KIC 008126486

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 ($S_\oplus$)
008126486-01	OBS	No	1.897598	131.803509	46.9	3.944	8.0	5.6	1.06	6469	0.84	1827.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008126486-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

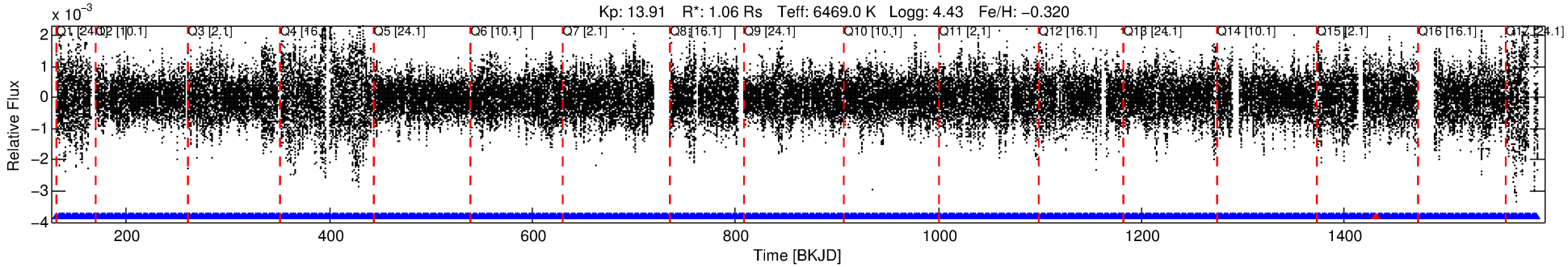
Ephemeris Match Information For 008126486-01

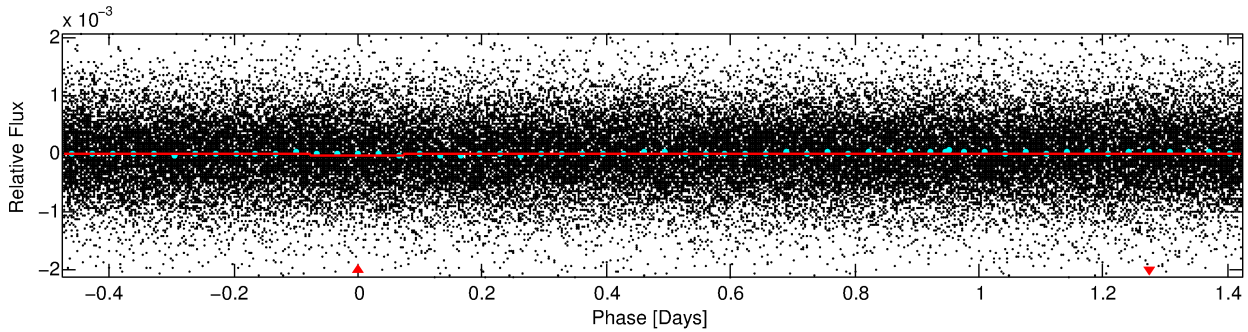
No Significant Match Found

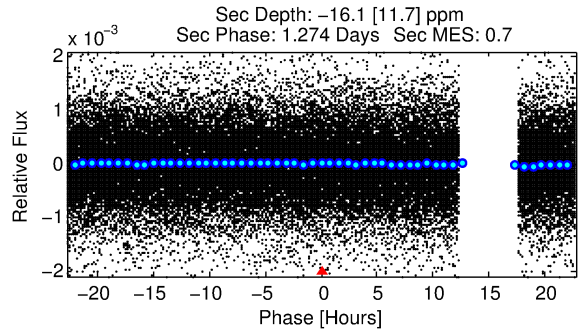
DV One-Page Summary

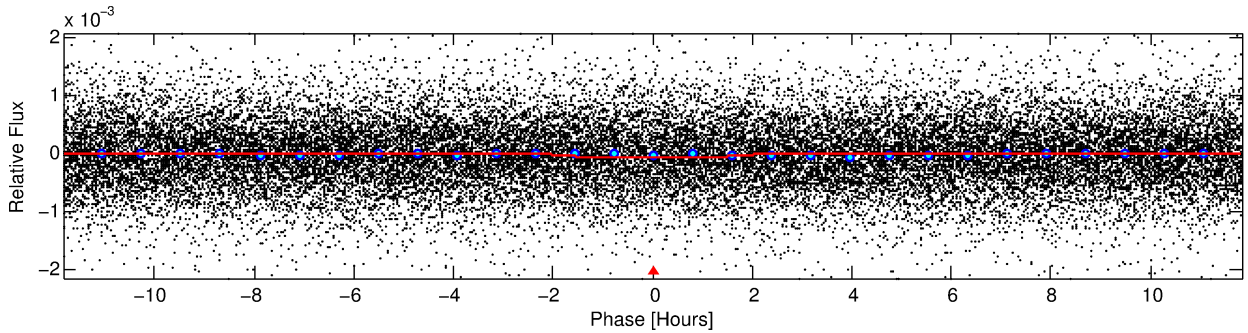
KIC: 8126486 Candidate: 1 of 1 Period: 1.898 d

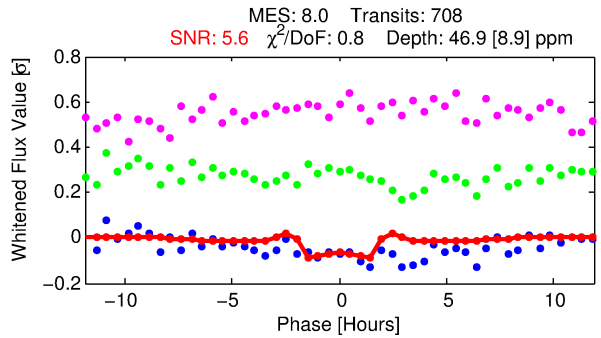
Kp: 13.91 R*: 1.06 Rs Teff: 6469.0 K Logg: 4.43 Fe/H: −0.320

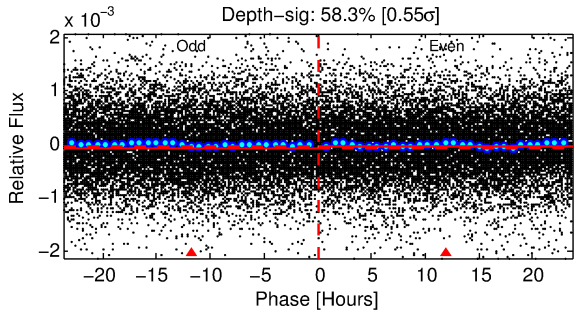


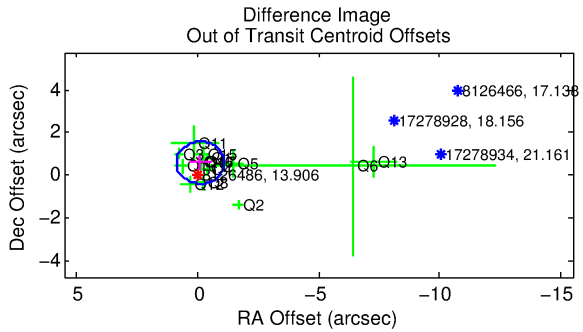












DV Fit Results:

Period = 1.89760 [0.00002] d
Epoch = 131.8035 [0.0046] BKJD
Rp/R* = 0.0073 [0.0031]
a/R* = 1.92 [3.40]
b = 0.90 [0.53]

Seff = 1827.03 [751.73]
Teq = 1667 [171] K
Rp = 0.84 [0.44] Re
a = 0.0309 [0.0081] AU

Ag = N/A
Teffp = N/A

DV Diagnostic Results:

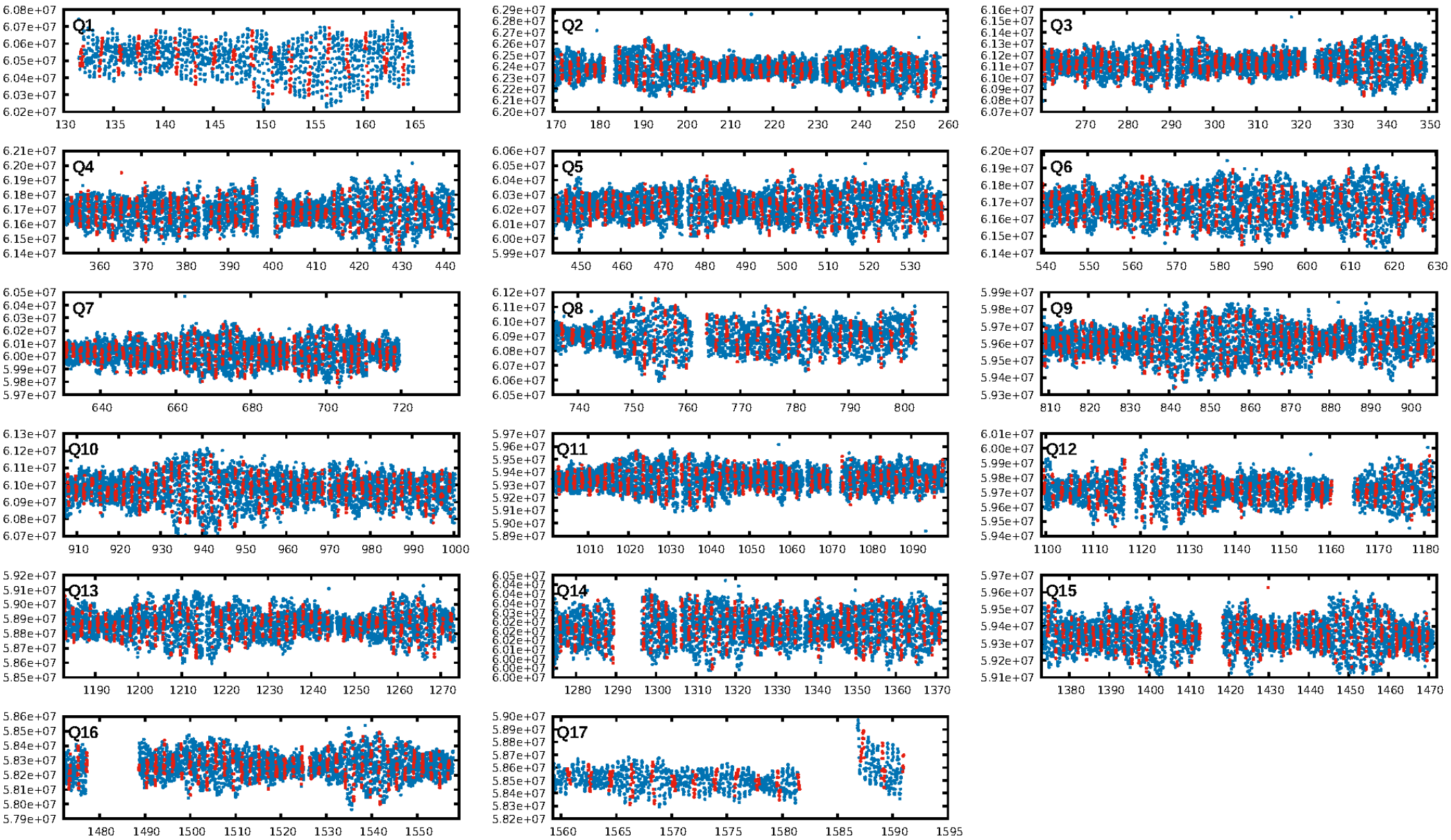
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 2.47e−22
RollingBand−fgt: 1.00 [674/675]
GhostDiagnostic−chr: 3.768

