

KIC 007630743

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})
007630743-01	OBS	No	0.533923	131.531859	25.1	1.227	8.4	6.4	4.62	4786	2.86	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007630743-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—HALO_GHOST

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

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

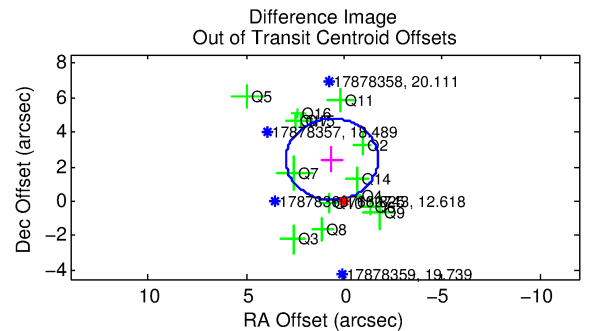
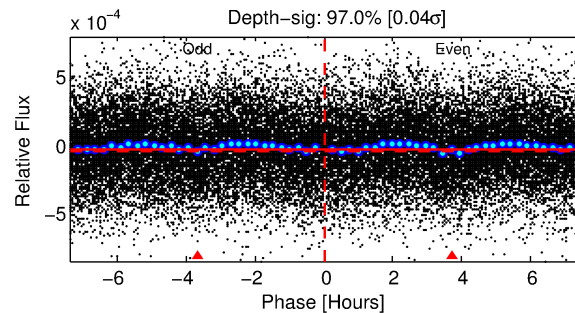
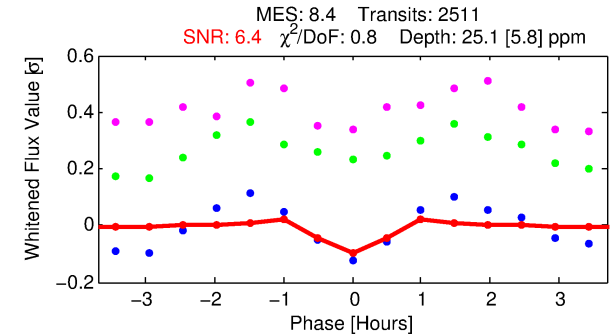
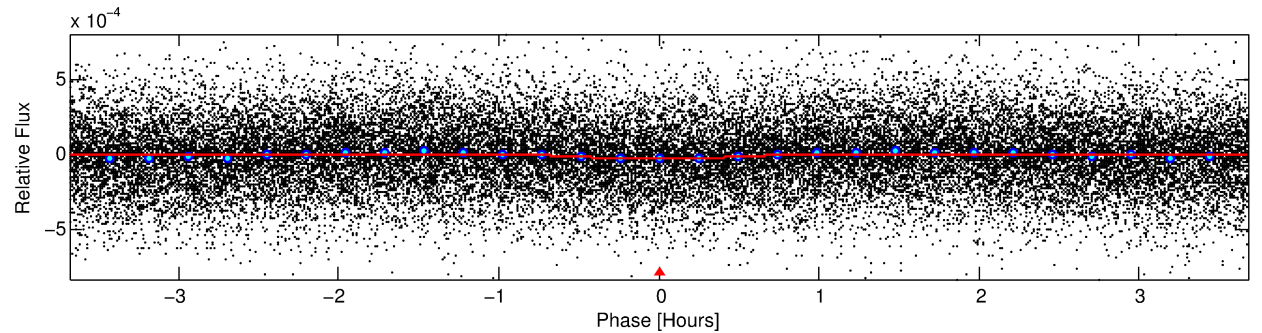
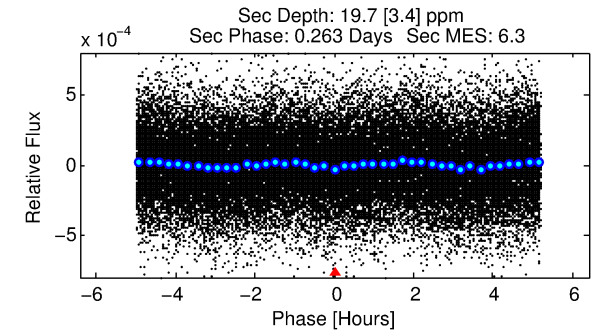
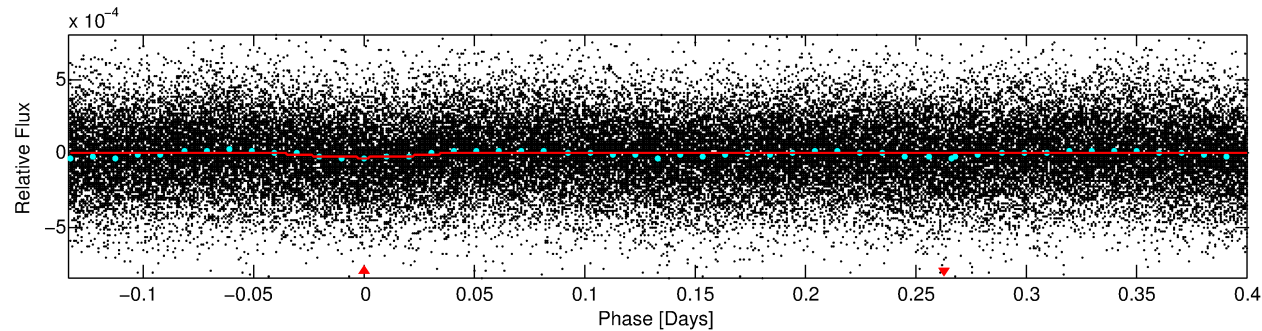
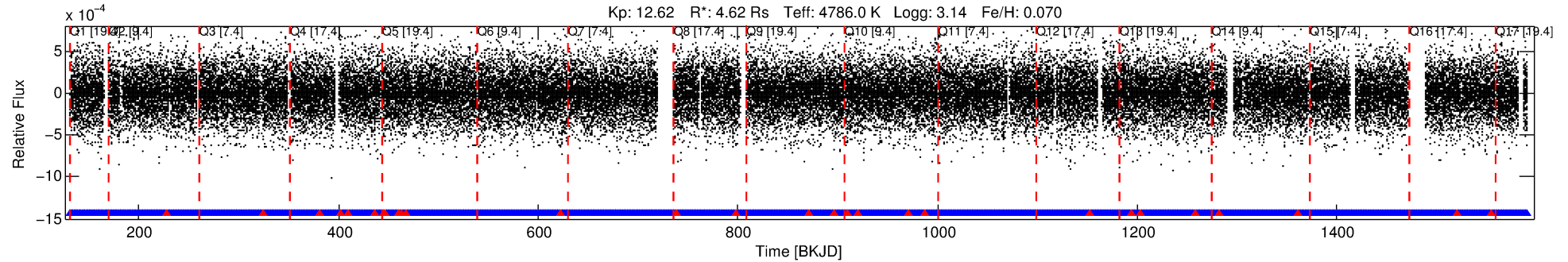
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007630743-01

No Significant Match Found

DV One-Page Summary

KIC: 7630743 Candidate: 1 of 1 Period: 0.534 d



DV Fit Results:

Period = 0.53392 [0.00002] d
Epoch = 131.5319 [0.0024] BKJD
Rp/R* = 0.0057 [0.0028]
a/R* = 1.77 [2.21]
b = 0.90 [0.40]
Seff = N/A
Teq = N/A
Rp = 2.86 [1.44] Re
a = N/A
Ag = N/A
Teffp = N/A

