

KIC 005860347

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})
005860347-01	OBS	6631.01	2.562762	131.695933	36.4	1.419	7.3	8.1	0.90	5190	0.66	445.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005860347-01	OBS	PC	0.83	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.

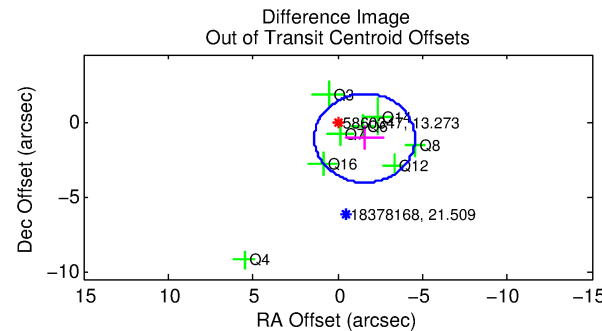
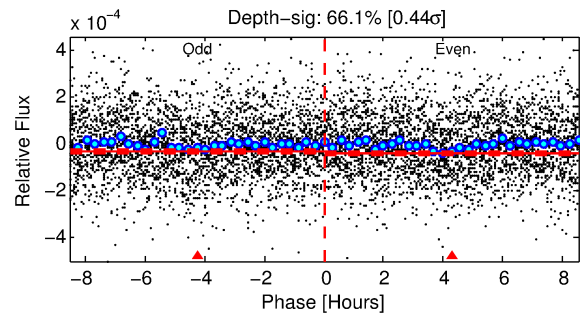
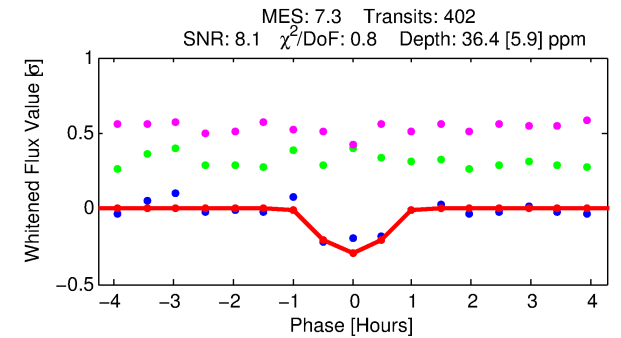
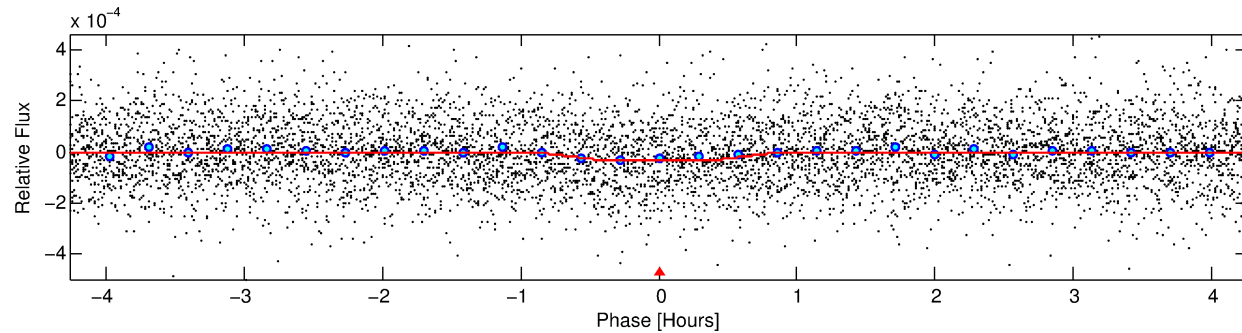
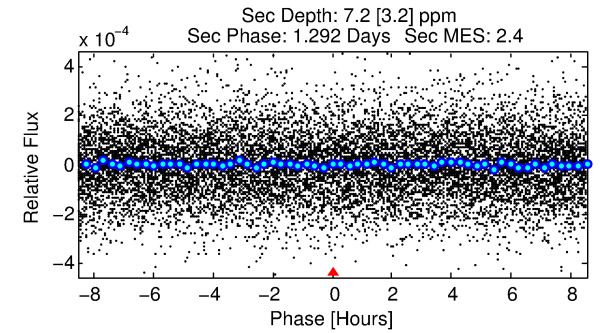
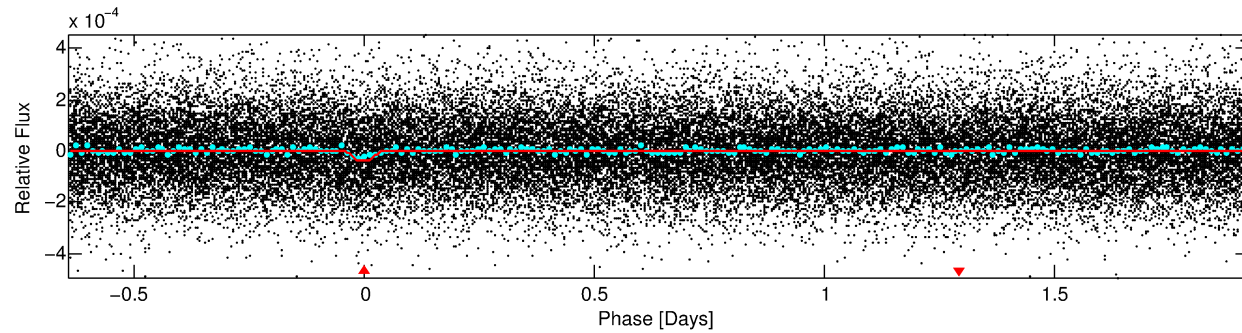
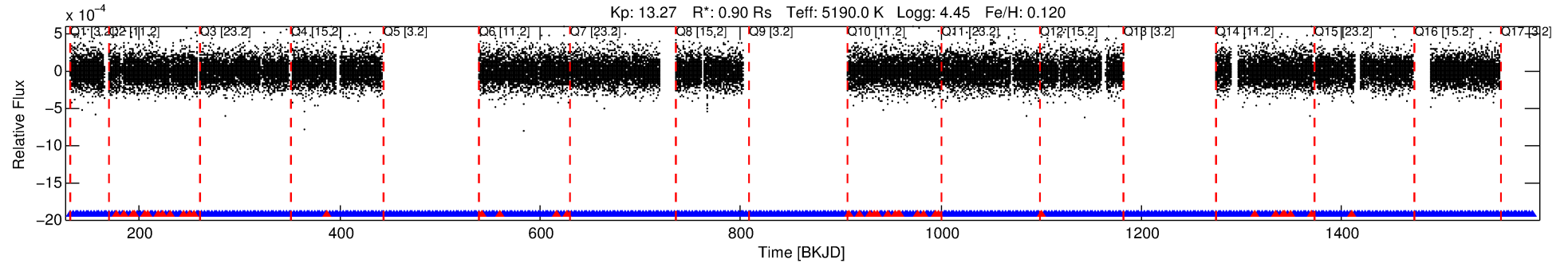
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005860347-01

No Significant Match Found

DV One-Page Summary

KIC: 5860347 Candidate: 1 of 1 Period: 2.563 d
KOI: K06631.01 Corr: 0.793



DV Fit Results:

Period = 2.56276 [0.00002] d
Epoch = 131.6959 [0.0032] BKJD
Rp/R* = 0.0067 [0.0046]
a/R* = 6.28 [17.19]
b = 0.90 [0.61]
Seff = 445.10 [71.85]
Teff = 1171 [47] K
Rp = 0.66 [0.45] Re
a = 0.0344 [0.0031] AU
Ag = 10.78 [15.47] [0.63σ]
Teffp = 3281 [1173] K [1.80σ]

