

KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

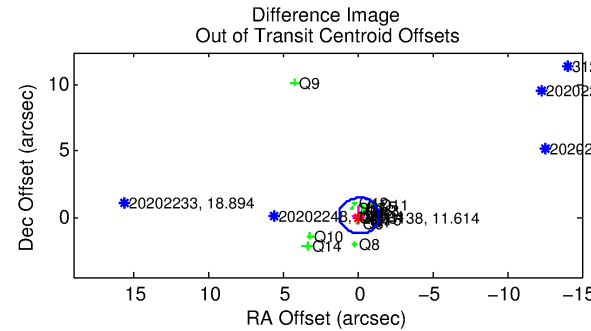
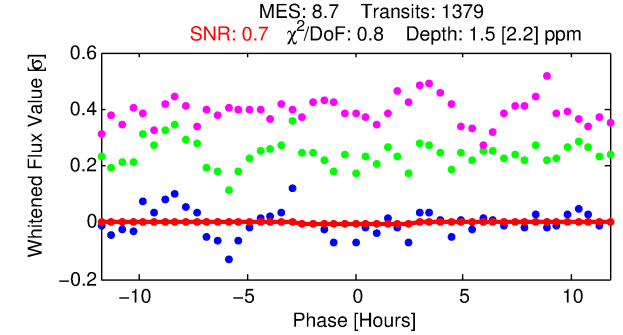
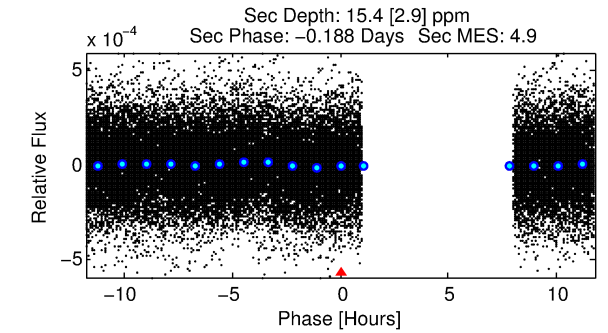
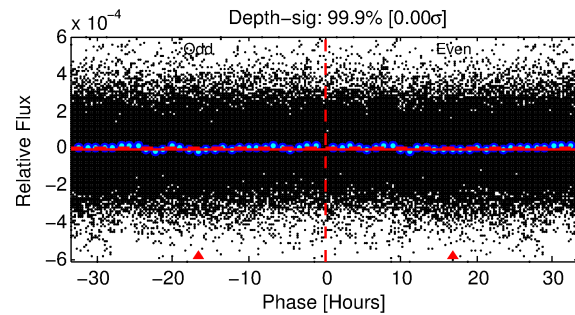
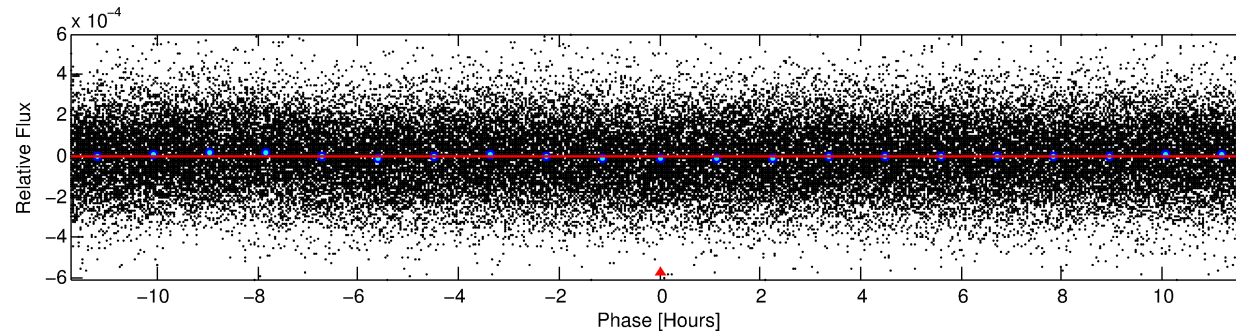
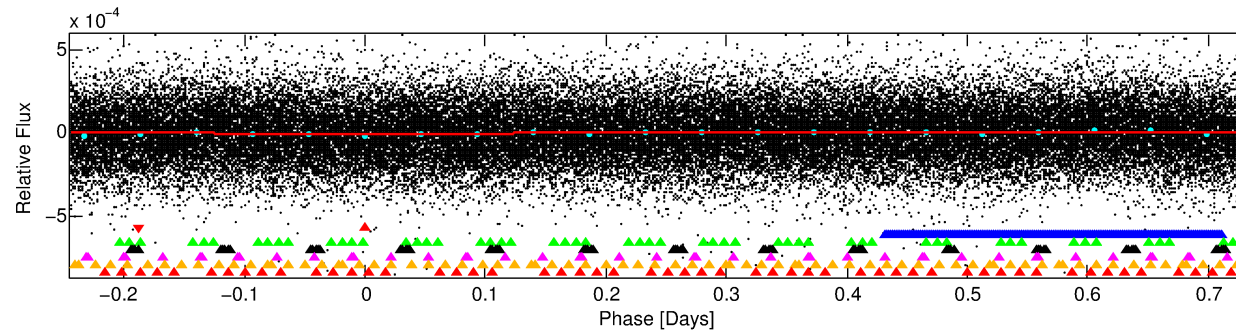
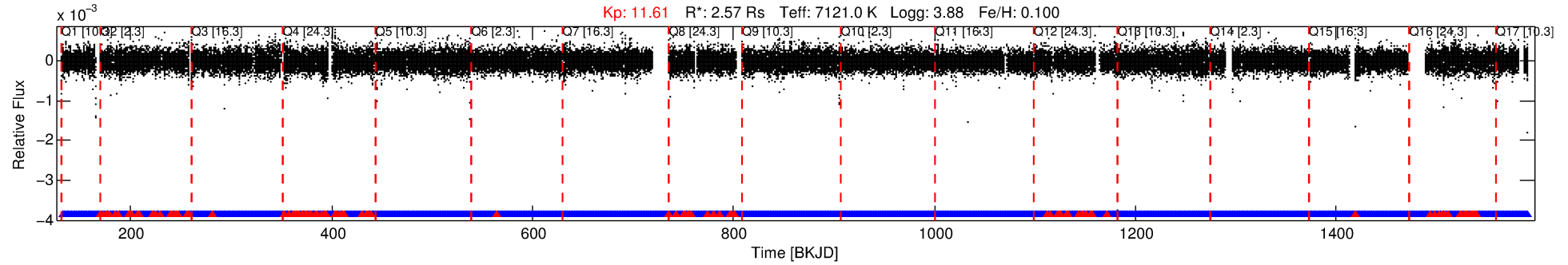
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-01

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 1 of 7 Period: 0.978 d



DV Fit Results:

Period = 0.97810 [0.00017] d
Epoch = 132.5628 [0.0442] BKJD
 R_p/R^* = 0.0013 [0.0019]
 a/R^* = 1.10 [1.64]
 b = 0.90 [1.70]
 Seff = 27531.76 [9221.58]
 Teq = 3285 [275] K
 R_p = 0.36 [0.54] R_e
 a = 0.0235 [0.0051] AU
 Ag = 35.66 [105.89] [0.33 σ]
 Teffp = 12410 [9157] K [1.00 σ]

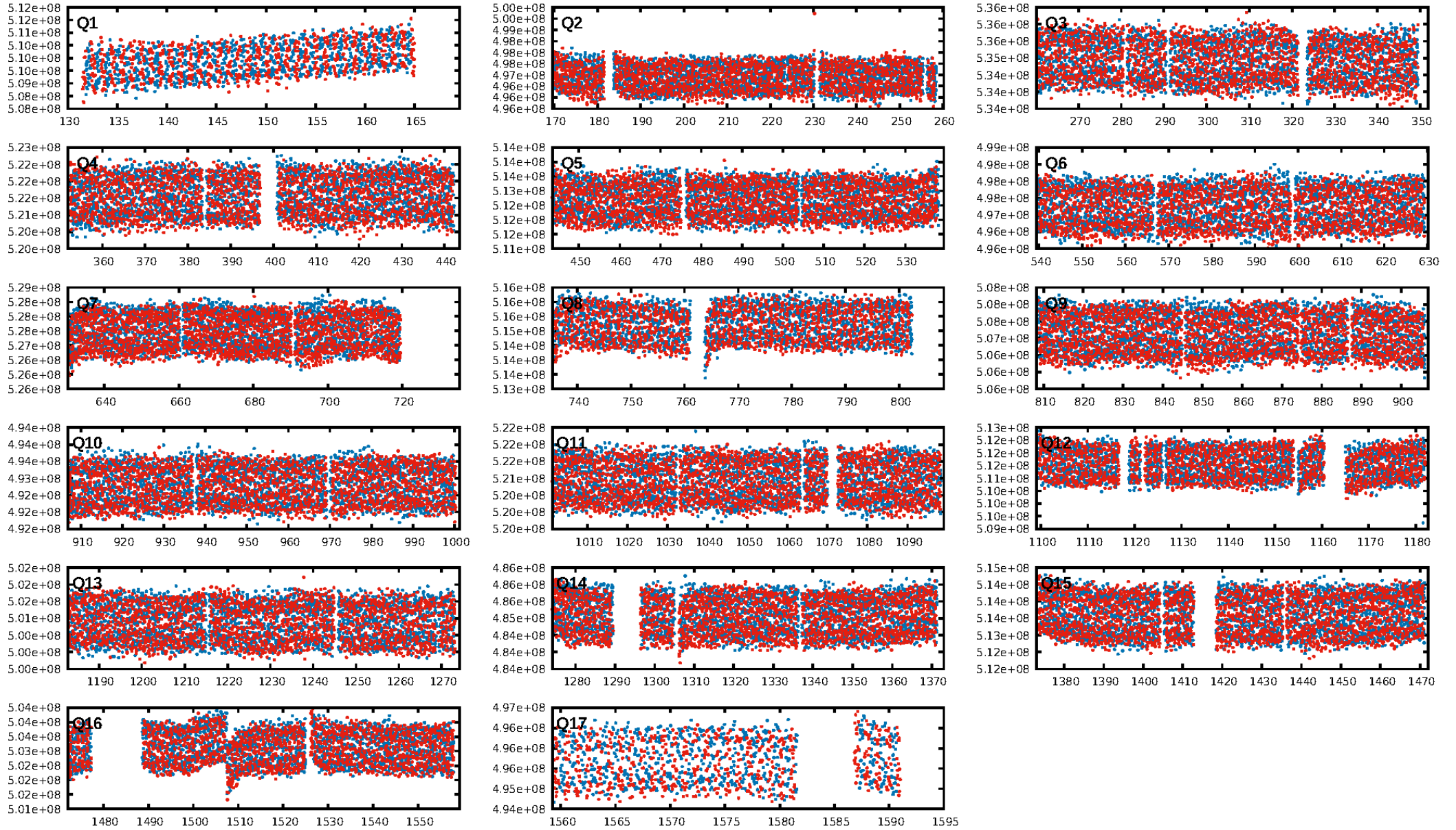
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [1213/1316]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.173 arcsec [0.39 σ]
Centroid-so: N/A
KicOffset-rm: 0.278 arcsec [0.55 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 0.00 [0/17]

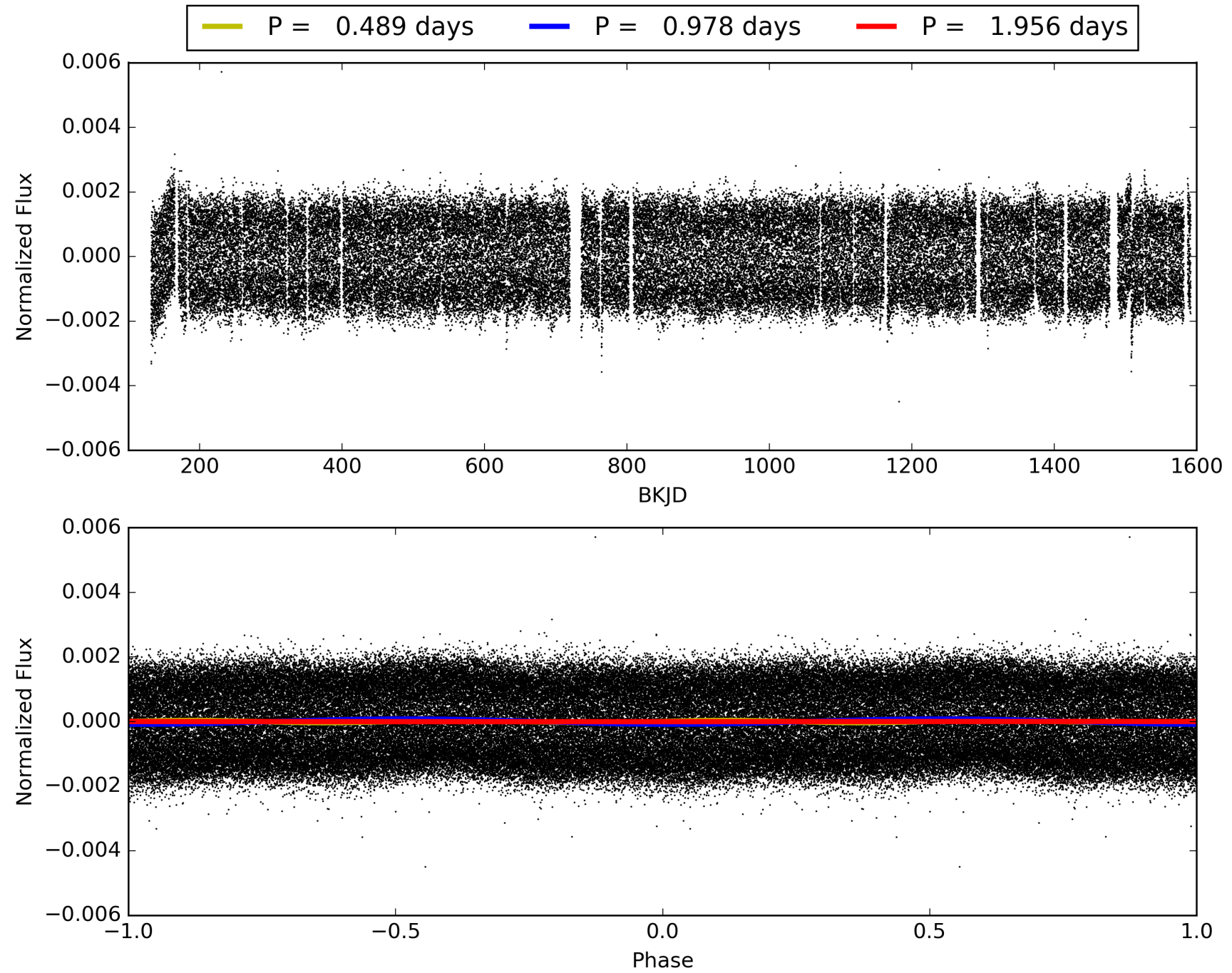
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:23 Z

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

TCE 003123138-01, PDC Light Curves

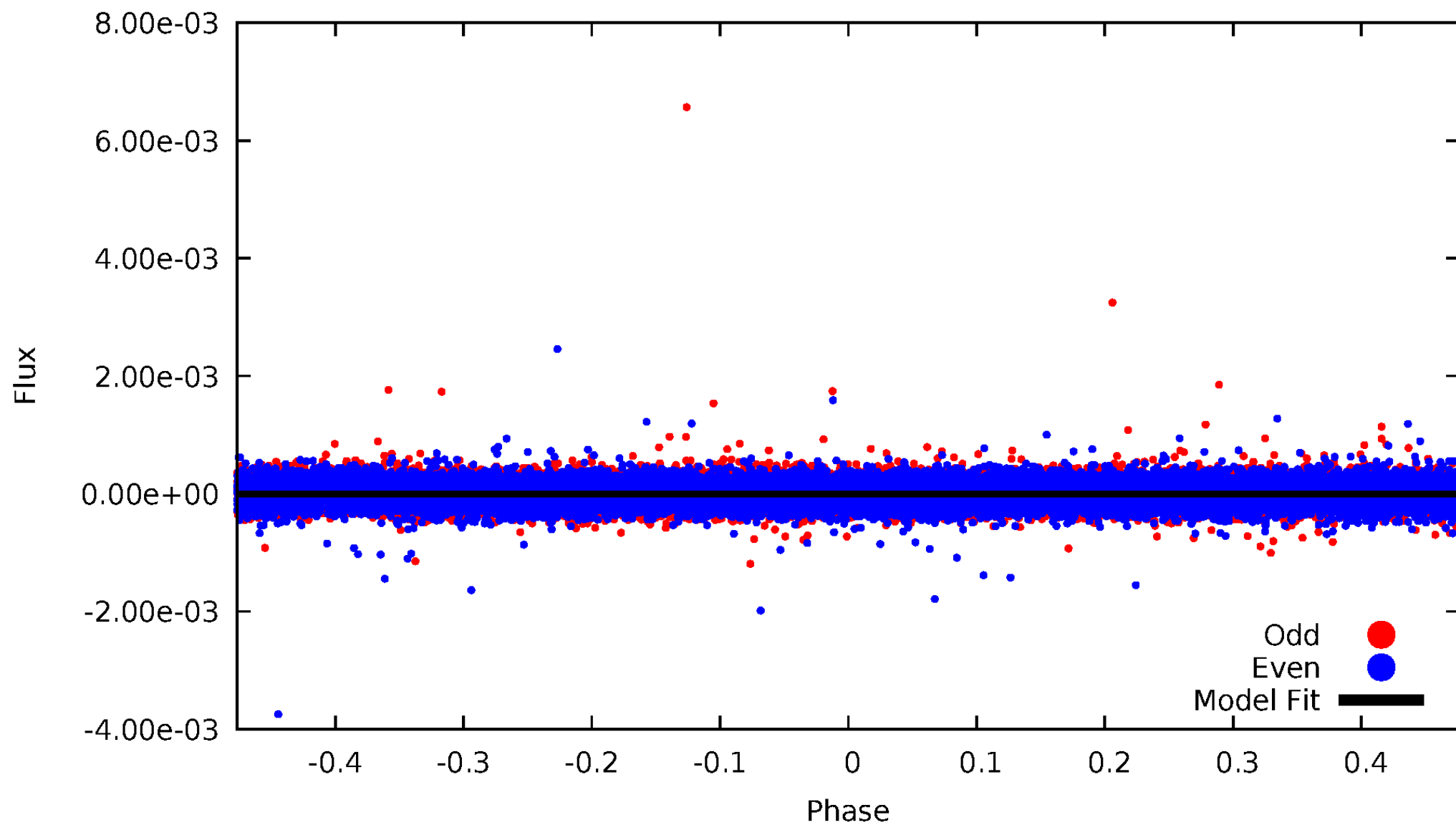


TCE 003123138-01



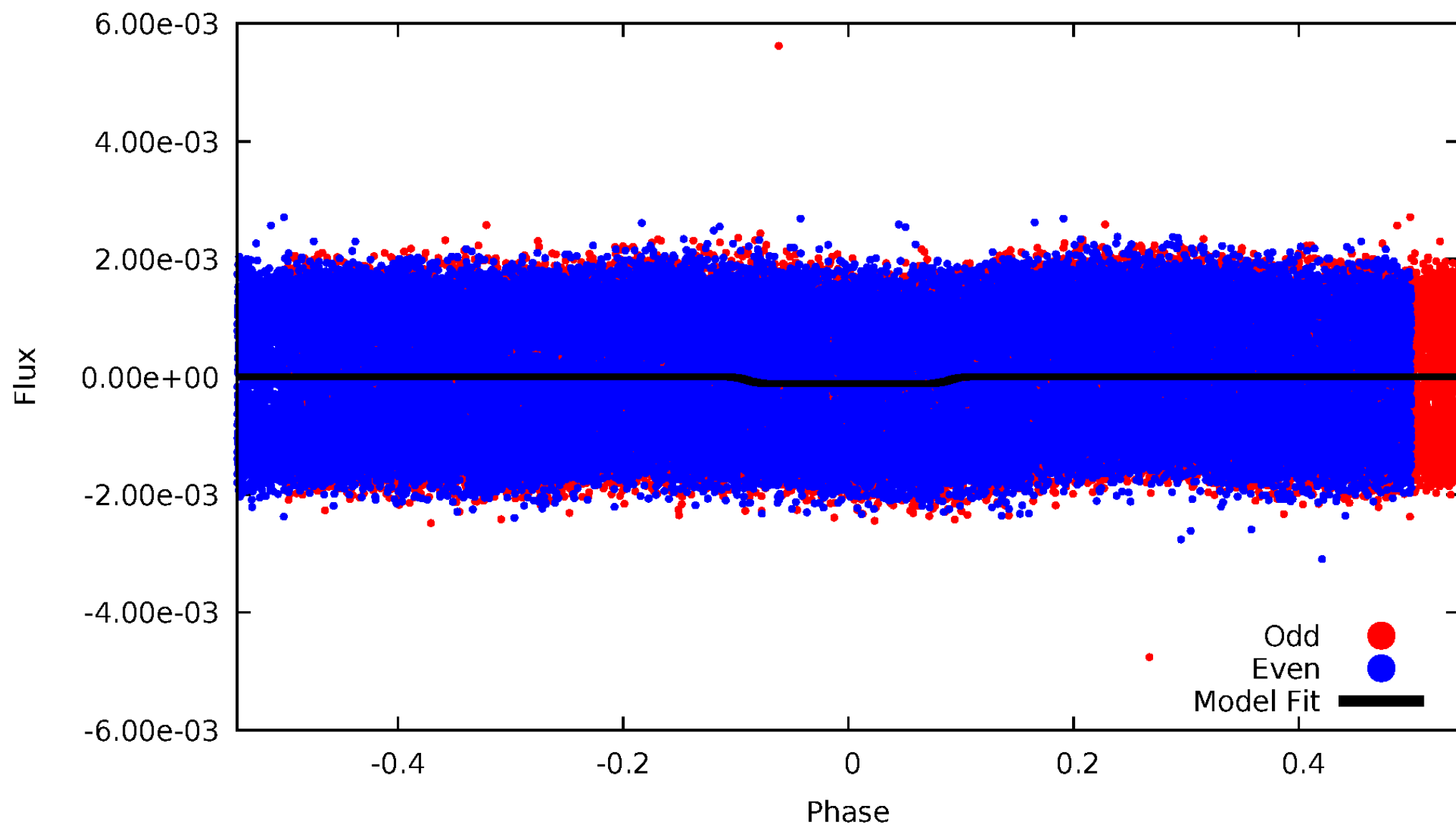
DV Odd/Even

TCE 003123138-01

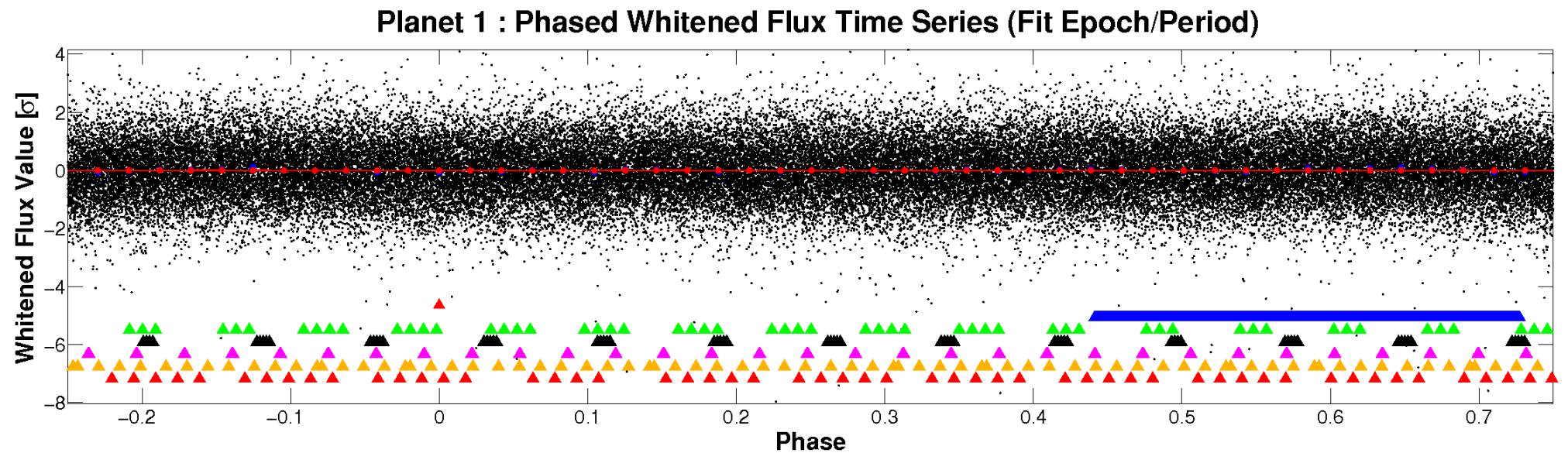
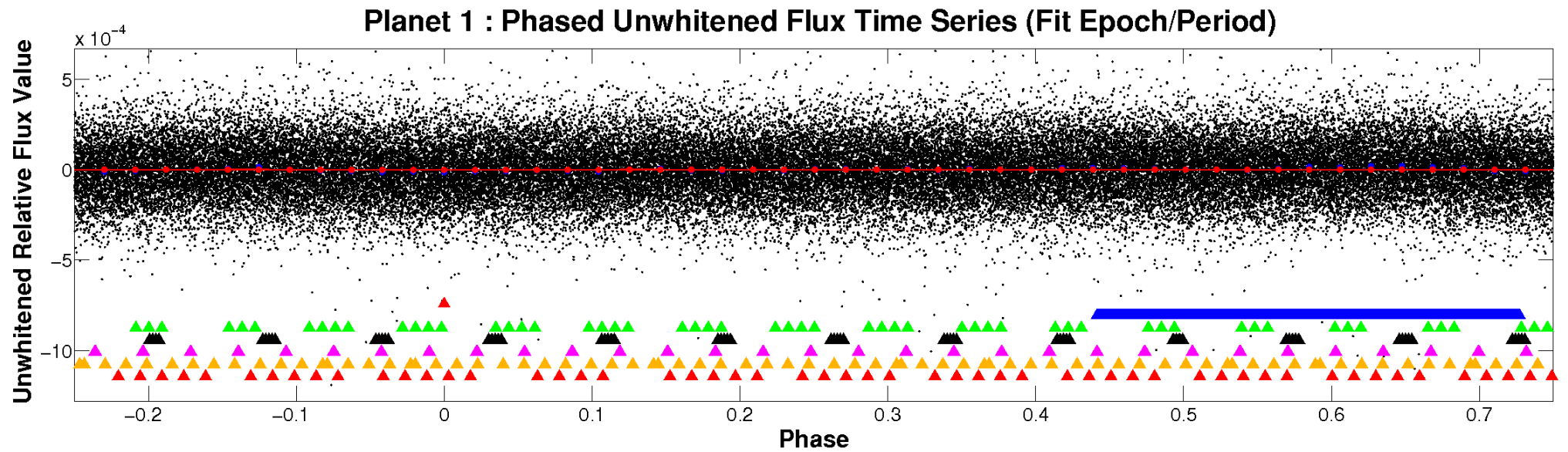


ALT Odd/Even

TCE 003123138-01

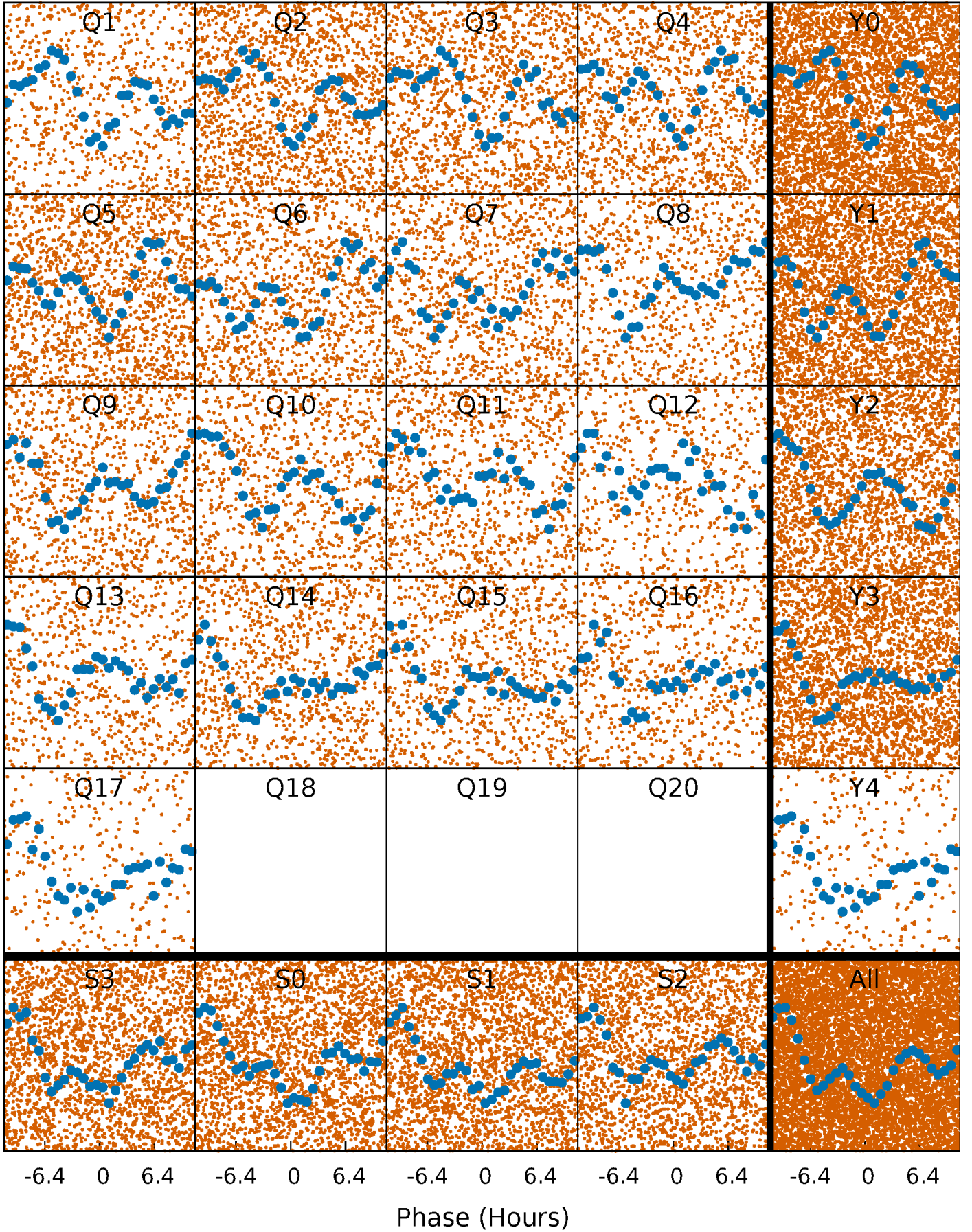


Non-Whitened Vs. Whitened Light Curve



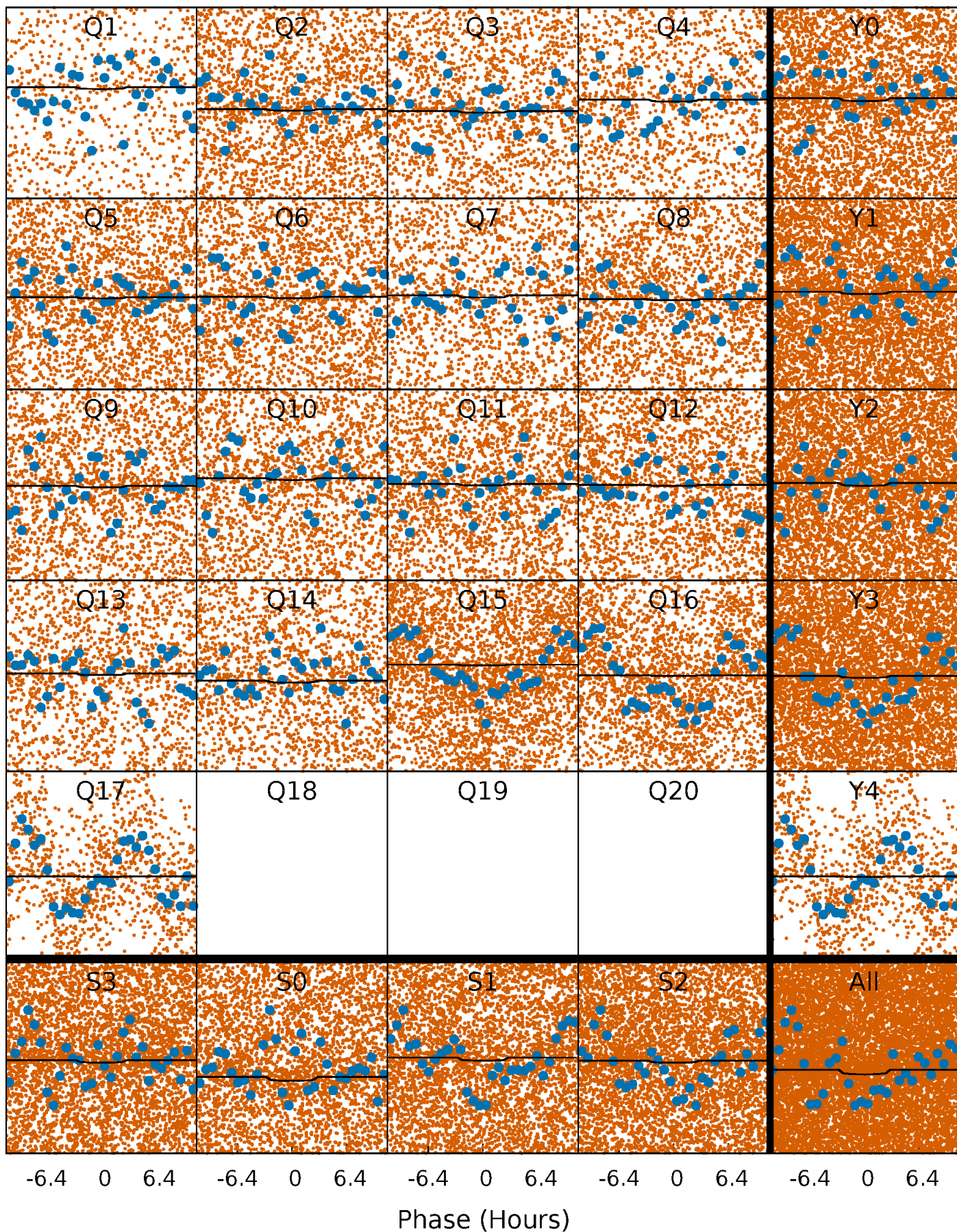
PDC Quarter-Phased Transit Curves

TCE 003123138-01 P= 0.978103 Days $T_0=132.562758$ (BKJD)



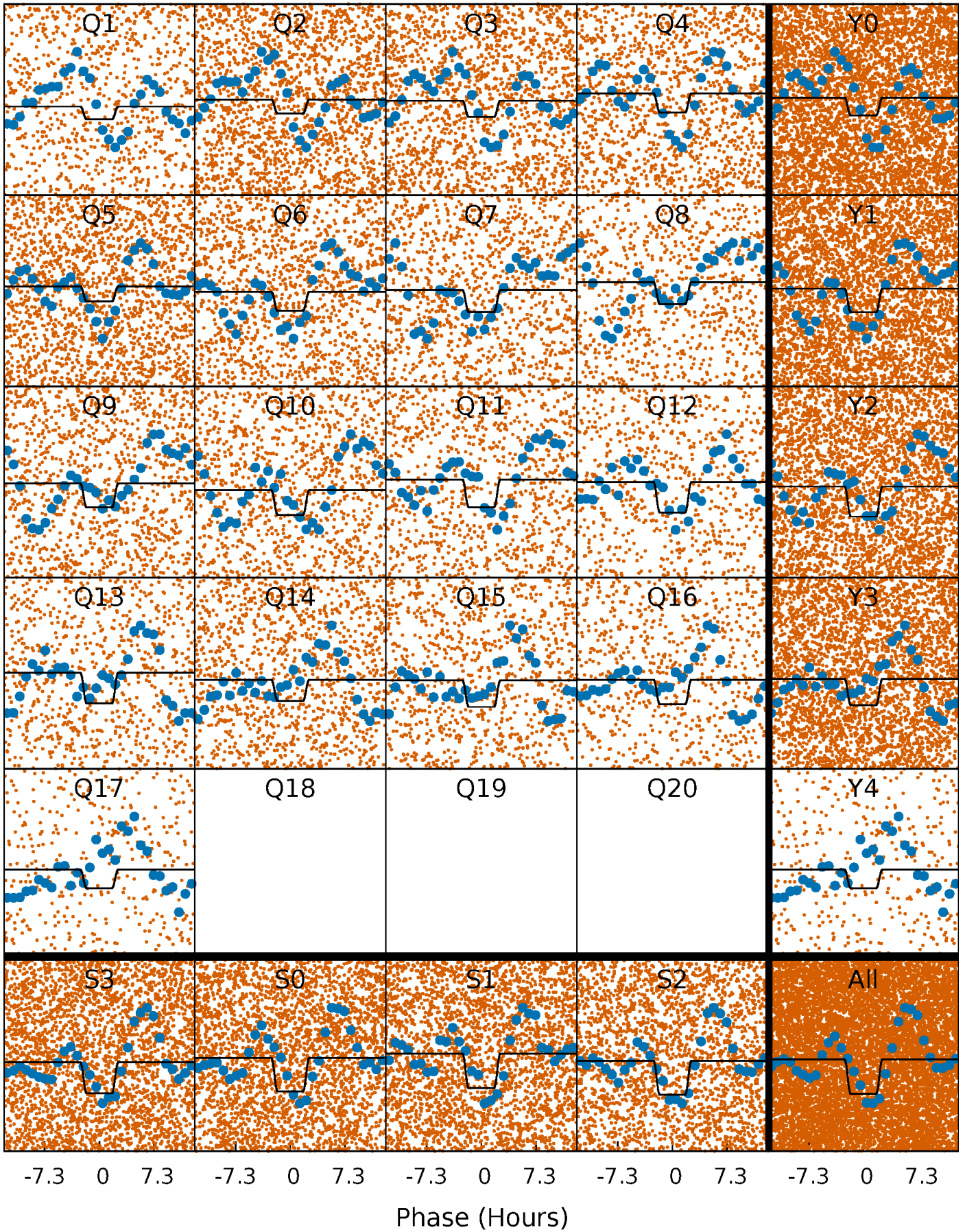
DV Quarter-Phased Transit Curves

TCE 003123138-01 P= 0.978103 Days $T_0=132.562758$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

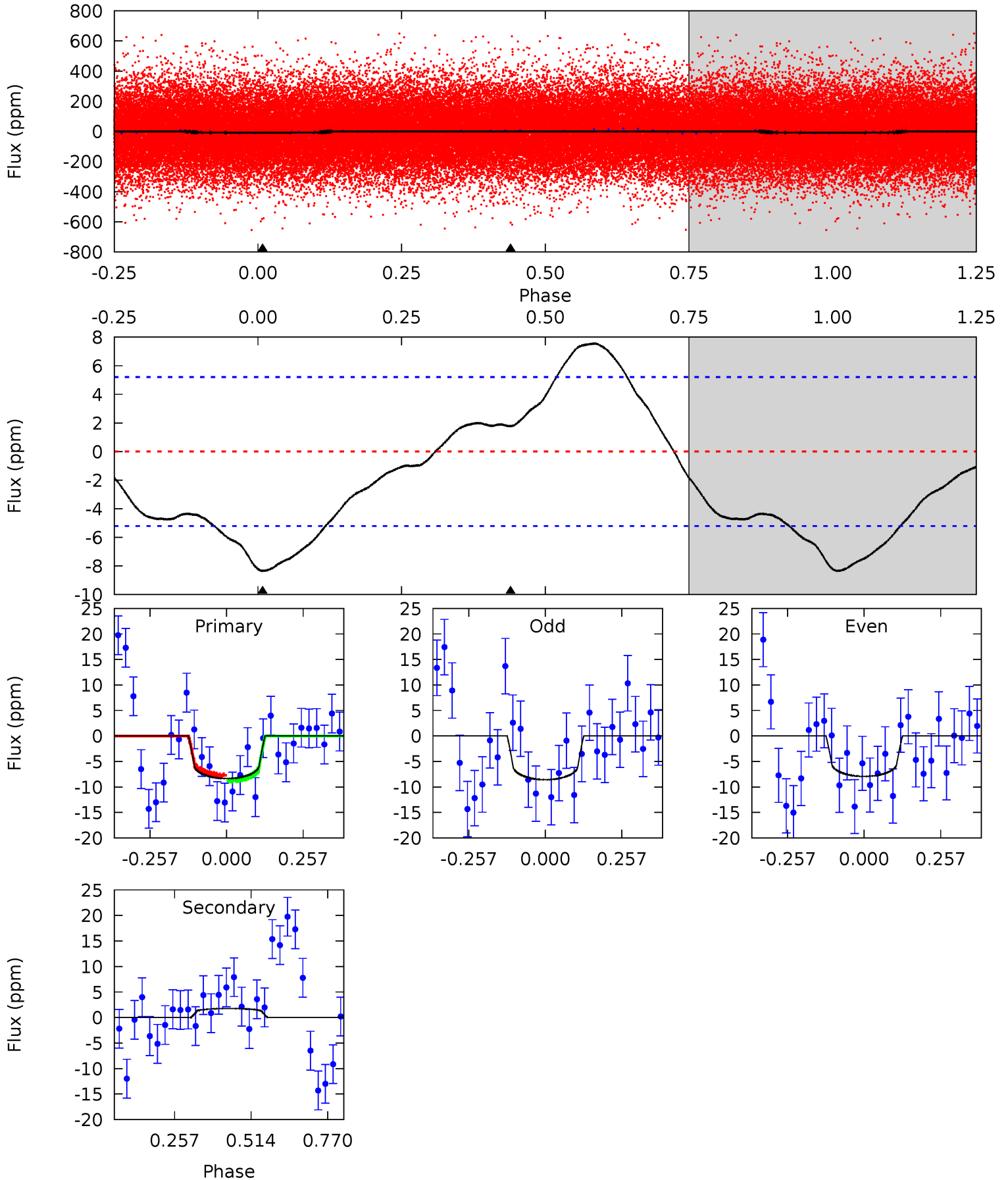
TCE 003123138-01 P= 0.978458 Days $T_0=132.464502$ (BKJD)



DV Model-Shift Uniqueness Test

003123138-01, P = 0.978103 Days, E = 130.606552 Days

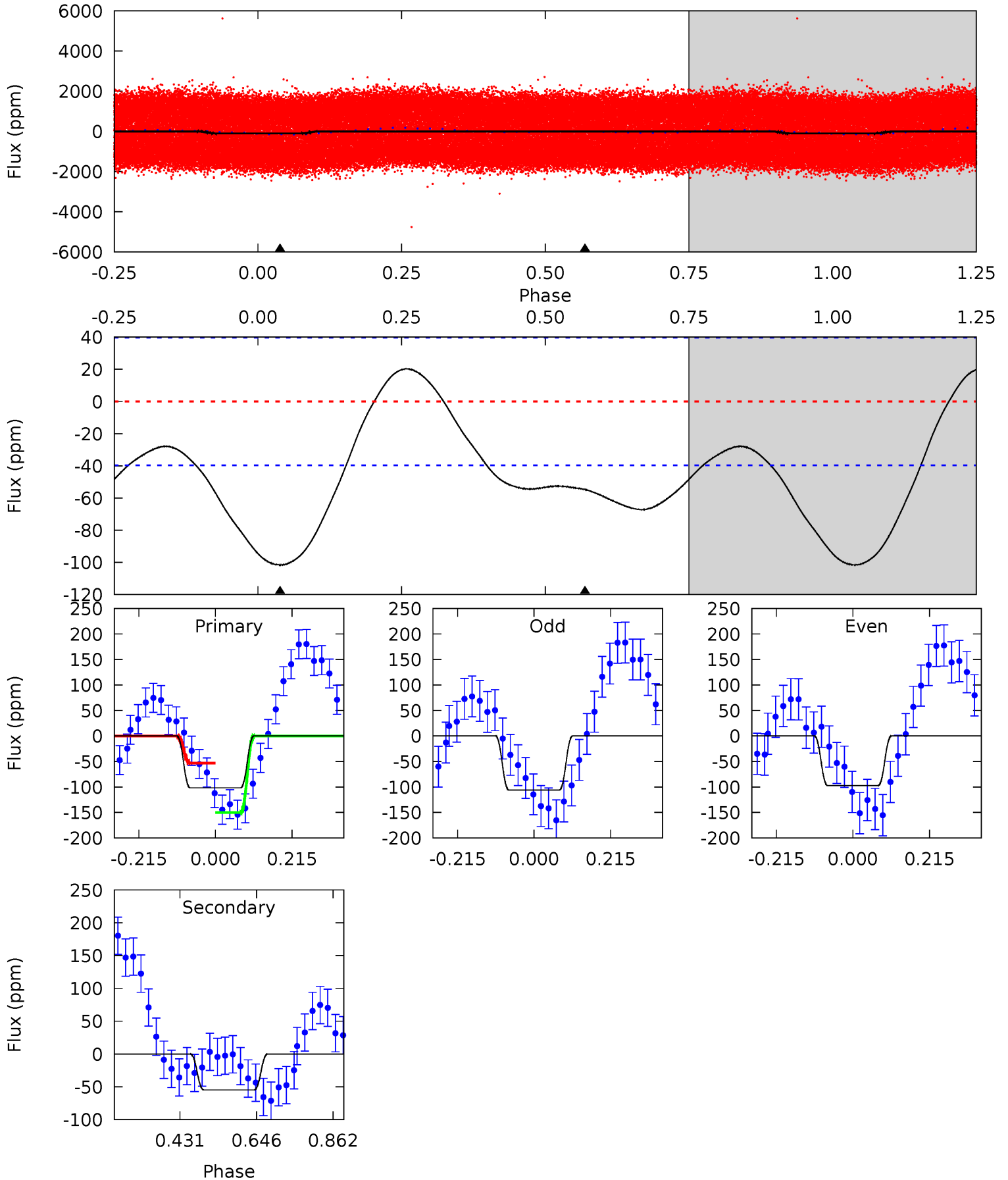
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.99	-1.49	0	0	4.36	1.13	1.61	6.99	6.99	-1.49	-1.49	0.27	0.71	0.48	0.43



Alt Model-Shift Uniqueness Test

003123138-01, P = 0.978458 Days, E = 131.486044 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	6.07	0	0	4.40	1.24	2.26	11.3	11.3	6.07	6.07	0.49	1.02	0.17	5.37



Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	2 ± 1	$0.49^{+0.45}_{-0.33}$	4549^{+218}_{-289}	-5996^{+1360}_{-5982}	$-1.837^{+1.481}_{-16.300}$
Alt.	-55 ± 9	$2.83^{+0.69}_{-0.59}$	4554^{+231}_{-280}	5728^{+684}_{-594}	$2.027^{+1.326}_{-0.707}$

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 $A_{\text{obs}} \gg 1.0$

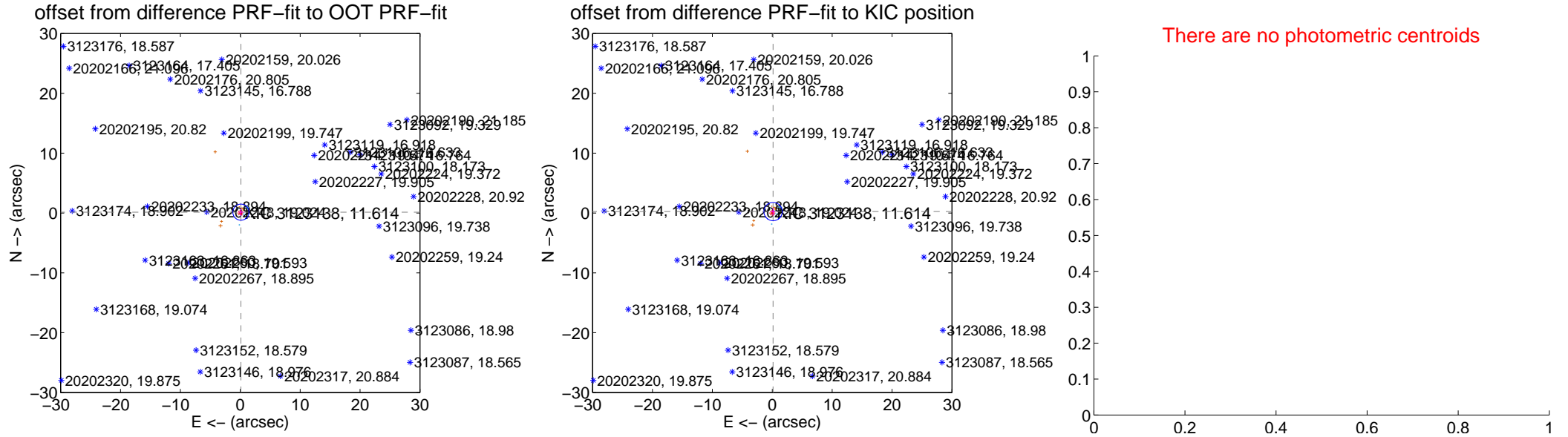
DV Centroid Data

Supplemental centroid analysis for 003123138-01. **Kepler magnitude: 11.61.** Transit SNR 0.71

There are 11 quarters with good PRF difference image offsets

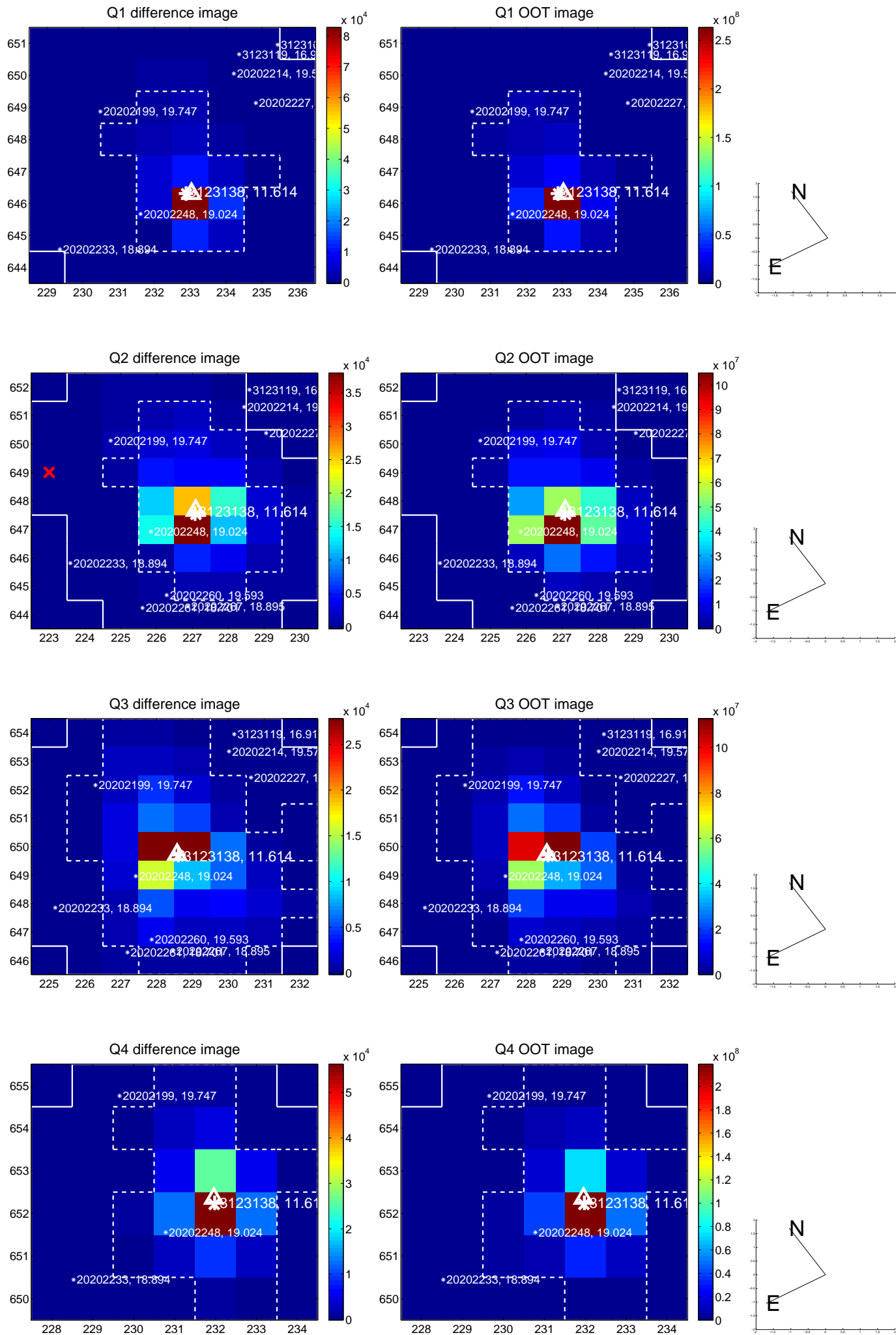
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.173 ± 0.449	0.39	-0.103 ± 0.380	0.139 ± 0.618
PRF-fit source offset from KIC position	0.278 ± 0.509	0.55	-0.136 ± 0.367	0.243 ± 0.639
photometric centroid source offset	—	—	—	—

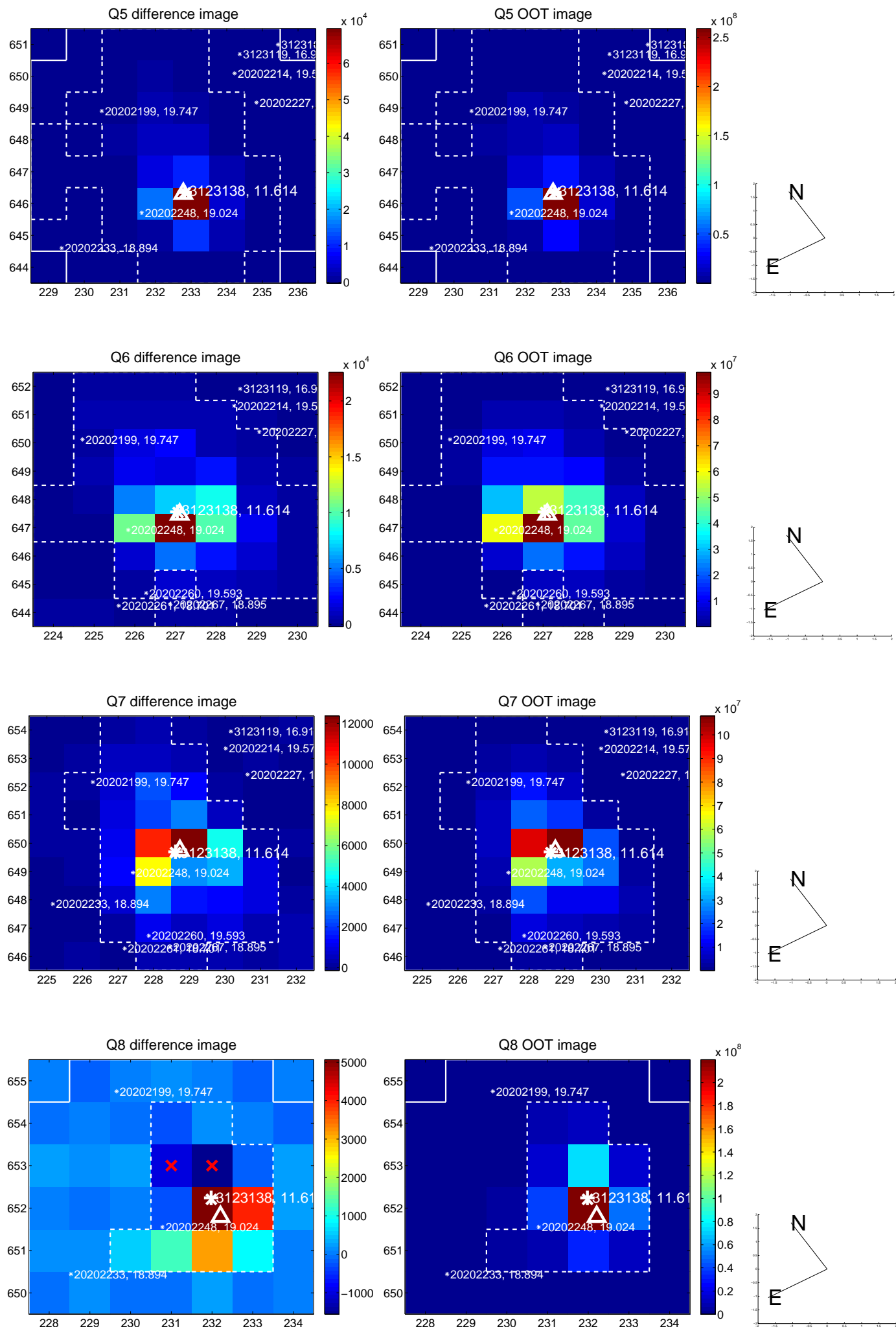


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

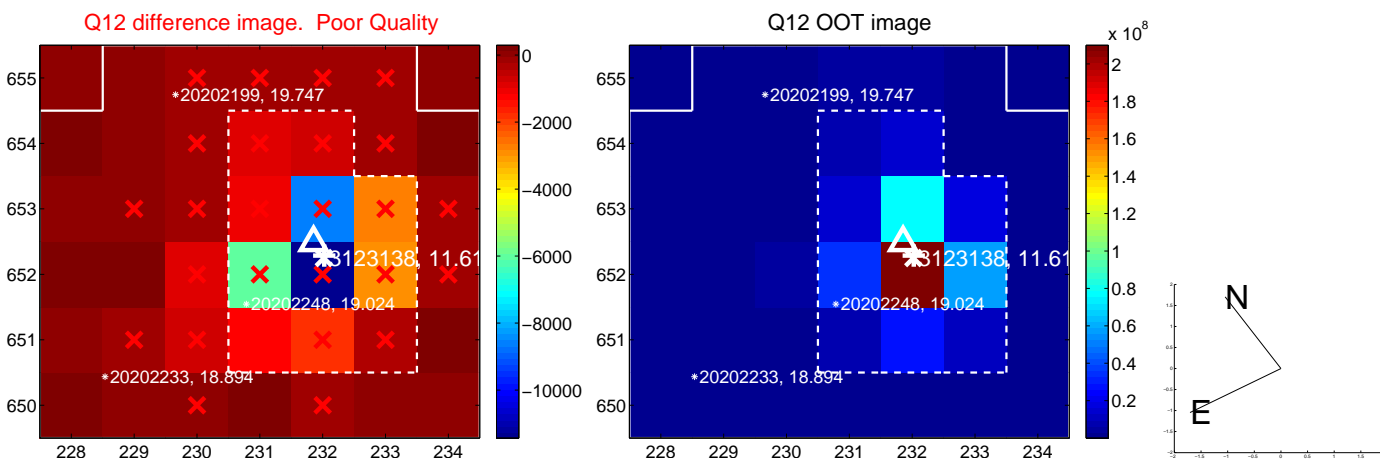
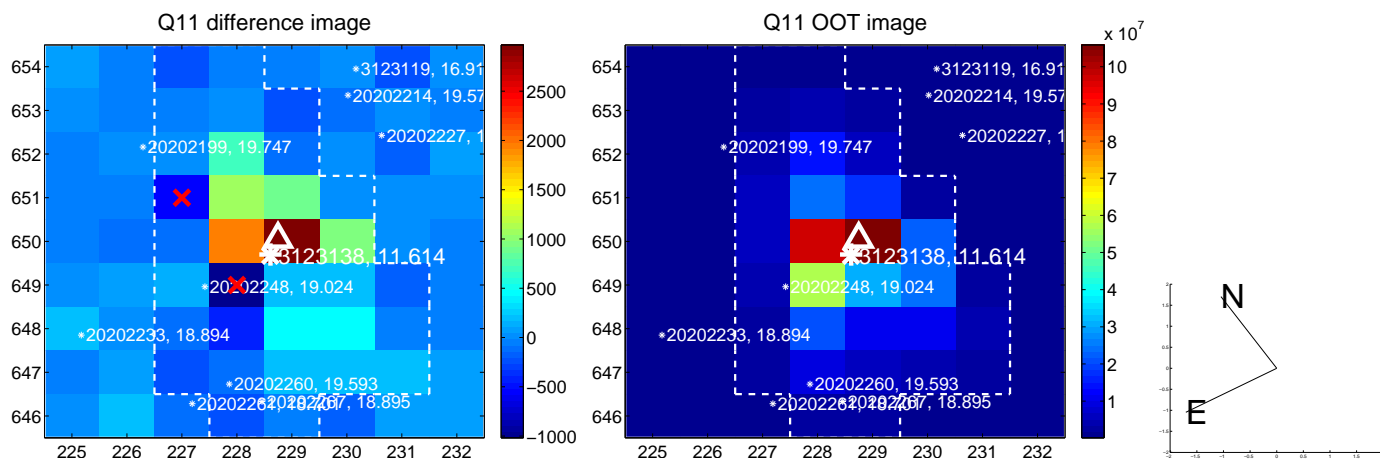
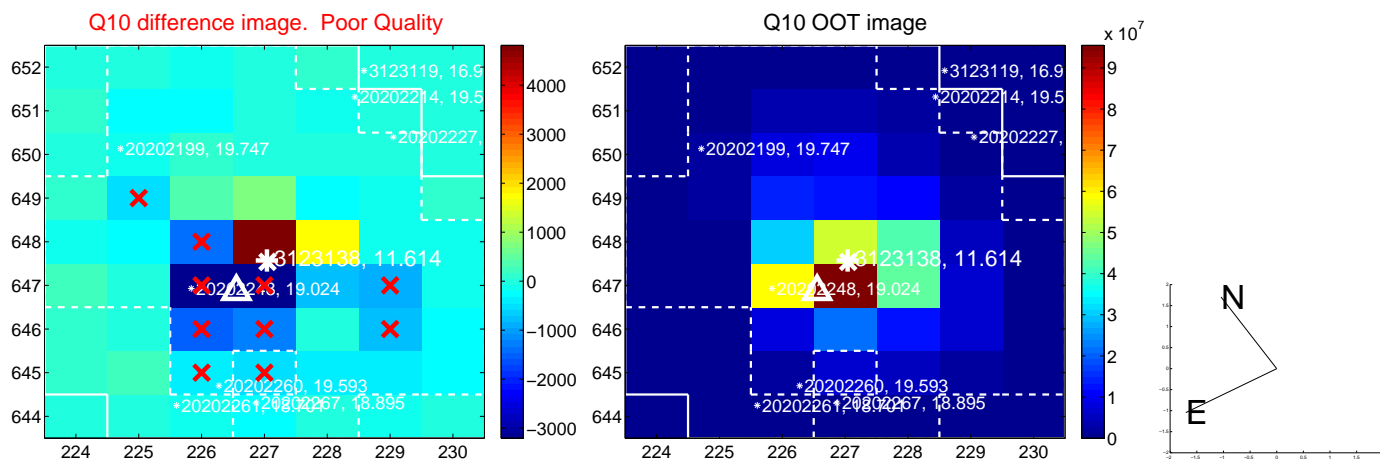
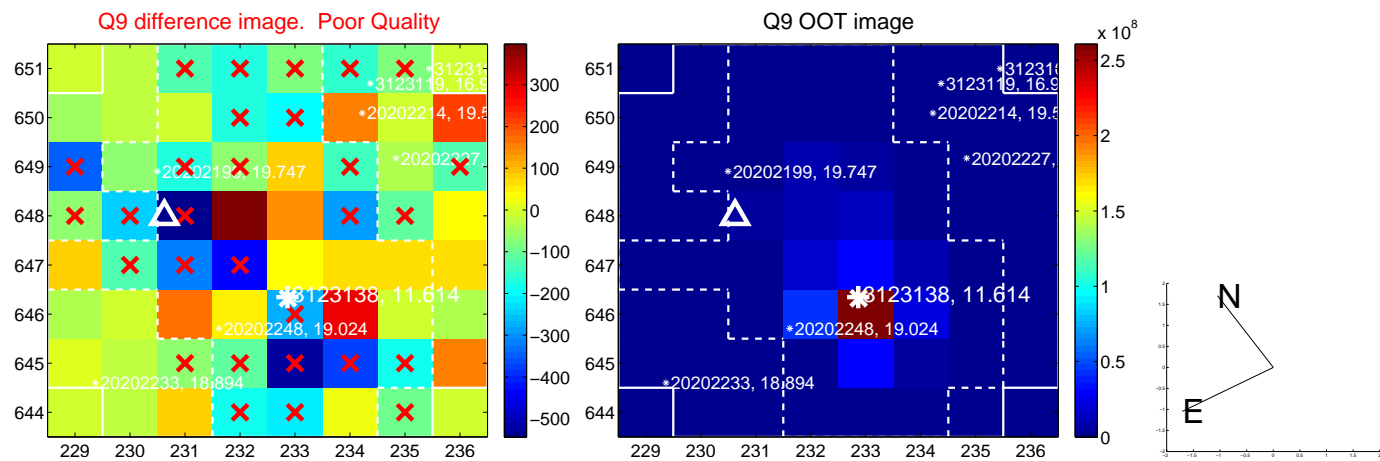
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



