

KIC 005123246

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})
005123246-01	OBS	No	1.061759	131.515328	42.5	3.327	8.7	8.3	0.86	5258	0.66	1429.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005123246-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

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

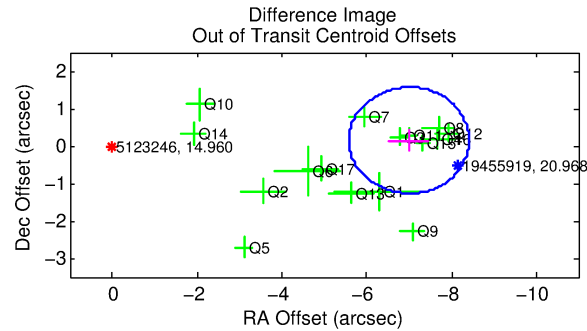
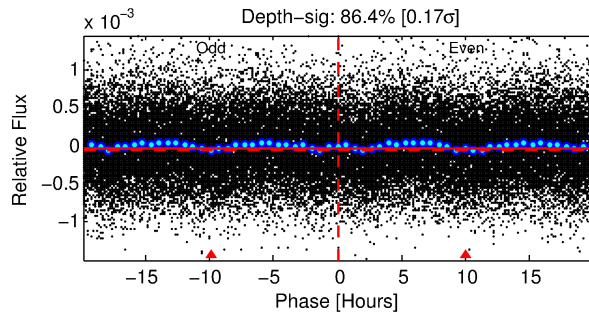
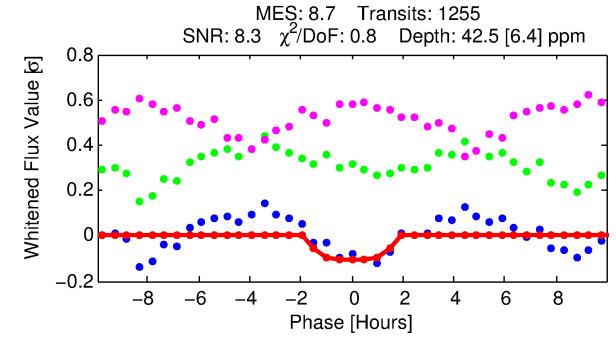
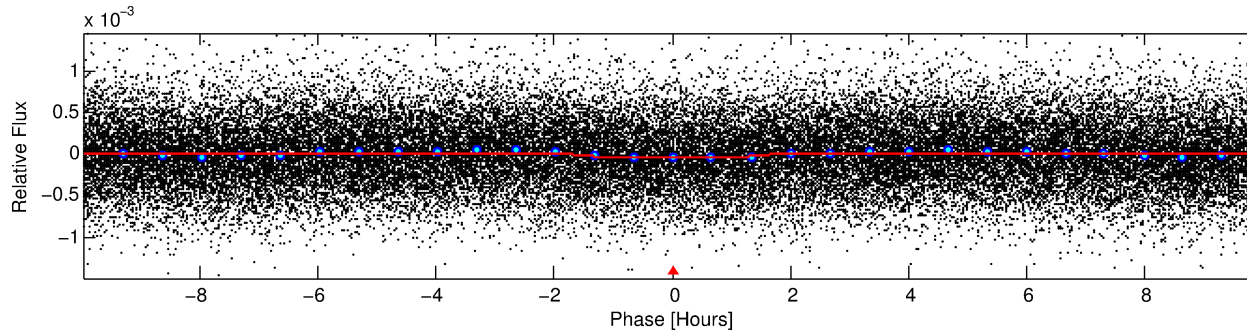
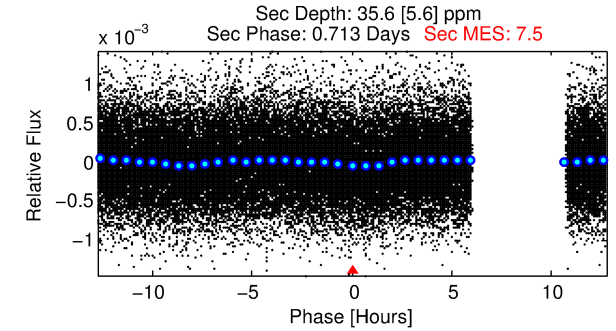
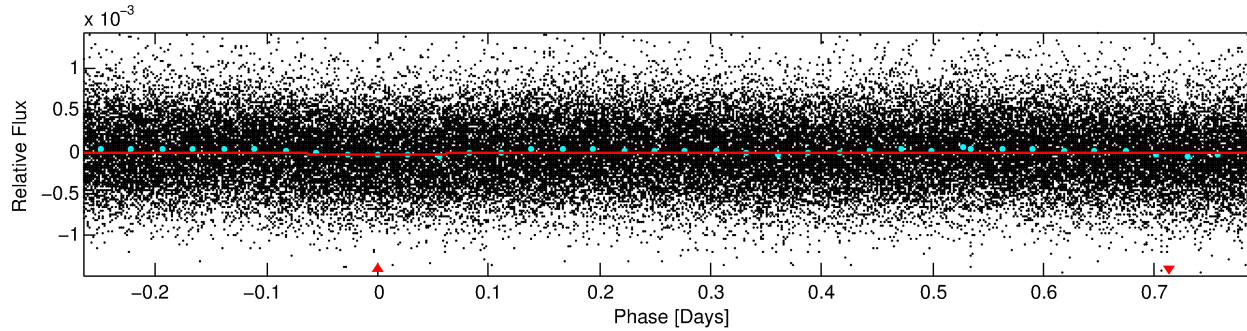
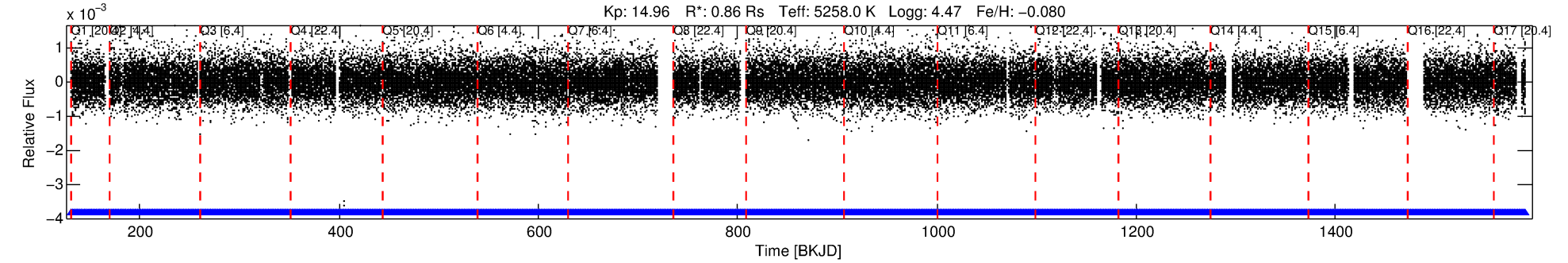
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005123246-01

No Significant Match Found

DV One-Page Summary

KIC: 5123246 Candidate: 1 of 1 Period: 1.062 d



DV Fit Results:

Period = 1.06176 [0.00001] d
Epoch = 131.5153 [0.0052] BKJD
Rp/R* = 0.0071 [0.0063]
a/R* = 1.50 [3.18]
b = 0.88 [0.98]
Seff = 1429.36 [337.07]
Teq = 1568 [92] K
Rp = 0.66 [0.60] Re
a = 0.0188 [0.0025] AU
Ag = 15.75 [28.43] [0.52σ]
Teffp = 4829 [2170] K [1.50σ]

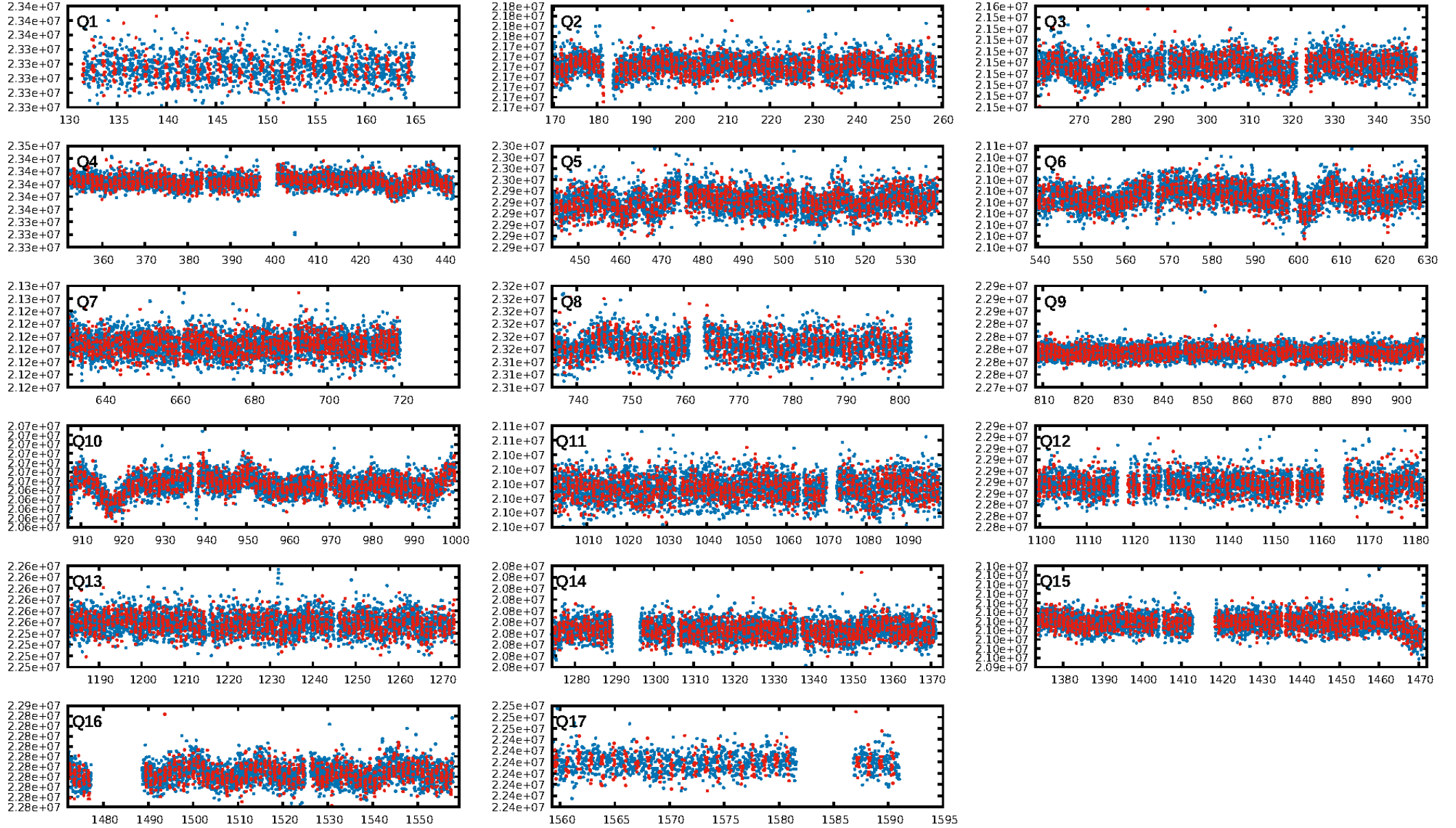
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.02e-17
RollingBand-fgt: 1.00 [1198/1198]
GhostDiagnostic-chr: -0.3314
Centroid-sig: 0.0%
Centroid-so: 6.892 arcsec [3.77σ]
OotOffset-rm: 6.999 arcsec [14.81σ]
KicOffset-rm: 6.996 arcsec [14.77σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 1.00 [17/17]

