

KIC 010064256

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})
010064256-01	OBS	2849.01	5.959659	135.002713	126.7	2.956	12.8	14.1	0.90	5452	1.23	153.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010064256-01	OBS	PC	1.00	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.

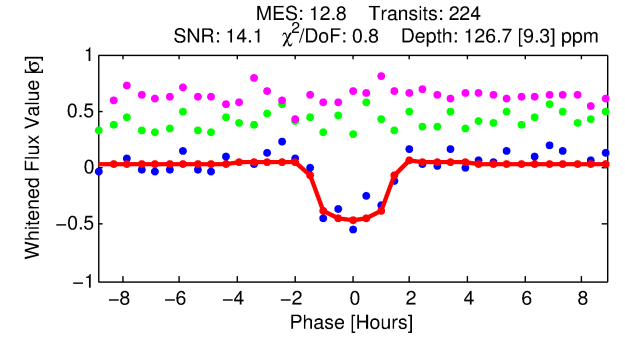
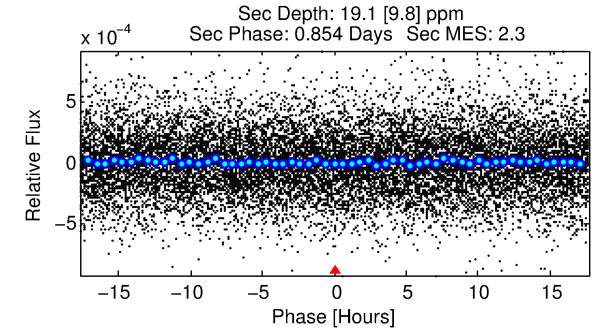
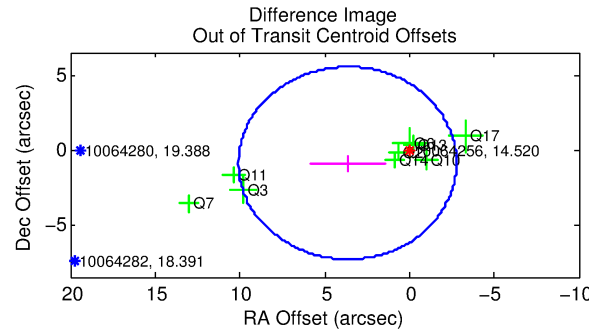
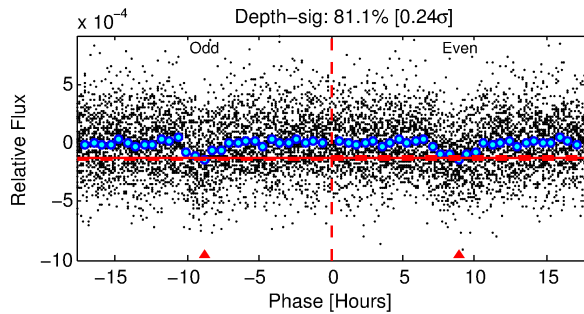
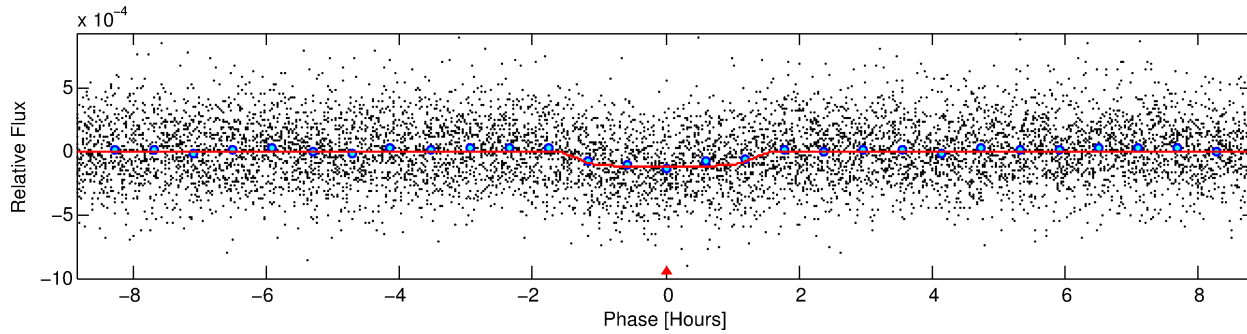
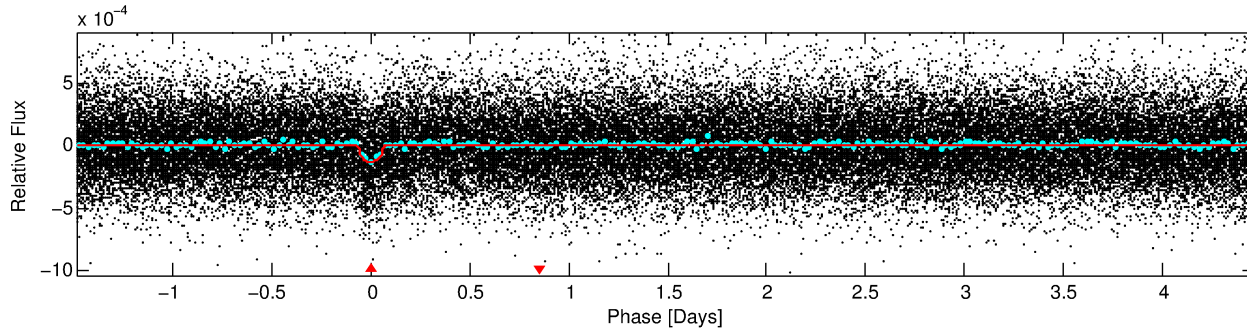
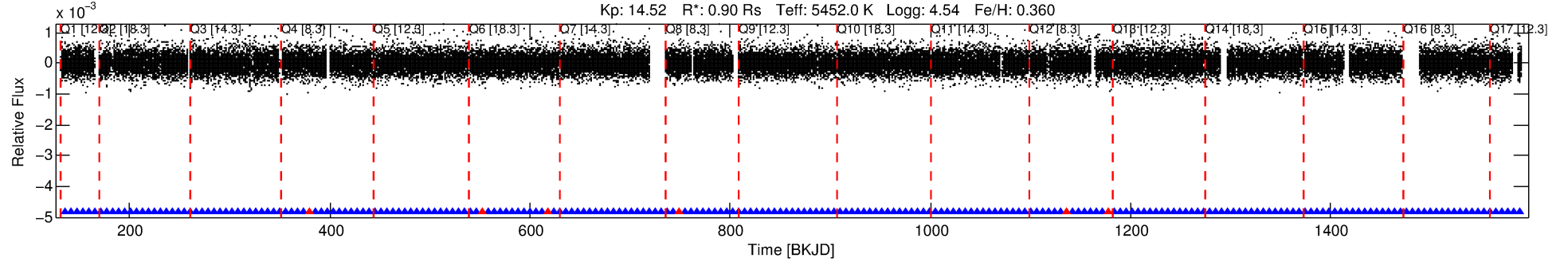
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010064256-01

No Significant Match Found

DV One-Page Summary

KIC: 10064256 Candidate: 1 of 1 Period: 5.960 d
KOI: K02849.01 Corr: 0.971



DV Fit Results:

Period = 5.95966 [0.00003] d
Epoch = 135.0027 [0.0037] BKJD
Rp/R* = 0.0125 [0.0059]
a/R* = 7.11 [14.28]
b = 0.90 [0.43]
Seff = 153.57 [50.40]
Teq = 898 [74] K
Rp = 1.23 [0.65] Re
a = 0.0646 [0.0133] AU
Ag = 29.10 [32.52] [0.86 σ]
Teffp = 3224 [872] K [2.66 σ]

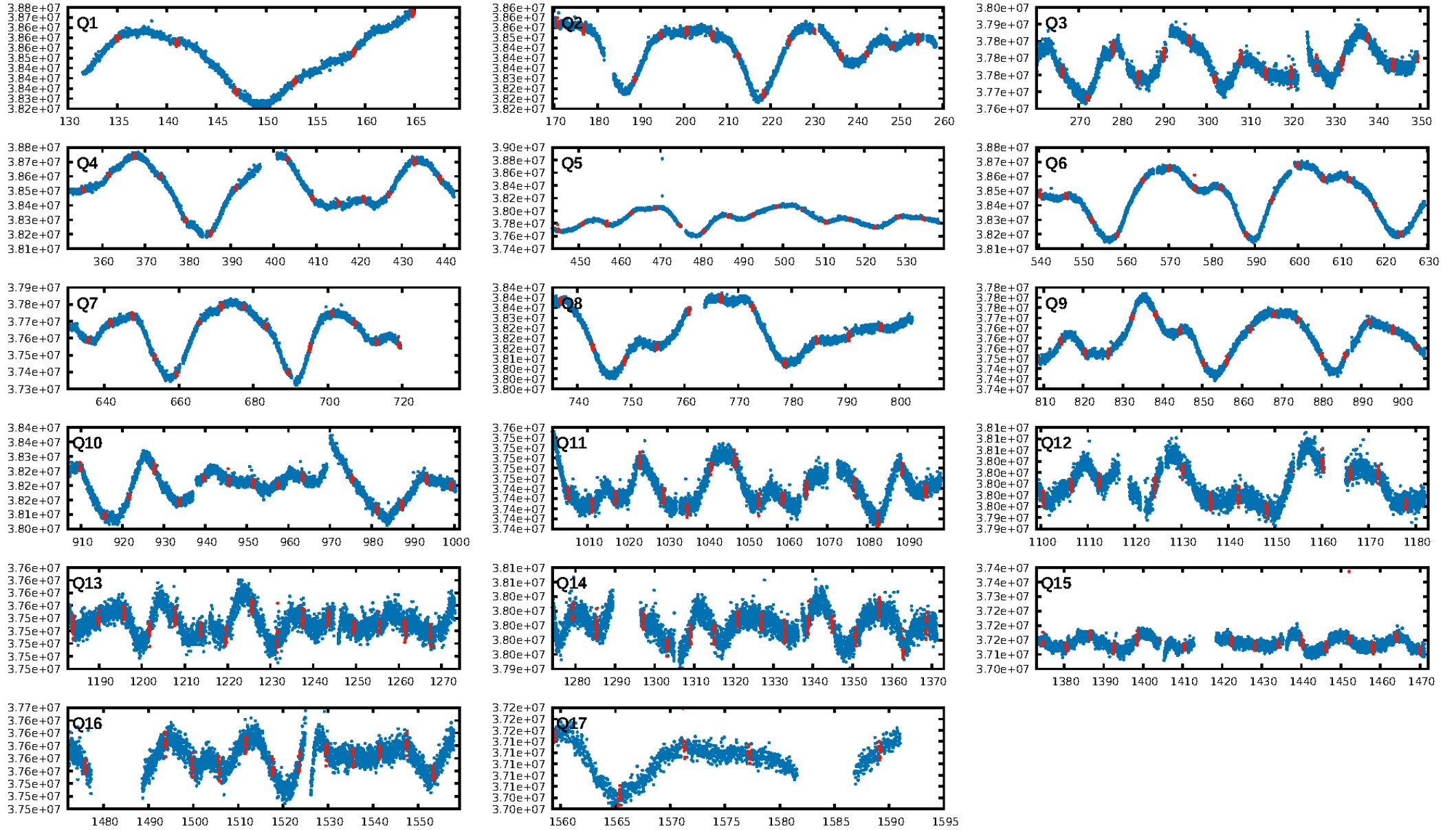
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.64e-36
RollingBand-fgt: 0.97 [207/213]
GhostDiagnostic-chr: 4.341
Centroid-sig: 0.0%
Centroid-so: 0.803 arcsec [1.11 σ]
OotOffset-rm: 3.759 arcsec [1.75 σ]
KicOffset-rm: 0.493 arcsec [1.41 σ]
OotOffset-st: 4/3/0/2 [9]
KicOffset-st: 4/3/4/2 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [17/17]

