

KIC 008226994

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})
008226994-01	OBS	0906.01	7.156819	138.350553	856.1	2.658	38.5	43.0	0.84	5029	2.67	88.45
008226994-02	OBS	0906.02	17.648324	133.543640	749.1	2.178	19.1	21.7	0.84	5029	2.60	26.55
008226994-03	OBS	0906.03	4.148110	133.387334	175.4	2.733	10.8	11.9	0.84	5029	1.35	183.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008226994-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-02	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-03	OBS	PC	0.96	0	0	0	0	CENT_KIC_POS

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.

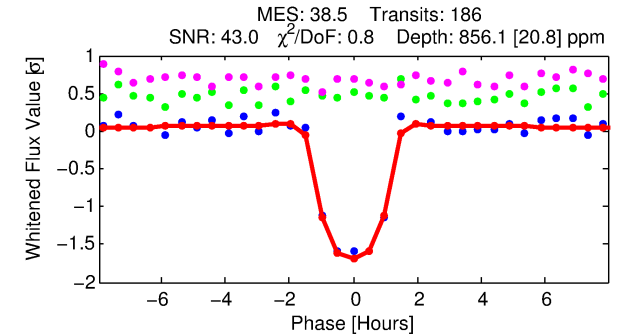
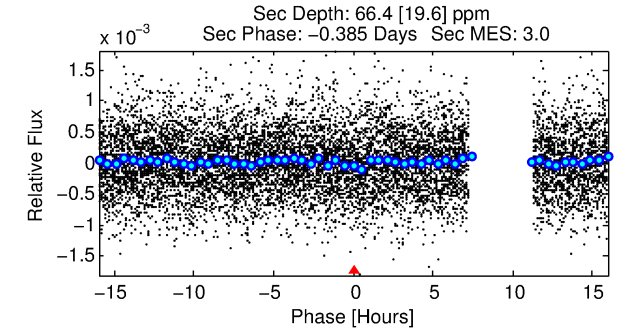
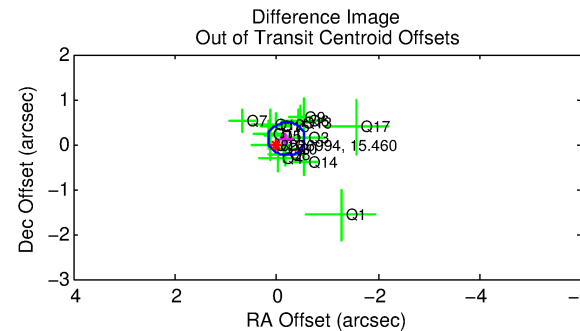
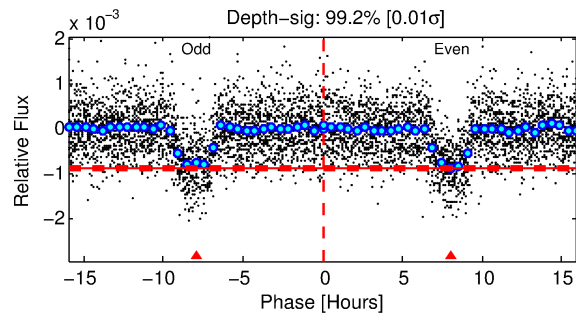
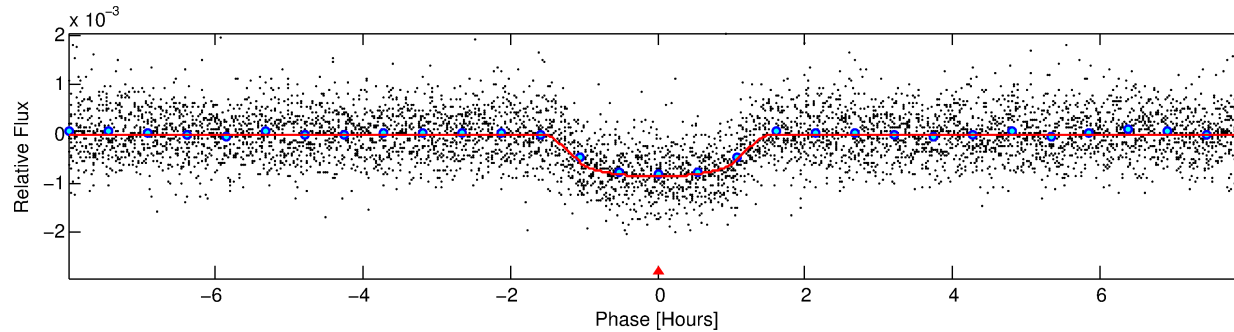
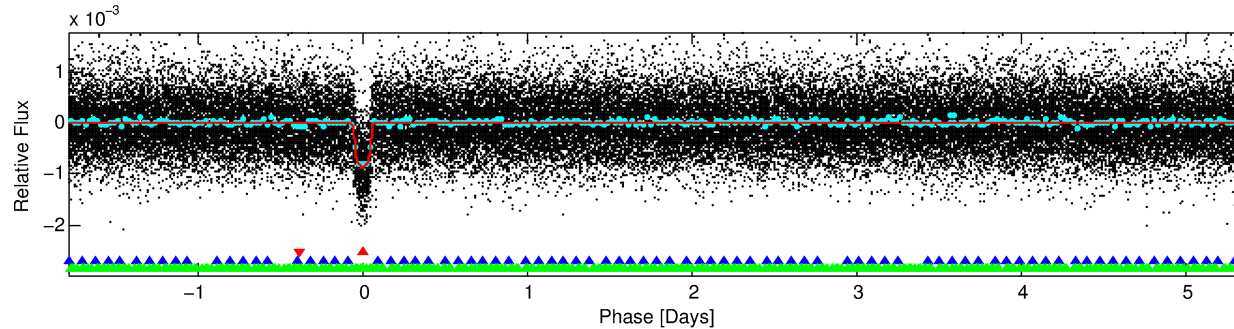
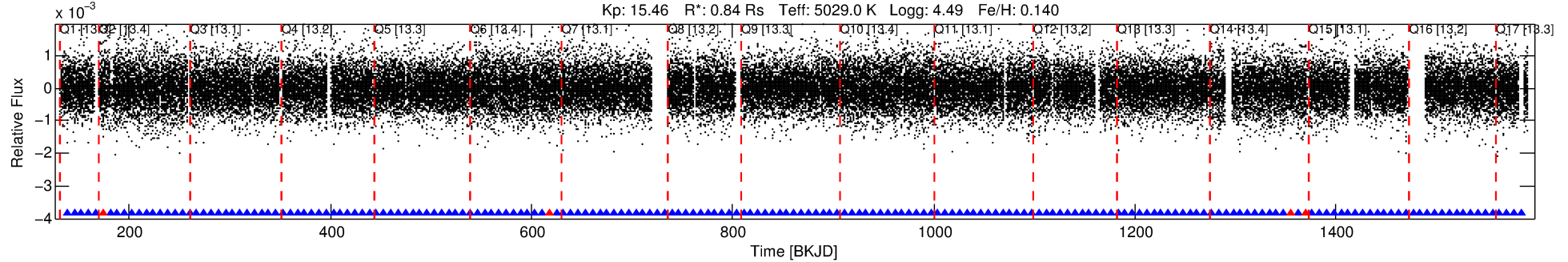
Ephemeris Match Information For 008226994-01

No Significant Match Found

DV One-Page Summary

KIC: 8226994 Candidate: 1 of 3 Period: 7.157 d
KOI: K00906.01 Name: Kepler-250c Corr: 0.987

Kp: 15.46 R*: 0.84 Rs Teff: 5029.0 K Logg: 4.49 Fe/H: 0.140



DV Fit Results:

Period = 7.15682 [0.00001] d
Epoch = 138.3506 [0.0013] BKJD
Rp/R* = 0.0292 [0.0095]
a/R* = 14.58 [16.43]
b = 0.75 [0.69]
Seff = 88.45 [12.84]
Teq = 782 [28] K
Rp = 2.67 [0.90] Re
a = 0.0675 [0.0053] AU
Ag = 23.25 [16.90] [1.32σ]
Teffp = 2655 [477] K [3.92σ]

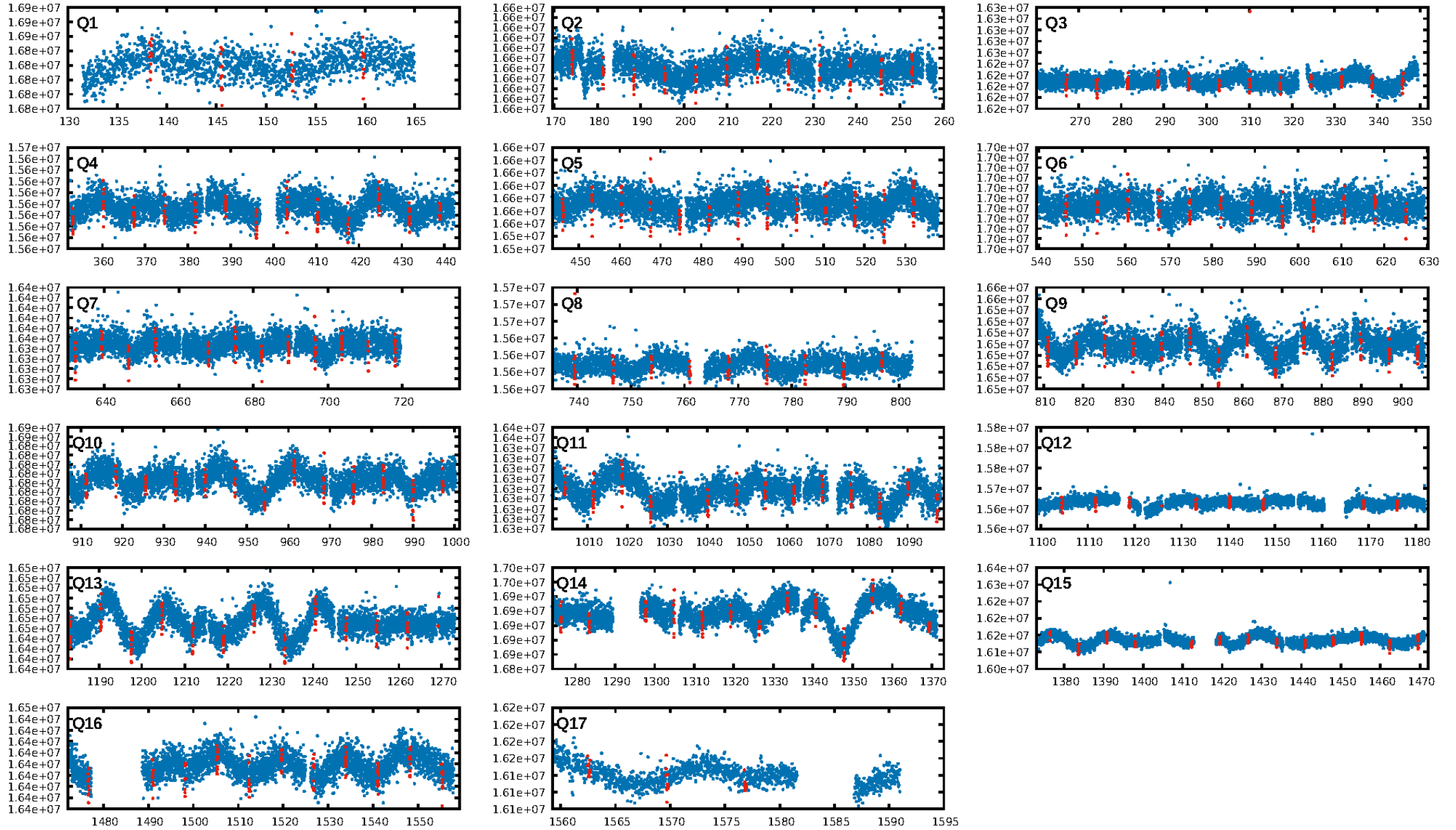
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.94σ]
LongPeriod-sig: 100.0% [73.27σ]
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [175/179]
GhostDiagnostic-chr: 3.354
Centroid-sig: 0.3%
Centroid-so: 0.597 arcsec [1.91σ]
OotOffset-rm: 0.227 arcsec [1.85σ]
KicOffset-rm: 0.336 arcsec [2.11σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

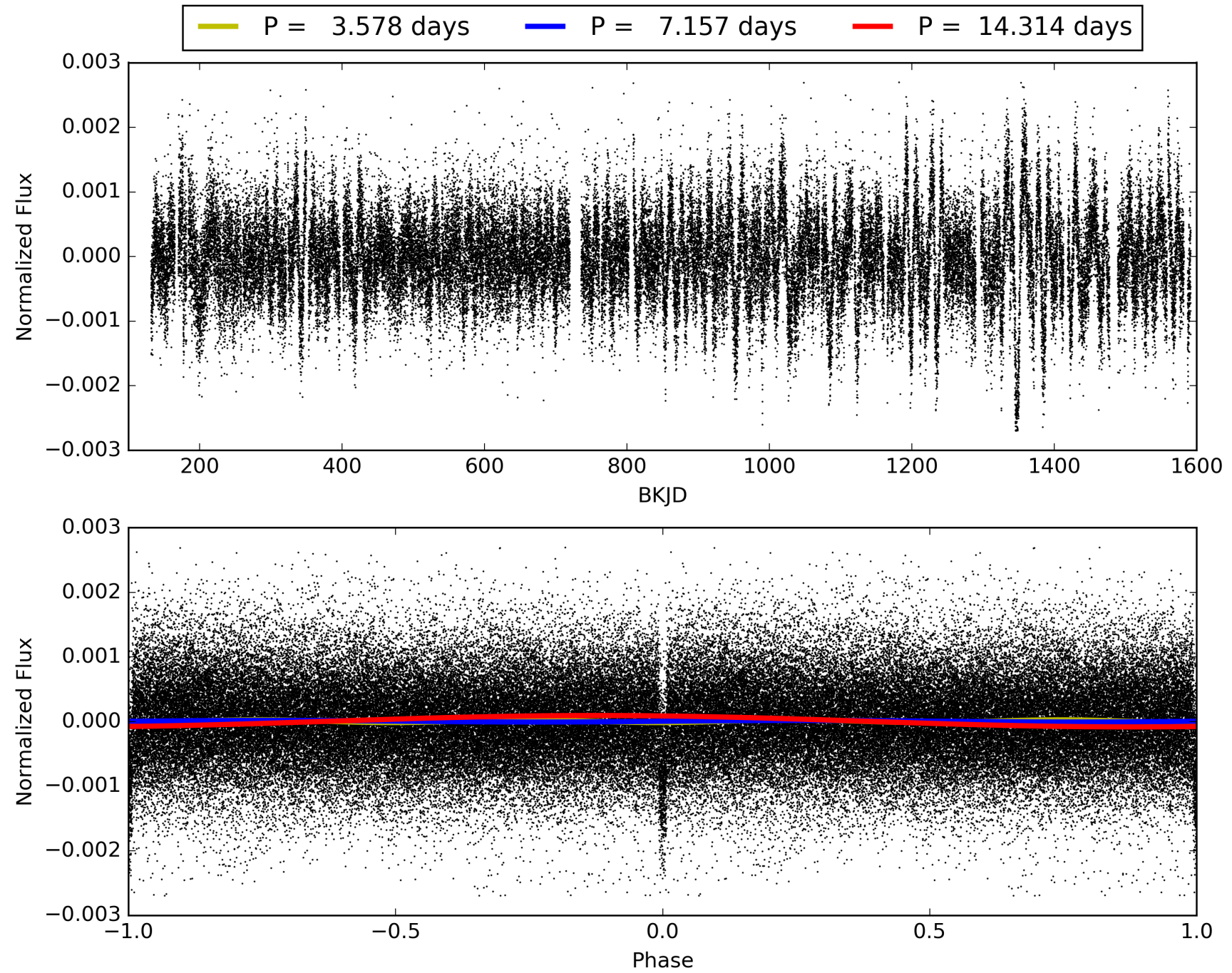
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:30:44 Z

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

TCE 008226994-01, PDC Light Curves

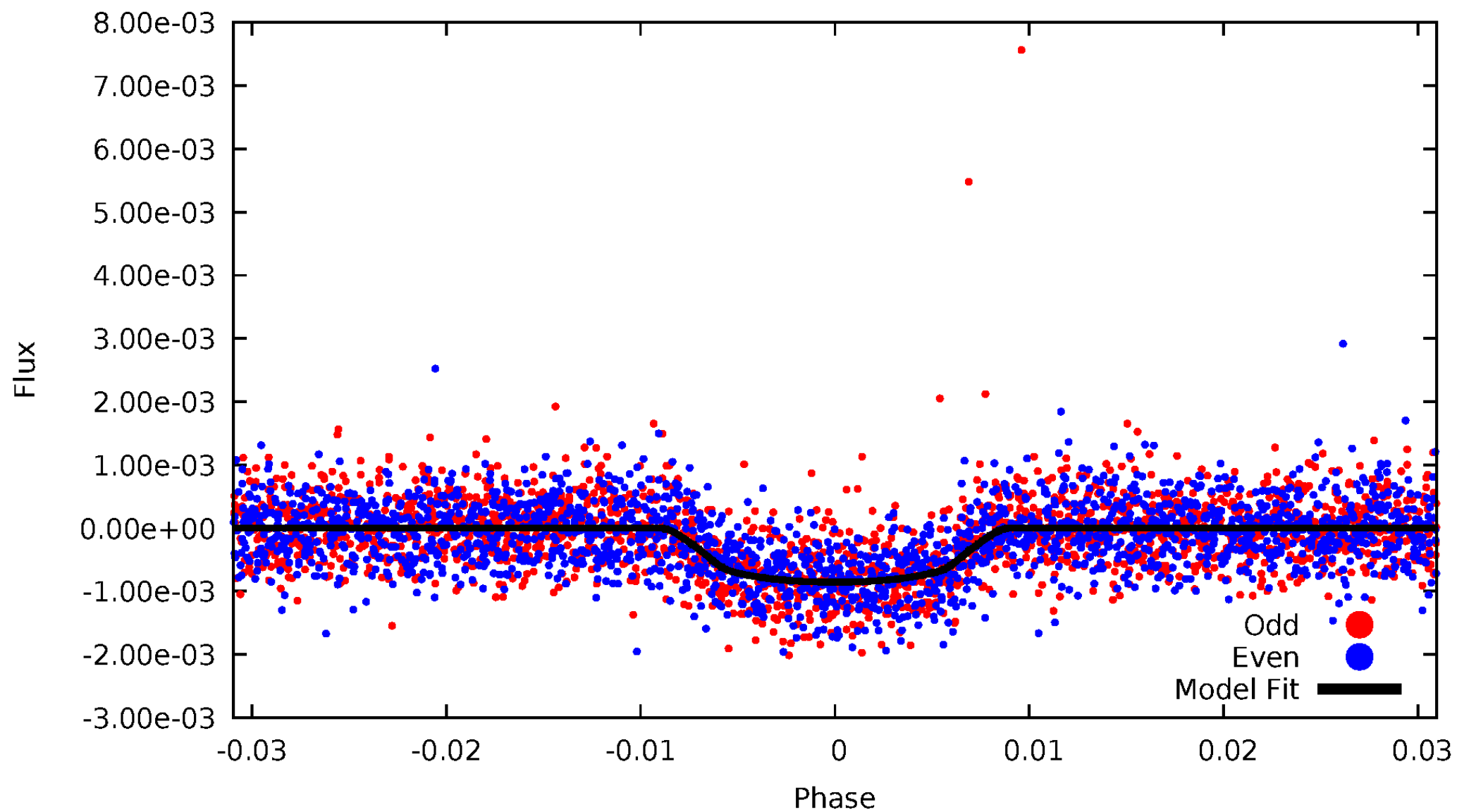


TCE 008226994-01



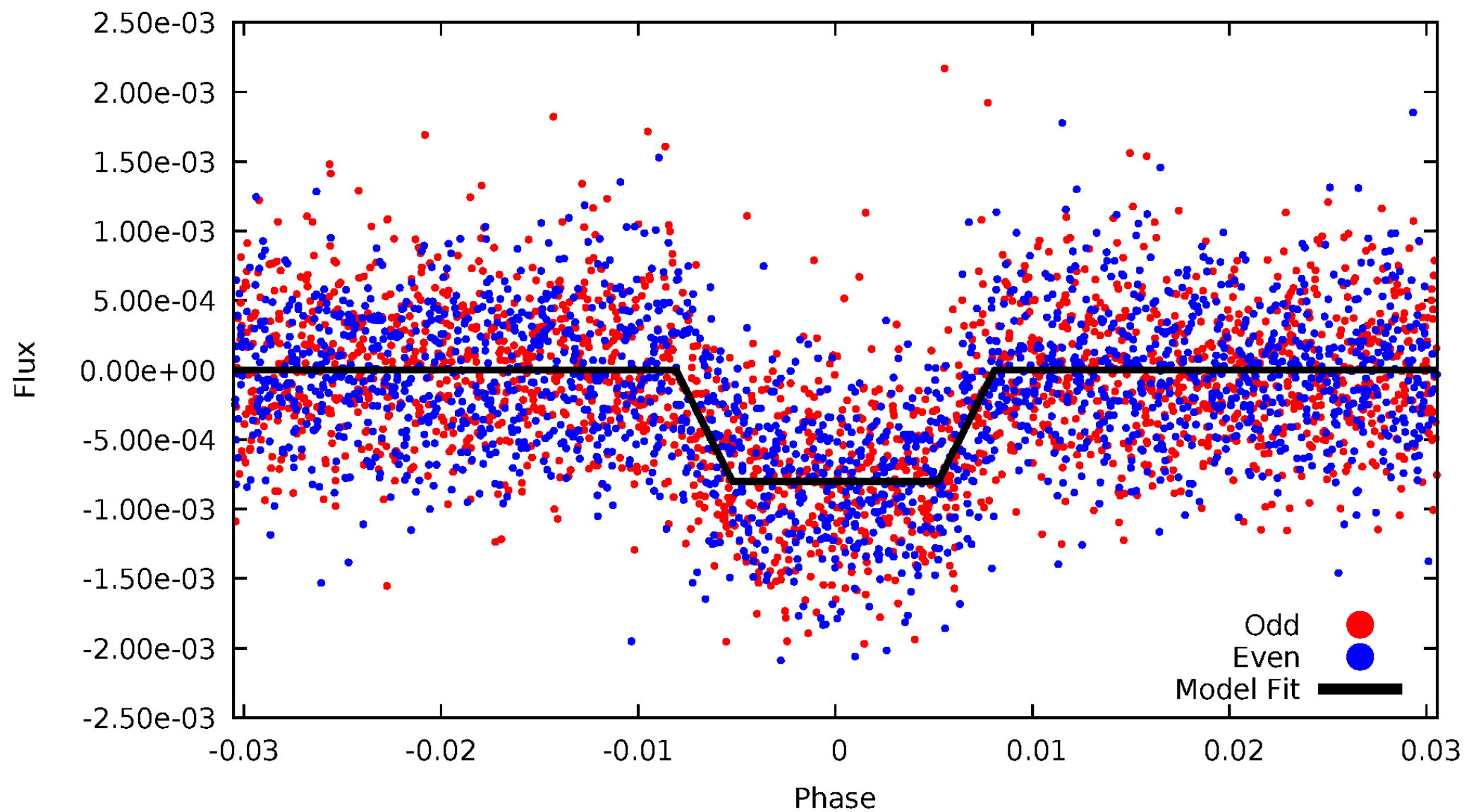
DV Odd/Even

TCE 008226994-01

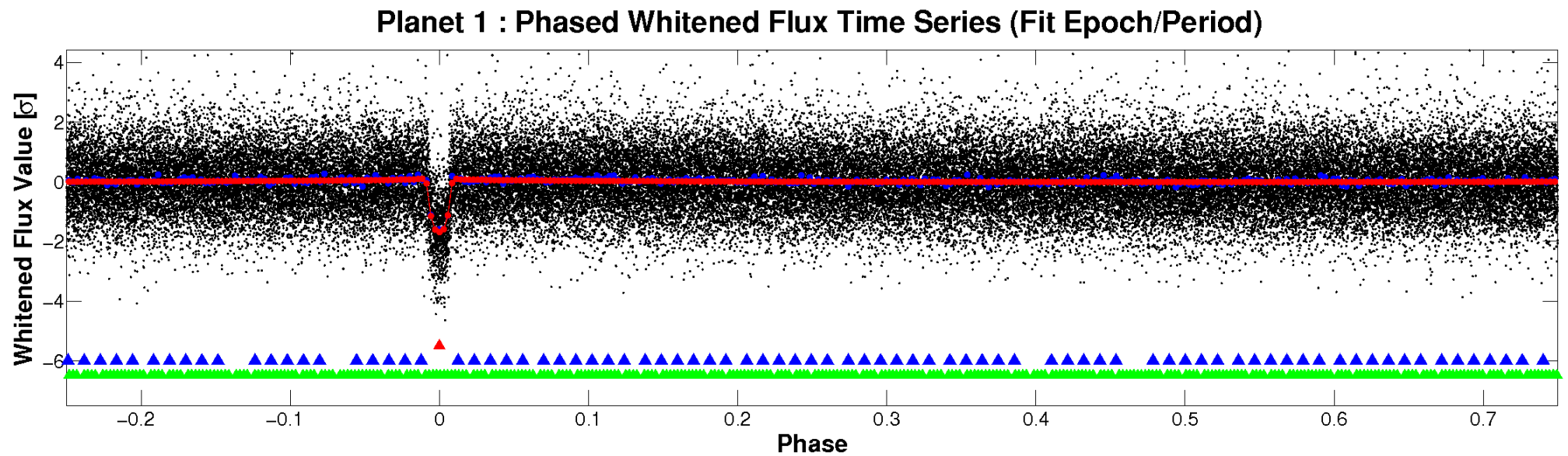
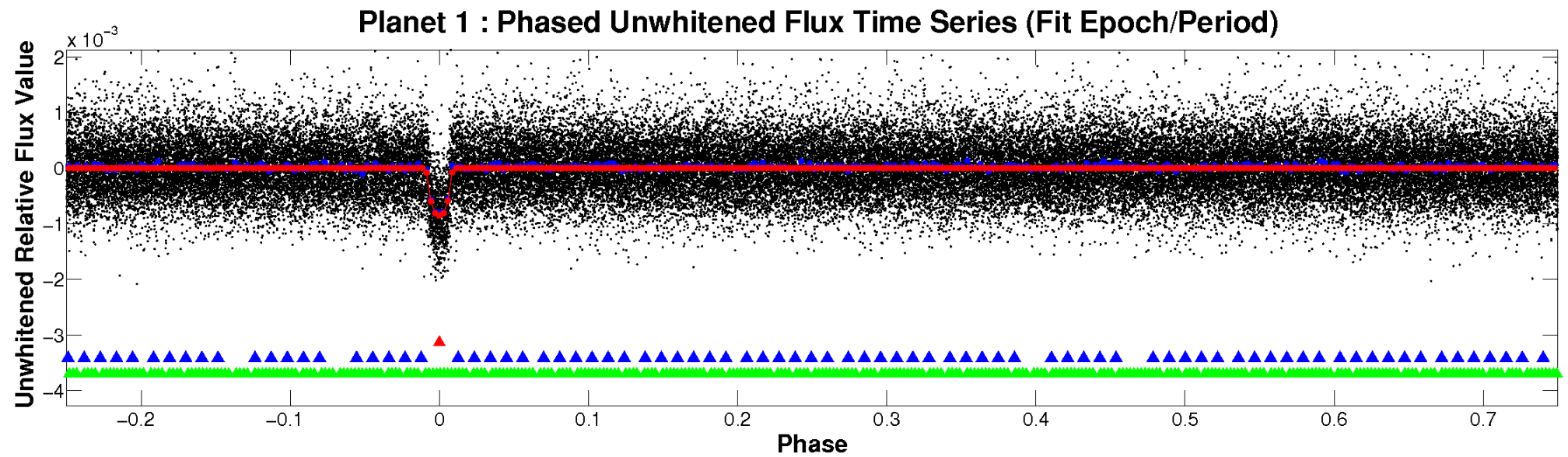


ALT Odd/Even

TCE 008226994-01

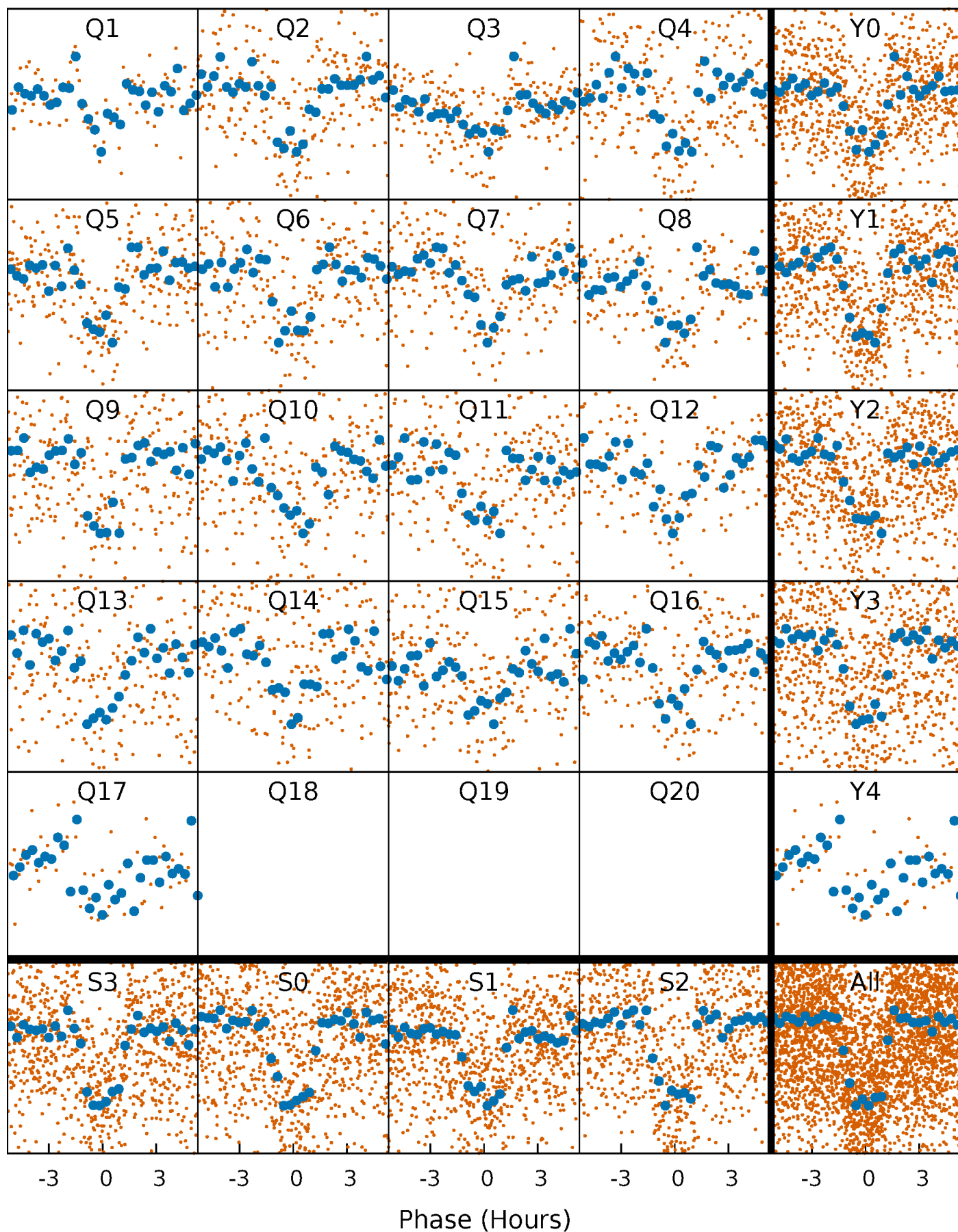


Non-Whitened Vs. Whitened Light Curve



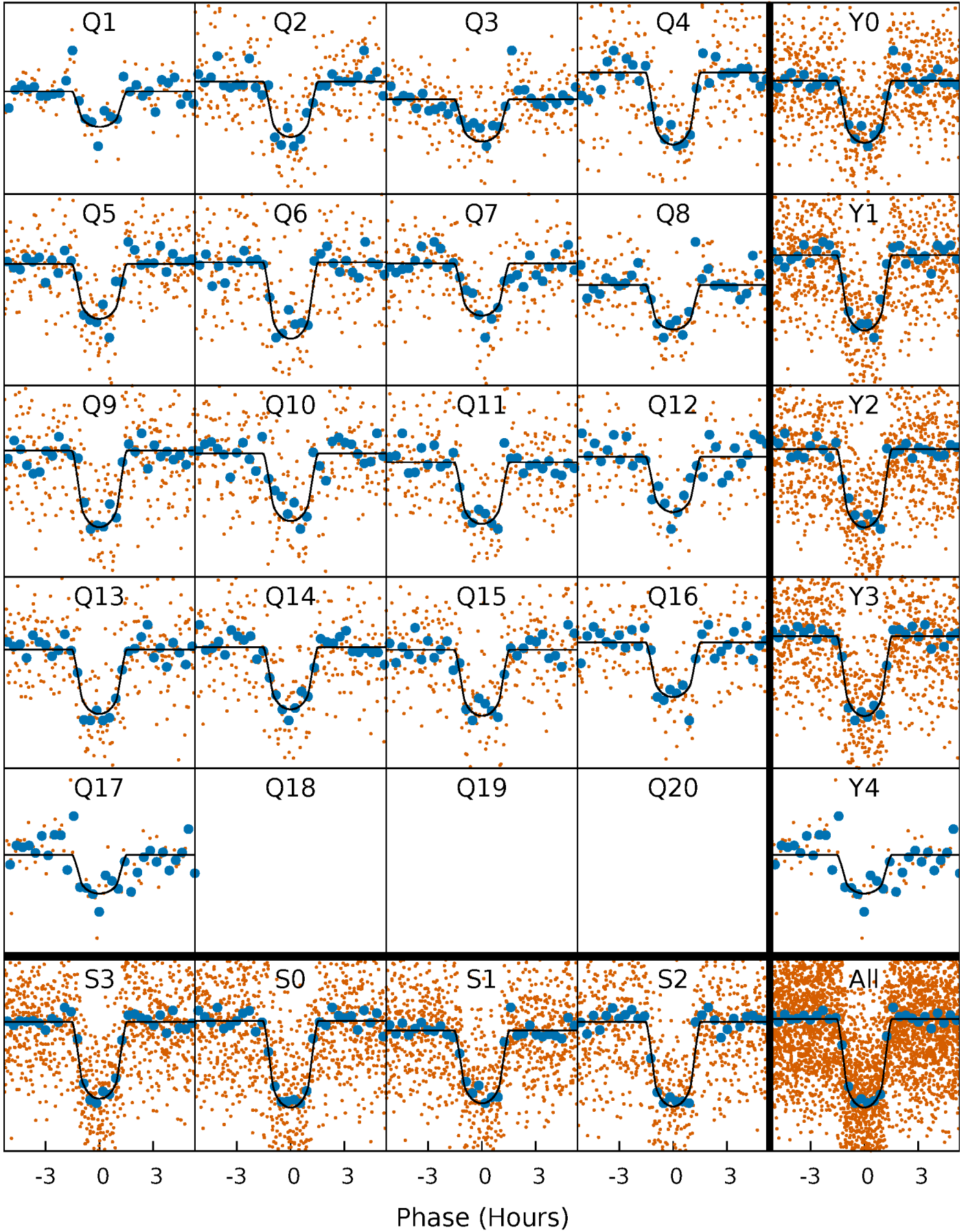
PDC Quarter-Phased Transit Curves

TCE 008226994-01 P= 7.156819 Days $T_0=138.350553$ (BKJD)