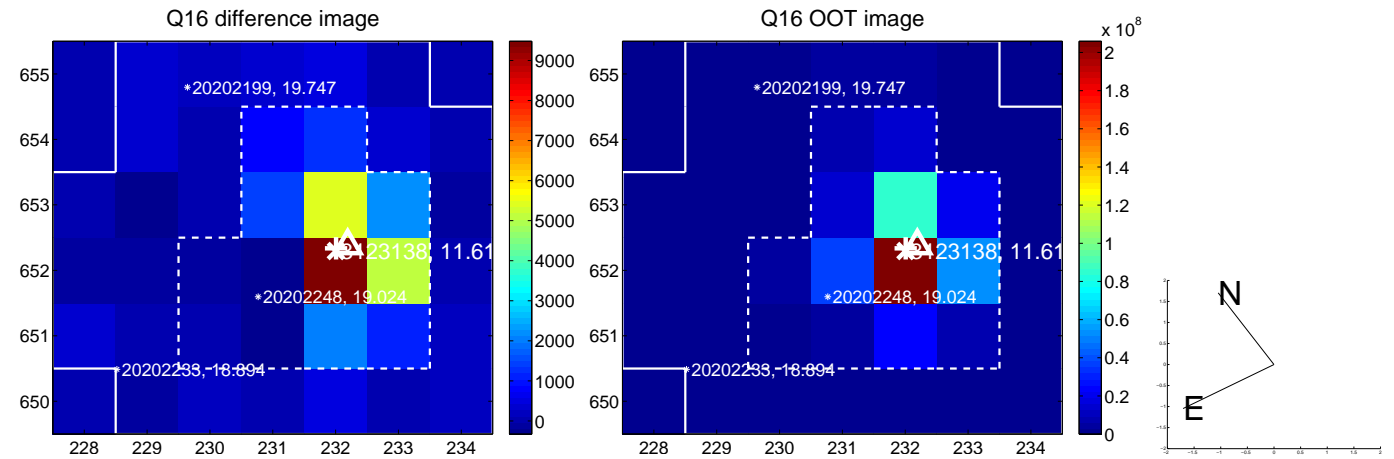
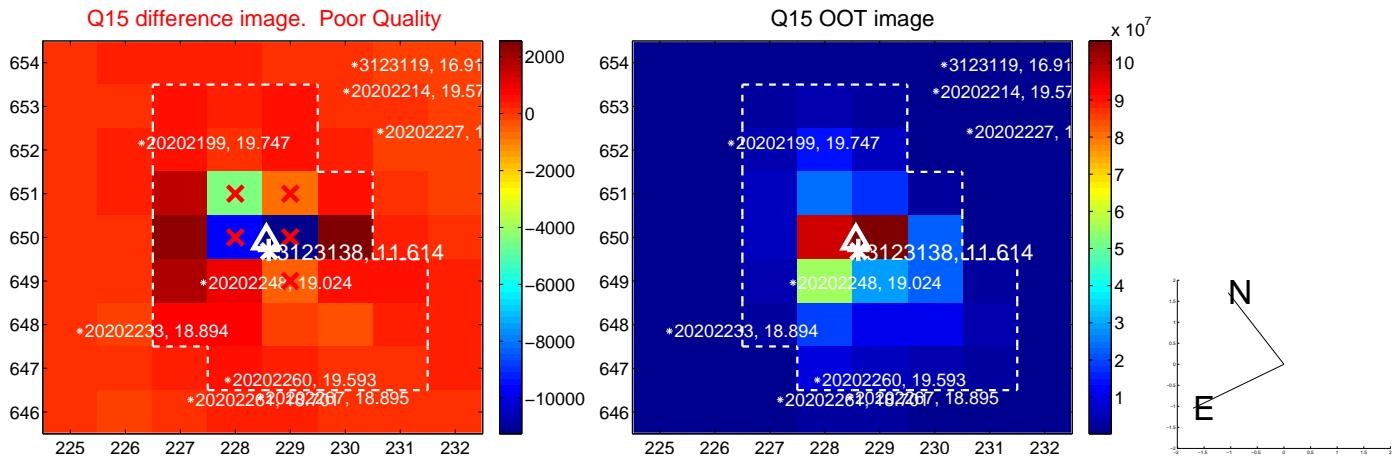
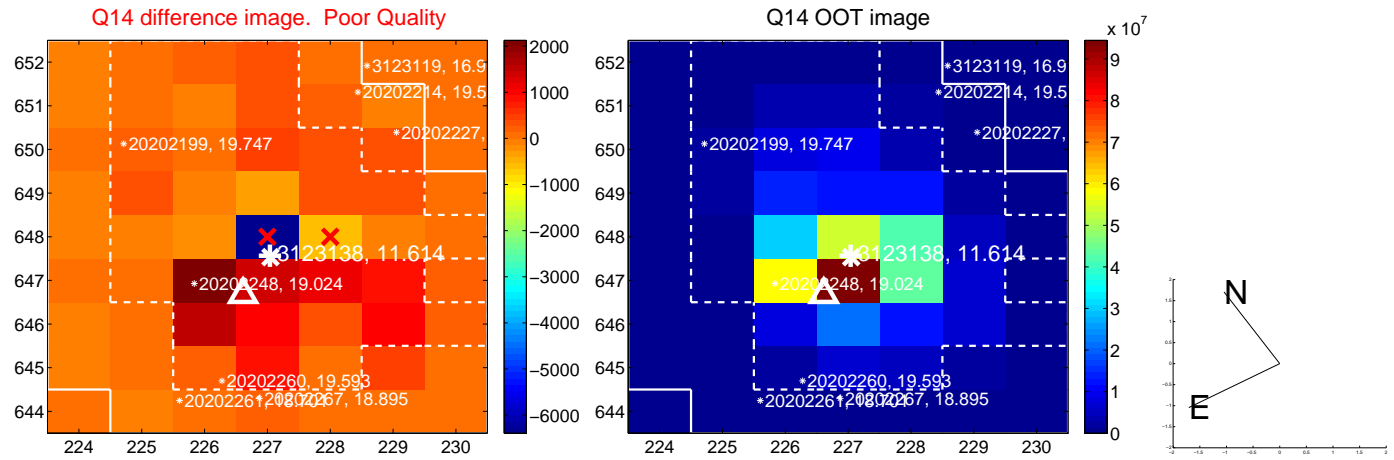
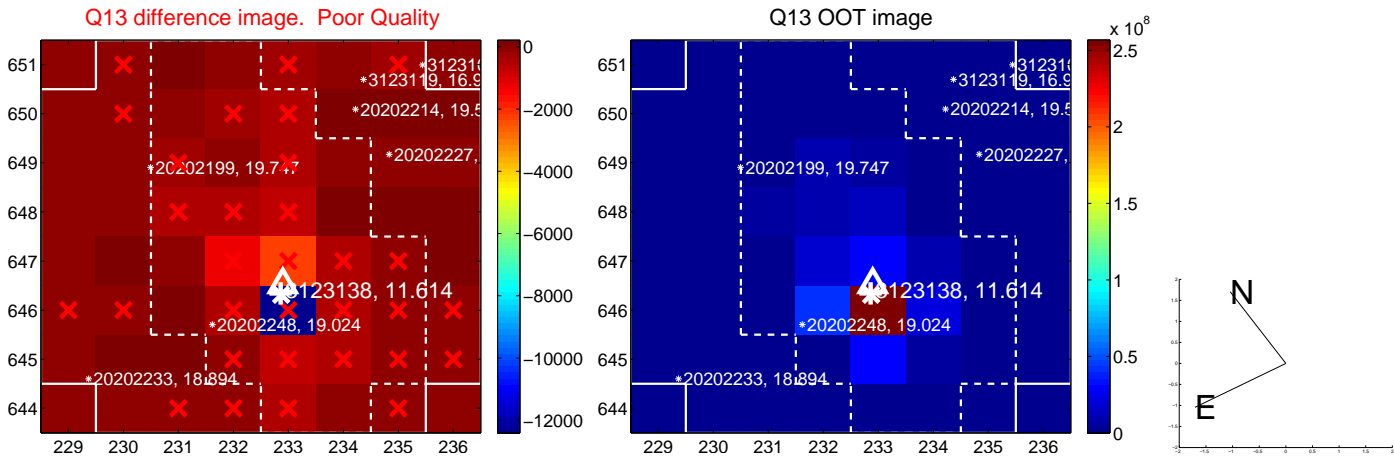
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



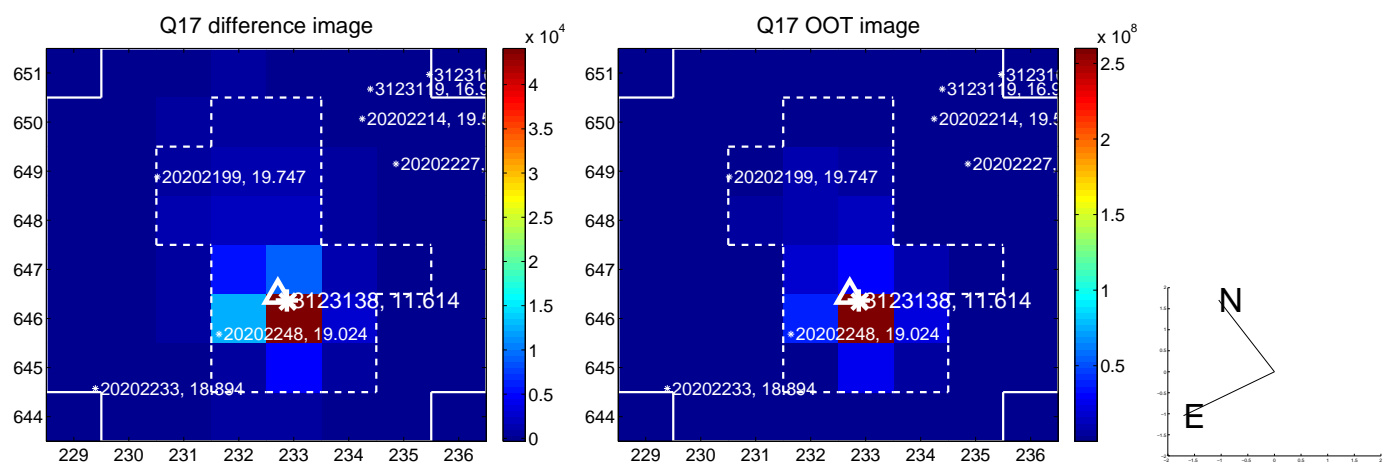
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



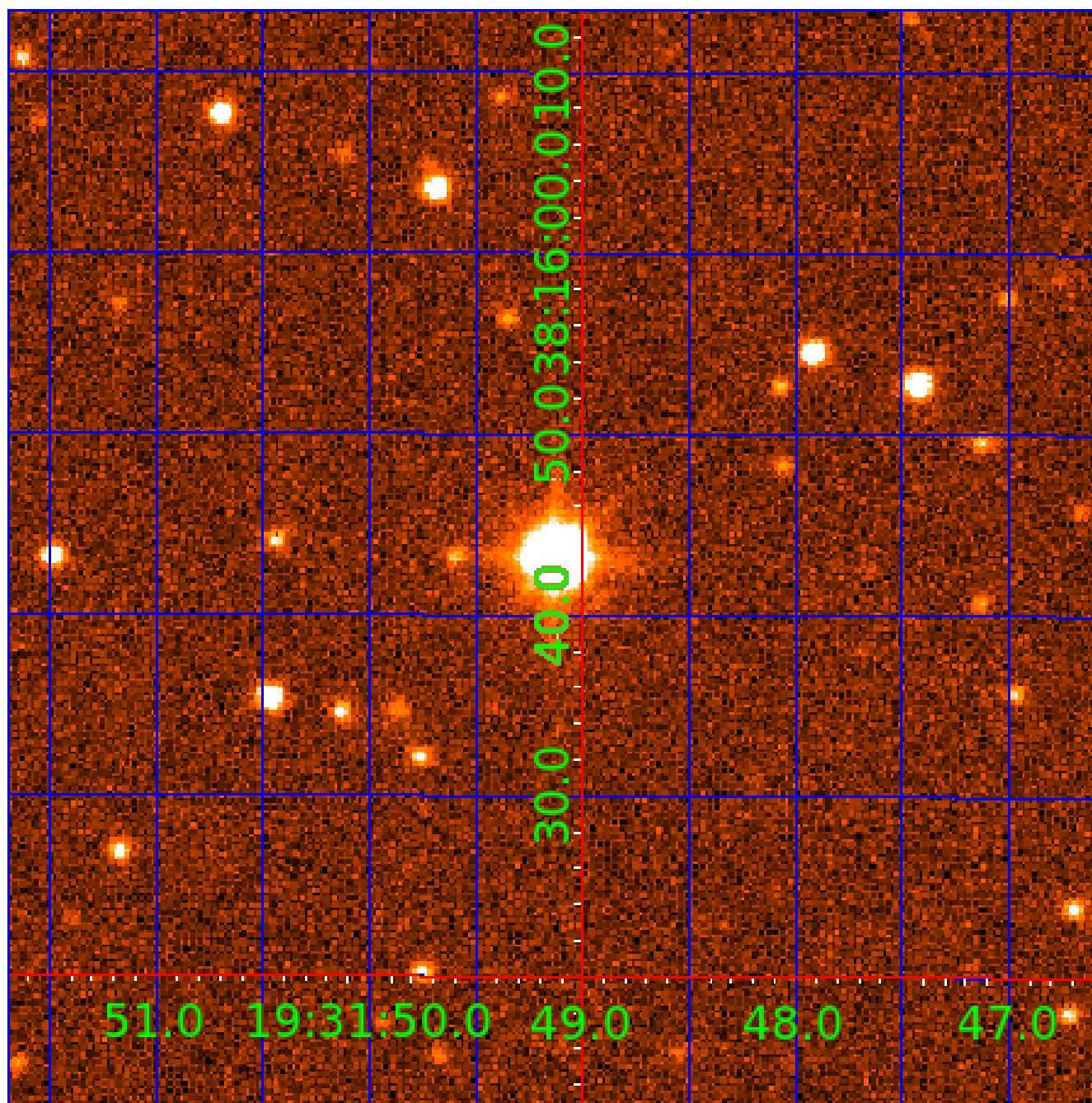
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

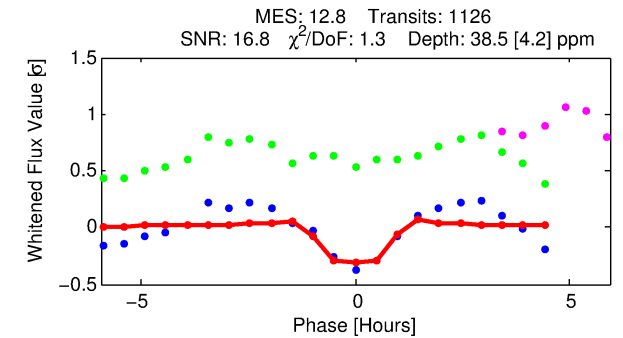
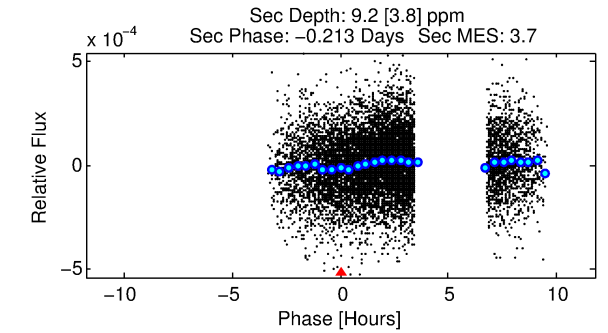
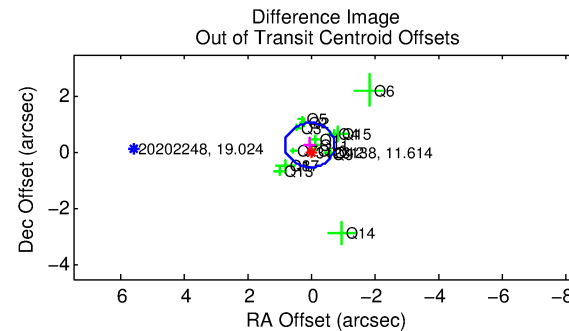
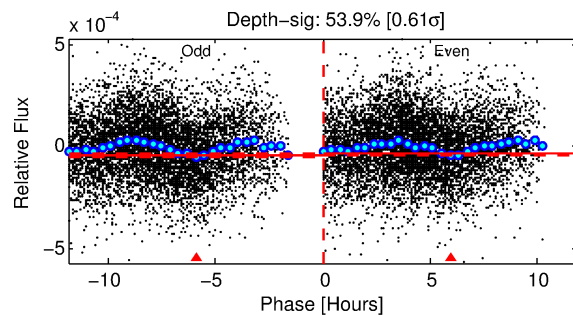
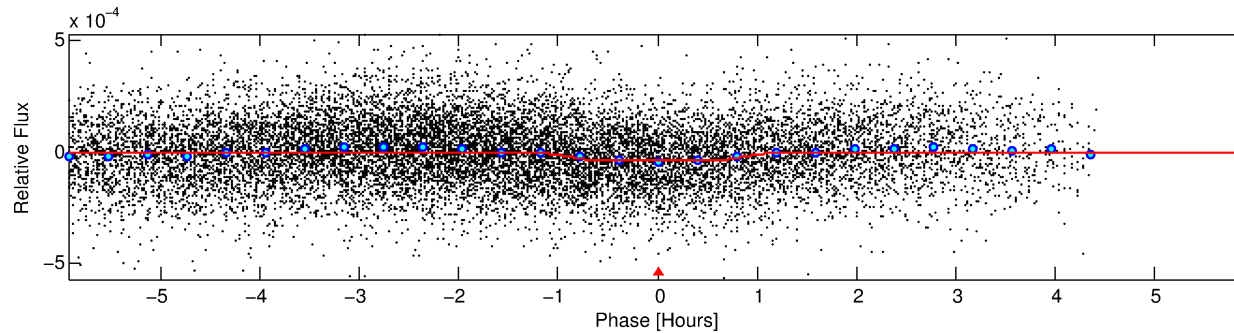
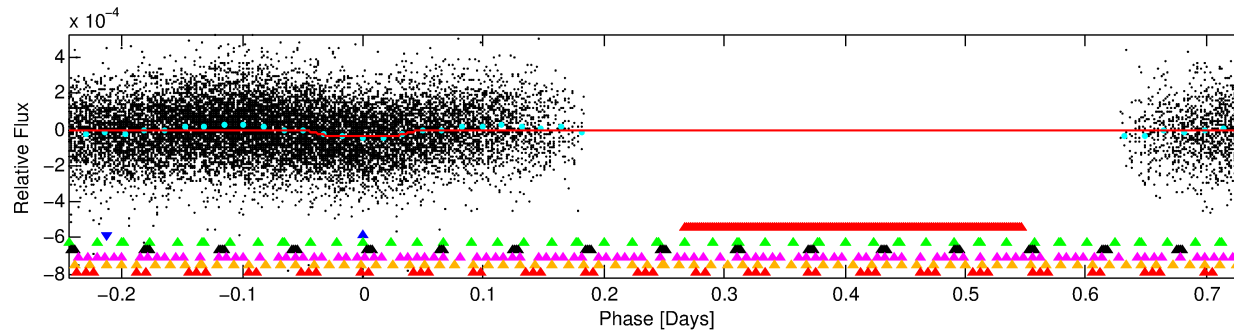
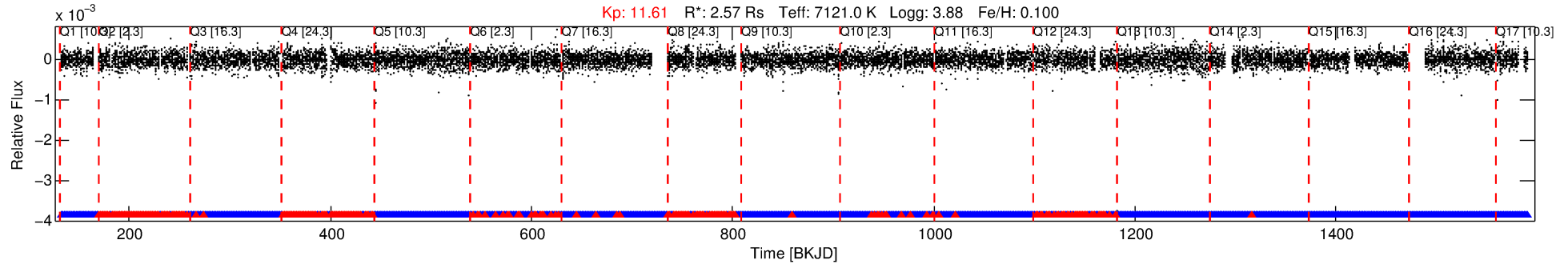
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-02

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 2 of 7 Period: 0.978 d



DV Fit Results:

Period = 0.97829 [0.00001] d
Epoch = 132.0162 [0.0021] BKJD
 R_p/R^* = 0.0066 [0.0019]
 a/R^* = 1.90 [2.42]
 b = 0.91 [0.35]
 S_{eff} = 27524.72 [9219.22]
 T_{eq} = 3284 [275] K
 R_p = 1.86 [0.70] R_e
 a = 0.0235 [0.0051] AU
 A_g = 0.81 [0.62] [-0.31 σ]
 T_{eff} = 4813 [843] K [1.72 σ]

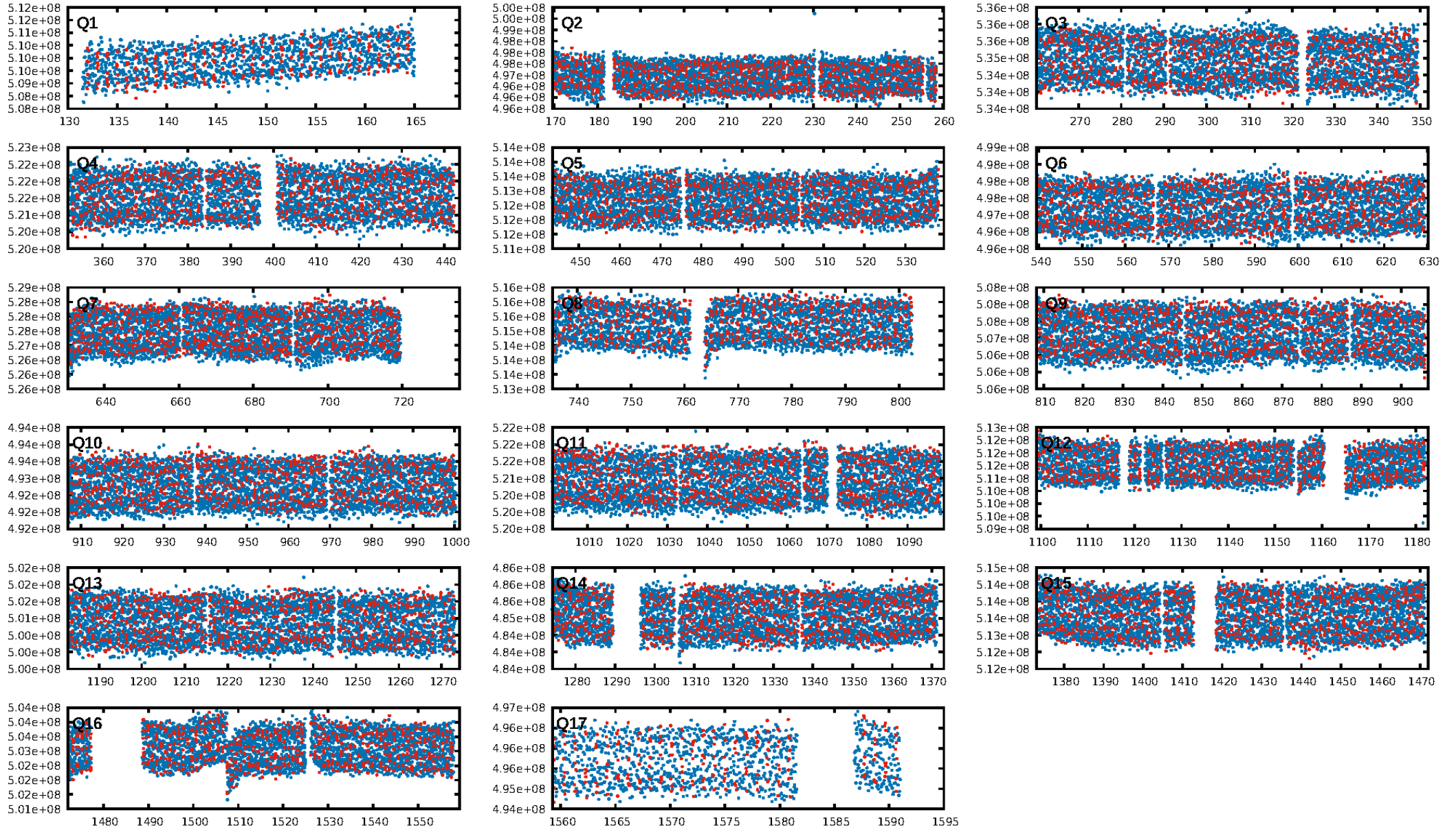
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00 σ]
LongPeriod-sig: 100.0% [96.07 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.73 [793/1092]
GhostDiagnostic-chr: -2.506
Centroid-sig: 0.1%
Centroid-so: 1.033 arcsec [2.11 σ]
OotOffset-rm: 0.276 arcsec [1.06 σ]
KicOffset-rm: 0.370 arcsec [1.39 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.44 [7/16]
DiffImageOverlap-fno: 0.65 [11/17]

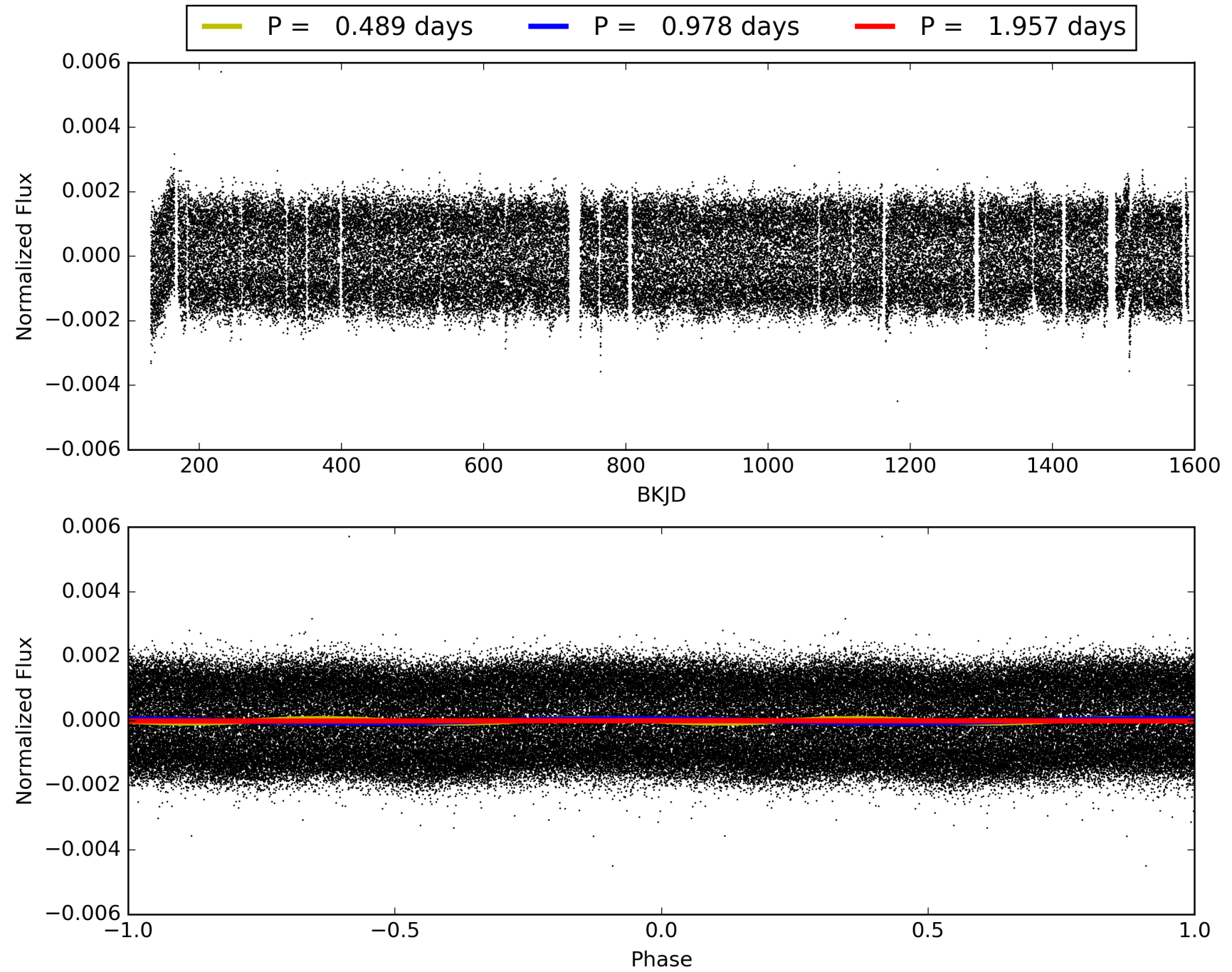
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:35 Z

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

TCE 003123138-02, PDC Light Curves

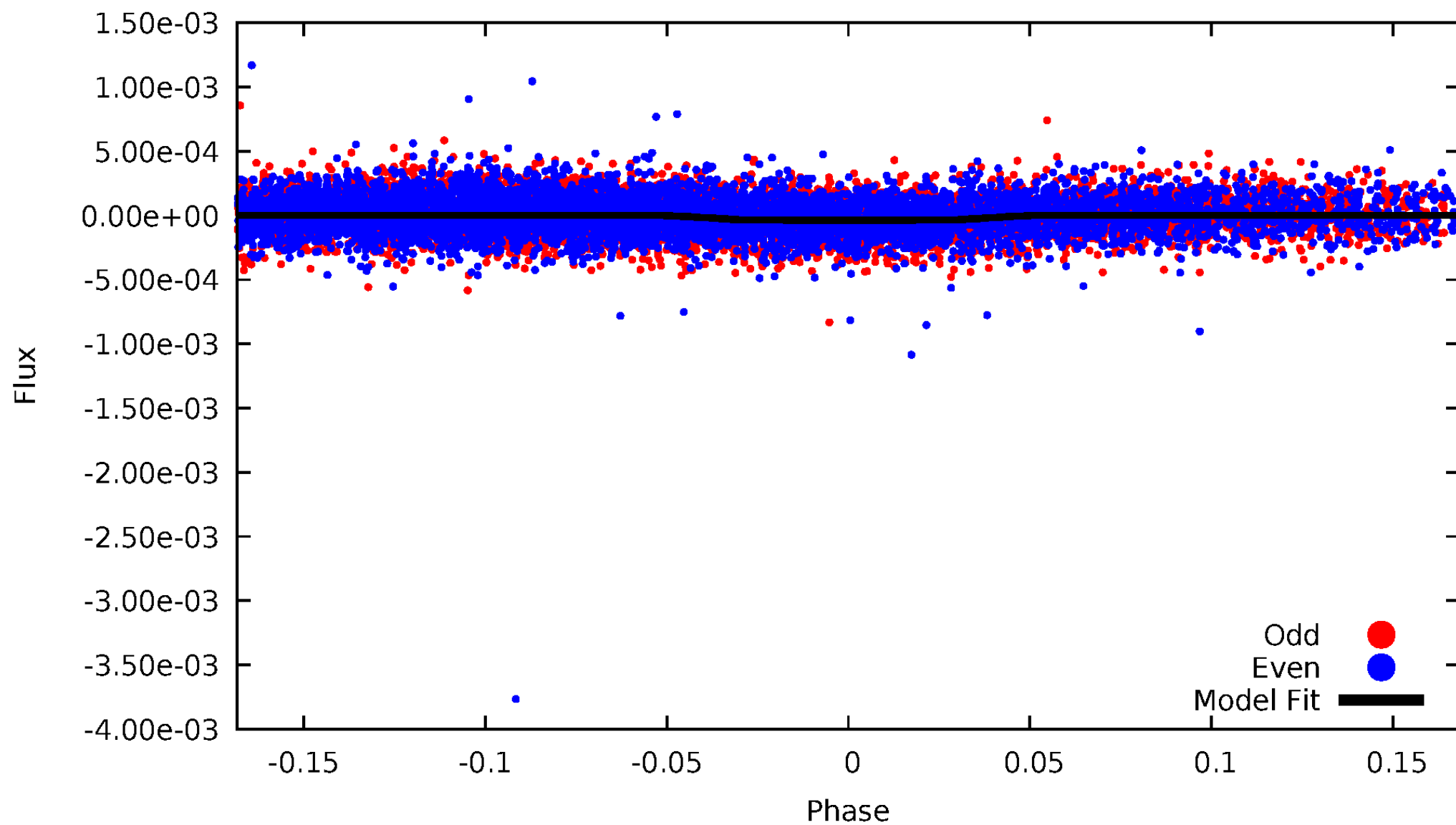


TCE 003123138-02



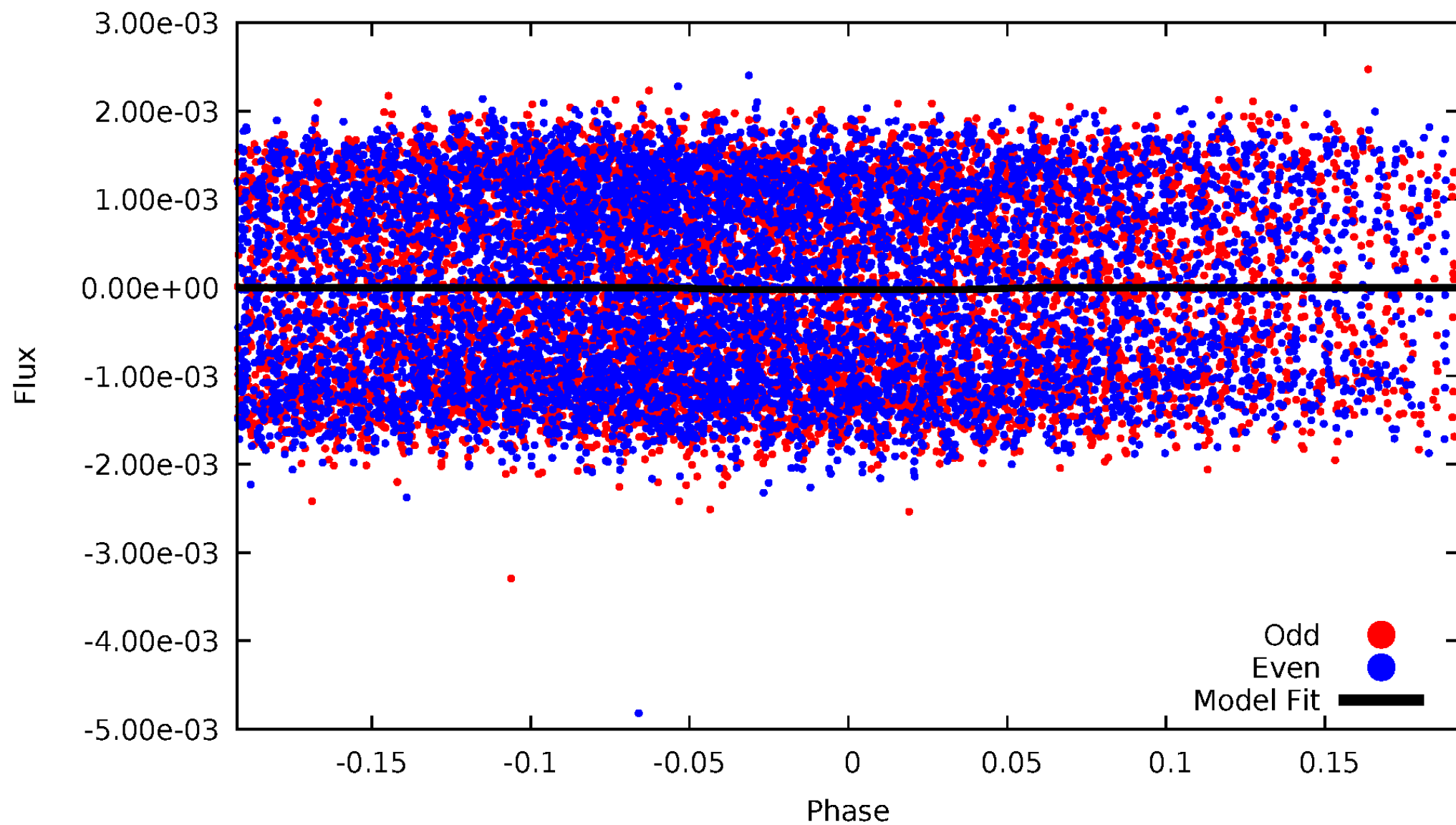
DV Odd/Even

TCE 003123138-02



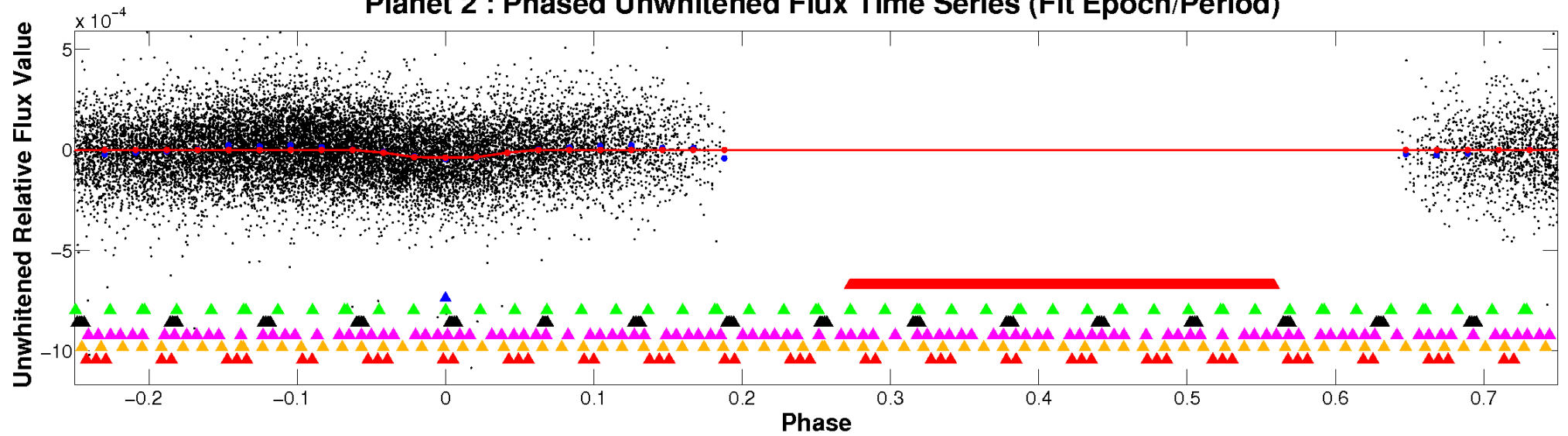
ALT Odd/Even

TCE 003123138-02

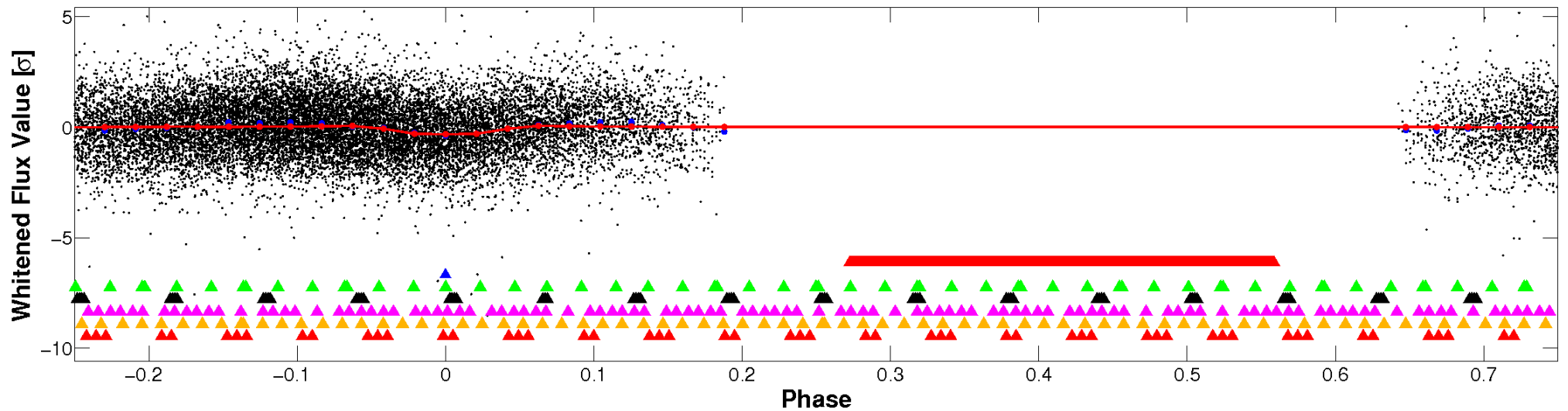


Non-Whitened Vs. Whitened Light Curve

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

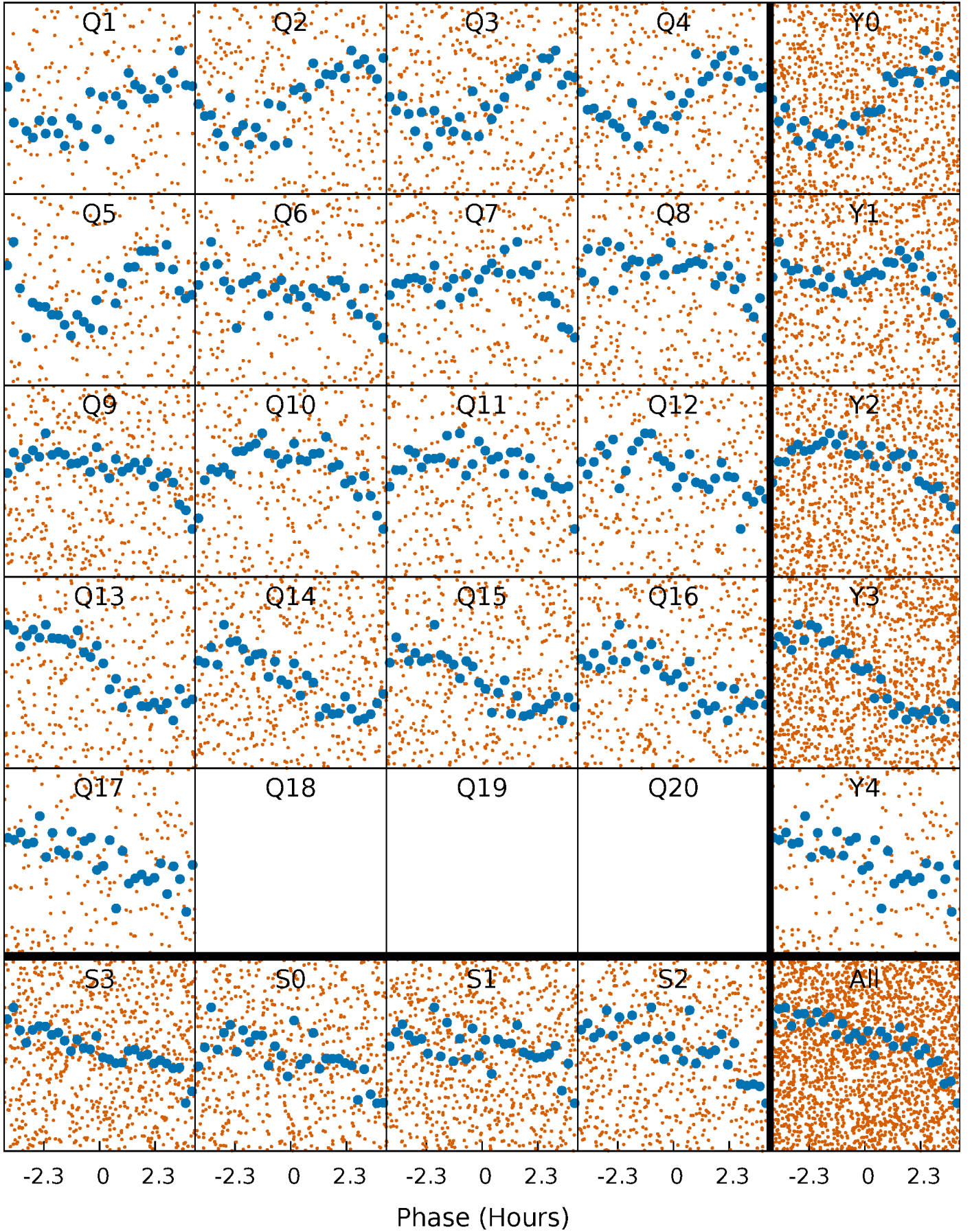


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



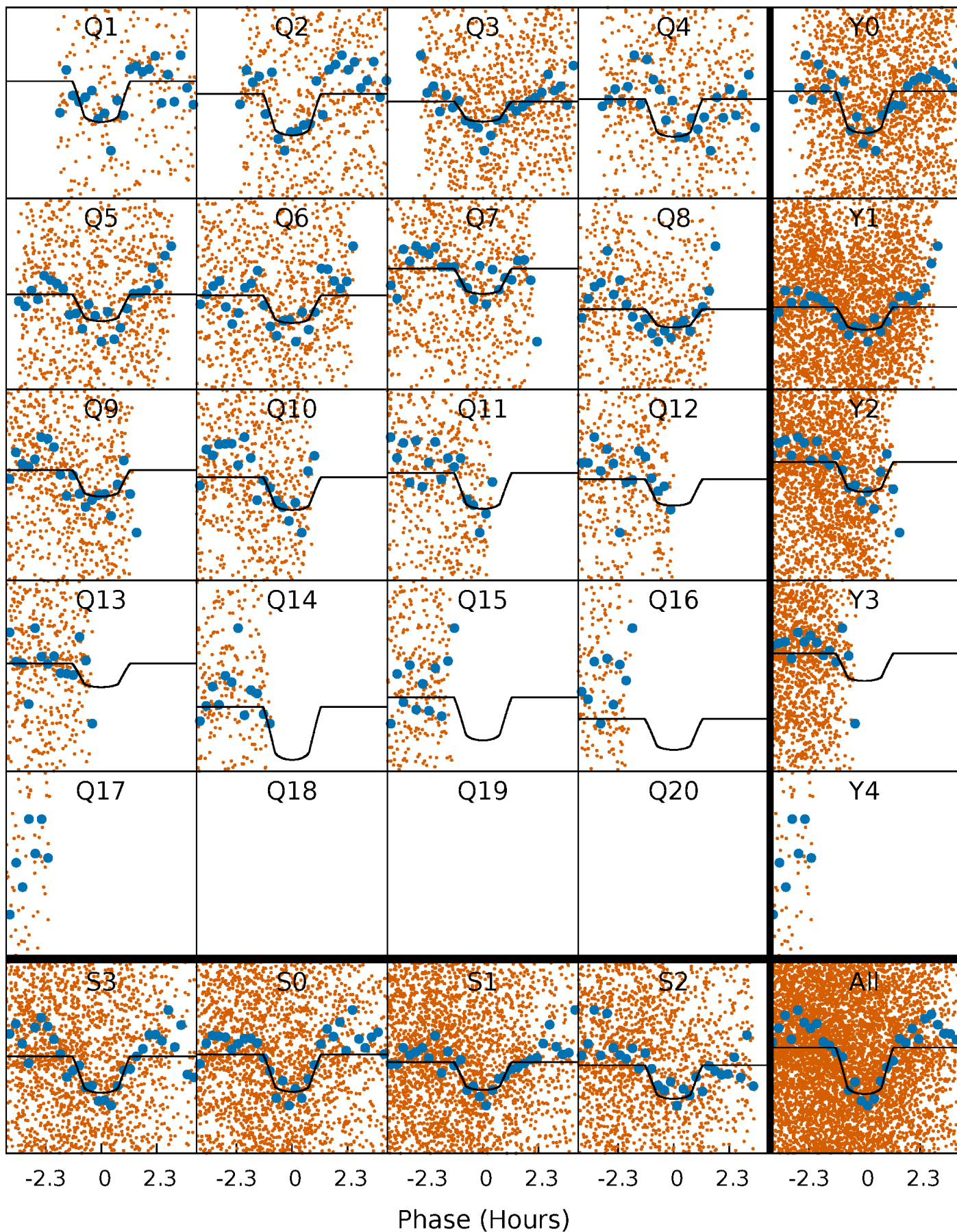
PDC Quarter-Phased Transit Curves

TCE 003123138-02 P= 0.978291 Days $T_0=132.016195$ (BKJD)



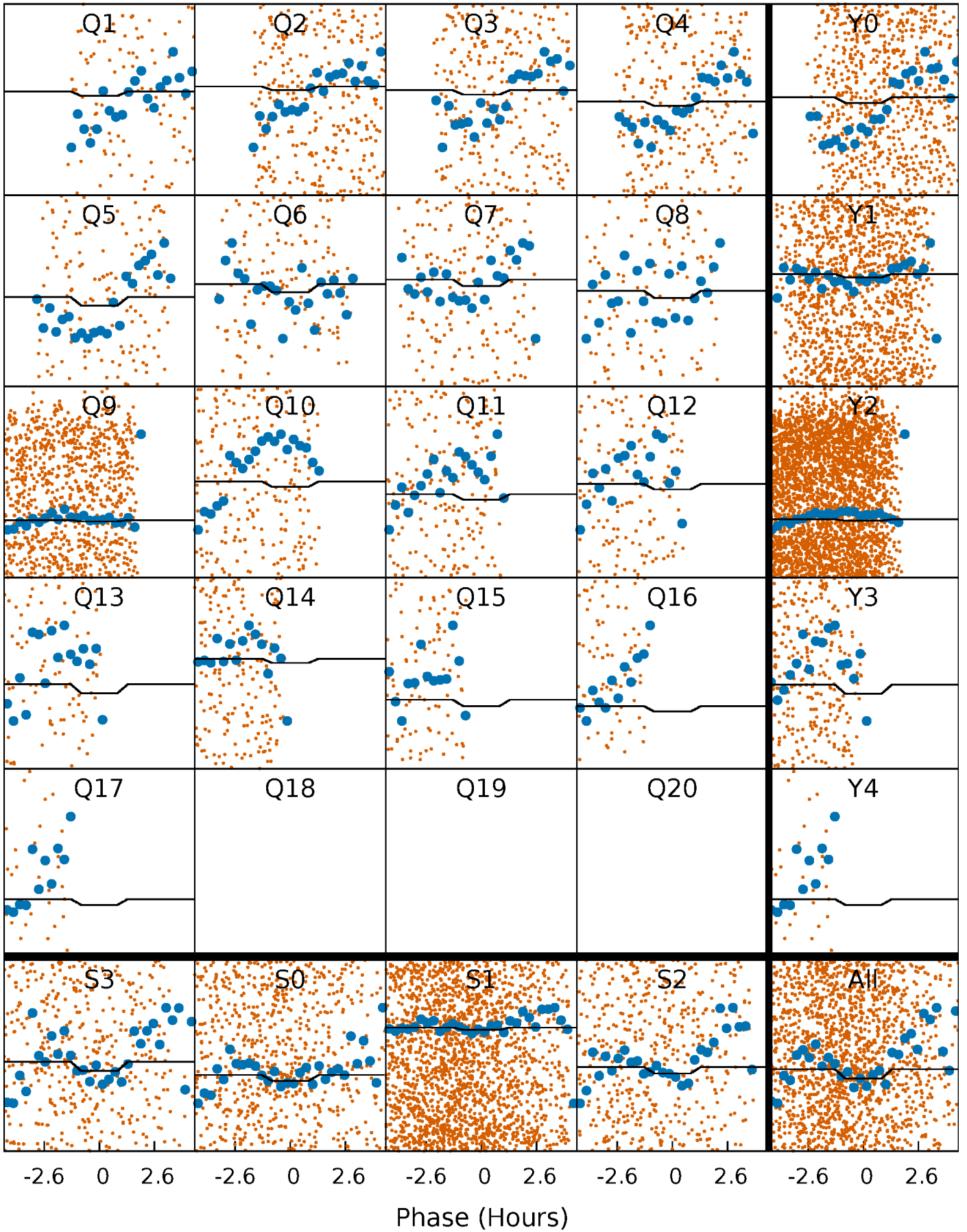
DV Quarter-Phased Transit Curves

TCE 003123138-02 P= 0.978291 Days $T_0=132.016195$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

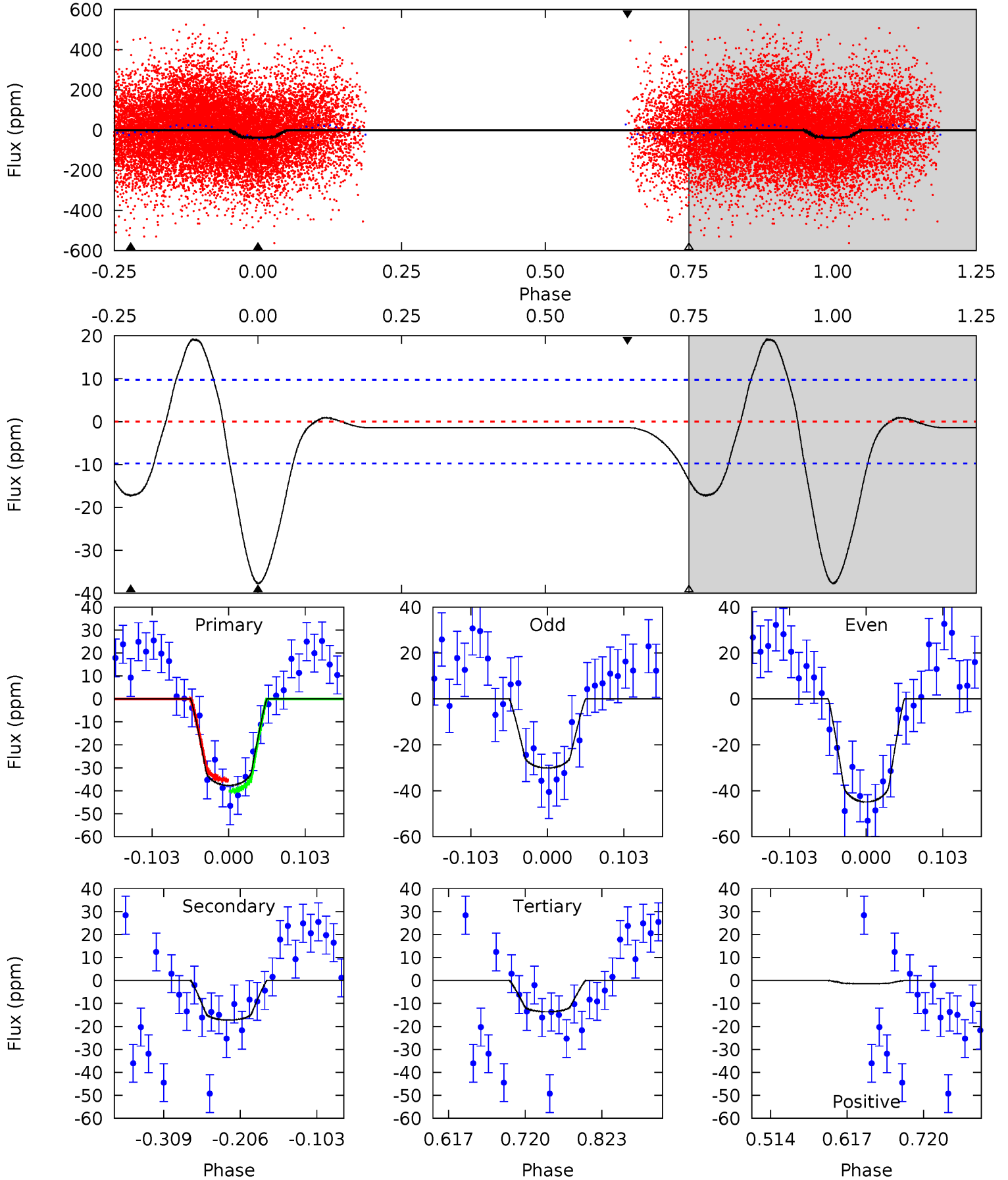
TCE 003123138-02 P= 0.978282 Days $T_0=132.001039$ (BKJD)



DV Model-Shift Uniqueness Test

003123138-02, P = 0.978291 Days, E = 131.037904 Days

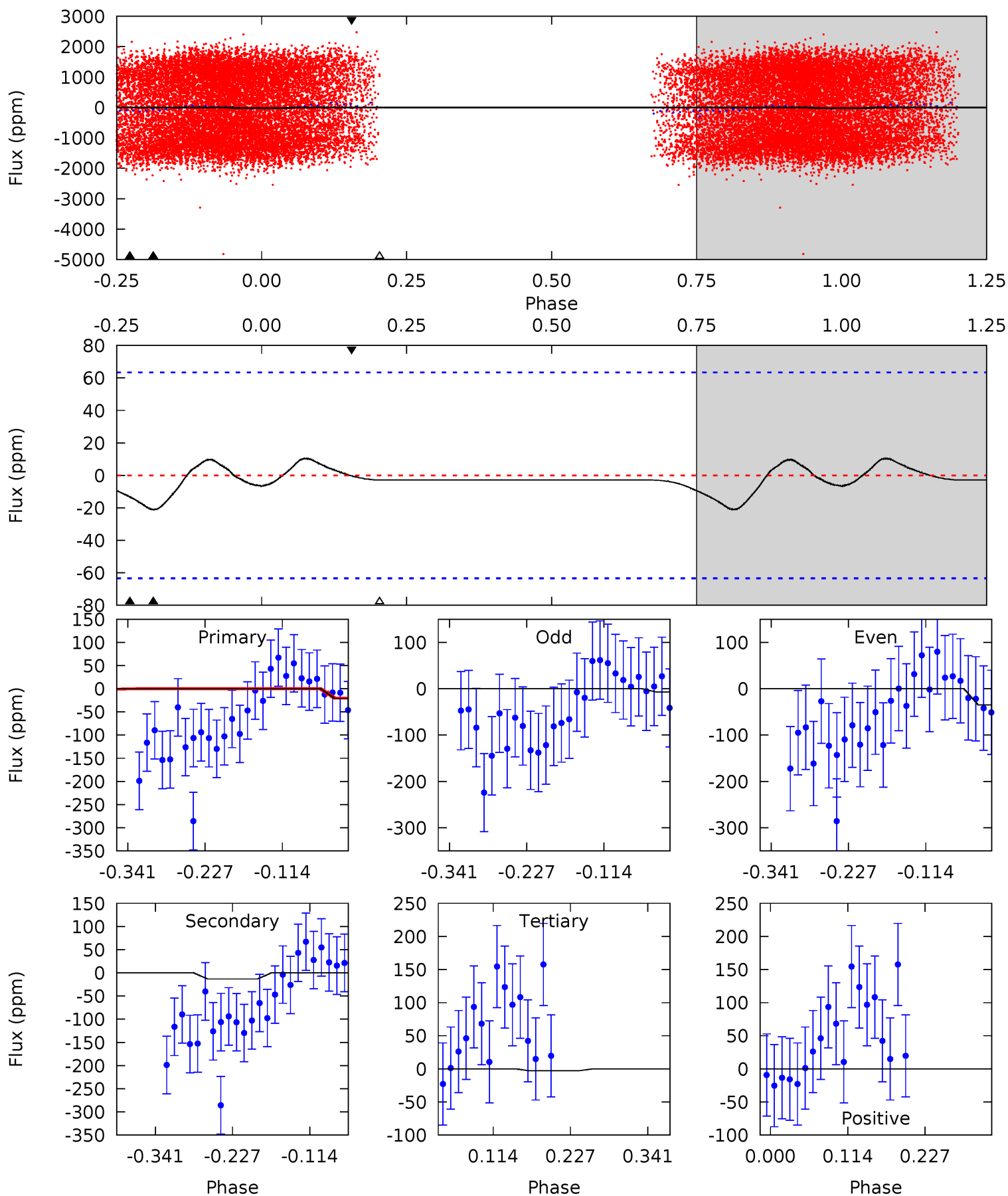
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	8.08	6.39	-0.65	4.56	1.63	5.20	11.3	18.3	1.69	8.74	3.42	1.05	0.34	1.18



Alt Model-Shift Uniqueness Test

003123138-02, P = 0.978282 Days, E = 131.022757 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.50	0.95	0.20	-0.01	4.54	1.58	0.37	1.30	1.51	0.75	0.96	0.99	0.87	0.33	0.03



Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 2	$1.82^{+0.56}_{-0.57}$	4568^{+218}_{-266}	5357^{+1124}_{-744}	$1.592^{+1.718}_{-0.672}$
Alt.	-13 ± 14	$1.25^{+0.59}_{-0.51}$	4550^{+220}_{-267}	5878^{+2937}_{-9761}	$2.231^{+6.369}_{-2.207}$

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

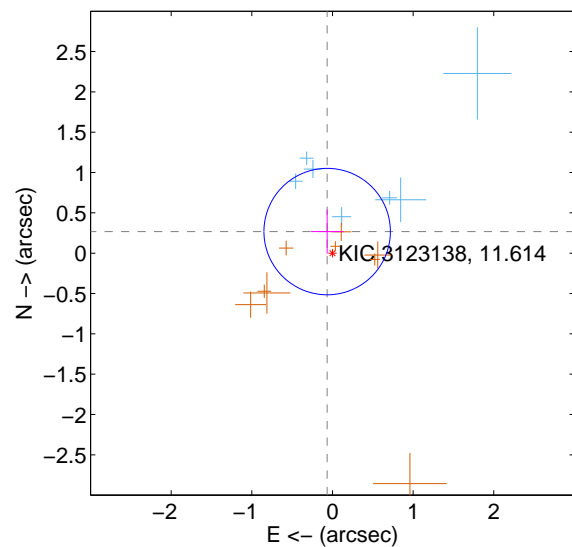
Supplemental centroid analysis for 003123138-02. **Kepler magnitude: 11.61.** Transit SNR 16.80

There are 7 quarters with good PRF difference image offsets

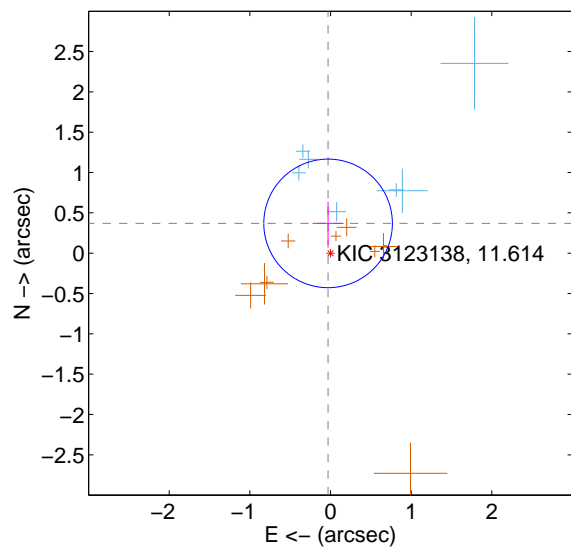
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.276 ± 0.261	1.06	0.066 ± 0.199	0.268 ± 0.274
PRF-fit source offset from KIC position	0.370 ± 0.266	1.39	0.030 ± 0.193	0.369 ± 0.268
photometric centroid source offset	1.03 ± 0.49	2.11	-0.15 ± 0.38	1.02 ± 0.49

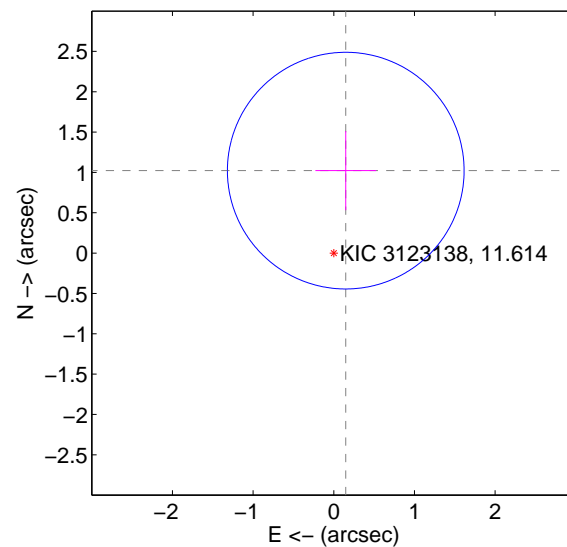
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

