

KIC 003348082

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})
003348082-01	OBS	1196.01	3.982235	131.535233	291.8	2.817	25.1	22.3	1.55	5570	3.21	844.62
003348082-02	OBS	1196.02	11.634800	140.504068	295.6	5.614	16.9	18.4	1.55	5570	2.96	202.22
003348082-03	OBS	1196.03	33.198396	142.093373	330.8	4.623	9.7	10.8	1.55	5570	3.17	49.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348082-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH
003348082-02	OBS	PC	0.97	0	0	0	0	NO_COMMENT
003348082-03	OBS	PC	0.91	0	0	0	0	NO_COMMENT

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 003348082-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (μ)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
003348082-01	3348082	003348093-pri	3348093	1:2	15.2	-2	3	16.20	15.04	897.95	Direct-PRF	0	0.68	0.47

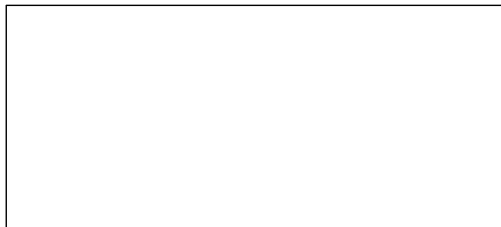
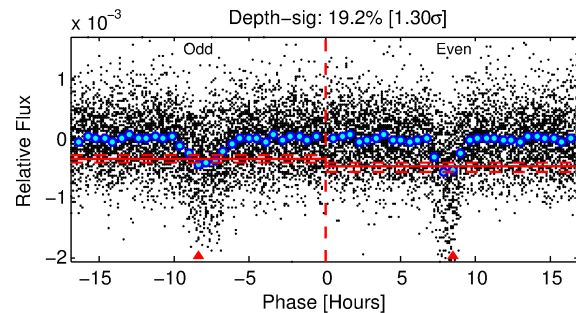
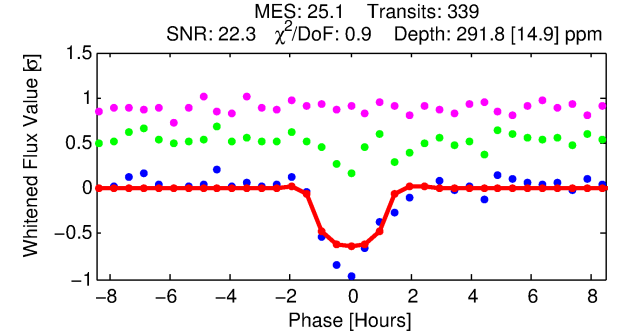
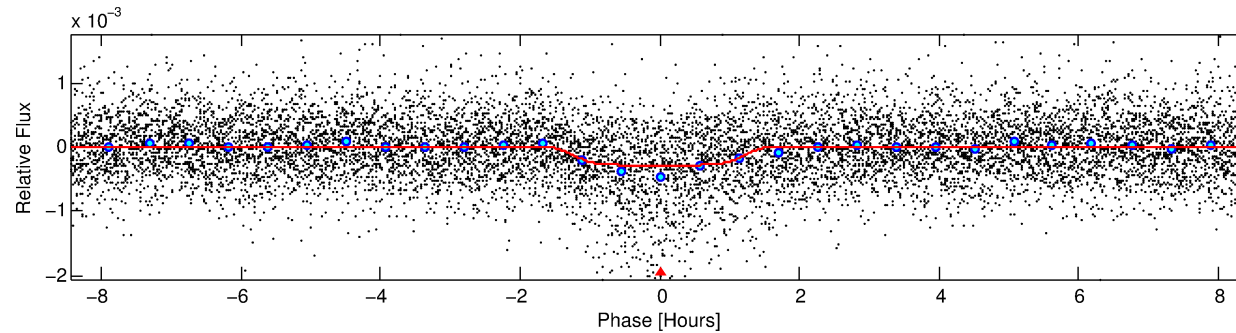
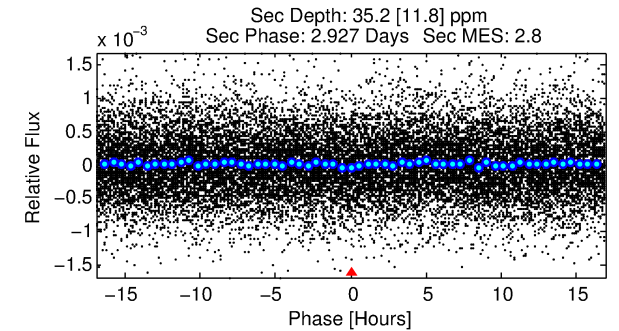
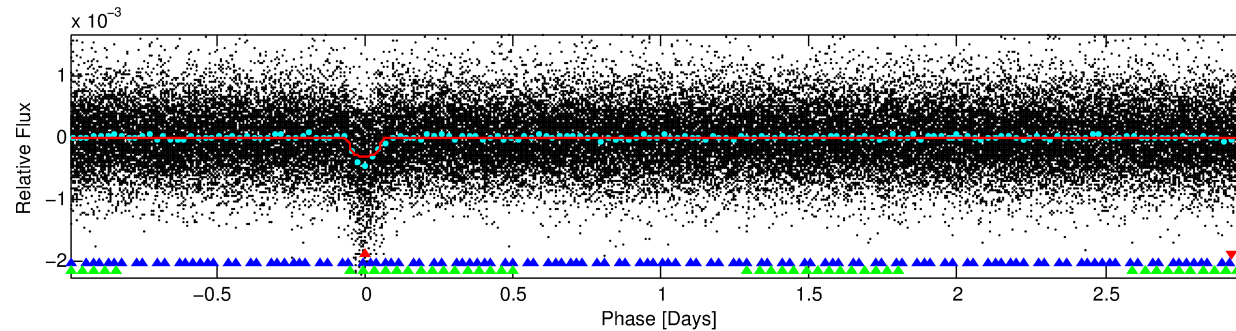
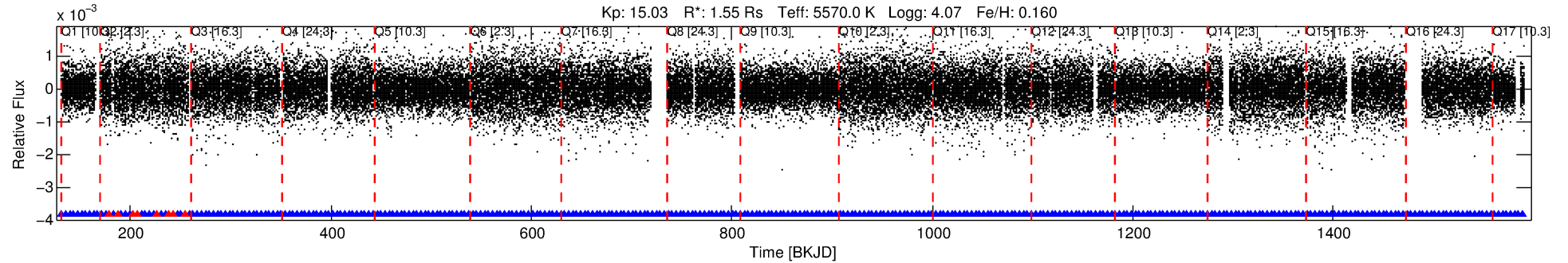
Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 3348082 Candidate: 1 of 3 Period: 3.982 d

KOI: K01196.01 Corr: 0.879

Kp: 15.03 R*: 1.55 Rs Teff: 5570.0 K Logg: 4.07 Fe/H: 0.160



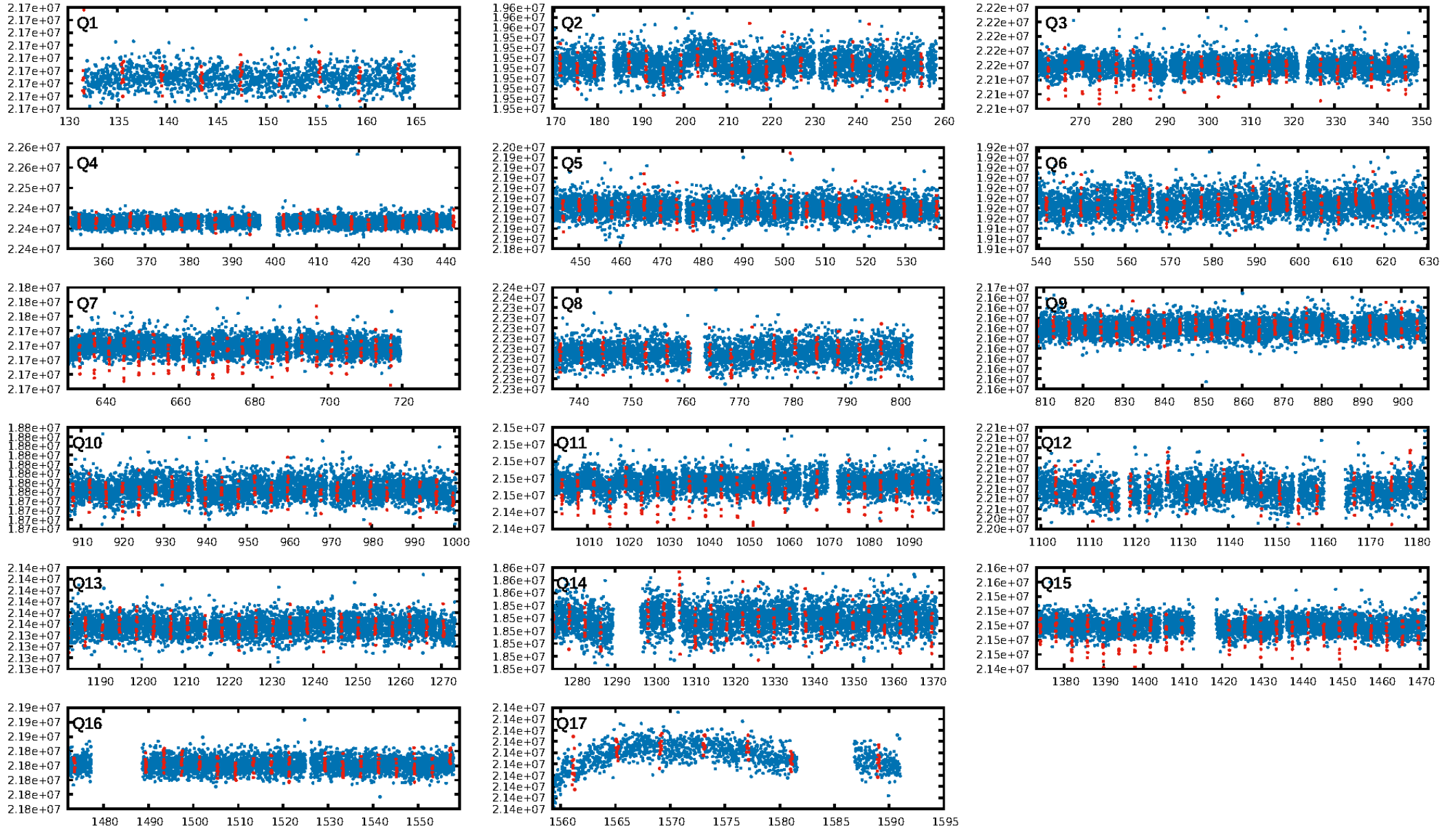
DV Fit Results:

Period = 3.98223 [0.00001] d
Epoch = 131.5352 [0.0022] BKJD
Rp/R* = 0.0190 [0.0039]
a/R* = 5.02 [4.44]
b = 0.91 [0.18]
Seff = 844.62 [311.28]
Teq = 1375 [127] K
Rp = 3.21 [1.04] Re
a = 0.0495 [0.0115] AU
Ag = 4.60 [2.96] [1.22σ]
Teffp = 3112 [415] K [4.00σ]

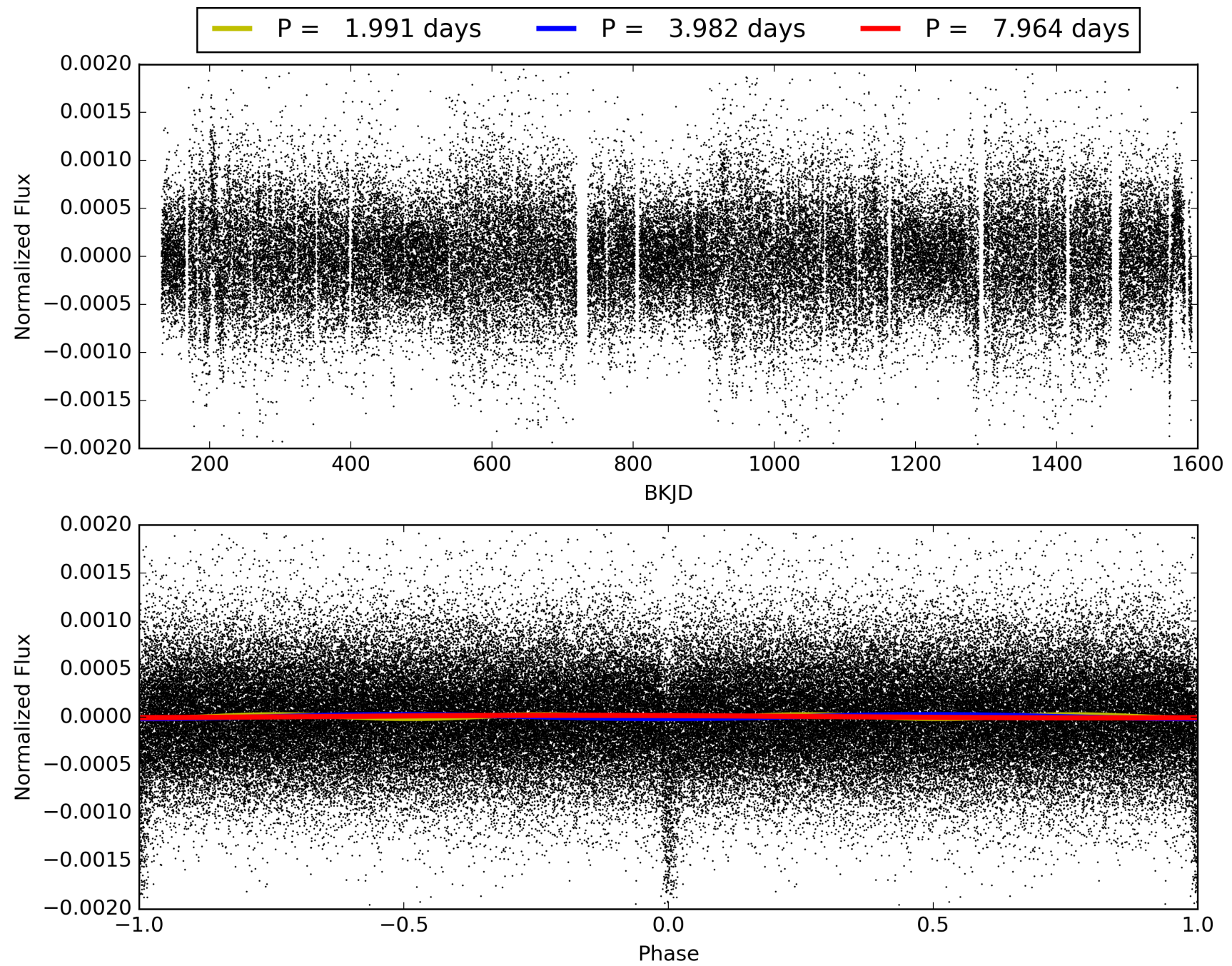
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [29.24σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.67e-136
RollingBand-fgt: 0.98 [315/323]
GhostDiagnostic-chr: -0.1351
Centroid-sig: N/A
Centroid-so: 33.120 arcsec [52.85σ]
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: 1.00 [17/17]

TCE 003348082-01, PDC Light Curves

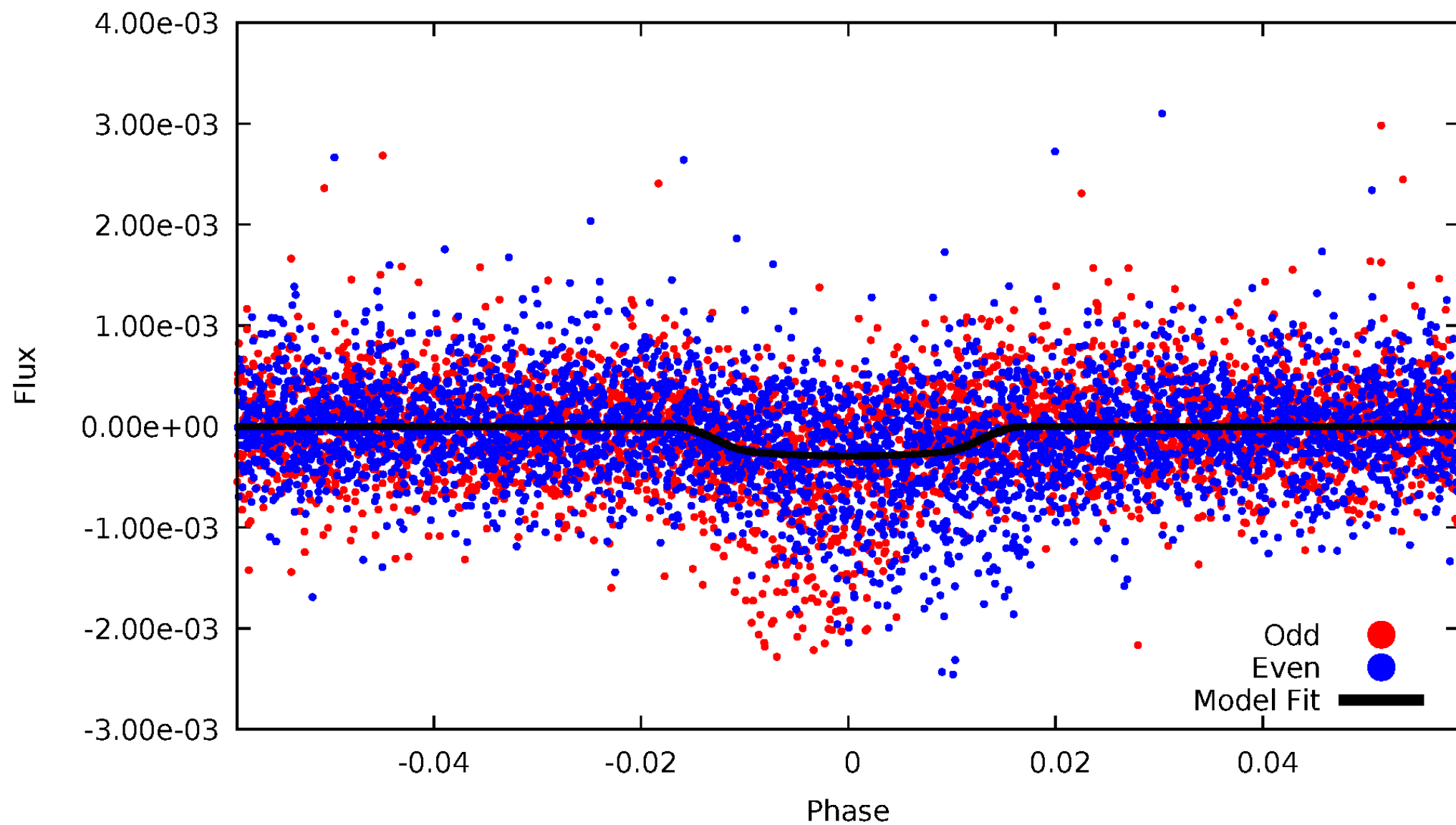


TCE 003348082-01



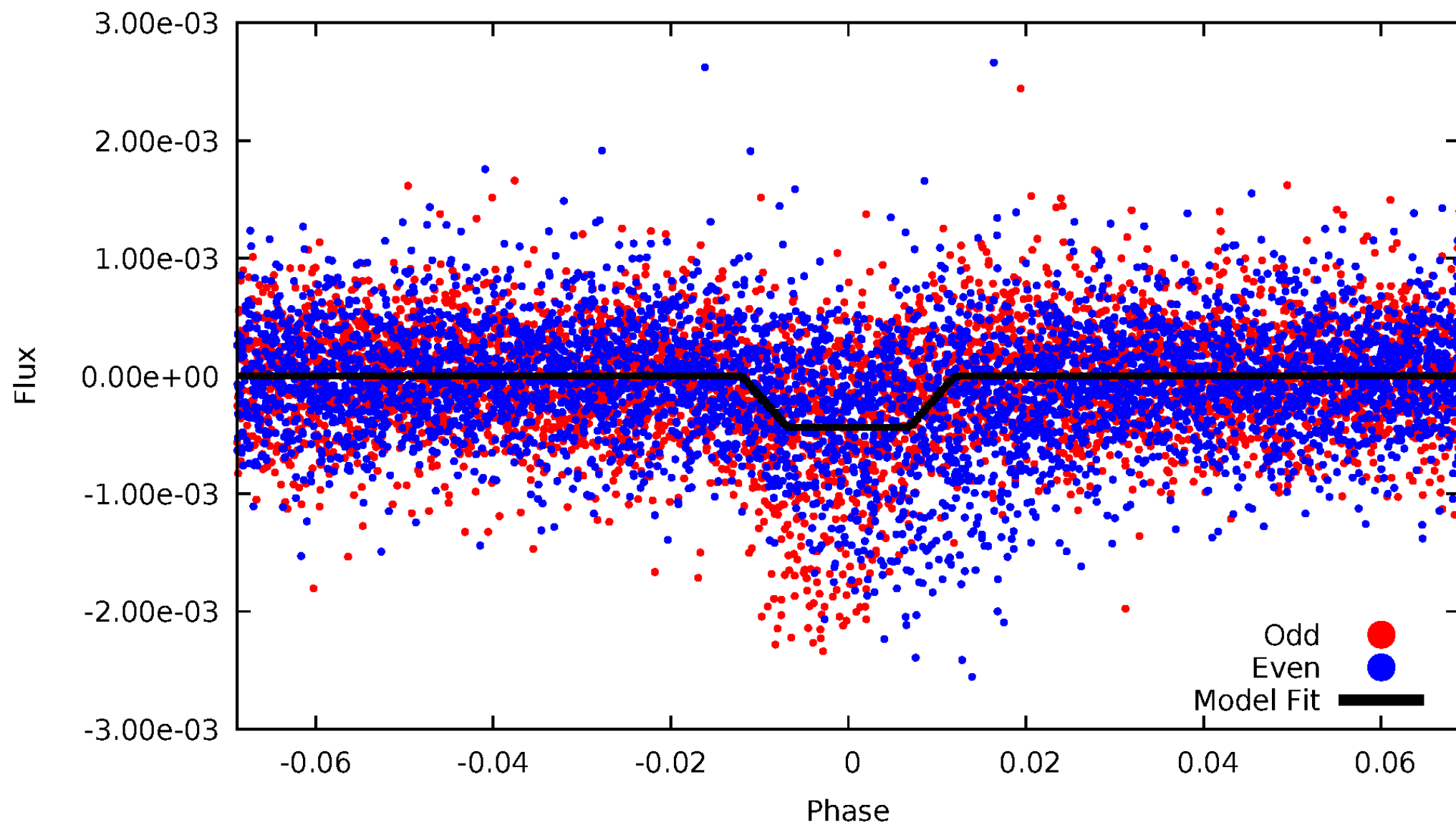
DV Odd/Even

TCE 003348082-01



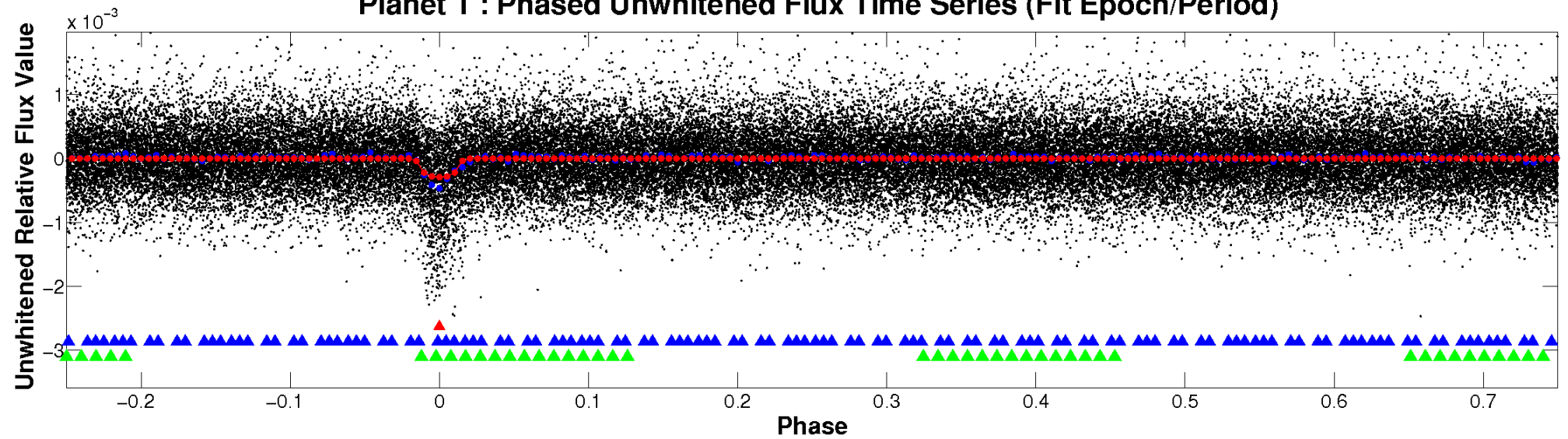
ALT Odd/Even

TCE 003348082-01

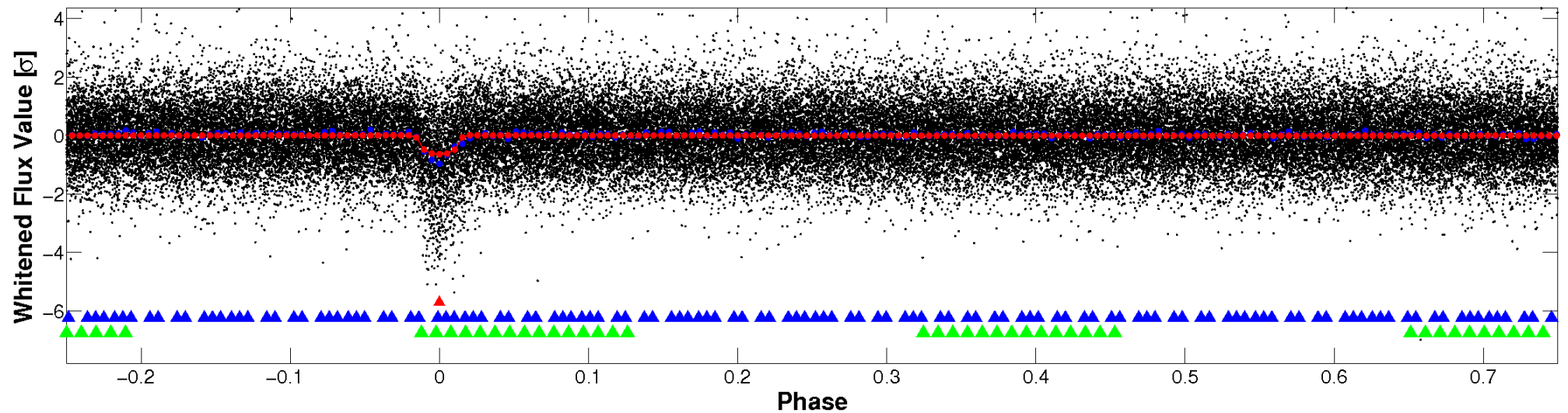


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

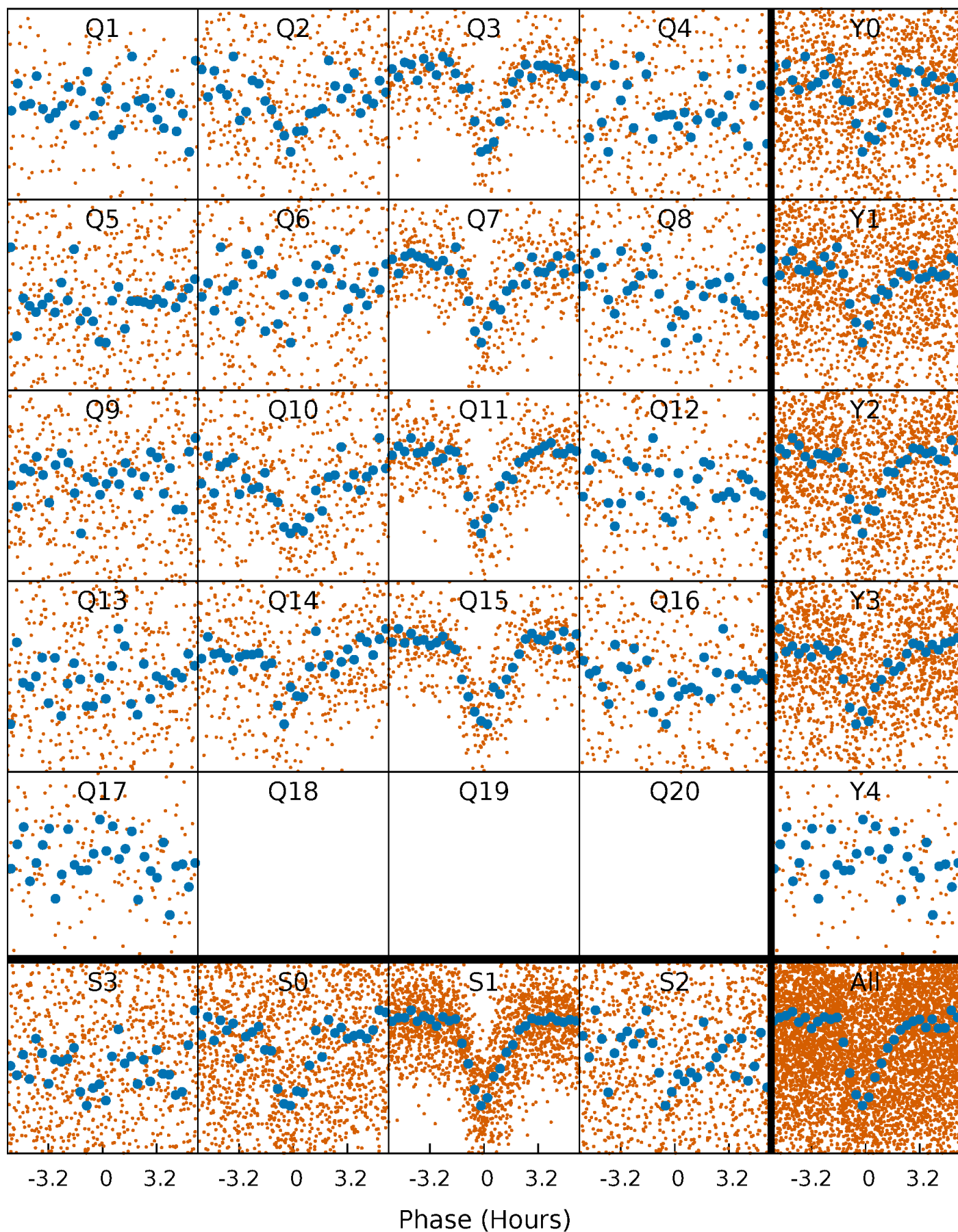


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



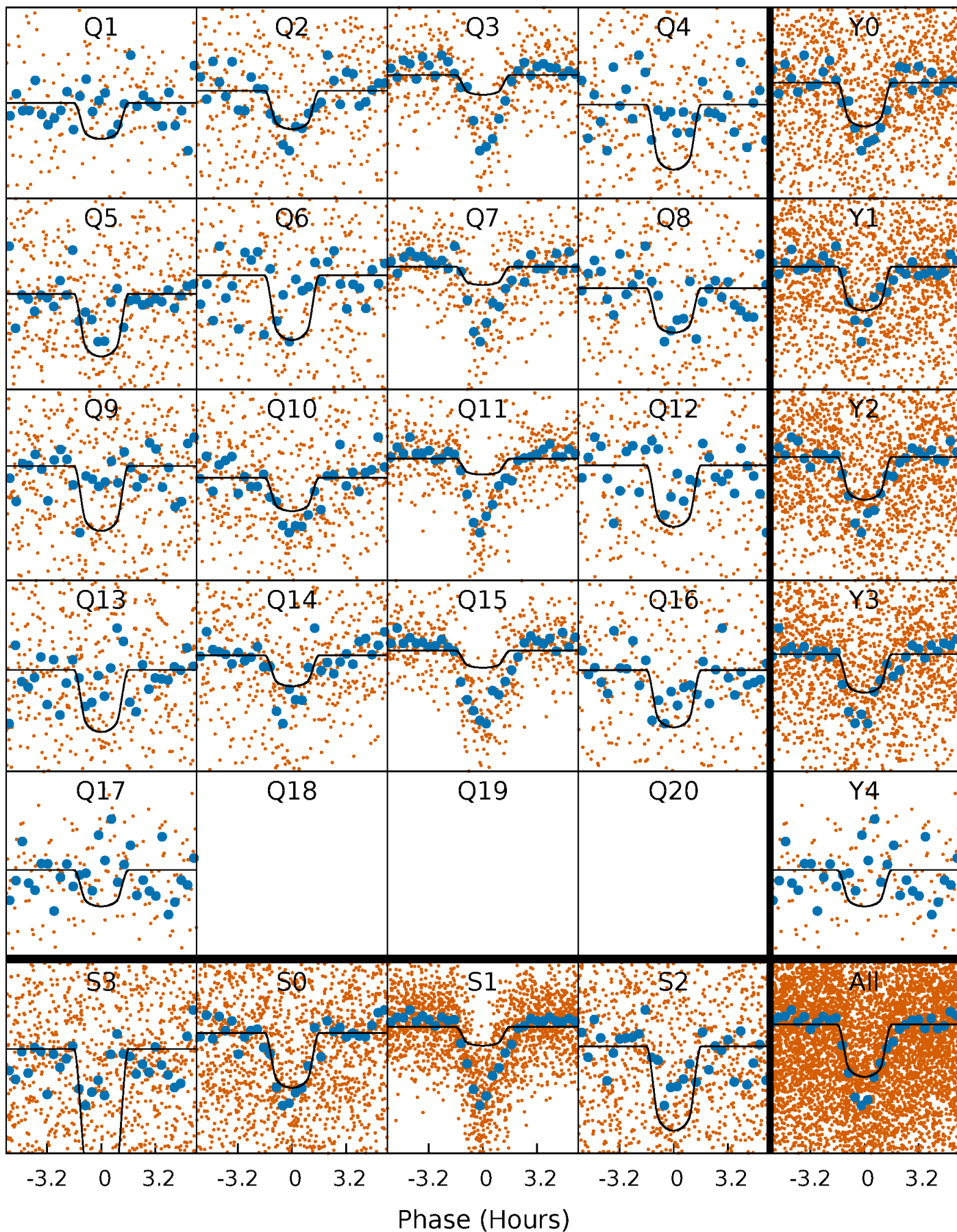
PDC Quarter-Phased Transit Curves

TCE 003348082-01 P= 3.982235 Days $T_0=131.535233$ (BKJD)