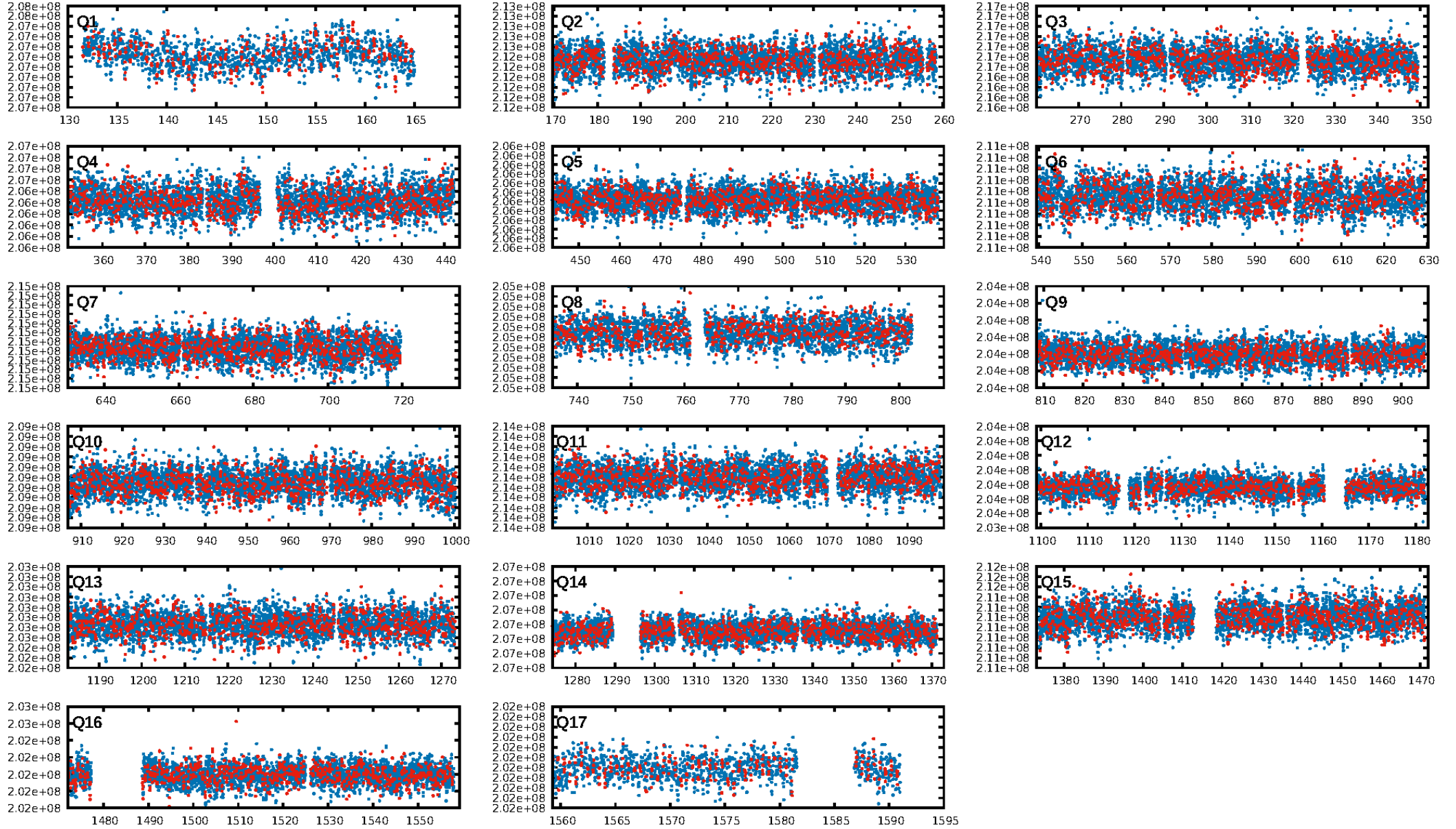
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.72e-14
RollingBand-fgt: 0.99 [2370/2398]
GhostDiagnostic-chr: 0.04899
Centroid-sig: 73.5%
Centroid-so: 0.215 arcsec [0.31σ]
OotOffset-rm: 2.501 arcsec [3.18σ]
KicOffset-rm: 2.564 arcsec [3.20σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 1.00 [17/17]

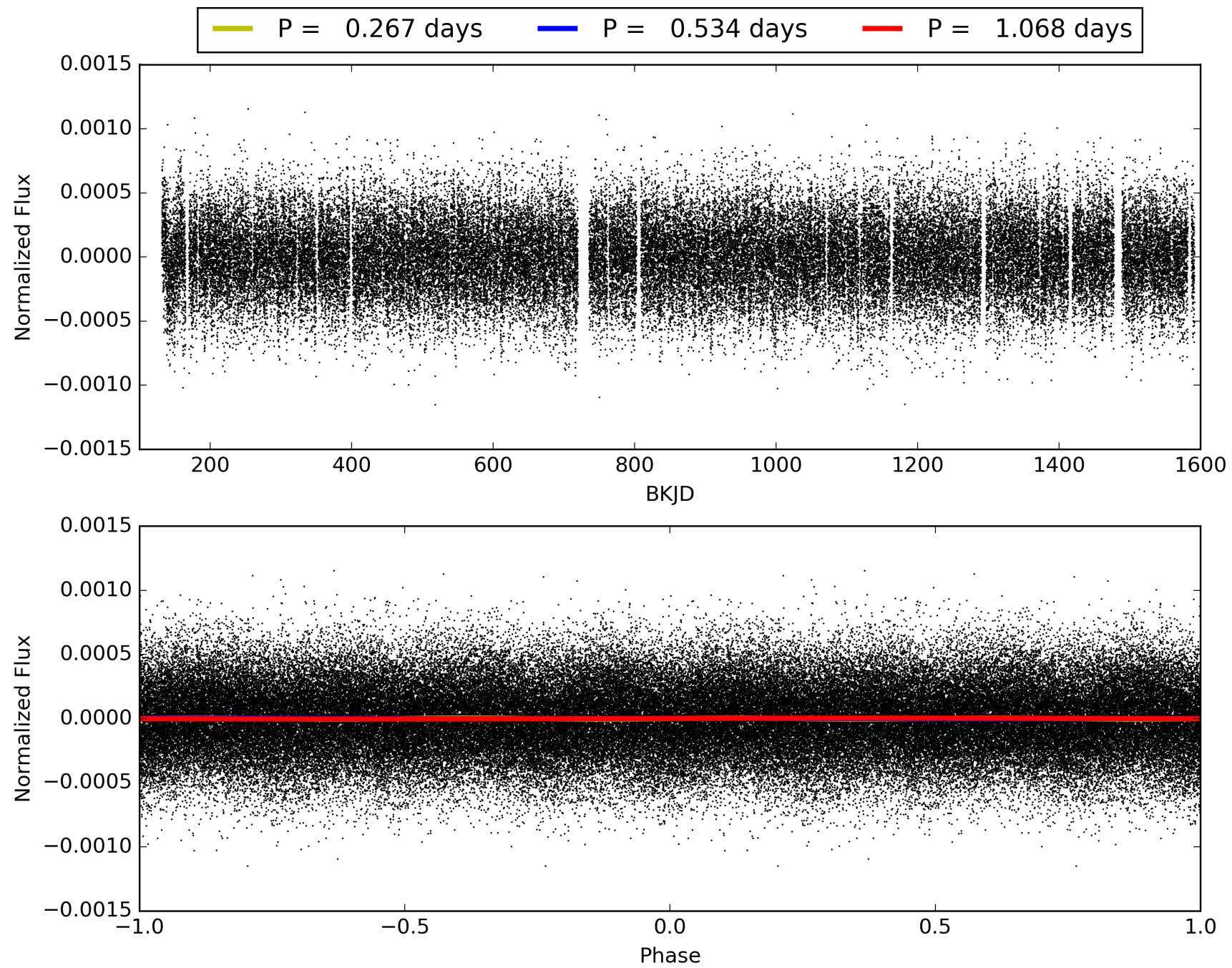
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:05:39 Z

