

KIC 005941759

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})
005941759-01	OBS	No	0.847988	131.928422	13.4	8.815	7.7	8.3	0.99	5574	0.36	3181.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005941759-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

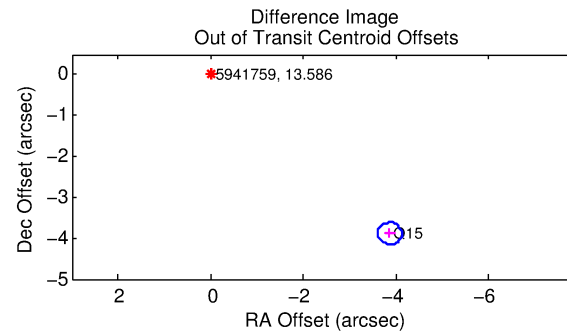
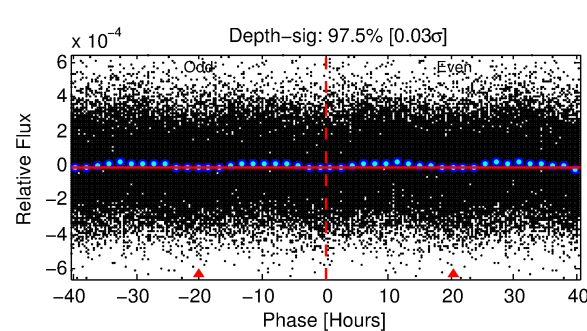
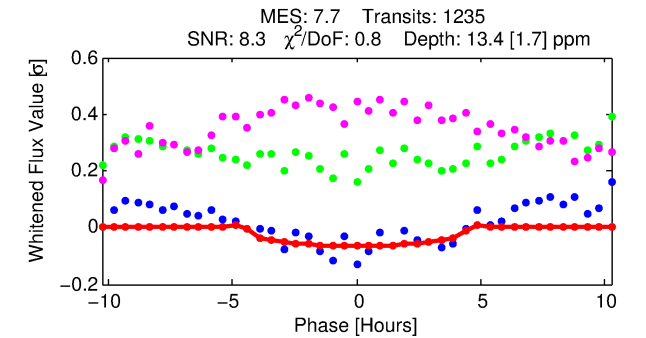
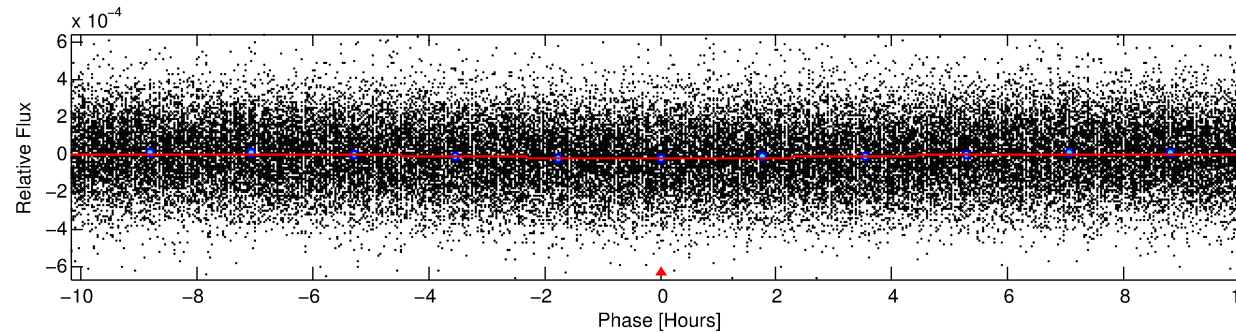
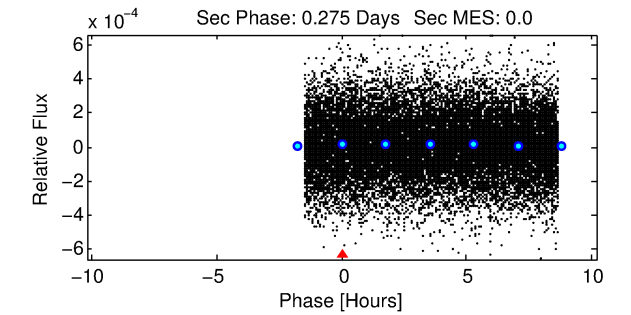
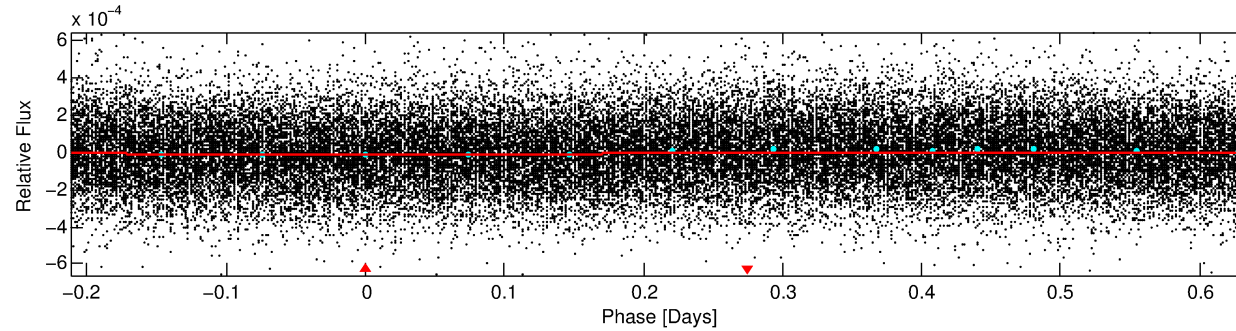
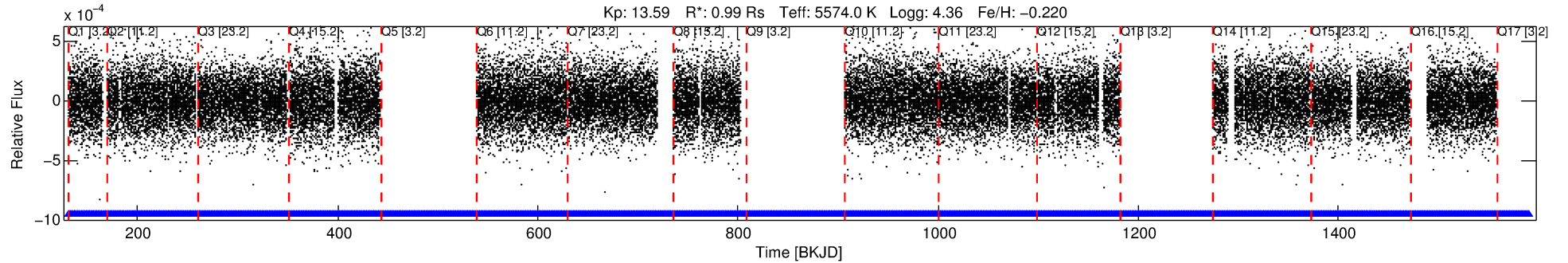
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005941759-01

No Significant Match Found

DV One-Page Summary

KIC: 5941759 Candidate: 1 of 1 Period: 0.848 d



DV Fit Results:

Period = 0.84799 [0.00002] d
Epoch = 131.9284 [0.0109] BKJD
Rp/R* = 0.0033 [0.0038]
a/R* = 1.03 [0.24]
b = 0.11 [47.57]
Seff = 3181.51 [1313.92]
Teq = 1915 [198] K
Rp = 0.36 [0.43] Re
a = 0.0164 [0.0043] AU
Ag = N/A
Teffp = N/A