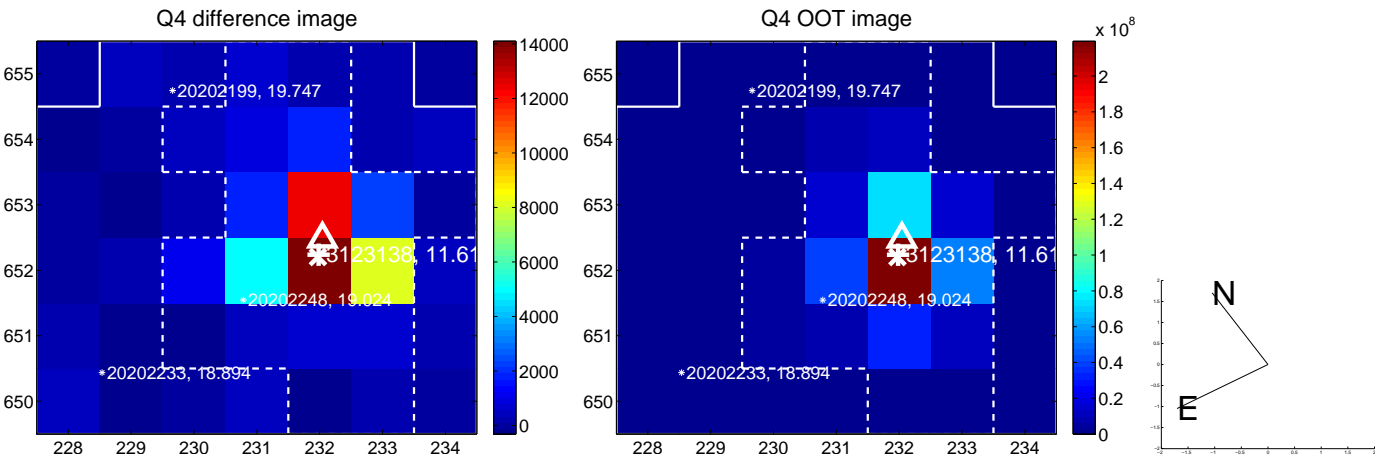
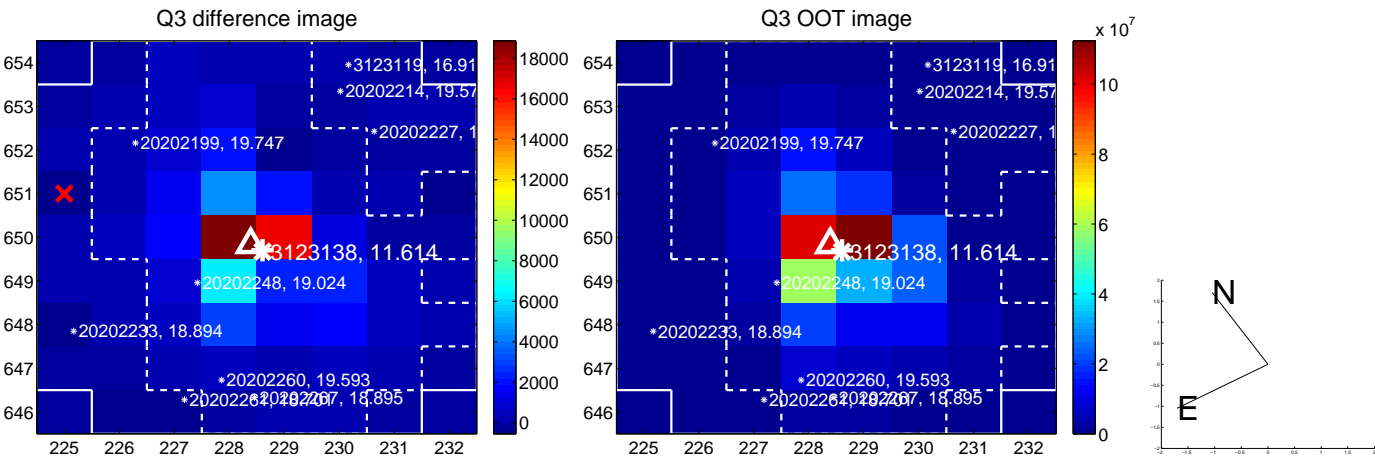
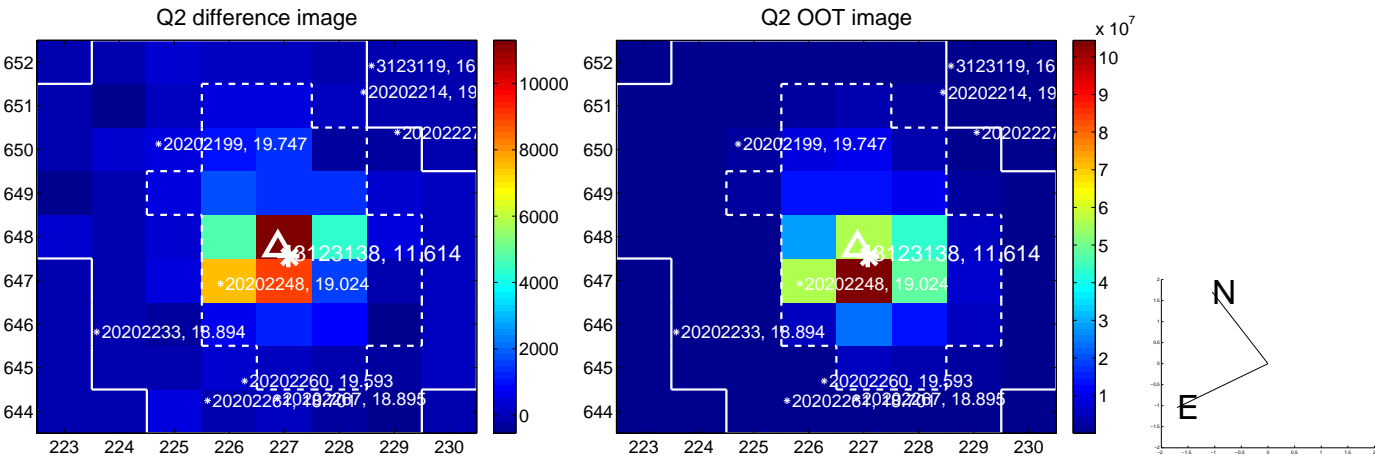
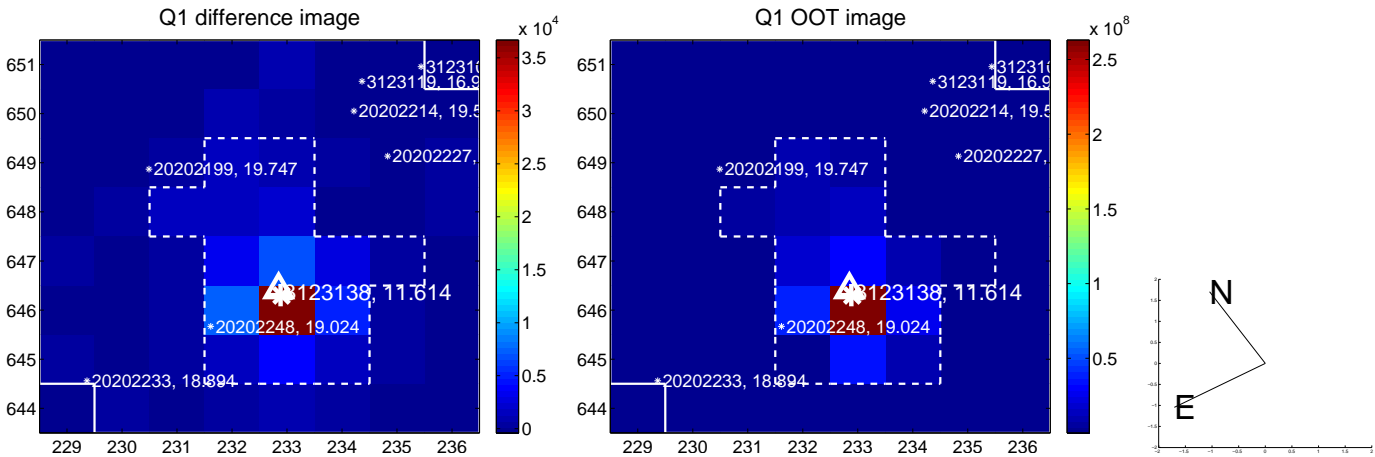


offset from photometric centroids

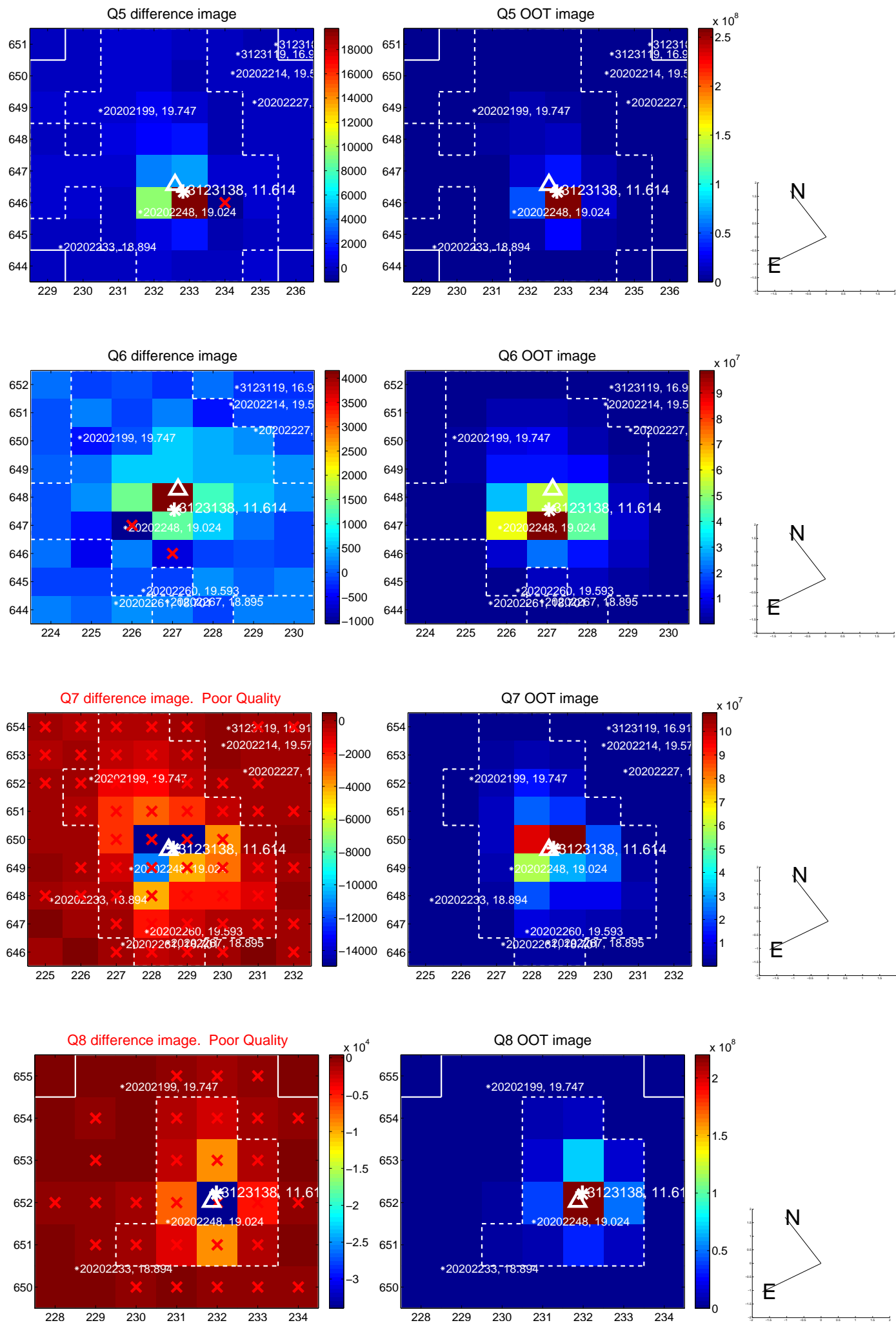


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

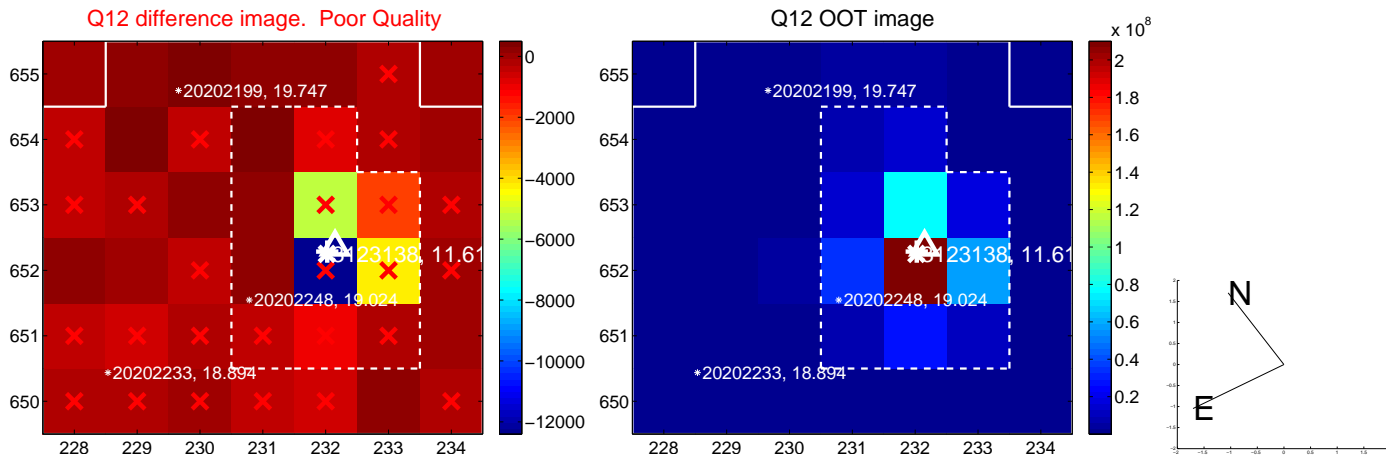
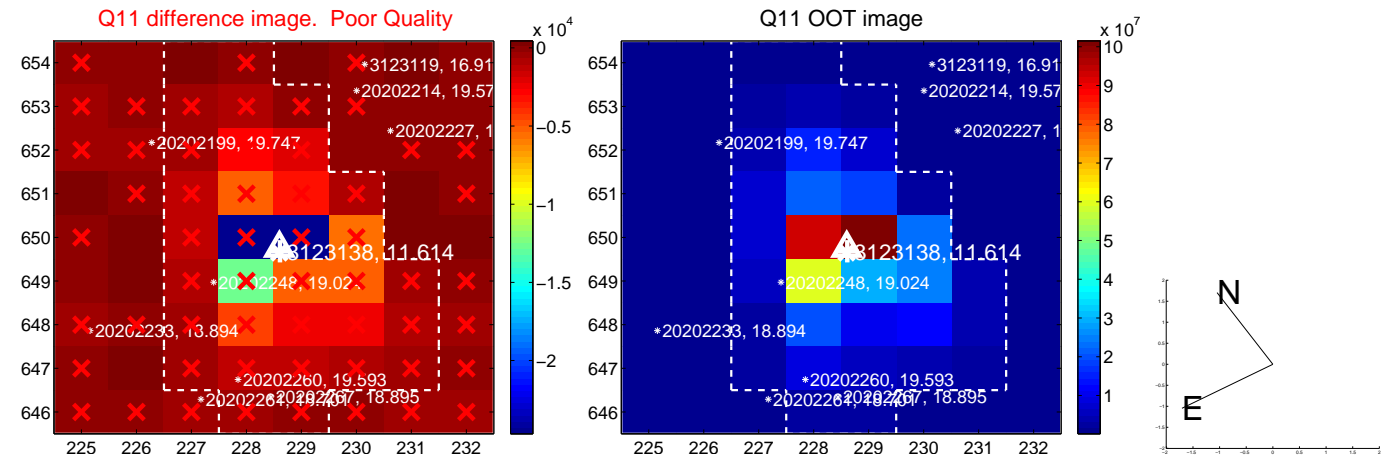
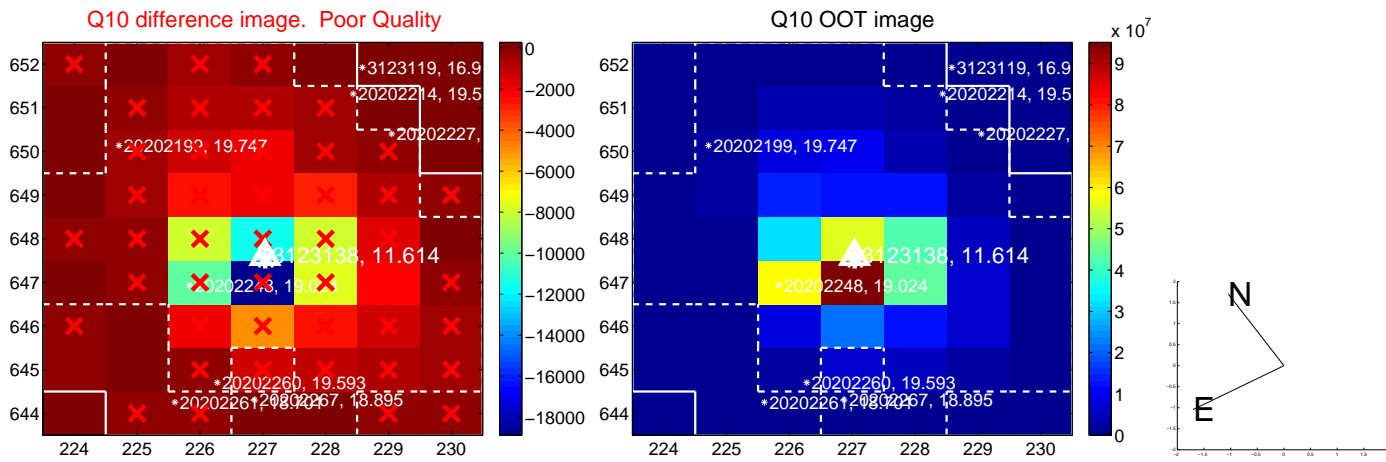
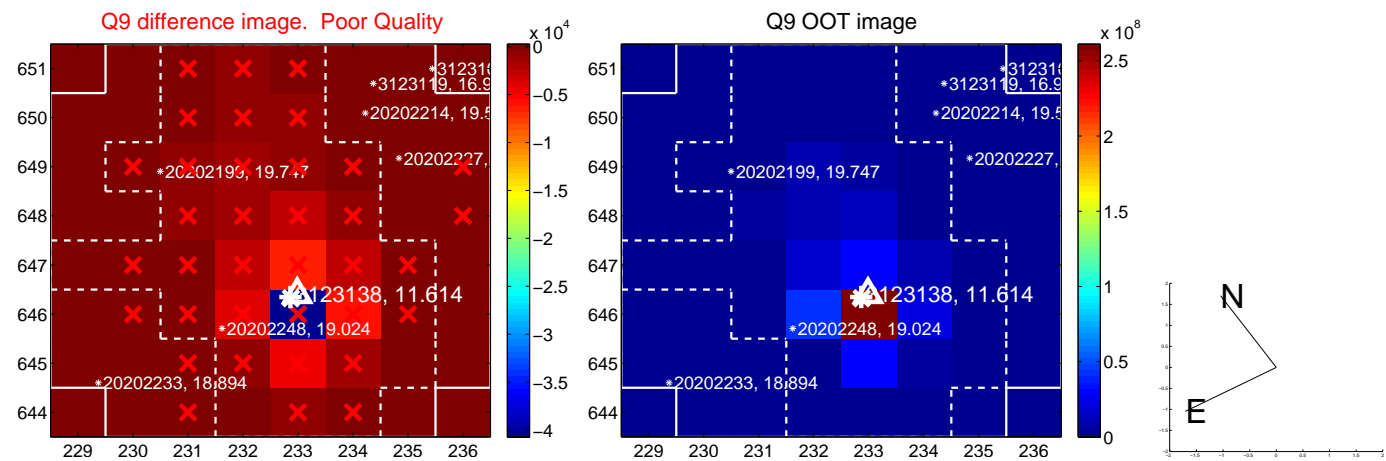
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



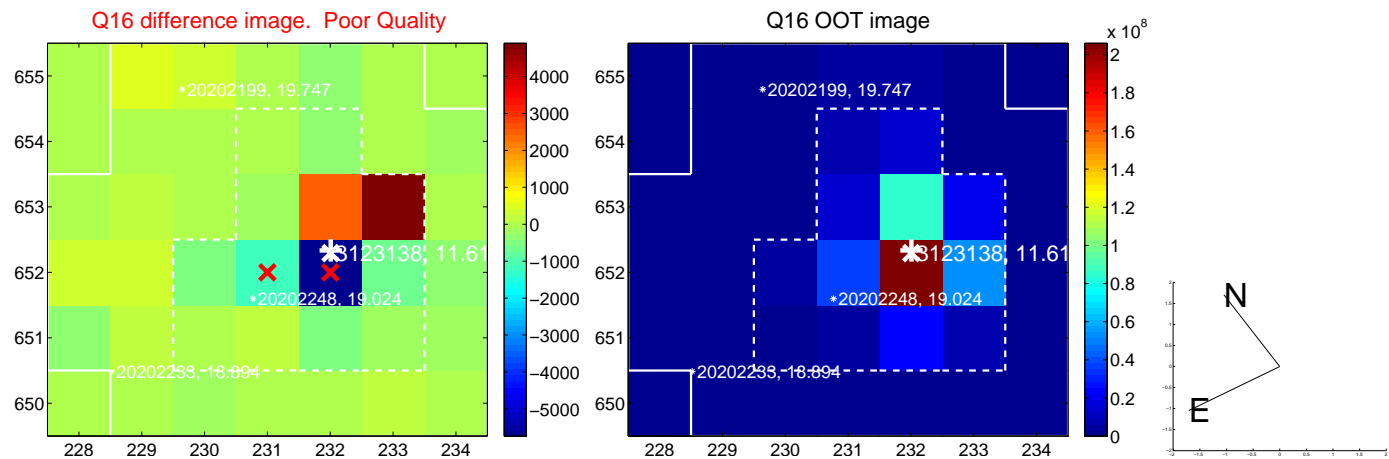
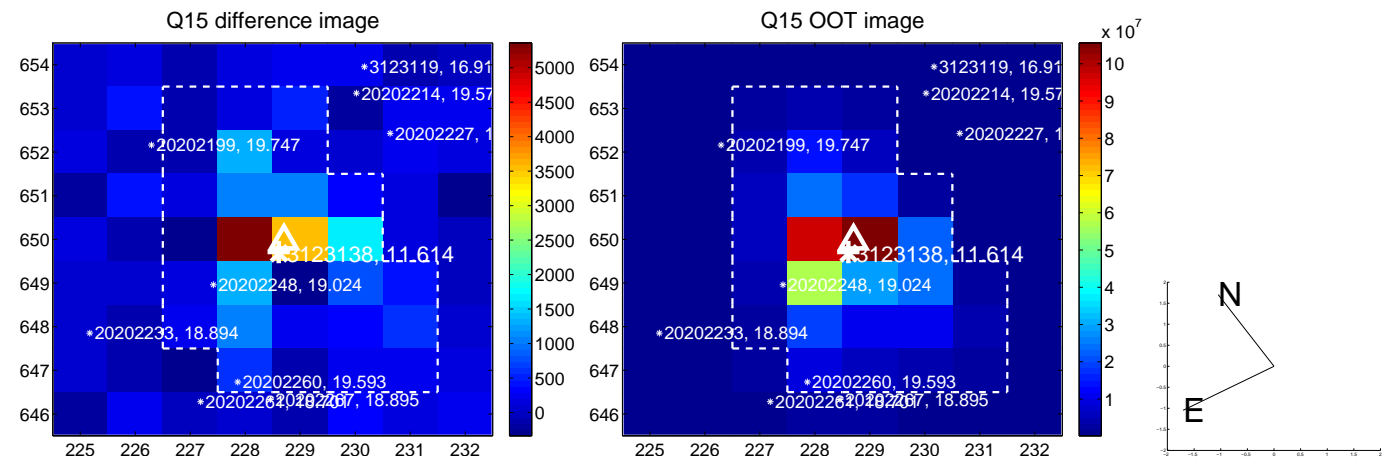
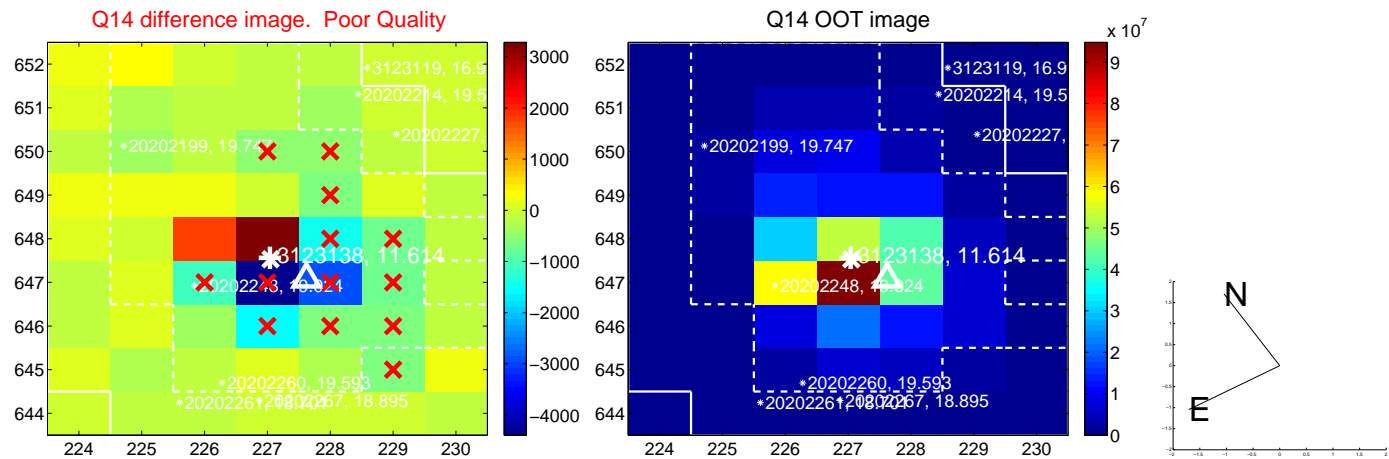
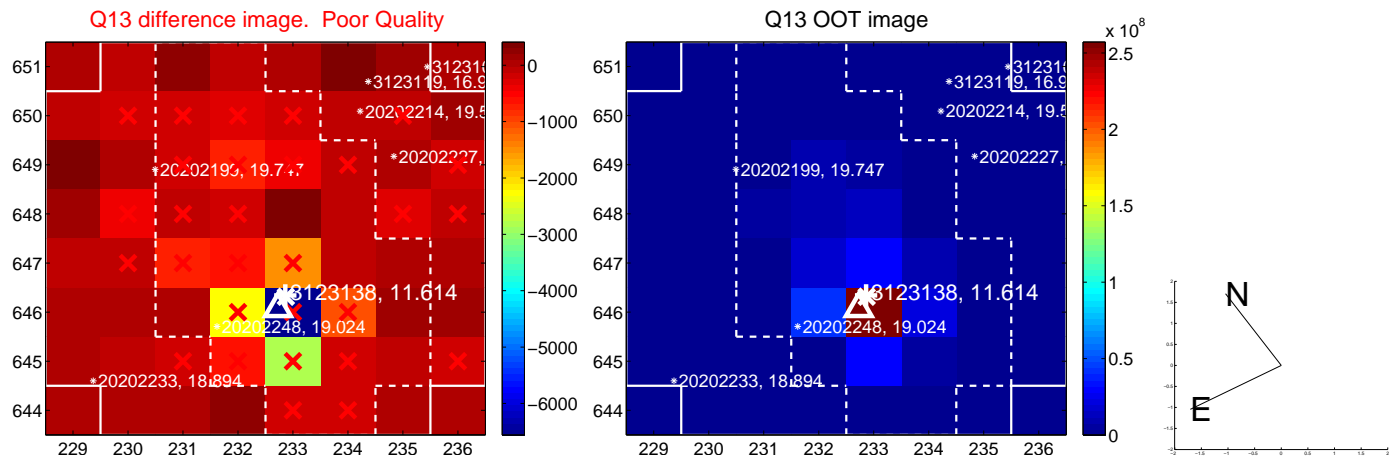
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



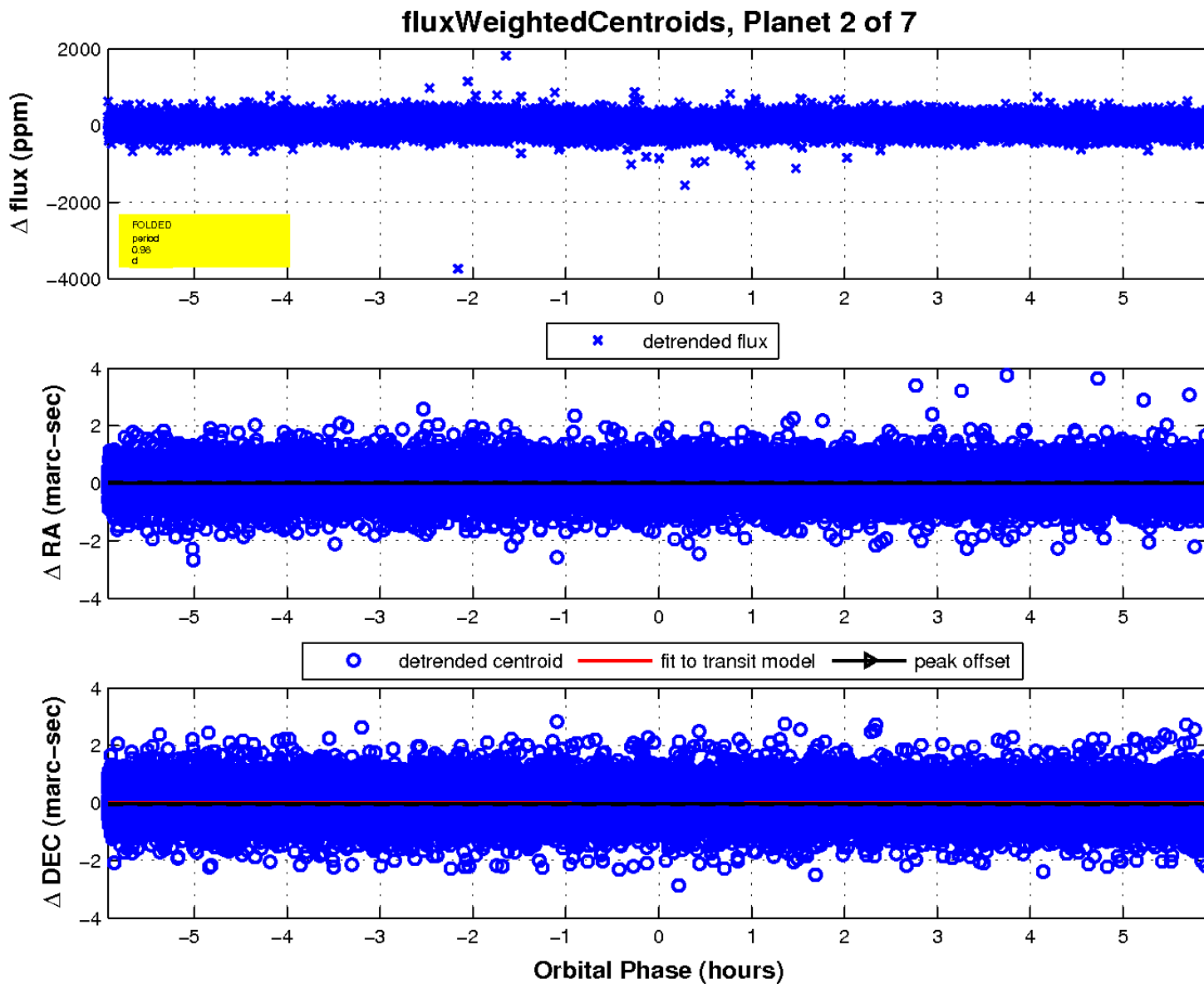
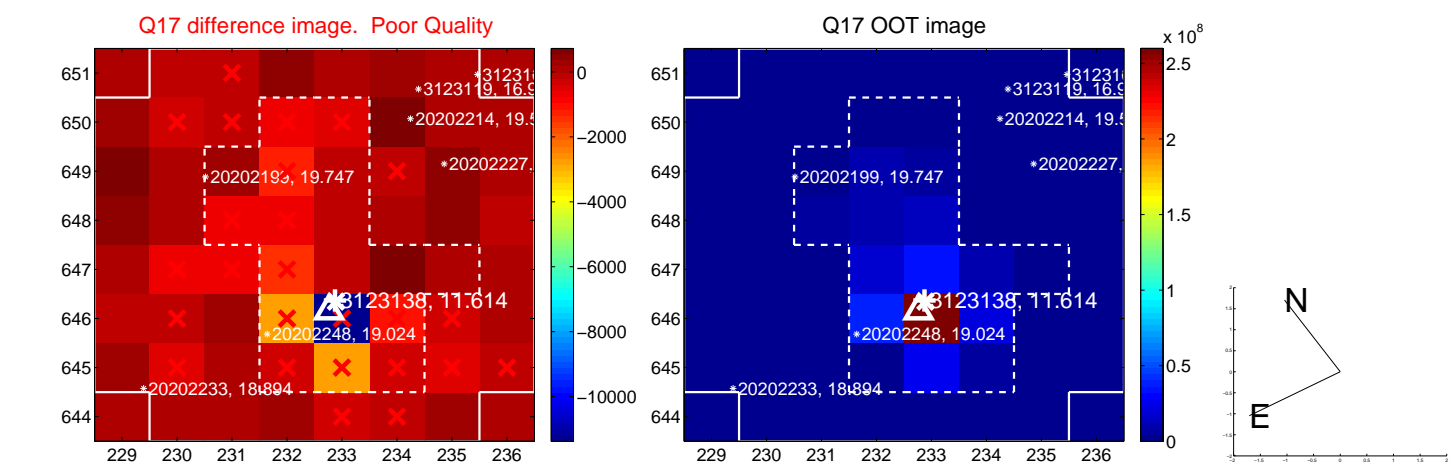
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

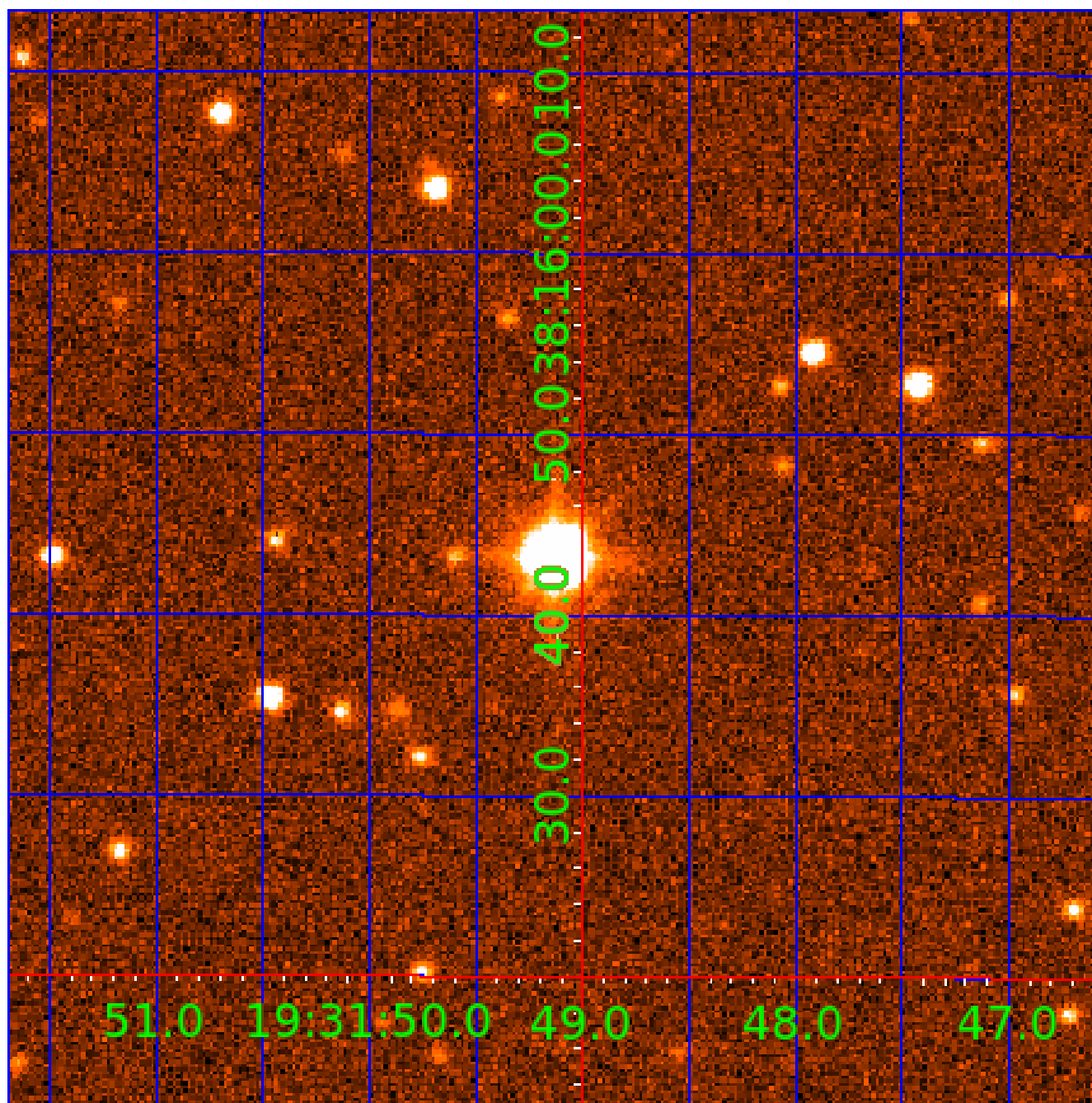


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

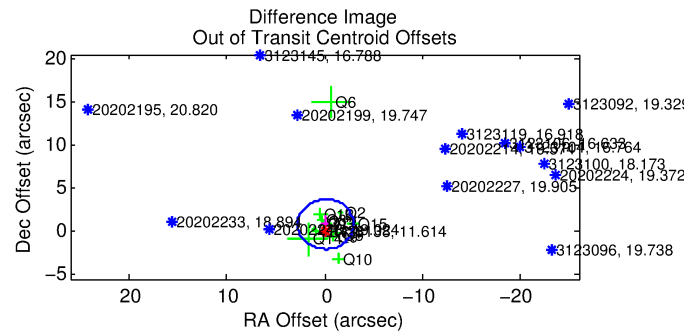
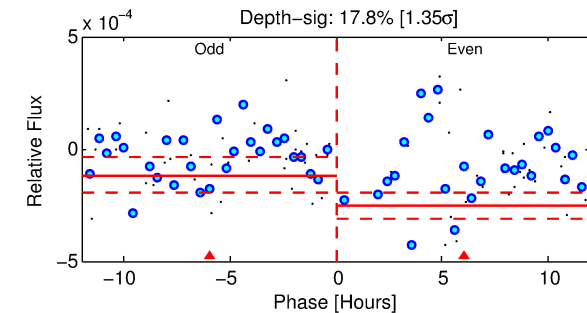
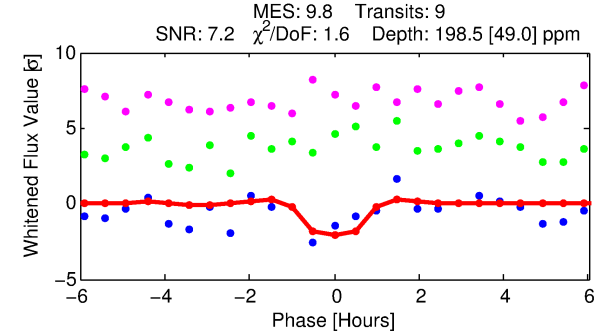
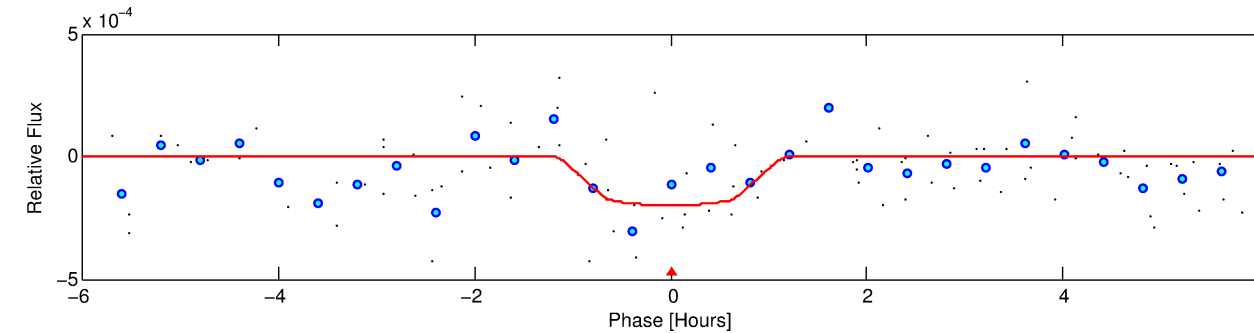
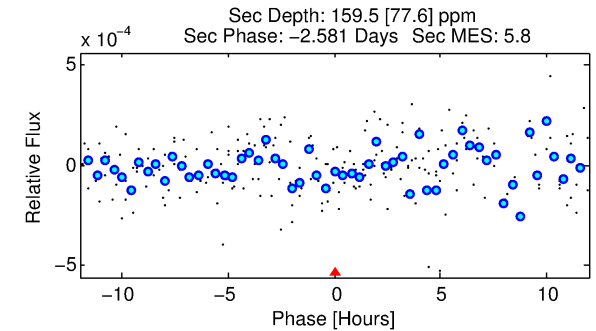
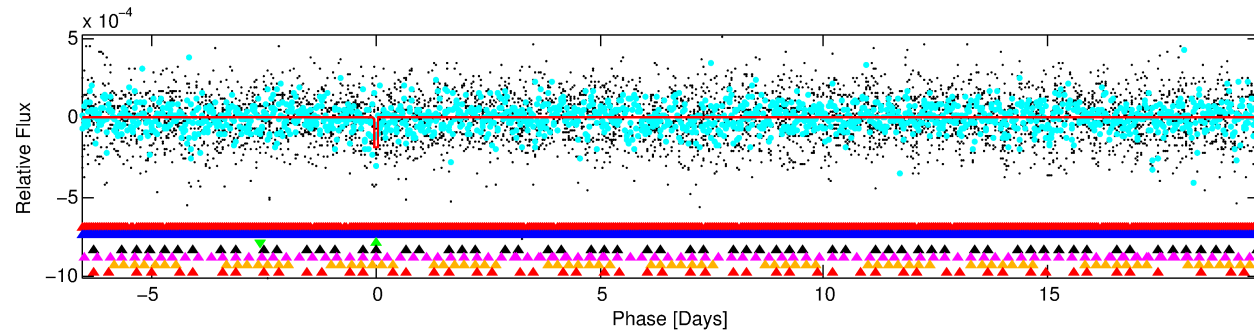
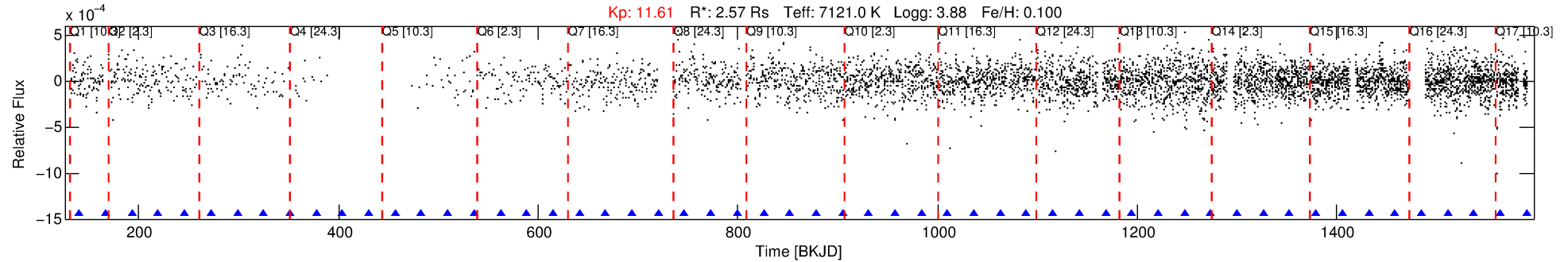
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-03

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 3 of 7 Period: 26.347 d



DV Fit Results:

Period = 26.34712 [0.00071] d
Epoch = 140.7559 [0.0295] BKJD
Rp/R* = 0.0152 [0.0112]
a/R* = 43.99 [189.84]
b = 0.92 [0.77]
Seff = 340.96 [114.20]
Teq = 1096 [92] K
Rp = 4.27 [3.30] Re
a = 0.2113 [0.0460] AU
Ag = 215.21 [340.27] [0.63 σ]
Teffp = 6489 [2509] K [2.15 σ]

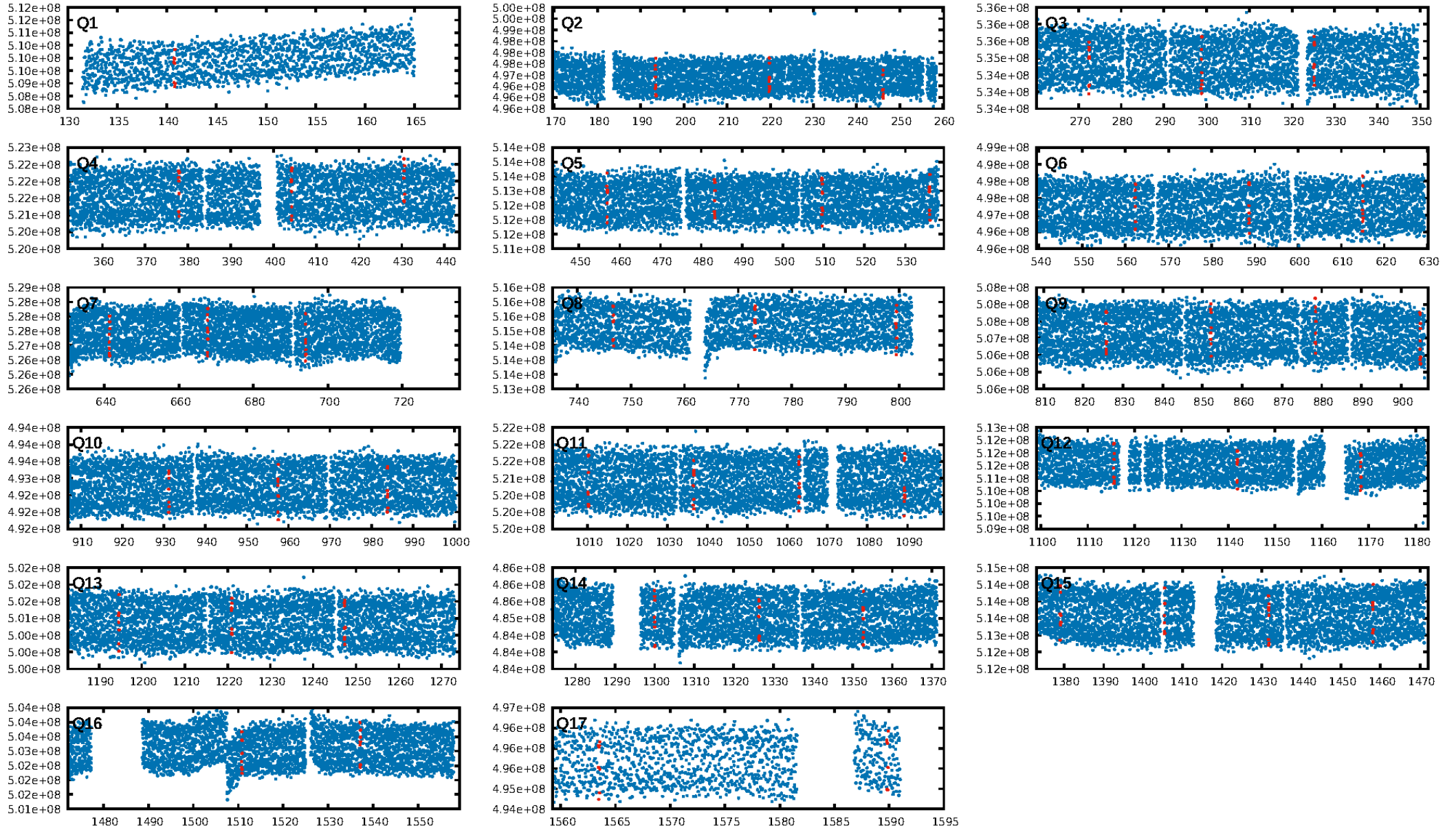
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.84 σ]
LongPeriod-sig: 100.0% [7.14 σ]
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.184
Centroid-sig: 1.2%
Centroid-so: 0.888 arcsec [1.82 σ]
OotOffset-rm: 0.830 arcsec [0.87 σ]
KicOffset-rm: 0.980 arcsec [1.06 σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 0.00 [0/17]

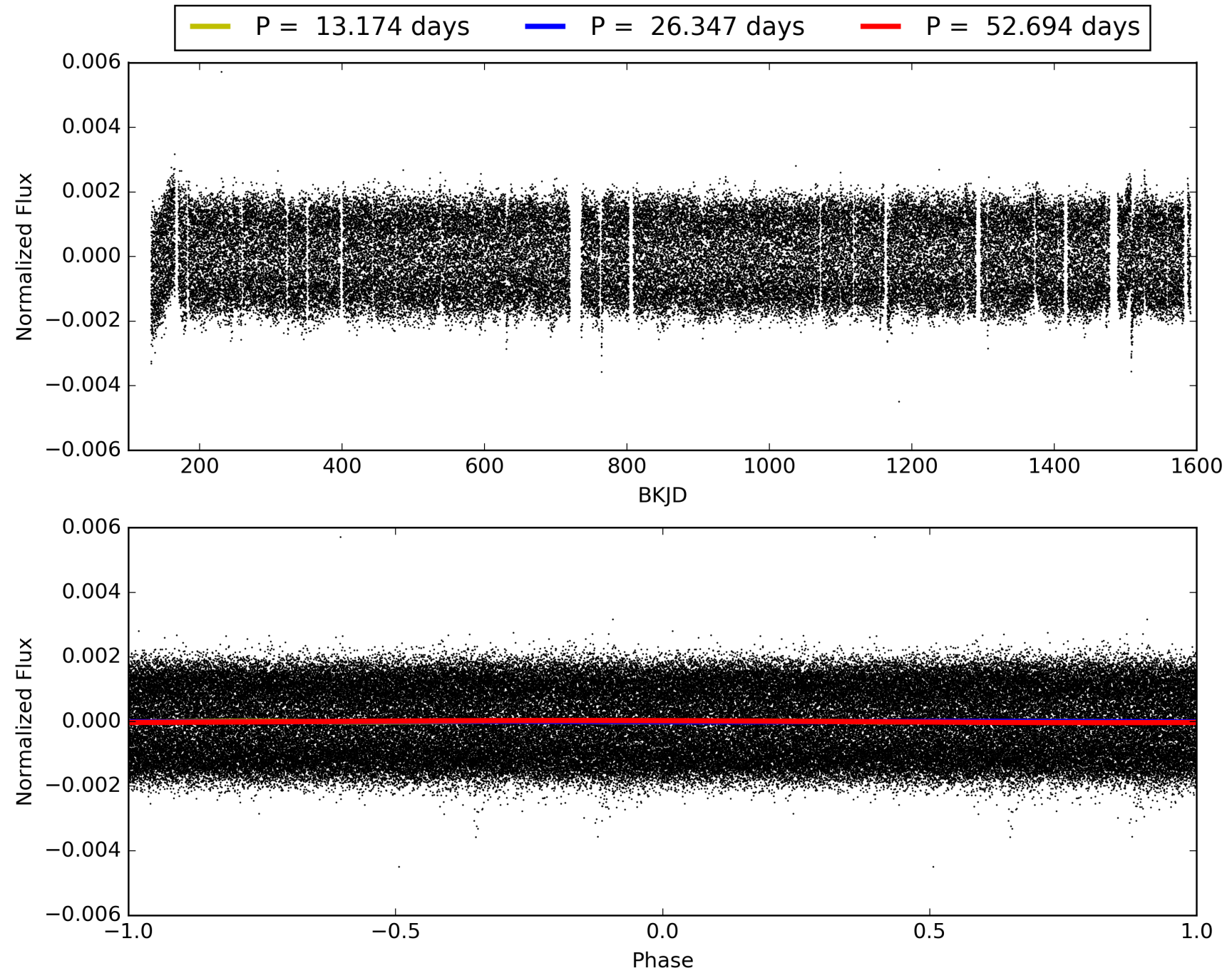
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:40 Z

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

TCE 003123138-03, PDC Light Curves

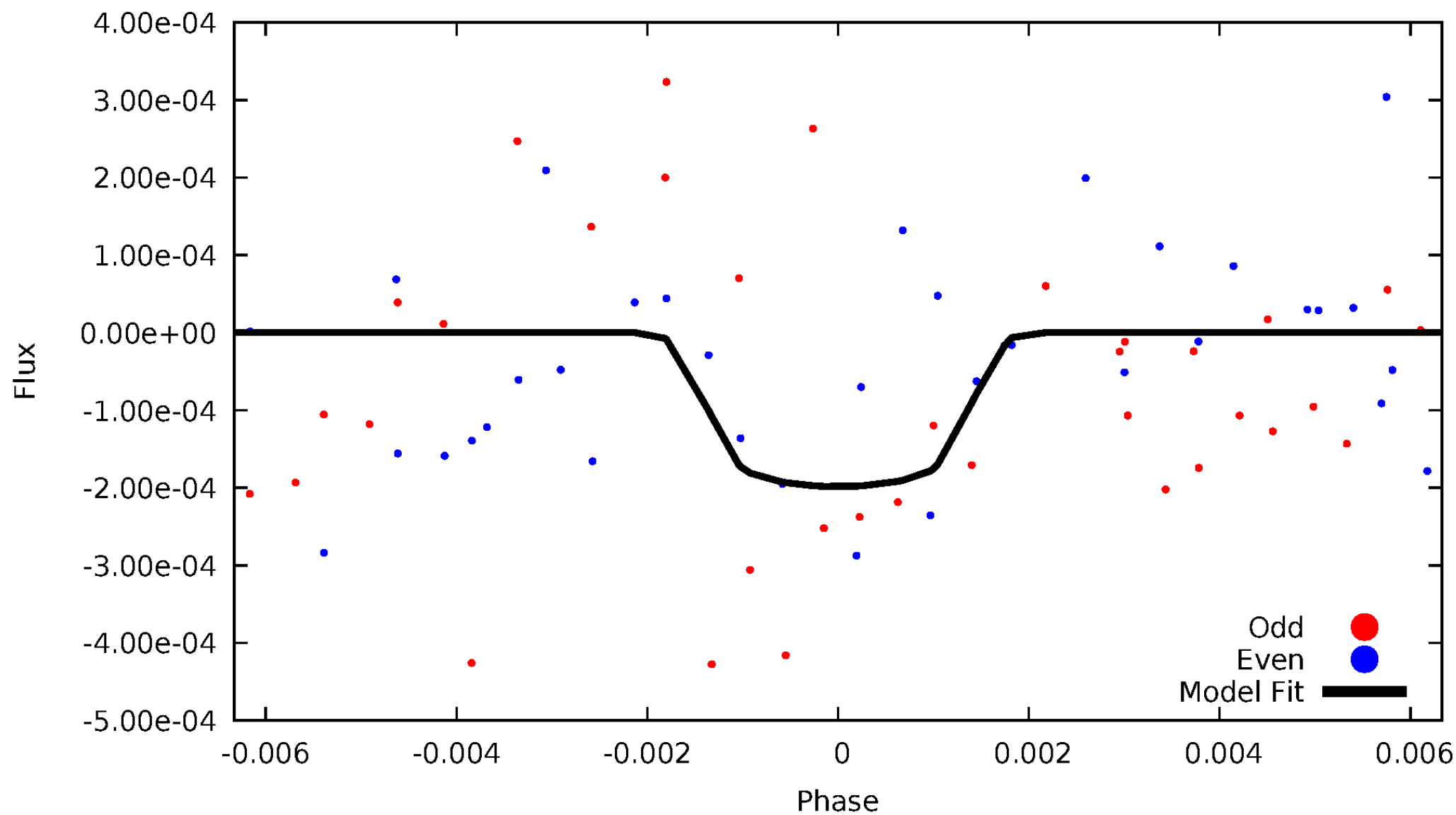


TCE 003123138-03



DV Odd/Even

TCE 003123138-03

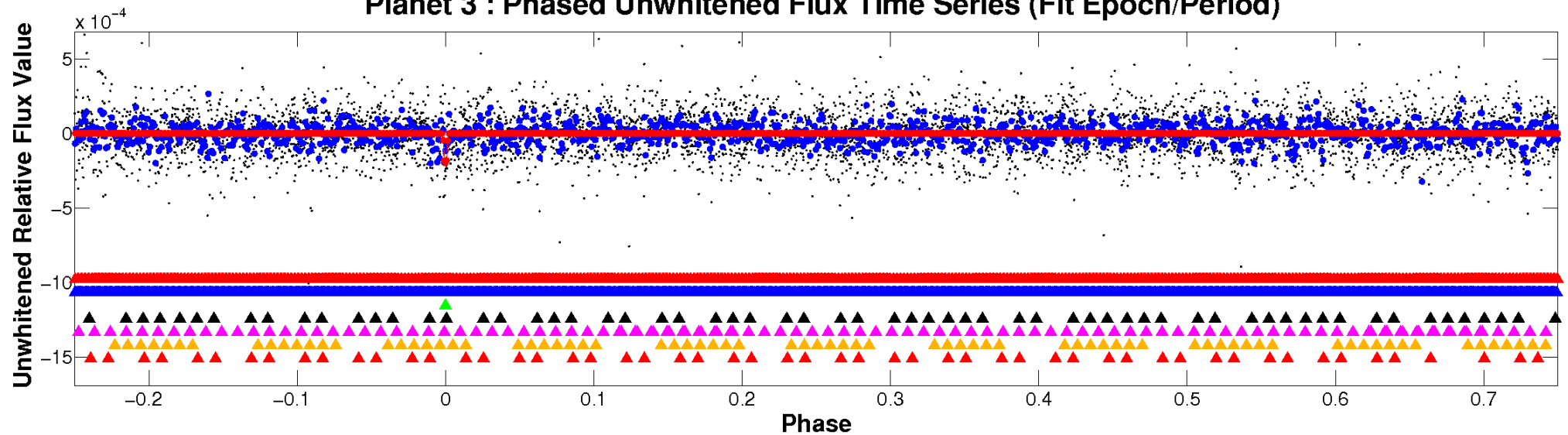


ALT Odd/Even

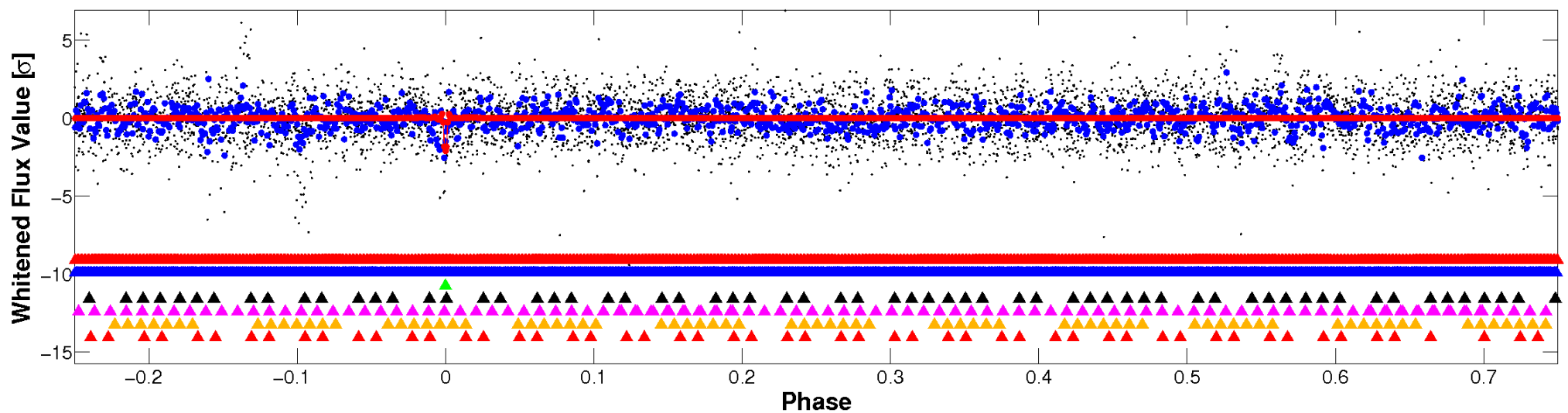
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

