

KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
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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.

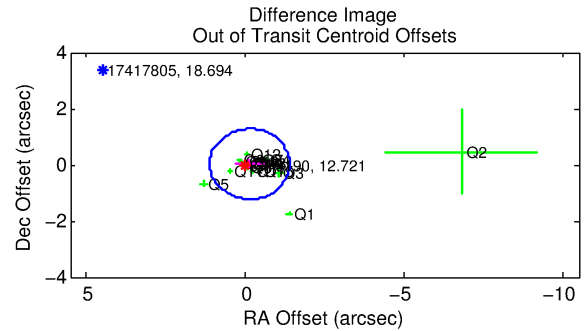
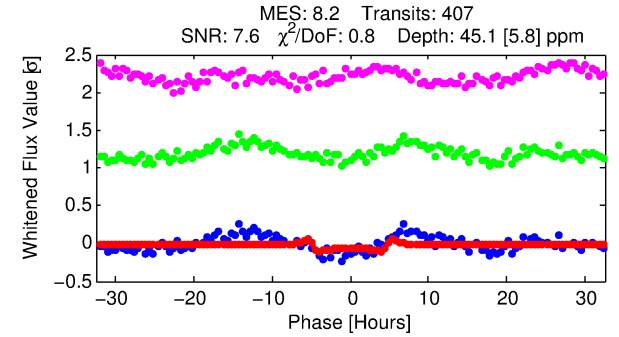
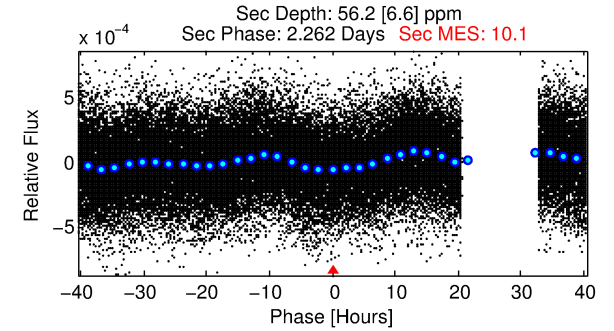
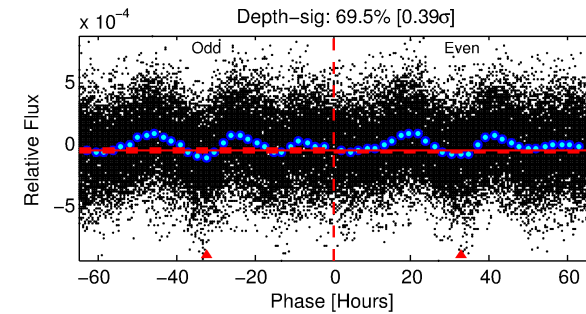
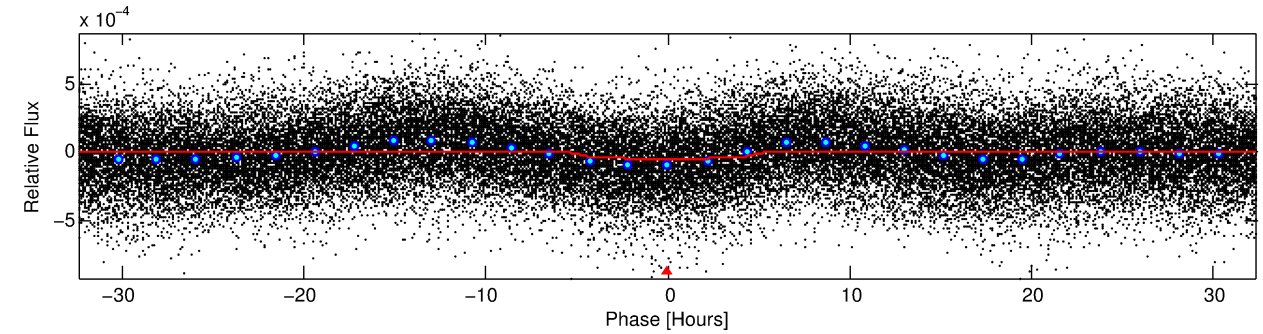
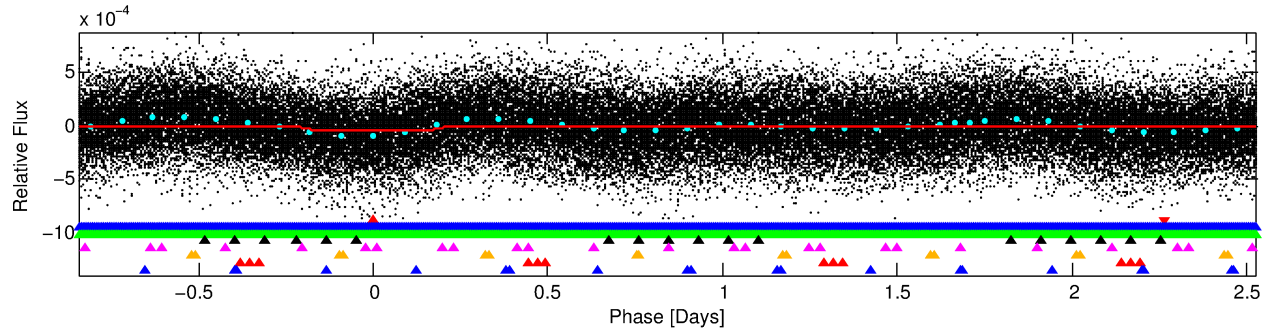
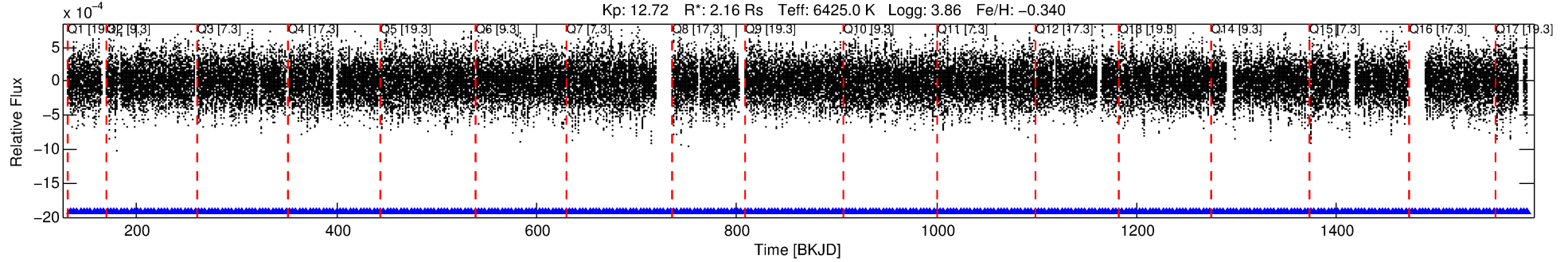
Ephemeris Match Information For 008179190-01

No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 1 of 8 Period: 3.372 d
KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



DV Fit Results:

Period = 3.37212 [0.00005] d
Epoch = 133.8130 [0.0087] BKJD
Rp/R* = 0.0079 [0.0006]
a/R* = 1.17 [0.06]
b = 0.97 [0.01]
Seff = 3187.76 [1659.96]
Teq = 1916 [249] K
Rp = 1.87 [0.62] Re
a = 0.0473 [0.0150] AU
Ag = 19.68 [10.67] [1.75σ]
Teffp = 6240 [337] K [10.30σ]

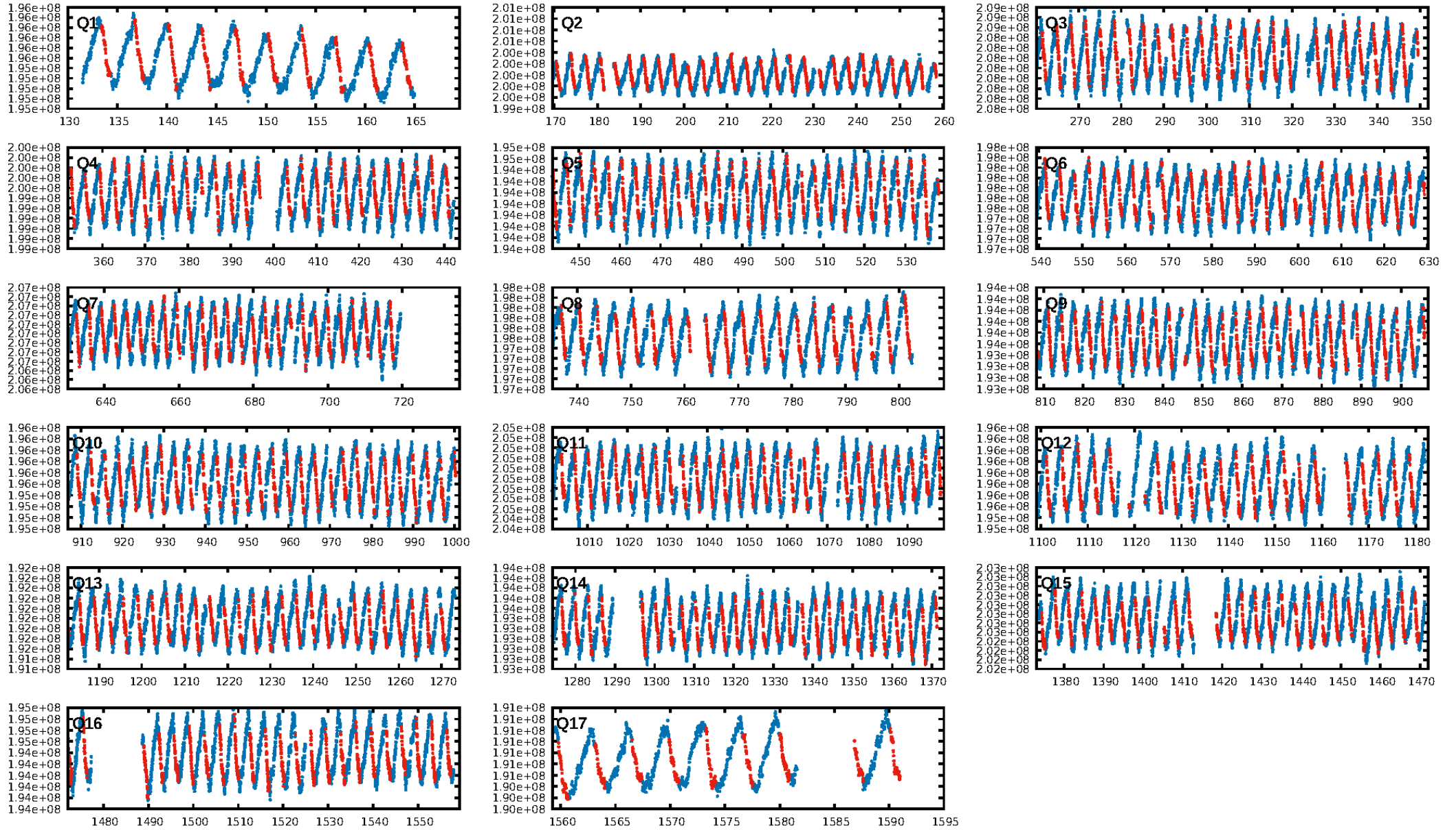
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.00σ]
LongPeriod-sig: 100.0% [107.41σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [388/388]
GhostDiagnostic-chr: 0.921
Centroid-sig: 0.7%
Centroid-so: 0.632 arcsec [1.78σ]
OotOffset-rm: 0.143 arcsec [0.34σ]
KicOffset-rm: 0.054 arcsec [0.13σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 0.00 [0/17]

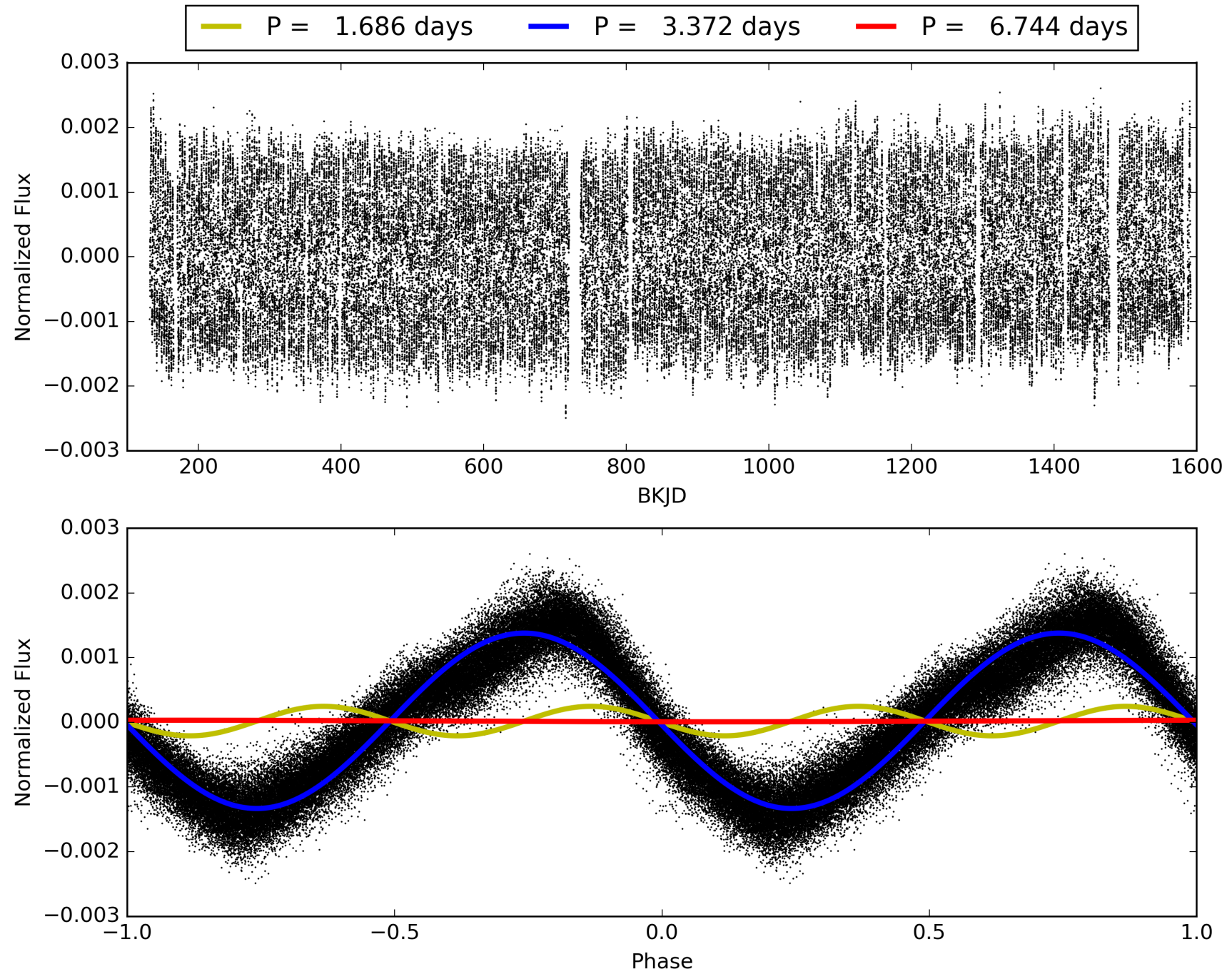
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:15 Z

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

TCE 008179190-01, PDC Light Curves

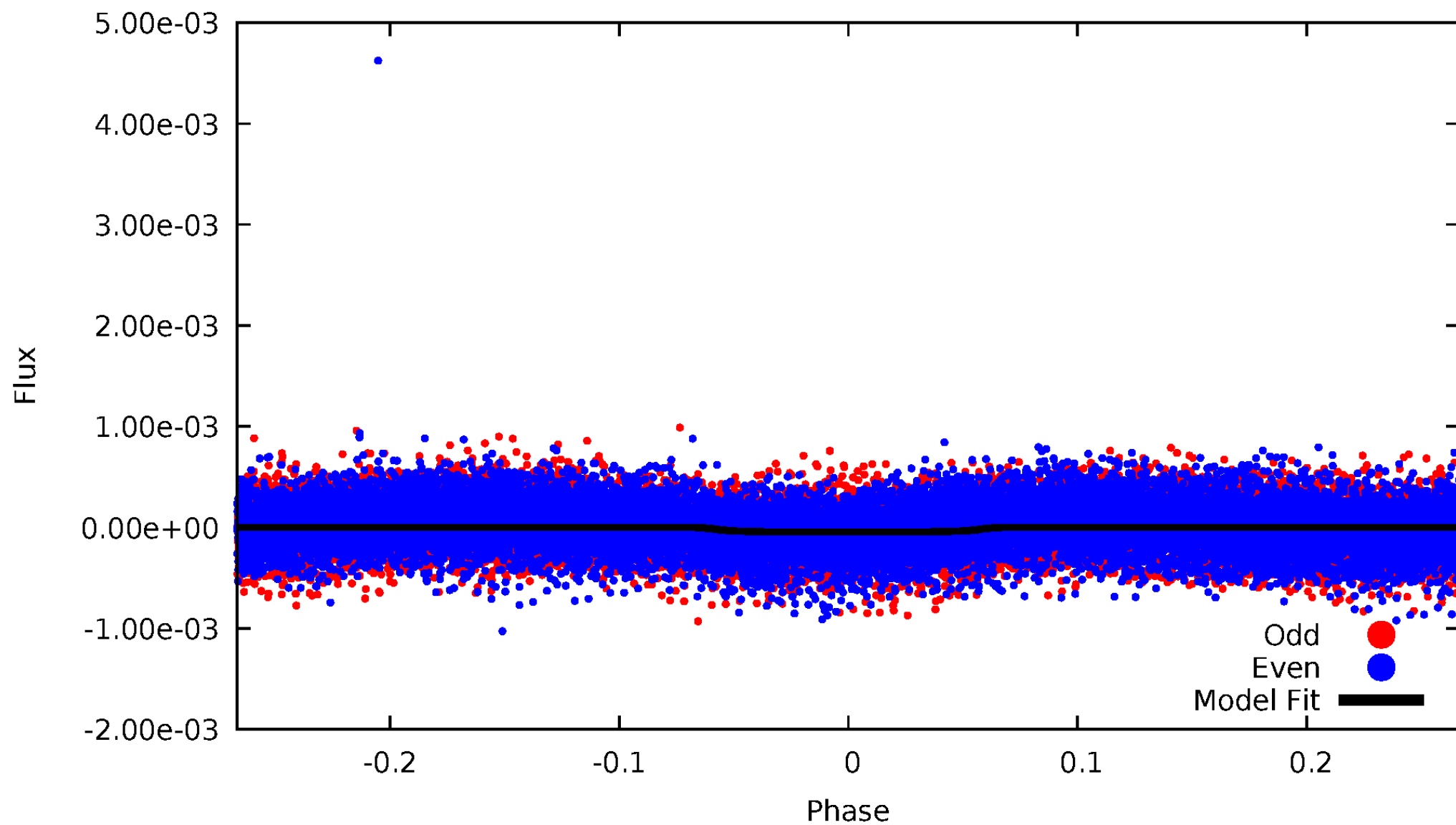


TCE 008179190-01



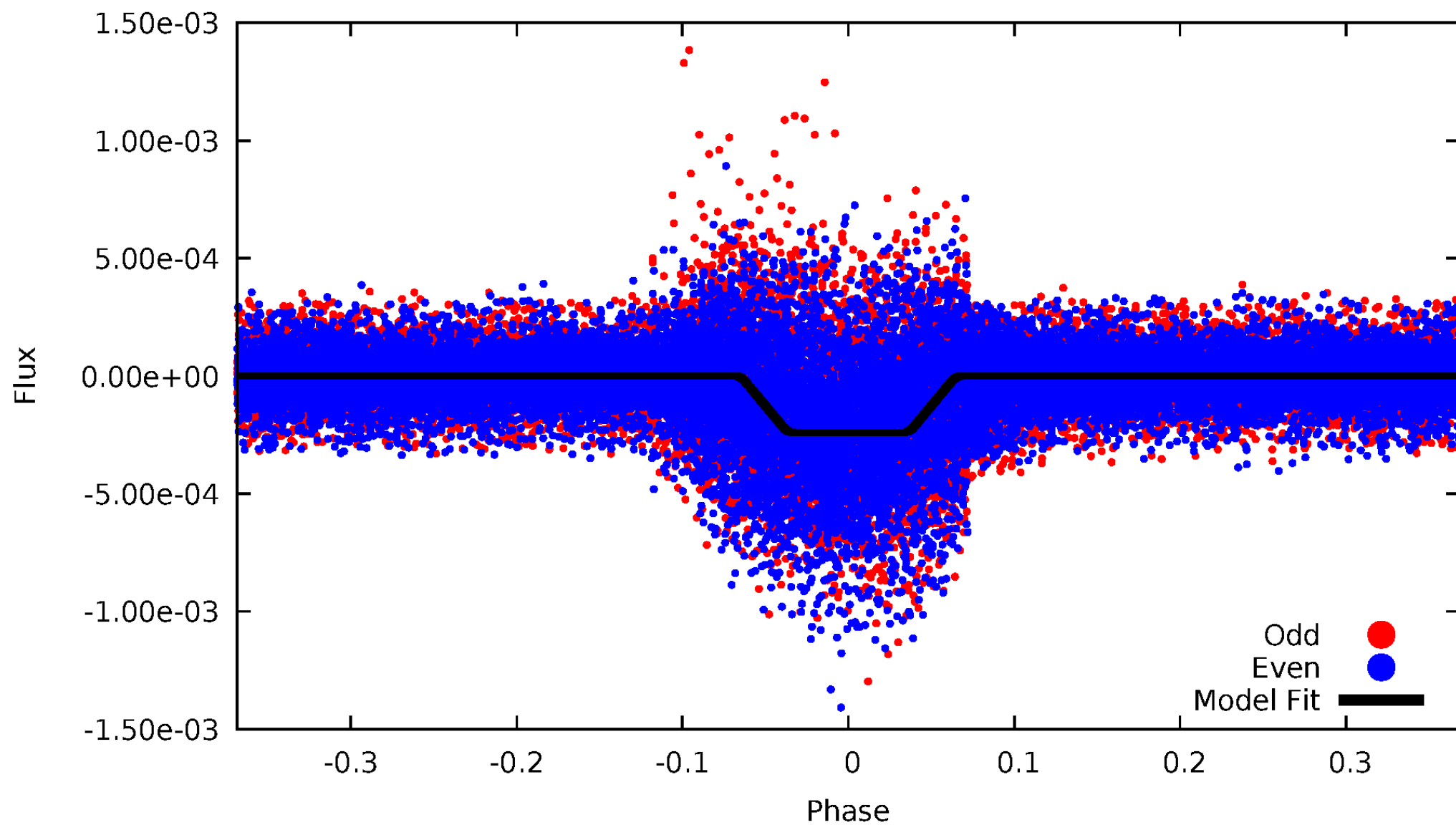
DV Odd/Even

TCE 008179190-01

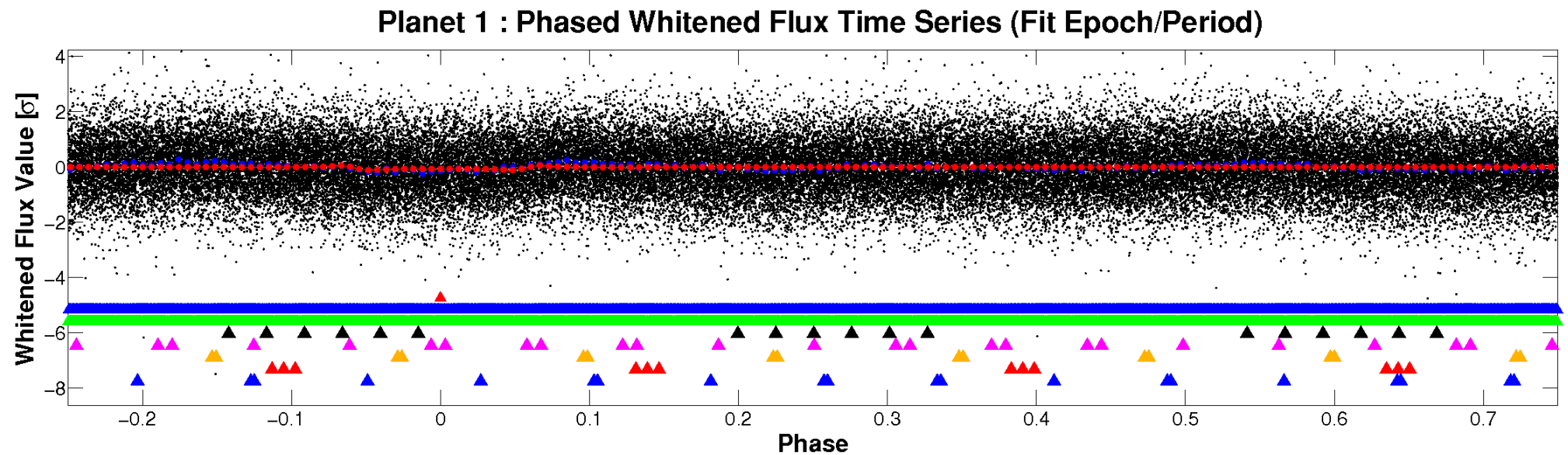
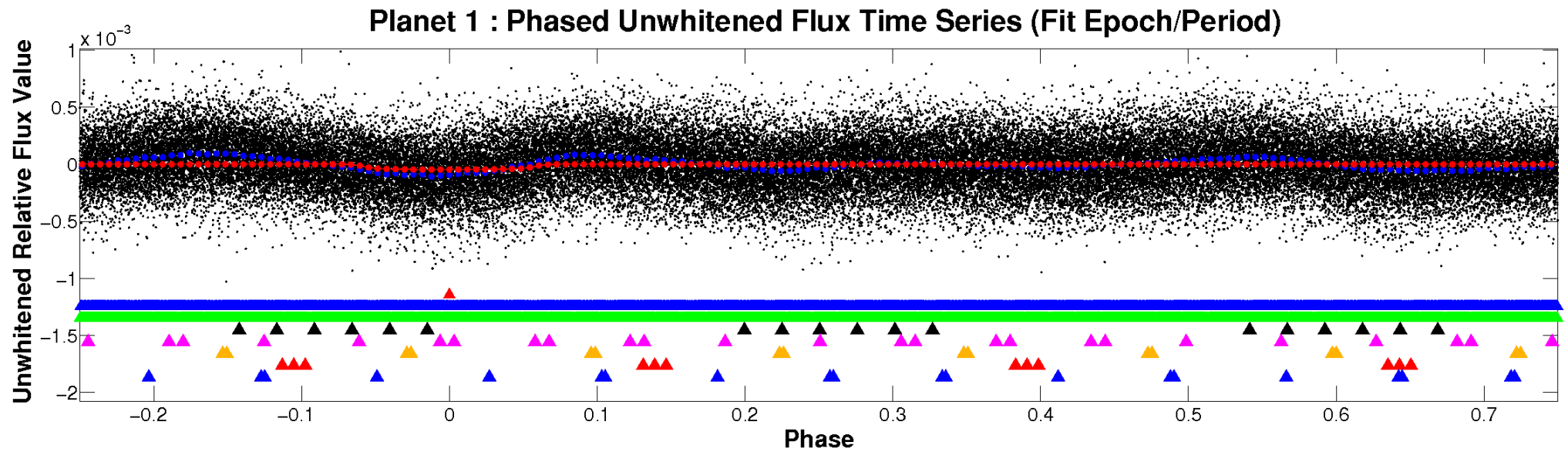


ALT Odd/Even

TCE 008179190-01

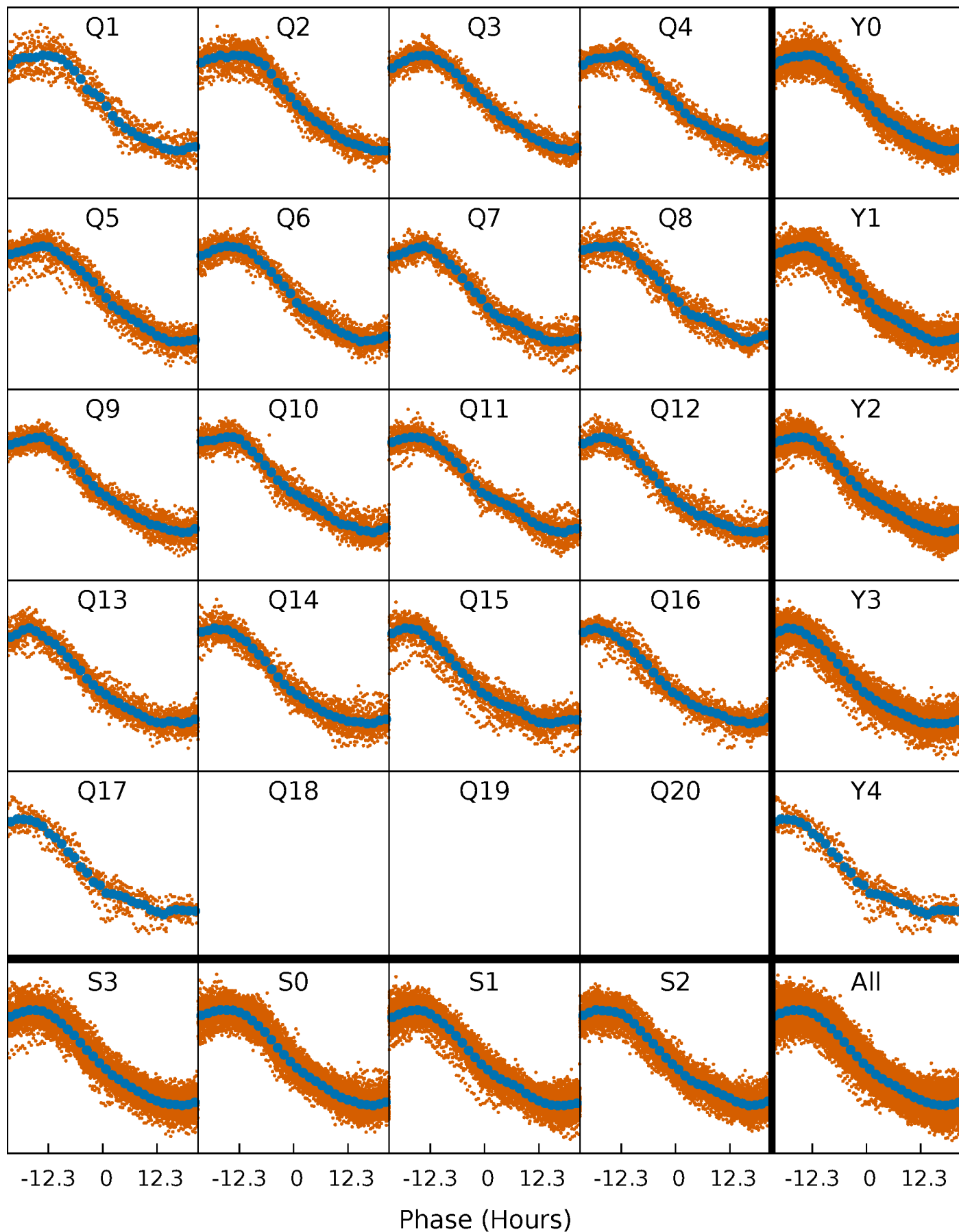


Non-Whitened Vs. Whitened Light Curve



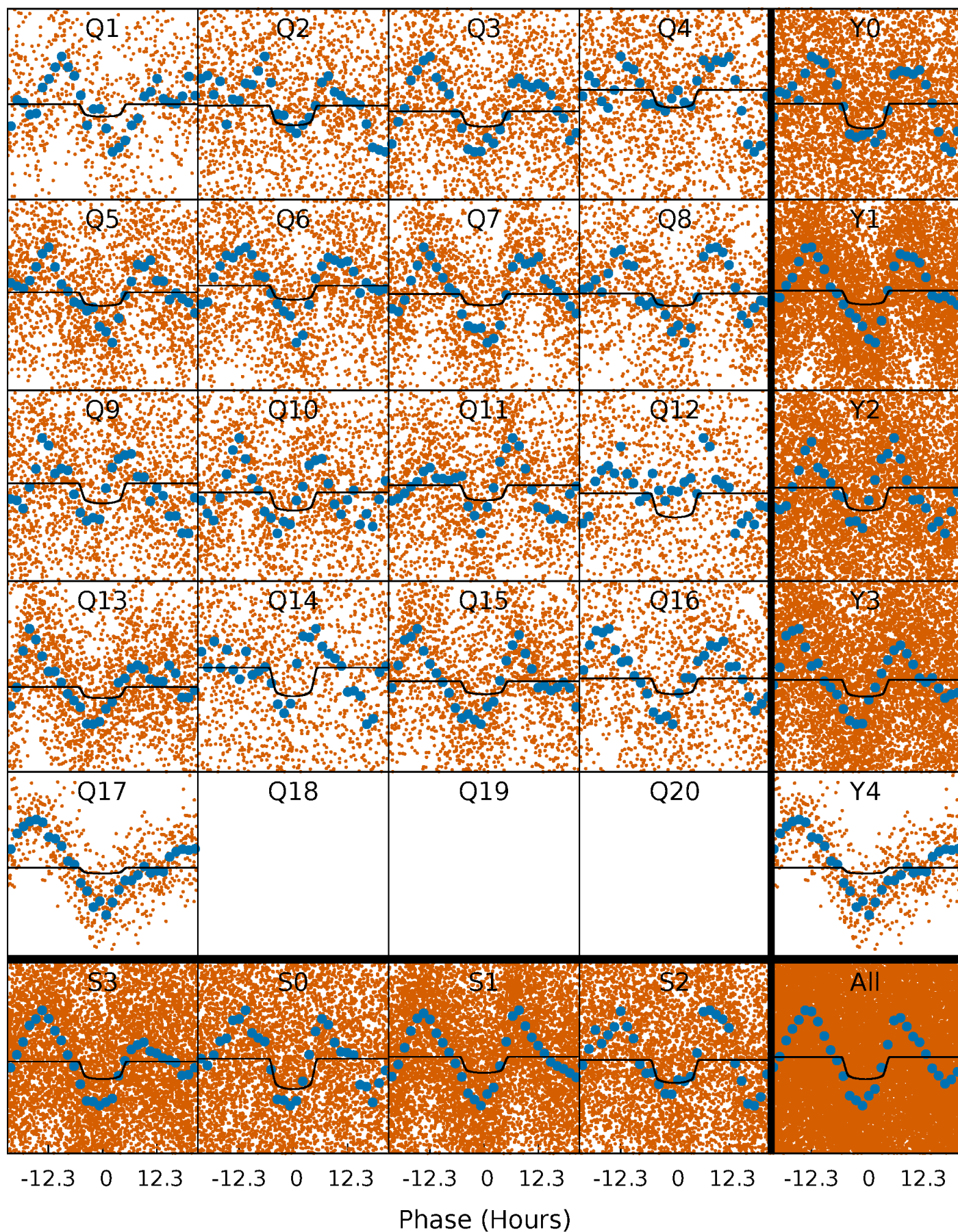
PDC Quarter-Phased Transit Curves

TCE 008179190-01 P= 3.372119 Days $T_0=133.813014$ (BKJD)



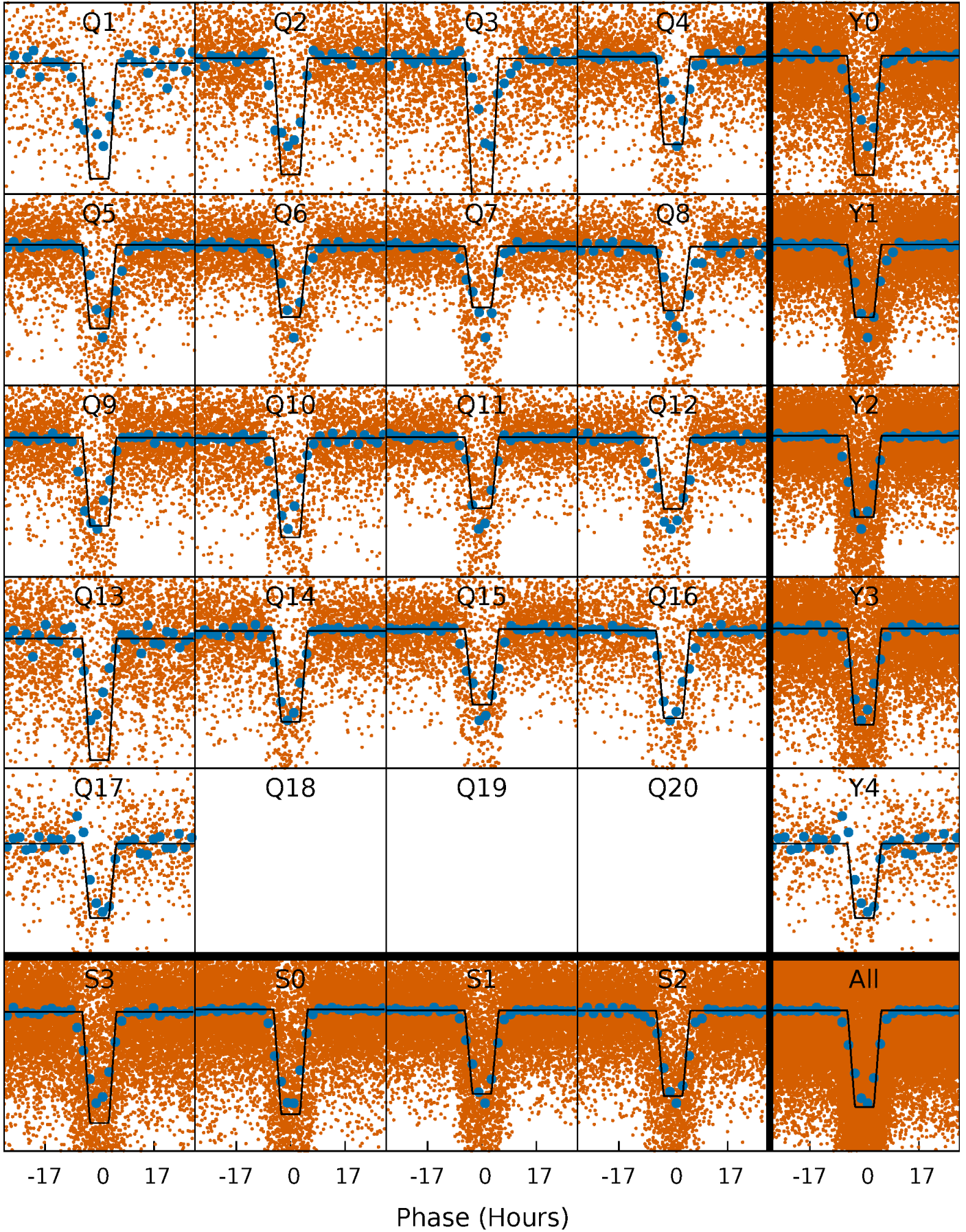
DV Quarter-Phased Transit Curves

TCE 008179190-01 P= 3.372119 Days $T_0=133.813014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

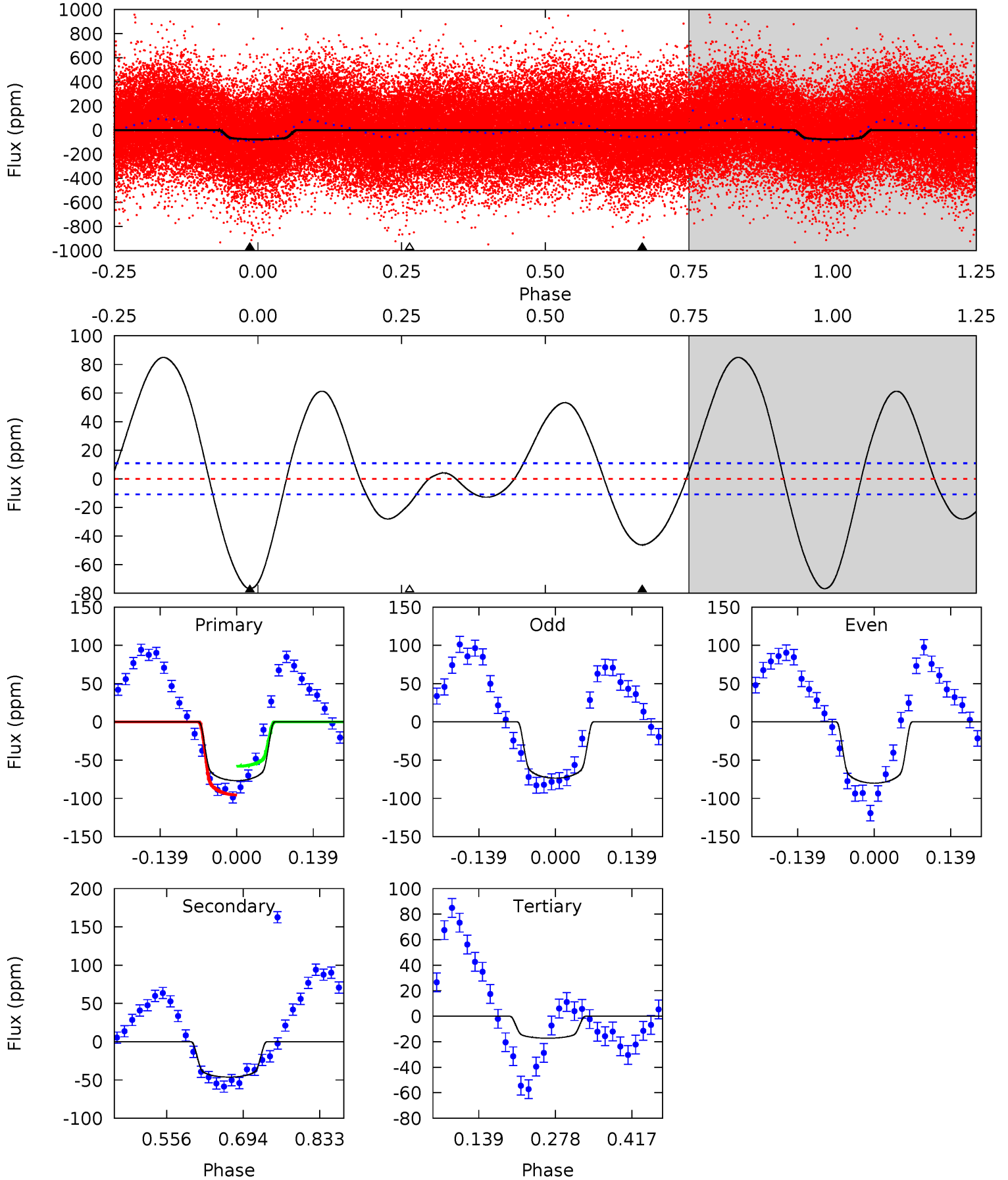
TCE 008179190-01 P= 3.371809 Days $T_0=133.906483$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-01, P = 3.372119 Days, E = 130.440895 Days

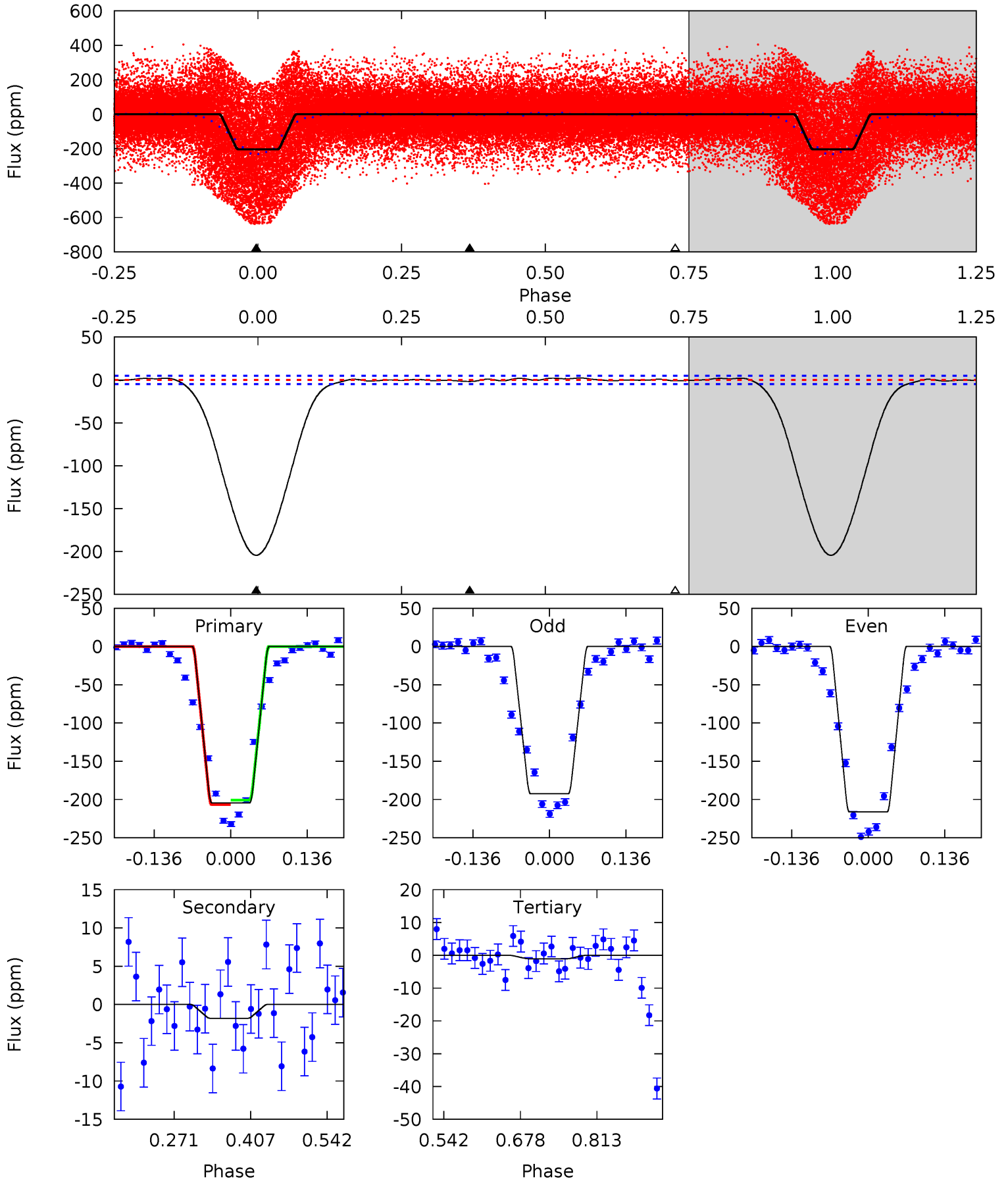
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.8	19.2	7.15	0	4.50	1.48	13.0	24.7	31.8	12.0	19.2	1.36	1.17	0.53	7.85



Alt Model-Shift Uniqueness Test

008179190-01, P = 3.371809 Days, E = 130.534674 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
188.8	1.66	0.98	0	4.50	1.49	1.10	187.8	188.8	0.68	1.66	10.9	1.03	0.01	2.57



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-46 ± 2	$1.83^{+0.26}_{-0.35}$	2630^{+164}_{-220}	5922^{+269}_{-257}	17^{+8}_{-4}
Alt.	-2 ± 1	$3.55^{+0.49}_{-0.63}$	2624^{+176}_{-227}	-2563^{+4539}_{-245}	$0.176^{+0.138}_{-0.105}$

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

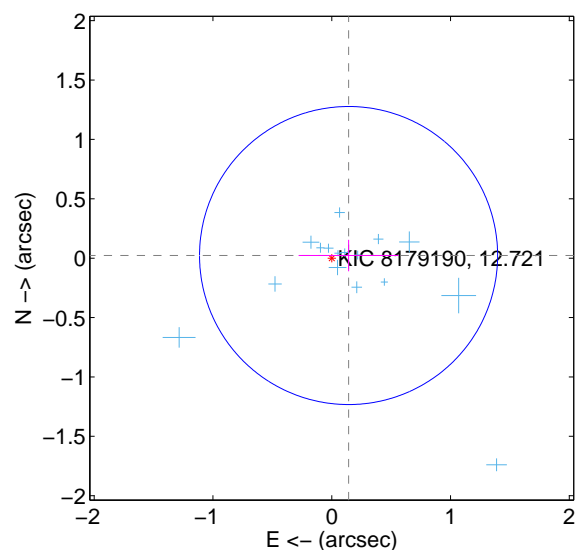
Supplemental centroid analysis for 008179190-01. Kepler magnitude: 12.72. Transit SNR 7.61

There are 16 quarters with good PRF difference image offsets

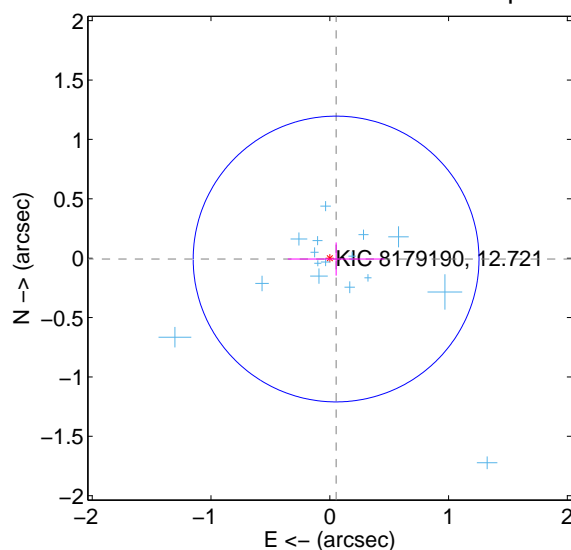
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.143 ± 0.418	0.34	-0.142 ± 0.421	0.022 ± 0.132
PRF-fit source offset from KIC position	0.054 ± 0.401	0.13	-0.053 ± 0.406	-0.007 ± 0.140
photometric centroid source offset	0.63 ± 0.36	1.78	-0.31 ± 0.37	0.55 ± 0.35

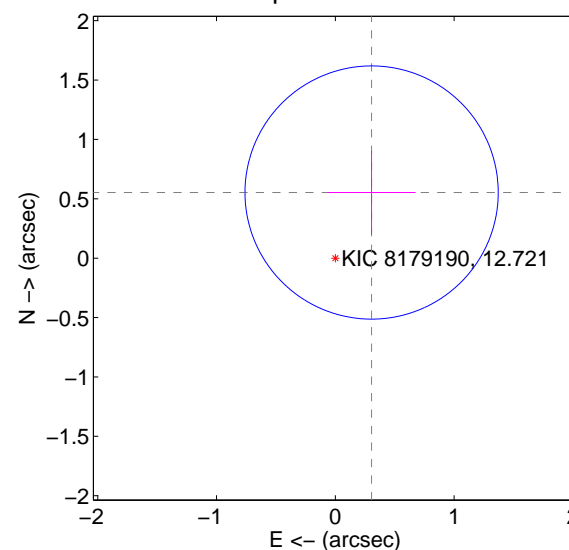
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

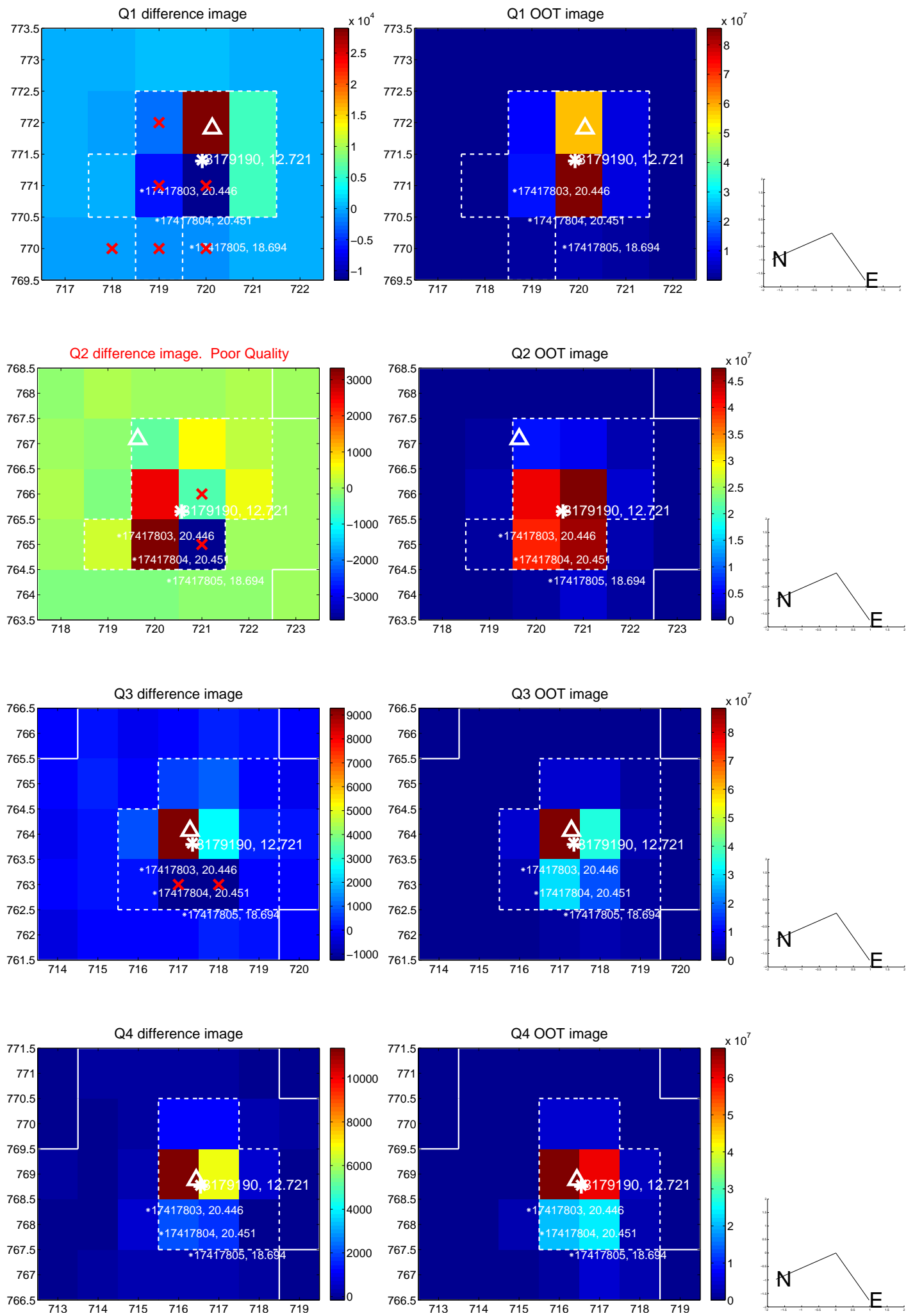


offset from photometric centroids

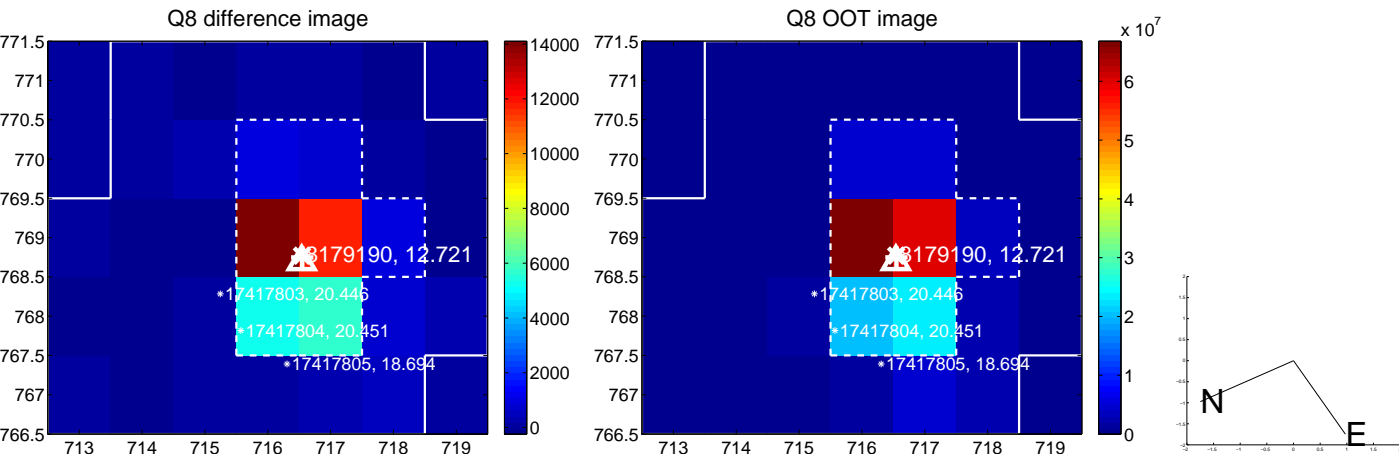
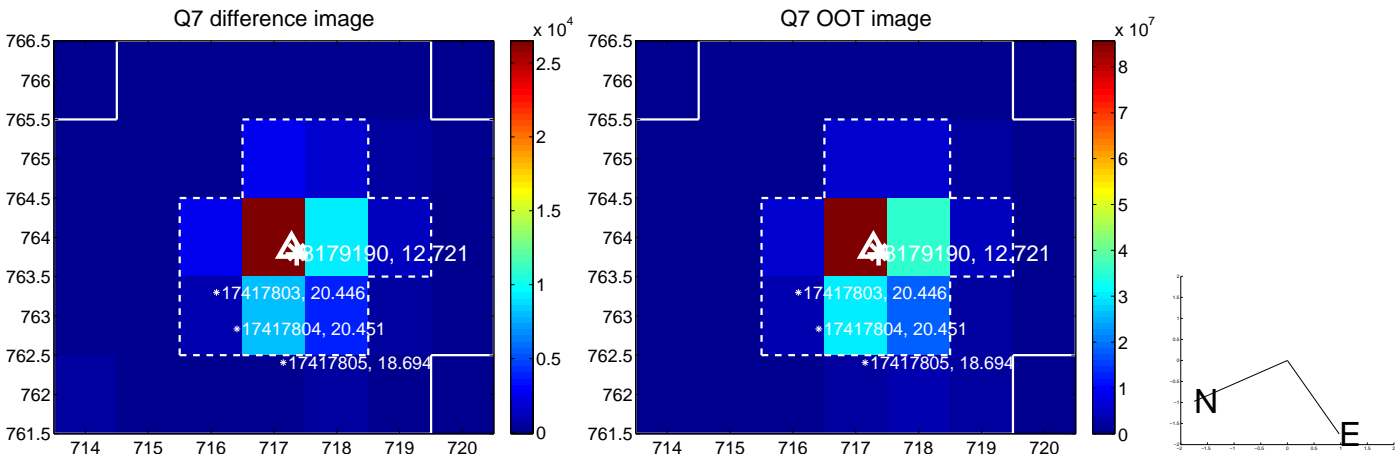
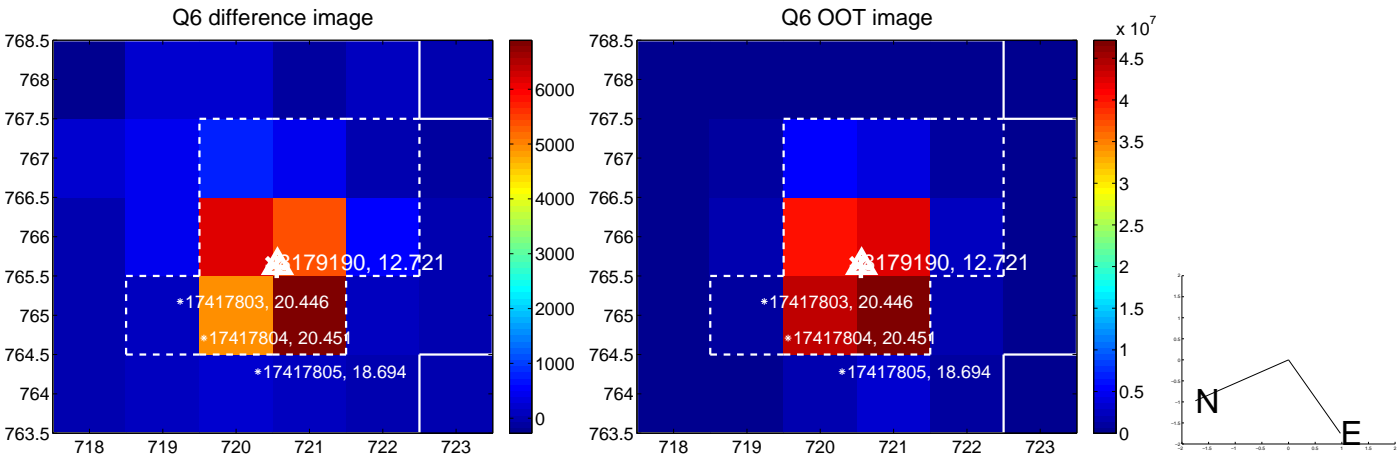
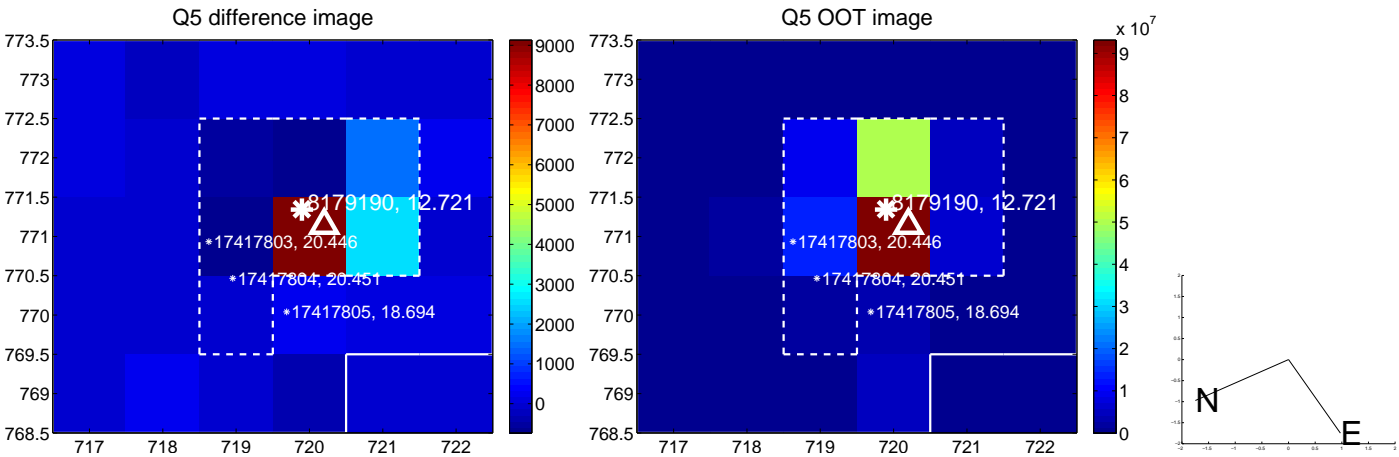