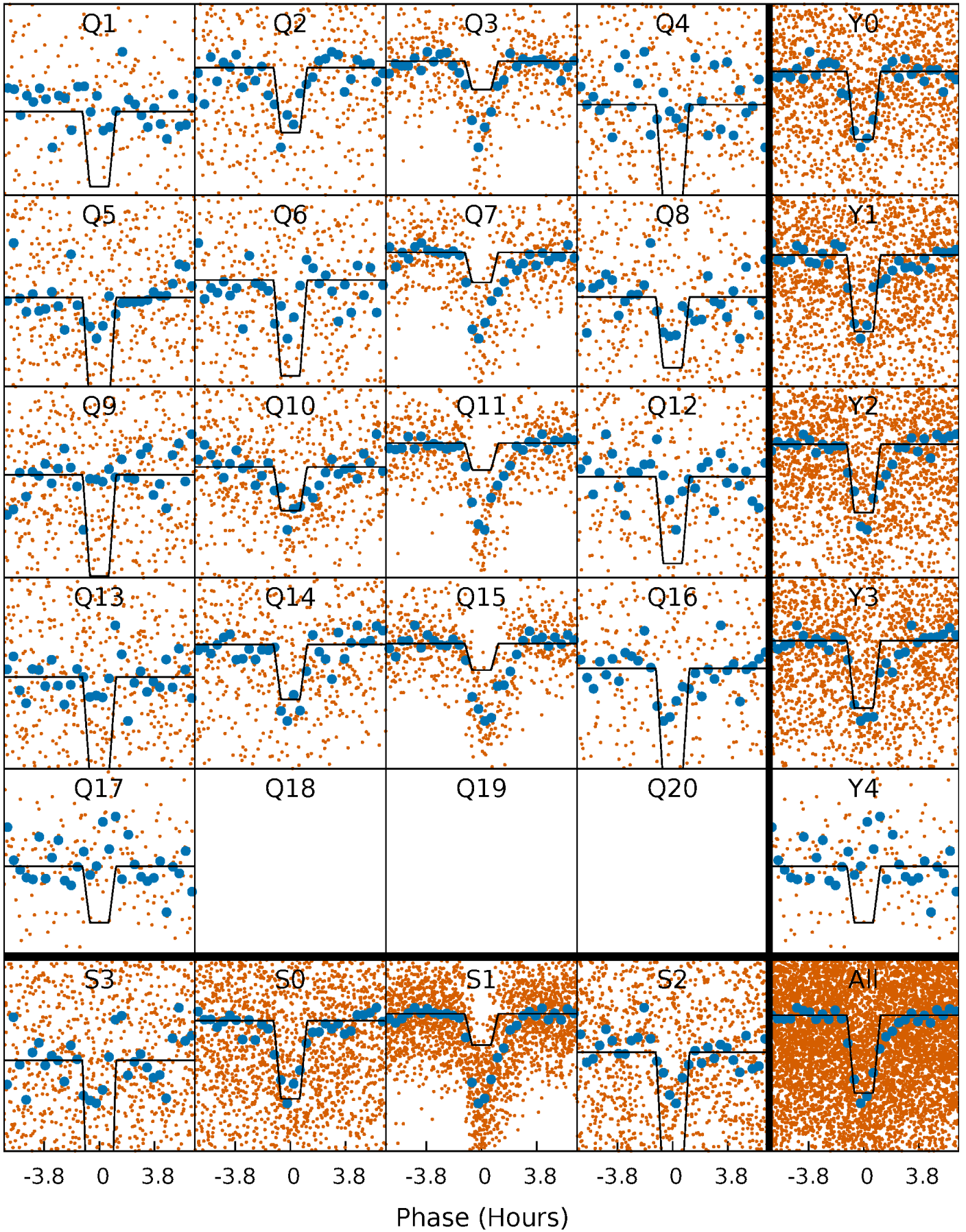
DV Quarter-Phased Transit Curves

TCE 003348082-01 P= 3.982235 Days $T_0=131.535233$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

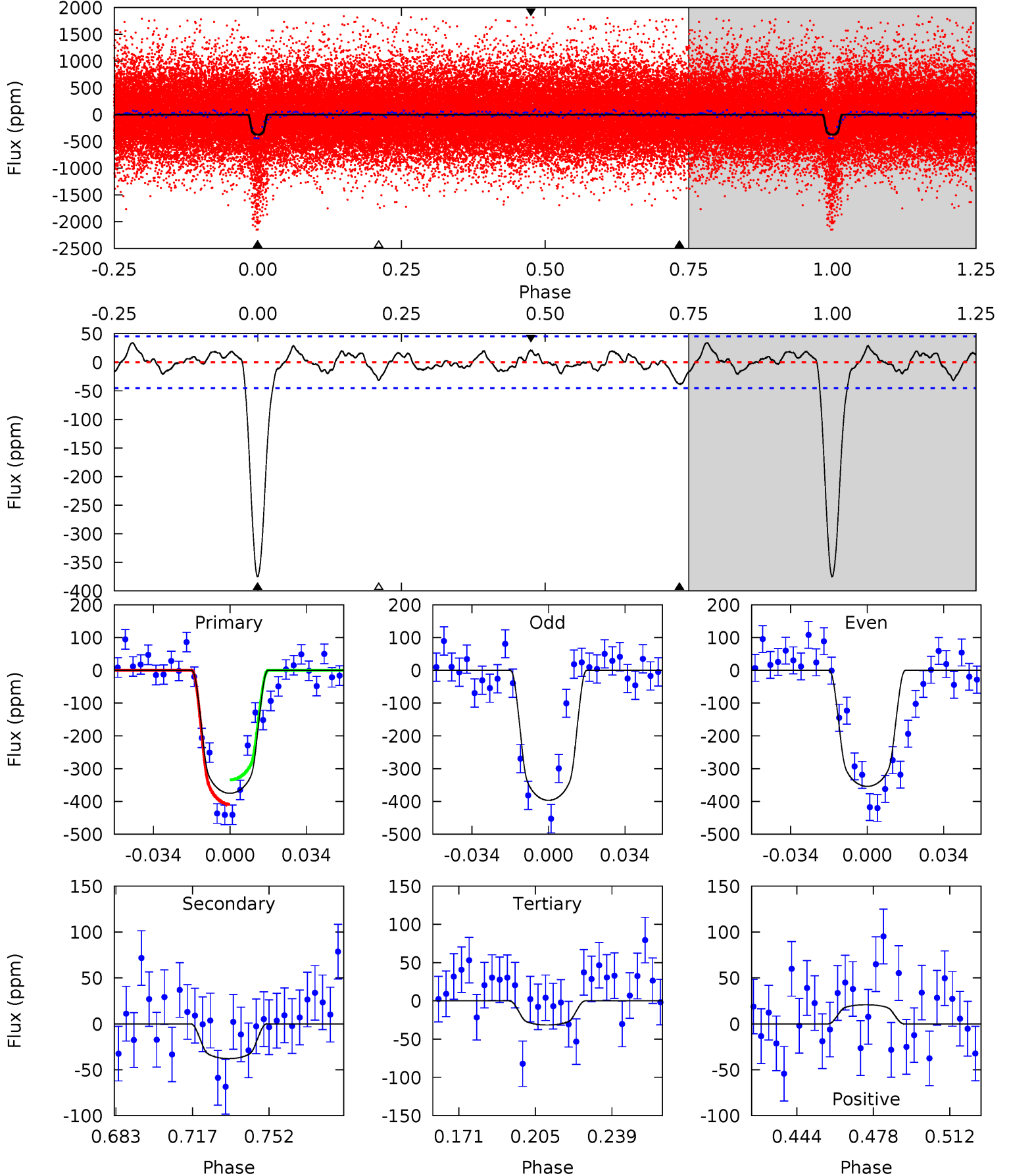
TCE 003348082-01 P= 3.982142 Days $T_0=131.549417$ (BKJD)



DV Model-Shift Uniqueness Test

003348082-01, P = 3.982235 Days, E = 127.552998 Days

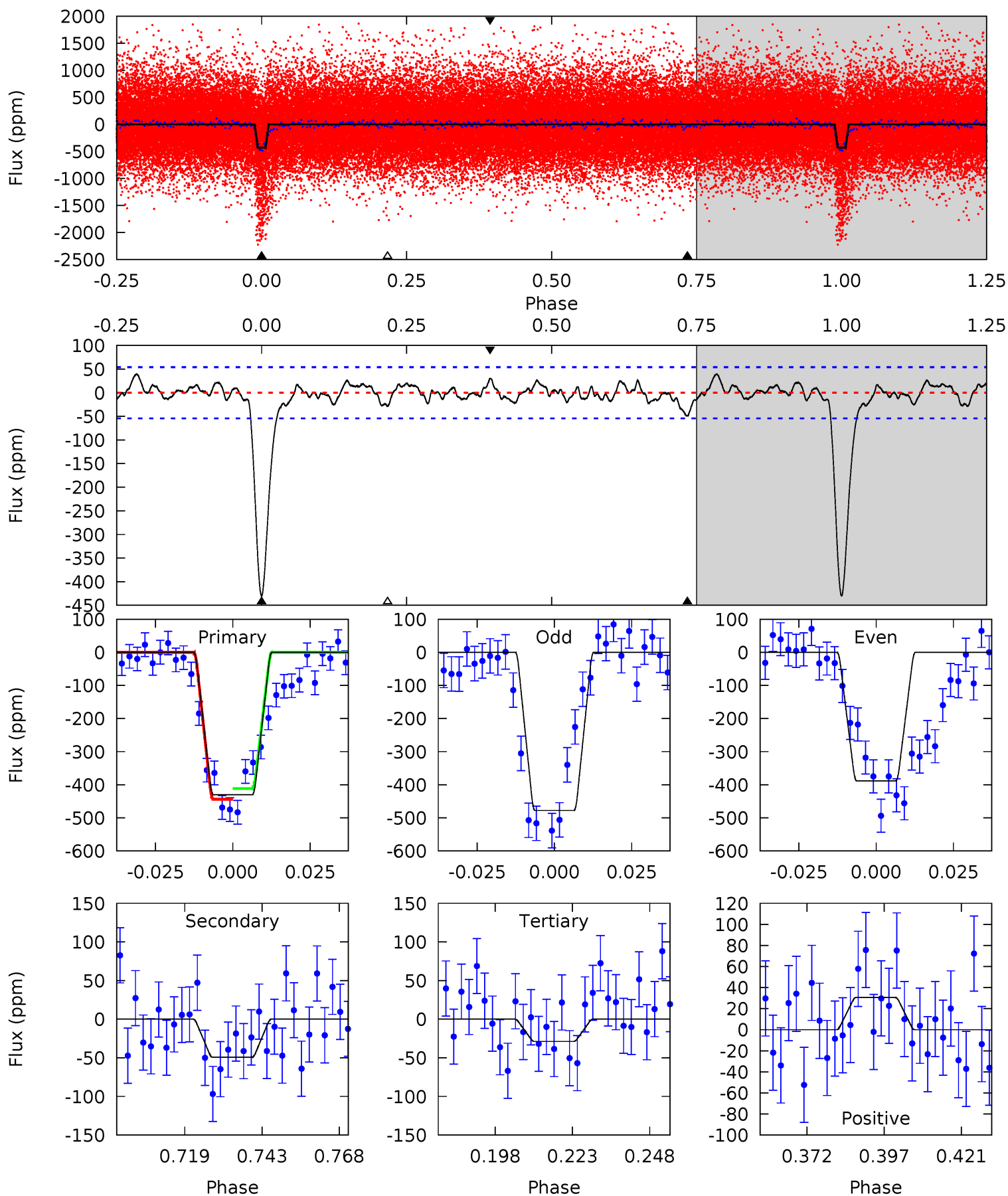
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.5	3.99	3.32	2.19	4.79	2.12	1.24	36.2	37.3	0.67	1.80	2.25	1.39	0.08	3.92



Alt Model-Shift Uniqueness Test

003348082-01, P = 3.982142 Days, E = 127.567275 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.5	4.42	2.58	2.74	4.85	2.24	1.23	35.9	35.8	1.84	1.69	4.00	1.44	0.08	1.44



Stellar Parameters For KIC 003348082

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5570^{+83}_{-72}	$4.066^{+0.210}_{-0.090}$	$0.160^{+0.150}_{-0.100}$	$1.548^{+0.241}_{-0.391}$	$1.019^{+0.084}_{-0.084}$	$0.387^{+0.455}_{-0.110}$
	+1%/-1%	+5%/-2%	+94%/-62%	+16%/-25%	+8%/-8%	+118%/-28%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003348082-01 / KOI 1196.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 9	$3.11^{+0.68}_{-0.66}$	1914^{+82}_{-114}	3572^{+340}_{-257}	$5.200^{+3.620}_{-1.942}$
Alt.	-49 ± 11	$3.41^{+0.78}_{-0.77}$	1905^{+81}_{-126}	3600^{+292}_{-239}	$5.560^{+3.975}_{-2.066}$

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

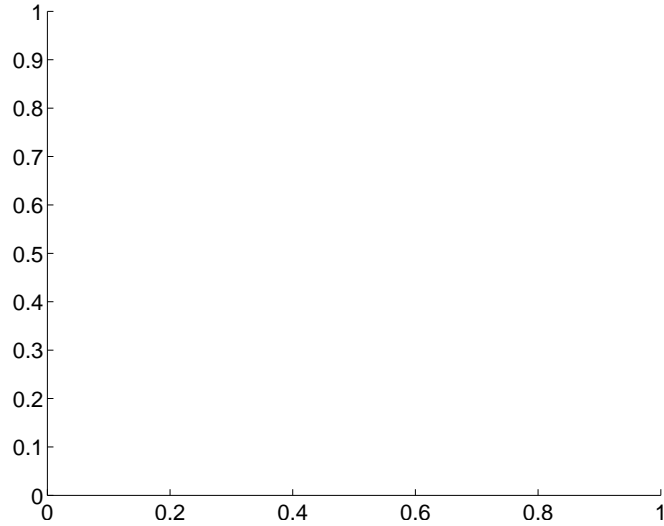
Supplemental centroid analysis for 003348082-01. Kepler magnitude: 15.04. Transit SNR 22.27

There are 0 quarters with good PRF difference image offsets

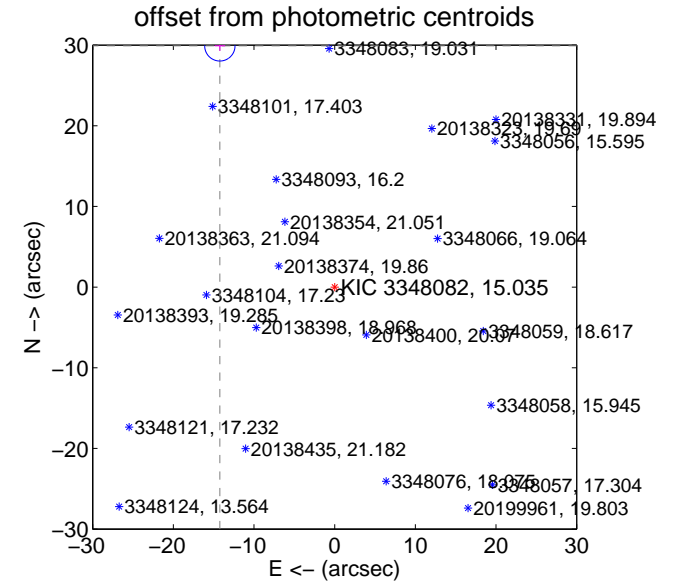
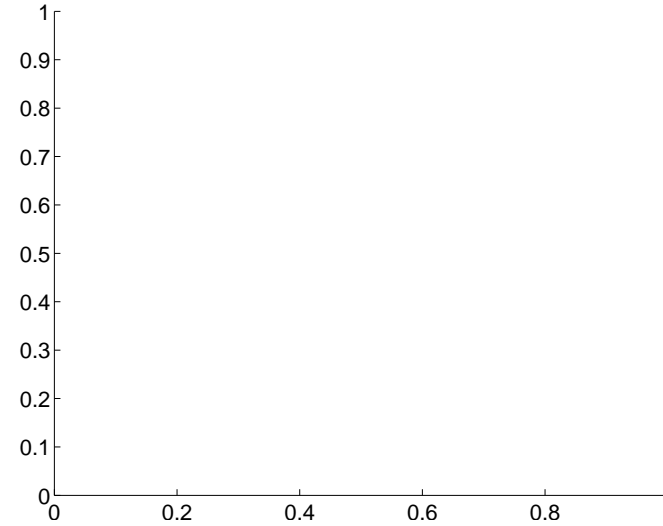
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	33.12 ± 0.63	52.85	14.23 ± 0.65	29.91 ± 0.62

There is no PRF-fit offset from OOT-fit

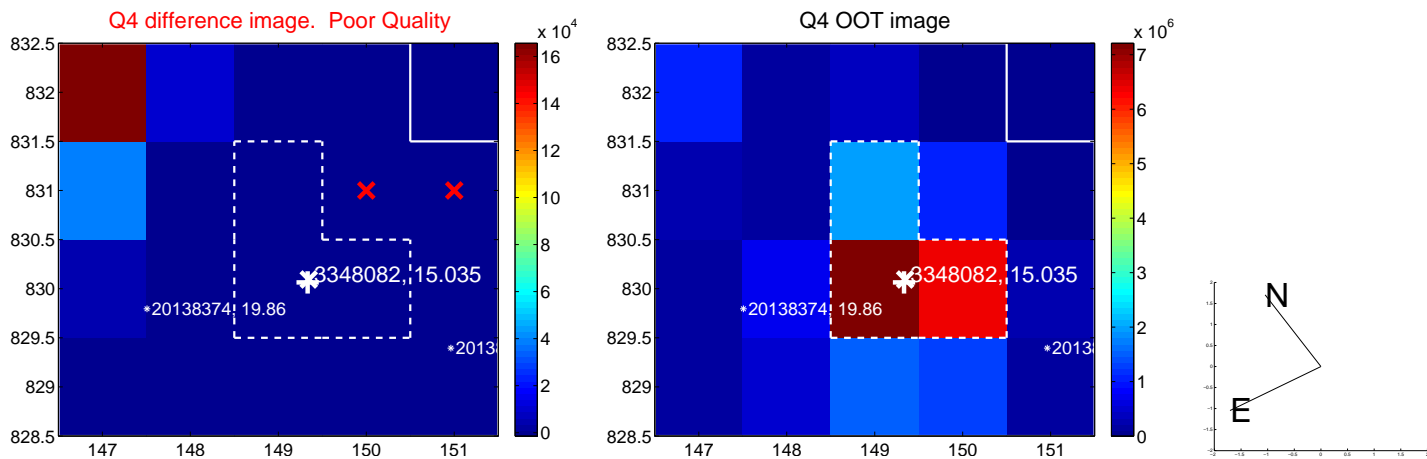
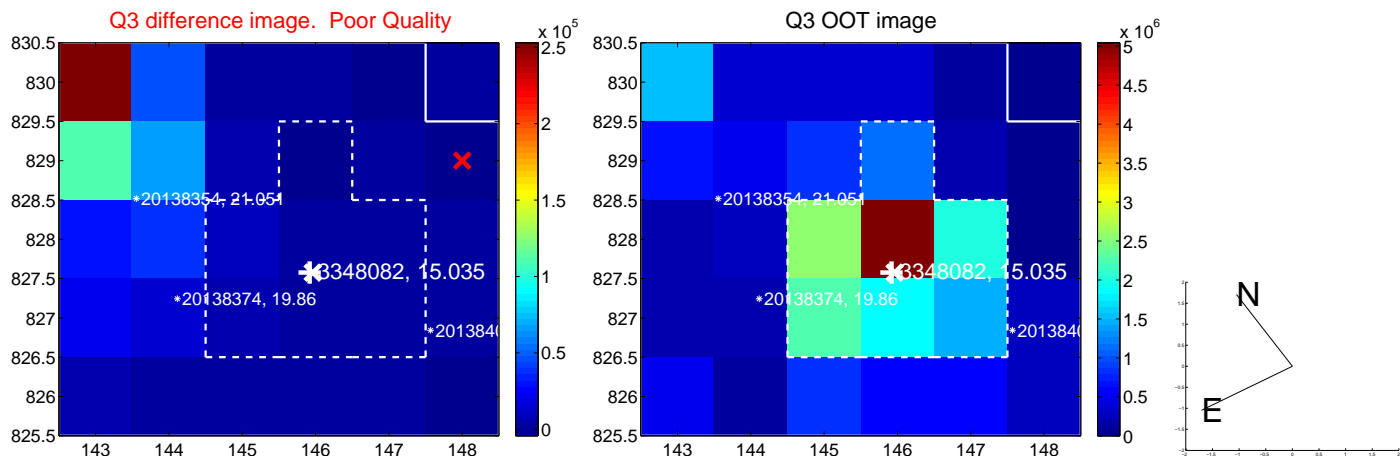
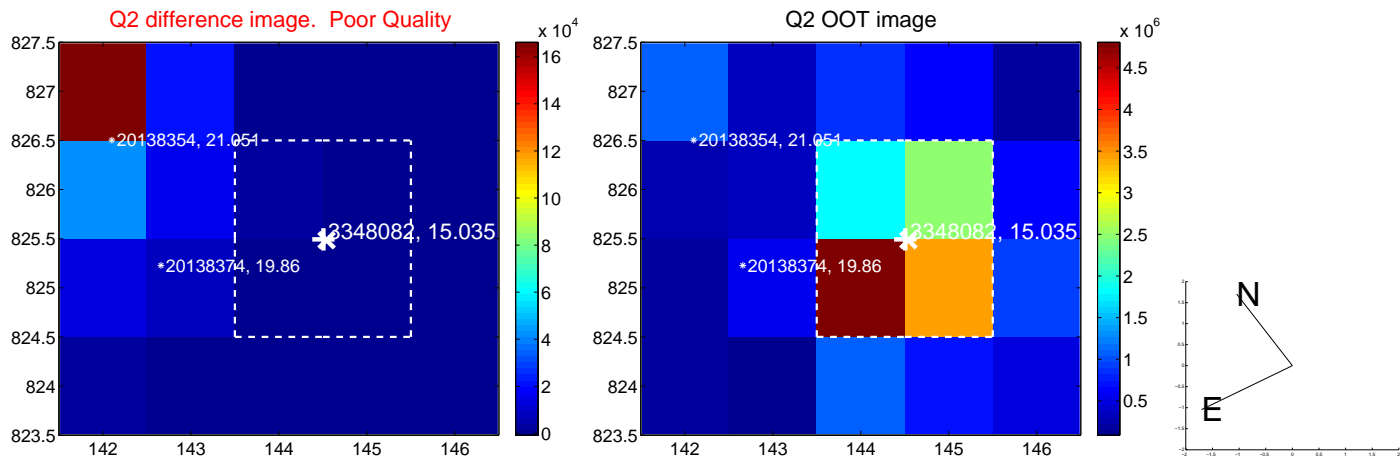
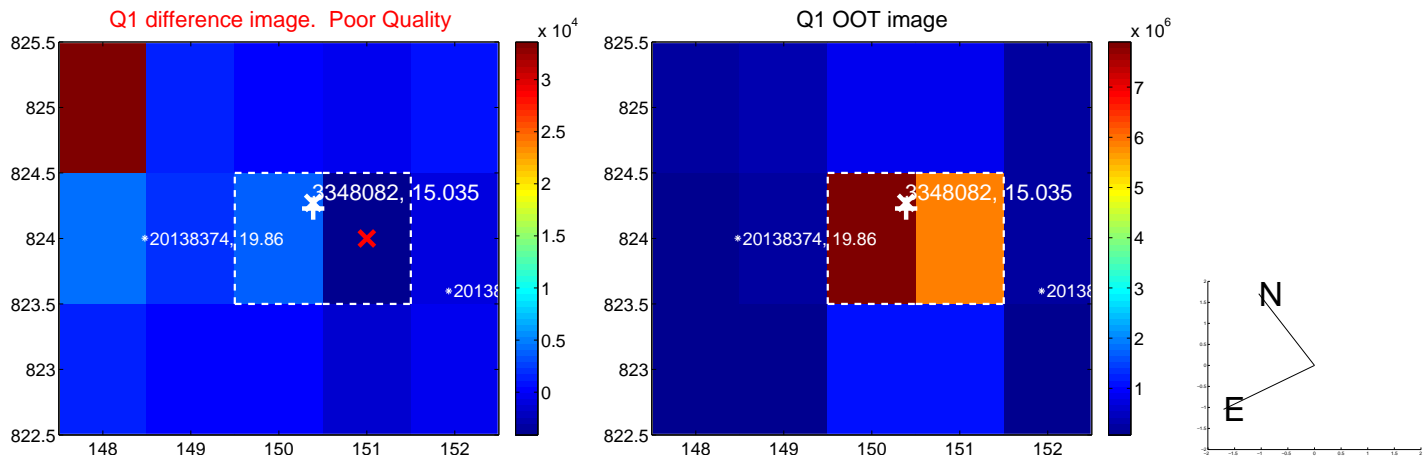


There is no PRF-fit offset from KIC

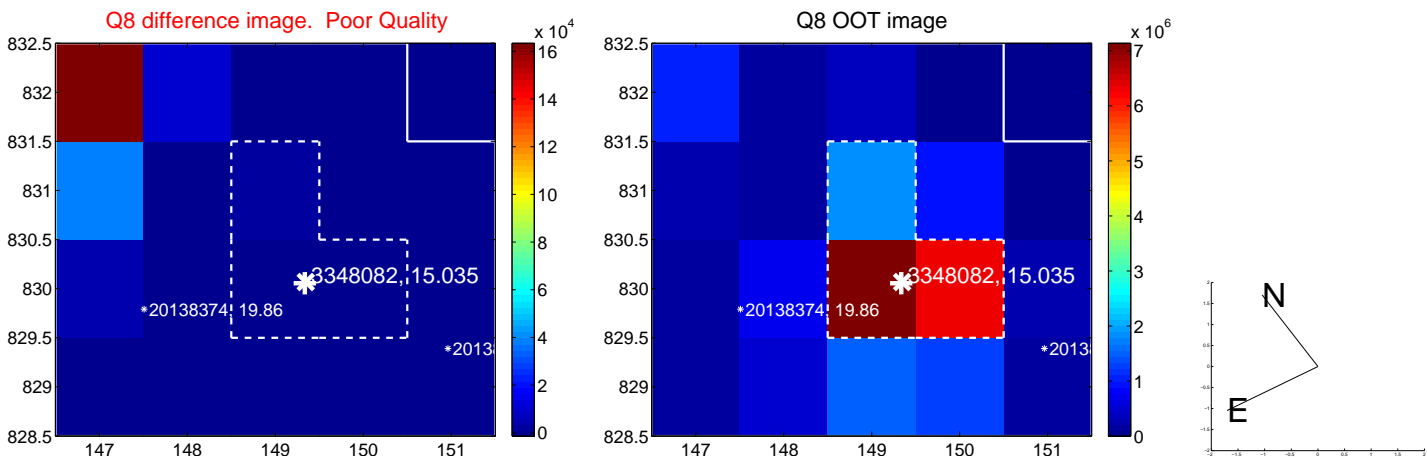
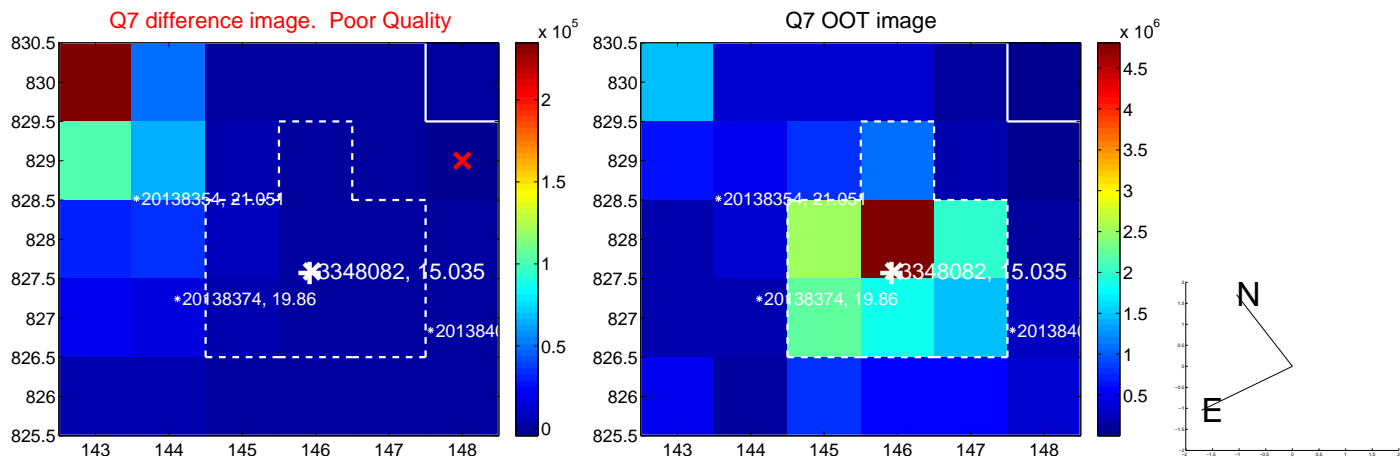
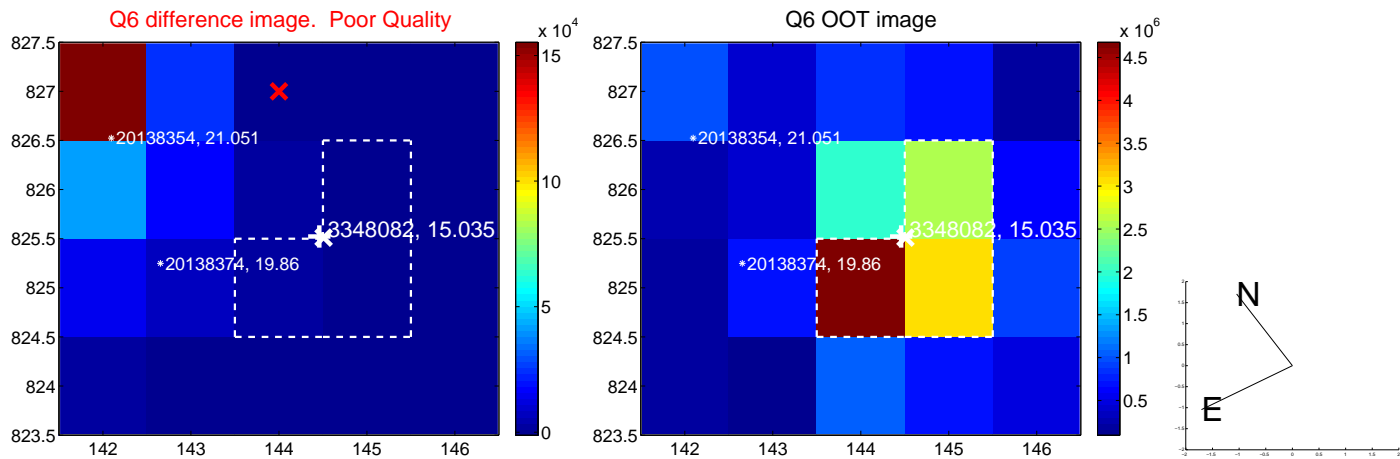
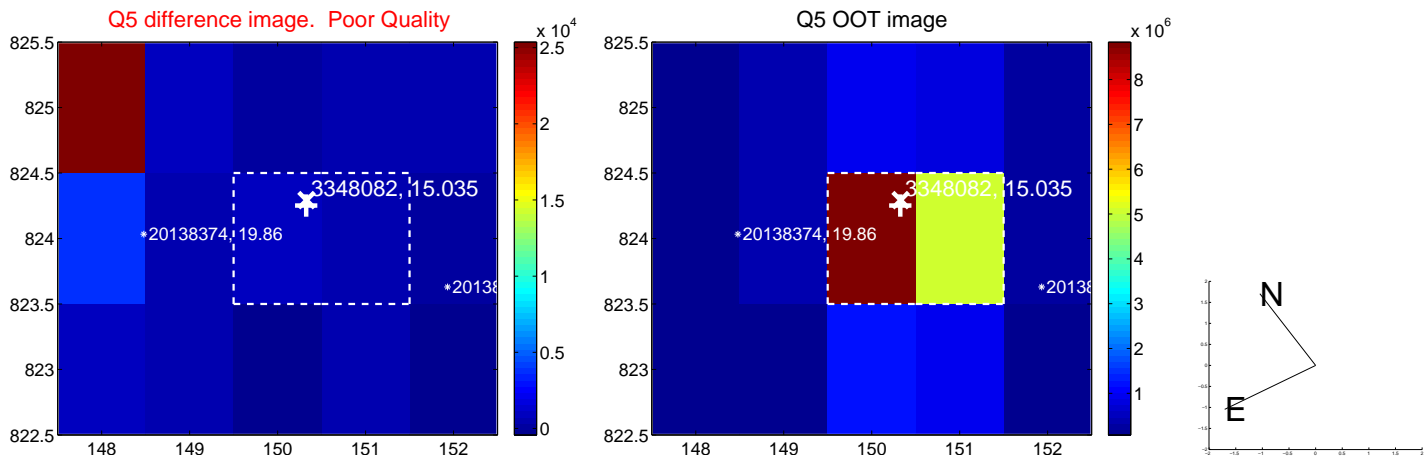


