

KIC 008696442

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})
008696442-01	OBS	No	12.362590	137.419839	20.0	29.190	9.3	8.7	0.59	5243	0.31	29.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008696442-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

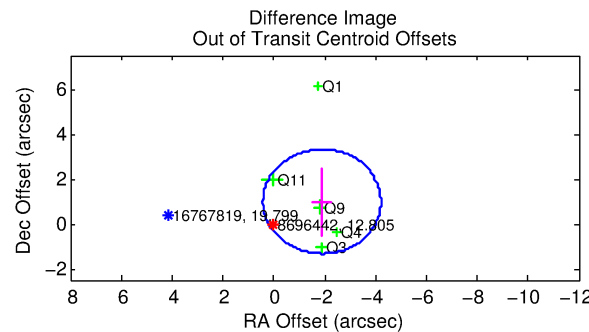
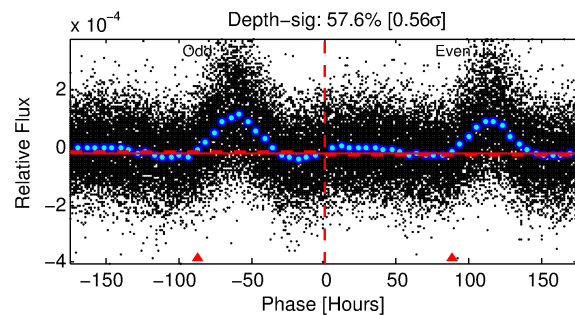
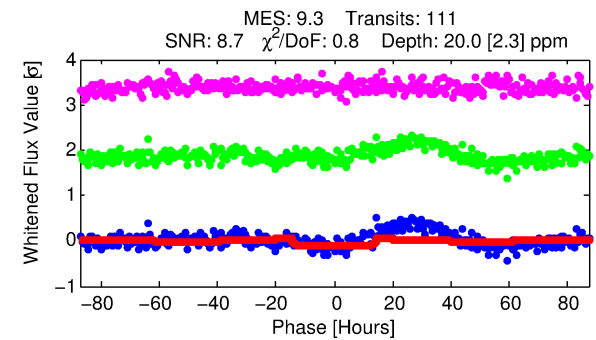
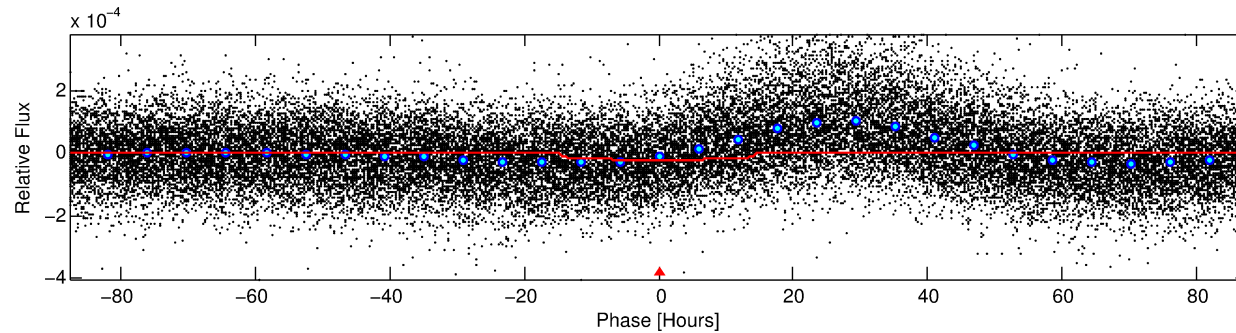
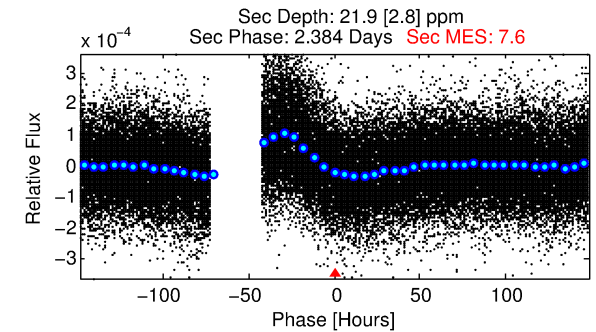
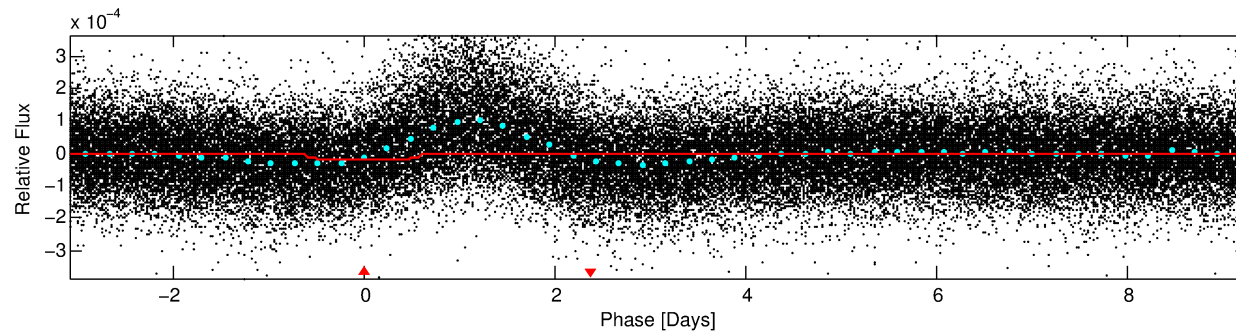
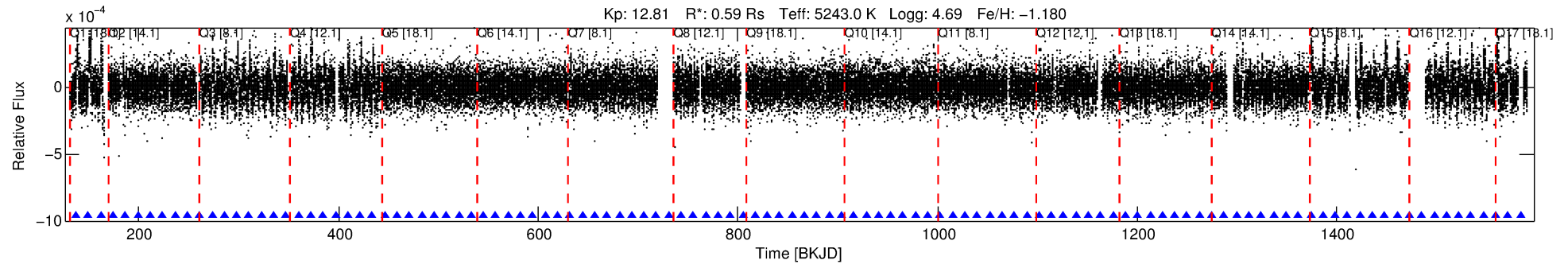
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008696442-01

No Significant Match Found

DV One-Page Summary

KIC: 8696442 Candidate: 1 of 1 Period: 12.363 d



DV Fit Results:

Period = 12.36259 [0.00037] d
Epoch = 137.4198 [0.0235] BKJD
Rp/R* = 0.0047 [0.0005]
a/R* = 1.88 [0.62]
b = 0.87 [0.13]
Seff = 29.70 [5.09]
Teq = 595 [25] K
Rp = 0.31 [0.04] Re
a = 0.0898 [0.0060] AU
Ag = 1033.76 [285.49] [3.62σ]
Teffp = 5219 [388] K [11.89σ]