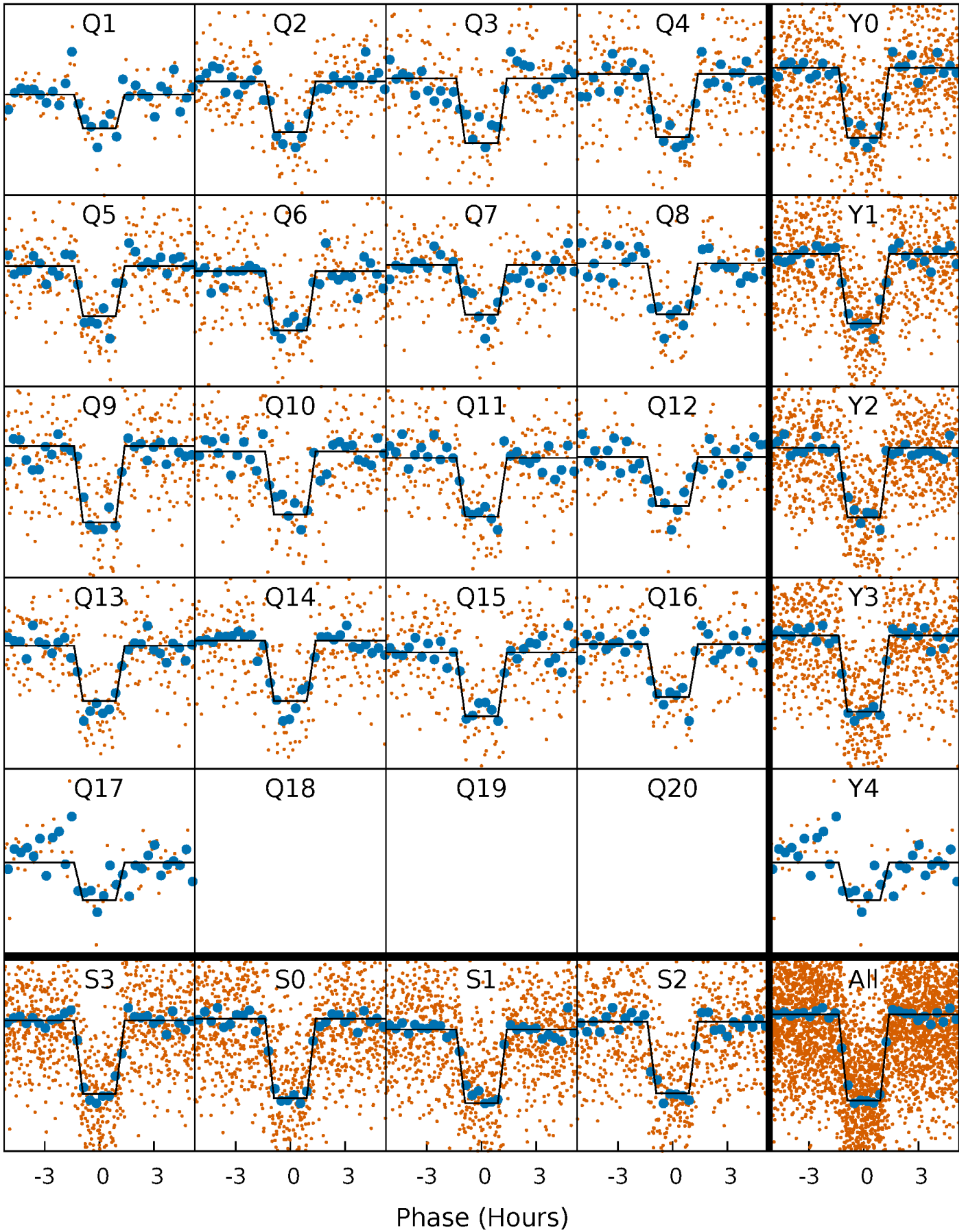
DV Quarter-Phased Transit Curves

TCE 008226994-01 P= 7.156819 Days $T_0=138.350553$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

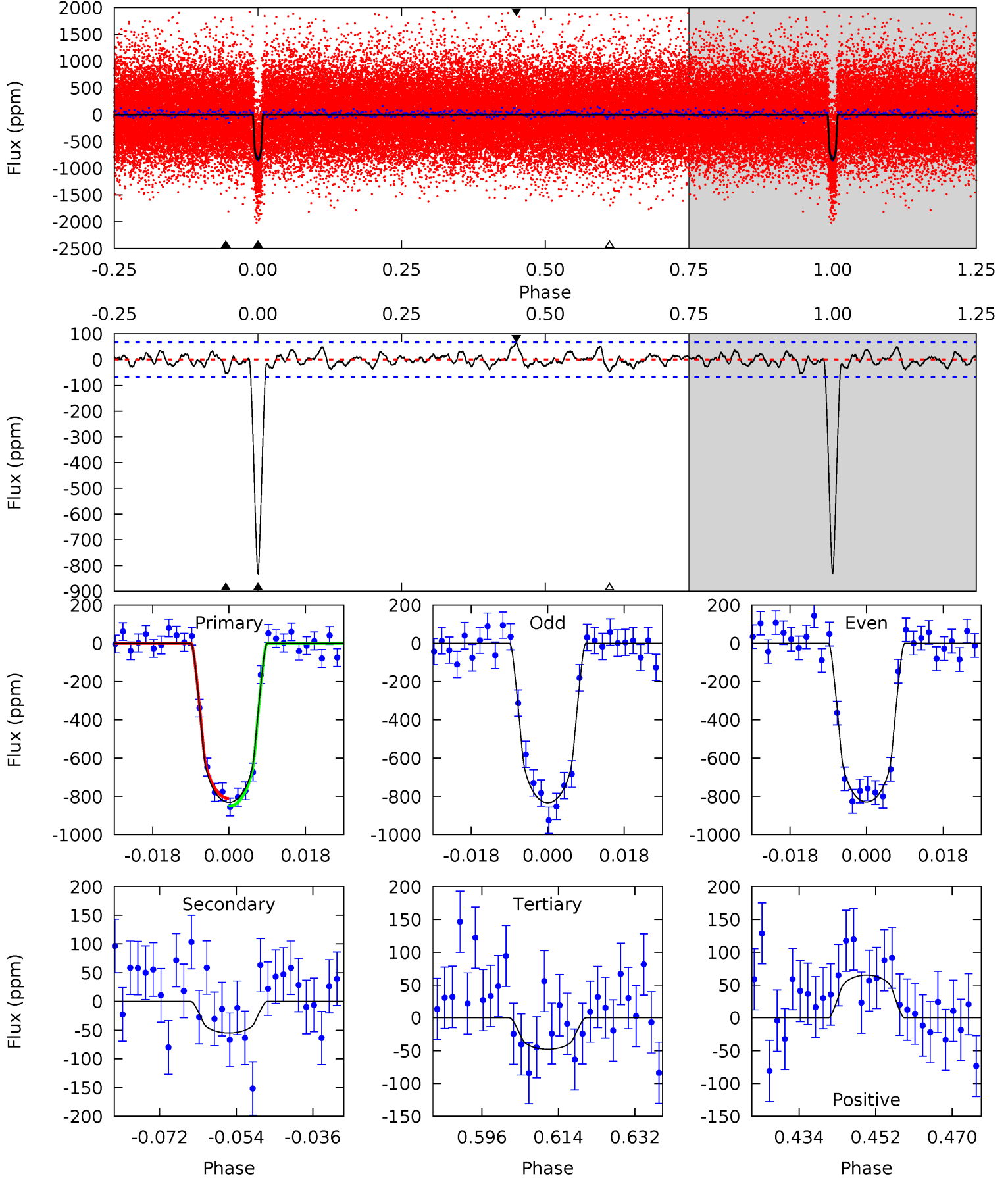
TCE 008226994-01 P= 7.156835 Days $T_0=138.348751$ (BKJD)



DV Model-Shift Uniqueness Test

008226994-01, P = 7.156819 Days, E = 131.193734 Days

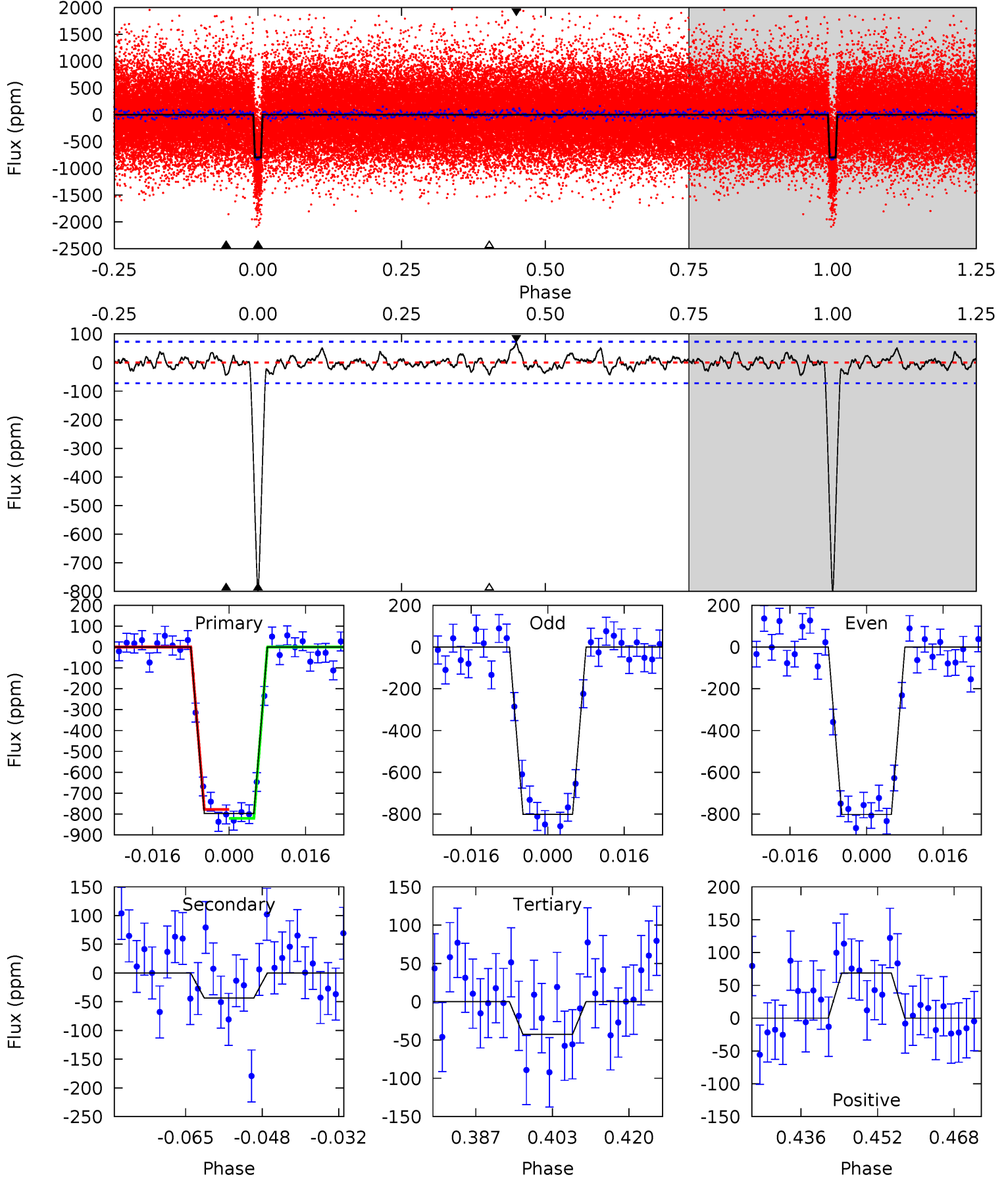
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.6	3.93	3.43	4.67	4.91	2.36	1.32	56.2	55.0	0.51	-0.73	0.17	0.98	0.07	1.45



Alt Model-Shift Uniqueness Test

008226994-01, P = 7.156835 Days, E = 131.191916 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.2	2.96	2.90	4.68	4.93	2.41	1.22	51.3	49.5	0.06	-1.72	0.02	0.99	0.08	1.46



Stellar Parameters For KIC 008226994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5029^{+83}_{-75}	$4.494^{+0.077}_{-0.027}$	$0.140^{+0.150}_{-0.150}$	$0.838^{+0.033}_{-0.066}$	$0.798^{+0.058}_{-0.026}$	$1.909^{+0.562}_{-0.200}$
	+2%/-1%	+2%/-1%	+107%/-107%	+4%/-8%	+7%/-3%	+29%/-10%
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 008226994-01 / KOI 0906.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 14	$2.63^{+0.92}_{-0.86}$	1086^{+25}_{-29}	3099^{+418}_{-279}	20^{+25}_{-10}
Alt.	-44 ± 15	$2.58^{+0.89}_{-0.86}$	1085^{+23}_{-26}	3021^{+423}_{-298}	16^{+22}_{-9}

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 $A_{obs} \gg 1.0$

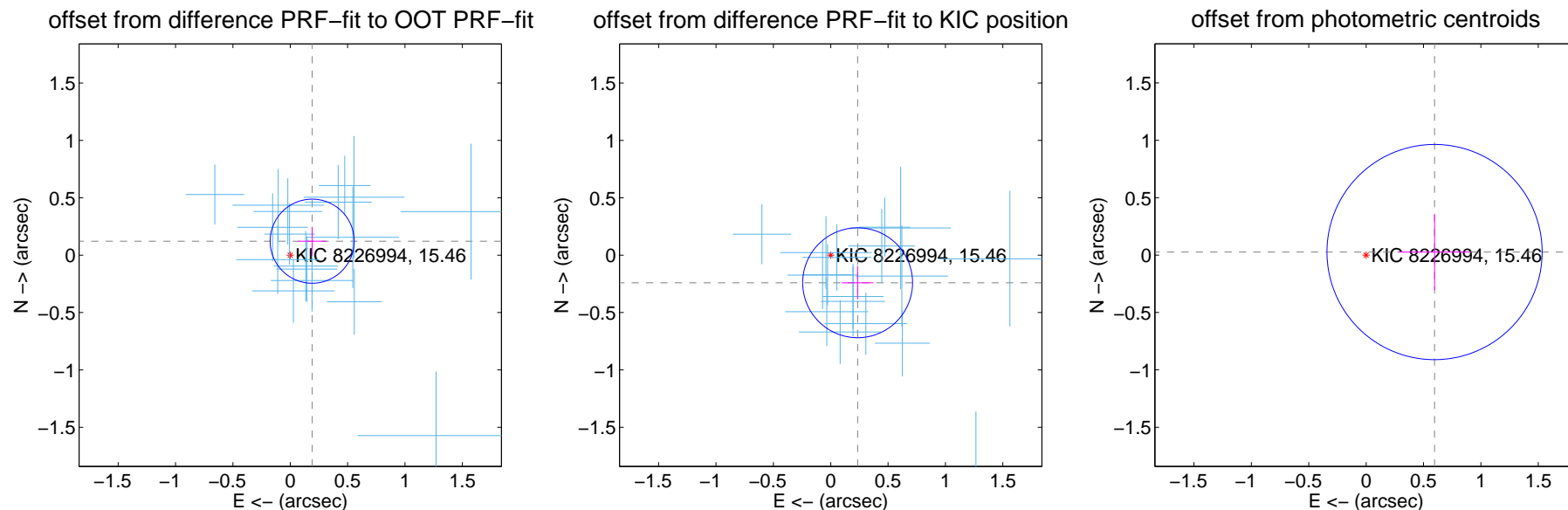
DV Centroid Data

Supplemental centroid analysis for 008226994-01. Kepler magnitude: 15.46. Transit SNR 43.04

There are 17 quarters with good PRF difference image offsets

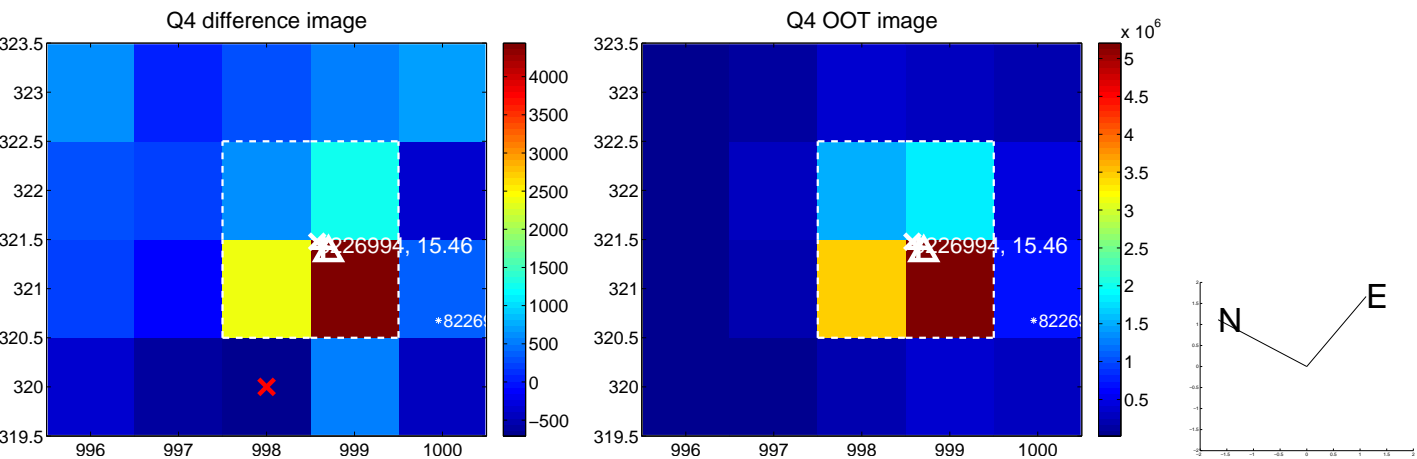
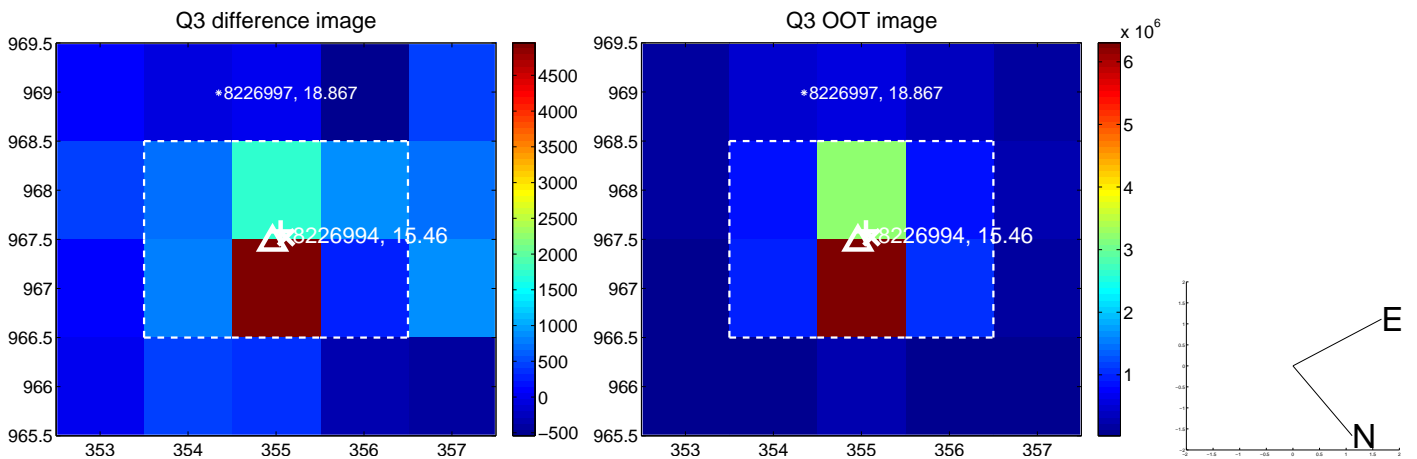
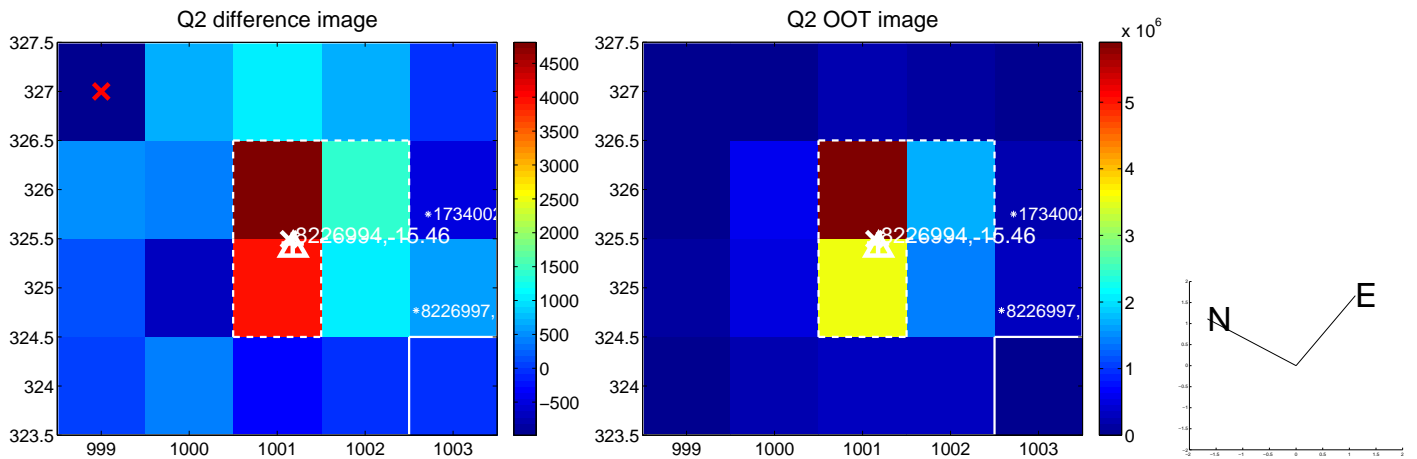
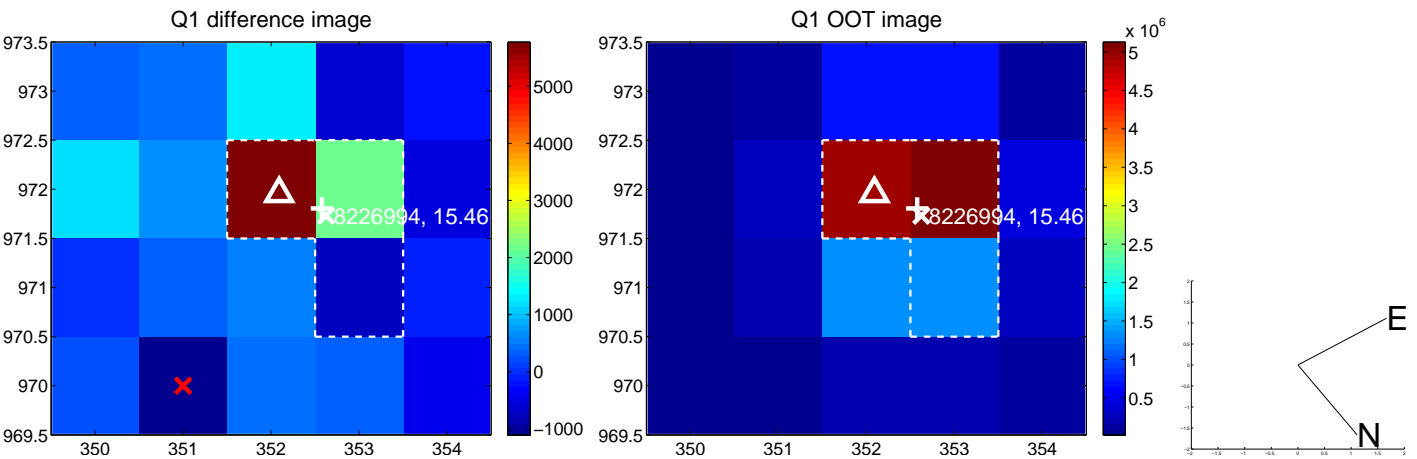
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.227 ± 0.122	1.85	-0.191 ± 0.121	0.122 ± 0.125
PRF-fit source offset from KIC position	0.336 ± 0.160	2.11	-0.235 ± 0.139	-0.241 ± 0.145
photometric centroid source offset	0.60 ± 0.31	1.91	-0.60 ± 0.31	0.03 ± 0.33

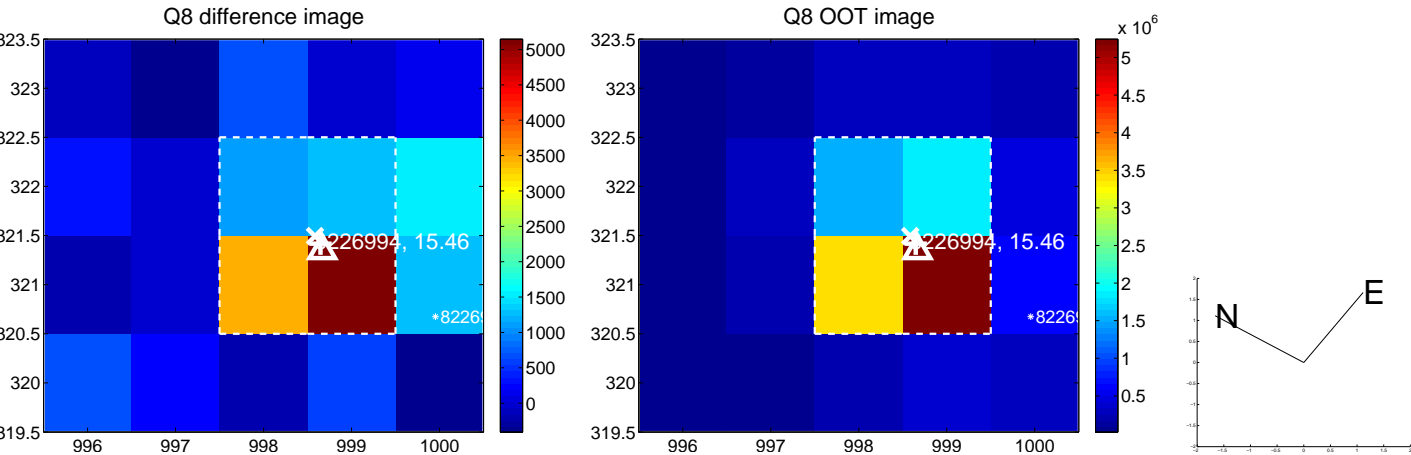
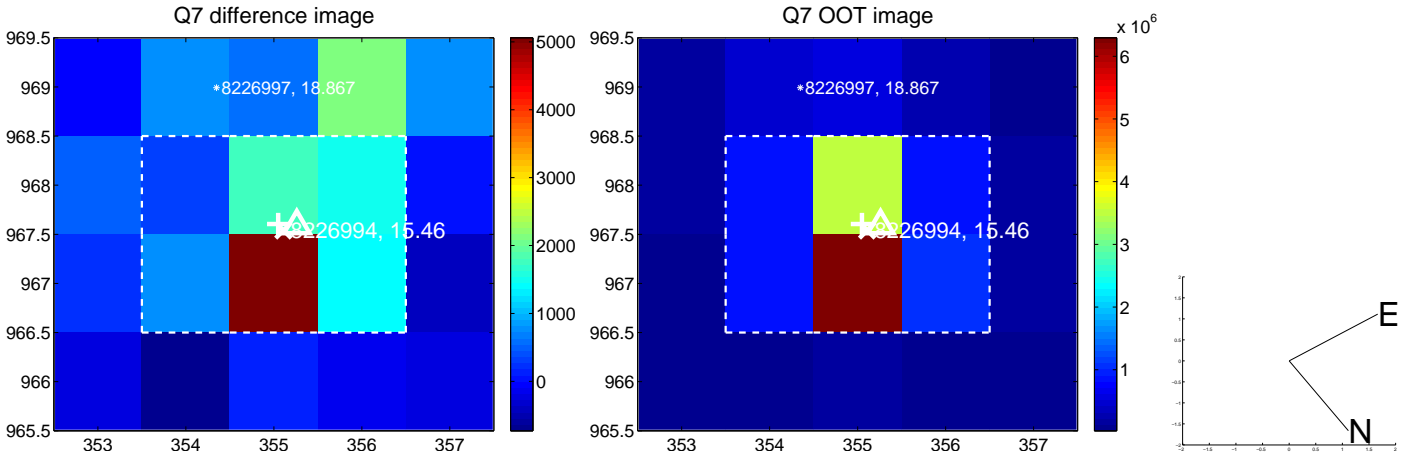
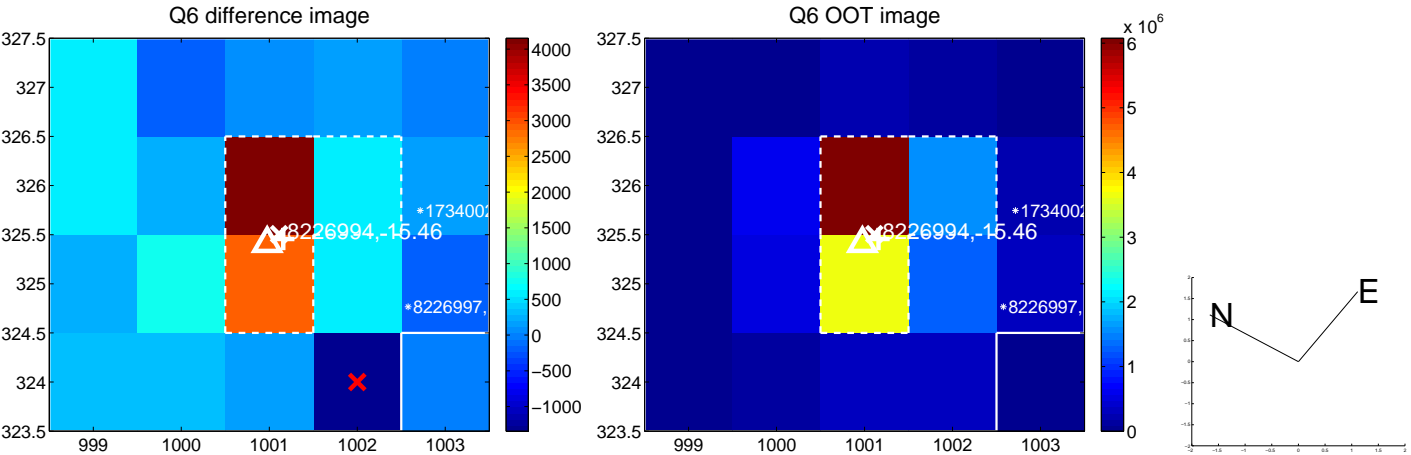
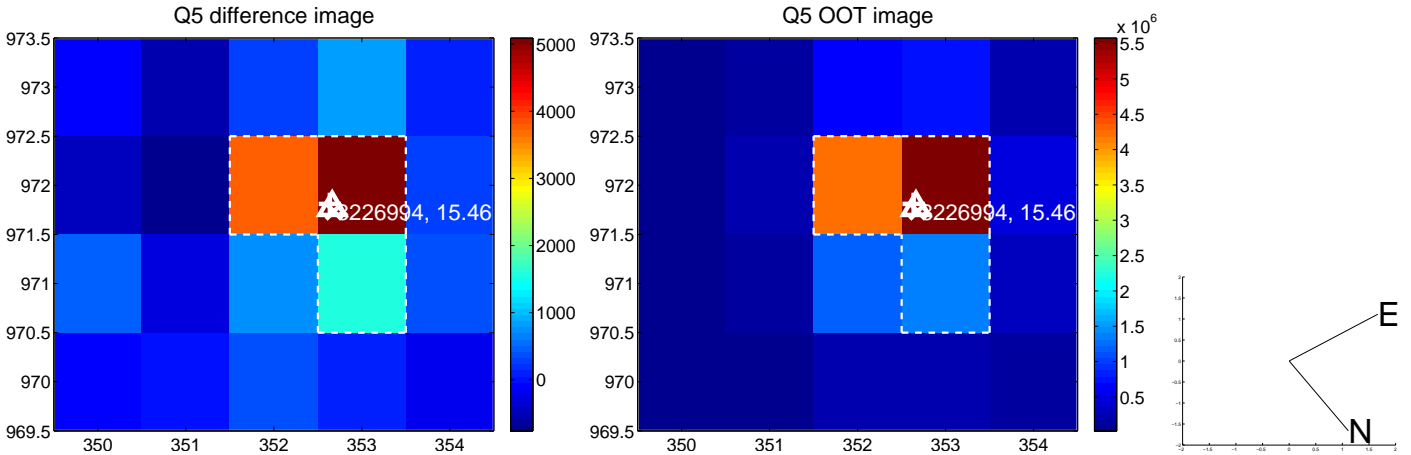