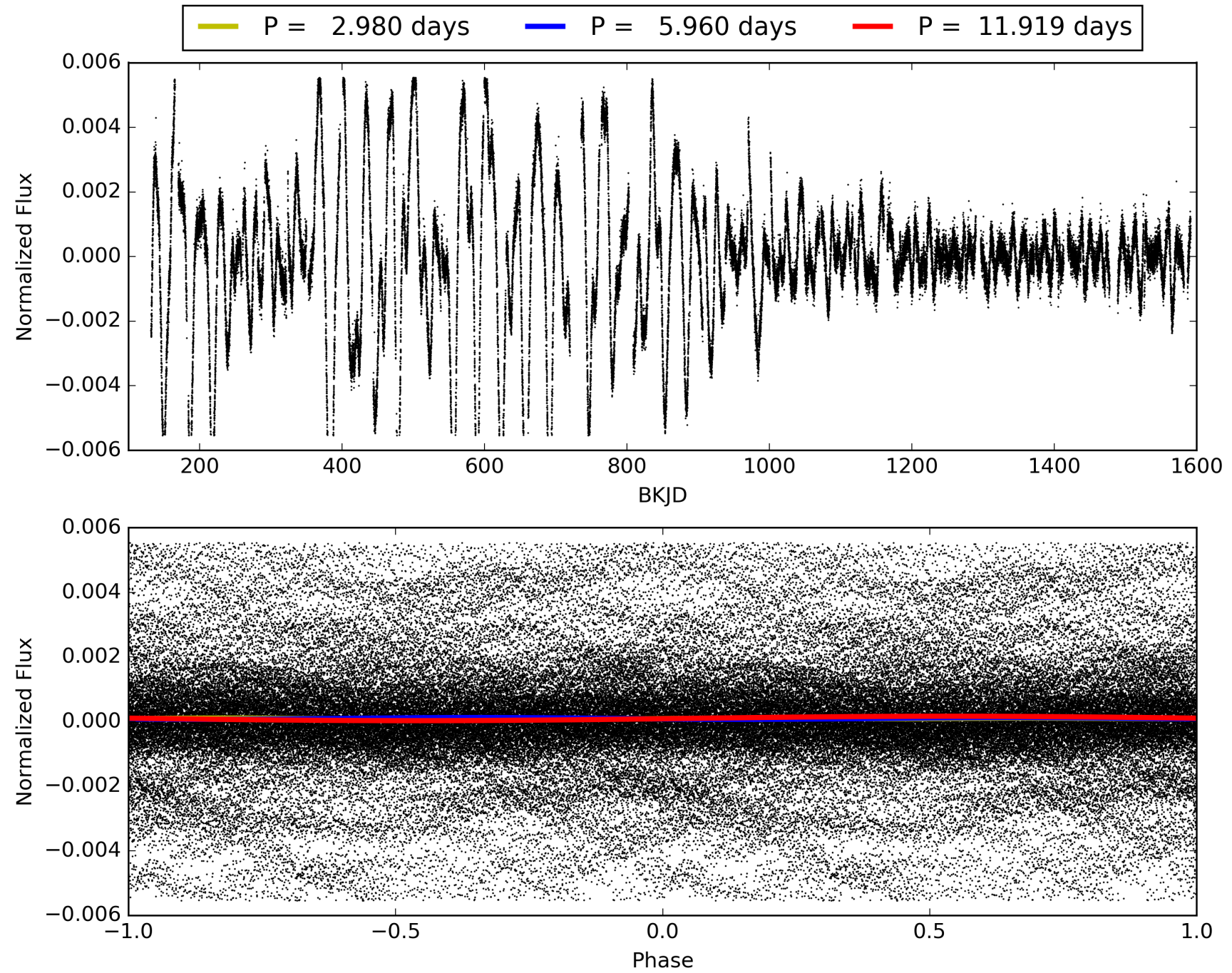
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:22:39 Z

