

KIC 006423922

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})
006423922-01	OBS	6705.01	0.995061	131.595208	55.0	4.739	12.8	10.9	0.11	3325	0.08	15.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006423922-01	OBS	PC	0.41	0	0	0	0	CENT_KIC_POS

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.

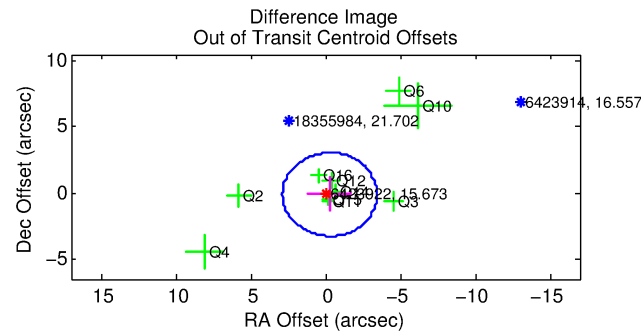
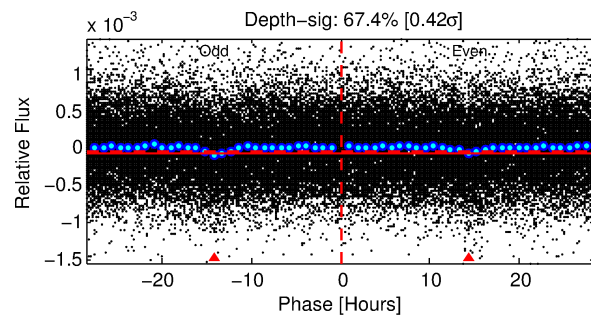
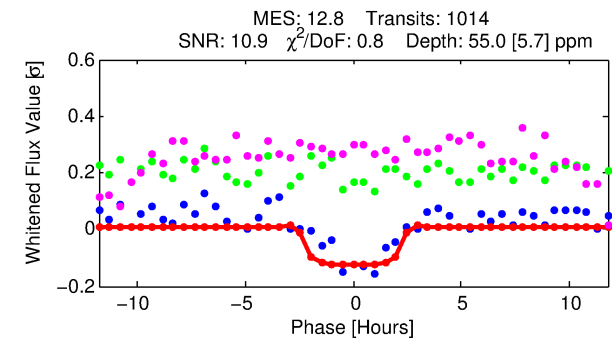
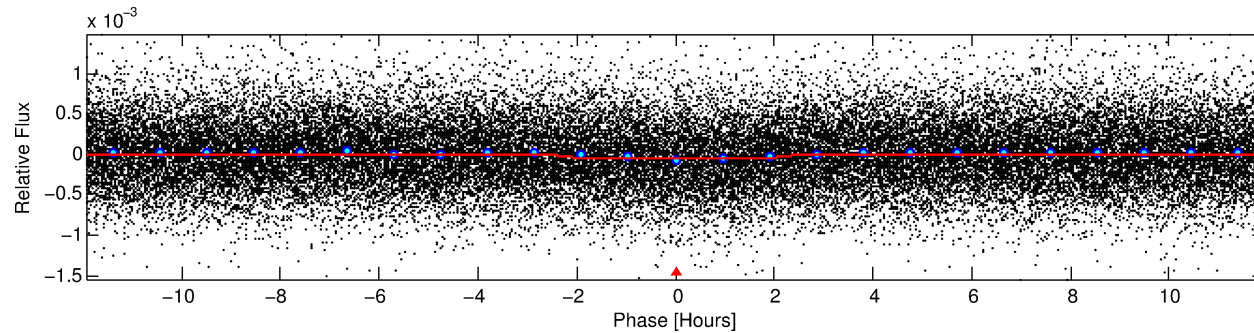
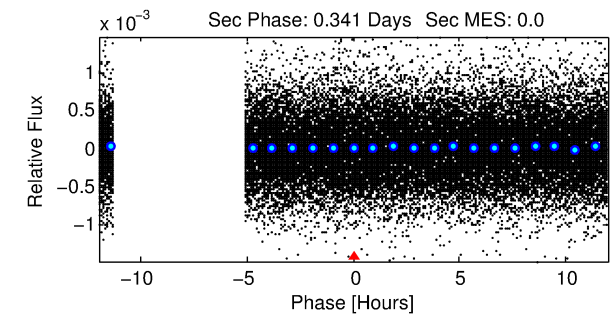
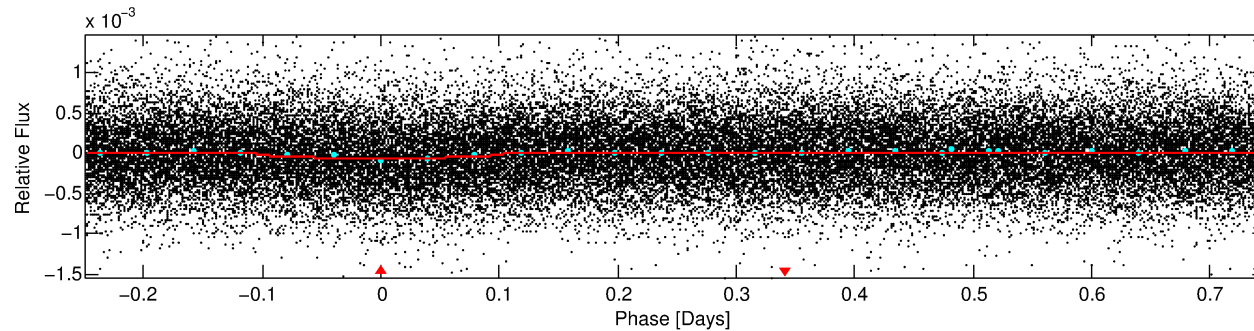
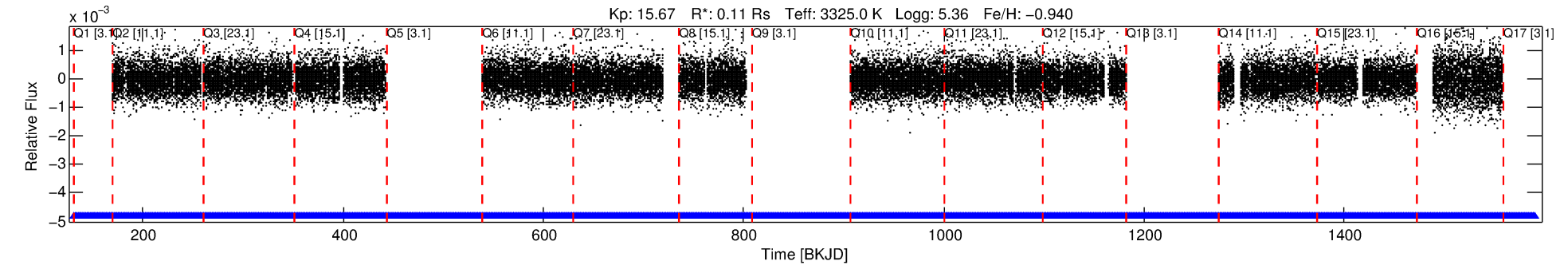
Ephemeris Match Information For 006423922-01

No Significant Match Found

DV One-Page Summary

KIC: 6423922 Candidate: 1 of 1 Period: 0.995 d

KOI: K06705.01 Corr: 0.847



DV Fit Results:

Period = 0.99506 [0.00001] d
Epoch = 131.5952 [0.0048] BKJD
Rp/R* = 0.0069 [0.0047]
a/R* = 1.65 [3.76]
b = 0.36 [8.60]
Seff = 15.84 [9.26]
Teff = 509 [74] K
Rp = 0.08 [0.08] Re
a = 0.0091 [0.0043] AU
Ag = N/A
Teffp = N/A

