

KIC 008747735

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})
008747735-01	OBS	No	0.829434	132.258265	2.6	7.925	9.0	1.7	2.01	7046	0.33	20821.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008747735-01	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.

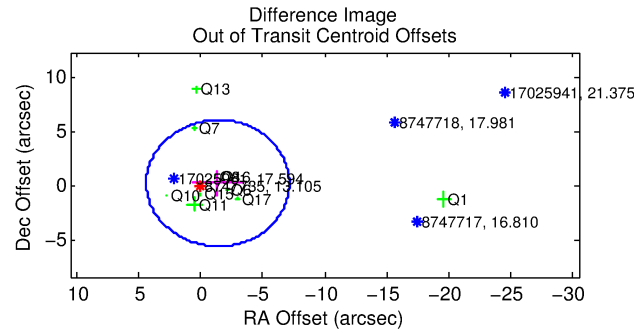
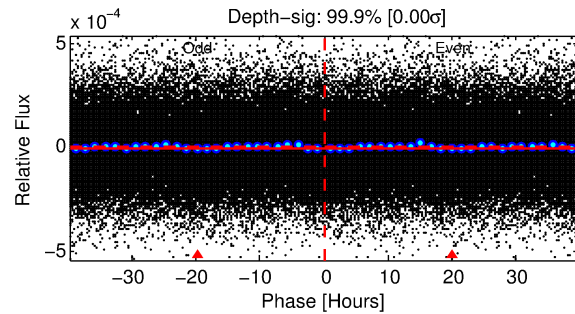
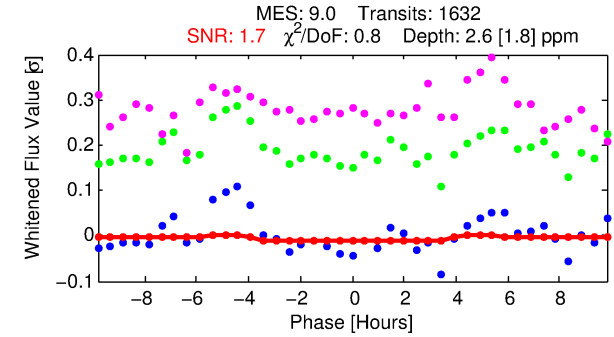
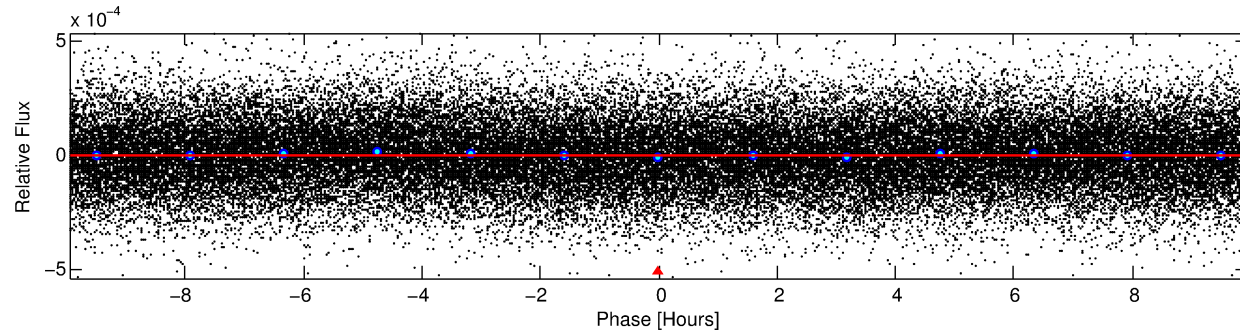
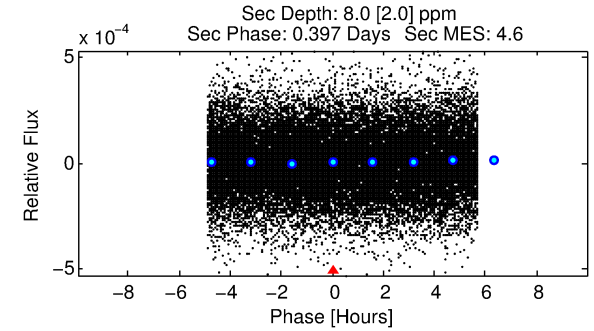
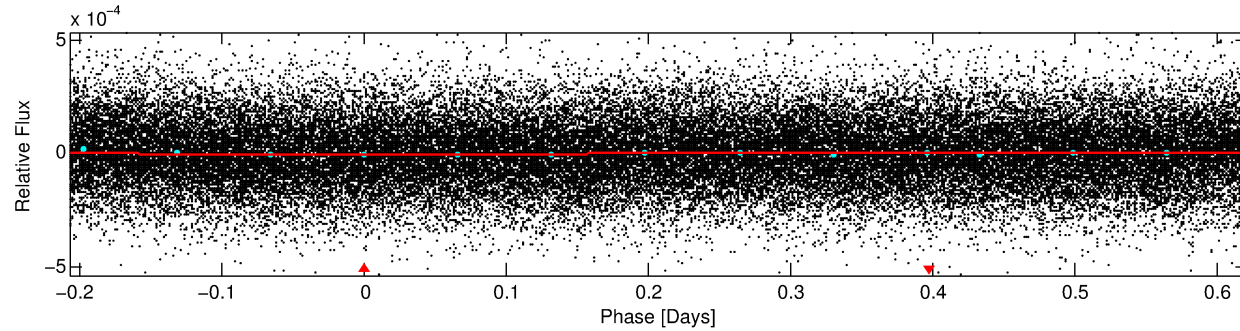
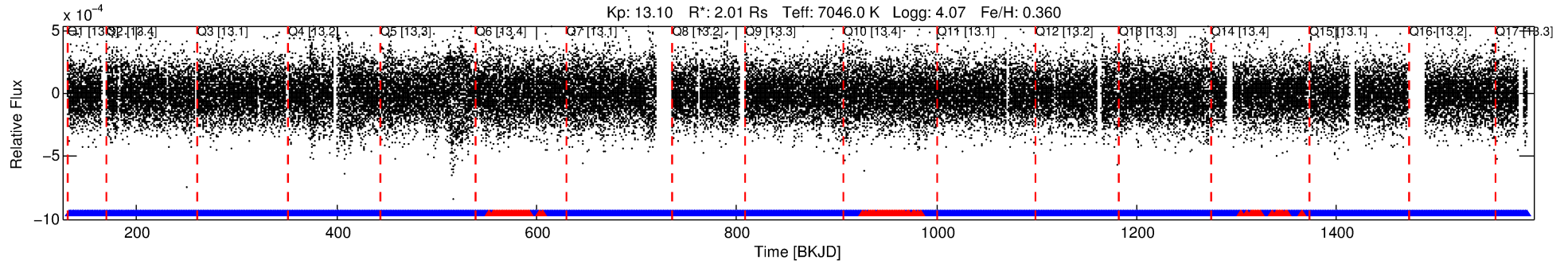
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008747735-01

No Significant Match Found

DV One-Page Summary

KIC: 8747735 Candidate: 1 of 1 Period: 0.829 d



DV Fit Results:

Period = 0.82943 [0.00009] d
Epoch = 132.2583 [0.0289] BKJD
Rp/R* = 0.0015 [0.0065]
a/R* = 1.05 [2.66]
b = 0.10 [251.29]
Seff = 20821.38 [7857.81]
Teff = 3063 [289] K
Rp = 0.33 [1.42] Re
a = 0.0207 [0.0048] AU
Ag = 17.80 [155.60] [0.11σ]
Teffp = 9727 [21248] K [0.31σ]