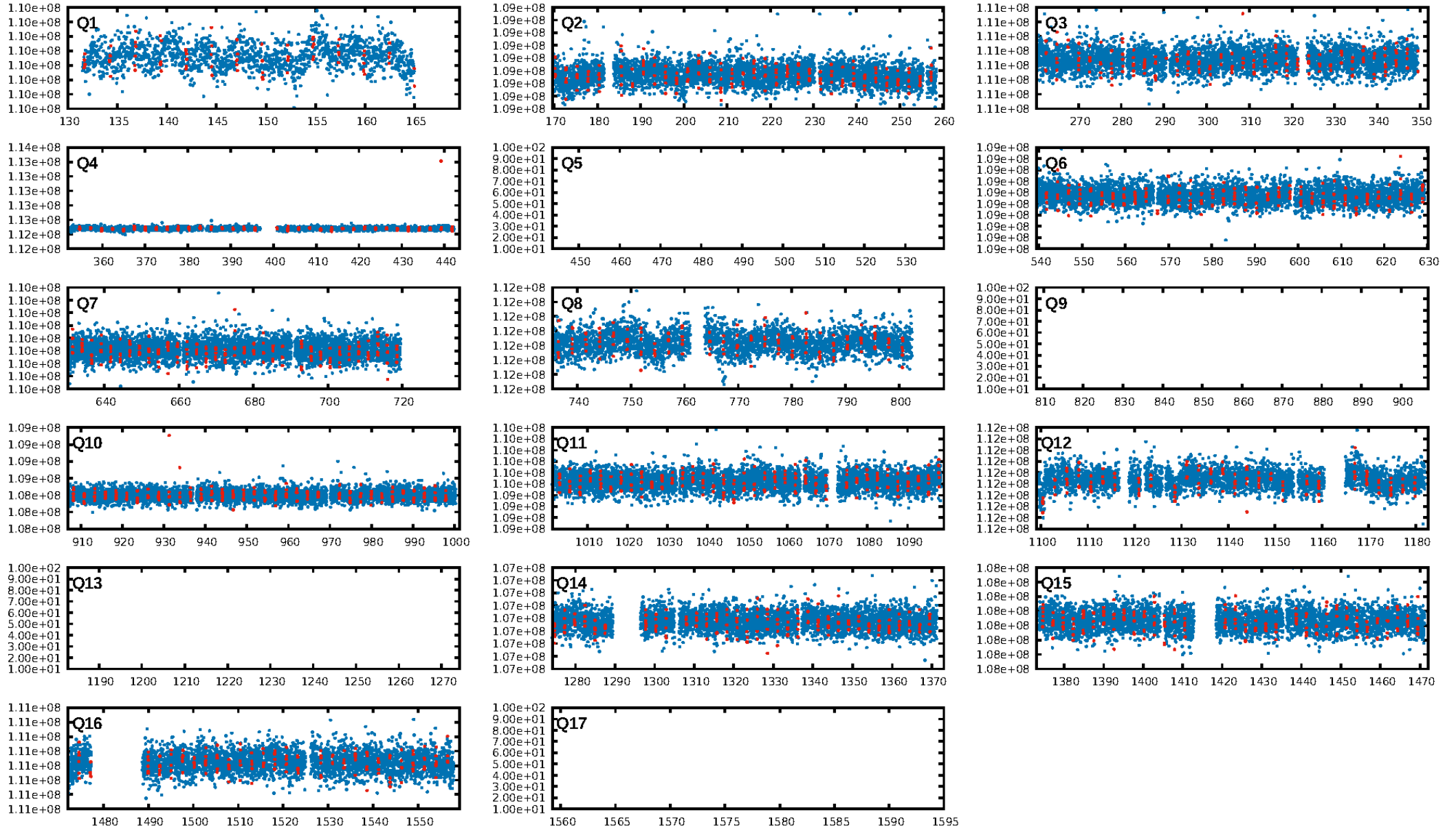
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.84e-13
RollingBand-fgt: 0.90 [350/388]
GhostDiagnostic-chr: -7.026
Centroid-sig: 2.8%
Centroid-so: 3.622 arcsec [2.35σ]
OotOffset-rm: 1.937 arcsec [1.96σ]
KicOffset-rm: 1.295 arcsec [1.19σ]
OotOffset-st: 2/2/4/0 [8]
KicOffset-st: 2/2/4/0 [8]
DiffImageQuality-fgm: 0.62 [5/8]
DiffImageOverlap-fno: 1.00 [13/13]

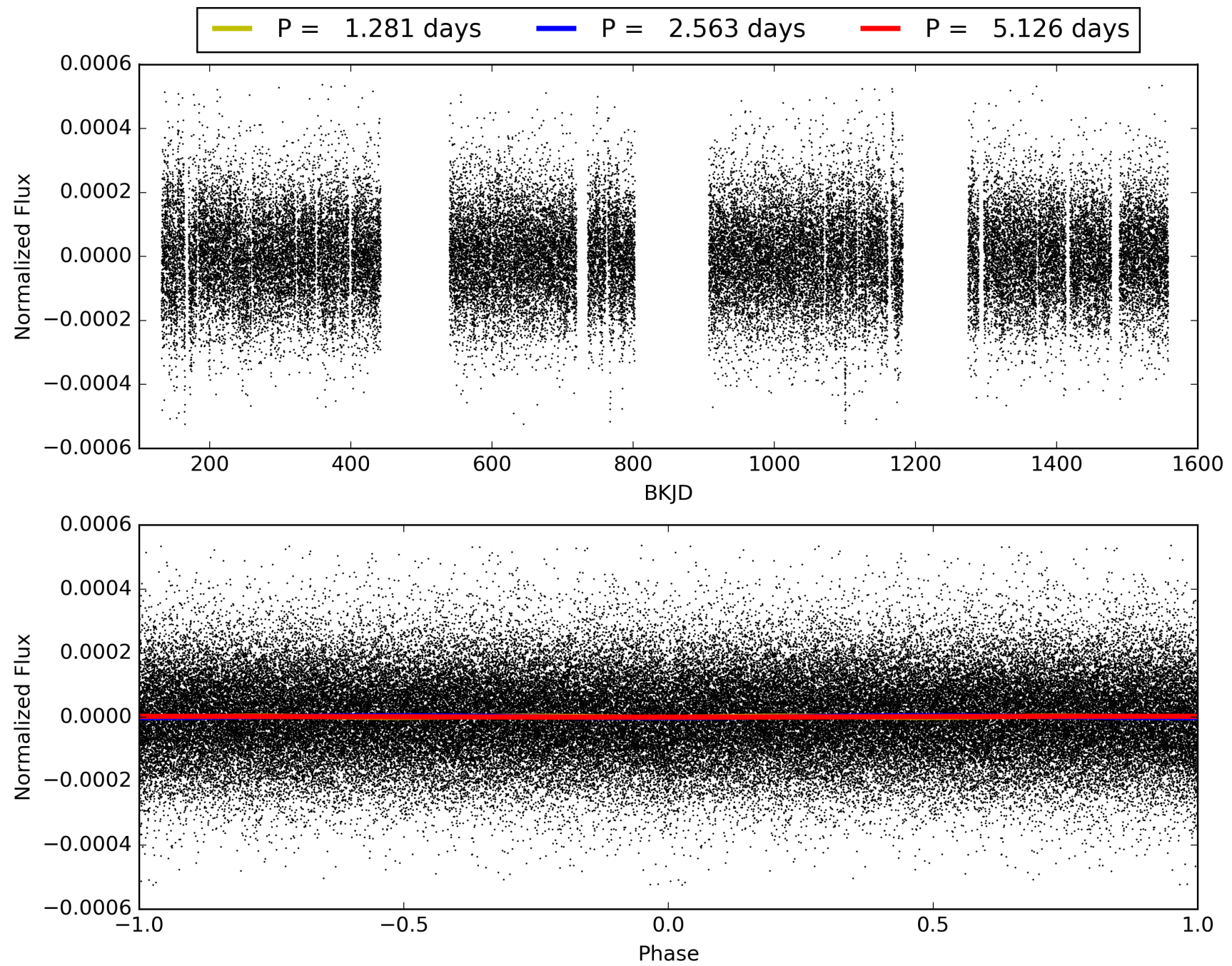
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:11:54 Z