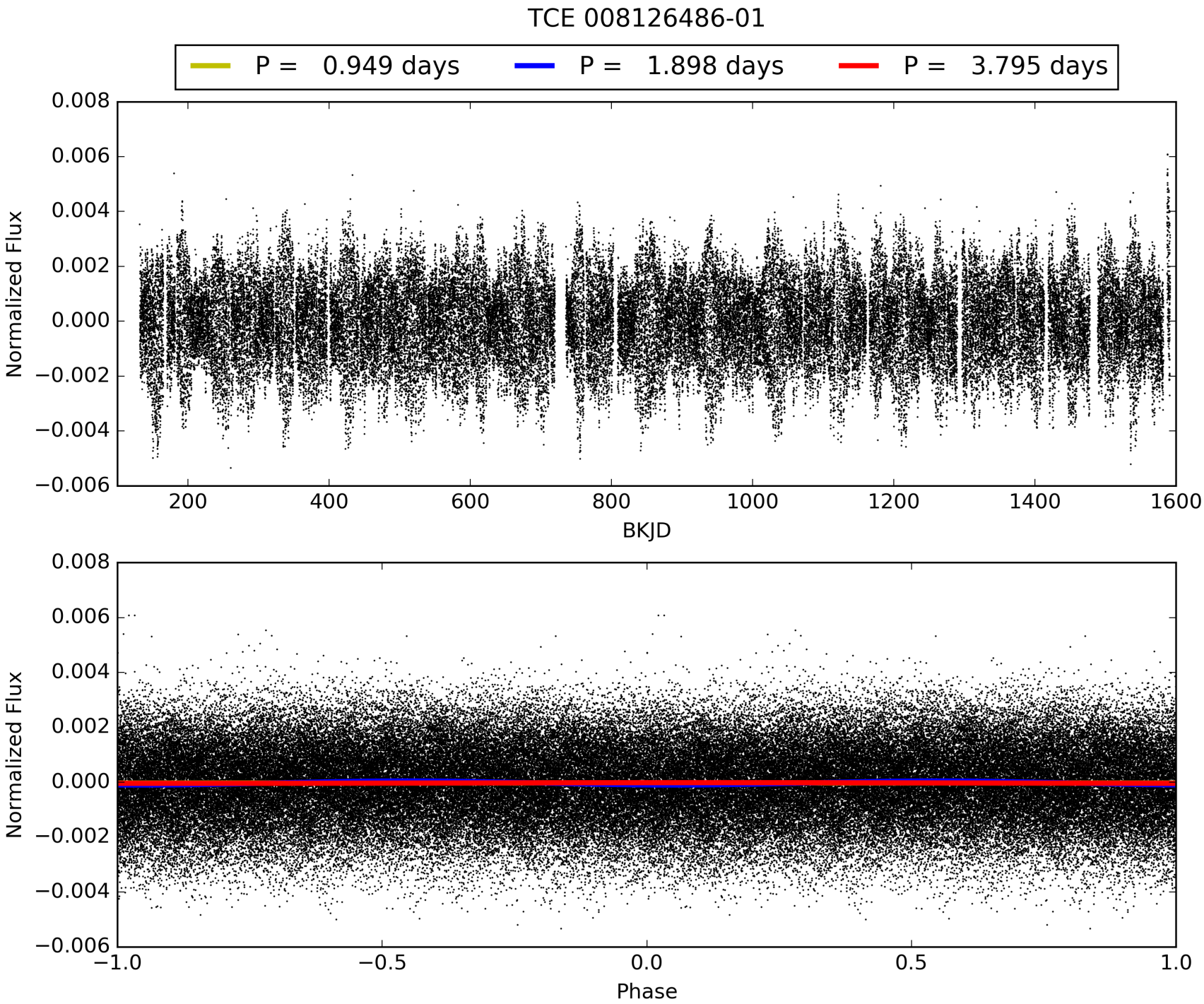
Centroid−sig: 0.4%
Centroid−so: 1.240 arcsec [1.14σ]
OotOffset−rm: 0.601 arcsec [1.83σ]
KicOffset−rm: 0.368 arcsec [1.13σ]
OotOffset−st: 3/3/4/4 [14]
KicOffset−st: 3/3/4/4 [14]
DiffImageQuality−fgm: 0.57 [8/14]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30−Jan−2016 16:10:37 Z

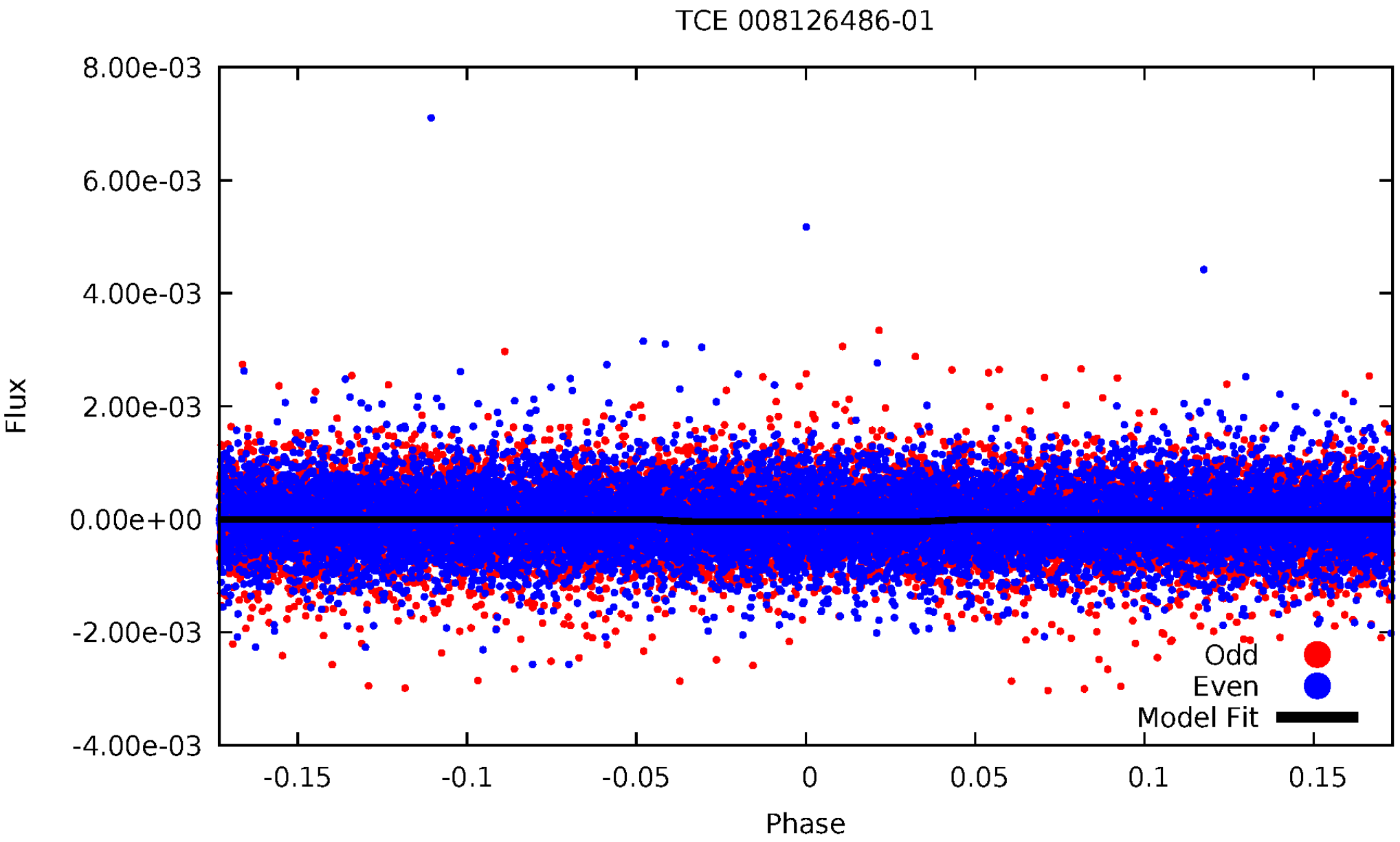
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008126486-01, PDC Light Curves

