

KIC 005125347

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})
005125347-01	OBS	2241.01	7.165224	132.967254	436.2	1.779	15.0	17.5	1.10	6174	2.31	271.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005125347-01	OBS	PC	0.98	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 005125347-01

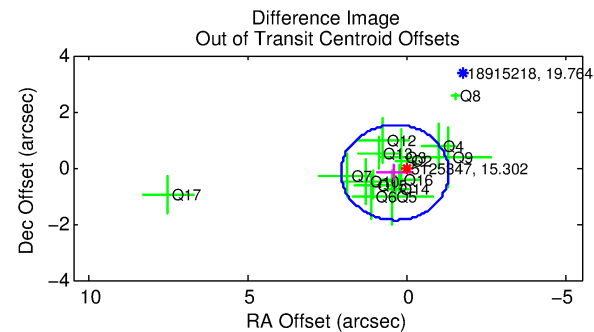
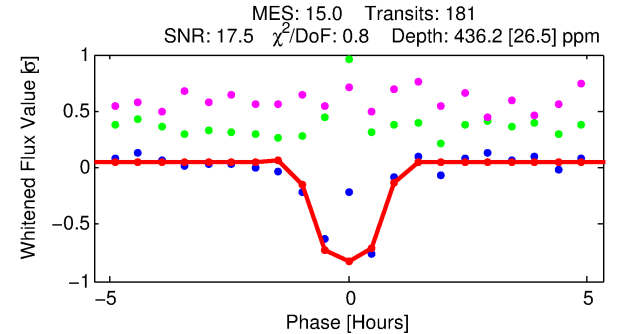
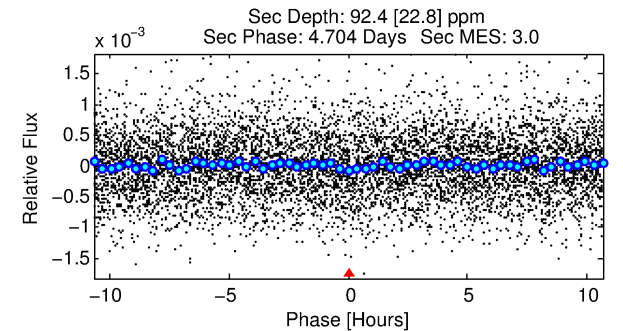
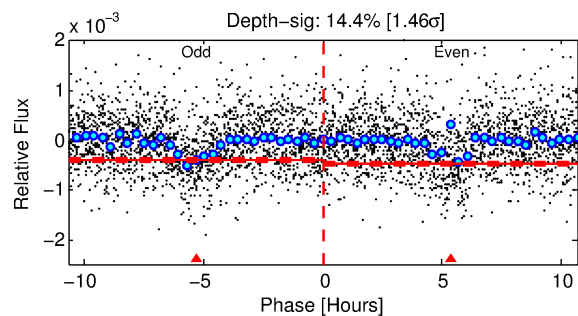
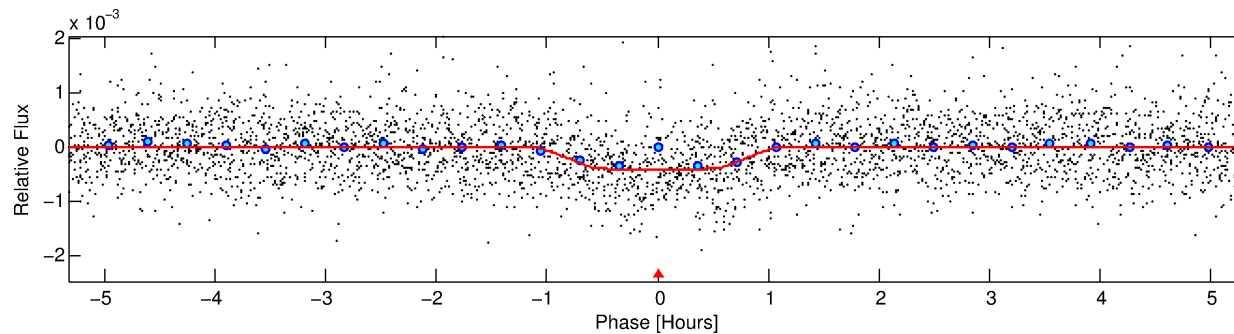
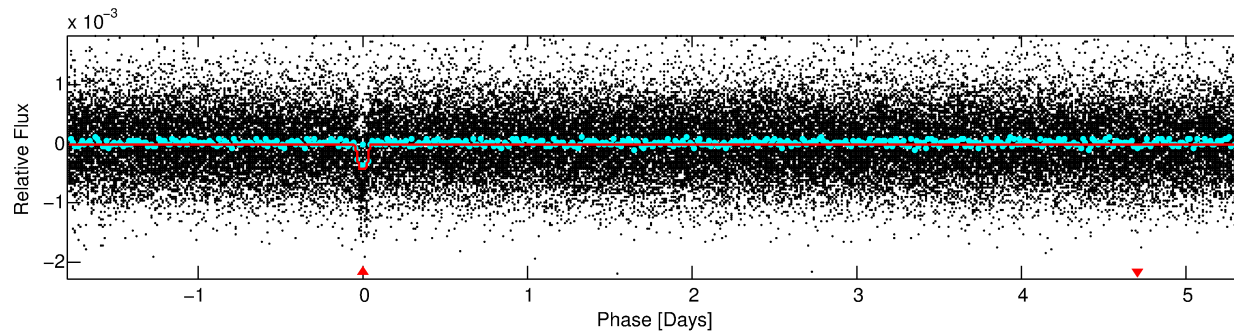
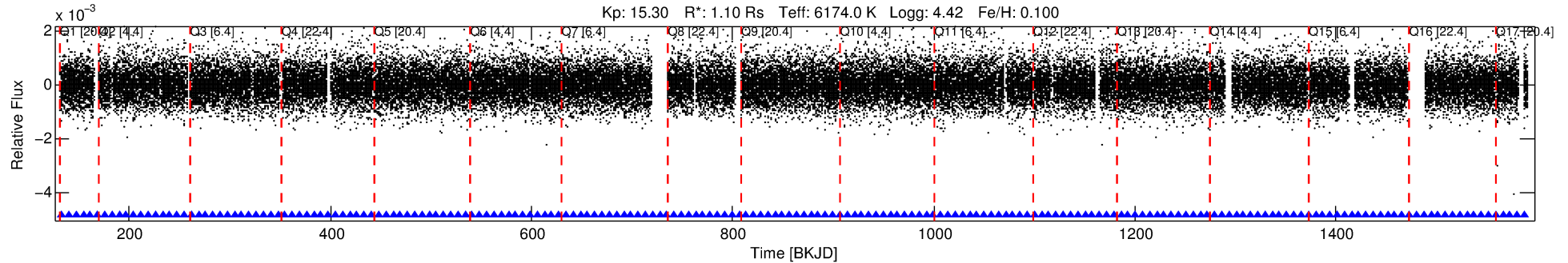
No Significant Match Found

DV One-Page Summary

KIC: 5125347 Candidate: 1 of 1 Period: 7.165 d

KOI: K02241.01 Corr: 0.965

Kp: 15.30 R*: 1.10 Rs Teff: 6174.0 K Logg: 4.42 Fe/H: 0.100



DV Fit Results:

Period = 7.16522 [0.00002] d
Epoch = 132.9673 [0.0024] BKJD
Rp/R* = 0.0192 [0.0133]
a/R* = 31.21 [104.17]
b = 0.10 [32.31]
Seff = 271.17 [116.68]
Teq = 1035 [111] K
Rp = 2.31 [1.77] Re
a = 0.0764 [0.0208] AU
Ag = 55.89 [81.84] [0.67σ]
Teffp = 4374 [1553] K [2.15σ]

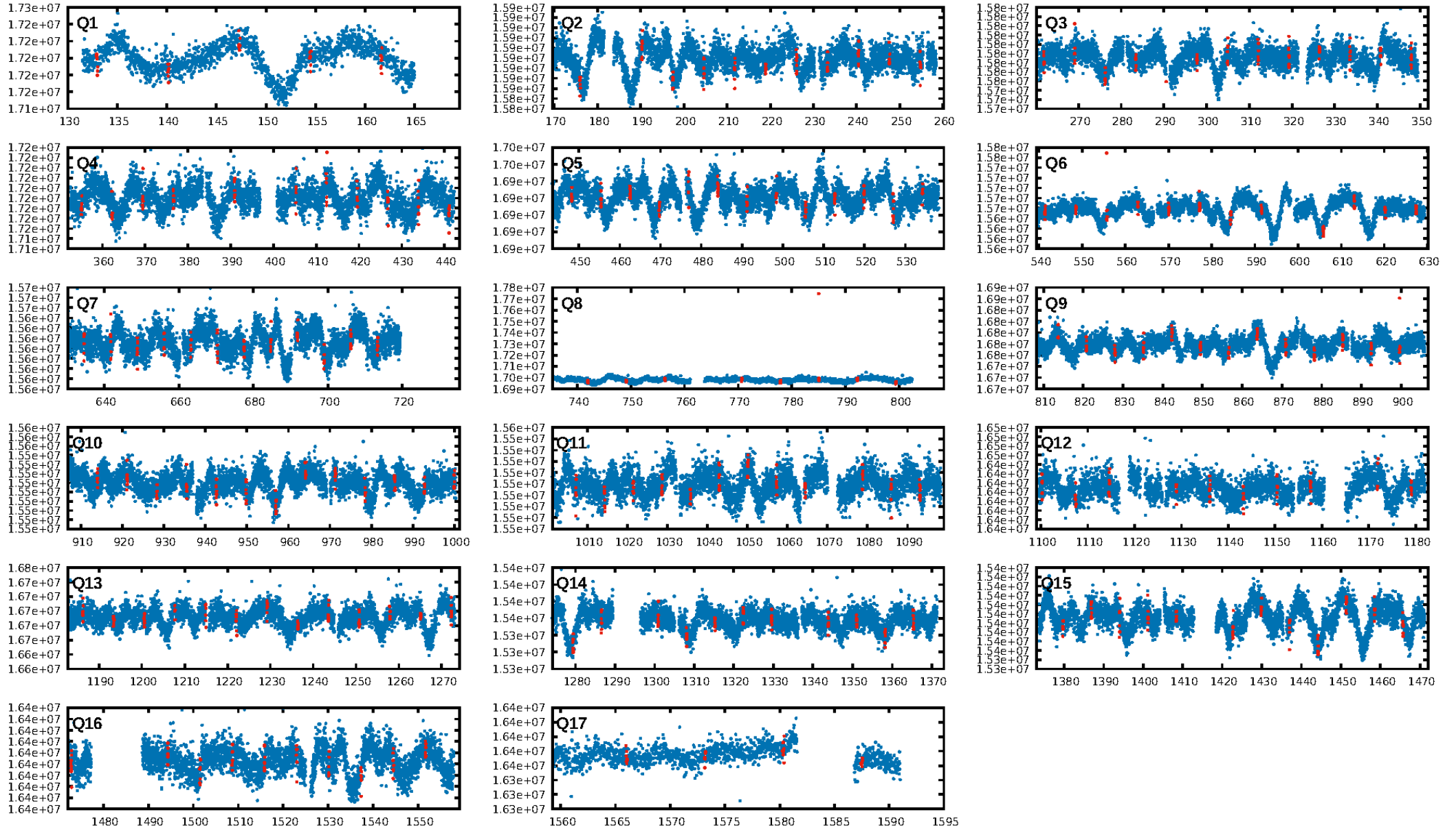
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.10e-50
RollingBand-fgt: 1.00 [172/172]
GhostDiagnostic-chr: 7.931
Centroid-sig: 15.3%
Centroid-so: 0.819 arcsec [1.22σ]
OotOffset-rm: 0.423 arcsec [0.75σ]
KicOffset-rm: 0.418 arcsec [0.78σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 1.00 [17/17]