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

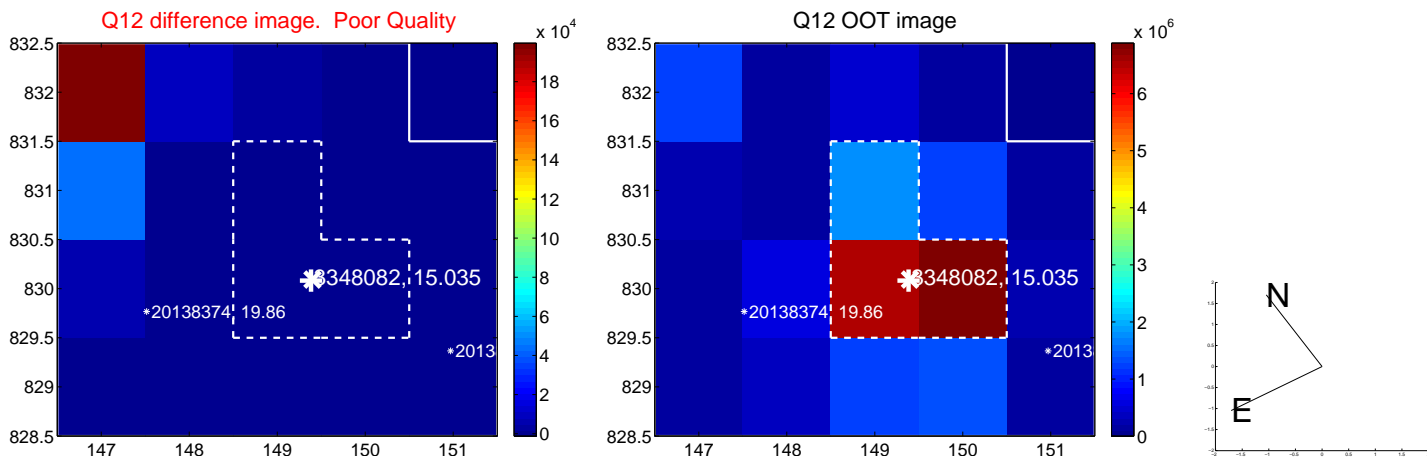
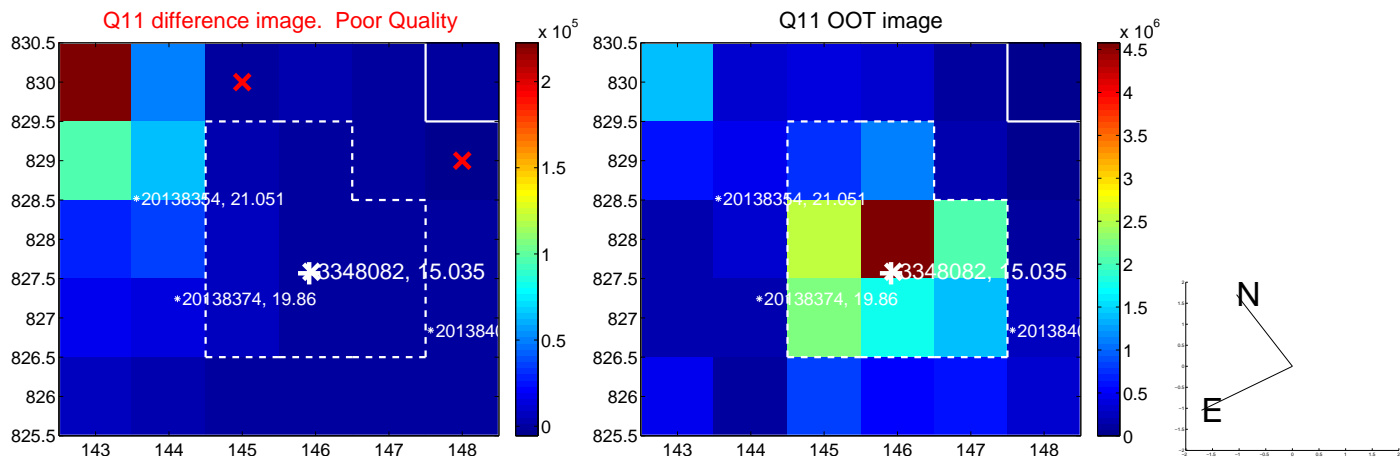
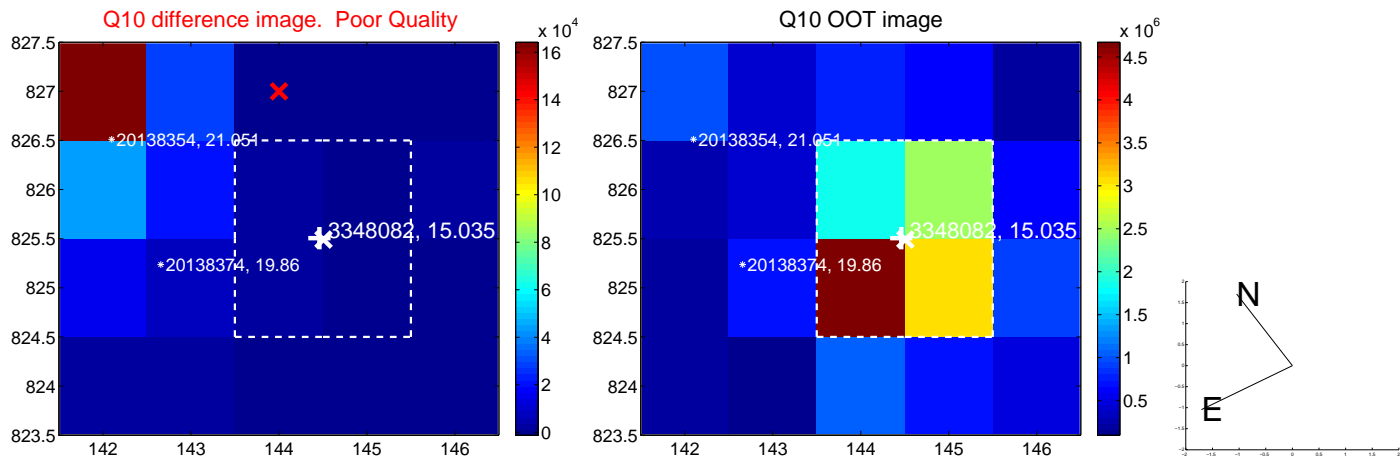
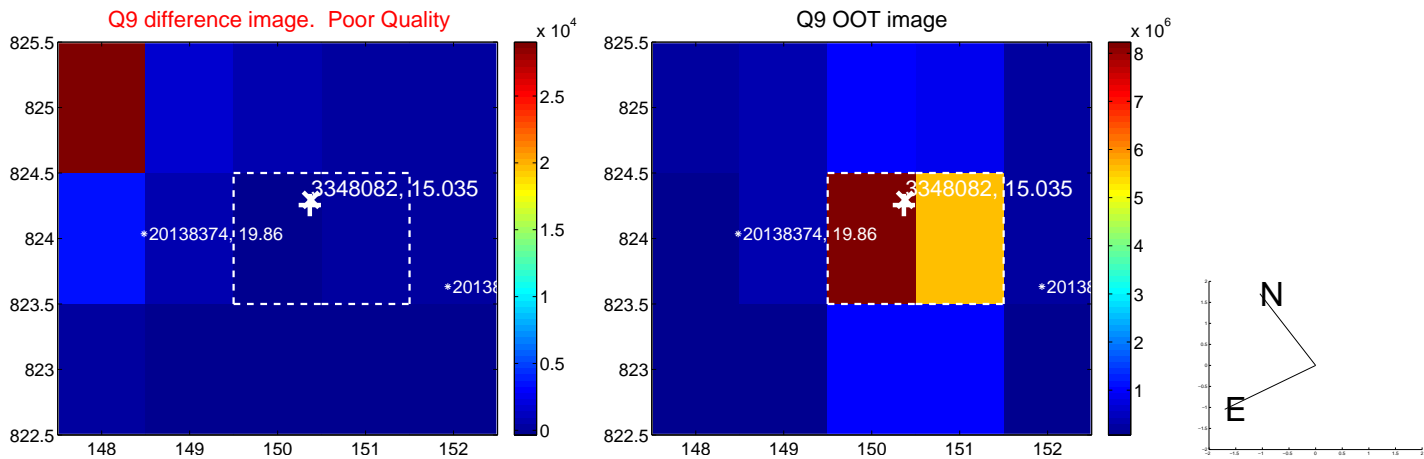
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



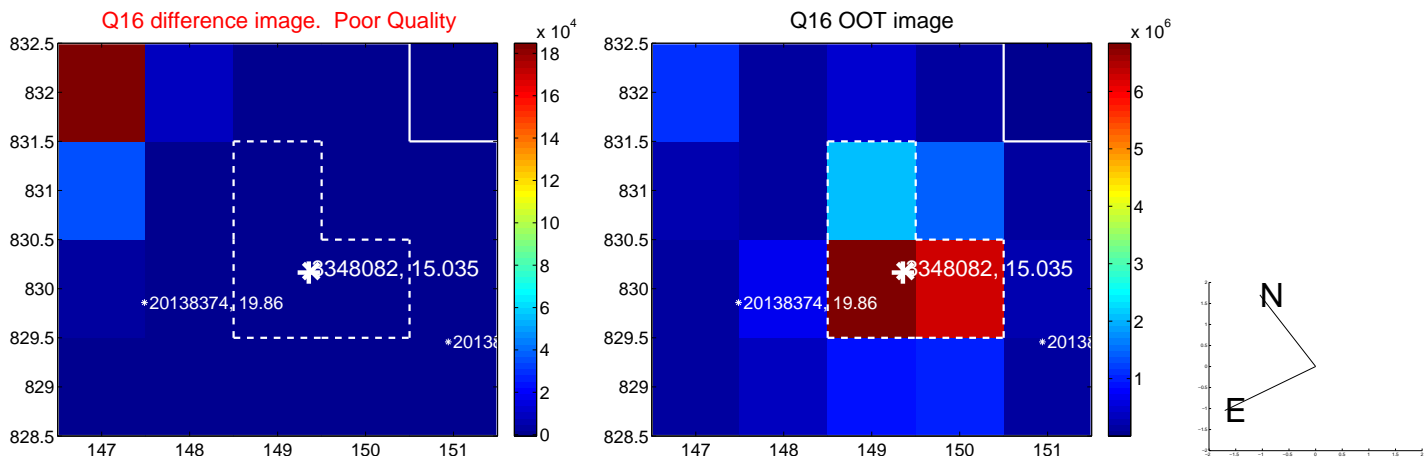
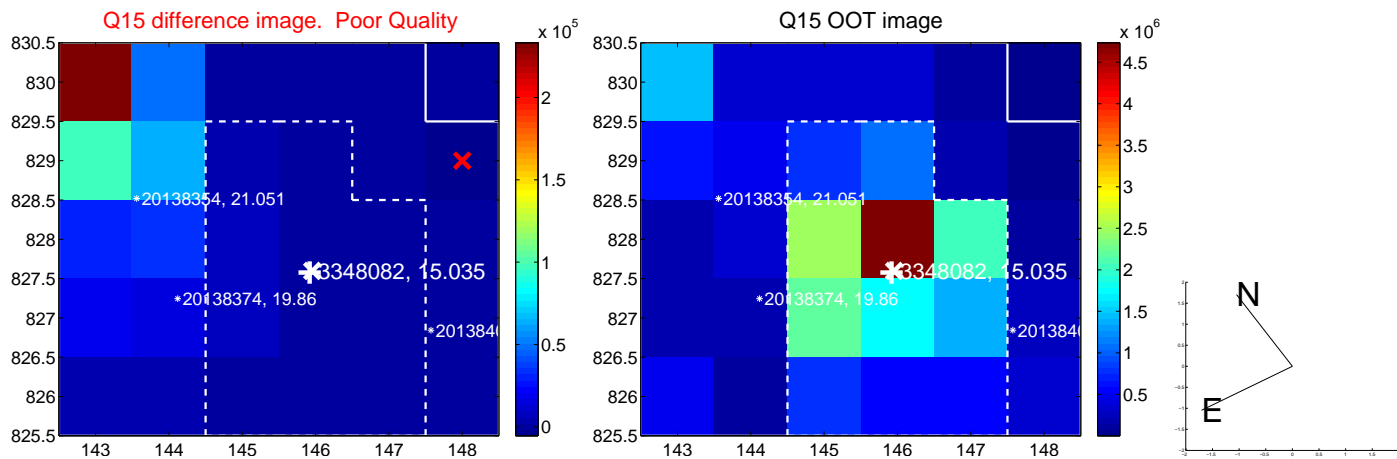
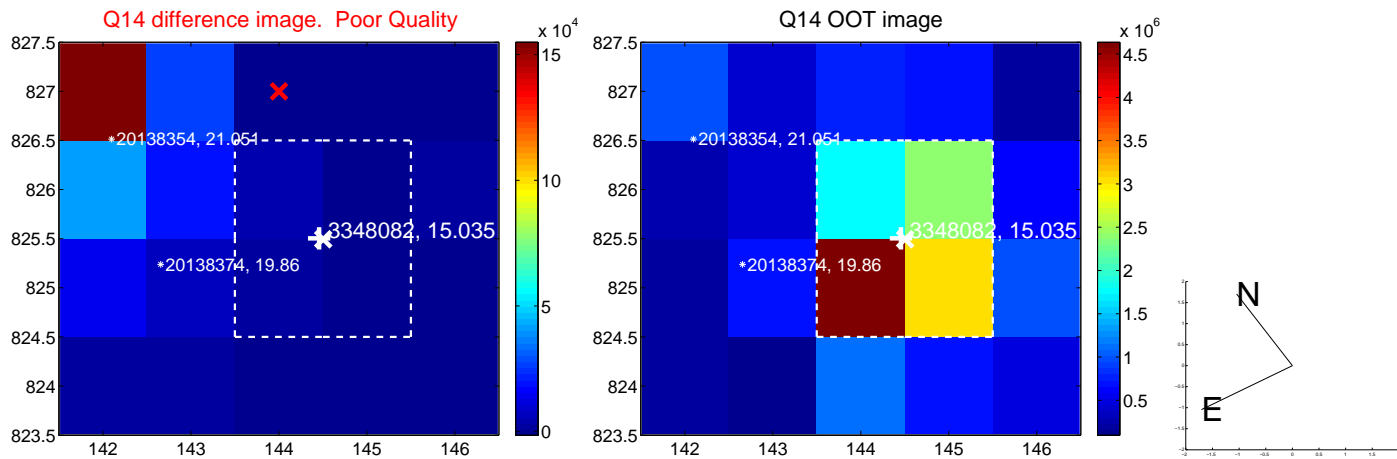
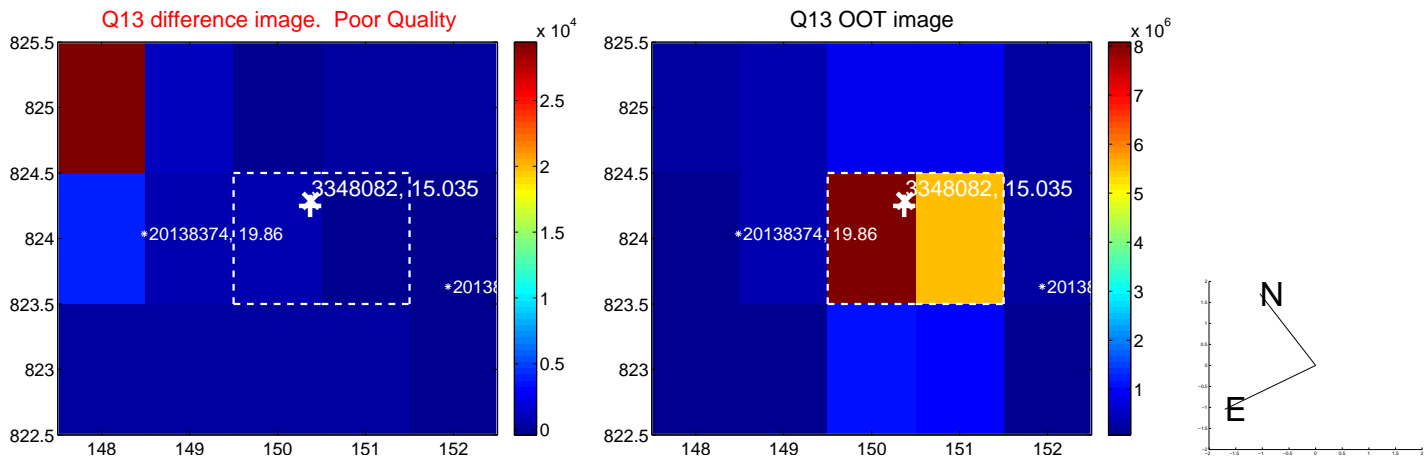
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



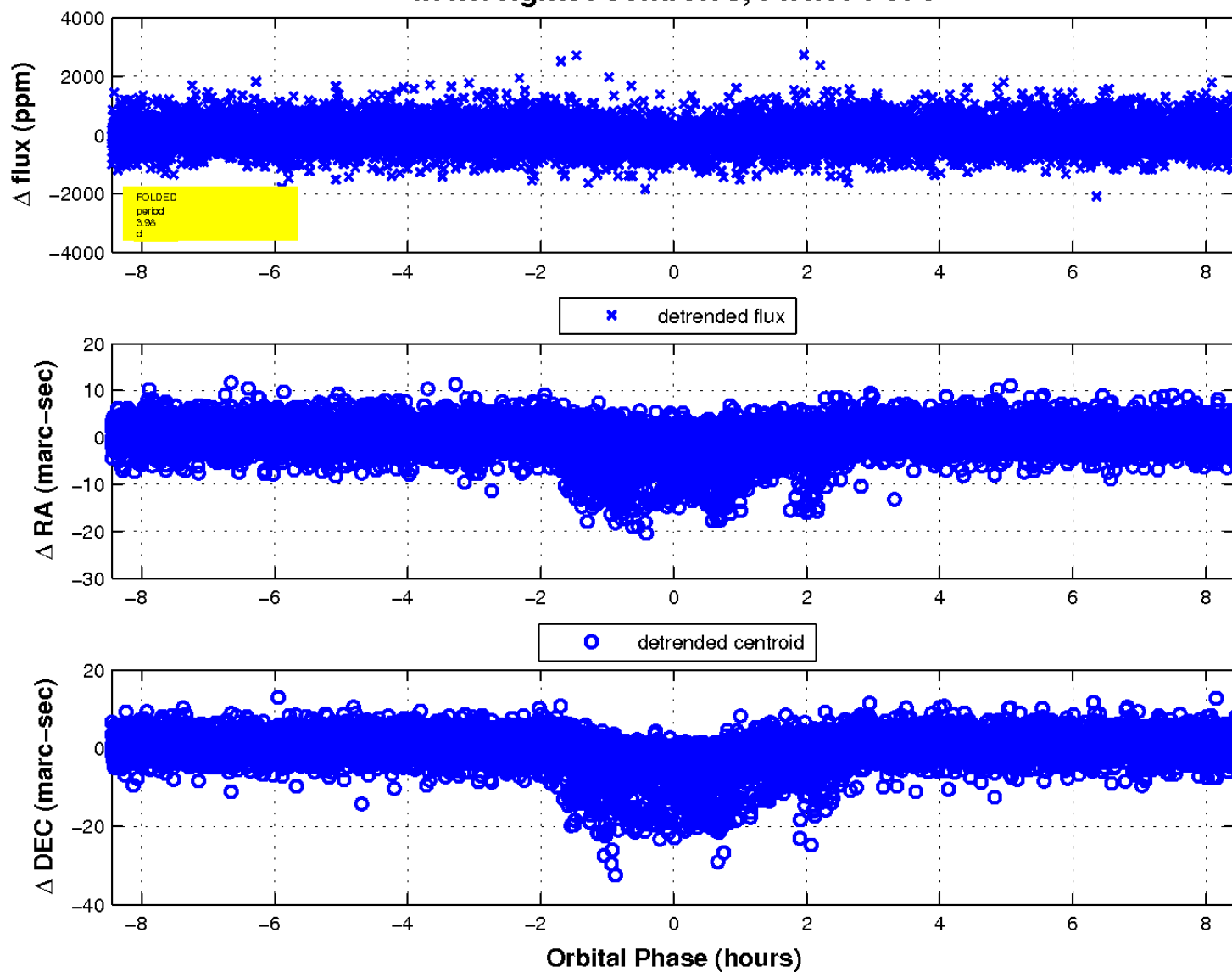
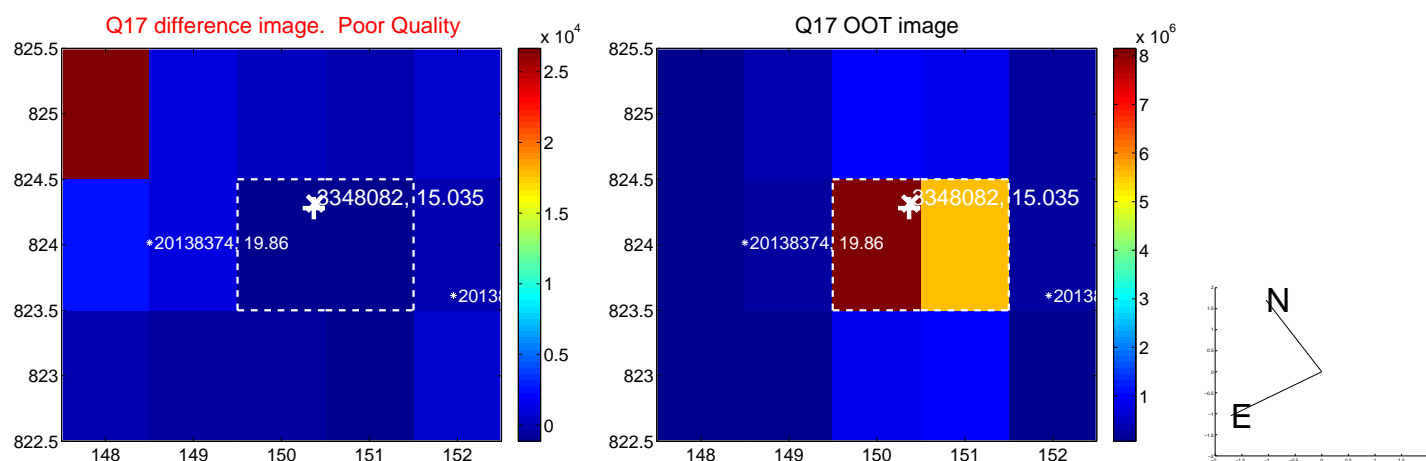
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



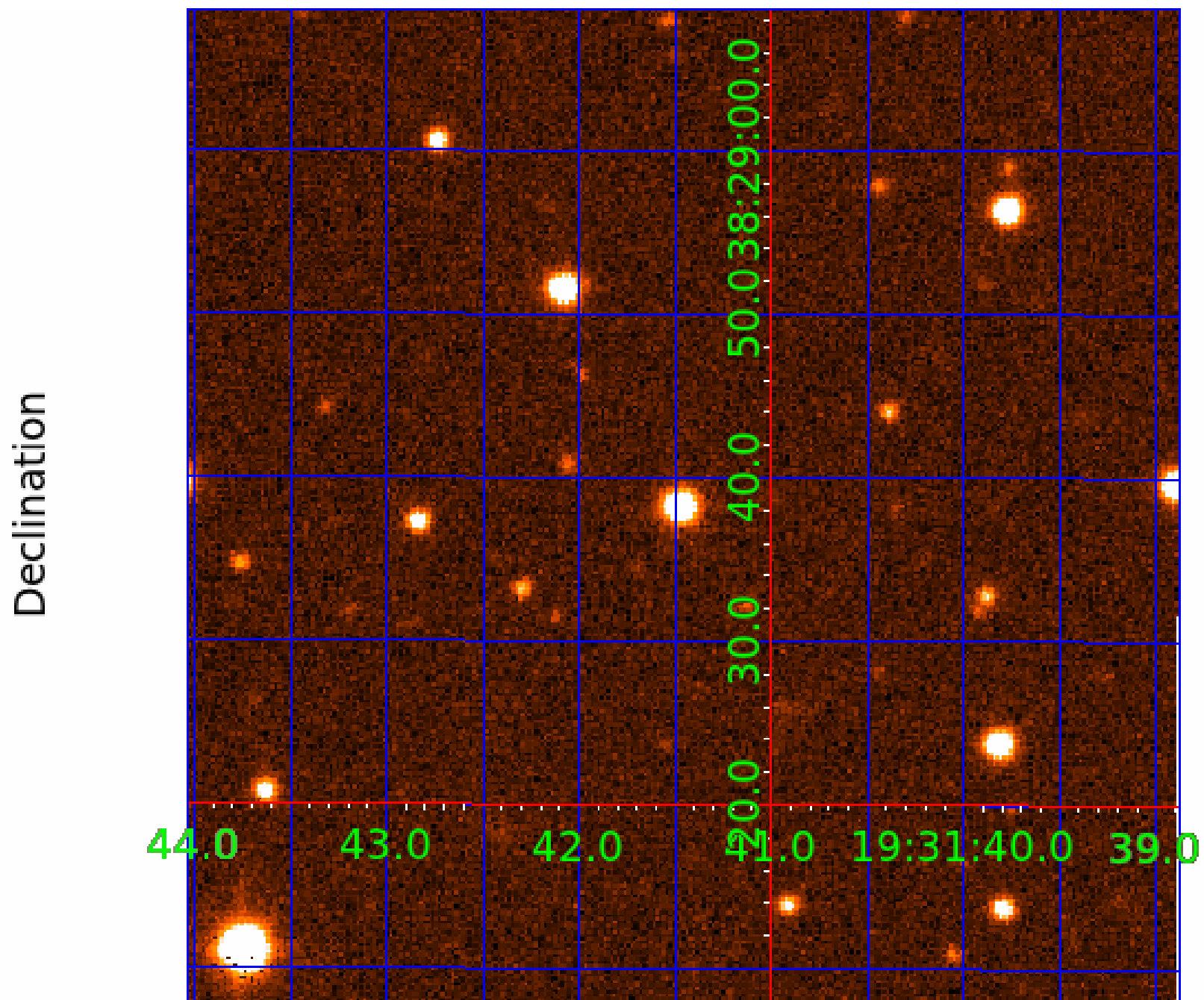
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003348082

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})
003348082-01	OBS	1196.01	3.982235	131.535233	291.8	2.817	25.1	22.3	1.55	5570	3.21	844.62
003348082-02	OBS	1196.02	11.634800	140.504068	295.6	5.614	16.9	18.4	1.55	5570	2.96	202.22
003348082-03	OBS	1196.03	33.198396	142.093373	330.8	4.623	9.7	10.8	1.55	5570	3.17	49.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348082-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH
003348082-02	OBS	PC	0.97	0	0	0	0	NO_COMMENT
003348082-03	OBS	PC	0.91	0	0	0	0	NO_COMMENT

