KIC 006365321

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 ($S_\oplus$)
006365321-01	OBS	1123.01	0.848491	131.886805	838.9	0.853	37.5	77.7	0.94	5941	3.26	3135.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006365321-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_ALT

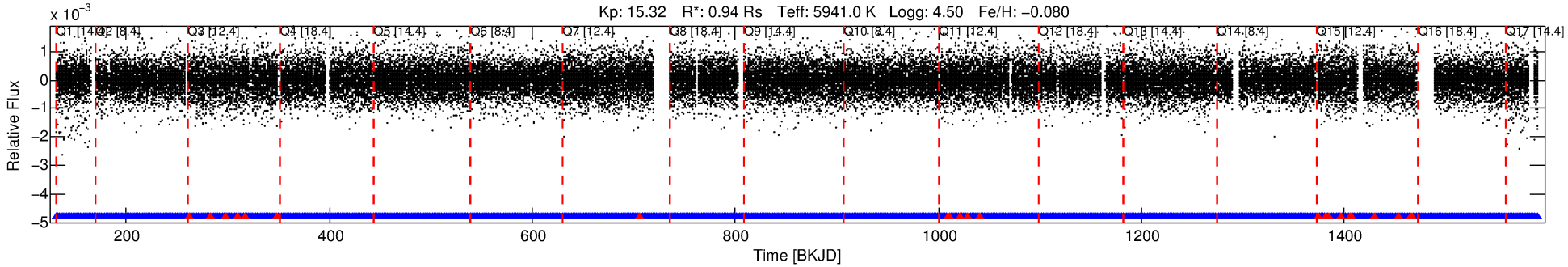
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

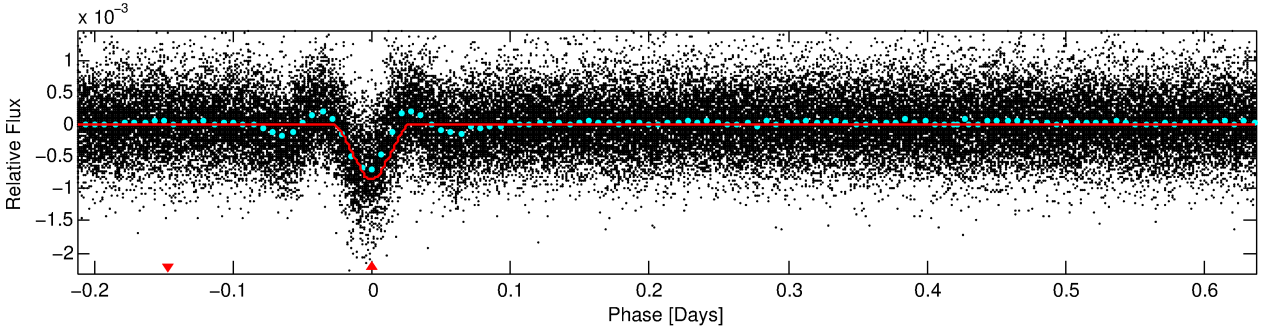
Ephemeris Match Information For 006365321-01

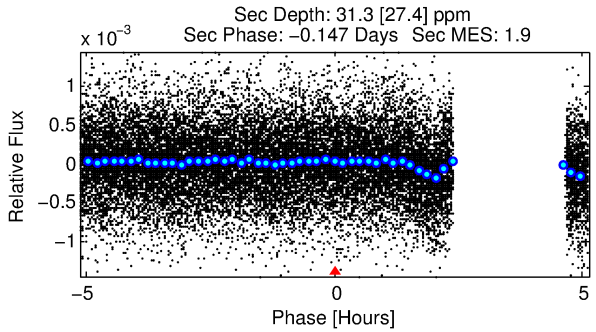
No Significant Match Found

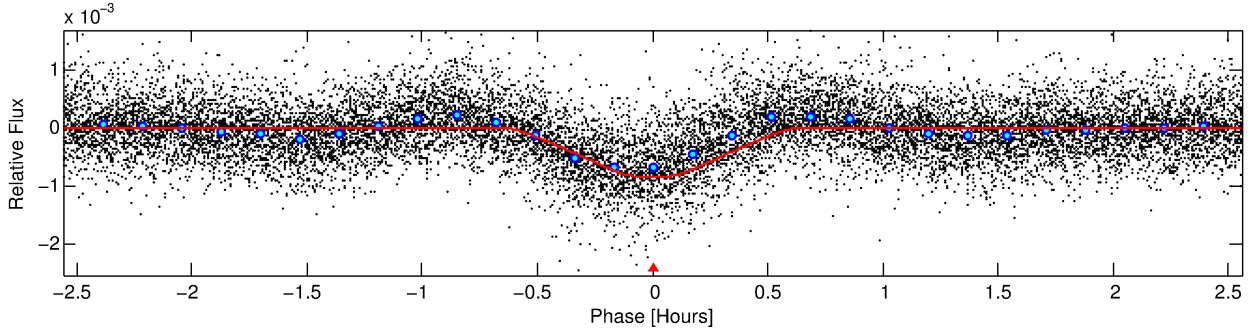
DV One-Page Summary

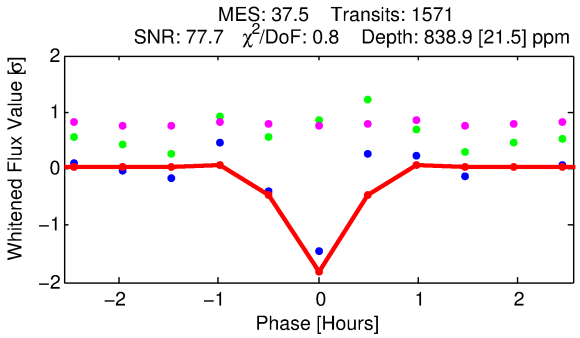
KIC: 6365321 Candidate: 1 of 1 Period: 0.848 d
KOI: K01123.01 Corr: 0.767

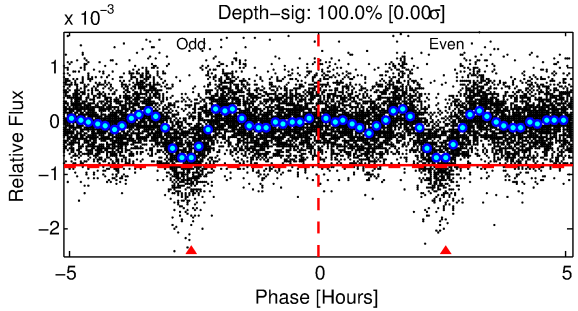


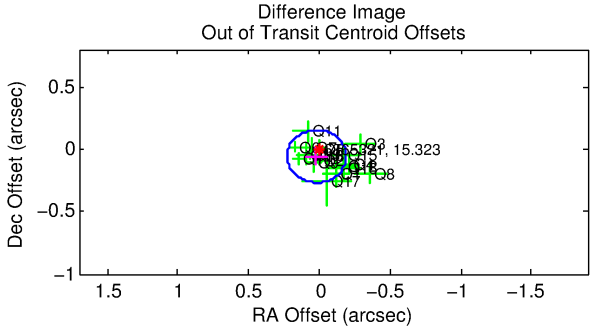












DV Fit Results:

Period = 0.84849 [0.00000] d
Epoch = 131.8868 [0.0002] BKJD
Rp/R* = 0.0319 [0.0028]
a/R* = 3.95 [1.49]
b = 0.90 [0.09]

Seff = 3135.60 [1292.61]
Teq = 1908 [197] K
Rp = 3.26 [1.07] Re
a = 0.0177 [0.0047] AU

Ag = 0.50 [0.49] [−1.00σ]
Teffp = 2486 [562] K [0.97σ]

DV Diagnostic Results:

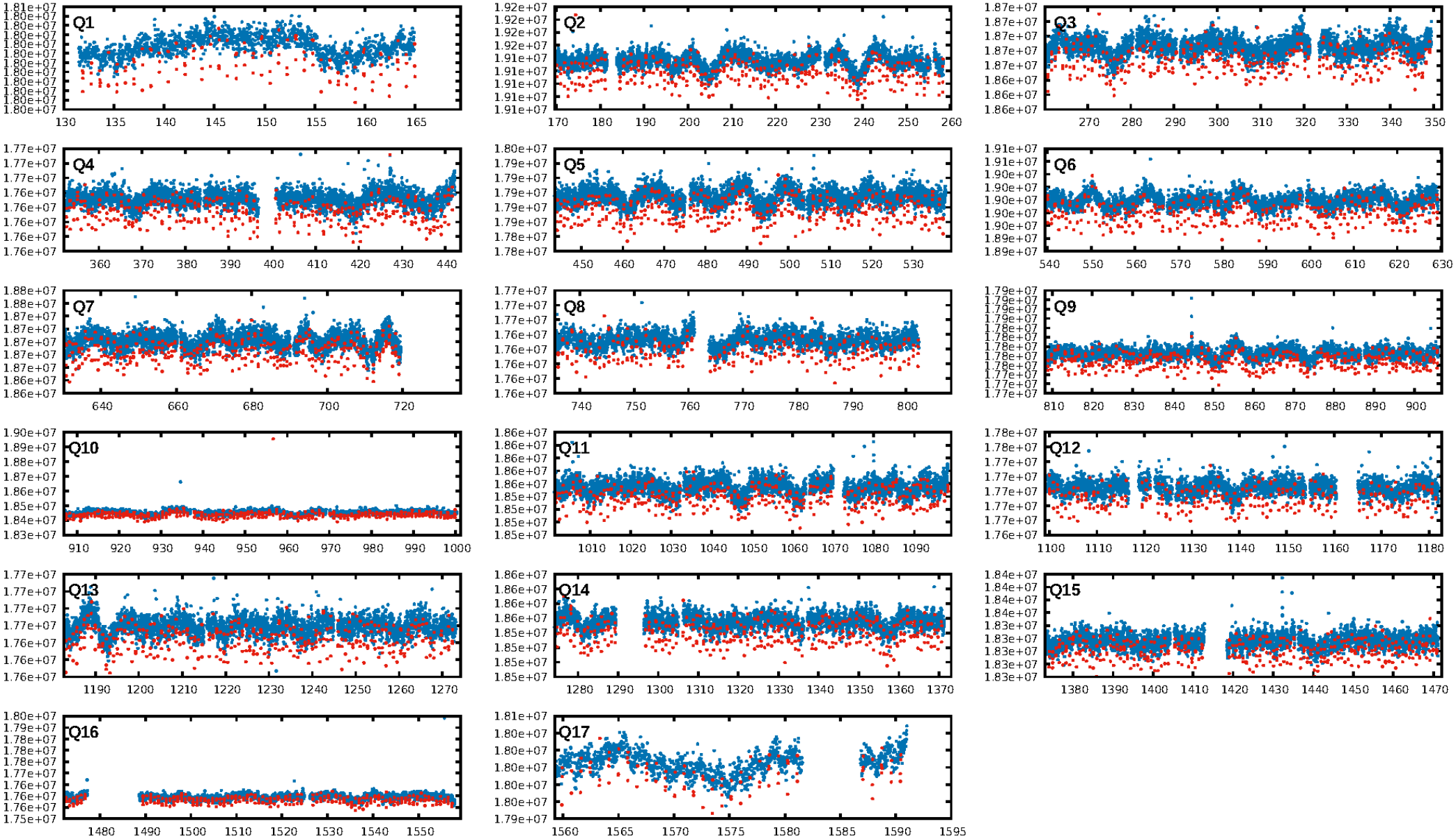
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 8.56e−286
RollingBand−fgt: 0.98 [1477/1500]
GhostDiagnostic−chr: 1.229