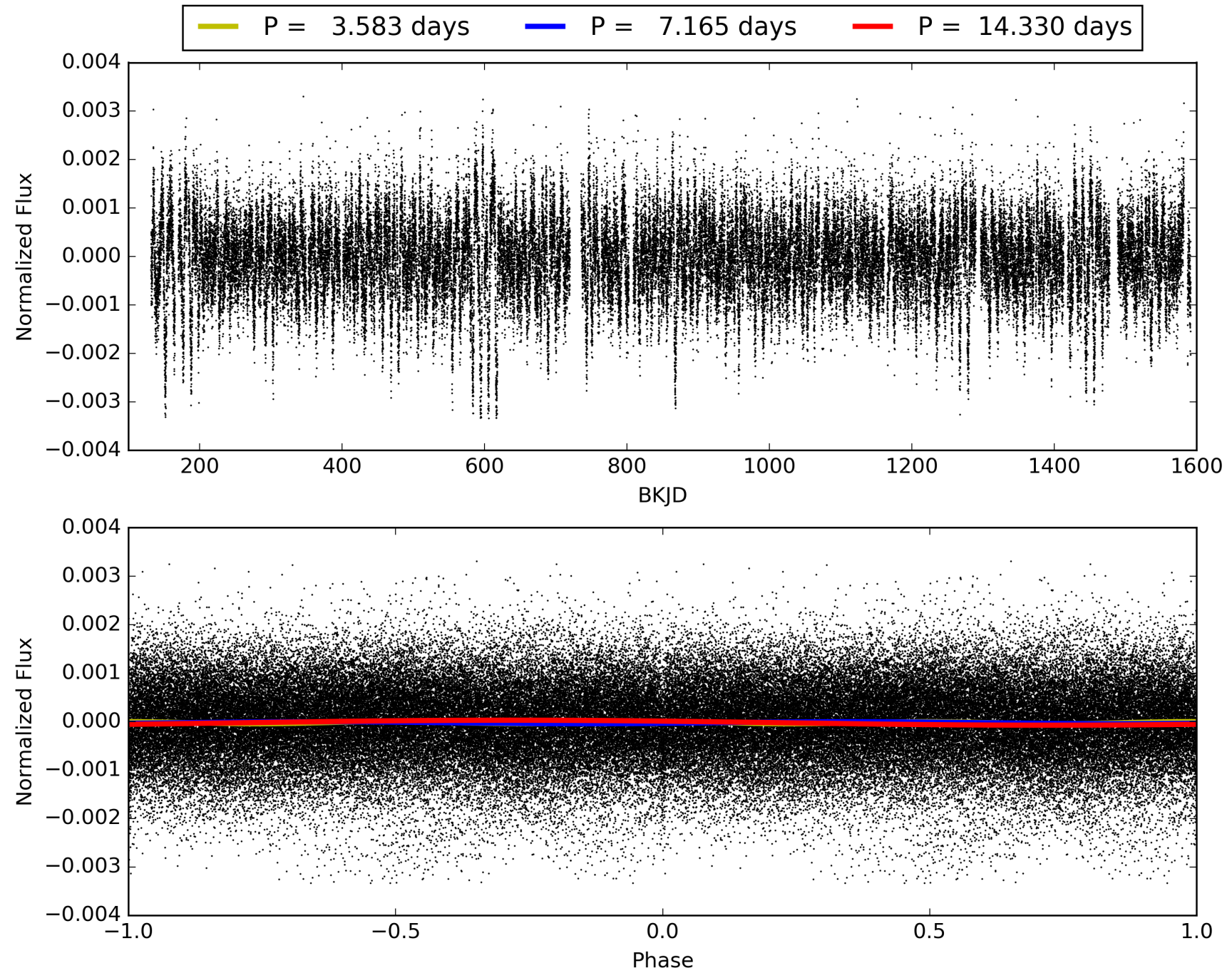
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:46:09 Z

