

KIC 009614124

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})
009614124-01	OBS	No	0.994604	131.582854	234.8	2.814	10.5	11.5	1.57	6554	2.81	9140.09
009614124-02	OBS	No	0.527461	132.040643	395.1	1.008	7.6	12.1	1.57	6554	3.16	21292.68
009614124-03	OBS	No	0.527460	131.724875	374.3	0.782	8.0	9.5	1.57	6554	3.59	21292.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009614124-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

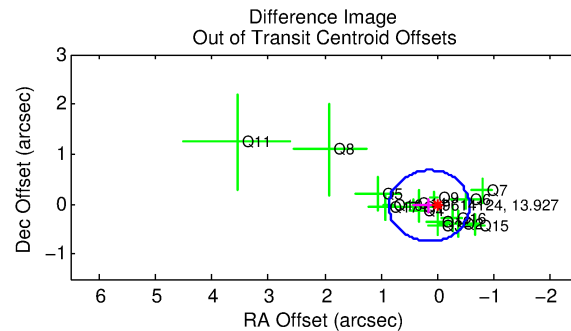
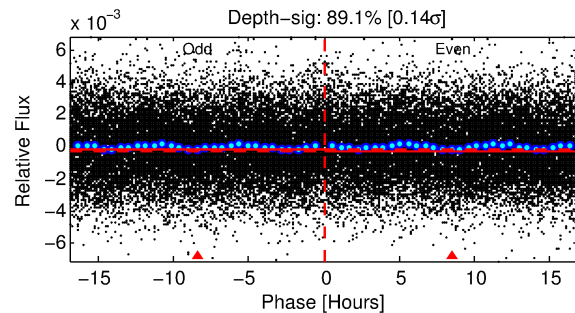
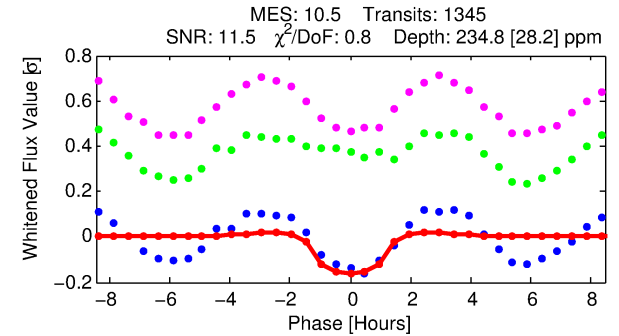
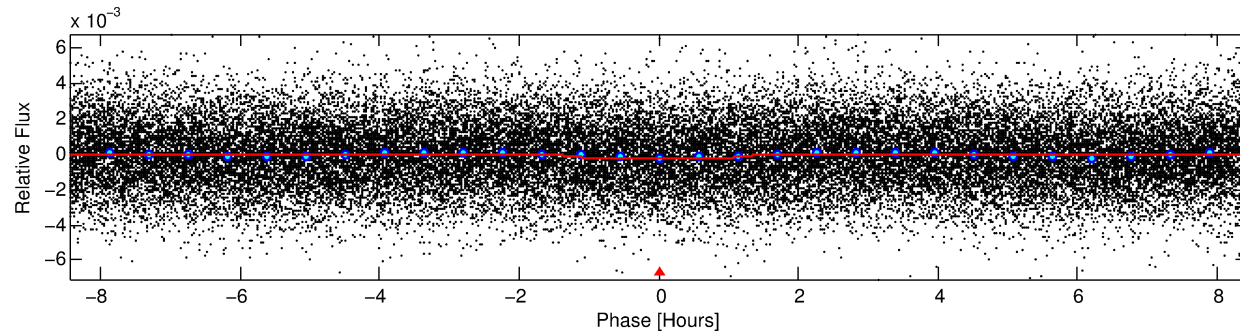
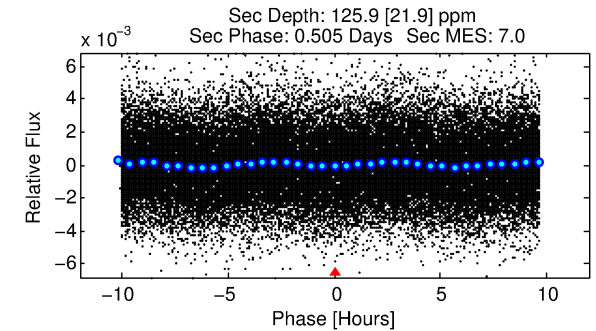
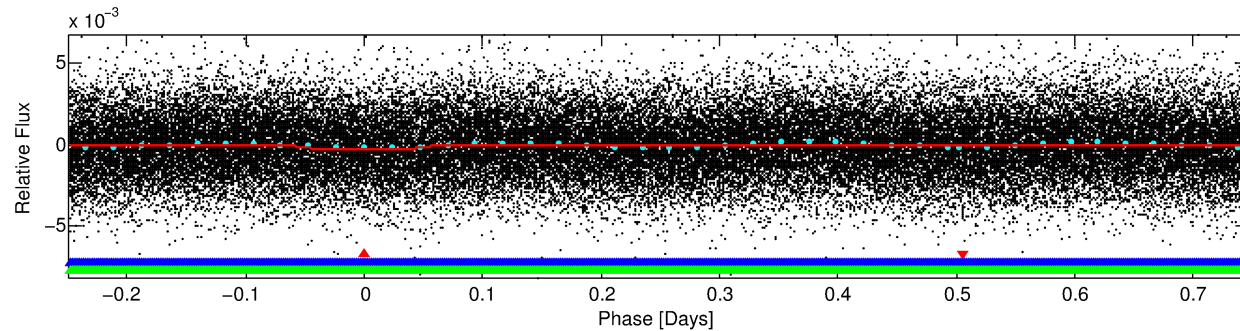
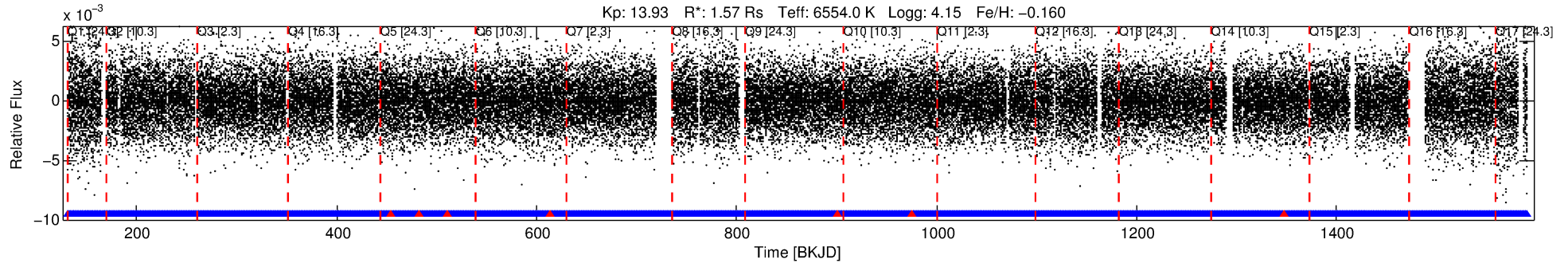
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009614124-01

No Significant Match Found

DV One-Page Summary

KIC: 9614124 Candidate: 1 of 3 Period: 0.995 d



DV Fit Results:

Period = 0.99460 [0.00001] d
Epoch = 131.5829 [0.0035] BKJD
Rp/R* = 0.0164 [0.0078]
a/R* = 1.59 [2.58]
b = 0.90 [0.58]
Seff = 9140.09 [3421.45]
Teq = 2493 [233] K
Rp = 2.81 [1.55] Re
a = 0.0211 [0.0050] AU
Ag = 3.91 [4.01] [0.72σ]
Teffp = 5420 [1324] K [2.18σ]

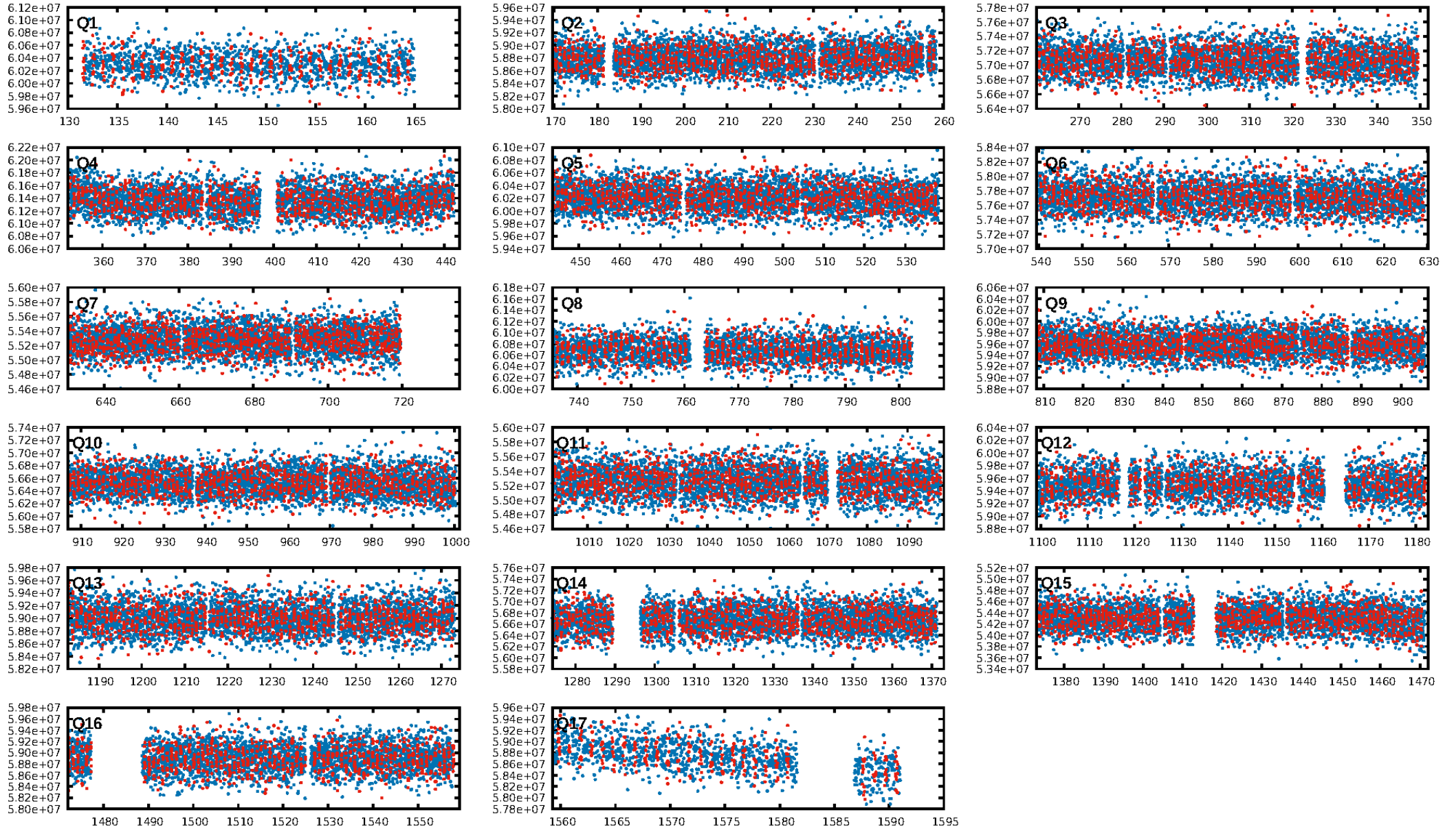
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.75σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.48e-36
RollingBand-fgt: 0.99 [1278/1285]
GhostDiagnostic-chr: 5.507
Centroid-sig: N/A
Centroid-so: 1.143 arcsec [5.30σ]
OotOffset-rm: 0.153 arcsec [0.65σ]
KicOffset-rm: 0.185 arcsec [0.82σ]
OotOffset-st: 4/4/4/4 [16]
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DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 0.00 [0/17]

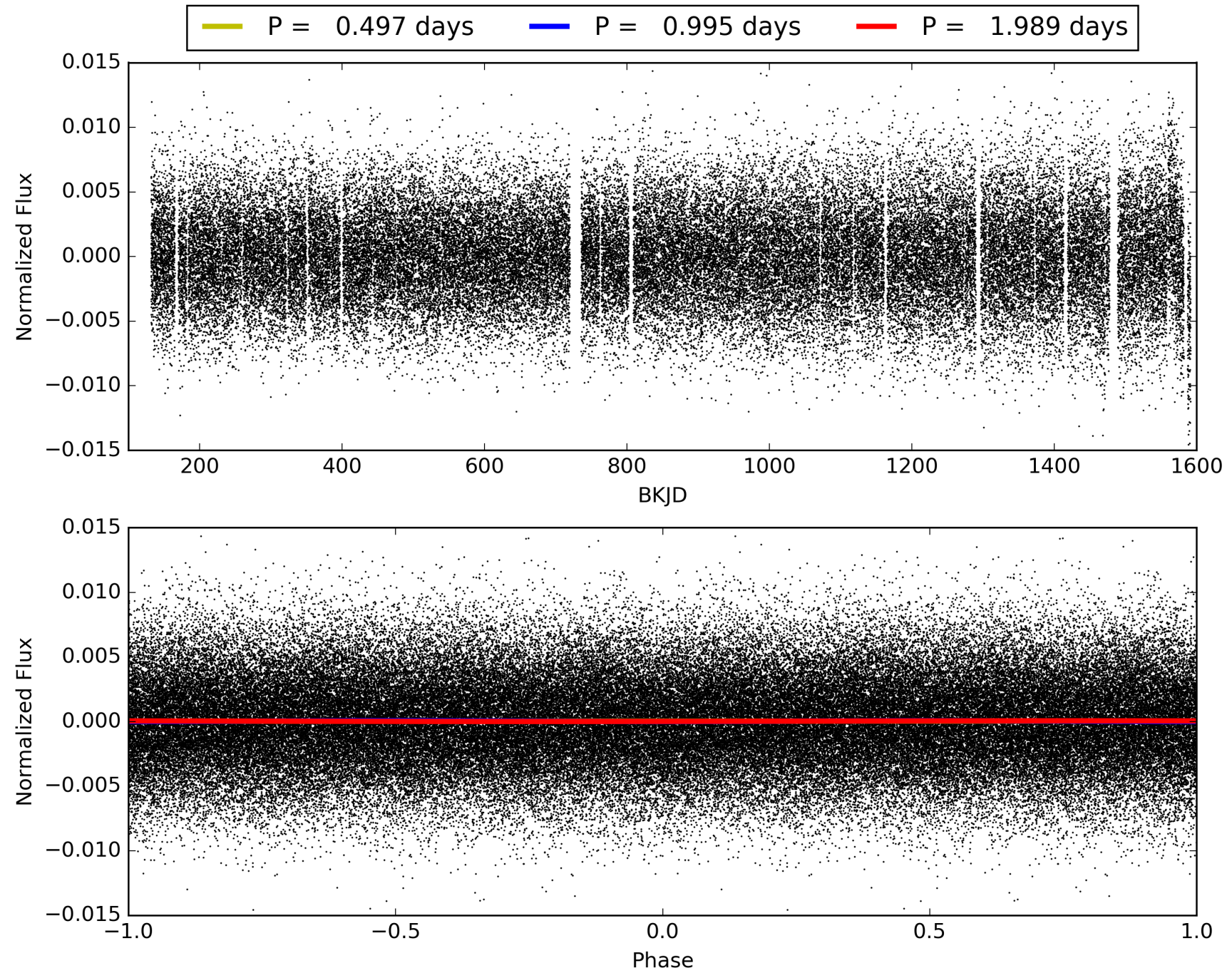
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009614124-01, PDC Light Curves

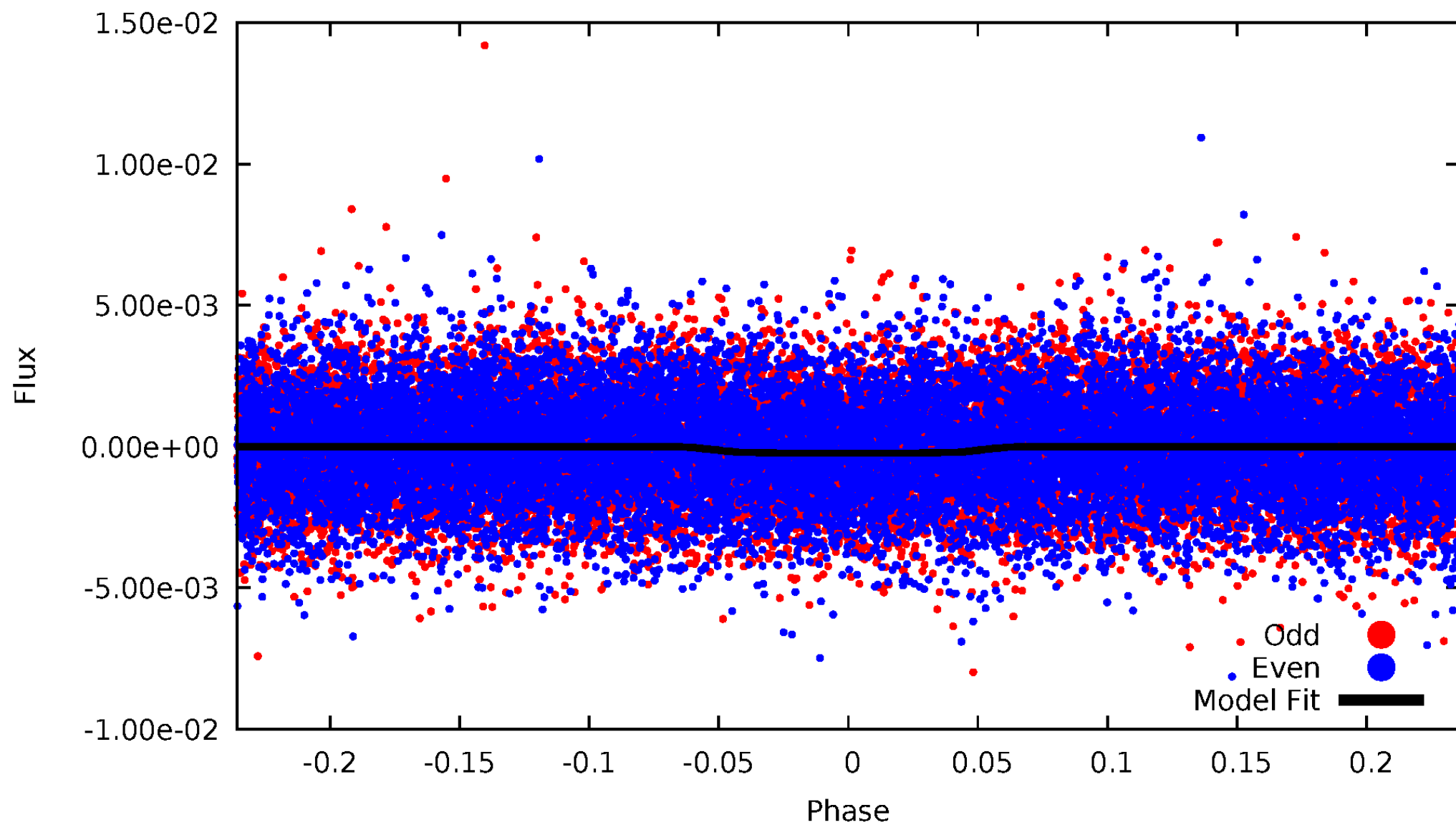


TCE 009614124-01



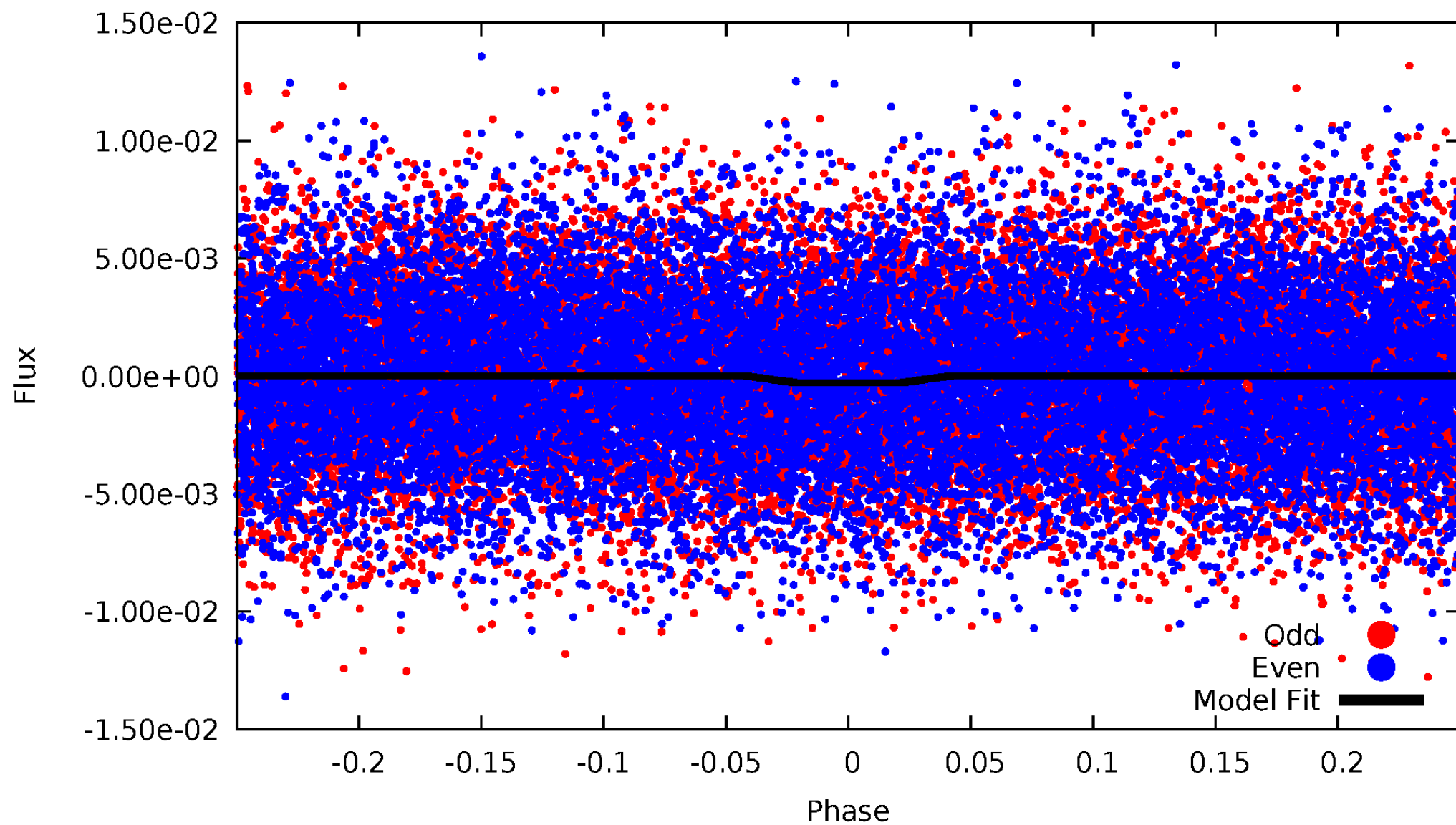
DV Odd/Even

TCE 009614124-01

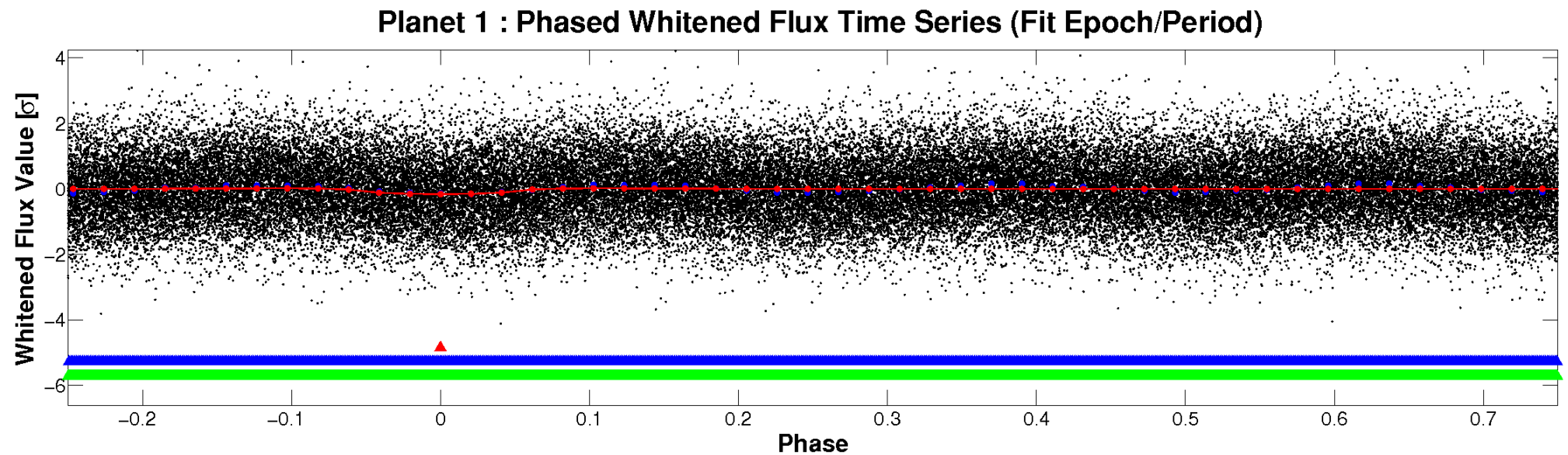
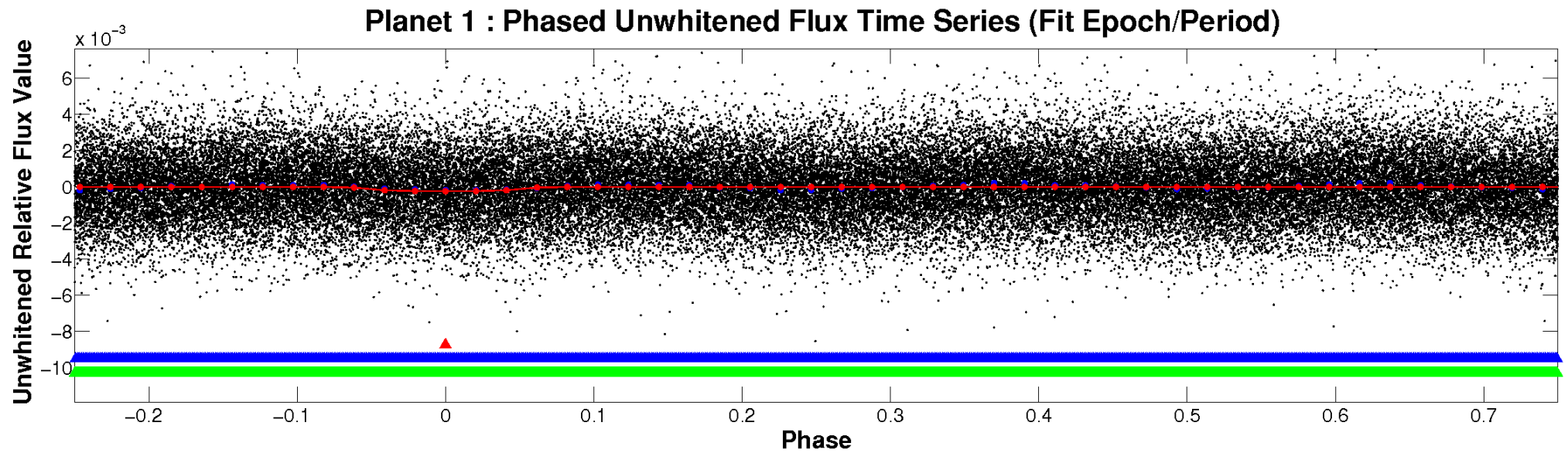


ALT Odd/Even

TCE 009614124-01

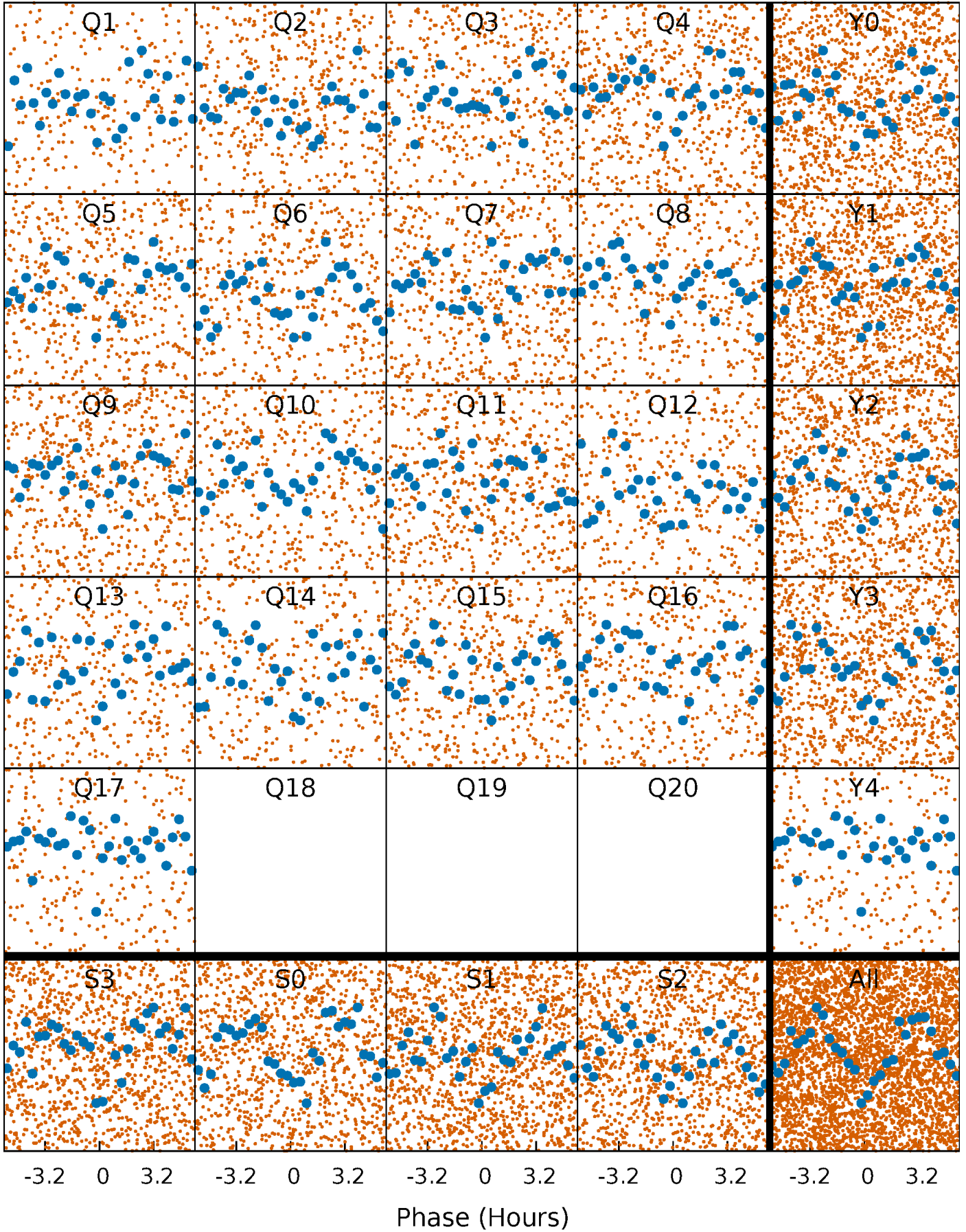


Non-Whitened Vs. Whitened Light Curve



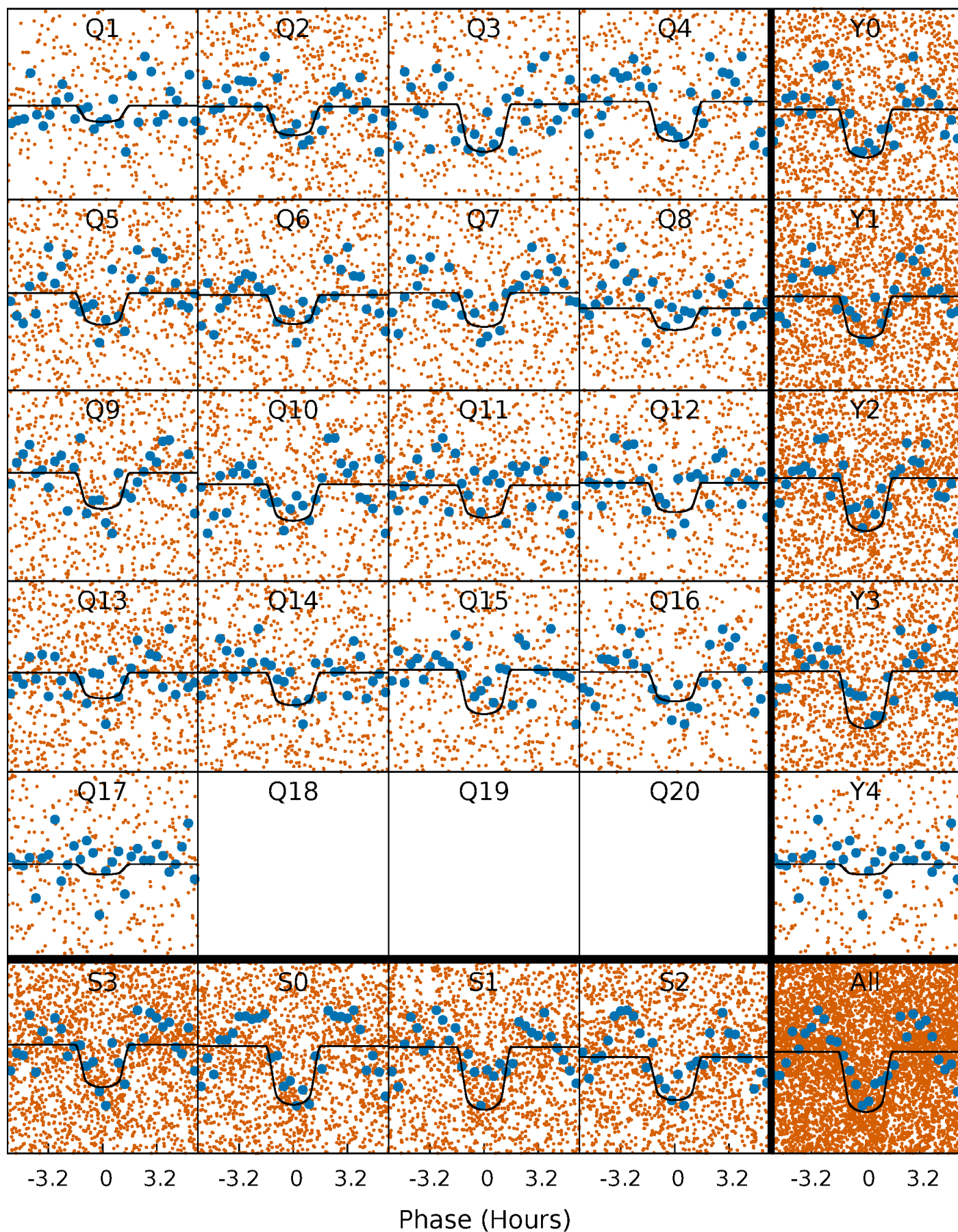
PDC Quarter-Phased Transit Curves

TCE 009614124-01 P= 0.994604 Days $T_0=131.582854$ (BKJD)



