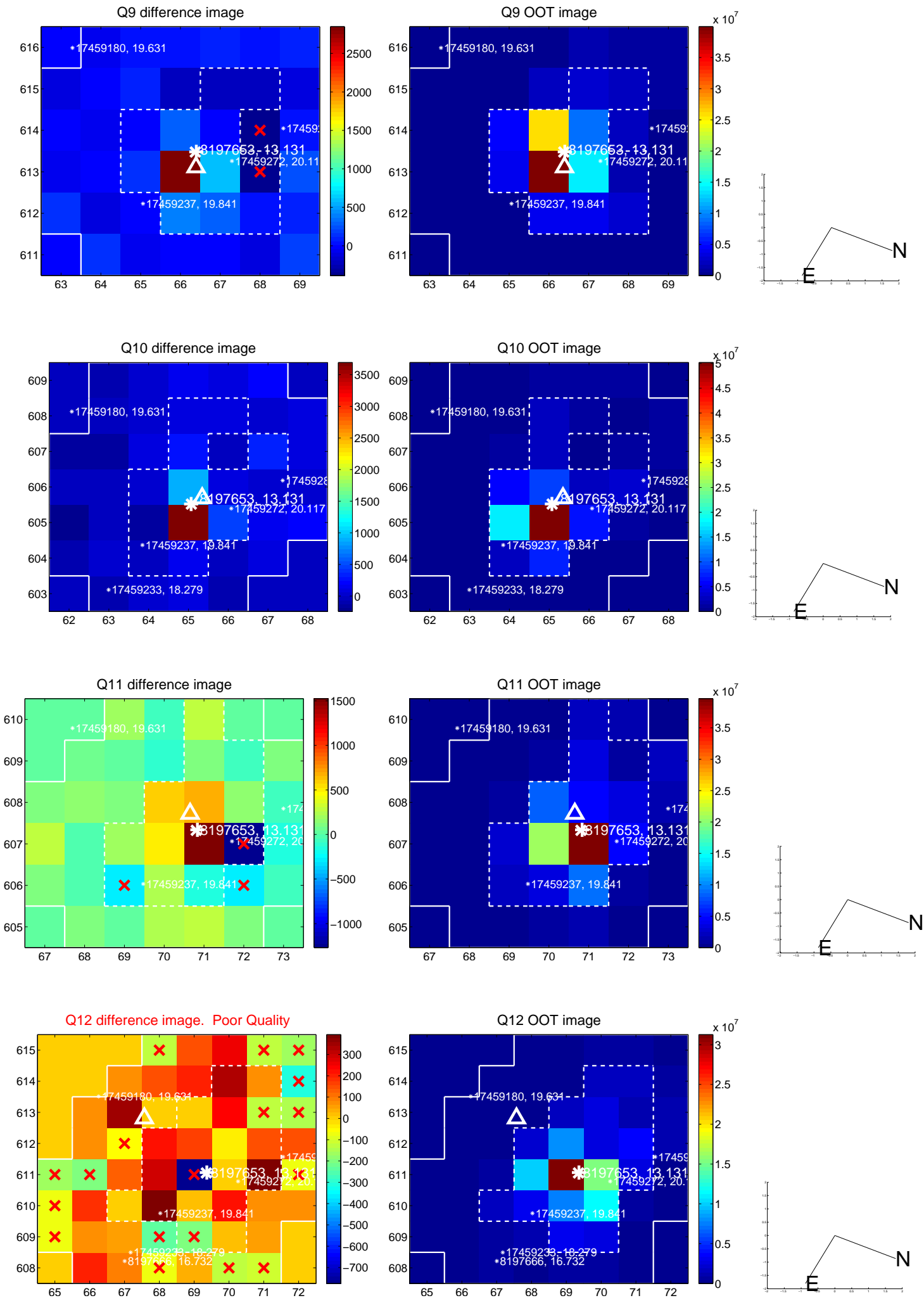
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



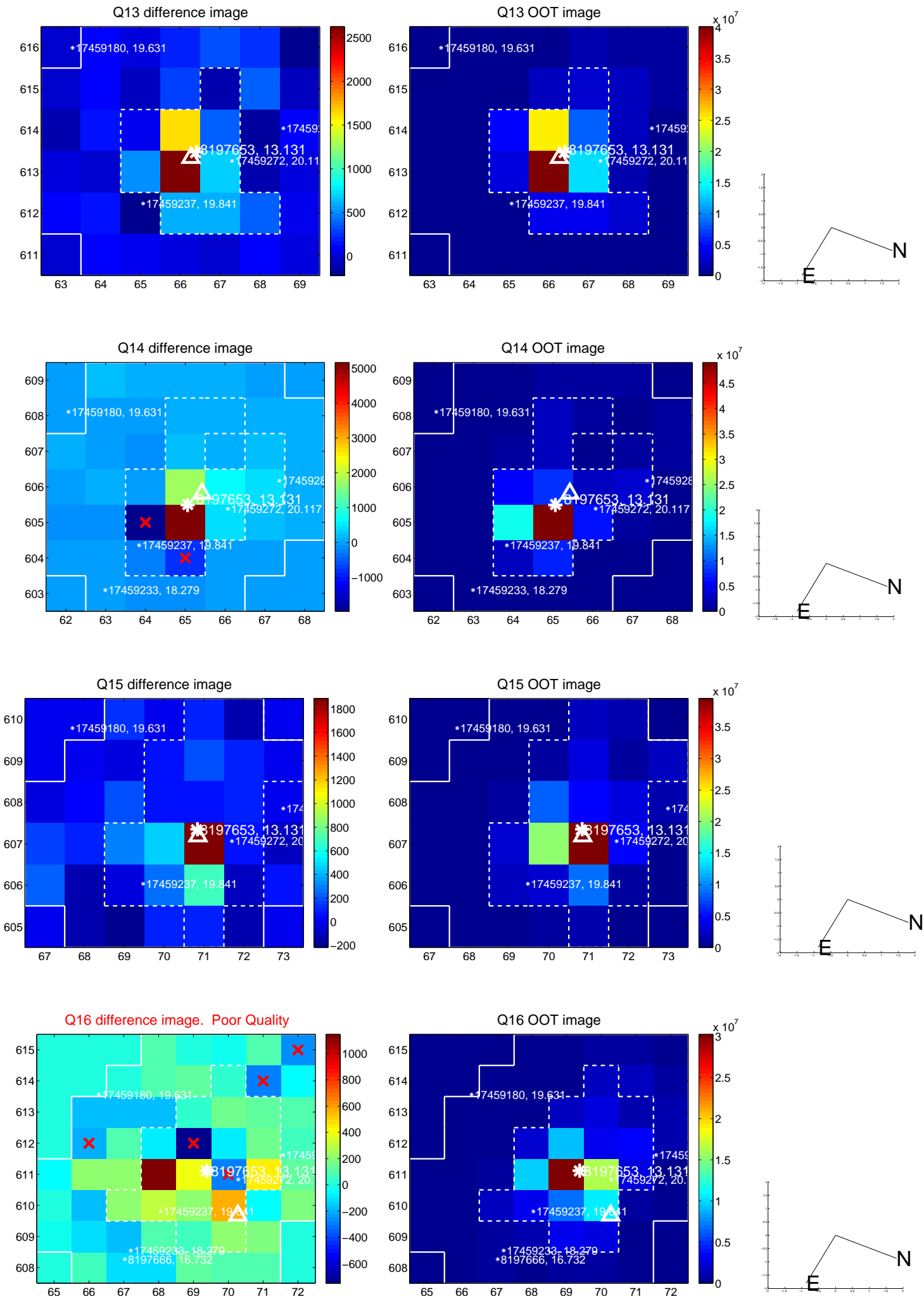