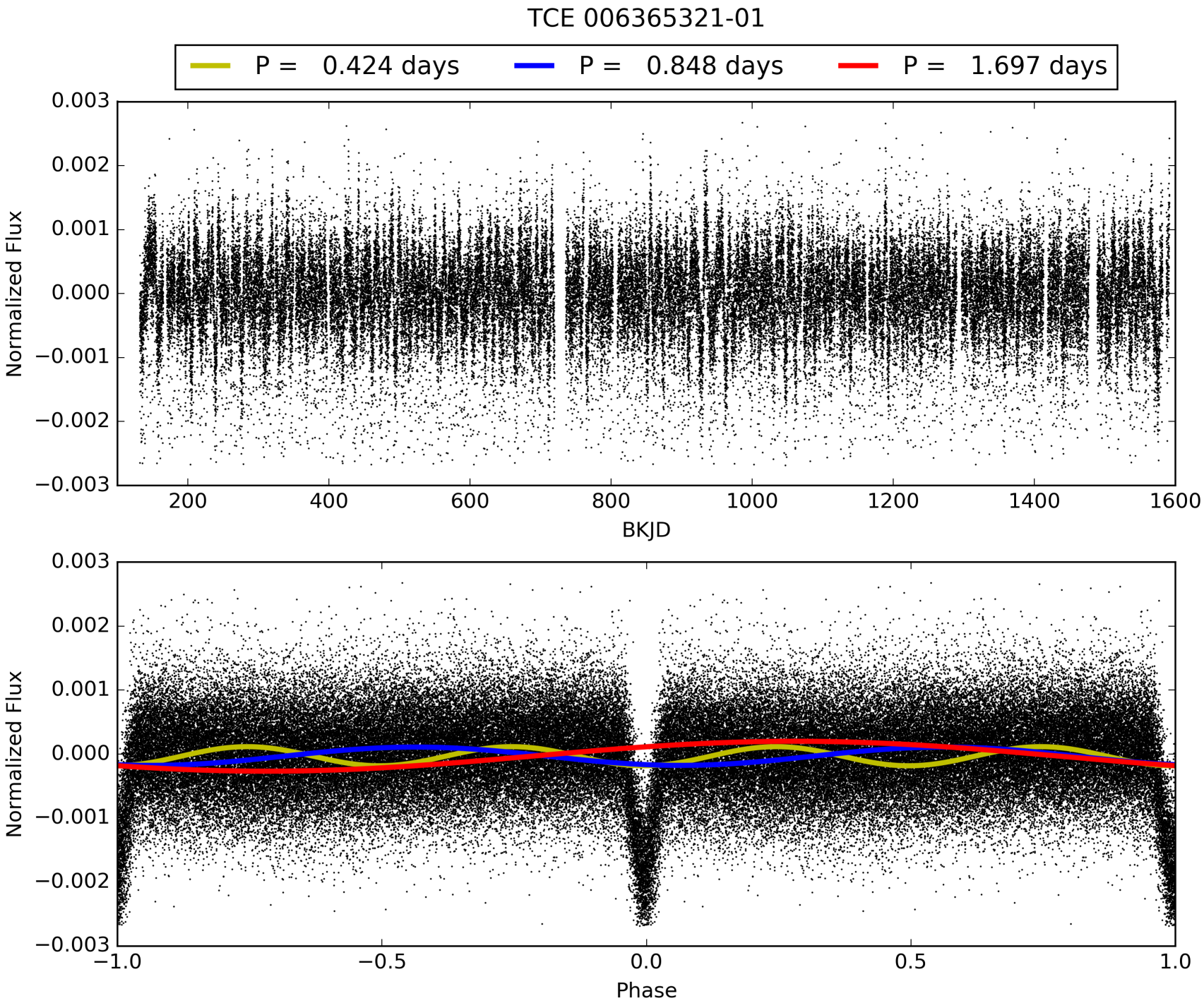
Centroid−sig: 83.9%
Centroid−so: 0.205 arcsec [1.17σ]
OotOffset−rm: 0.060 arcsec [0.86σ]
KicOffset−rm: 0.170 arcsec [2.23σ]
OotOffset−st: 4/4/4/5 [17]
KicOffset−st: 4/4/4/5 [17]
DiffImageQuality−fgm: 1.00 [17/17]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 00:37:28 Z

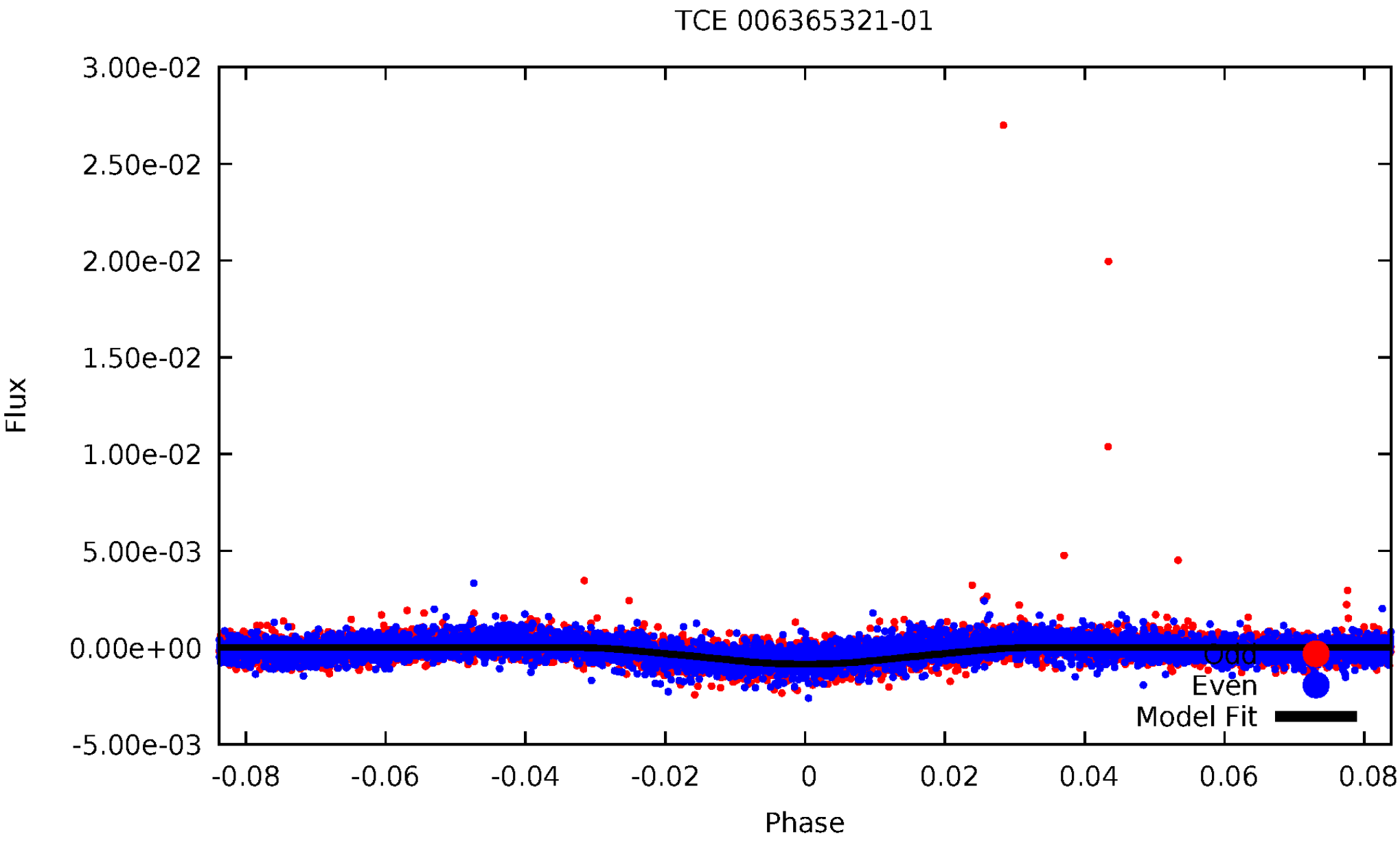
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006365321-01, PDC Light Curves