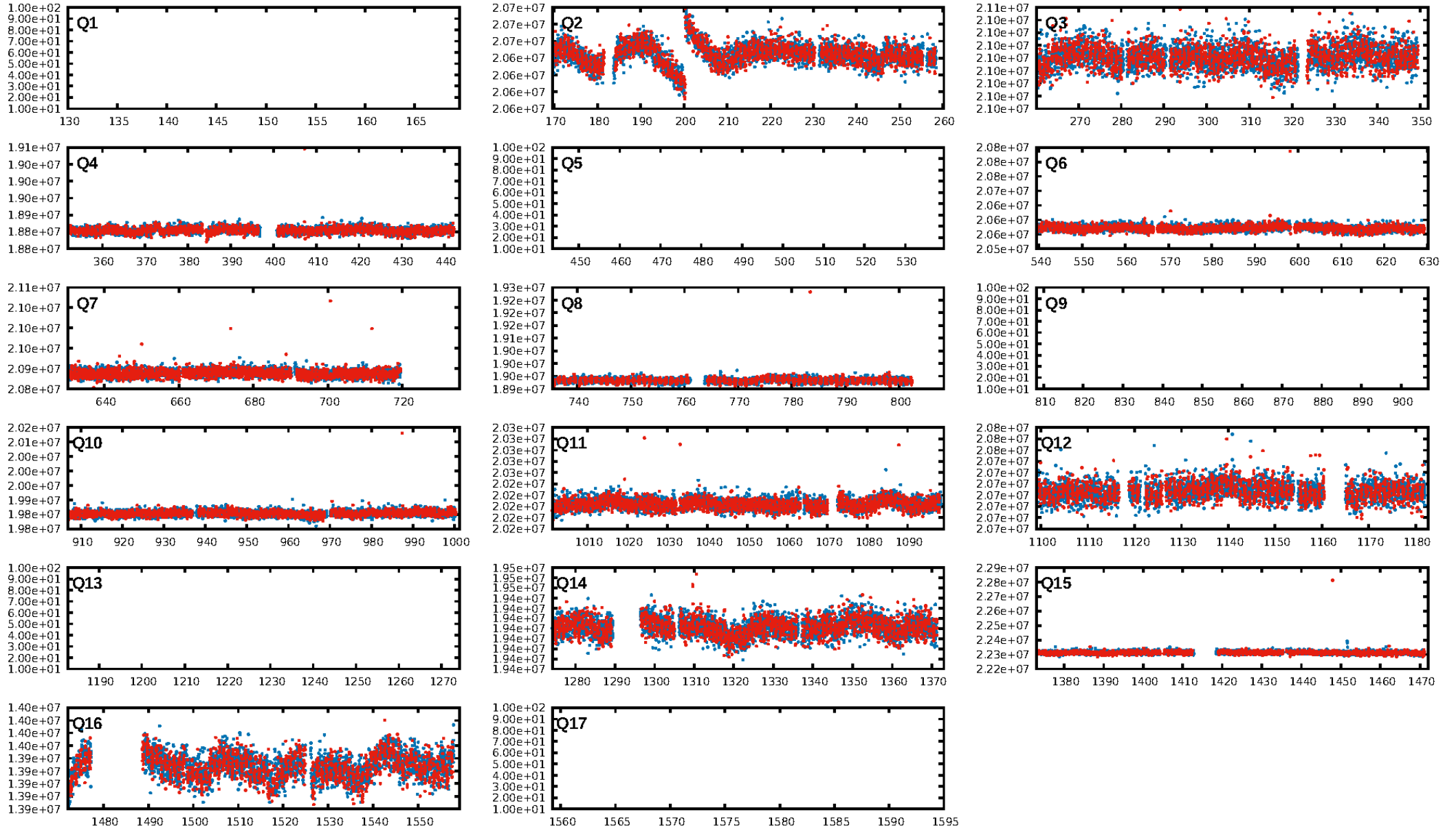
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.42e-32
RollingBand-fgt: 1.00 [1014/1014]
GhostDiagnostic-chr: -5.53
Centroid-sig: 24.8%
Centroid-so: 1.814 arcsec [1.57σ]
OotOffset-rm: 0.298 arcsec [0.28σ]
KicOffset-rm: 2.202 arcsec [2.34σ]
OotOffset-st: 4/3/3/0 [10]
KicOffset-st: 4/3/3/0 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [12/12]

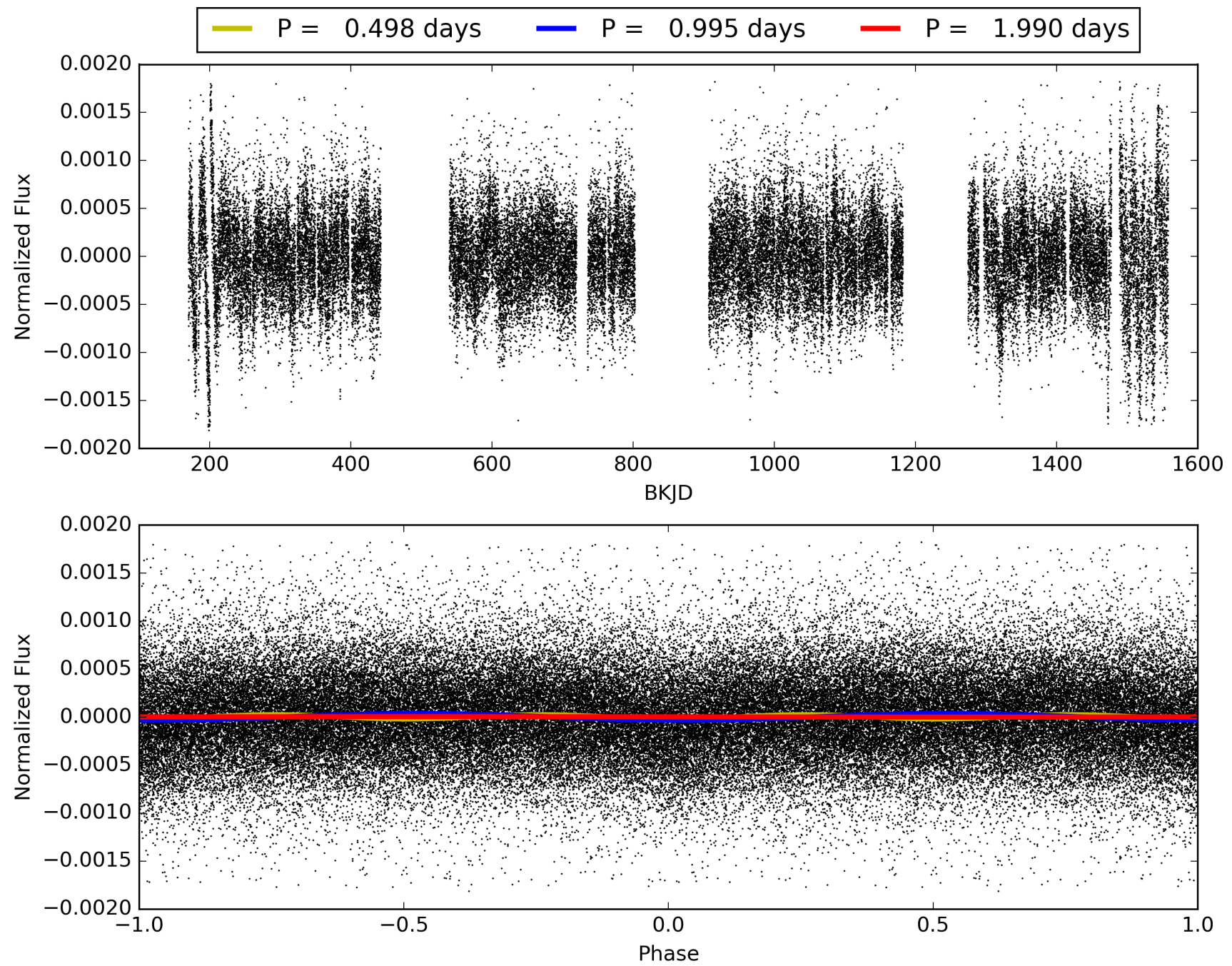
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:26:06 Z