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

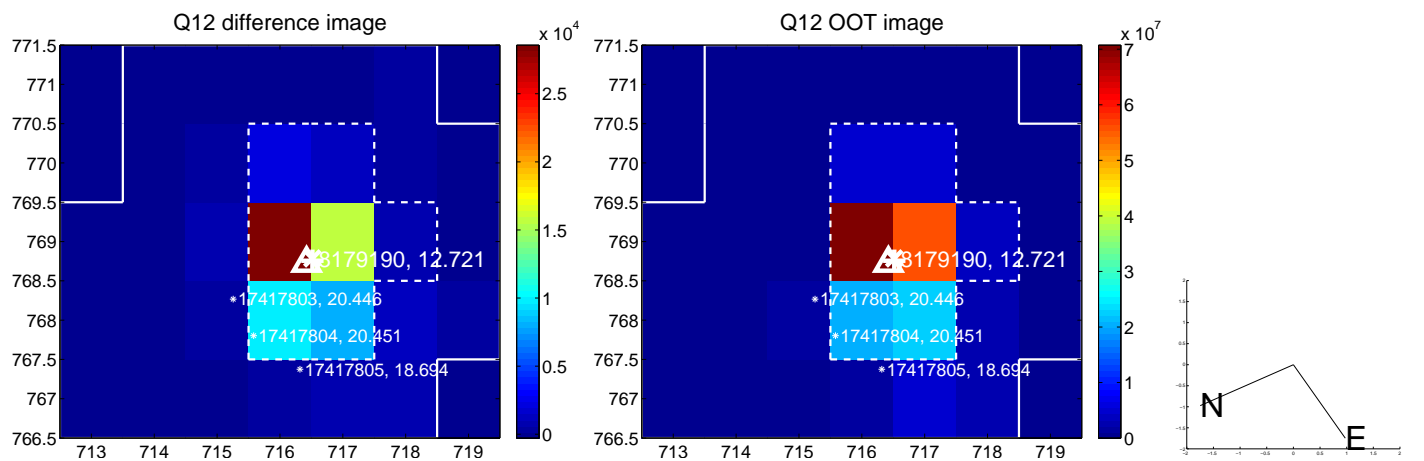
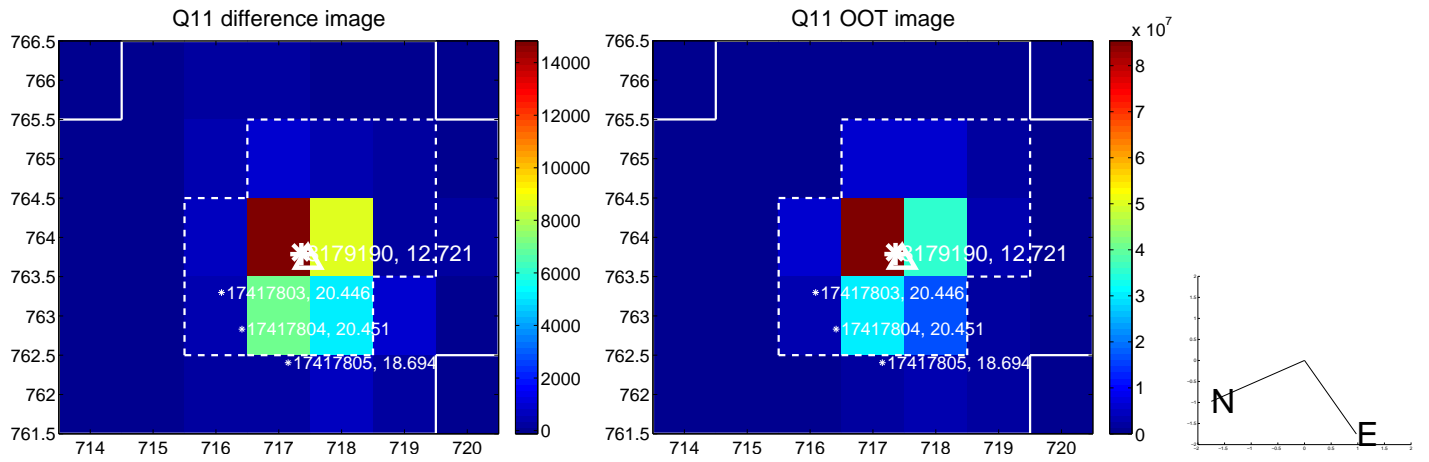
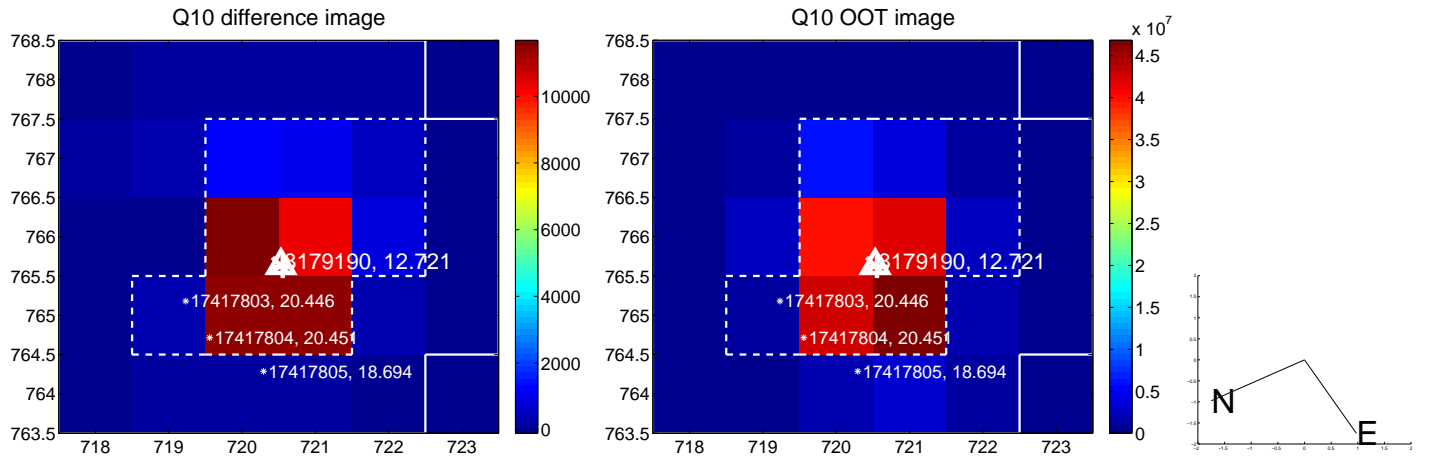
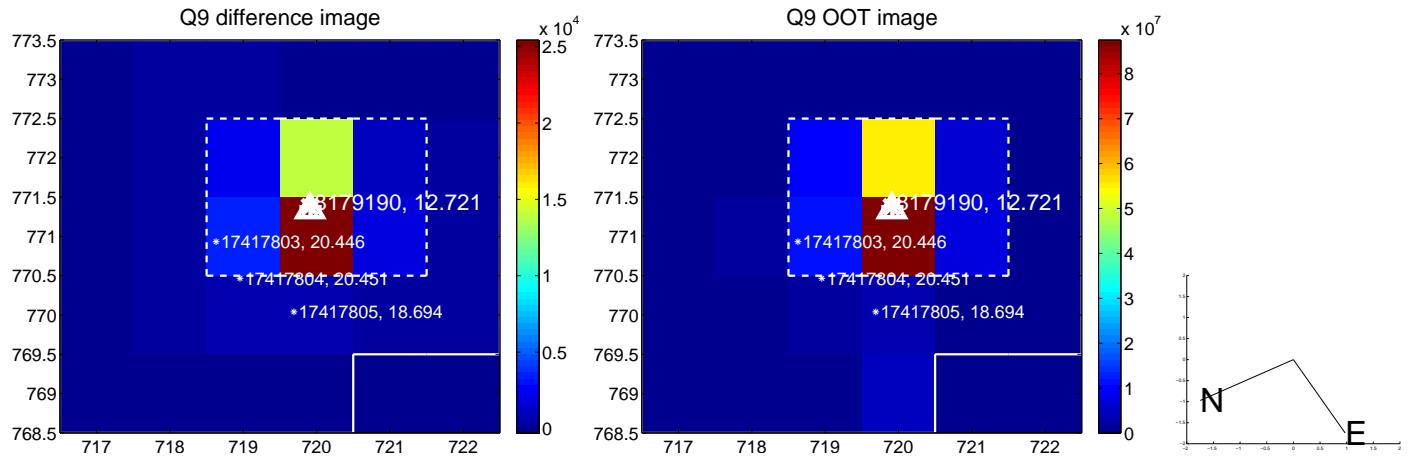
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



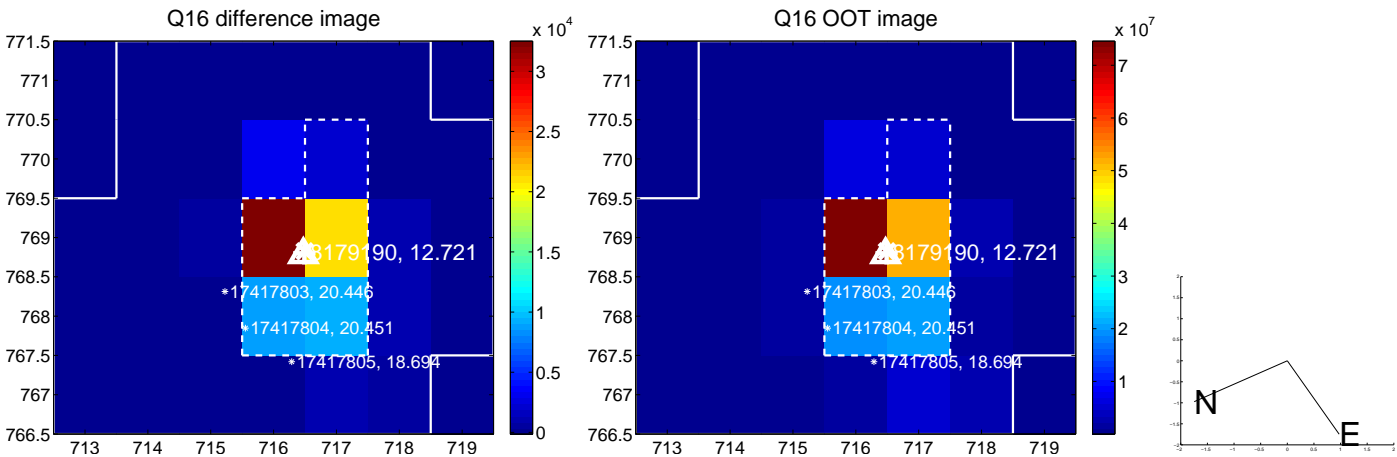
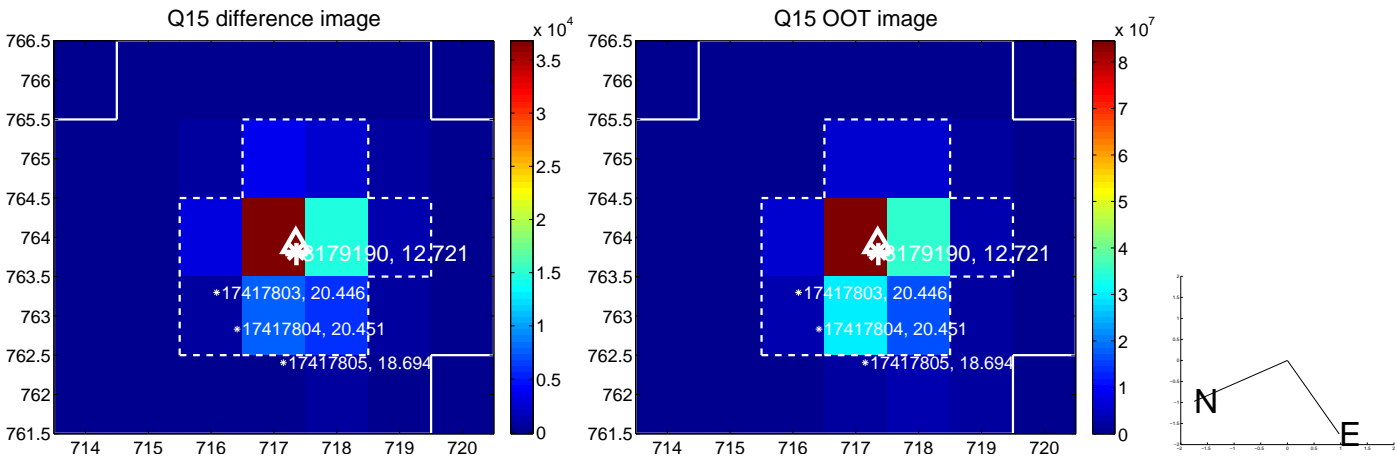
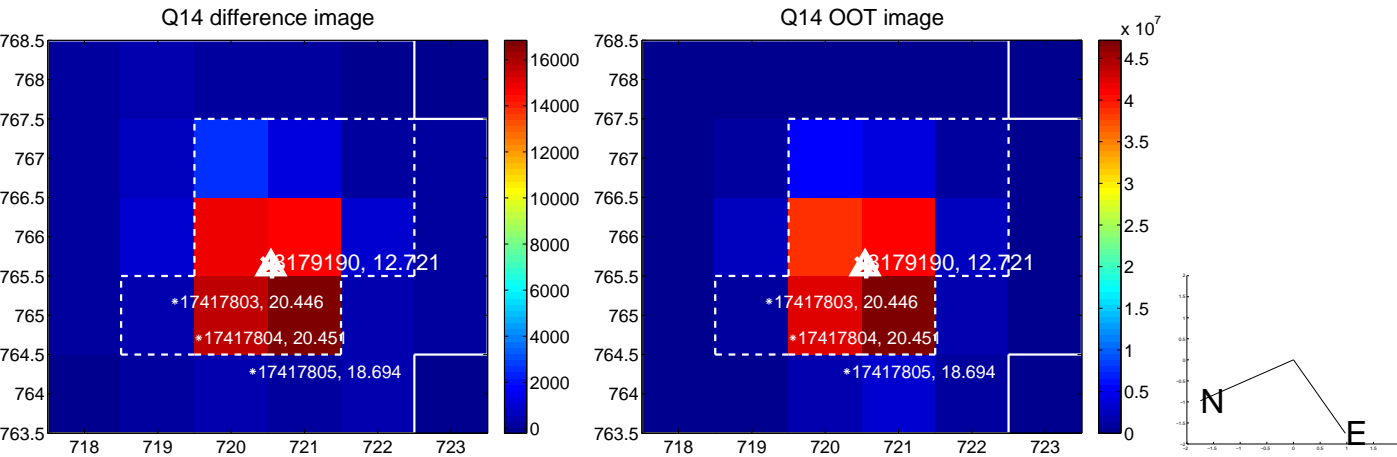
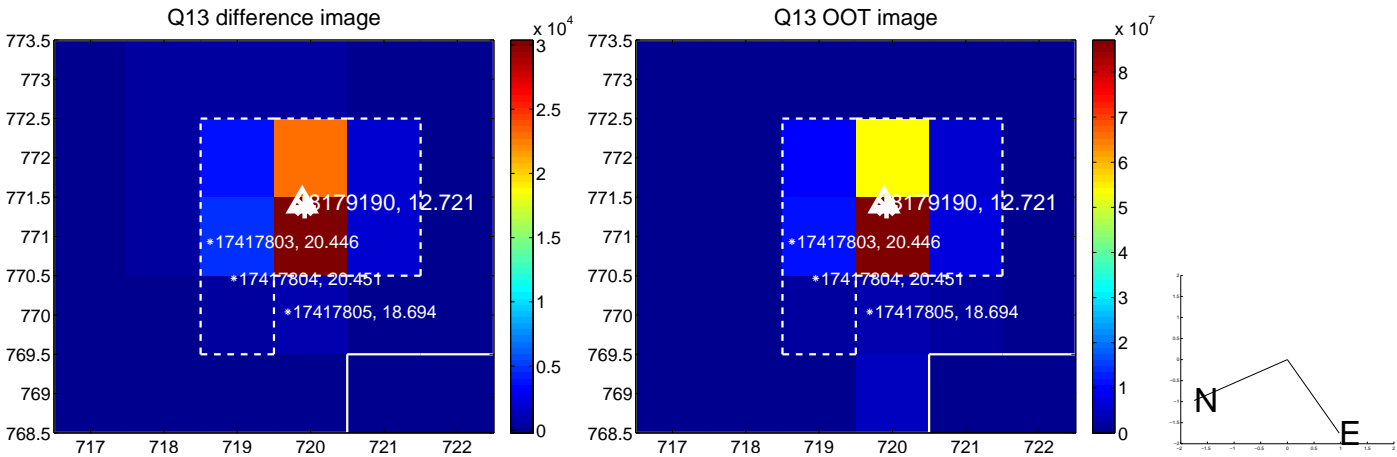
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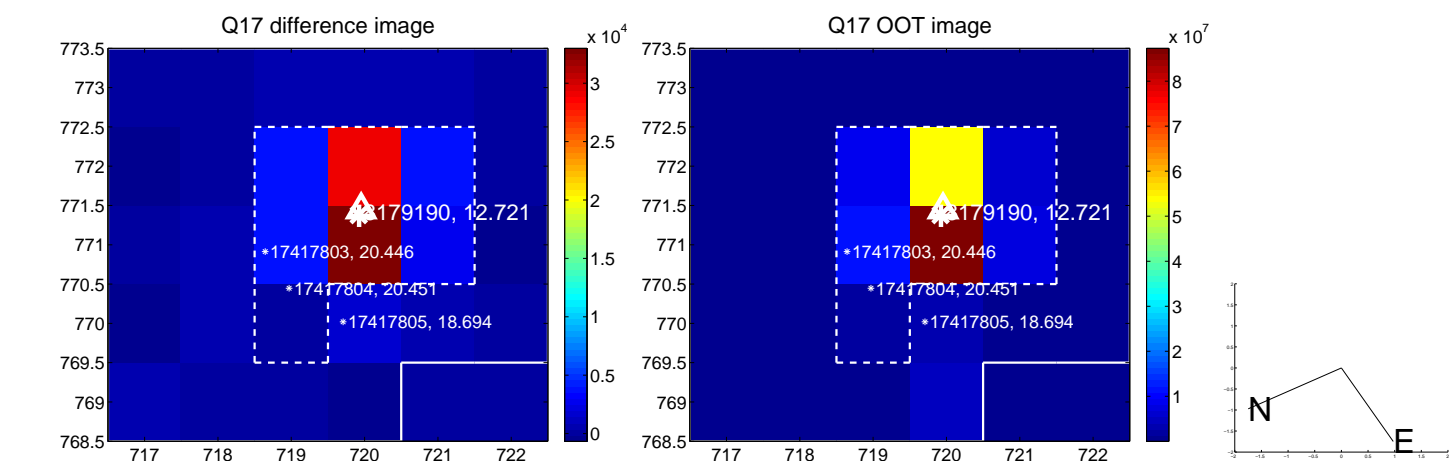
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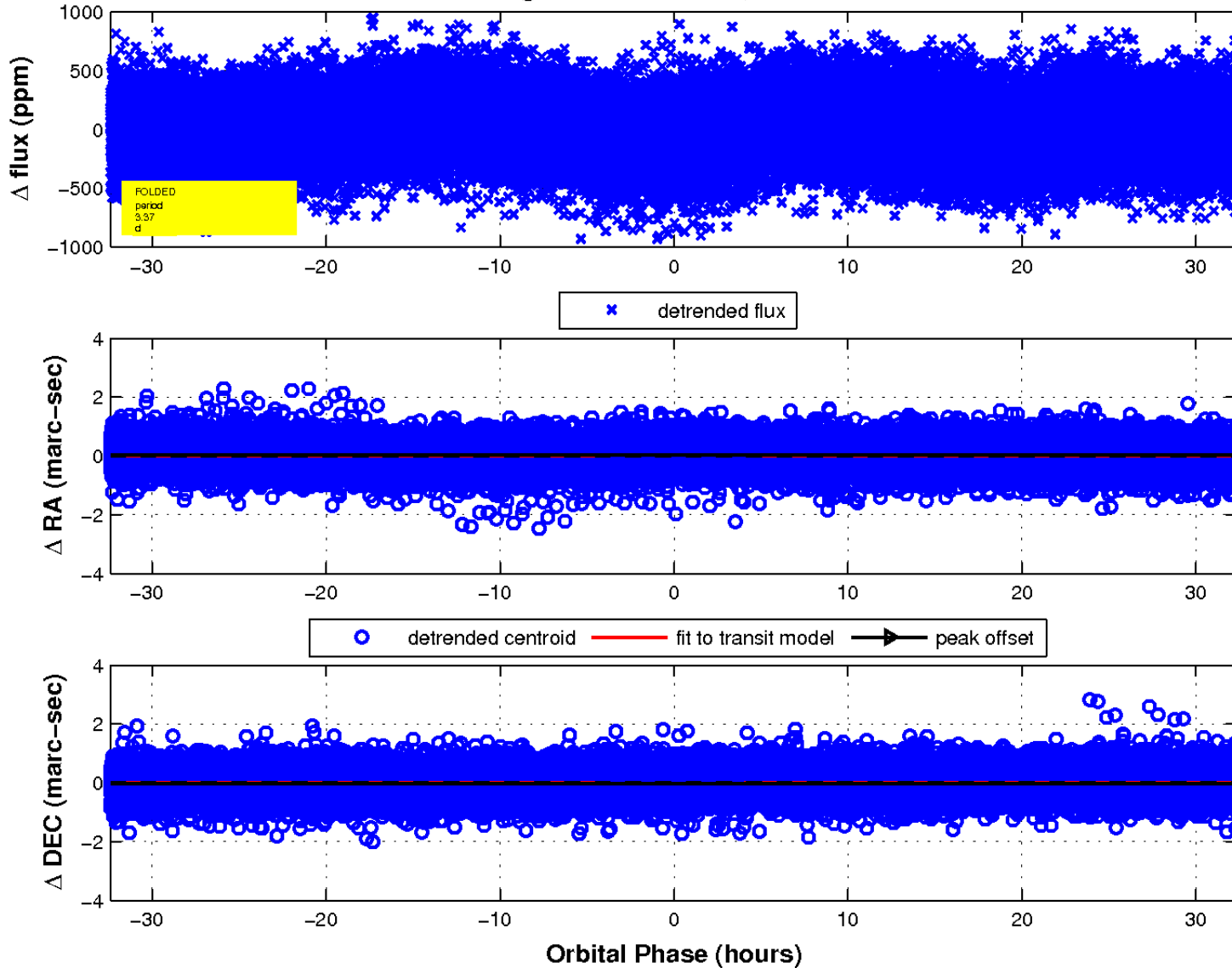
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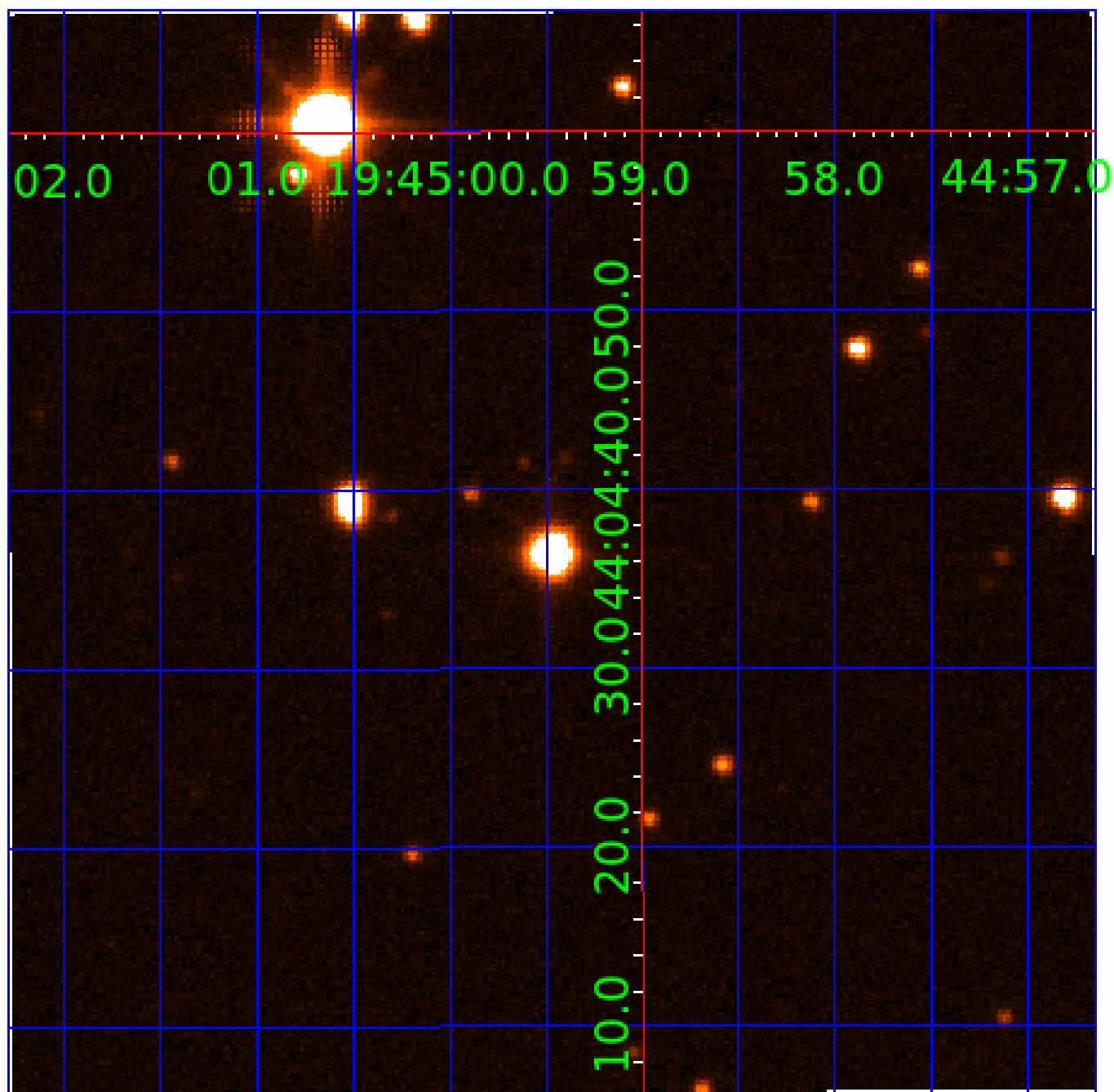


fluxWeightedCentroids, Planet 1 of 8



UKIRT Image

Declination



KIC 008179190

Q1-17 DR25 TCE Parameters

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008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
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008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
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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.

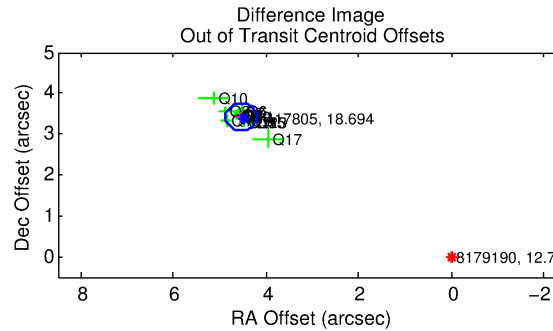
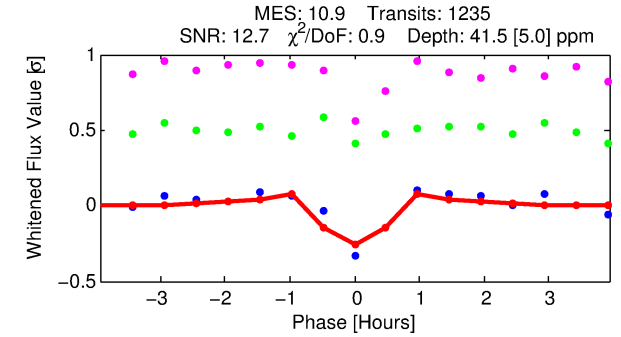
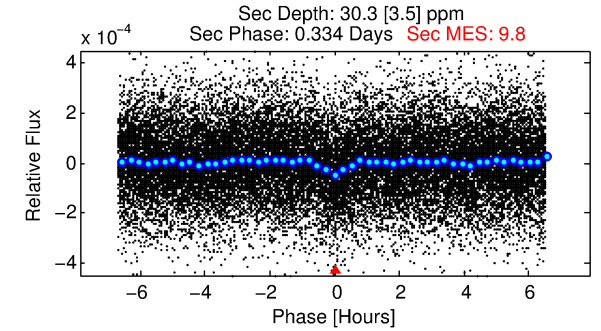
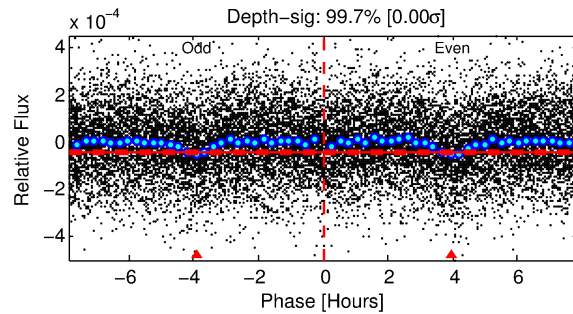
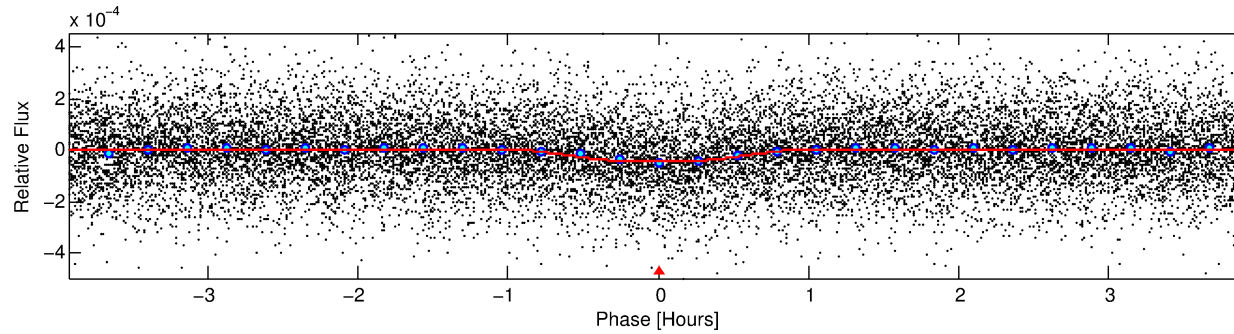
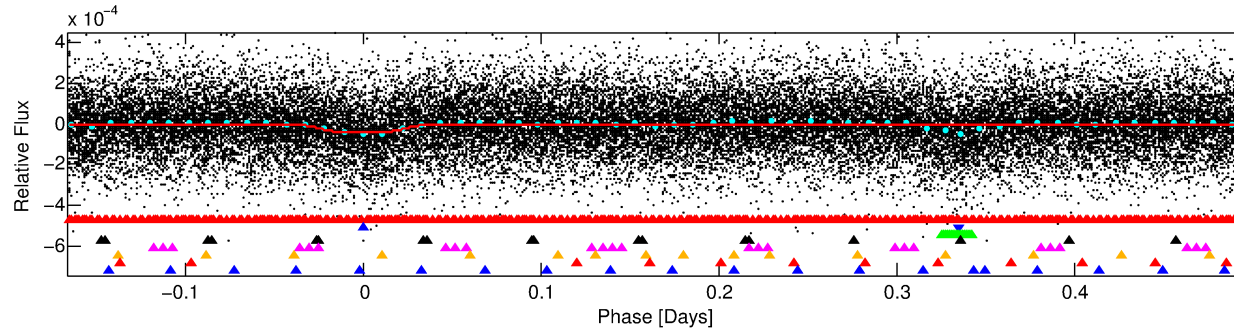
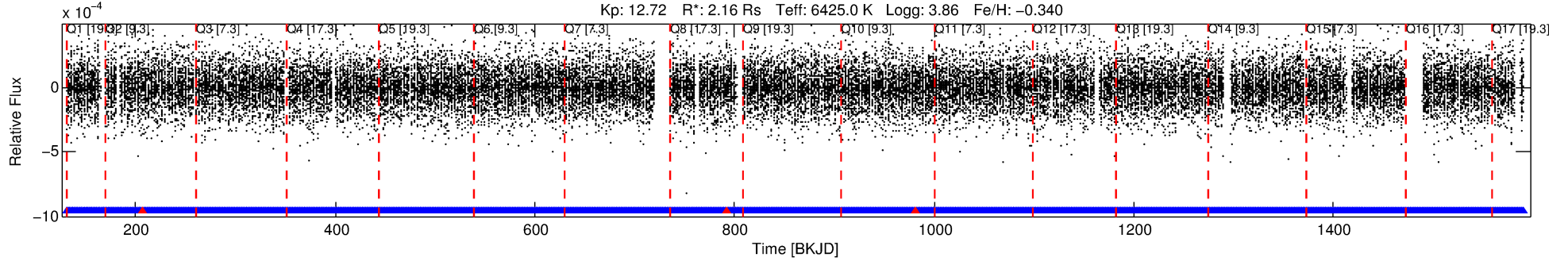
Ephemeris Match Information For 008179190-02

No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 2 of 8 Period: 0.662 d
KOI: K04196.01 Corr: 0.902

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



DV Fit Results:

Period = 0.66245 [0.00001] d
Epoch = 131.9115 [0.0013] BKJD
Rp/R* = 0.0069 [0.0015]
a/R* = 1.97 [1.82]
b = 0.90 [0.26]
Seff = 27913.72 [14535.53]
Teq = 3296 [429] K
Rp = 1.64 [0.65] Re
a = 0.0160 [0.0051] AU
Ag = 1.59 [1.09] [0.54σ]
Teffp = 5725 [678] K [3.03σ]

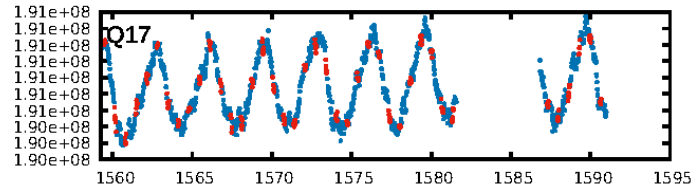
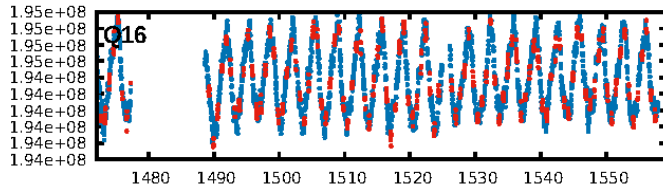
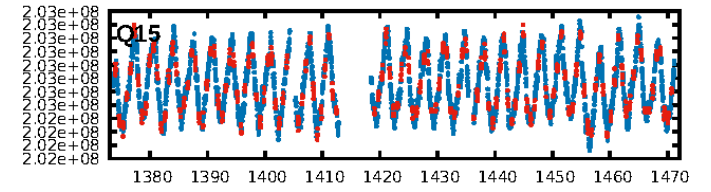
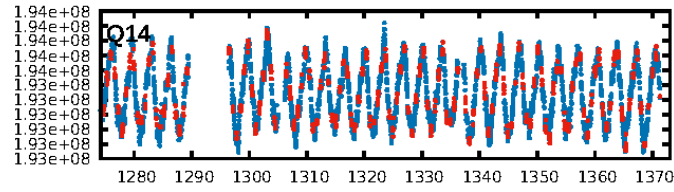
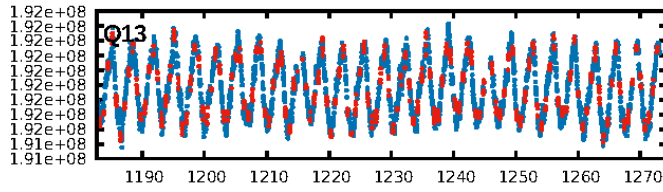
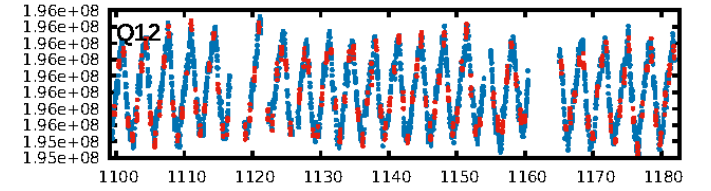
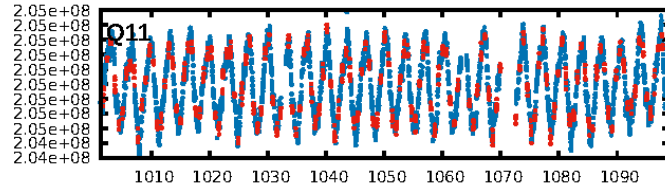
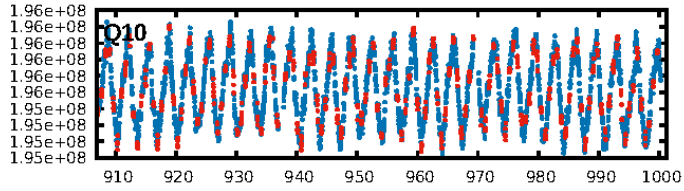
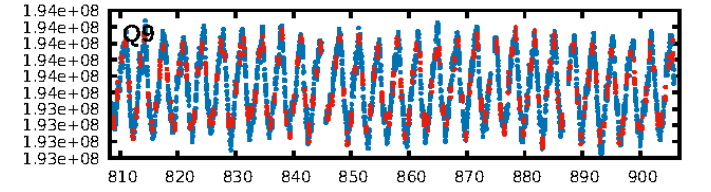
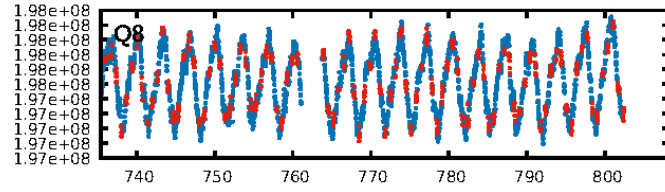
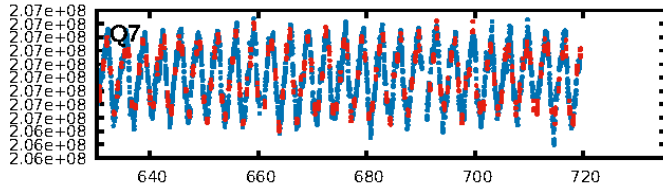
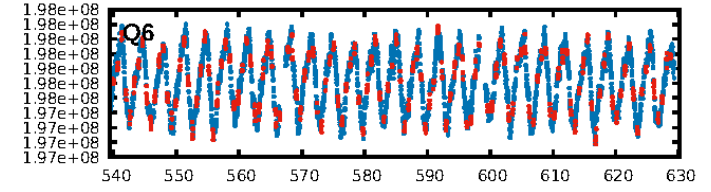
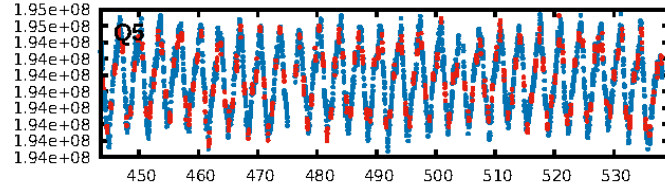
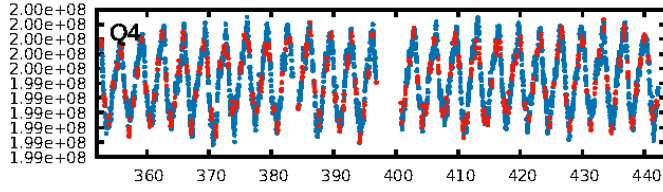
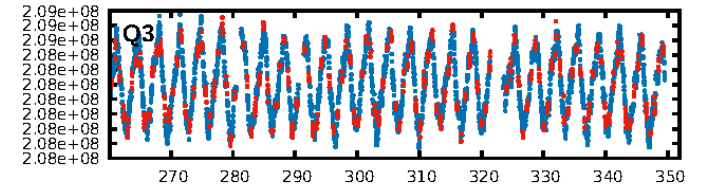
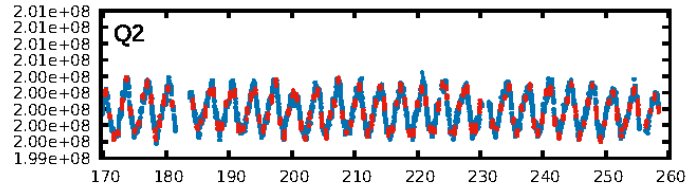
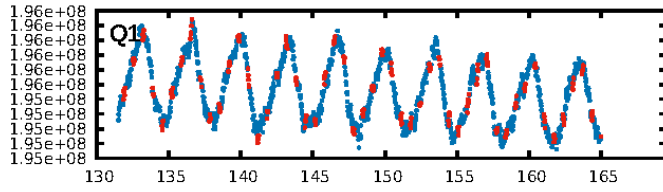
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1179/1182]
GhostDiagnostic-chr: 0.8881
Centroid-sig: 0.0%
Centroid-so: 1.423 arcsec [3.49σ]
OotOffset-rm: 5.687 arcsec [50.39σ]
KicOffset-rm: 5.764 arcsec [49.71σ]
OotOffset-st: 2/4/4/4 [14]
KicOffset-st: 2/4/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

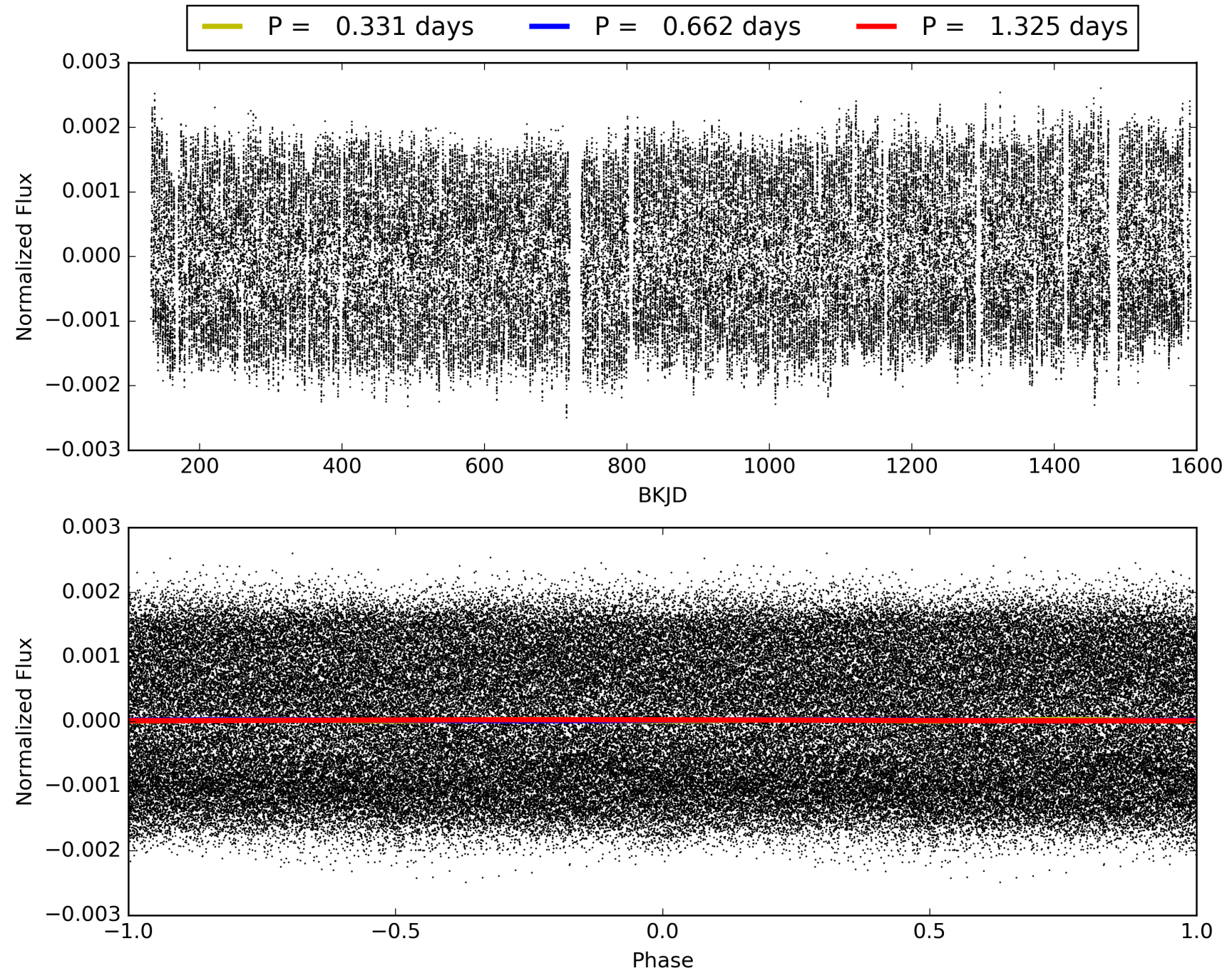
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:26 Z

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

TCE 008179190-02, PDC Light Curves

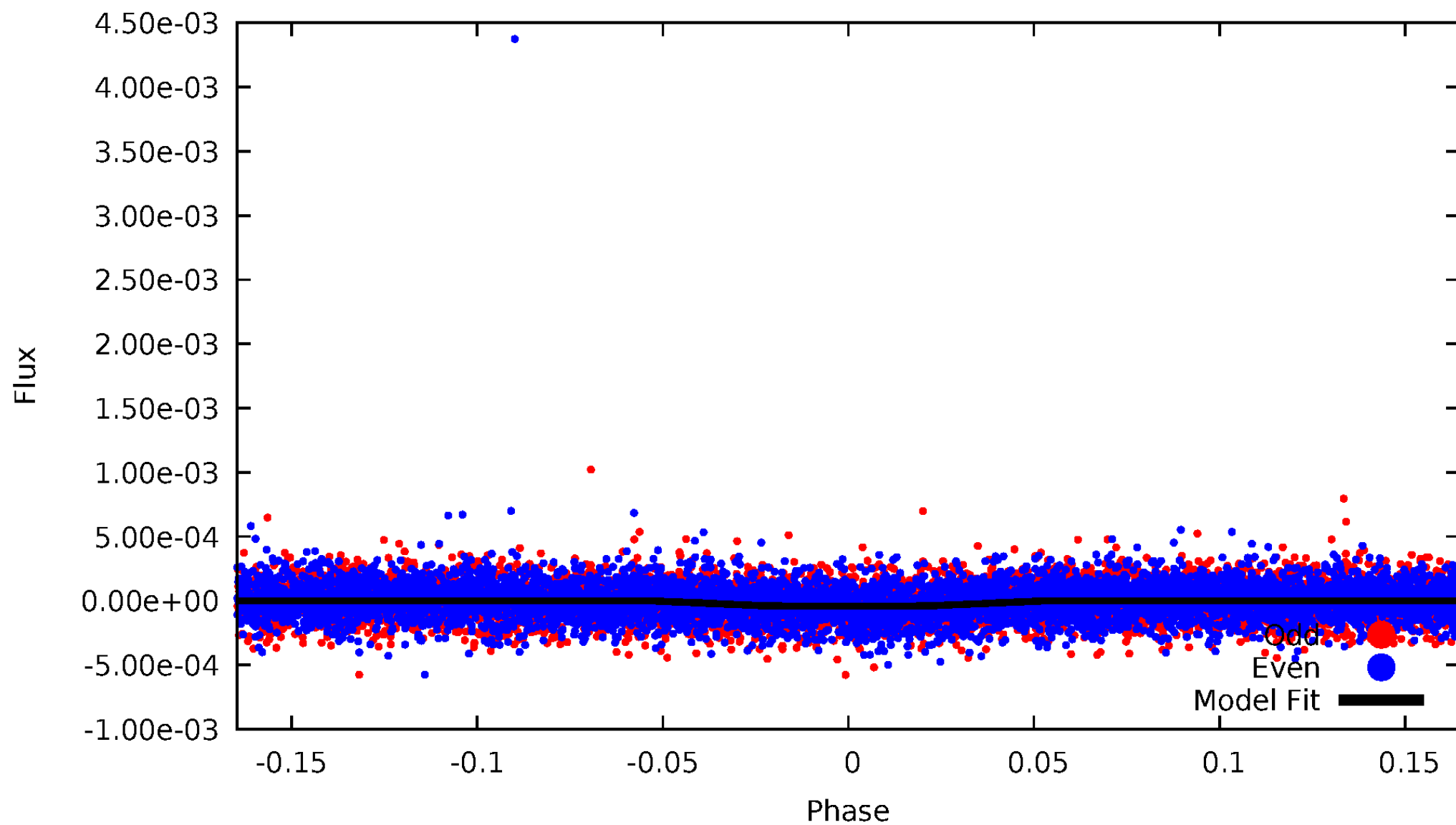


TCE 008179190-02



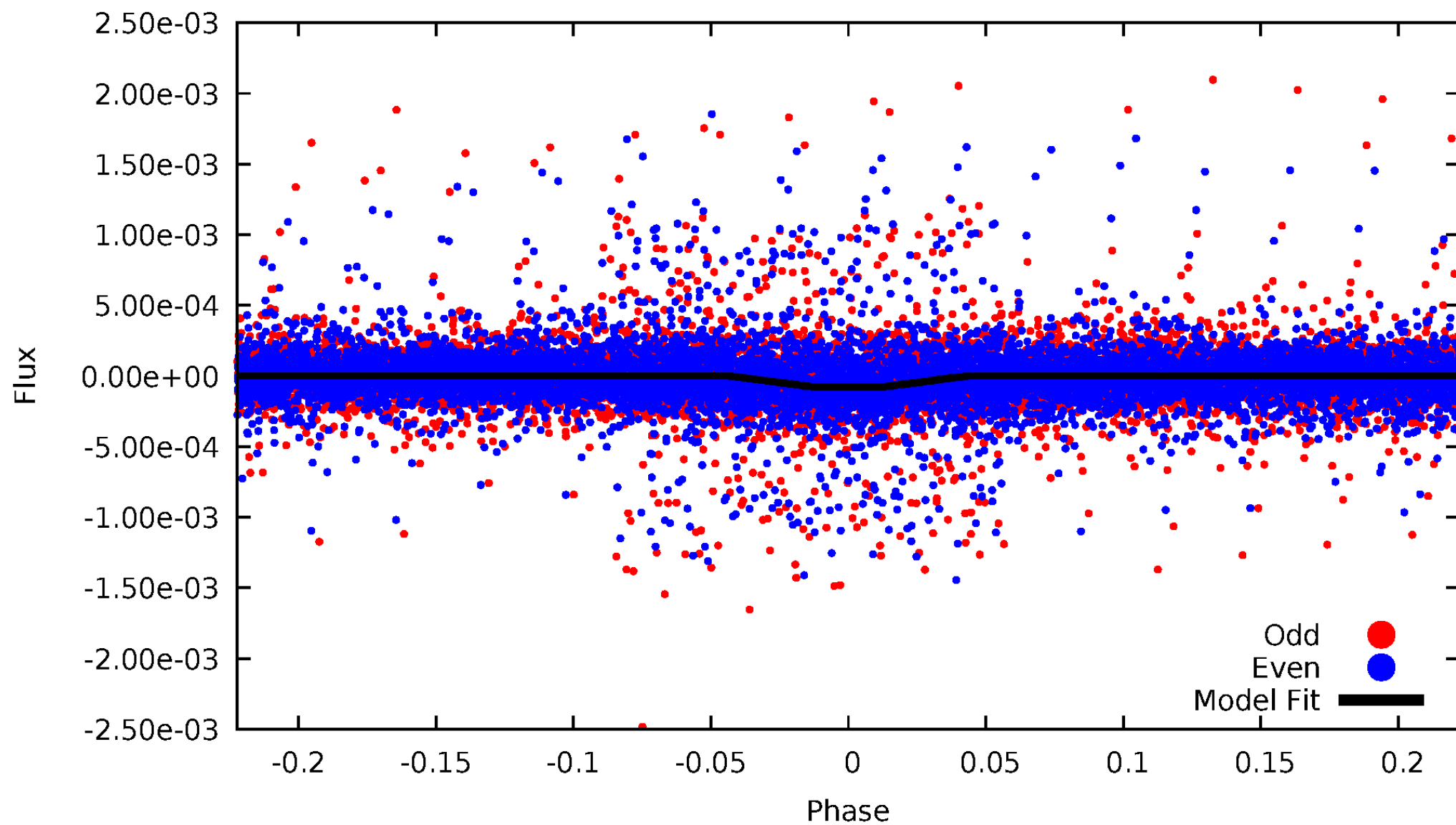
DV Odd/Even

TCE 008179190-02



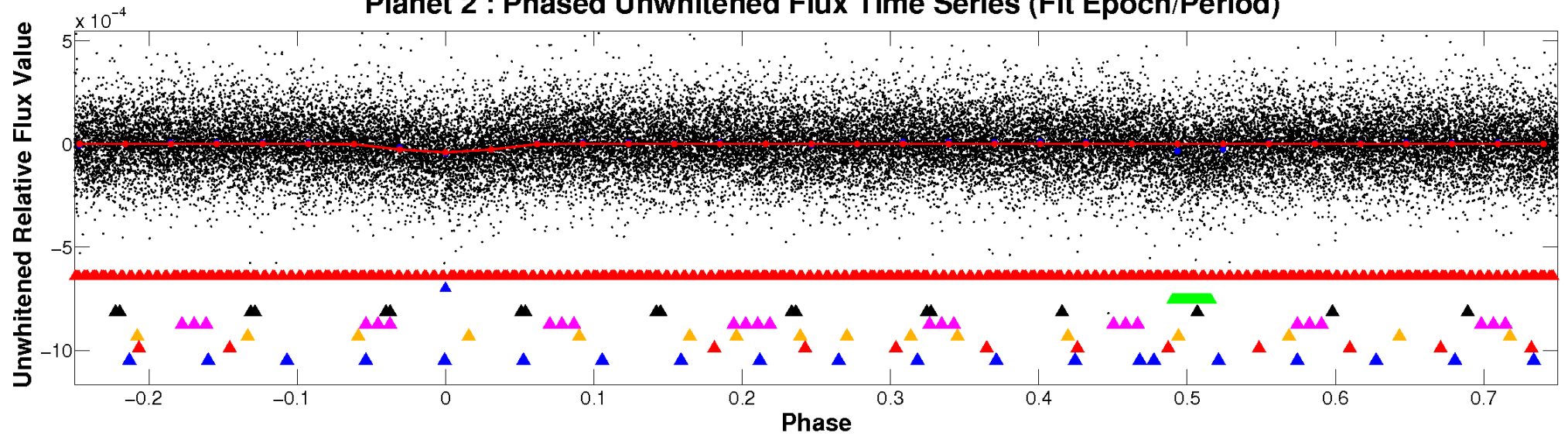
ALT Odd/Even

TCE 008179190-02

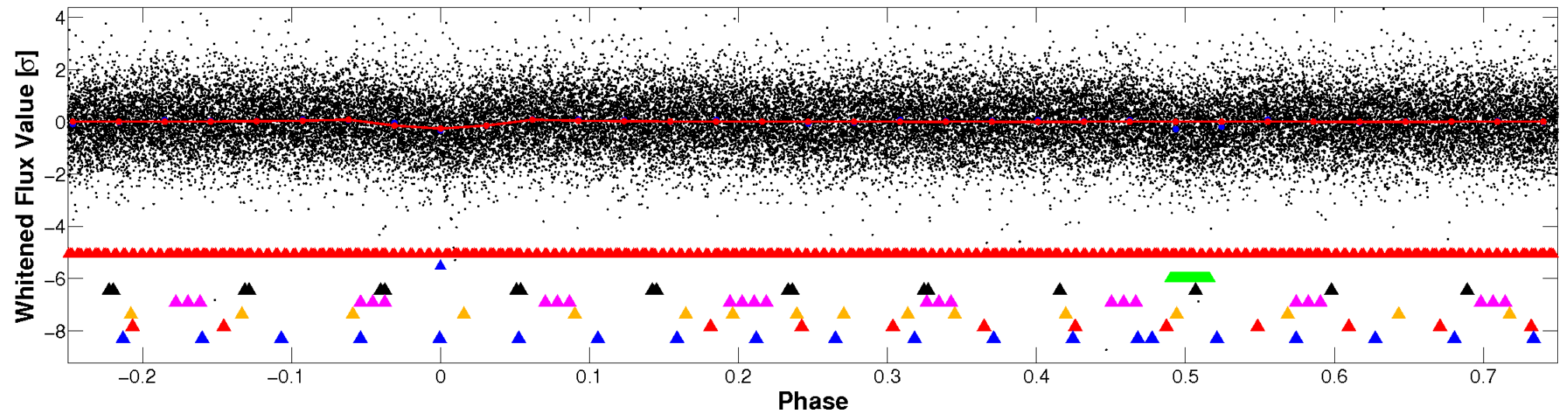


Non-Whitened Vs. Whitened Light Curve

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

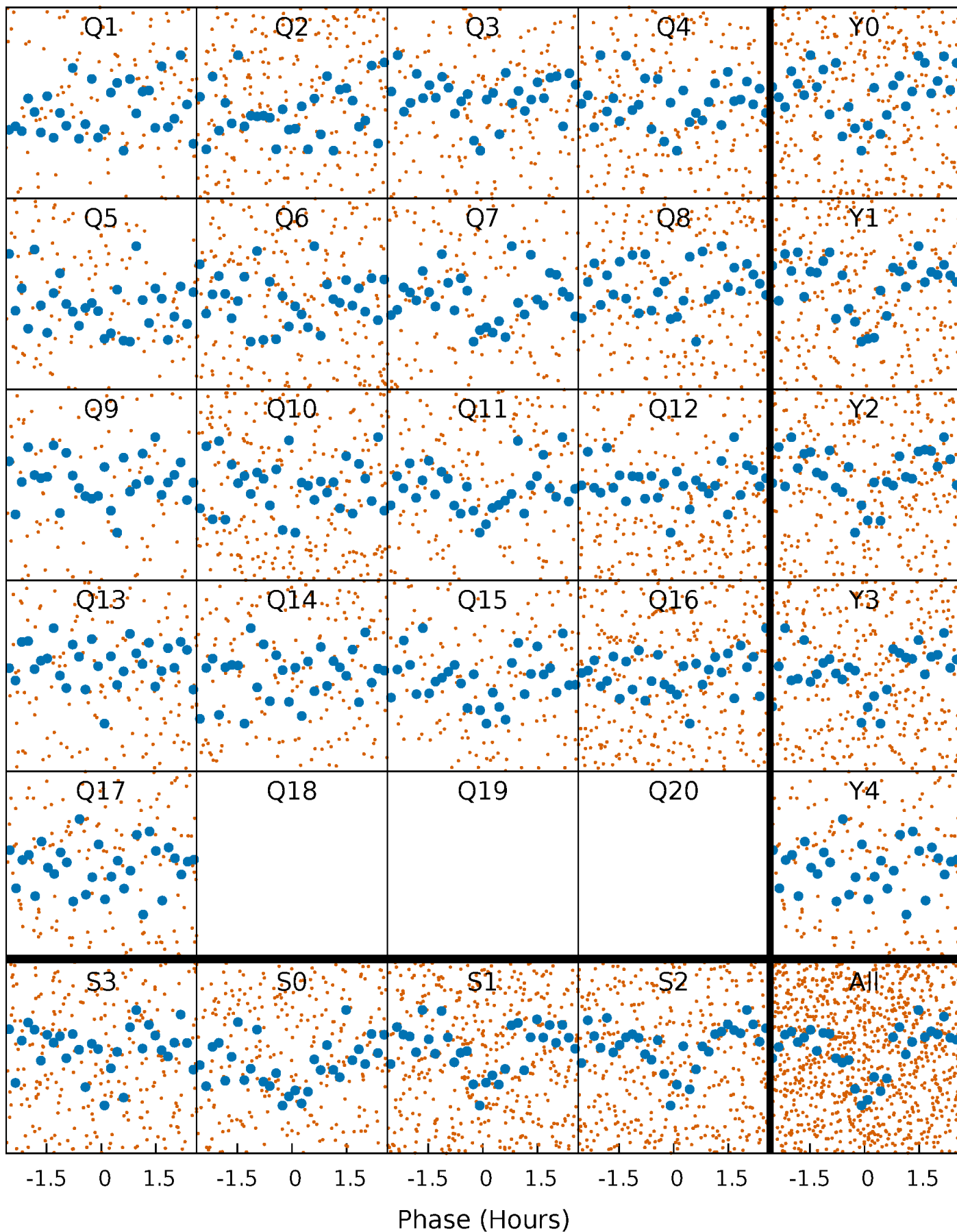


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



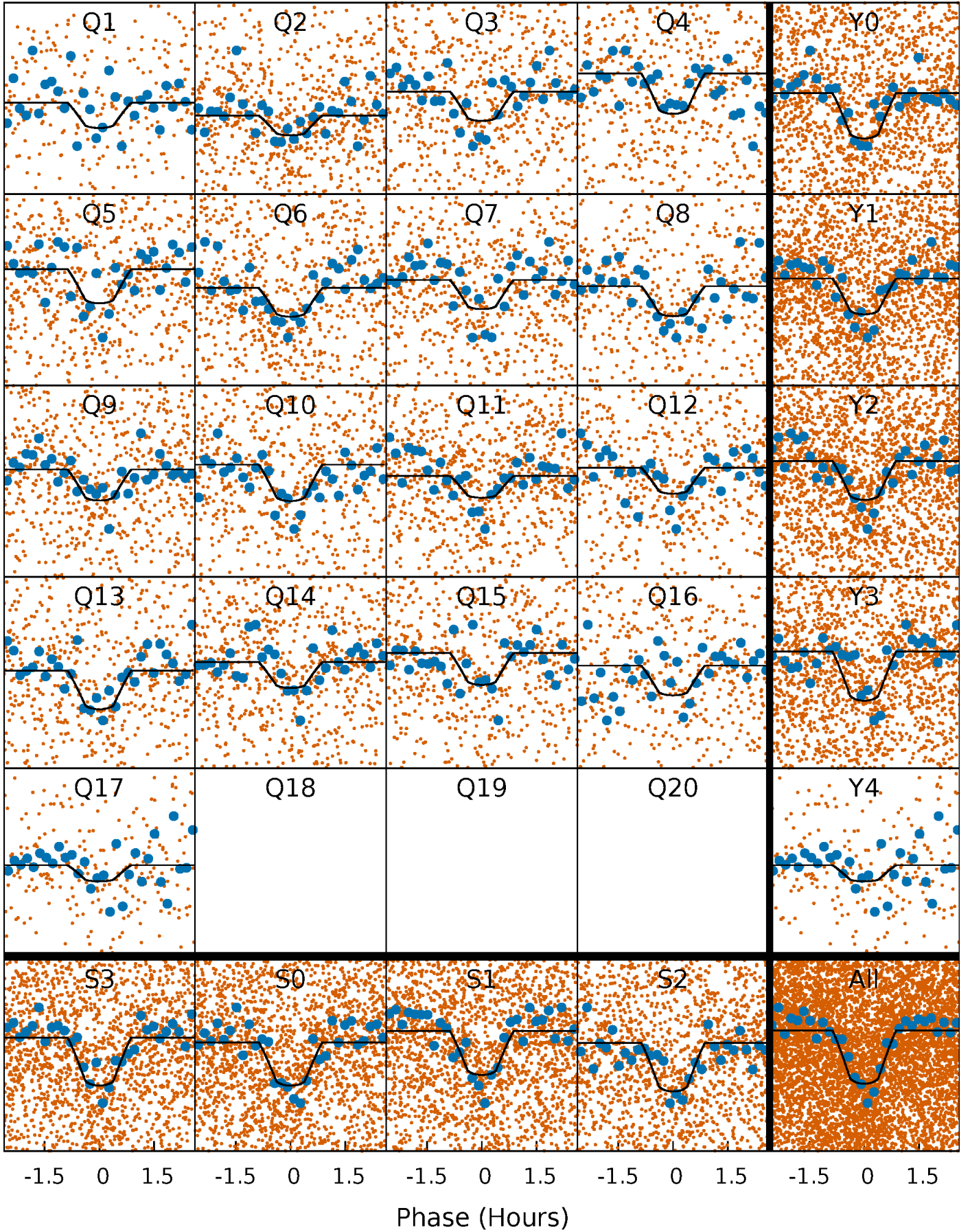
PDC Quarter-Phased Transit Curves

TCE 008179190-02 P= 0.662451 Days $T_0=131.911514$ (BKJD)