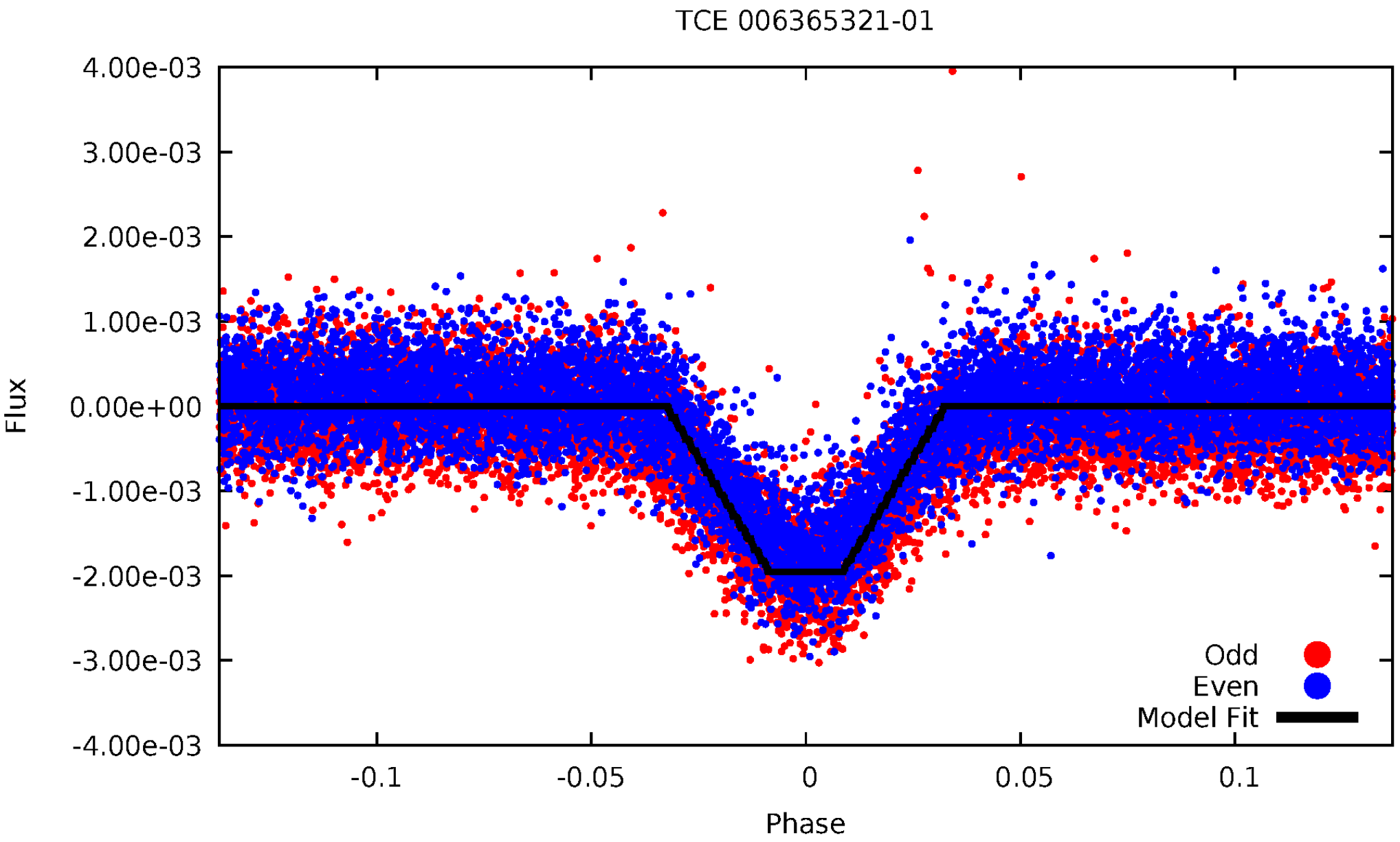



TCE 006365321-01
P = 0.424 days
P = 0.848 days
P = 1.697 days
Normalized Flux
BKJD
Phase

DV Odd/Even


TCE 006365321-01
3.00e-02
2.50e-02
2.00e-02
1.50e-02
1.00e-02
5.00e-03
0.00e+00
-5.00e-03
Flux
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
Phase
Odd
Even
Model Fit

ALT Odd/Even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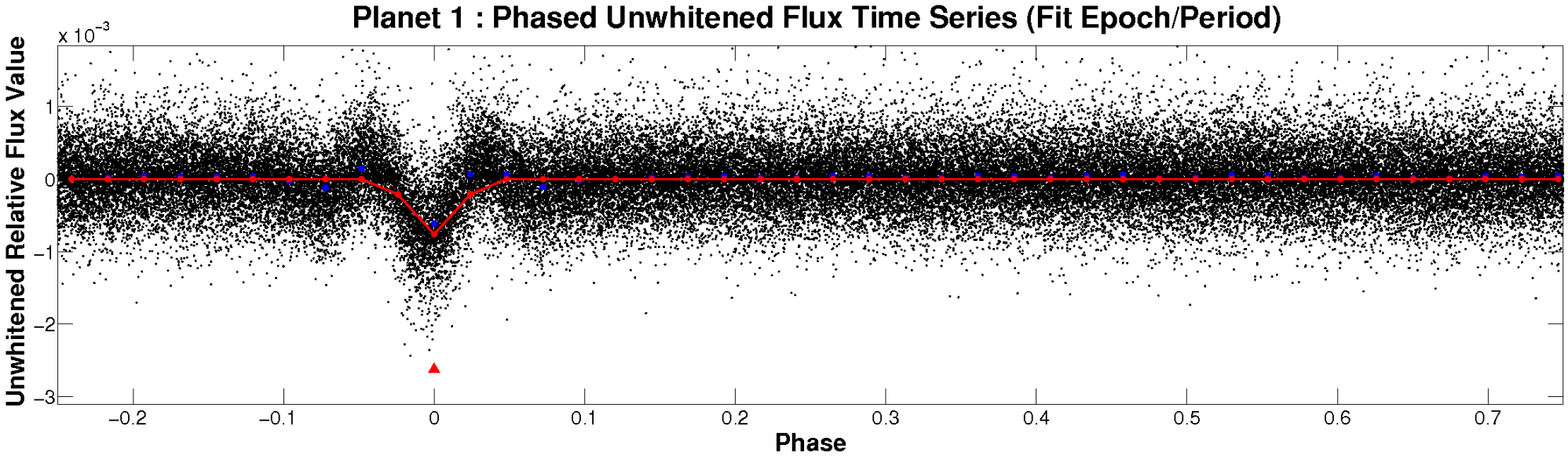
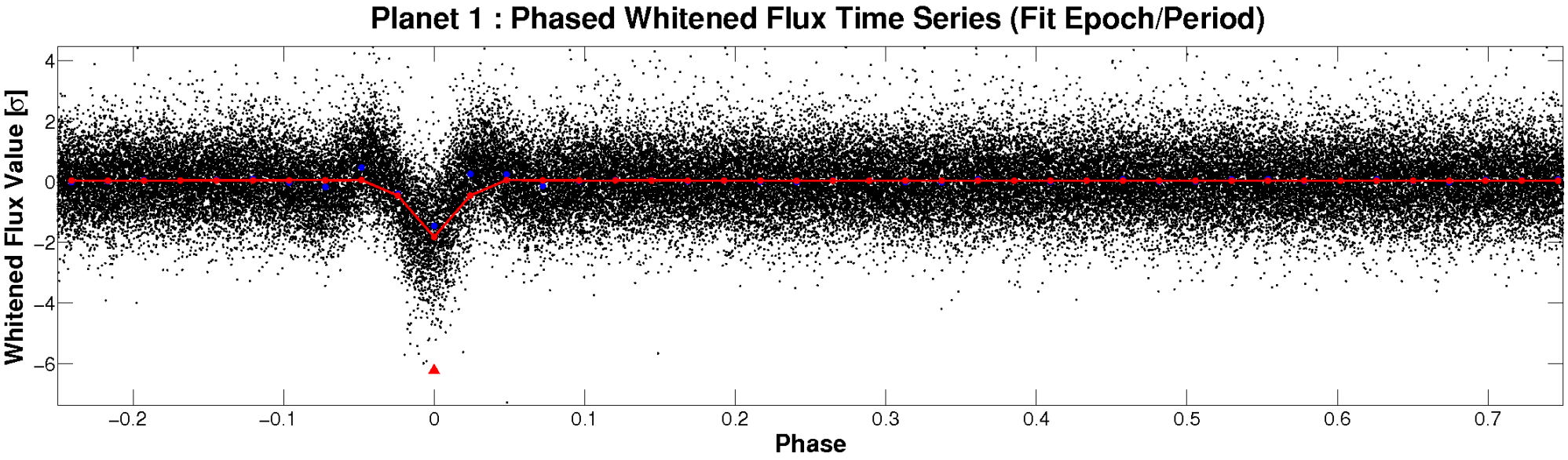
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.1
-0.05
0
0.05
0.1
Phase
Odd
Even
Model Fit