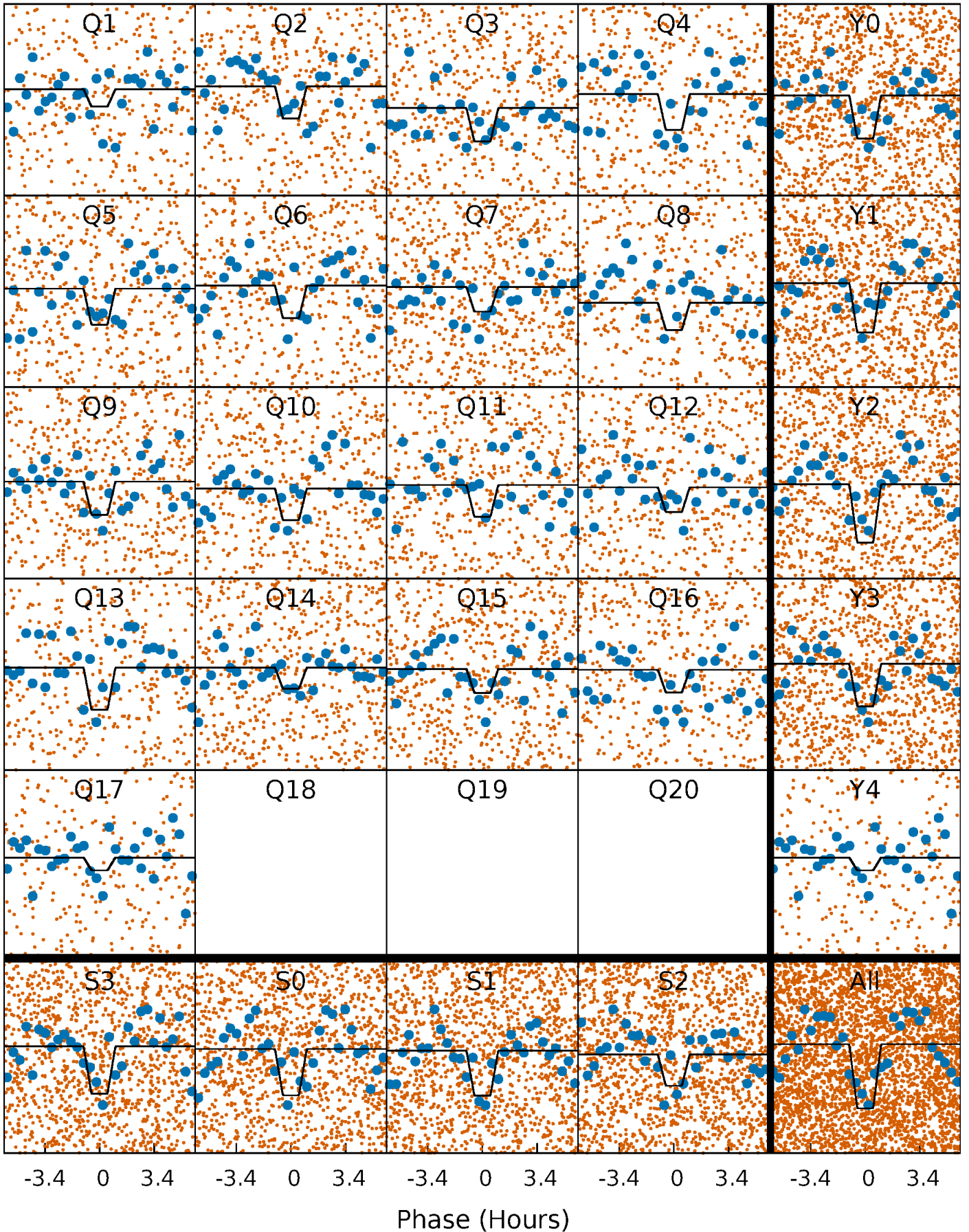
DV Quarter-Phased Transit Curves

TCE 009614124-01 P= 0.994604 Days $T_0=131.582854$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

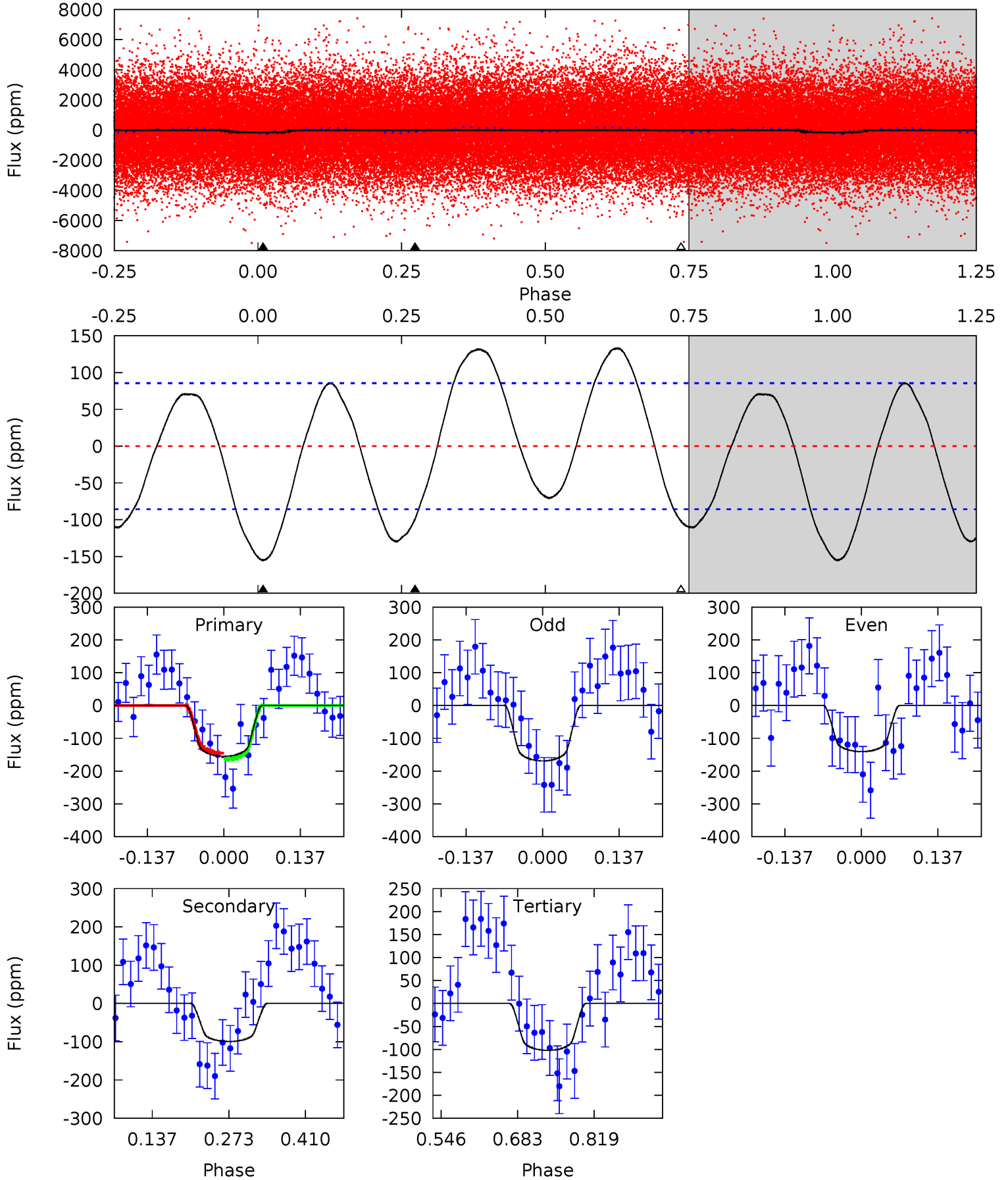
TCE 009614124-01 P= 0.994614 Days $T_0=131.581461$ (BKJD)



DV Model-Shift Uniqueness Test

009614124-01, P = 0.994604 Days, E = 130.588250 Days

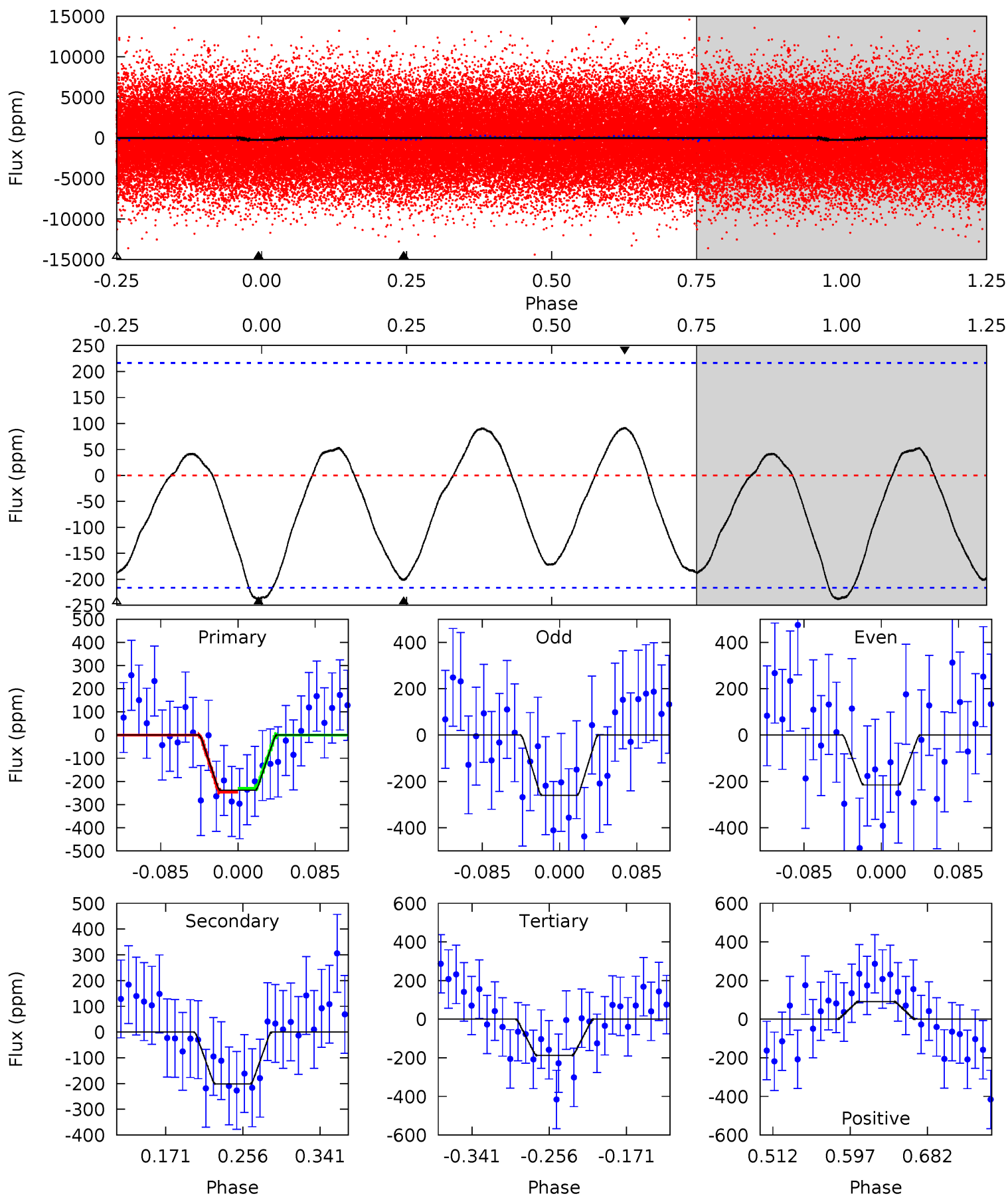
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.13	5.21	5.36	0	4.50	1.49	3.91	2.77	8.13	-0.15	5.21	0.74	0.89	0.46	0.50



Alt Model-Shift Uniqueness Test

009614124-01, P = 0.994614 Days, E = 130.586847 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.06	4.28	3.99	1.94	4.60	1.72	1.85	1.06	3.12	0.29	2.34	0.48	1.02	0.28	0.17



Stellar Parameters For KIC 009614124

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6554^{+175}_{-233}	$4.149^{+0.190}_{-0.171}$	$-0.160^{+0.250}_{-0.300}$	$1.568^{+0.439}_{-0.395}$	$1.271^{+0.181}_{-0.221}$	$0.465^{+0.554}_{-0.223}$
	+3%/-4%	+5%/-4%	+156%/-188%	+28%/-25%	+14%/-17%	+119%/-48%
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 009614124-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-99 ± 19	$2.84^{+1.57}_{-1.26}$	3469^{+277}_{-238}	4972^{+1614}_{-868}	$2.981^{+6.351}_{-1.746}$
Alt.	-201 ± 47	$2.86^{+1.49}_{-1.26}$	3475^{+246}_{-264}	5881^{+2028}_{-1111}	$5.814^{+13.158}_{-3.423}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

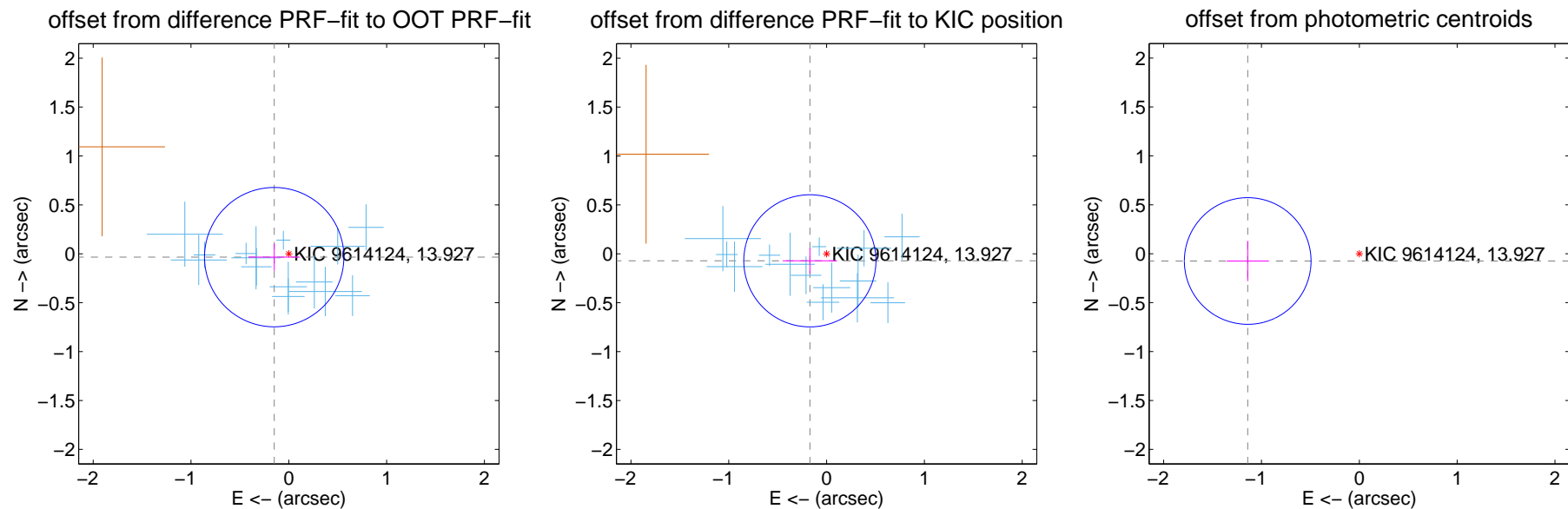
DV Centroid Data

Supplemental centroid analysis for 009614124-01. Kepler magnitude: 13.93. Transit SNR 11.45

There are 14 quarters with good PRF difference image offsets

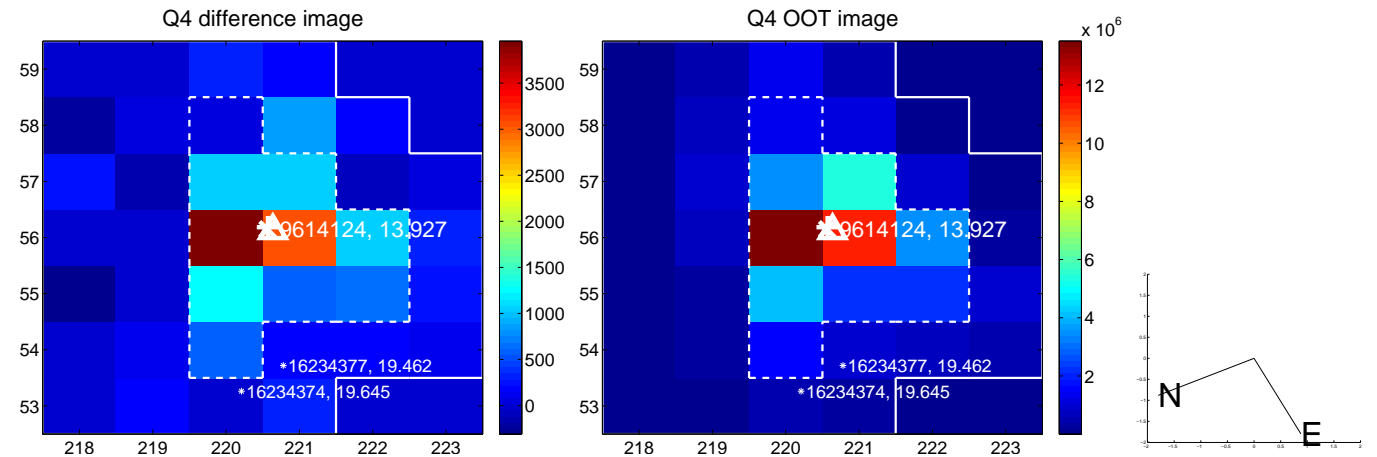
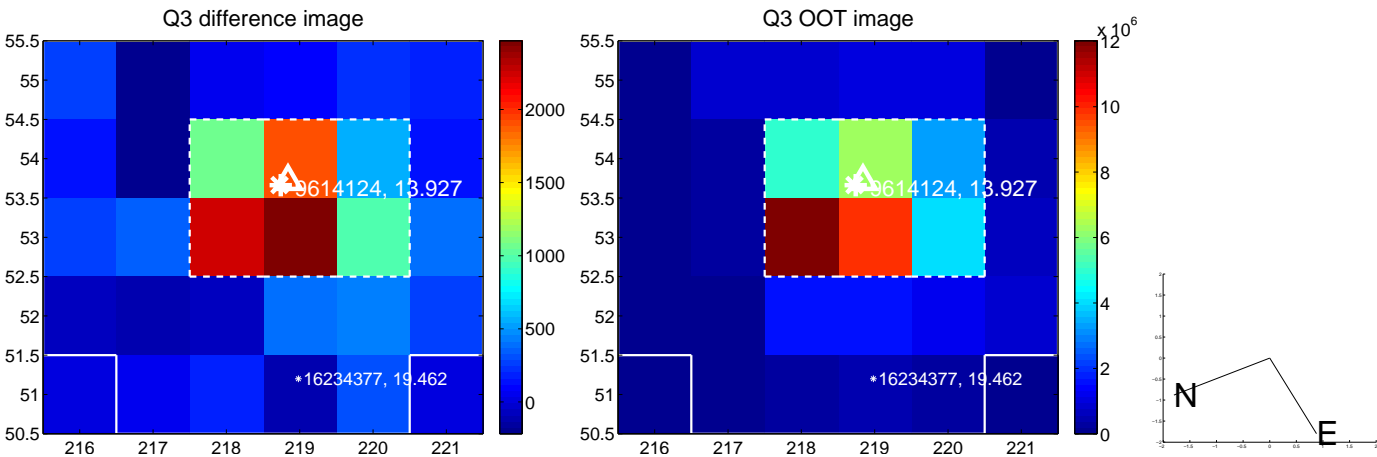
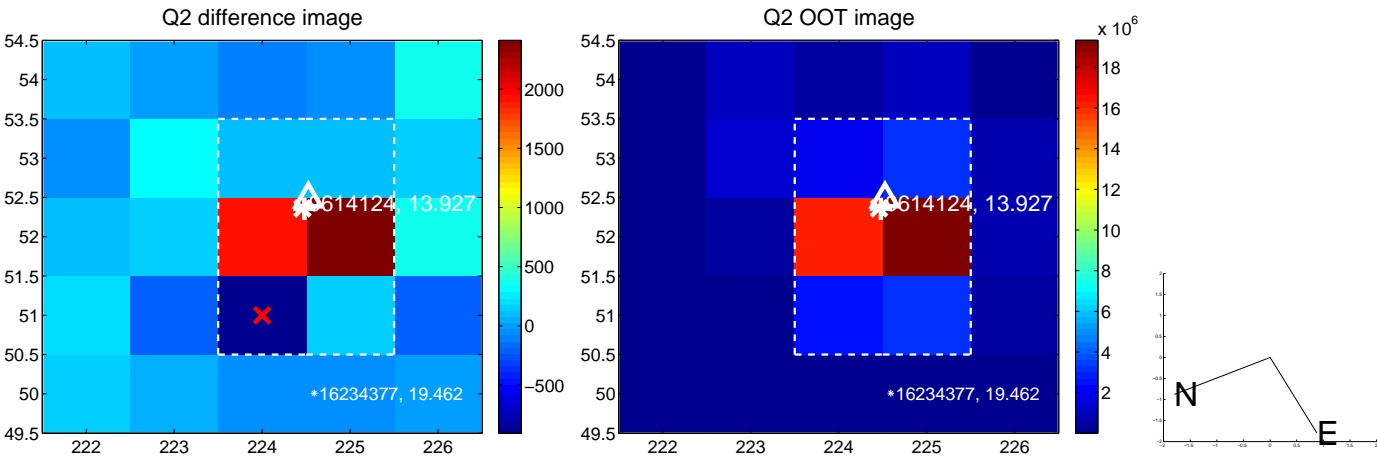
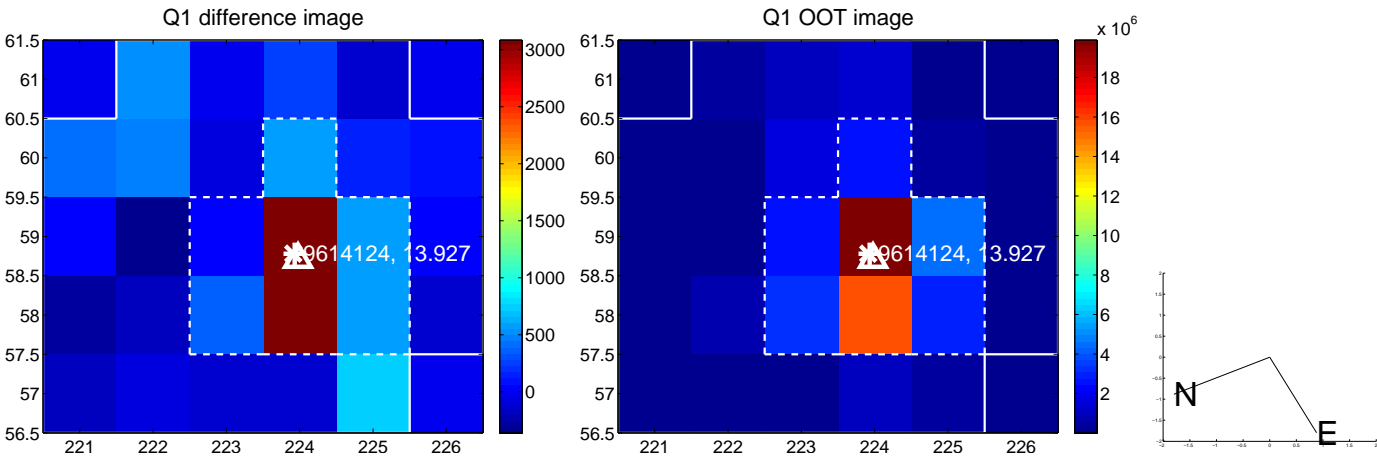
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.153 ± 0.237	0.65	0.149 ± 0.263	-0.034 ± 0.137
PRF-fit source offset from KIC position	0.185 ± 0.225	0.82	0.171 ± 0.277	-0.072 ± 0.129
photometric centroid source offset	1.14 ± 0.22	5.30	1.14 ± 0.22	-0.07 ± 0.21

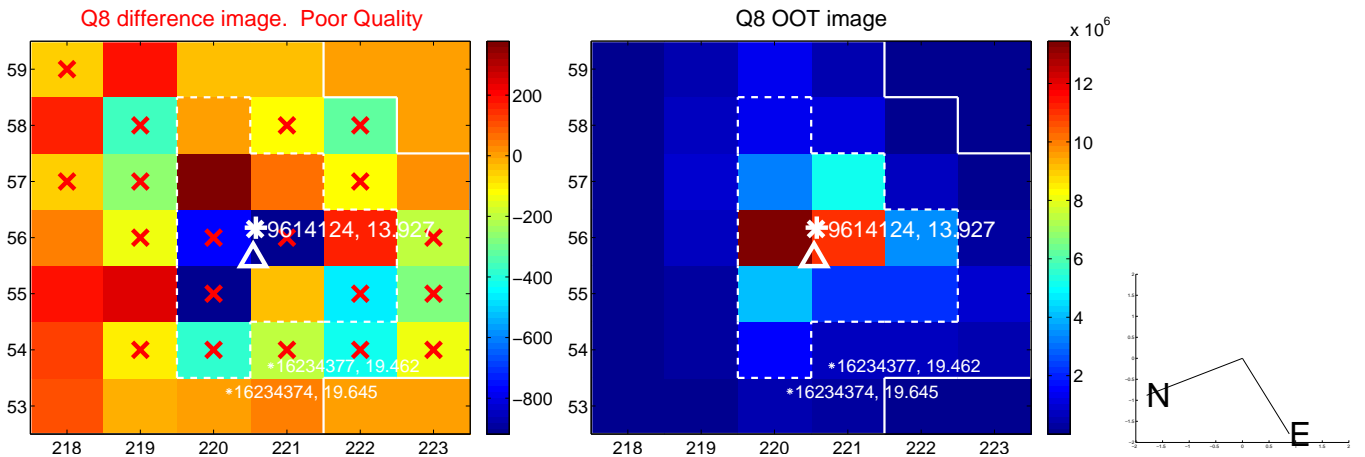
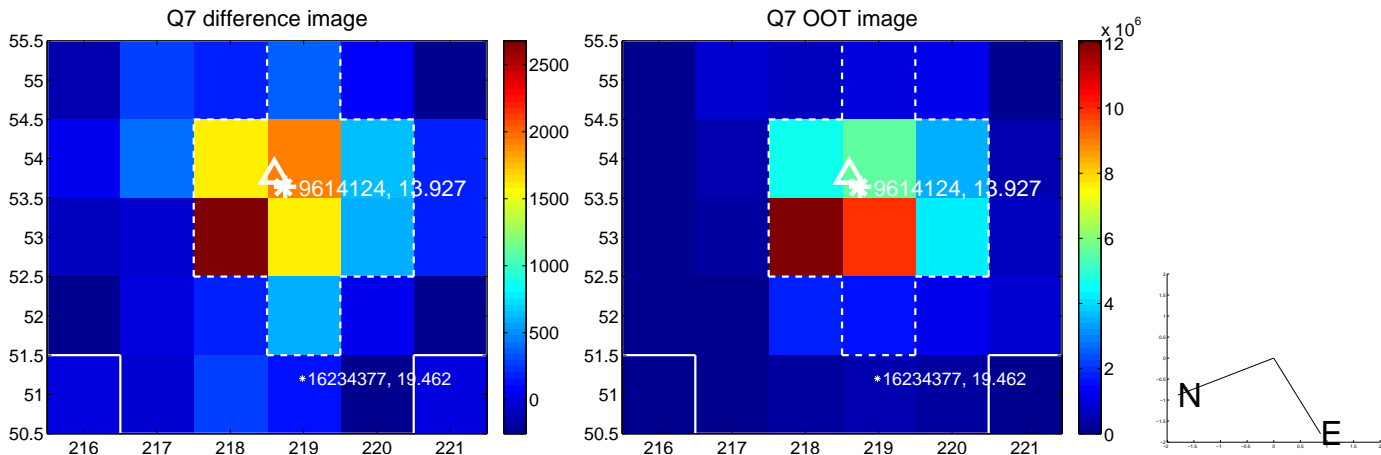
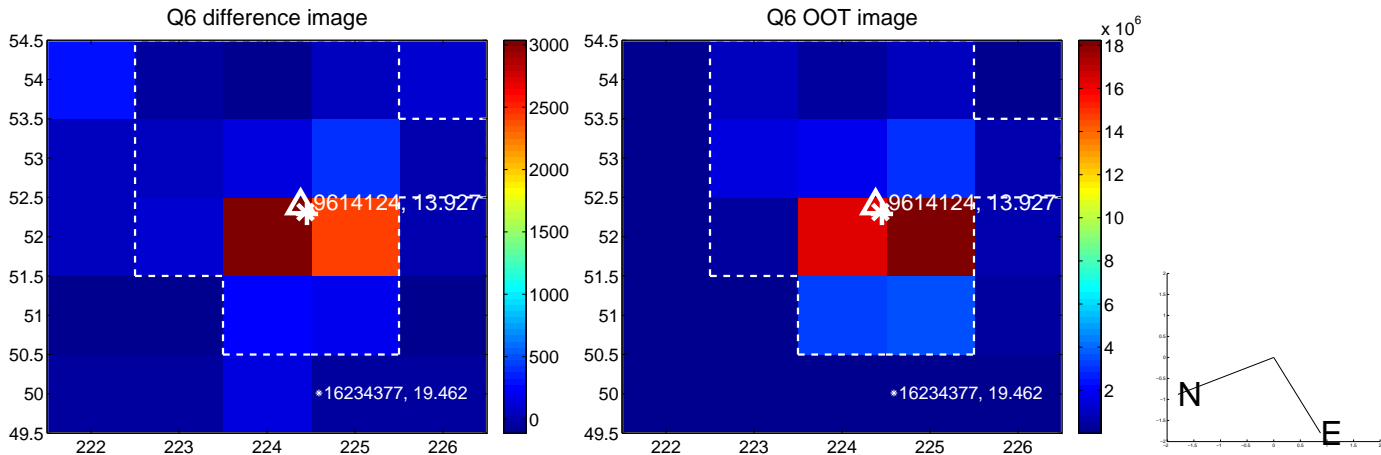
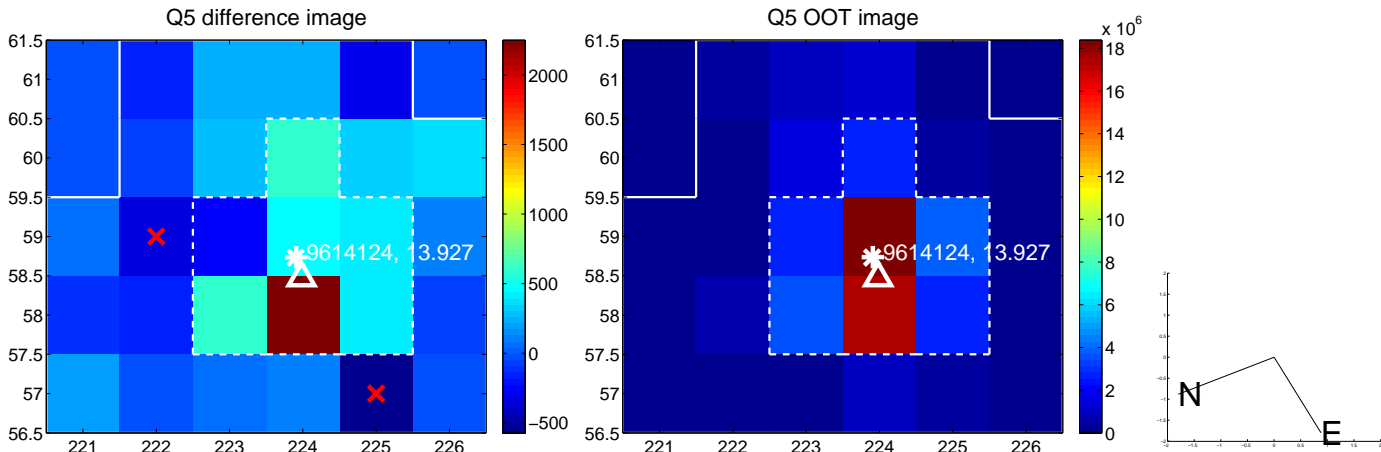