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

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

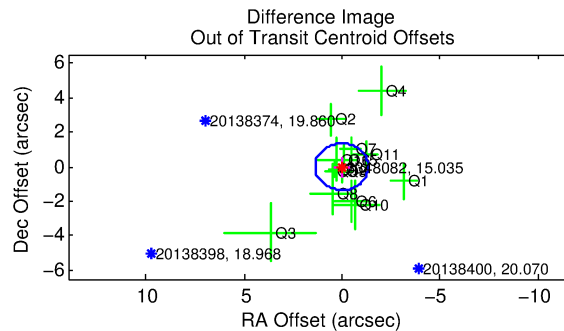
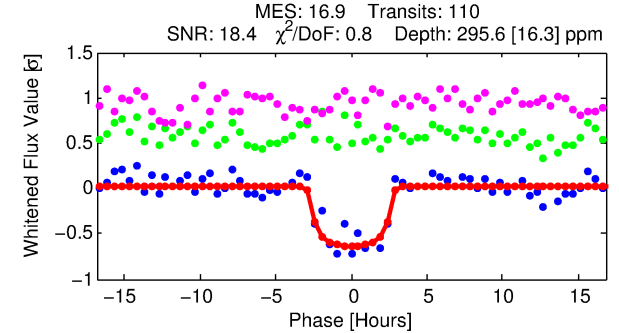
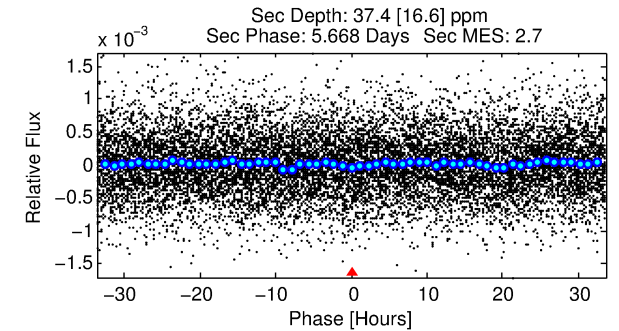
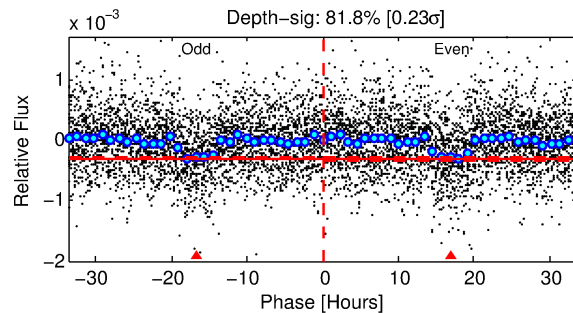
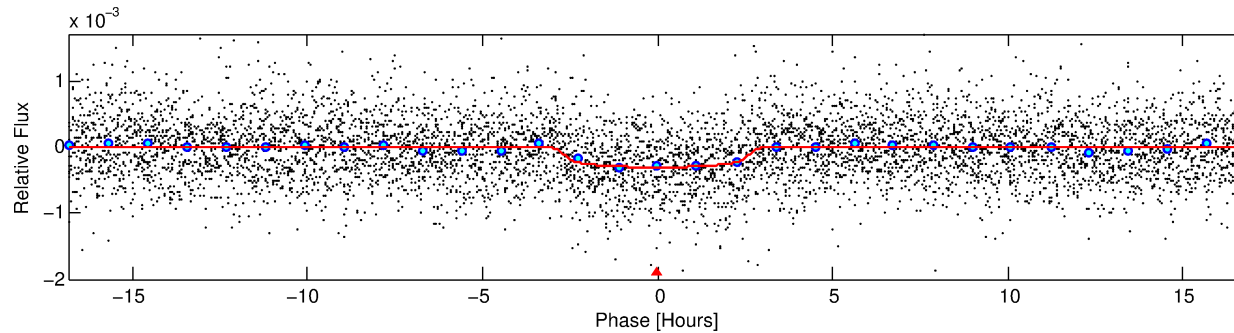
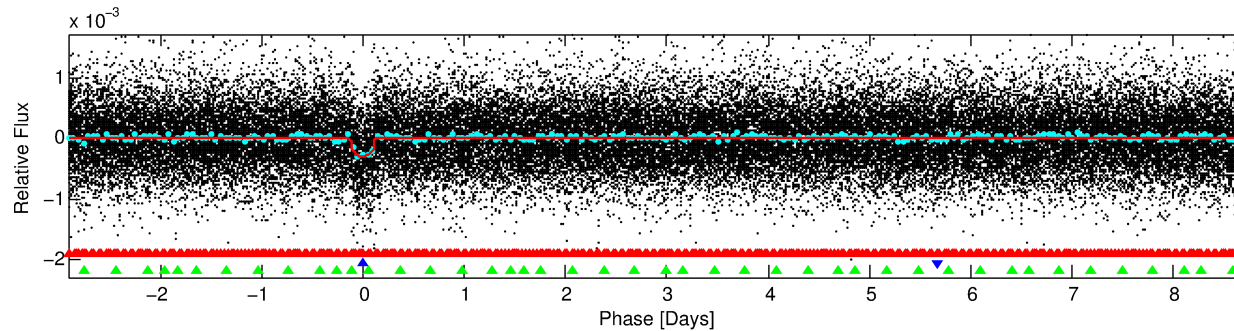
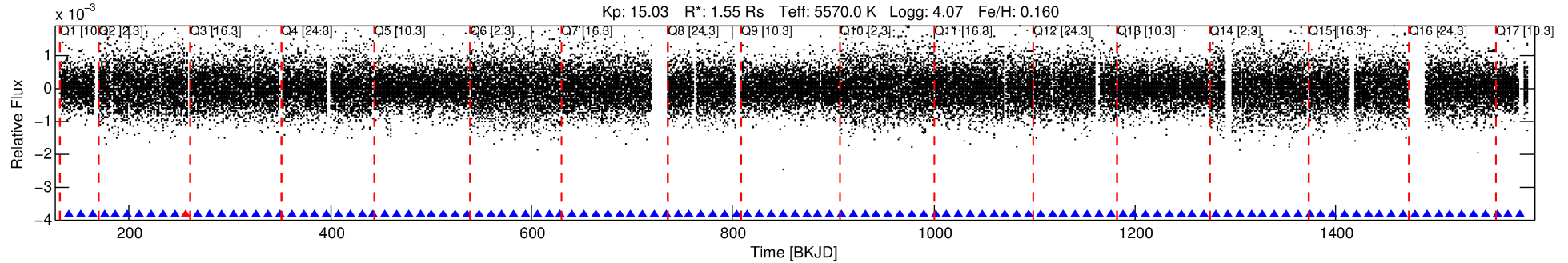
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003348082-02

No Significant Match Found

DV One-Page Summary

KIC: 3348082 Candidate: 2 of 3 Period: 11.635 d
KOI: K01196.02 Name: Kepler-274b Corr: 0.979



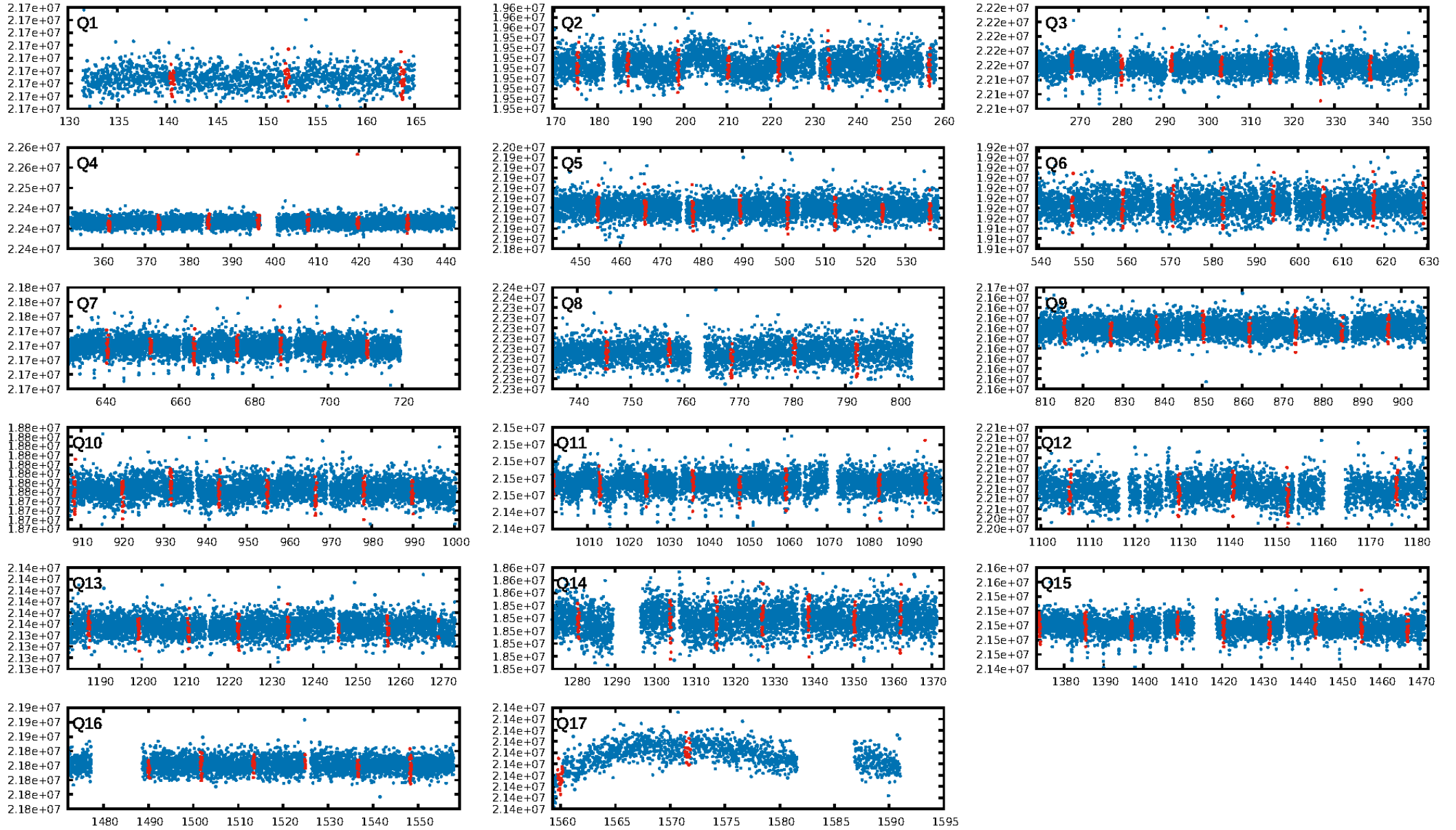
DV Fit Results:

Period = 11.63480 [0.00008] d
Epoch = 140.5041 [0.0059] BKJD
Rp/R* = 0.0175 [0.0067]
a/R* = 10.01 [15.85]
b = 0.80 [0.73]
Seff = 202.22 [74.53]
Teq = 962 [89] K
Rp = 2.96 [1.35] Re
a = 0.1011 [0.0236] AU
Ag = 23.96 [22.87] [1.00 σ]
Teffp = 3289 [727] K [3.18 σ]

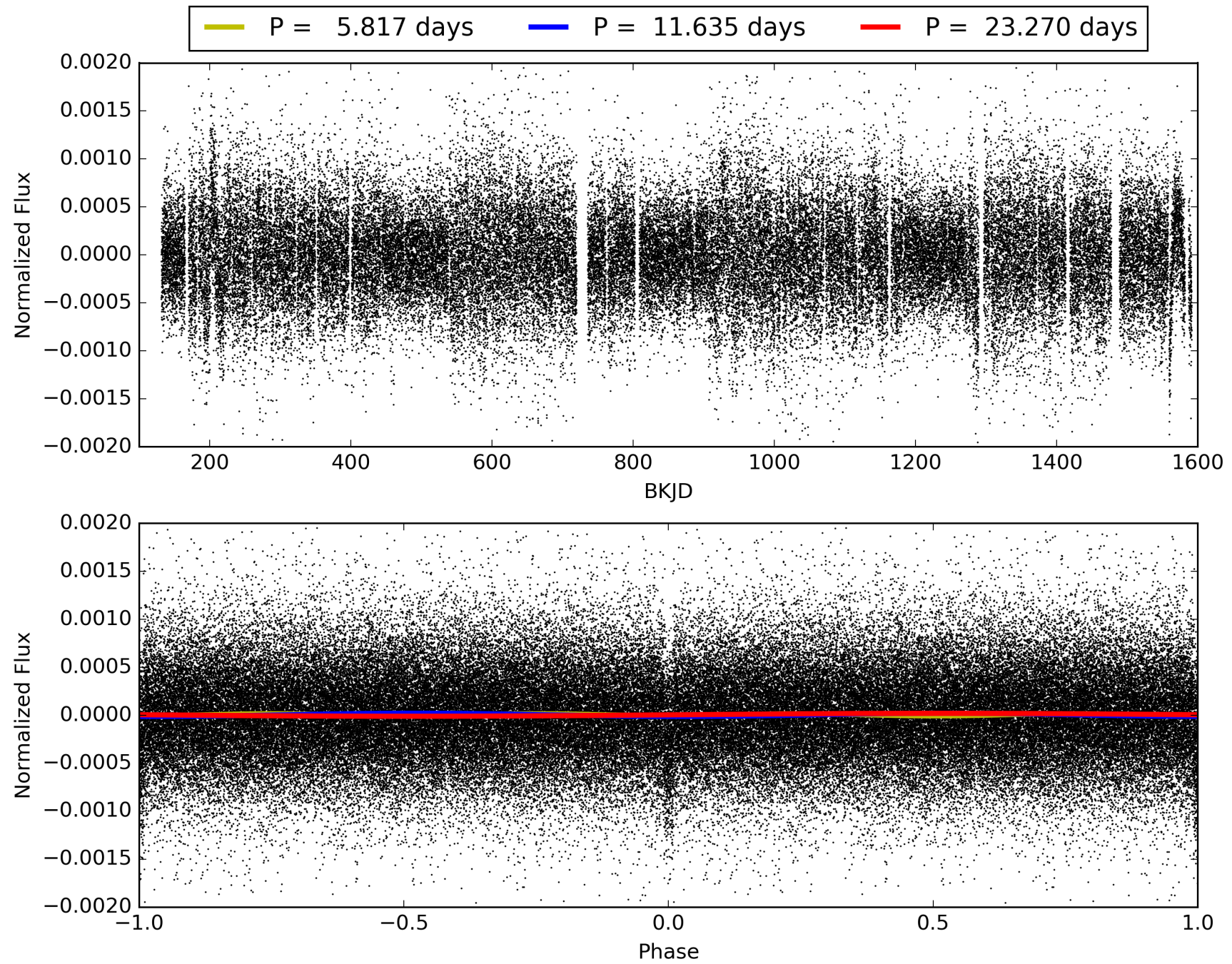
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.24 σ]
LongPeriod-sig: 100.0% [71.16 σ]
ModelChiSquare2-sig: 99.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.13e-64
RollingBand-fgt: 0.99 [104/105]
GhostDiagnostic-chr: 3.271
Centroid-sig: N/A
Centroid-so: 0.270 arcsec [0.33 σ]
OotOffset-rm: 0.021 arcsec [0.05 σ]
KicOffset-rm: 0.158 arcsec [0.33 σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.64 [9/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003348082-02, PDC Light Curves

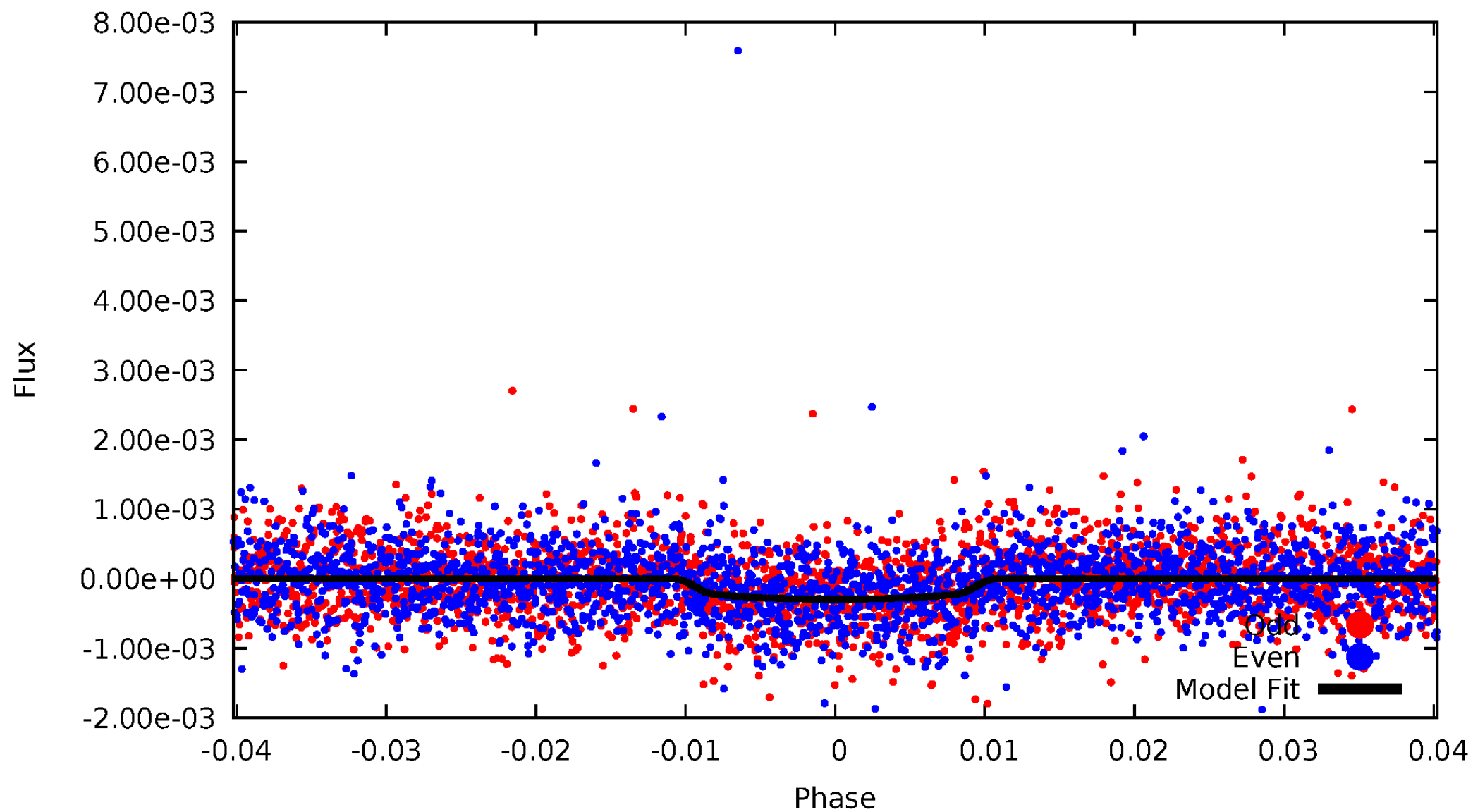


TCE 003348082-02



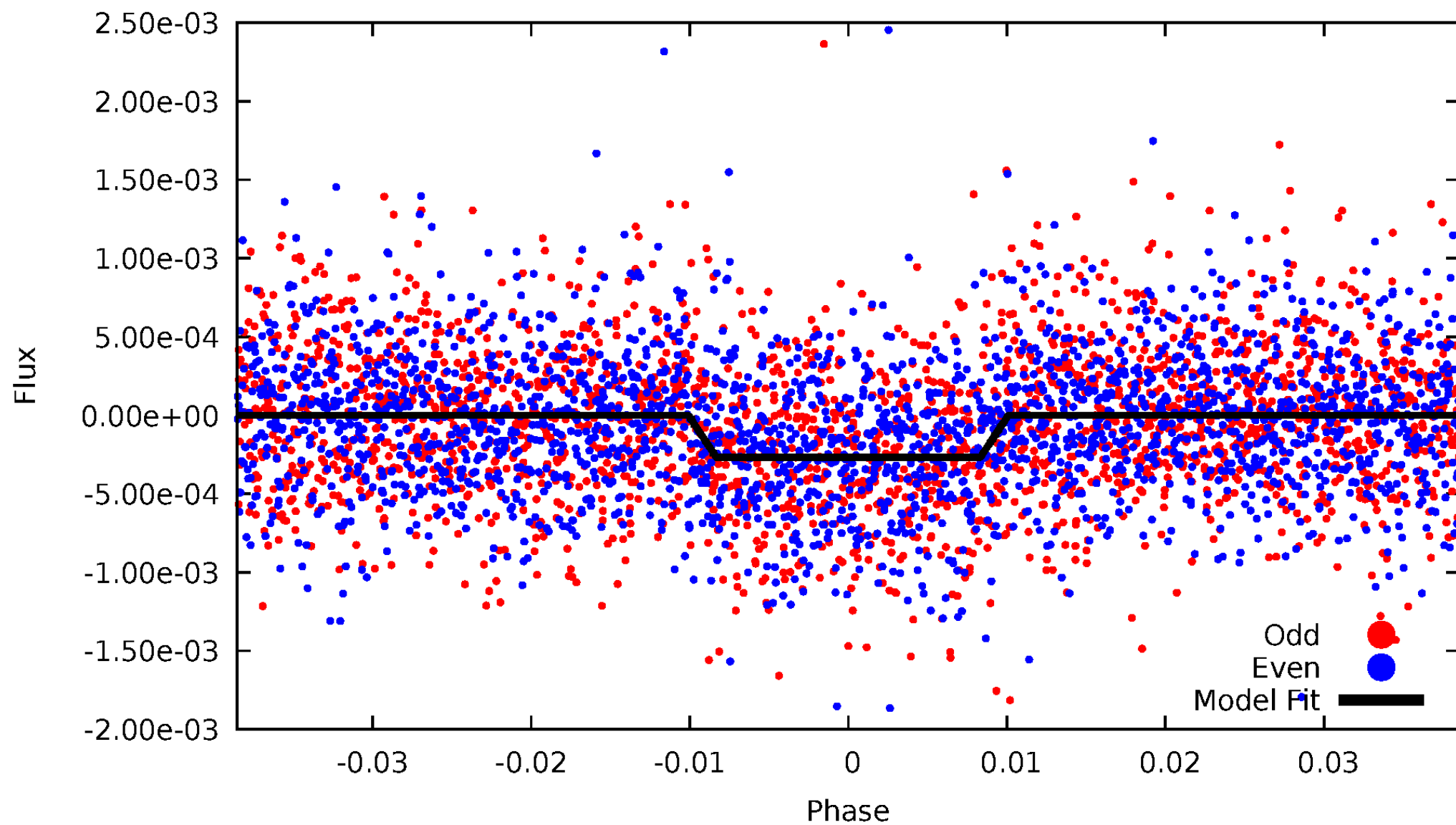
DV Odd/Even

TCE 003348082-02



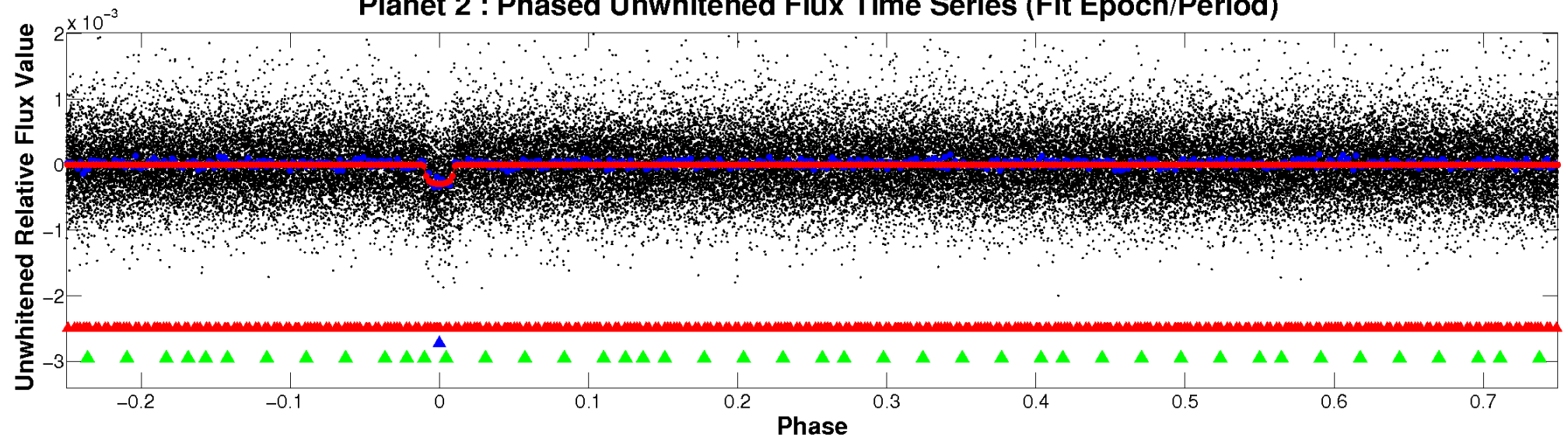
ALT Odd/Even

TCE 003348082-02

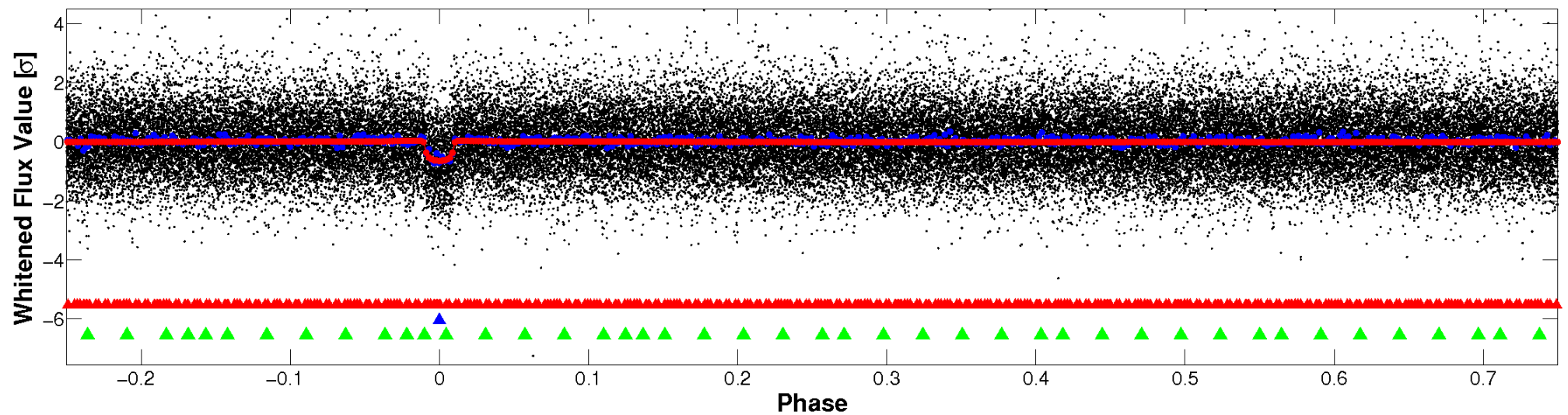


Non-Whitened Vs. Whitened Light Curve

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

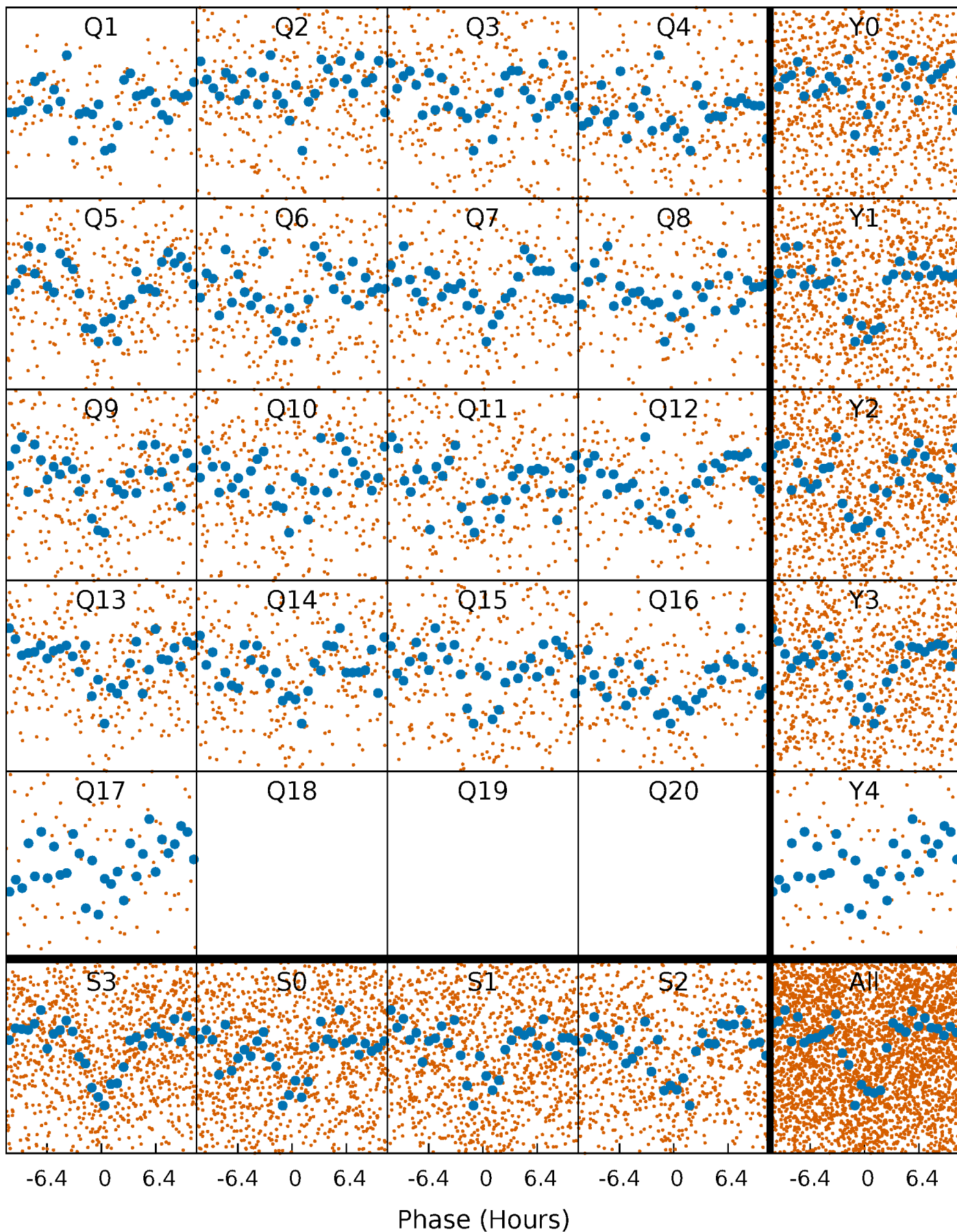


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



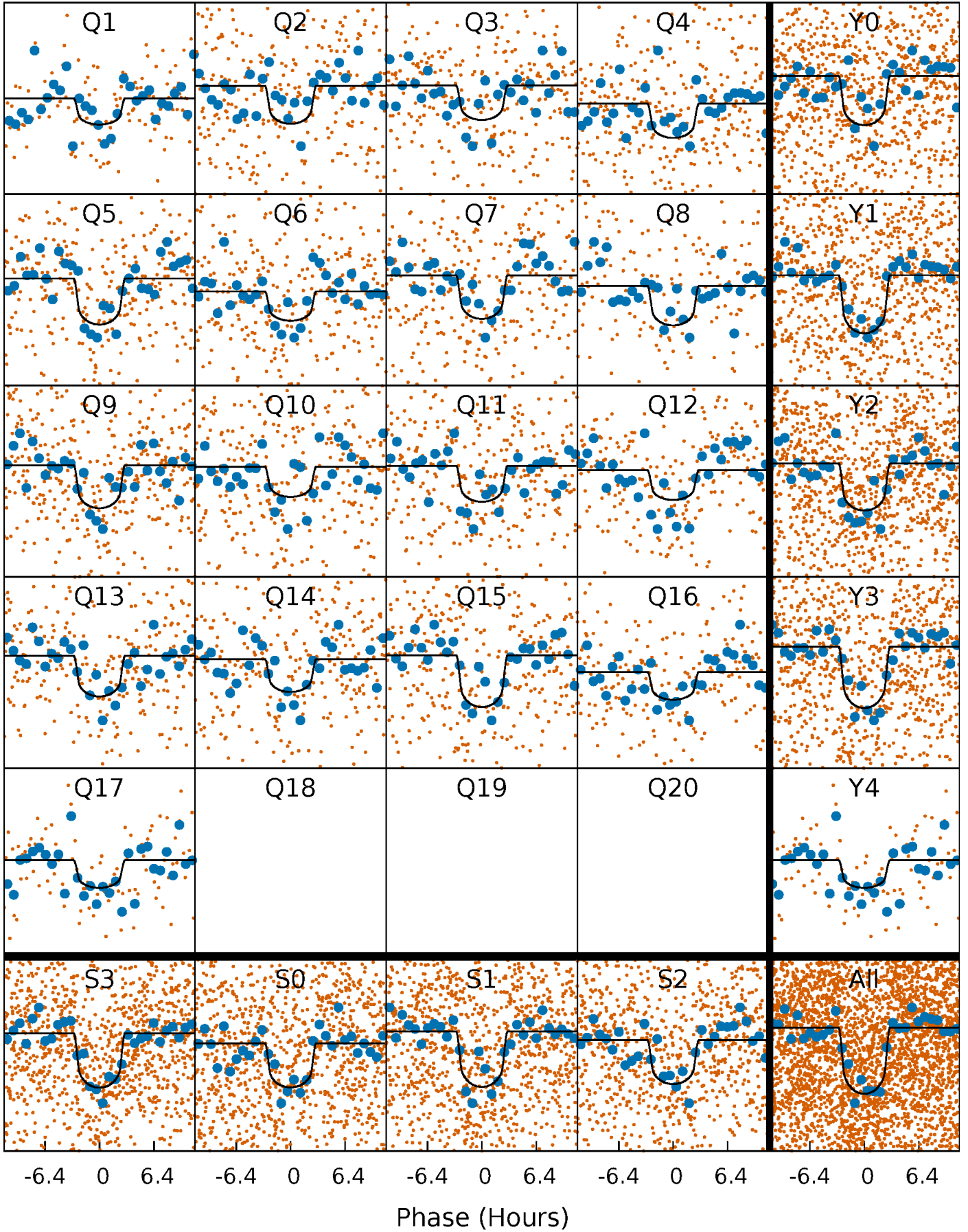
PDC Quarter-Phased Transit Curves

TCE 003348082-02 $P = 11.634800$ Days $T_0 = 140.504068$ (BKJD)



