KIC 009083514

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 ($S_\oplus$)
009083514-01	OBS	No	0.918016	132.046575	0.0	10.178	8.6	0.0	0.83	5803	0.01	2156.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009083514-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET

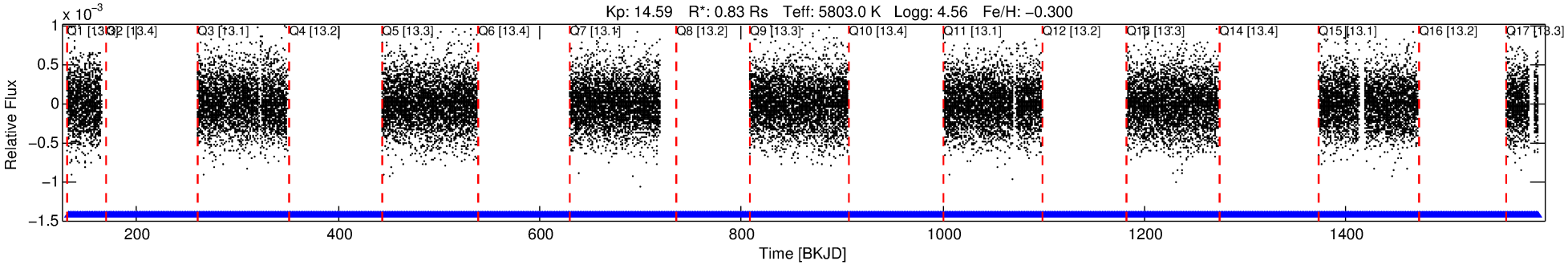
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

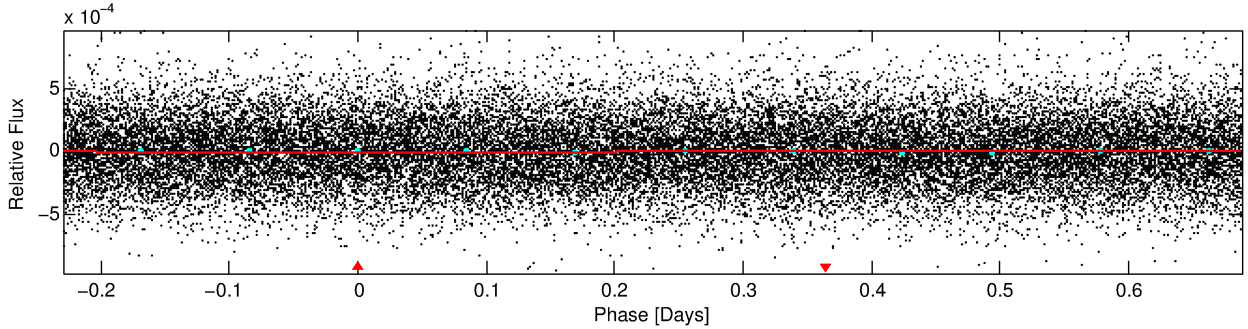
Ephemeris Match Information For 009083514-01

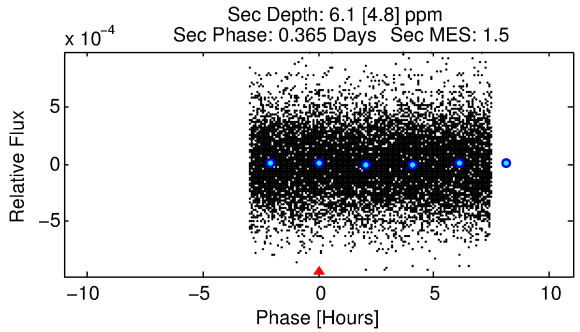
No Significant Match Found

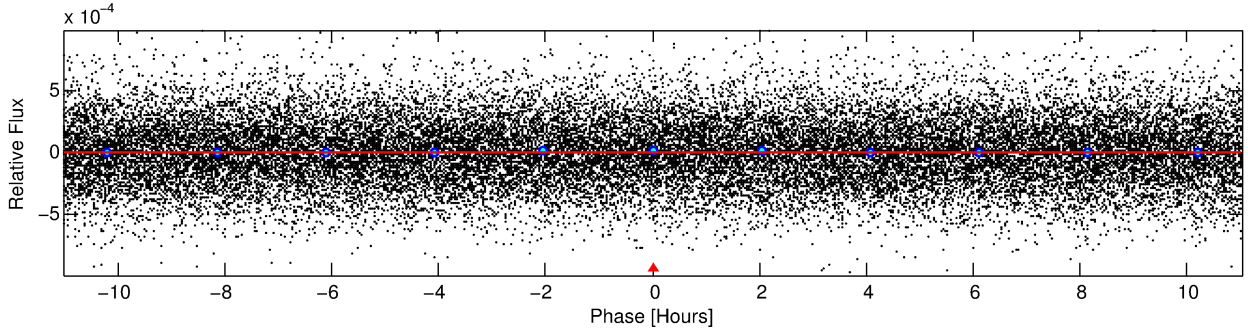
DV One-Page Summary

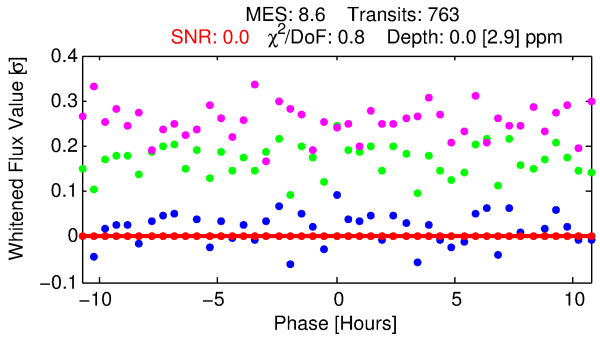
KIC: 9083514 Candidate: 1 of 1 Period: 0.918 d

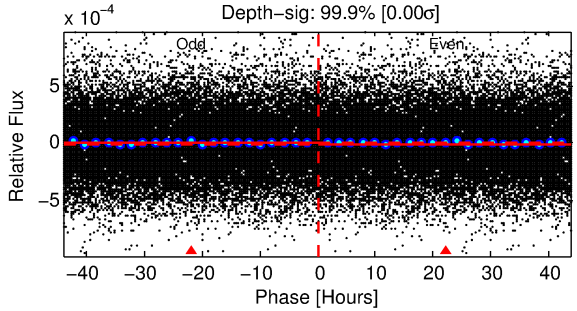


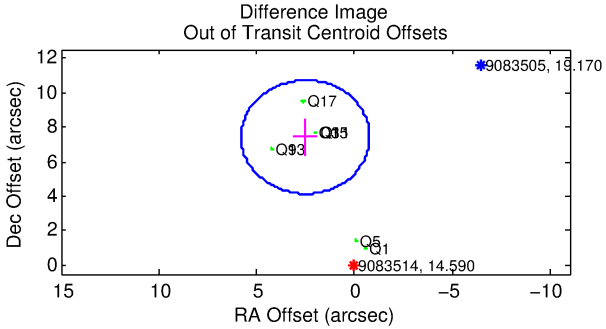












DV Fit Results:

Period = 0.91802 [0.15696] d
Epoch = 132.0466 [80.0860] BKJD
Rp/R* = 0.0001 [0.1901]
a/R* = 1.00 [86.86]
b = 0.80 [7626.39]

Seff = 2156.21 [959.07]
Teq = 1738 [193] K
Rp = 0.01 [17.13] Re
a = 0.0179 [0.0049] AU

Ag = 38877.41 [252278288.95] [0.00σ]
Teffp = 37724 [61198049] K [0.00σ]

DV Diagnostic Results:

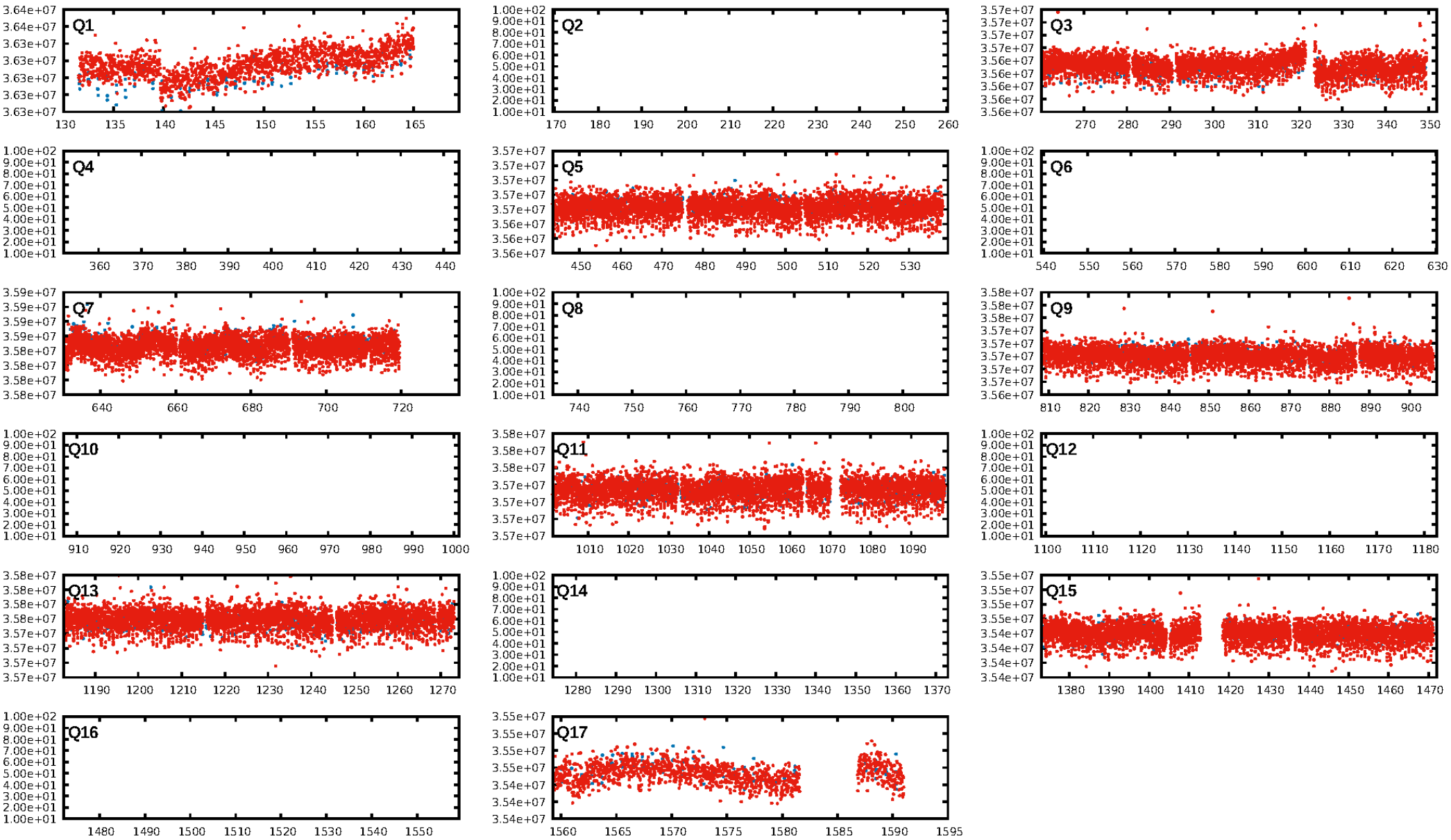
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [696/696]
GhostDiagnostic−chr: N/A