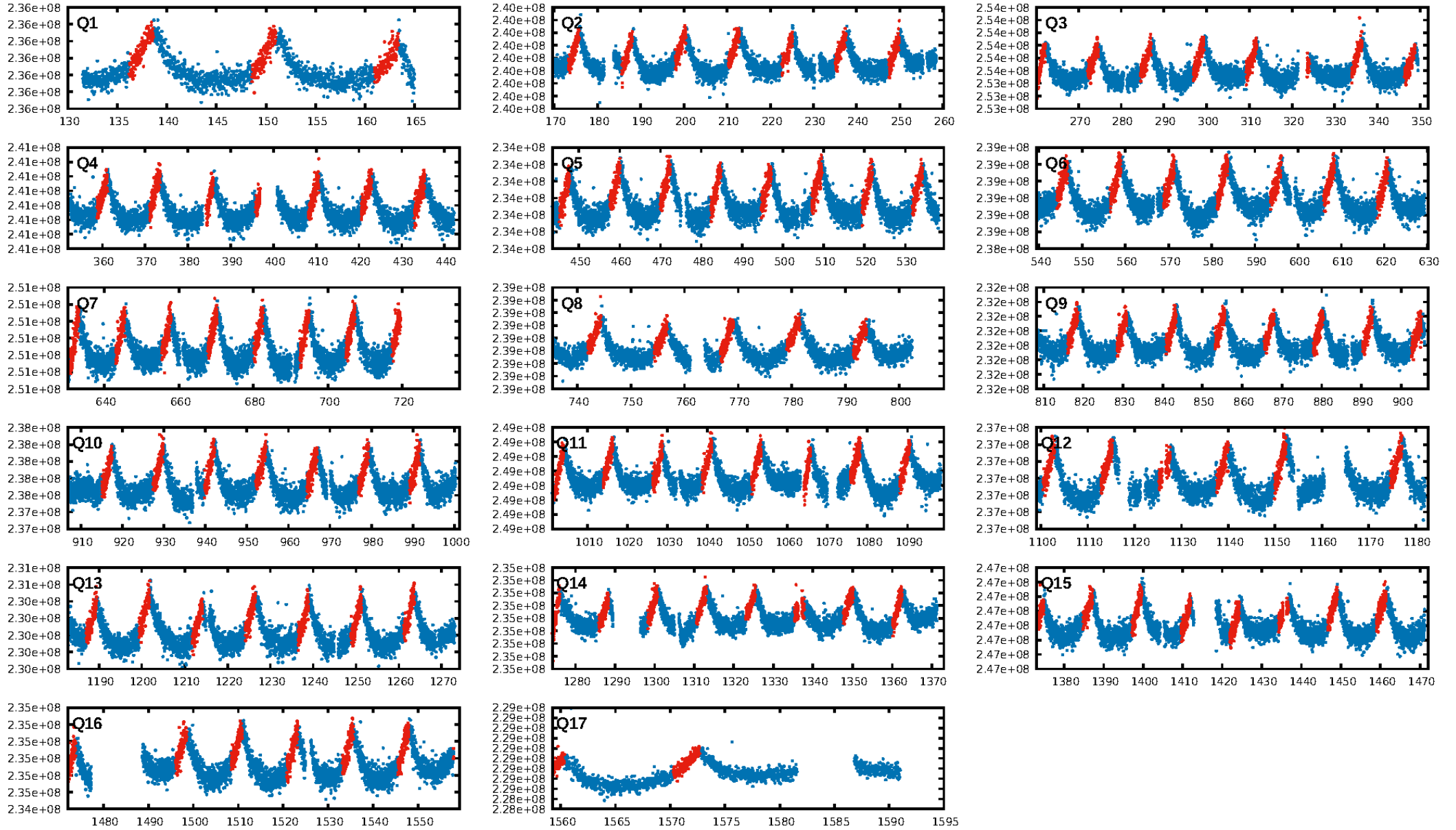
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.01e-20
RollingBand-fgt: 1.00 [106/106]
GhostDiagnostic-chr: 0.8126
Centroid-sig: 54.1%
Centroid-so: 0.799 arcsec [0.85σ]
OotOffset-rm: 2.133 arcsec [2.76σ]
KicOffset-rm: 2.245 arcsec [2.69σ]
OotOffset-st: 0/2/1/2 [5]
KicOffset-st: 0/2/1/2 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 1.00 [17/17]

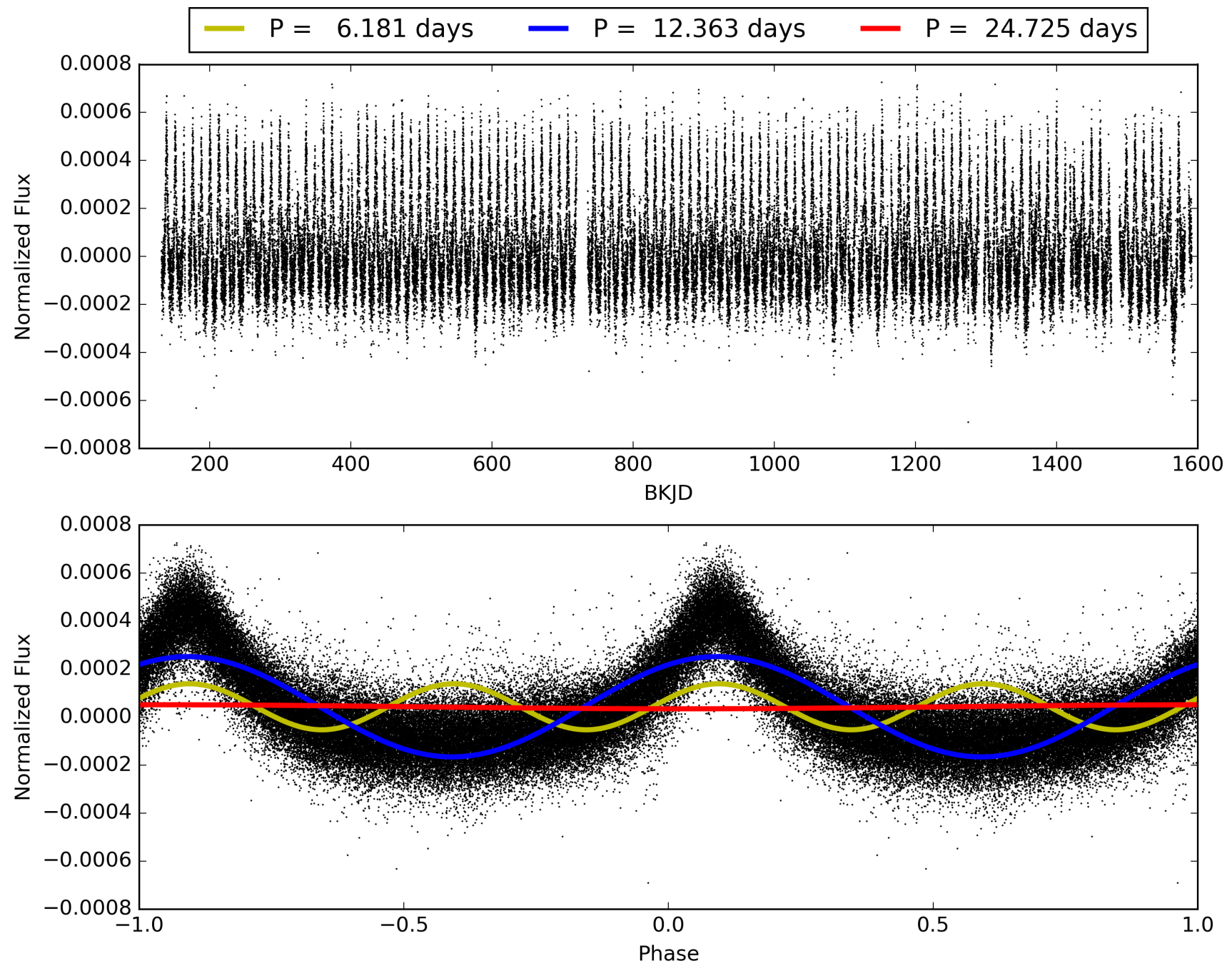
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:10:15 Z