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

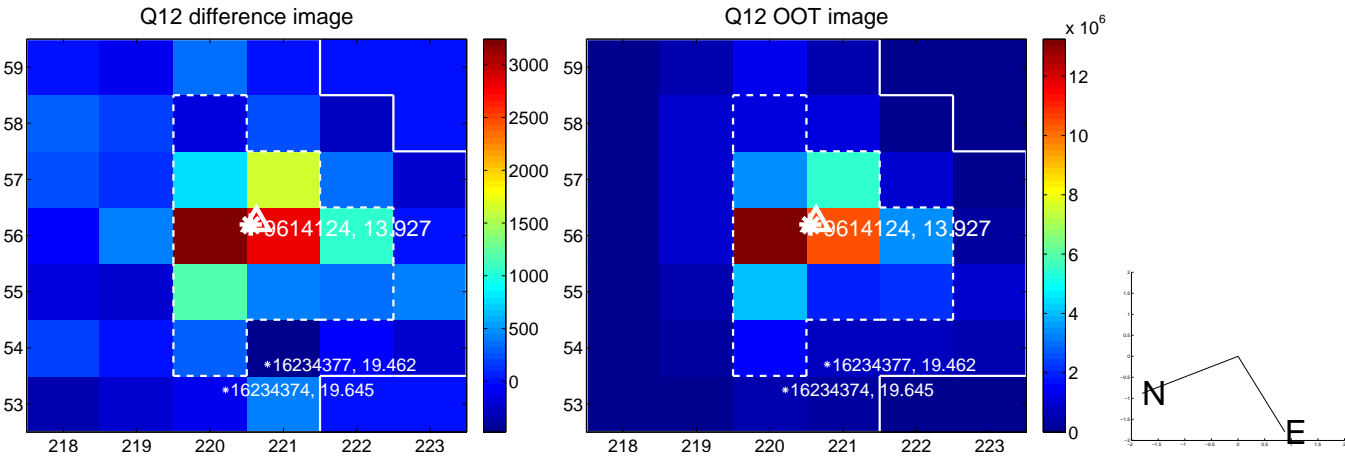
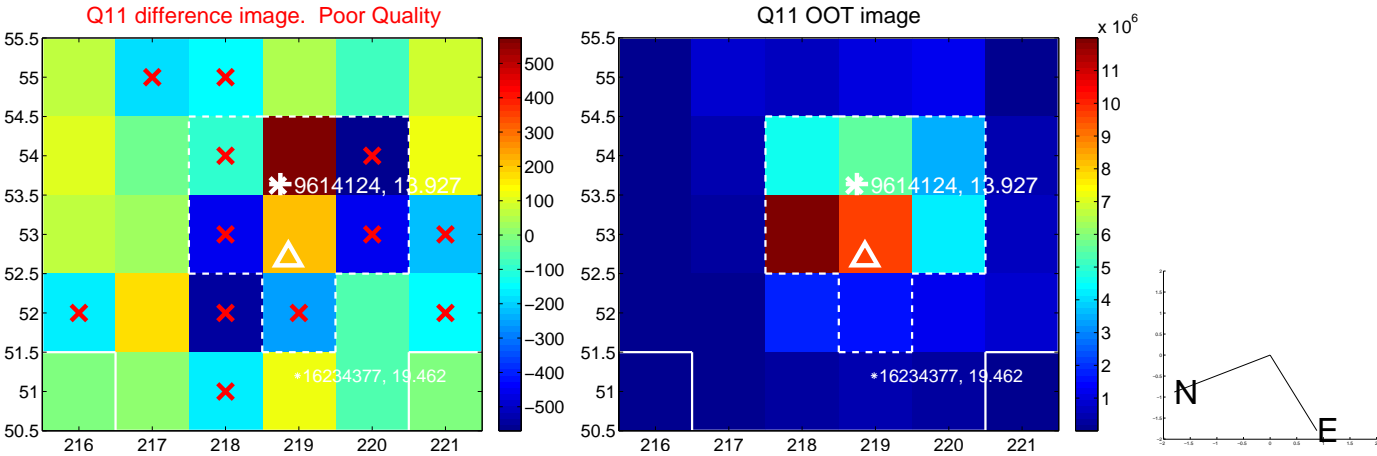
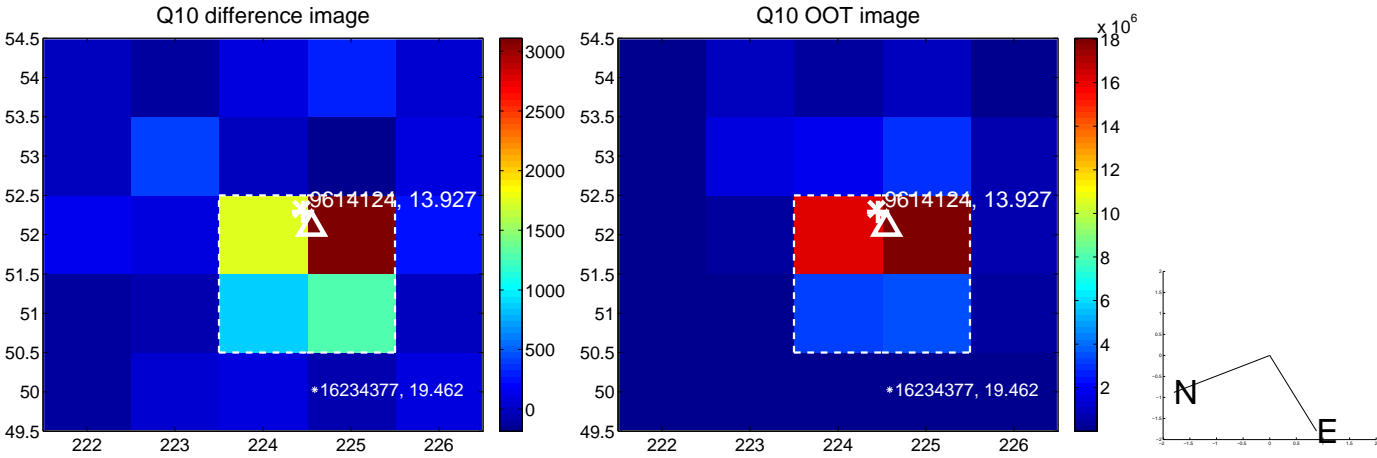
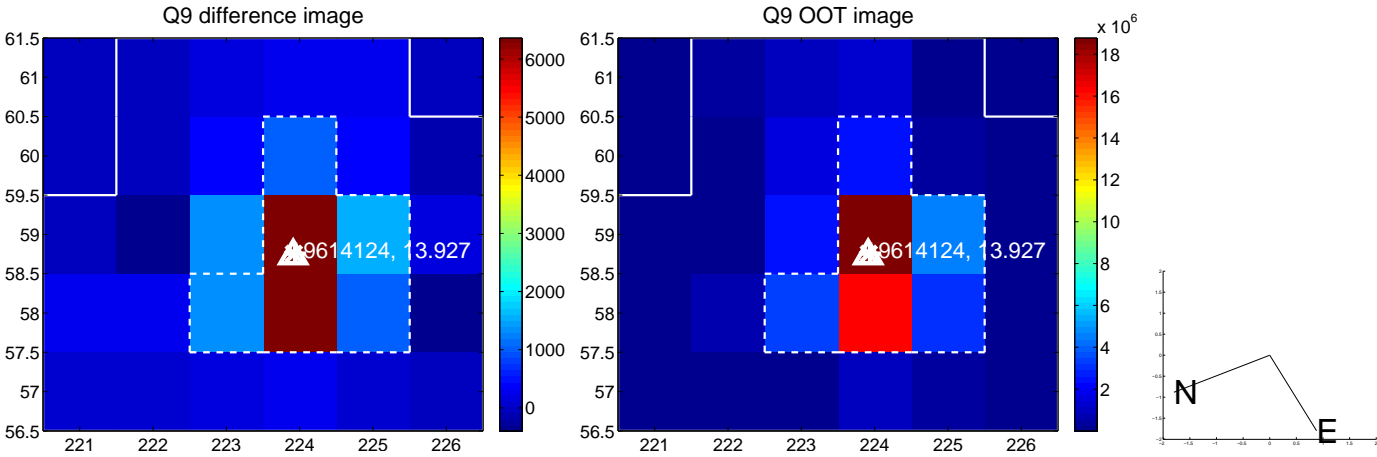
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



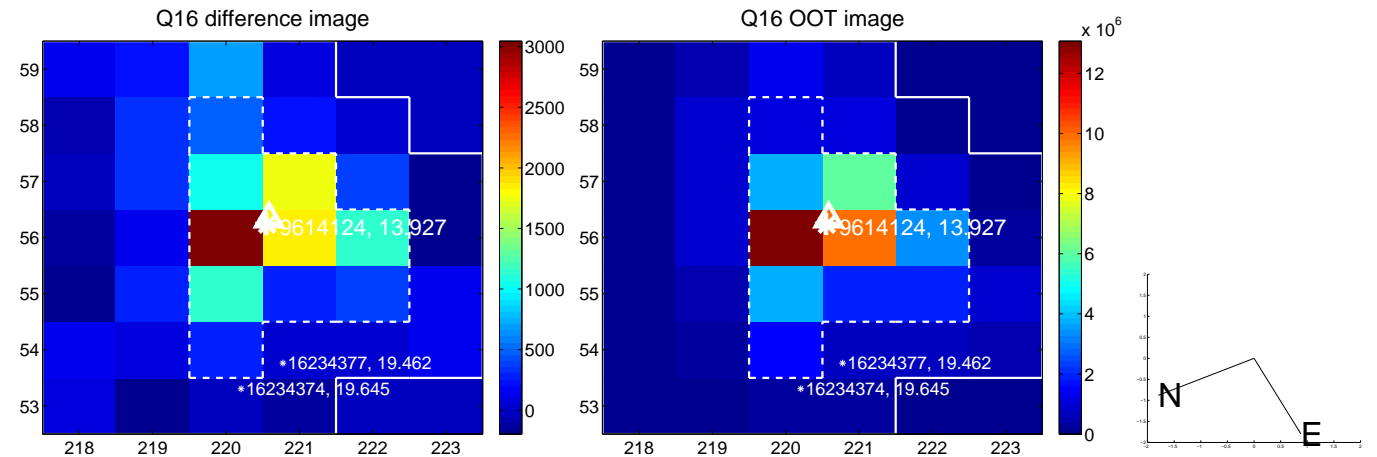
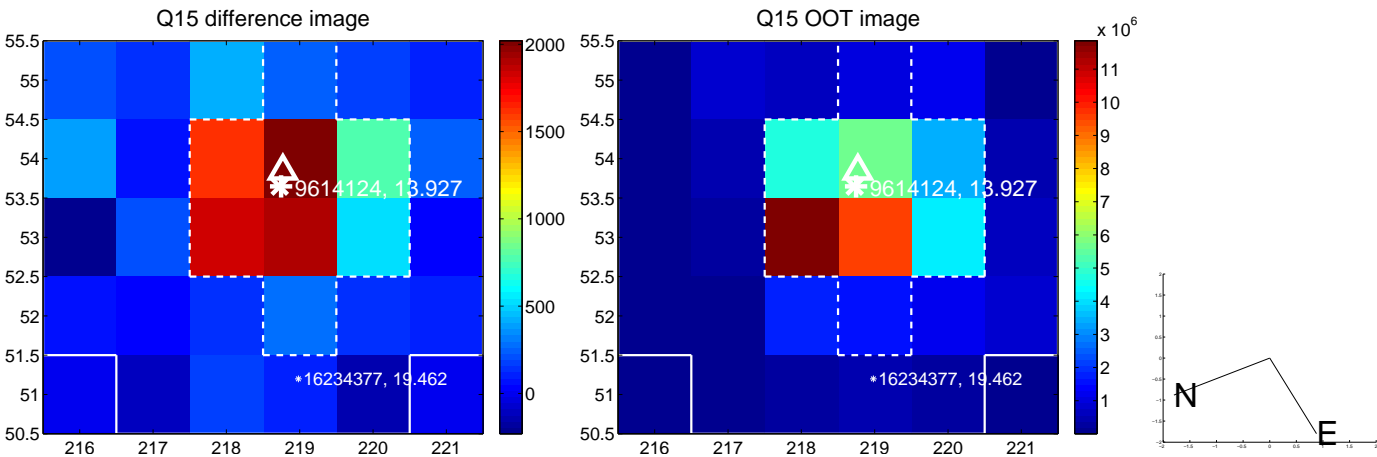
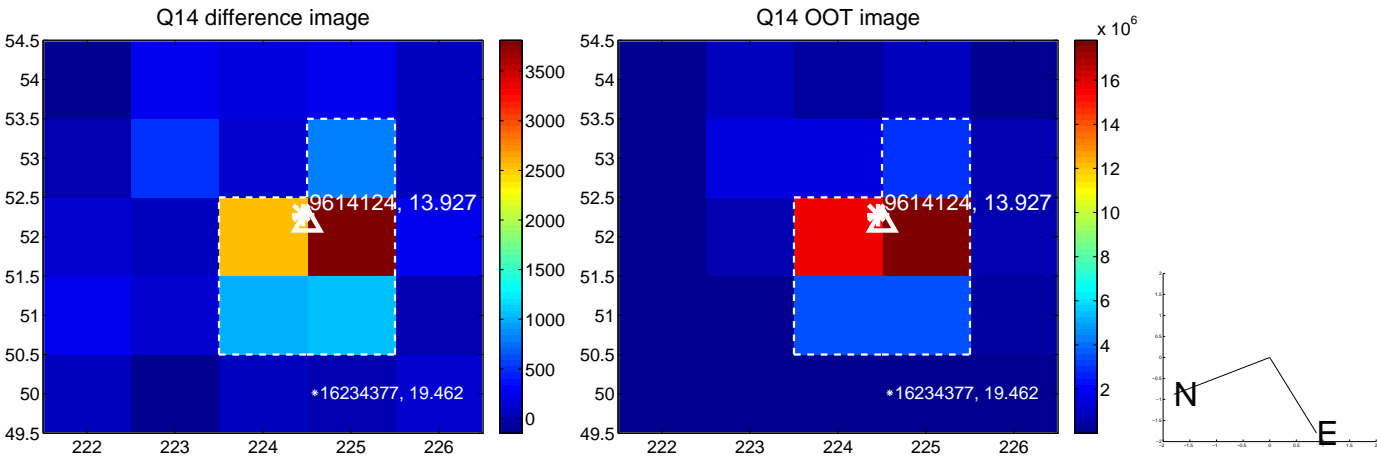
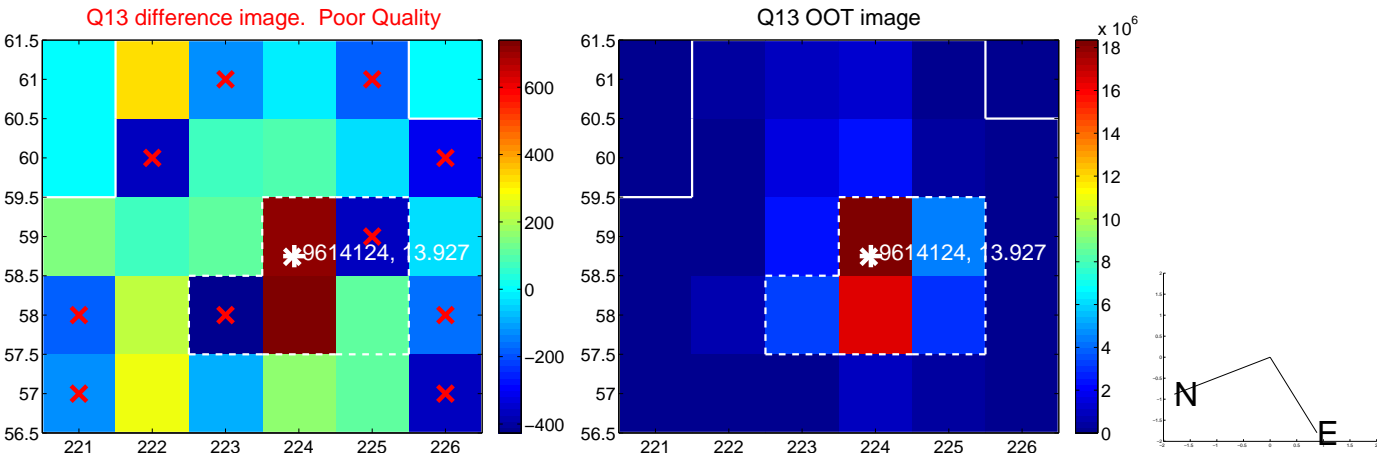
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



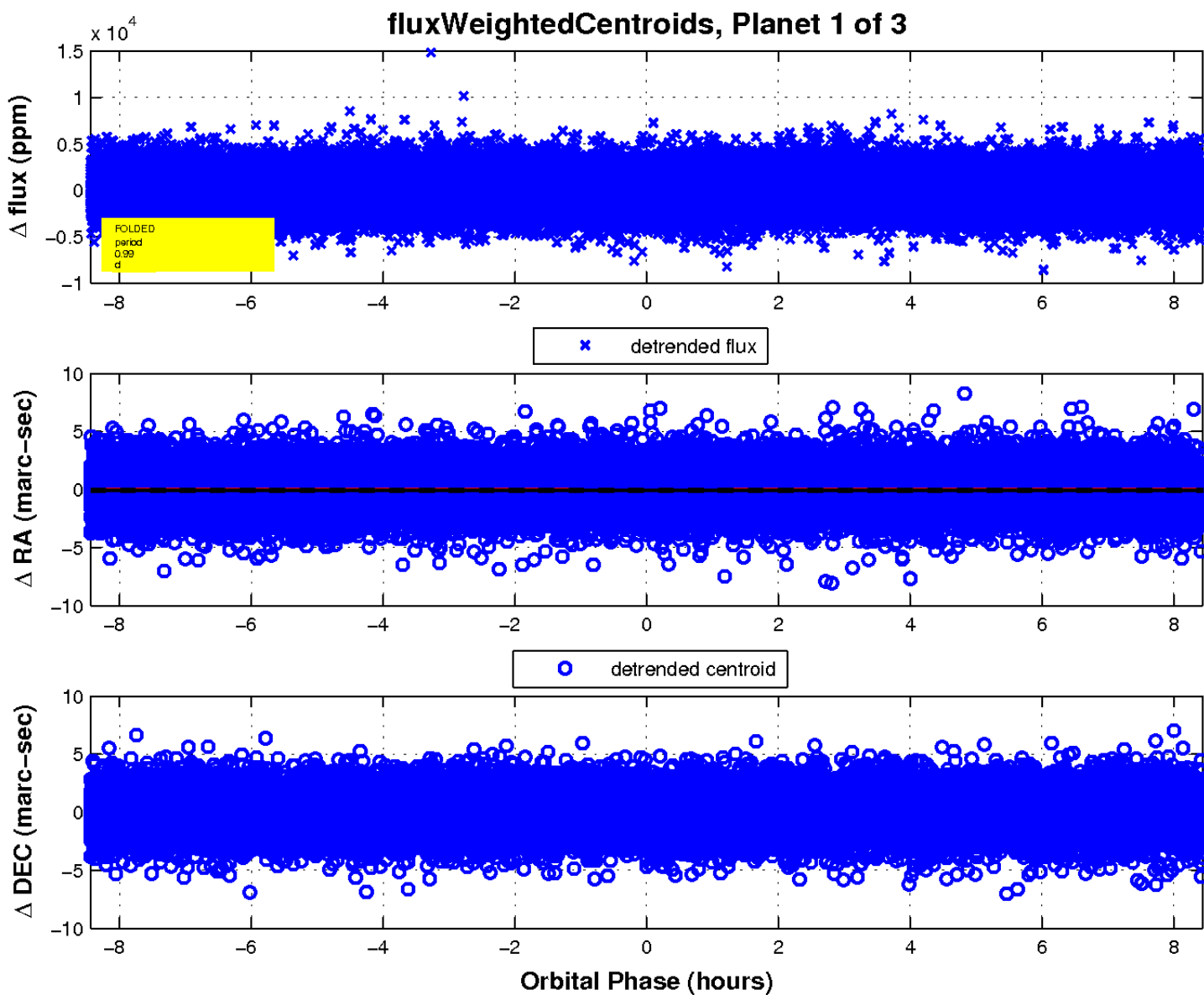
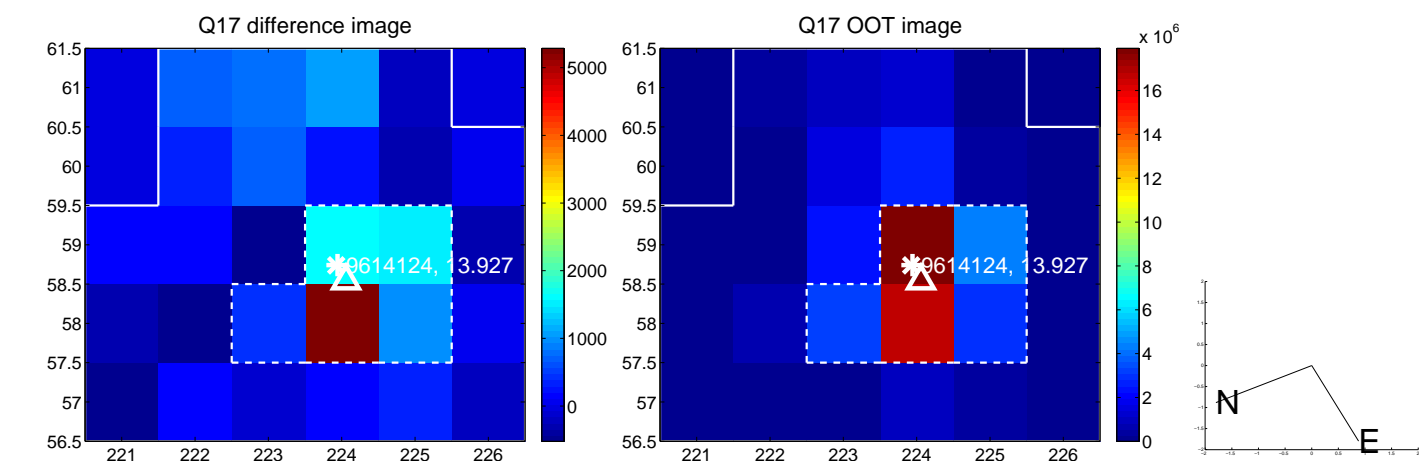
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

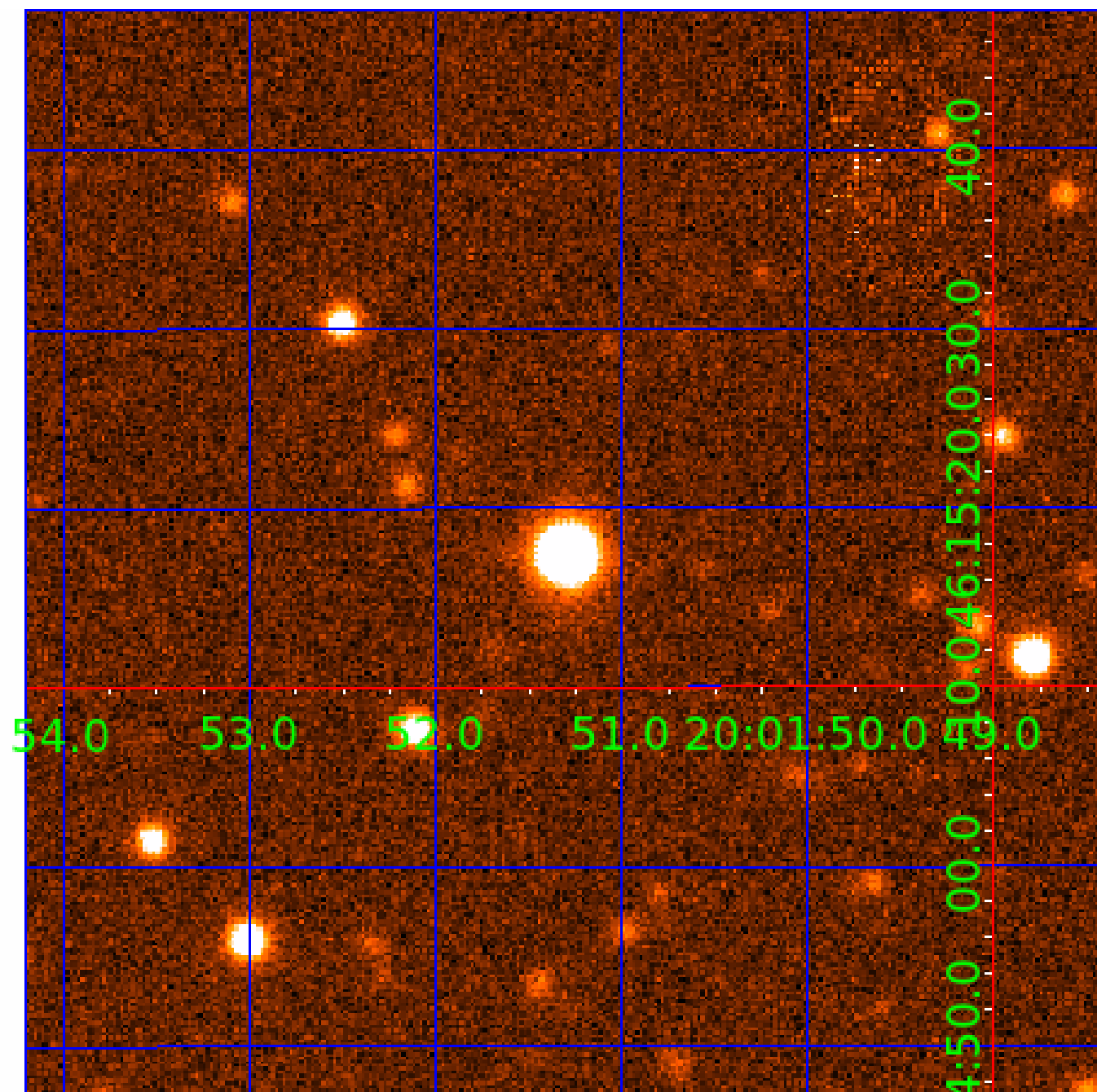


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009614124

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})
009614124-01	OBS	No	0.994604	131.582854	234.8	2.814	10.5	11.5	1.57	6554	2.81	9140.09
009614124-02	OBS	No	0.527461	132.040643	395.1	1.008	7.6	12.1	1.57	6554	3.16	21292.68
009614124-03	OBS	No	0.527460	131.724875	374.3	0.782	8.0	9.5	1.57	6554	3.59	21292.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009614124-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

