

KIC 011460462

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})
011460462-01	OBS	2110.01	5.037264	134.111807	73.7	1.934	20.6	23.0	1.38	6387	1.39	722.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011460462-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

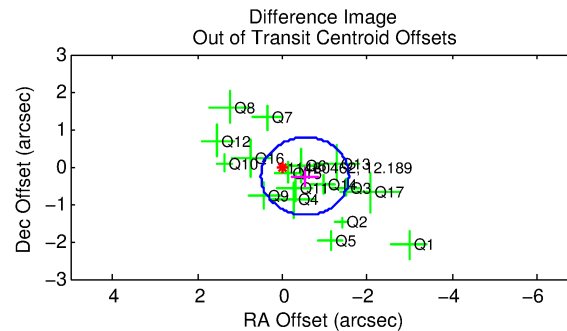
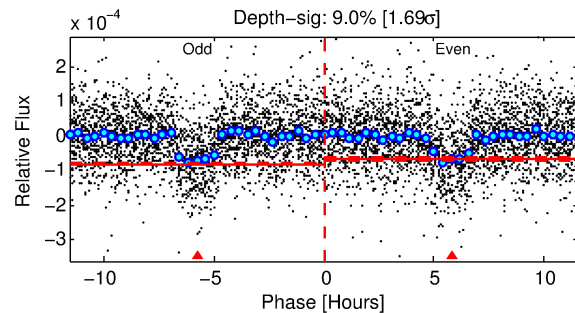
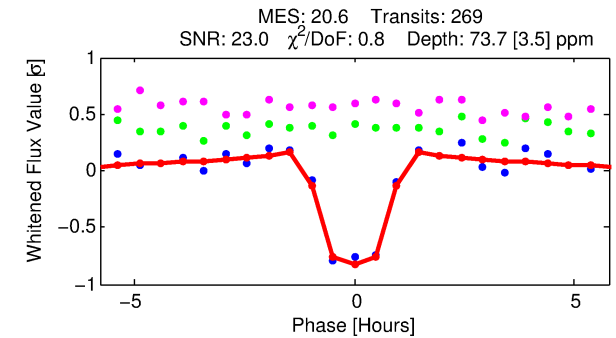
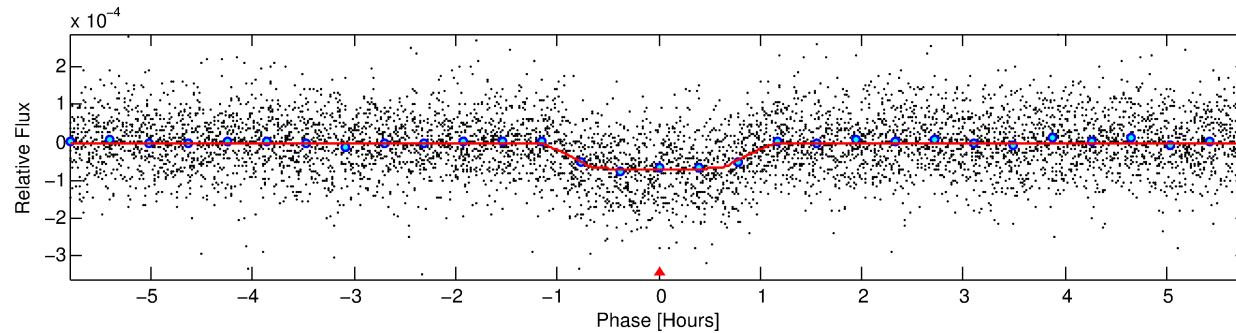
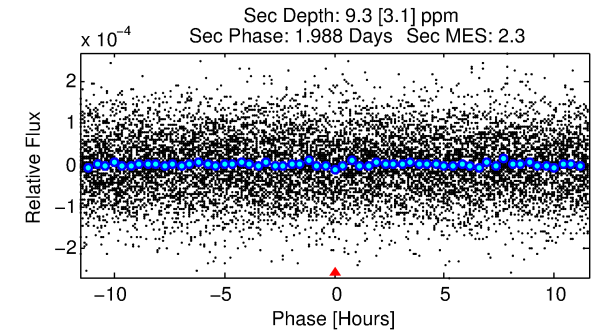
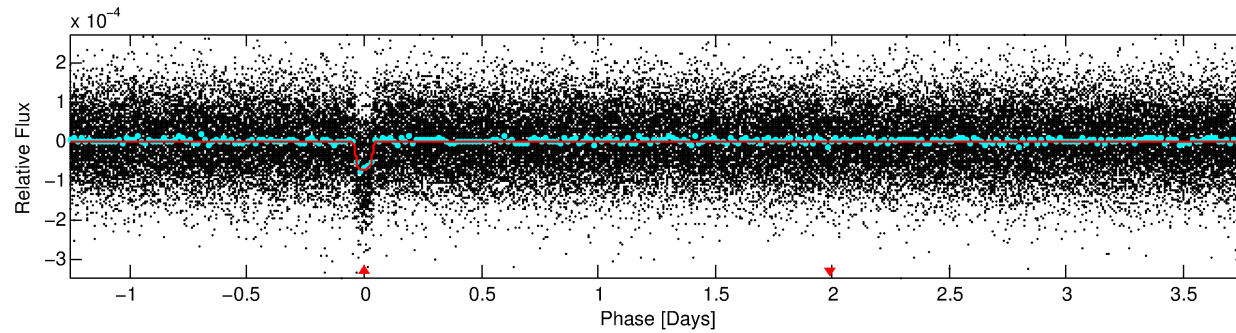
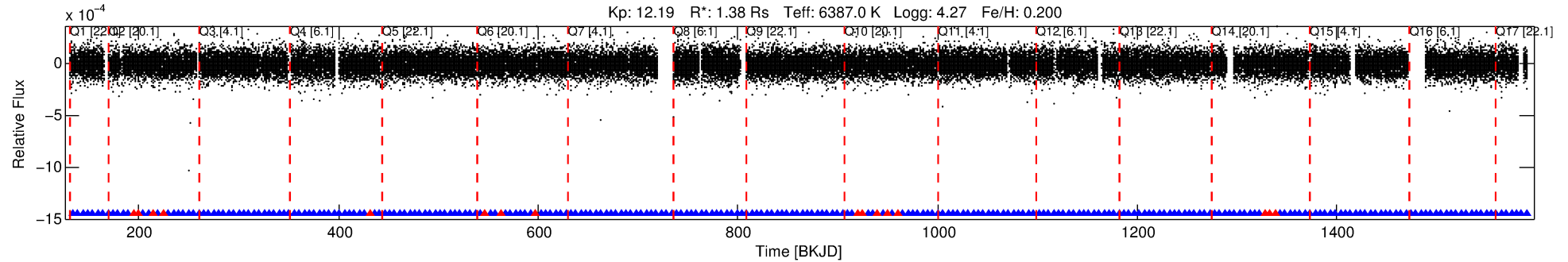
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011460462-01

No Significant Match Found

DV One-Page Summary

KIC: 11460462 Candidate: 1 of 1 Period: 5.037 d
KOI: K02110.01 Corr: 0.982



DV Fit Results:

Period = 5.03726 [0.00001] d
Epoch = 134.1118 [0.0014] BKJD
Rp/R* = 0.0092 [0.0017]
a/R* = 9.14 [9.13]
b = 0.90 [0.22]
Seff = 722.13 [174.29]
Teq = 1322 [80] K
Rp = 1.39 [0.36] Re
a = 0.0628 [0.0097] AU
Ag = 10.42 [5.72] [1.65σ]
Teffp = 3672 [467] K [4.97σ]

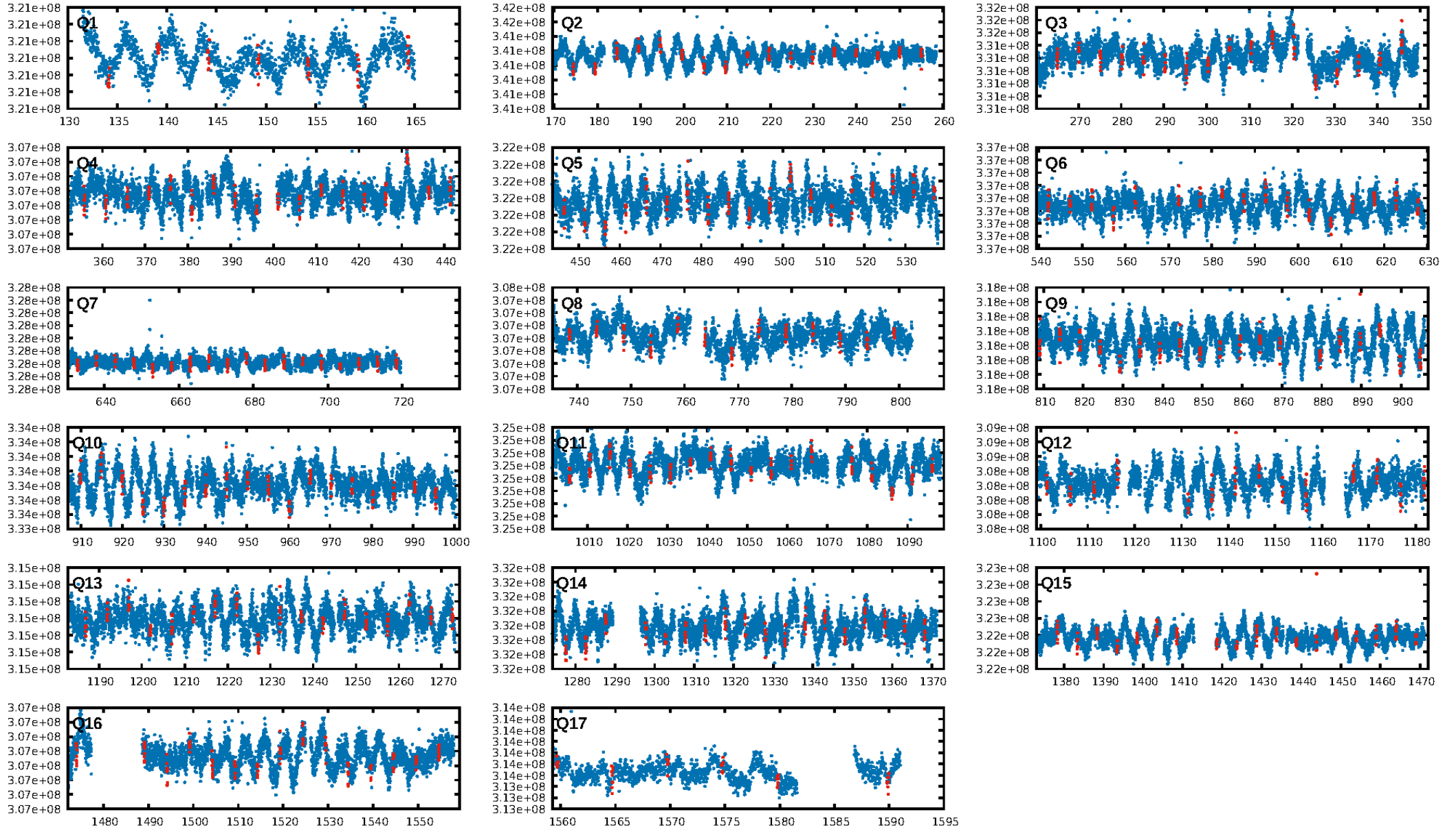
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.57e-91
RollingBand-fgt: 0.94 [240/256]
GhostDiagnostic-chr: 1.824
Centroid-sig: 29.3%
Centroid-so: 0.385 arcsec [0.99σ]
OotOffset-rm: 0.594 arcsec [1.72σ]
KicOffset-rm: 0.604 arcsec [1.73σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