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

TCE 006423922-01, PDC Light Curves

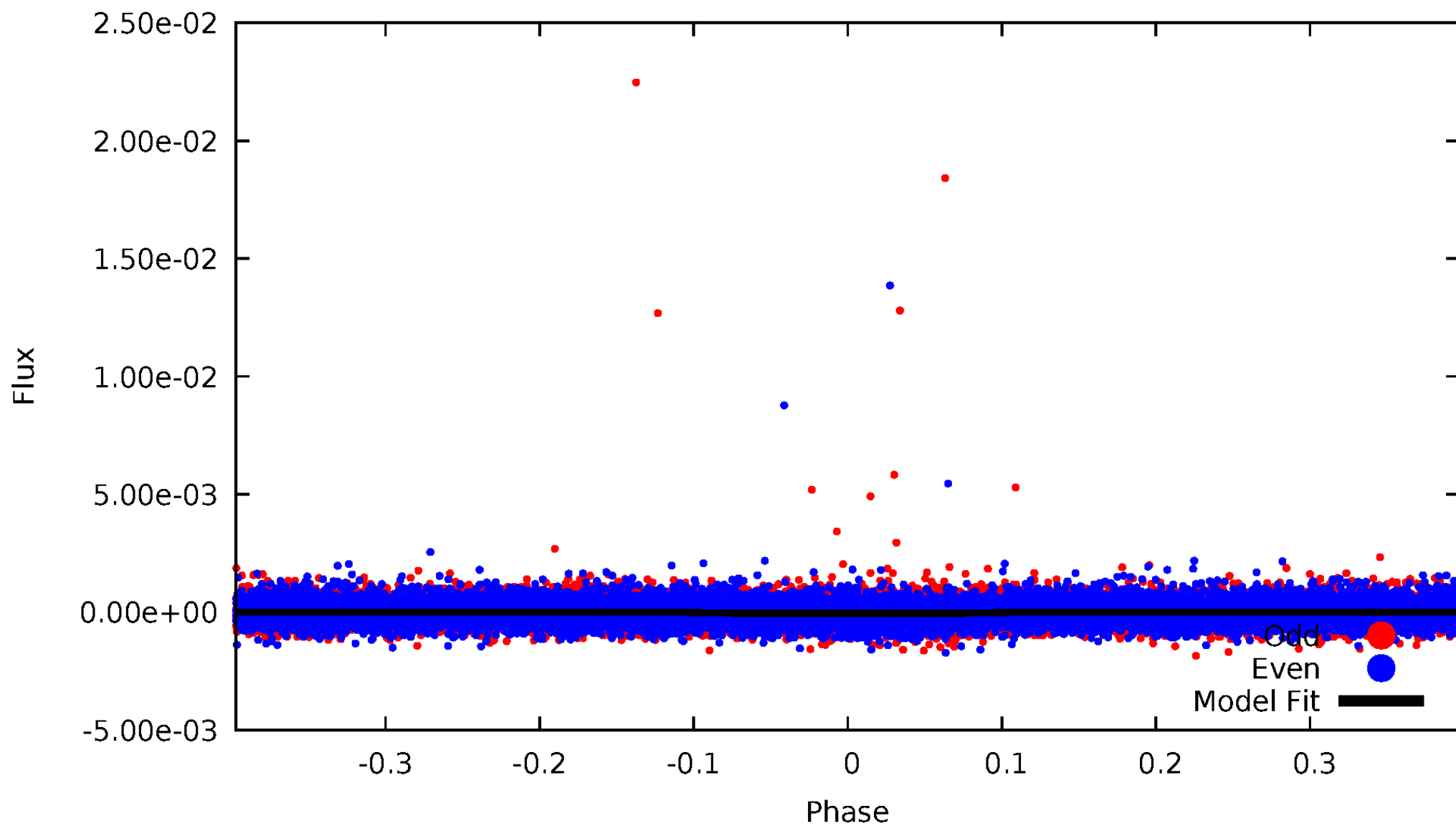


TCE 006423922-01



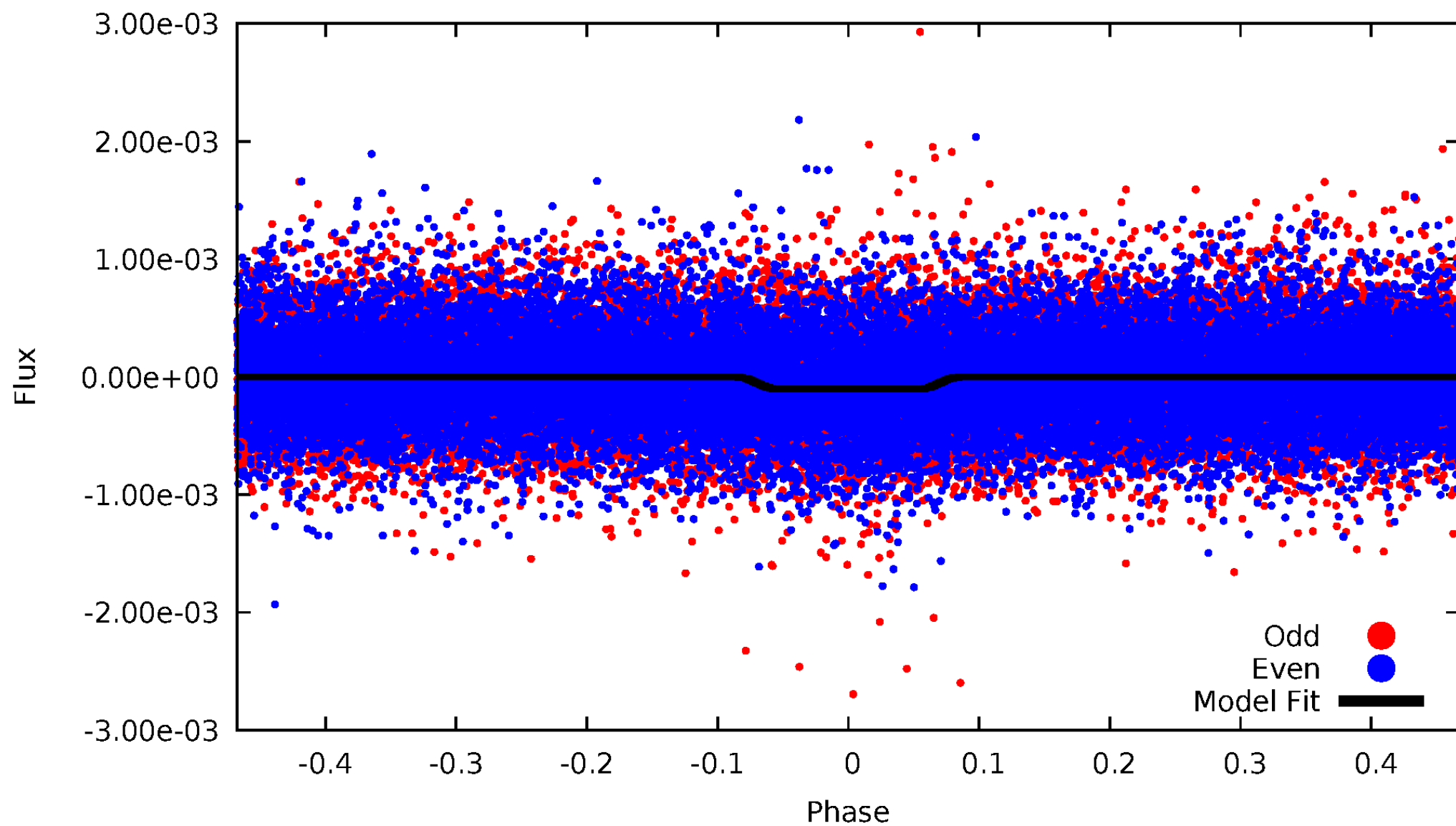
DV Odd/Even

TCE 006423922-01

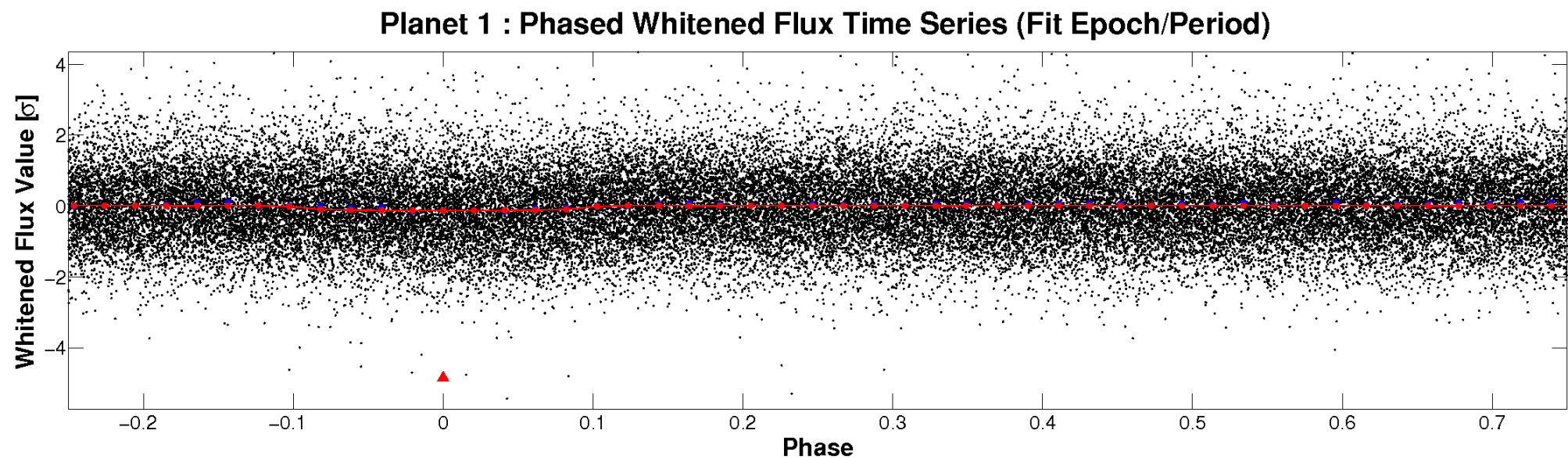
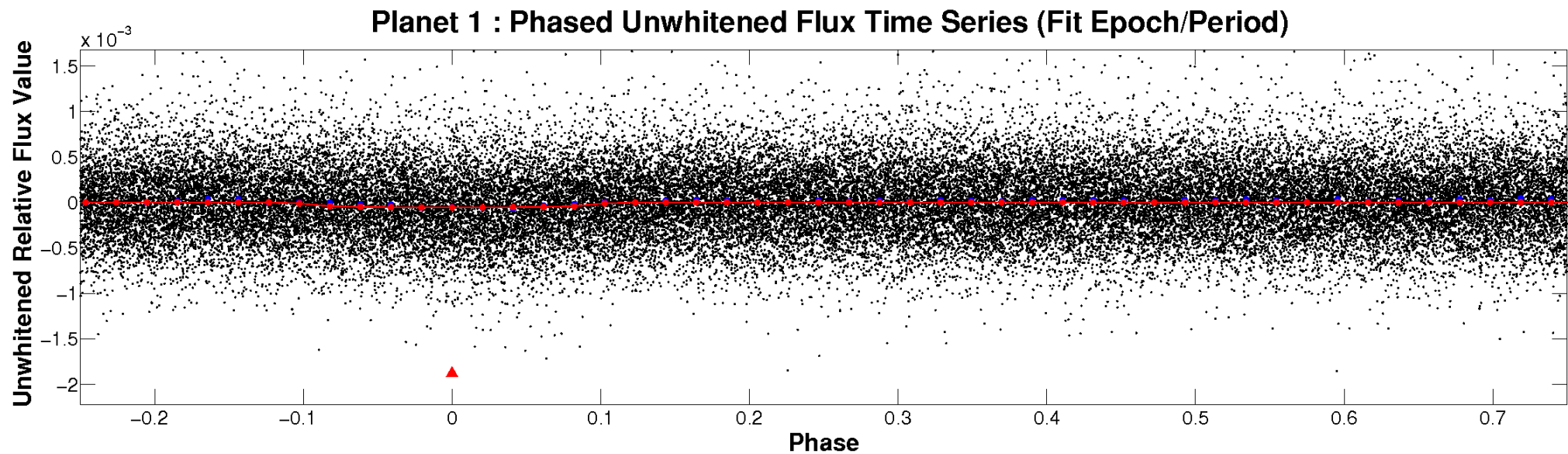