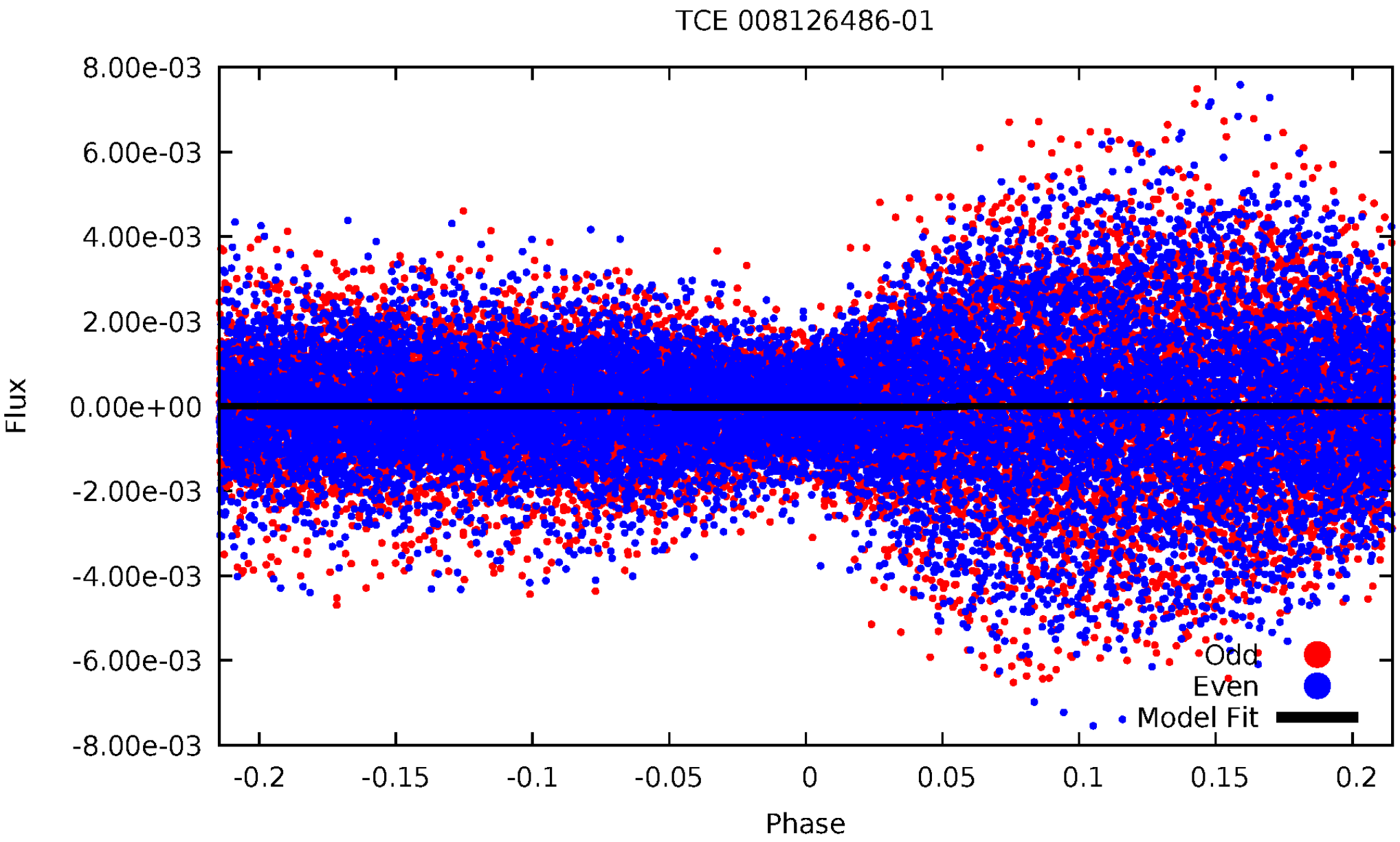



TCE 008126486-01
P = 0.949 days
P = 1.898 days
P = 3.795 days
Normalized Flux
BKJD
Normalized Flux
Phase

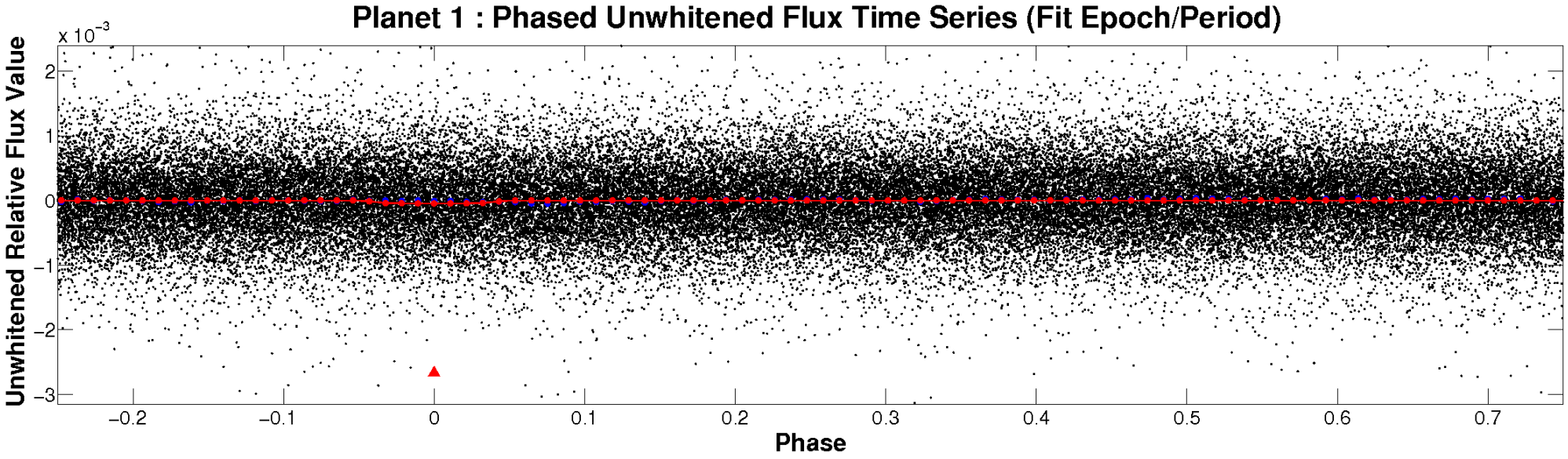
DV Odd/Even

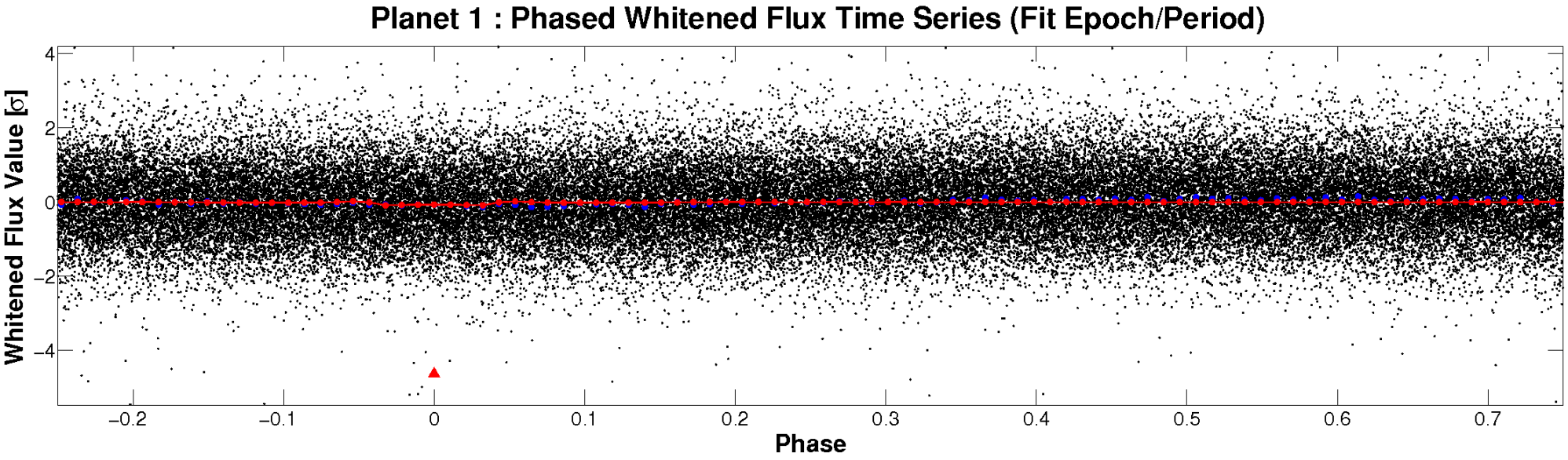

TCE 008126486-01
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
Flux
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008126486-01
8.00e-03
6.00e-03
4.00e-03
2.00e-03
0.00e+00
-2.00e-03
-4.00e-03
-6.00e-03
-8.00e-03
Flux
-0.2
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Phase
Odd
Even
Model Fit