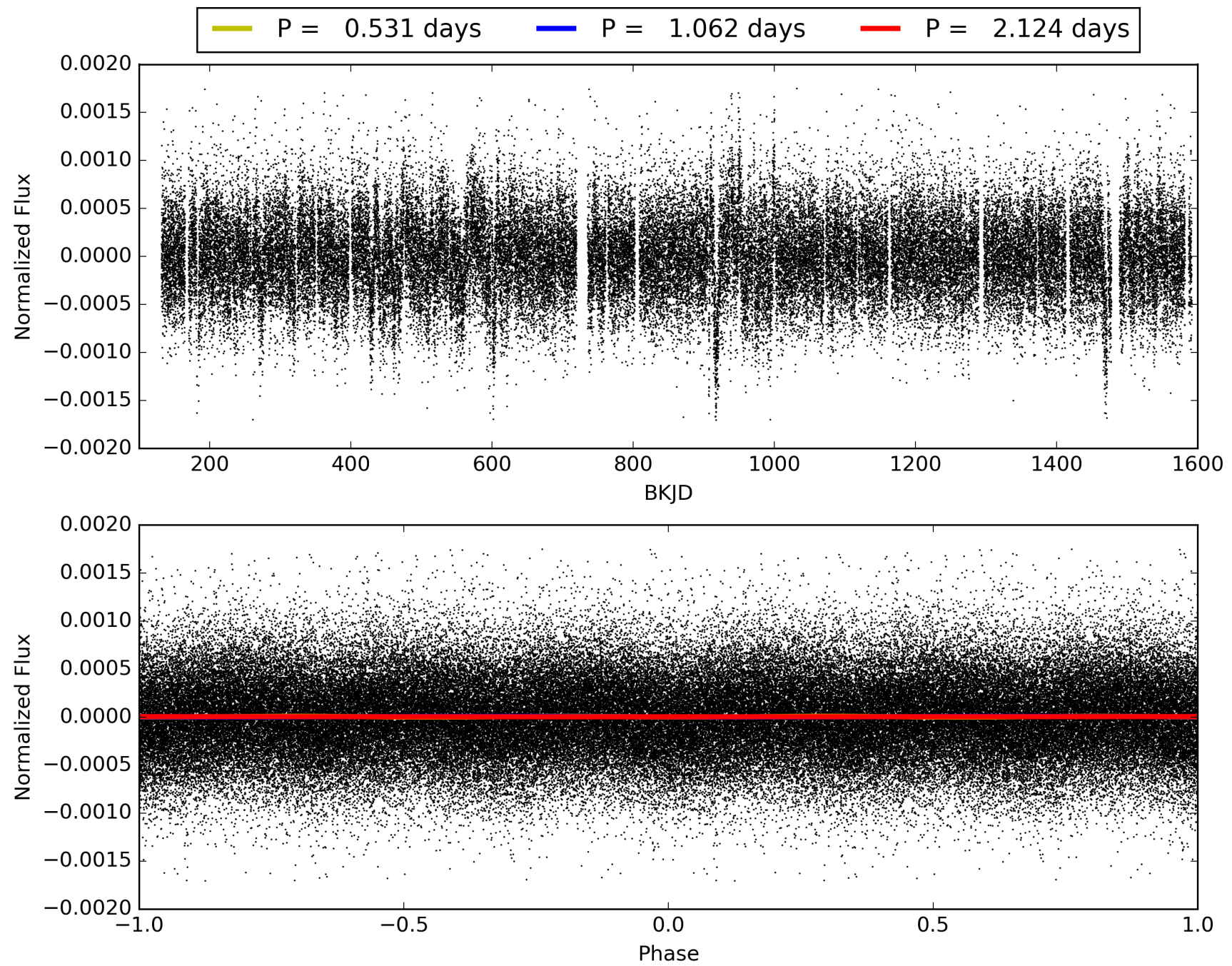
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:15:56 Z

