

KIC 009471268

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})
009471268-01	OBS	1835.02	2.248298	133.423606	254.2	2.144	44.2	49.2	0.79	5103	1.53	382.33
009471268-02	OBS	1835.01	4.580343	134.075533	298.5	2.284	36.0	39.4	0.79	5103	1.68	148.04
009471268-03	OBS	1835.03	6.766902	136.617818	257.5	1.698	22.3	26.5	0.79	5103	1.51	87.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009471268-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-03	OBS	PC	1.00	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.

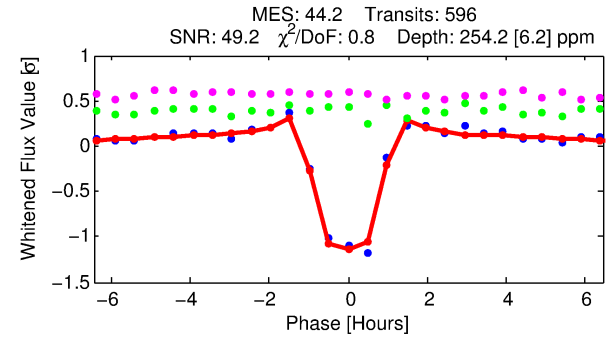
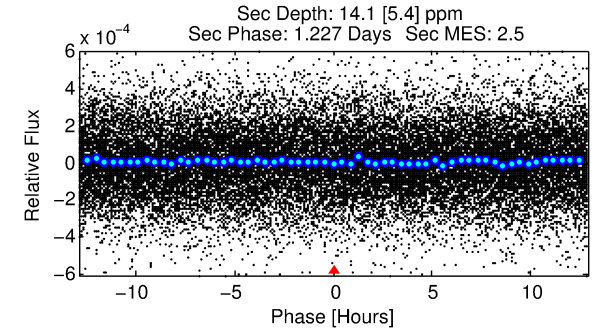
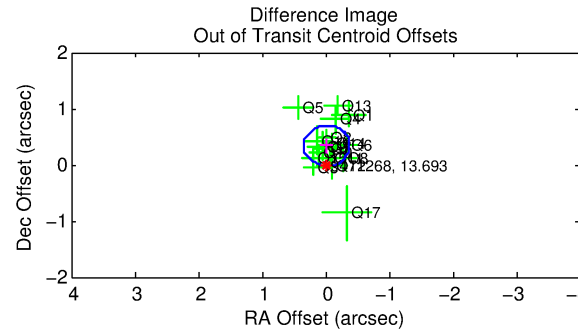
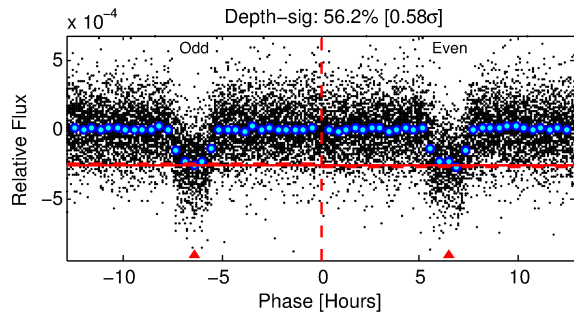
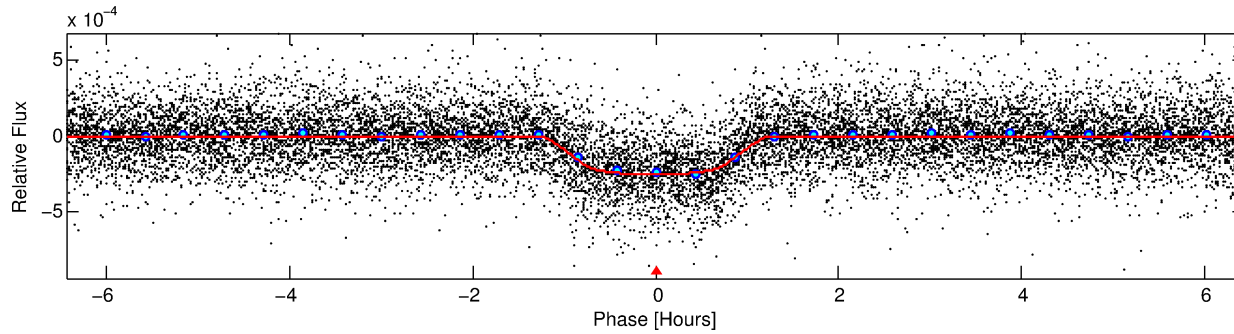
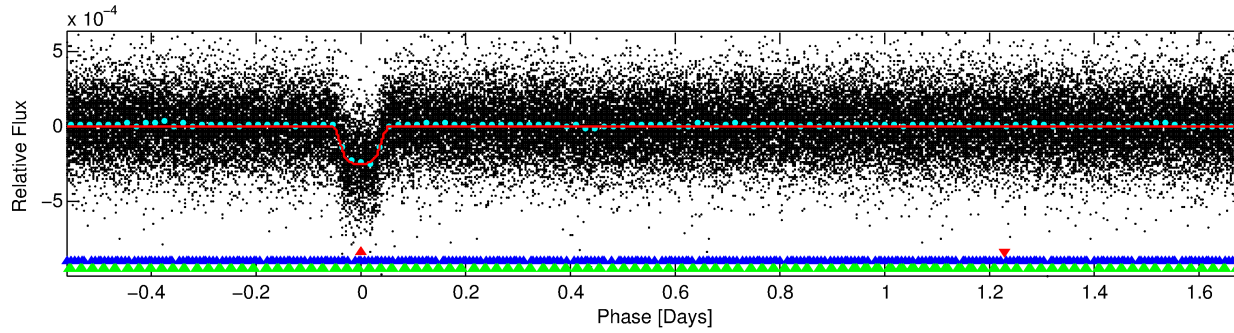
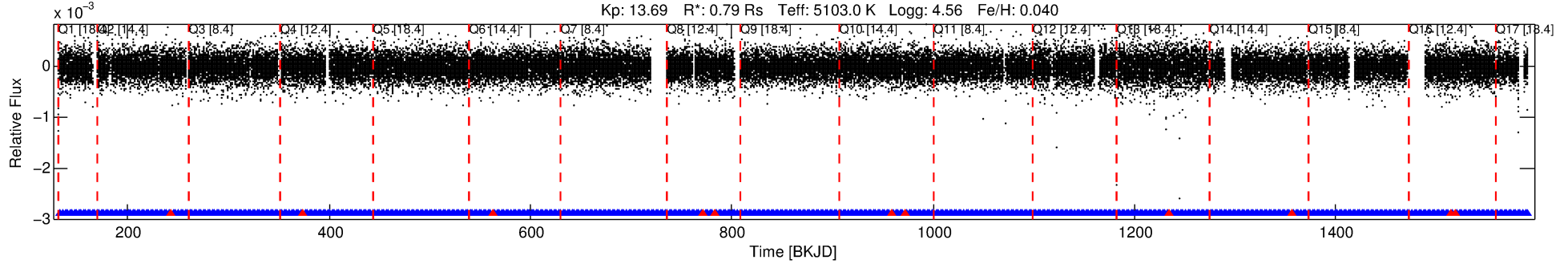
Ephemeris Match Information For 009471268-01

No Significant Match Found

DV One-Page Summary

KIC: 9471268 Candidate: 1 of 3 Period: 2.248 d
KOI: K01835.02 Name: Kepler-326b Corr: 0.965

Kp: 13.69 R*: 0.79 Rs Teff: 5103.0 K Logg: 4.56 Fe/H: 0.040



DV Fit Results:

Period = 2.24830 [0.00000] d
Epoch = 133.4236 [0.0006] BKJD
Rp/R* = 0.0178 [0.0023]
a/R* = 3.91 [1.91]
b = 0.90 [0.11]
Seff = 382.33 [45.38]
Teq = 1128 [33] K
Rp = 1.53 [0.22] Re
a = 0.0315 [0.0018] AU
Ag = 3.27 [1.54] [1.47σ]
Teffp = 2345 [276] K [4.38σ]

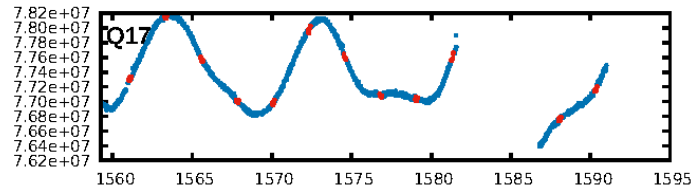
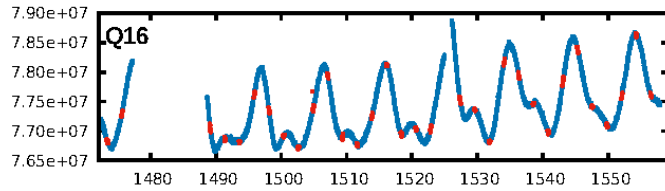
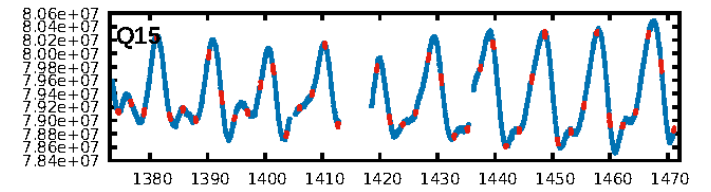
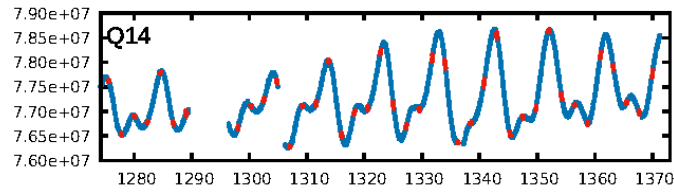
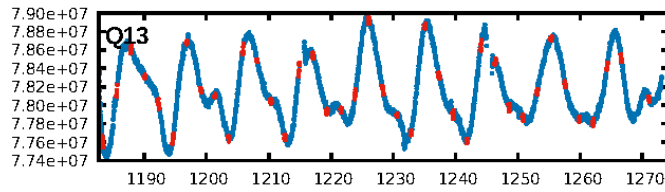
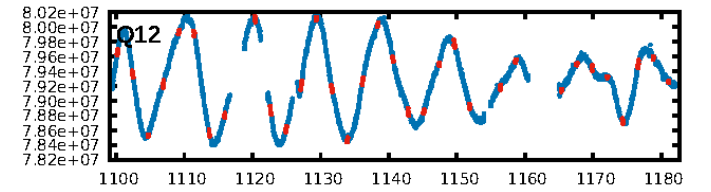
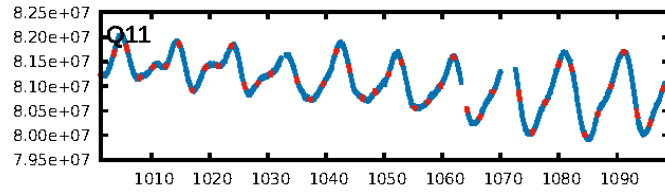
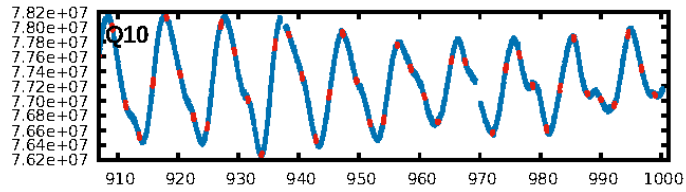
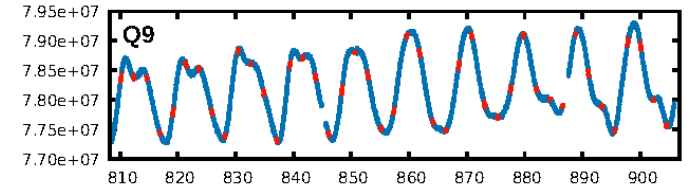
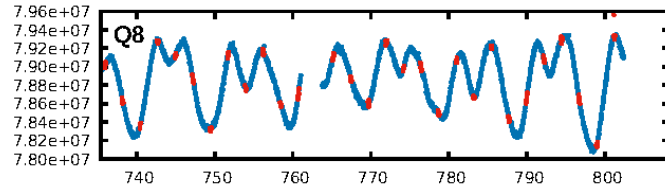
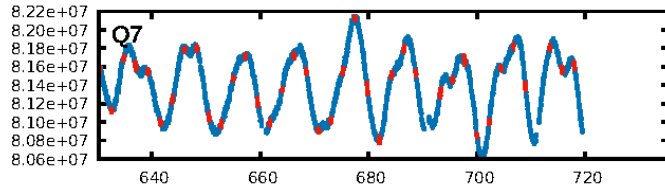
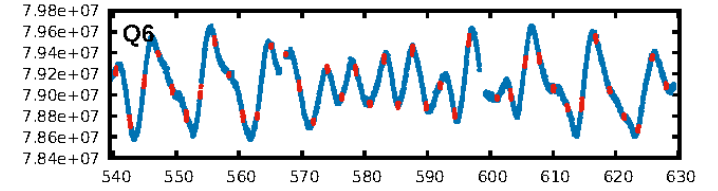
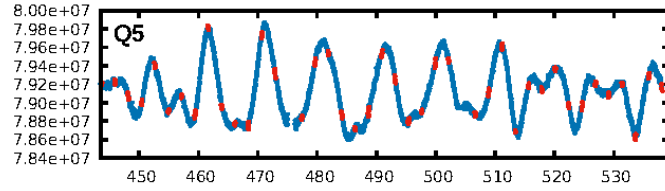
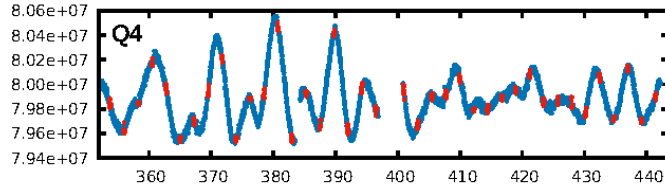
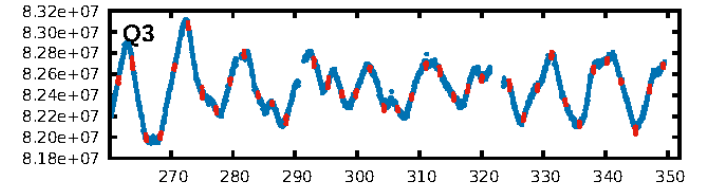
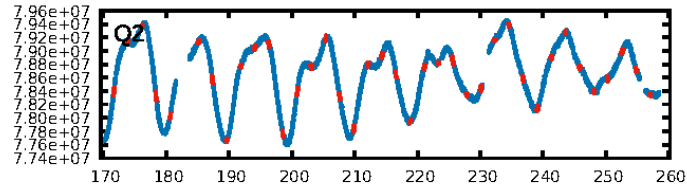
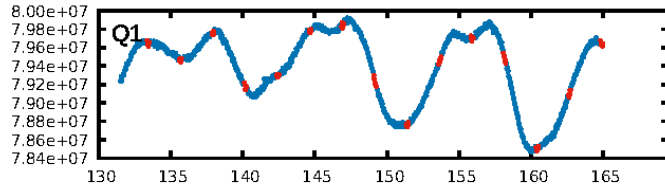
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [17.87σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [558/569]
GhostDiagnostic-chr: 4.845
Centroid-sig: 0.0%
Centroid-so: 0.403 arcsec [2.03σ]
OotOffset-rm: 0.336 arcsec [2.81σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.467 arcsec [3.68σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

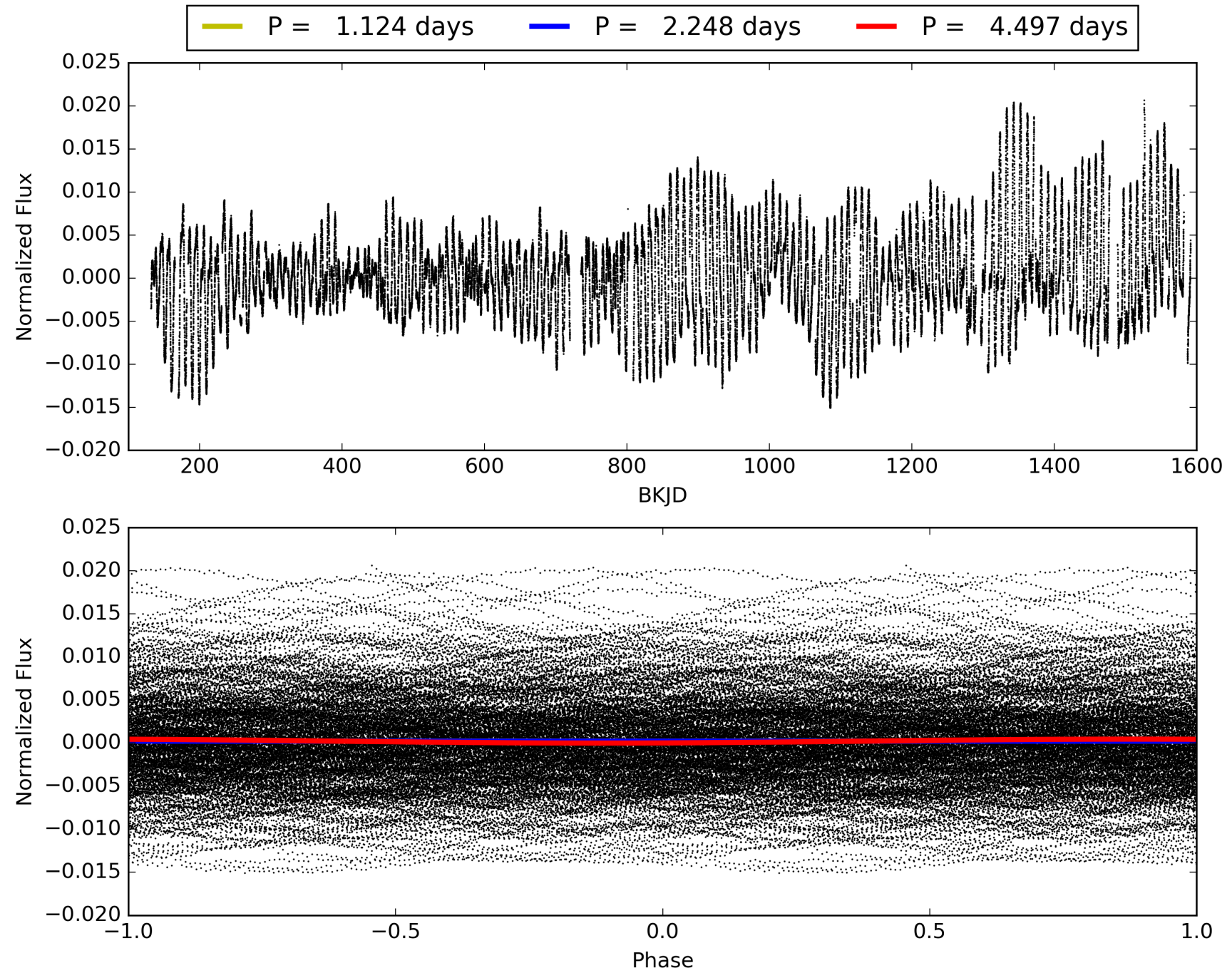
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:24:41 Z

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

TCE 009471268-01, PDC Light Curves

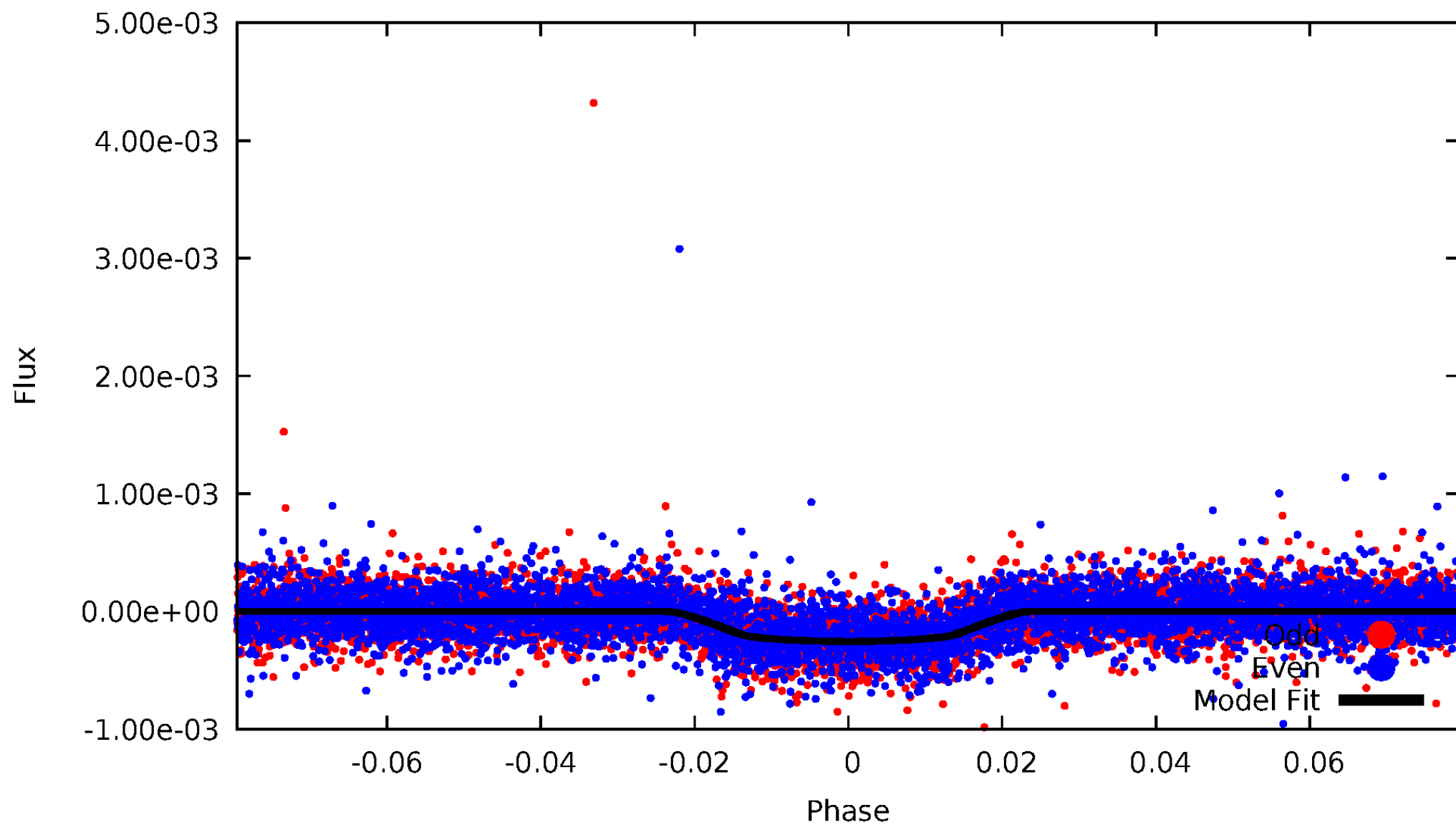


TCE 009471268-01



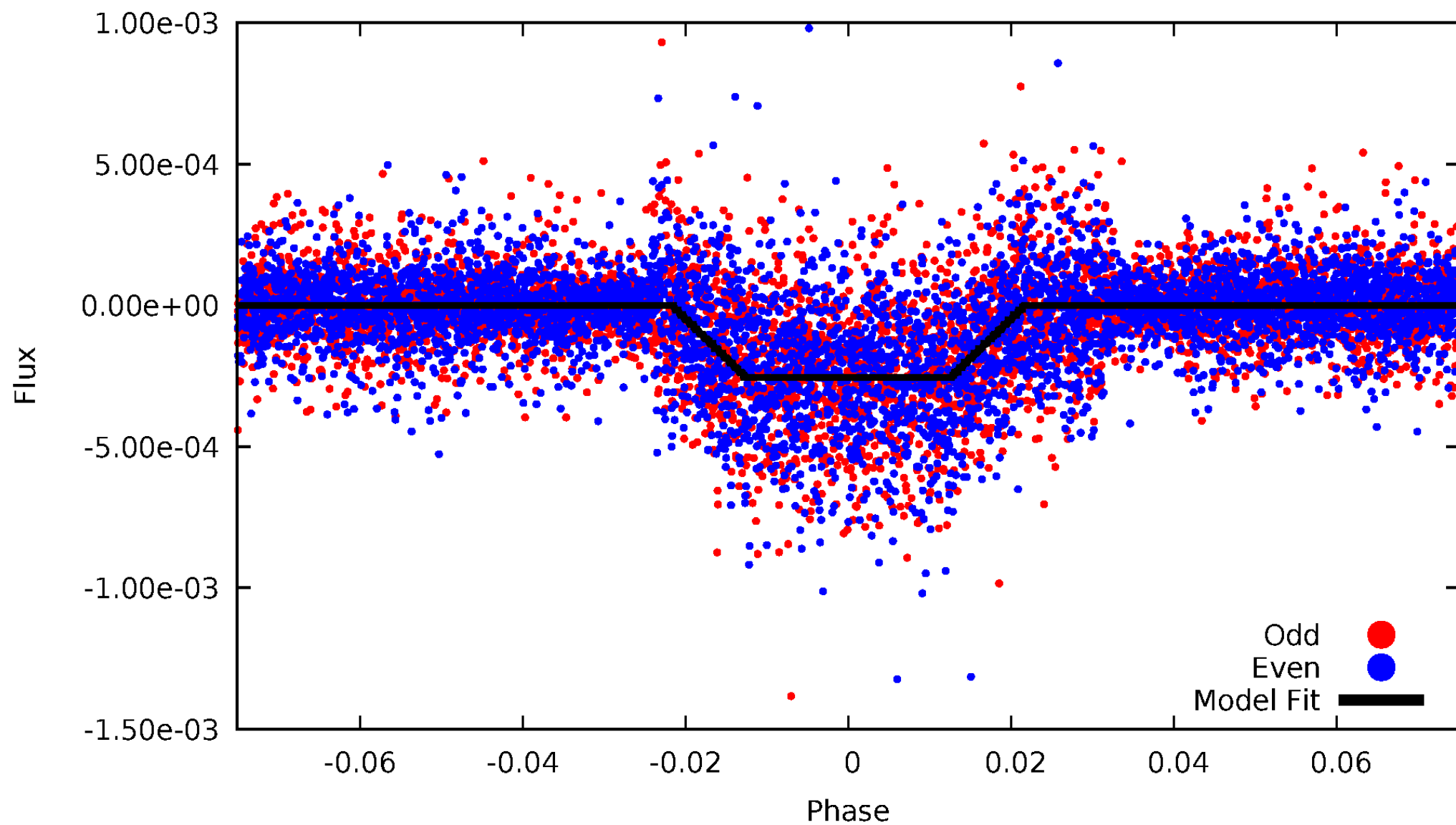
DV Odd/Even

TCE 009471268-01

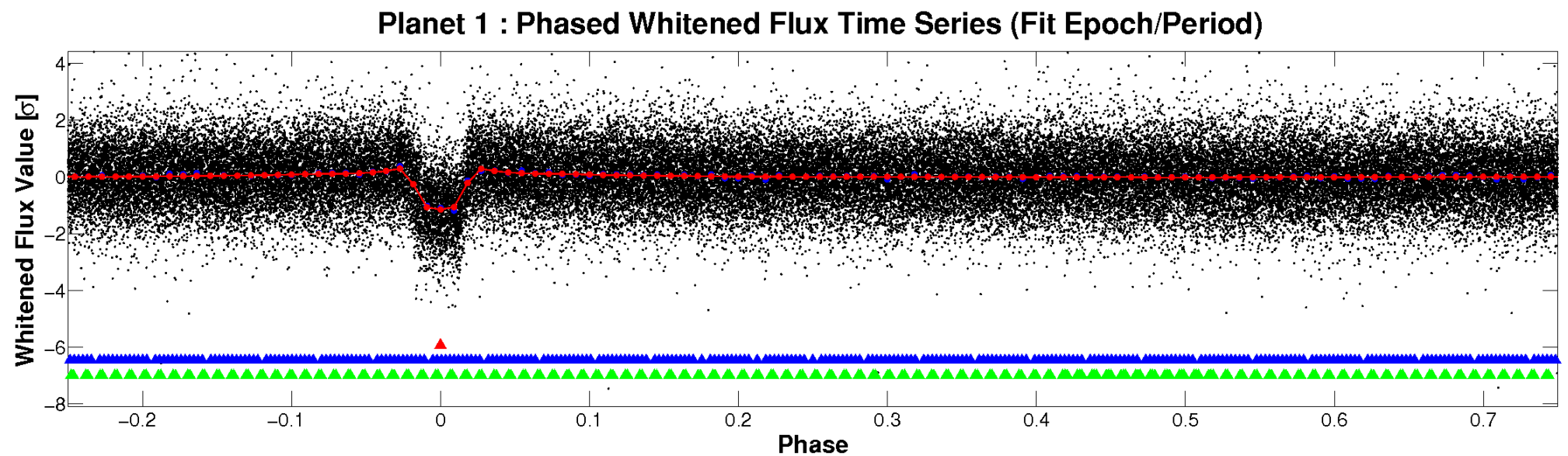
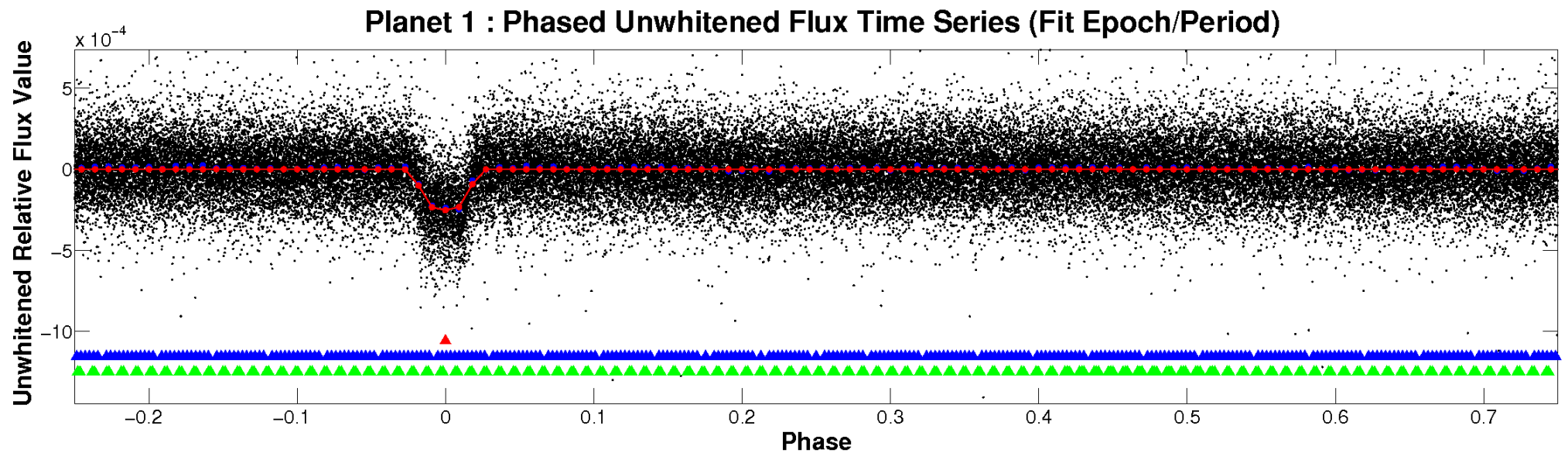