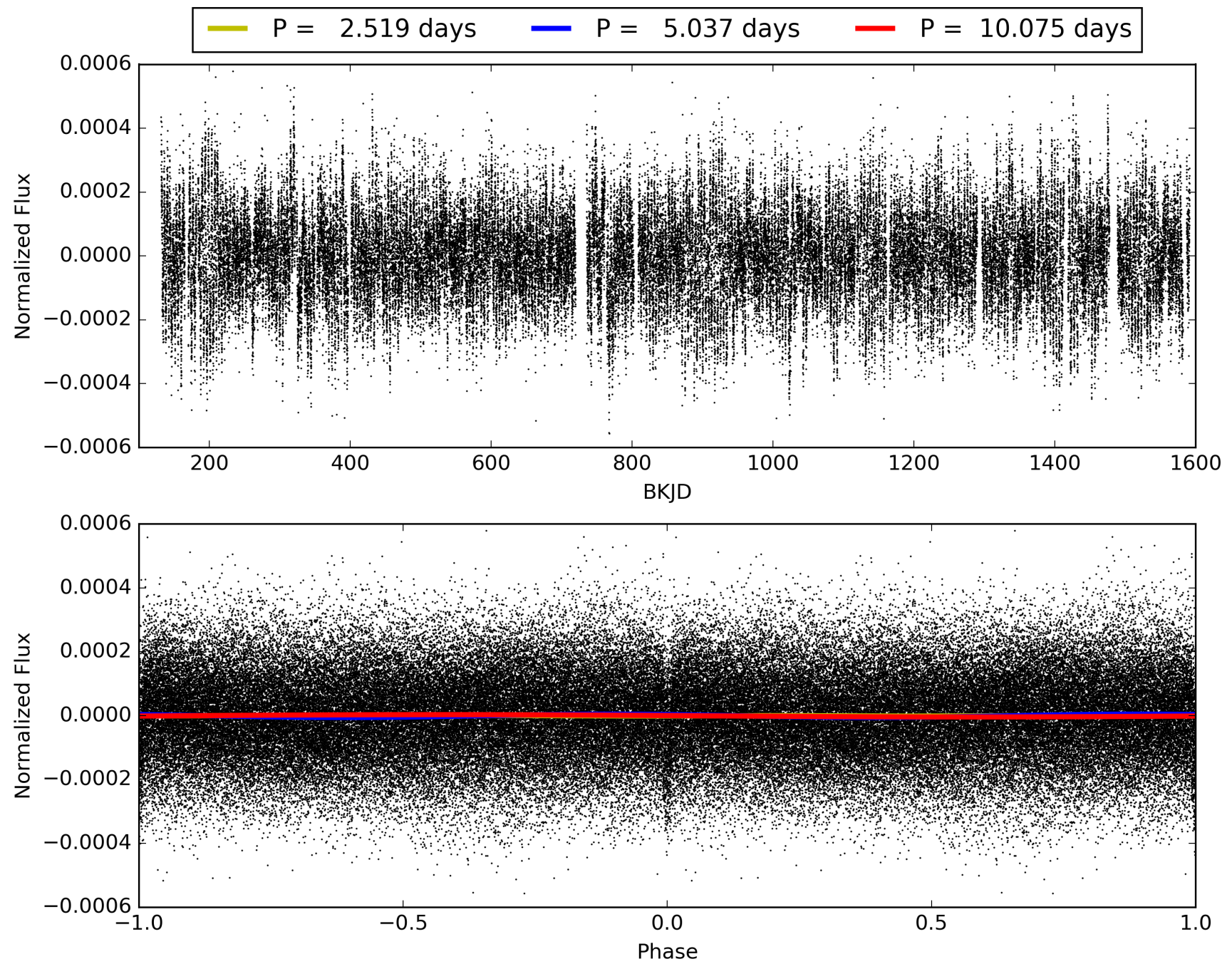
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:27:10 Z

