KIC 009288444

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 ($S_\oplus$)
009288444-01	OBS	No	0.793040	132.056493	4.8	4.348	9.4	2.7	1.64	7018	0.38	15987.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009288444-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

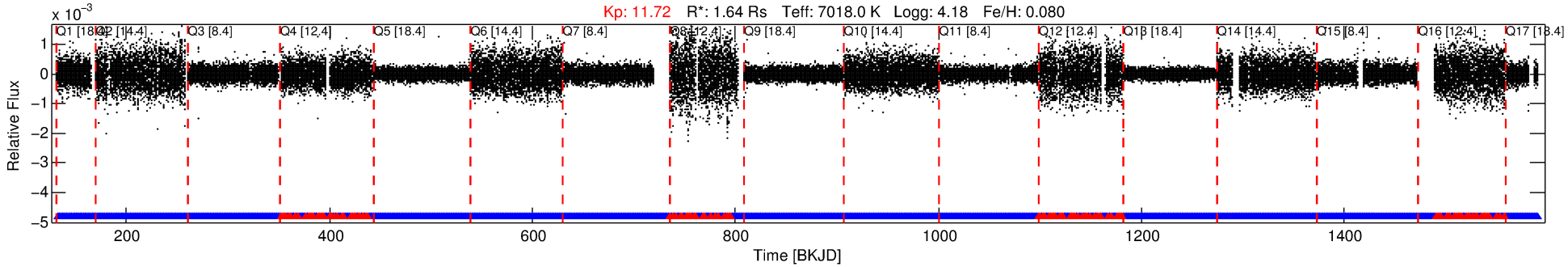
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

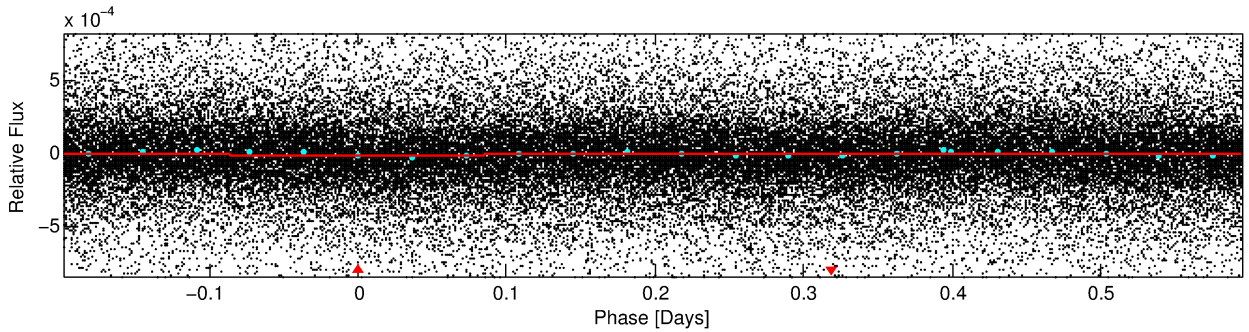
Ephemeris Match Information For 009288444-01

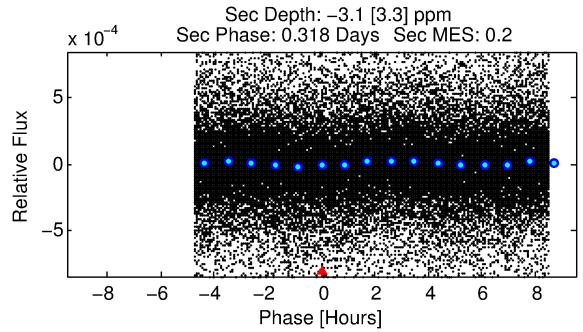
No Significant Match Found

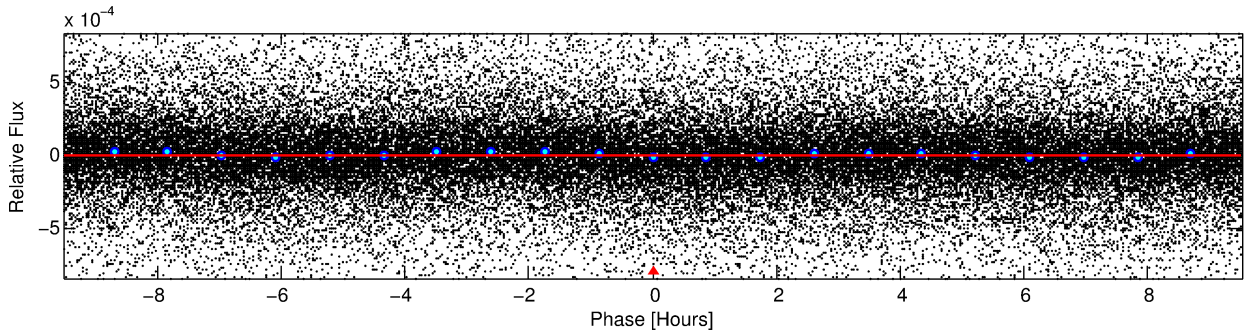
DV One-Page Summary

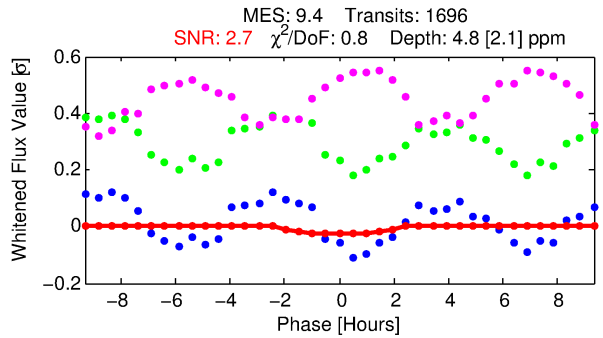
KIC: 9288444 Candidate: 1 of 1 Period: 0.793 d

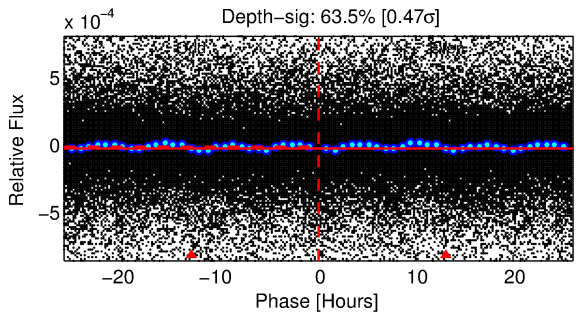


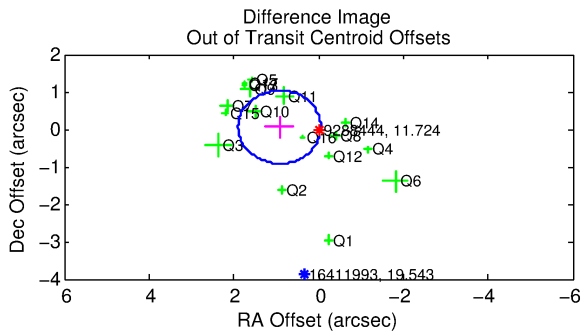












DV Fit Results:

Period = 0.79304 [0.00004] d
Epoch = 132.0565 [0.0160] BKJD
Rp/R* = 0.0021 [0.0013]
a/R* = 1.35 [2.09]
b = 0.62 [3.42]

Seff = 15987.45 [6710.44]
Teq = 2867 [301] K
Rp = 0.38 [0.27] Re
a = 0.0192 [0.0052] AU

Ag = N/A
Teffp = N/A

DV Diagnostic Results:

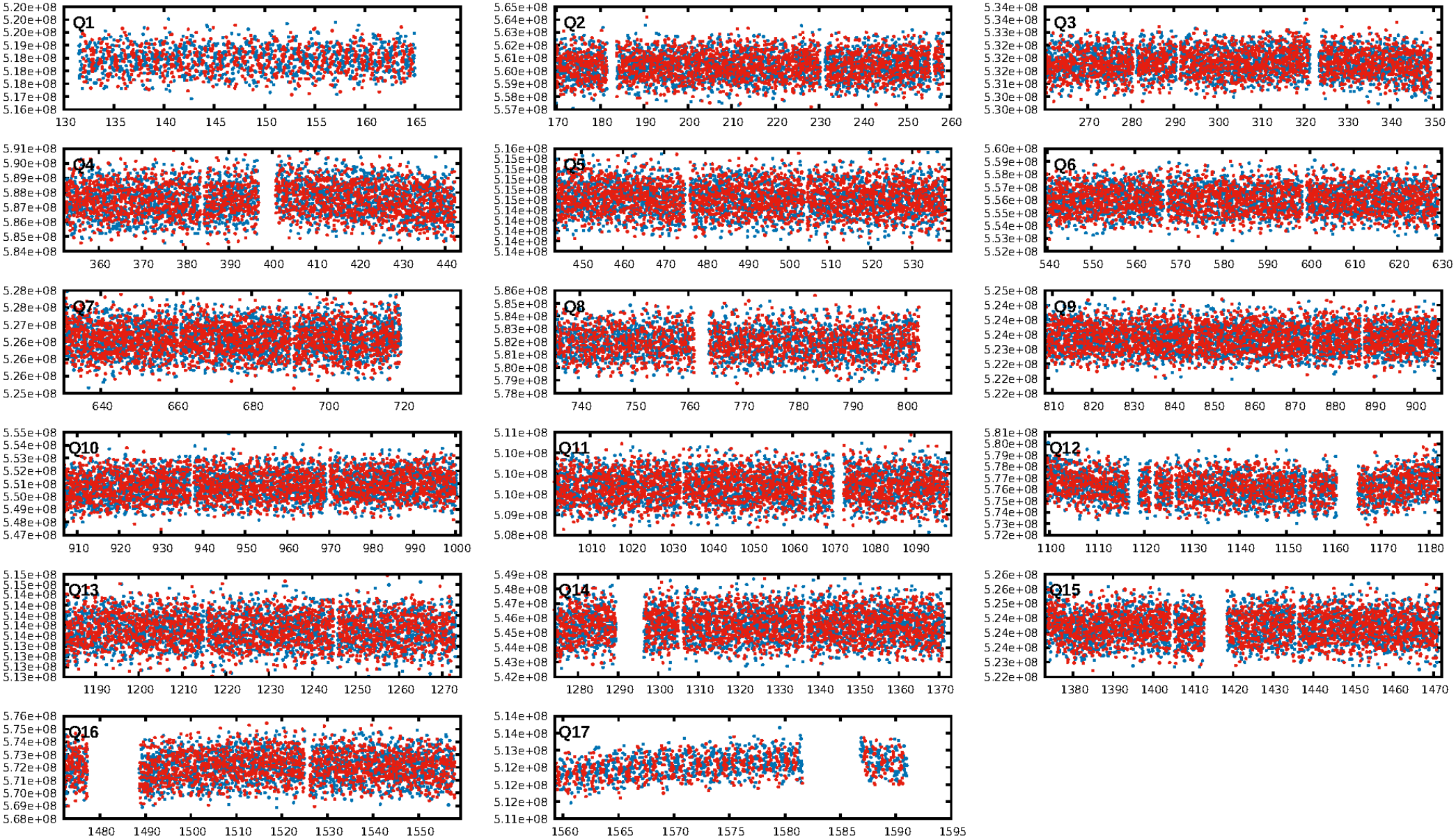
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 2.33e−23
RollingBand−fgt: 0.92 [1486/1621]
GhostDiagnostic−chr: N/A

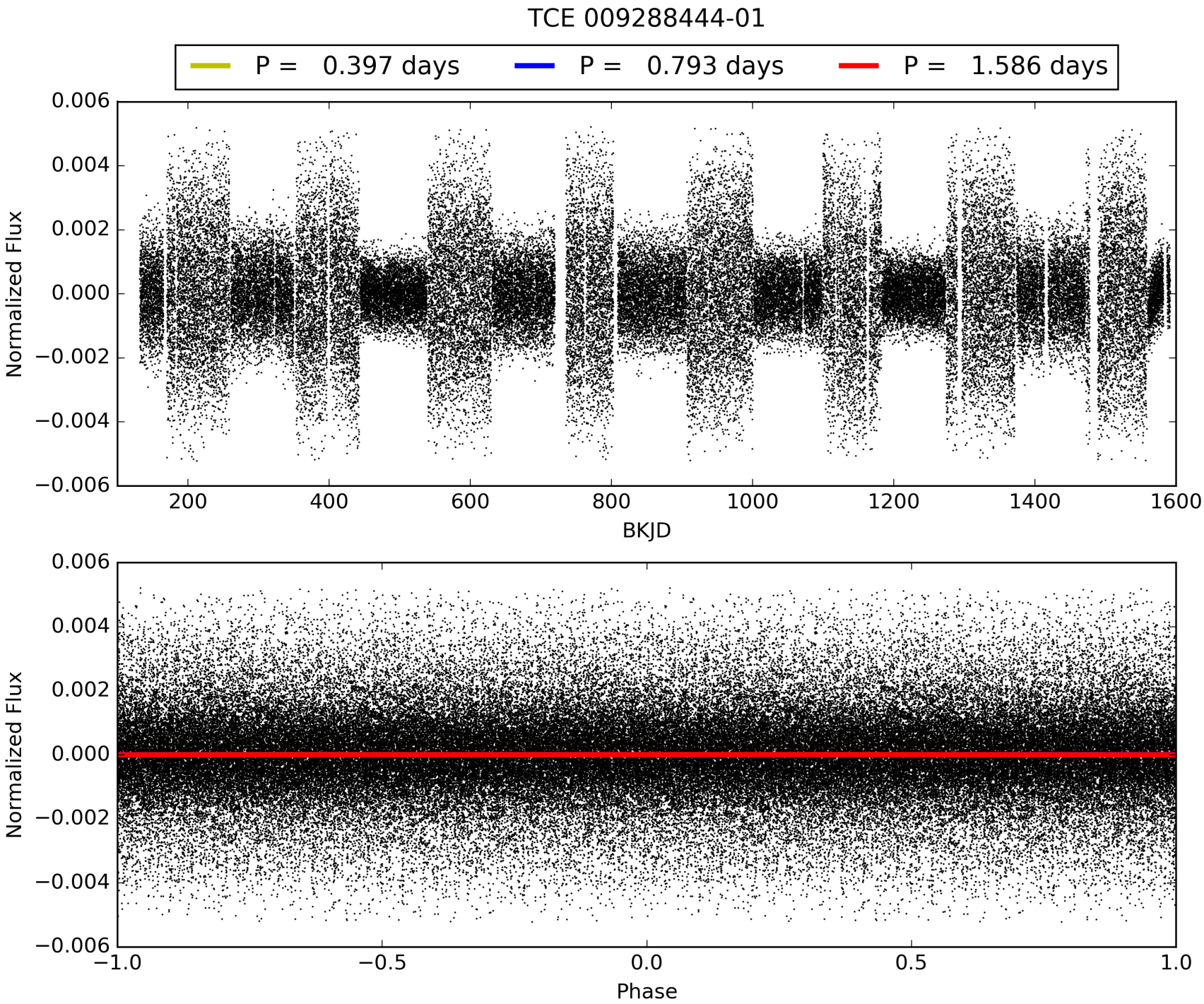
Centroid−sig: N/A
Centroid−so: N/A
OotOffset−rm: 0.926 arcsec [2.85σ]
KicOffset−rm: 1.163 arcsec [2.97σ]
OotOffset−st: 4/4/4/5 [17]
KicOffset−st: 4/4/4/5 [17]
DiffImageQuality−fgm: 0.41 [7/17]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 05:01:15 Z

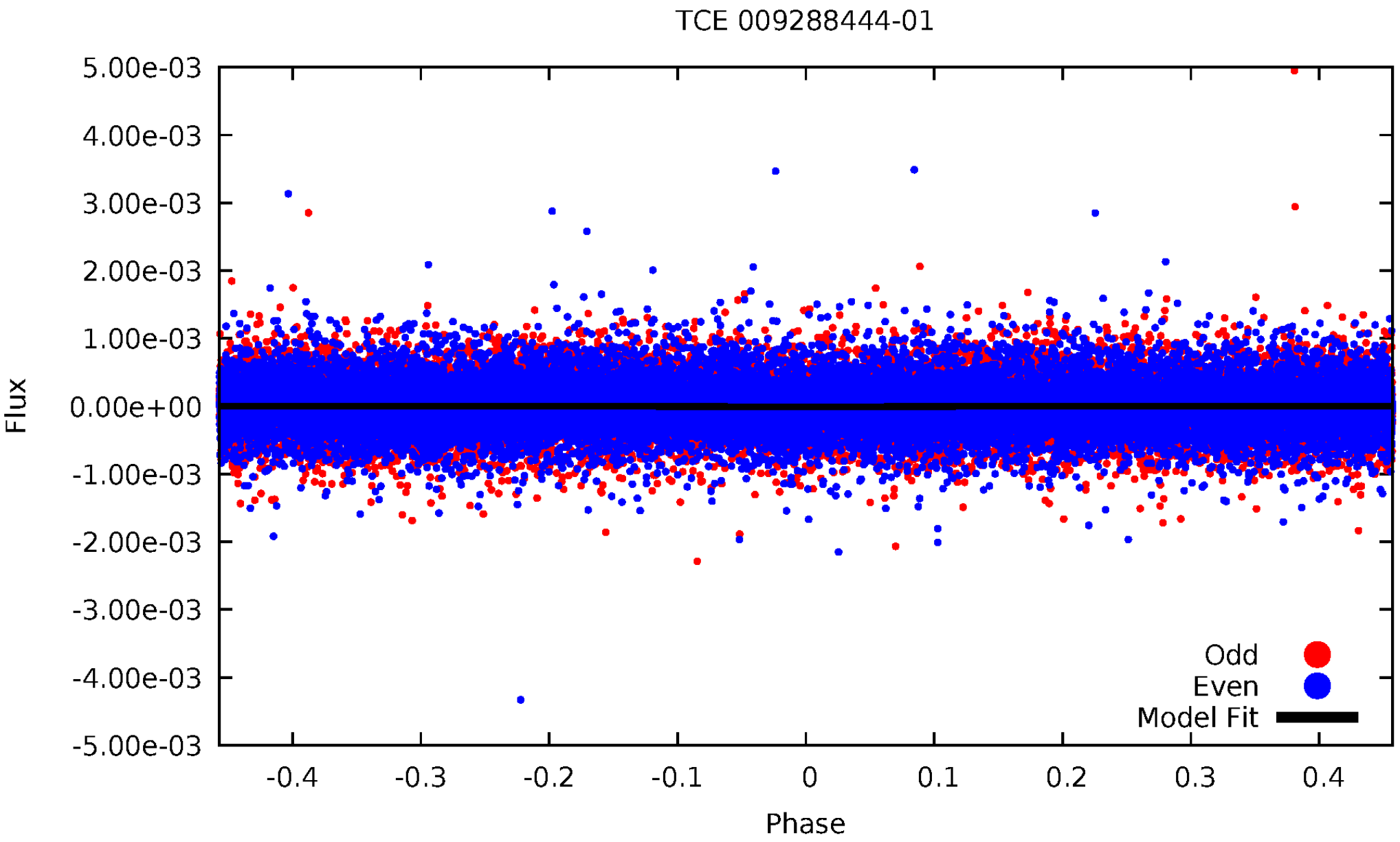
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009288444-01, PDC Light Curves