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

TCE 005123246-01, PDC Light Curves

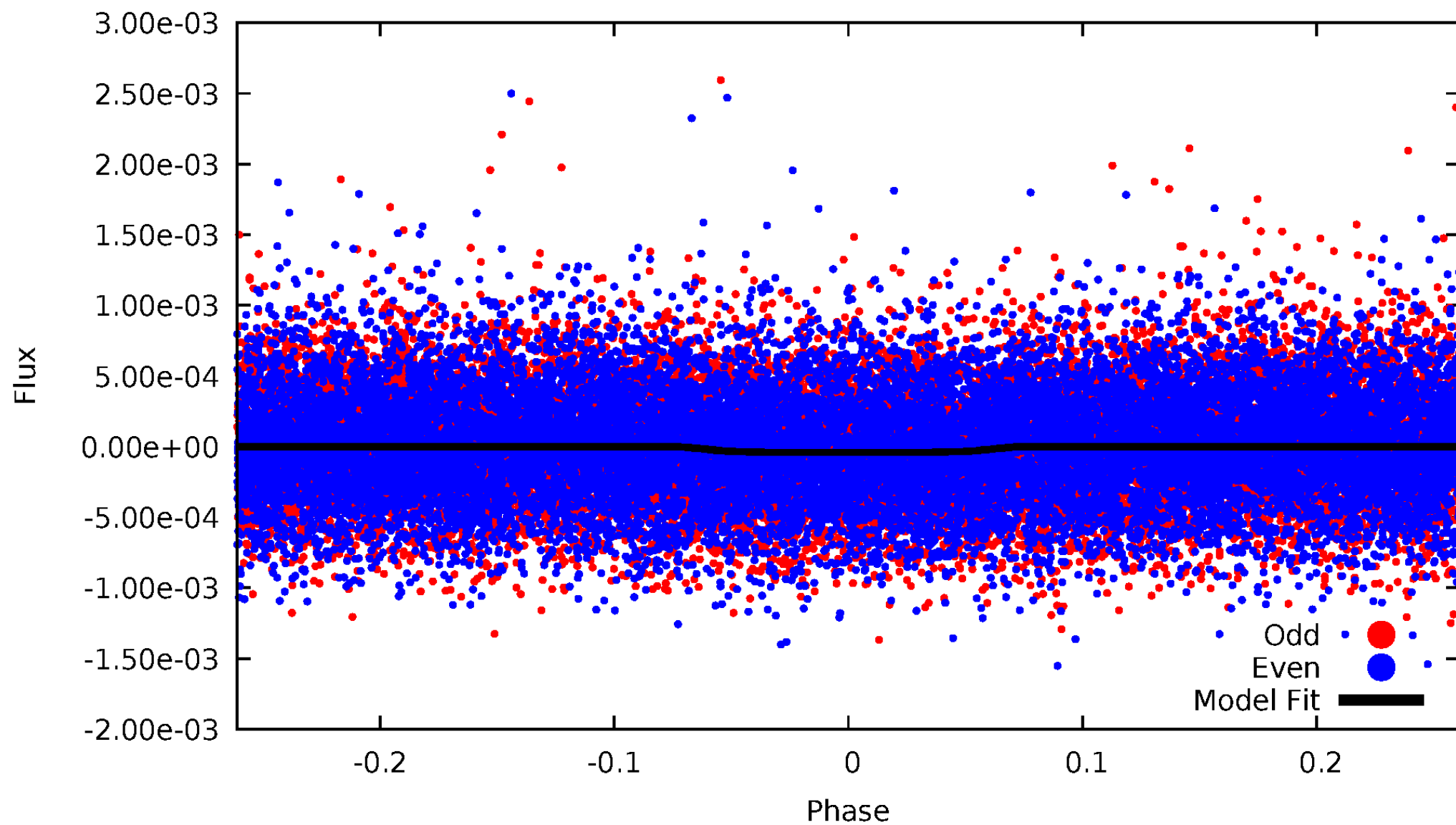


TCE 005123246-01



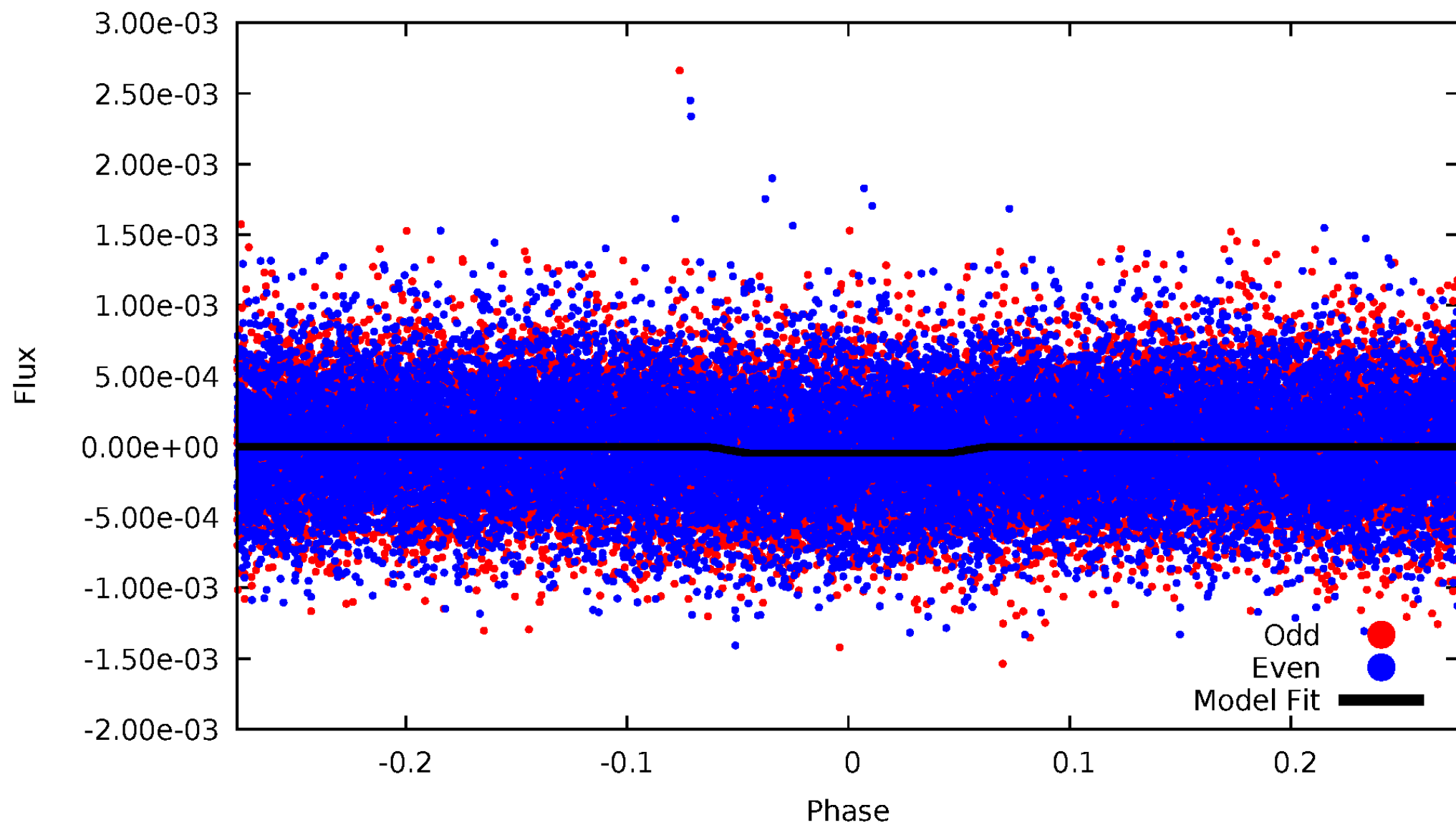
DV Odd/Even

TCE 005123246-01

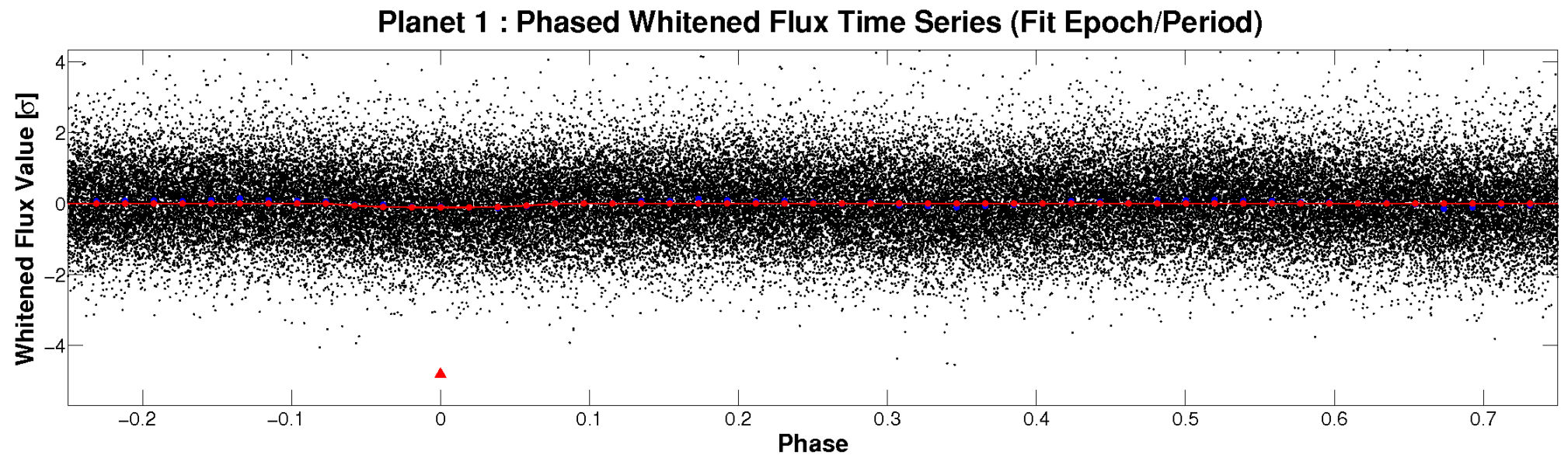
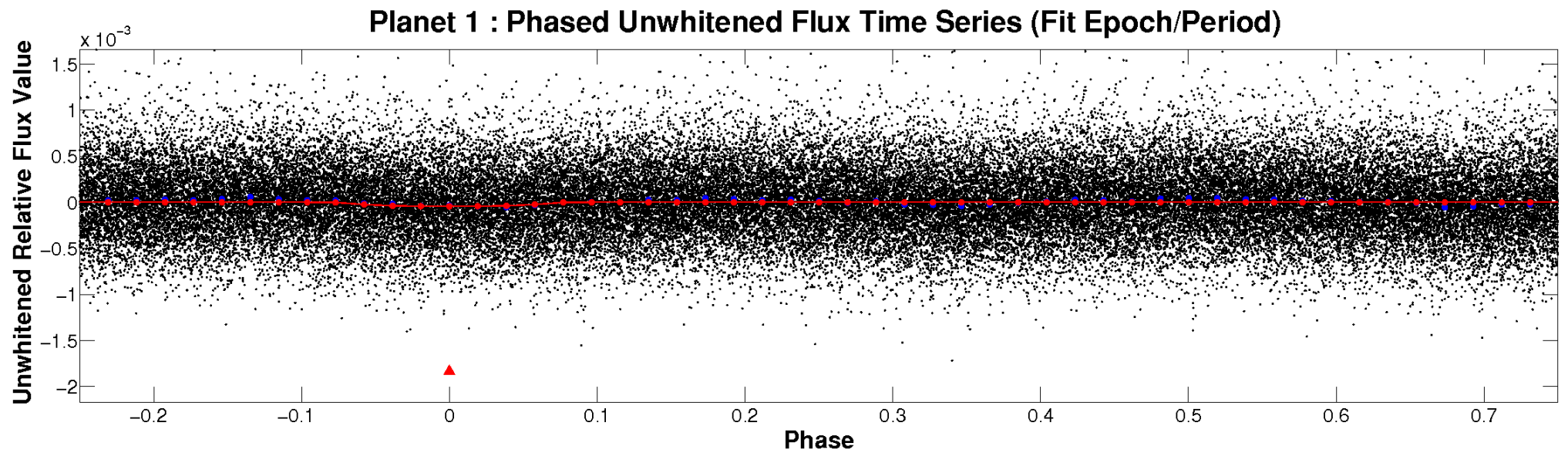


ALT Odd/Even

TCE 005123246-01

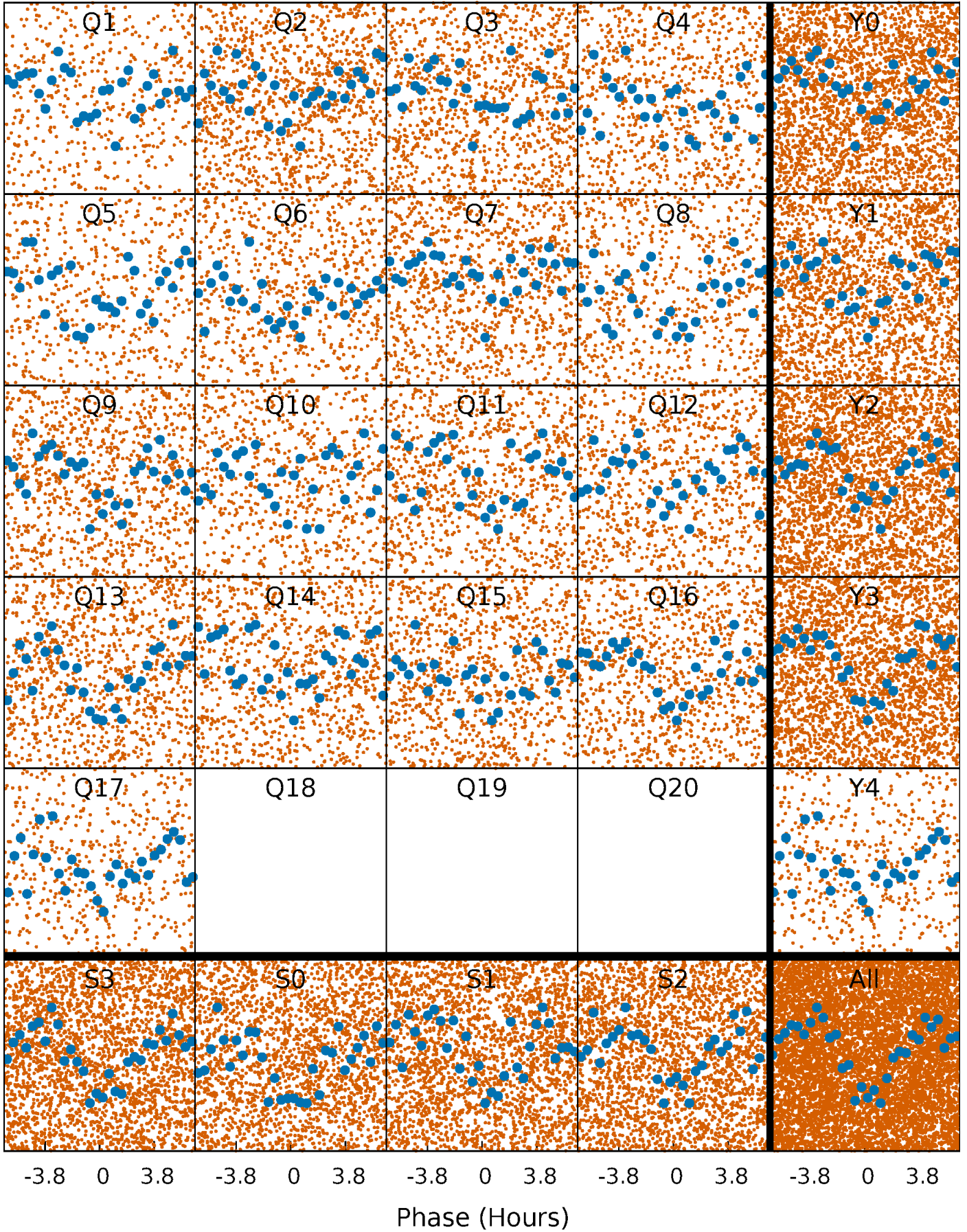


Non-Whitened Vs. Whitened Light Curve



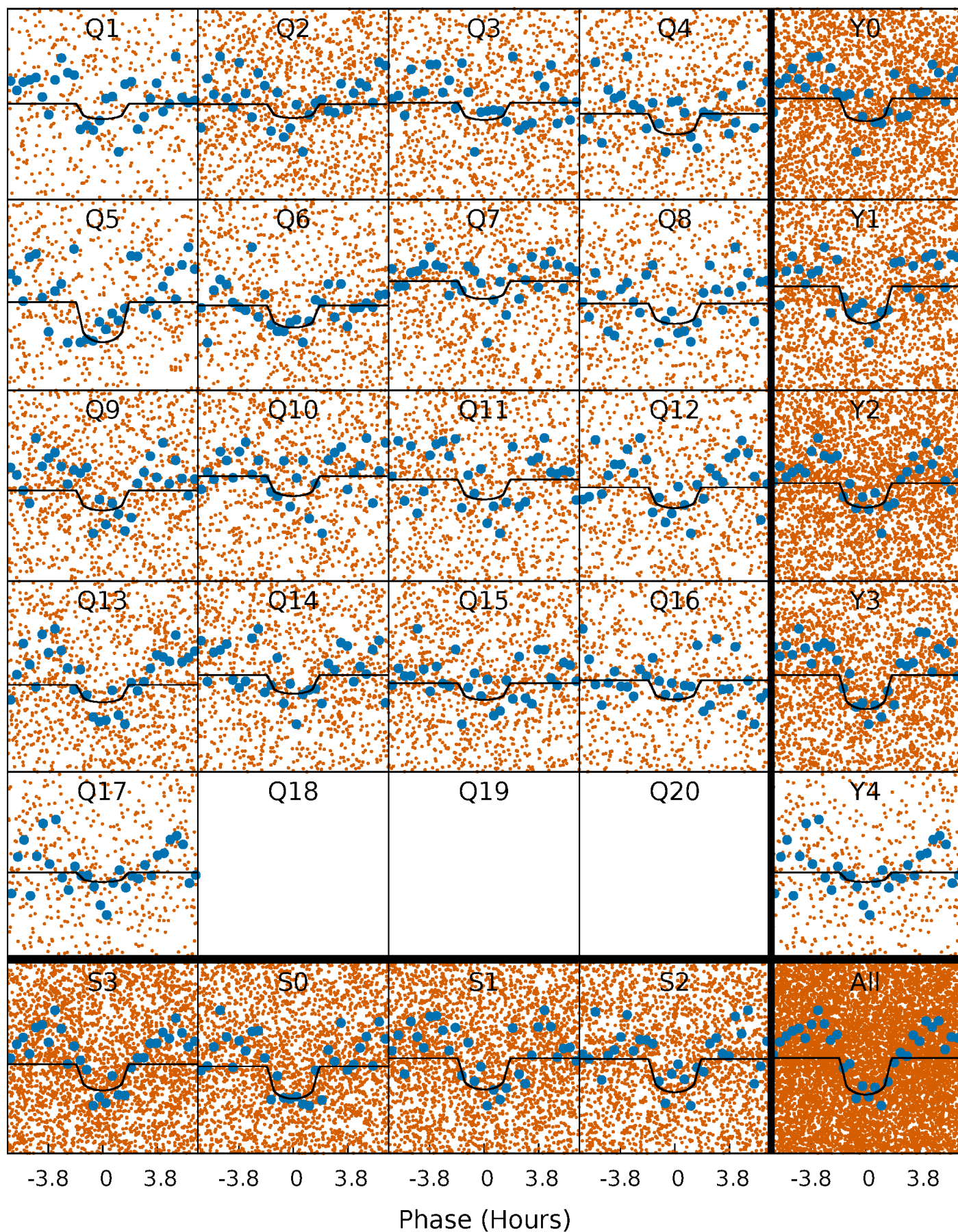
PDC Quarter-Phased Transit Curves

TCE 005123246-01 P= 1.061759 Days $T_0=131.515328$ (BKJD)