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

TCE 010064256-01, PDC Light Curves

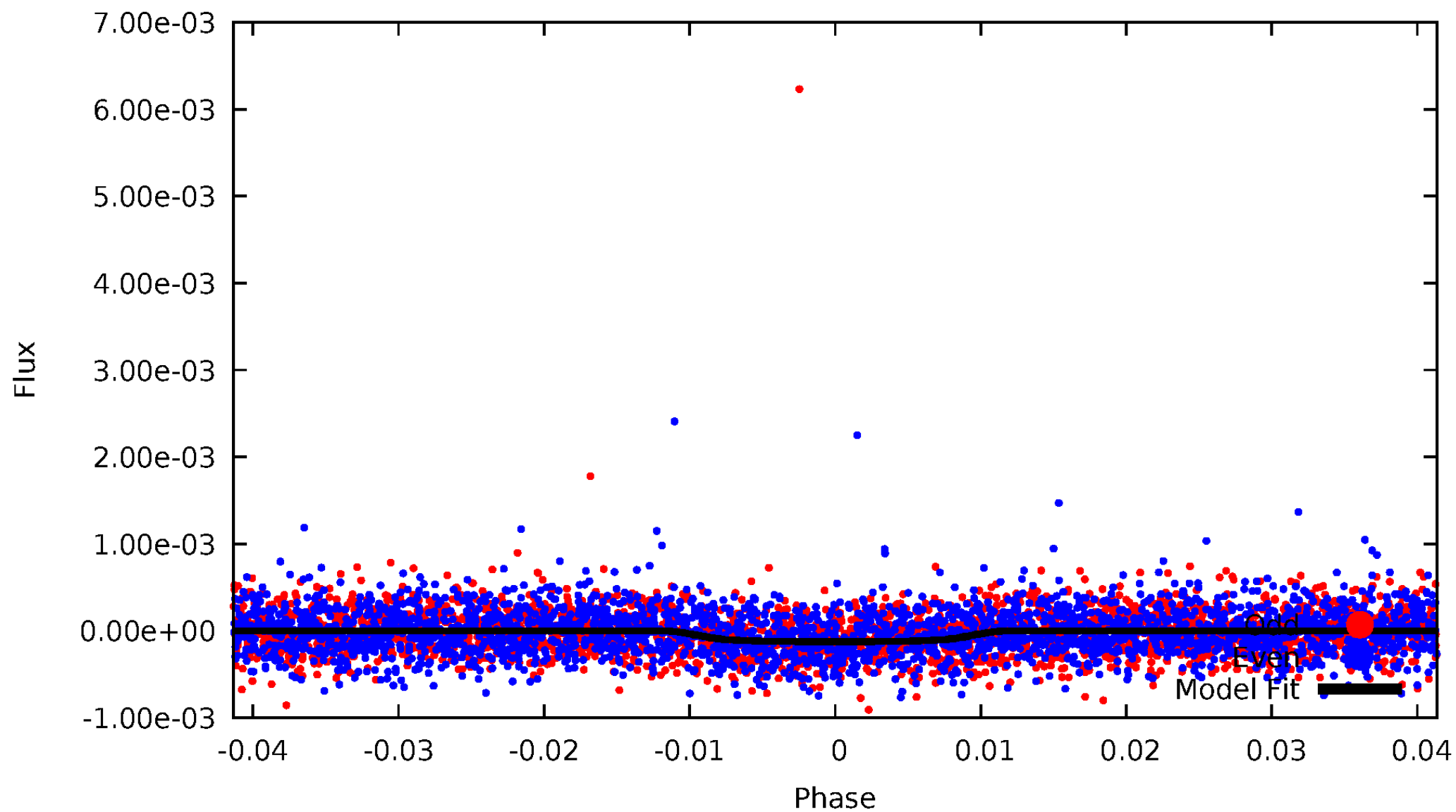


TCE 010064256-01



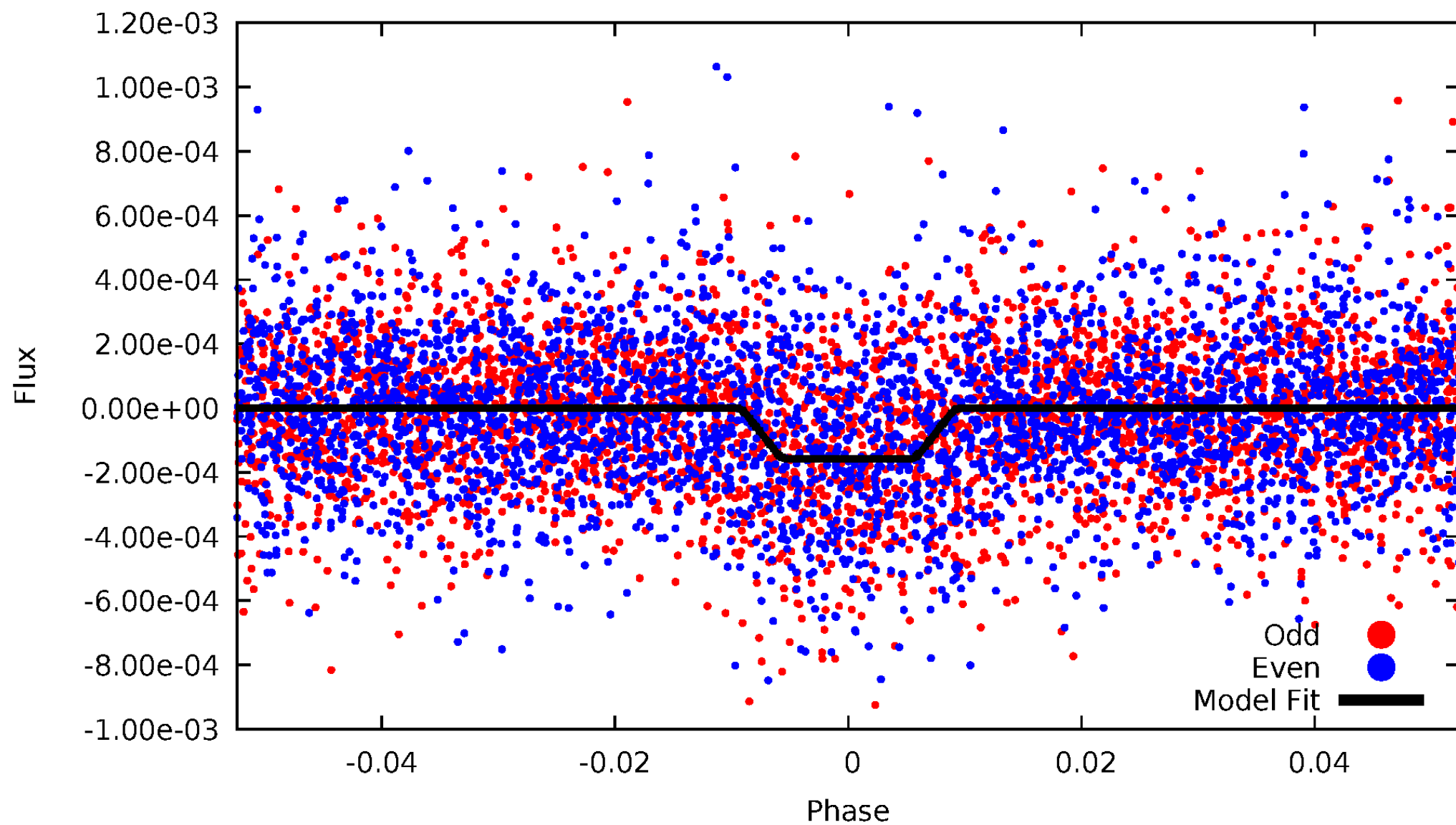
DV Odd/Even

TCE 010064256-01

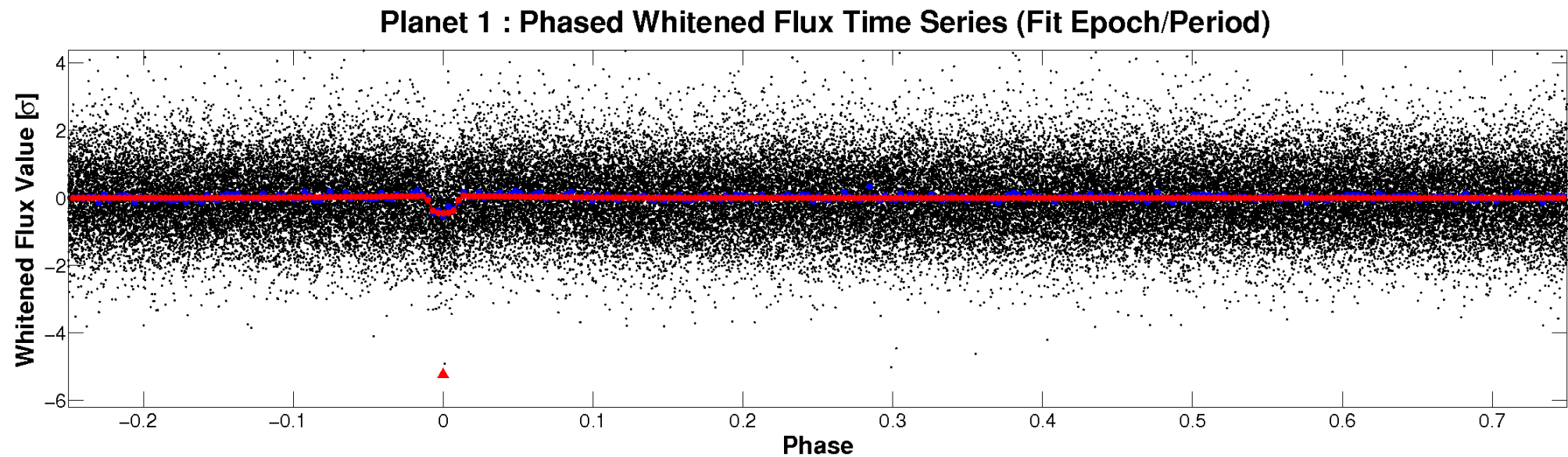
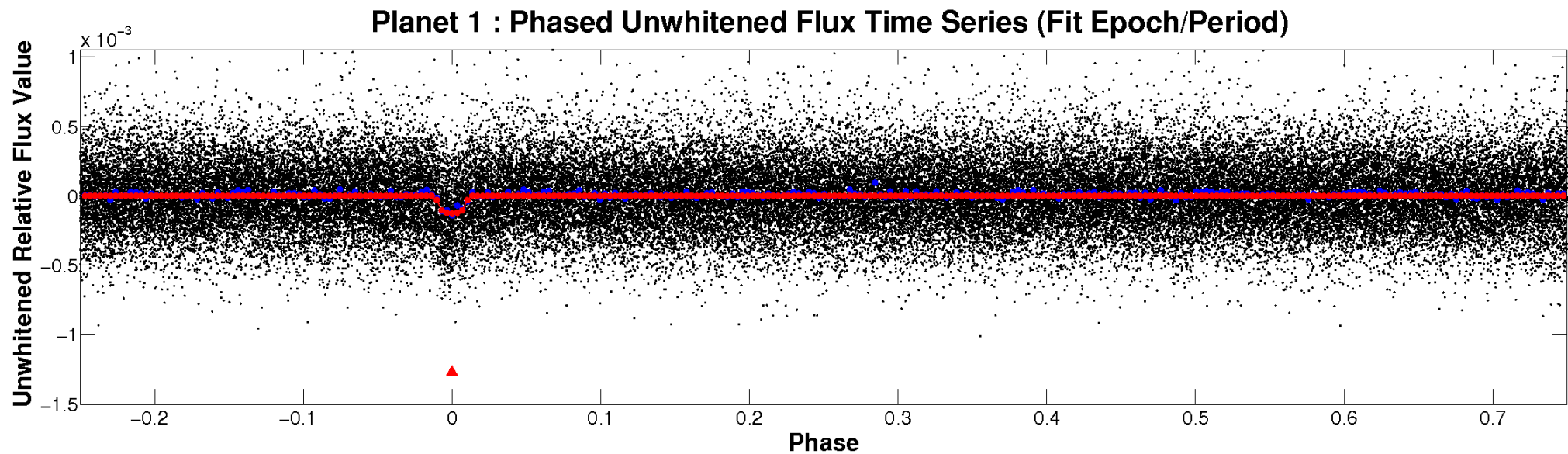


ALT Odd/Even

TCE 010064256-01

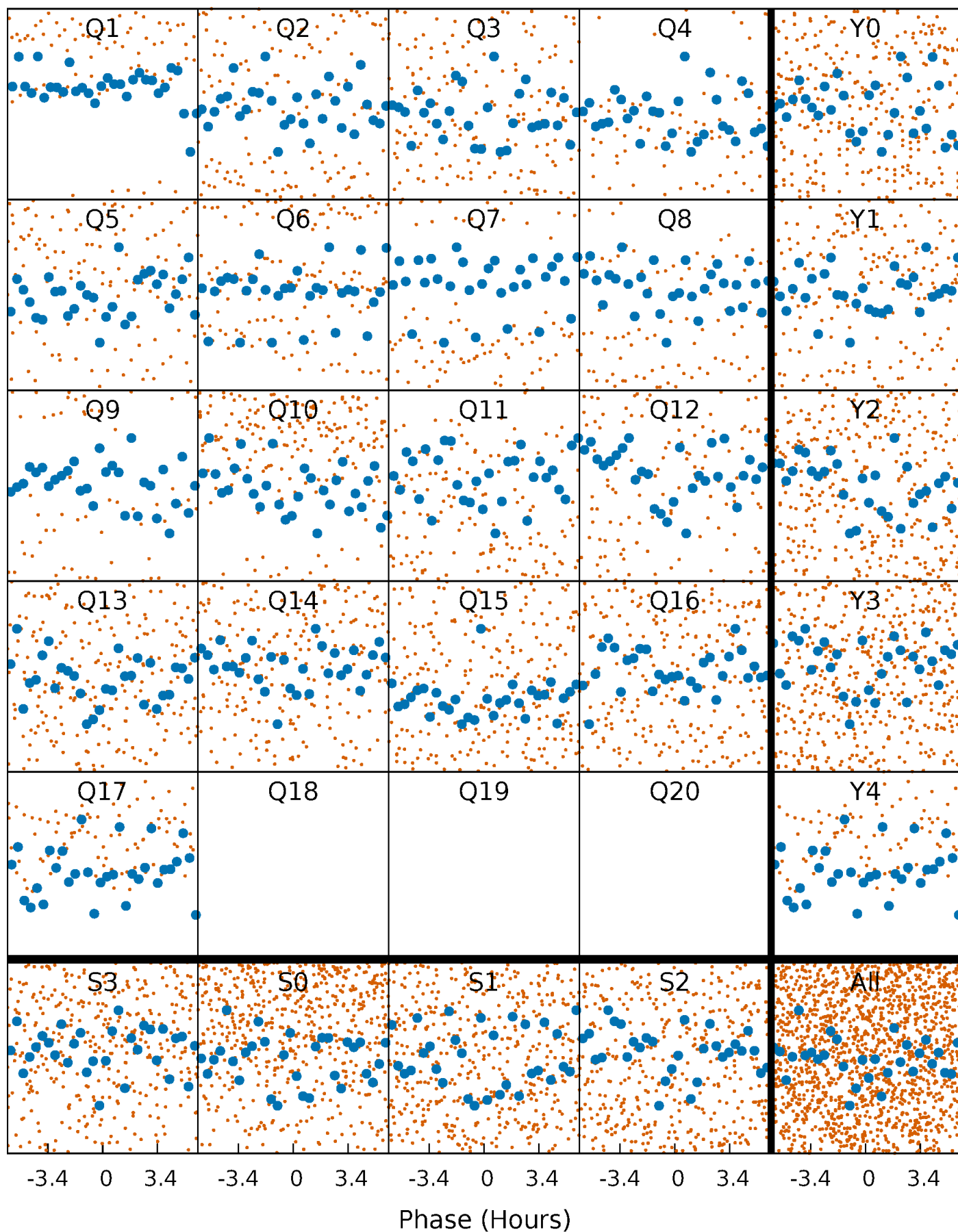


Non-Whitened Vs. Whitened Light Curve



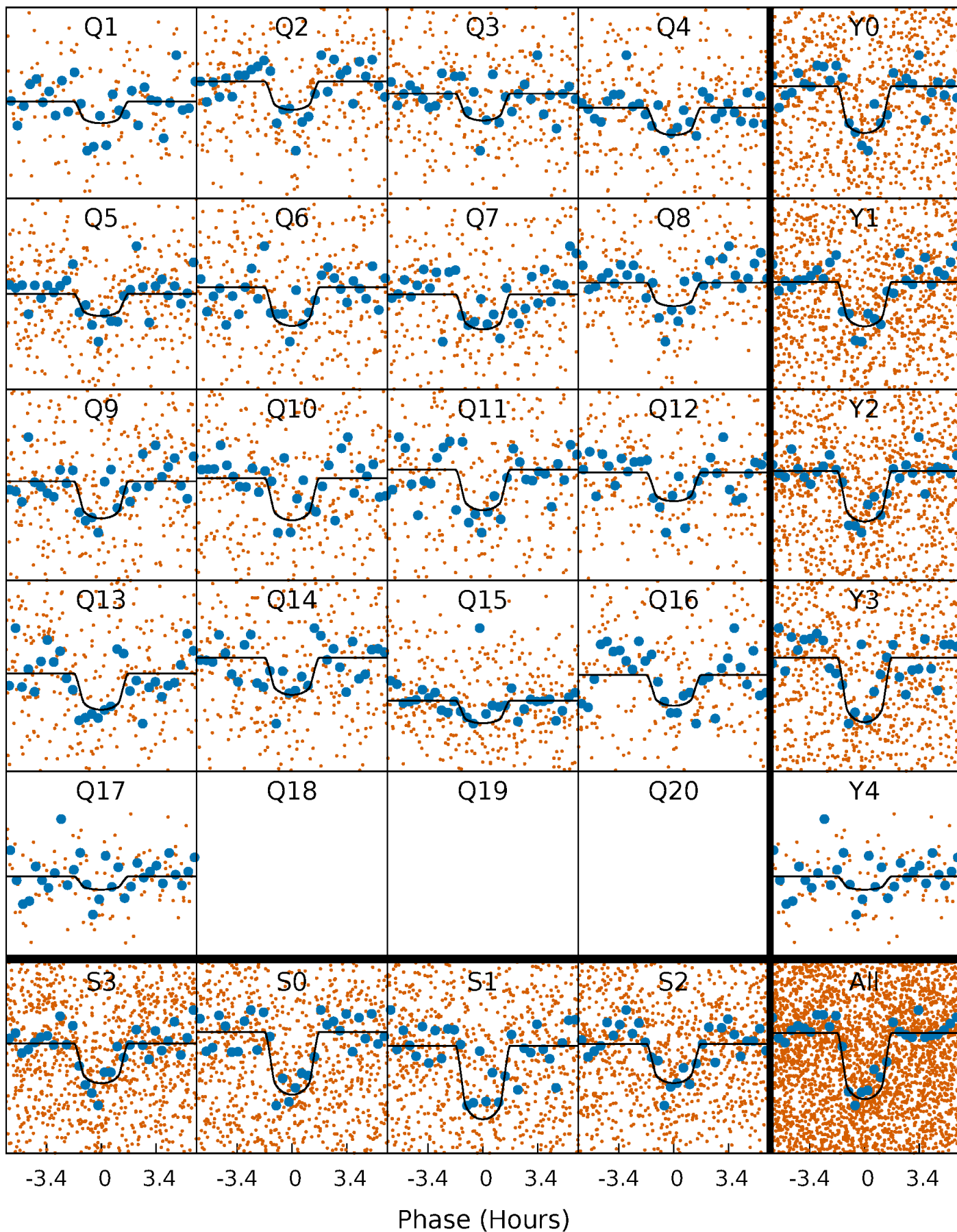
PDC Quarter-Phased Transit Curves

TCE 010064256-01 P= 5.959659 Days $T_0=135.002713$ (BKJD)