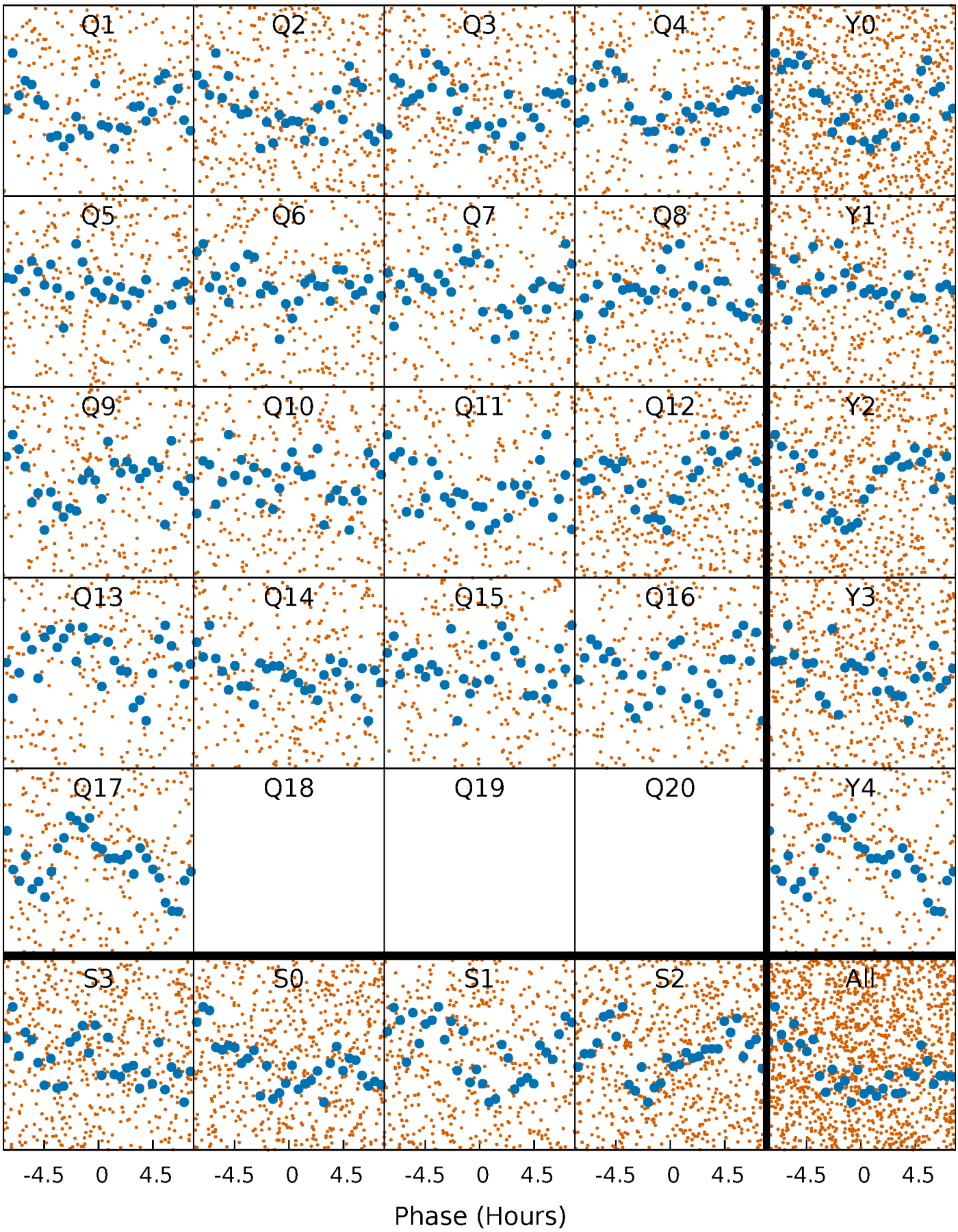
Non-Whitened Vs. Whitened Light Curve





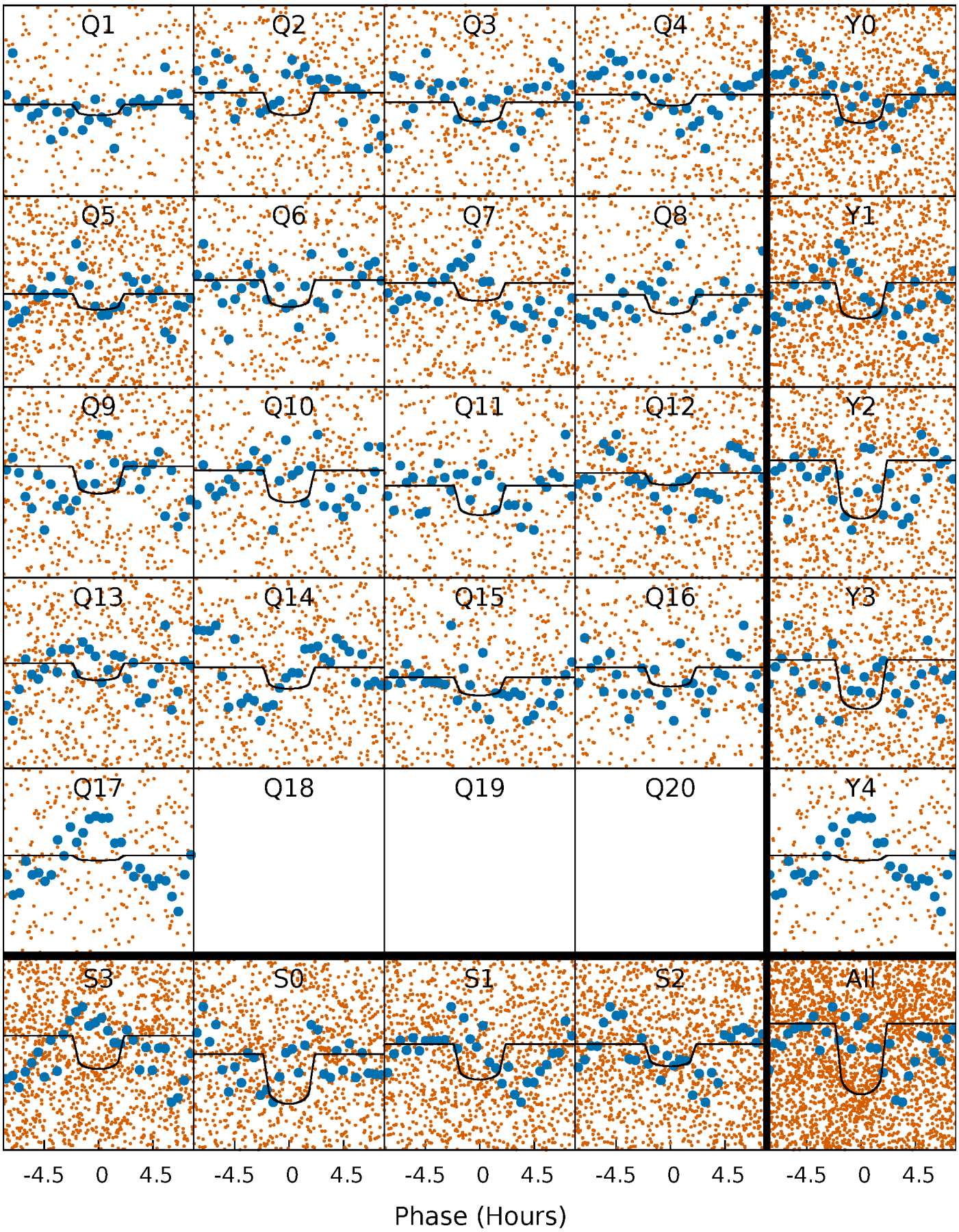
PDC Quarter-Phased Transit Curves

TCE 008126486-01 P= 1.897598 Days T_0=131.803509 (BKJD)