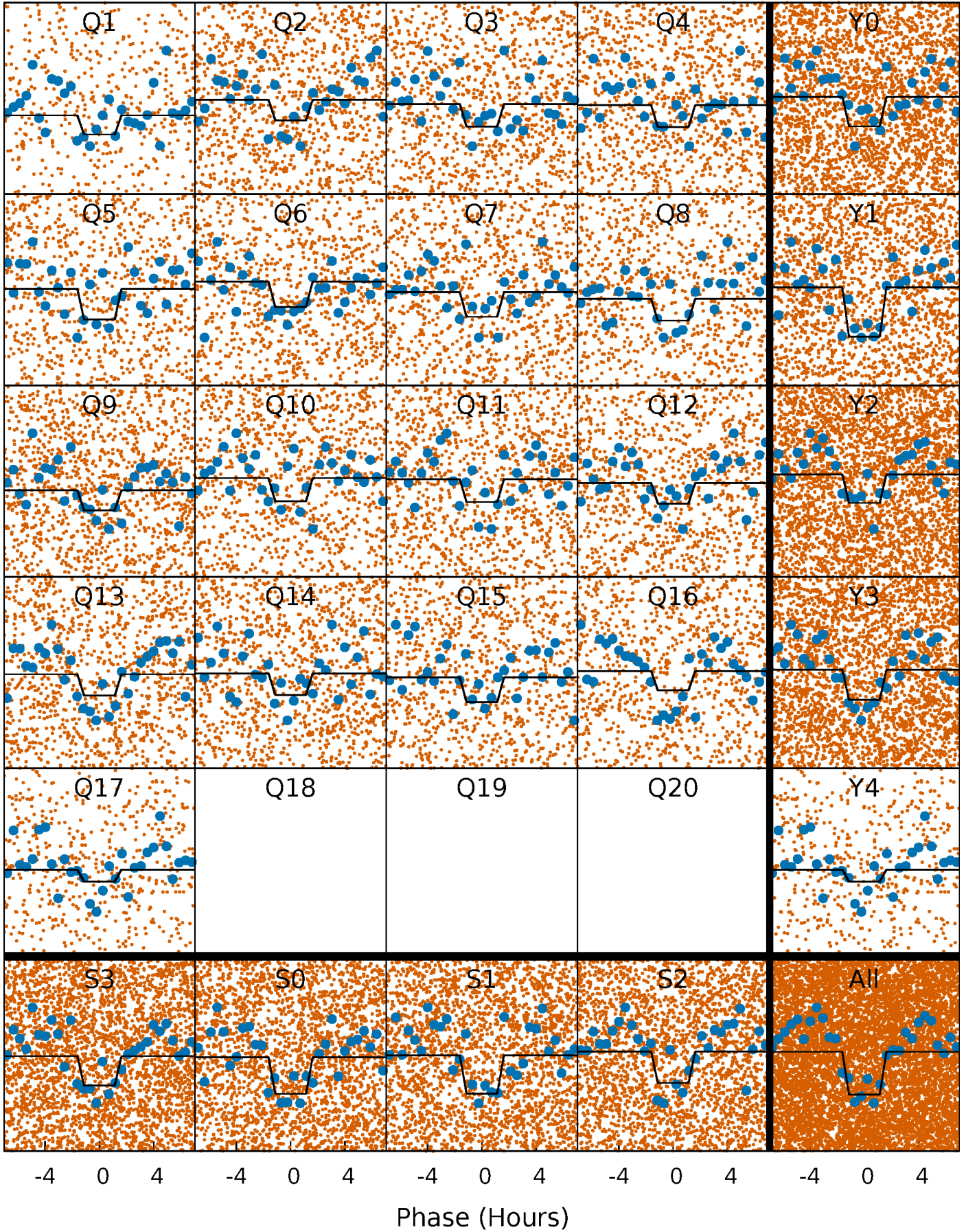
DV Quarter-Phased Transit Curves

TCE 005123246-01 P= 1.061759 Days $T_0=131.515328$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

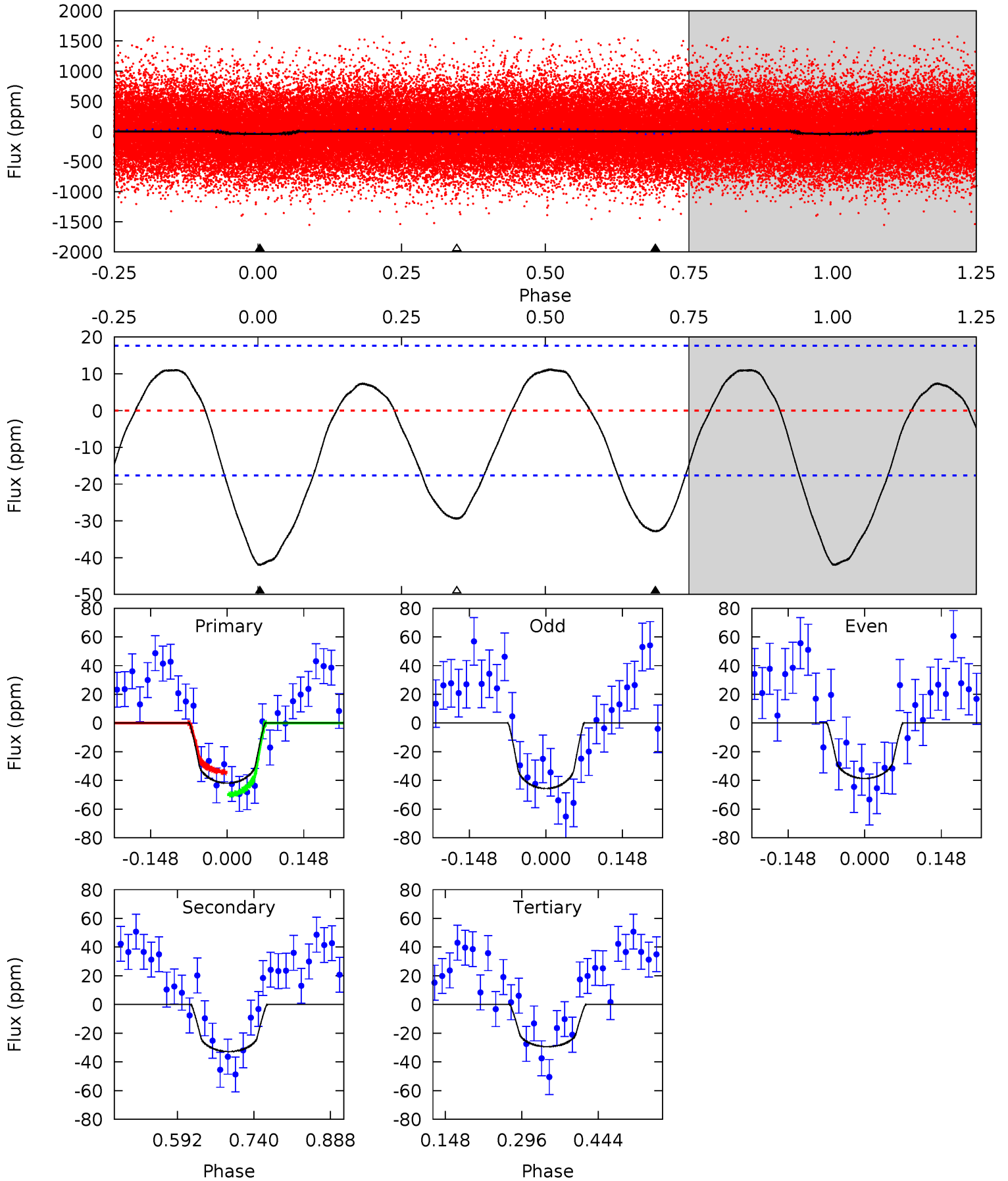
TCE 005123246-01 P= 1.061776 Days $T_0=131.517255$ (BKJD)