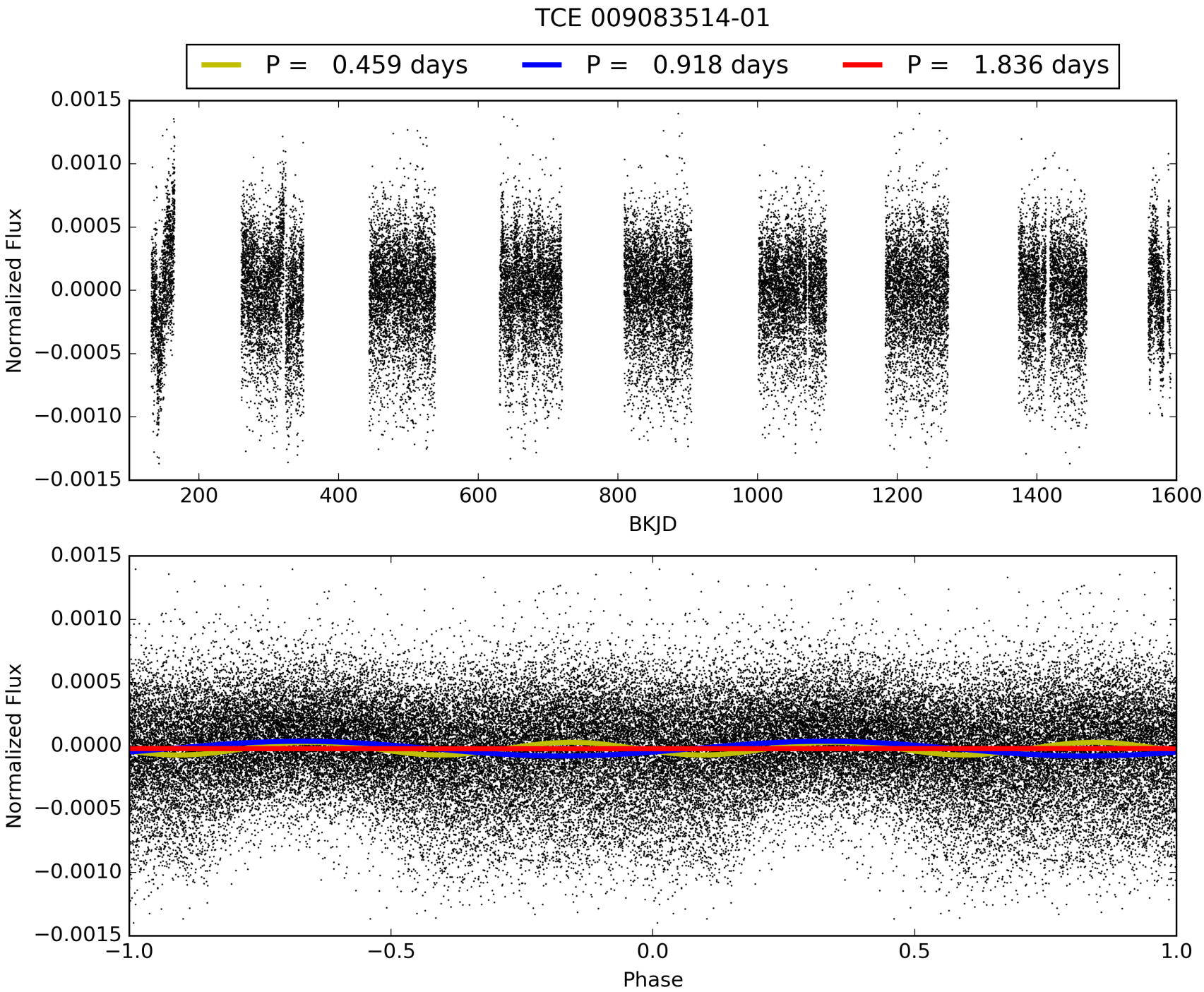
Centroid−sig: N/A
Centroid−so: N/A
OotOffset−rm: 7.839 arcsec [7.16σ]
KicOffset−rm: 7.826 arcsec [8.26σ]
OotOffset−st: 0/3/0/5 [8]
KicOffset−st: 0/3/0/5 [8]
DiffImageQuality−fgm: 0.38 [3/8]
DiffImageOverlap−fno: 1.00 [9/9]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30−Jan−2016 16:36:47 Z

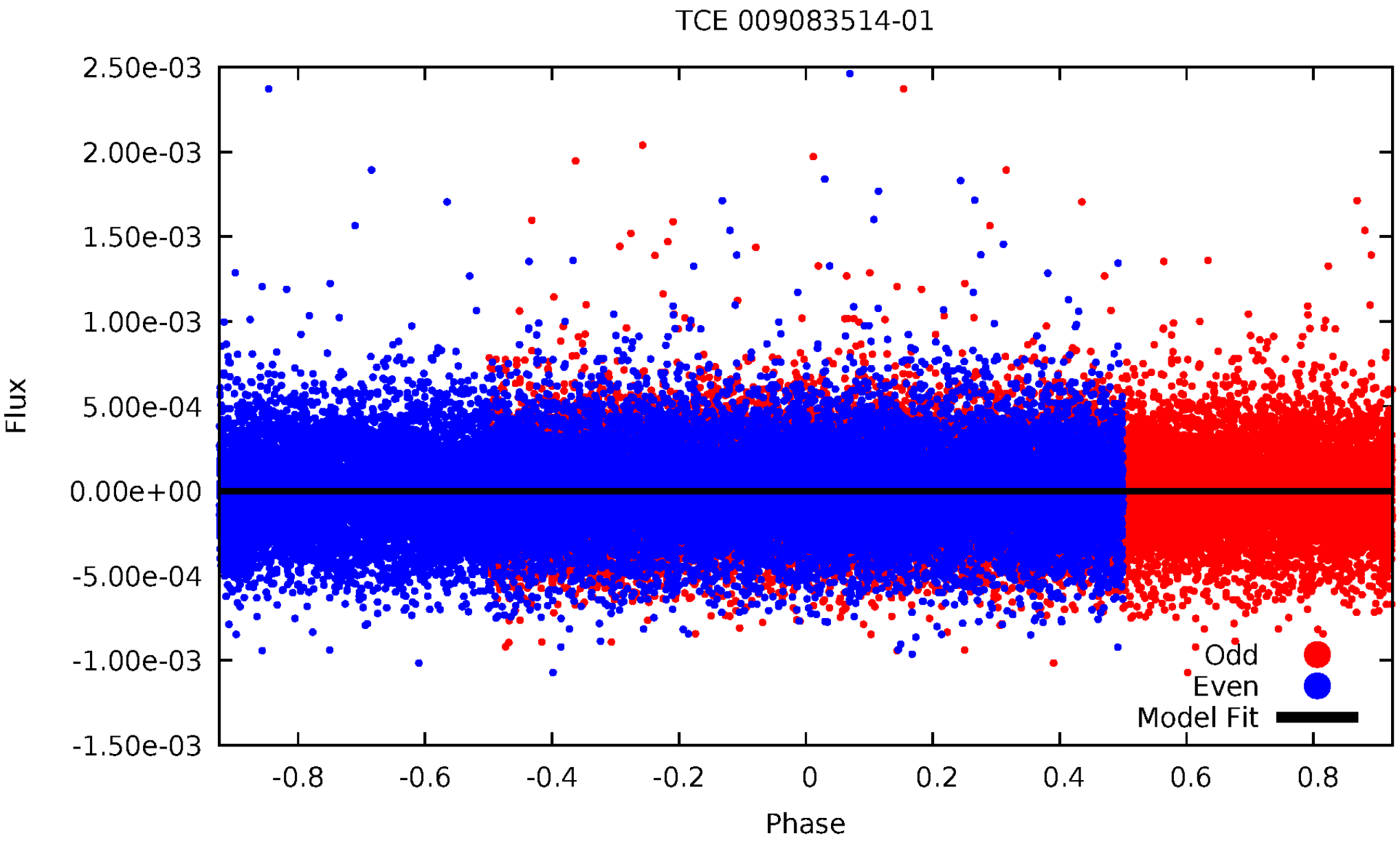
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009083514-01, PDC Light Curves

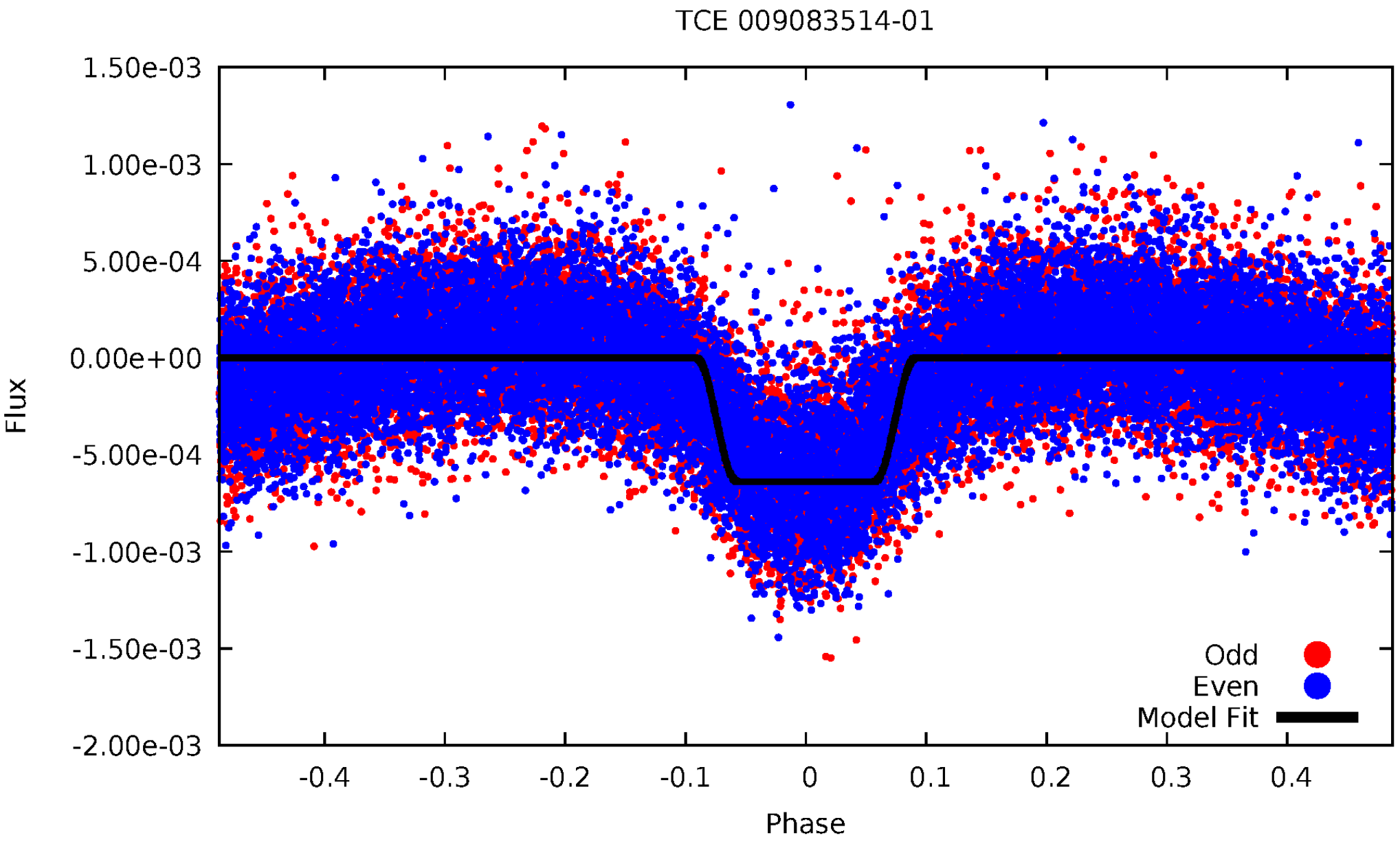



TCE 009083514-01
P = 0.459 days
P = 0.918 days
P = 1.836 days
Normalized Flux
BKJD
Normalized Flux
Phase