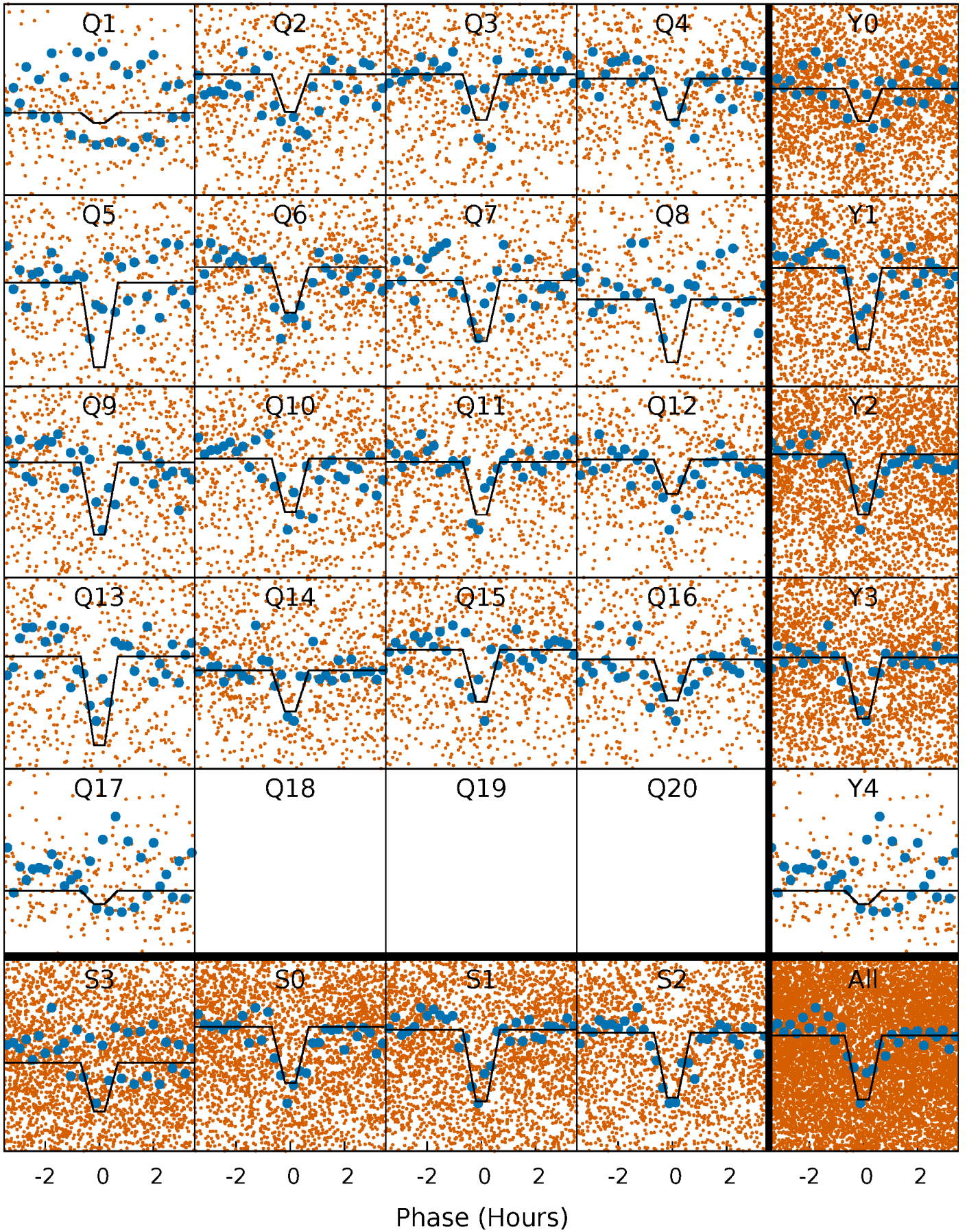
DV Quarter-Phased Transit Curves

TCE 008179190-02 P= 0.662451 Days $T_0=131.911514$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

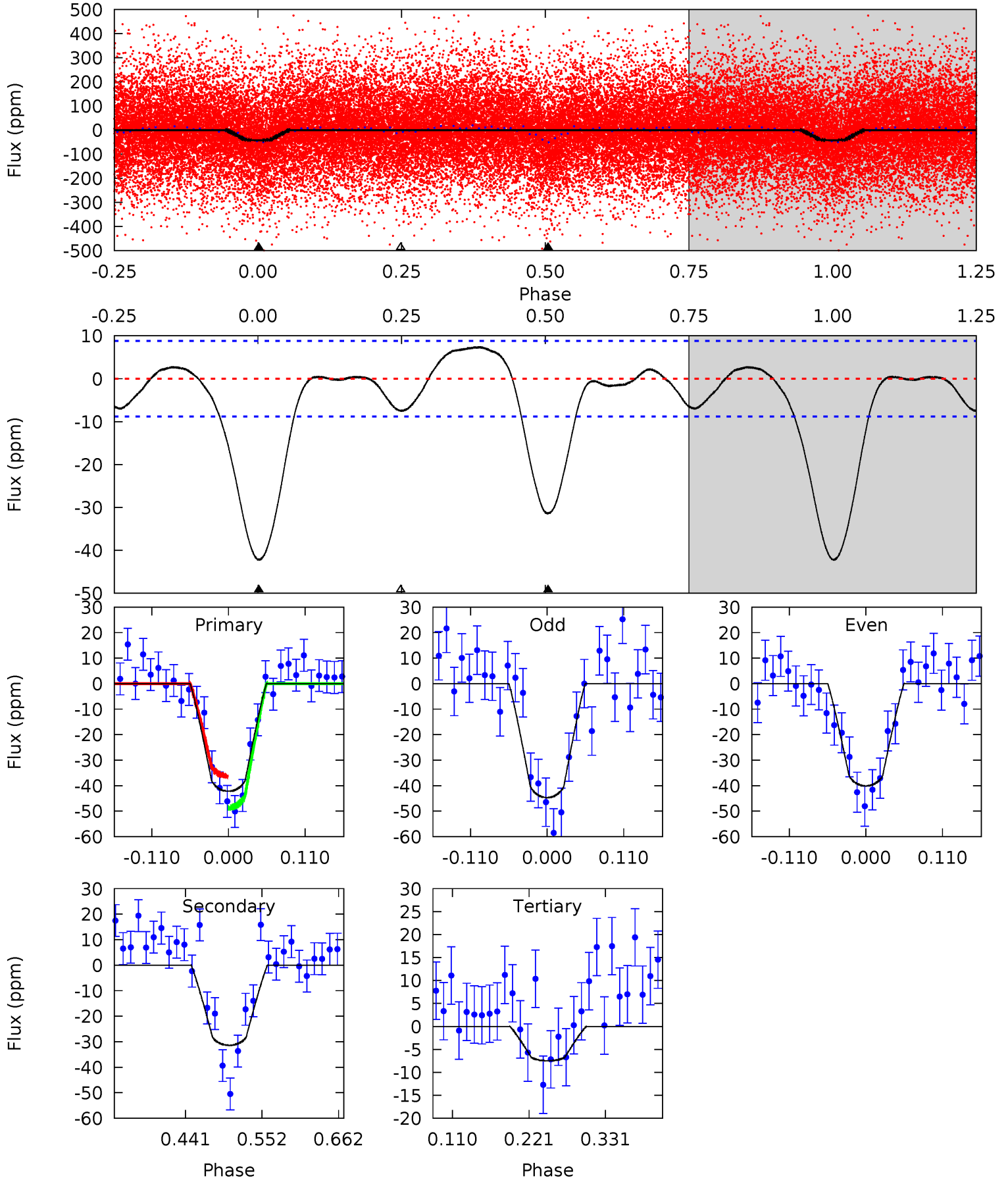
TCE 008179190-02 P= 0.662457 Days $T_0=131.910277$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-02, P = 0.662451 Days, E = 131.249063 Days

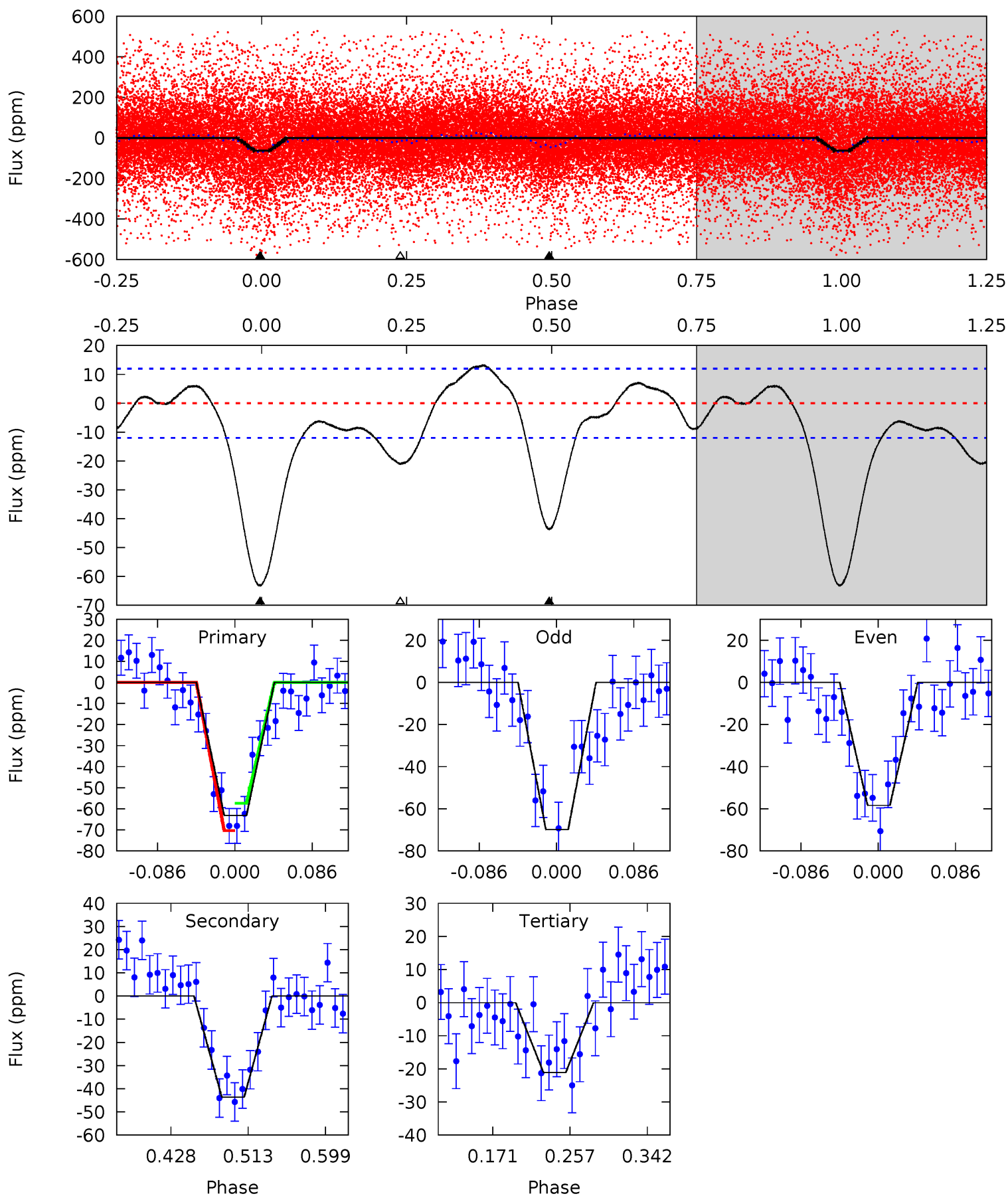
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	16.2	3.85	0	4.54	1.60	2.02	17.9	21.8	12.3	16.2	1.19	0.98	0.15	3.21



Alt Model-Shift Uniqueness Test

008179190-02, P = 0.662457 Days, E = 131.247820 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	16.7	8.08	0	4.60	1.72	3.32	16.1	24.2	8.63	16.7	2.22	0.90	0.17	2.51



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-02 / KOI 4196.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-31 ± 2	$1.52^{+0.43}_{-0.41}$	4507^{+281}_{-408}	5561^{+912}_{-597}	$1.936^{+1.601}_{-0.761}$
Alt.	-44 ± 3	$1.96^{+0.49}_{-0.44}$	4512^{+274}_{-391}	5351^{+562}_{-529}	$1.606^{+1.040}_{-0.545}$

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 $A_{obs} \gg 1.0$

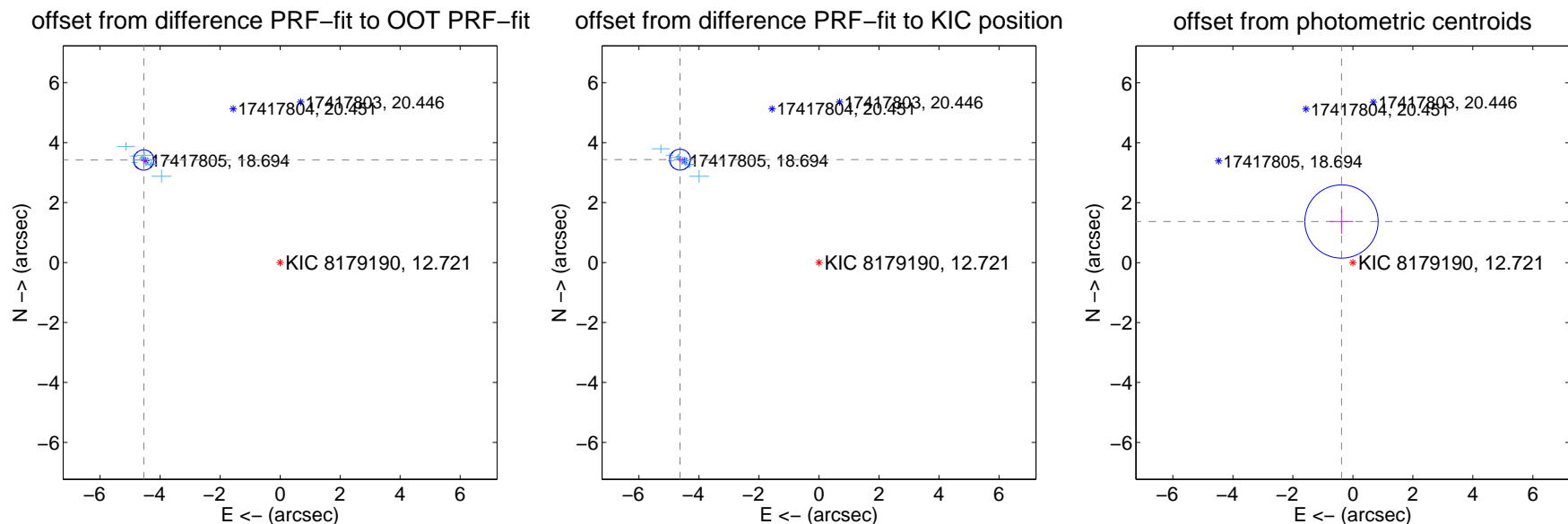
DV Centroid Data

Supplemental centroid analysis for 008179190-02. Kepler magnitude: 12.72. Transit SNR 12.72

There are 14 quarters with good PRF difference image offsets

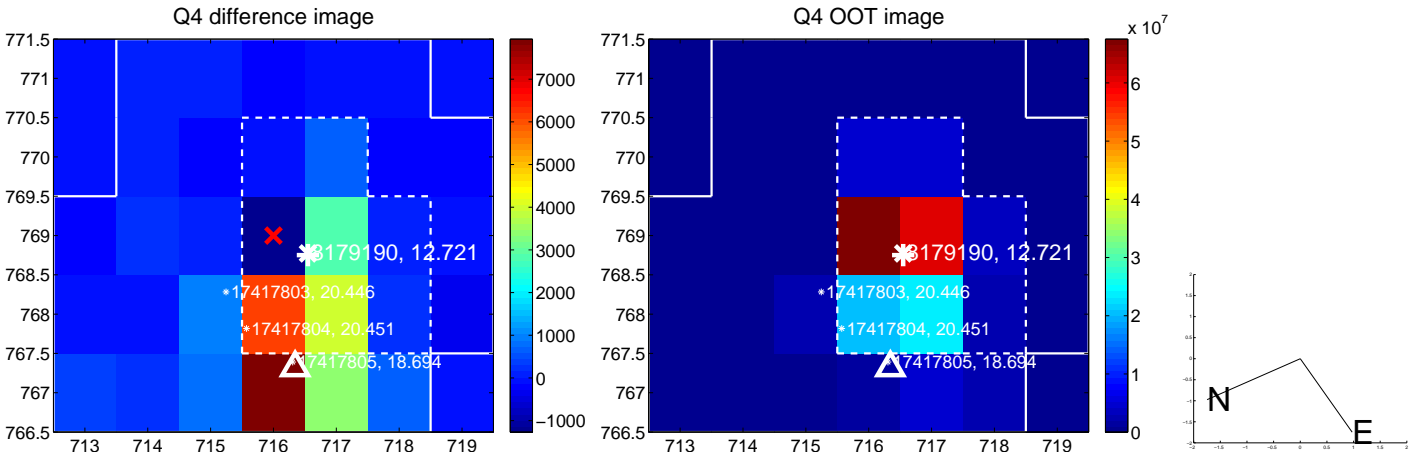
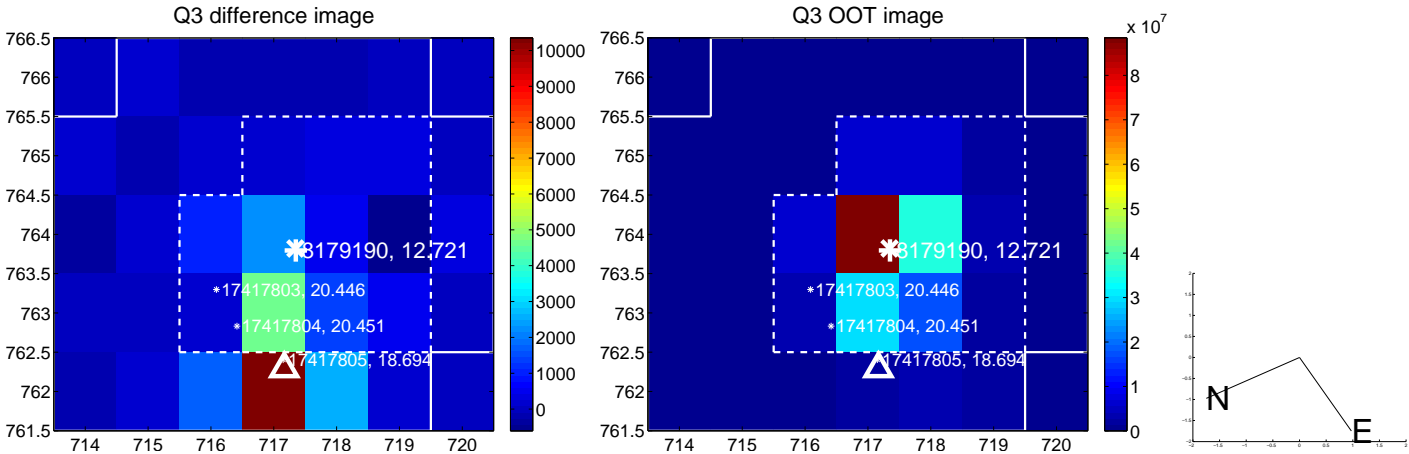
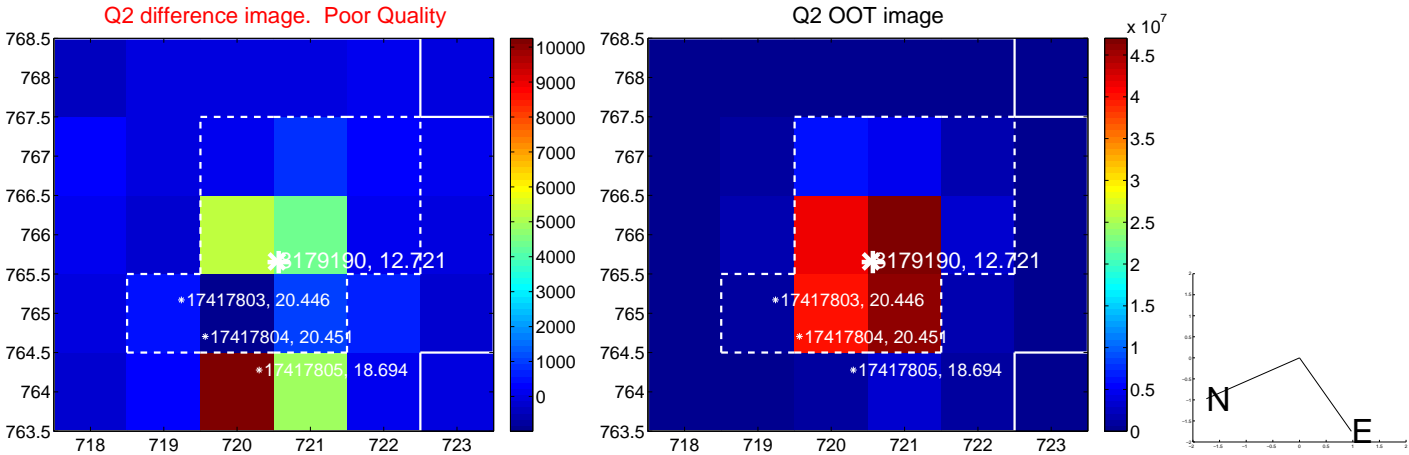
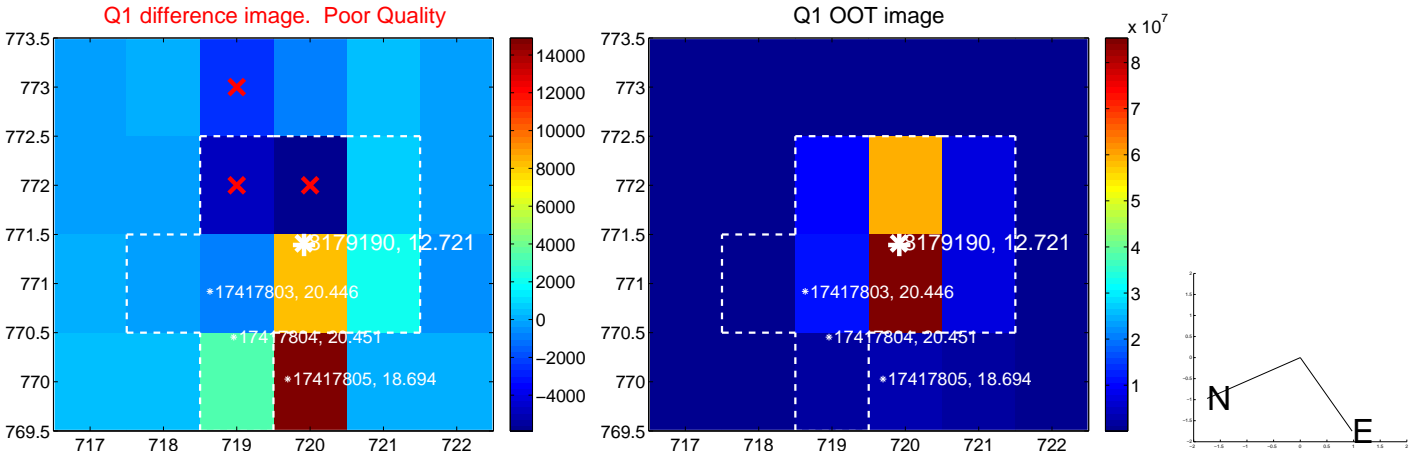
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.687 ± 0.113	50.39	4.543 ± 0.101	3.421 ± 0.088
PRF-fit source offset from KIC position	5.764 ± 0.116	49.71	4.631 ± 0.106	3.432 ± 0.085
photometric centroid source offset	1.42 ± 0.41	3.49	0.38 ± 0.39	1.37 ± 0.41

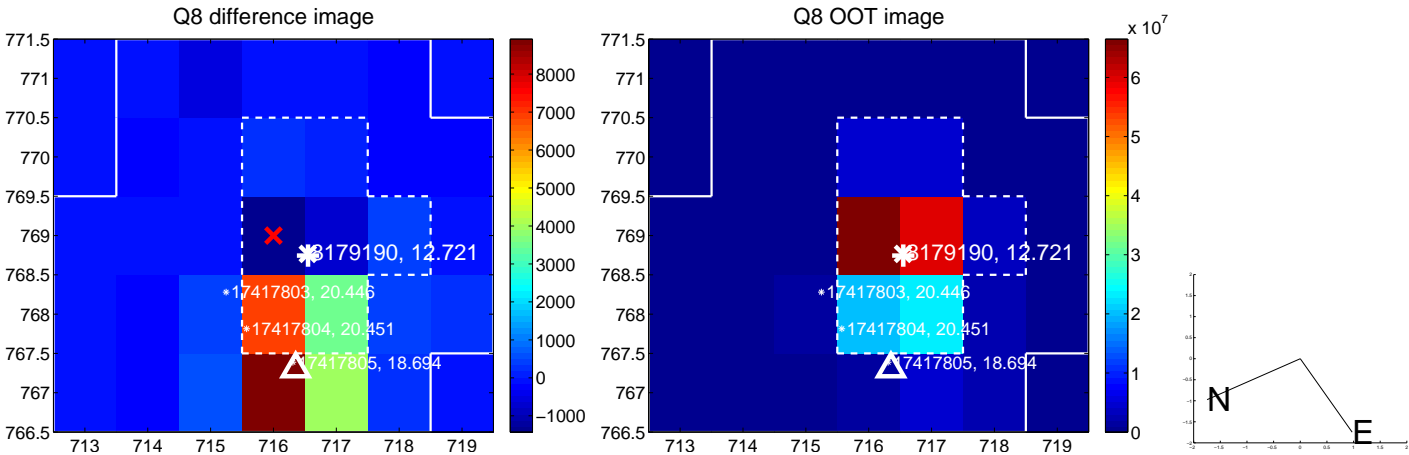
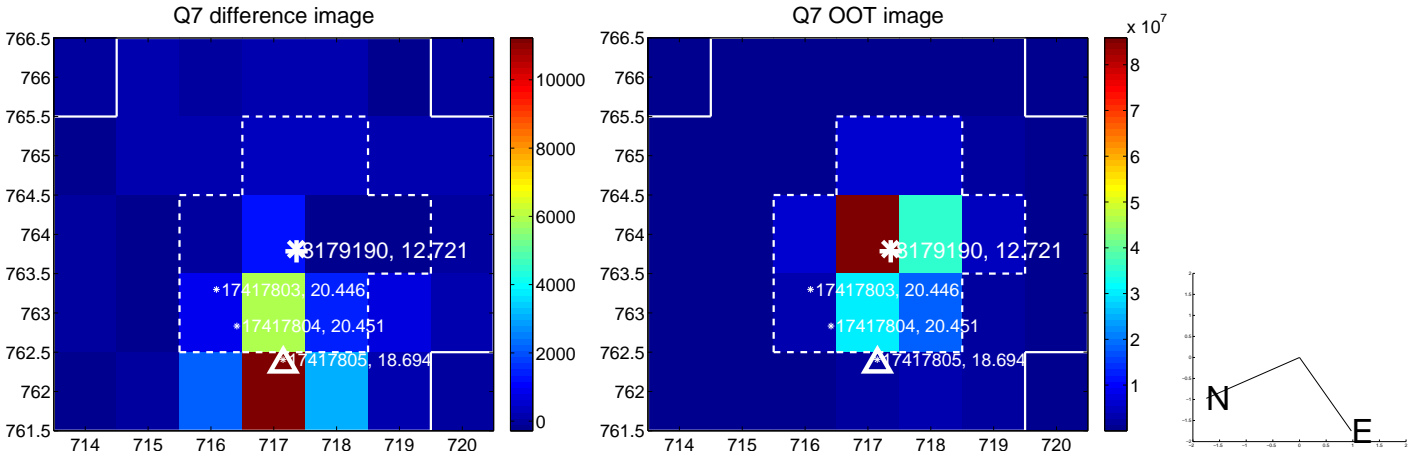
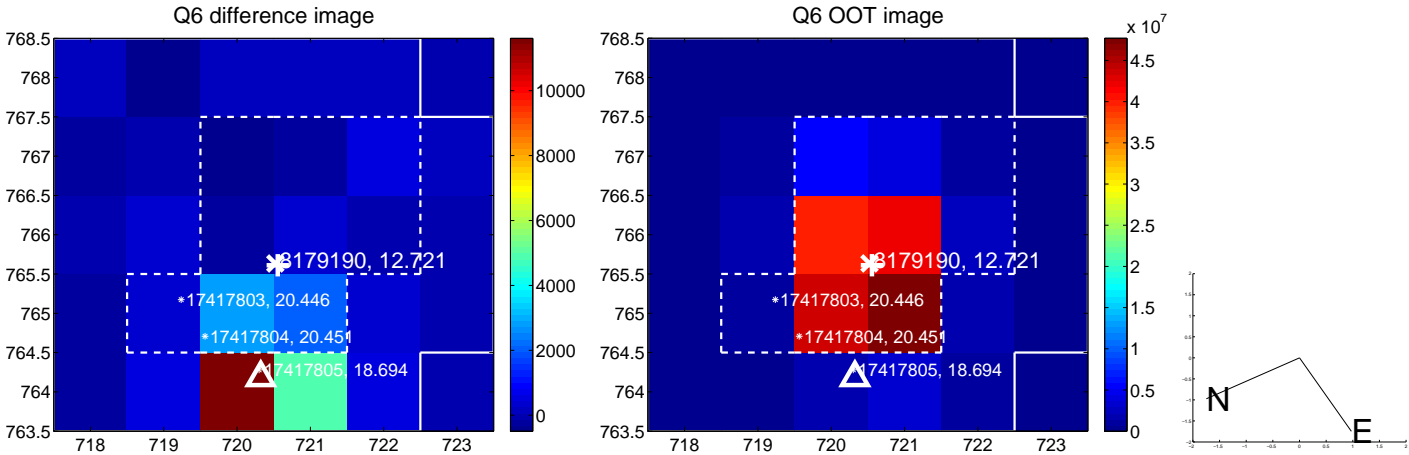
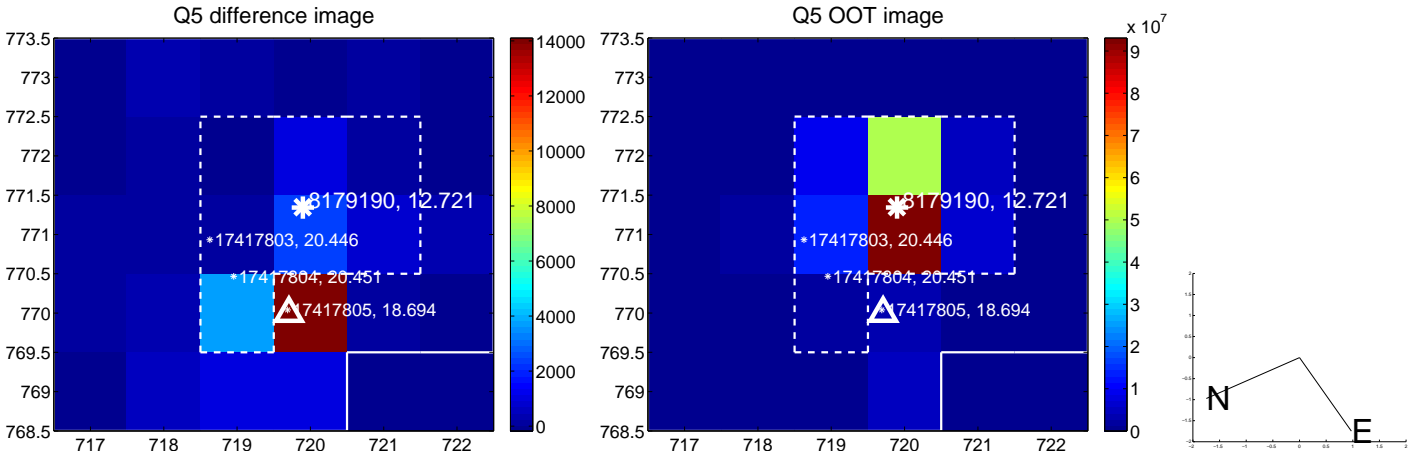


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

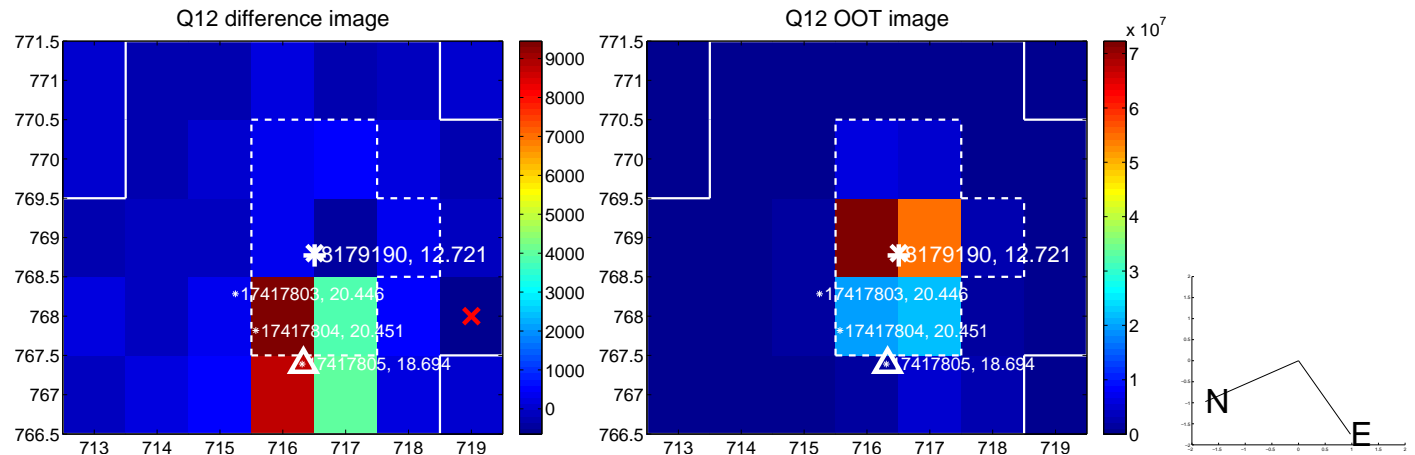
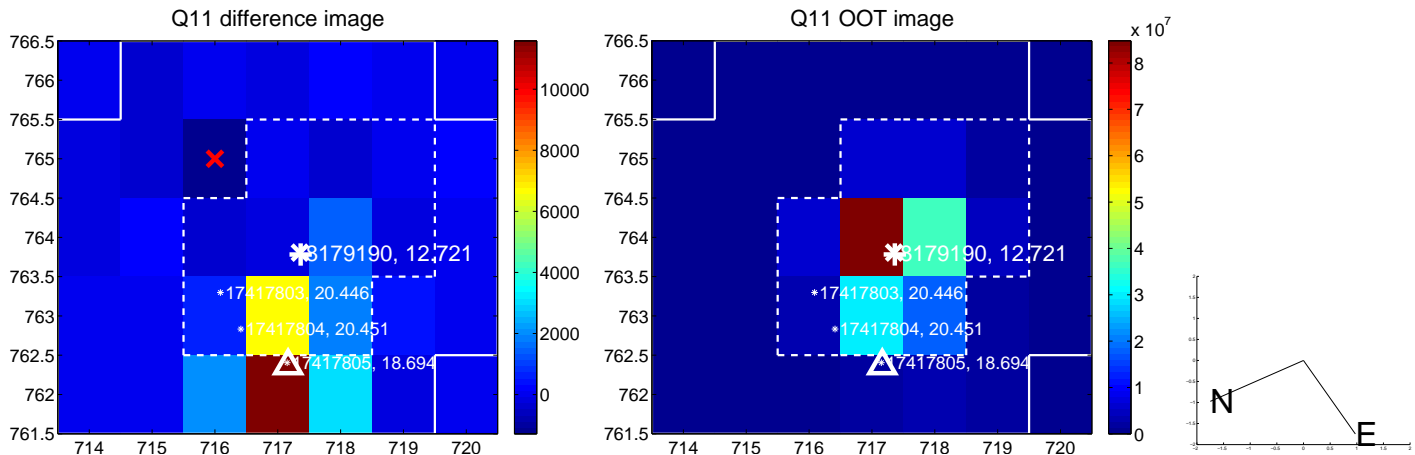
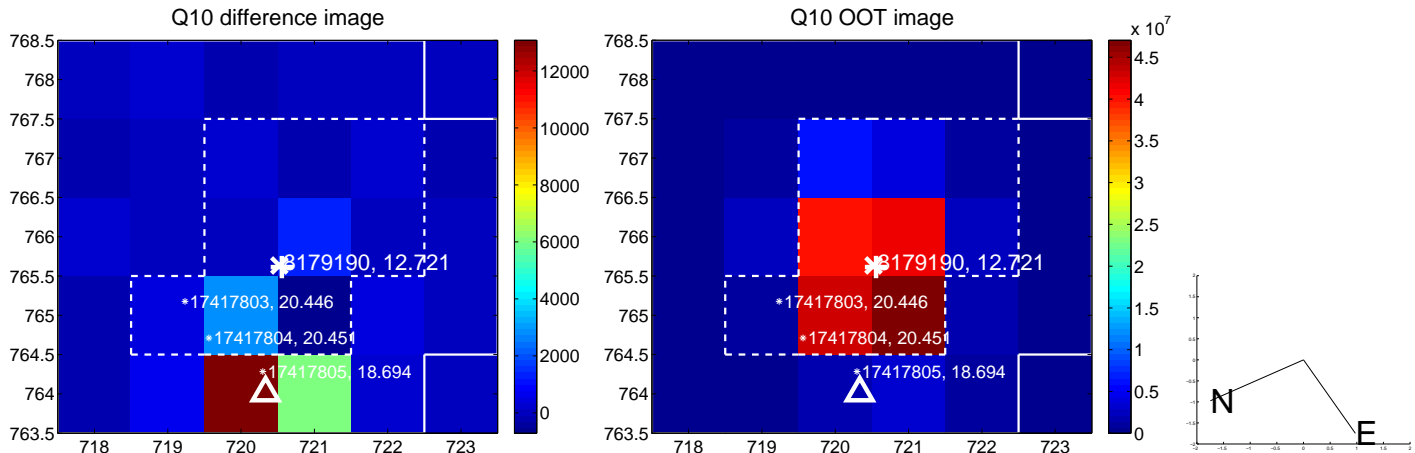
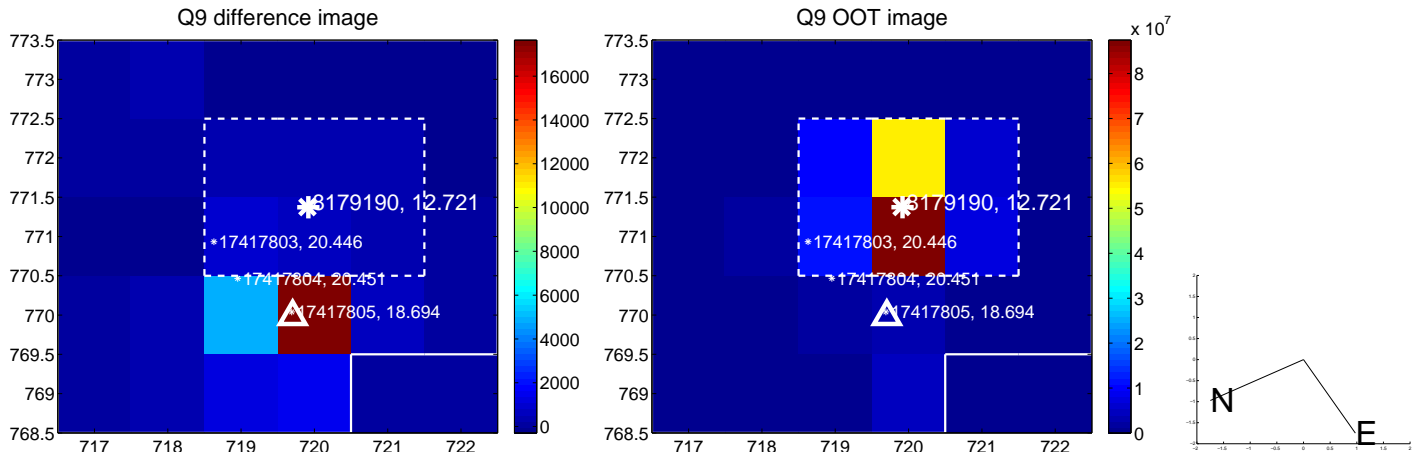
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



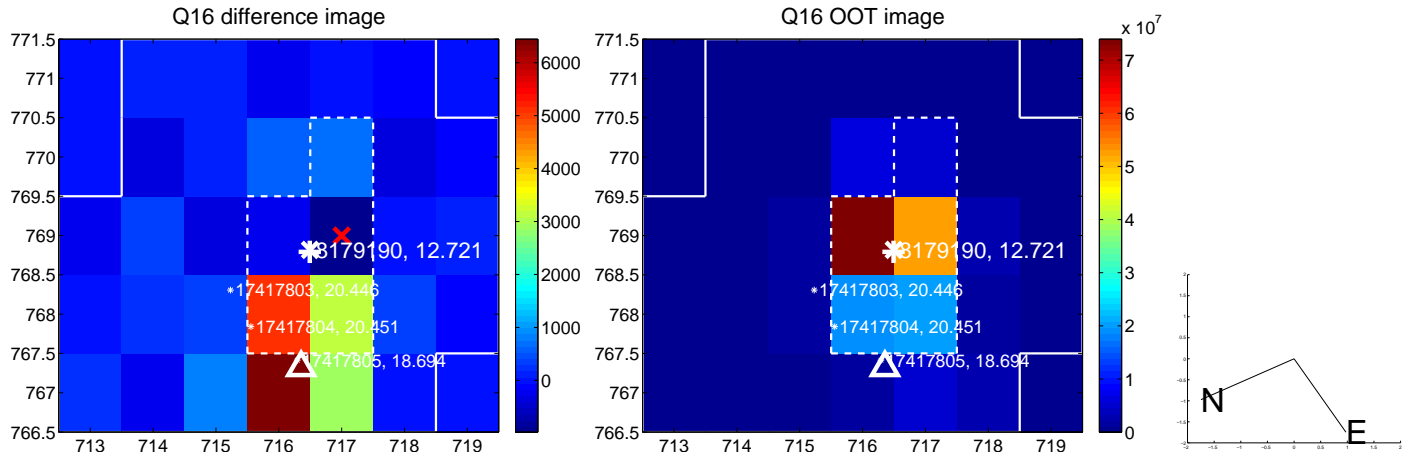
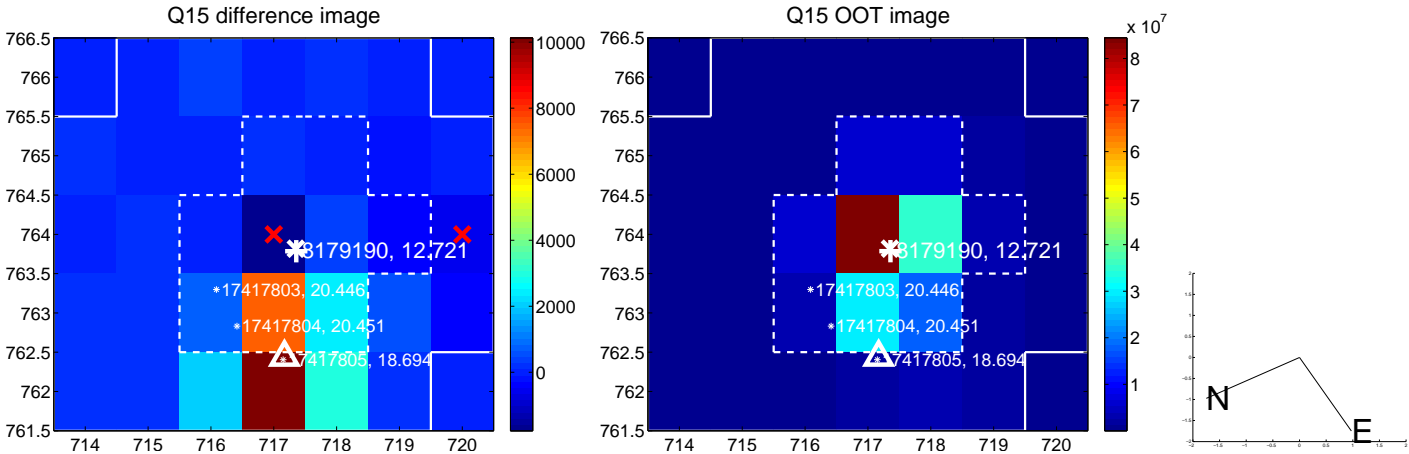
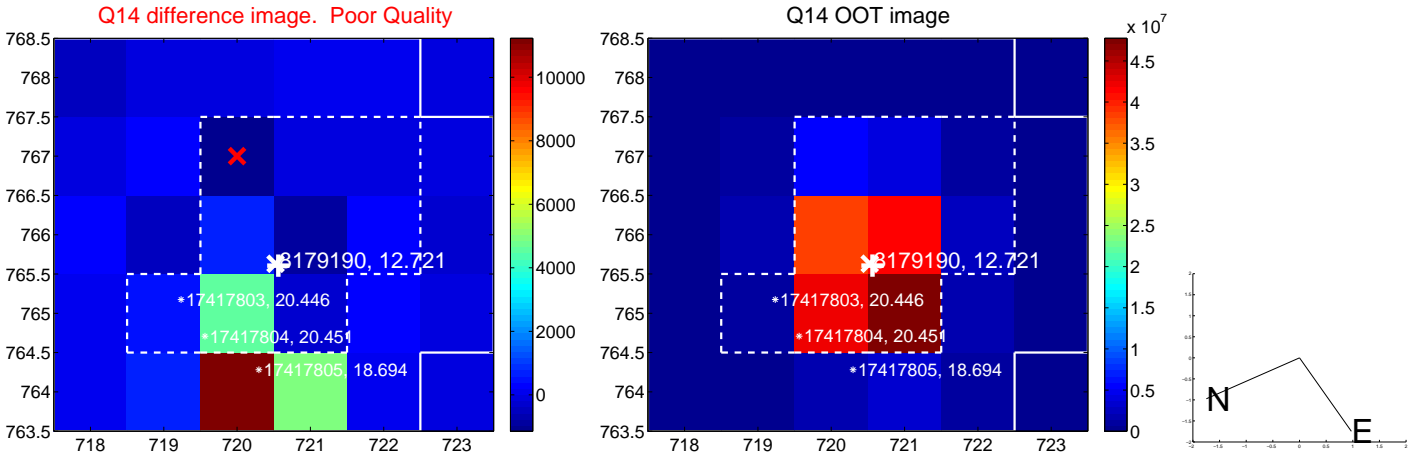
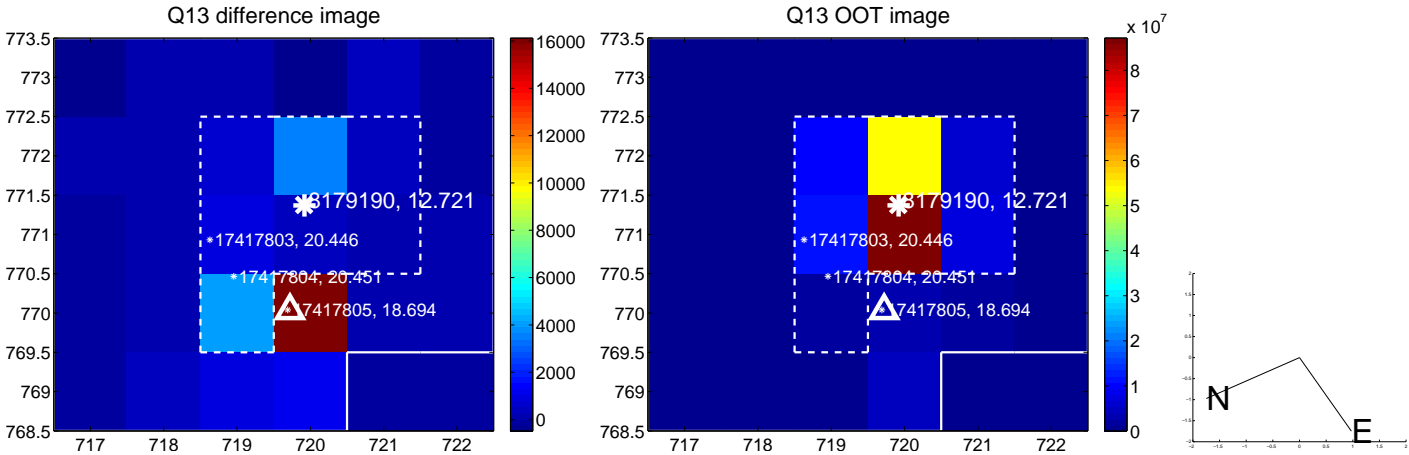
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



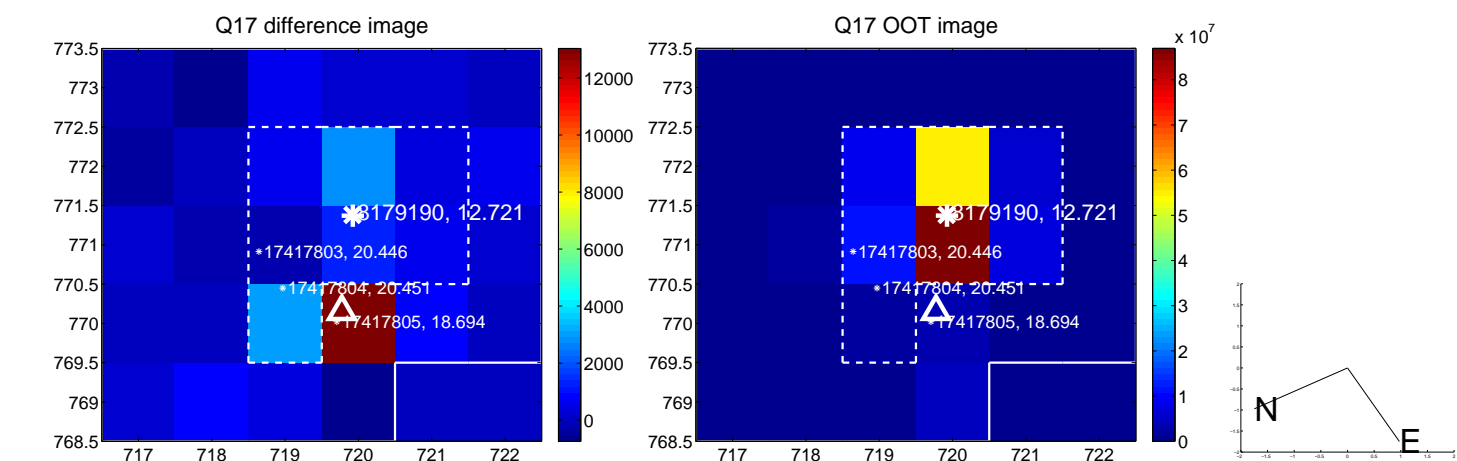
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



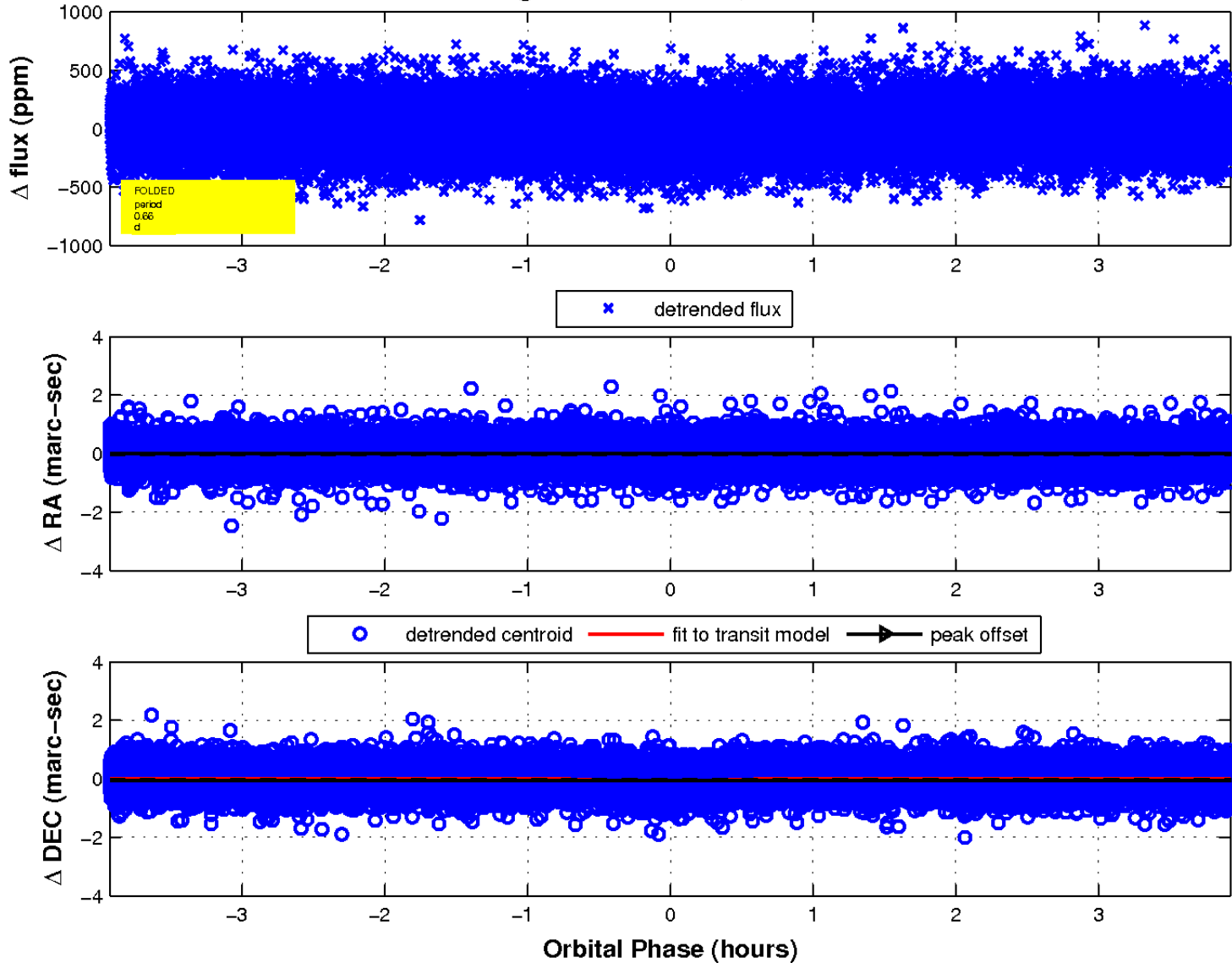
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

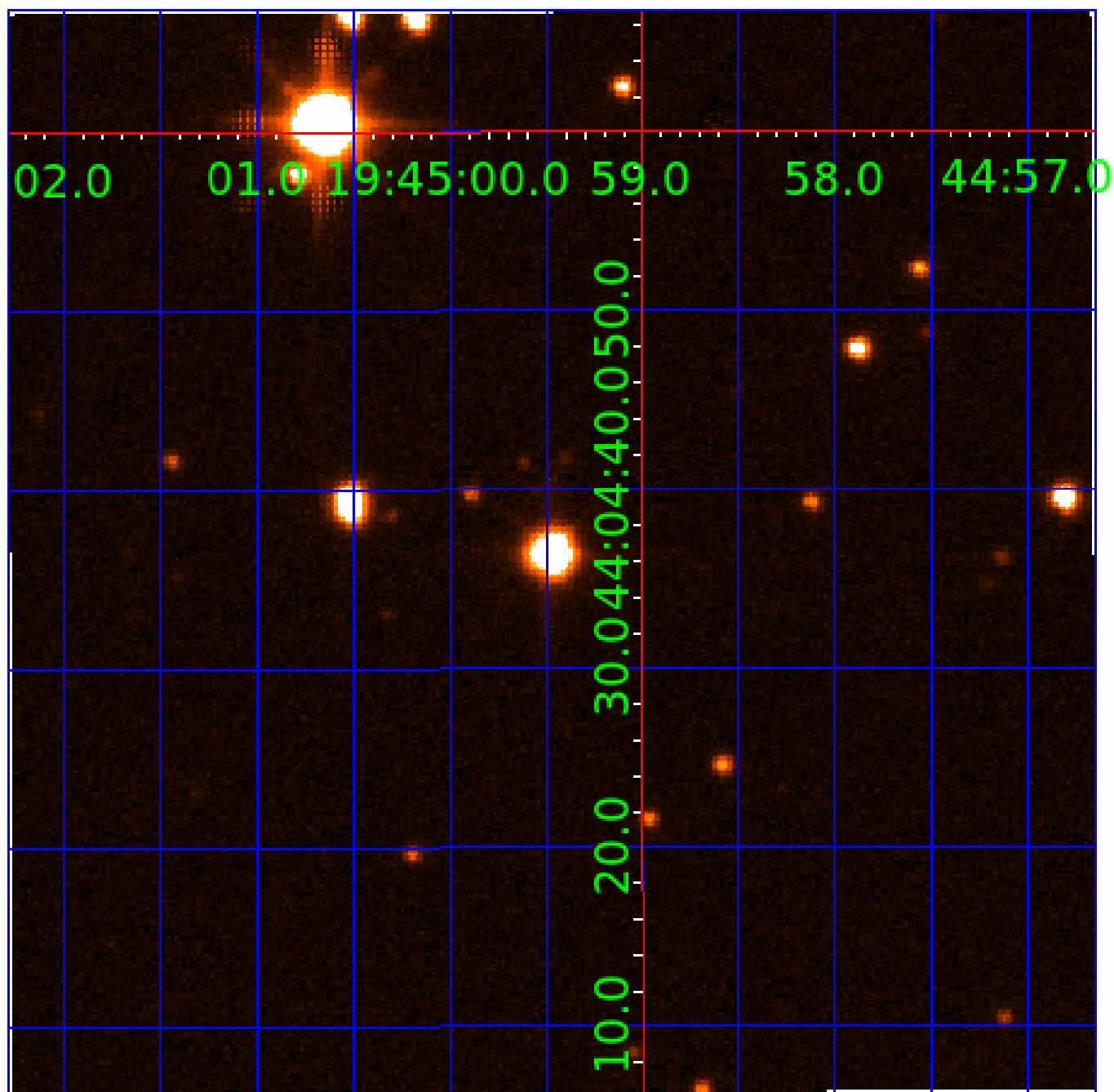


fluxWeightedCentroids, Planet 2 of 8



UKIRT Image

Declination



KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

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

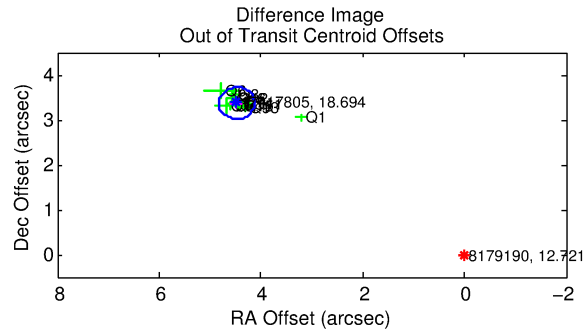
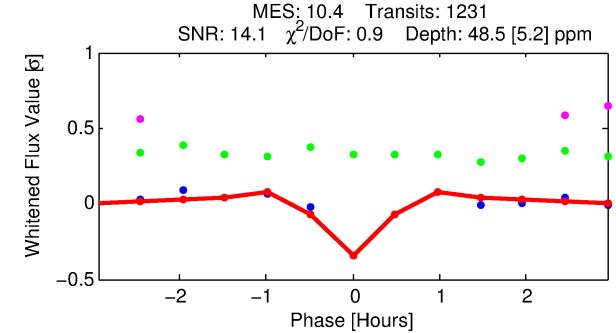
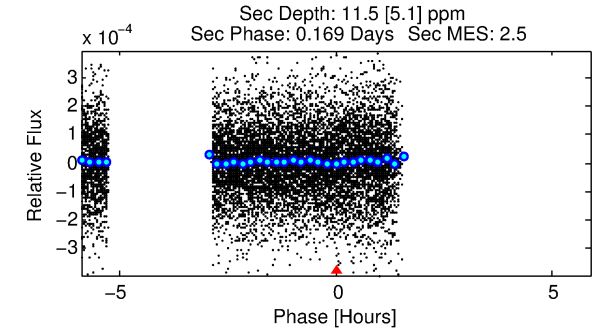
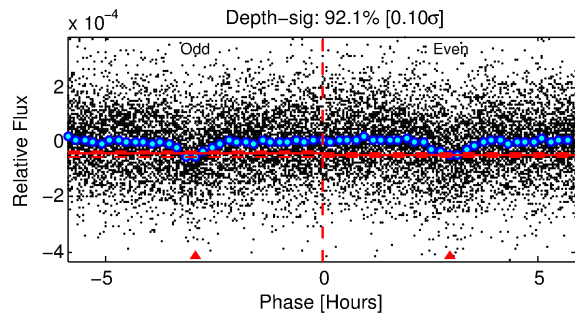
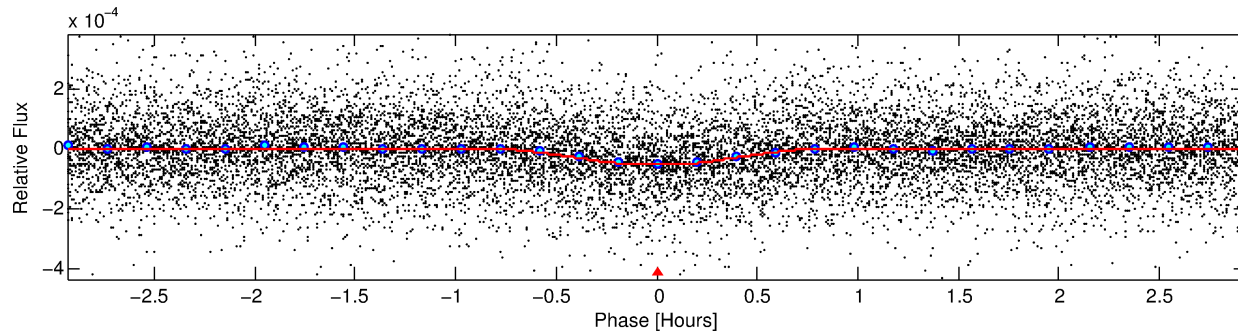
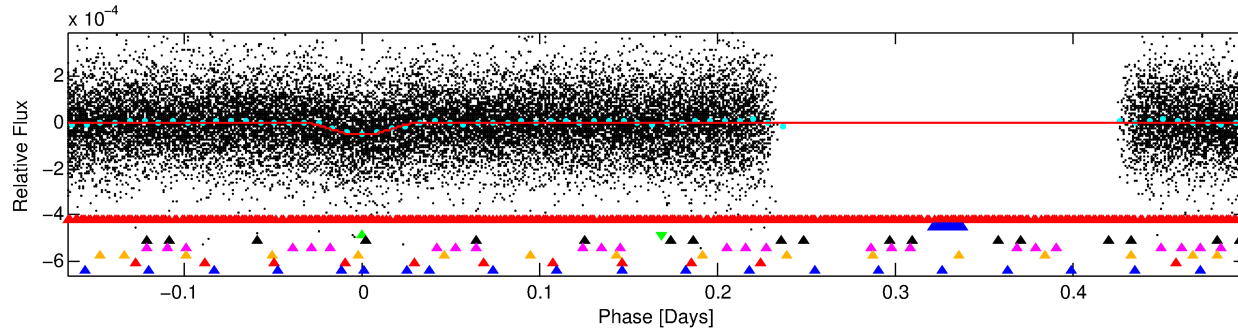
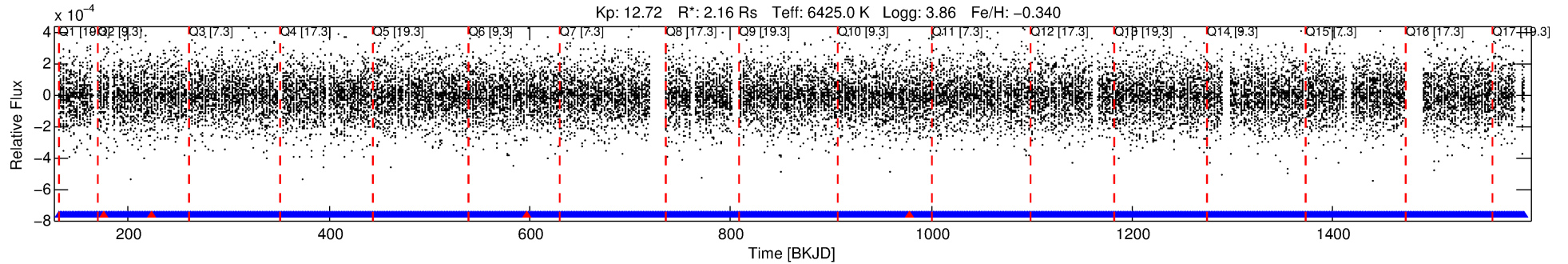
Ephemeris Match Information For 008179190-03