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

TCE 007630743-01, PDC Light Curves

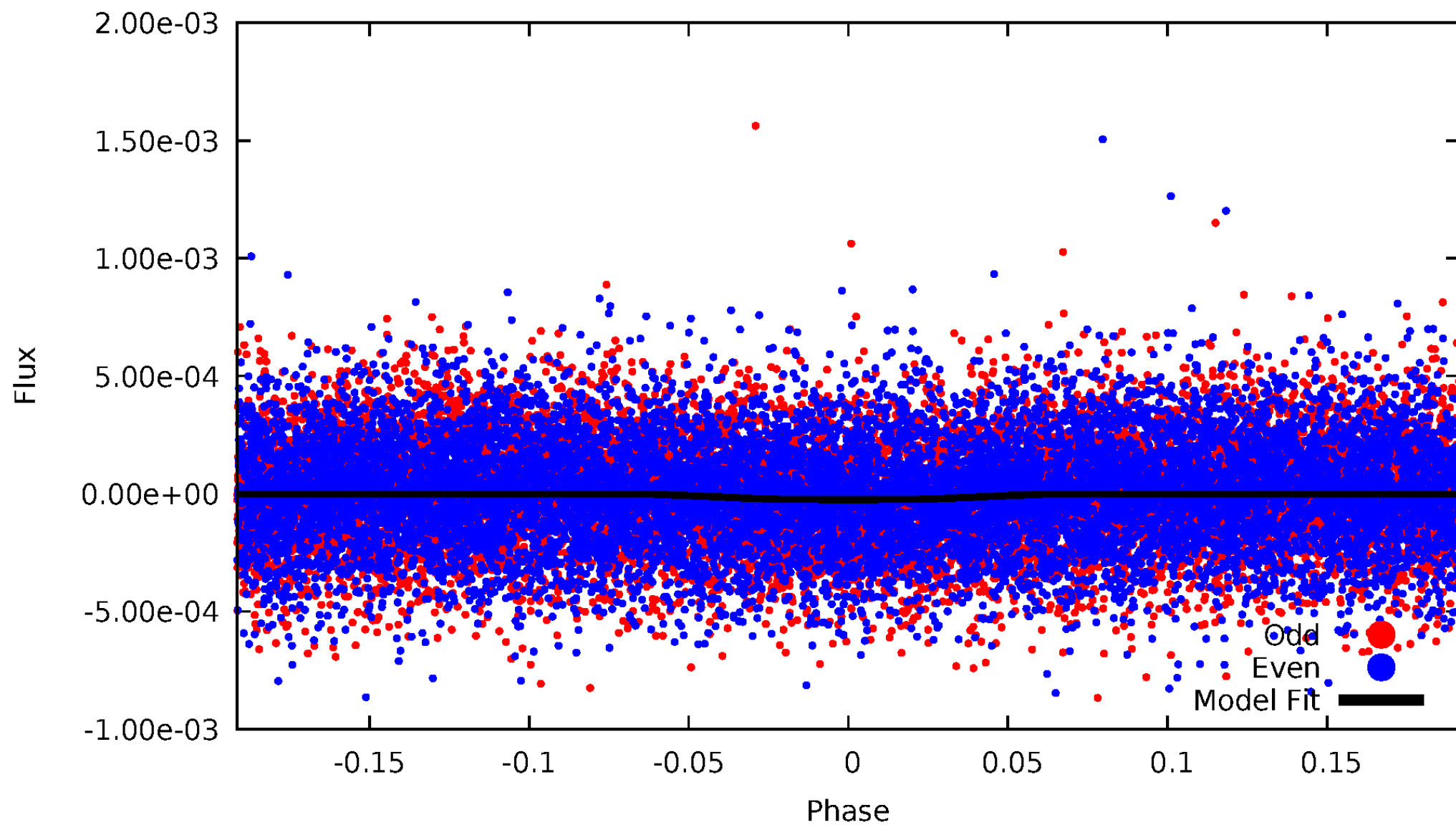


TCE 007630743-01



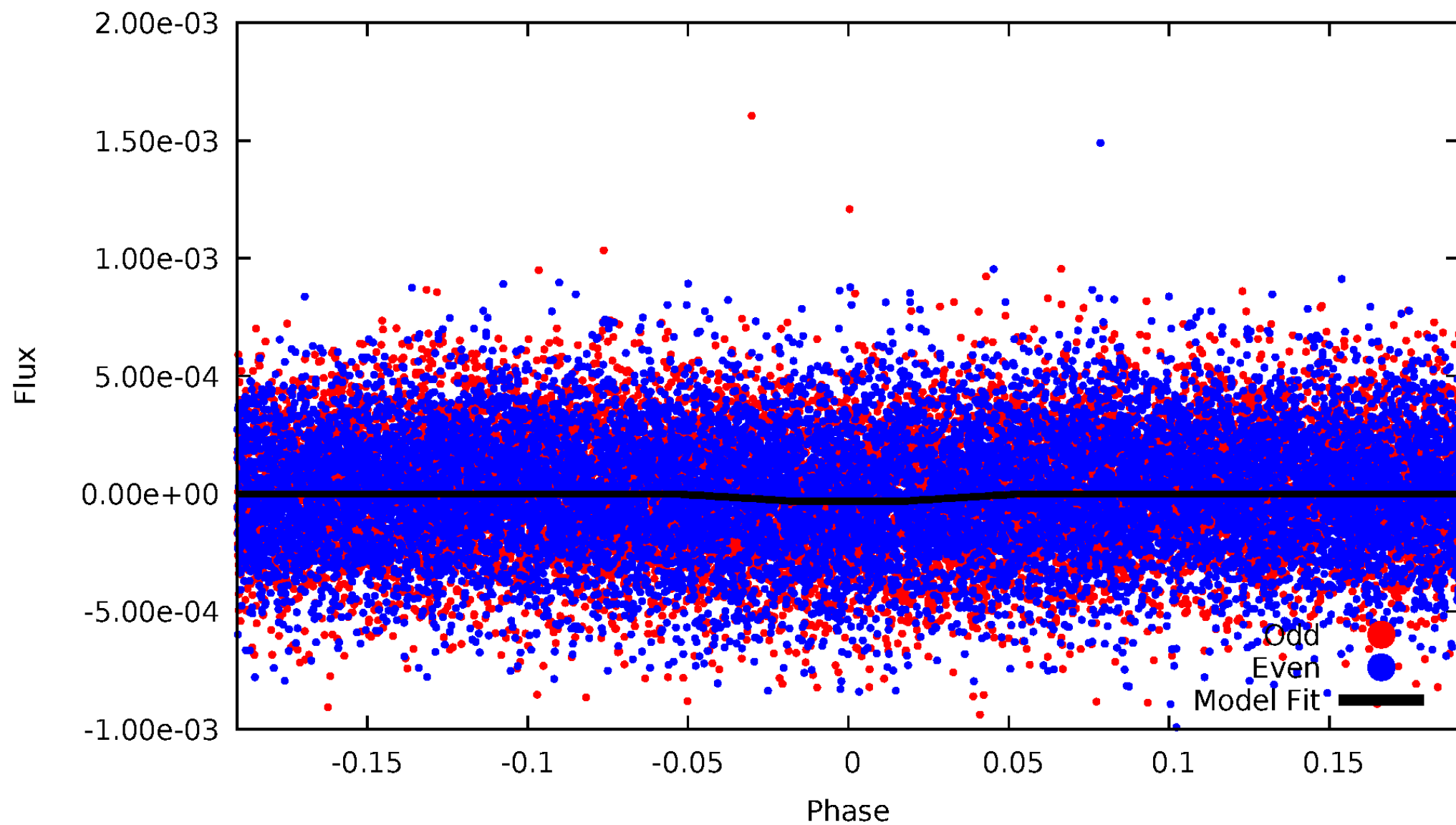
DV Odd/Even

TCE 007630743-01



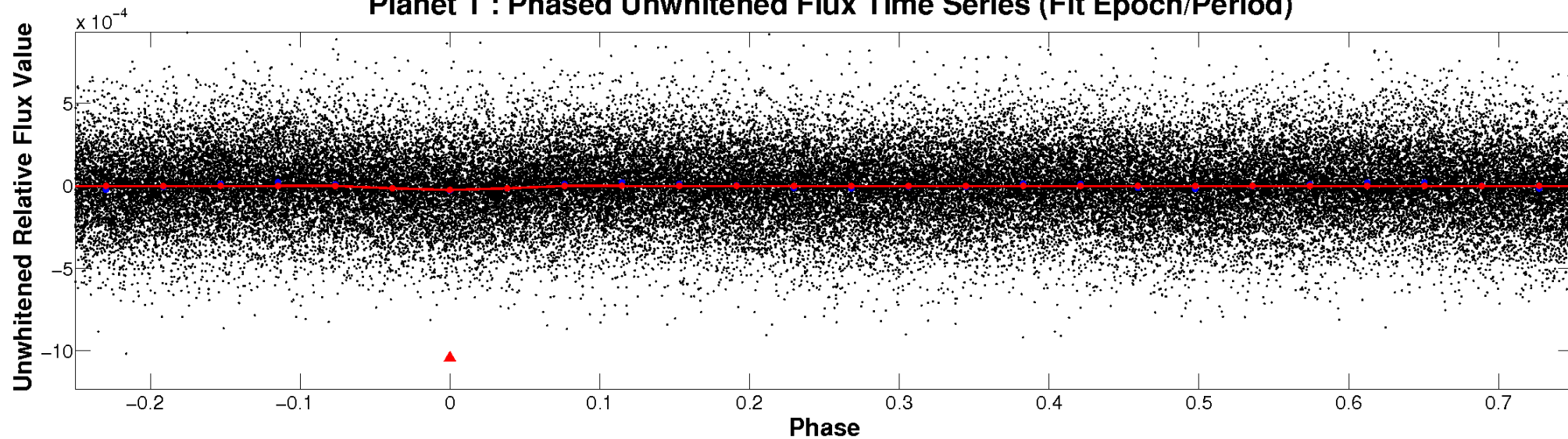
ALT Odd/Even

TCE 007630743-01

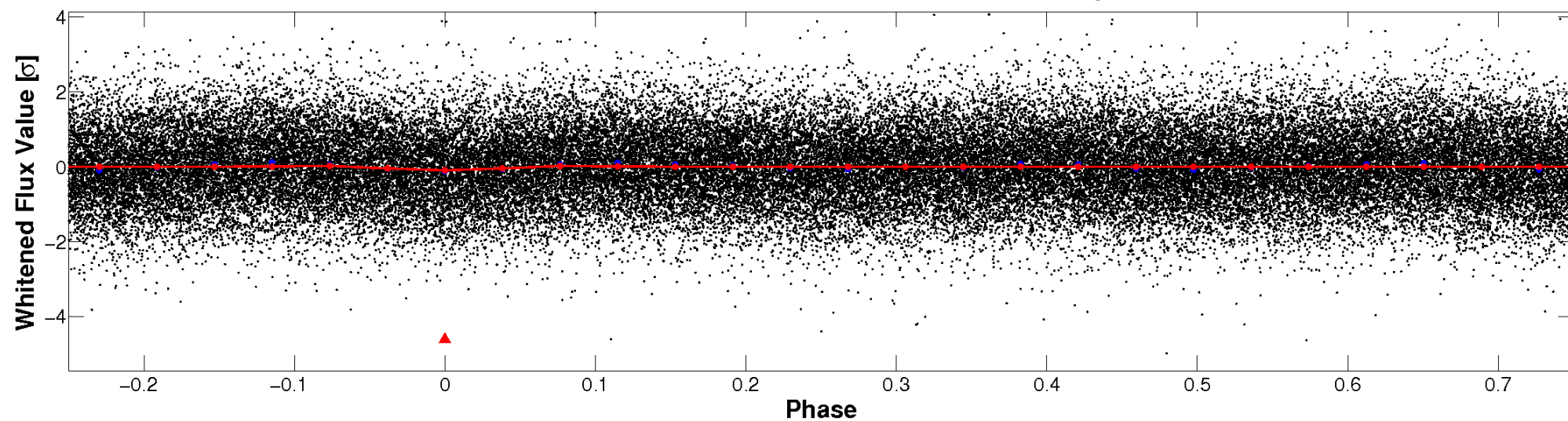