DV Model-Shift Uniqueness Test

005123246-01, P = 1.061759 Days, E = 130.453569 Days

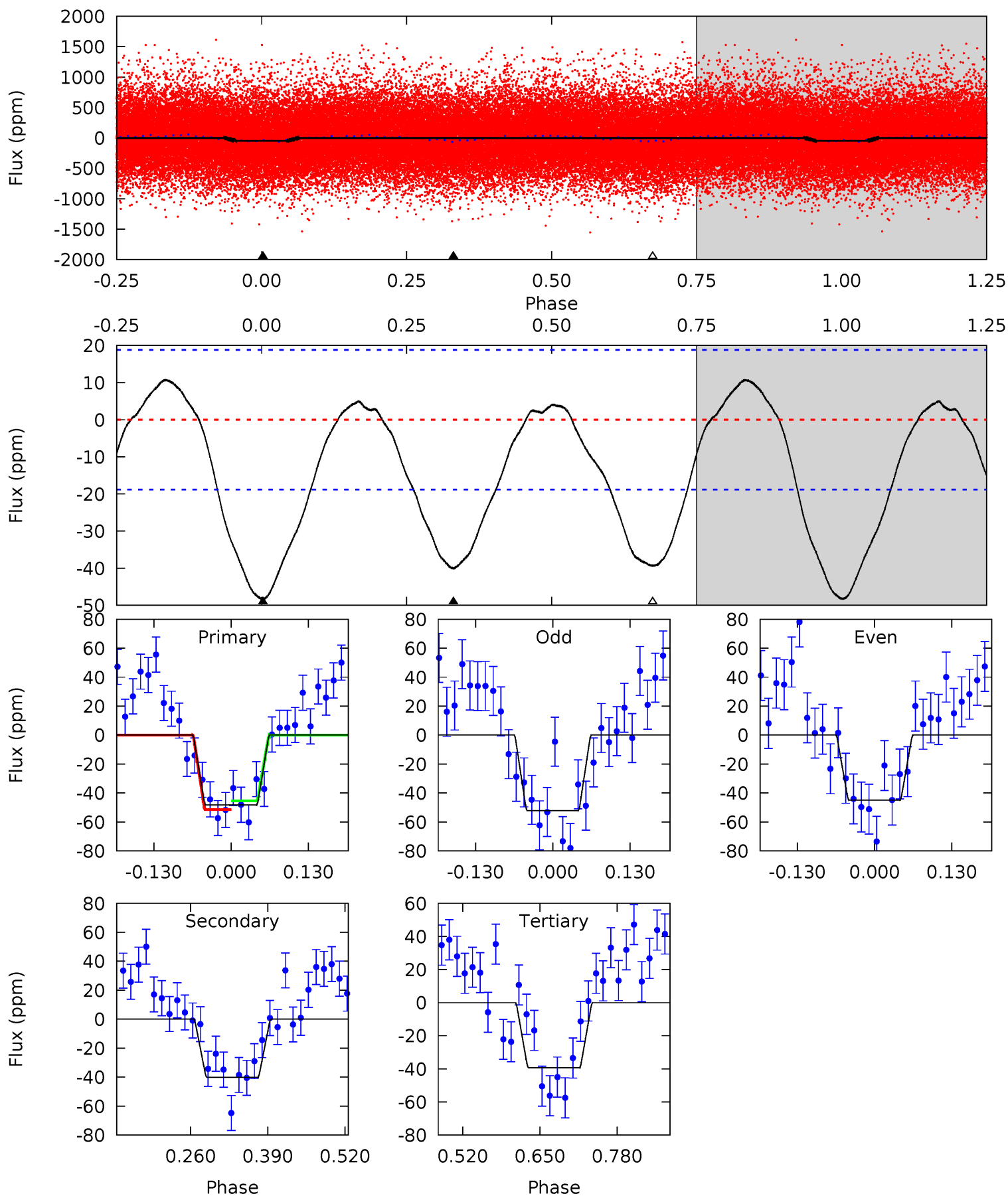
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	8.34	7.47	0	4.48	1.45	3.61	3.20	10.7	0.87	8.34	0.89	0.89	0.21	1.99



Alt Model-Shift Uniqueness Test

005123246-01, P = 1.061776 Days, E = 130.455479 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	9.61	9.44	0	4.51	1.51	3.90	2.13	11.6	0.17	9.61	0.87	0.90	0.18	0.72



Stellar Parameters For KIC 005123246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5258^{+158}_{-158}	$4.466^{+0.103}_{-0.115}$	$-0.080^{+0.300}_{-0.300}$	$0.860^{+0.129}_{-0.105}$	$0.788^{+0.112}_{-0.060}$	$1.747^{+0.857}_{-0.573}$
	+3%/-3%	+2%/-3%	+375%/-375%	+15%/-12%	+14%/-8%	+49%/-33%
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 005123246-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-33 ± 4	$0.77^{+0.60}_{-0.47}$	2200^{+119}_{-103}	4478^{+2474}_{-819}	11^{+58}_{-7}
Alt.	-40 ± 4	$0.76^{+0.59}_{-0.46}$	2203^{+107}_{-109}	4708^{+2609}_{-836}	14^{+68}_{-9}

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

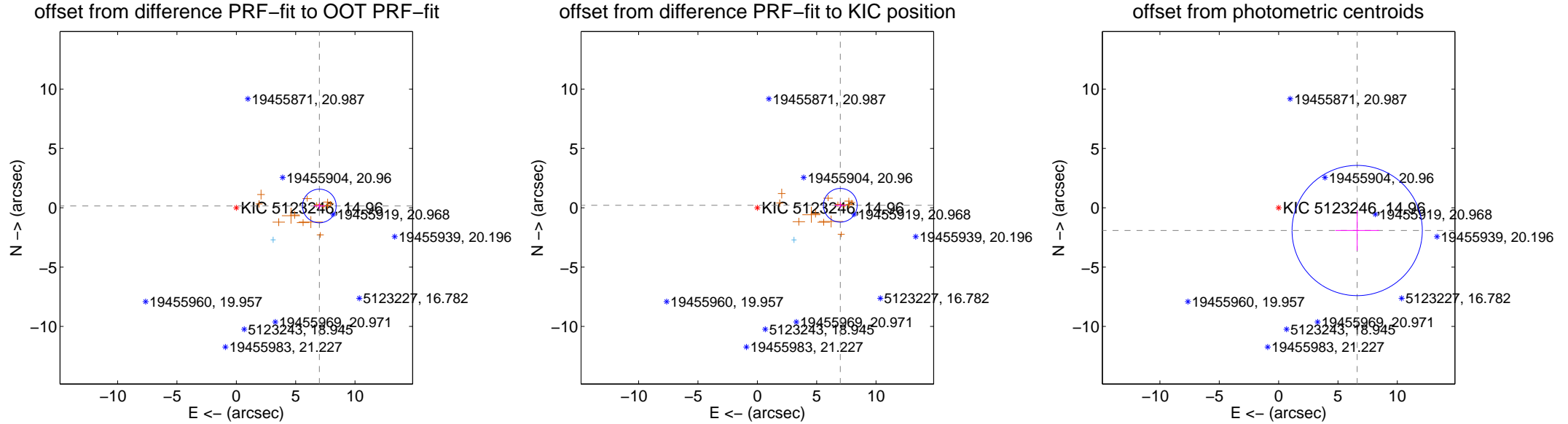
DV Centroid Data

Supplemental centroid analysis for 005123246-01. Kepler magnitude: 14.96. Transit SNR 8.26

There are 1 quarters with good PRF difference image offsets

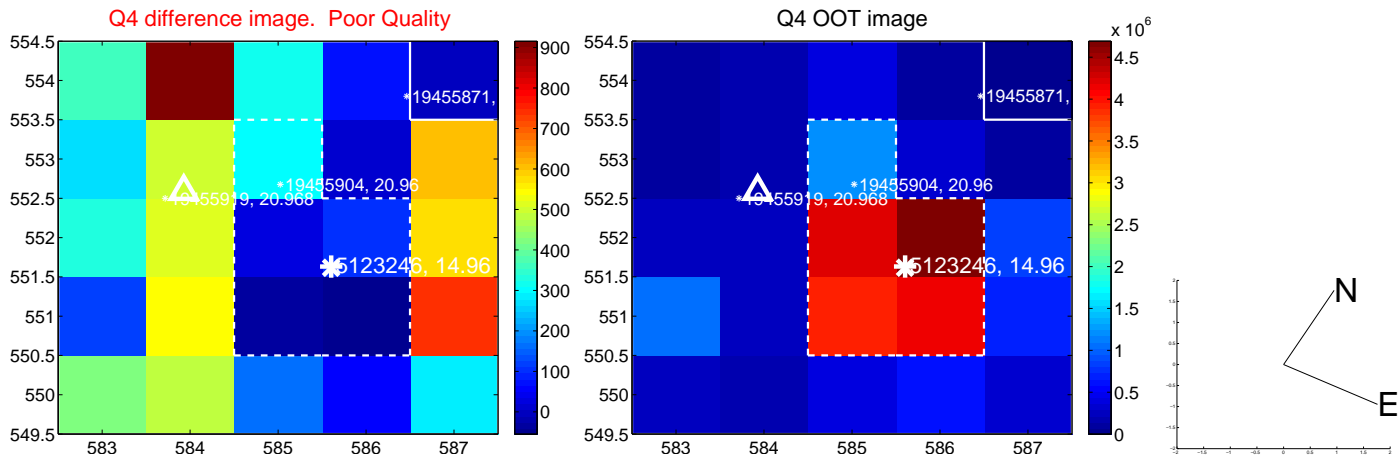
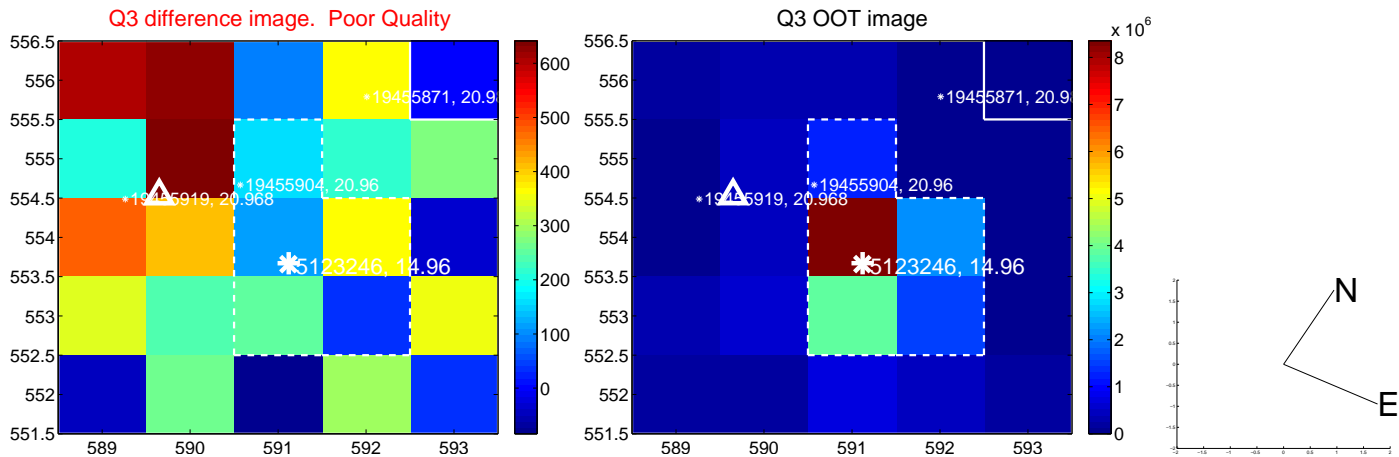
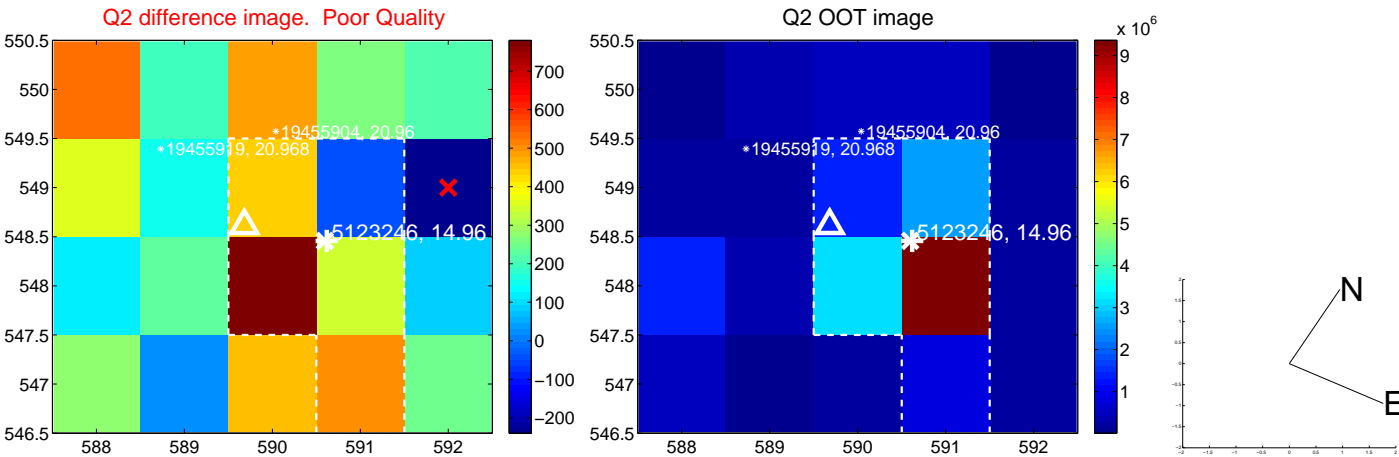
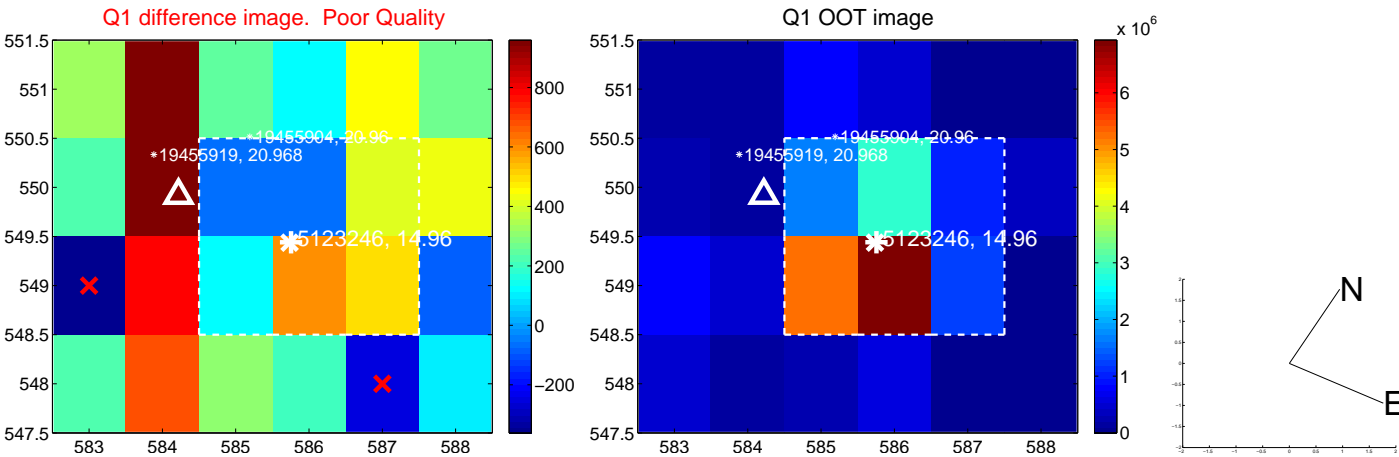
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.999 ± 0.472	14.81	-6.998 ± 0.472	0.149 ± 0.262
PRF-fit source offset from KIC position	6.996 ± 0.474	14.77	-6.993 ± 0.472	0.209 ± 0.262
photometric centroid source offset	6.89 ± 1.83	3.77	-6.62 ± 1.84	-1.92 ± 1.70