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

TCE 005125347-01, PDC Light Curves

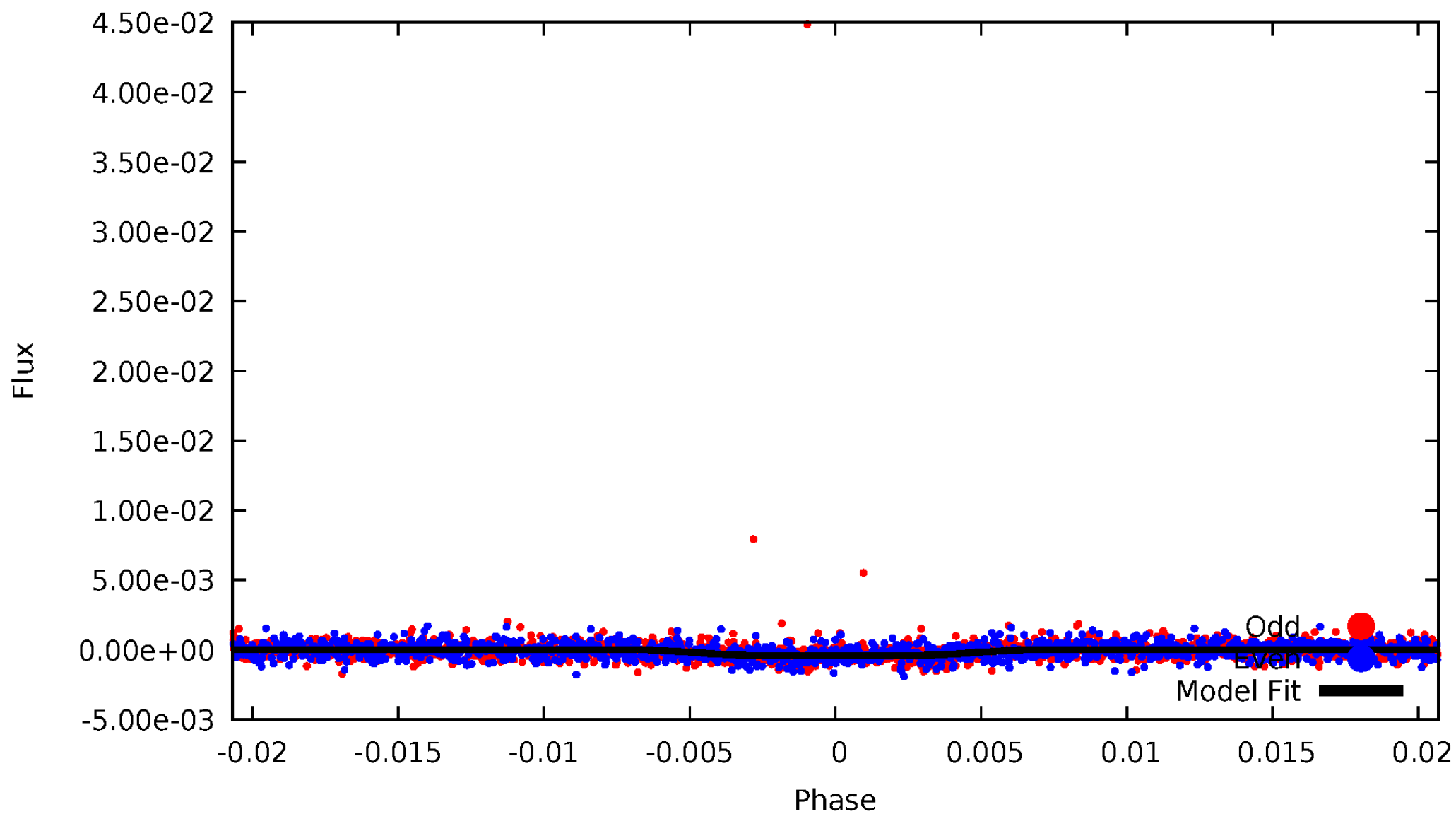


TCE 005125347-01



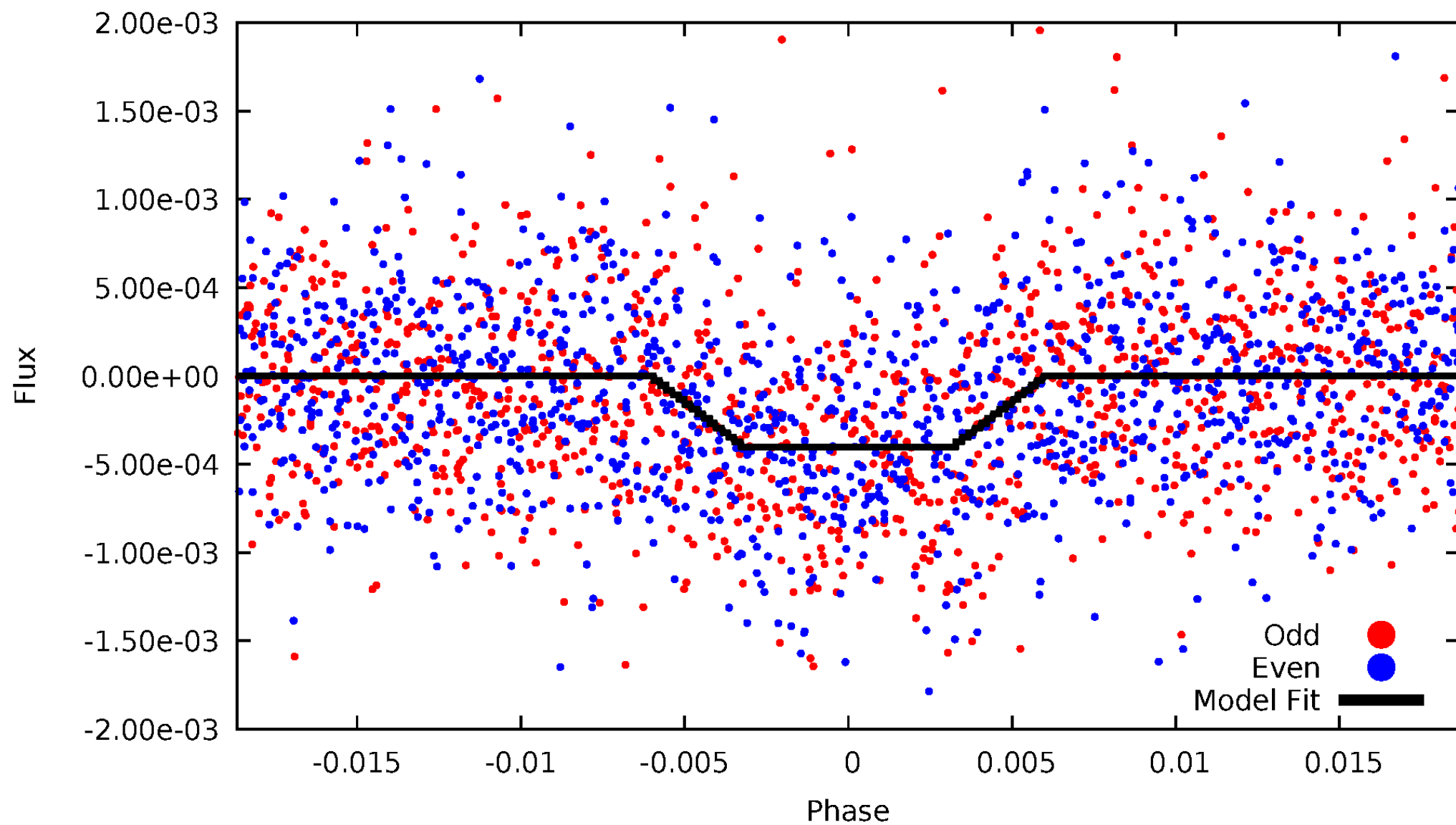
DV Odd/Even

TCE 005125347-01



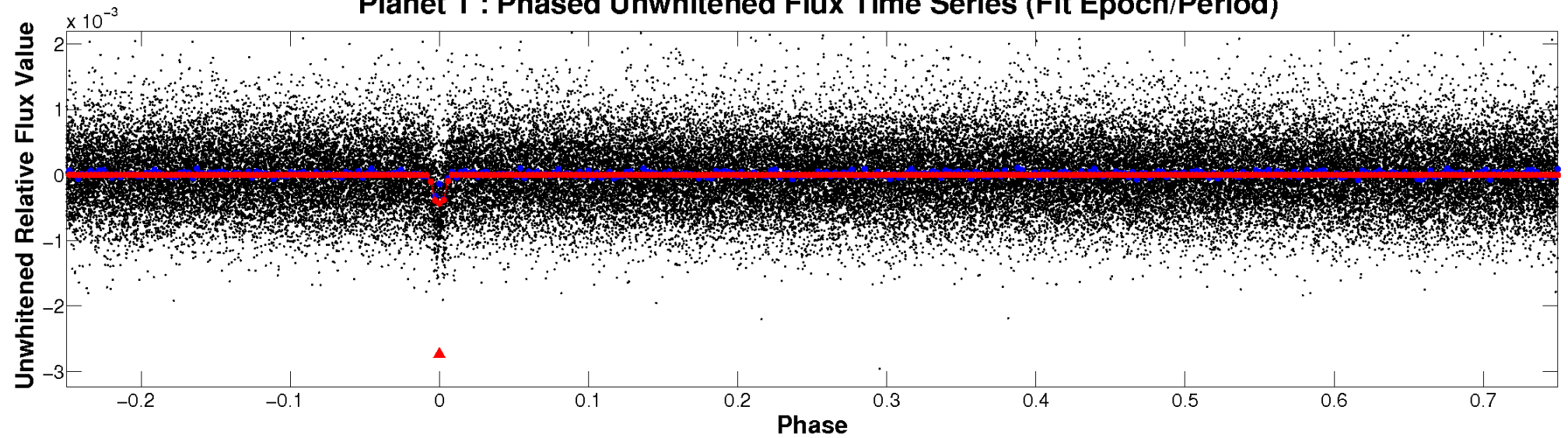
ALT Odd/Even

TCE 005125347-01

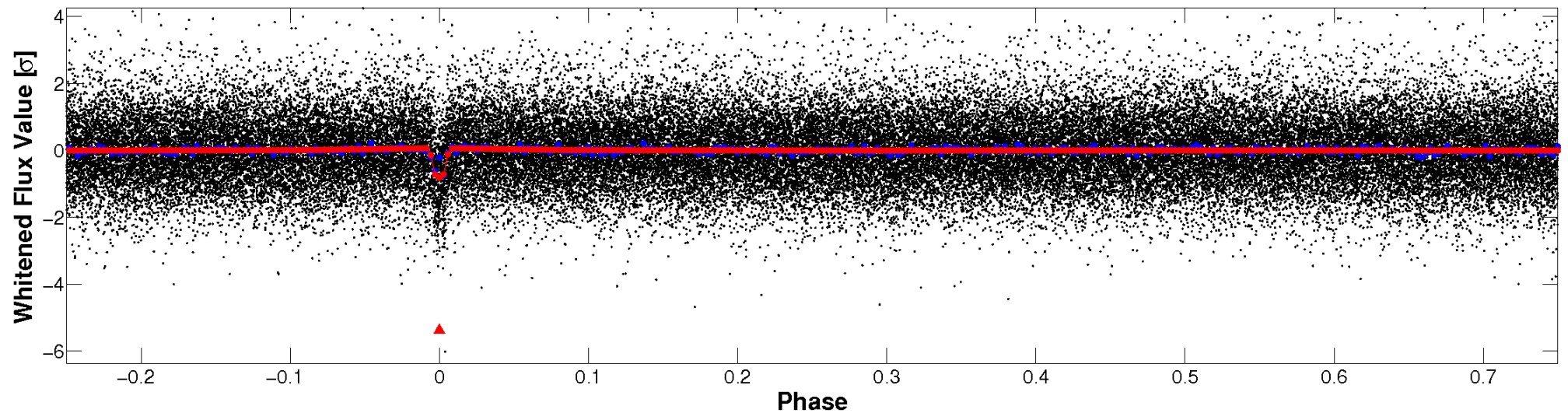


Non-Whitened Vs. Whitened Light Curve

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

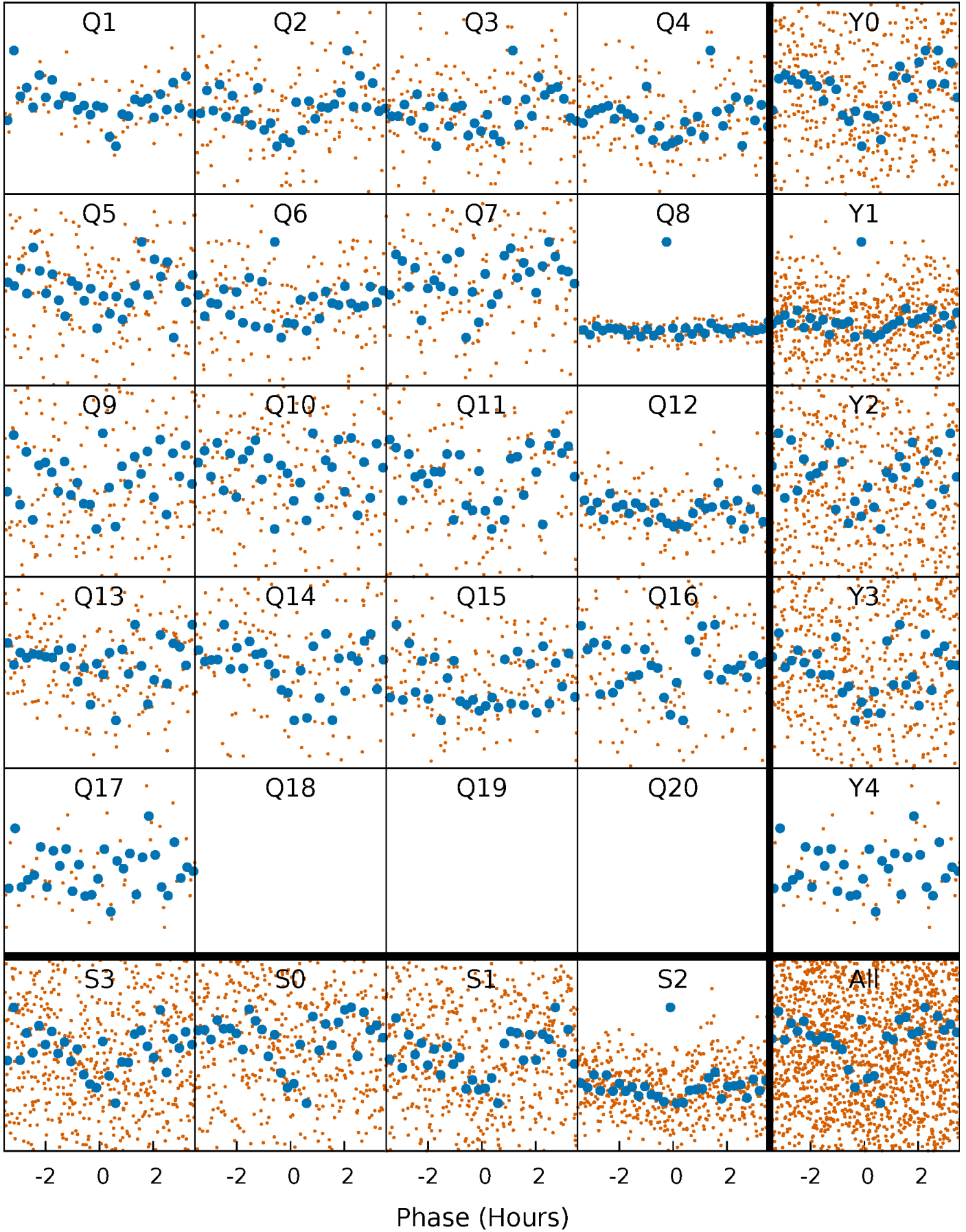


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



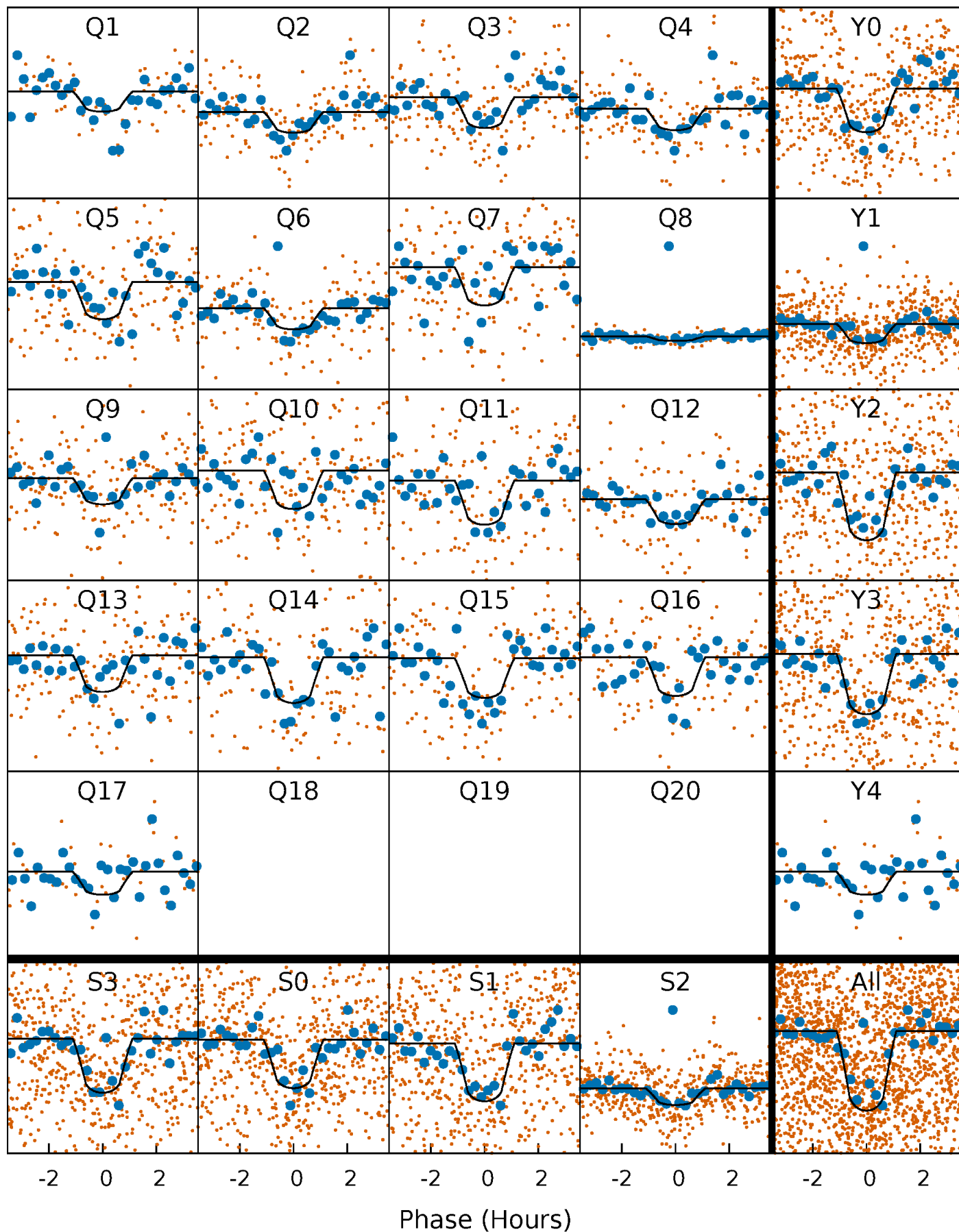
PDC Quarter-Phased Transit Curves

TCE 005125347-01 P= 7.165224 Days $T_0=132.967254$ (BKJD)