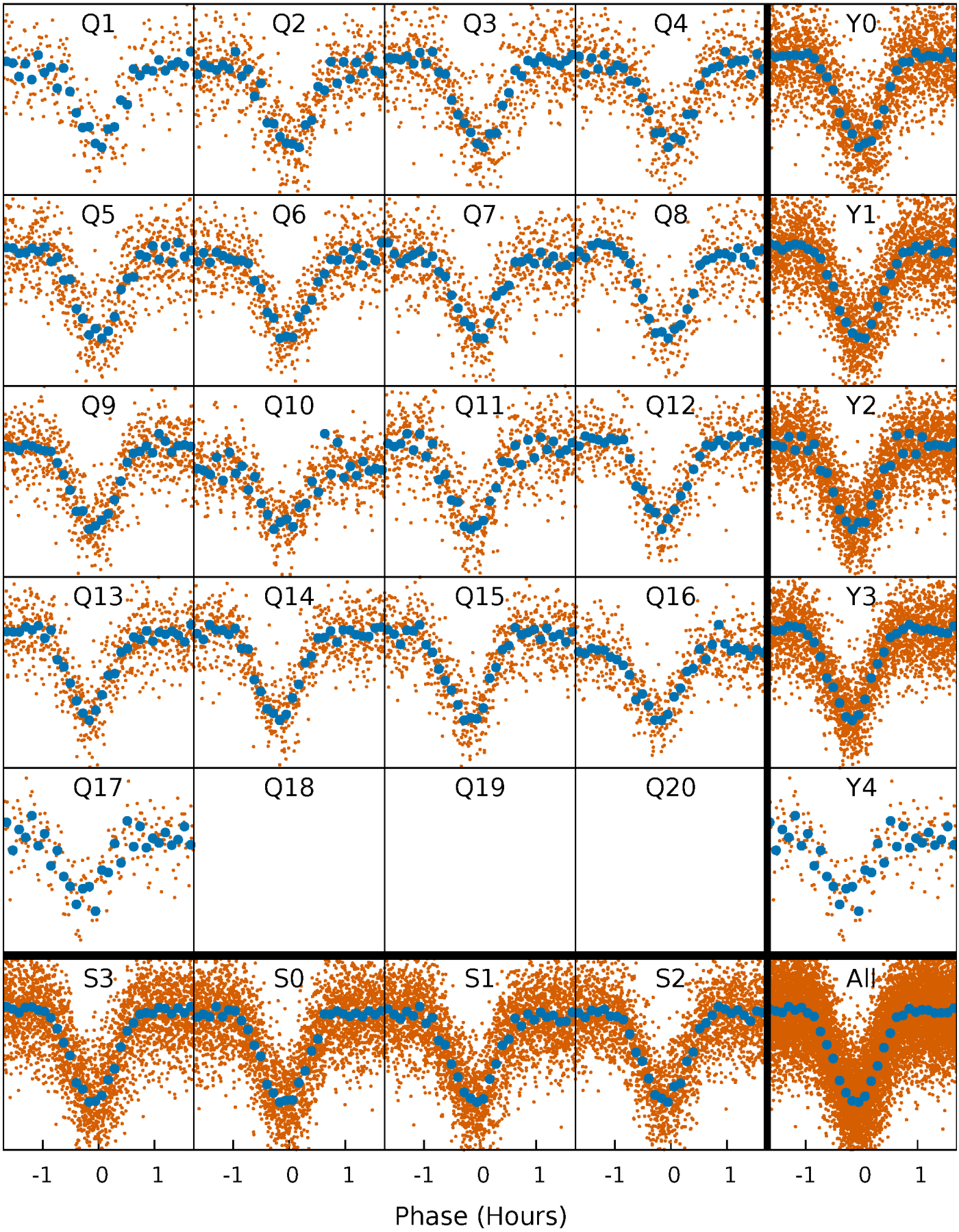
Non-Whitened Vs. Whitened Light Curve





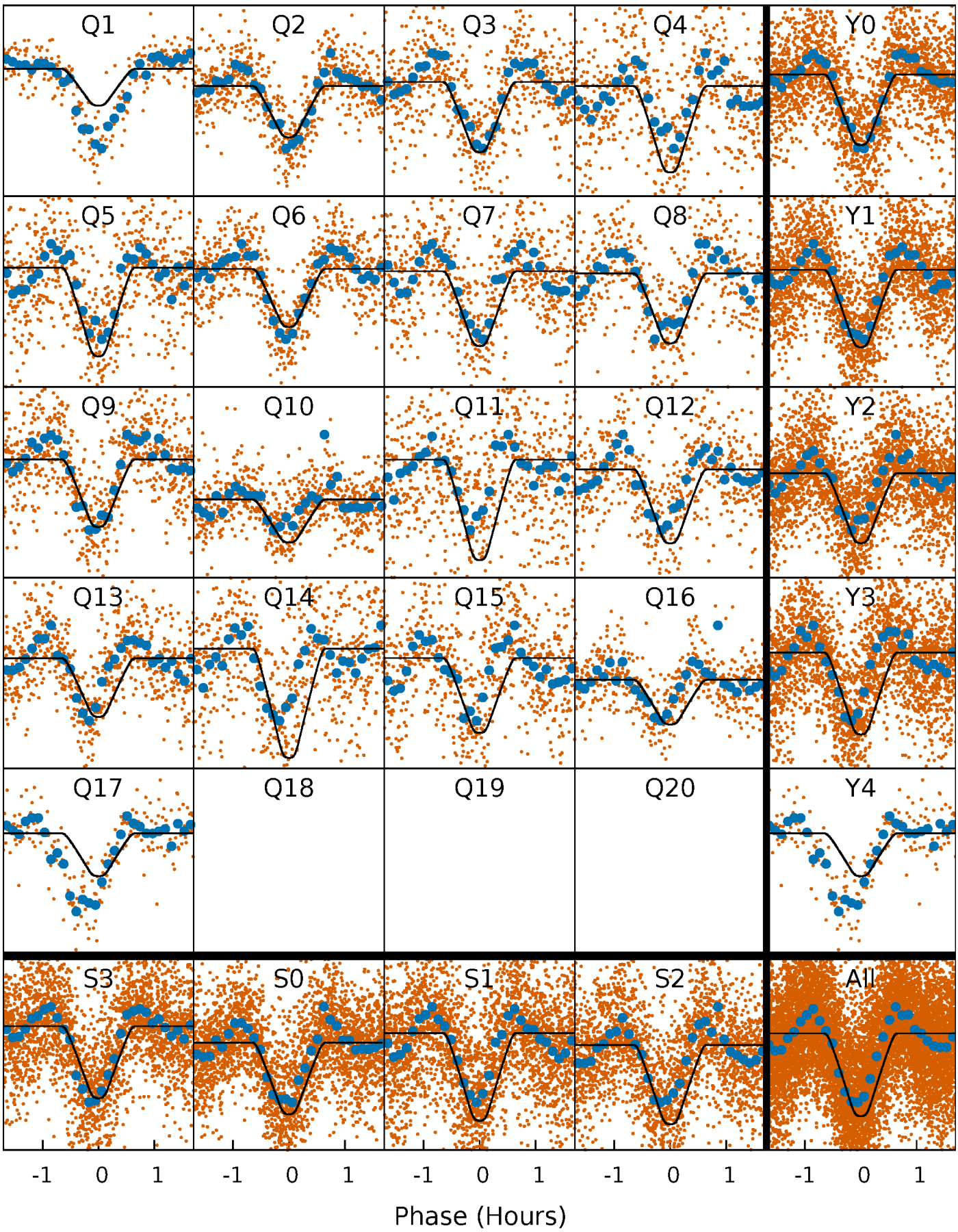
PDC Quarter-Phased Transit Curves

TCE 006365321-01 P= 0.848491 Days T_0=131.886805 (BKJD)