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

TCE 005860347-01, PDC Light Curves

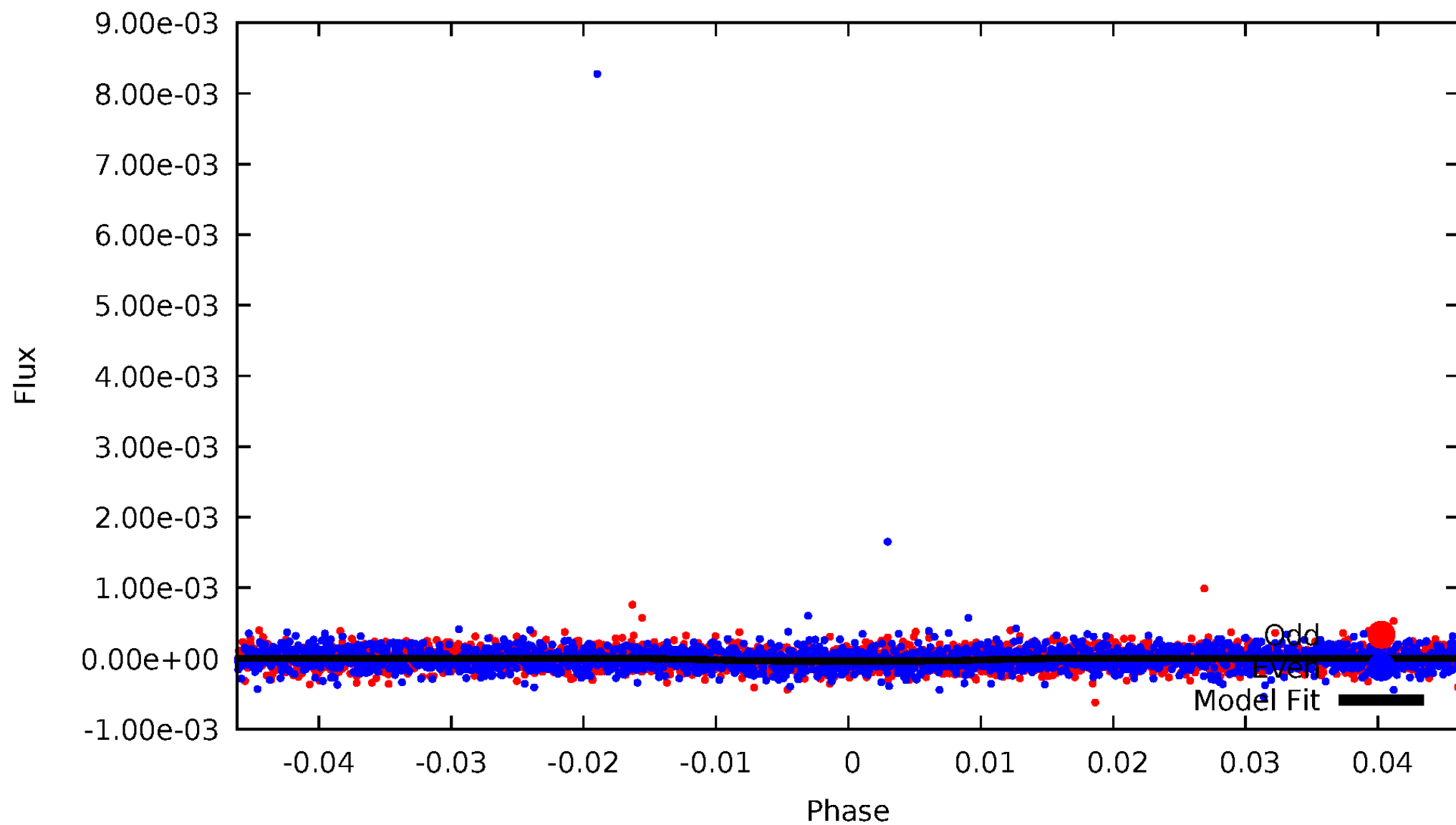


TCE 005860347-01



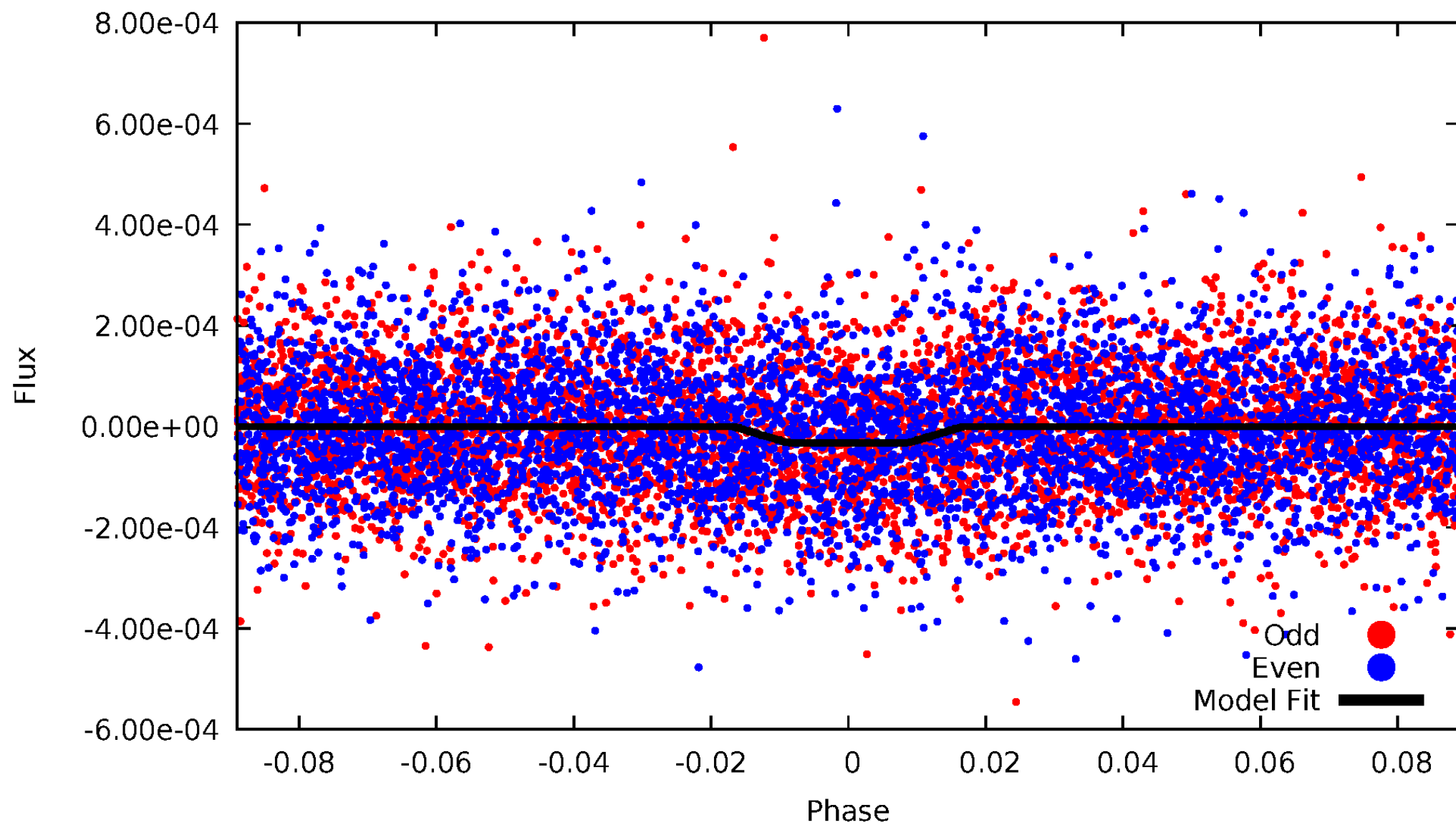
DV Odd/Even

TCE 005860347-01



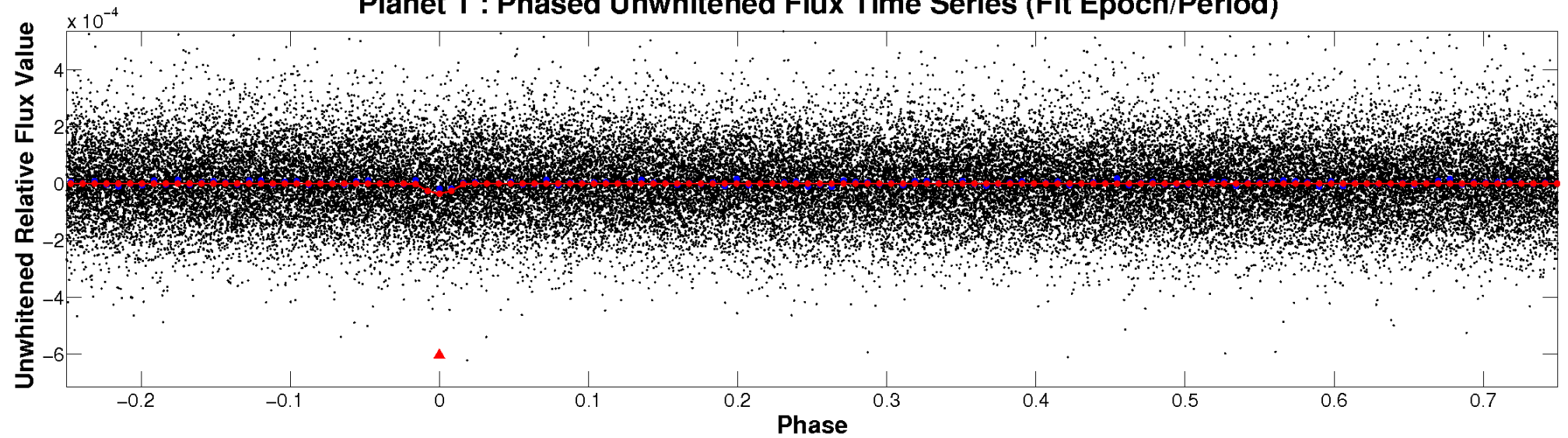
ALT Odd/Even

TCE 005860347-01

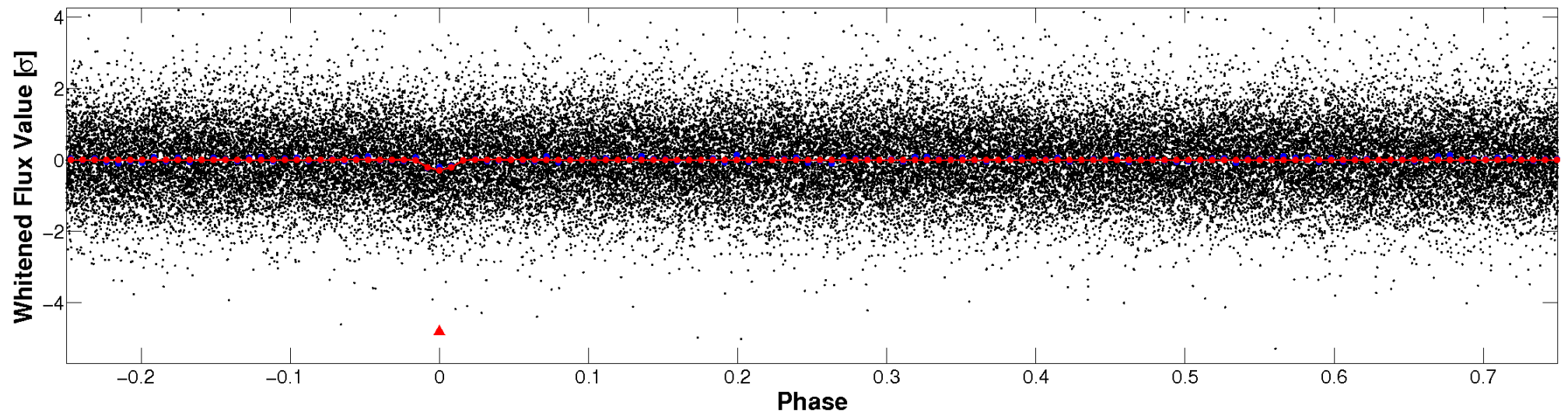


