KIC 006368230

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 ($S_\oplus$)
006368230-01	OBS	3356.01	26.083833	149.447387	253.4	6.649	12.7	13.2	0.83	6083	1.47	30.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006368230-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

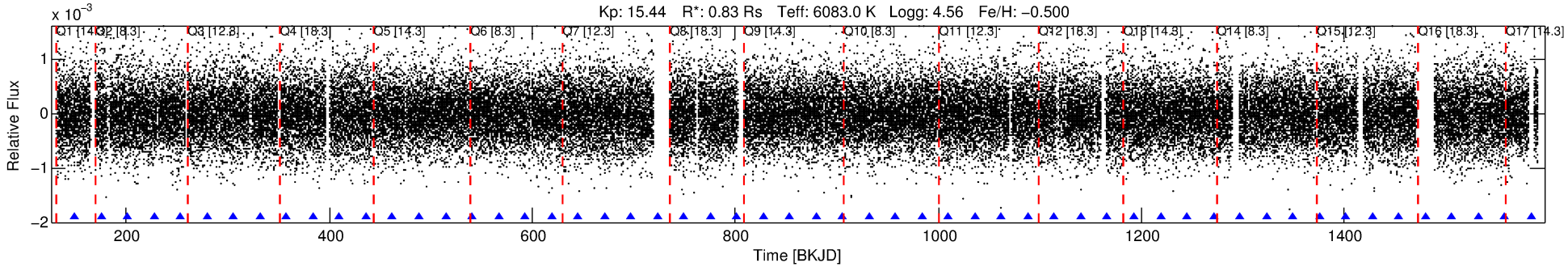
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

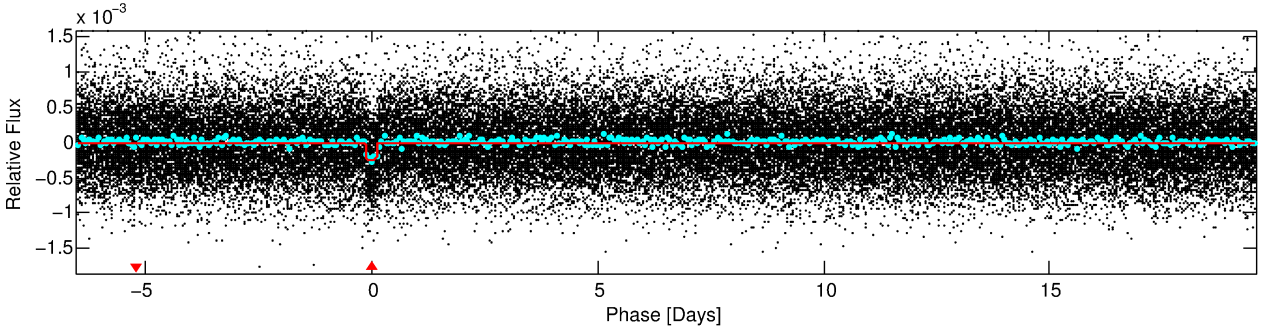
Ephemeris Match Information For 006368230-01

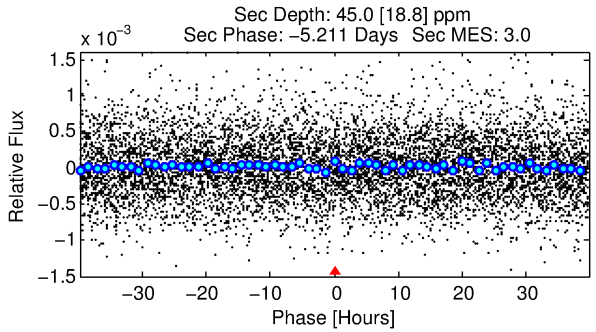
No Significant Match Found

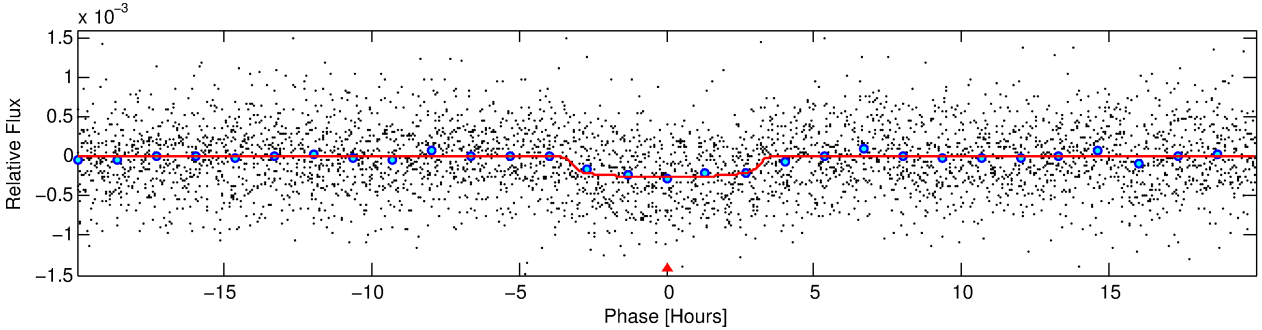
DV One-Page Summary

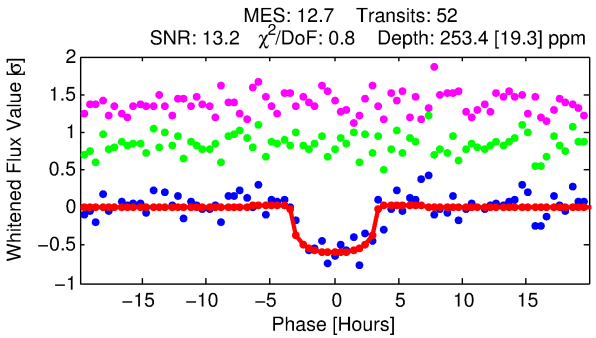
KIC: 6368230 Candidate: 1 of 1 Period: 26.084 d
KOI: K03356.01 Corr: 0.976

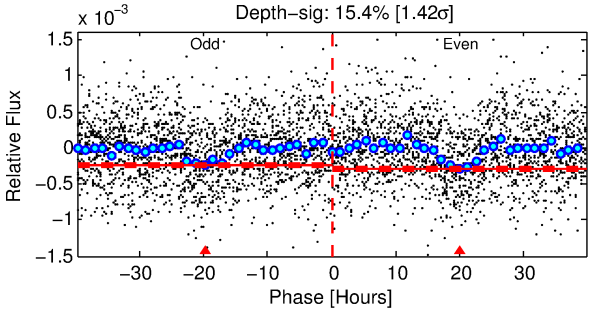


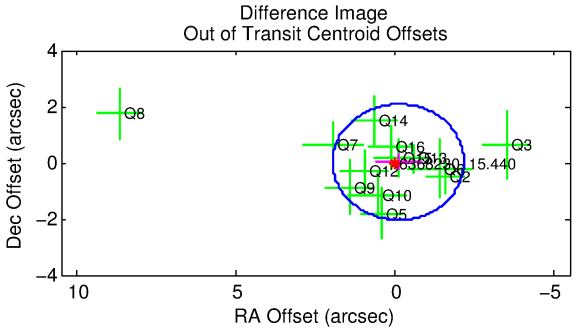












DV Fit Results:

Period = 26.08383 [0.00032] d
Epoch = 149.4474 [0.0099] BKJD
Rp/R* = 0.0161 [0.0061]
a/R* = 18.80 [37.63]
b = 0.80 [0.91]

Seff = 30.29 [11.98]
Teq = 598 [59] K
Rp = 1.47 [0.72] Re
a = 0.1680 [0.0431] AU

Ag = 324.05 [306.66] [1.05σ]
Teffp = 3924 [863] K [3.85σ]

DV Diagnostic Results:

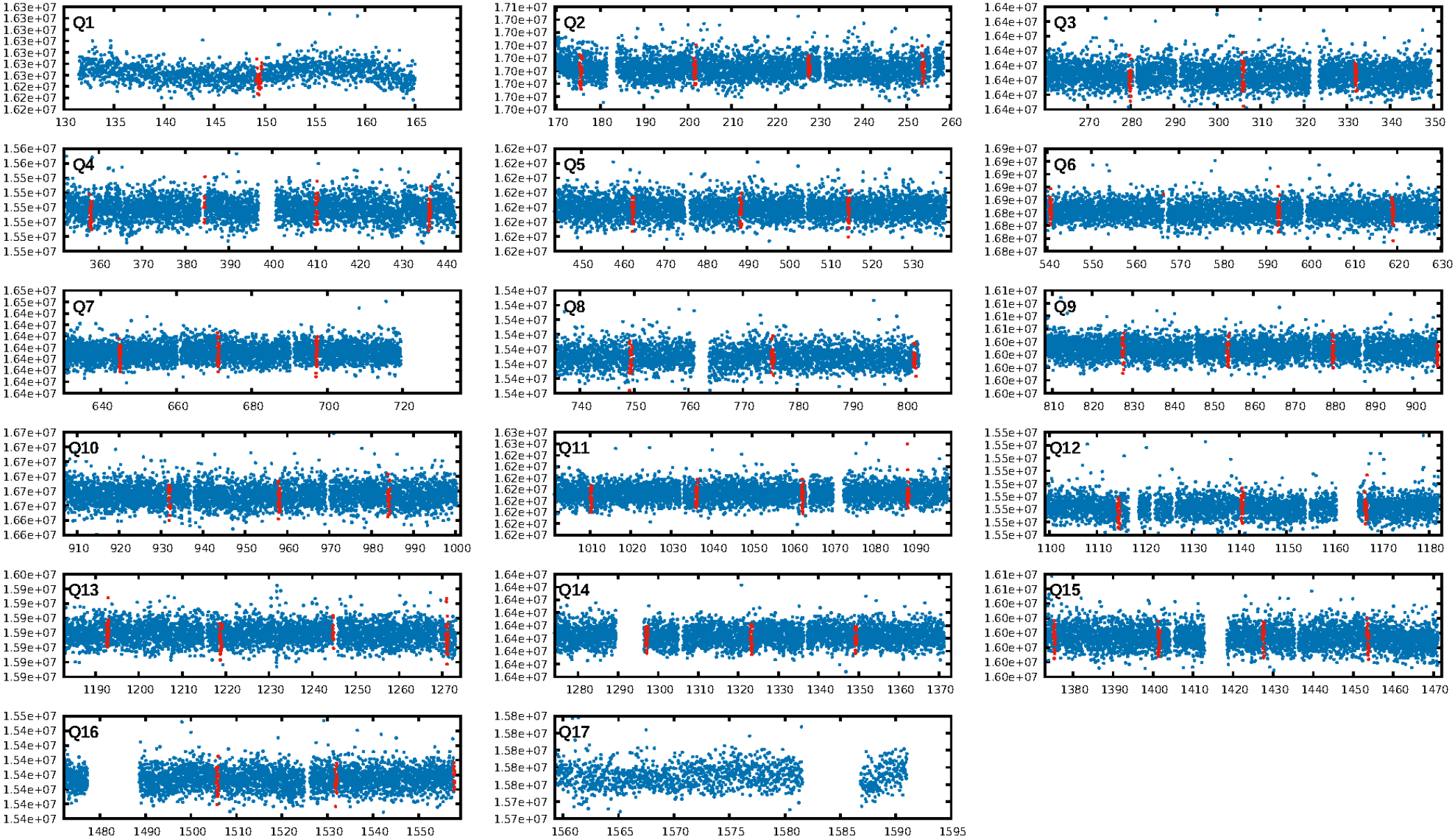
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 99.4%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 5.35e−37
RollingBand−fgt: 1.00 [51/51]
GhostDiagnostic−chr: −4.967

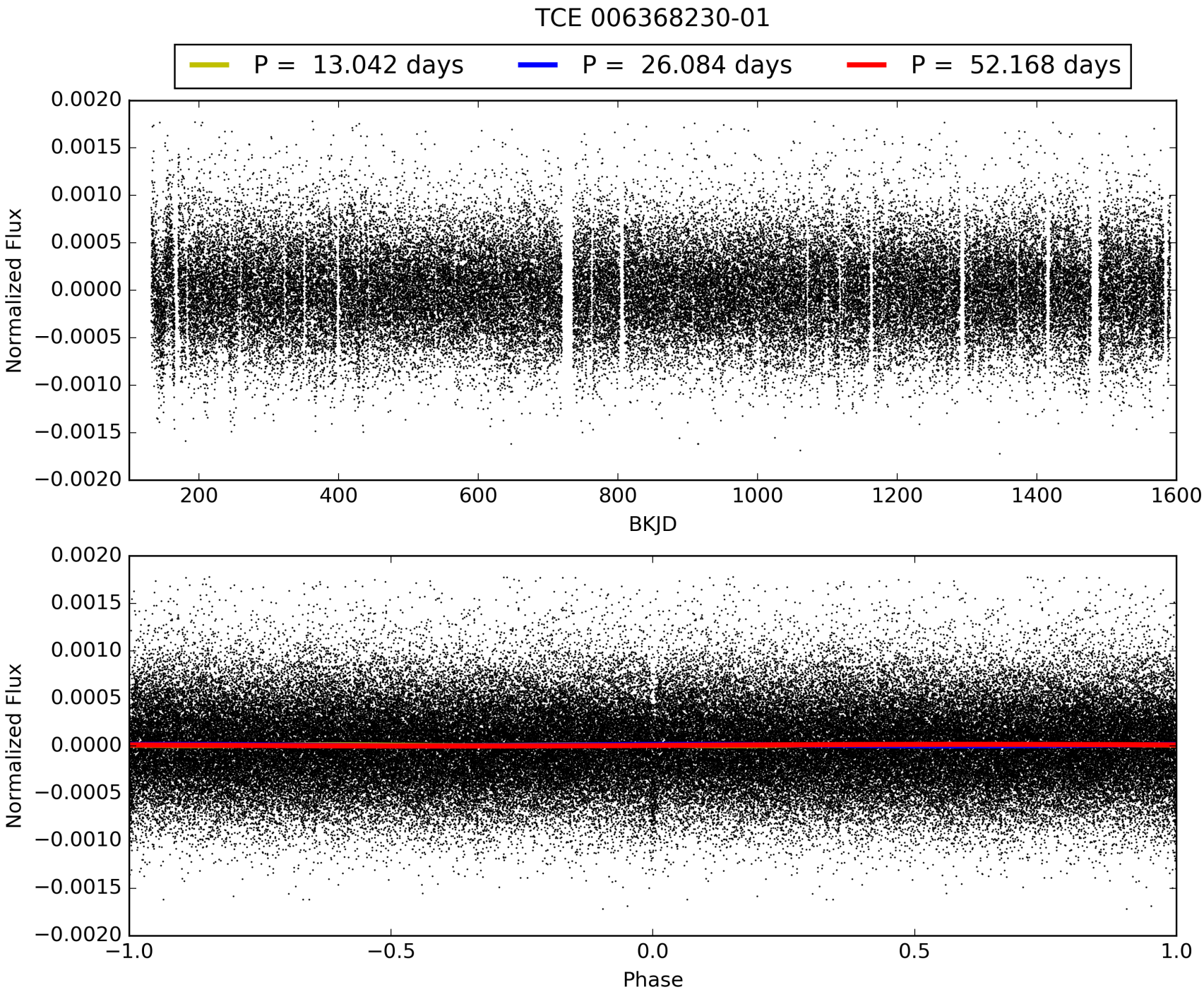
Centroid−sig: 78.5%
Centroid−so: 0.364 arcsec [0.32σ]
OotOffset−rm: 0.106 arcsec [0.15σ]
KicOffset−rm: 0.260 arcsec [0.37σ]
OotOffset−st: 4/3/3/3 [13]
KicOffset−st: 4/3/3/3 [13]
DiffImageQuality−fgm: 0.62 [8/13]
DiffImageOverlap−fno: 1.00 [16/16]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30−Jan−2016 14:53:33 Z

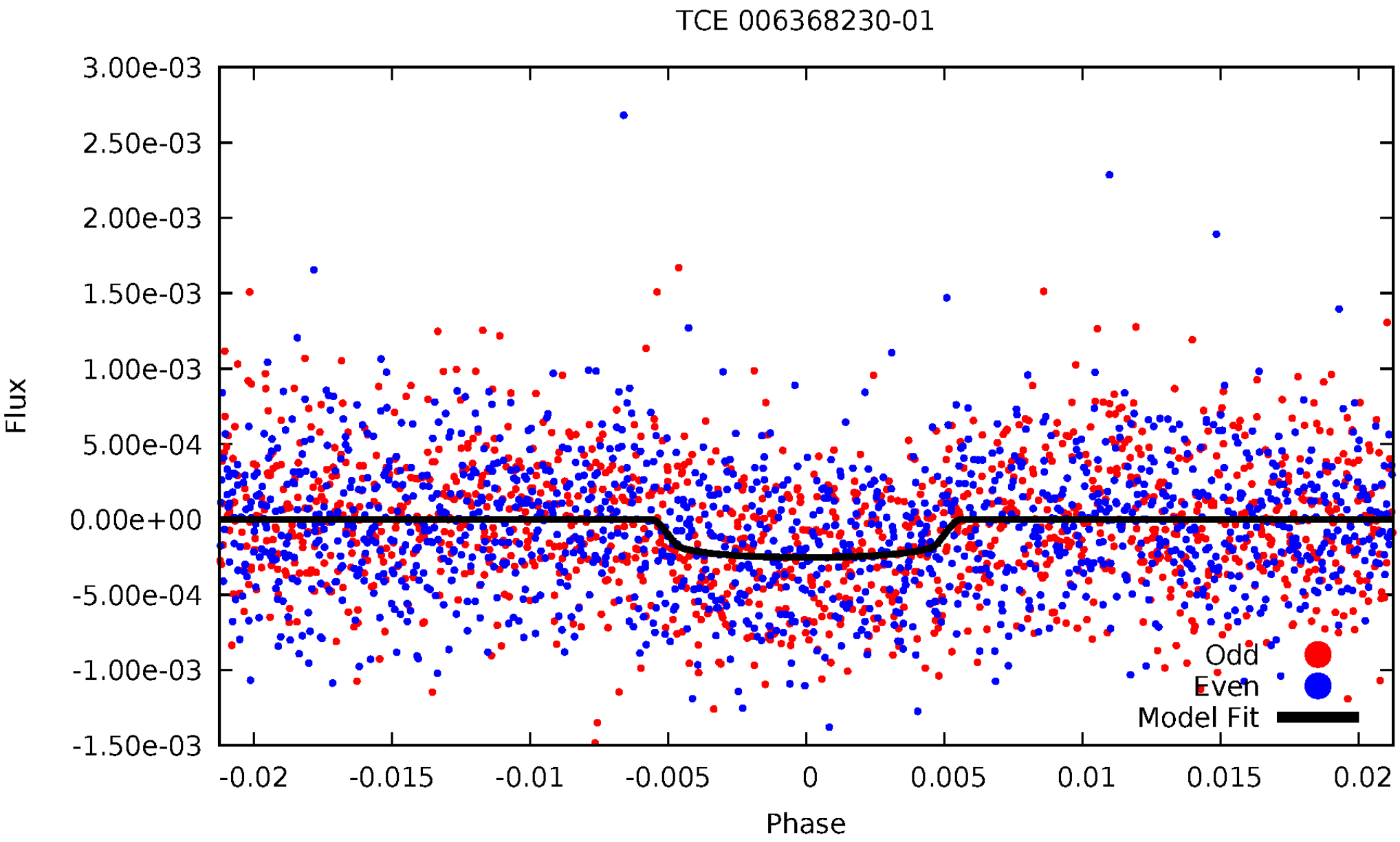
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006368230-01, PDC Light Curves