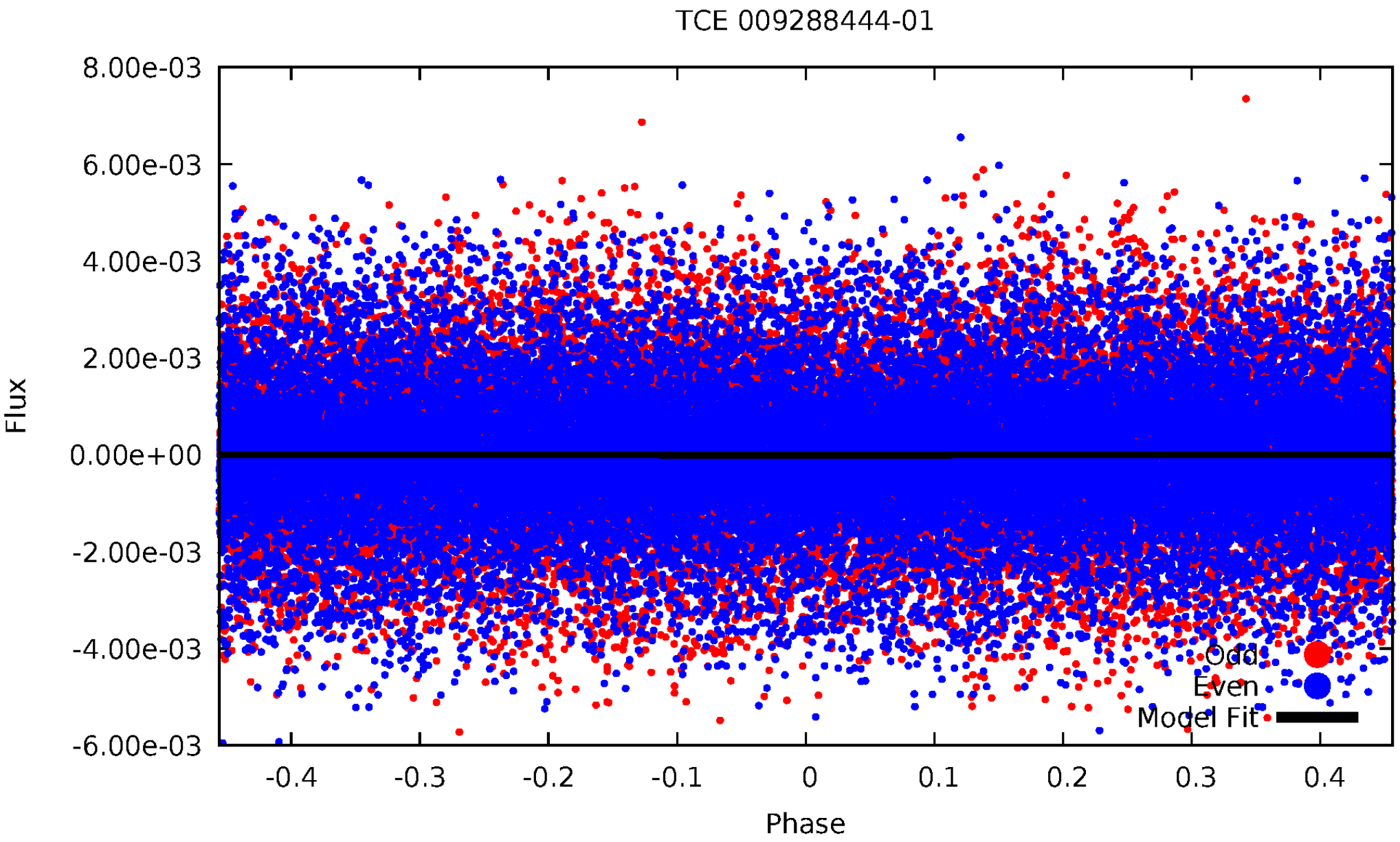



TCE 009288444-01
P = 0.397 days
P = 0.793 days
P = 1.586 days
Normalized Flux
BKJD
Normalized Flux
Phase

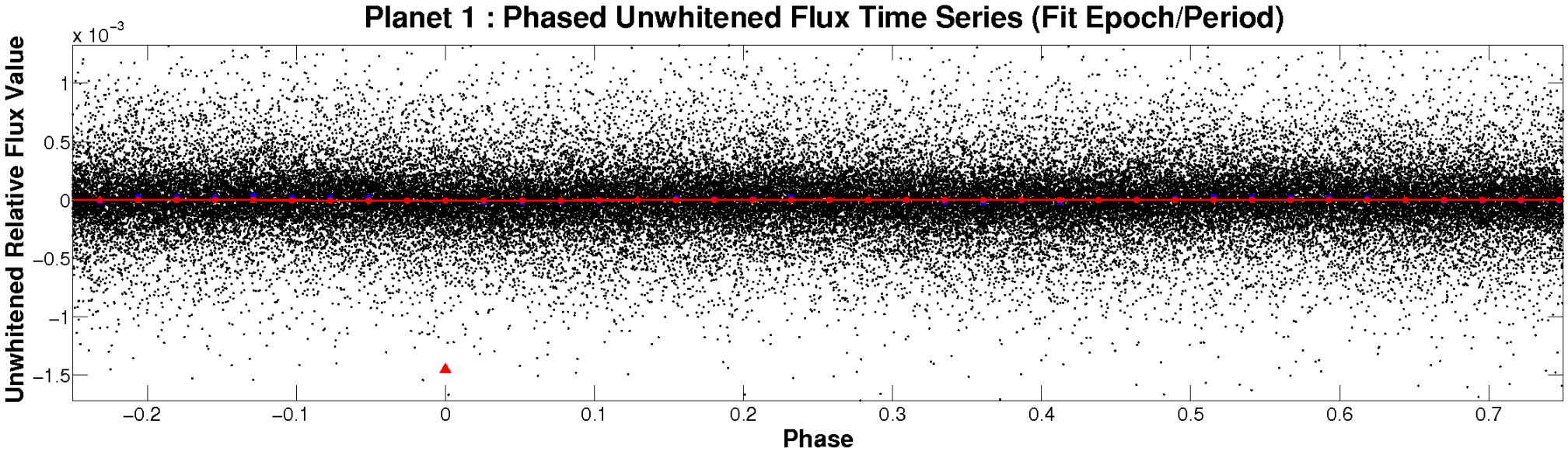
DV Odd/Even

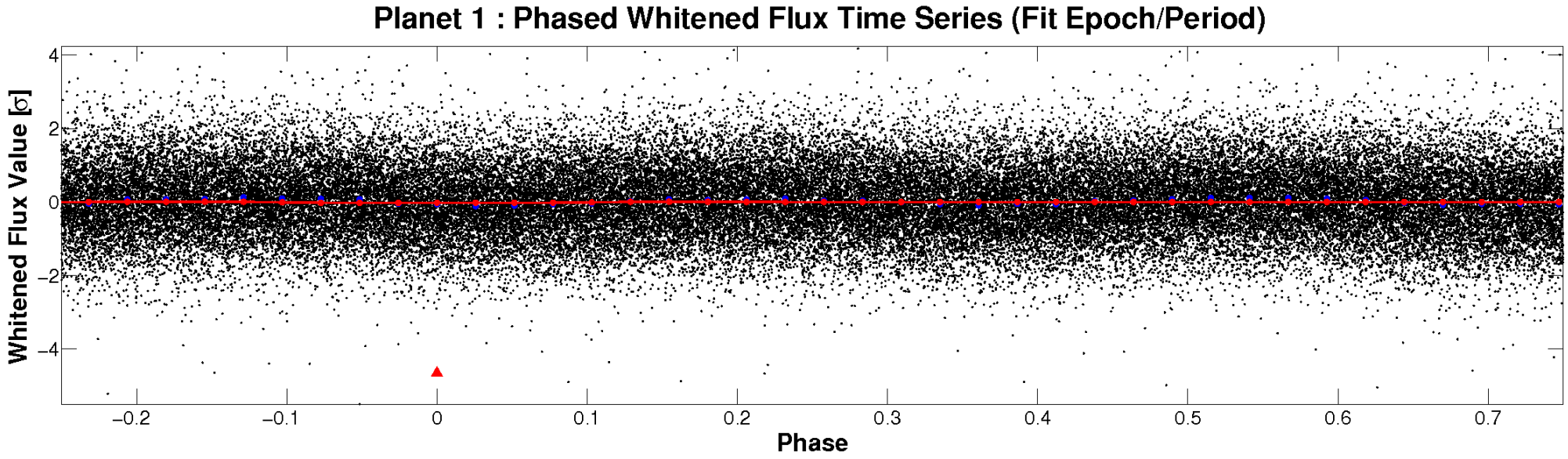

TCE 009288444-01
5.00e-03
4.00e-03
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
-5.00e-03
Flux
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 009288444-01
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
Flux
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
Phase
Odd
Even
Model Fit