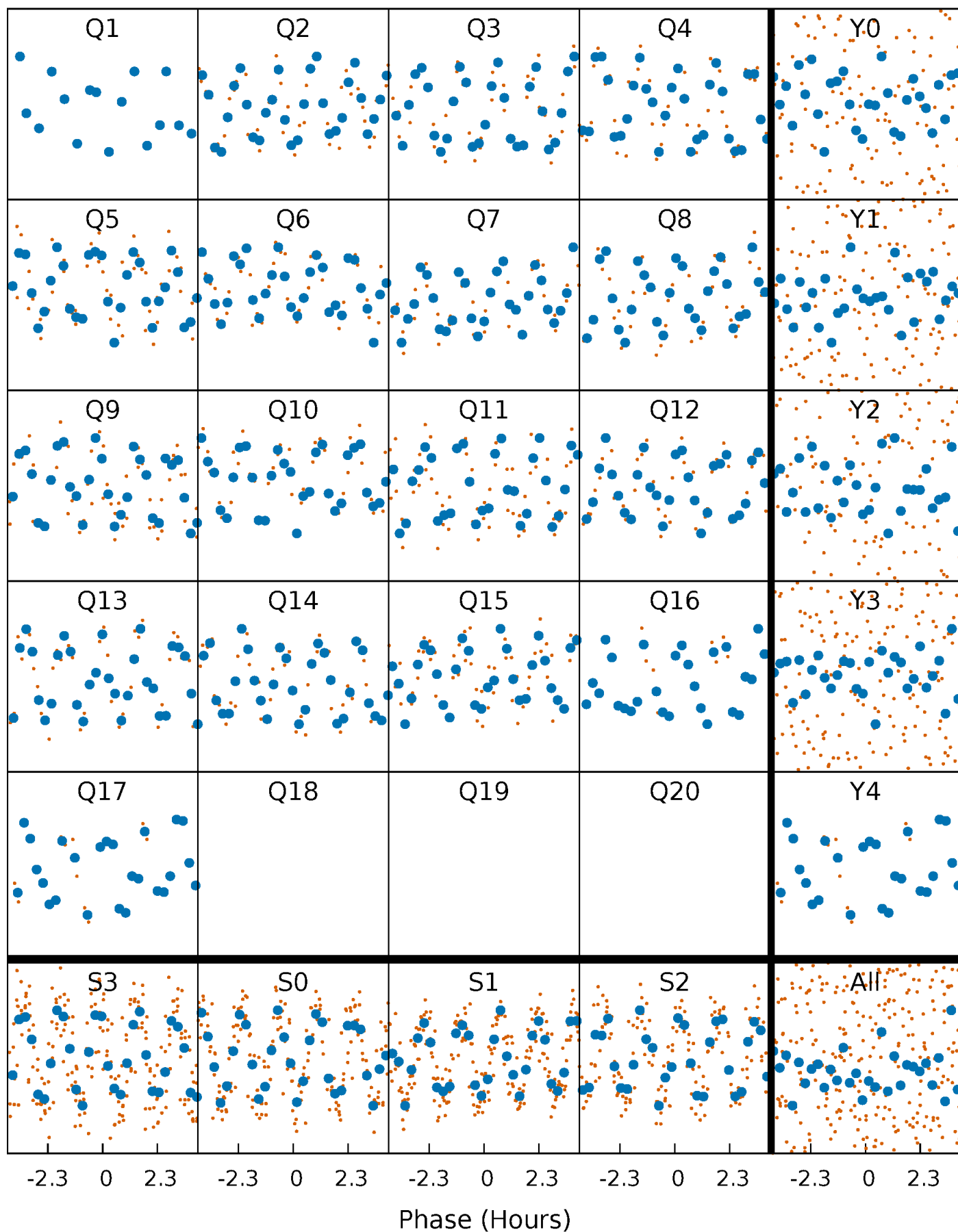


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



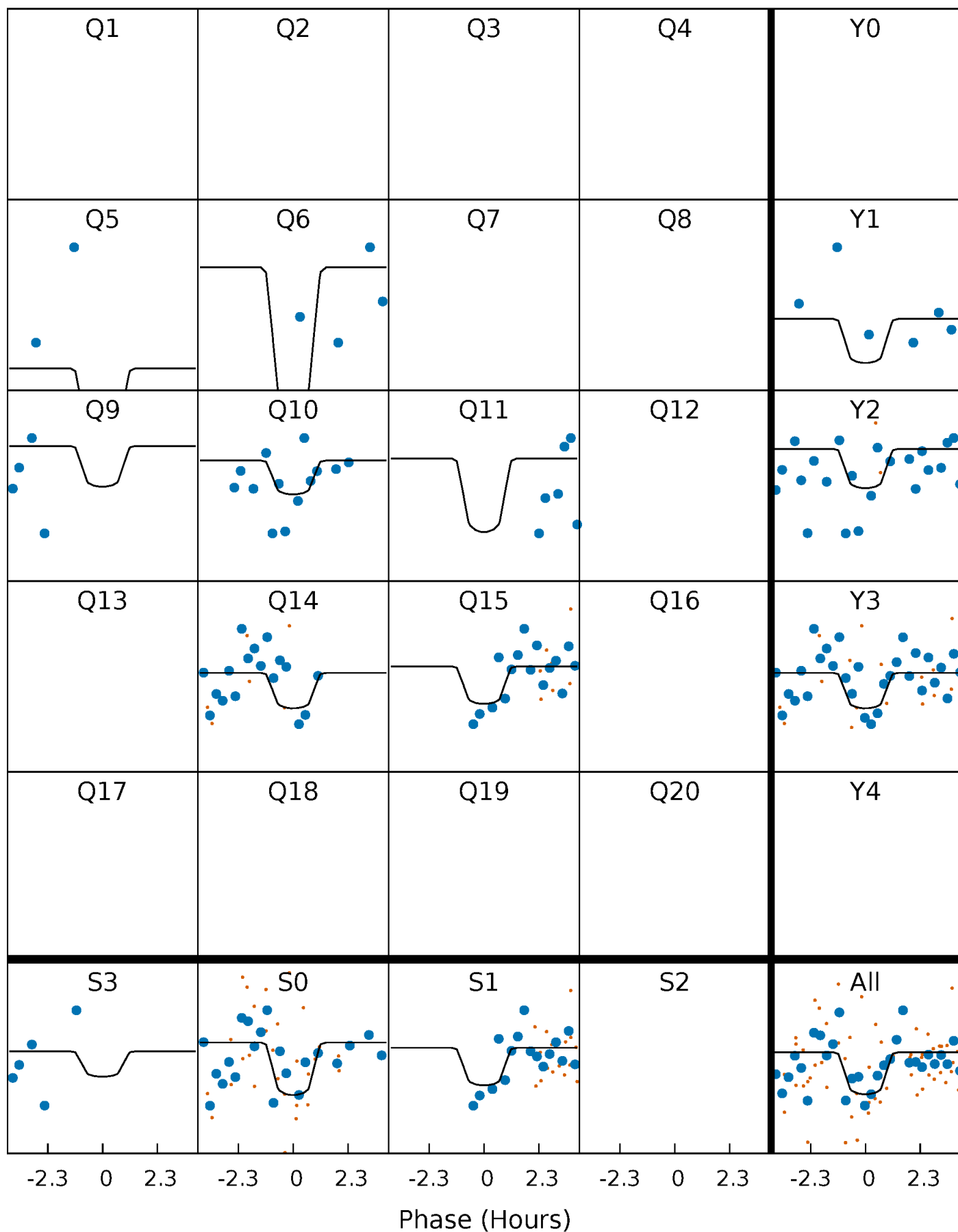
PDC Quarter-Phased Transit Curves

TCE 003123138-03 P= 26.347123 Days $T_0=140.755884$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003123138-03 P= 26.347123 Days $T_0=140.755884$ (BKJD)

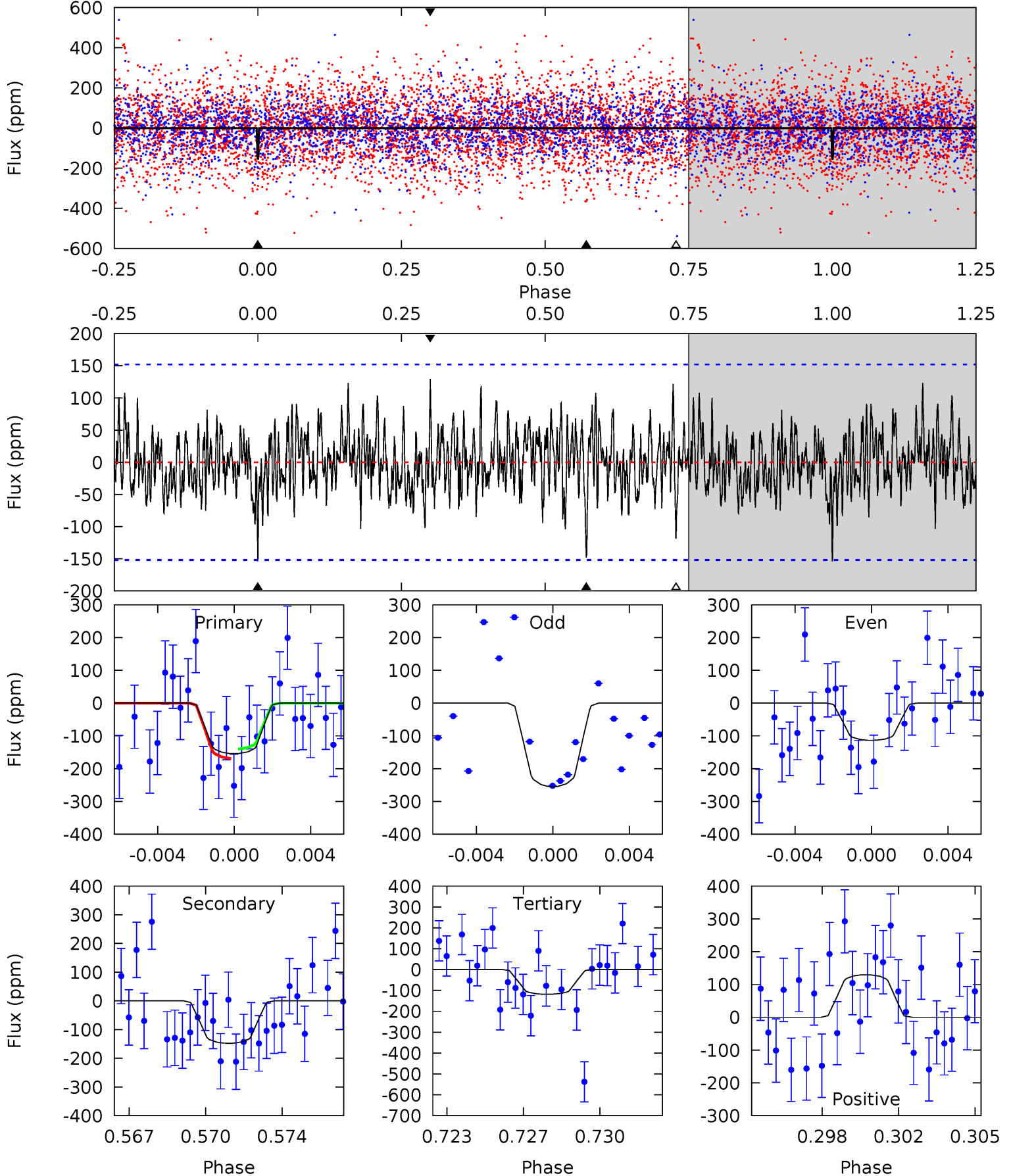


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003123138-03, P = 26.347123 Days, E = 114.408761 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.29	5.07	4.07	4.45	5.22	2.91	1.34	1.22	0.84	1.00	0.62	2.37	0.60	0.46	0.50



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-148 ± 29	$4.43^{+3.00}_{-2.65}$	1523^{+67}_{-103}	6112^{+4677}_{-1258}	187^{+966}_{-121}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

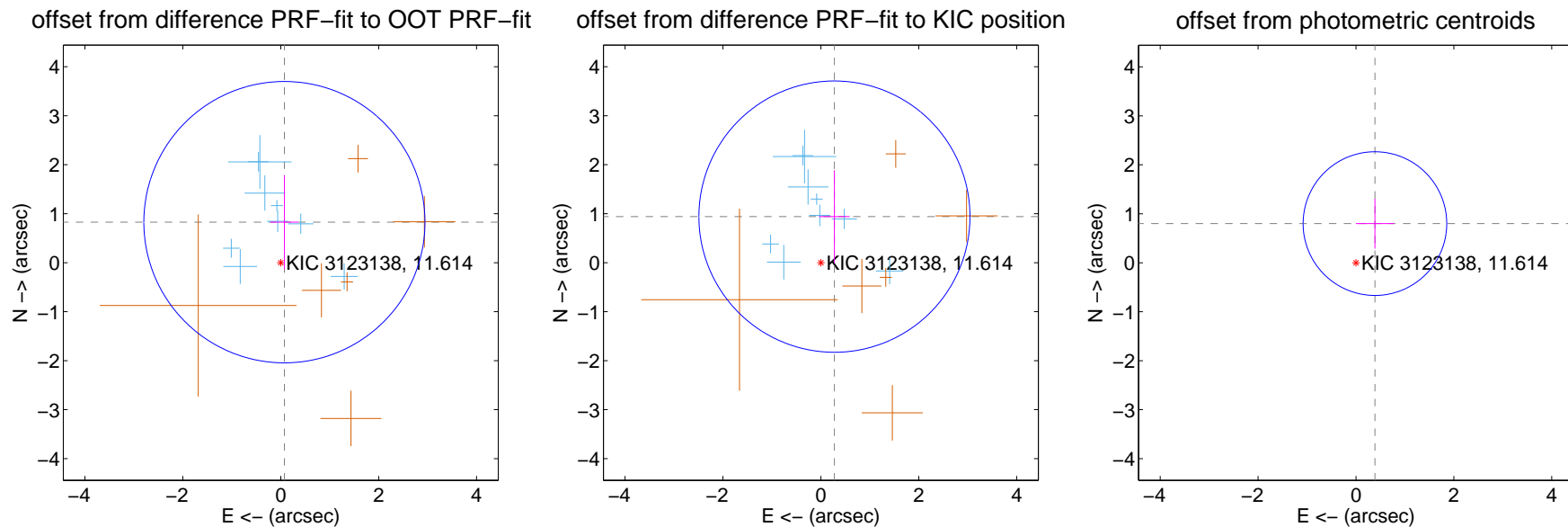
DV Centroid Data

Supplemental centroid analysis for 003123138-03. **Kepler magnitude: 11.61.** Transit SNR 7.21

There are 9 quarters with good PRF difference image offsets

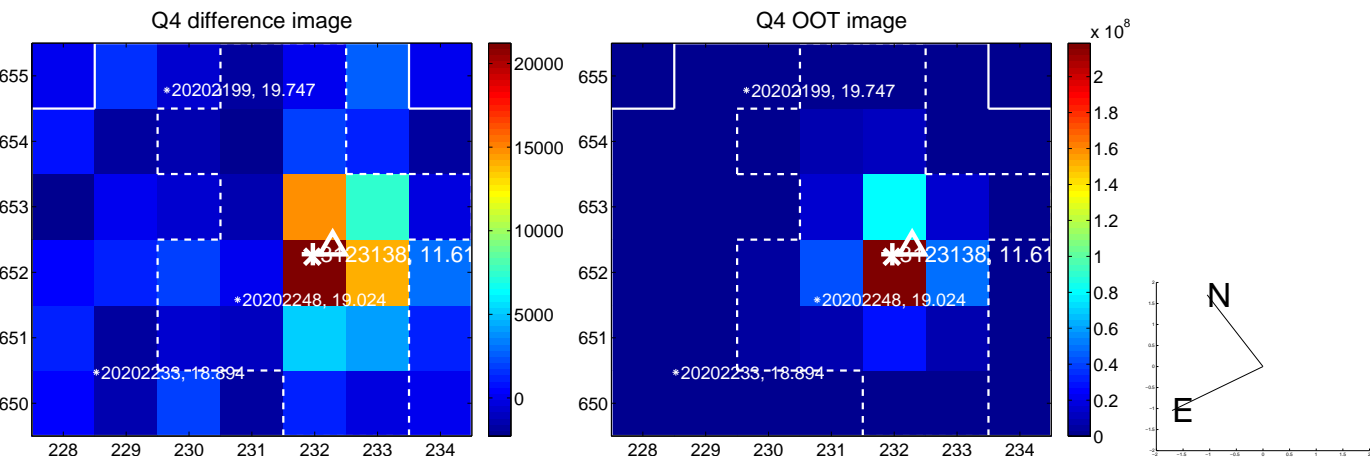
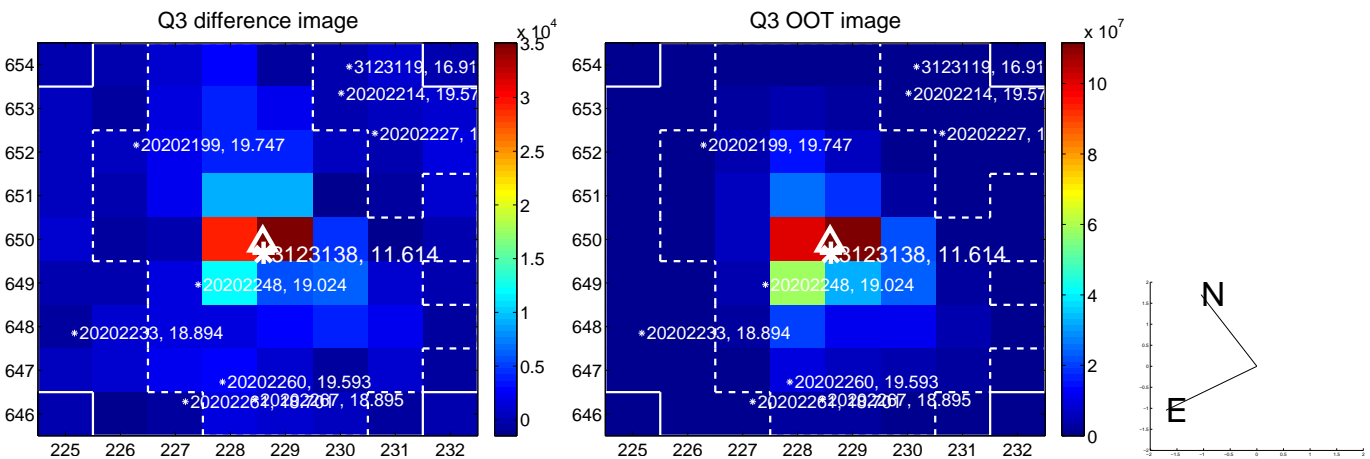
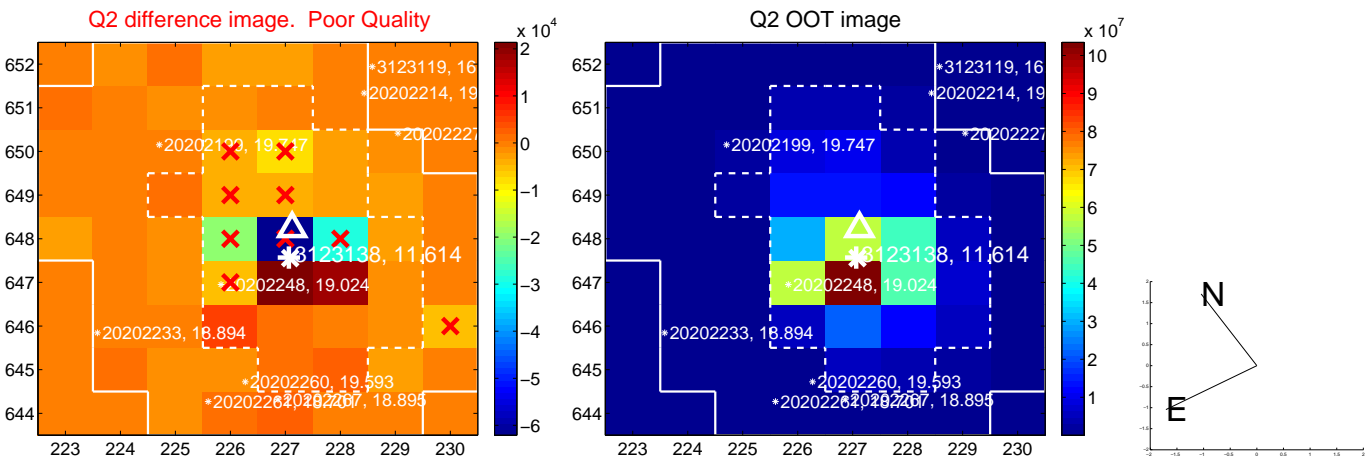
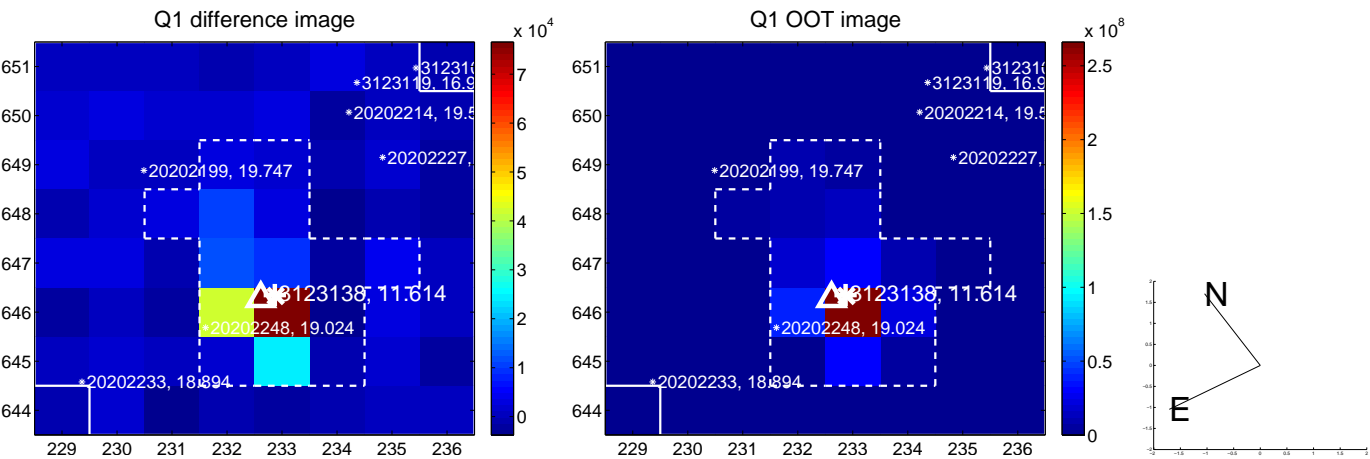
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.830 ± 0.957	0.87	-0.075 ± 0.283	0.827 ± 0.960
PRF-fit source offset from KIC position	0.980 ± 0.923	1.06	-0.277 ± 0.313	0.940 ± 0.947
photometric centroid source offset	0.89 ± 0.49	1.82	-0.39 ± 0.39	0.80 ± 0.51

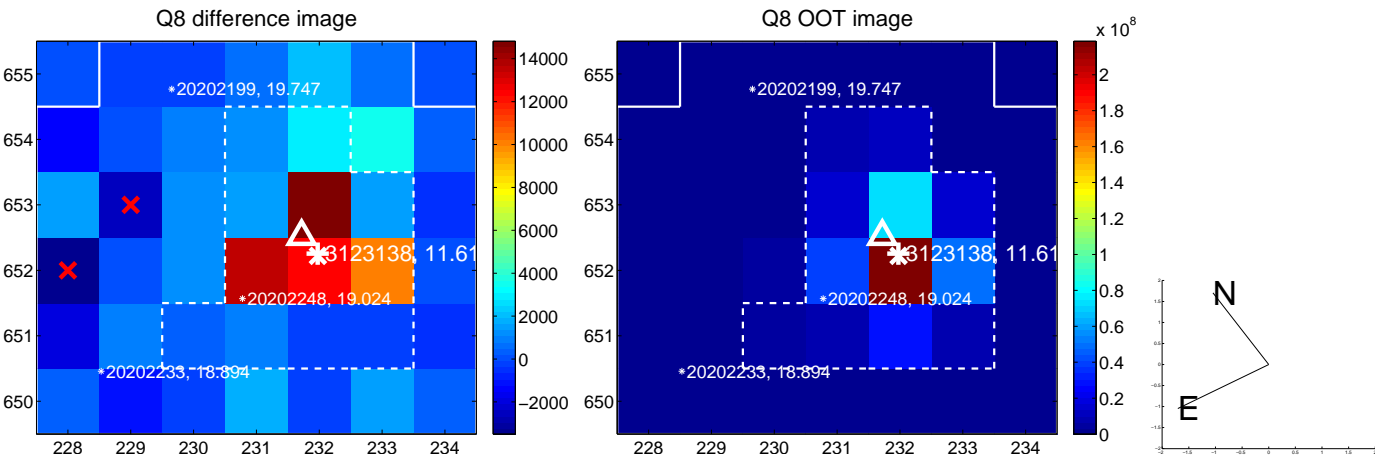
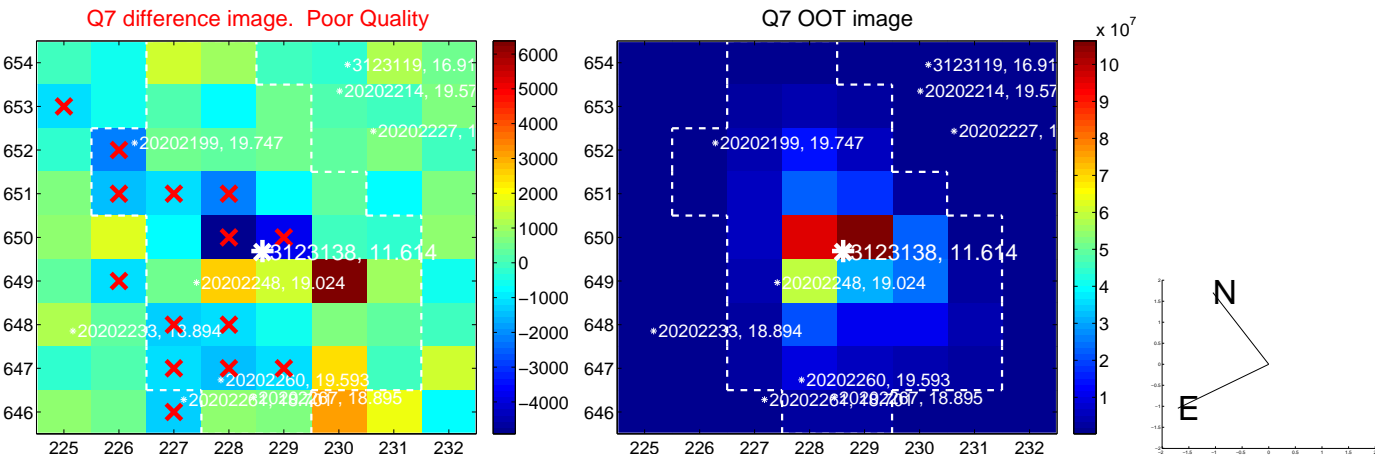
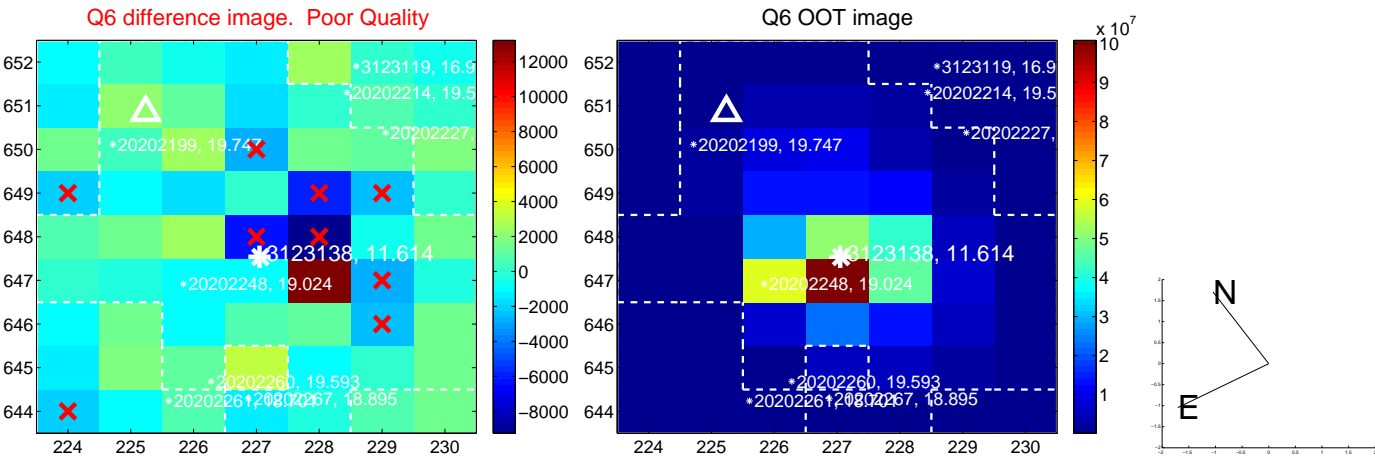
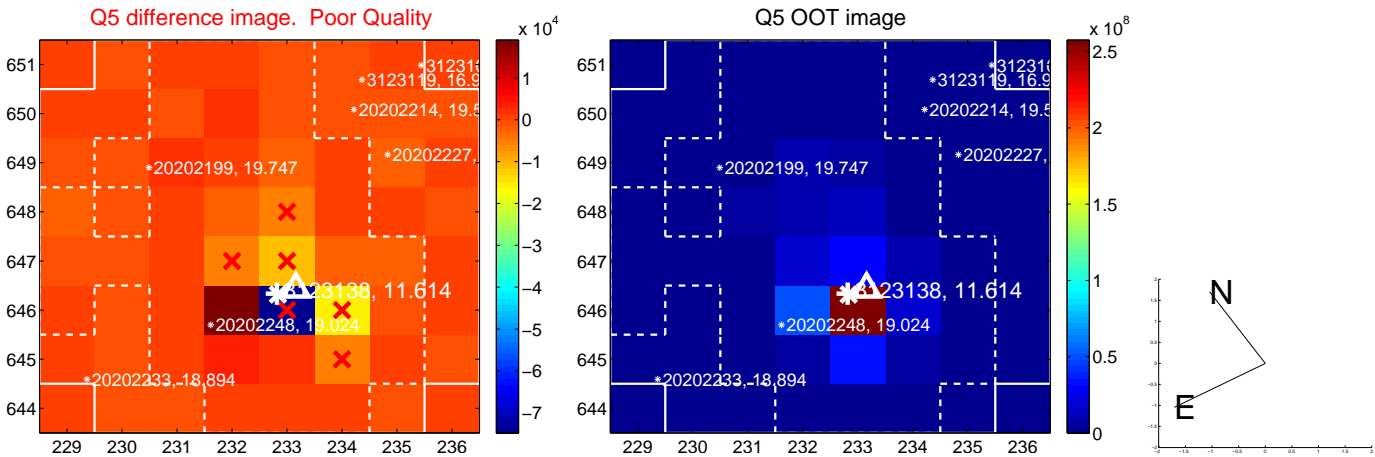


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

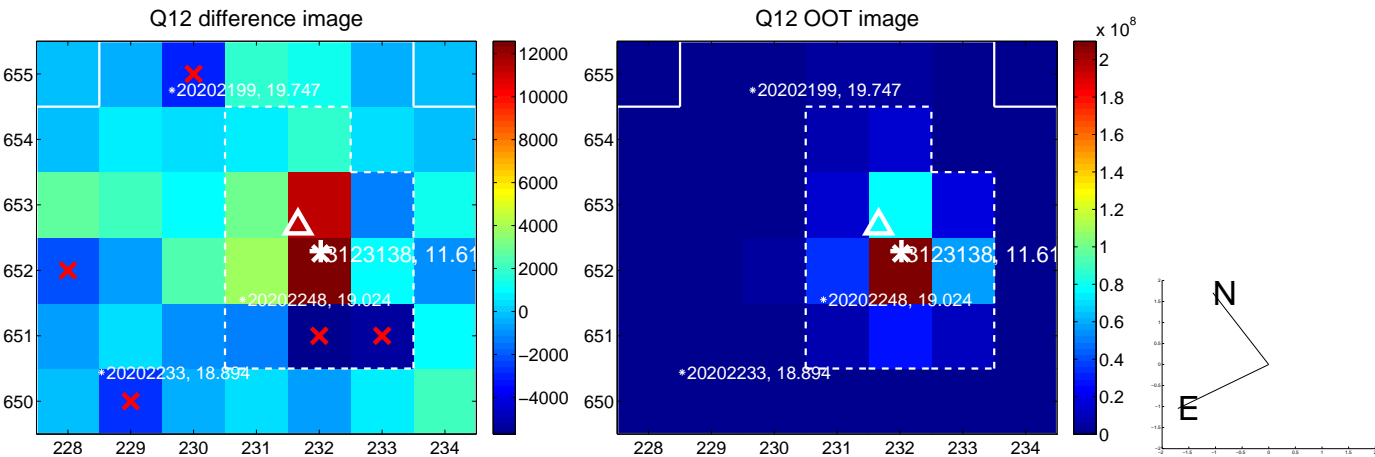
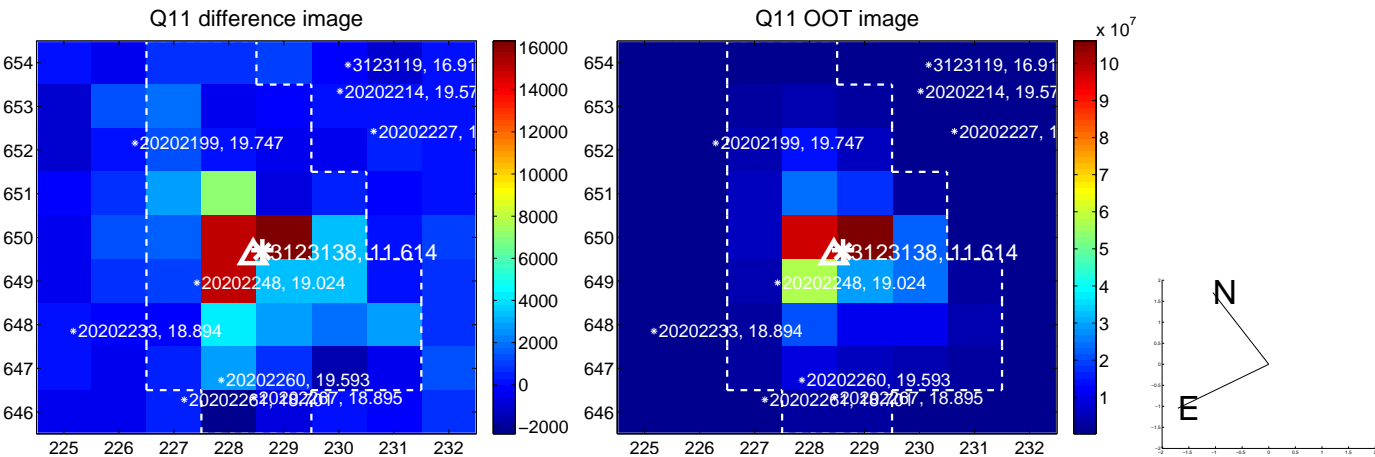
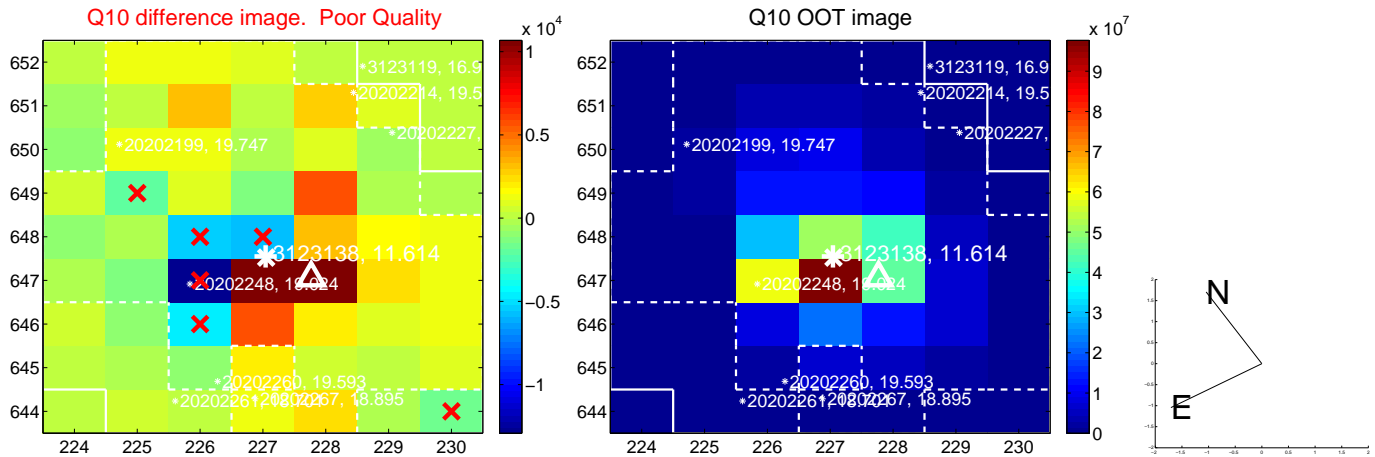
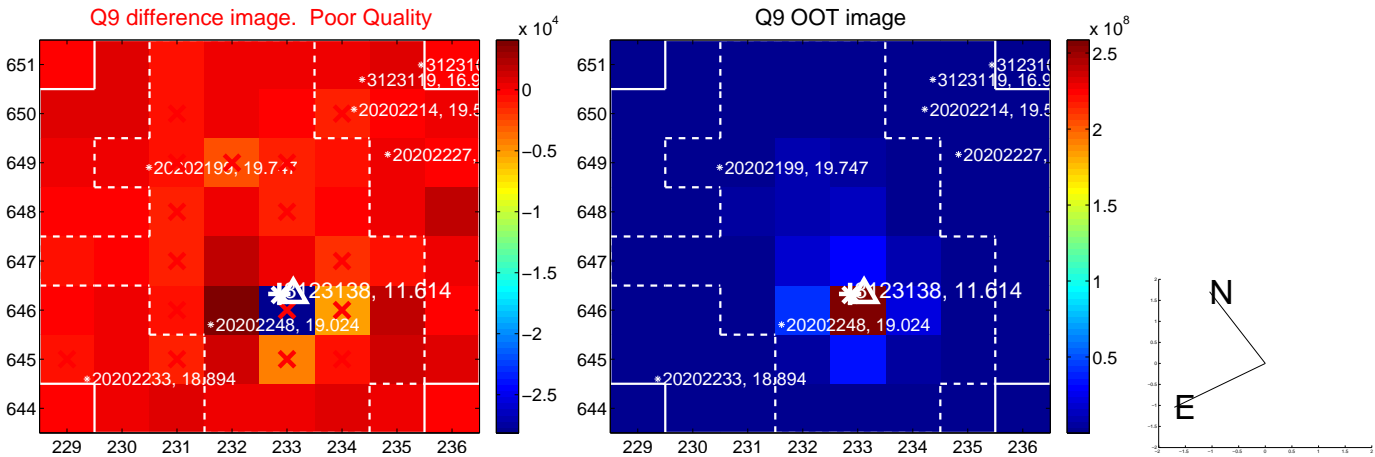
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



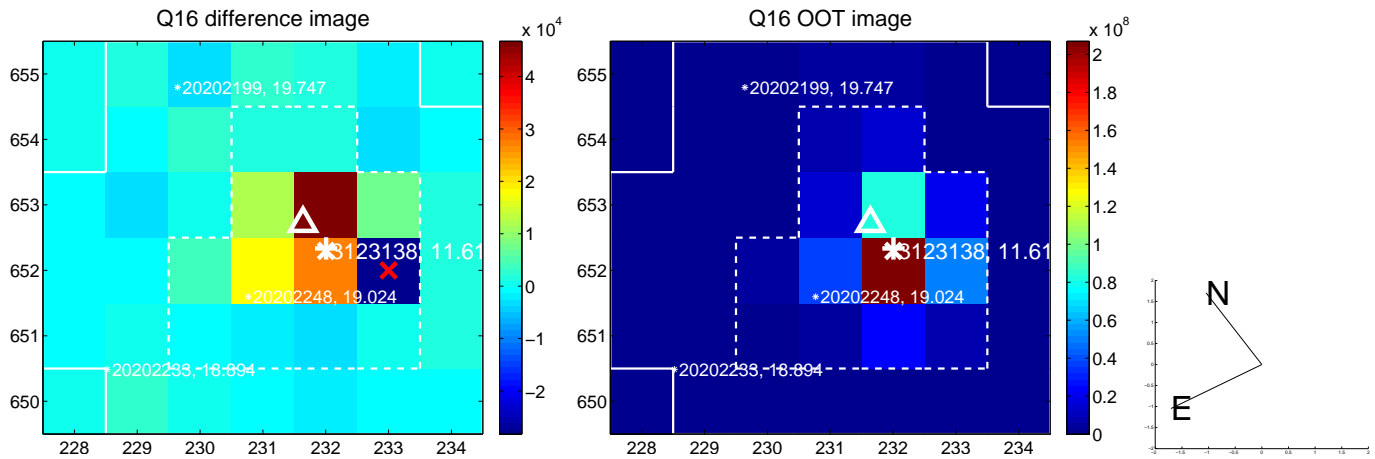
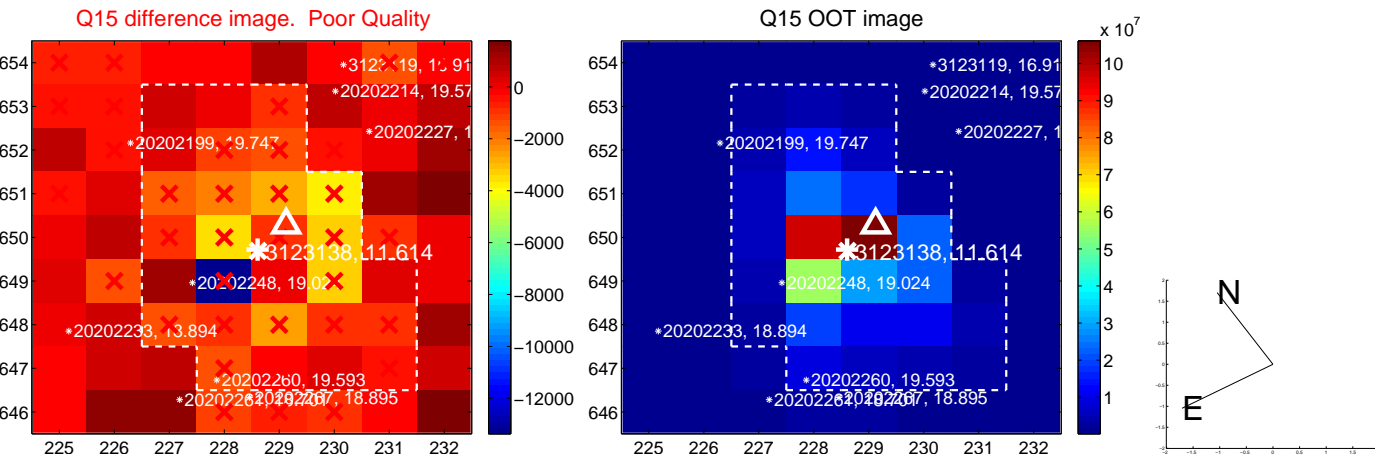
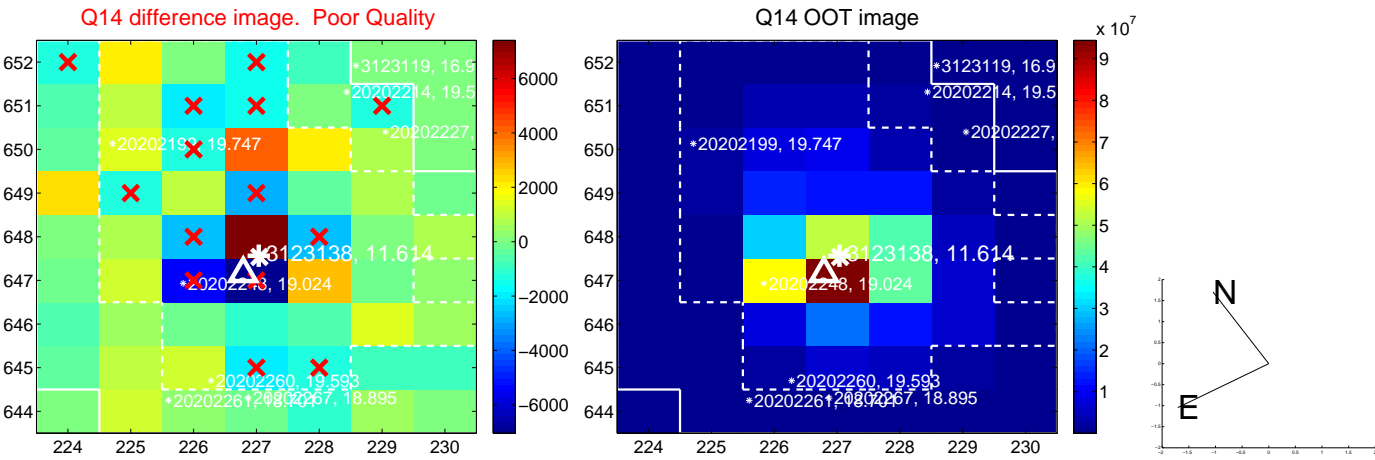
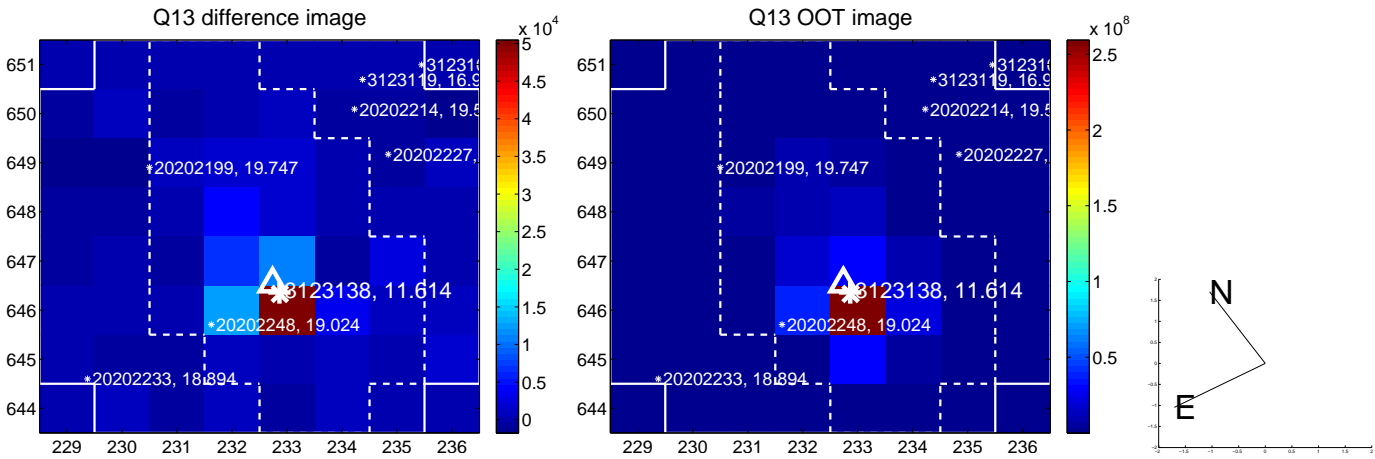
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



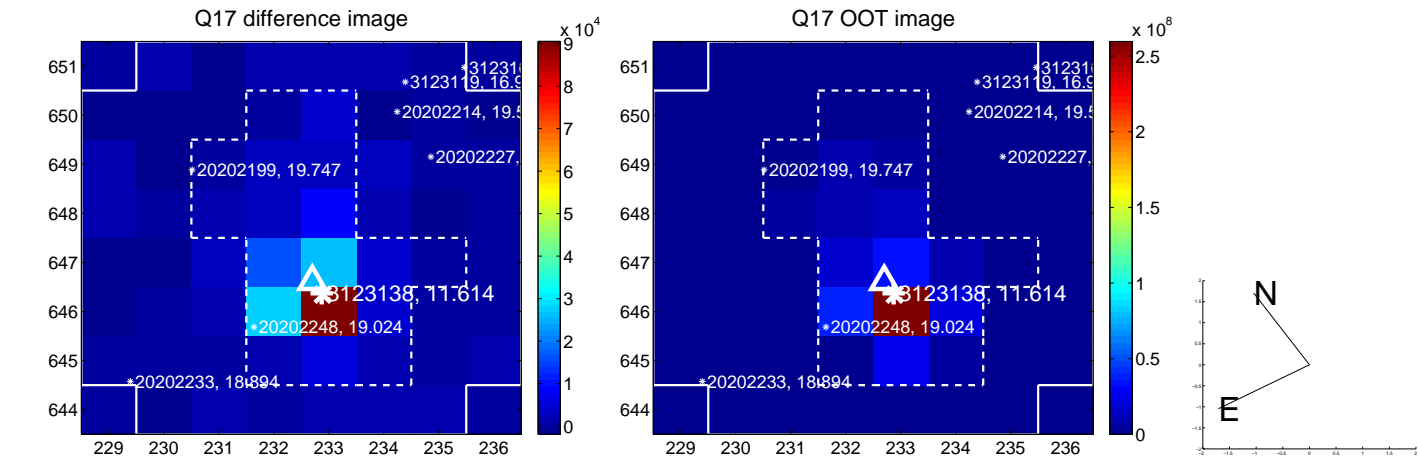
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



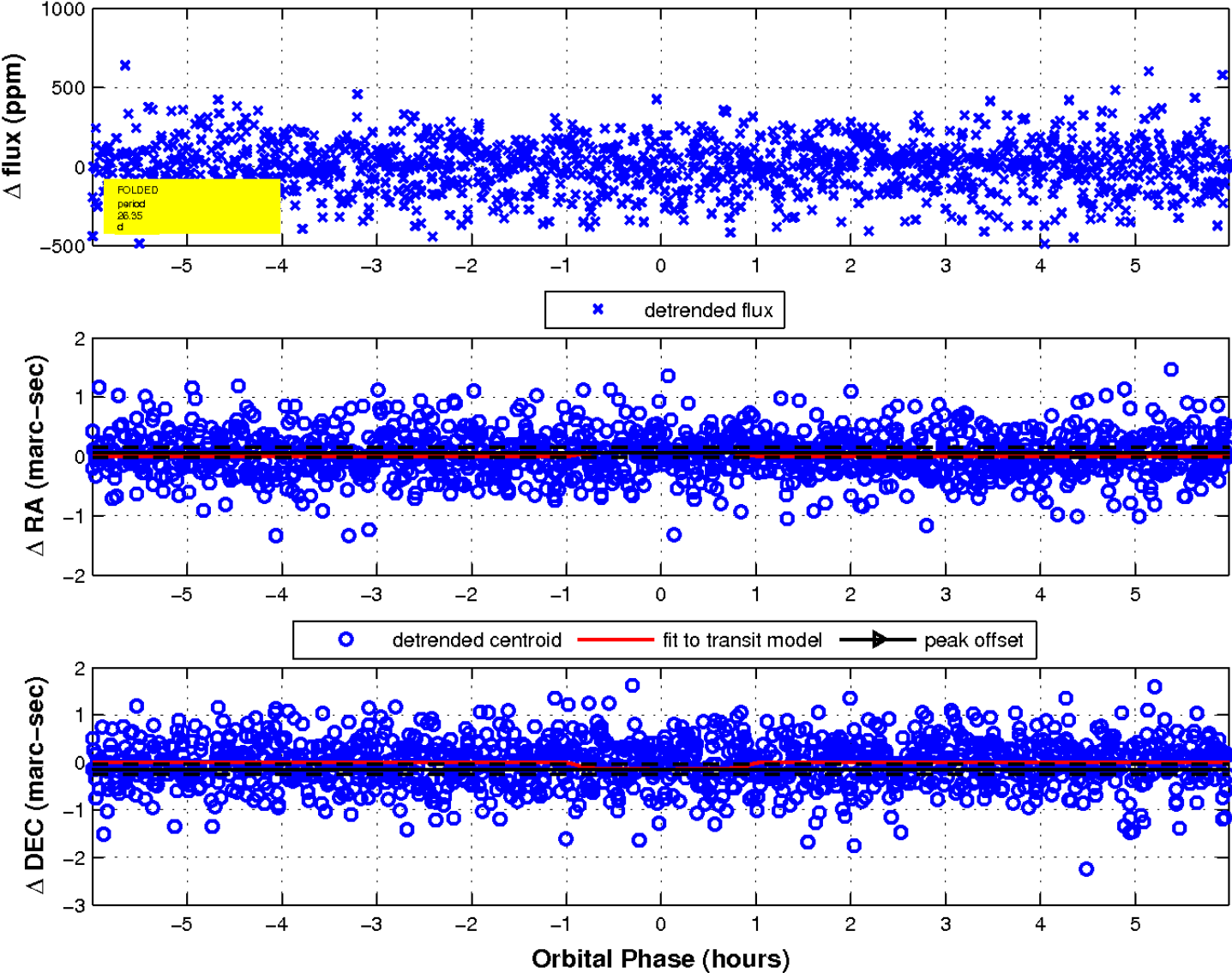
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

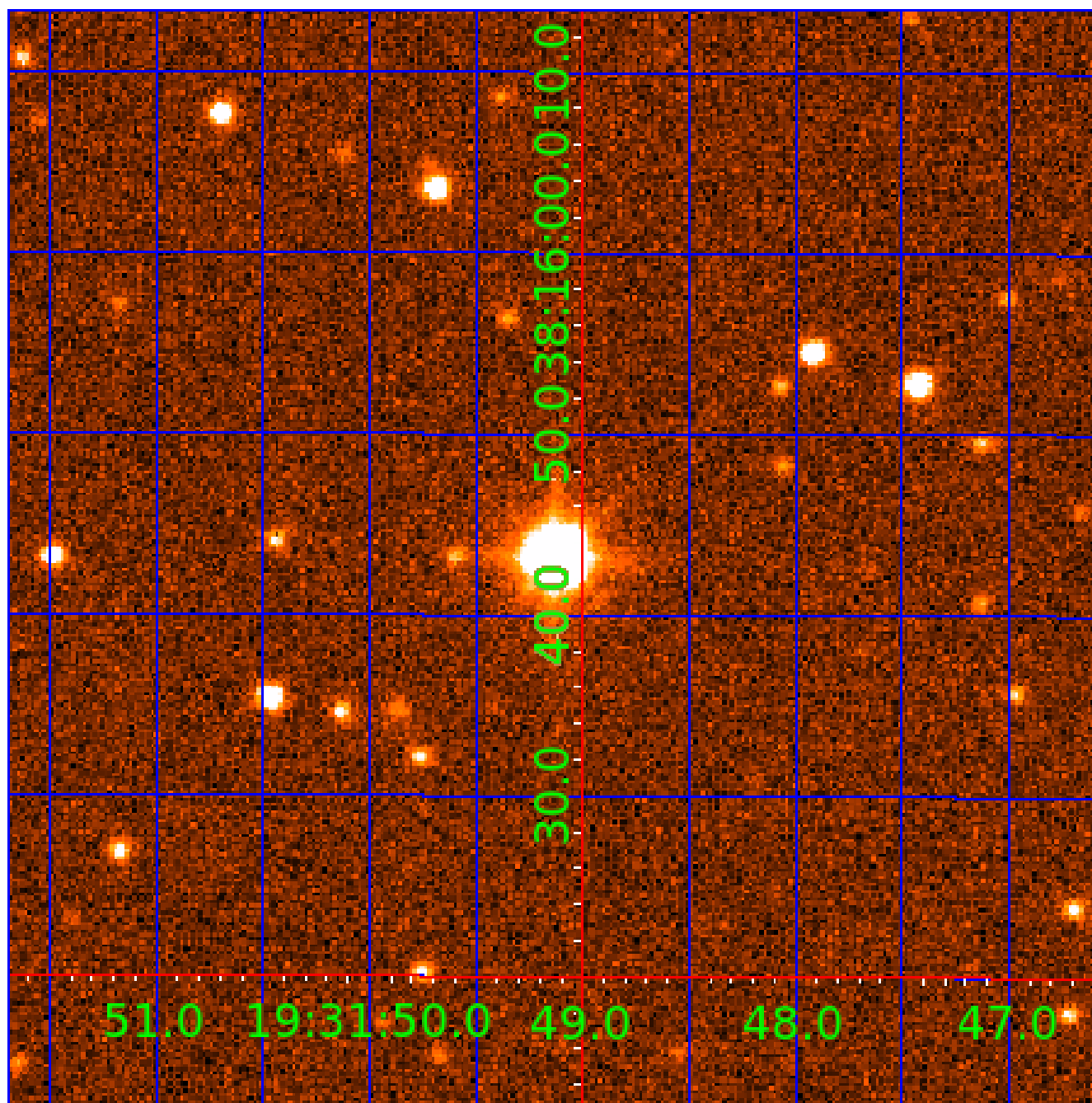


fluxWeightedCentroids, Planet 3 of 7



UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

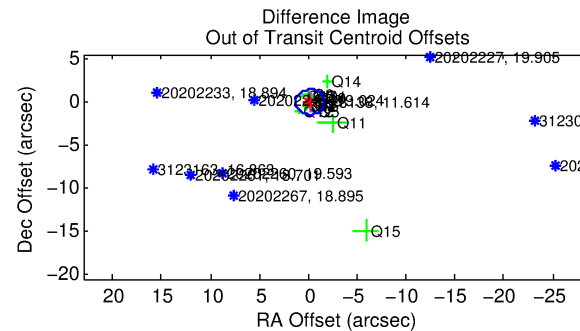
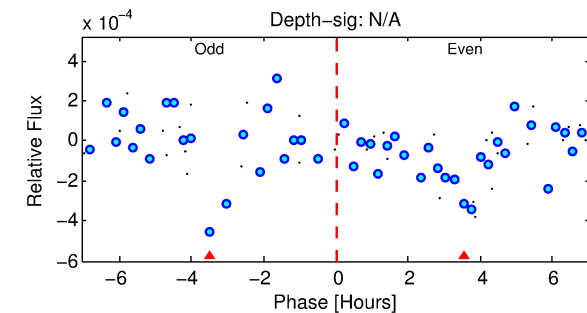
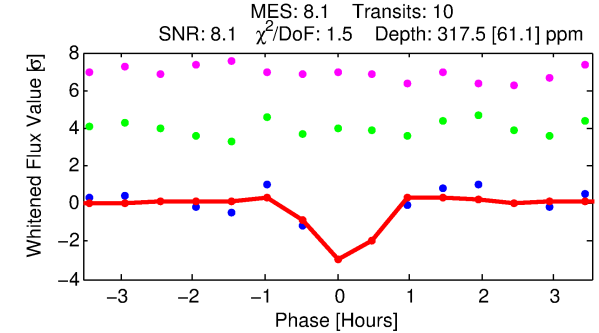
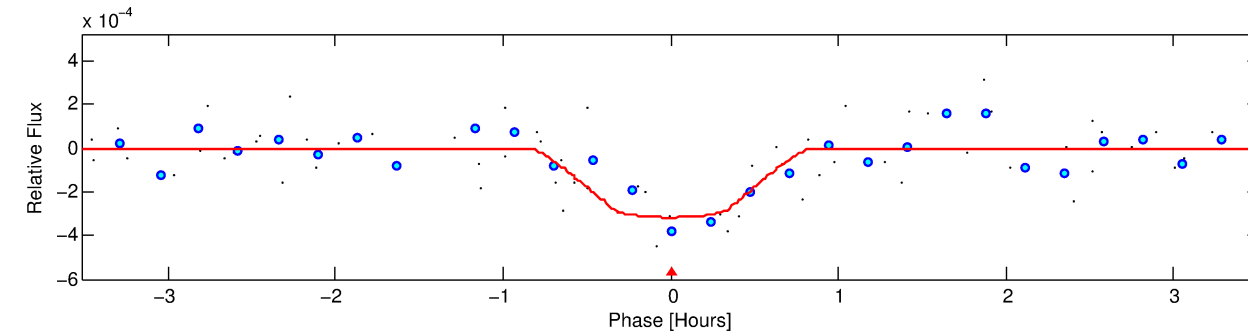
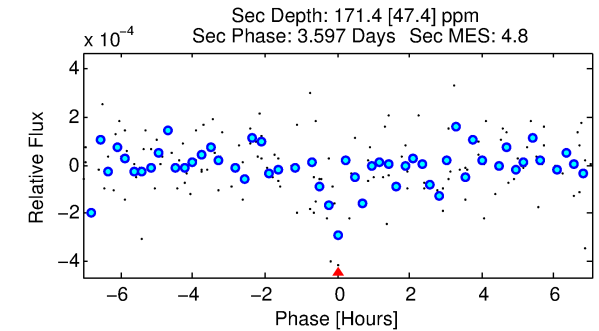
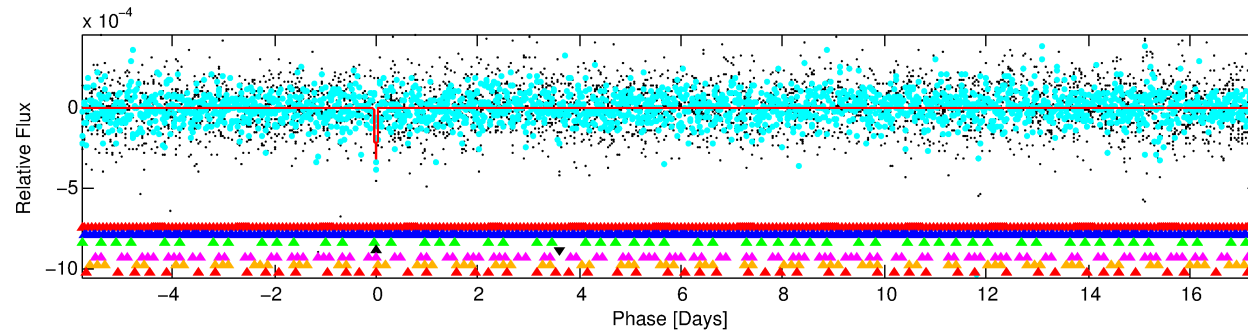
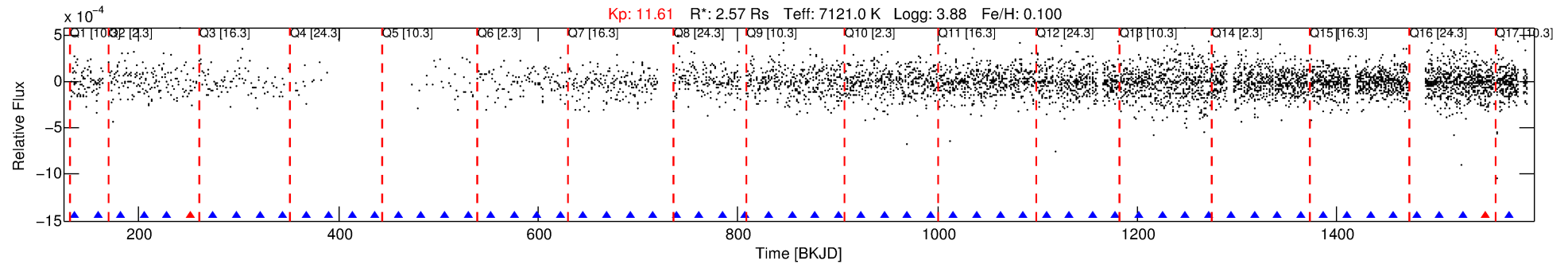
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-04

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 4 of 7 Period: 23.173 d



DV Fit Results:

Period = 23.17337 [0.00020] d
Epoch = 135.6864 [0.0087] BKJD
Rp/R* = 0.0166 [0.0240]
a/R* = 152.78 [1268.03]
b = 0.10 [84.25]
Seff = 404.60 [135.52]
Teq = 1144 [96] K
Rp = 4.66 [6.83] Re
a = 0.1939 [0.0422] AU
Ag = 163.40 [477.68] [0.34σ]
Teffp = 6322 [4591] K [1.13σ]

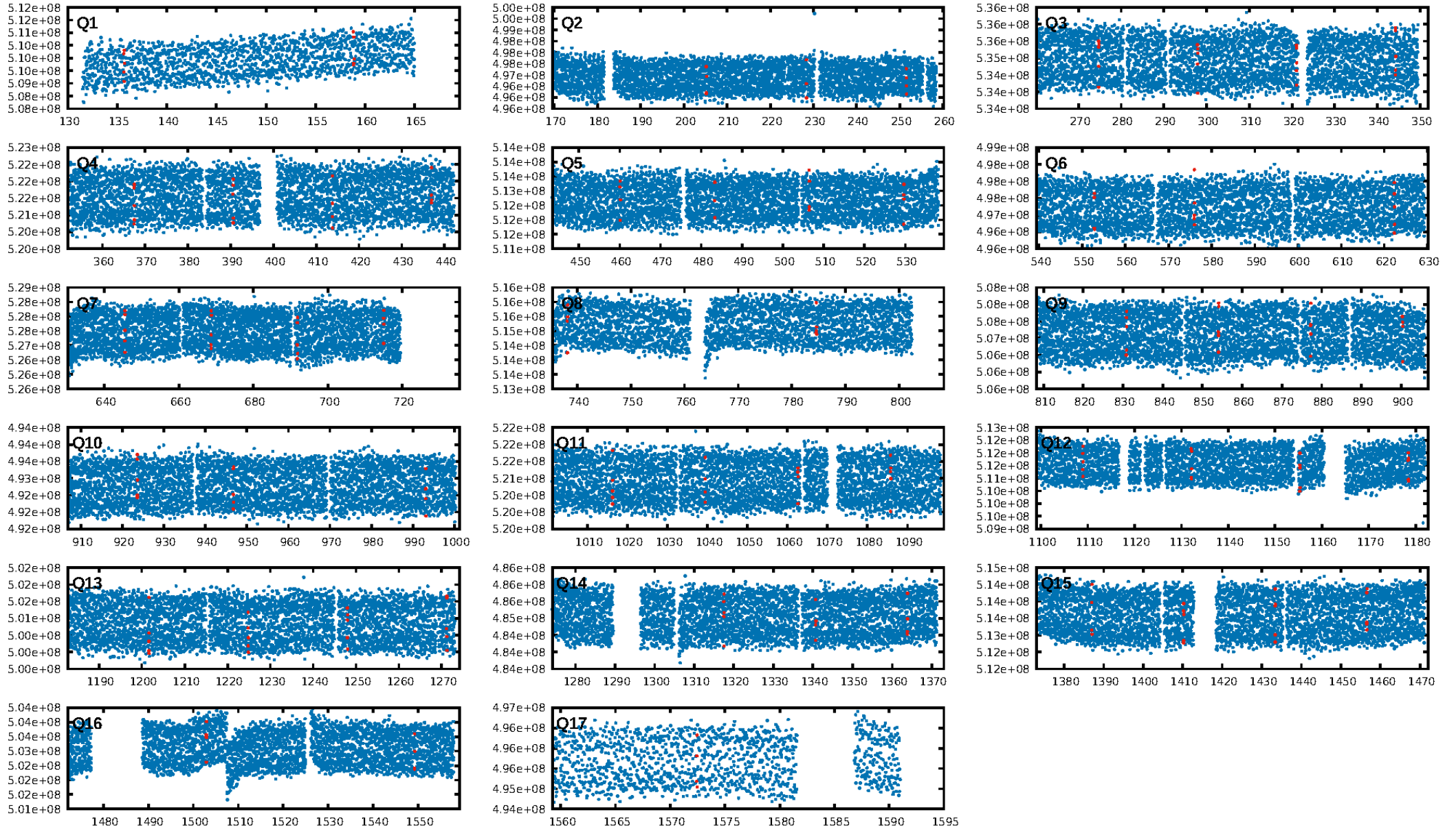
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.02σ]
LongPeriod-sig: 100.0% [32.84σ]
ModelChiSquare2-sig: 21.4%
ModelChiSquareGof-sig: 94.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.80 [8/10]
GhostDiagnostic-chr: -0.6119
Centroid-sig: 47.7%
Centroid-so: 0.347 arcsec [1.00σ]
OotOffset-rm: 0.185 arcsec [0.38σ]
KicOffset-rm: 0.246 arcsec [0.94σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 0.00 [0/17]