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

TCE 008696442-01, PDC Light Curves

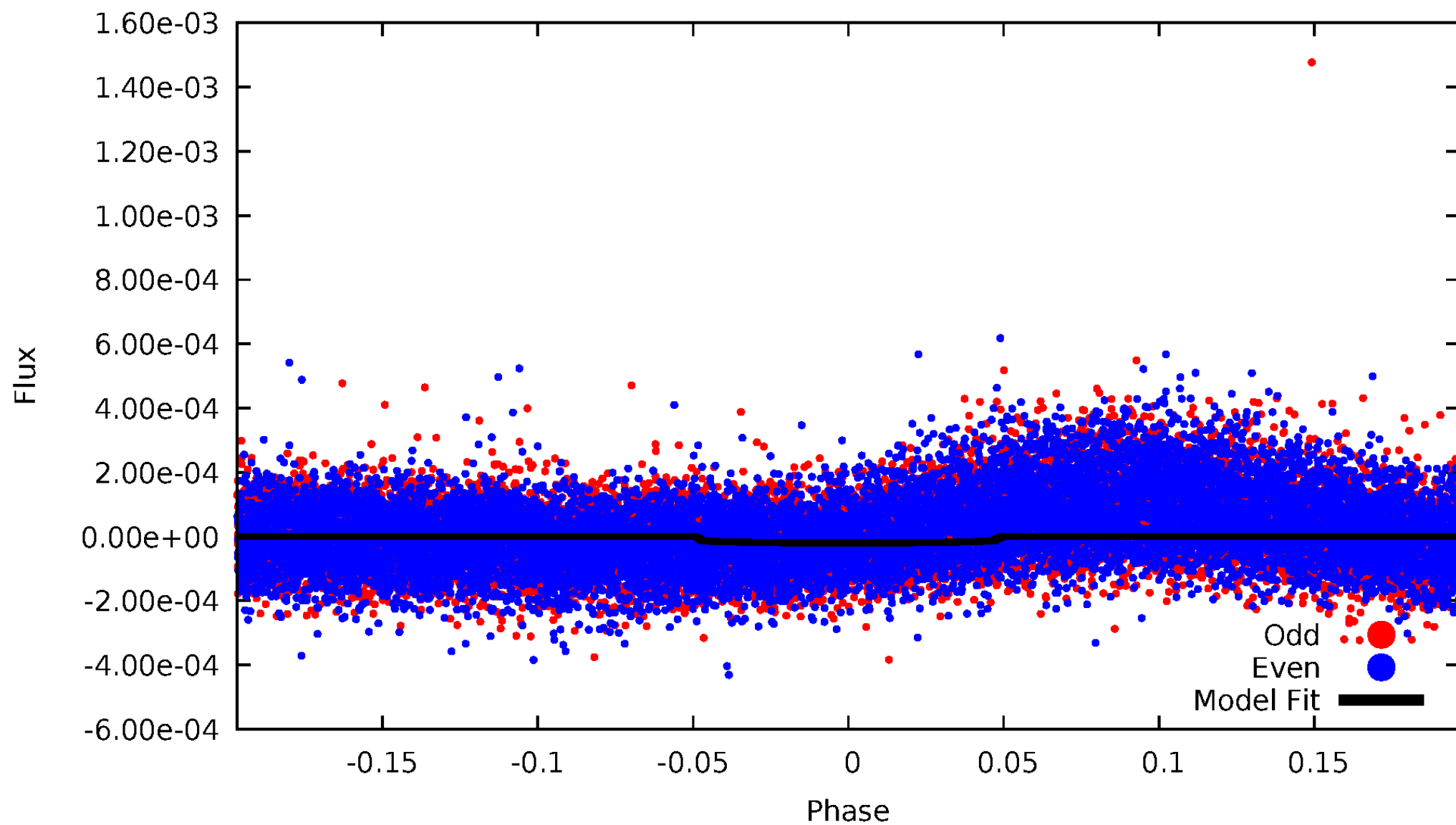


TCE 008696442-01



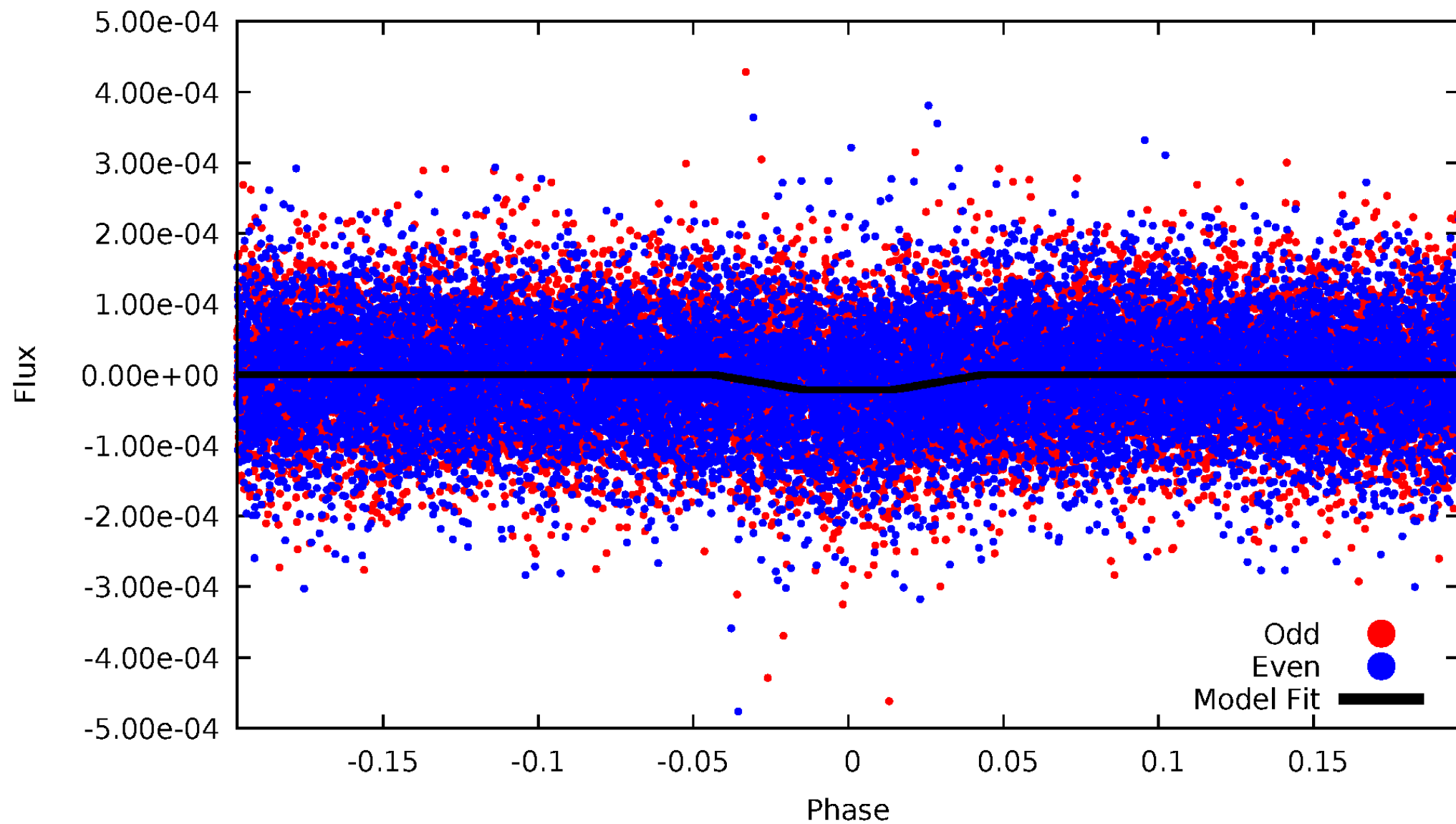
DV Odd/Even

TCE 008696442-01



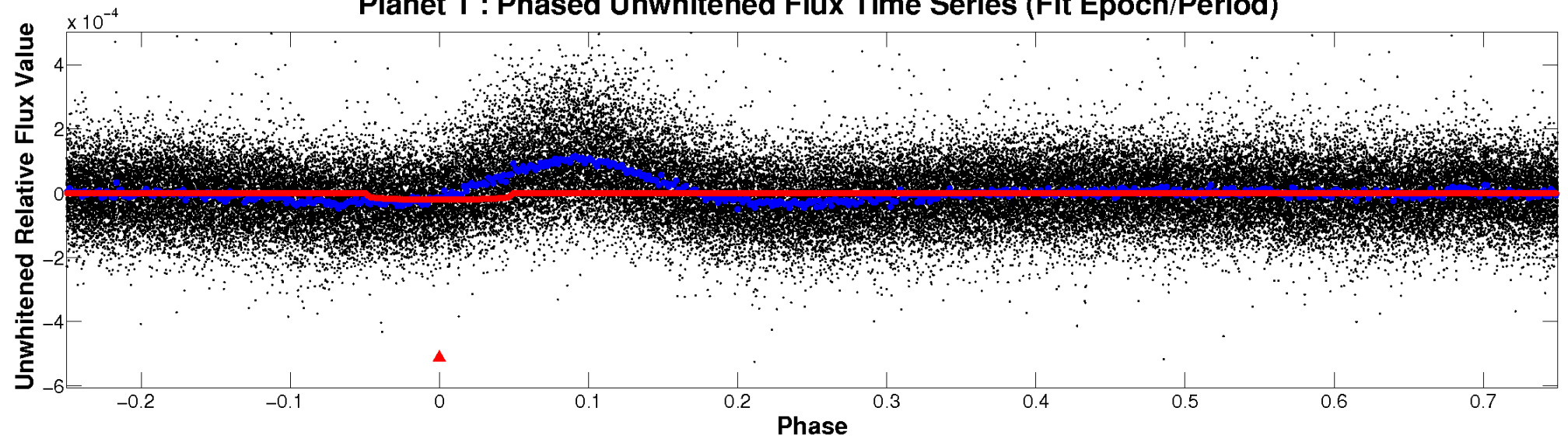
ALT Odd/Even

TCE 008696442-01

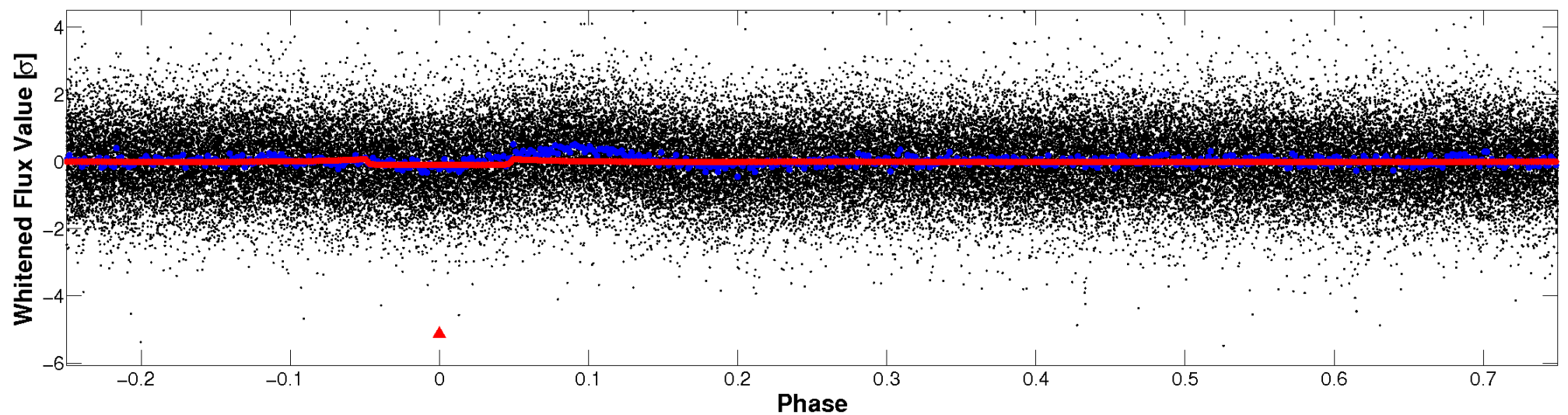