Non-Whitened Vs. Whitened Light Curve

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

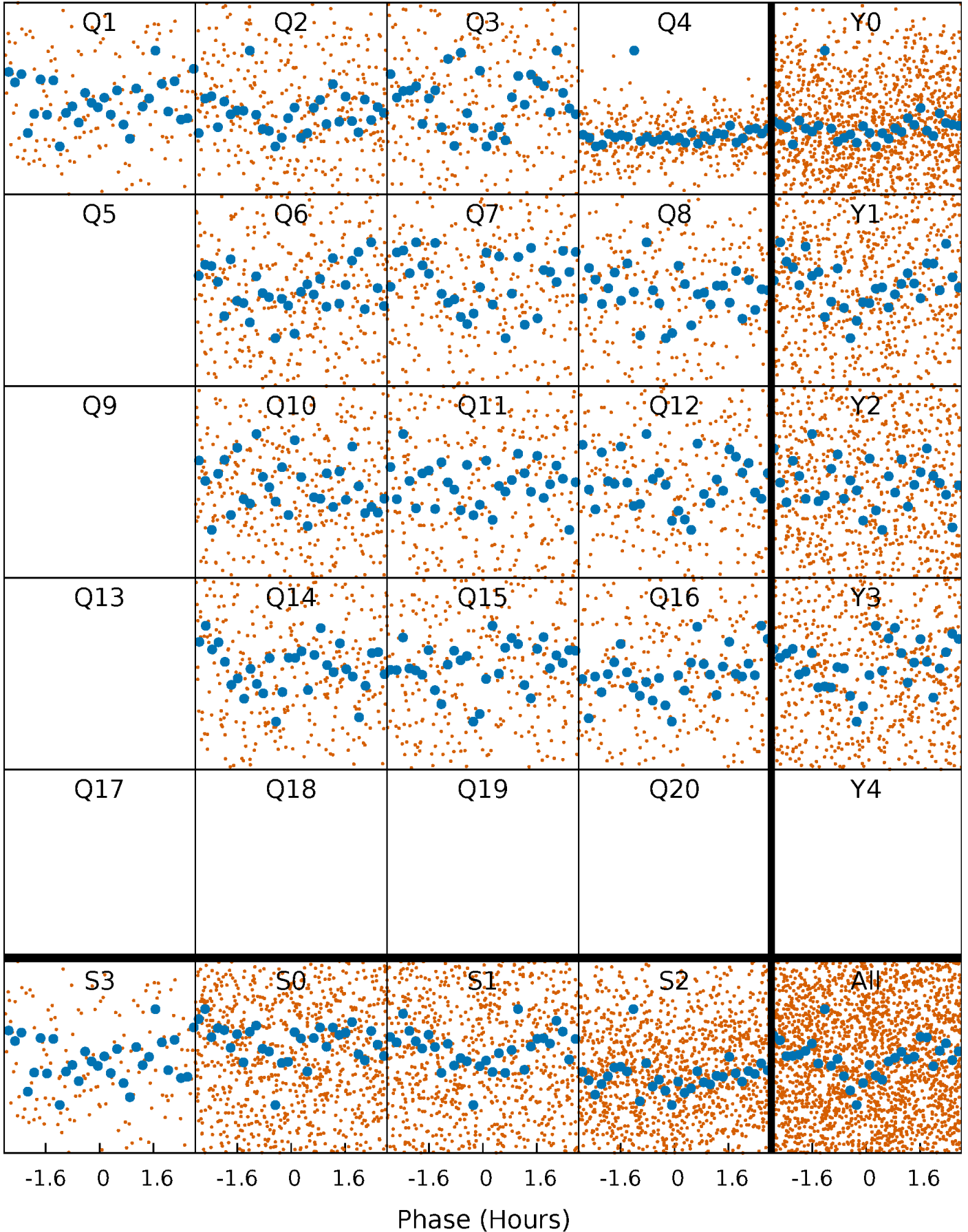


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



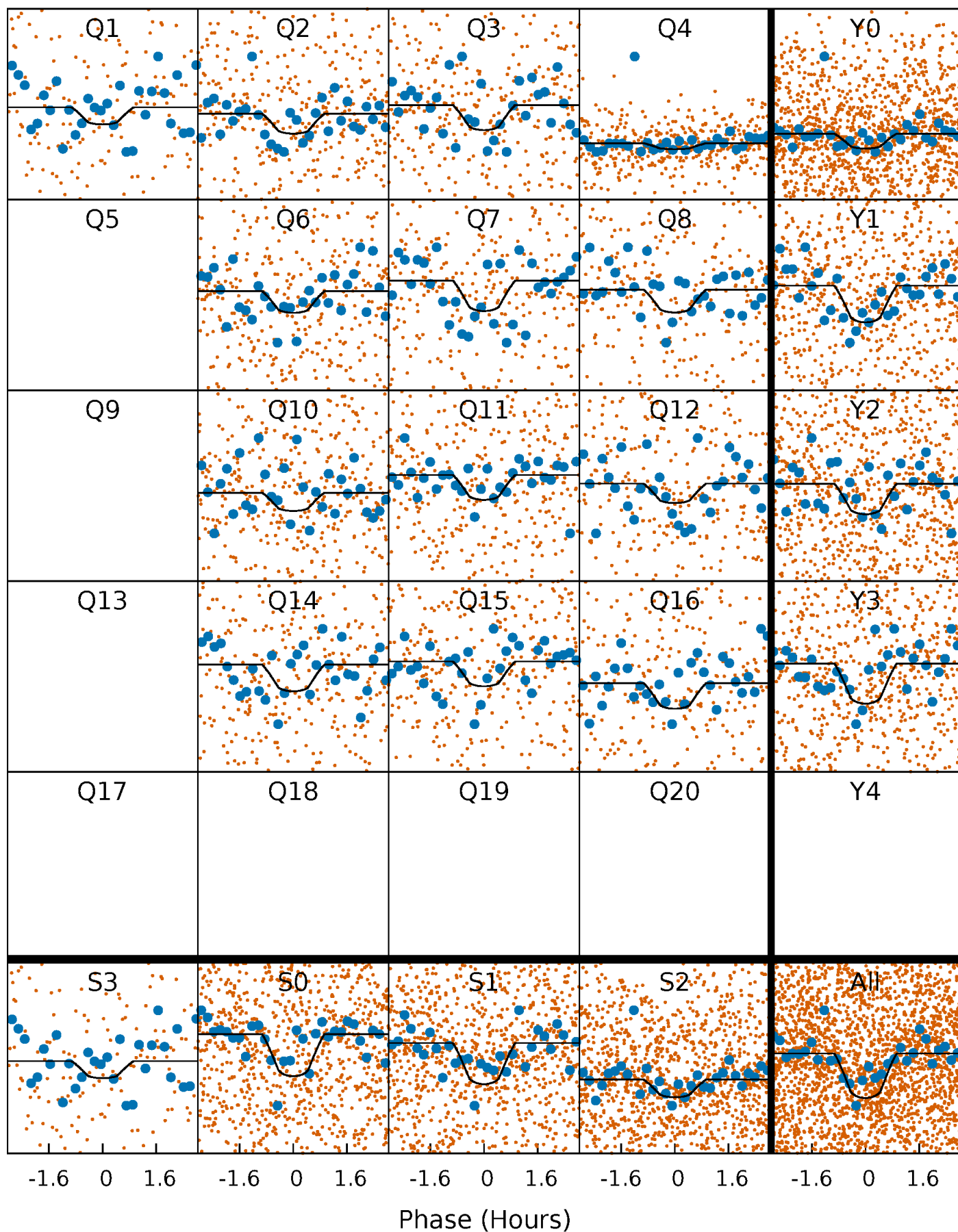
PDC Quarter-Phased Transit Curves

TCE 005860347-01 P= 2.562763 Days $T_0=131.695933$ (BKJD)