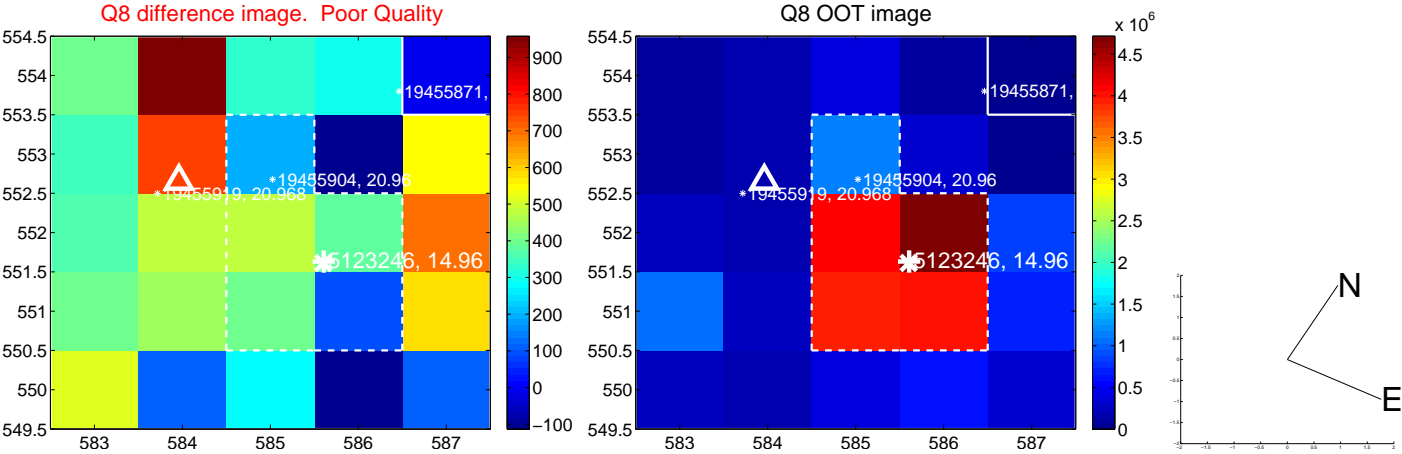
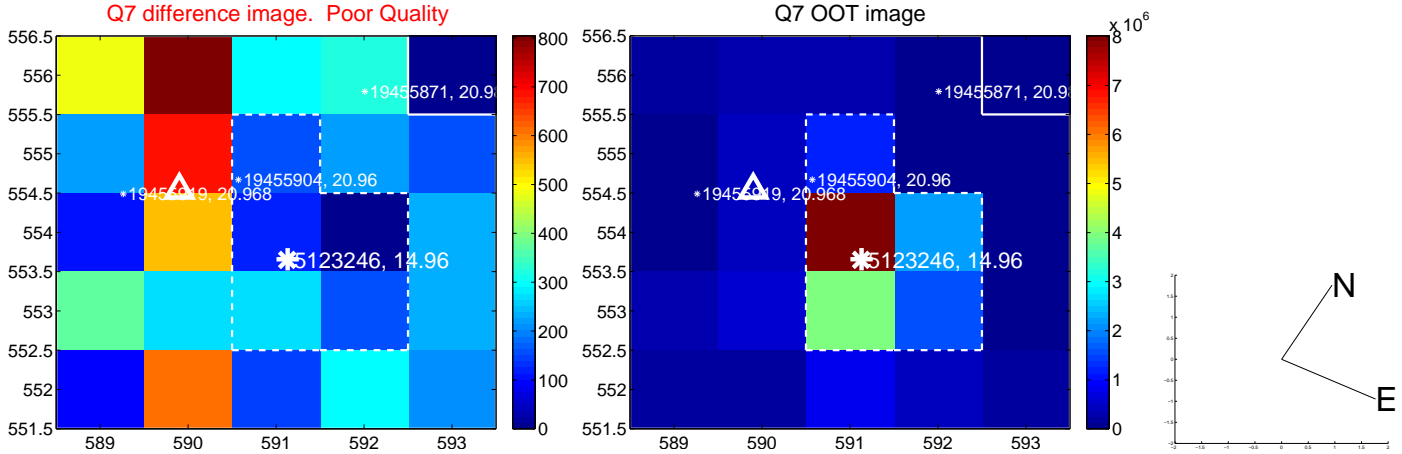
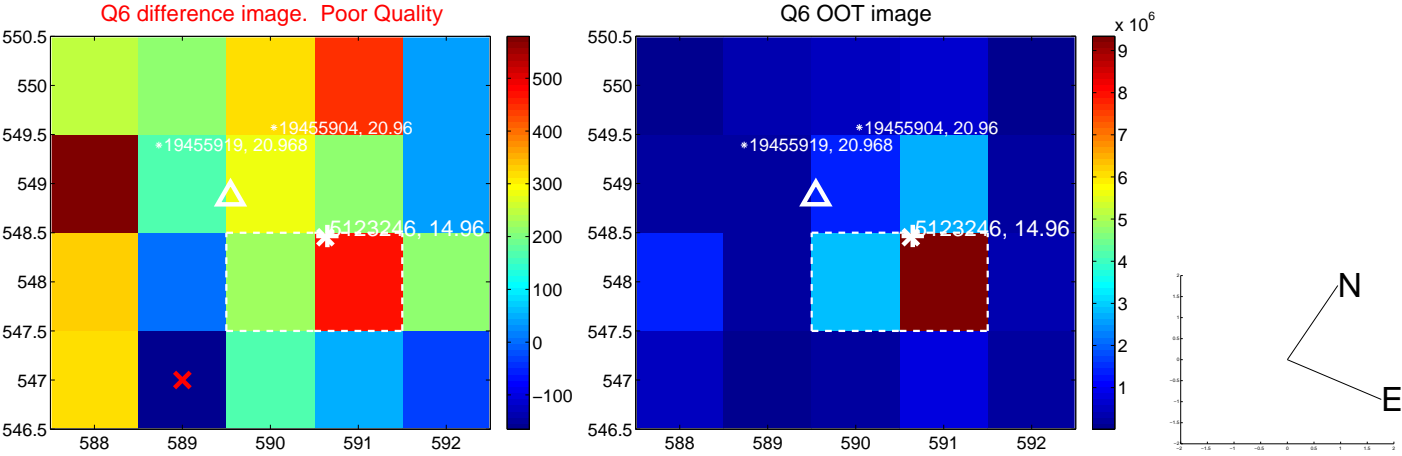
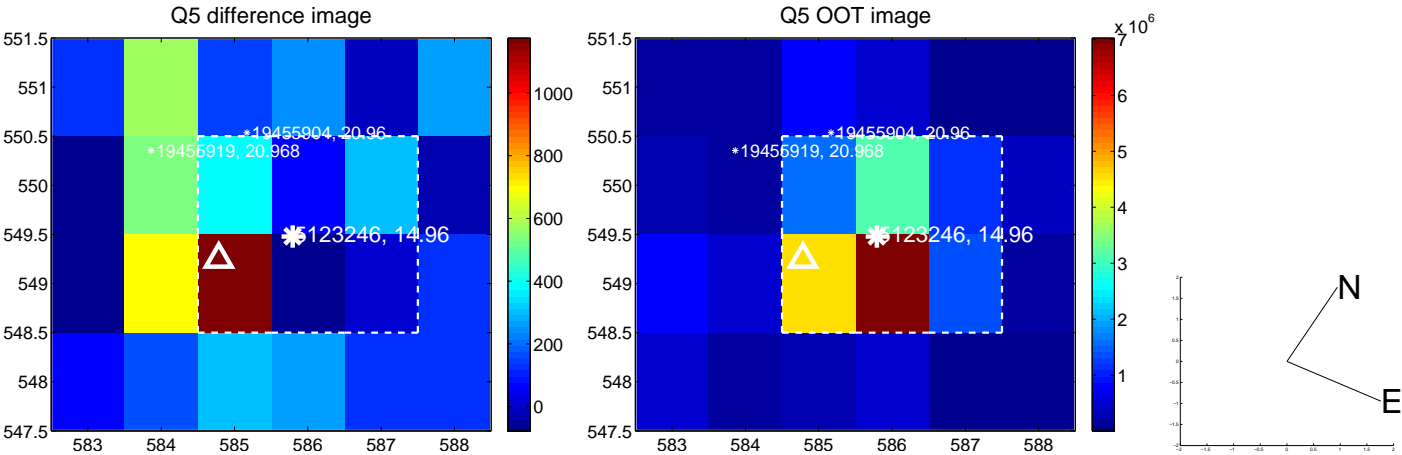