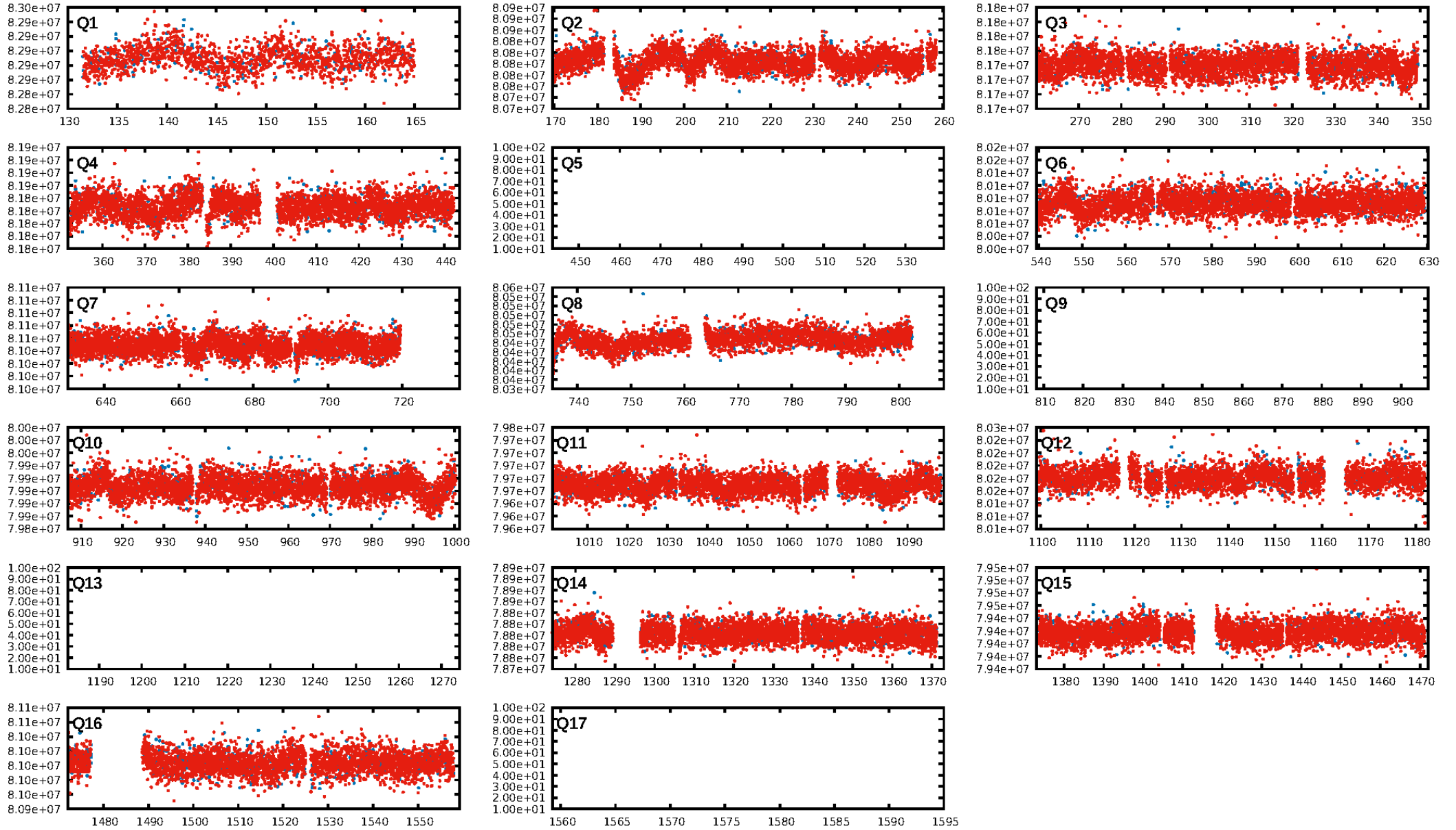
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1195/1195]
GhostDiagnostic-chr: 0.3565
Centroid-sig: 0.0%
Centroid-so: 8.420 arcsec [6.62σ]
OotOffset-rm: 5.479 arcsec [61.91σ]
KicOffset-rm: 5.360 arcsec [60.45σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [13/13]

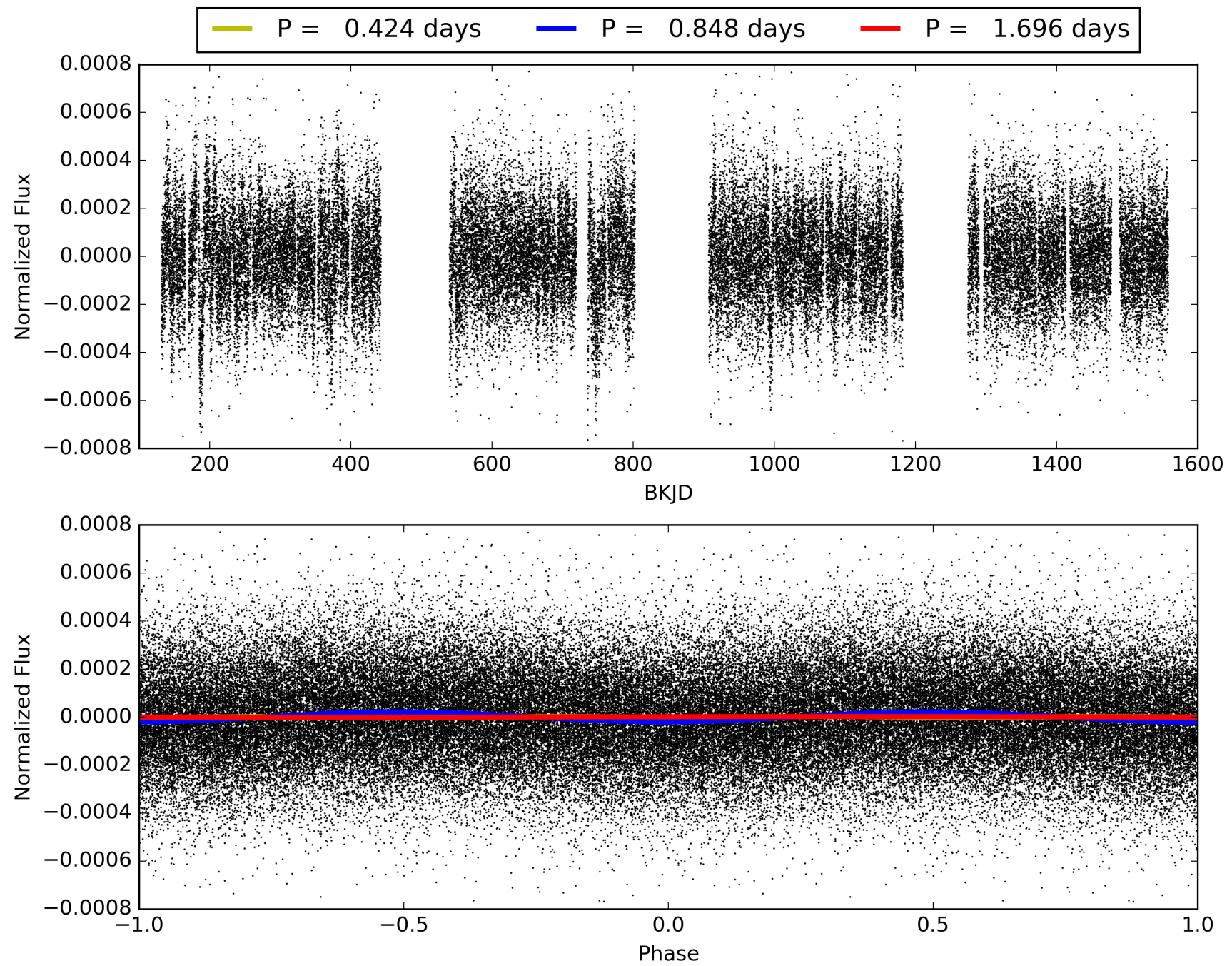
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:45:00 Z