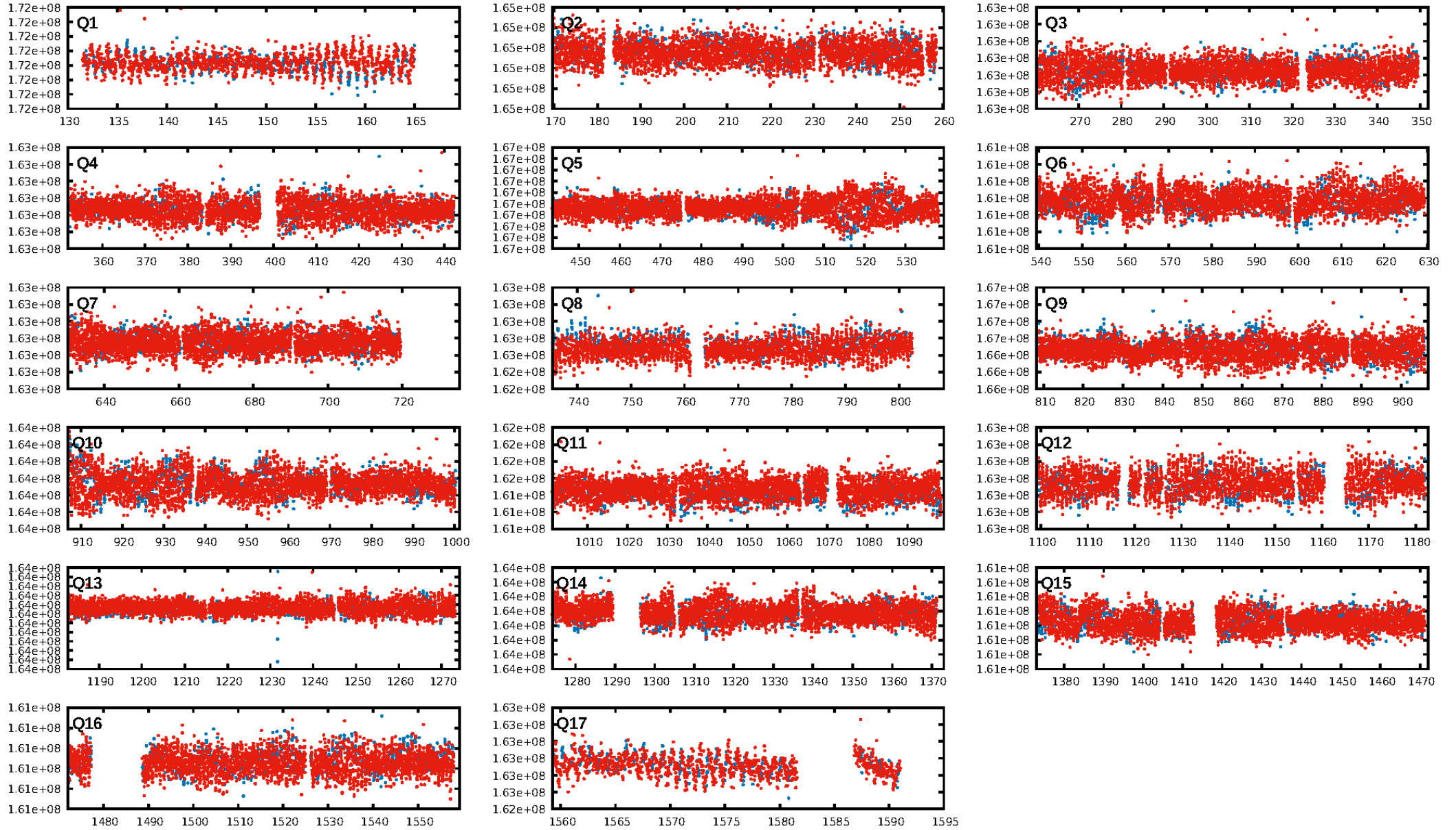
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [1438/1559]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.425 arcsec [0.74σ]
KicOffset-rm: 1.359 arcsec [0.79σ]
OotOffset-st: 2/3/2/3 [10]
KicOffset-st: 2/3/2/3 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 1.00 [17/17]

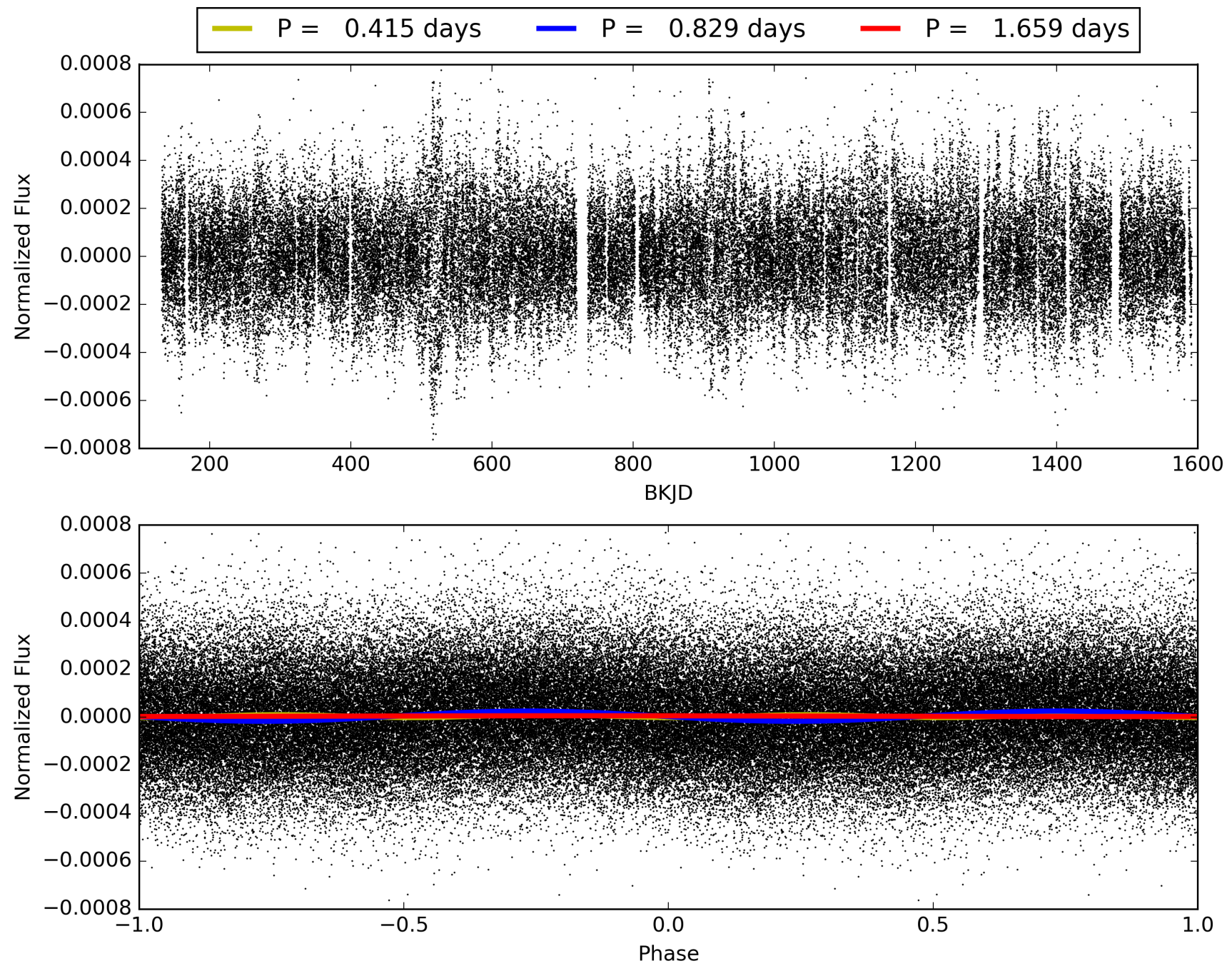
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:16:18 Z