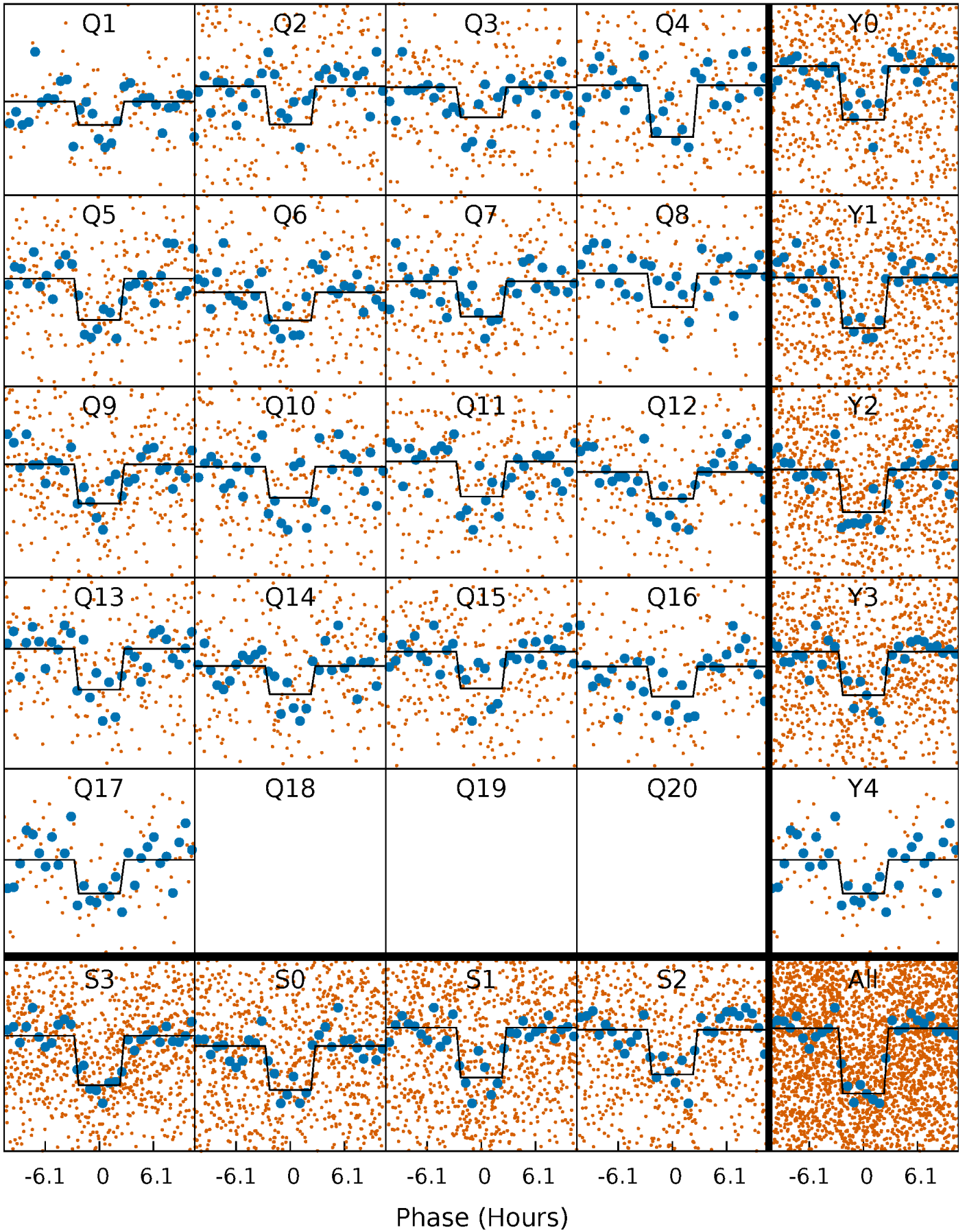
DV Quarter-Phased Transit Curves

TCE 003348082-02 P= 11.634800 Days $T_0=140.504068$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

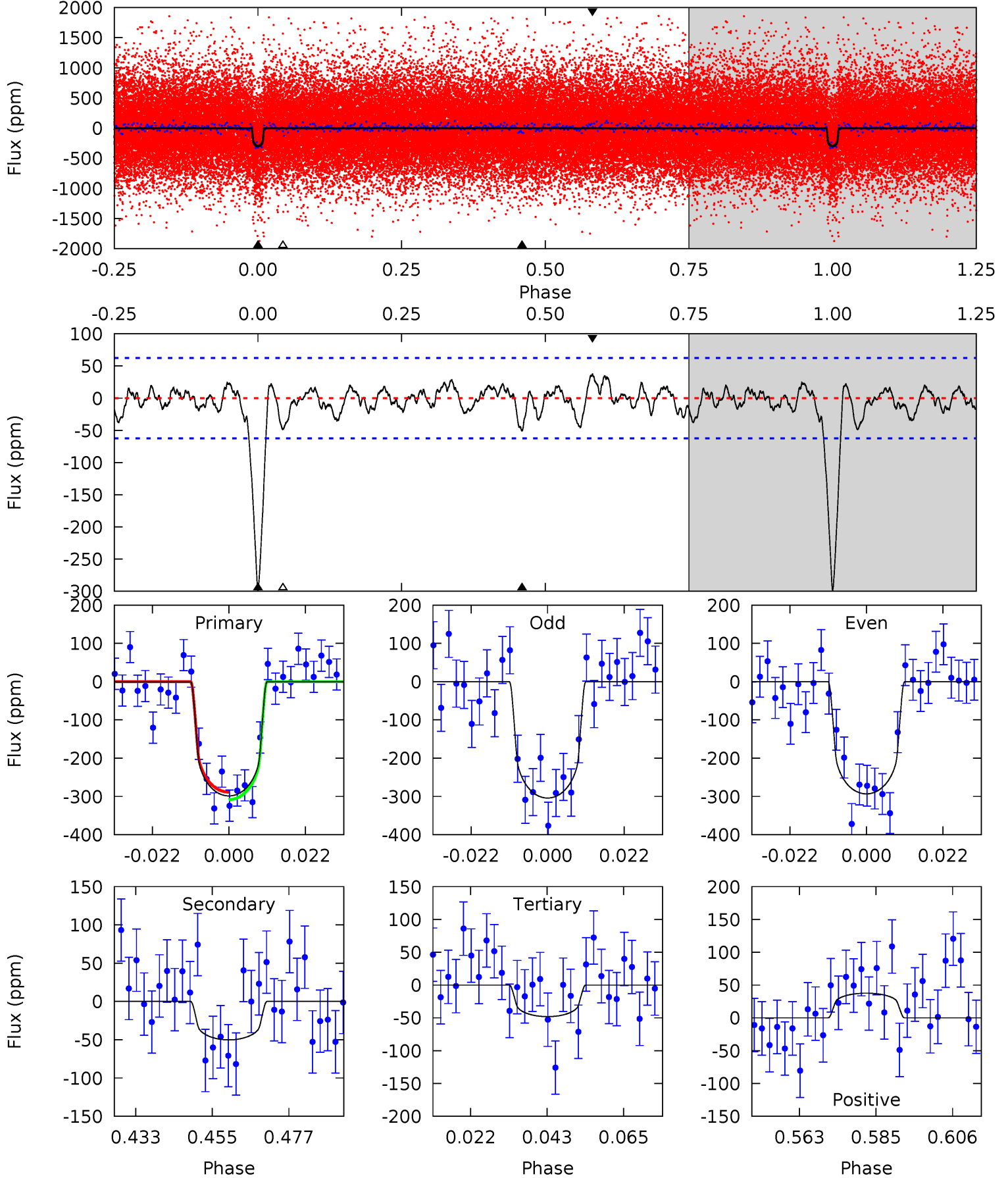
TCE 003348082-02 P= 11.634816 Days $T_0=140.502829$ (BKJD)



DV Model-Shift Uniqueness Test

003348082-02, P = 11.634800 Days, E = 128.869268 Days

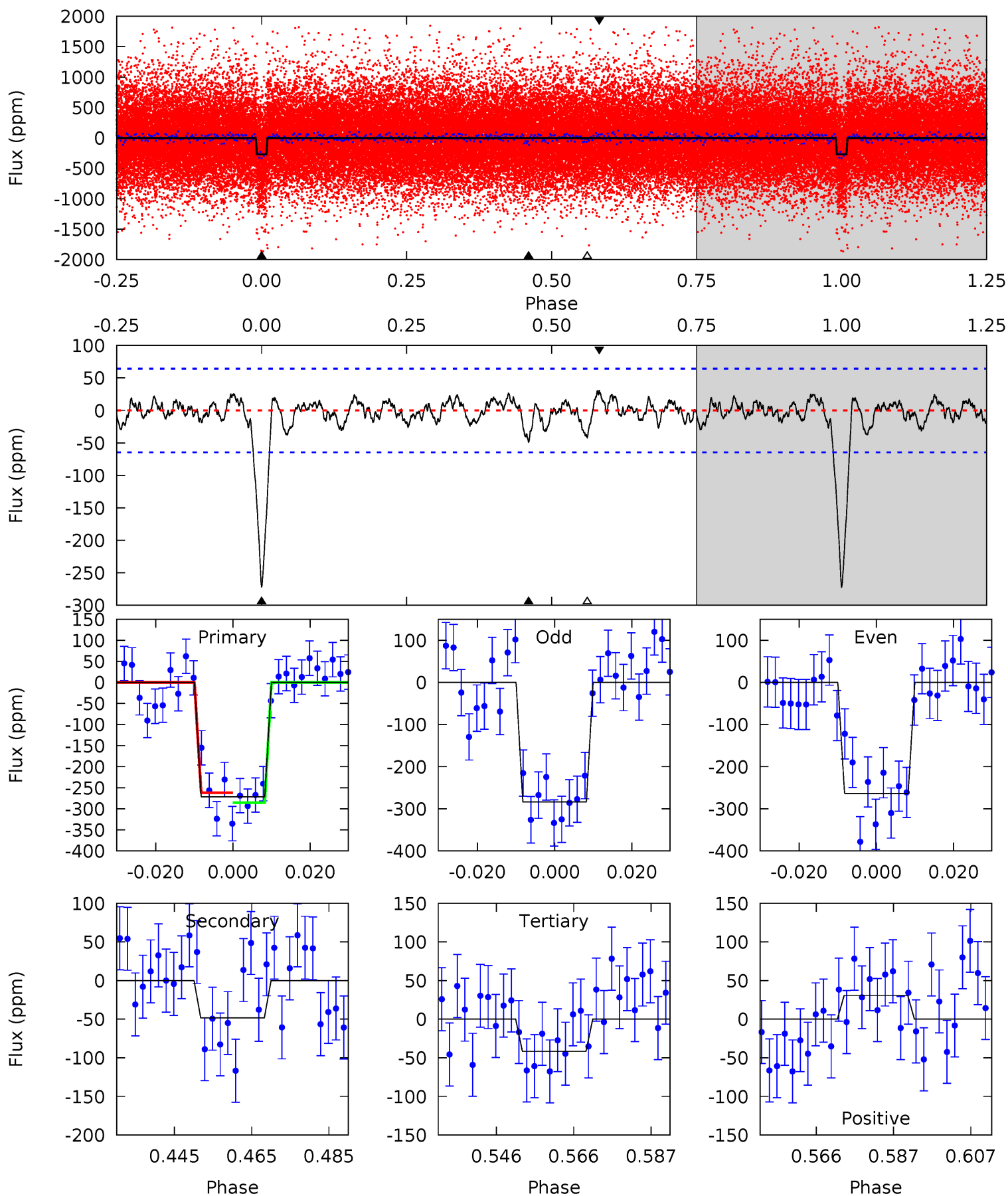
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.3	3.92	3.76	2.94	4.88	2.30	1.25	19.6	20.4	0.16	0.98	0.43	0.89	0.11	0.77



Alt Model-Shift Uniqueness Test

003348082-02, P = 11.634816 Days, E = 128.868013 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.6	3.68	3.16	2.33	4.89	2.32	1.03	17.5	18.3	0.51	1.35	0.77	0.88	0.10	0.90



Stellar Parameters For KIC 003348082

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5570^{+83}_{-72}	$4.066^{+0.210}_{-0.090}$	$0.160^{+0.150}_{-0.100}$	$1.548^{+0.241}_{-0.391}$	$1.019^{+0.084}_{-0.084}$	$0.387^{+0.455}_{-0.110}$
	+1%/-1%	+5%/-2%	+94%/-62%	+16%/-25%	+8%/-8%	+118%/-28%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003348082-02 / KOI 1196.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 13	$2.91^{+1.18}_{-1.22}$	1335^{+62}_{-84}	3854^{+777}_{-428}	33^{+63}_{-18}
Alt.	-48 ± 13	$2.60^{+1.15}_{-1.02}$	1331^{+59}_{-85}	3955^{+882}_{-490}	38^{+74}_{-20}

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 $A_{obs} \gg 1.0$

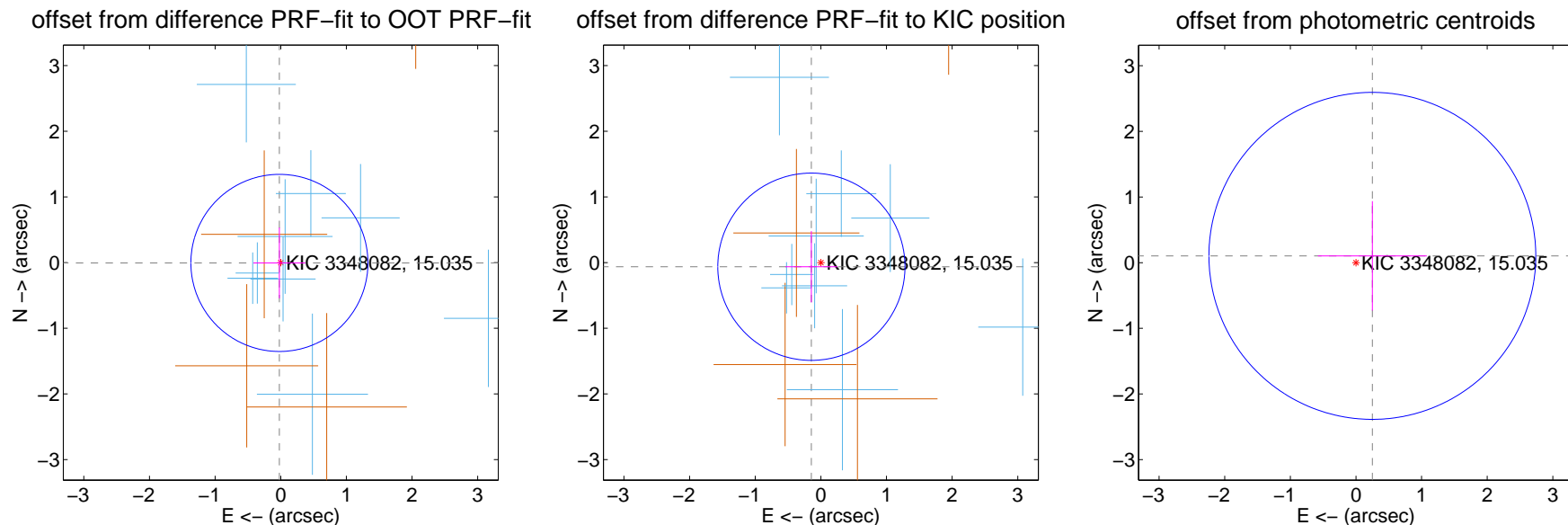
DV Centroid Data

Supplemental centroid analysis for 003348082-02. Kepler magnitude: 15.04. Transit SNR 18.36

There are 9 quarters with good PRF difference image offsets

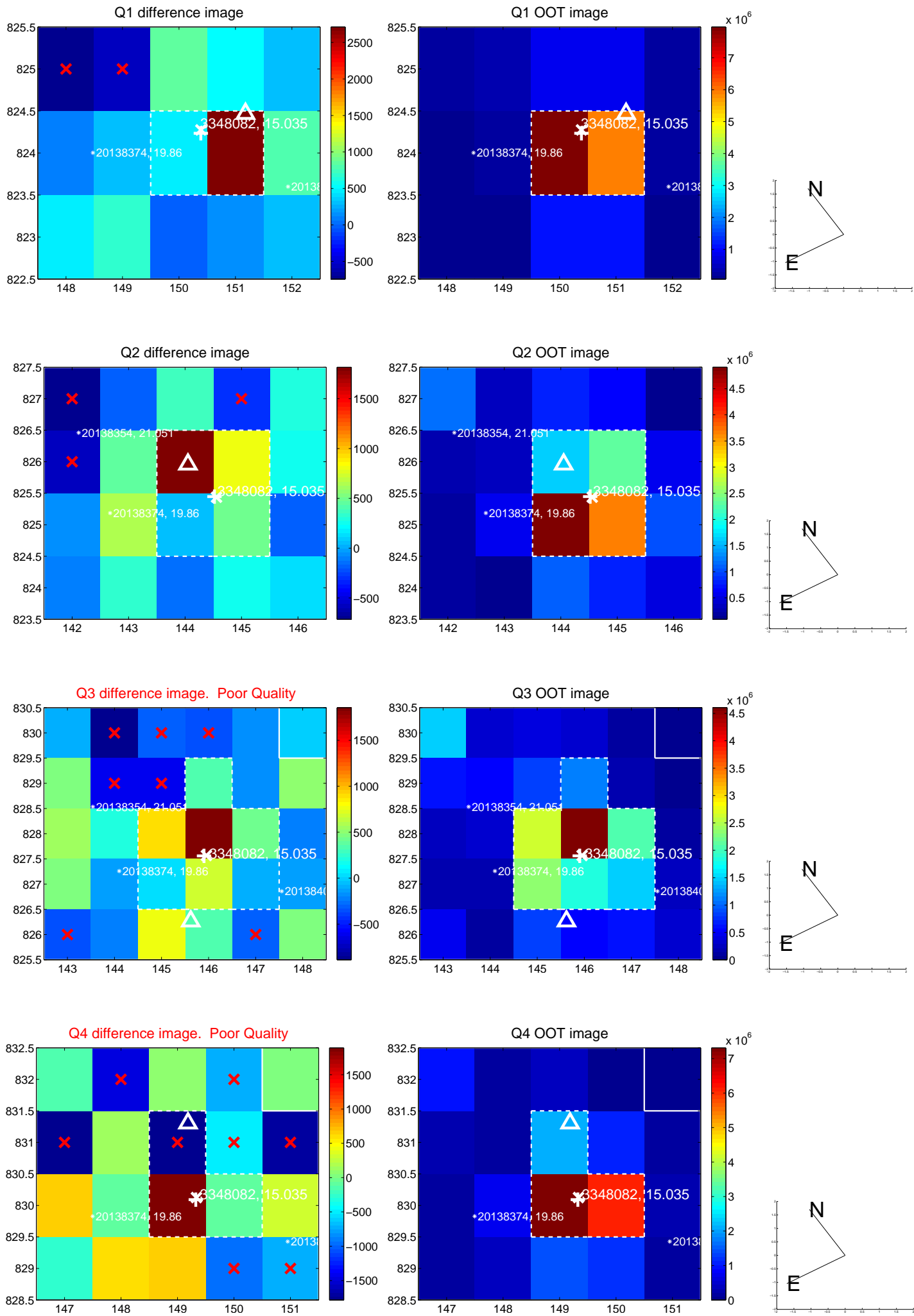
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.449	0.05	0.020 ± 0.396	-0.005 ± 0.539
PRF-fit source offset from KIC position	0.158 ± 0.475	0.33	0.144 ± 0.395	-0.063 ± 0.542
photometric centroid source offset	0.27 ± 0.83	0.33	-0.25 ± 0.83	0.10 ± 0.83

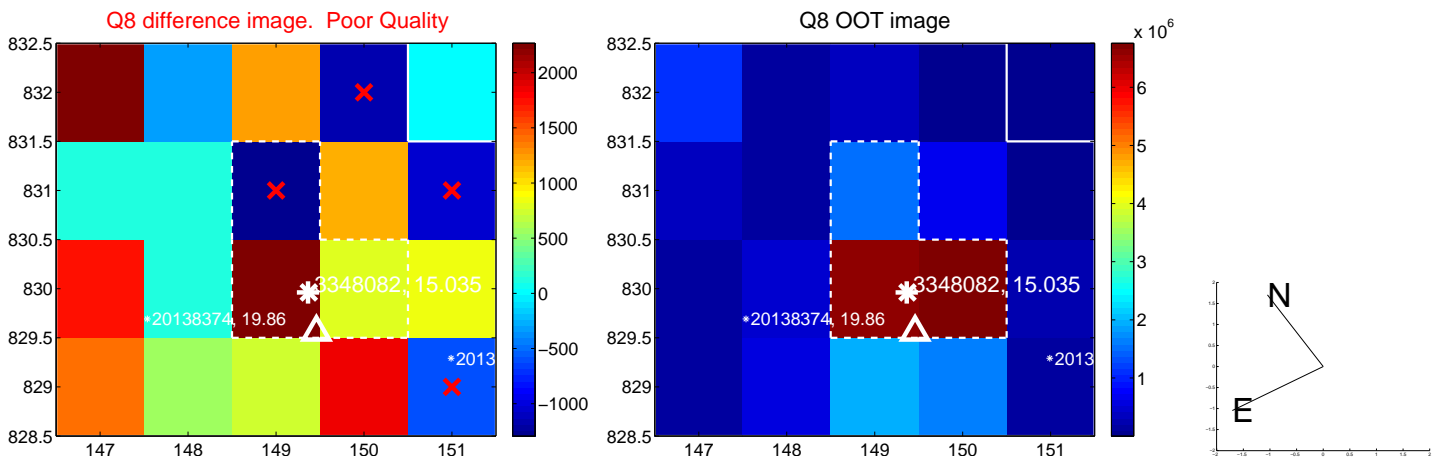
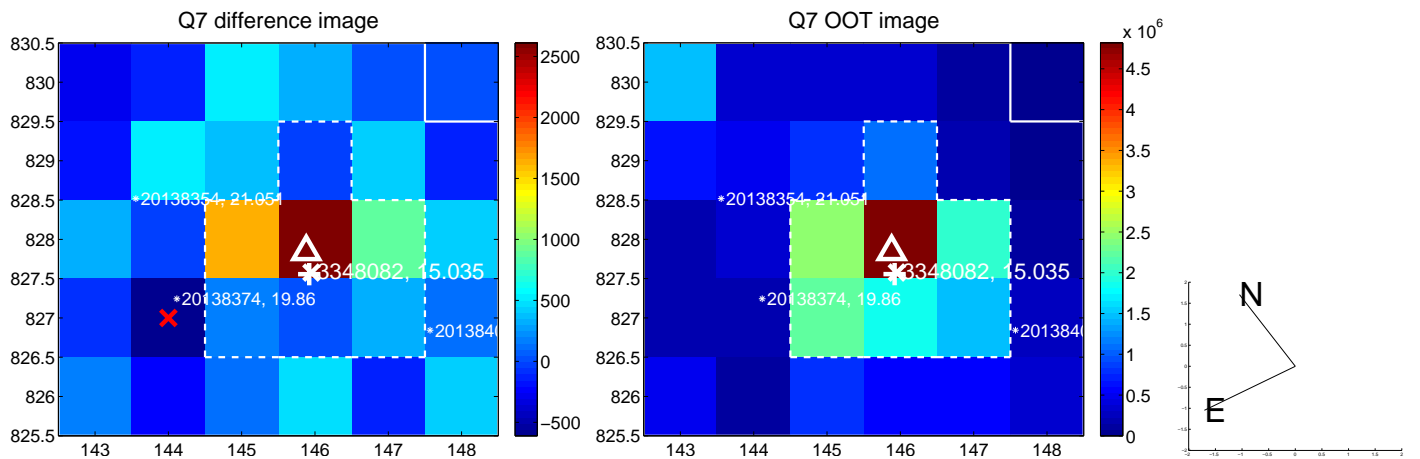
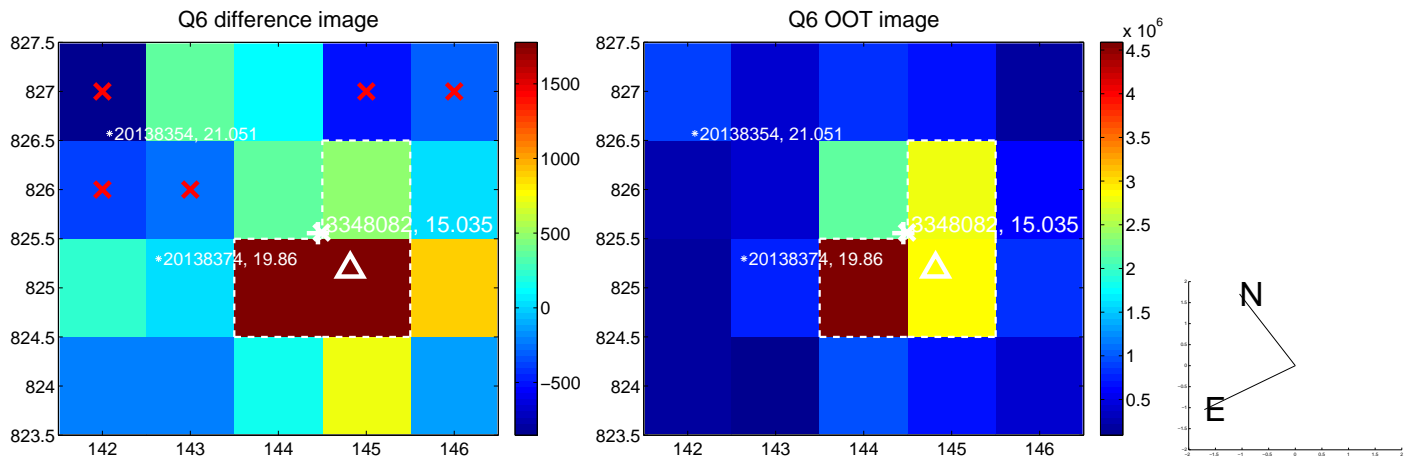
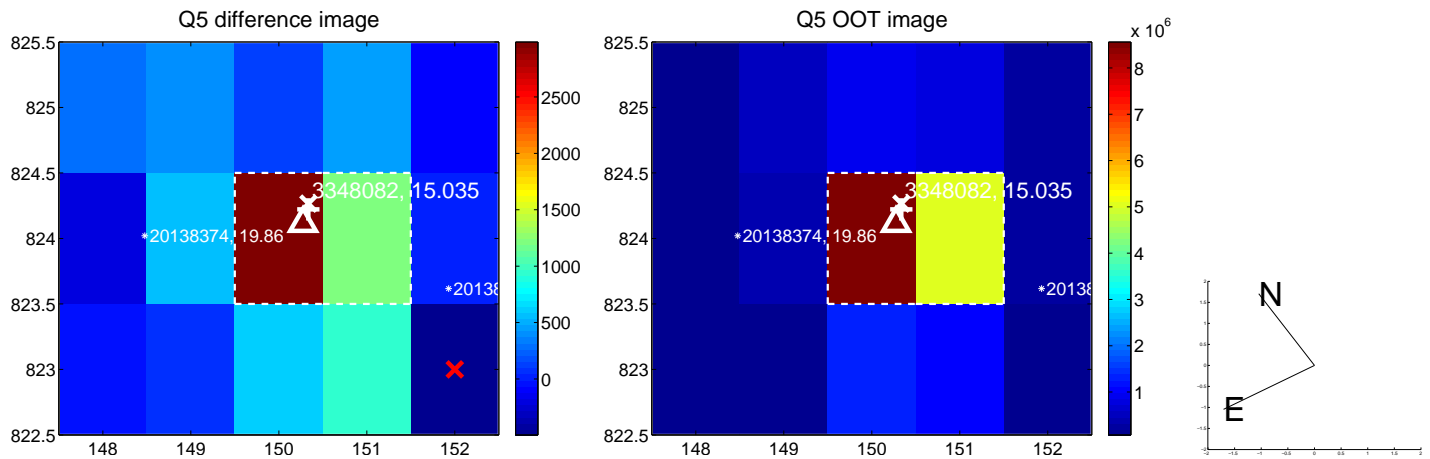


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

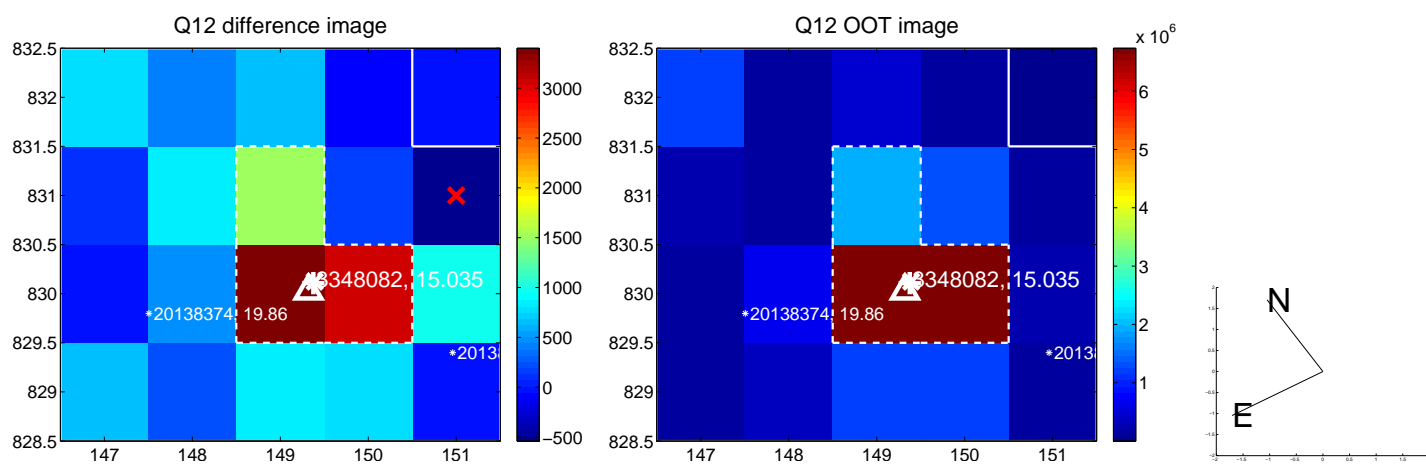
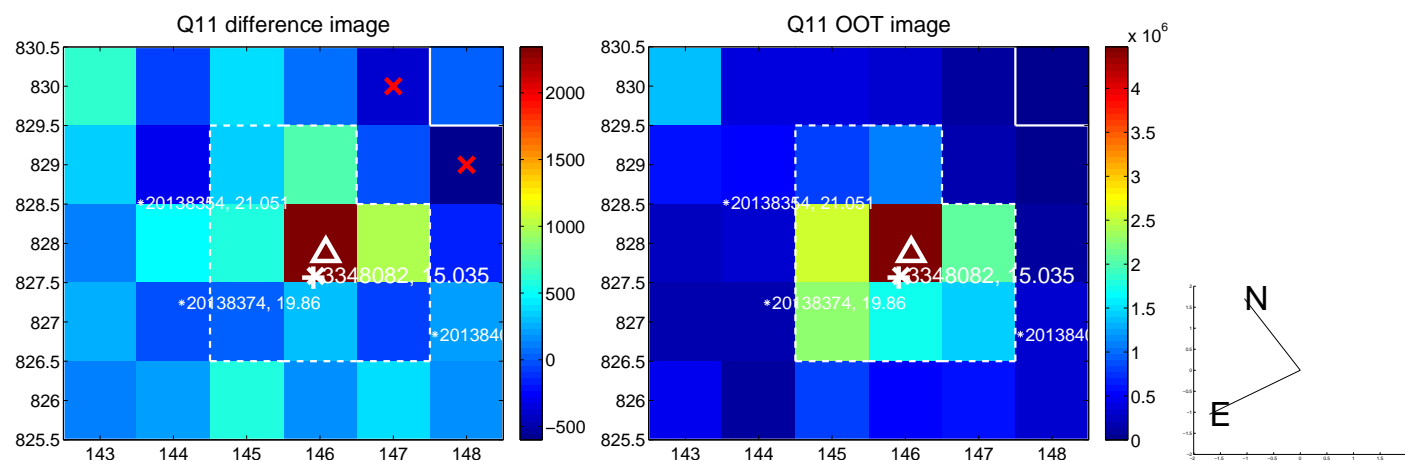
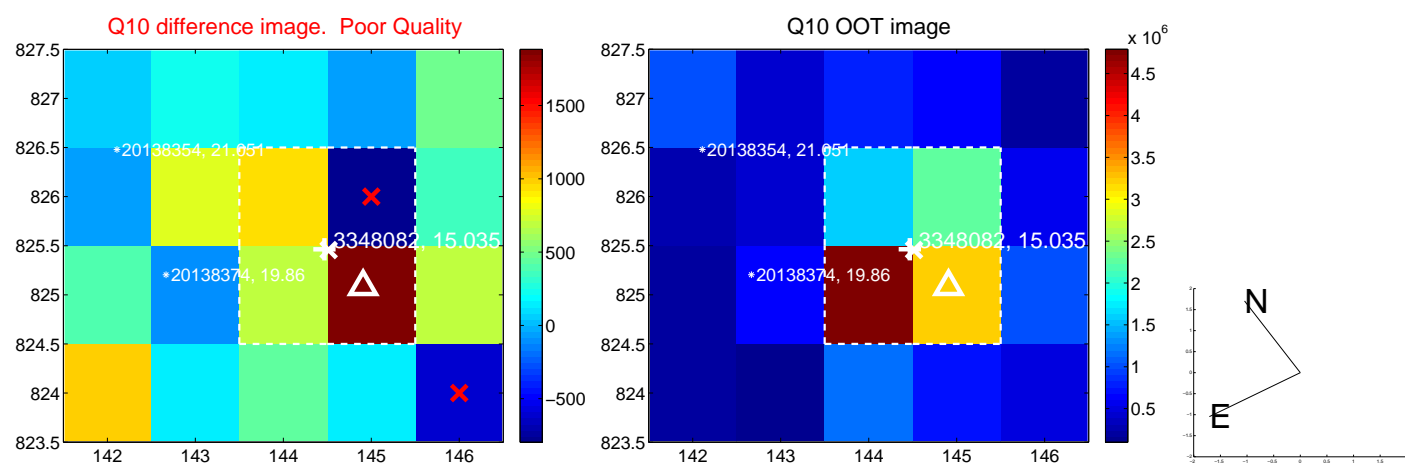
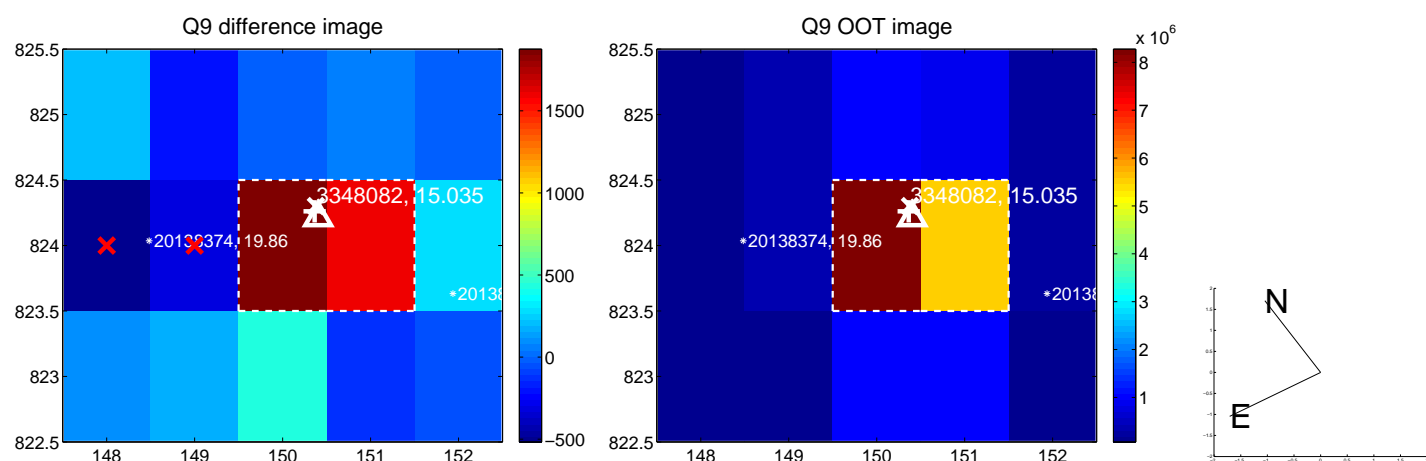
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