ALT Odd/Even

TCE 009471268-01

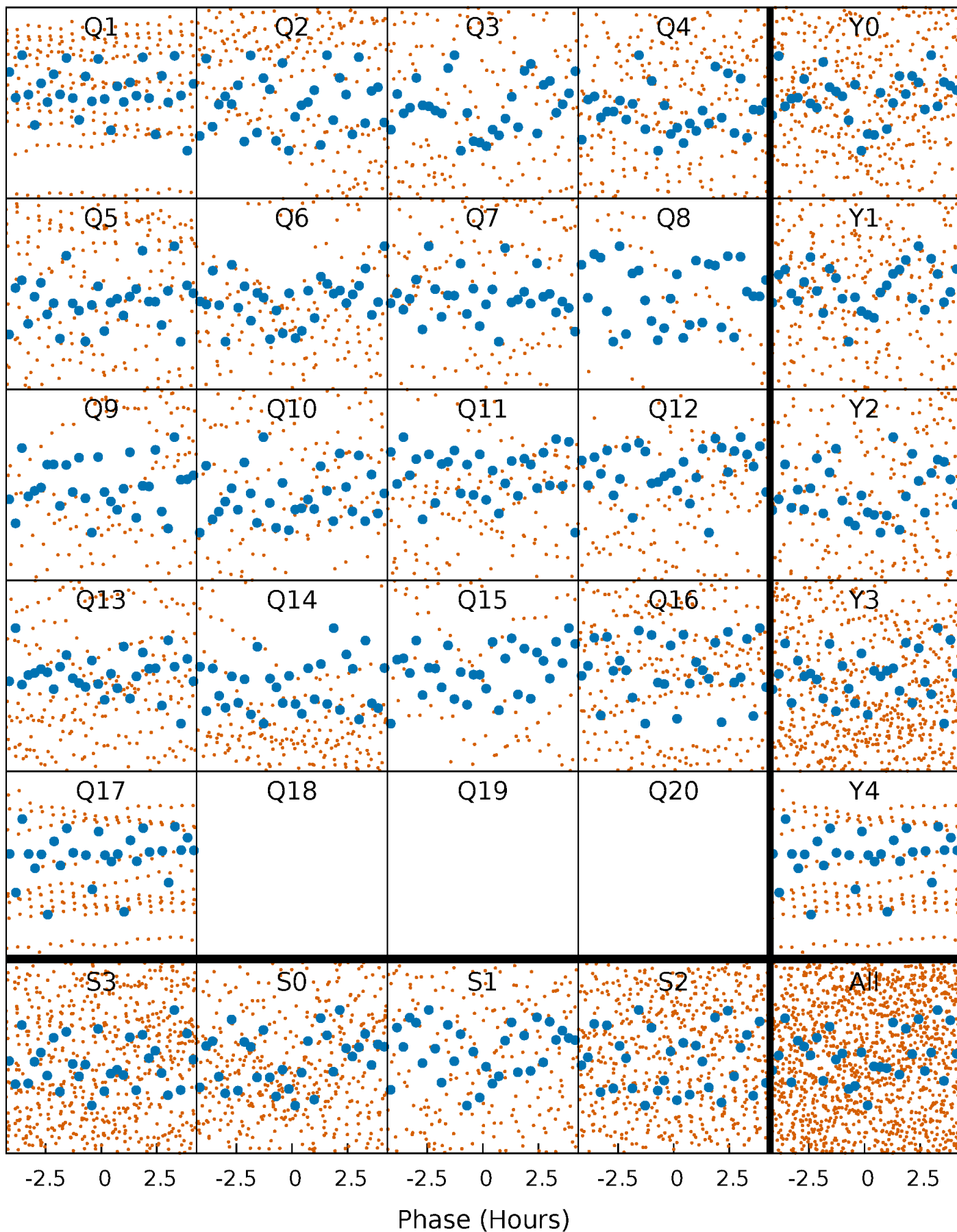


Non-Whitened Vs. Whitened Light Curve



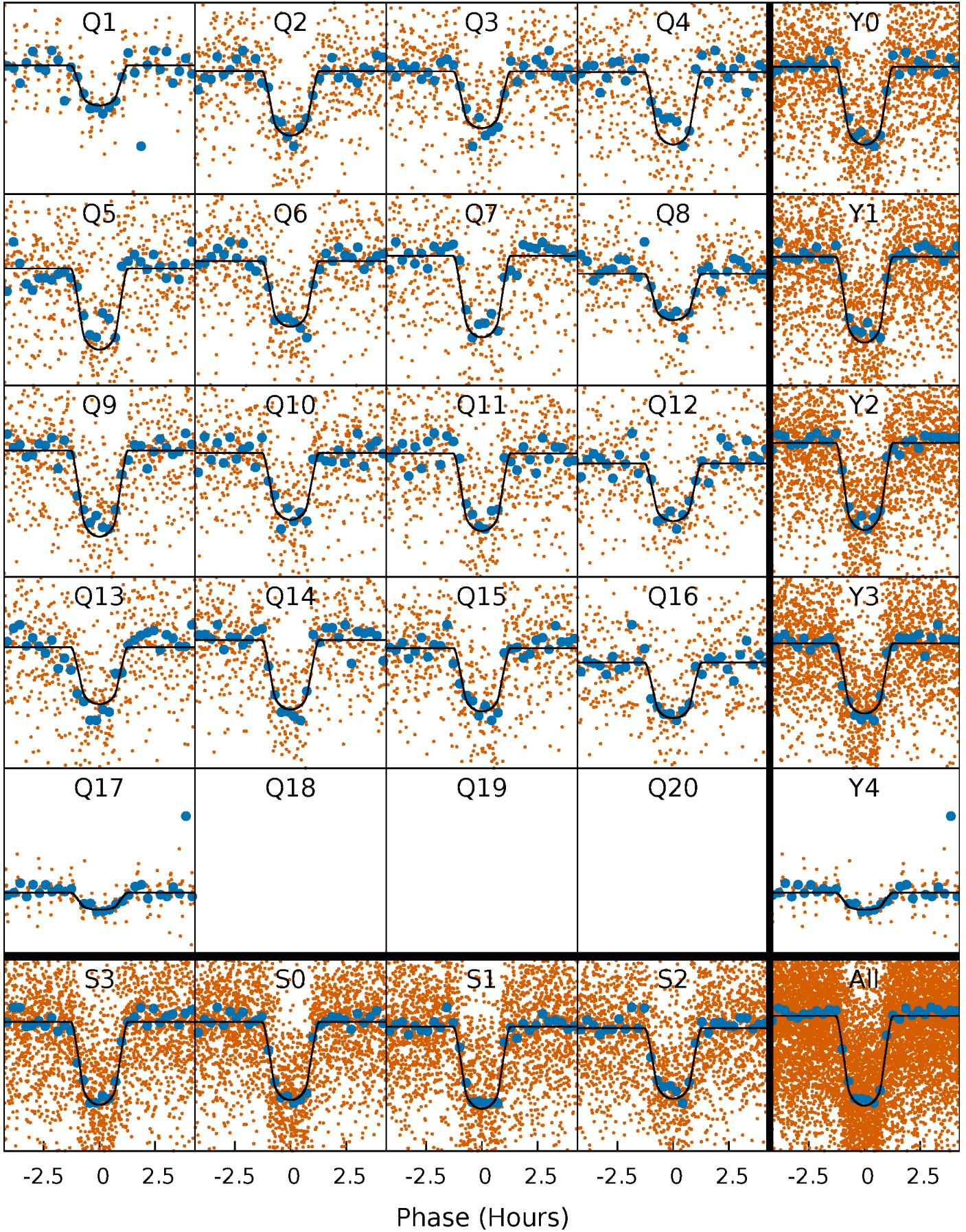
PDC Quarter-Phased Transit Curves

TCE 009471268-01 P= 2.248298 Days $T_0=133.423606$ (BKJD)



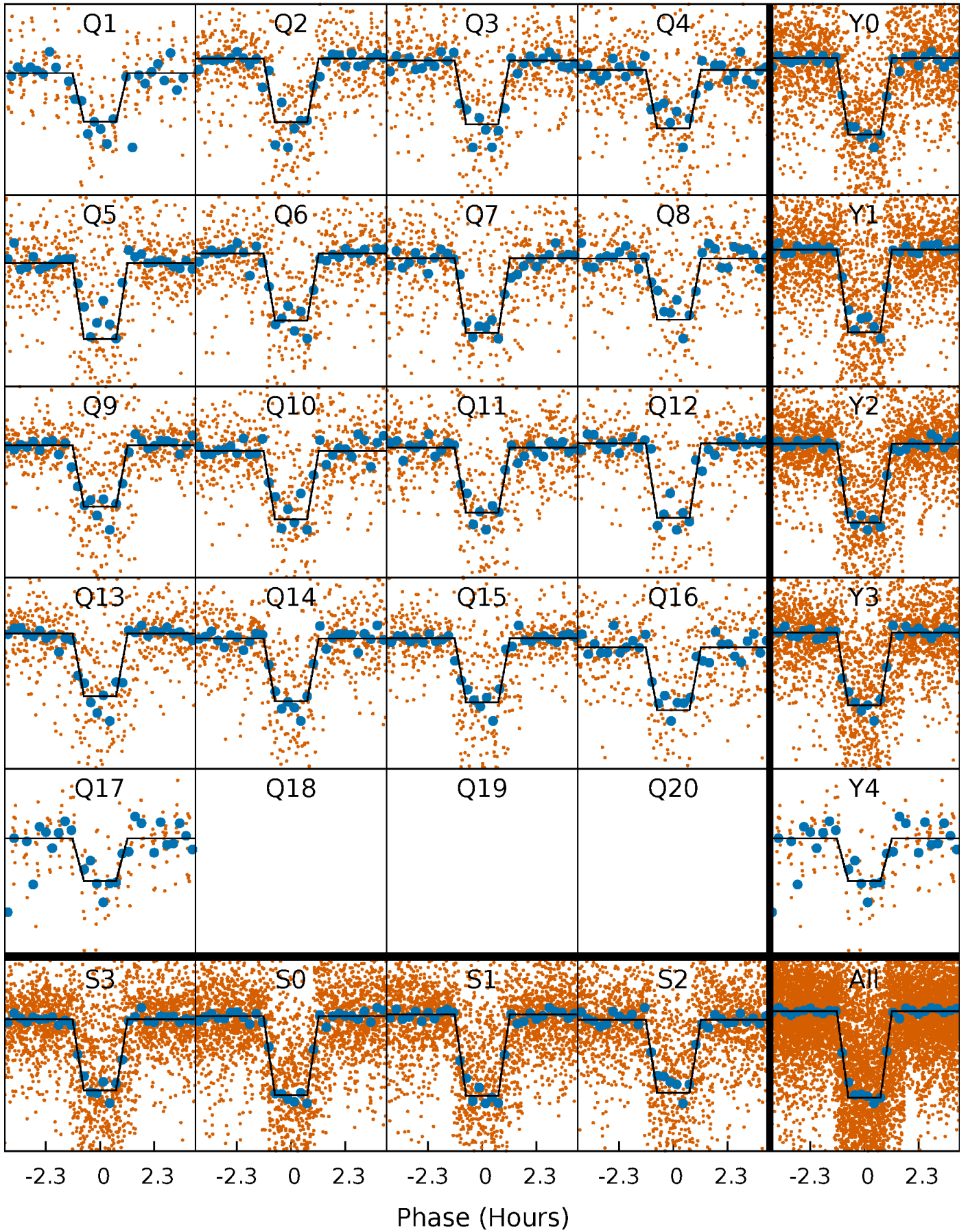
DV Quarter-Phased Transit Curves

TCE 009471268-01 P= 2.248298 Days $T_0=133.423606$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

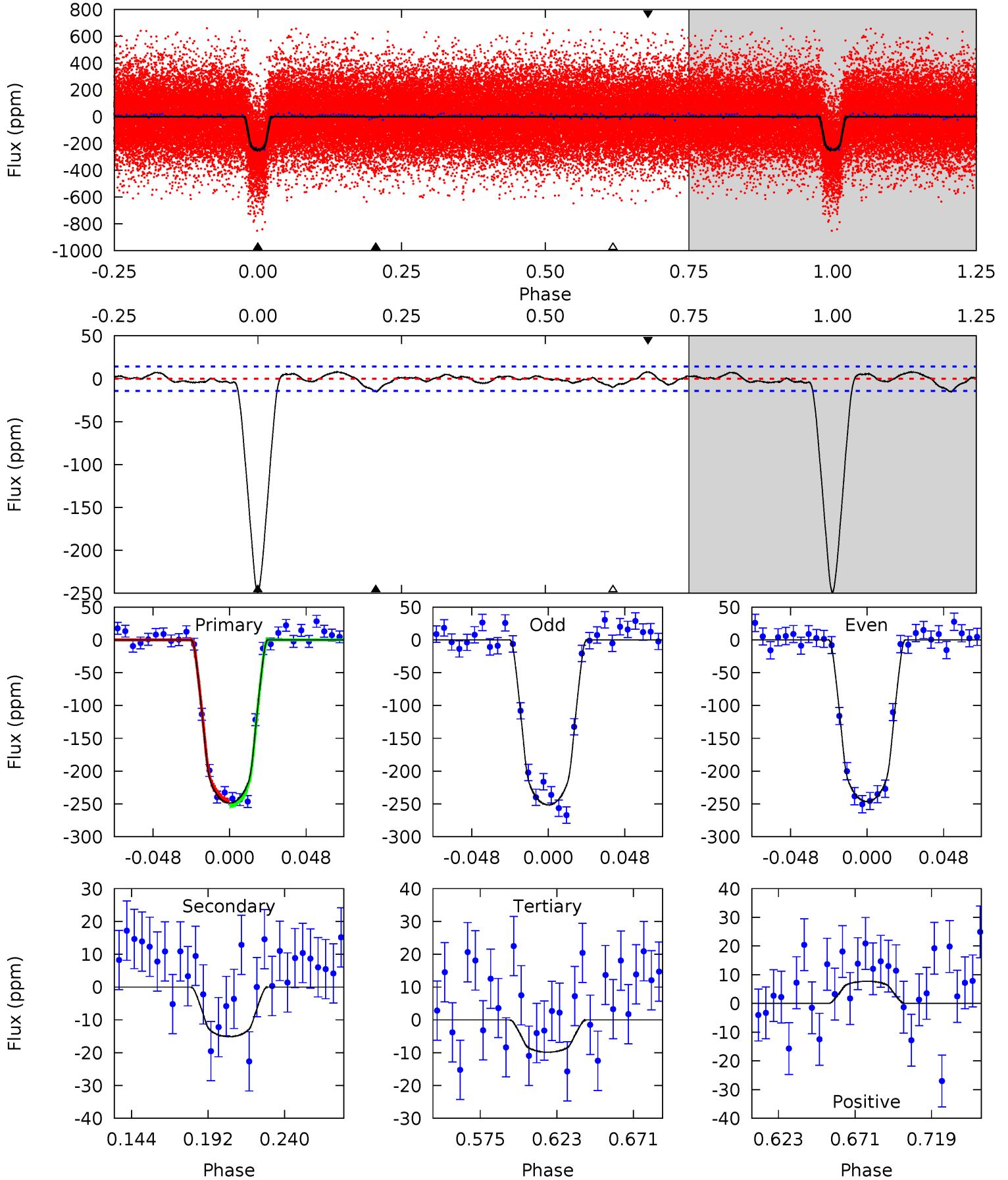
TCE 009471268-01 P= 2.248292 Days $T_0=133.424328$ (BKJD)



DV Model-Shift Uniqueness Test

009471268-01, P = 2.248298 Days, E = 131.175308 Days

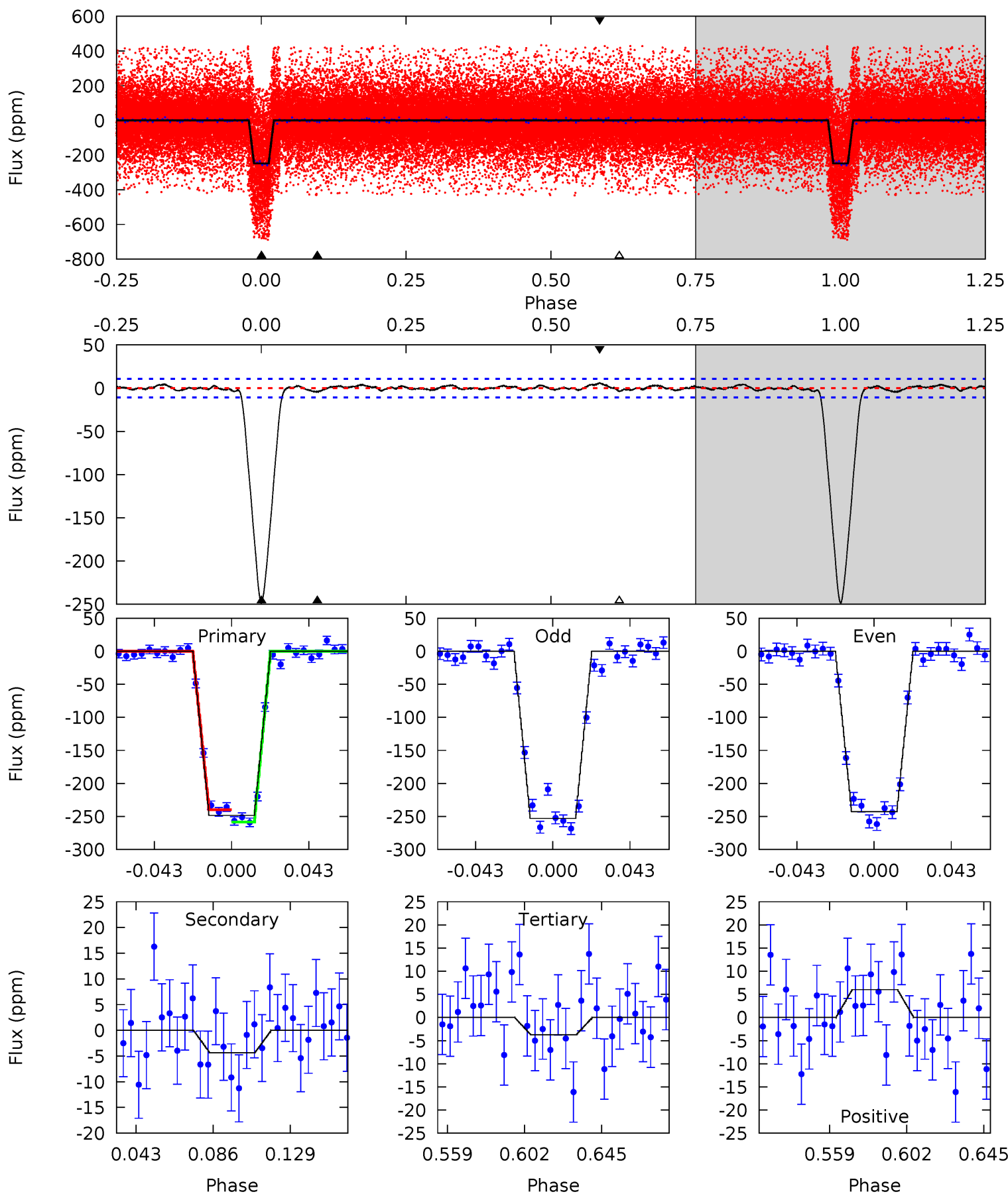
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
82.6	5.03	3.28	2.56	4.72	1.98	1.24	79.3	80.1	1.76	2.47	0.86	1.03	0.03	1.26



Alt Model-Shift Uniqueness Test

009471268-01, P = 2.248292 Days, E = 131.176036 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
109.6	1.91	1.66	2.65	4.74	2.02	0.79	107.9	106.9	0.26	-0.74	2.24	1.04	0.02	4.07



Stellar Parameters For KIC 009471268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5103^{+101}_{-101}	$4.558^{+0.032}_{-0.050}$	$0.040^{+0.150}_{-0.150}$	$0.789^{+0.052}_{-0.037}$	$0.820^{+0.047}_{-0.043}$	$2.349^{+0.323}_{-0.381}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-5%	+14%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 009471268-01 / KOI 1835.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-15 ± 3	$1.54^{+0.20}_{-0.20}$	1582^{+40}_{-42}	2982^{+162}_{-145}	$3.493^{+1.329}_{-0.986}$
Alt.	-4 ± 2	$1.39^{+0.20}_{-0.21}$	1581^{+39}_{-39}	2530^{+217}_{-348}	$1.208^{+0.822}_{-0.644}$

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

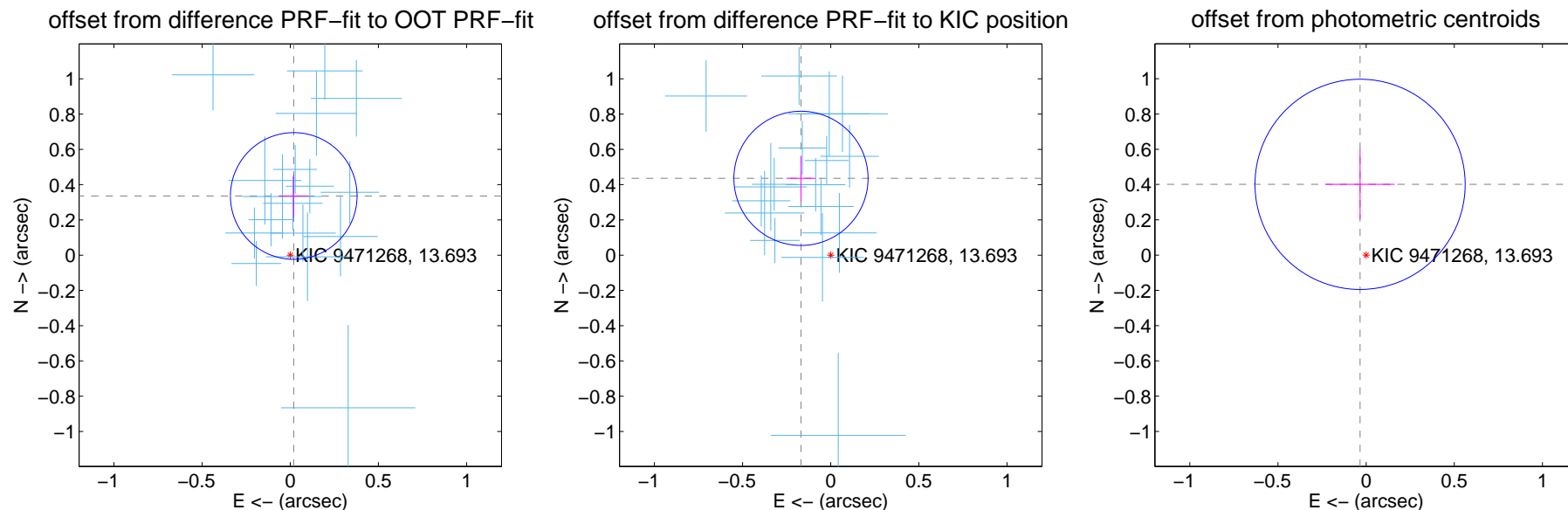
DV Centroid Data

Supplemental centroid analysis for 009471268-01. Kepler magnitude: 13.69. Transit SNR 49.17

There are 17 quarters with good PRF difference image offsets

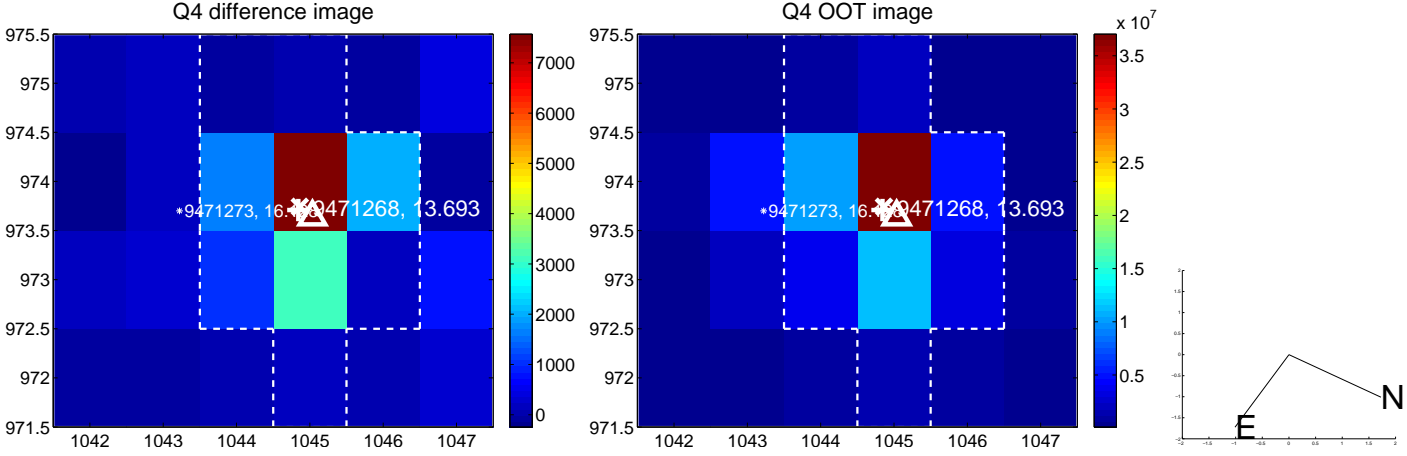
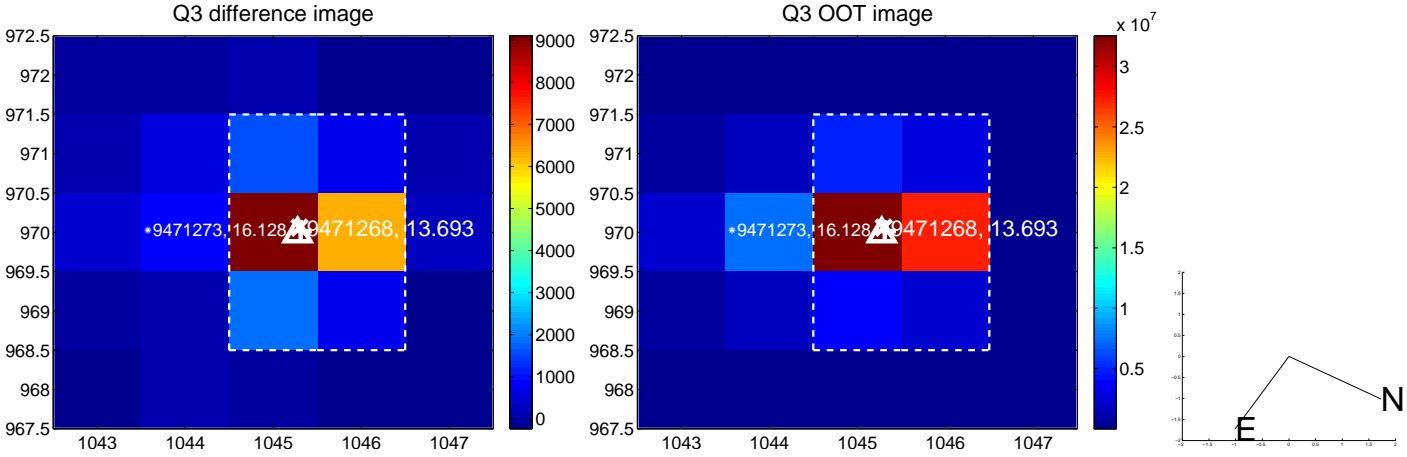
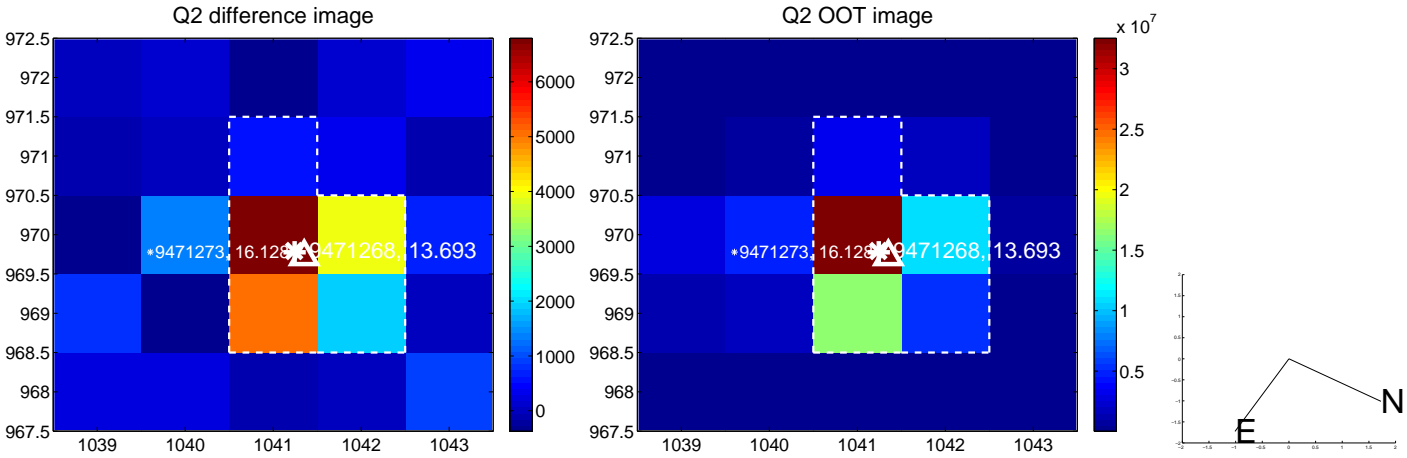
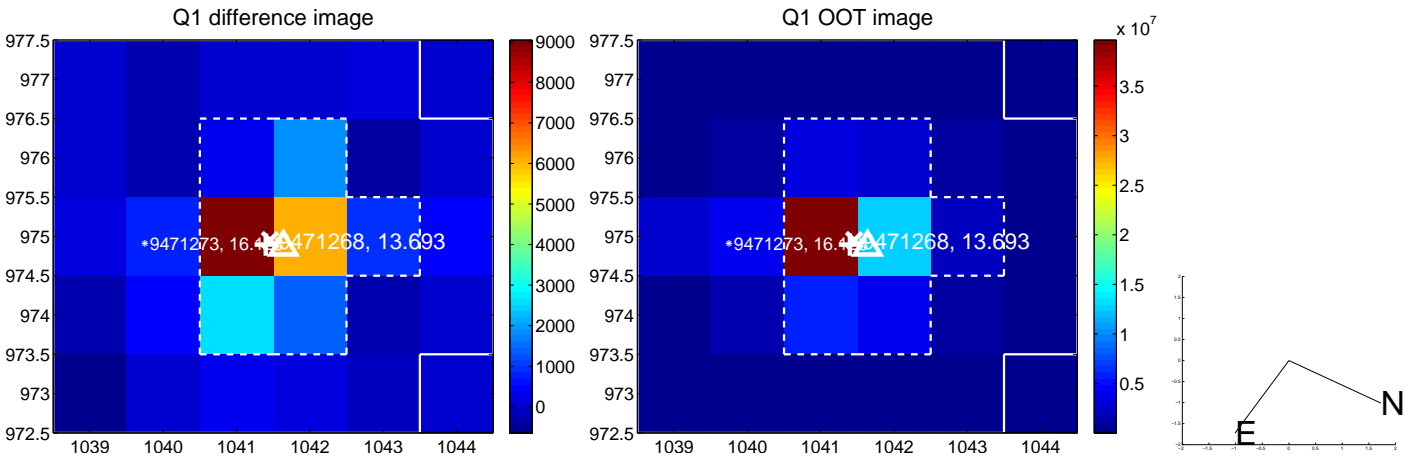
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.336 ± 0.120	2.81	-0.020 ± 0.083	0.336 ± 0.120
PRF-fit source offset from KIC position	0.467 ± 0.127	3.68	0.169 ± 0.082	0.436 ± 0.128
photometric centroid source offset	0.40 ± 0.20	2.03	0.03 ± 0.20	0.40 ± 0.20