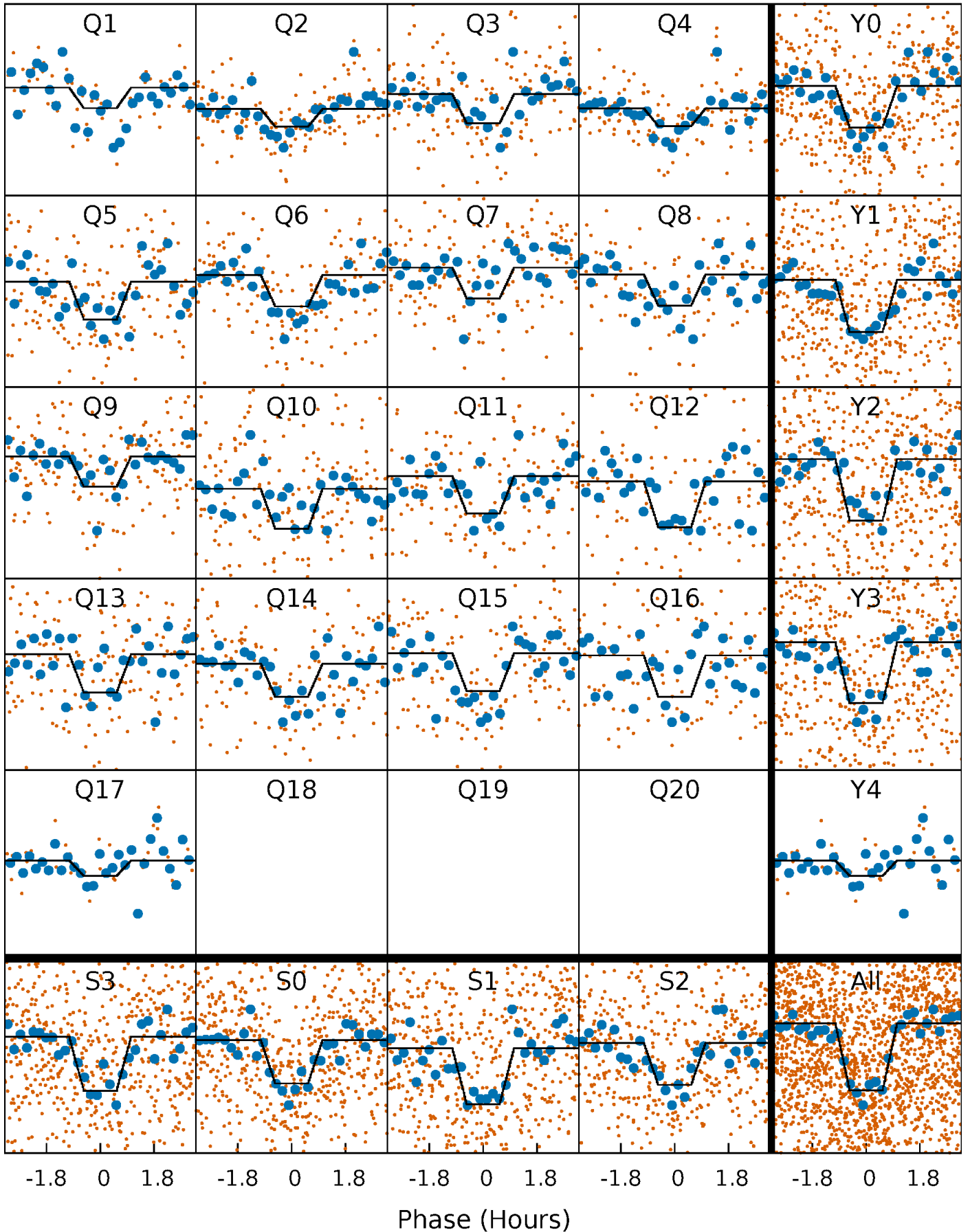
DV Quarter-Phased Transit Curves

TCE 005125347-01 P= 7.165224 Days $T_0=132.967254$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

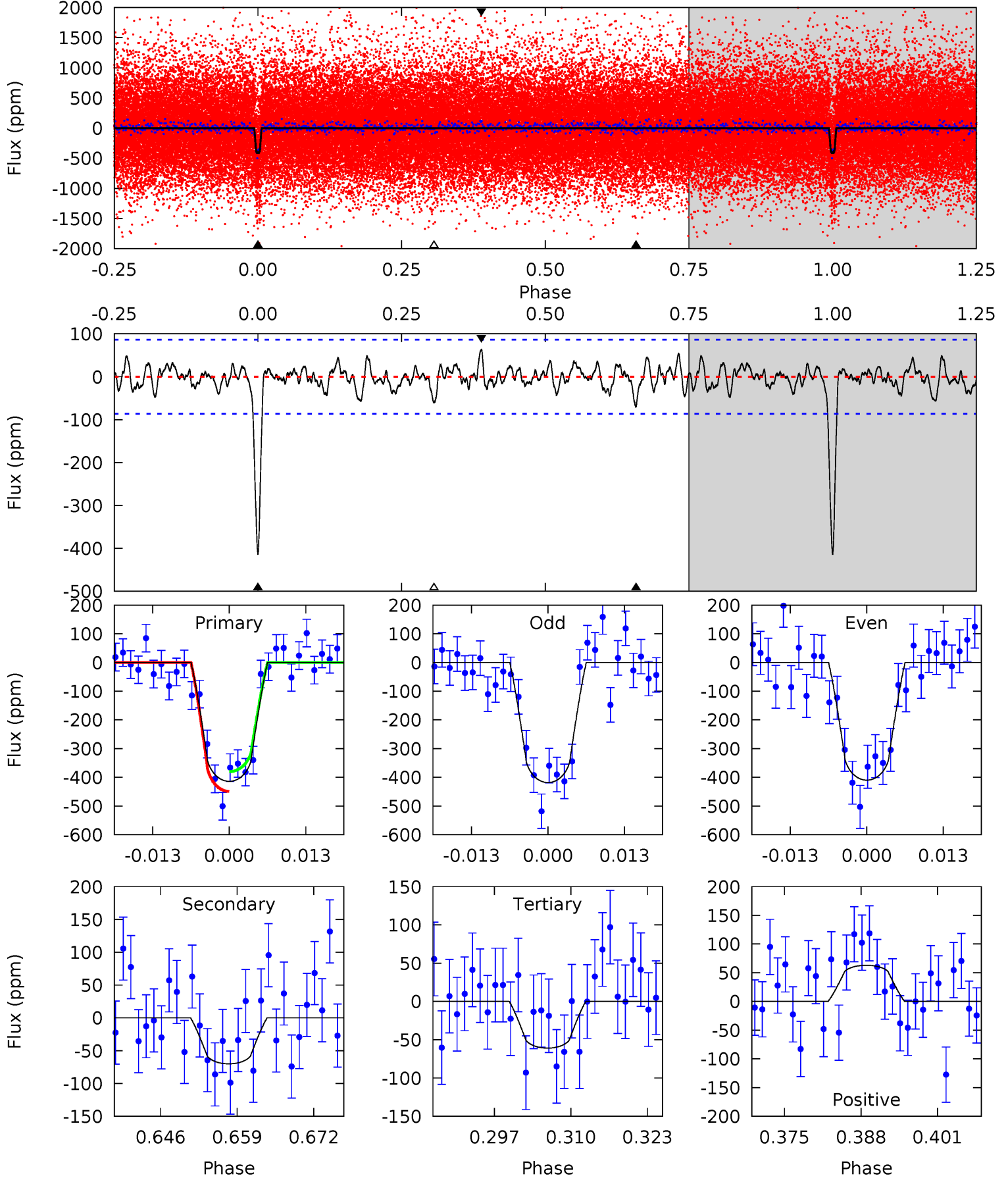
TCE 005125347-01 P= 7.165211 Days $T_0=132.968831$ (BKJD)



DV Model-Shift Uniqueness Test

005125347-01, P = 7.165224 Days, E = 125.802030 Days

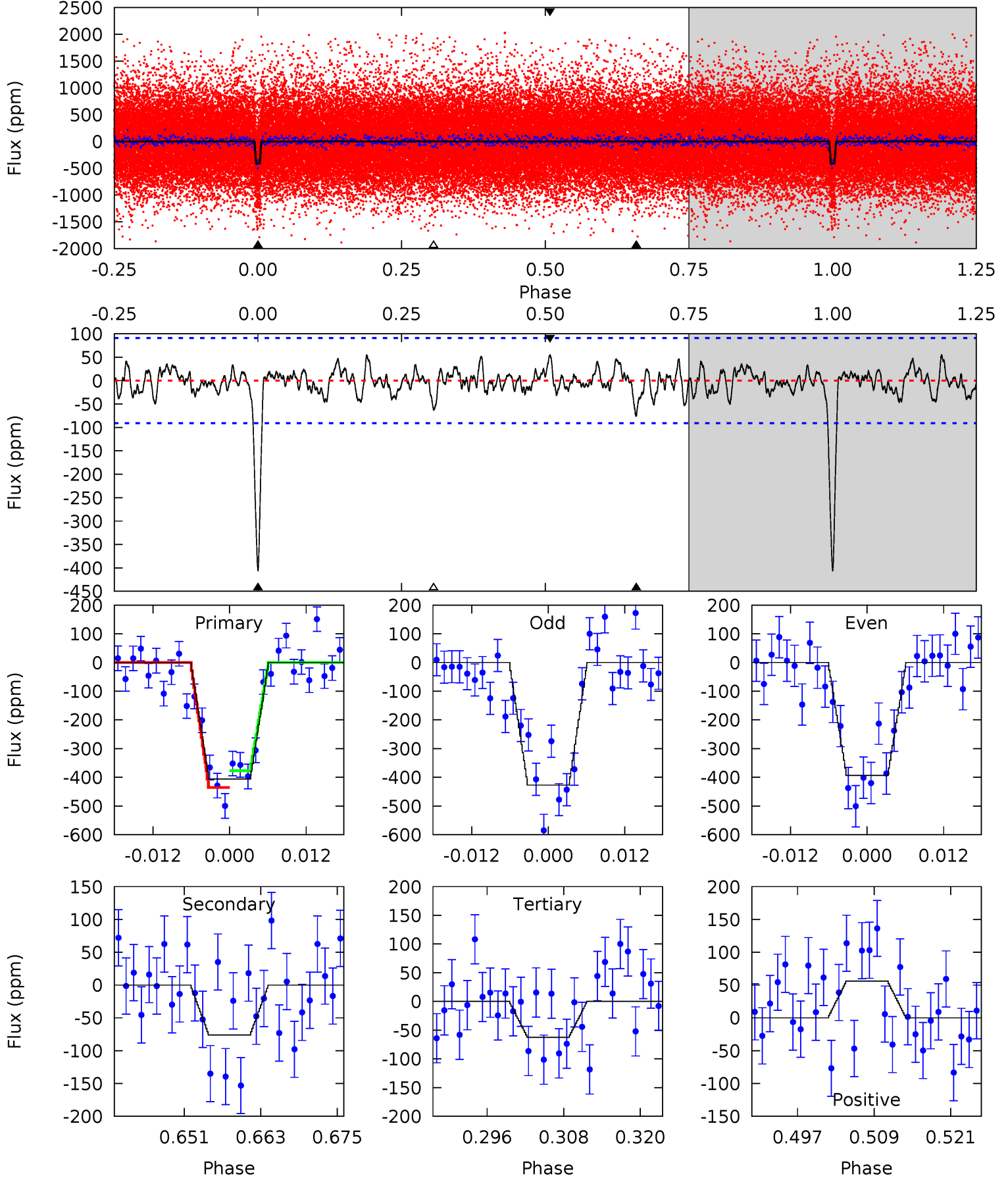
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	4.04	3.51	3.63	4.98	2.49	1.19	20.4	20.2	0.52	0.41	0.24	0.69	0.13	1.99