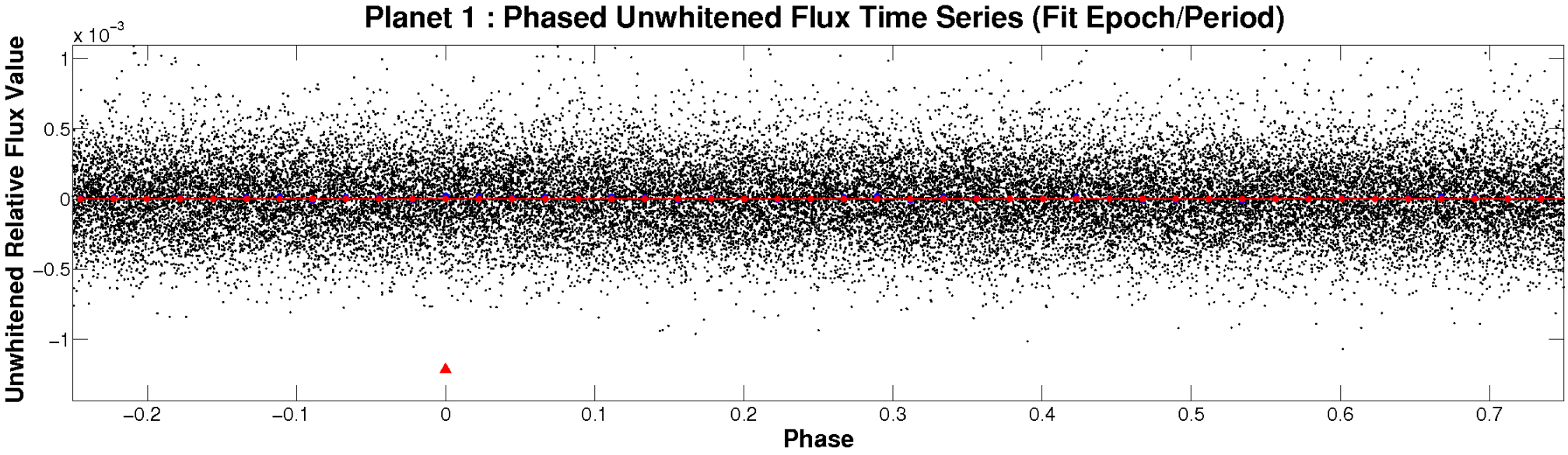
DV Odd/Even

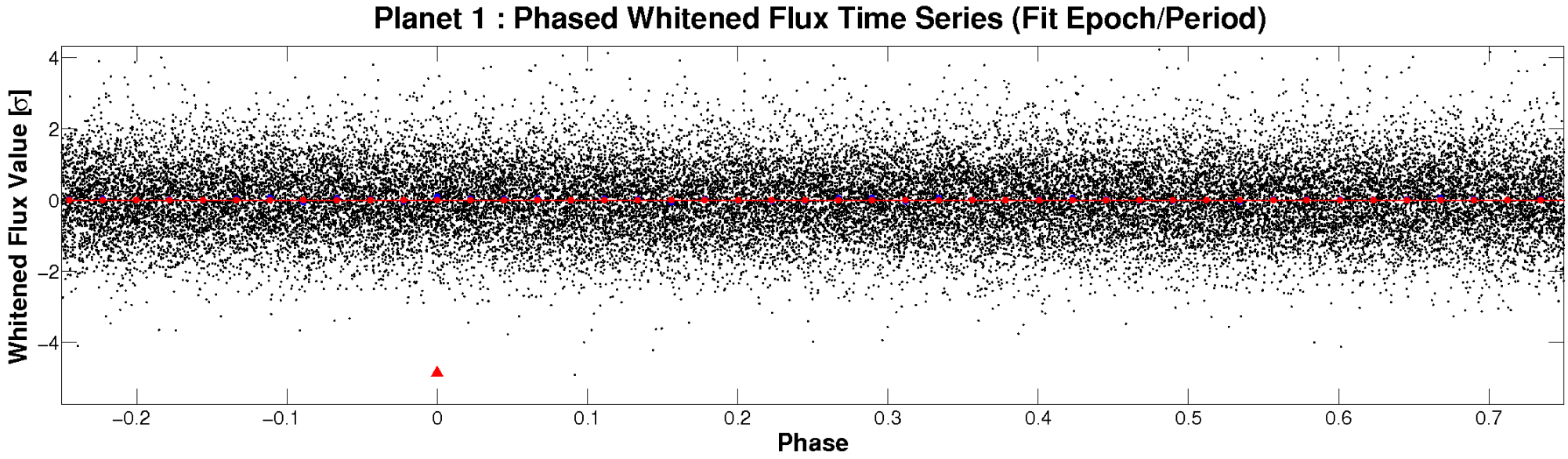

TCE 009083514-01
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.8
-0.6
-0.4
-0.2
0
0.2
0.4
0.6
0.8
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 009083514-01
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
Phase
Odd
Even
Model Fit