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

TCE 005941759-01, PDC Light Curves

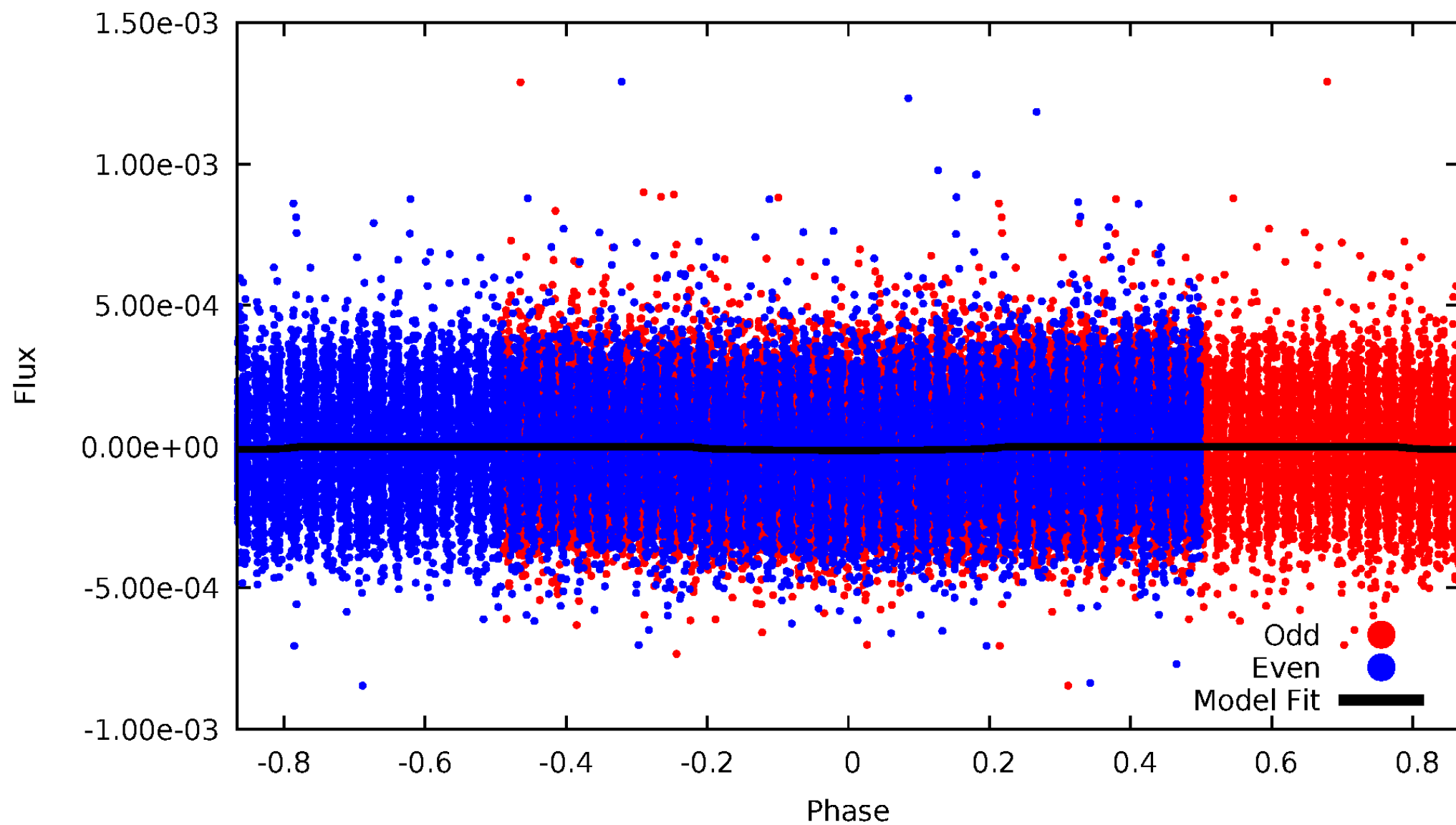


TCE 005941759-01



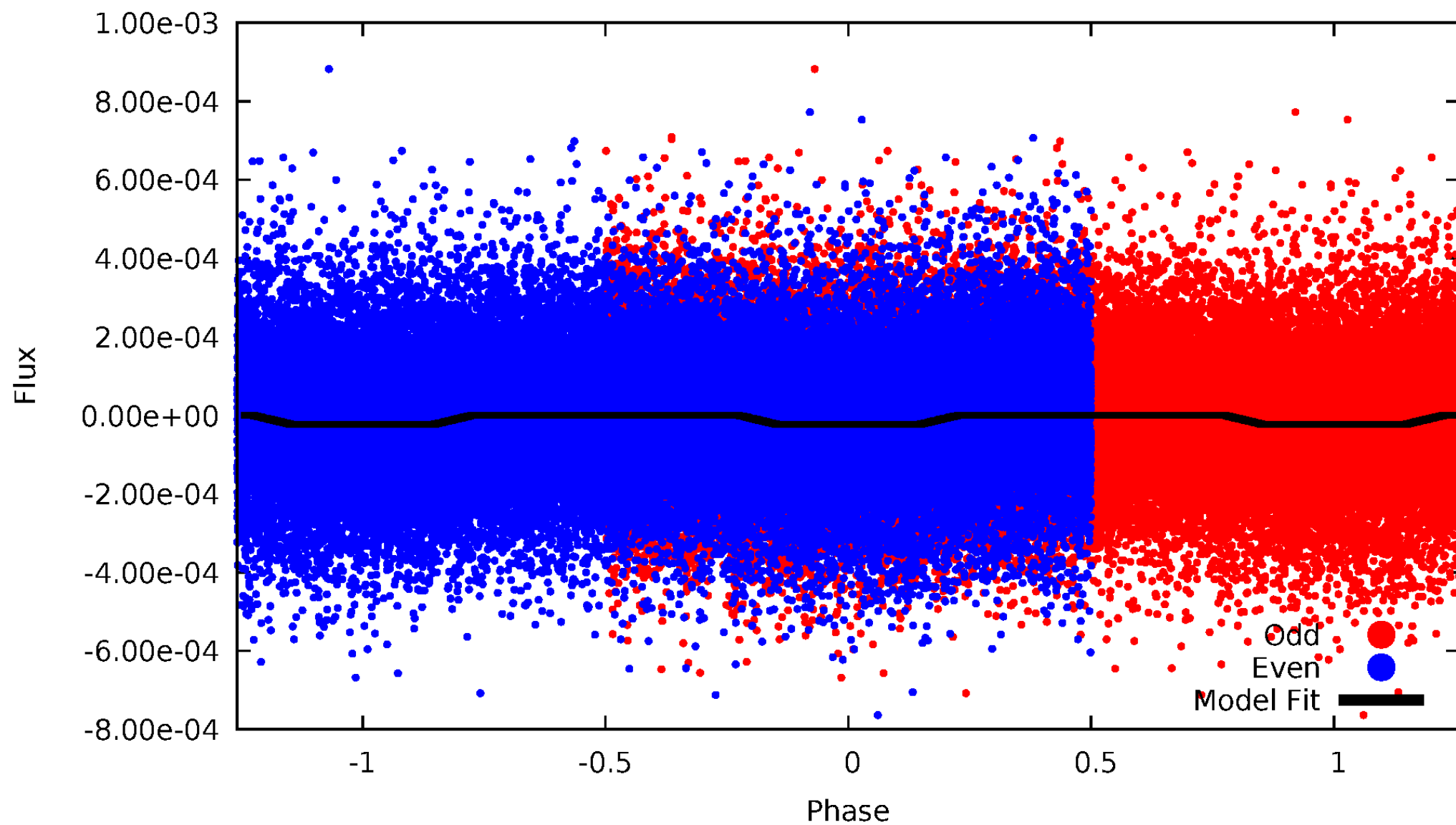
DV Odd/Even

TCE 005941759-01



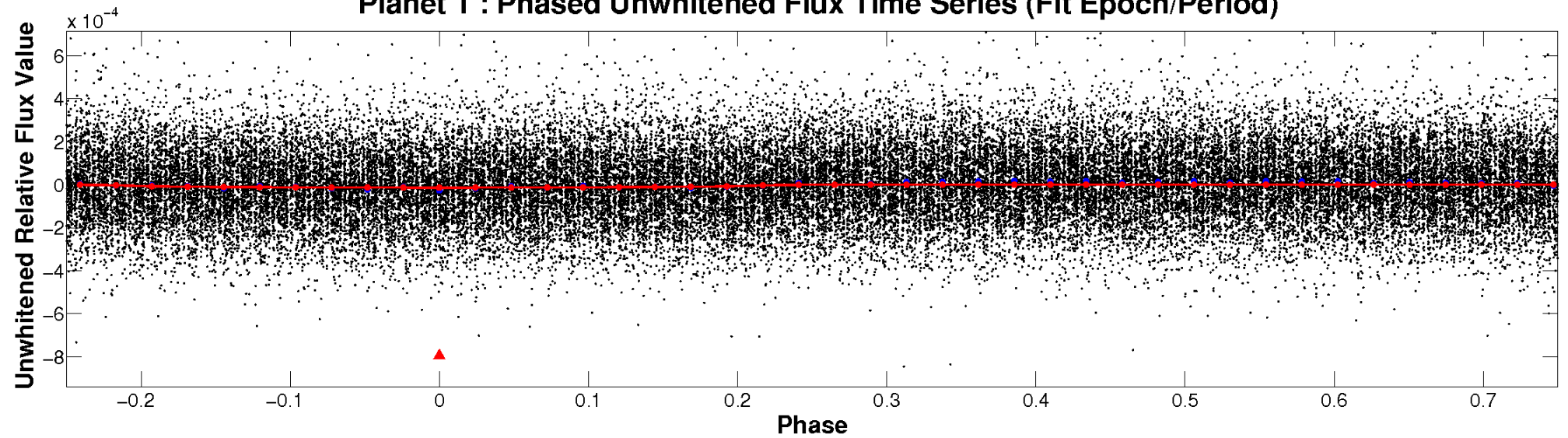
ALT Odd/Even

TCE 005941759-01

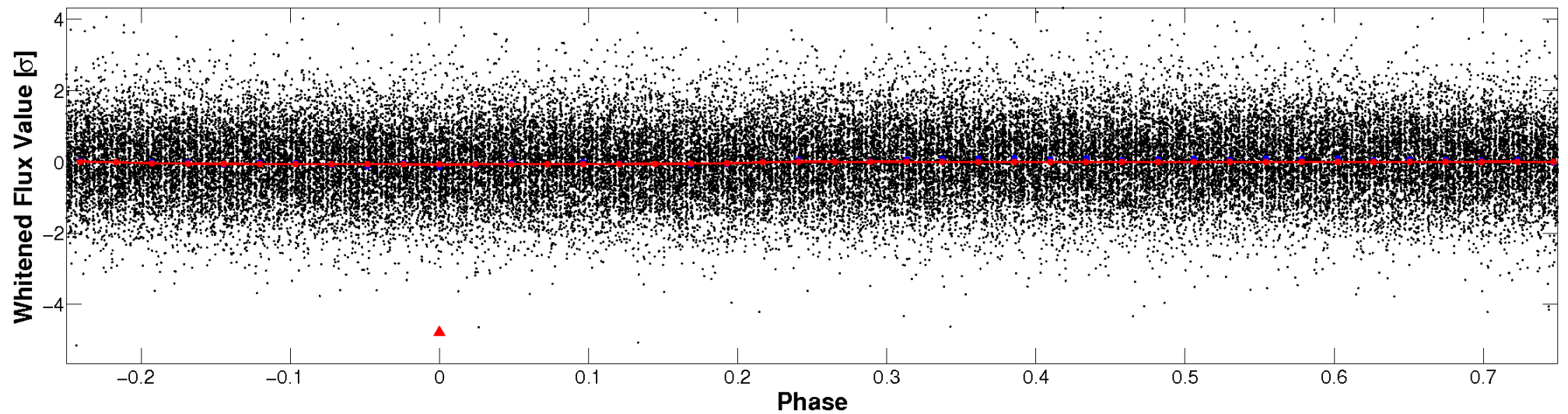