Alt Model-Shift Uniqueness Test

005125347-01, P = 7.165211 Days, E = 125.803620 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	4.18	3.43	3.07	4.99	2.52	1.12	18.9	19.2	0.74	1.11	0.92	0.90	0.12	1.61



Stellar Parameters For KIC 005125347

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6174^{+173}_{-260}	$4.417^{+0.054}_{-0.216}$	$0.100^{+0.250}_{-0.300}$	$1.103^{+0.358}_{-0.128}$	$1.162^{+0.158}_{-0.158}$	$1.220^{+0.369}_{-0.667}$
	+3%/-4%	+1%/-5%	+250%/-300%	+32%/-12%	+14%/-14%	+30%/-55%
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 005125347-01 / KOI 2241.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-70 ± 17	$2.44^{+1.63}_{-1.42}$	1477^{+107}_{-80}	4251^{+1995}_{-691}	37^{+184}_{-24}
Alt.	-76 ± 18	$2.64^{+1.66}_{-1.49}$	1476^{+113}_{-83}	4224^{+1727}_{-677}	34^{+137}_{-22}

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

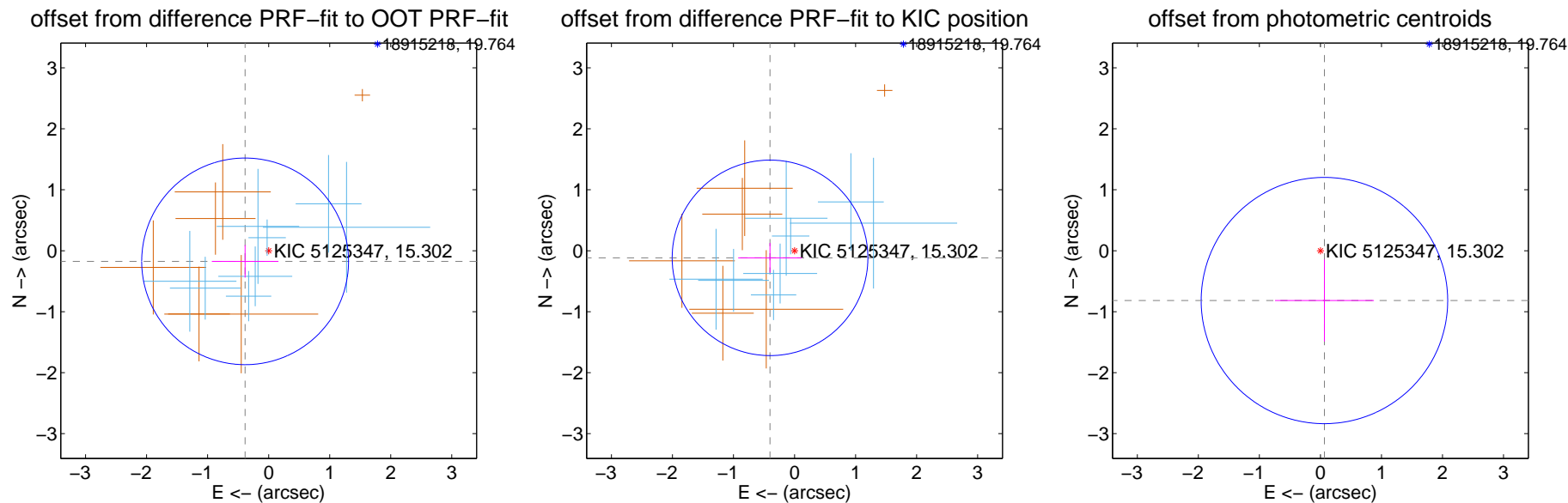
DV Centroid Data

Supplemental centroid analysis for 005125347-01. Kepler magnitude: 15.30. Transit SNR 17.49

There are 8 quarters with good PRF difference image offsets

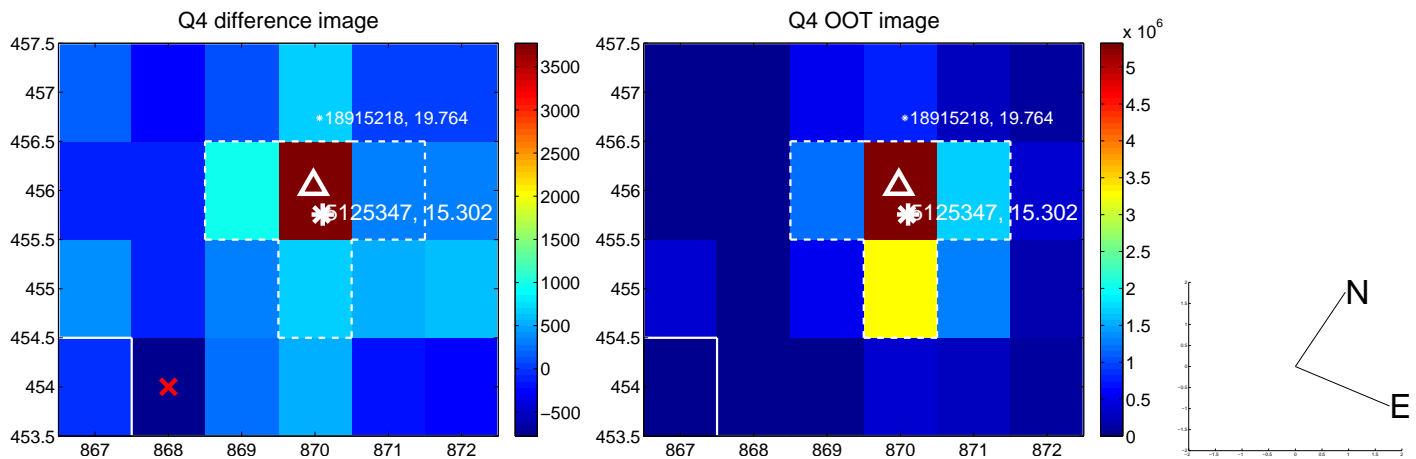
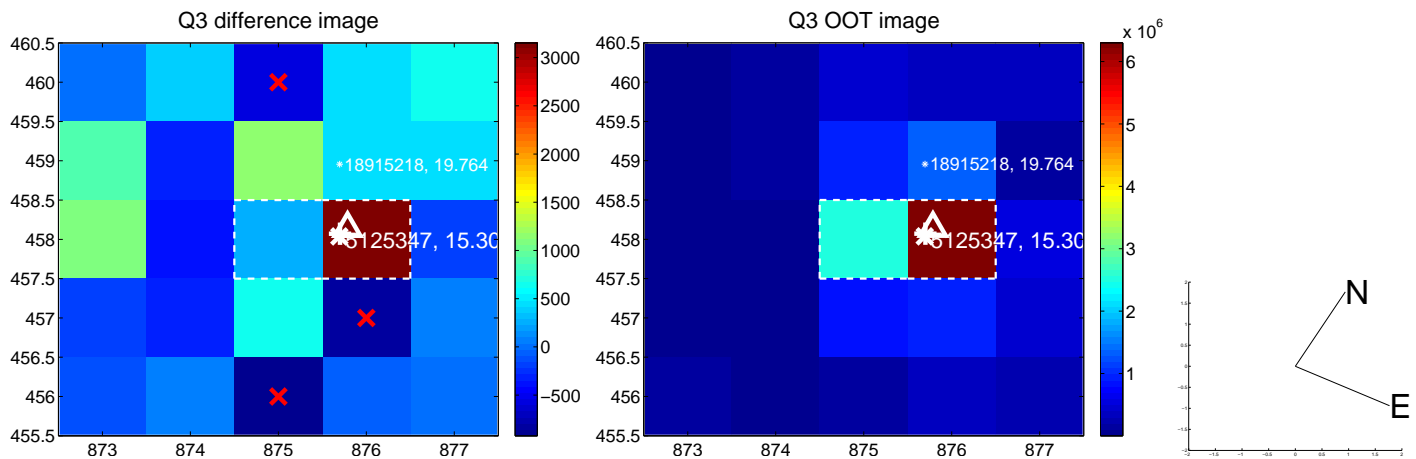
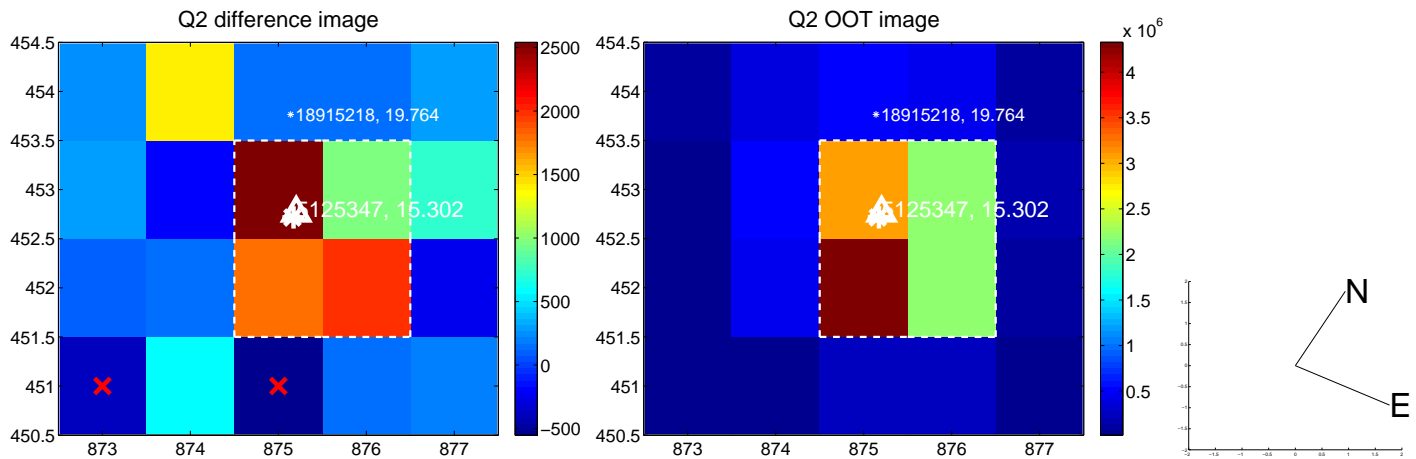
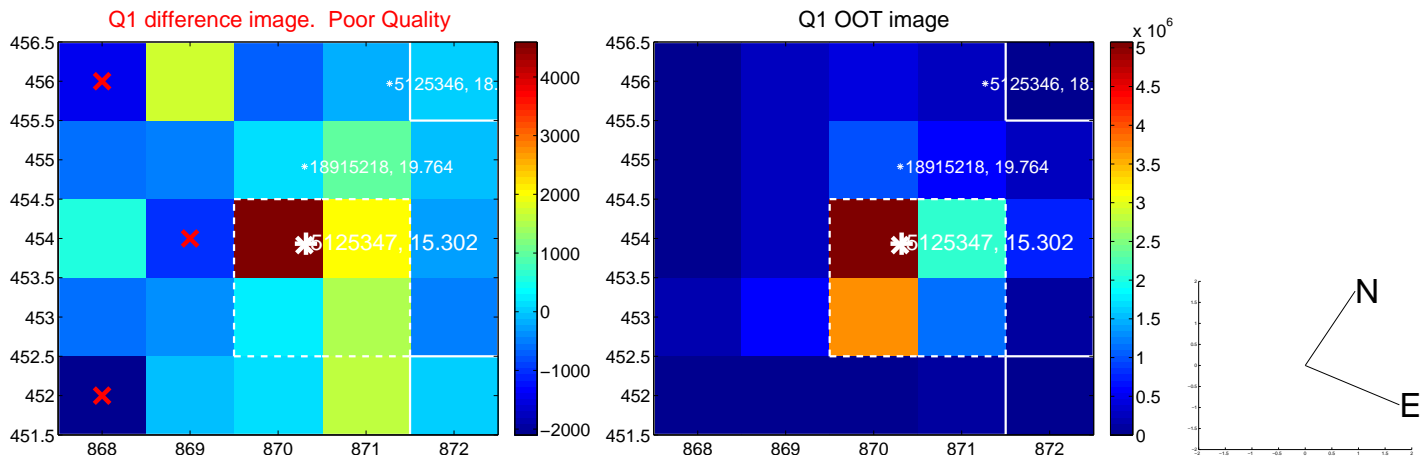
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.423 ± 0.565	0.75	0.386 ± 0.546	-0.174 ± 0.267
PRF-fit source offset from KIC position	0.418 ± 0.534	0.78	0.402 ± 0.521	-0.117 ± 0.244
photometric centroid source offset	0.82 ± 0.67	1.22	-0.07 ± 0.81	-0.82 ± 0.67