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

TCE 011460462-01, PDC Light Curves

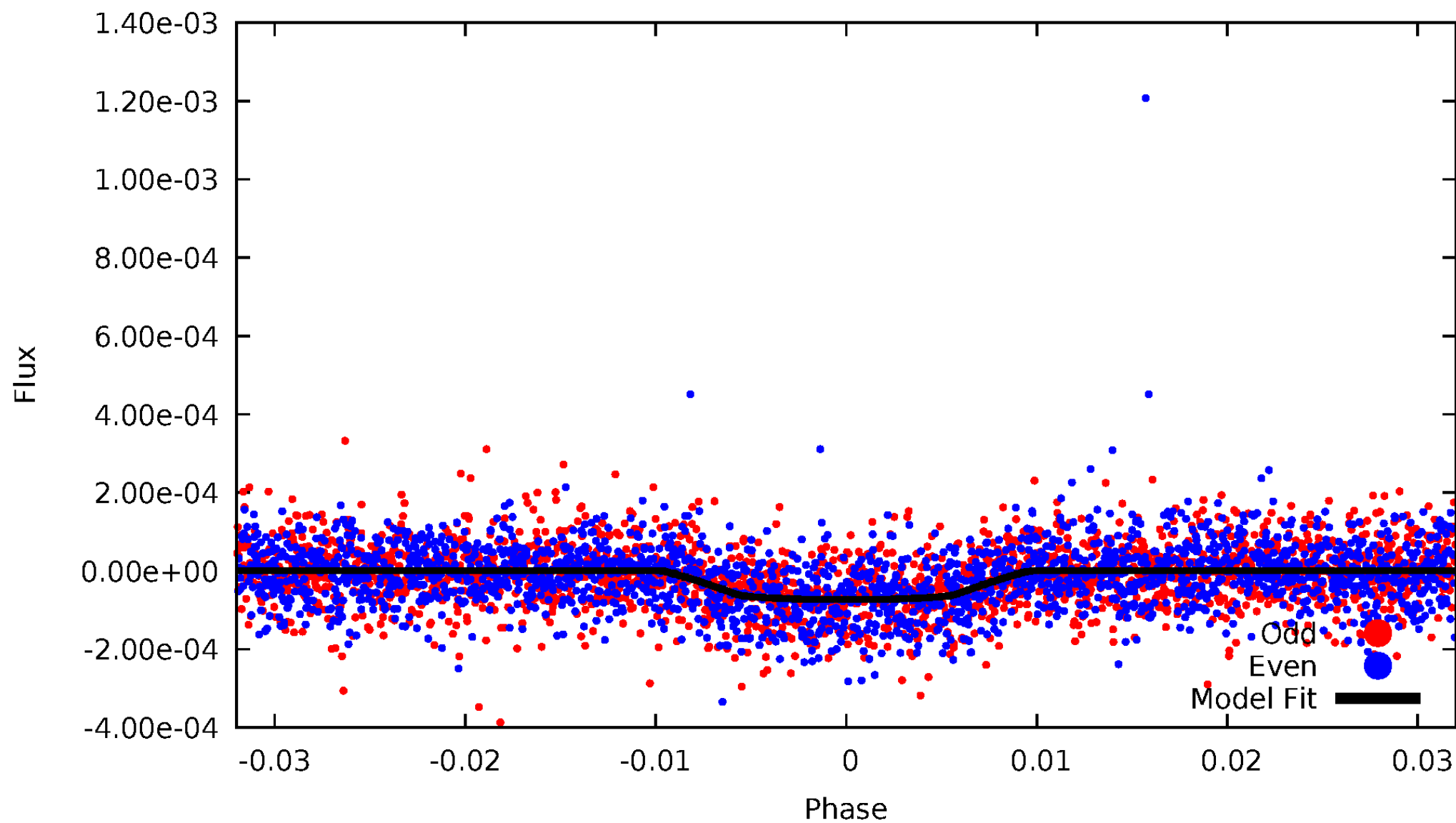


TCE 011460462-01



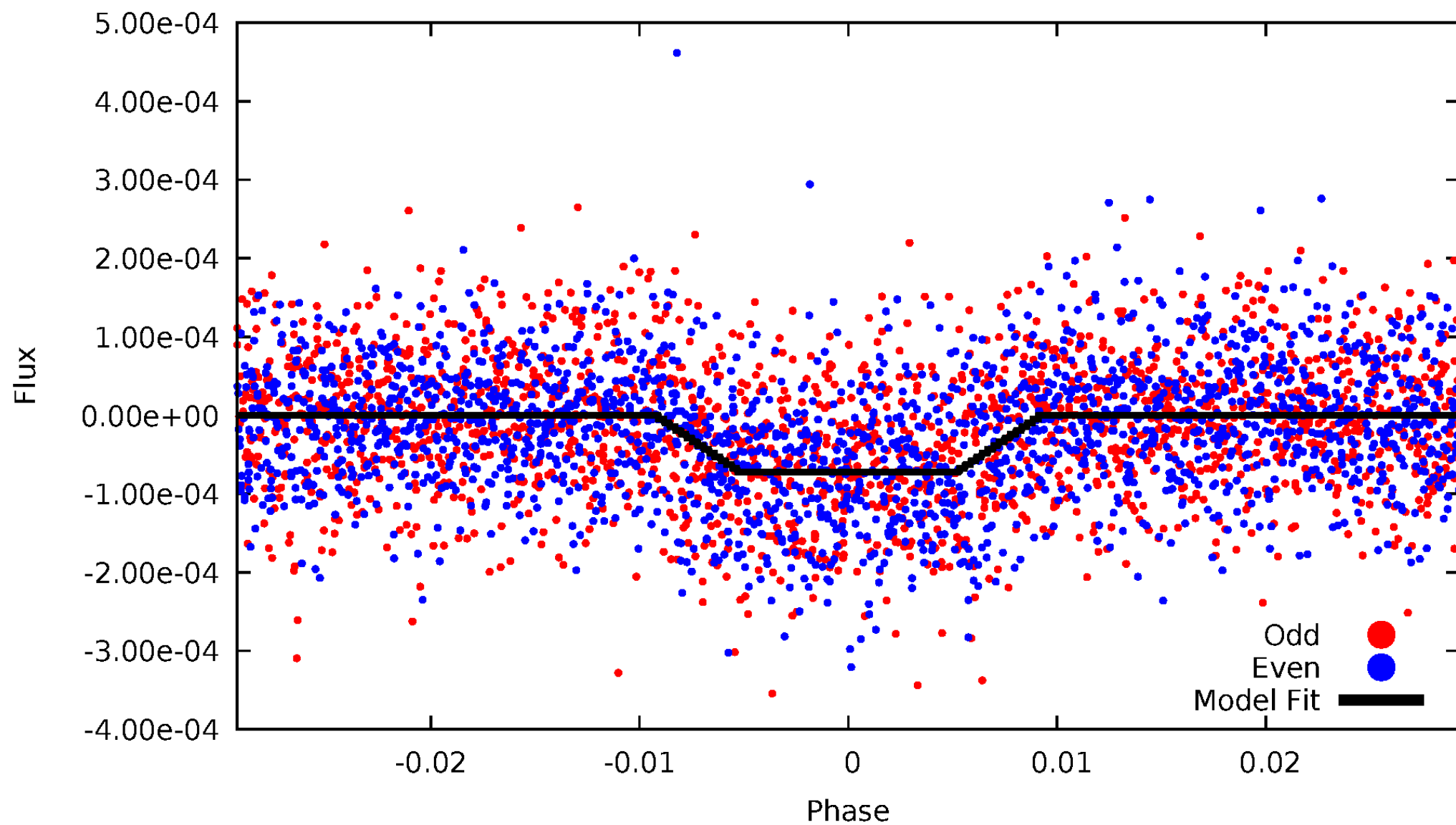
DV Odd/Even

TCE 011460462-01



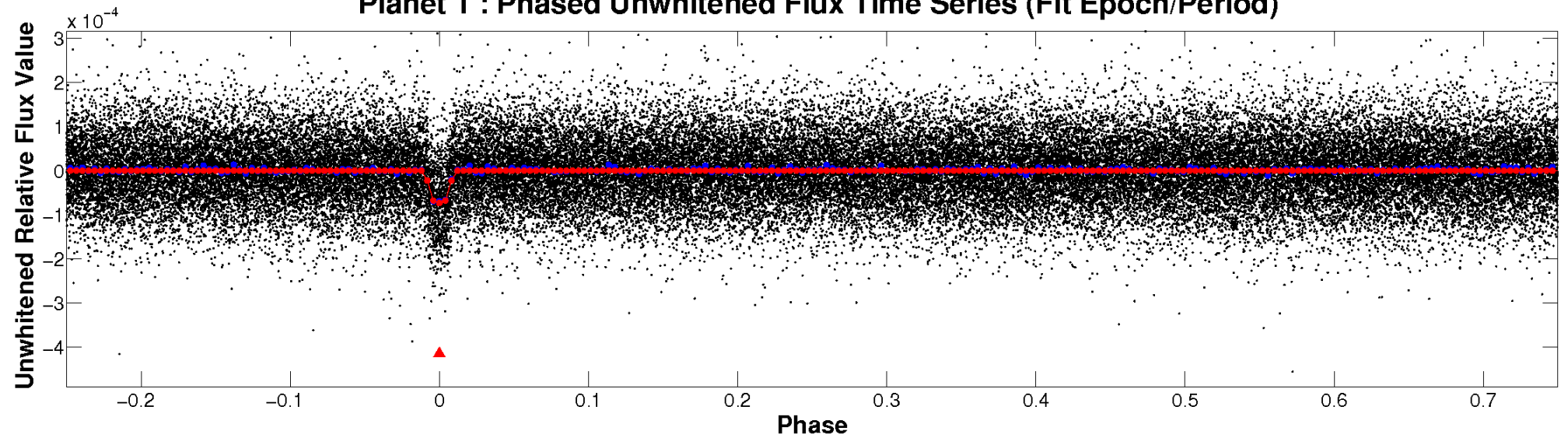
ALT Odd/Even

TCE 011460462-01

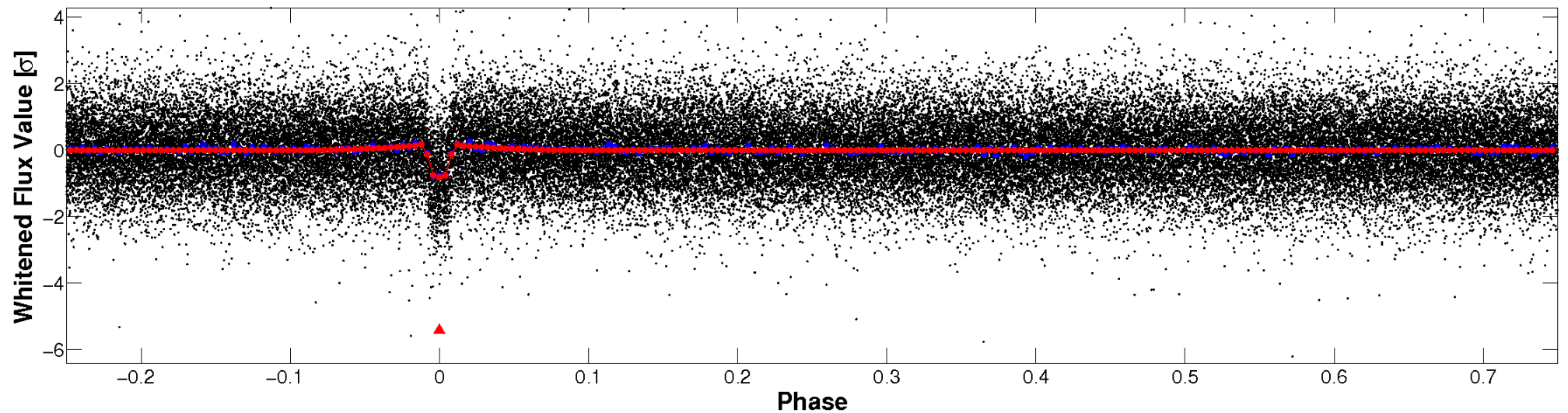


Non-Whitened Vs. Whitened Light Curve

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