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

TCE 008747735-01, PDC Light Curves

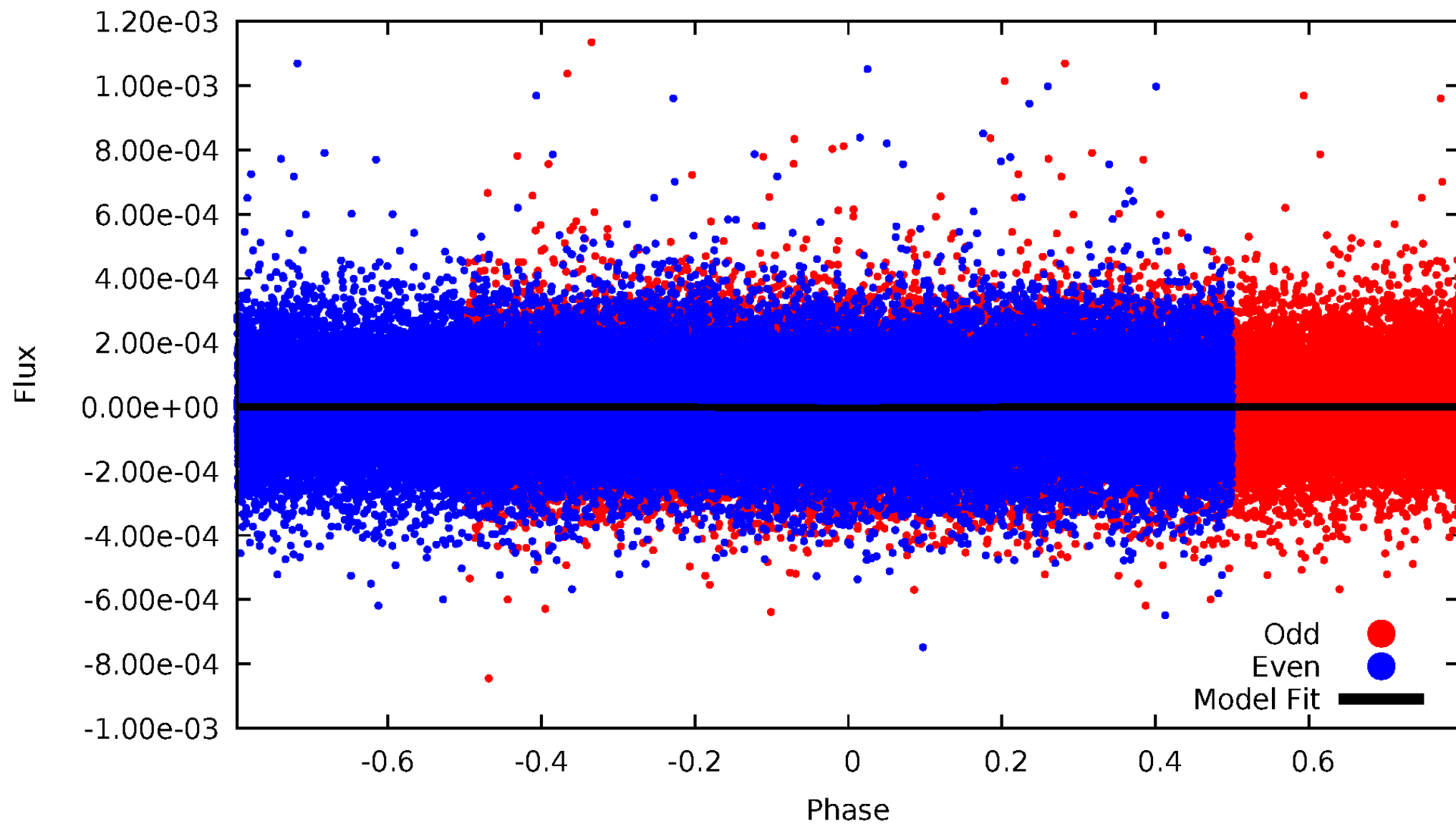


TCE 008747735-01



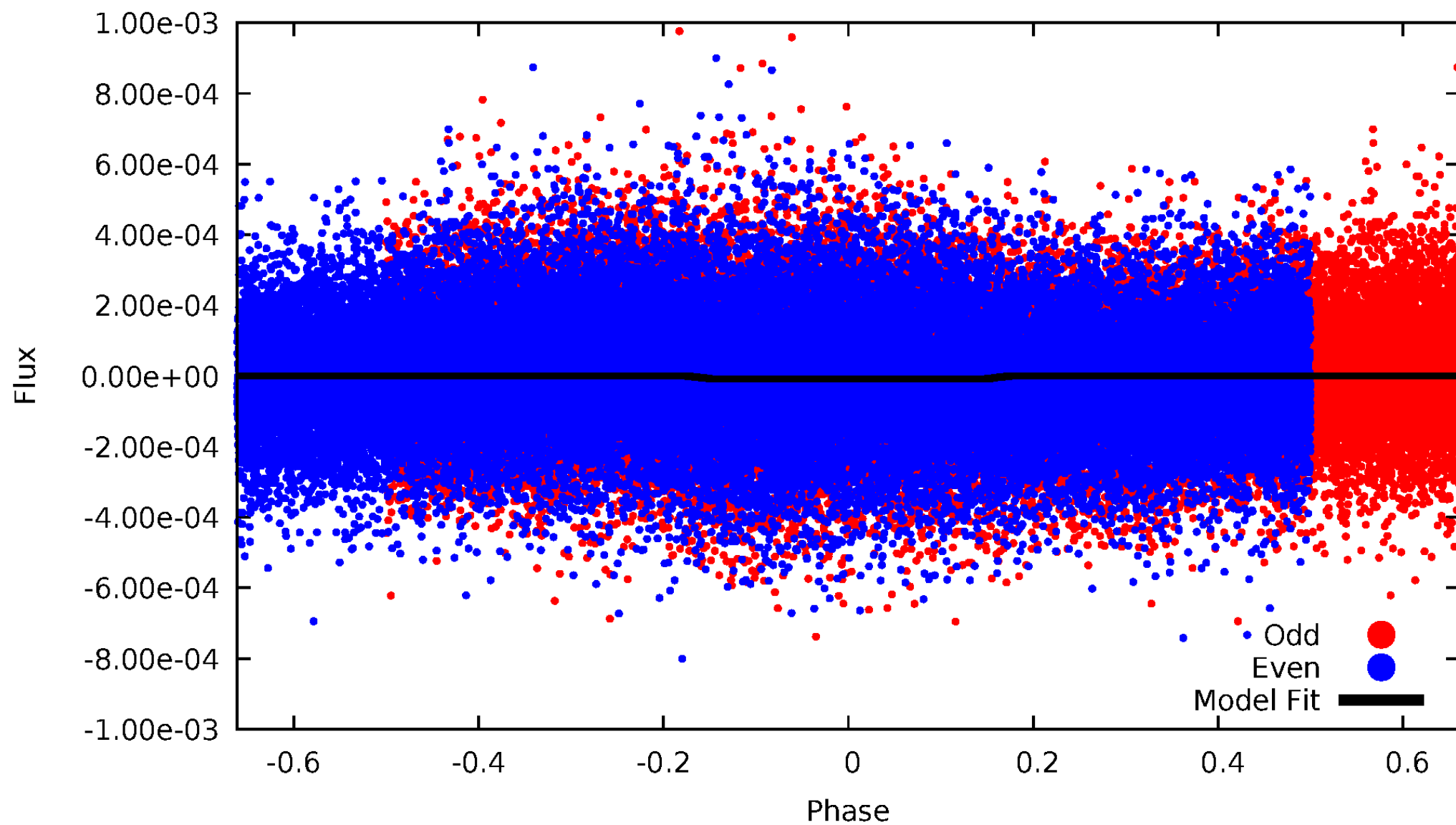
DV Odd/Even

TCE 008747735-01



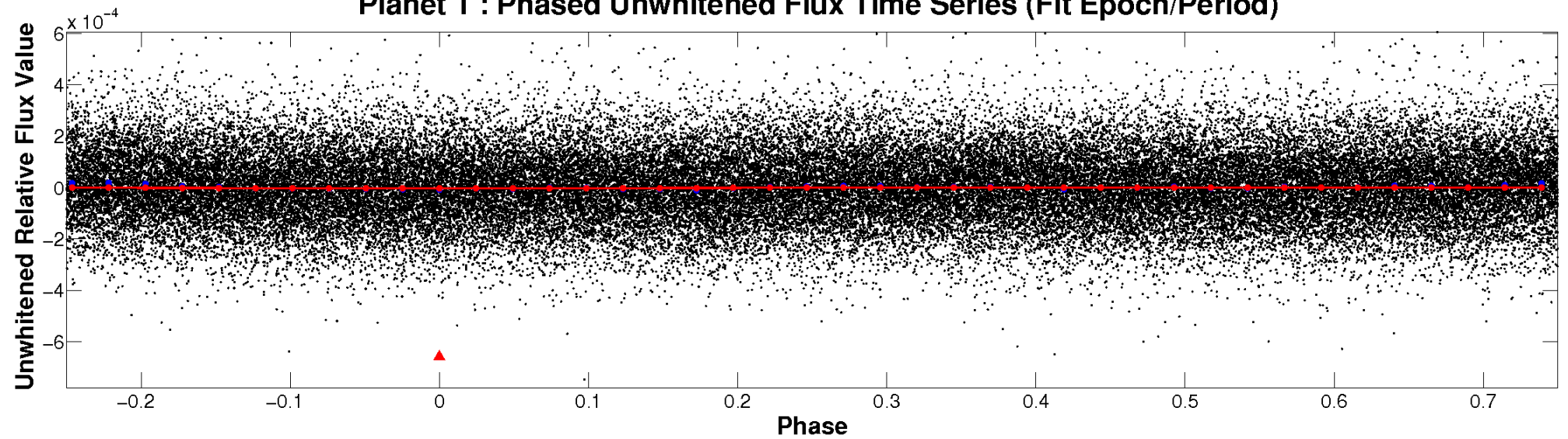
ALT Odd/Even

TCE 008747735-01

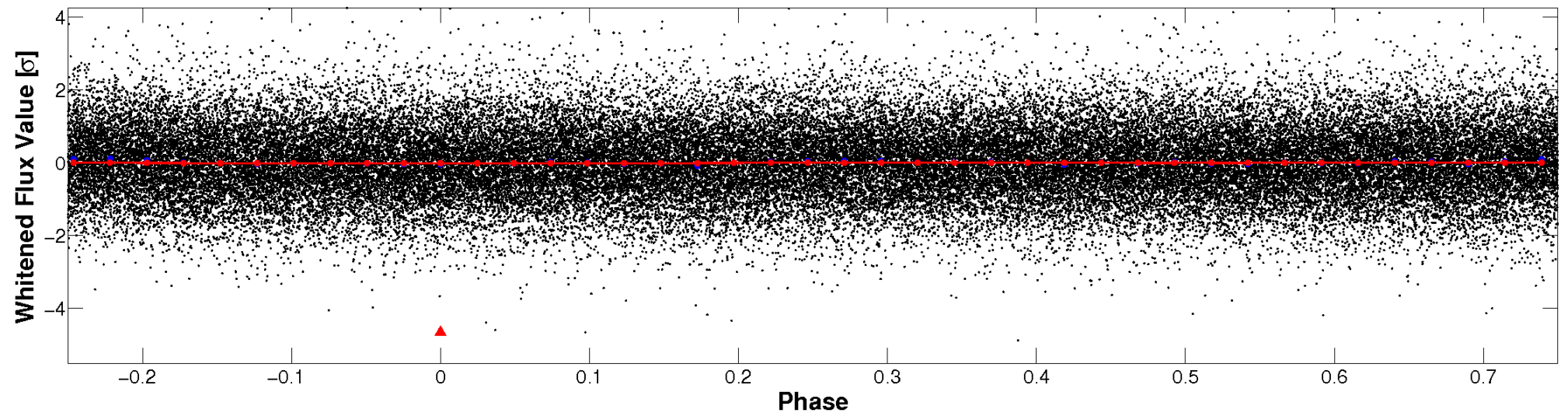