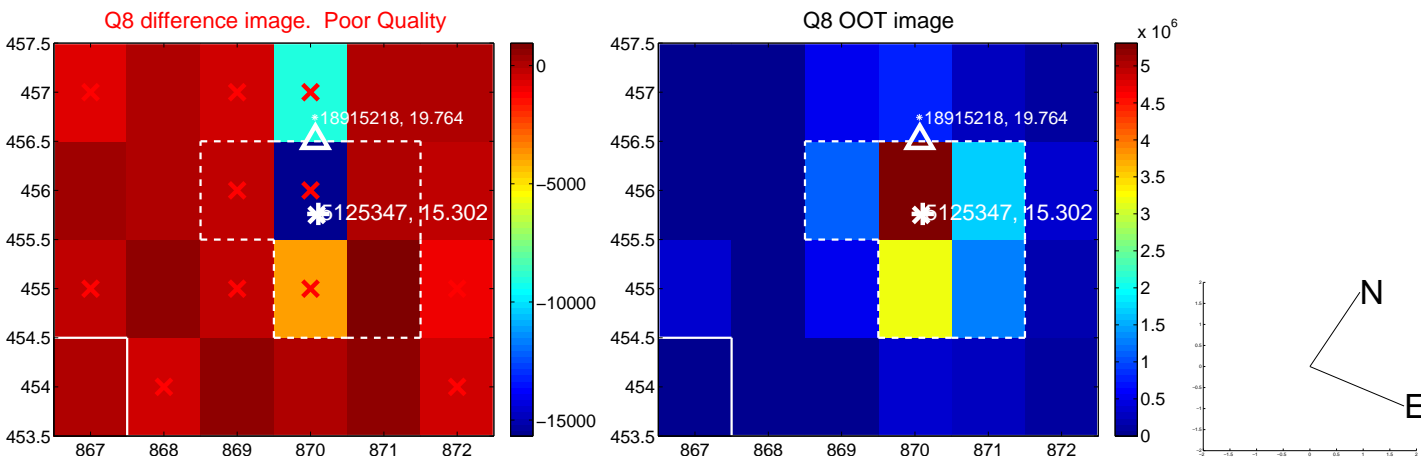
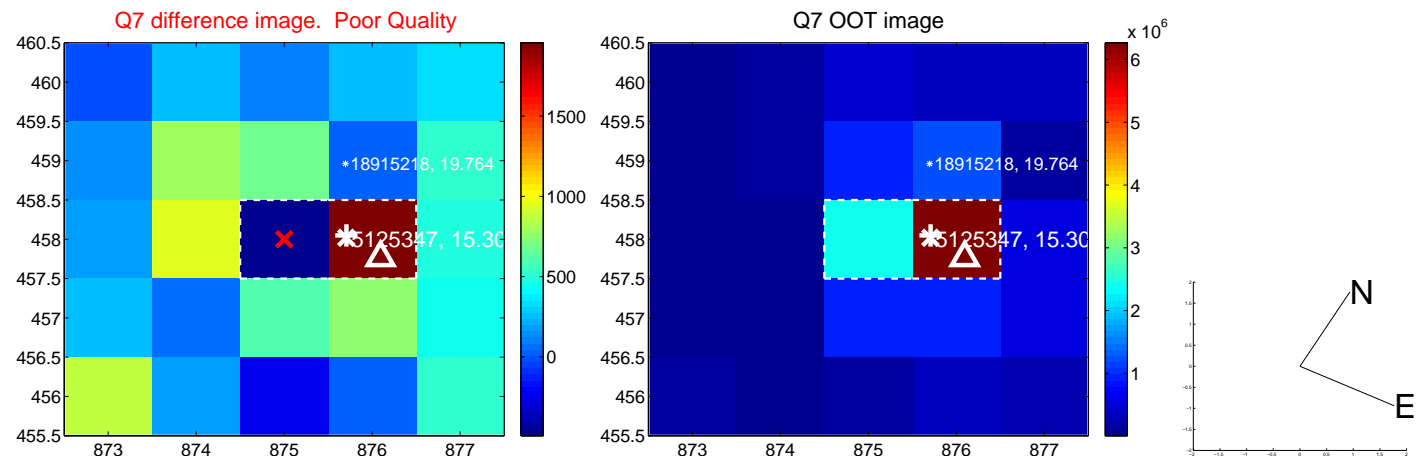
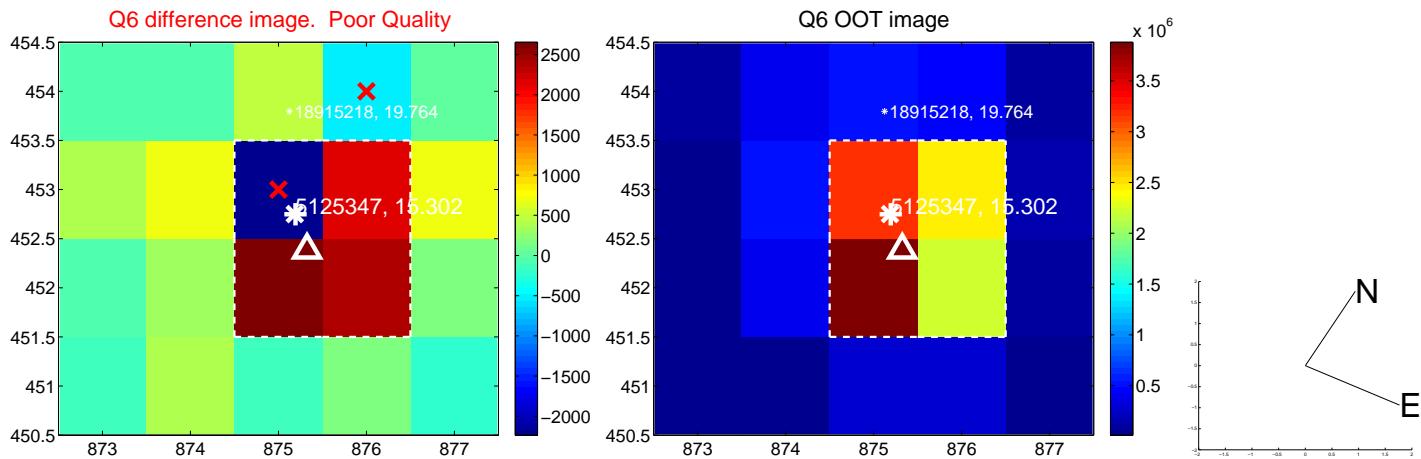
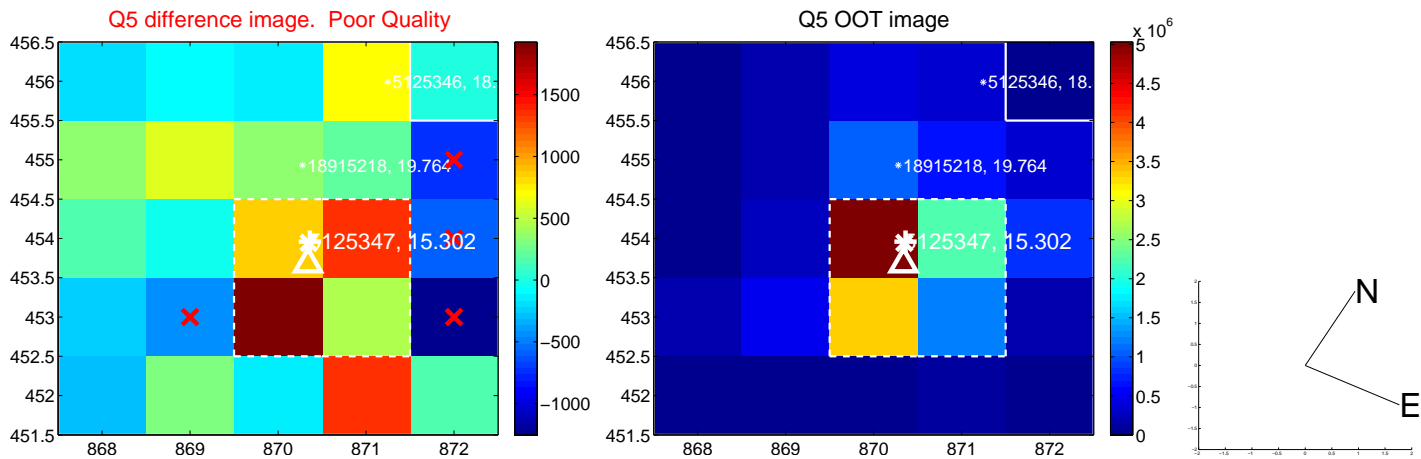