Non-Whitened Vs. Whitened Light Curve

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

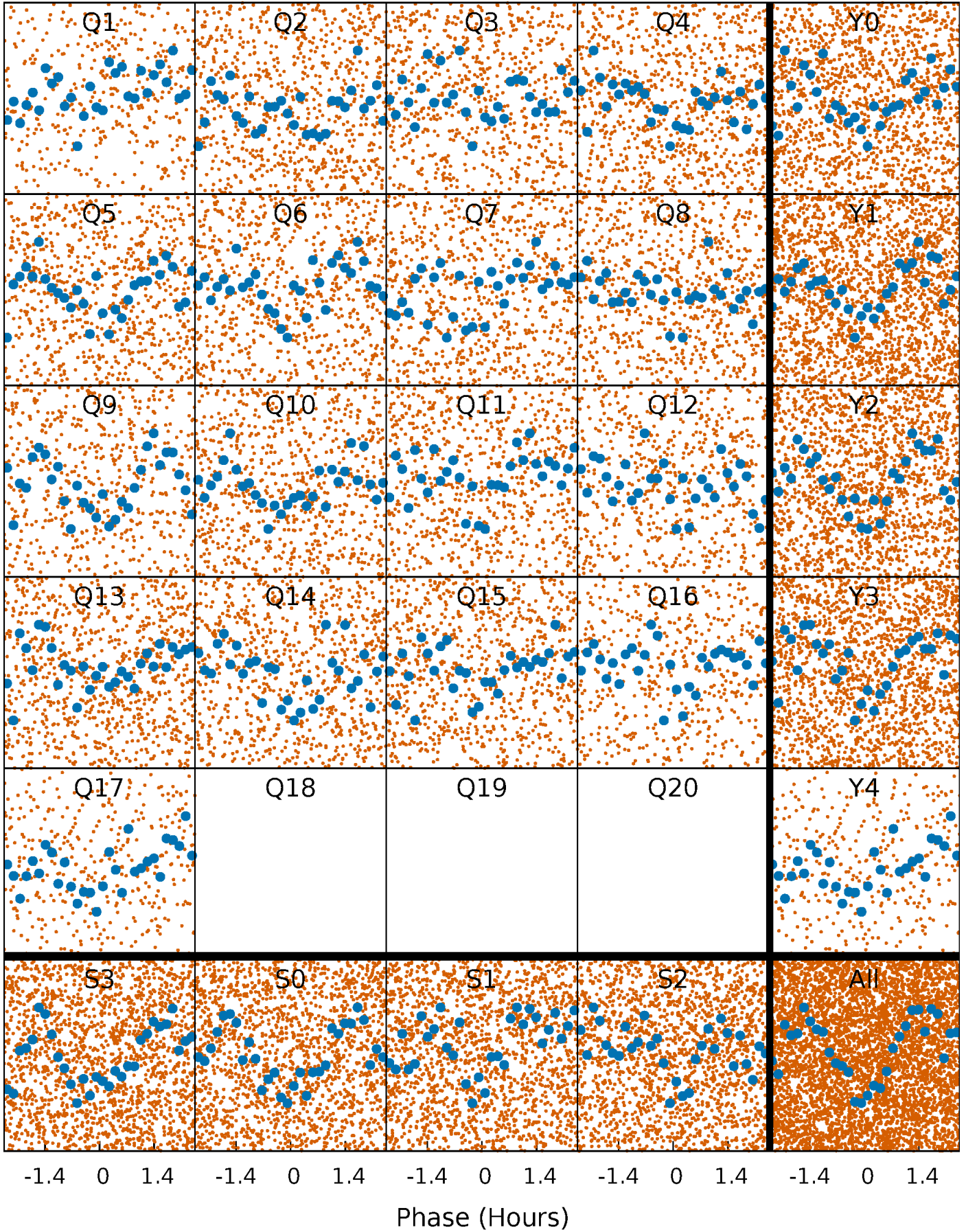


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



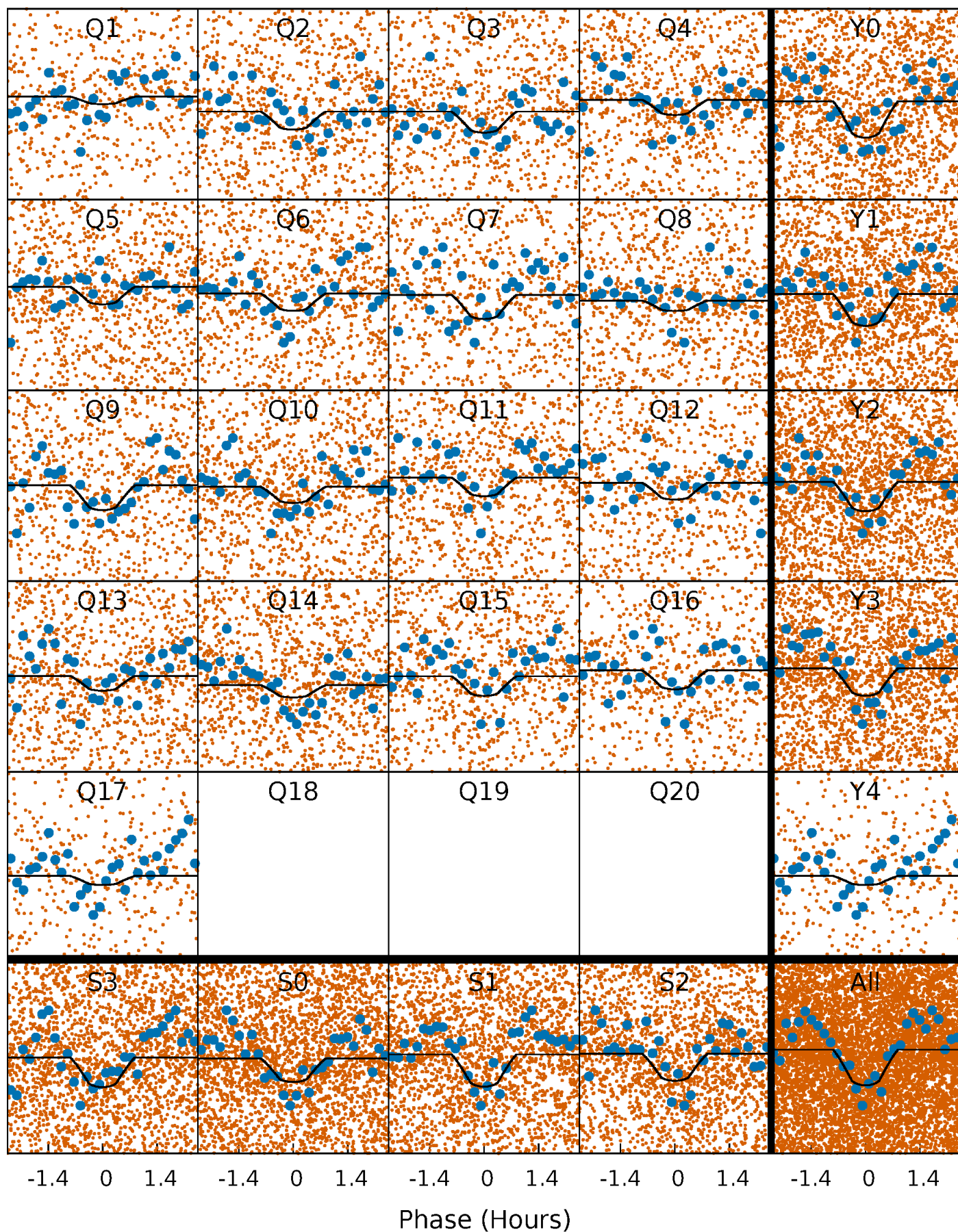
PDC Quarter-Phased Transit Curves

TCE 007630743-01 P= 0.533923 Days $T_0=131.531859$ (BKJD)