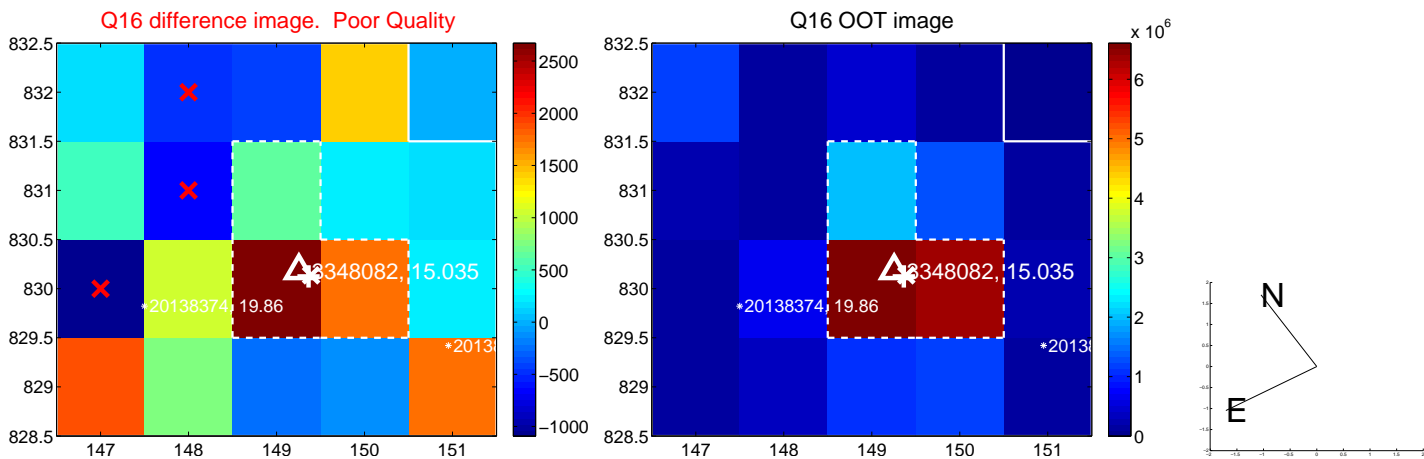
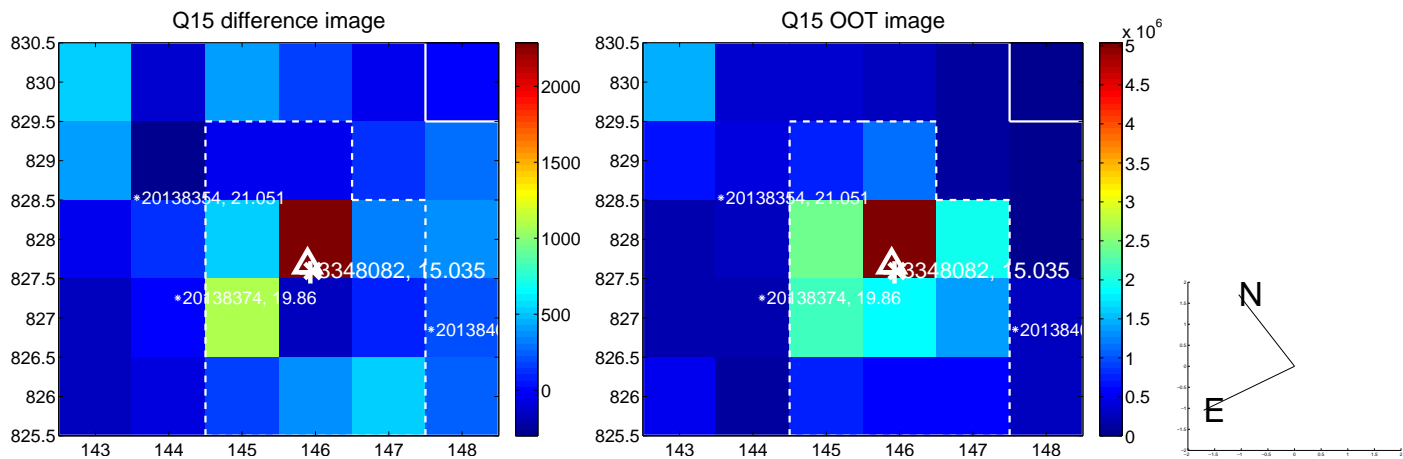
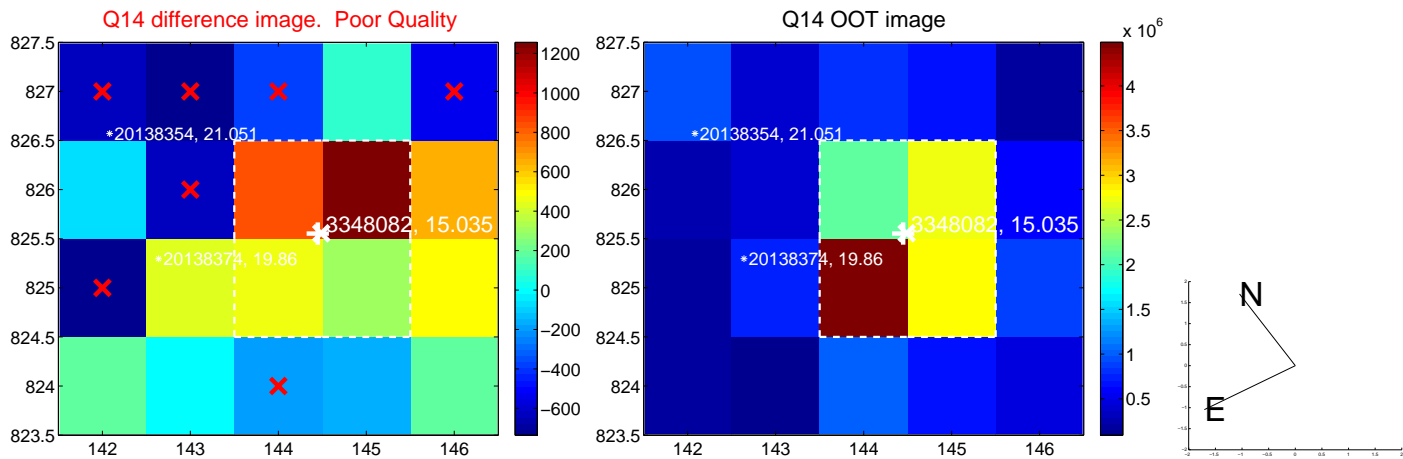
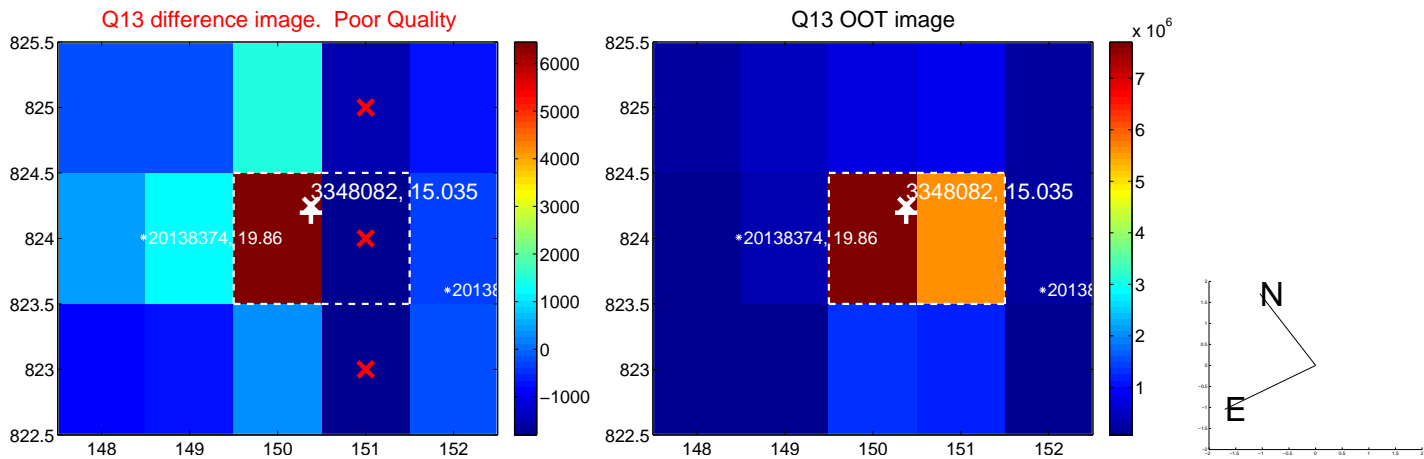
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

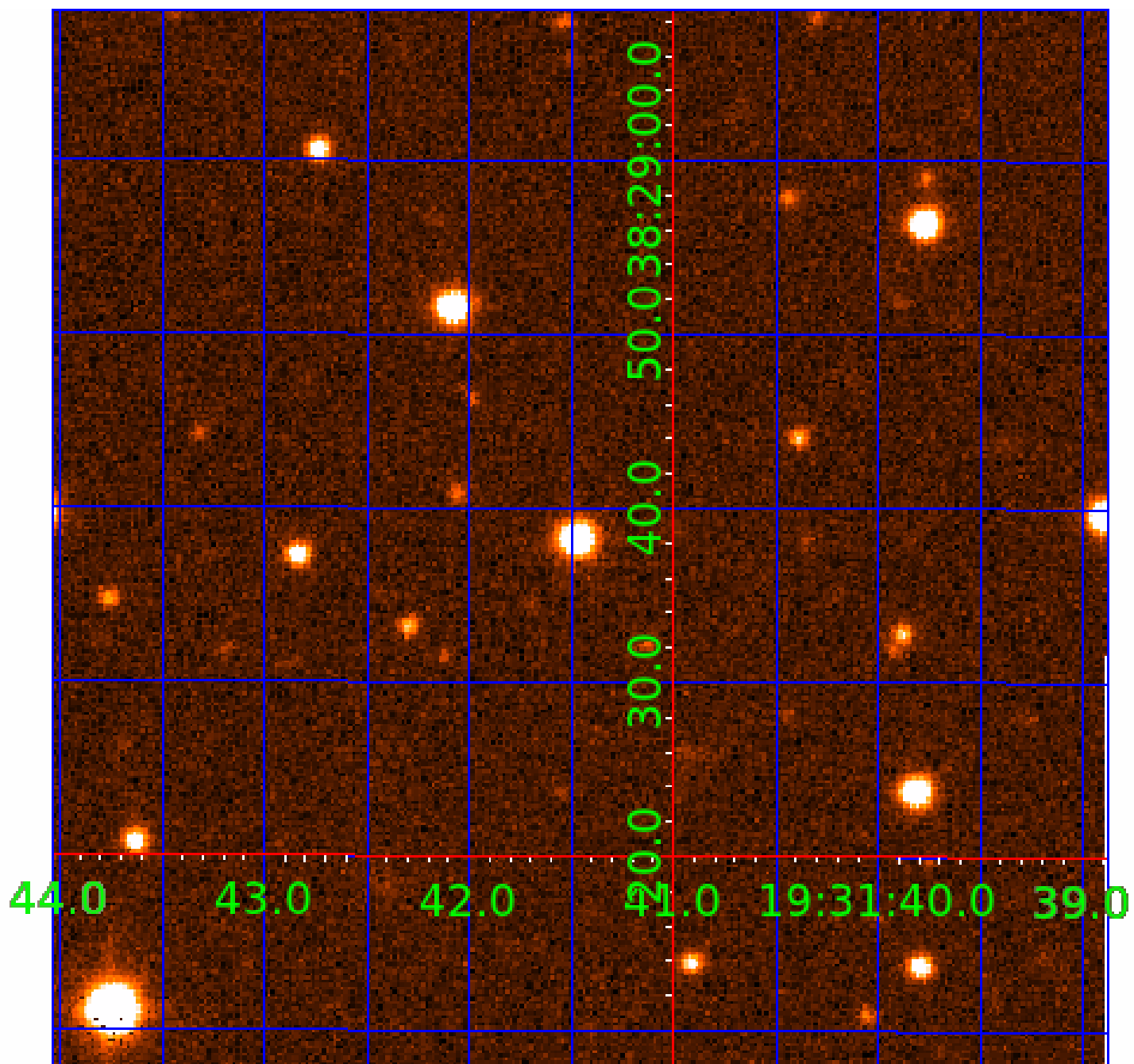


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003348082

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})
003348082-01	OBS	1196.01	3.982235	131.535233	291.8	2.817	25.1	22.3	1.55	5570	3.21	844.62
003348082-02	OBS	1196.02	11.634800	140.504068	295.6	5.614	16.9	18.4	1.55	5570	2.96	202.22
003348082-03	OBS	1196.03	33.198396	142.093373	330.8	4.623	9.7	10.8	1.55	5570	3.17	49.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348082-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH
003348082-02	OBS	PC	0.97	0	0	0	0	NO_COMMENT
003348082-03	OBS	PC	0.91	0	0	0	0	NO_COMMENT

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.

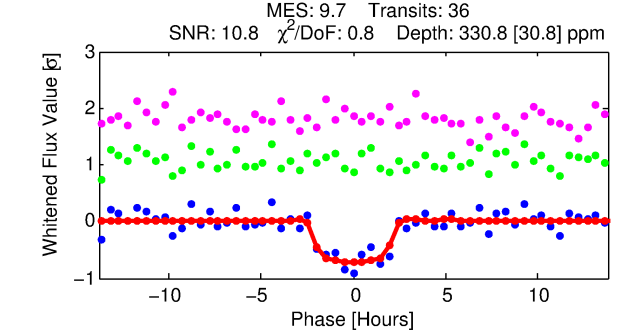
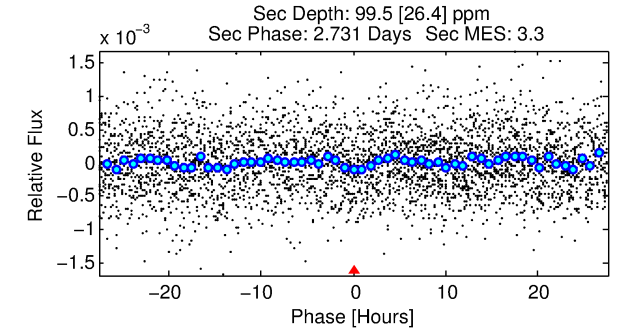
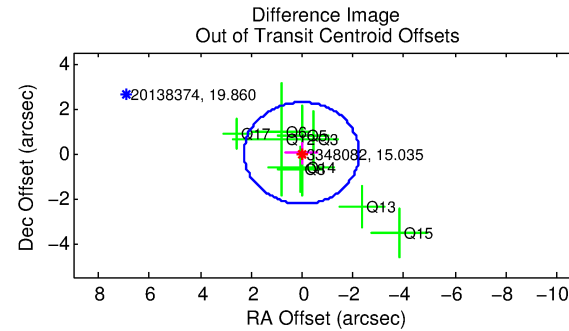
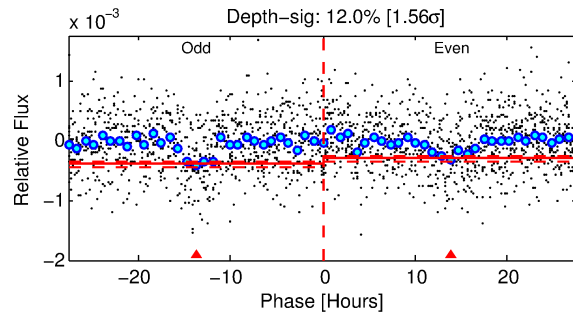
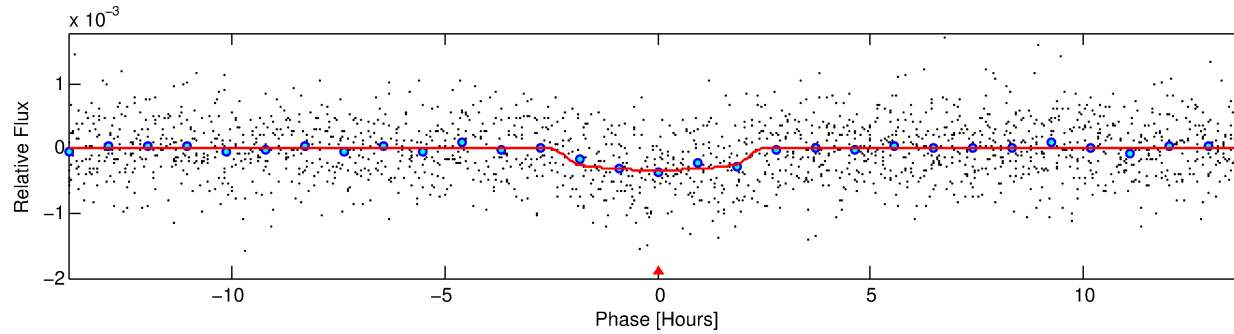
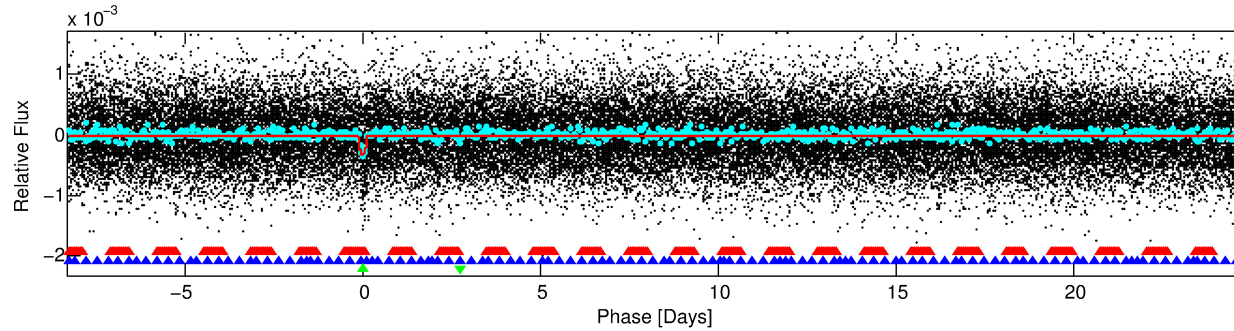
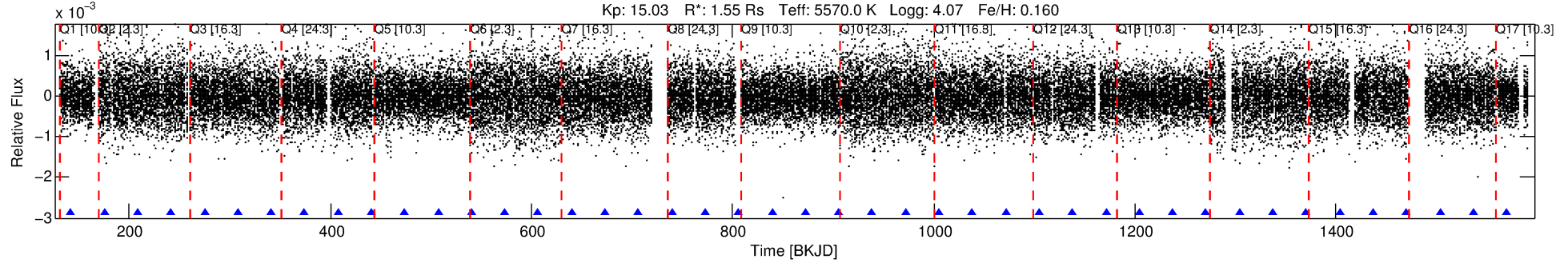
Ephemeris Match Information For 003348082-03

No Significant Match Found

DV One-Page Summary

KIC: 3348082 Candidate: 3 of 3 Period: 33.198 d
KOI: K01196.03 Name: Kepler-274c Corr: 0.980

Kp: 15.03 R*: 1.55 Rs Teff: 5570.0 K Logg: 4.07 Fe/H: 0.160



DV Fit Results:

Period = 33.19840 [0.00038] d
Epoch = 142.0934 [0.0098] BKJD
Rp/R* = 0.0188 [0.0135]
a/R* = 32.97 [100.36]
b = 0.82 [1.22]
Seff = 49.97 [18.41]
Teq = 678 [62] K
Rp = 3.17 [2.42] Re
a = 0.2034 [0.0474] AU
Ag = 224.71 [339.36] [0.66σ]
Teffp = 4058 [1488] K [2.27σ]

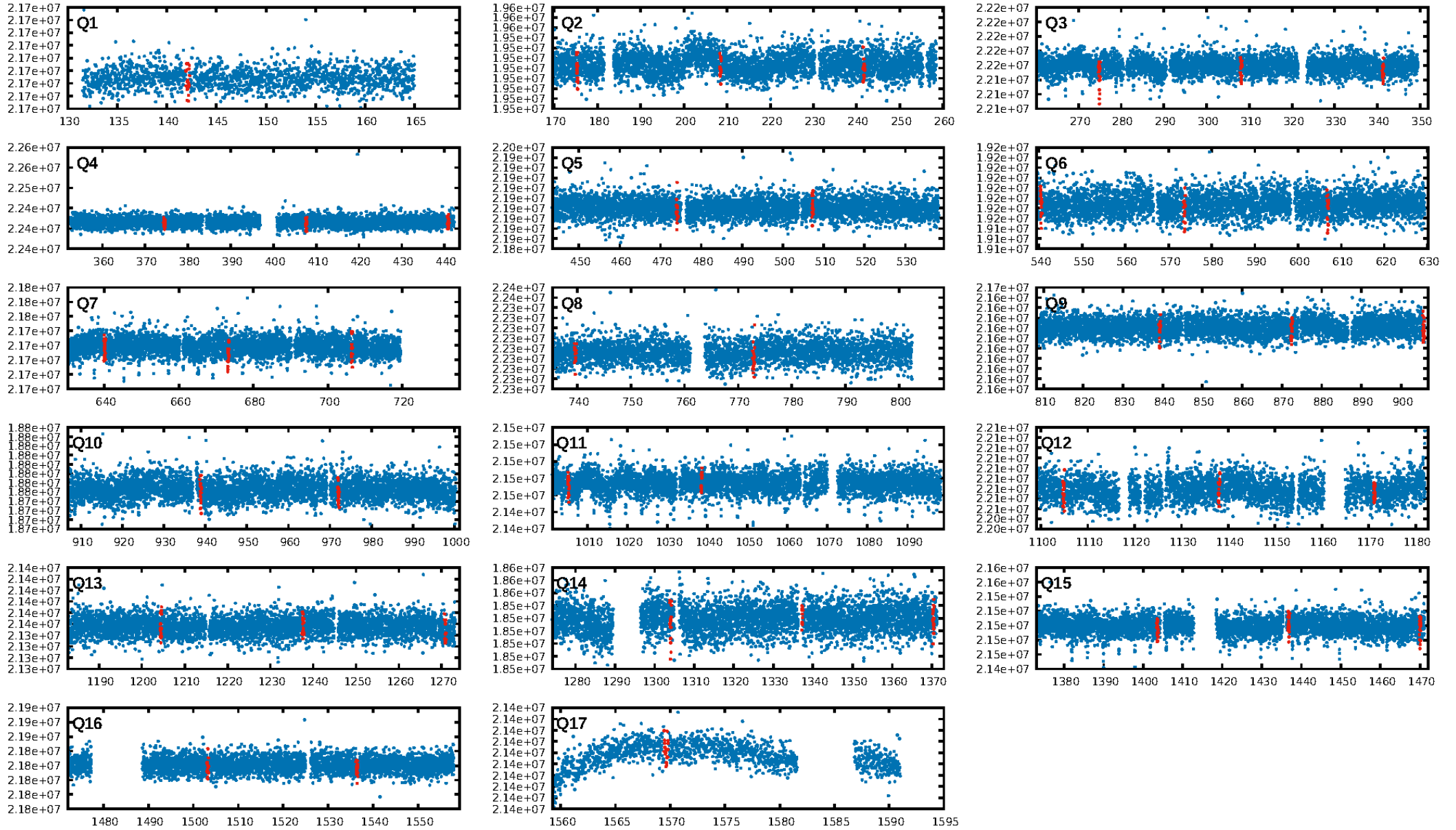
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [71.16σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.21e-23
RollingBand-fgt: 1.00 [34/34]
GhostDiagnostic-chr: 9.882
Centroid-sig: N/A
Centroid-so: 1.697 arcsec [1.32σ]
OotOffset-rm: 0.025 arcsec [0.03σ]
OotOffset-st: 2/2/2/3 [9]
KicOffset-rm: 0.116 arcsec [0.20σ]
KicOffset-st: 2/2/2/3 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.88 [15/17]

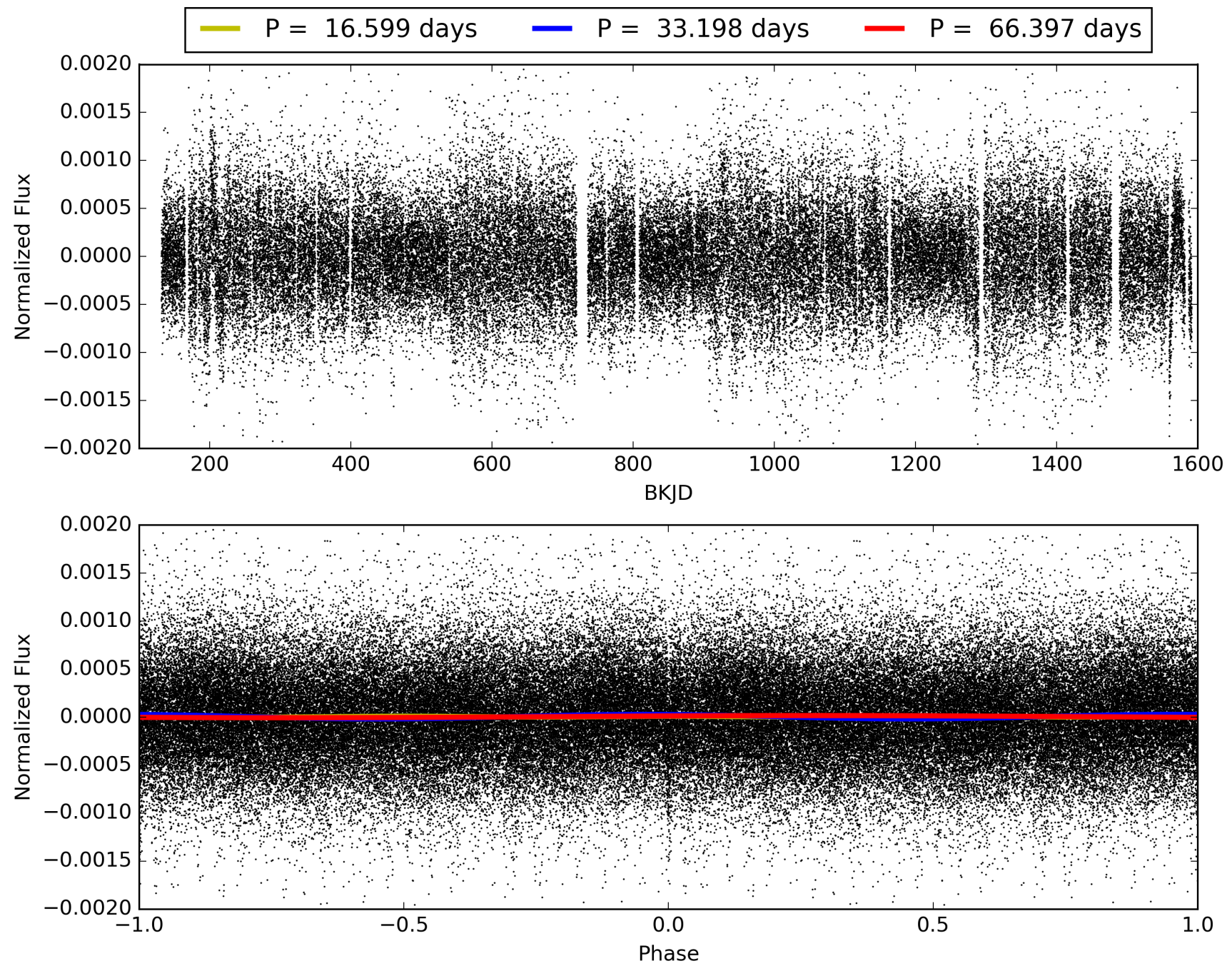
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:35:32 Z