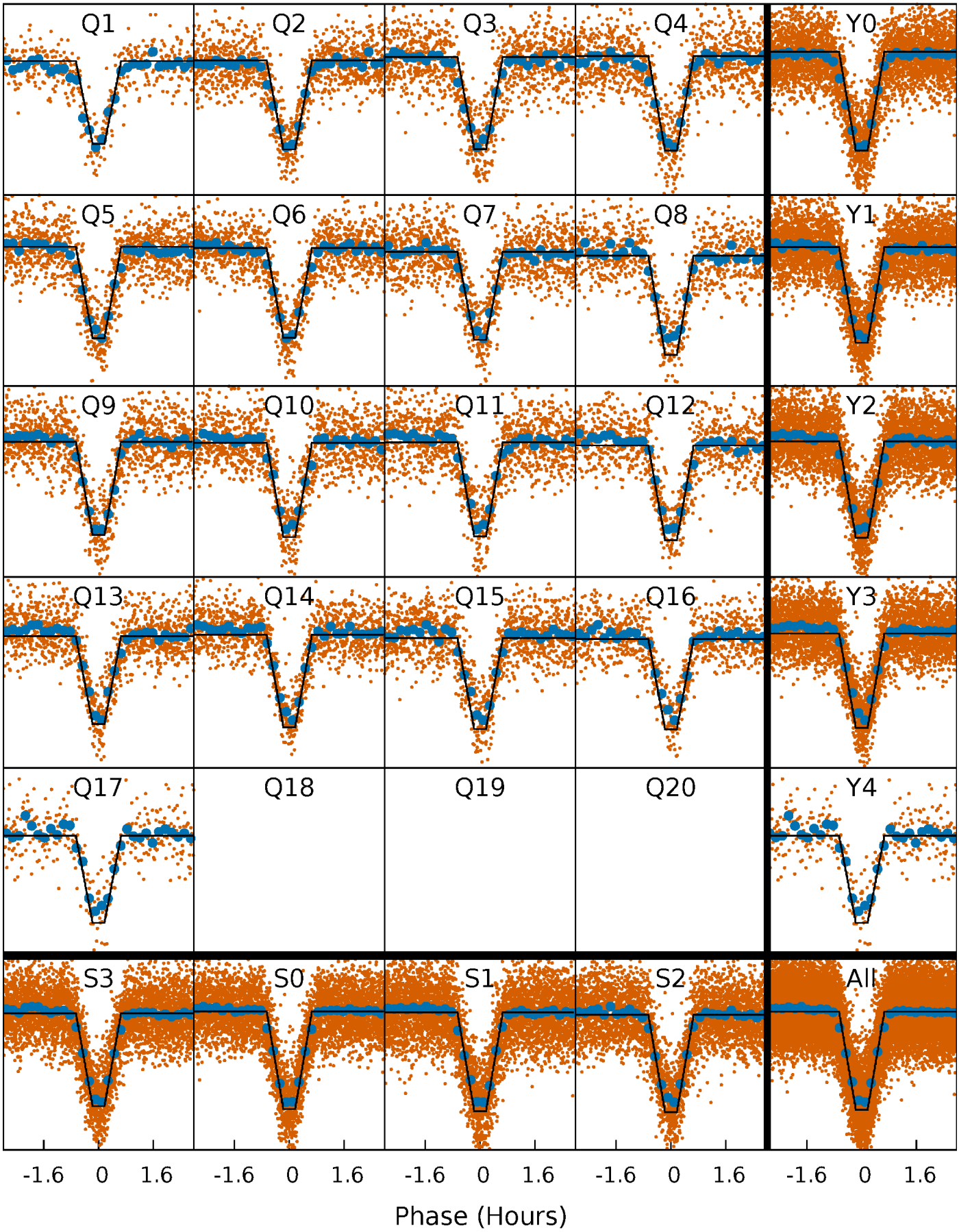
DV Quarter-Phased Transit Curves

TCE 006365321-01 P= 0.848491 Days T_0=131.886805 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

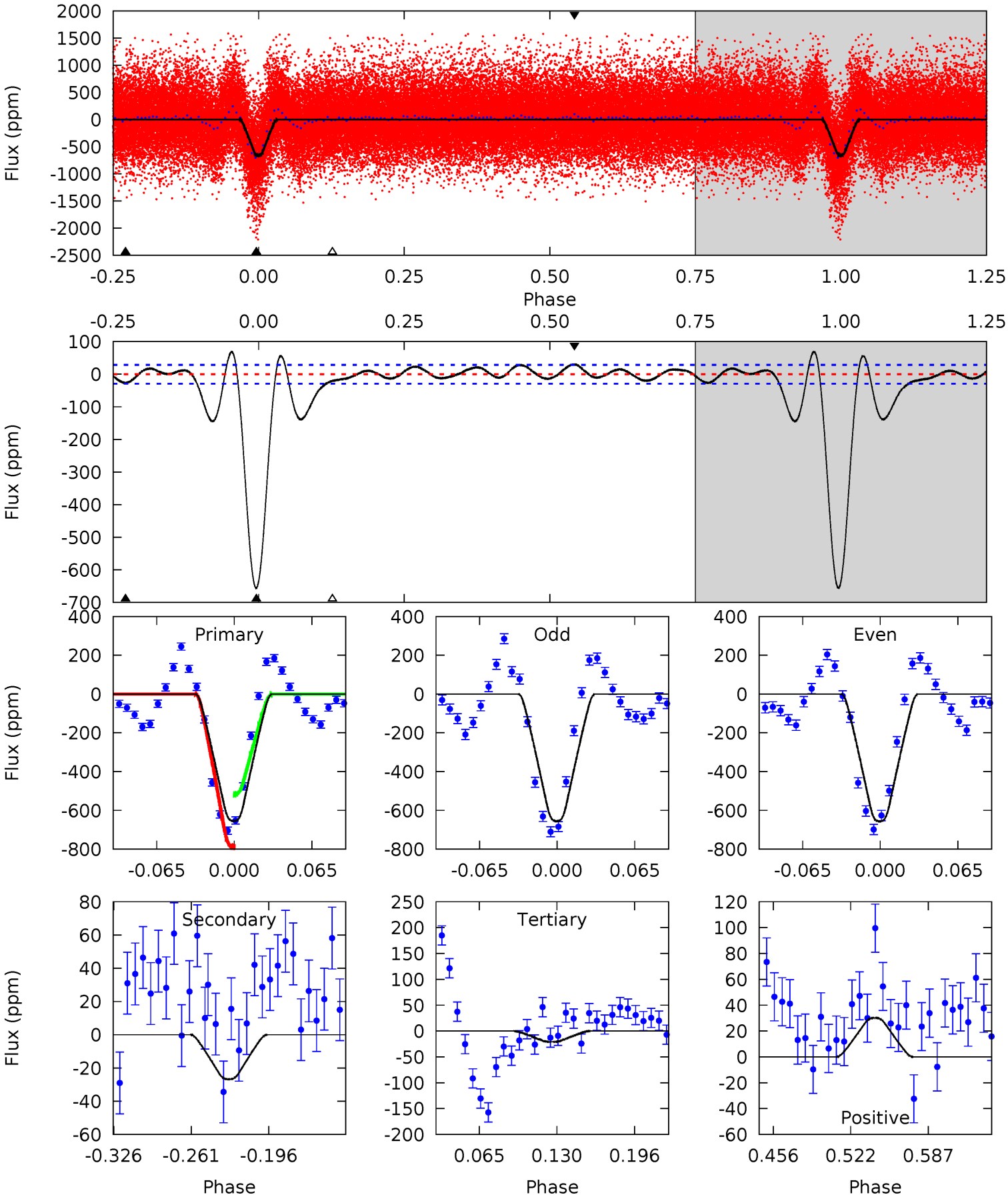
TCE 006365321-01 P= 0.848482 Days T_0=131.889660 (BKJD)



DV Model-Shift Uniqueness Test

006365321-01, P = 0.848491 Days, E = 131.038314 Days

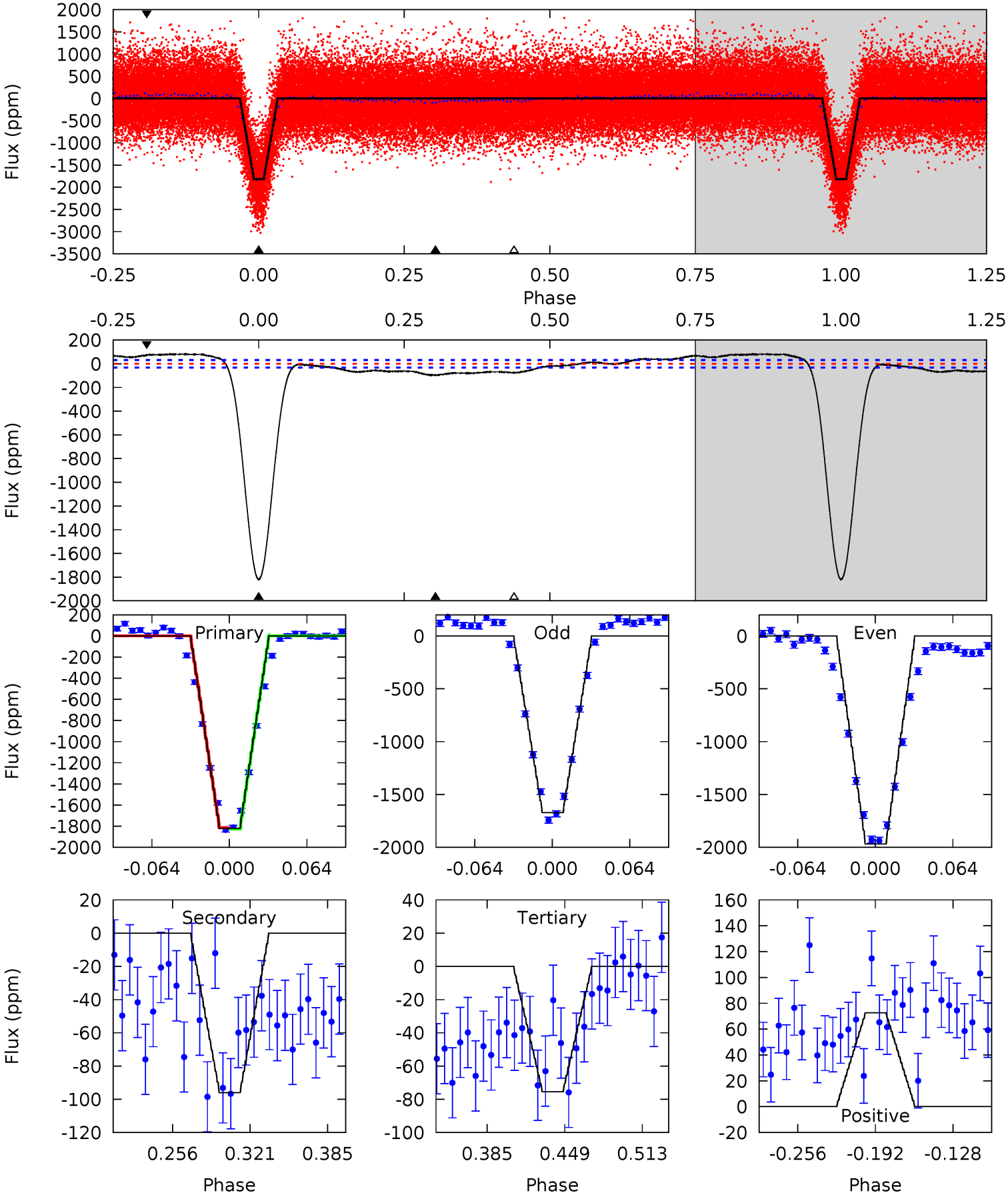
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
105.4	4.30	3.37	4.85	4.65	1.84	5.85	102.1	100.6	0.93	-0.55	0.11	0.98	0.10	21.8



