

KIC 007106173

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})
007106173-01	OBS	3083.01	10.183190	133.213580	53.3	3.099	9.2	10.1	1.08	5843	0.92	133.75
007106173-02	OBS	3083.03	8.294608	134.832735	37.3	4.040	7.6	8.3	1.08	5843	0.87	175.82
007106173-03	OBS	3083.02	6.232244	135.230284	35.2	2.282	7.4	7.5	1.08	5843	0.77	257.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007106173-01	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007106173-02	OBS	PC	0.67	0	0	0	0	NO_COMMENT
007106173-03	OBS	PC	0.98	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.

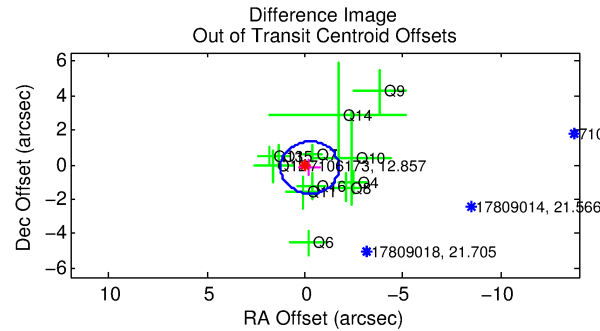
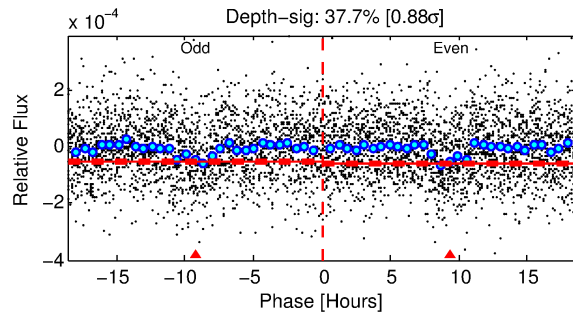
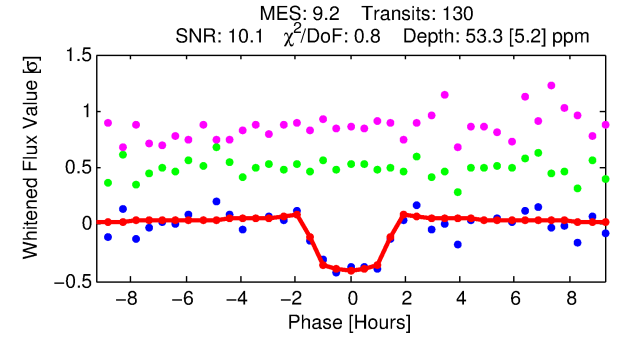
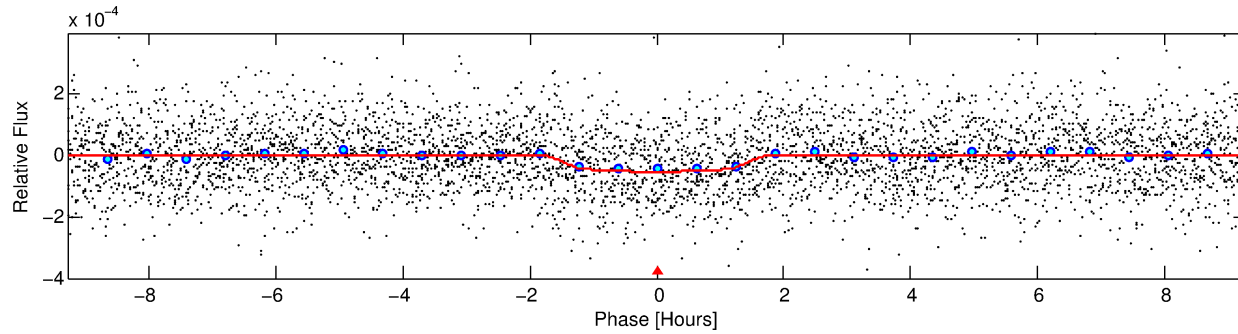
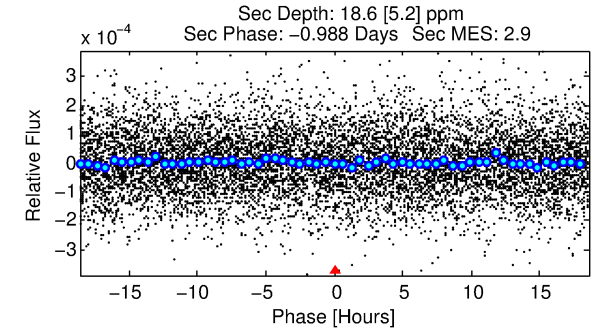
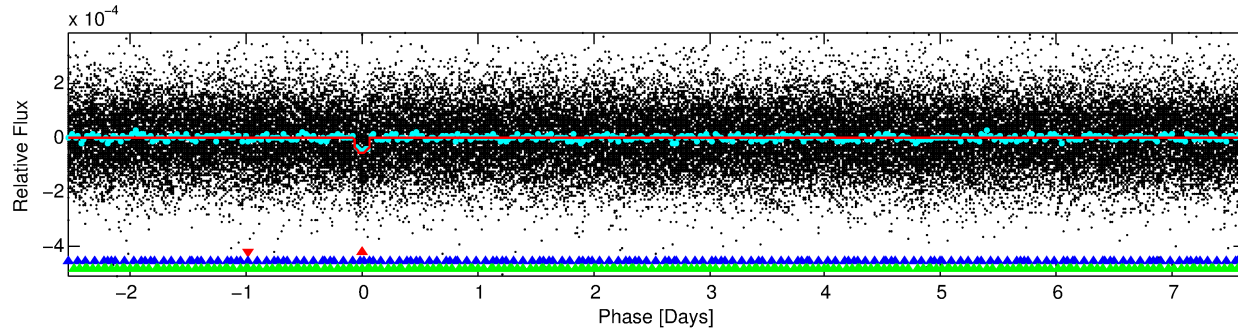
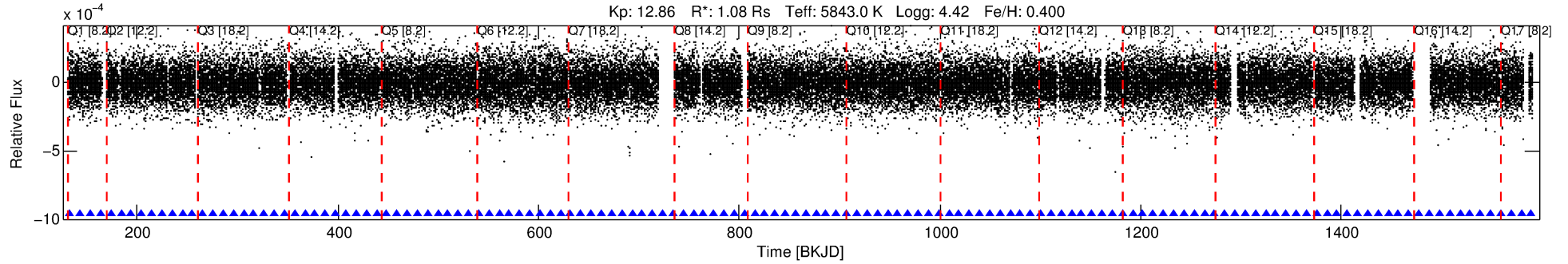
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007106173-01

No Significant Match Found

DV One-Page Summary

KIC: 7106173 Candidate: 1 of 3 Period: 10.183 d
KOI: K03083.01 Corr: 0.987



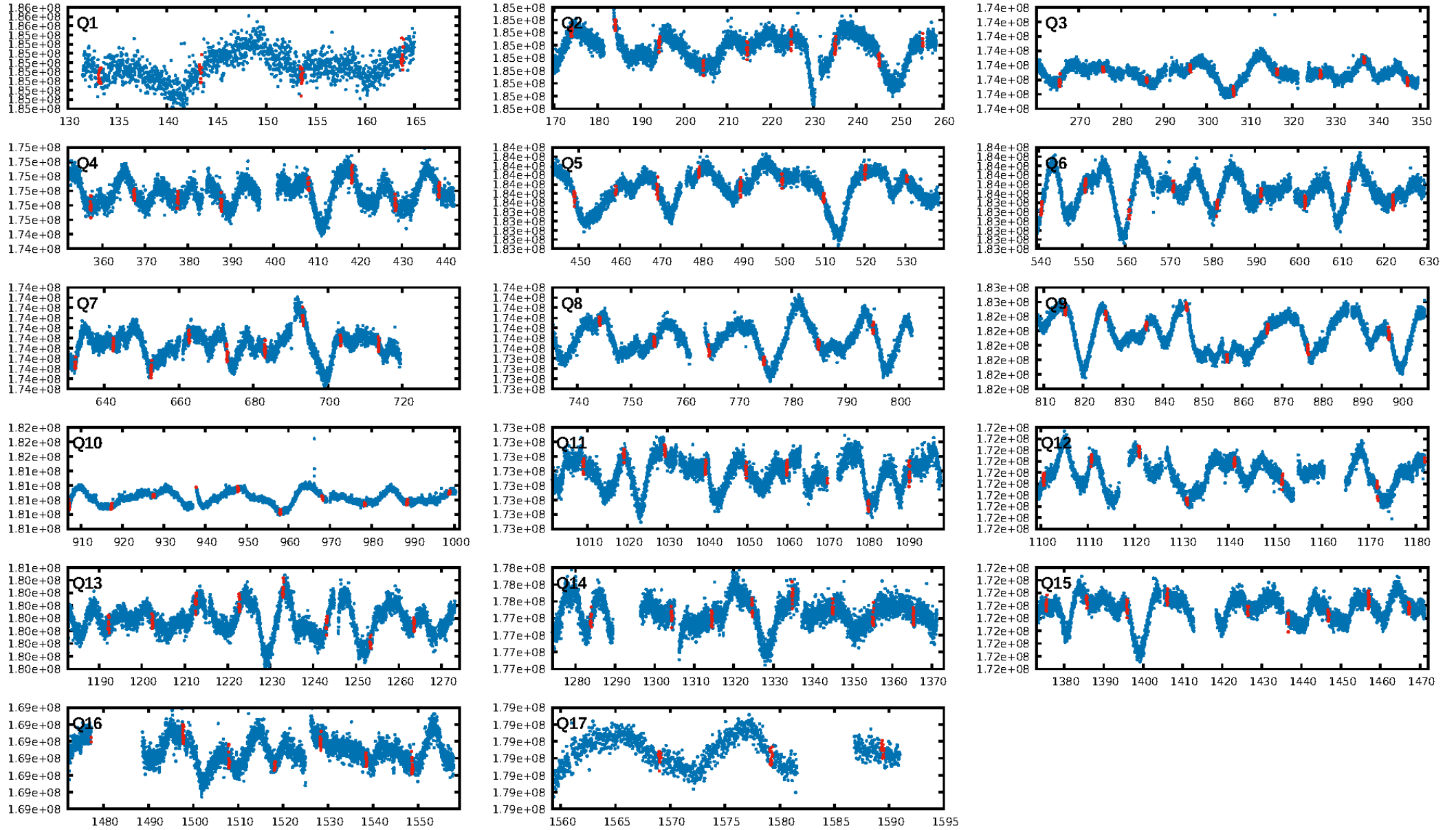
DV Fit Results:

Period = 10.18319 [0.00007] d
Epoch = 133.2136 [0.0055] BKJD
Rp/R* = 0.0078 [0.0041]
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.46e-19
RollingBand-fgt: 1.00 [123/123]
GhostDiagnostic-chr: 19.09
Centroid-sig: 1.2%
Centroid-so: 2.100 arcsec [2.11σ]
OotOffset-rm: 0.290 arcsec [0.58σ]
KicOffset-rm: 0.445 arcsec [0.88σ]
OotOffset-st: 3/3/4/2 [12]
KicOffset-st: 3/3/4/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

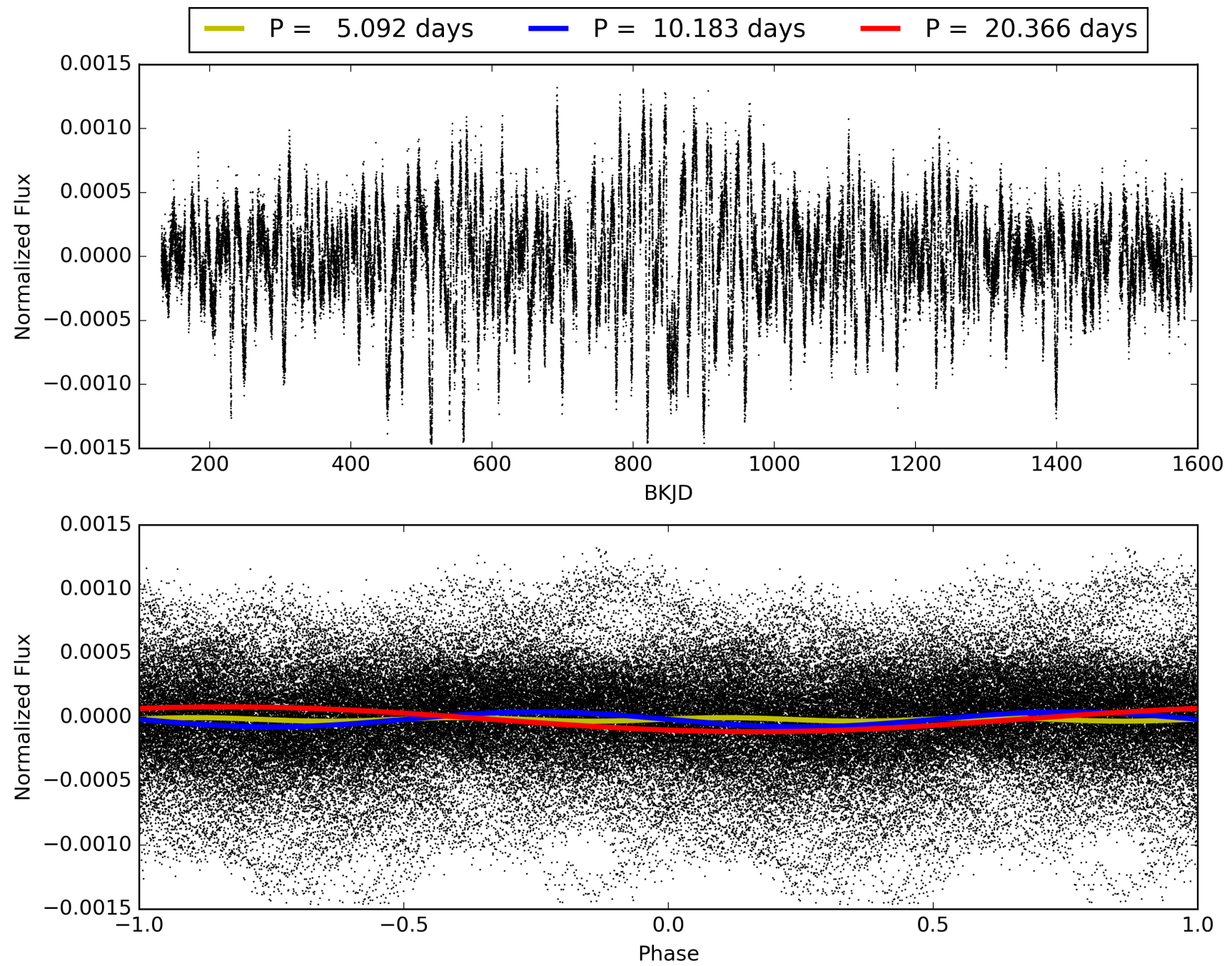
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.90σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.46e-19
RollingBand-fgt: 1.00 [123/123]
GhostDiagnostic-chr: 19.09
Centroid-sig: 1.2%
Centroid-so: 2.100 arcsec [2.11σ]
OotOffset-rm: 0.290 arcsec [0.58σ]
KicOffset-rm: 0.445 arcsec [0.88σ]
OotOffset-st: 3/3/4/2 [12]
KicOffset-st: 3/3/4/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007106173-01, PDC Light Curves

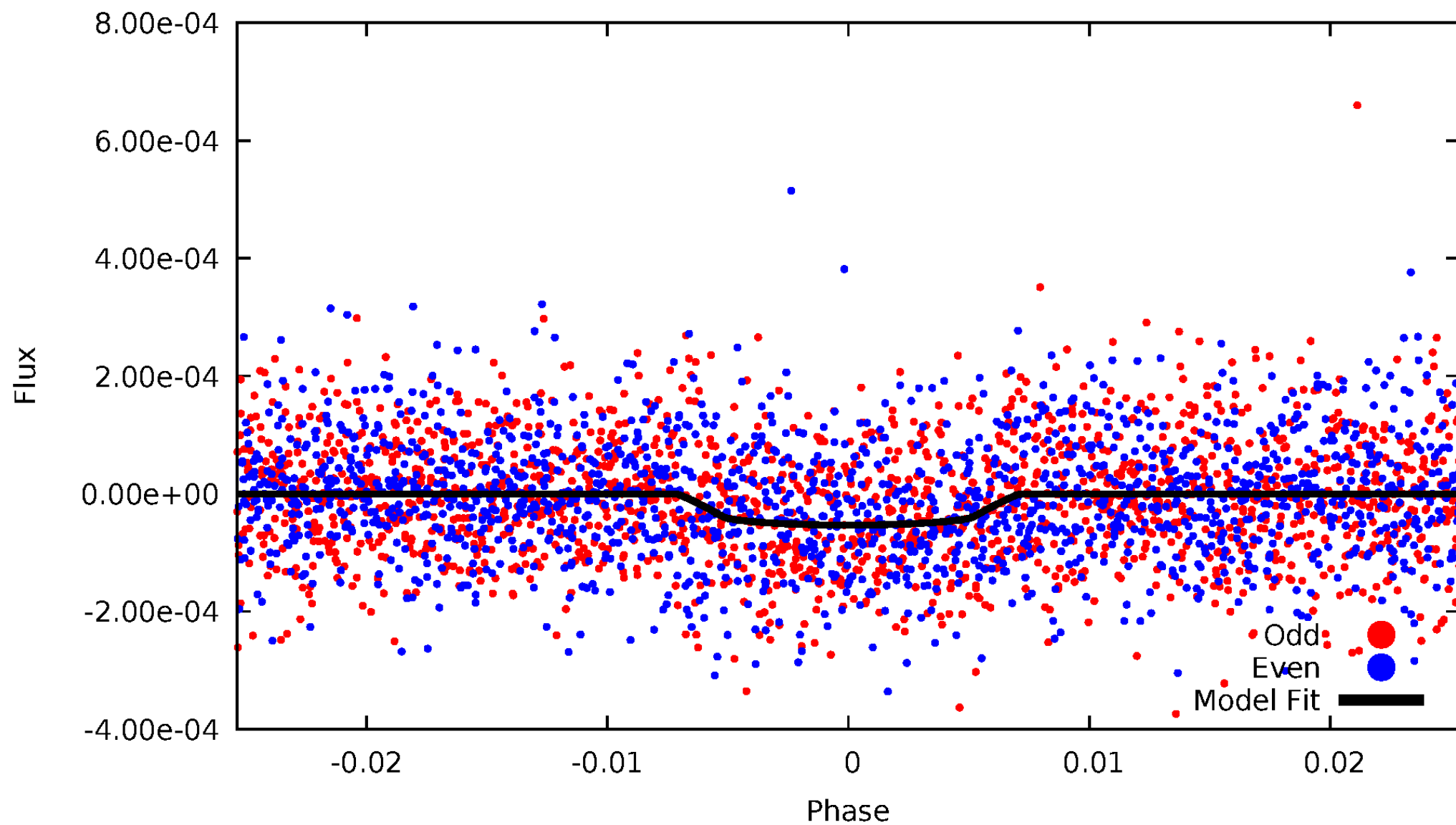


TCE 007106173-01



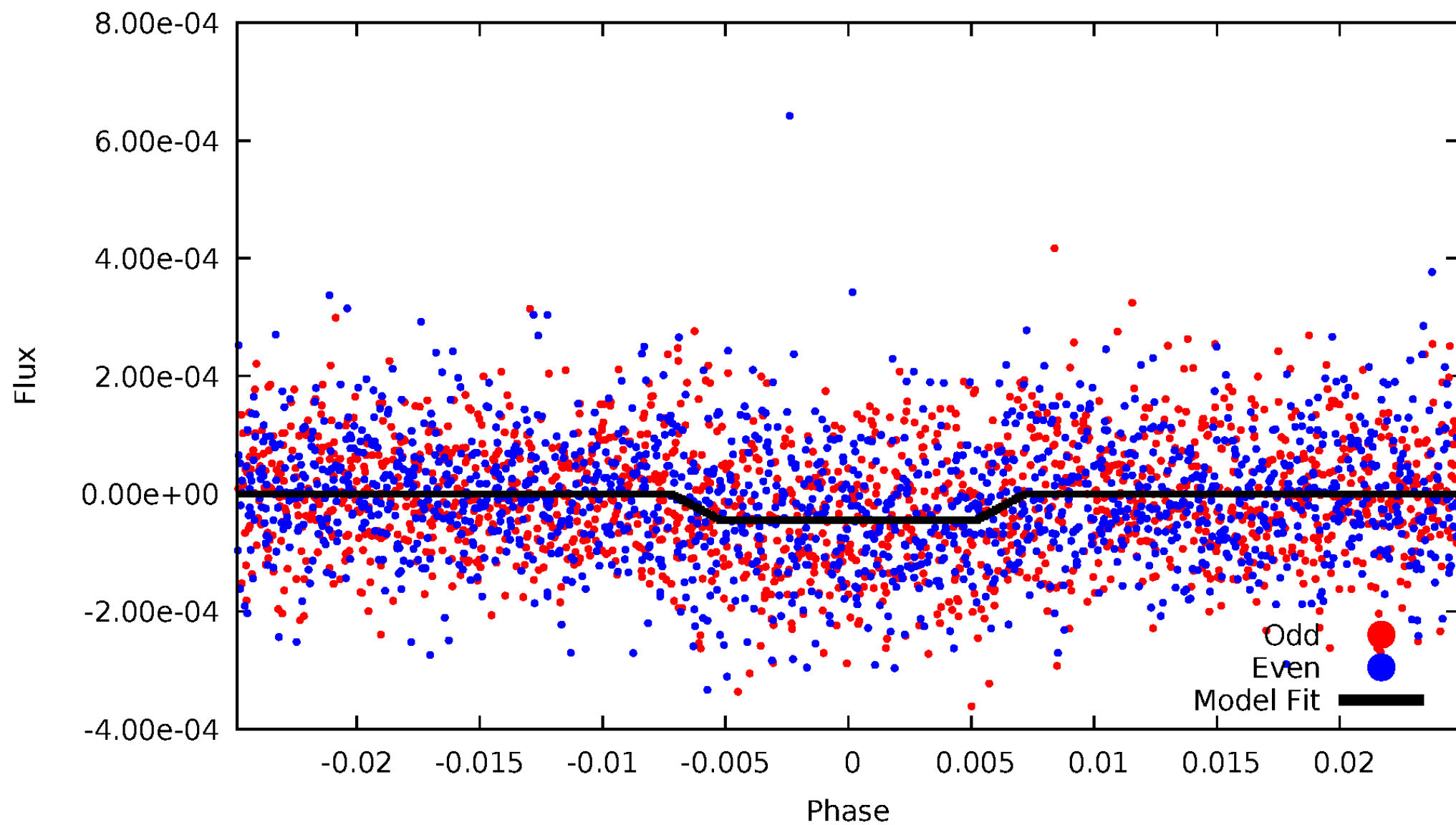
DV Odd/Even

TCE 007106173-01



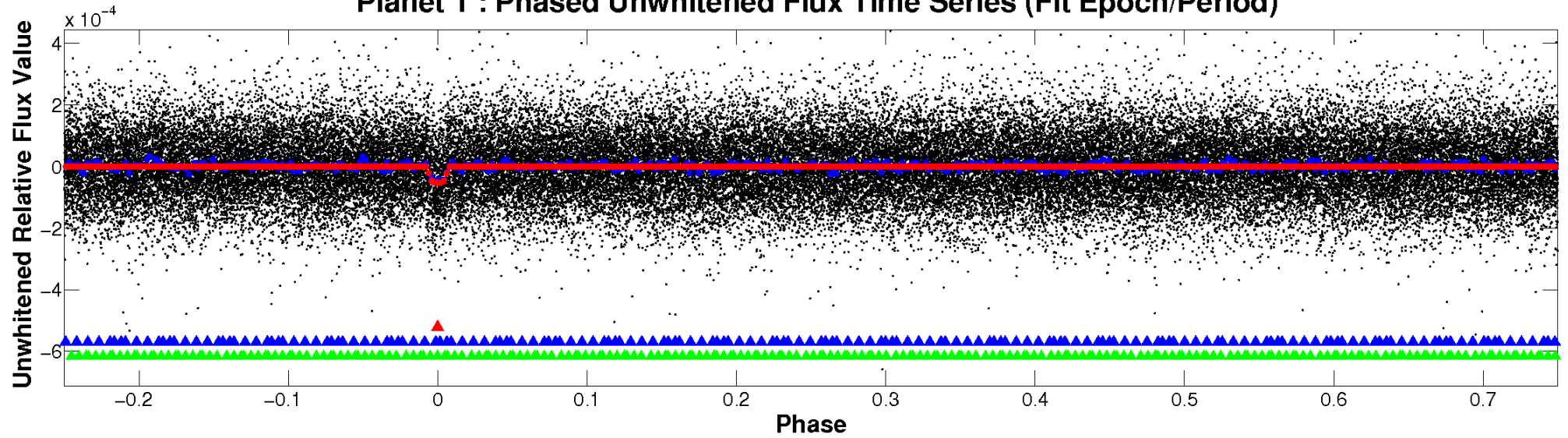
ALT Odd/Even

TCE 007106173-01

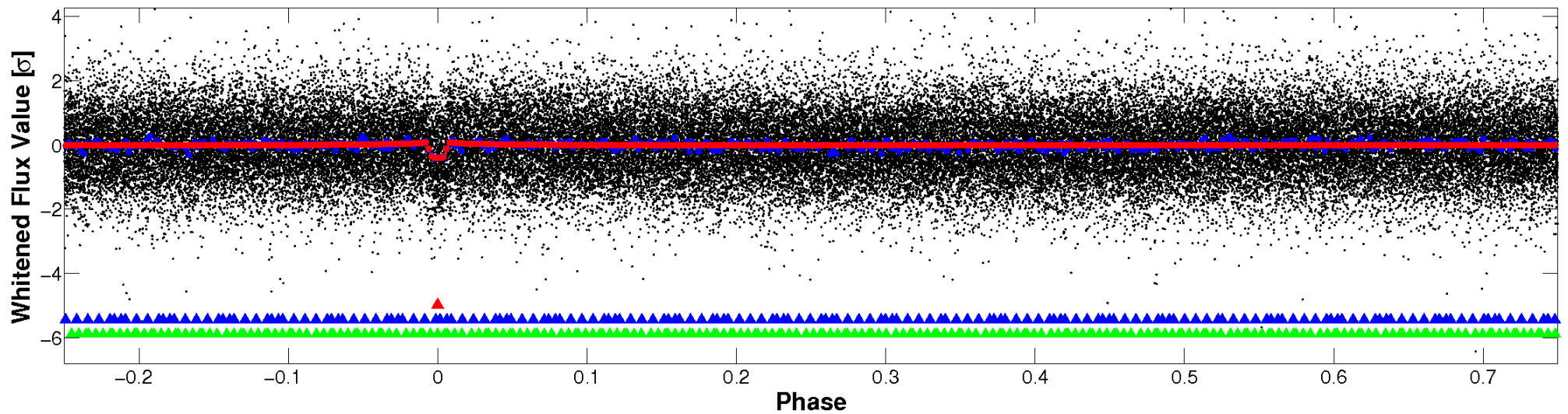


Non-Whitened Vs. Whitened Light Curve

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

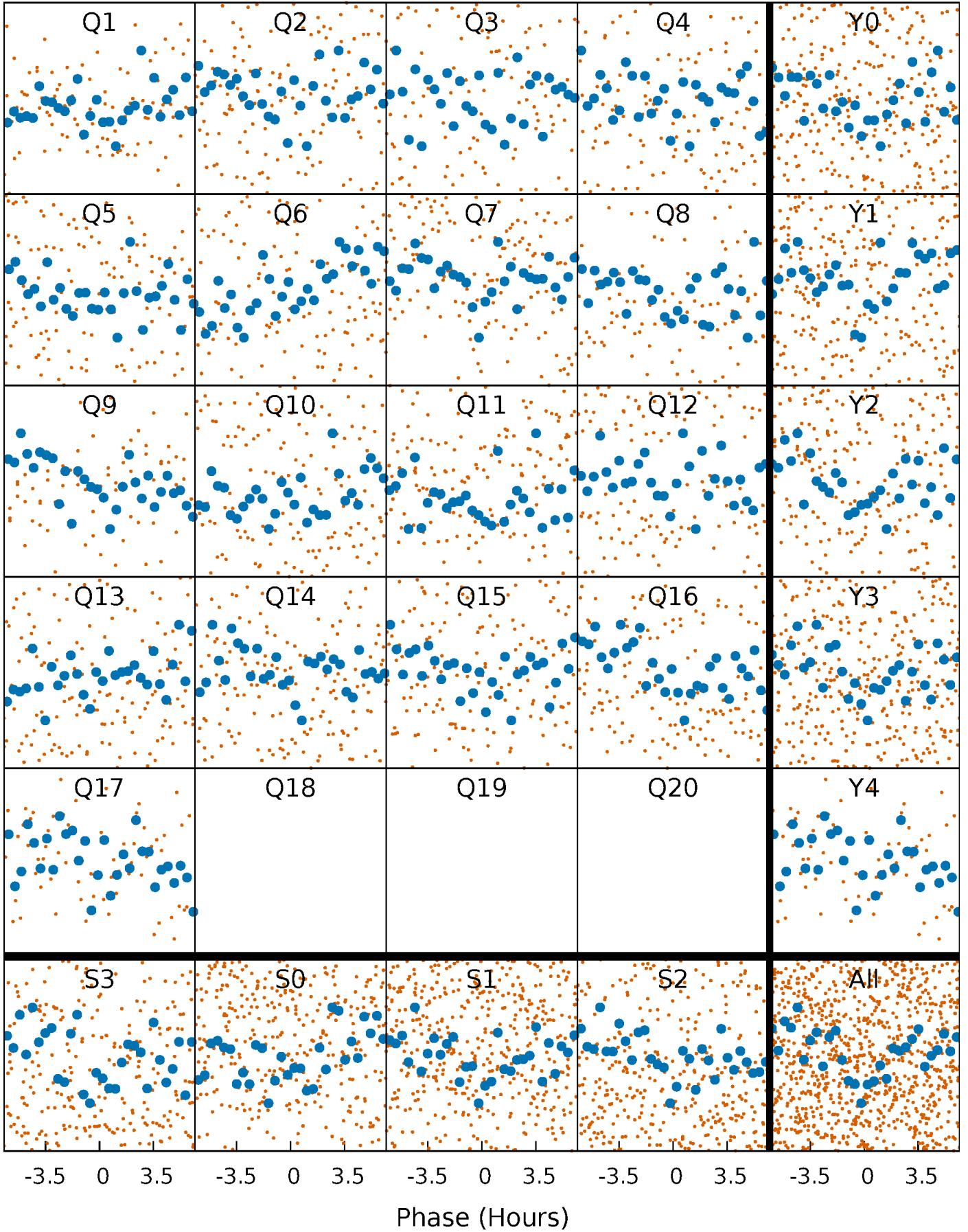


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



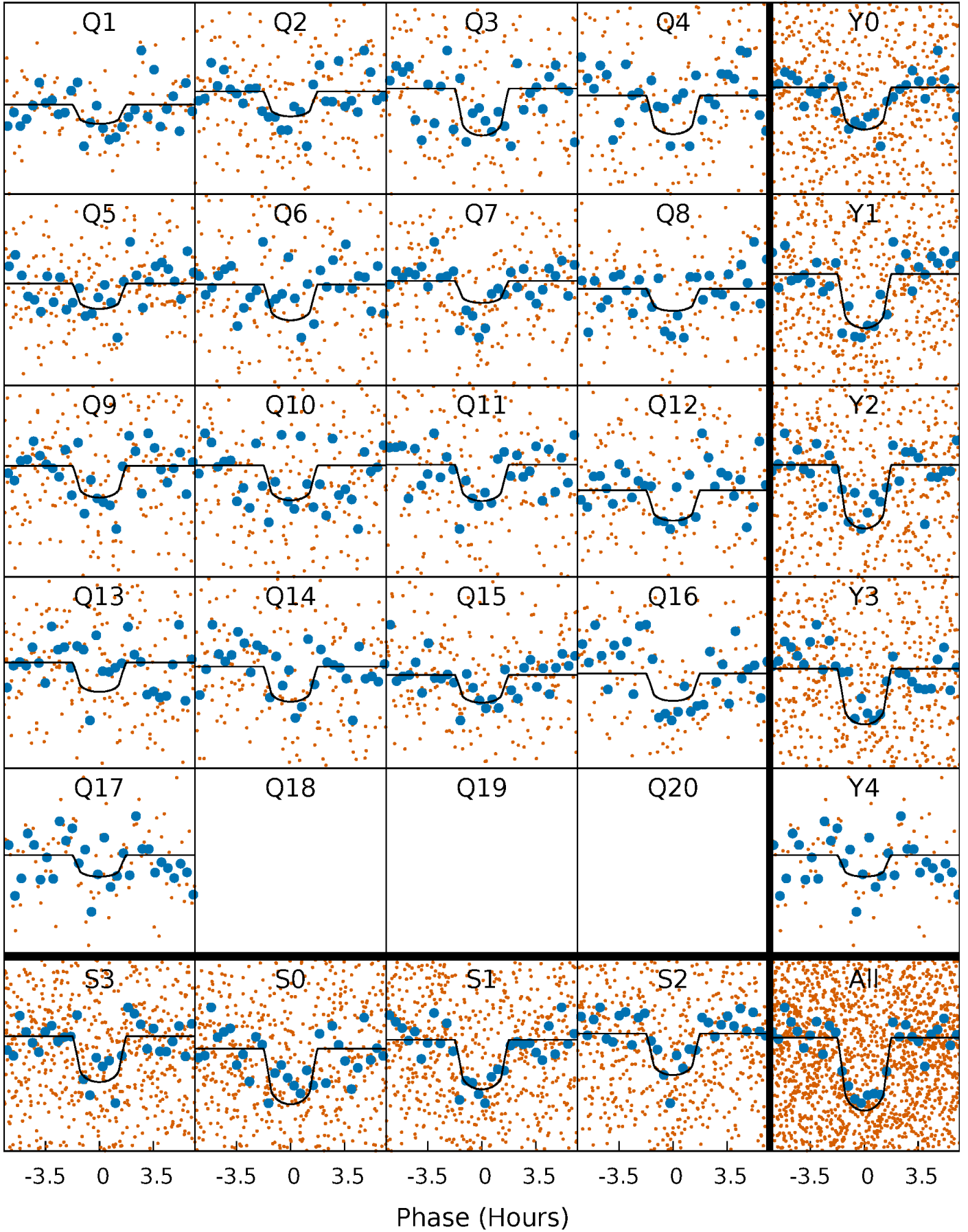
PDC Quarter-Phased Transit Curves

TCE 007106173-01 P= 10.183190 Days $T_0=133.213580$ (BKJD)