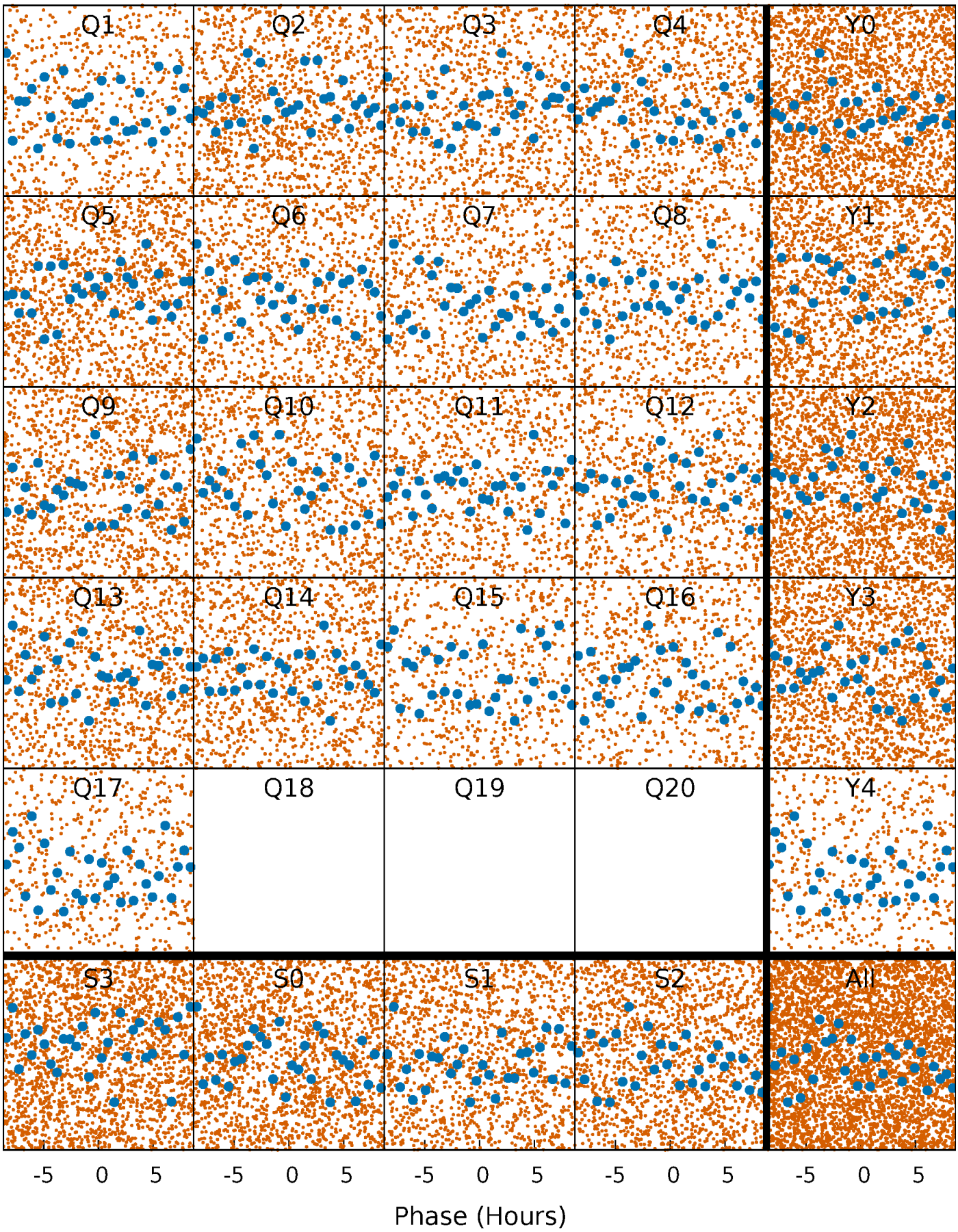
Non-Whitened Vs. Whitened Light Curve





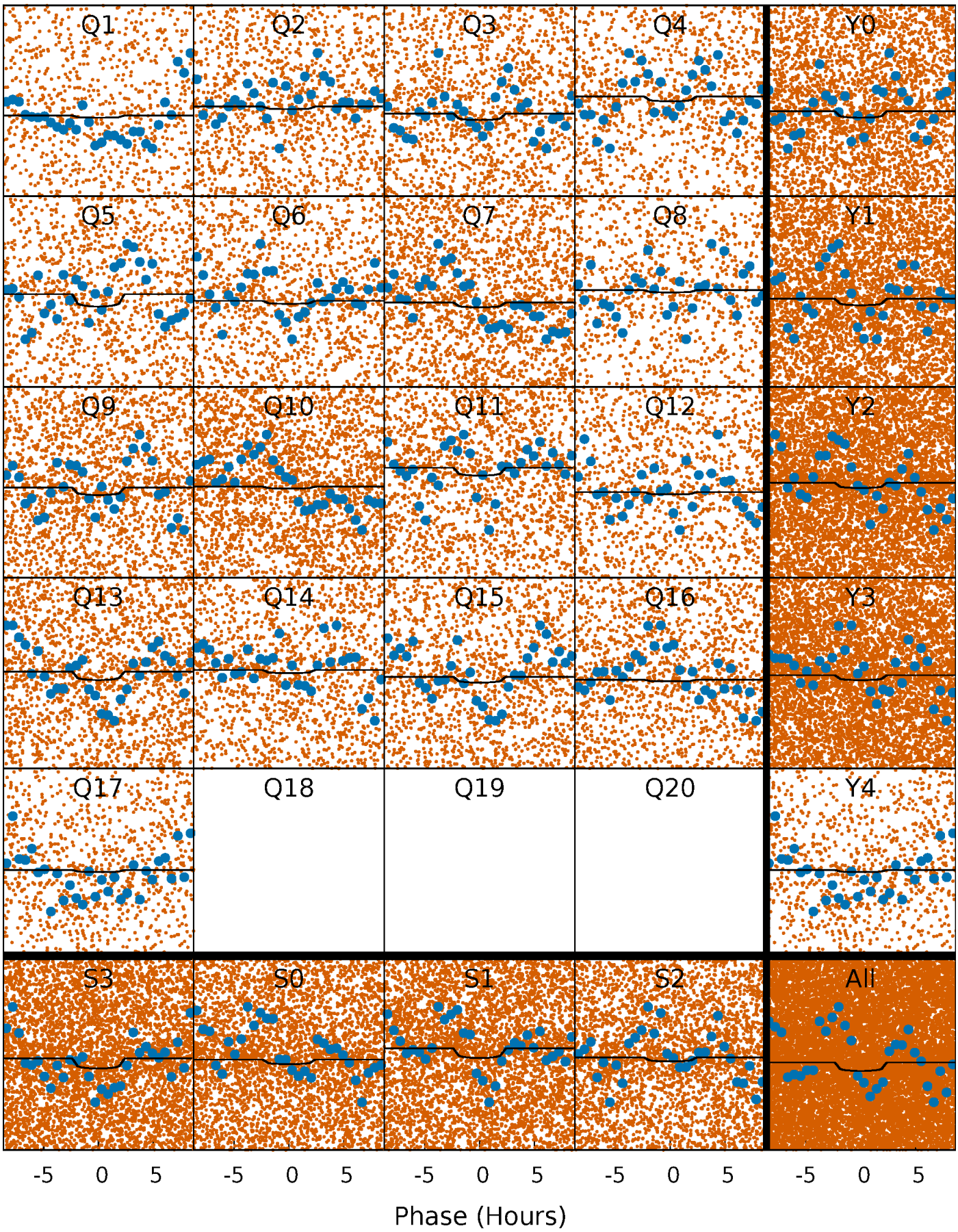
PDC Quarter-Phased Transit Curves

TCE 009288444-01 P= 0.793040 Days T_0=132.056493 (BKJD)