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

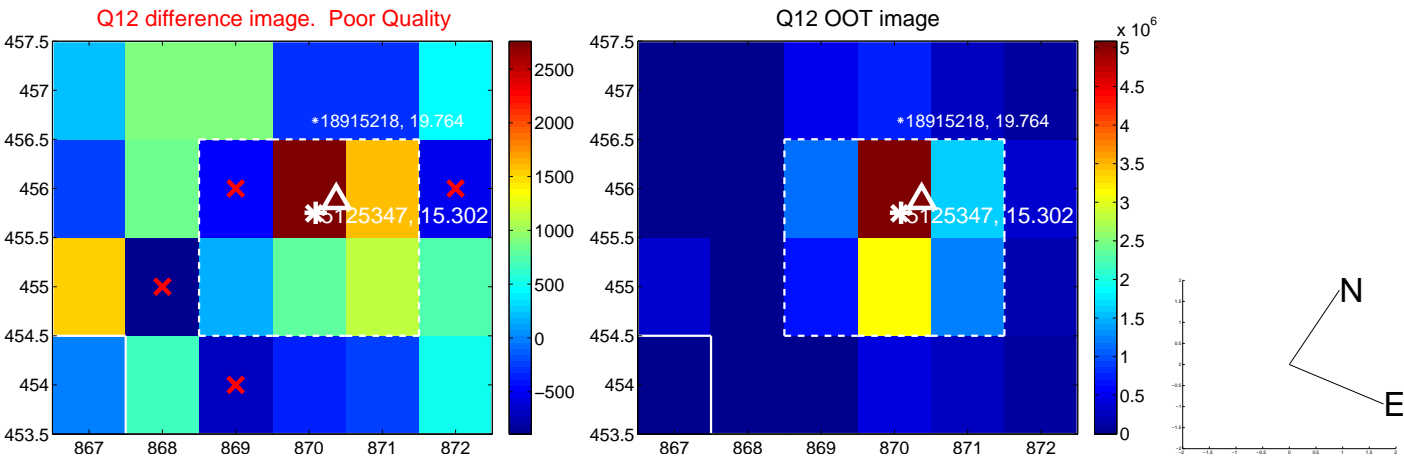
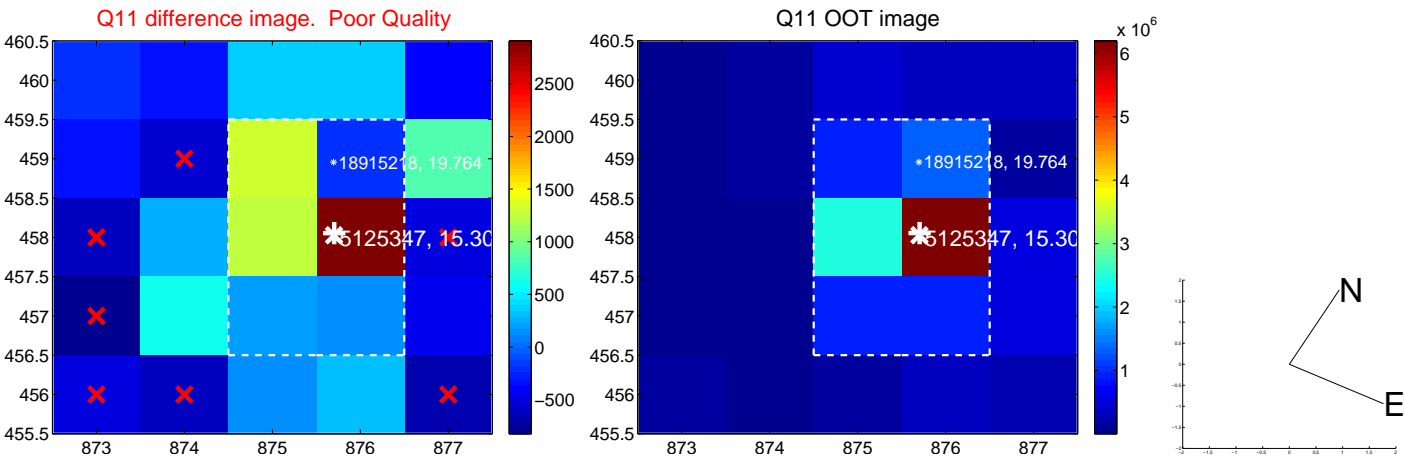
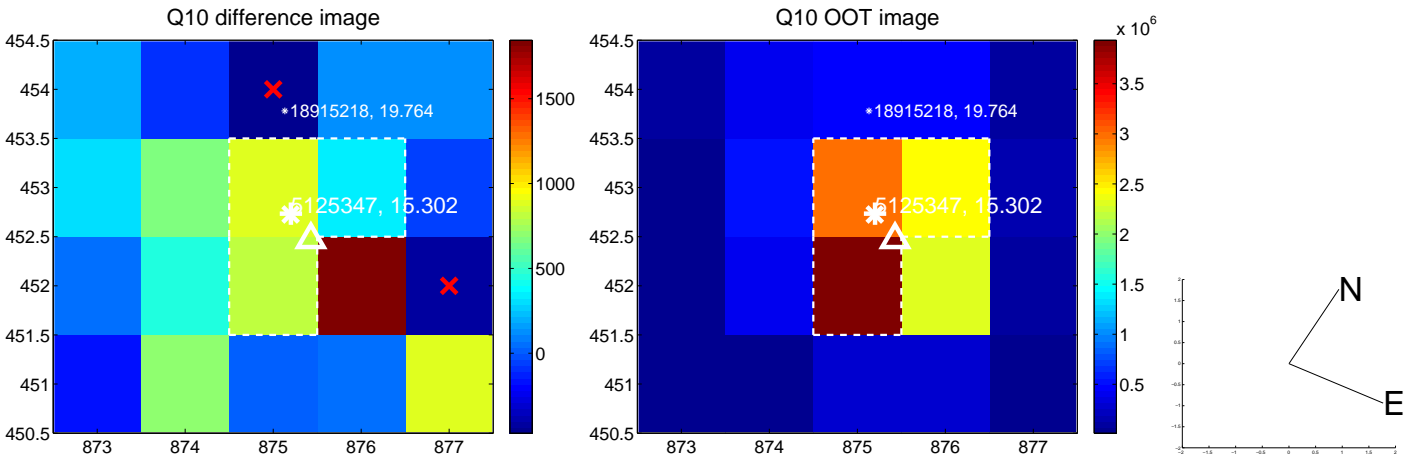
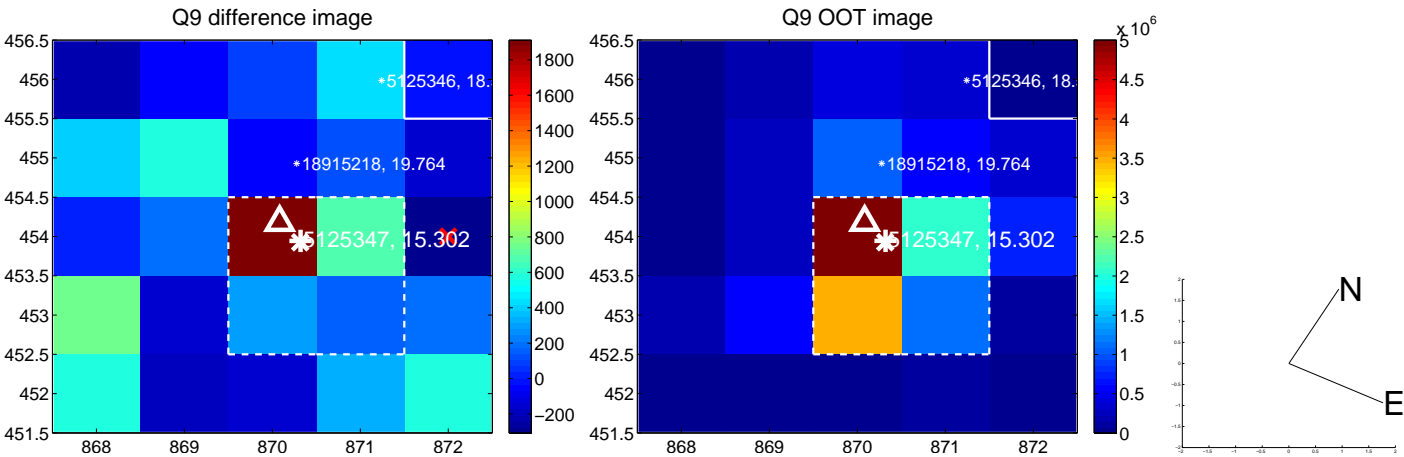
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