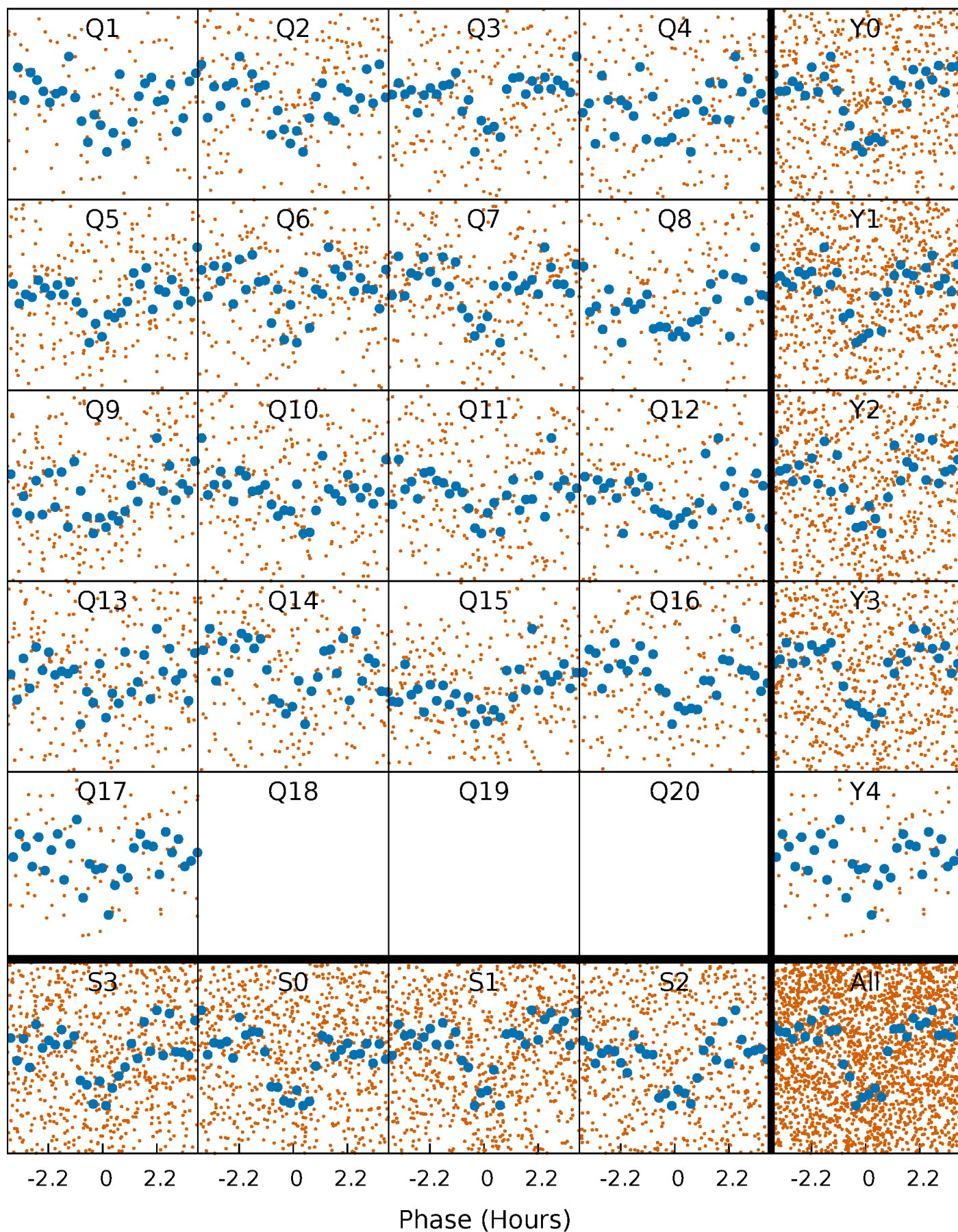


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



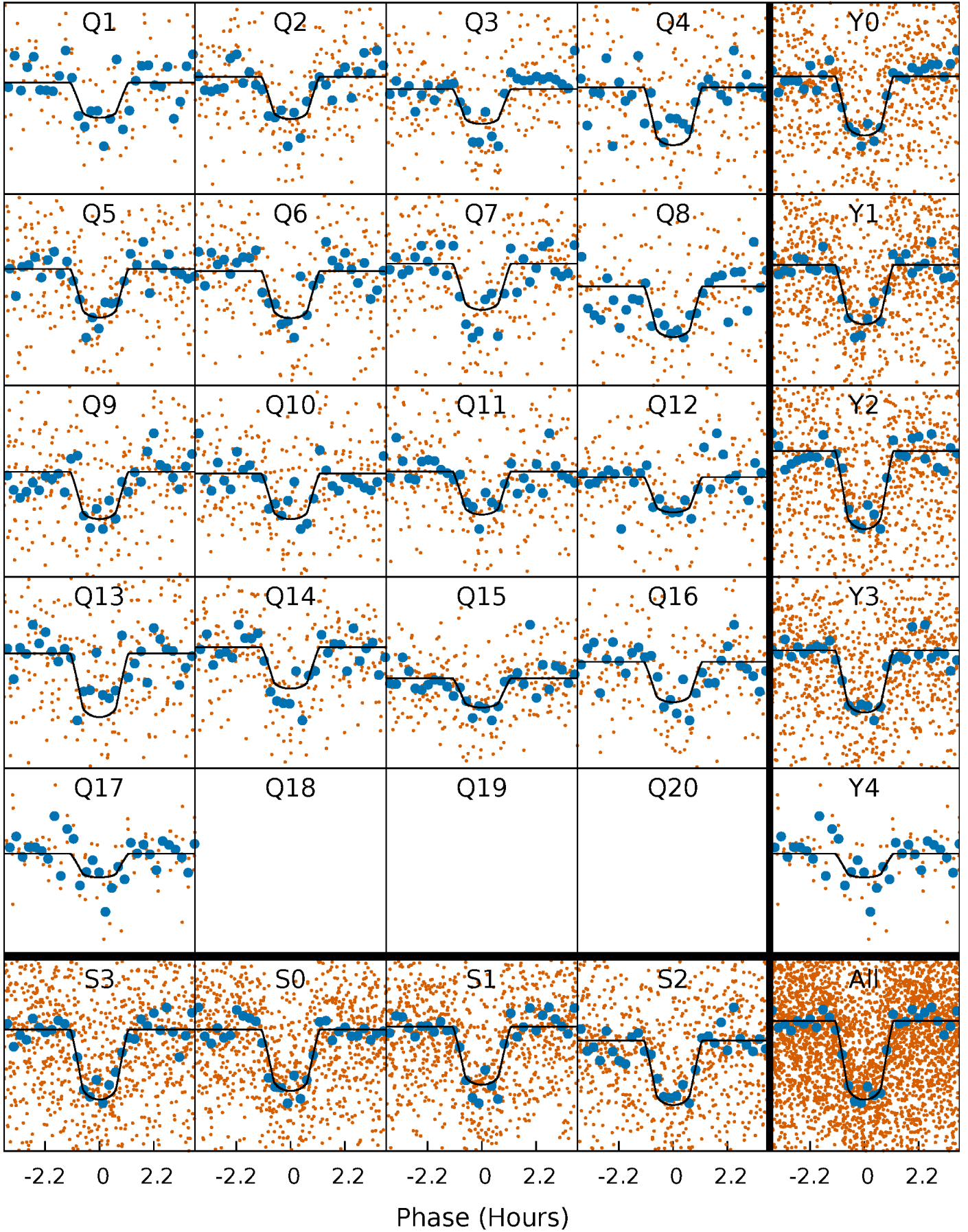
PDC Quarter-Phased Transit Curves

TCE 011460462-01 P= 5.037264 Days $T_0=134.111807$ (BKJD)



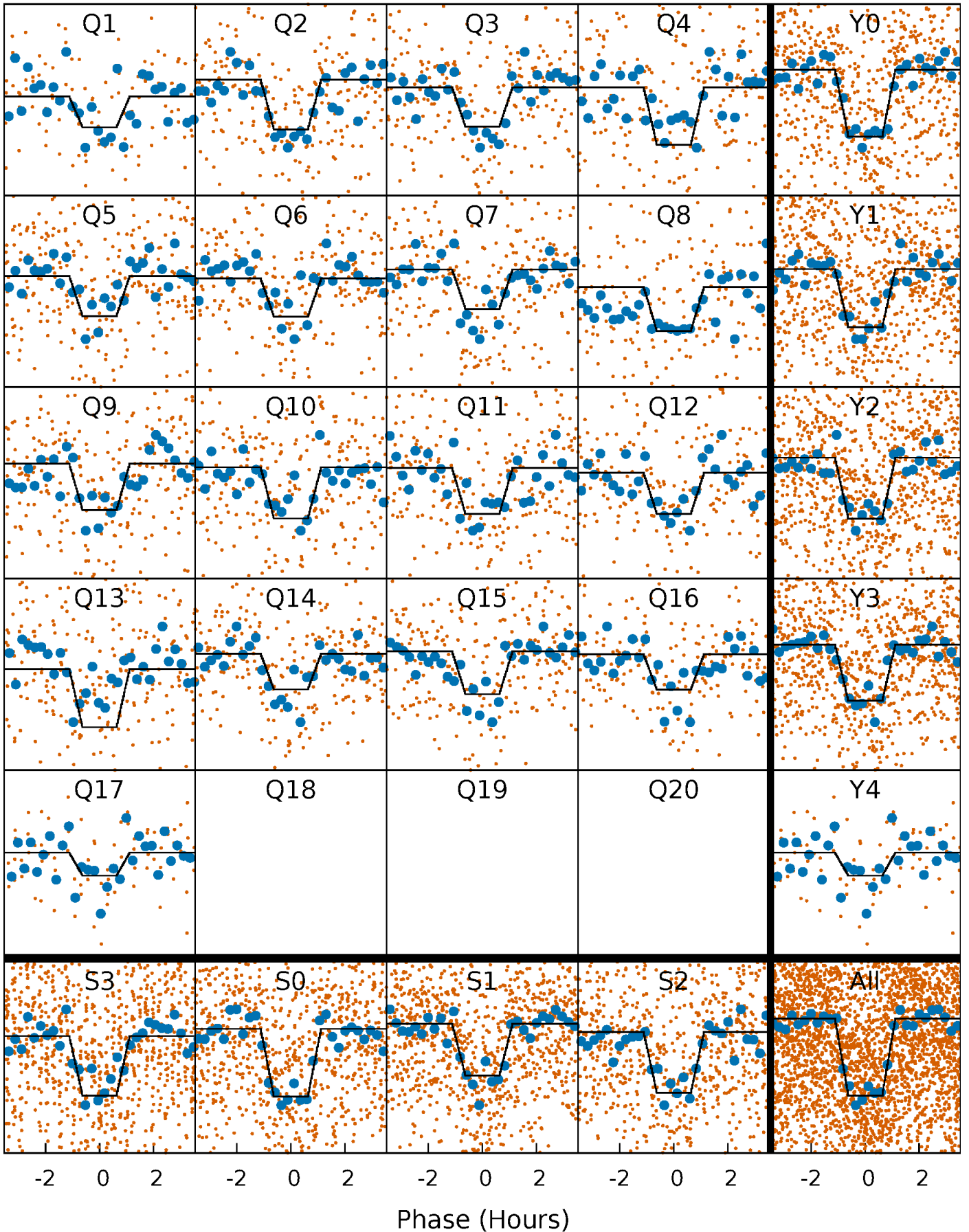
DV Quarter-Phased Transit Curves

TCE 011460462-01 P= 5.037264 Days $T_0=134.111807$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