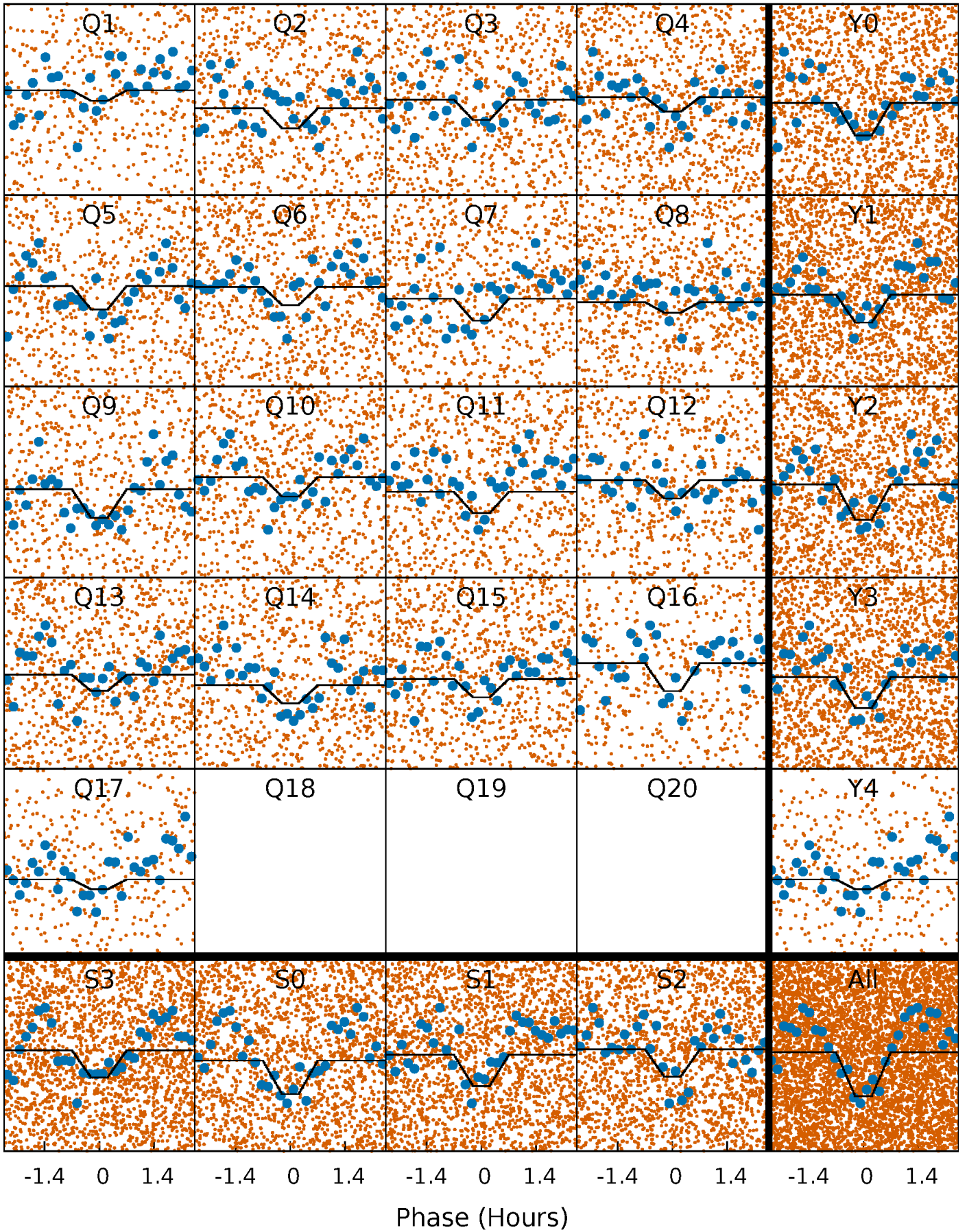
DV Quarter-Phased Transit Curves

TCE 007630743-01 P= 0.533923 Days $T_0=131.531859$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

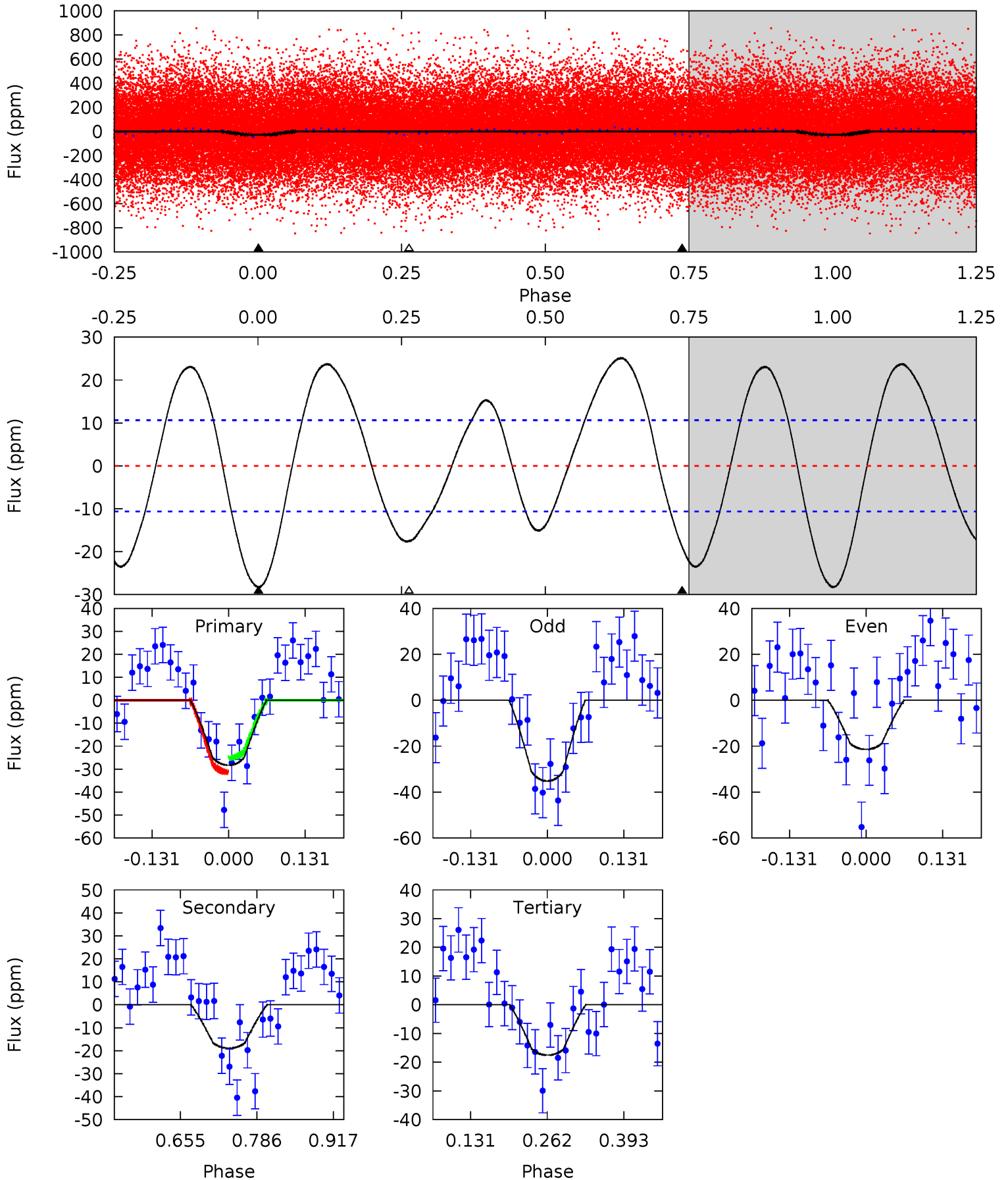
TCE 007630743-01 P= 0.533923 Days $T_0=131.531839$ (BKJD)



DV Model-Shift Uniqueness Test

007630743-01, P = 0.533923 Days, E = 130.997936 Days

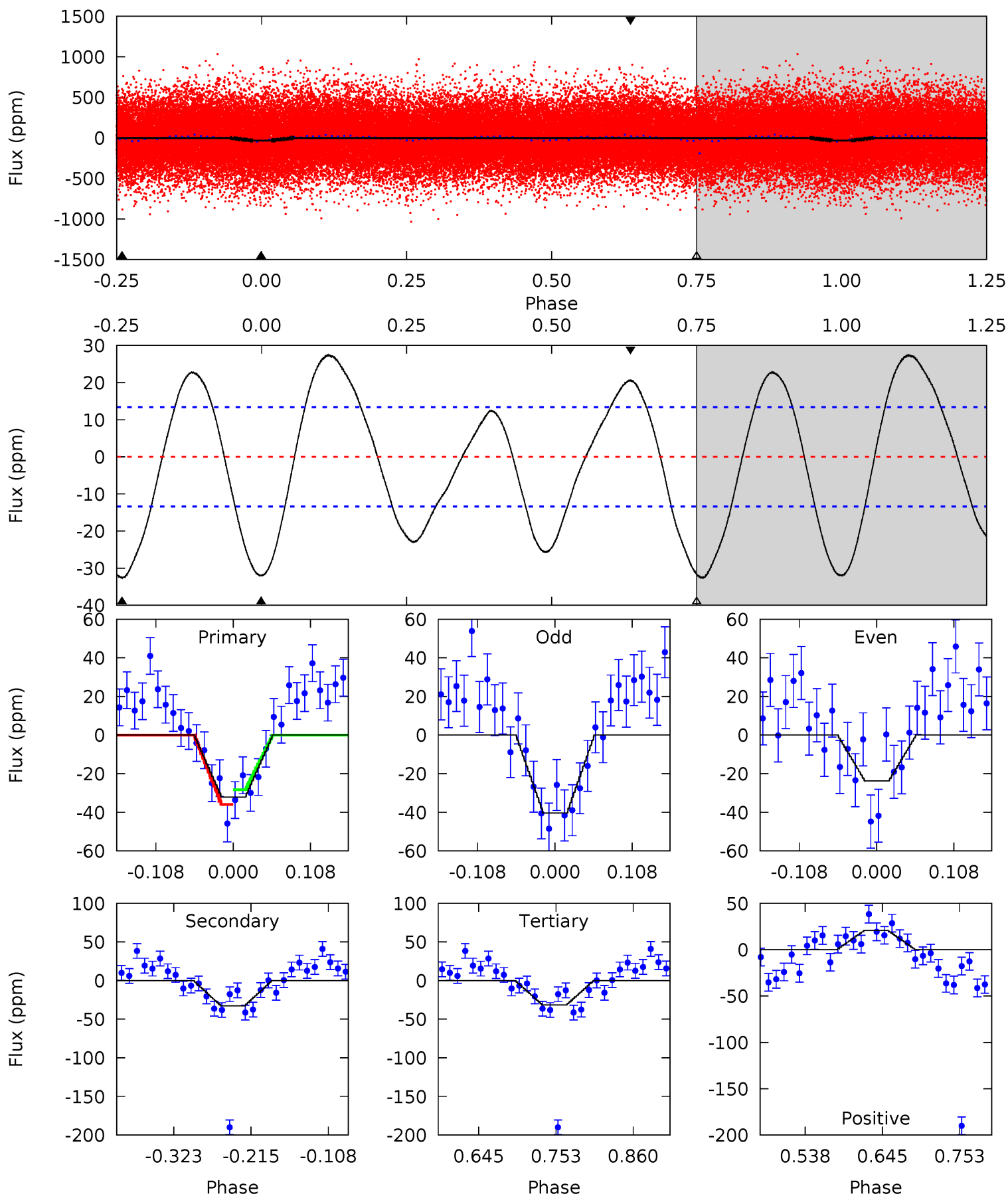
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	8.01	7.44	0	4.51	1.51	5.14	4.55	12.0	0.57	8.01	2.93	1.09	0.47	1.32