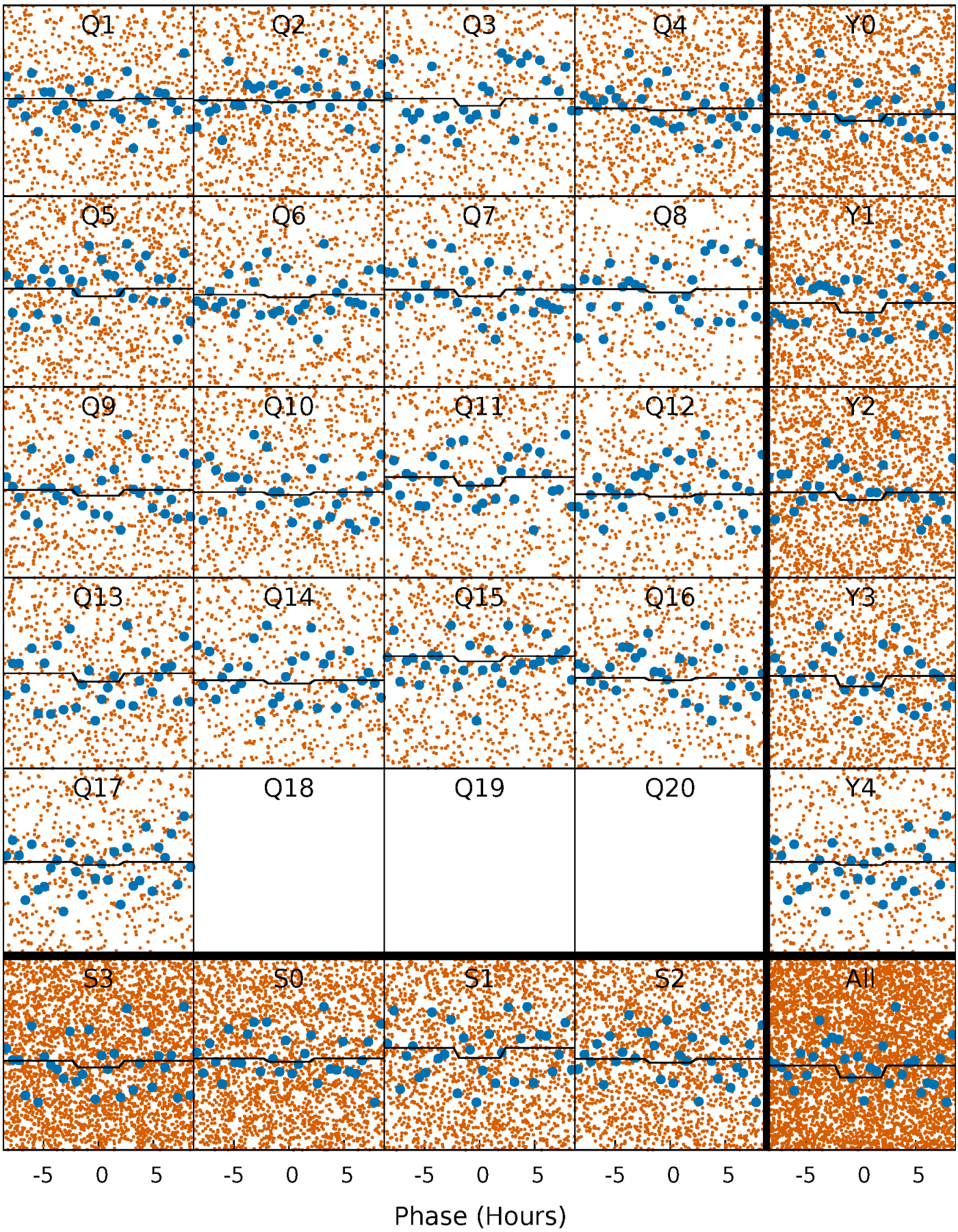
DV Quarter-Phased Transit Curves

TCE 009288444-01 P= 0.793040 Days T_0=132.056493 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

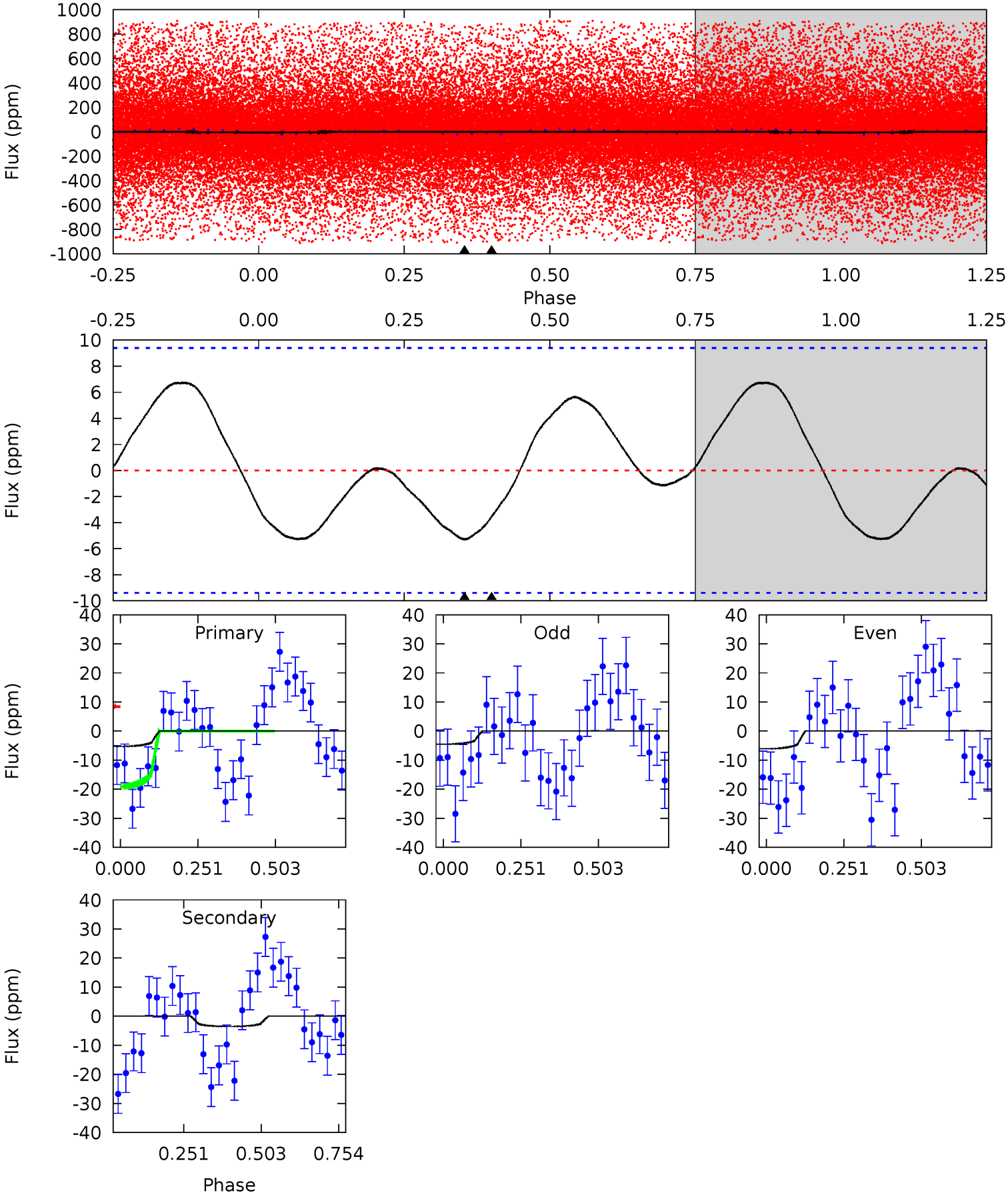
TCE 009288444-01 P= 0.793085 Days T_0=132.041209 (BKJD)