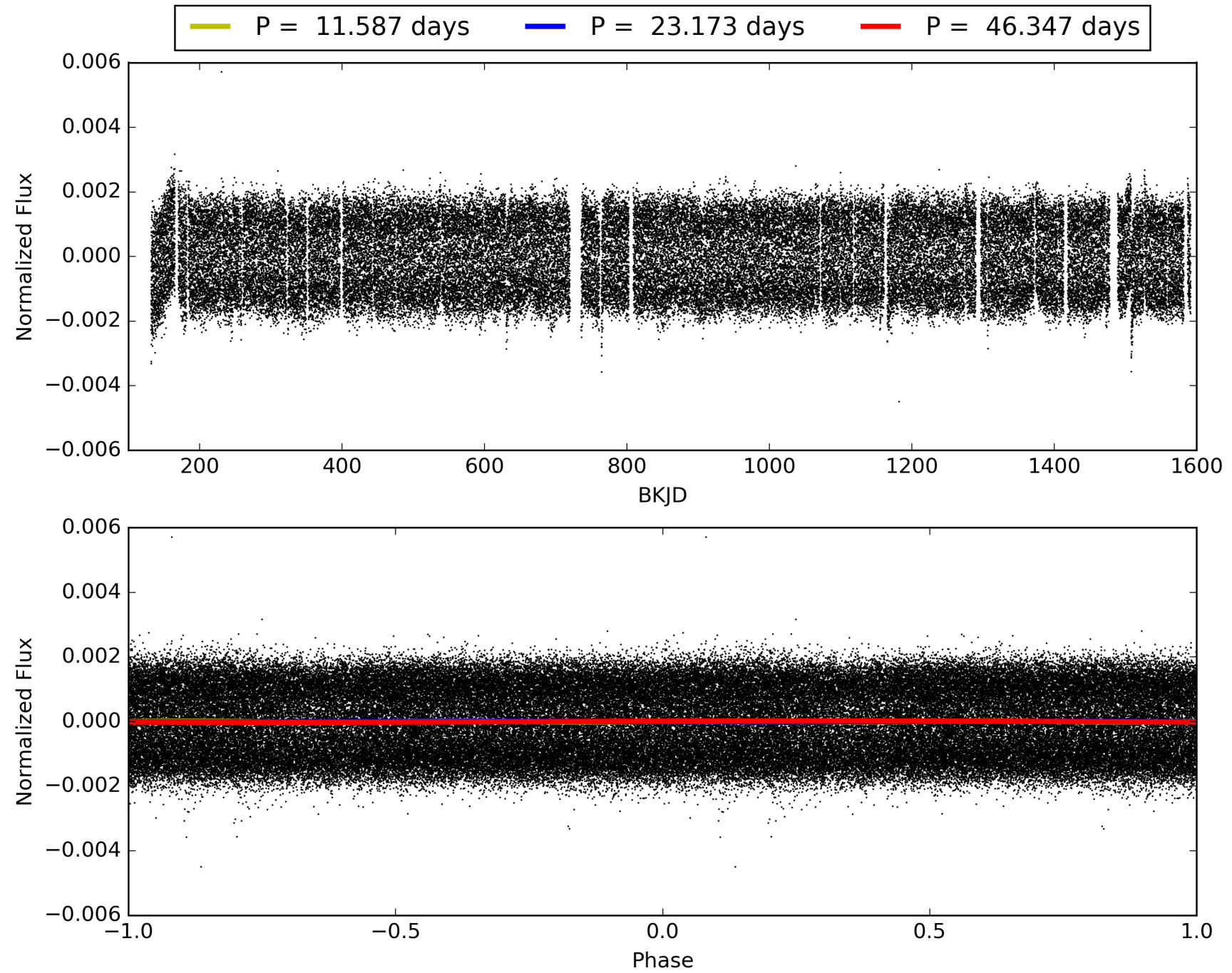
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:43 Z

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

TCE 003123138-04, PDC Light Curves

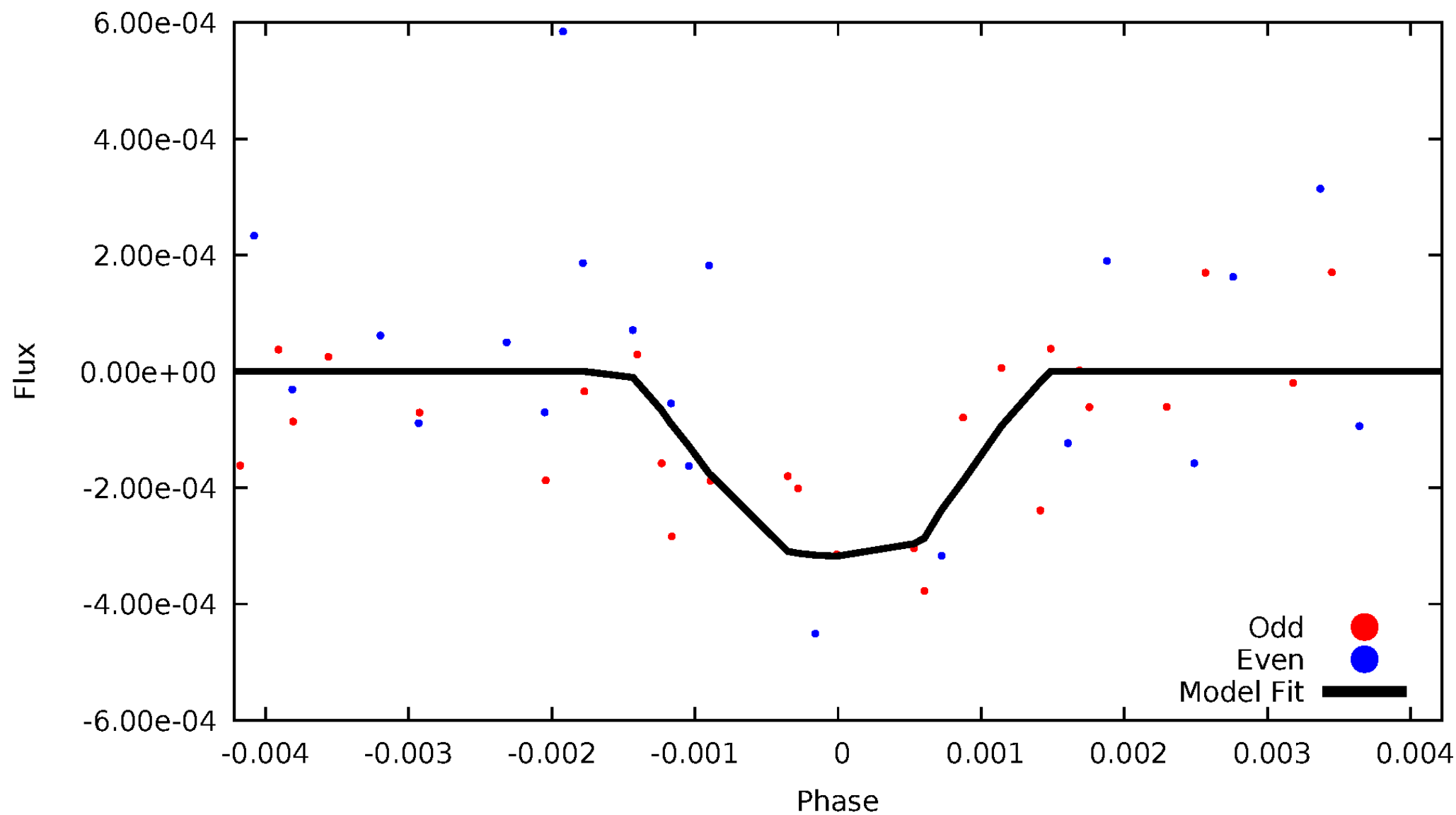


TCE 003123138-04



DV Odd/Even

TCE 003123138-04

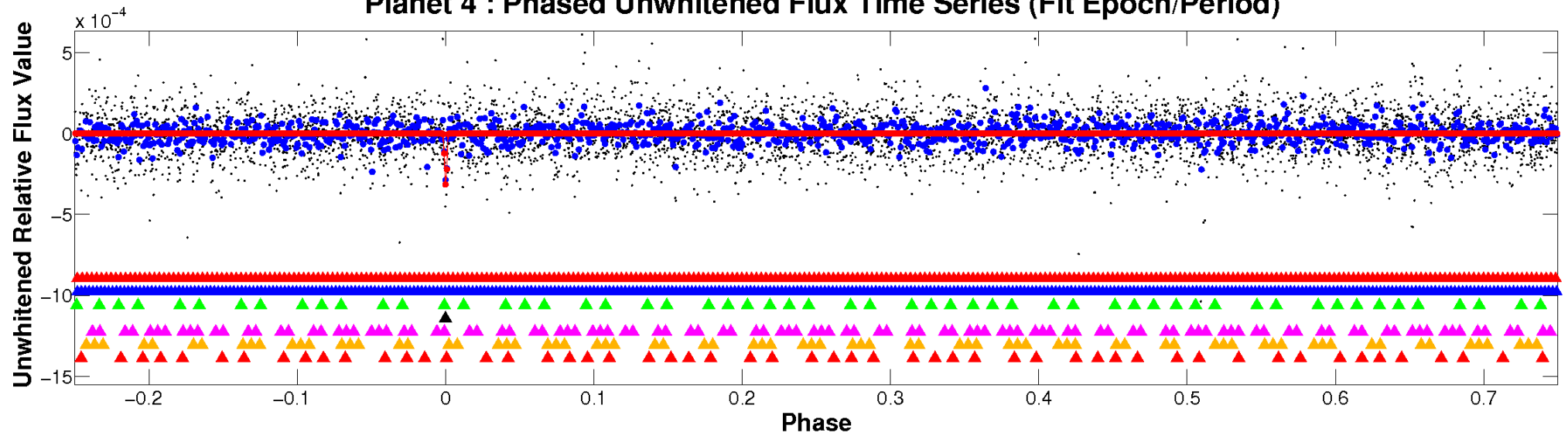


ALT Odd/Even

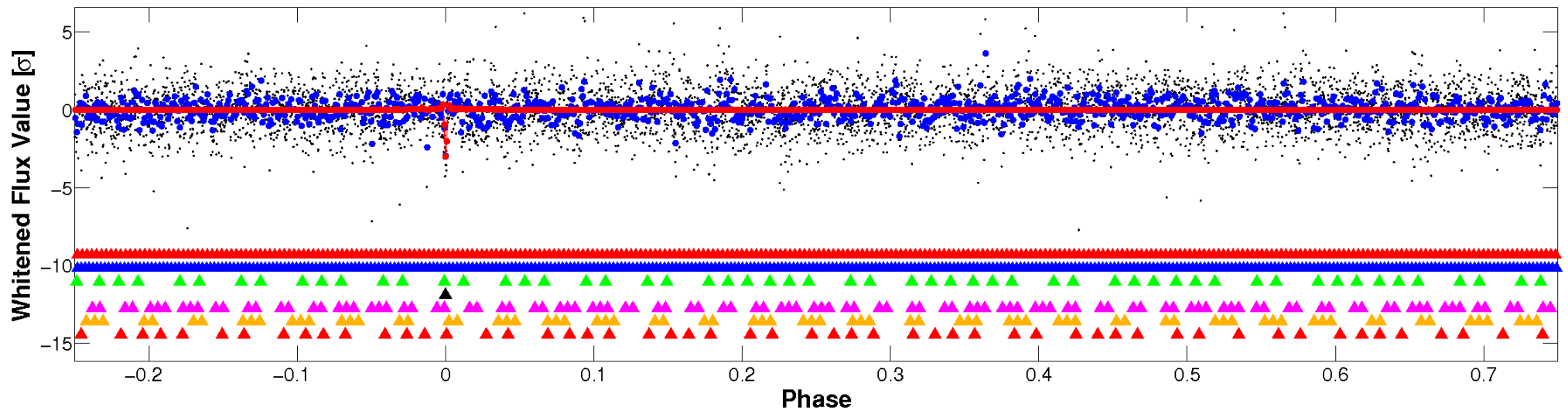
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

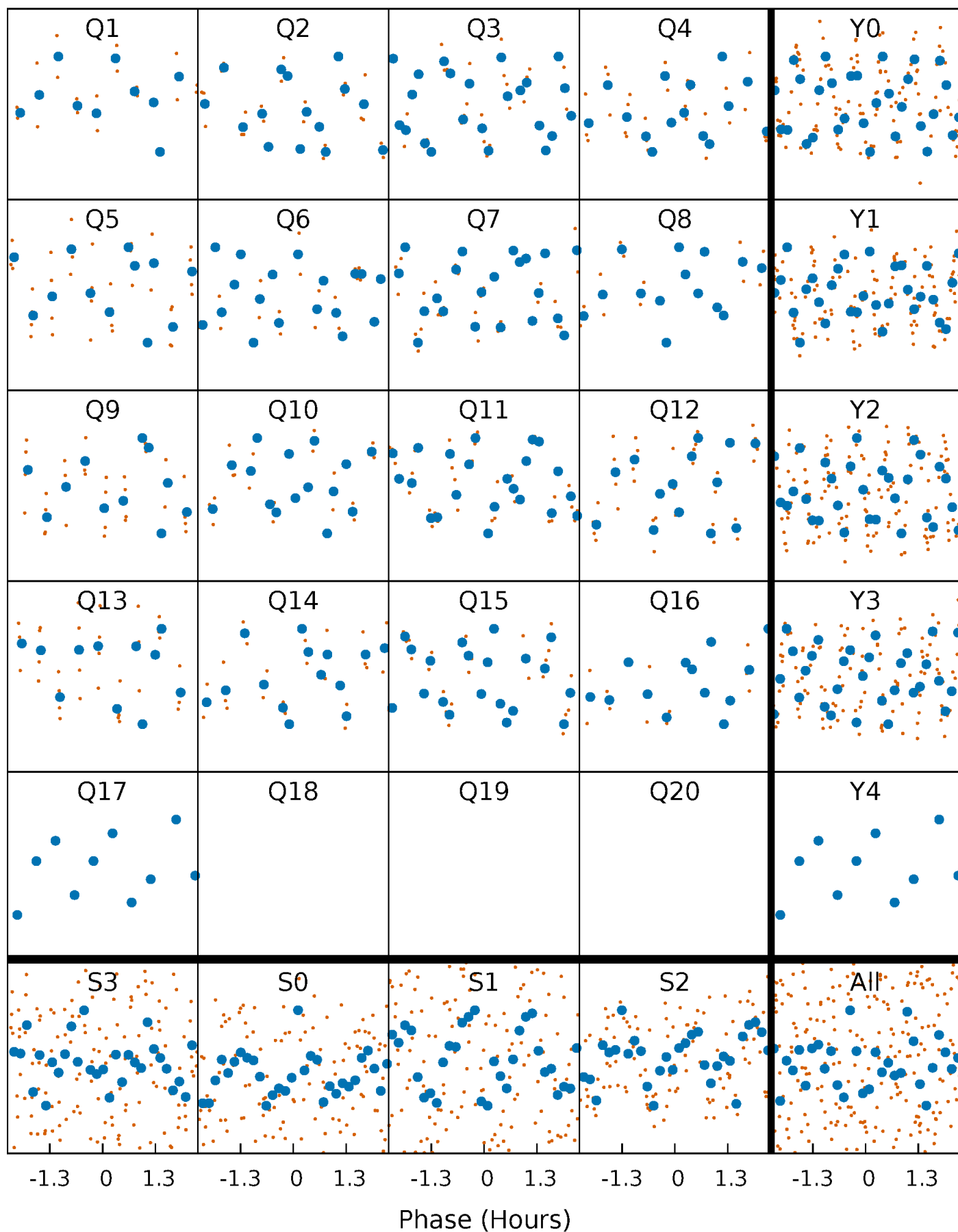


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



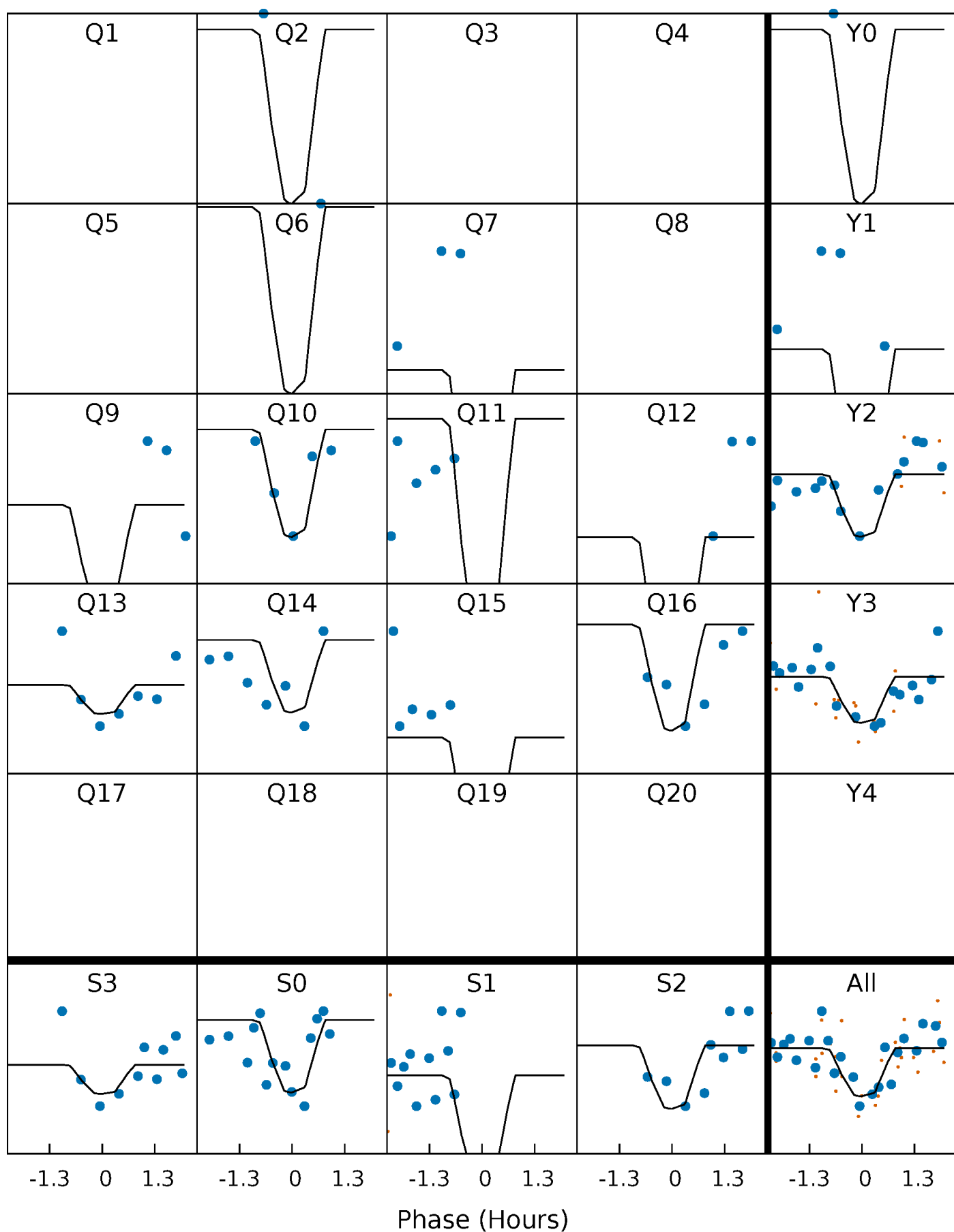
PDC Quarter-Phased Transit Curves

TCE 003123138-04 P= 23.173368 Days $T_0=135.686430$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003123138-04 P= 23.173368 Days $T_0=135.686430$ (BKJD)

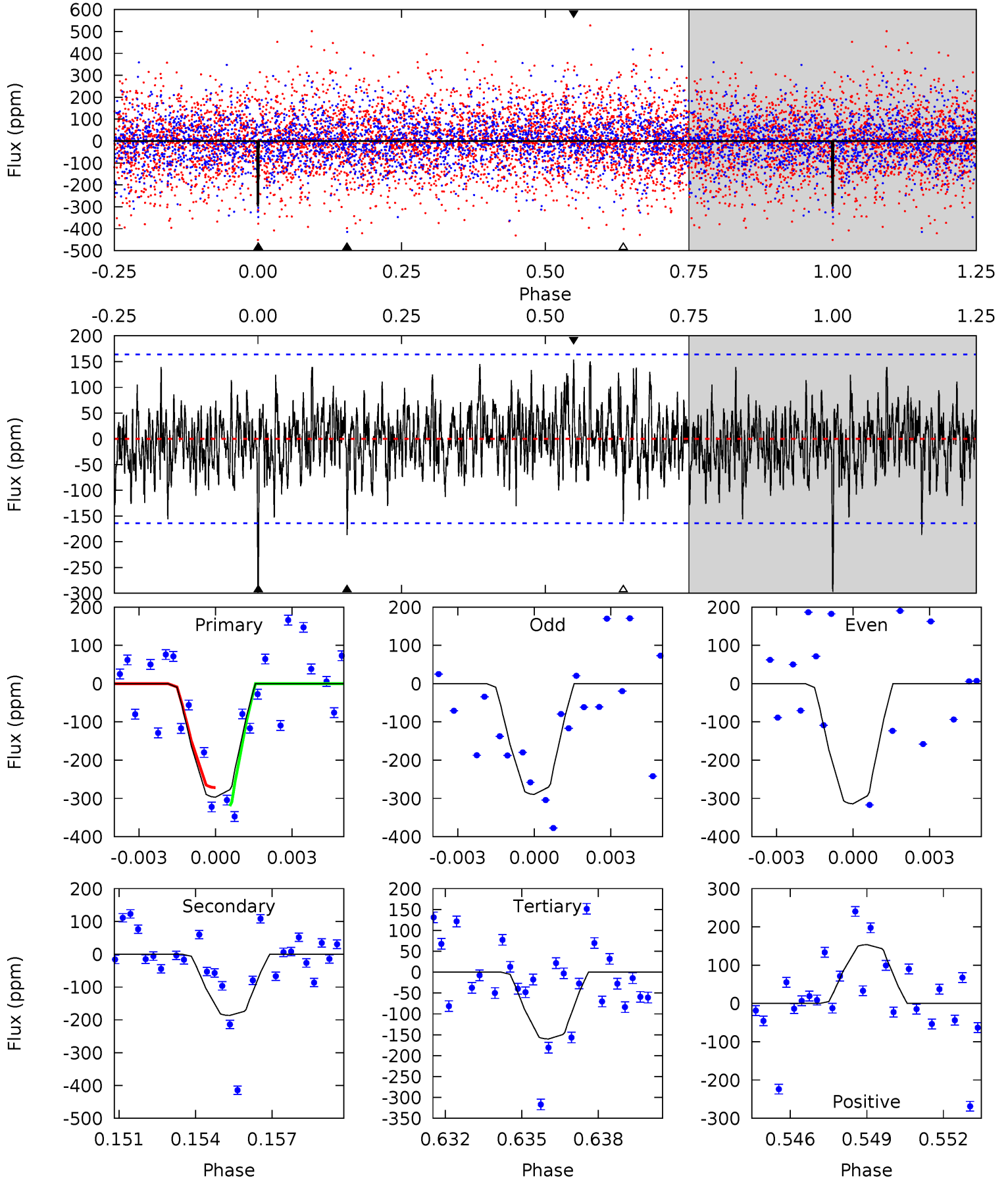


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003123138-04, P = 23.173368 Days, E = 112.513062 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.54	5.99	5.15	4.93	5.26	2.98	1.55	4.39	4.60	0.85	1.06	0.37	1.08	0.34	0.72



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-187 ± 31	$6.82^{+5.89}_{-4.48}$	1590^{+66}_{-97}	5248^{+4316}_{-1149}	84^{+631}_{-61}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{\text{obs}} \gg 1.0$

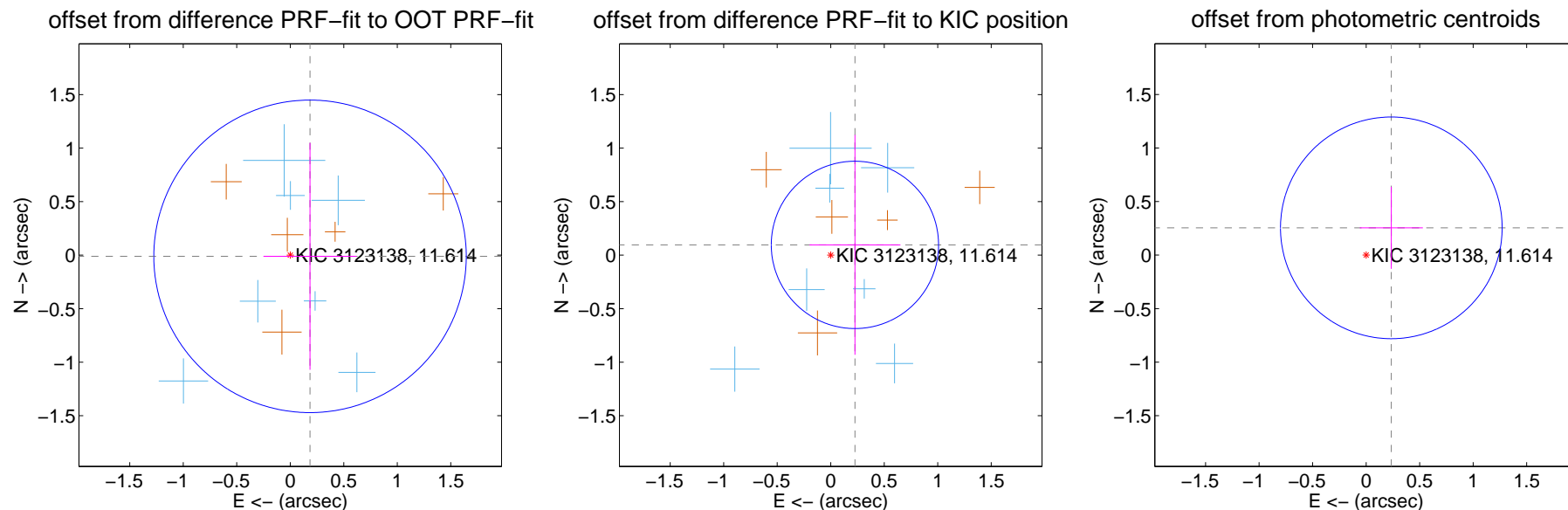
DV Centroid Data

Supplemental centroid analysis for 003123138-04. **Kepler magnitude: 11.61.** Transit SNR 8.07

There are 8 quarters with good PRF difference image offsets

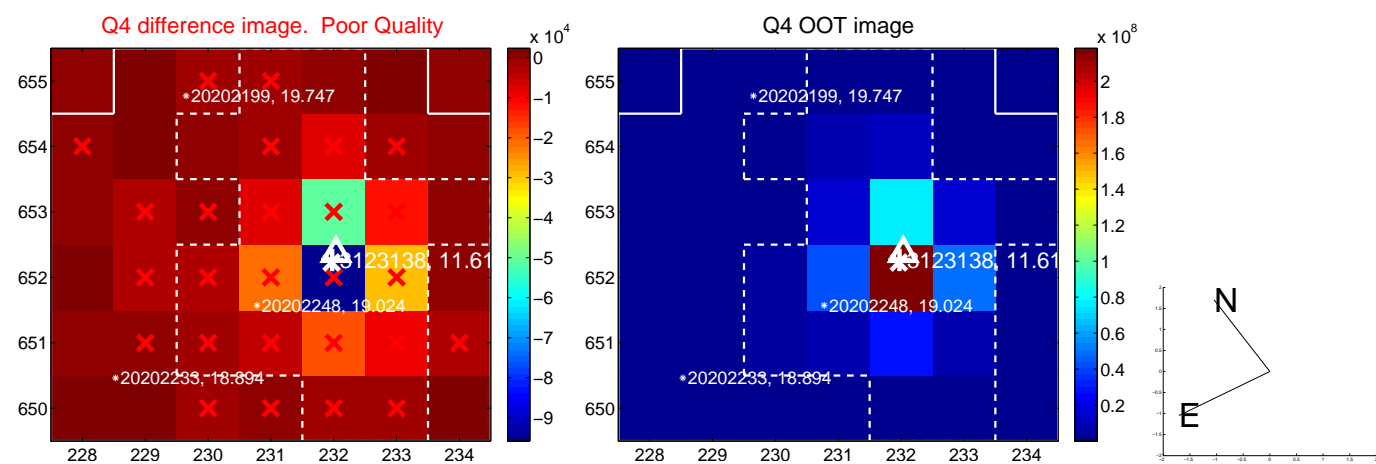
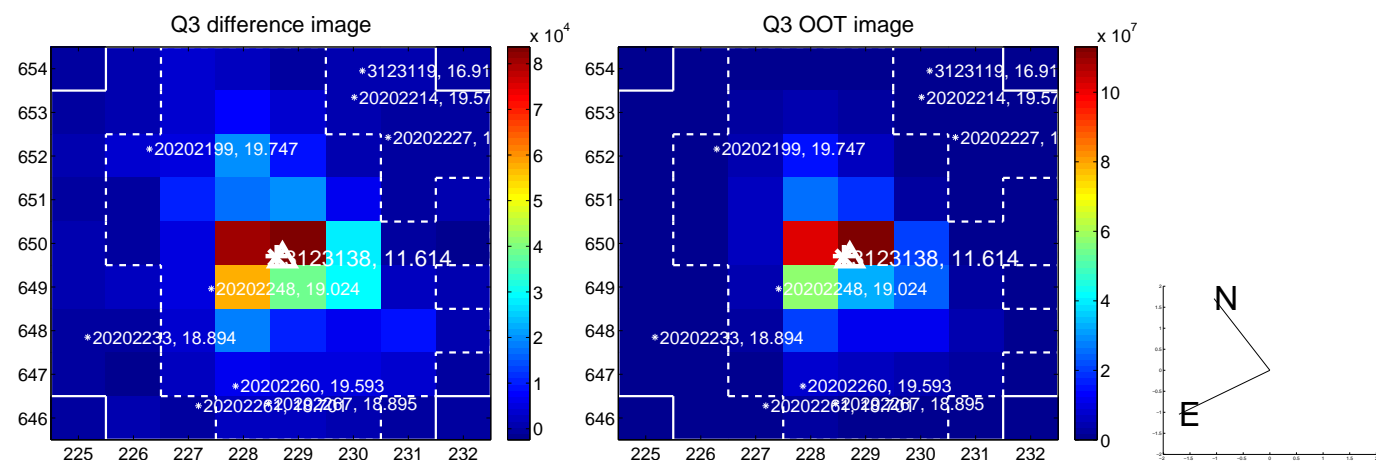
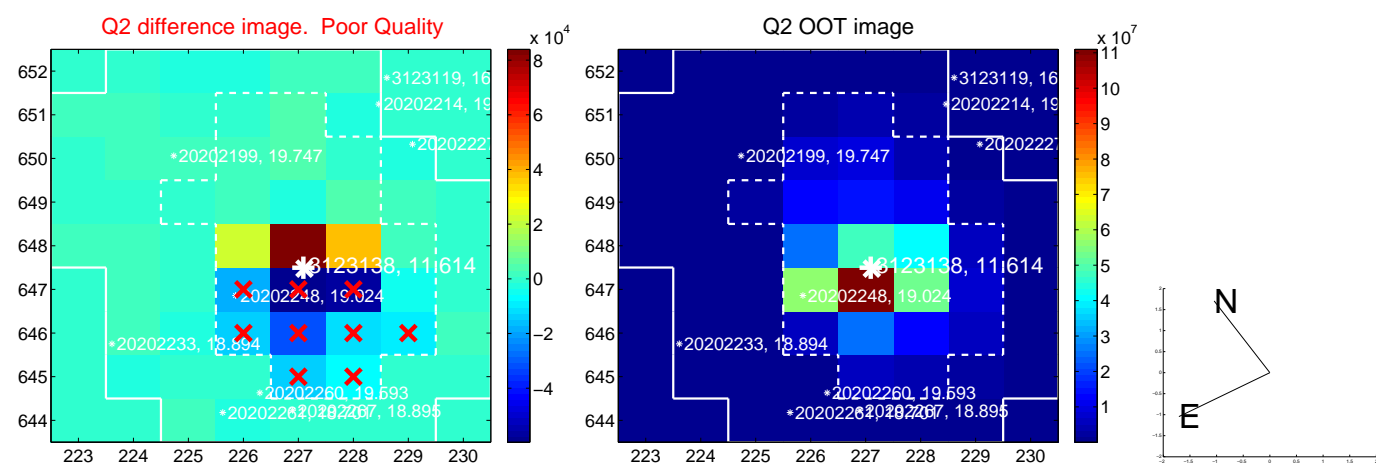
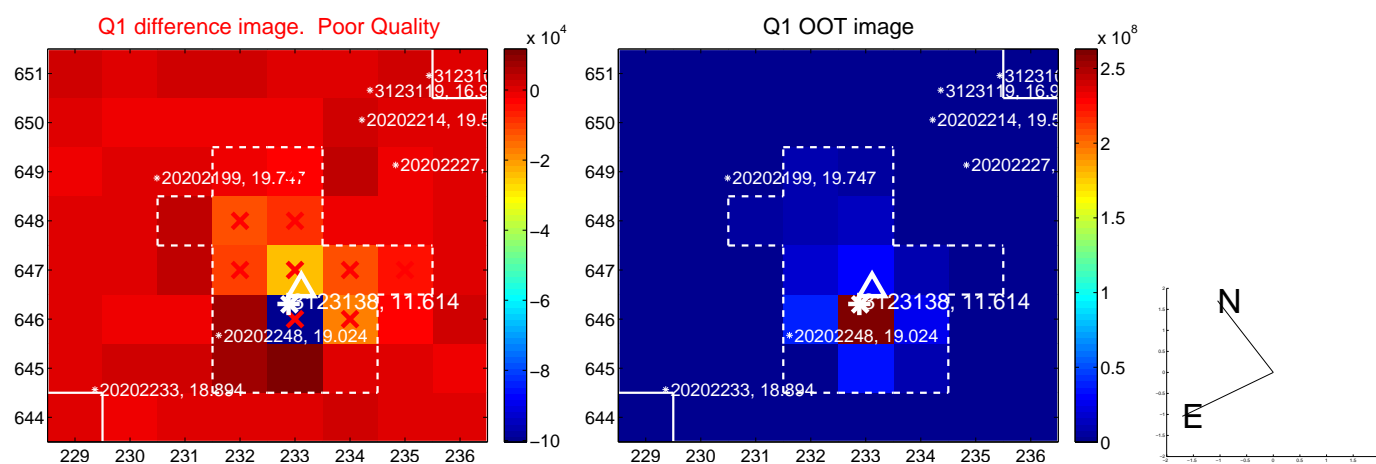
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.185 ± 0.487	0.38	-0.185 ± 0.435	-0.011 ± 1.060
PRF-fit source offset from KIC position	0.246 ± 0.261	0.94	-0.226 ± 0.425	0.096 ± 1.027
photometric centroid source offset	0.35 ± 0.35	1.00	-0.24 ± 0.29	0.25 ± 0.38

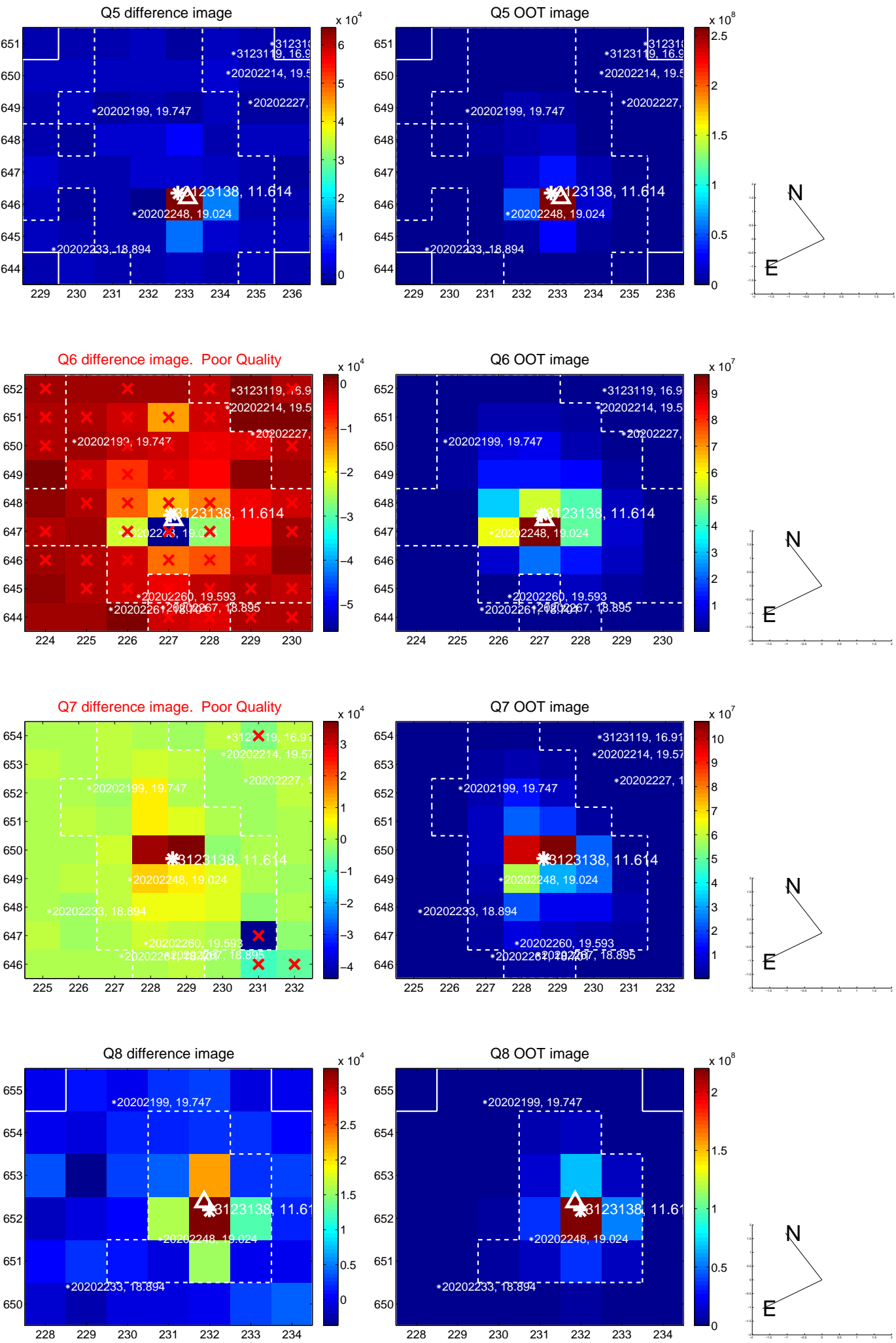


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

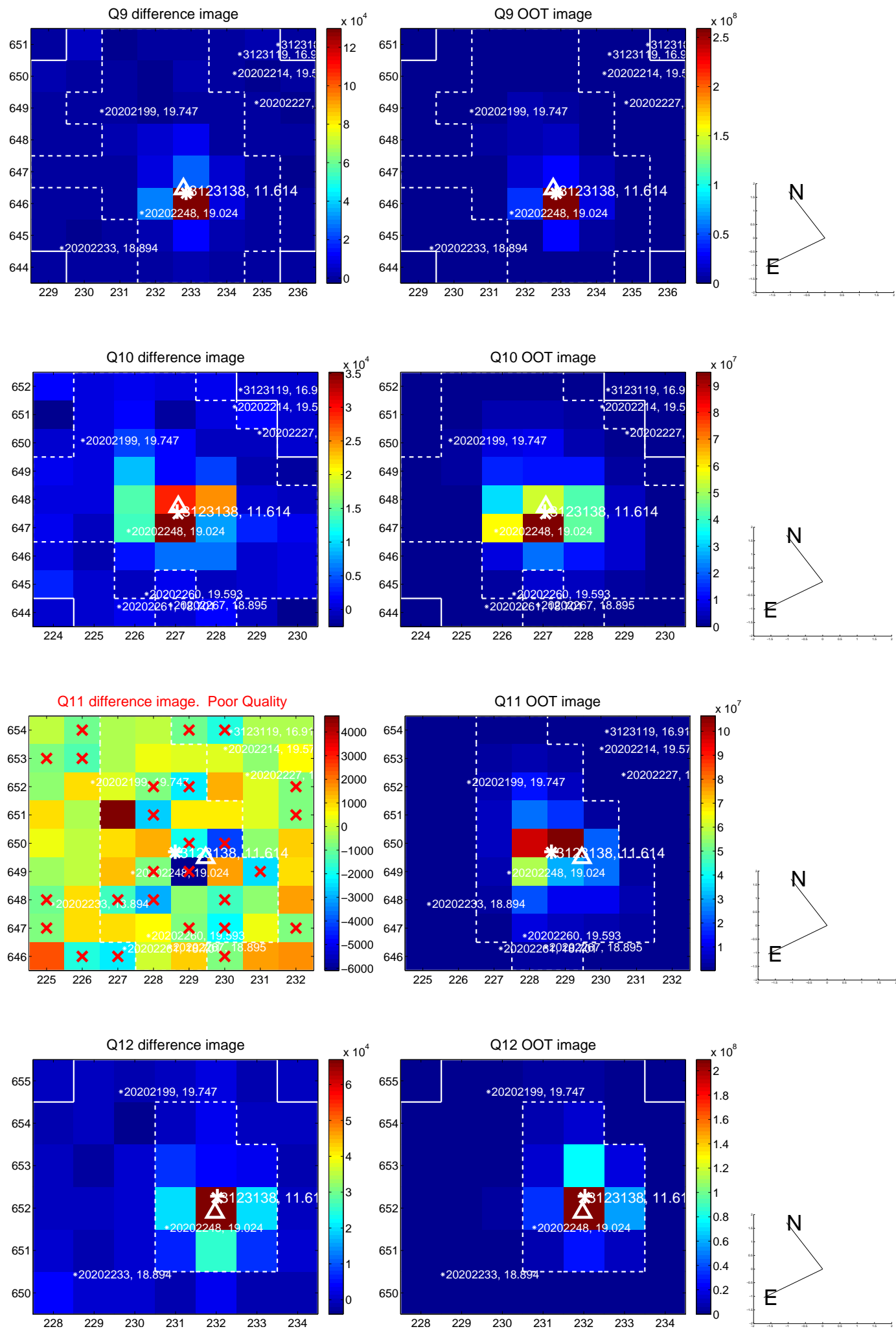
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



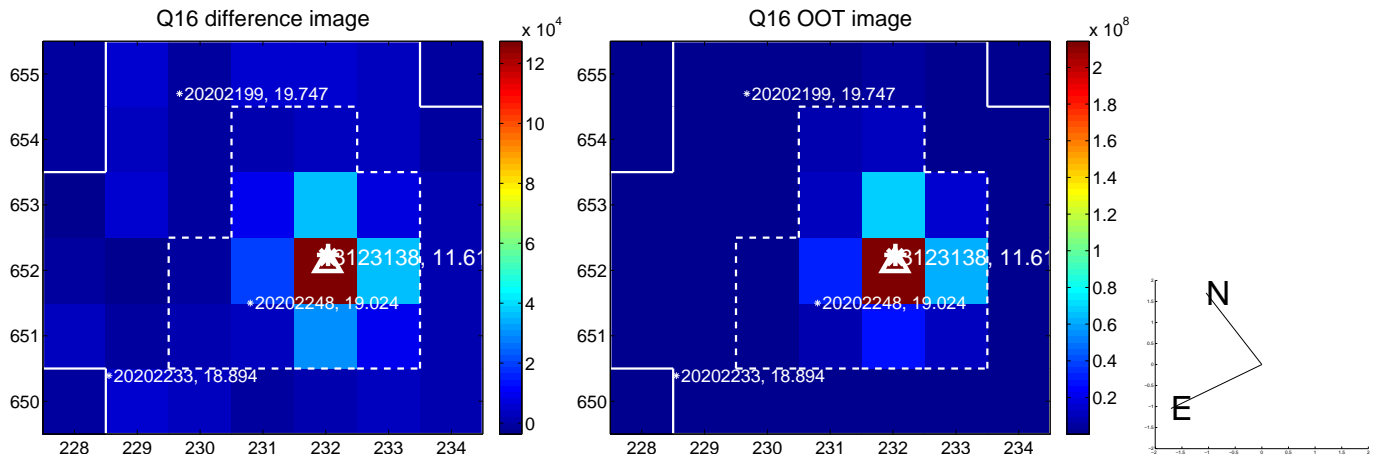
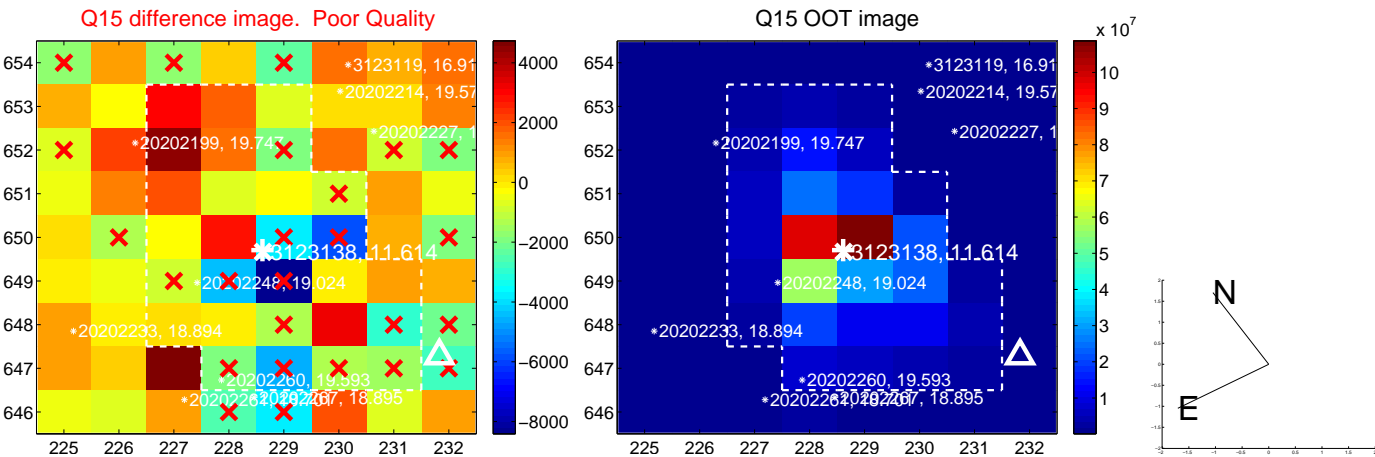
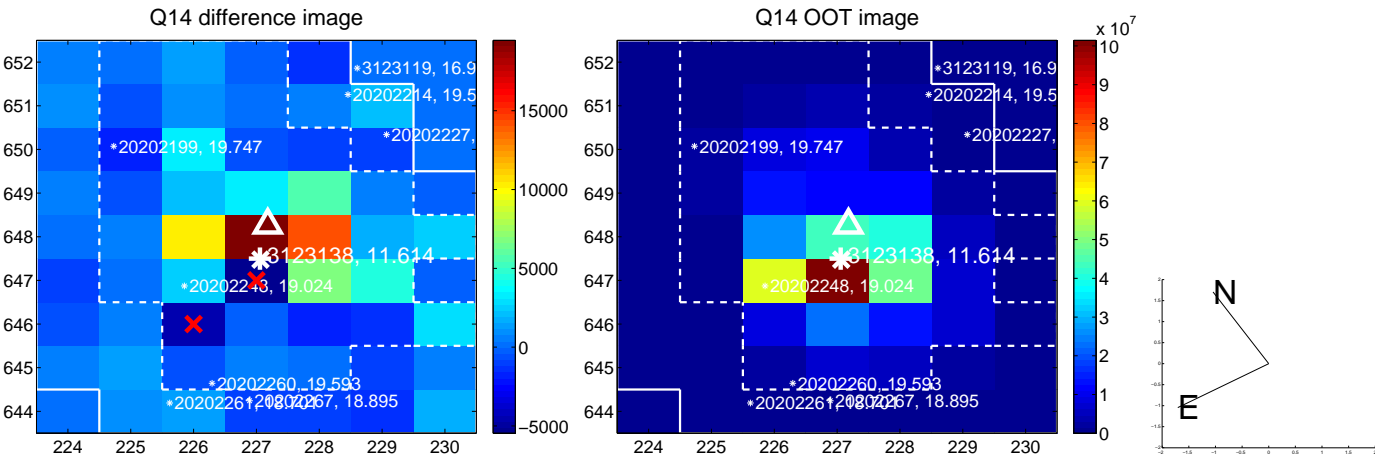
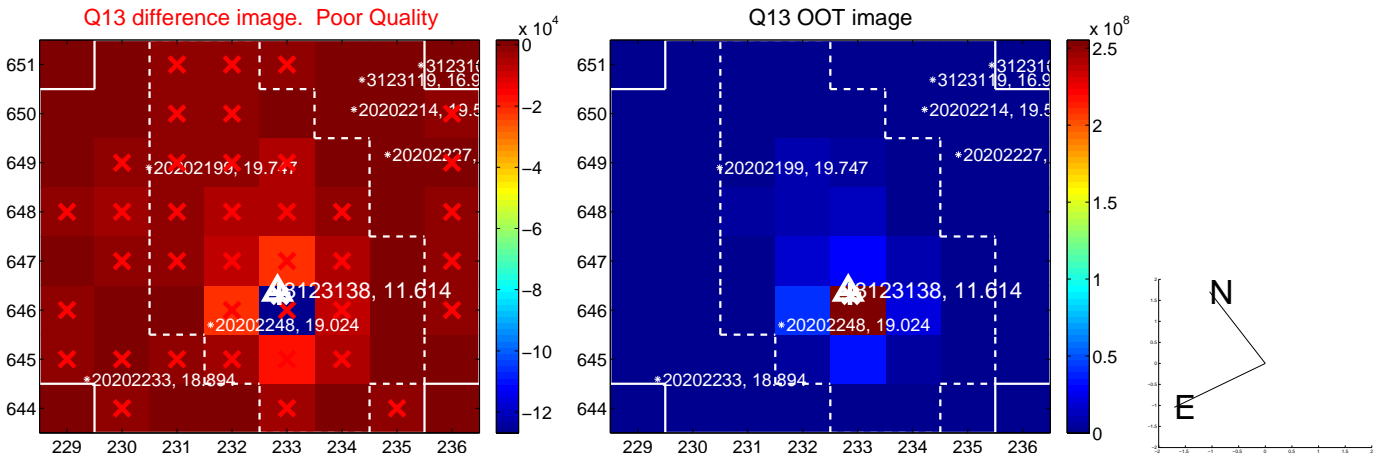
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



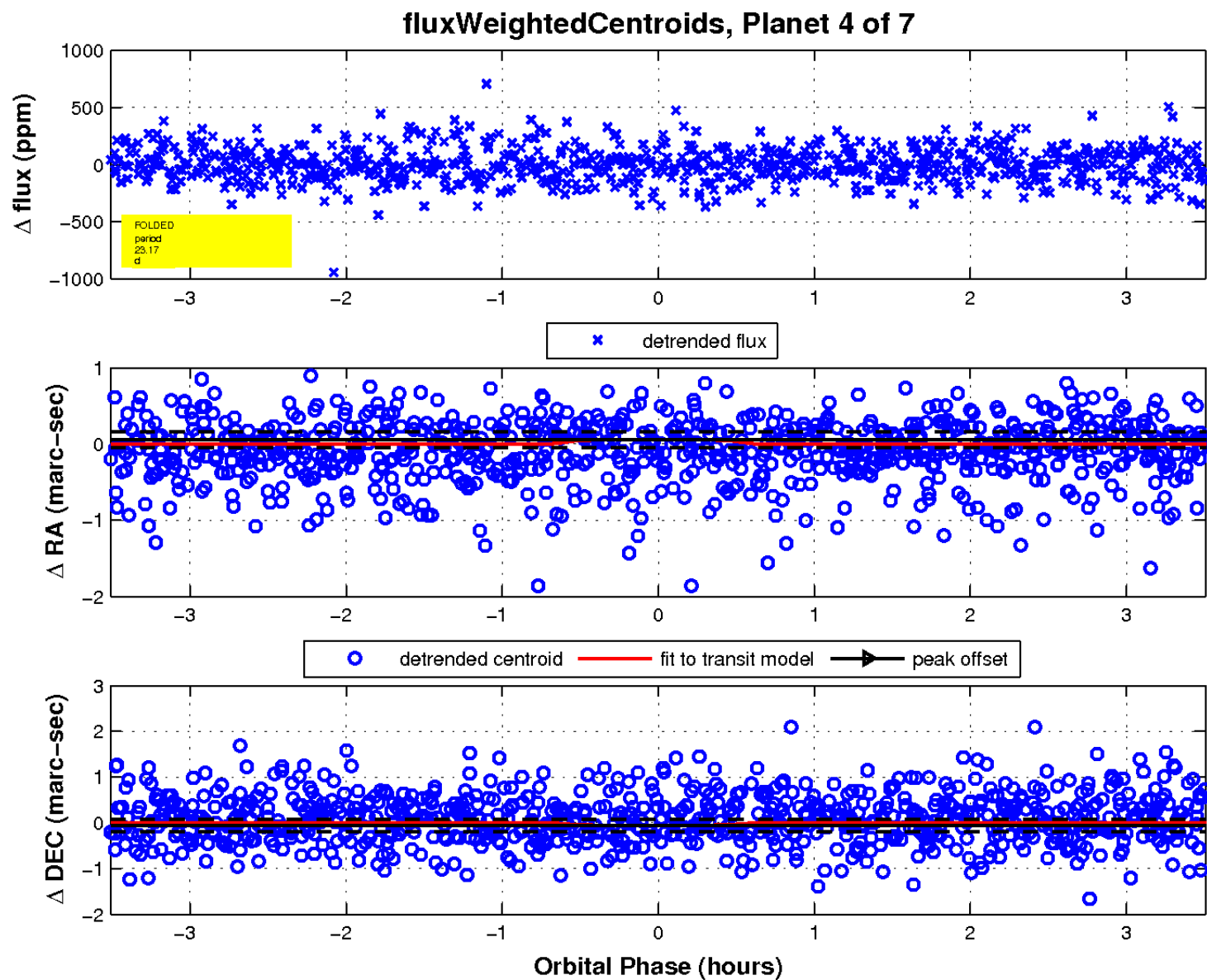
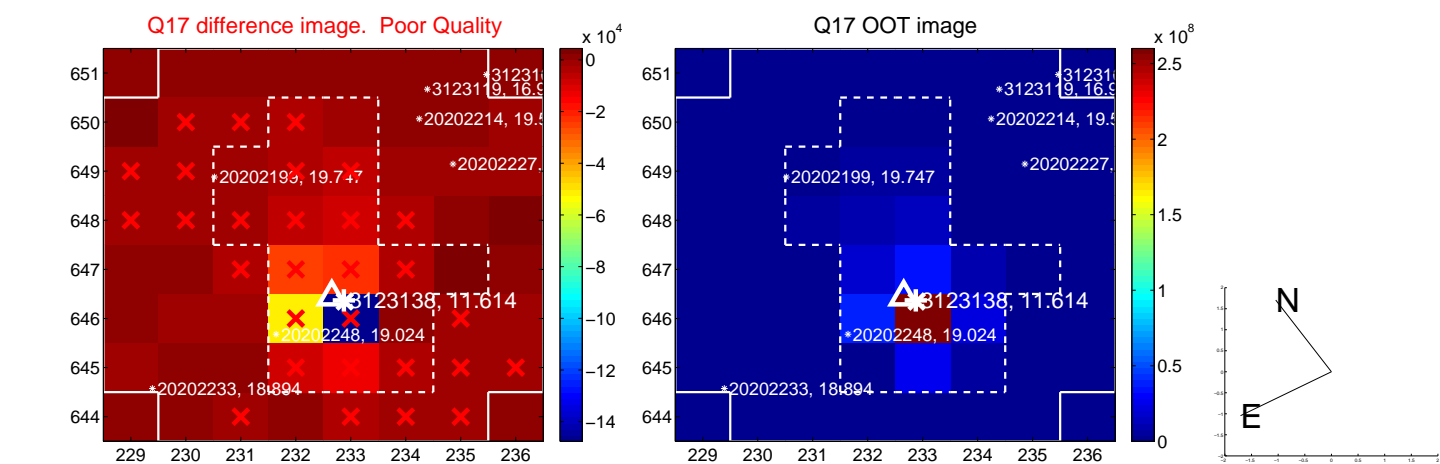
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

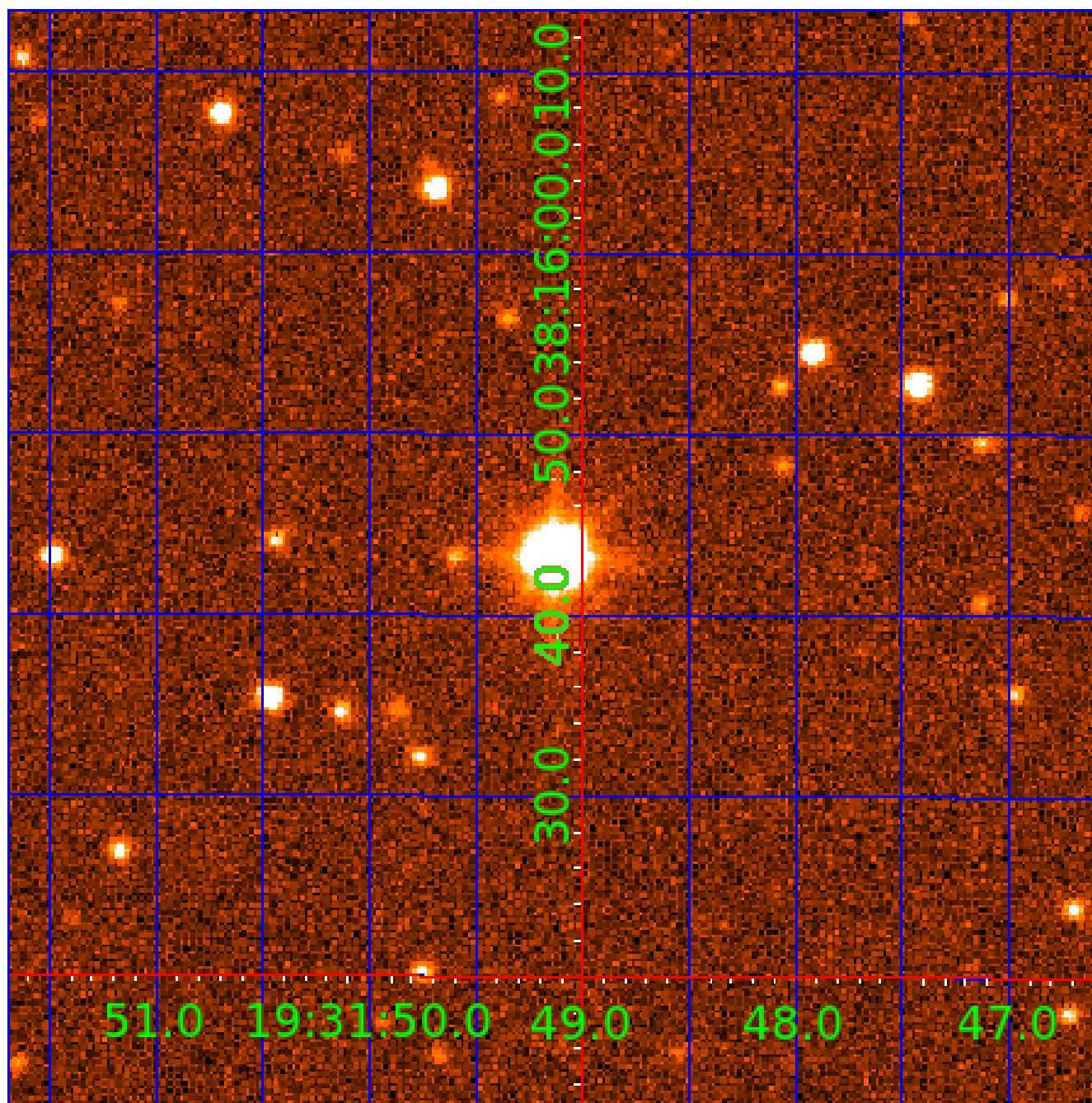


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

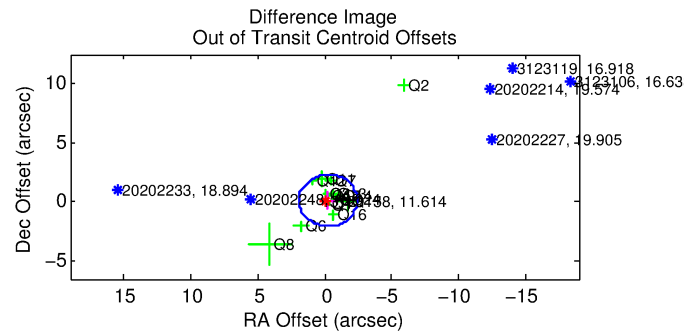
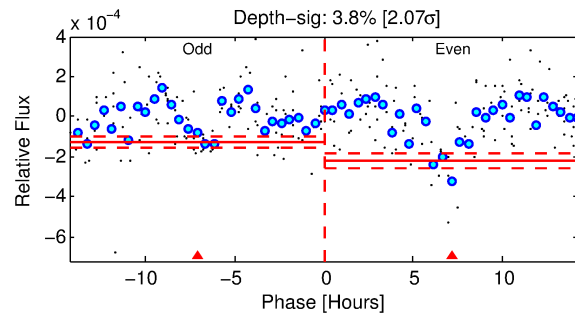
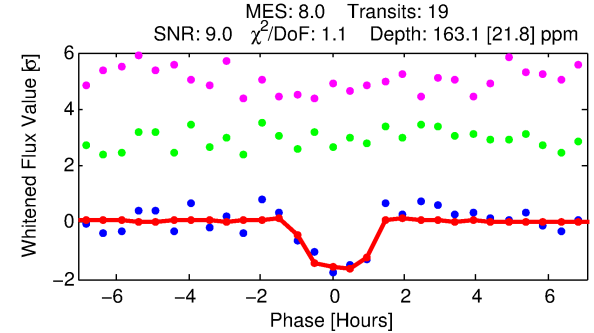
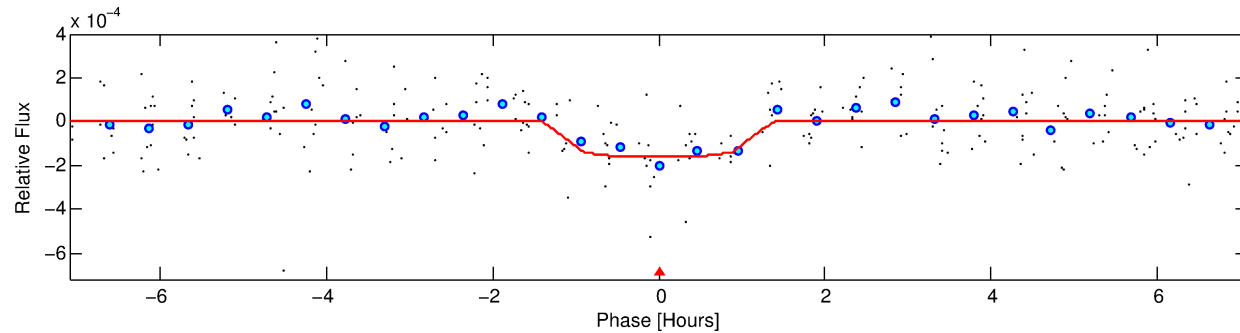
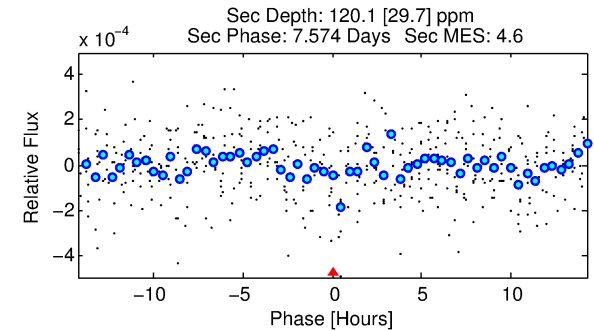
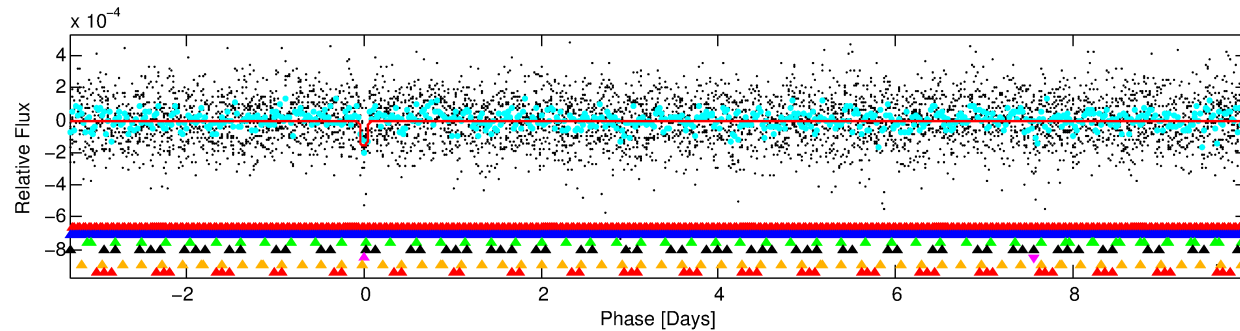
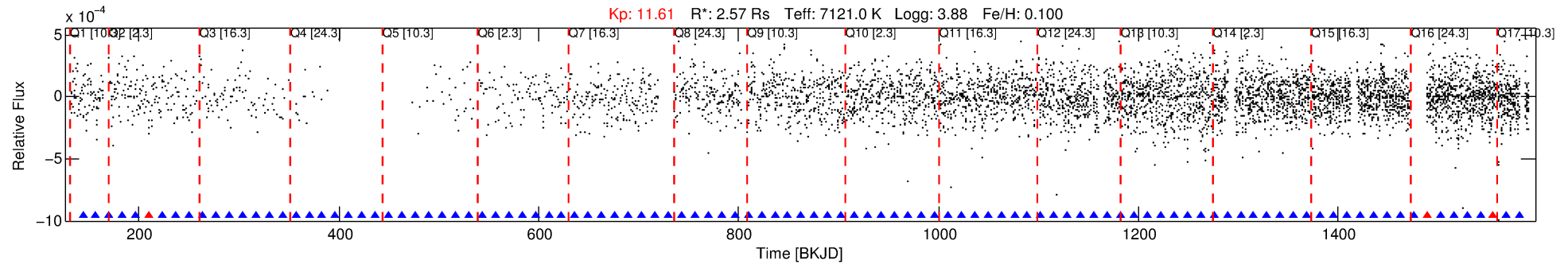
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-05