Alt Model-Shift Uniqueness Test

007630743-01, P = 0.533923 Days, E = 130.997916 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	11.1	10.8	7.01	4.55	1.61	5.51	0.14	3.89	0.35	4.10	2.83	1.16	0.46	1.26



Stellar Parameters For KIC 007630743

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4786^{+64}_{-57}	$3.143^{+0.033}_{-0.027}$	$0.070^{+0.150}_{-0.100}$	$4.618^{+0.527}_{-0.307}$	$1.080^{+0.262}_{-0.105}$	$0.015^{+0.002}_{-0.002}$
	+1%/-1%	+1%/-1%	+214%/-143%	+11%/-7%	+24%/-10%	+12%/-14%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007630743-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 2	$3.03^{+1.25}_{-1.35}$	5509^{+114}_{-104}	-3713^{+8513}_{-531}	$0.206^{+0.472}_{-0.107}$
Alt.	-33 ± 3	$2.99^{+1.45}_{-1.44}$	5506^{+117}_{-110}	3440^{+2491}_{-7403}	$0.361^{+0.927}_{-0.198}$

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 $A_{obs} \gg 1.0$

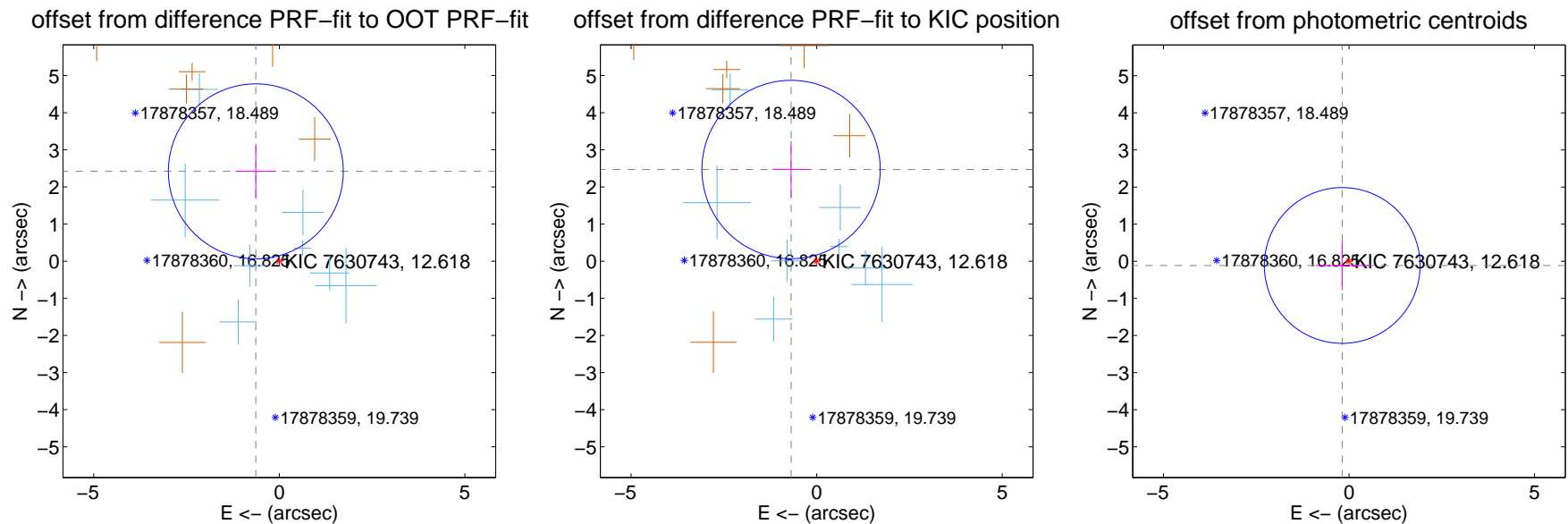
DV Centroid Data

Supplemental centroid analysis for 007630743-01. Kepler magnitude: 12.62. Transit SNR 6.43

There are 8 quarters with good PRF difference image offsets

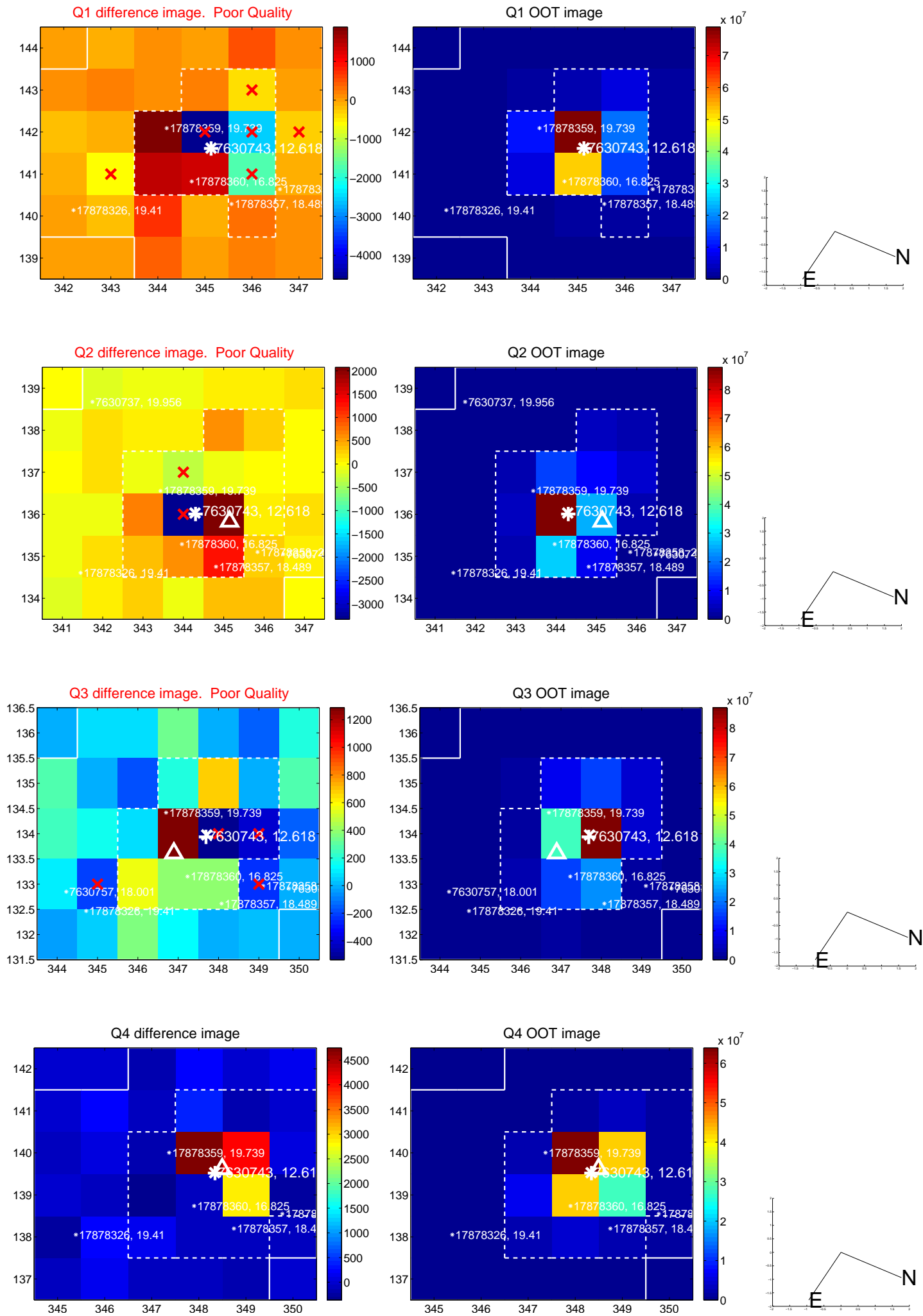
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.501 ± 0.785	3.18	0.633 ± 0.546	2.420 ± 0.740
PRF-fit source offset from KIC position	2.564 ± 0.801	3.20	0.689 ± 0.495	2.470 ± 0.766
photometric centroid source offset	0.22 ± 0.70	0.31	0.18 ± 0.71	-0.11 ± 0.67