TCE 006368230-01
P = 13.042 days
P = 26.084 days
P = 52.168 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 006368230-01
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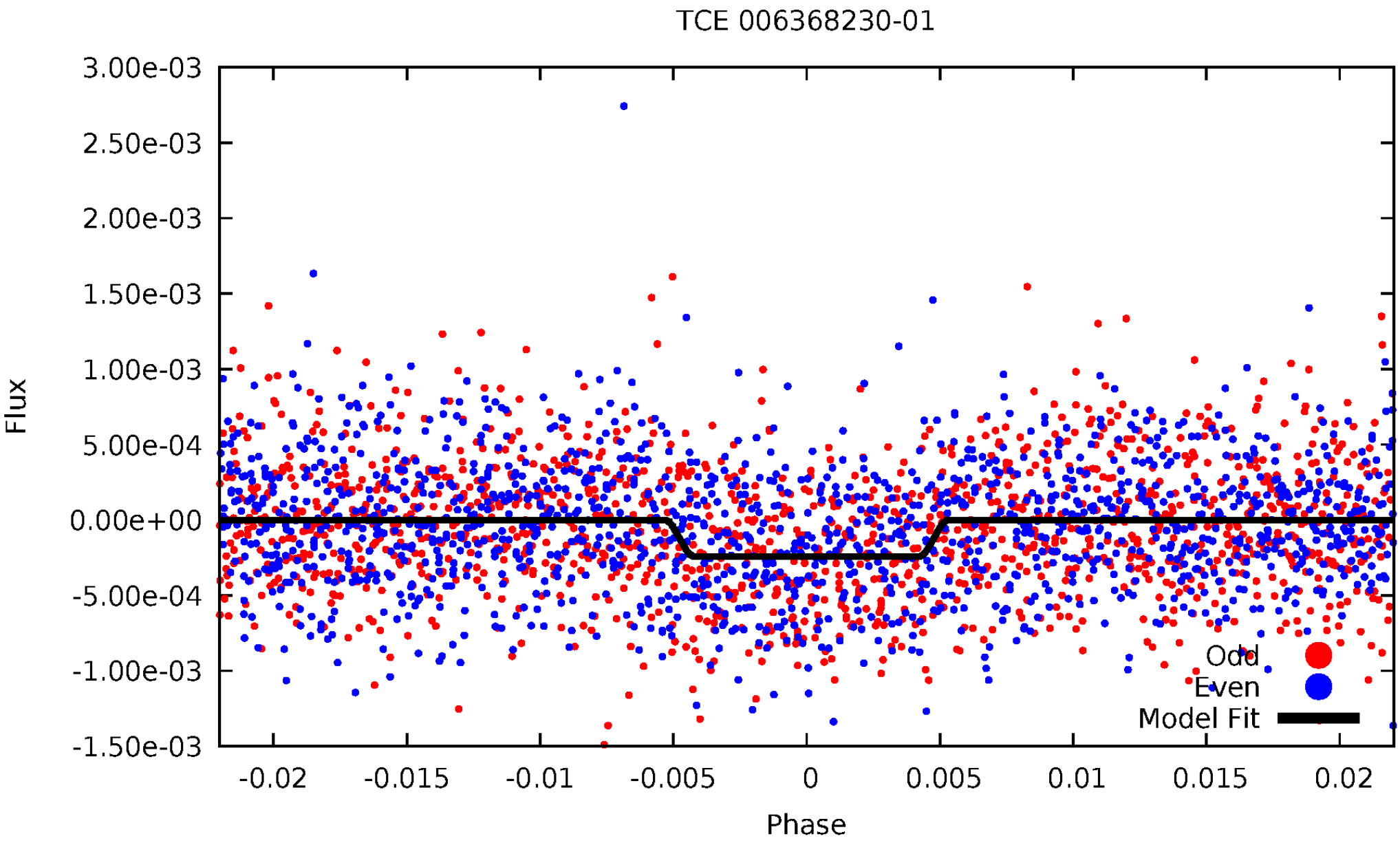
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.02
-0.015
-0.01
-0.005
0
0.005
0.01
0.015
0.02
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006368230-01
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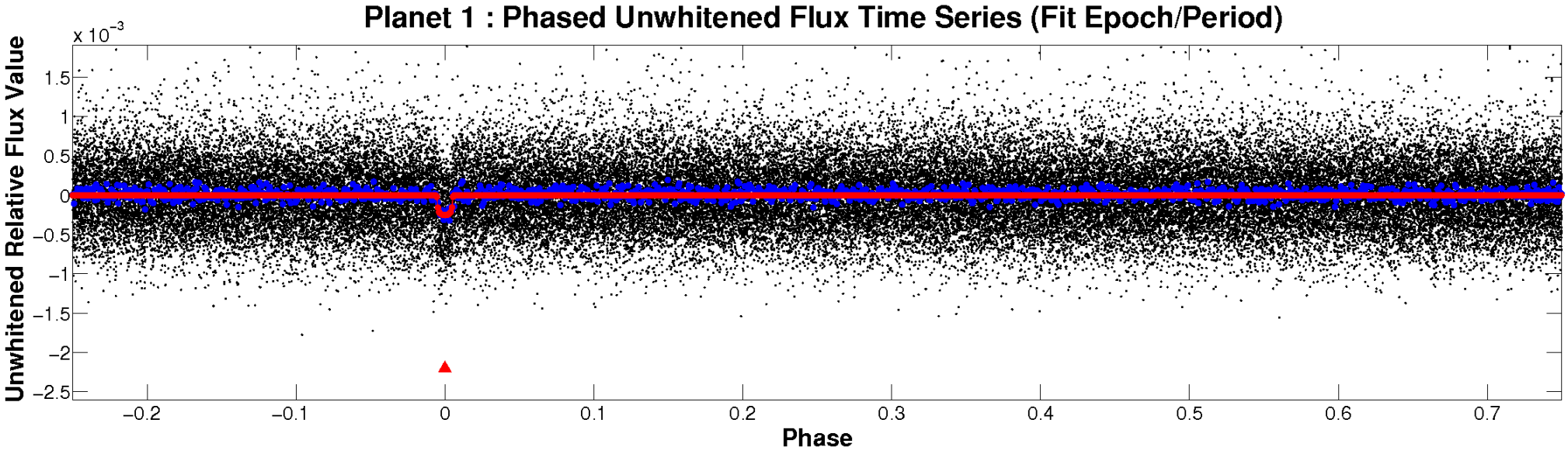
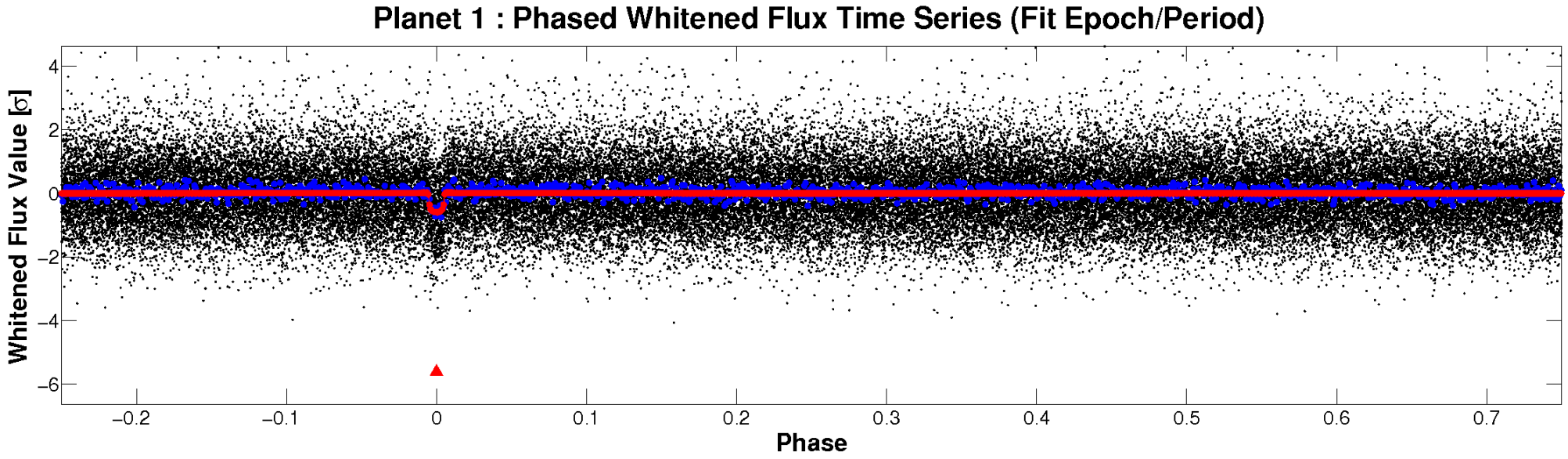
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.02
-0.015
-0.01
-0.005
0
0.005
0.01
0.015
0.02
Phase
Odd
Even
Model Fit