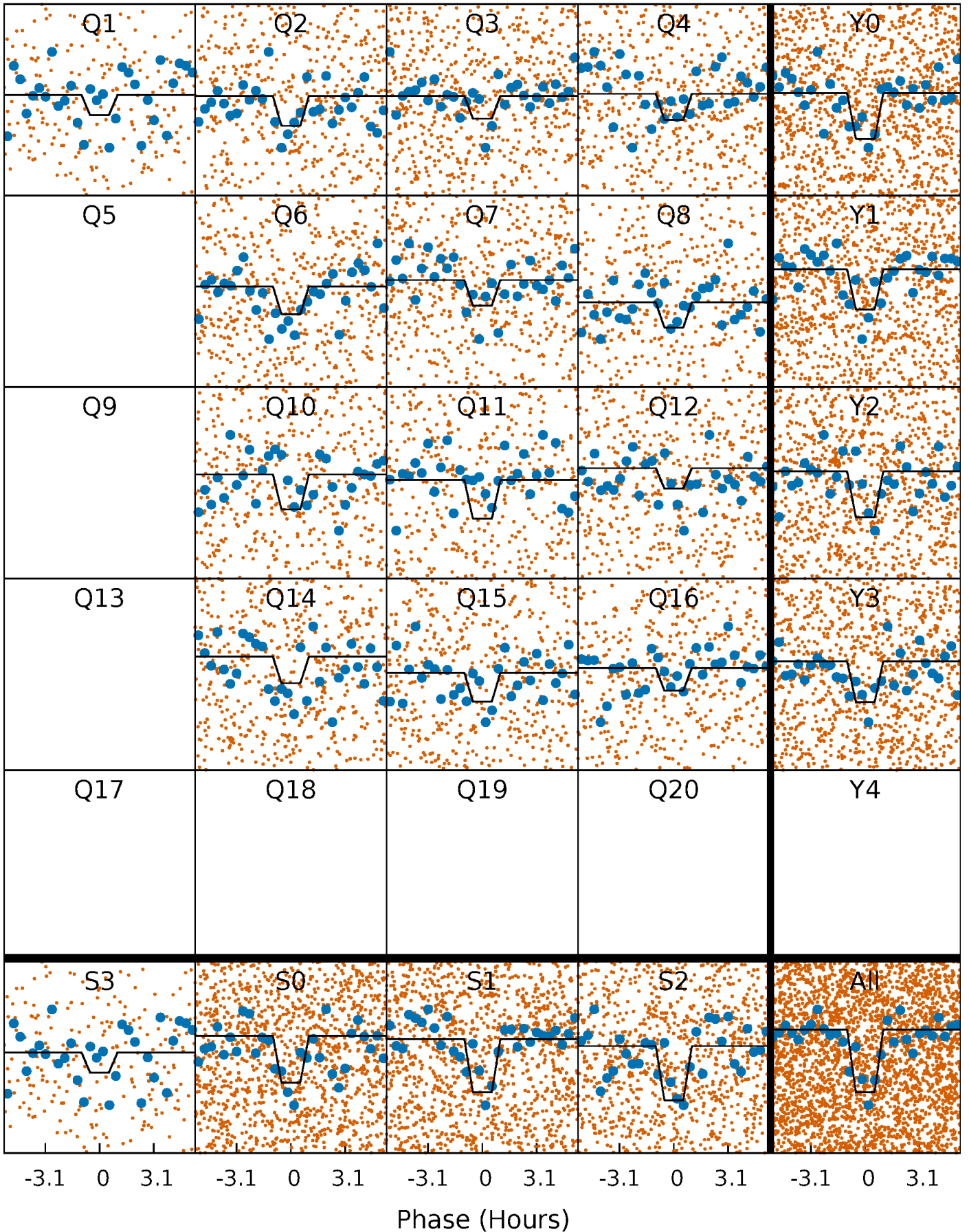
DV Quarter-Phased Transit Curves

TCE 005860347-01 P= 2.562763 Days $T_0=131.695933$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

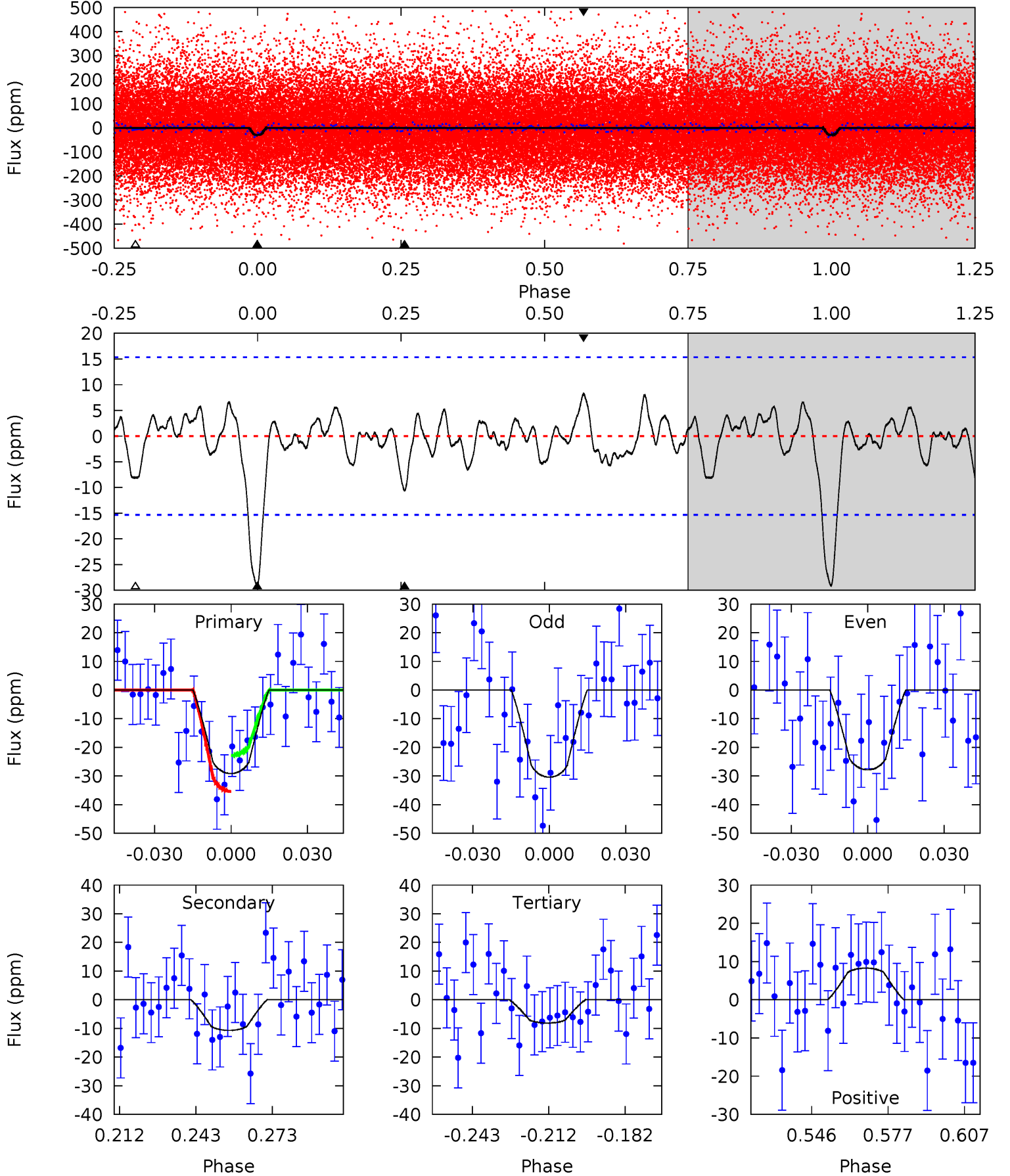
TCE 005860347-01 P= 2.562707 Days $T_0=131.702850$ (BKJD)



DV Model-Shift Uniqueness Test

005860347-01, P = 2.562763 Days, E = 129.133170 Days

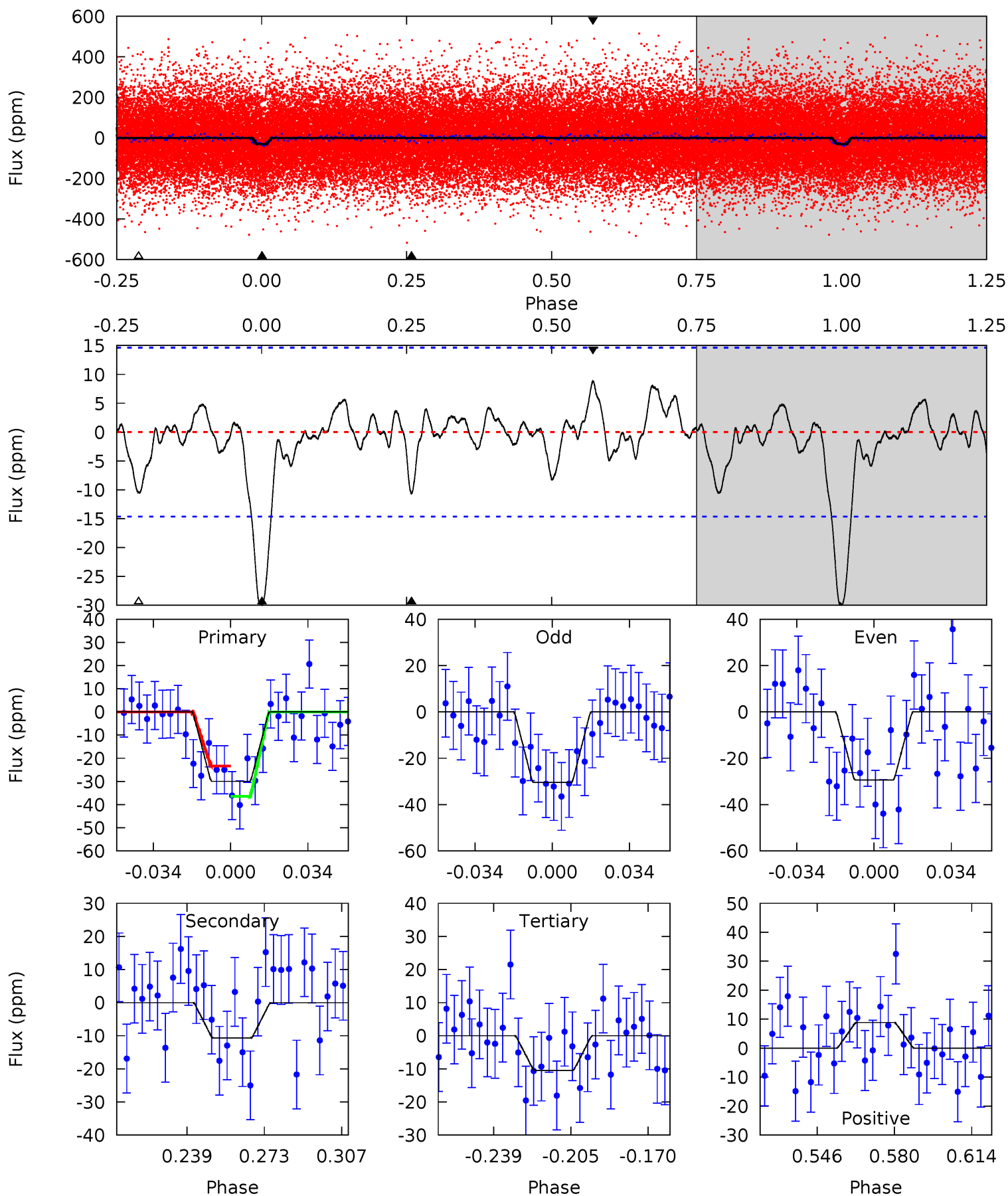
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.15	3.36	2.56	2.60	4.81	2.17	1.01	6.59	6.55	0.80	0.76	0.41	0.95	0.22	1.97