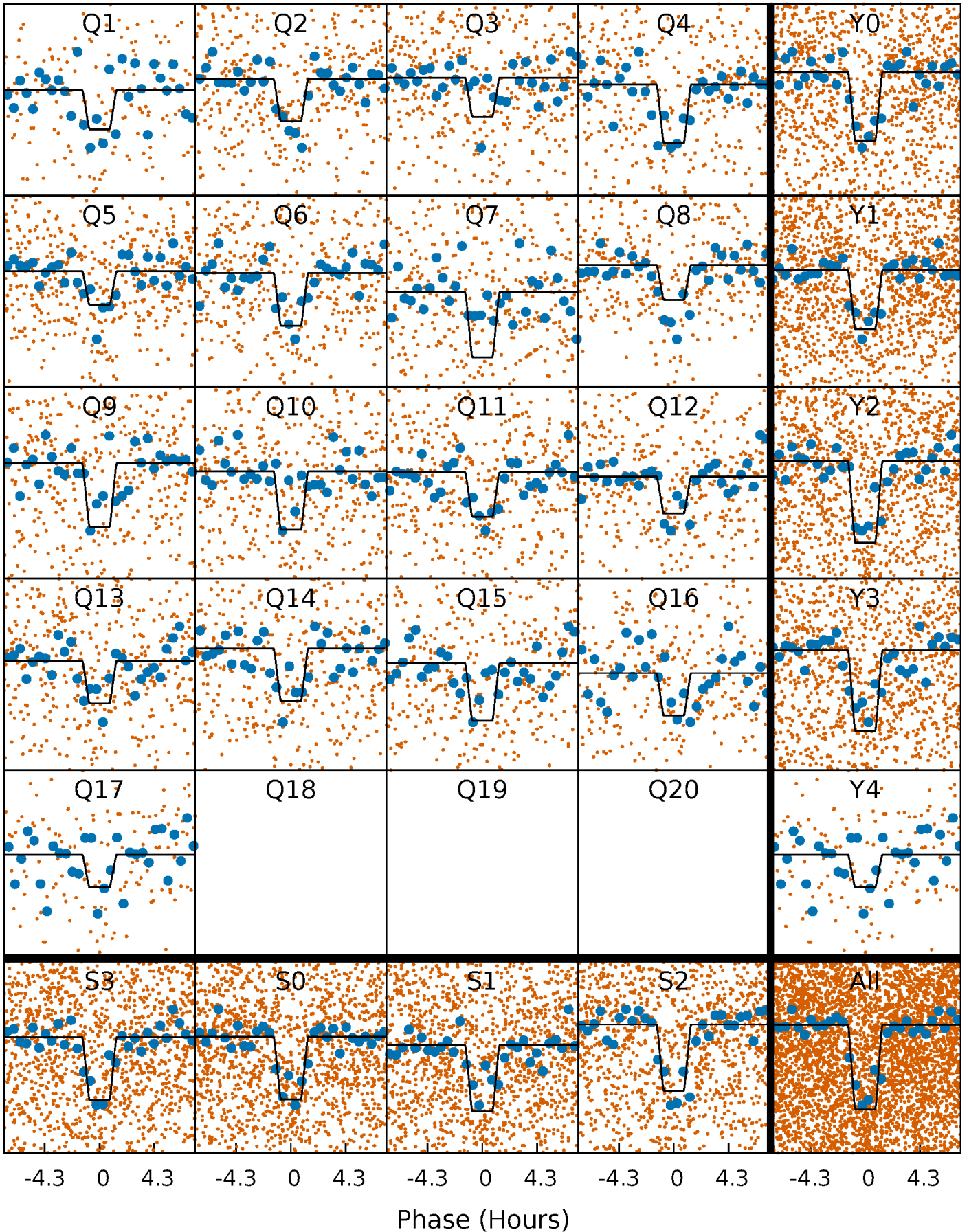
DV Quarter-Phased Transit Curves

TCE 010064256-01 P= 5.959659 Days $T_0=135.002713$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

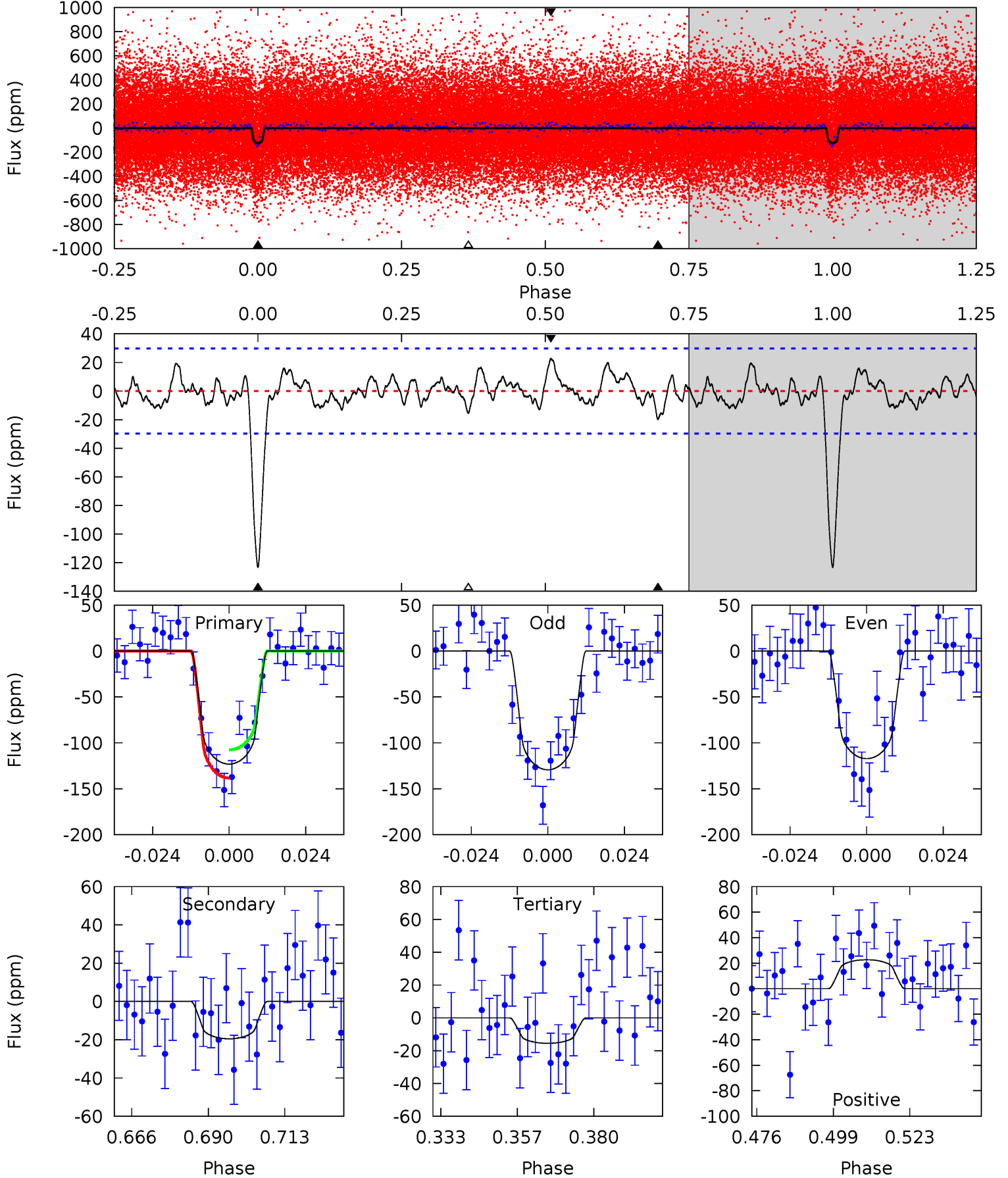
TCE 010064256-01 P= 5.959575 Days $T_0=135.005257$ (BKJD)