Non-Whitened Vs. Whitened Light Curve

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

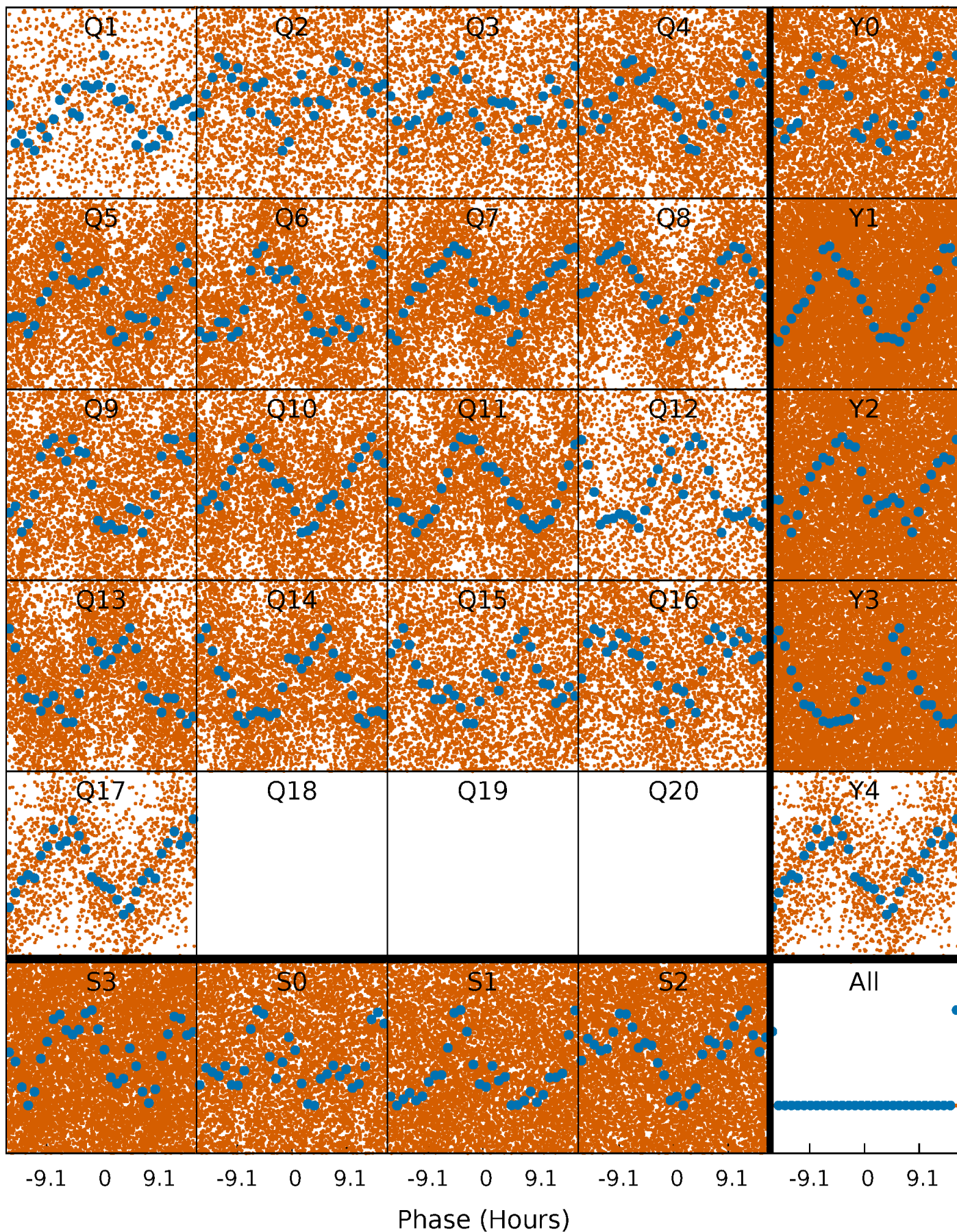


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



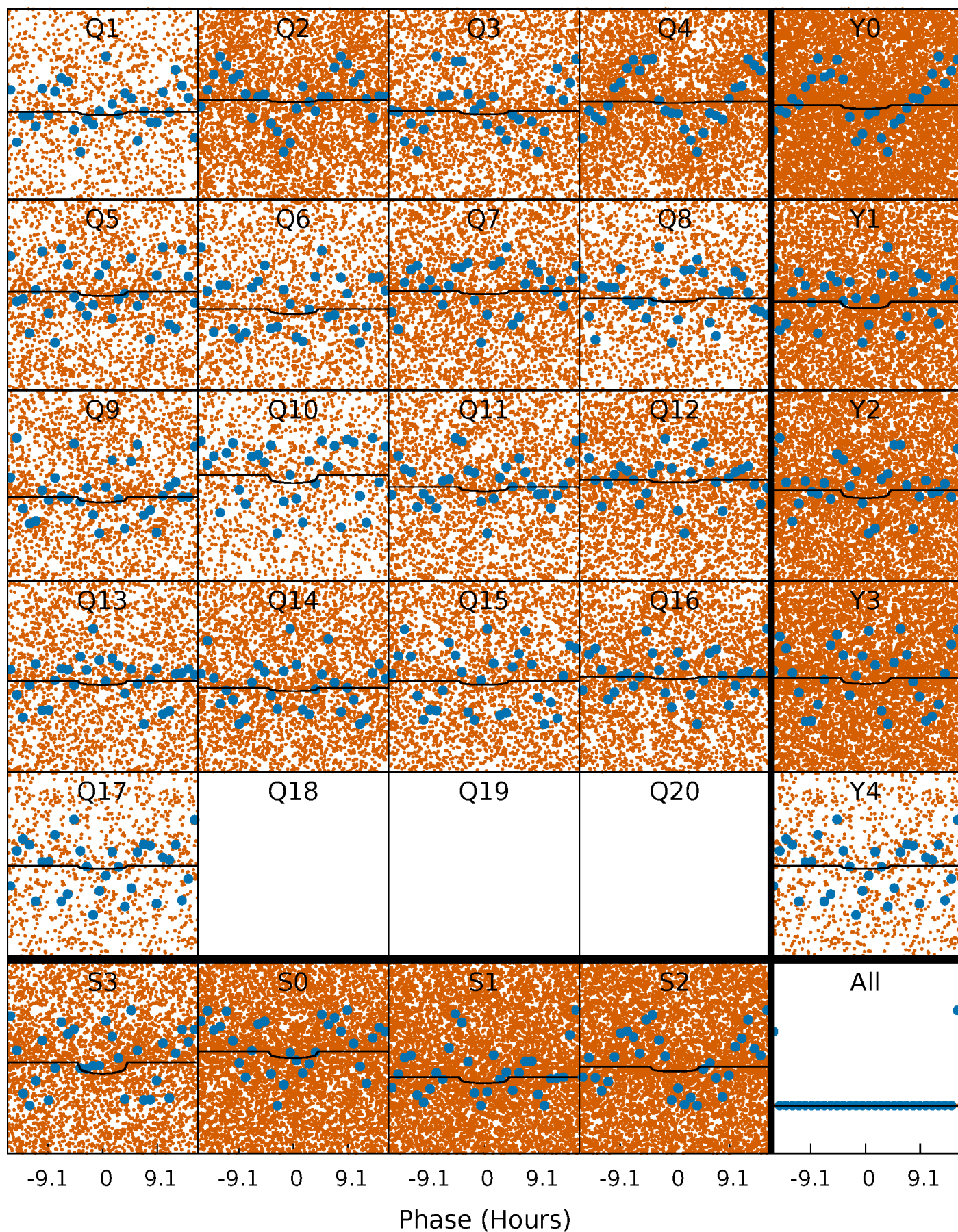
PDC Quarter-Phased Transit Curves

TCE 008747735-01 P= 0.829434 Days $T_0=132.258265$ (BKJD)