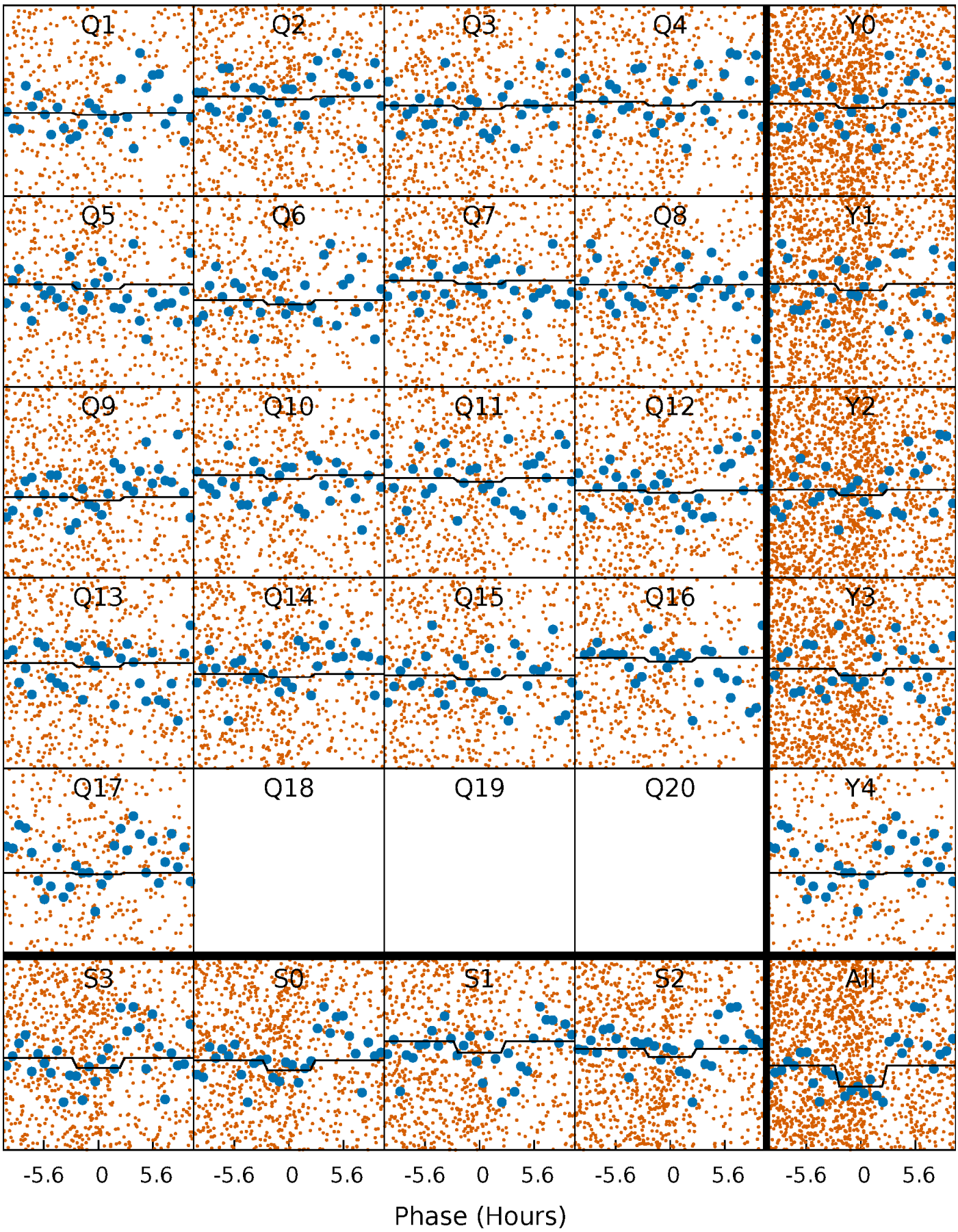
DV Quarter-Phased Transit Curves

TCE 008126486-01 P= 1.897598 Days T_0=131.803509 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

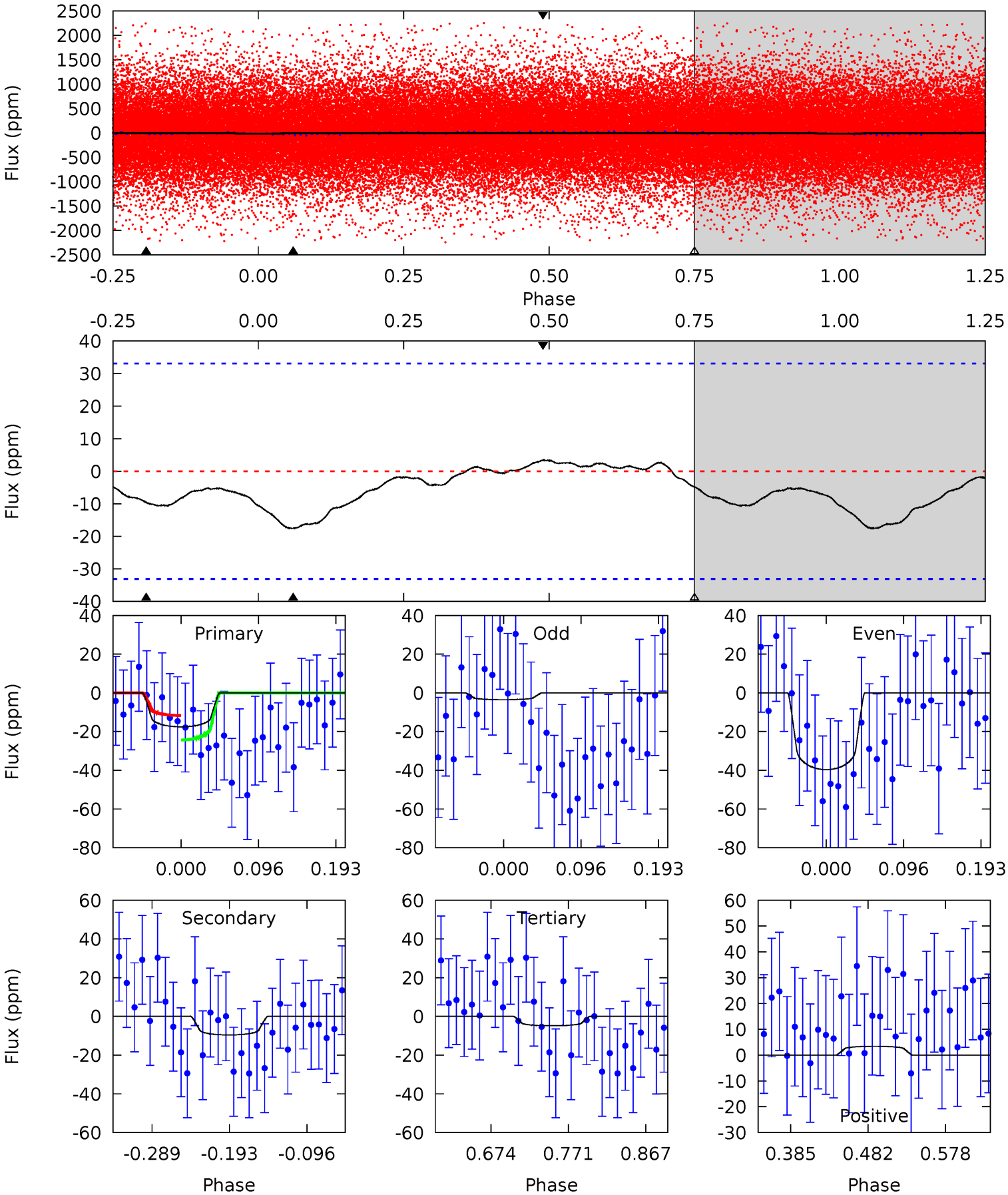
TCE 008126486-01 P= 1.897329 Days T_0=131.810073 (BKJD)



DV Model-Shift Uniqueness Test

008126486-01, P = 1.897598 Days, E = 129.905911 Days

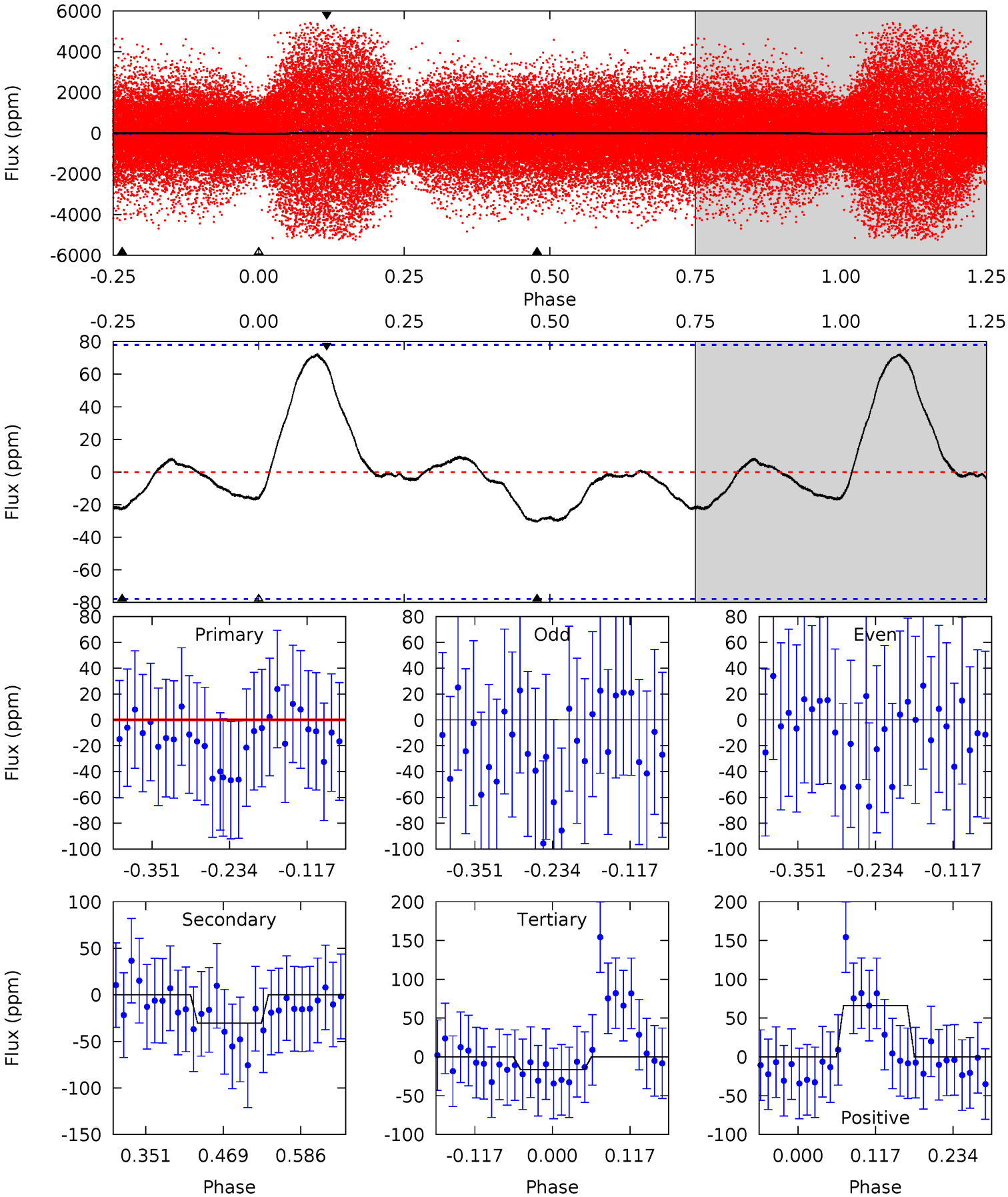
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.43	1.33	0.67	0.47	4.57	1.66	0.44	1.76	1.95	0.66	0.85	2.50	0.25	0.16	0.88



Alt Model-Shift Uniqueness Test

008126486-01, P = 1.897329 Days, E = 129.912744 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.34	1.77	0.95	3.85	4.53	1.57	1.45	0.39	-2.51	0.82	-2.08	0.69	3.49	0.70	0.09