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



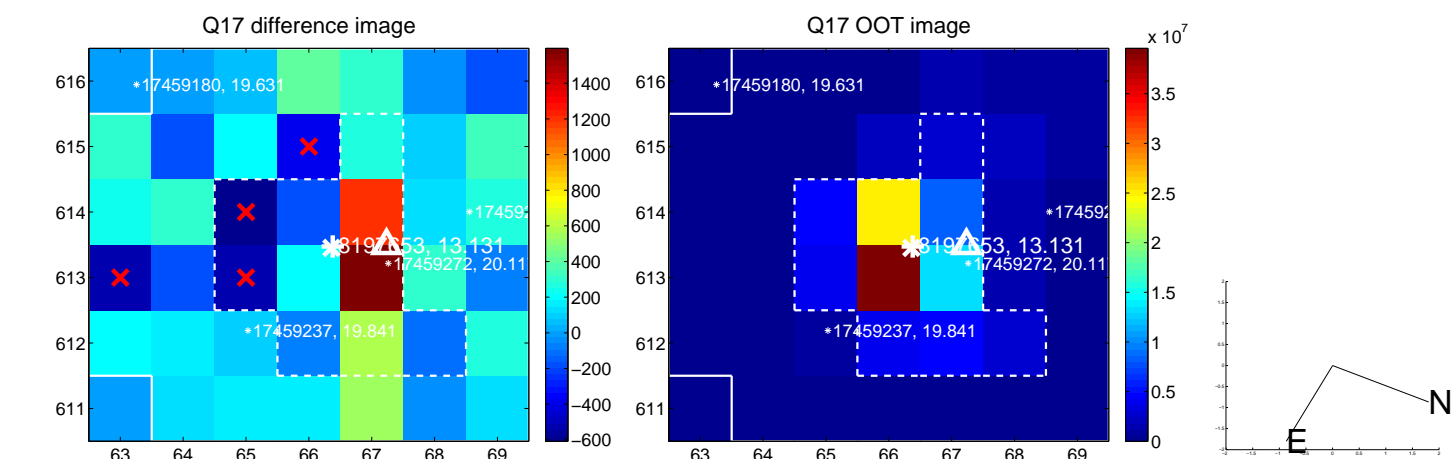