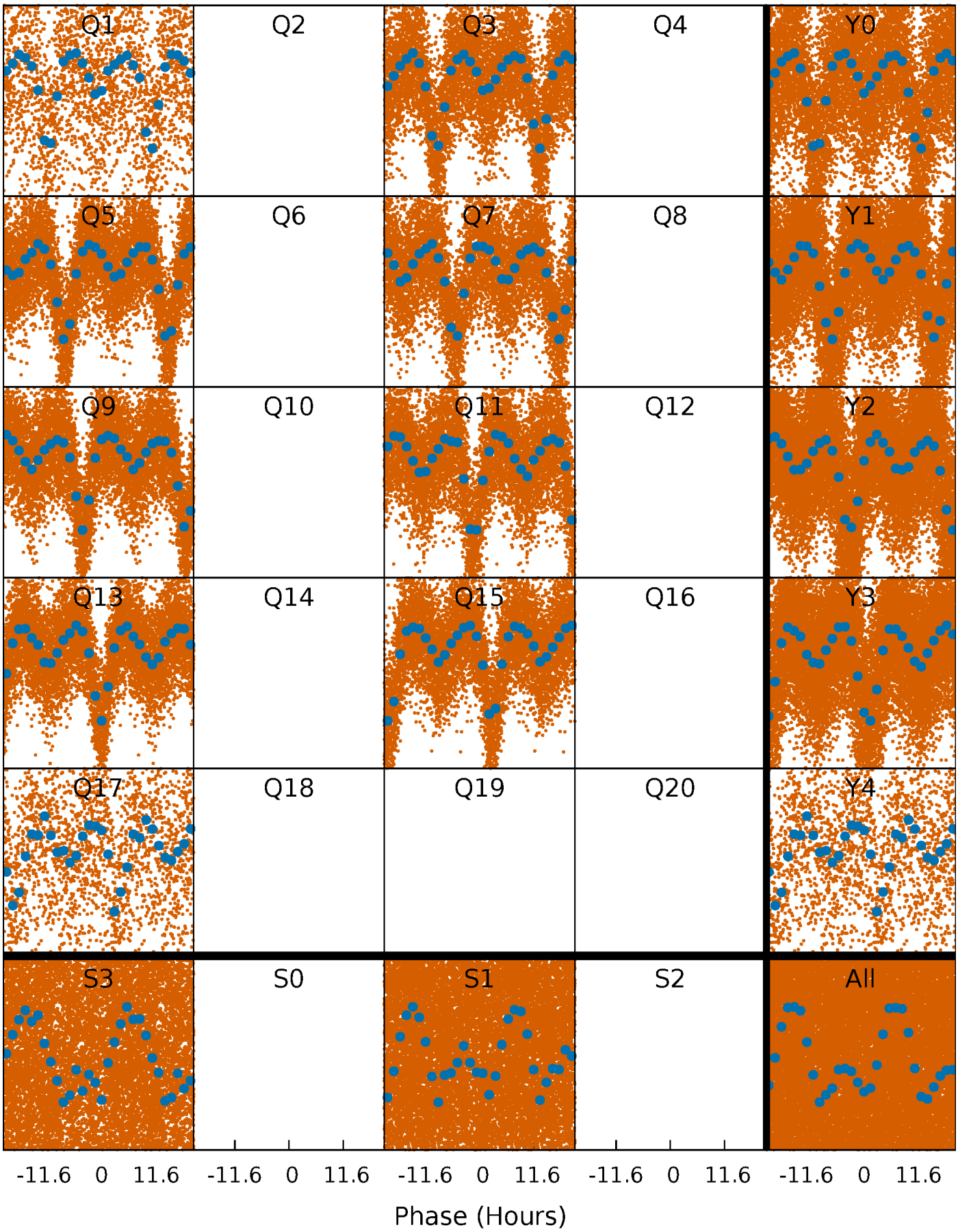
Non-Whitened Vs. Whitened Light Curve





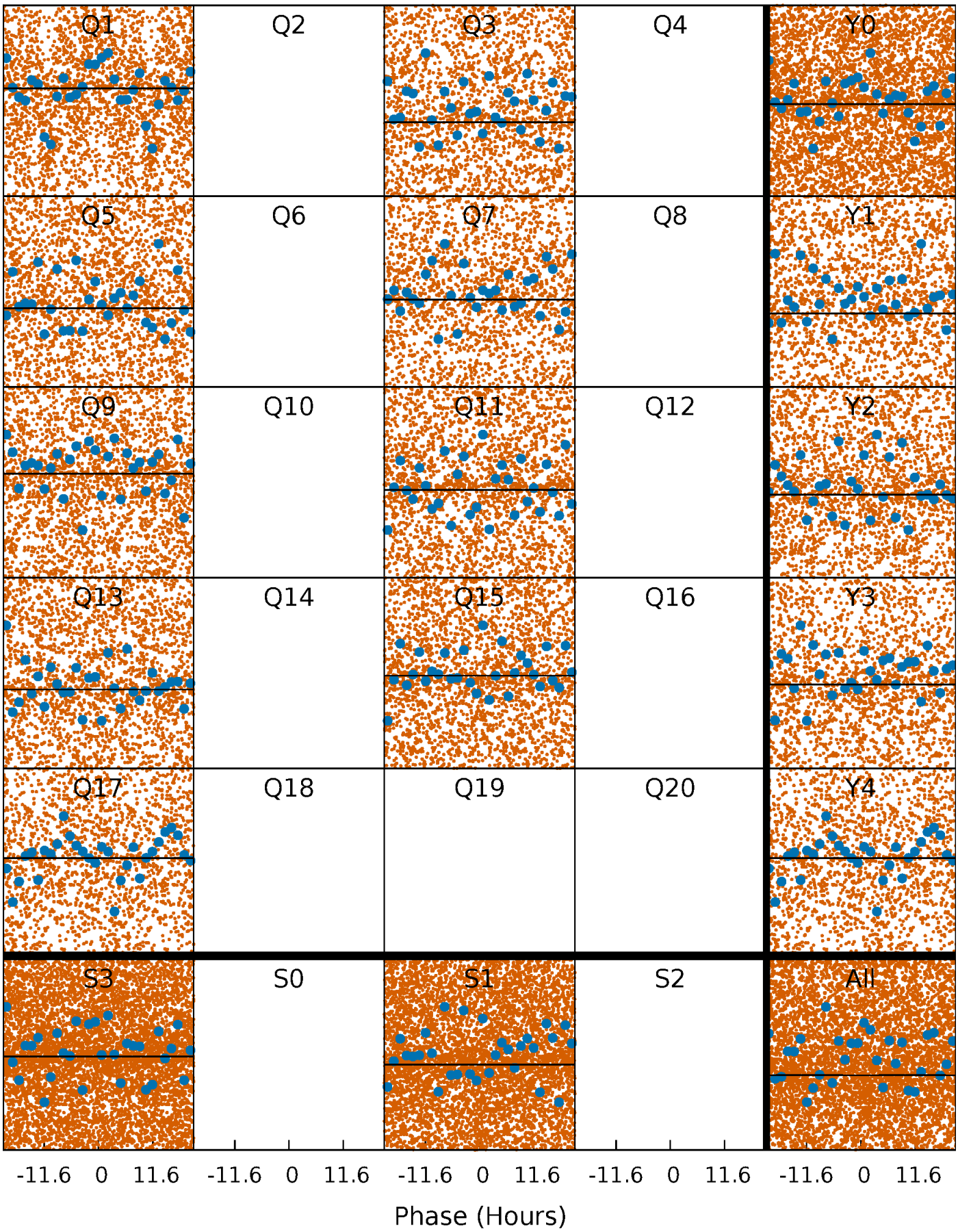
PDC Quarter-Phased Transit Curves

TCE 009083514-01 P= 0.918016 Days T_0=132.046575 (BKJD)



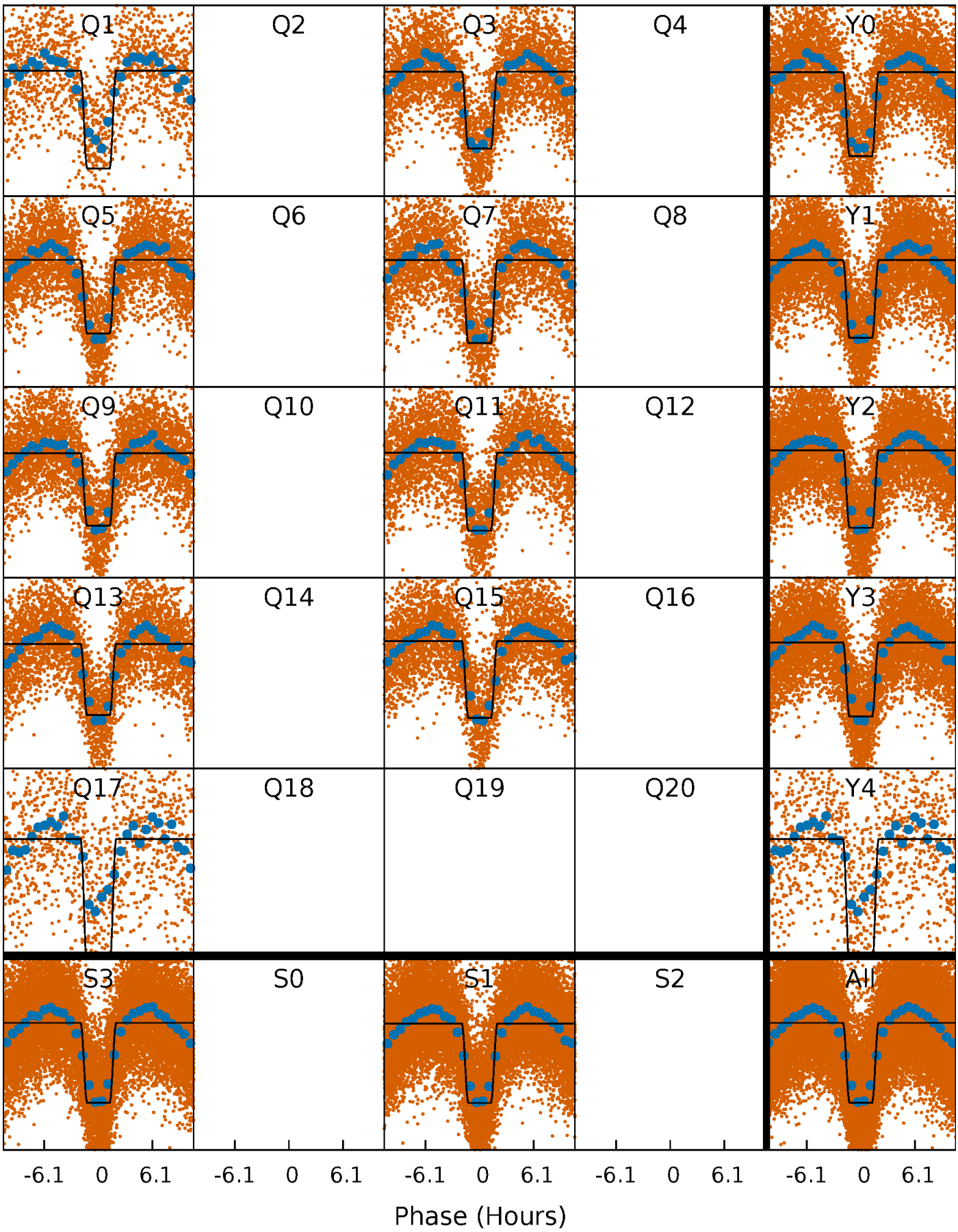
DV Quarter-Phased Transit Curves

TCE 009083514-01 P= 0.918016 Days T_0=132.046575 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

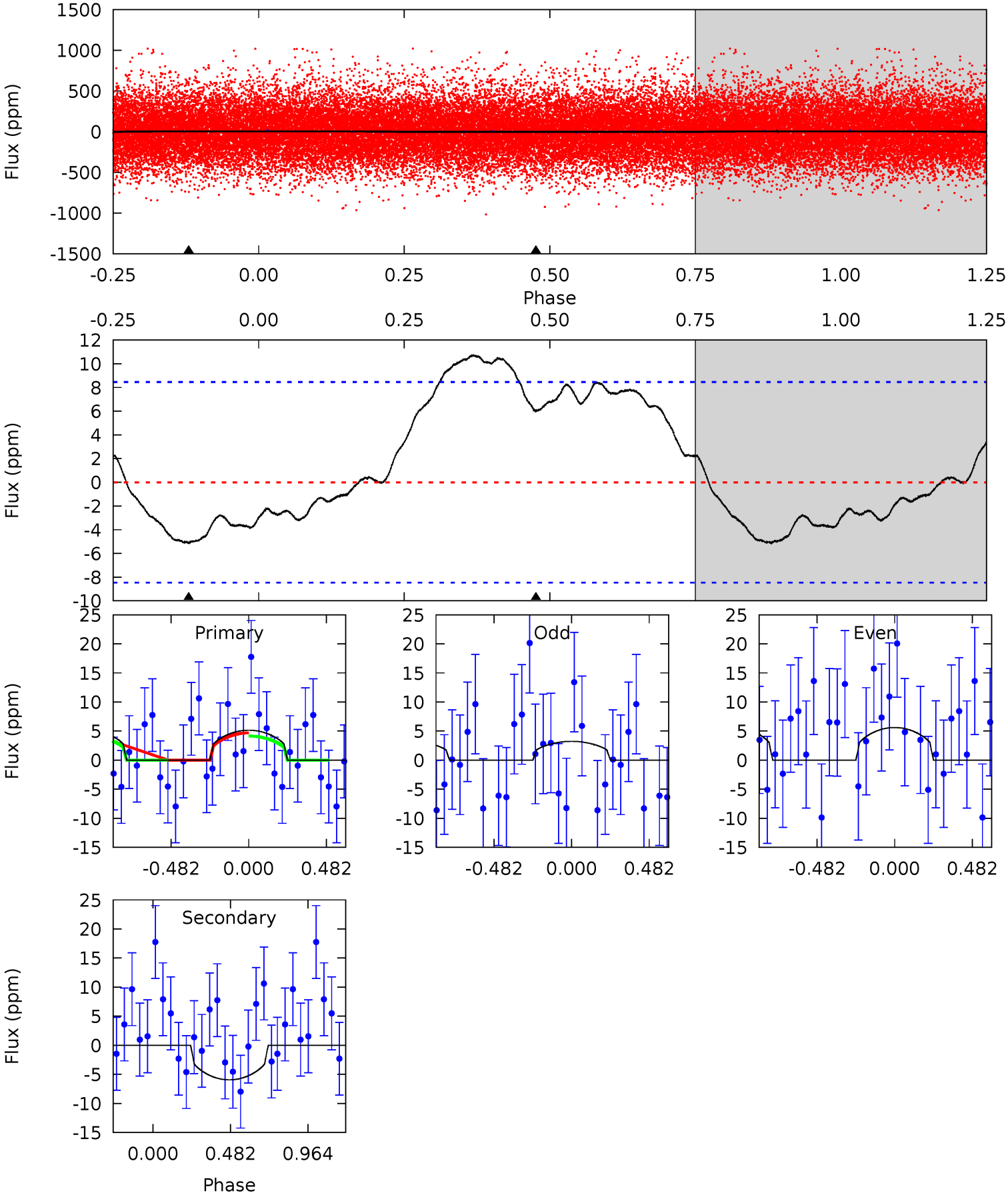
TCE 009083514-01 P= 0.918411 Days T_0=131.595575 (BKJD)



DV Model-Shift Uniqueness Test

009083514-01, P = 0.918016 Days, E = 131.128559 Days

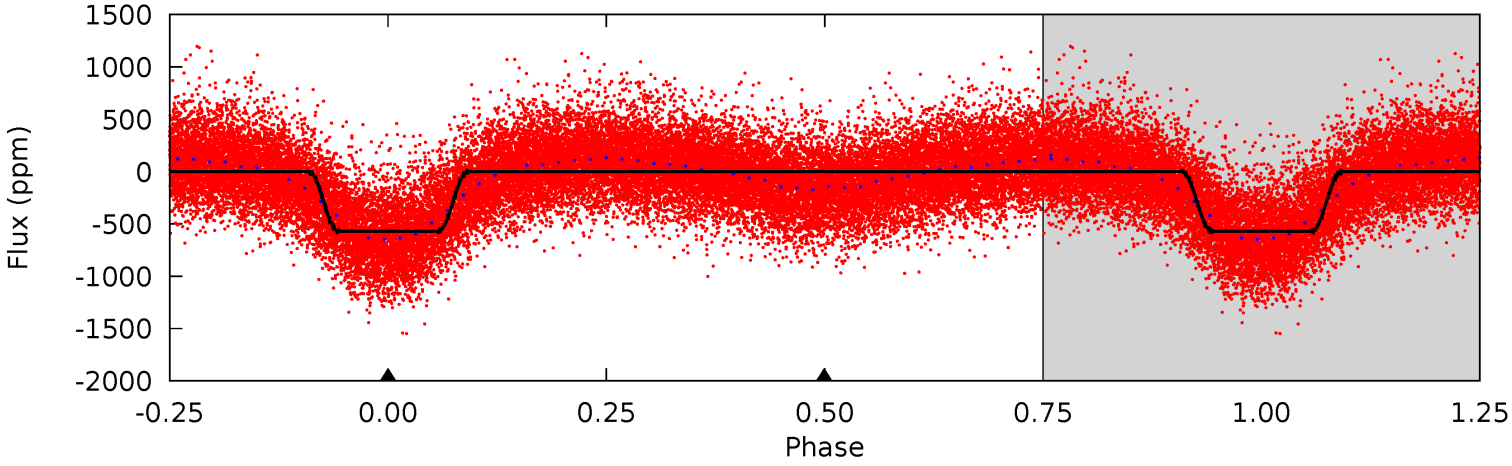
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.57	-2.96	0	0	4.22	0.70	0.36	2.57	2.57	-2.96	-2.96	0.61	1.64	0.68	0.14