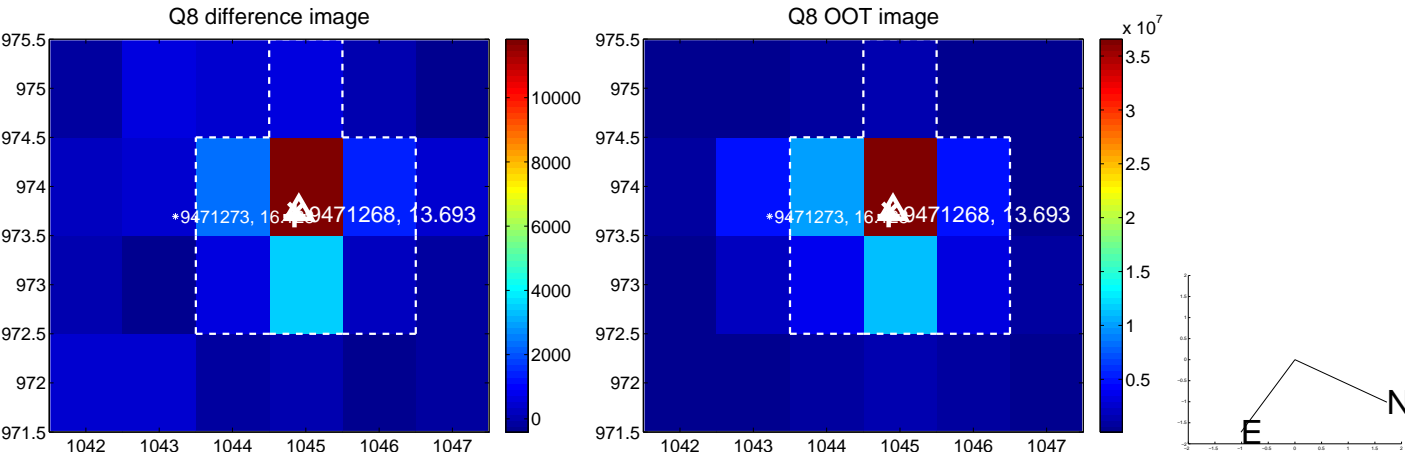
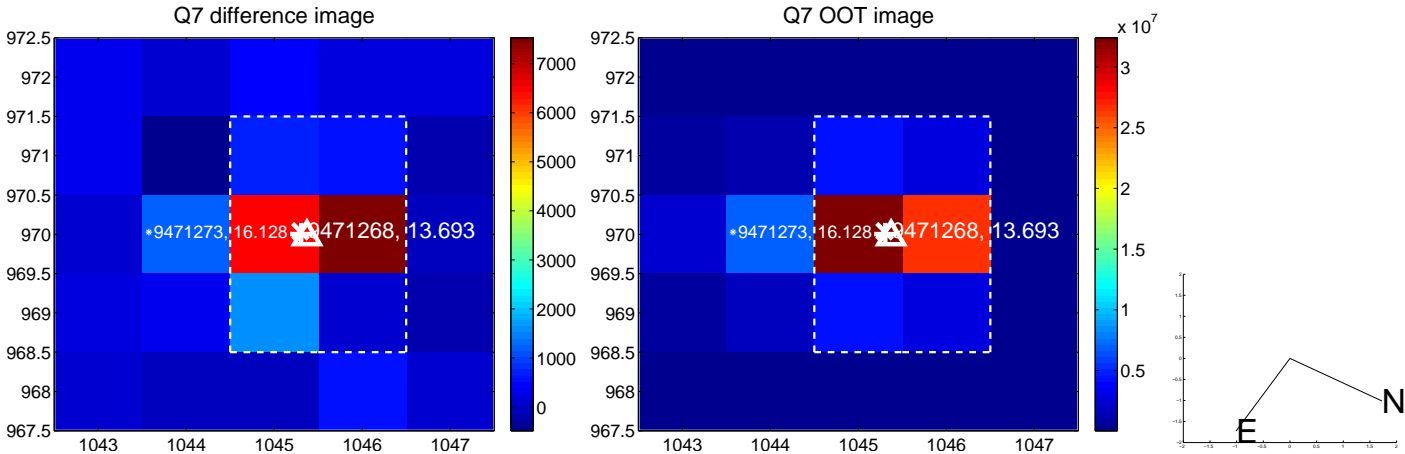
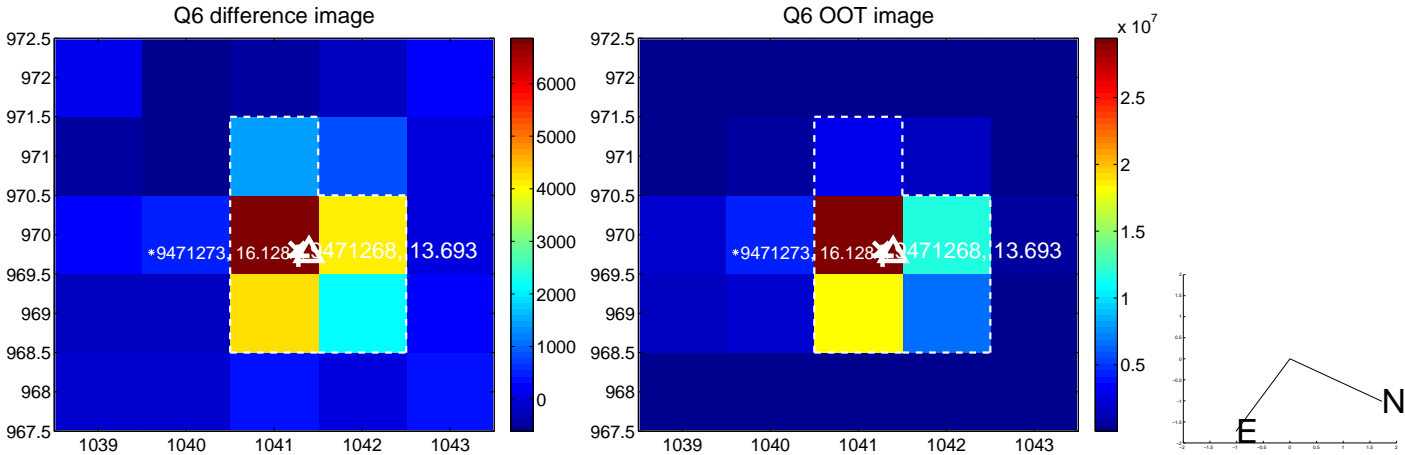
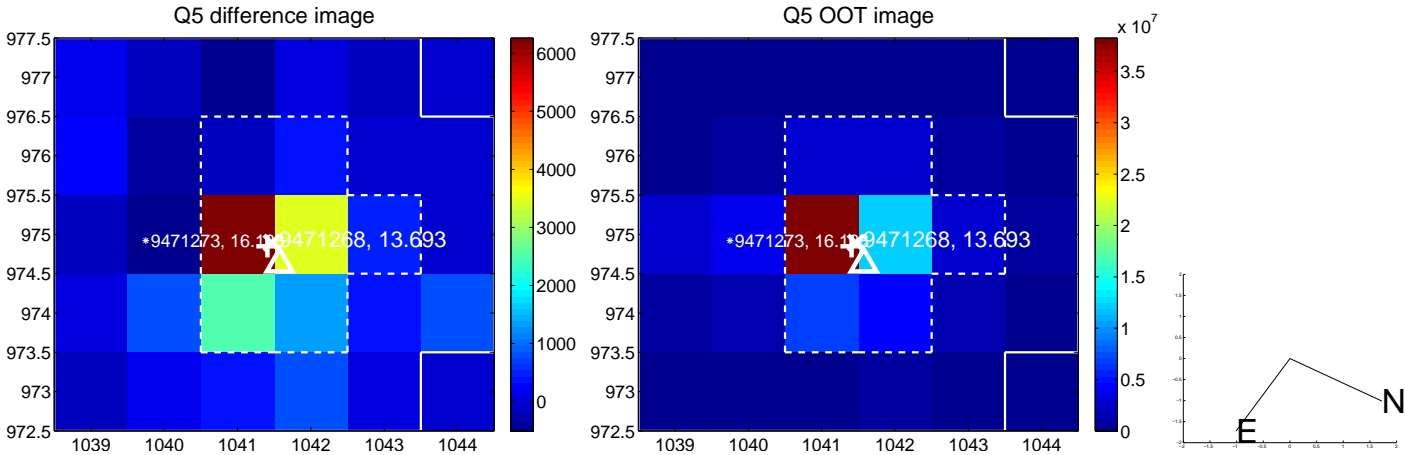


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

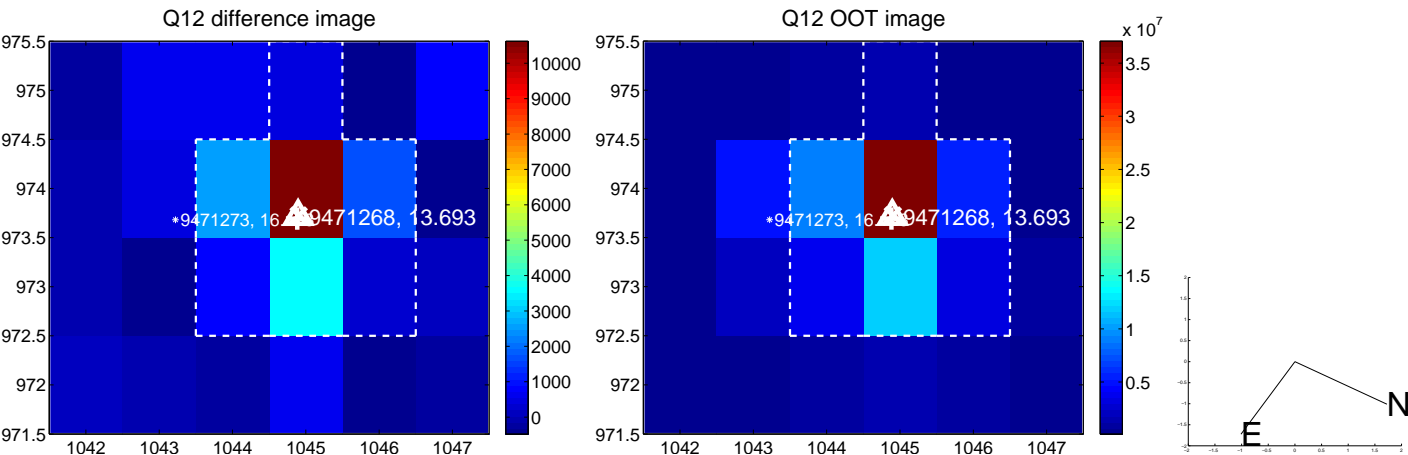
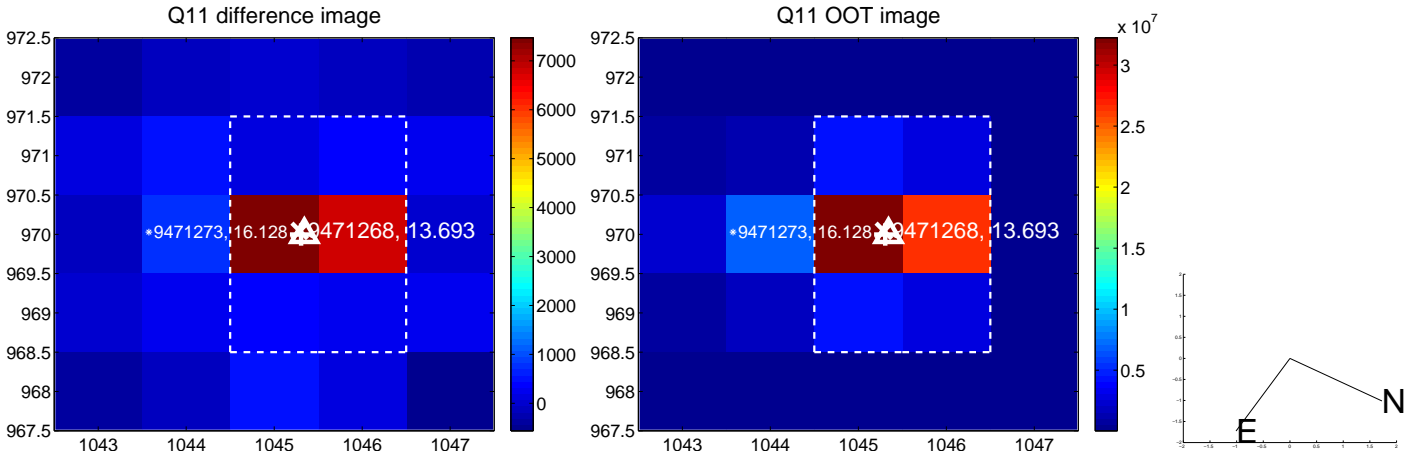
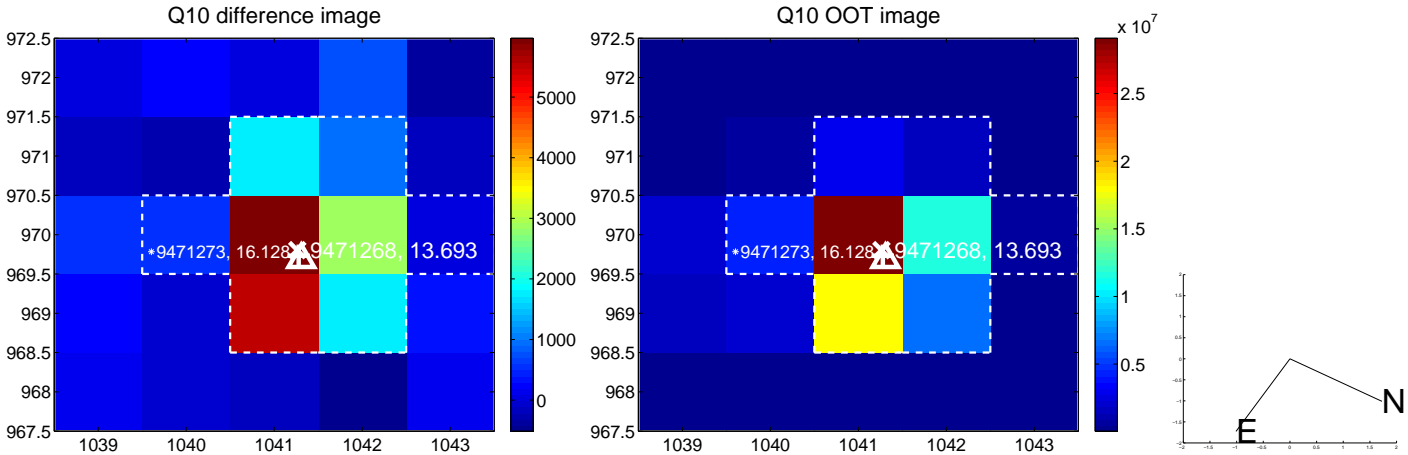
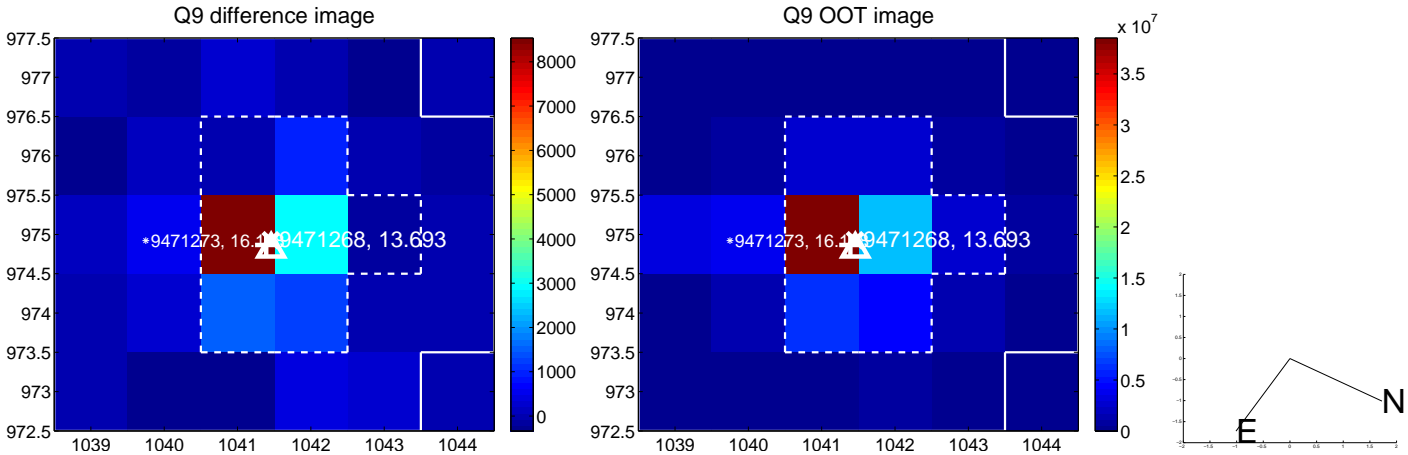
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



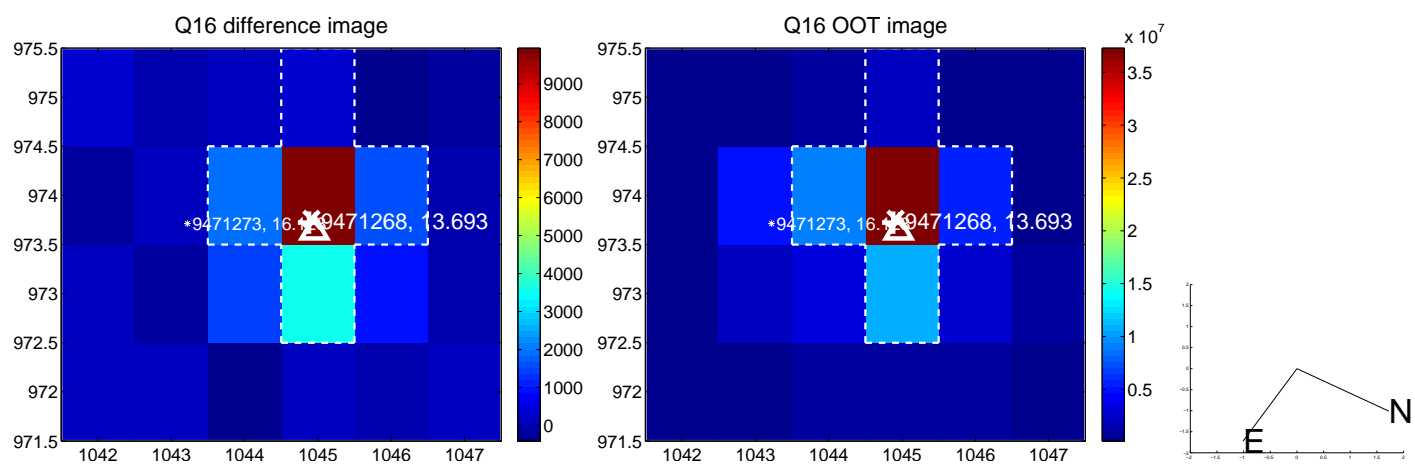
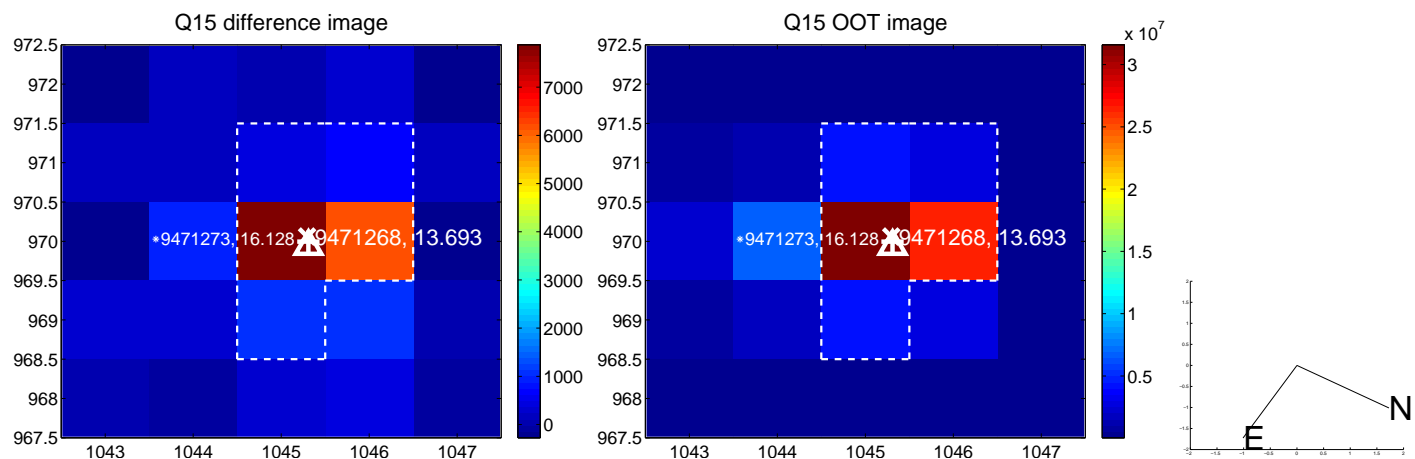
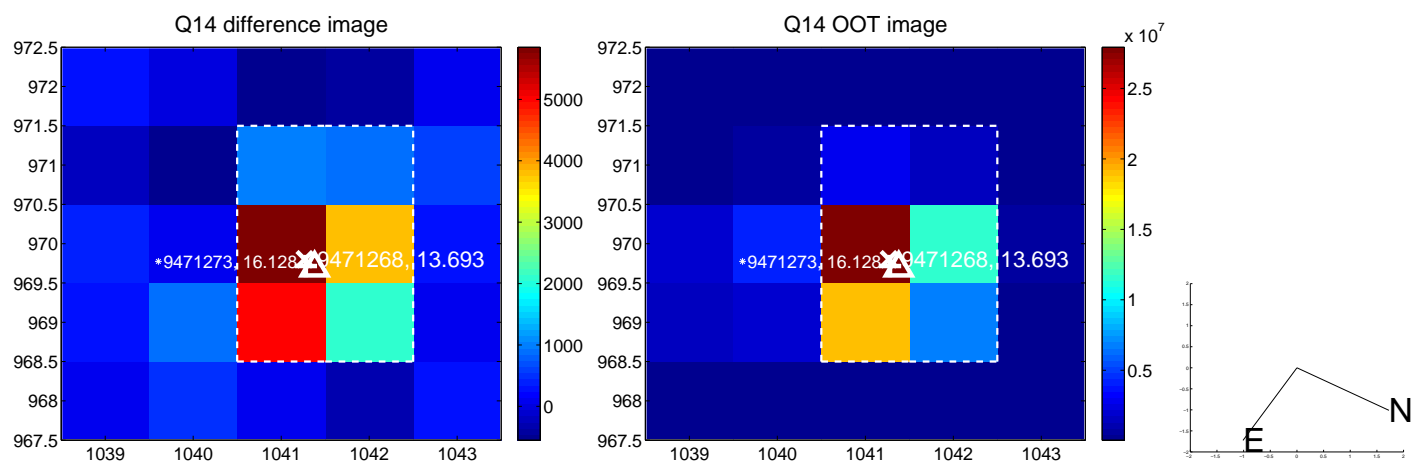
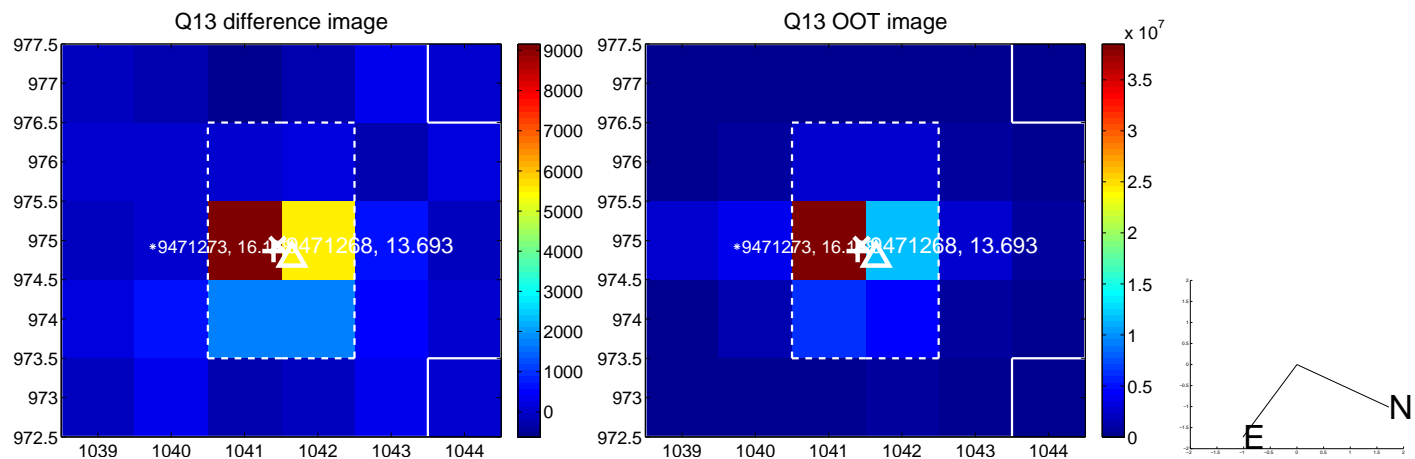
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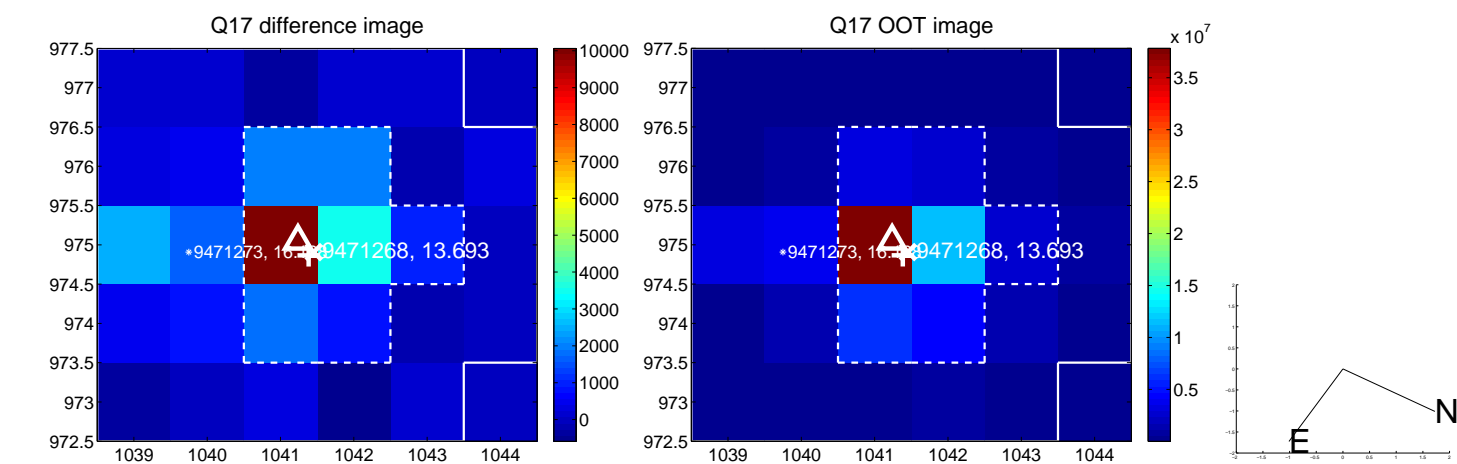
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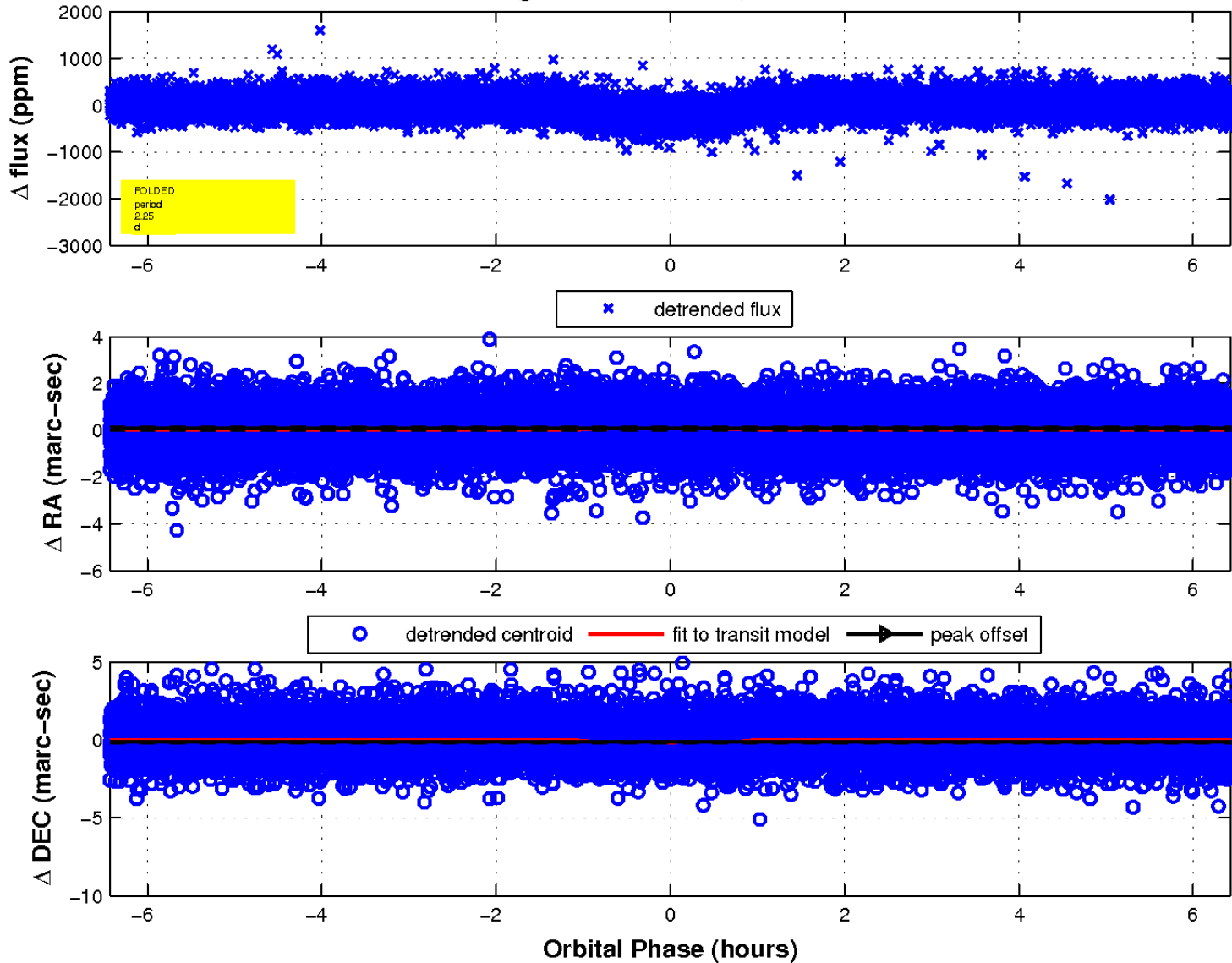
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

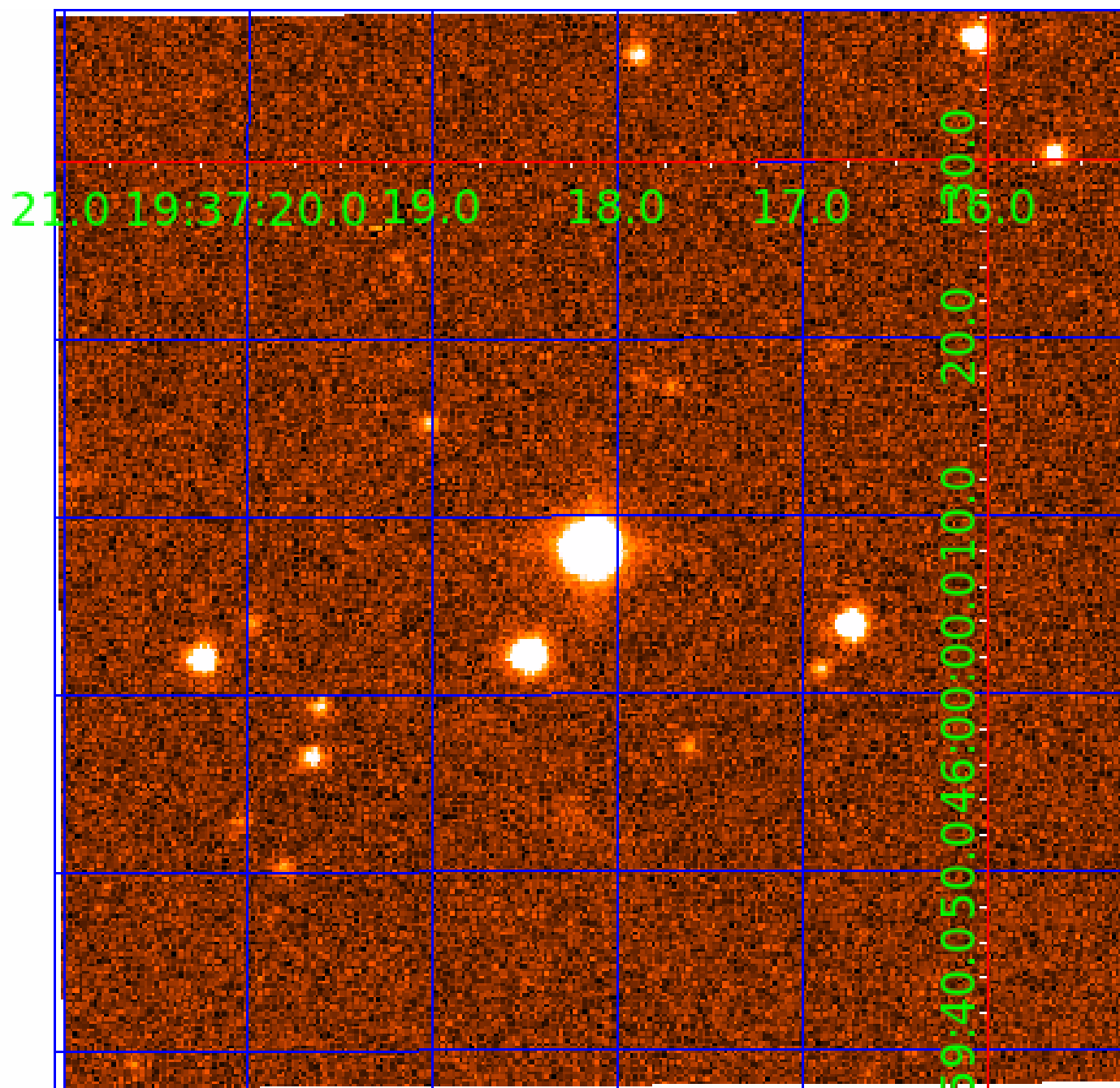


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 009471268

Q1-17 DR25 TCE Parameters

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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009471268-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-03	OBS	PC	1.00	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.