Non-Whitened Vs. Whitened Light Curve

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

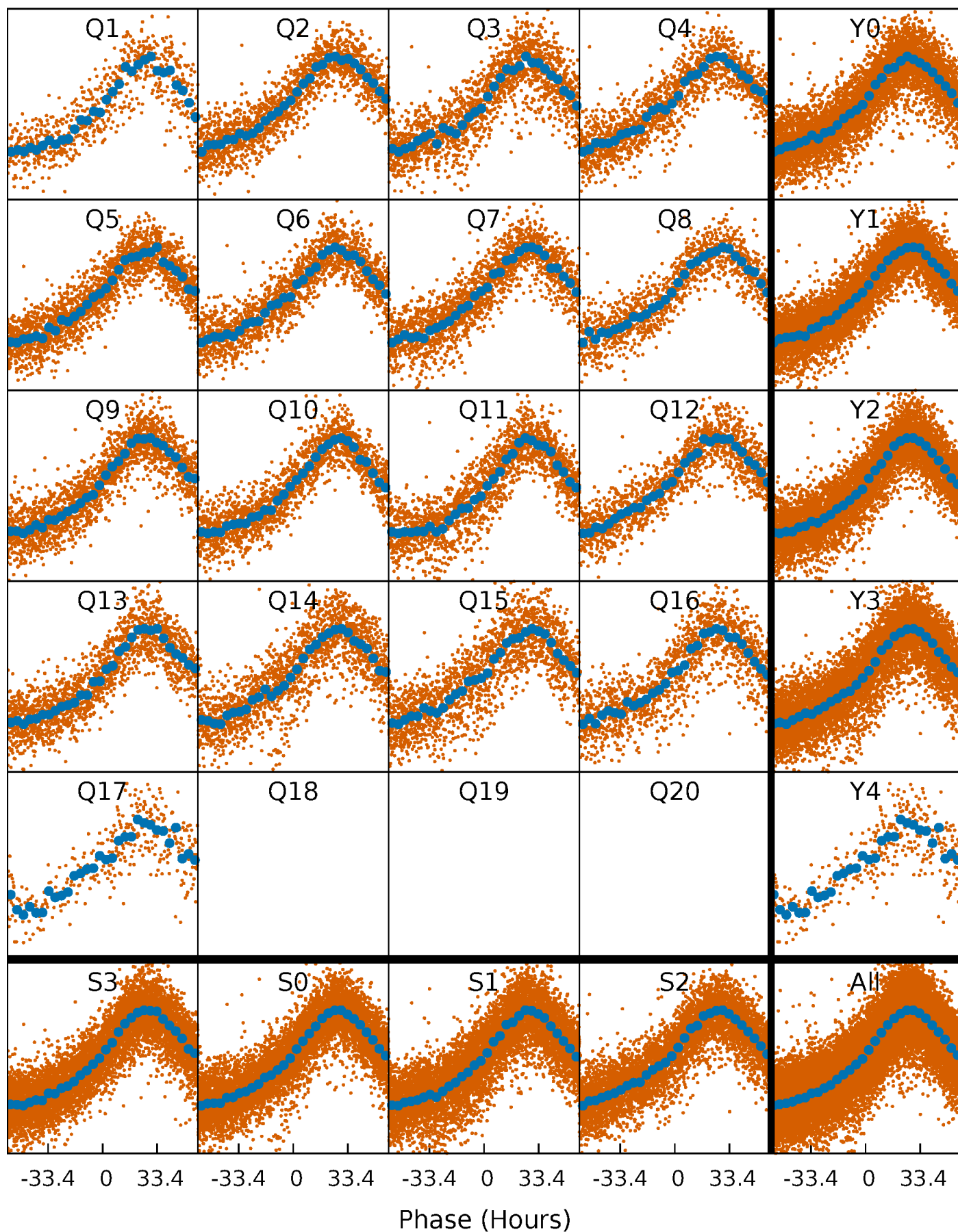


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



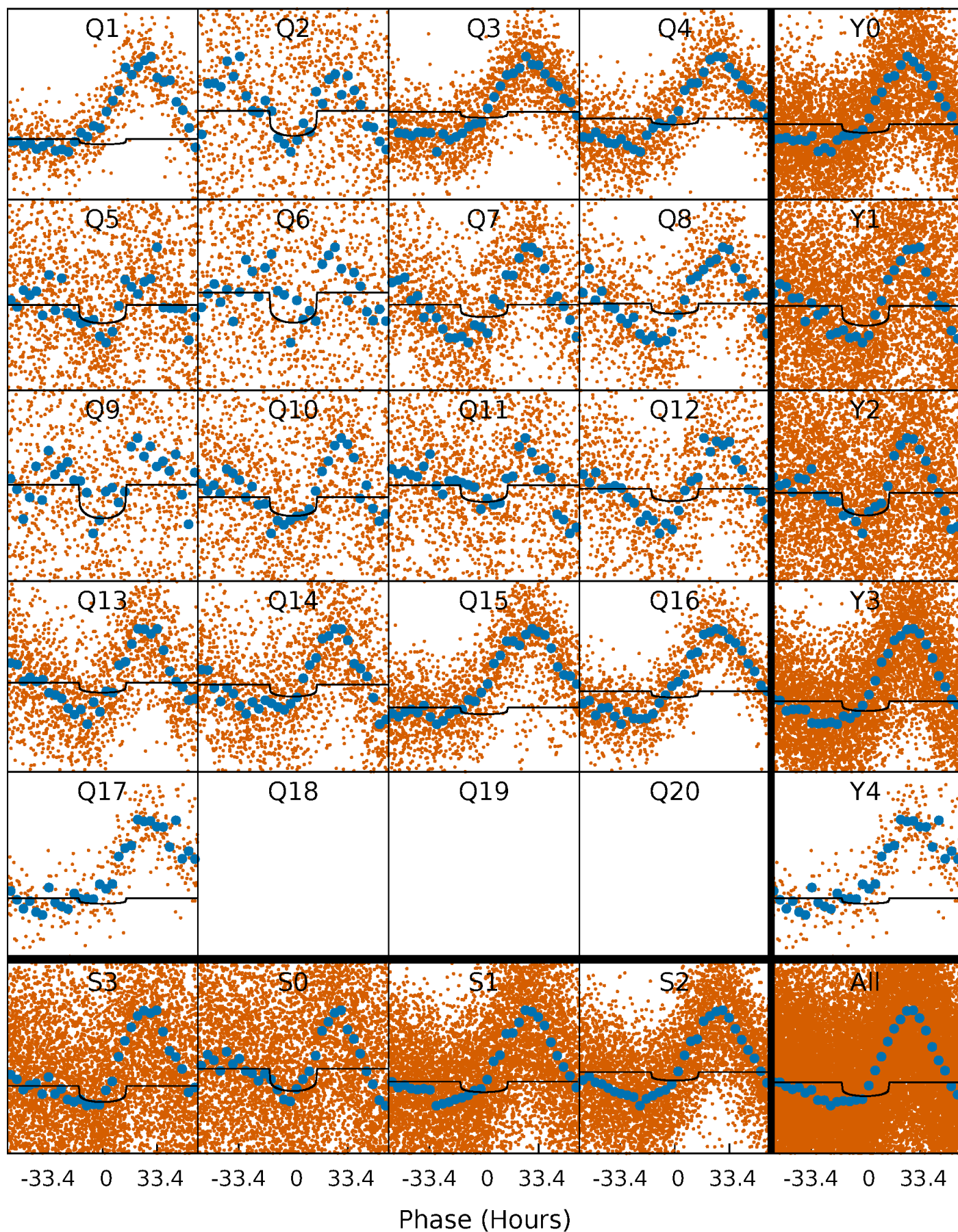
PDC Quarter-Phased Transit Curves

TCE 008696442-01 P= 12.362590 Days $T_0=137.419839$ (BKJD)