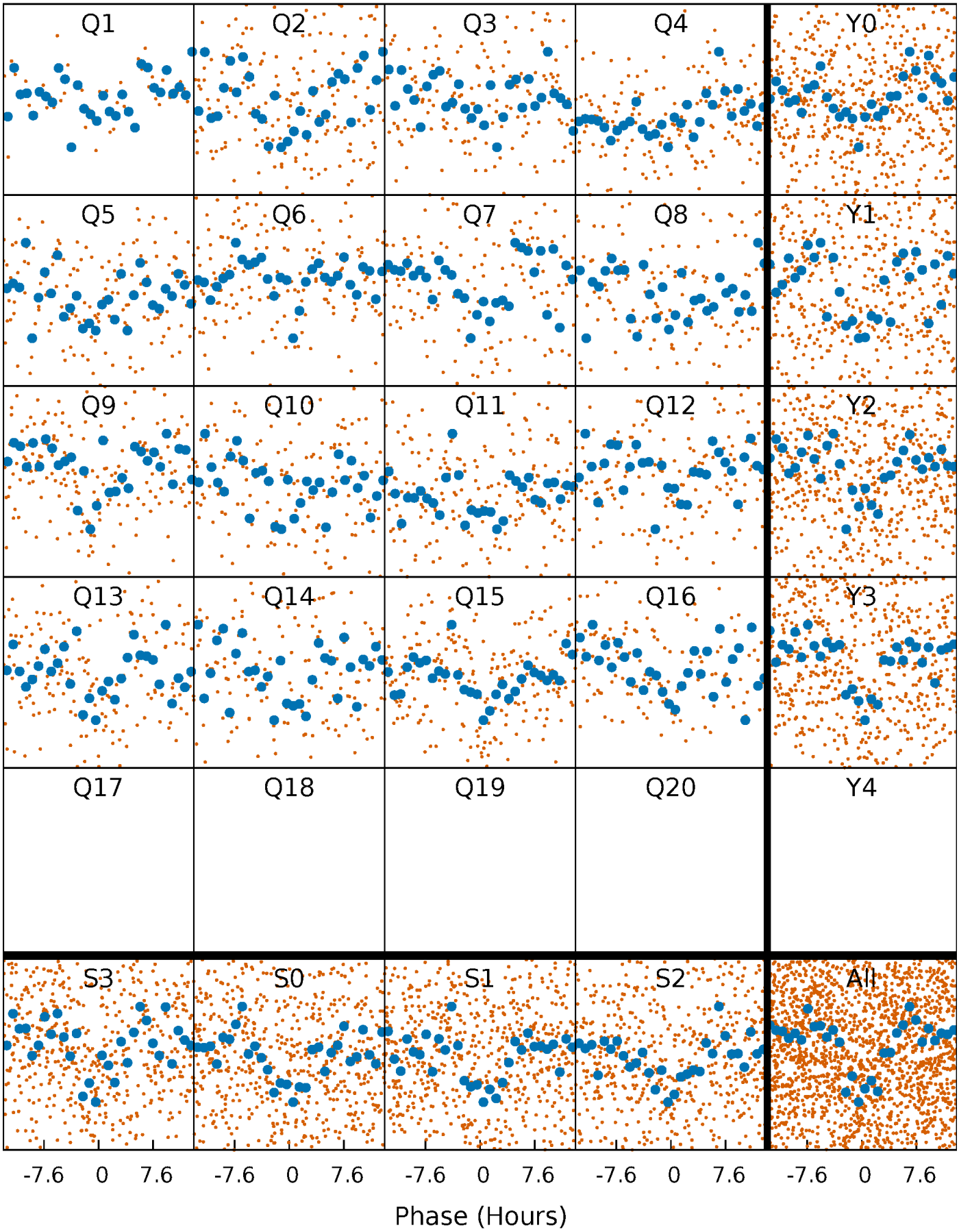
Non-Whitened Vs. Whitened Light Curve





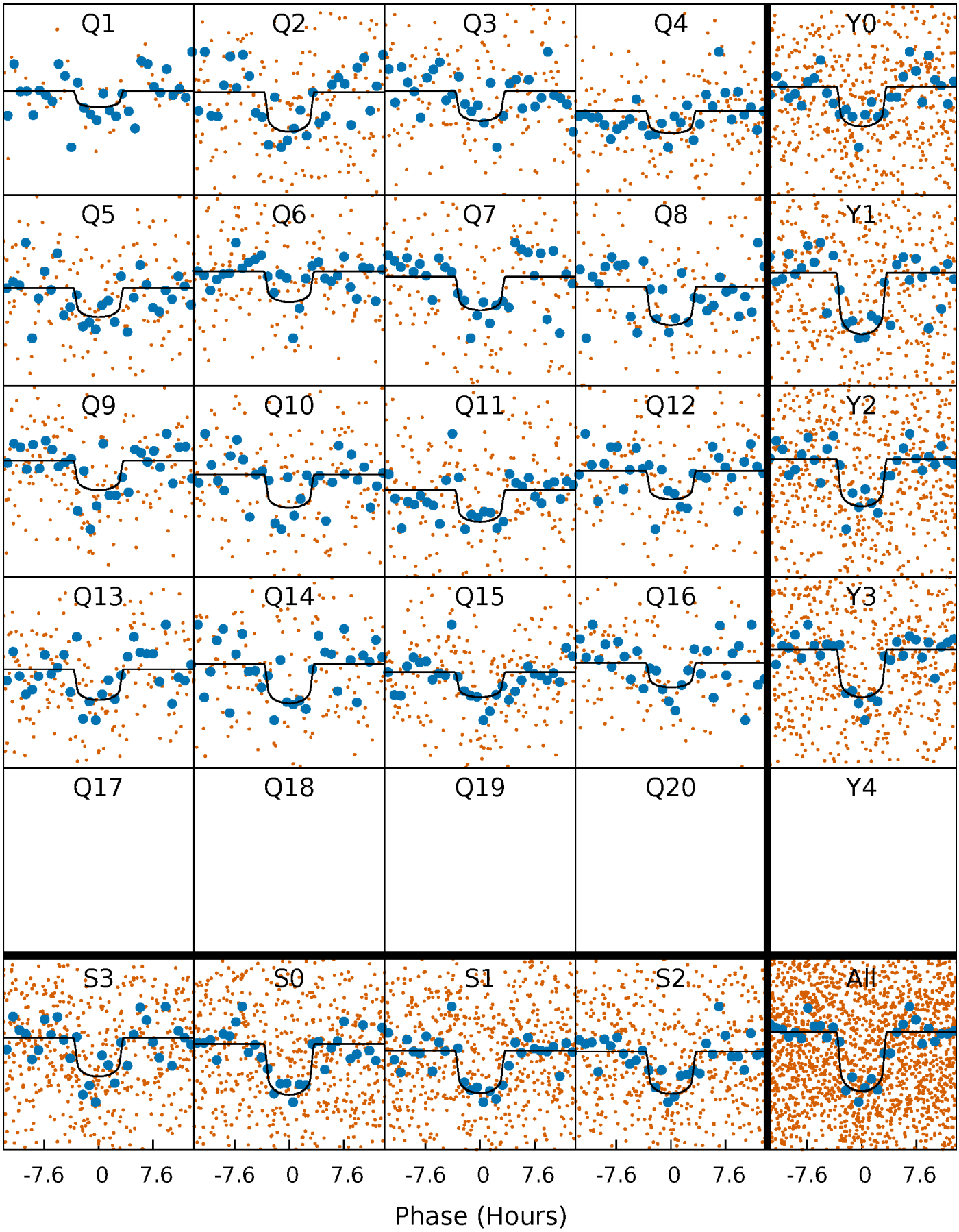
PDC Quarter-Phased Transit Curves

TCE 006368230-01 P= 26.083833 Days T_0=149.447387 (BKJD)