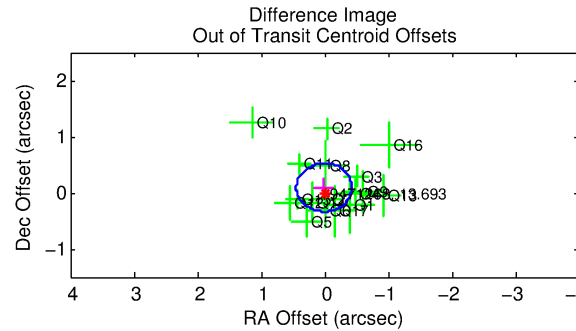
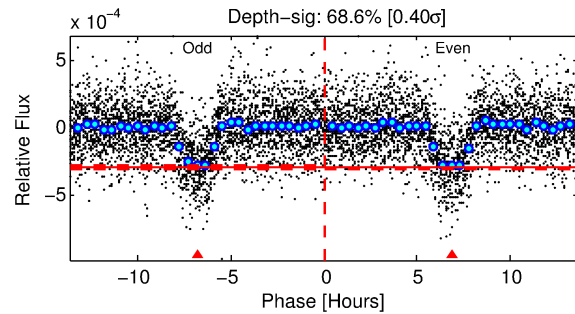
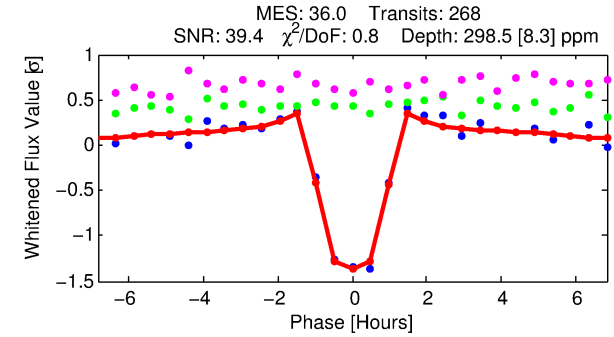
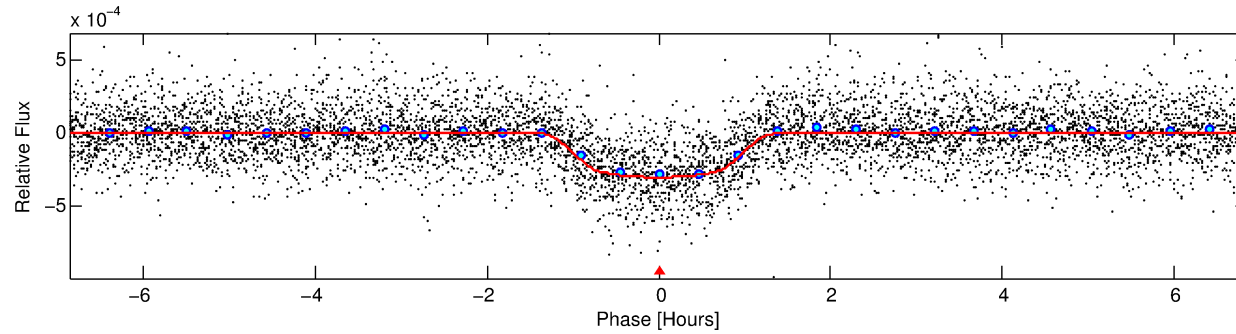
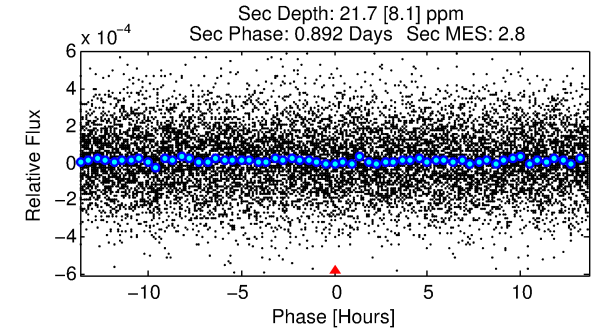
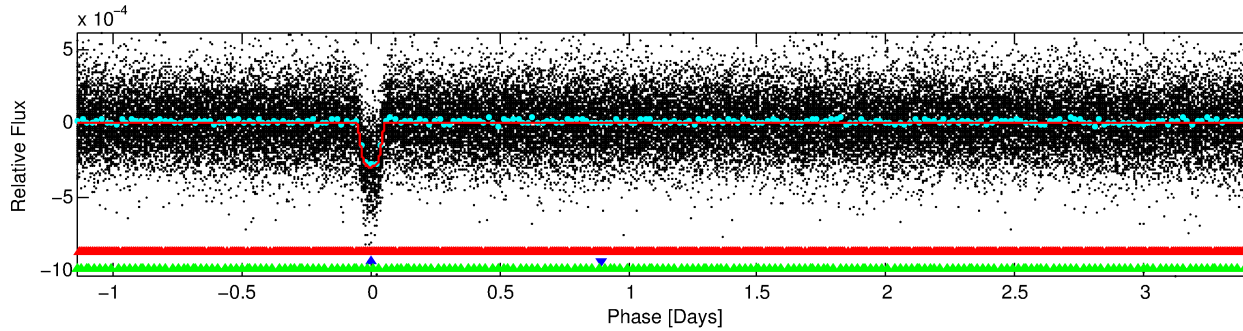
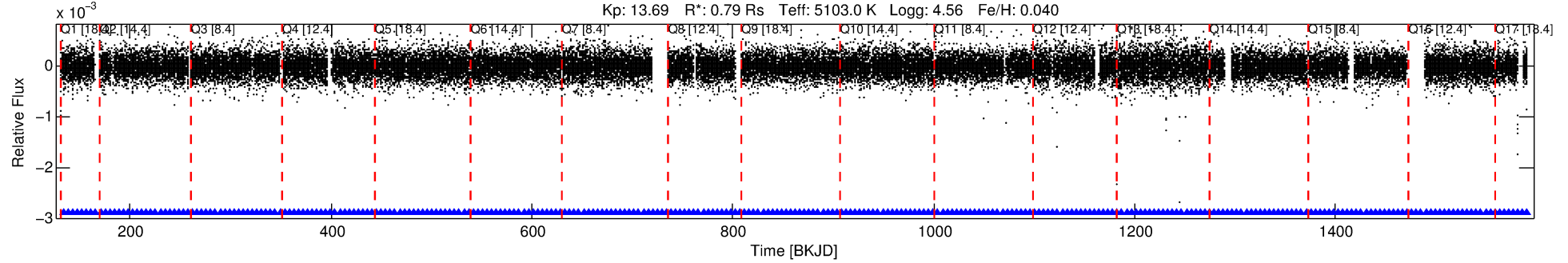
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009471268-02

No Significant Match Found

DV One-Page Summary

KIC: 9471268 Candidate: 2 of 3 Period: 4.580 d
KOI: K01835.01 Name: Kepler-326c Corr: 0.962



DV Fit Results:

Period = 4.58034 [0.00001] d
Epoch = 134.0755 [0.0009] BKJD
Rp/R* = 0.0195 [0.0024]
a/R* = 7.12 [3.51]
b = 0.91 [0.10]
Seff = 148.04 [17.57]
Teq = 889 [26] K
Rp = 1.68 [0.24] Re
a = 0.0505 [0.0029] AU
Ag = 10.83 [4.93] [1.99σ]
Teffp = 2494 [283] K [5.64σ]

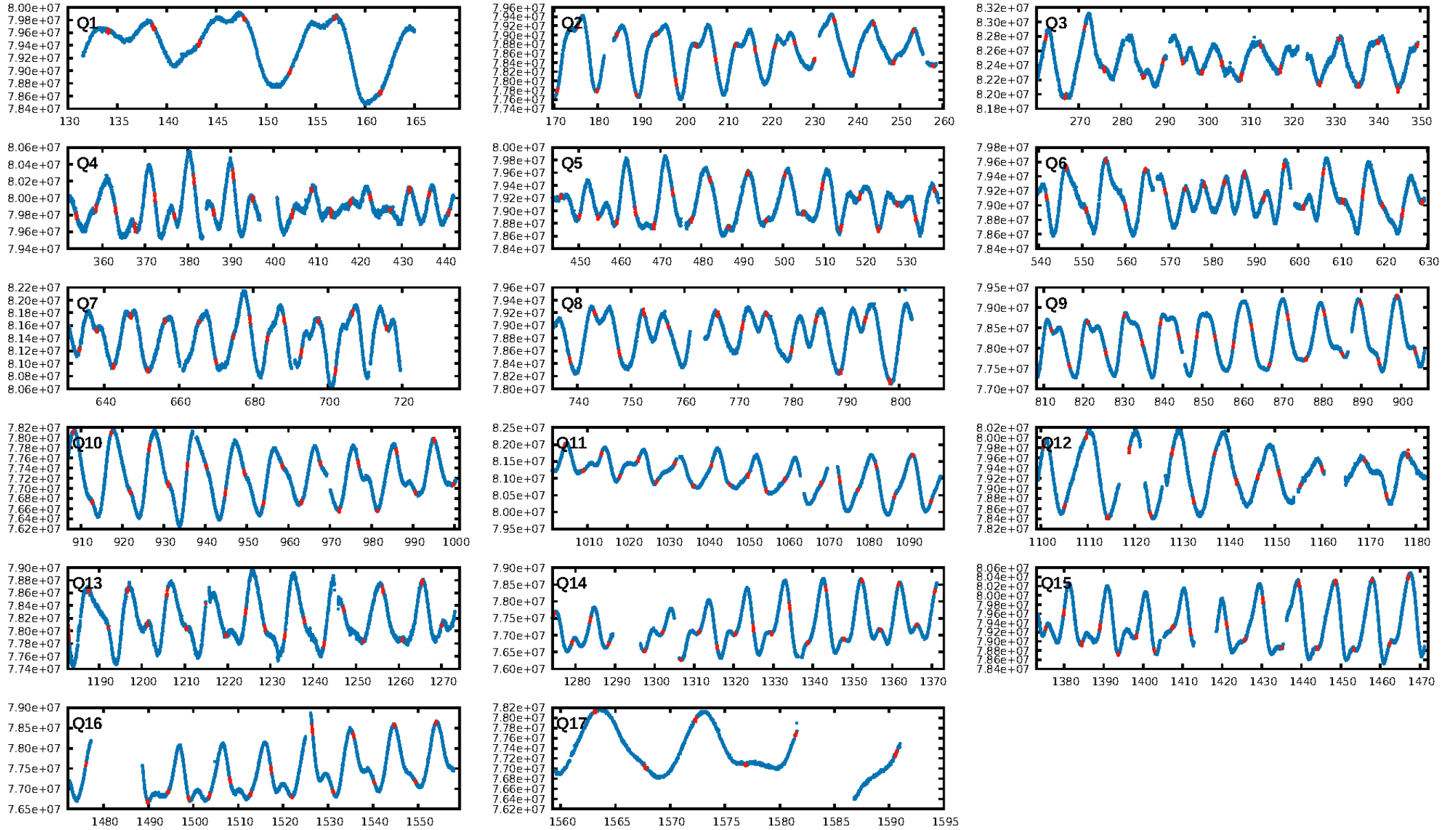
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.87σ]
LongPeriod-sig: 100.0% [18.44σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.29e-267
RollingBand-fgt: 1.00 [257/257]
GhostDiagnostic-chr: -31.59
Centroid-sig: 22.6%
Centroid-so: 0.129 arcsec [0.54σ]
OotOffset-rm: 0.094 arcsec [0.65σ]
KicOffset-rm: 0.283 arcsec [1.86σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.94 [16/17]

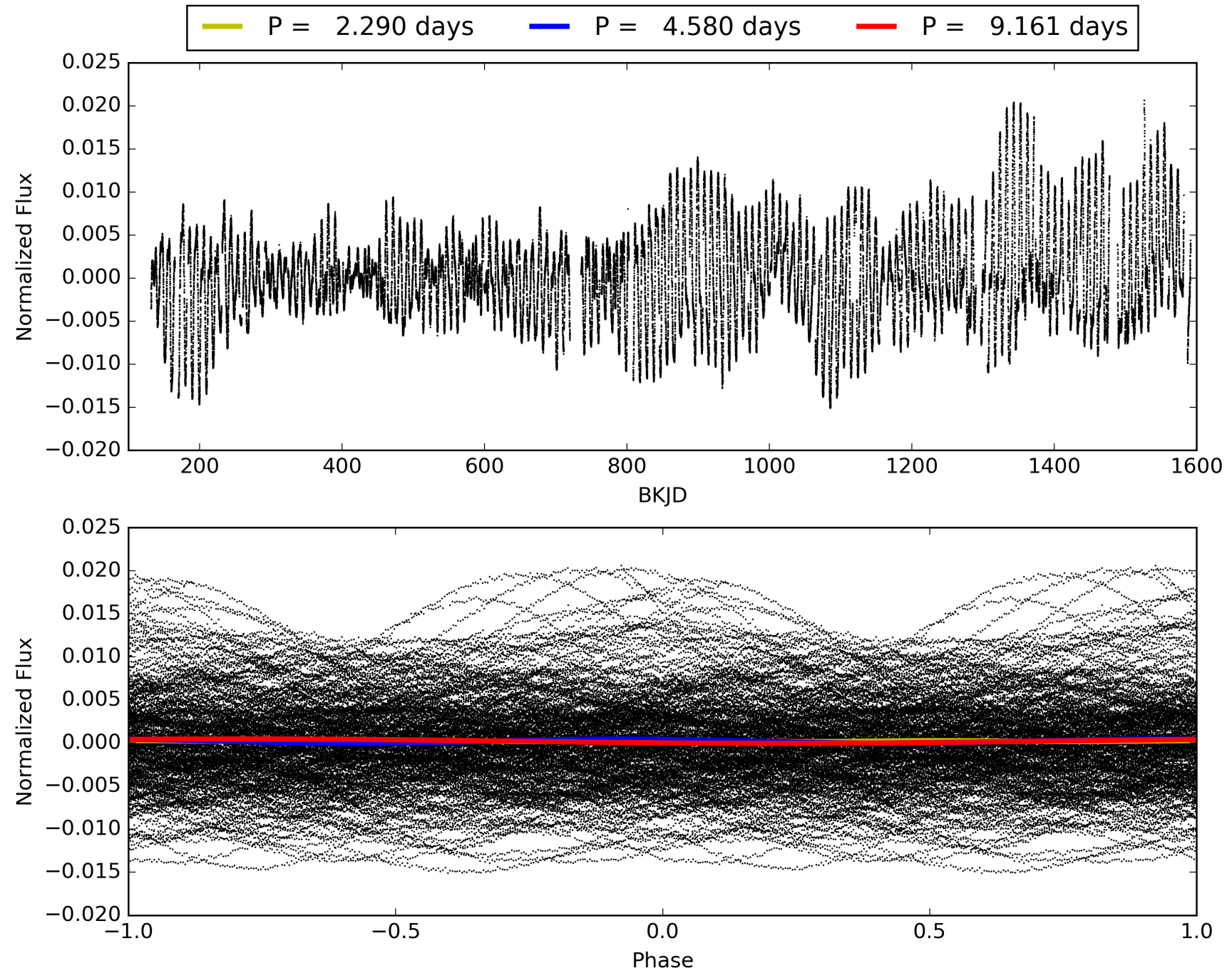
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:24:49 Z