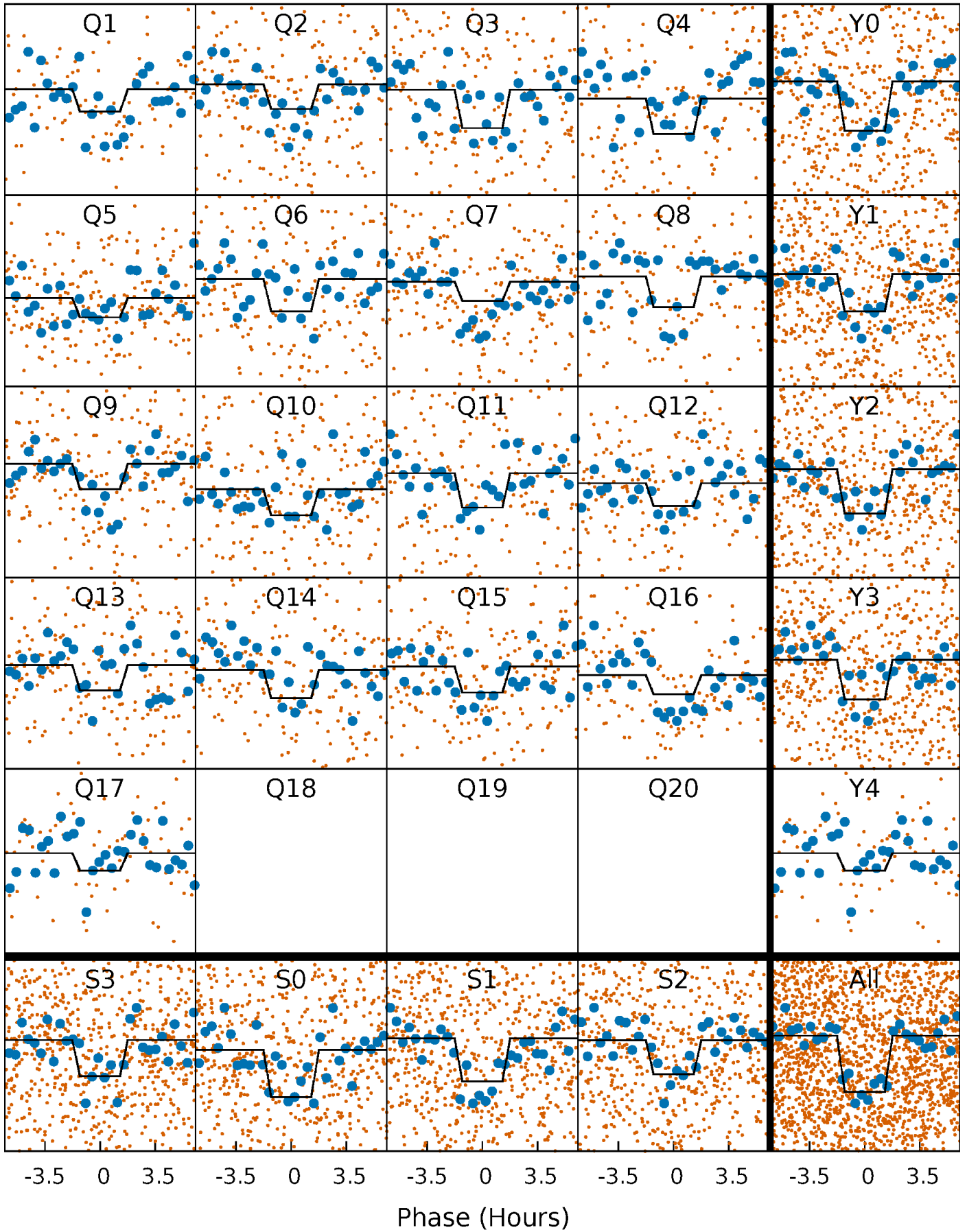
DV Quarter-Phased Transit Curves

TCE 007106173-01 P= 10.183190 Days $T_0=133.213580$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

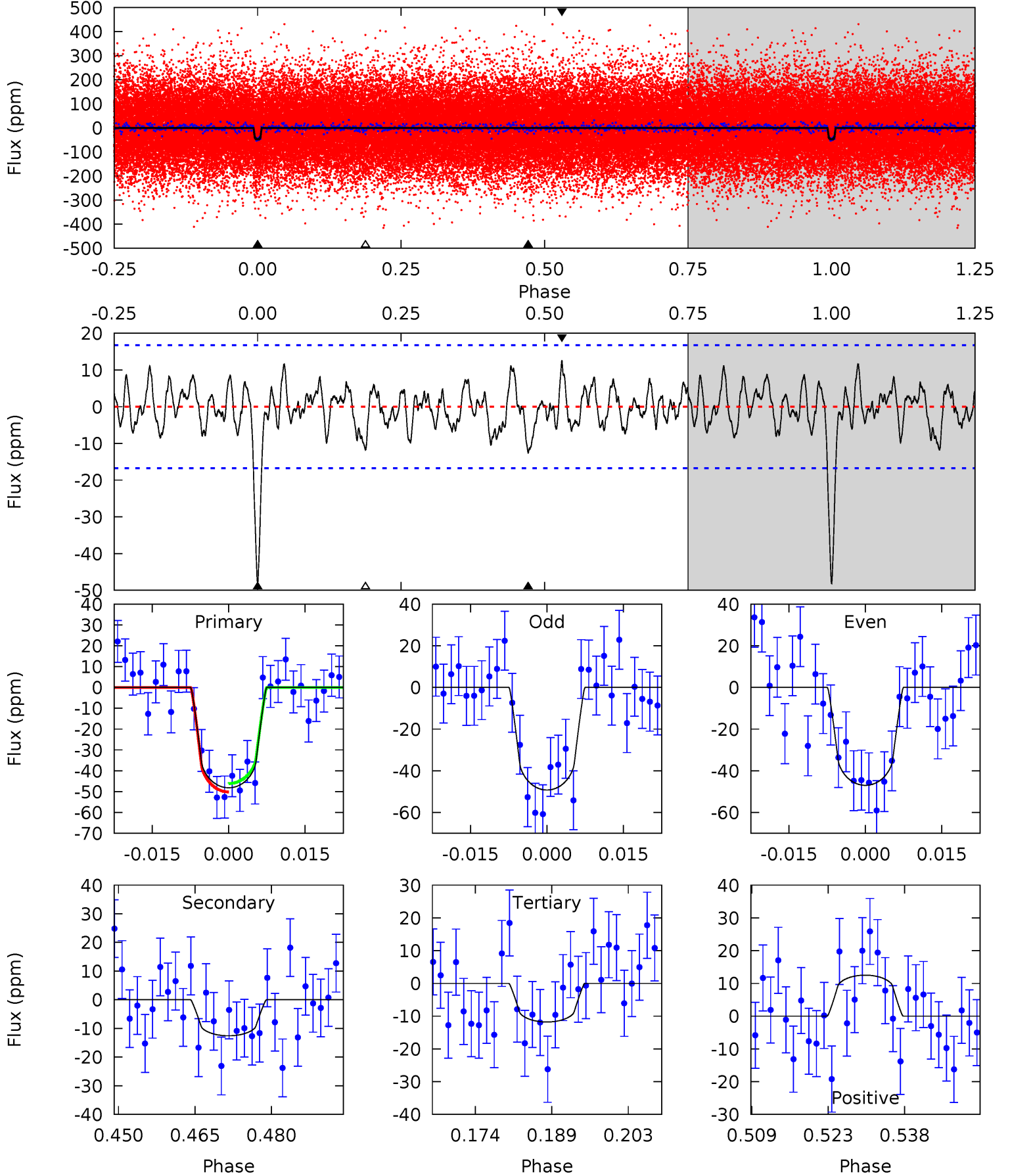
TCE 007106173-01 P= 10.183293 Days $T_0=133.205867$ (BKJD)



DV Model-Shift Uniqueness Test

007106173-01, $P = 10.183190$ Days, $E = 123.030390$ Days

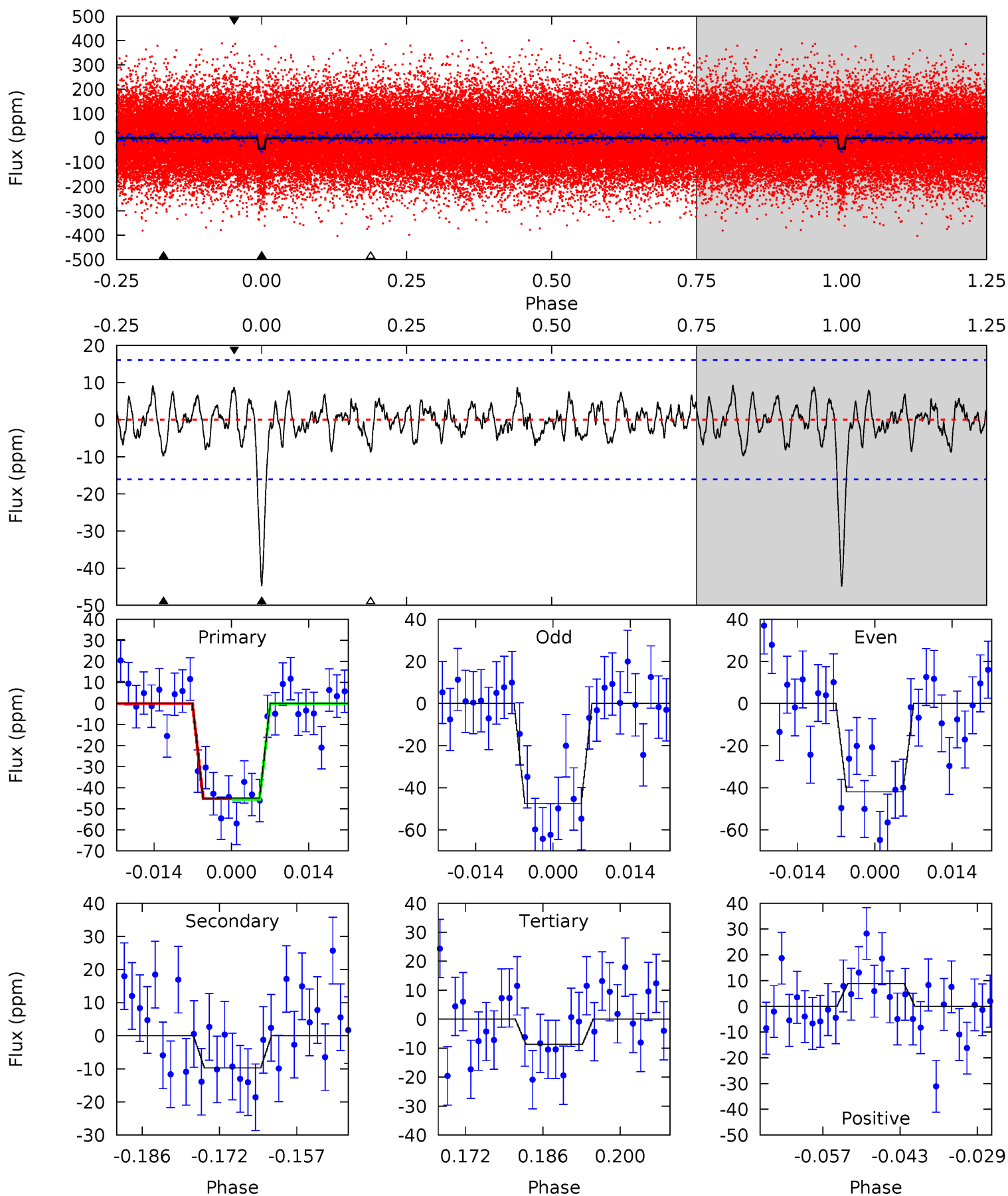
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	3.72	3.49	3.70	4.95	2.44	1.34	10.8	10.5	0.23	0.02	0.33	0.97	0.21	0.59



Alt Model-Shift Uniqueness Test

007106173-01, P = 10.183293 Days, E = 123.022574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	3.00	2.69	2.71	4.96	2.45	1.06	11.1	11.1	0.31	0.29	0.86	1.00	0.17	0.05



Stellar Parameters For KIC 007106173

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5843^{+104}_{-127}	$4.421^{+0.040}_{-0.120}$	$0.400^{+0.050}_{-0.150}$	$1.084^{+0.177}_{-0.071}$	$1.131^{+0.061}_{-0.068}$	$1.249^{+0.201}_{-0.427}$
	+2%/-2%	+1%/-3%	+12%/-37%	+16%/-7%	+5%/-6%	+16%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 007106173-01 / KOI 3083.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 3	$0.94^{+0.51}_{-0.46}$	1220^{+49}_{-37}	4187^{+1309}_{-607}	72^{+203}_{-44}
Alt.	-10 ± 3	$0.83^{+0.49}_{-0.44}$	1225^{+47}_{-37}	4140^{+1697}_{-624}	64^{+276}_{-39}

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

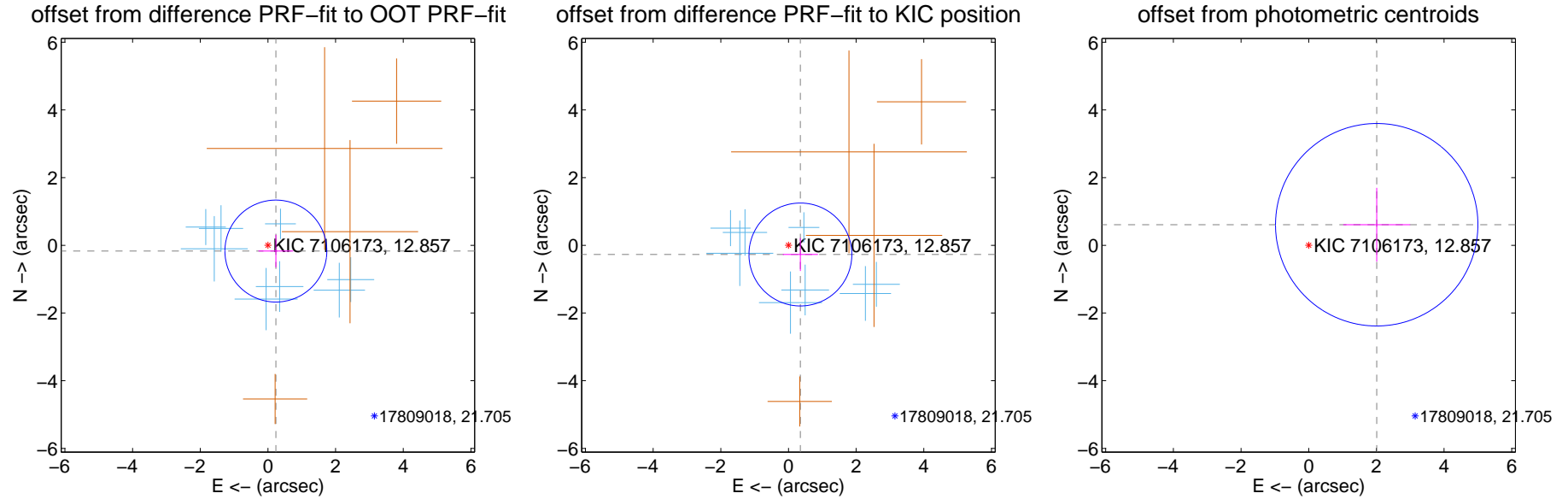
DV Centroid Data

Supplemental centroid analysis for 007106173-01. Kepler magnitude: 12.86. Transit SNR 10.08

There are 8 quarters with good PRF difference image offsets

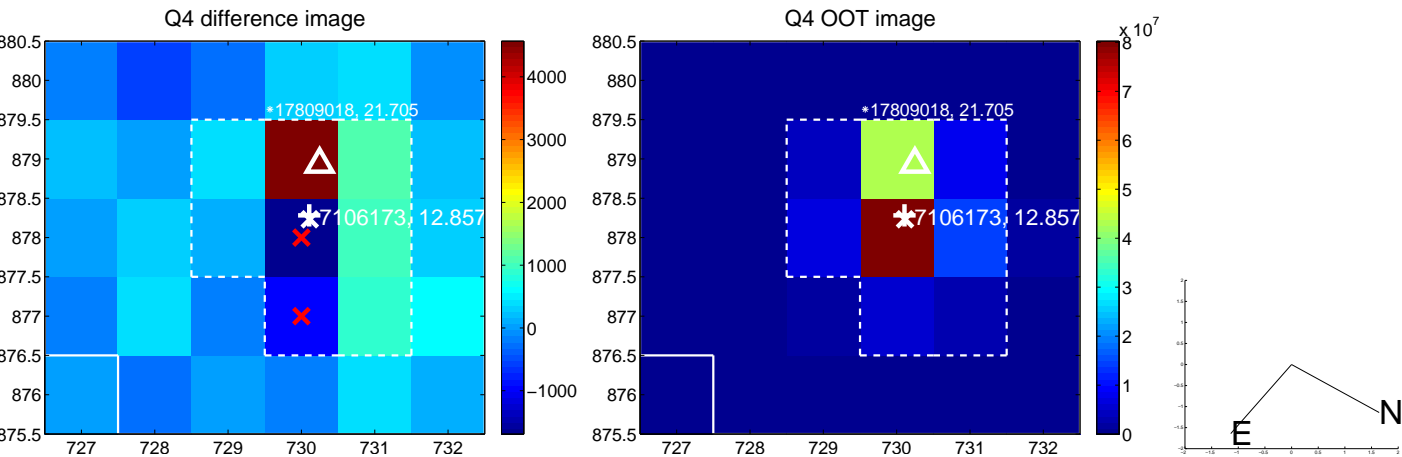
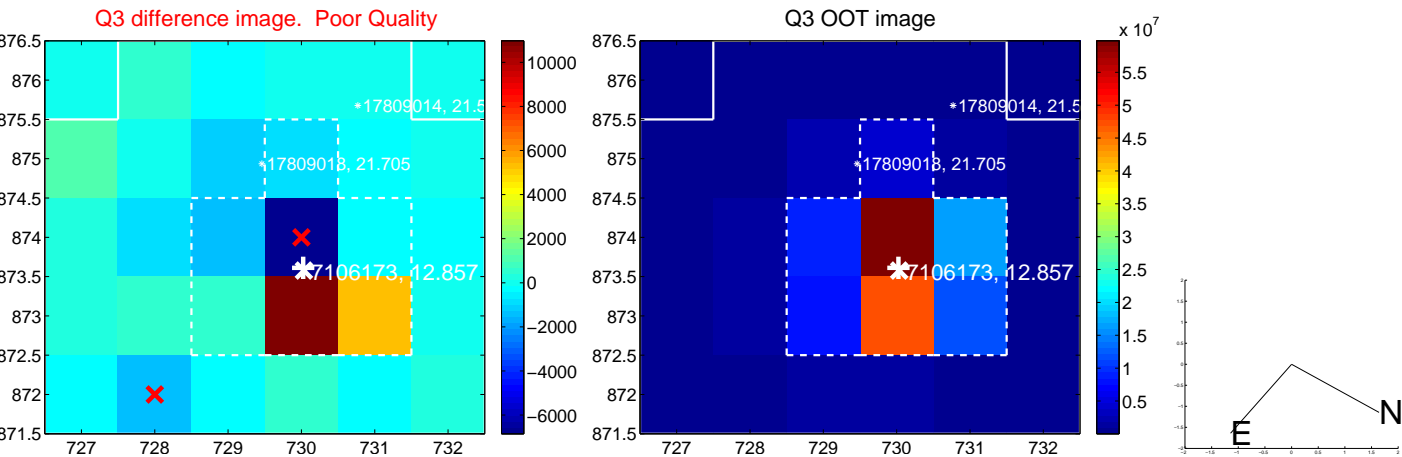
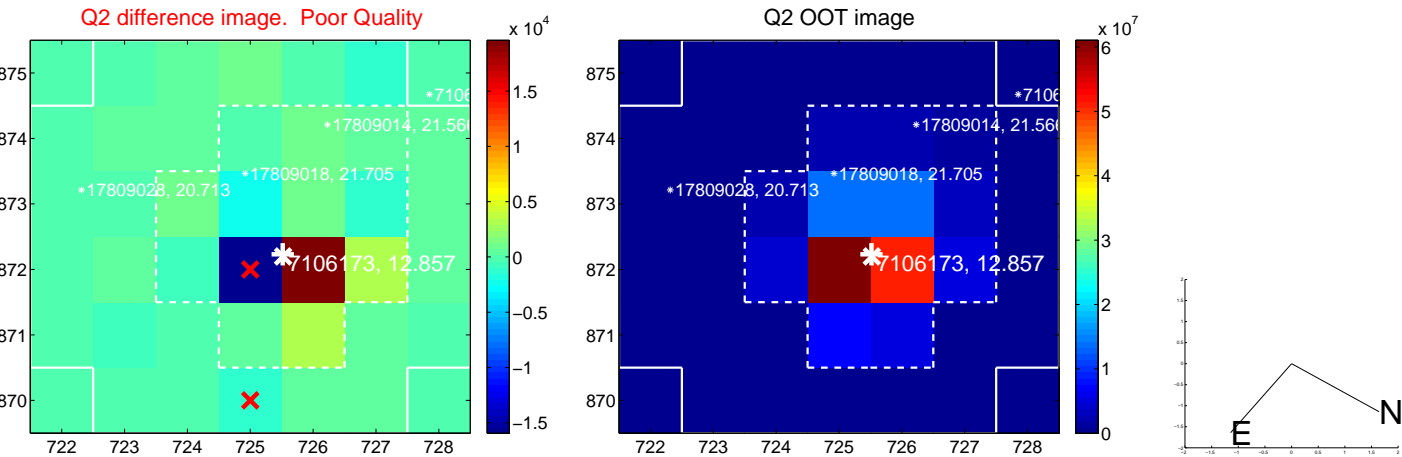
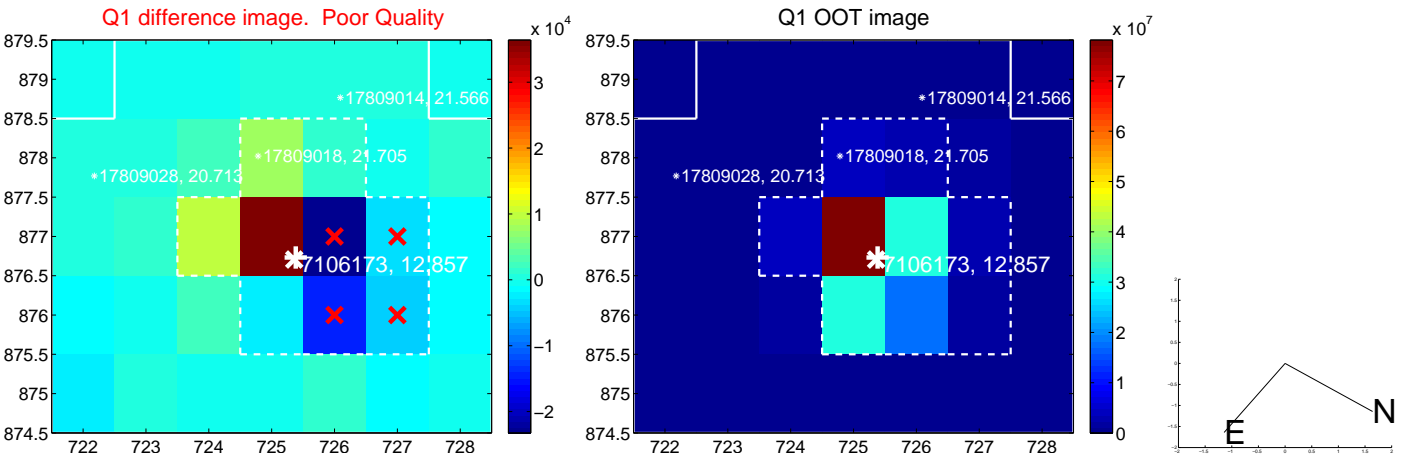
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.290 ± 0.502	0.58	-0.235 ± 0.513	-0.170 ± 0.480
PRF-fit source offset from KIC position	0.445 ± 0.507	0.88	-0.352 ± 0.518	-0.271 ± 0.486
photometric centroid source offset	2.10 ± 1.00	2.11	-2.01 ± 0.99	0.61 ± 1.09

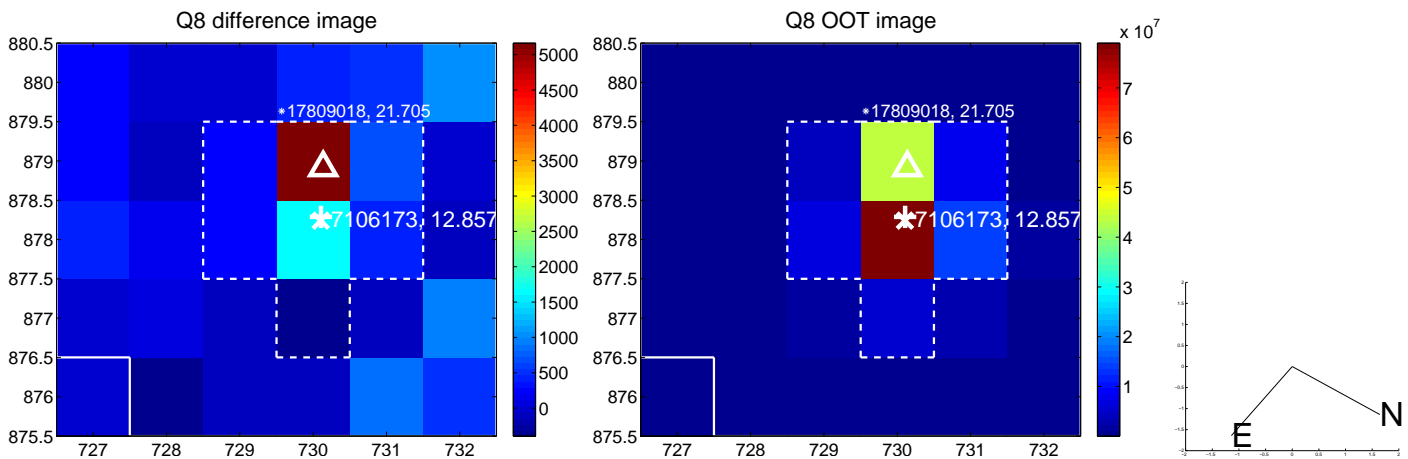
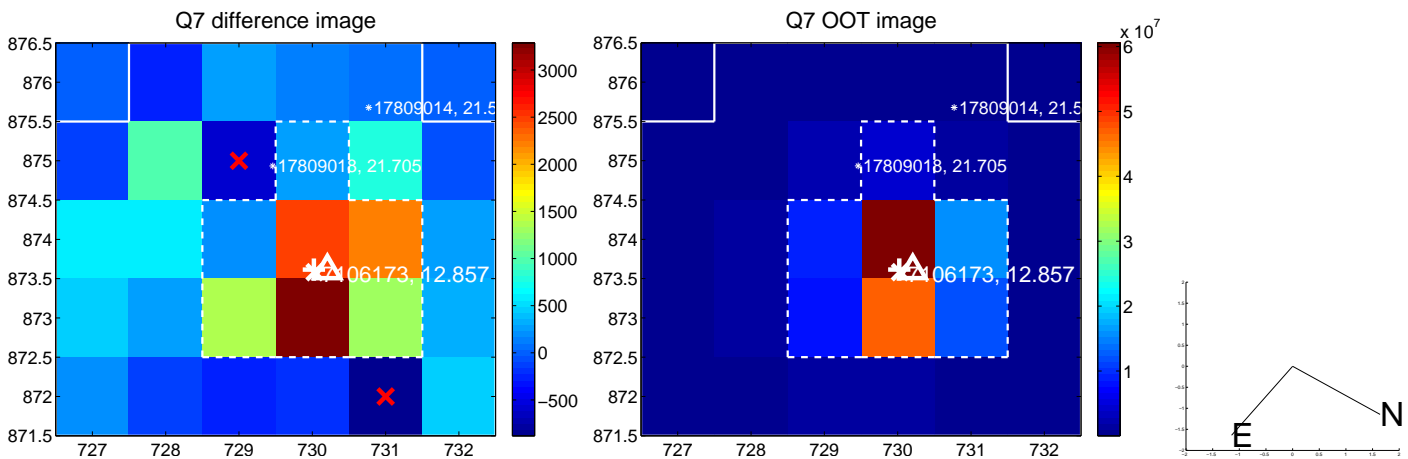
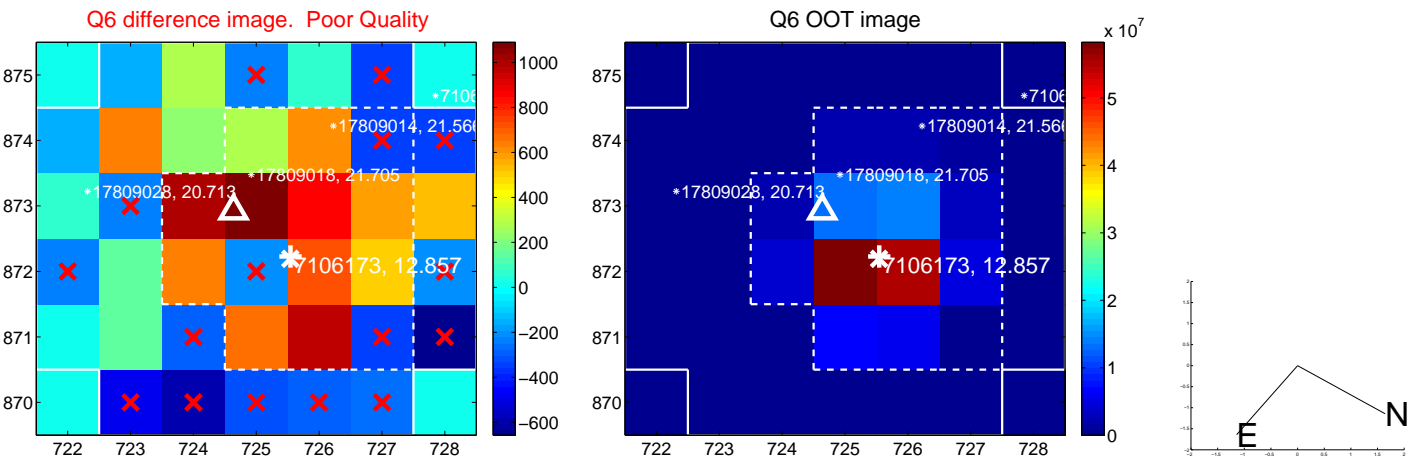
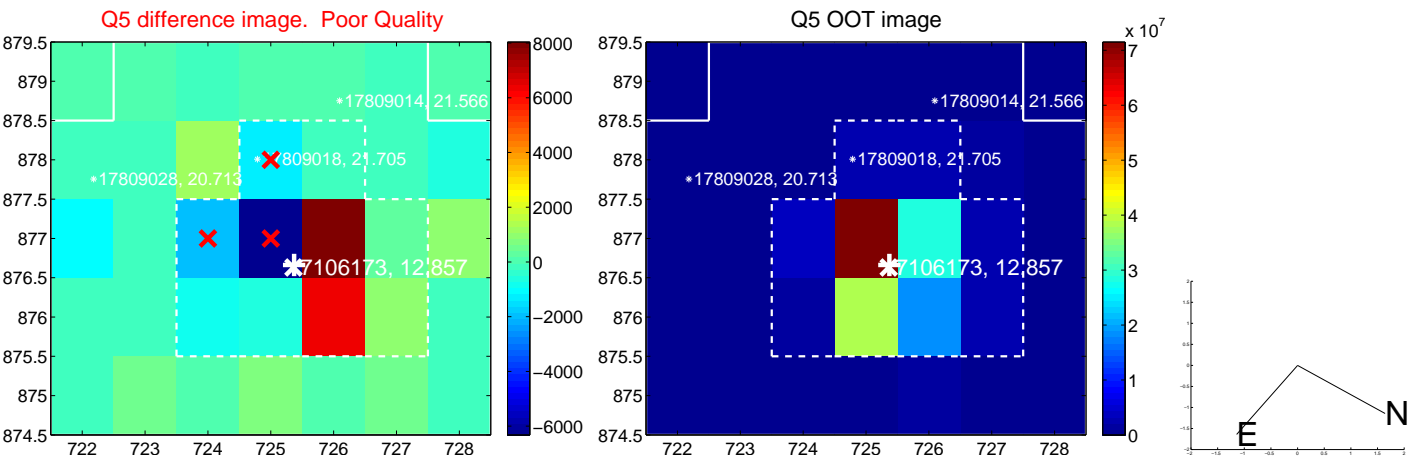