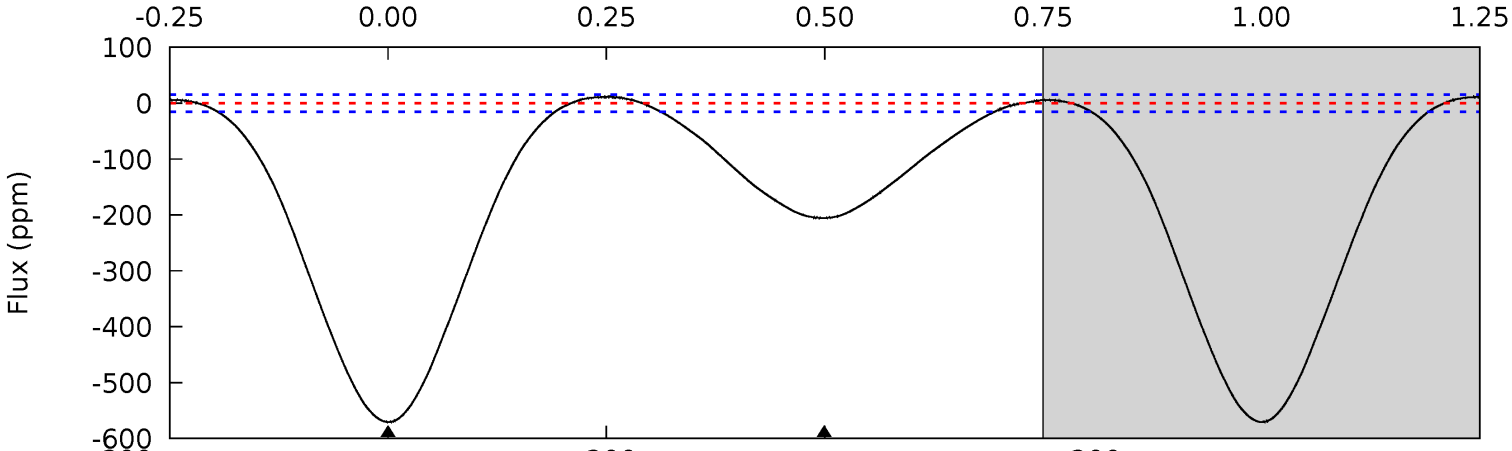


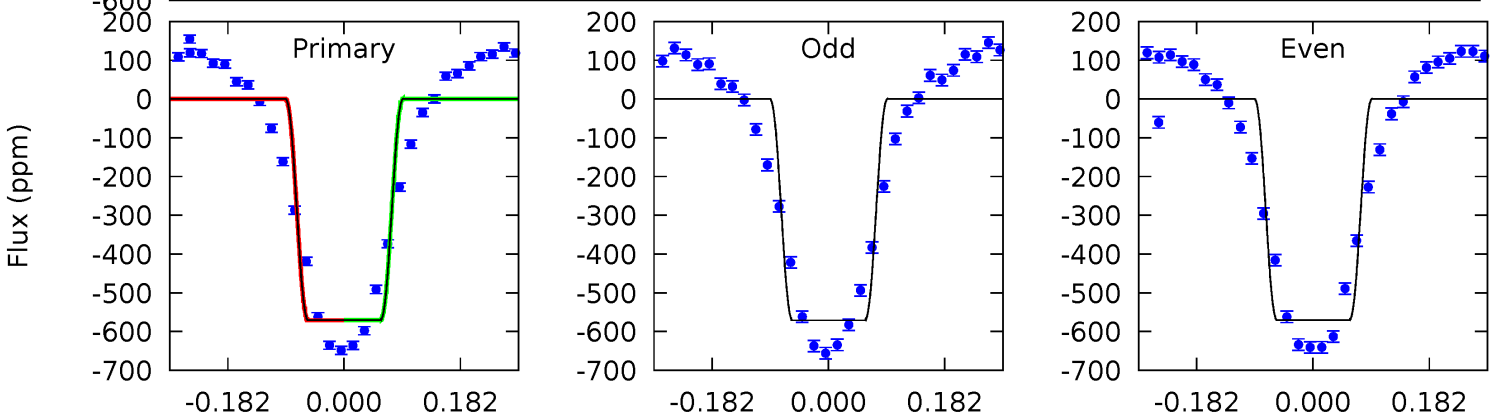
Alt Model-Shift Uniqueness Test

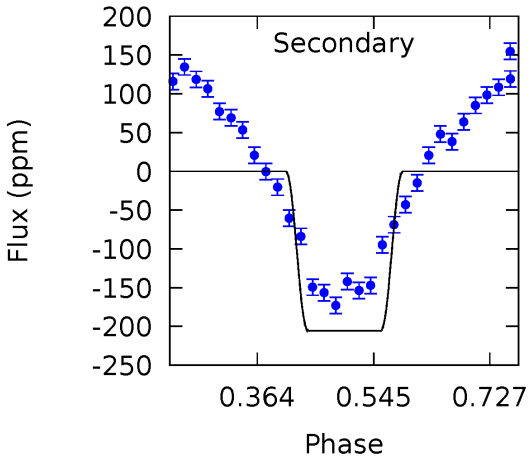
009083514-01, P = 0.918411 Days, E = 130.677164 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
163.0	58.7	0	0	4.44	1.34	2.99	163.0	163.0	58.7	58.7	0.07	0.98	0.02	0.15









Stellar Parameters For KIC 009083514

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5803^{+174}_{-192}	$4.564^{+0.035}_{-0.196}$	$-0.300^{+0.300}_{-0.300}$	$0.826^{+0.241}_{-0.075}$	$0.917^{+0.099}_{-0.110}$	$2.295^{+0.438}_{-1.152}$
	+3%/-3%	+1%/-4%	+100%/-100%	+29%/-9%	+11%/-12%	+19%/-50%
Source	KIC0	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 009083514-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	6±2	$12.11^{+14.36}_{-8.65}$	2517^{+232}_{-175}	-2846^{+122}_{-200}	$-0.007^{+0.005}_{-0.074}$
Alt.	-206±4	$12.16^{+14.36}_{-8.31}$	2507^{+233}_{-189}	-2308^{+6036}_{-448}	$0.229^{+2.237}_{-0.178}$

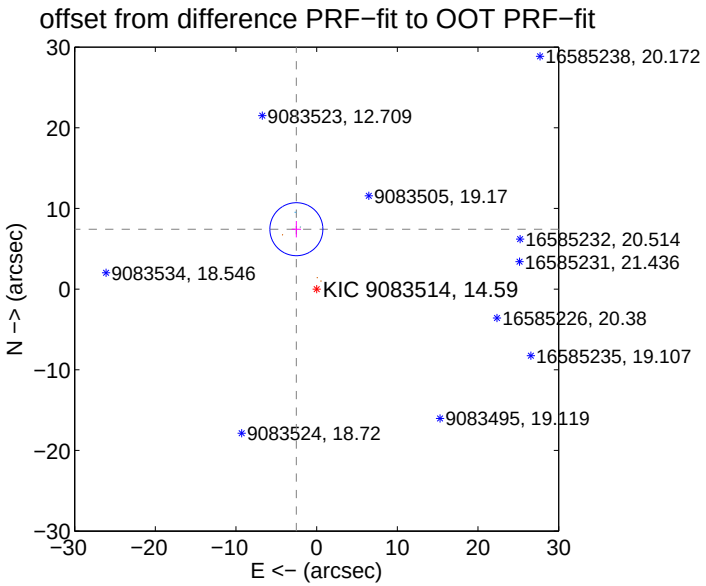
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

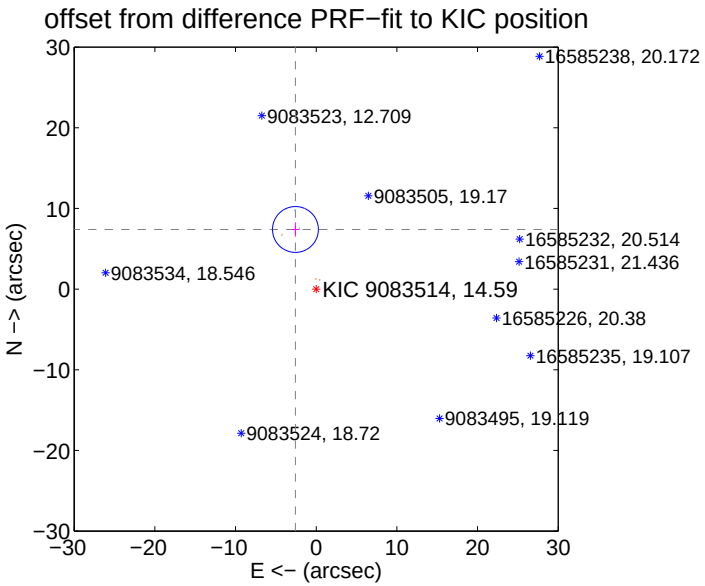
If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

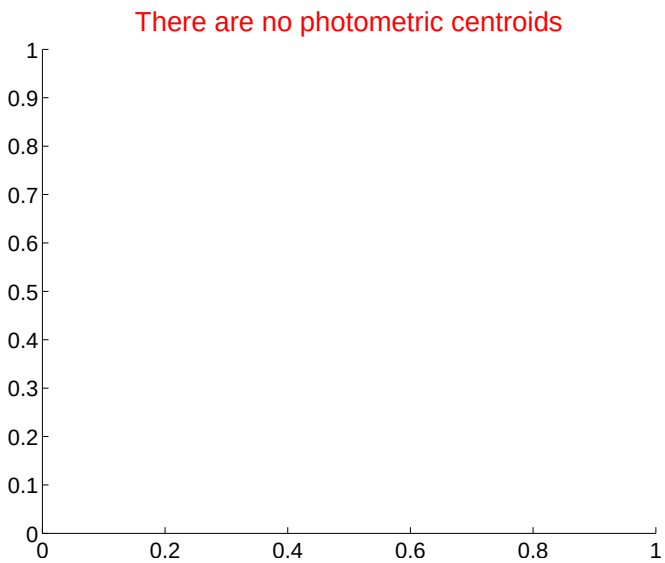
DV Centroid Data

Supplemental centroid analysis for 009083514-01. Kepler magnitude: 14.59. Transit SNR 0.00
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.839 ± 1.095	7.16	2.514 ± 0.573	7.425 ± 1.012
PRF-fit source offset from KIC position	7.826 ± 0.947	8.26	2.572 ± 0.505	7.392 ± 0.882
photometric centroid source offset	—	—	—	—