ALT Odd/Even

TCE 006423922-01

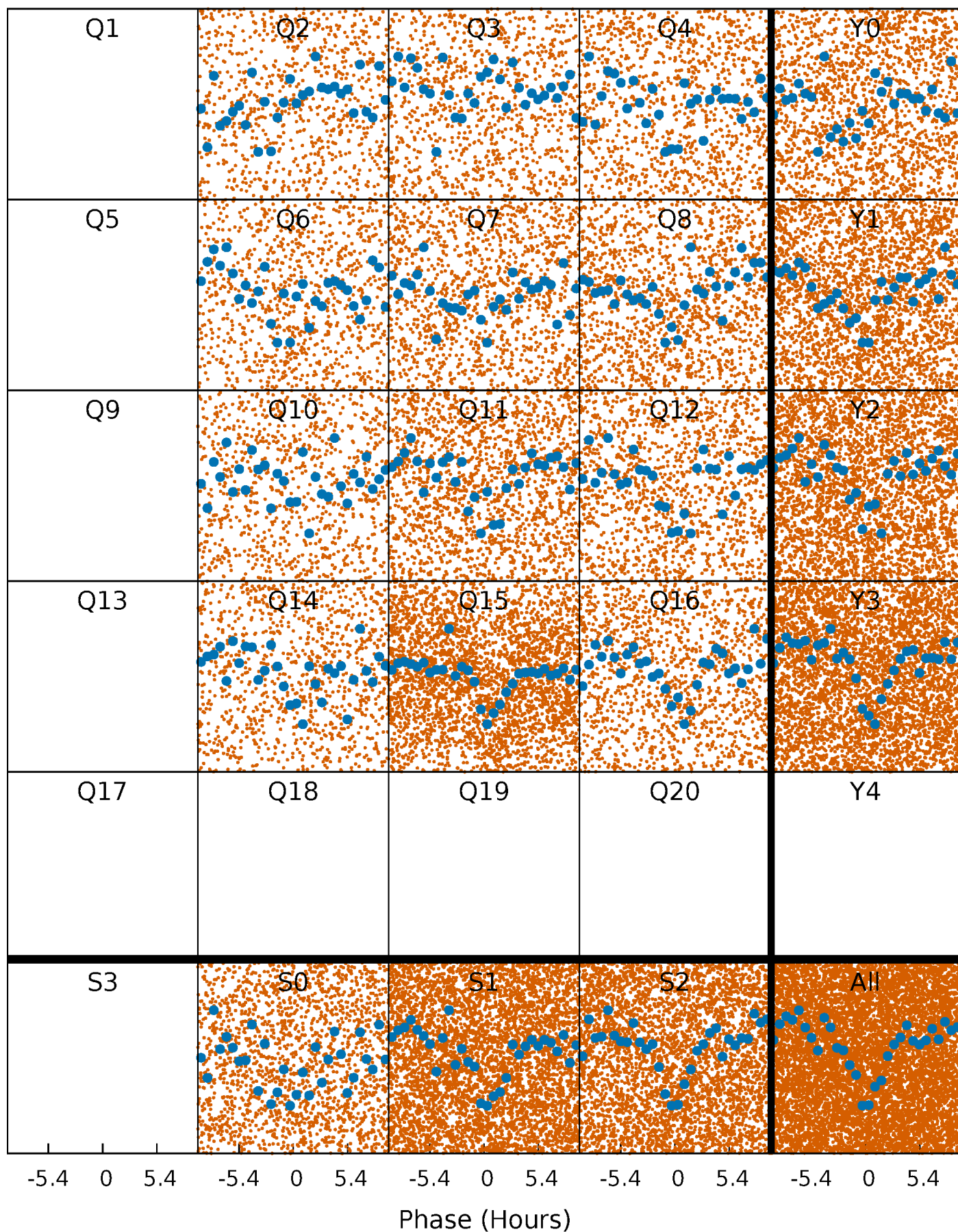


Non-Whitened Vs. Whitened Light Curve



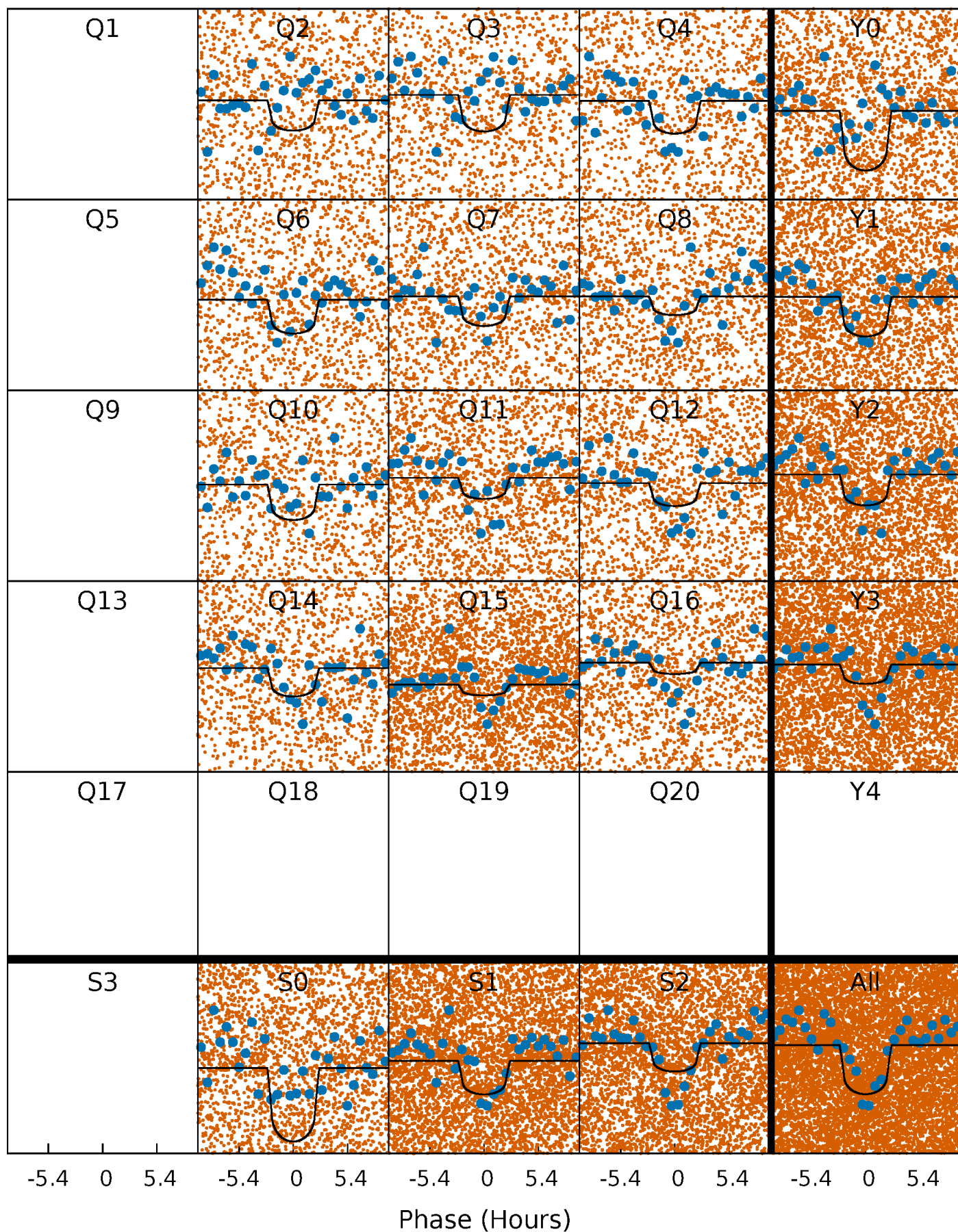
PDC Quarter-Phased Transit Curves

TCE 006423922-01 P= 0.995061 Days $T_0=131.595208$ (BKJD)