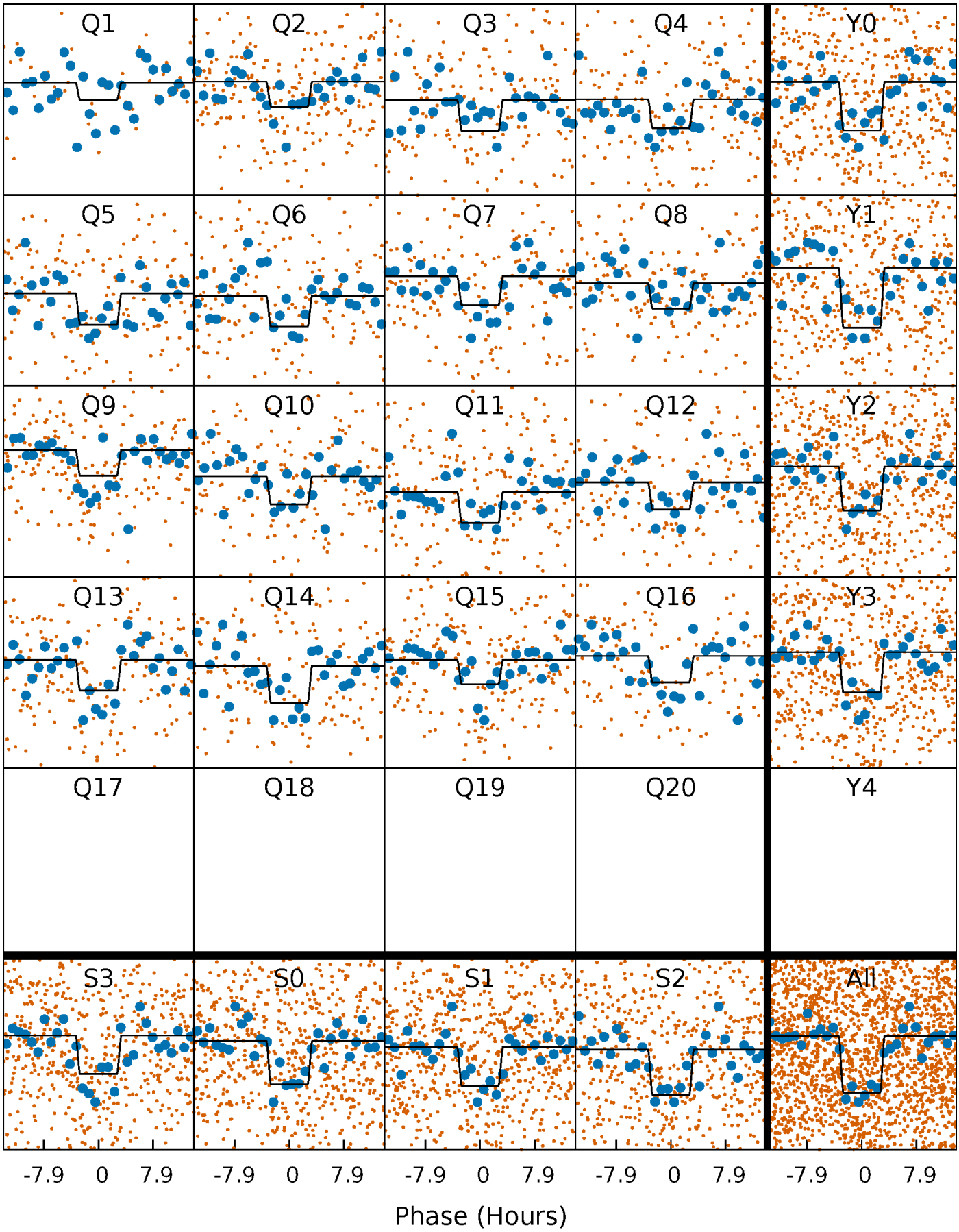
DV Quarter-Phased Transit Curves

TCE 006368230-01 P= 26.083833 Days T_0=149.447387 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

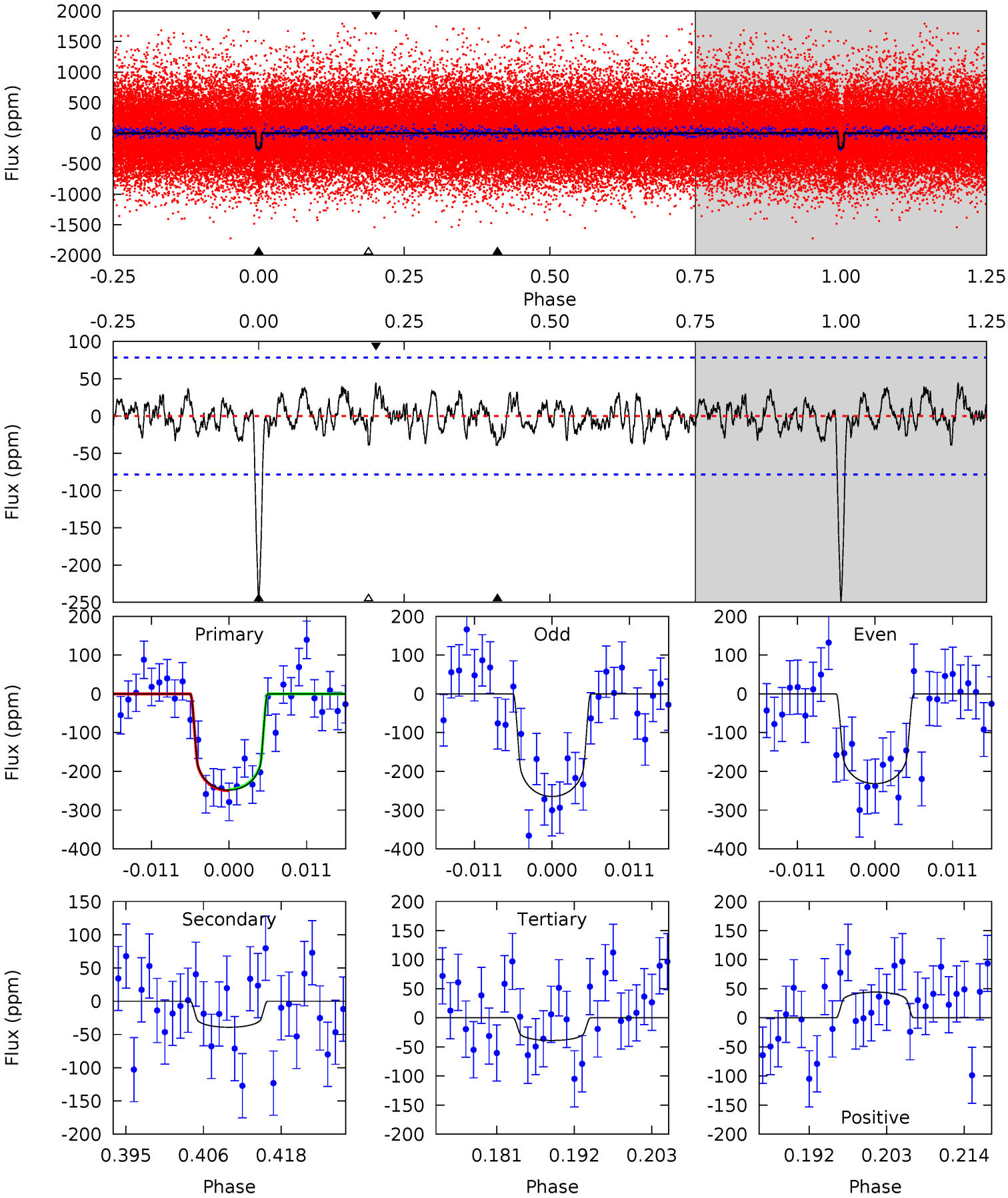
TCE 006368230-01 P= 26.084449 Days T_0=149.431754 (BKJD)



DV Model-Shift Uniqueness Test

006368230-01, P = 26.083833 Days, E = 123.363554 Days

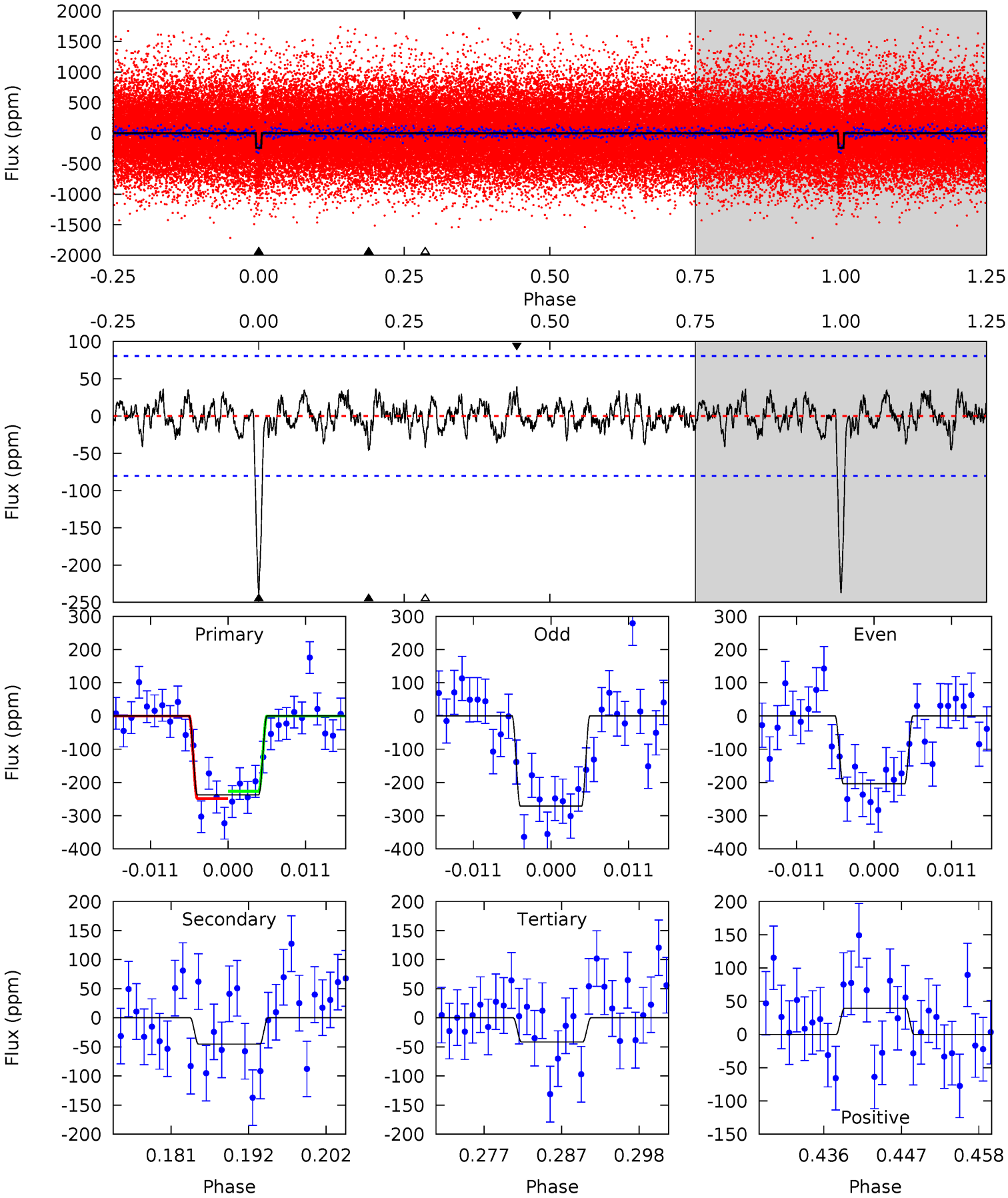
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	2.50	2.49	2.82	5.00	2.53	0.99	13.3	13.0	0.01	-0.32	1.06	0.91	0.15	0.11