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

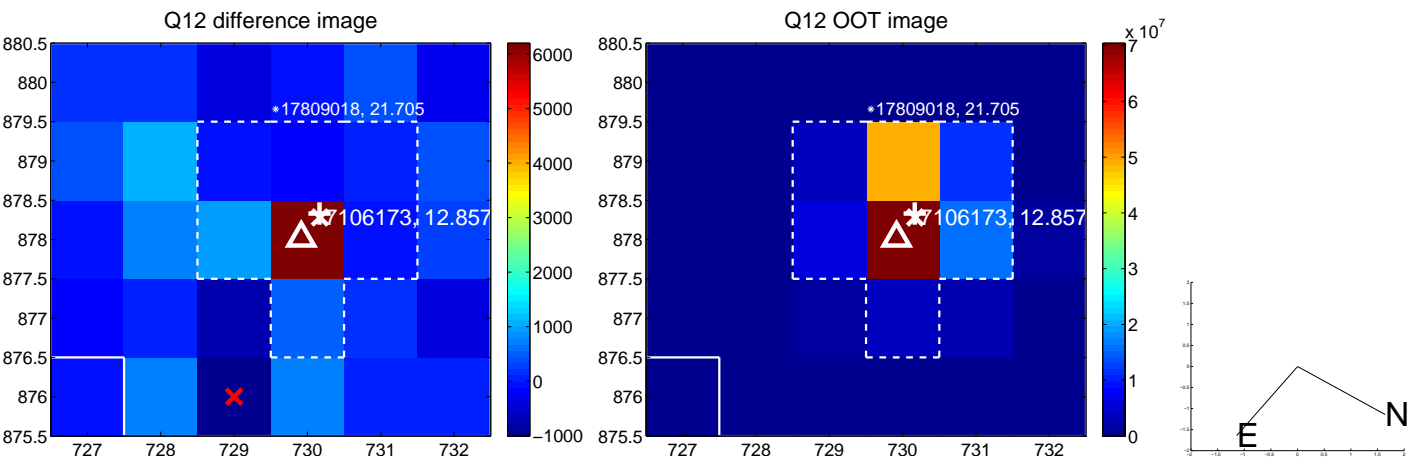
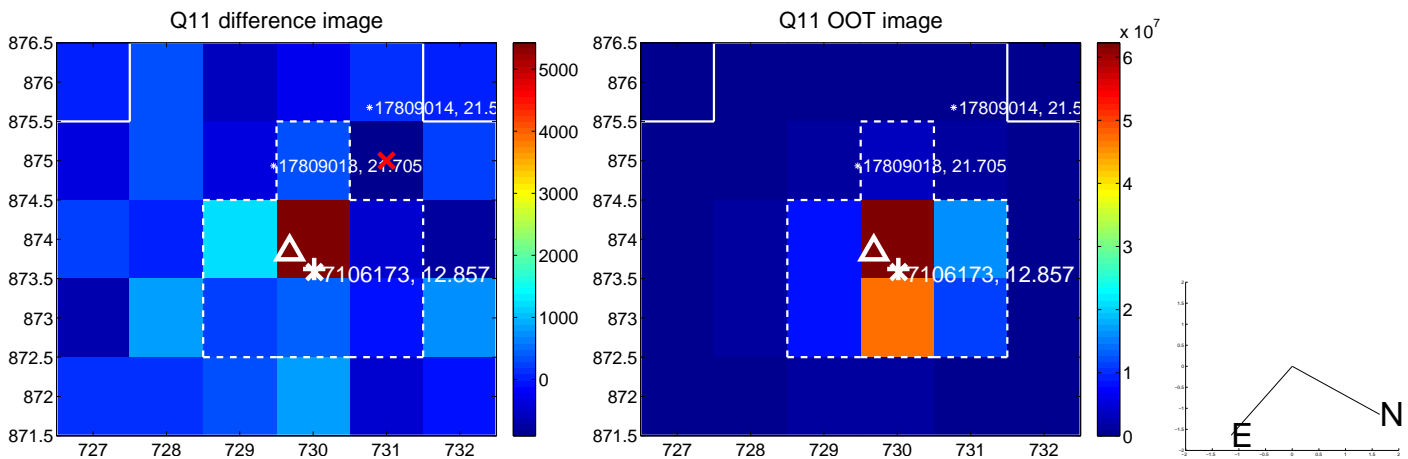
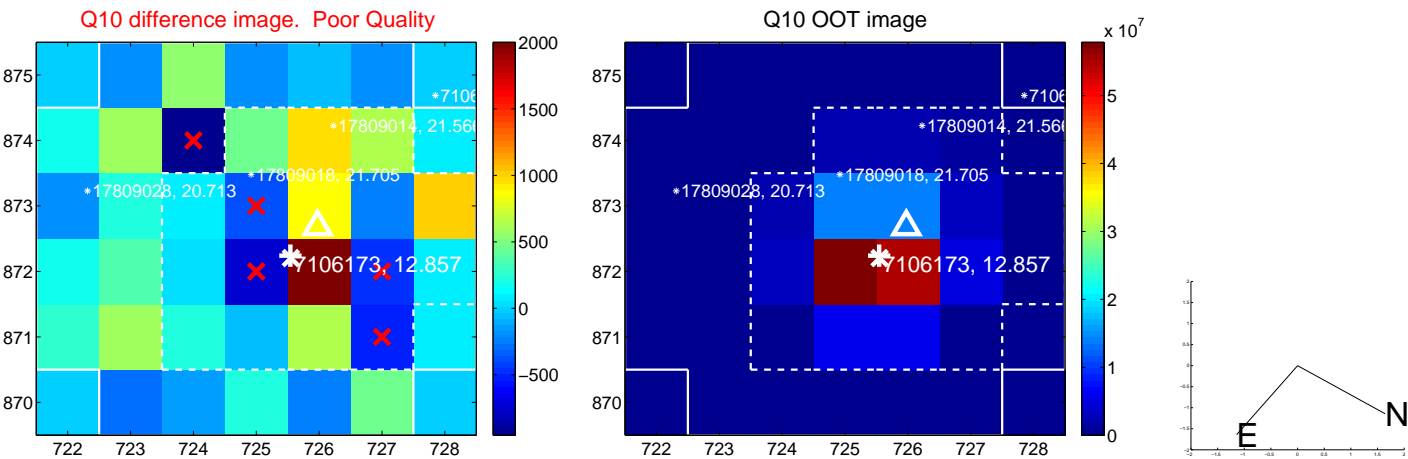
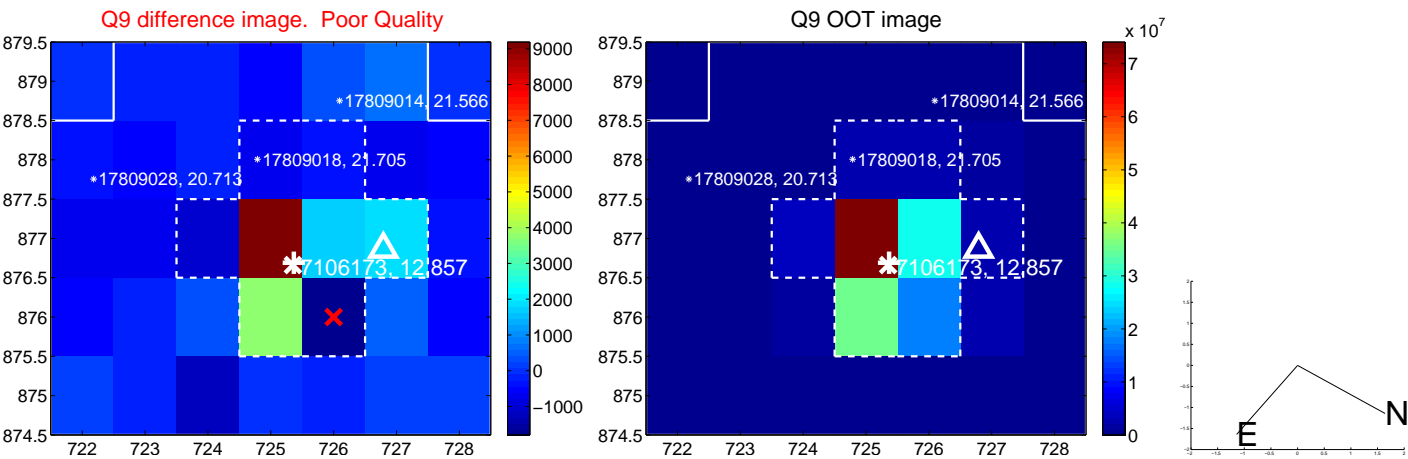
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



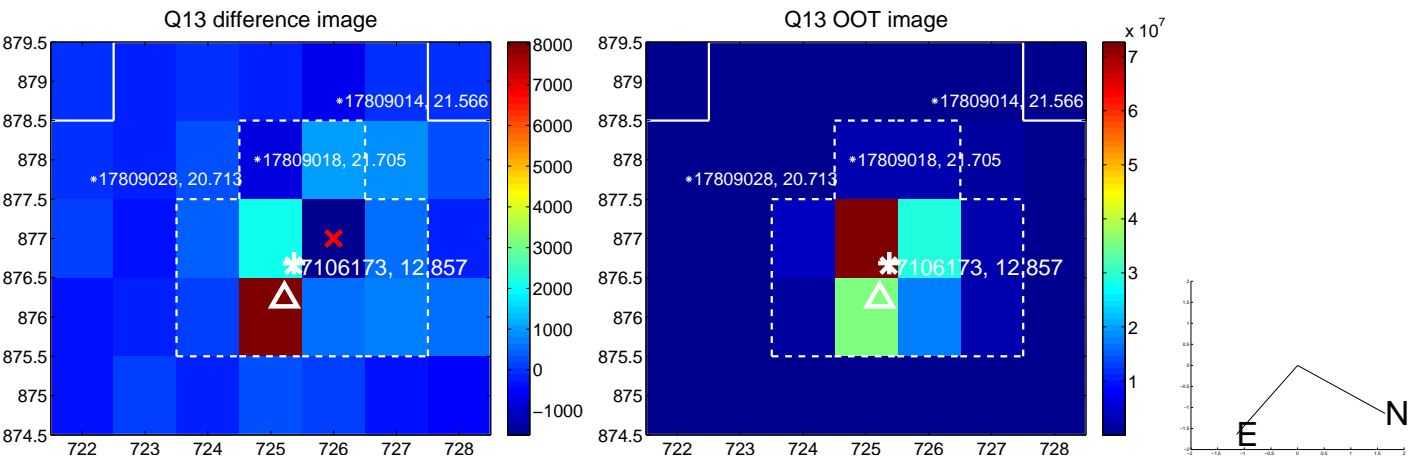
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



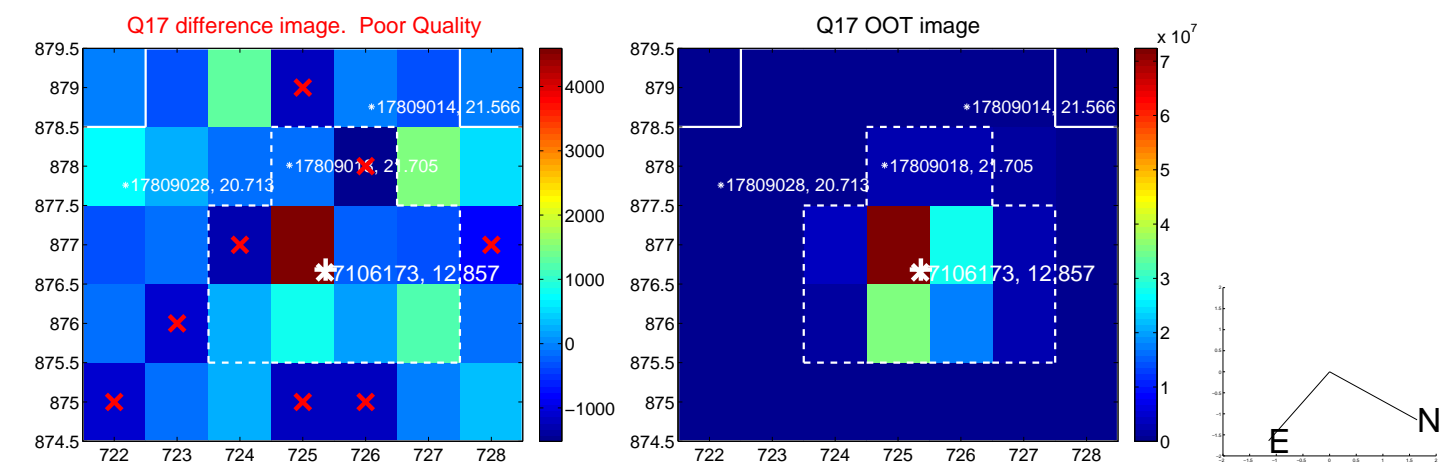
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



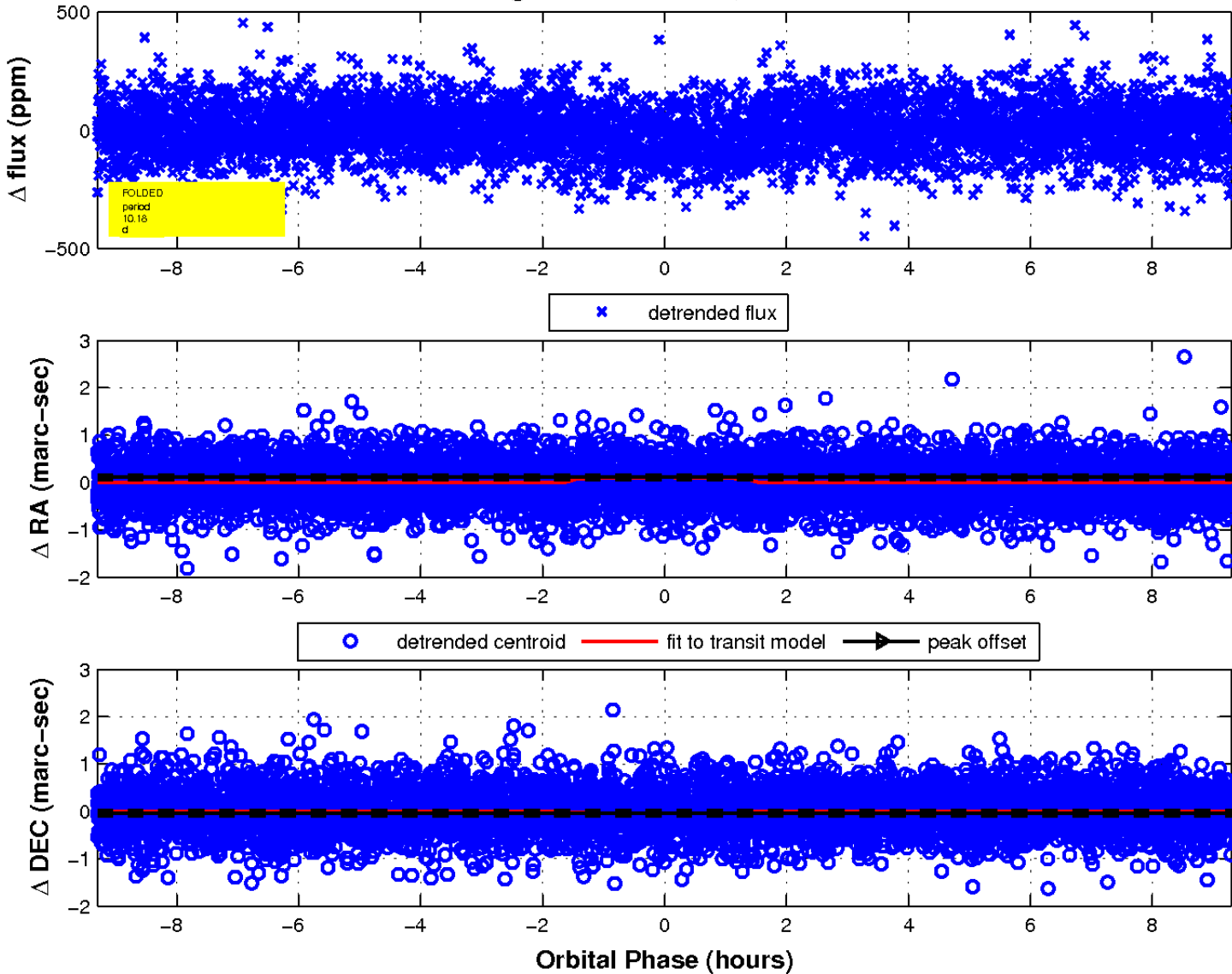
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

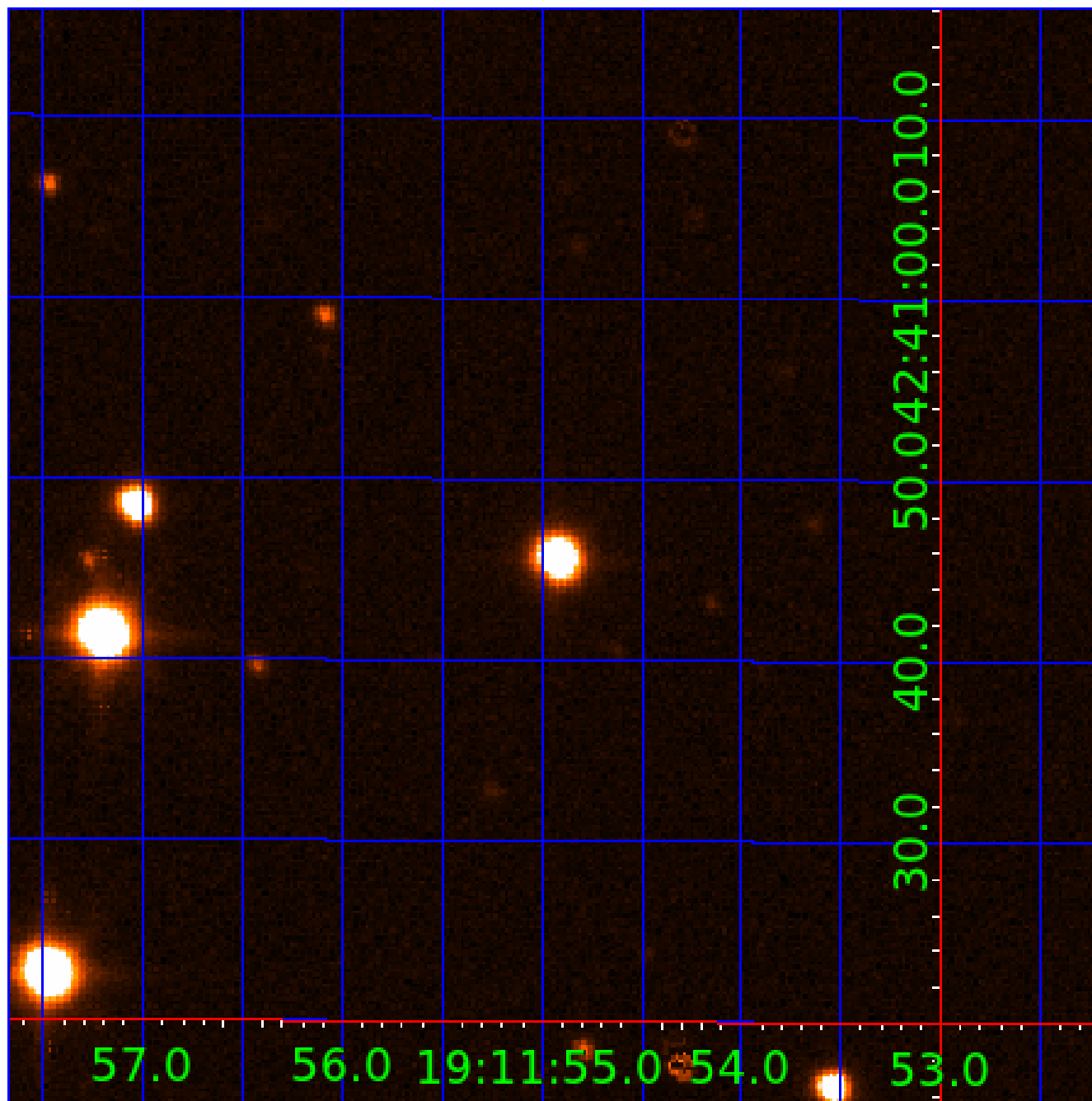


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007106173

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})
007106173-01	OBS	3083.01	10.183190	133.213580	53.3	3.099	9.2	10.1	1.08	5843	0.92	133.75
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007106173-01	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007106173-02	OBS	PC	0.67	0	0	0	0	NO_COMMENT
007106173-03	OBS	PC	0.98	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.

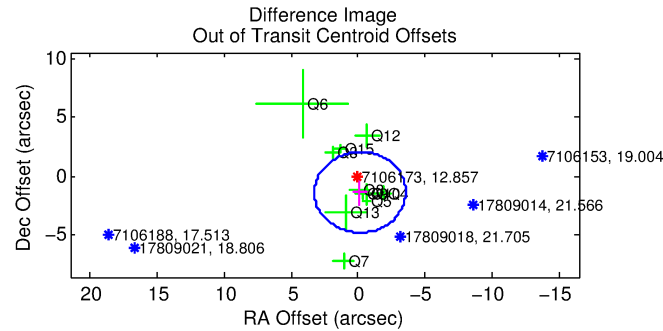
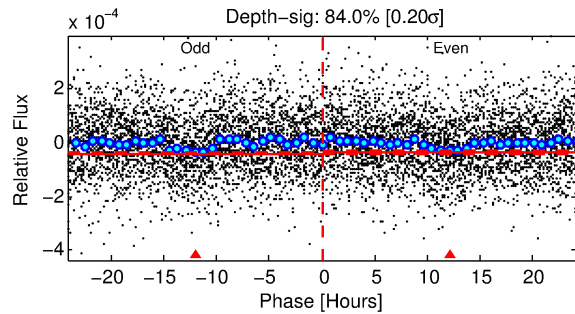
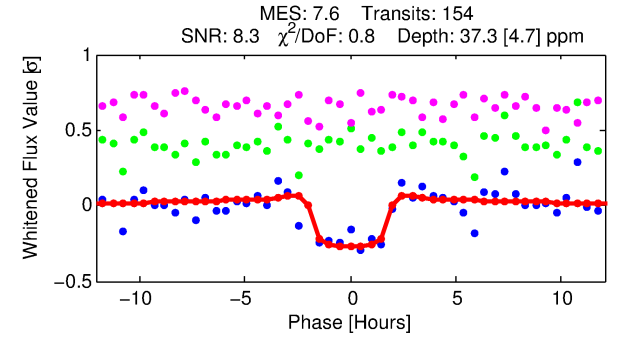
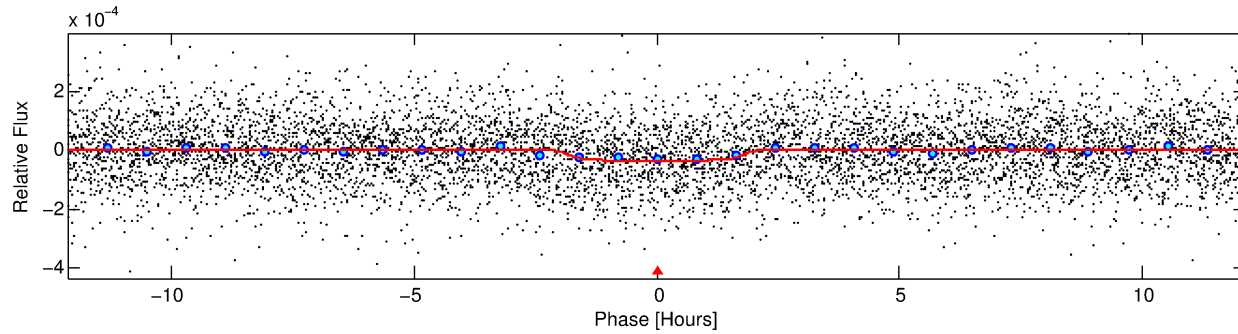
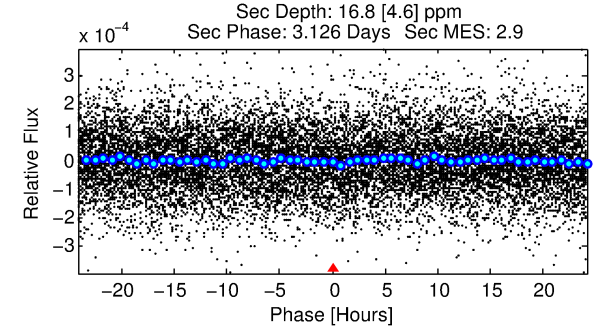
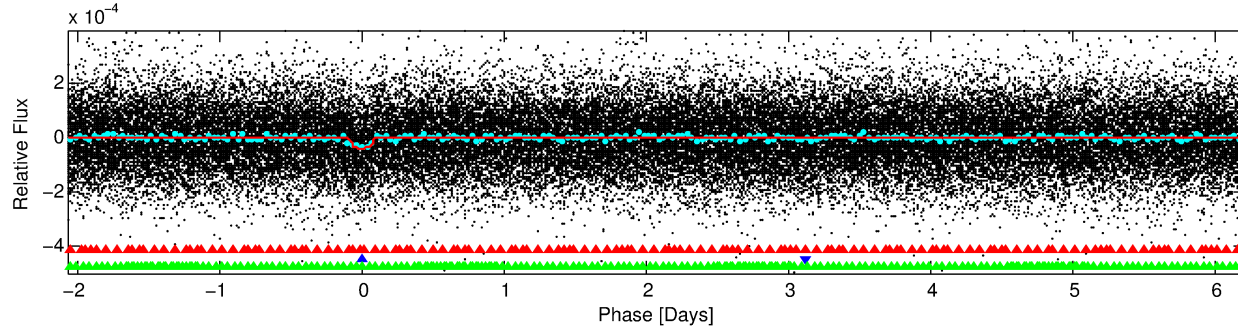
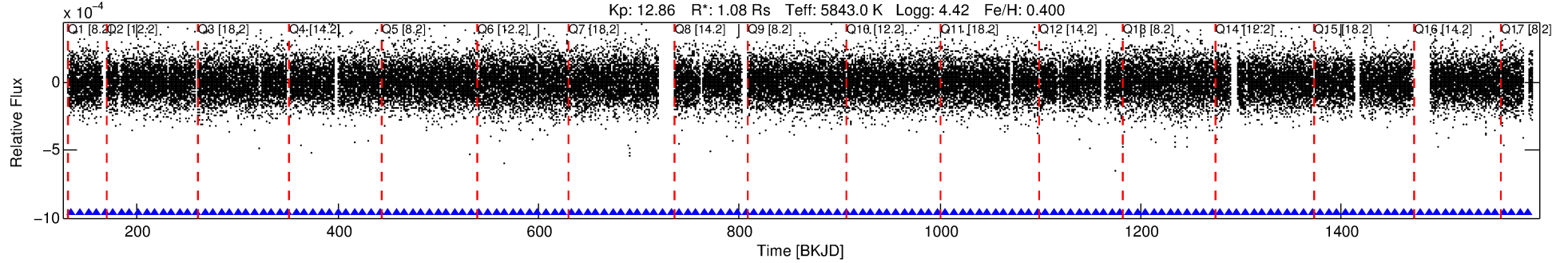
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007106173-02

No Significant Match Found

DV One-Page Summary

KIC: 7106173 Candidate: 2 of 3 Period: 8.295 d
KOI: K03083.03 Corr: 0.891



DV Fit Results:

Period = 8.29461 [0.00008] d
Epoch = 134.8327 [0.0077] BKJD
Rp/R* = 0.0073 [0.0019]
a/R* = 4.76 [5.83]
b = 0.96 [0.10]
Seff = 175.82 [40.61]
Teq = 929 [54] K
Rp = 0.87 [0.26] Re
a = 0.0835 [0.0119] AU
Ag = 85.70 [52.69] [1.61σ]
Teffp = 4368 [637] K [5.38σ]

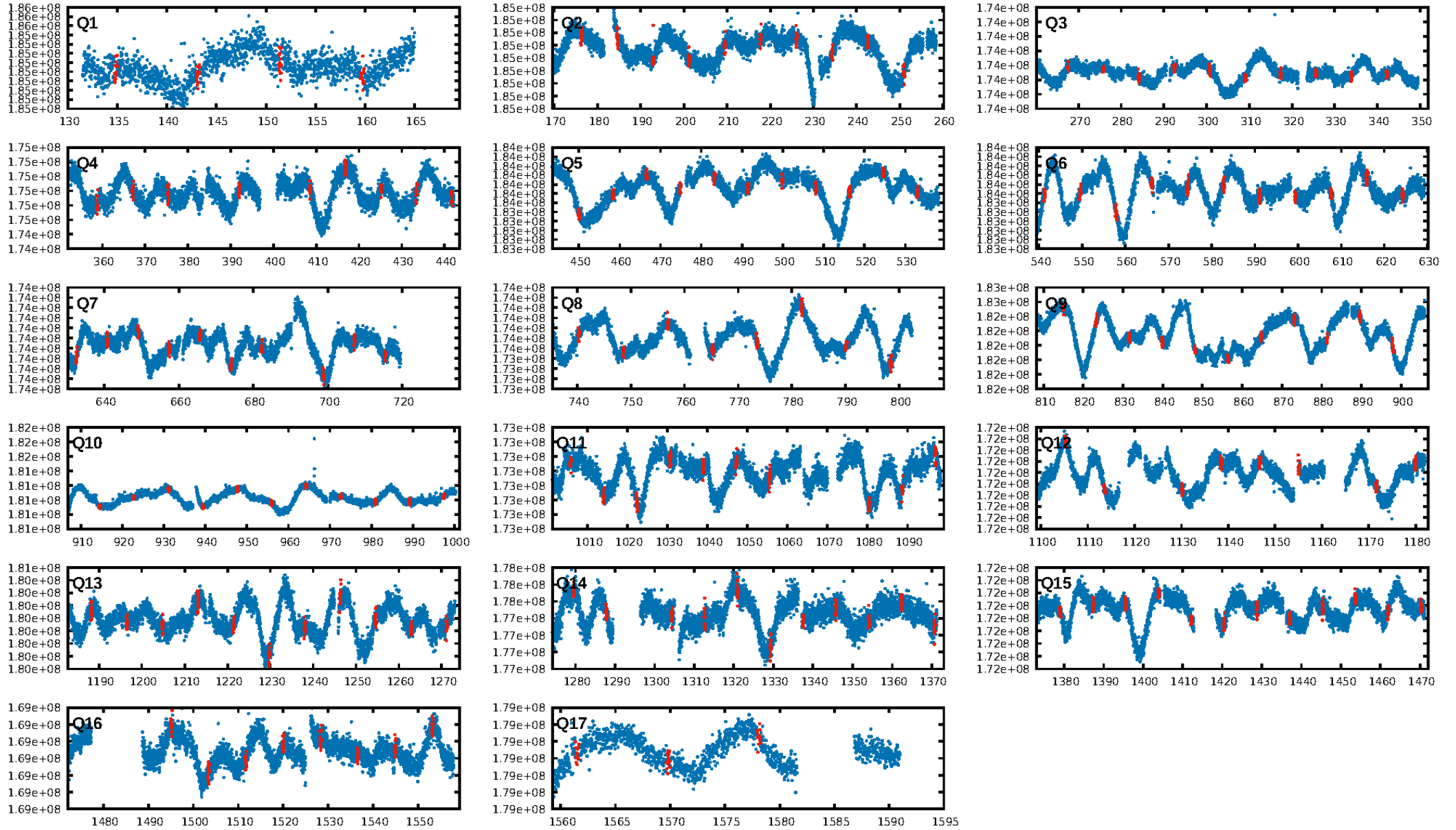
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [10.67σ]
LongPeriod-sig: 100.0% [8.90σ]
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.66e-14
RollingBand-fgt: 1.00 [147/147]
GhostDiagnostic-chr: 2.15
Centroid-sig: 4.4%
Centroid-so: 2.080 arcsec [1.80σ]
OotOffset-rm: 1.345 arcsec [1.18σ]
KicOffset-rm: 1.409 arcsec [1.20σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 1.00 [17/17]