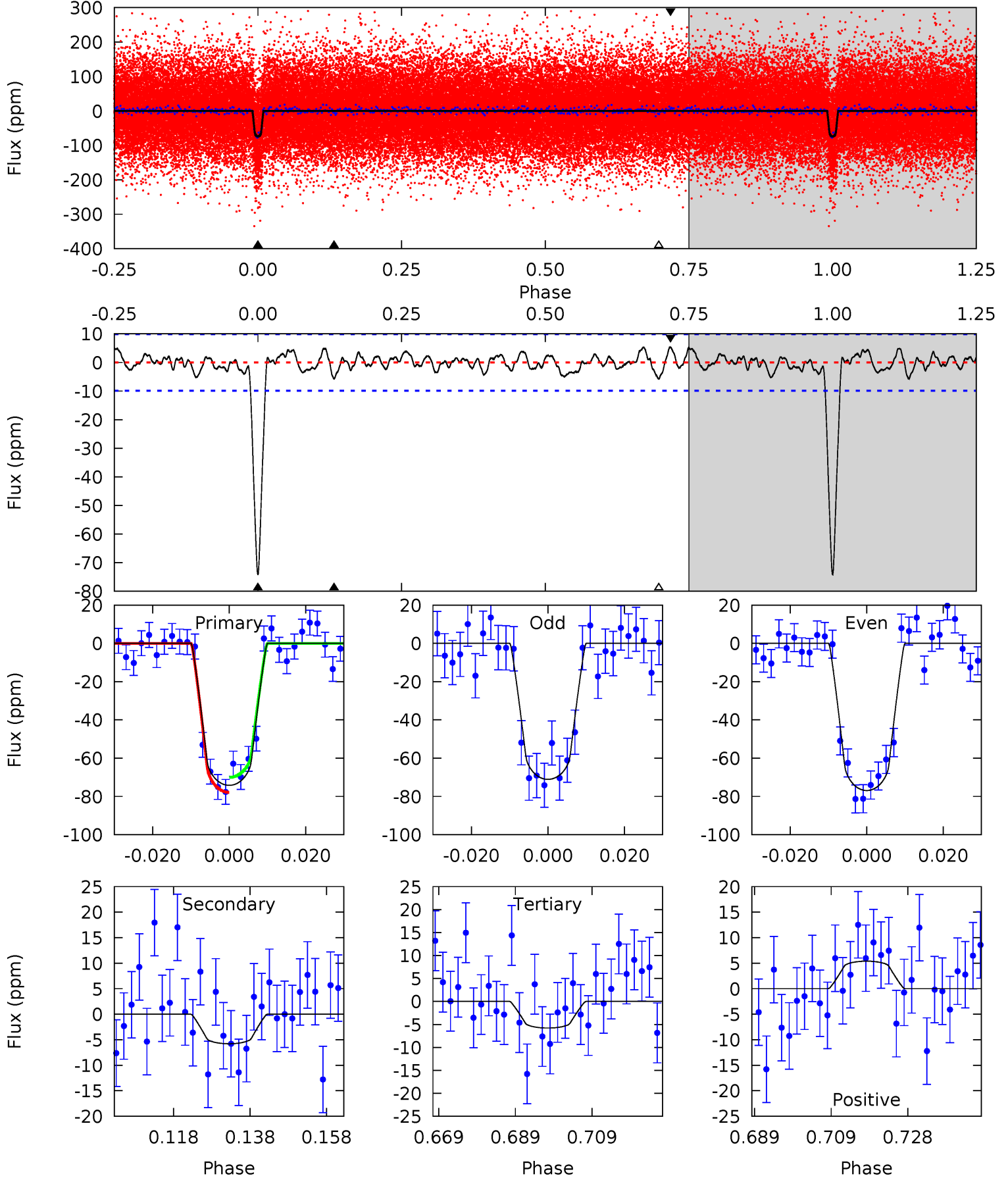
TCE 011460462-01 P= 5.037296 Days $T_0=134.107267$ (BKJD)



DV Model-Shift Uniqueness Test

011460462-01, P = 5.037264 Days, E = 129.074543 Days

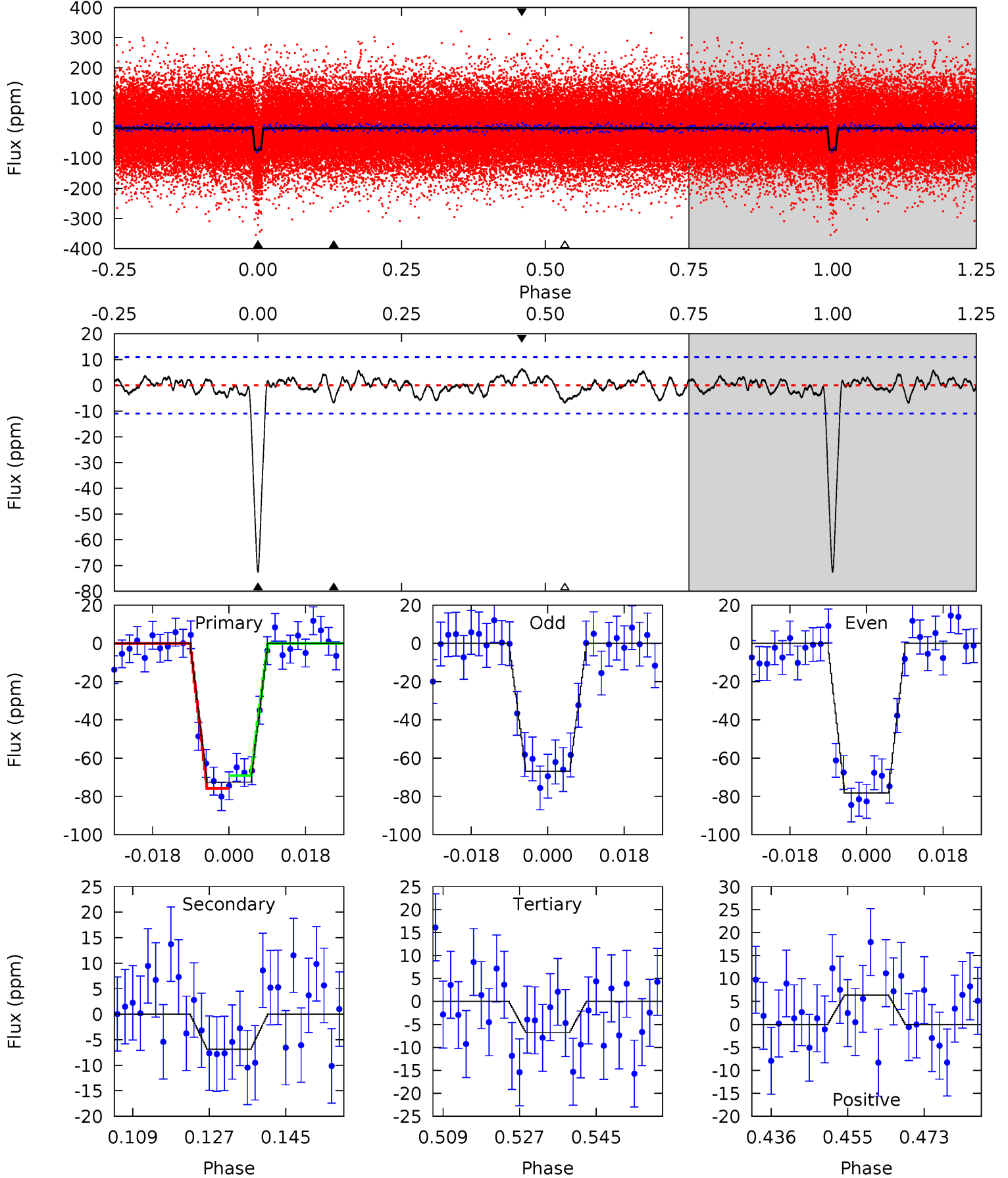
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.7	2.86	2.86	2.67	4.89	2.33	1.11	33.8	34.0	0.00	0.20	1.44	1.05	0.07	1.94



Alt Model-Shift Uniqueness Test

011460462-01, P = 5.037296 Days, E = 129.069971 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	3.07	3.02	2.87	4.91	2.36	1.13	29.5	29.6	0.05	0.21	2.56	1.13	0.08	1.50



Stellar Parameters For KIC 011460462

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6387^{+115}_{-140}	$4.271^{+0.066}_{-0.123}$	$0.200^{+0.150}_{-0.200}$	$1.381^{+0.253}_{-0.156}$	$1.306^{+0.093}_{-0.103}$	$0.698^{+0.196}_{-0.241}$
	+2%/-2%	+2%/-3%	+75%/-100%	+18%/-11%	+7%/-8%	+28%/-35%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 011460462-01 / KOI 2110.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 2	$1.43^{+0.28}_{-0.26}$	1864^{+88}_{-74}	3636^{+343}_{-312}	$6.088^{+4.035}_{-2.578}$
Alt.	-7 ± 2	$1.32^{+0.30}_{-0.28}$	1859^{+93}_{-68}	3844^{+400}_{-345}	$8.315^{+6.419}_{-3.574}$