Stellar Parameters For KIC 008126486

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6469^{+155}_{-214}	$4.431^{+0.067}_{-0.216}$	$-0.320^{+0.250}_{-0.300}$	$1.056^{+0.324}_{-0.116}$	$1.095^{+0.146}_{-0.146}$	$1.311^{+0.374}_{-0.691}$
	+2%/-3%	+2%/-5%	+78%/-94%	+31%/-11%	+13%/-13%	+29%/-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 008126486-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10±7	$0.89^{+0.42}_{-0.36}$	2374^{+177}_{-119}	4196^{+1175}_{-1215}	$5.175^{+12.200}_{-4.347}$
Alt.	-30±17	$0.59^{+0.39}_{-0.33}$	2365^{+181}_{-109}	6664^{+5414}_{-1718}	40^{+196}_{-28}

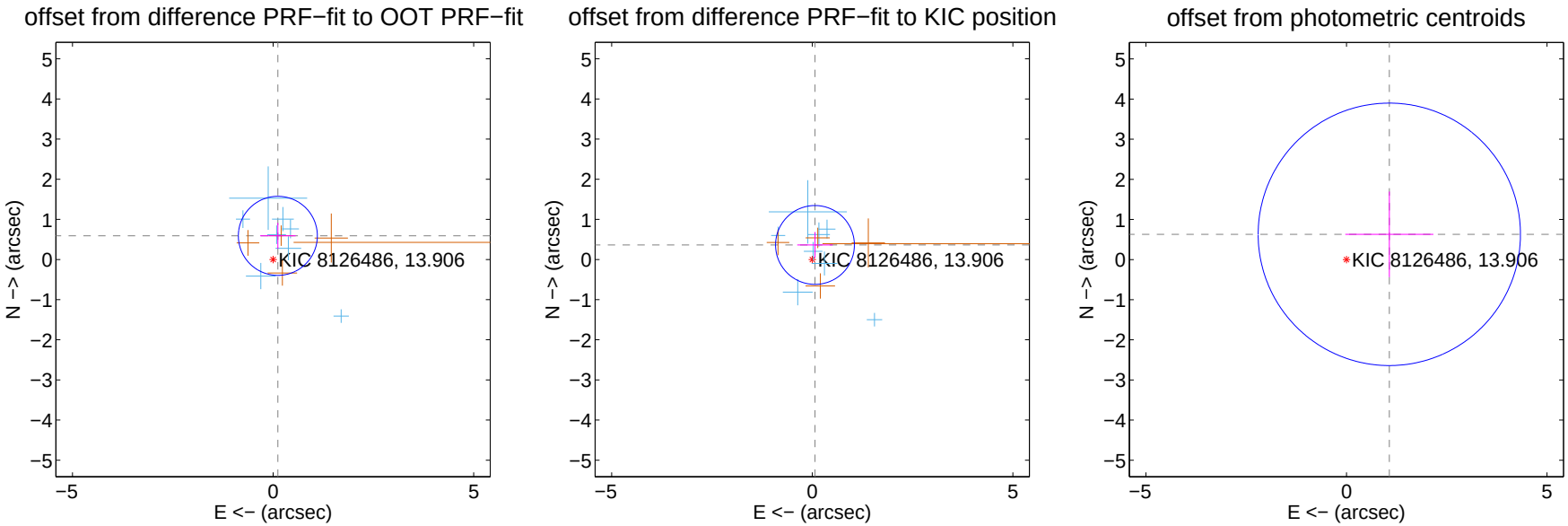
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

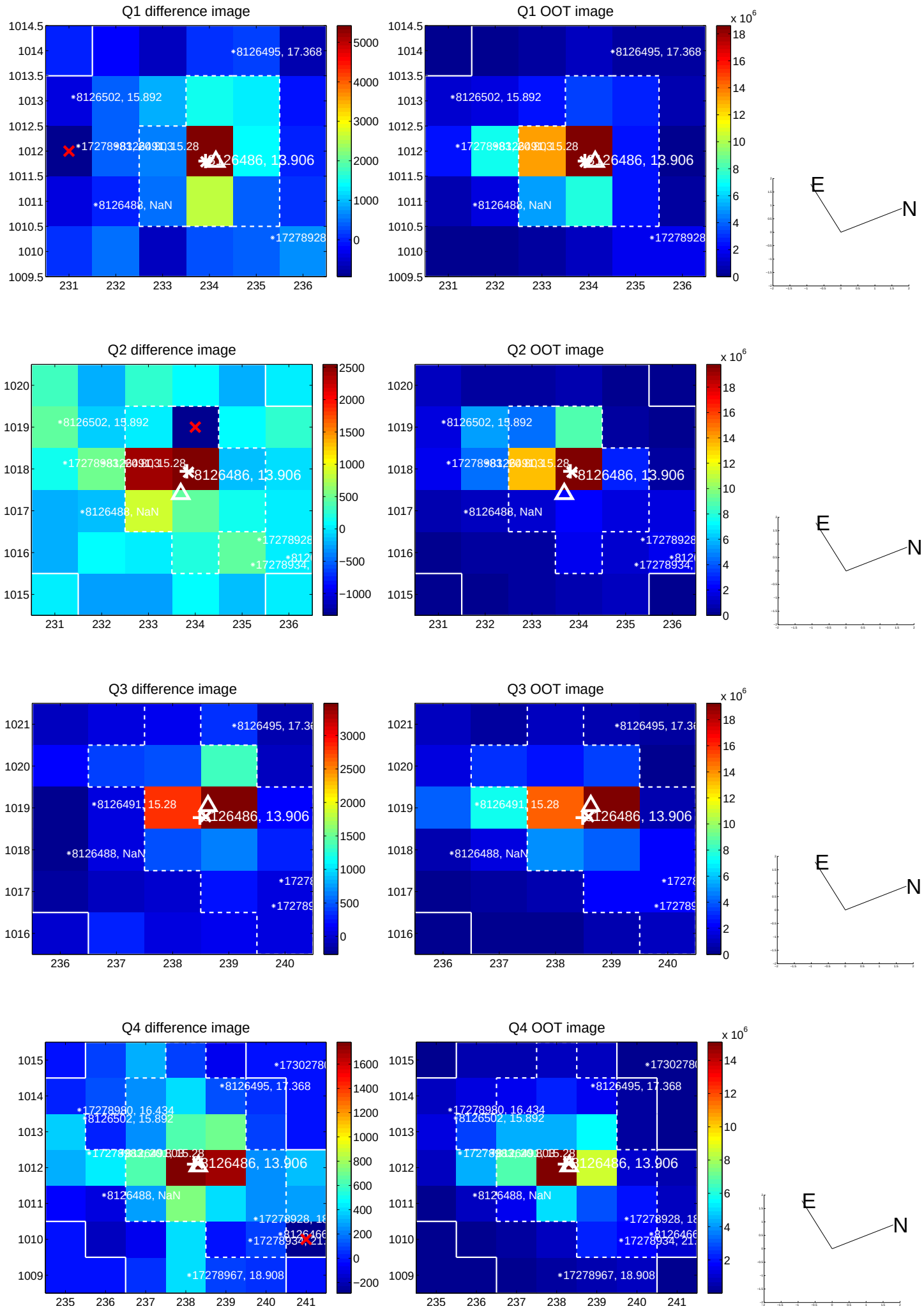
Supplemental centroid analysis for 008126486-01. Kepler magnitude: 13.91. Transit SNR 5.59
There are 8 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.601 ± 0.328	1.83	-0.119 ± 0.443	0.589 ± 0.323
PRF-fit source offset from KIC position	0.368 ± 0.327	1.13	-0.067 ± 0.443	0.362 ± 0.323
photometric centroid source offset	1.24 ± 1.09	1.14	-1.07 ± 1.10	0.63 ± 1.06