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 5 of 7 Period: 13.315 d



DV Fit Results:

Period = 13.31482 [0.00014] d
Epoch = 143.8803 [0.0108] BKJD
Rp/R* = 0.0121 [0.0101]
a/R* = 37.87 [179.48]
b = 0.50 [7.21]
Seff = 847.03 [283.71]
Teq = 1376 [115] K
Rp = 3.41 [2.94] Re
a = 0.1340 [0.0292] AU
Ag = 102.27 [174.46] [0.58σ]
Teffp = 6764 [2831] K [1.90σ]

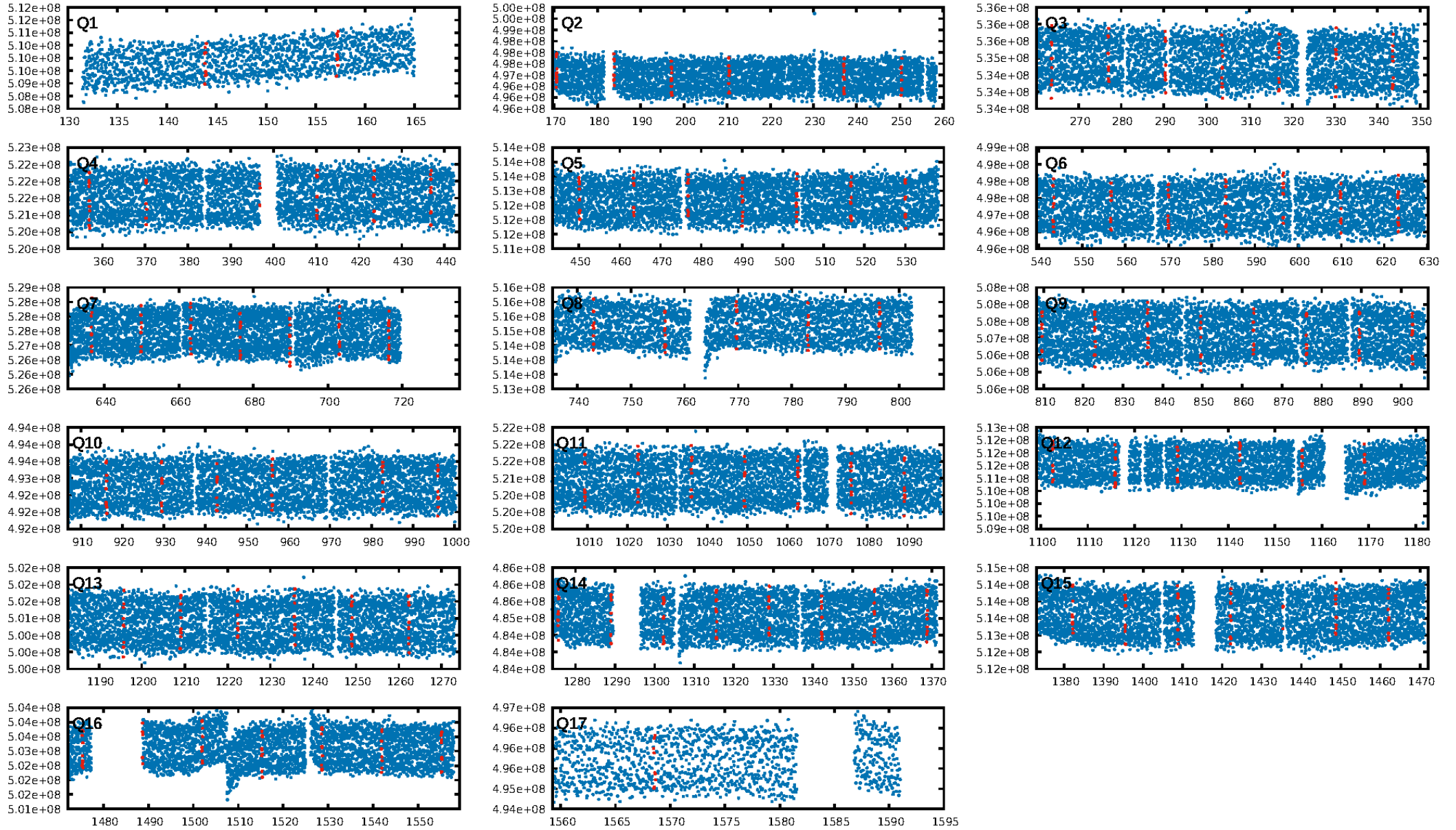
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [96.07σ]
LongPeriod-sig: 100.0% [18.44σ]
ModelChiSquare2-sig: 34.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [15/18]
GhostDiagnostic-chr: -0.9193
Centroid-sig: 0.9%
Centroid-so: 0.588 arcsec [1.55σ]
OotOffset-rm: 0.283 arcsec [0.39σ]
KicOffset-rm: 0.380 arcsec [0.45σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.33 [5/15]
DiffImageOverlap-fno: 0.00 [0/17]

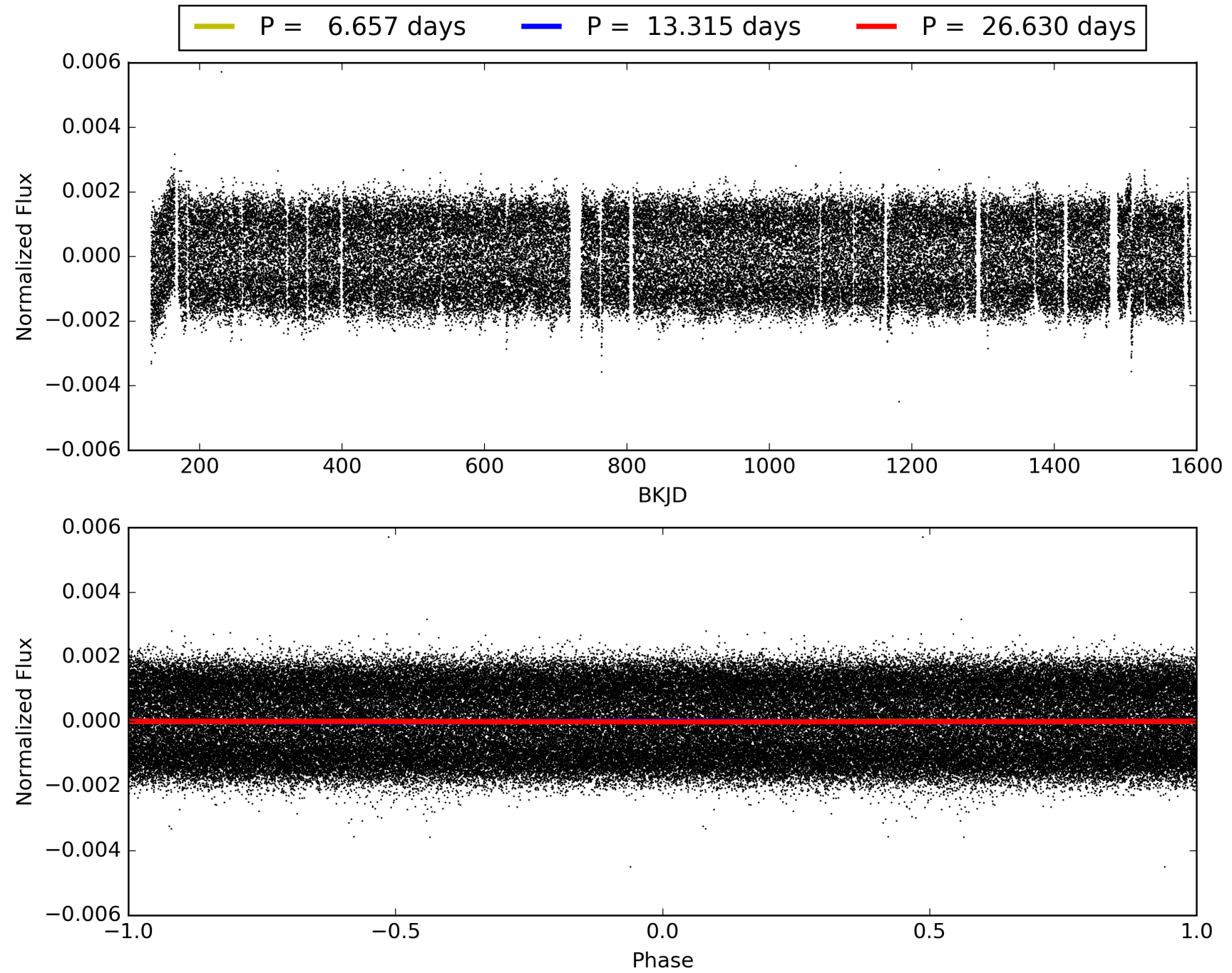
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:46 Z

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

TCE 003123138-05, PDC Light Curves

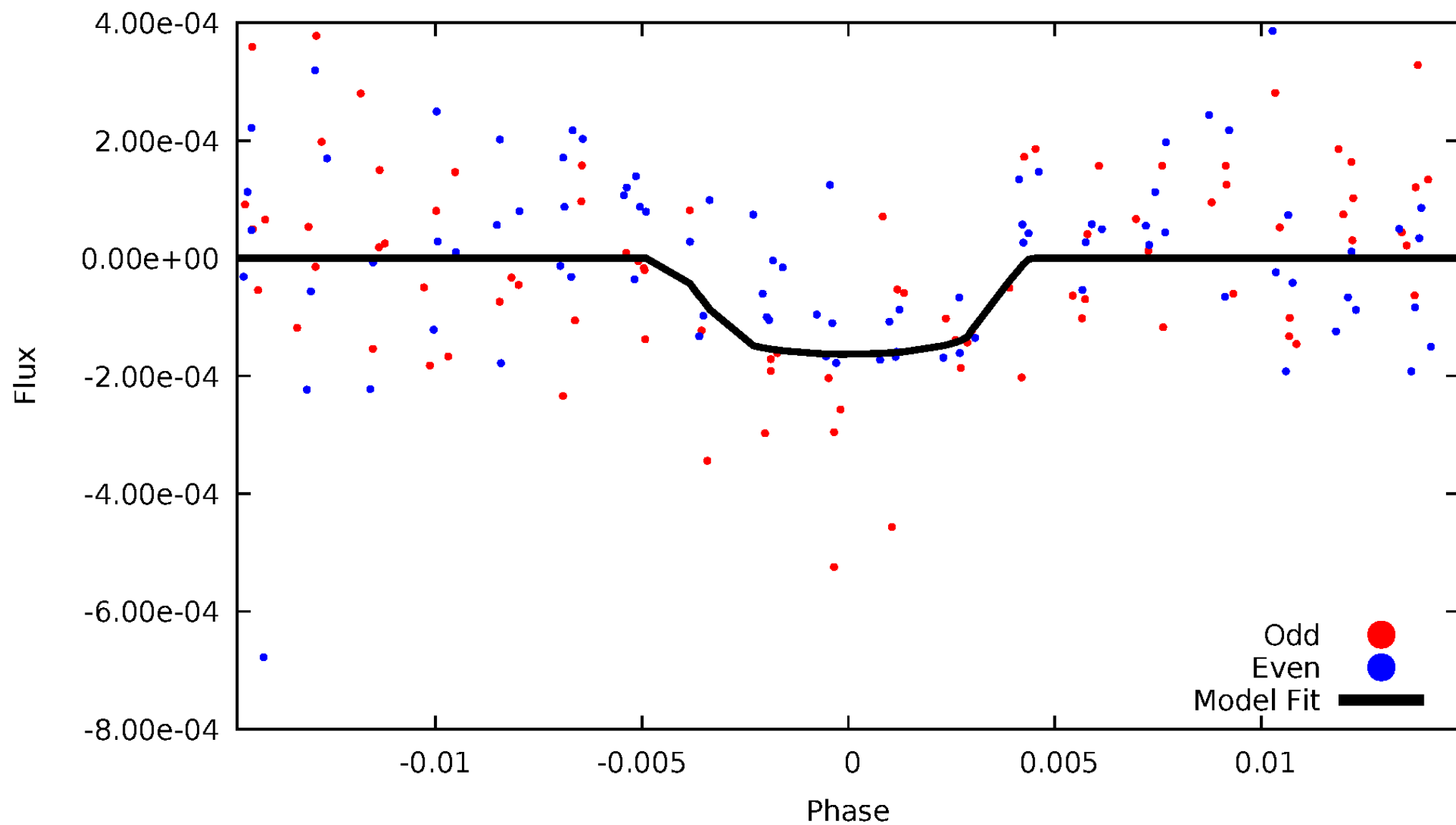


TCE 003123138-05



DV Odd/Even

TCE 003123138-05

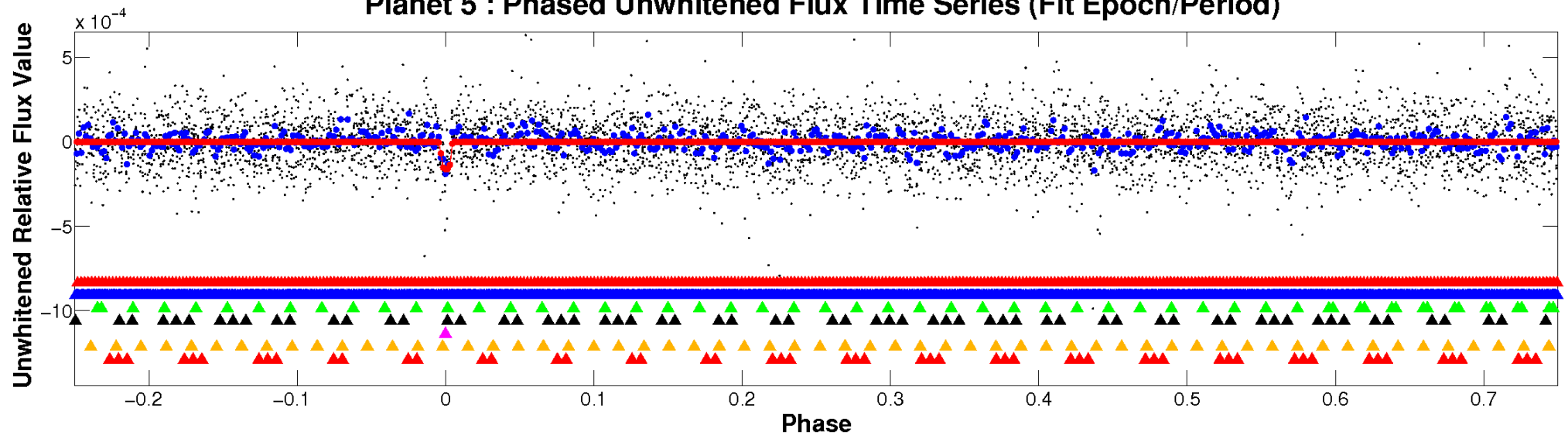


ALT Odd/Even

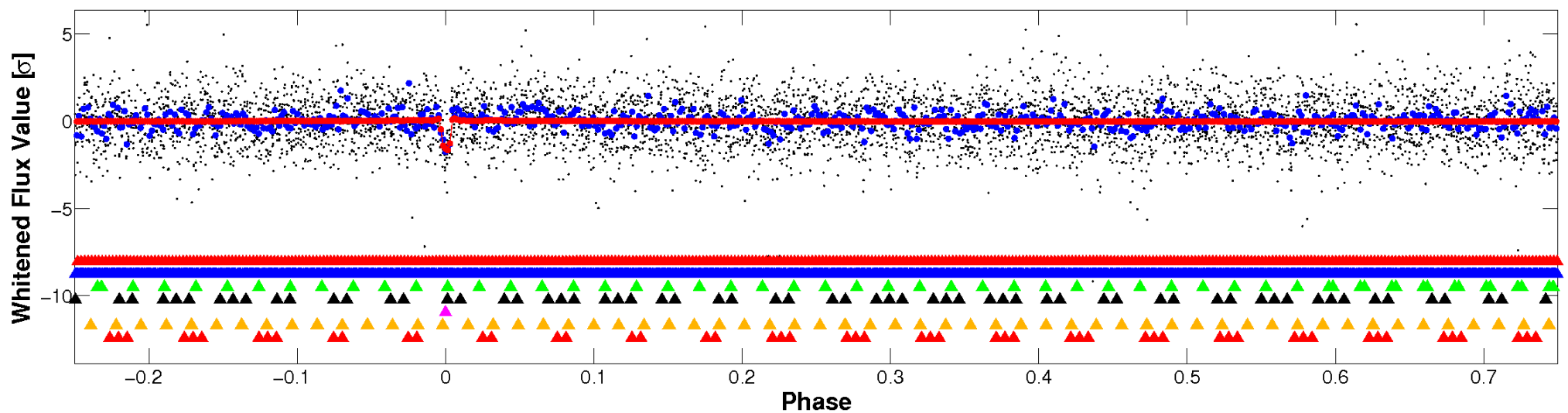
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

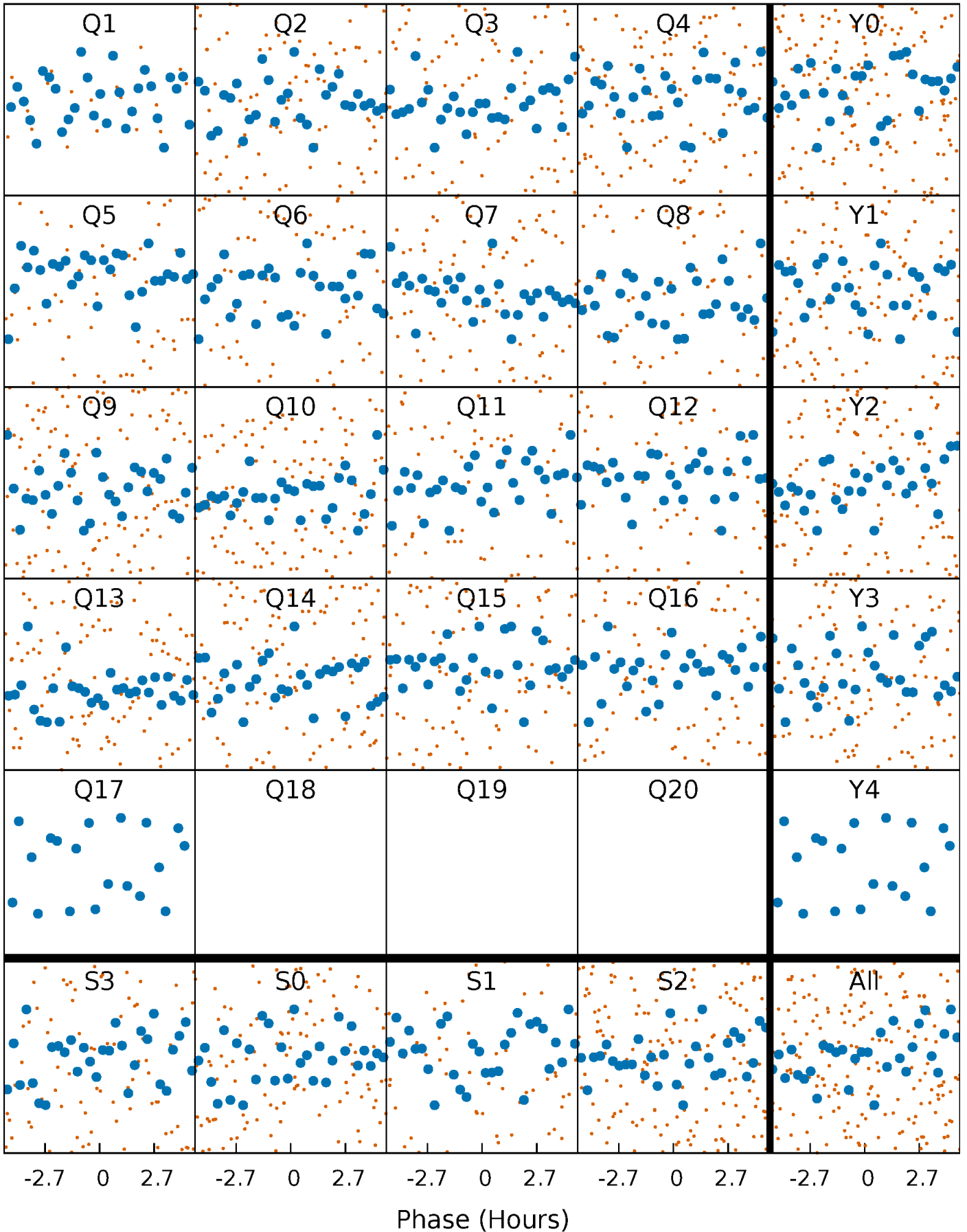


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



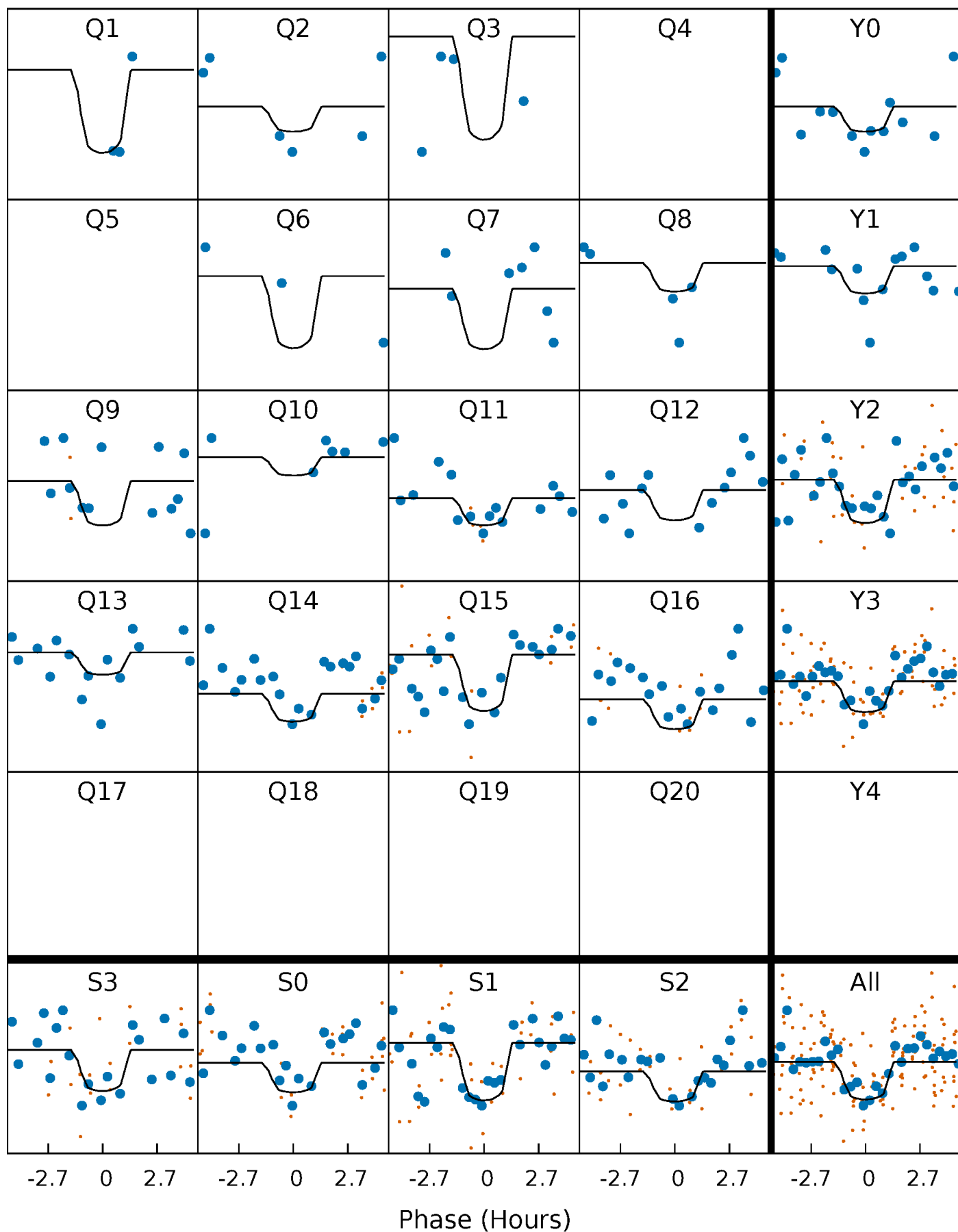
PDC Quarter-Phased Transit Curves

TCE 003123138-05 P= 13.314820 Days $T_0=143.880311$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003123138-05 P= 13.314820 Days $T_0=143.880311$ (BKJD)

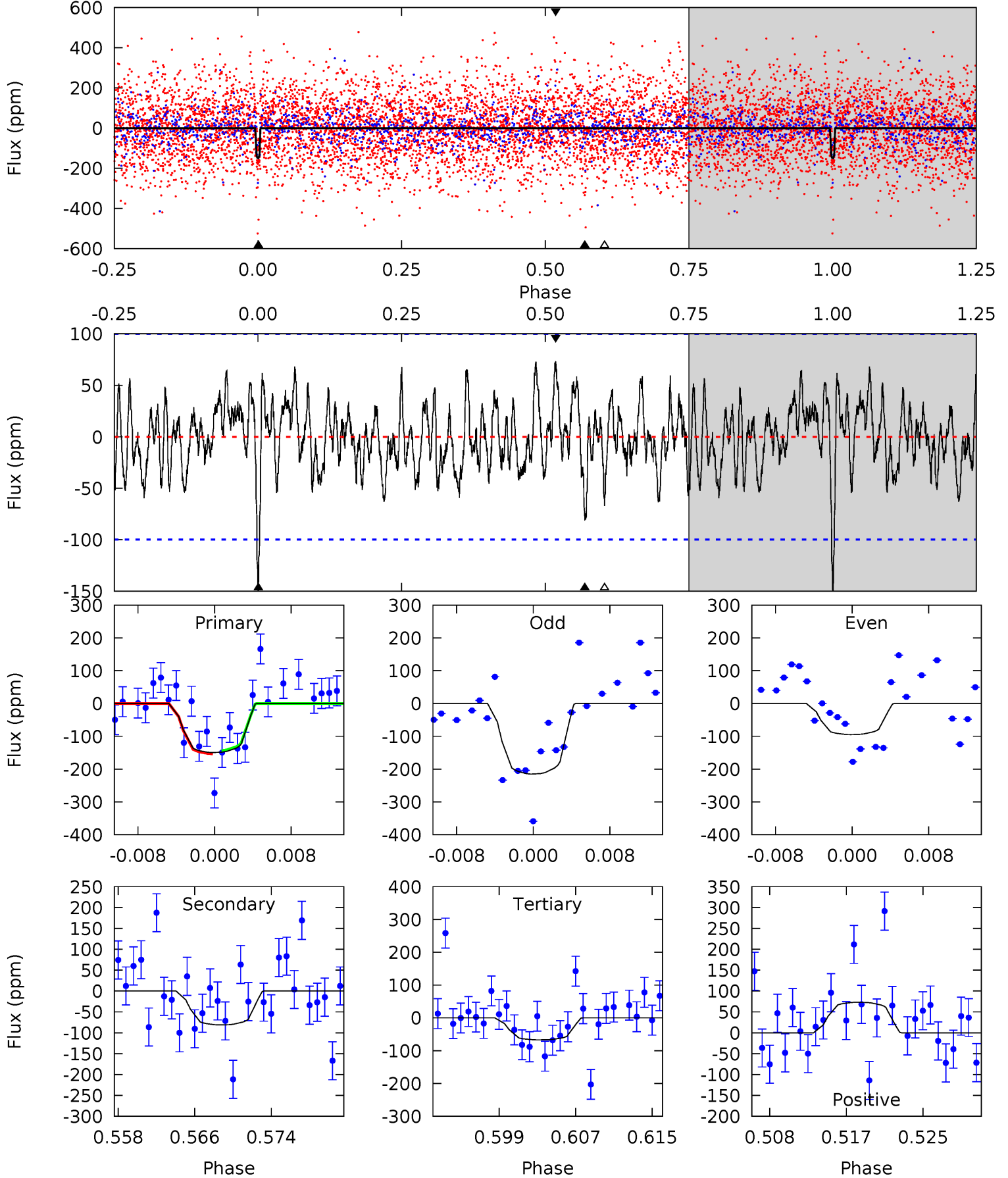


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003123138-05, P = 13.314820 Days, E = 130.565491 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.58	4.12	3.41	3.71	5.06	2.64	1.39	4.17	3.87	0.71	0.41	3.07	1.08	0.33	0.24



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-81 ± 20	$3.73^{+2.82}_{-2.03}$	1910^{+90}_{-117}	5641^{+3473}_{-1161}	56^{+221}_{-39}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{\text{obs}} \gg 1.0$

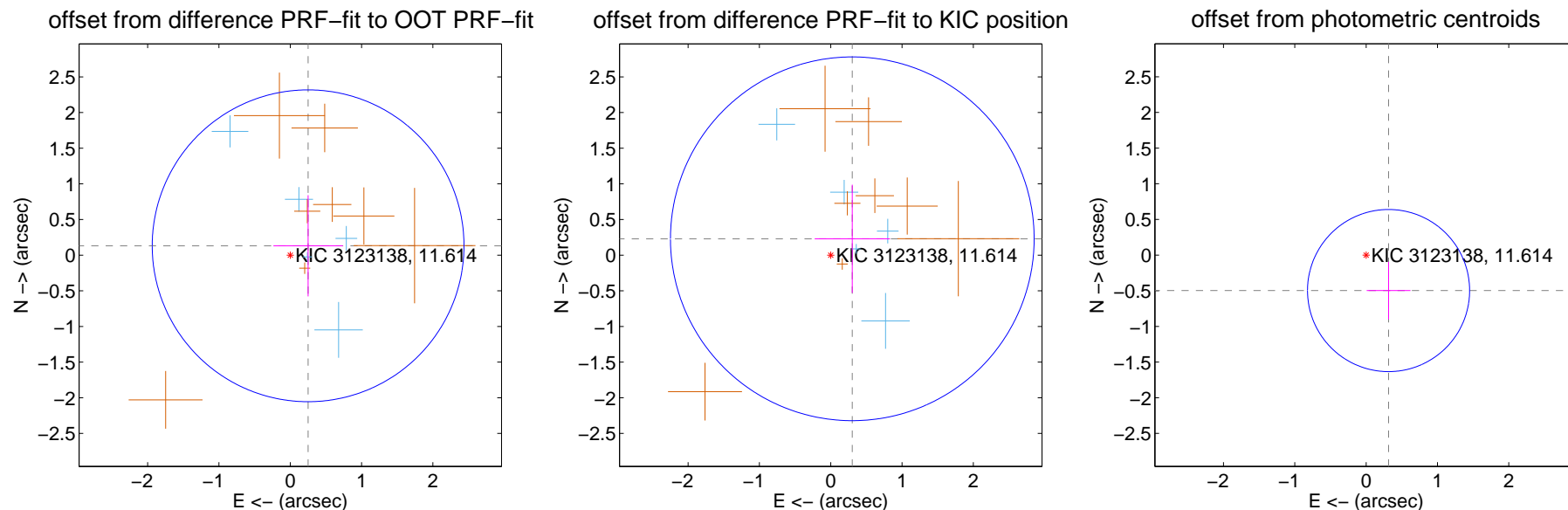
DV Centroid Data

Supplemental centroid analysis for 003123138-05. **Kepler magnitude: 11.61.** Transit SNR 9.01

There are 5 quarters with good PRF difference image offsets

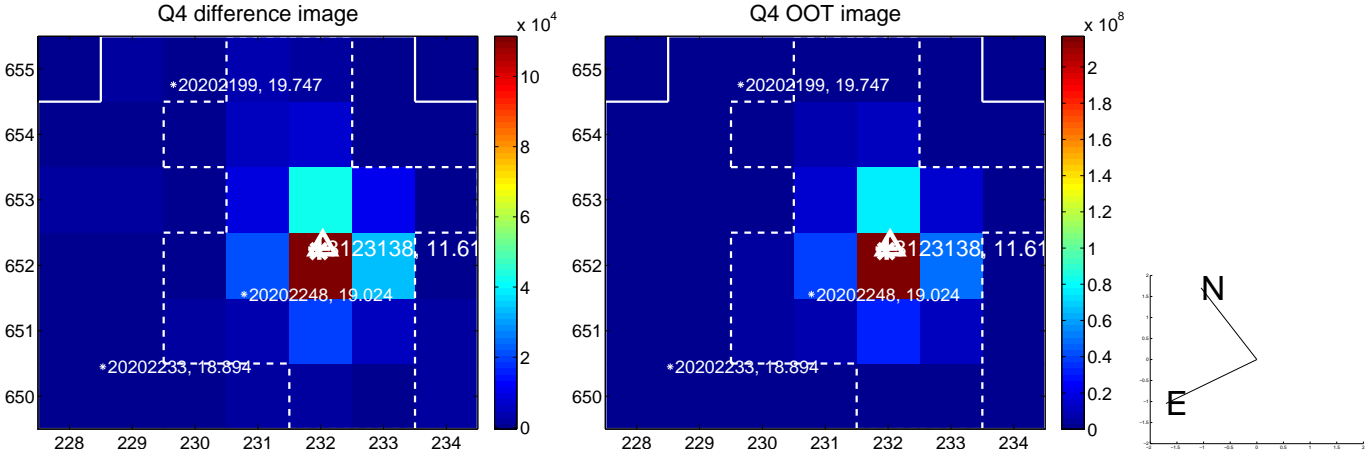
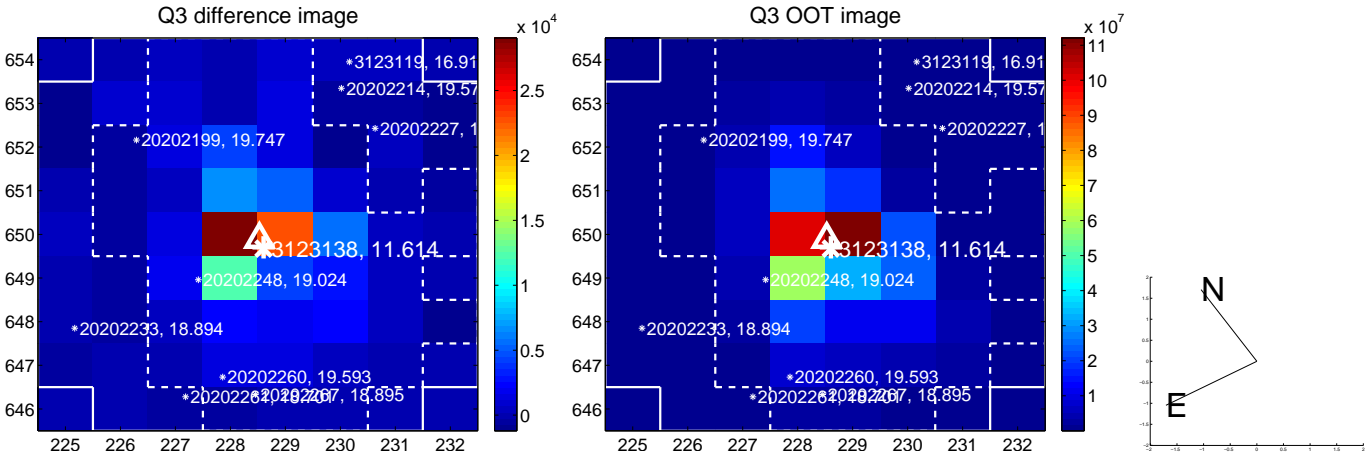
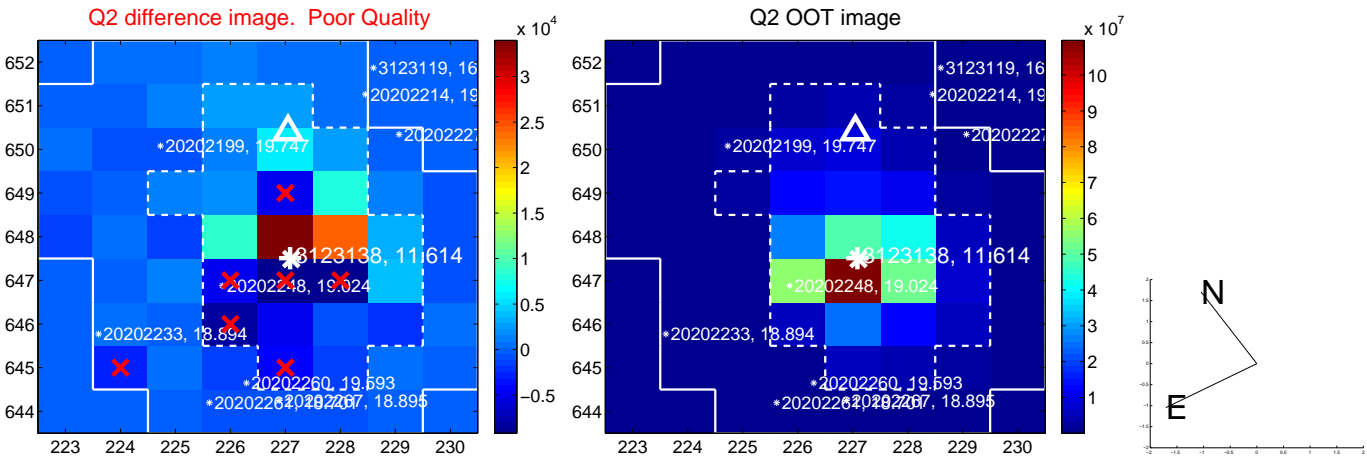
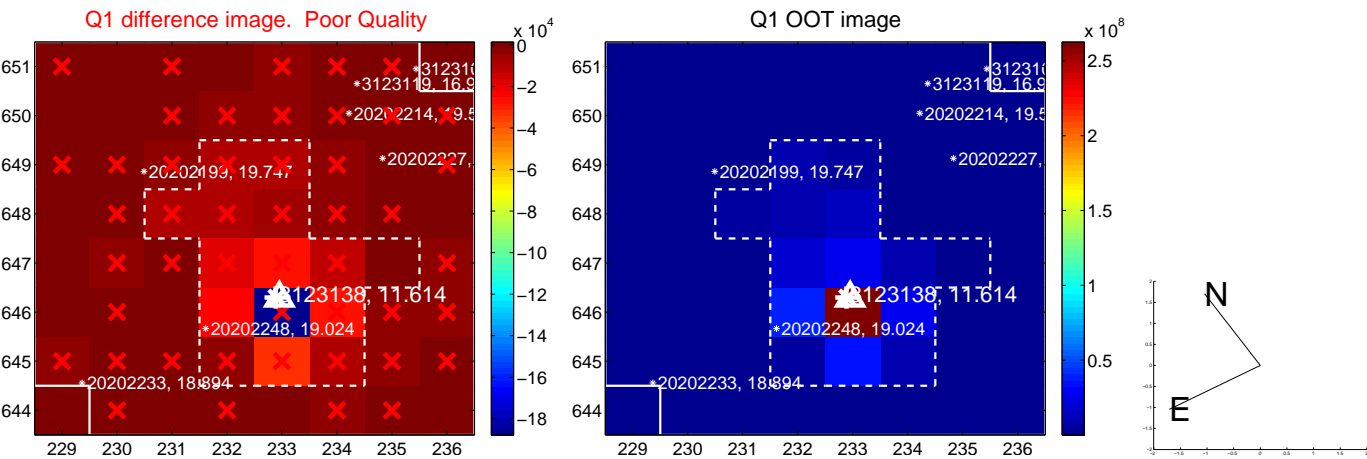
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.283 ± 0.729	0.39	-0.250 ± 0.486	0.131 ± 0.709
PRF-fit source offset from KIC position	0.380 ± 0.850	0.45	-0.303 ± 0.528	0.229 ± 0.759
photometric centroid source offset	0.59 ± 0.38	1.55	-0.31 ± 0.31	-0.50 ± 0.40

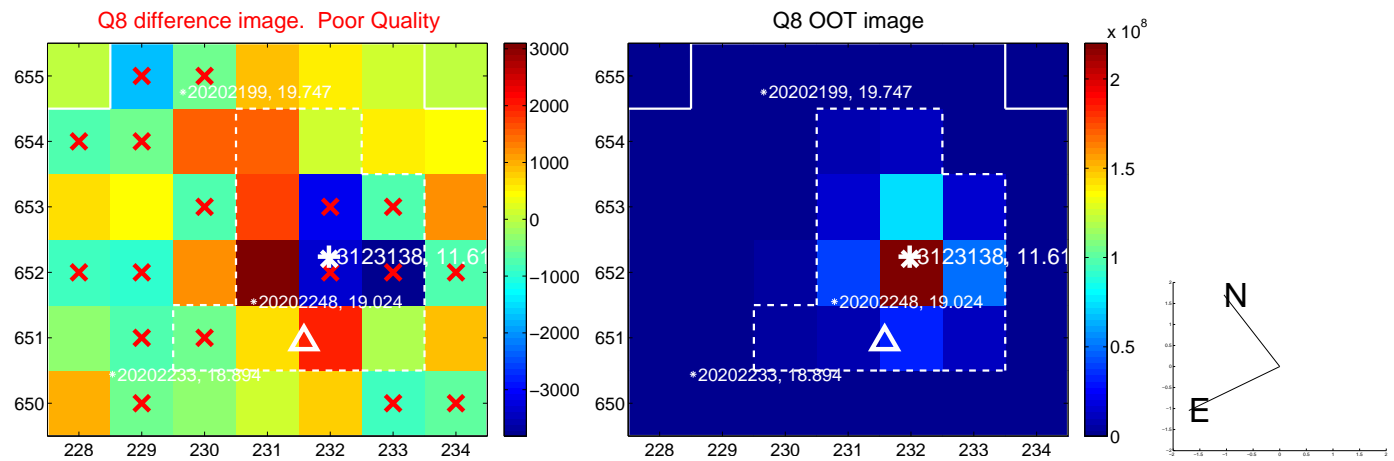
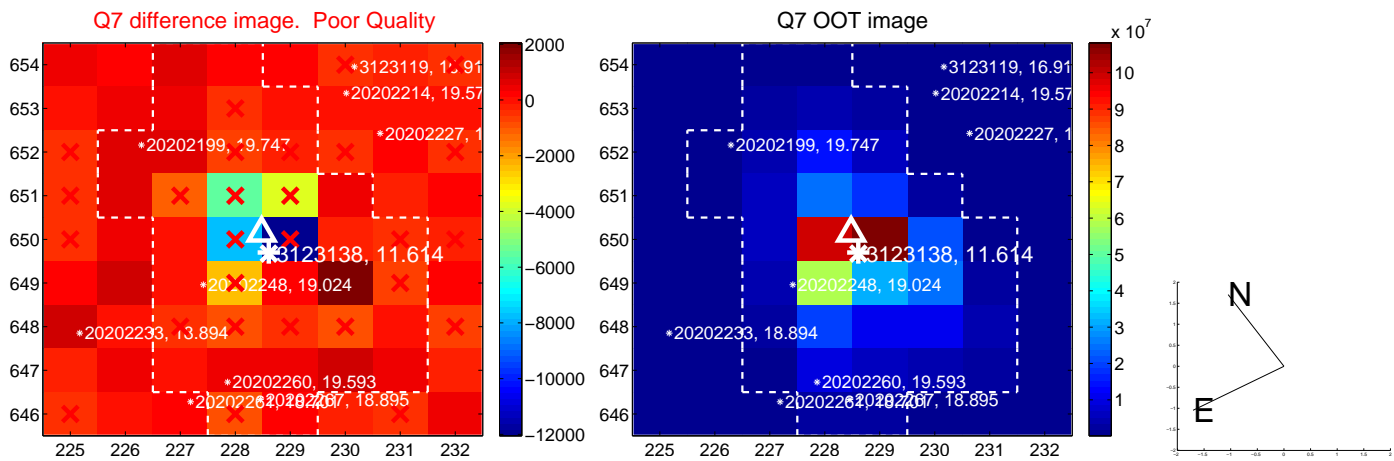
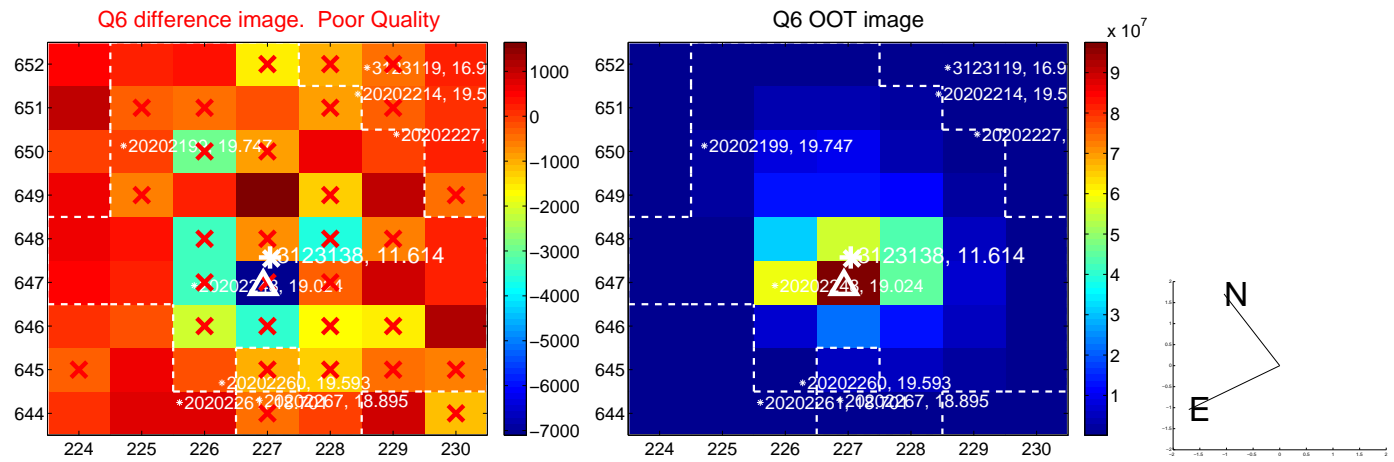
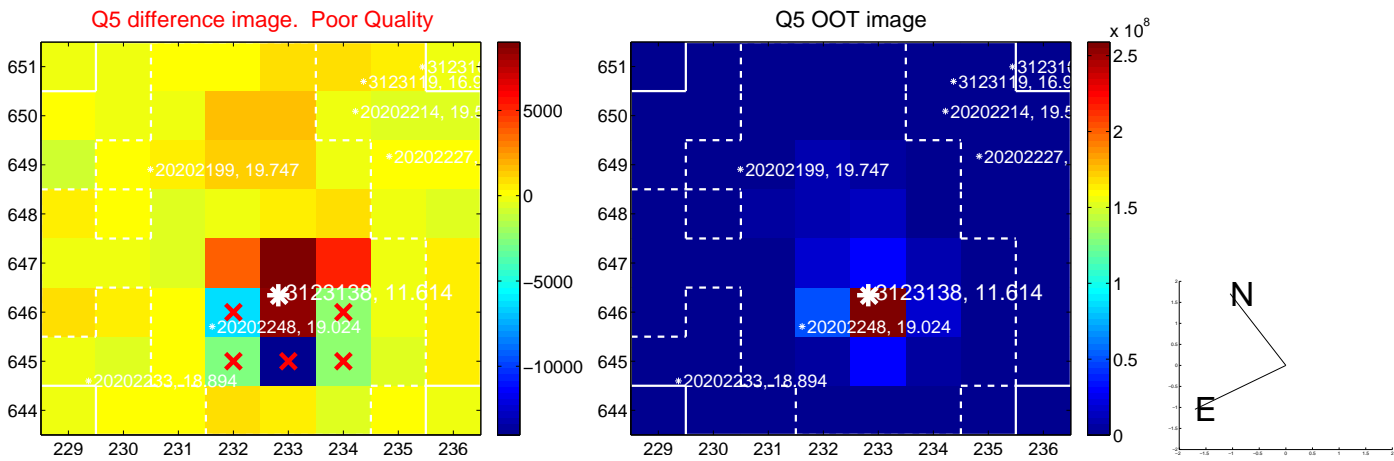


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

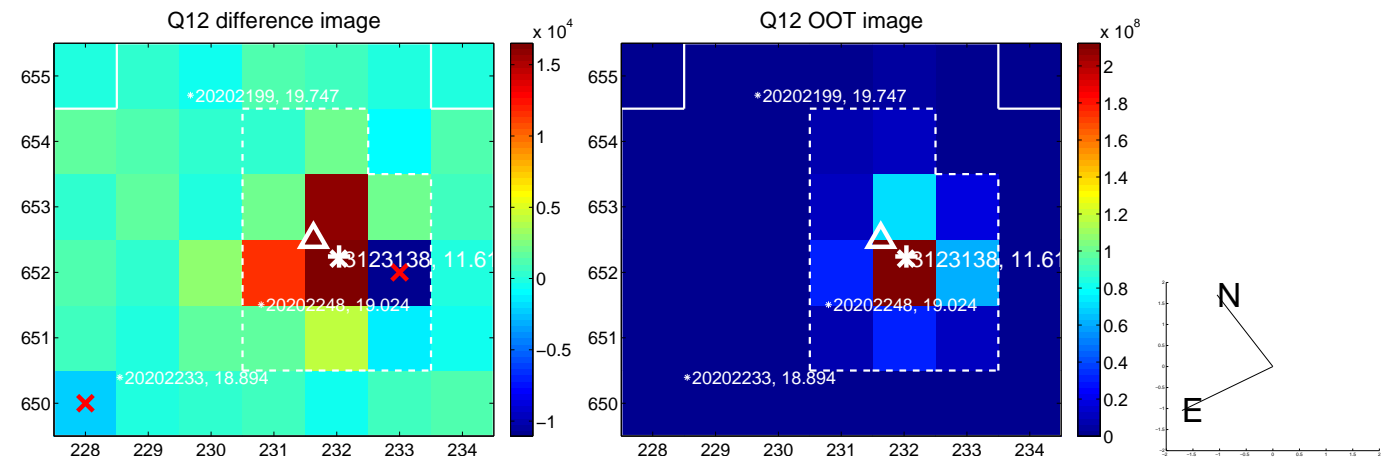
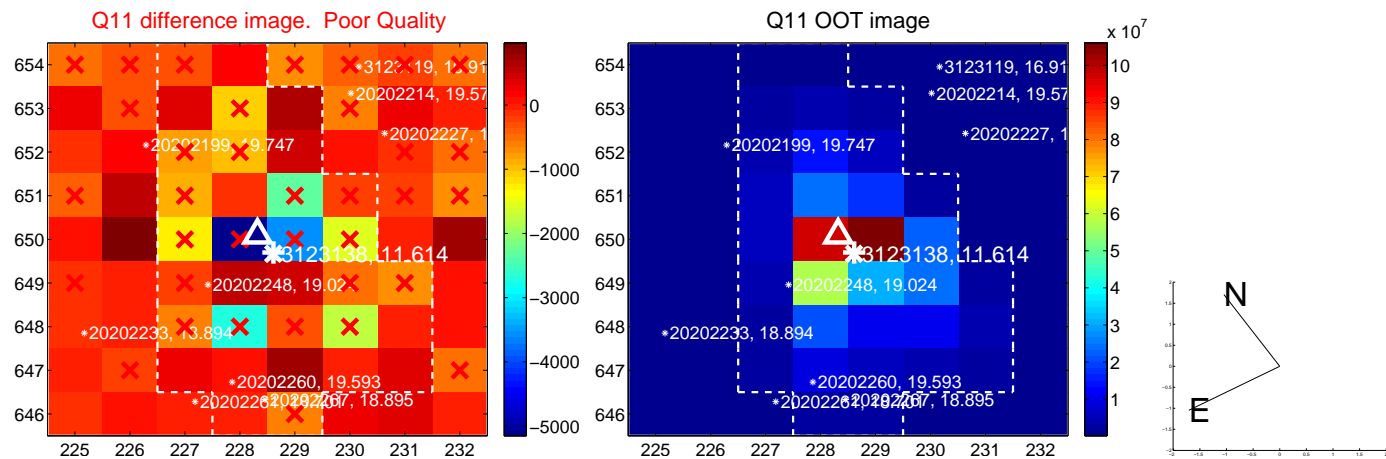
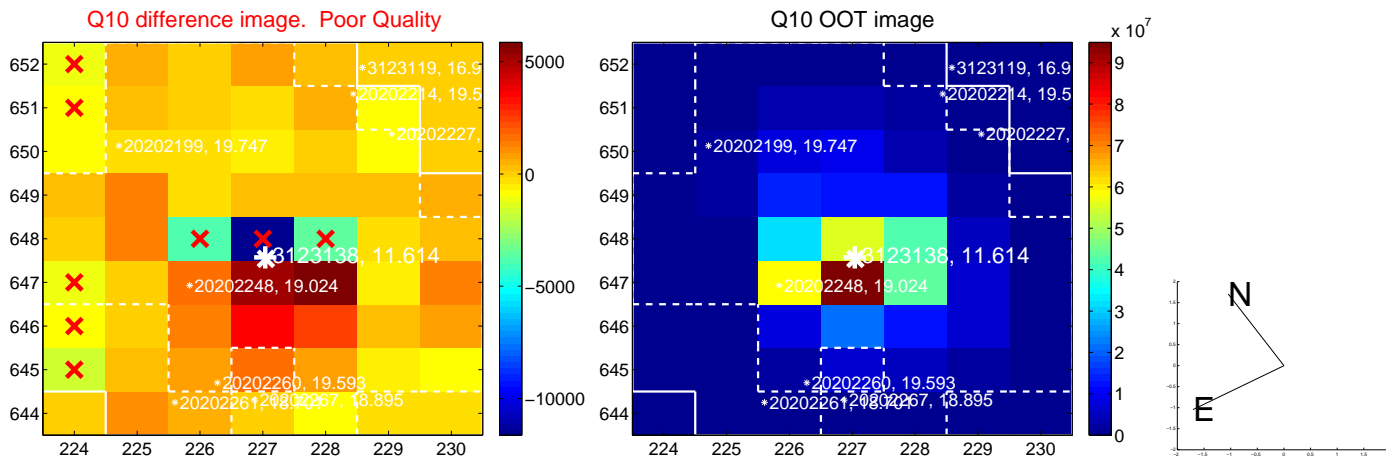
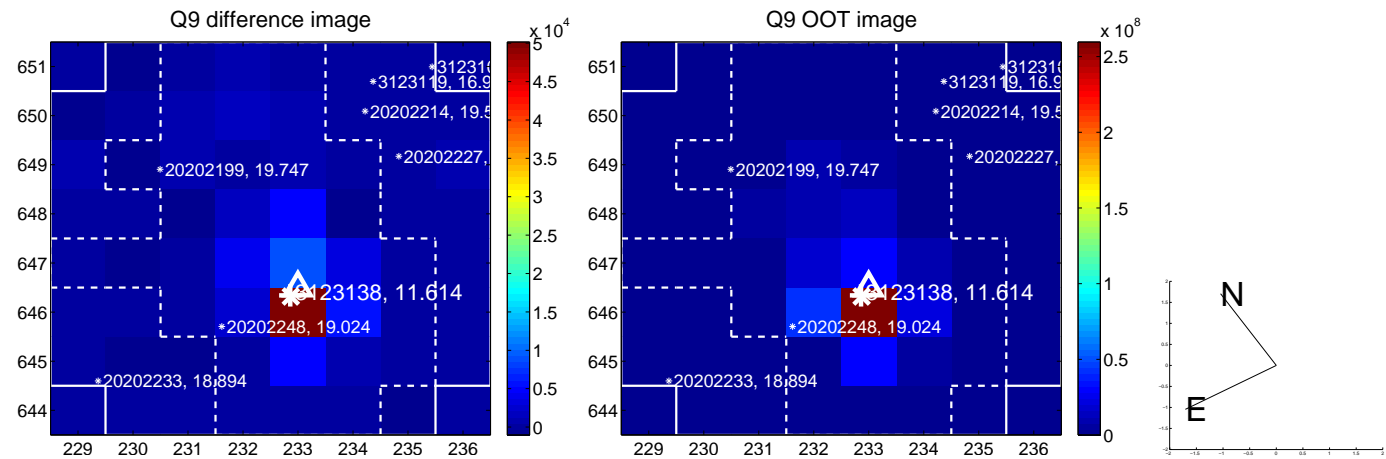
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



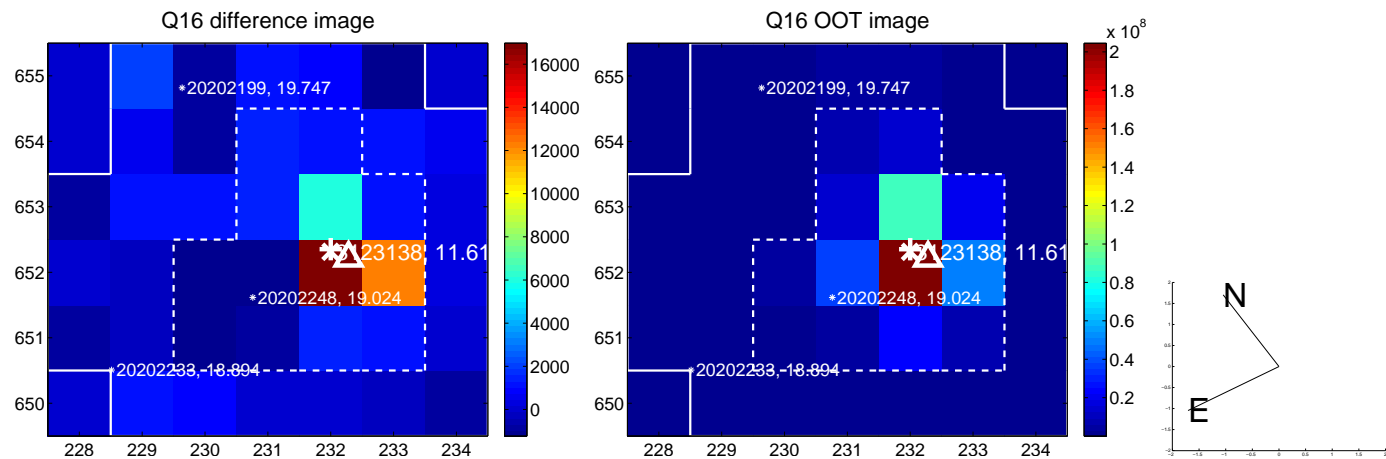
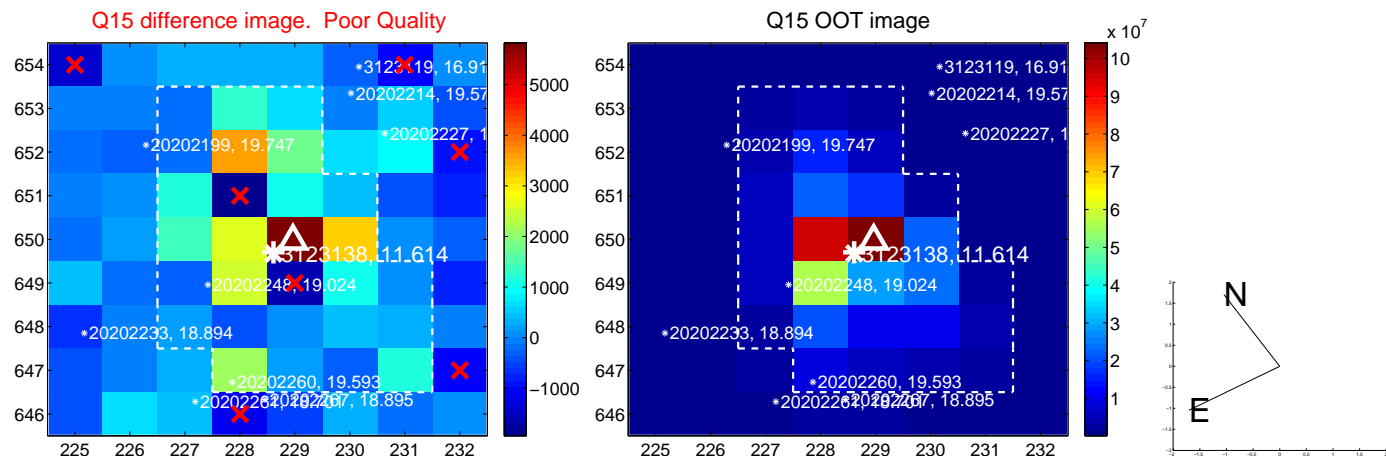
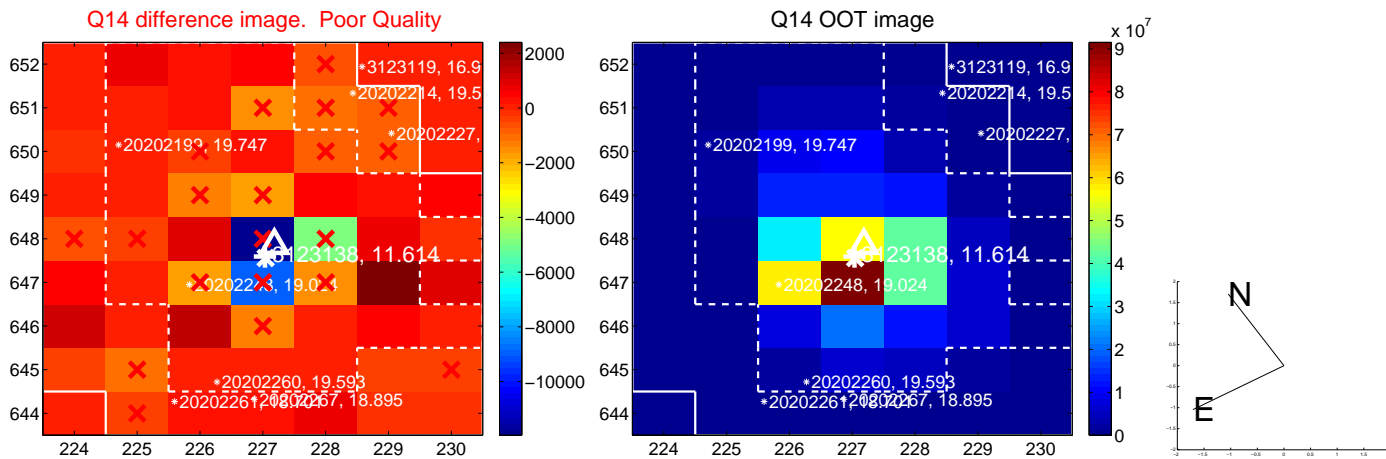
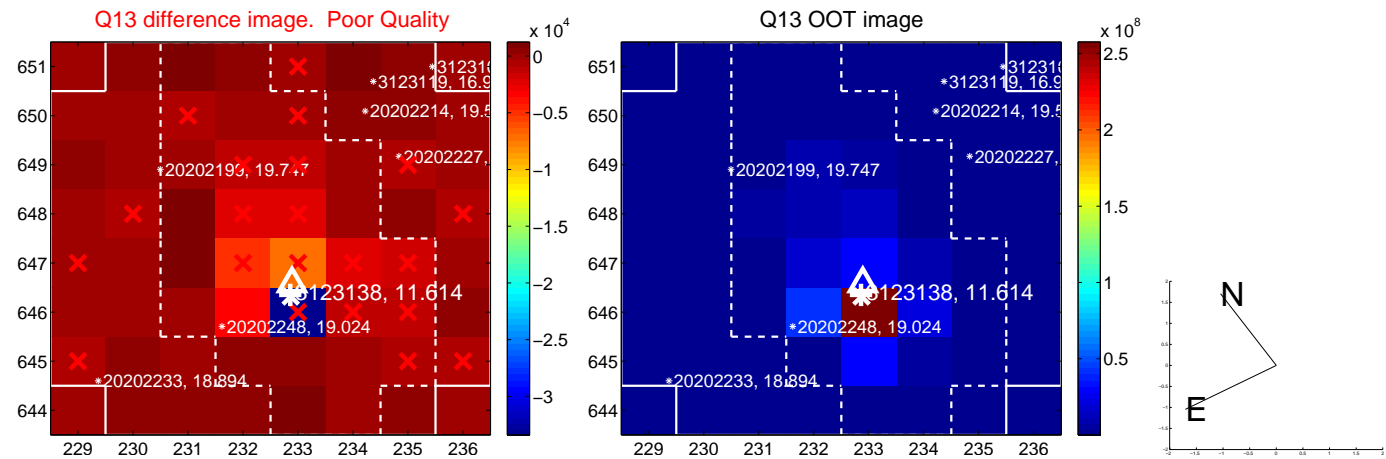
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