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 $A_{obs} \gg 1.0$

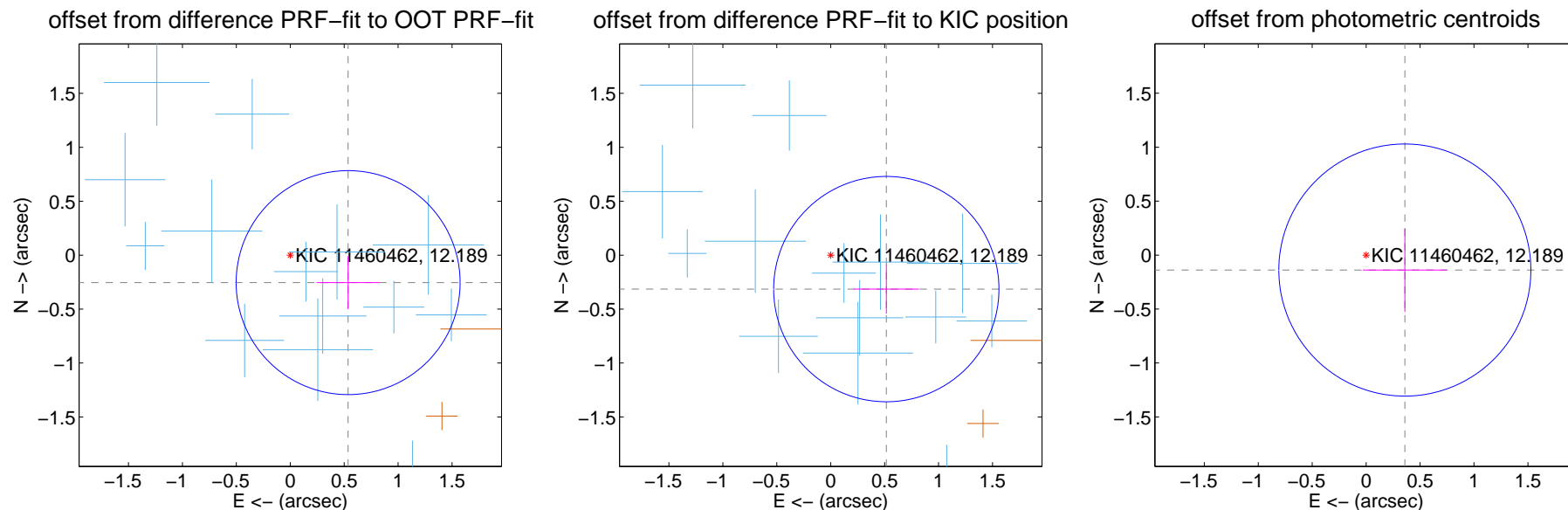
DV Centroid Data

Supplemental centroid analysis for 011460462-01. Kepler magnitude: 12.19. Transit SNR 23.01

There are 15 quarters with good PRF difference image offsets

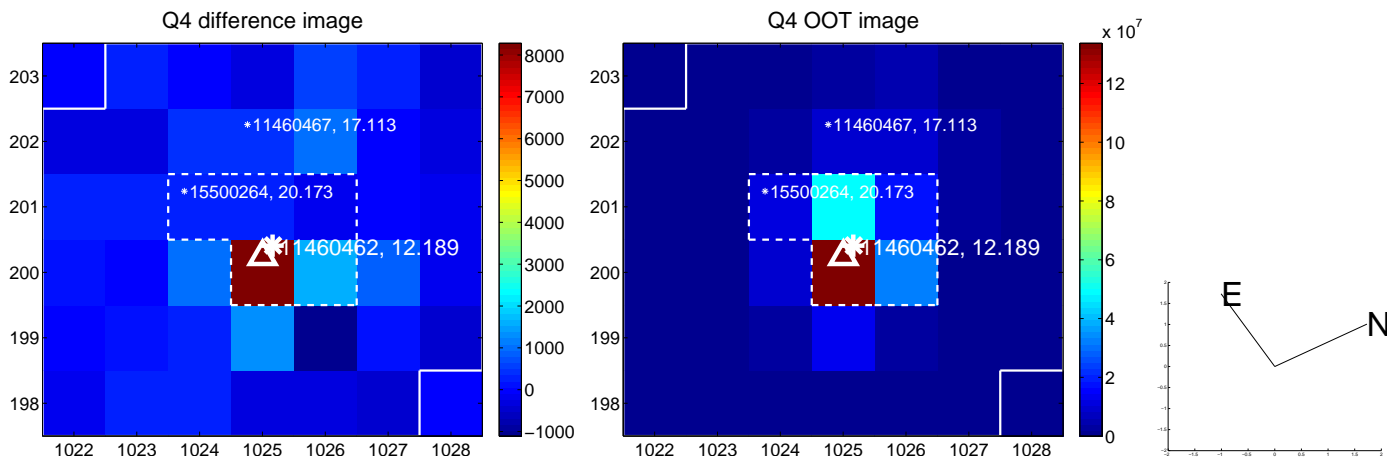
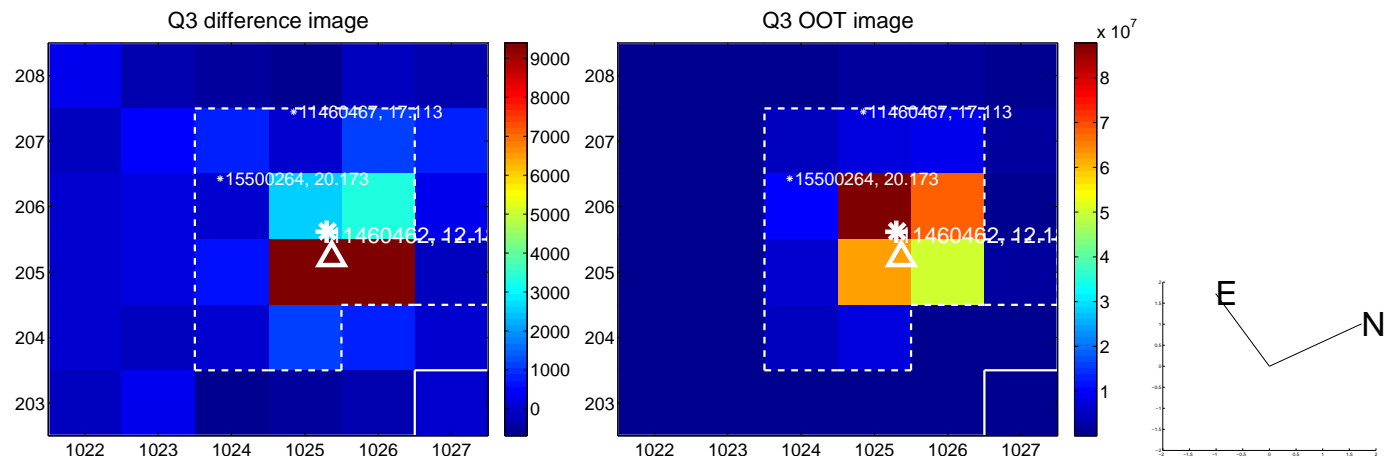
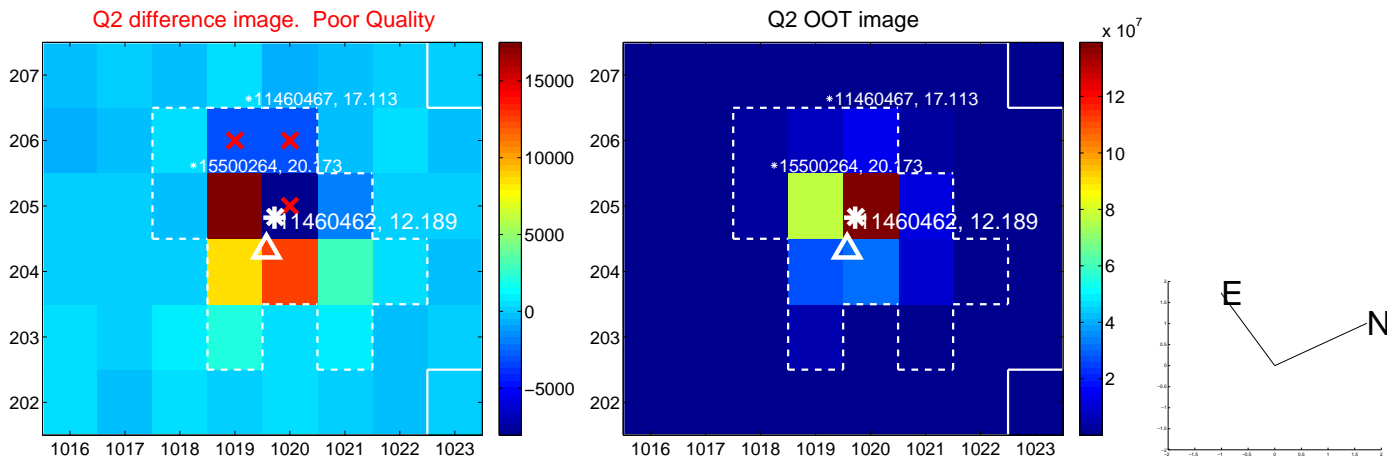
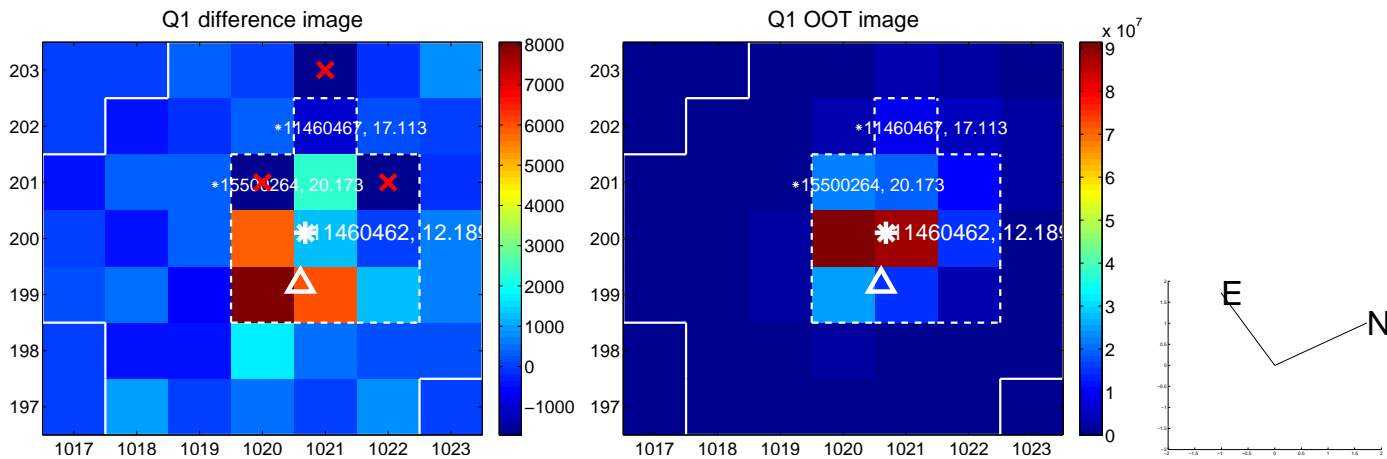
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.594 ± 0.346	1.72	-0.537 ± 0.292	-0.255 ± 0.245
PRF-fit source offset from KIC position	0.604 ± 0.348	1.73	-0.515 ± 0.302	-0.315 ± 0.228
photometric centroid source offset	0.38 ± 0.39	0.99	-0.36 ± 0.39	-0.14 ± 0.39