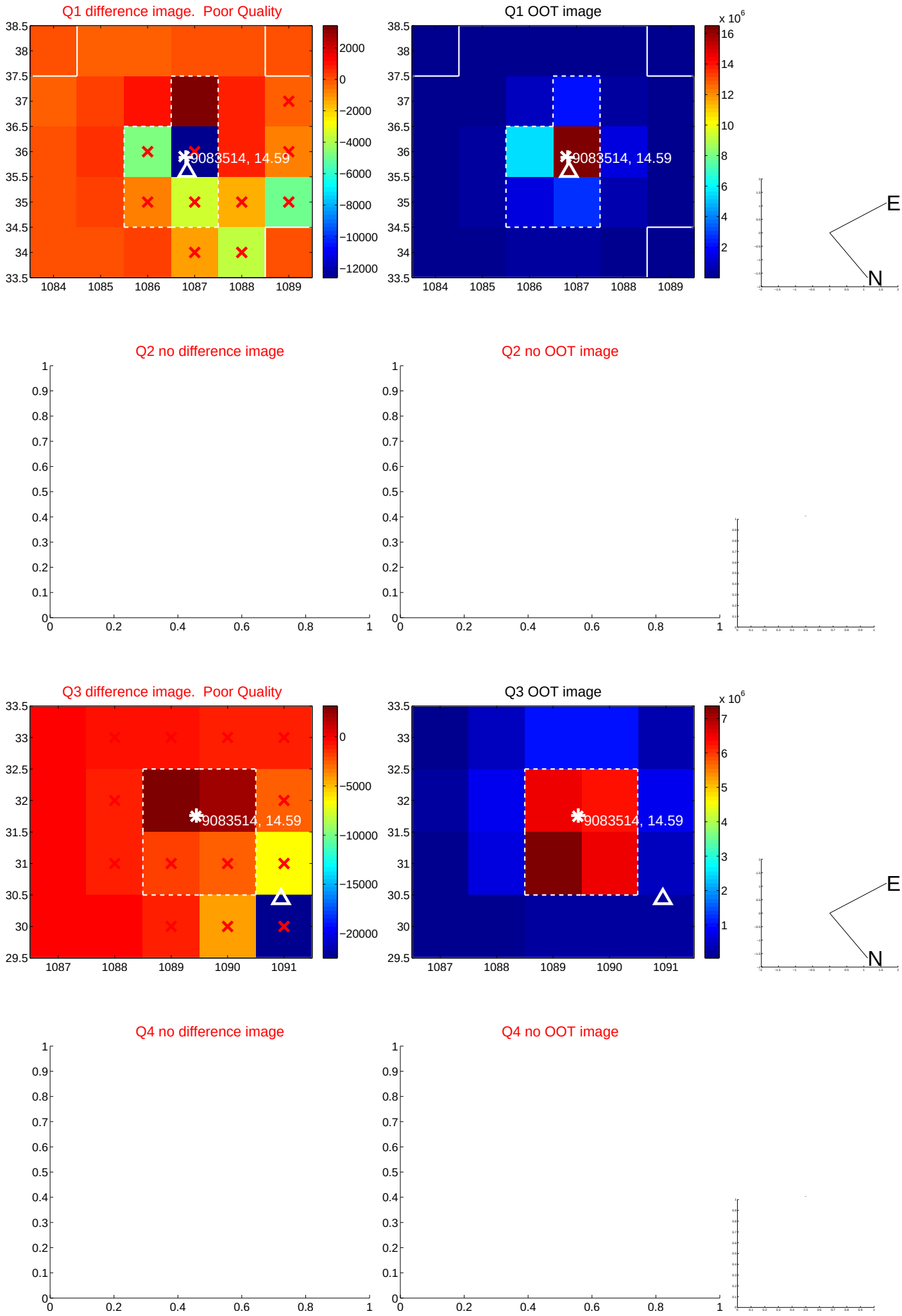




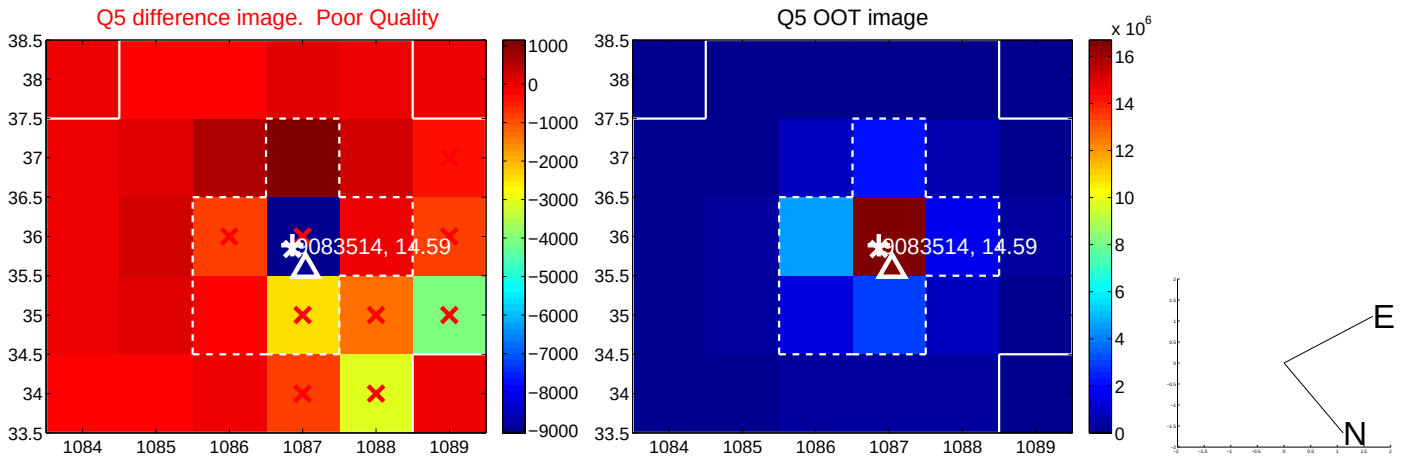


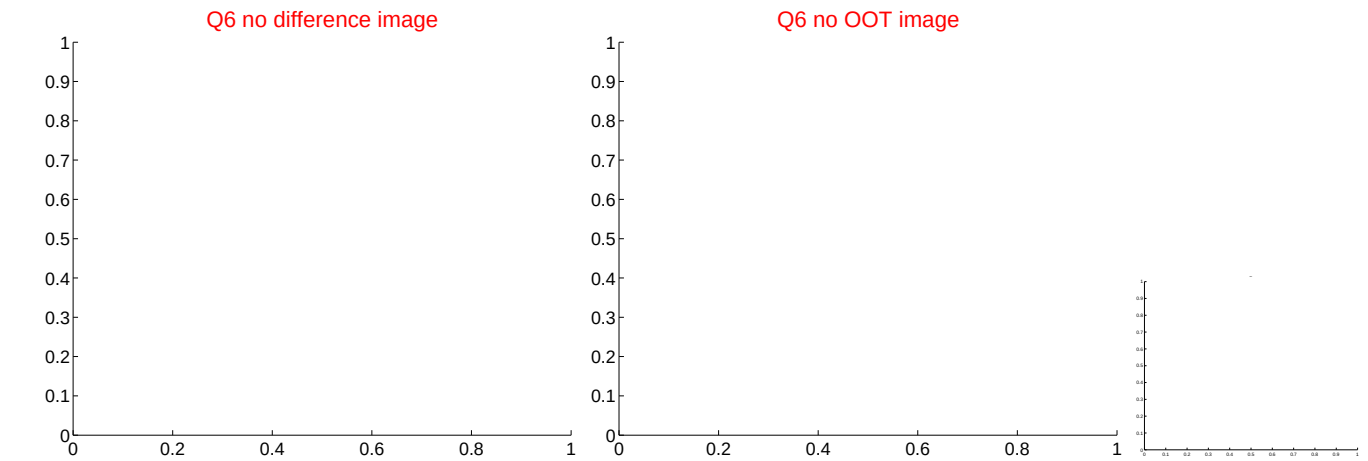
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

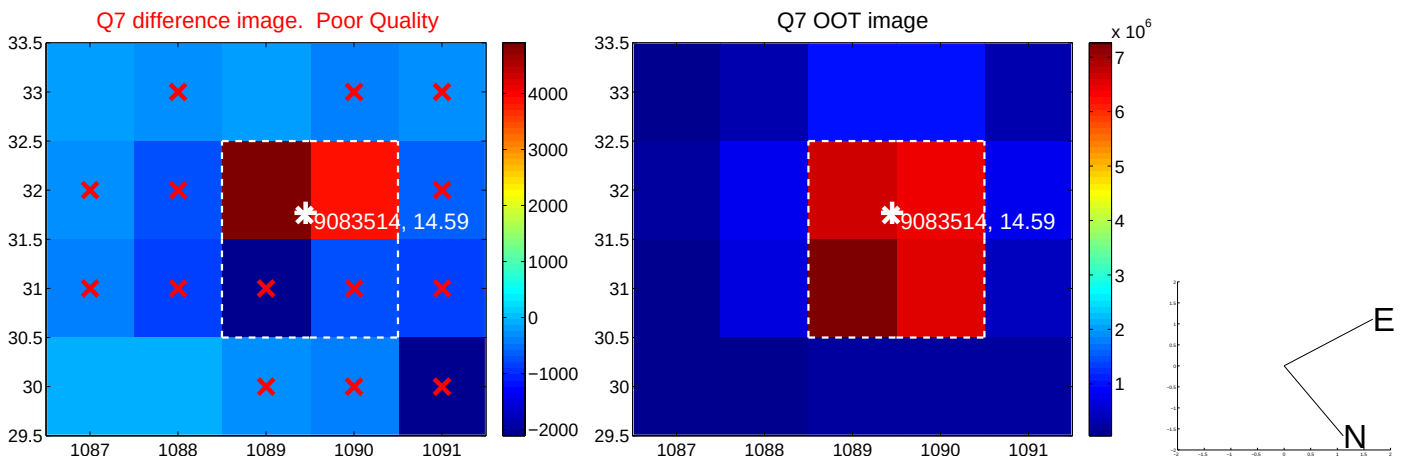
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