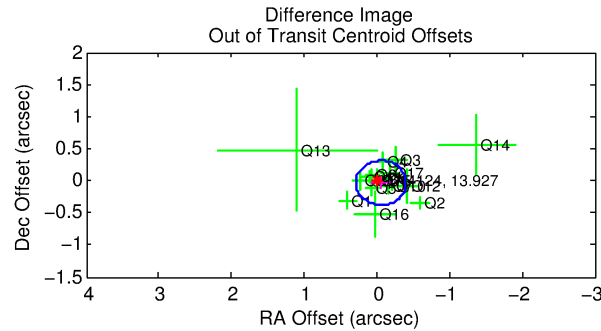
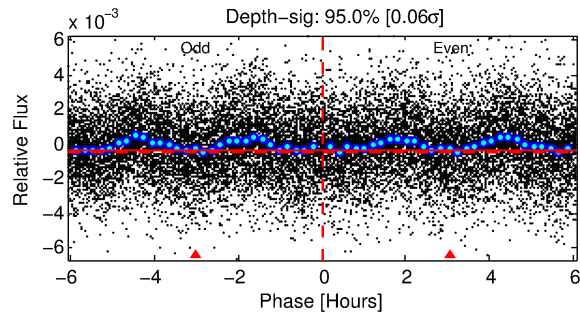
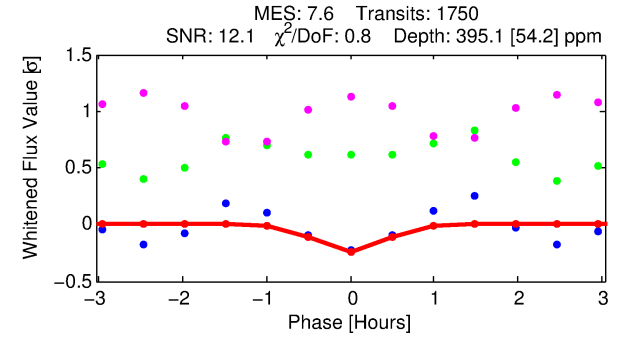
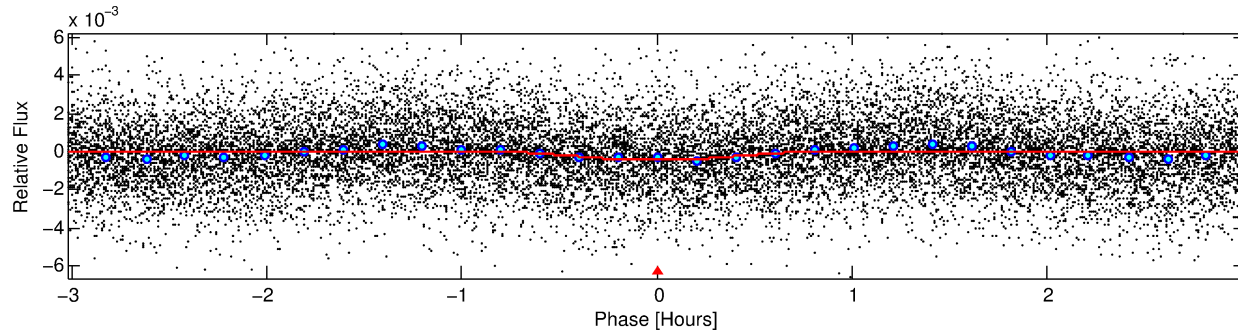
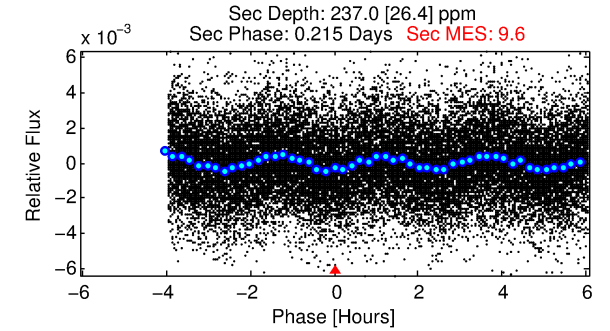
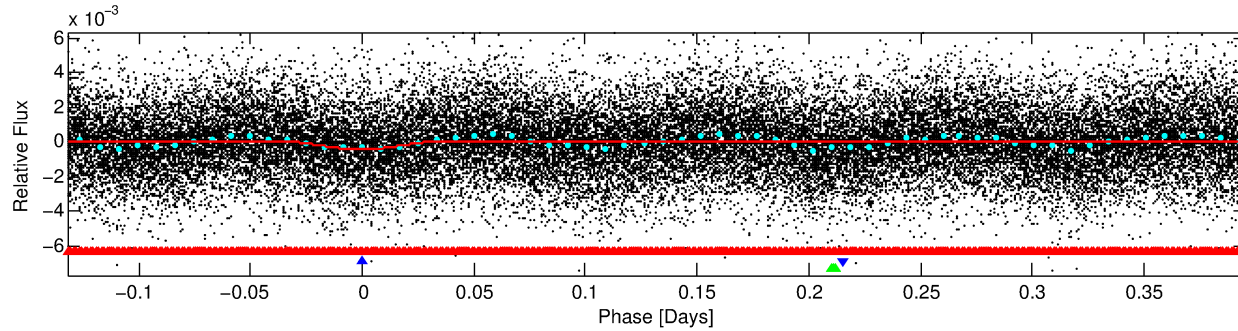
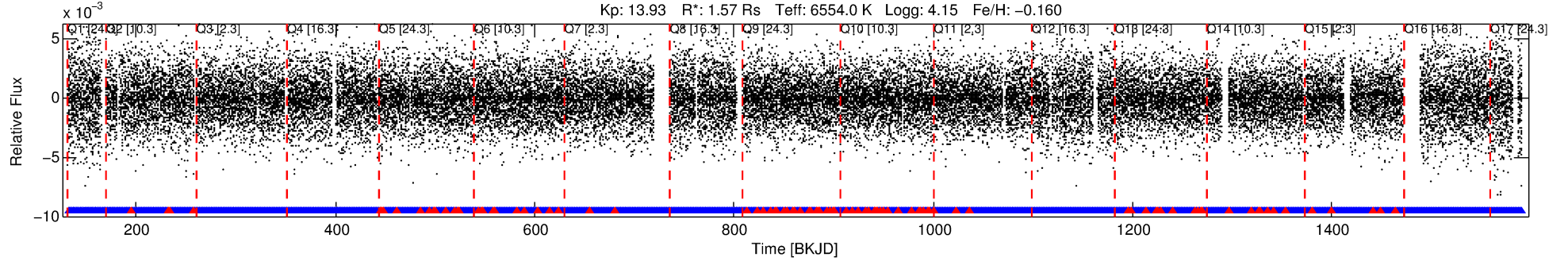
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009614124-02

No Significant Match Found

DV One-Page Summary

KIC: 9614124 Candidate: 2 of 3 Period: 0.527 d



DV Fit Results:

Period = 0.52746 [0.00001] d
Epoch = 132.0406 [0.0016] BKJD
Rp/R* = 0.0185 [0.0166]
a/R* = 4.09 [18.21]
b = 0.12 [39.38]
Seff = 21292.68 [7970.57]
Teq = 3080 [288] K
Rp = 3.16 [2.97] Re
a = 0.0138 [0.0033] AU
Ag = 2.49 [4.55] [0.33σ]
Teffp = 5981 [2695] K [1.07σ]

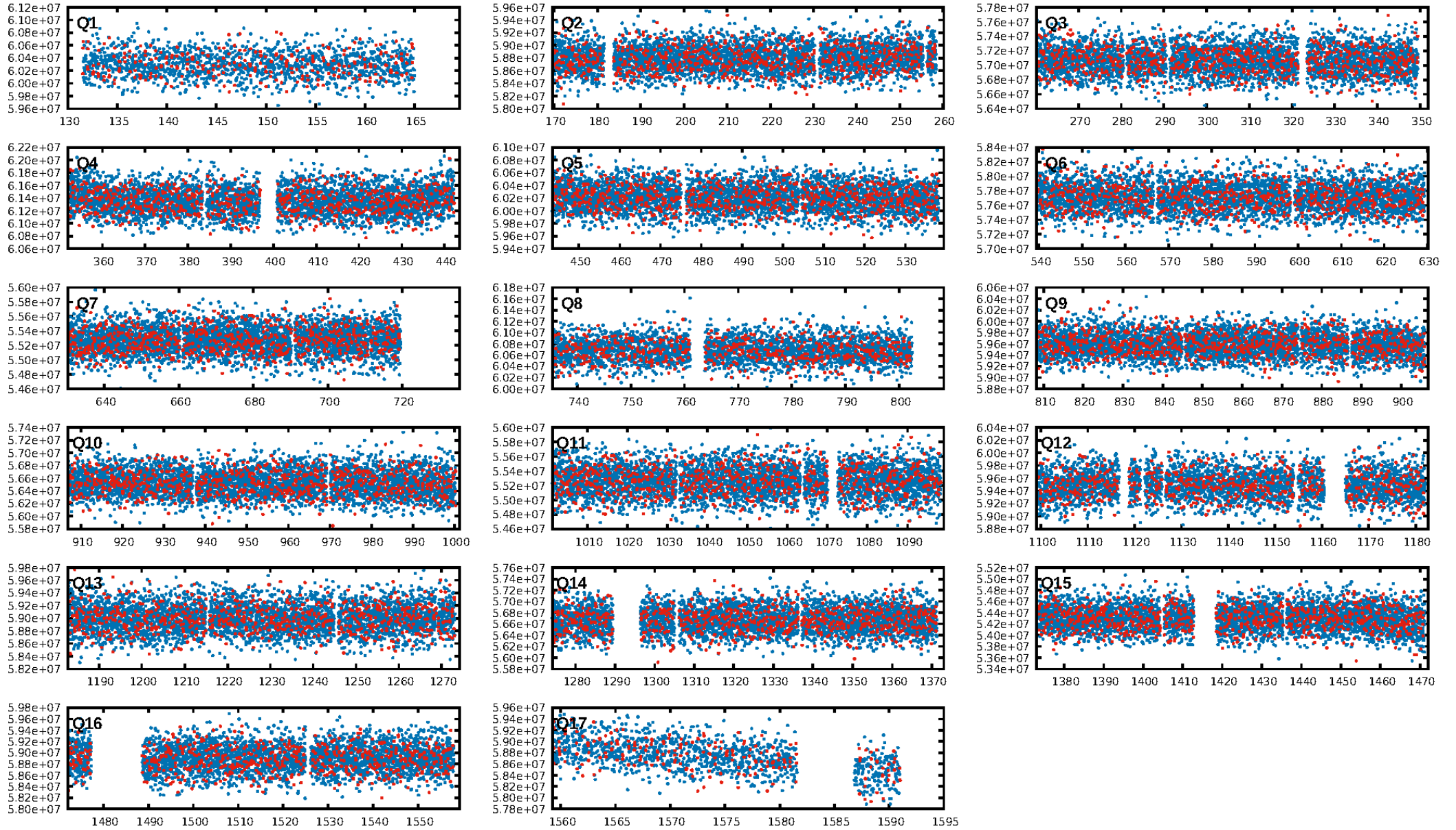
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [3.75σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.45e-20
RollingBand-fgt: 0.94 [1565/1666]
GhostDiagnostic-chr: 0.7567
Centroid-sig: N/A
Centroid-so: 0.488 arcsec [3.16σ]
OotOffset-rm: 0.063 arcsec [0.54σ]
KicOffset-rm: 0.084 arcsec [0.85σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 0.00 [0/17]

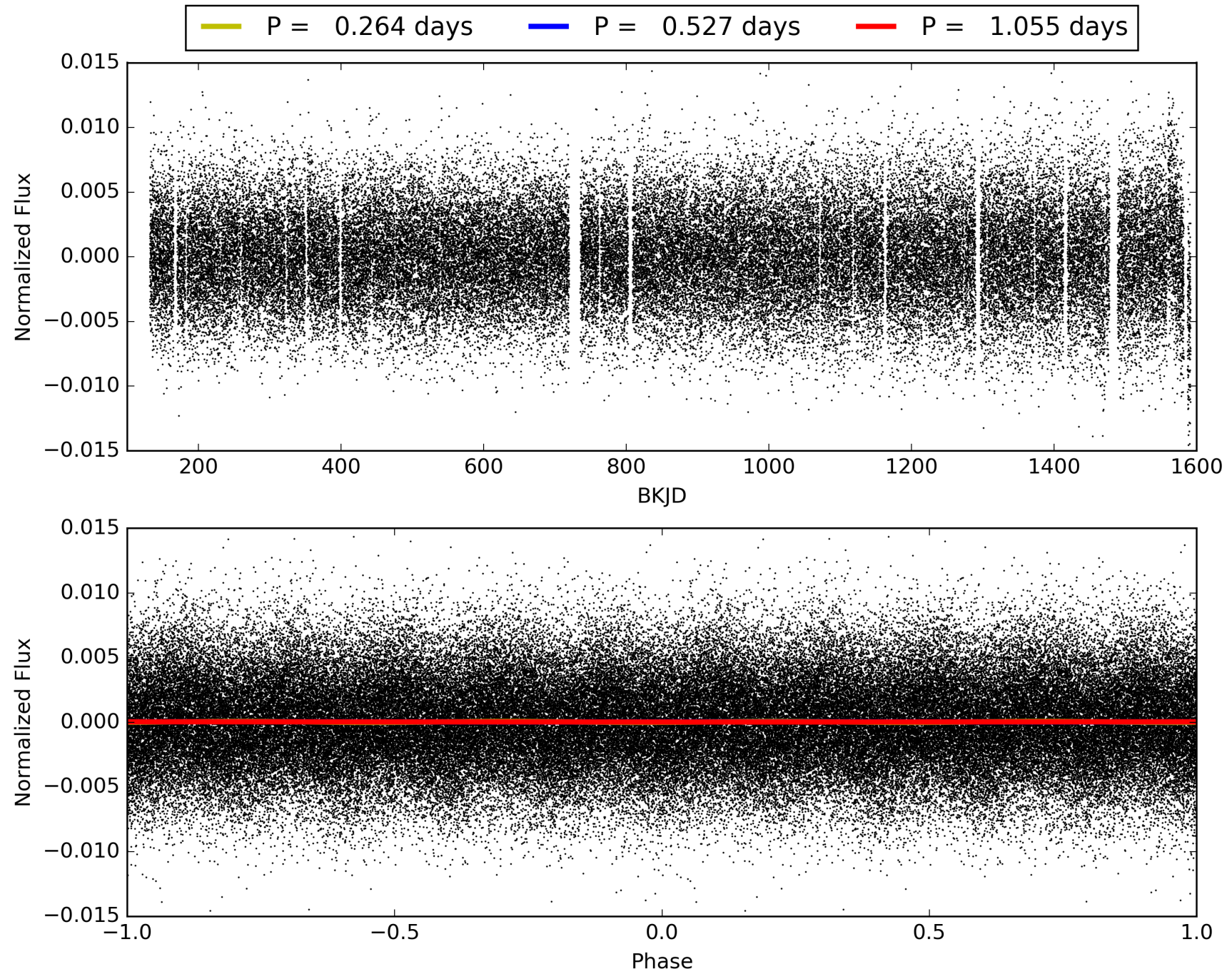
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:31:45 Z

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

TCE 009614124-02, PDC Light Curves

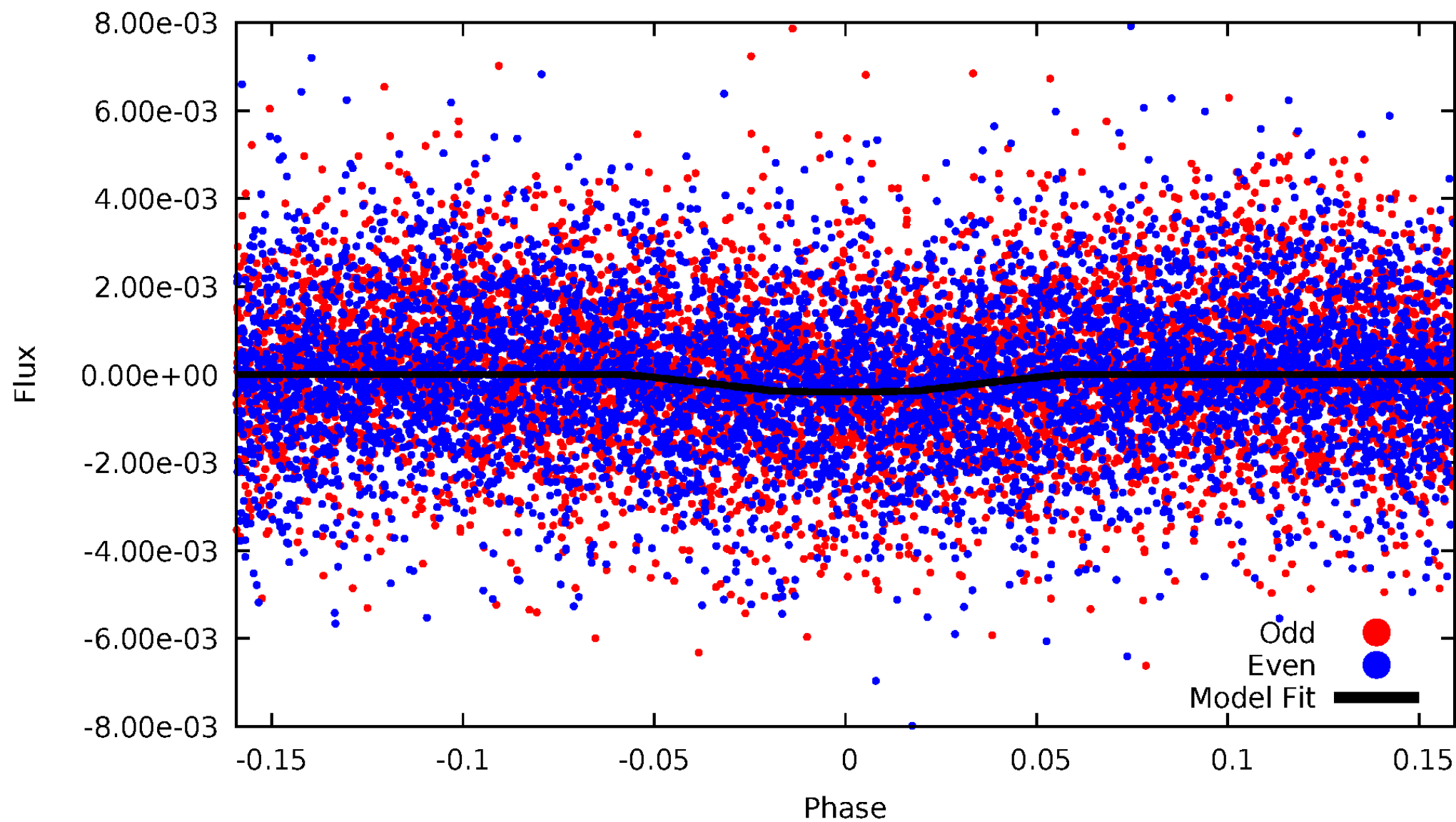


TCE 009614124-02



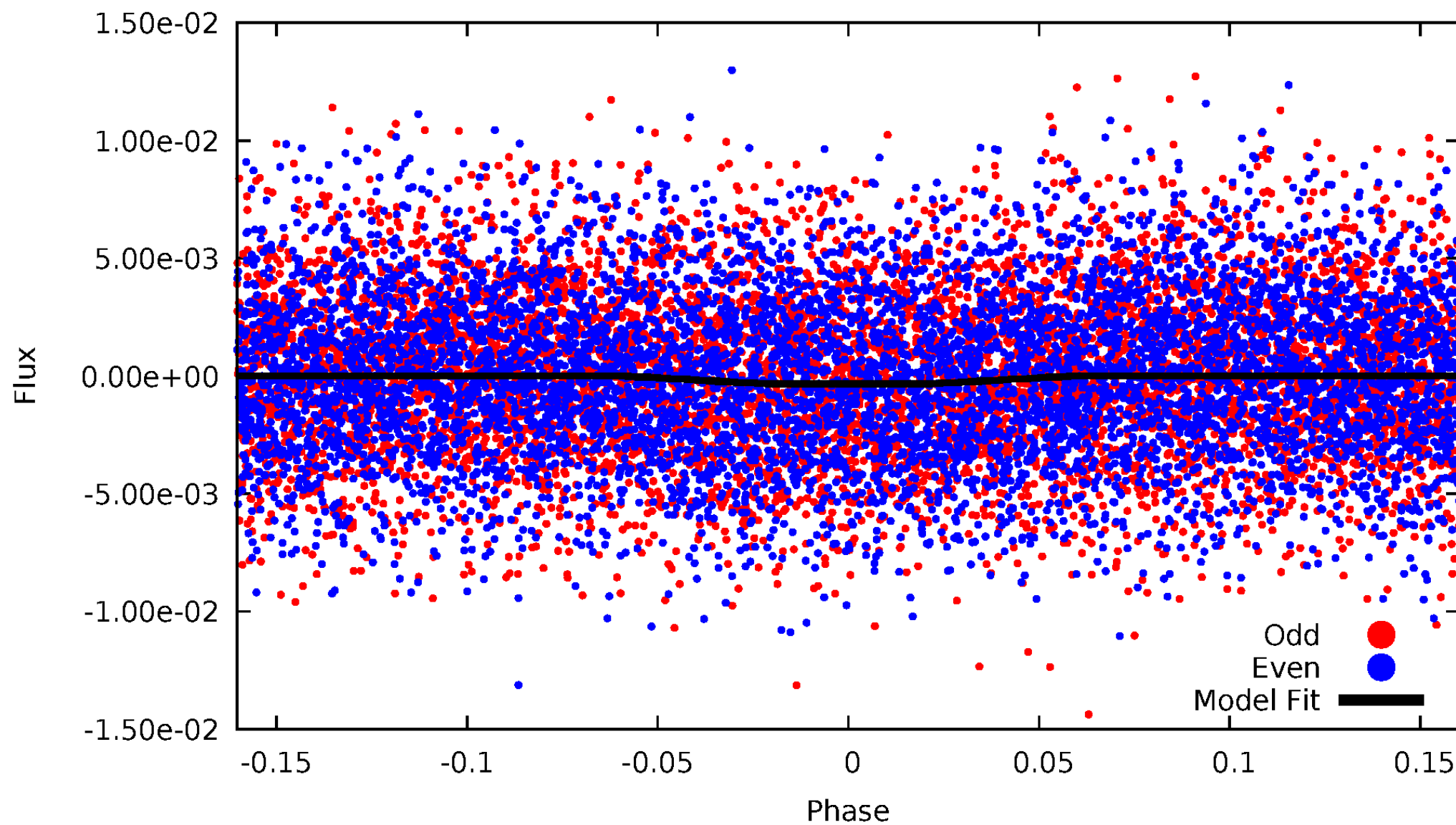
DV Odd/Even

TCE 009614124-02



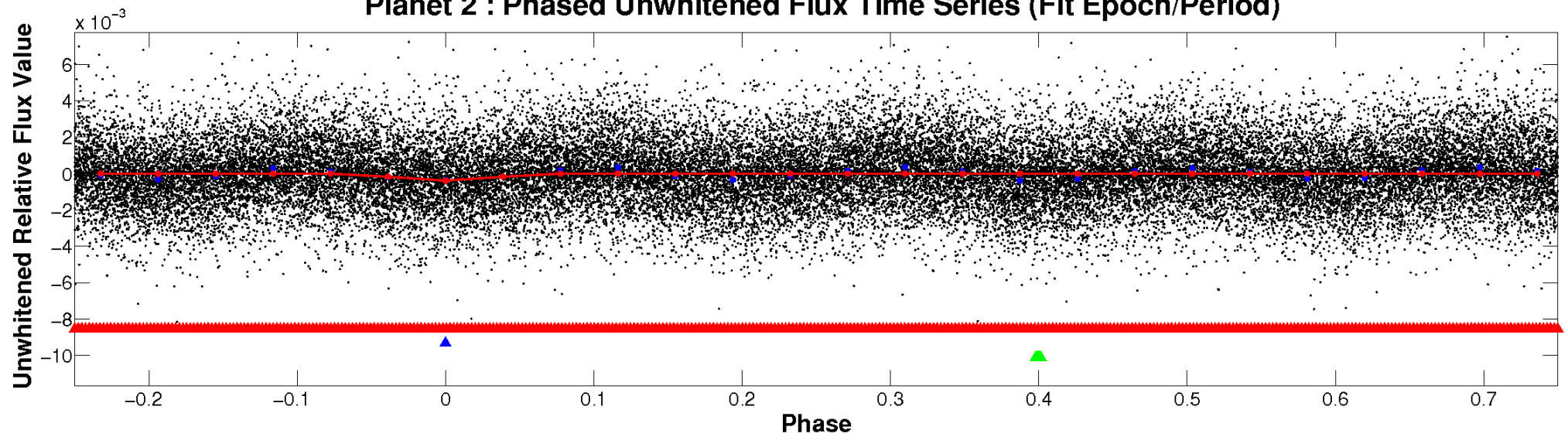
ALT Odd/Even

TCE 009614124-02

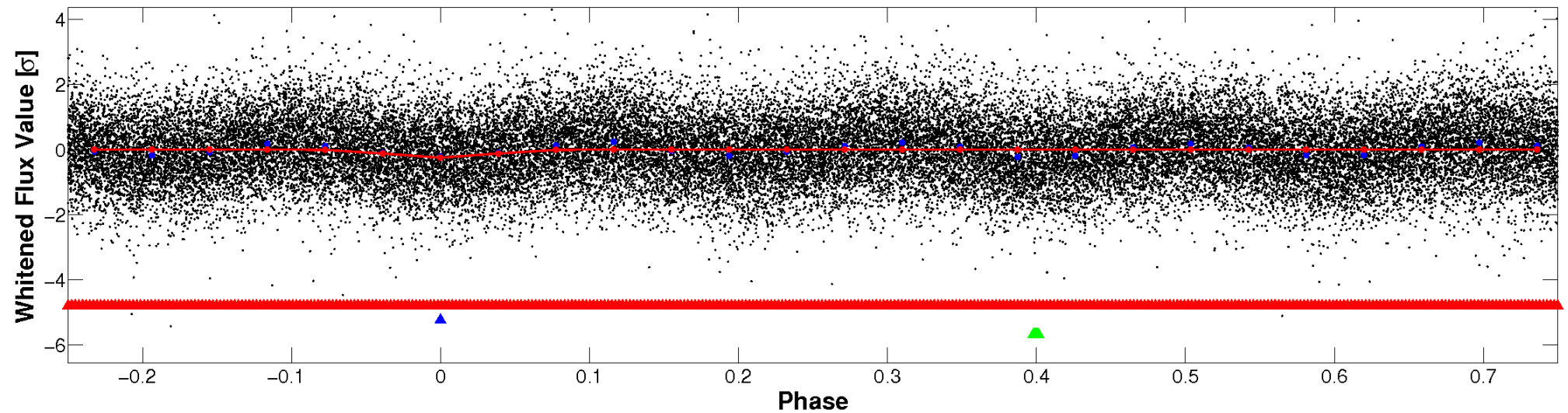


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

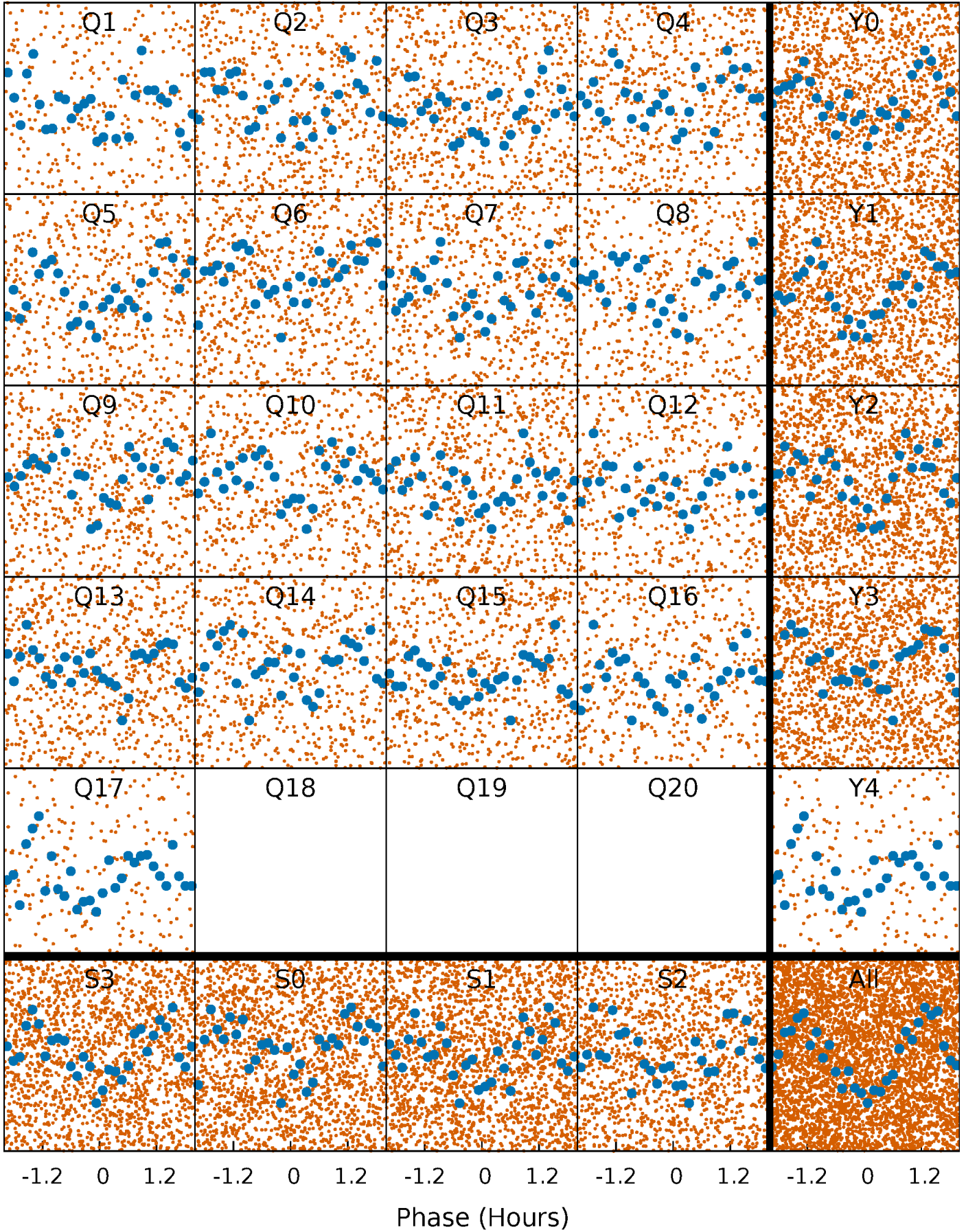


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



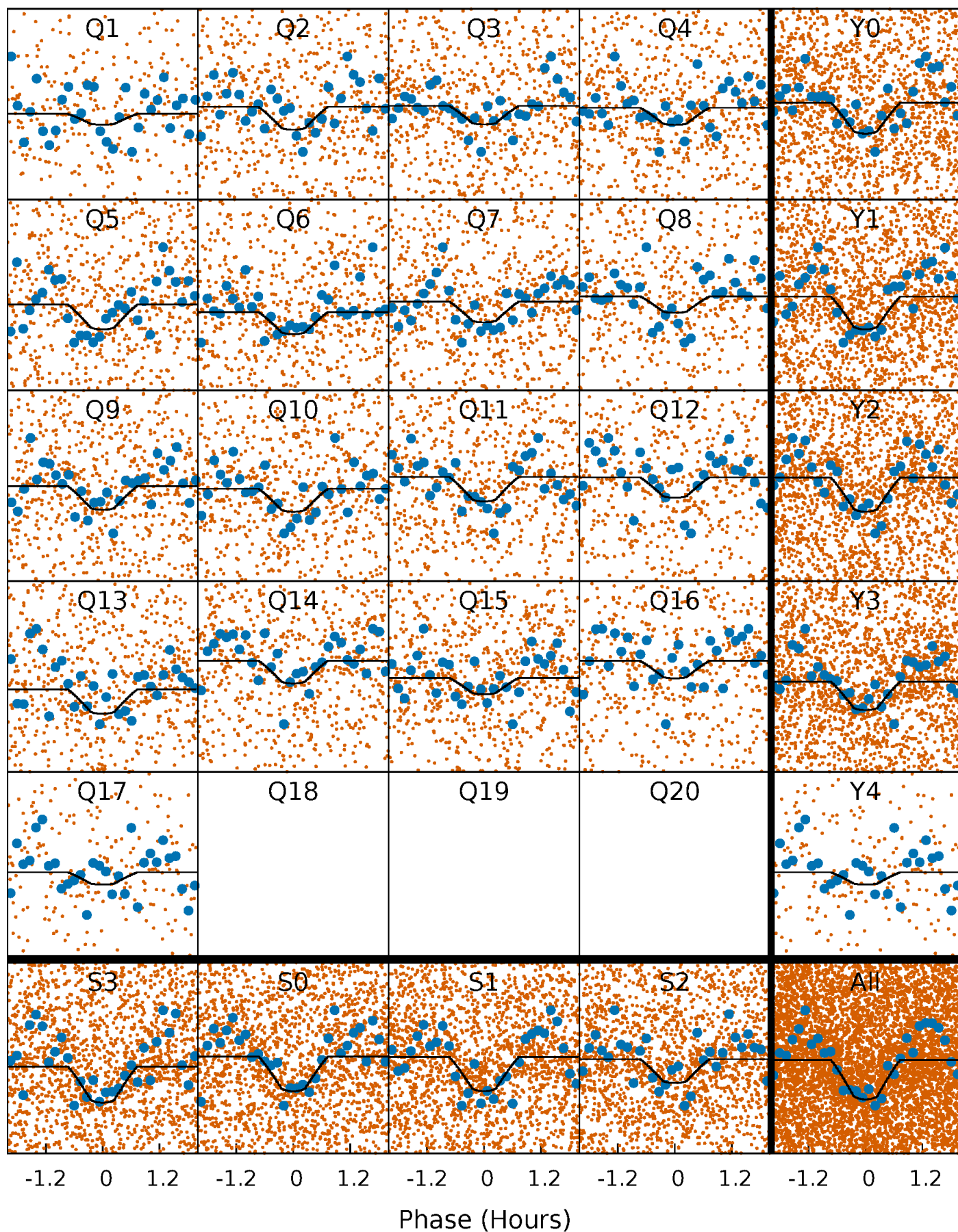
PDC Quarter-Phased Transit Curves

TCE 009614124-02 P= 0.527461 Days $T_0=132.040643$ (BKJD)