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



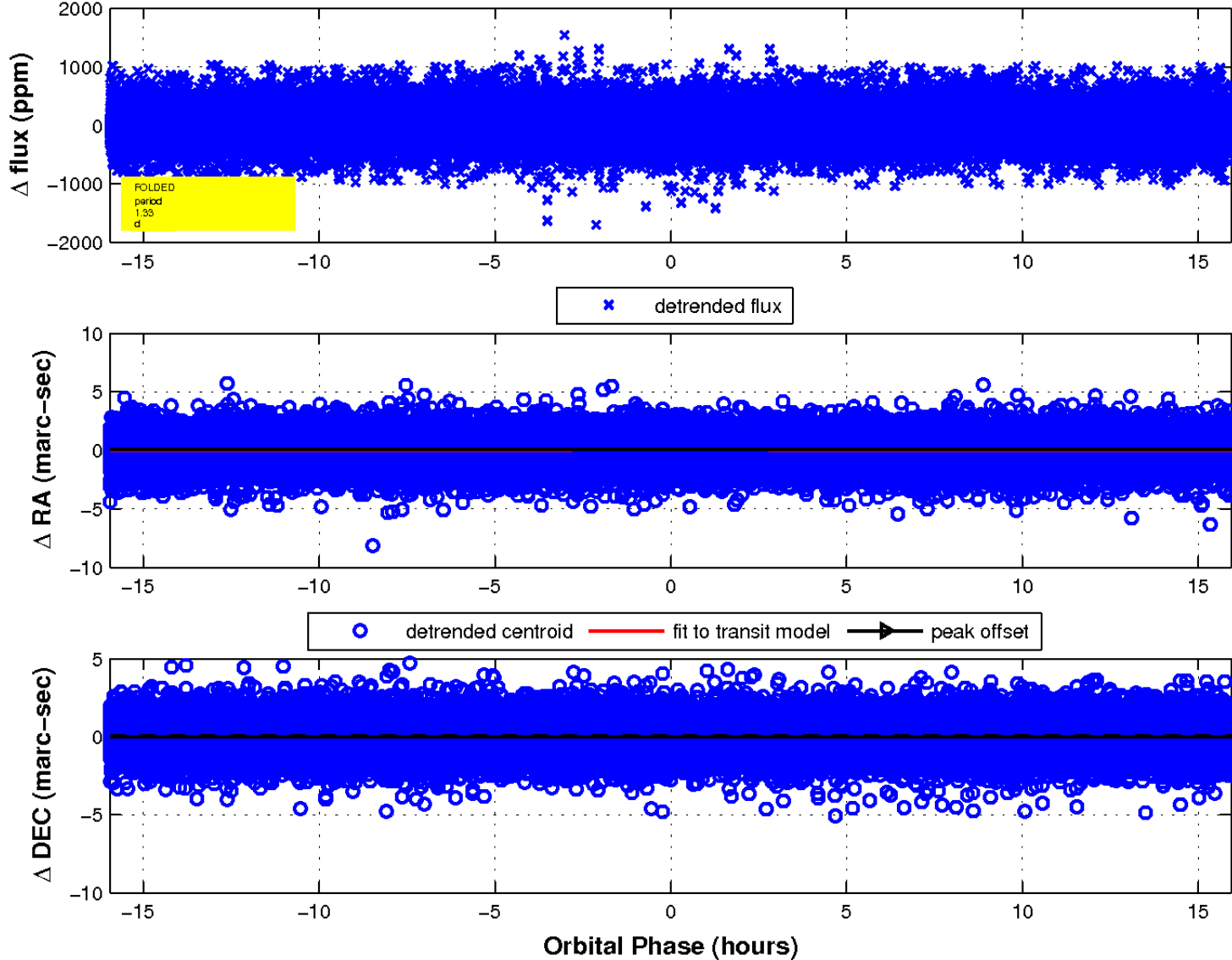
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