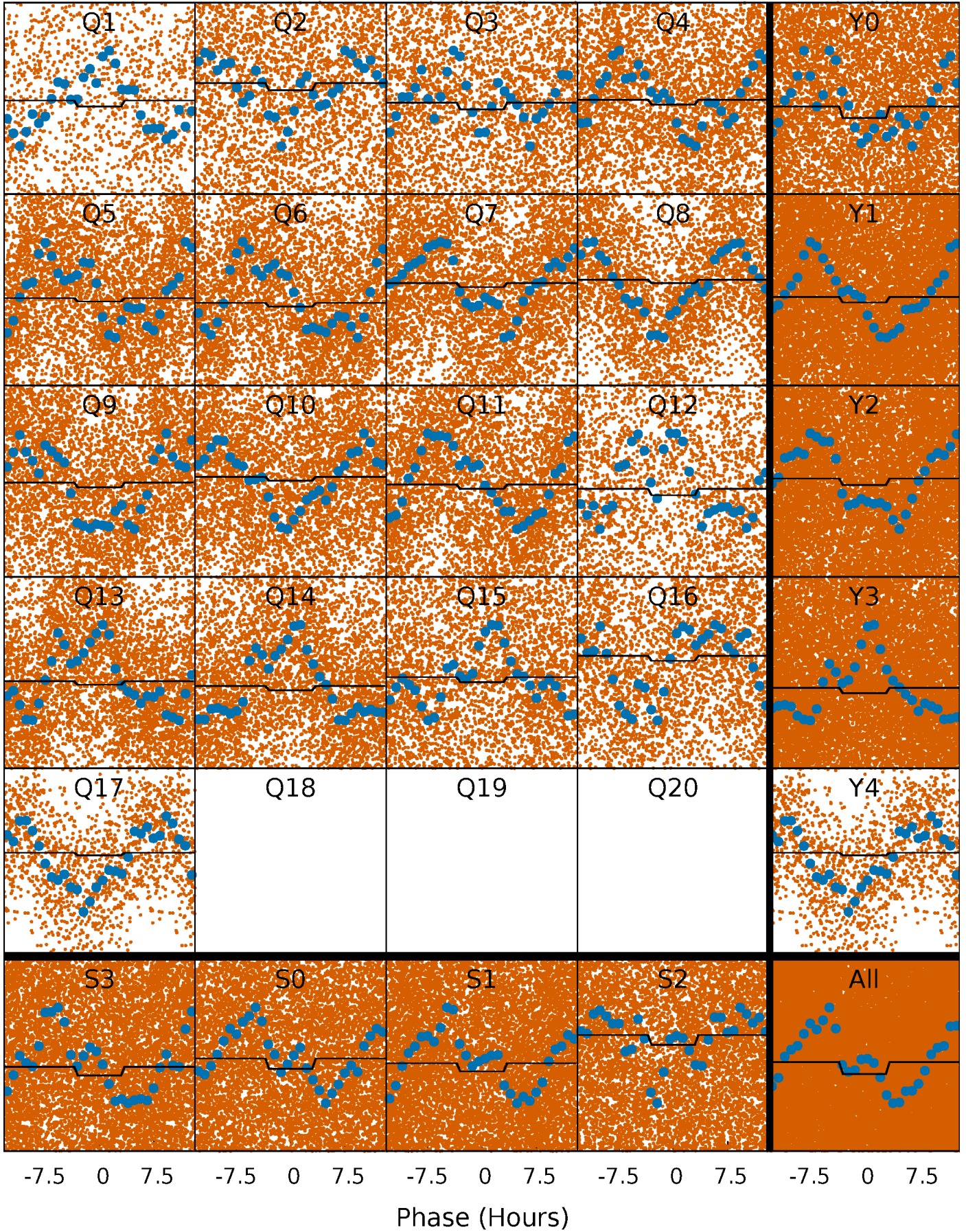
DV Quarter-Phased Transit Curves

TCE 008747735-01 P= 0.829434 Days $T_0=132.258265$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

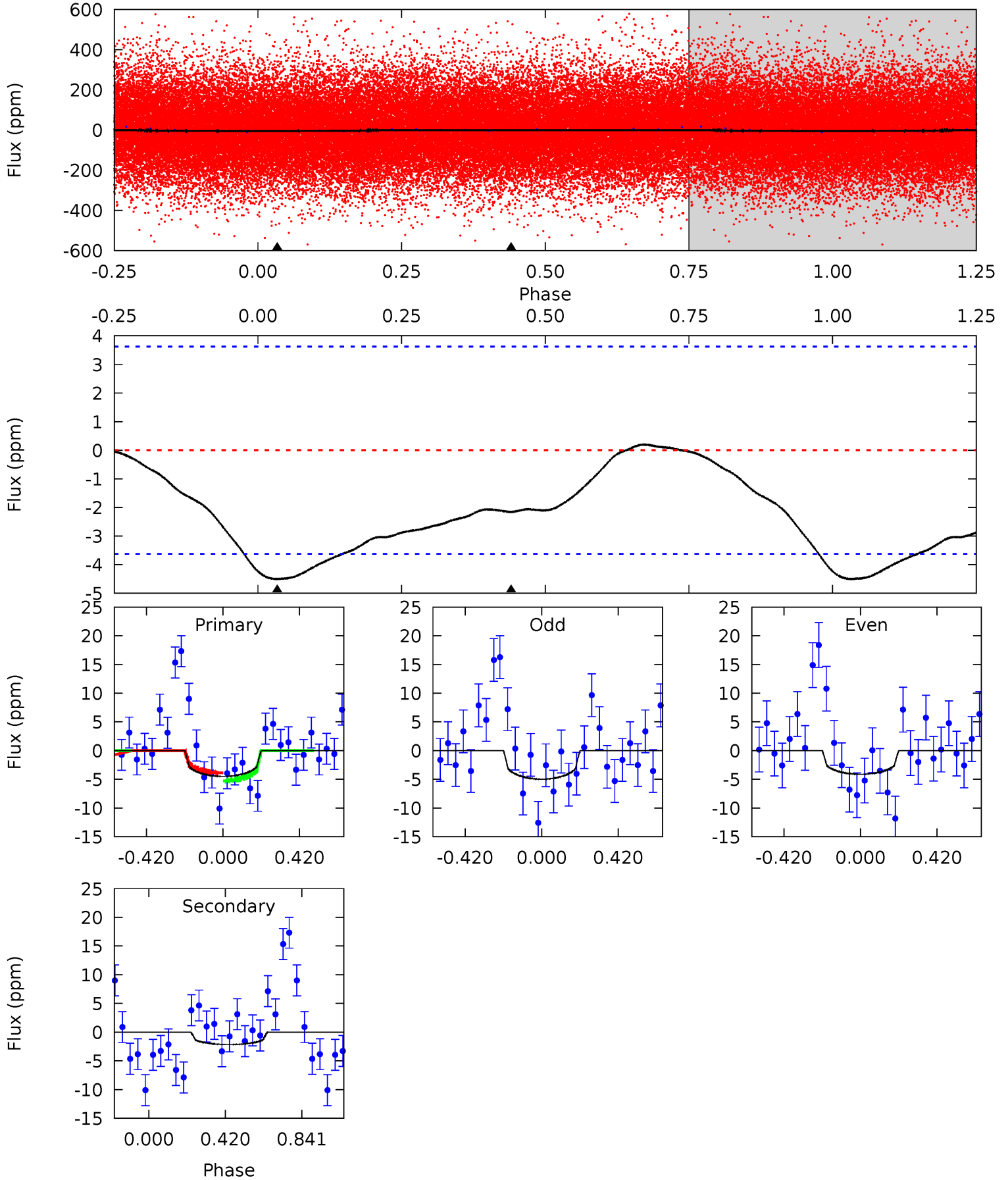
TCE 008747735-01 P= 0.829589 Days $T_0=132.228760$ (BKJD)