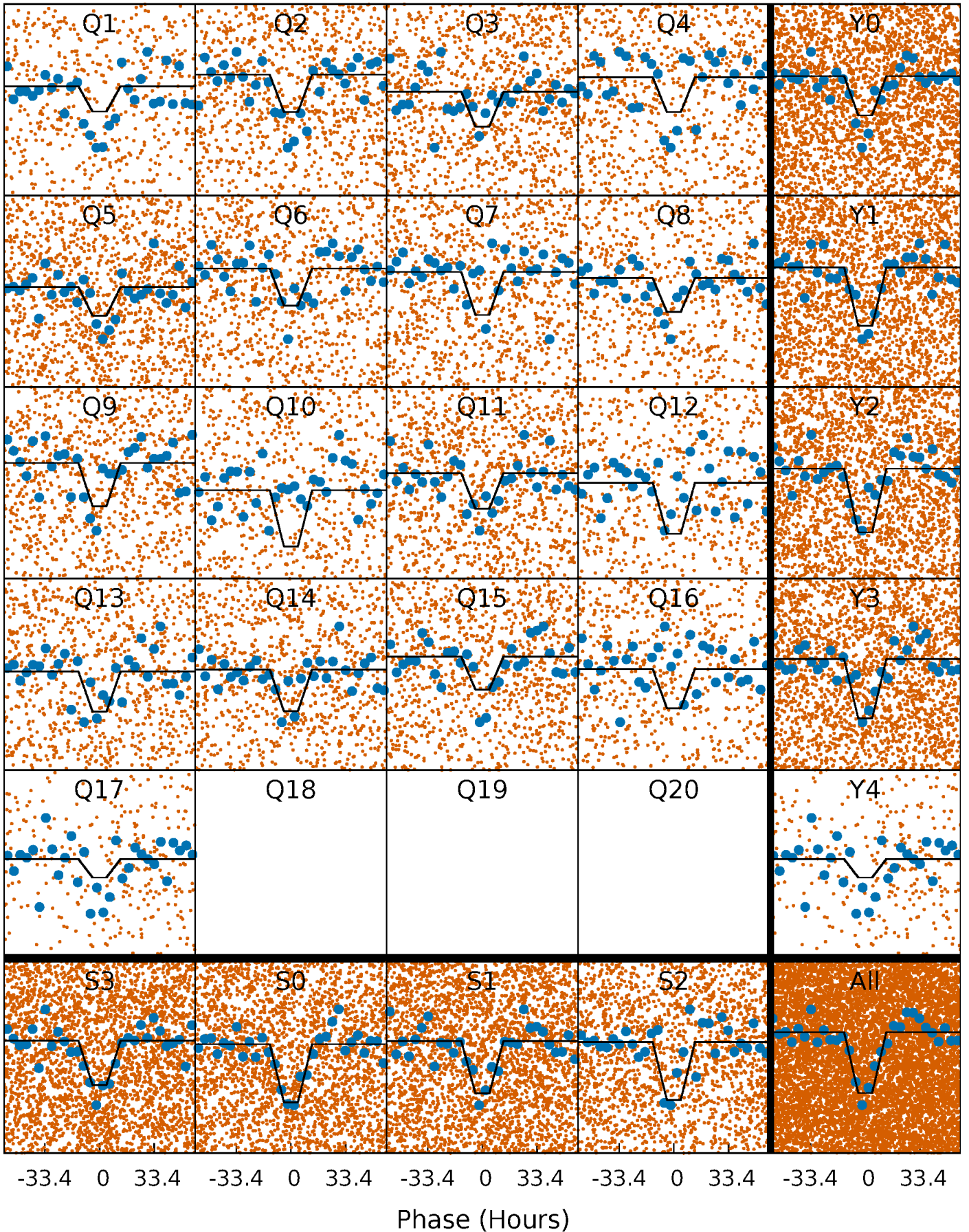
DV Quarter-Phased Transit Curves

TCE 008696442-01 P= 12.362590 Days $T_0=137.419839$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

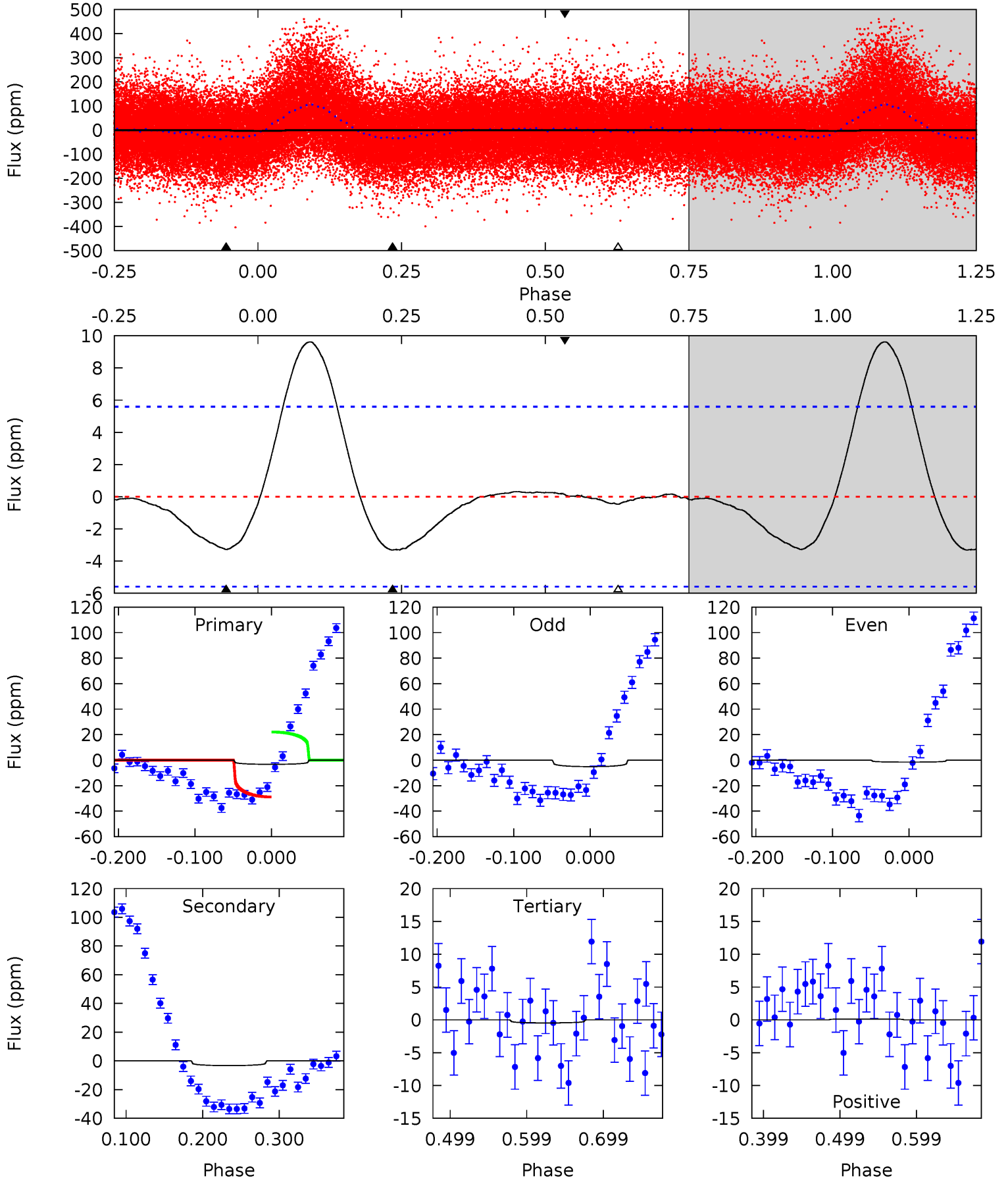
TCE 008696442-01 P= 12.362175 Days $T_0=137.421778$ (BKJD)



DV Model-Shift Uniqueness Test

008696442-01, P = 12.362590 Days, E = 125.057249 Days

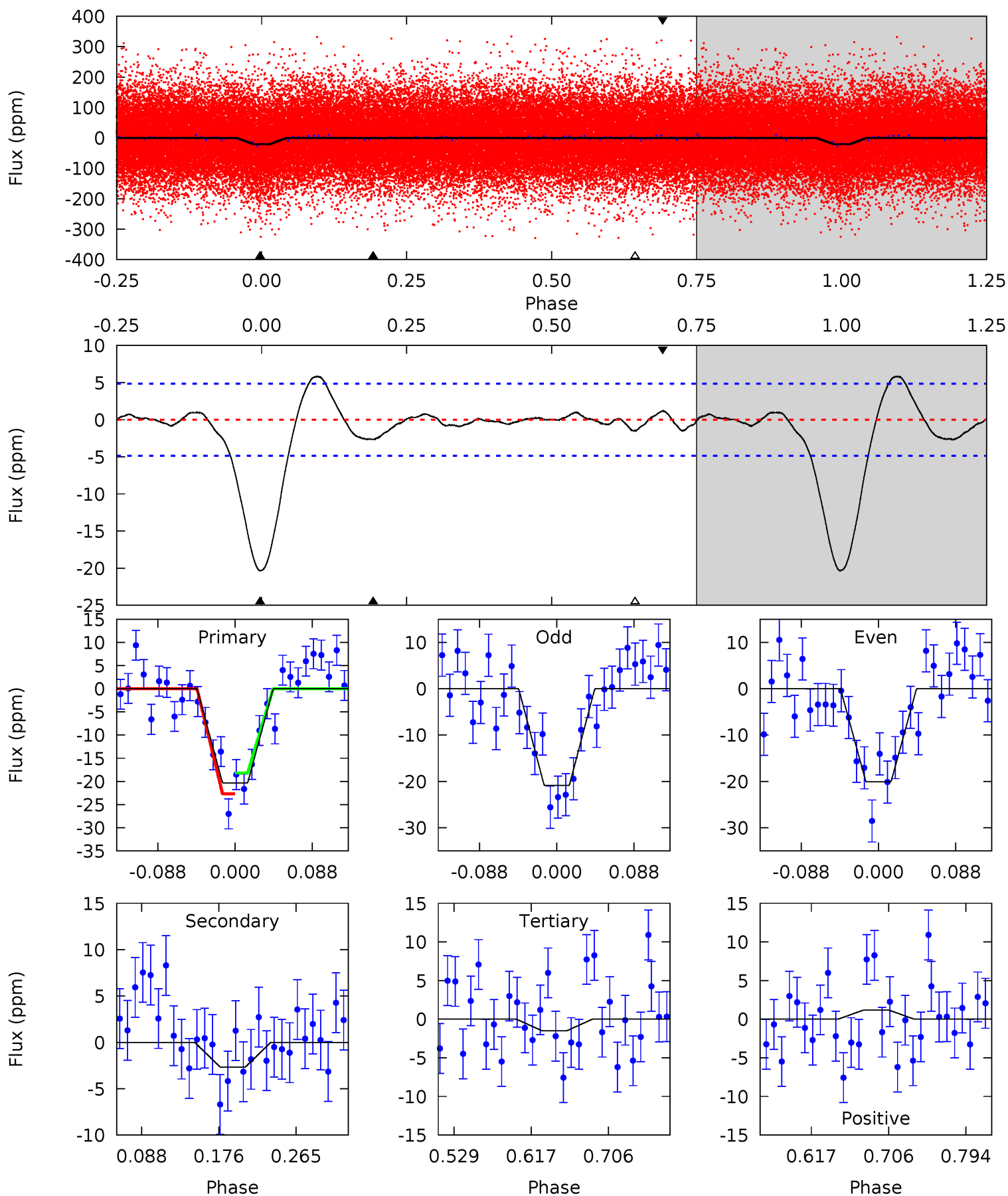
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.68	2.71	0.38	0.11	4.57	1.65	2.49	2.29	2.56	2.33	2.60	1.45	0.26	0.74	3.03