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

TCE 003348082-03, PDC Light Curves

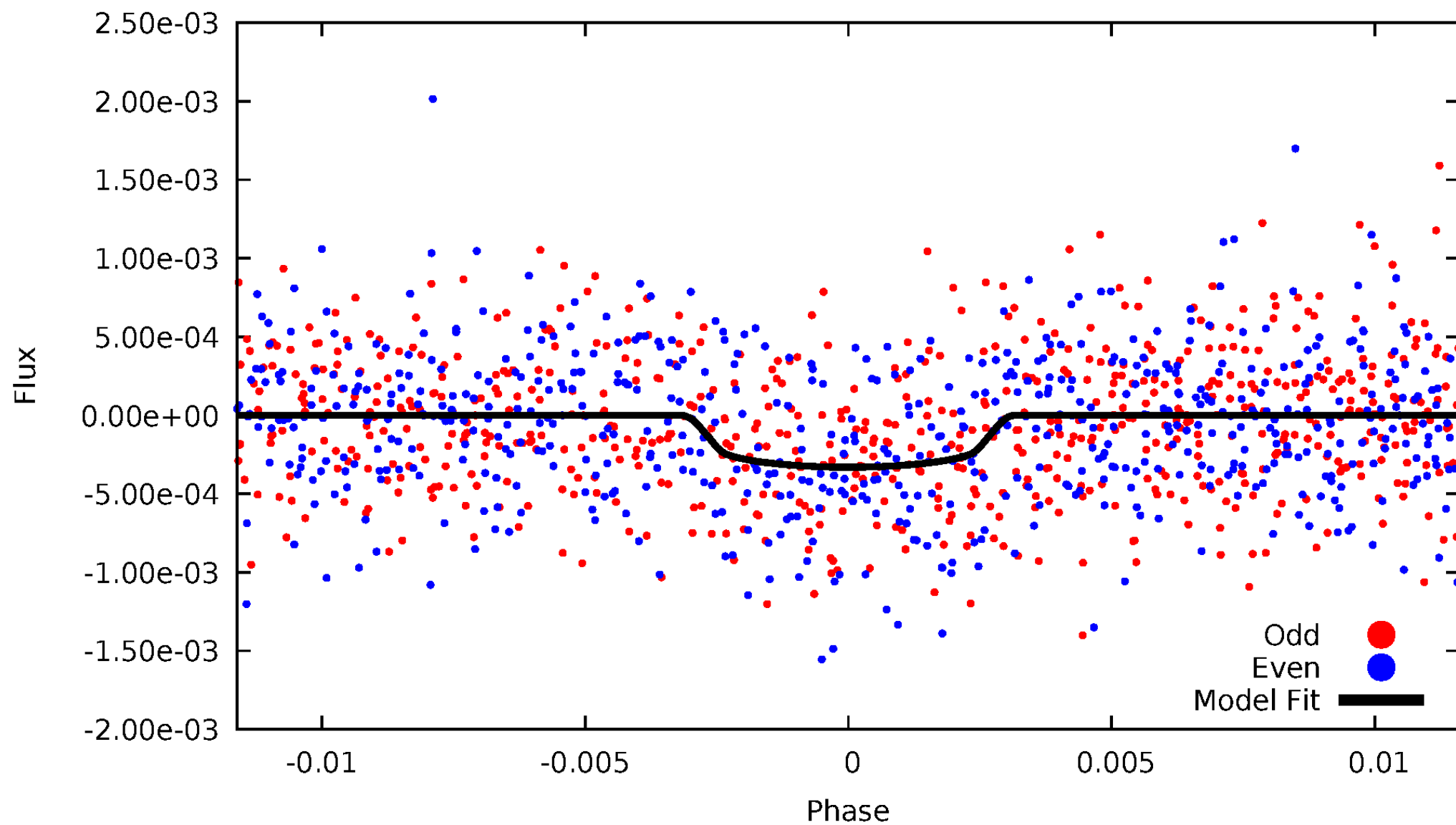


TCE 003348082-03



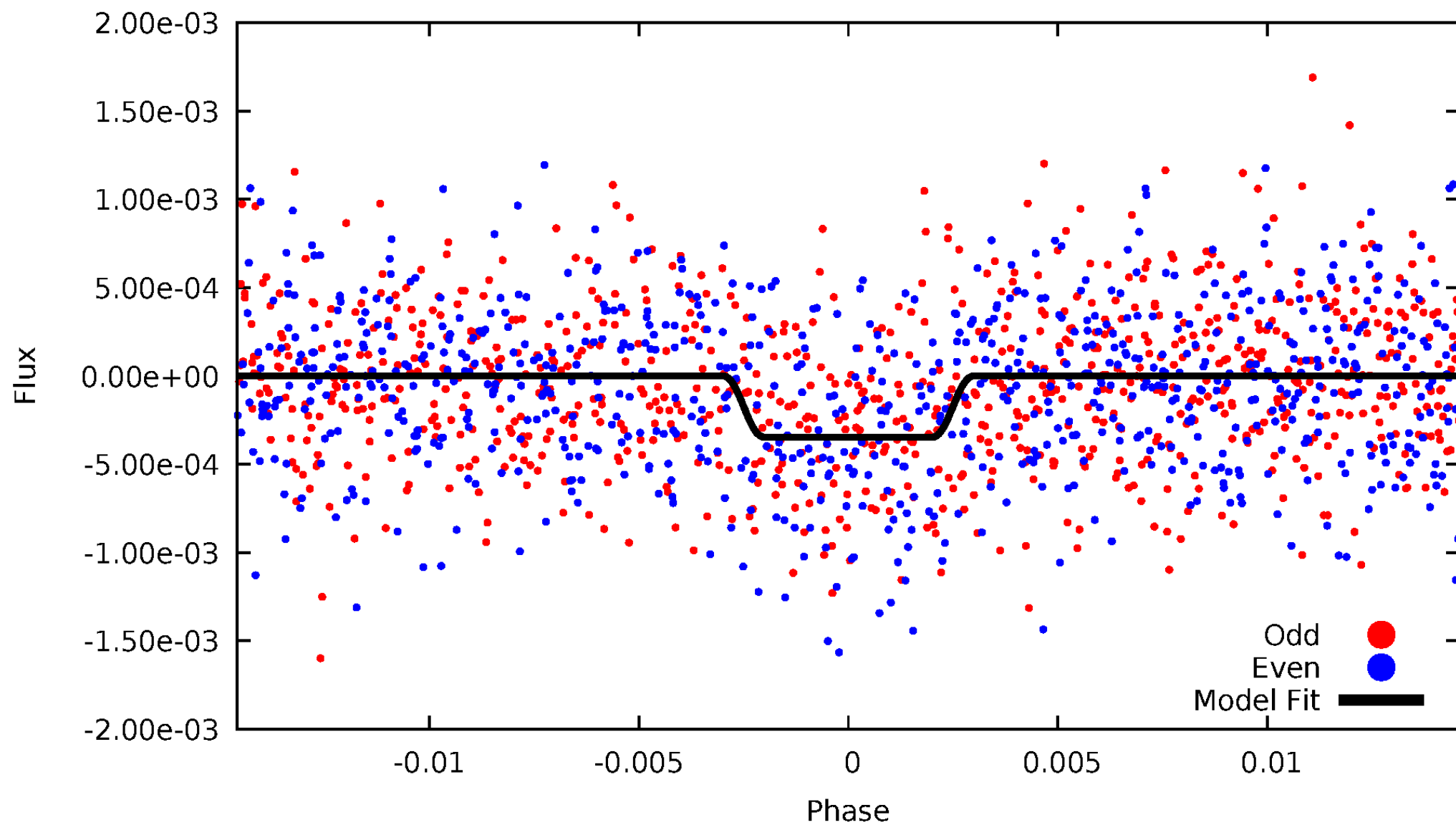
DV Odd/Even

TCE 003348082-03



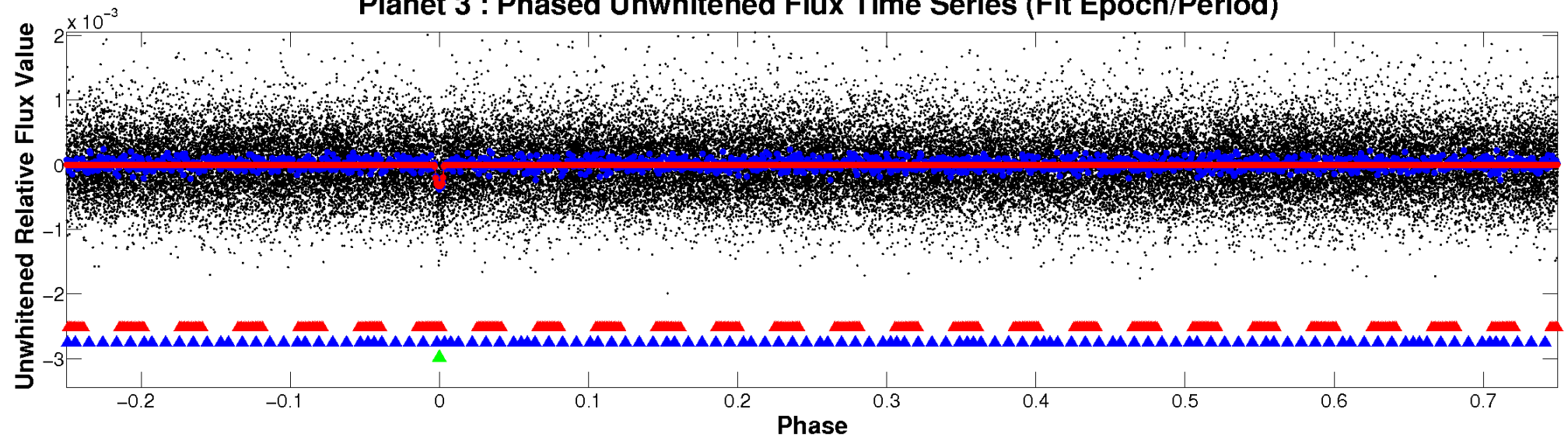
ALT Odd/Even

TCE 003348082-03

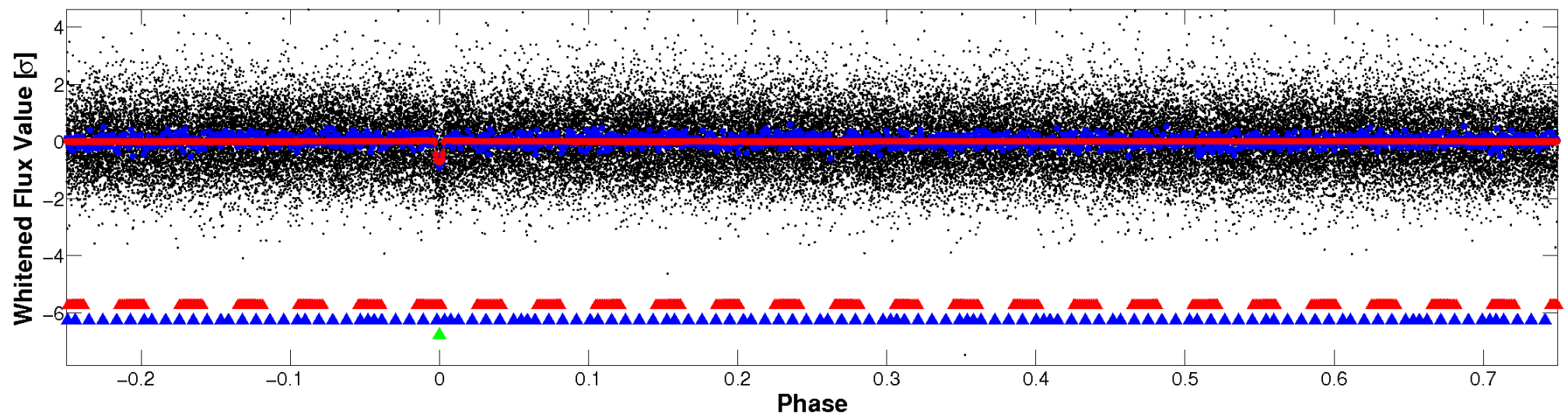


Non-Whitened Vs. Whitened Light Curve

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

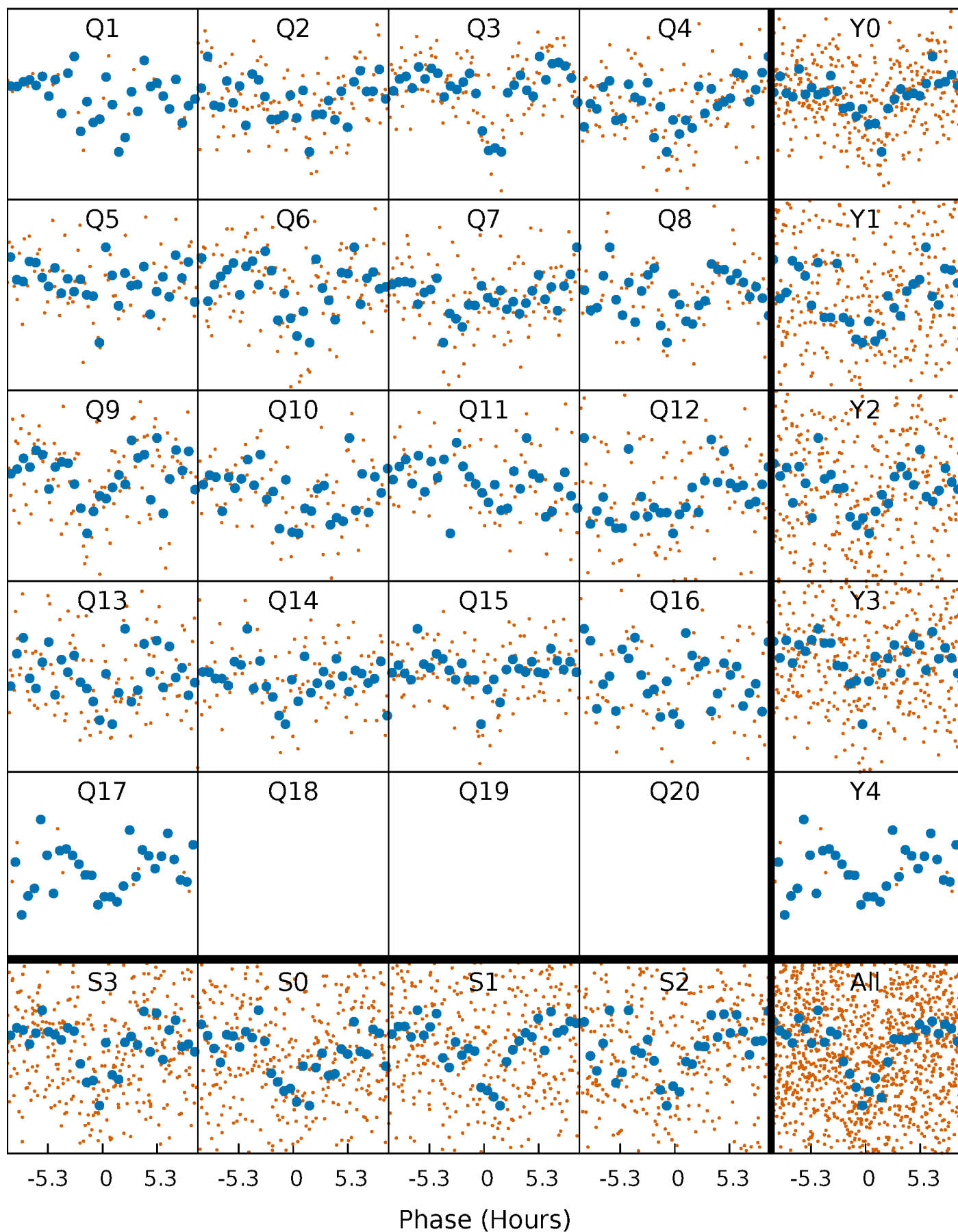


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



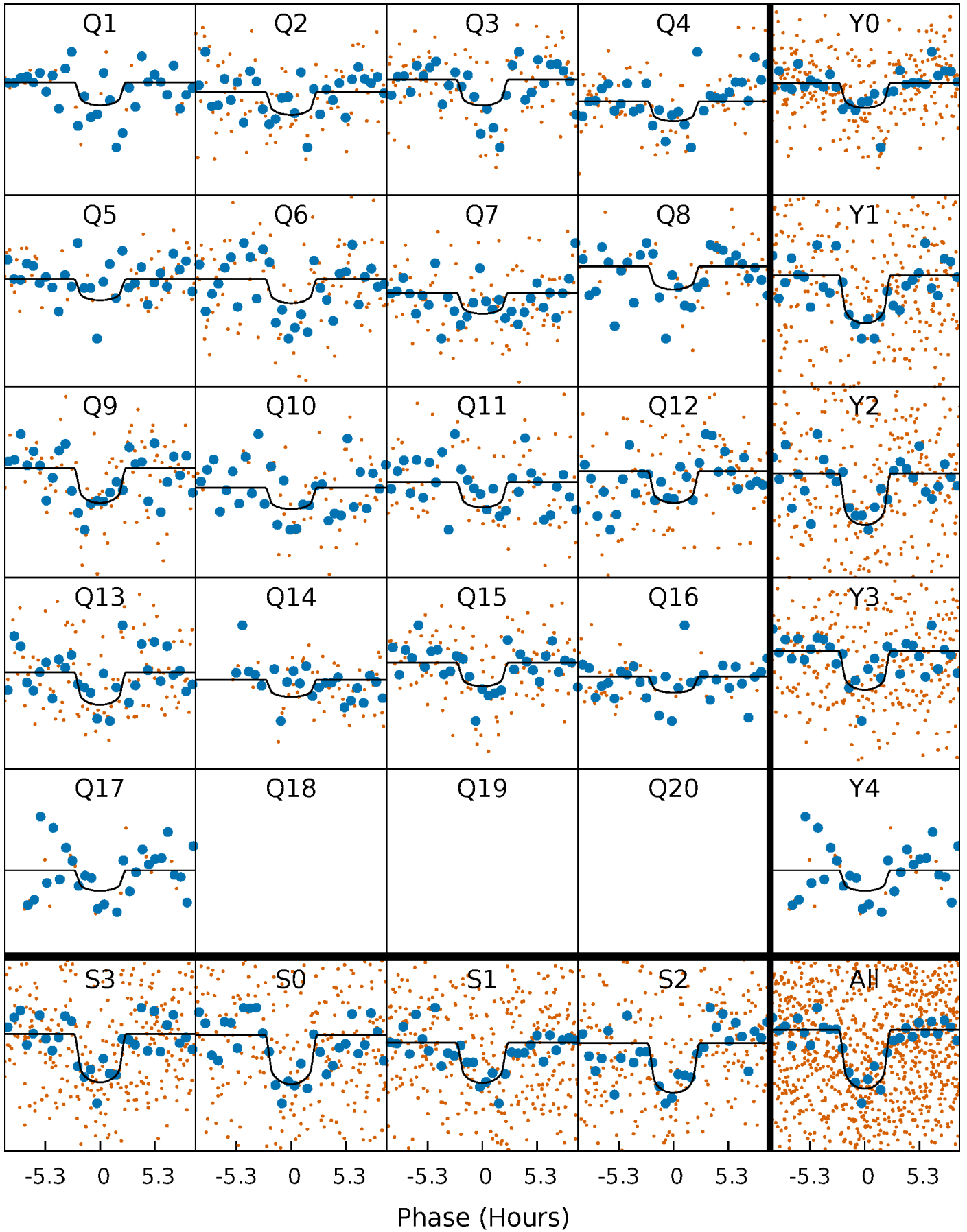
PDC Quarter-Phased Transit Curves

TCE 003348082-03 P= 33.198396 Days $T_0=142.093373$ (BKJD)



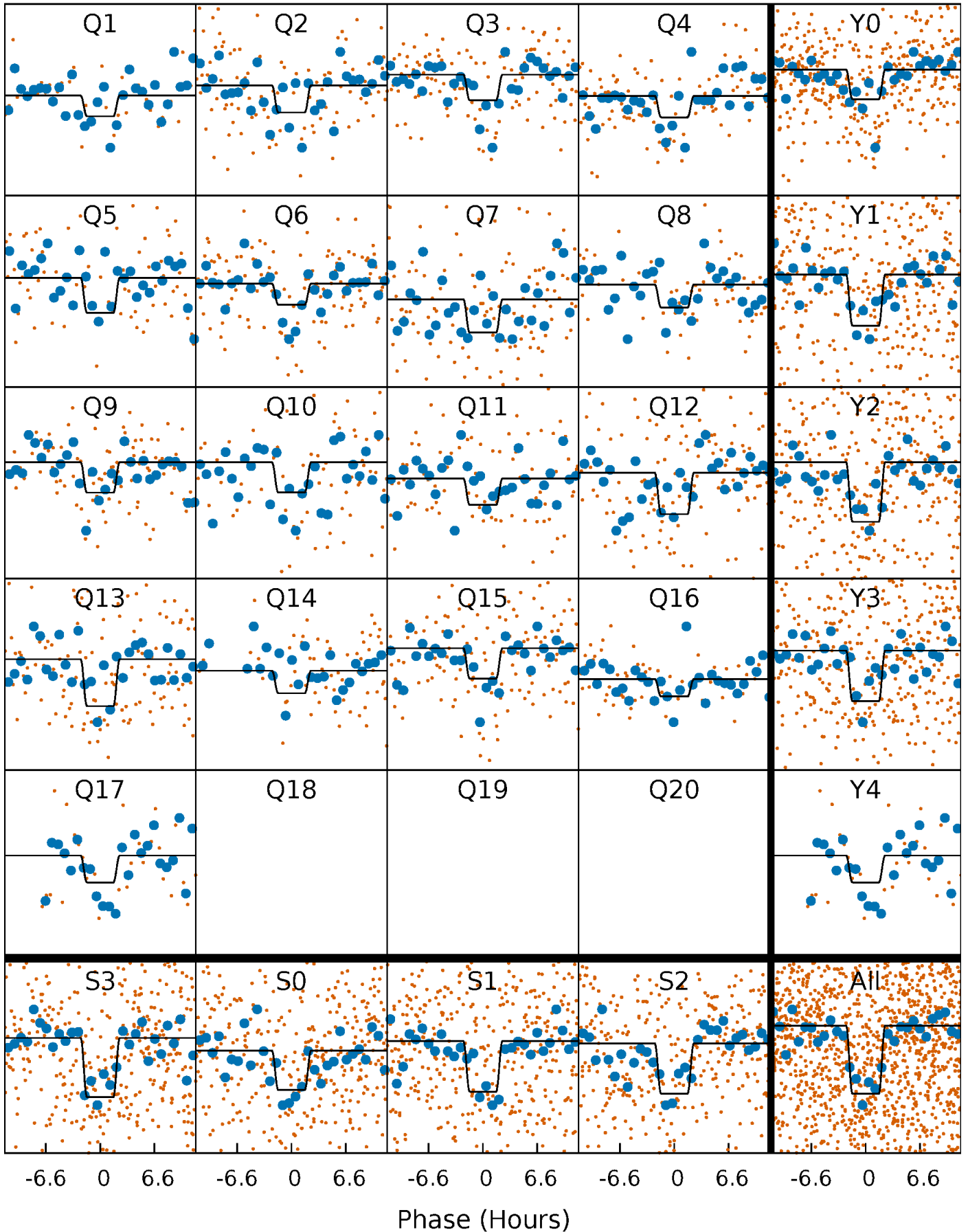
DV Quarter-Phased Transit Curves

TCE 003348082-03 P= 33.198396 Days $T_0=142.093373$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

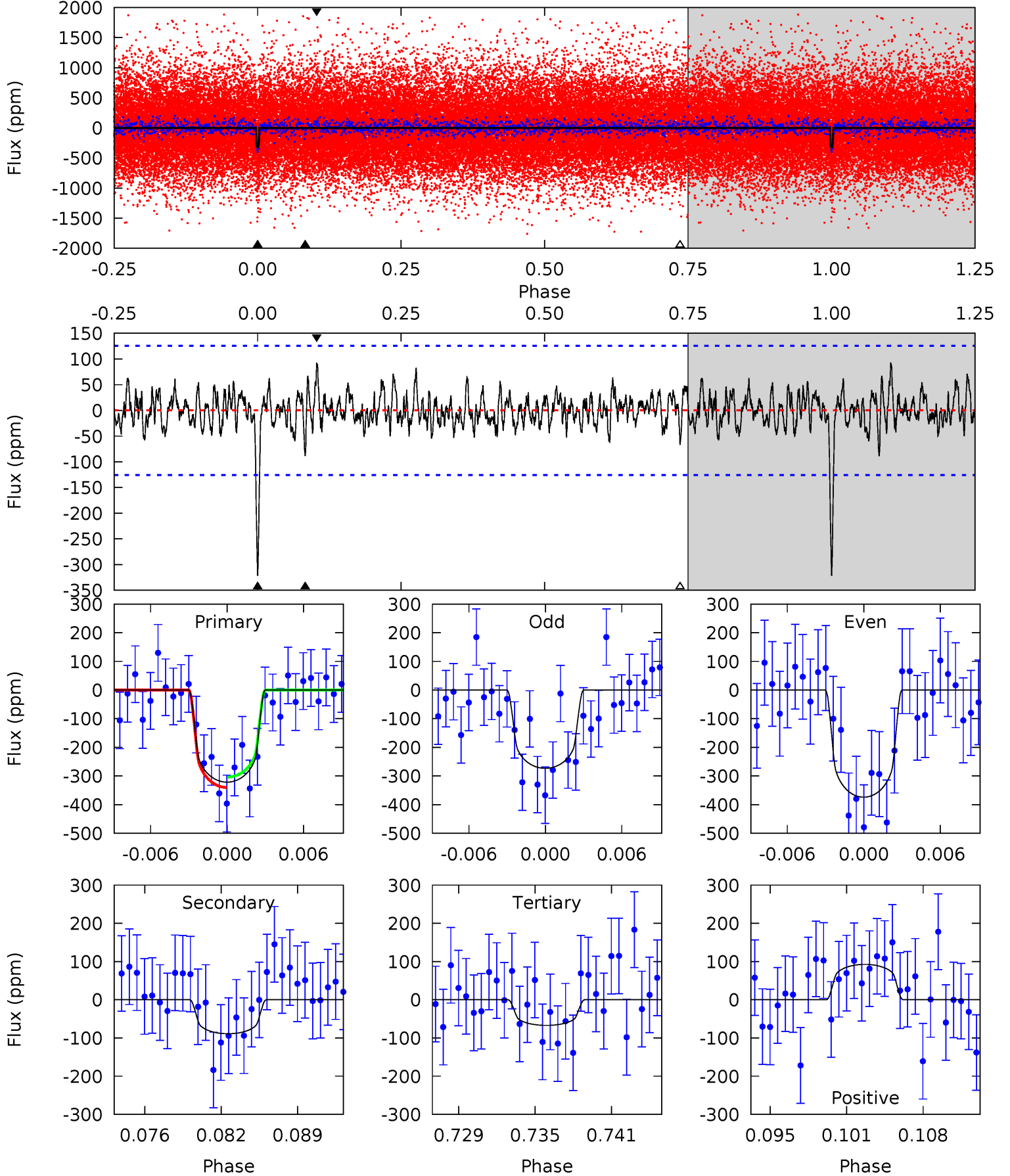
TCE 003348082-03 P= 33.197776 Days $T_0=142.108690$ (BKJD)



DV Model-Shift Uniqueness Test

003348082-03, P = 33.198396 Days, E = 108.894977 Days

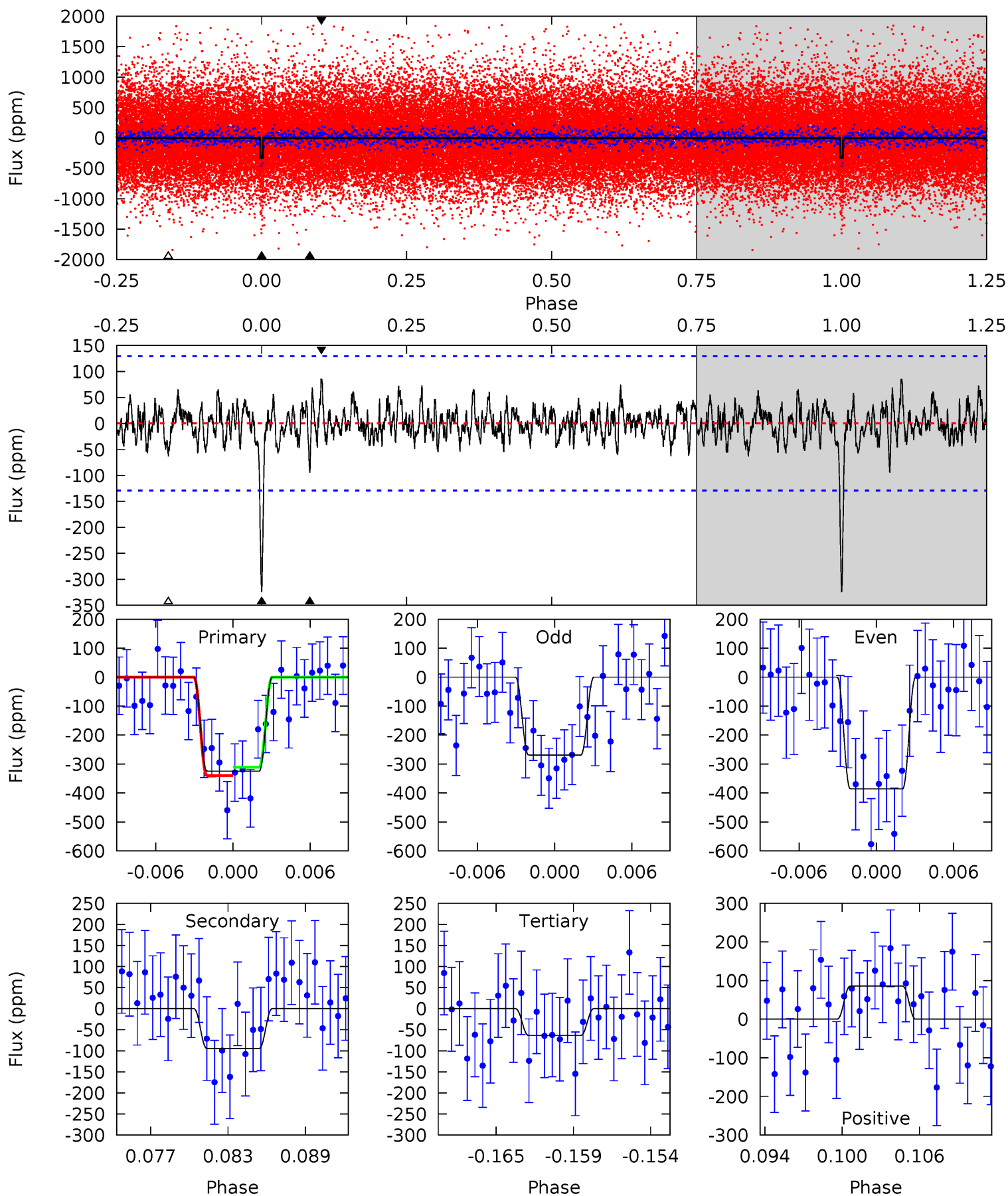
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	3.62	2.72	3.76	5.11	2.73	1.04	10.3	9.31	0.89	-0.14	2.06	1.02	0.22	0.74



Alt Model-Shift Uniqueness Test

003348082-03, P = 33.197776 Days, E = 108.910914 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	3.74	2.52	3.40	5.13	2.75	0.99	10.4	9.48	1.22	0.35	2.32	1.06	0.21	0.57



Stellar Parameters For KIC 003348082

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5570^{+83}_{-72}	$4.066^{+0.210}_{-0.090}$	$0.160^{+0.150}_{-0.100}$	$1.548^{+0.241}_{-0.391}$	$1.019^{+0.084}_{-0.084}$	$0.387^{+0.455}_{-0.110}$
	+1%/-1%	+5%/-2%	+94%/-62%	+16%/-25%	+8%/-8%	+118%/-28%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003348082-03 / KOI 1196.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 25	$3.28^{+2.17}_{-1.88}$	940^{+41}_{-63}	4057^{+1634}_{-629}	191^{+845}_{-125}
Alt.	-94 ± 25	$3.15^{+2.13}_{-1.82}$	938^{+43}_{-58}	4188^{+1735}_{-700}	208^{+948}_{-138}

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 $A_{obs} \gg 1.0$

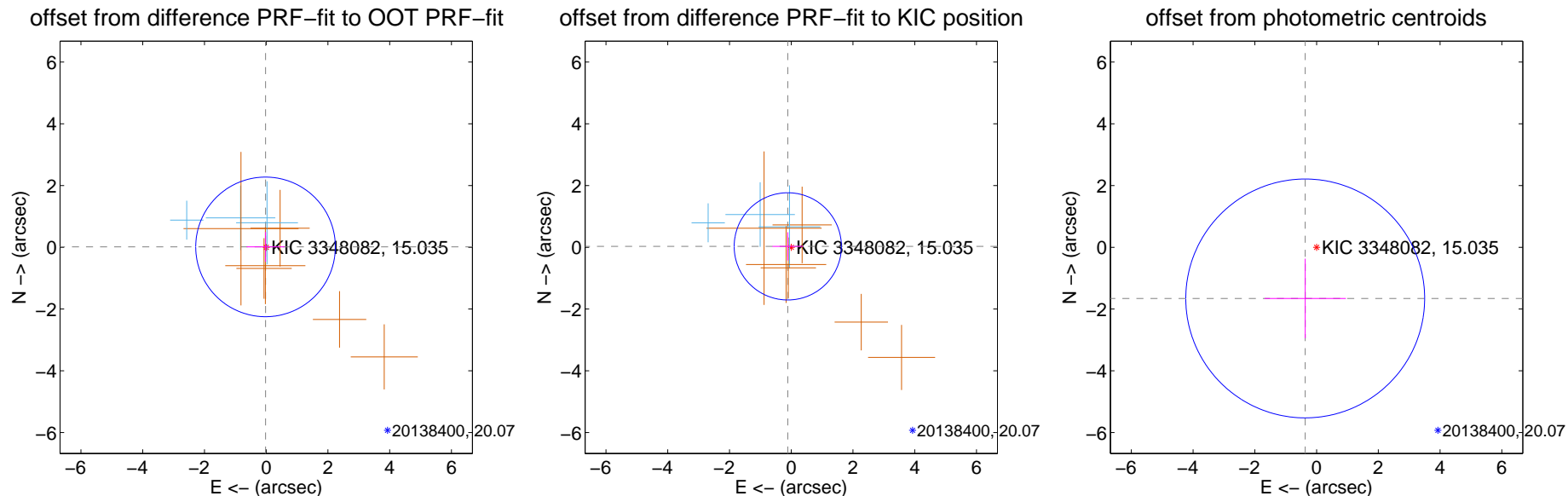
DV Centroid Data

Supplemental centroid analysis for 003348082-03. Kepler magnitude: 15.04. Transit SNR 10.85