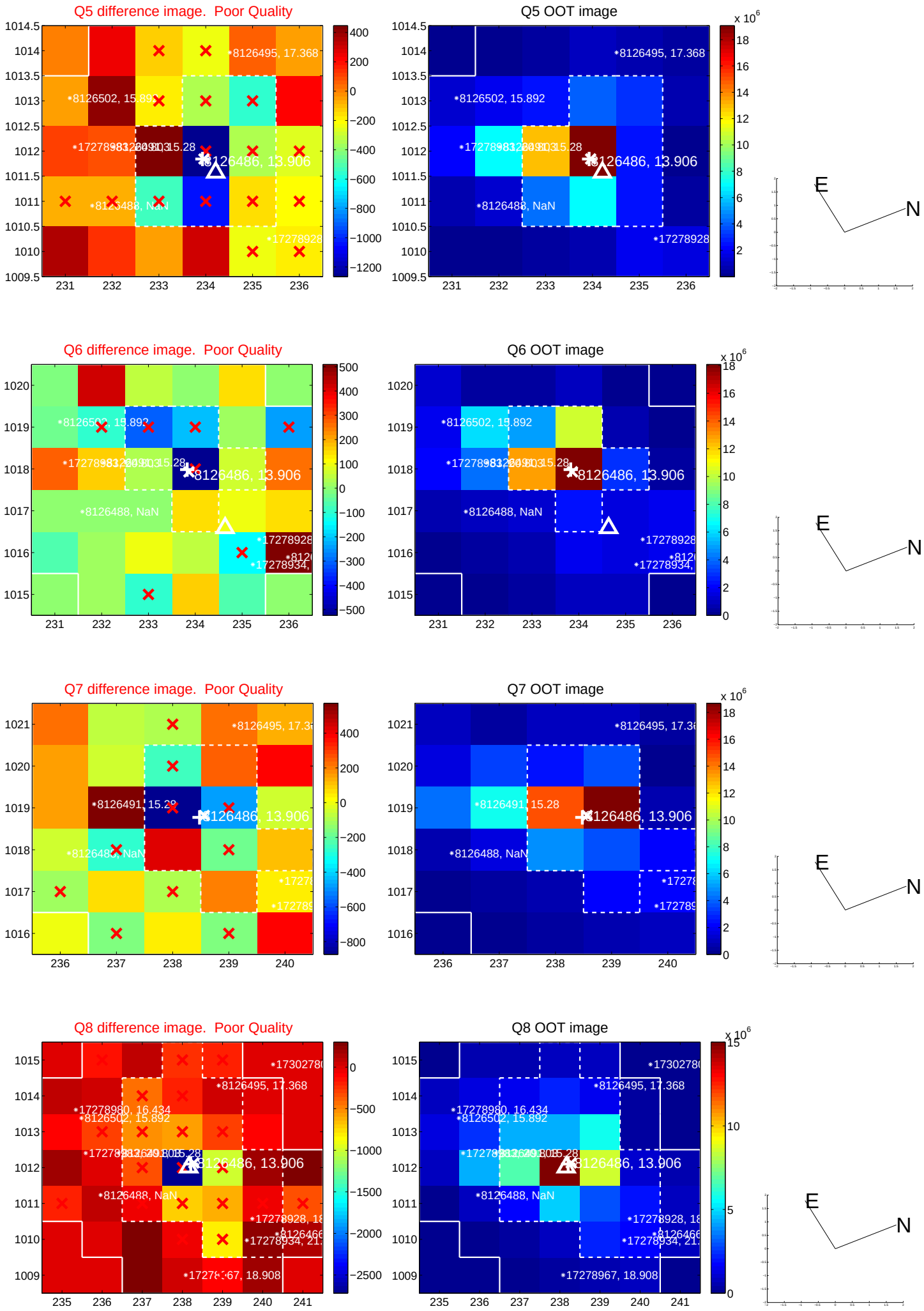


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

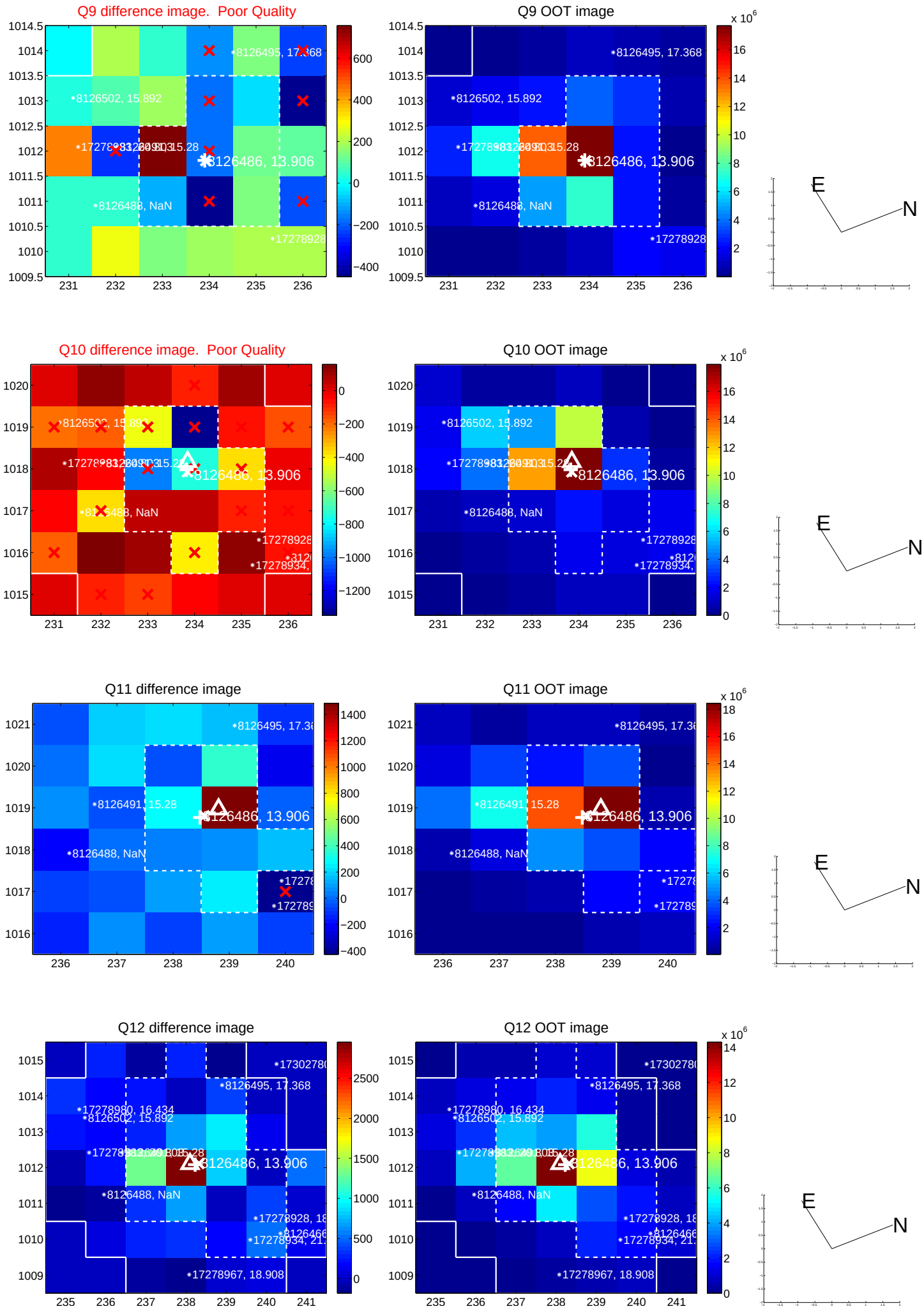
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



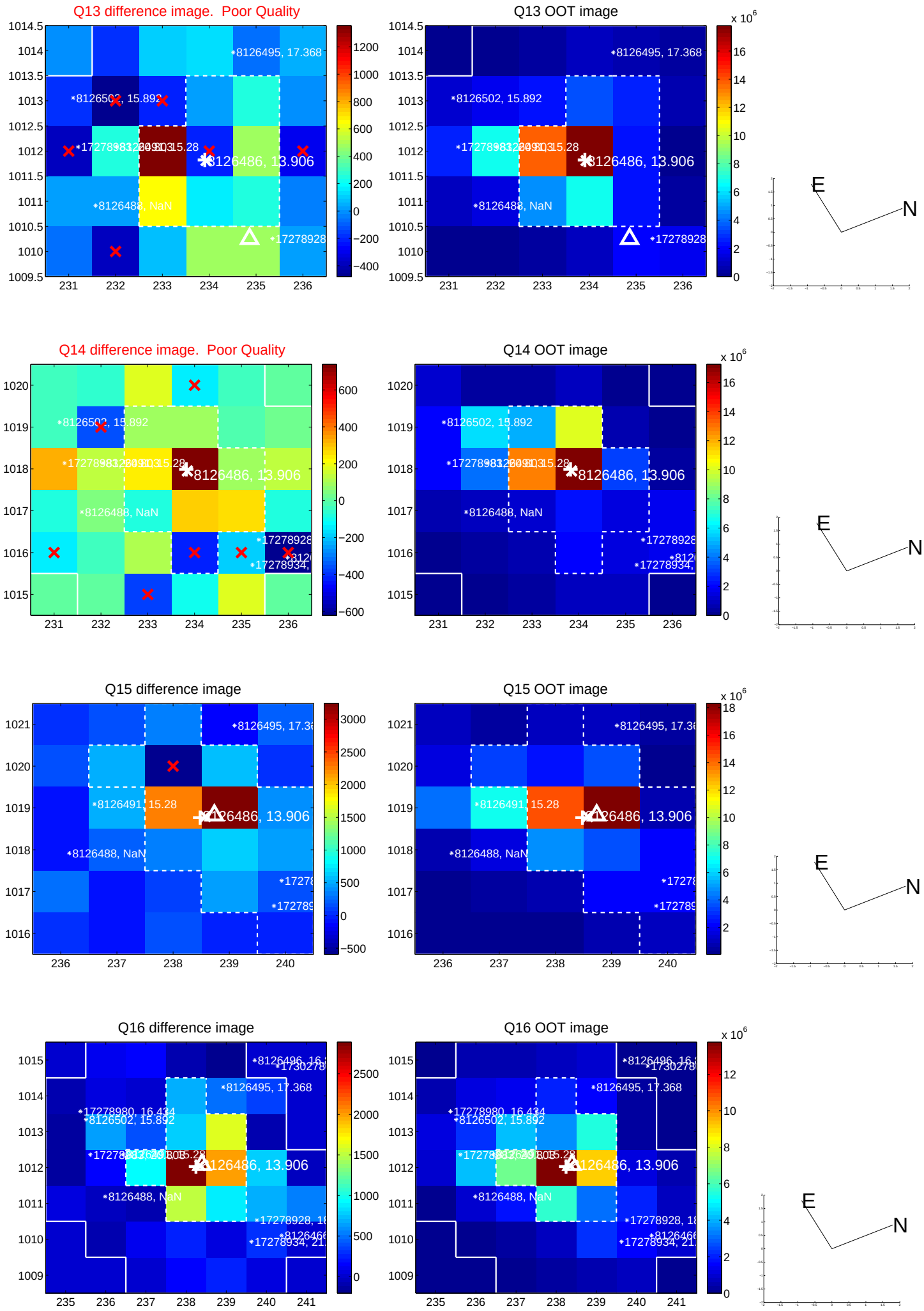
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