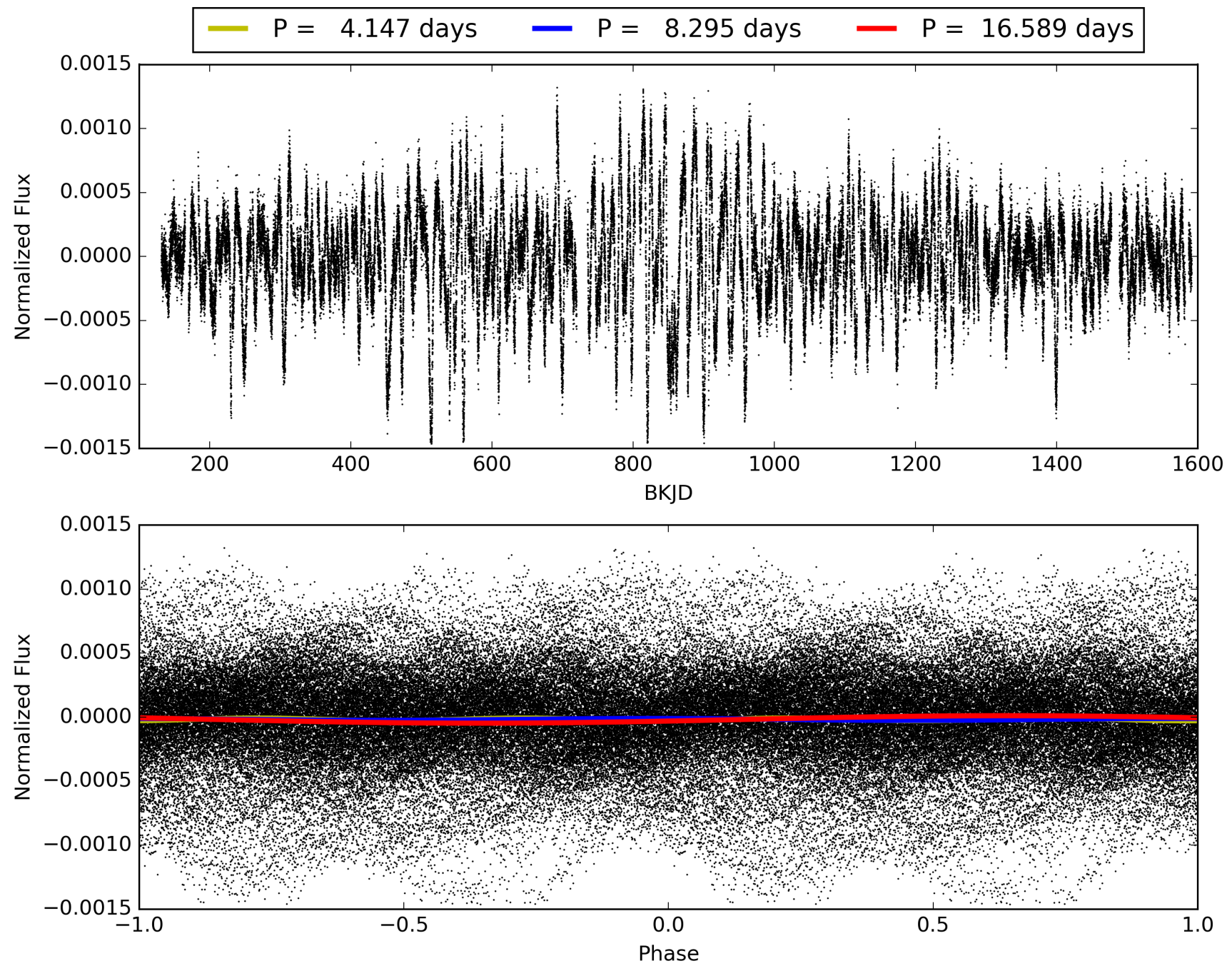
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:25:08 Z

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

TCE 007106173-02, PDC Light Curves

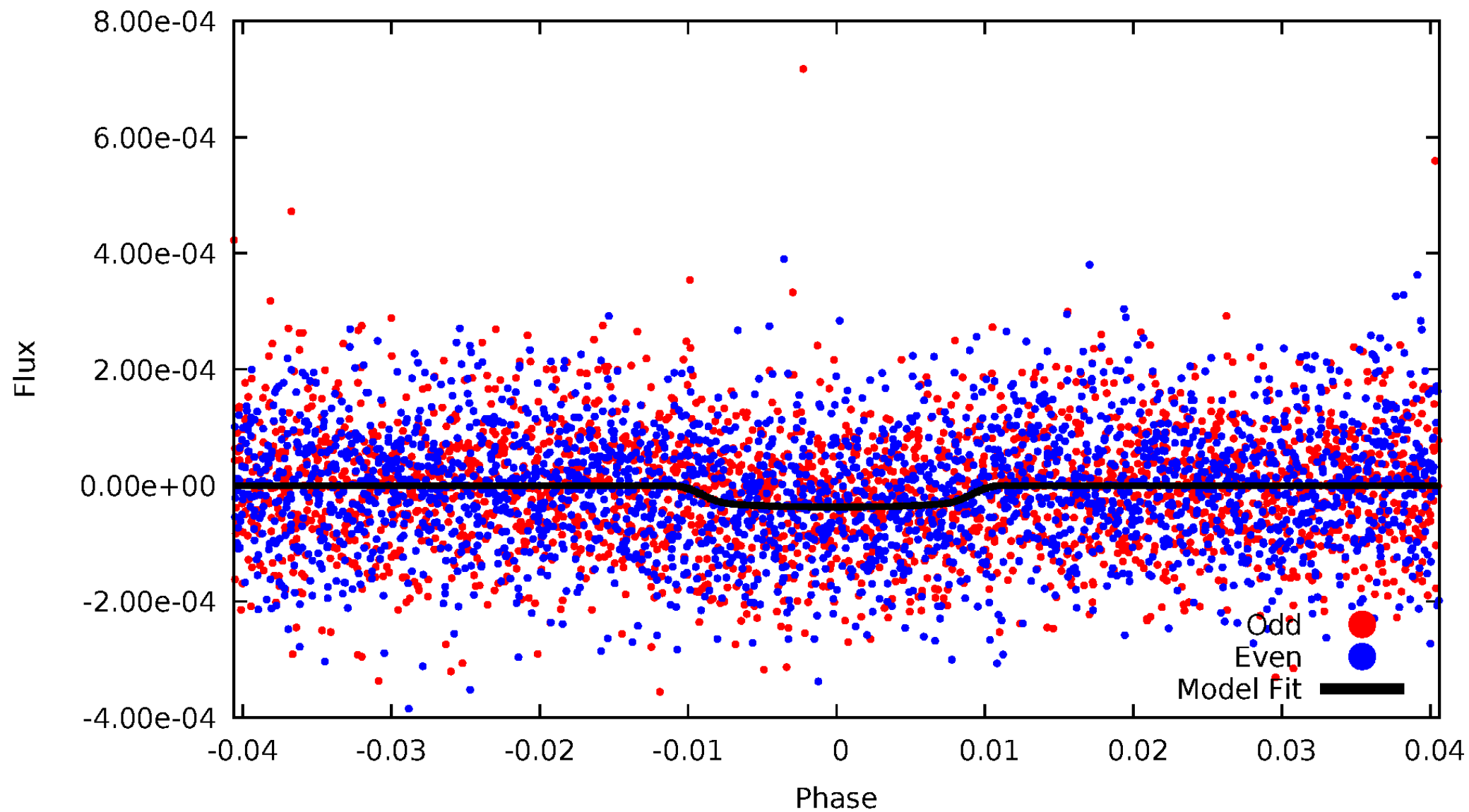


TCE 007106173-02



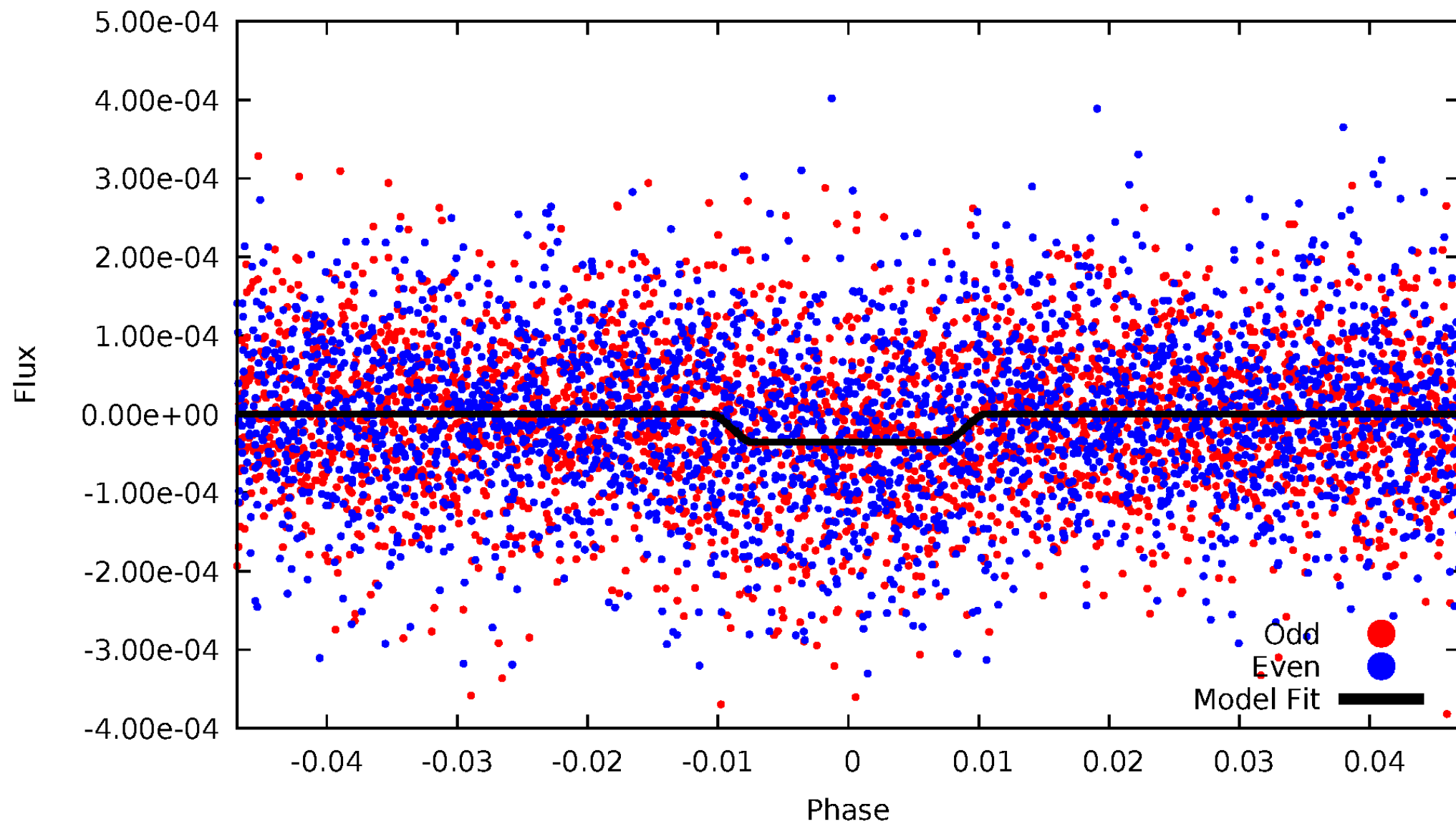
DV Odd/Even

TCE 007106173-02



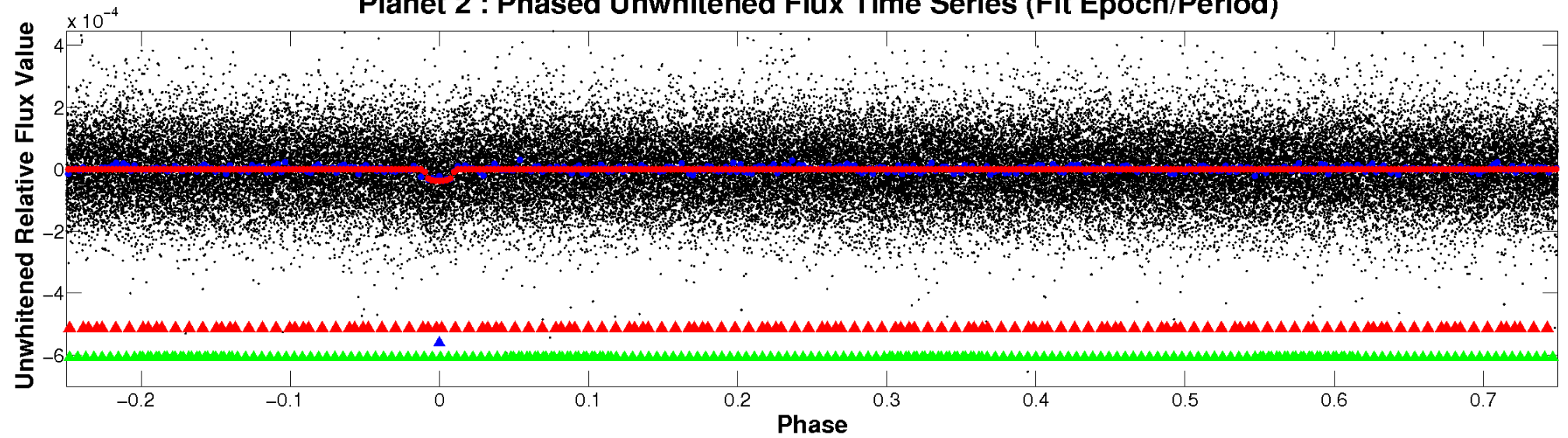
ALT Odd/Even

TCE 007106173-02

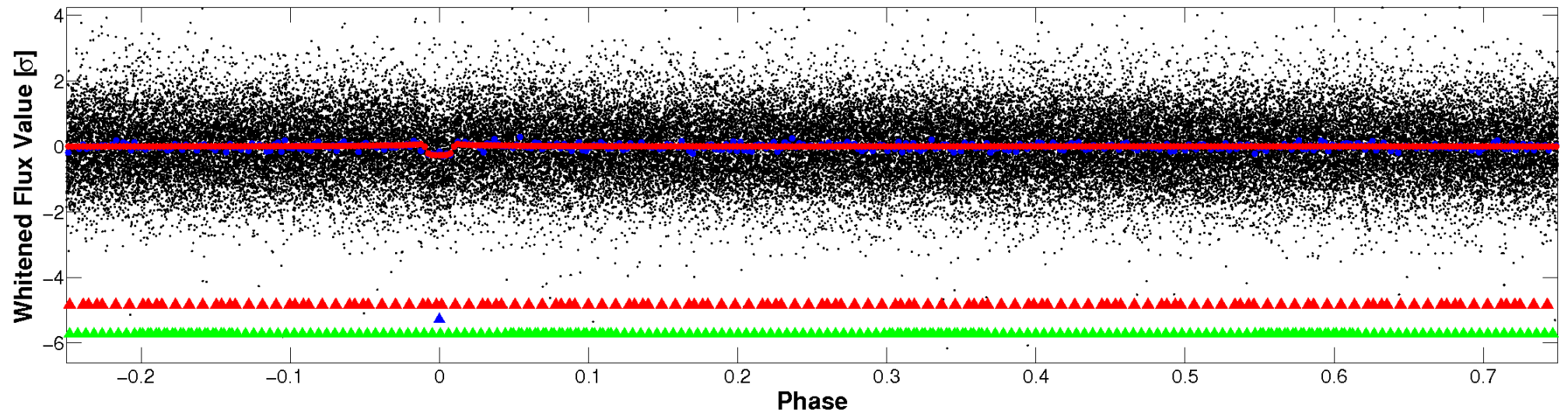


Non-Whitened Vs. Whitened Light Curve

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

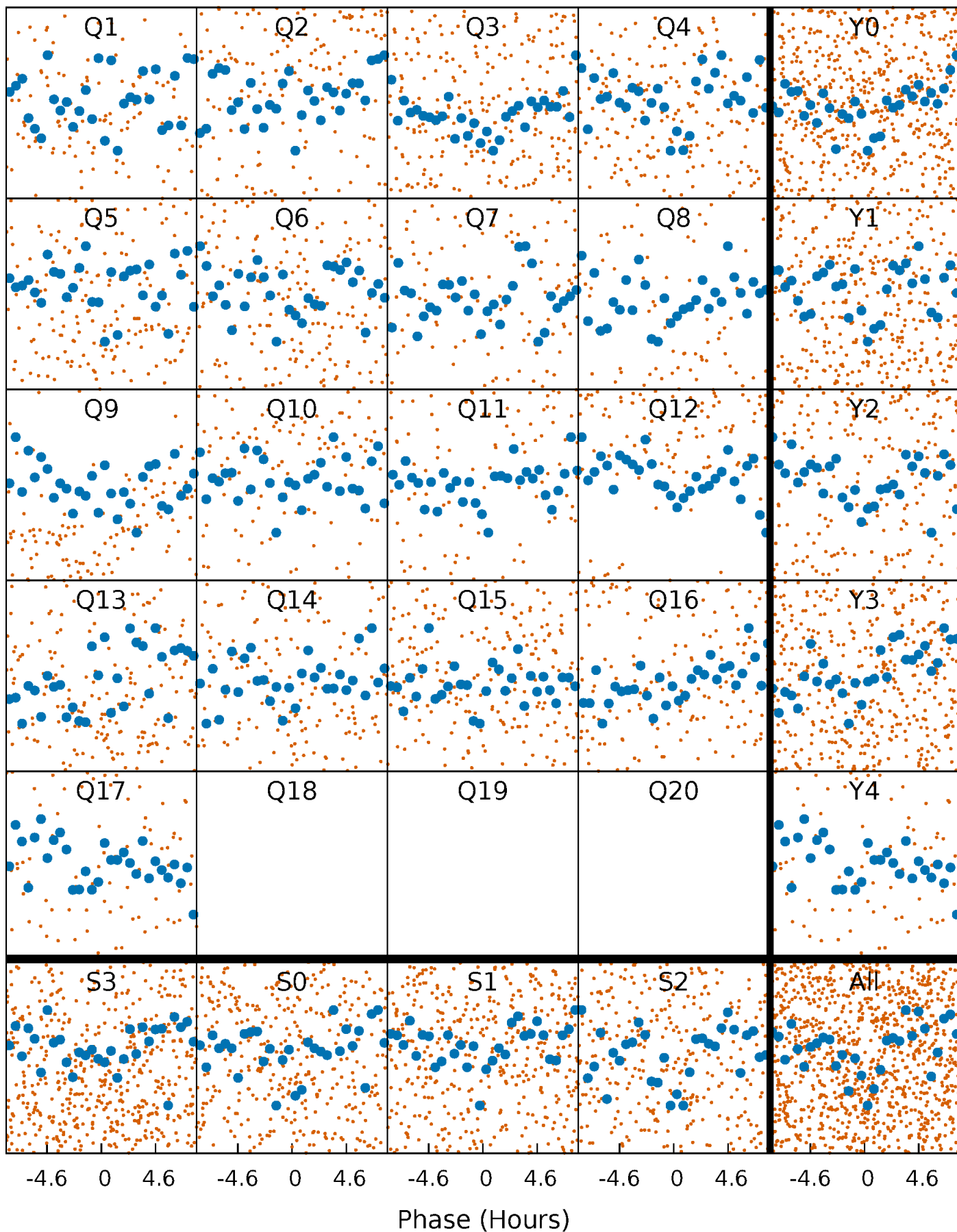


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



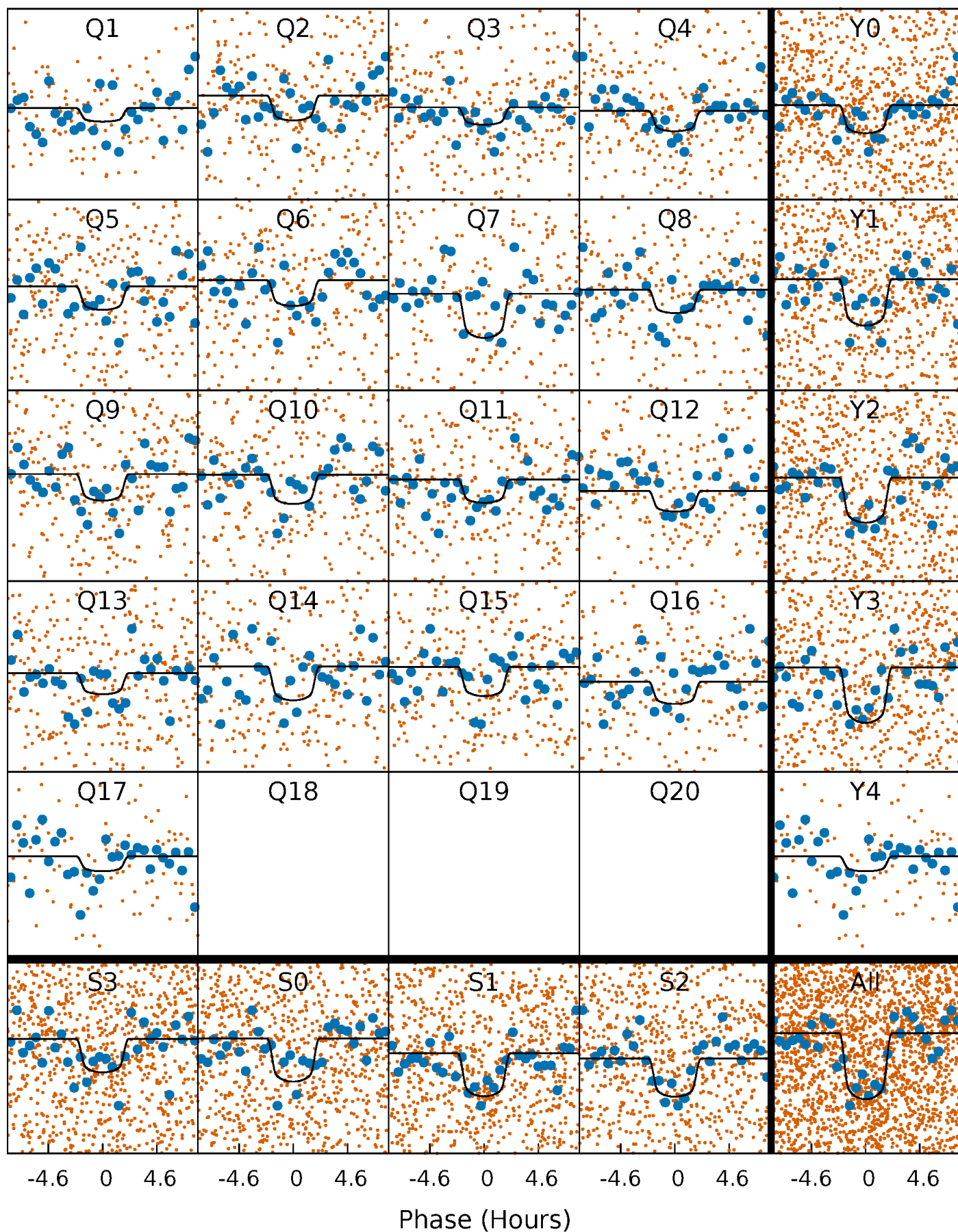
PDC Quarter-Phased Transit Curves

TCE 007106173-02 P= 8.294608 Days $T_0=134.832735$ (BKJD)



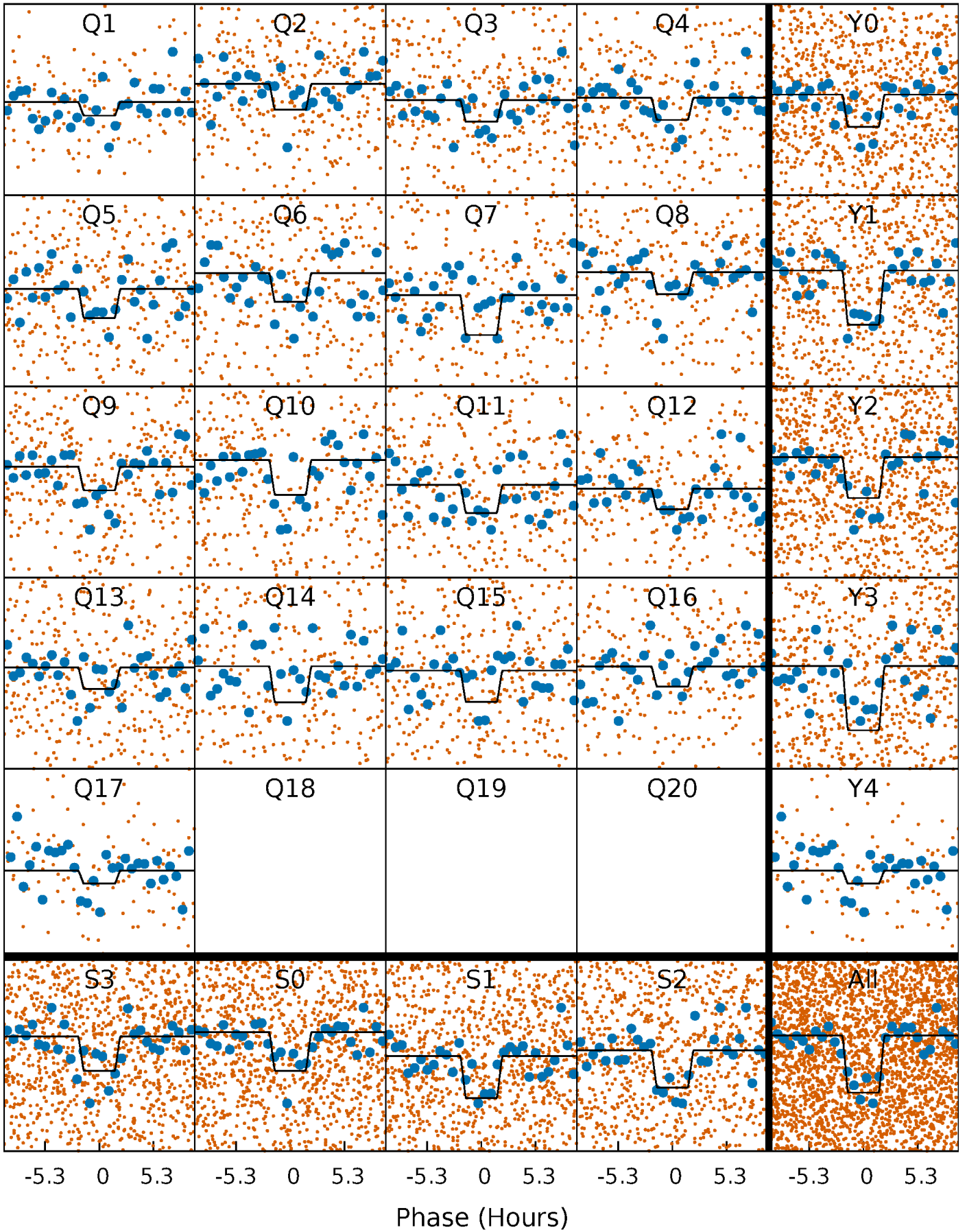
DV Quarter-Phased Transit Curves

TCE 007106173-02 P= 8.294608 Days $T_0=134.832735$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

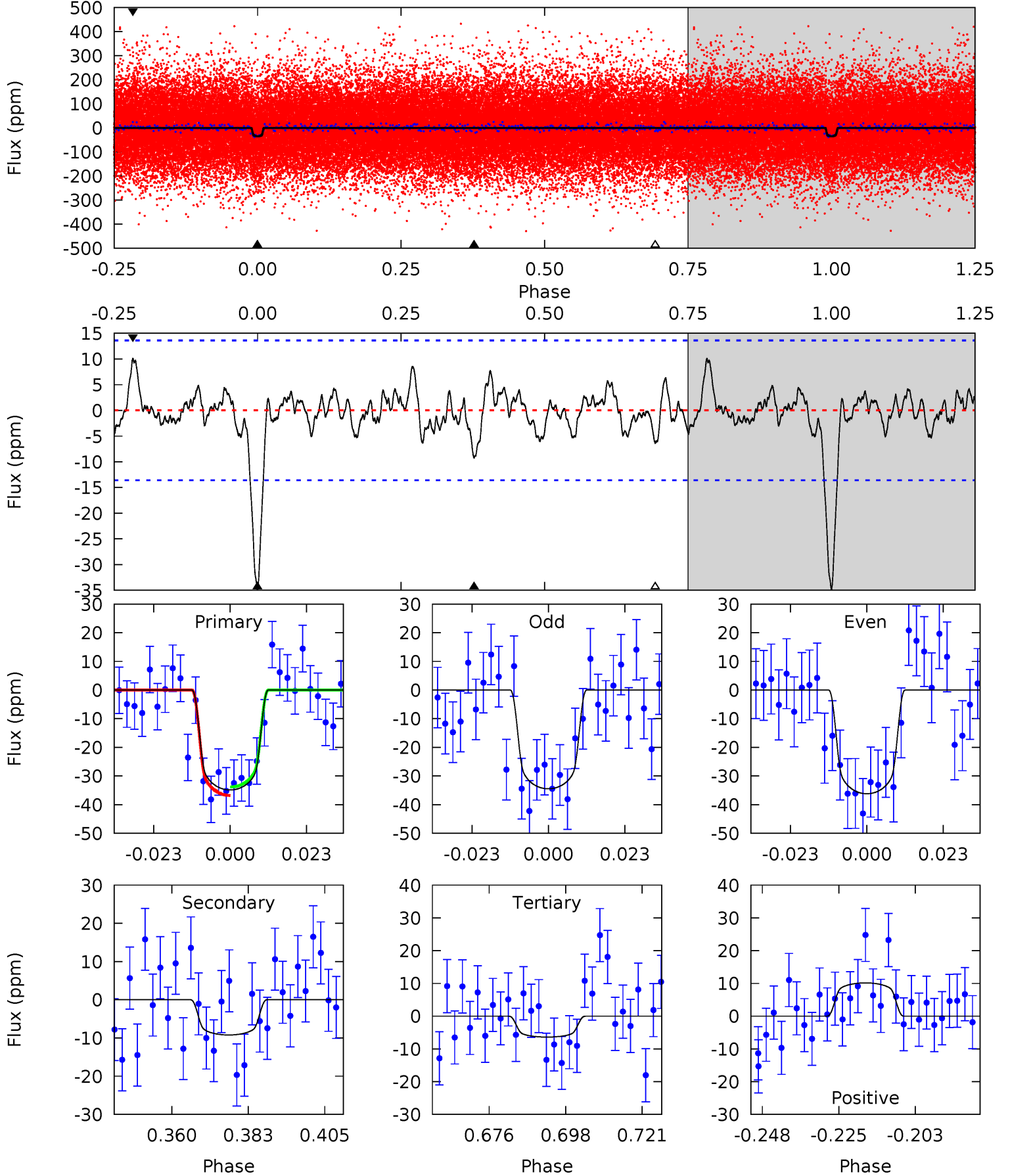
TCE 007106173-02 P= 8.294375 Days $T_0=134.846925$ (BKJD)



DV Model-Shift Uniqueness Test

007106173-02, P = 8.294608 Days, E = 126.538127 Days

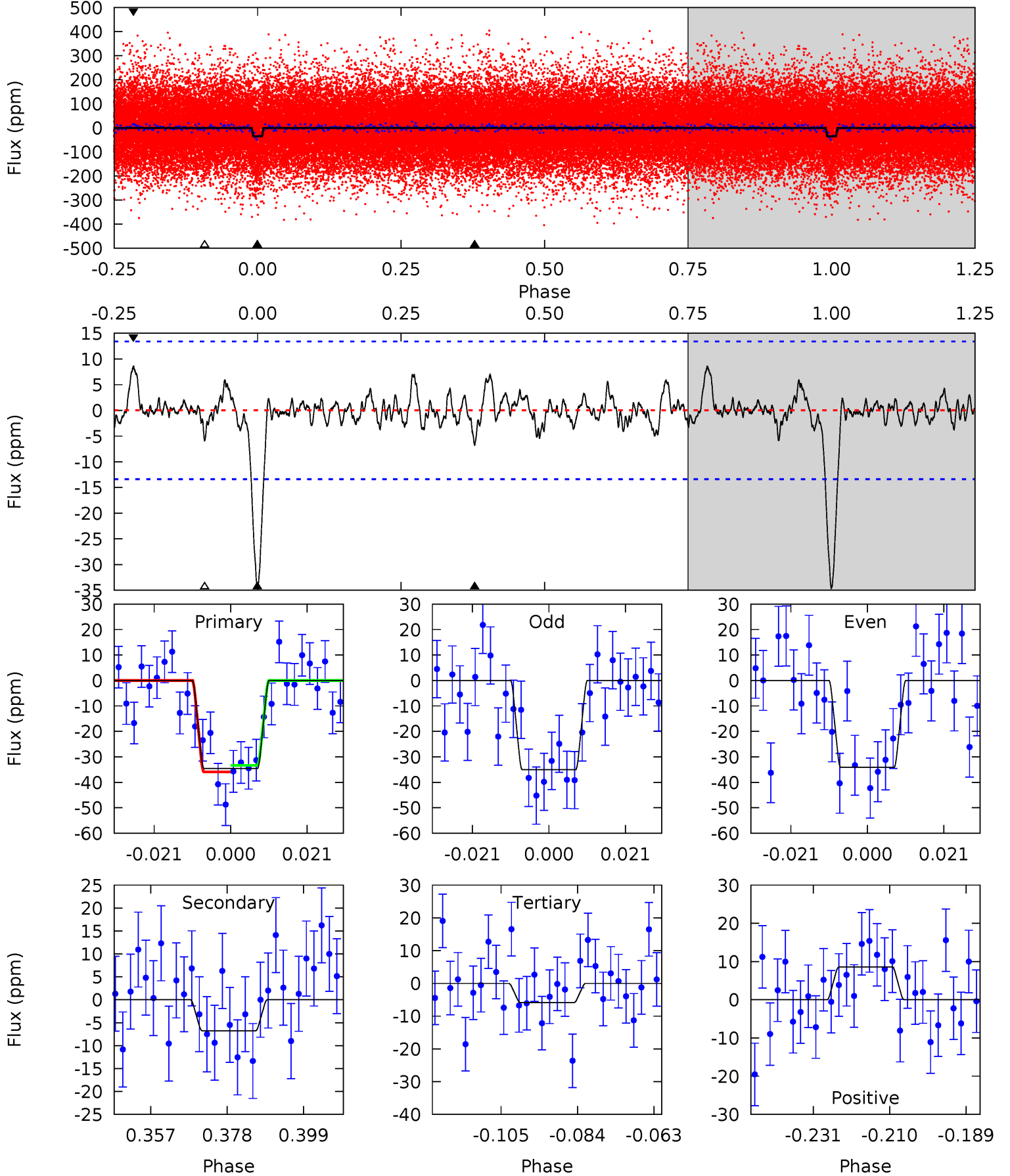
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	3.30	2.29	3.63	4.87	2.28	1.07	10.2	8.85	1.01	-0.33	0.31	0.82	0.23	0.53