Non-Whitened Vs. Whitened Light Curve

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

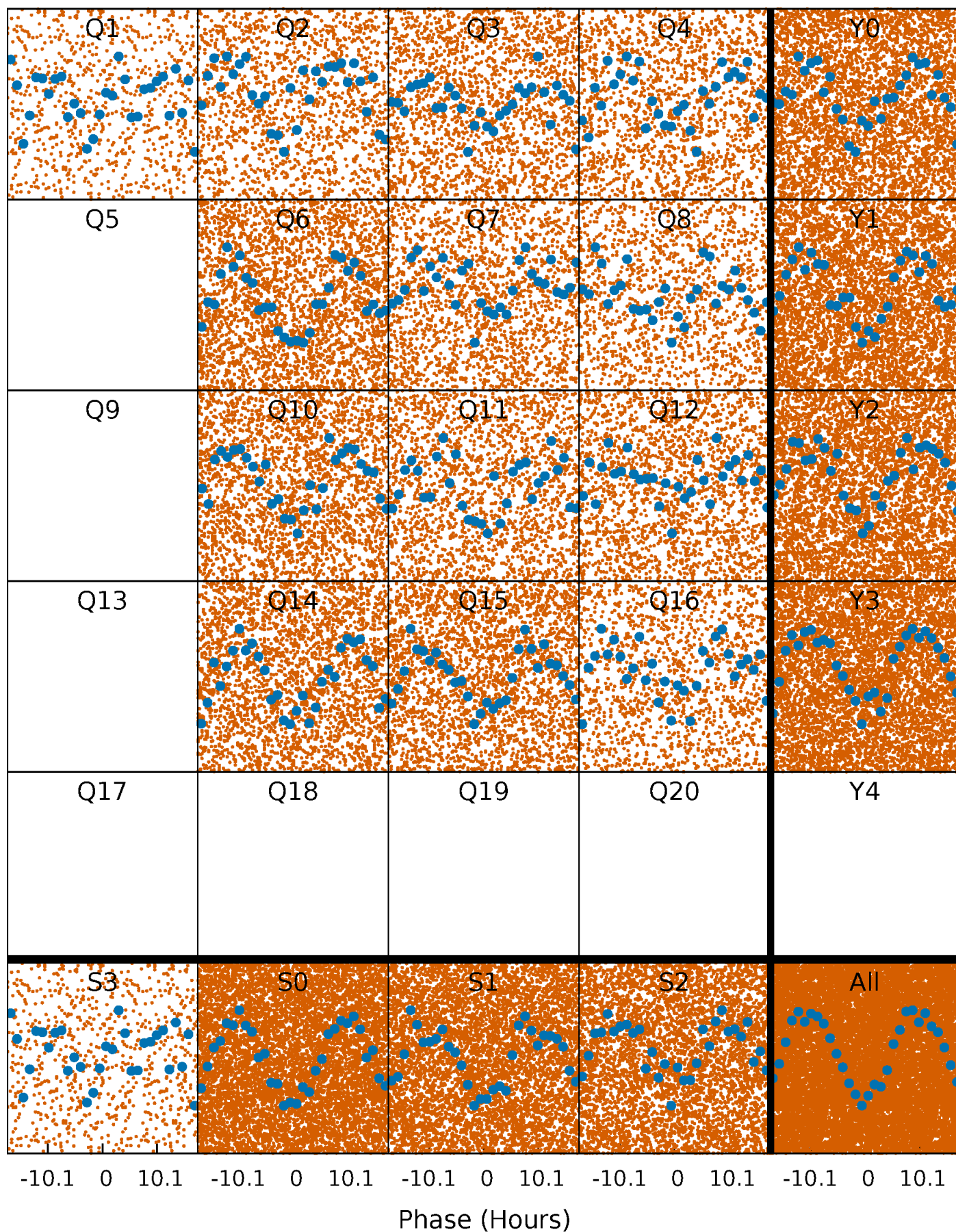


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



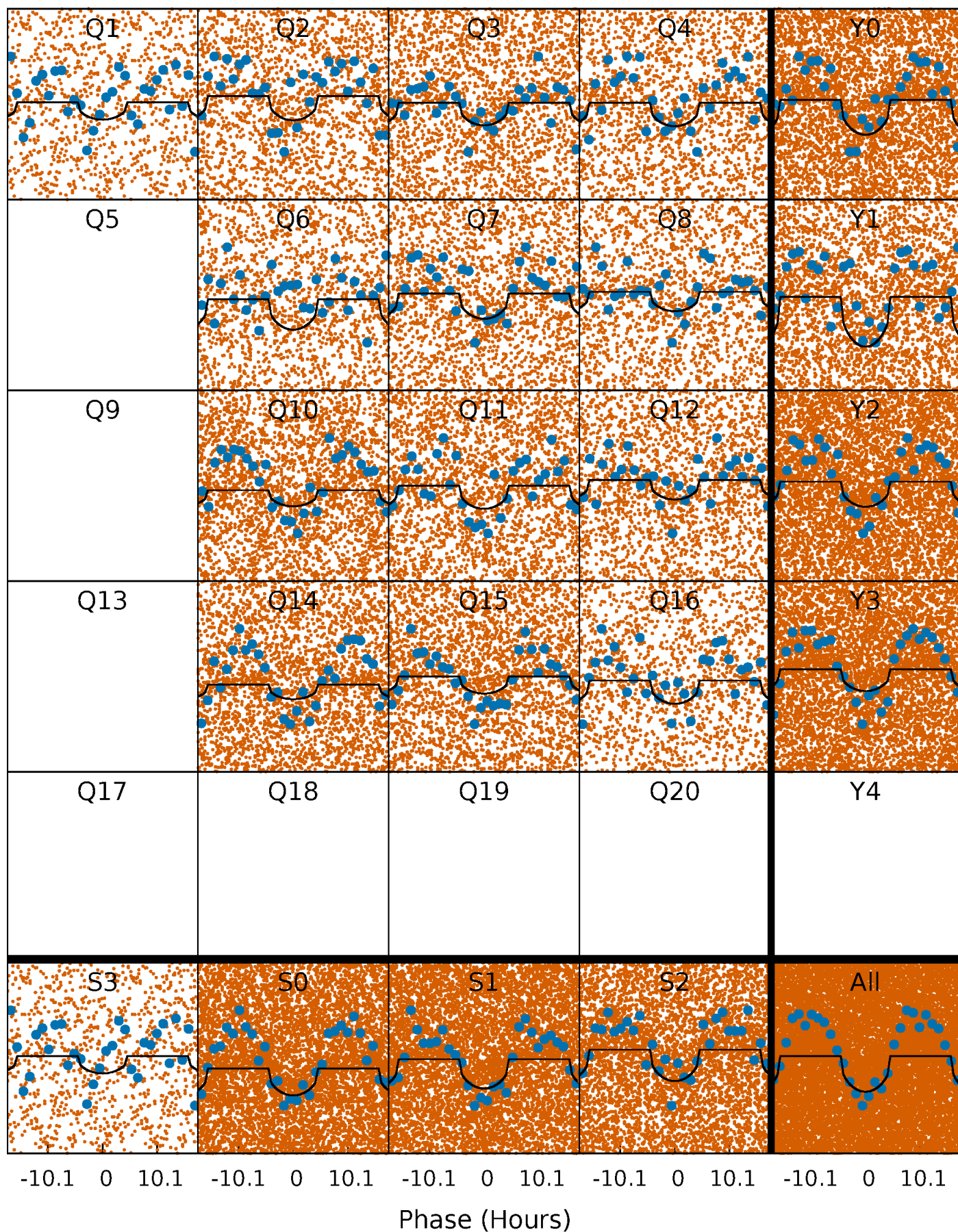
PDC Quarter-Phased Transit Curves

TCE 005941759-01 P= 0.847988 Days $T_0=131.928422$ (BKJD)