DV Model-Shift Uniqueness Test

010064256-01, P = 5.959659 Days, E = 129.043054 Days

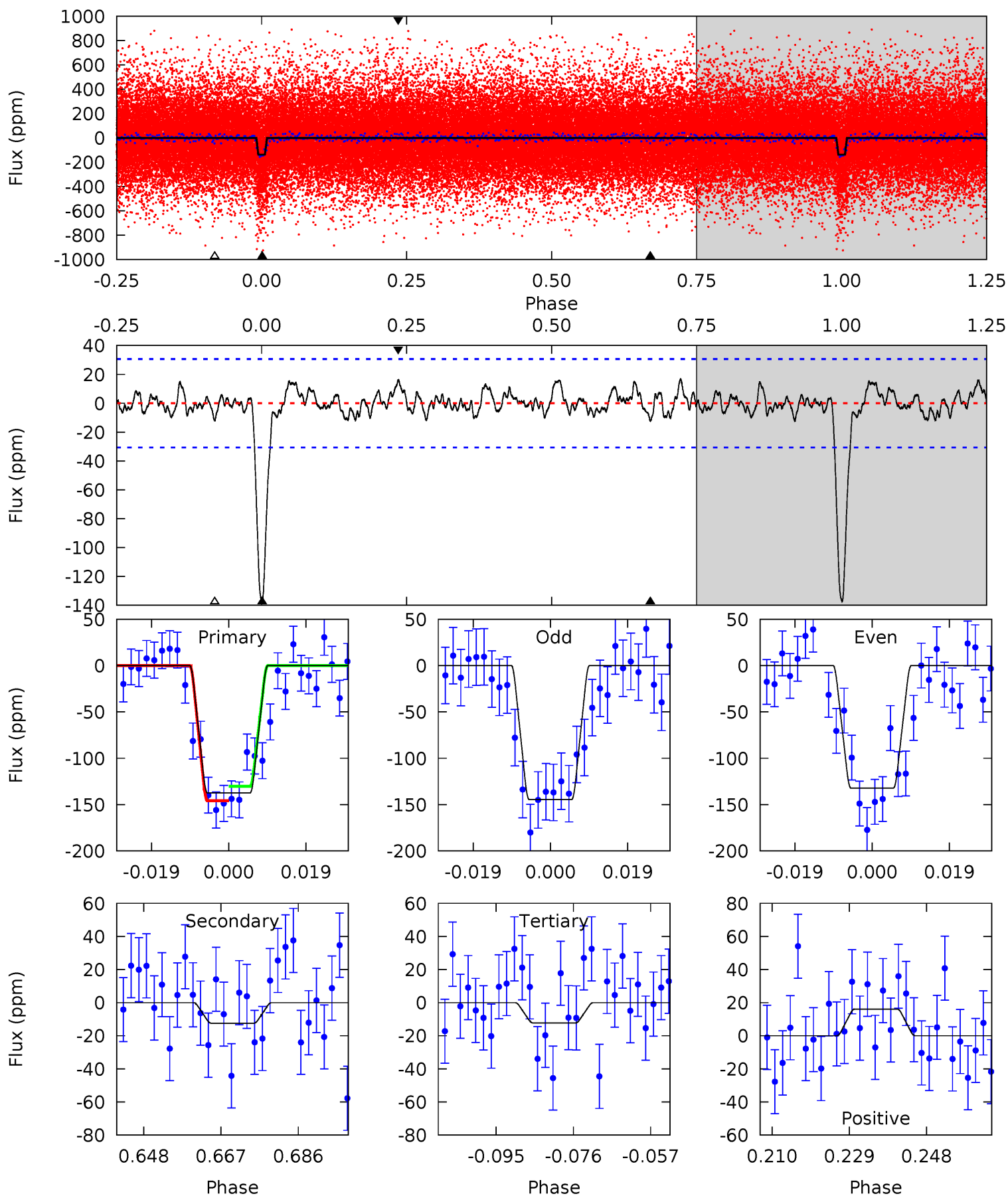
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	3.18	2.53	3.70	4.86	2.26	1.24	17.5	16.4	0.65	-0.52	0.99	0.91	0.16	2.51



Alt Model-Shift Uniqueness Test

010064256-01, P = 5.959575 Days, E = 129.045682 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	1.99	1.96	2.58	4.90	2.34	0.98	20.0	19.4	0.03	-0.59	0.99	0.98	0.11	1.24



Stellar Parameters For KIC 010064256

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5452^{+164}_{-164}	$4.535^{+0.030}_{-0.170}$	$0.360^{+0.100}_{-0.300}$	$0.900^{+0.214}_{-0.071}$	$1.012^{+0.064}_{-0.110}$	$1.959^{+0.318}_{-0.883}$
	+3%/-3%	+1%/-4%	+28%/-83%	+24%/-8%	+6%/-11%	+16%/-45%
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 010064256-01 / KOI 2849.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 6	$1.28^{+0.65}_{-0.57}$	1281^{+76}_{-58}	3630^{+862}_{-458}	26^{+62}_{-15}
Alt.	-12 ± 6	$1.29^{+0.63}_{-0.62}$	1282^{+78}_{-51}	3359^{+811}_{-487}	16^{+40}_{-10}

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 $A_{obs} \gg 1.0$

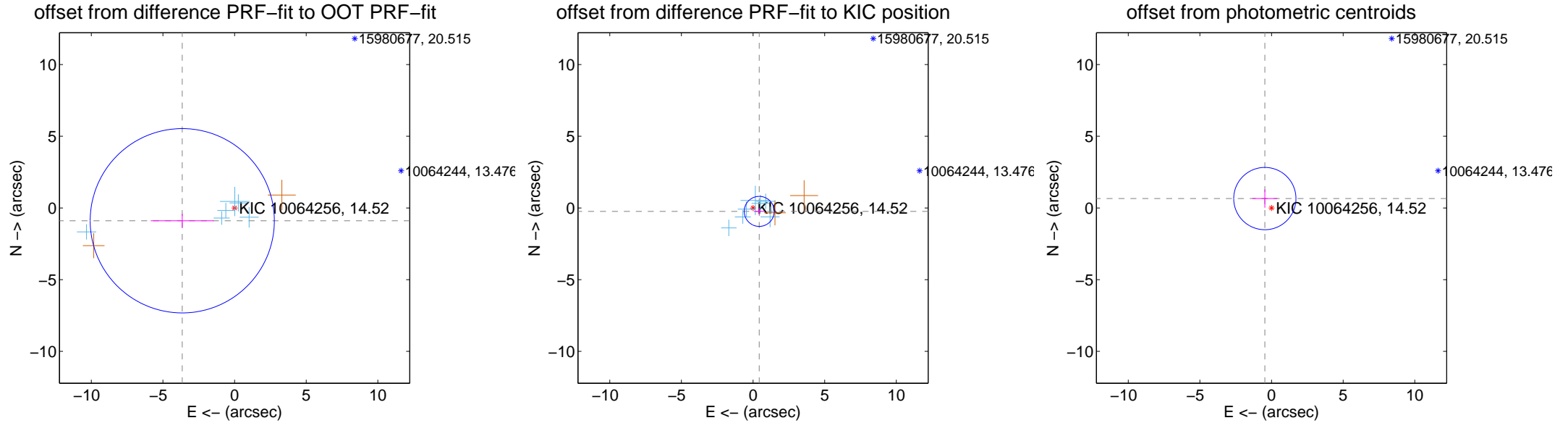
DV Centroid Data

Supplemental centroid analysis for 010064256-01. Kepler magnitude: 14.52. Transit SNR 14.08

There are 9 quarters with good PRF difference image offsets

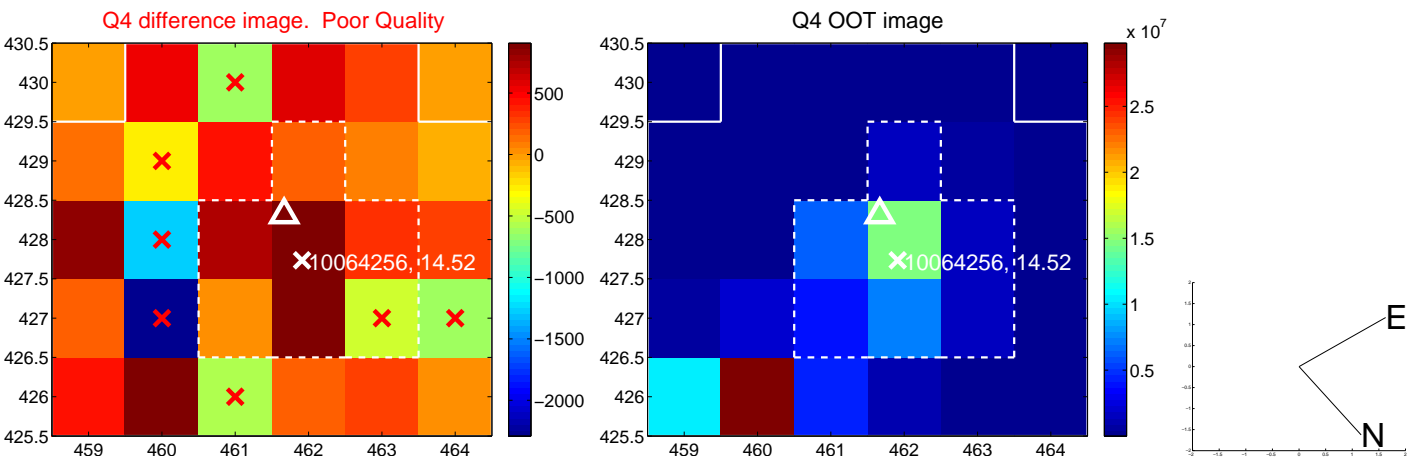
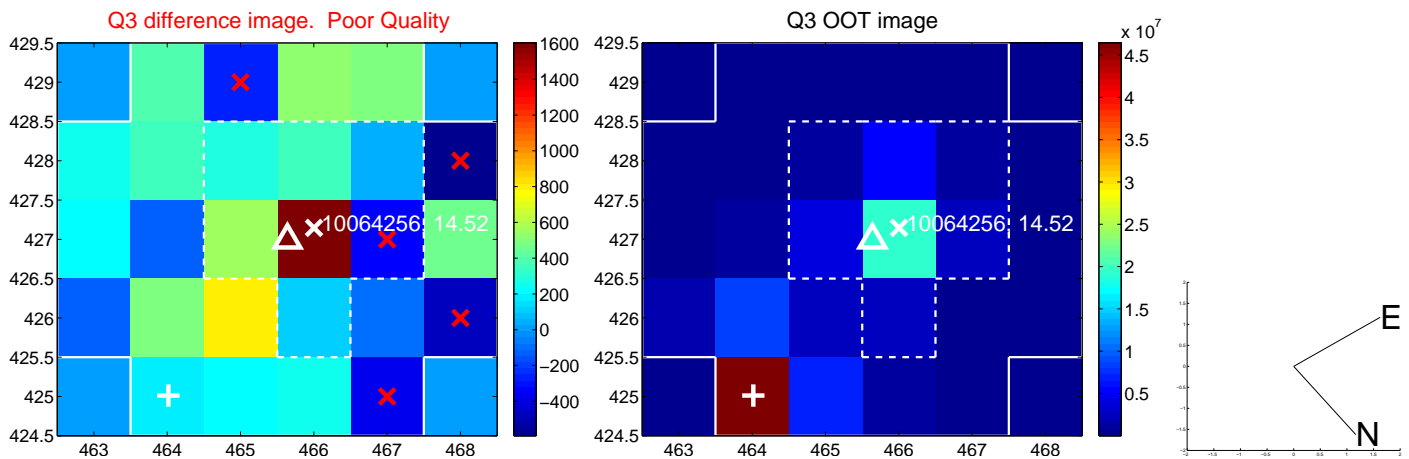
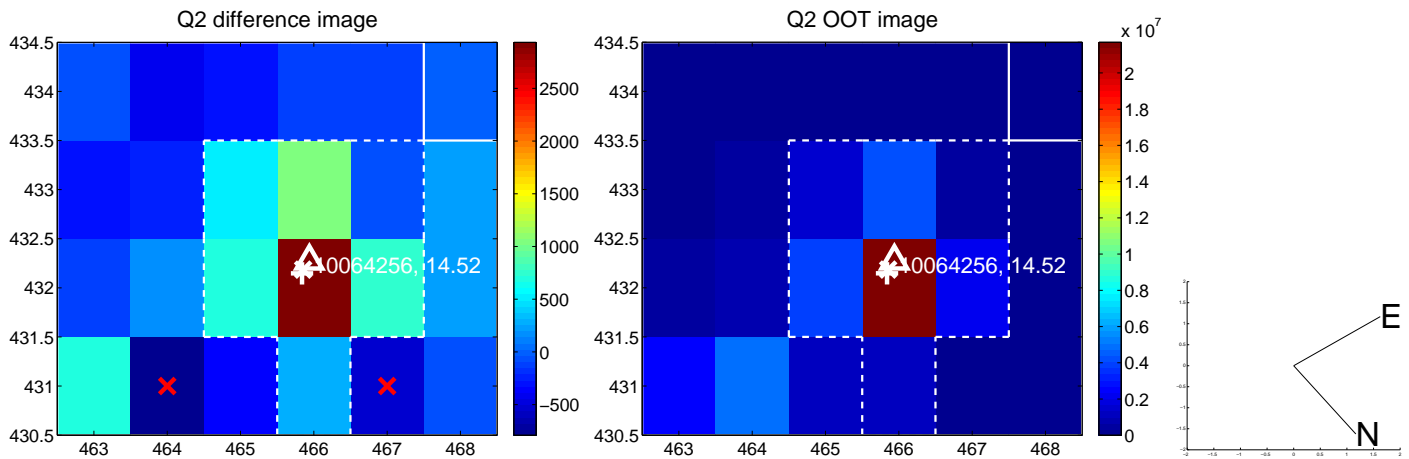
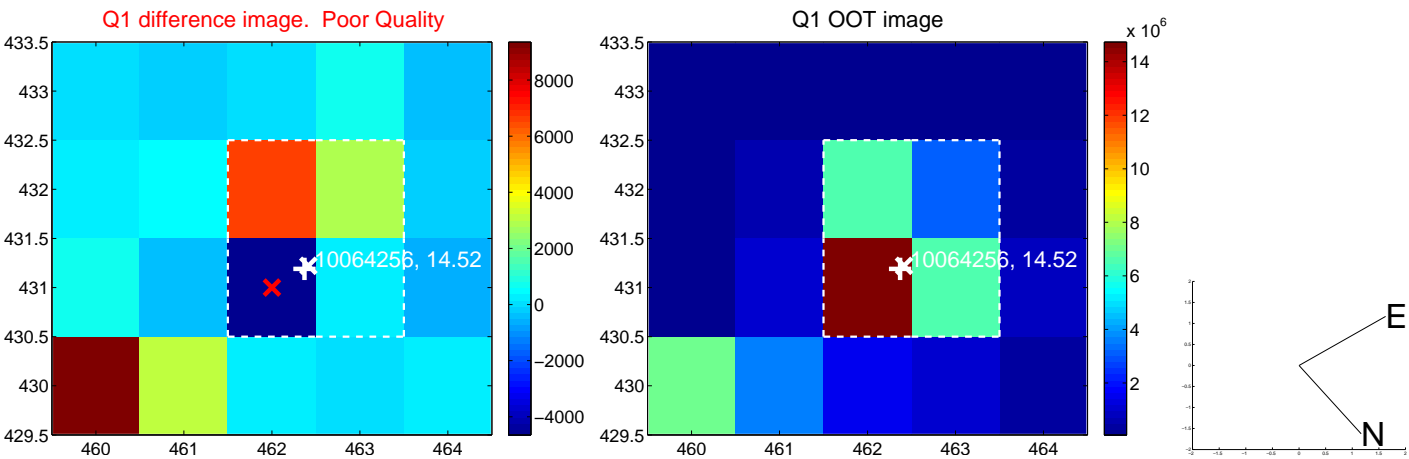
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.759 ± 2.142	1.75	3.652 ± 2.202	-0.893 ± 0.485
PRF-fit source offset from KIC position	0.493 ± 0.349	1.41	-0.431 ± 0.378	-0.239 ± 0.231
photometric centroid source offset	0.80 ± 0.72	1.11	0.47 ± 0.87	0.65 ± 0.64