No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 3 of 8 Period: 0.662 d
KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



DV Fit Results:

Period = 0.66246 [0.00001] d
Epoch = 131.5737 [0.0010] BKJD
Rp/R* = 0.0073 [0.0013]
a/R* = 2.84 [2.30]
b = 0.86 [0.28]
Seff = 27913.28 [14535.30]
Teq = 3296 [429] K
Rp = 1.73 [0.63] Re
a = 0.0160 [0.0051] AU
Ag = 0.54 [0.41] [-1.12σ]
Teff = 4369 [623] K [1.42σ]

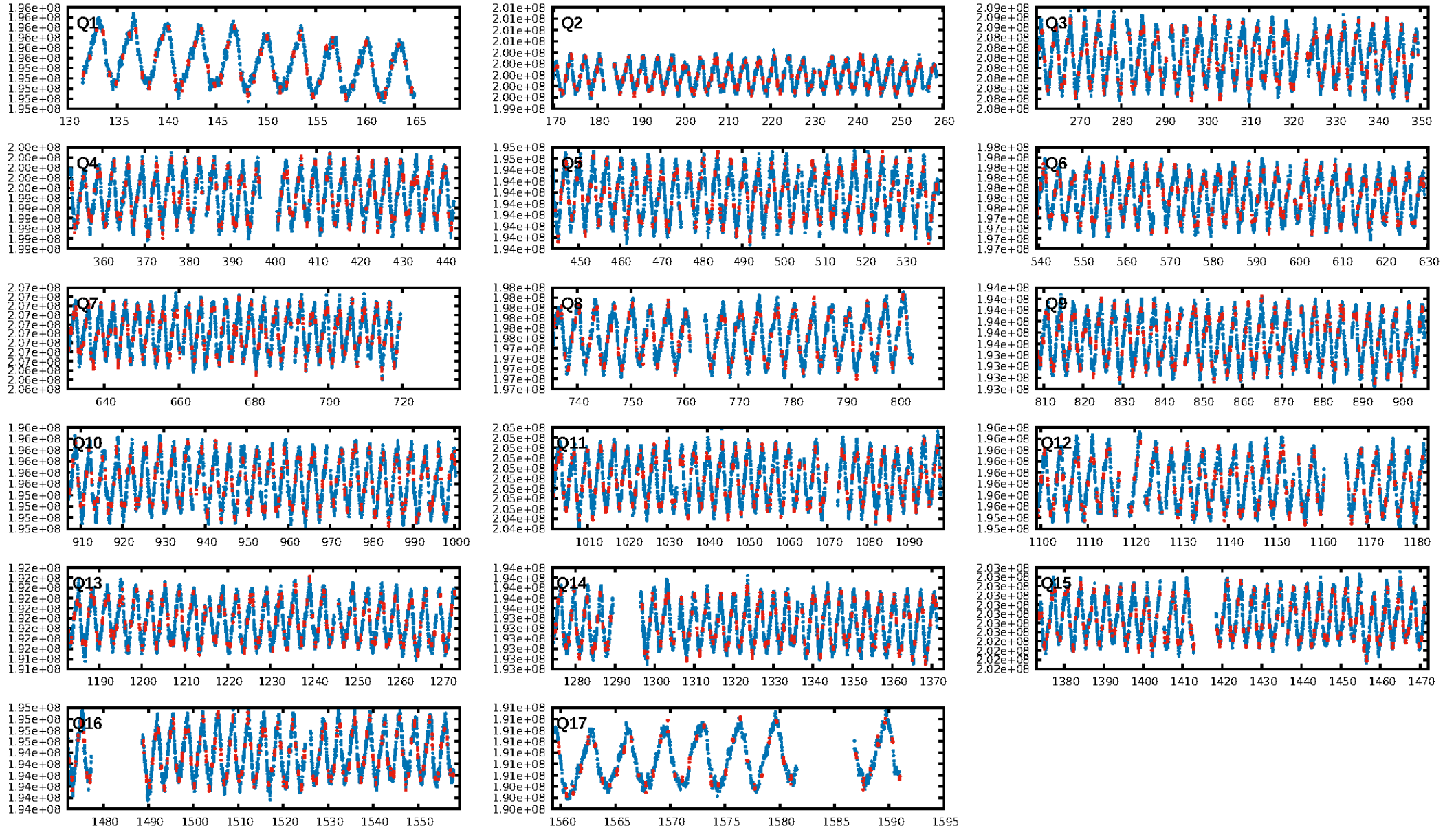
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [6.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1174/1178]
GhostDiagnostic-chr: -0.459
Centroid-sig: 0.0%
Centroid-so: 2.573 arcsec [6.36σ]
OotOffset-rm: 5.606 arcsec [47.70σ]
KicOffset-rm: 5.676 arcsec [50.47σ]
OotOffset-st: 2/4/3/5 [14]
KicOffset-st: 2/4/3/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

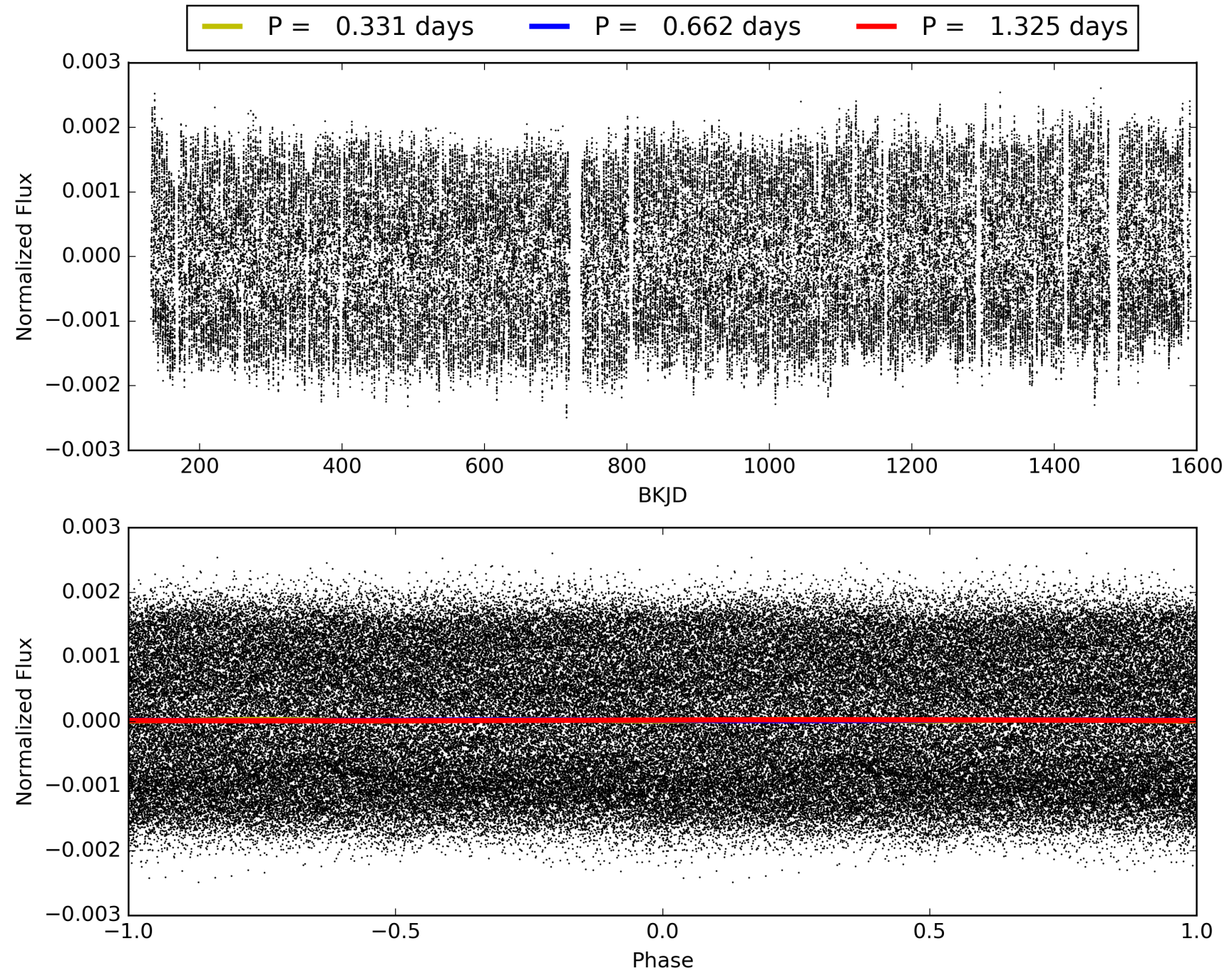
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:34 Z

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

TCE 008179190-03, PDC Light Curves

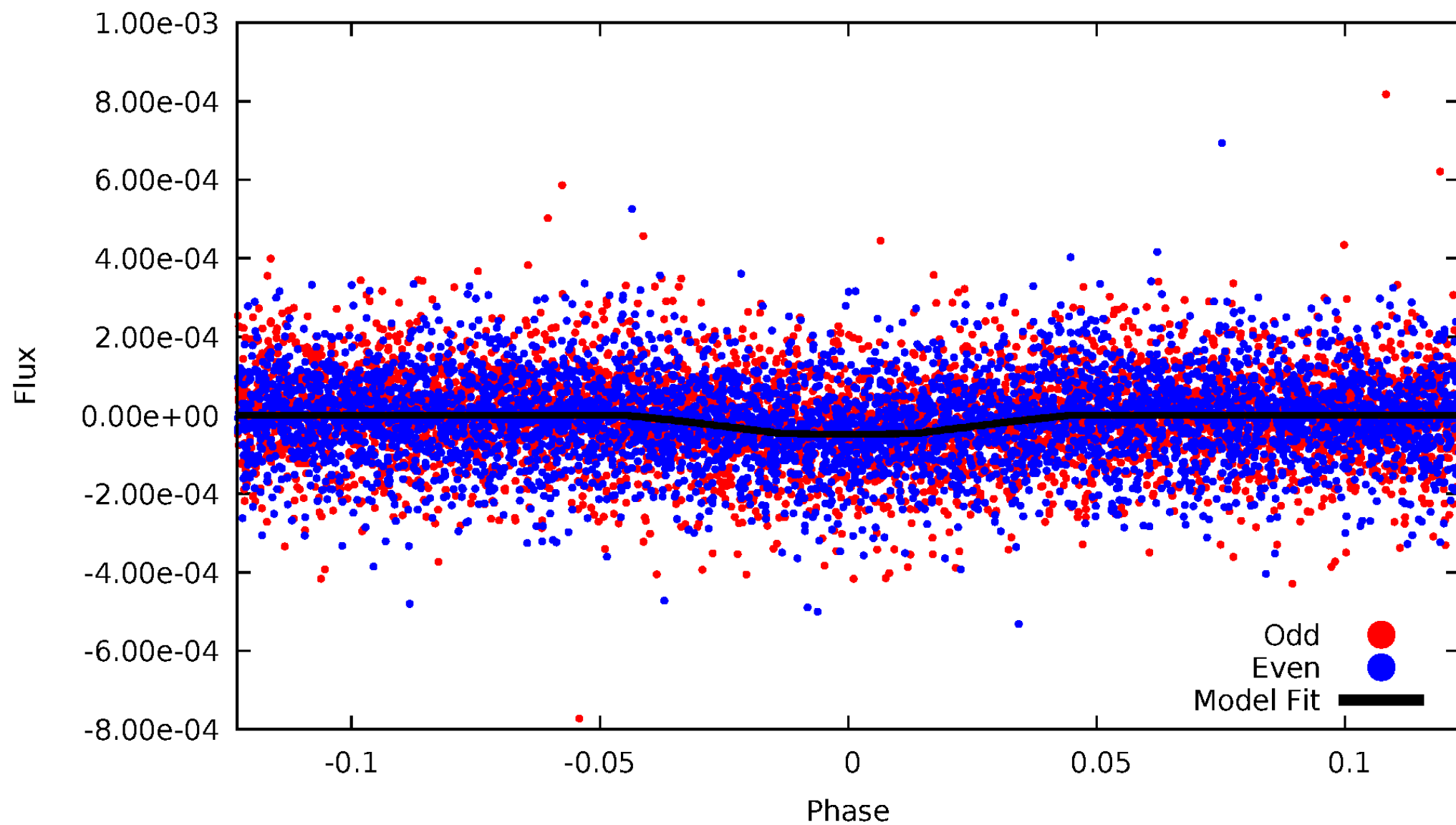


TCE 008179190-03



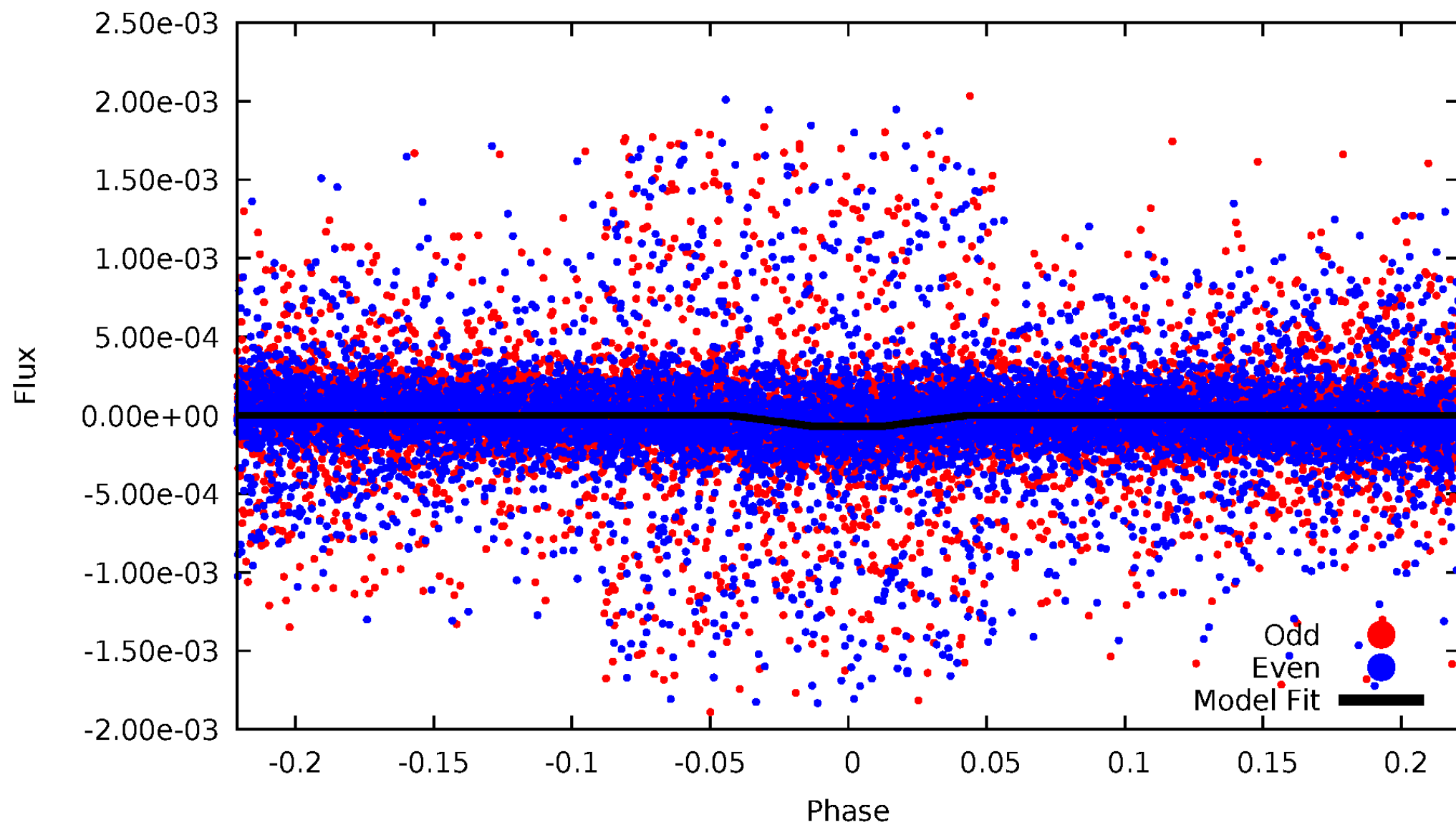
DV Odd/Even

TCE 008179190-03



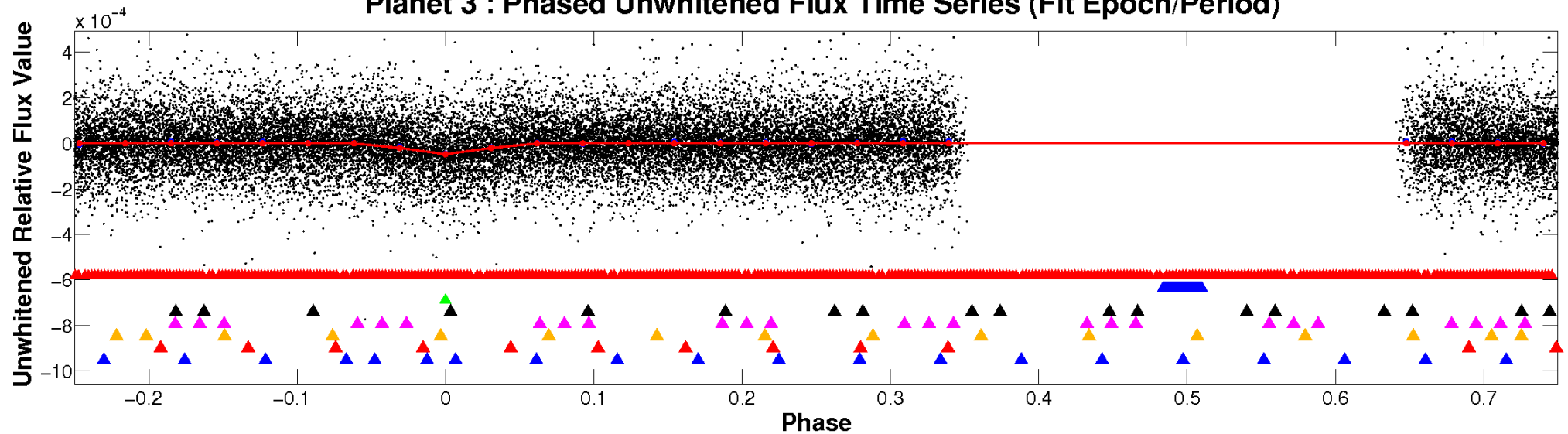
ALT Odd/Even

TCE 008179190-03

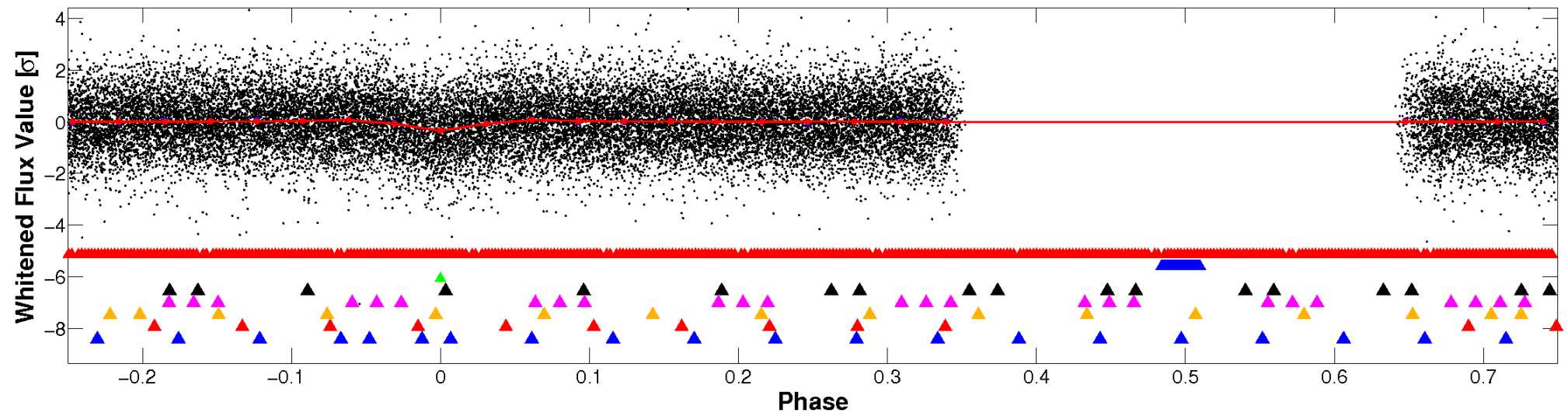


Non-Whitened Vs. Whitened Light Curve

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

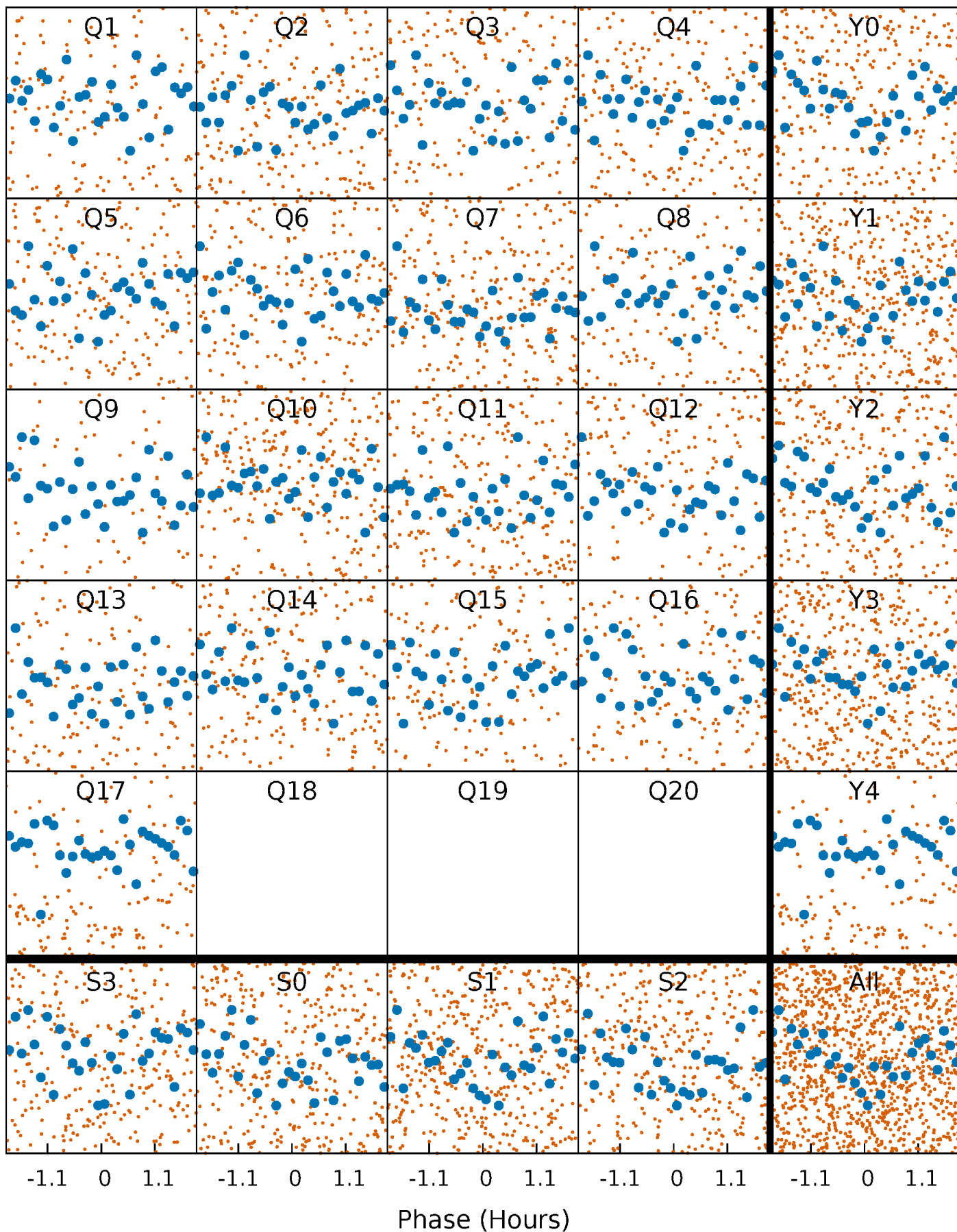


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



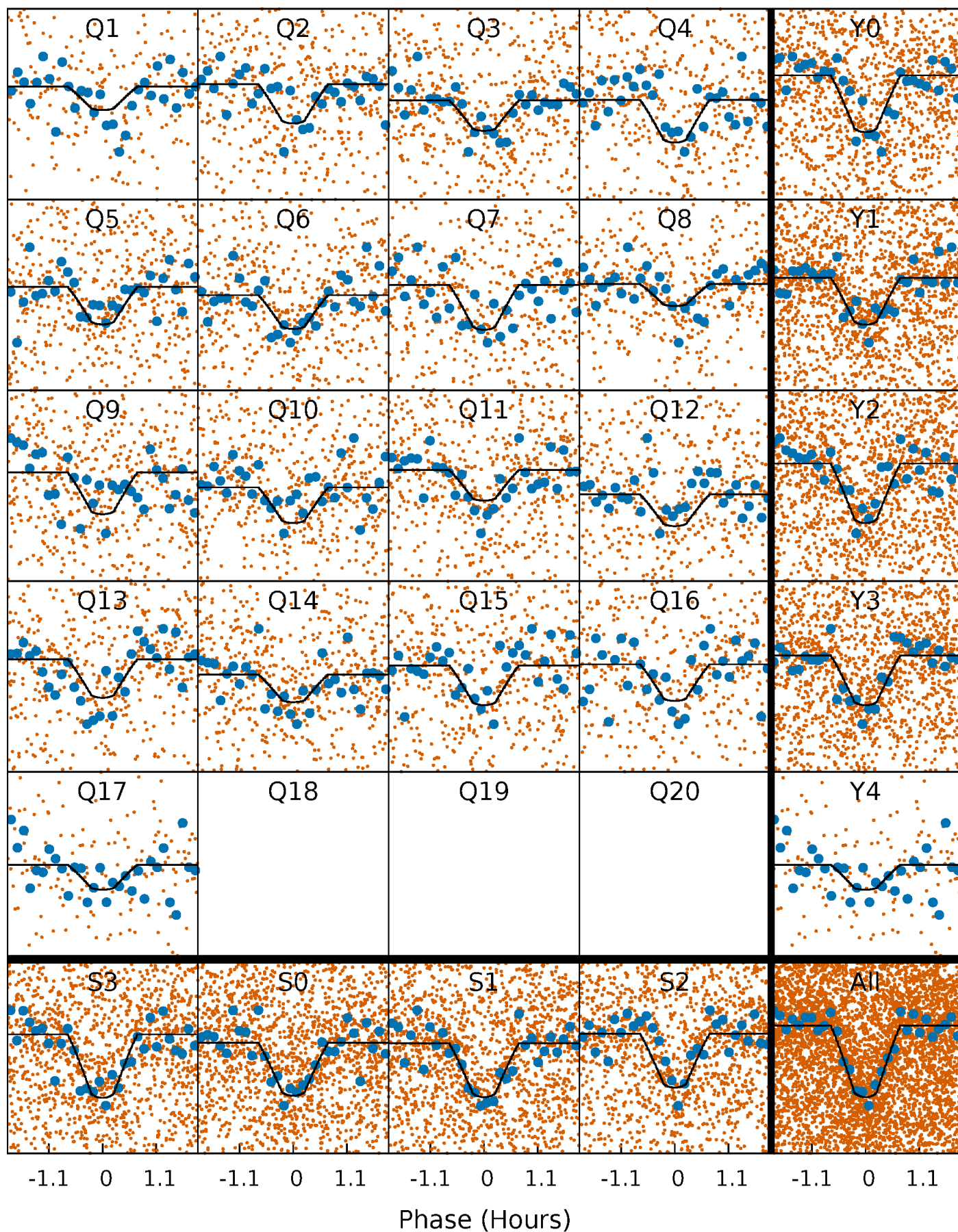
PDC Quarter-Phased Transit Curves

TCE 008179190-03 P= 0.662459 Days $T_0=131.573673$ (BKJD)



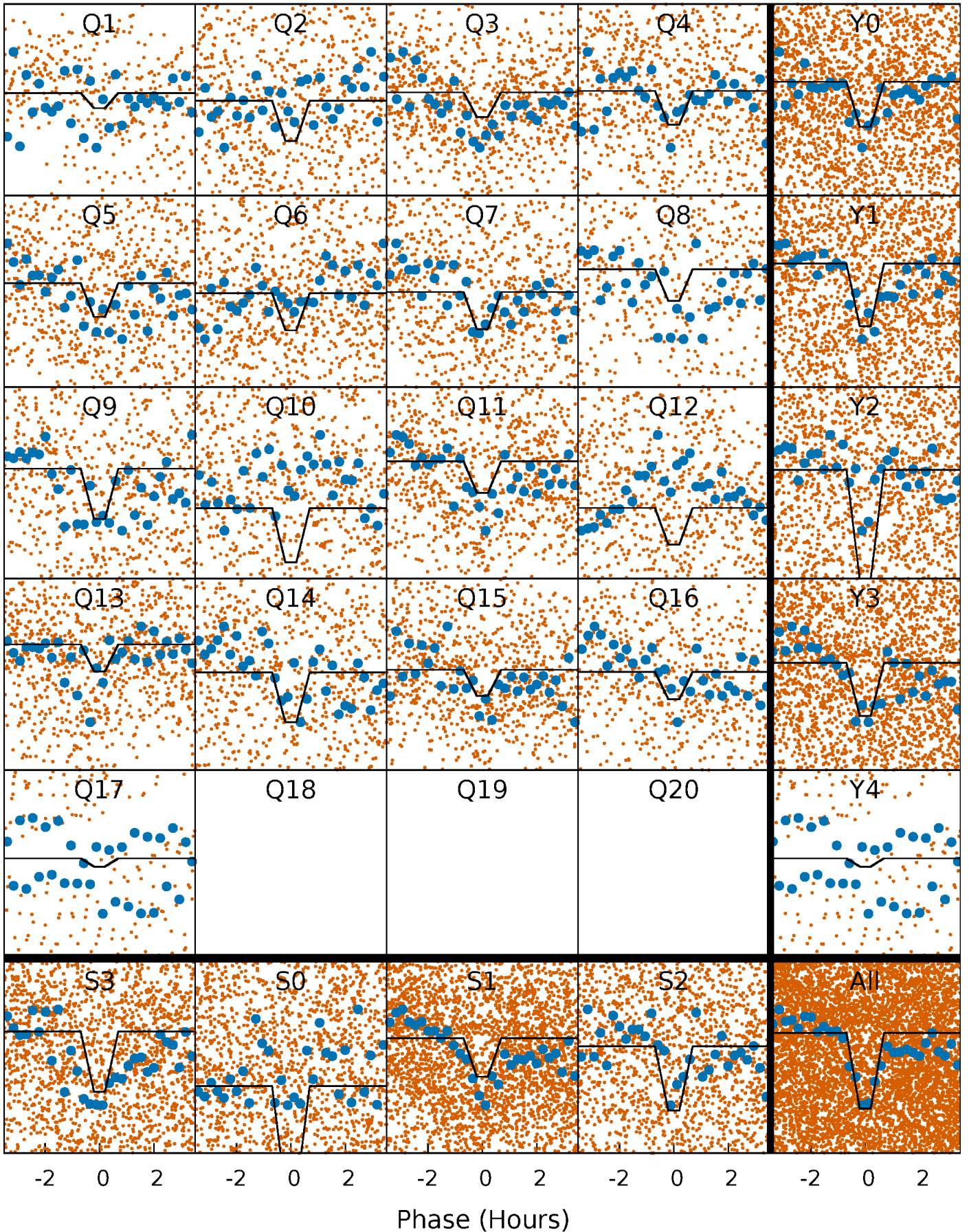
DV Quarter-Phased Transit Curves

TCE 008179190-03 P= 0.662459 Days $T_0=131.573673$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

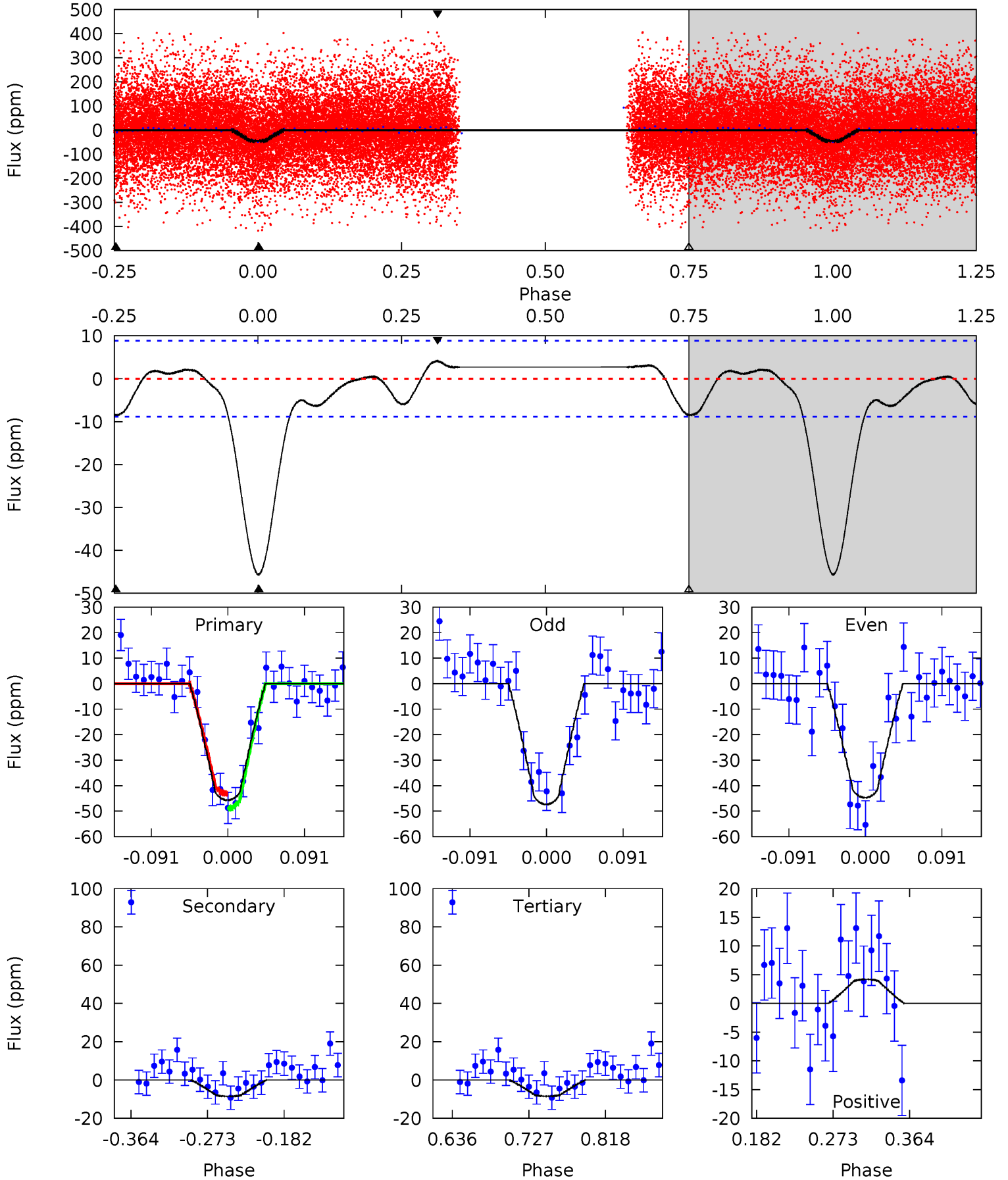
TCE 008179190-03 P= 0.662452 Days $T_0=131.585133$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-03, P = 0.662459 Days, E = 130.911214 Days

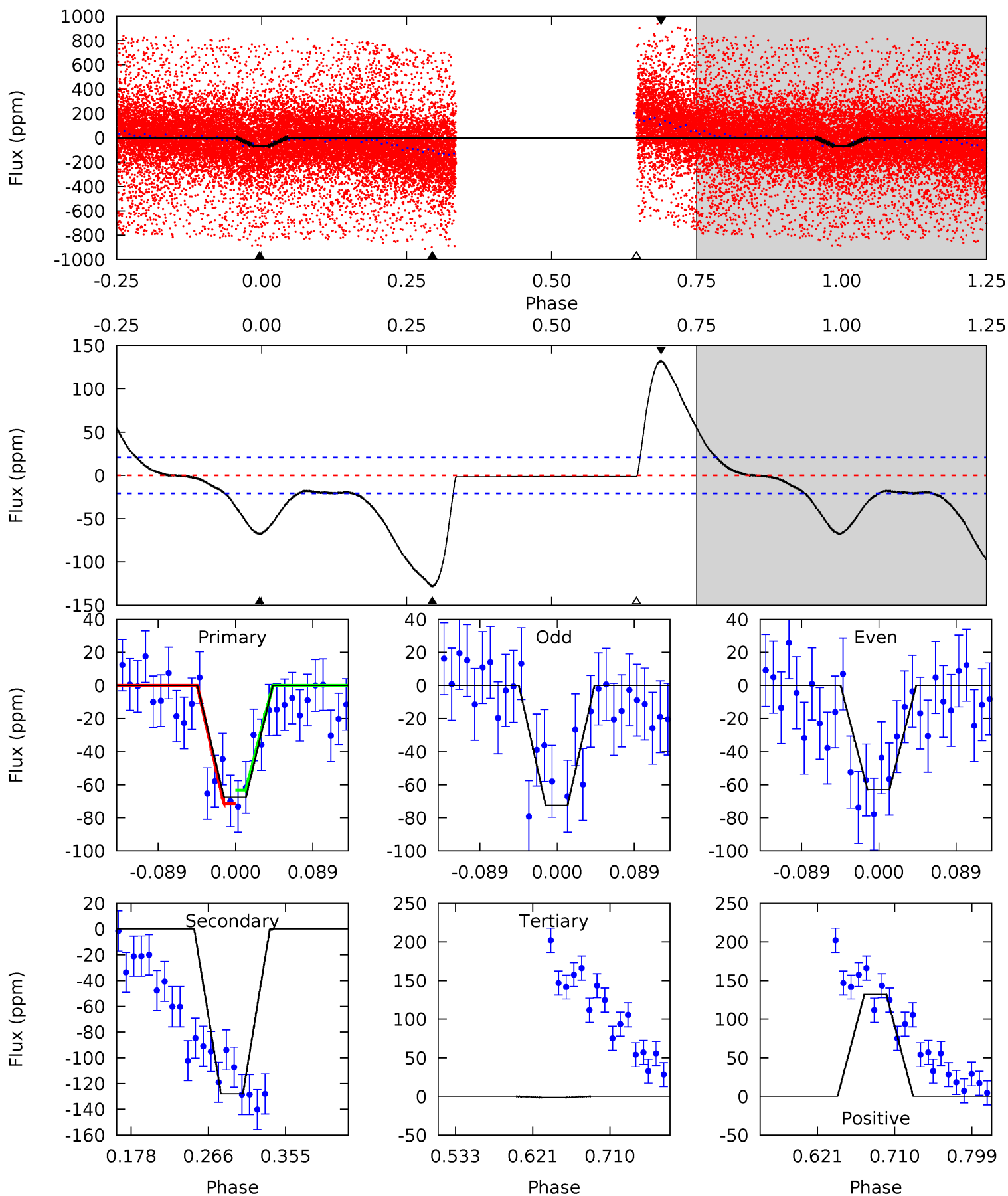
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	4.42	4.40	2.17	4.58	1.69	1.74	19.3	21.5	0.02	2.25	0.68	0.92	0.08	1.55



Alt Model-Shift Uniqueness Test

008179190-03, P = 0.662452 Days, E = 130.922681 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	28.2	0.32	29.2	4.59	1.70	10.8	14.6	-14.3	27.9	-0.92	1.05	1.12	0.51	0.96



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 2	$1.65^{+0.37}_{-0.38}$	4509^{+289}_{-412}	3520^{+684}_{-6349}	$0.445^{+0.309}_{-0.172}$
Alt.	-128 ± 5	$1.89^{+0.44}_{-0.39}$	4522^{+287}_{-400}	7419^{+796}_{-652}	$5.123^{+2.852}_{-1.641}$

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 $A_{obs} \gg 1.0$

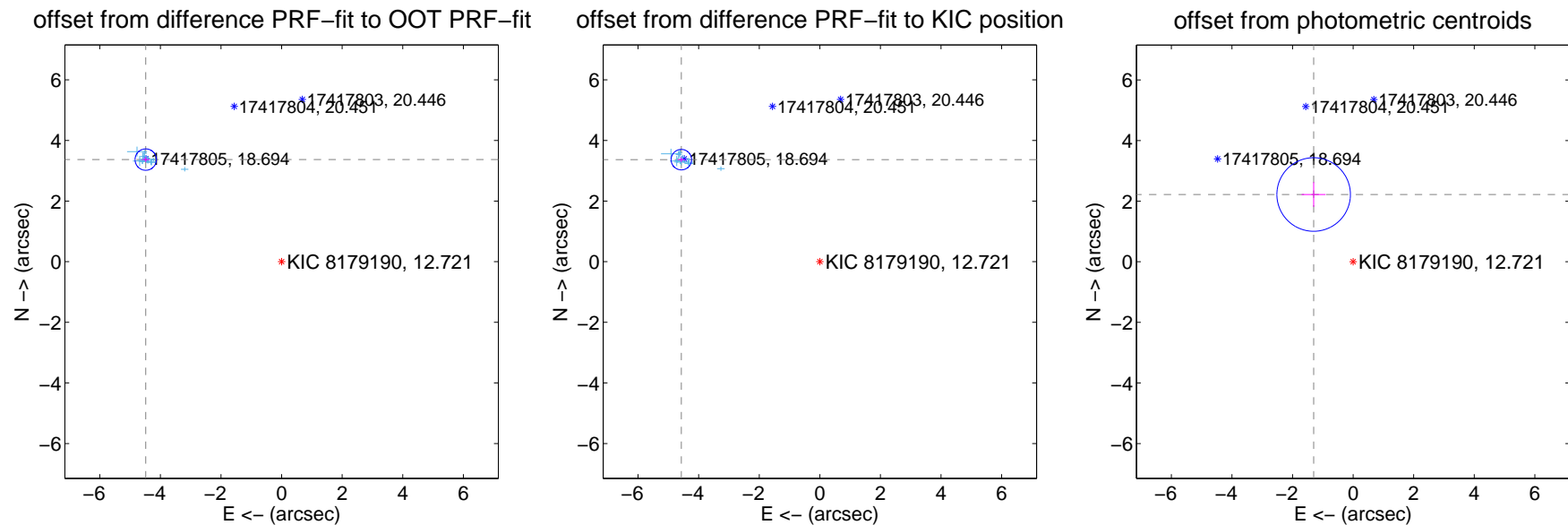
DV Centroid Data

Supplemental centroid analysis for 008179190-03. Kepler magnitude: 12.72. Transit SNR 14.11

There are 14 quarters with good PRF difference image offsets

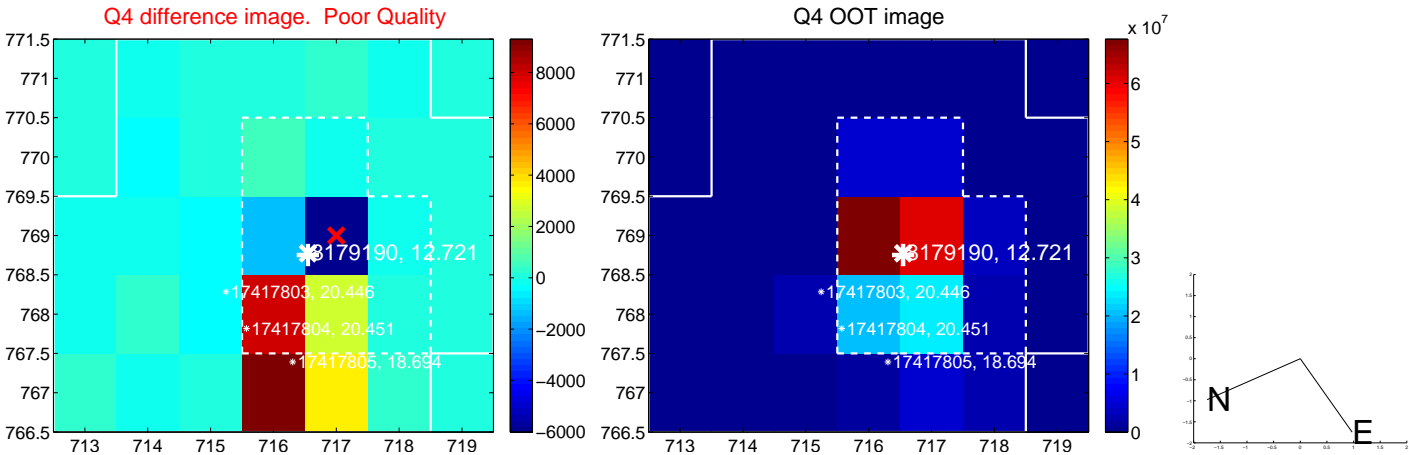
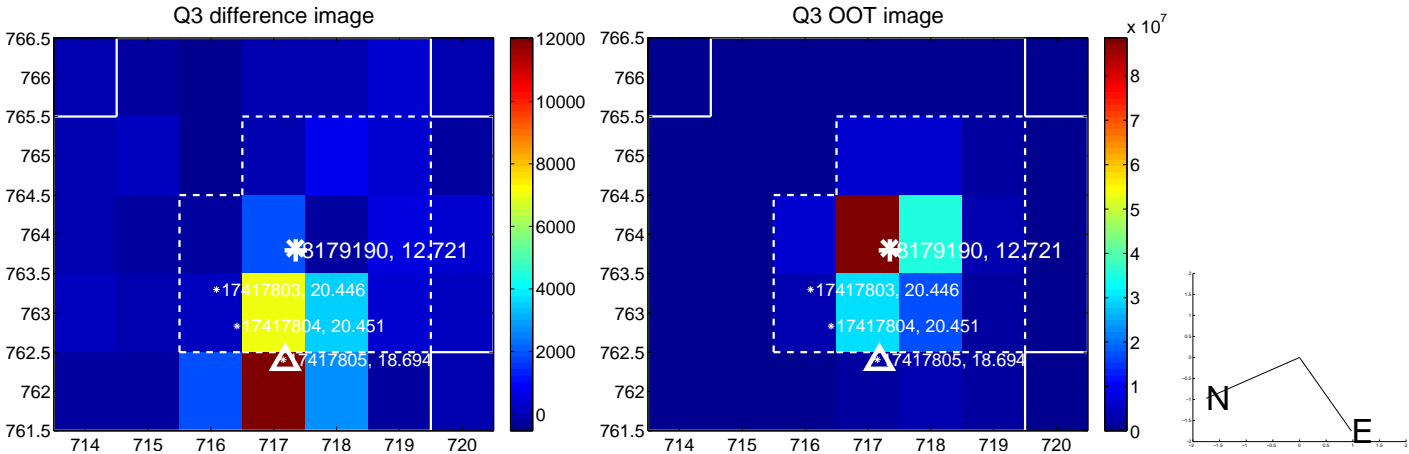
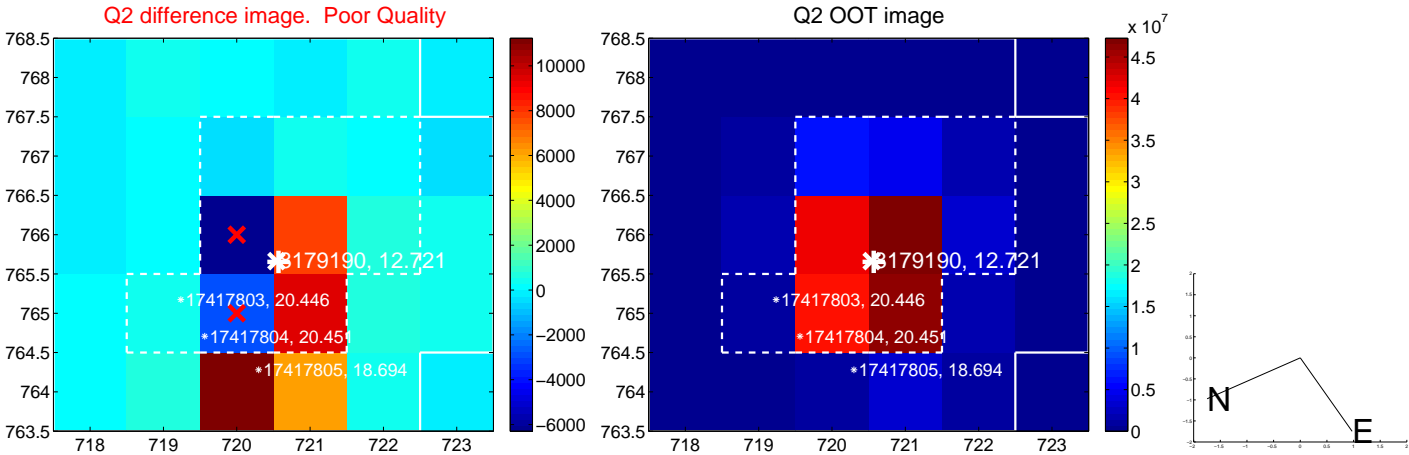
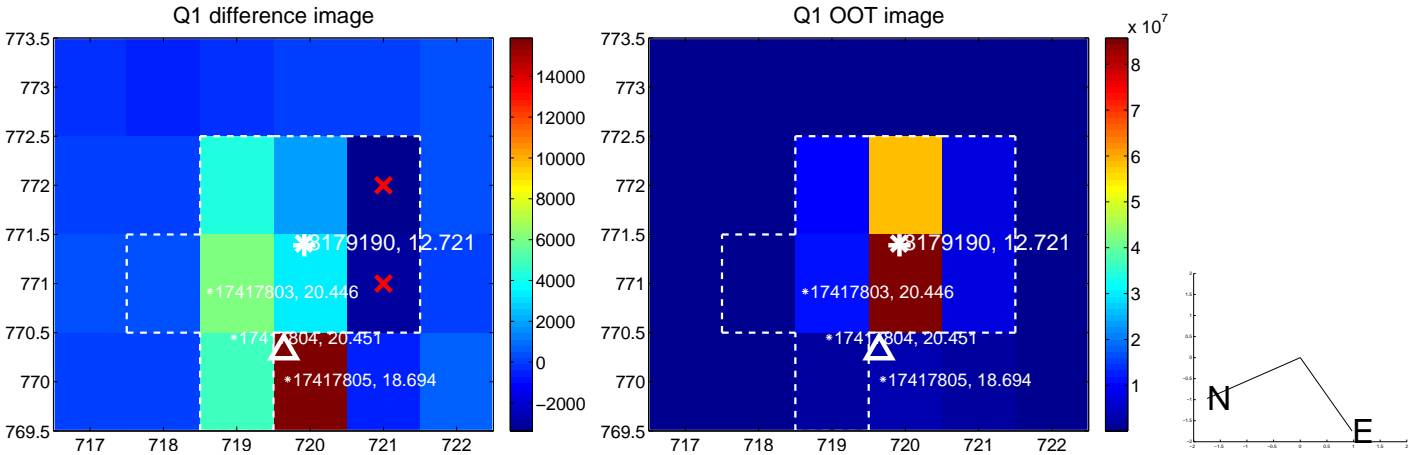
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.606 ± 0.118	47.70	4.482 ± 0.118	3.368 ± 0.077
PRF-fit source offset from KIC position	5.676 ± 0.112	50.47	4.570 ± 0.114	3.366 ± 0.076
photometric centroid source offset	2.57 ± 0.40	6.36	1.30 ± 0.39	2.22 ± 0.41

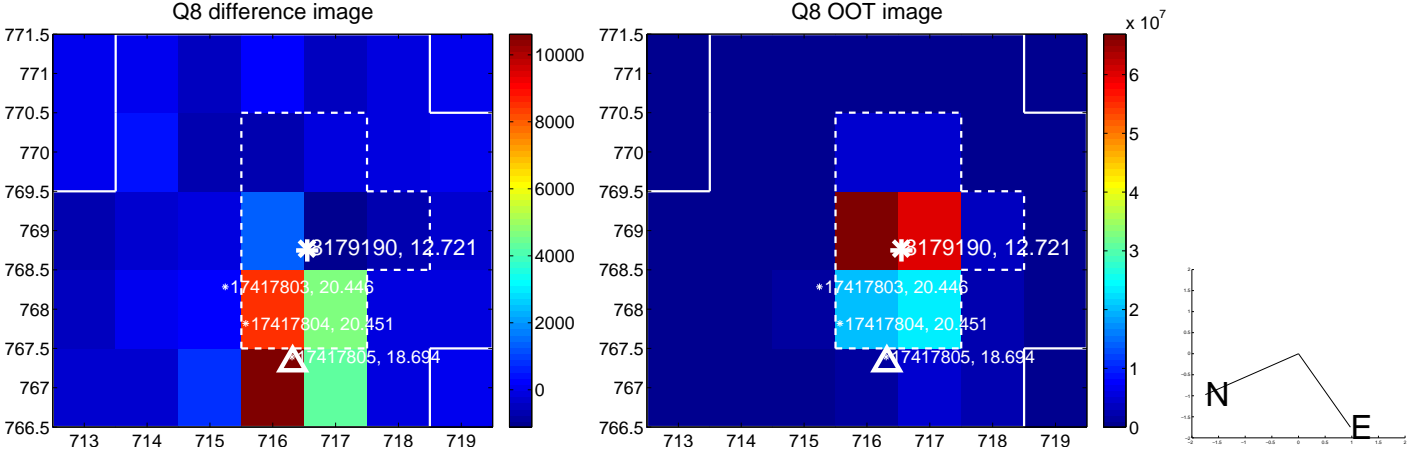
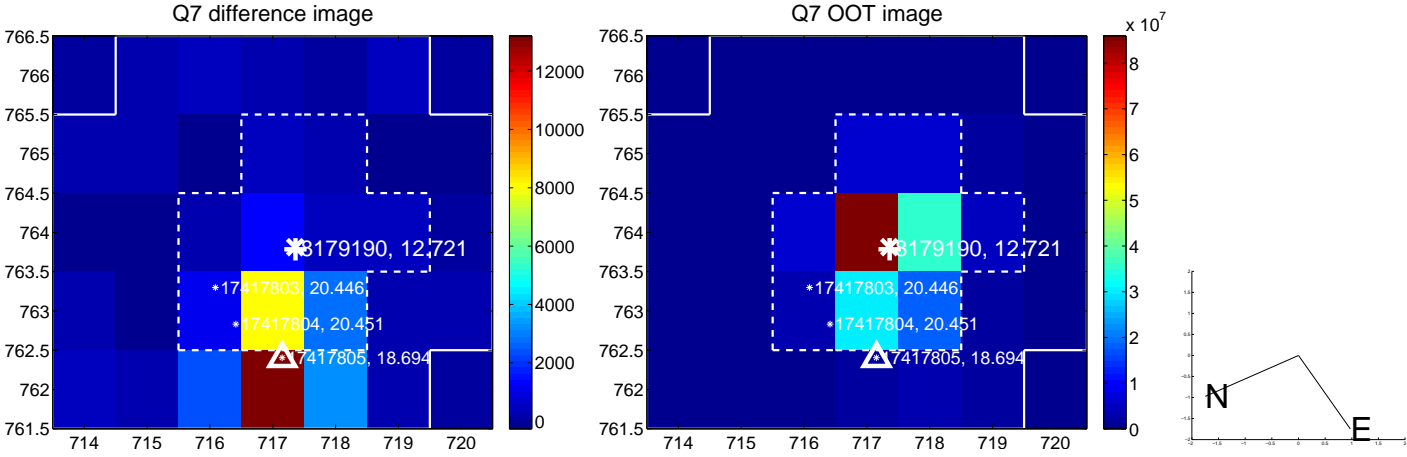
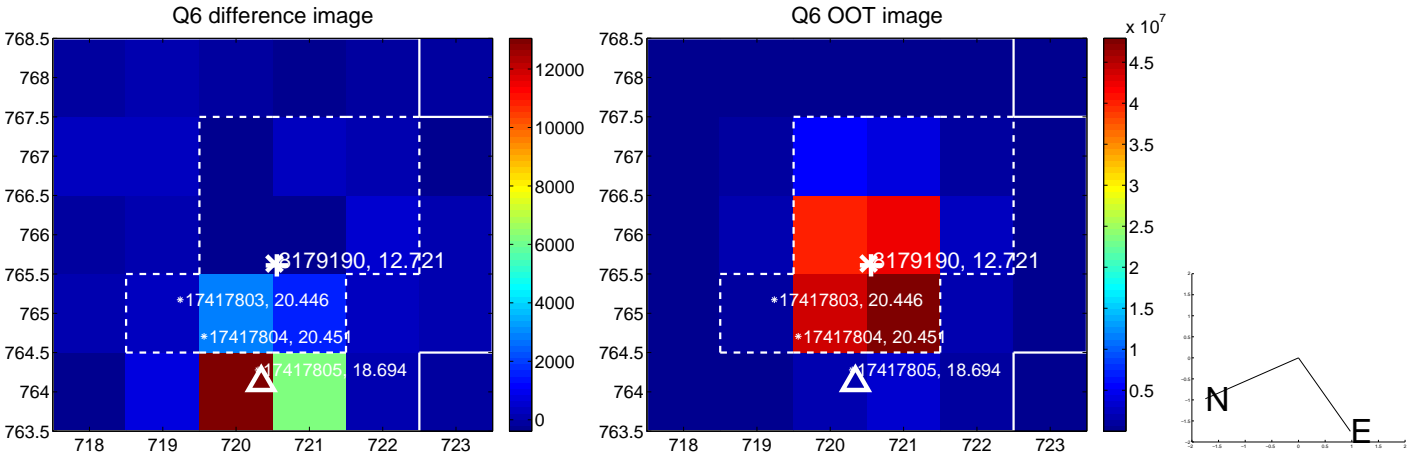
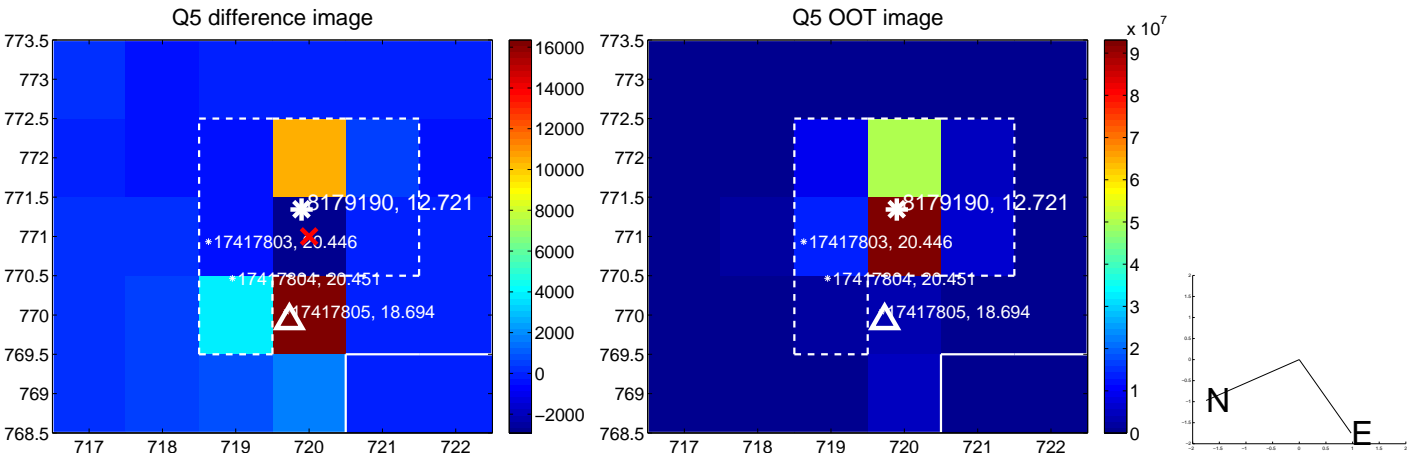


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15, 000, 000 are from the UKIRT catalog.