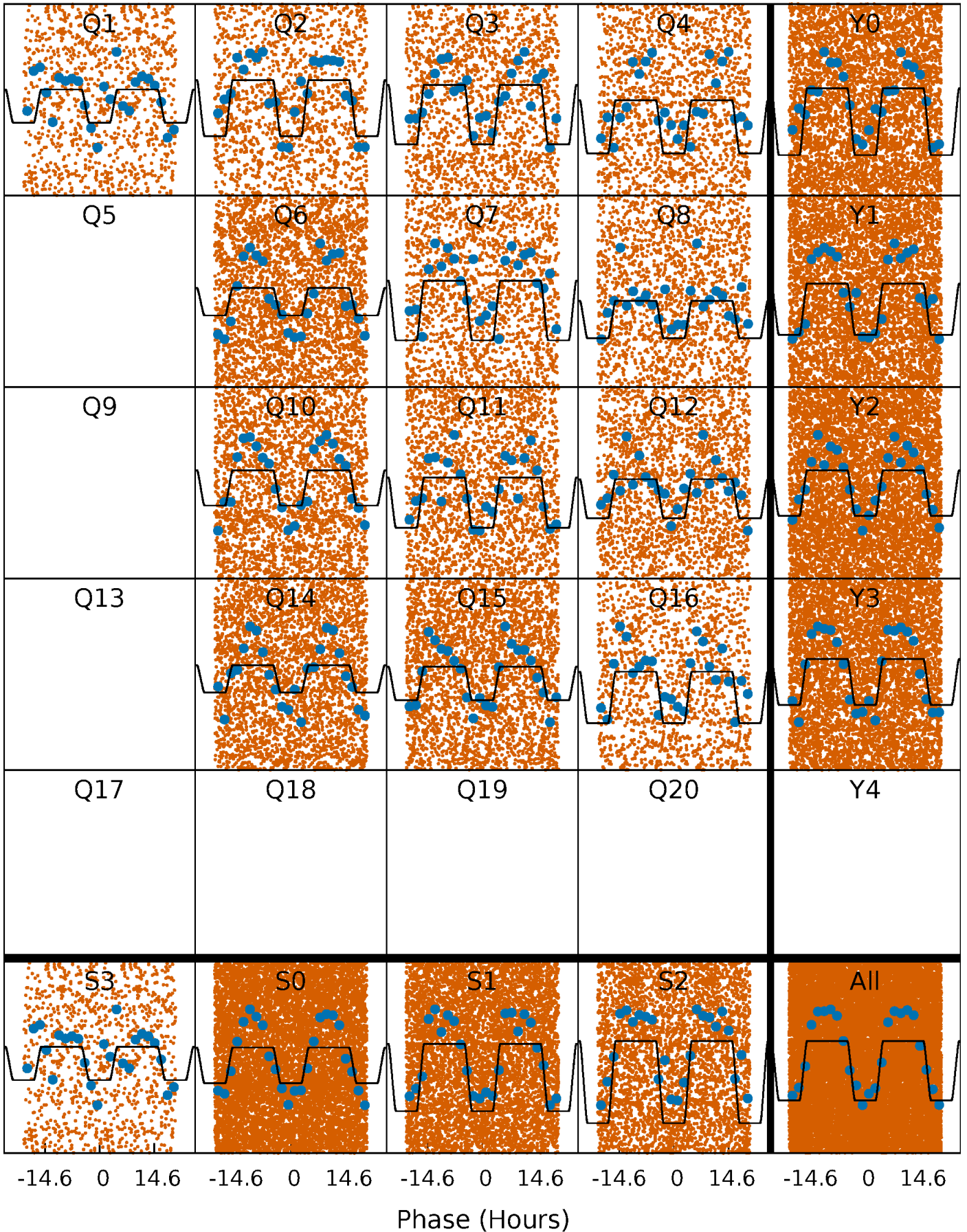
DV Quarter-Phased Transit Curves

TCE 005941759-01 P= 0.847988 Days $T_0=131.928422$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

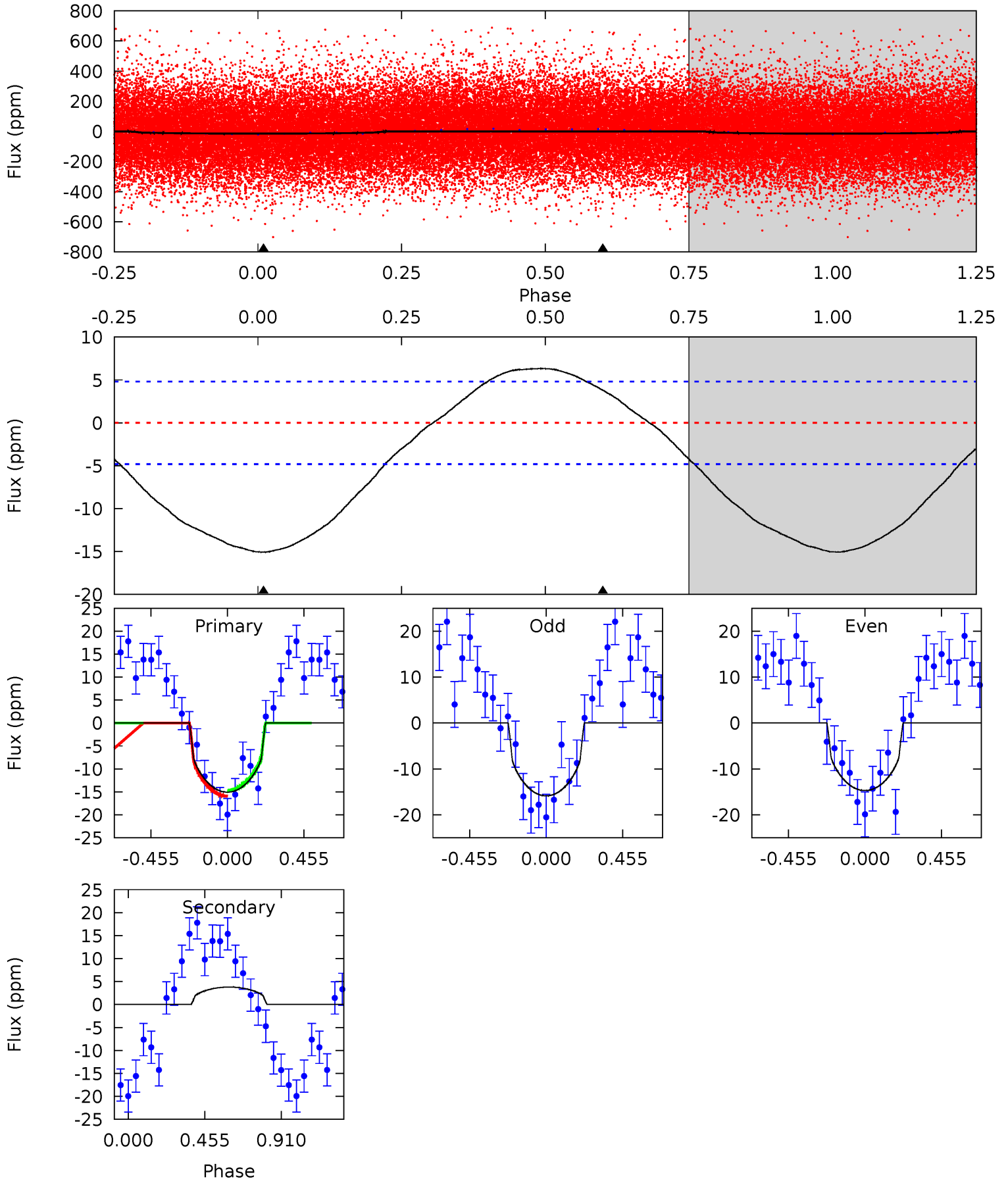
TCE 005941759-01 P= 0.848048 Days $T_0=131.873165$ (BKJD)



DV Model-Shift Uniqueness Test

005941759-01, P = 0.847988 Days, E = 131.080434 Days

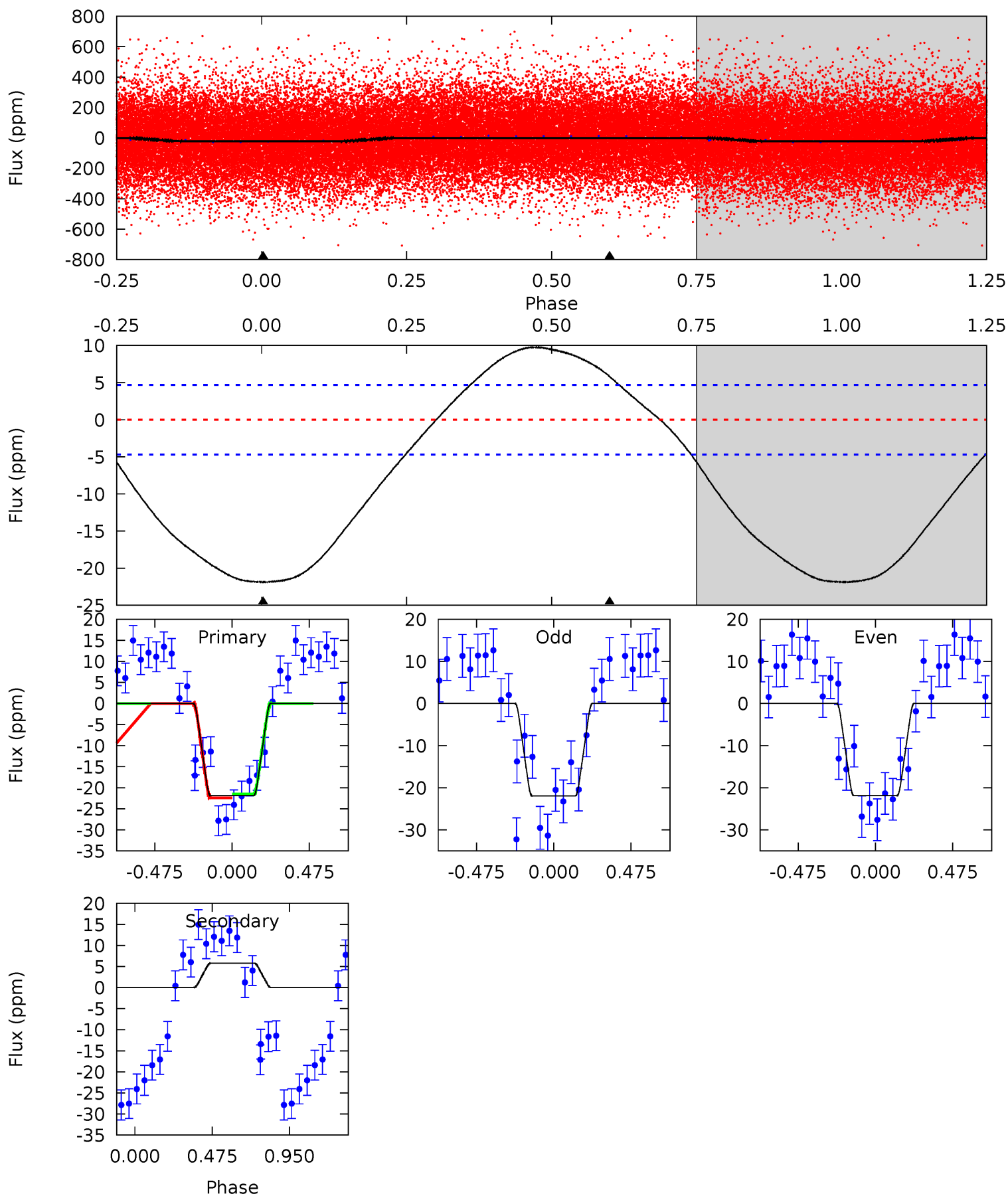
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	-3.34	0	0	4.24	0.75	1.40	13.2	13.2	-3.34	-3.34	0.52	1.12	0.30	0.58