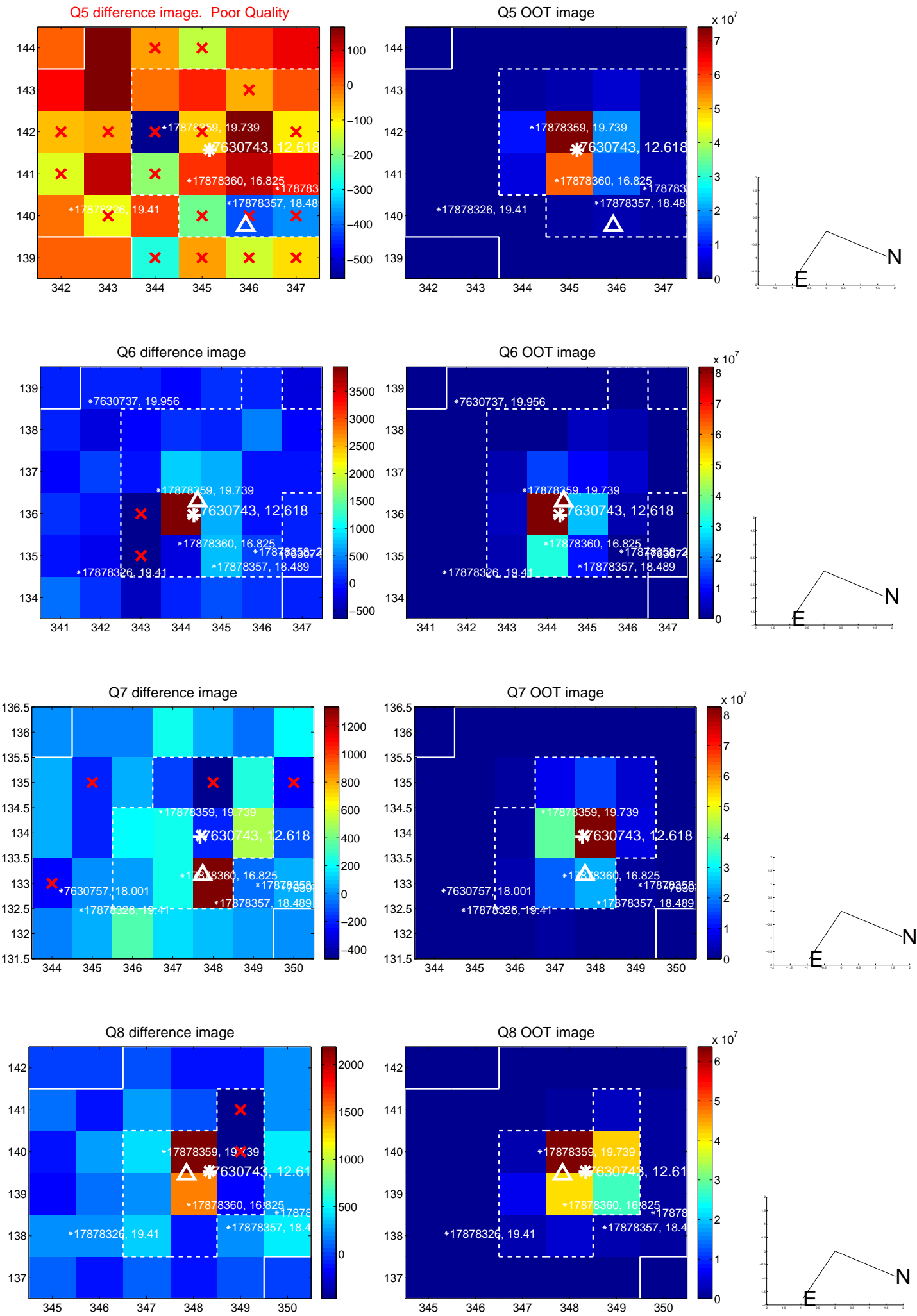


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

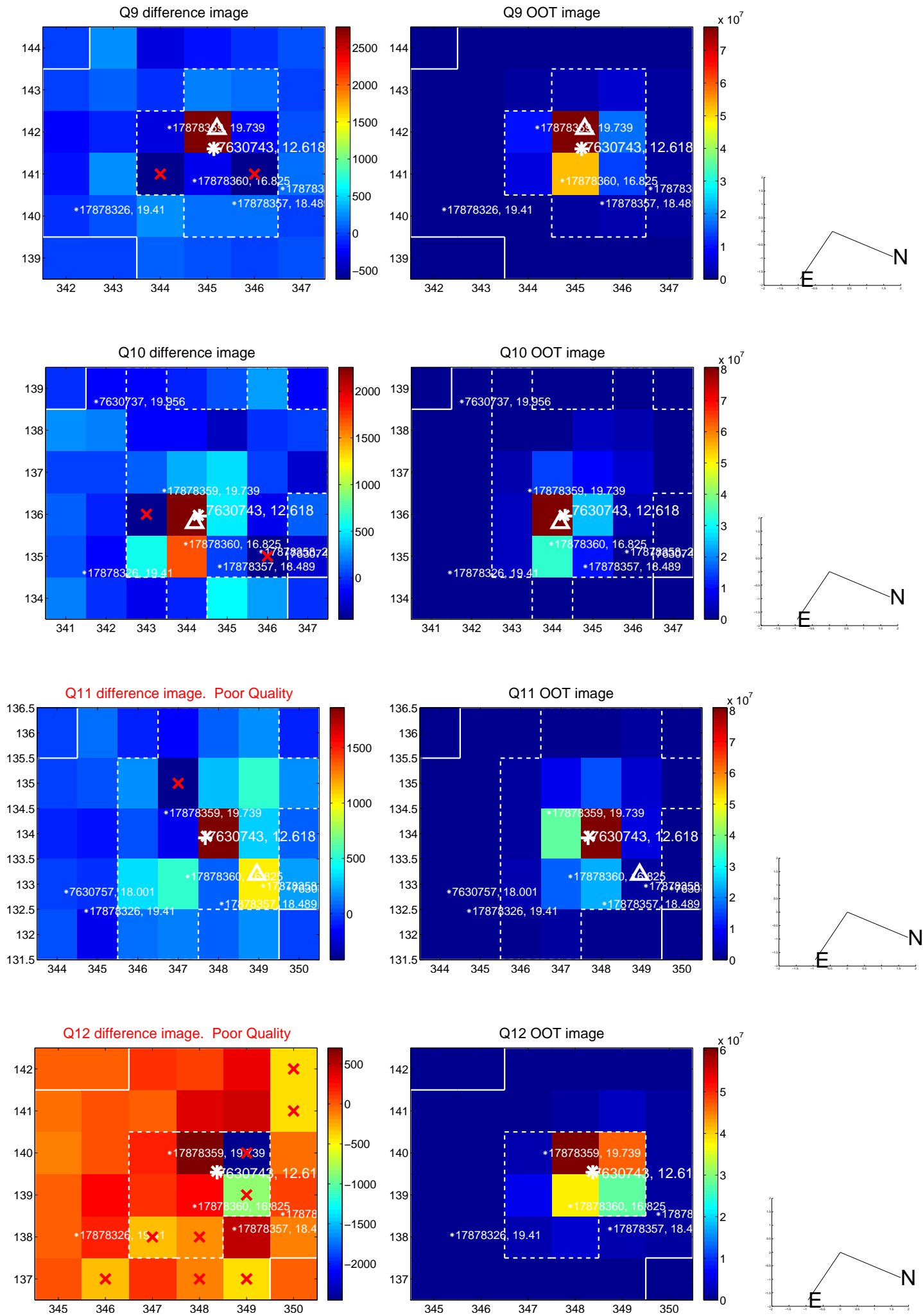
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