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

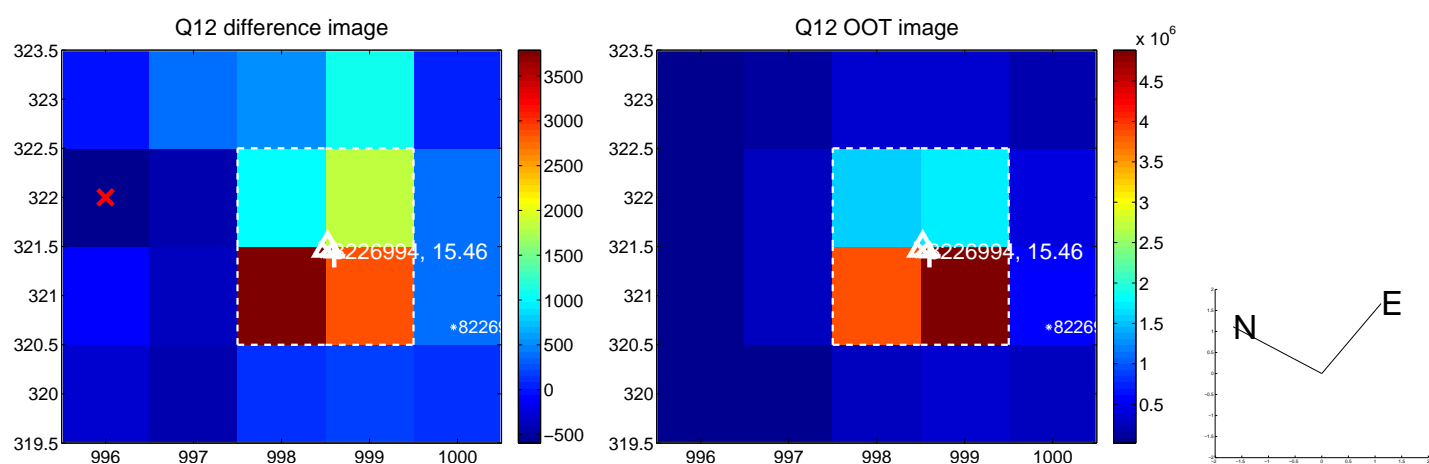
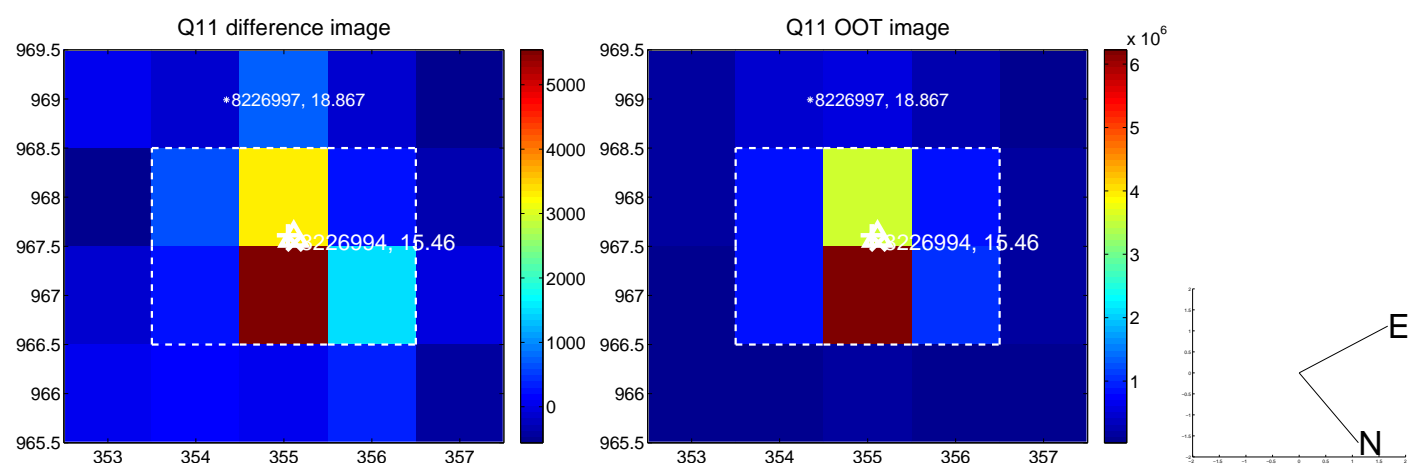
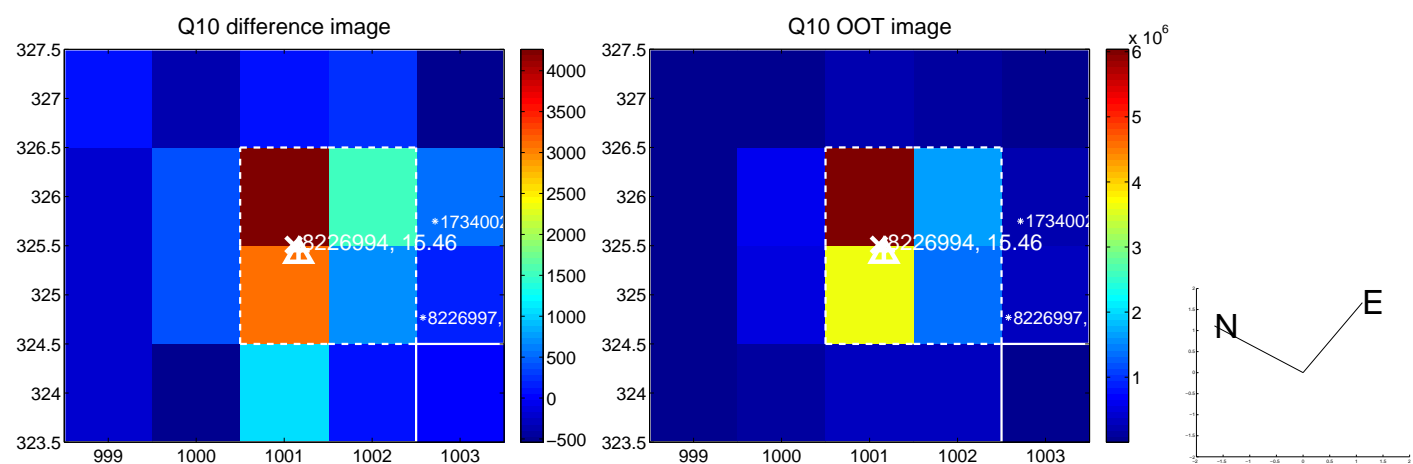
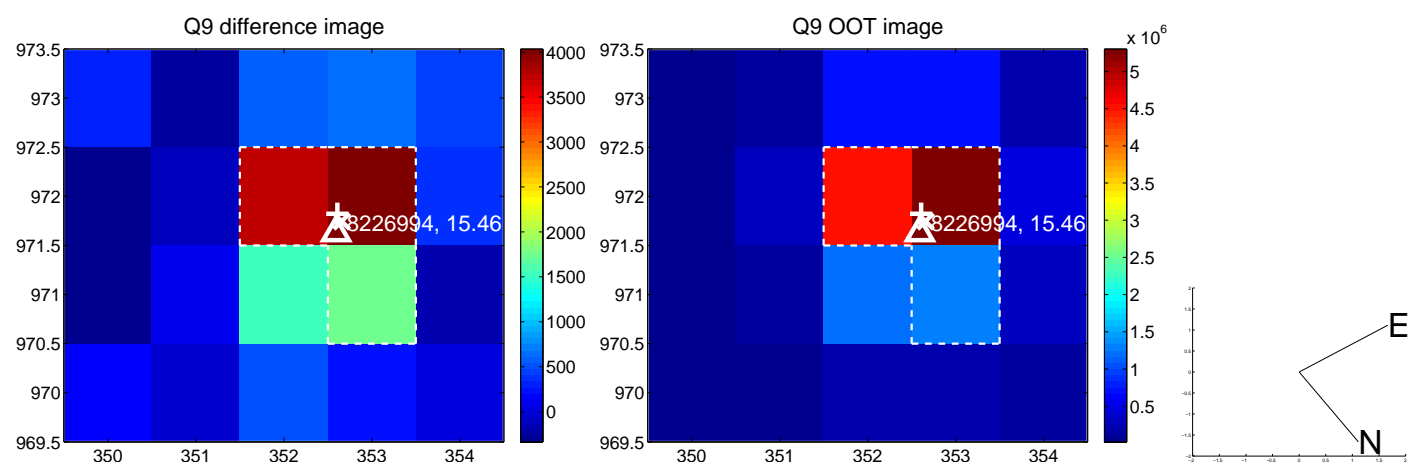
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



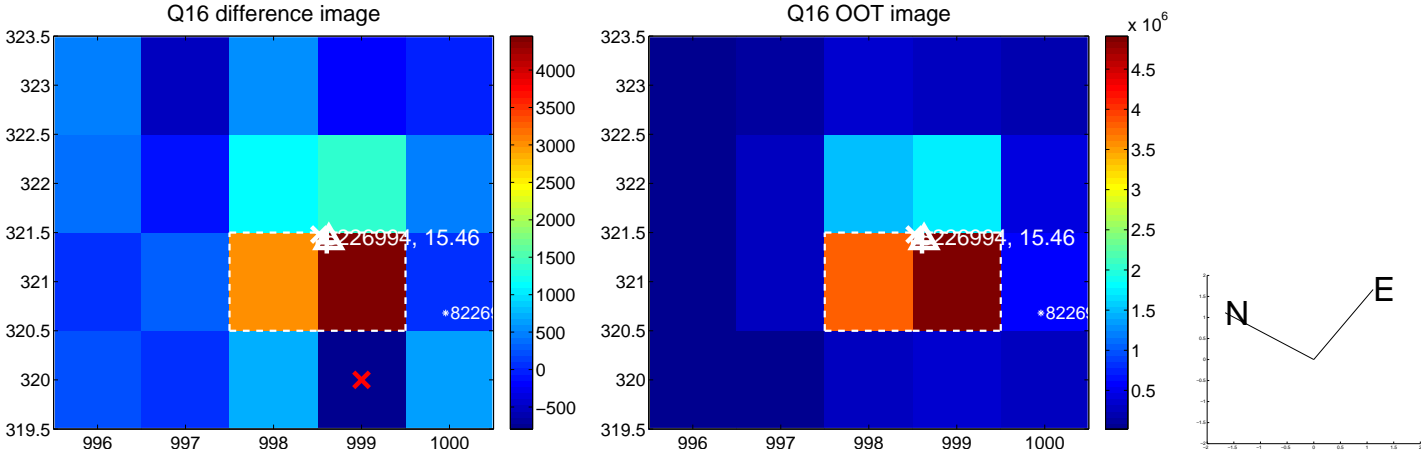
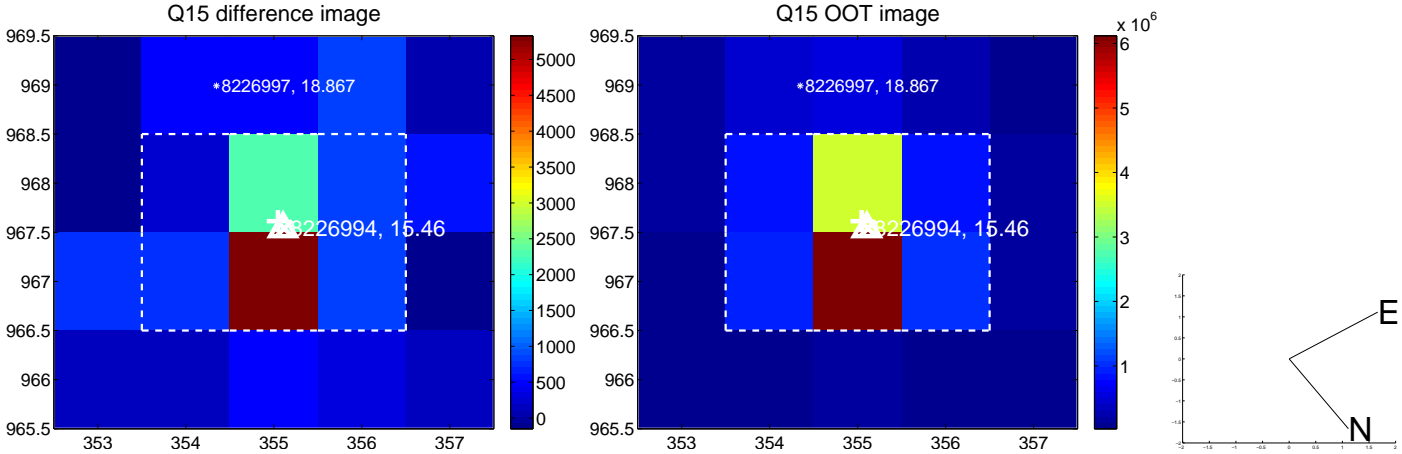
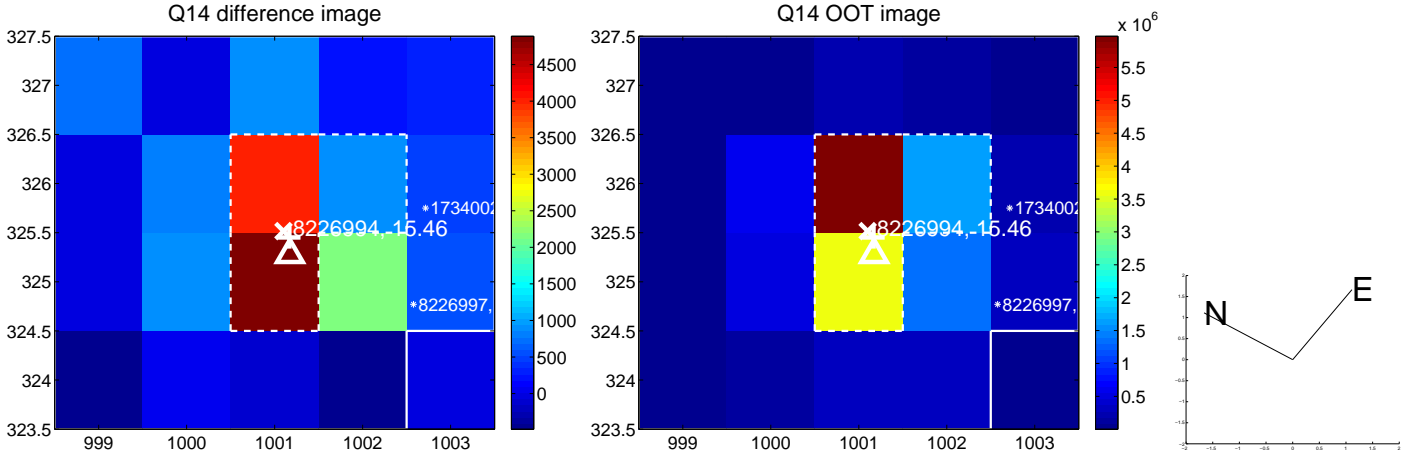
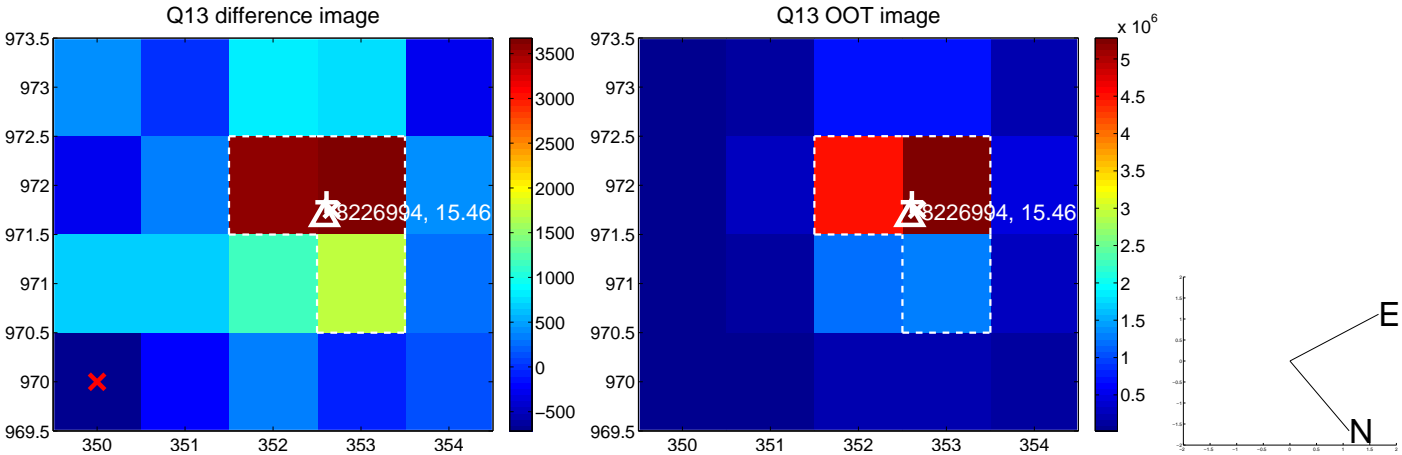
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



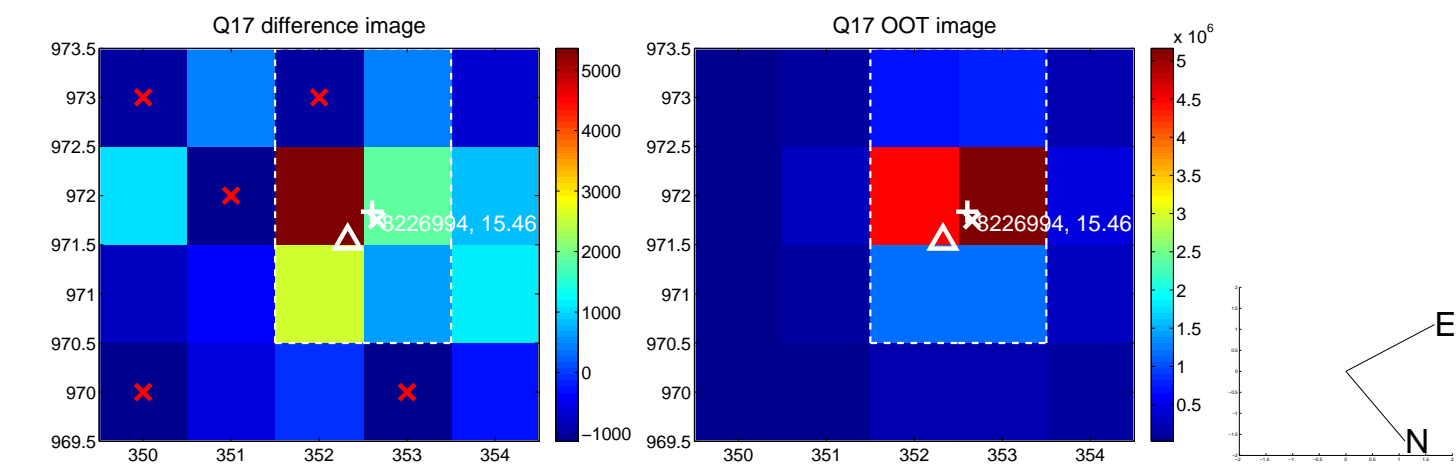
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



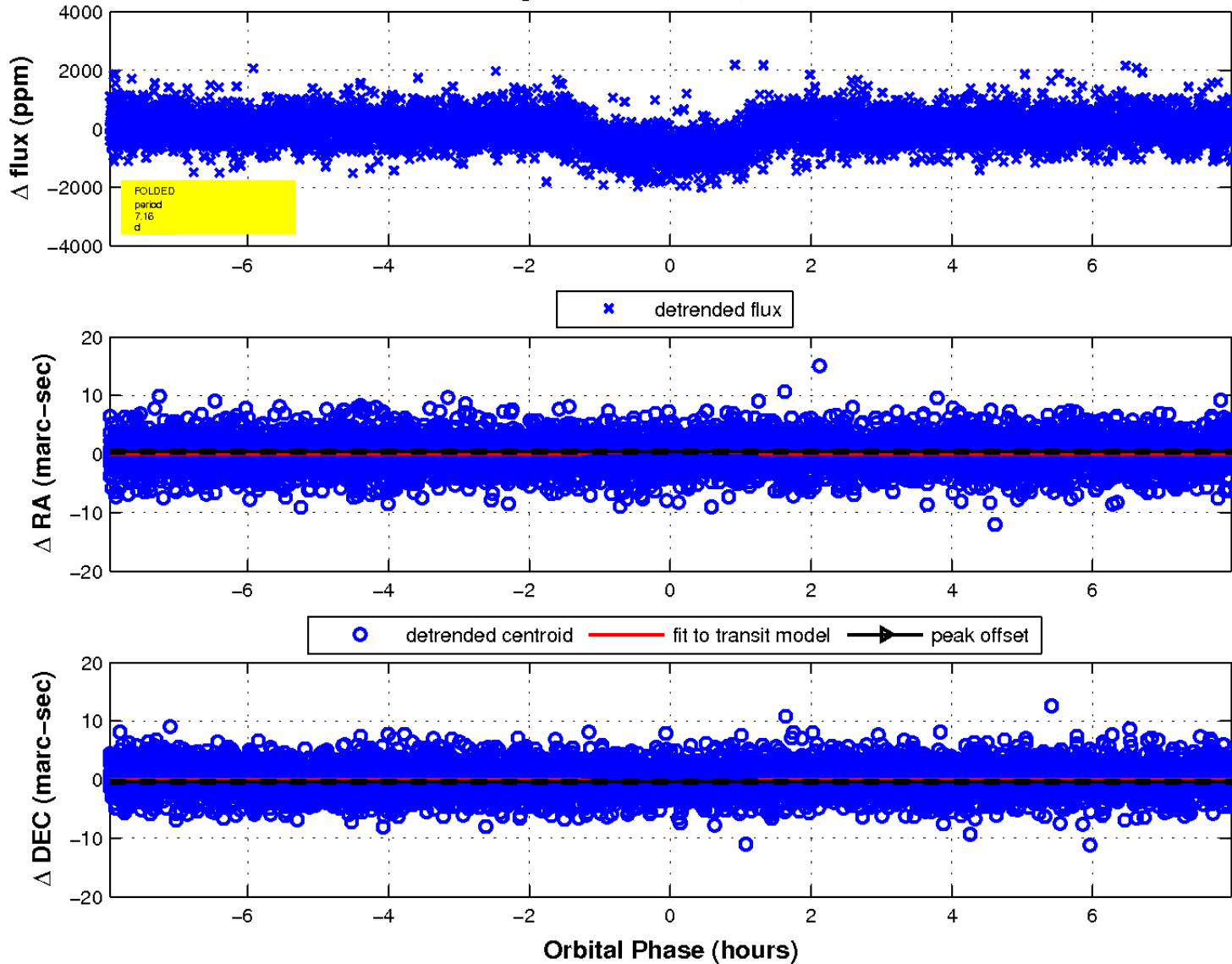
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

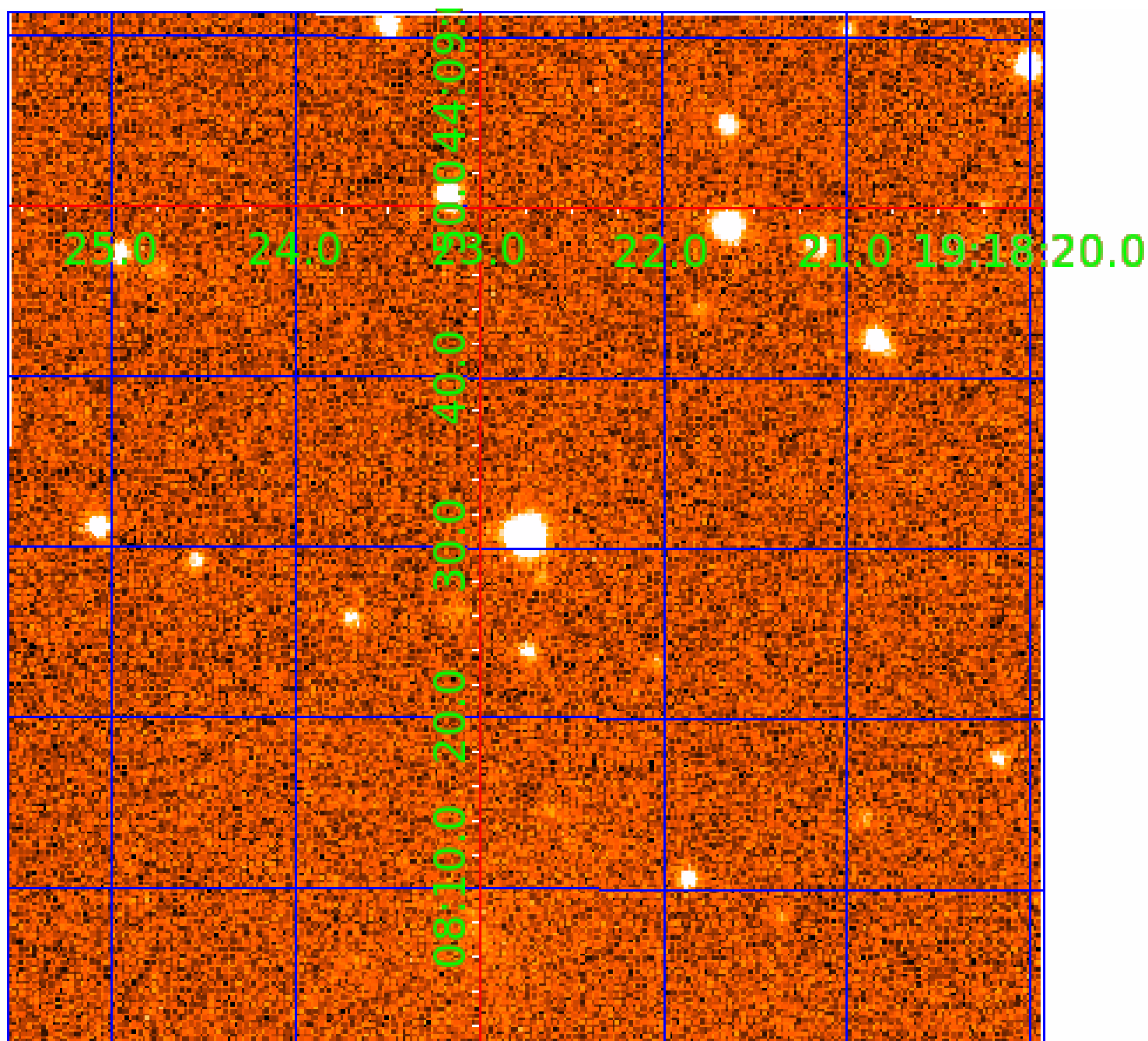


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 008226994

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})
008226994-01	OBS	0906.01	7.156819	138.350553	856.1	2.658	38.5	43.0	0.84	5029	2.67	88.45
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008226994-03	OBS	0906.03	4.148110	133.387334	175.4	2.733	10.8	11.9	0.84	5029	1.35	183.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008226994-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-02	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-03	OBS	PC	0.96	0	0	0	0	CENT_KIC_POS

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

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

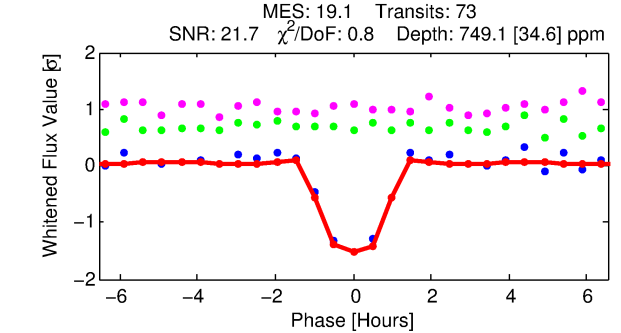
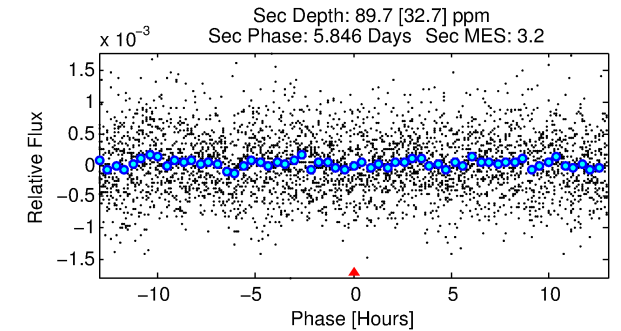
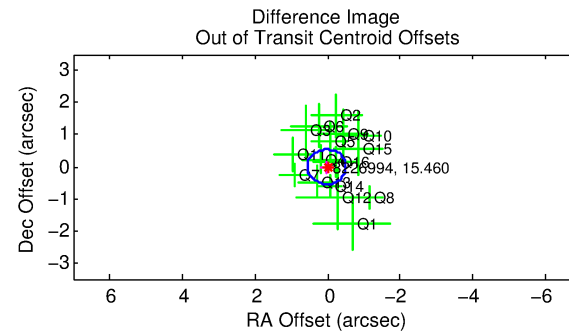
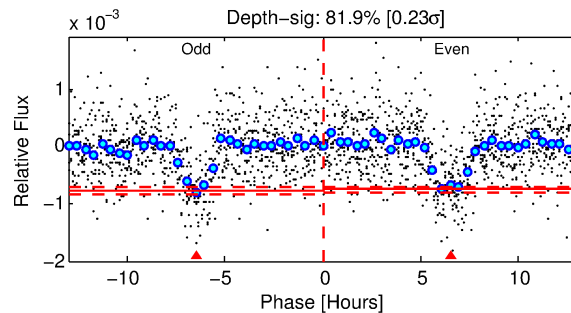
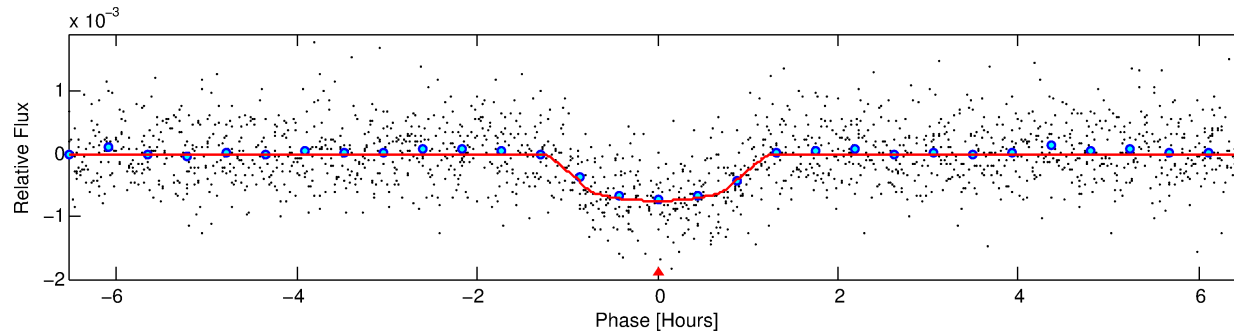
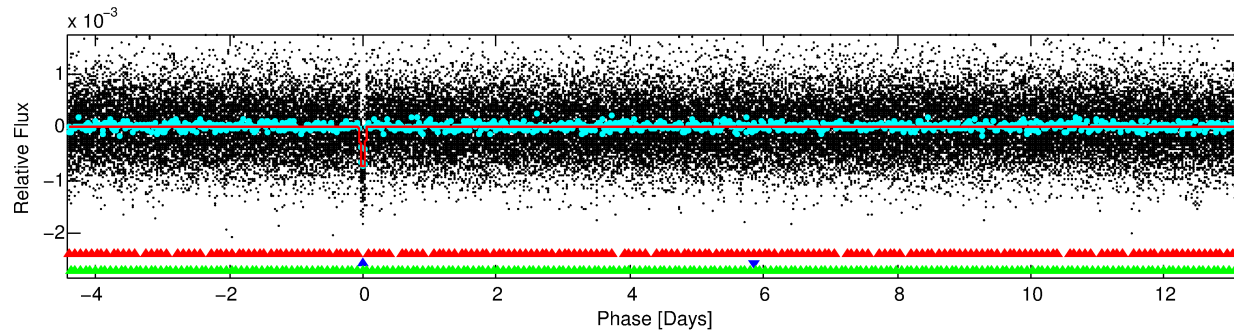
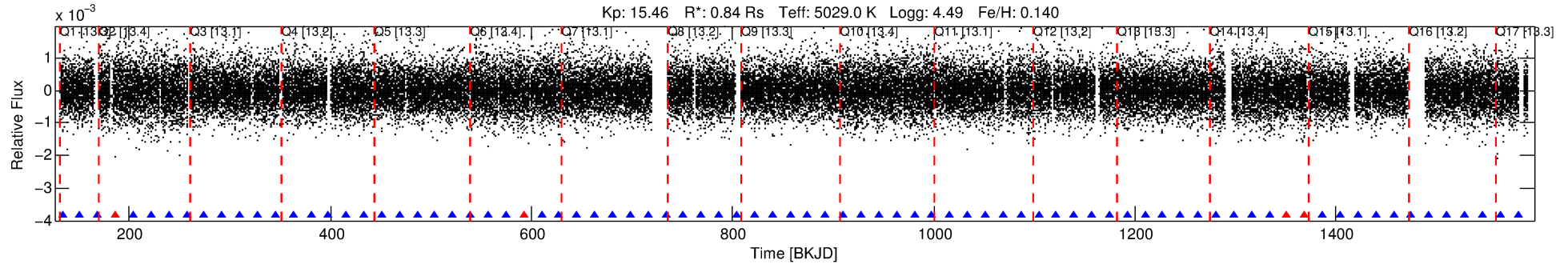
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008226994-02

No Significant Match Found

DV One-Page Summary

KIC: 8226994 Candidate: 2 of 3 Period: 17.648 d
KOI: K00906.02 Name: Kepler-250d Corr: 0.962