Alt Model-Shift Uniqueness Test

006365321-01, P = 0.848482 Days, E = 131.041178 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
268.2	14.2	11.1	10.7	4.66	1.85	7.86	257.1	257.5	3.03	3.45	22.0	1.01	0.04	1.00



Stellar Parameters For KIC 006365321

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5941^{+166}_{-187}	$4.504^{+0.040}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$0.936^{+0.295}_{-0.098}$	$1.019^{+0.132}_{-0.132}$	$1.753^{+0.370}_{-0.935}$
	+3%/-3%	+1%/-5%	+312%/-375%	+32%/-10%	+13%/-13%	+21%/-53%
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 006365321-01 / KOI 1123.01

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27±6	$3.43^{+0.64}_{-0.42}$	2735^{+199}_{-132}	2428^{+378}_{-4837}	$0.371^{+0.164}_{-0.125}$
Alt.	-96±7	$4.73^{+0.74}_{-0.50}$	2730^{+201}_{-131}	3067^{+126}_{-155}	$0.724^{+0.155}_{-0.184}$

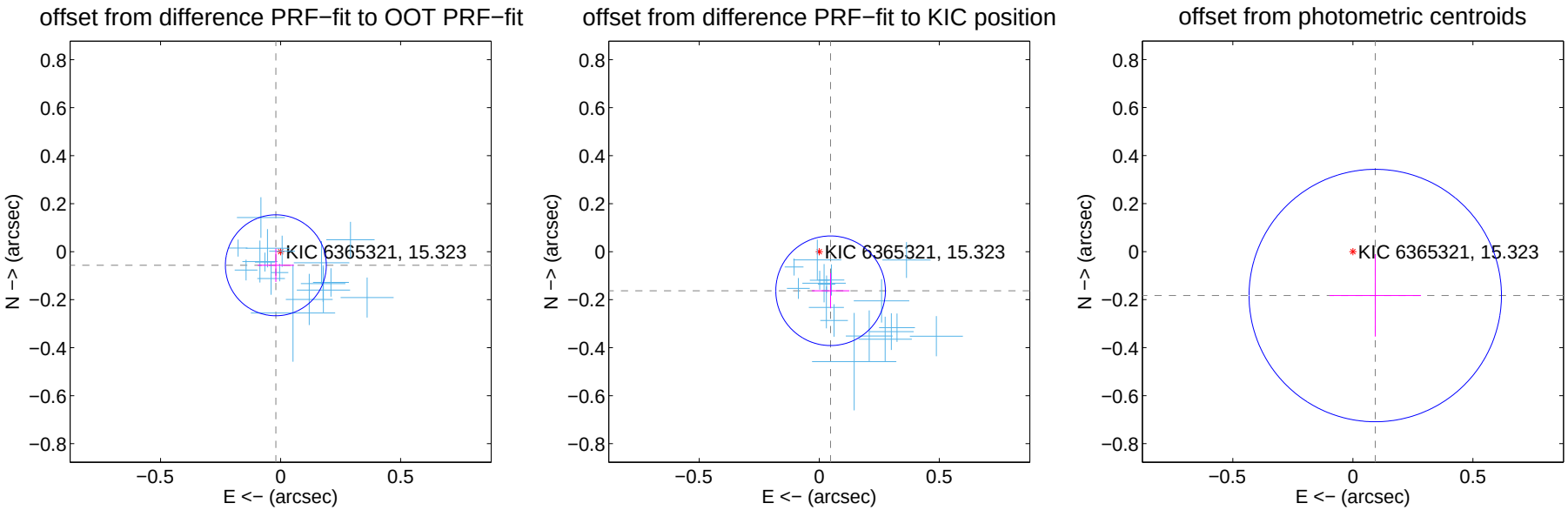
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

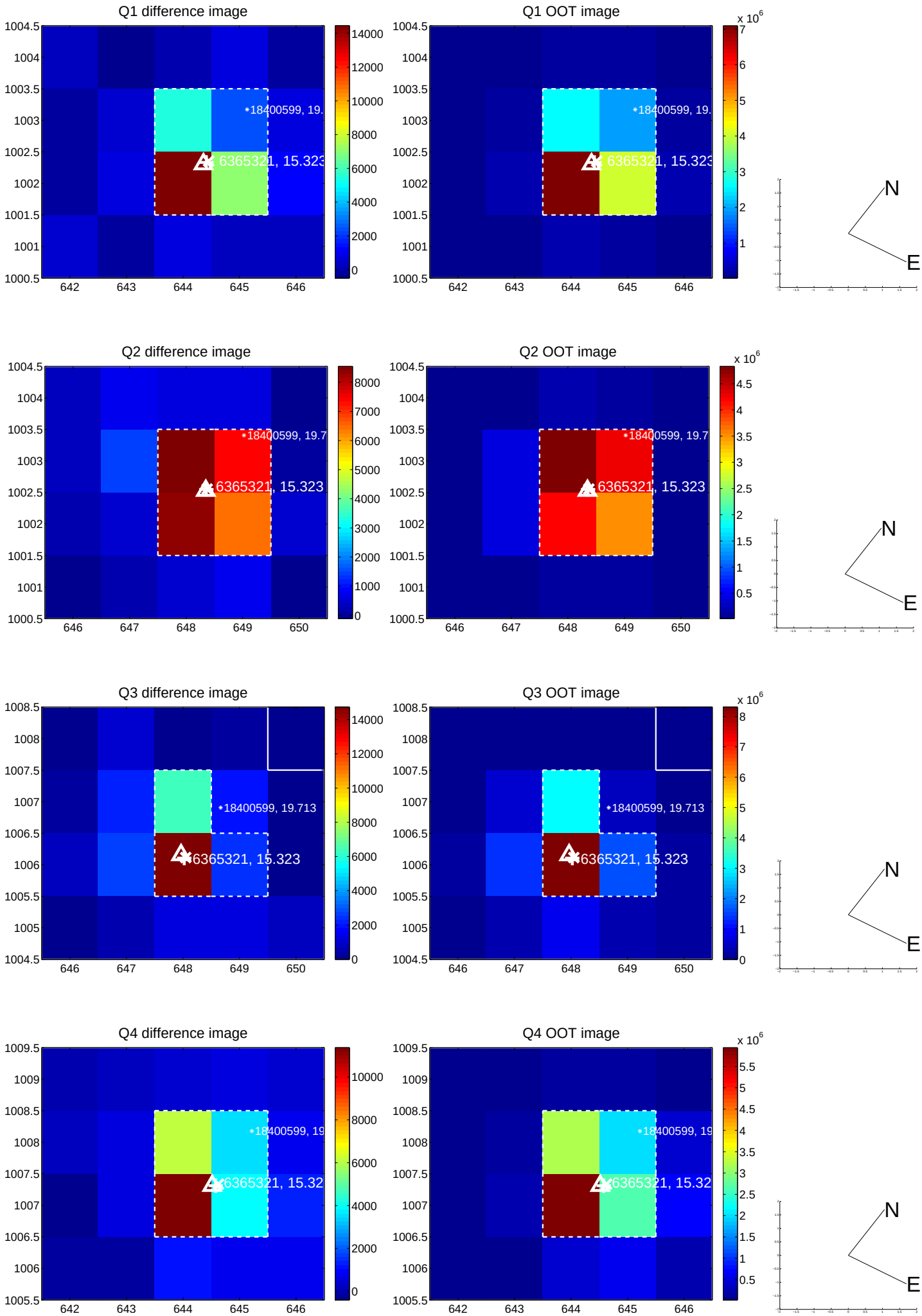
Supplemental centroid analysis for 006365321-01. Kepler magnitude: 15.32. Transit SNR 77.73
There are 17 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.070	0.86	0.020 ± 0.075	-0.057 ± 0.069
PRF-fit source offset from KIC position	0.170 ± 0.076	2.23	-0.047 ± 0.078	-0.163 ± 0.073
photometric centroid source offset	0.21 ± 0.18	1.17	-0.09 ± 0.19	-0.18 ± 0.17