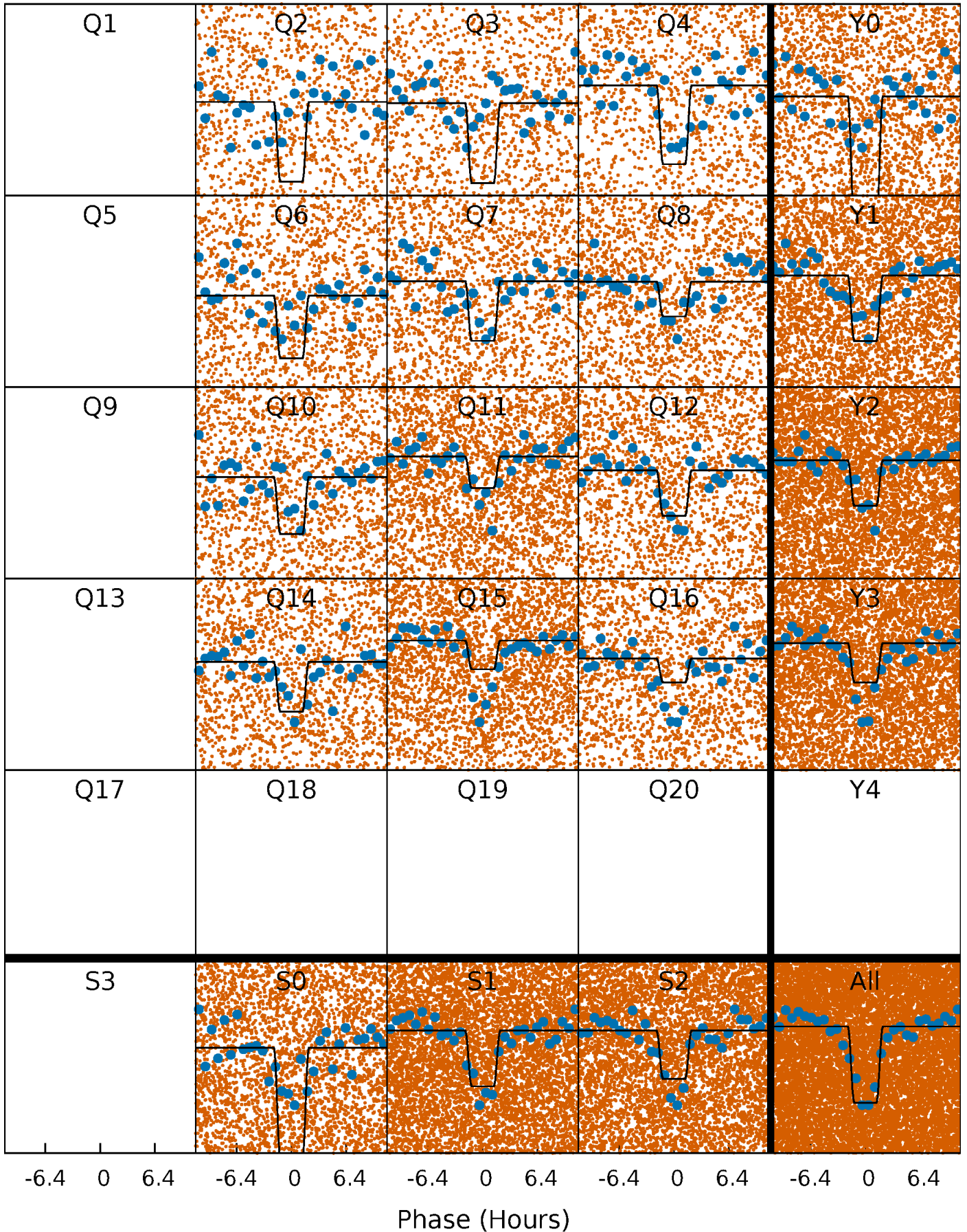
DV Quarter-Phased Transit Curves

TCE 006423922-01 P= 0.995061 Days $T_0=131.595208$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

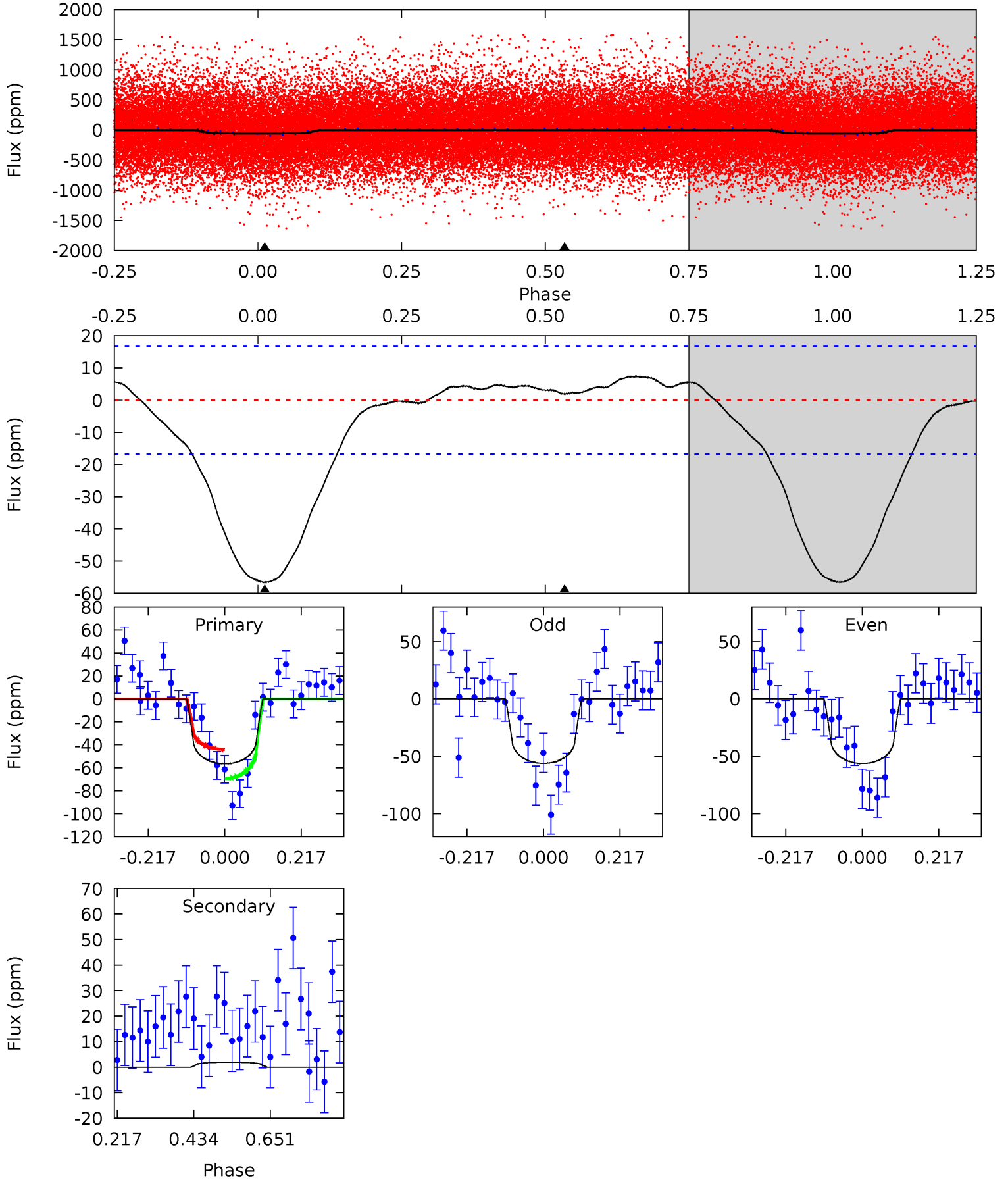
TCE 006423922-01 P= 0.995122 Days $T_0=131.545054$ (BKJD)