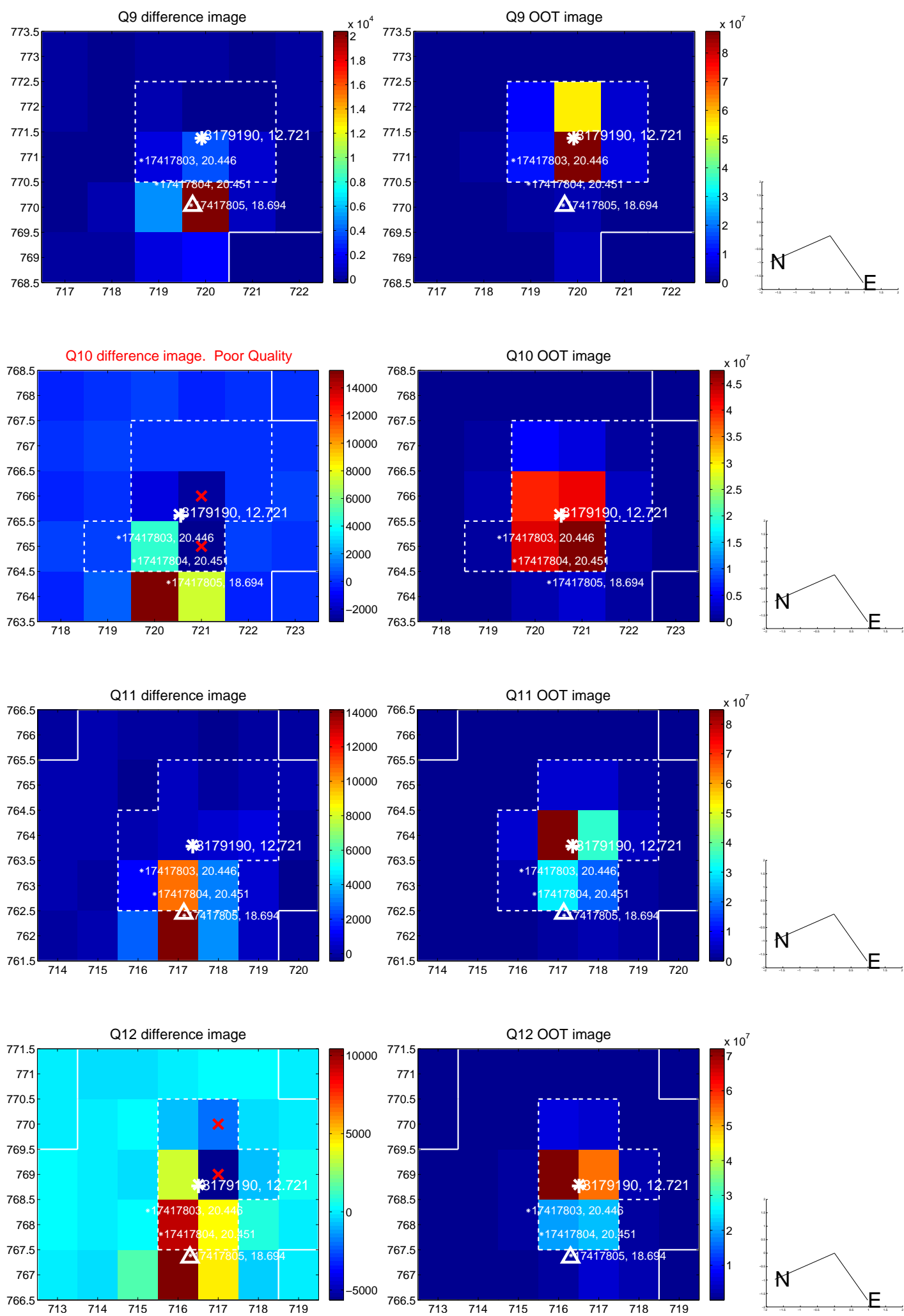
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



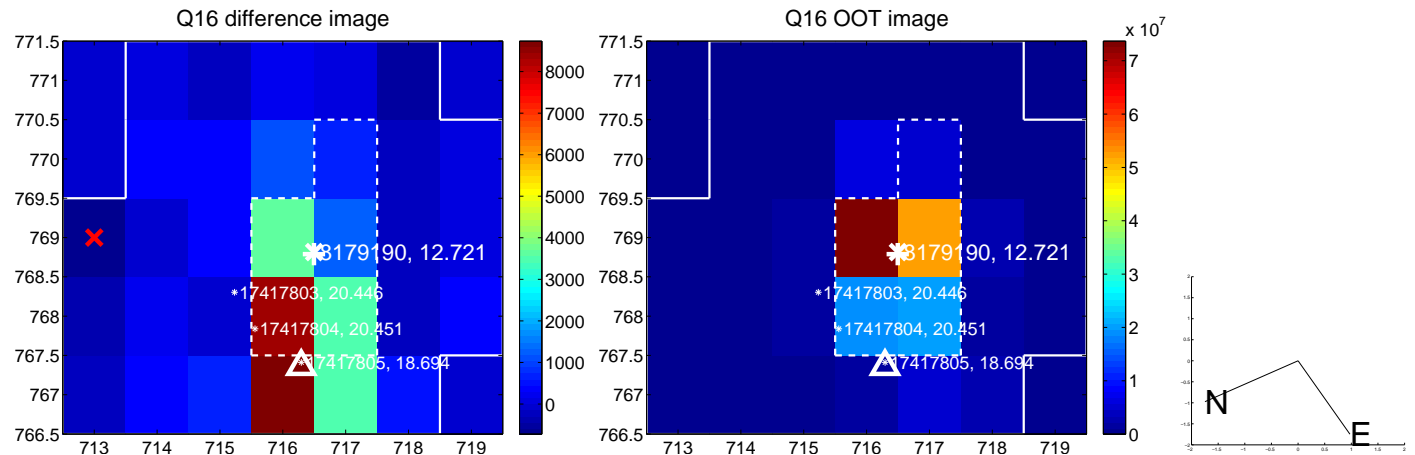
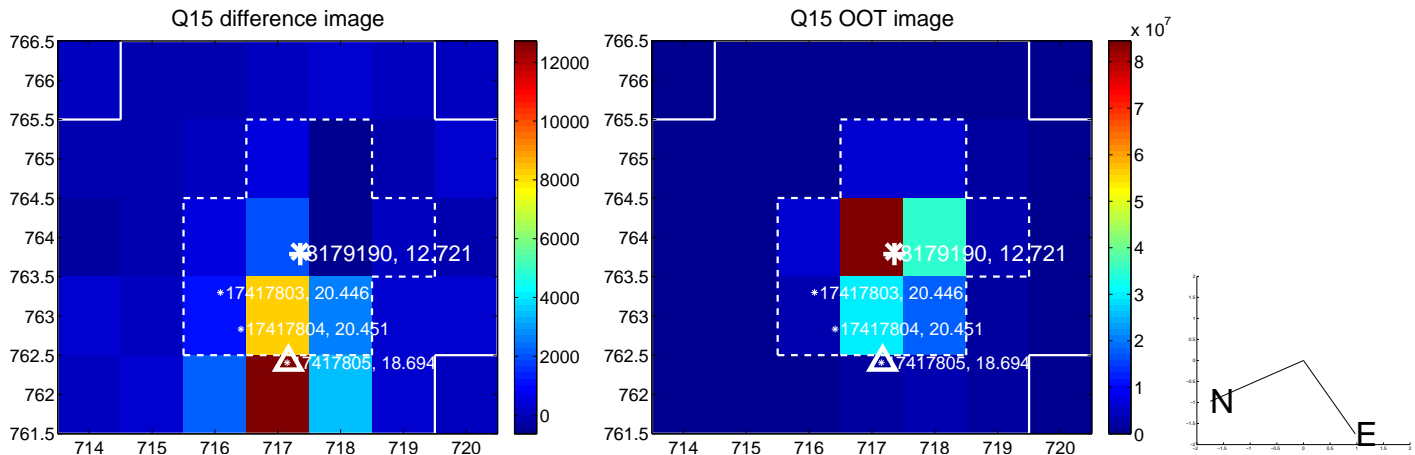
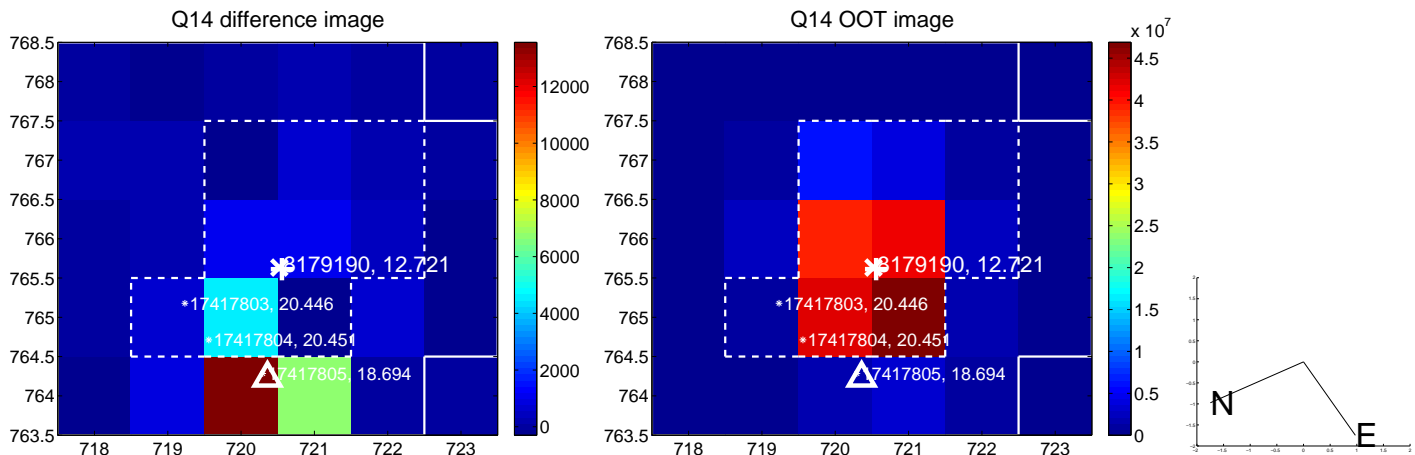
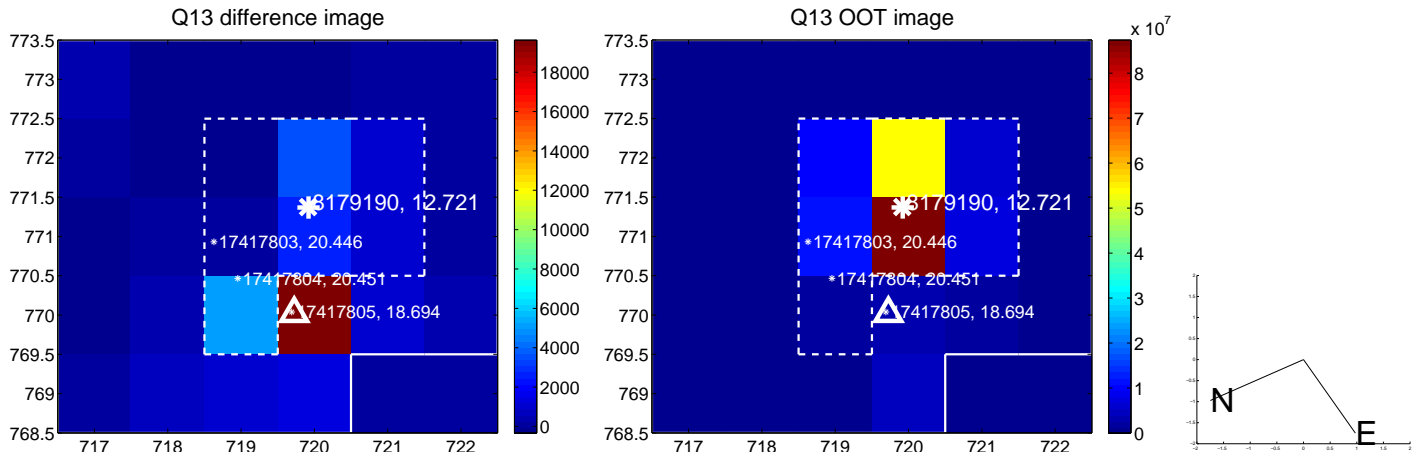
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



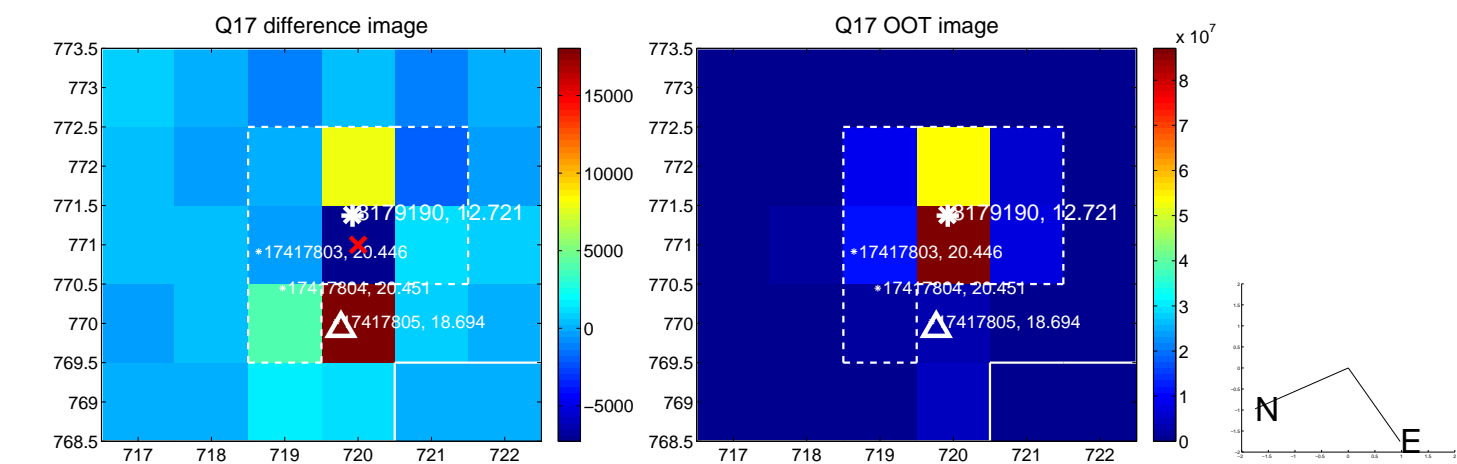
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



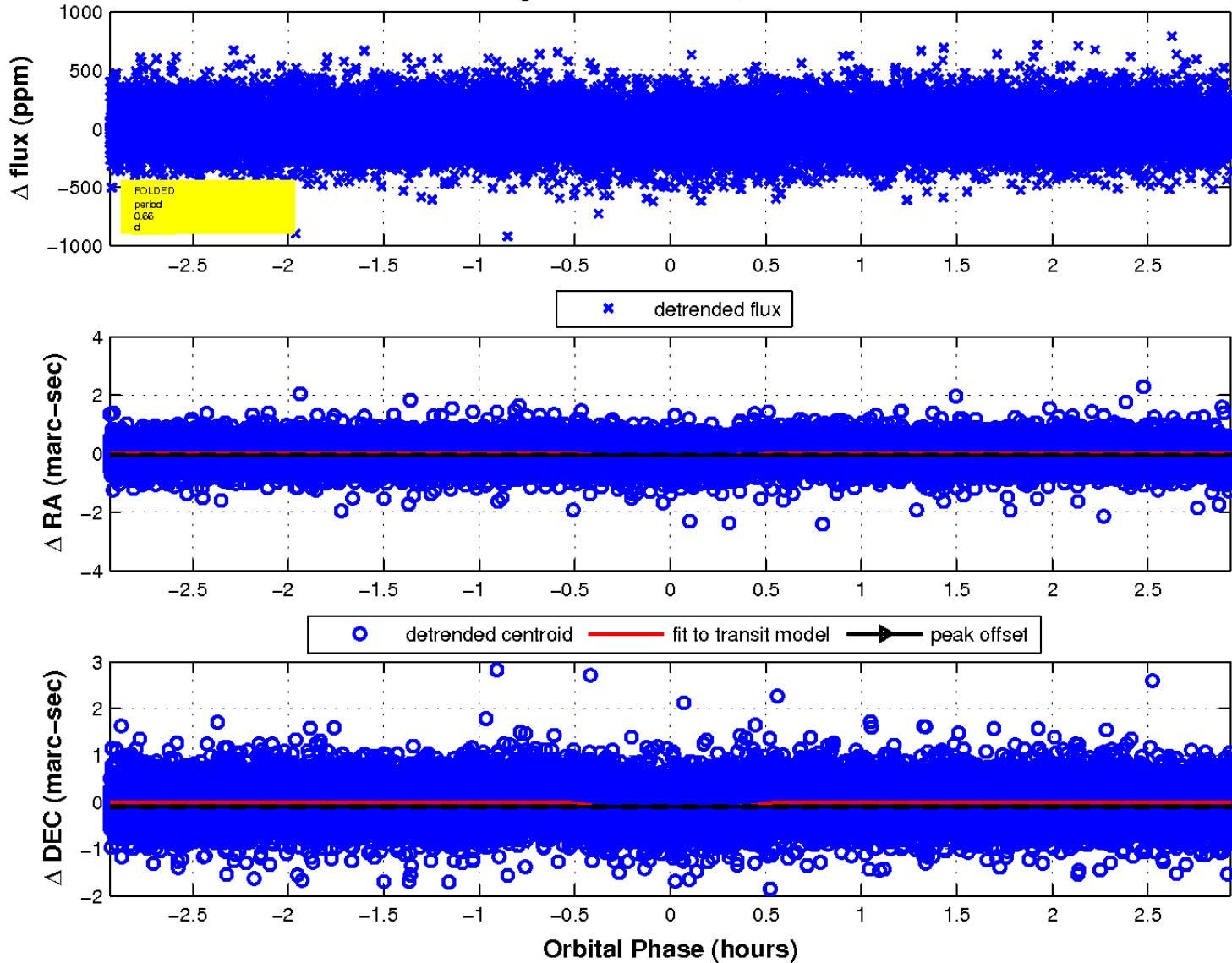
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

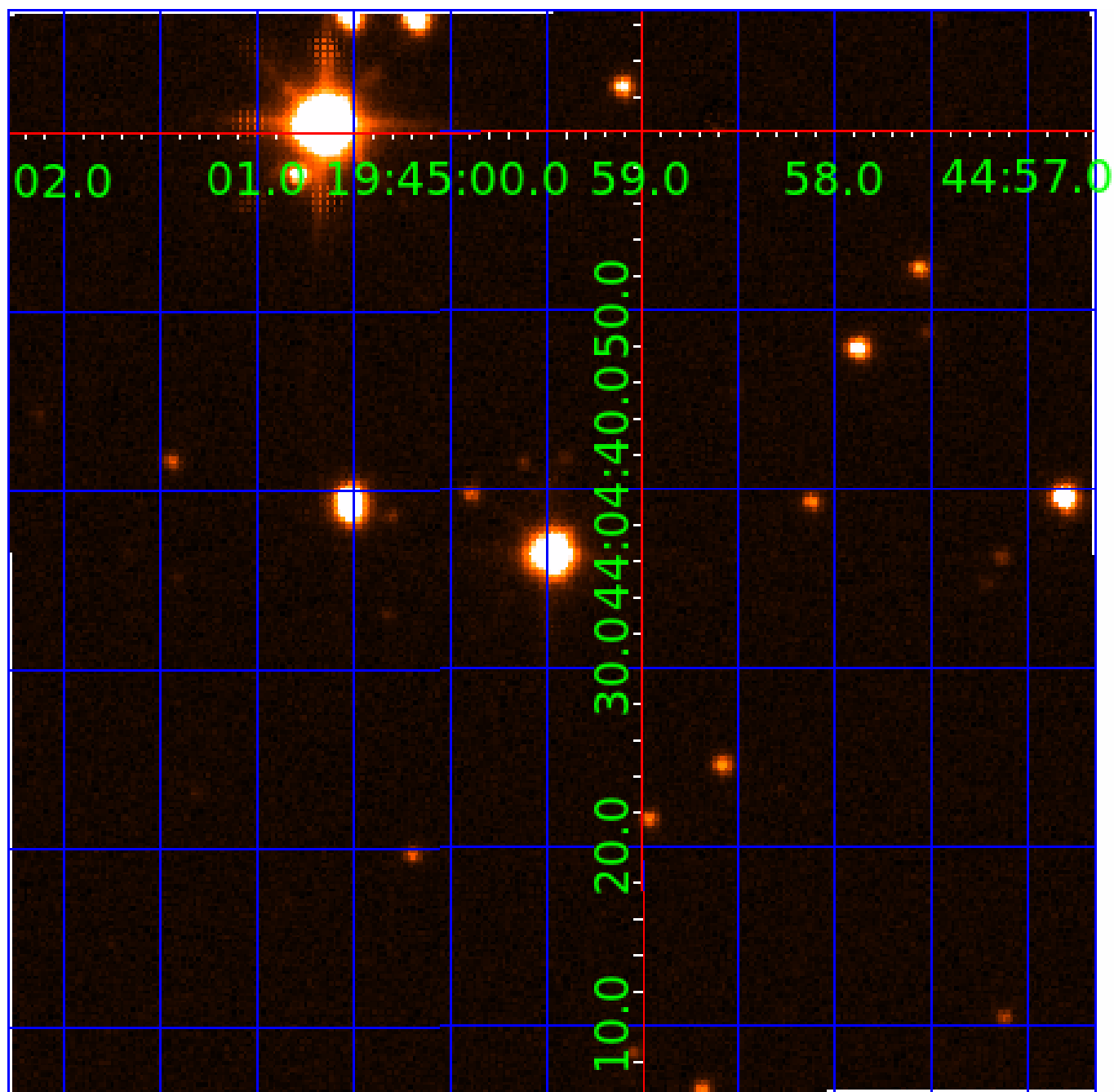


fluxWeightedCentroids, Planet 3 of 8



UKIRT Image

Declination



KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

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

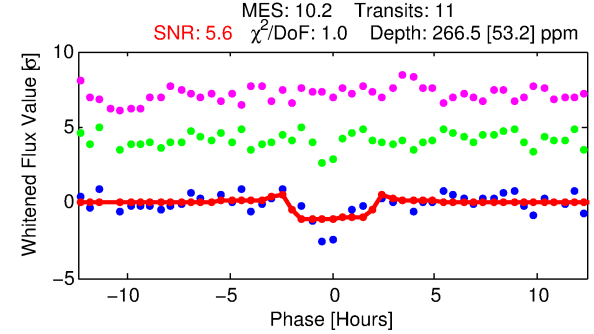
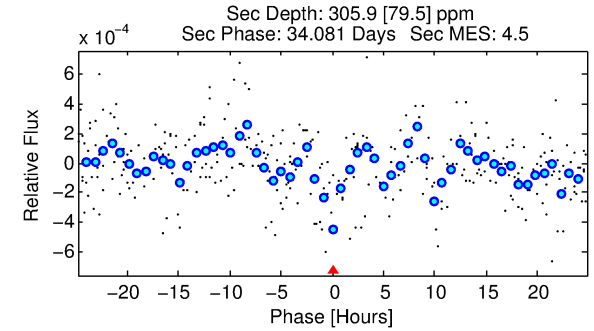
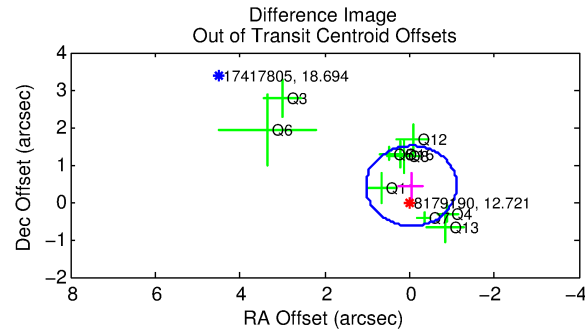
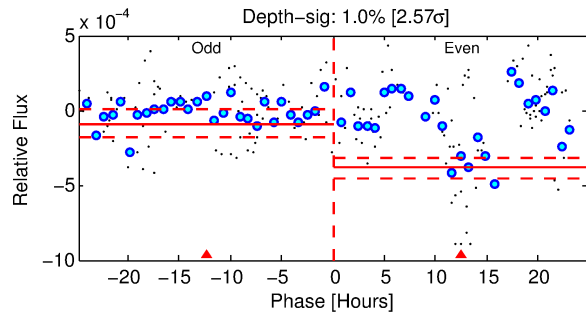
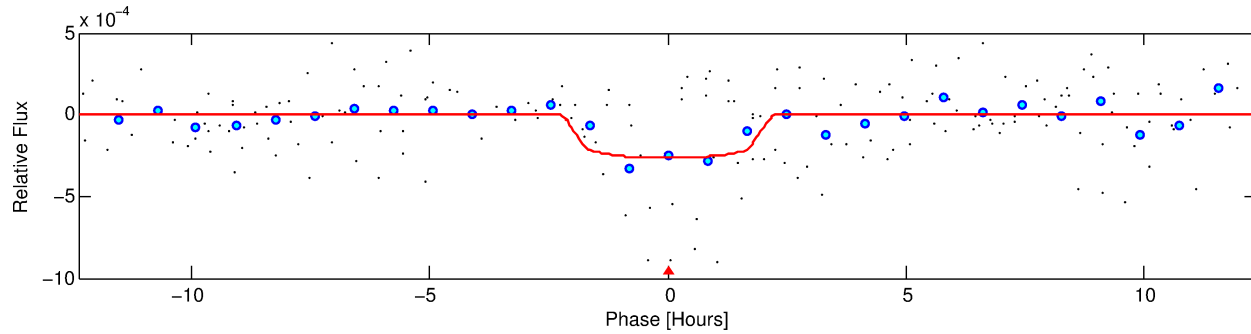
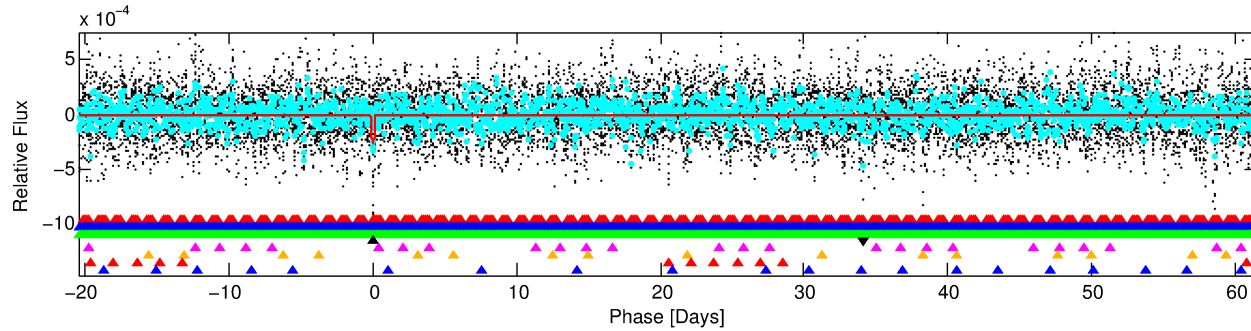
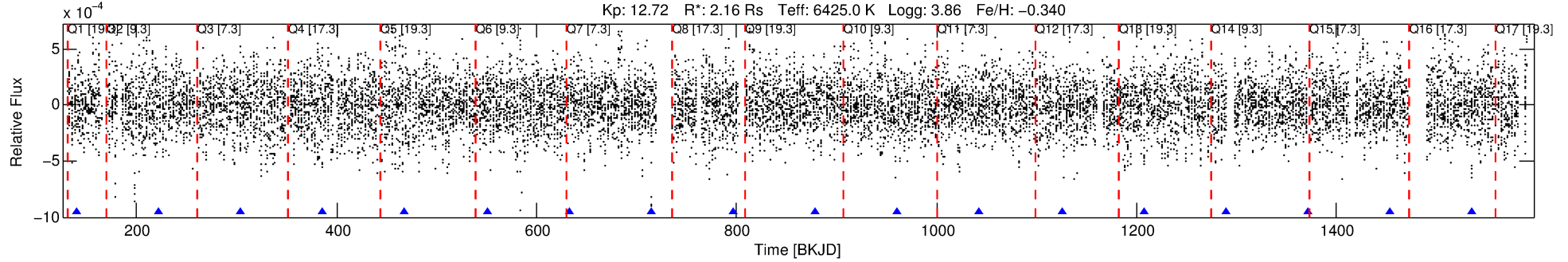
Ephemeris Match Information For 008179190-04

No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 4 of 8 Period: 82.084 d
KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



DV Fit Results:

Period = 82.08352 [0.00120] d
Epoch = 140.0778 [0.0136] BKJD
Rp/R* = 0.0164 [0.0137]
a/R* = 99.42 [450.41]
b = 0.78 [2.30]
Seff = 45.19 [23.53]
Teq = 661 [86] K
Rp = 3.86 [3.46] Re
a = 0.3970 [0.1256] AU
Ag = 1776.67 [3130.65] [0.57σ]
Teffp = 6636 [2805] K [2.13σ]

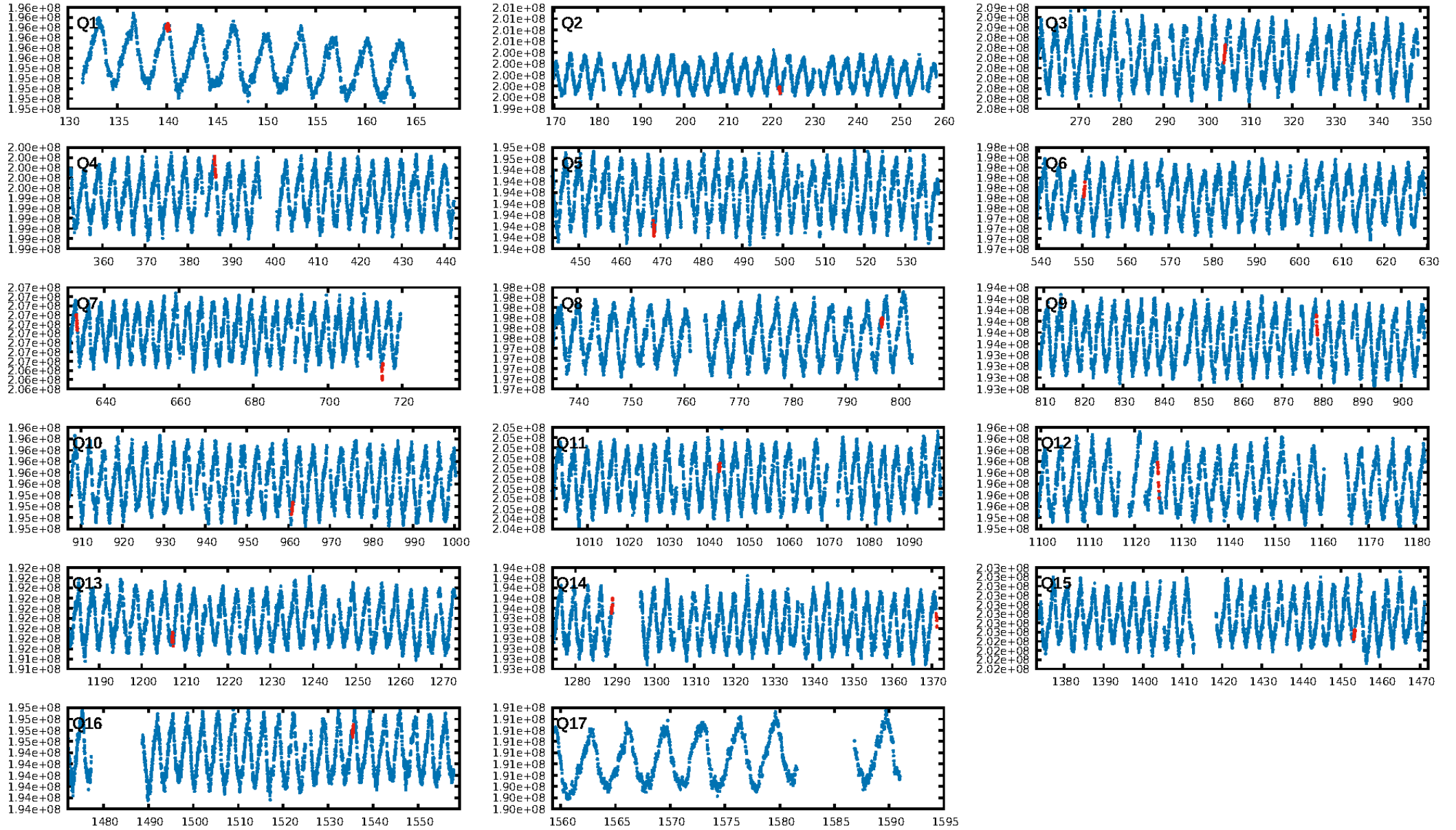
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.95σ]
LongPeriod-sig: 100.0% [48.36σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 3.272
Centroid-sig: 6.1%
Centroid-so: 0.461 arcsec [1.12σ]
OotOffset-rm: 0.434 arcsec [1.22σ]
OotOffset-st: 1/3/4/2 [10]
KicOffset-rm: 0.462 arcsec [1.23σ]
KicOffset-st: 1/3/4/2 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 0.00 [0/15]

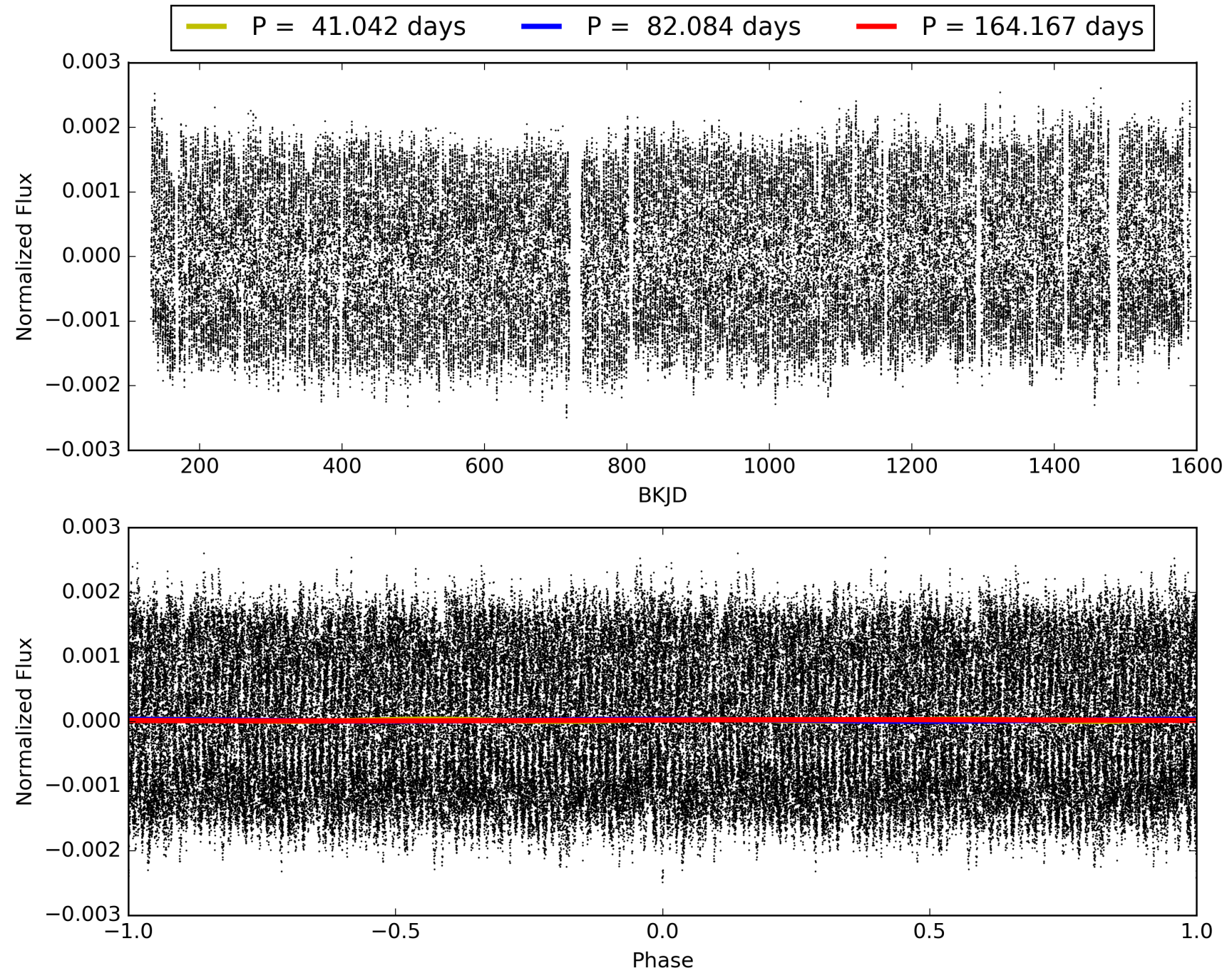
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:40 Z

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TCE 008179190-04, PDC Light Curves

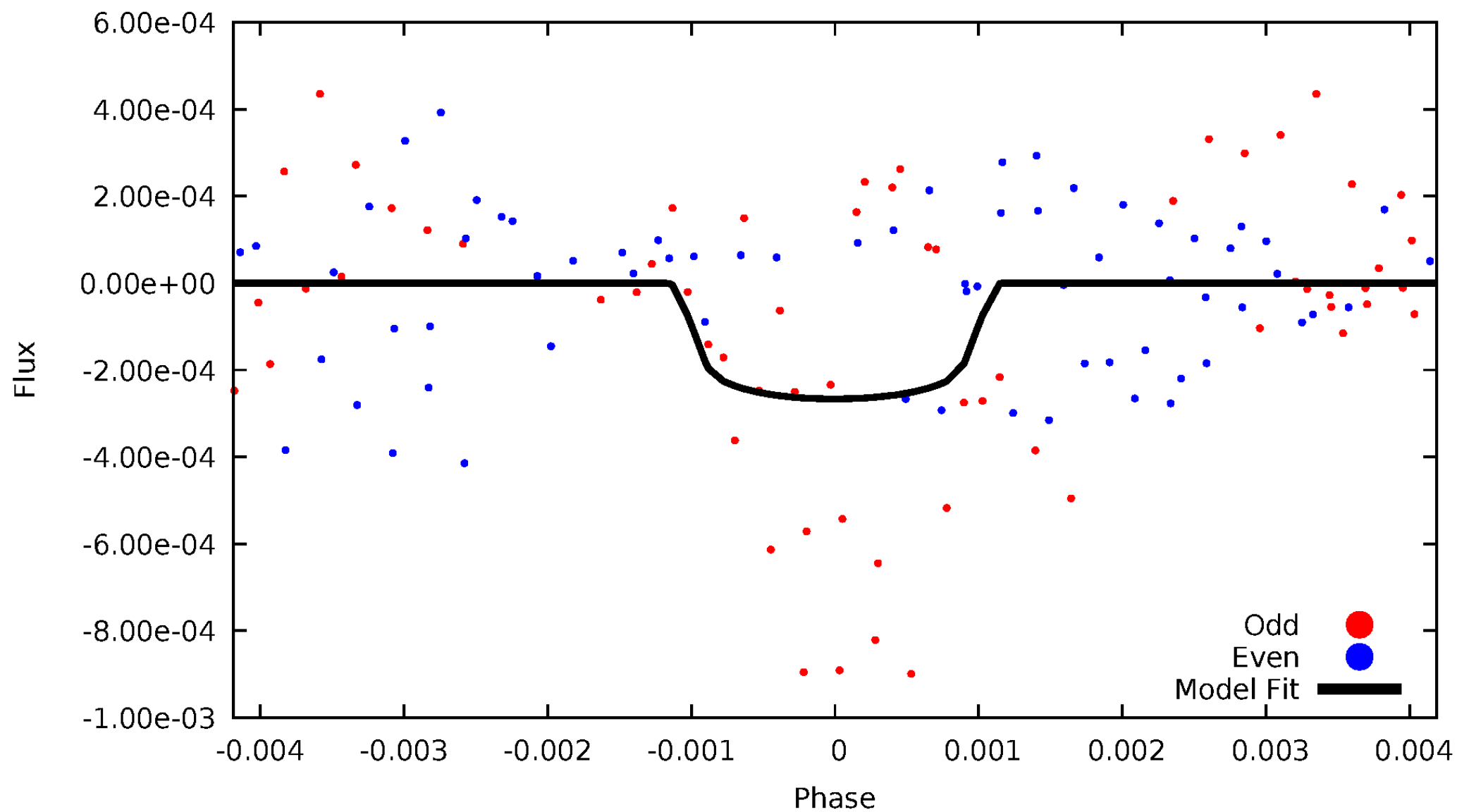


TCE 008179190-04



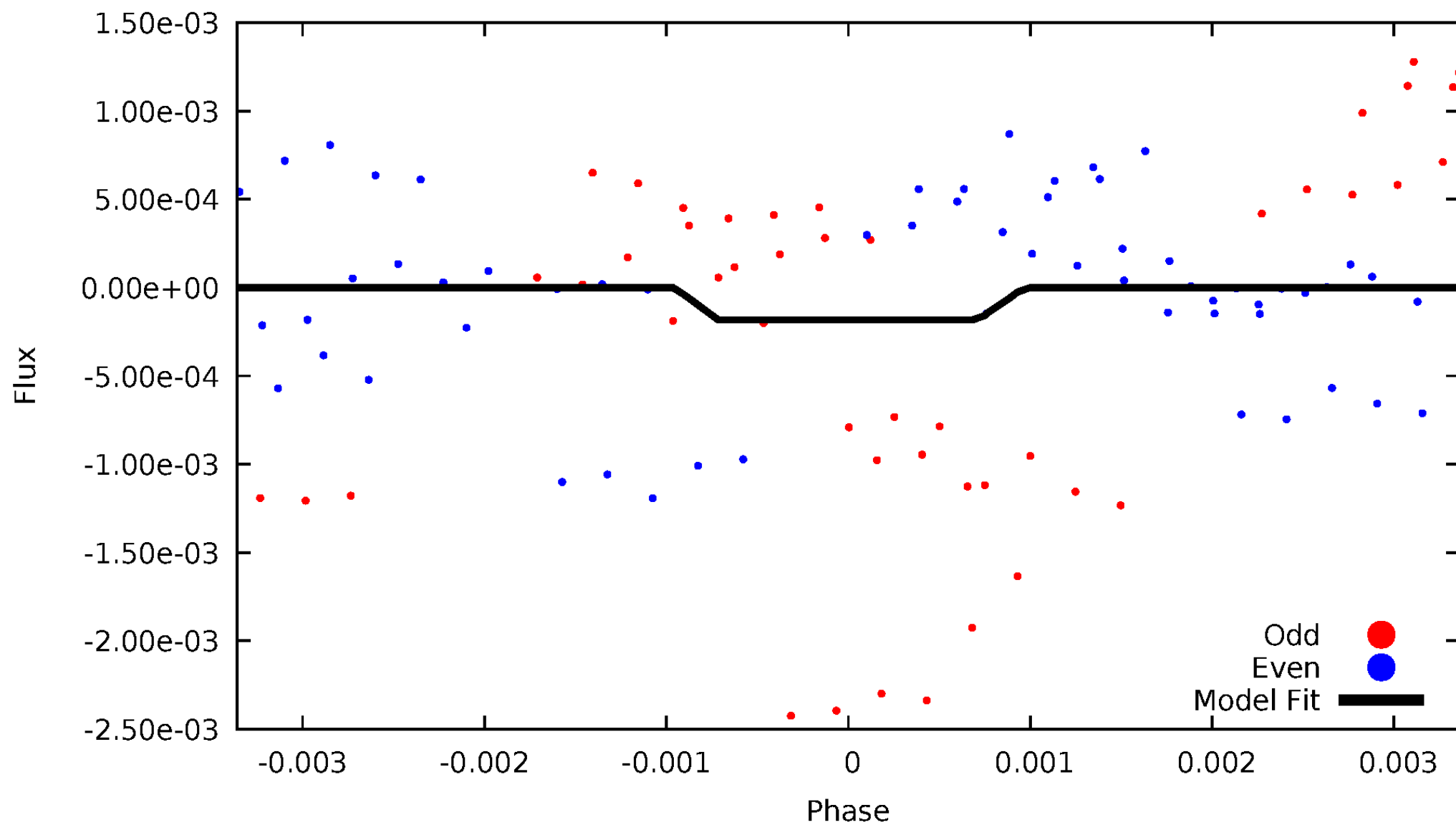
DV Odd/Even

TCE 008179190-04



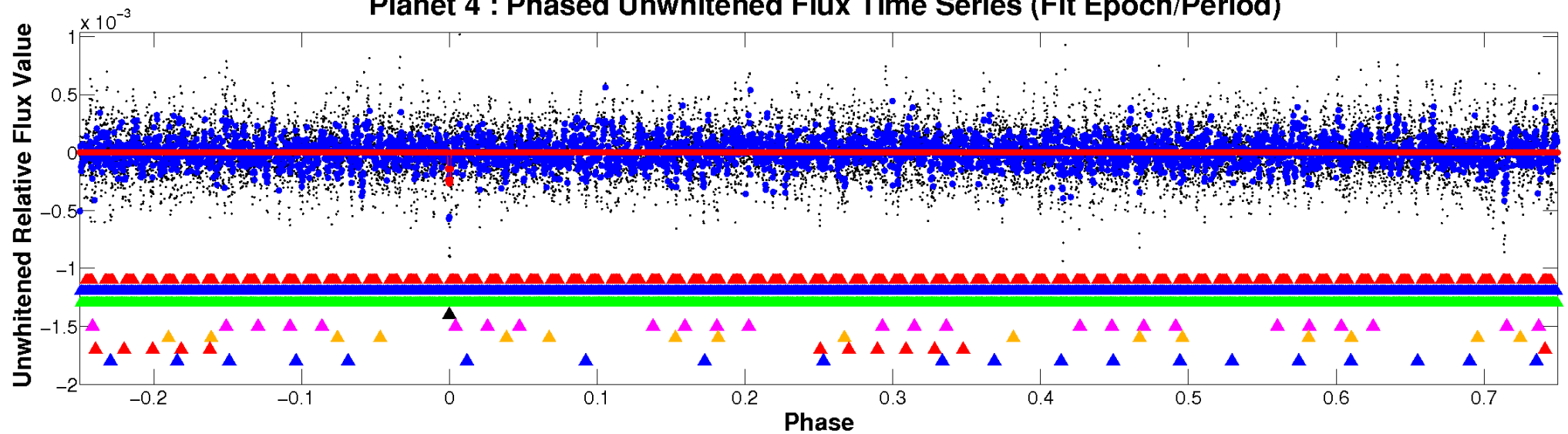
ALT Odd/Even

TCE 008179190-04

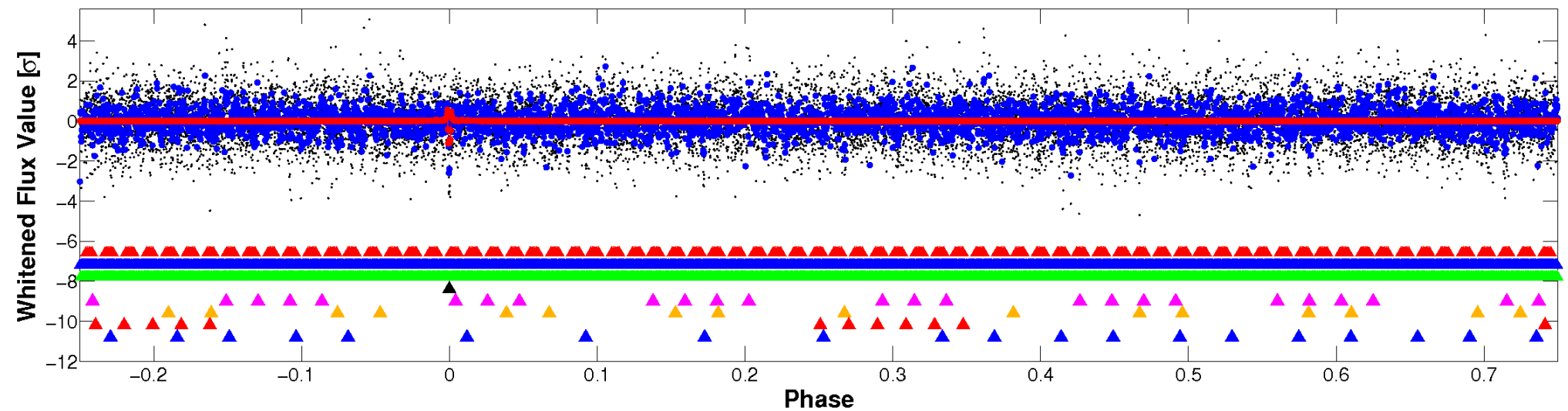


Non-Whitened Vs. Whitened Light Curve

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

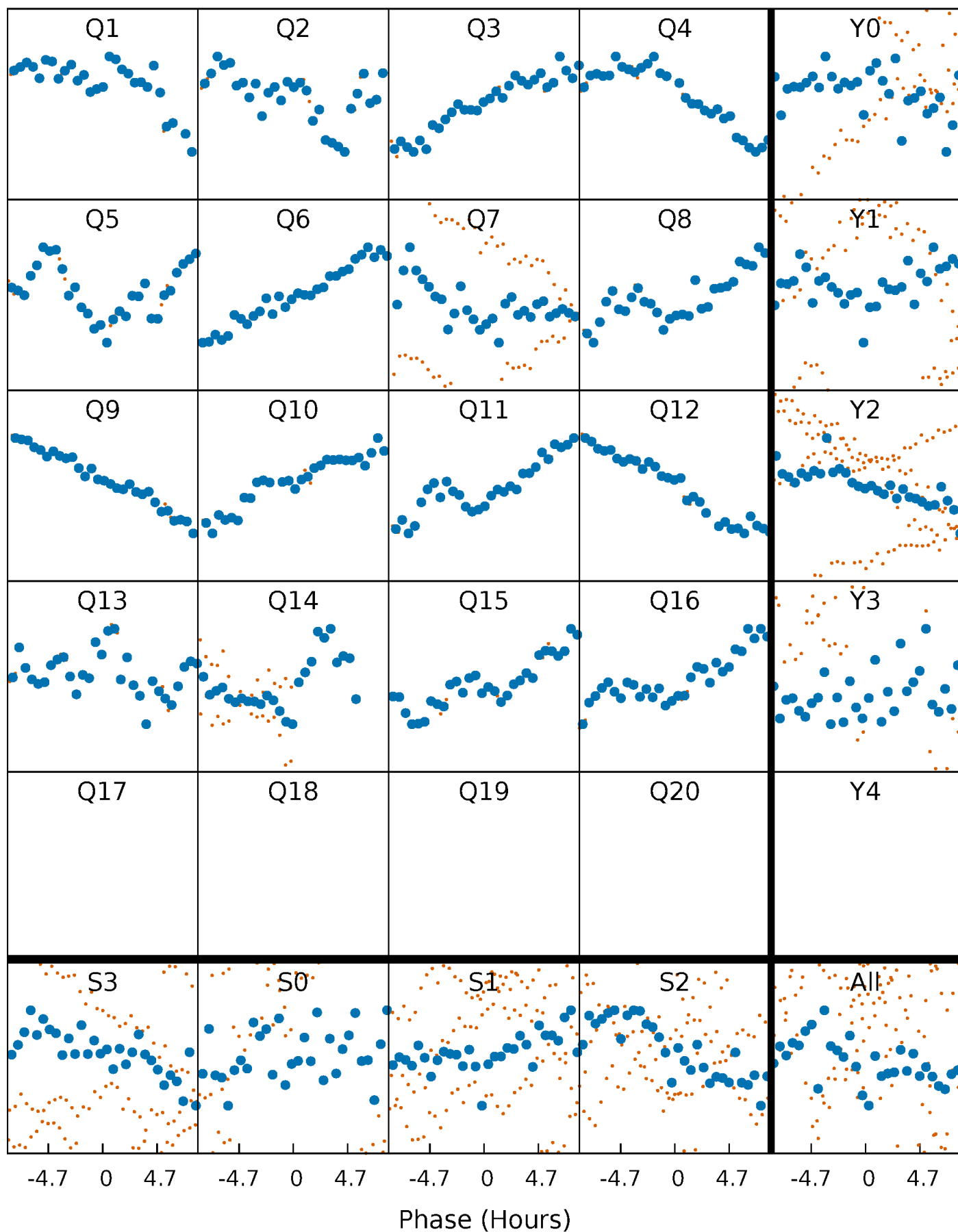


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



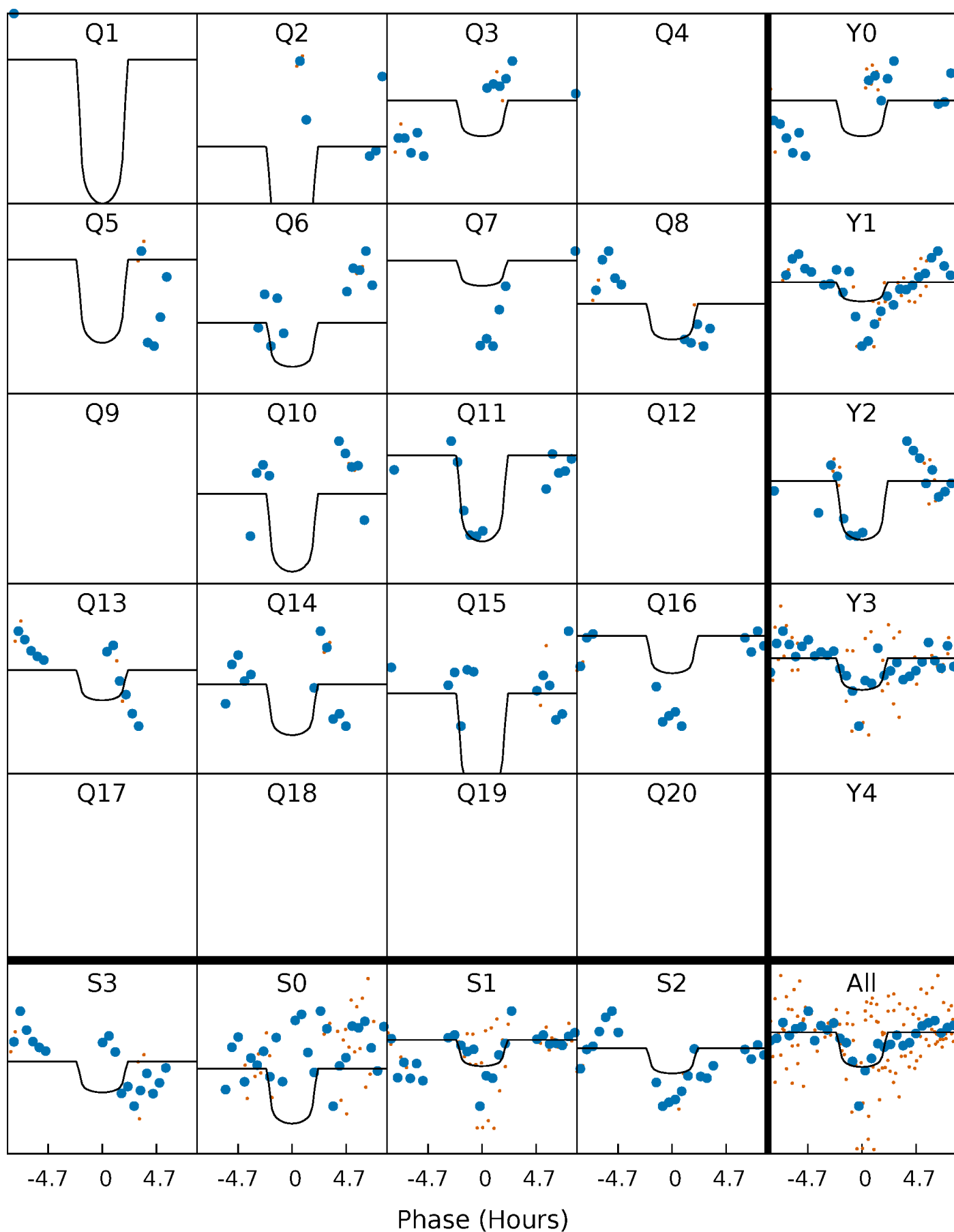
PDC Quarter-Phased Transit Curves

TCE 008179190-04 P= 82.083518 Days $T_0=140.077782$ (BKJD)



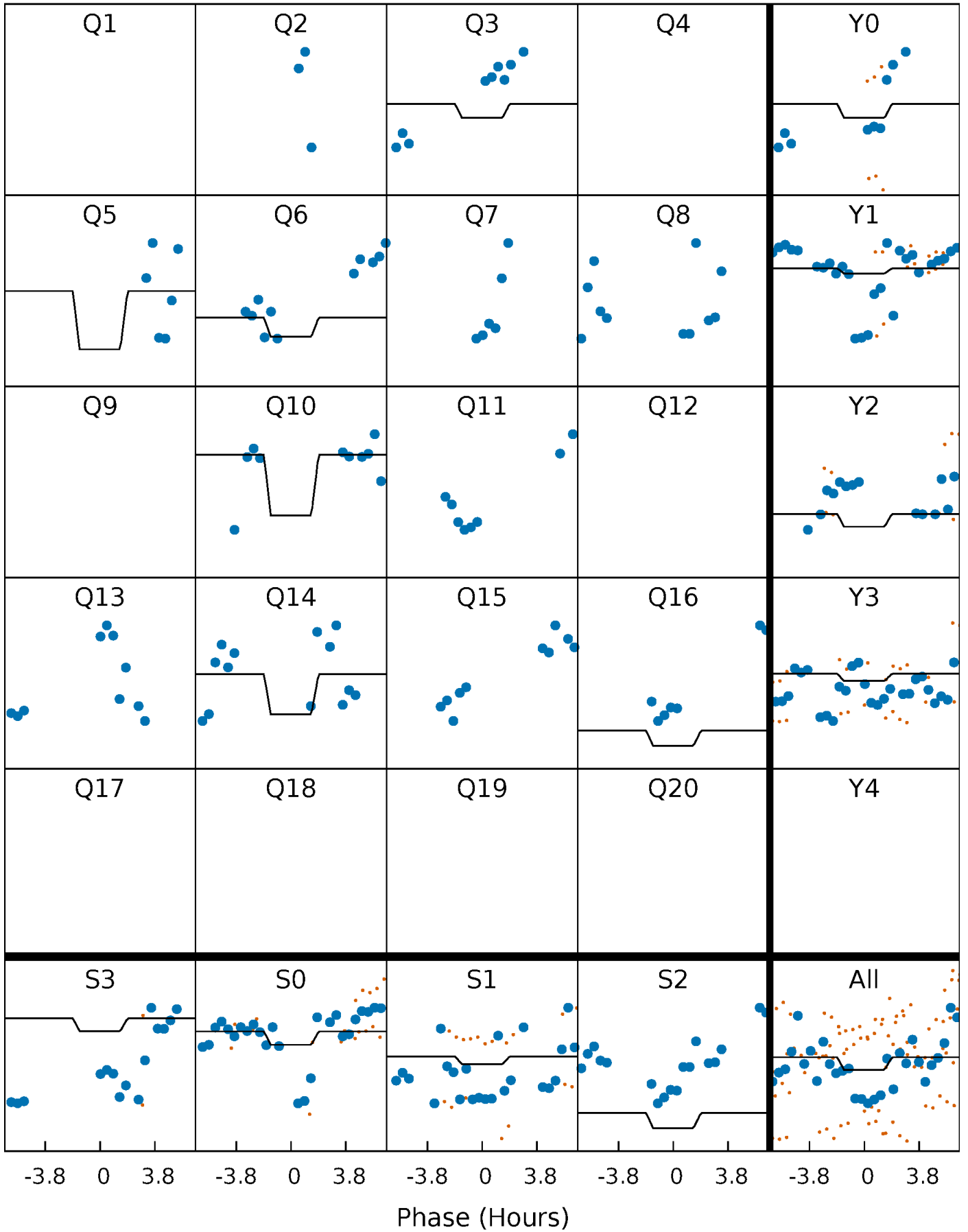
DV Quarter-Phased Transit Curves

TCE 008179190-04 P= 82.083518 Days $T_0=140.077782$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

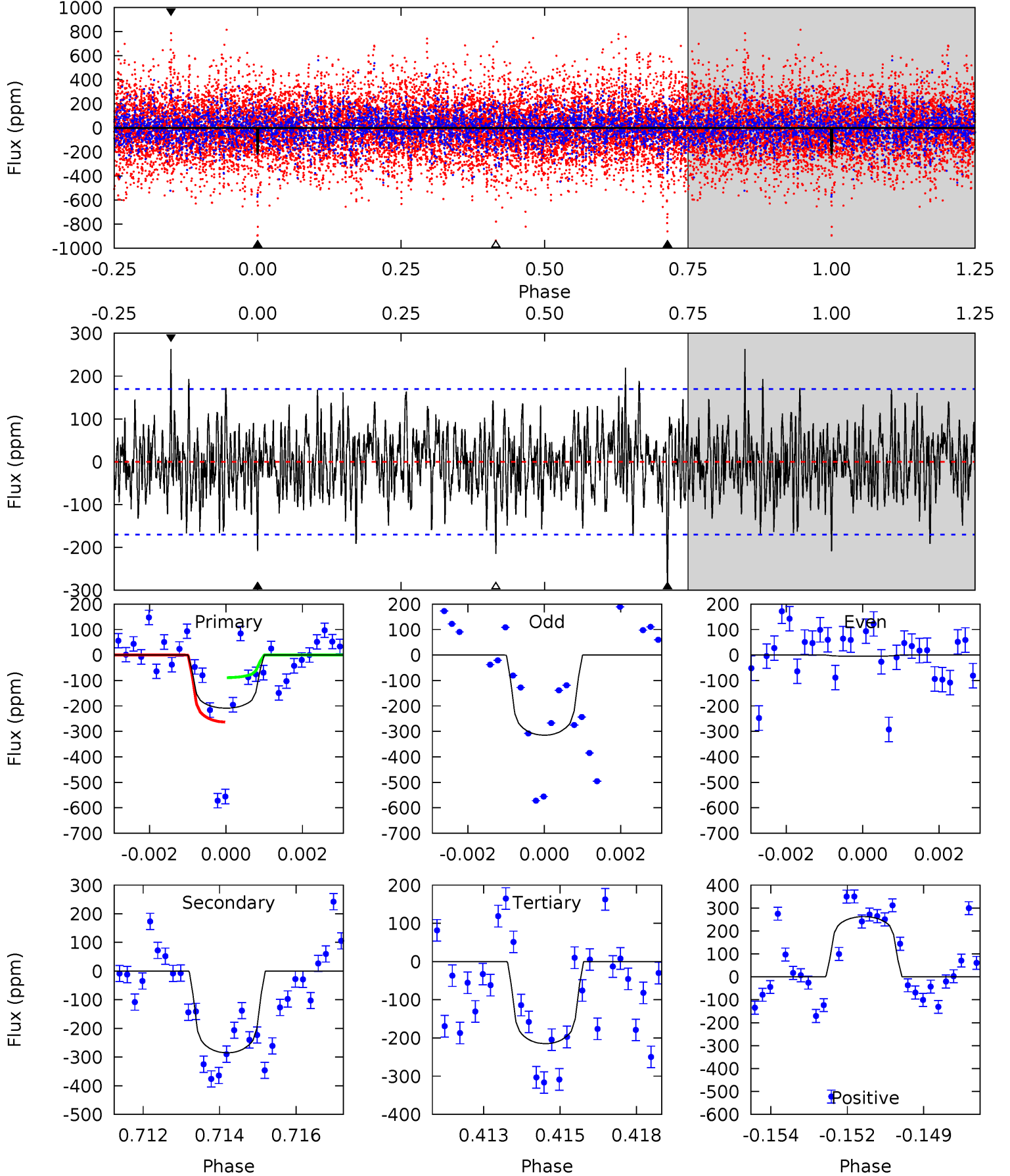
TCE 008179190-04 $P = 82.084182$ Days $T_0 = 140.081189$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-04, P = 82.083518 Days, E = 57.994264 Days