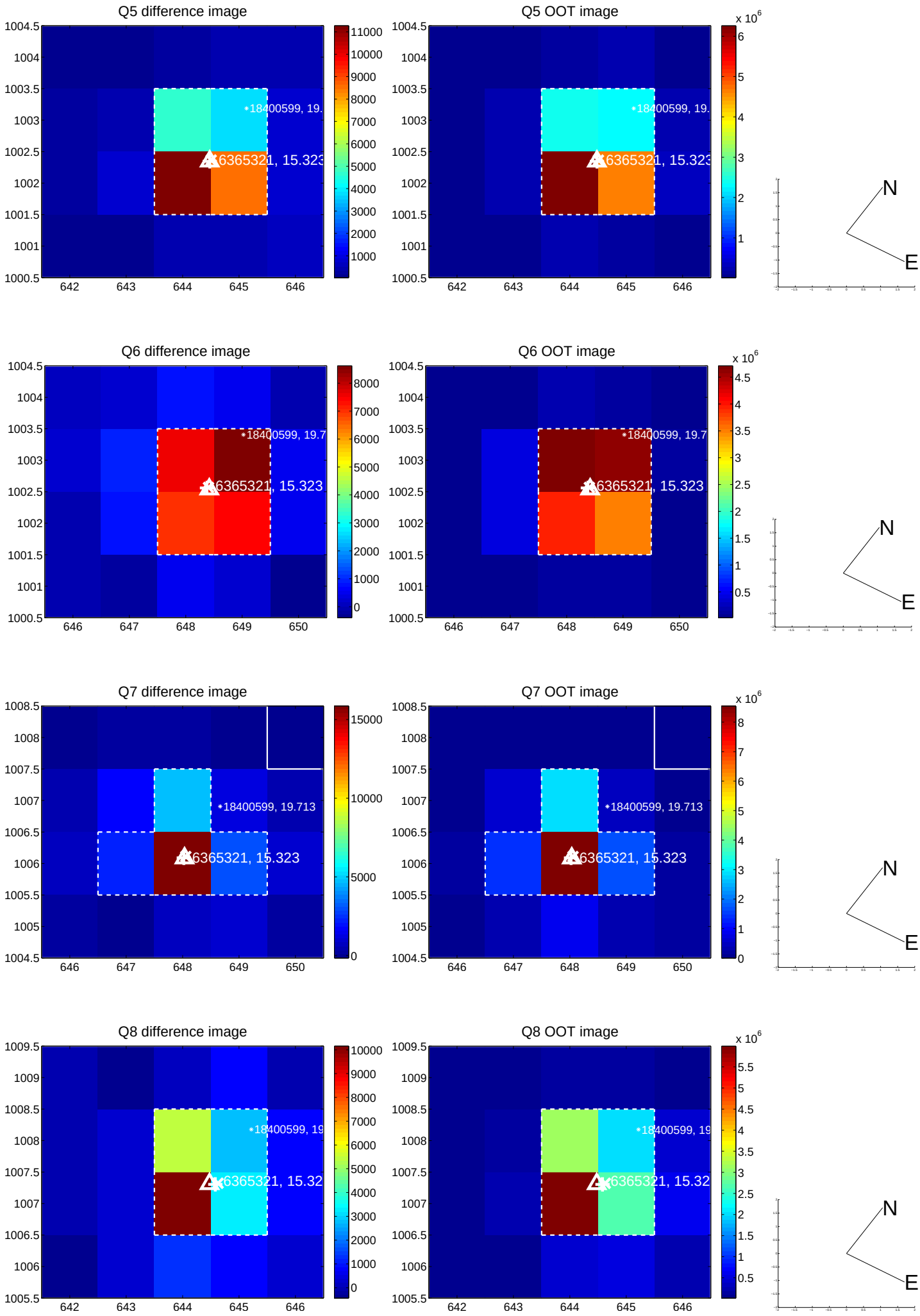


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

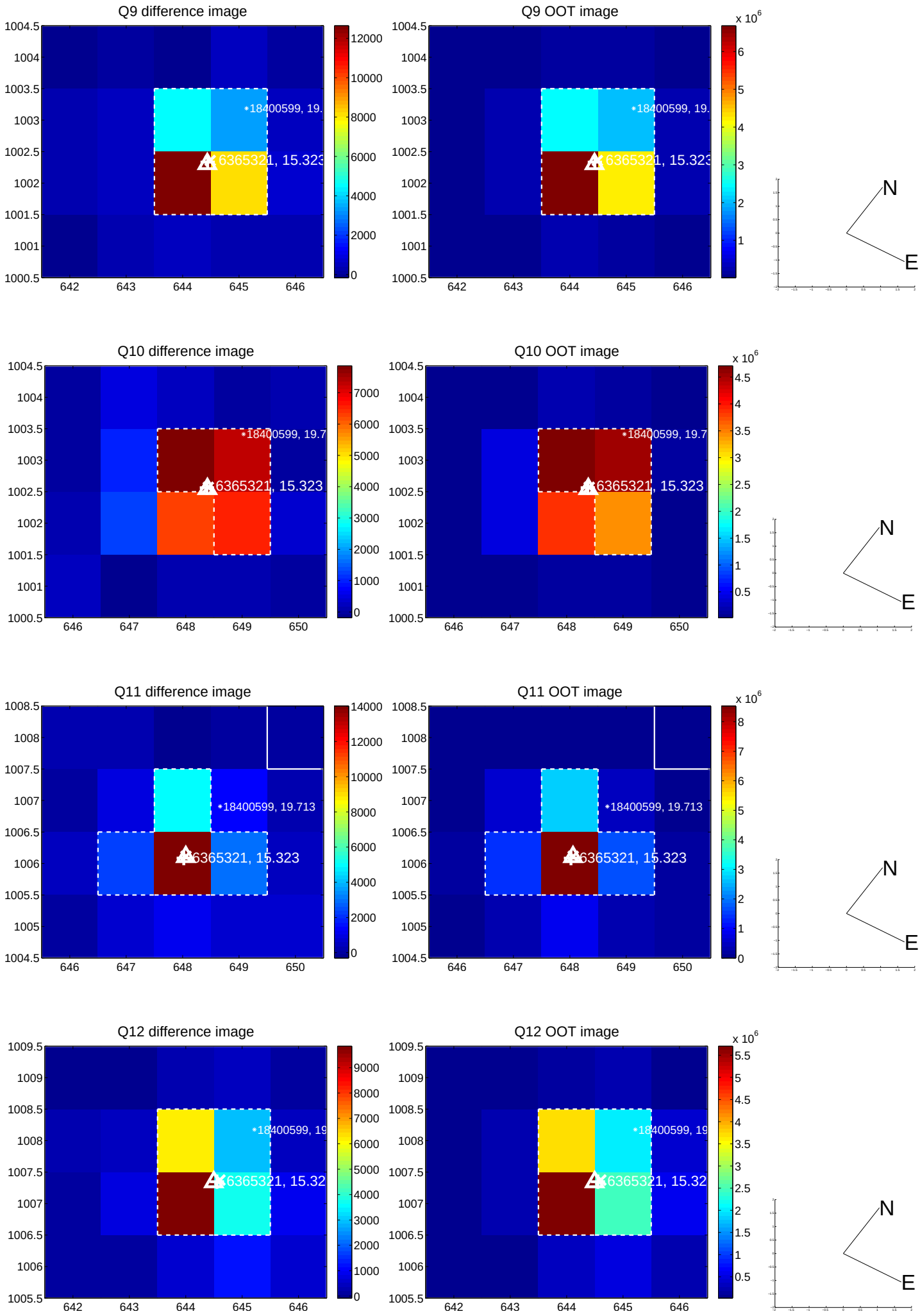
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



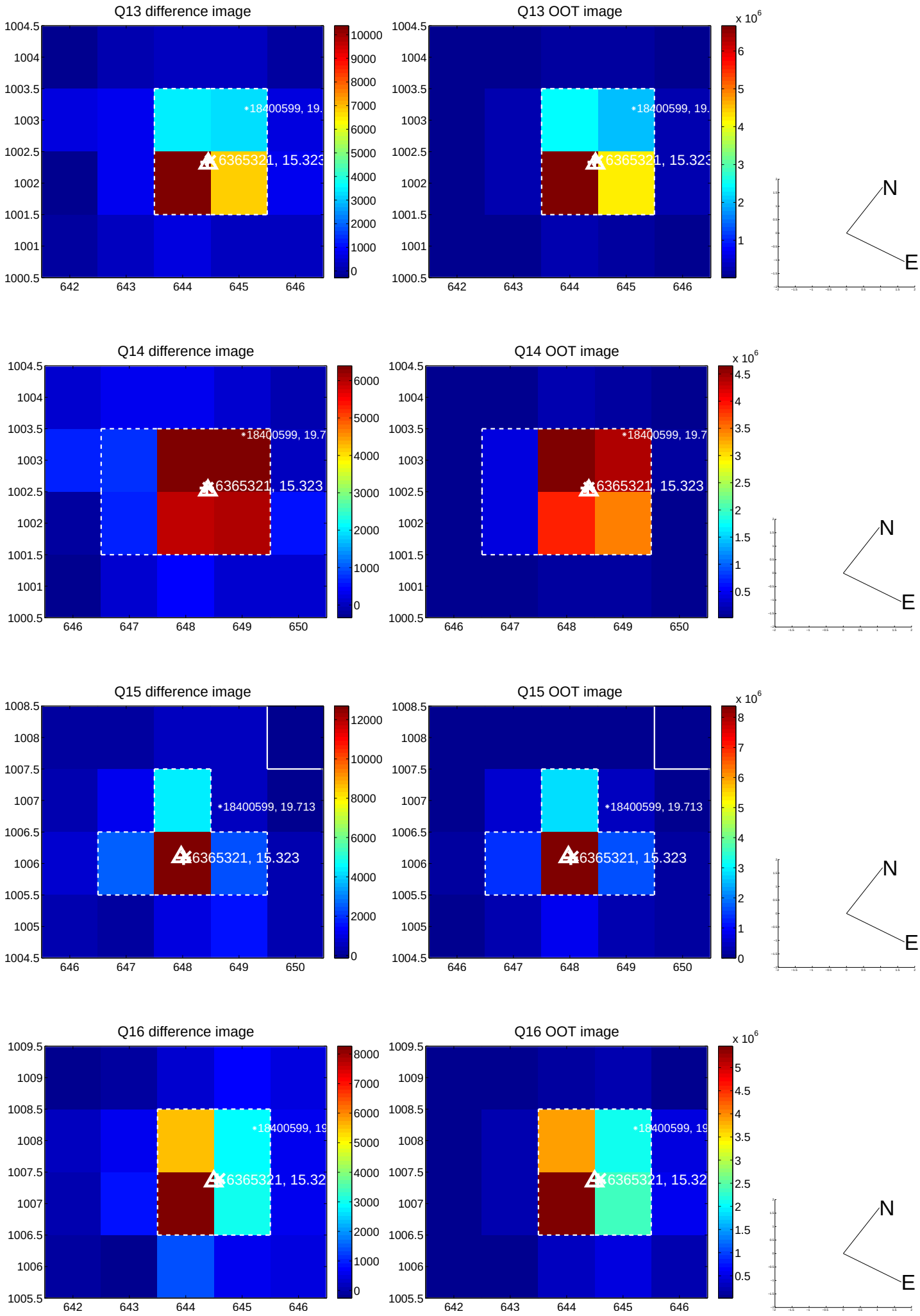
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