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

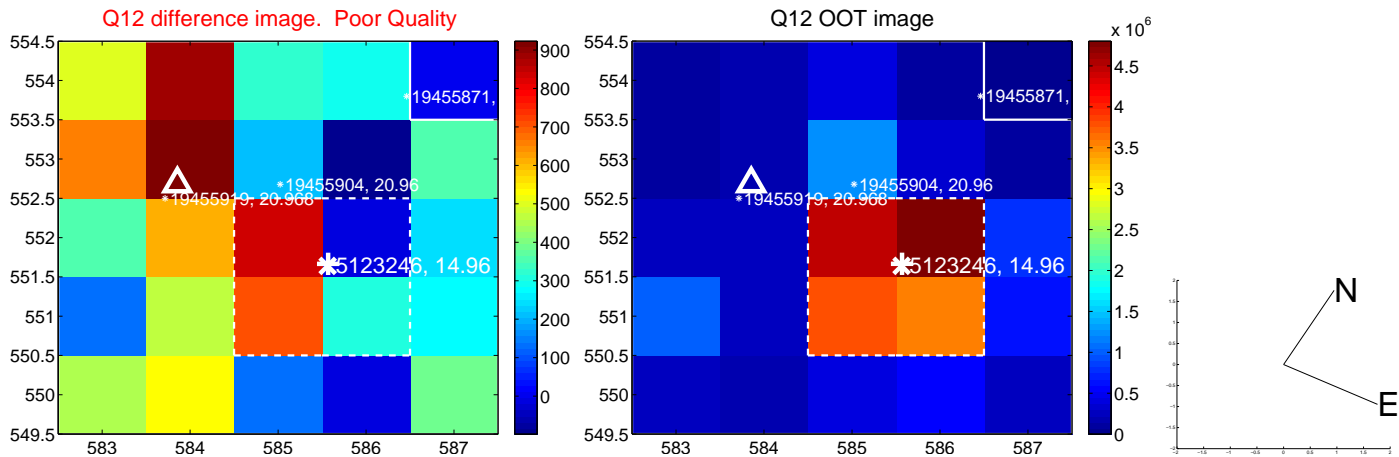
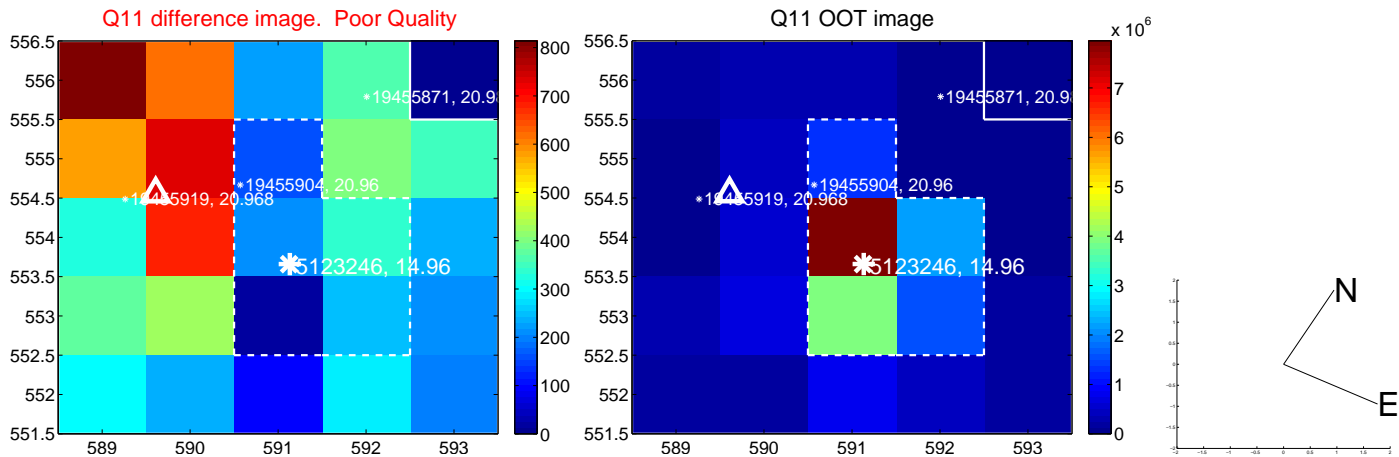
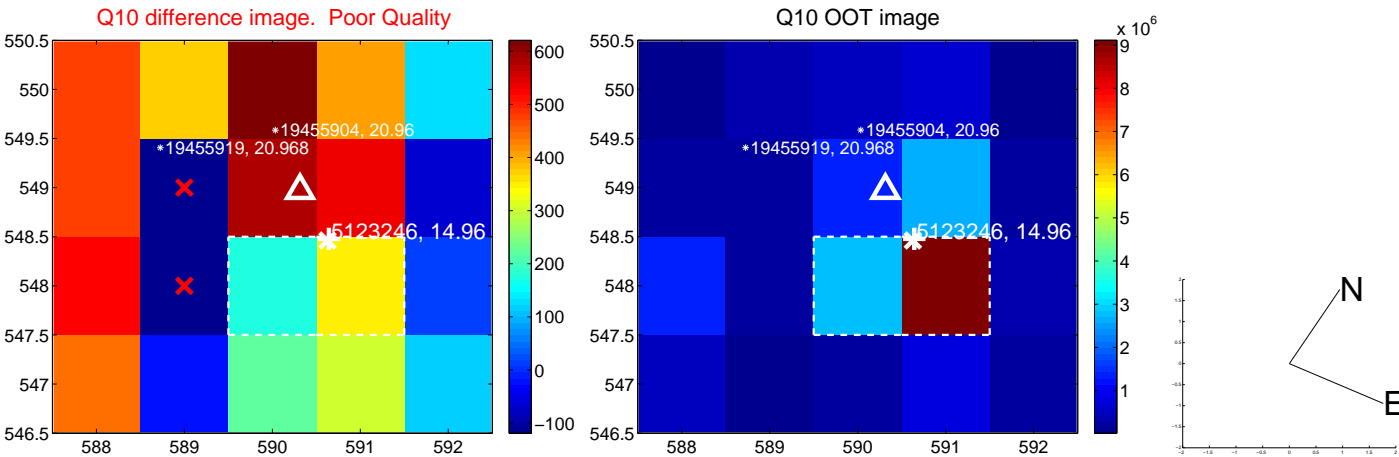
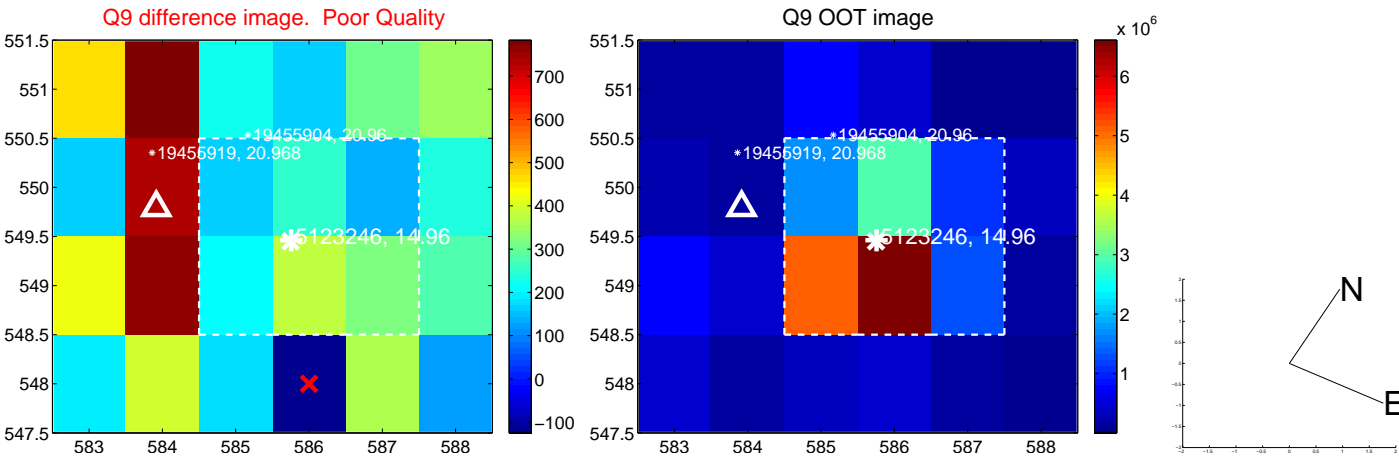
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