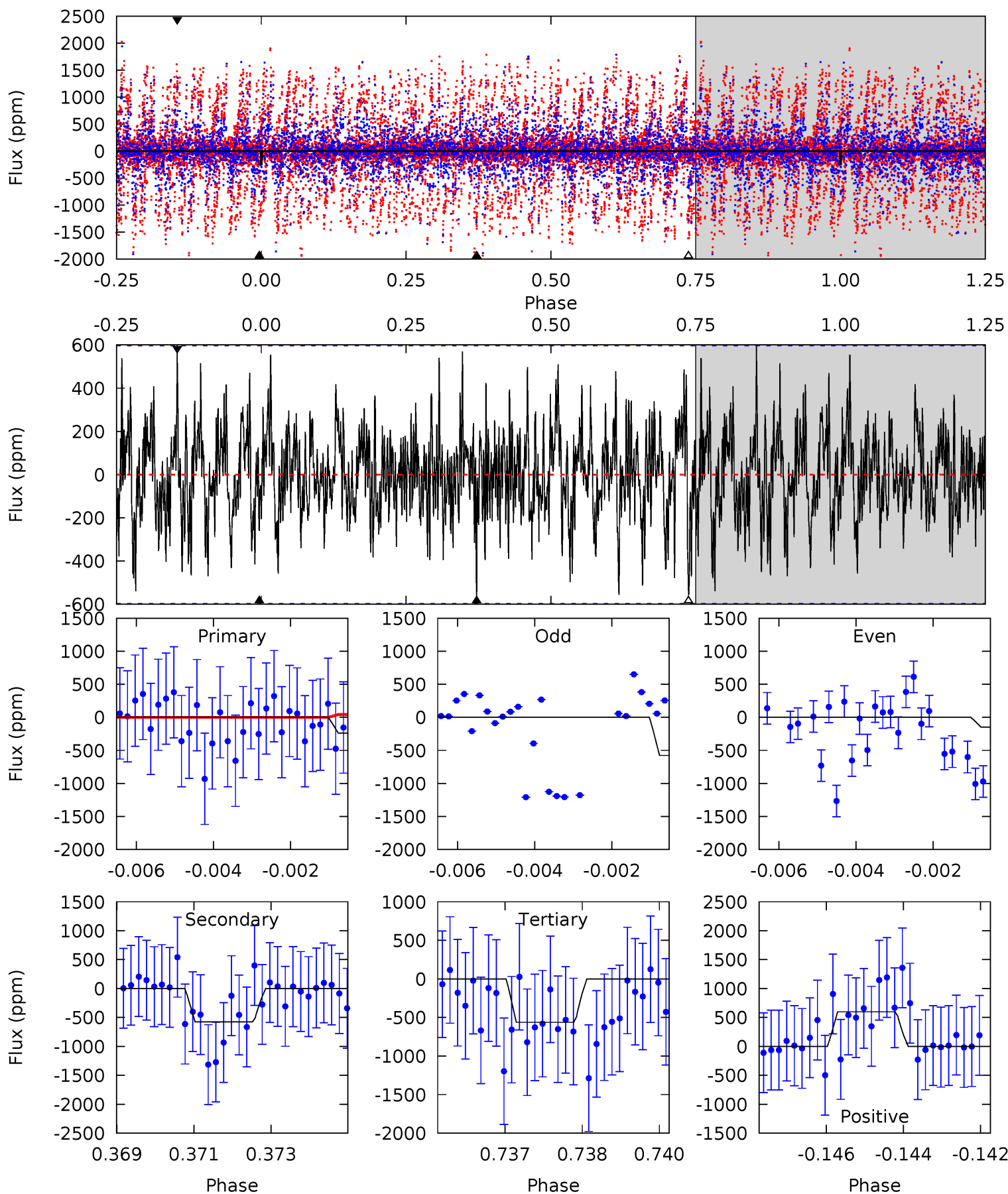
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.51	8.89	6.70	8.19	5.30	3.05	1.95	-0.19	-1.68	2.19	0.70	4.59	15.4	0.48	2.63



Alt Model-Shift Uniqueness Test

008179190-04, P = 82.084182 Days, E = 57.997007 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.14	5.15	5.02	5.34	5.34	3.11	1.63	-2.88	-3.20	0.12	-0.20	1.86	5.79	0.51	0



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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Secondary Eclipse Parameters for KIC 008179190-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-285 ± 32	$4.11^{+2.78}_{-2.50}$	904^{+60}_{-76}	6128^{+4585}_{-1258}	1512^{+8024}_{-984}
Alt.	-576 ± 112	$3.46^{+2.90}_{-2.28}$	906^{+57}_{-84}	8139^{+11810}_{-2212}	4137^{+34413}_{-2914}

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 $A_{obs} \gg 1.0$

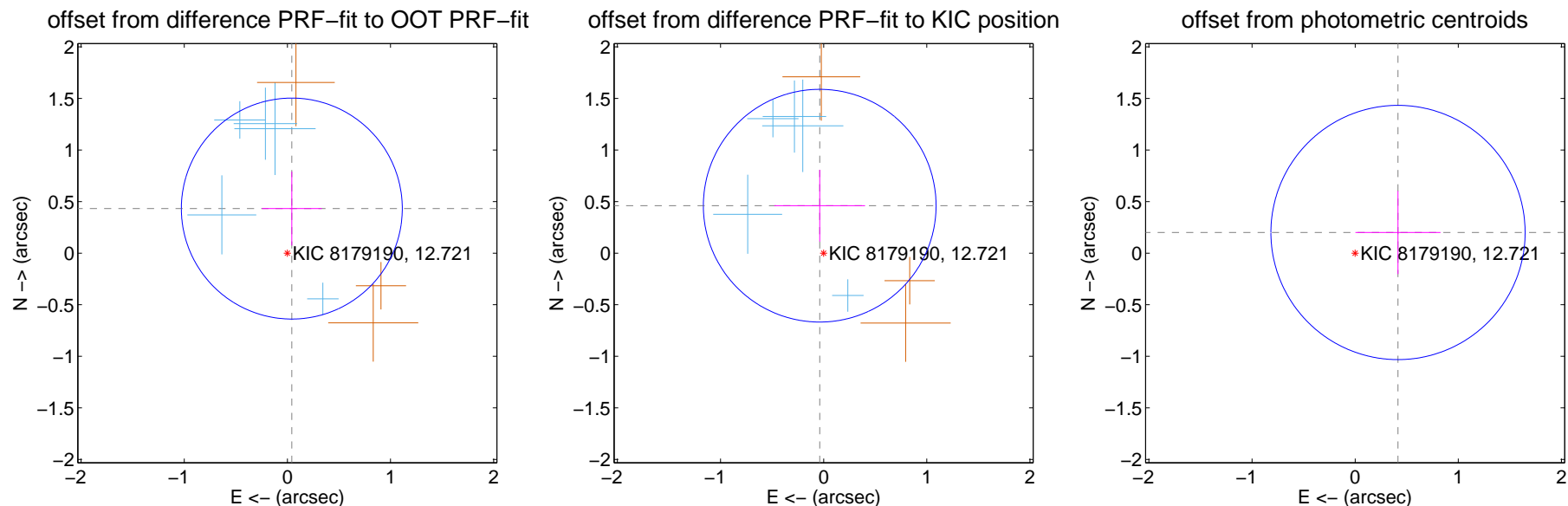
DV Centroid Data

Supplemental centroid analysis for 008179190-04. Kepler magnitude: 12.72. Transit SNR 5.55

There are 5 quarters with good PRF difference image offsets

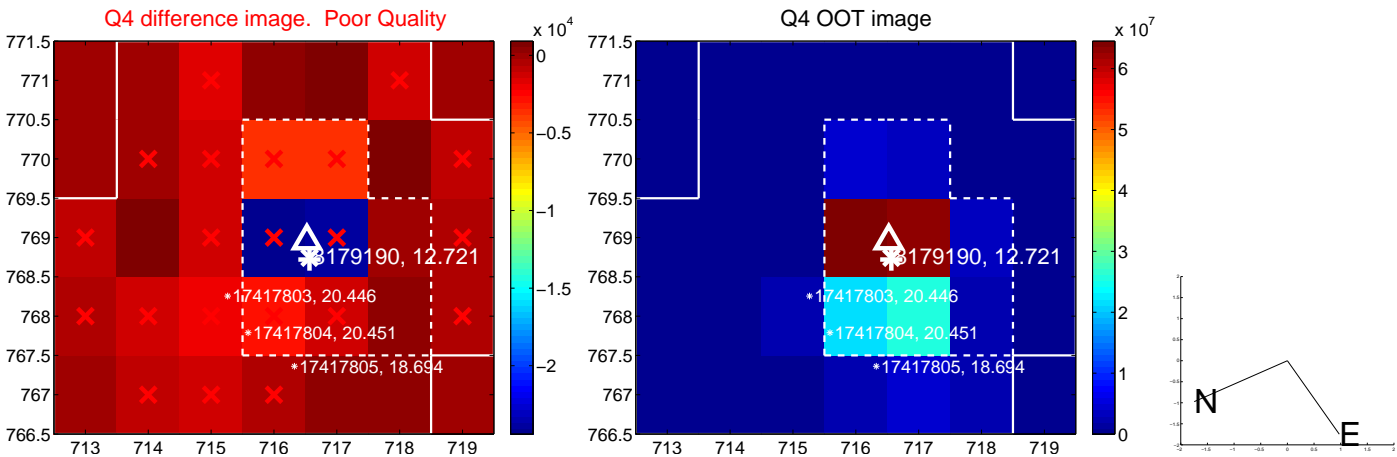
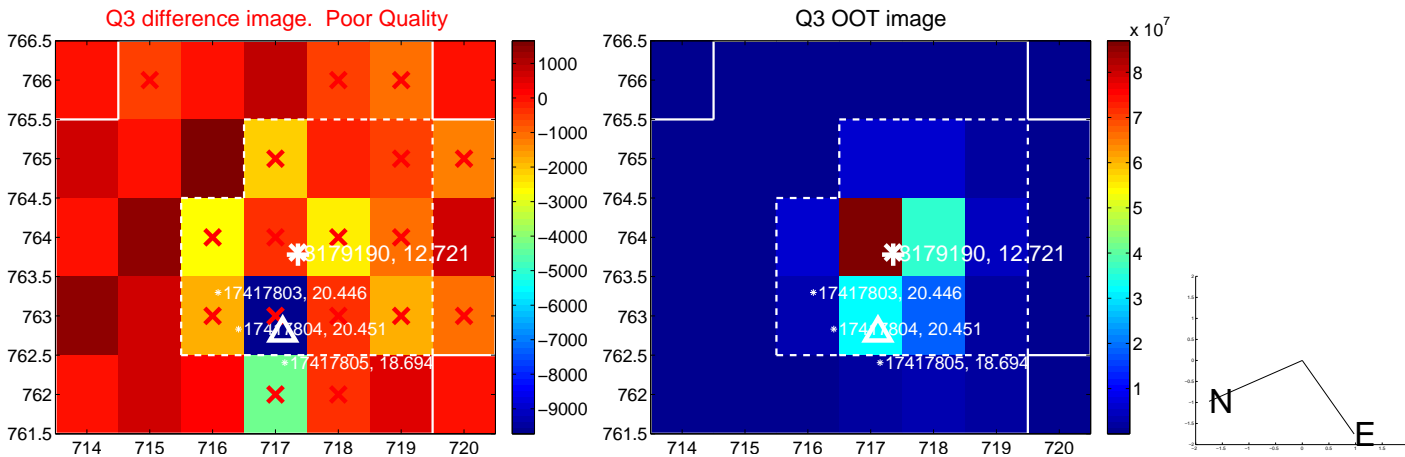
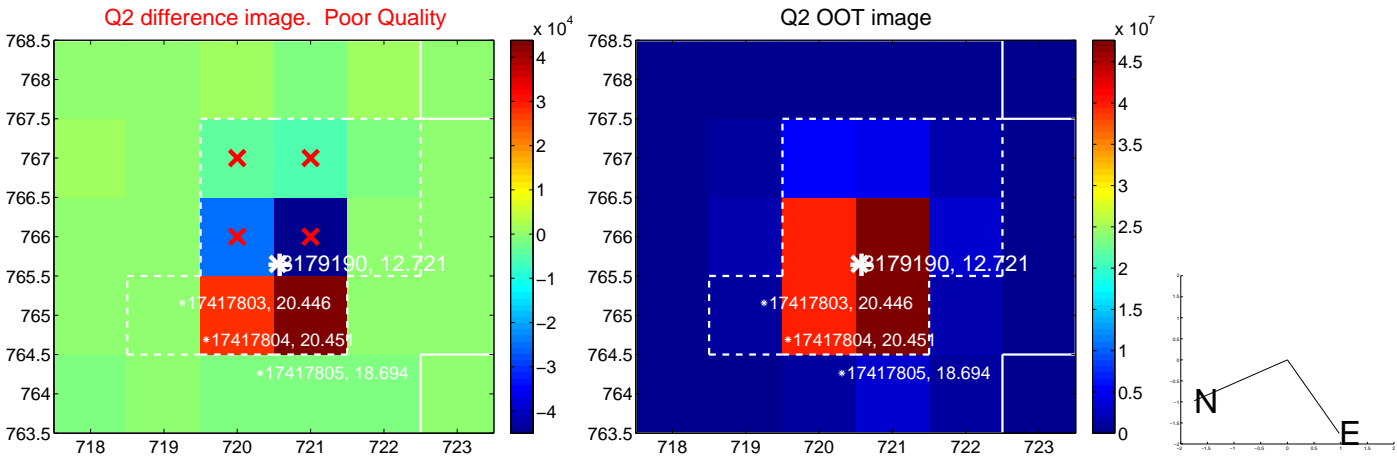
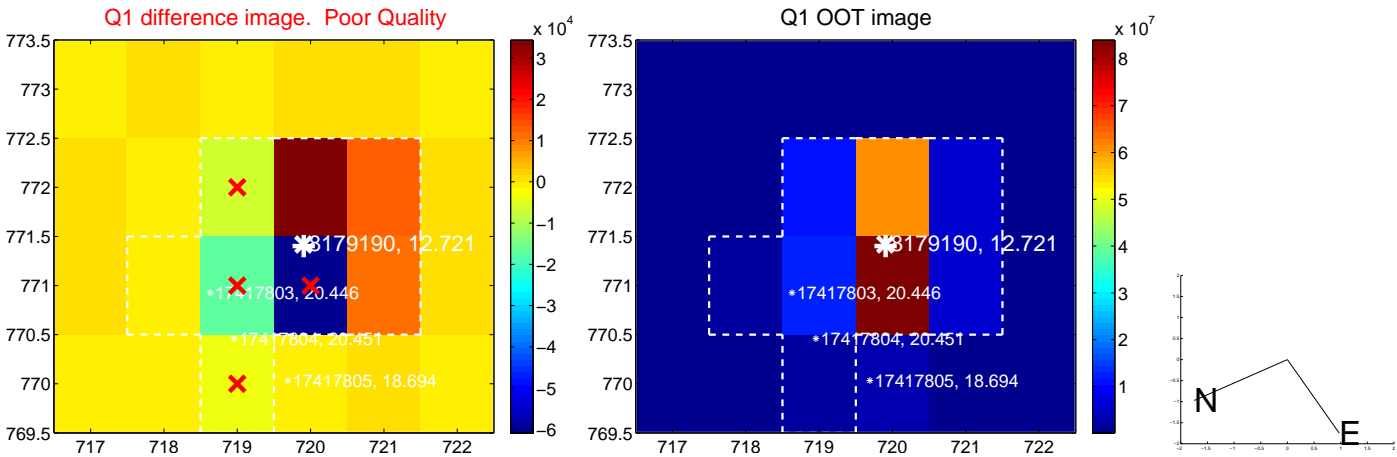
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.434 ± 0.357	1.22	-0.043 ± 0.290	0.432 ± 0.358
PRF-fit source offset from KIC position	0.462 ± 0.376	1.23	0.038 ± 0.440	0.460 ± 0.348
photometric centroid source offset	0.46 ± 0.41	1.12	-0.42 ± 0.41	0.20 ± 0.40

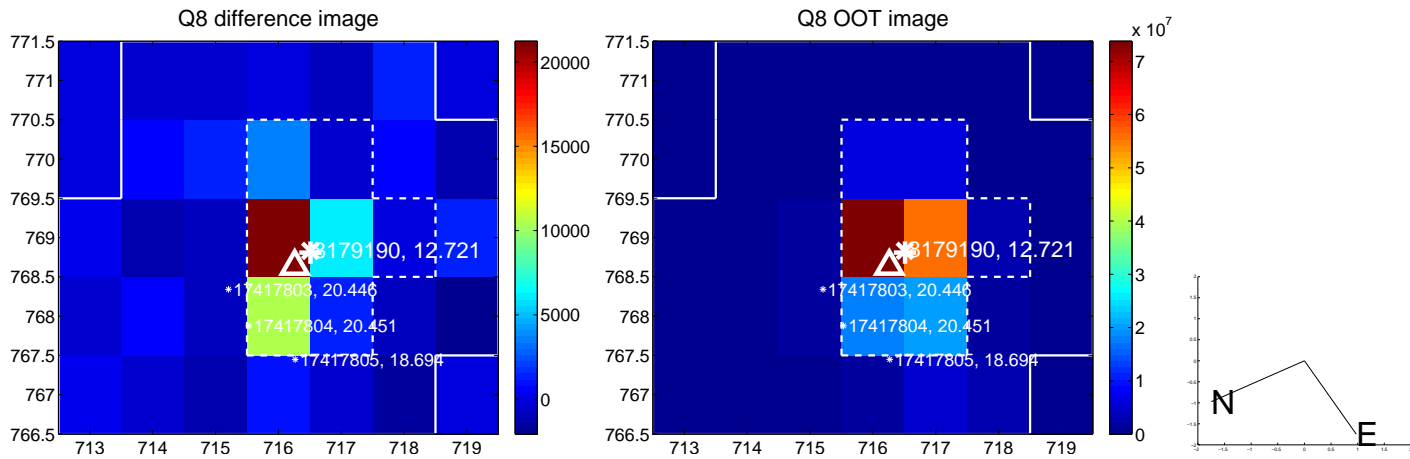
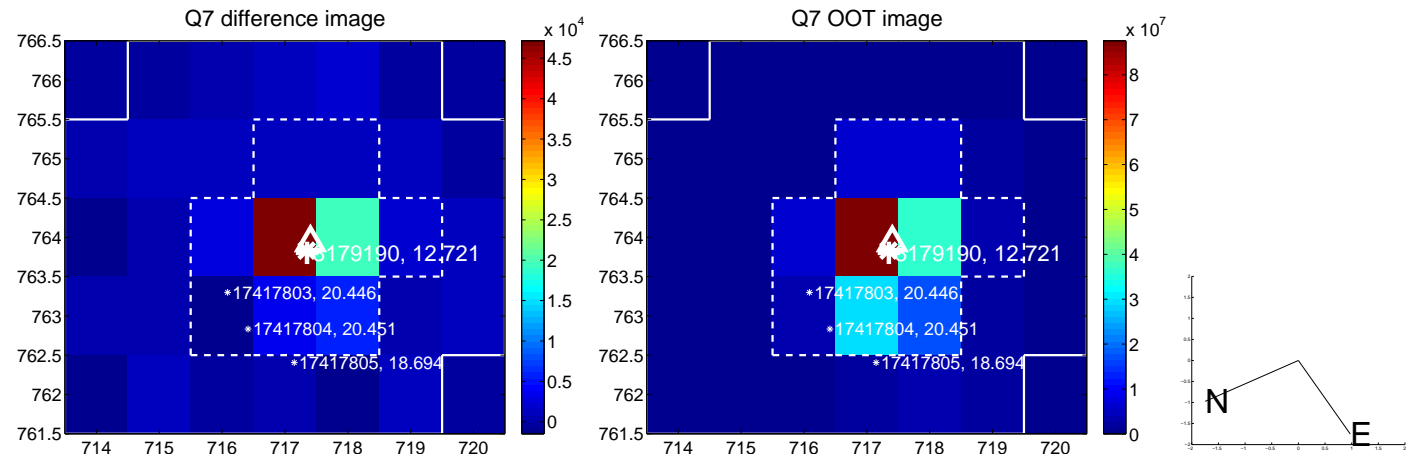
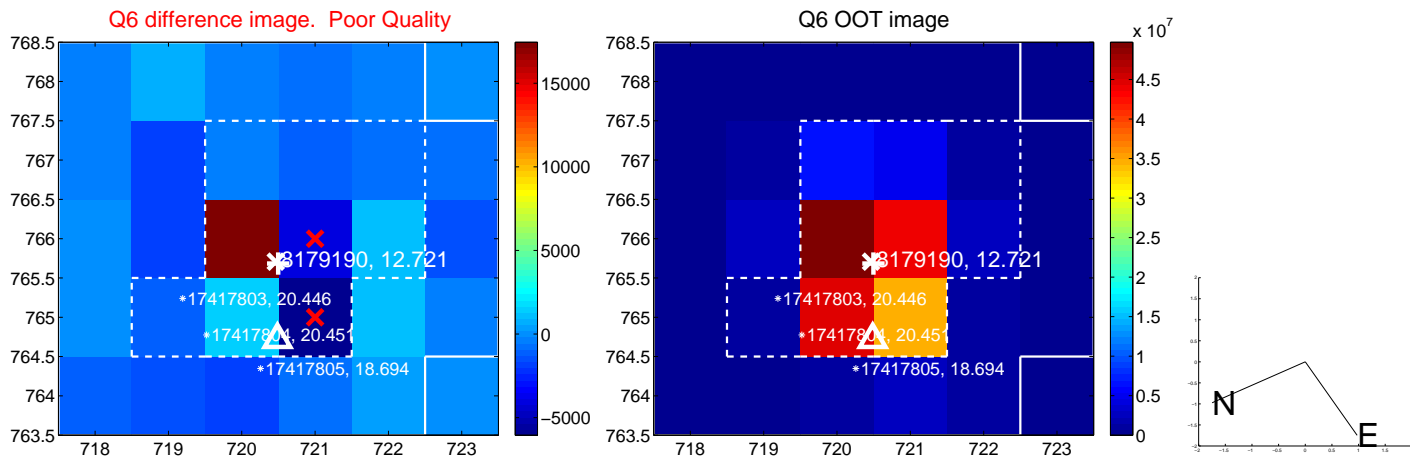
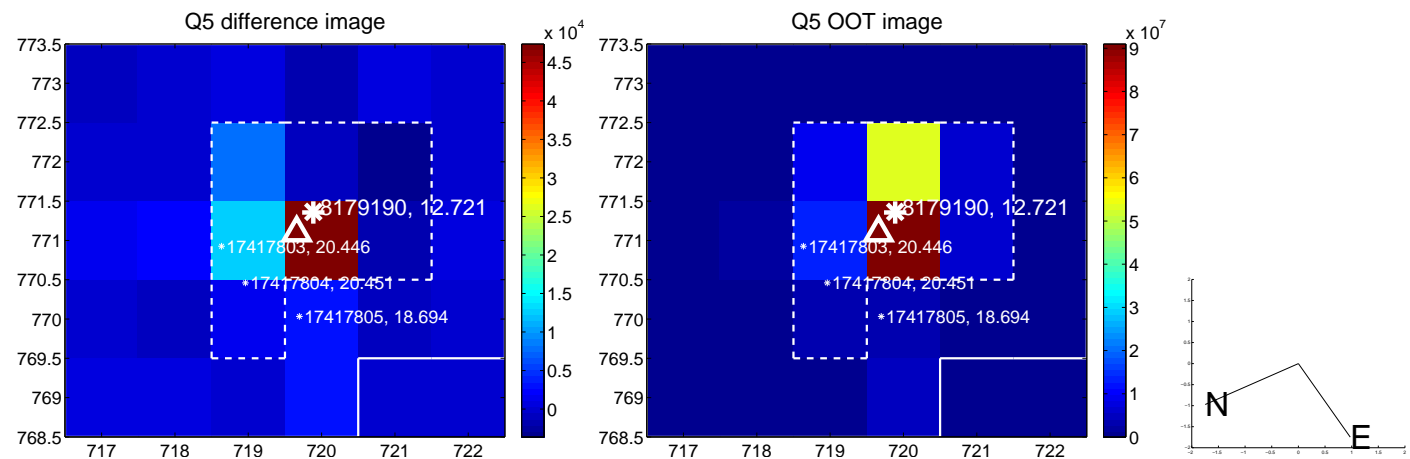


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

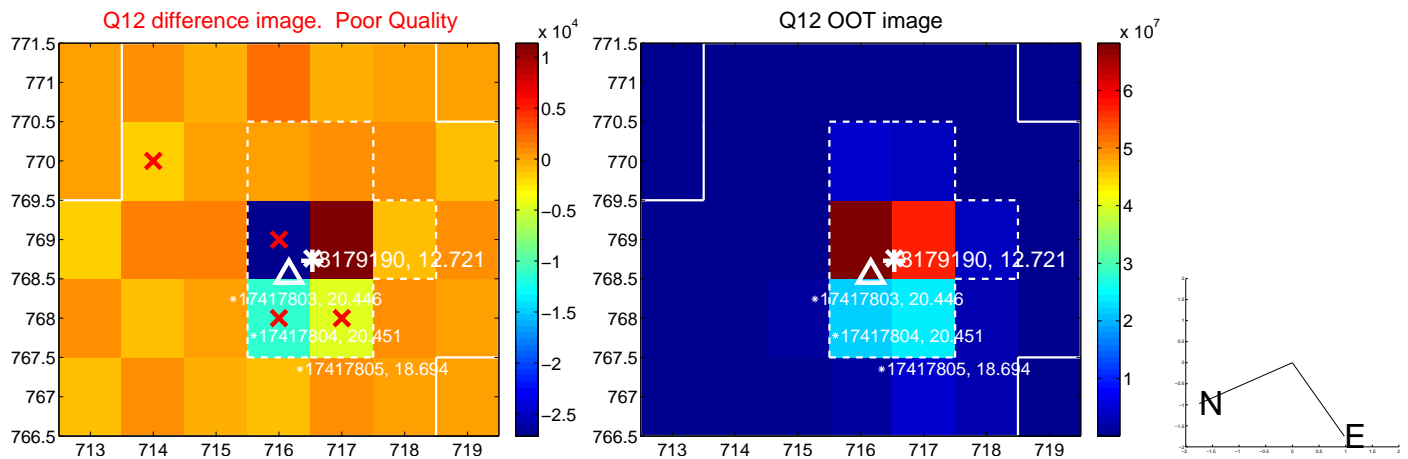
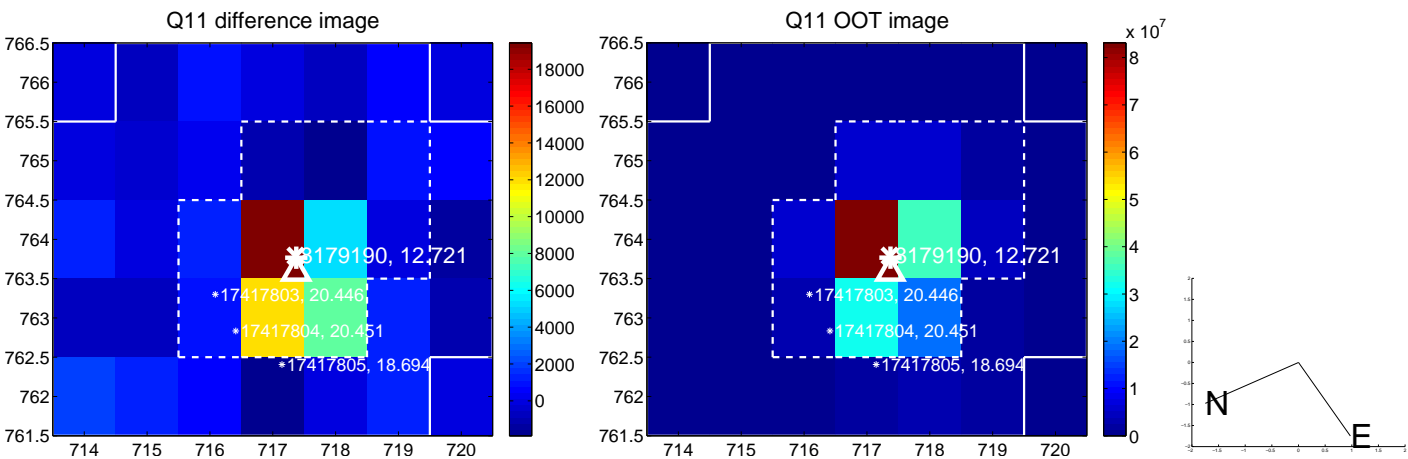
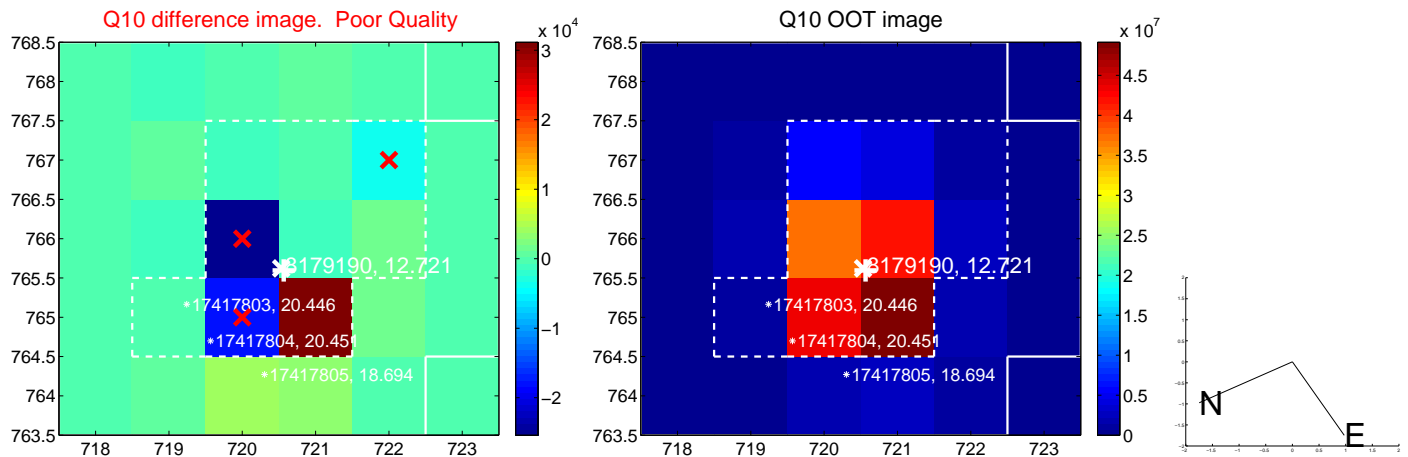
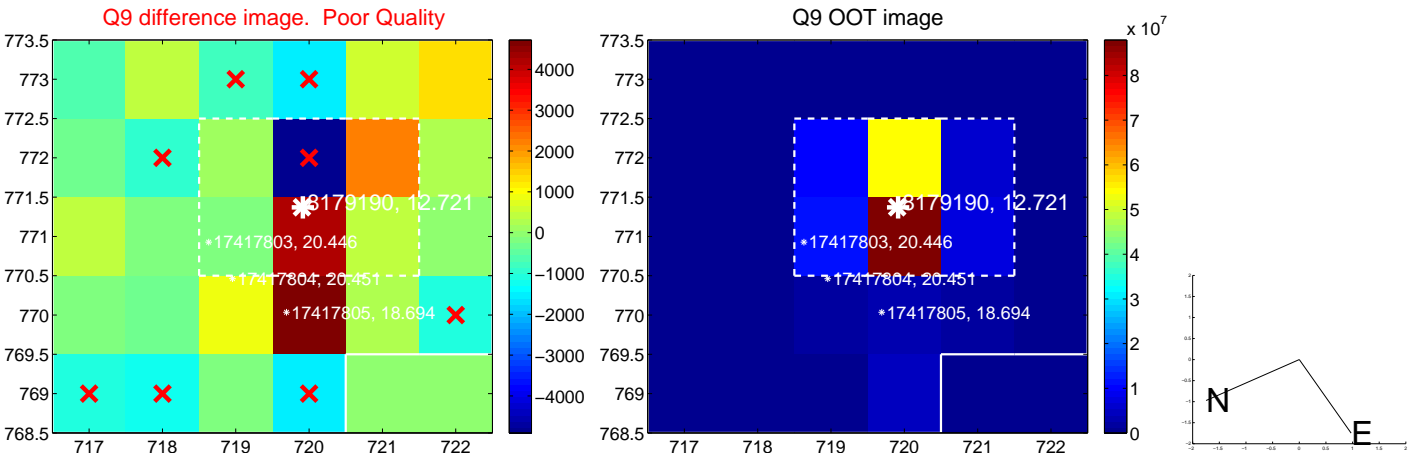
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



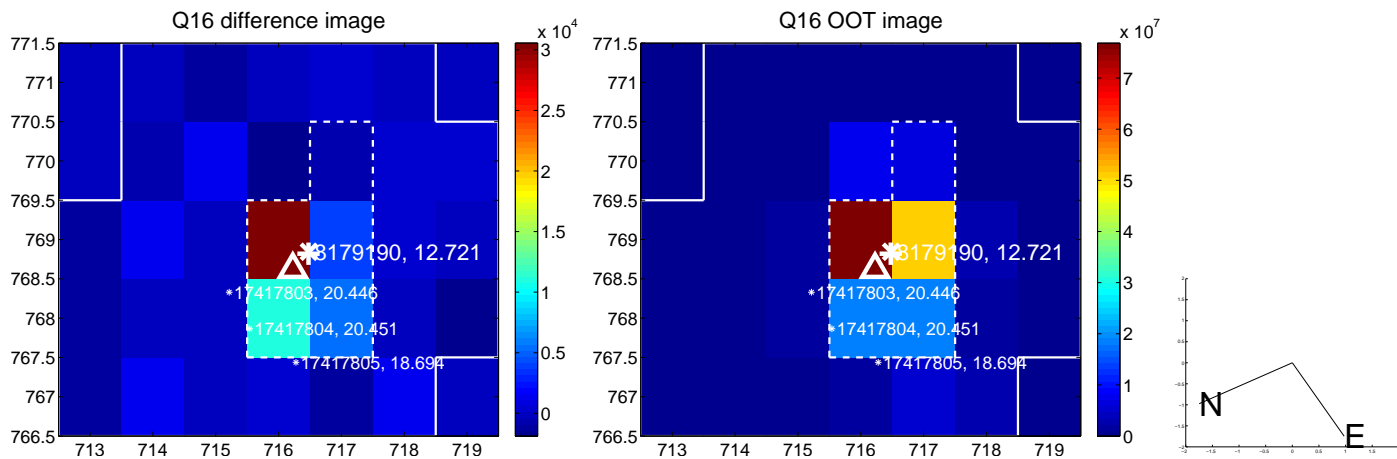
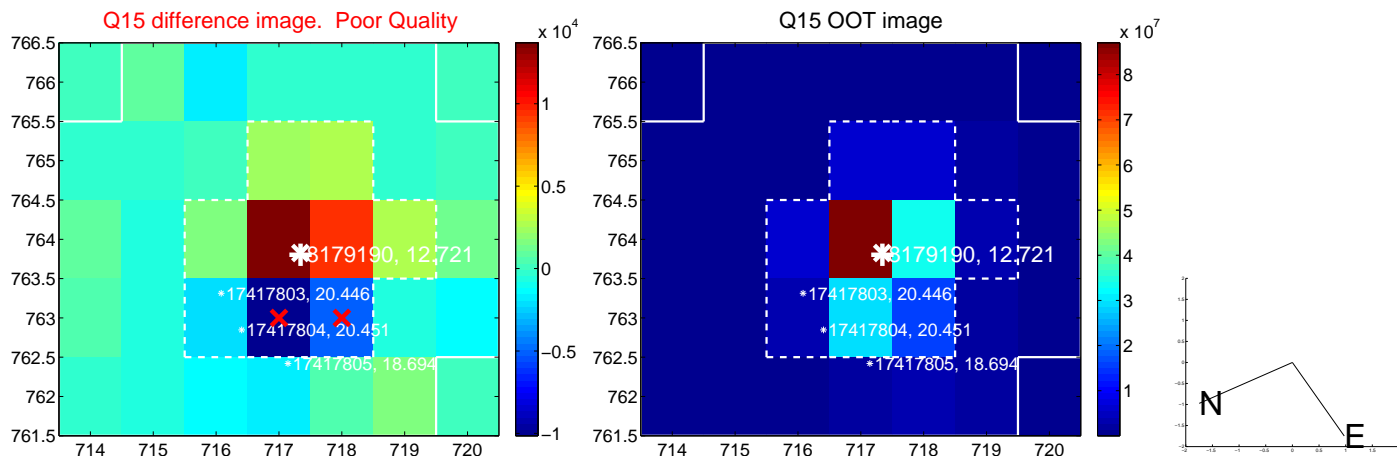
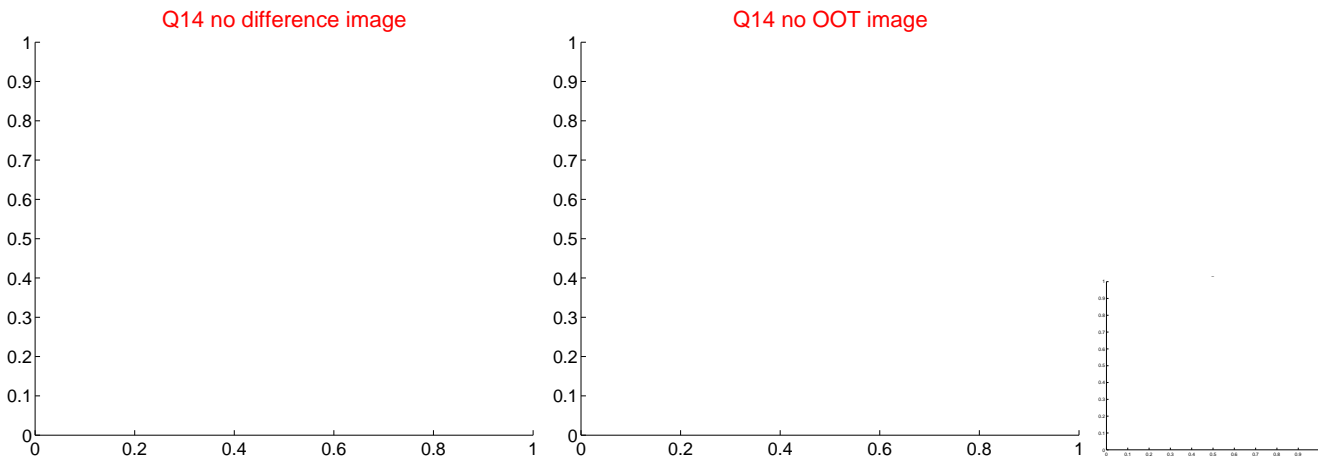
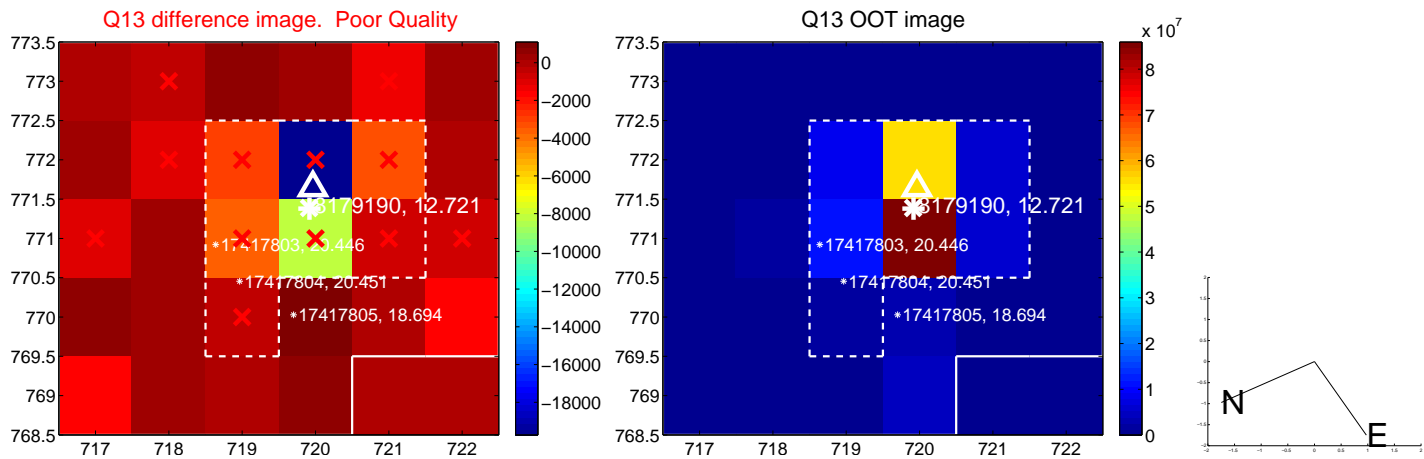
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



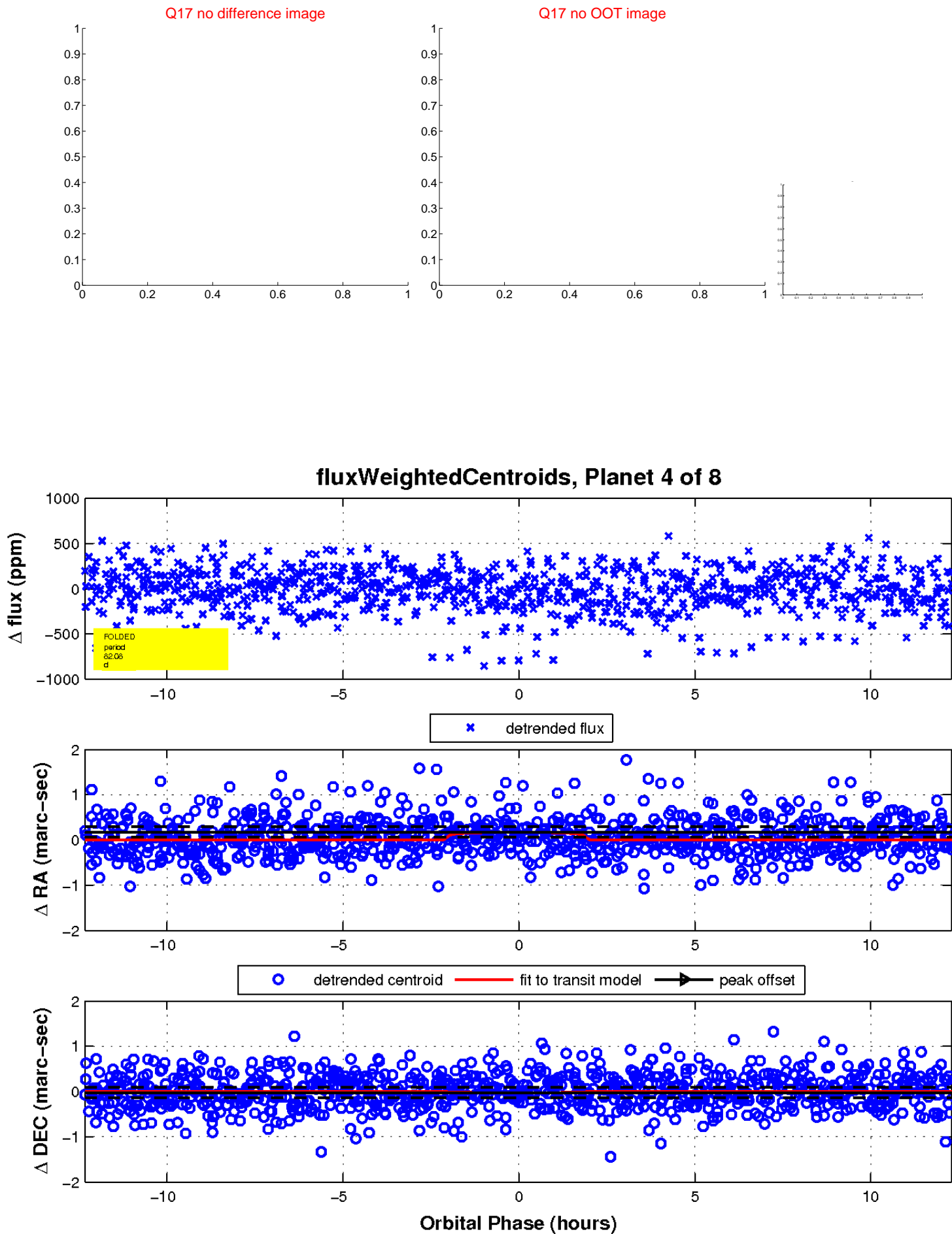
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

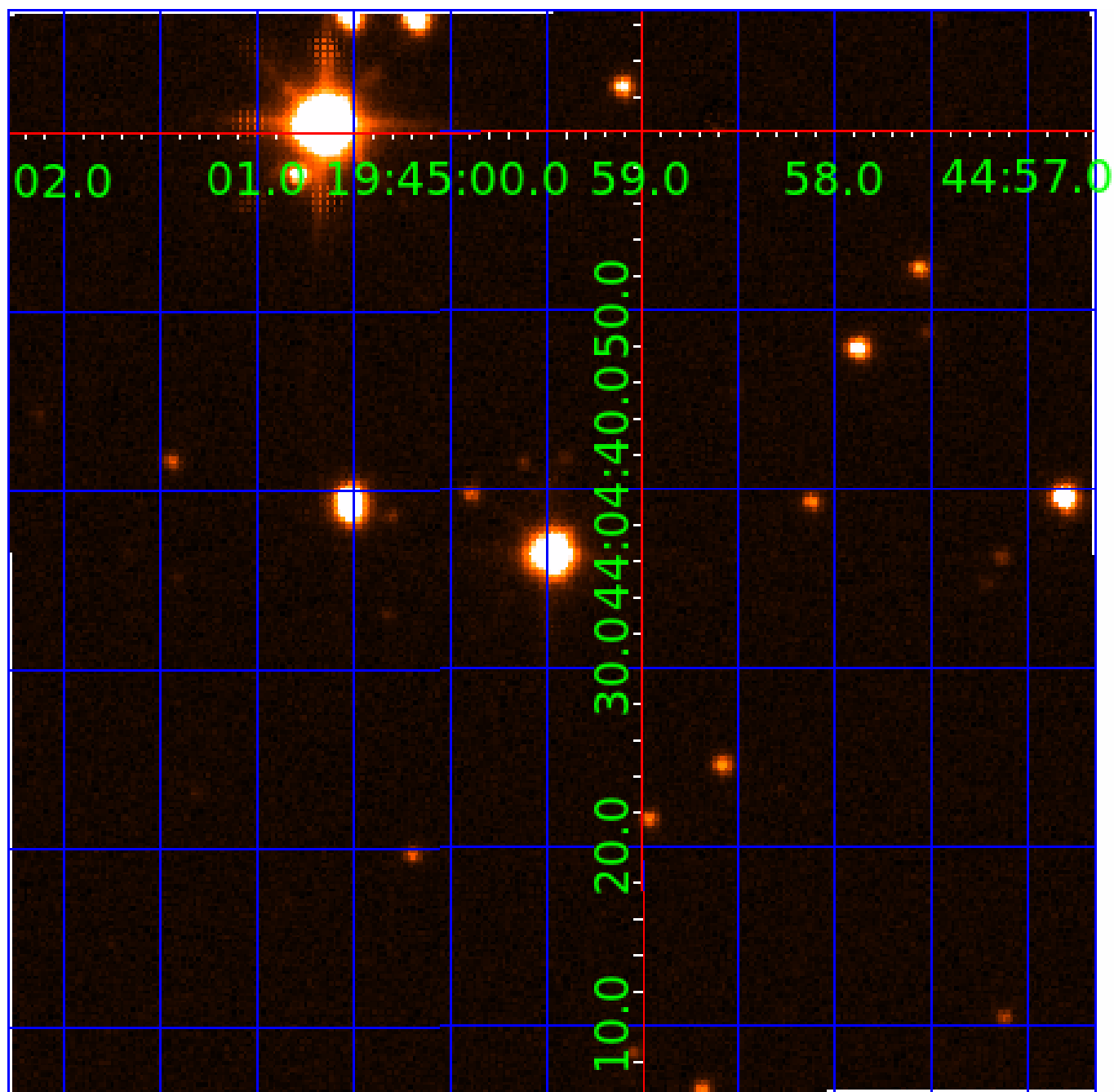


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

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

Ephemeris Match Information For 008179190-05

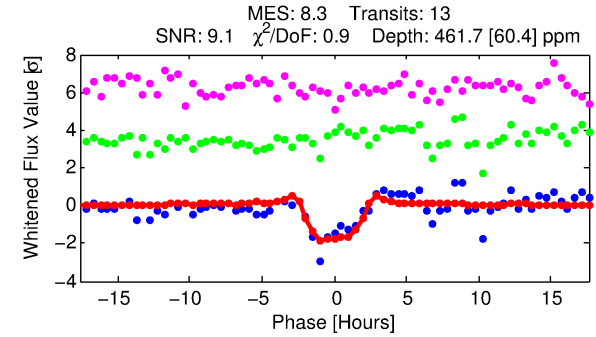
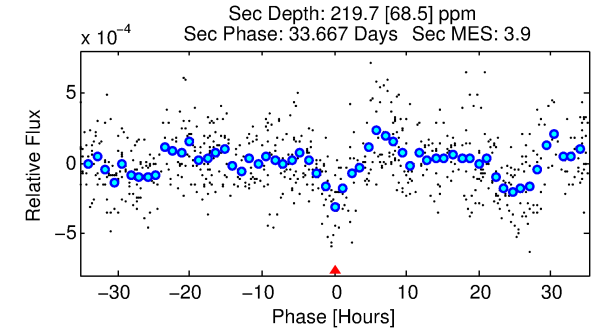
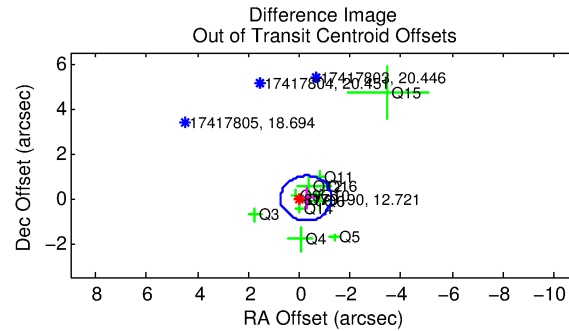
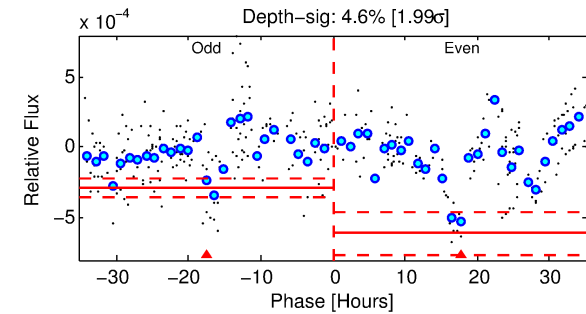
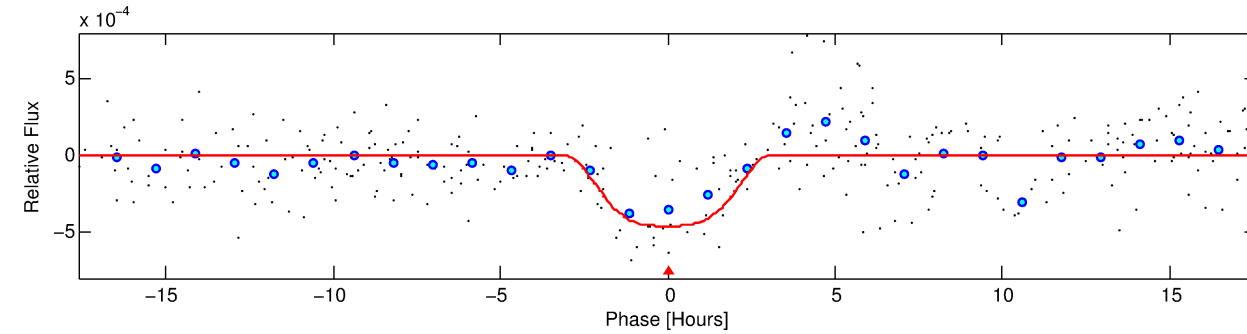
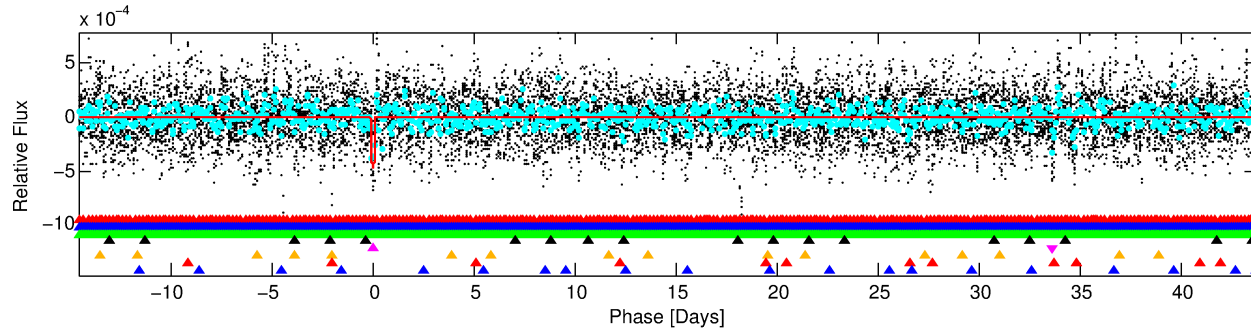
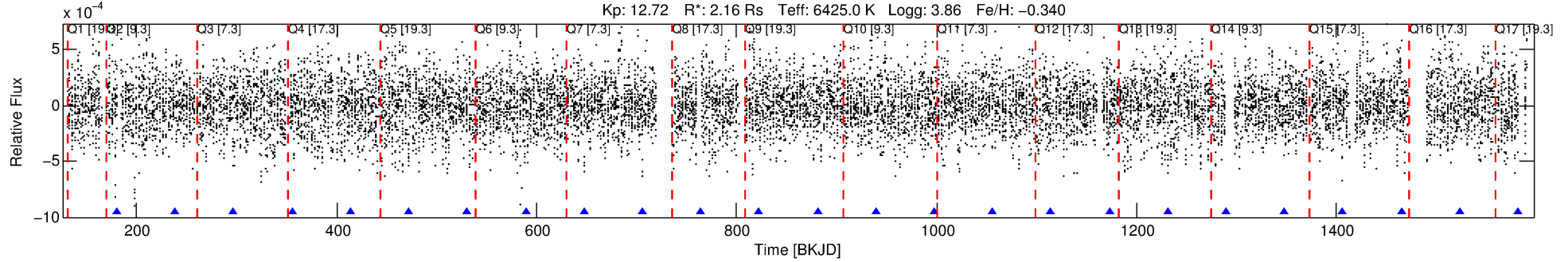
No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 5 of 8 Period: 58.378 d

KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



DV Fit Results:

Period = 58.37781 [0.00079] d
Epoch = 180.4153 [0.0111] BKJD
Rp/R* = 0.0254 [0.0020]
a/R* = 25.33 [3.64]
b = 0.97 [0.01]
Seff = 71.18 [37.07]
Teq = 741 [96] K
Rp = 5.99 [2.01] Re
a = 0.3163 [0.1001] AU
Ag = 337.62 [208.69] [1.61σ]
Teffp = 4909 [451] K [9.04σ]

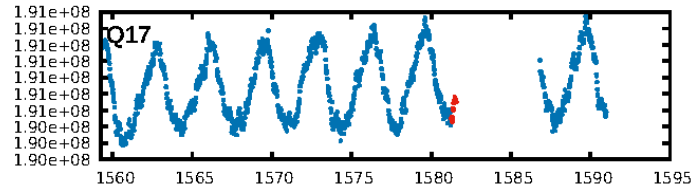
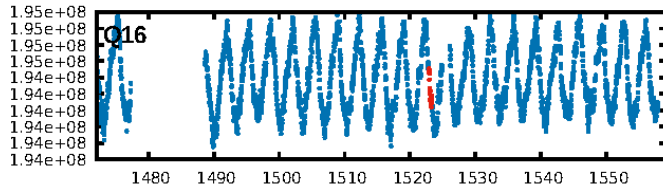
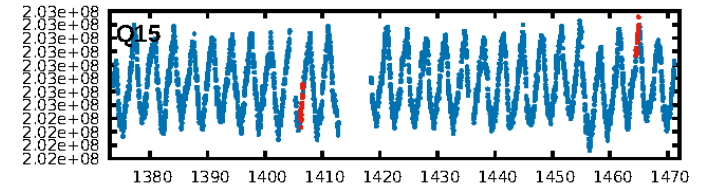
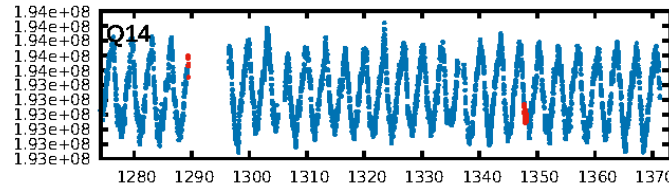
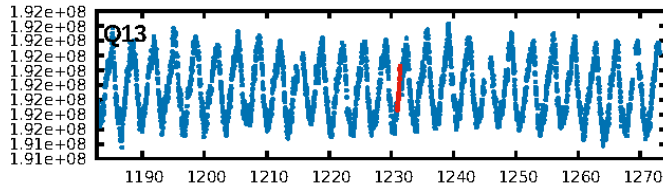
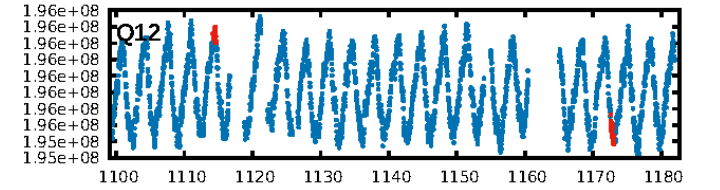
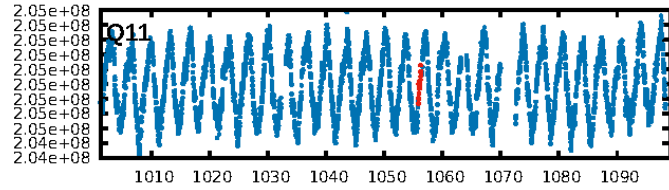
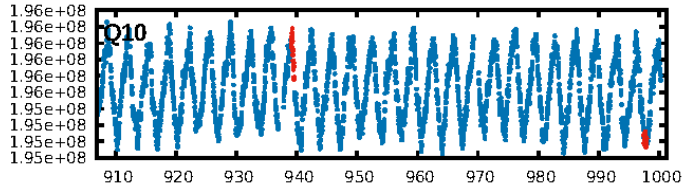
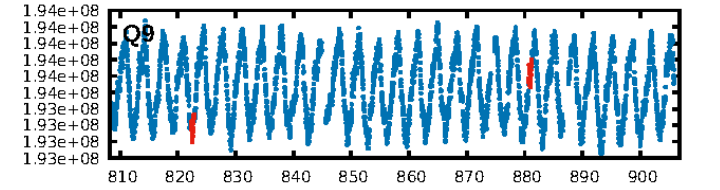
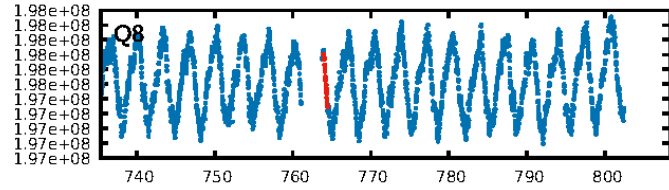
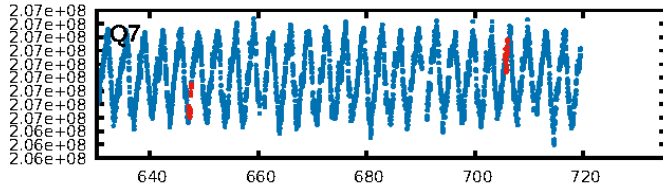
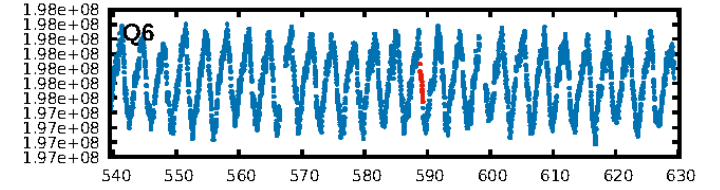
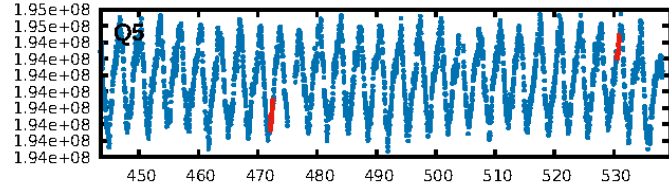
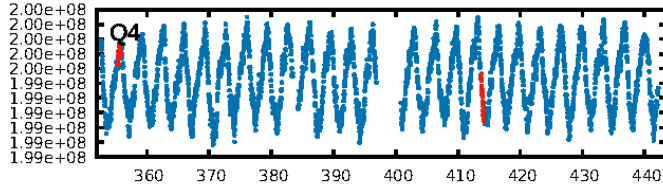
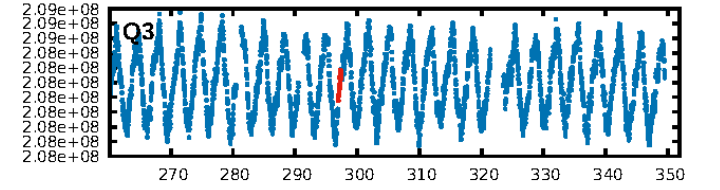
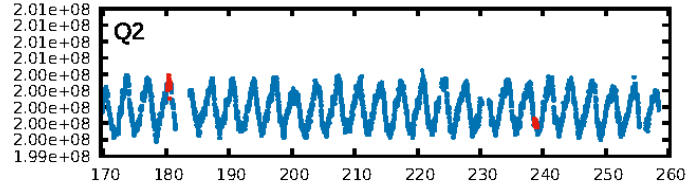
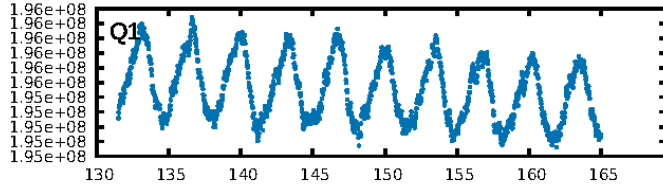
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [107.41σ]
LongPeriod-sig: 100.0% [55.47σ]
ModelChiSquare2-sig: 4.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 1.599
Centroid-sig: 9.6%
Centroid-so: 0.360 arcsec [1.70σ]
OotOffset-rm: 0.268 arcsec [0.80σ]
KicOffset-rm: 0.158 arcsec [0.39σ]
OotOffset-st: 3/4/3/2 [12]
KicOffset-st: 3/4/3/2 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 0.00 [0/14]