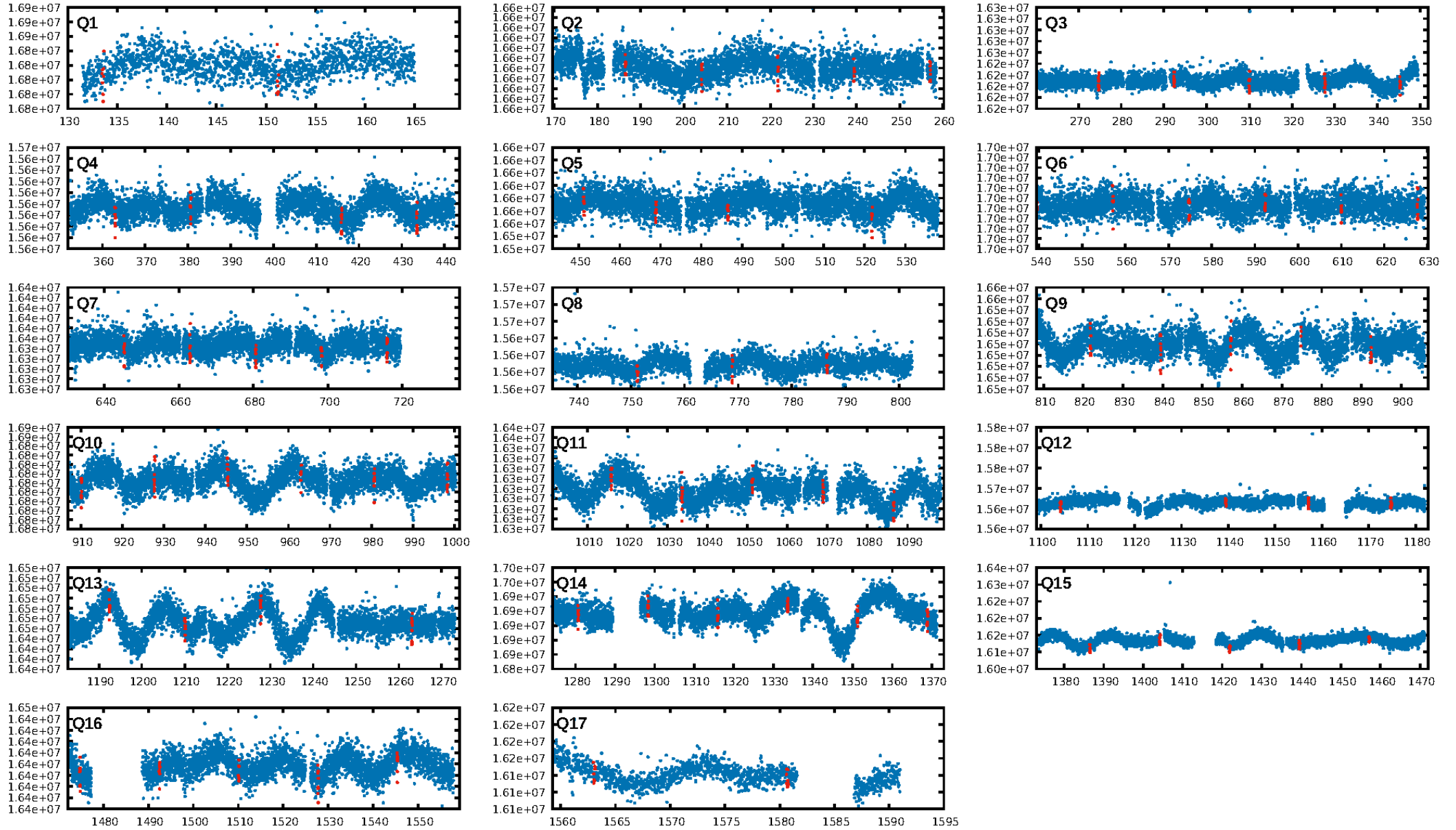
DV Fit Results:

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Epoch = 133.5436 [0.0026] BKJD
Rp/R* = 0.0284 [0.0145]
a/R* = 39.01 [71.24]
b = 0.81 [0.79]
Seff = 26.55 [3.86]
Teq = 579 [21] K
Rp = 2.60 [1.34] Re
a = 0.1231 [0.0097] AU
Ag = 111.01 [121.38] [0.91σ]
Teffp = 2905 [790] K [2.94σ]

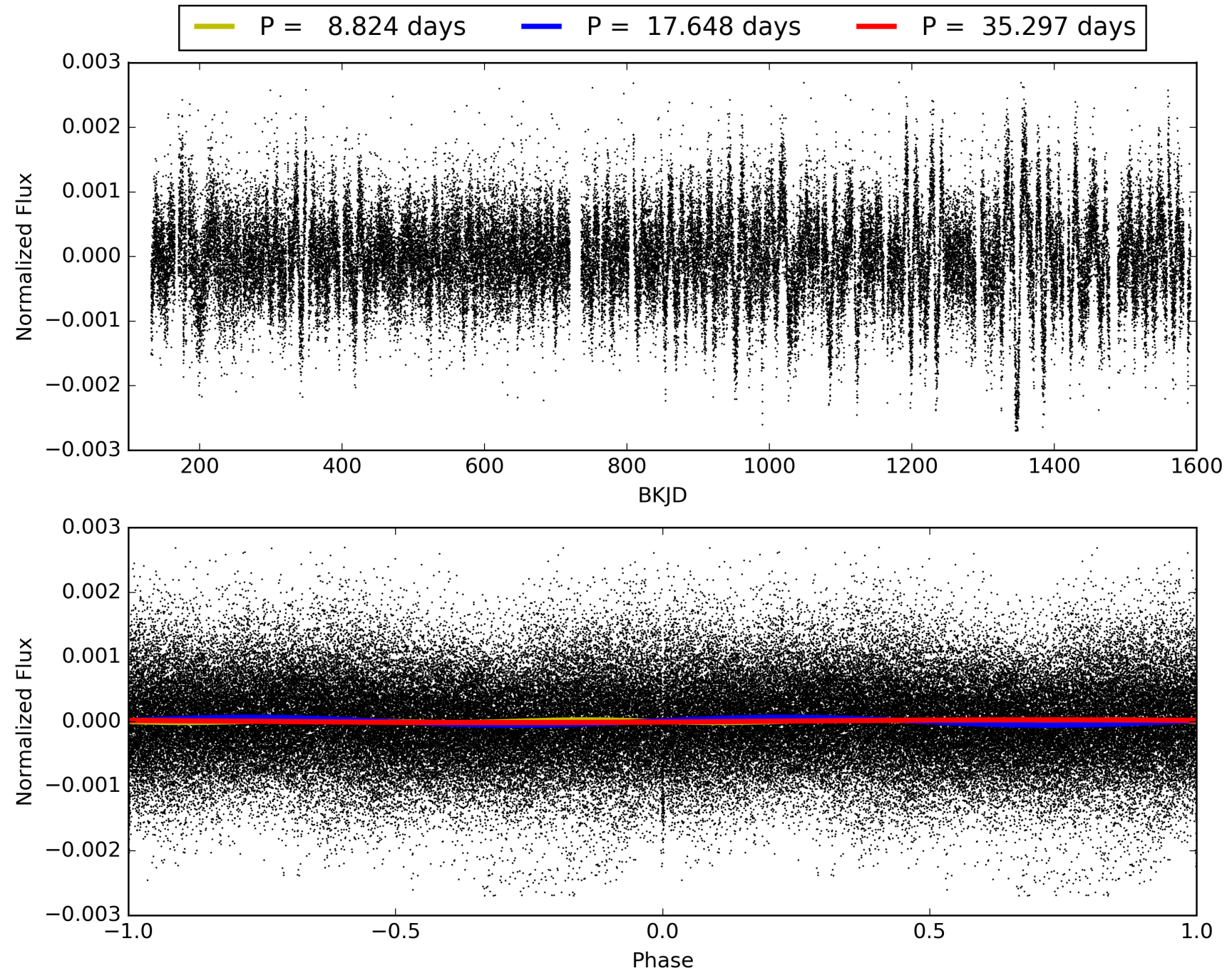
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [73.27σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.47e-81
RollingBand-fgt: 0.94 [65/69]
GhostDiagnostic-chr: 4.212
Centroid-sig: 60.7%
Centroid-so: 0.776 arcsec [1.19σ]
OotOffset-rm: 0.027 arcsec [0.15σ]
KicOffset-rm: 0.372 arcsec [1.54σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008226994-02, PDC Light Curves

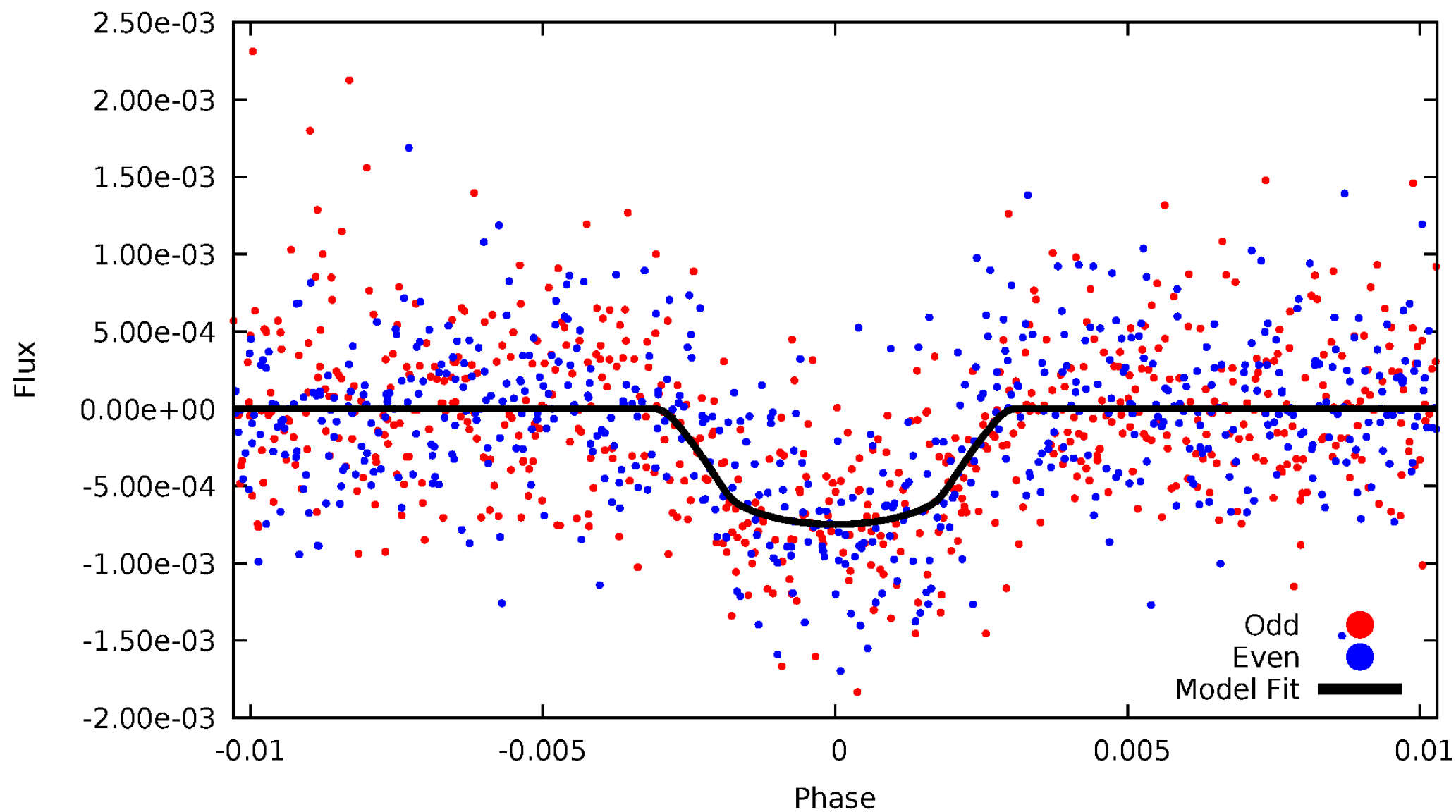


TCE 008226994-02



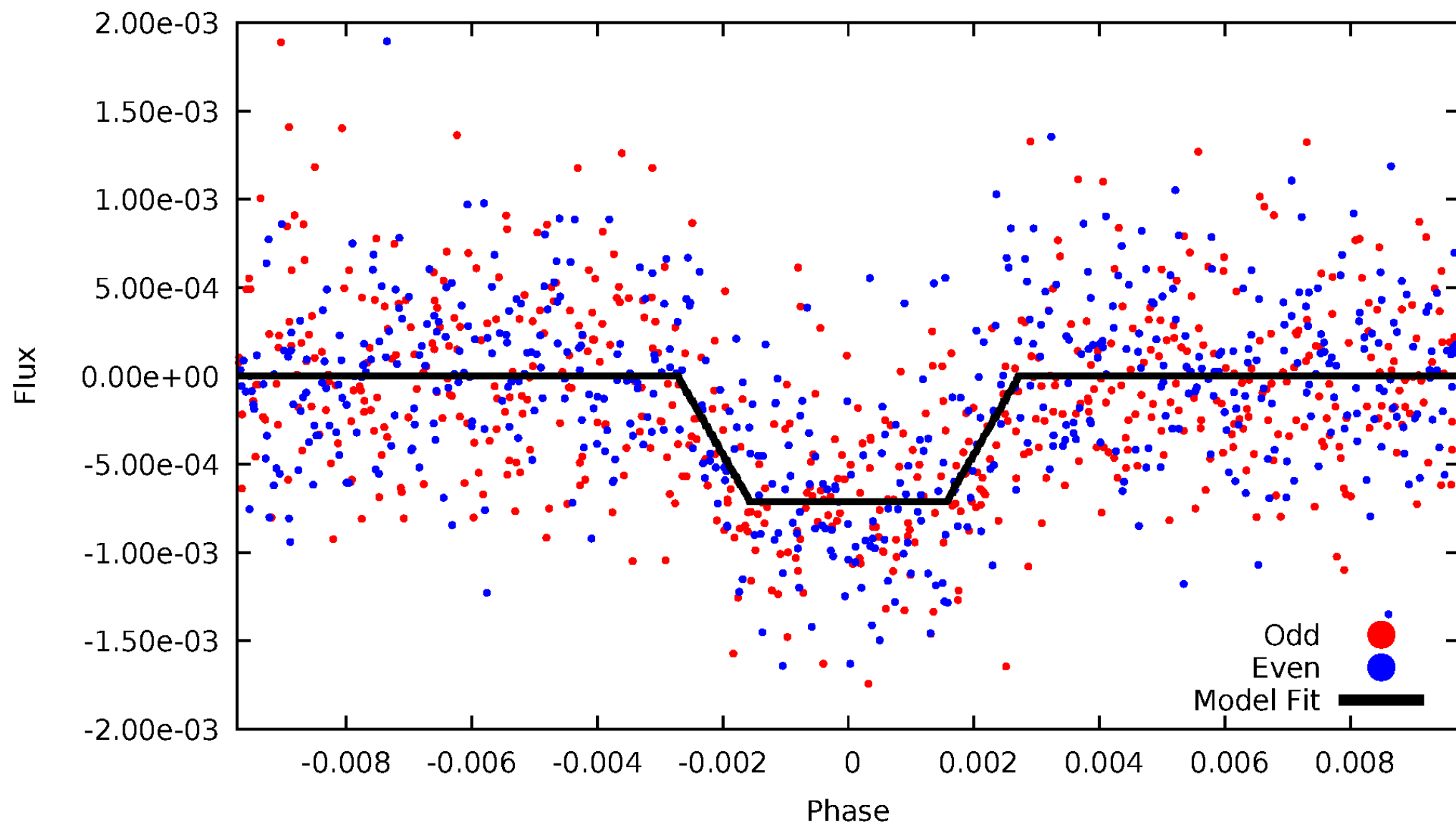
DV Odd/Even

TCE 008226994-02



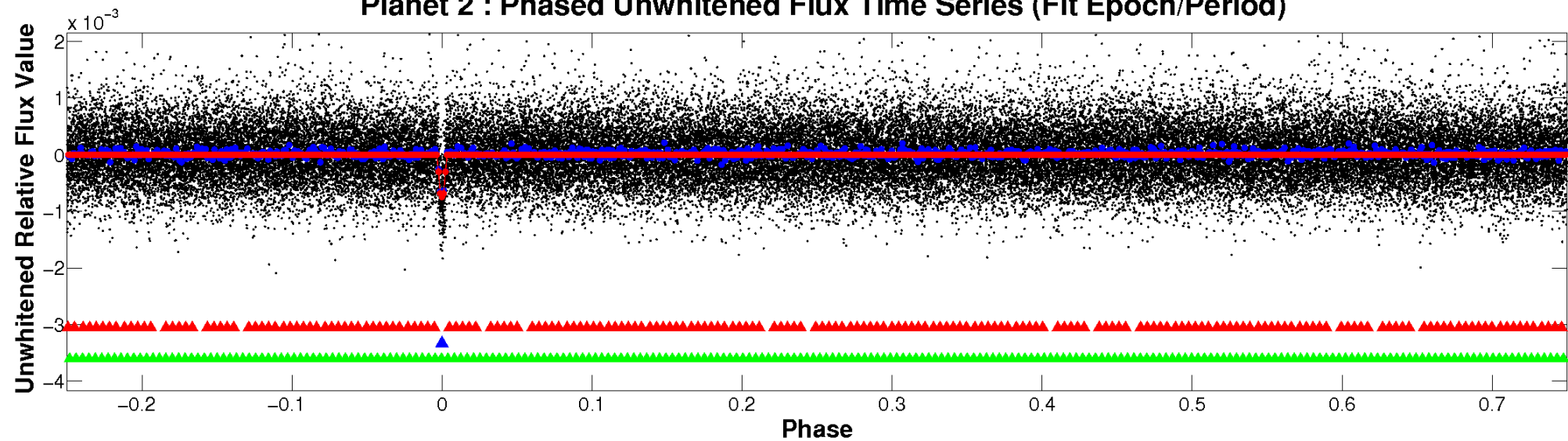
ALT Odd/Even

TCE 008226994-02

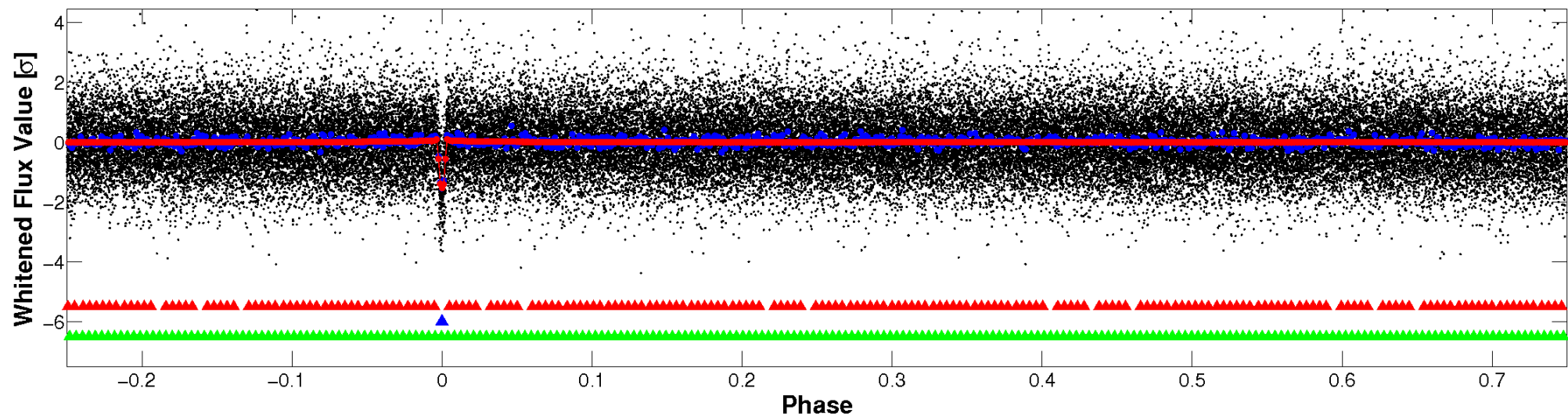


Non-Whitened Vs. Whitened Light Curve

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

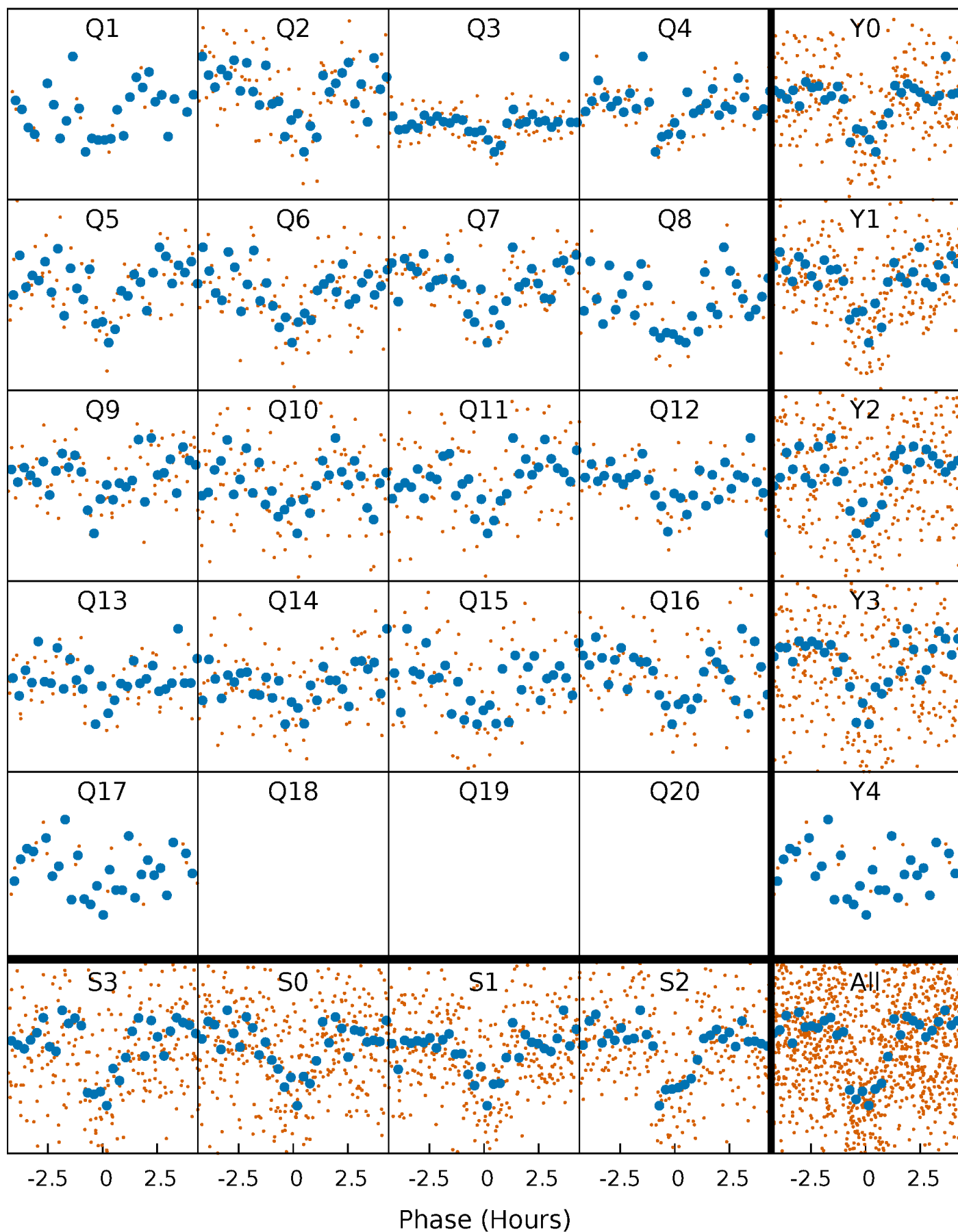


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



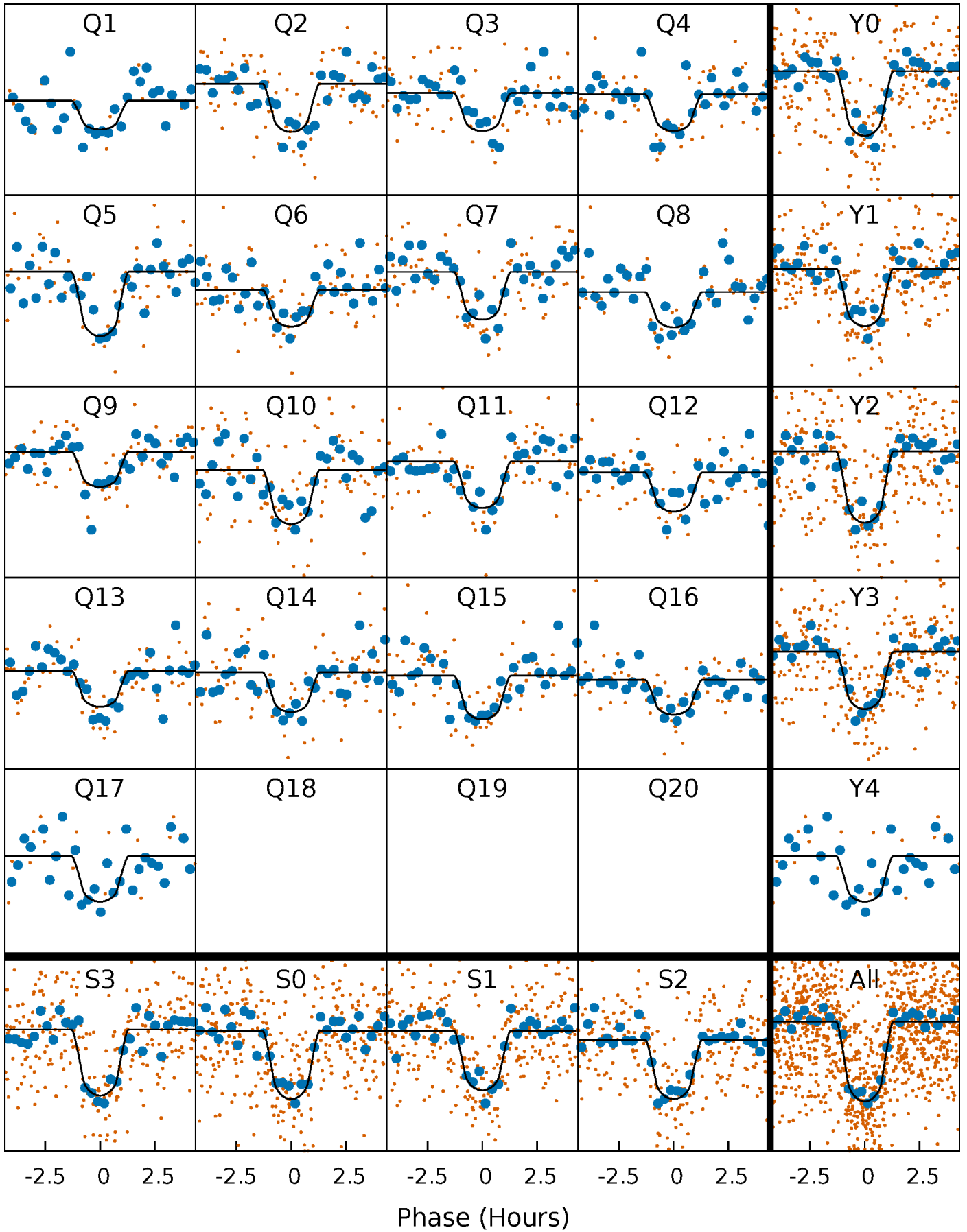
PDC Quarter-Phased Transit Curves

TCE 008226994-02 P= 17.648324 Days $T_0=133.543640$ (BKJD)



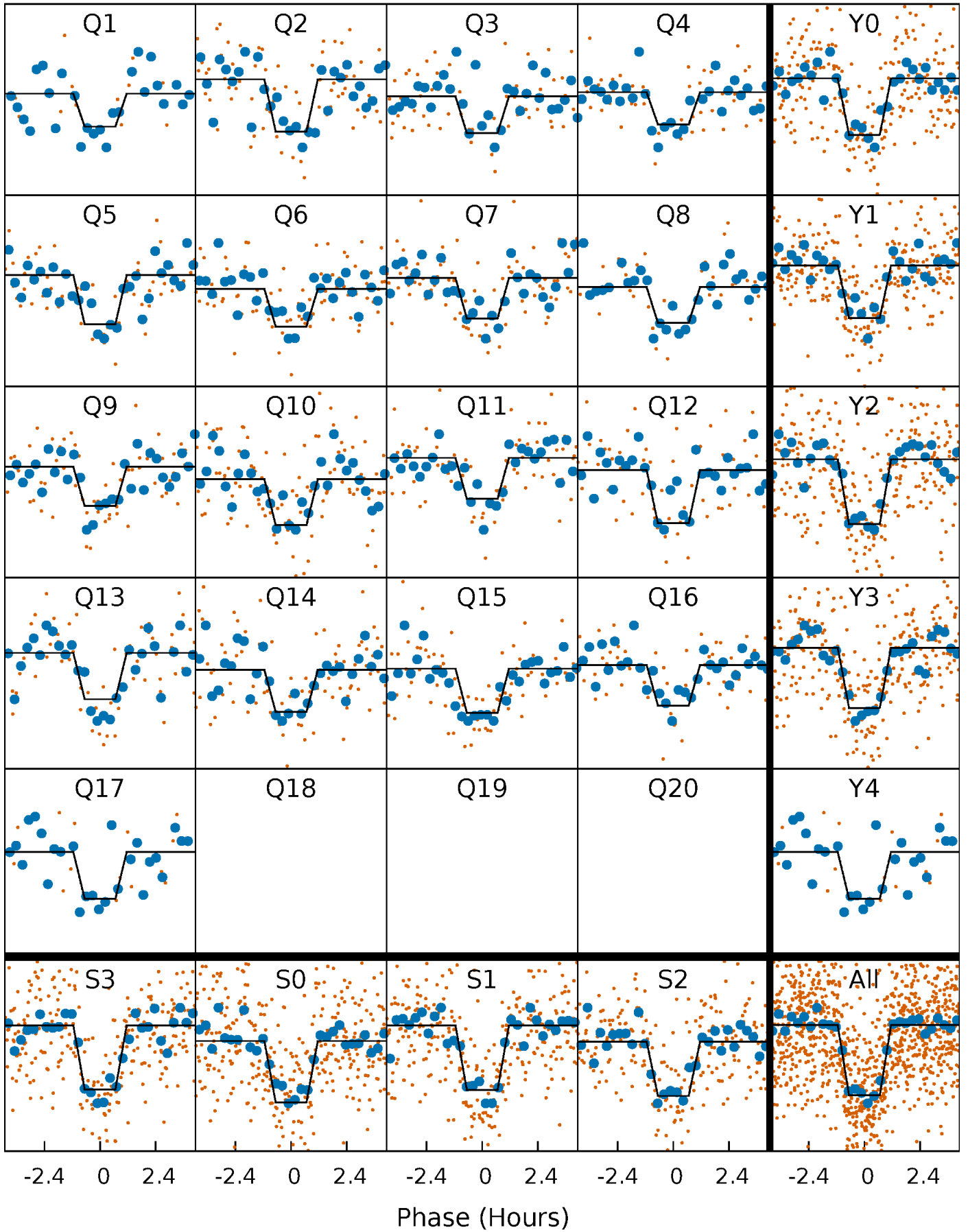
DV Quarter-Phased Transit Curves

TCE 008226994-02 P= 17.648324 Days $T_0=133.543640$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

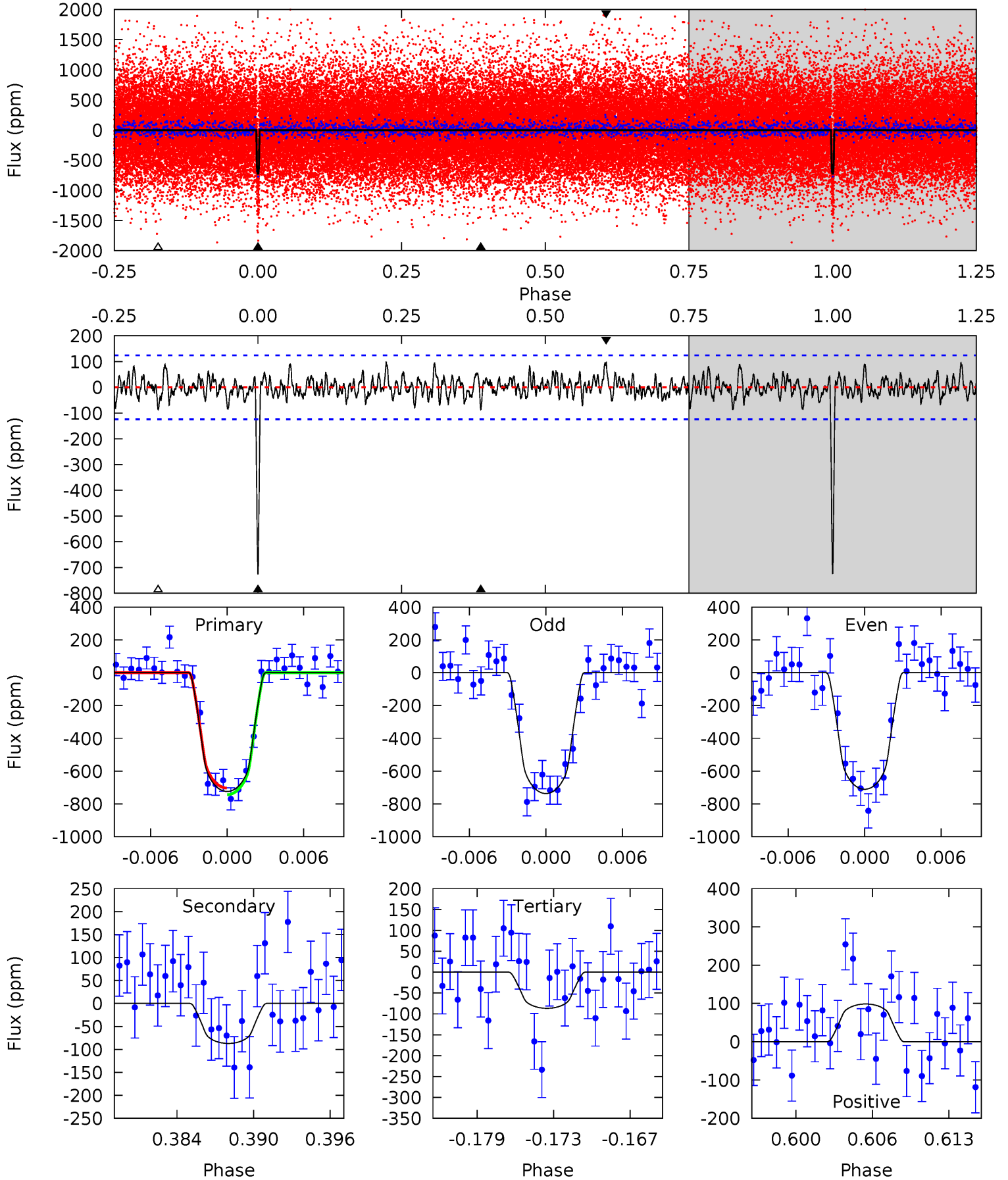
TCE 008226994-02 P= 17.648323 Days $T_0=133.544757$ (BKJD)