DV Model-Shift Uniqueness Test

006423922-01, P = 0.995061 Days, E = 131.595208 Days

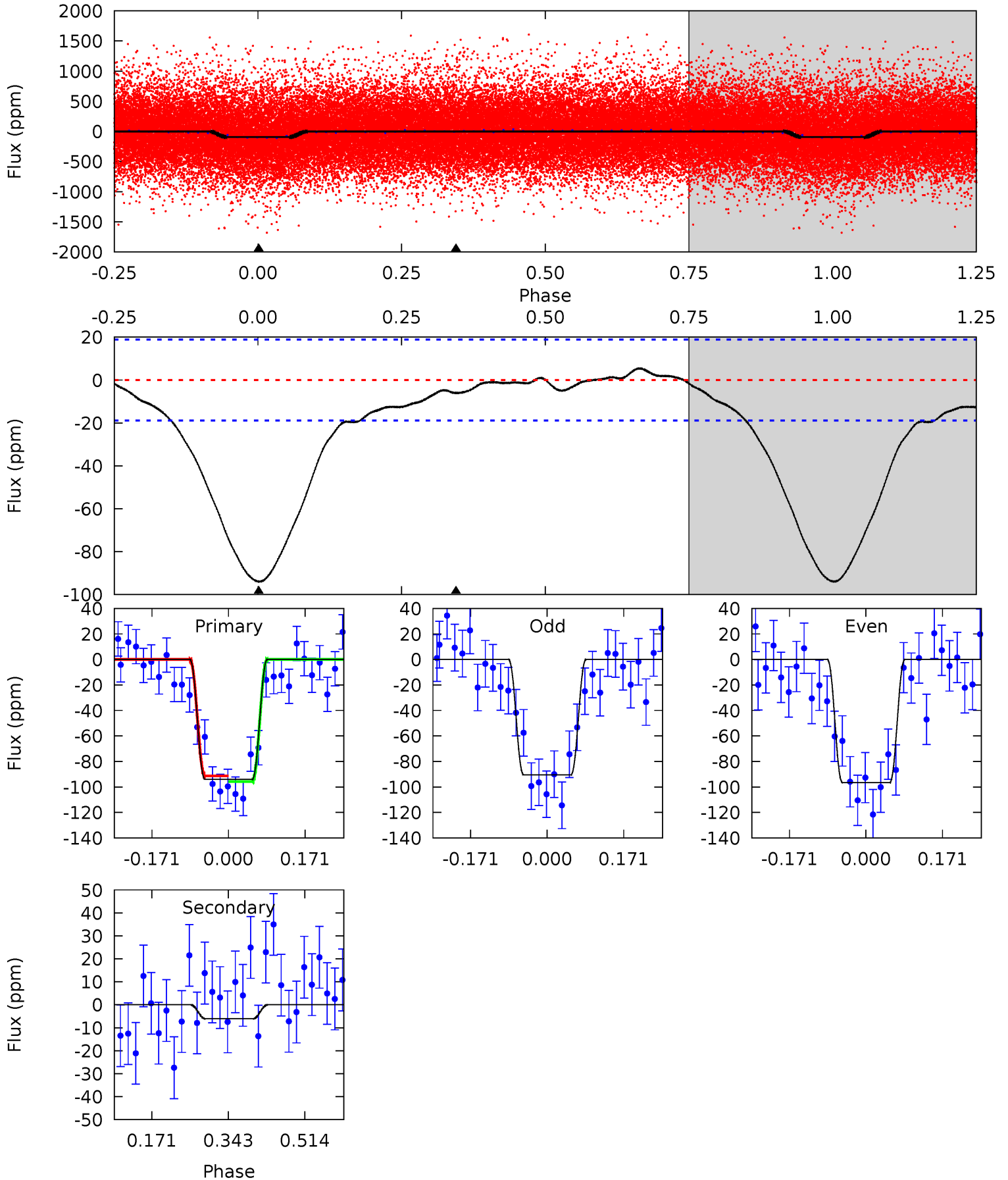
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	-0.51	0	0	4.40	1.23	0.55	14.8	14.8	-0.51	-0.51	0.02	0.98	0.12	3.34



Alt Model-Shift Uniqueness Test

006423922-01, P = 0.995122 Days, E = 131.545054 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	1.43	0	0	4.45	1.37	1.13	22.2	22.2	1.43	1.43	0.73	1.23	0.05	0.52



Stellar Parameters For KIC 006423922

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3325^{+117}_{-25}	$5.364^{+0.012}_{-0.228}$	$-0.940^{+0.350}_{-0.200}$	$0.109^{+0.073}_{-0.002}$	$0.101^{+0.064}_{-0.002}$	$108.600^{+5.952}_{-69.420}$
	+4%/-1%	+0%/-4%	+37%/-21%	+67%/-2%	+63%/-2%	+5%/-64%
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 006423922-01 / KOI 6705.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 4	$0.09^{+0.06}_{-0.05}$	734^{+71}_{-28}	-2156^{+4317}_{-566}	$-7.880^{+17.117}_{-53.227}$
Alt.	-6 ± 4	$0.13^{+0.07}_{-0.06}$	735^{+74}_{-28}	2279^{+378}_{-364}	14^{+36}_{-11}

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 $A_{obs} \gg 1.0$

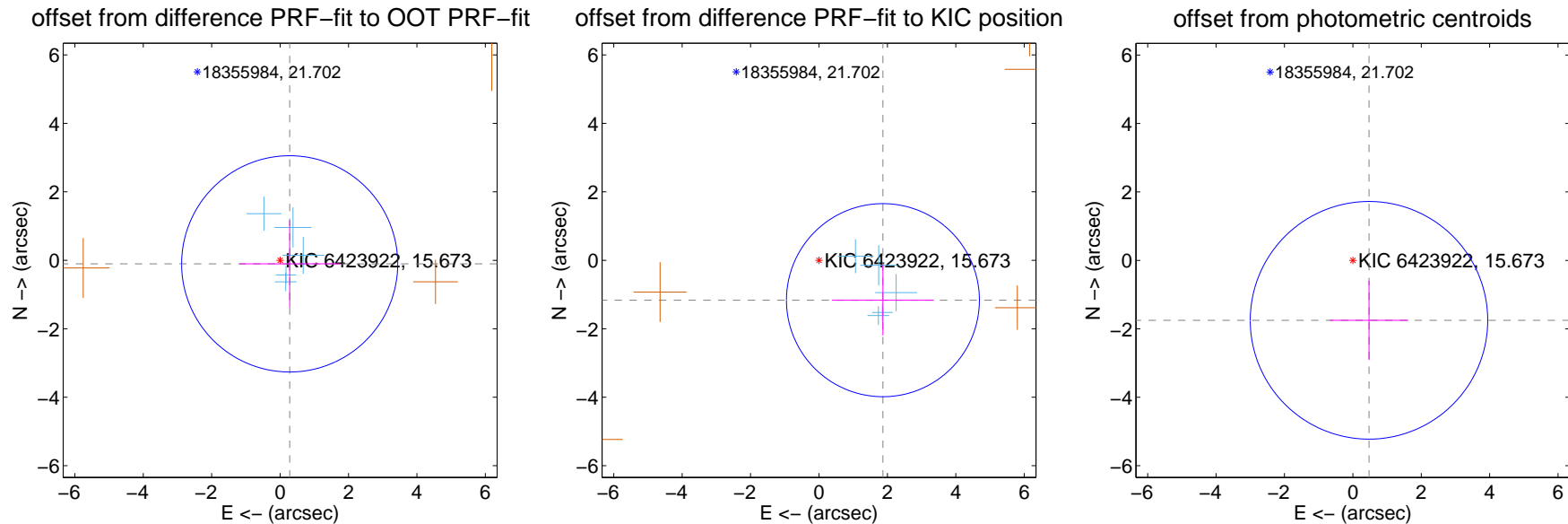
DV Centroid Data

Supplemental centroid analysis for 006423922-01. Kepler magnitude: 15.67. Transit SNR 10.87