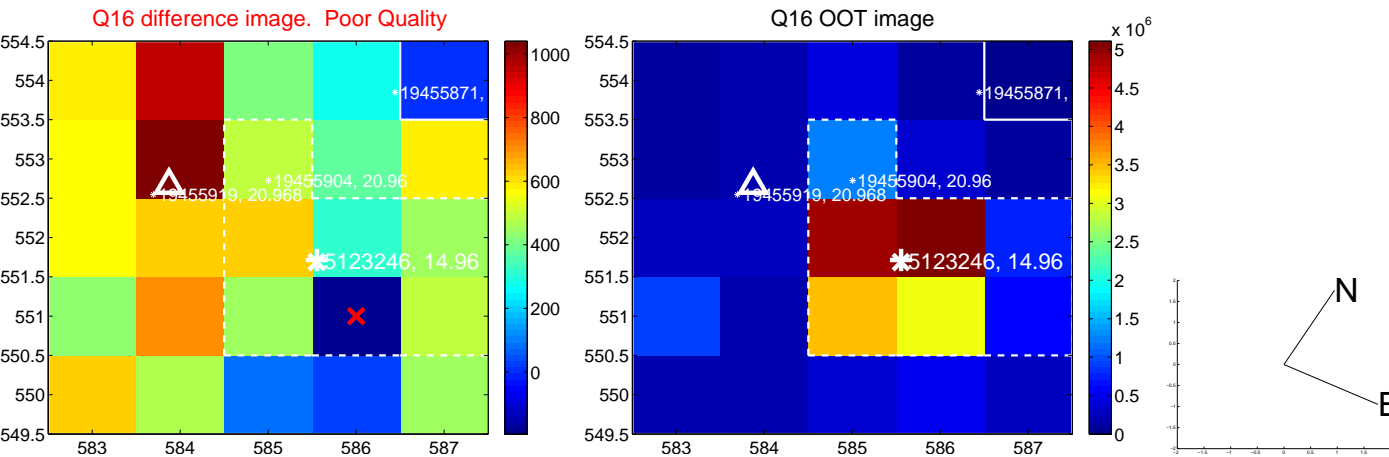
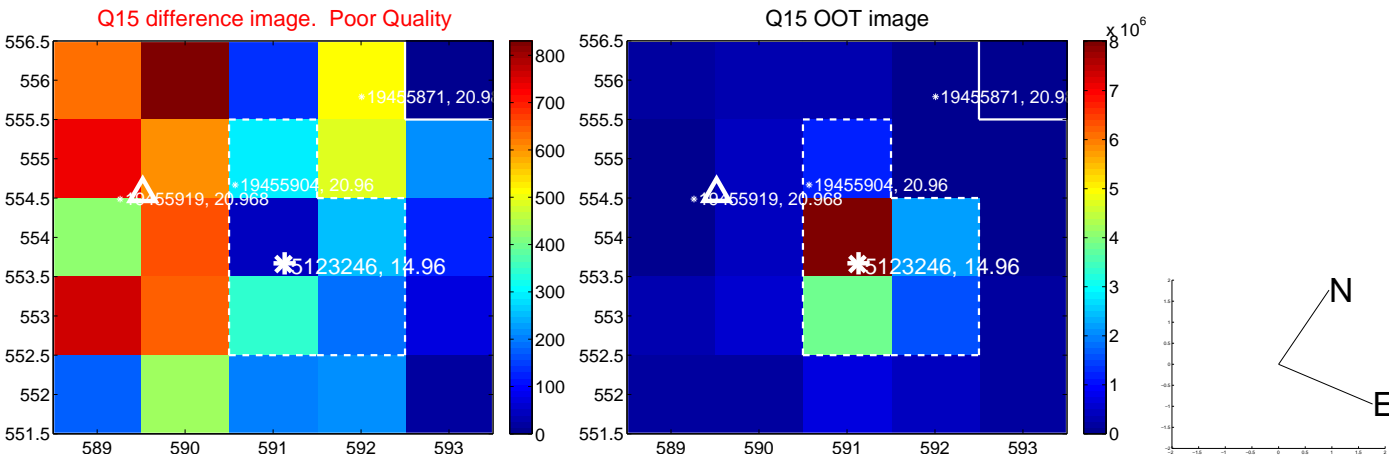
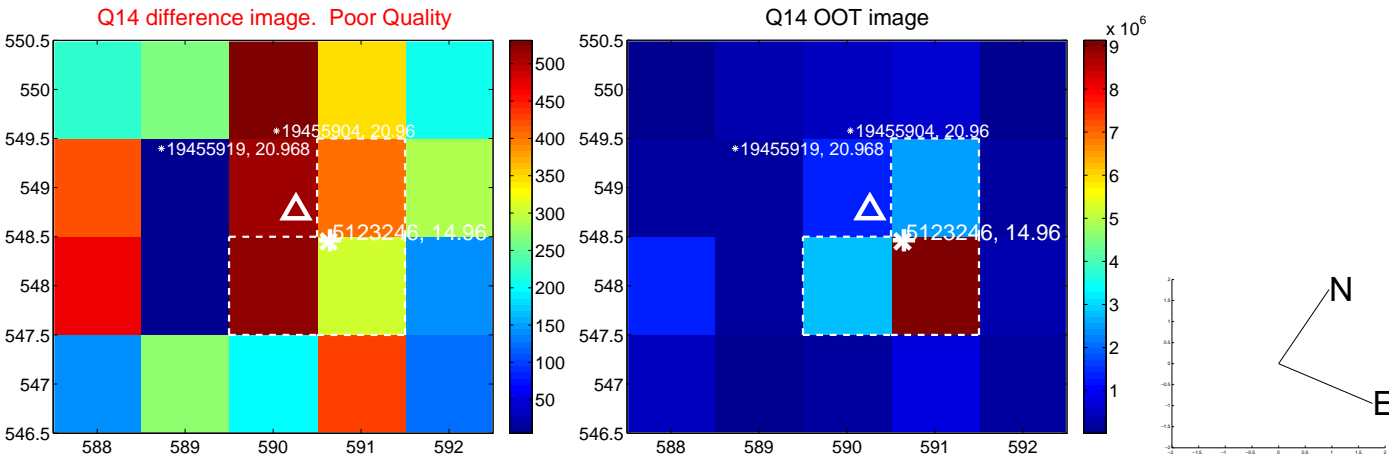
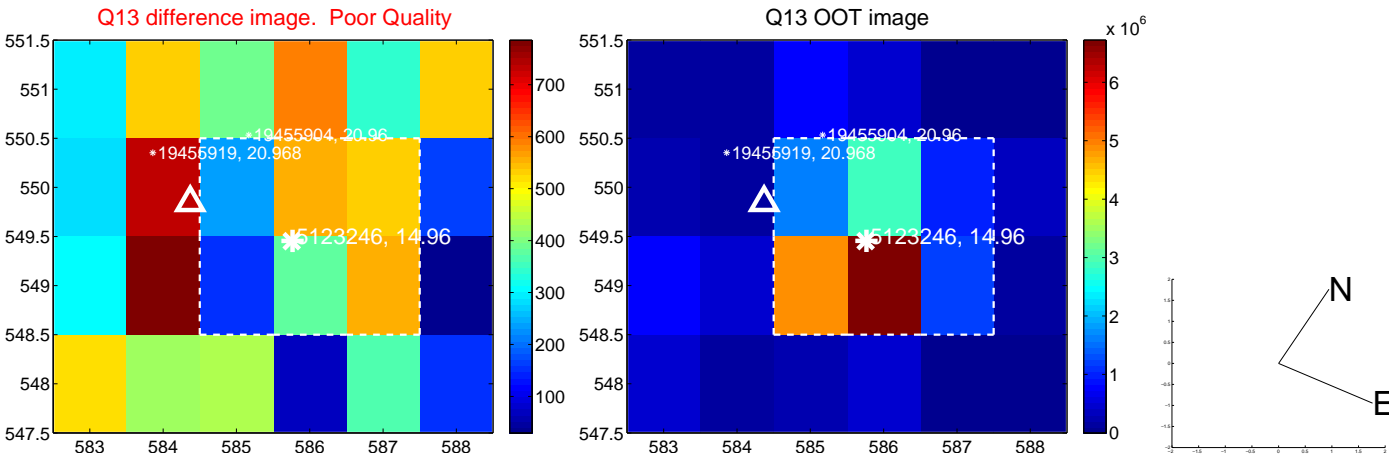
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



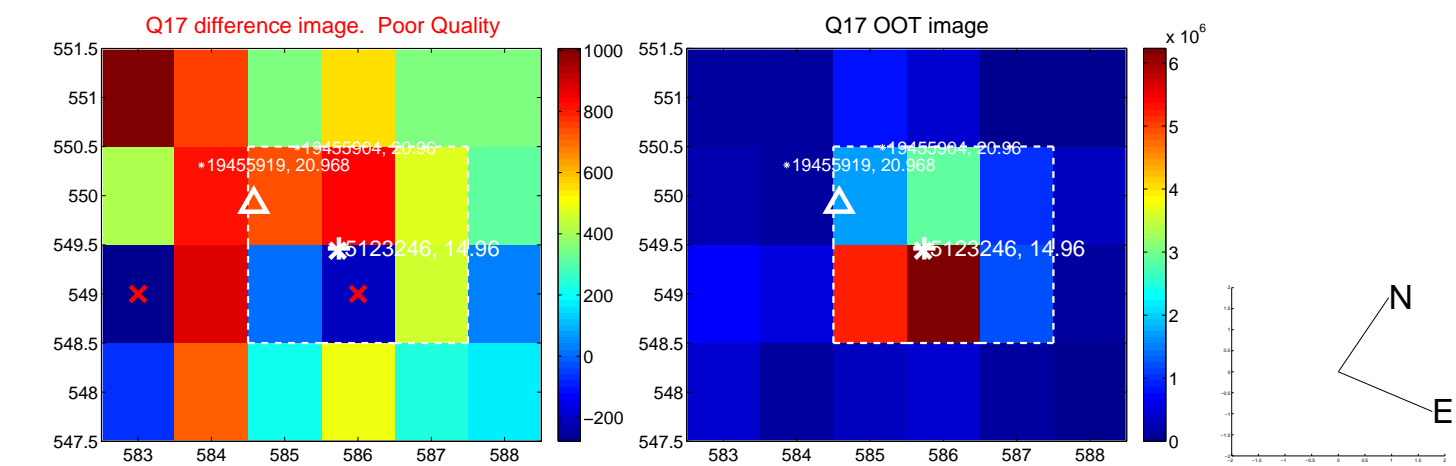
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



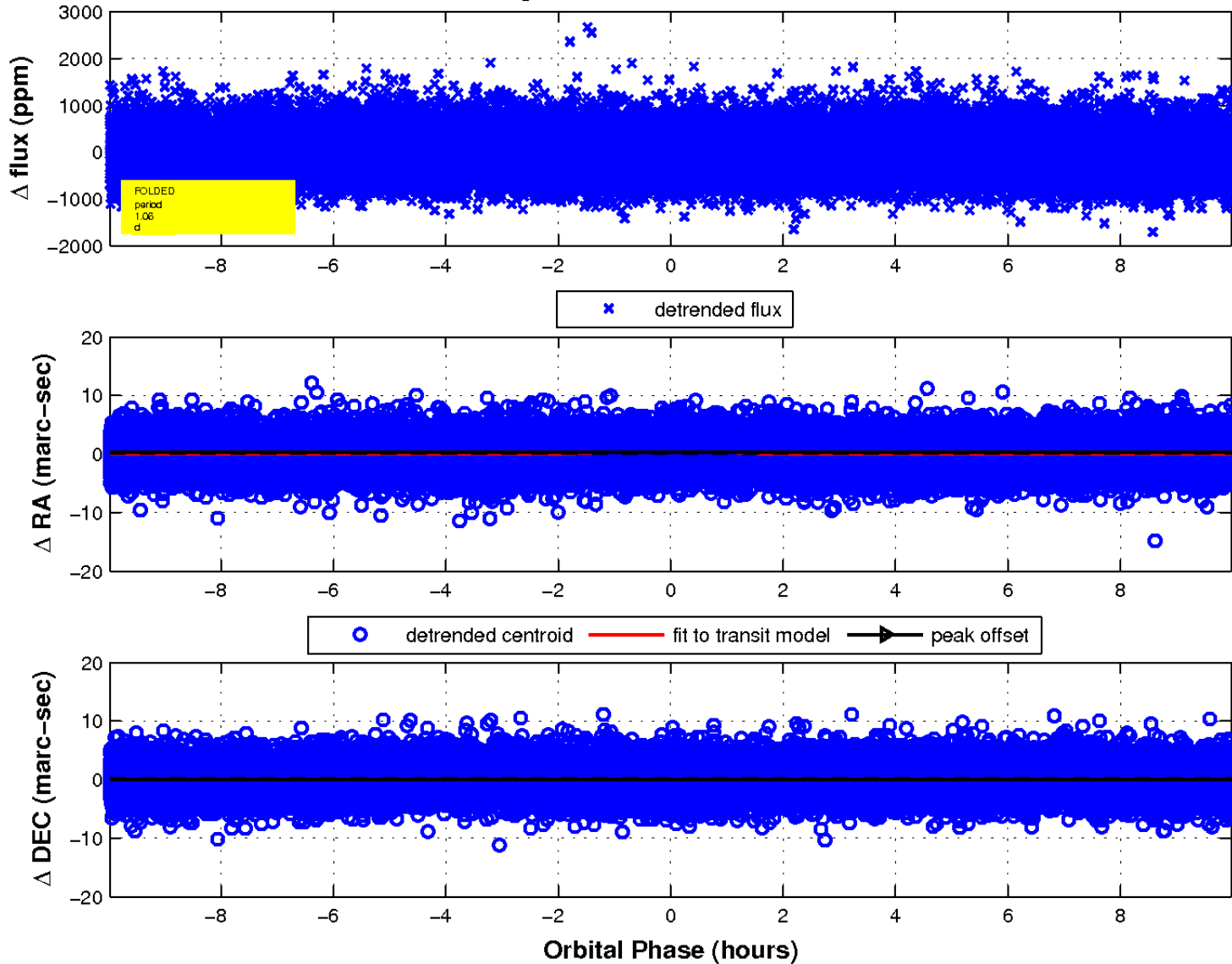
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