Alt Model-Shift Uniqueness Test

005941759-01, P = 0.848048 Days, E = 131.025117 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	-5.21	0	0	4.23	0.71	2.28	19.7	19.7	-5.21	-5.21	0.02	1.03	0.31	0.40



Stellar Parameters For KIC 005941759

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5574^{+150}_{-150}	$4.355^{+0.184}_{-0.225}$	$-0.220^{+0.300}_{-0.250}$	$0.994^{+0.297}_{-0.198}$	$0.816^{+0.127}_{-0.063}$	$1.171^{+1.065}_{-0.650}$
	+3%/-3%	+4%/-5%	+136%/-114%	+30%/-20%	+16%/-8%	+91%/-56%
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 005941759-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	4 ± 1	$0.47^{+0.41}_{-0.31}$	2704^{+211}_{-181}	-4168^{+675}_{-2453}	$-2.454^{+1.768}_{-19.962}$
Alt.	6 ± 1	$0.60^{+0.42}_{-0.34}$	2686^{+202}_{-189}	-4068^{+533}_{-1742}	$-2.437^{+1.617}_{-11.852}$

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

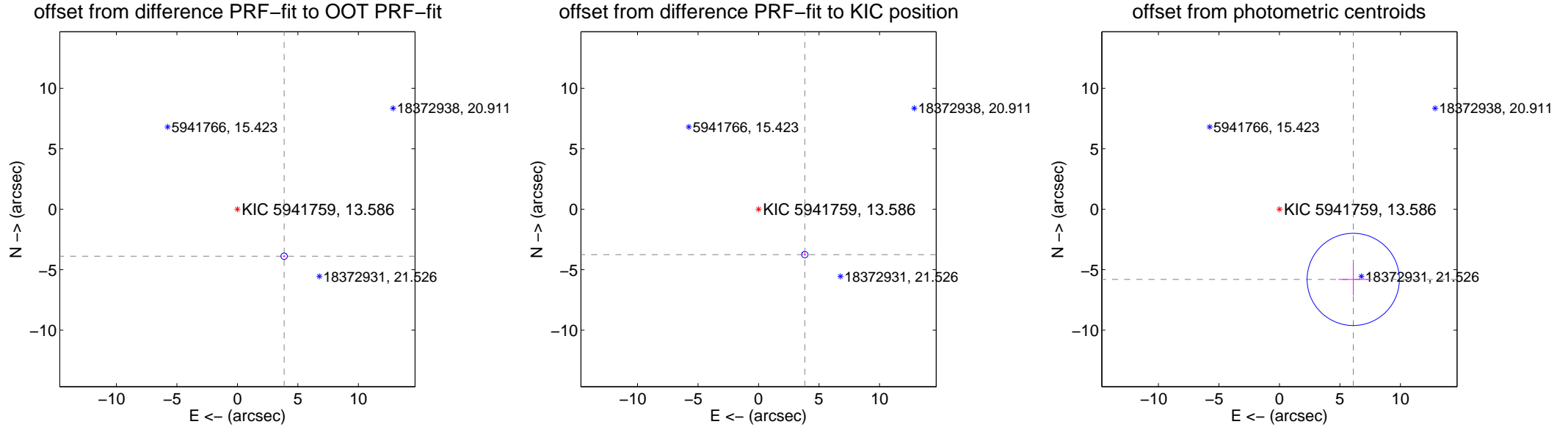
DV Centroid Data

Supplemental centroid analysis for 005941759-01. Kepler magnitude: 13.59. Transit SNR 8.29

There are 0 quarters with good PRF difference image offsets

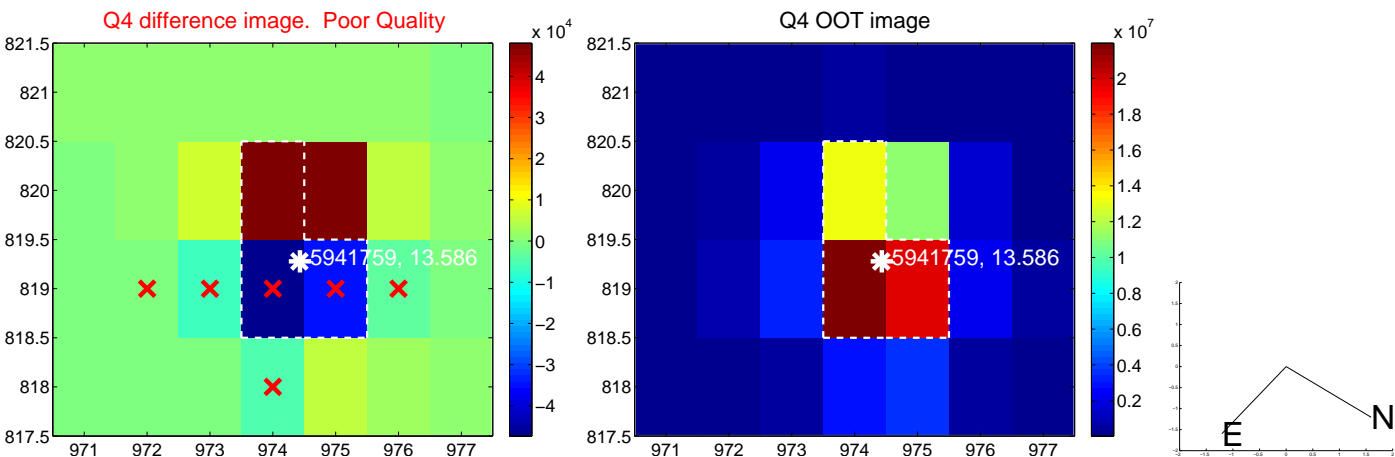
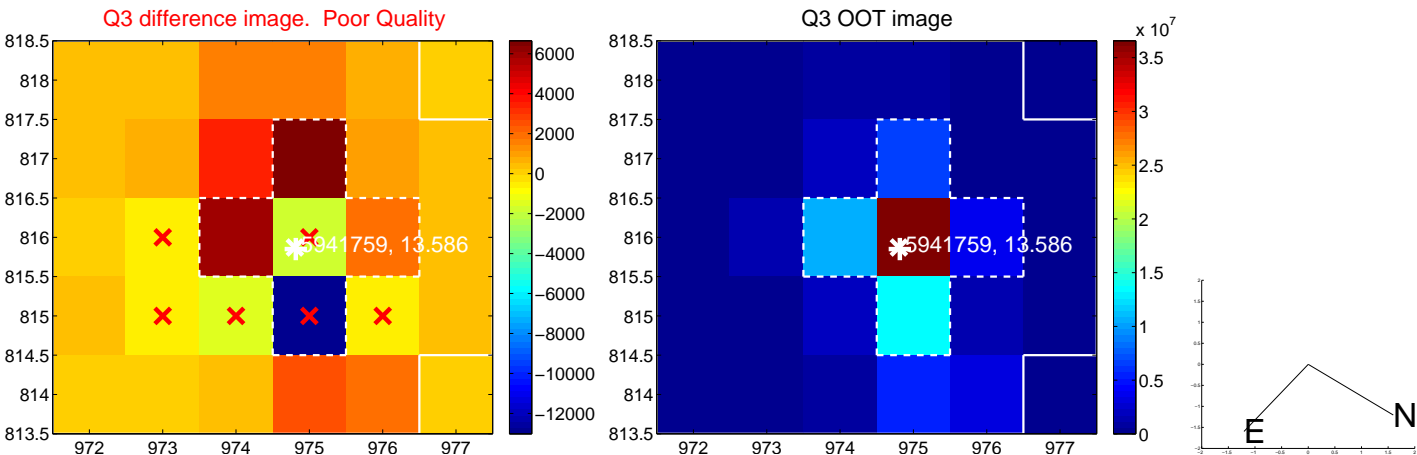
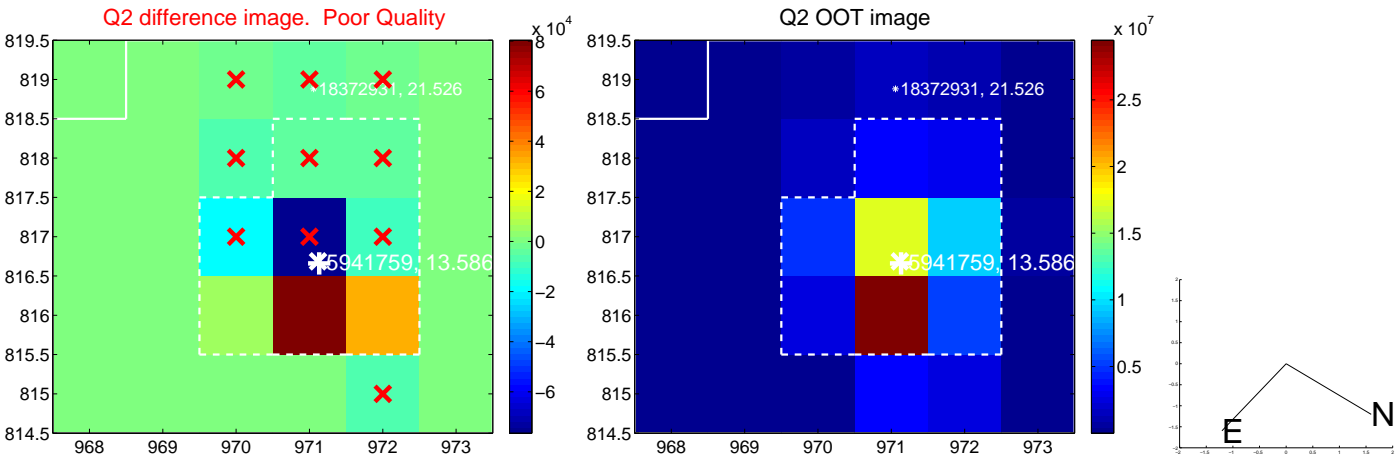
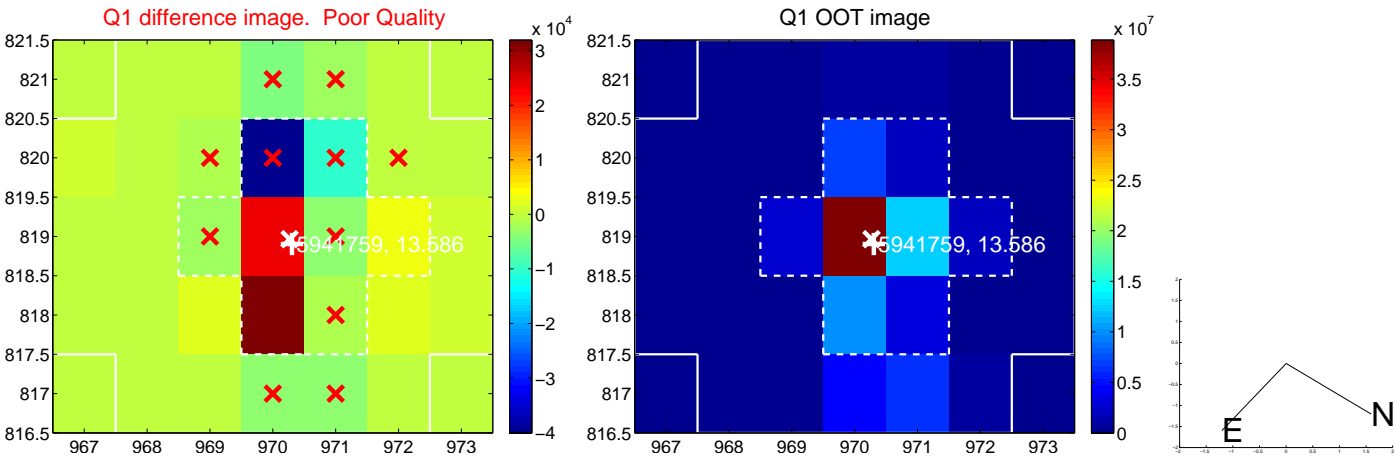
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.479 ± 0.088	61.91	-3.863 ± 0.095	-3.885 ± 0.082
PRF-fit source offset from KIC position	5.360 ± 0.089	60.45	-3.826 ± 0.095	-3.753 ± 0.082
photometric centroid source offset	8.42 ± 1.27	6.62	-6.10 ± 1.23	-5.80 ± 1.32