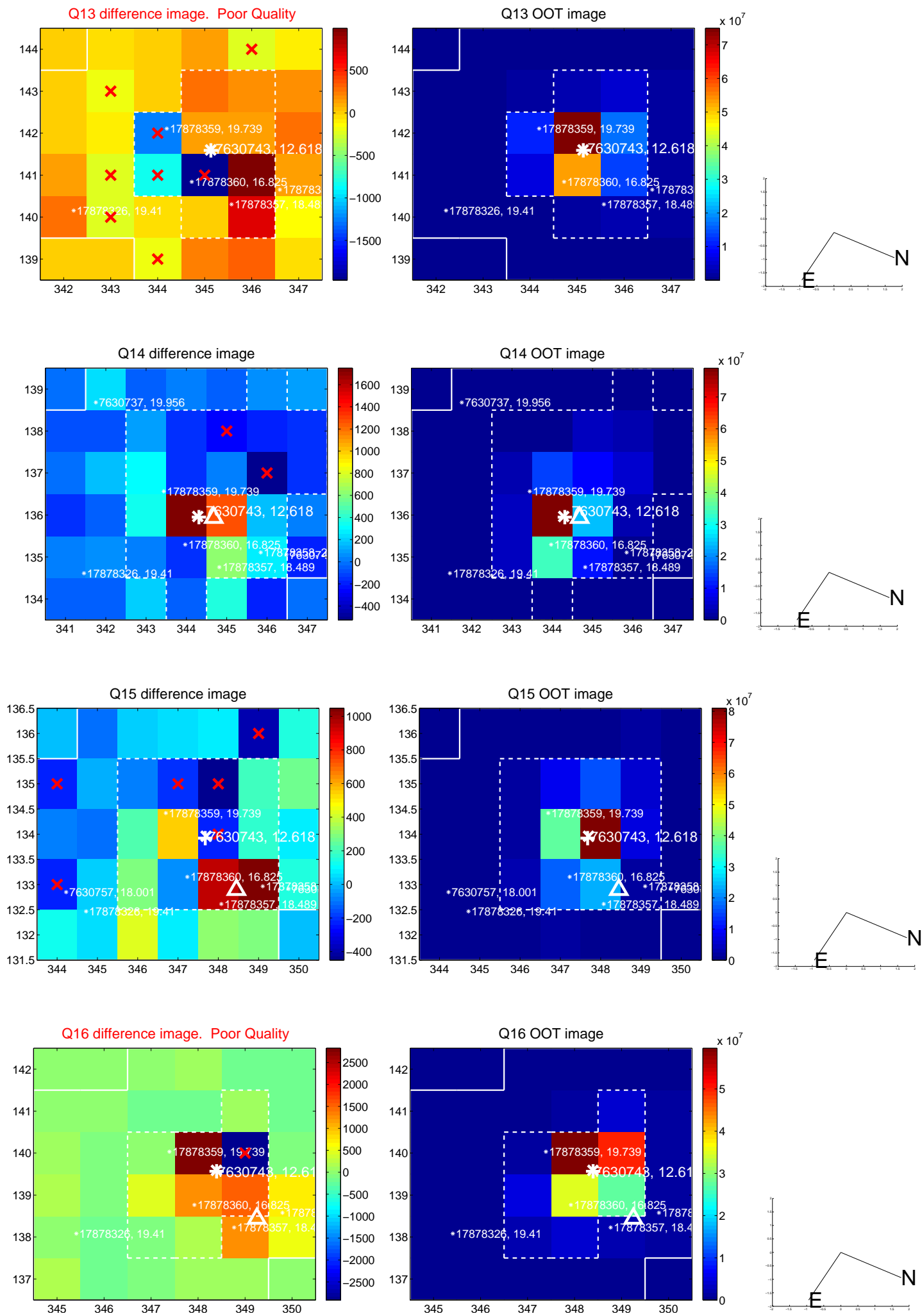
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



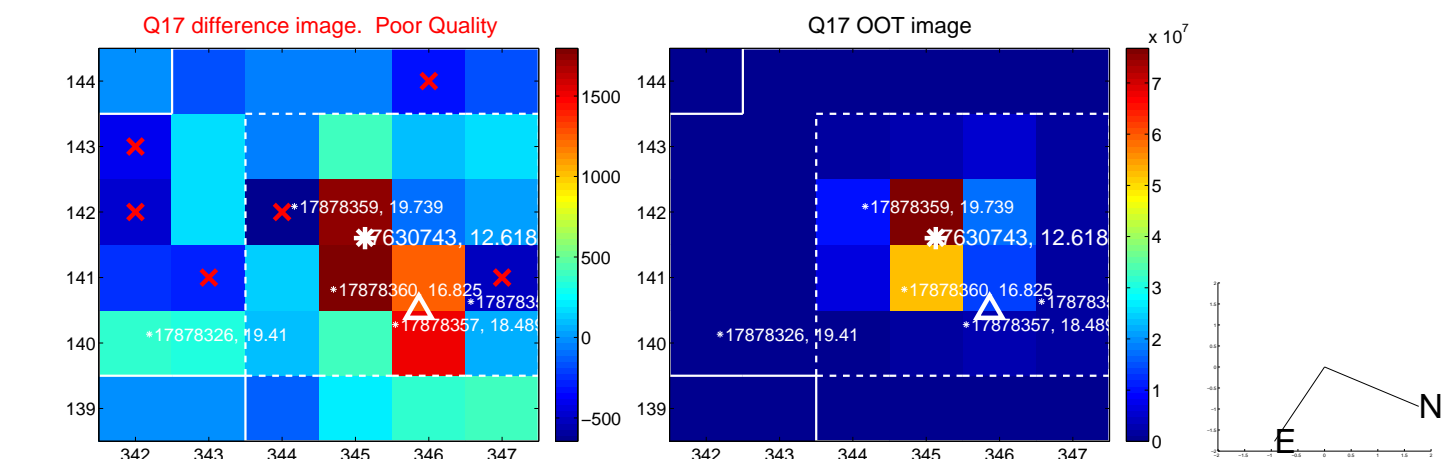
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



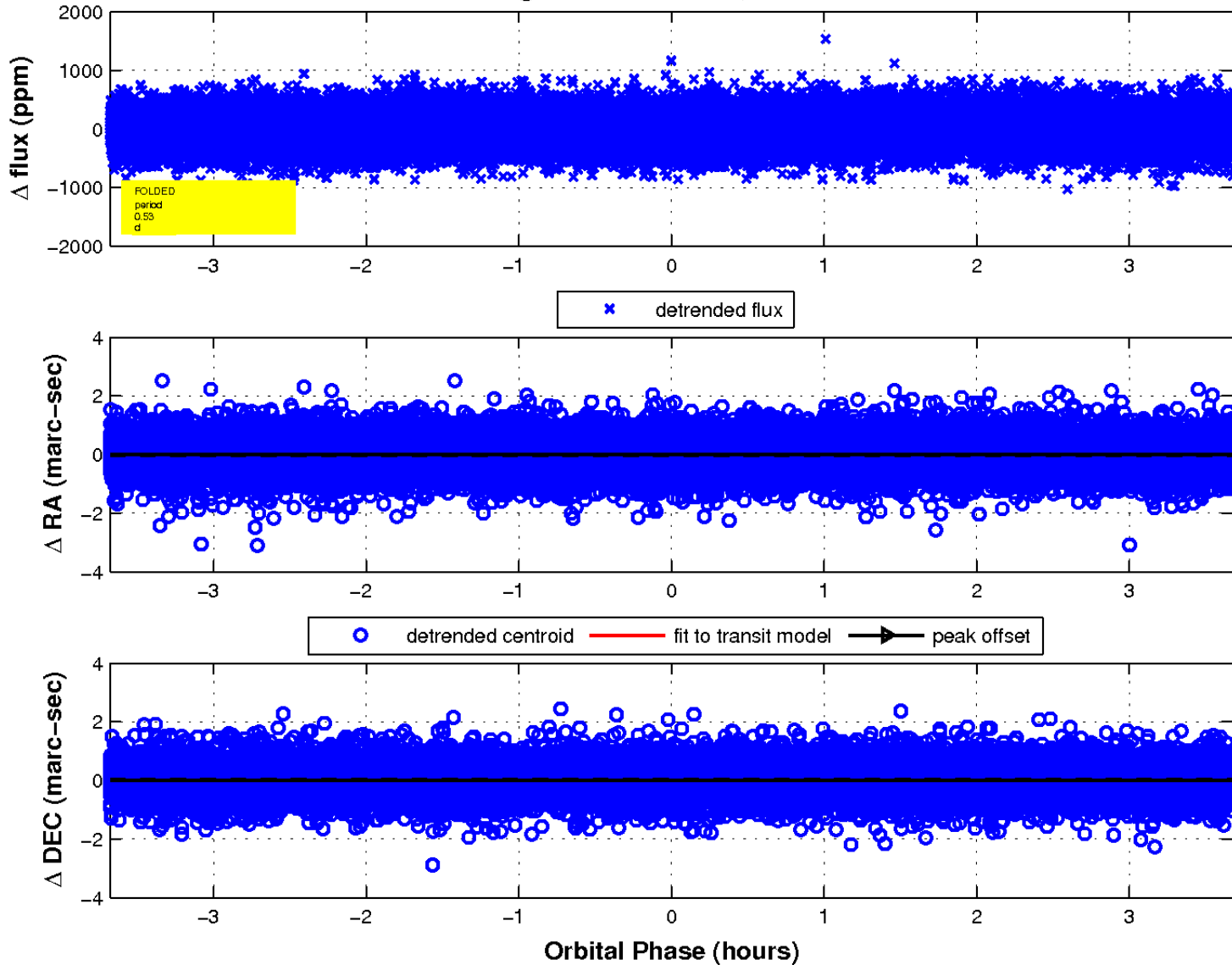
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