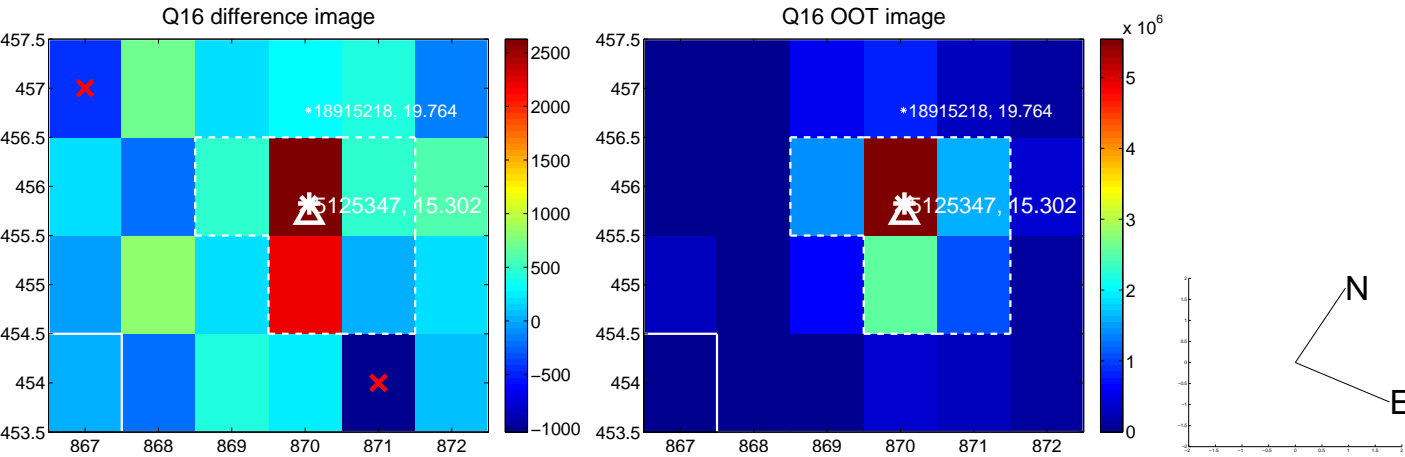
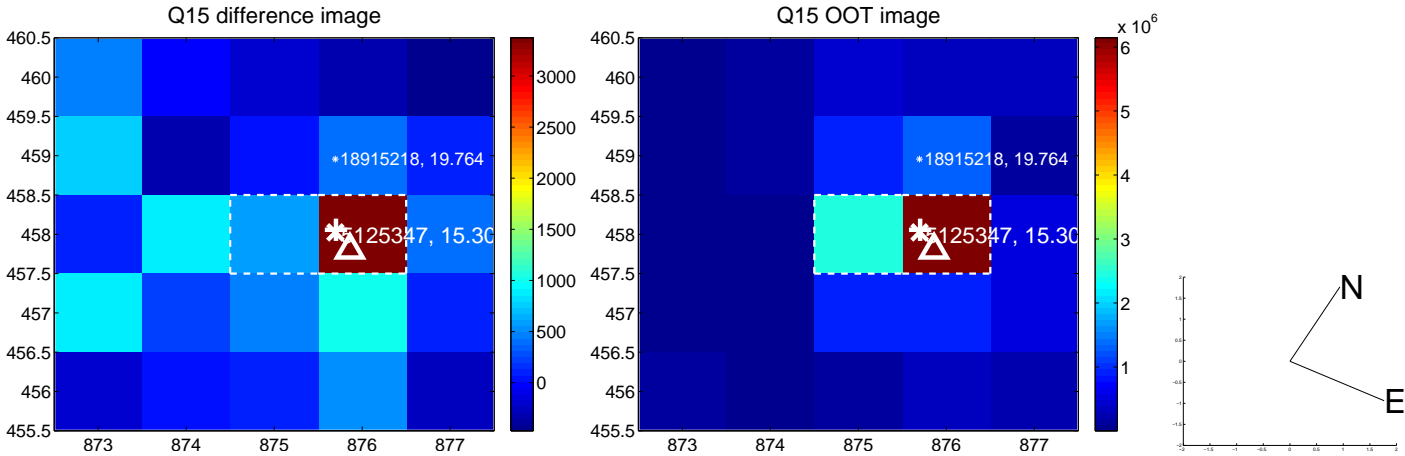
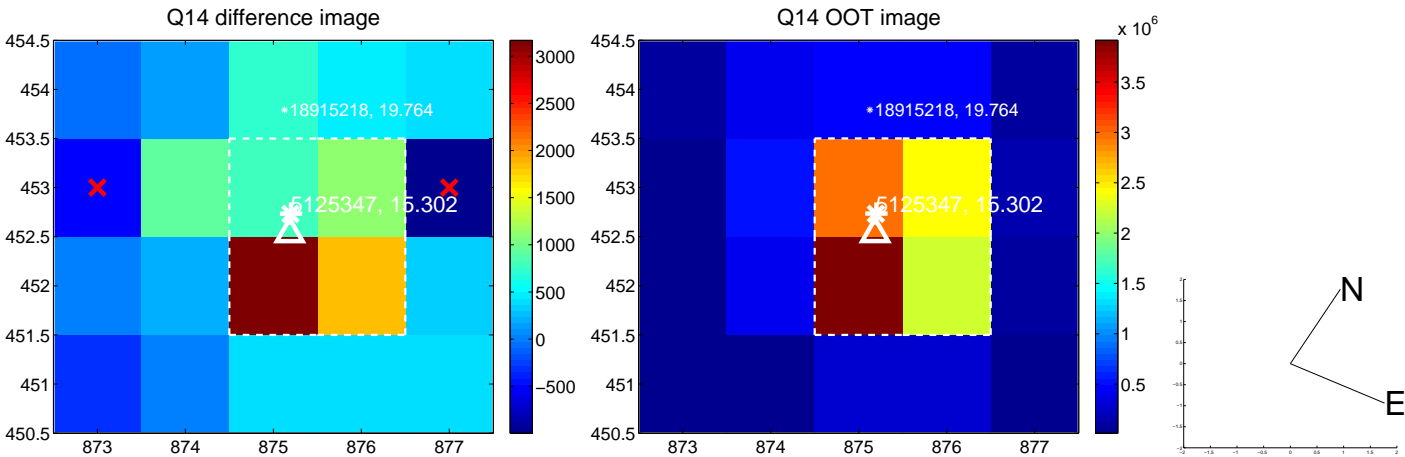
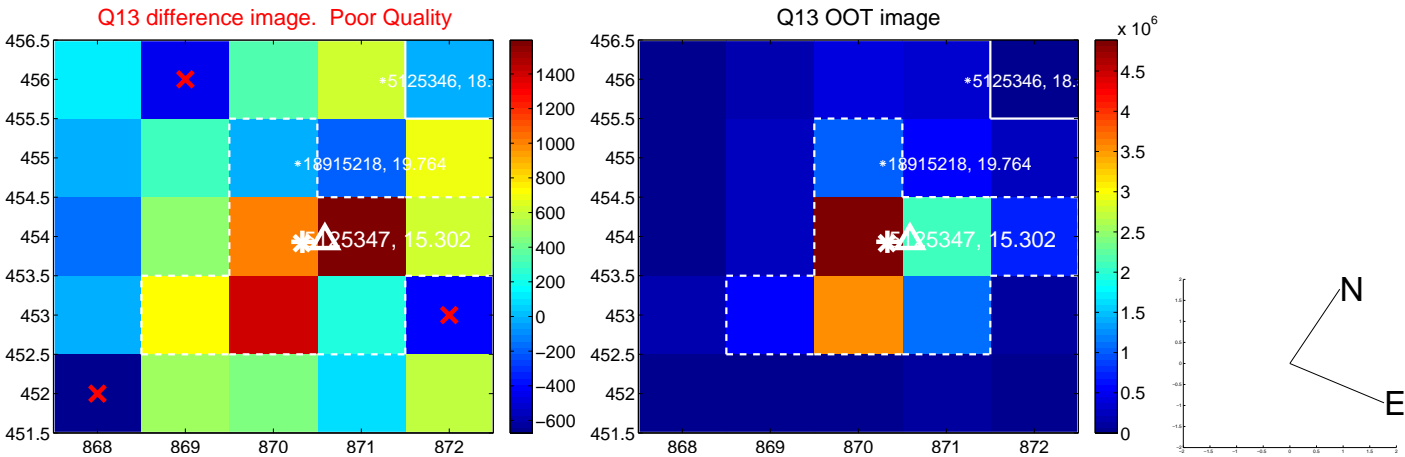
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



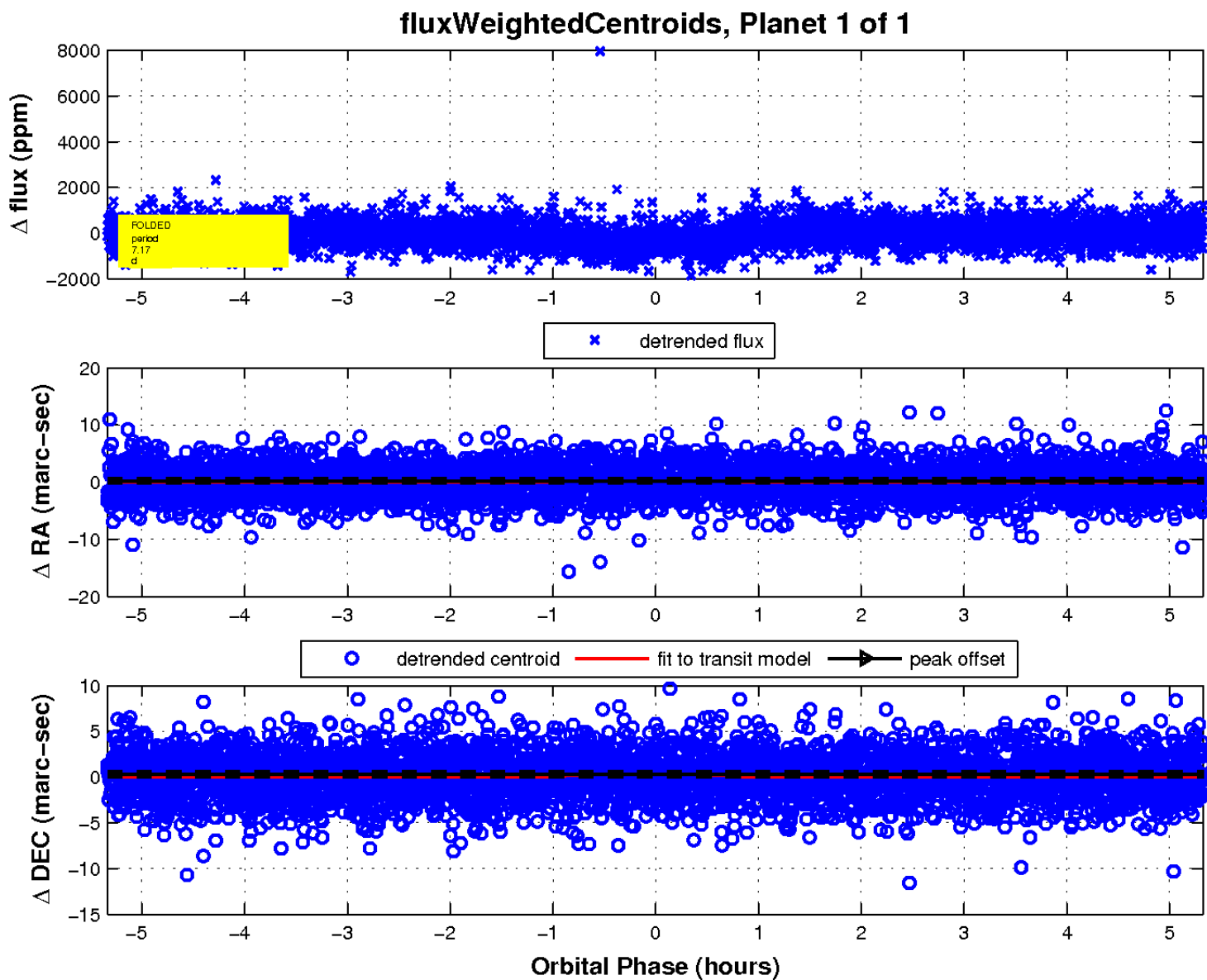
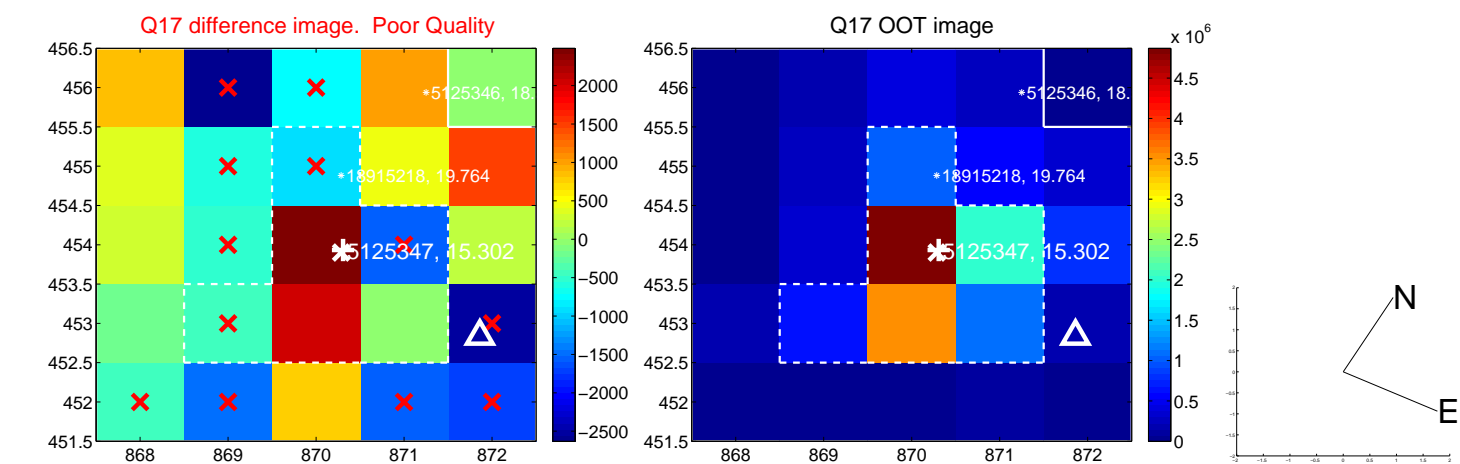
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