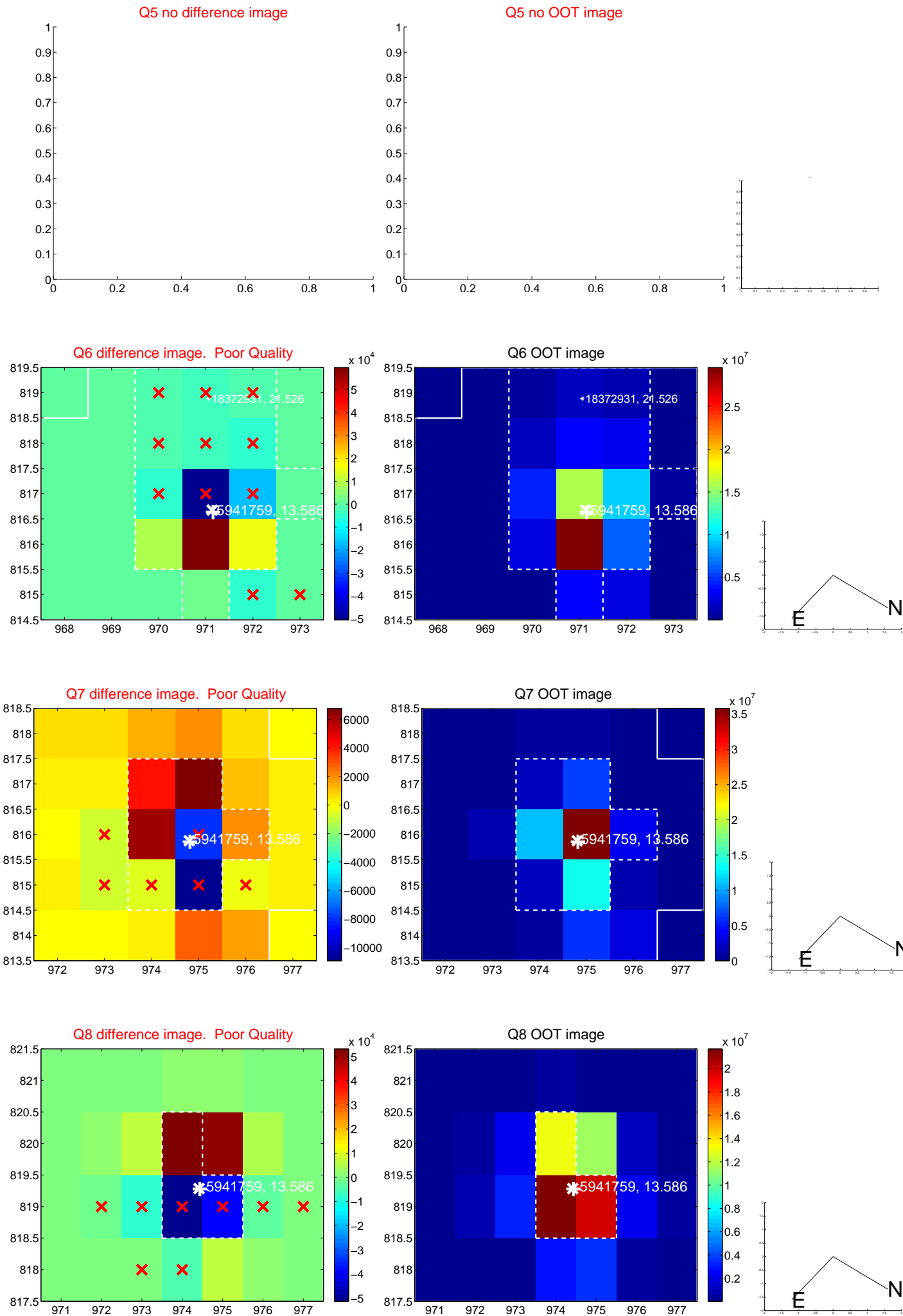


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

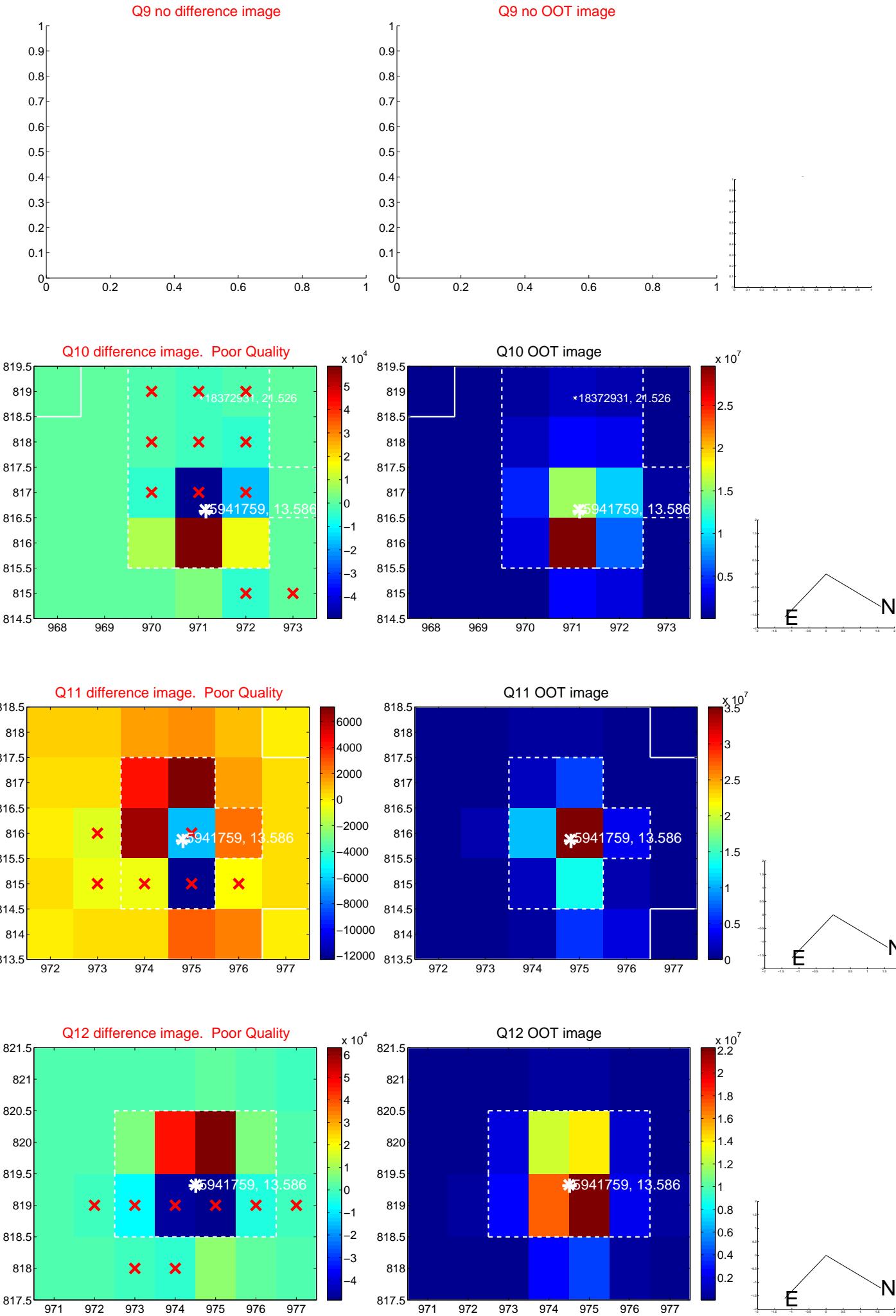
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