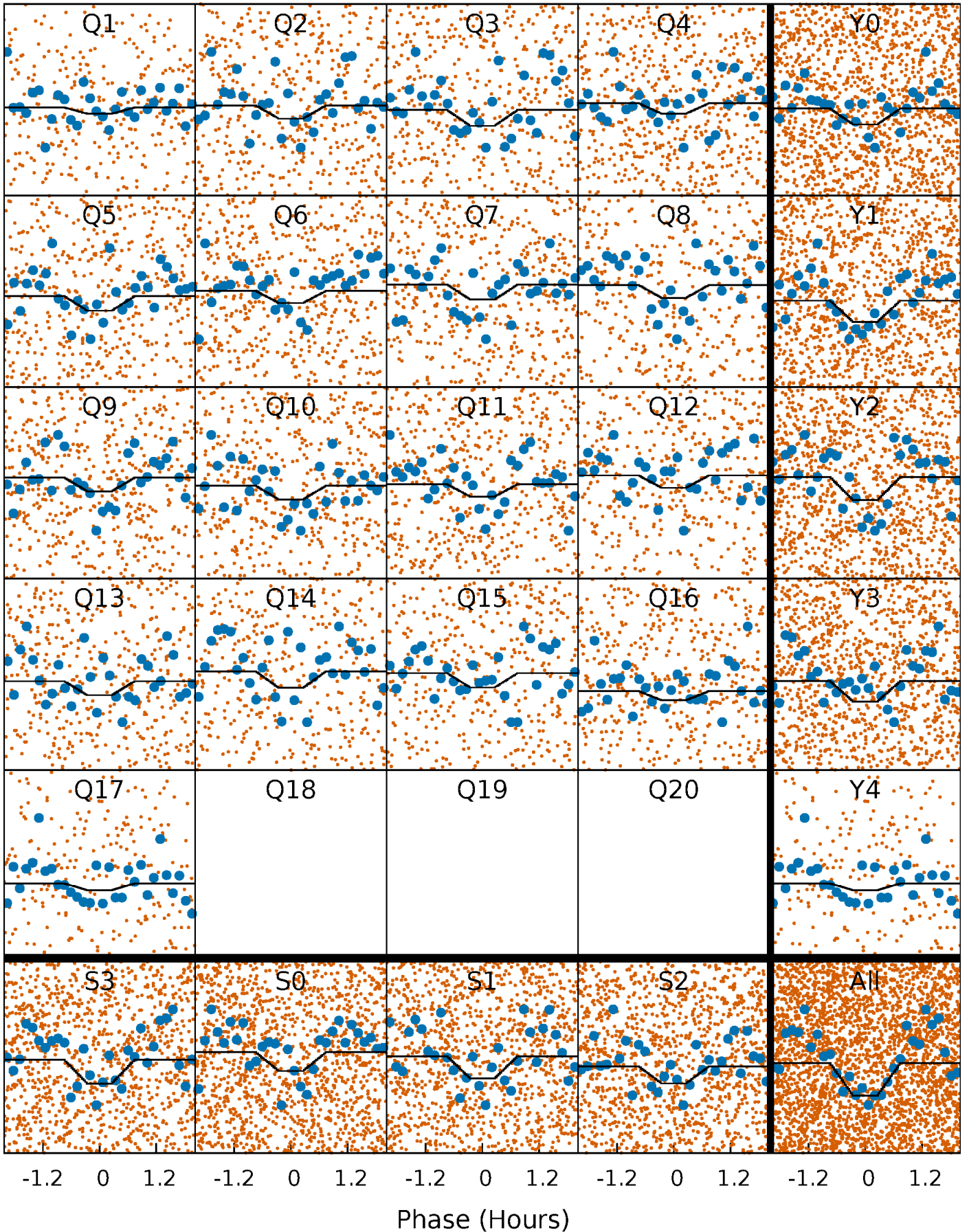
DV Quarter-Phased Transit Curves

TCE 009614124-02 P= 0.527461 Days $T_0=132.040643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

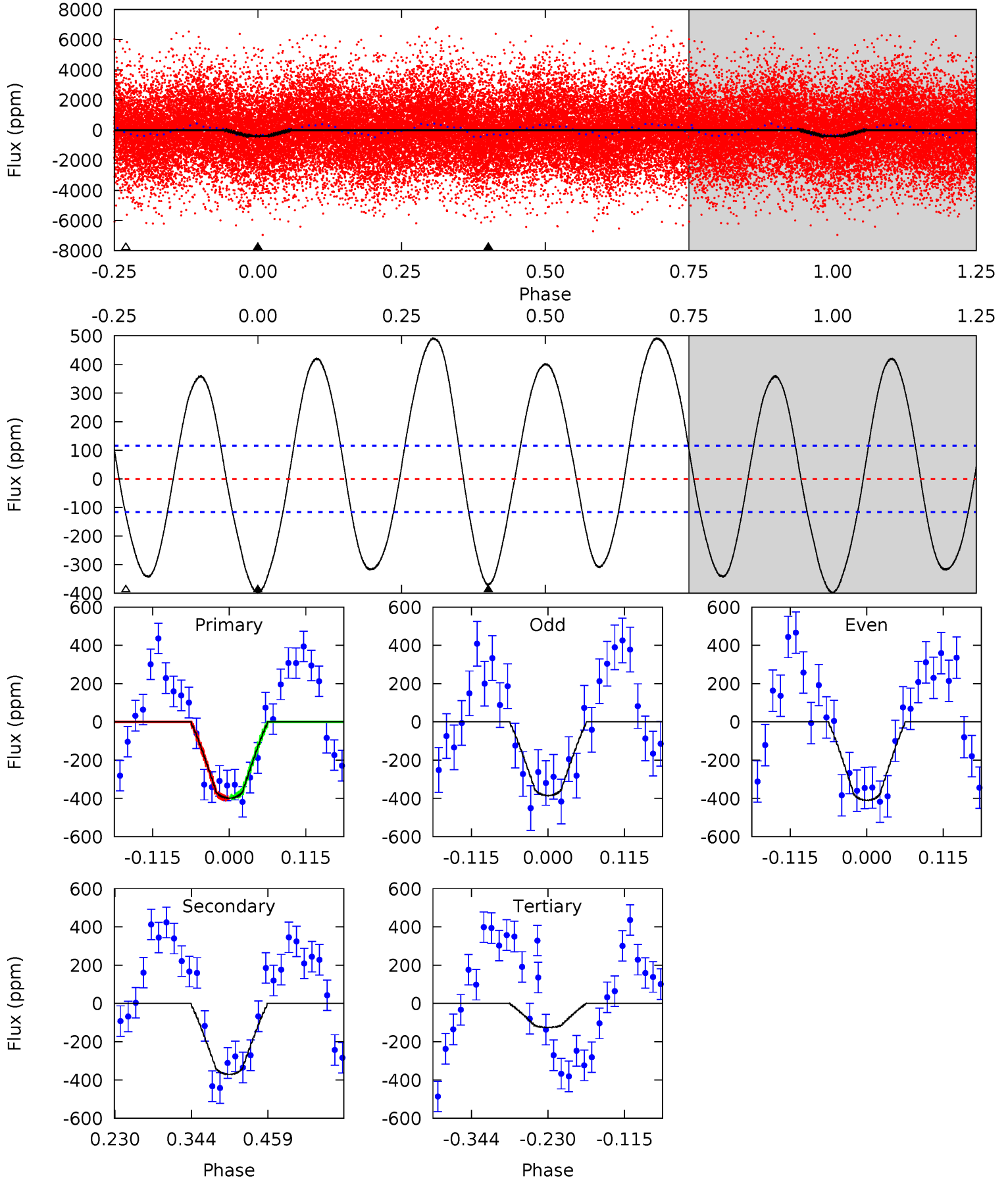
TCE 009614124-02 P= 0.527461 Days $T_0=132.040679$ (BKJD)



DV Model-Shift Uniqueness Test

009614124-02, P = 0.527461 Days, E = 131.513182 Days

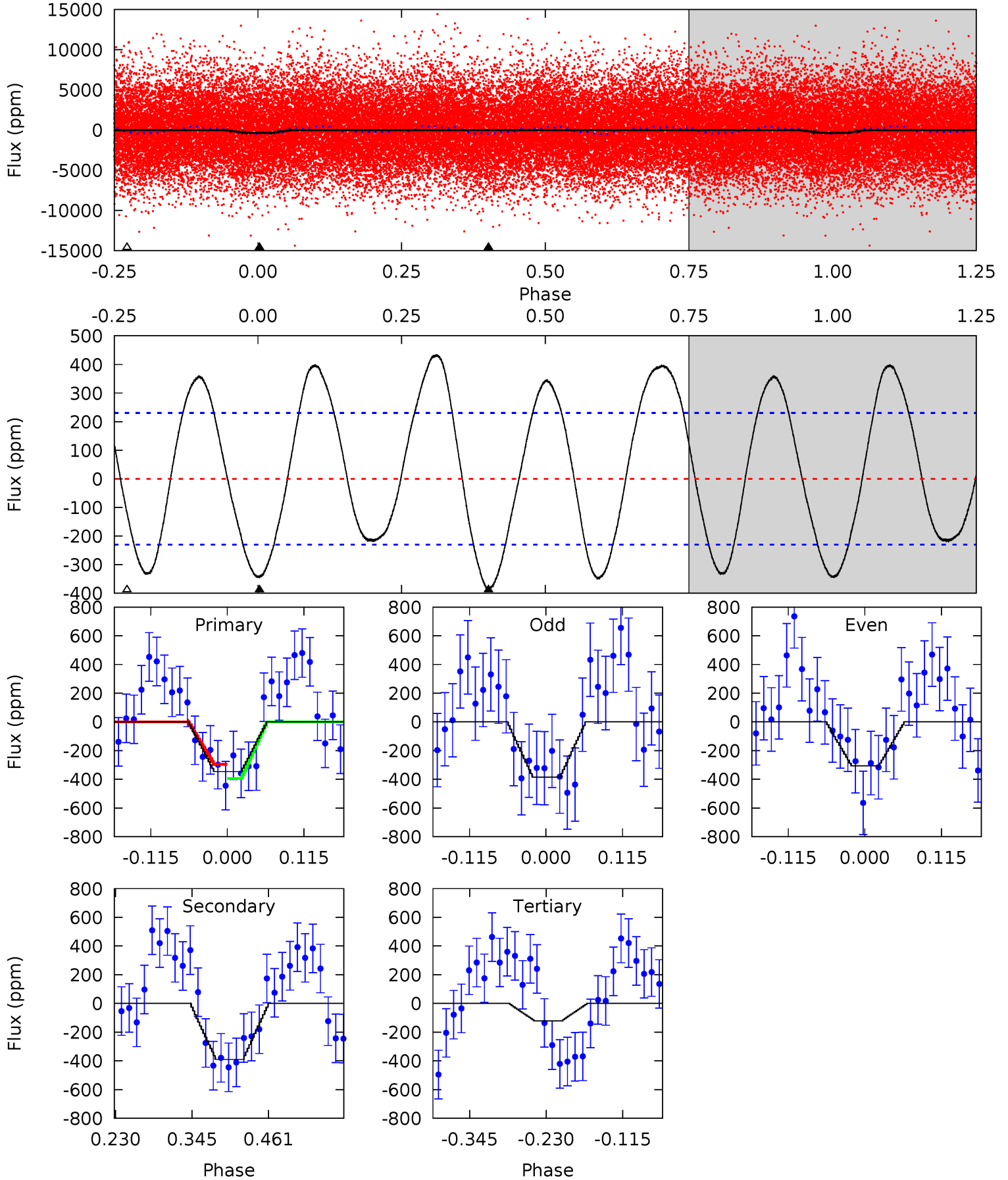
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	14.5	4.90	0	4.54	1.58	10.3	10.7	15.6	9.61	14.5	0.49	0.98	0.55	0.15



Alt Model-Shift Uniqueness Test

009614124-02, P = 0.527461 Days, E = 131.513218 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.83	7.69	2.39	0	4.54	1.58	4.59	4.44	6.83	5.30	7.69	0.77	0.78	0.53	0.96



Stellar Parameters For KIC 009614124

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6554^{+175}_{-233}	$4.149^{+0.190}_{-0.171}$	$-0.160^{+0.250}_{-0.300}$	$1.568^{+0.439}_{-0.395}$	$1.271^{+0.181}_{-0.221}$	$0.465^{+0.554}_{-0.223}$
	+3%/-4%	+5%/-4%	+156%/-188%	+28%/-25%	+14%/-17%	+119%/-48%
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 009614124-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-370 ± 26	$3.53^{+2.69}_{-2.16}$	4274^{+320}_{-281}	6005^{+5226}_{-1498}	$3.058^{+18.460}_{-2.092}$
Alt.	-390 ± 51	$3.38^{+2.93}_{-2.09}$	4304^{+293}_{-307}	6348^{+5707}_{-1786}	$3.520^{+20.907}_{-2.491}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

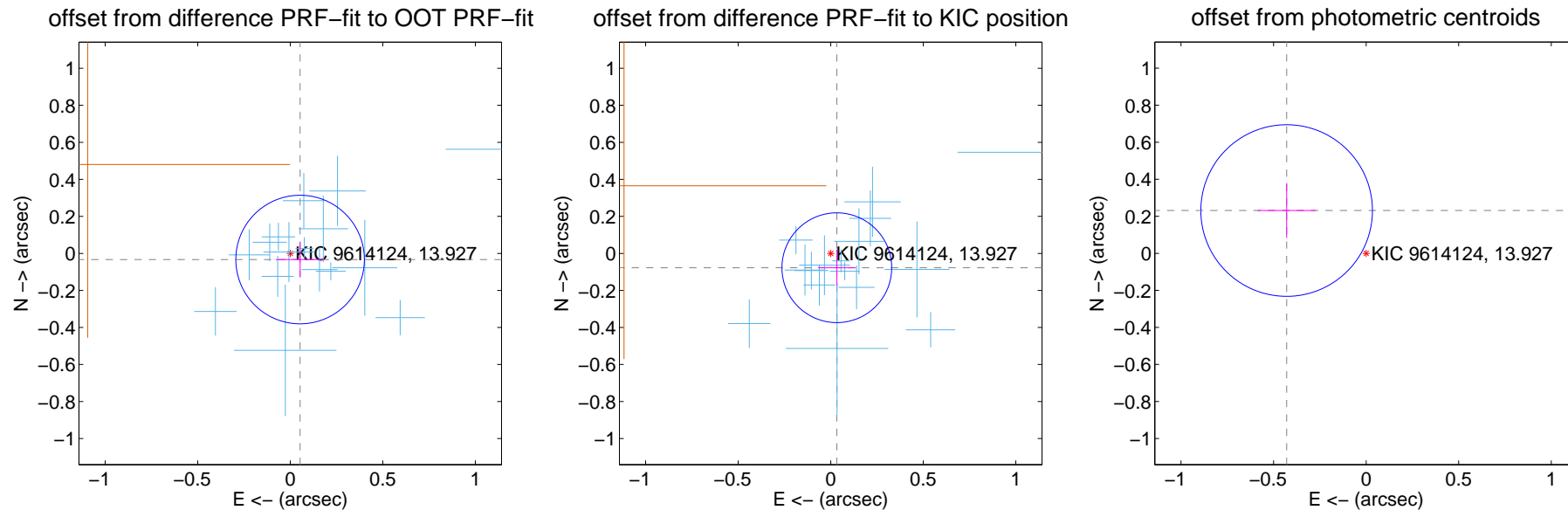
DV Centroid Data

Supplemental centroid analysis for 009614124-02. Kepler magnitude: 13.93. Transit SNR 12.05

There are 16 quarters with good PRF difference image offsets

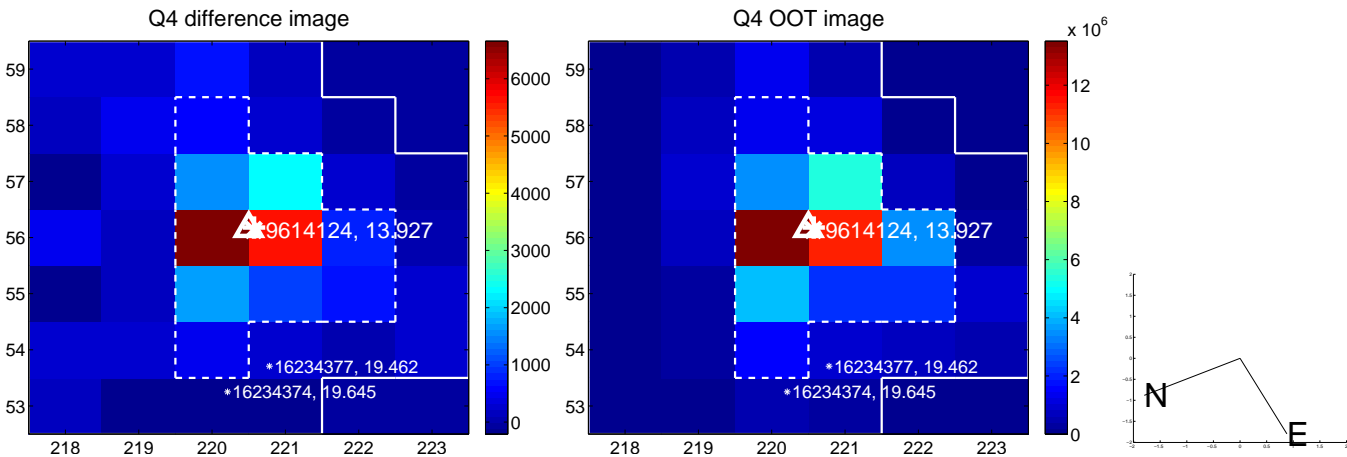
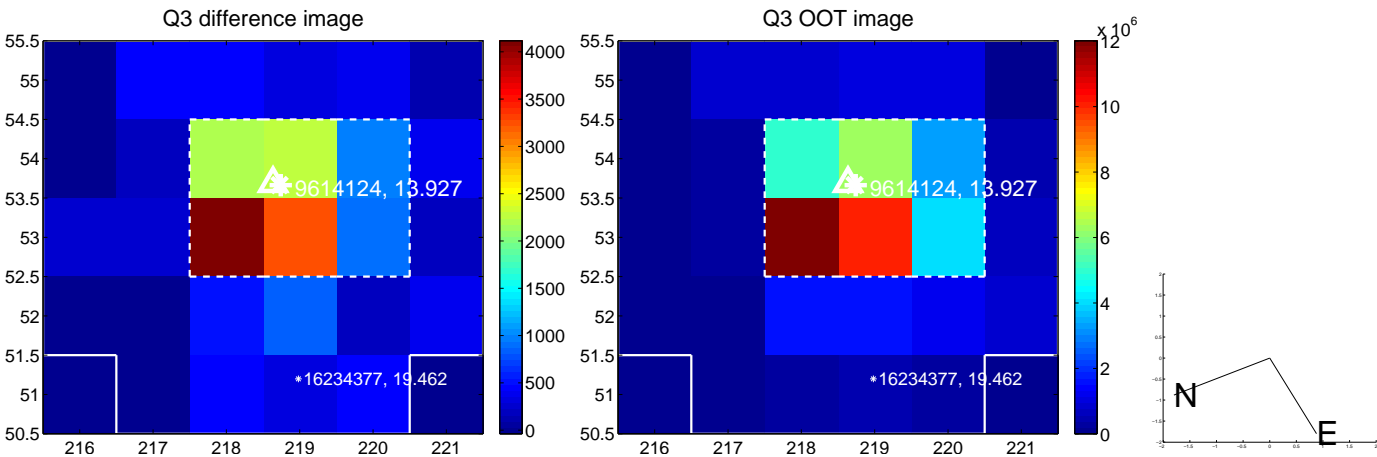
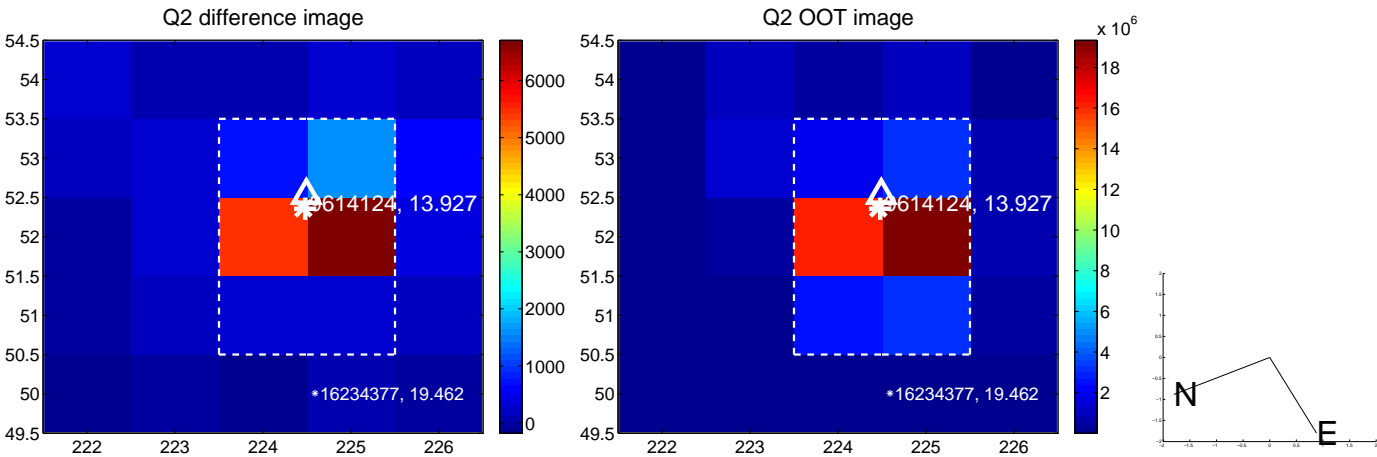
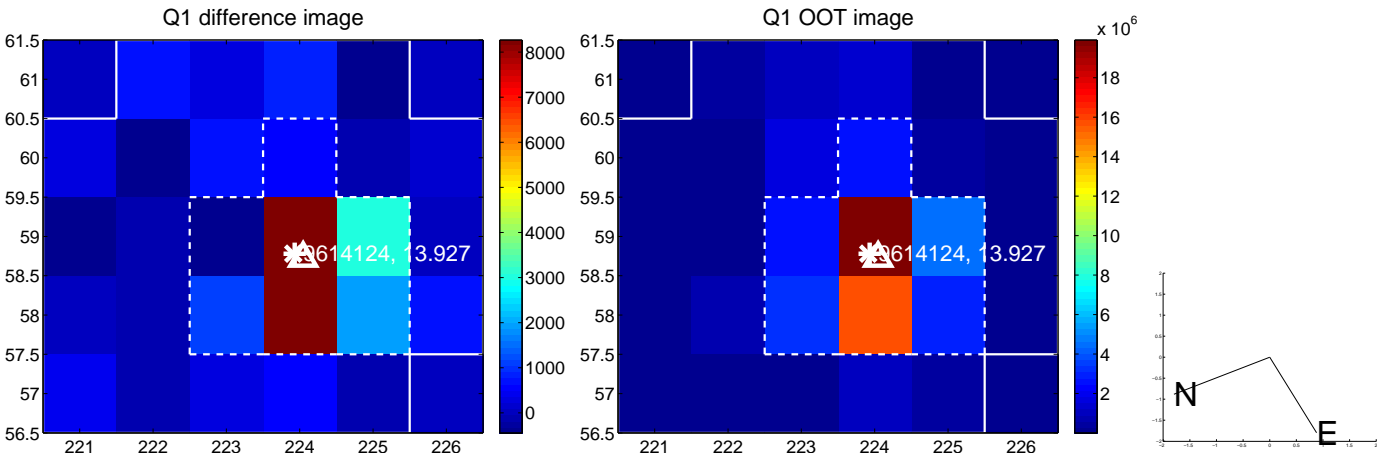
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.063 ± 0.116	0.54	-0.053 ± 0.131	-0.033 ± 0.093
PRF-fit source offset from KIC position	0.084 ± 0.099	0.85	-0.033 ± 0.102	-0.077 ± 0.098
photometric centroid source offset	0.49 ± 0.15	3.16	0.43 ± 0.16	0.23 ± 0.15

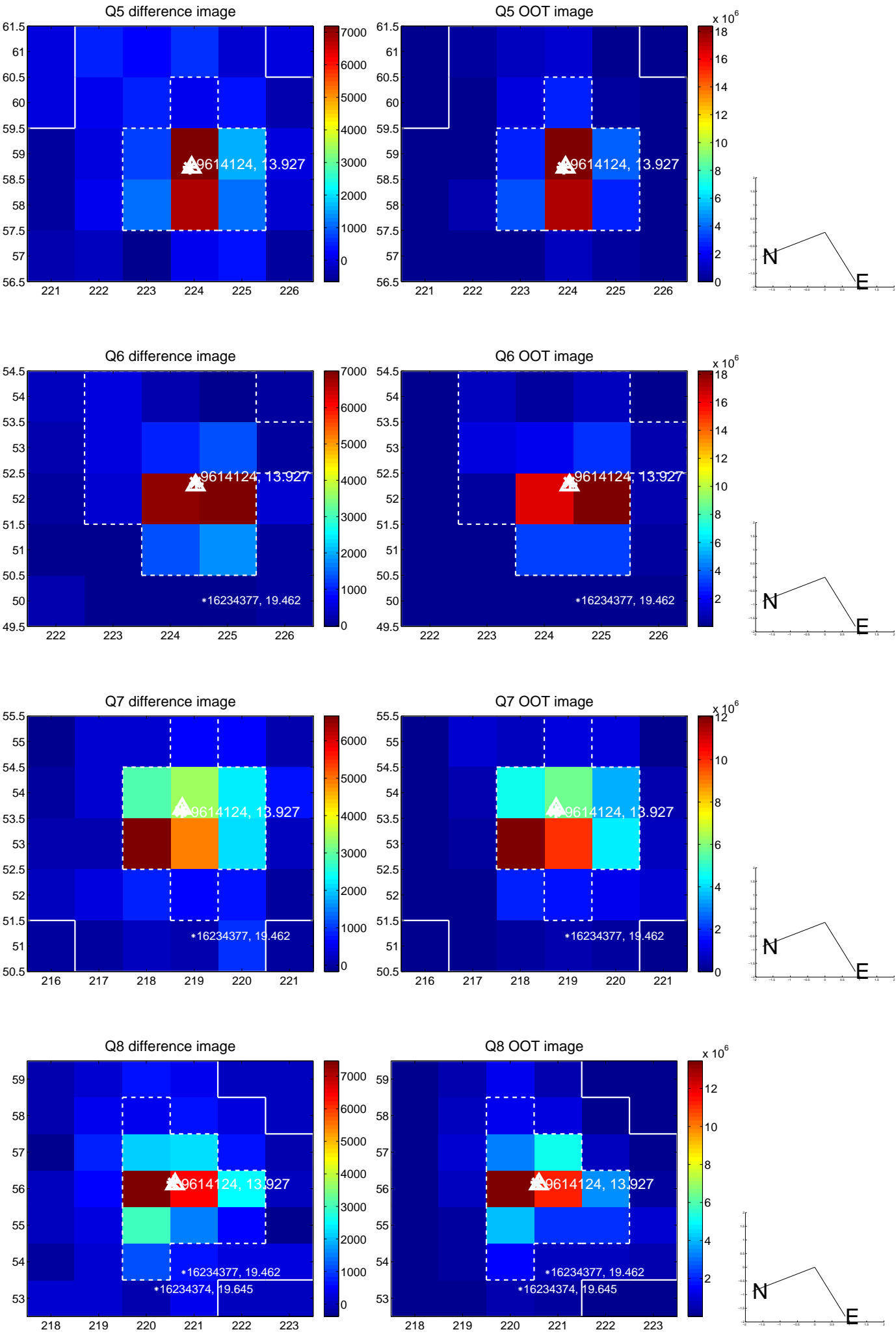


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

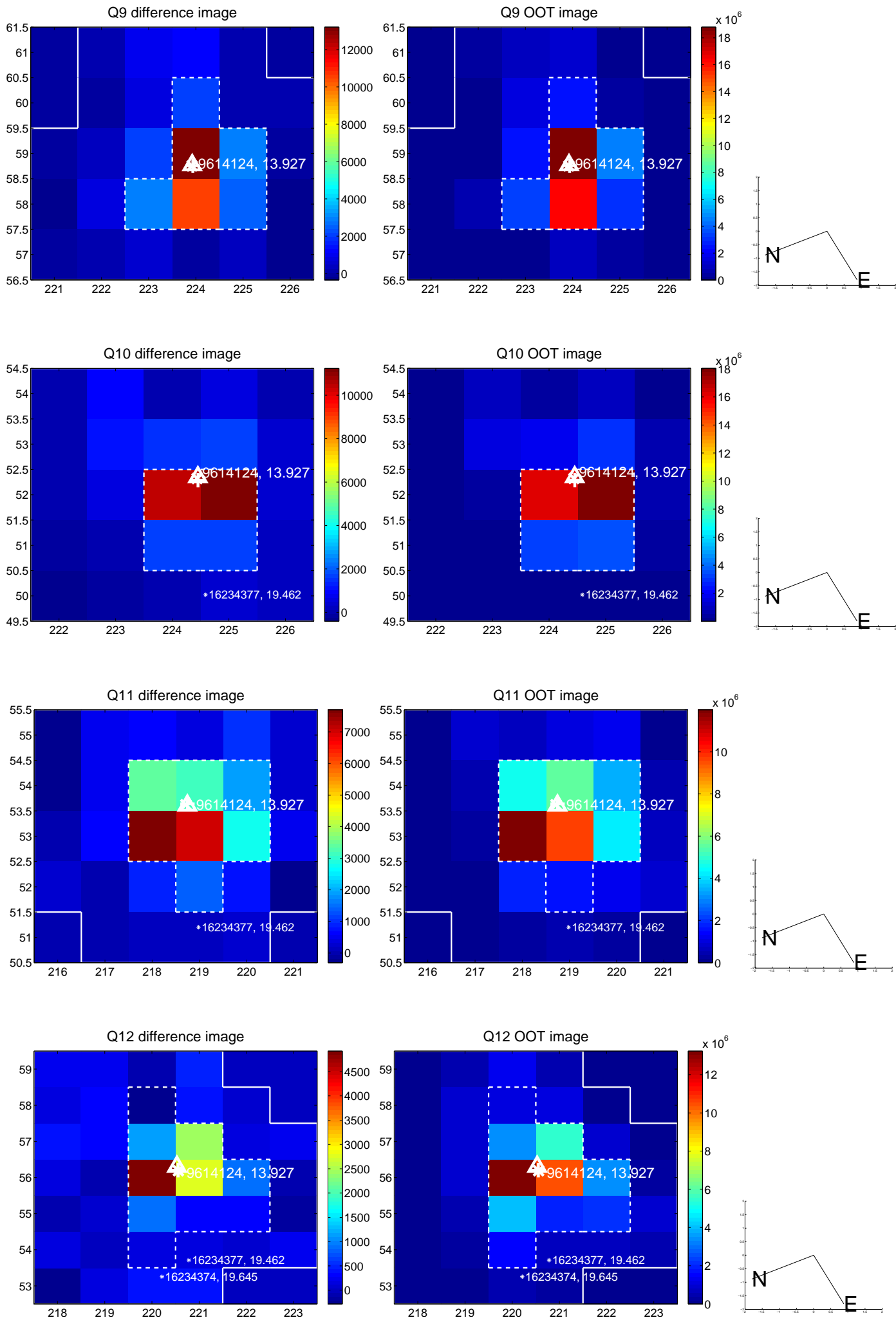
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