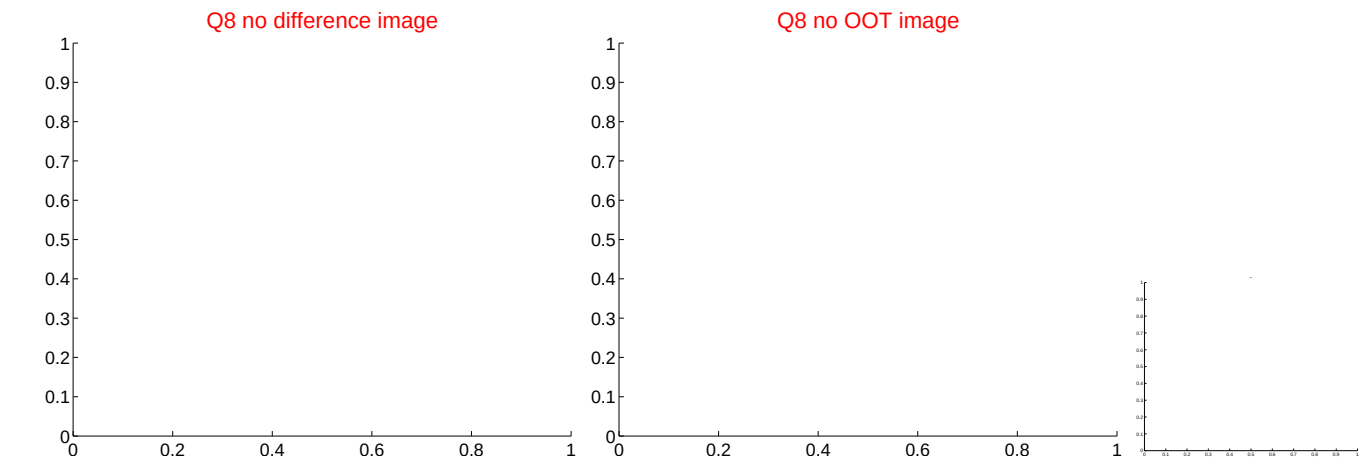


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

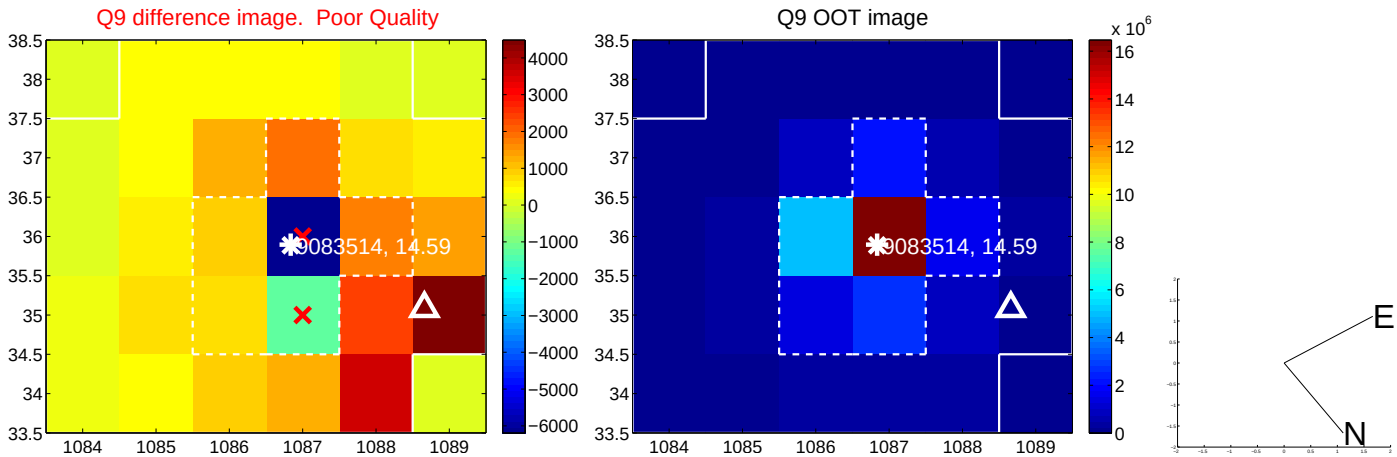


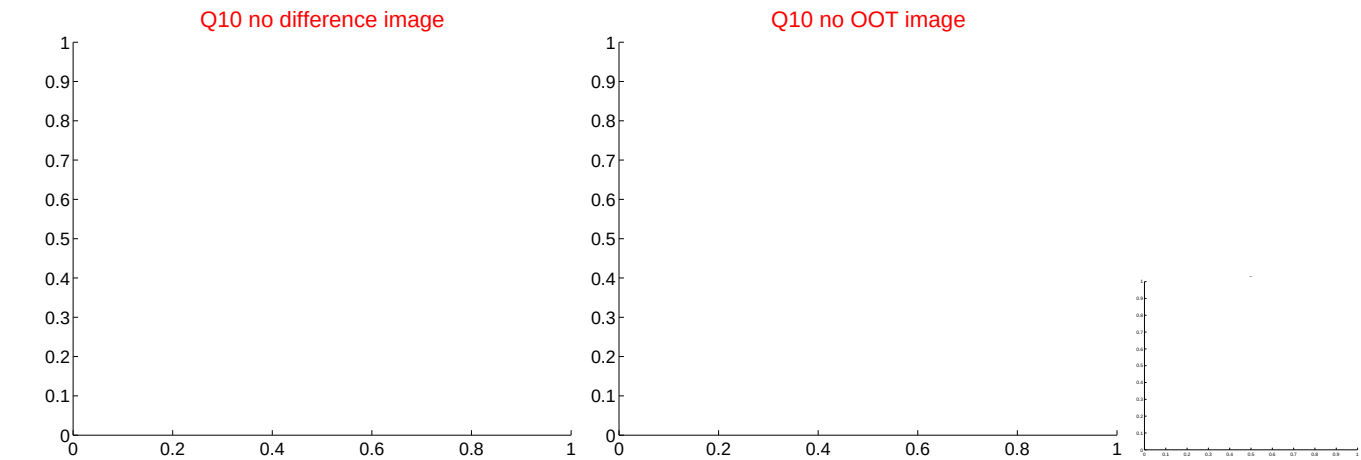


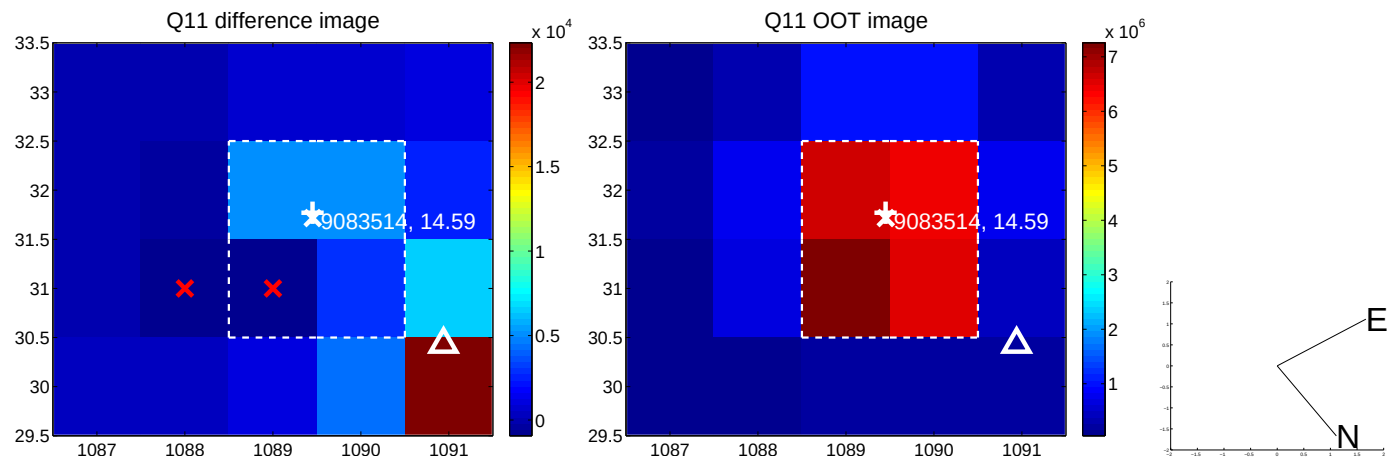


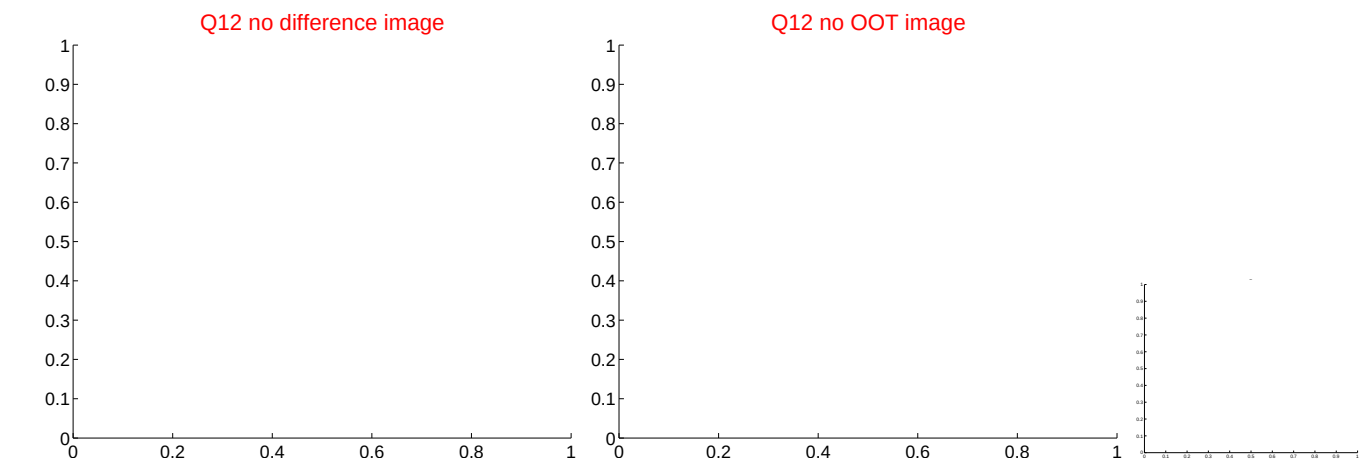


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

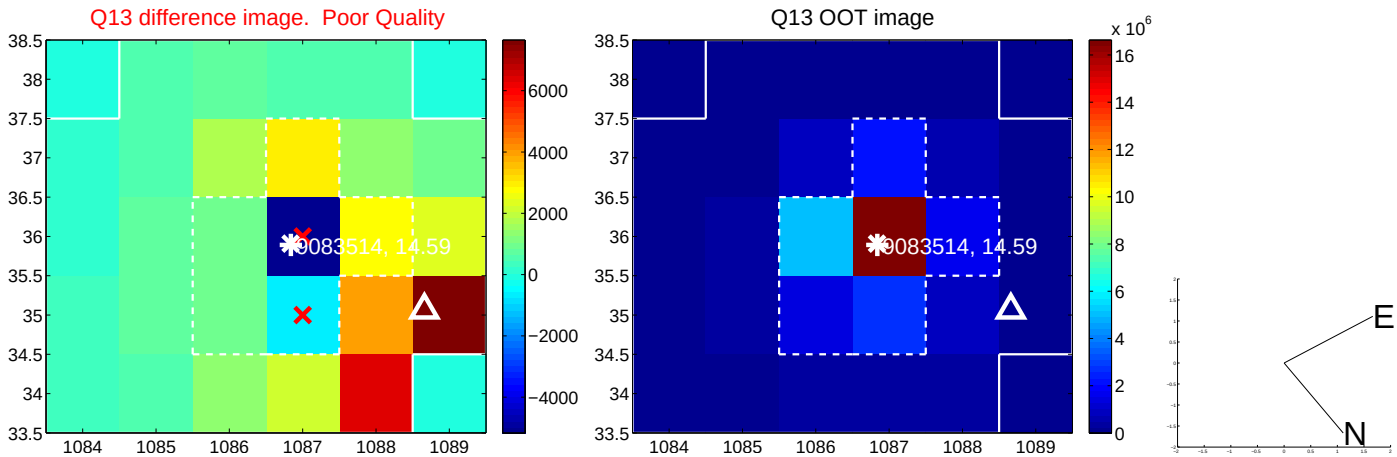


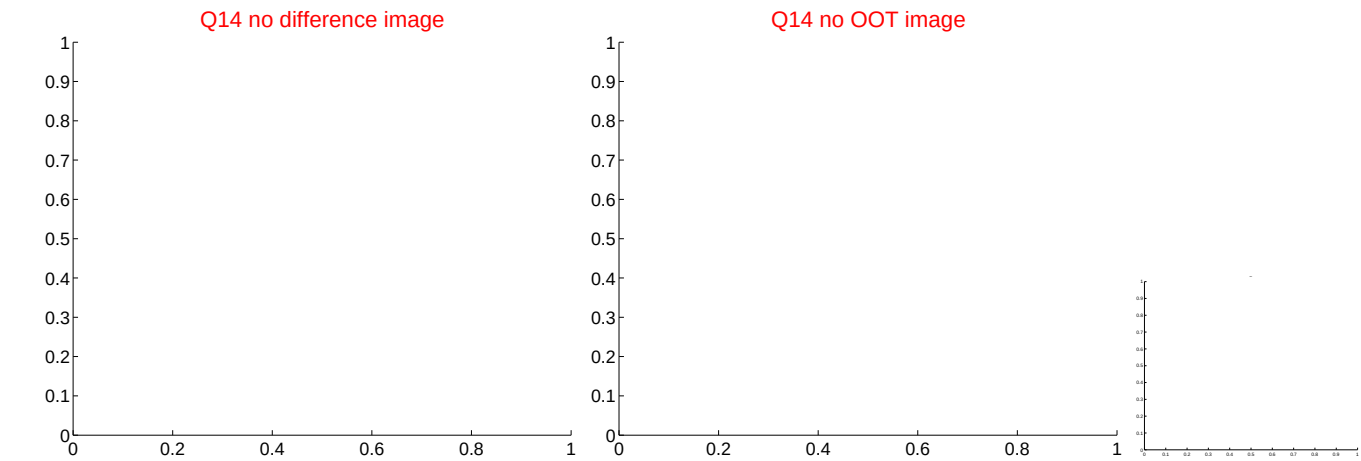