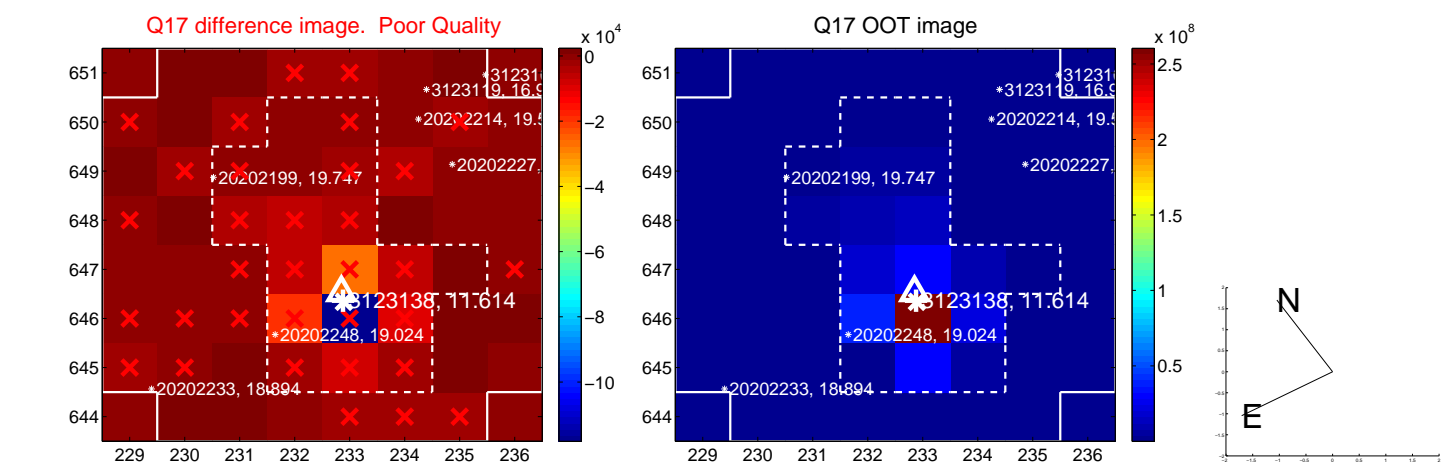
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



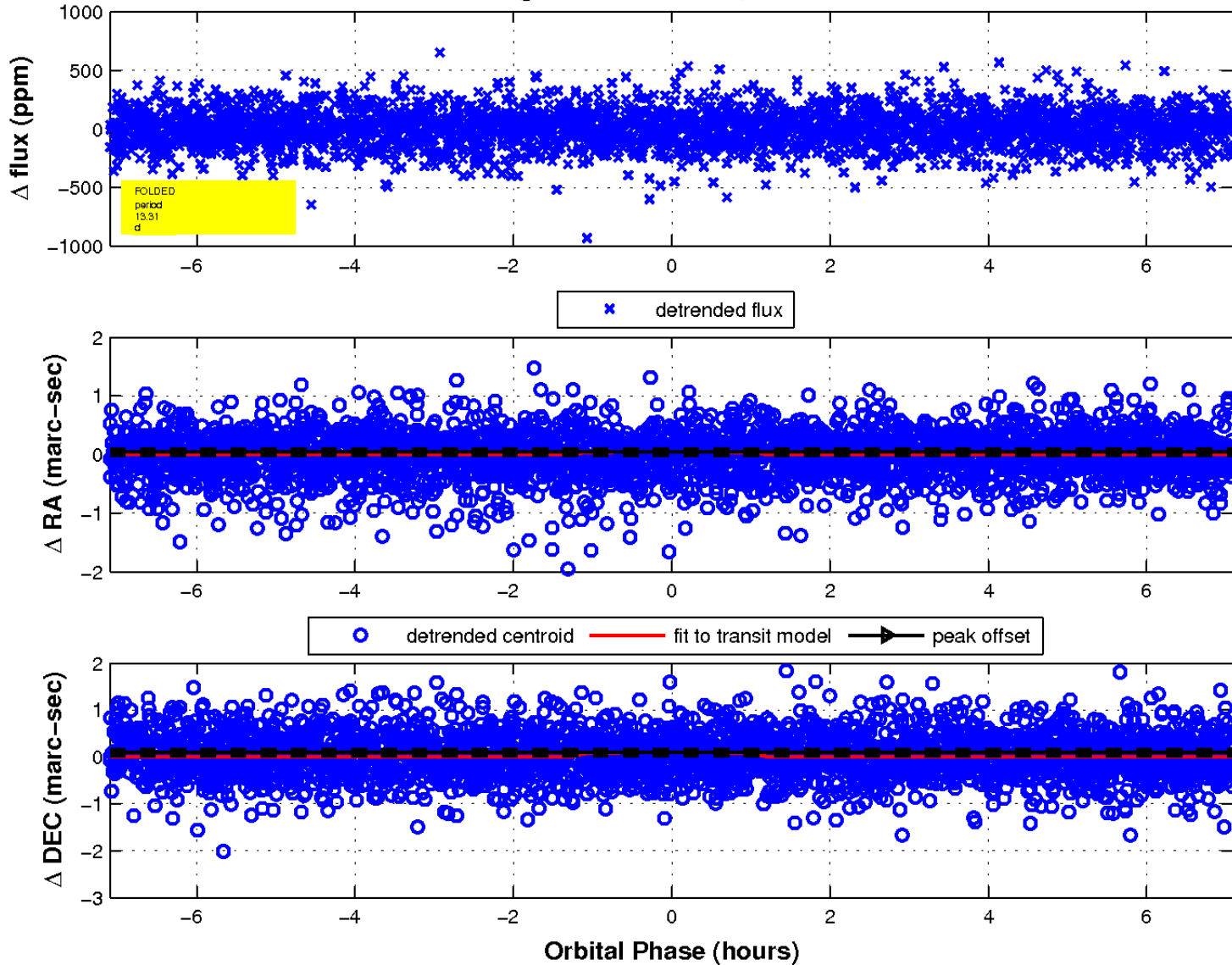
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

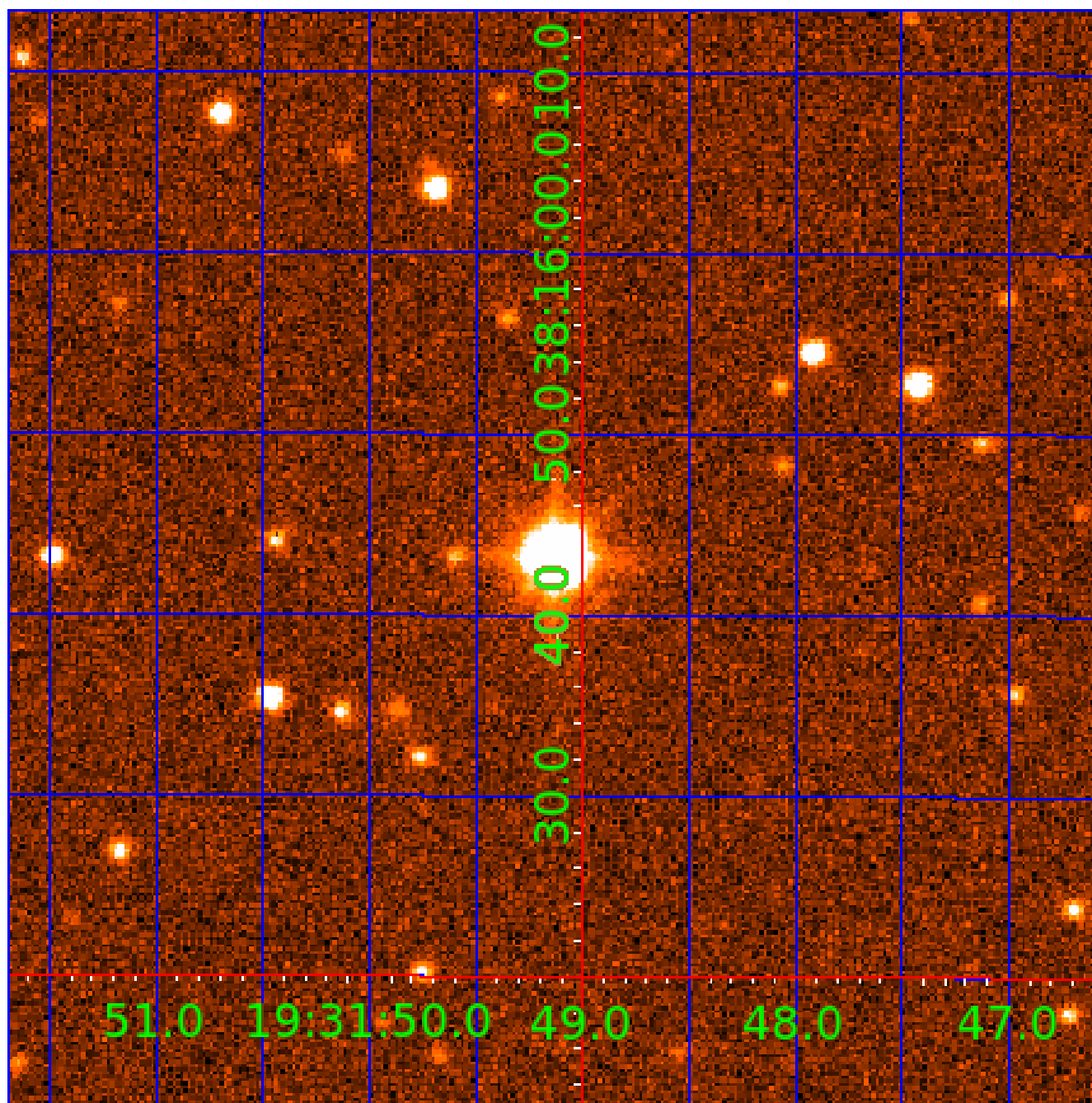


fluxWeightedCentroids, Planet 5 of 7



UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

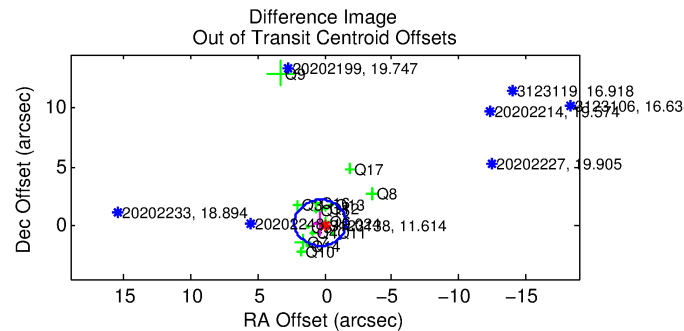
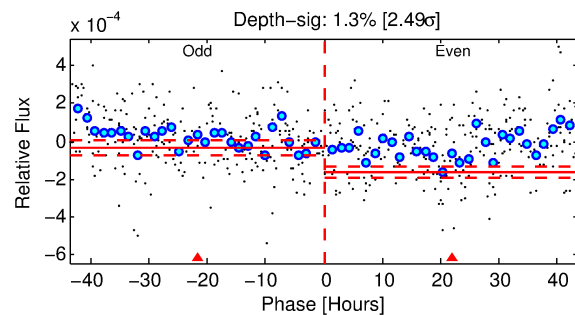
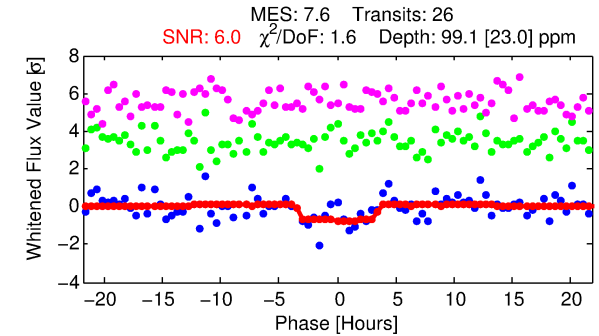
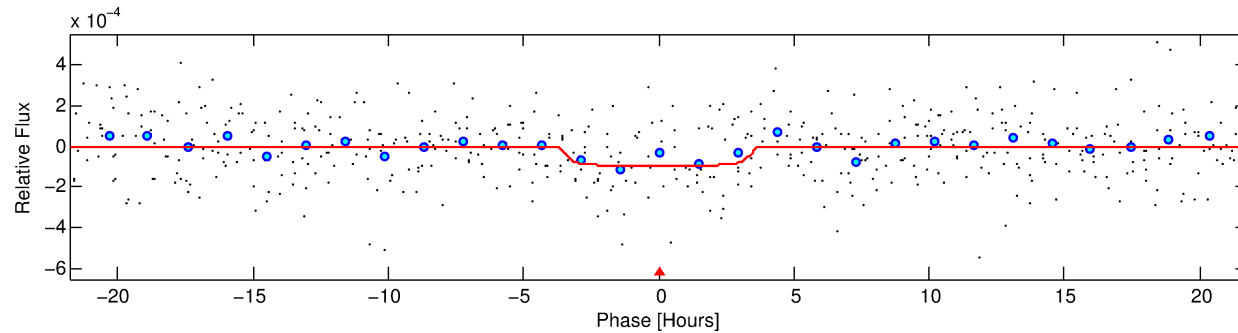
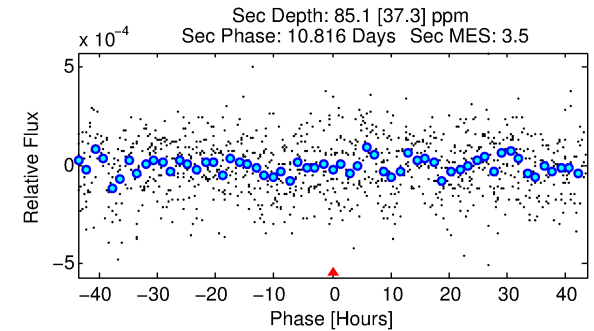
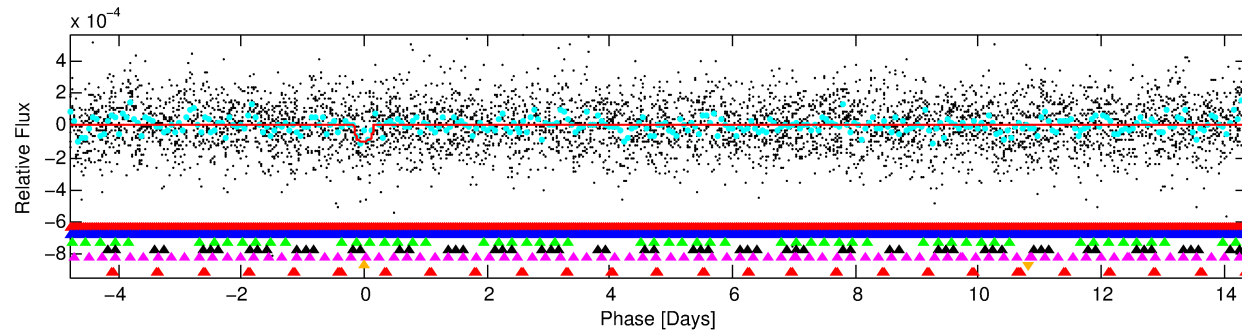
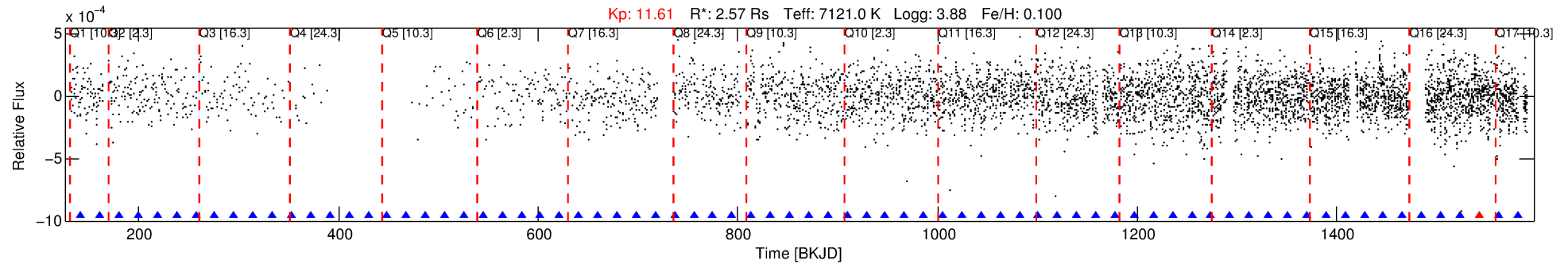
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-06

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 6 of 7 Period: 19.182 d



DV Fit Results:

Period = 19.18246 [0.00069] d
Epoch = 142.0476 [0.0366] BKJD
Rp/R* = 0.0106 [0.0048]
a/R* = 9.34 [25.03]
b = 0.90 [0.58]
Seff = 520.56 [174.36]
Teff = 1218 [102] K
Rp = 2.97 [1.54] Re
a = 0.1710 [0.0372] AU
Ag = 155.47 [165.48] [0.93σ]
Teffp = 6650 [1683] K [3.22σ]

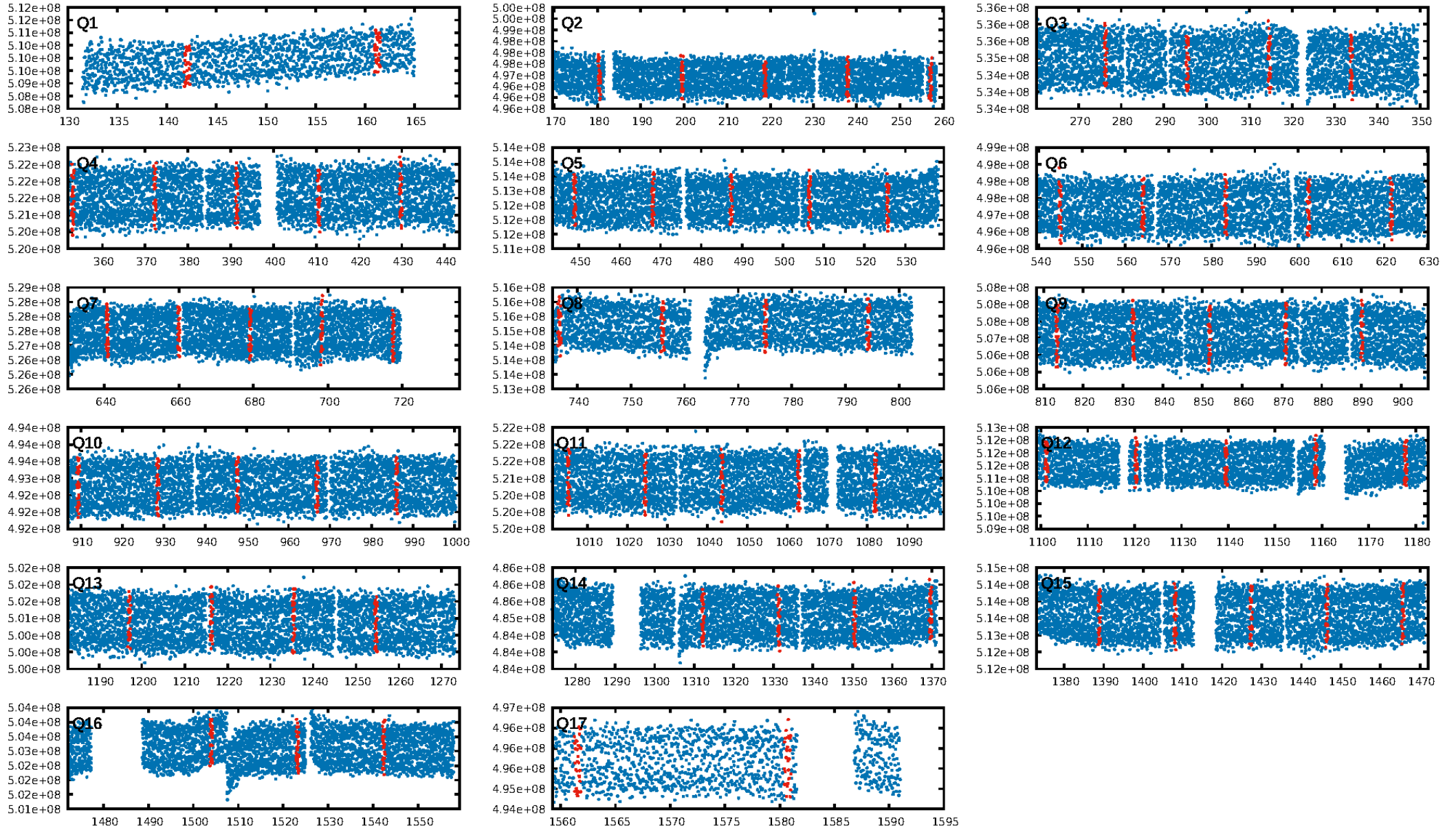
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.44σ]
LongPeriod-sig: 100.0% [13.02σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [23/24]
GhostDiagnostic-chr: 0.03466
Centroid-sig: 49.0%
Centroid-so: 0.333 arcsec [0.69σ]
OotOffset-rm: 0.424 arcsec [0.66σ]
KicOffset-rm: 0.452 arcsec [0.57σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 0.00 [0/17]

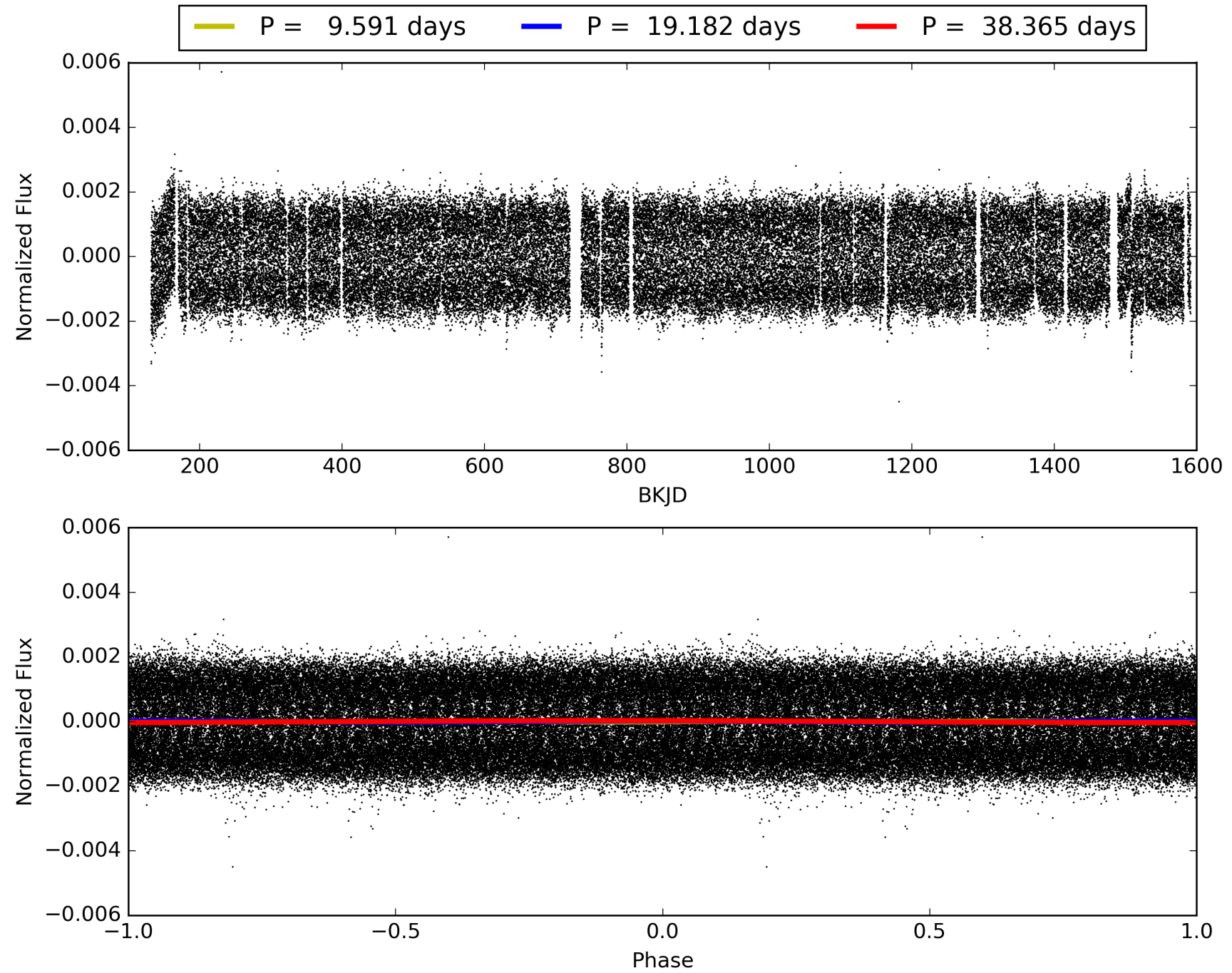
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:50 Z

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

TCE 003123138-06, PDC Light Curves

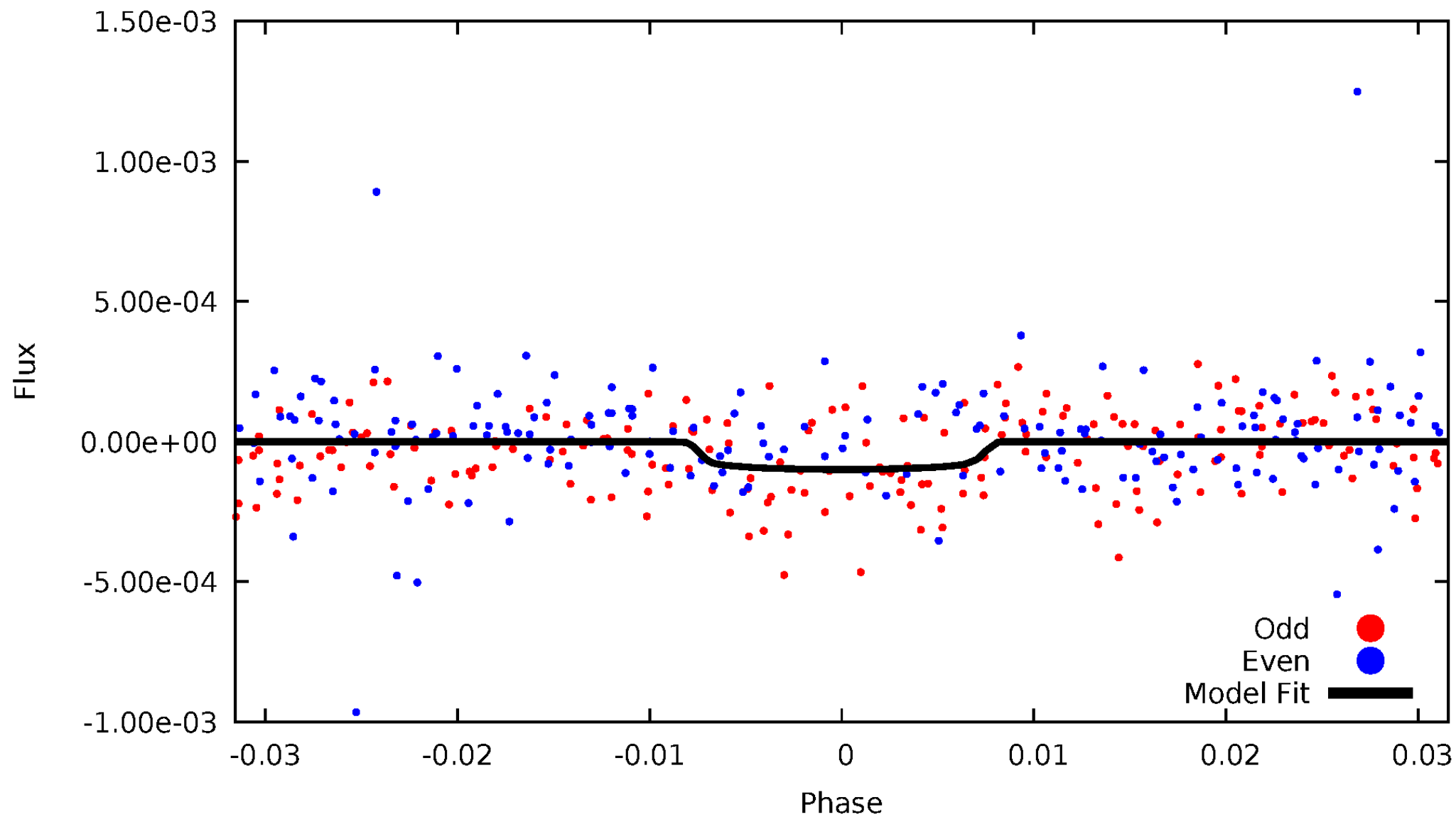


TCE 003123138-06



DV Odd/Even

TCE 003123138-06

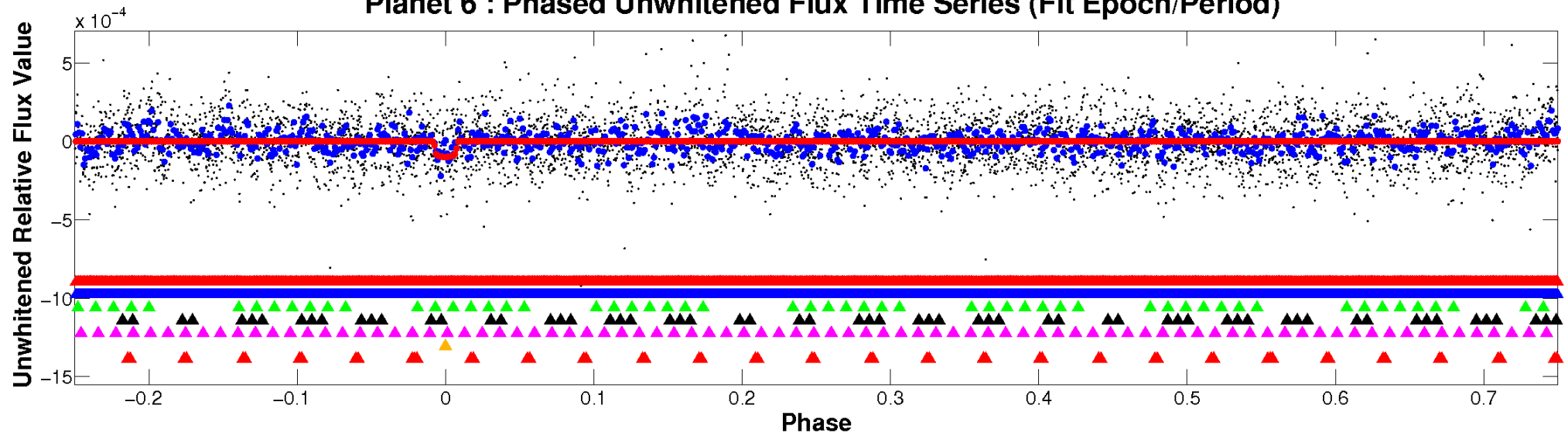


ALT Odd/Even

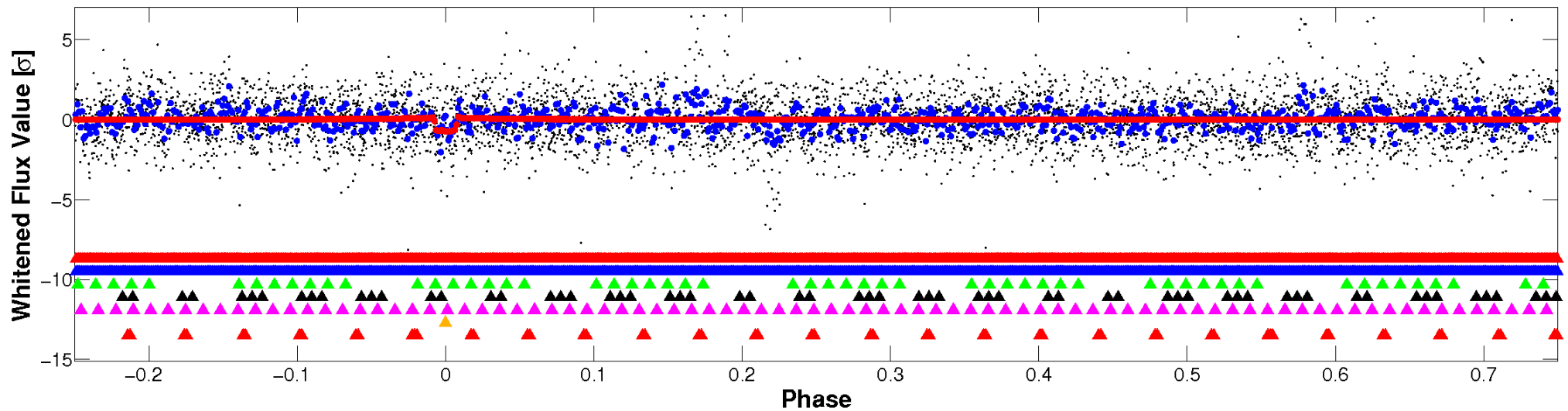
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

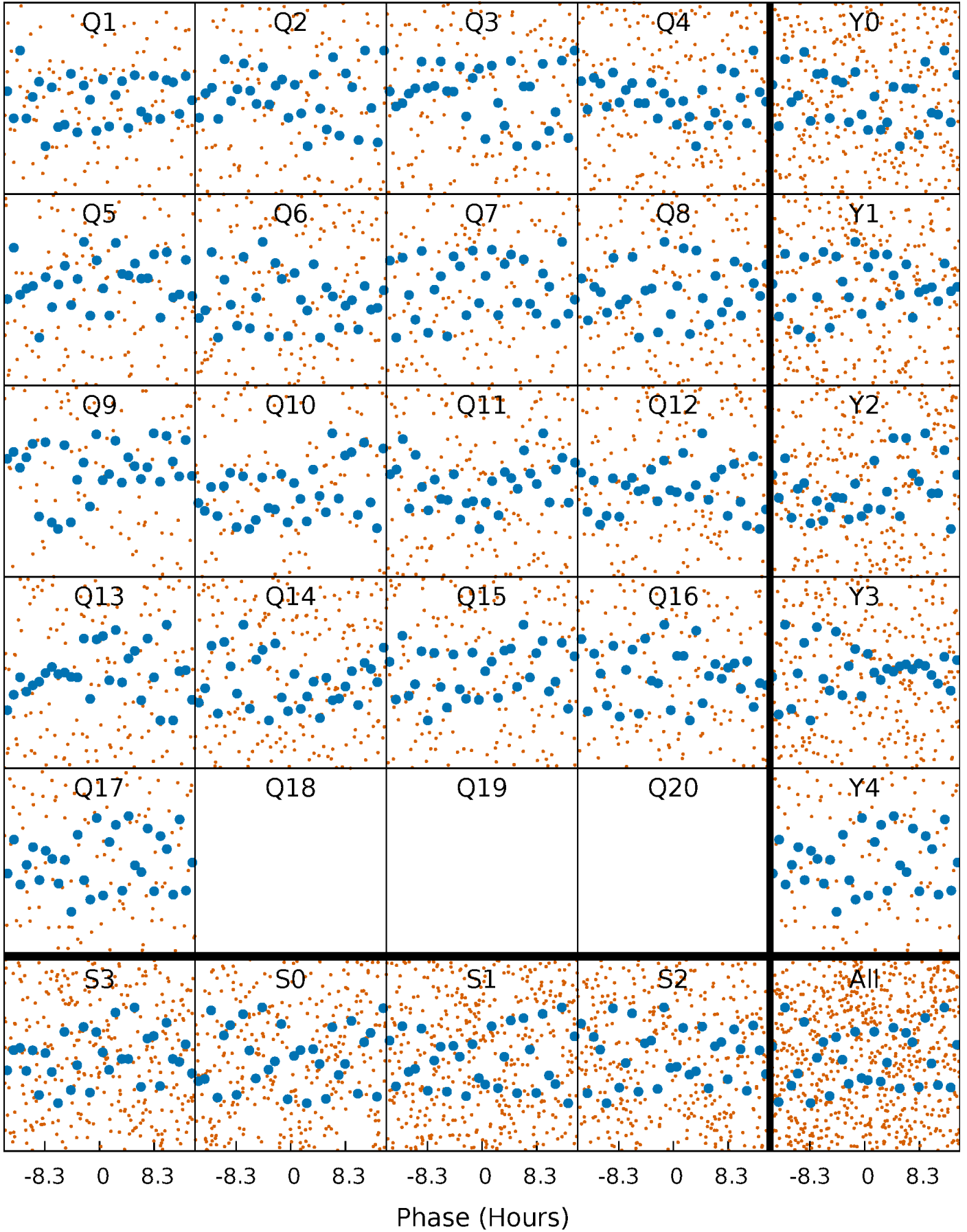


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



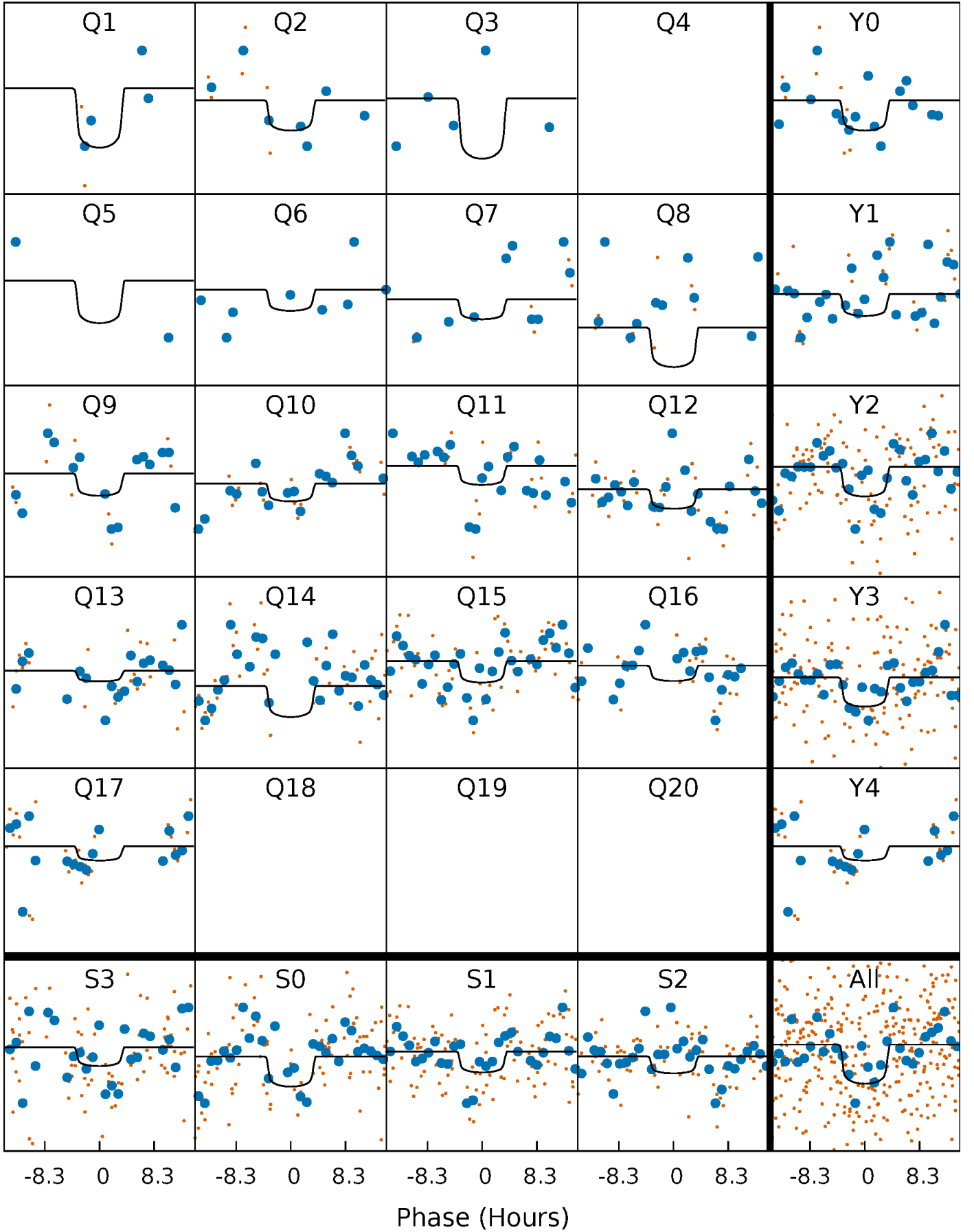
PDC Quarter-Phased Transit Curves

TCE 003123138-06 P= 19.182460 Days $T_0=142.047605$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003123138-06 P= 19.182460 Days $T_0=142.047605$ (BKJD)

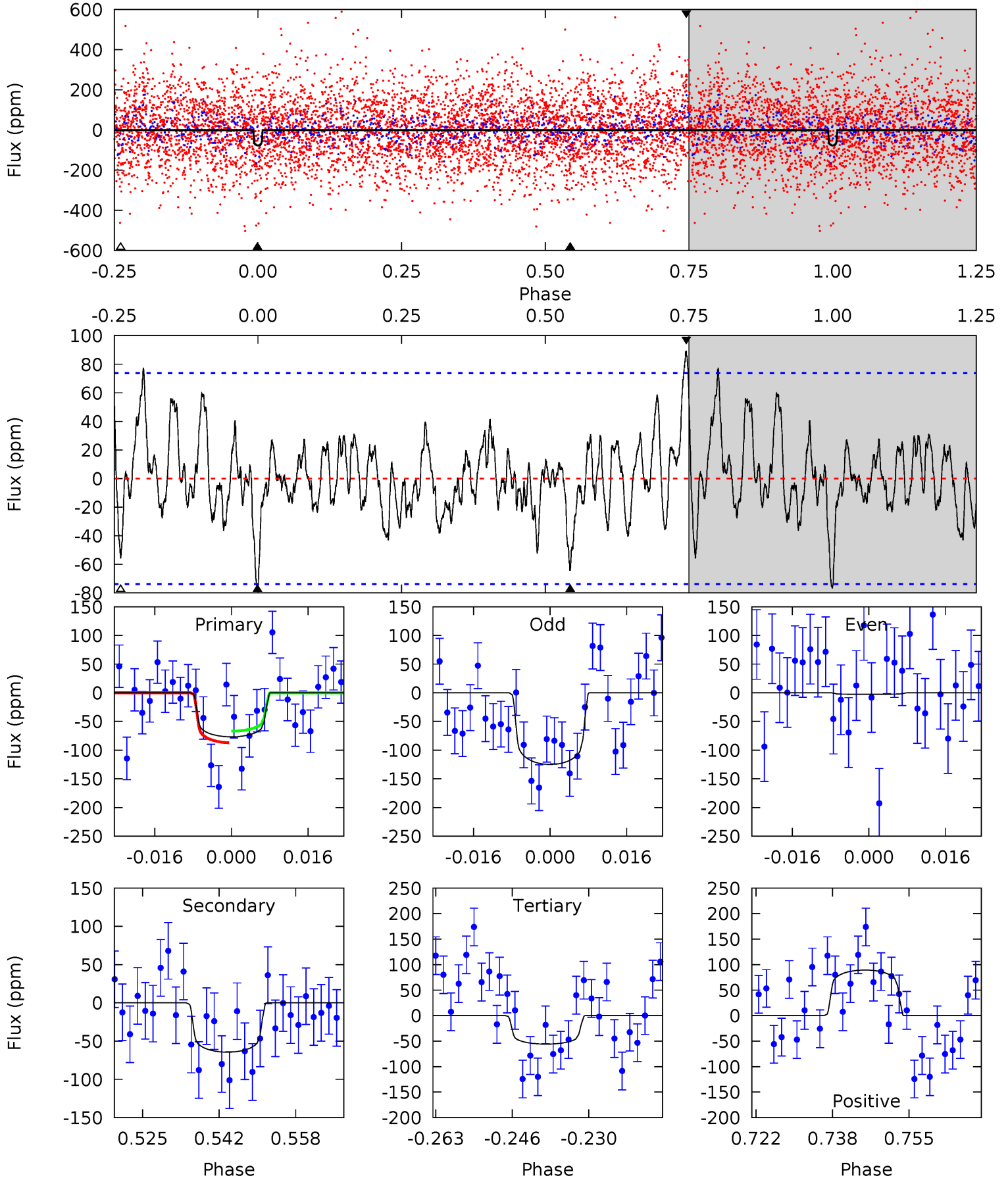


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003123138-06, P = 19.182460 Days, E = 122.865145 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.13	4.30	3.73	5.97	4.93	2.40	1.54	1.40	-0.84	0.57	-1.67	4.04	0.69	0.54	0.68



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-64 ± 15	$2.90^{+1.32}_{-1.30}$	1691^{+73}_{-97}	6109^{+2445}_{-1025}	122^{+281}_{-67}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

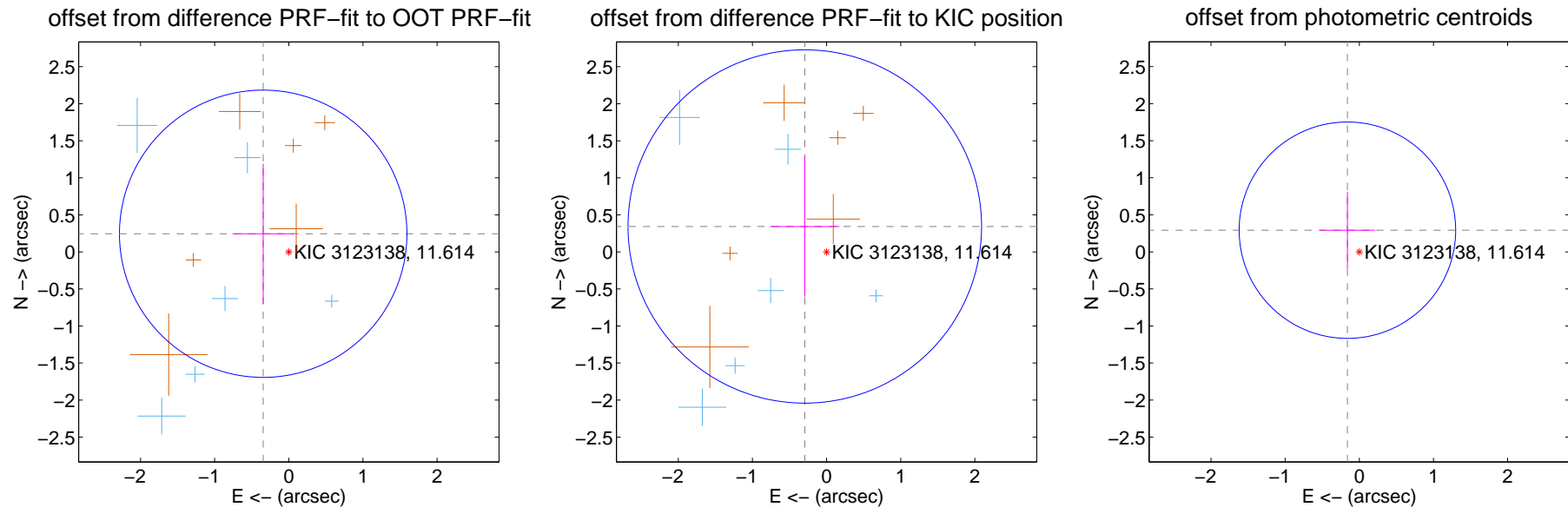
DV Centroid Data

Supplemental centroid analysis for 003123138-06. **Kepler magnitude: 11.61.** Transit SNR 6.03

There are 6 quarters with good PRF difference image offsets

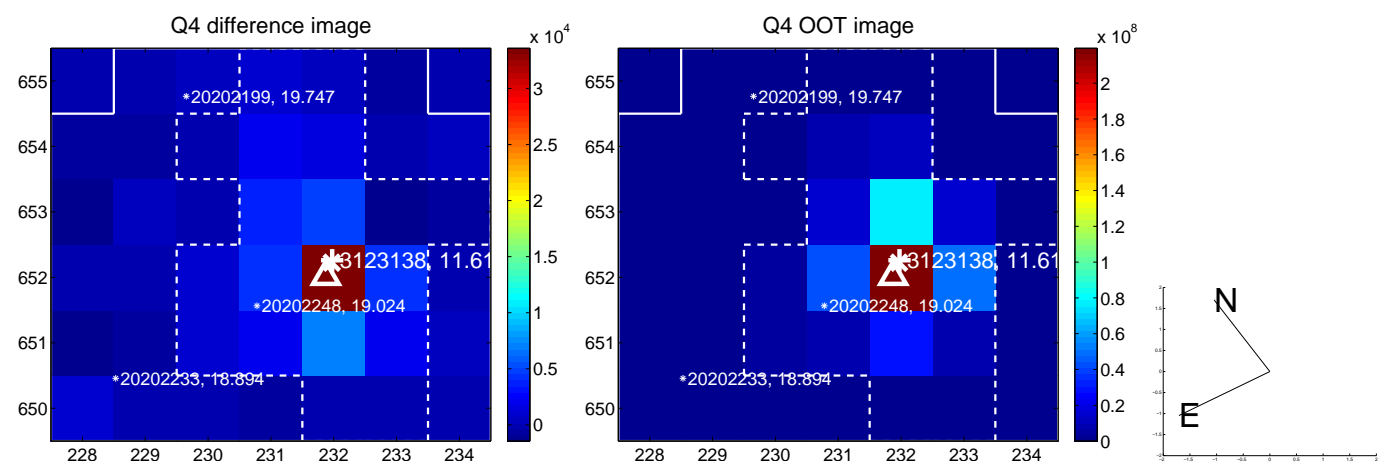
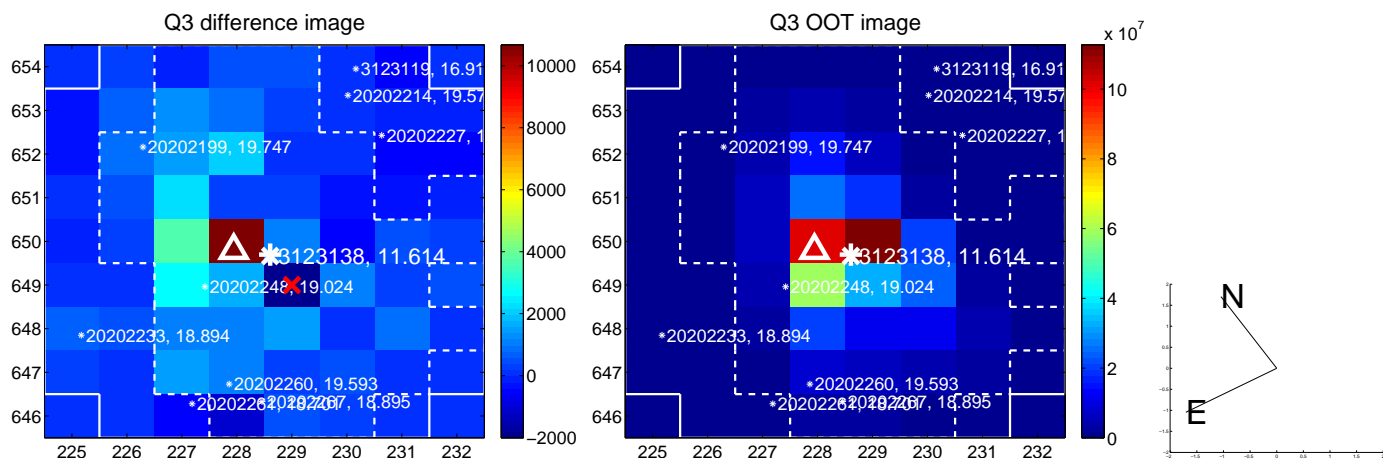
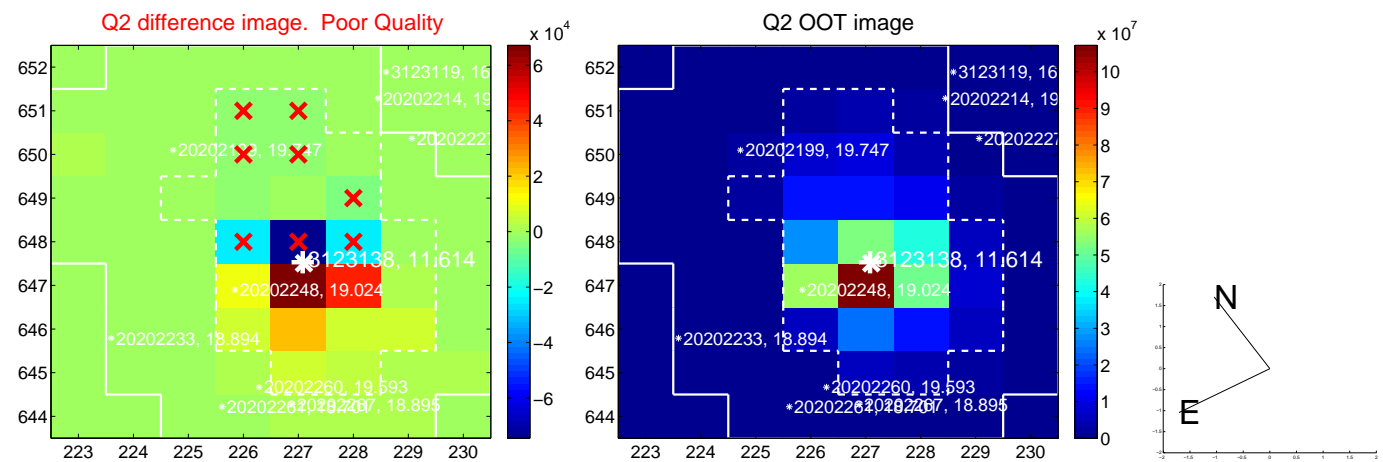
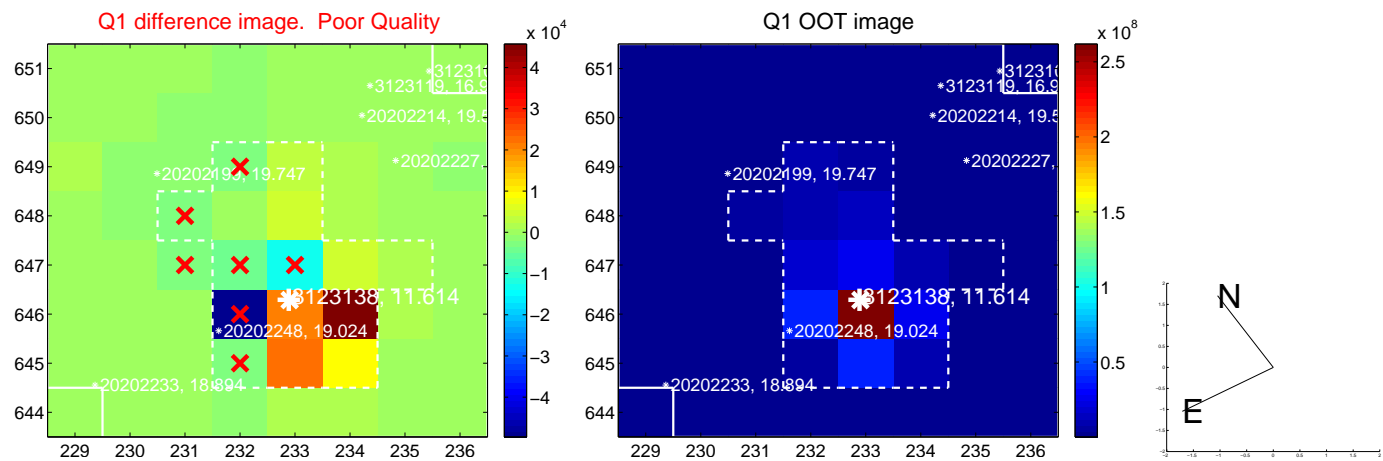
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.424 ± 0.646	0.66	0.346 ± 0.414	0.245 ± 0.946
PRF-fit source offset from KIC position	0.452 ± 0.795	0.57	0.294 ± 0.466	0.343 ± 0.946
photometric centroid source offset	0.33 ± 0.49	0.69	0.16 ± 0.37	0.29 ± 0.52

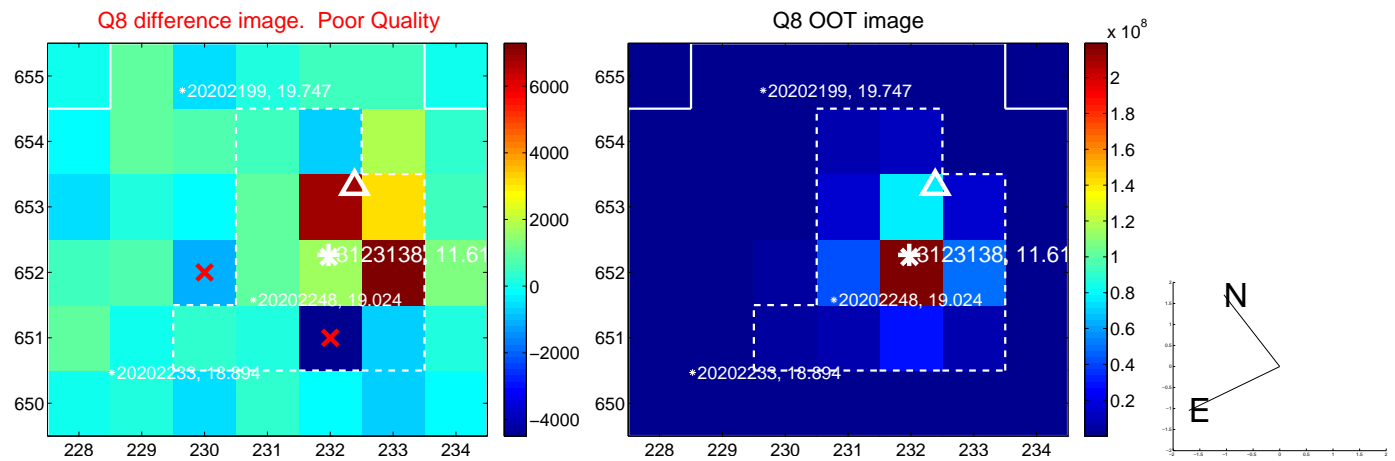
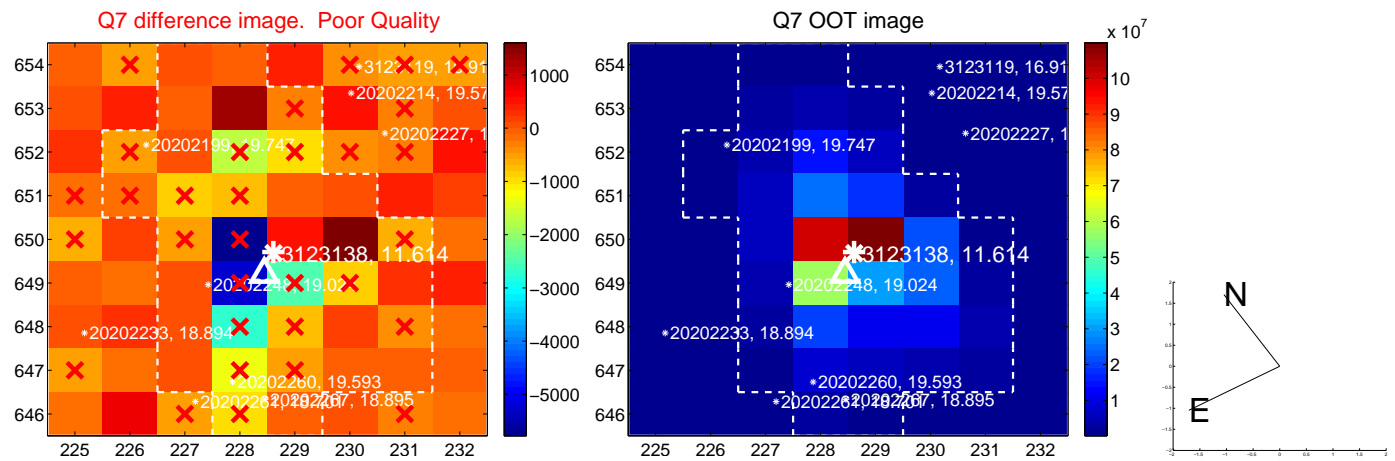
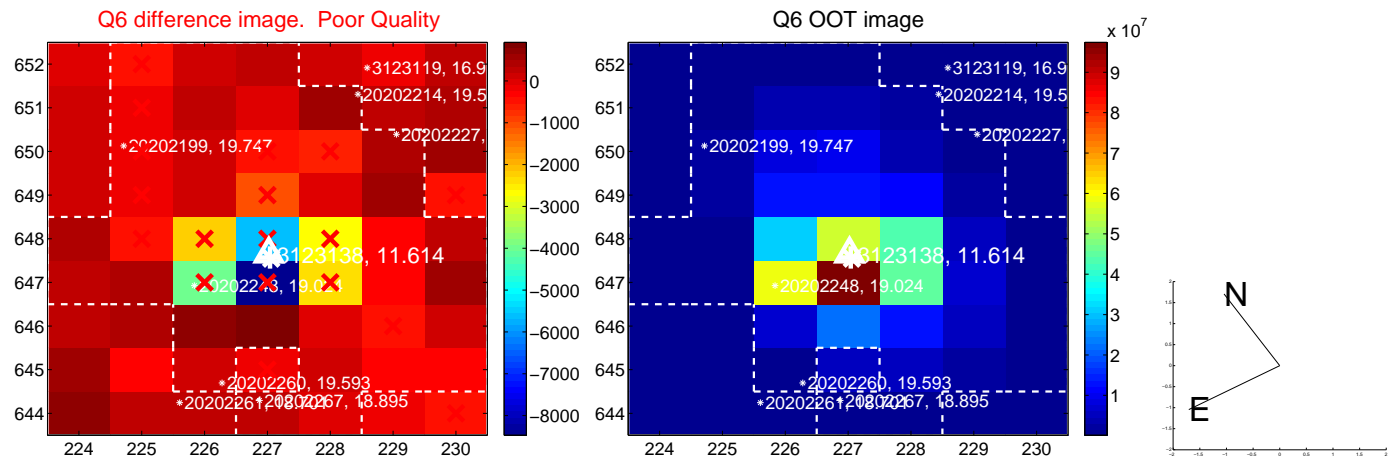
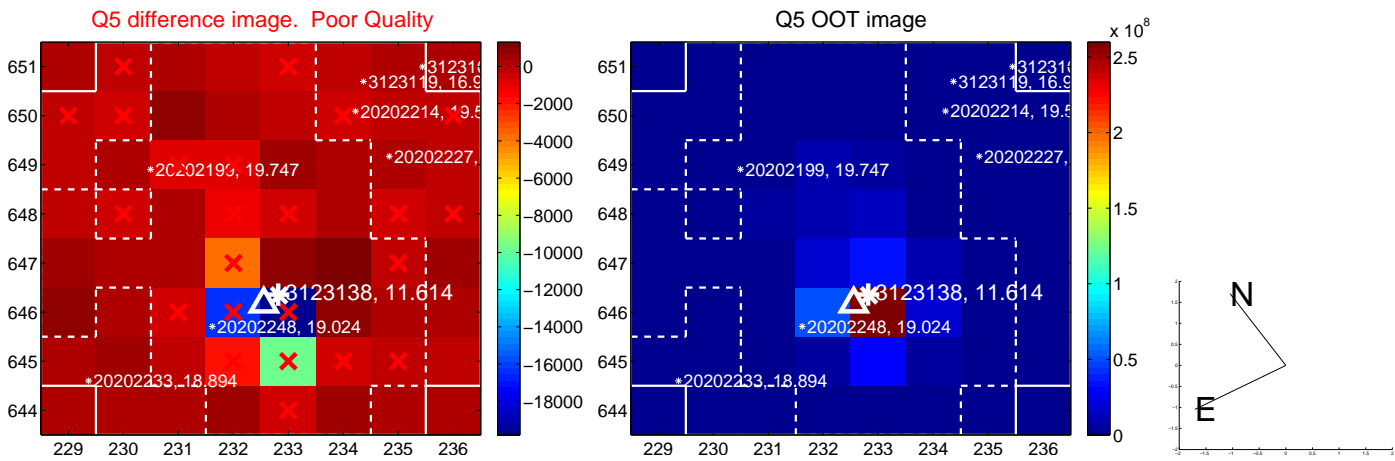