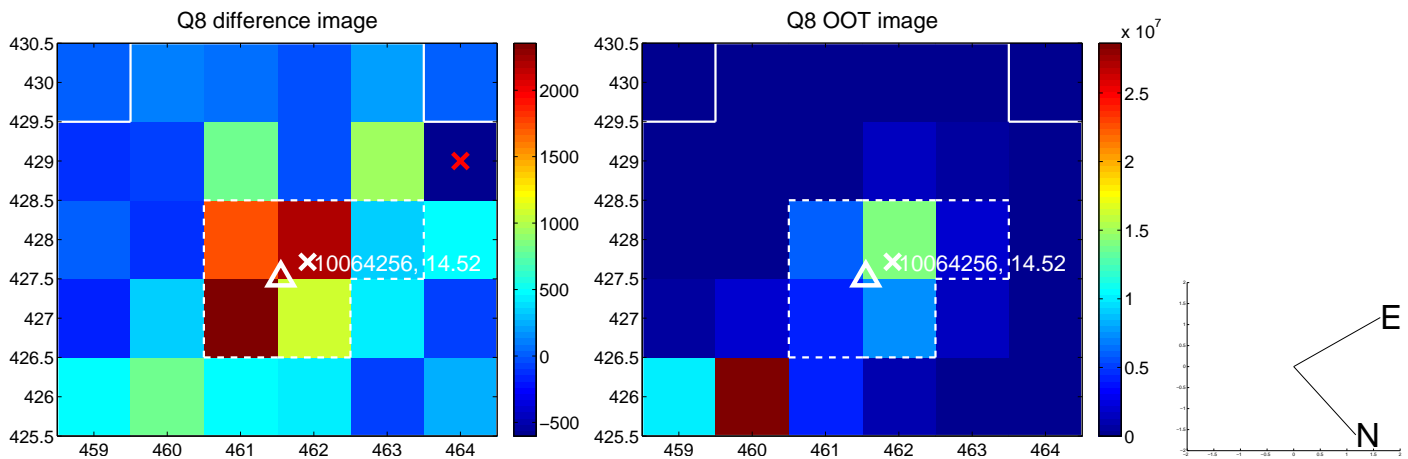
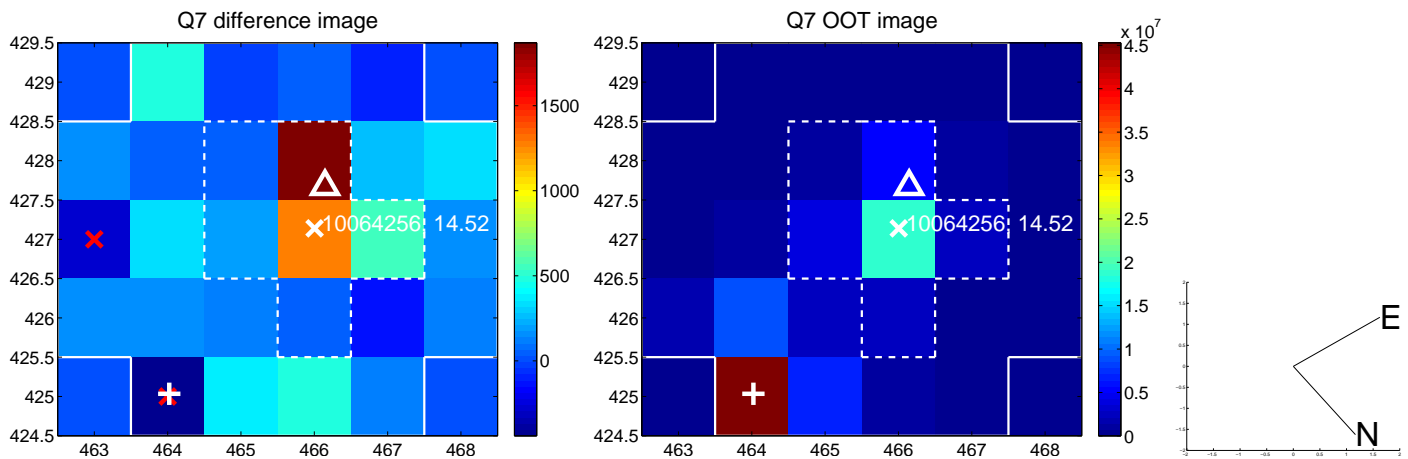
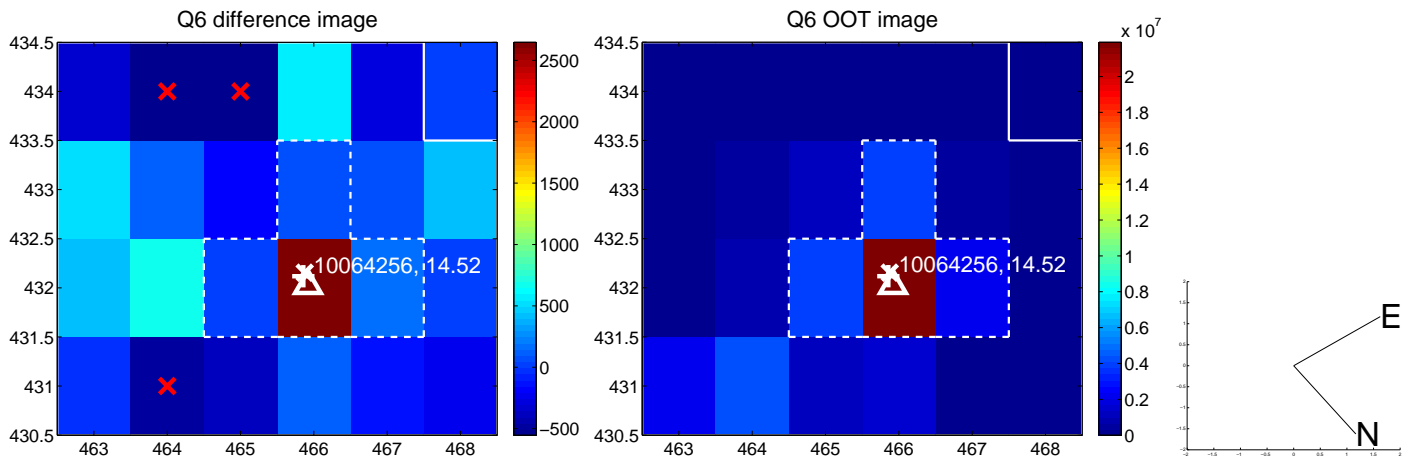
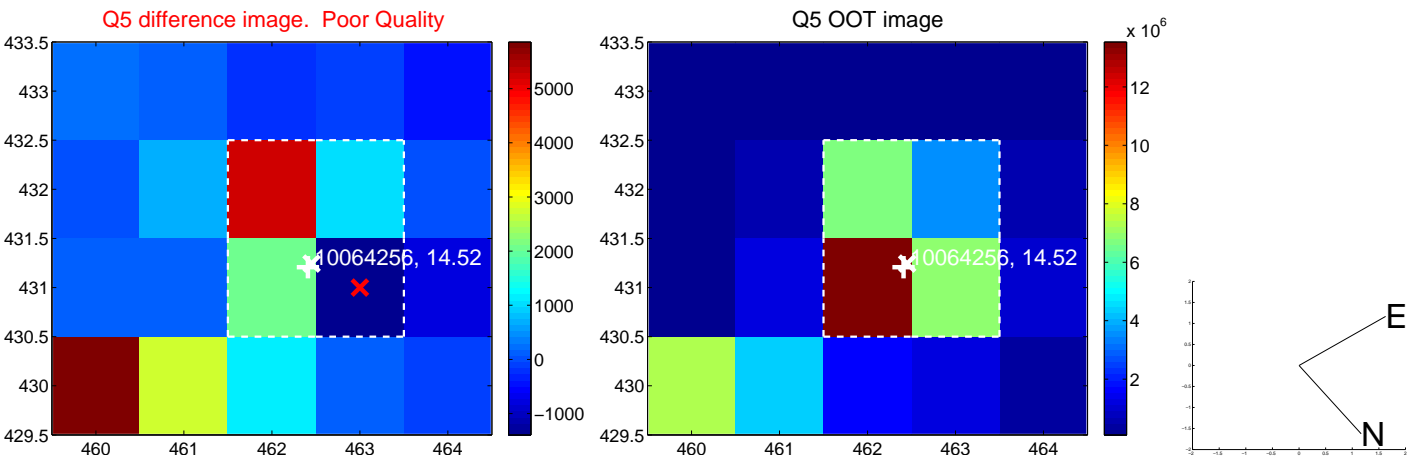