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

TCE 009471268-02, PDC Light Curves

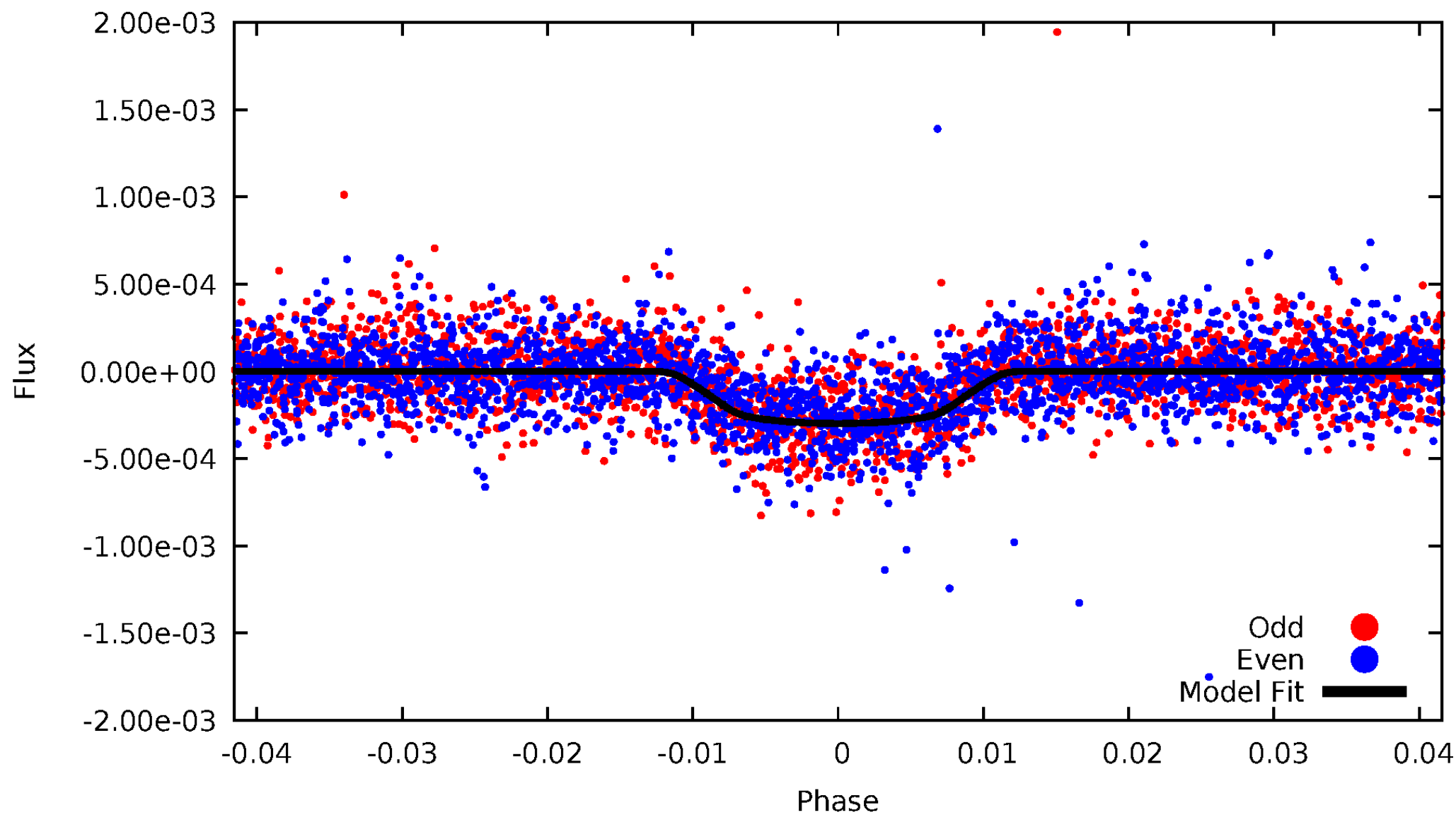


TCE 009471268-02



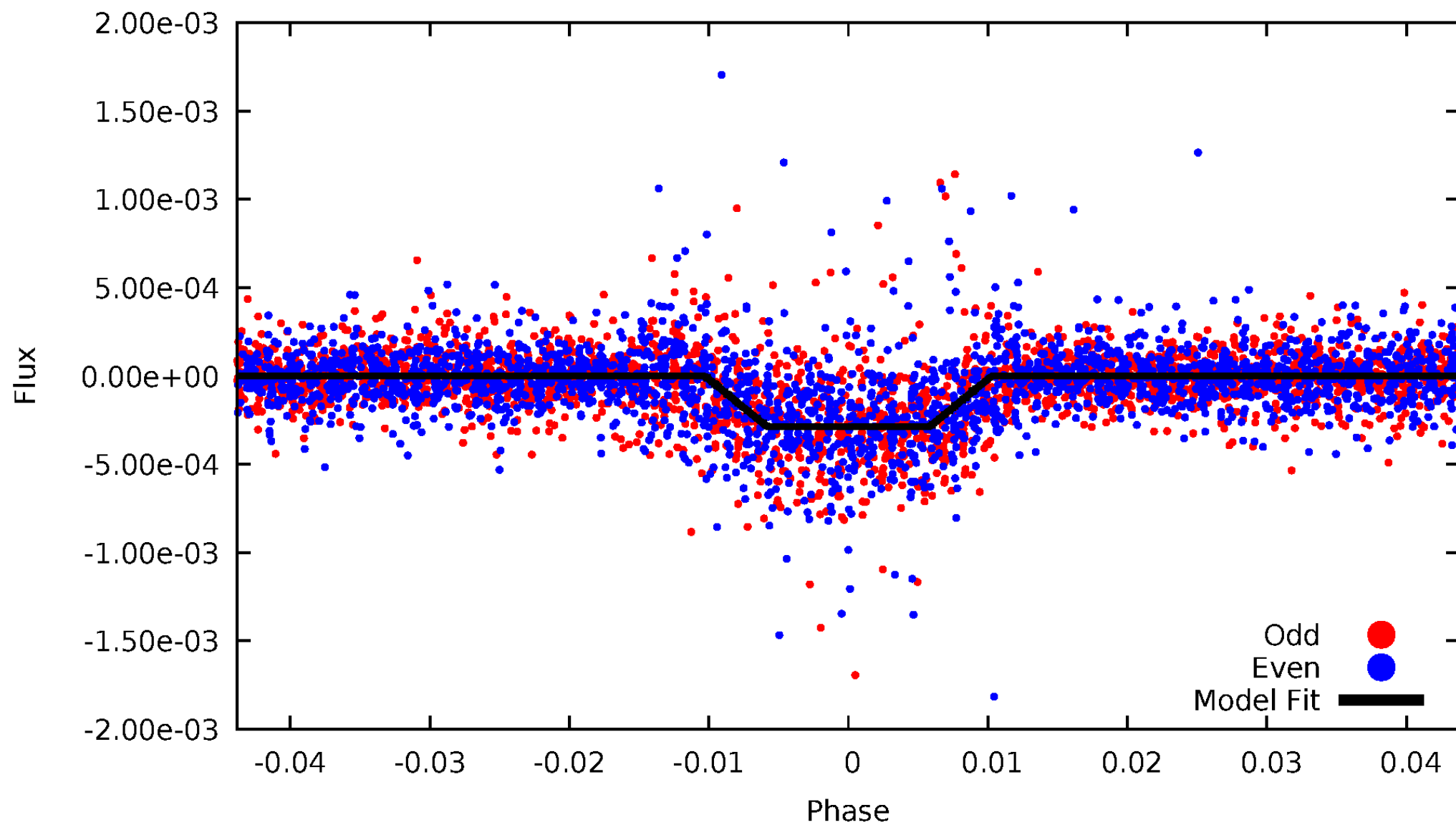
DV Odd/Even

TCE 009471268-02



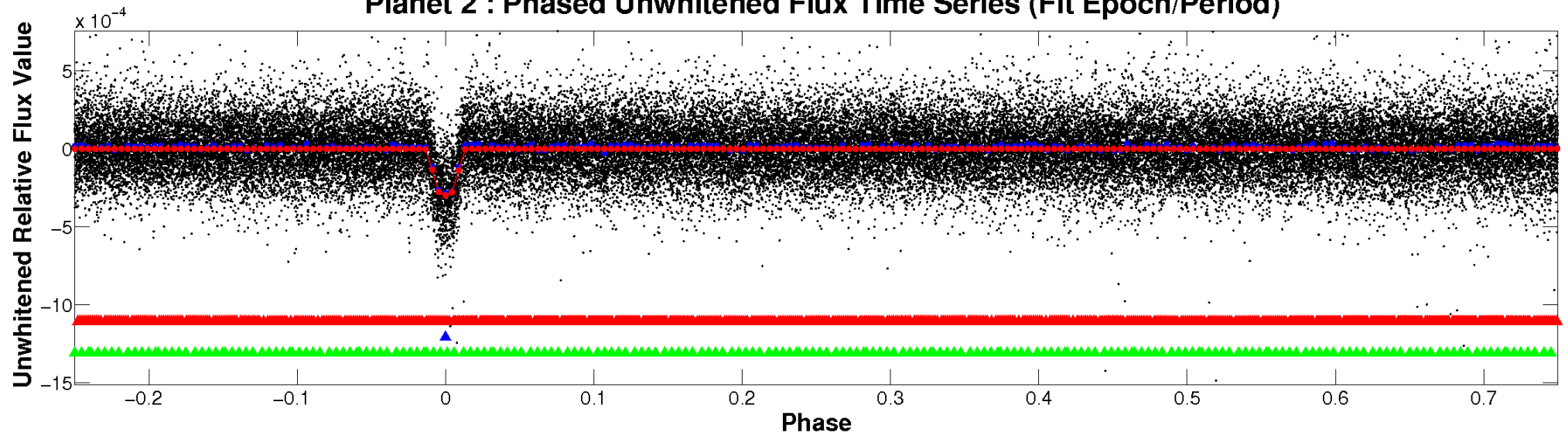
ALT Odd/Even

TCE 009471268-02

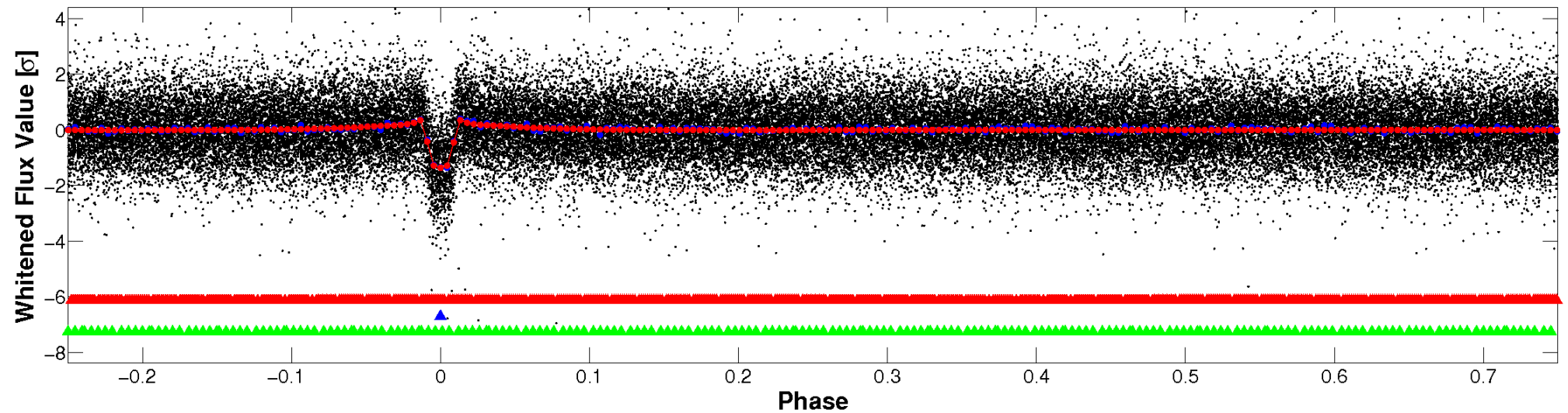


Non-Whitened Vs. Whitened Light Curve

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

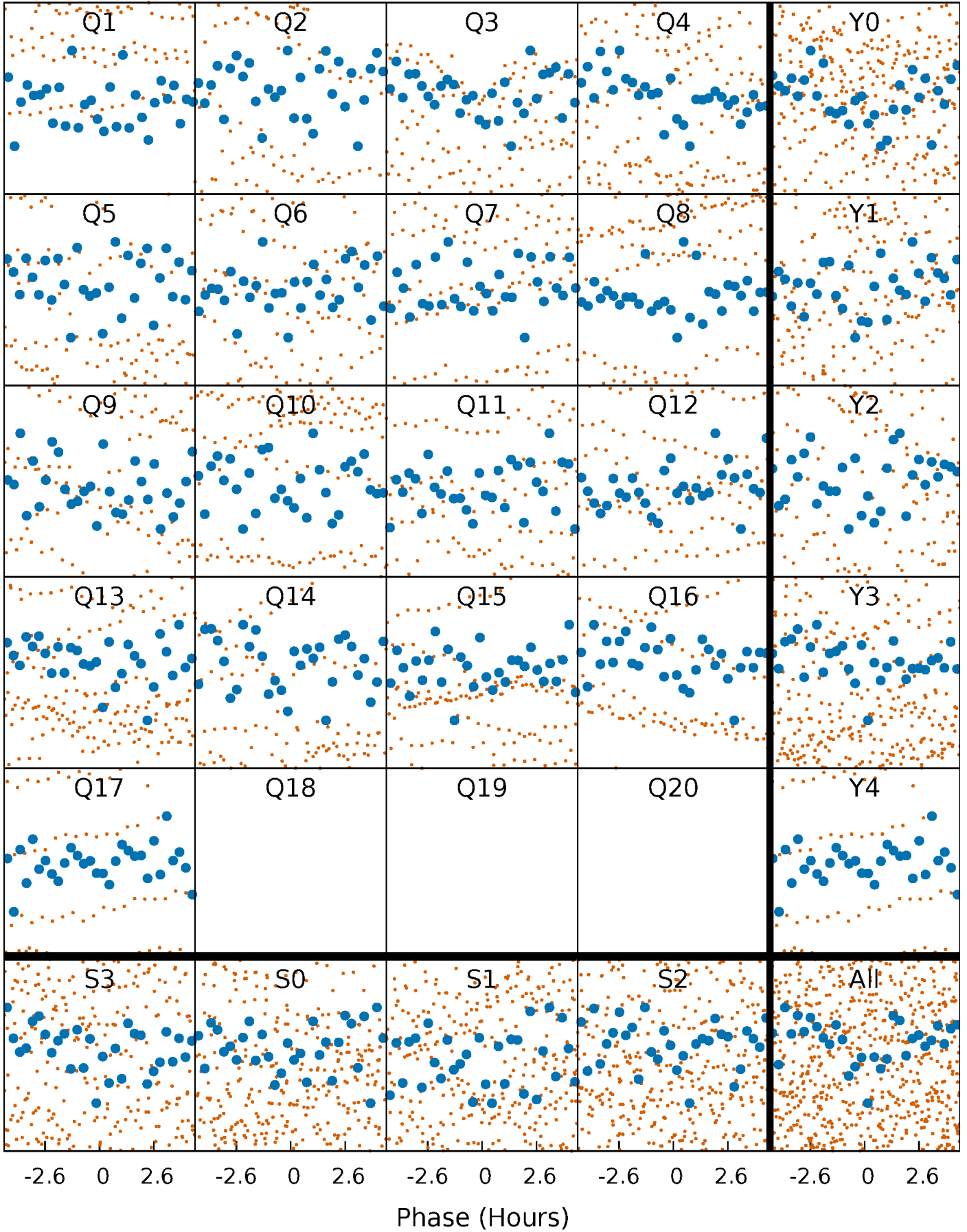


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



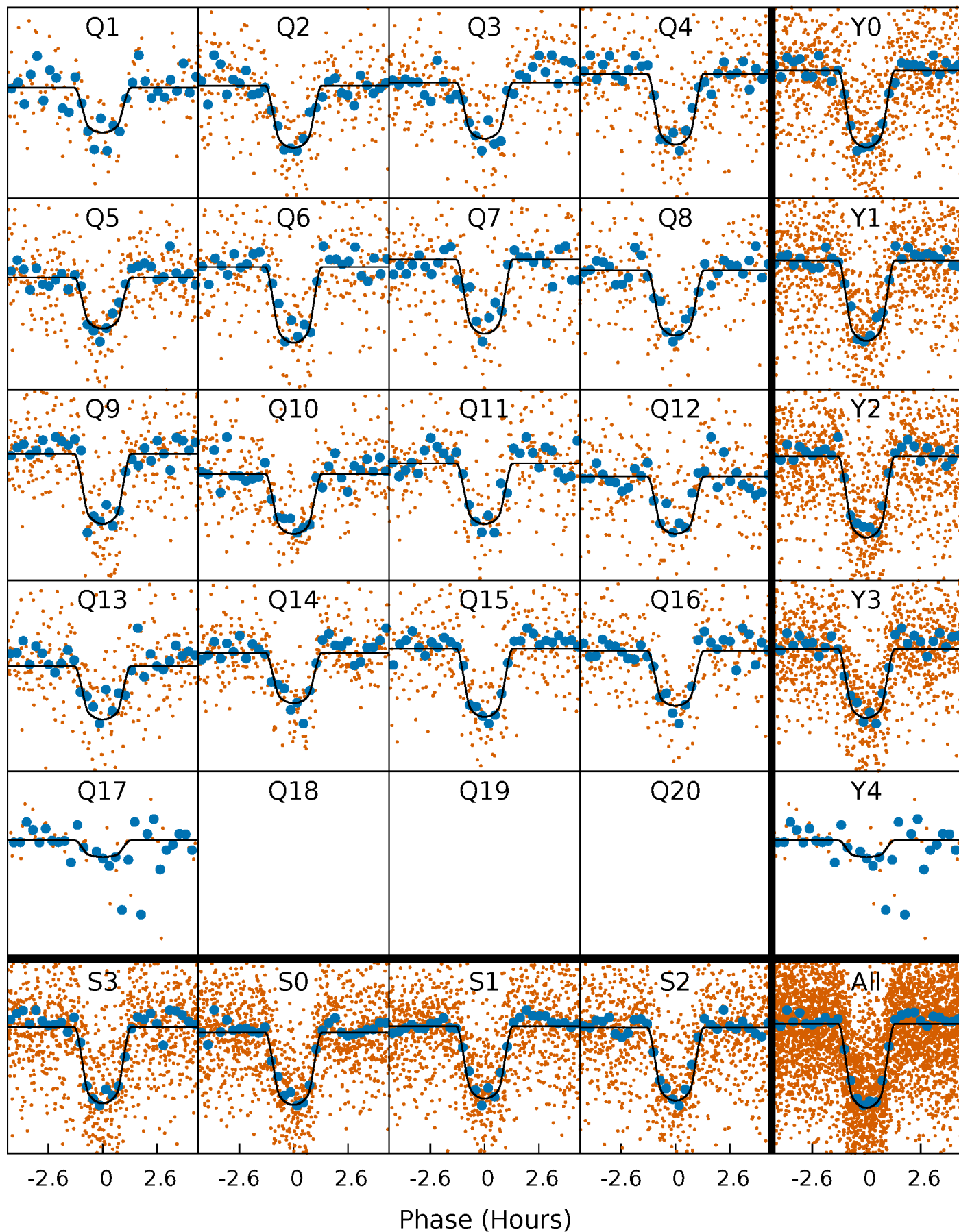
PDC Quarter-Phased Transit Curves

TCE 009471268-02 P= 4.580343 Days $T_0=134.075533$ (BKJD)



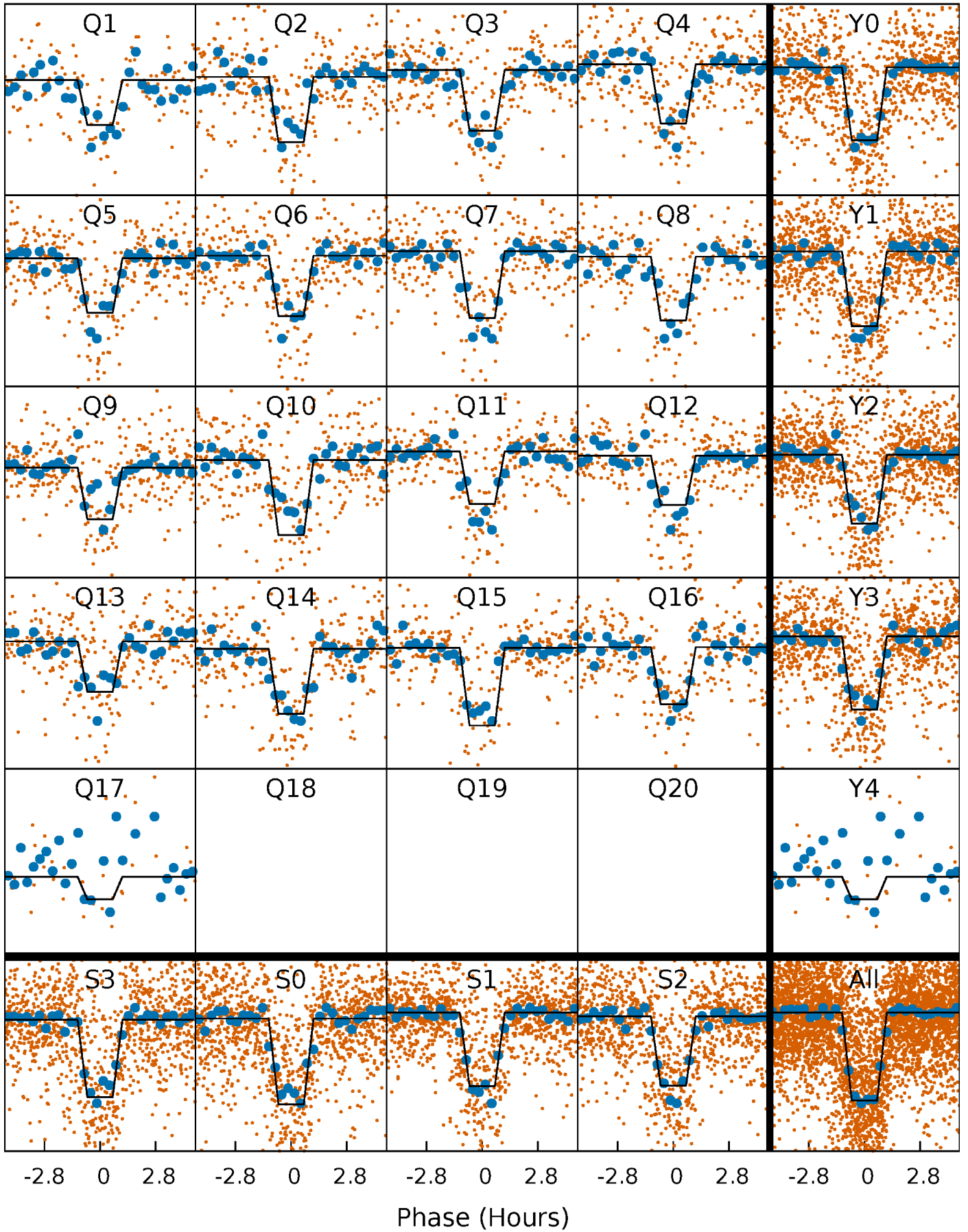
DV Quarter-Phased Transit Curves

TCE 009471268-02 P= 4.580343 Days $T_0=134.075533$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

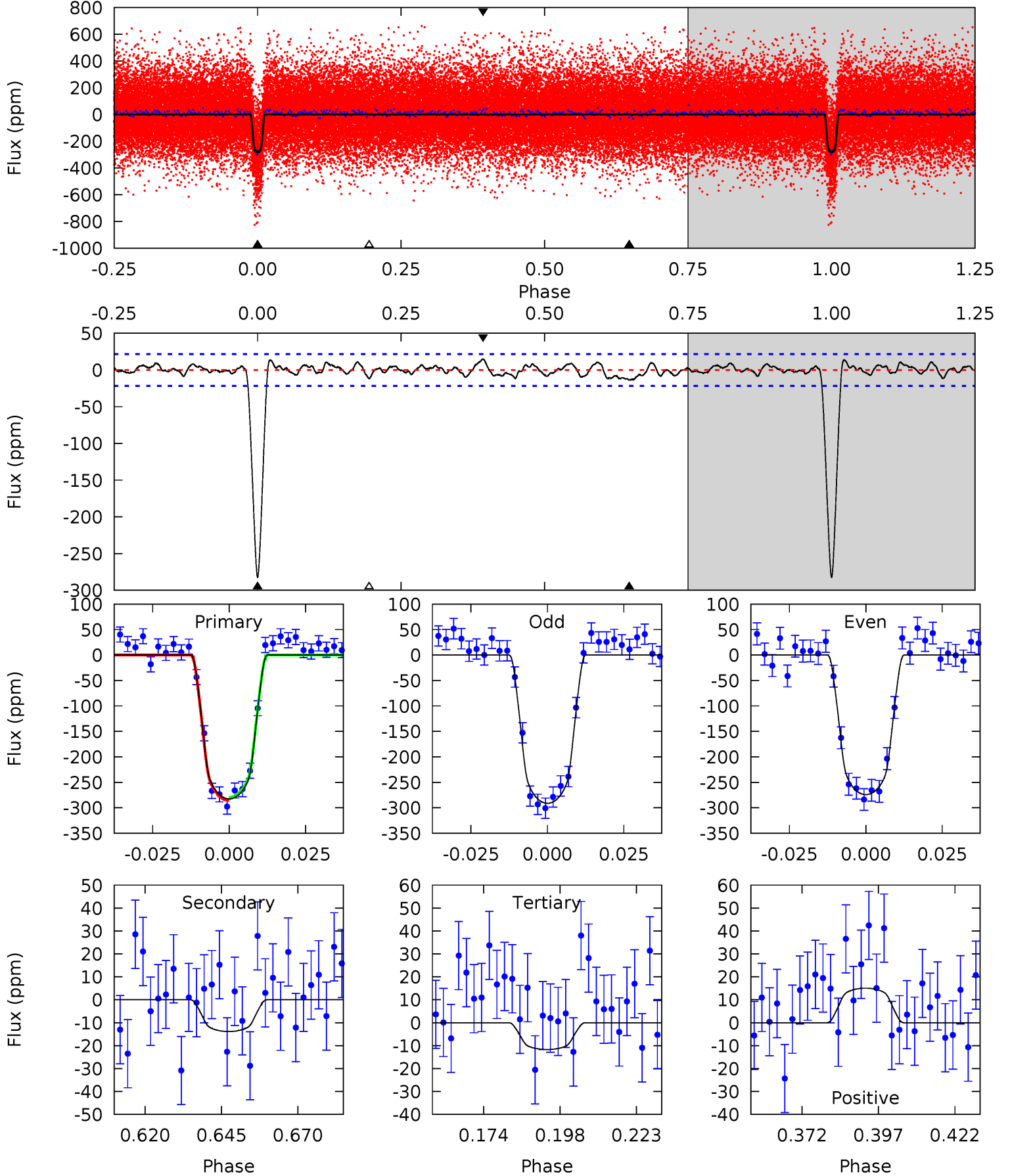
TCE 009471268-02 P= 4.580360 Days $T_0=134.072433$ (BKJD)



DV Model-Shift Uniqueness Test

009471268-02, P = 4.580343 Days, E = 129.495190 Days

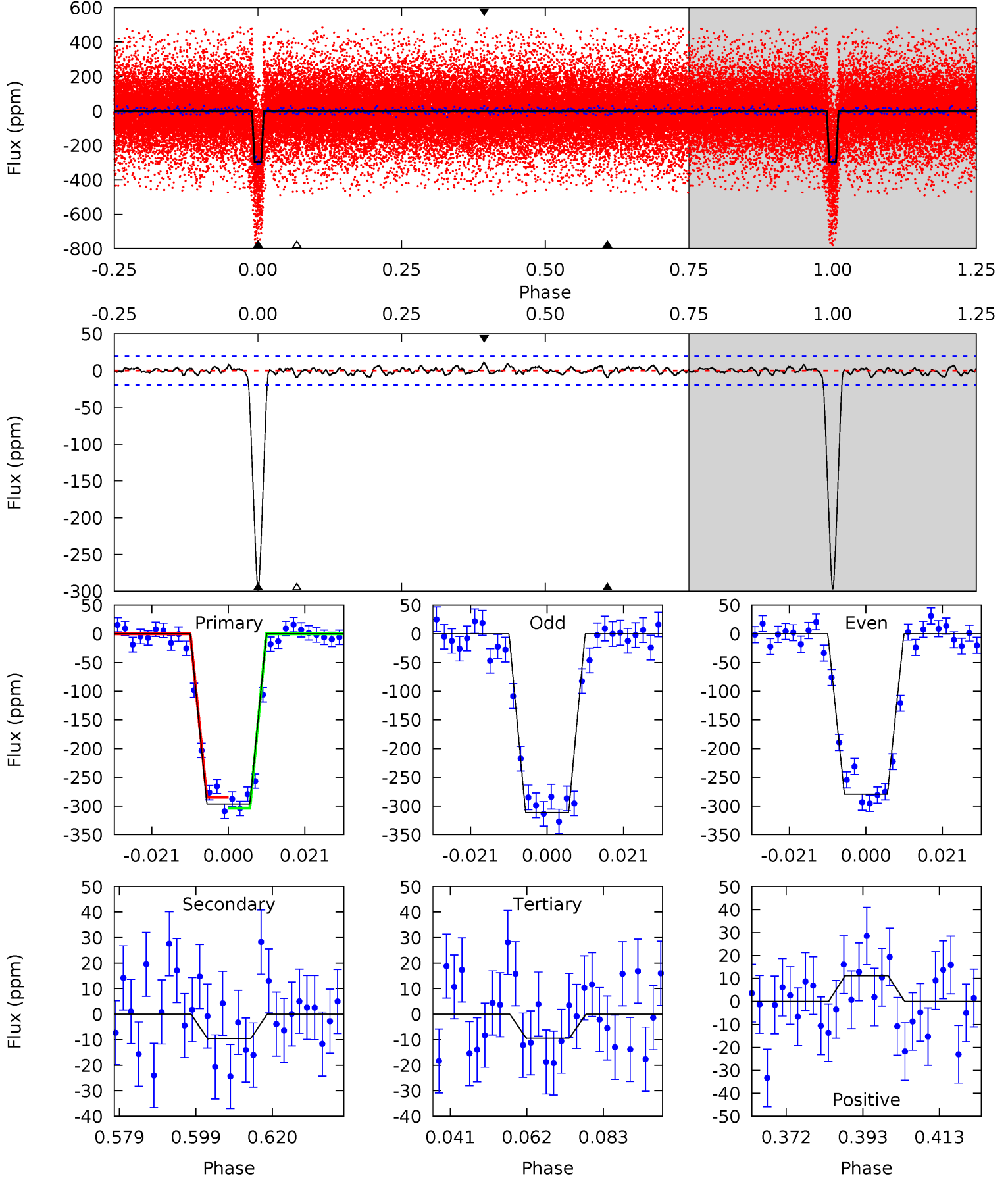
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.5	3.12	2.63	3.38	4.85	2.24	1.18	60.9	60.1	0.48	-0.27	1.92	1.02	0.05	0.64



Alt Model-Shift Uniqueness Test

009471268-02, P = 4.580360 Days, E = 129.492073 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
74.8	2.42	2.38	2.83	4.89	2.31	0.85	72.4	72.0	0.04	-0.41	4.09	1.01	0.04	0



Stellar Parameters For KIC 009471268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5103^{+101}_{-101}	$4.558^{+0.032}_{-0.050}$	$0.040^{+0.150}_{-0.150}$	$0.789^{+0.052}_{-0.037}$	$0.820^{+0.047}_{-0.043}$	$2.349^{+0.323}_{-0.381}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-5%	+14%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 009471268-02 / KOI 1835.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-14 ± 4	$1.69^{+0.22}_{-0.20}$	1246^{+33}_{-28}	2885^{+168}_{-184}	$6.951^{+2.978}_{-2.723}$
Alt.	-10 ± 4	$1.46^{+0.24}_{-0.22}$	1247^{+32}_{-31}	2842^{+205}_{-219}	$6.065^{+3.882}_{-2.582}$

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 $A_{obs} \gg 1.0$

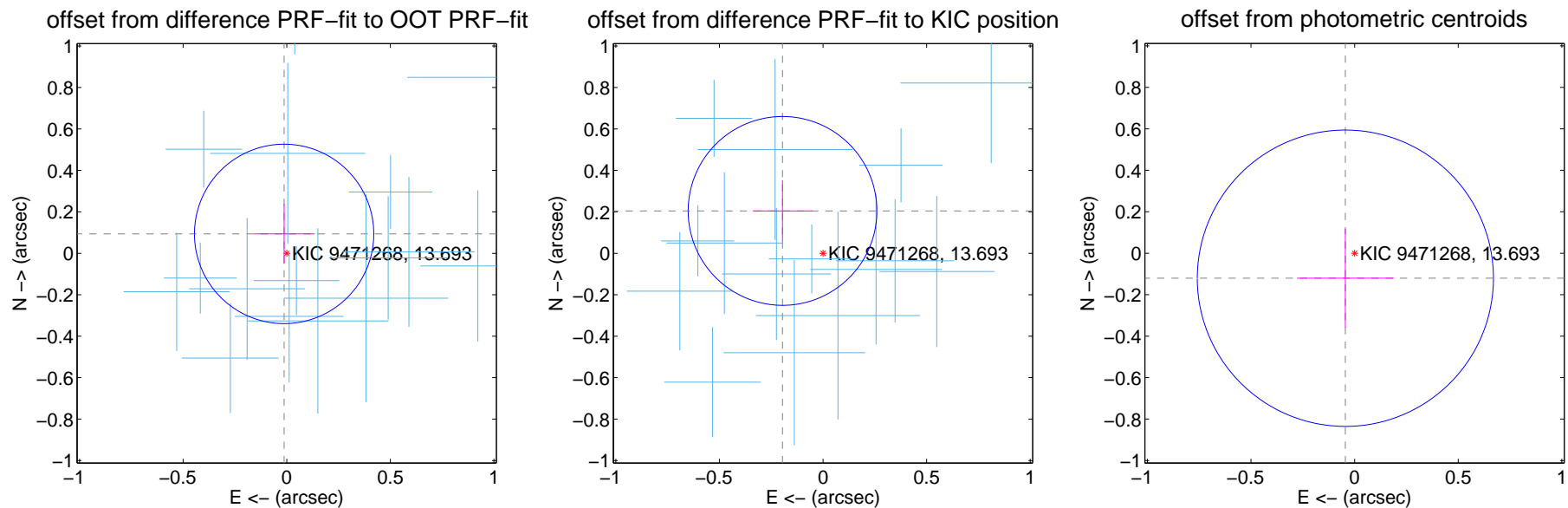
DV Centroid Data

Supplemental centroid analysis for 009471268-02. Kepler magnitude: 13.69. Transit SNR 39.42

There are 17 quarters with good PRF difference image offsets

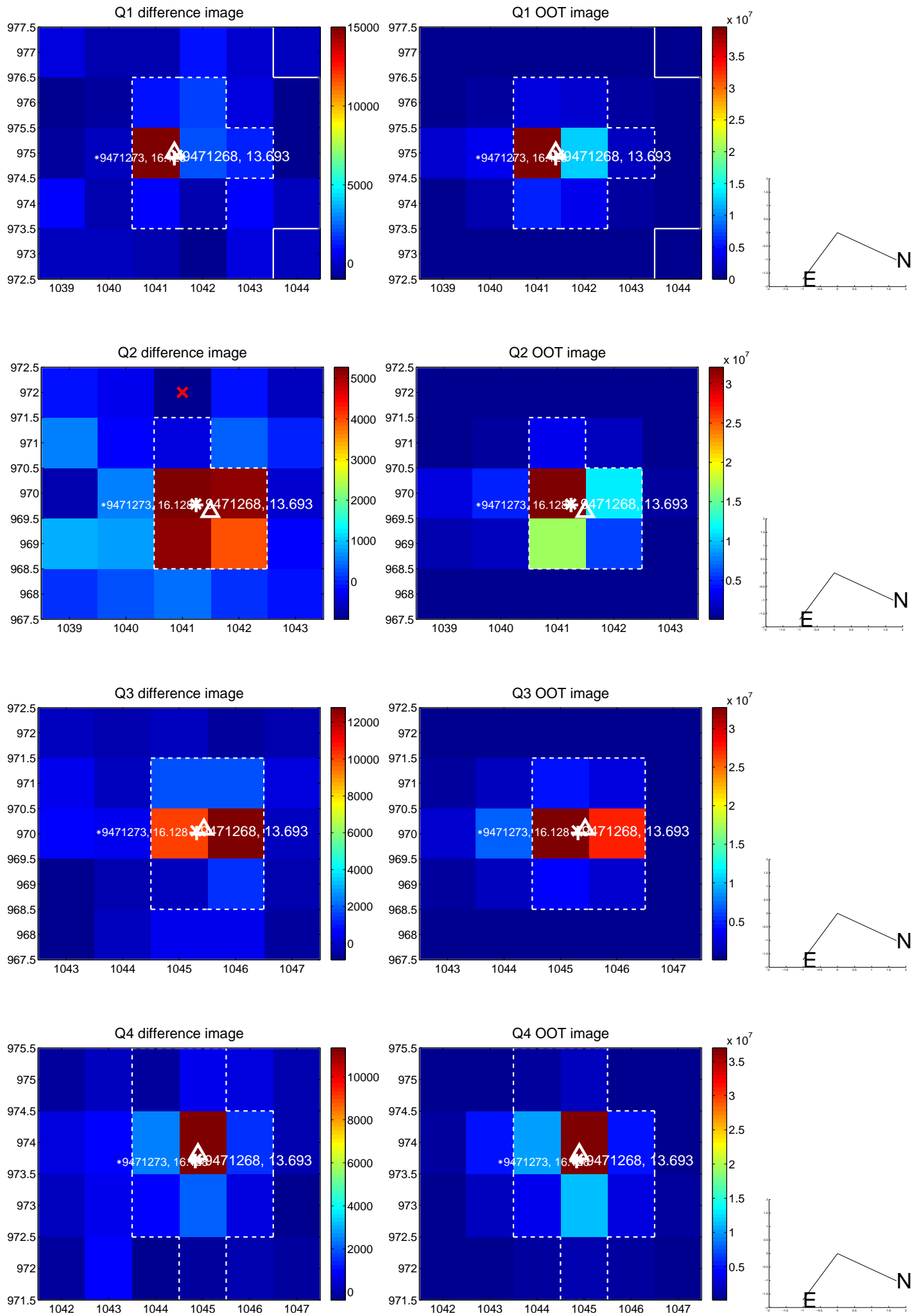
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.094 ± 0.144	0.65	0.013 ± 0.147	0.093 ± 0.144
PRF-fit source offset from KIC position	0.283 ± 0.152	1.86	0.195 ± 0.144	0.204 ± 0.148
photometric centroid source offset	0.13 ± 0.24	0.54	0.04 ± 0.23	-0.12 ± 0.24

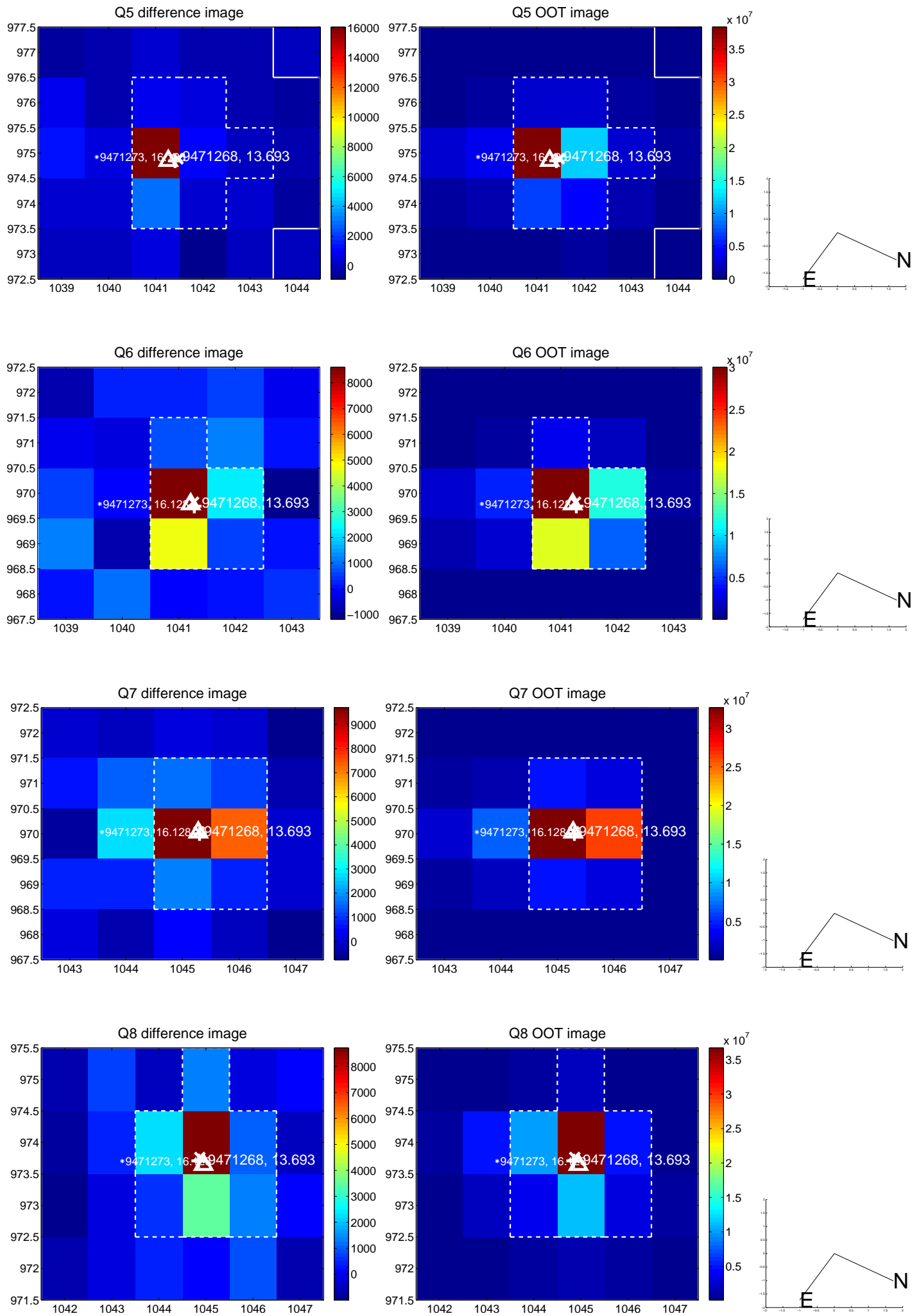


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

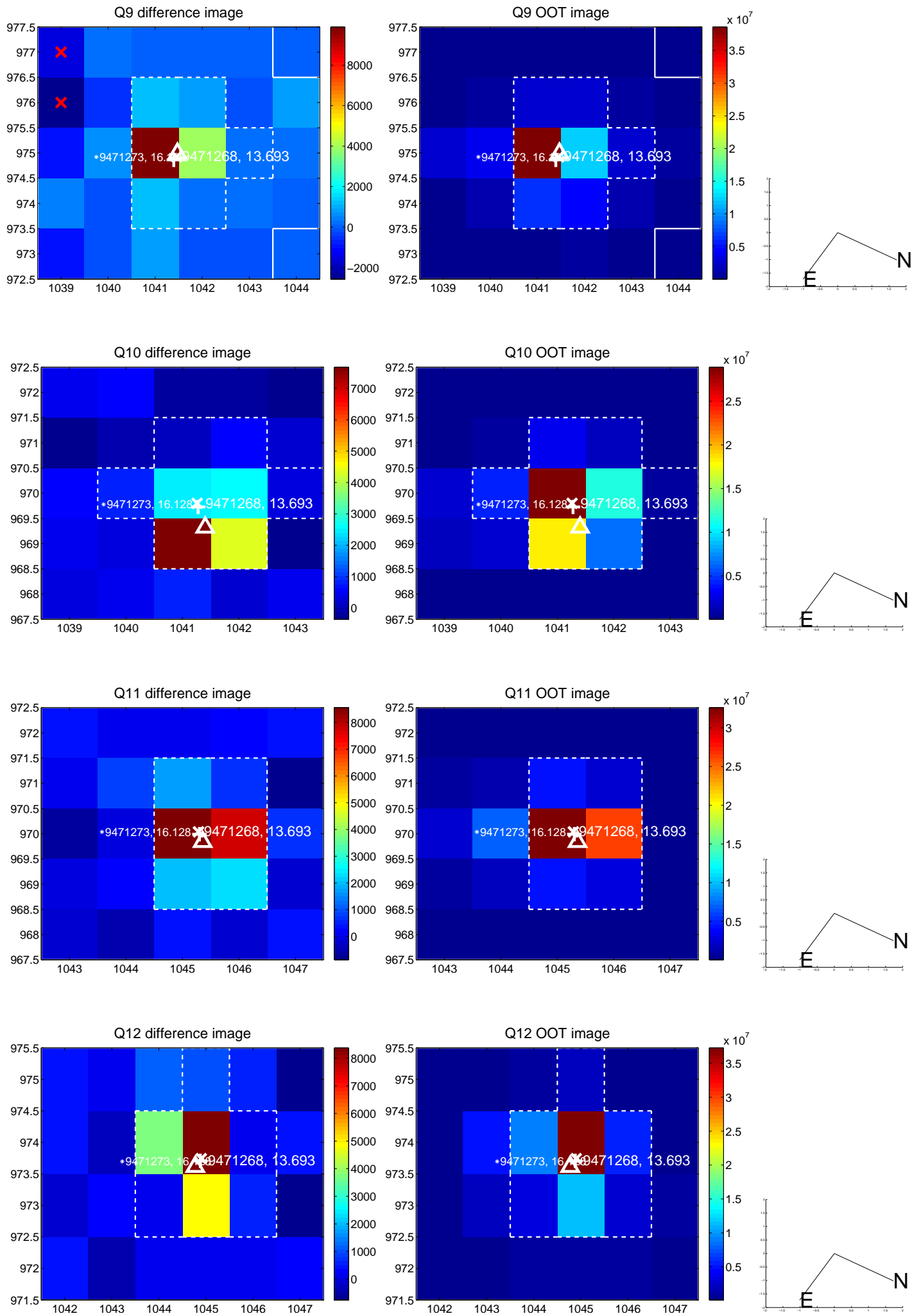
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