Alt Model-Shift Uniqueness Test

005860347-01, P = 2.562707 Days, E = 129.140143 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.79	3.49	3.44	2.89	4.79	2.12	1.09	6.36	6.90	0.06	0.60	0.18	1.08	0.23	2.14



Stellar Parameters For KIC 005860347

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5190^{+85}_{-77}	$4.446^{+0.088}_{-0.064}$	$0.120^{+0.200}_{-0.100}$	$0.899^{+0.080}_{-0.080}$	$0.823^{+0.059}_{-0.030}$	$1.597^{+0.564}_{-0.349}$
	+2%/-1%	+2%/-1%	+167%/-83%	+9%/-9%	+7%/-4%	+35%/-22%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 005860347-01 / KOI 6631.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-11 ± 3	$0.73^{+0.43}_{-0.40}$	1635^{+50}_{-49}	3764^{+1350}_{-573}	13^{+52}_{-8}
Alt.	-11 ± 3	$0.60^{+0.44}_{-0.35}$	1636^{+47}_{-49}	4024^{+1779}_{-685}	19^{+91}_{-13}

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 $A_{obs} \gg 1.0$

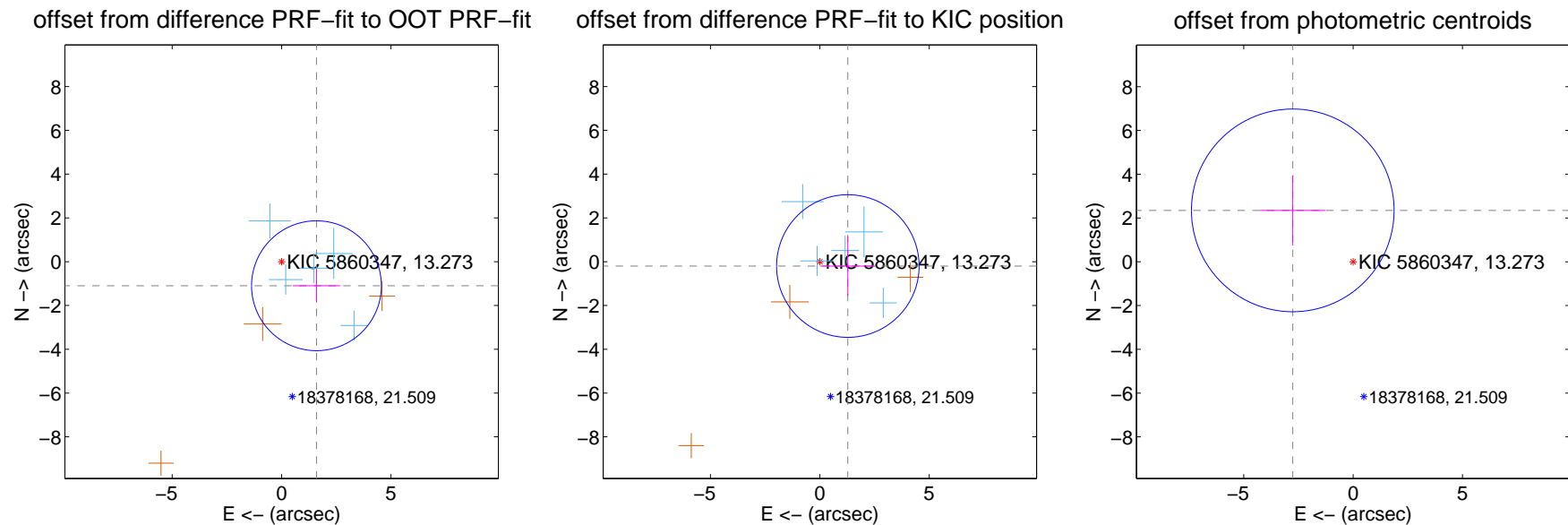
DV Centroid Data

Supplemental centroid analysis for 005860347-01. Kepler magnitude: 13.27. Transit SNR 8.07

There are 5 quarters with good PRF difference image offsets

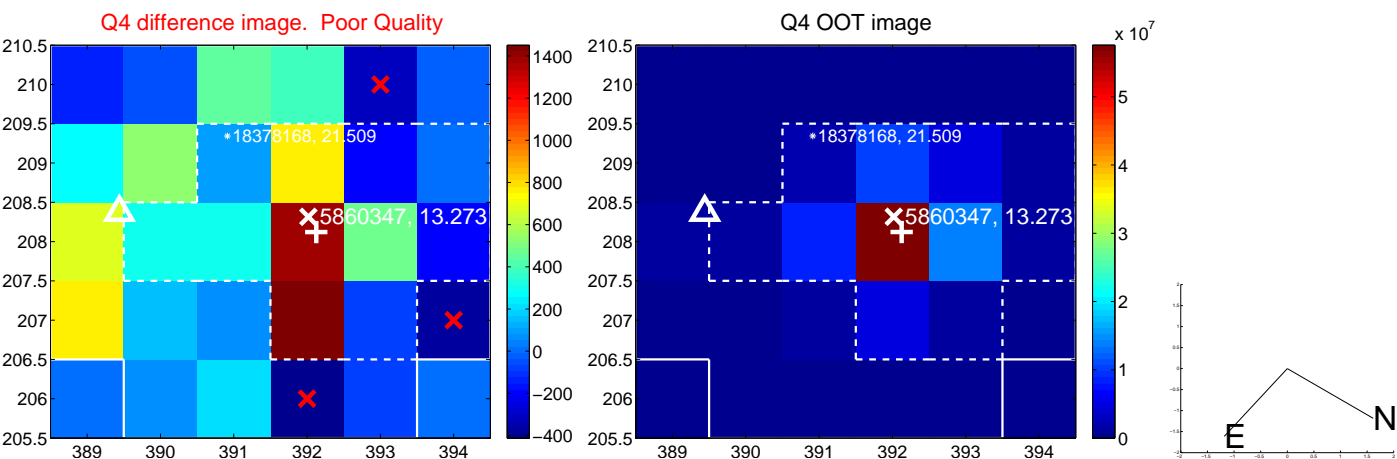
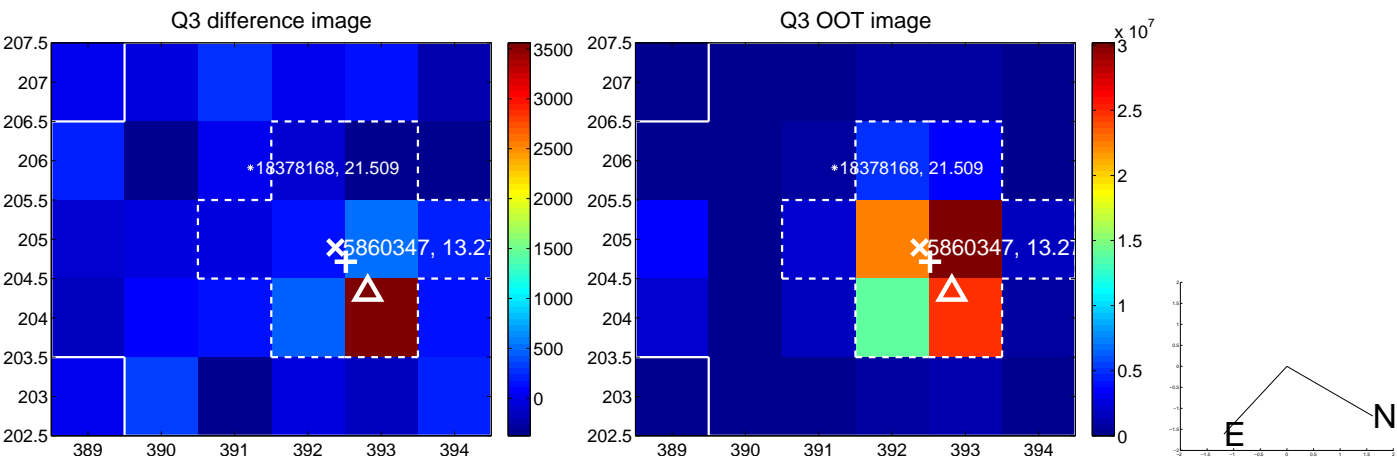
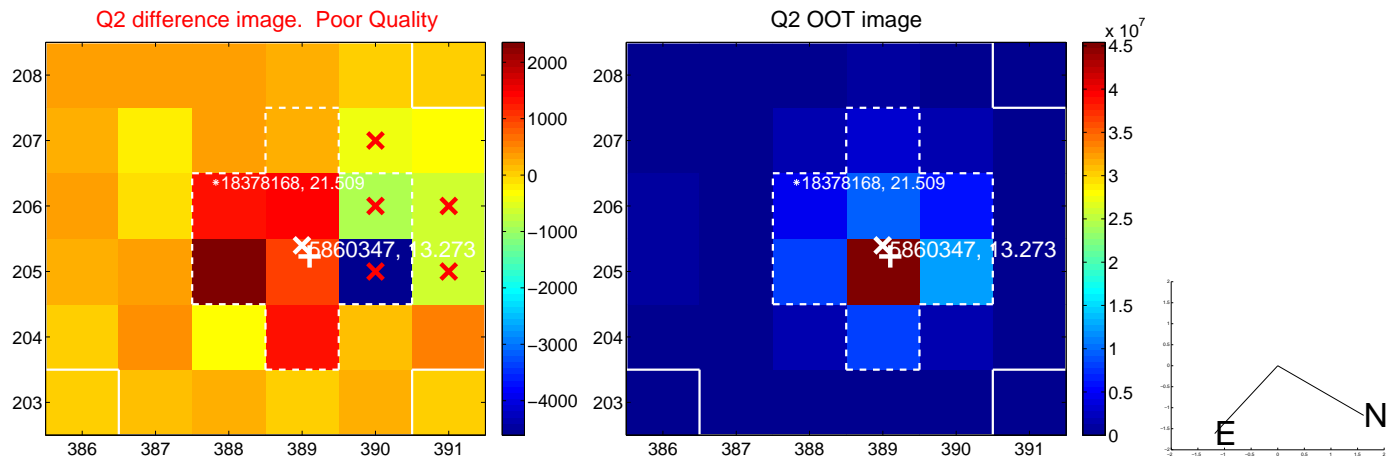
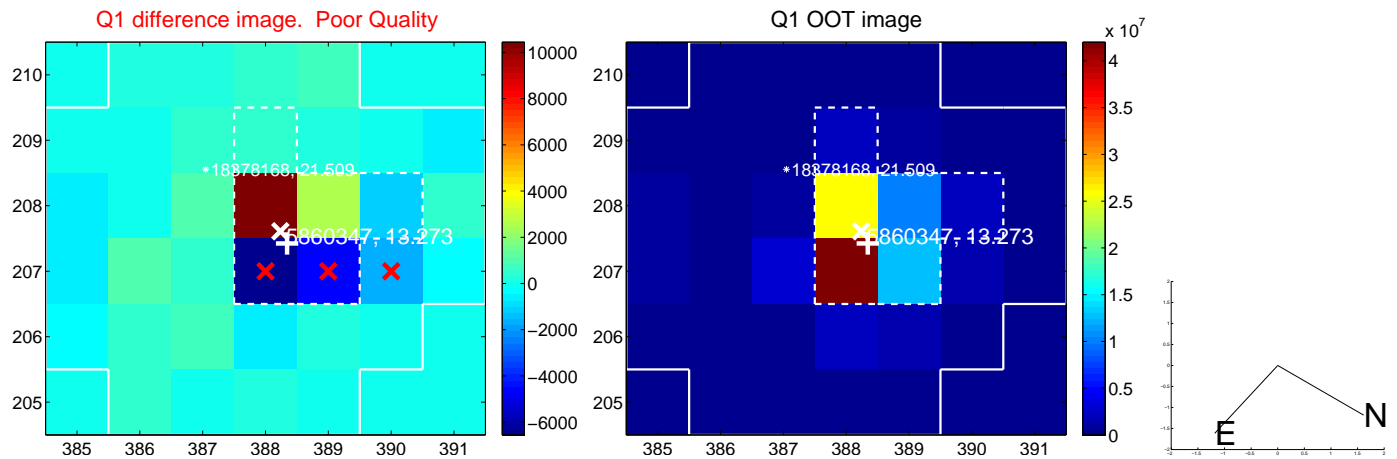
The direct PRF centroid is offset from the target star catalog position by about 1.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.937 ± 0.989	1.96	-1.595 ± 1.080	-1.099 ± 0.763
PRF-fit source offset from KIC position	1.295 ± 1.085	1.19	-1.279 ± 1.255	-0.198 ± 1.358
photometric centroid source offset	3.62 ± 1.54	2.35	2.76 ± 1.50	2.35 ± 1.60