Alt Model-Shift Uniqueness Test

007106173-02, P = 8.294375 Days, E = 126.552550 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	2.47	2.14	3.12	4.88	2.31	0.85	10.5	9.49	0.32	-0.65	0.18	0.82	0.20	0.47



Stellar Parameters For KIC 007106173

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5843^{+104}_{-127}	$4.421^{+0.040}_{-0.120}$	$0.400^{+0.050}_{-0.150}$	$1.084^{+0.177}_{-0.071}$	$1.131^{+0.061}_{-0.068}$	$1.249^{+0.201}_{-0.427}$
	+2%/-2%	+1%/-3%	+12%/-37%	+16%/-7%	+5%/-6%	+16%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 007106173-02 / KOI 3083.03

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 3	$0.89^{+0.22}_{-0.23}$	1309^{+52}_{-38}	4052^{+510}_{-361}	44^{+39}_{-18}
Alt.	-7 ± 3	$0.73^{+0.22}_{-0.22}$	1306^{+52}_{-35}	4069^{+686}_{-461}	47^{+56}_{-24}

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

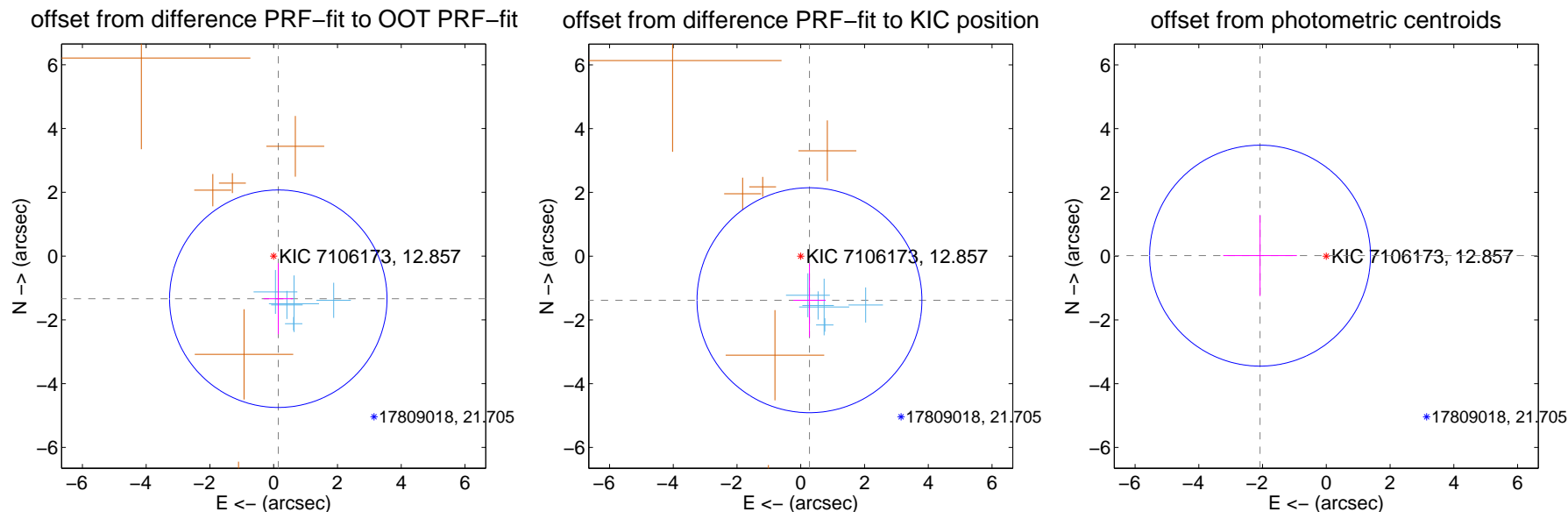
DV Centroid Data

Supplemental centroid analysis for 007106173-02. Kepler magnitude: 12.86. Transit SNR 8.31

There are 5 quarters with good PRF difference image offsets

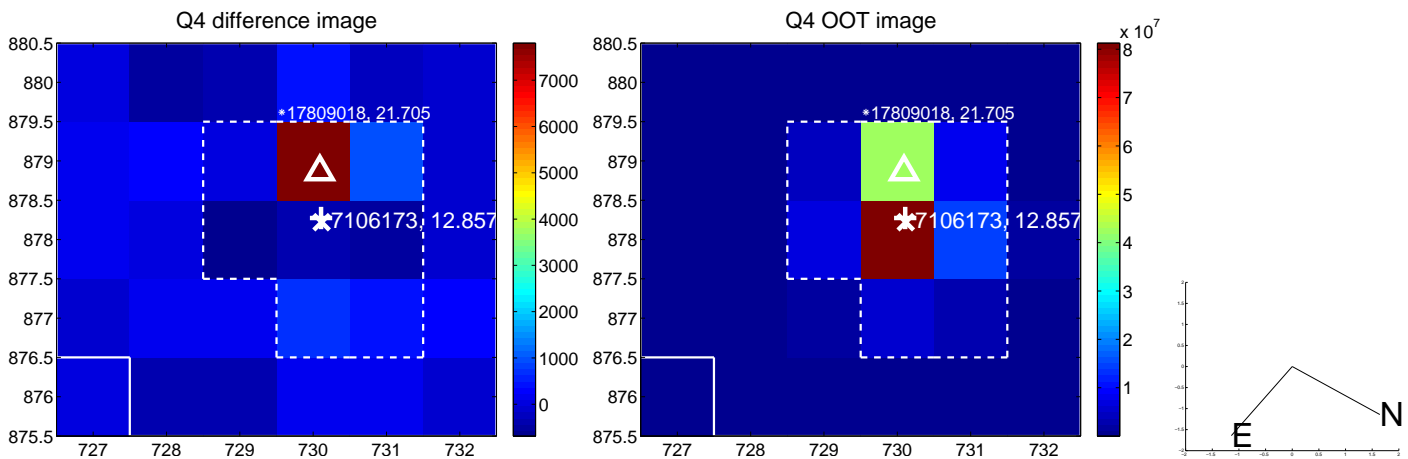
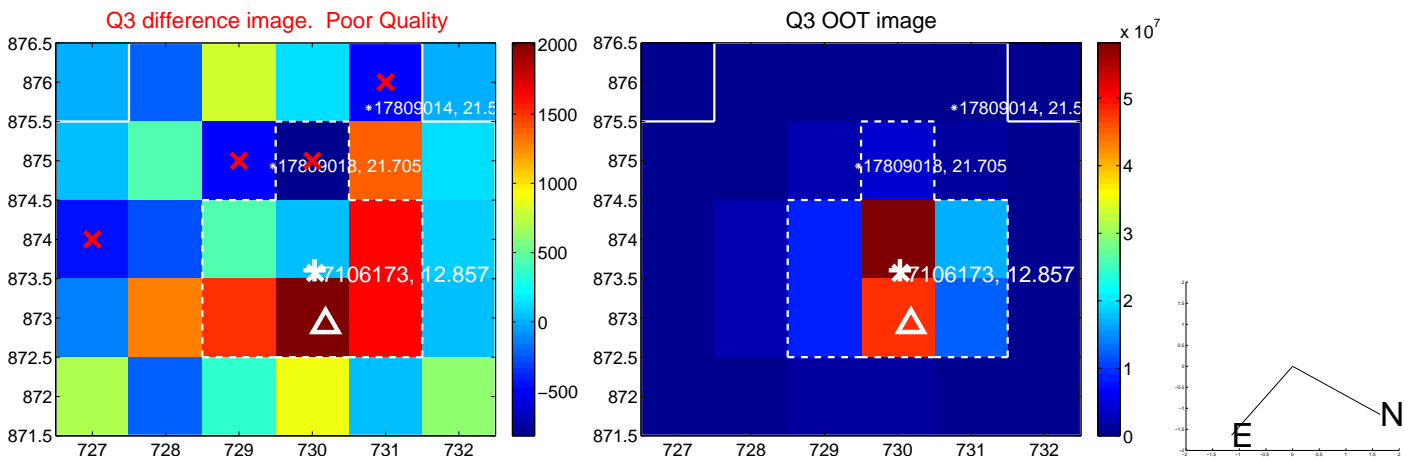
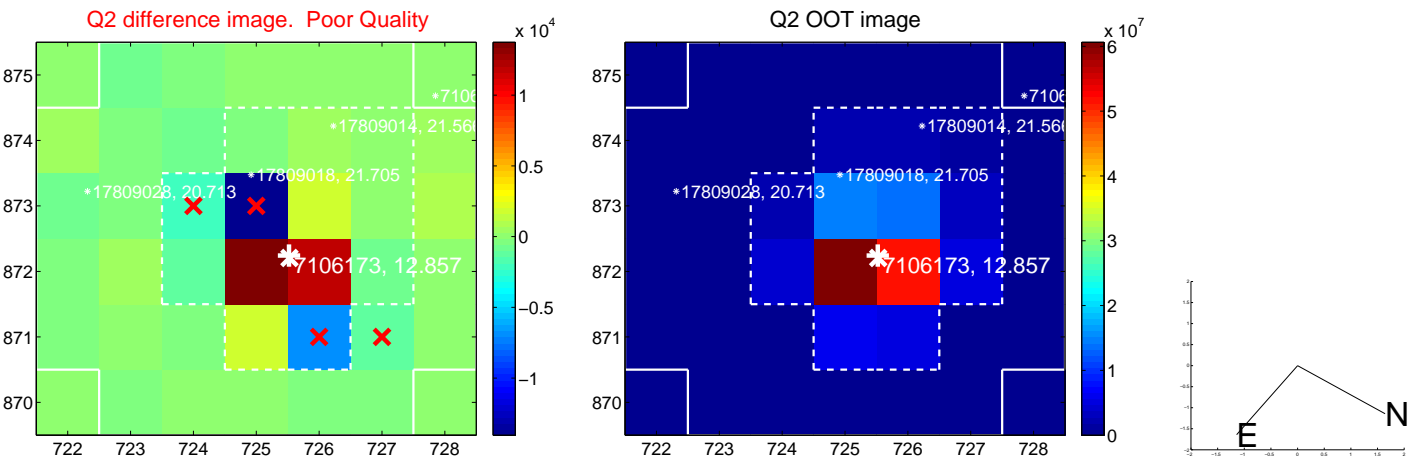
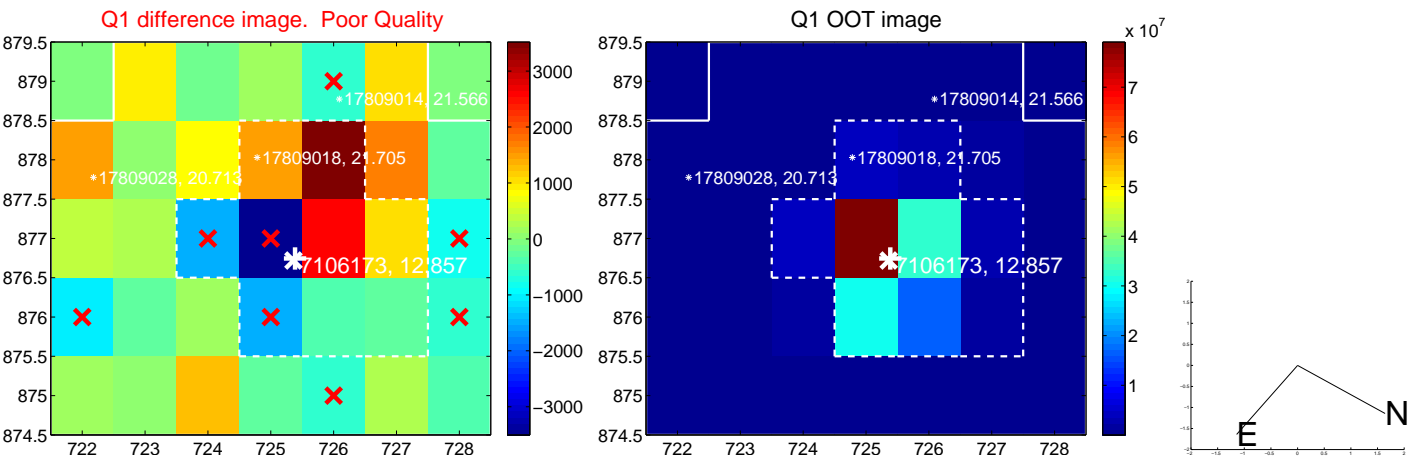
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.345 ± 1.137	1.18	-0.144 ± 0.460	-1.337 ± 1.116
PRF-fit source offset from KIC position	1.409 ± 1.176	1.20	-0.272 ± 0.508	-1.383 ± 1.148
photometric centroid source offset	2.08 ± 1.16	1.80	2.08 ± 1.16	0.02 ± 1.27

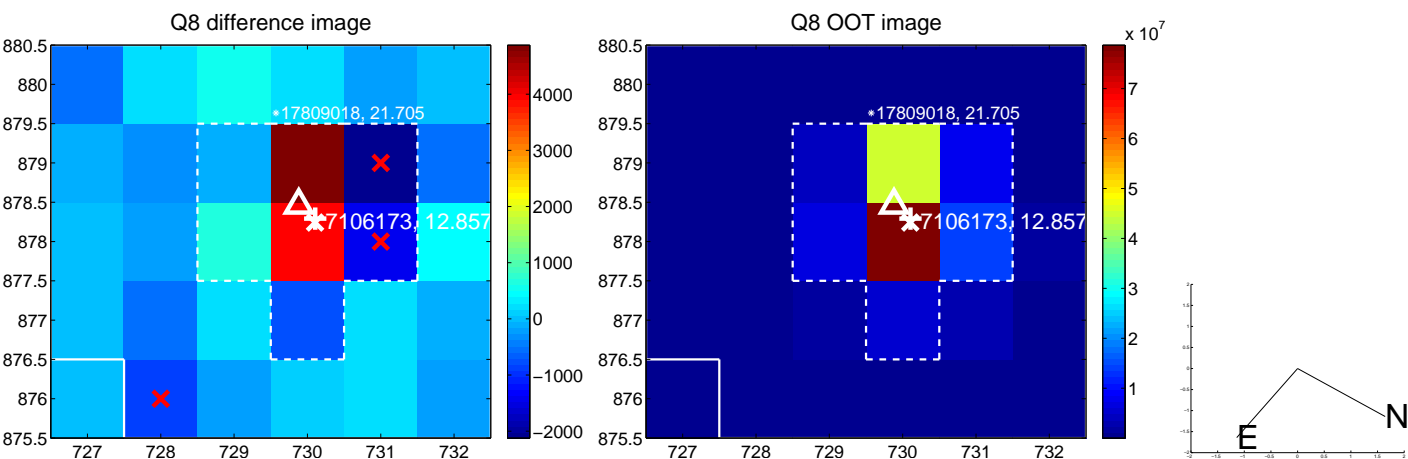
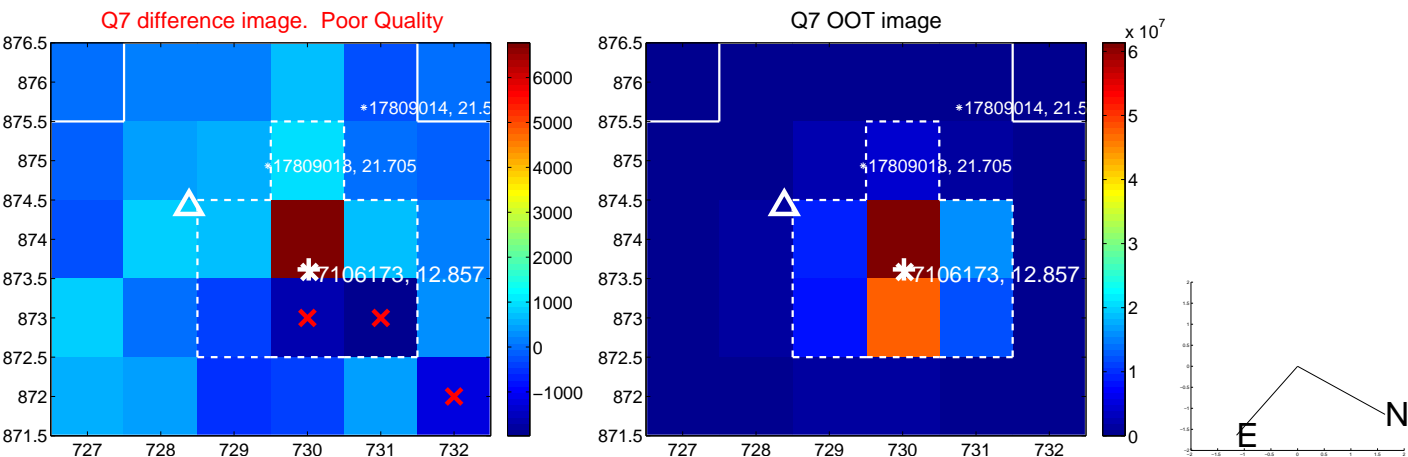
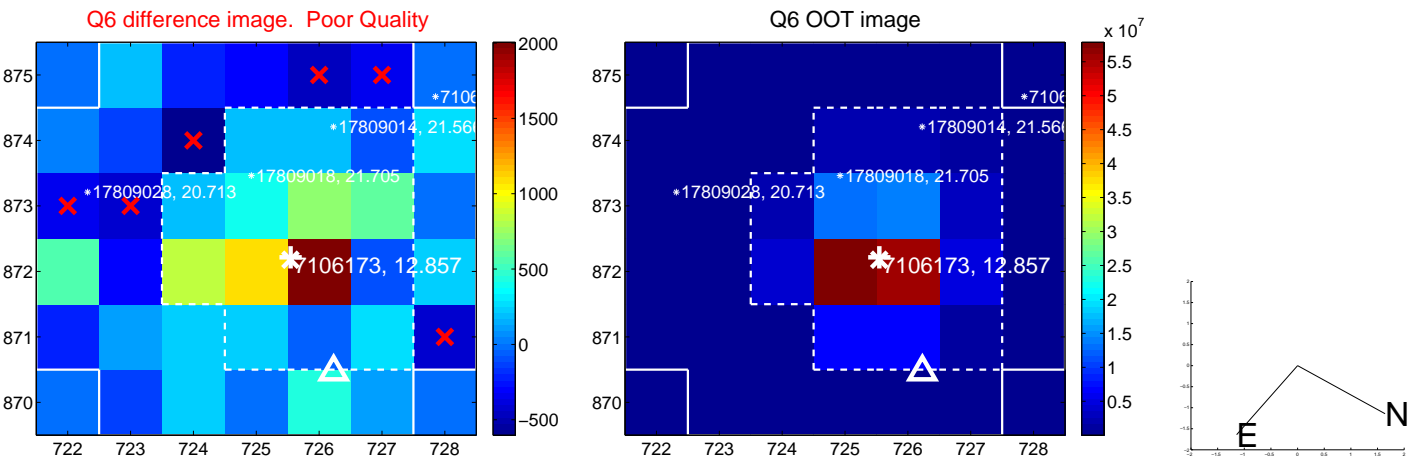
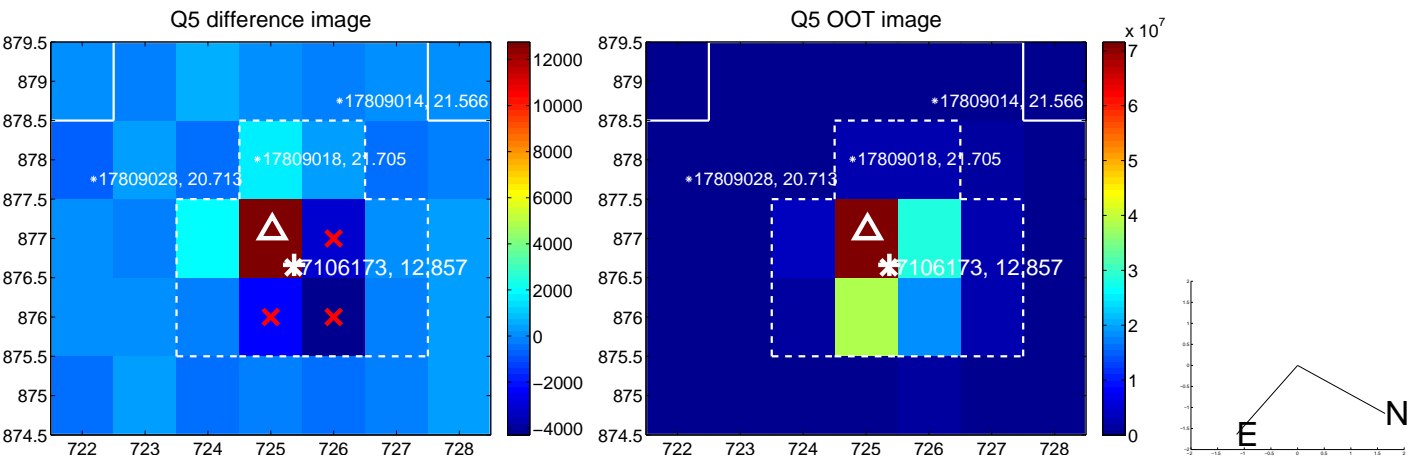


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

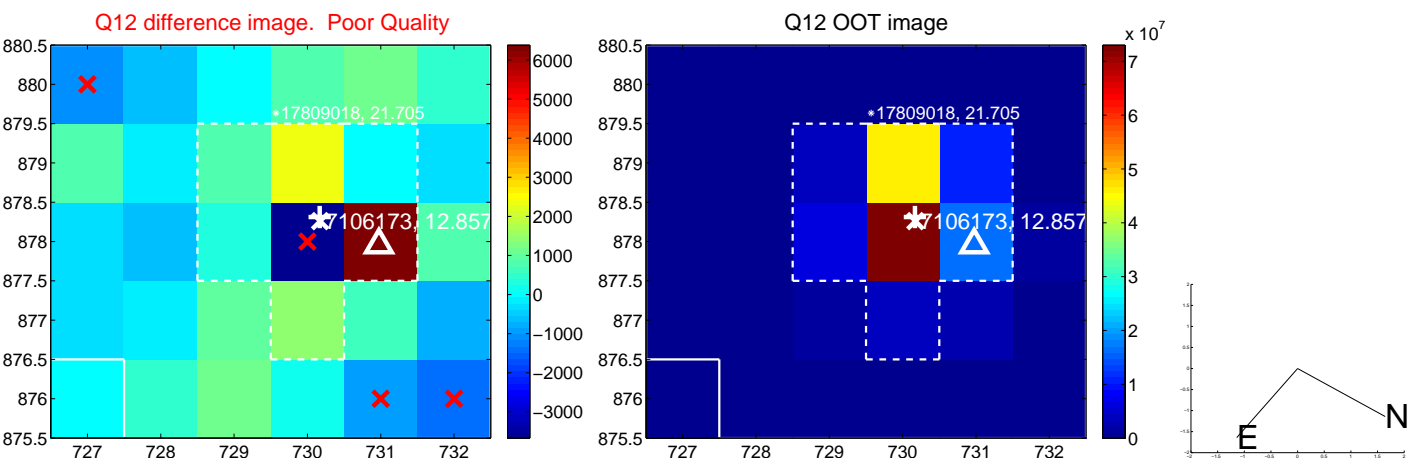
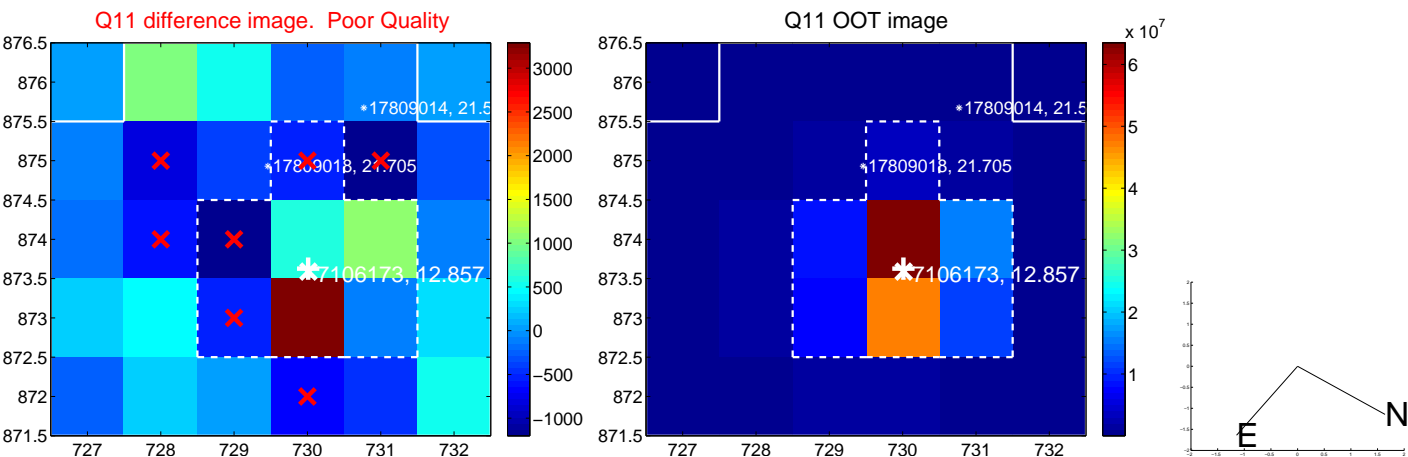
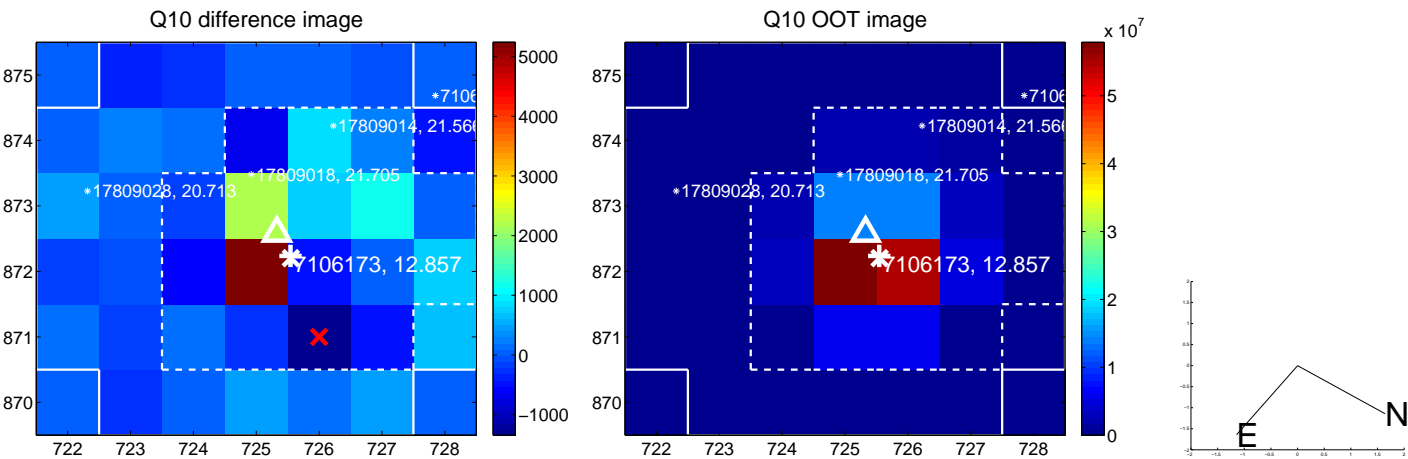
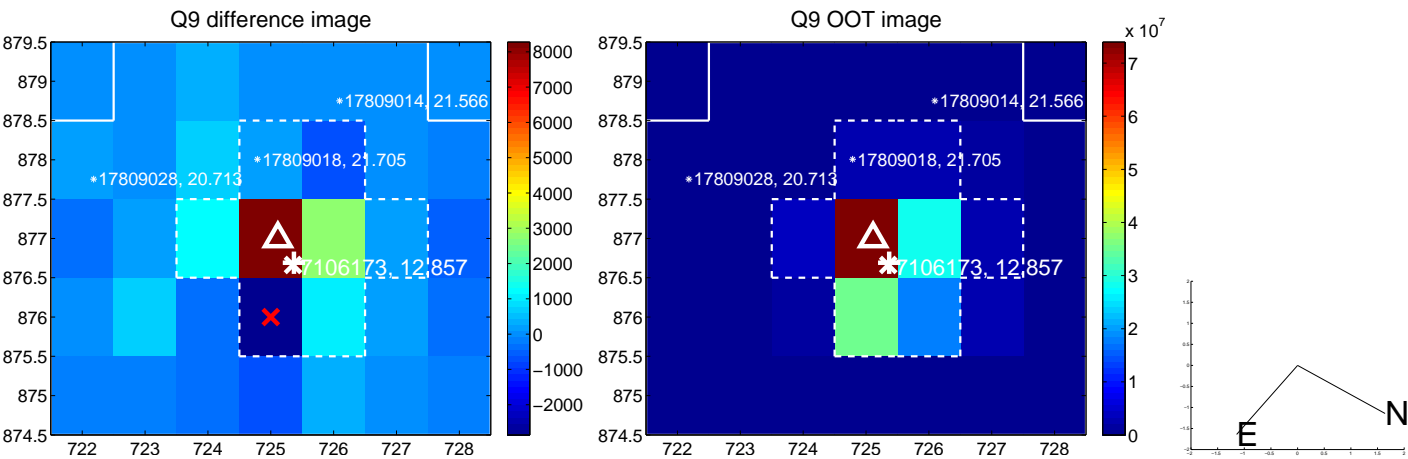
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