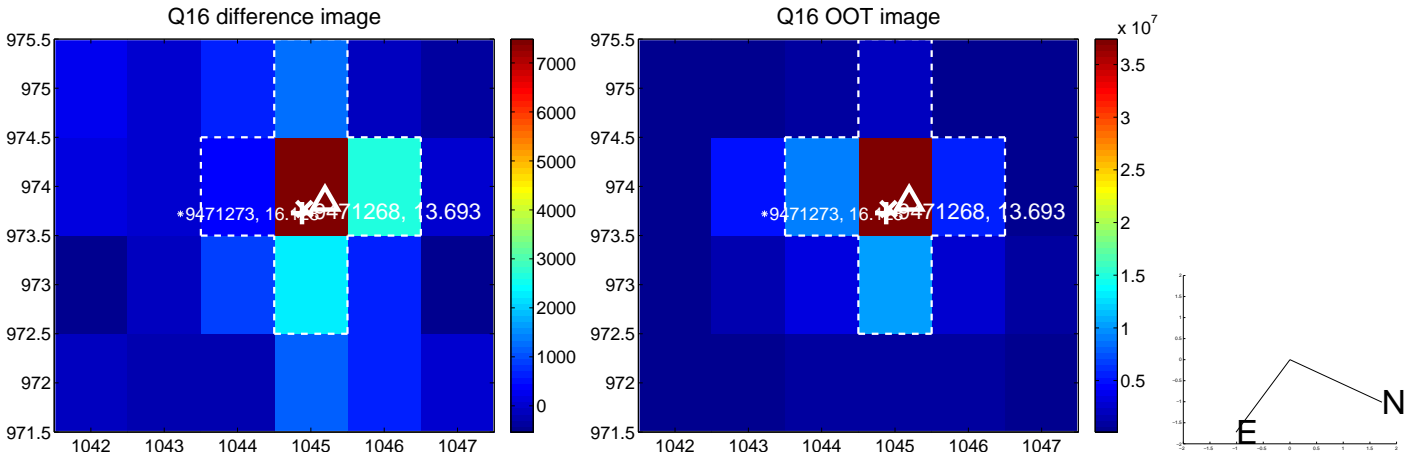
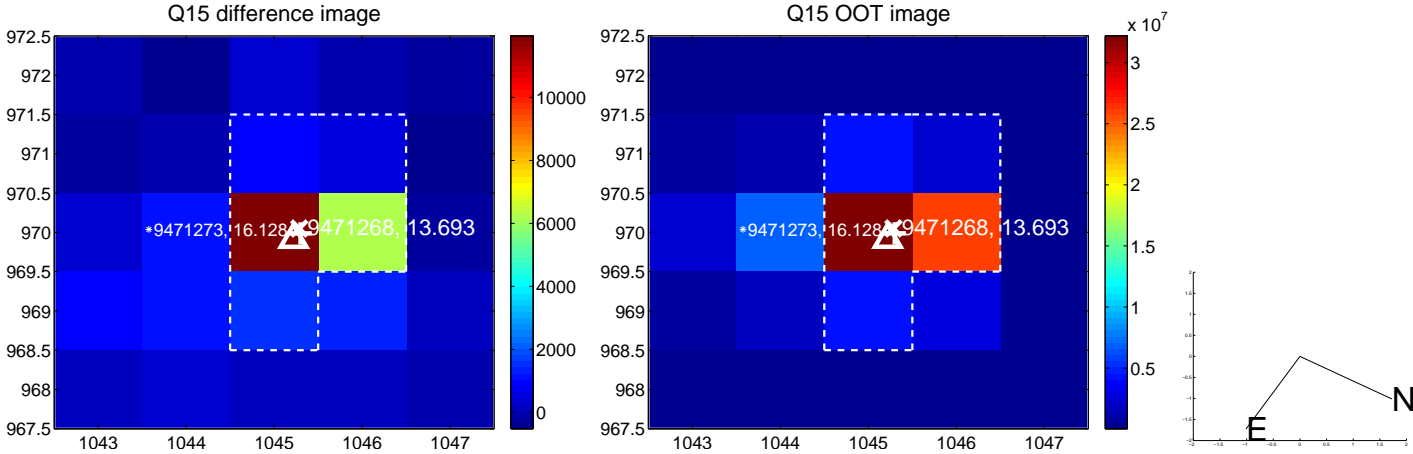
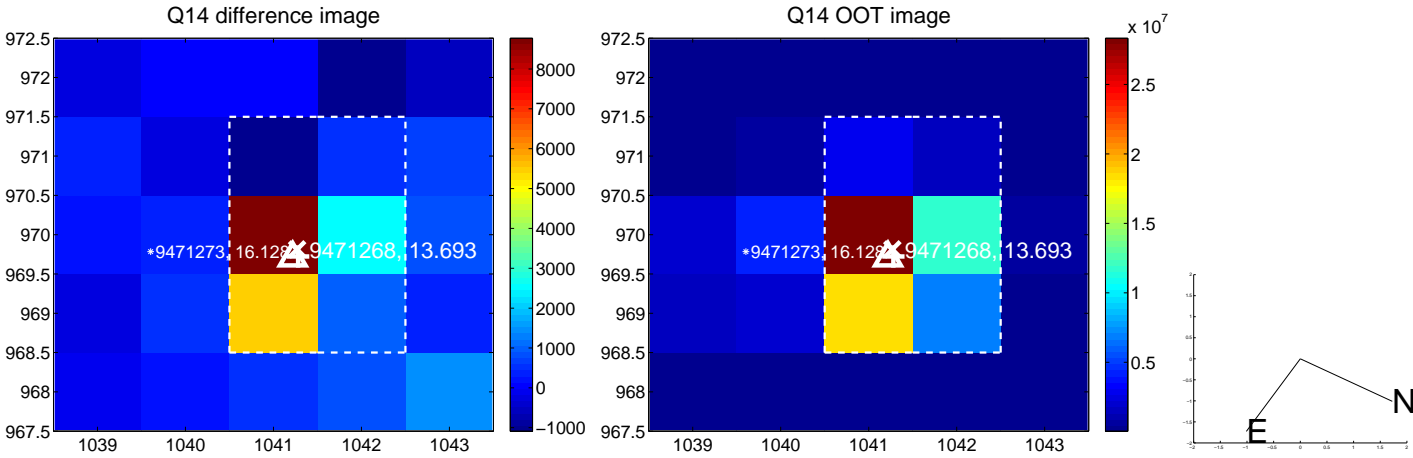
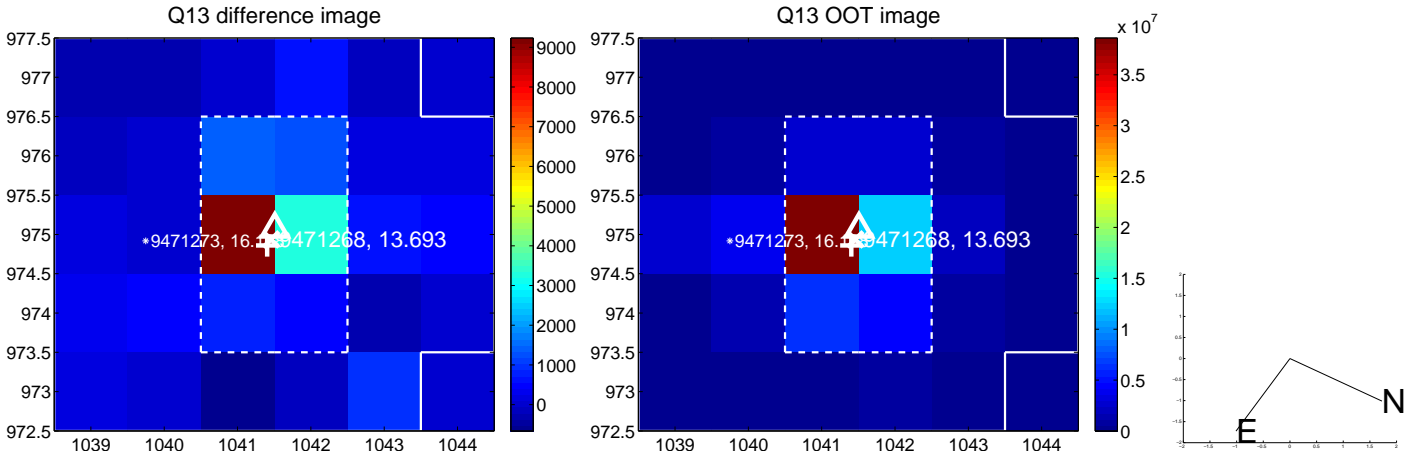
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



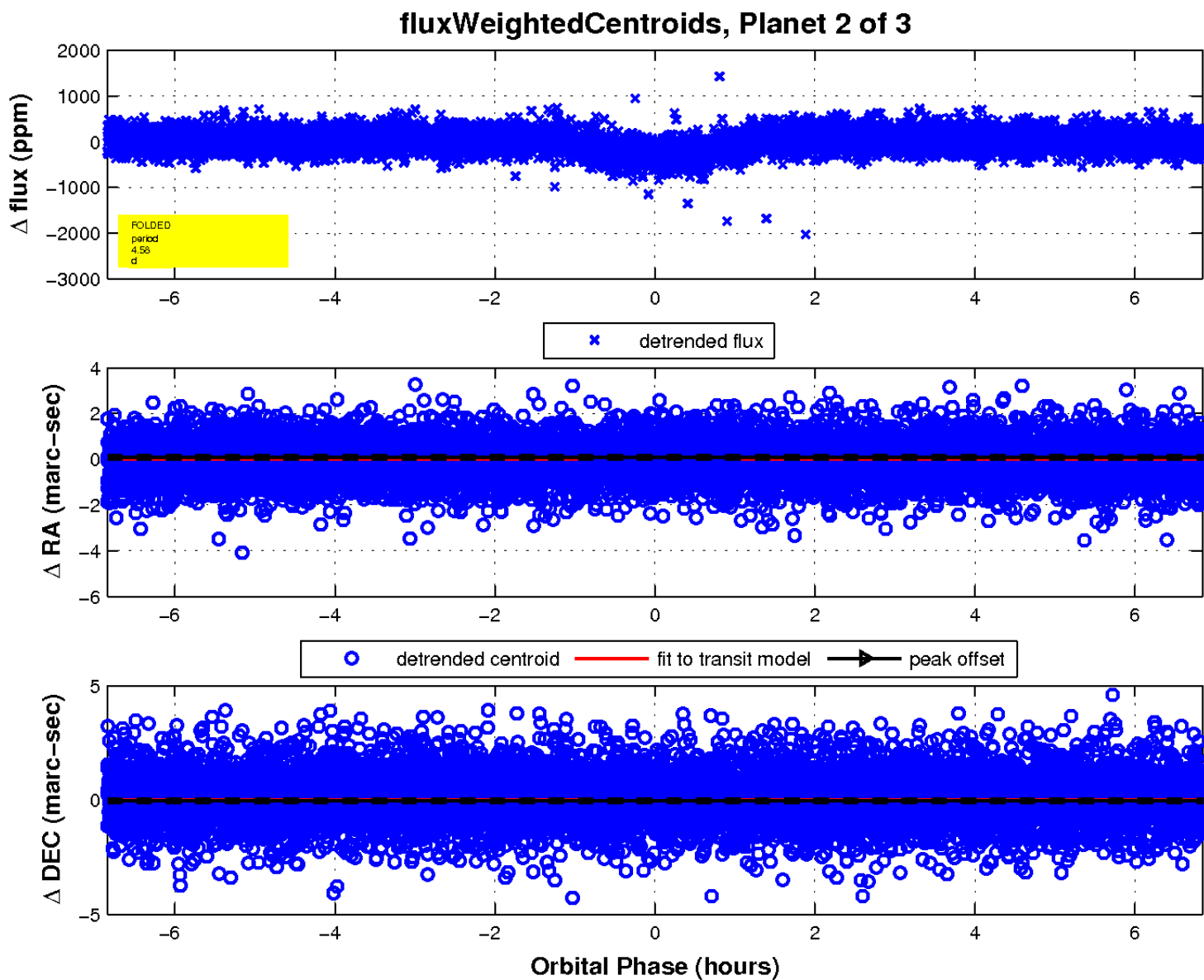
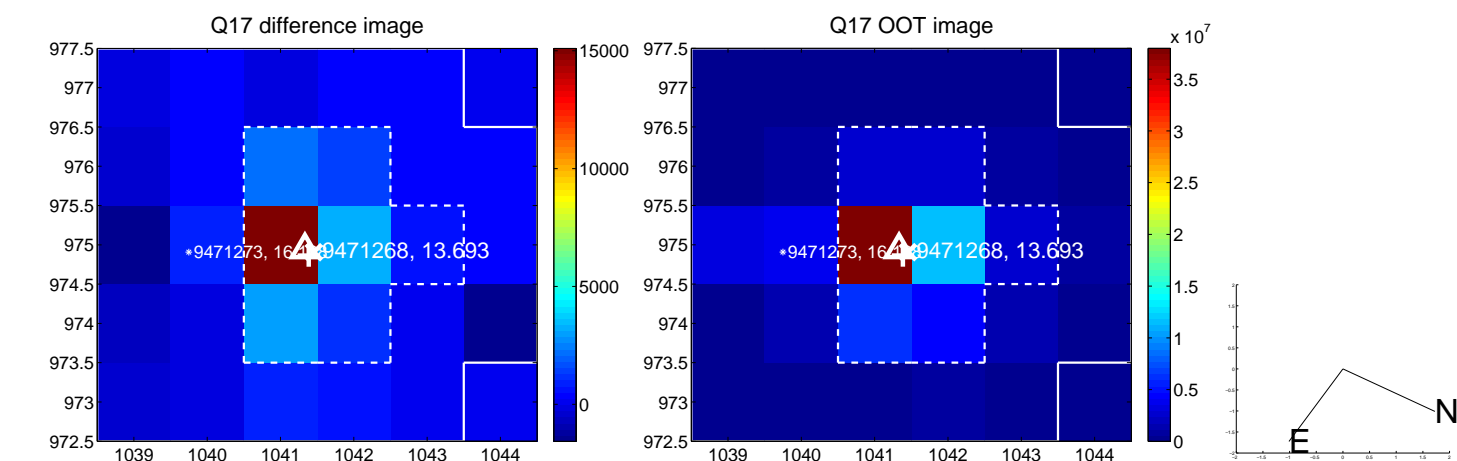
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

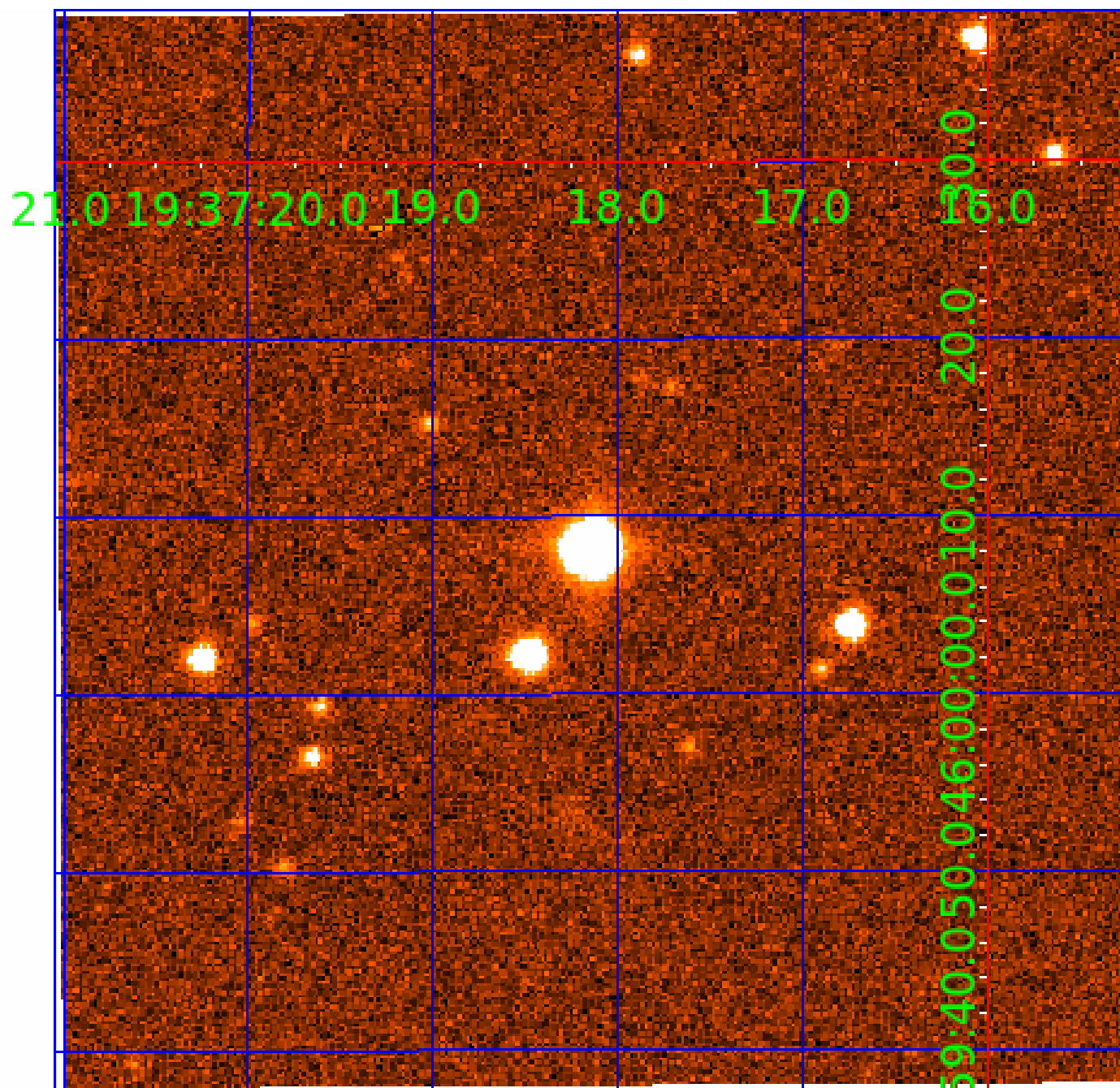


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009471268

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})
009471268-01	OBS	1835.02	2.248298	133.423606	254.2	2.144	44.2	49.2	0.79	5103	1.53	382.33
009471268-02	OBS	1835.01	4.580343	134.075533	298.5	2.284	36.0	39.4	0.79	5103	1.68	148.04
009471268-03	OBS	1835.03	6.766902	136.617818	257.5	1.698	22.3	26.5	0.79	5103	1.51	87.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009471268-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
009471268-03	OBS	PC	1.00	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.

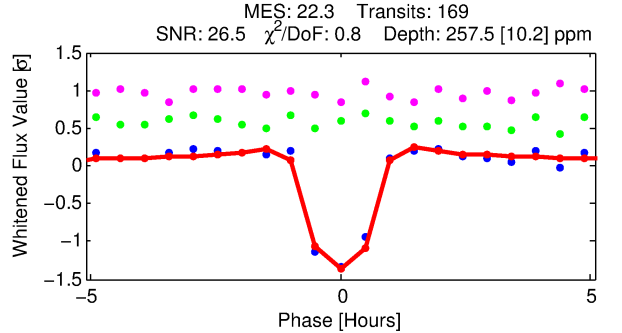
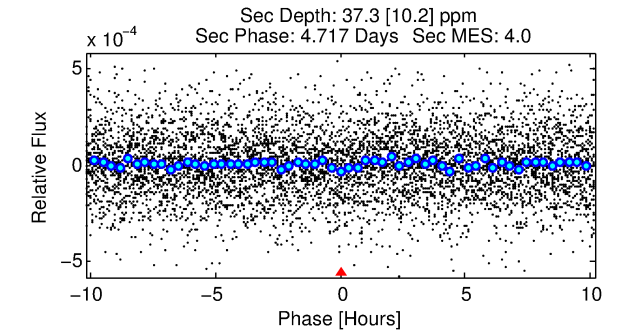
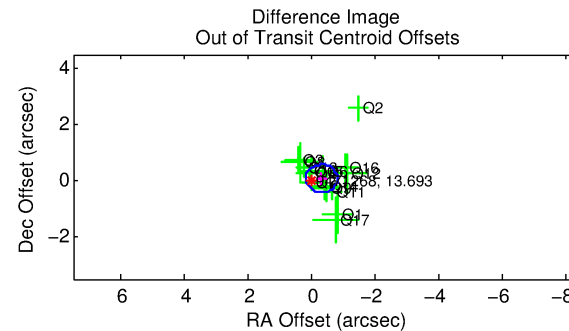
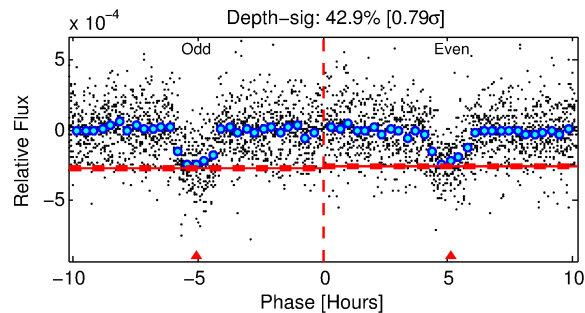
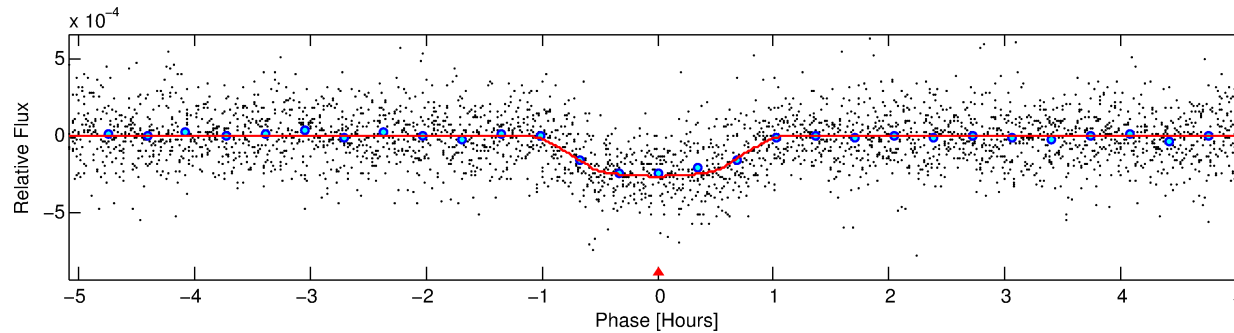
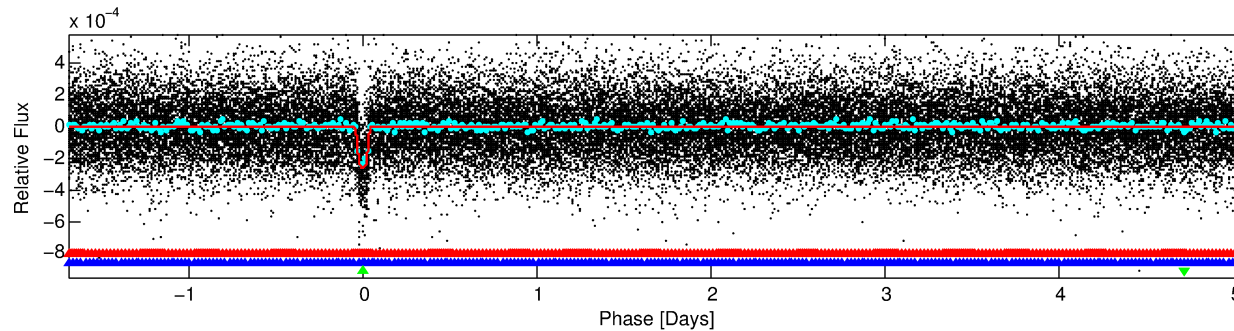
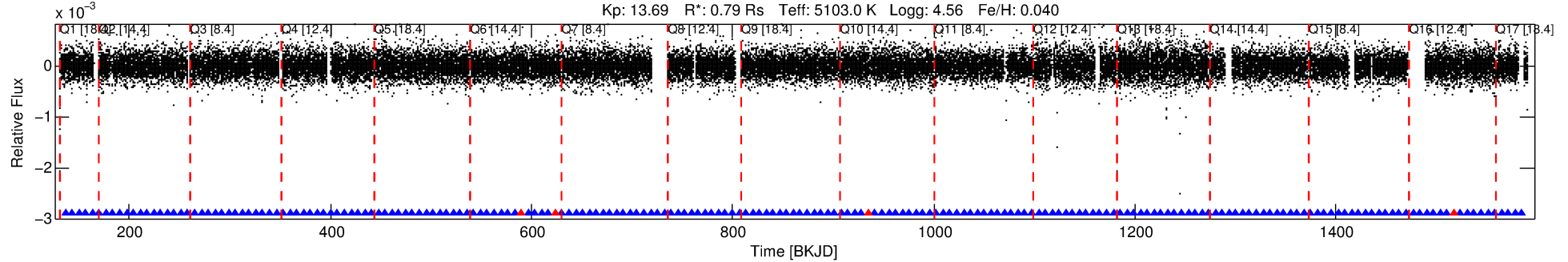
Ephemeris Match Information For 009471268-03

No Significant Match Found

DV One-Page Summary

KIC: 9471268 Candidate: 3 of 3 Period: 6.767 d
KOI: K01835.03 Name: Kepler-326d Corr: 0.987

Kp: 13.69 R*: 0.79 Rs Teff: 5103.0 K Logg: 4.56 Fe/H: 0.040



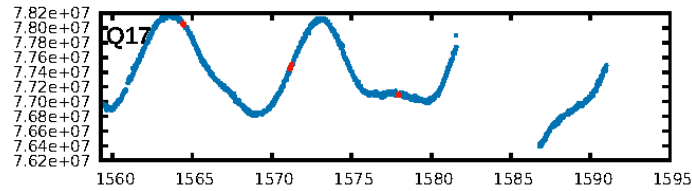
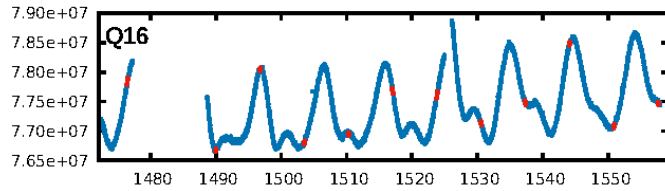
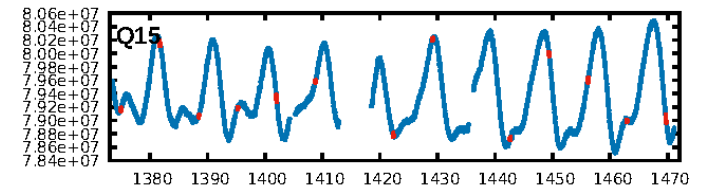
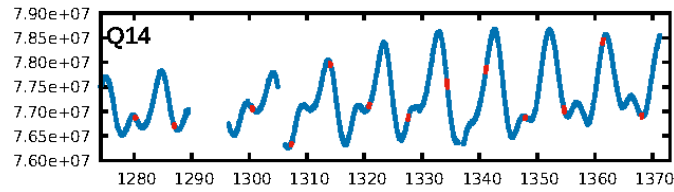
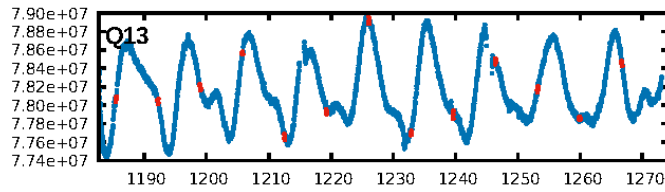
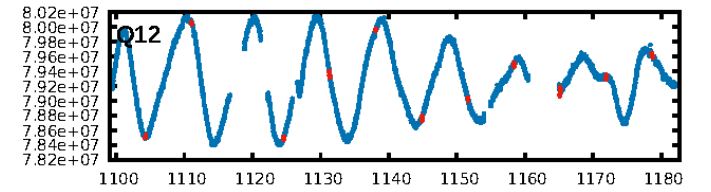
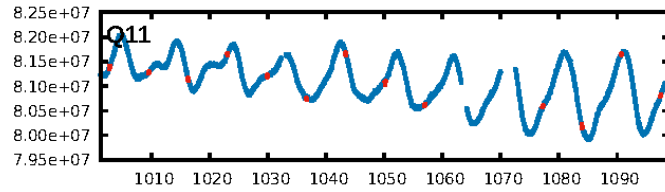
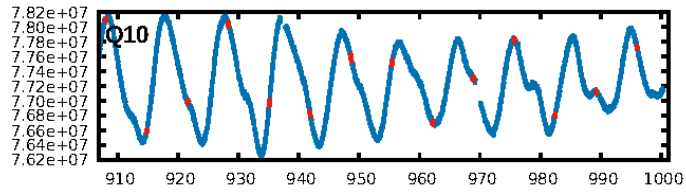
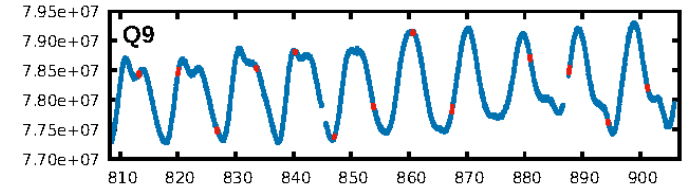
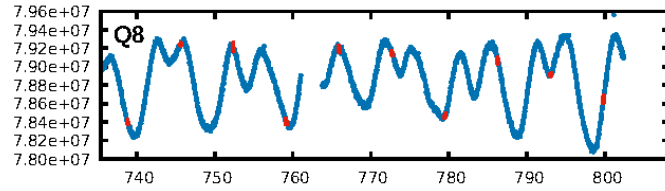
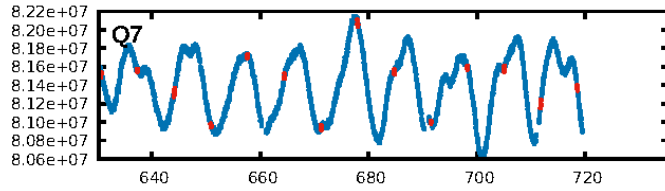
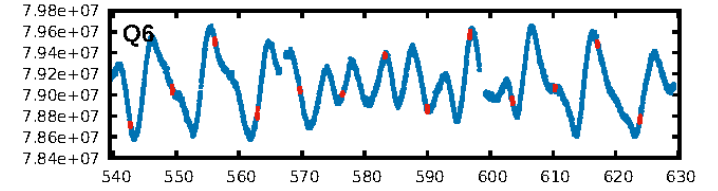
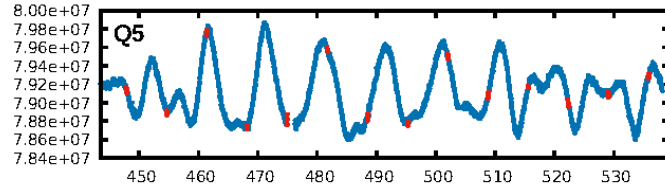
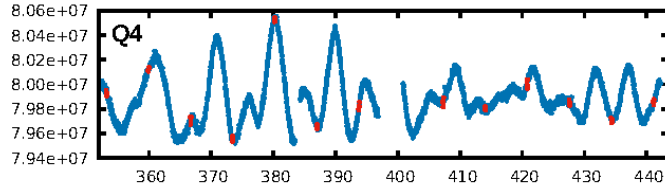
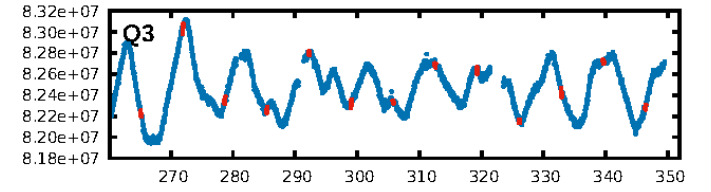
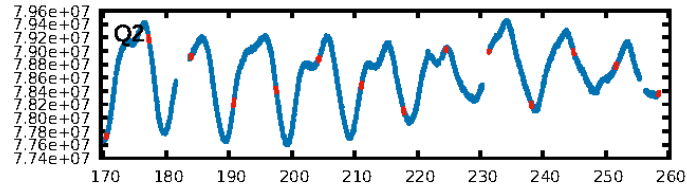
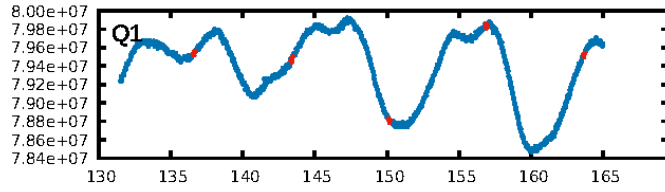
DV Fit Results:

Period = 6.76690 [0.00001] d
Epoch = 136.6178 [0.0013] BKJD
Rp/R* = 0.0175 [0.0065]
a/R* = 15.72 [22.75]
b = 0.88 [0.39]
Seff = 87.98 [10.44]
Teq = 781 [23] K
Rp = 1.51 [0.57] Re
a = 0.0656 [0.0038] AU
Ag = 38.86 [30.92] [1.22σ]
Teffp = 3015 [599] K [3.73σ]

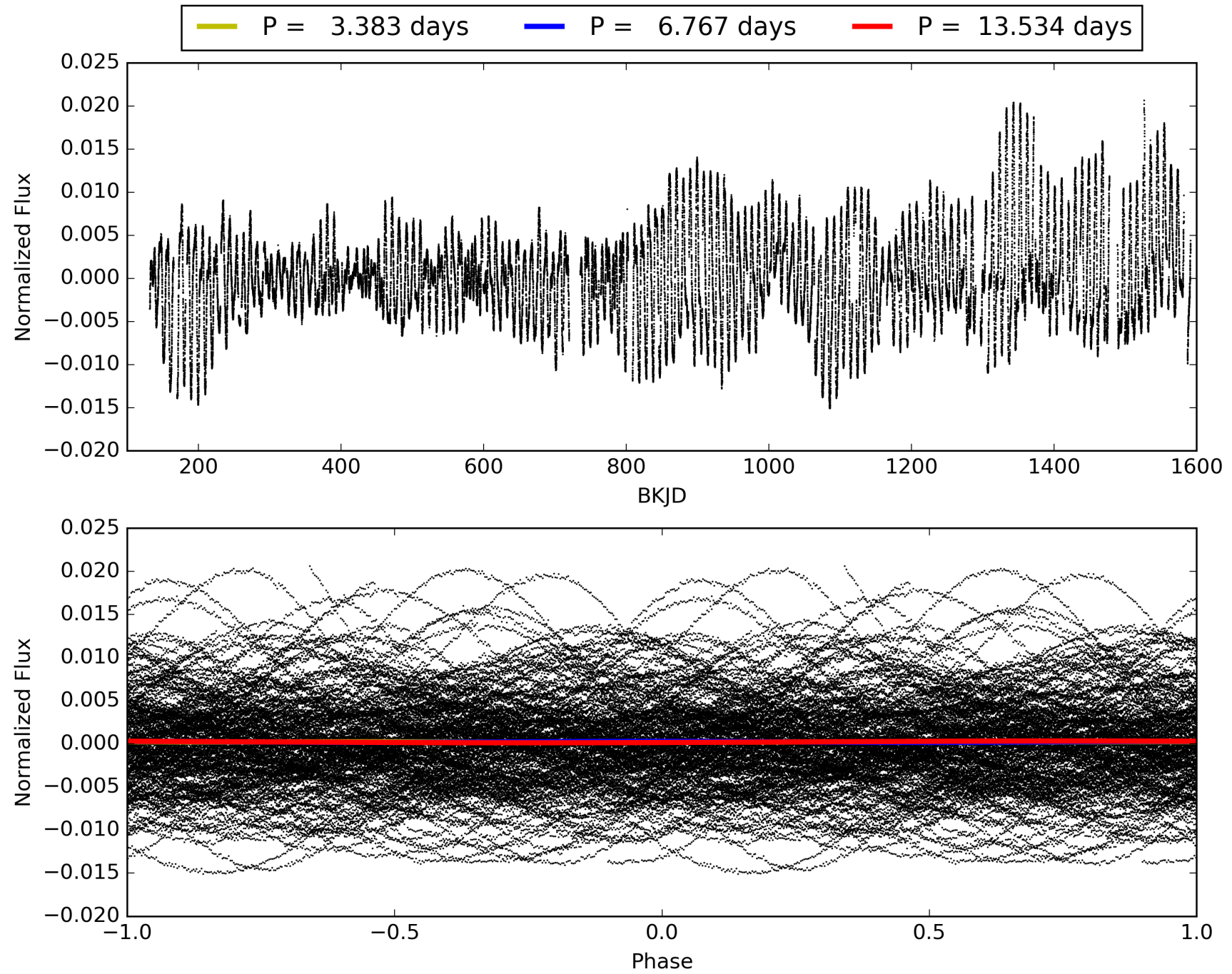
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.44σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.51e-103
RollingBand-fgt: 0.98 [158/162]
GhostDiagnostic-chr: 6.225
Centroid-sig: 0.0%
Centroid-so: 1.217 arcsec [3.25σ]
OotOffset-rm: 0.324 arcsec [1.95σ]
KicOffset-rm: 0.195 arcsec [0.84σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 0.94 [16/17]

TCE 009471268-03, PDC Light Curves

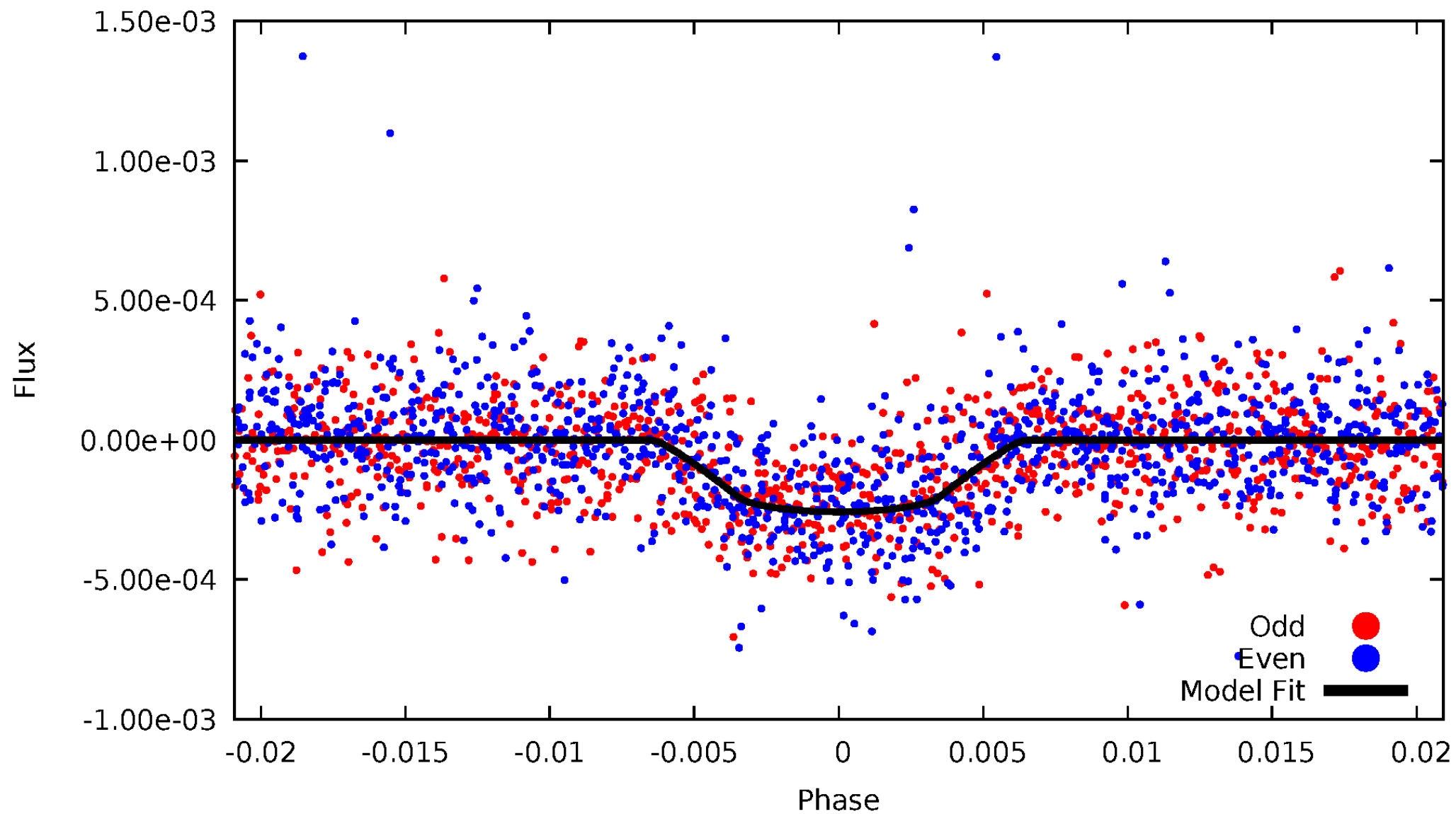


TCE 009471268-03



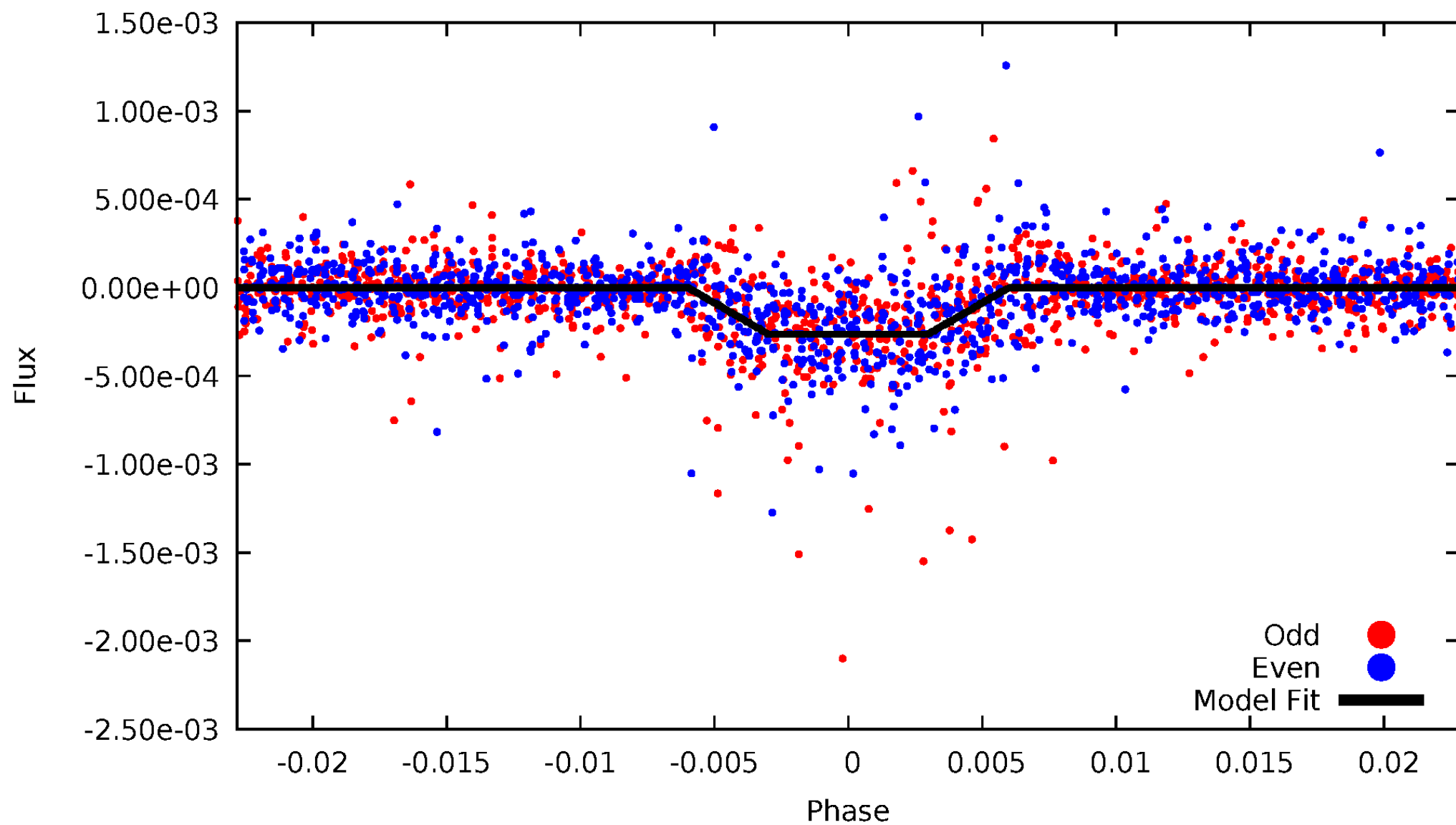
DV Odd/Even

TCE 009471268-03

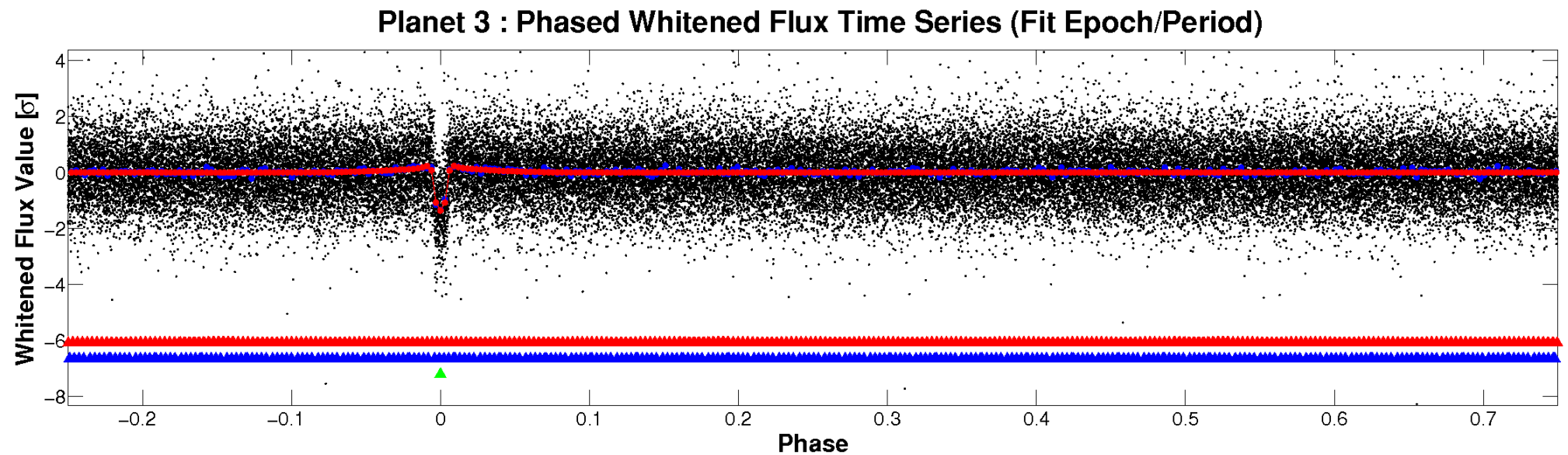
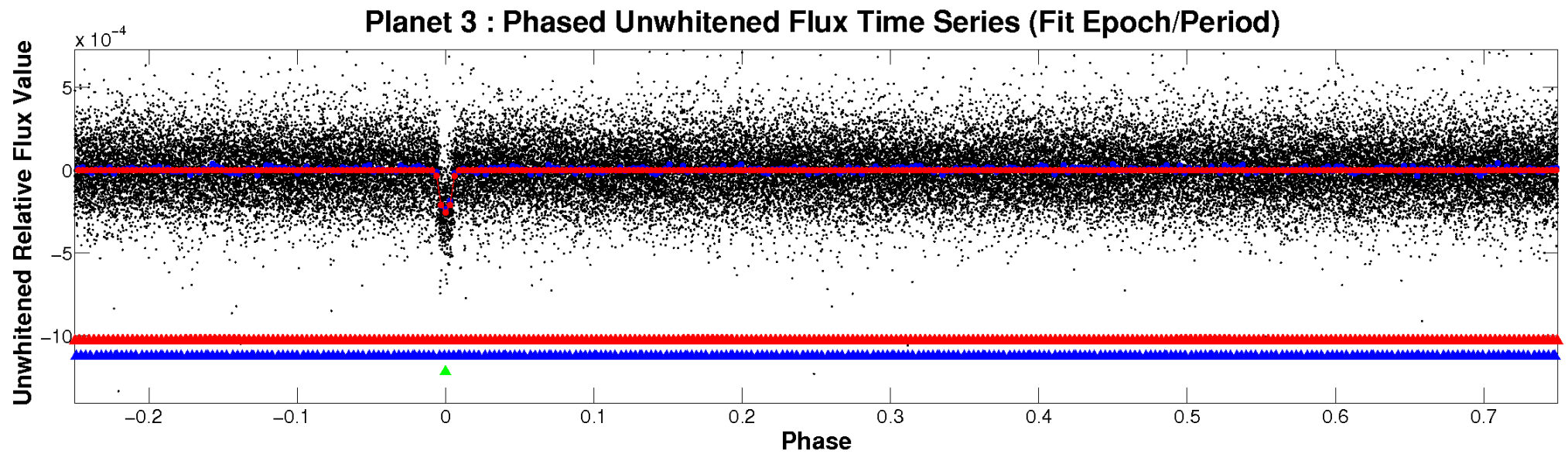


ALT Odd/Even

TCE 009471268-03

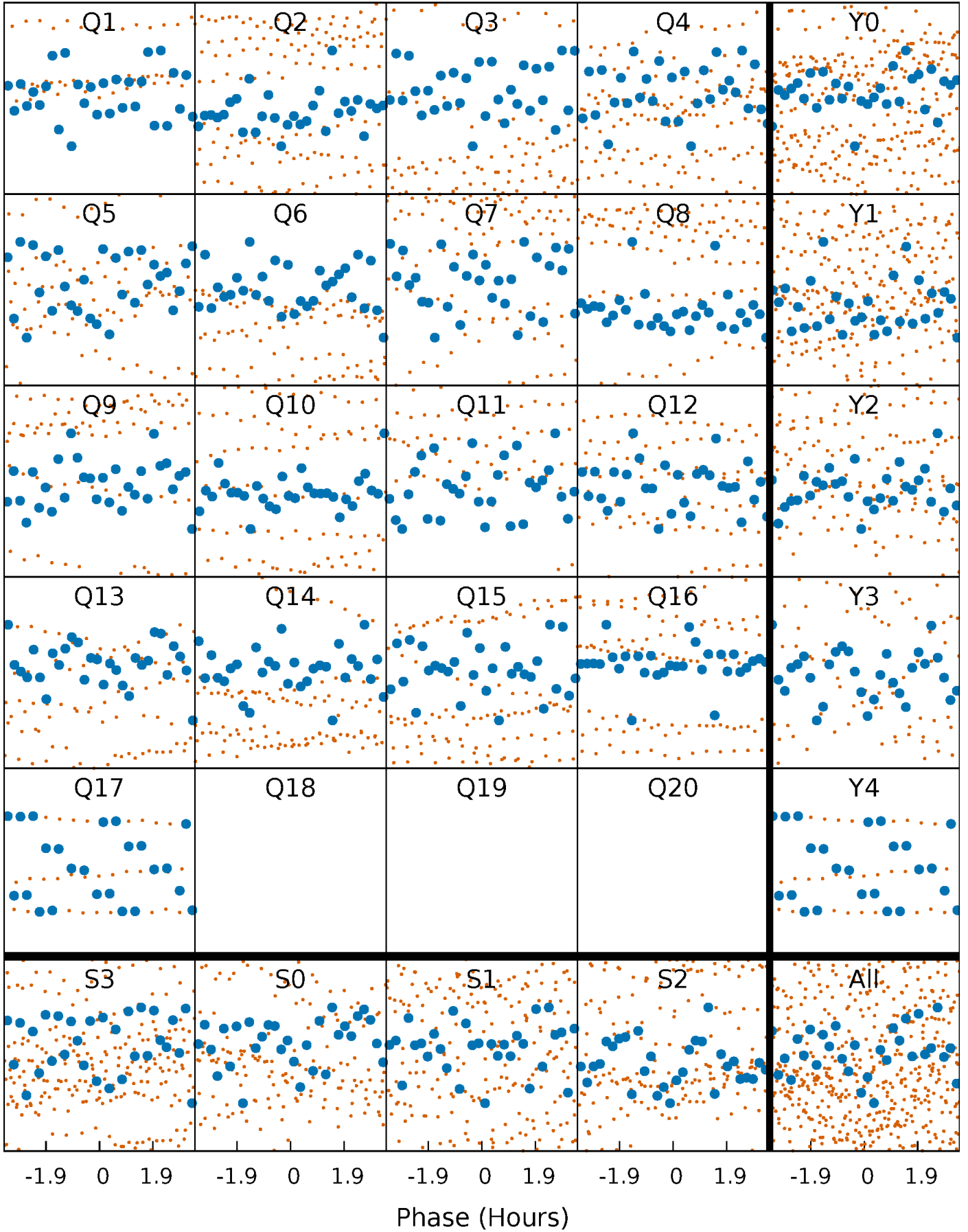


Non-Whitened Vs. Whitened Light Curve



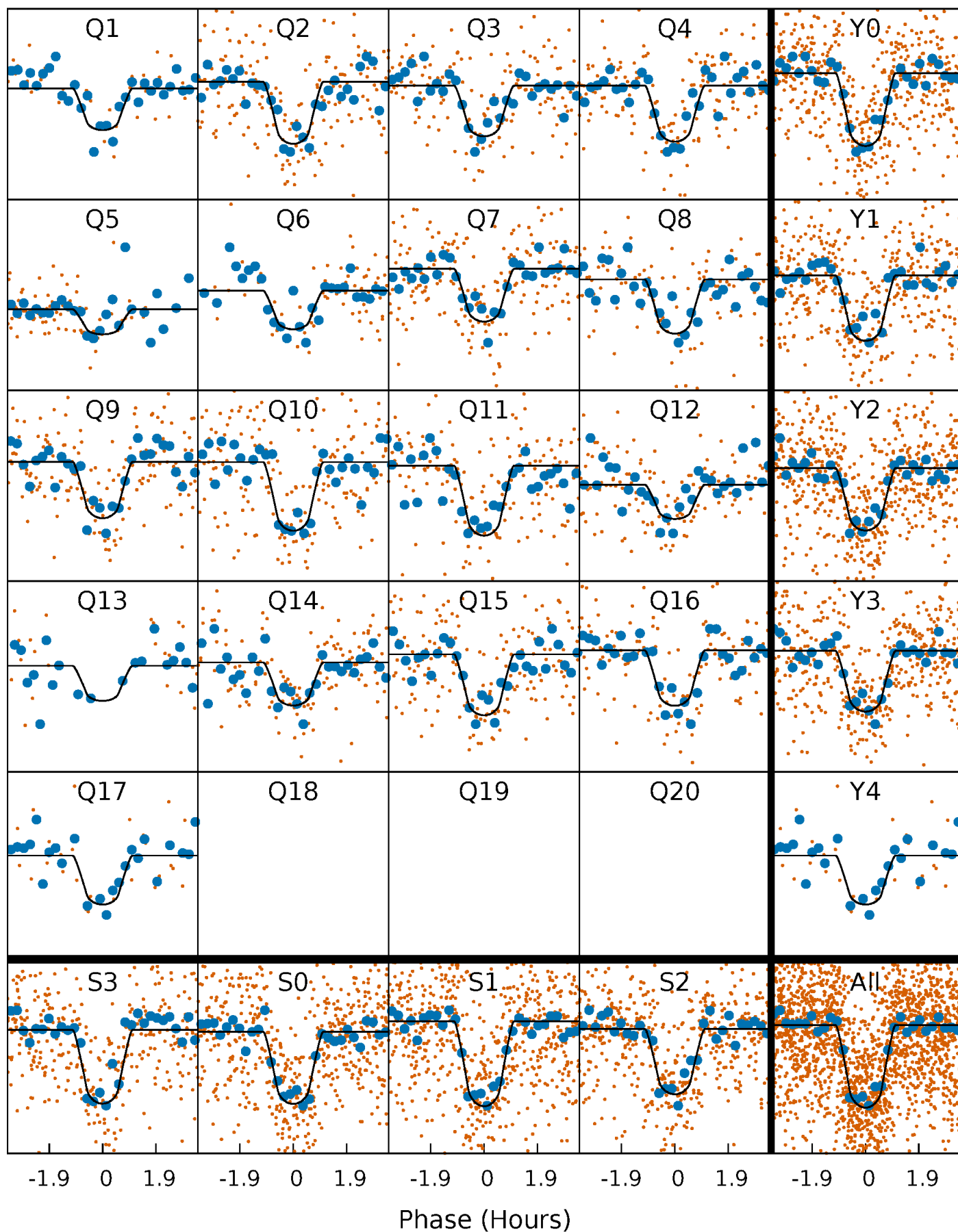
PDC Quarter-Phased Transit Curves

TCE 009471268-03 P= 6.766902 Days $T_0=136.617818$ (BKJD)



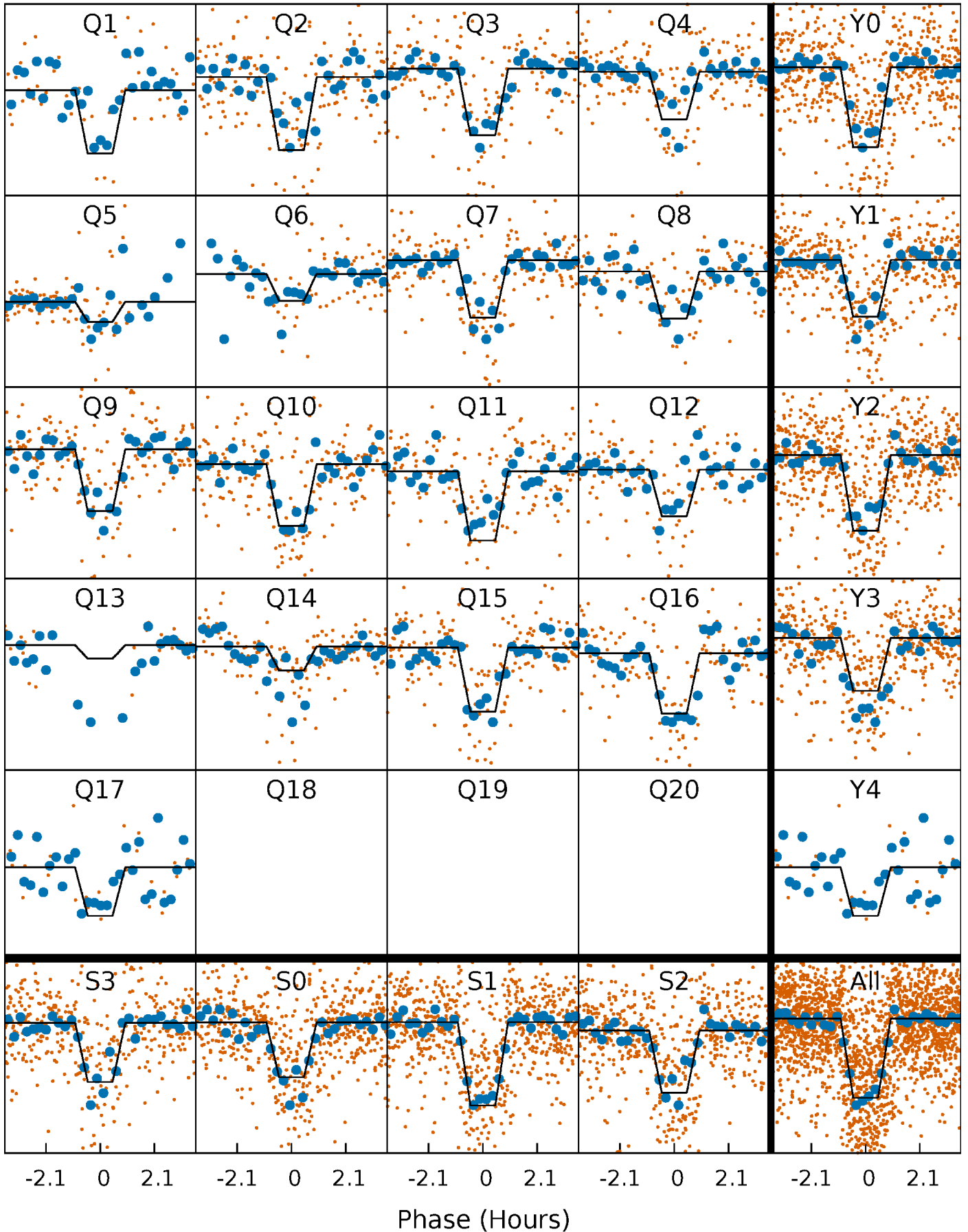
DV Quarter-Phased Transit Curves

TCE 009471268-03 P= 6.766902 Days $T_0=136.617818$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