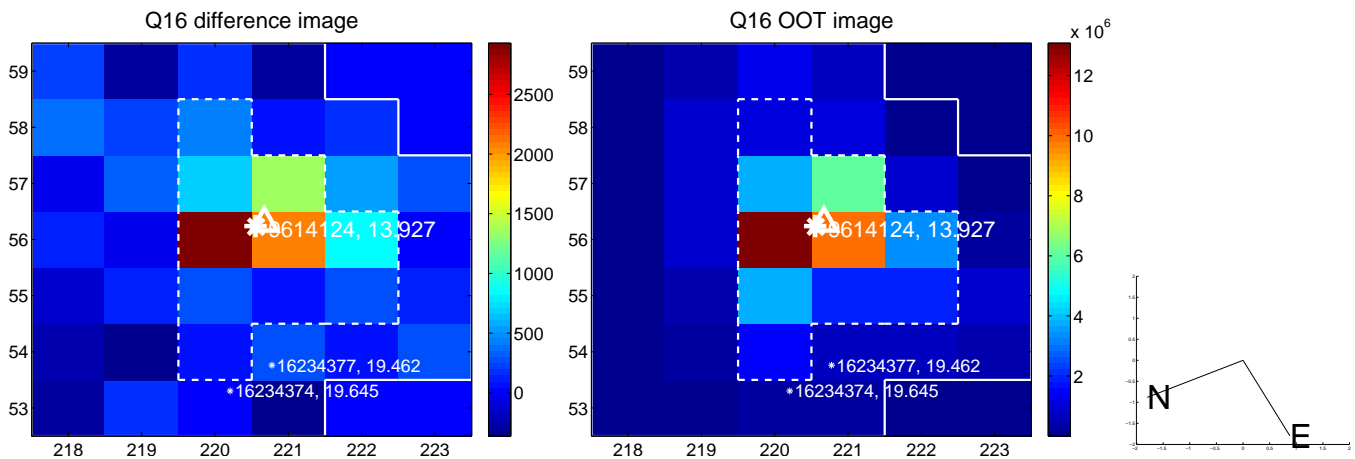
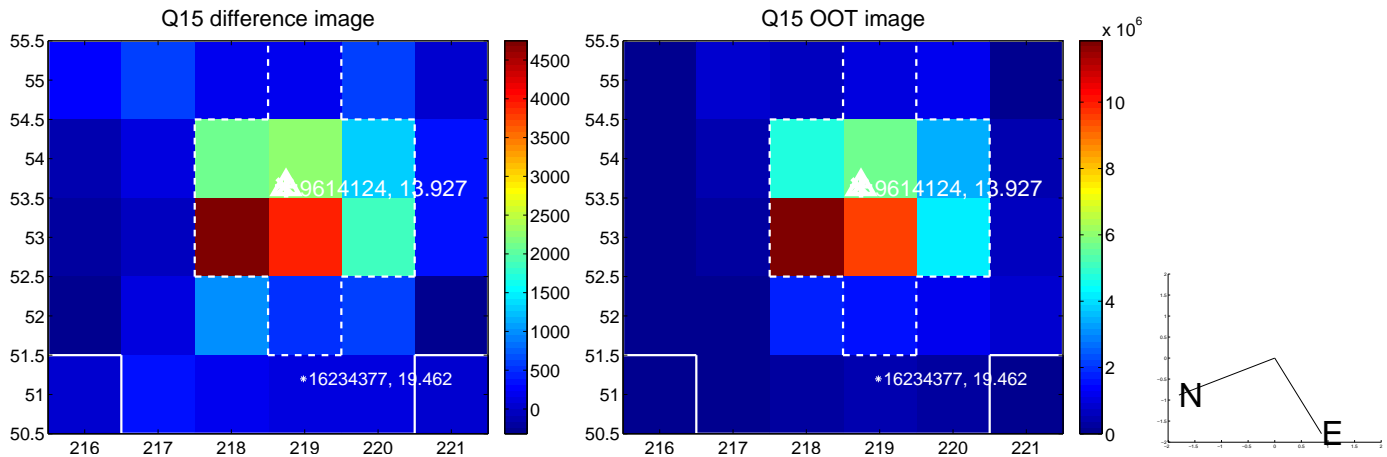
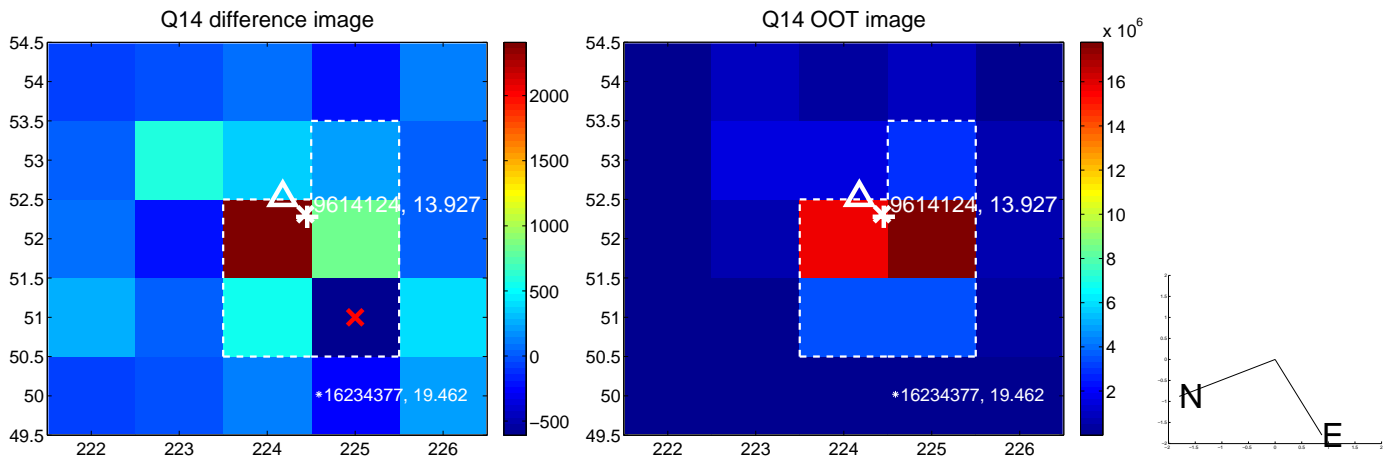
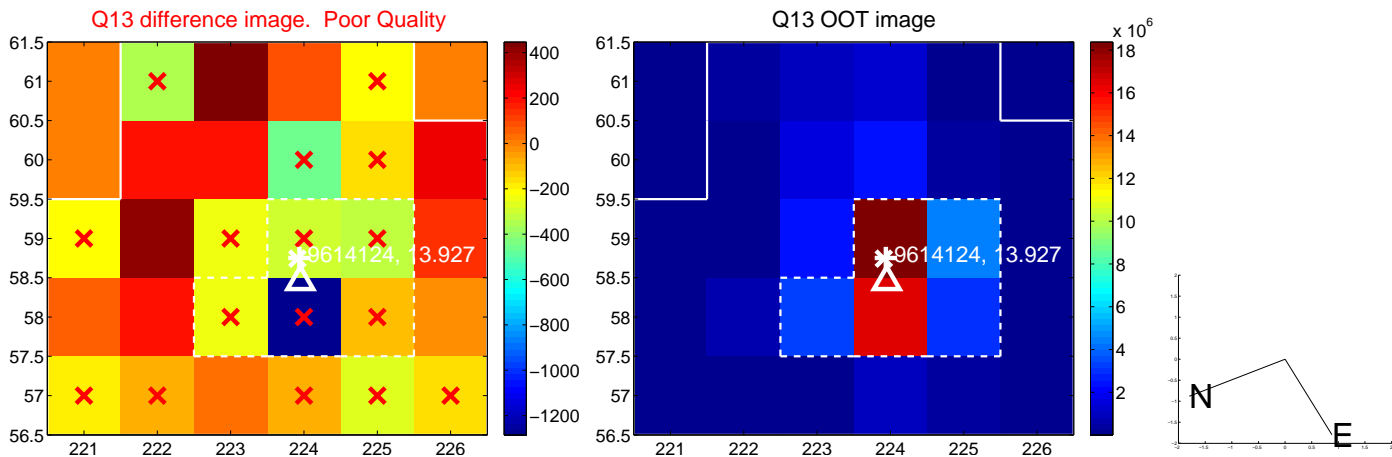
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



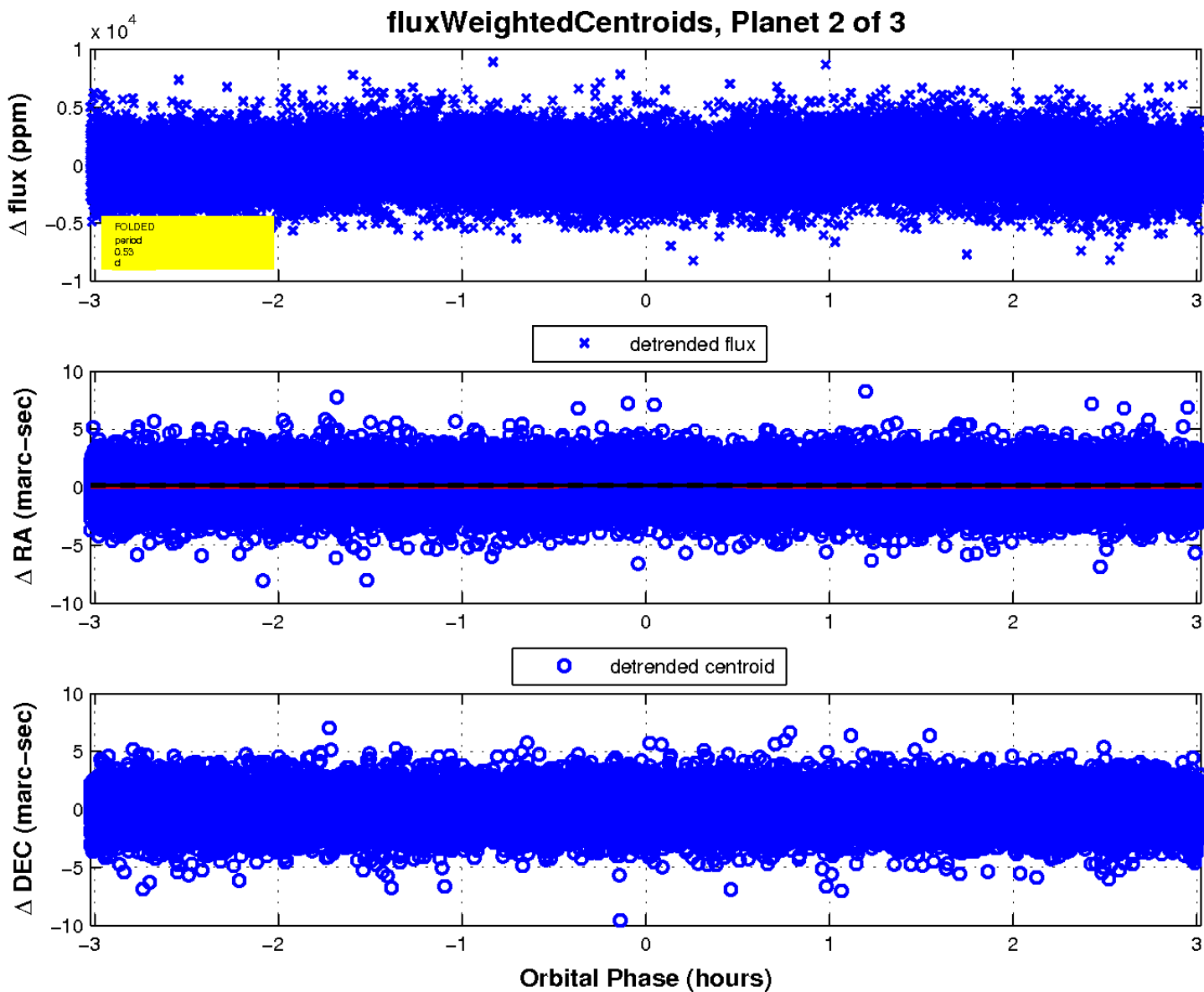
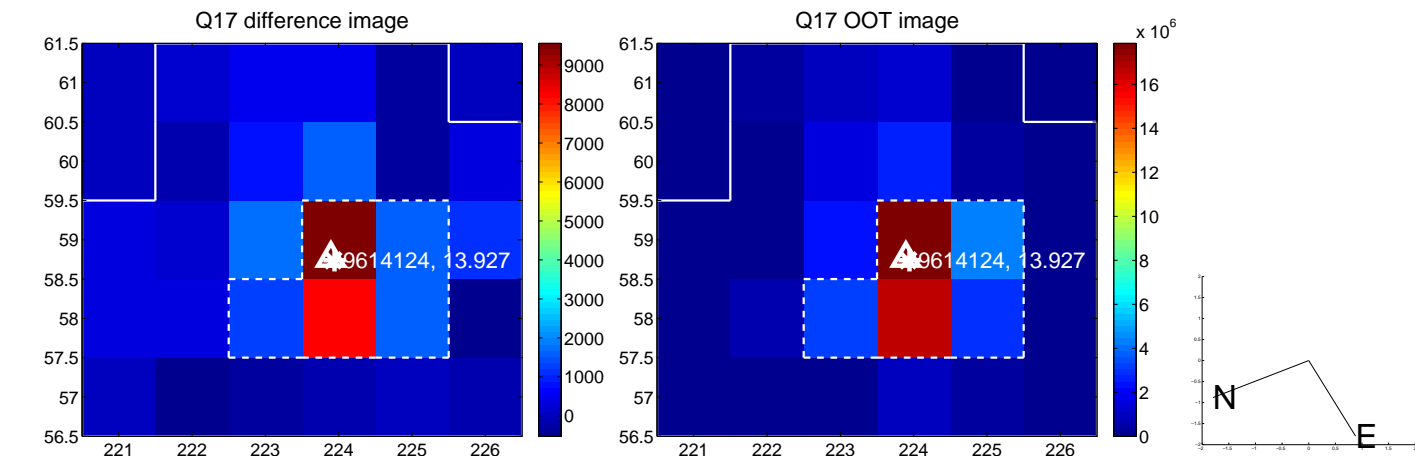
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

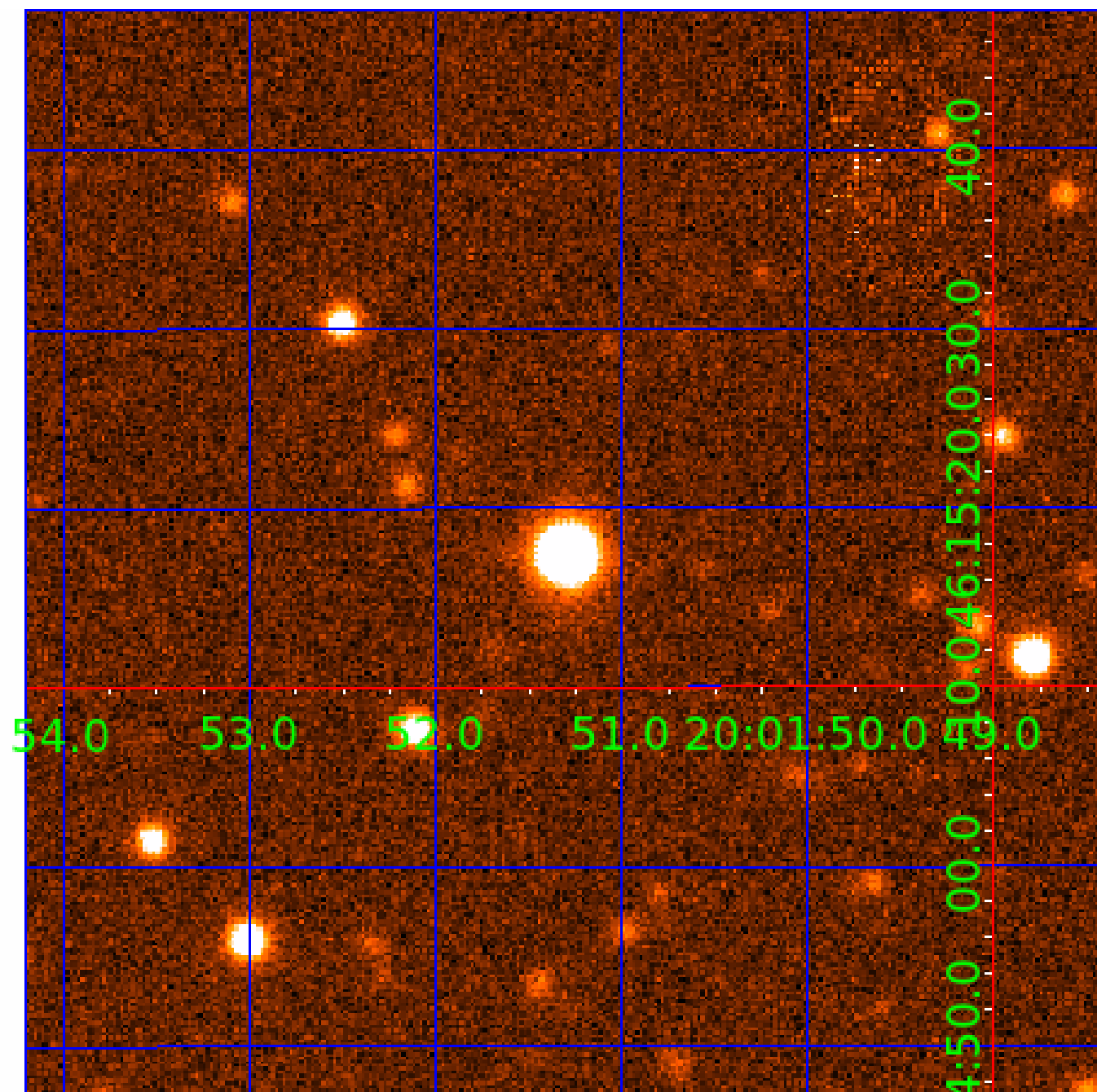


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009614124

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})
009614124-01	OBS	No	0.994604	131.582854	234.8	2.814	10.5	11.5	1.57	6554	2.81	9140.09
009614124-02	OBS	No	0.527461	132.040643	395.1	1.008	7.6	12.1	1.57	6554	3.16	21292.68
009614124-03	OBS	No	0.527460	131.724875	374.3	0.782	8.0	9.5	1.57	6554	3.59	21292.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009614124-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009614124-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

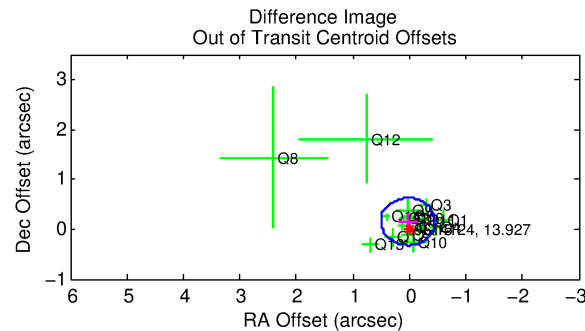
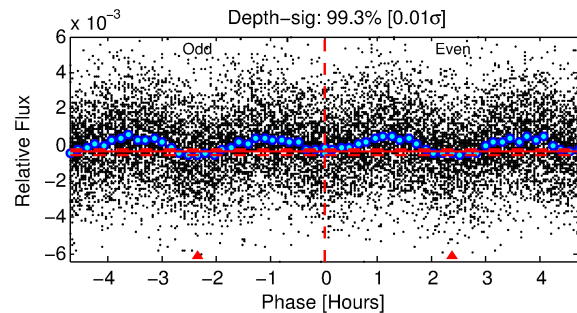
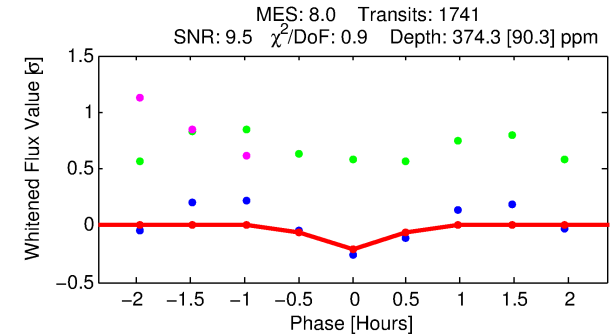
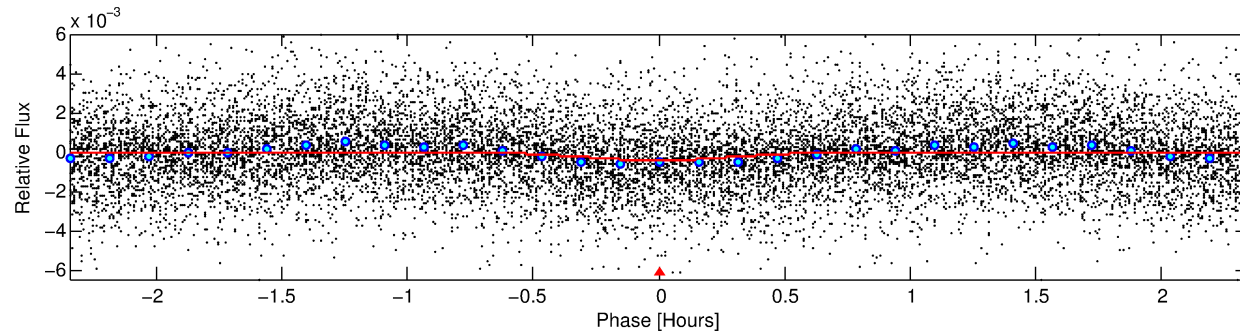
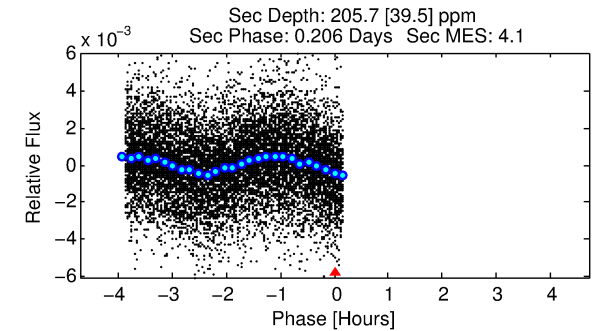
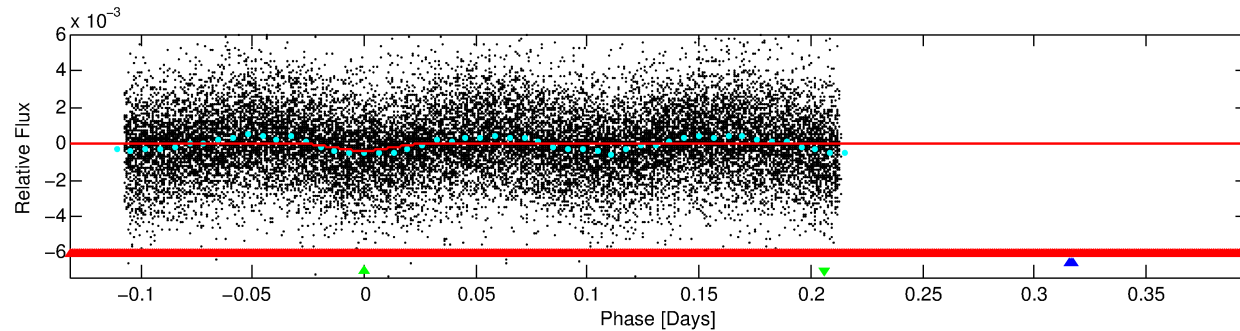
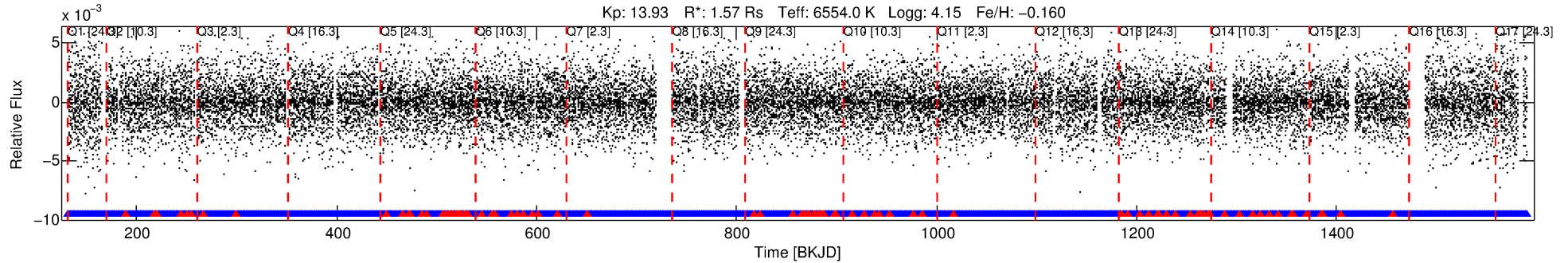
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009614124-03

No Significant Match Found

DV One-Page Summary

KIC: 9614124 Candidate: 3 of 3 Period: 0.527 d



DV Fit Results:

Period = 0.52746 [0.00001] d
Epoch = 131.7249 [0.0017] BKJD
Rp/R* = 0.0210 [0.0181]
a/R* = 2.67 [10.97]
b = 0.90 [1.05]
Seff = 21292.71 [7970.58]
Teq = 3080 [288] K
Rp = 3.59 [3.25] Re
a = 0.0138 [0.0033] AU
Ag = 1.67 [2.95] [0.23σ]
Teffp = 5416 [2350] K [0.99σ]

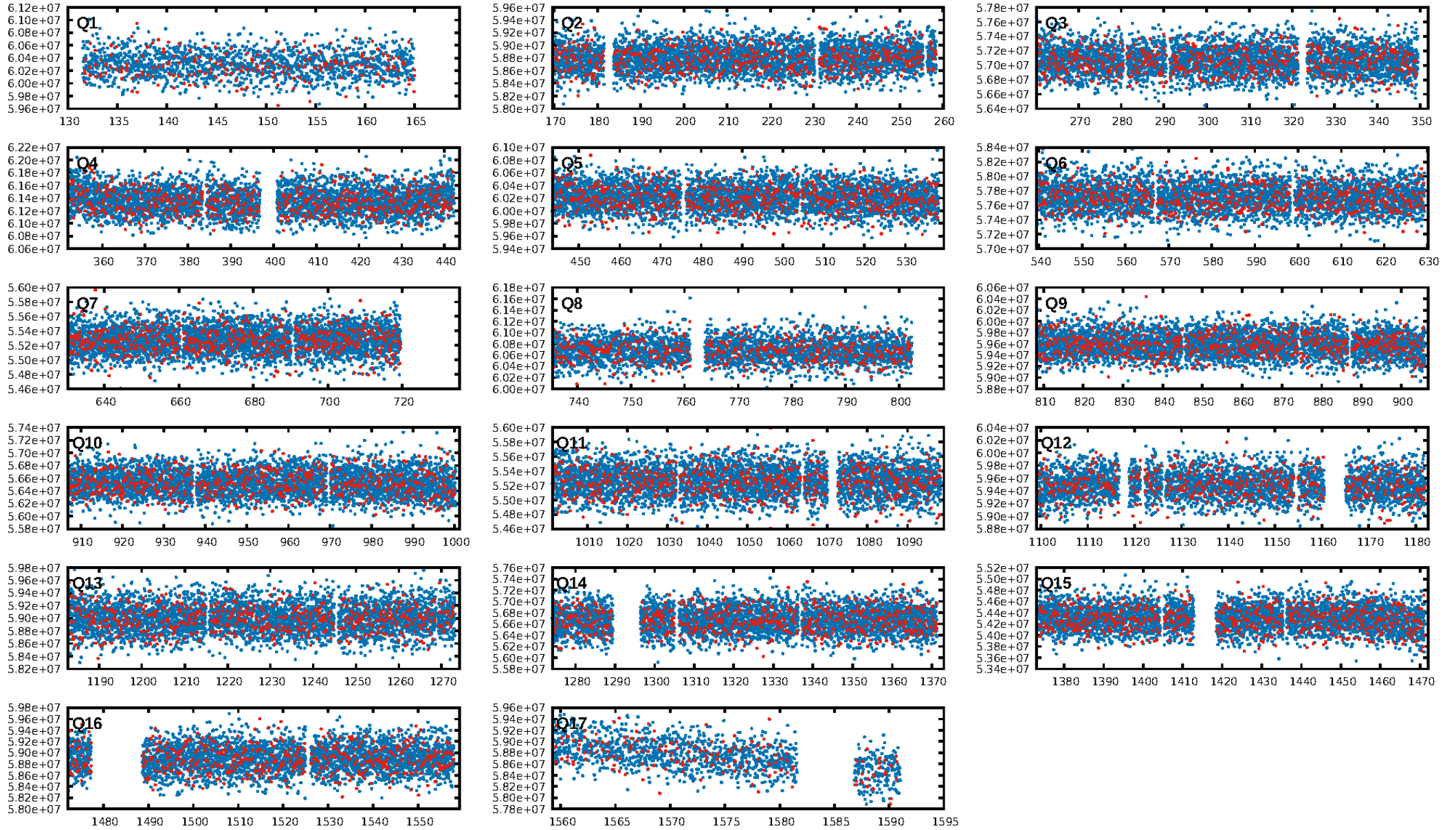
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.87e-21
RollingBand-fgt: 0.95 [1572/1662]
GhostDiagnostic-chr: 2.309
Centroid-sig: N/A
Centroid-so: 0.888 arcsec [4.51σ]
OotOffset-rm: 0.151 arcsec [0.96σ]
KicOffset-rm: 0.104 arcsec [0.62σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 0.00 [0/17]

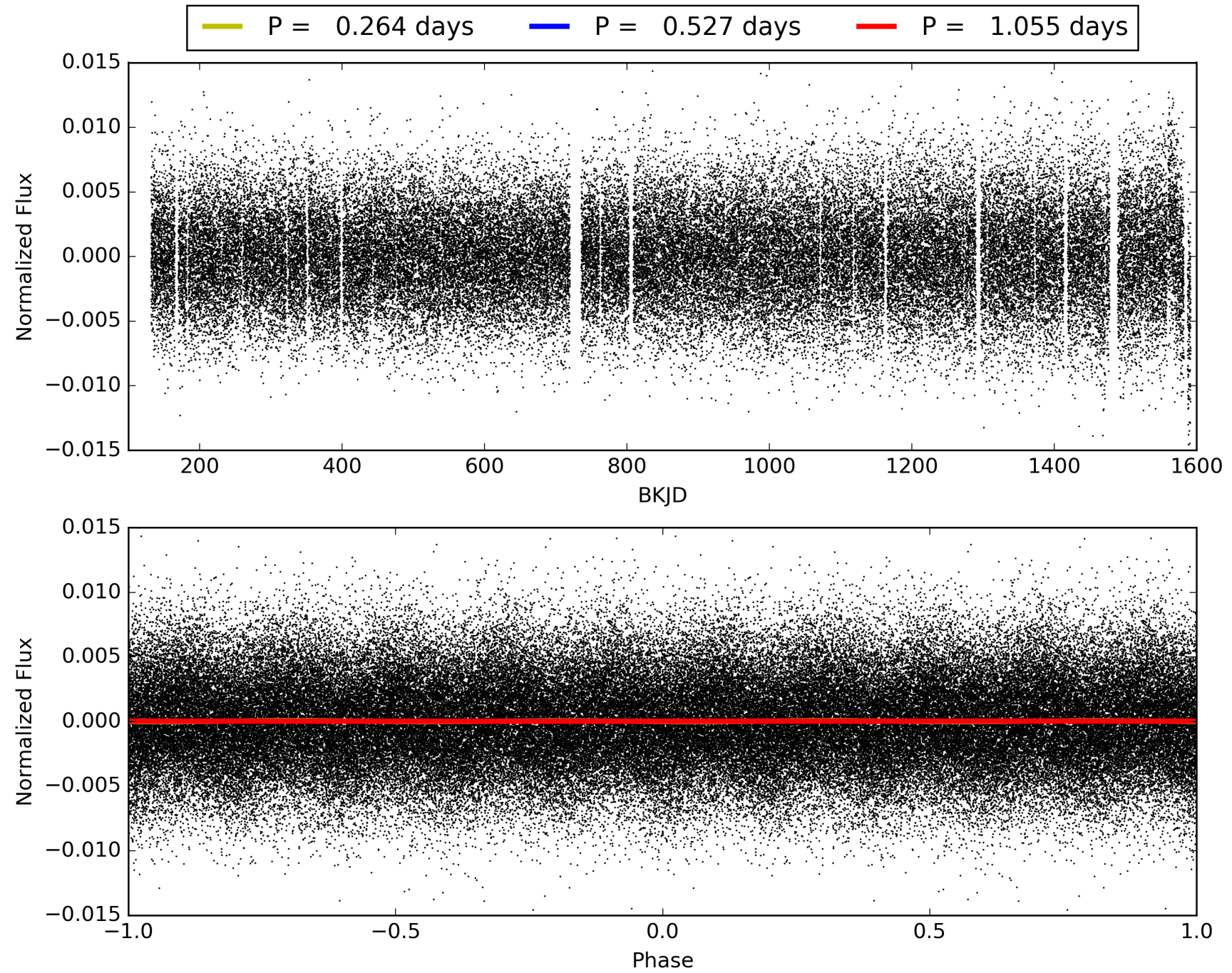
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:31:53 Z