There are 3 quarters with good PRF difference image offsets

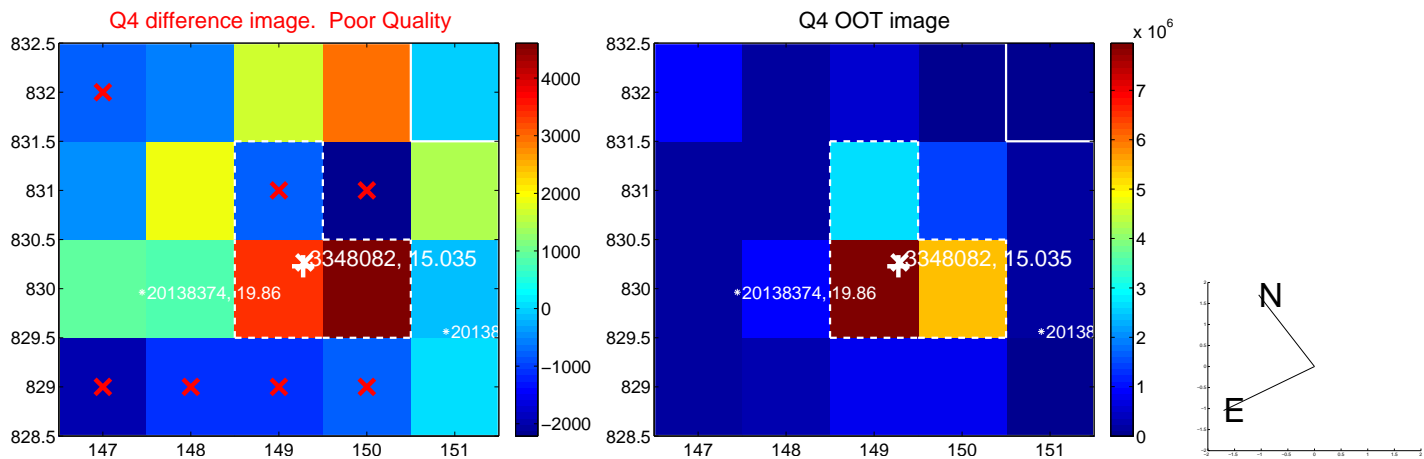
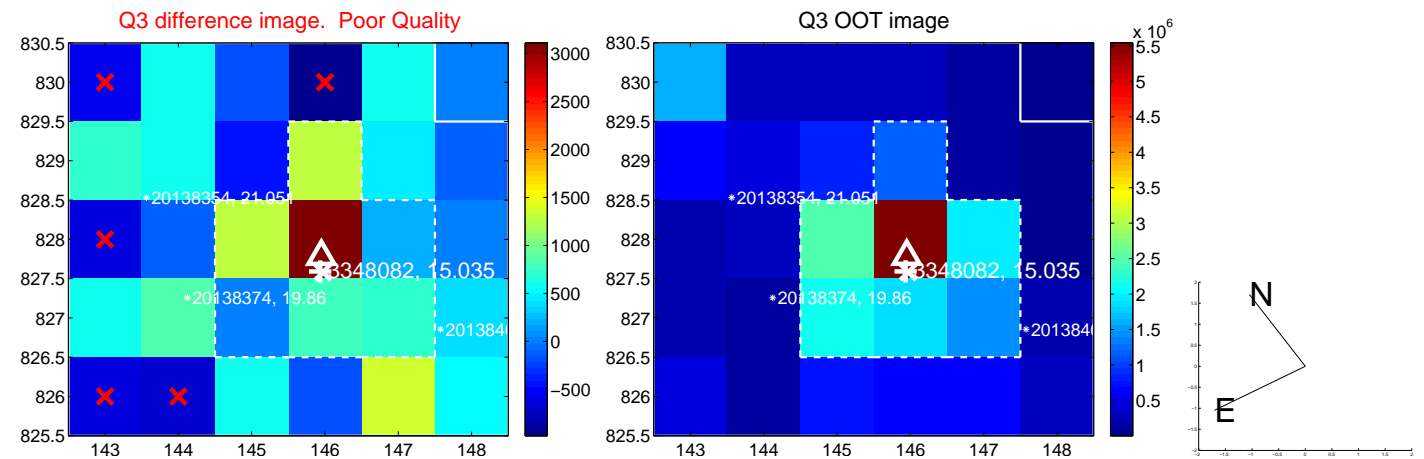
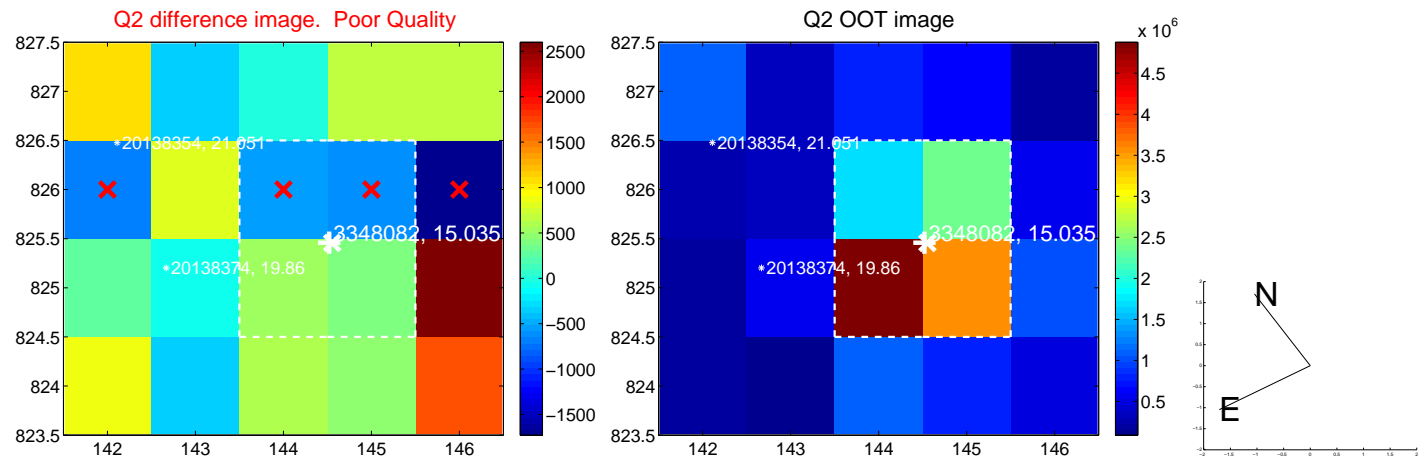
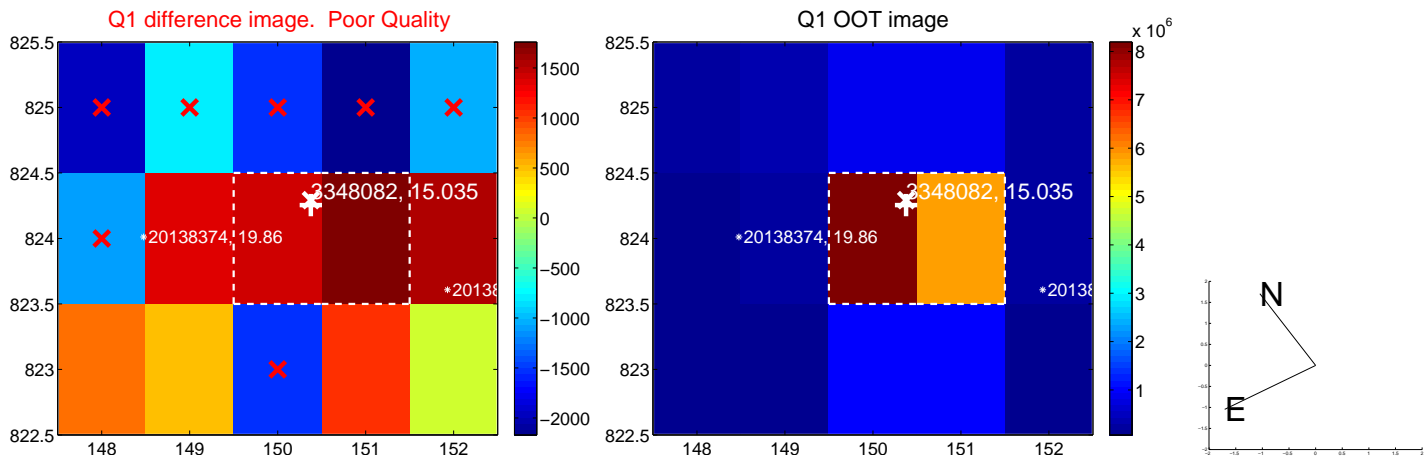
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.754	0.03	0.021 ± 0.614	0.013 ± 0.483
PRF-fit source offset from KIC position	0.116 ± 0.579	0.20	0.112 ± 0.495	0.030 ± 0.459
photometric centroid source offset	1.70 ± 1.29	1.32	0.37 ± 1.32	-1.66 ± 1.29

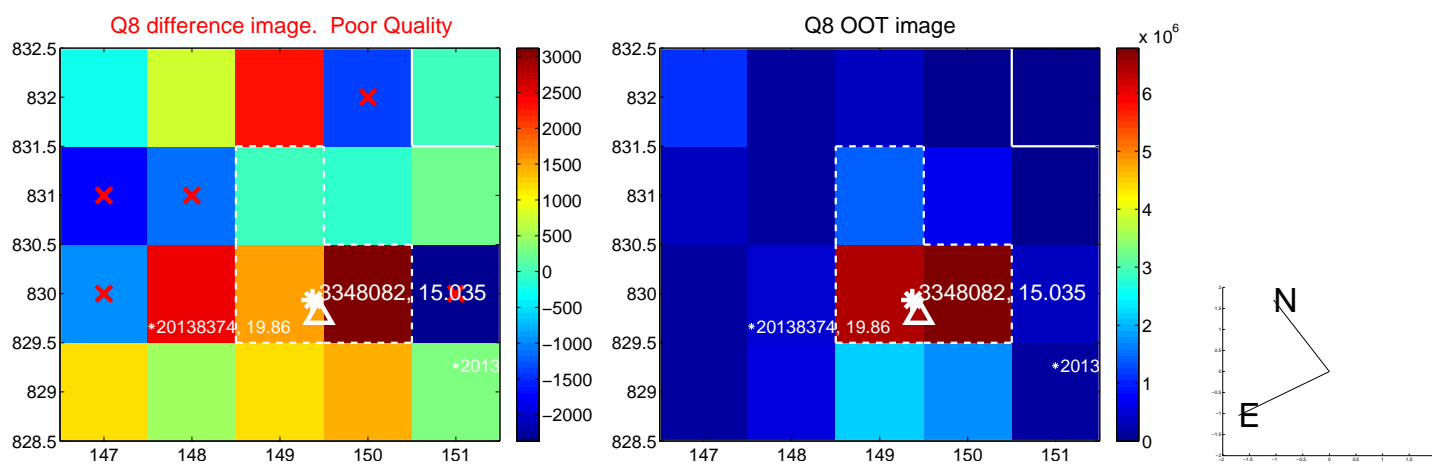
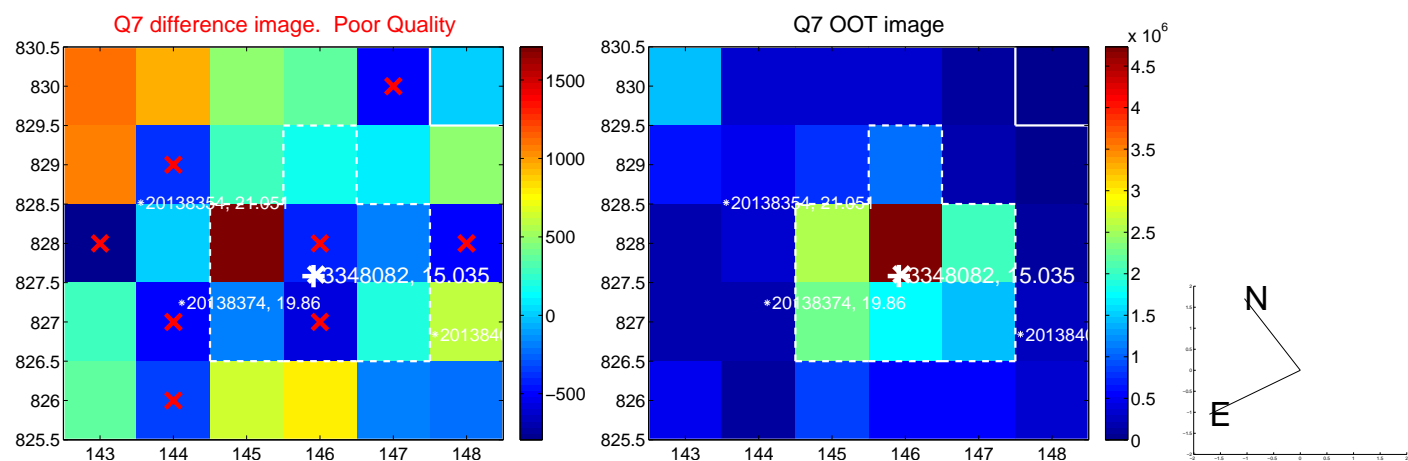
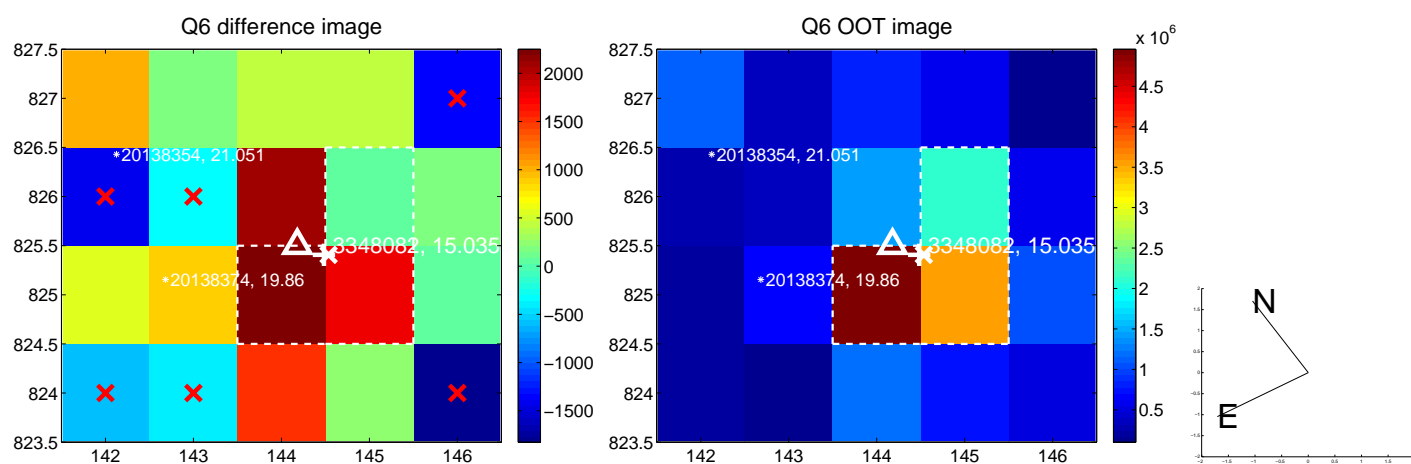
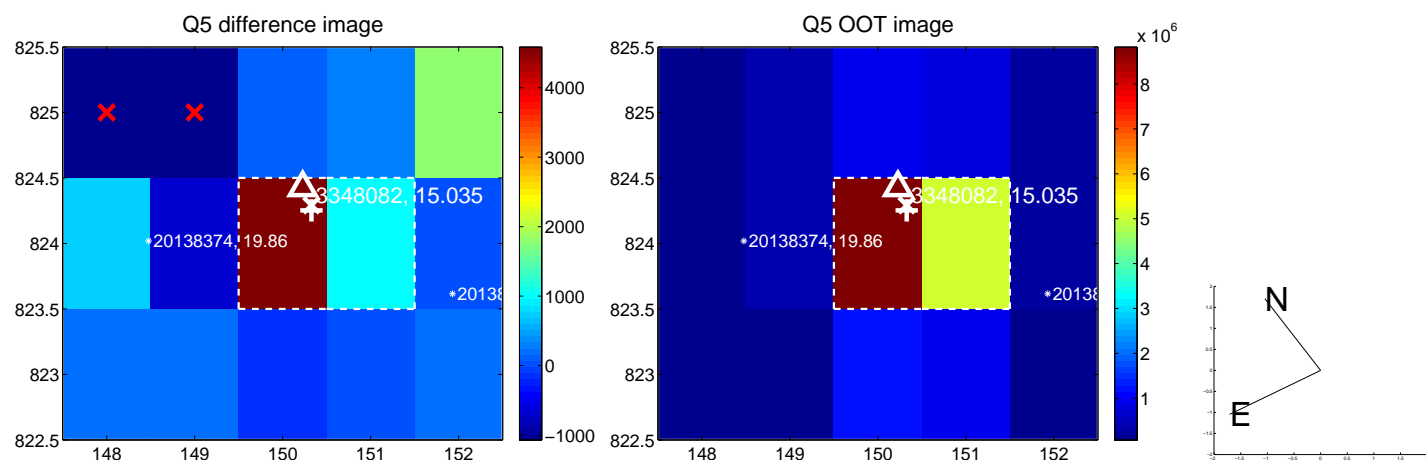


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

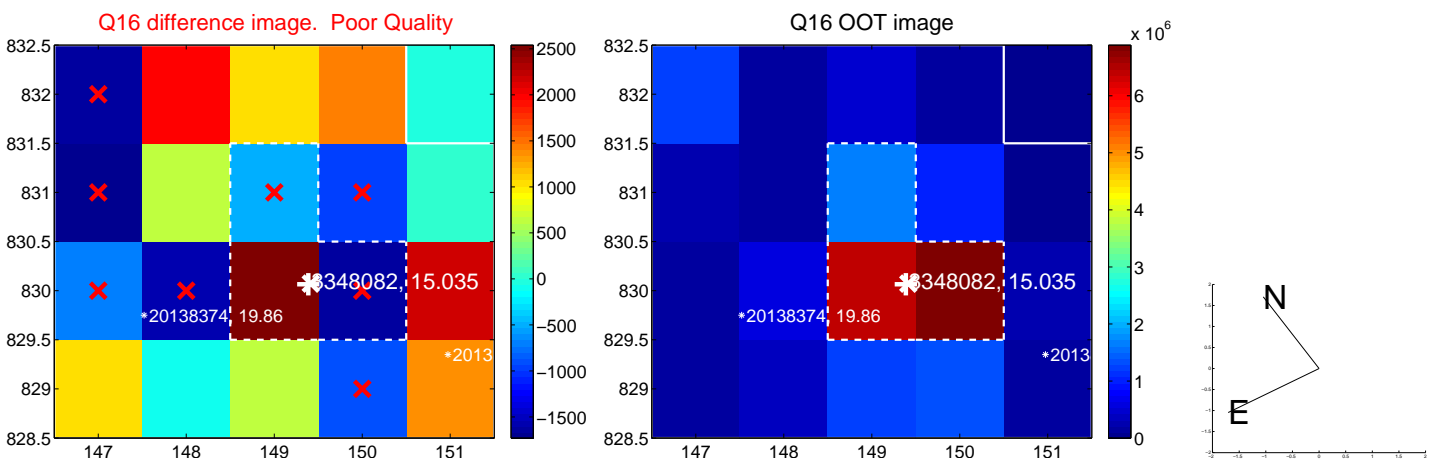
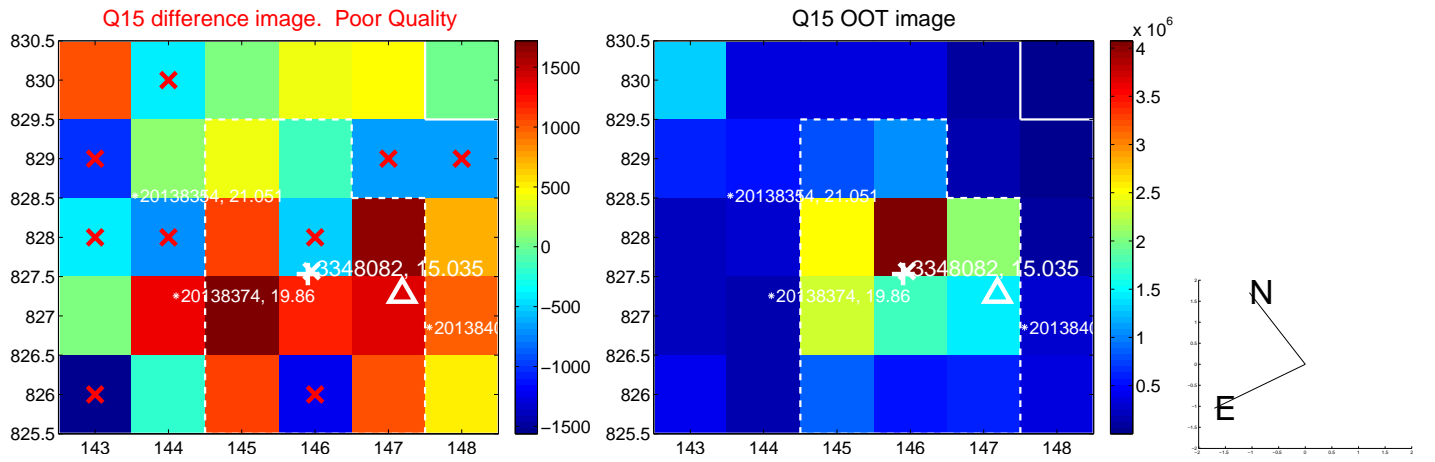
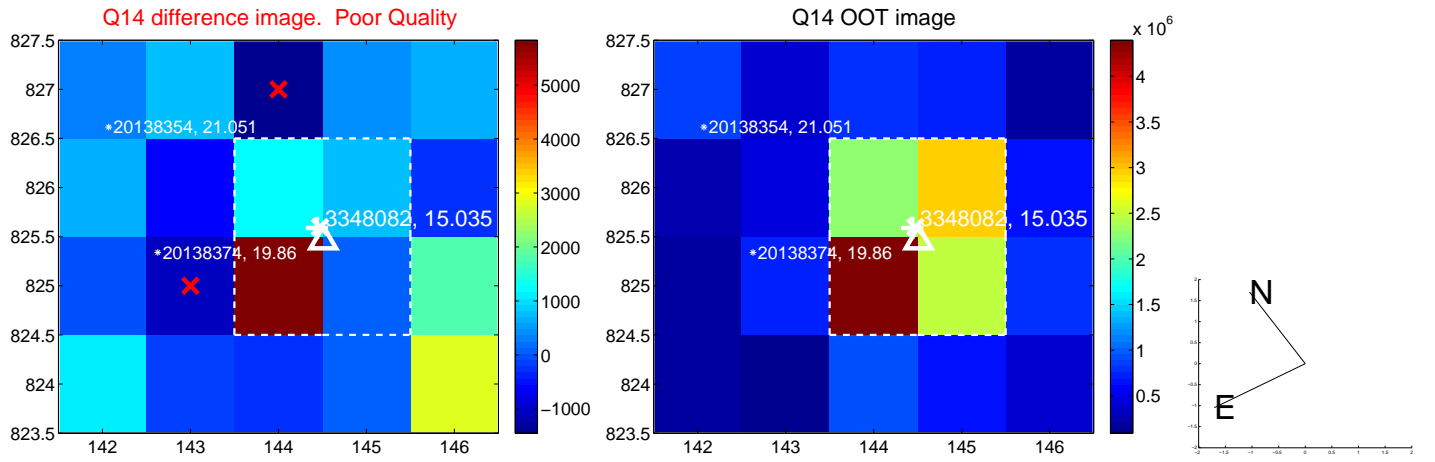
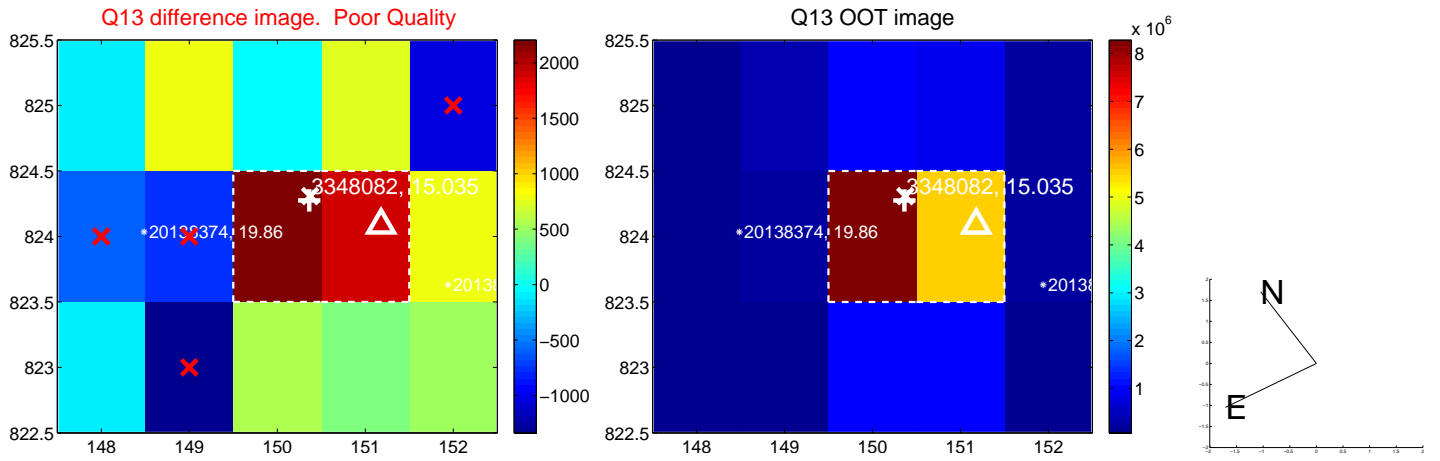
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



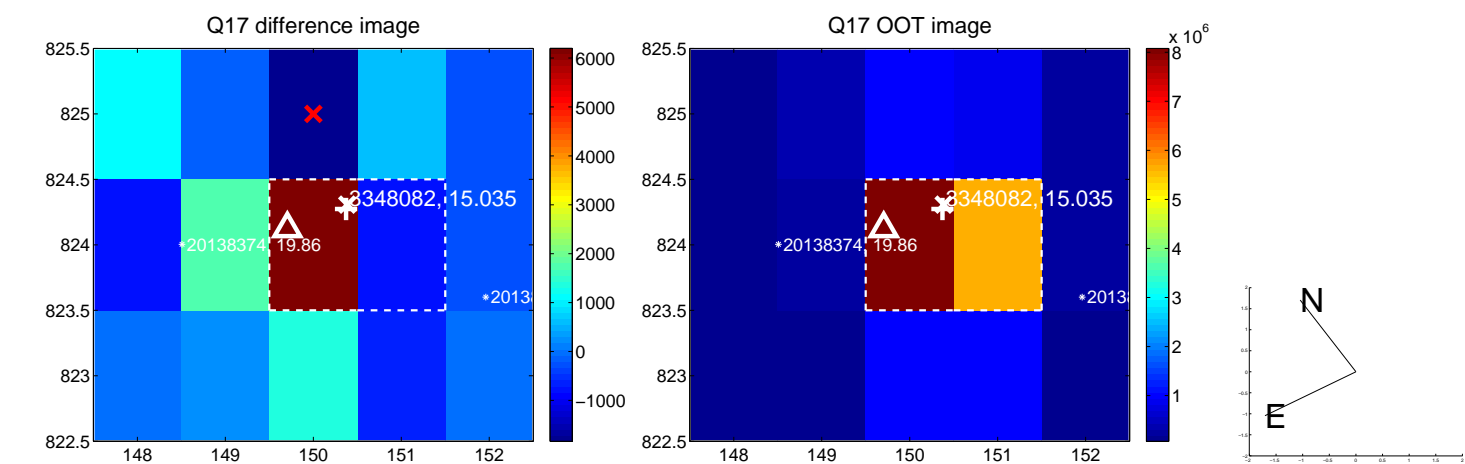
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



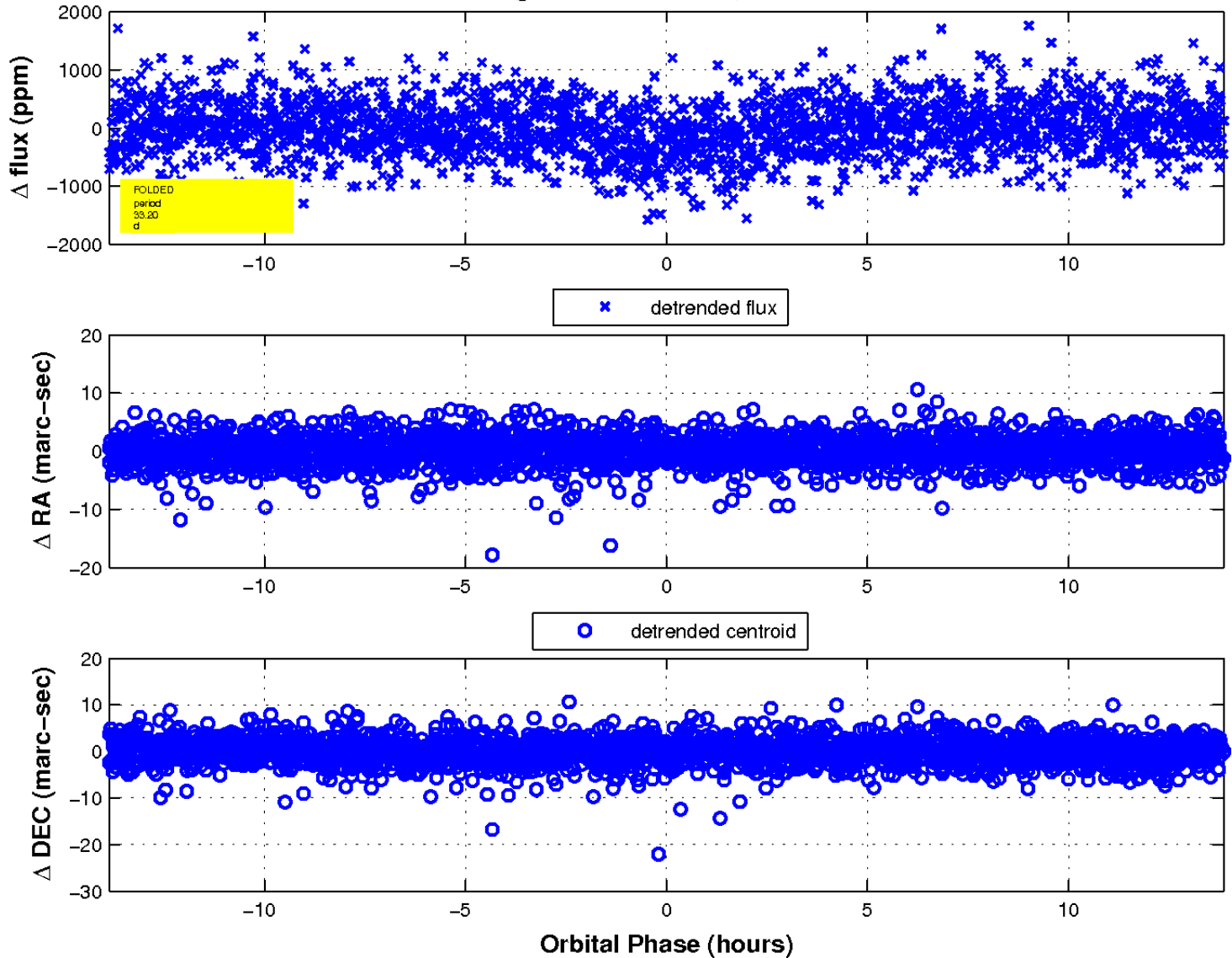
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