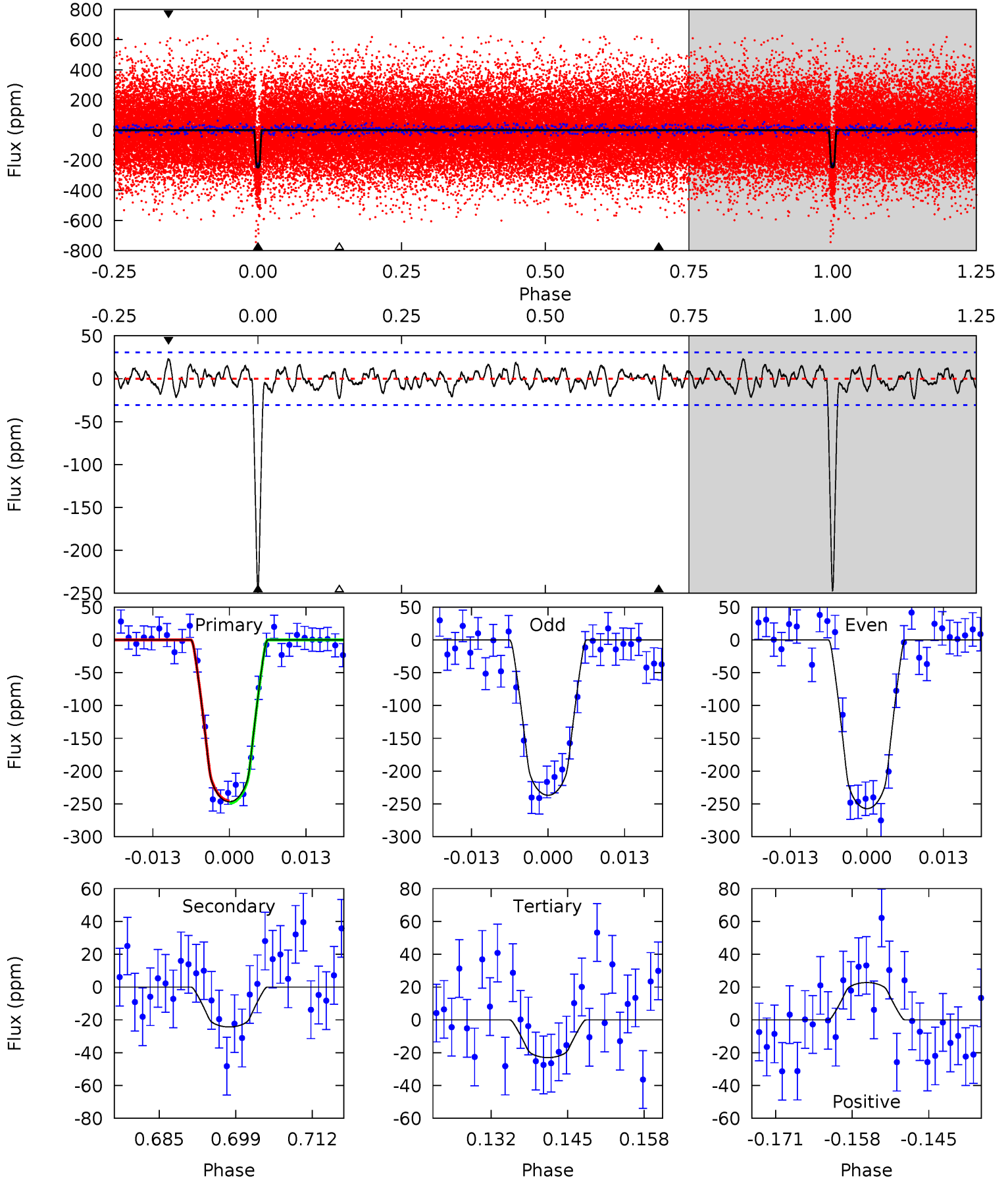
TCE 009471268-03 P= 6.766929 Days $T_0=136.613464$ (BKJD)



DV Model-Shift Uniqueness Test

009471268-03, P = 6.766902 Days, E = 129.850916 Days

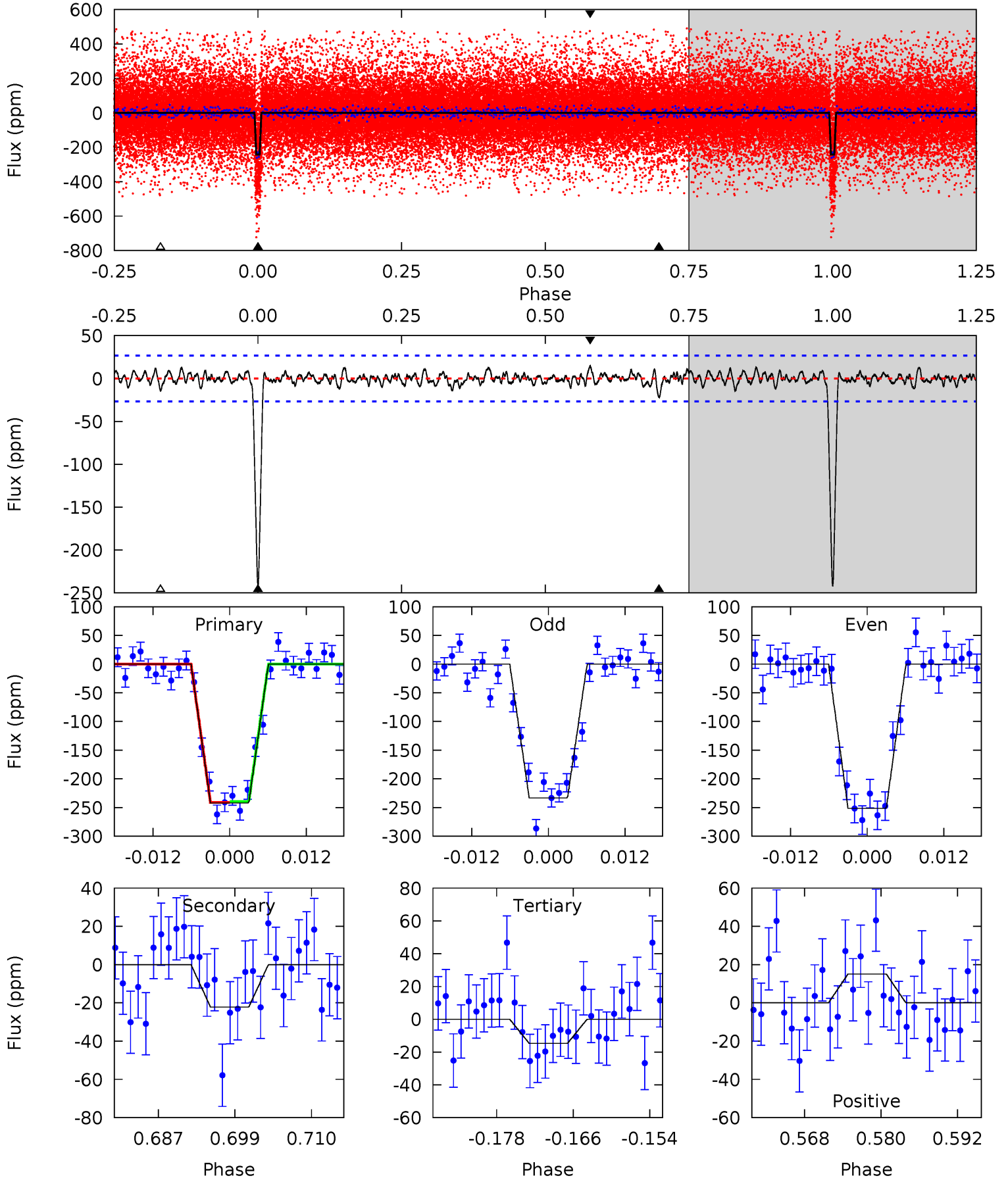
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.1	3.95	3.73	3.69	4.97	2.48	1.31	36.3	36.4	0.22	0.26	1.66	0.96	0.08	0.29



Alt Model-Shift Uniqueness Test

009471268-03, P = 6.766929 Days, E = 129.846535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.2	4.14	2.75	2.82	4.99	2.52	0.92	42.5	42.4	1.40	1.32	1.71	1.11	0.06	0.15



Stellar Parameters For KIC 009471268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5103^{+101}_{-101}	$4.558^{+0.032}_{-0.050}$	$0.040^{+0.150}_{-0.150}$	$0.789^{+0.052}_{-0.037}$	$0.820^{+0.047}_{-0.043}$	$2.349^{+0.323}_{-0.381}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-5%	+14%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 009471268-03 / KOI 1835.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 6	$1.49^{+0.57}_{-0.56}$	1094^{+27}_{-27}	3243^{+543}_{-321}	25^{+39}_{-13}
Alt.	-22 ± 5	$1.44^{+0.55}_{-0.57}$	1096^{+27}_{-28}	3260^{+528}_{-348}	26^{+39}_{-14}

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 $A_{obs} \gg 1.0$

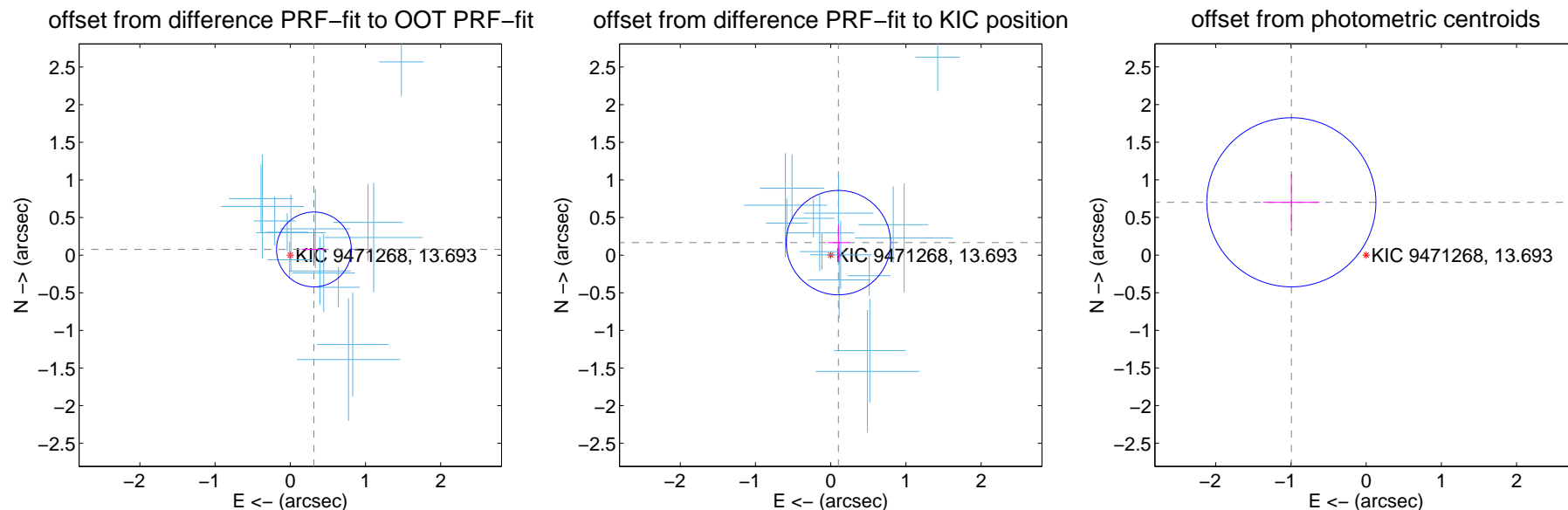
DV Centroid Data

Supplemental centroid analysis for 009471268-03. Kepler magnitude: 13.69. Transit SNR 26.55

There are 15 quarters with good PRF difference image offsets

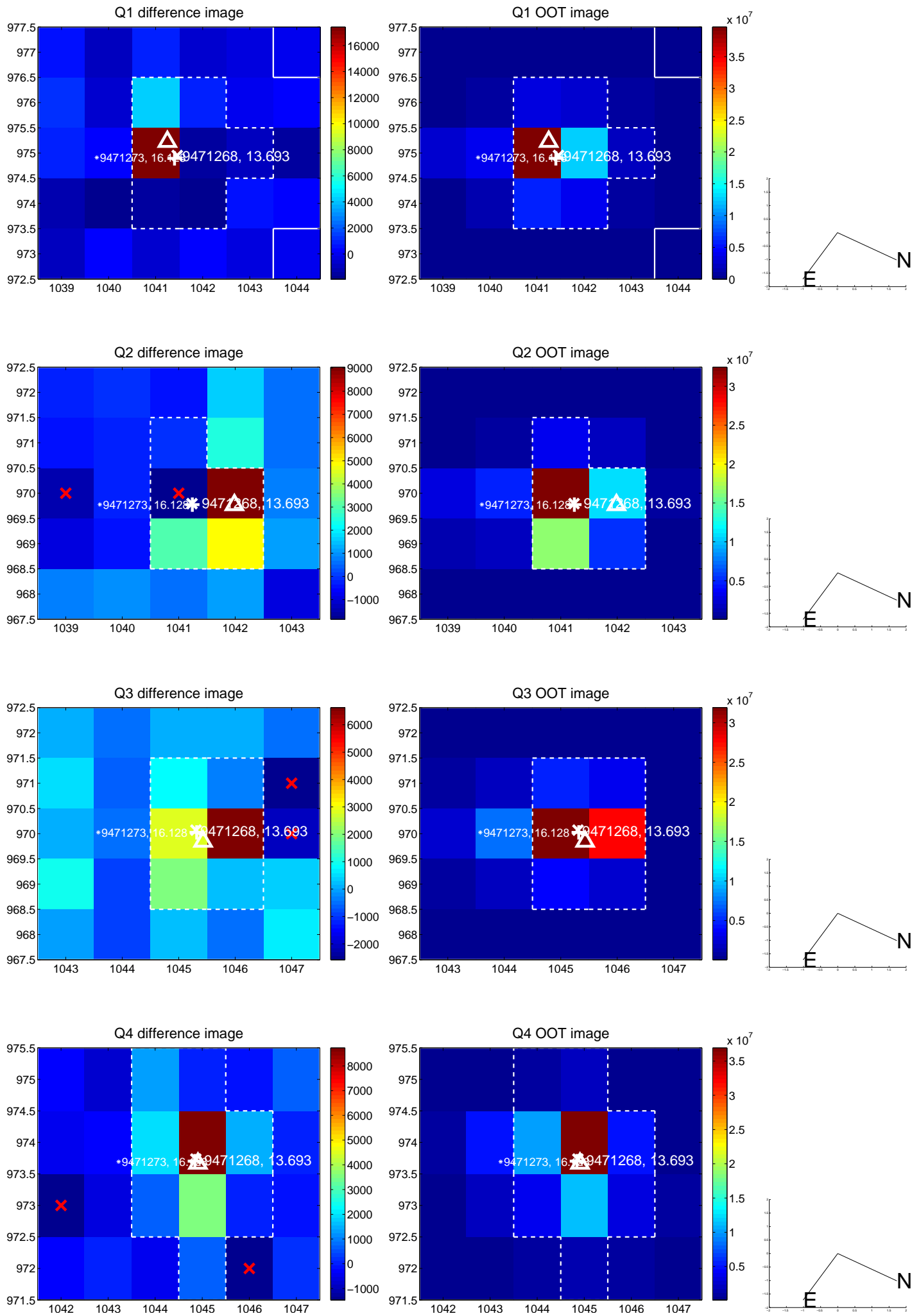
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.324 ± 0.166	1.95	-0.315 ± 0.163	0.076 ± 0.220
PRF-fit source offset from KIC position	0.195 ± 0.231	0.84	-0.102 ± 0.145	0.166 ± 0.241
photometric centroid source offset	1.22 ± 0.37	3.25	0.99 ± 0.37	0.70 ± 0.38

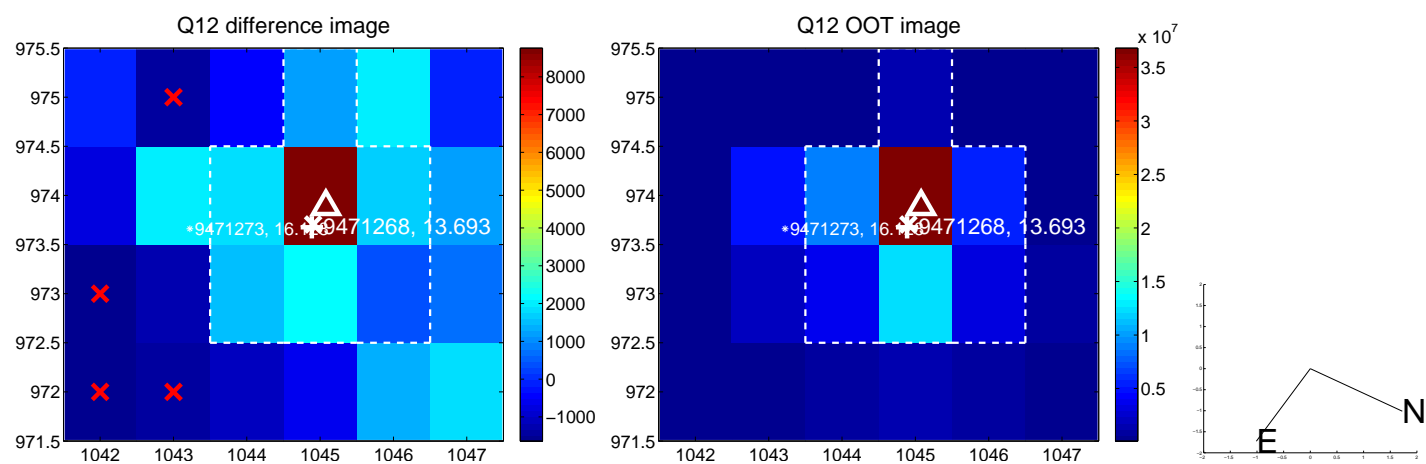
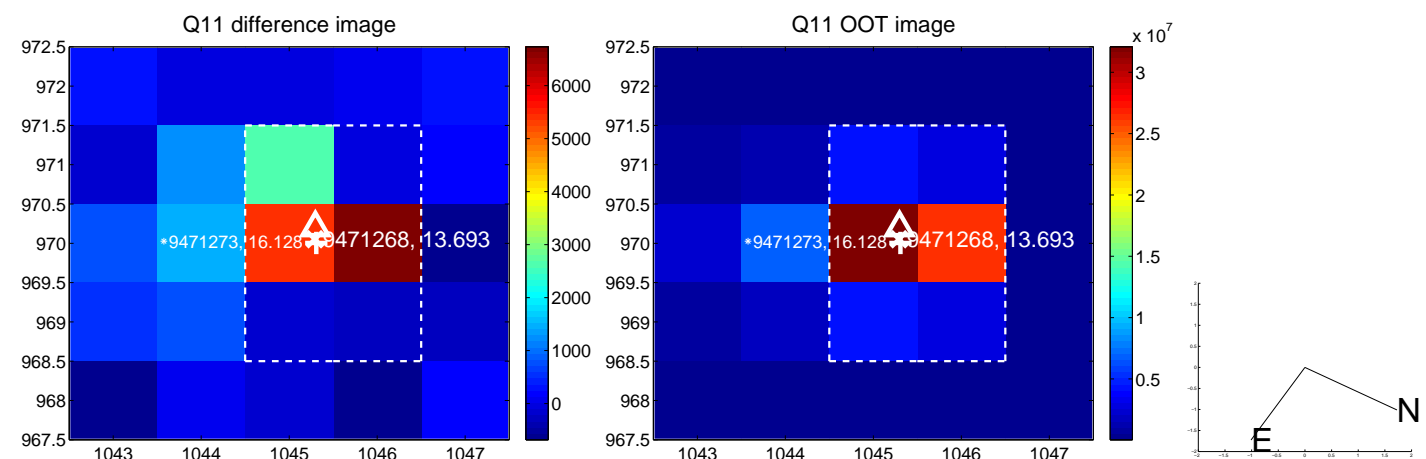
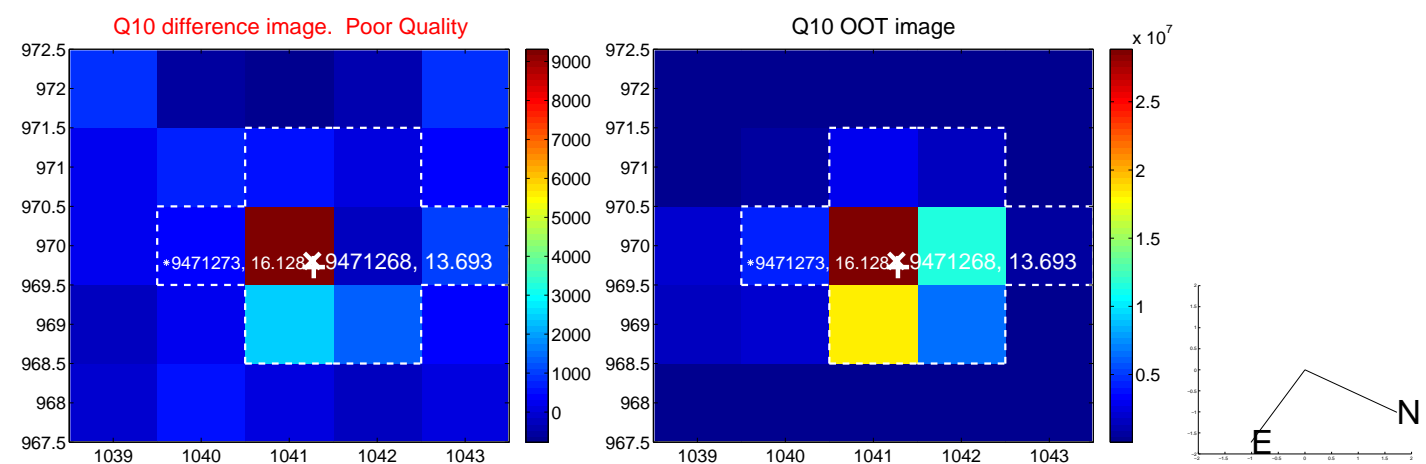
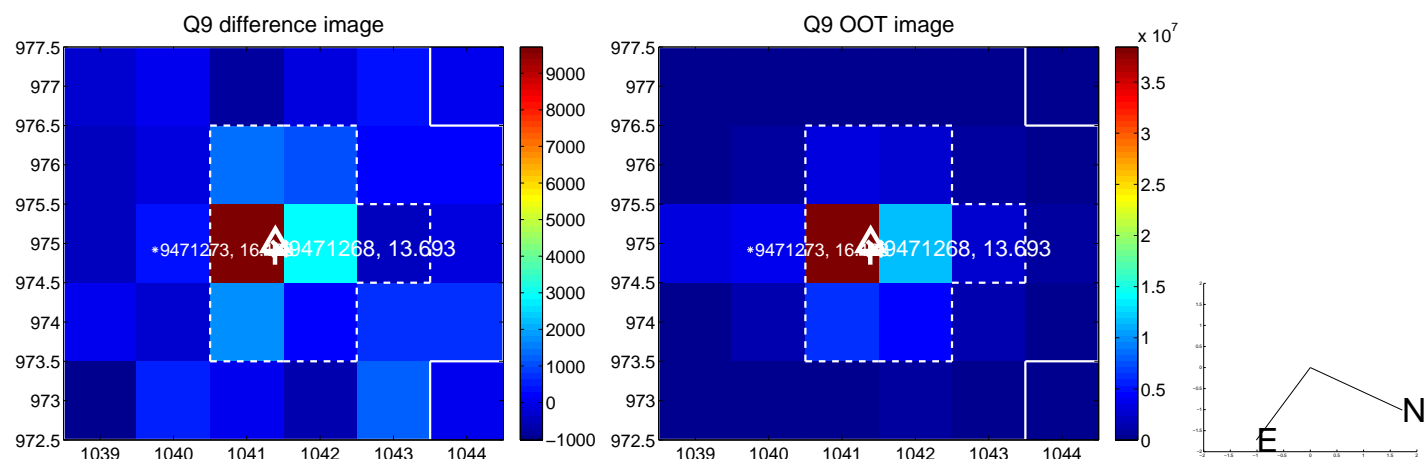


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

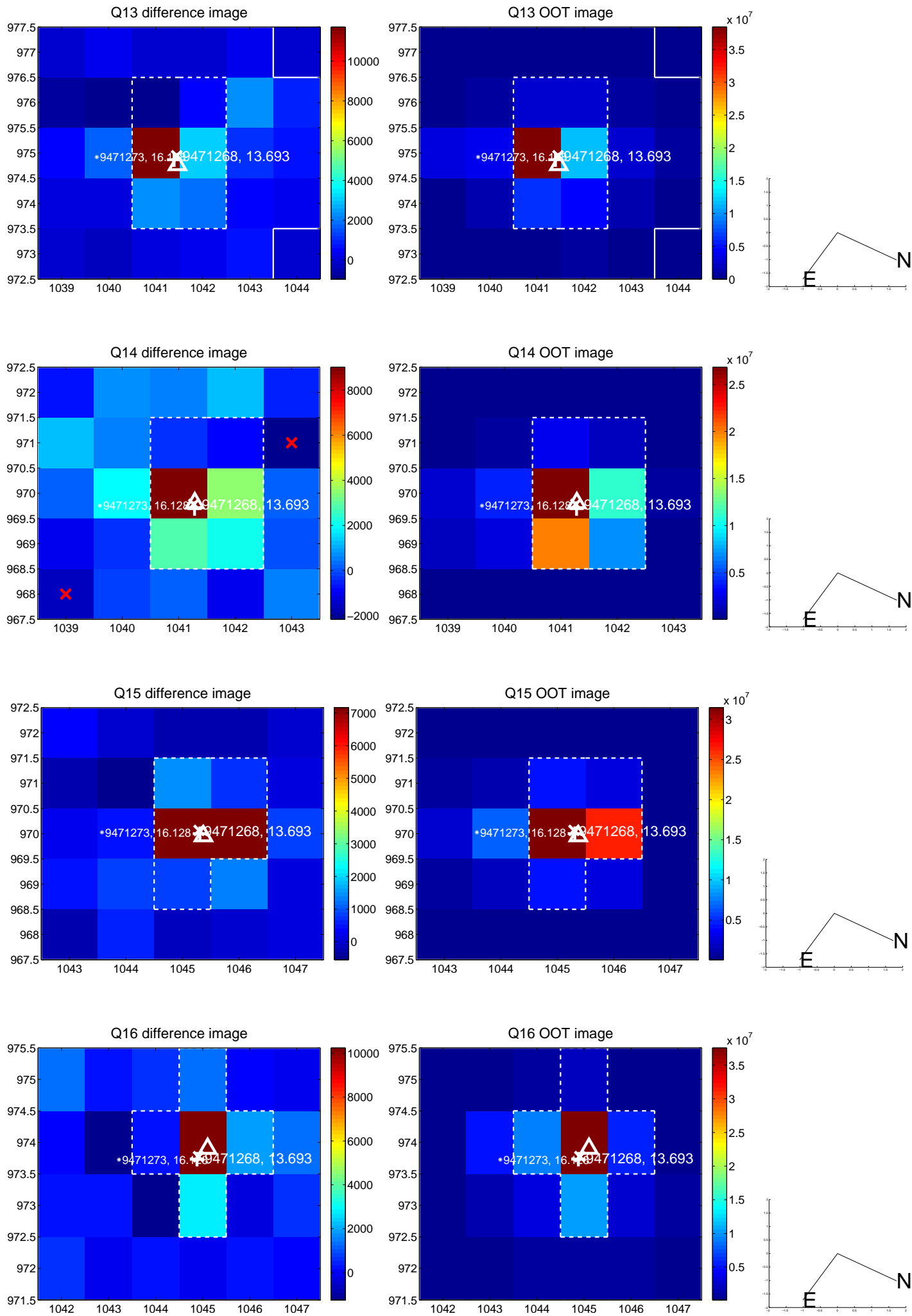
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



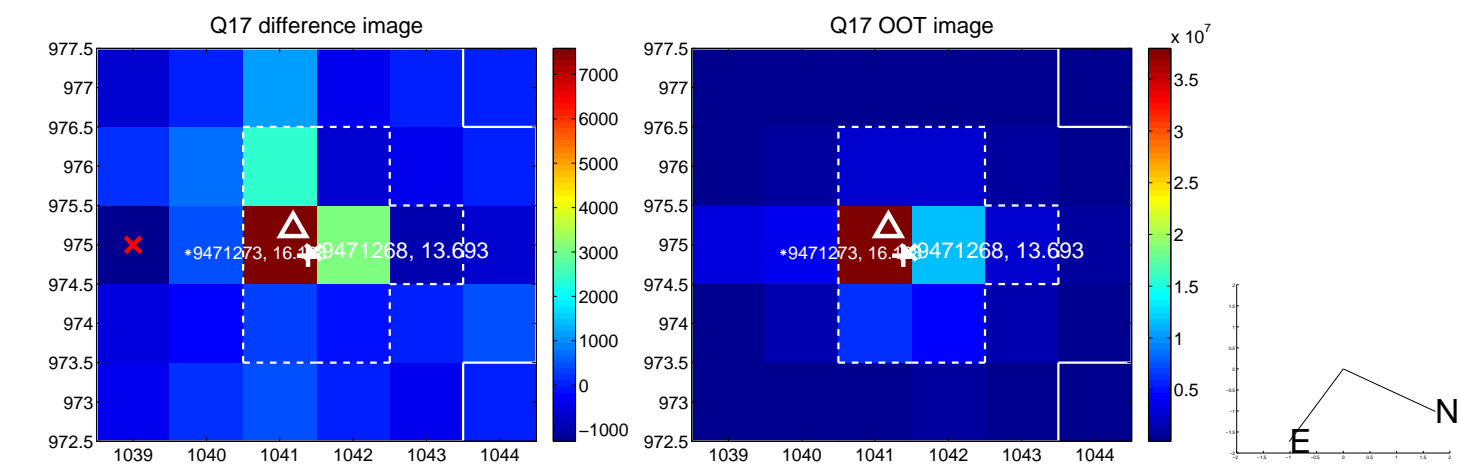
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



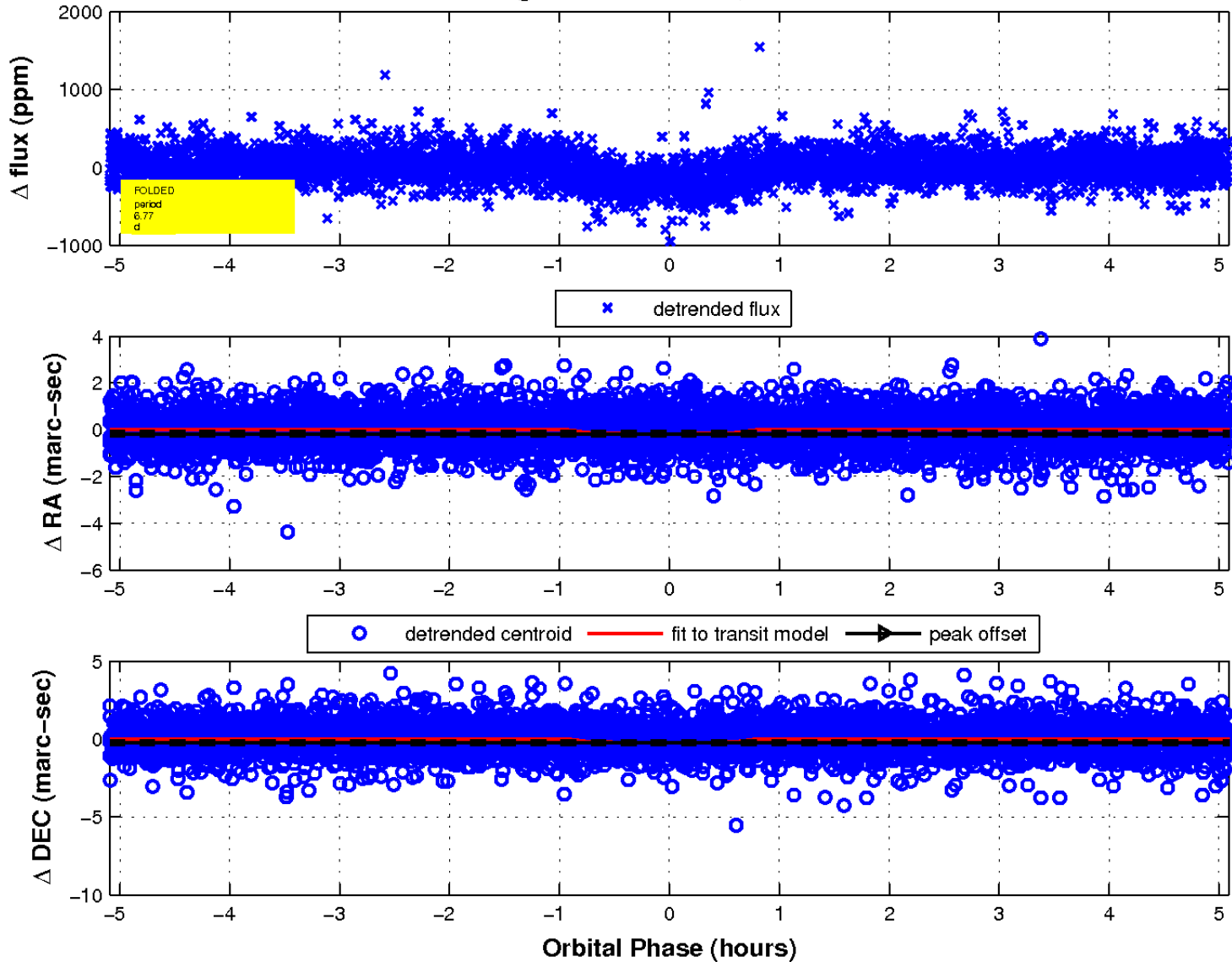
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