Alt Model-Shift Uniqueness Test

008696442-01, P = 12.362175 Days, E = 125.059603 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	2.52	1.40	1.12	4.59	1.70	1.07	17.8	18.1	1.12	1.40	0.37	1.29	0.22	2.15



Stellar Parameters For KIC 008696442

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5243^{+189}_{-189}	$4.690^{+0.036}_{-0.048}$	$-1.180^{+0.300}_{-0.300}$	$0.595^{+0.050}_{-0.033}$	$0.631^{+0.044}_{-0.031}$	$4.227^{+0.583}_{-0.745}$
	+4%/-4%	+1%/-1%	+25%/-25%	+8%/-6%	+7%/-5%	+14%/-18%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008696442-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3 ± 1	$0.31^{+0.03}_{-0.04}$	833^{+33}_{-31}	3641^{+265}_{-276}	155^{+71}_{-58}
Alt.	-3 ± 1	$0.30^{+0.04}_{-0.04}$	835^{+35}_{-35}	3540^{+288}_{-286}	131^{+67}_{-53}

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

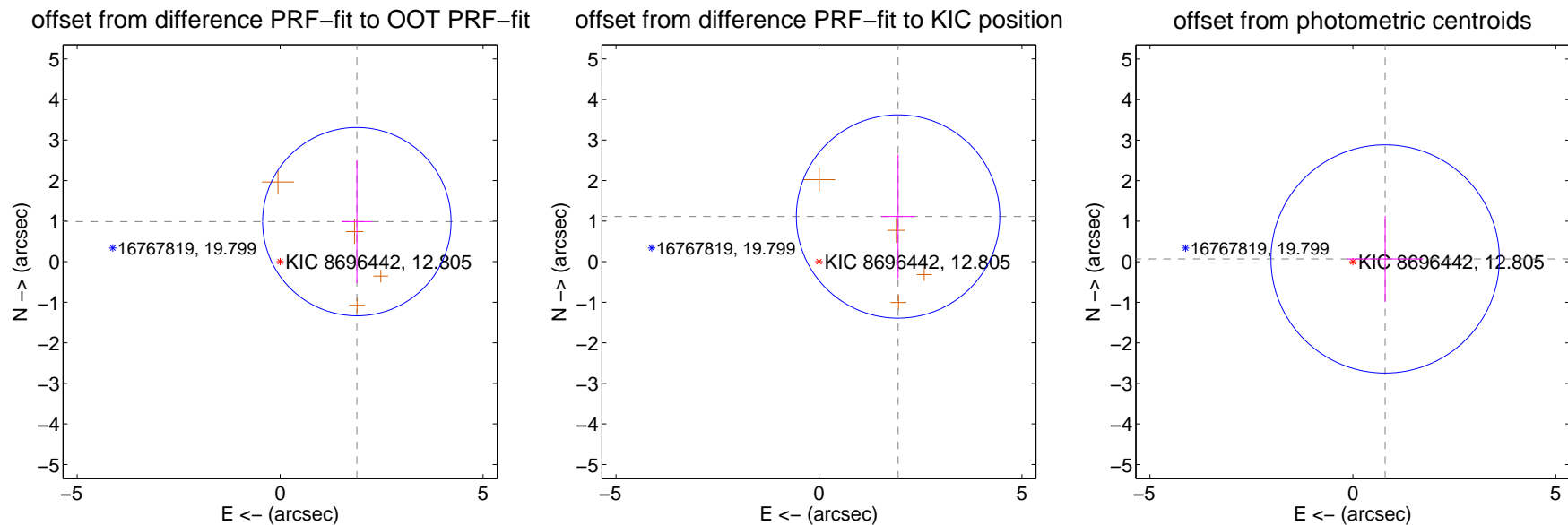
DV Centroid Data

Supplemental centroid analysis for 008696442-01. Kepler magnitude: 12.80. Transit SNR 8.65

There are 0 quarters with good PRF difference image offsets

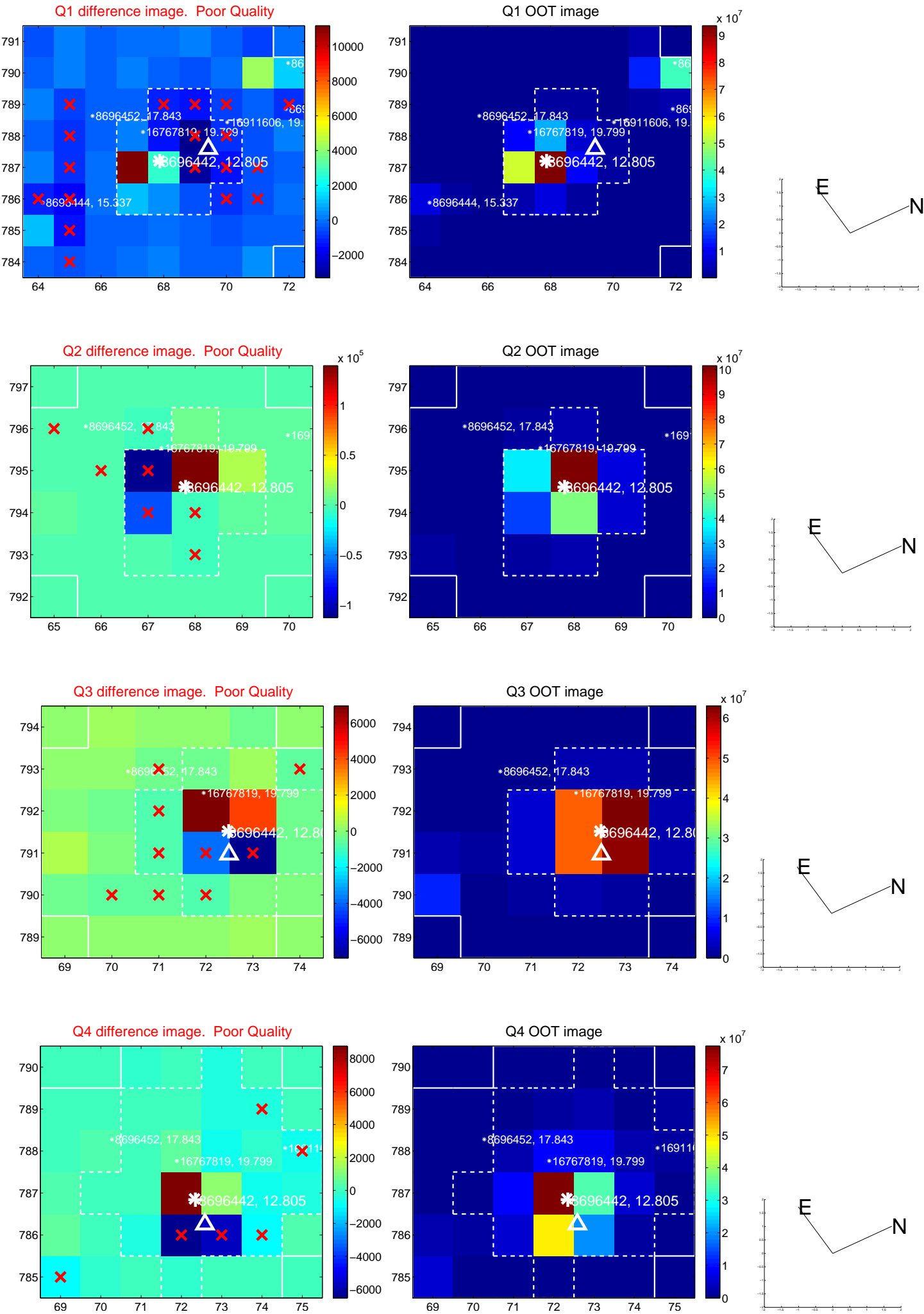
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.133 ± 0.774	2.76	-1.891 ± 0.372	0.988 ± 1.512
PRF-fit source offset from KIC position	2.245 ± 0.835	2.69	-1.948 ± 0.405	1.114 ± 1.526
photometric centroid source offset	0.80 ± 0.94	0.85	-0.80 ± 0.94	0.07 ± 1.06