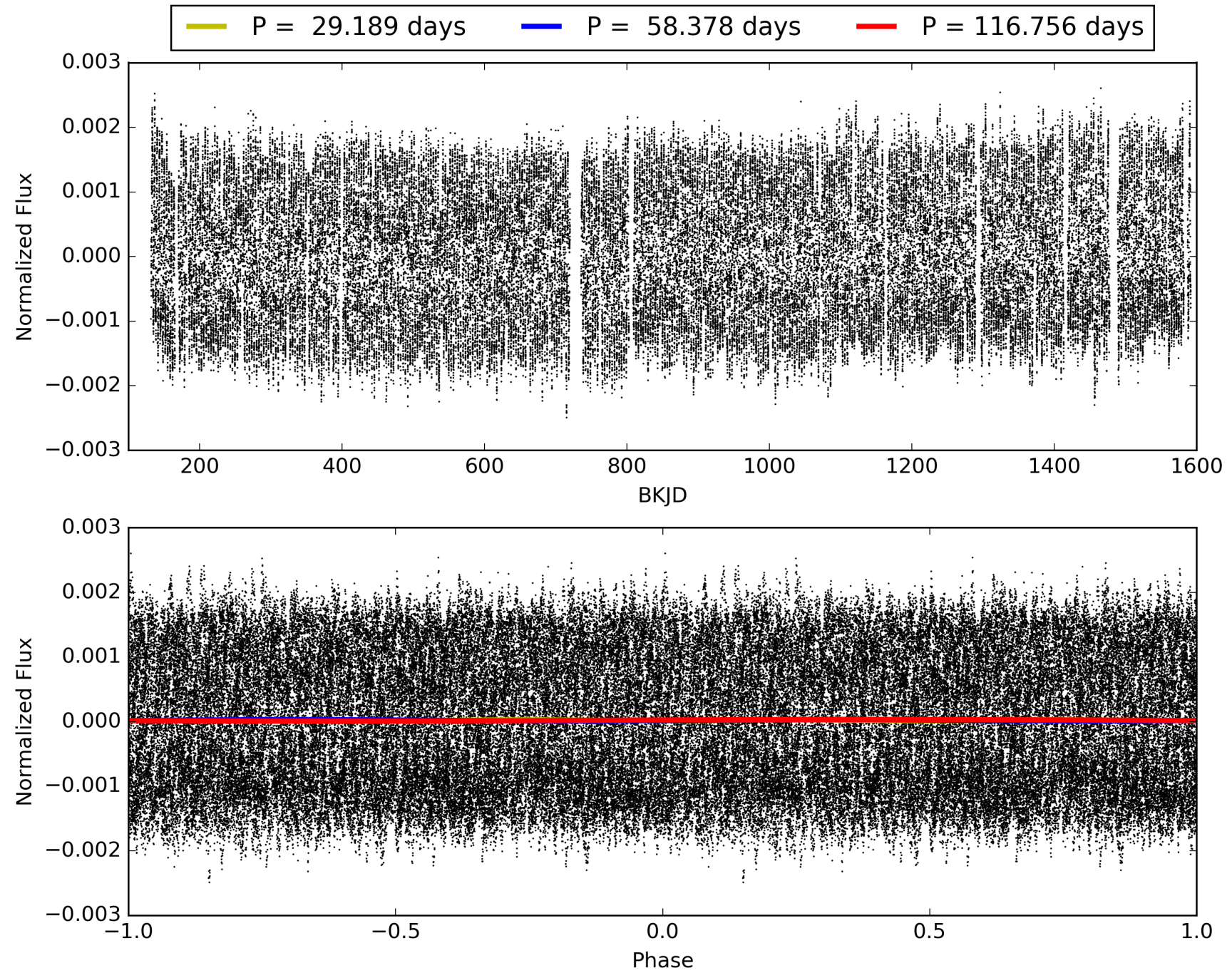
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:44 Z

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

TCE 008179190-05, PDC Light Curves

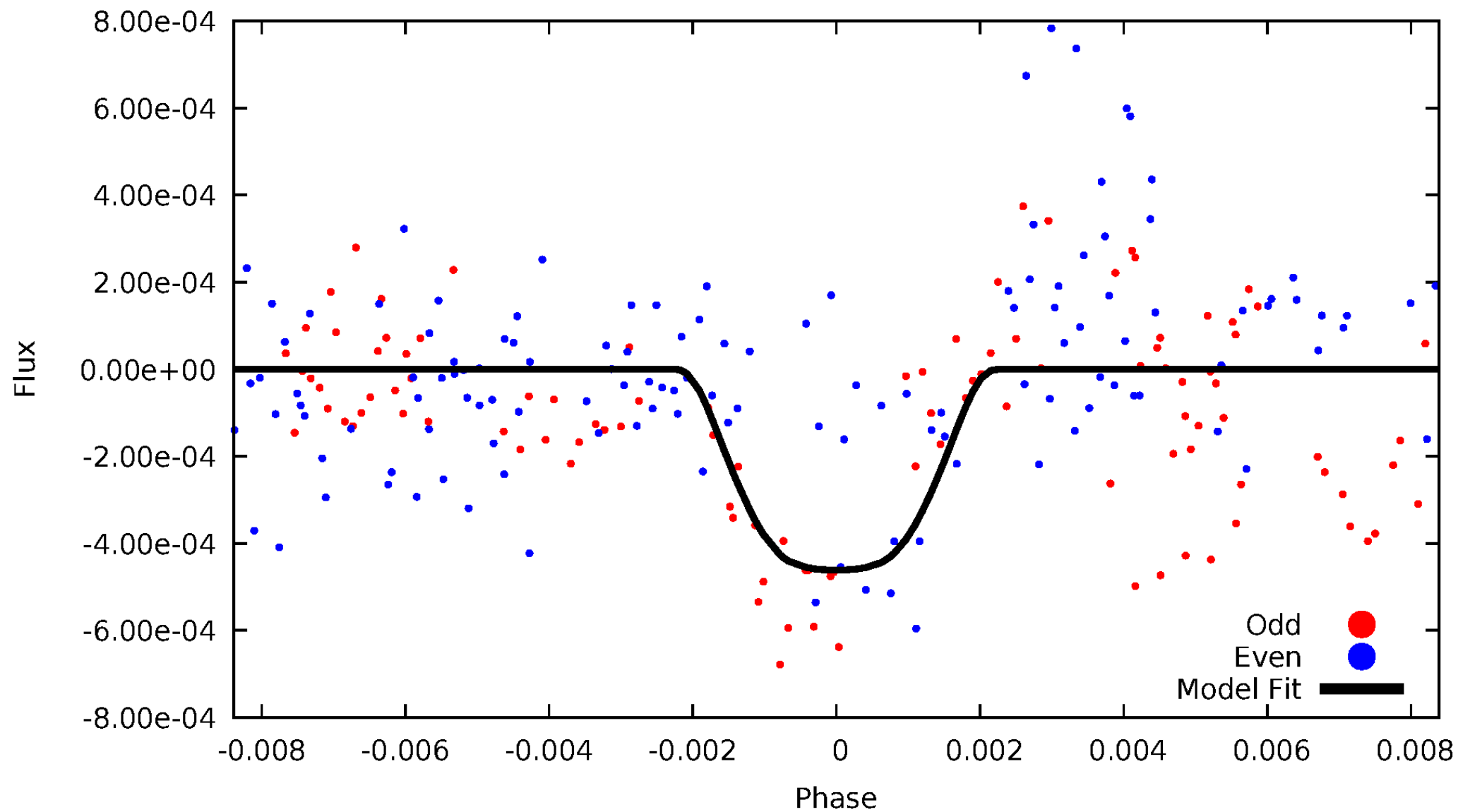


TCE 008179190-05



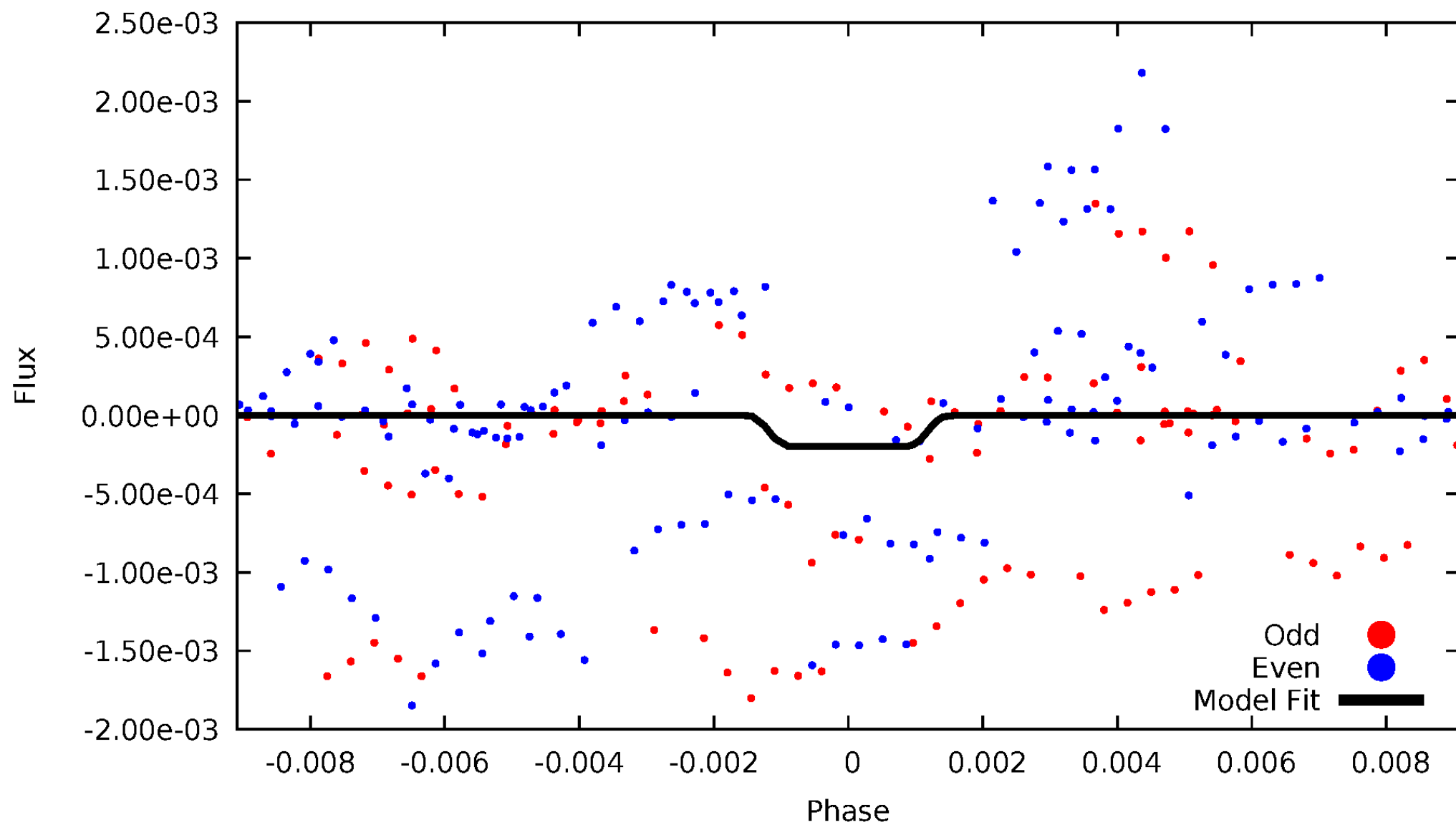
DV Odd/Even

TCE 008179190-05



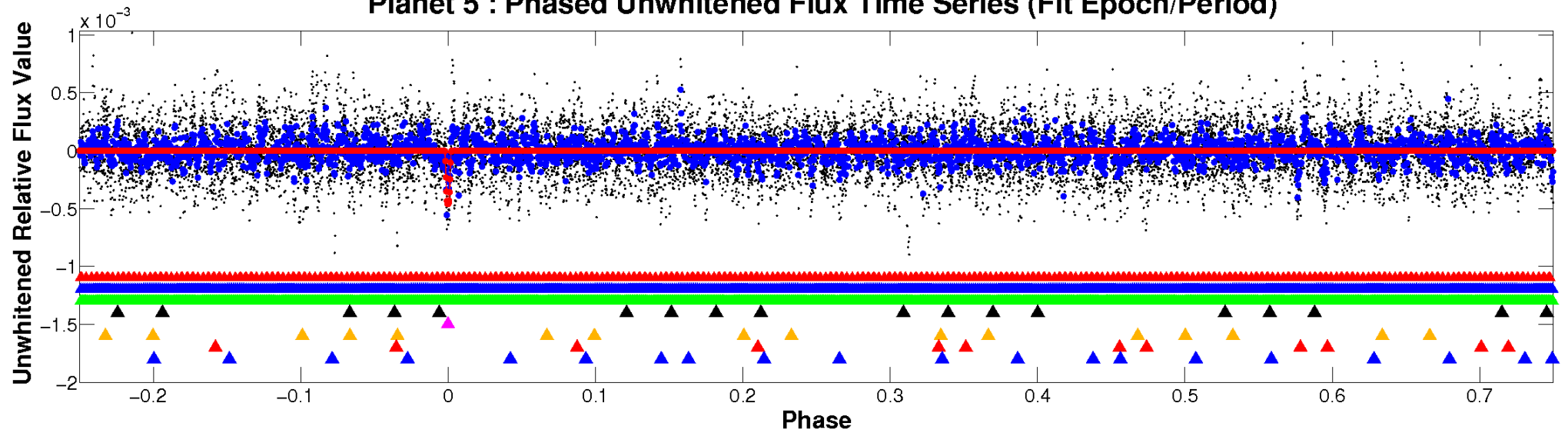
ALT Odd/Even

TCE 008179190-05

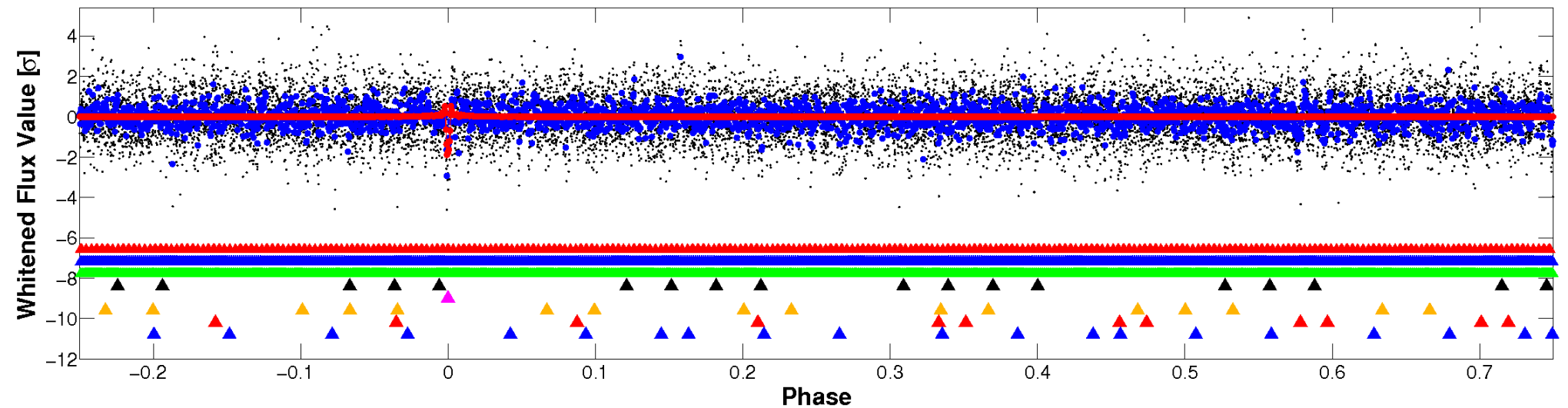


Non-Whitened Vs. Whitened Light Curve

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

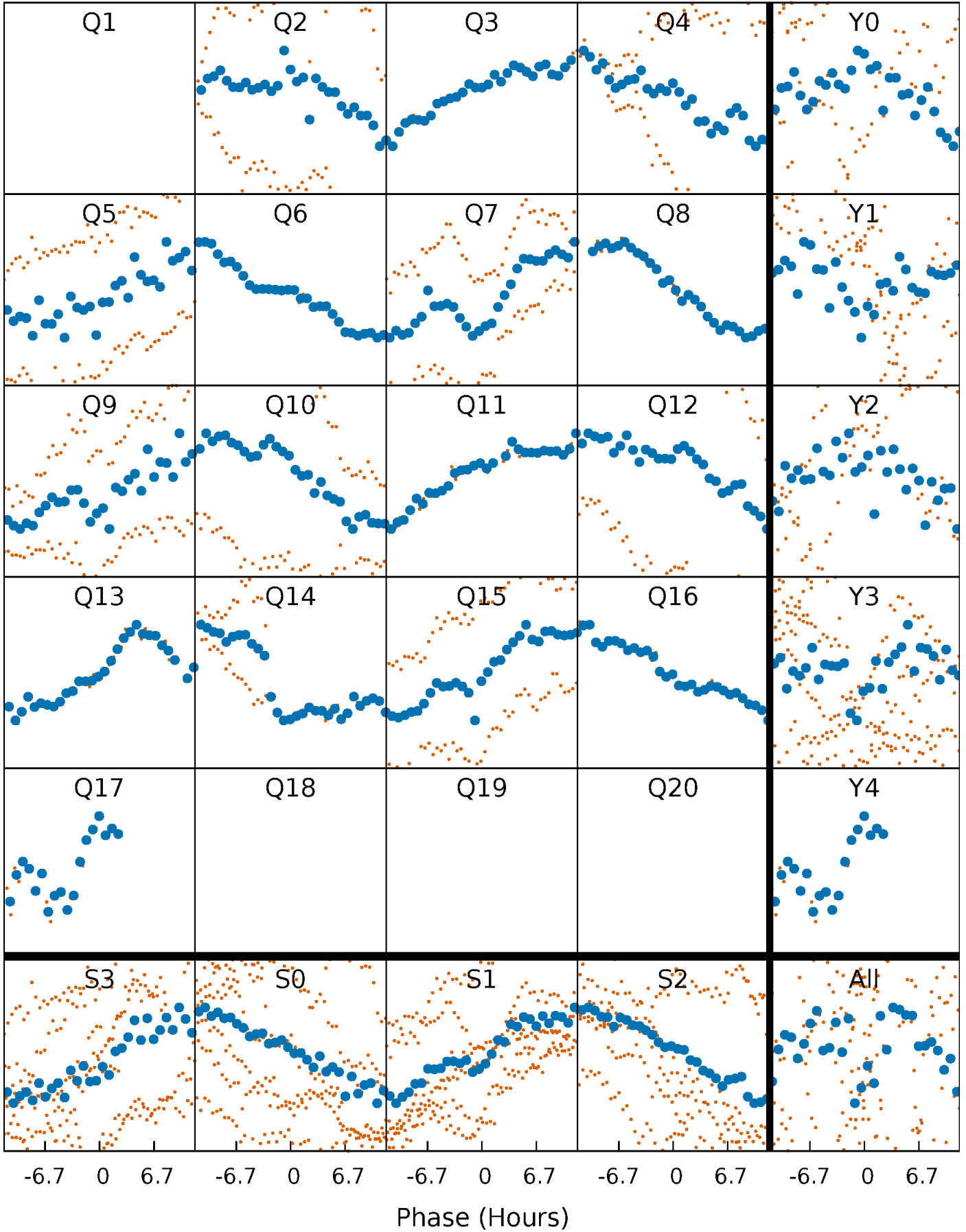


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



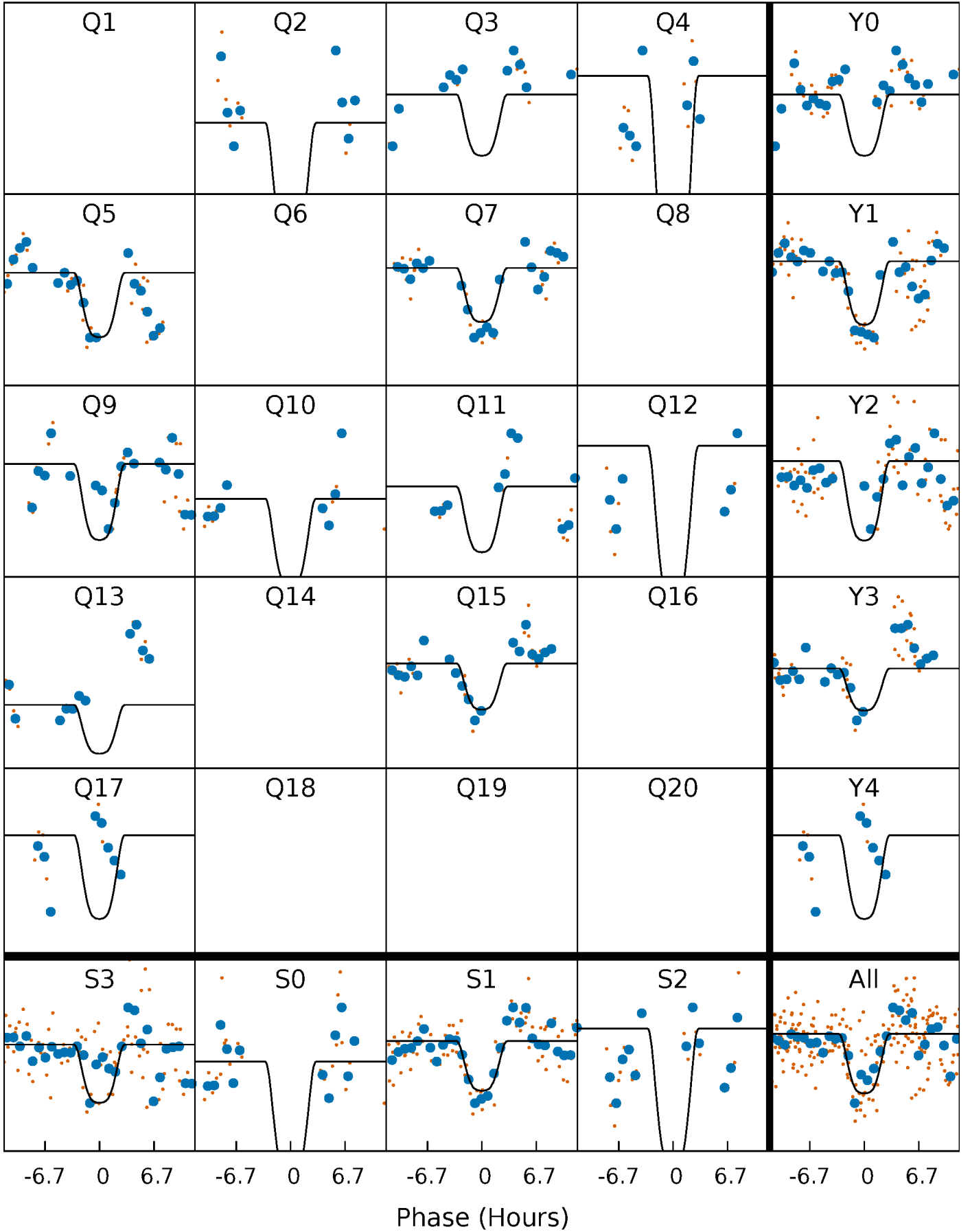
PDC Quarter-Phased Transit Curves

TCE 008179190-05 $P = 58.377813$ Days $T_0 = 180.415312$ (BKJD)



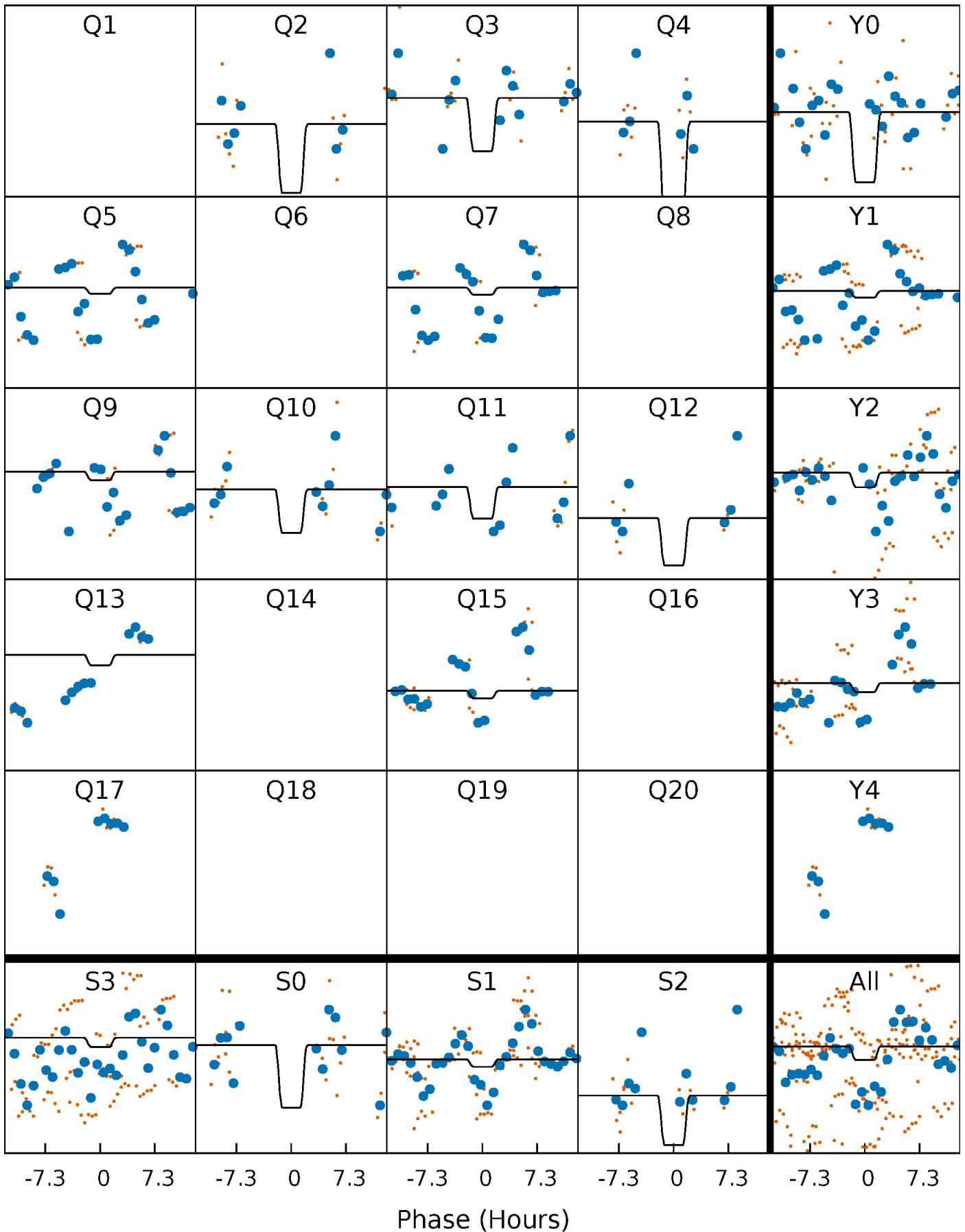
DV Quarter-Phased Transit Curves

TCE 008179190-05 P= 58.377813 Days $T_0=180.415312$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

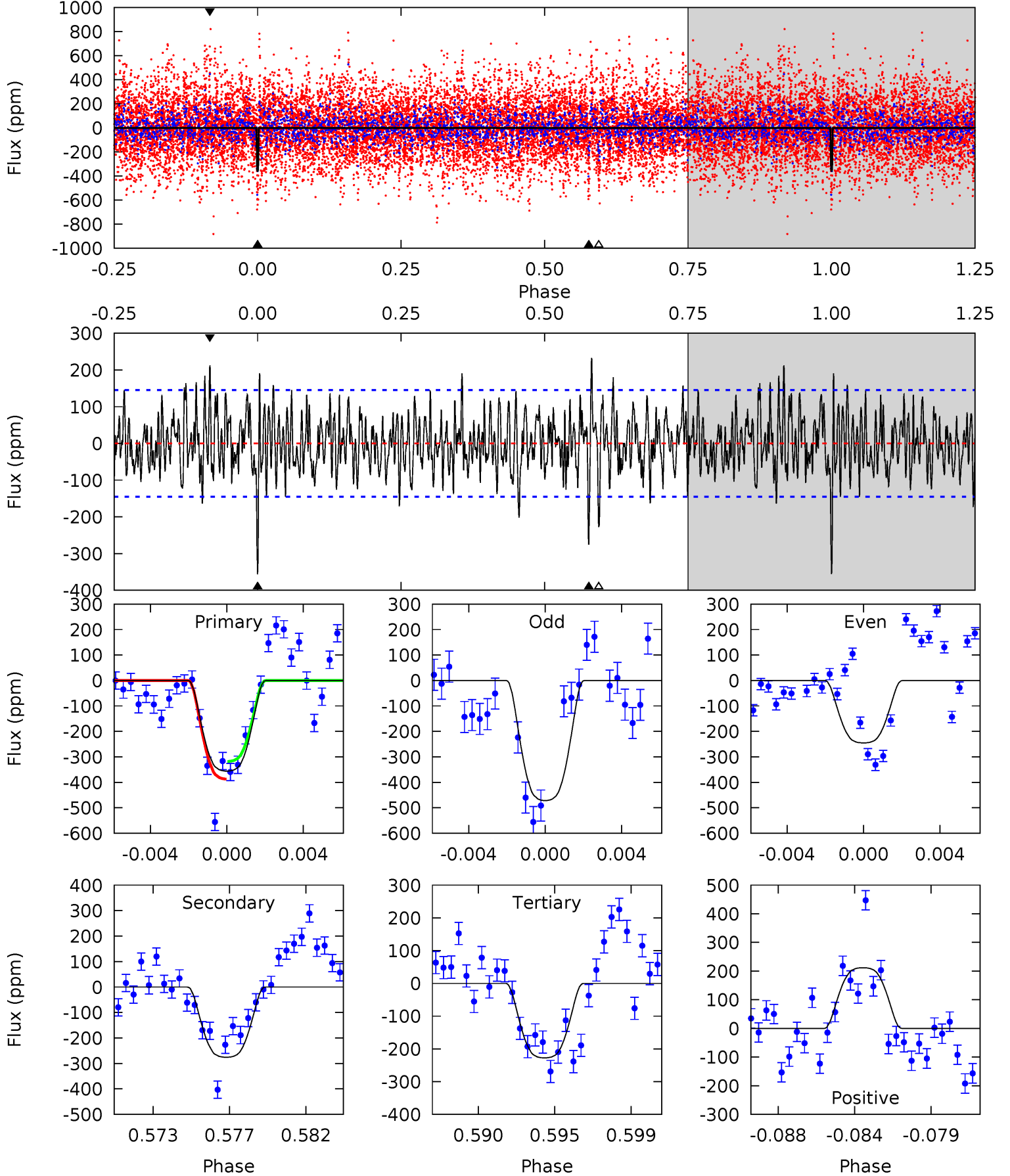
TCE 008179190-05 $P = 58.375630$ Days $T_0 = 180.447322$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-05, P = 58.377813 Days, E = 122.037499 Days

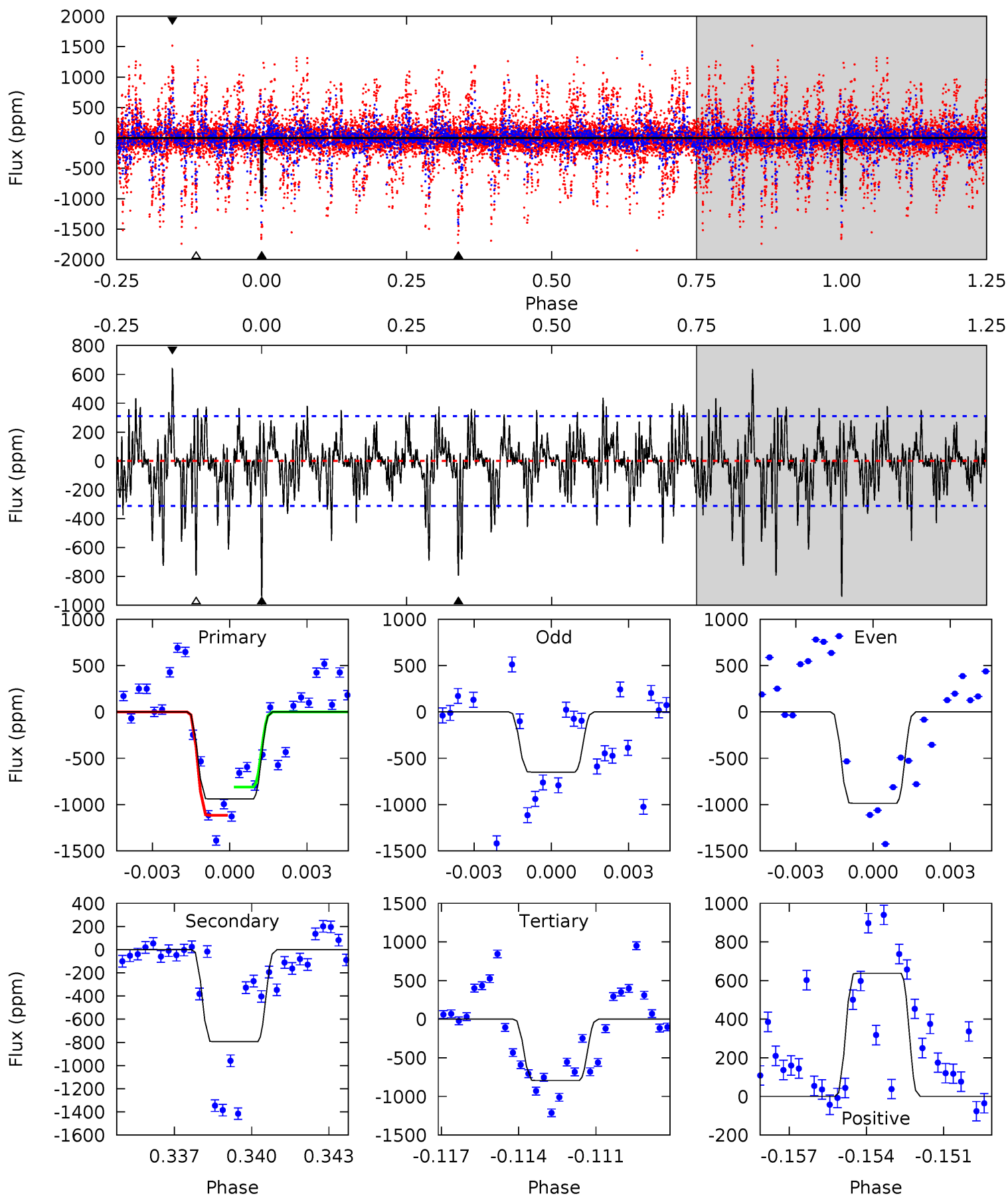
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	9.85	8.13	7.56	5.18	2.85	2.37	4.58	5.15	1.72	2.28	4.04	0.61	0.40	1.23



Alt Model-Shift Uniqueness Test

008179190-05, P = 58.375630 Days, E = 122.071692 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	13.4	13.4	10.8	5.26	2.98	2.66	2.48	5.11	0.02	2.66	2.20	1.02	0.40	2.56



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-276 ± 28	$5.80^{+0.93}_{-1.09}$	1014^{+62}_{-80}	5237^{+270}_{-233}	463^{+202}_{-119}
Alt.	-795 ± 59	$3.16^{+0.69}_{-0.69}$	1013^{+65}_{-81}	9795^{+1276}_{-938}	4455^{+2569}_{-1460}

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 $A_{obs} \gg 1.0$

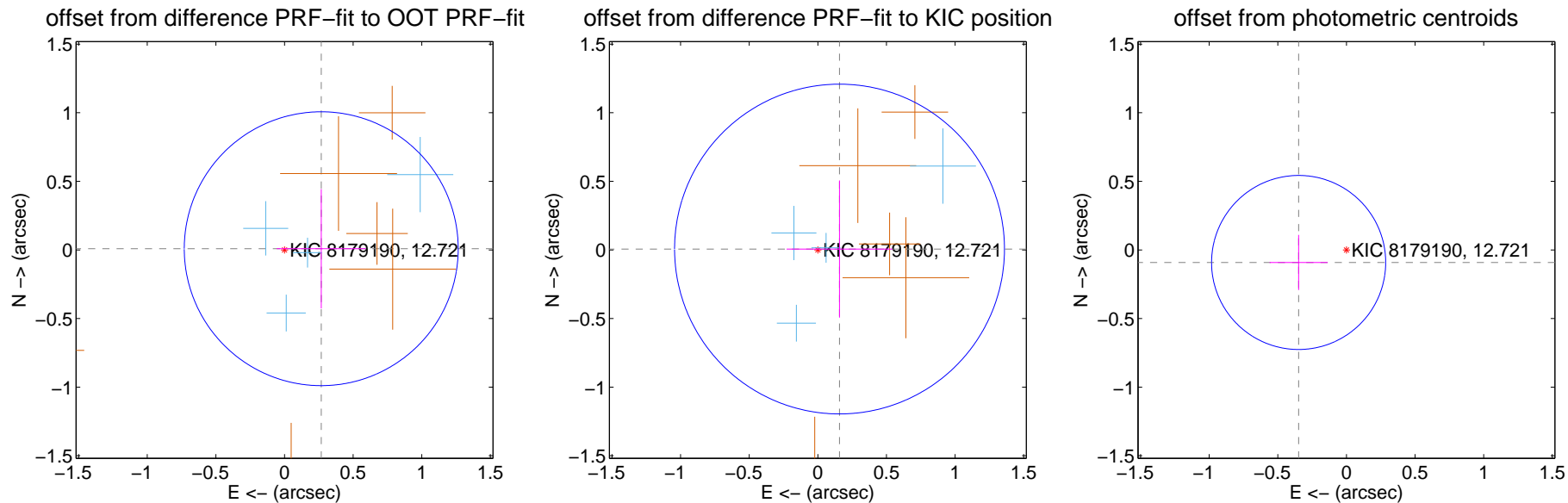
DV Centroid Data

Supplemental centroid analysis for 008179190-05. Kepler magnitude: 12.72. Transit SNR 9.13

There are 5 quarters with good PRF difference image offsets

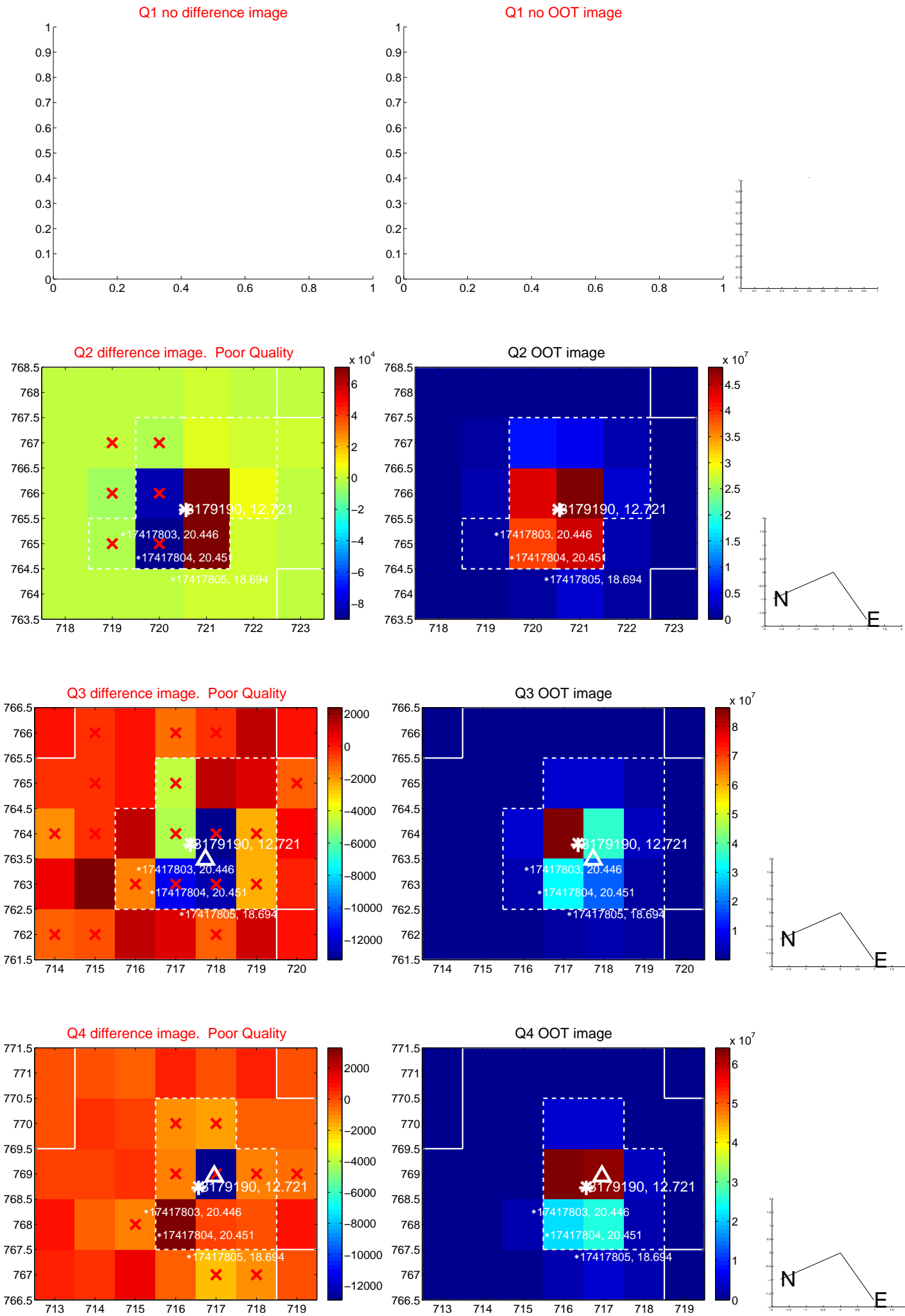
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.268 ± 0.333	0.80	-0.268 ± 0.324	0.009 ± 0.435
PRF-fit source offset from KIC position	0.158 ± 0.401	0.39	-0.158 ± 0.386	0.006 ± 0.500
photometric centroid source offset	0.36 ± 0.21	1.70	0.35 ± 0.21	-0.09 ± 0.20

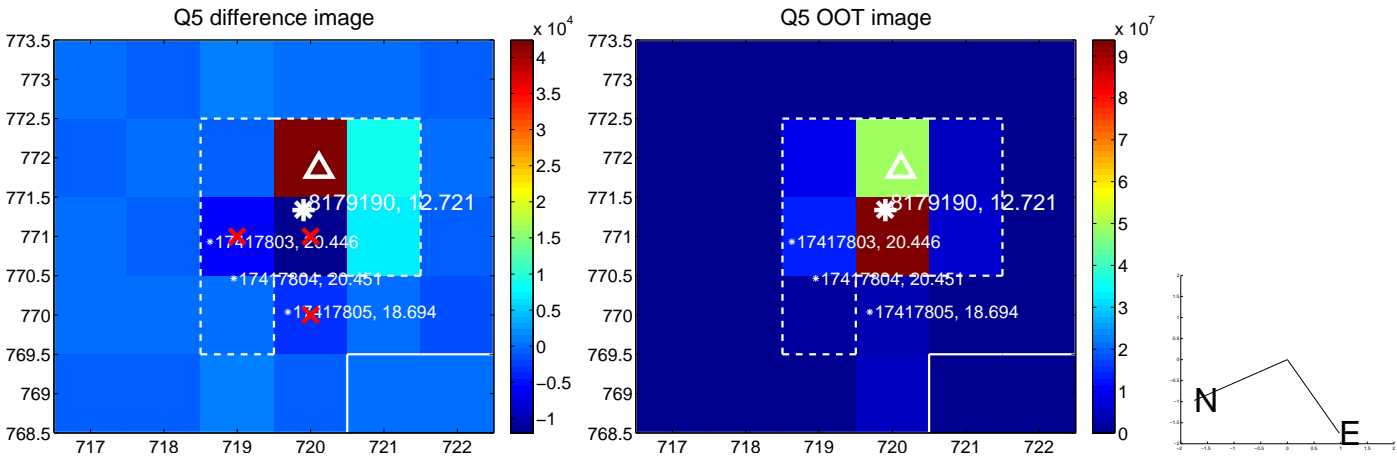


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

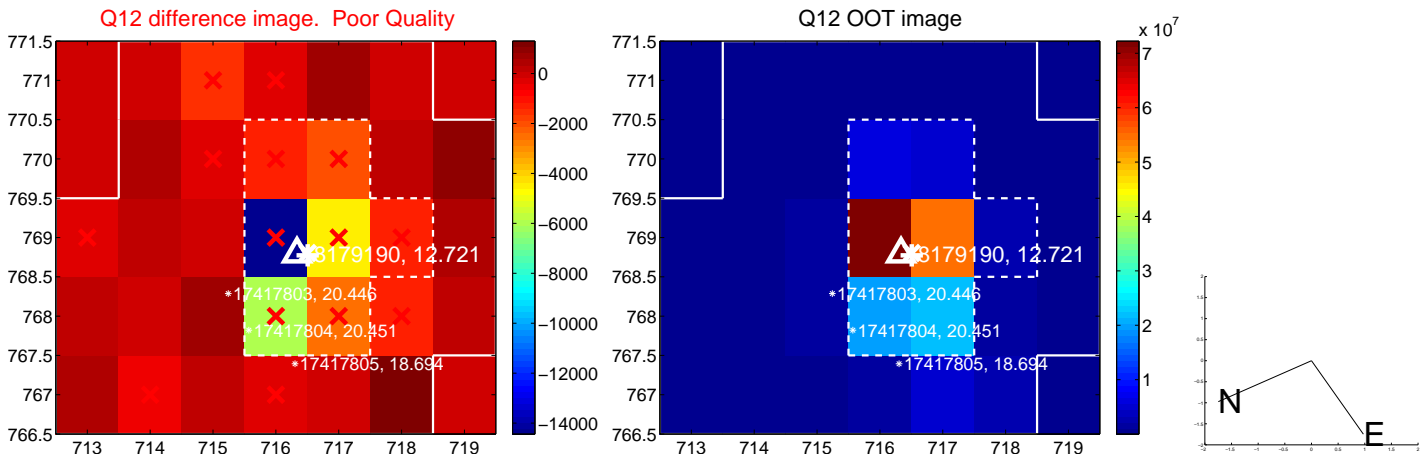
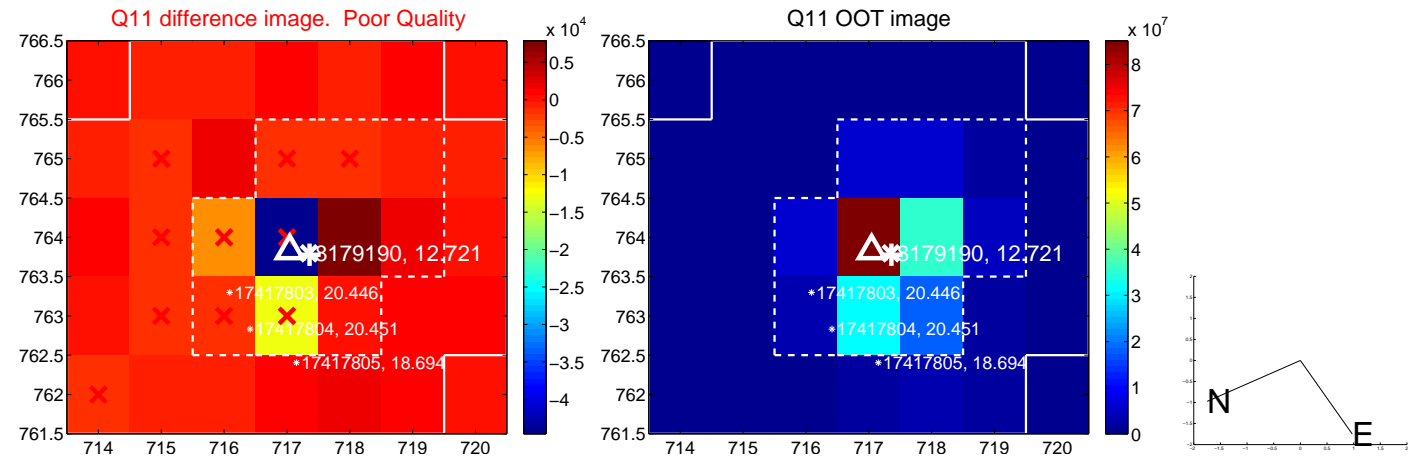
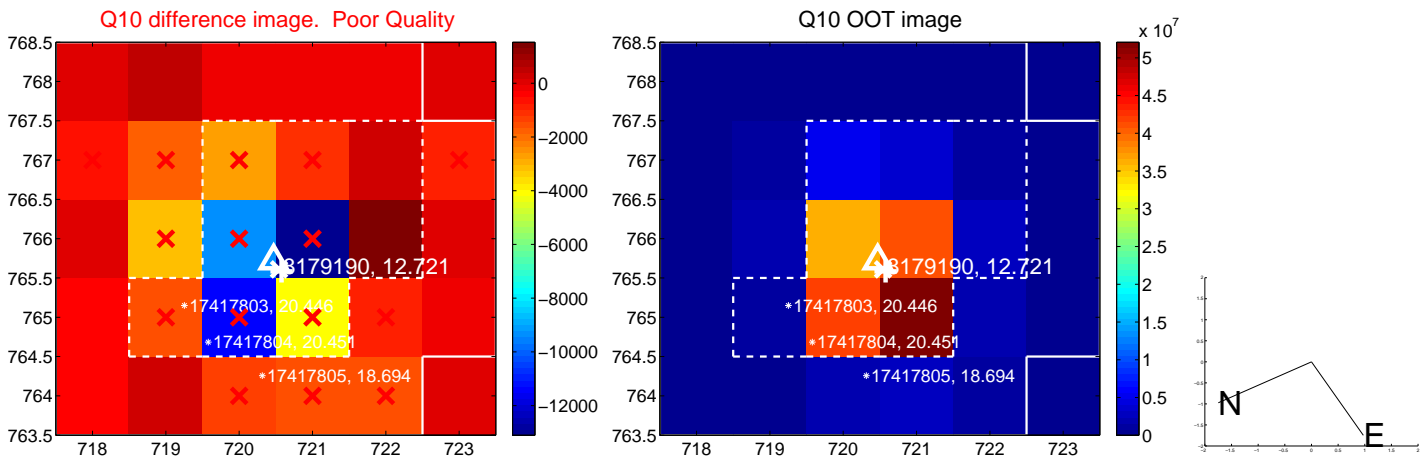
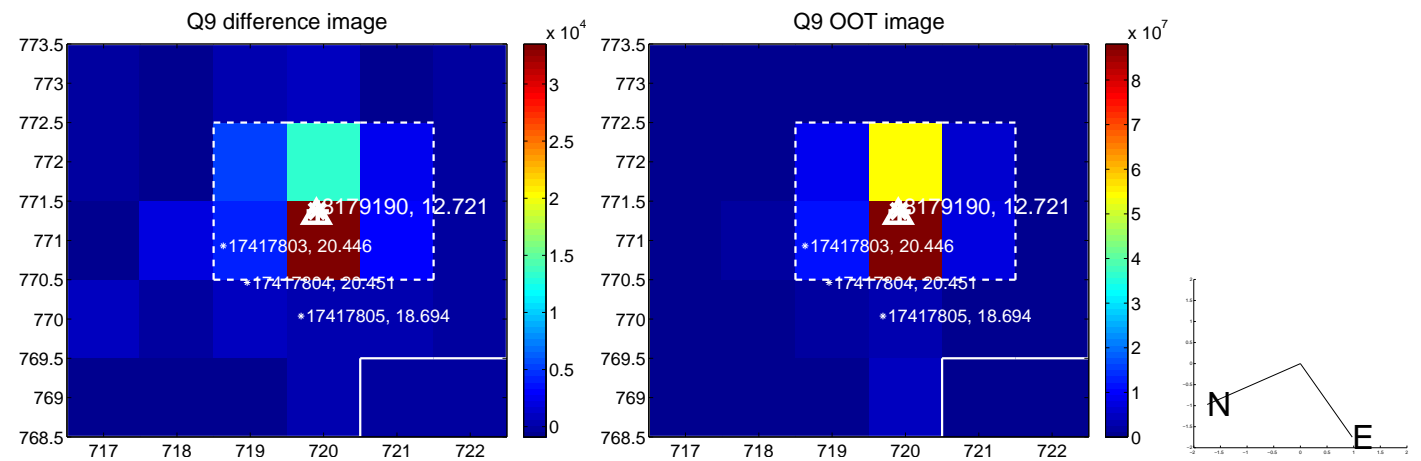
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



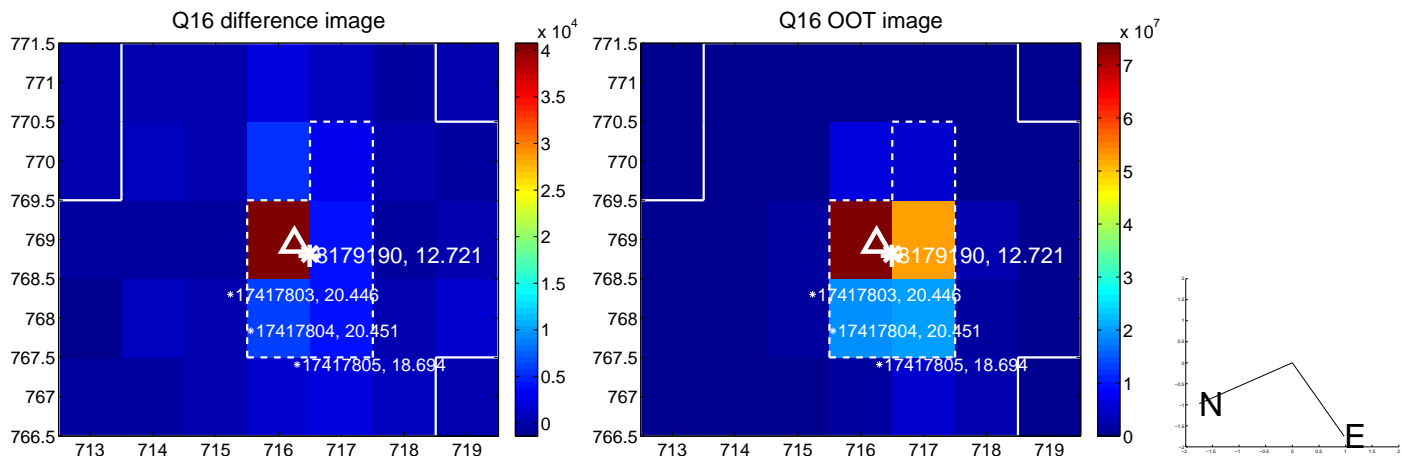
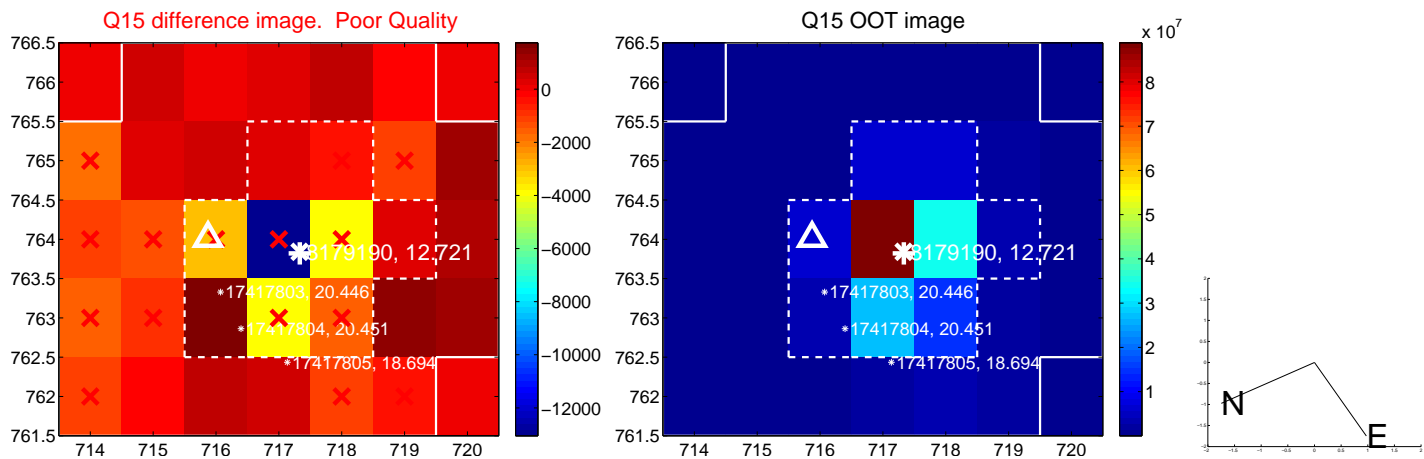
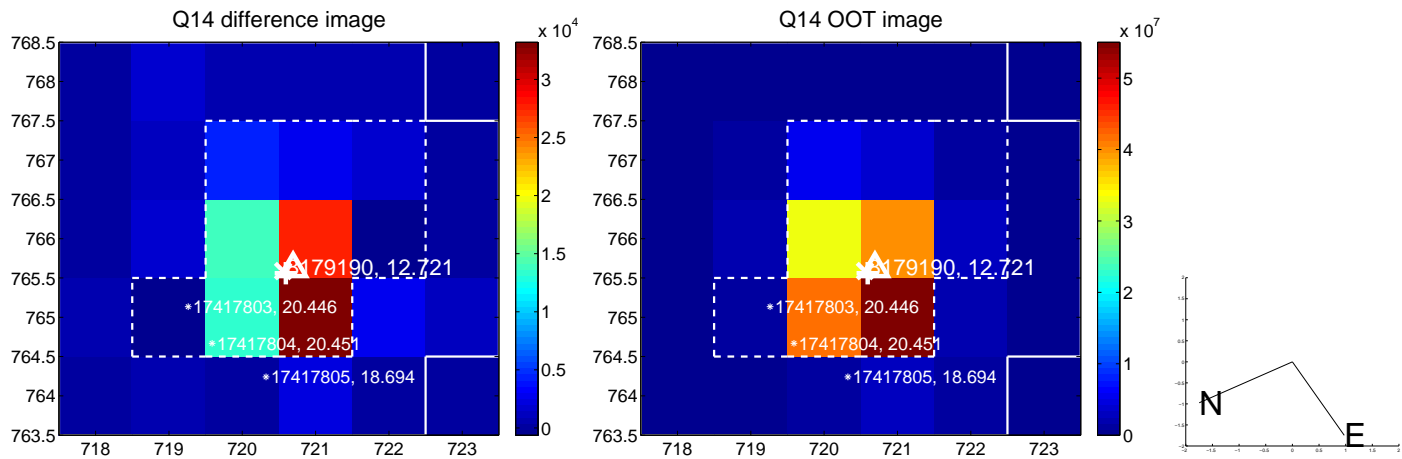
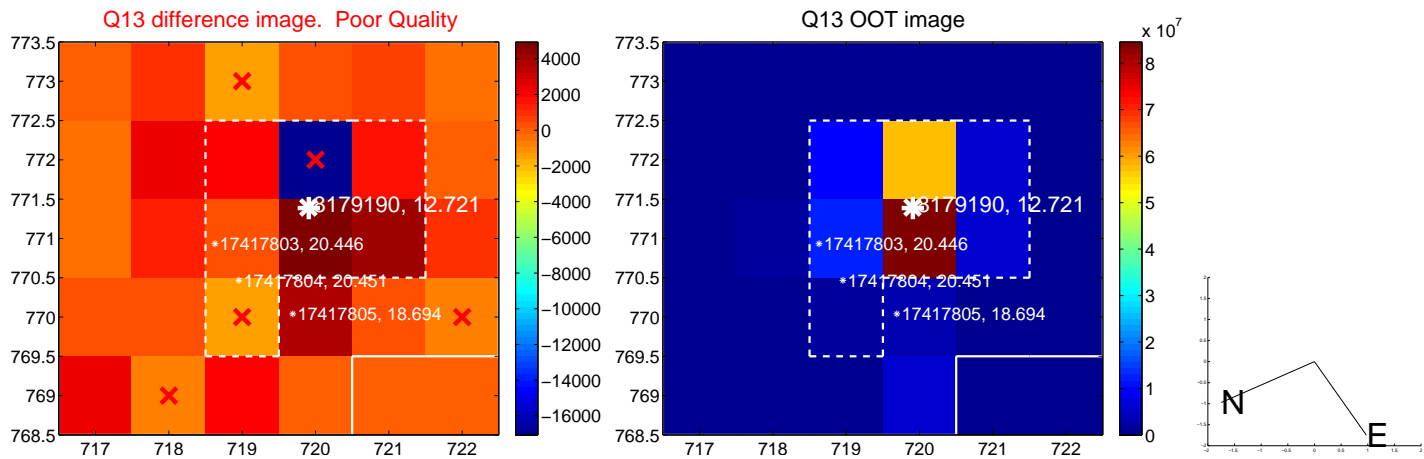
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



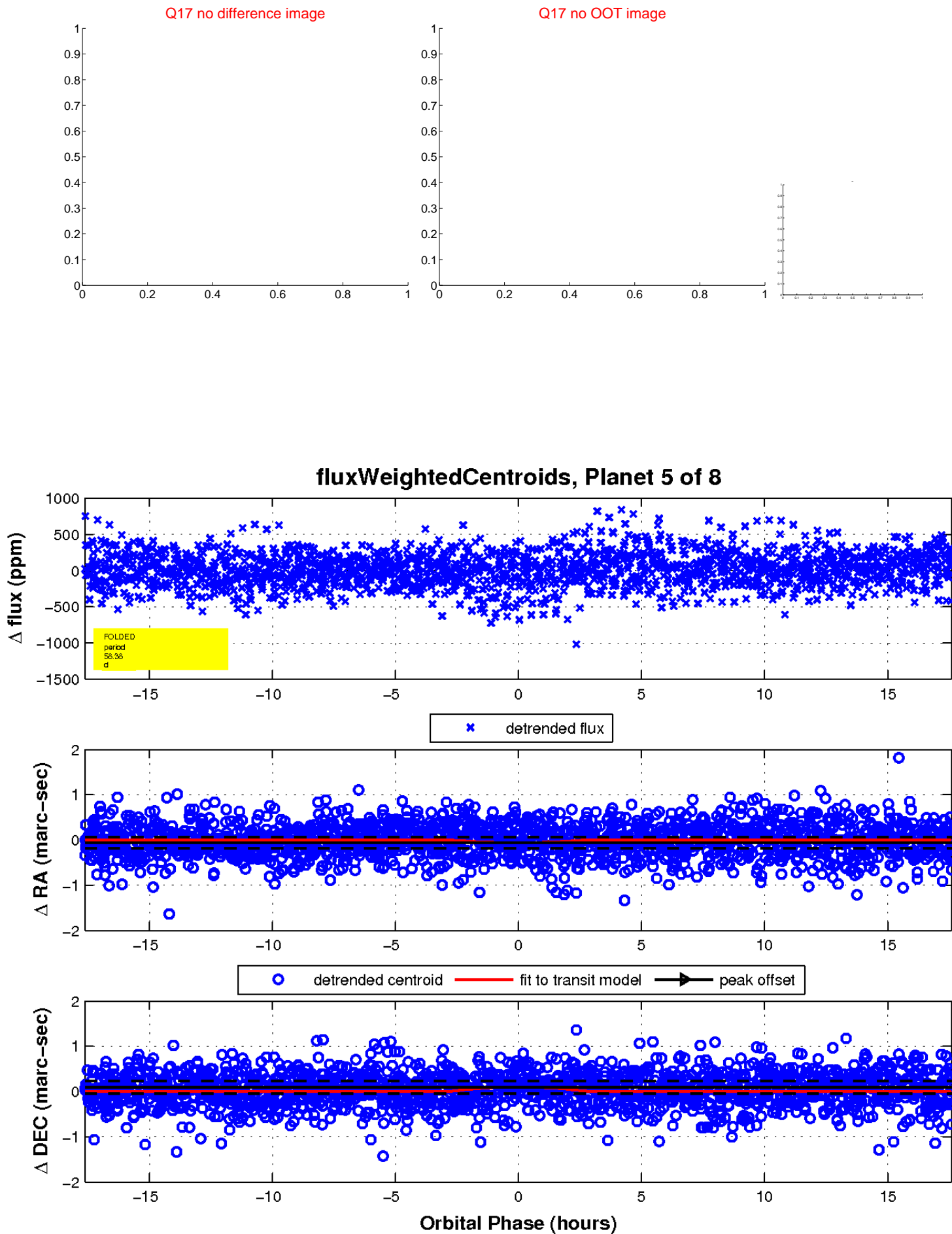
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