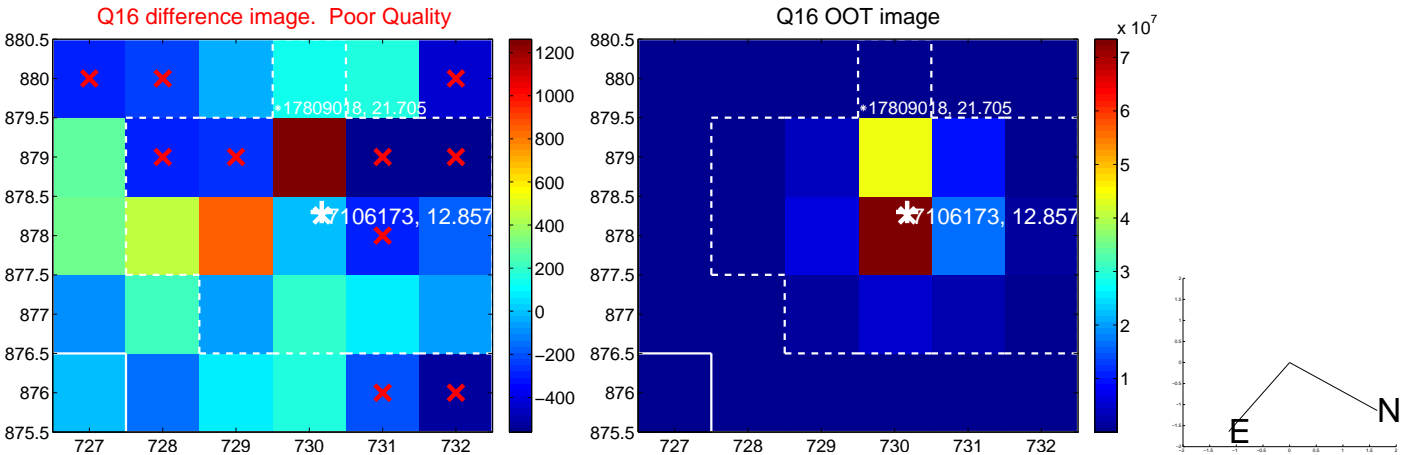
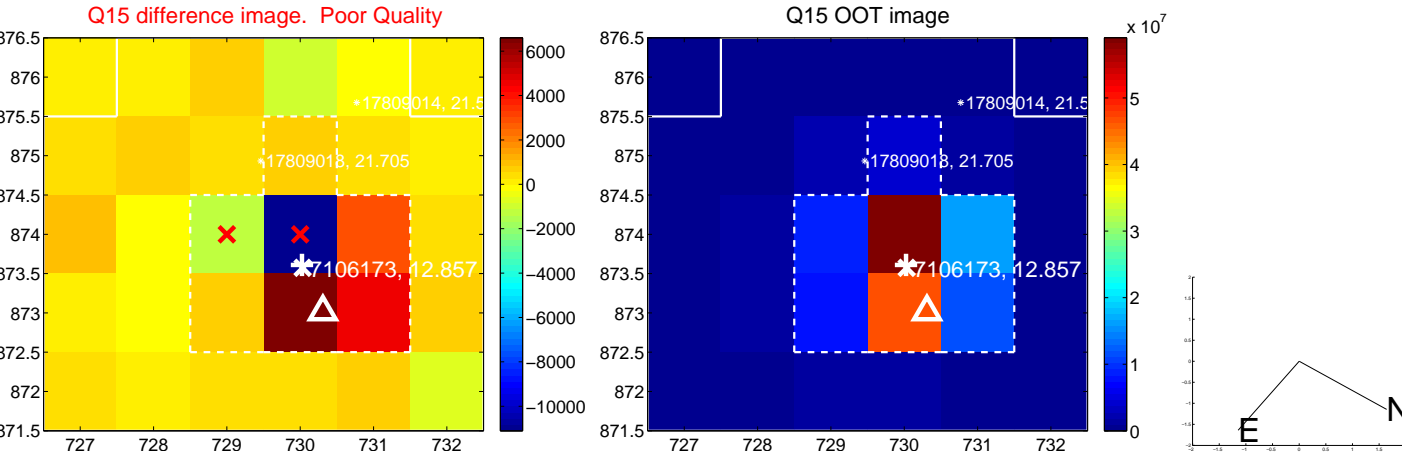
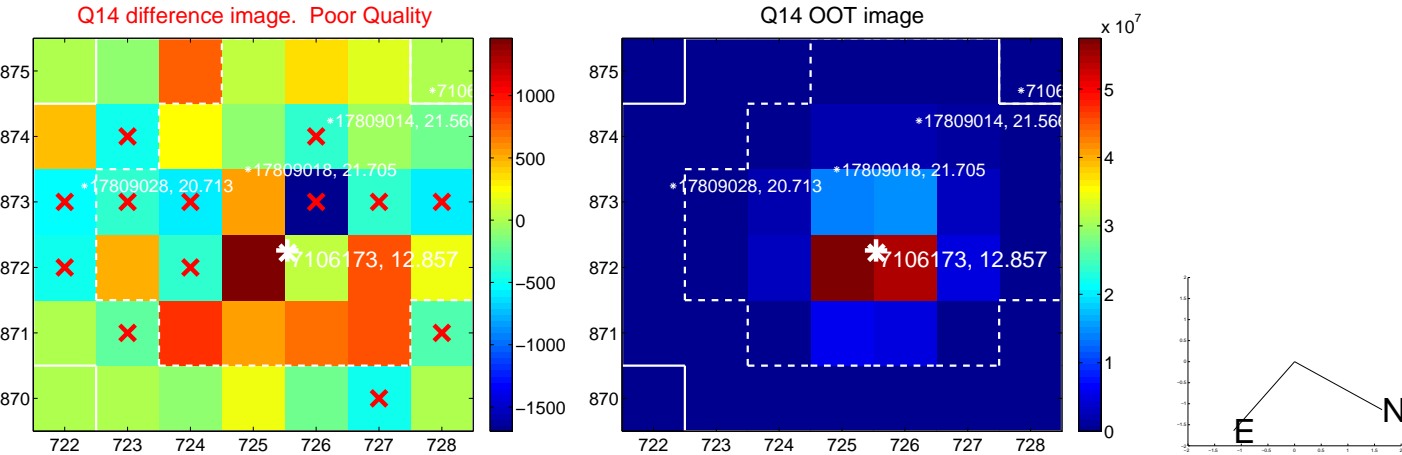
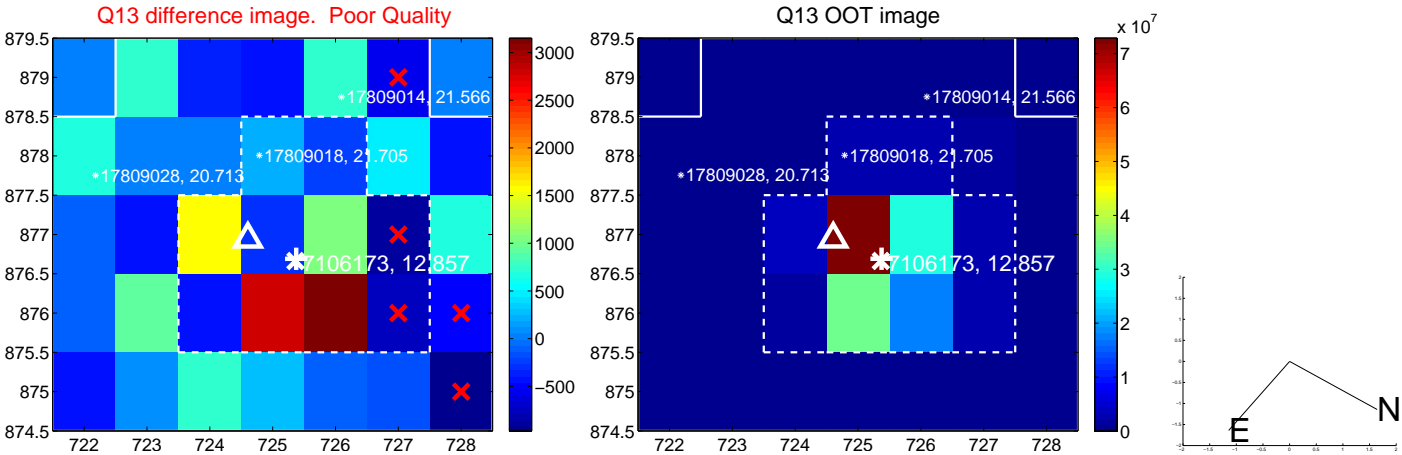
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



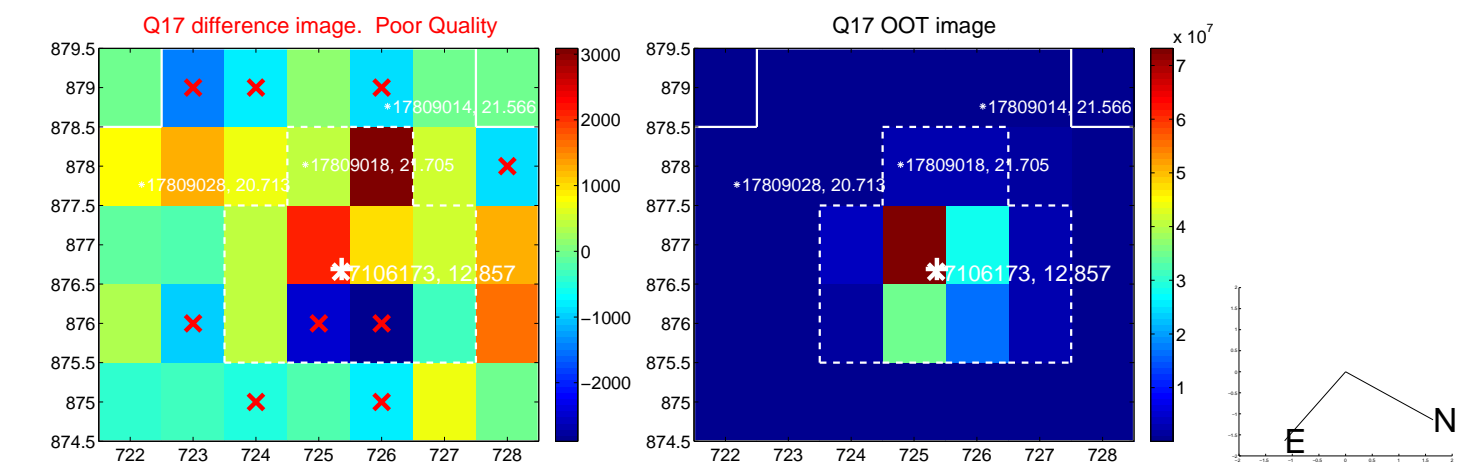
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



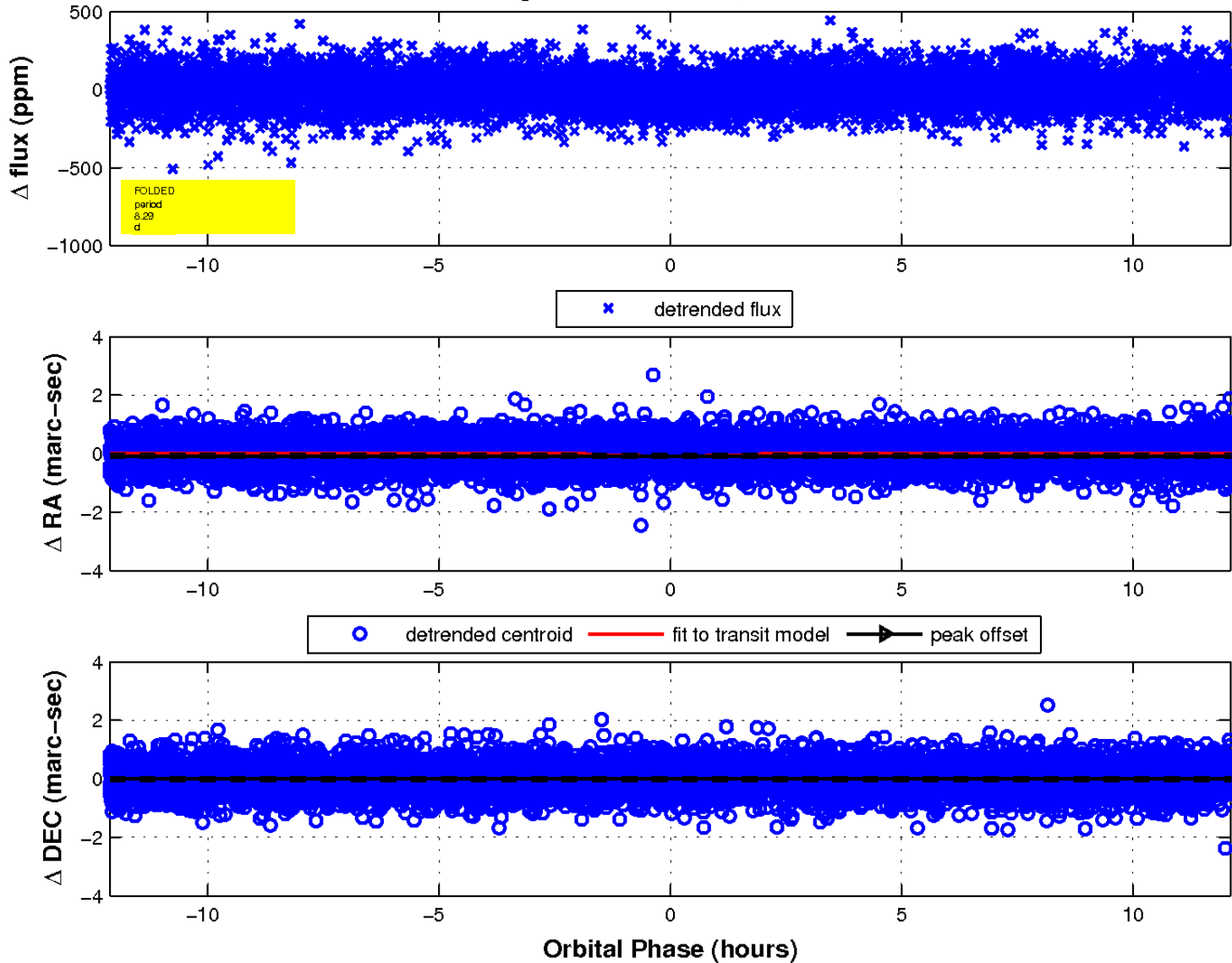
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

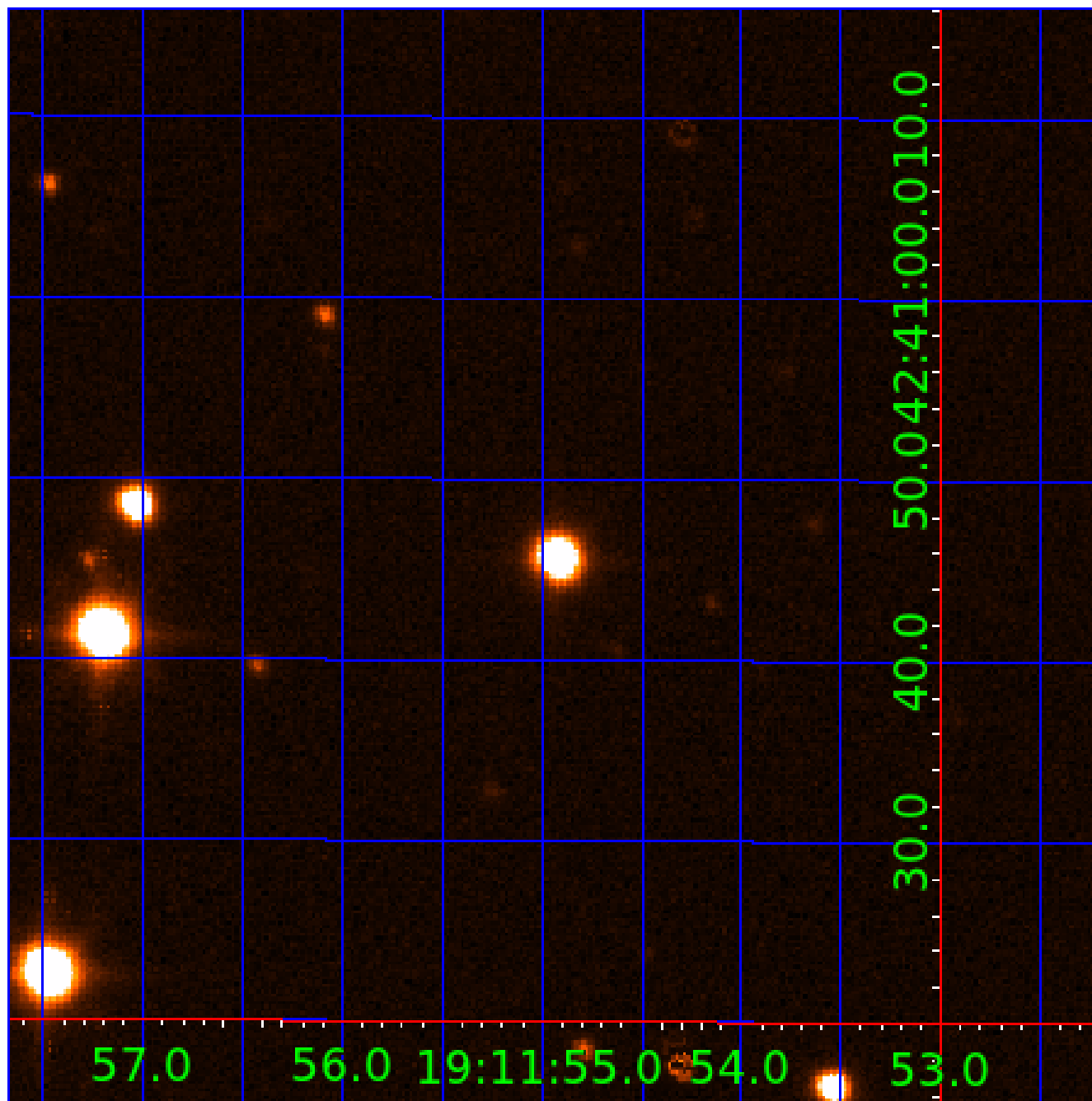


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 007106173

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})
007106173-01	OBS	3083.01	10.183190	133.213580	53.3	3.099	9.2	10.1	1.08	5843	0.92	133.75
007106173-02	OBS	3083.03	8.294608	134.832735	37.3	4.040	7.6	8.3	1.08	5843	0.87	175.82
007106173-03	OBS	3083.02	6.232244	135.230284	35.2	2.282	7.4	7.5	1.08	5843	0.77	257.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007106173-01	OBS	PC	0.96	0	0	0	0	NO_COMMENT
007106173-02	OBS	PC	0.67	0	0	0	0	NO_COMMENT
007106173-03	OBS	PC	0.98	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.

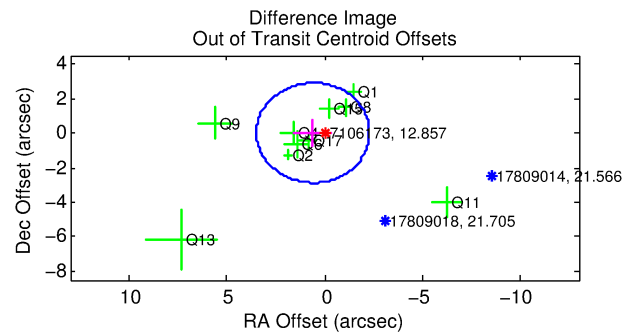
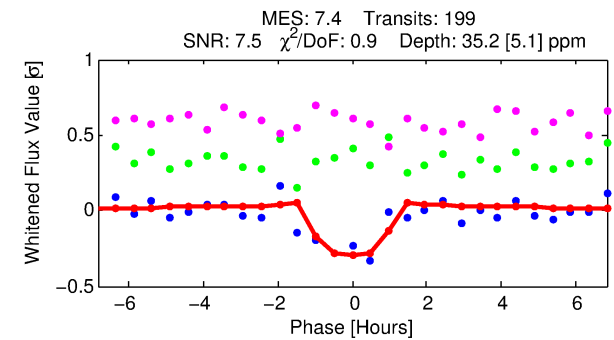
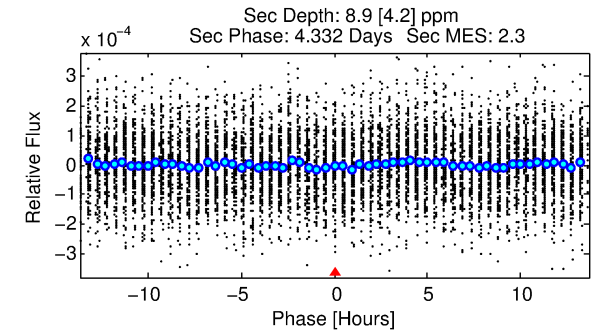
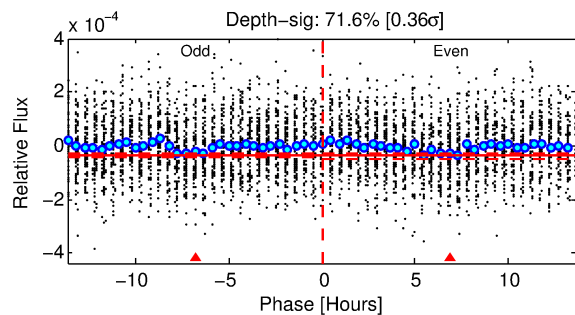
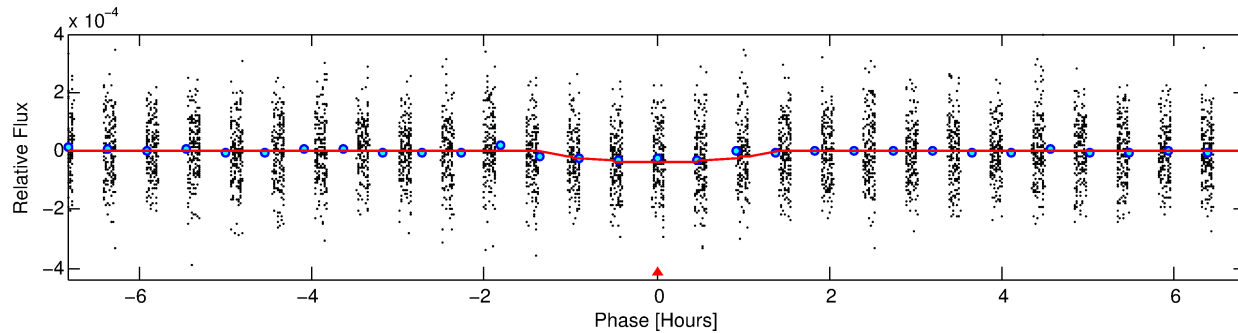
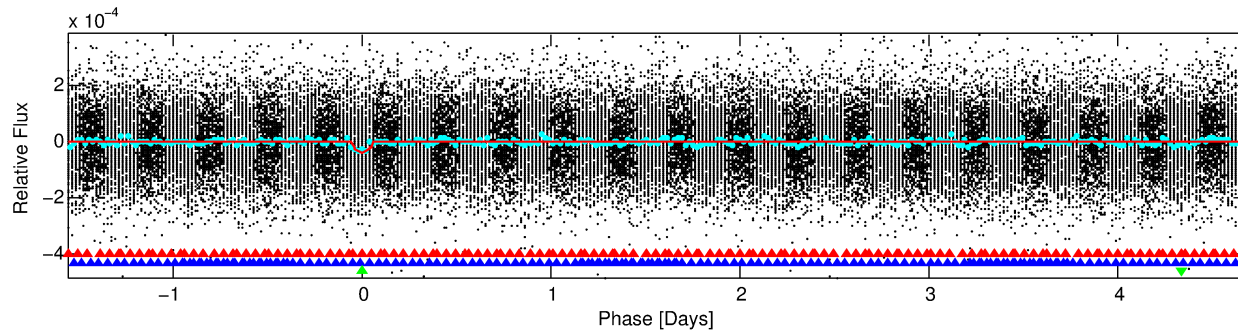
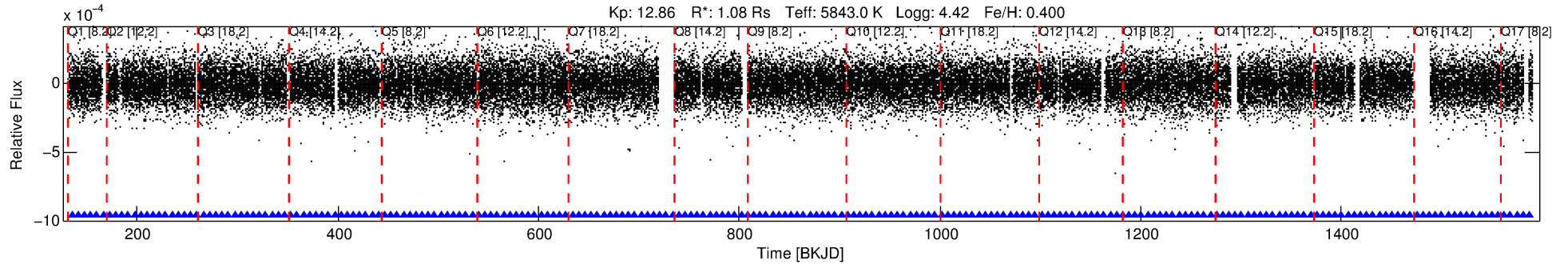
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007106173-03

No Significant Match Found

DV One-Page Summary

KIC: 7106173 Candidate: 3 of 3 Period: 6.232 d
KOI: K03083.02 Corr: 0.908



DV Fit Results:

Period = 6.23224 [0.00005] d
Epoch = 135.2303 [0.0052] BKJD
Rp/R* = 0.0065 [0.0044]
a/R* = 9.56 [29.54]
b = 0.90 [0.70]
Seff = 257.39 [59.45]
Teq = 1021 [59] K
Rp = 0.77 [0.53] Re
a = 0.0690 [0.0098] AU
Ag = 39.68 [57.53] [0.67 σ]
Teffp = 3963 [1423] K [2.07 σ]

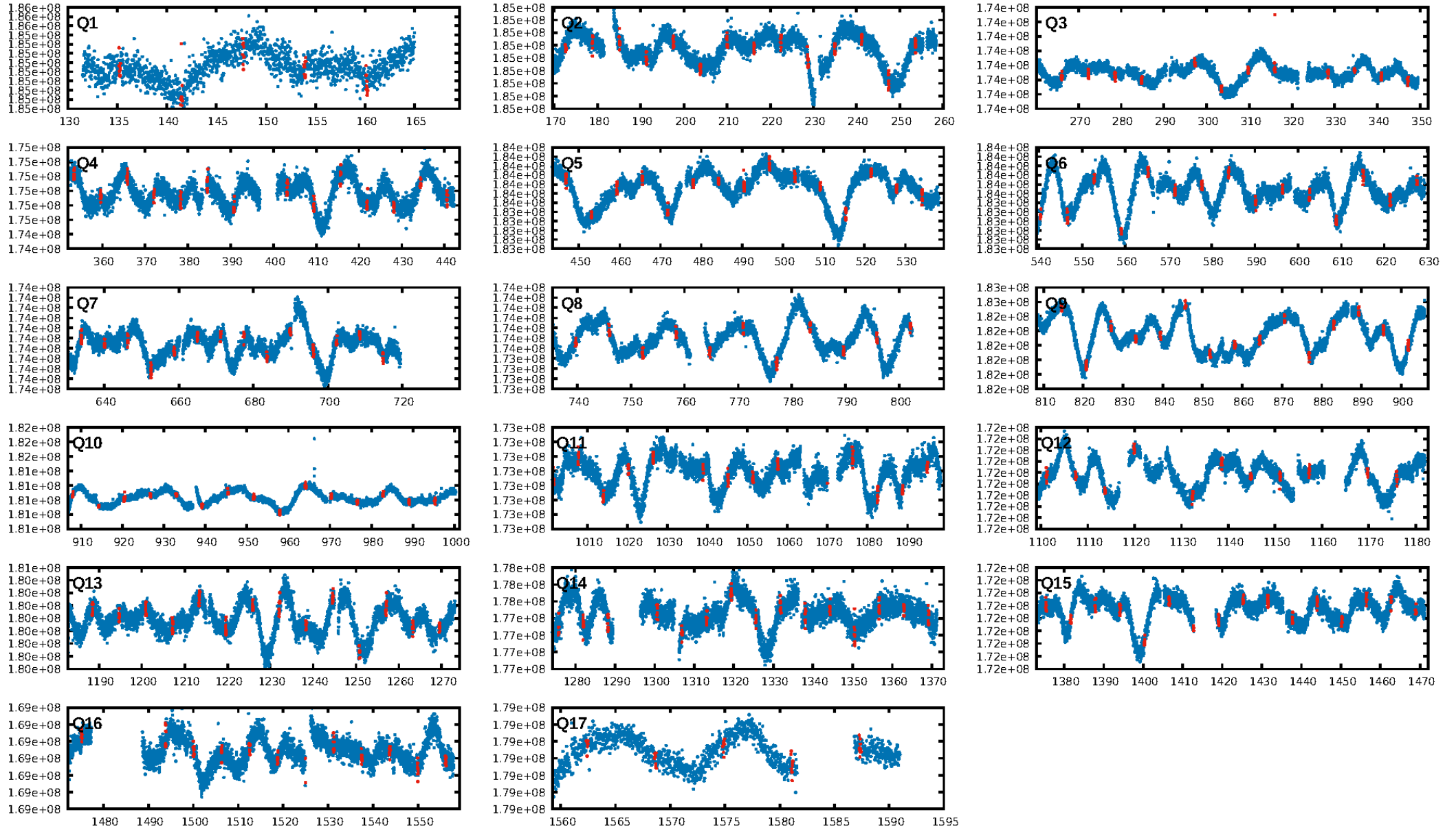
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [10.67 σ]
ModelChiSquare2-sig: 99.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.65e-13
RollingBand-fgt: 1.00 [189/189]
GhostDiagnostic-chr: -2.324
Centroid-sig: 3.9%
Centroid-so: 2.531 arcsec [1.90 σ]
OotOffset-rm: 0.600 arcsec [0.62 σ]
OotOffset-st: 2/2/2/4 [10]
KicOffset-rm: 0.481 arcsec [0.43 σ]
KicOffset-st: 2/2/2/4 [10]
DiffImageQuality-fgm: 0.60 [6/10]
DiffImageOverlap-fno: 1.00 [17/17]

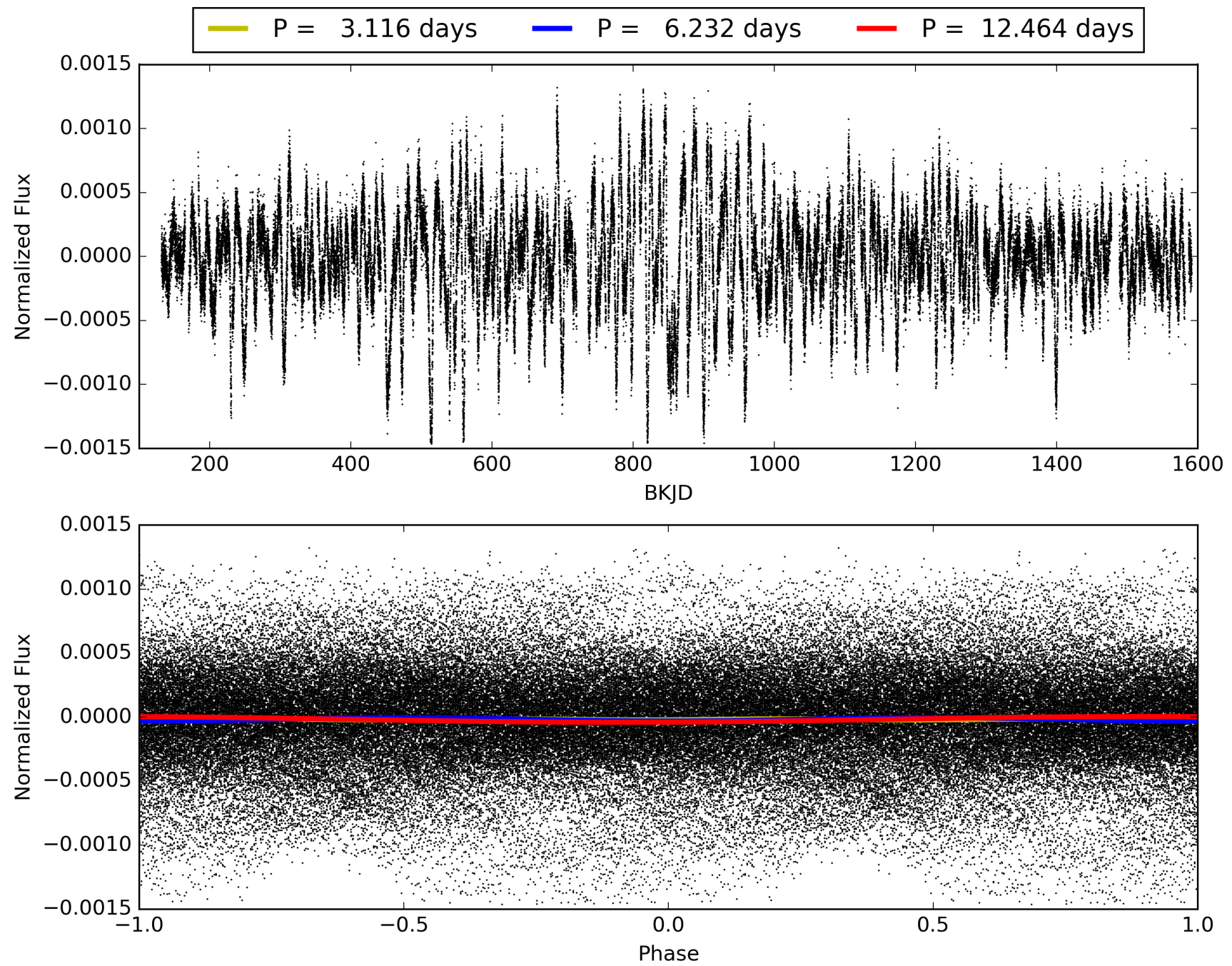
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:25:15 Z