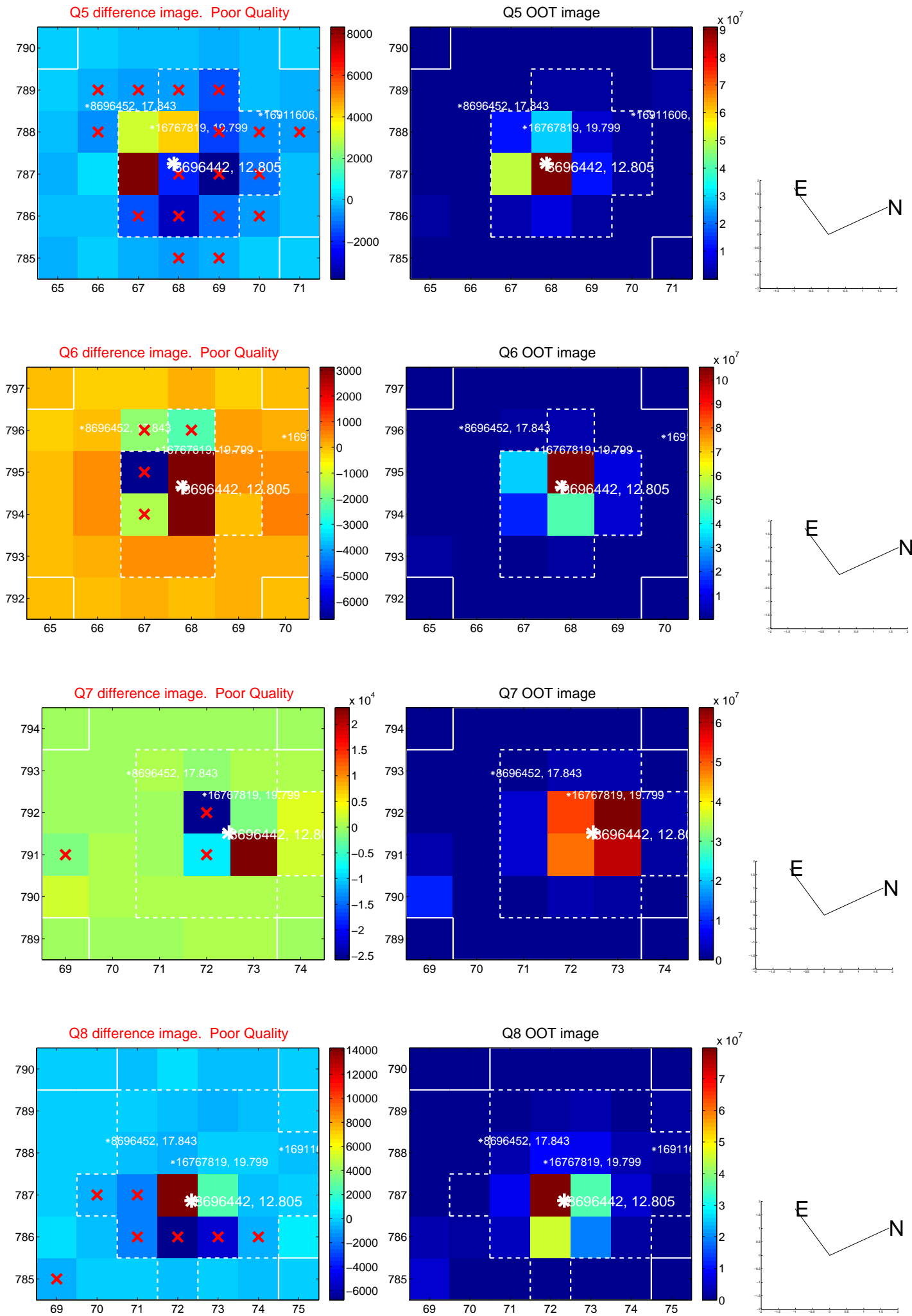


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

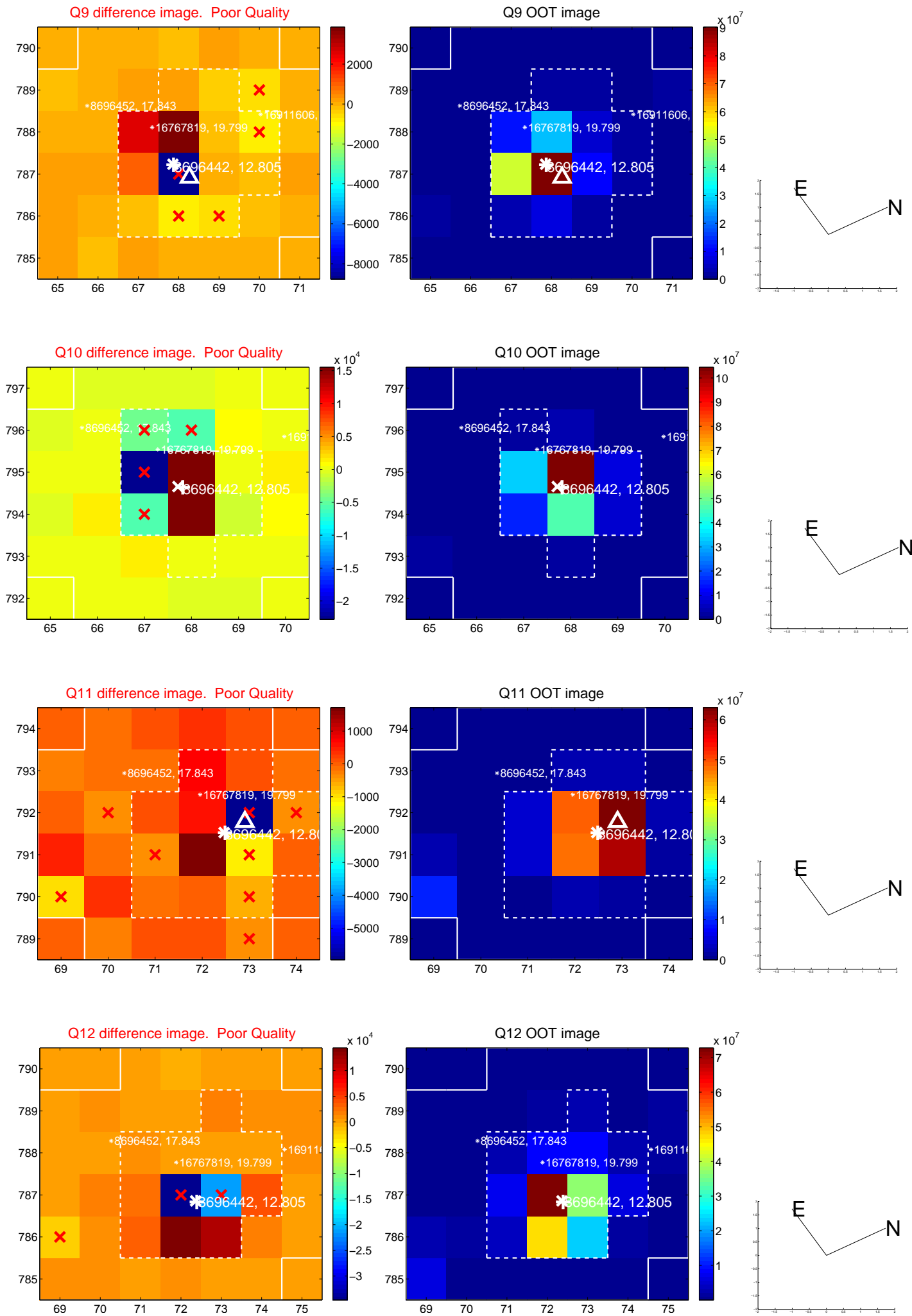
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