DV Model-Shift Uniqueness Test

009288444-01, P = 0.793040 Days, E = 131.263453 Days

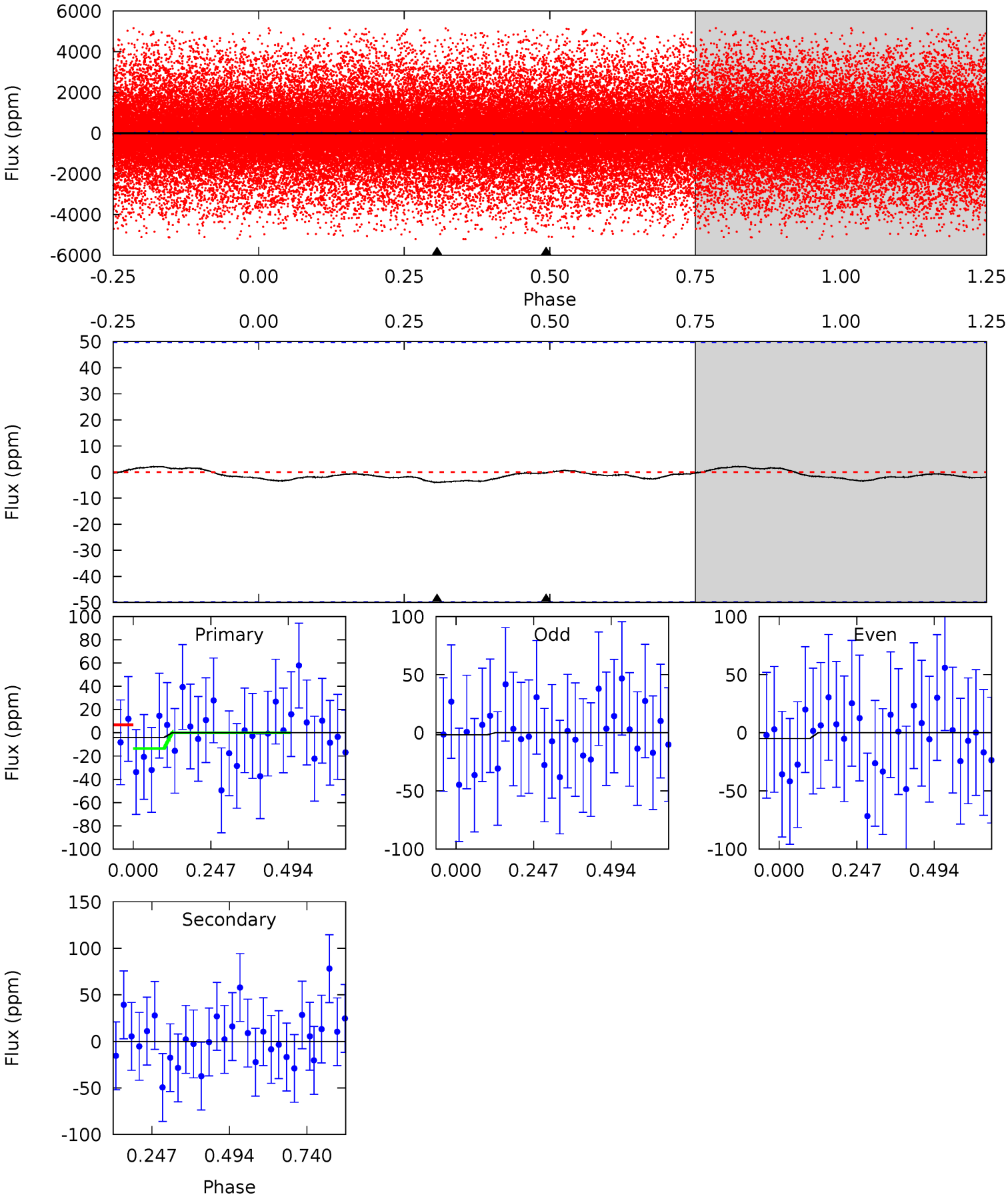
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.46	1.65	0	0	4.37	1.15	1.82	2.46	2.46	1.65	1.65	0.37	0.27	0.56	2.57



Alt Model-Shift Uniqueness Test

009288444-01, P = 0.793085 Days, E = 131.248124 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.35	0.03	0	0	4.37	1.16	0.16	0.35	0.35	0.03	0.03	0.14	-0.25	0.34	0.30



Stellar Parameters For KIC 009288444

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	7018^{+194}_{-305}	$4.180^{+0.109}_{-0.202}$	$0.080^{+0.200}_{-0.350}$	$1.643^{+0.550}_{-0.296}$	$1.490^{+0.231}_{-0.231}$	$0.473^{+0.252}_{-0.262}$
	+3%/-4%	+3%/-5%	+250%/-438%	+33%/-18%	+16%/-16%	+53%/-55%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009288444-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4±2	$0.39^{+0.23}_{-0.21}$	4033^{+320}_{-256}	6204^{+4375}_{-1740}	$4.352^{+17.103}_{-3.200}$
Alt.	-0±11	$0.69^{+0.27}_{-0.27}$	4035^{+310}_{-249}	-3920^{+10689}_{-3237}	$-0.040^{+5.412}_{-6.492}$

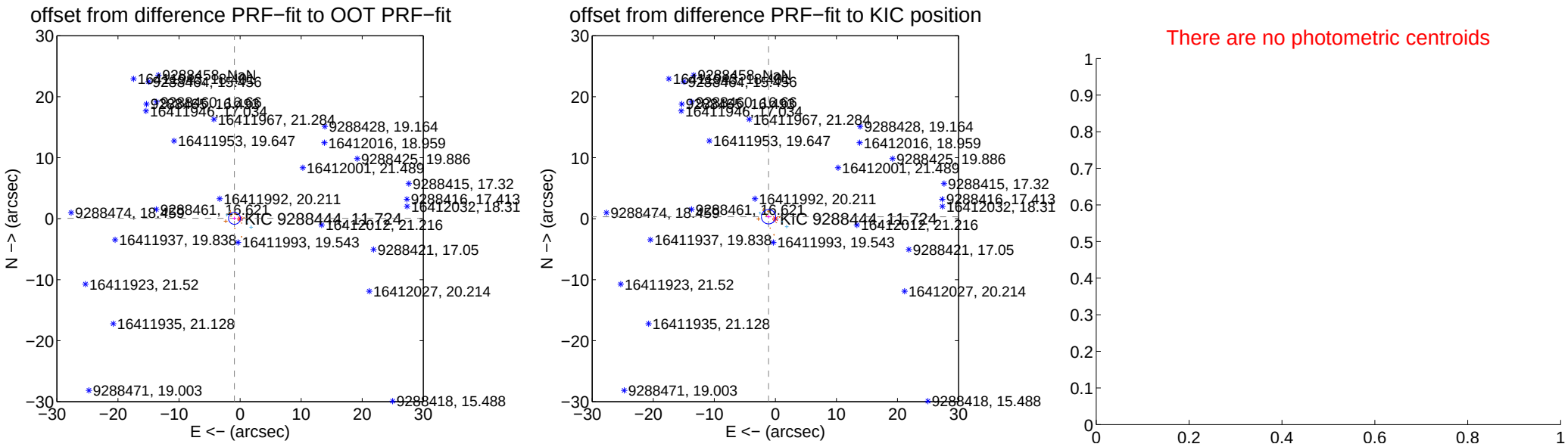
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

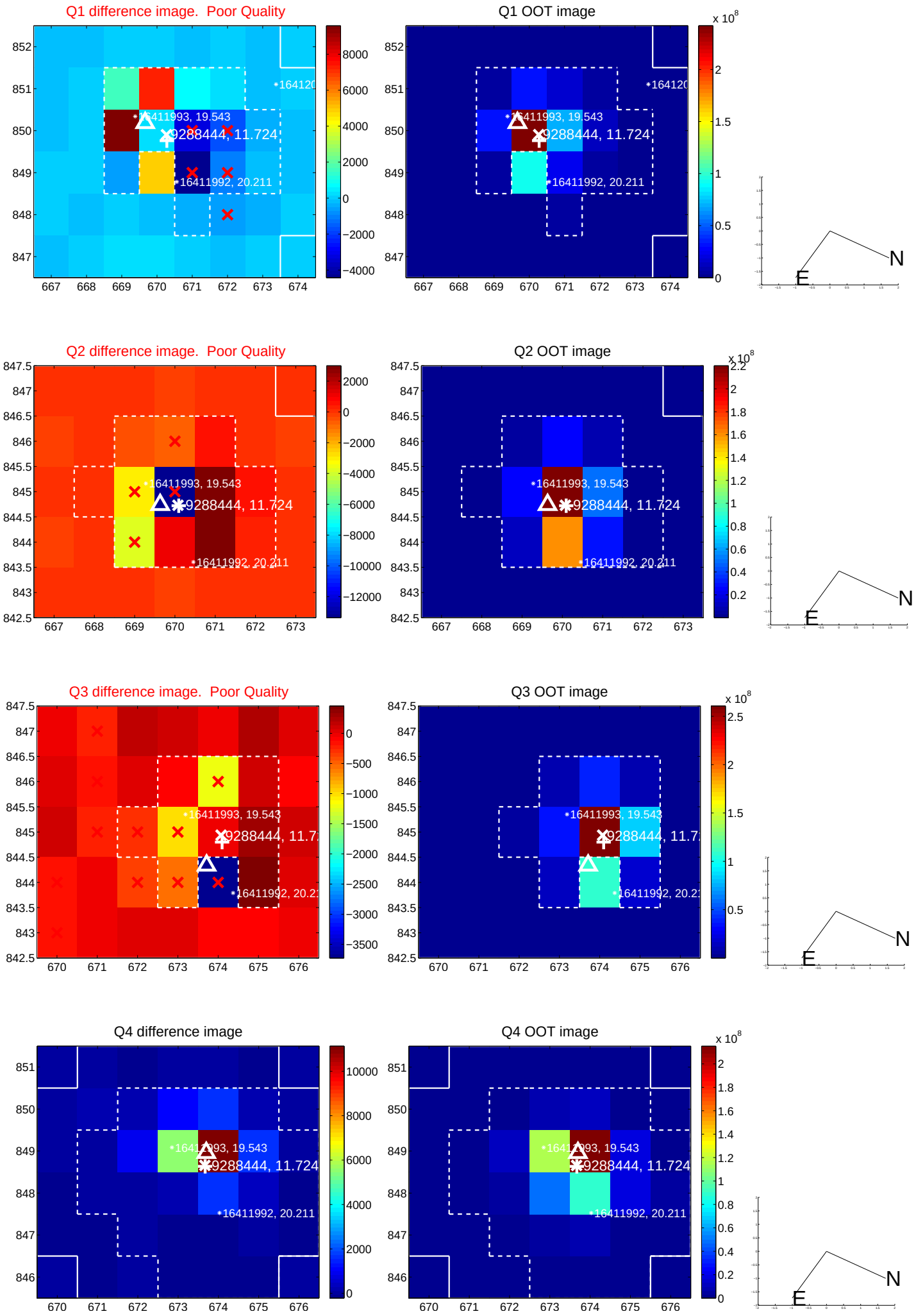
Supplemental centroid analysis for 009288444-01. Kepler magnitude: 11.72. Transit SNR 2.66
There are 7 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.926 ± 0.325	2.85	0.925 ± 0.315	0.059 ± 0.286
PRF-fit source offset from KIC position	1.163 ± 0.392	2.97	1.118 ± 0.353	0.321 ± 0.287
photometric centroid source offset	—	—	—	—