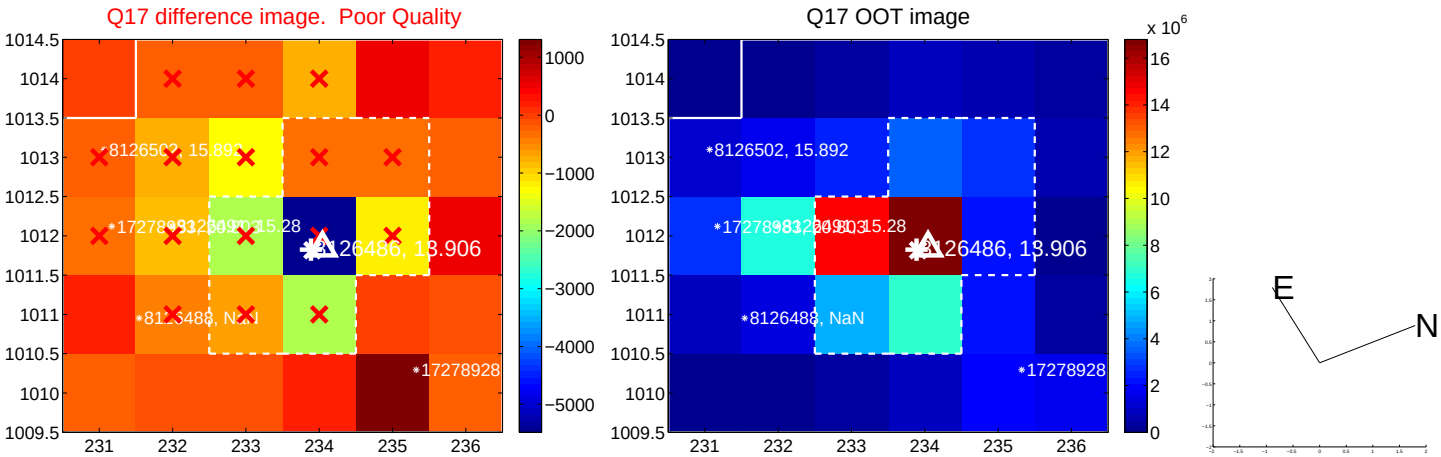
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

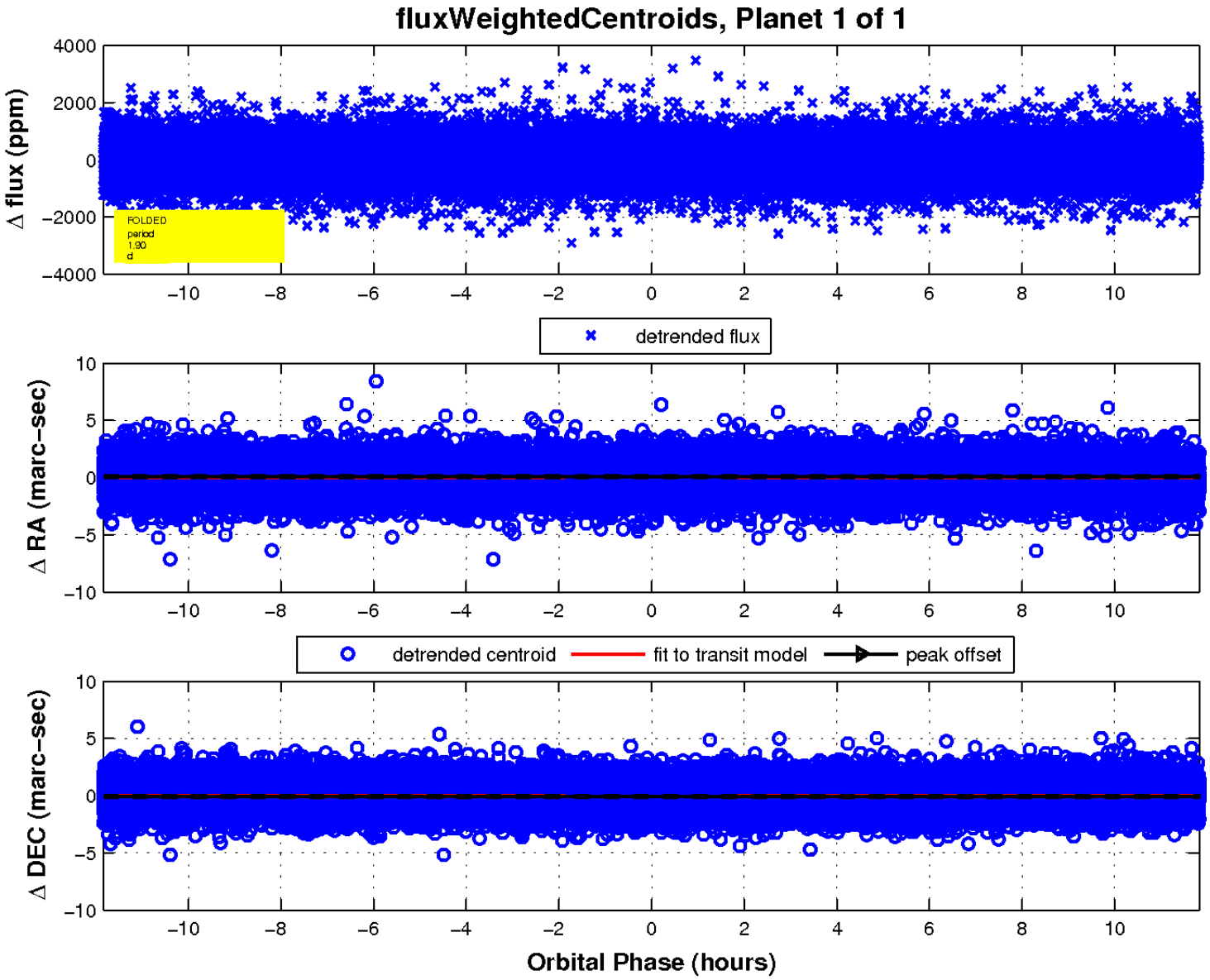
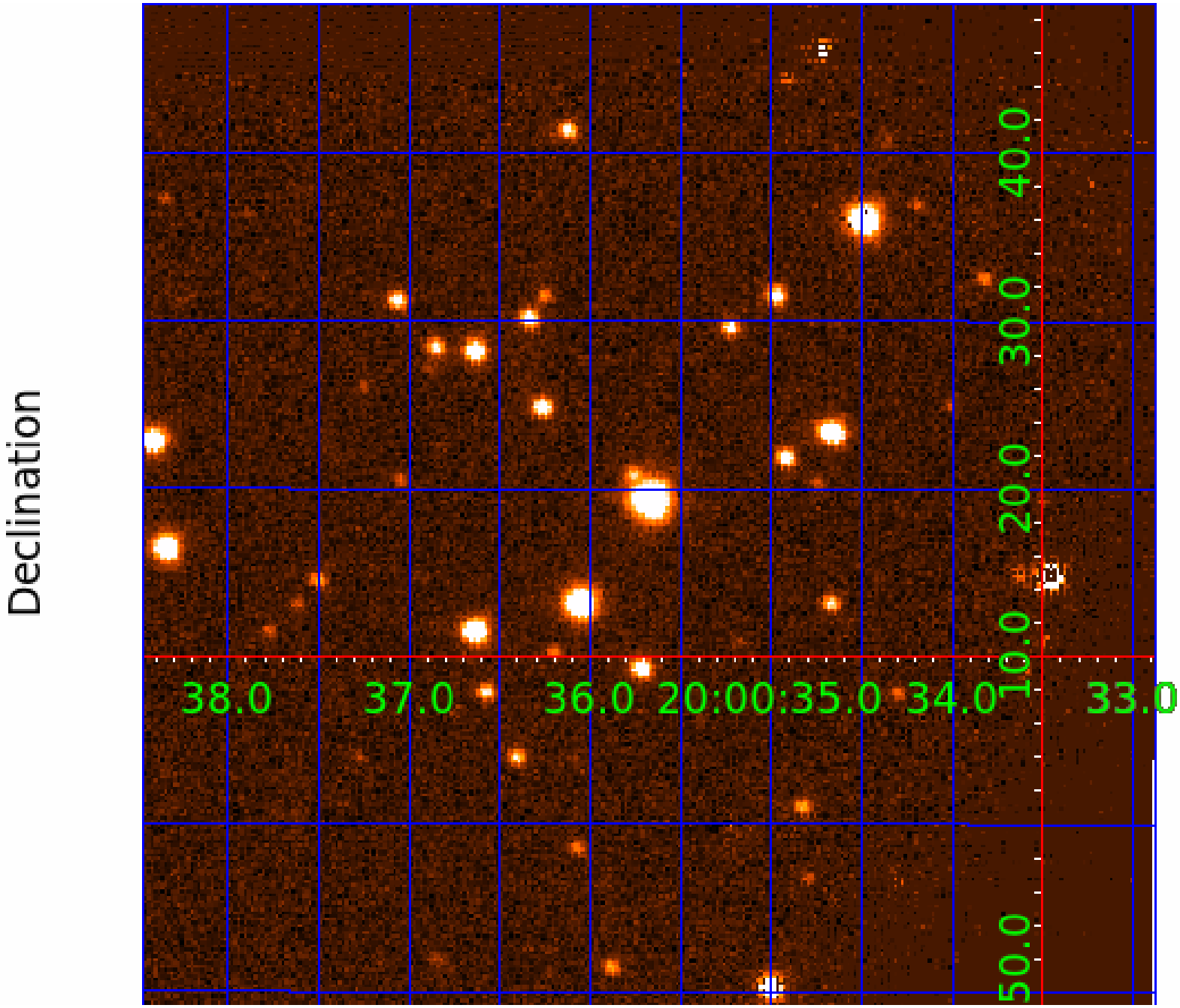


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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





UKIRT Image