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

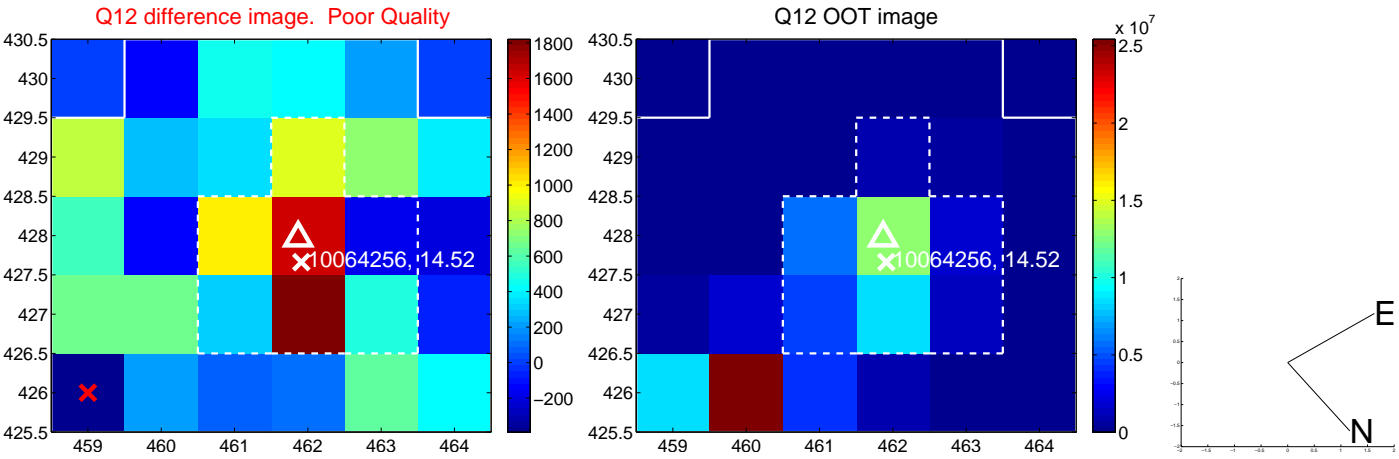
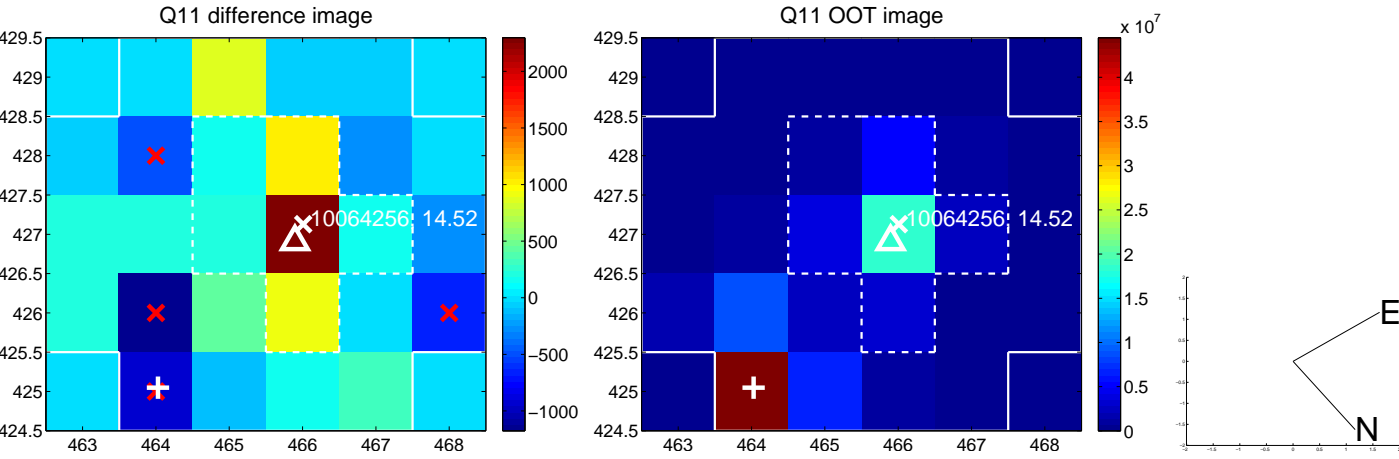
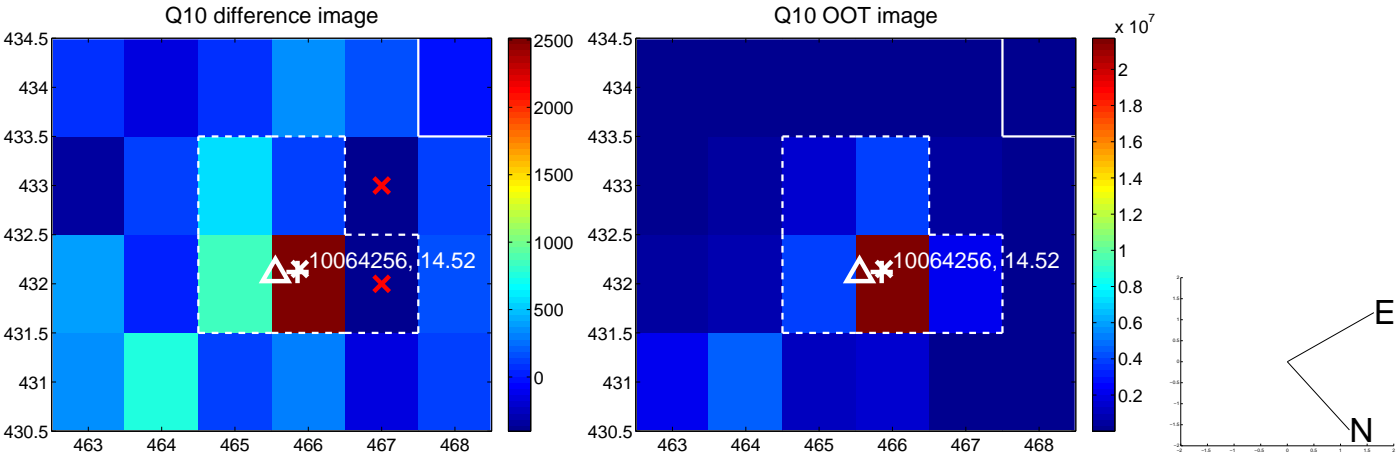
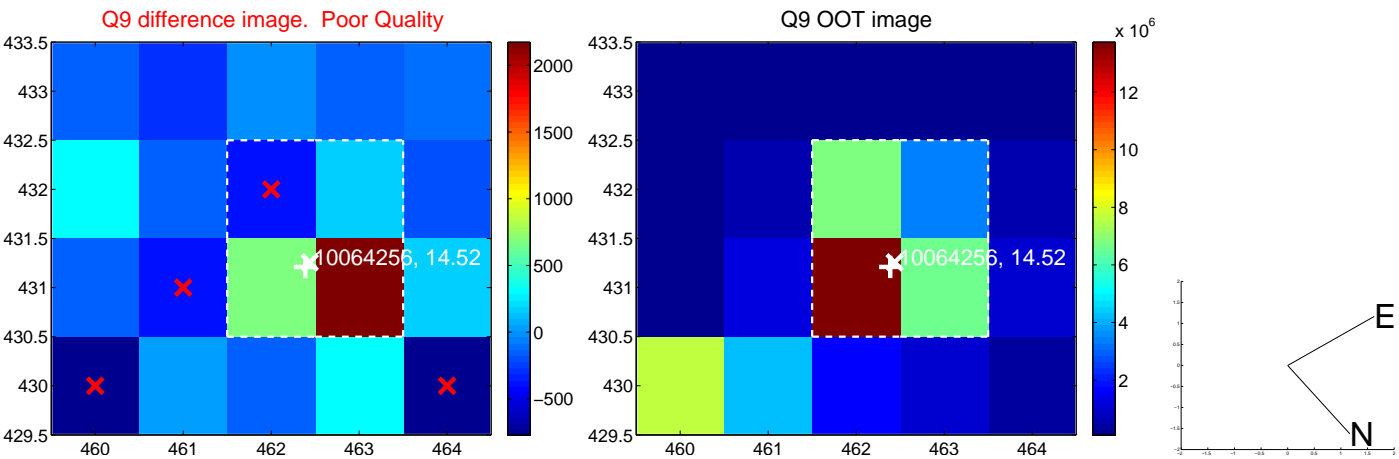
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