DV Model-Shift Uniqueness Test

008226994-02, P = 17.648324 Days, E = 115.895316 Days

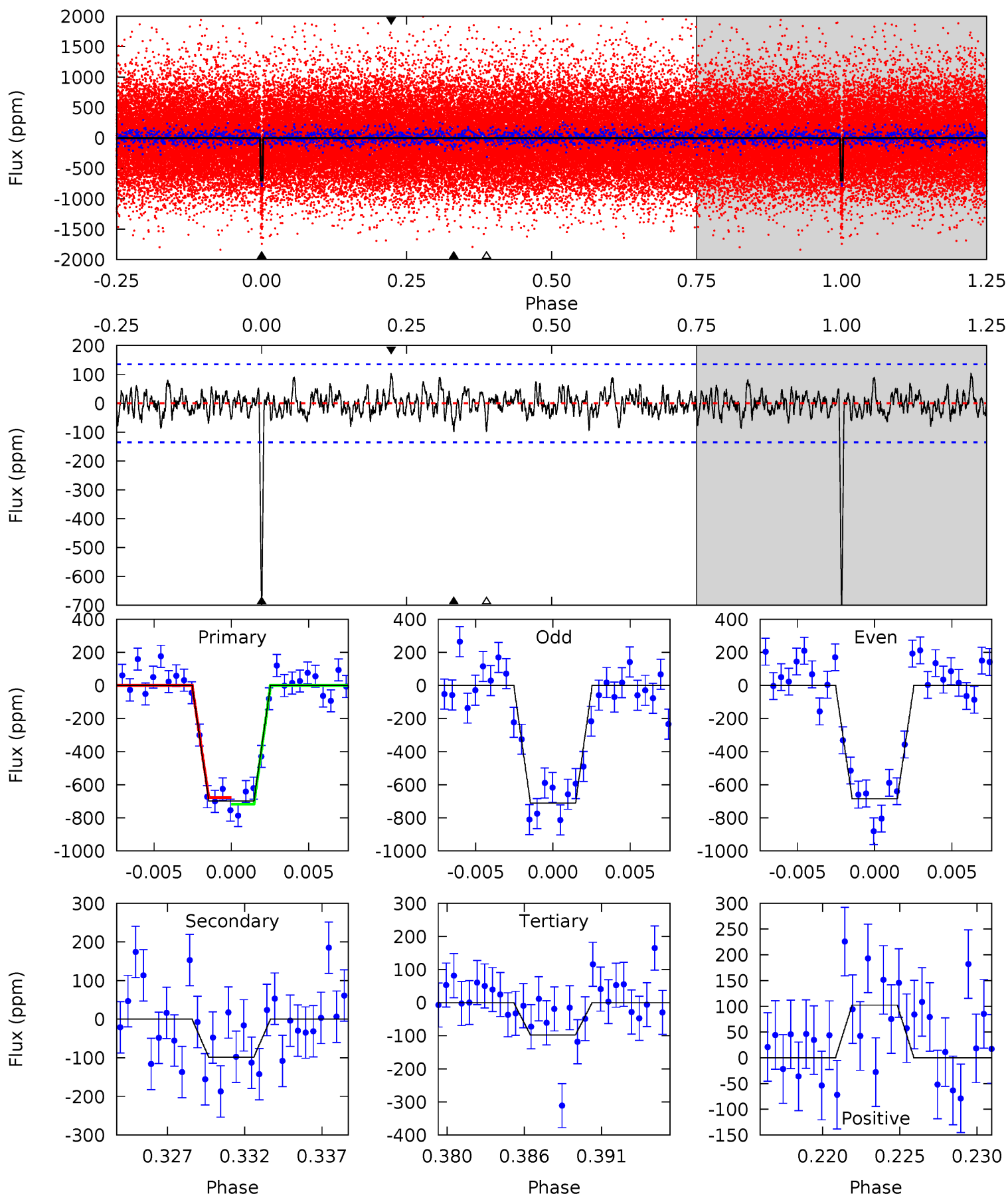
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	3.60	3.58	4.07	5.12	2.74	1.28	26.3	25.8	0.02	-0.48	0.54	1.02	0.12	0.84



Alt Model-Shift Uniqueness Test

008226994-02, P = 17.648323 Days, E = 115.896434 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.6	3.75	3.72	3.91	5.14	2.78	1.20	22.9	22.7	0.04	-0.16	0.49	0.98	0.13	0.75



Stellar Parameters For KIC 008226994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5029^{+83}_{-75}	$4.494^{+0.077}_{-0.027}$	$0.140^{+0.150}_{-0.150}$	$0.838^{+0.033}_{-0.066}$	$0.798^{+0.058}_{-0.026}$	$1.909^{+0.562}_{-0.200}$
	+2%/-1%	+2%/-1%	+107%/-107%	+4%/-8%	+7%/-3%	+29%/-10%
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 008226994-02 / KOI 0906.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-87 ± 24	$2.49^{+1.35}_{-1.21}$	804^{+18}_{-20}	3386^{+878}_{-446}	112^{+327}_{-68}
Alt.	-98 ± 26	$2.43^{+1.39}_{-1.22}$	805^{+16}_{-20}	3469^{+980}_{-450}	133^{+434}_{-81}

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

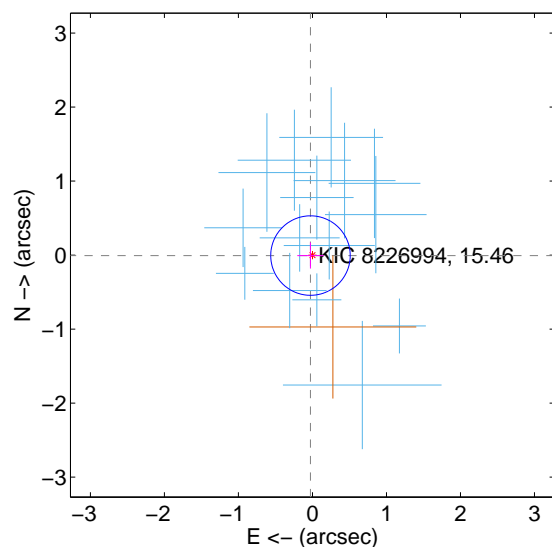
Supplemental centroid analysis for 008226994-02. Kepler magnitude: 15.46. Transit SNR 21.70

There are 15 quarters with good PRF difference image offsets

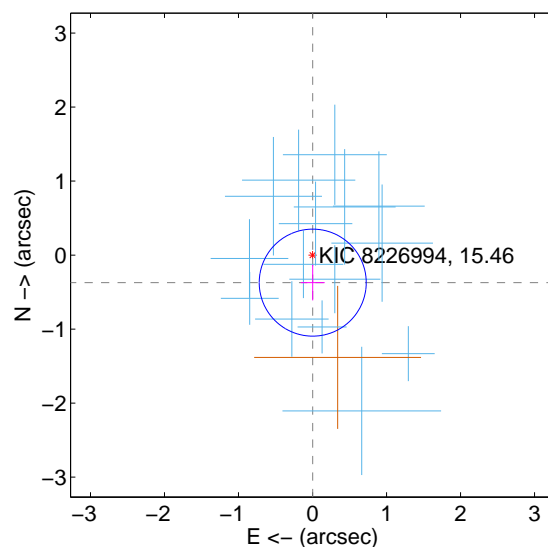
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.027 ± 0.179	0.15	0.027 ± 0.179	-0.006 ± 0.175
PRF-fit source offset from KIC position	0.372 ± 0.241	1.54	-0.003 ± 0.162	-0.372 ± 0.241
photometric centroid source offset	0.78 ± 0.65	1.19	-0.29 ± 0.65	-0.72 ± 0.65

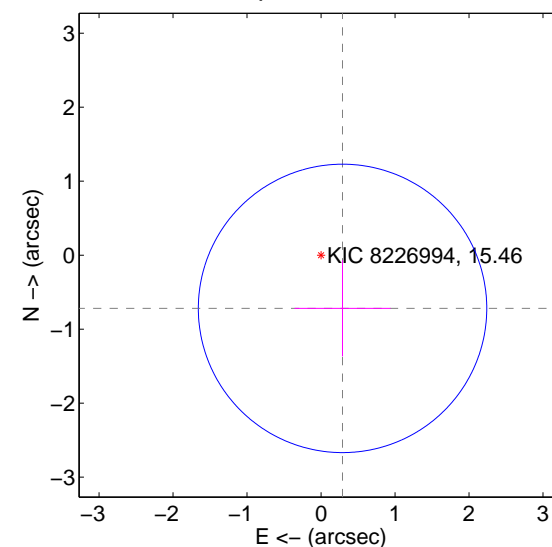
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

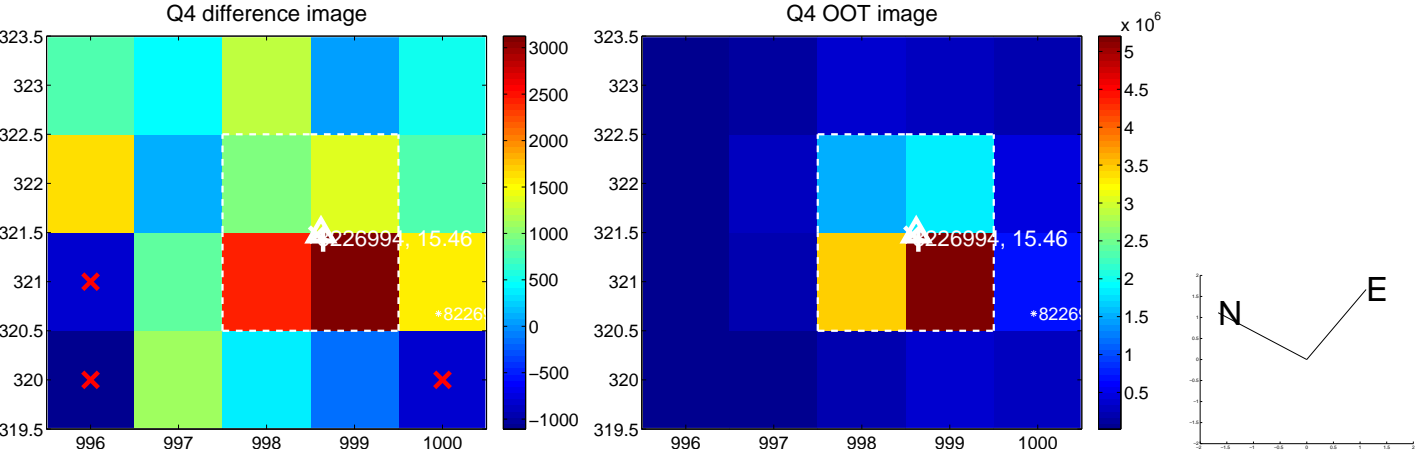
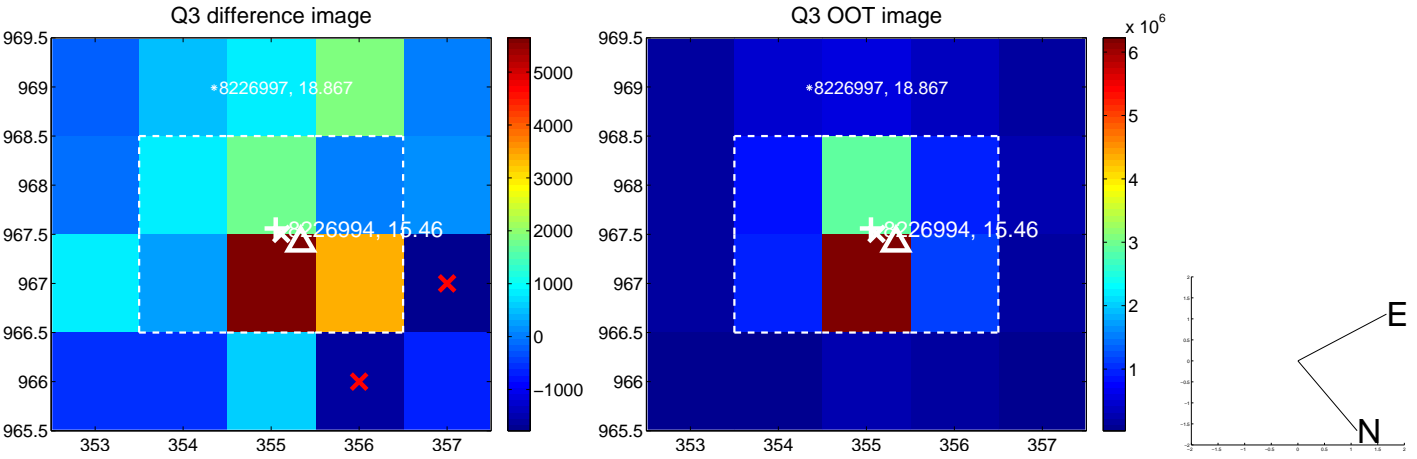
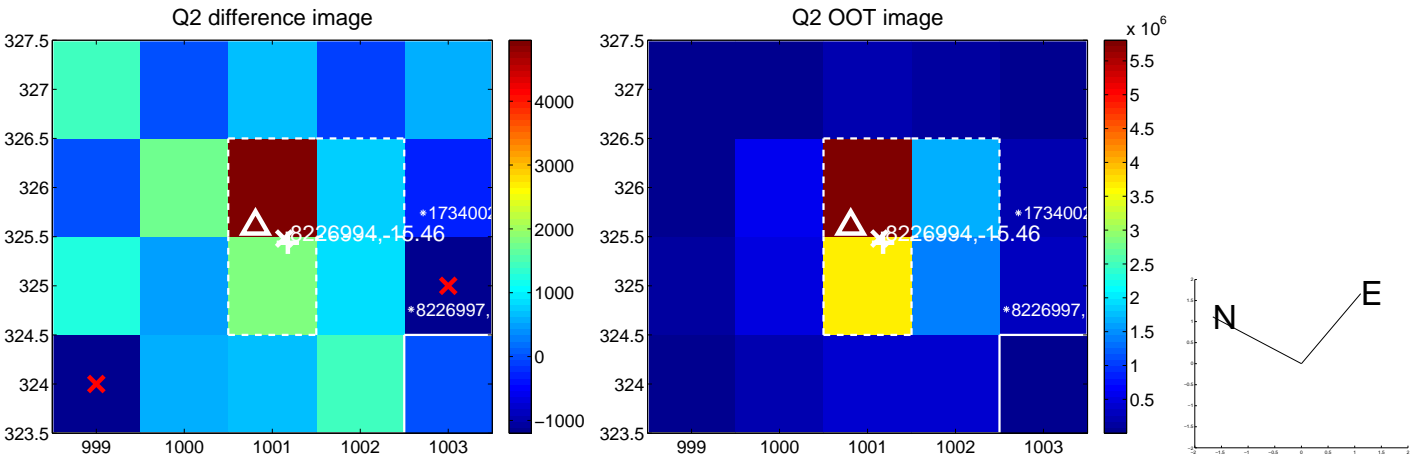
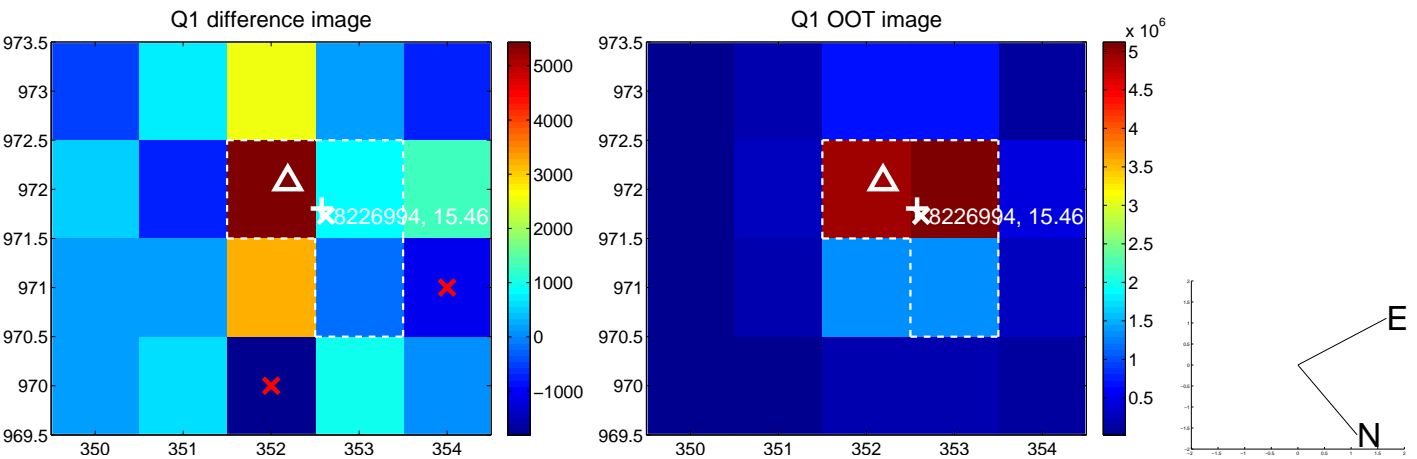


offset from photometric centroids

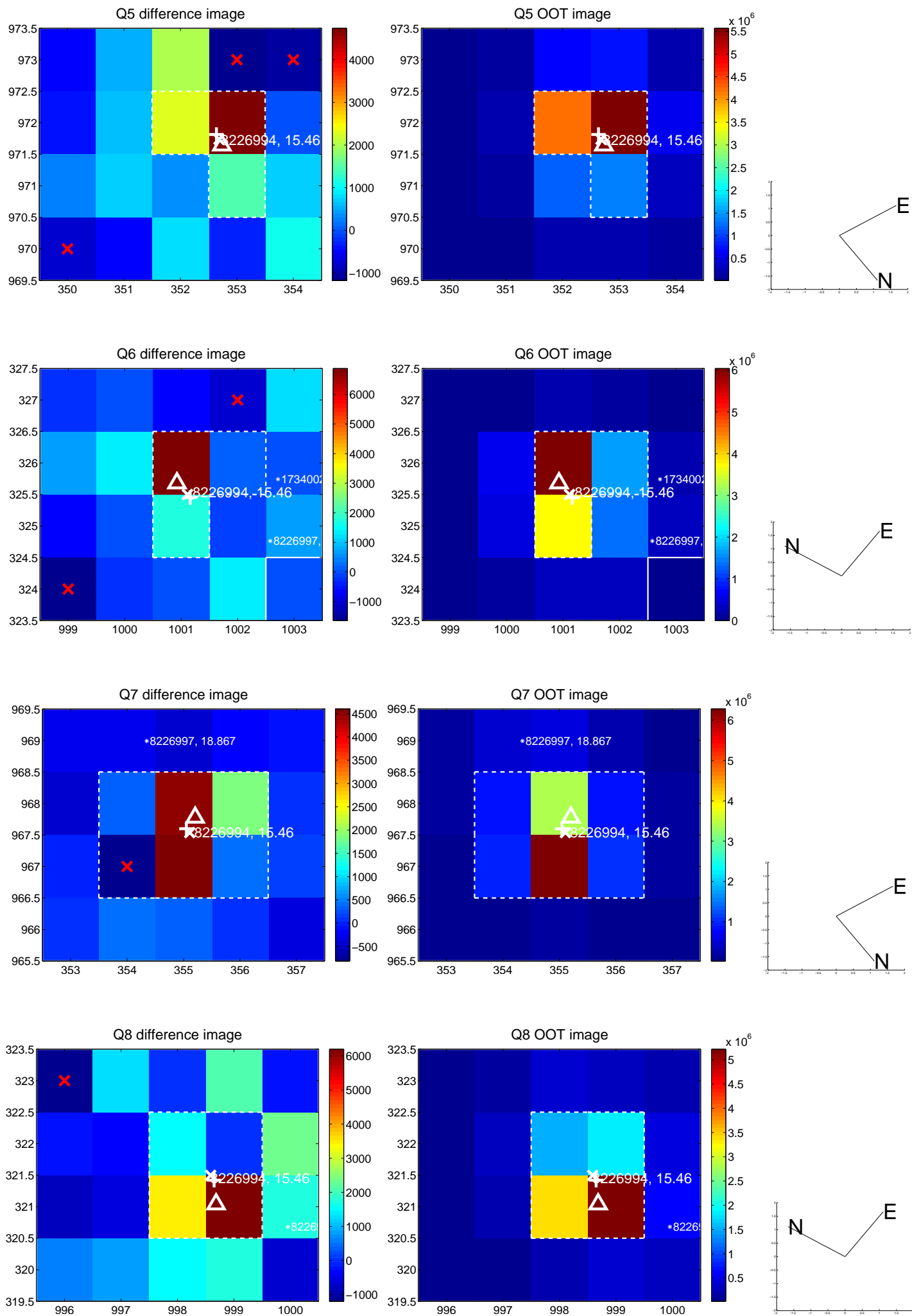


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

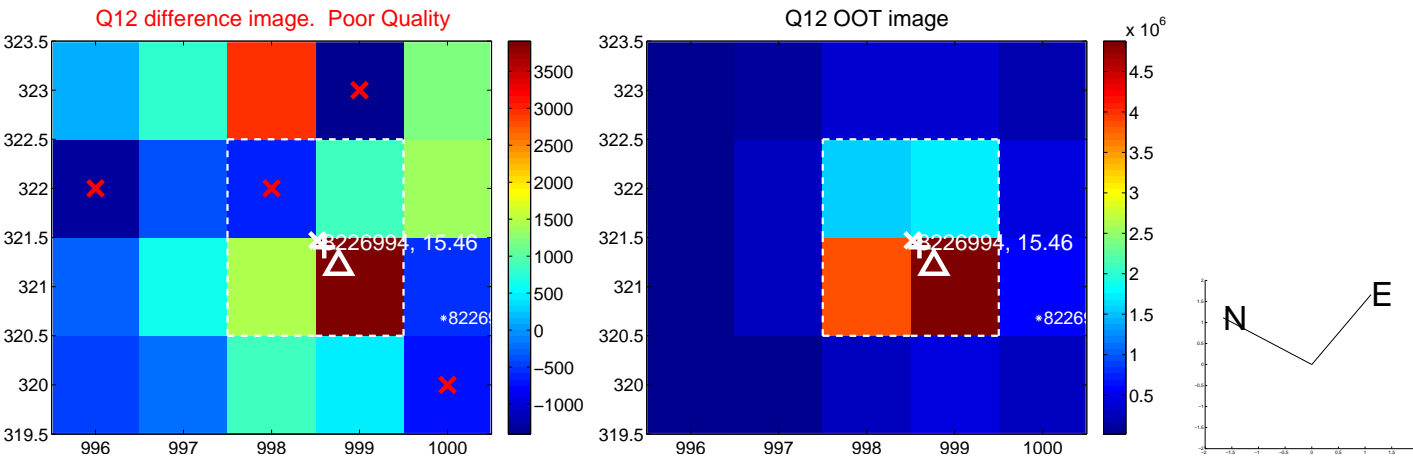
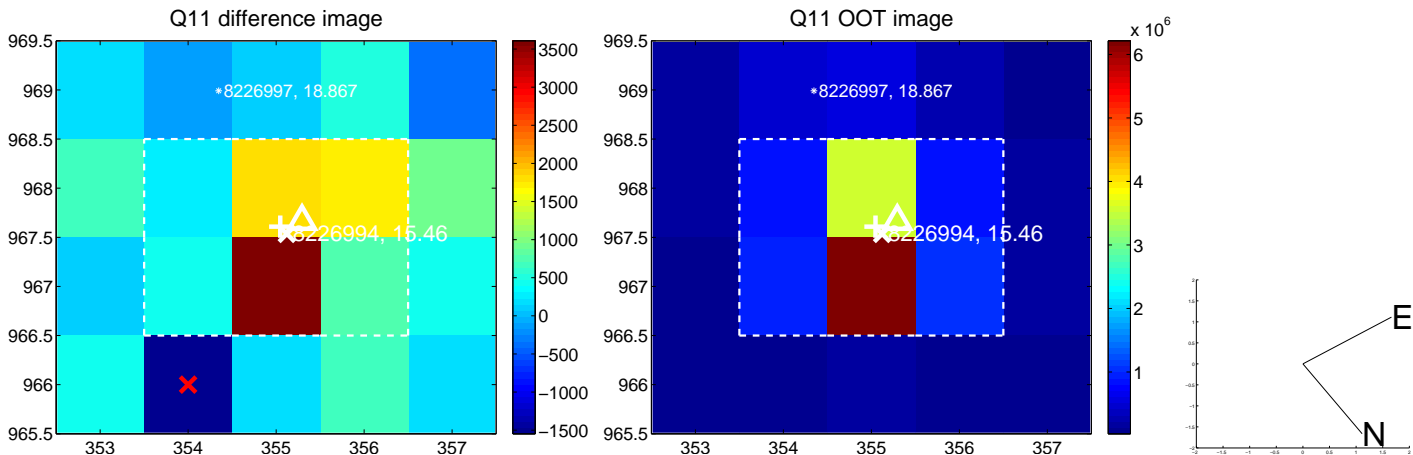
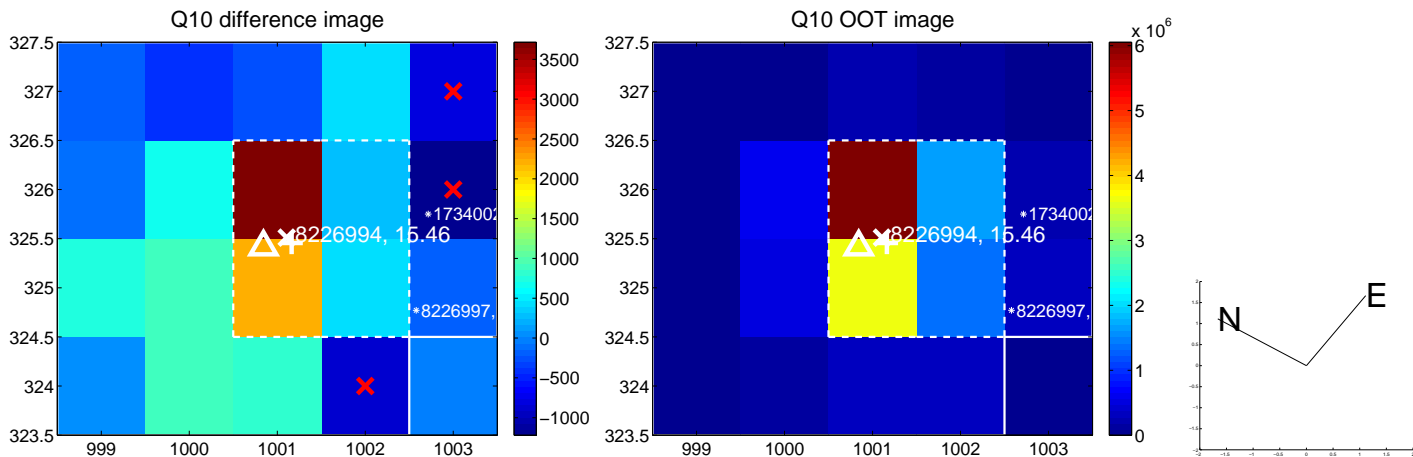
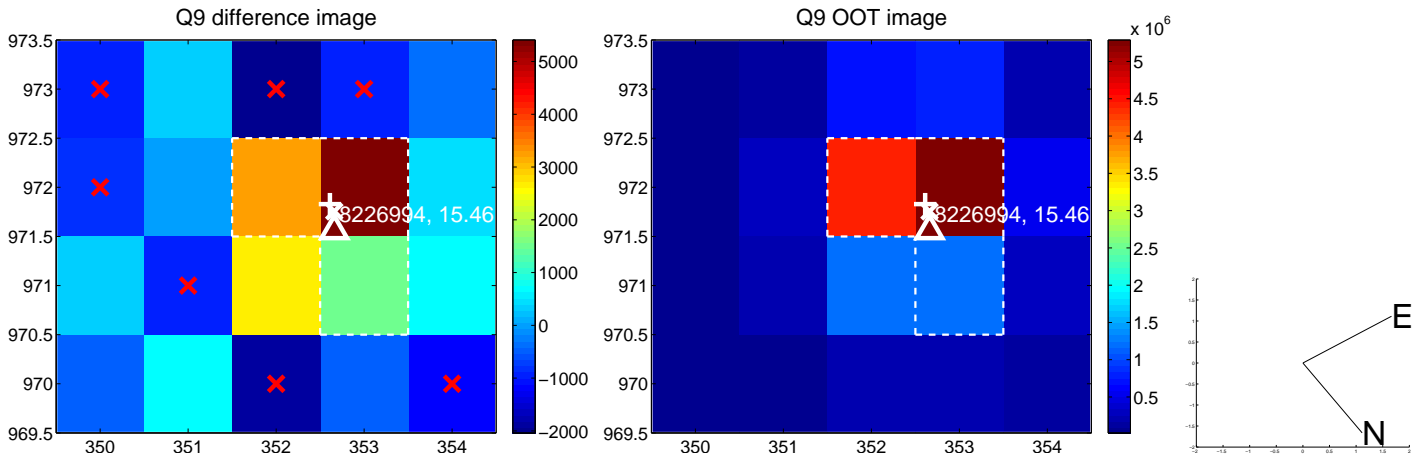
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



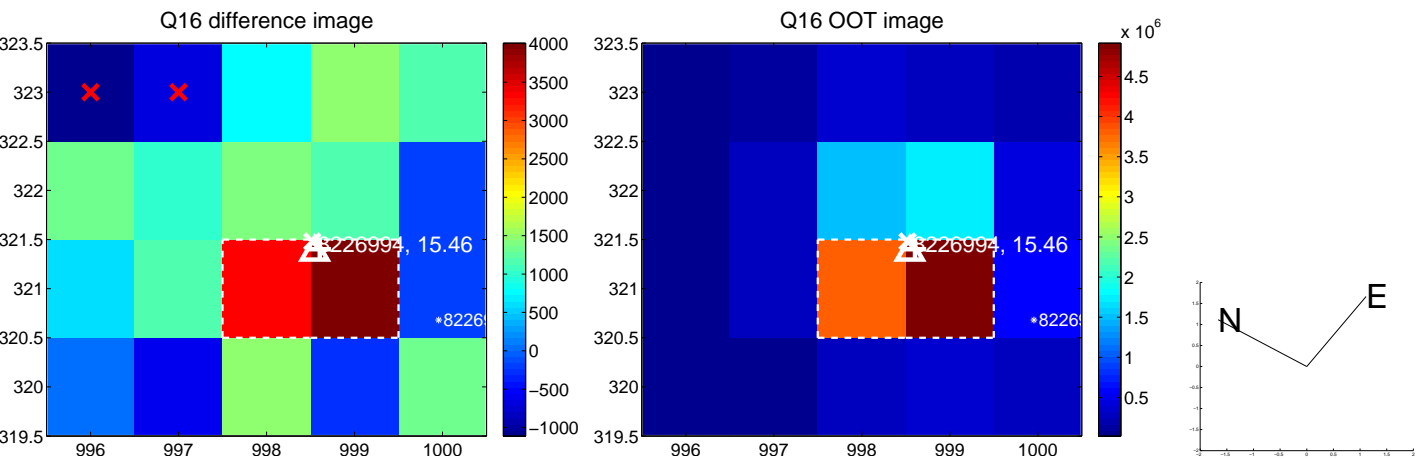
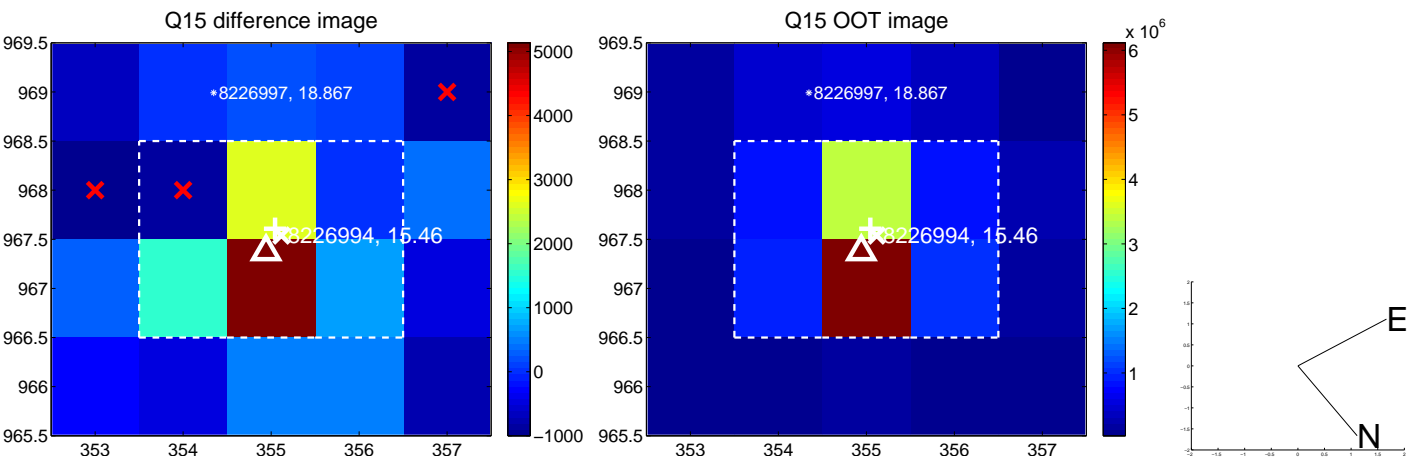
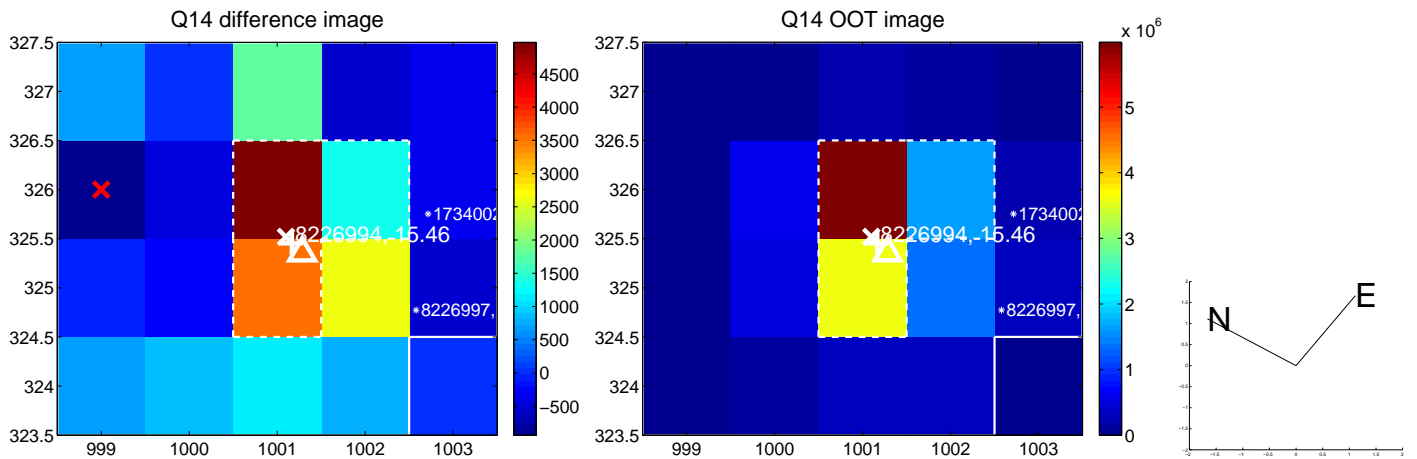
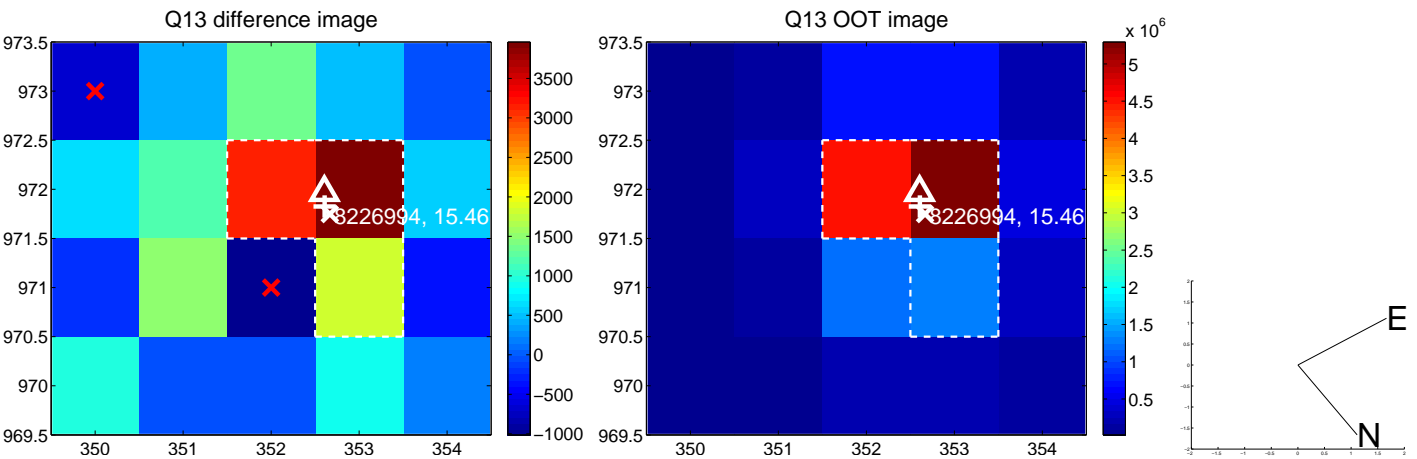
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