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

TCE 009614124-03, PDC Light Curves

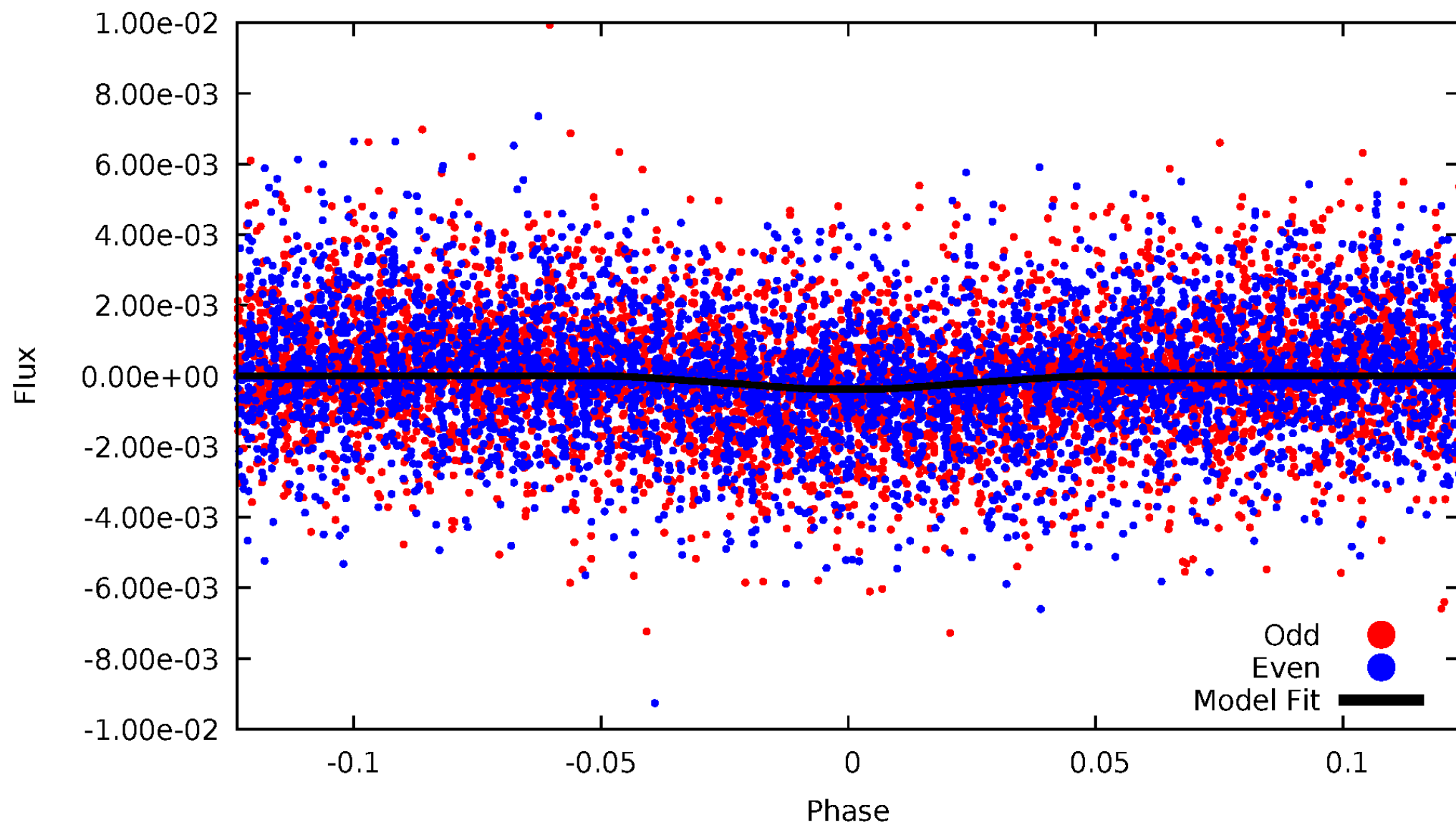


TCE 009614124-03



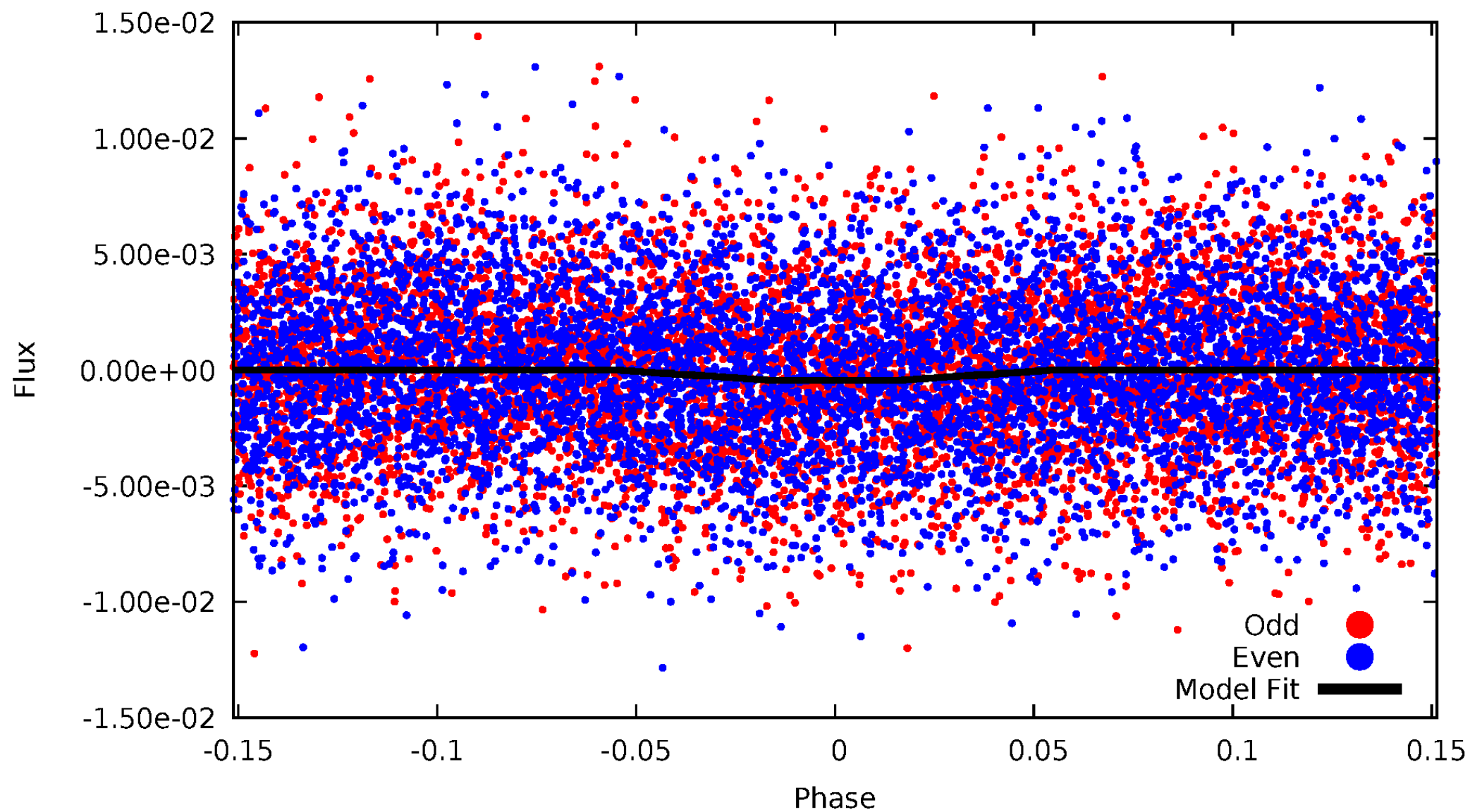
DV Odd/Even

TCE 009614124-03

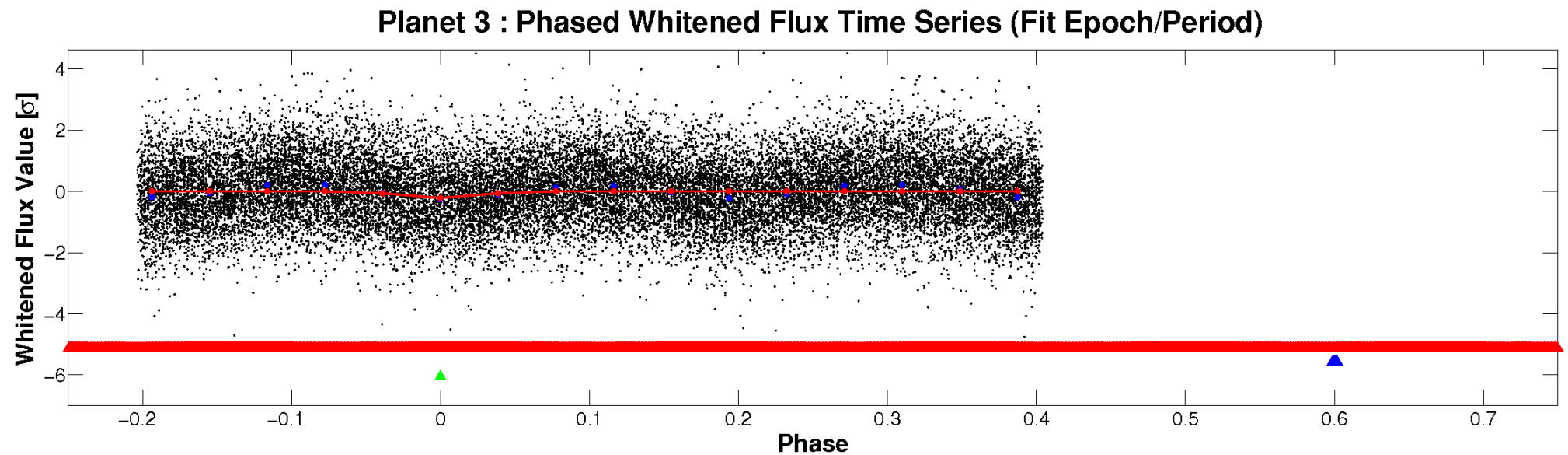
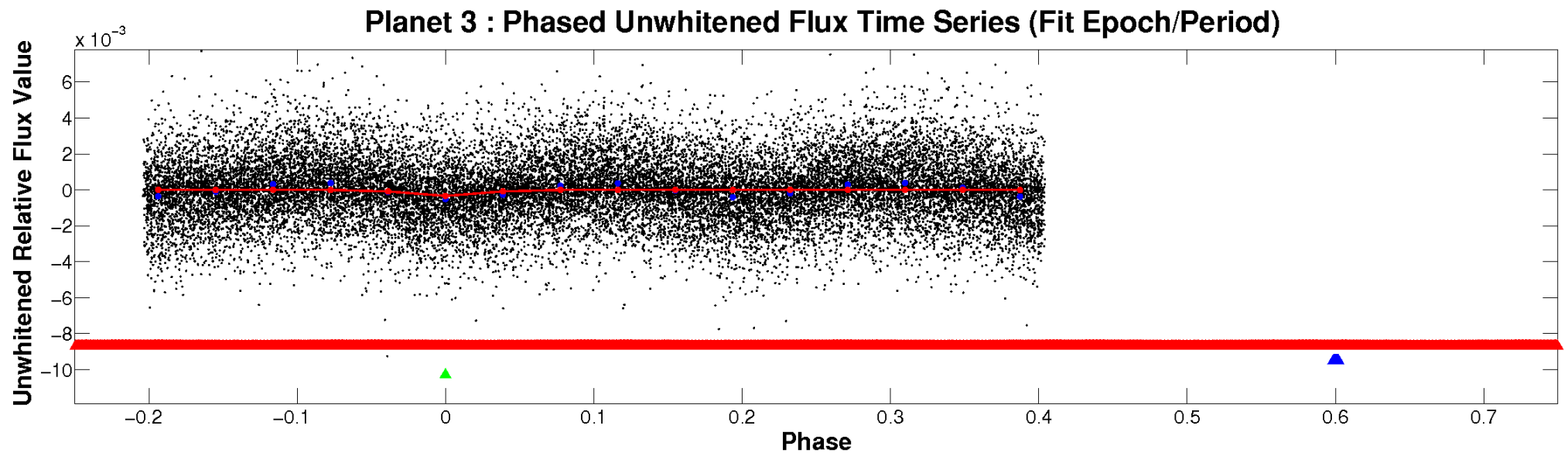


ALT Odd/Even

TCE 009614124-03

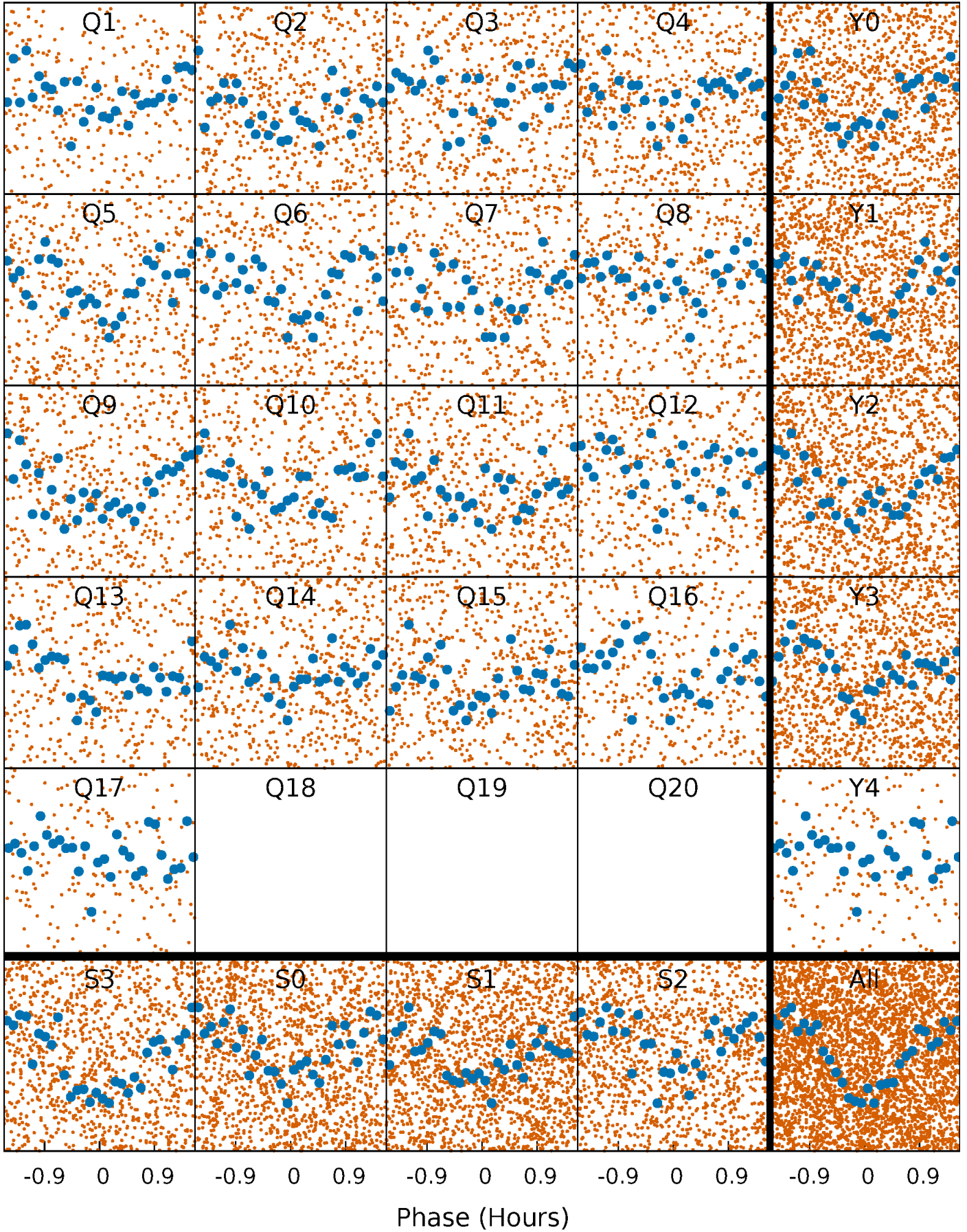


Non-Whitened Vs. Whitened Light Curve



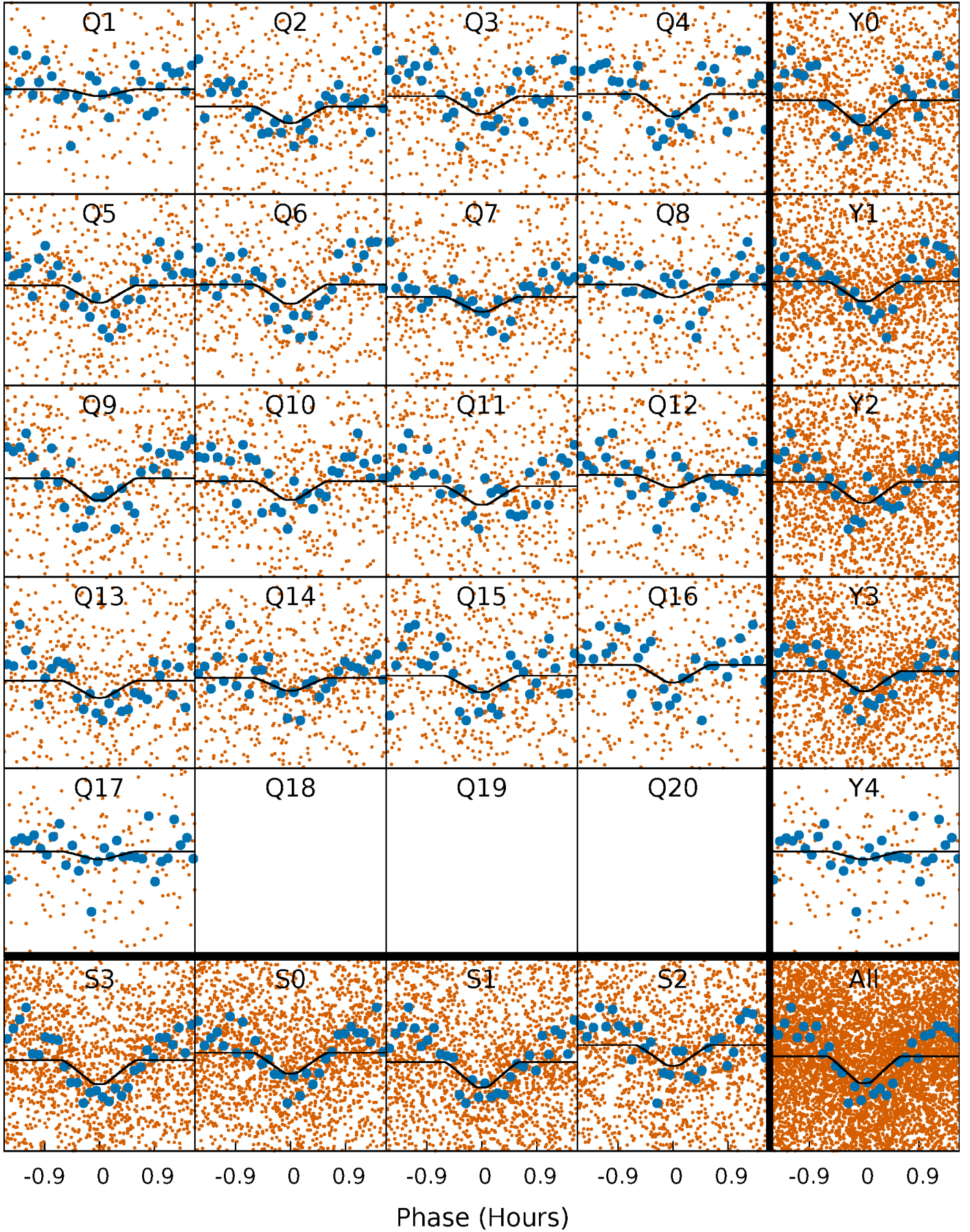
PDC Quarter-Phased Transit Curves

TCE 009614124-03 P= 0.527460 Days $T_0=131.724875$ (BKJD)



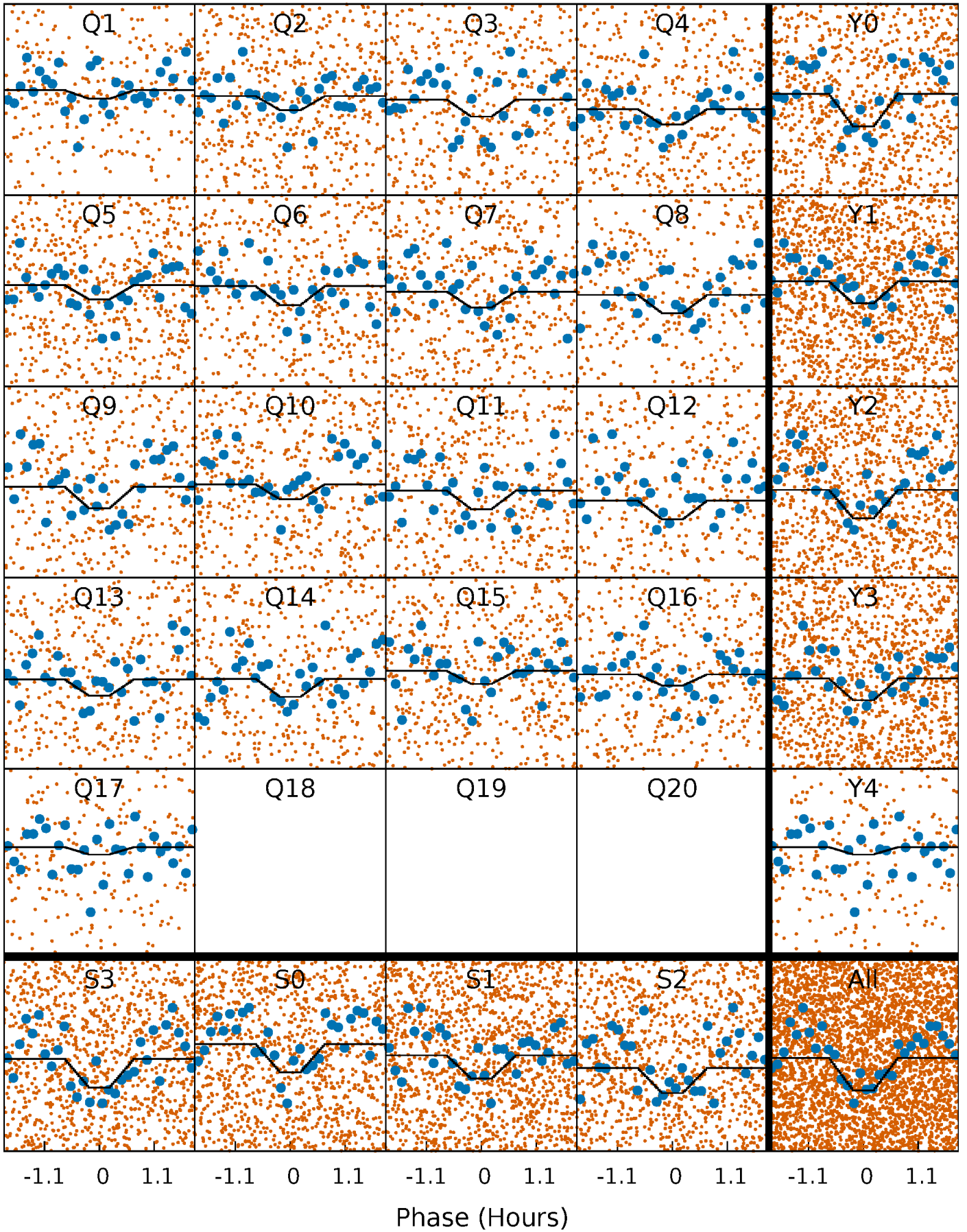
DV Quarter-Phased Transit Curves

TCE 009614124-03 P= 0.527460 Days $T_0=131.724875$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

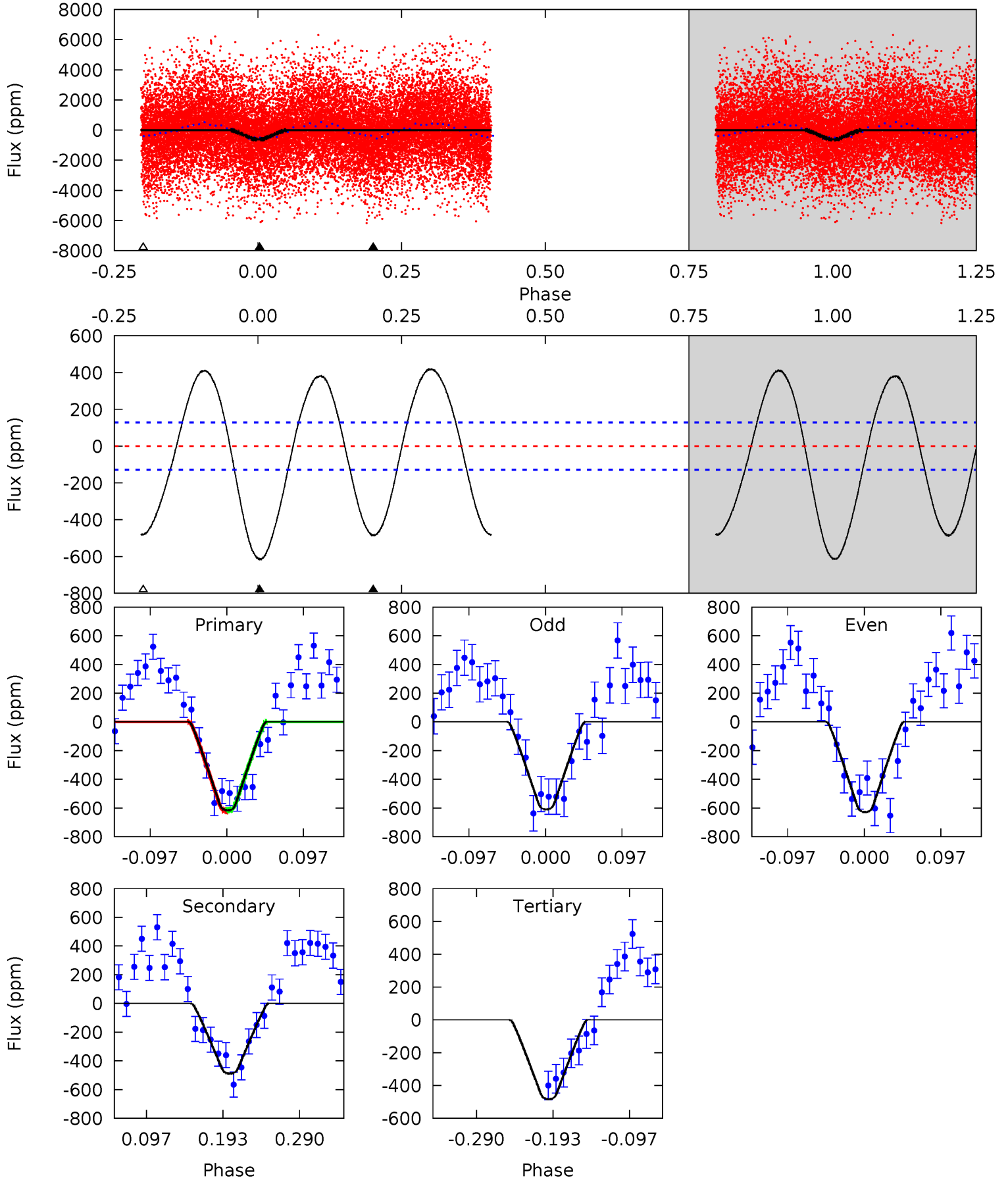
TCE 009614124-03 P= 0.527461 Days $T_0=131.724800$ (BKJD)



DV Model-Shift Uniqueness Test

009614124-03, P = 0.527460 Days, E = 131.724875 Days

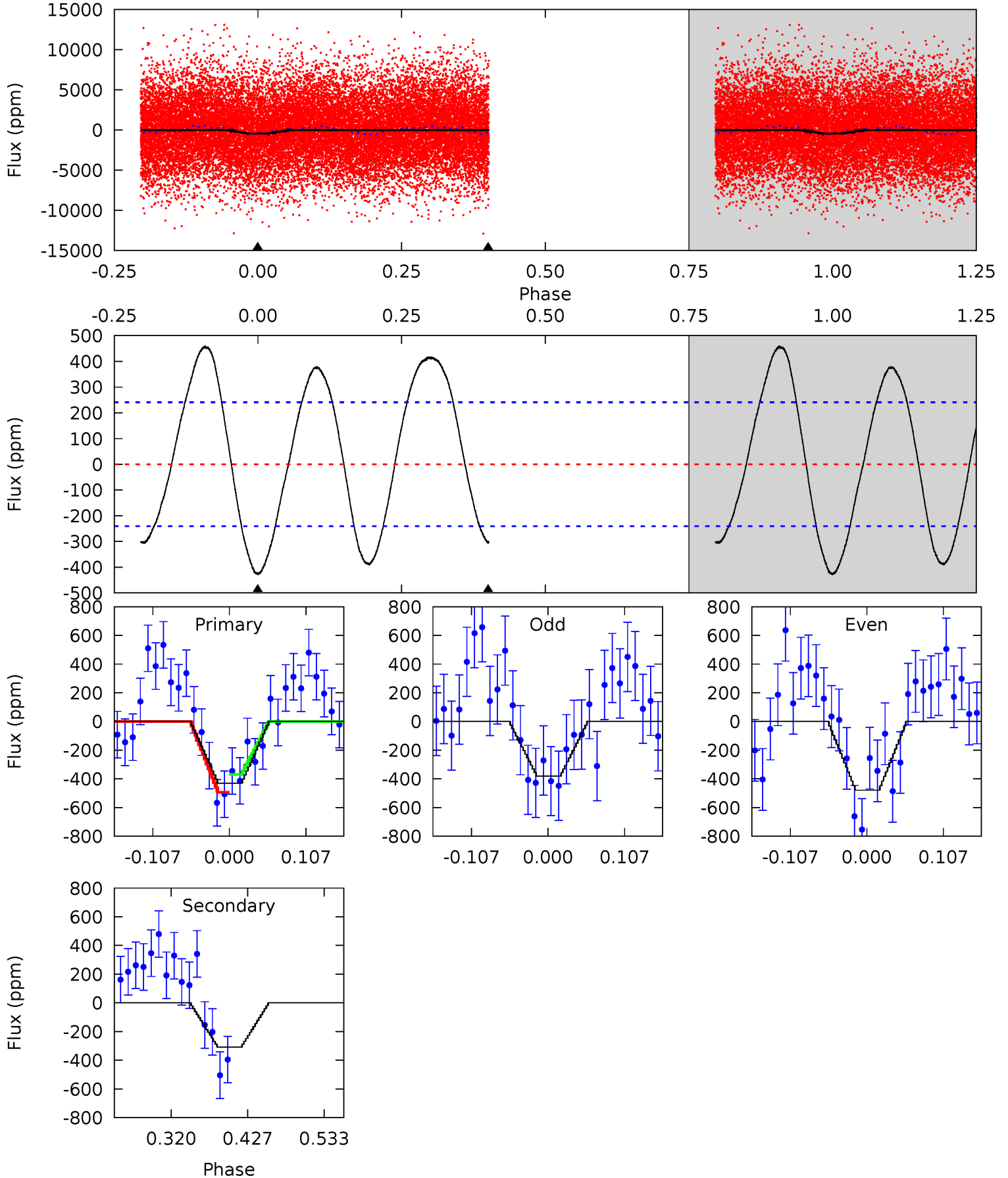
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	17.4	17.2	0	4.57	1.66	11.3	4.73	22.0	0.17	17.4	0.35	0.97	0.41	0.14



Alt Model-Shift Uniqueness Test

009614124-03, P = 0.527461 Days, E = 131.724800 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.12	5.83	0	0	4.55	1.61	4.94	8.12	8.12	5.83	5.83	0.91	0.97	0.52	1.17



Stellar Parameters For KIC 009614124

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6554^{+175}_{-233}	$4.149^{+0.190}_{-0.171}$	$-0.160^{+0.250}_{-0.300}$	$1.568^{+0.439}_{-0.395}$	$1.271^{+0.181}_{-0.221}$	$0.465^{+0.554}_{-0.223}$
	+3%/-4%	+5%/-4%	+156%/-188%	+28%/-25%	+14%/-17%	+119%/-48%
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 009614124-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-488 ± 28	$4.07^{+3.10}_{-2.47}$	4270^{+323}_{-286}	6143^{+4855}_{-1634}	$3.121^{+16.373}_{-2.110}$
Alt.	-309 ± 53	$3.91^{+3.13}_{-2.28}$	4299^{+318}_{-323}	5416^{+3830}_{-1449}	$2.059^{+10.400}_{-1.424}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