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

TCE 007106173-03, PDC Light Curves

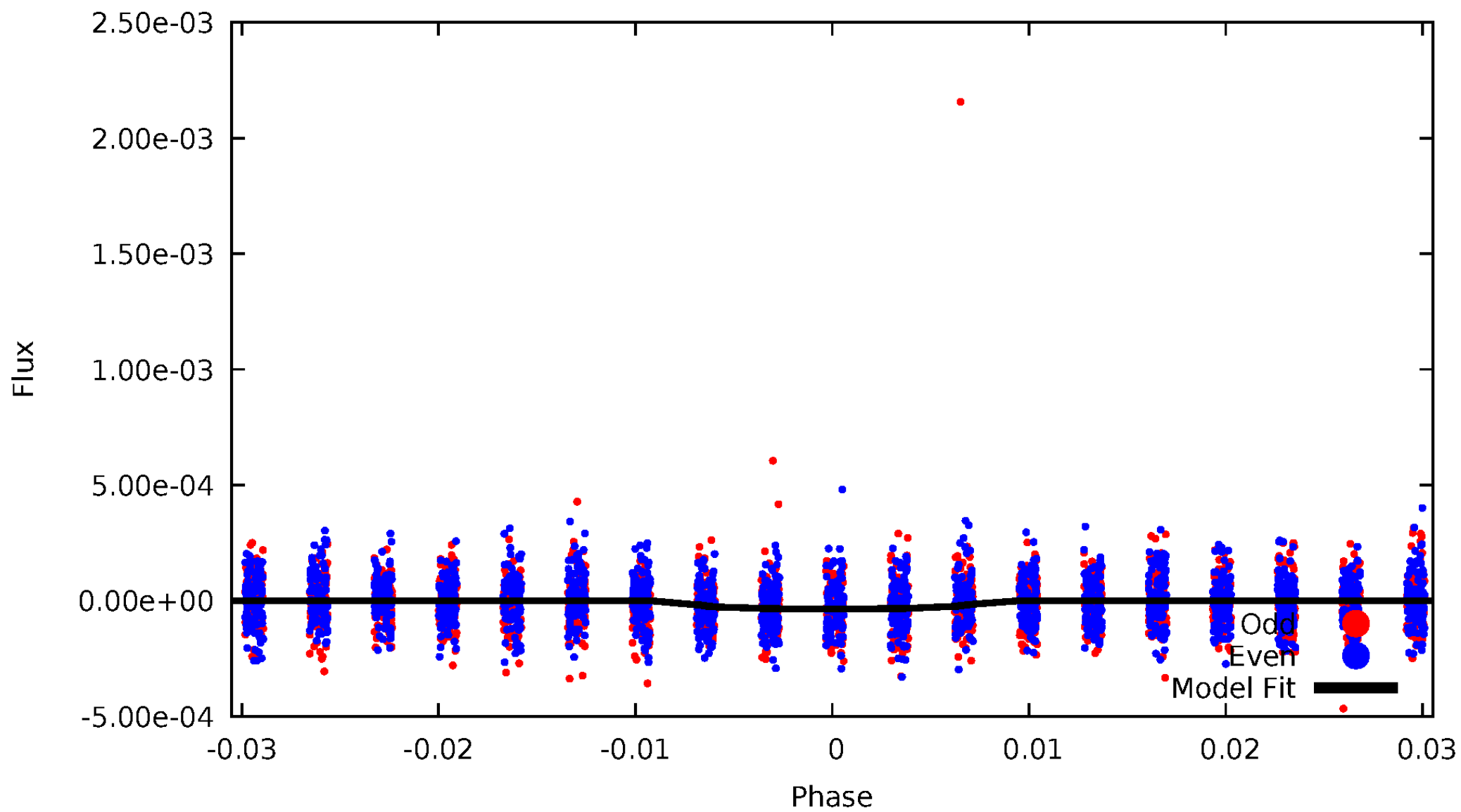


TCE 007106173-03



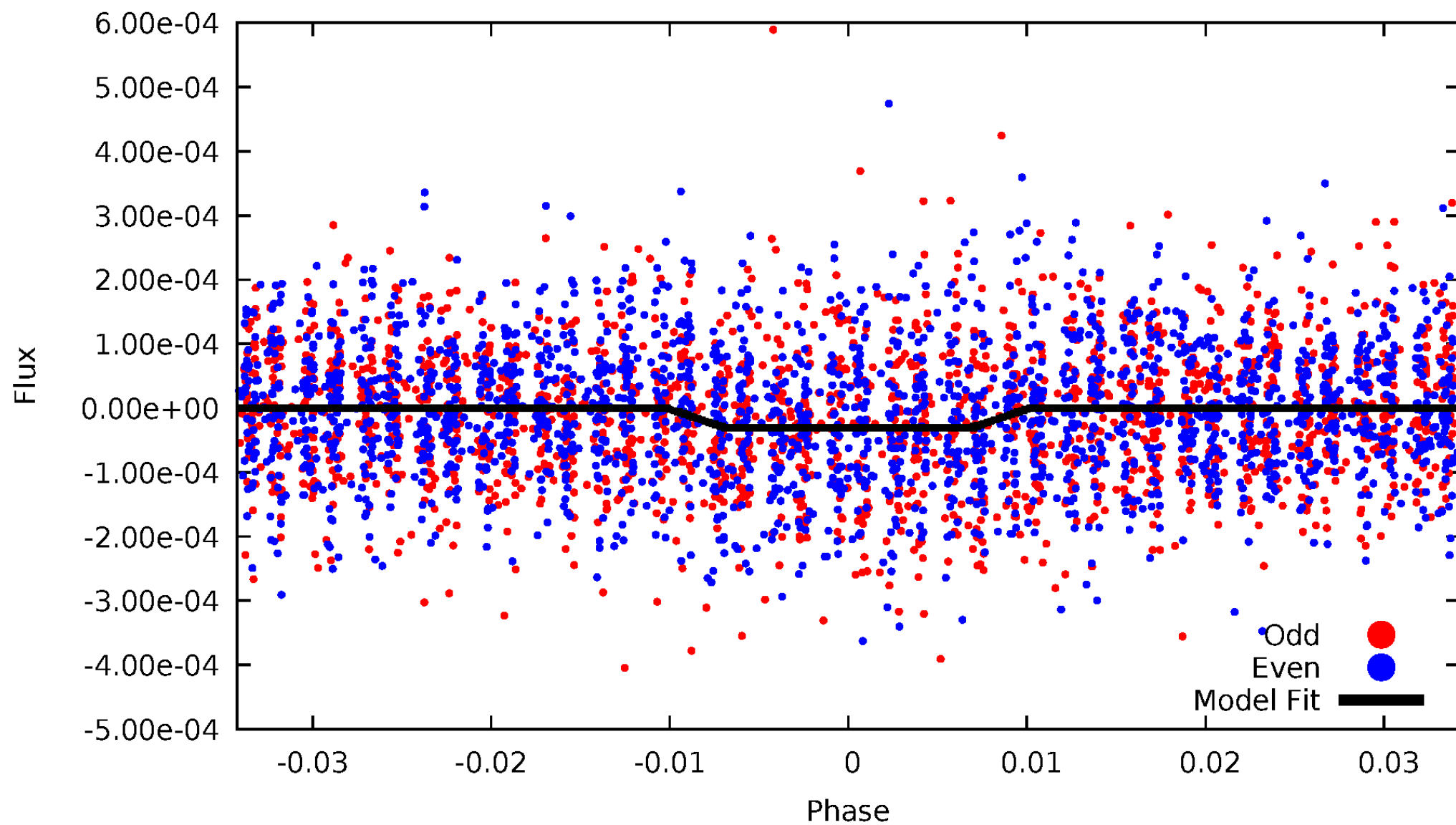
DV Odd/Even

TCE 007106173-03



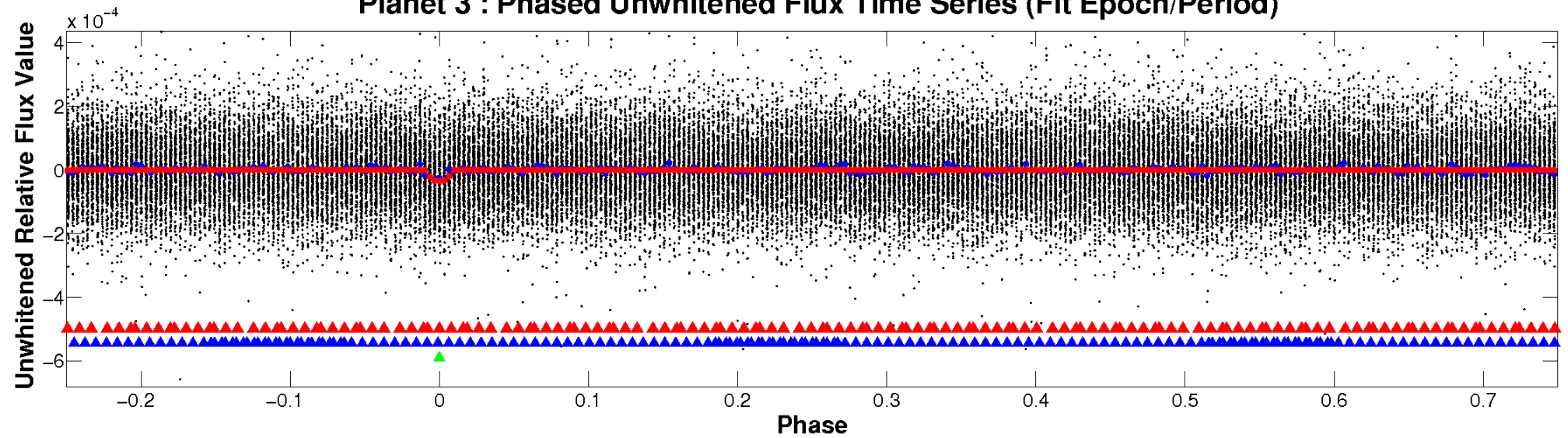
ALT Odd/Even

TCE 007106173-03

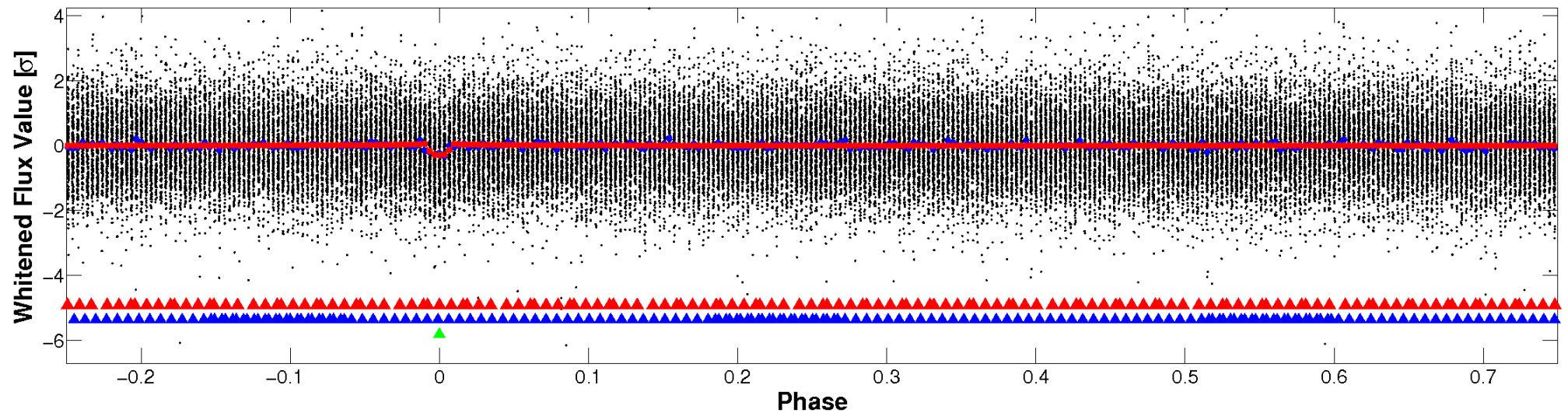


Non-Whitened Vs. Whitened Light Curve

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

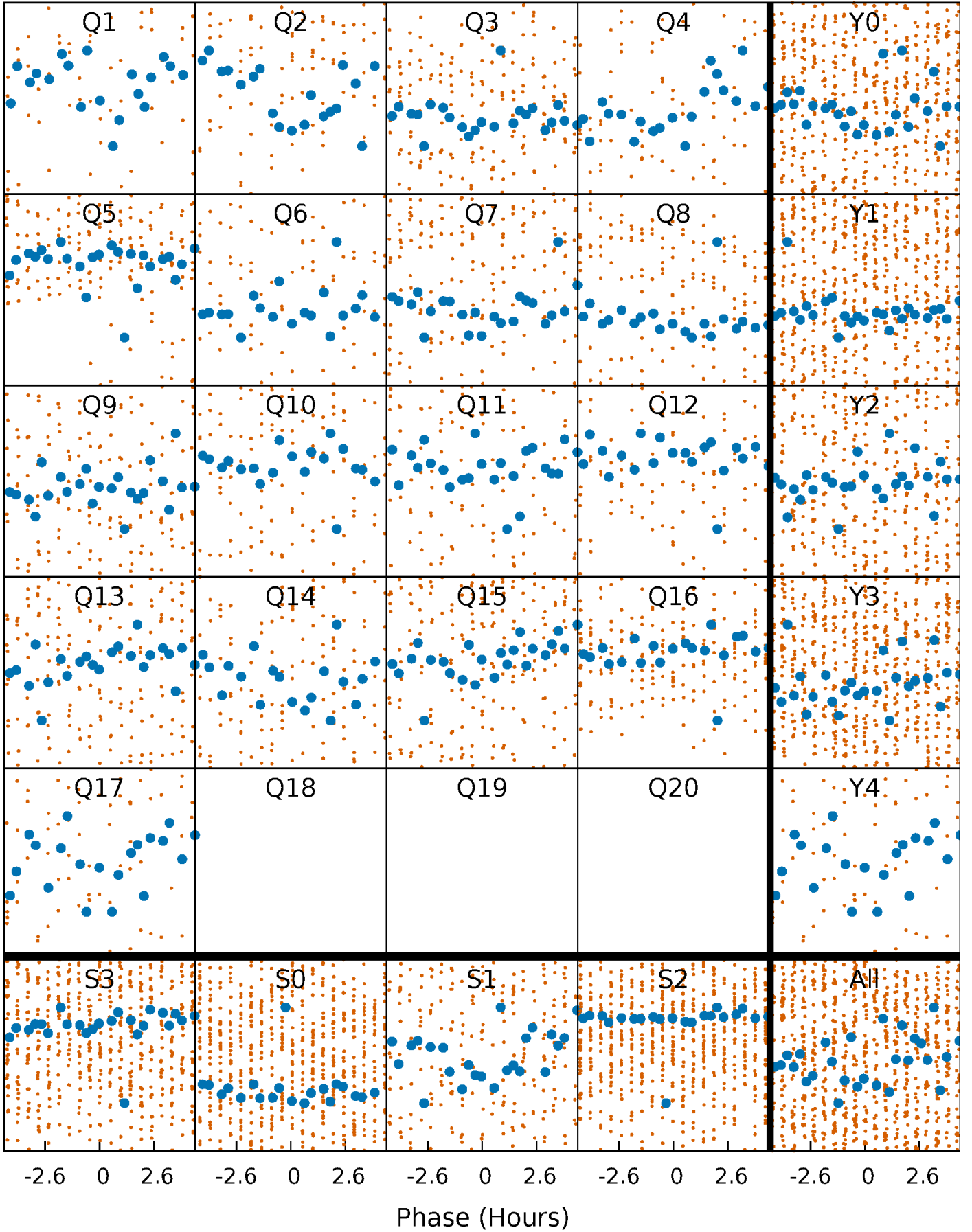


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



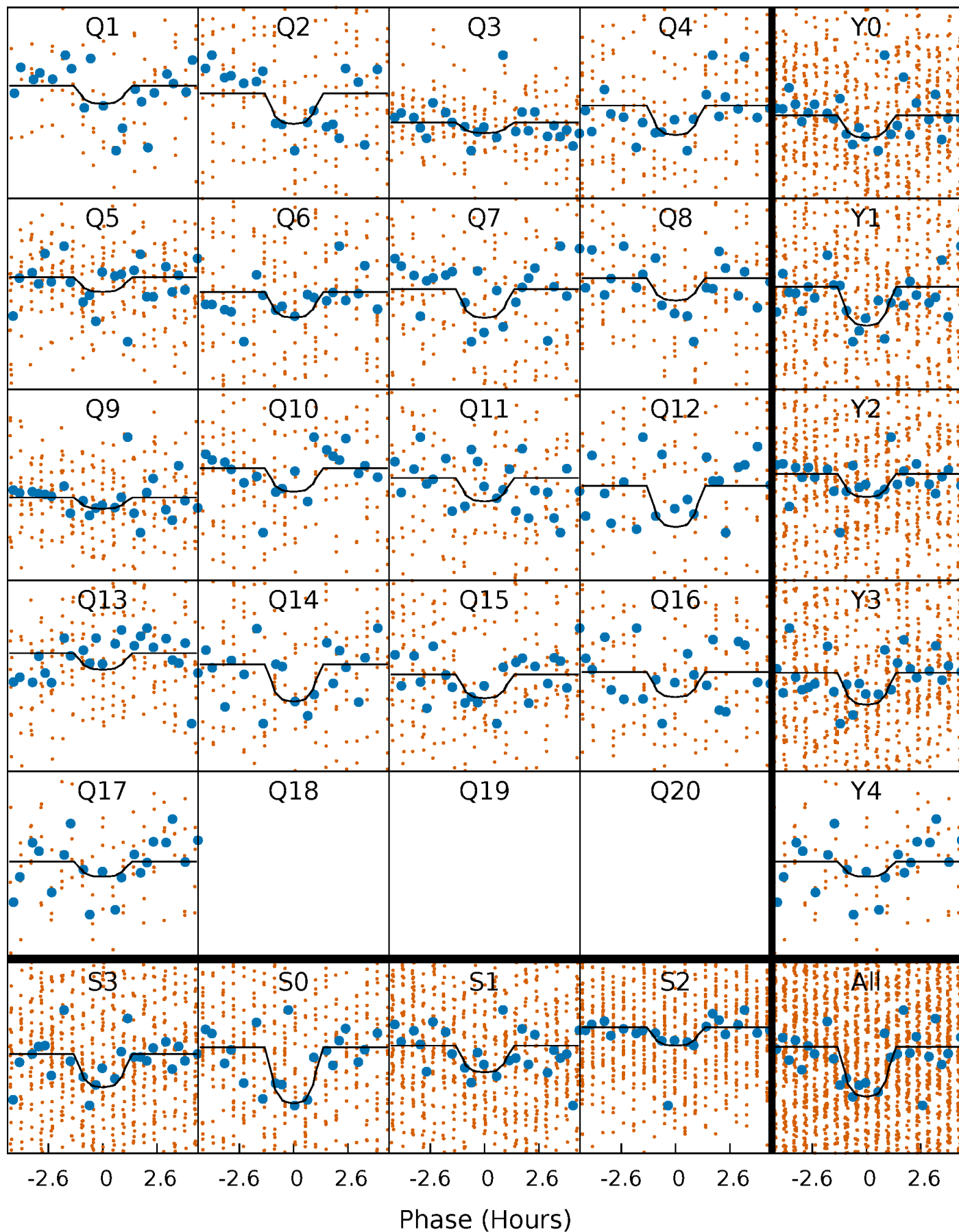
PDC Quarter-Phased Transit Curves

TCE 007106173-03 P= 6.232244 Days $T_0=135.230284$ (BKJD)



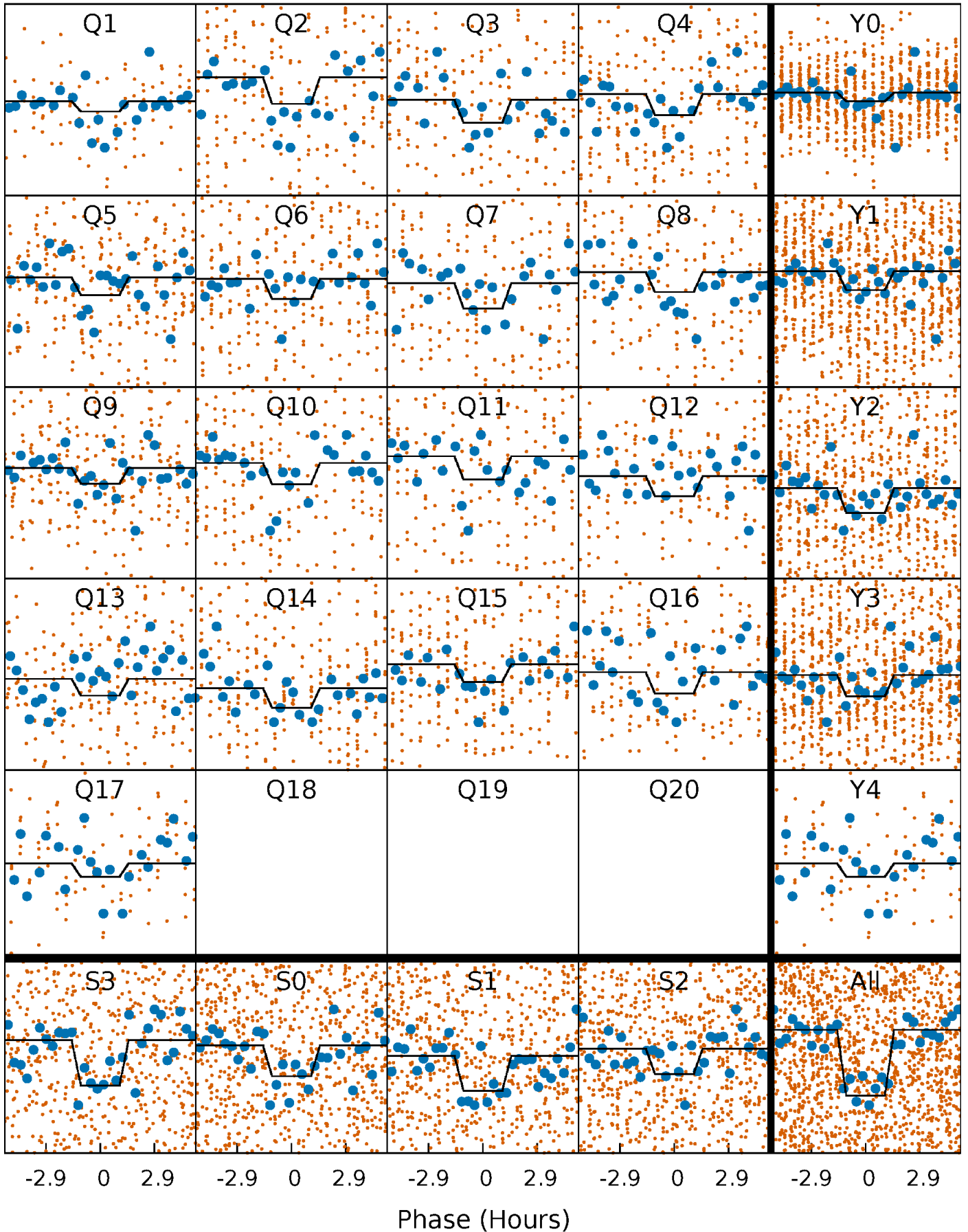
DV Quarter-Phased Transit Curves

TCE 007106173-03 P= 6.232244 Days $T_0=135.230284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

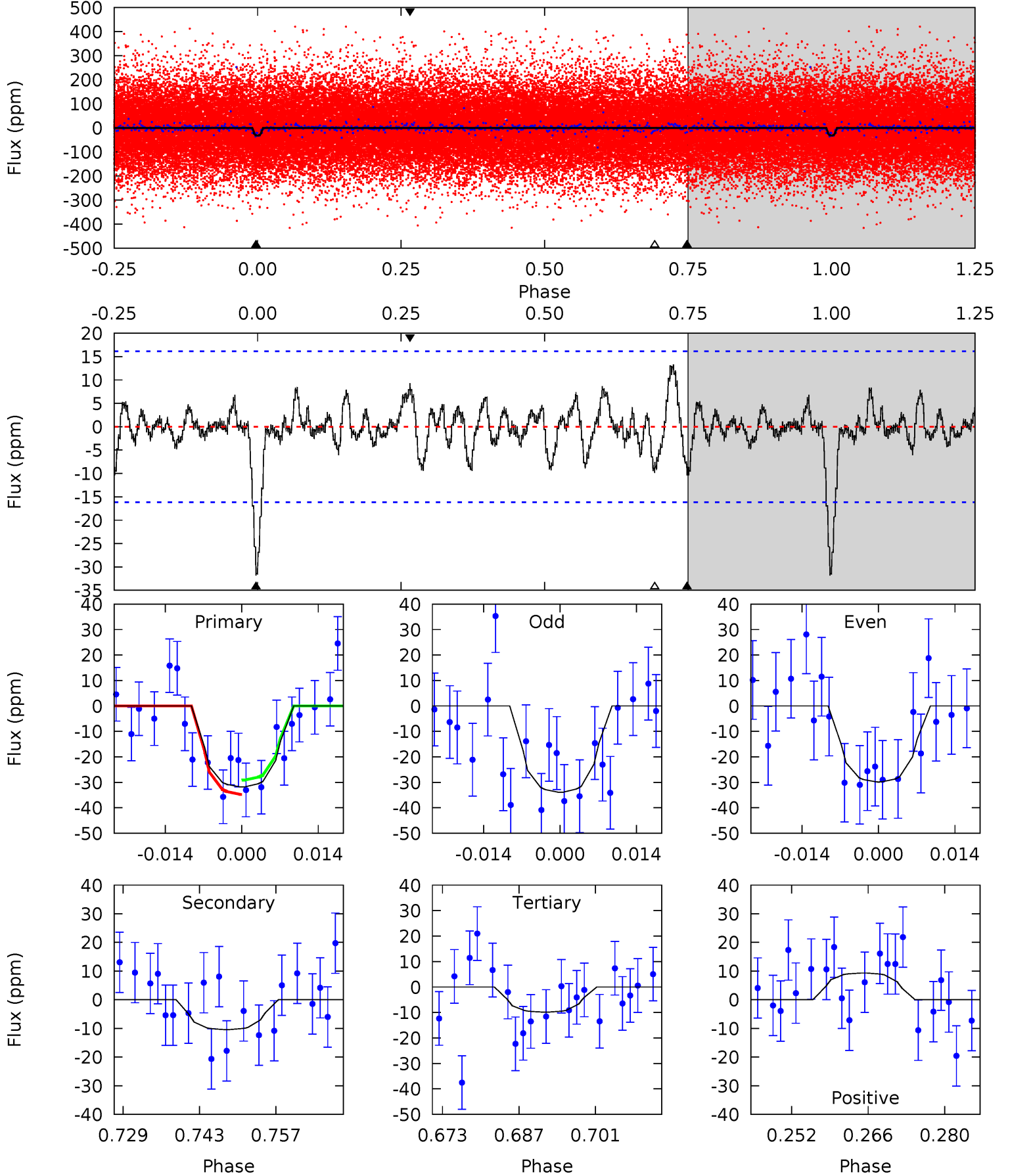
TCE 007106173-03 P= 6.232096 Days $T_0=135.237845$ (BKJD)



DV Model-Shift Uniqueness Test

007106173-03, P = 6.232244 Days, E = 128.998040 Days

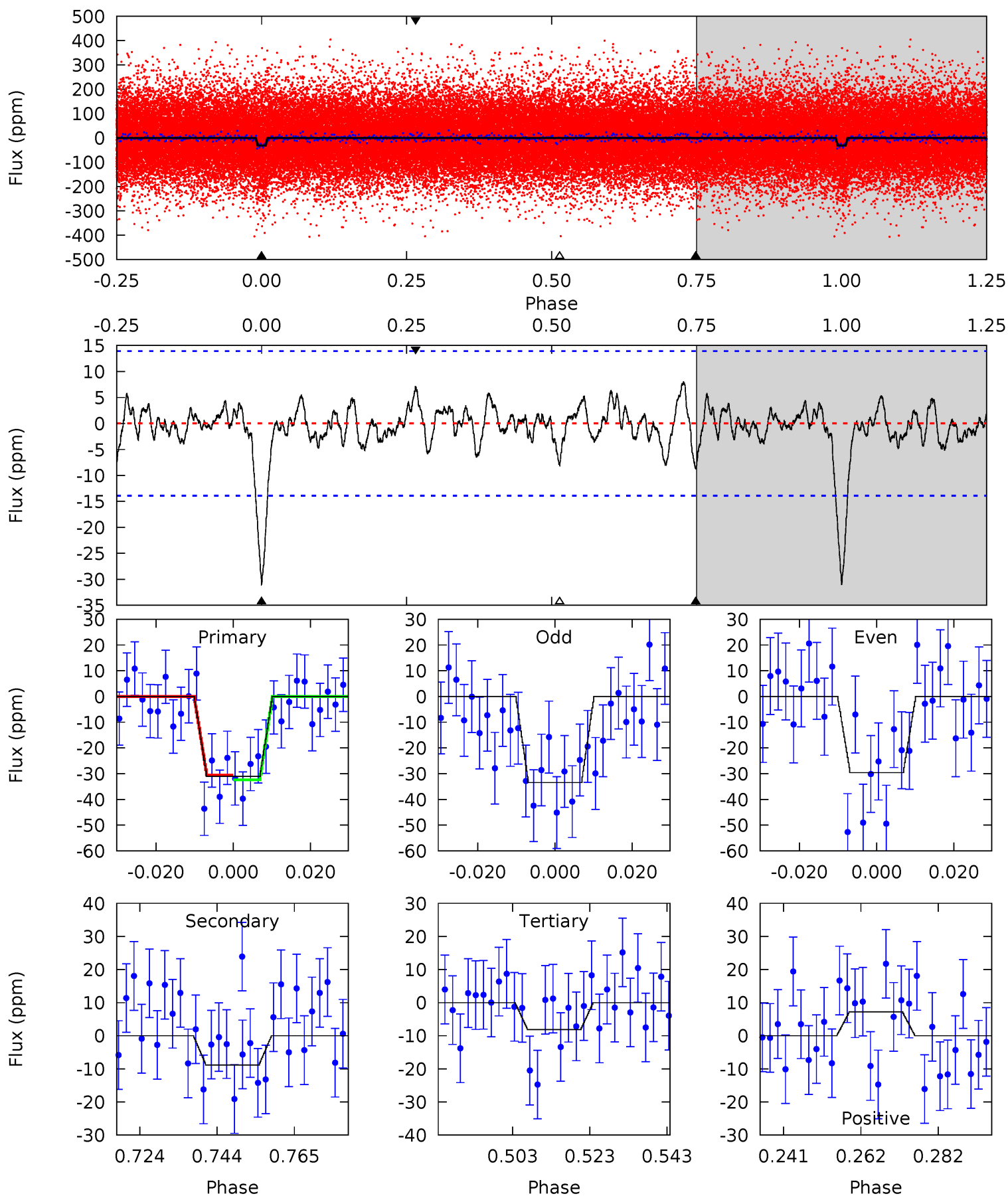
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.77	3.20	3.03	2.87	4.96	2.46	1.13	6.74	6.90	0.17	0.33	0.62	0.87	0.30	0.86



Alt Model-Shift Uniqueness Test

007106173-03, P = 6.232096 Days, E = 129.005749 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.10	2.86	2.53	4.89	2.32	0.96	8.04	8.37	0.24	0.57	0.68	1.11	0.21	0.33



Stellar Parameters For KIC 007106173

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5843^{+104}_{-127}	$4.421^{+0.040}_{-0.120}$	$0.400^{+0.050}_{-0.150}$	$1.084^{+0.177}_{-0.071}$	$1.131^{+0.061}_{-0.068}$	$1.249^{+0.201}_{-0.427}$
	+2%/-2%	+1%/-3%	+12%/-37%	+16%/-7%	+5%/-6%	+16%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 007106173-03 / KOI 3083.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$0.85^{+0.53}_{-0.46}$	1437^{+61}_{-42}	4189^{+1579}_{-666}	37^{+133}_{-23}
Alt.	-9 ± 3	$0.74^{+0.52}_{-0.45}$	1438^{+60}_{-44}	4194^{+2287}_{-656}	38^{+229}_{-25}

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

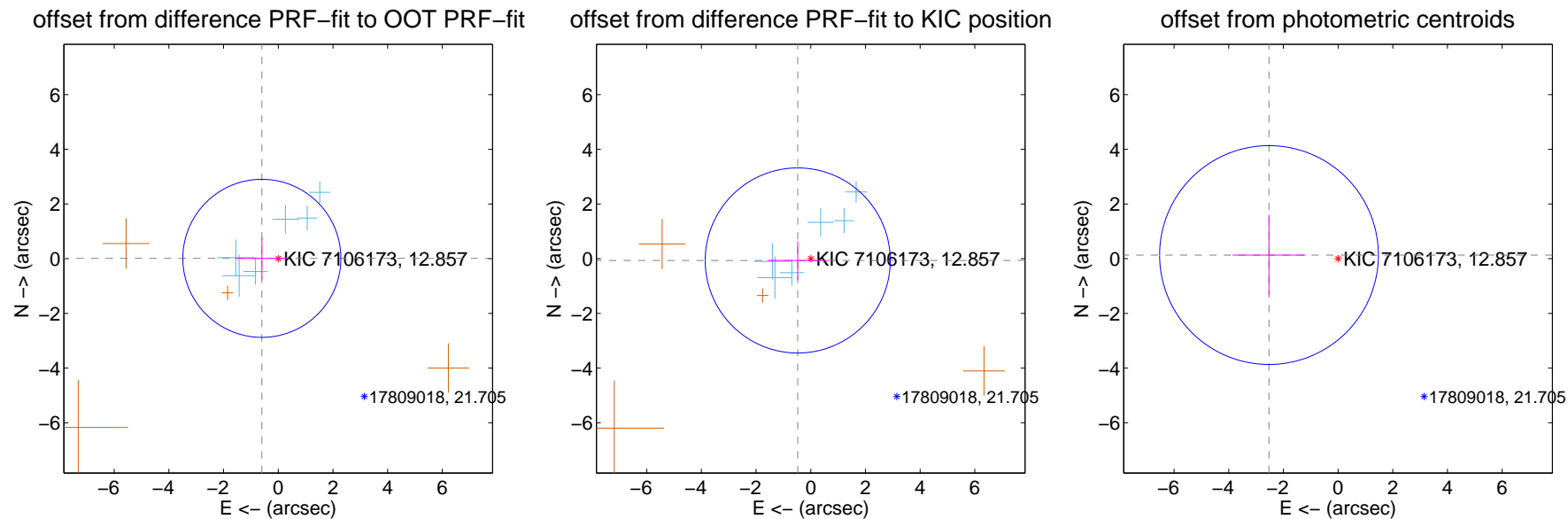
DV Centroid Data

Supplemental centroid analysis for 007106173-03. Kepler magnitude: 12.86. Transit SNR 7.49