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

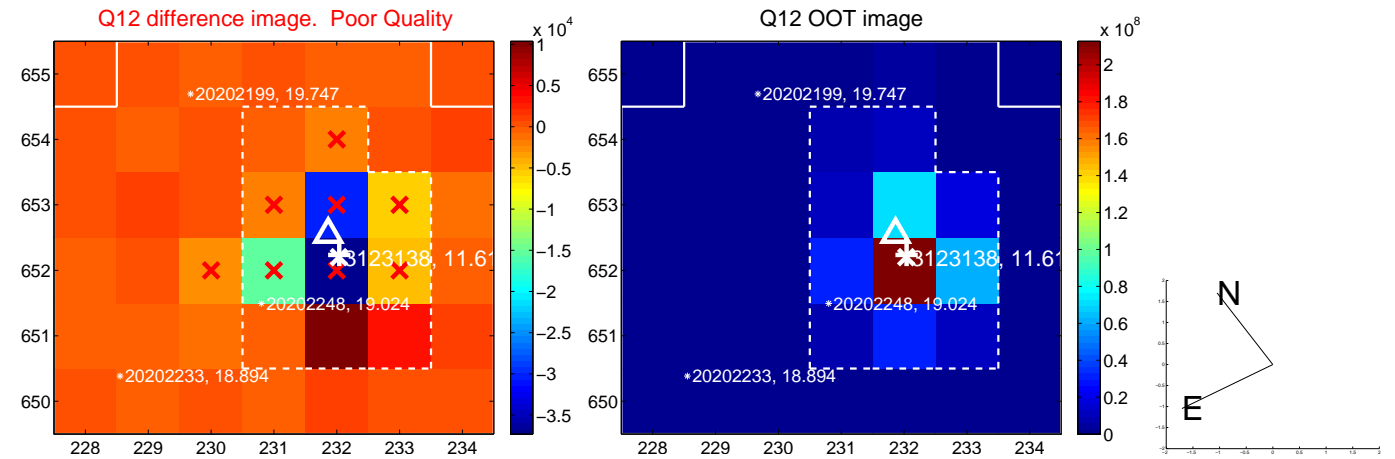
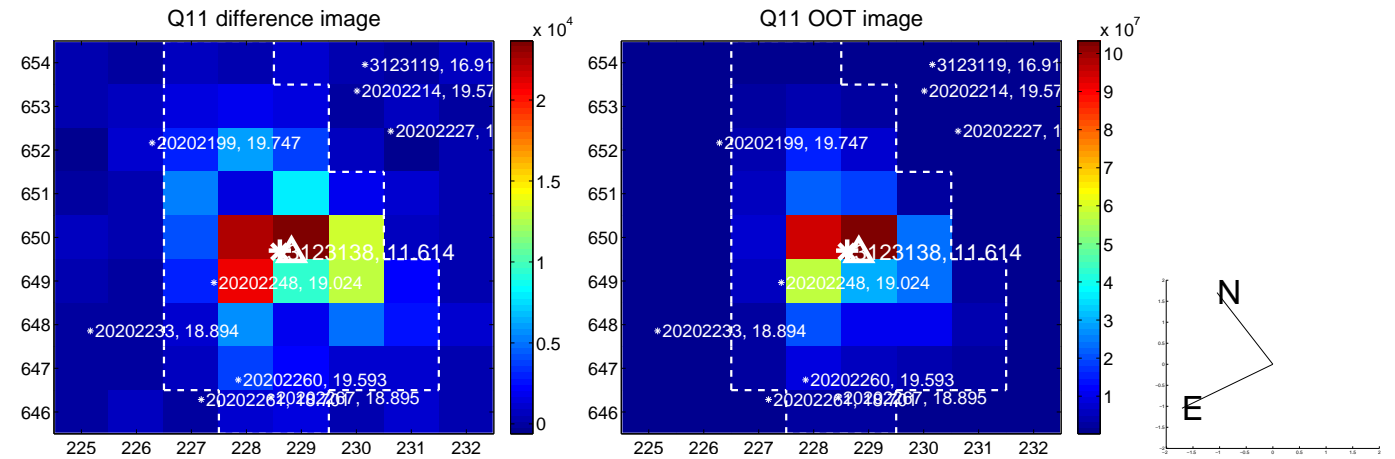
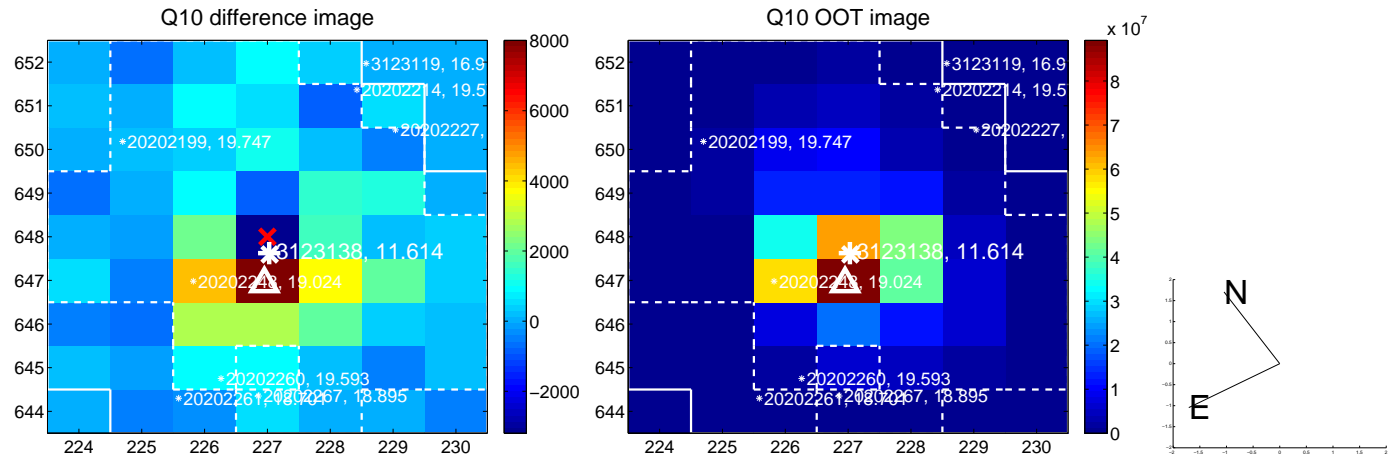
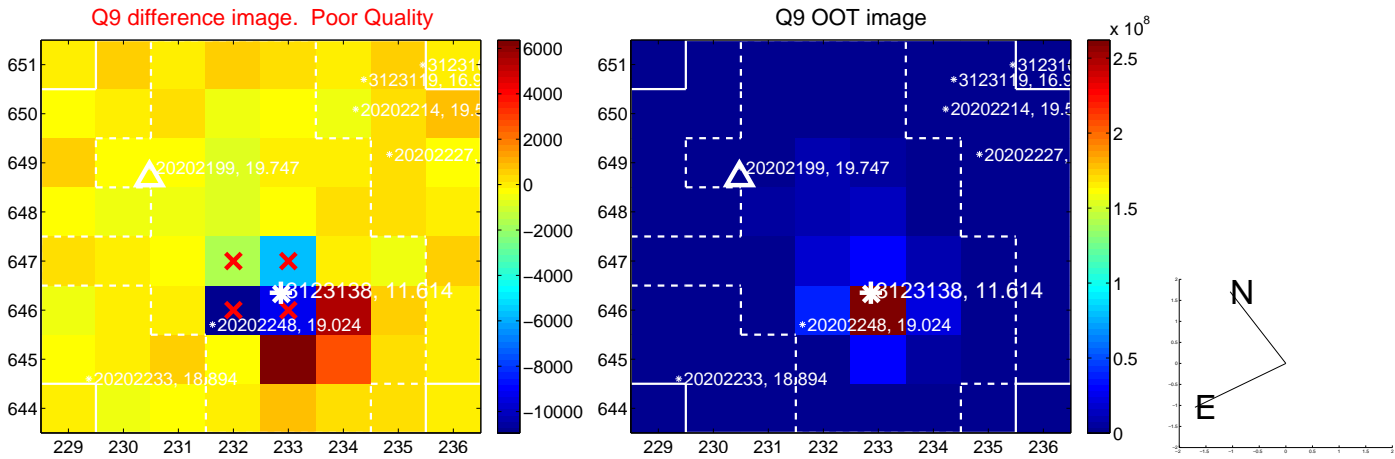
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



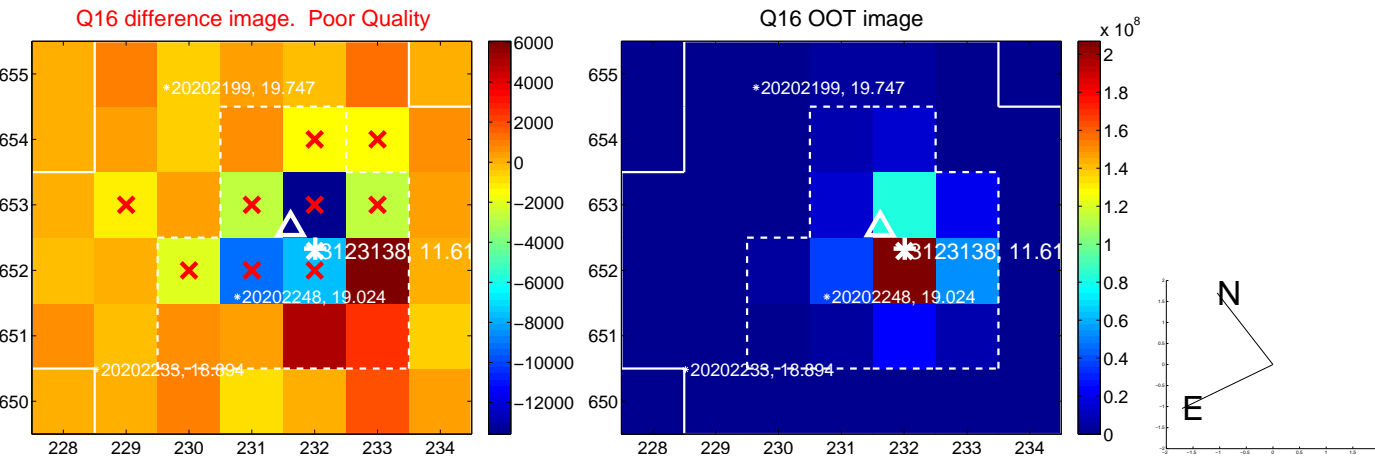
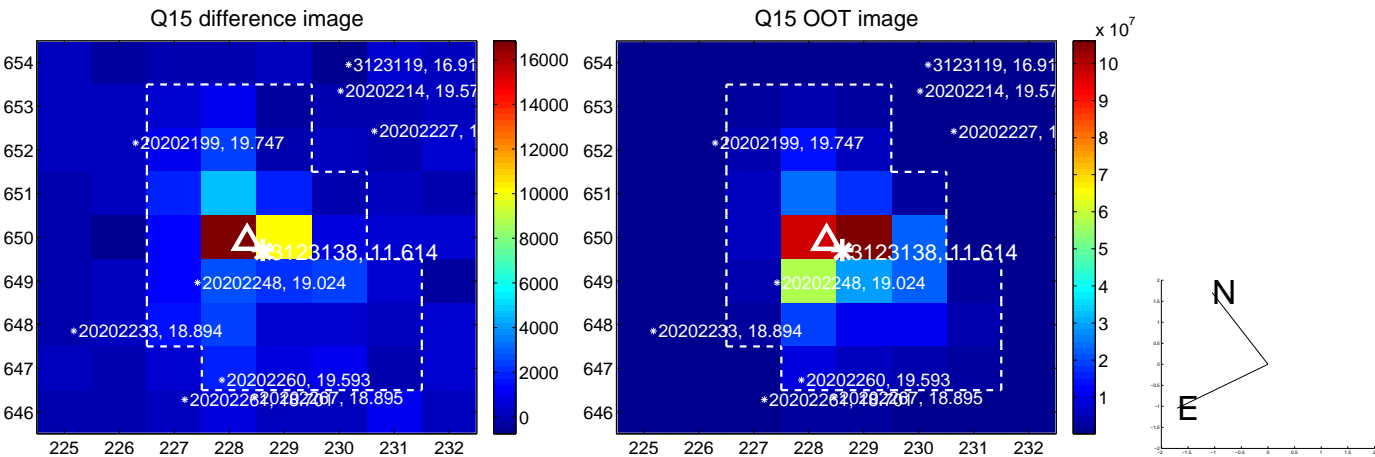
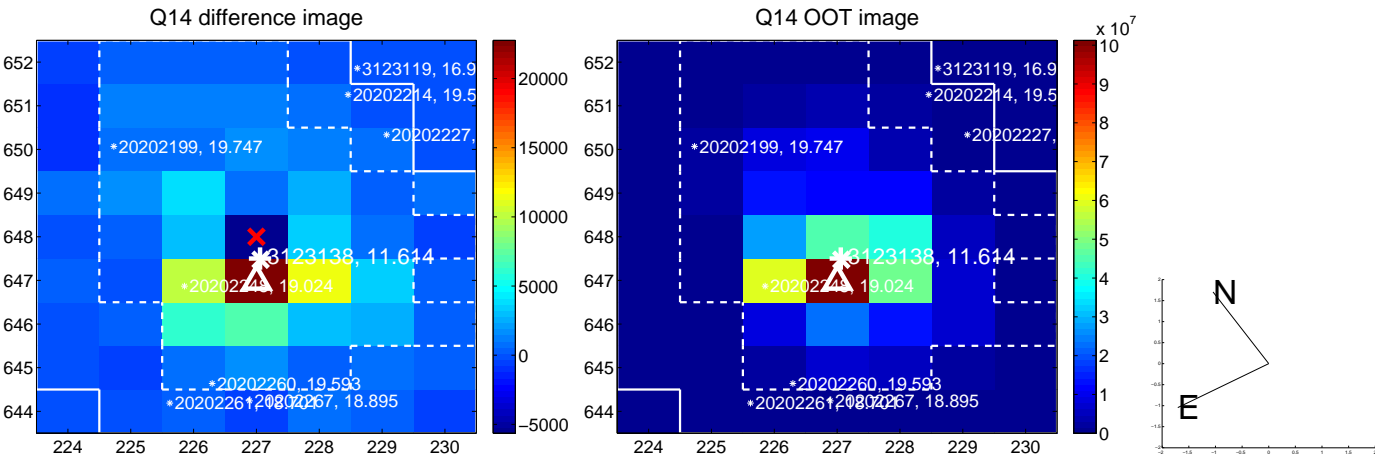
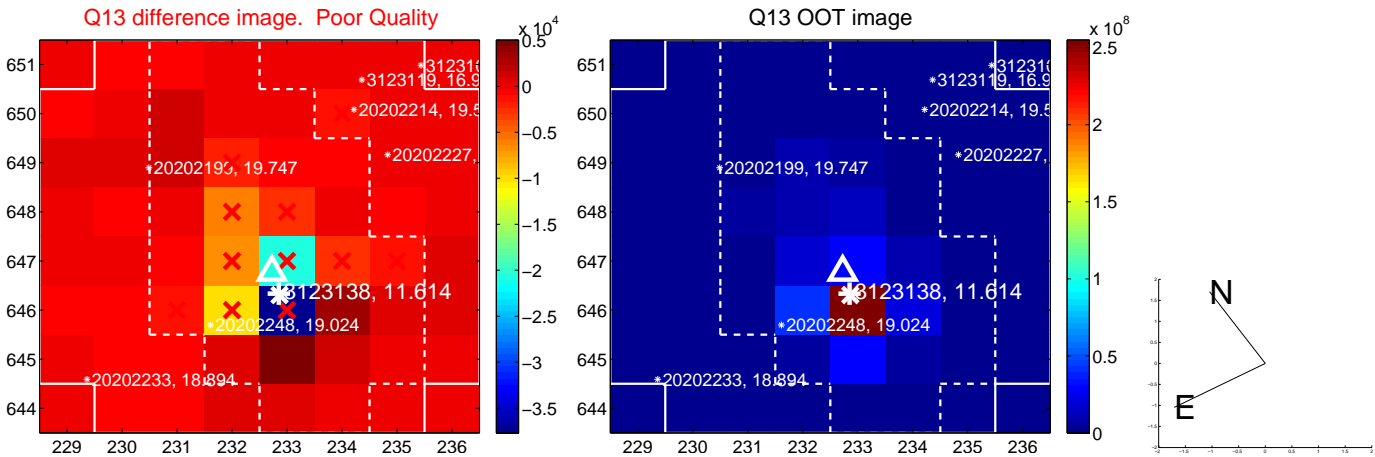
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



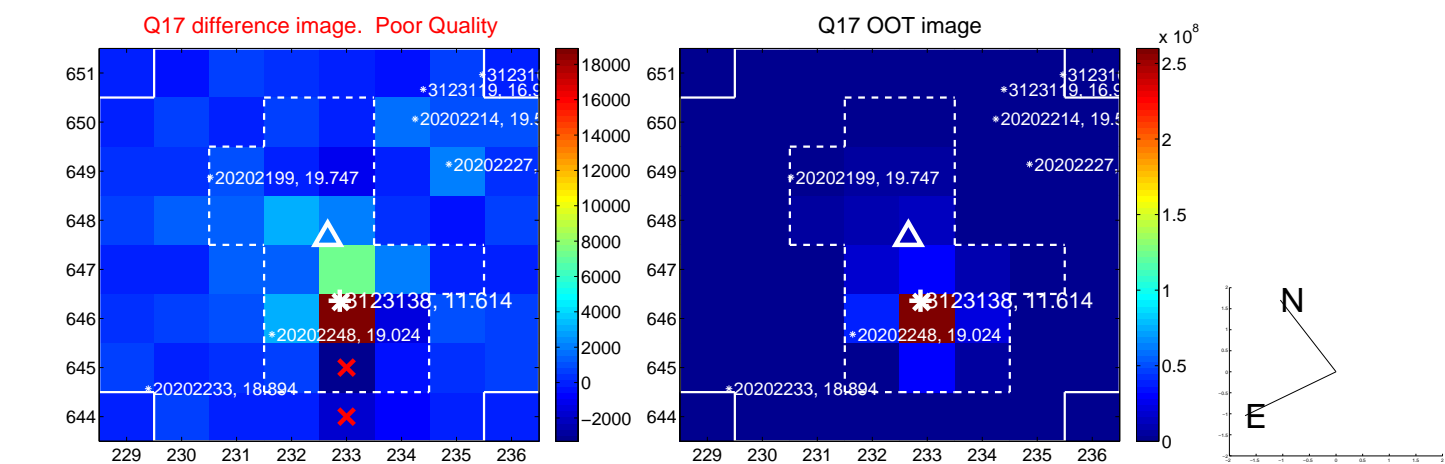
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



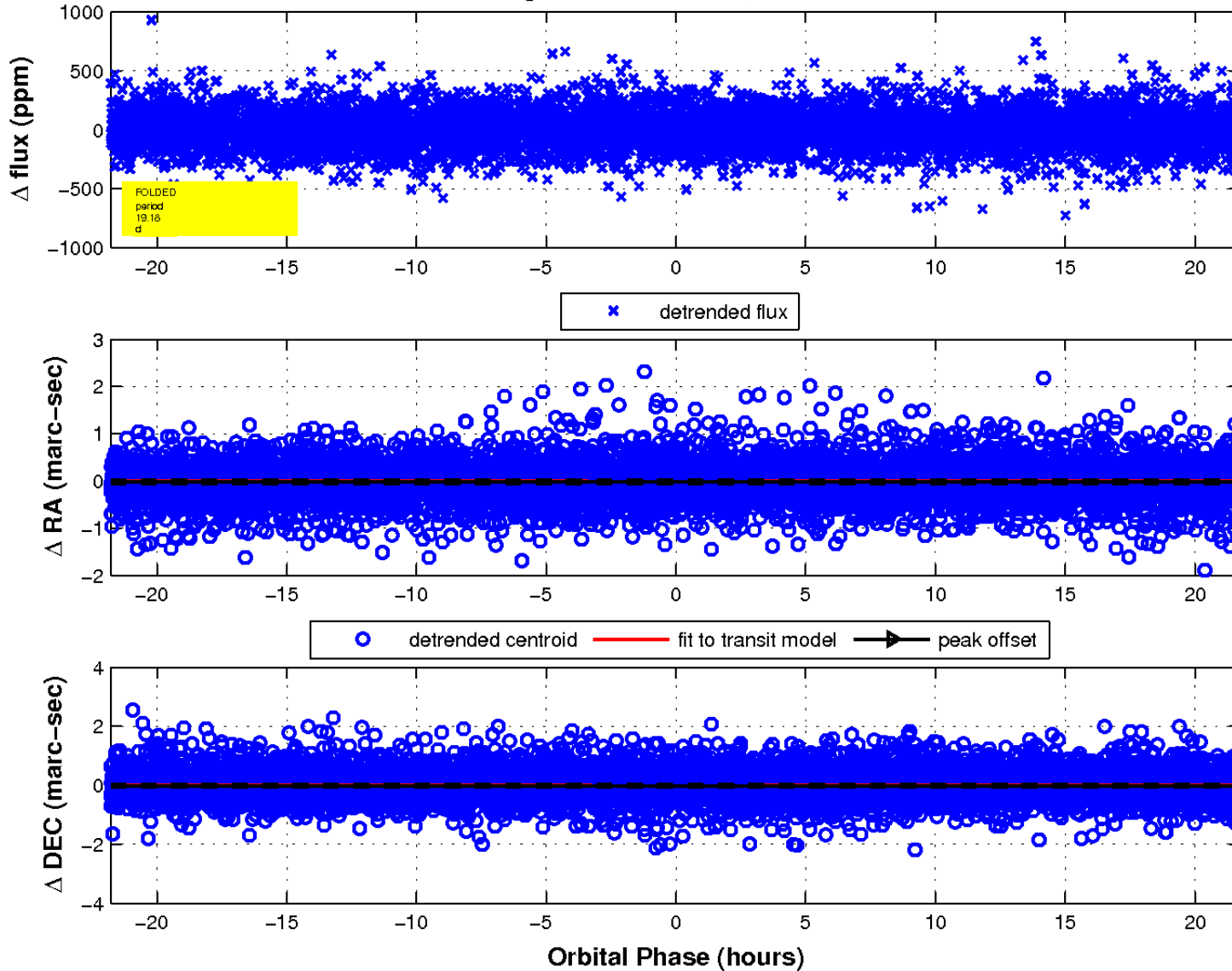
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

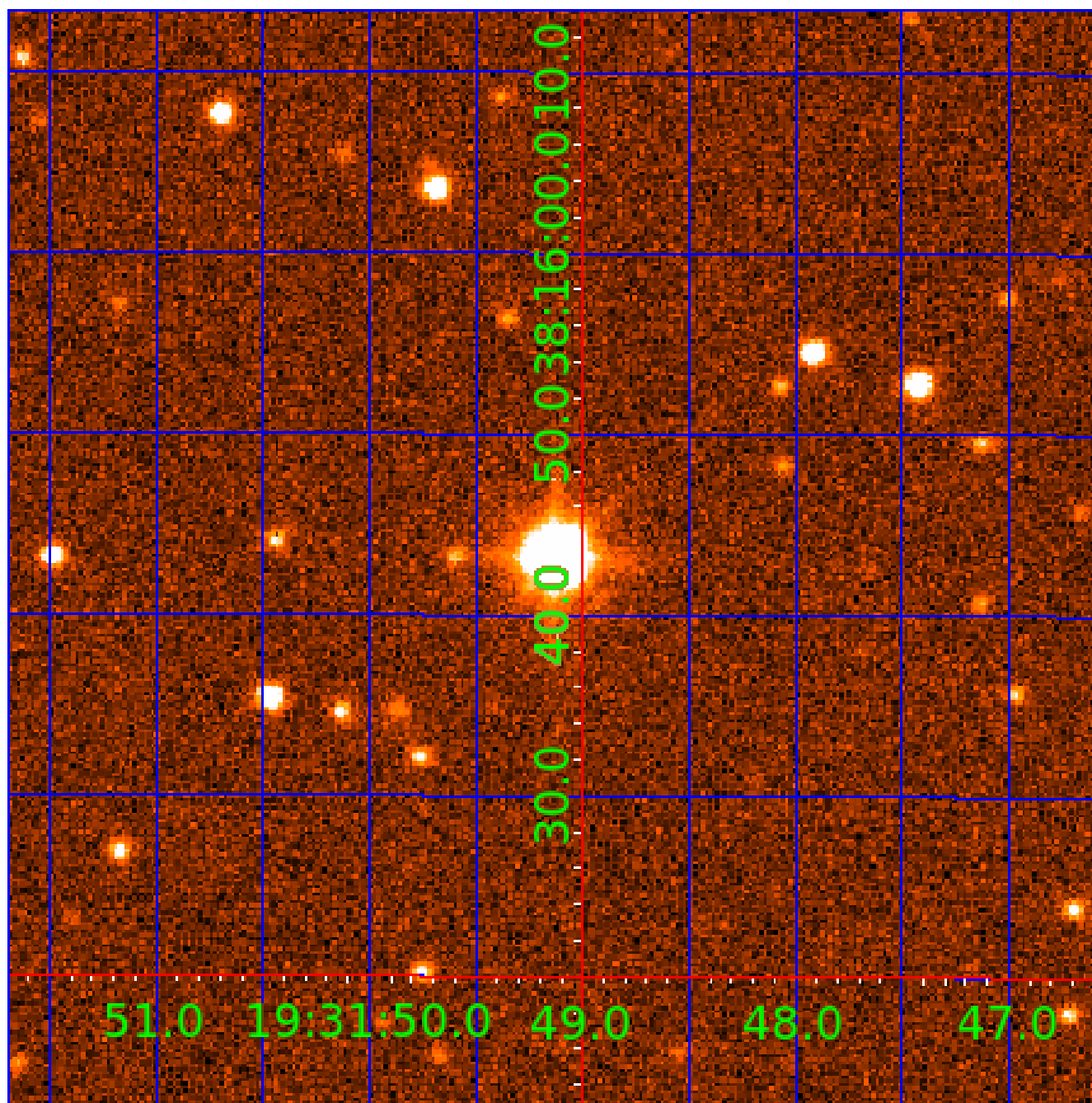


fluxWeightedCentroids, Planet 6 of 7



UKIRT Image

Declination



KIC 003123138

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})
003123138-01	OBS	No	0.978103	132.562758	1.5	5.591	8.7	0.7	2.57	7121	0.36	27531.76
003123138-02	OBS	No	0.978291	132.016195	38.5	1.976	12.8	16.8	2.57	7121	1.86	27524.72
003123138-03	OBS	No	26.347123	140.755884	198.5	2.001	9.8	7.2	2.57	7121	4.27	340.96
003123138-04	OBS	No	23.173368	135.686430	317.5	1.173	8.1	8.1	2.57	7121	4.66	404.60
003123138-05	OBS	No	13.314820	143.880311	163.1	2.365	8.0	9.0	2.57	7121	3.41	847.03
003123138-06	OBS	No	19.182460	142.047605	99.1	7.263	7.6	6.0	2.57	7121	2.97	520.57
003123138-07	OBS	No	27.299288	133.500578	148.5	2.500	8.4	-1.0	2.57	7121	3.17	325.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003123138-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003123138-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003123138-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
003123138-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
003123138-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—HALO_GHOST
003123138-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

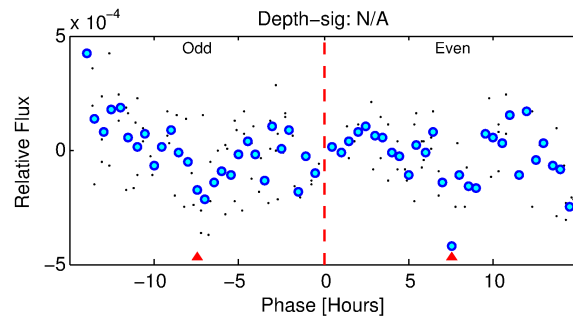
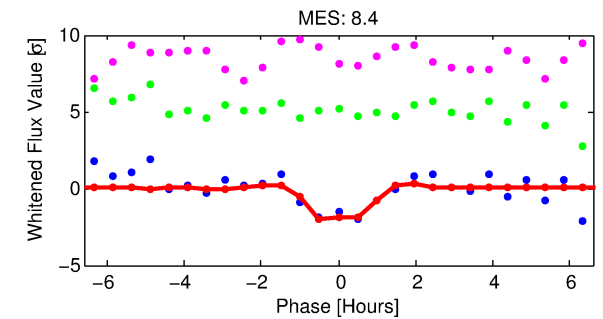
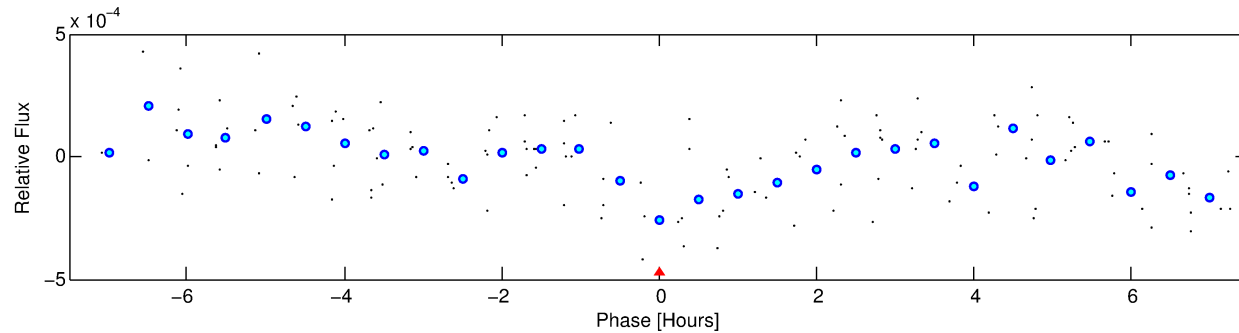
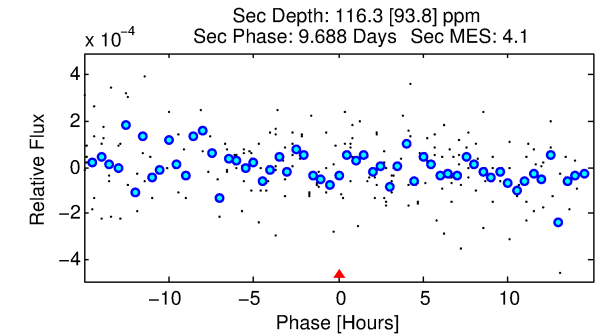
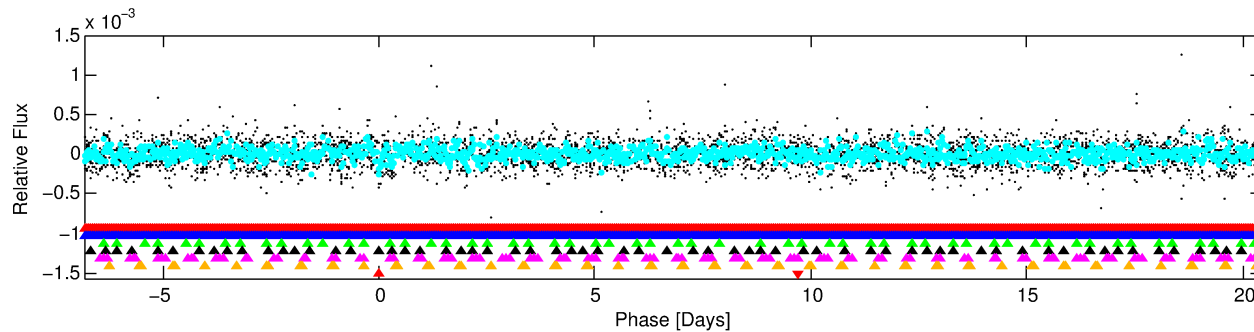
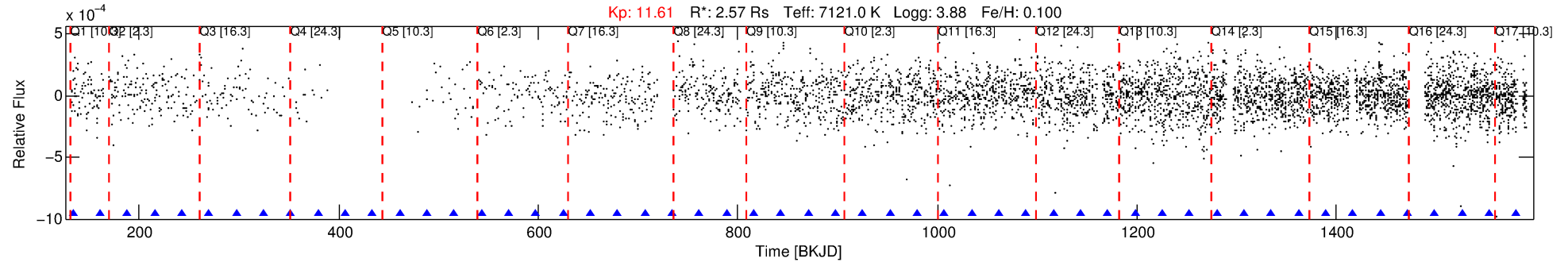
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003123138-07

No Significant Match Found

DV One-Page Summary

KIC: 3123138 Candidate: 7 of 7 Period: 27.299 d



TPS TCE Results:

Period = 27.29929 d
Epoch = 133.5006 BKJD

DV fit results are unavailable

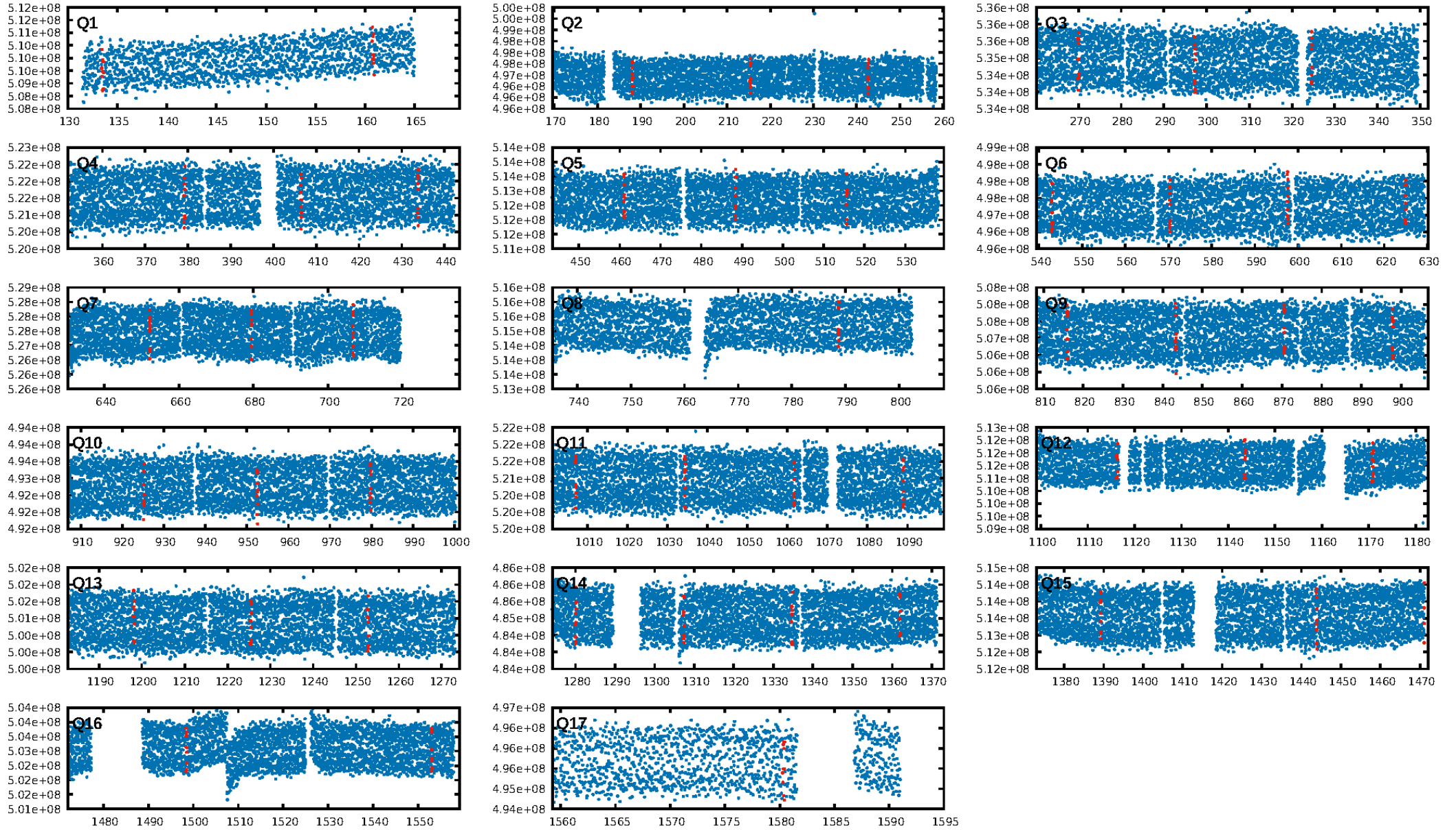
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.14σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

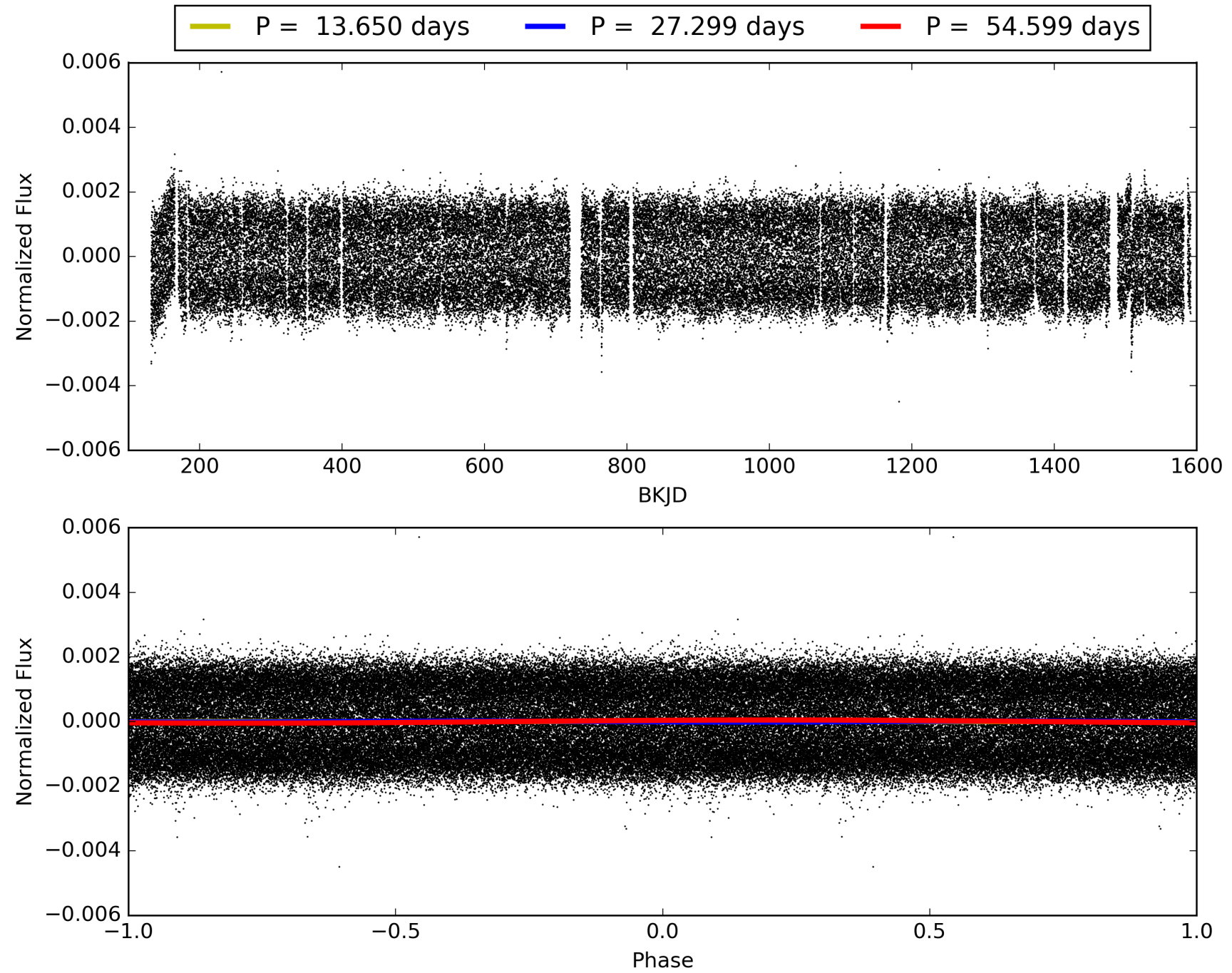
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:25:52 Z

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

TCE 003123138-07, PDC Light Curves

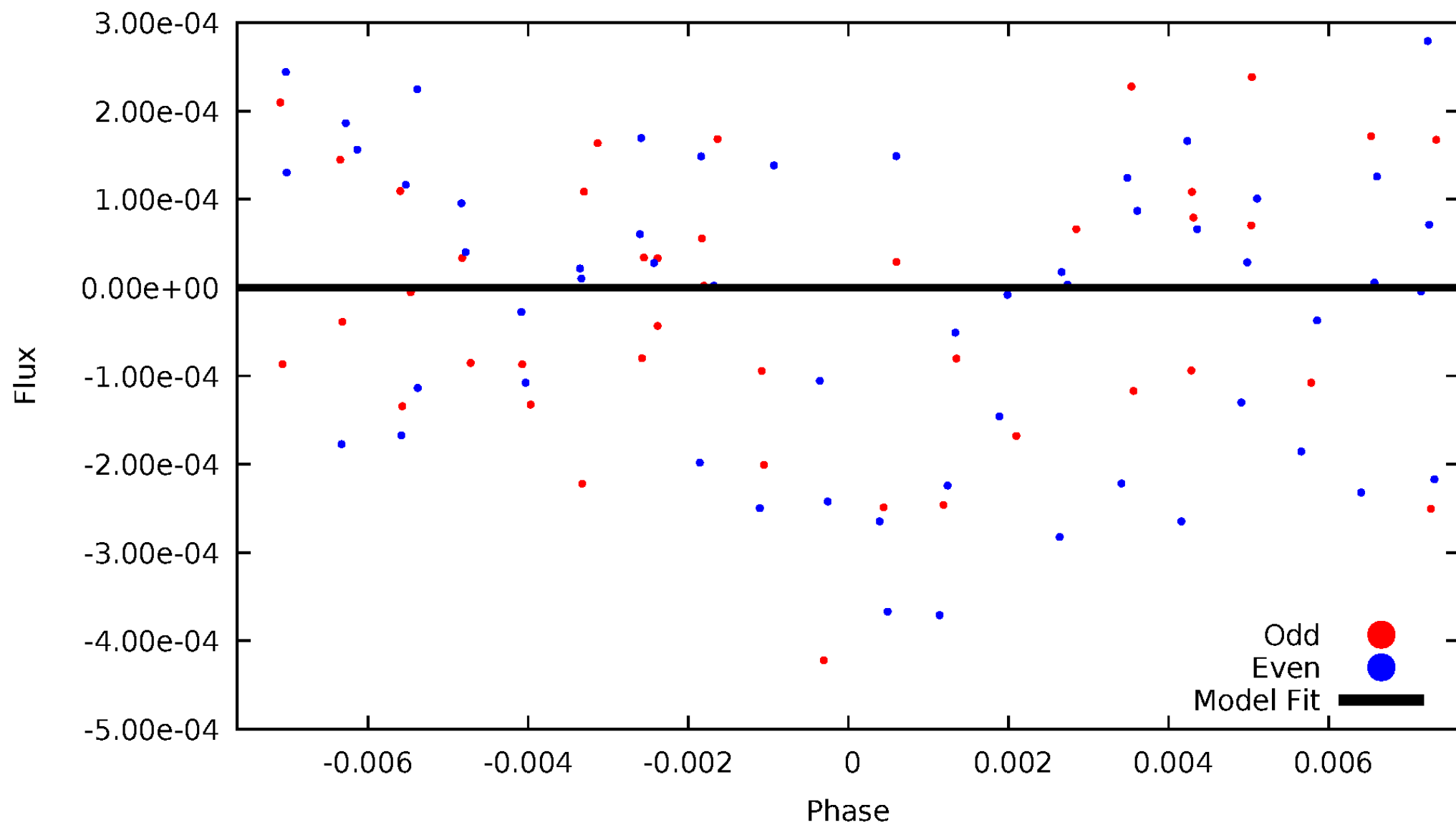


TCE 003123138-07



DV Odd/Even

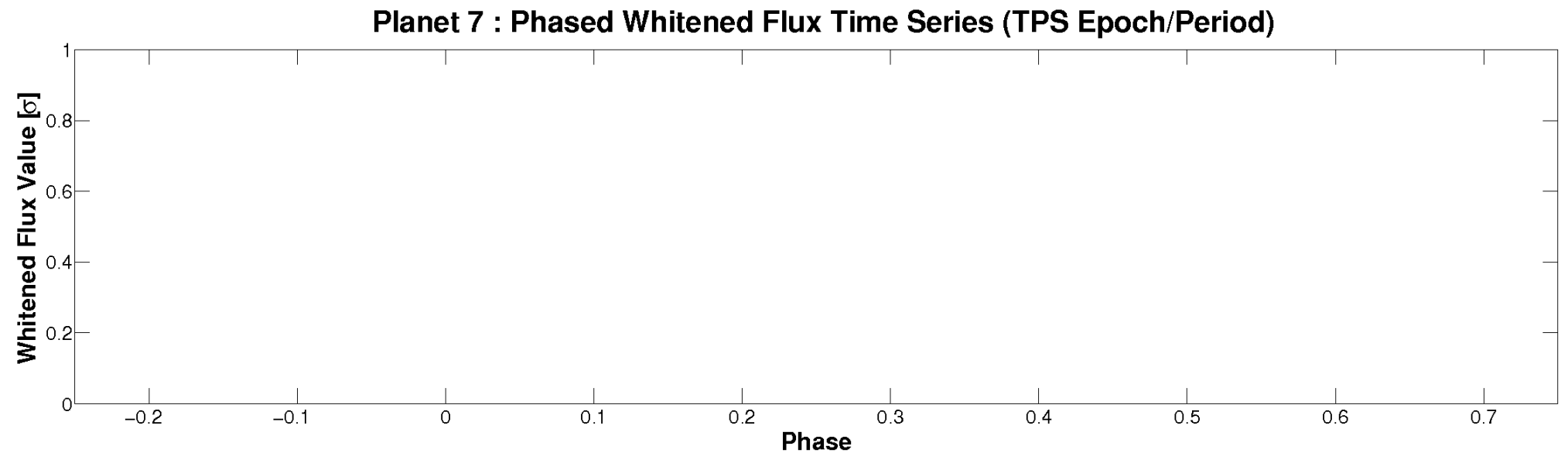
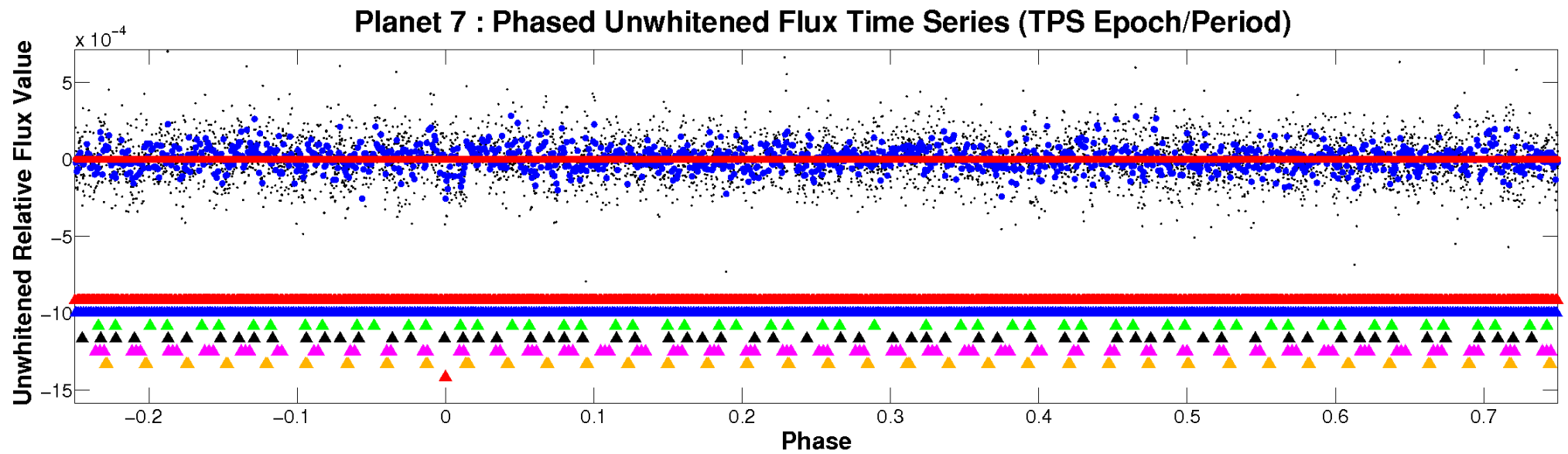
TCE 003123138-07



ALT Odd/Even

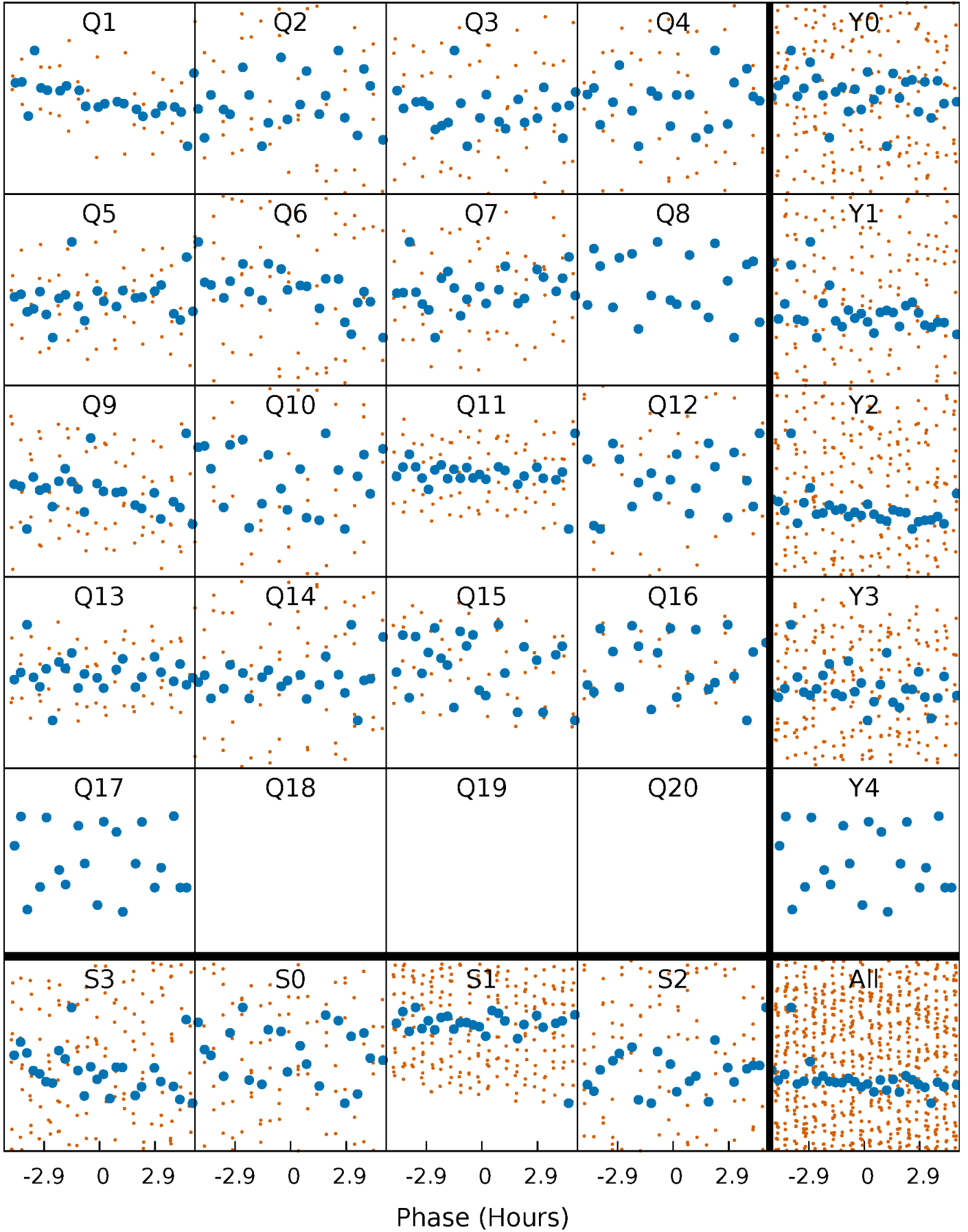
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve



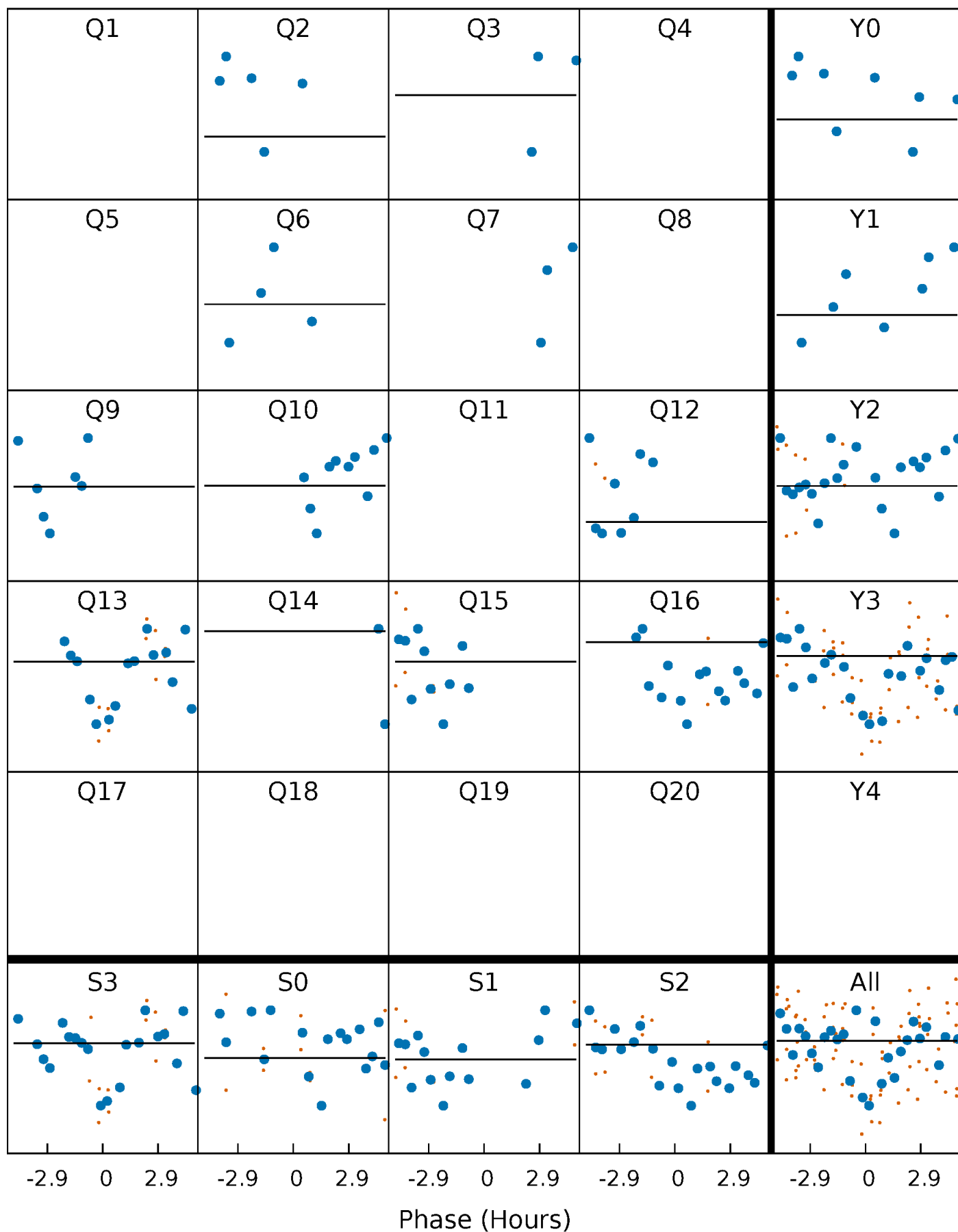
PDC Quarter-Phased Transit Curves

TCE 003123138-07 $P = 27.299288$ Days $T_0 = 133.500578$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003123138-07 $P = 27.299288$ Days $T_0 = 133.500578$ (BKJD)

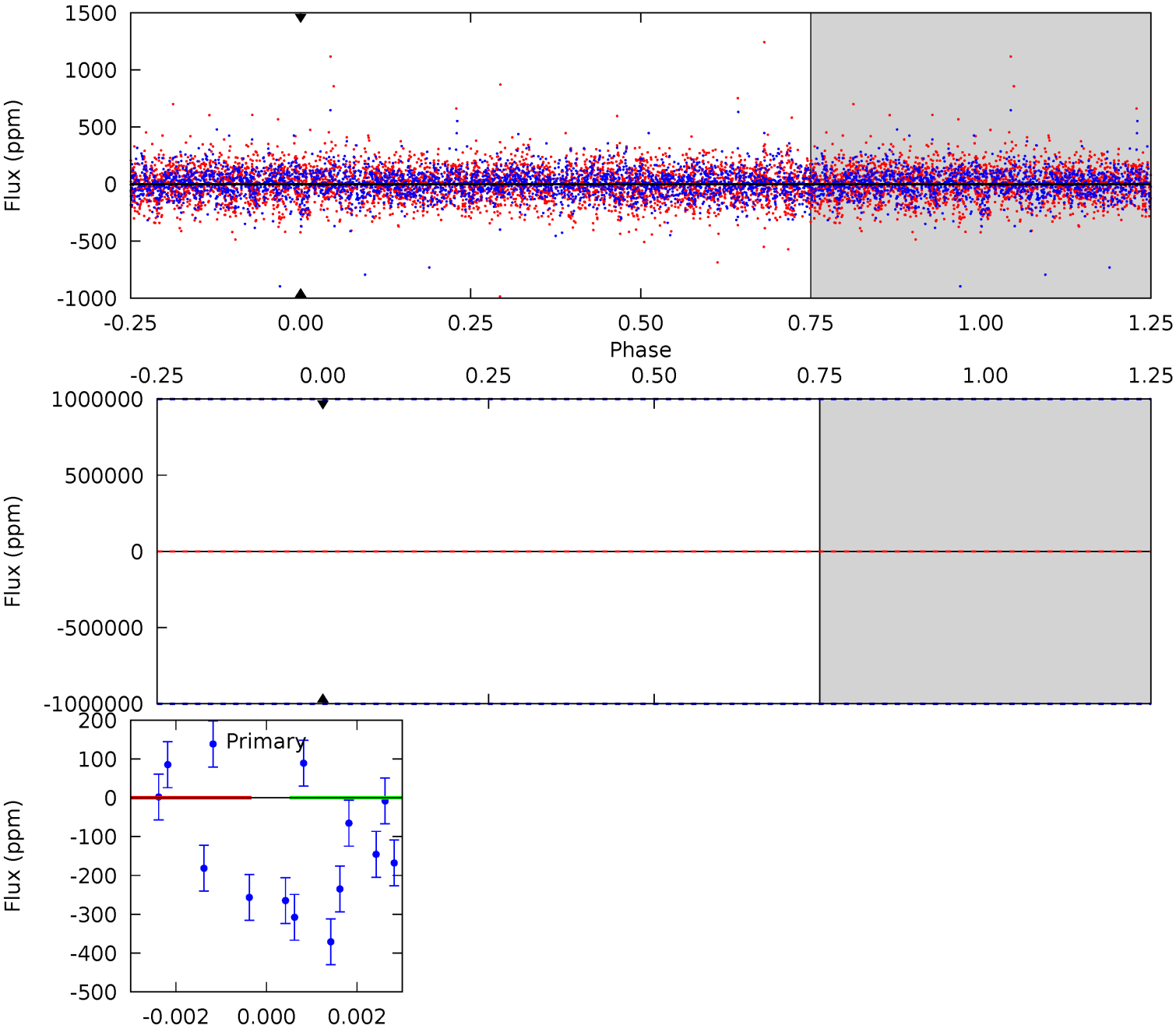


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003123138-07, P = 27.299288 Days, E = 106.201290 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	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003123138

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7121^{+78}_{-85}	$3.876^{+0.188}_{-0.101}$	$0.100^{+0.100}_{-0.150}$	$2.570^{+0.420}_{-0.629}$	$1.807^{+0.162}_{-0.226}$	$0.150^{+0.154}_{-0.048}$
	+1%/-1%	+5%/-3%	+100%/-150%	+16%/-24%	+9%/-13%	+103%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003123138-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$18.86^{+21.96}_{-12.95}$	1505^{+64}_{-88}	-3304^{+43614}_{-32186}	$-5.473^{+14196.549}_{-12212.667}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

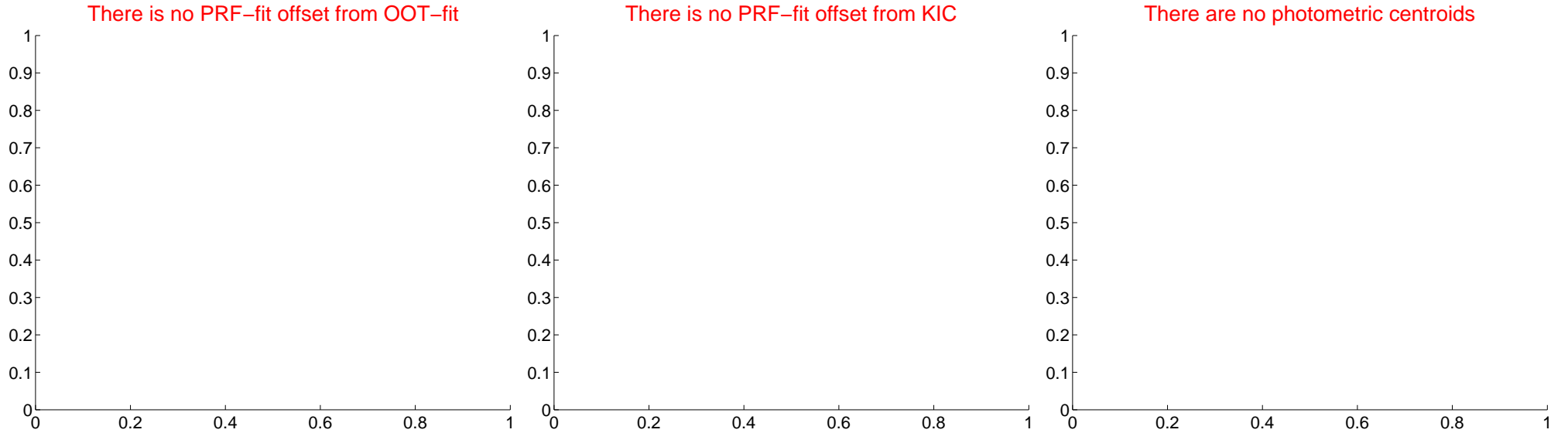
DV Centroid Data

Supplemental centroid analysis for 003123138-07. **Kepler magnitude: 11.61.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
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 \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.



folded centroid time series figure for this object.

UKIRT Image

Declination