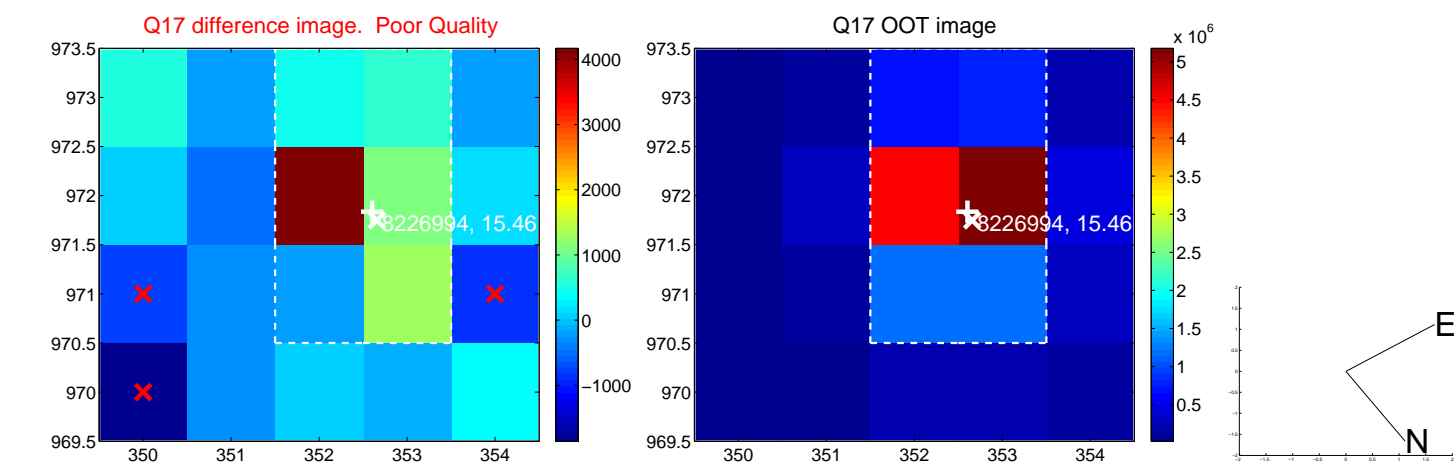
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



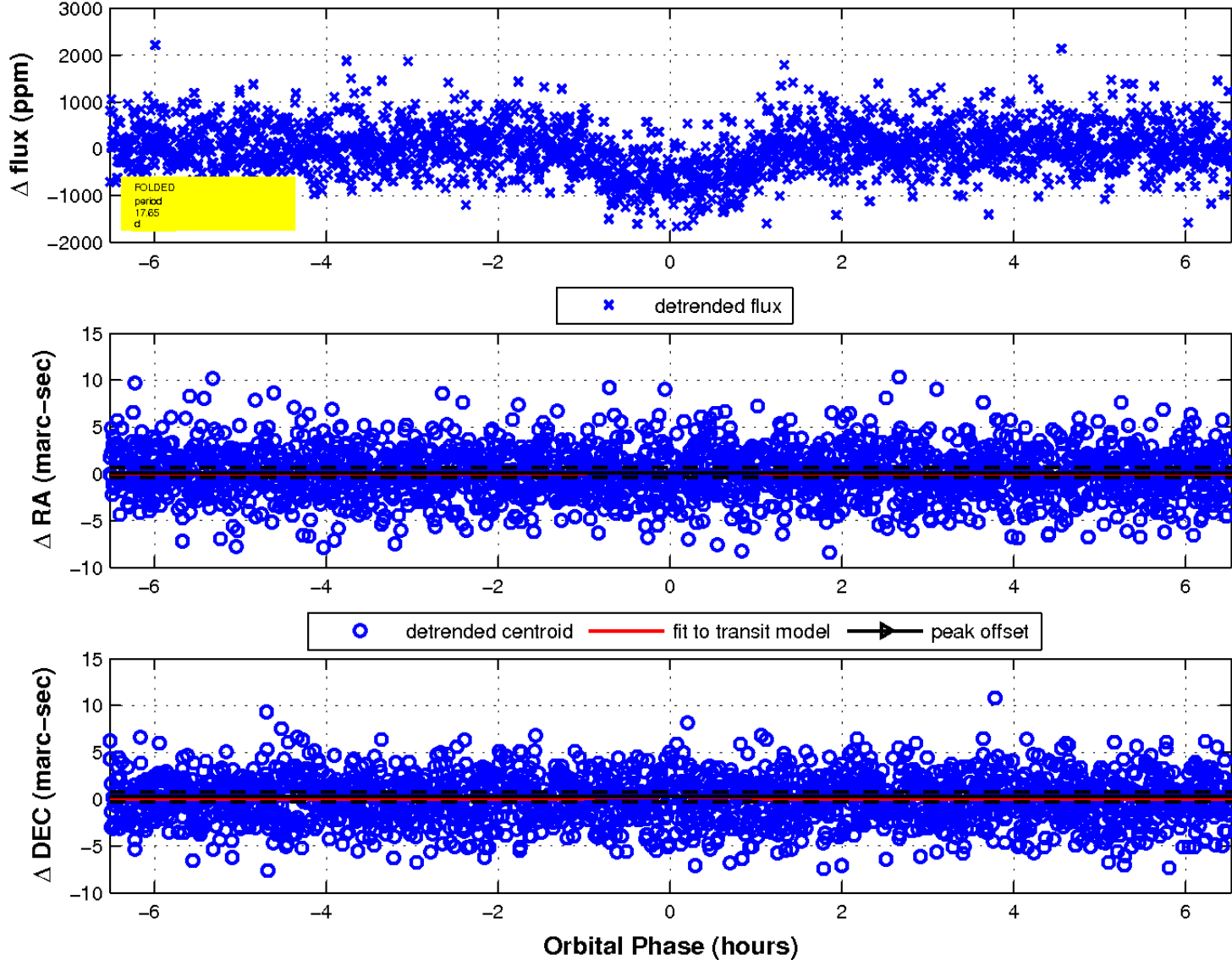
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

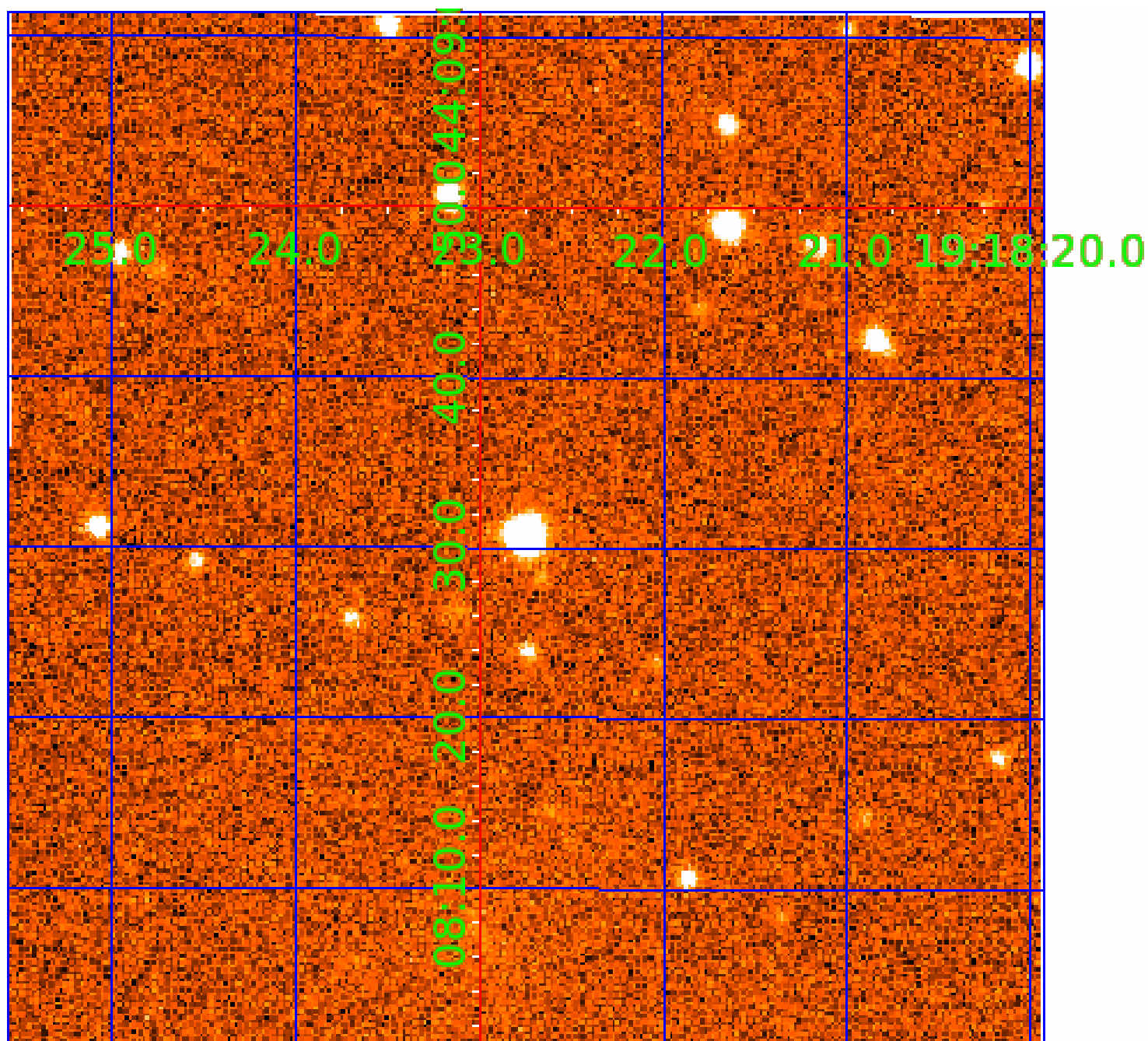


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 008226994

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})
008226994-01	OBS	0906.01	7.156819	138.350553	856.1	2.658	38.5	43.0	0.84	5029	2.67	88.45
008226994-02	OBS	0906.02	17.648324	133.543640	749.1	2.178	19.1	21.7	0.84	5029	2.60	26.55
008226994-03	OBS	0906.03	4.148110	133.387334	175.4	2.733	10.8	11.9	0.84	5029	1.35	183.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008226994-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-02	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS
008226994-03	OBS	PC	0.96	0	0	0	0	CENT_KIC_POS

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

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

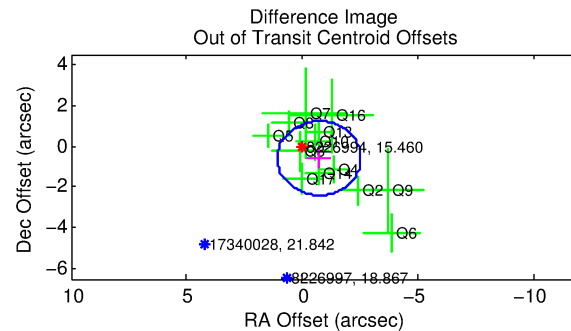
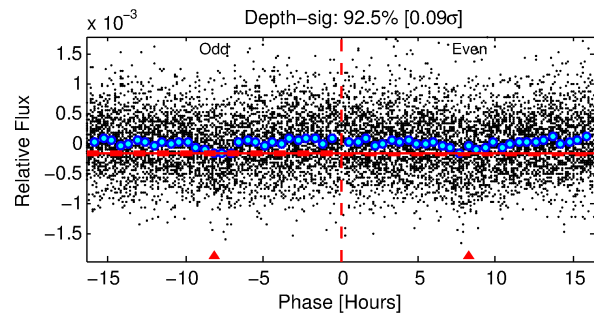
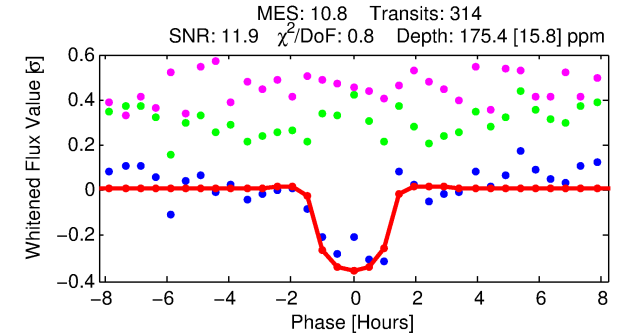
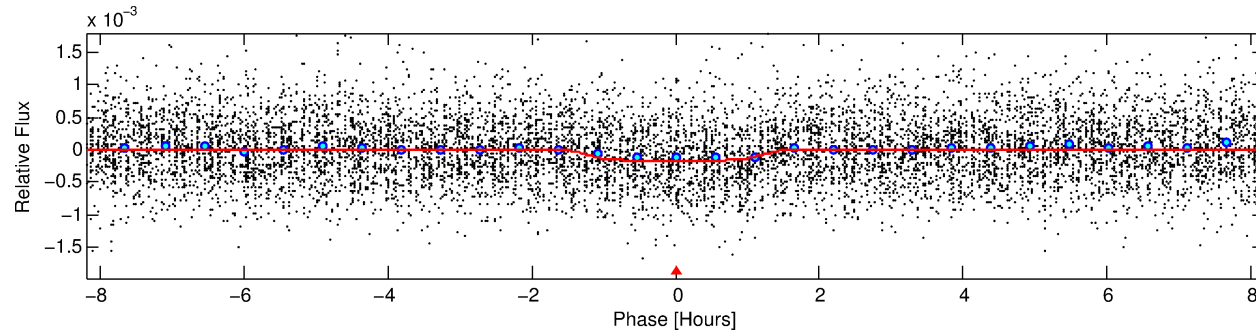
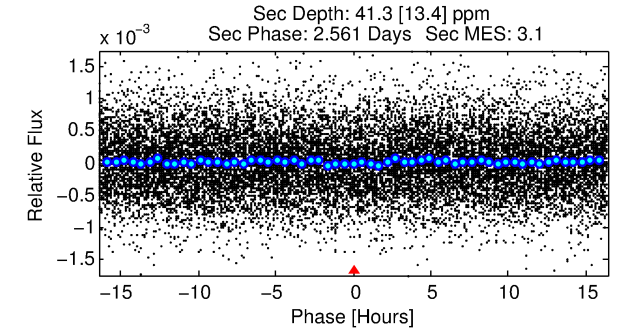
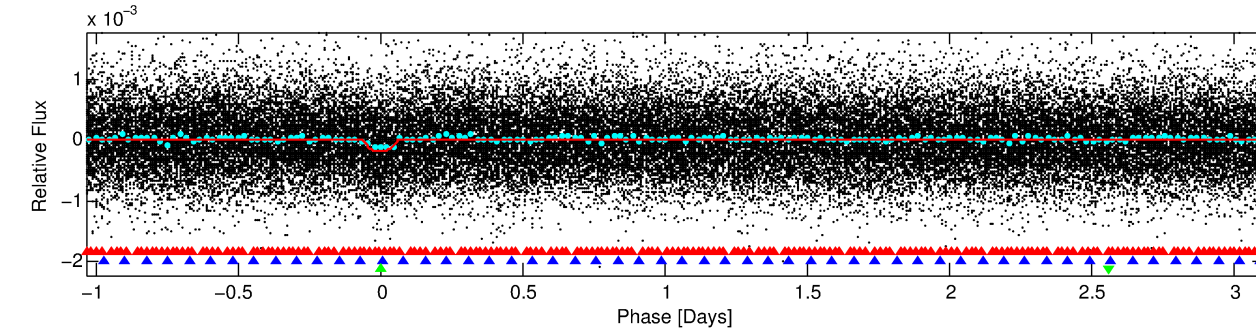
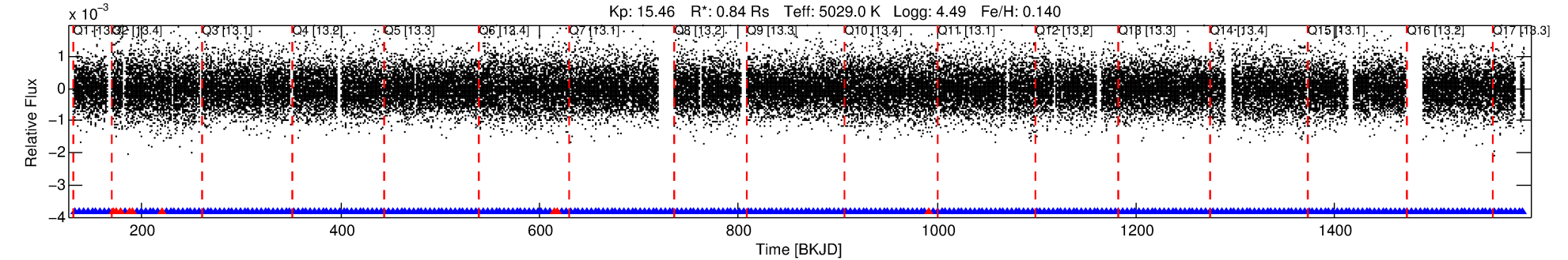
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008226994-03

No Significant Match Found

DV One-Page Summary

KIC: 8226994 Candidate: 3 of 3 Period: 4.148 d
KOI: K00906.03 Name: Kepler-250b Corr: 0.949



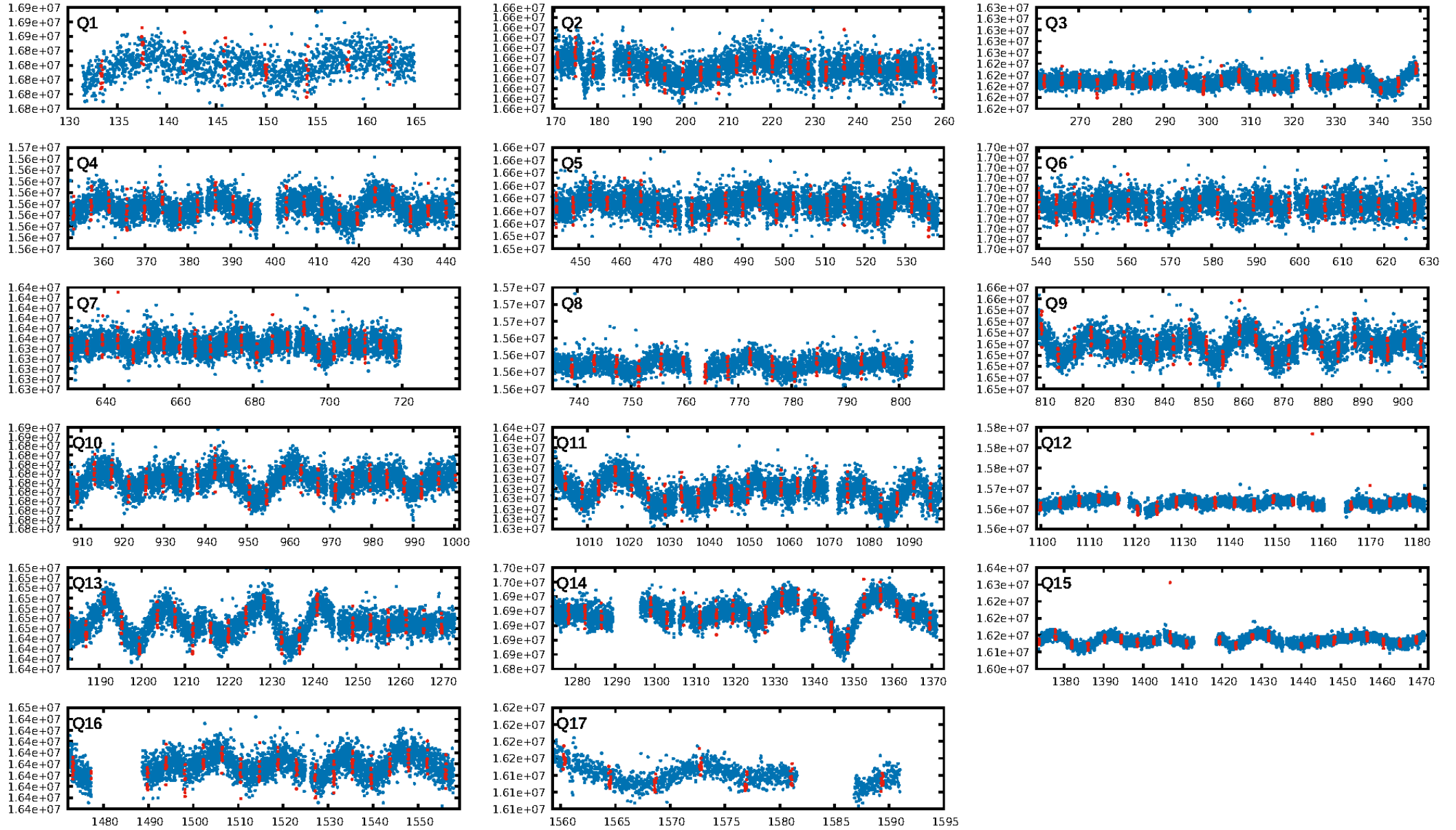
DV Fit Results:

Period = 4.14811 [0.00003] d
Epoch = 133.3873 [0.0042] BKJD
Rp/R* = 0.0147 [0.0096]
a/R* = 5.61 [14.06]
b = 0.90 [0.59]
Seff = 183.03 [26.58]
Teff = 938 [34] K
Rp = 1.35 [0.89] Re
a = 0.0469 [0.0037] AU
Ag = 27.57 [37.24] [0.71σ]
Teffp = 3323 [1118] K [2.13σ]

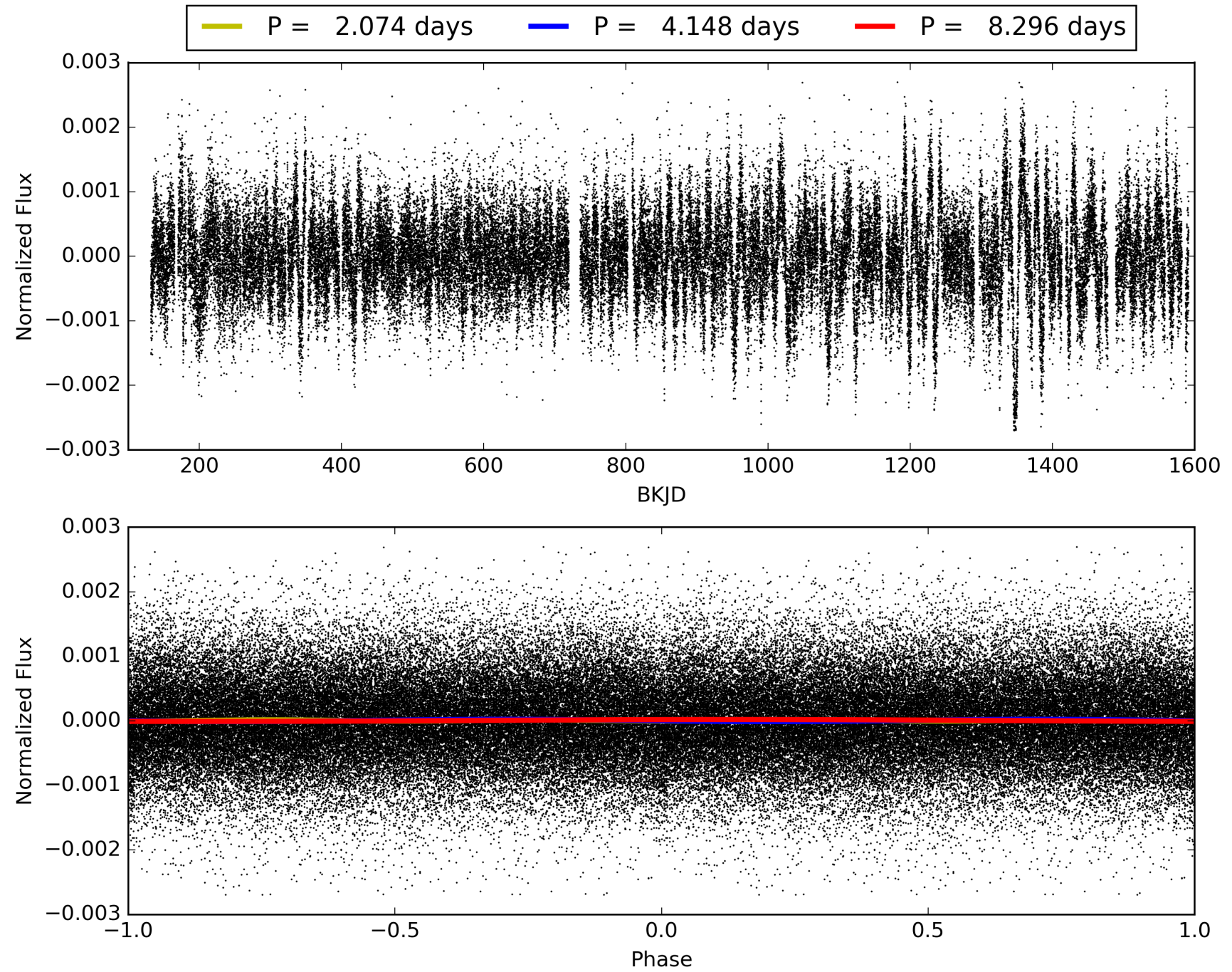
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [18.94σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.50e-28
RollingBand-fgt: 0.97 [291/300]
GhostDiagnostic-chr: 0.9806
Centroid-sig: 1.3%
Centroid-so: 2.582 arcsec [2.28σ]
OotOffset-rm: 0.932 arcsec [1.54σ]
KicOffset-rm: 1.214 arcsec [1.93σ]
OotOffset-st: 4/2/3/4 [13]
KicOffset-st: 4/2/3/4 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008226994-03, PDC Light Curves