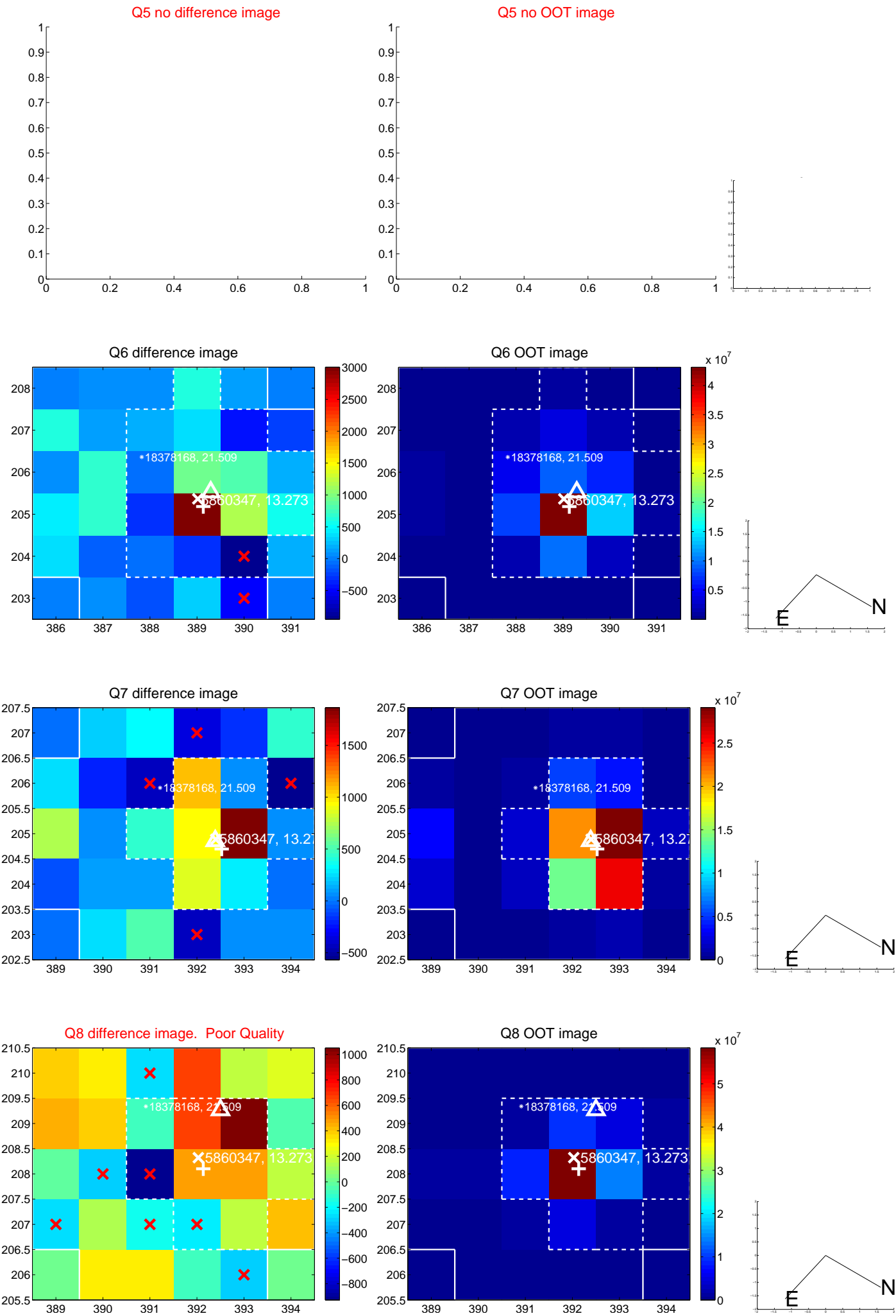


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

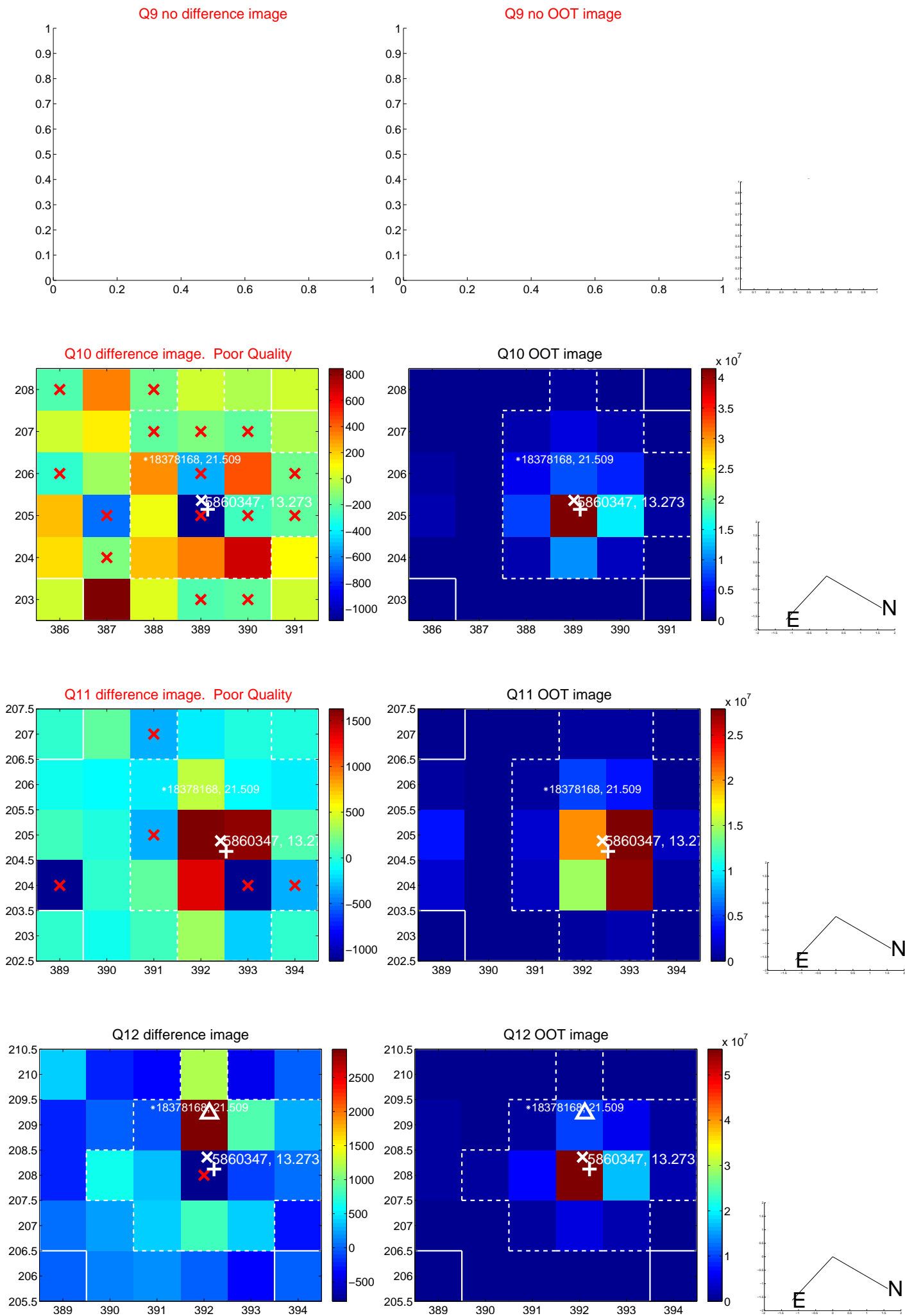
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