Alt Model-Shift Uniqueness Test

006368230-01, P = 26.084449 Days, E = 123.347305 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	2.82	2.59	2.46	5.01	2.55	0.91	12.2	12.3	0.23	0.36	2.09	0.93	0.14	0.68



Stellar Parameters For KIC 006368230

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6083^{+181}_{-199}	$4.563^{+0.036}_{-0.204}$	$-0.500^{+0.300}_{-0.300}$	$0.835^{+0.254}_{-0.063}$	$0.933^{+0.097}_{-0.108}$	$2.258^{+0.441}_{-1.148}$
	+3%/-3%	+1%/-4%	+60%/-60%	+30%/-8%	+10%/-12%	+20%/-51%
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 006368230-01 / KOI 3356.01

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39±16	$1.52^{+0.69}_{-0.58}$	854^{+60}_{-38}	4054^{+964}_{-596}	239^{+444}_{-145}
Alt.	-45±16	$1.49^{+0.63}_{-0.54}$	856^{+57}_{-39}	4175^{+935}_{-513}	285^{+505}_{-155}

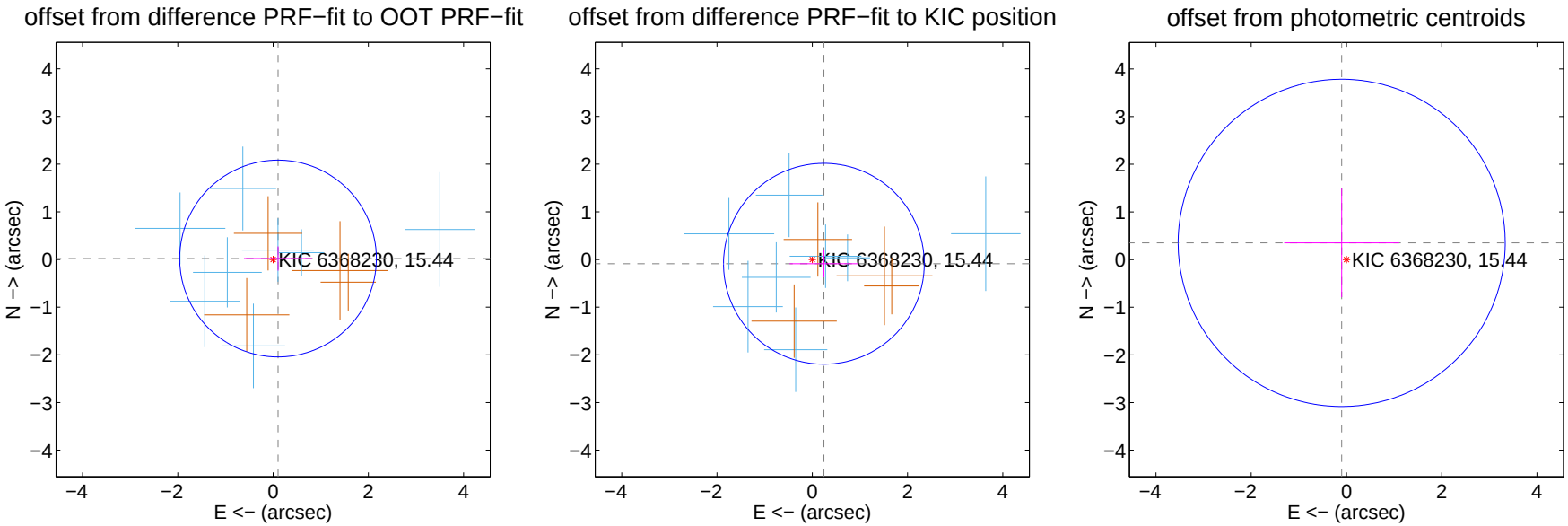
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

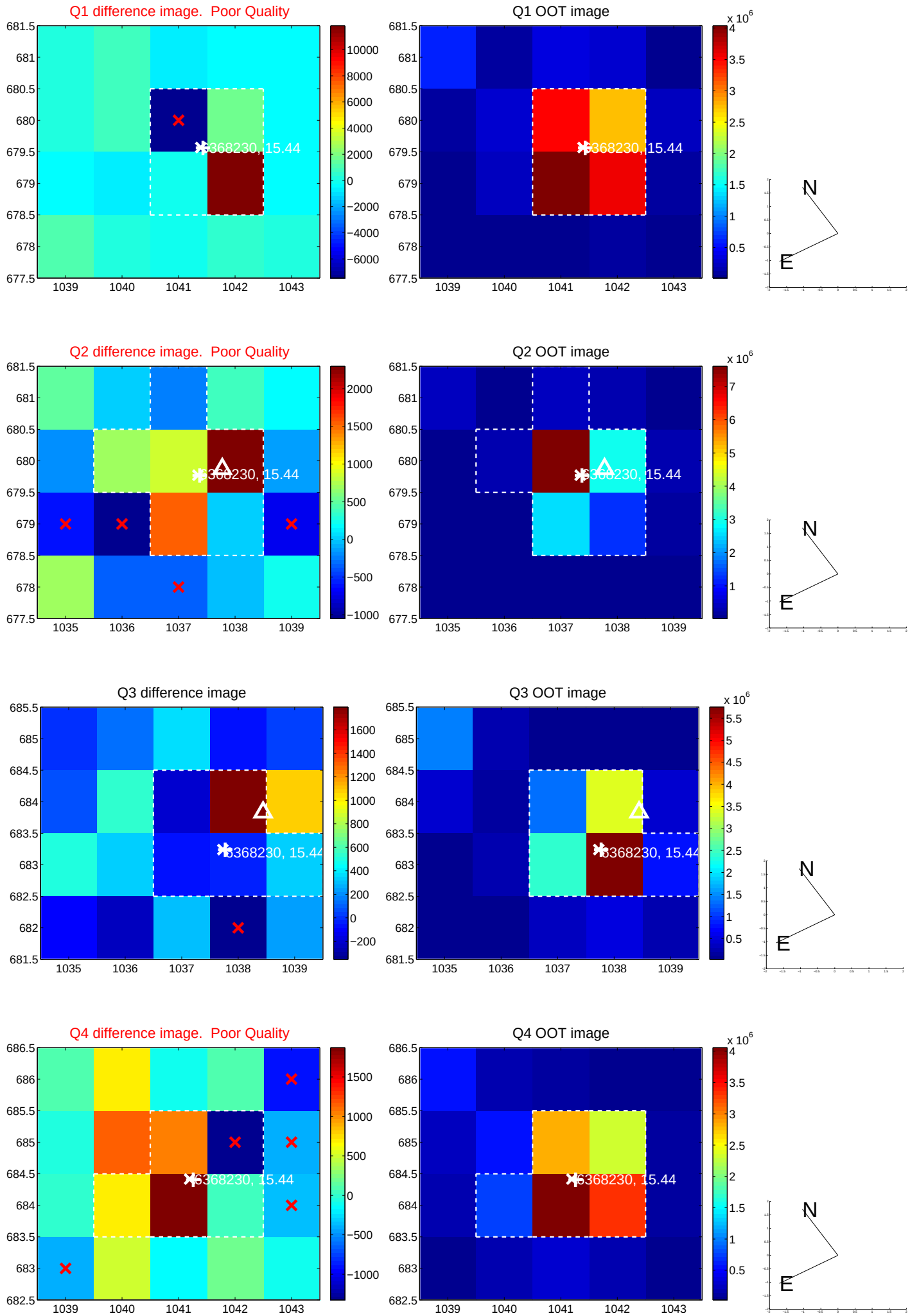
Supplemental centroid analysis for 006368230-01. Kepler magnitude: 15.44. Transit SNR 13.17
There are 8 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.106 ± 0.688	0.15	-0.104 ± 0.714	0.020 ± 0.255
PRF-fit source offset from KIC position	0.260 ± 0.702	0.37	-0.244 ± 0.718	-0.089 ± 0.282
photometric centroid source offset	0.36 ± 1.14	0.32	0.10 ± 1.21	0.35 ± 1.14