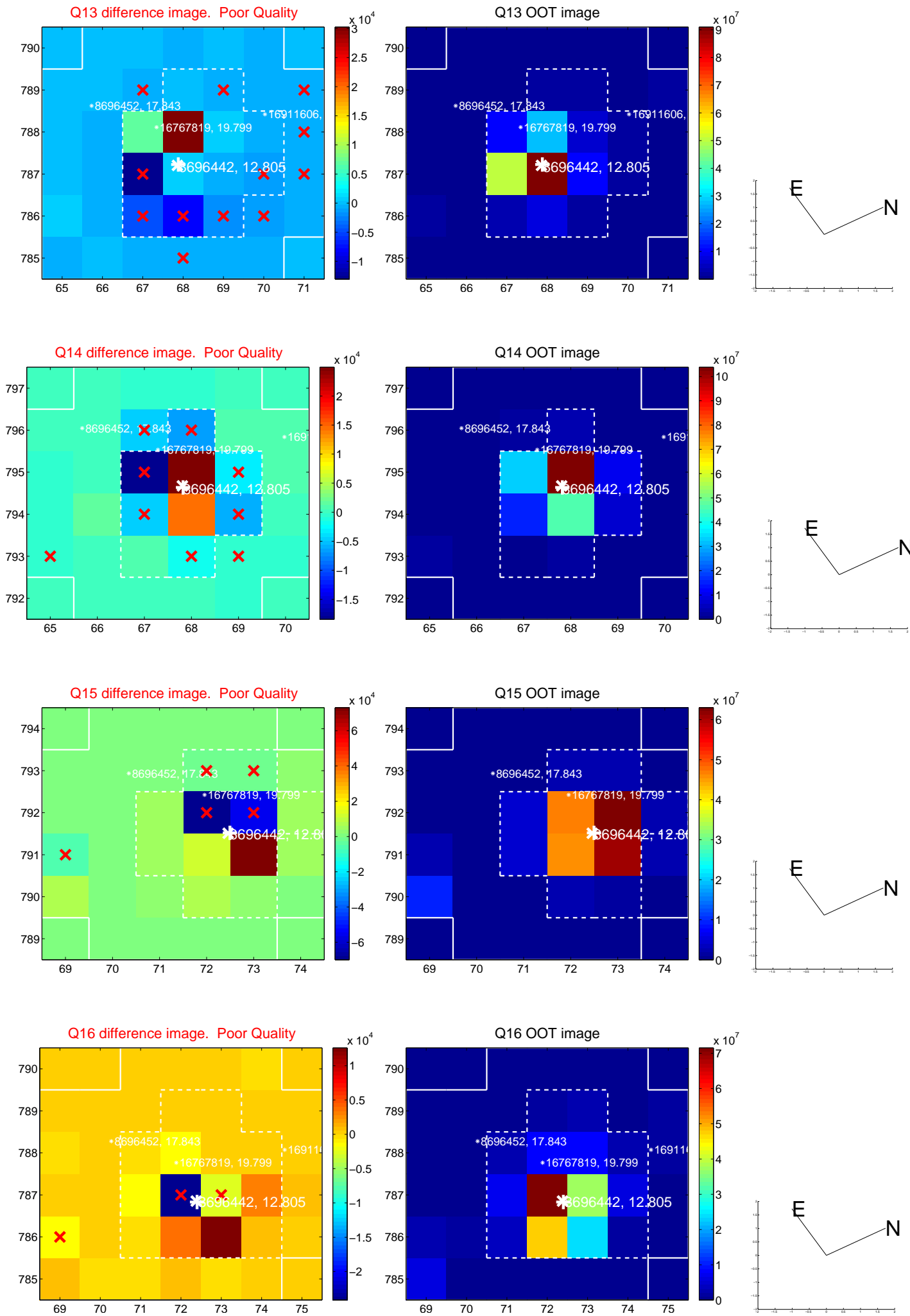
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



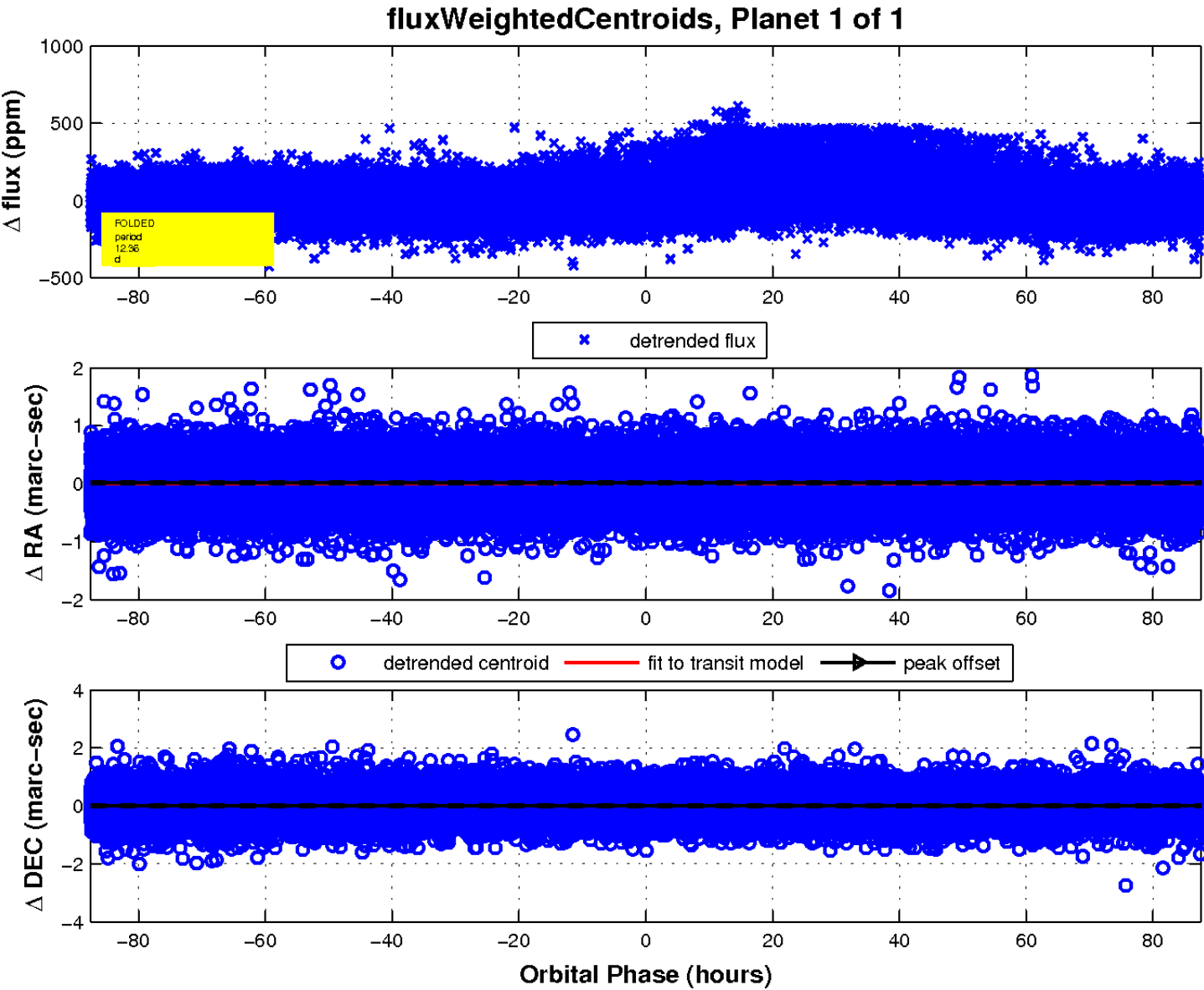
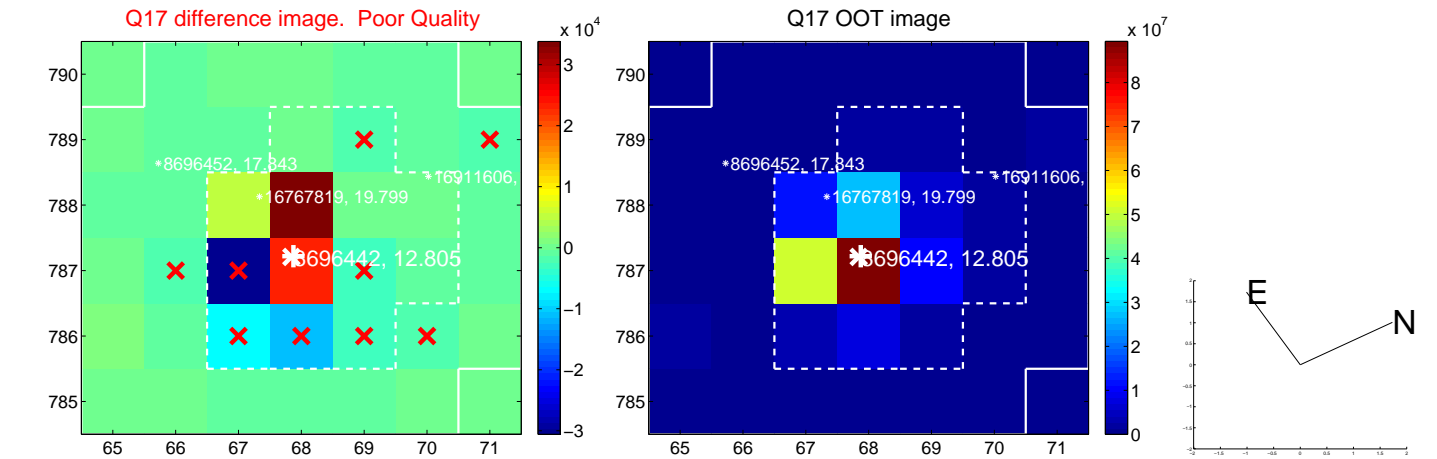
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