DV Model-Shift Uniqueness Test

008747735-01, P = 0.829434 Days, E = 131.428831 Days

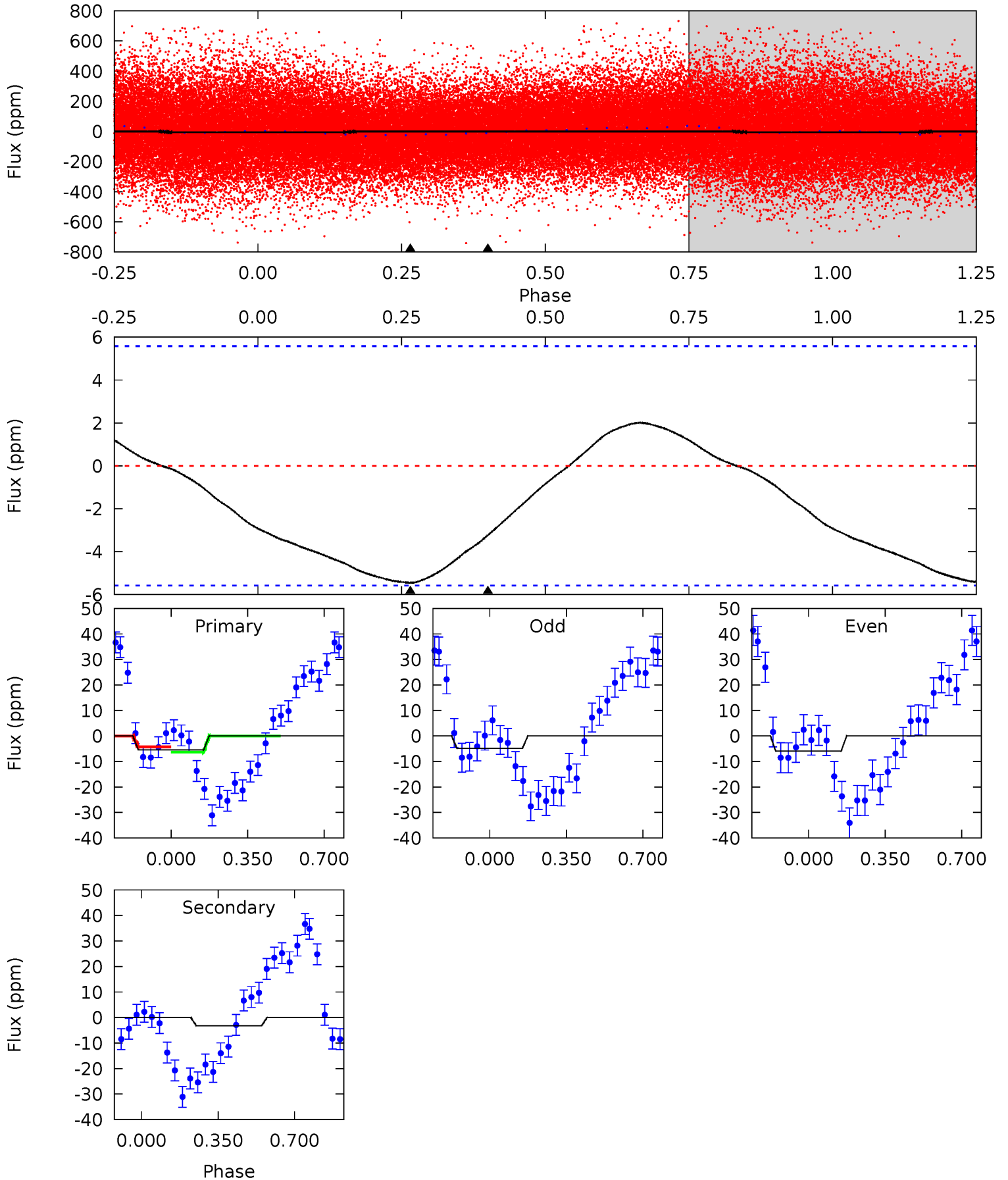
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.29	2.54	0	0	4.25	0.81	0.16	5.29	5.29	2.54	2.54	0.51	1.41	0.04	0.81



Alt Model-Shift Uniqueness Test

008747735-01, $P = 0.829589$ Days, $E = 131.399171$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.19	2.49	0	0	4.29	0.93	0.49	4.19	4.19	2.49	2.49	0.41	0.46	0.27	0.91



Stellar Parameters For KIC 008747735

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7046^{+191}_{-328}	$4.066^{+0.144}_{-0.176}$	$0.360^{+0.050}_{-0.350}$	$2.006^{+0.561}_{-0.408}$	$1.711^{+0.174}_{-0.282}$	$0.298^{+0.222}_{-0.147}$
	+3%/-5%	+4%/-4%	+14%/-97%	+28%/-20%	+10%/-16%	+74%/-49%
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 008747735-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 1	$1.08^{+1.17}_{-0.76}$	4273^{+315}_{-304}	3229^{+3386}_{-6870}	$0.417^{+4.095}_{-0.332}$
Alt.	-3 ± 1	$1.23^{+1.19}_{-0.83}$	4267^{+296}_{-286}	3473^{+3096}_{-7071}	$0.457^{+3.559}_{-0.358}$

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

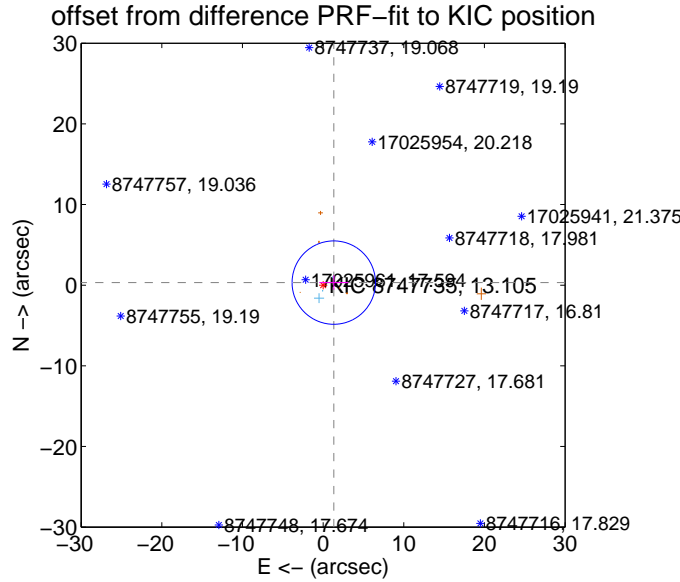
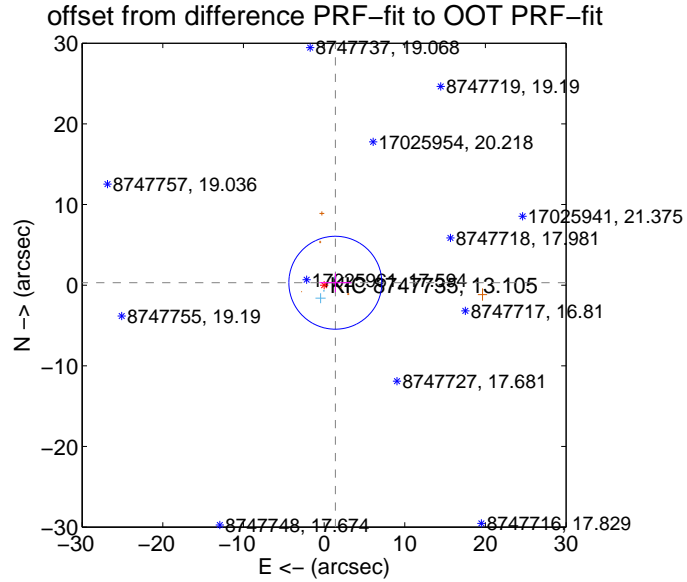
DV Centroid Data

Supplemental centroid analysis for 008747735-01. Kepler magnitude: 13.11. Transit SNR 1.71

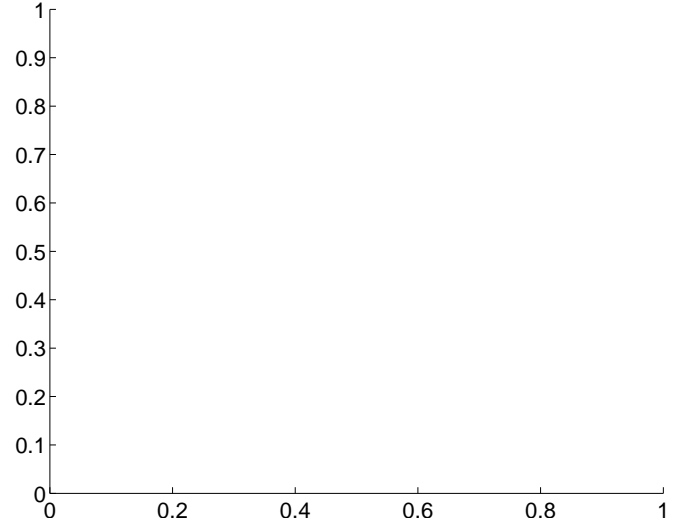
There are 4 quarters with good PRF difference image offsets