There are 6 quarters with good PRF difference image offsets

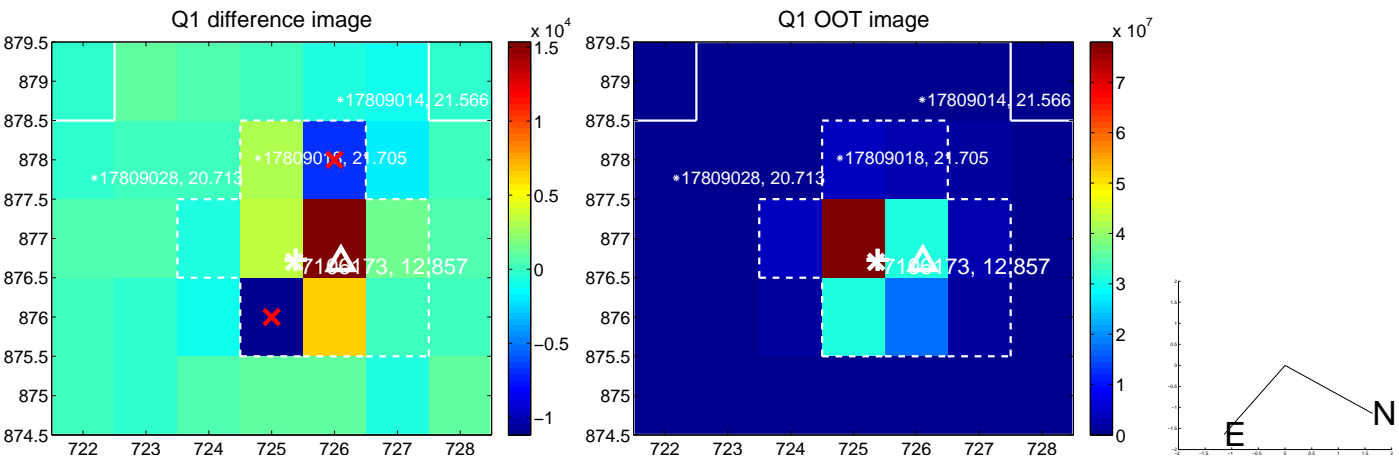
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.600 ± 0.964	0.62	0.600 ± 0.969	0.013 ± 0.764
PRF-fit source offset from KIC position	0.481 ± 1.128	0.43	0.477 ± 1.108	-0.065 ± 0.701
photometric centroid source offset	2.53 ± 1.33	1.90	2.53 ± 1.33	0.13 ± 1.47

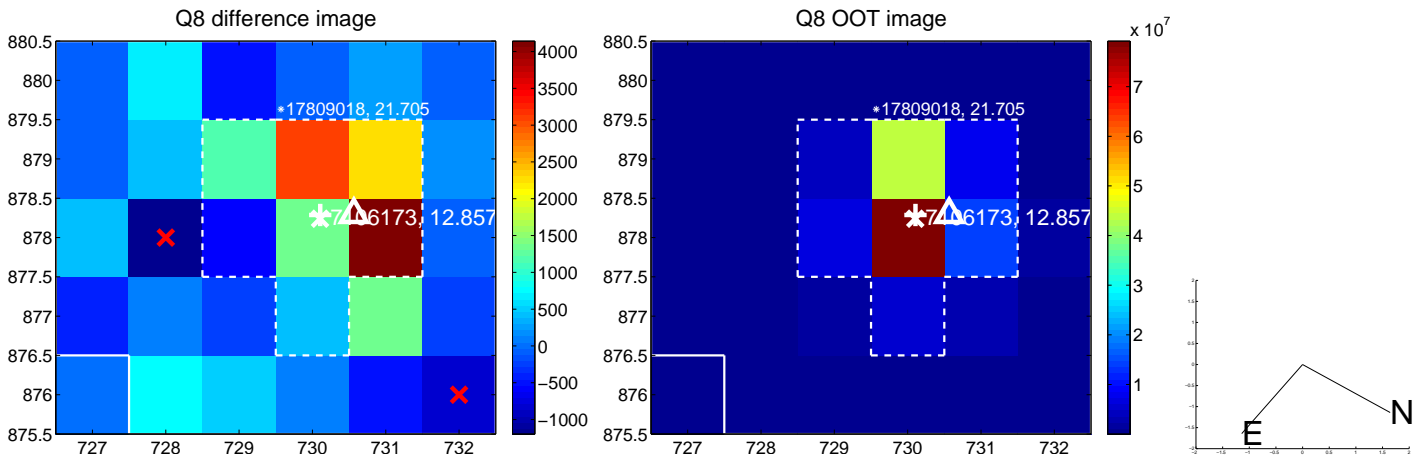
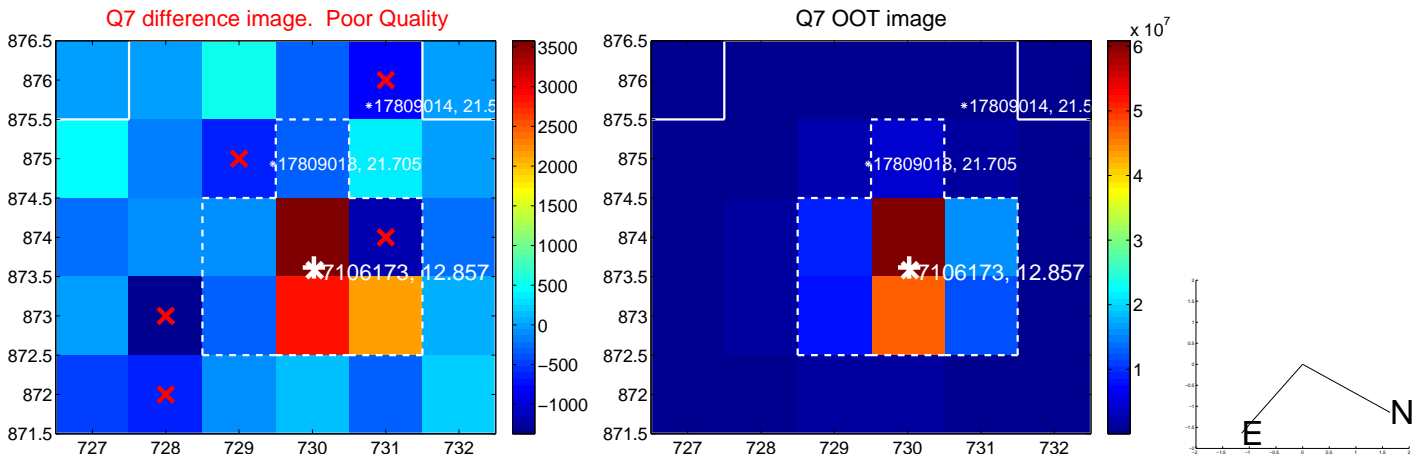
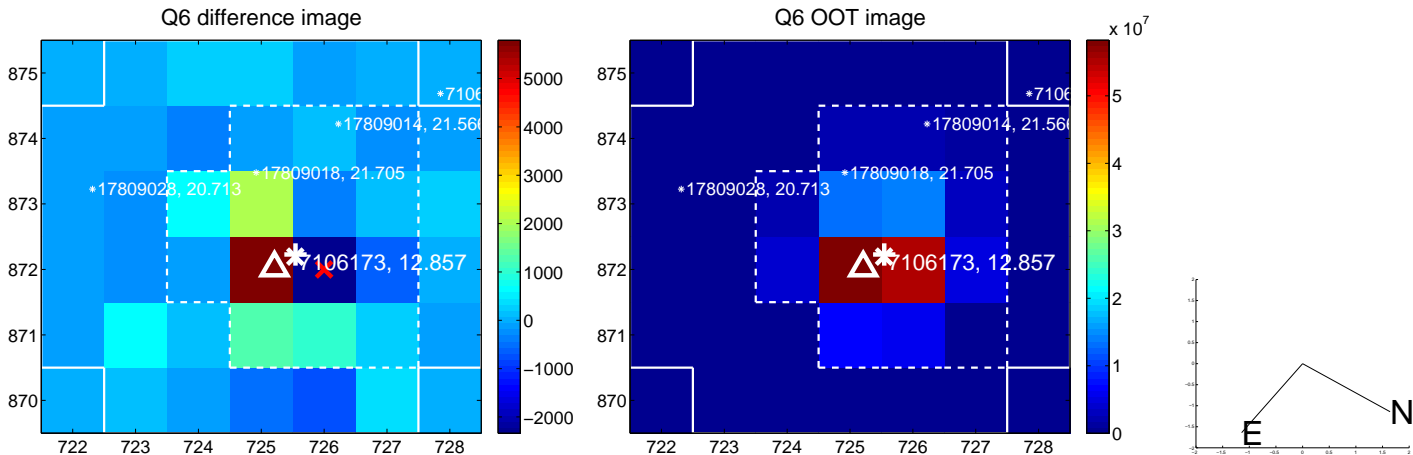
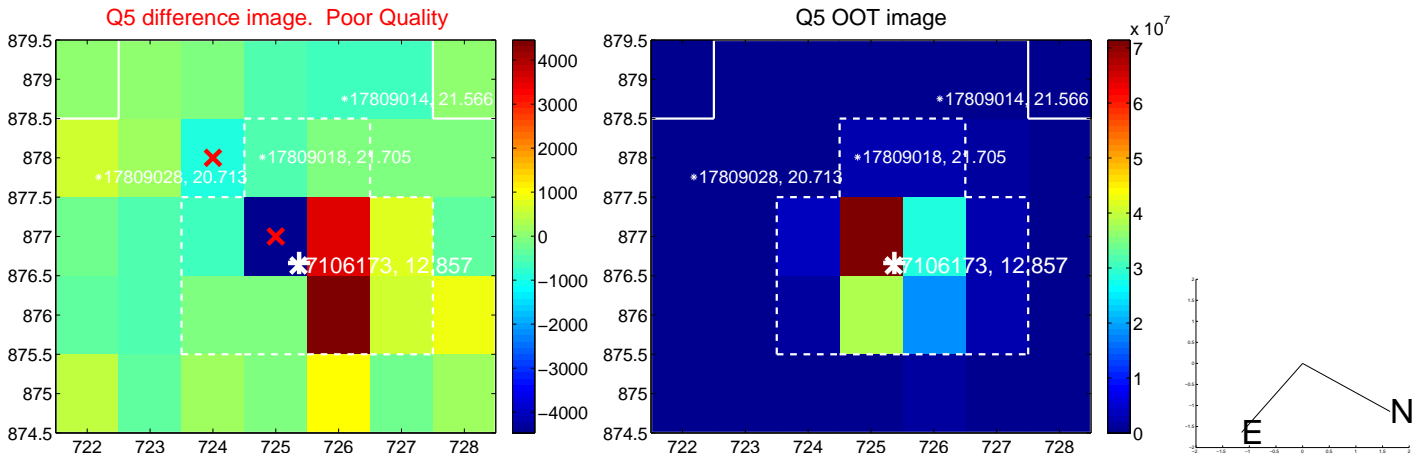


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

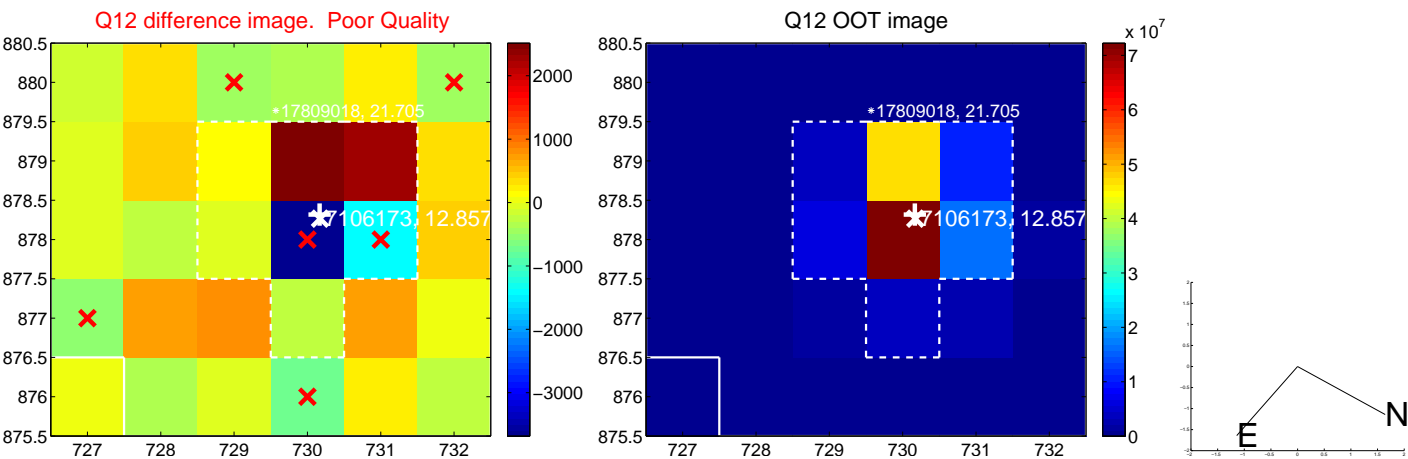
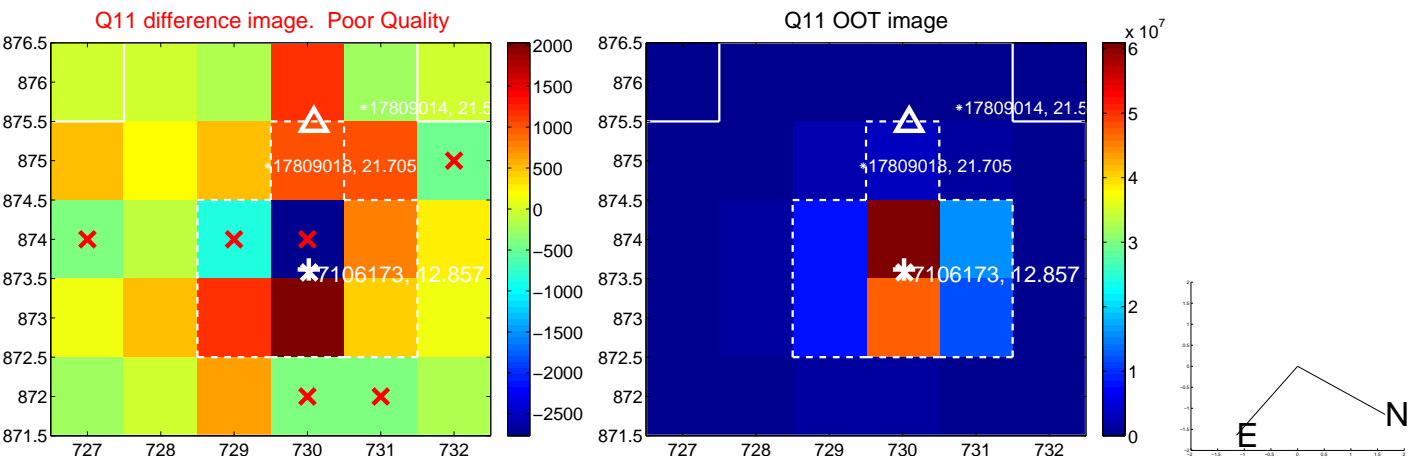
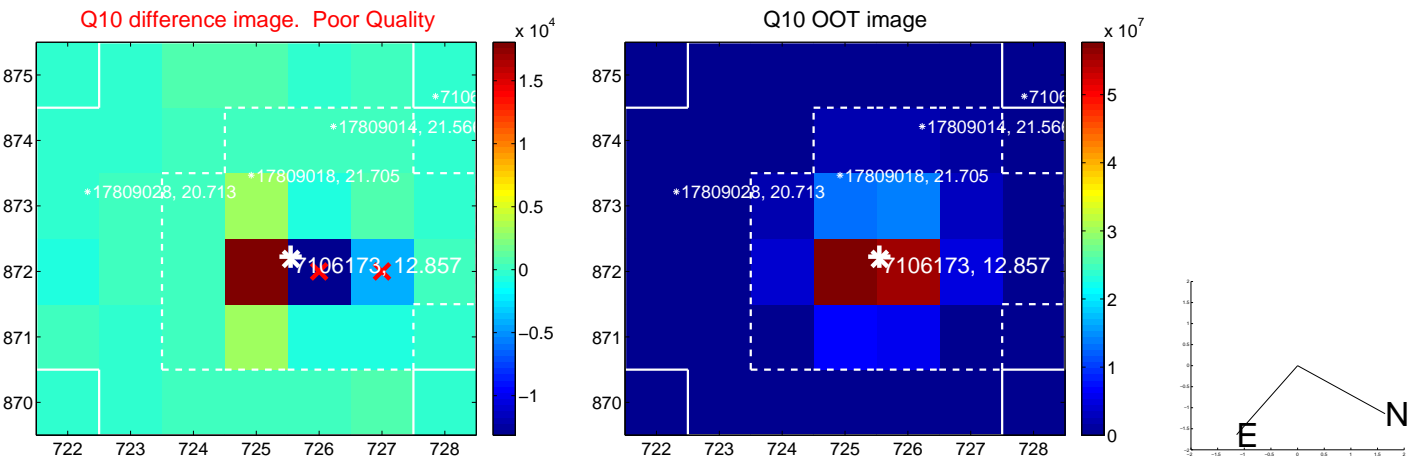
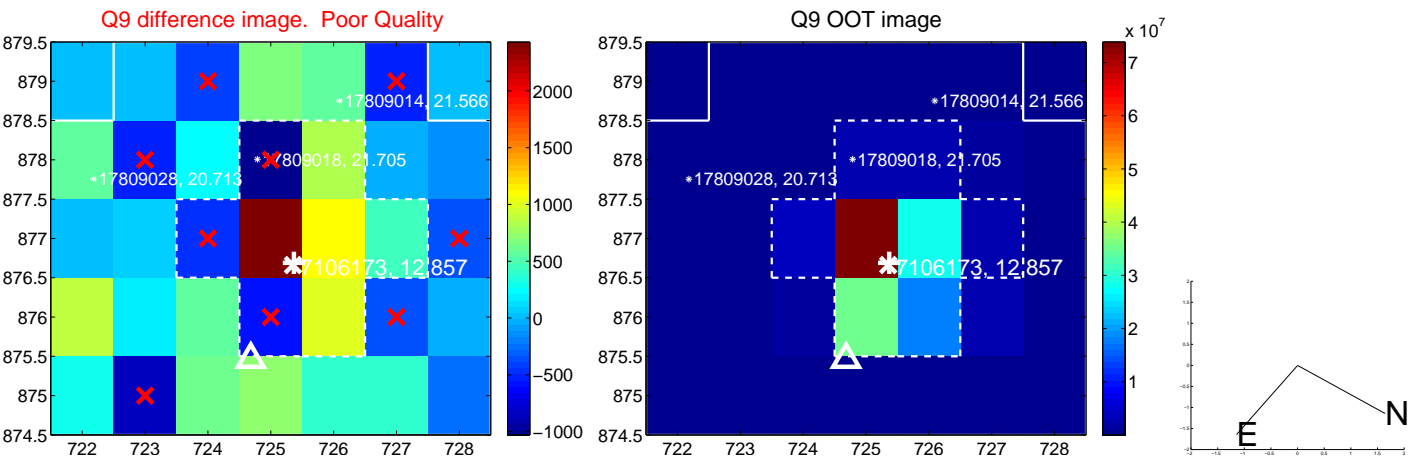
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



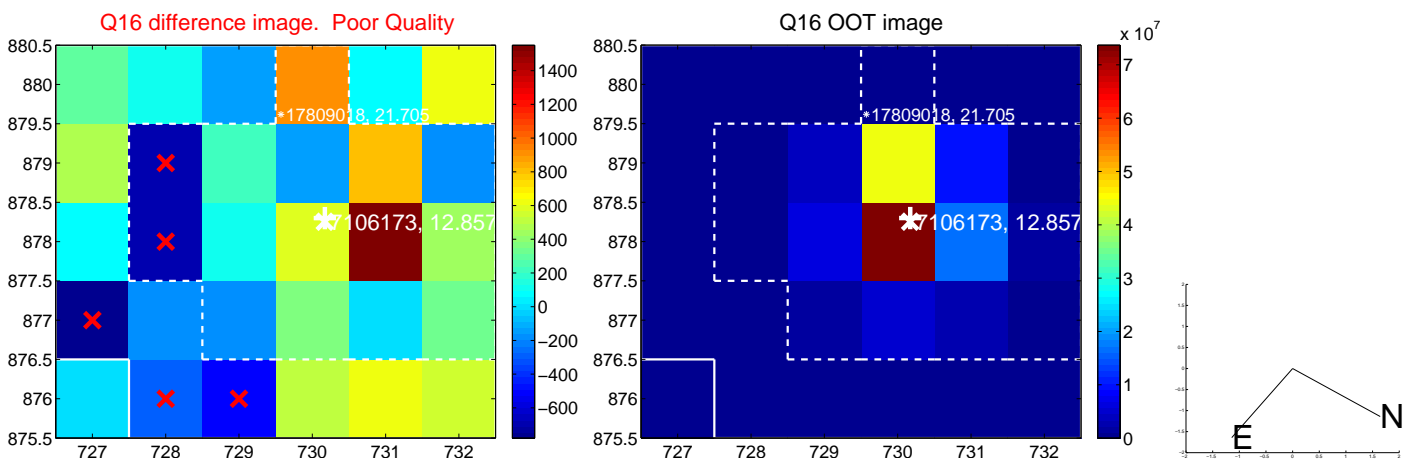
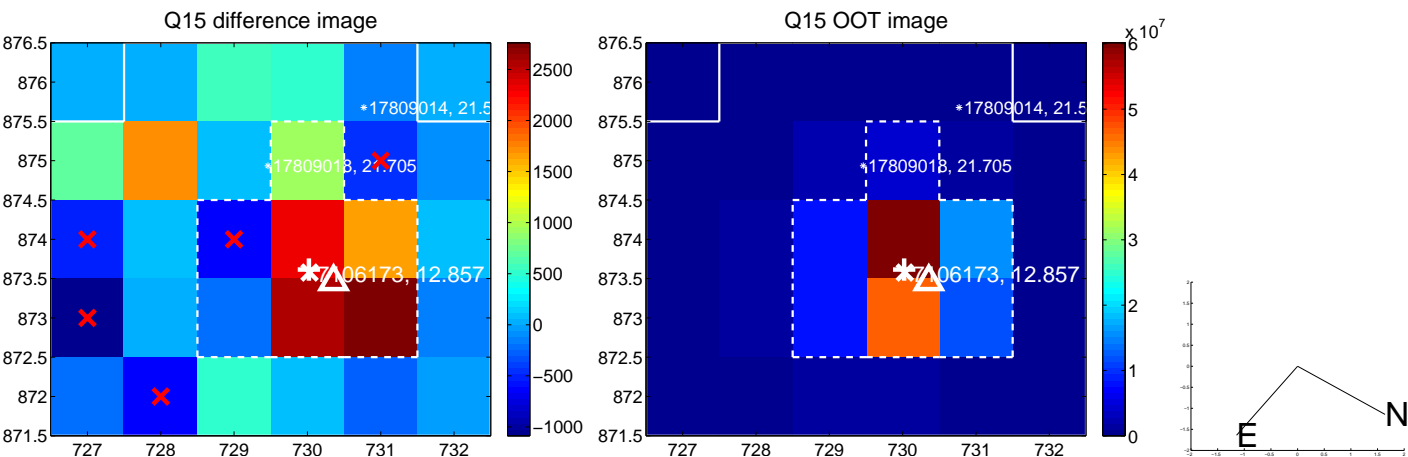
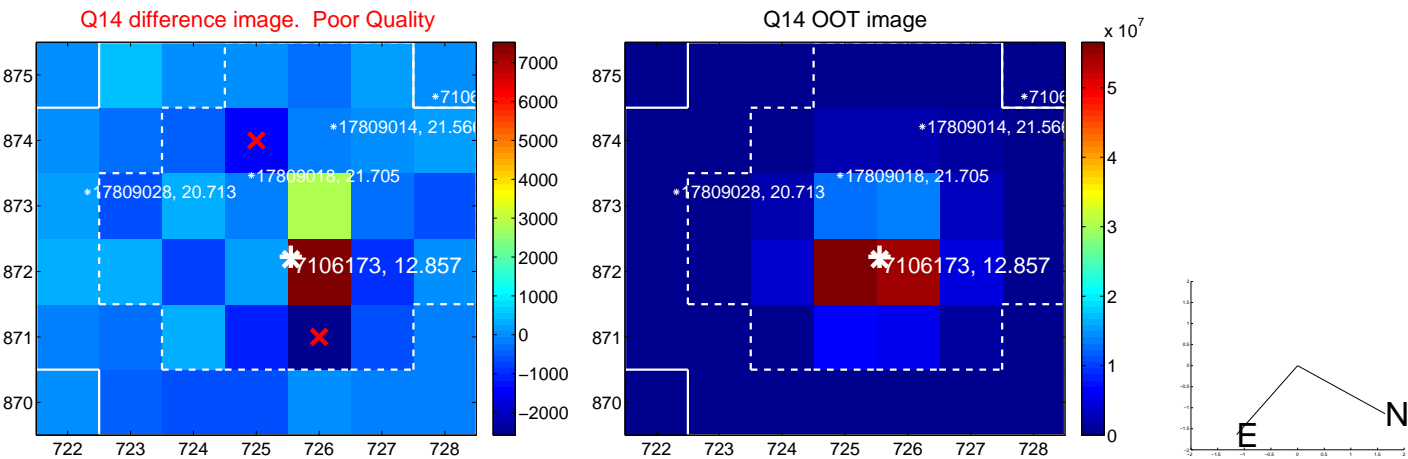
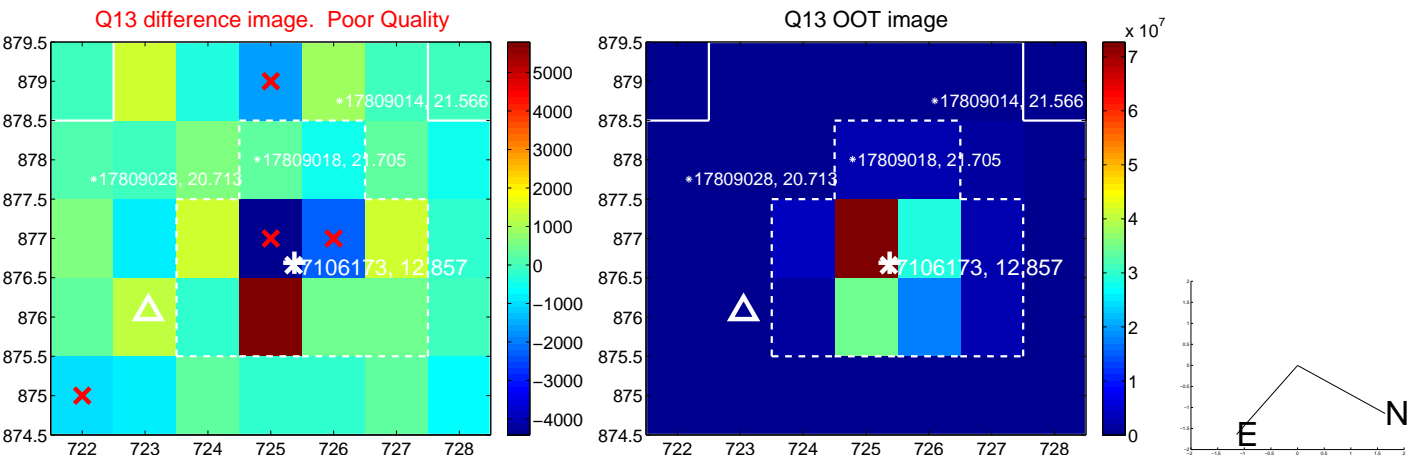
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



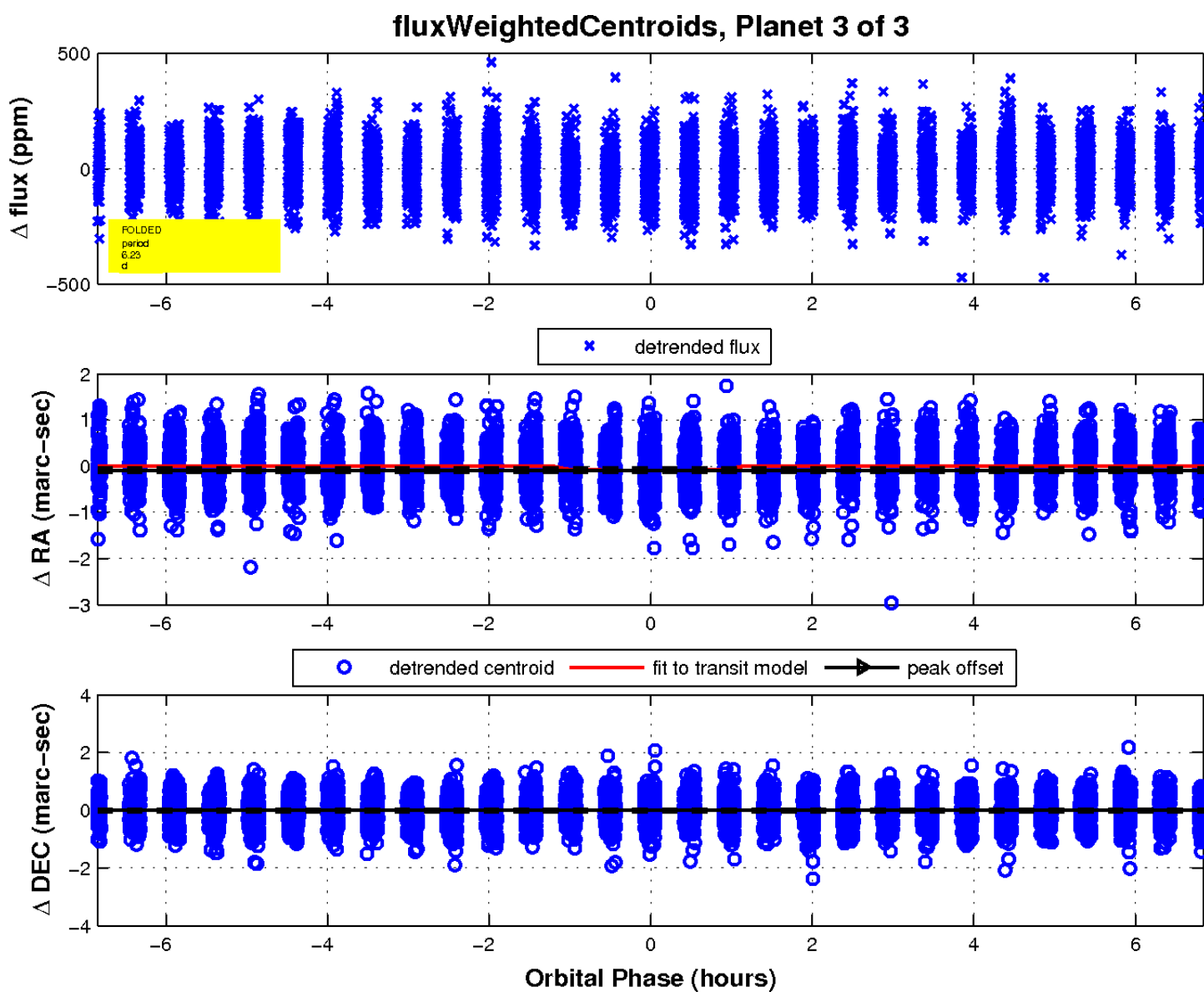
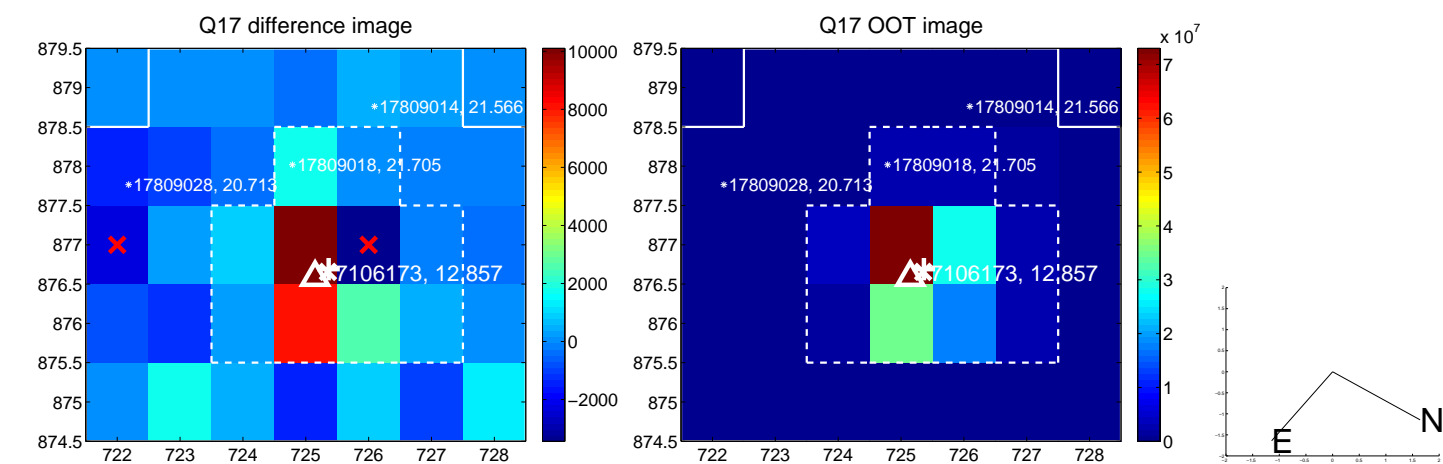
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