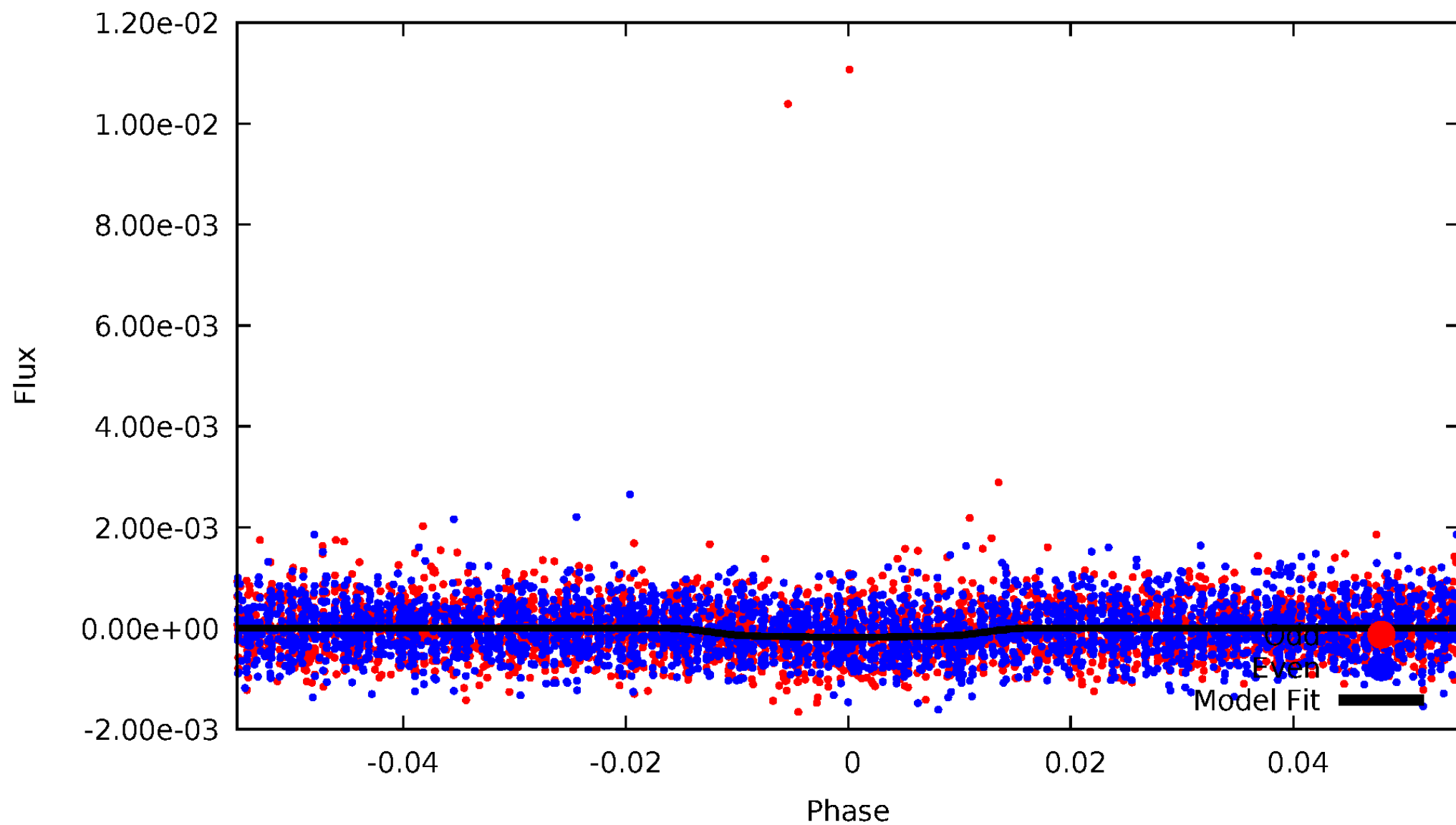


TCE 008226994-03



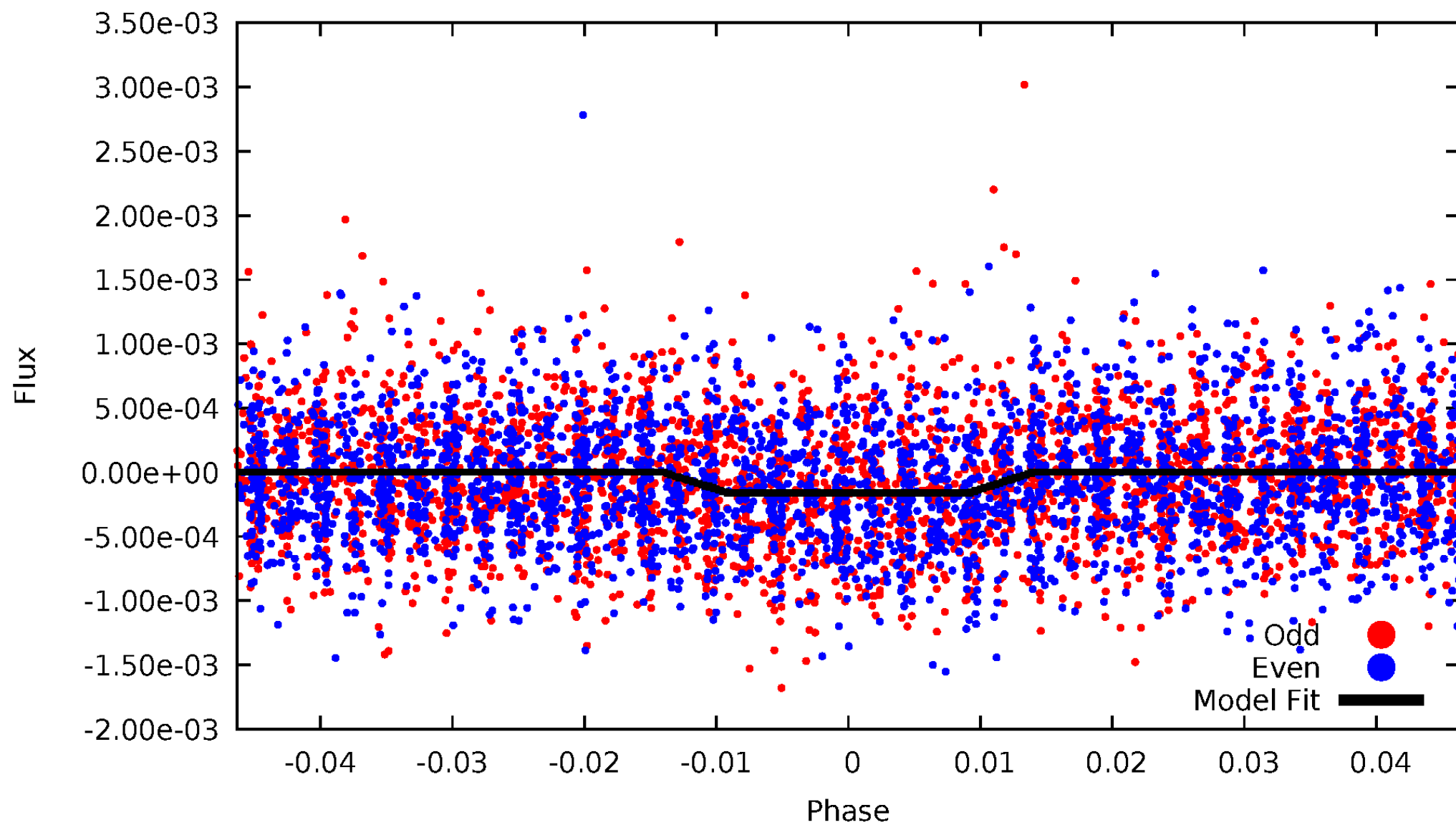
DV Odd/Even

TCE 008226994-03



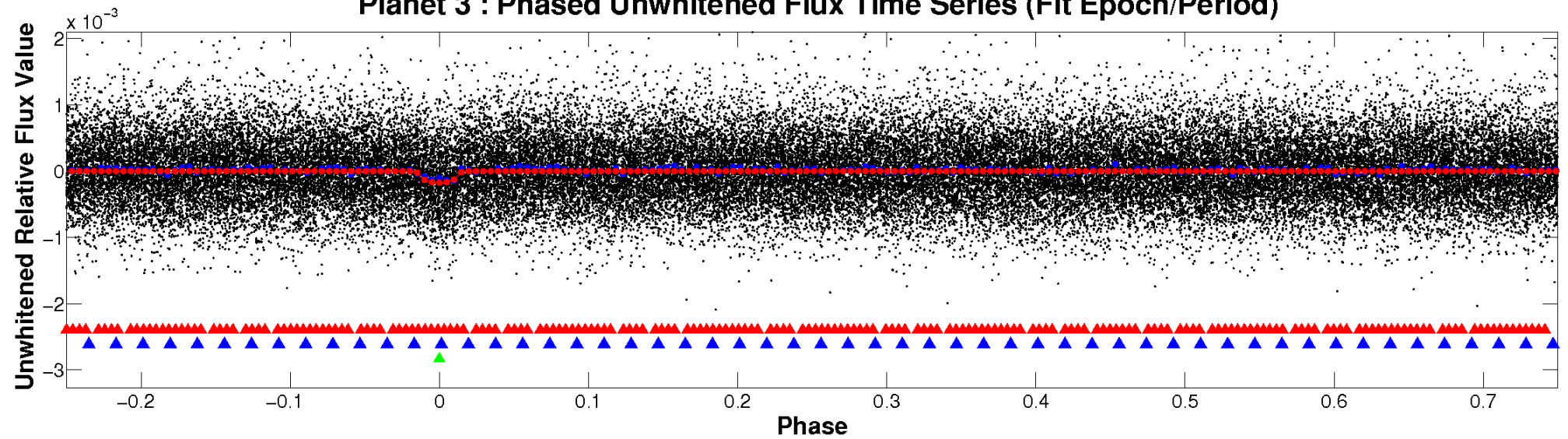
ALT Odd/Even

TCE 008226994-03

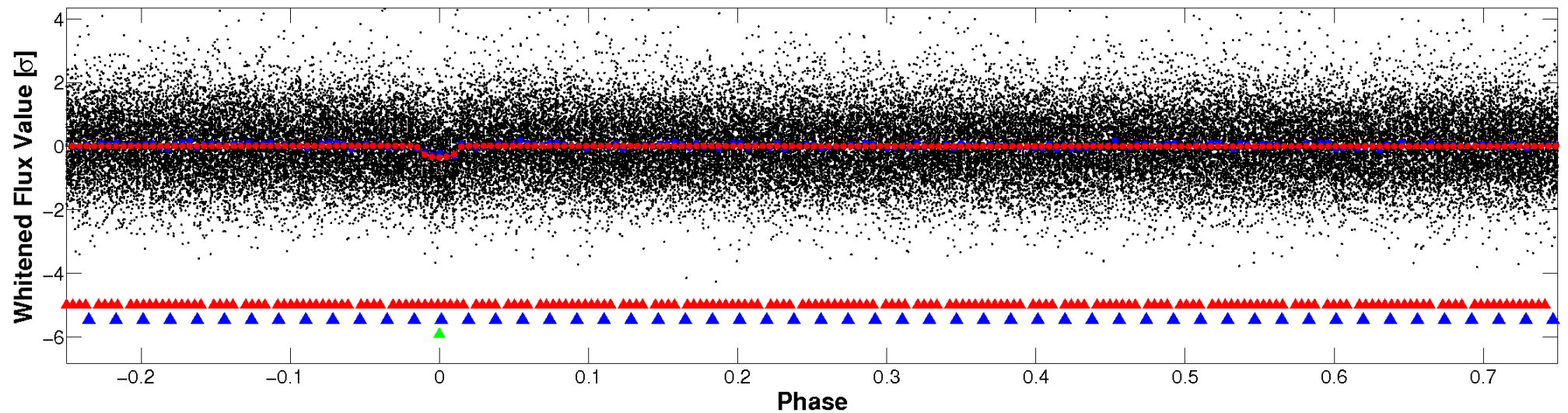


Non-Whitened Vs. Whitened Light Curve

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

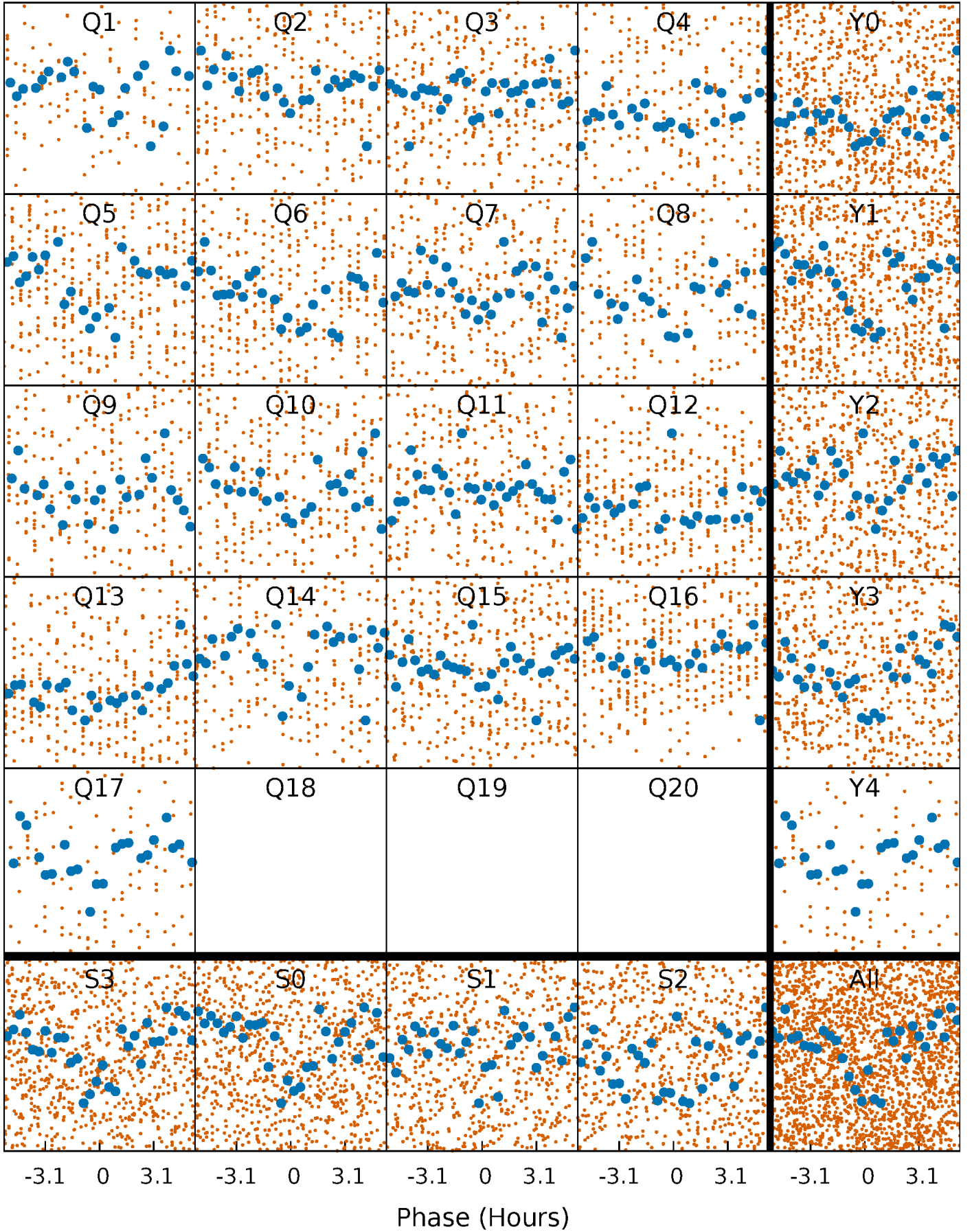


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



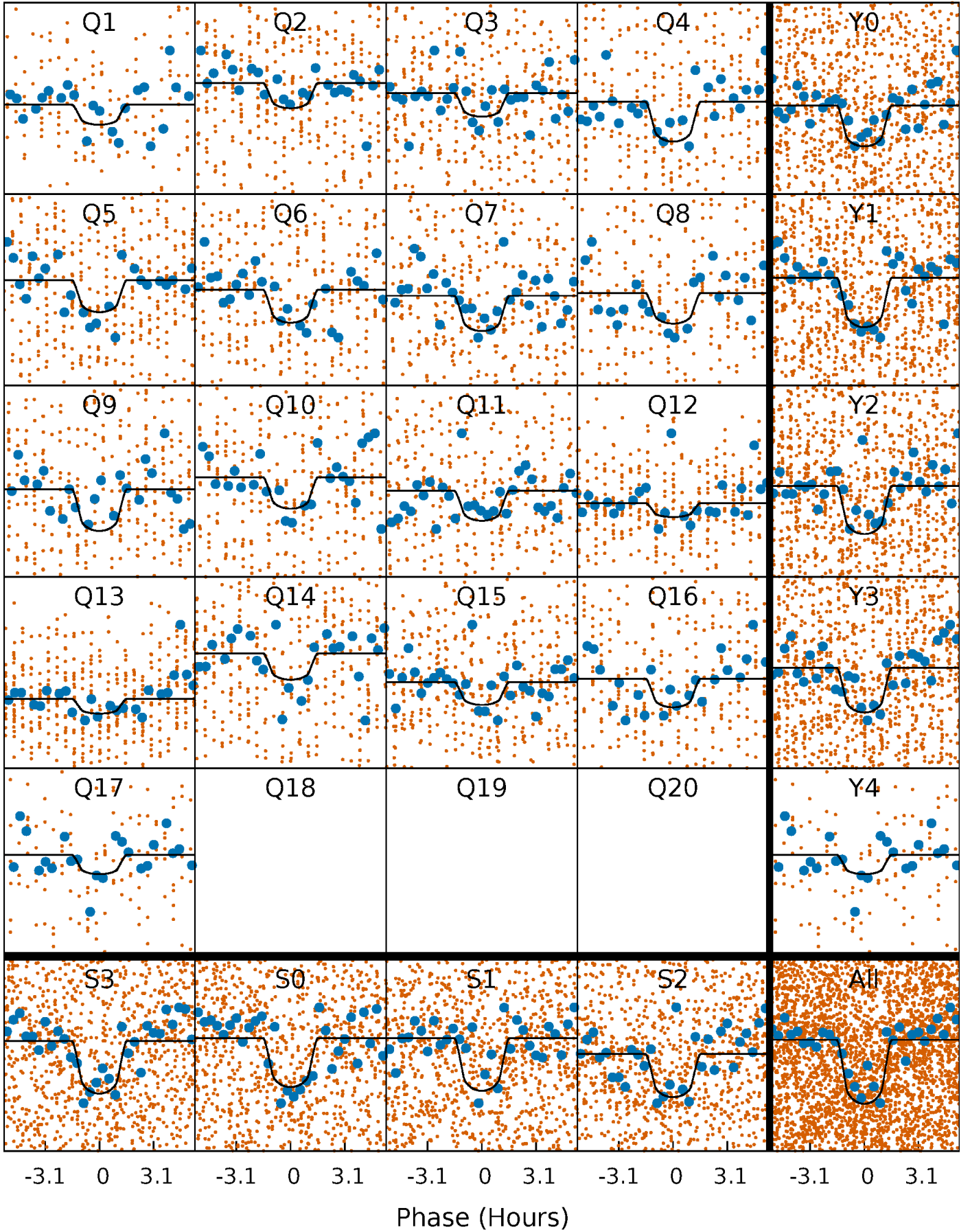
PDC Quarter-Phased Transit Curves

TCE 008226994-03 P= 4.148110 Days $T_0=133.387334$ (BKJD)



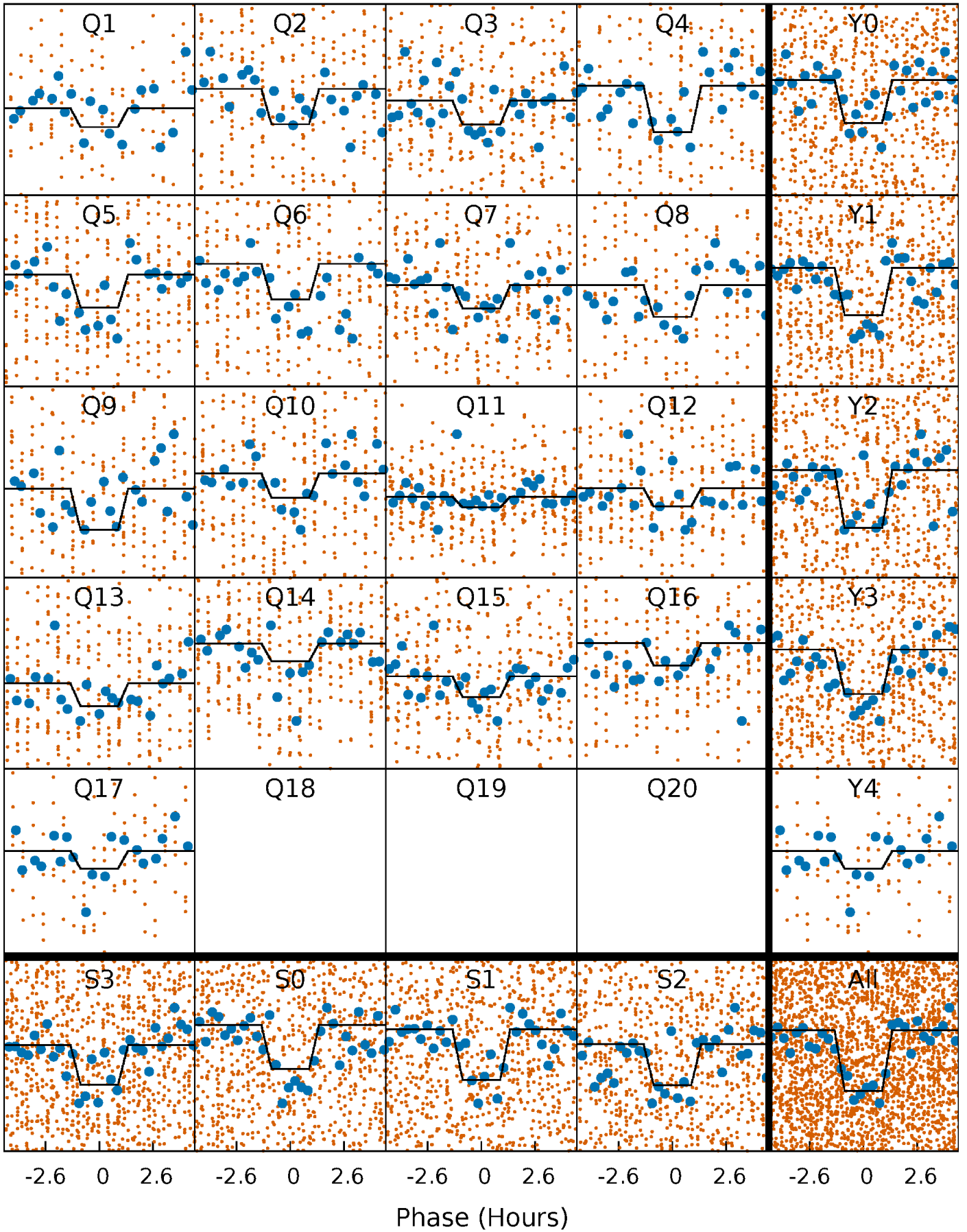
DV Quarter-Phased Transit Curves

TCE 008226994-03 $P = 4.148110$ Days $T_0 = 133.387334$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

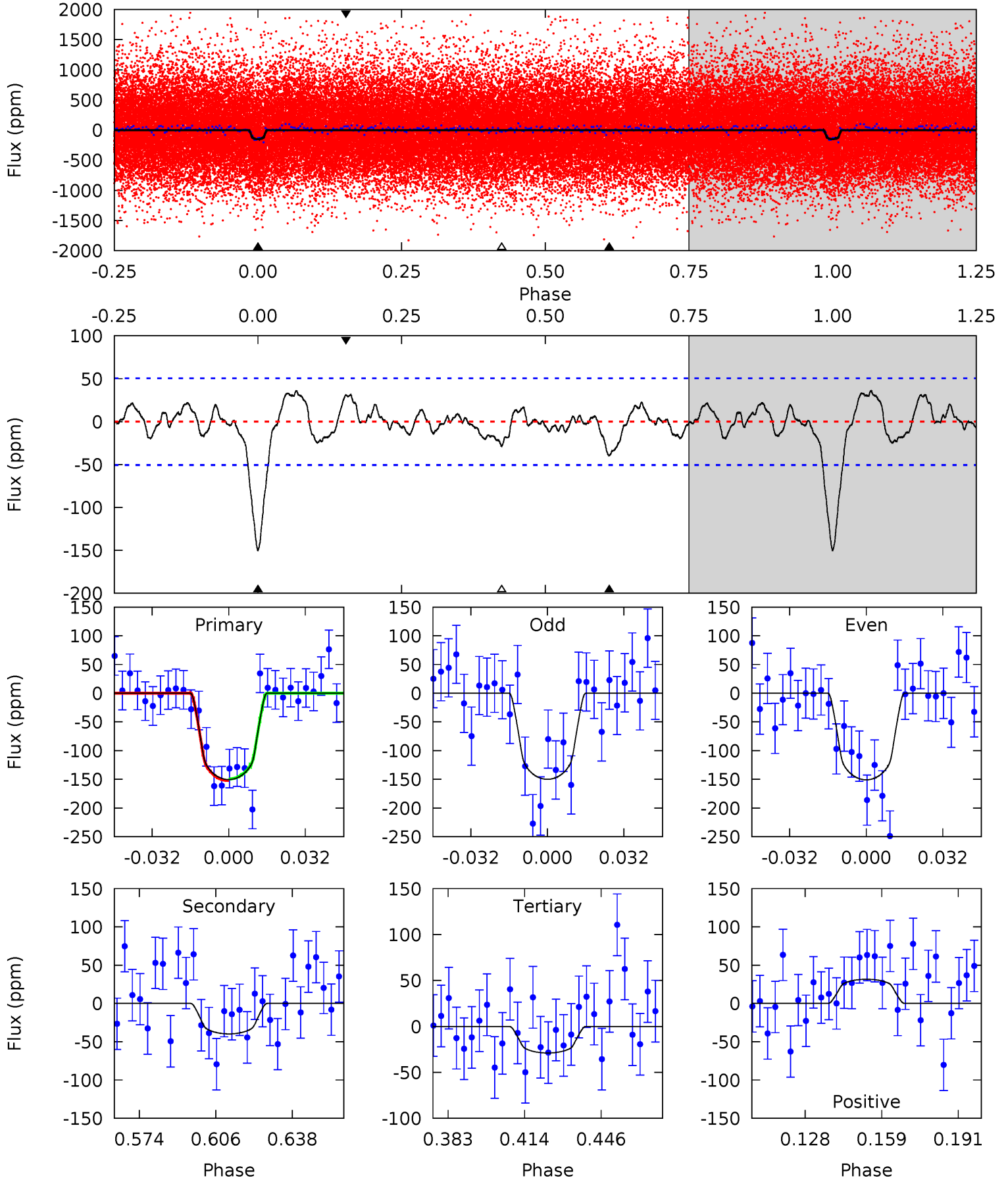
TCE 008226994-03 P= 4.148121 Days $T_0=133.386596$ (BKJD)



DV Model-Shift Uniqueness Test

008226994-03, P = 4.148110 Days, E = 129.239224 Days

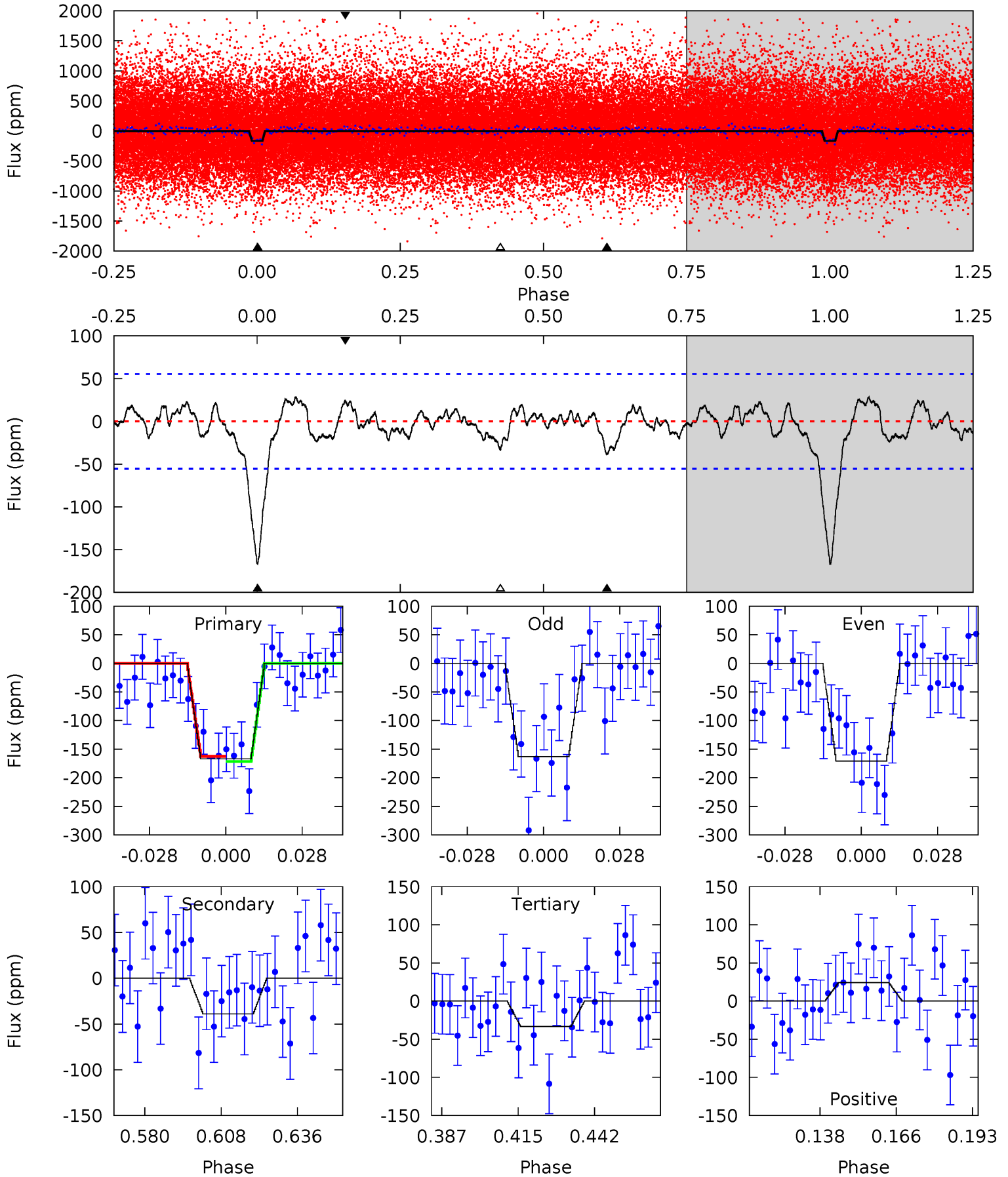
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	3.77	2.74	3.00	4.80	2.15	1.26	11.5	11.3	1.03	0.77	0.04	0.82	0.19	0.14



Alt Model-Shift Uniqueness Test

008226994-03, P = 4.148121 Days, E = 129.238475 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	3.40	2.91	2.11	4.83	2.20	1.12	11.6	12.4	0.49	1.28	0.33	0.95	0.15	0.40



Stellar Parameters For KIC 008226994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5029^{+83}_{-75}	$4.494^{+0.077}_{-0.027}$	$0.140^{+0.150}_{-0.150}$	$0.838^{+0.033}_{-0.066}$	$0.798^{+0.058}_{-0.026}$	$1.909^{+0.562}_{-0.200}$
	+2%/-1%	+2%/-1%	+107%/-107%	+4%/-8%	+7%/-3%	+29%/-10%
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 008226994-03 / KOI 0906.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-40 ± 11	$1.39^{+0.88}_{-0.78}$	1303^{+27}_{-32}	3616^{+1354}_{-542}	25^{+111}_{-16}
Alt.	-39 ± 11	$1.30^{+0.81}_{-0.76}$	1302^{+28}_{-30}	3676^{+1327}_{-539}	28^{+121}_{-18}

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

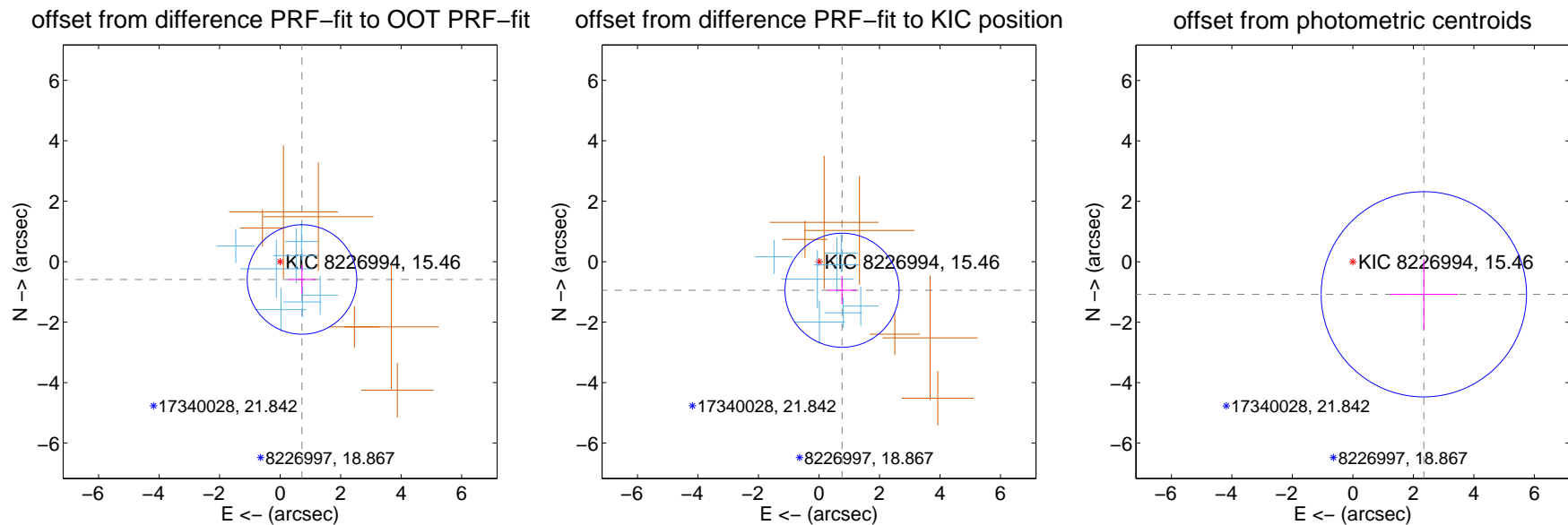
DV Centroid Data

Supplemental centroid analysis for 008226994-03. Kepler magnitude: 15.46. Transit SNR 11.88

There are 7 quarters with good PRF difference image offsets

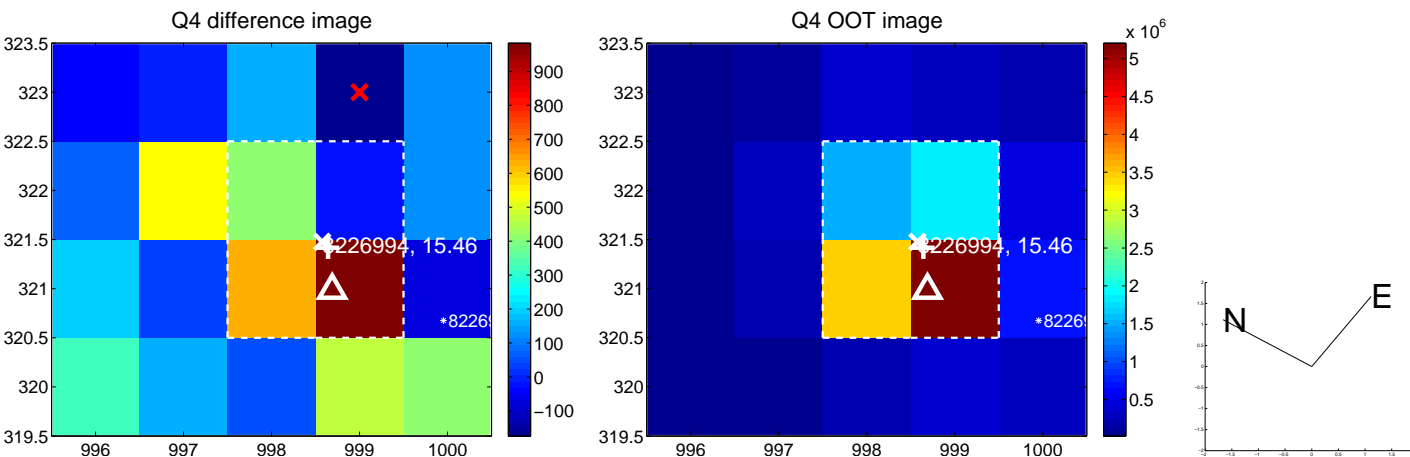
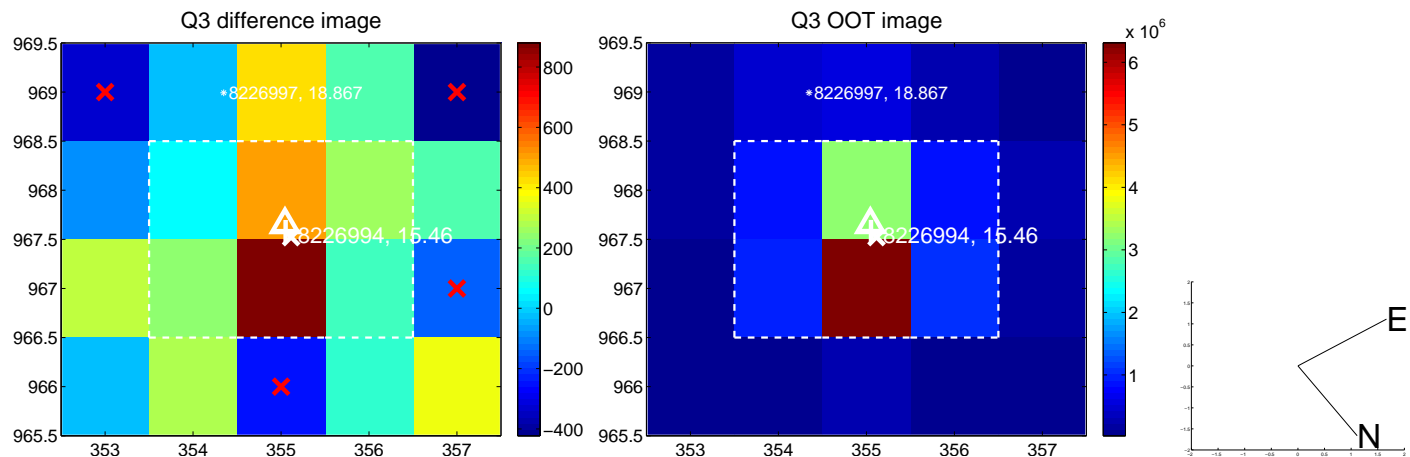
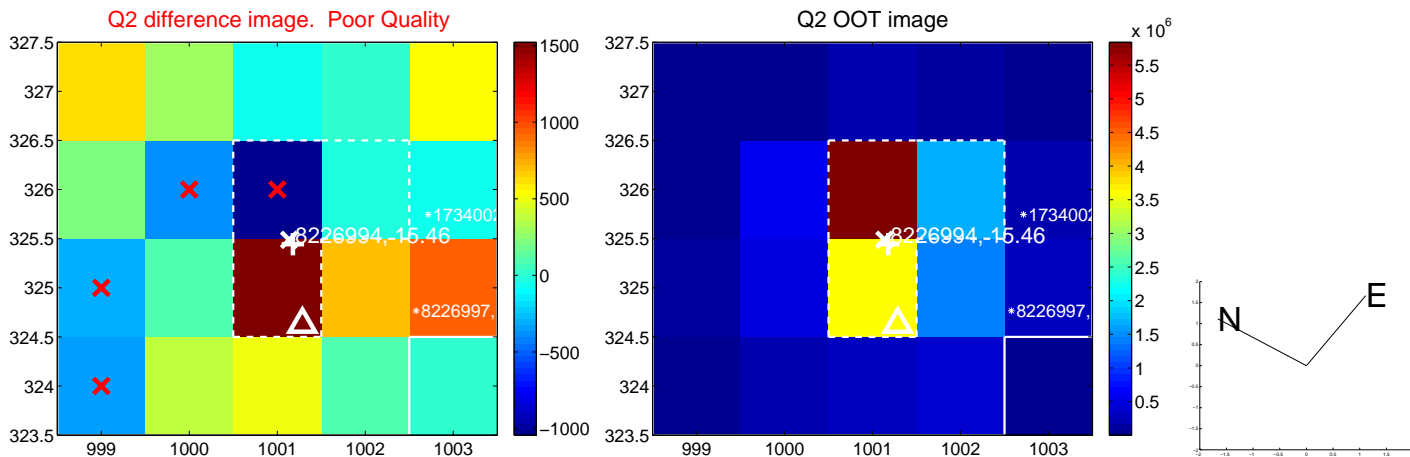
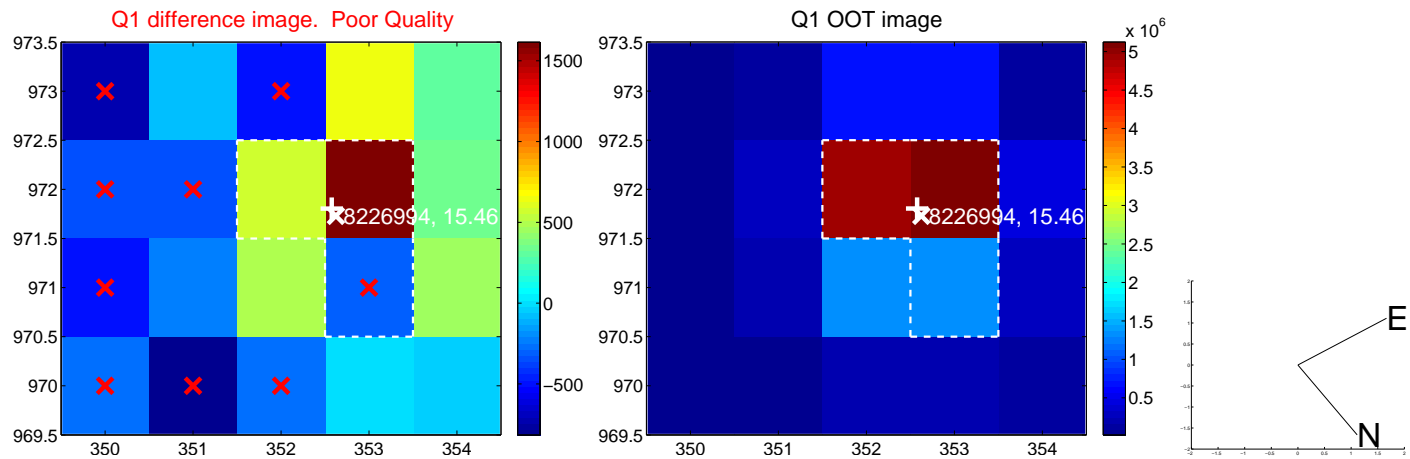
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.932 ± 0.604	1.54	-0.723 ± 0.452	-0.588 ± 0.472
PRF-fit source offset from KIC position	1.214 ± 0.629	1.93	-0.763 ± 0.475	-0.944 ± 0.469
photometric centroid source offset	2.58 ± 1.13	2.28	-2.35 ± 1.12	-1.08 ± 1.17