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	1.425 ± 1.921	0.74	-1.393 ± 1.983	0.303 ± 1.170
PRF-fit source offset from KIC position	1.359 ± 1.723	0.79	-1.321 ± 1.804	0.318 ± 0.898
photometric centroid source offset	—	—	—	—

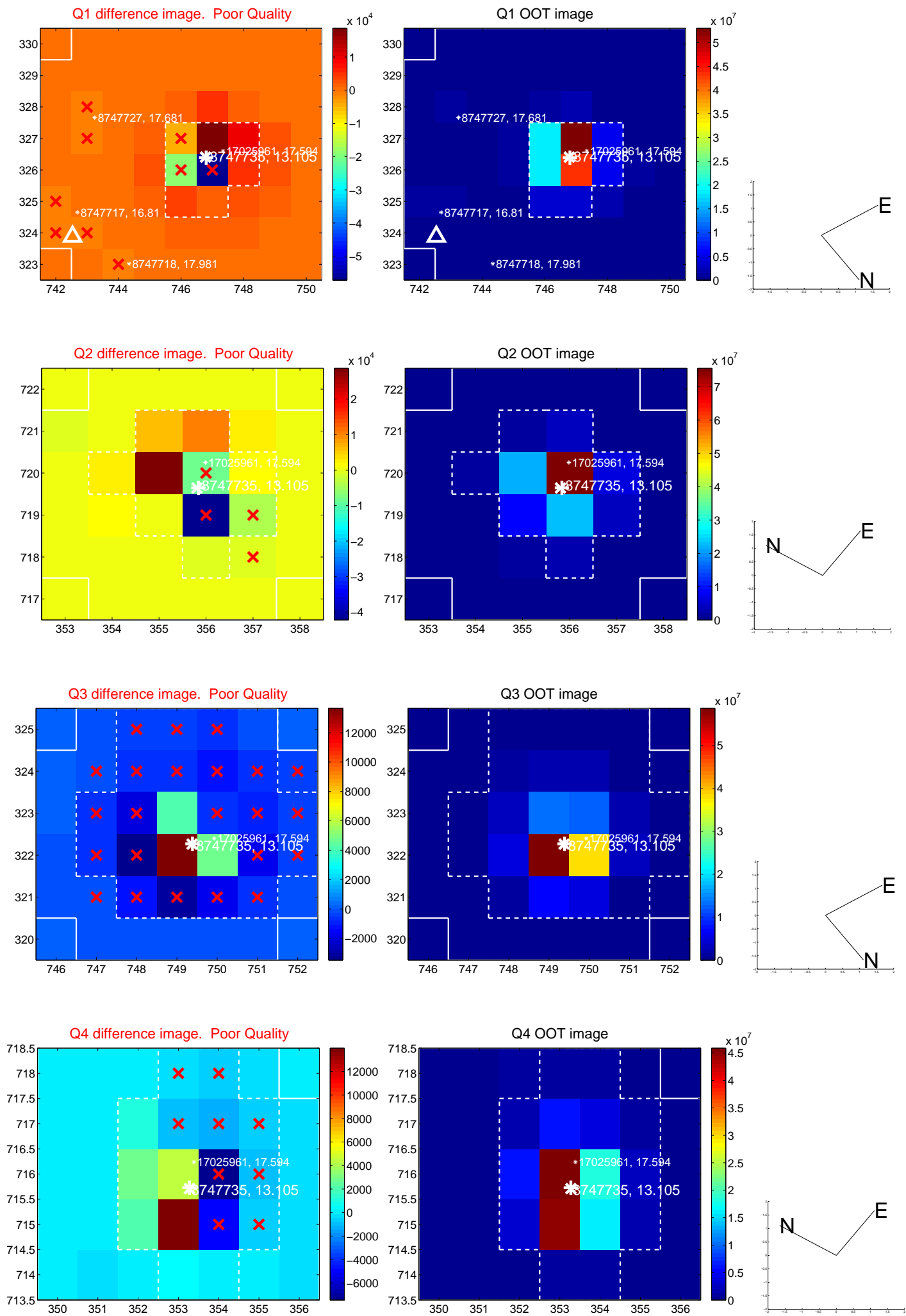


There are no photometric centroids

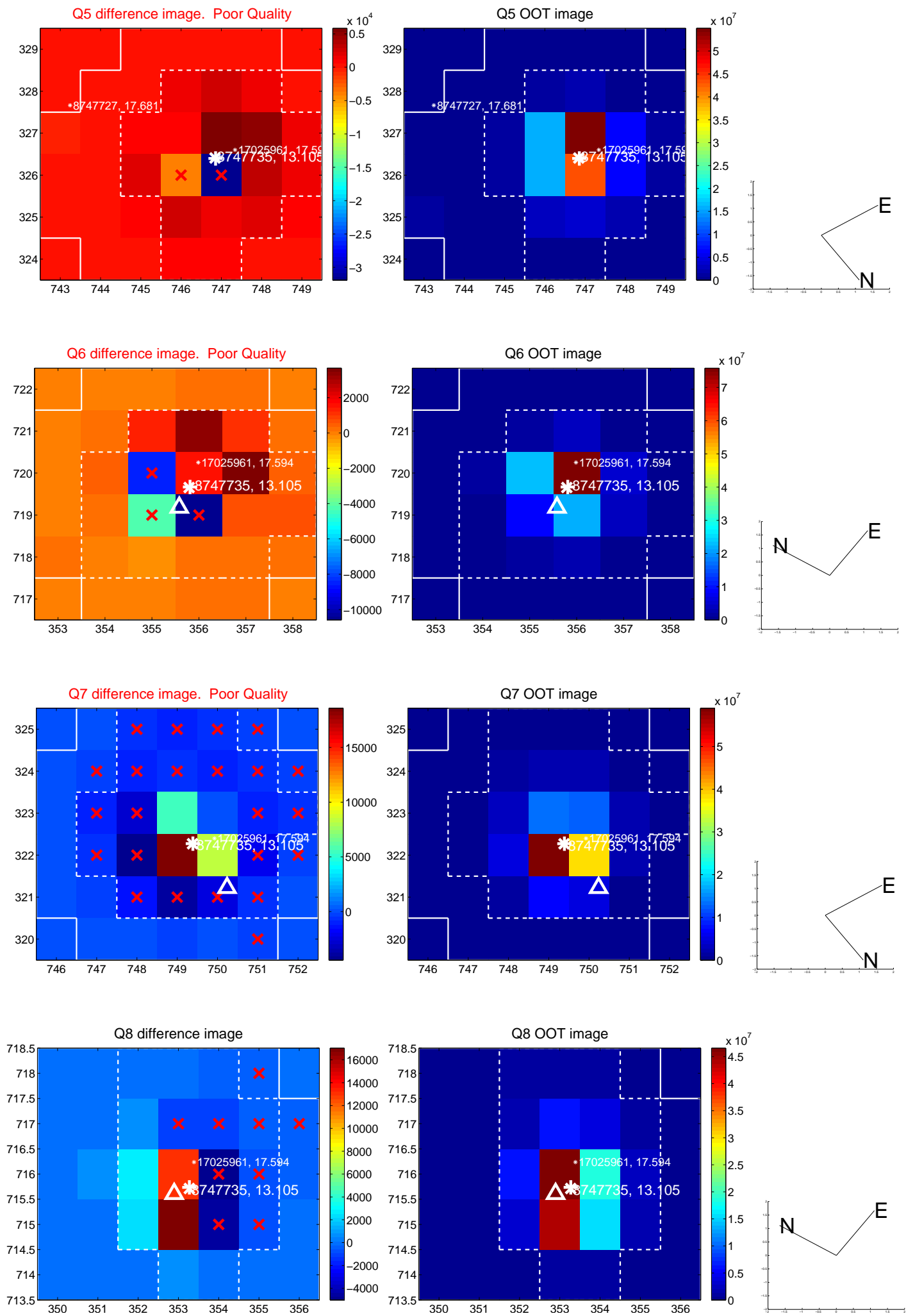