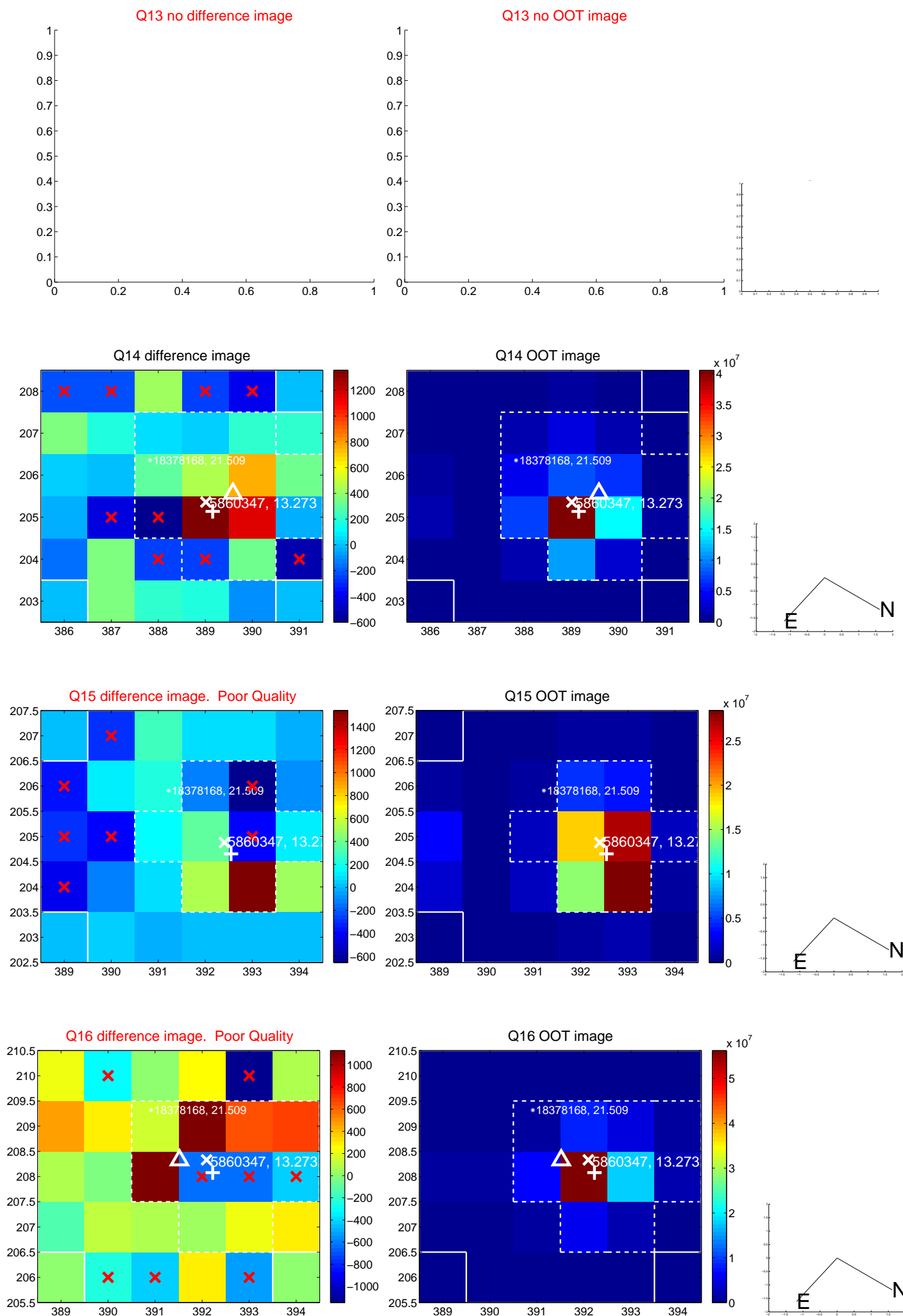
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



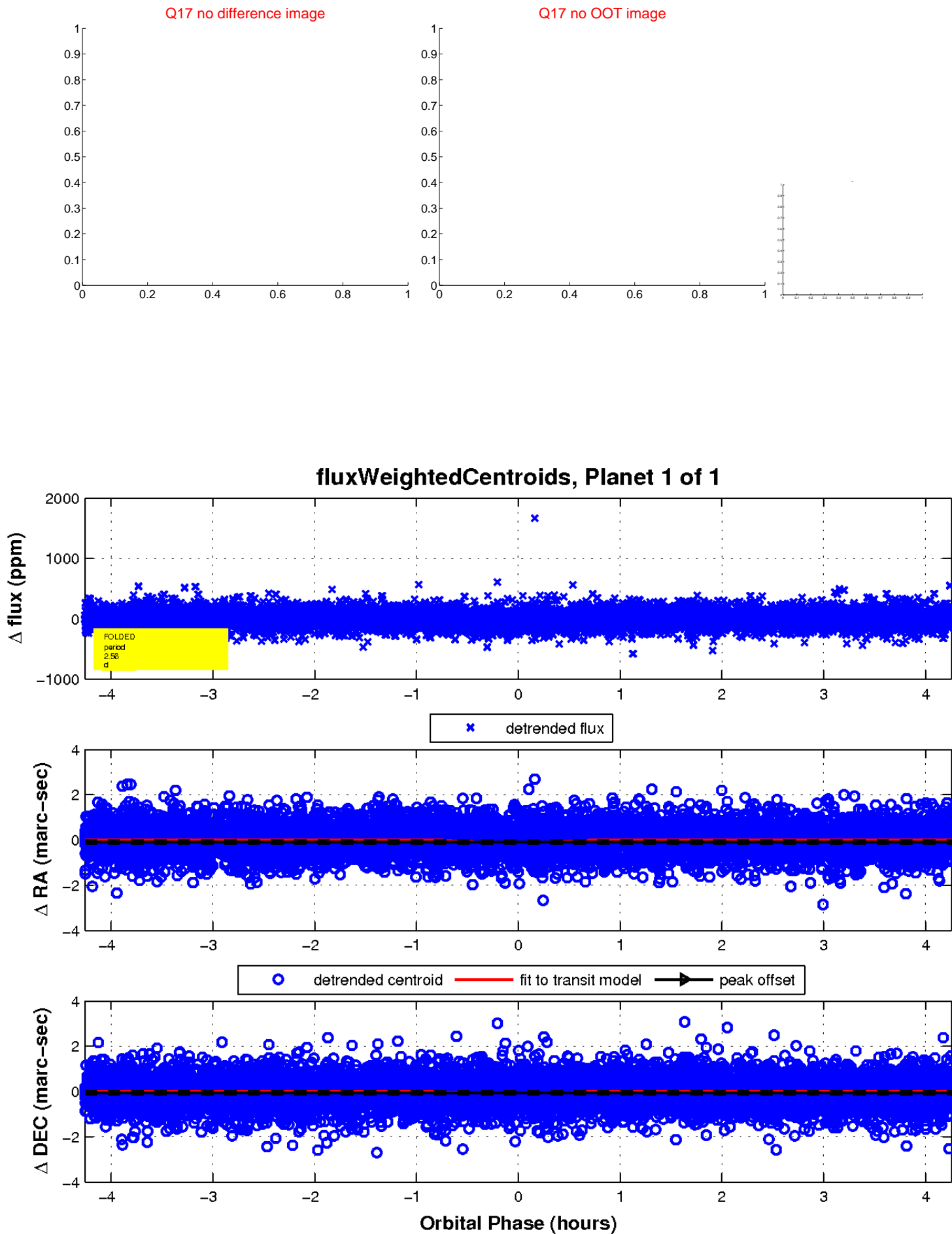
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UKIRT Image