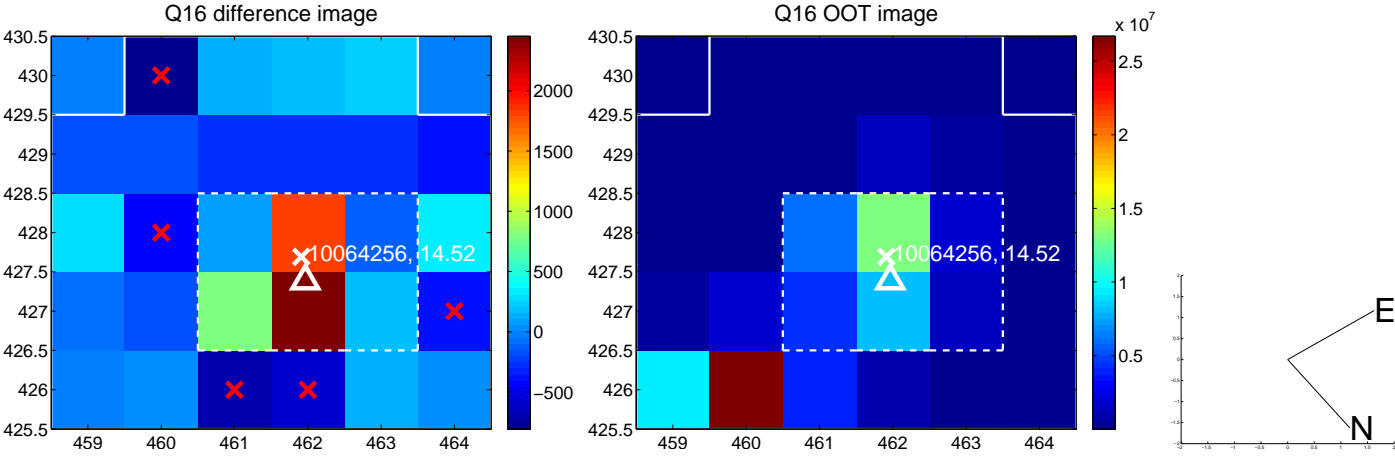
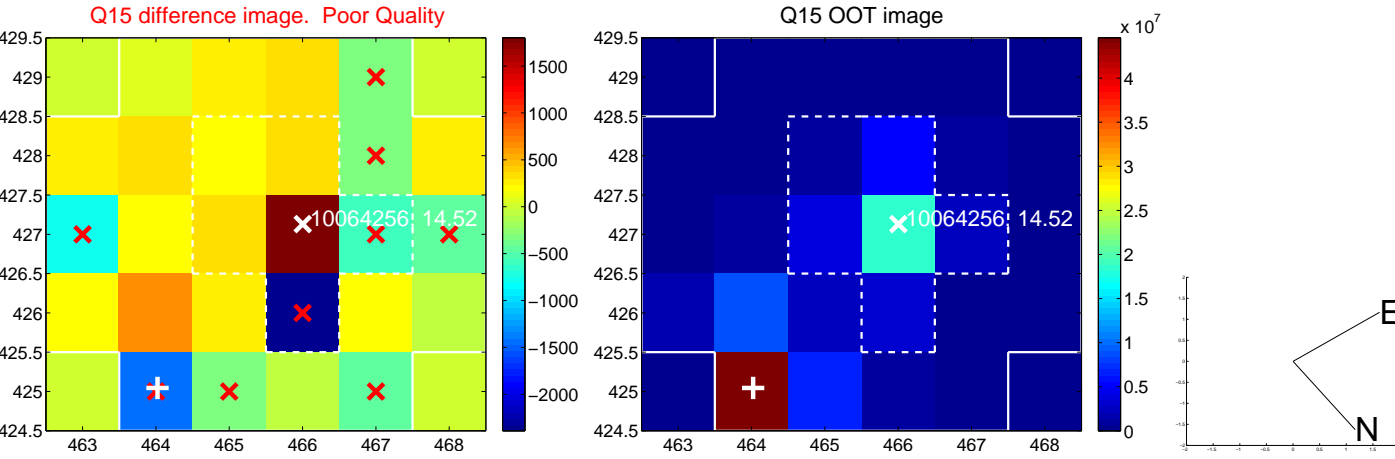
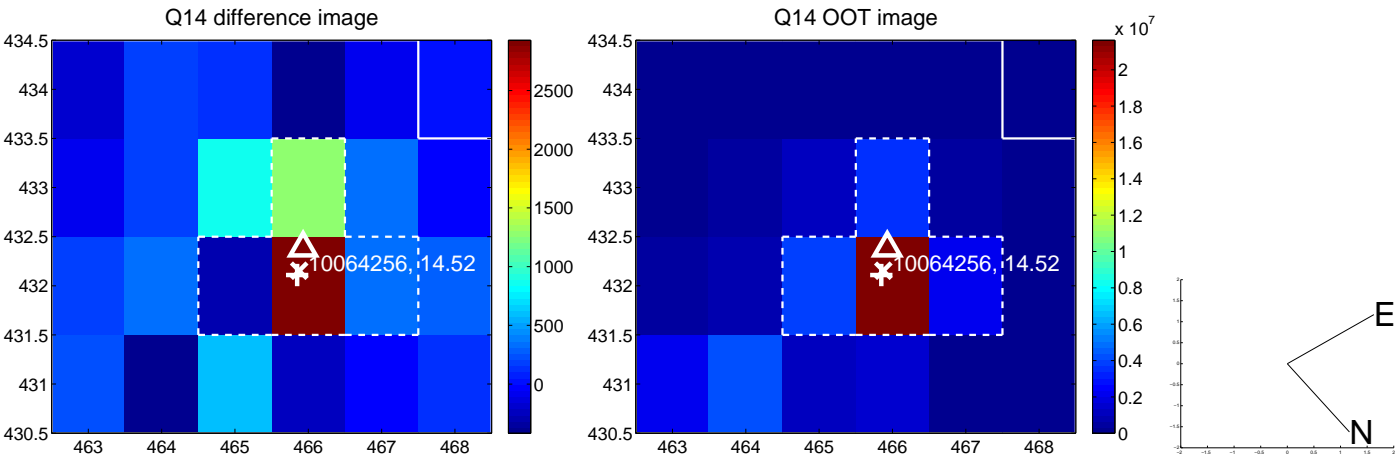
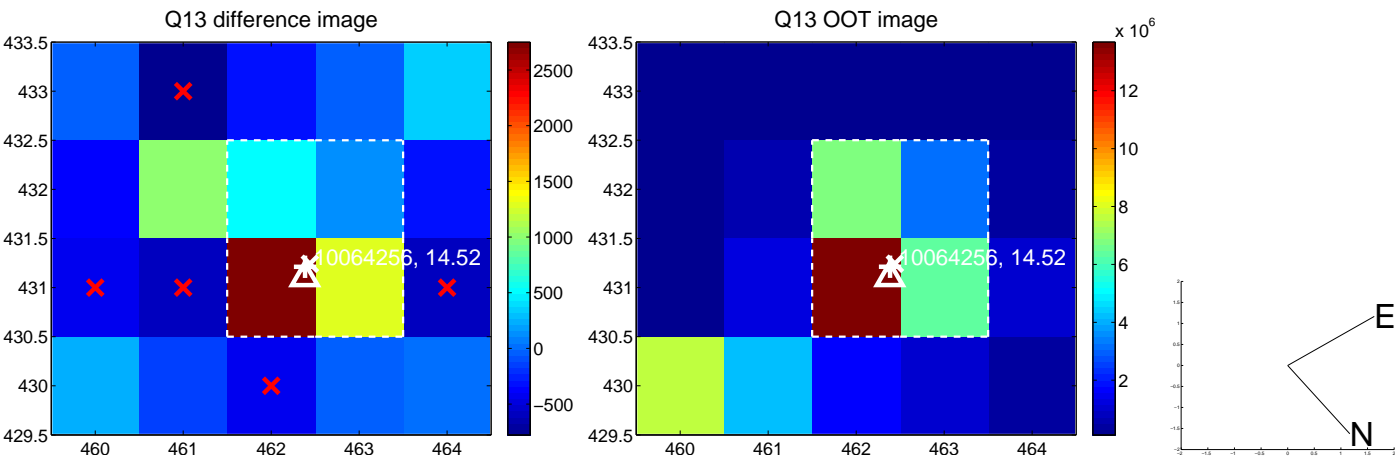
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



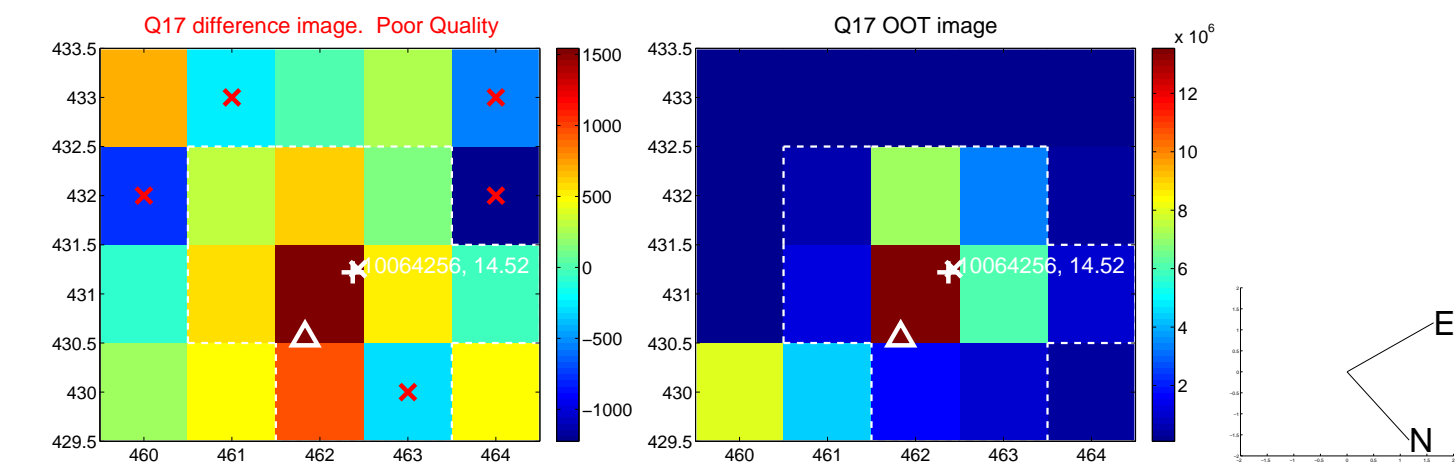
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



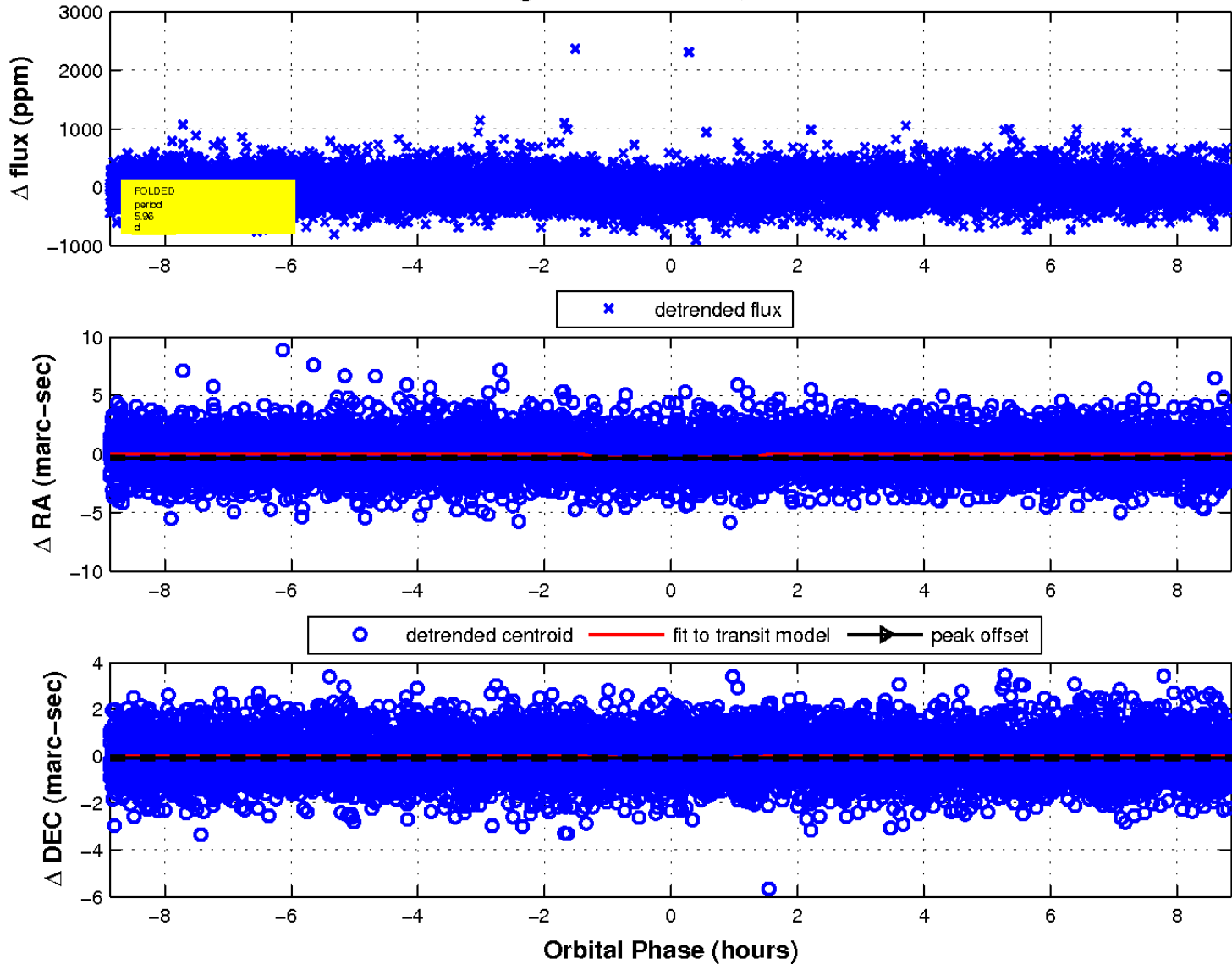
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