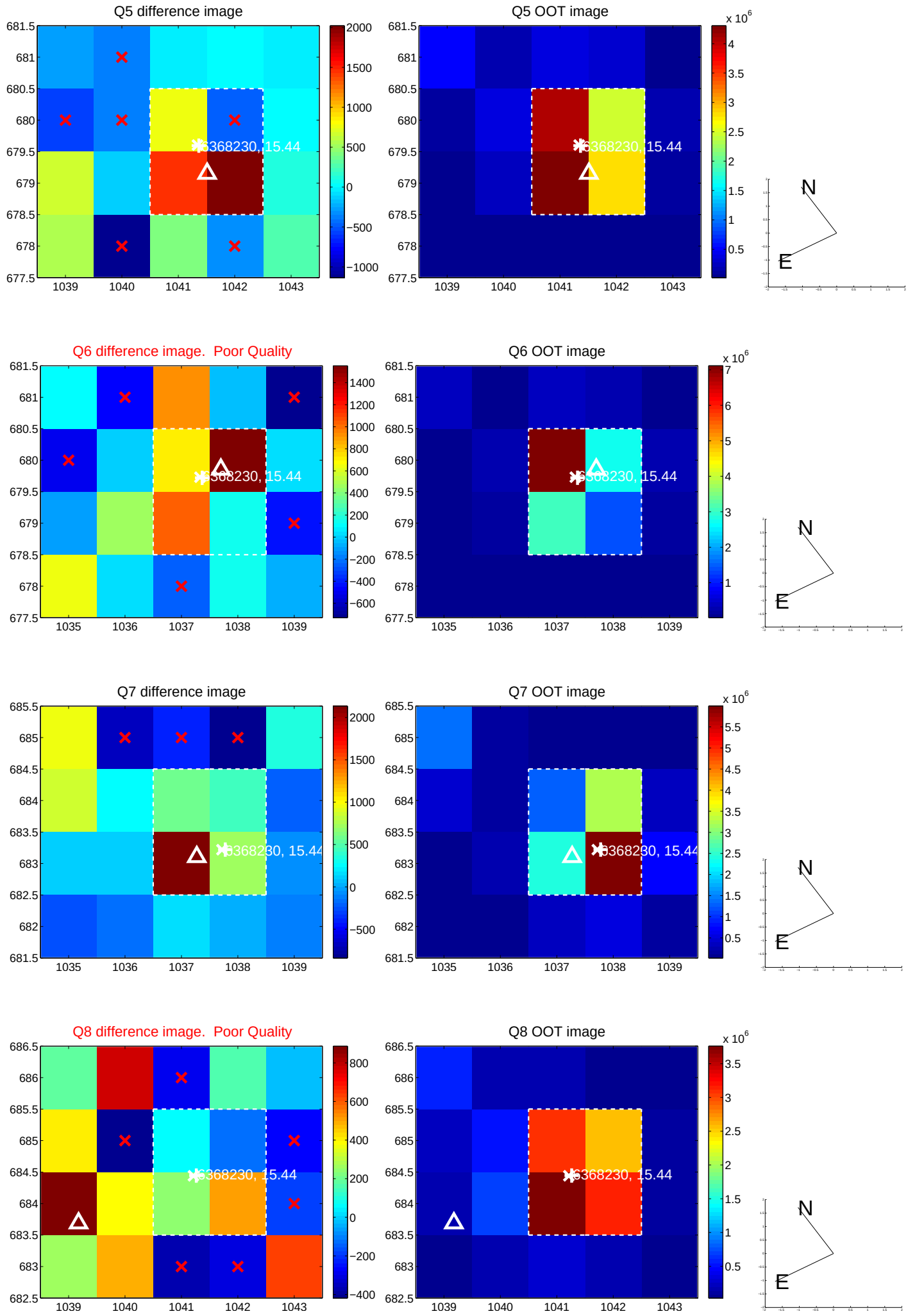


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

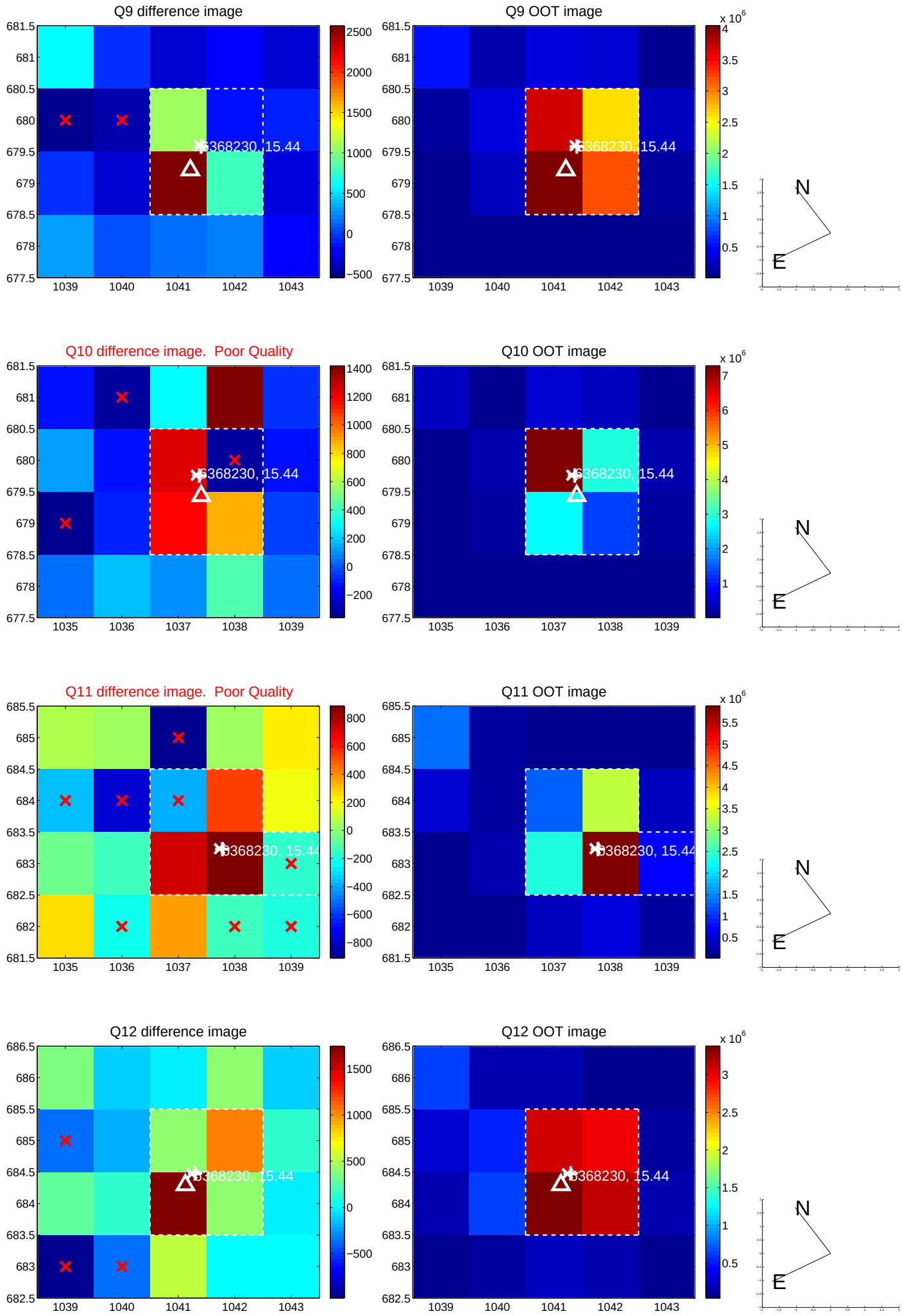
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



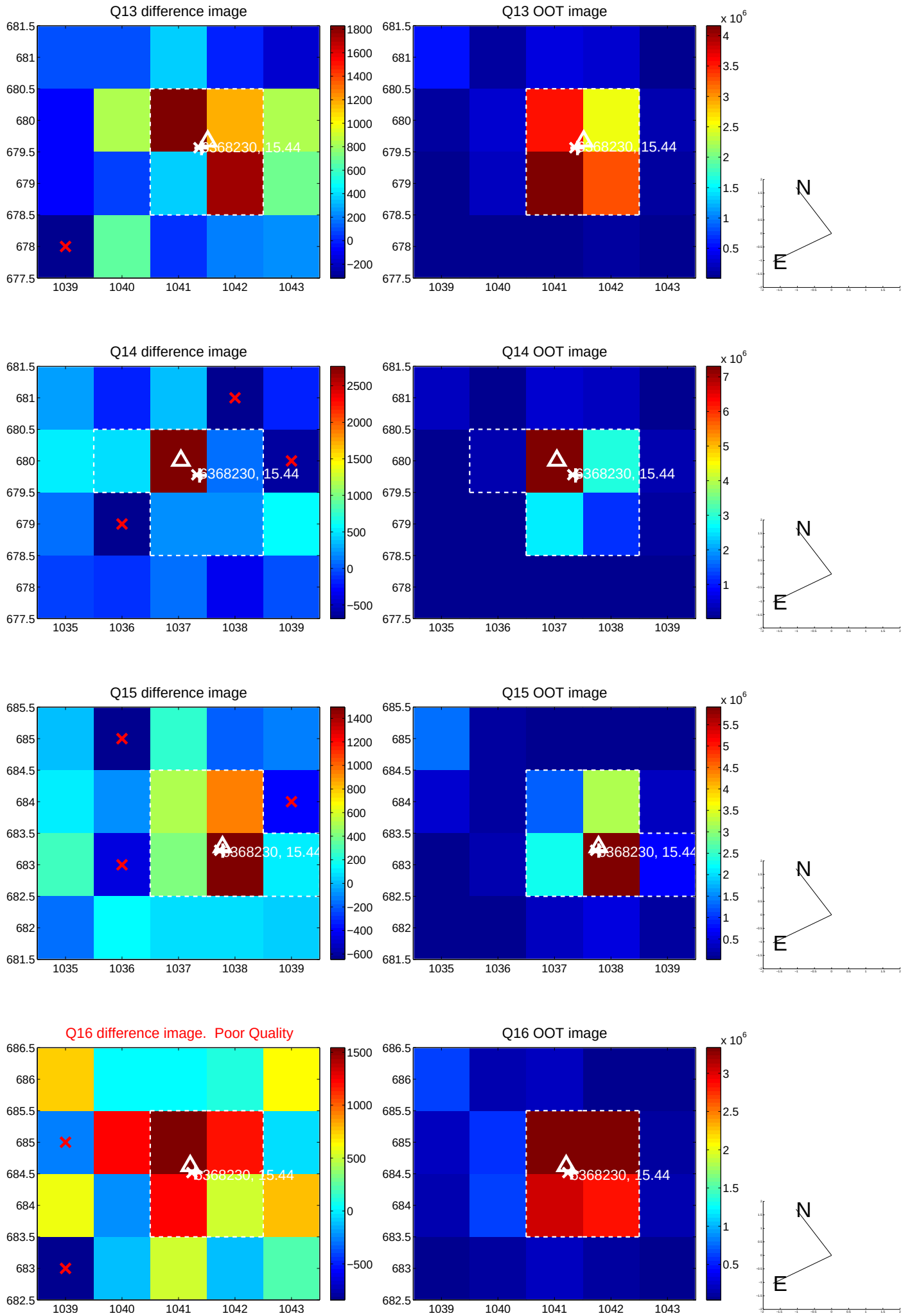
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