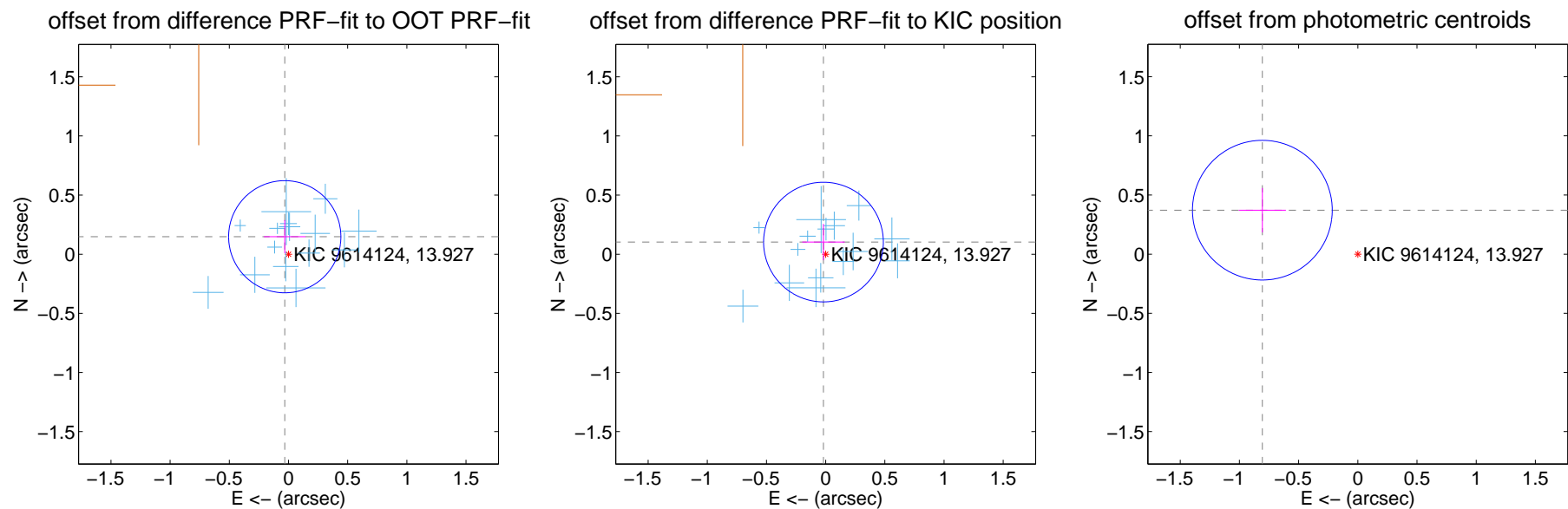
DV Centroid Data

Supplemental centroid analysis for 009614124-03. Kepler magnitude: 13.93. Transit SNR 9.50

There are 15 quarters with good PRF difference image offsets

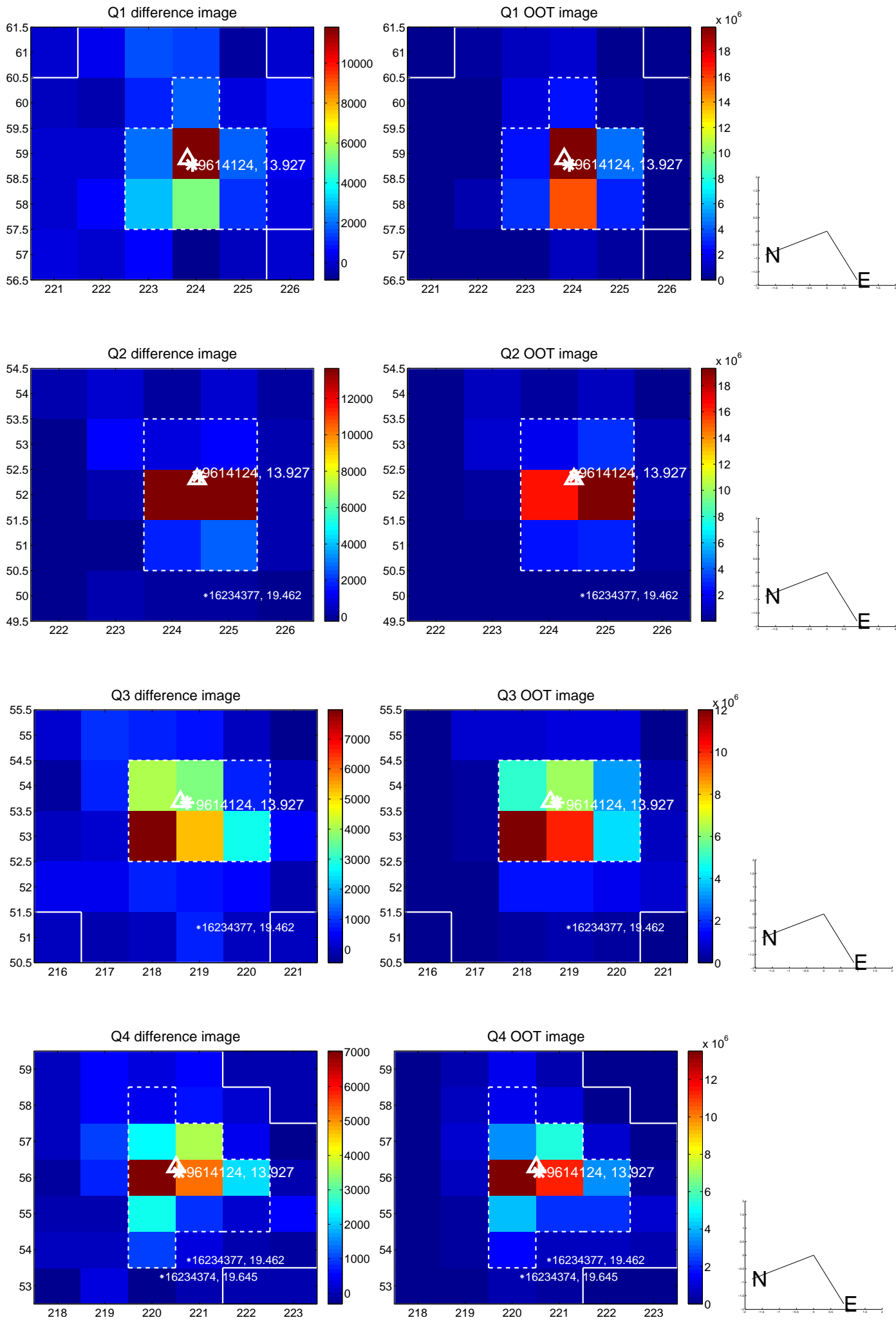
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.151 ± 0.158	0.96	0.032 ± 0.176	0.148 ± 0.141
PRF-fit source offset from KIC position	0.104 ± 0.169	0.62	0.019 ± 0.179	0.103 ± 0.153
photometric centroid source offset	0.89 ± 0.20	4.51	0.81 ± 0.20	0.37 ± 0.19

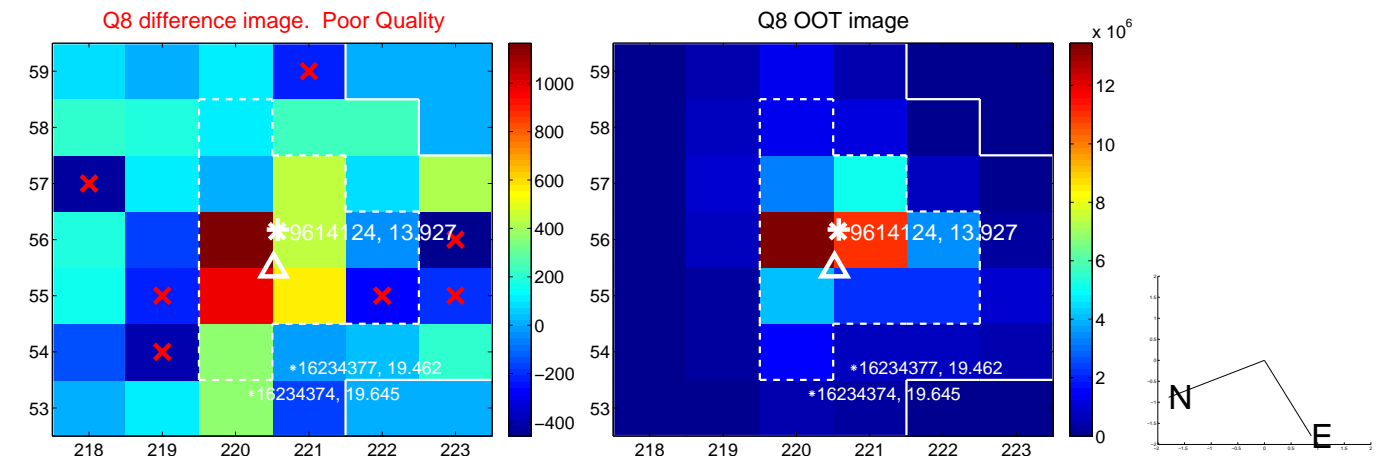
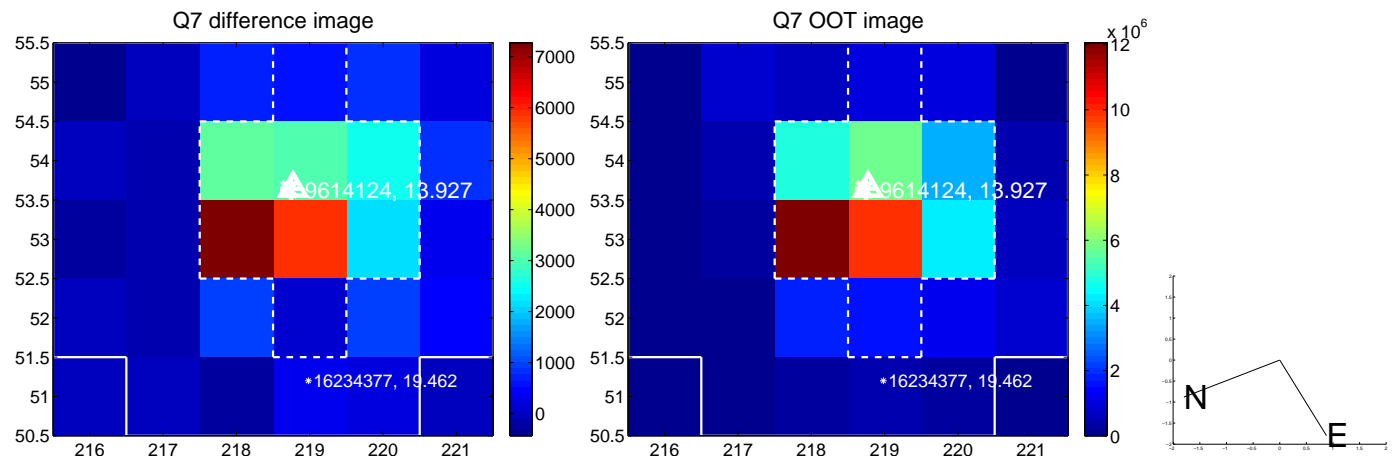
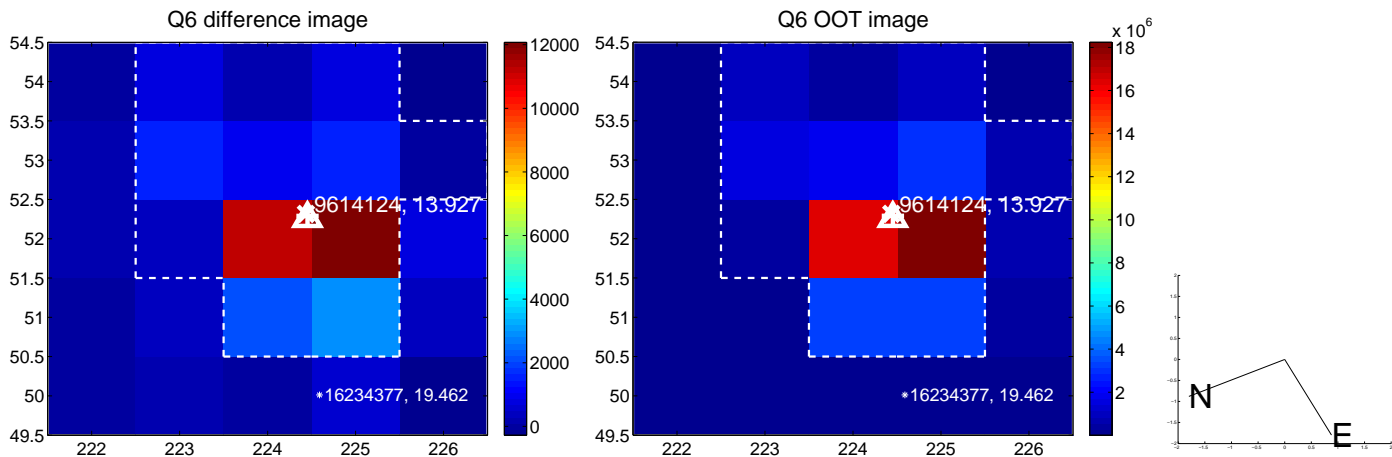
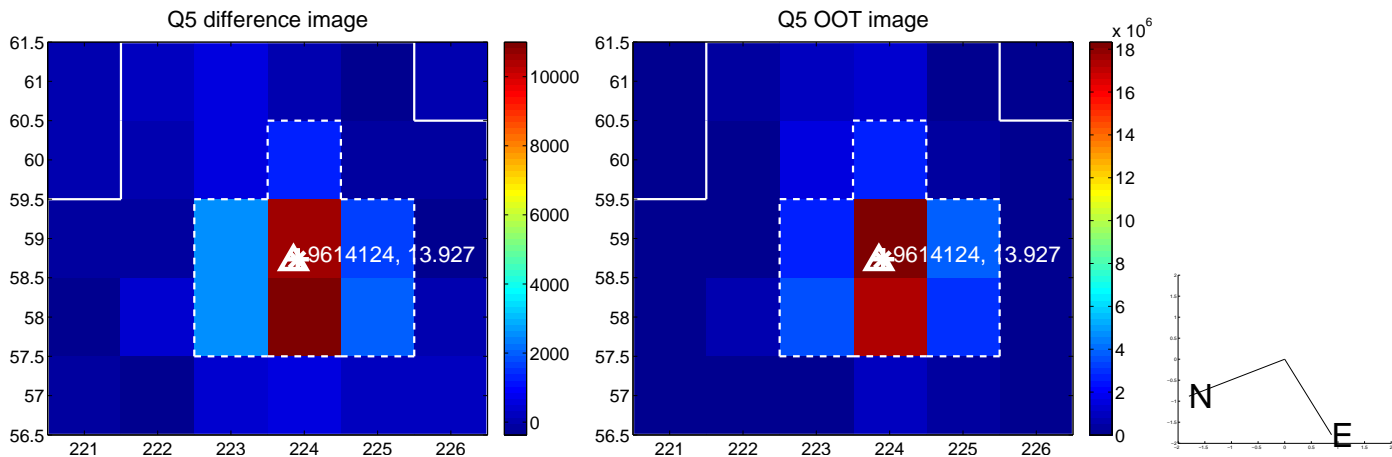


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

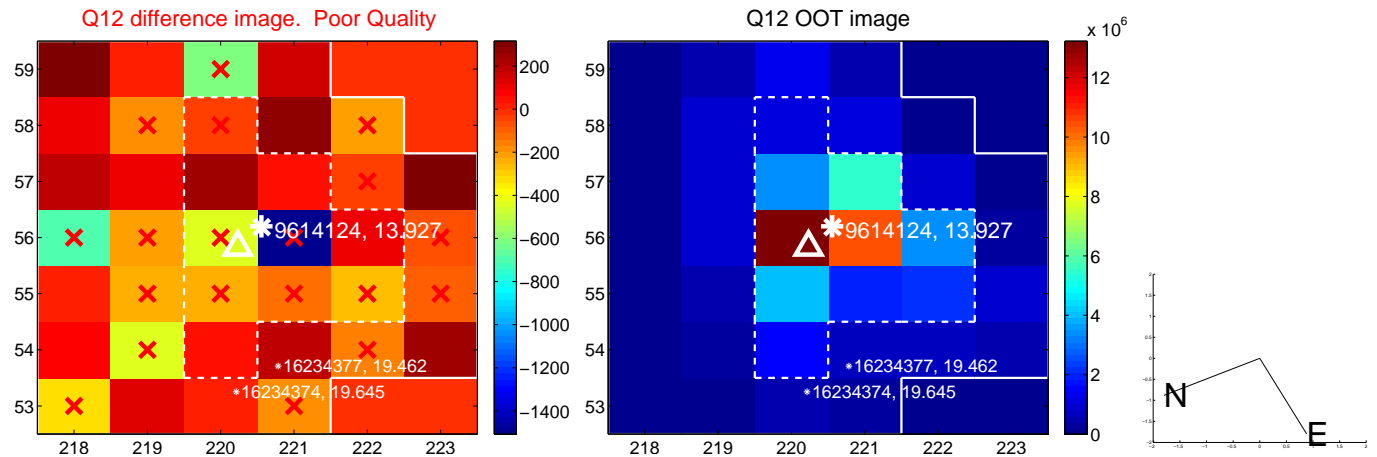
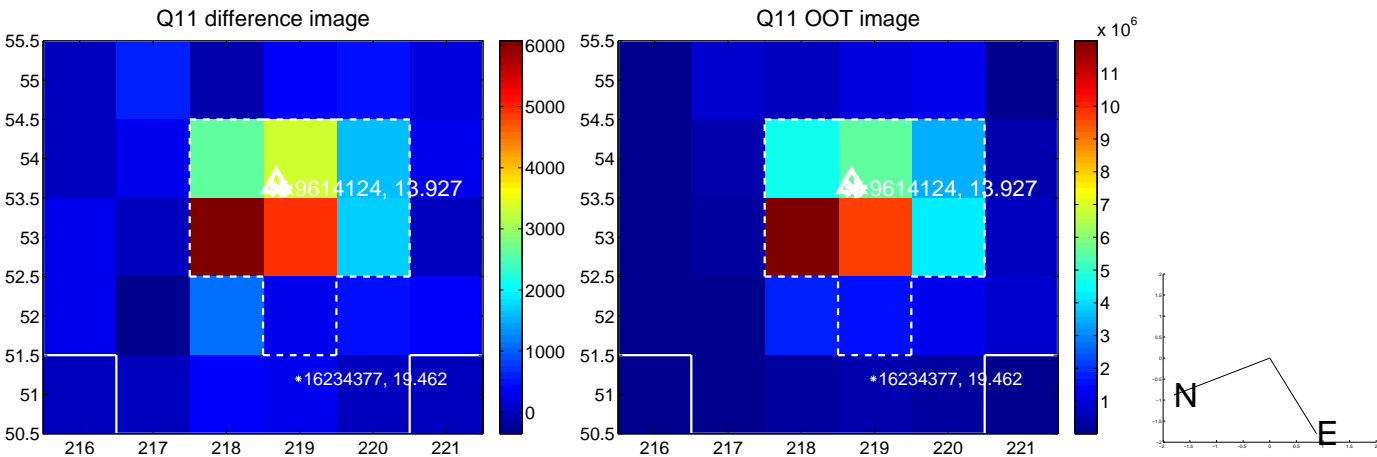
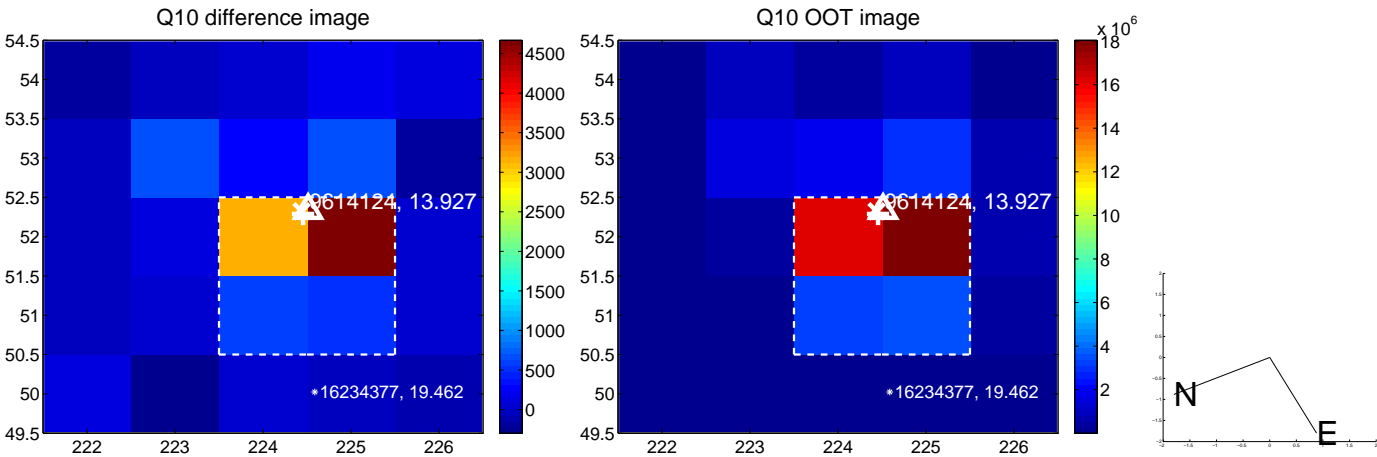
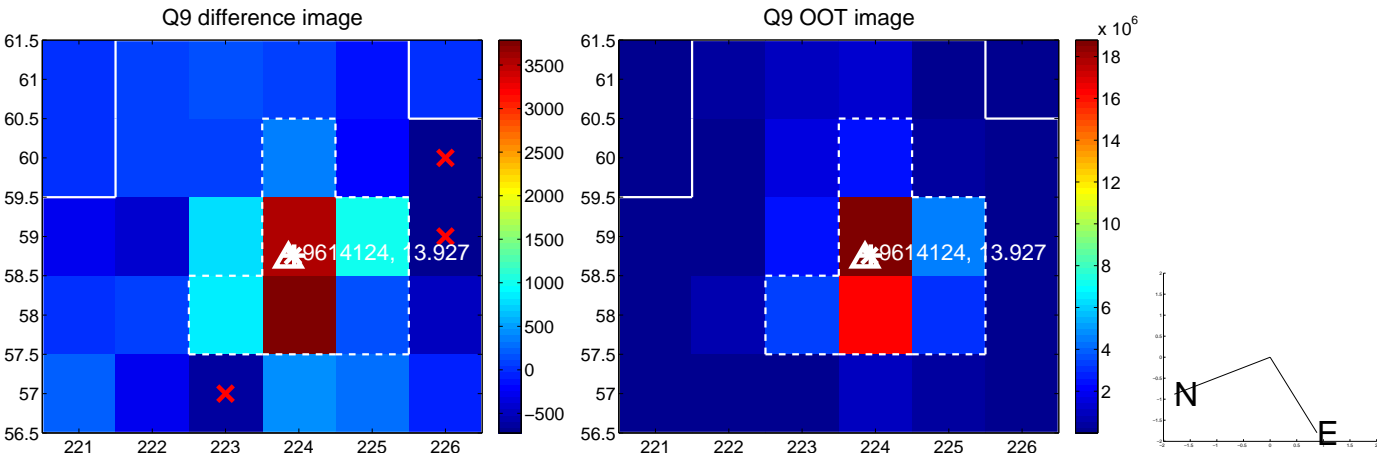
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



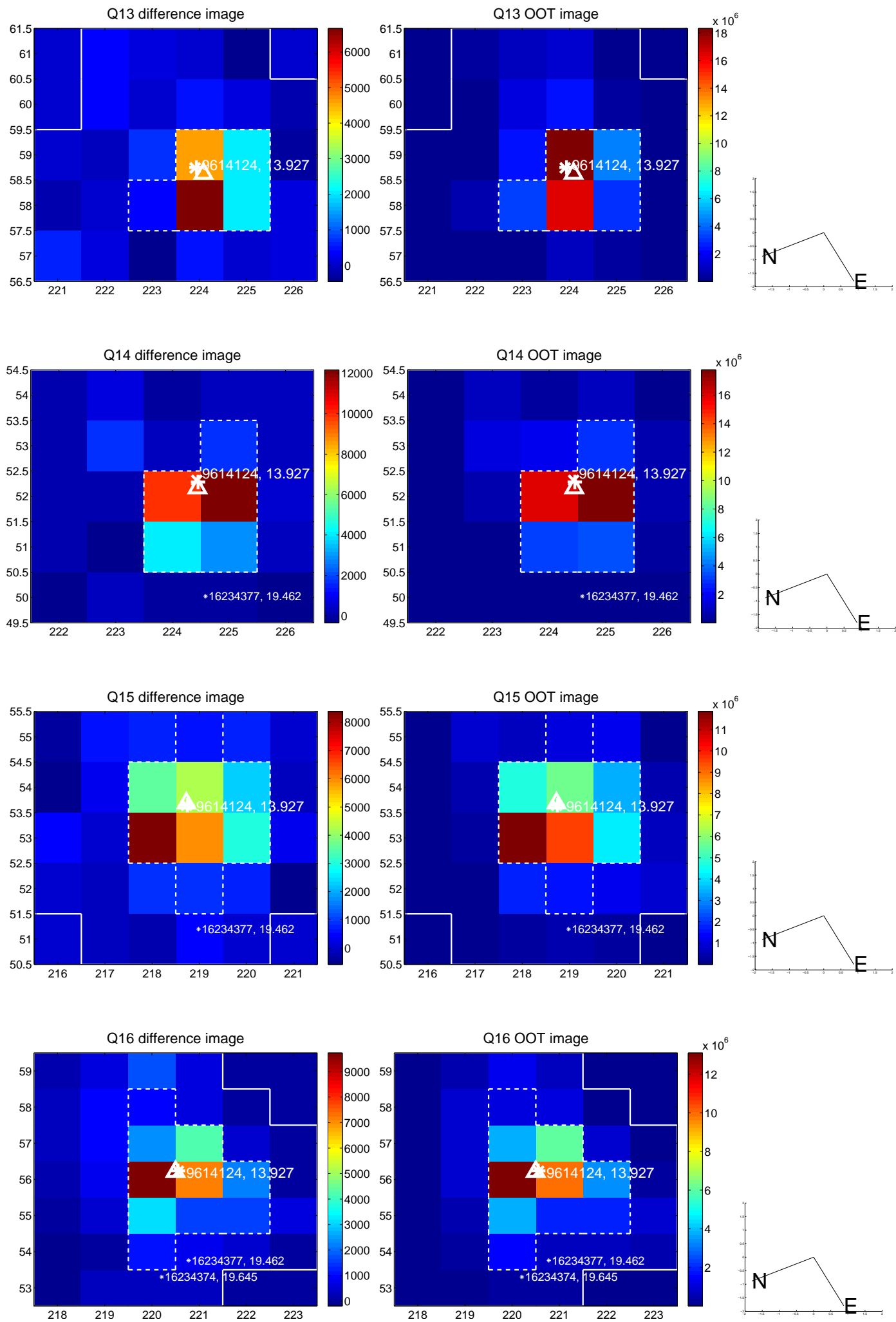
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



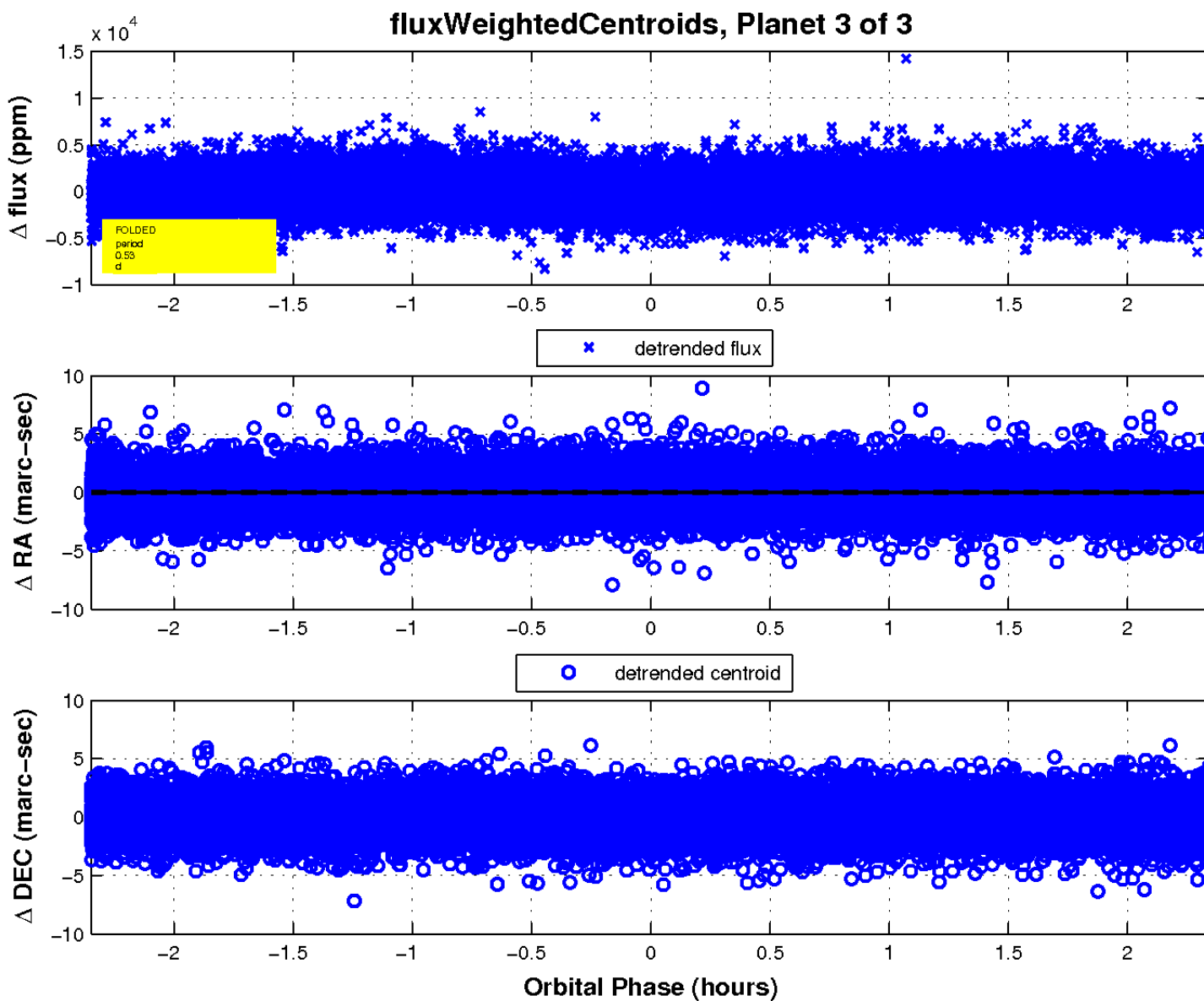
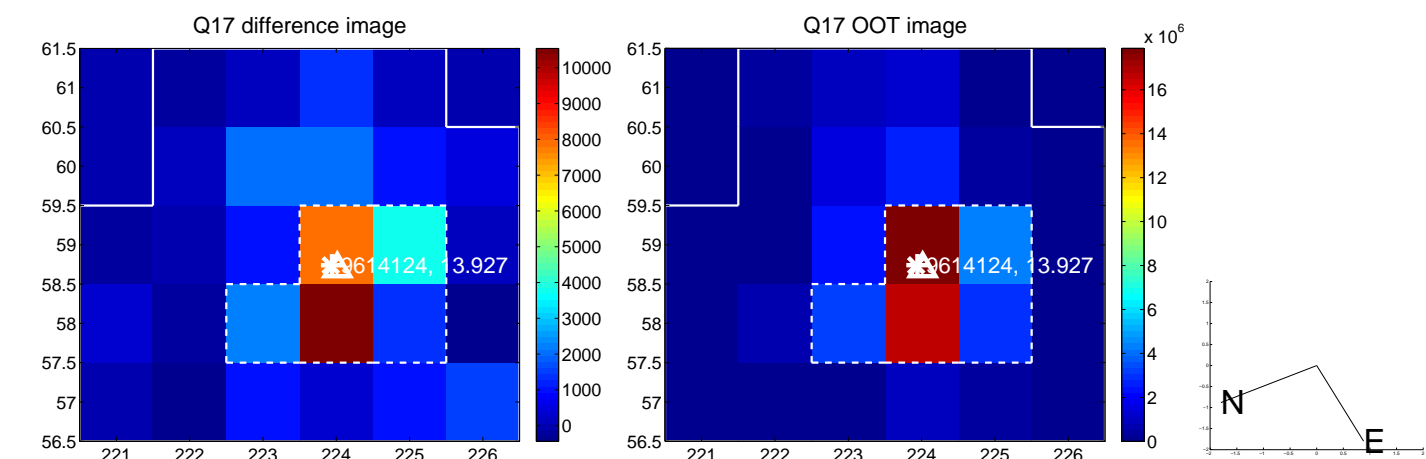
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