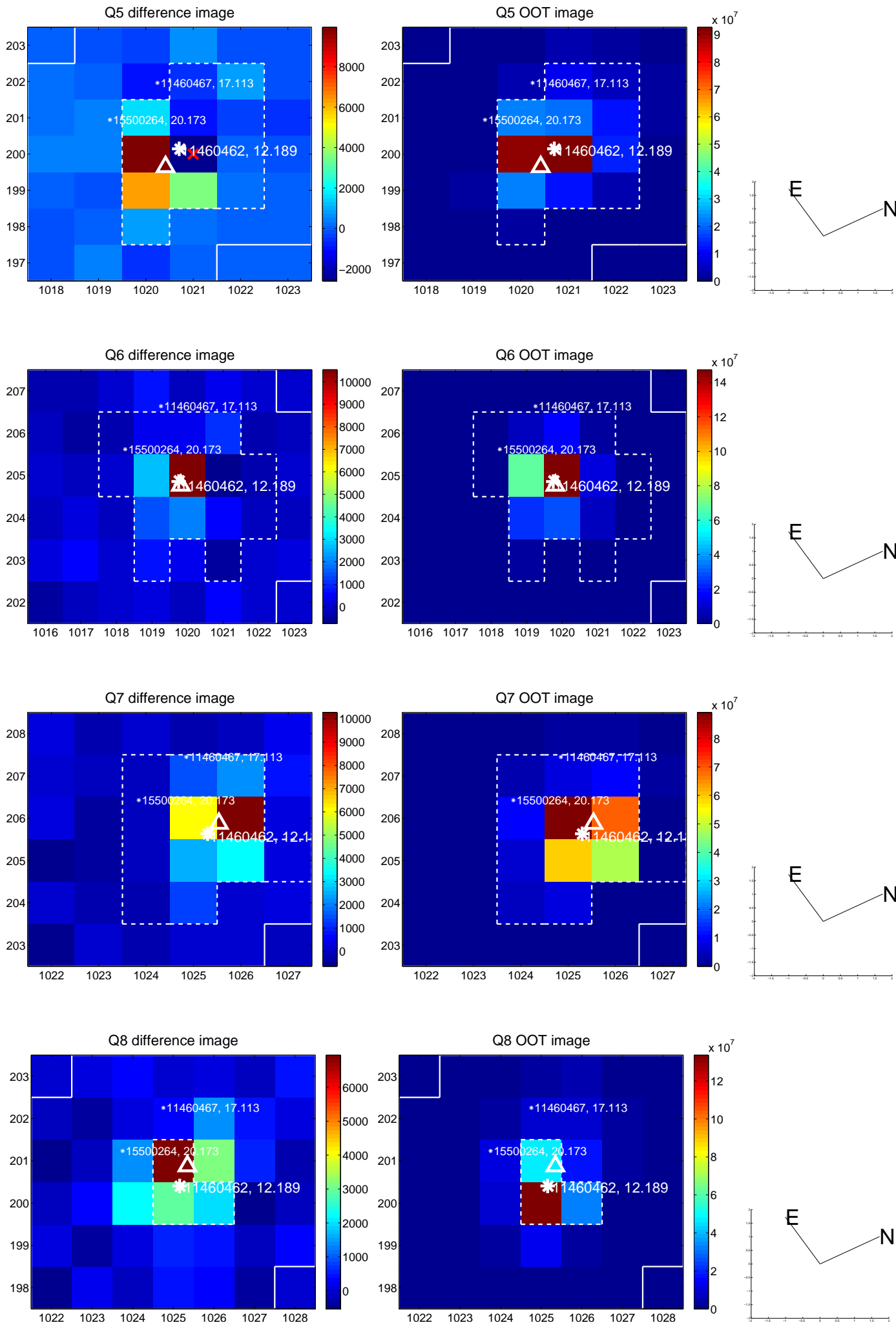


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

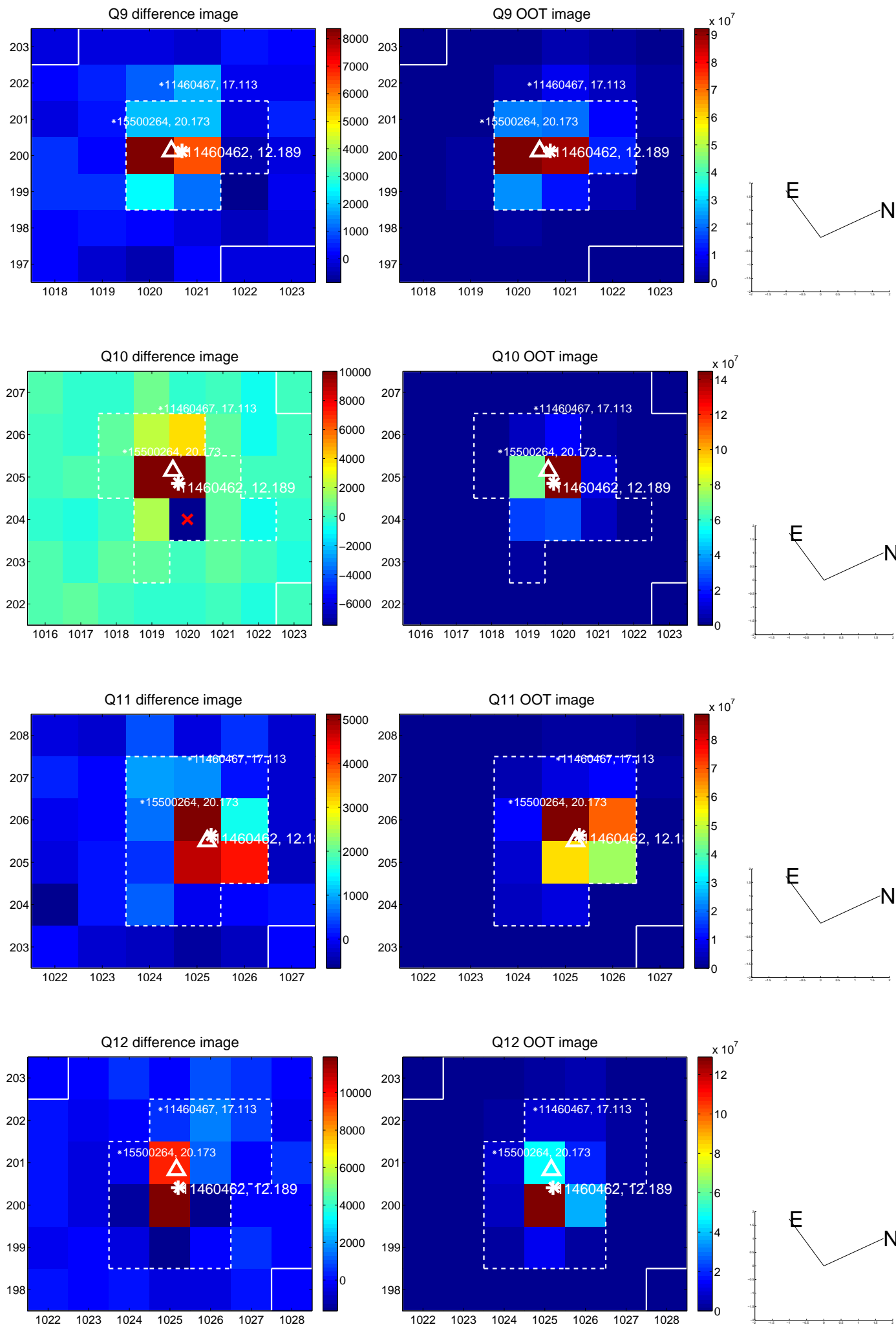
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