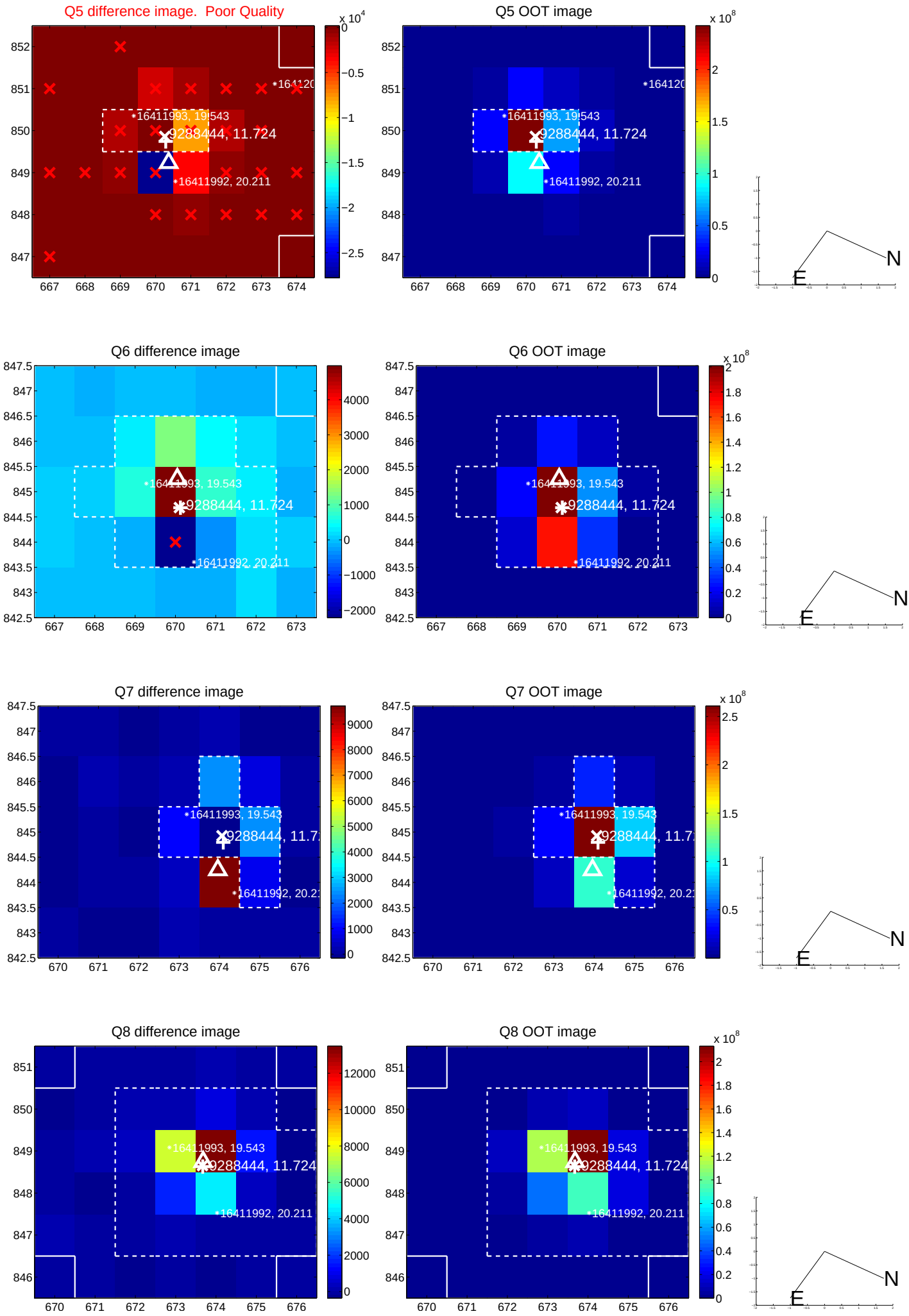


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

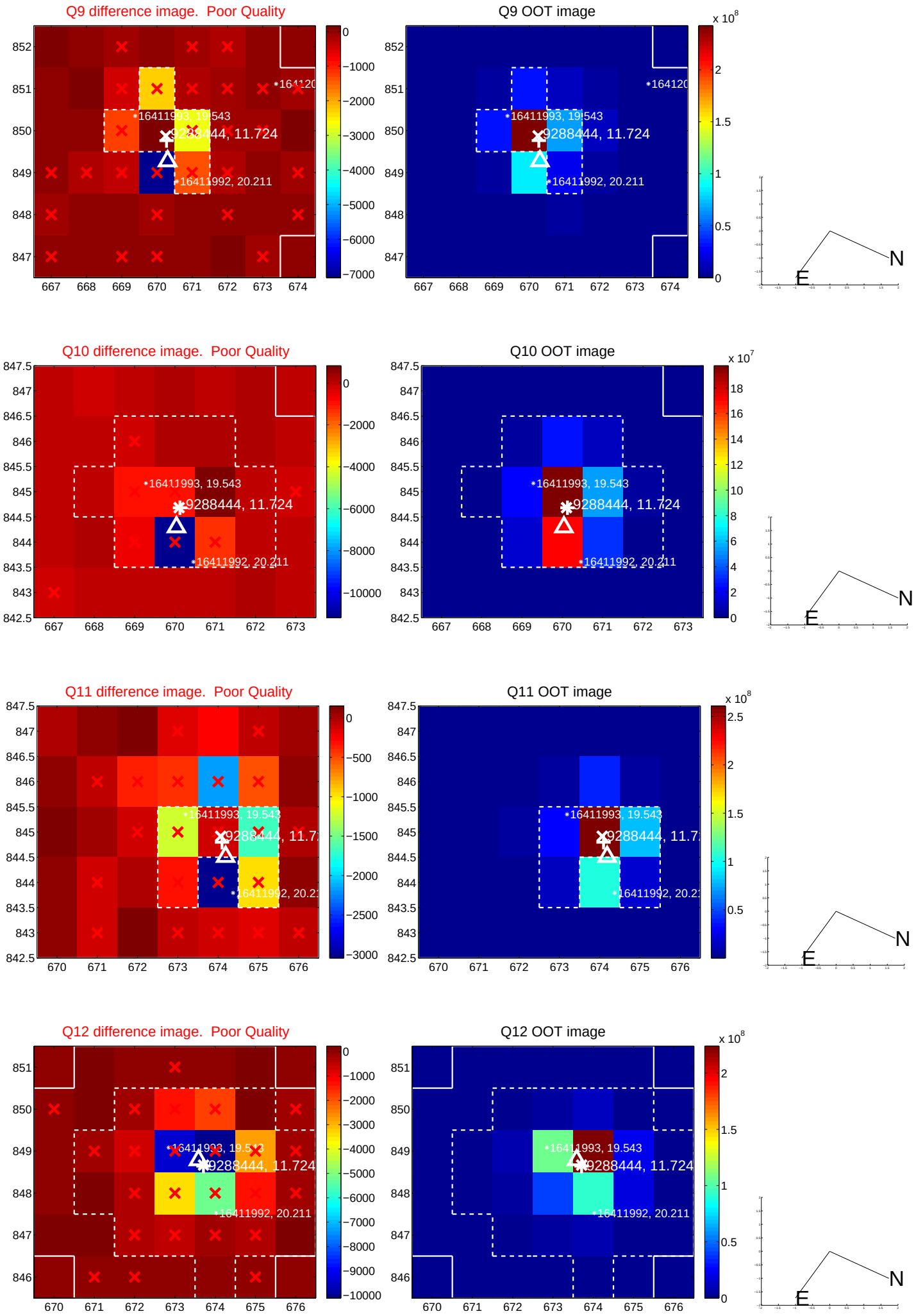
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