There are 5 quarters with good PRF difference image offsets

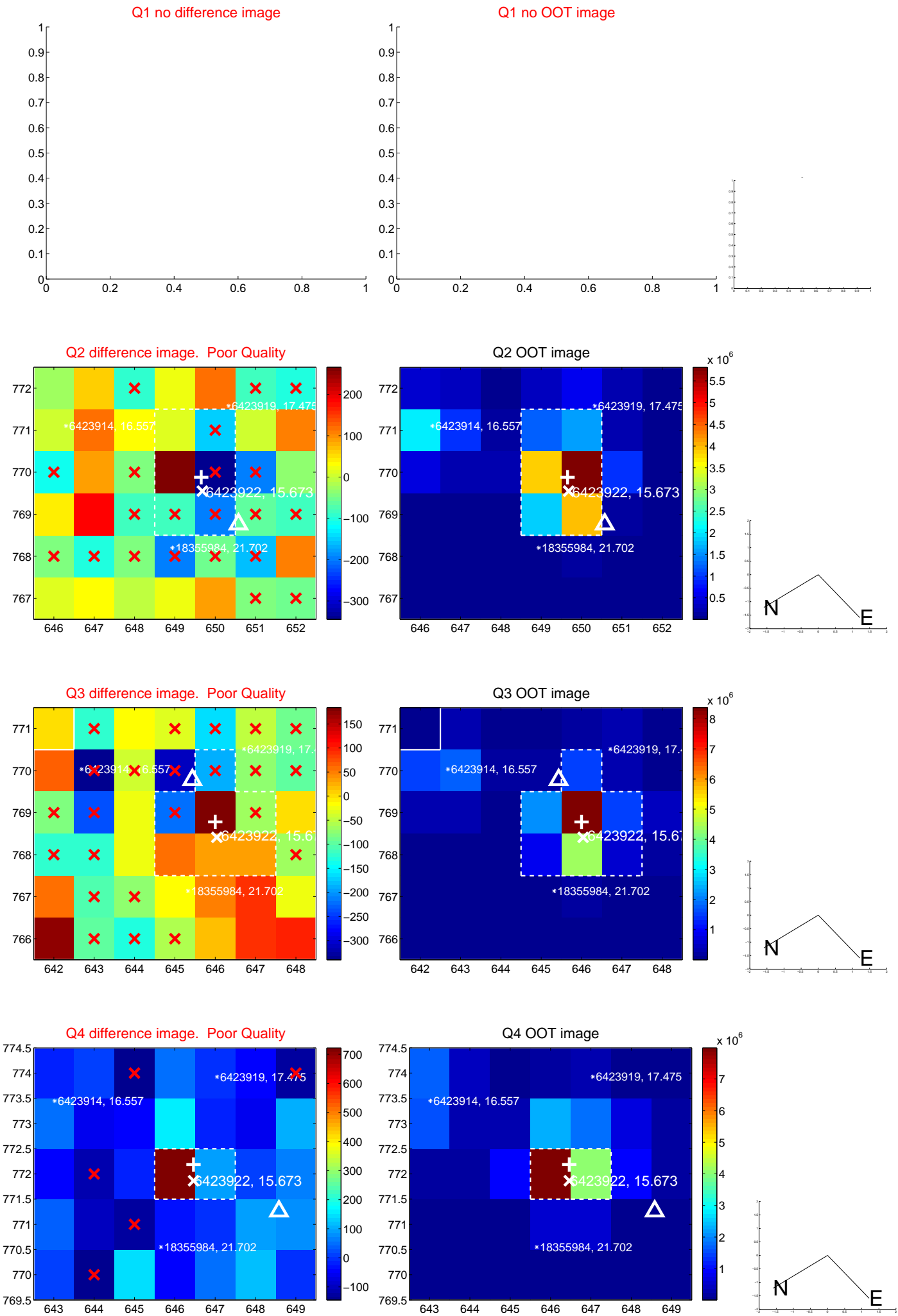
The direct PRF centroid is offset from the target star catalog position by about 1.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 1.053	0.28	-0.280 ± 1.466	-0.104 ± 1.274
PRF-fit source offset from KIC position	2.202 ± 0.940	2.34	-1.869 ± 1.489	-1.165 ± 1.029
photometric centroid source offset	1.81 ± 1.16	1.57	-0.47 ± 1.15	-1.75 ± 1.16

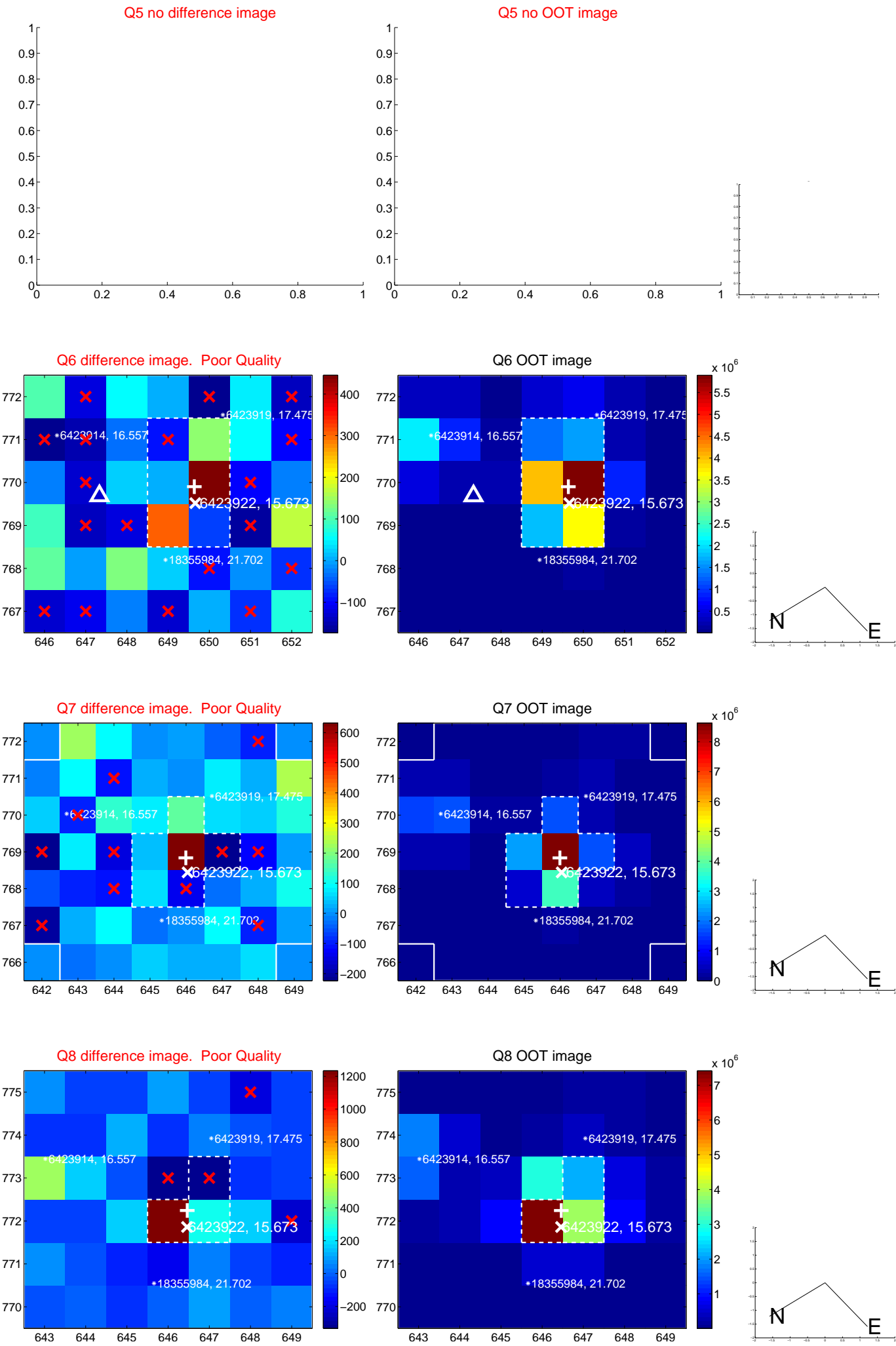


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

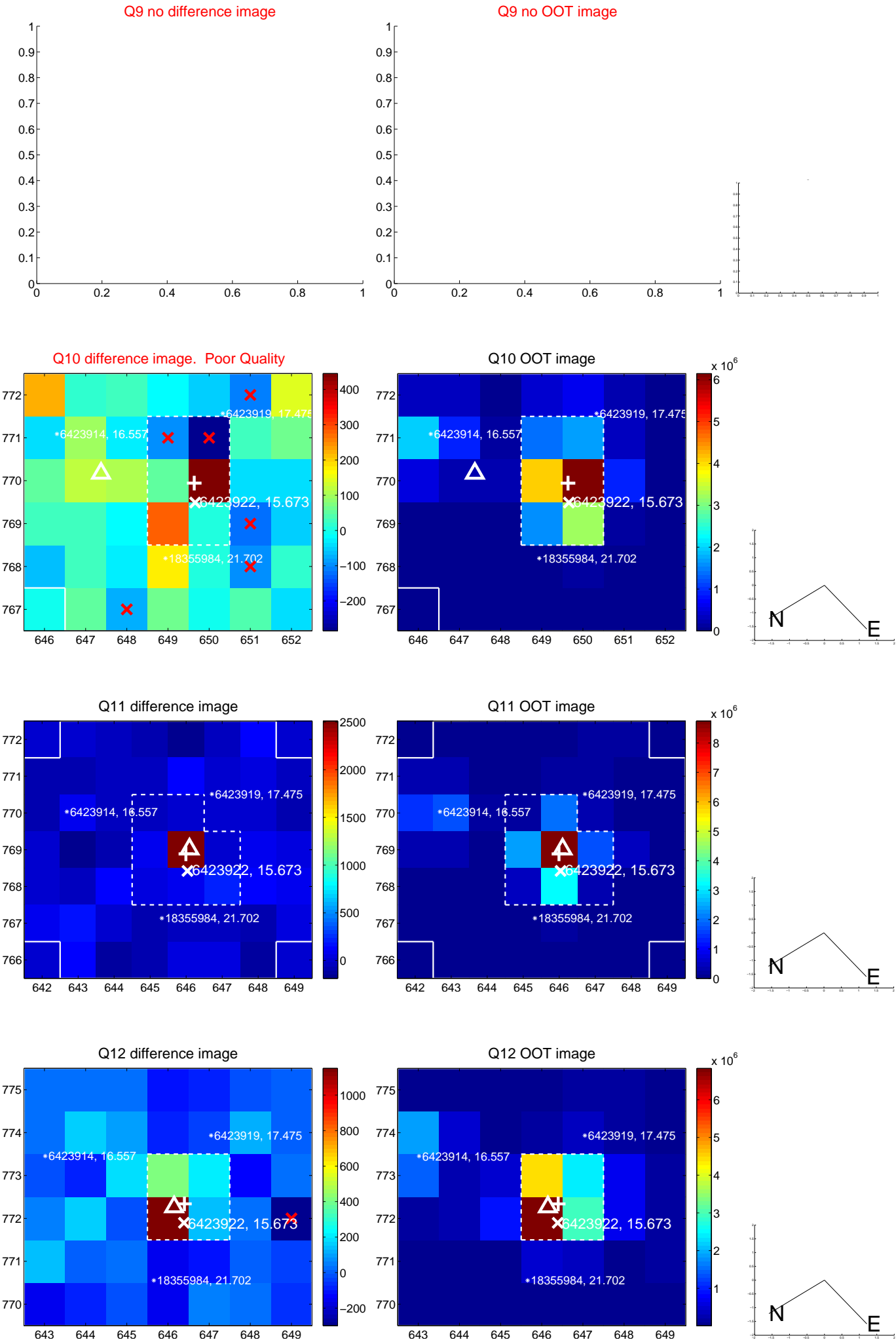
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