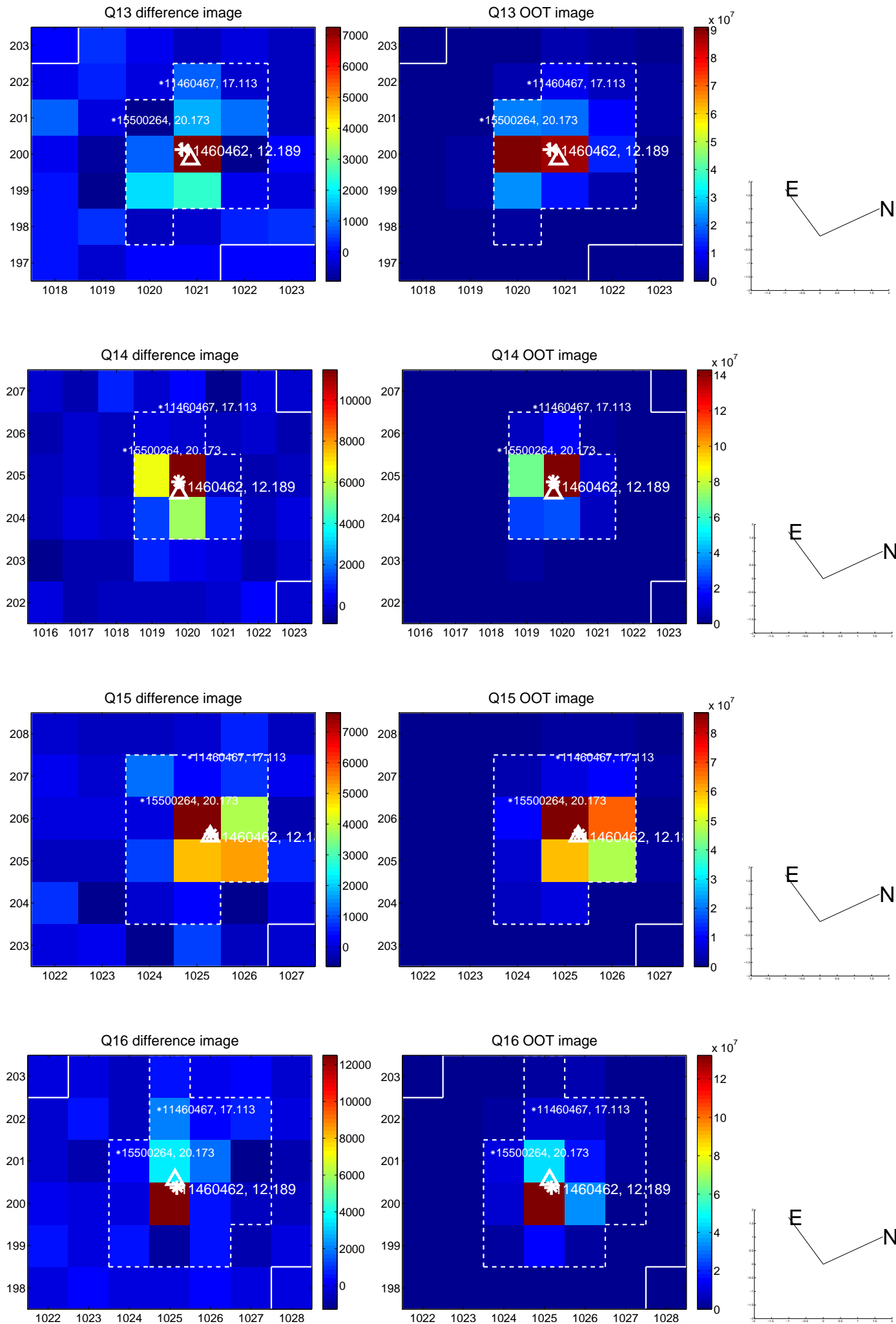
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



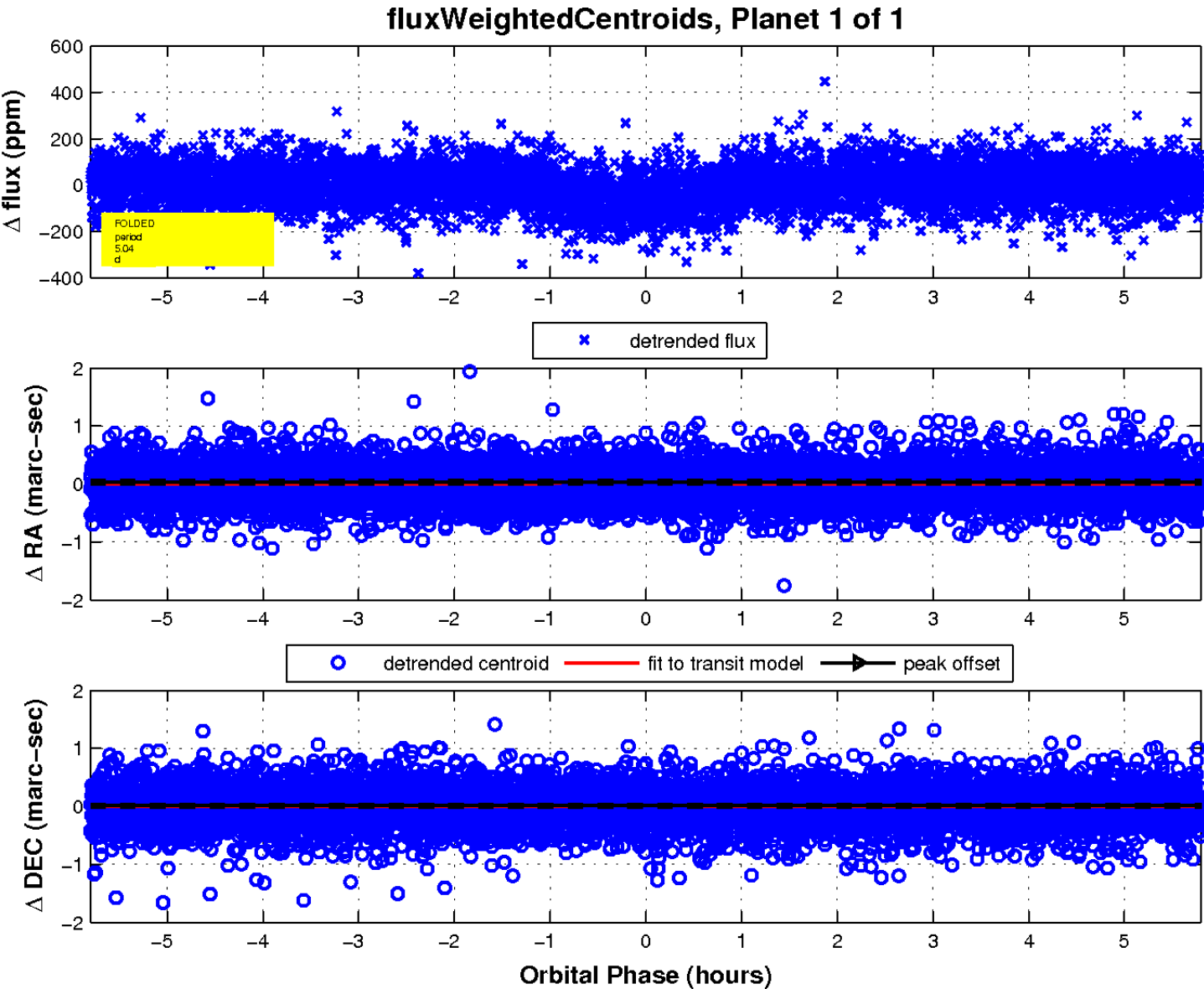
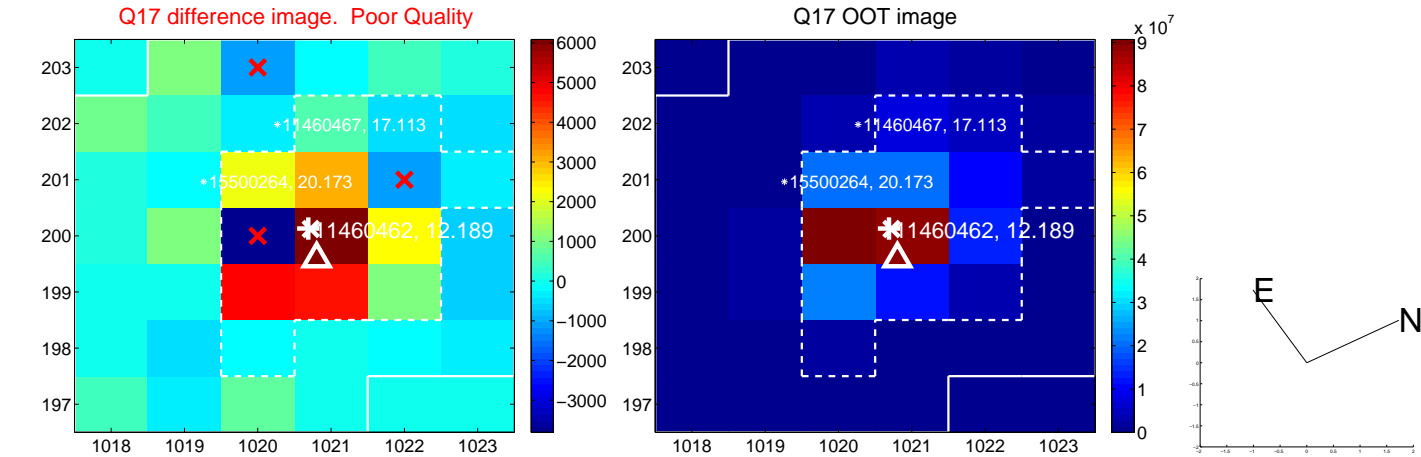
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