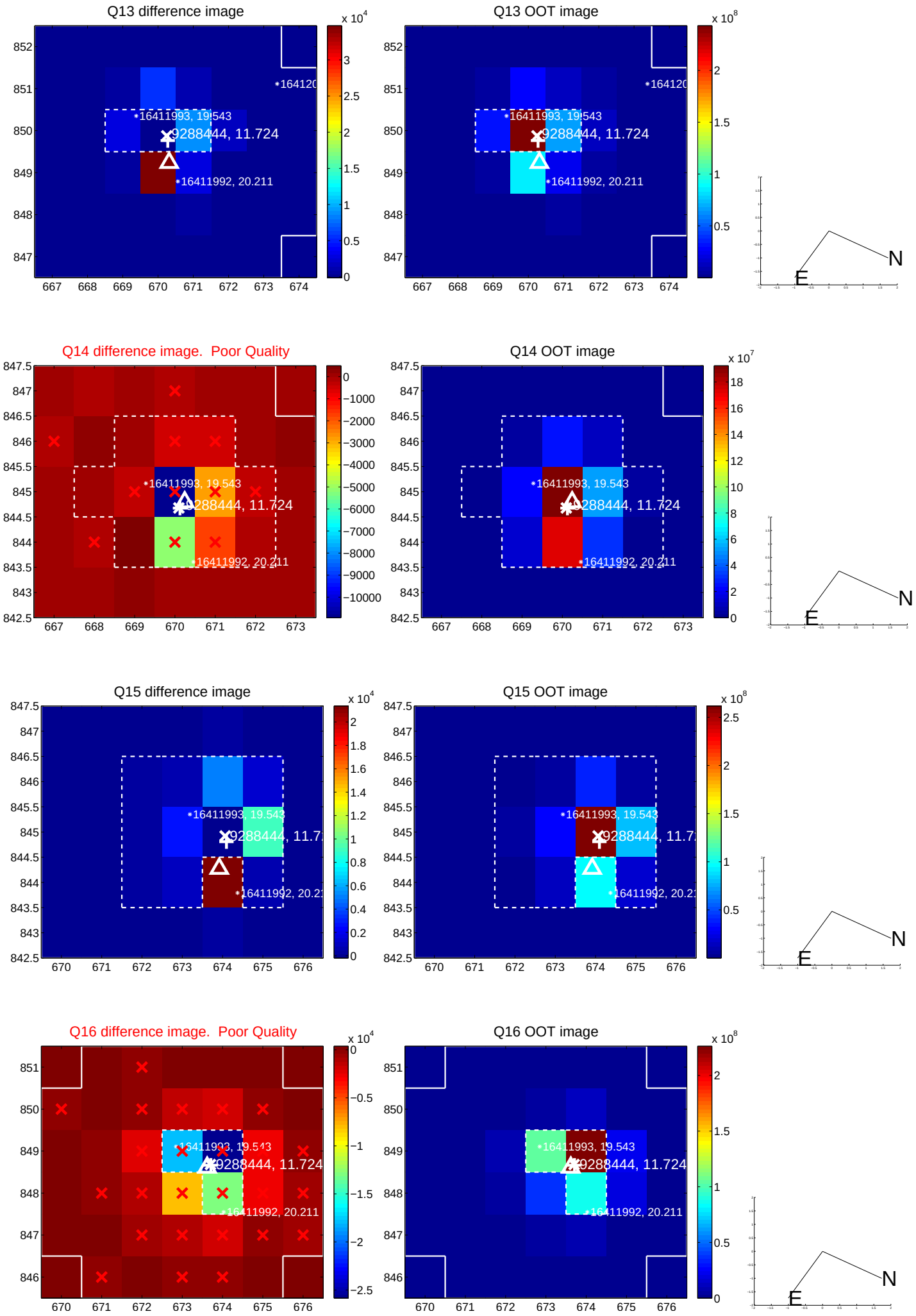
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



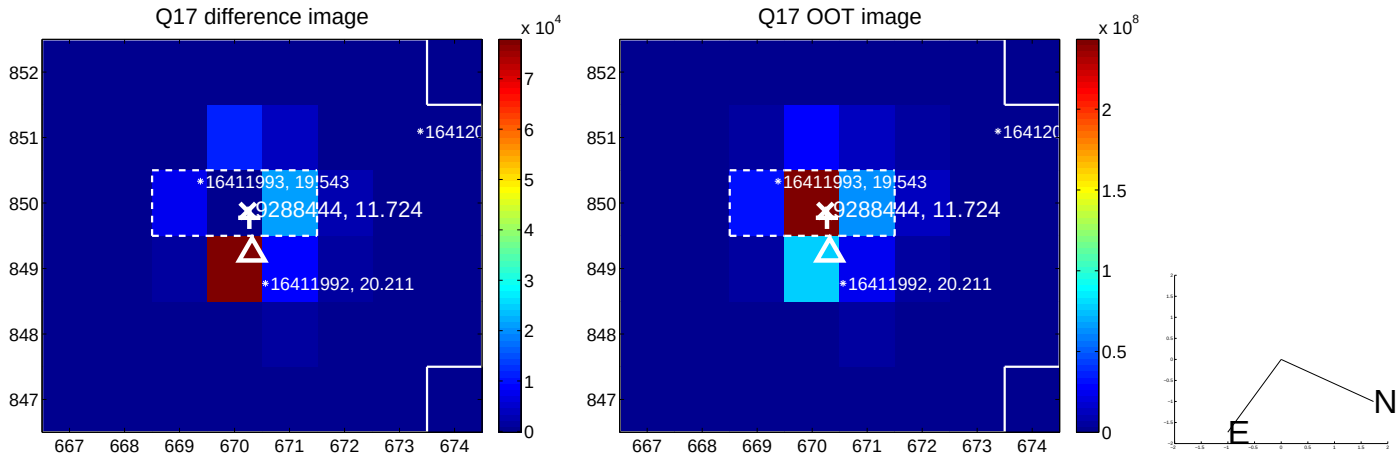
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

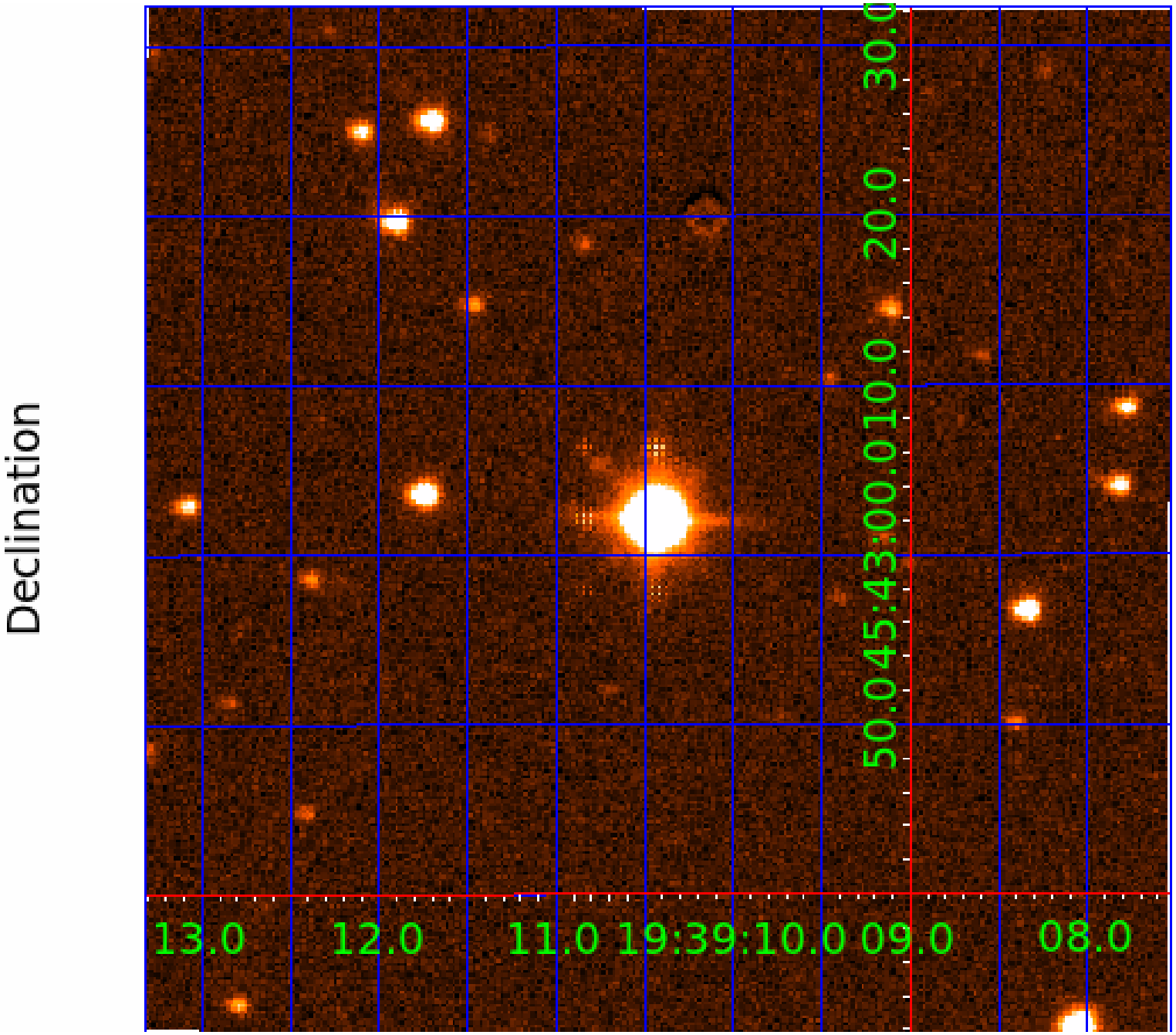


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



olded centroid time series figure for this object.

UKIRT Image


Declination
50.0
45:43:00.0
10.0
20.0
30.0
13.0
12.0
11.0
19:39:10.0
09.0
08.0