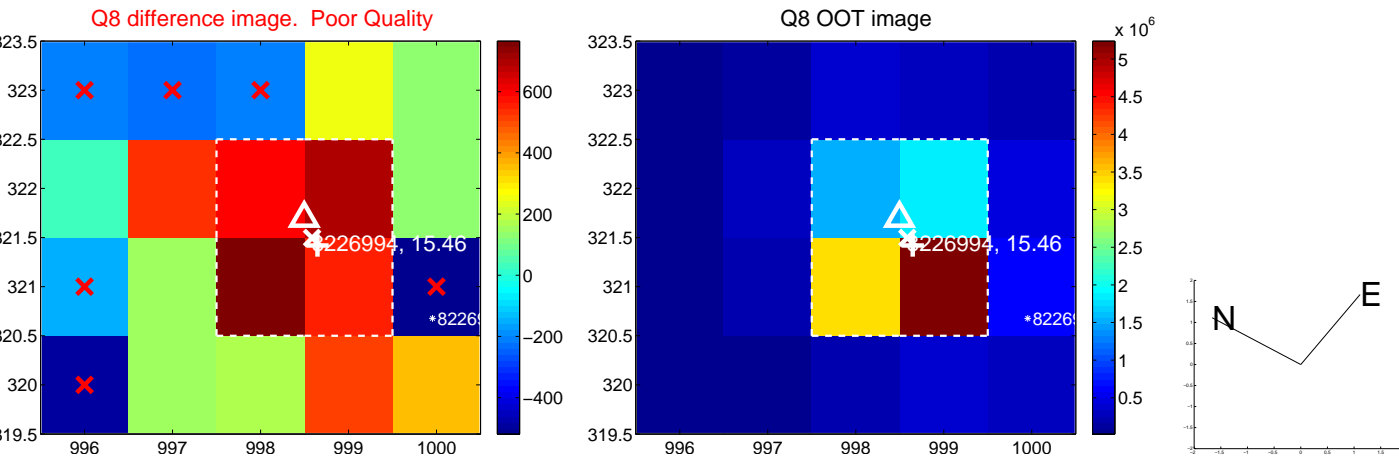
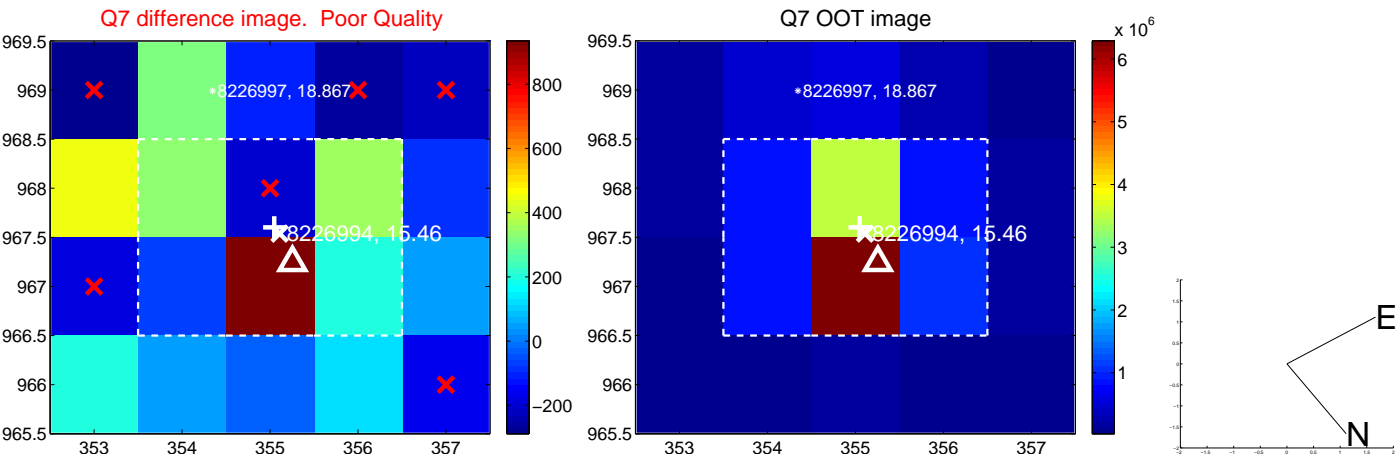
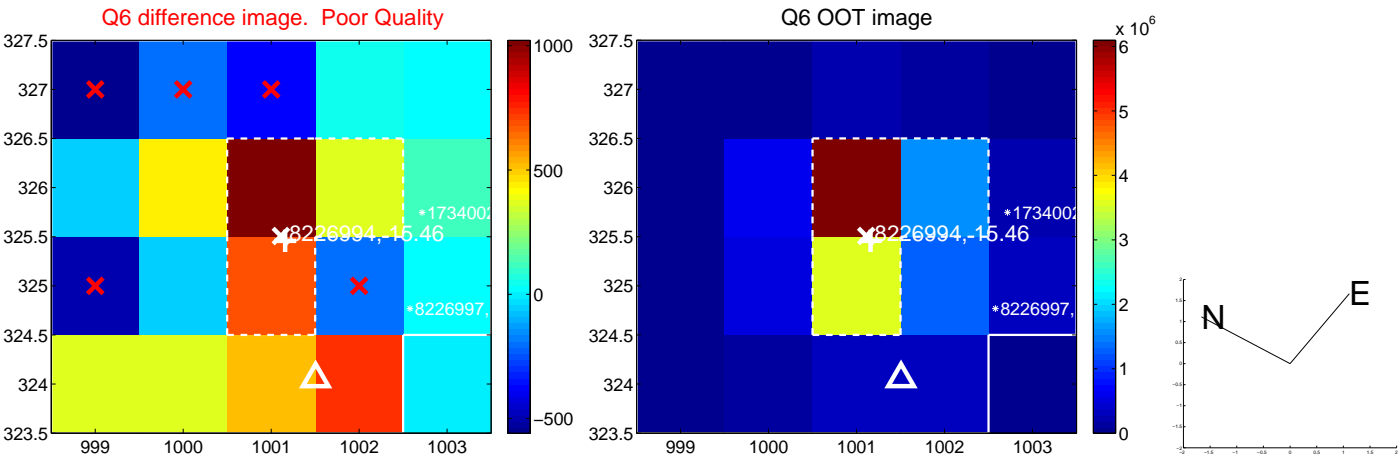
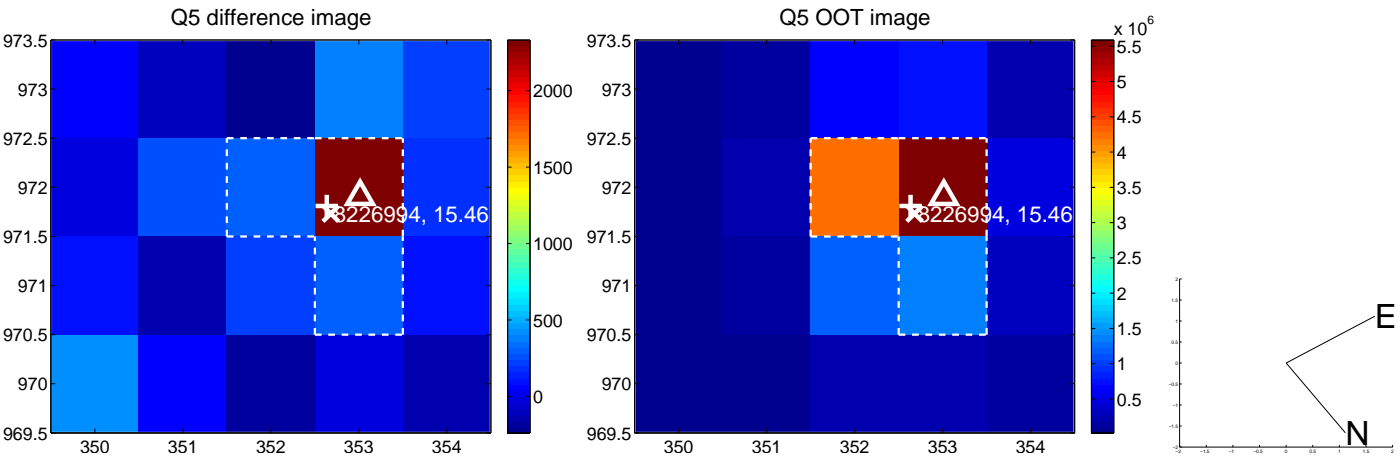


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

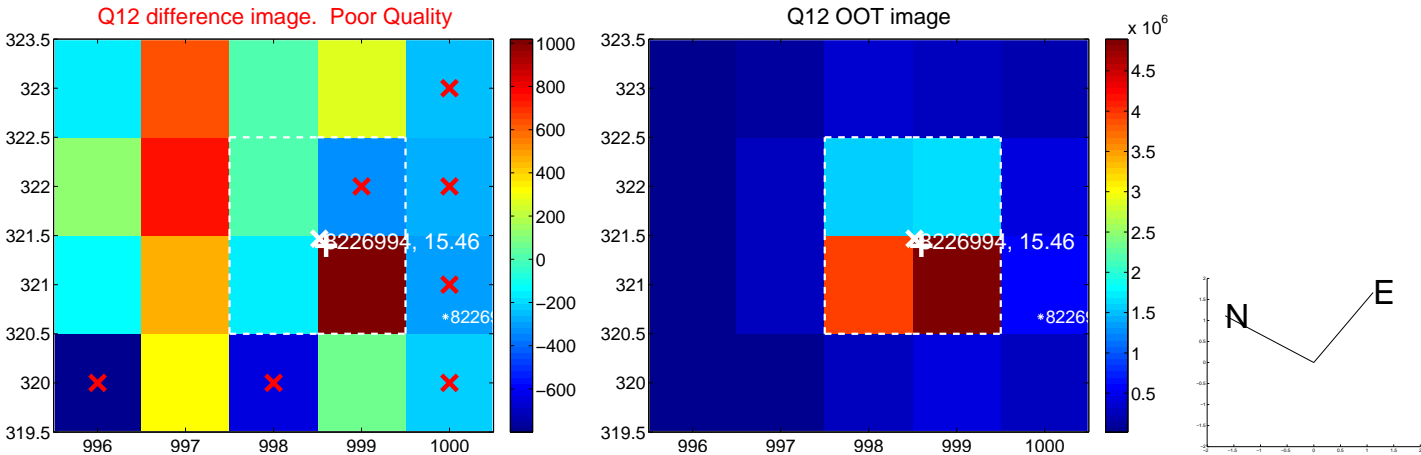
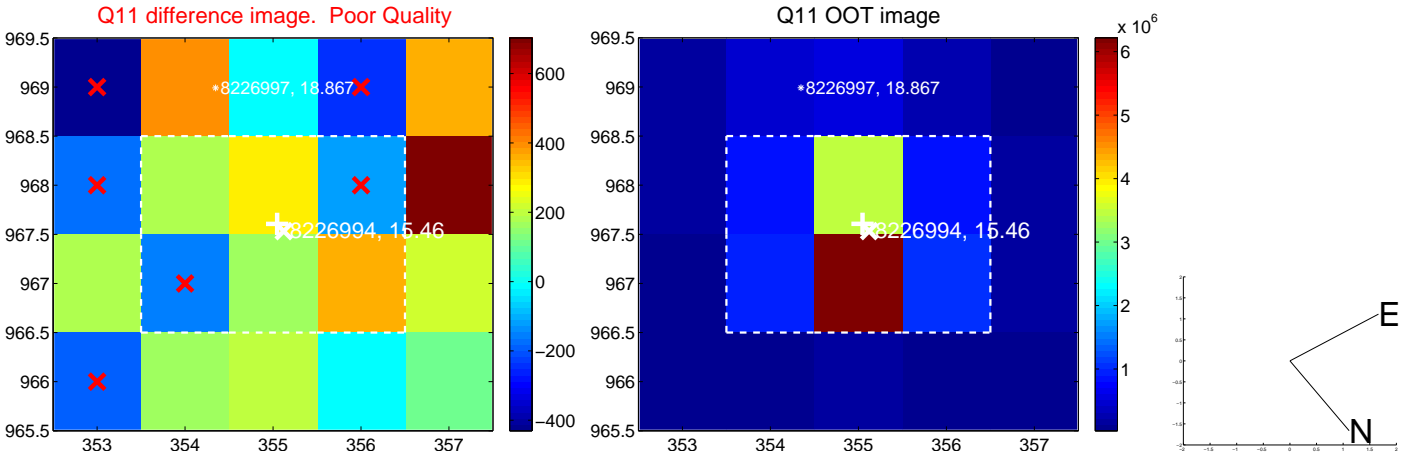
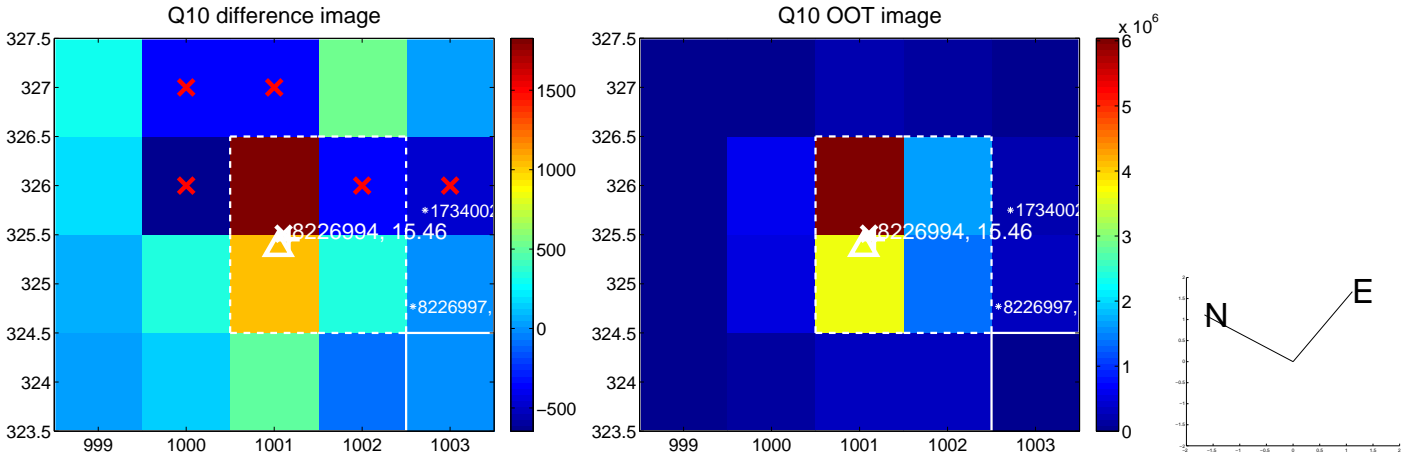
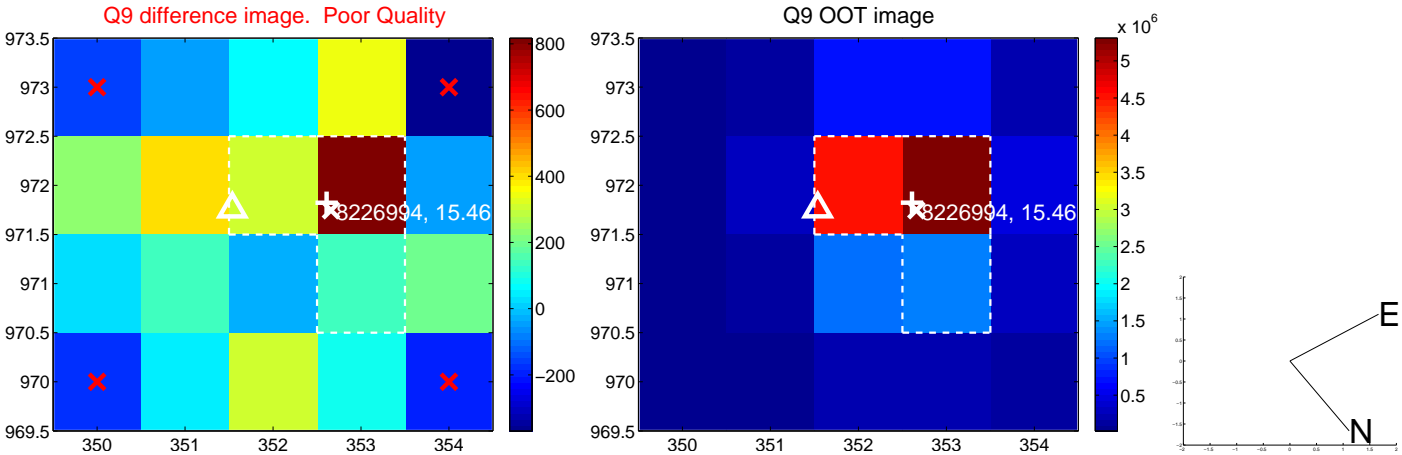
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



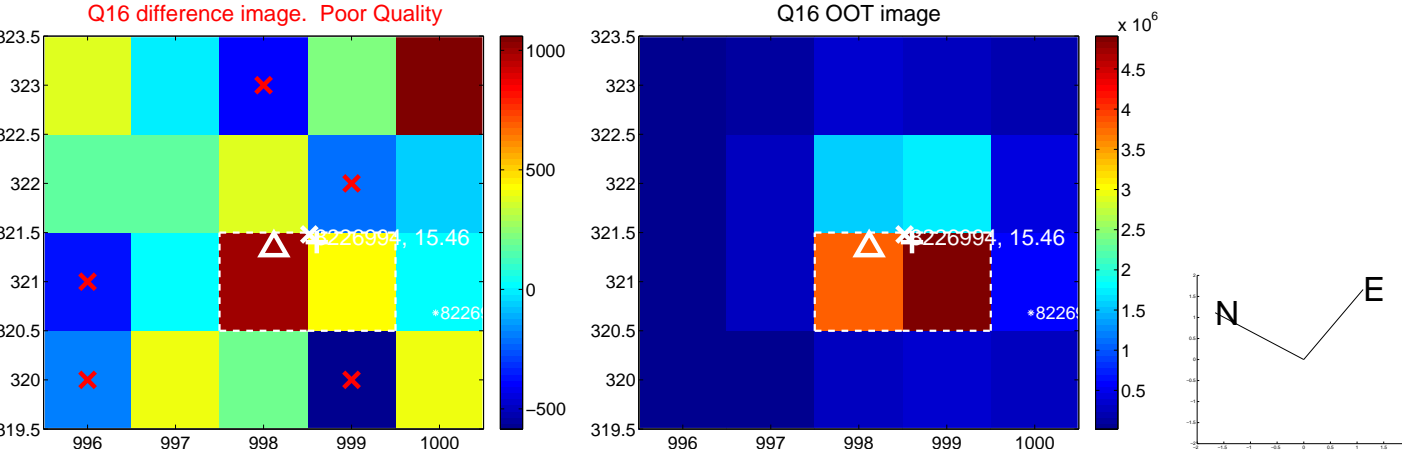
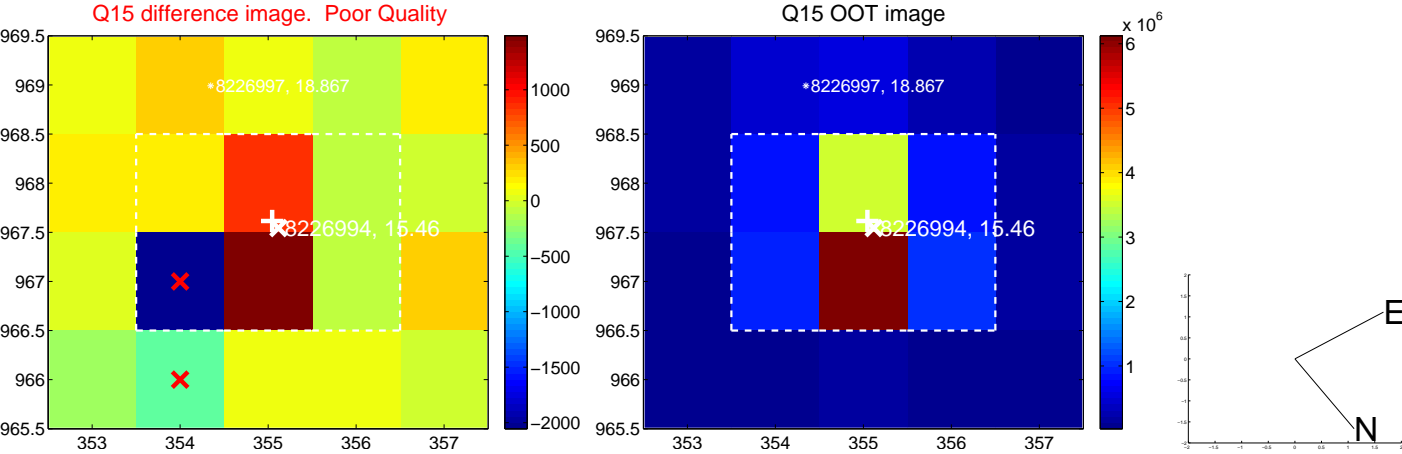
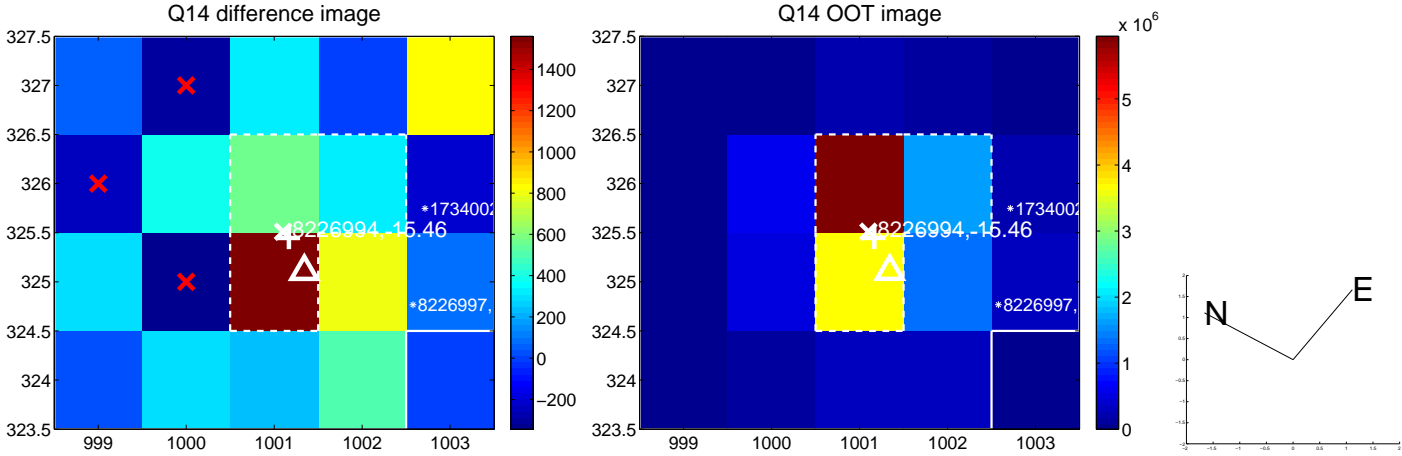
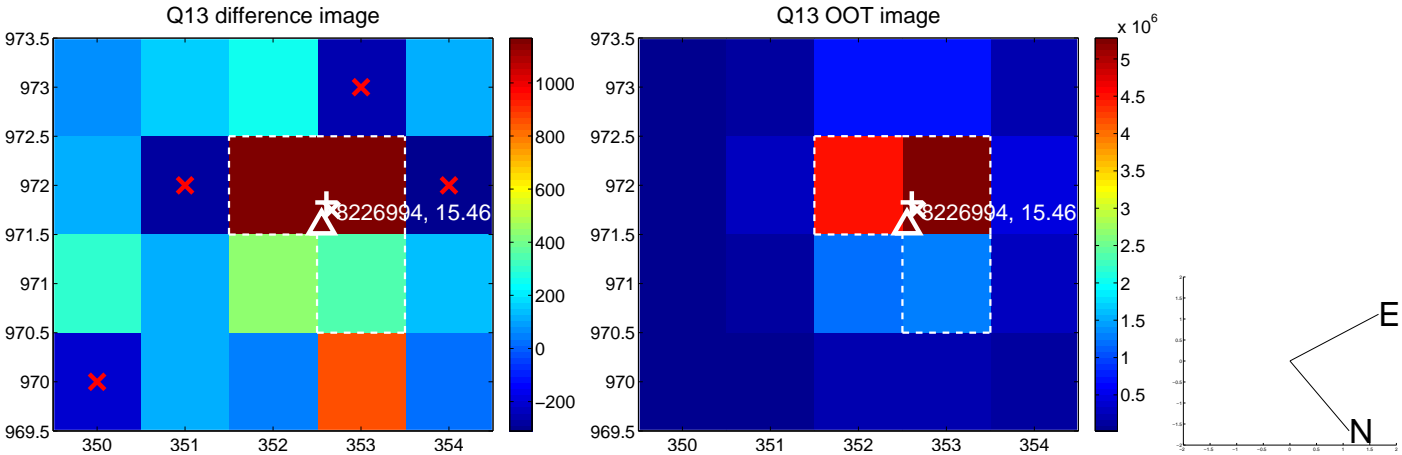
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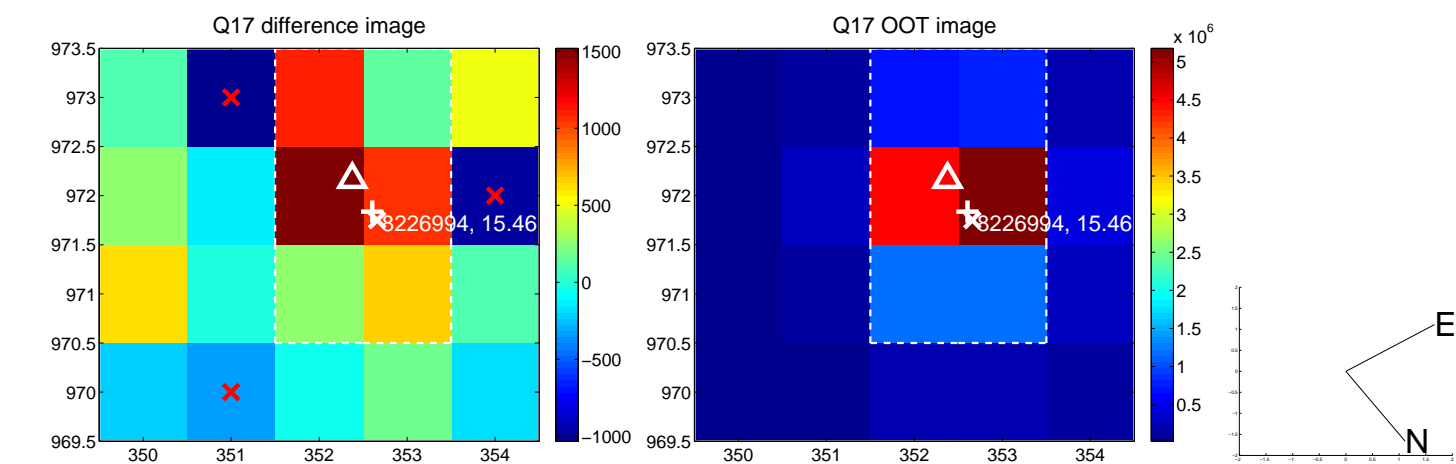
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



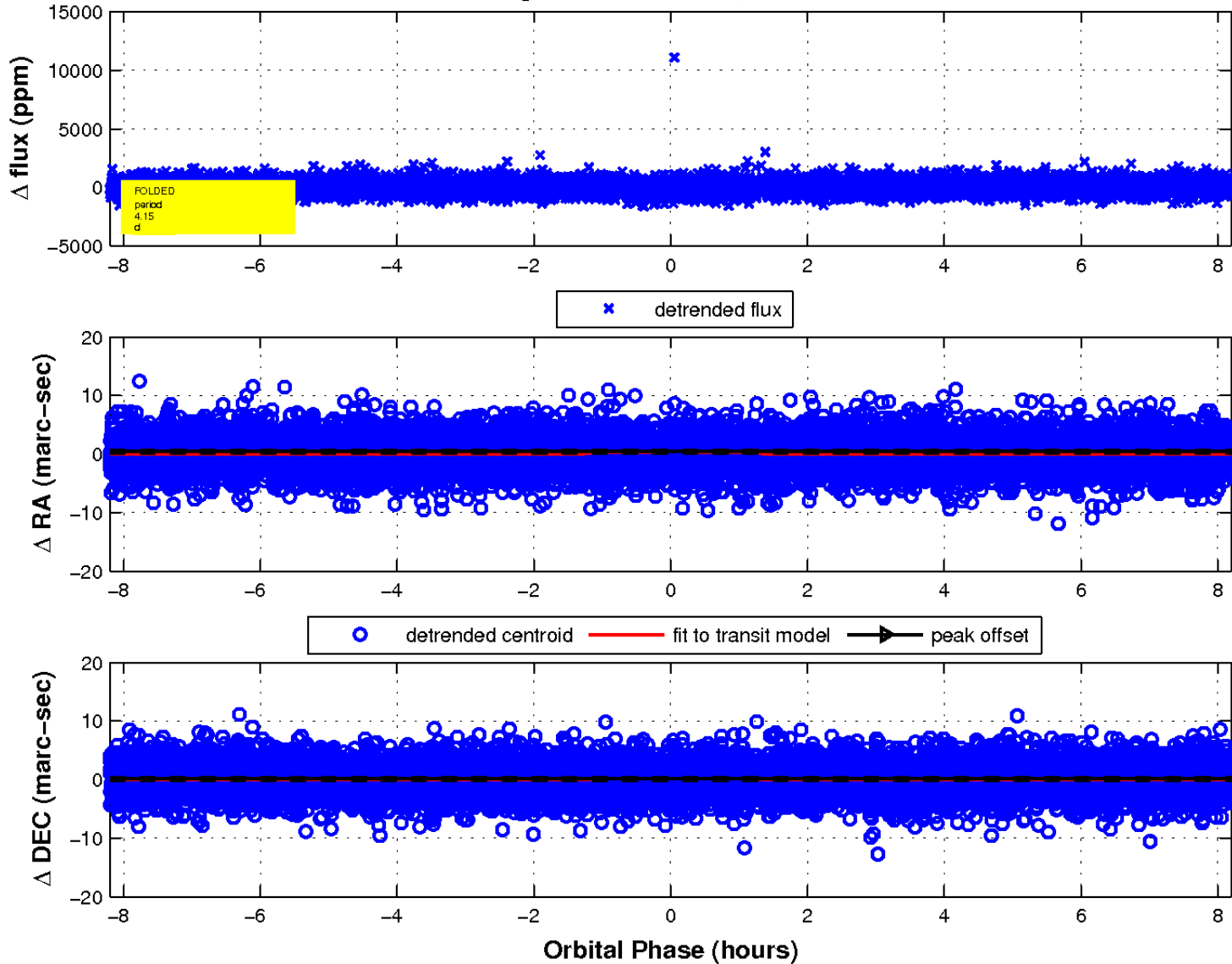
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