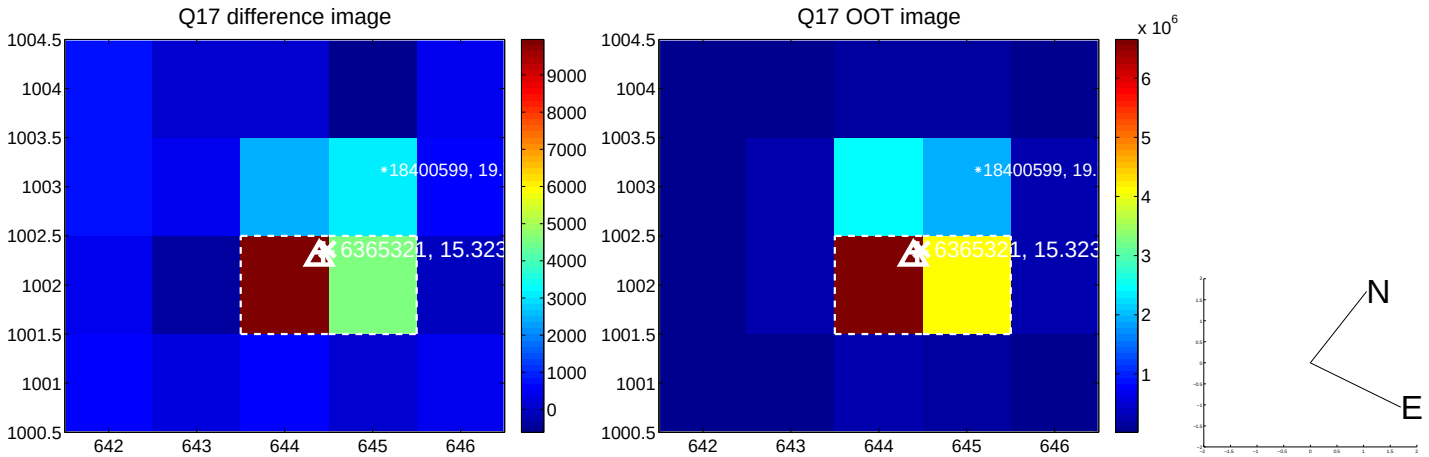
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

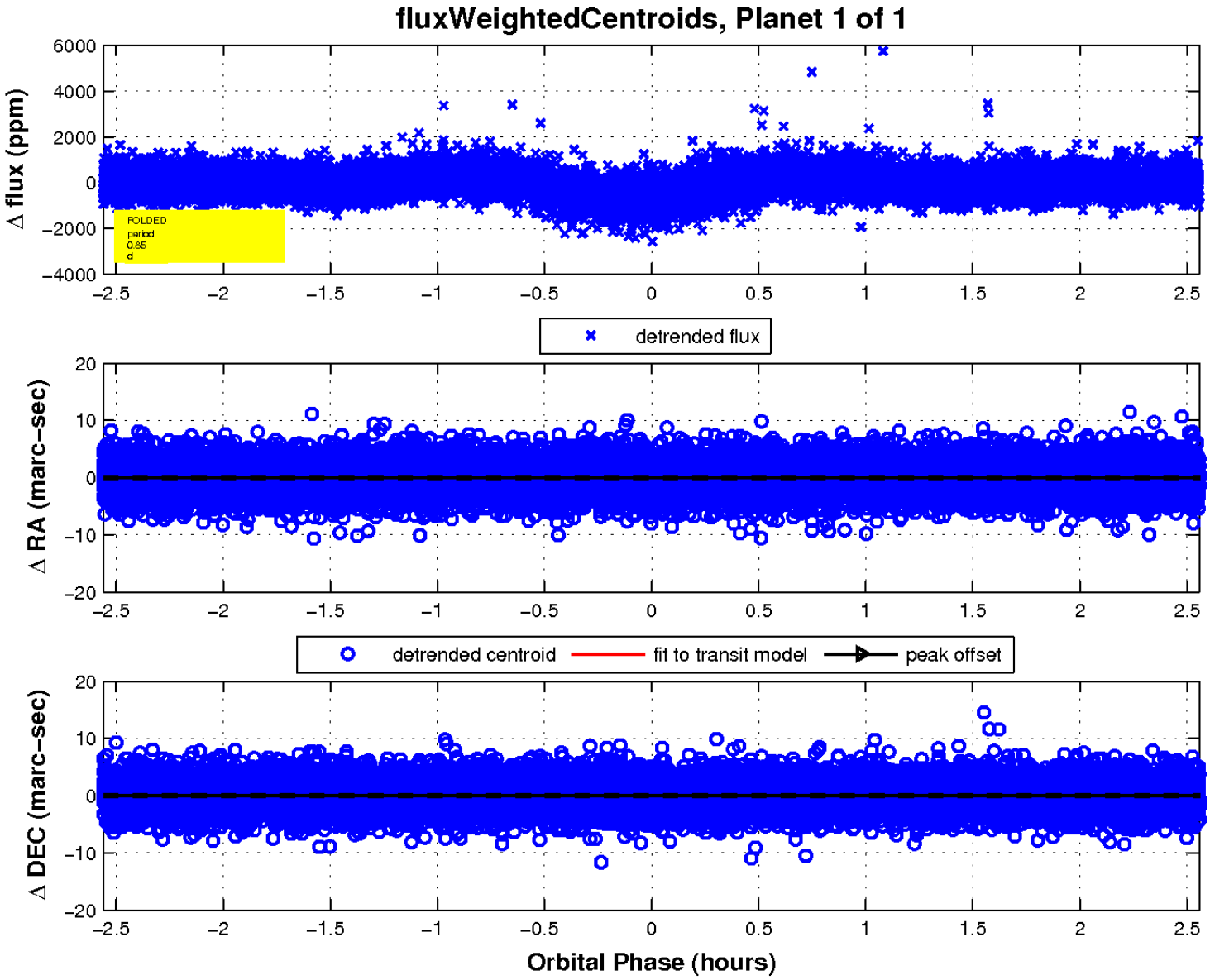


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

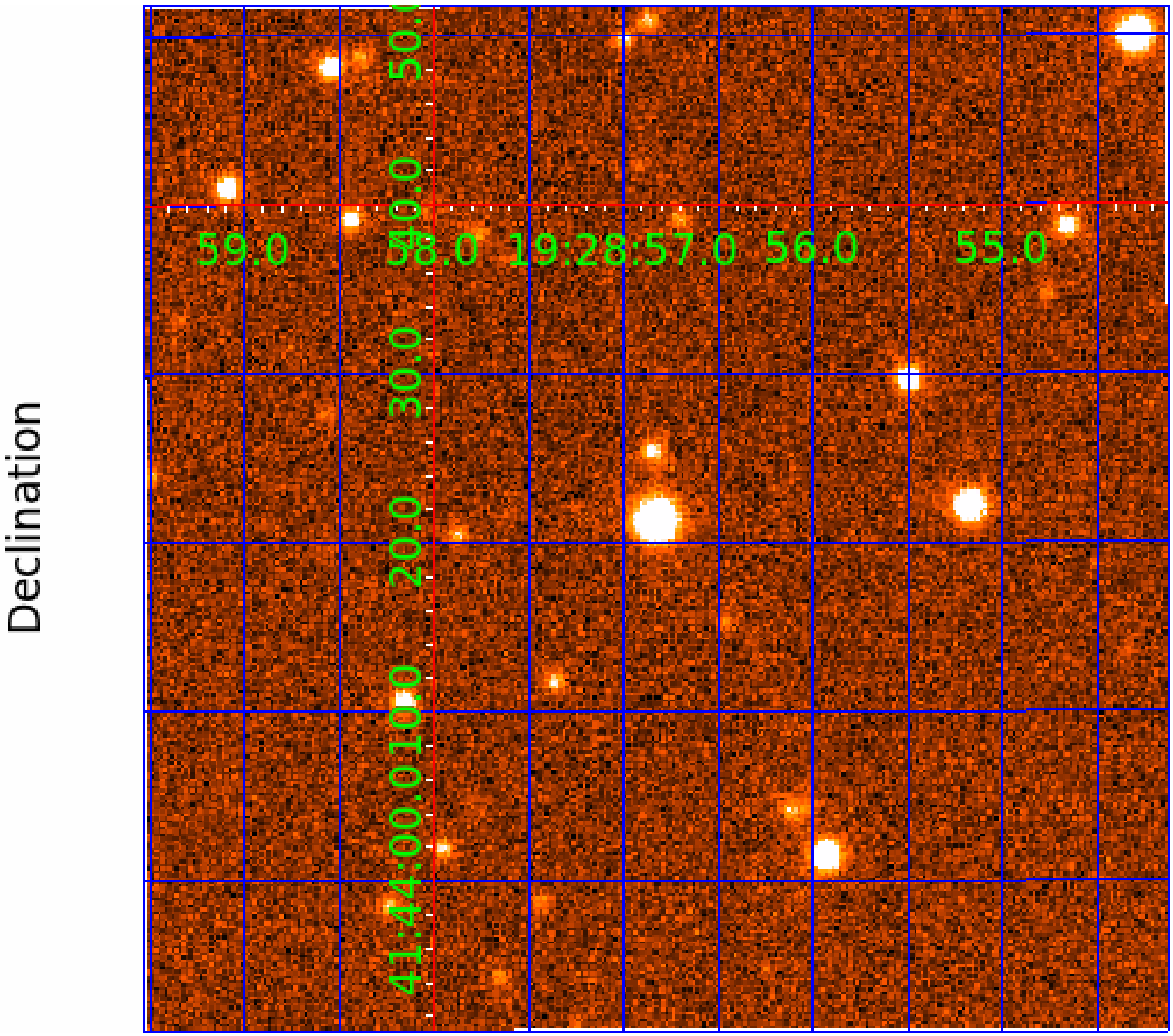


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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