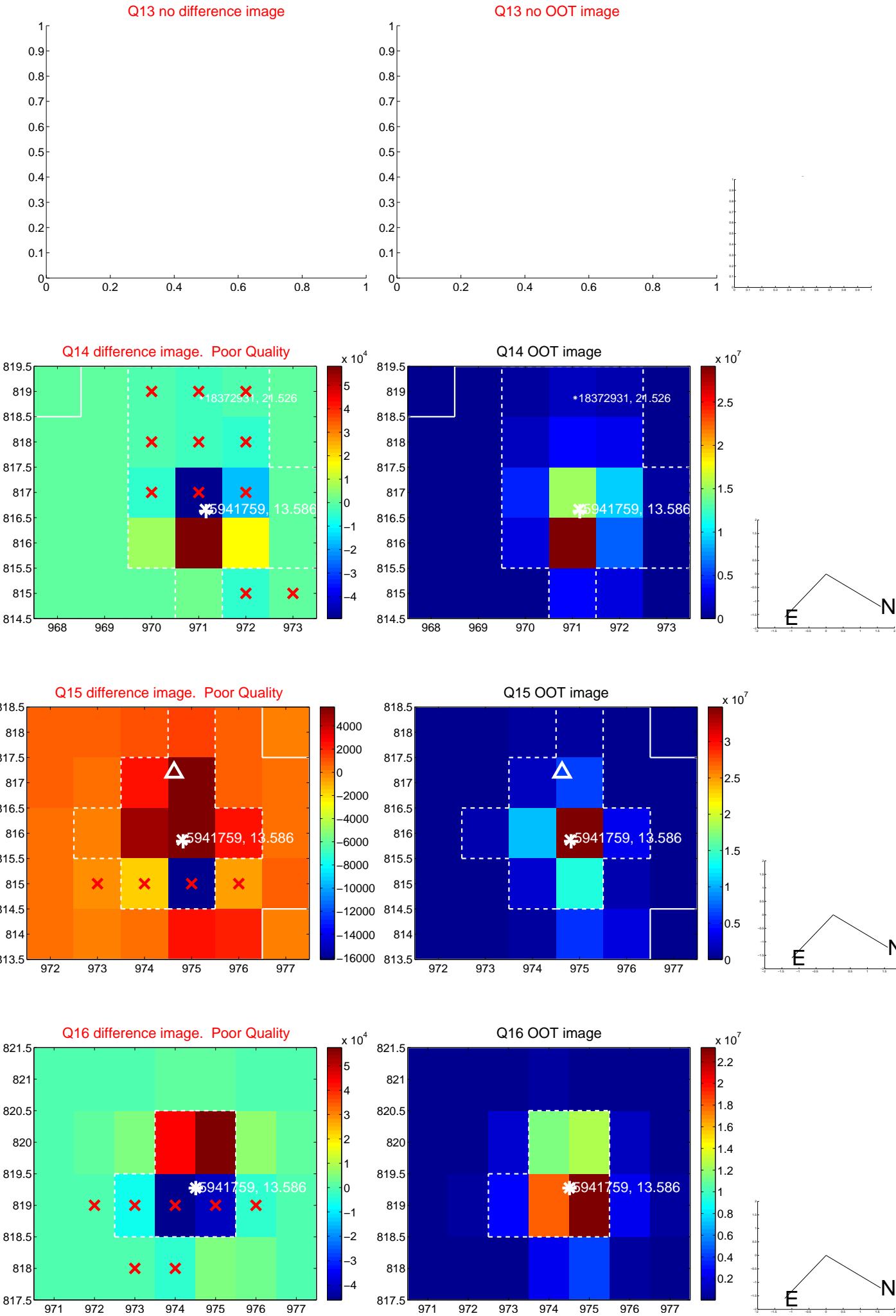
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



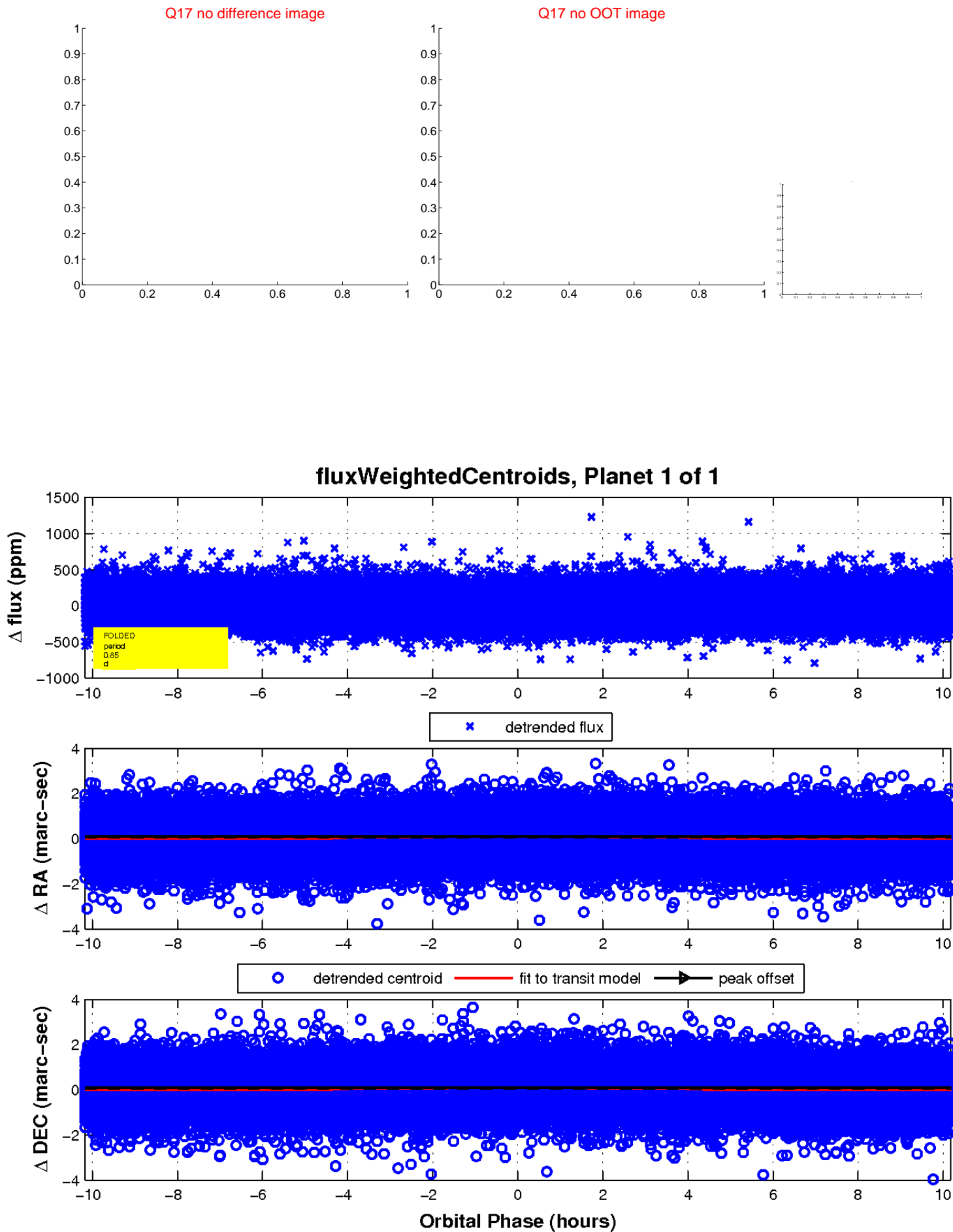
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