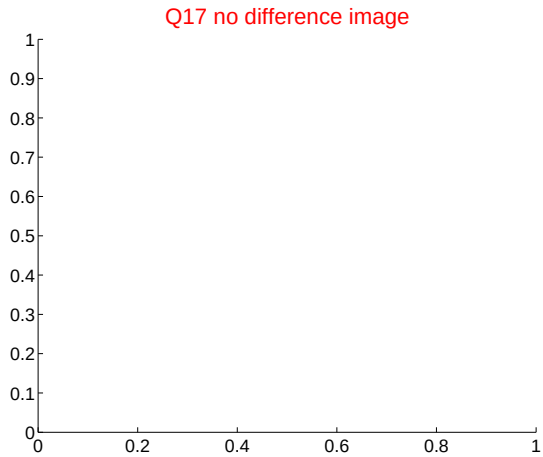
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

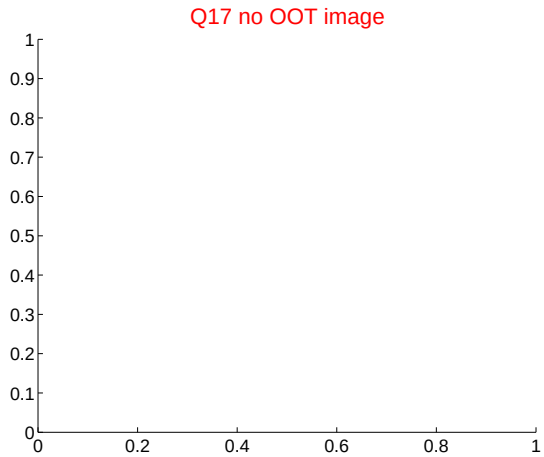


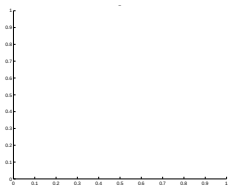
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

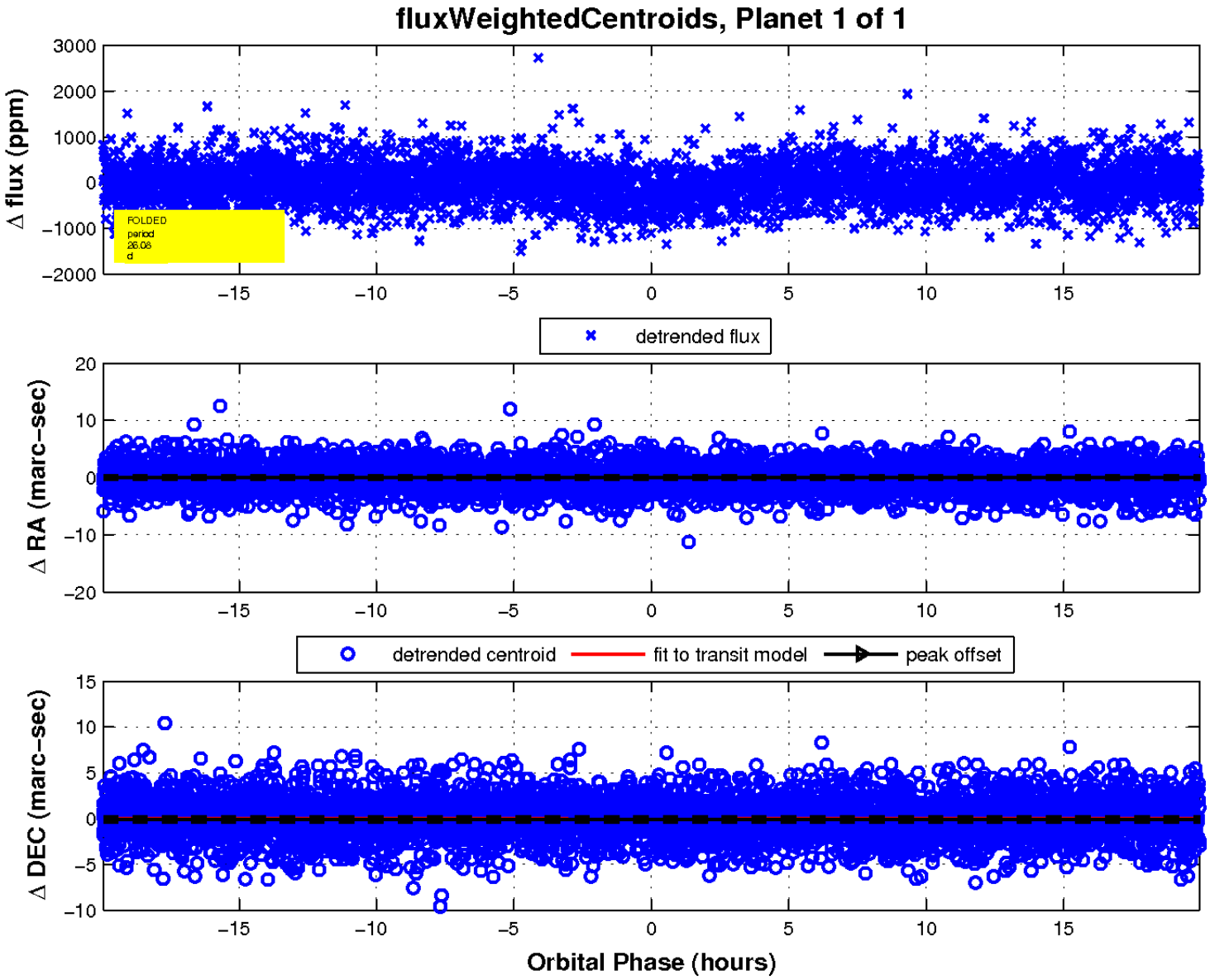
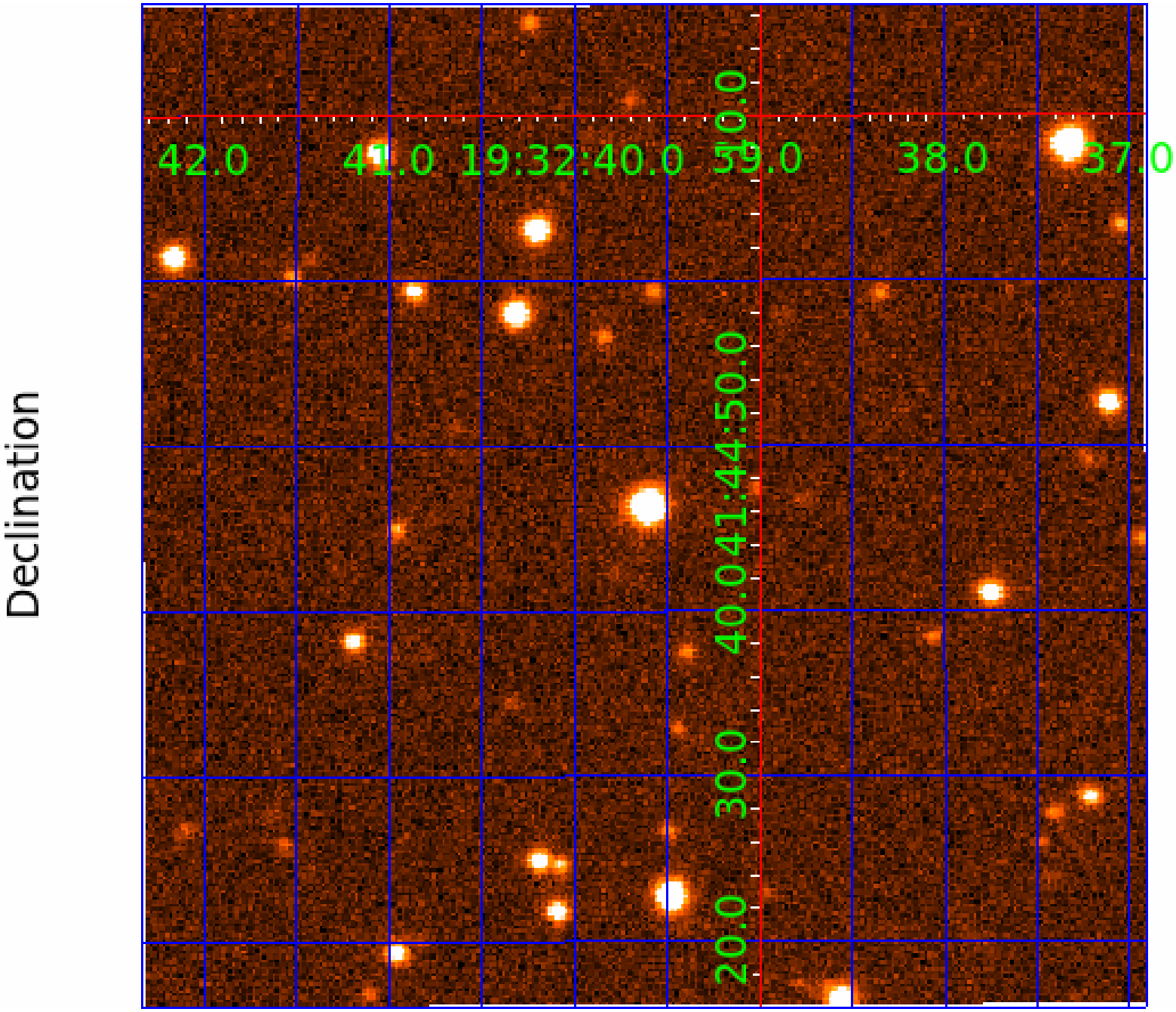


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.









UKIRT Image