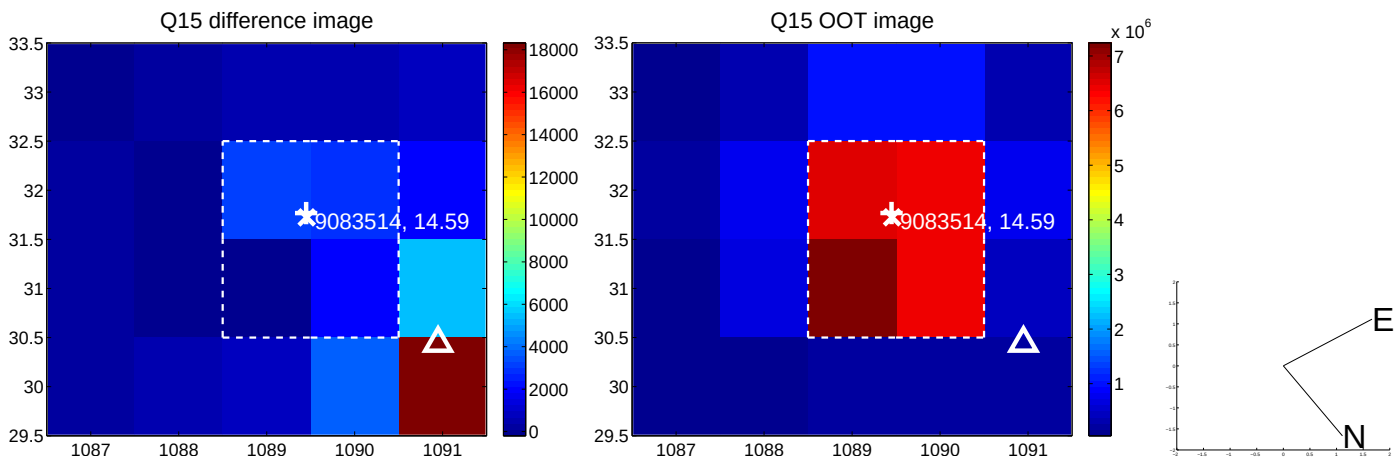


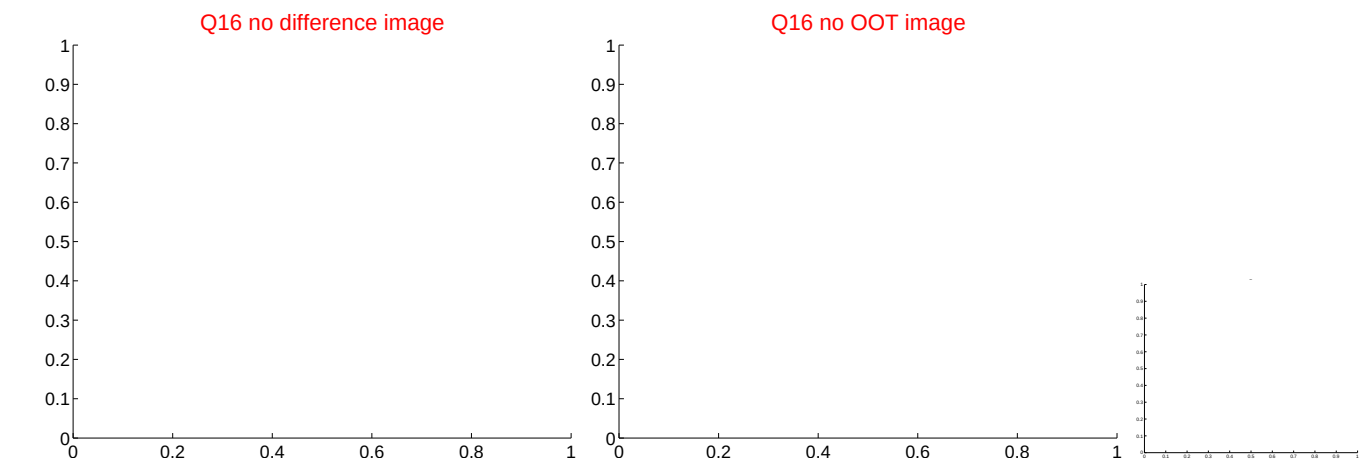


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

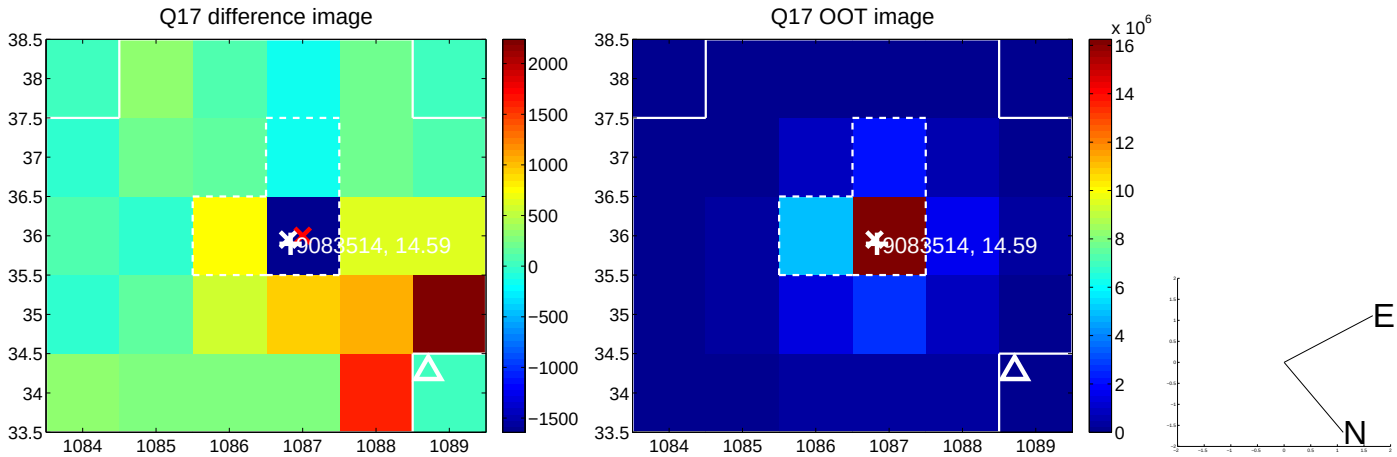






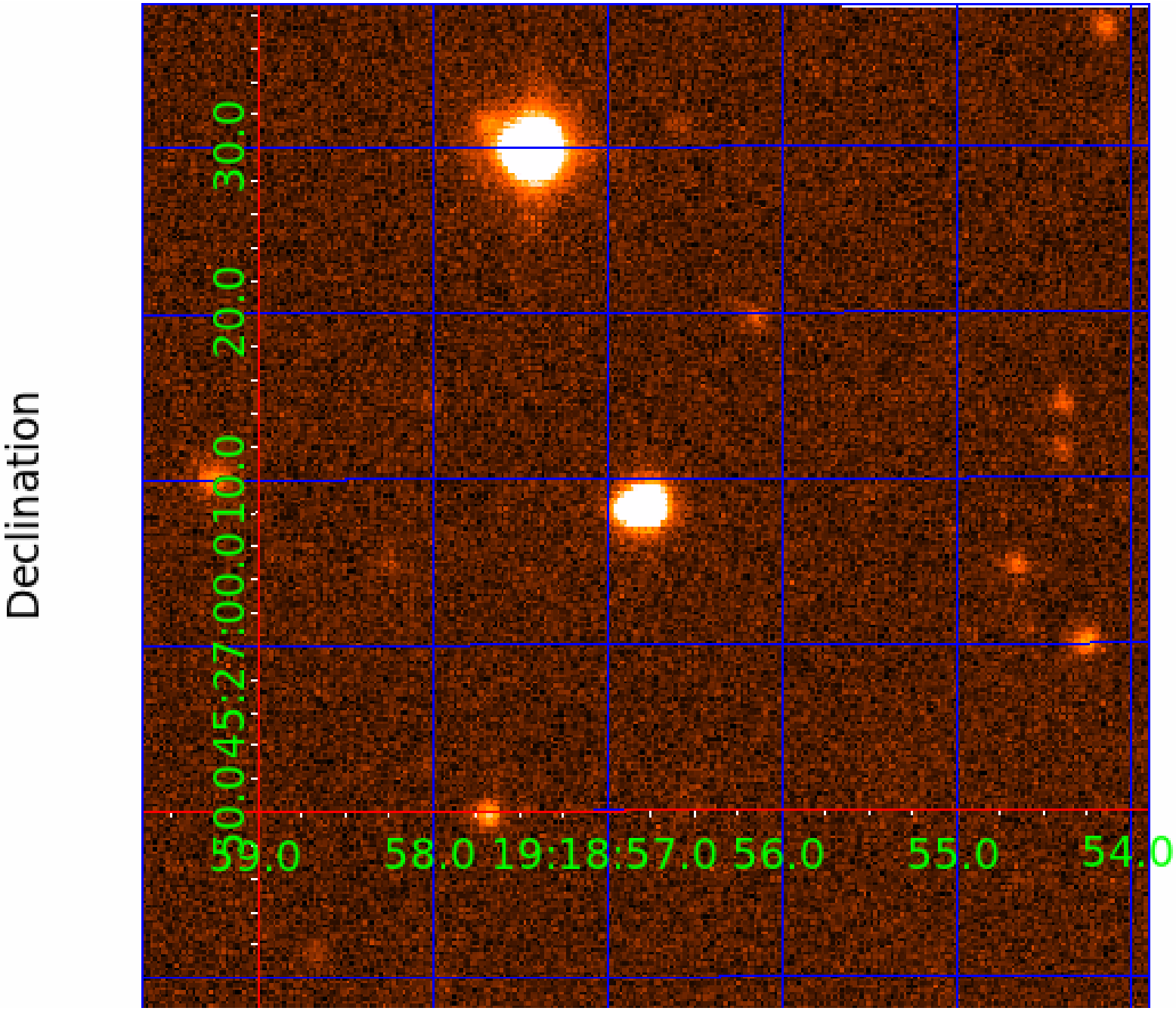


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



olded centroid time series figure for this object.

UKIRT Image


Declination
50:04
5:27:00.0
10.0
20.0
30.0
59.0
58.0
19:18:57.0
56.0
55.0
54.0