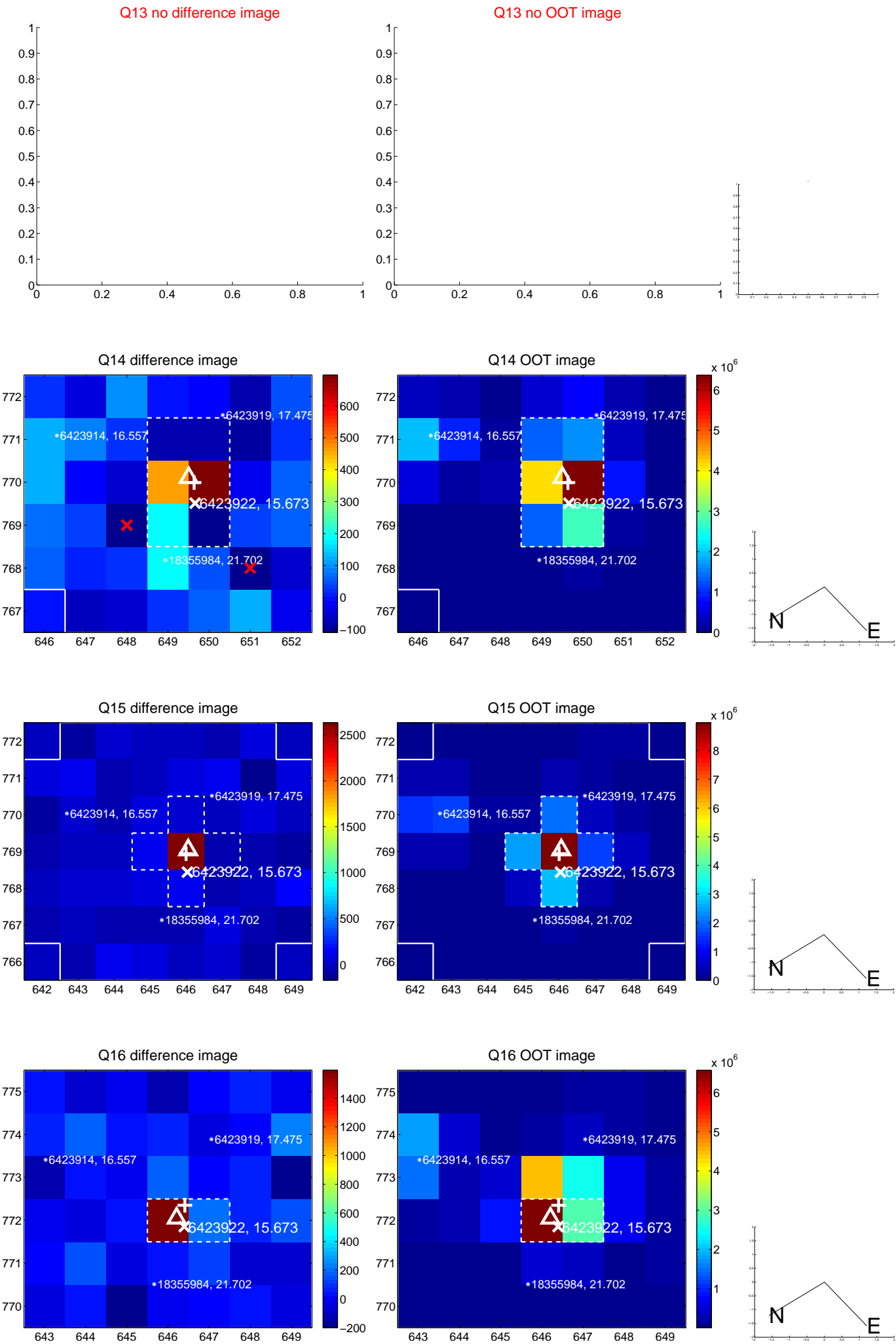
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



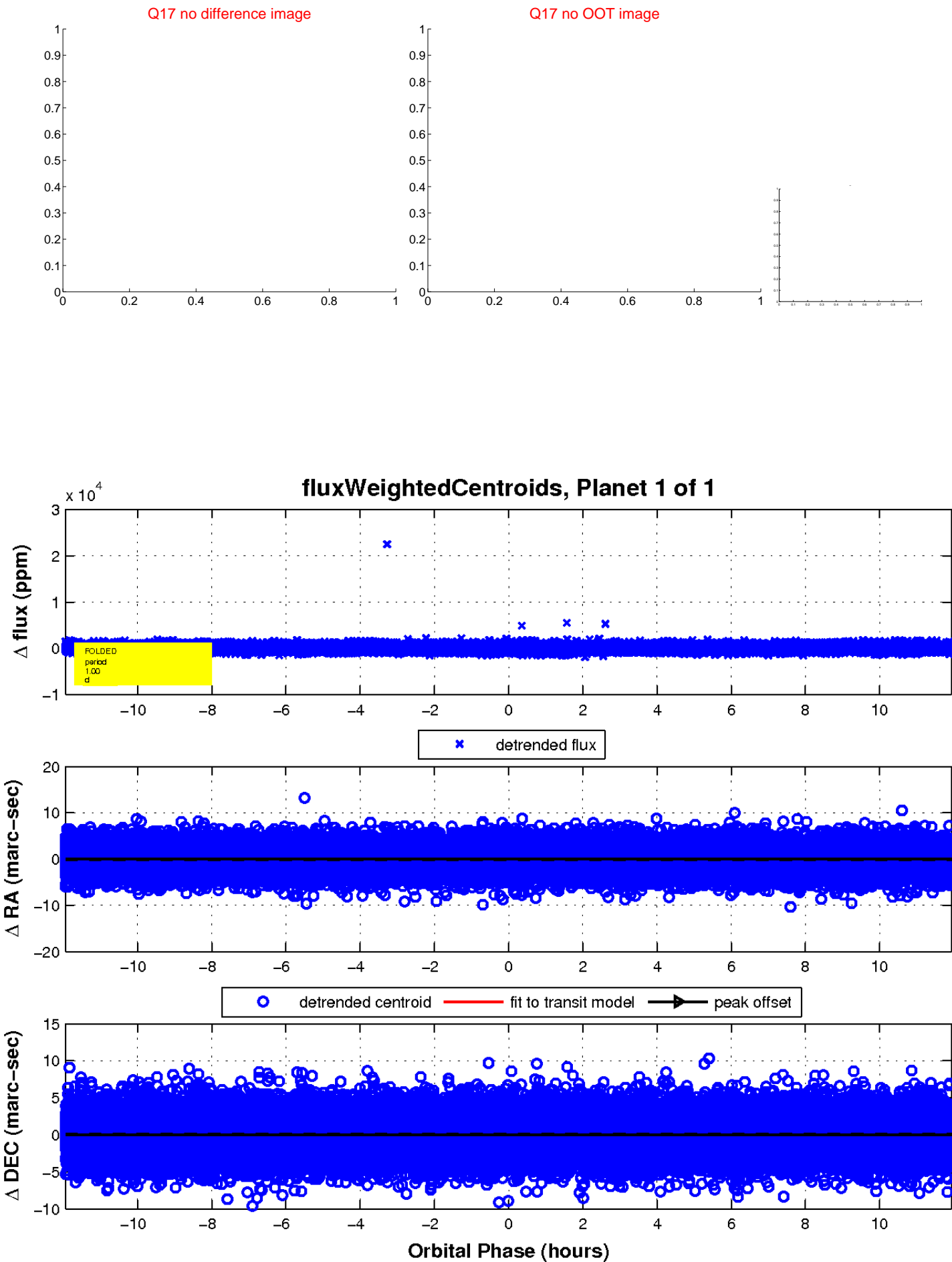
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