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

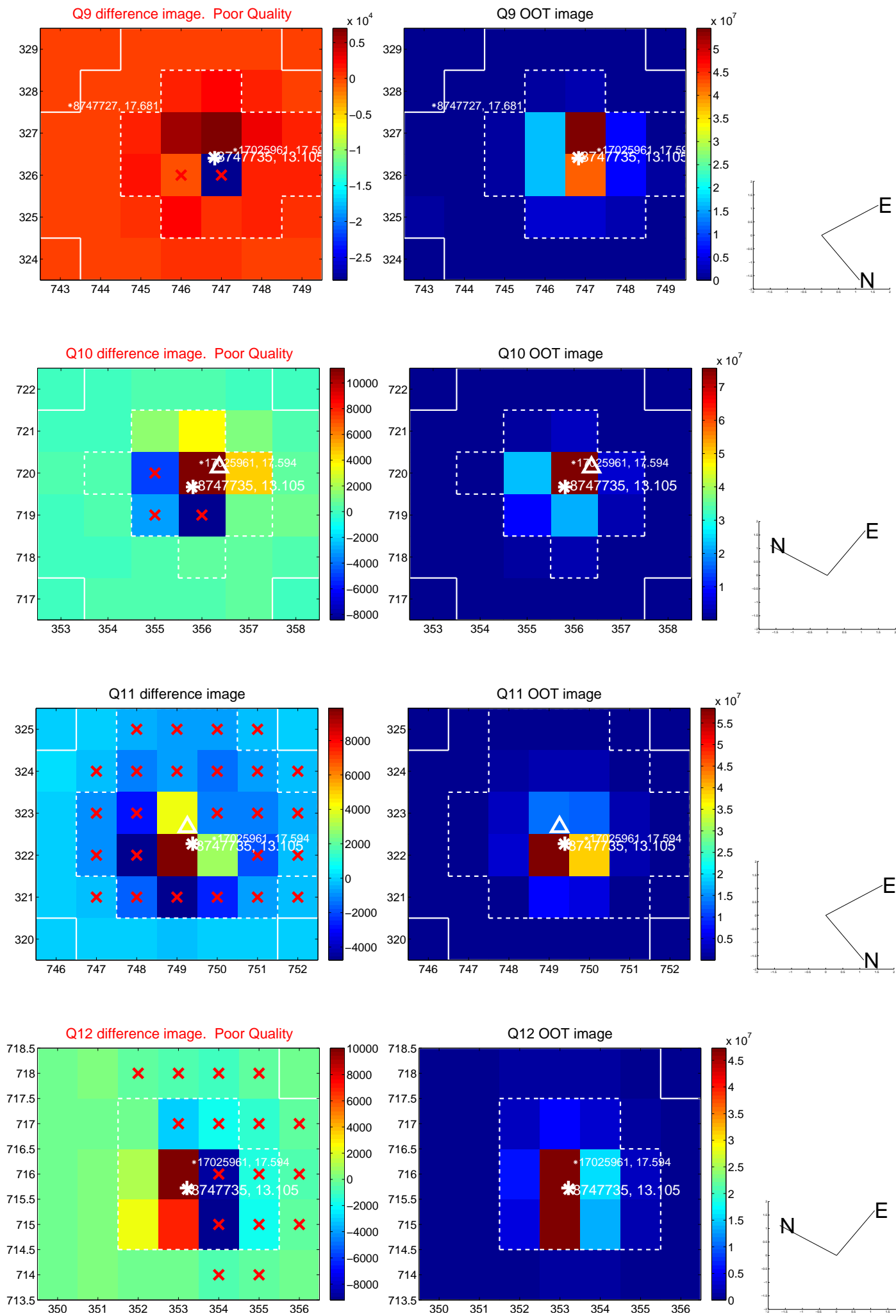
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



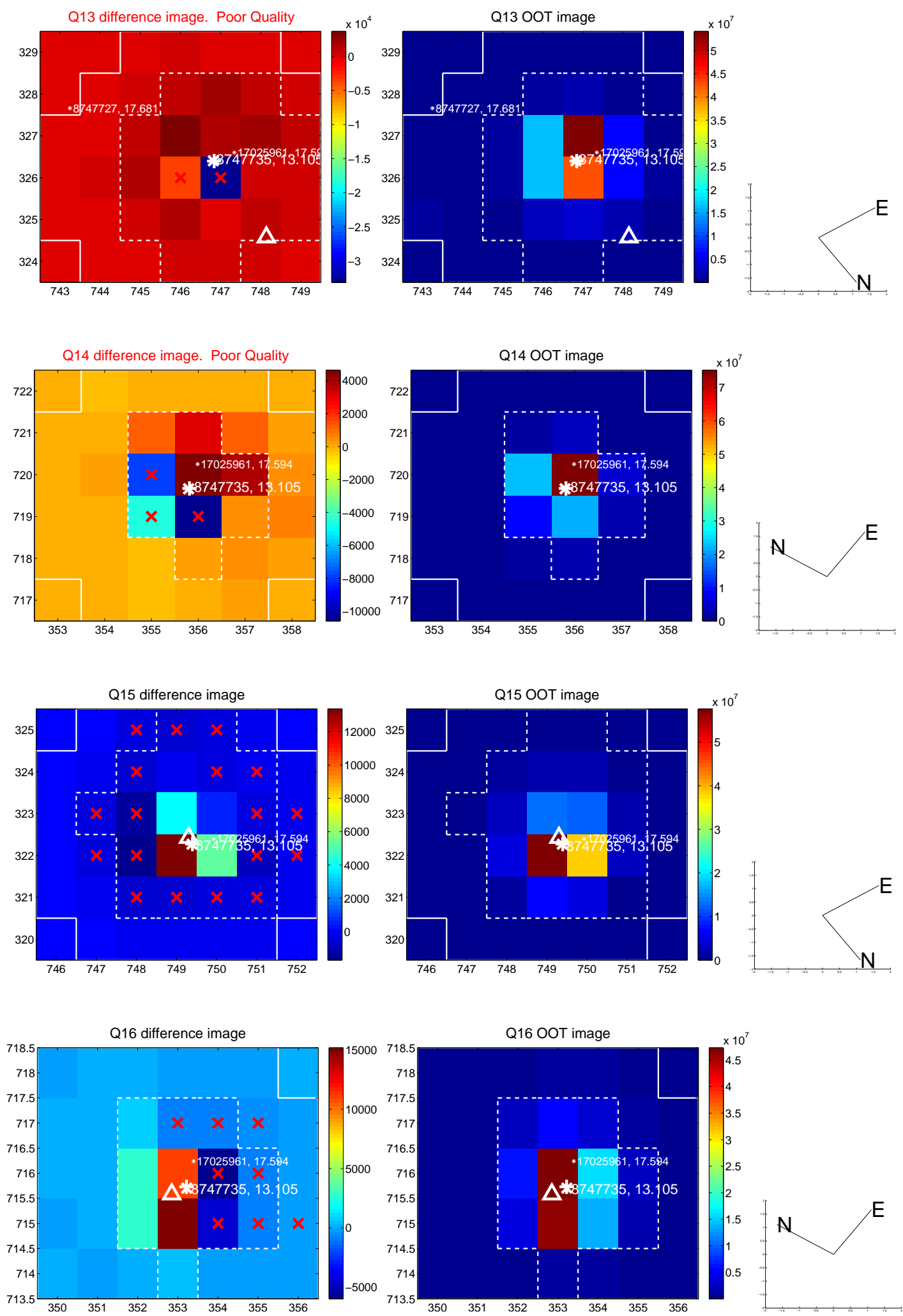
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



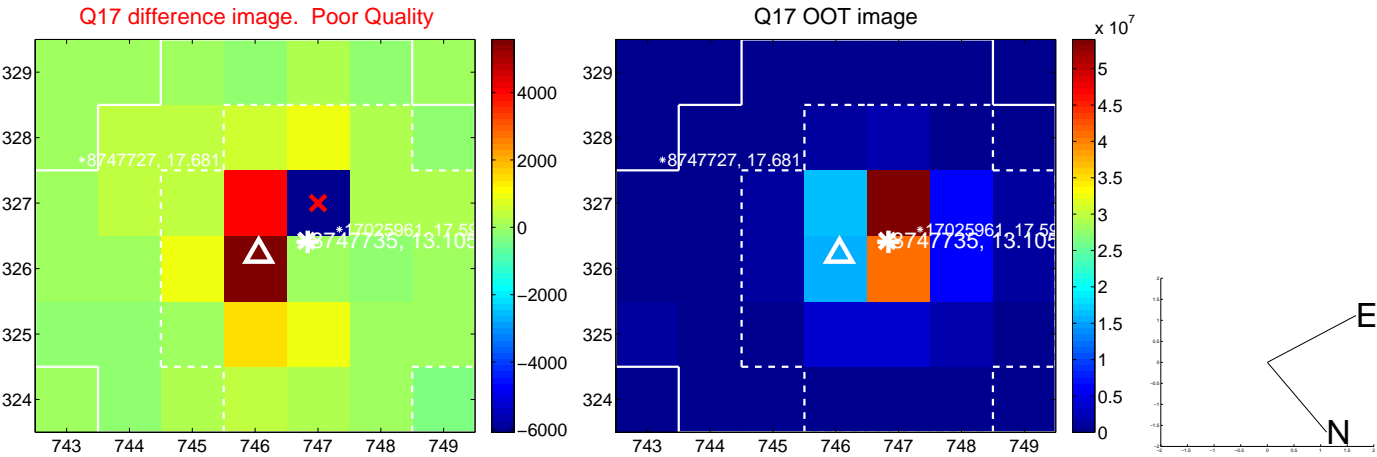
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