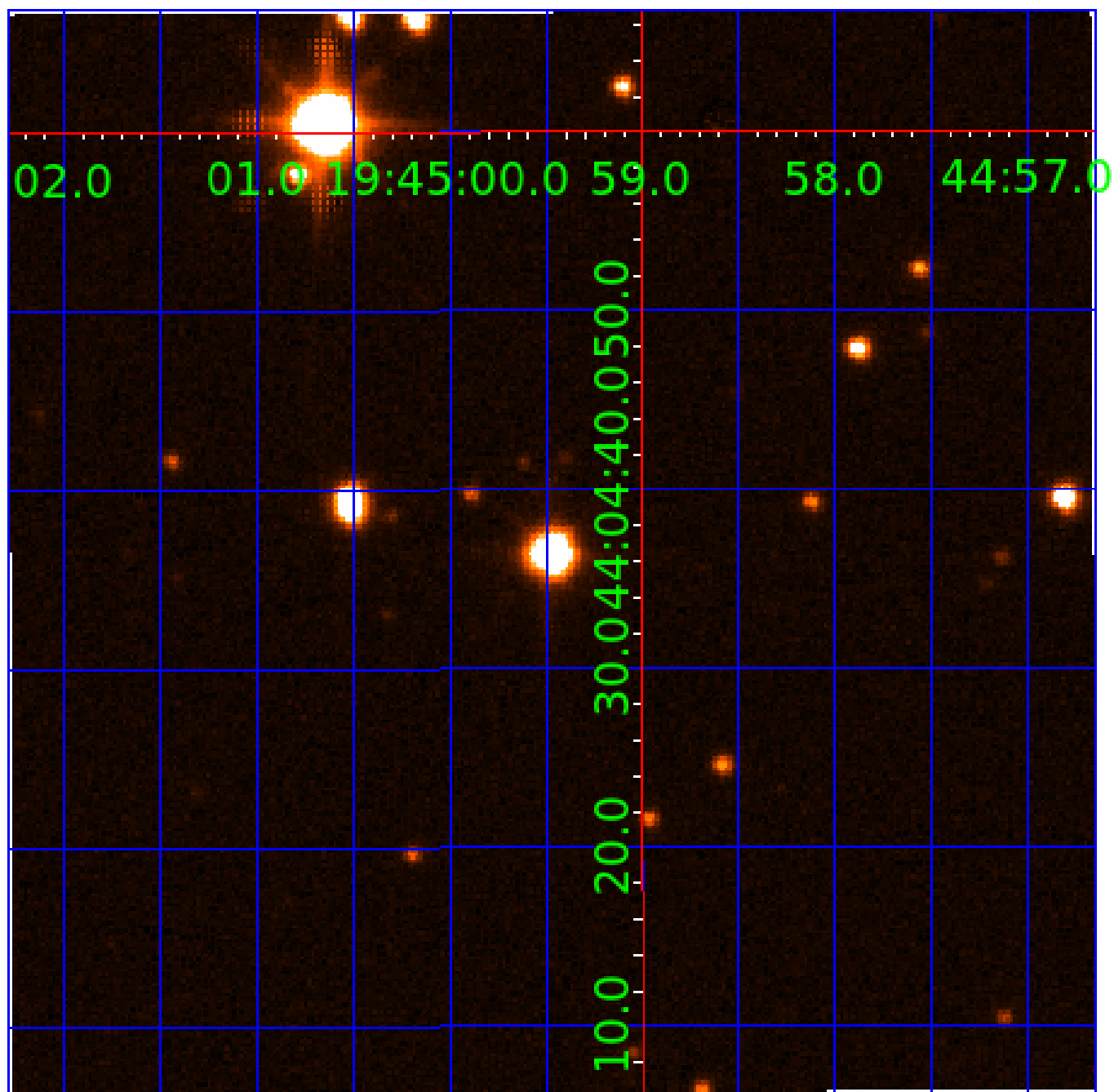


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

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

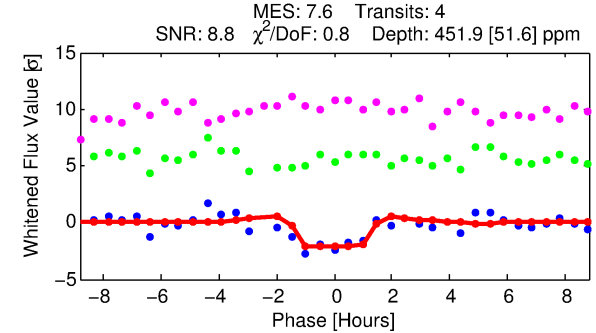
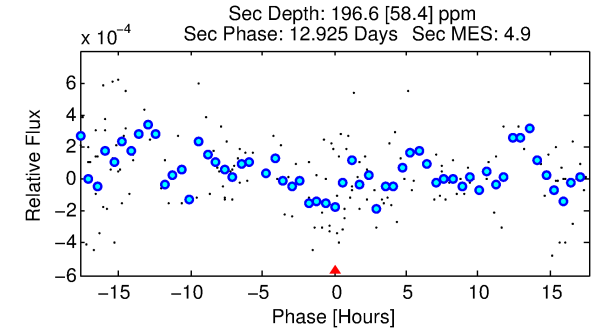
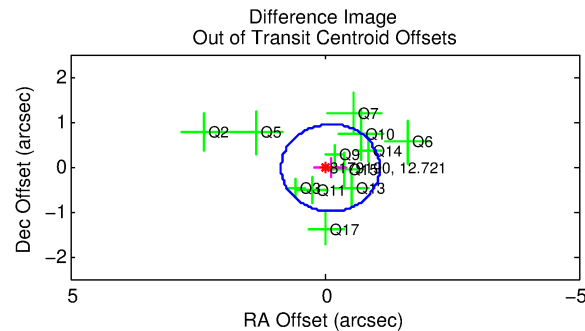
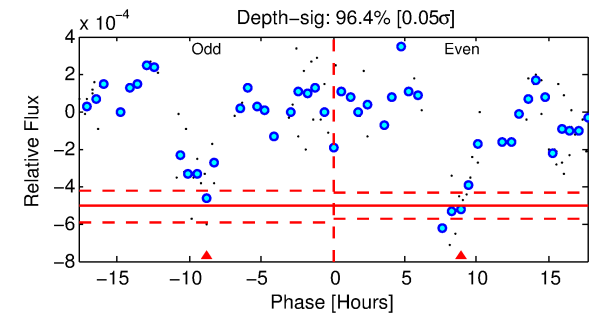
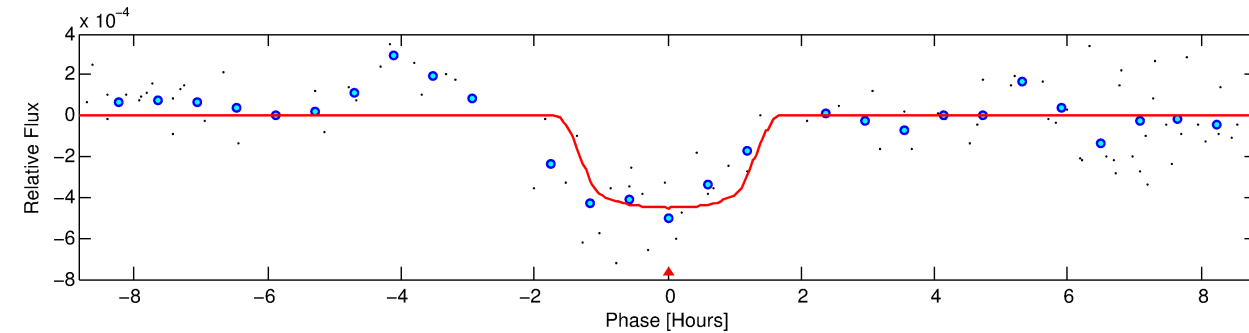
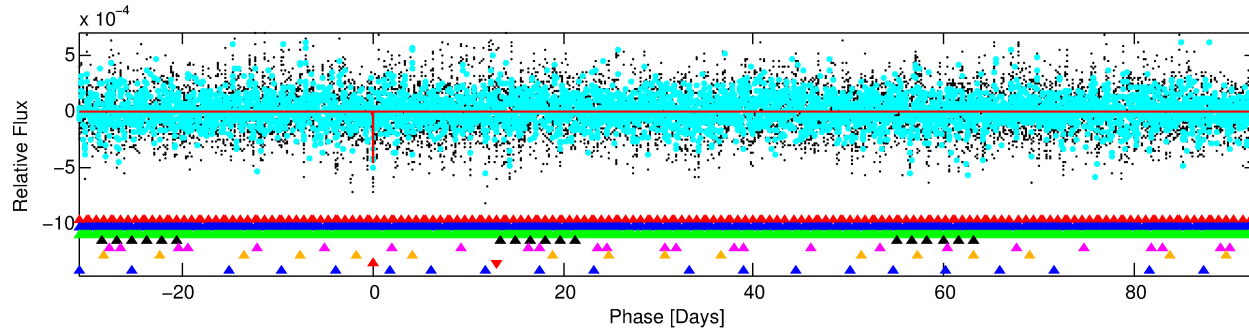
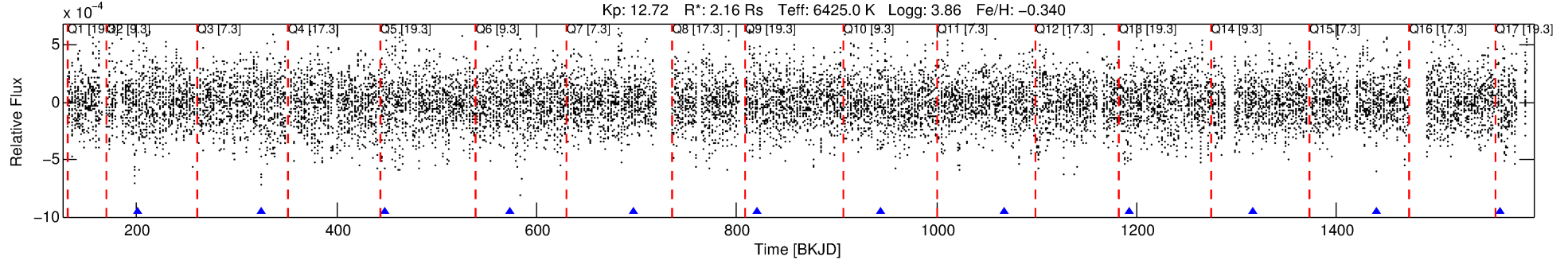
Ephemeris Match Information For 008179190-07

No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 7 of 8 Period: 123.919 d
KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



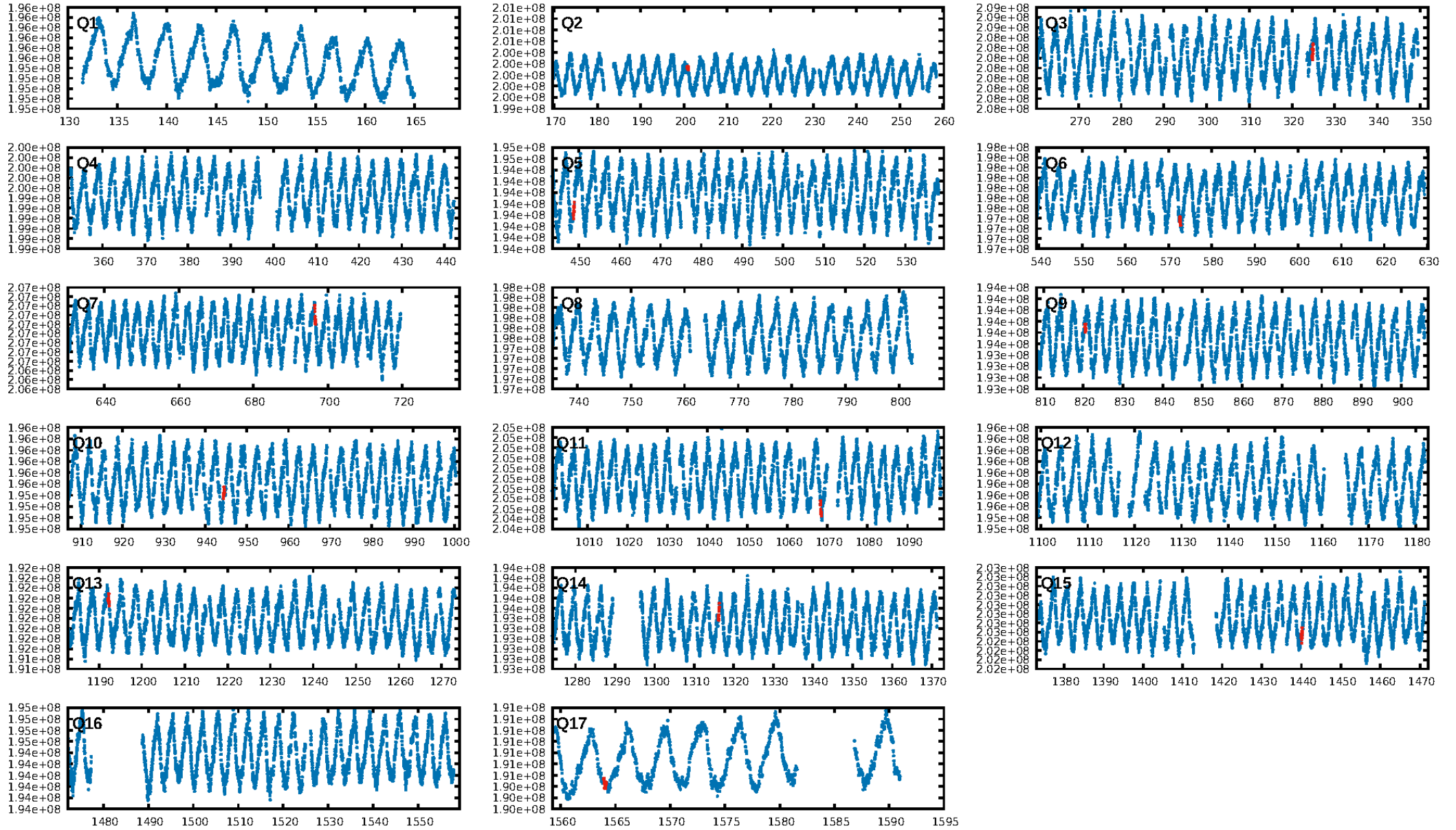
DV Fit Results:

Period = 123.91886 [0.00076] d
Epoch = 200.9265 [0.0053] BKJD
Rp/R* = 0.0223 [0.0142]
a/R* = 171.64 [616.57]
b = 0.87 [1.00]
Seff = 26.09 [13.59]
Teq = 576 [75] K
Rp = 5.26 [3.75] Re
a = 0.5225 [0.1653] AU
Ag = 1066.75 [1492.50] [0.71σ]
Teffp = 5092 [1665] K [2.71σ]

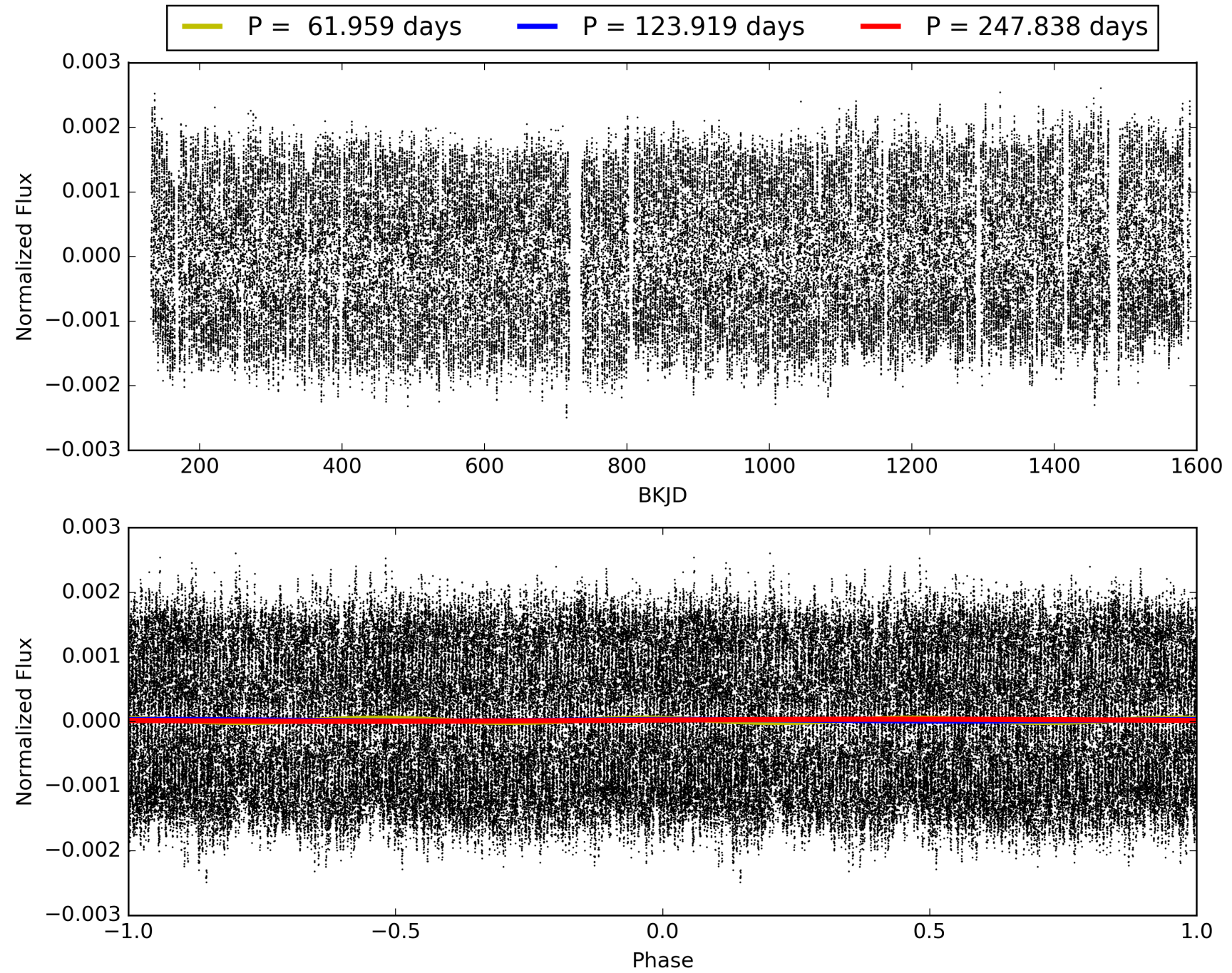
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [213.06σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 79.6%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.331
Centroid-sig: 13.5%
Centroid-so: 0.394 arcsec [1.15σ]
OotOffset-rm: 0.116 arcsec [0.36σ]
KicOffset-rm: 0.057 arcsec [0.21σ]
OotOffset-st: 4/4/0/4 [12]
KicOffset-st: 4/4/0/4 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 0.00 [0/12]

TCE 008179190-07, PDC Light Curves

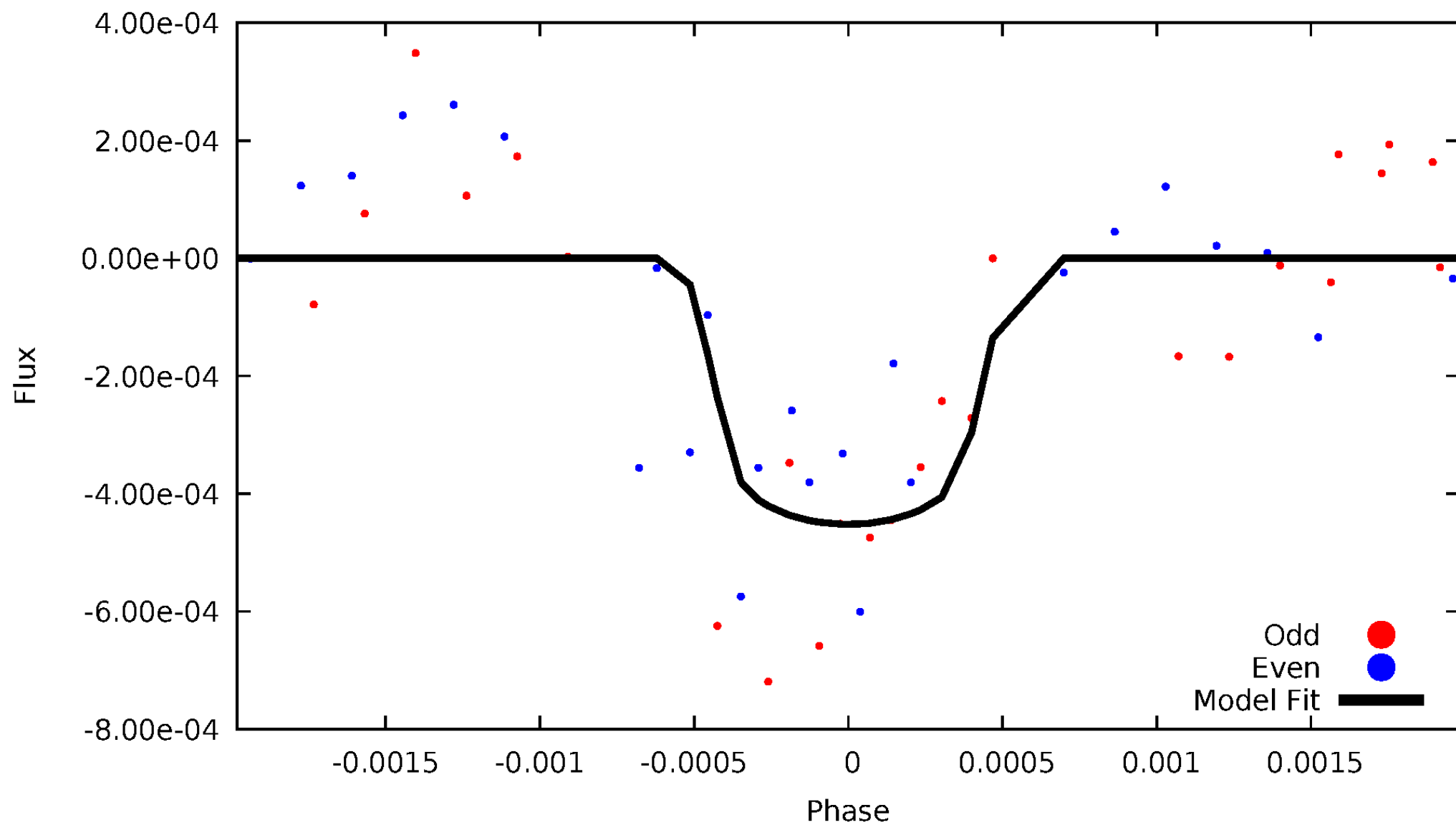


TCE 008179190-07



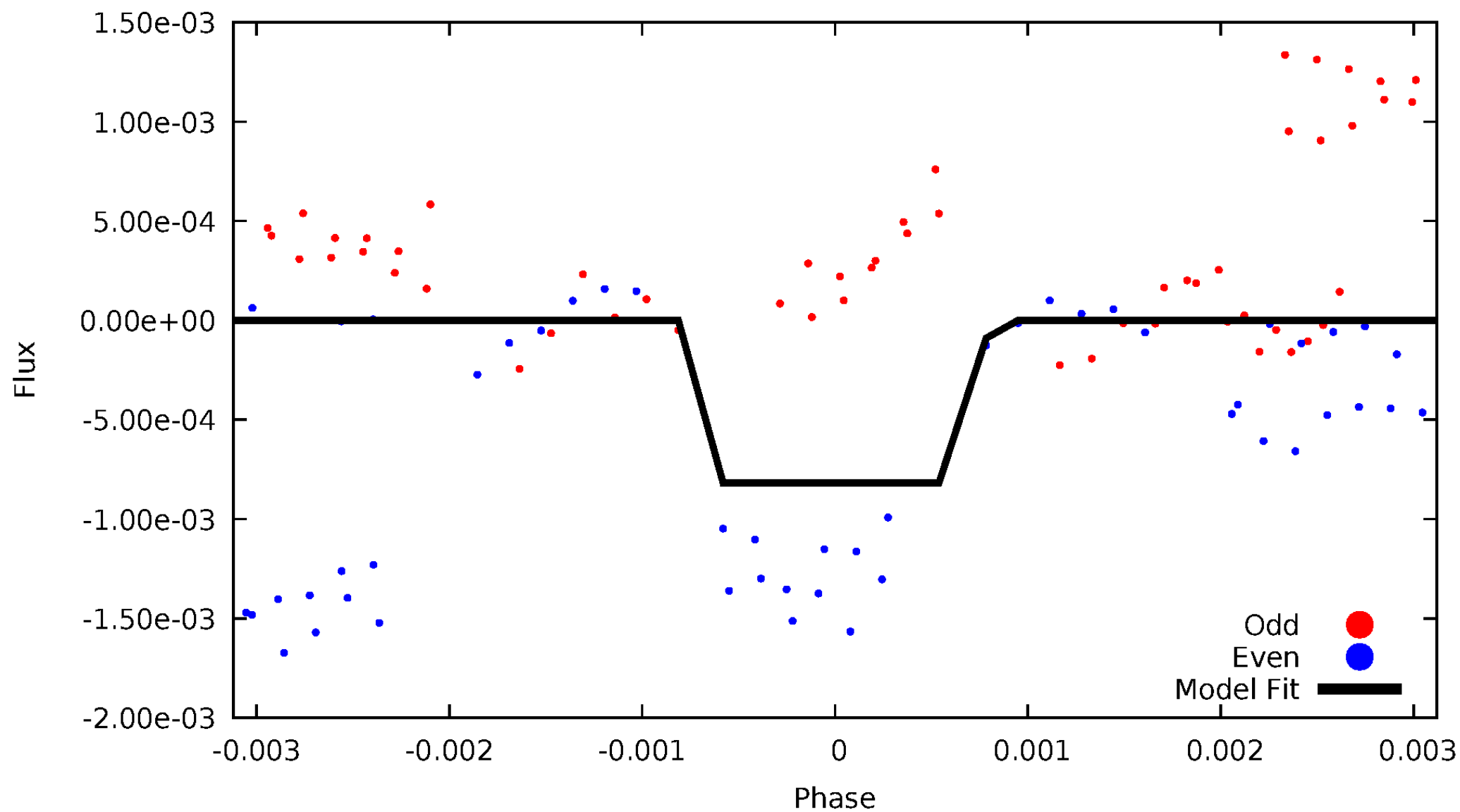
DV Odd/Even

TCE 008179190-07



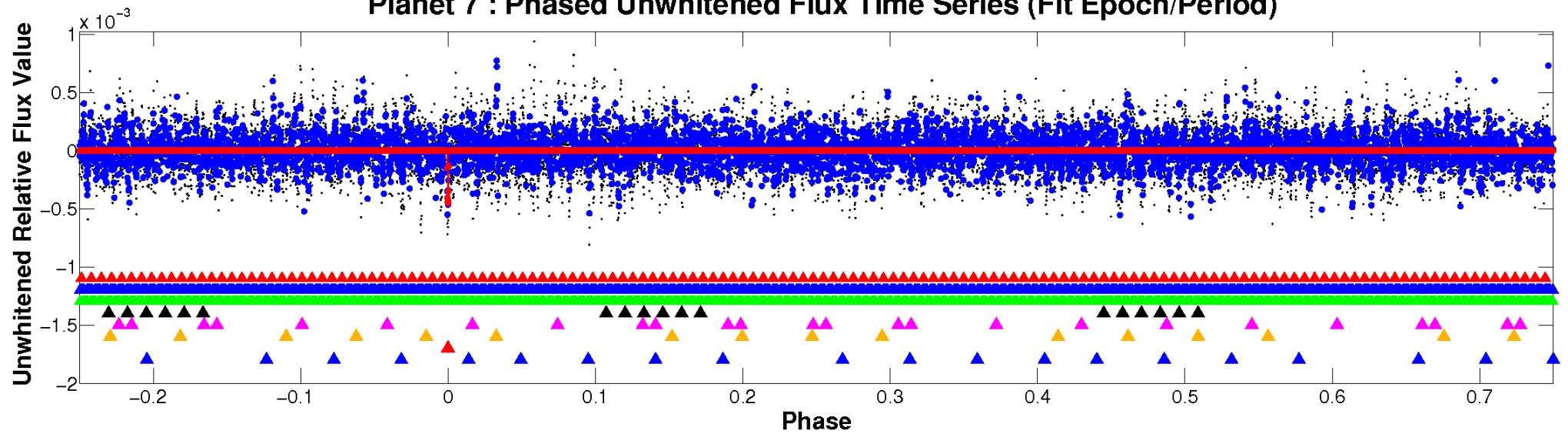
ALT Odd/Even

TCE 008179190-07

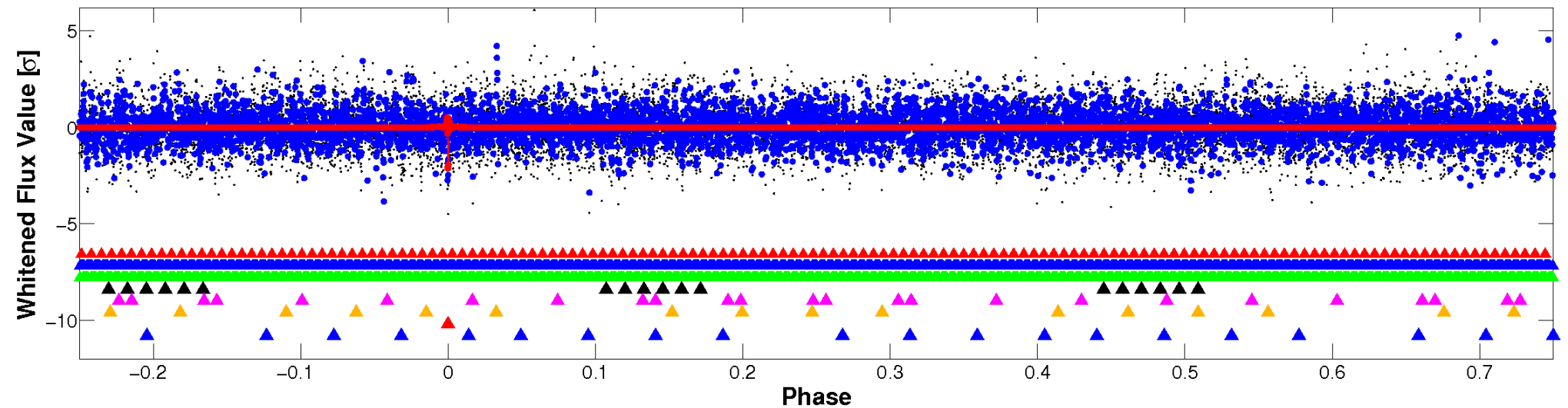


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

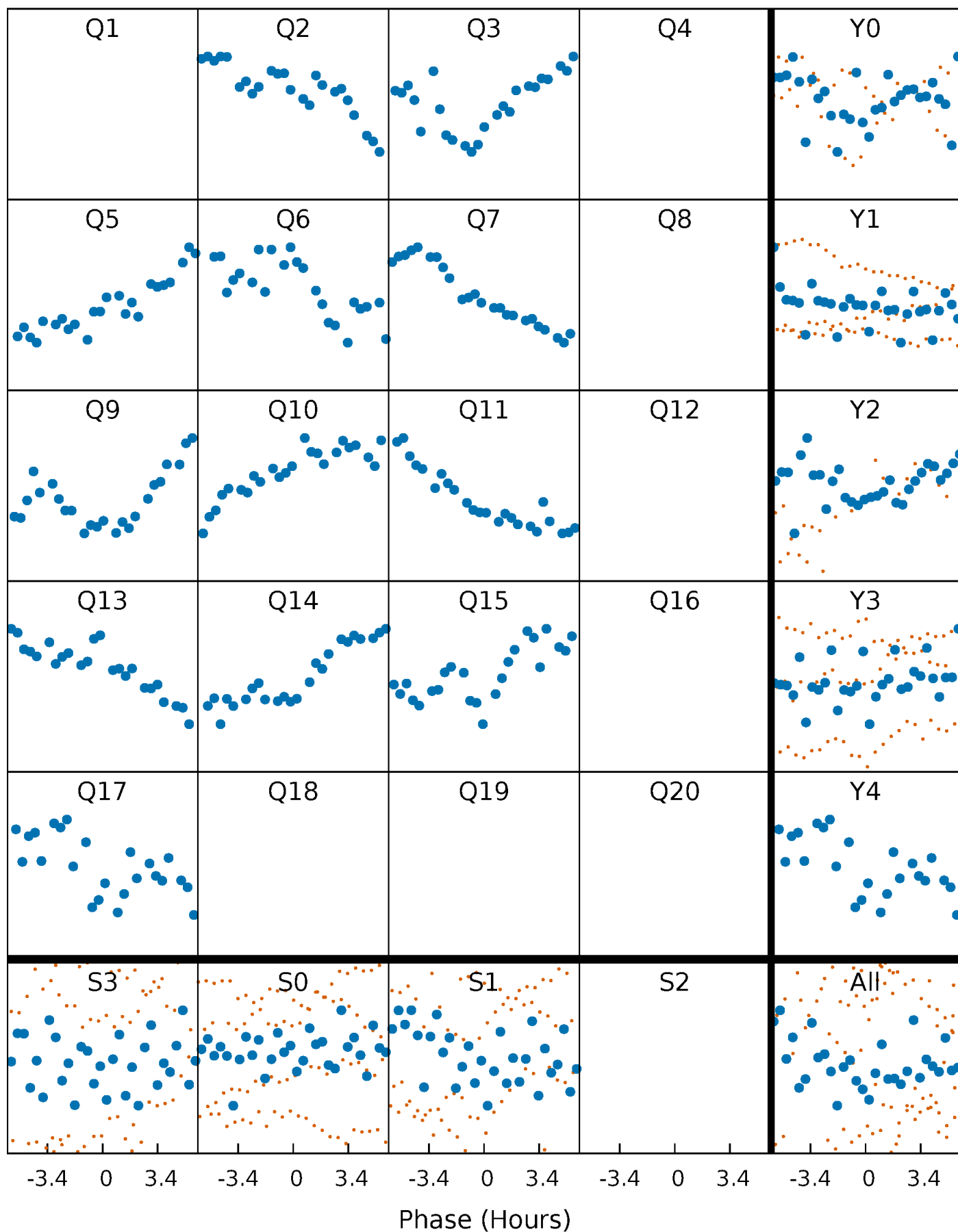


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



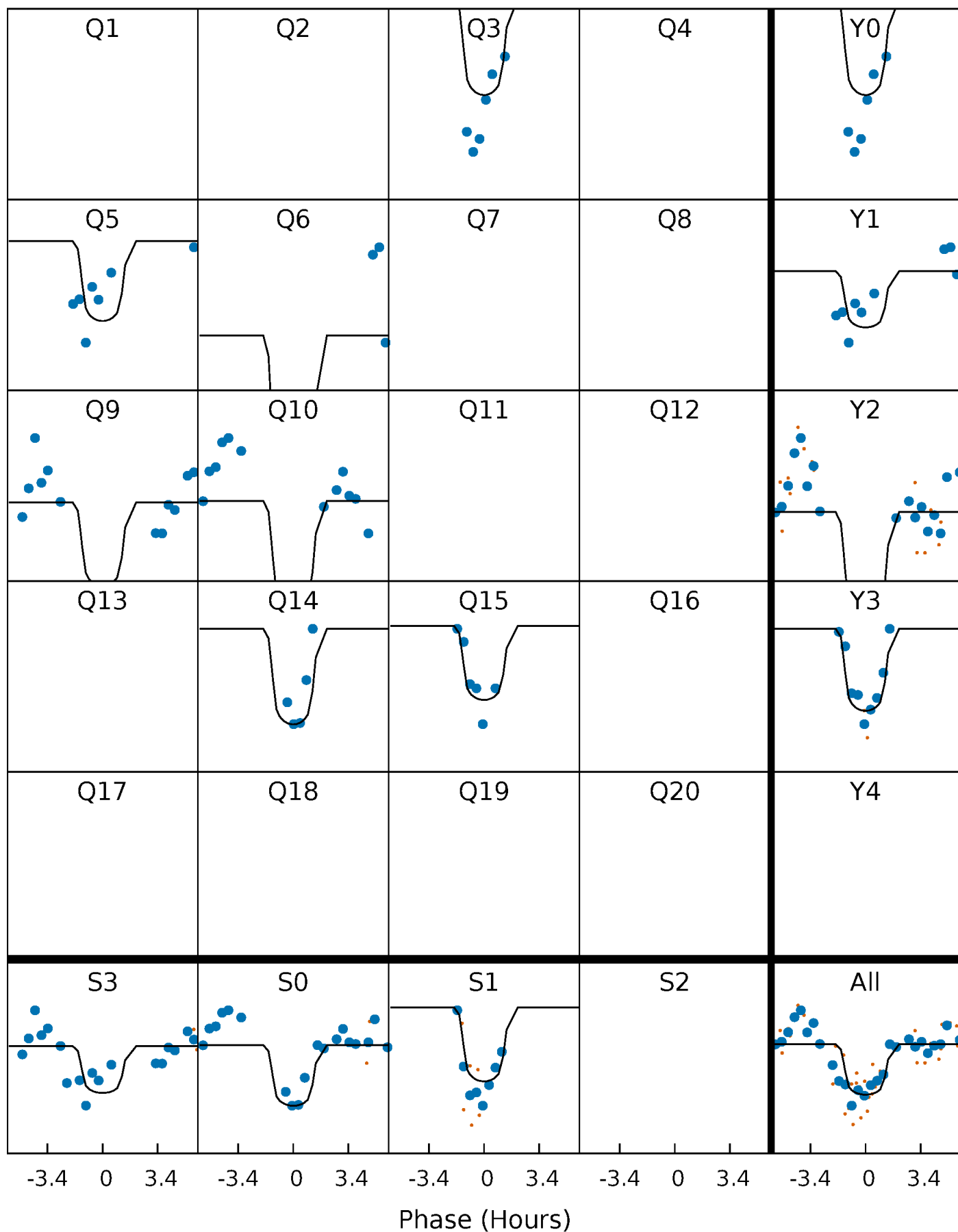
PDC Quarter-Phased Transit Curves

TCE 008179190-07 $P=123.918862$ Days $T_0=200.926502$ (BKJD)



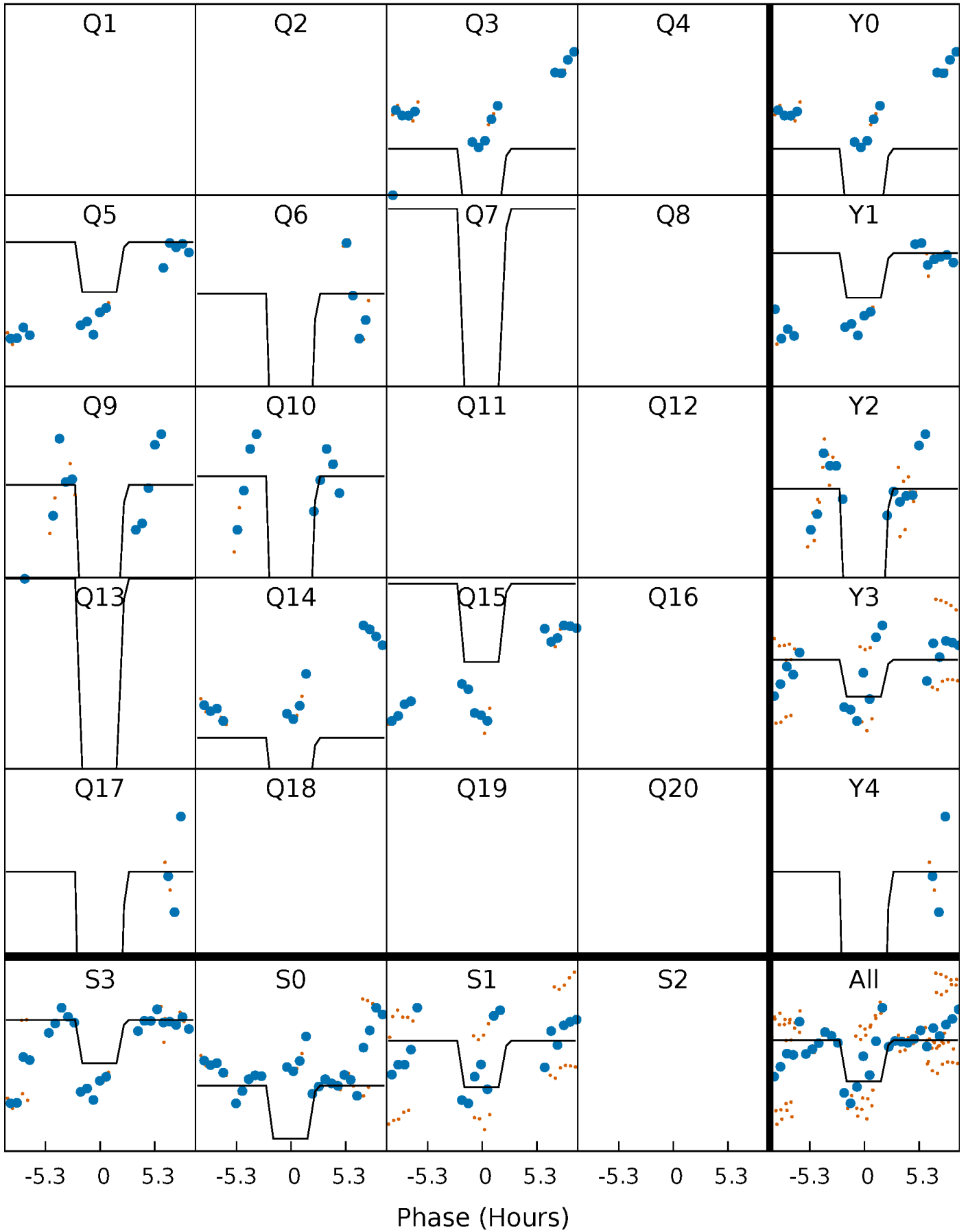
DV Quarter-Phased Transit Curves

TCE 008179190-07 P=123.918862 Days $T_0=200.926502$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

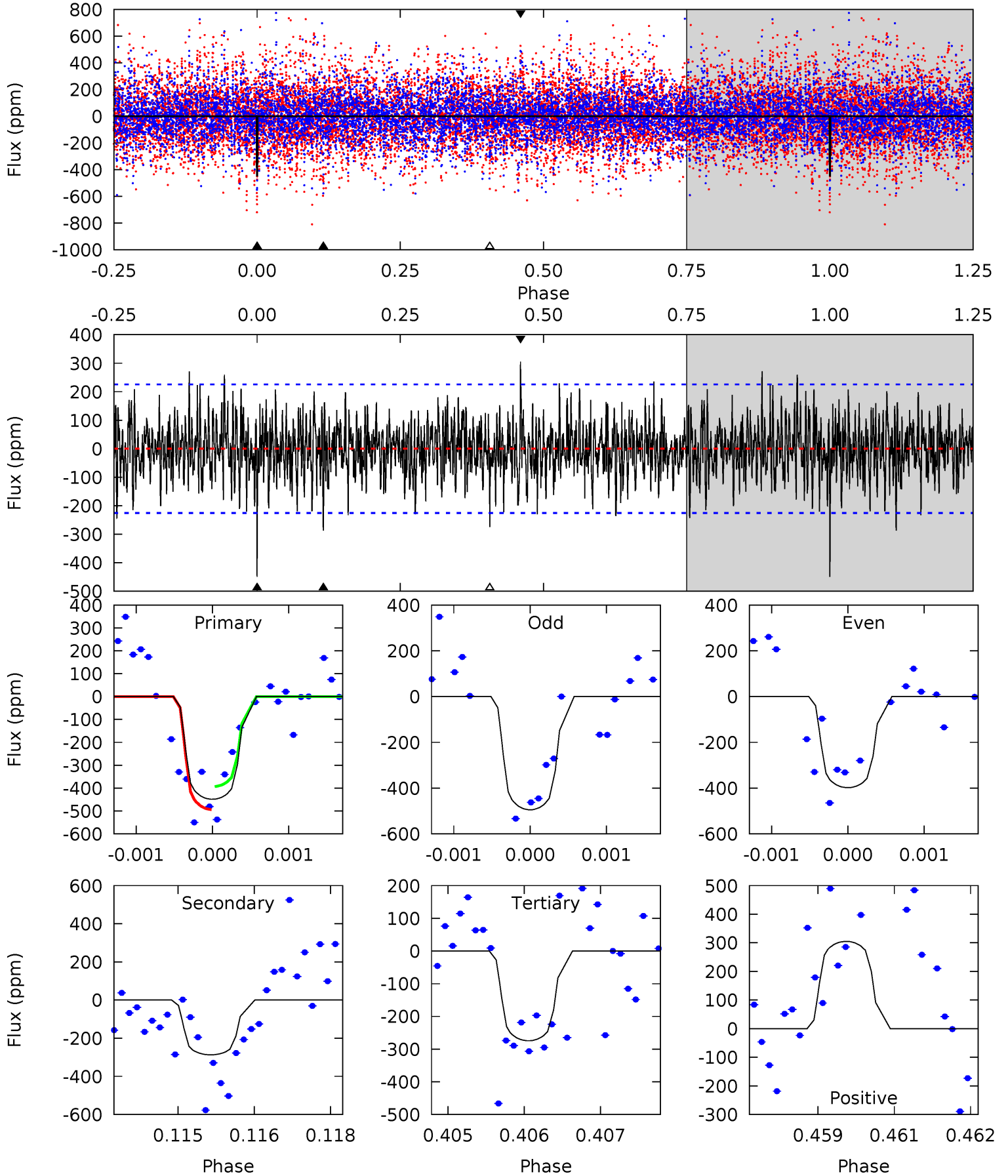
TCE 008179190-07 $P=123.920225$ Days $T_0=200.907820$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-07, P = 123.918862 Days, E = 77.007640 Days

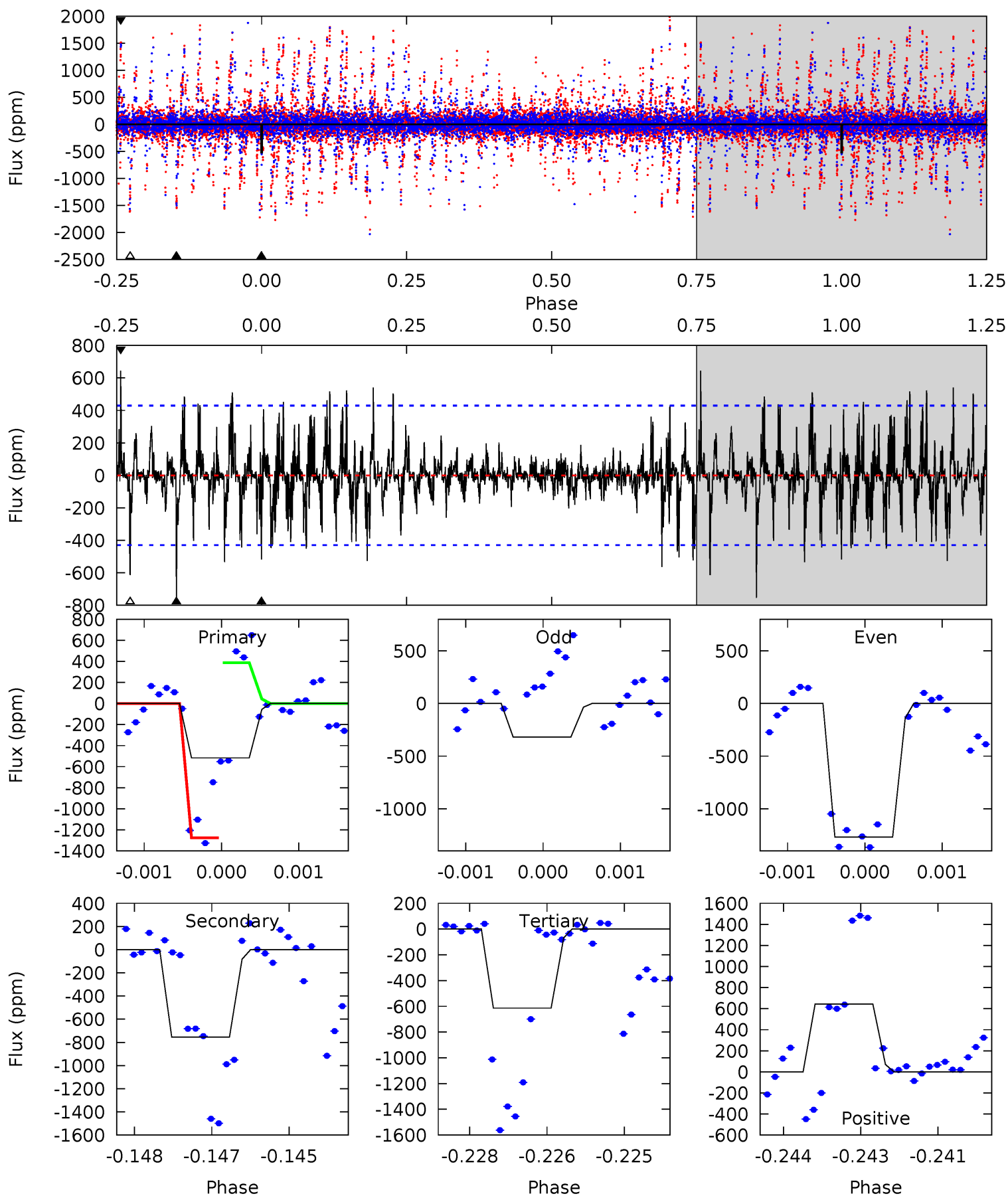
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	6.90	6.60	7.33	5.42	3.24	1.90	4.19	3.46	0.31	-0.43	1.19	1.08	0.40	1.20



Alt Model-Shift Uniqueness Test

008179190-07, P = 123.920225 Days, E = 76.987595 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.47	9.45	7.69	8.06	5.38	3.18	1.62	-1.22	-1.60	1.76	1.39	5.28	0.94	0.46	5.10



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-287 ± 42	$5.26^{+3.16}_{-2.97}$	792^{+48}_{-70}	5462^{+2975}_{-936}	1556^{+6954}_{-920}
Alt.	-755 ± 80	$6.54^{+3.44}_{-2.99}$	792^{+45}_{-70}	6257^{+2437}_{-1086}	2633^{+6113}_{-1461}

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

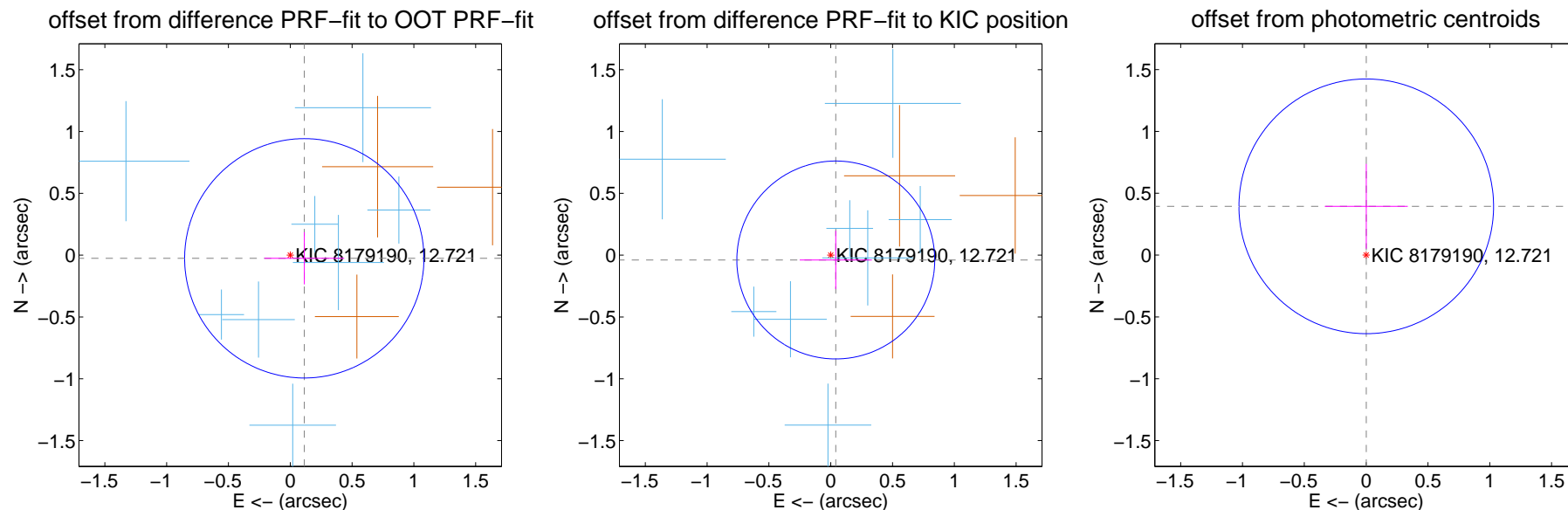
DV Centroid Data

Supplemental centroid analysis for 008179190-07. Kepler magnitude: 12.72. Transit SNR 8.81

There are 8 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 0.323	0.36	-0.113 ± 0.323	-0.026 ± 0.211
PRF-fit source offset from KIC position	0.057 ± 0.267	0.21	-0.041 ± 0.292	-0.039 ± 0.236
photometric centroid source offset	0.39 ± 0.34	1.15	-0.00 ± 0.34	0.39 ± 0.34



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.

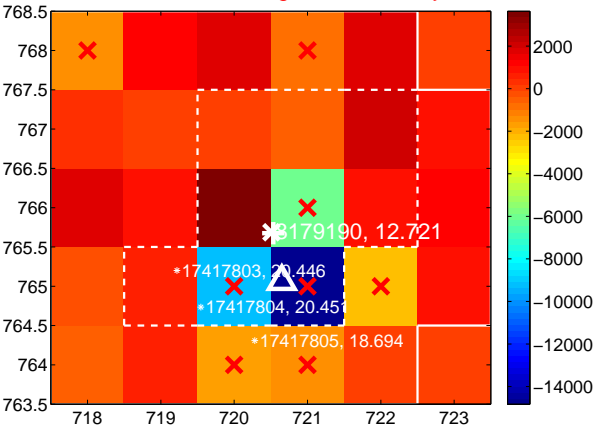
Q1 no difference image



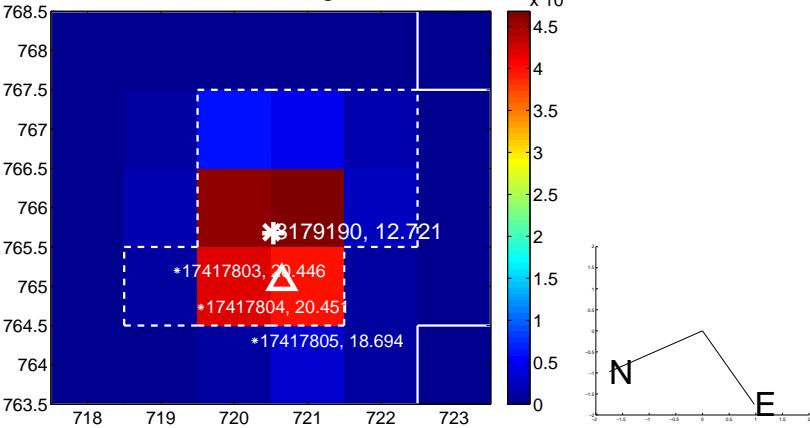
Q1 no OOT image



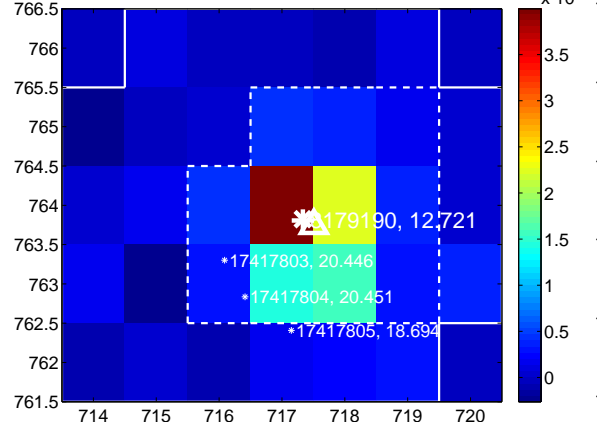
Q2 difference image. Poor Quality



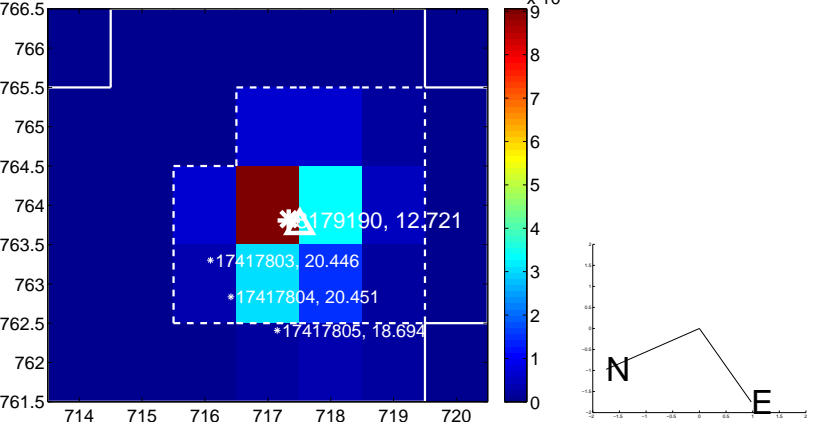
Q2 OOT image



Q3 difference image



Q3 OOT image



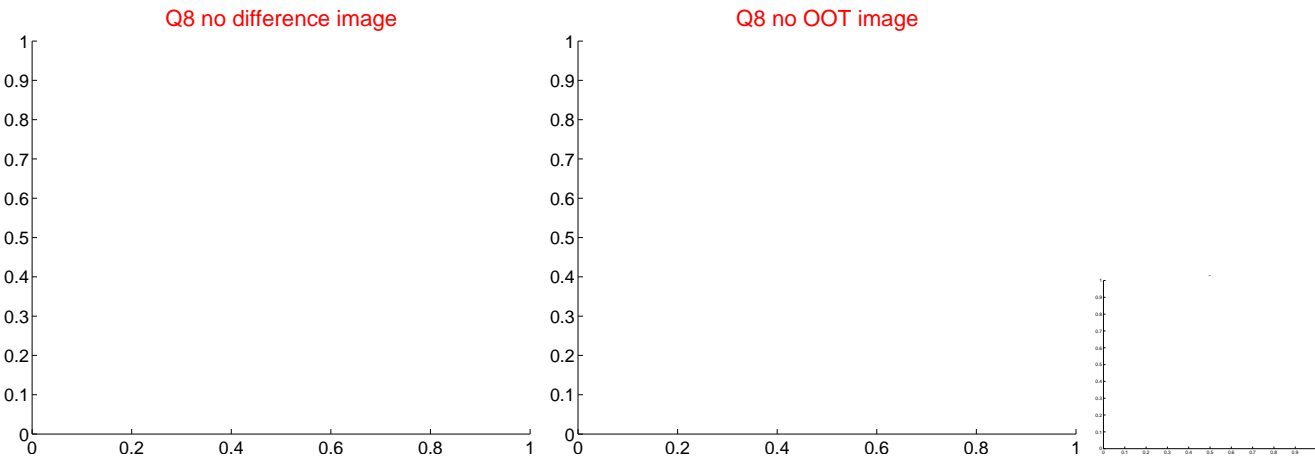
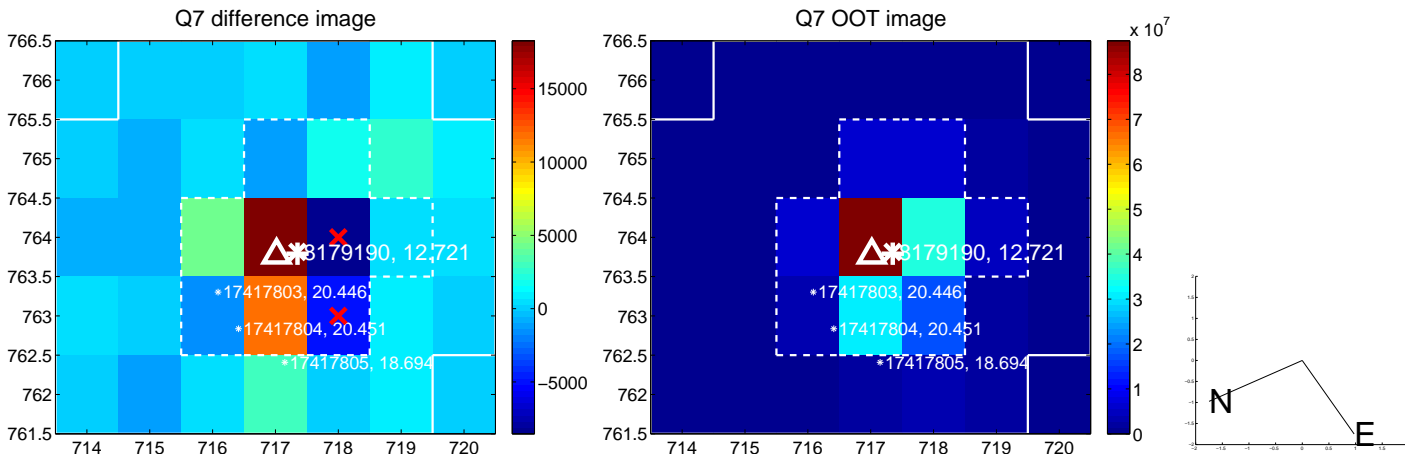
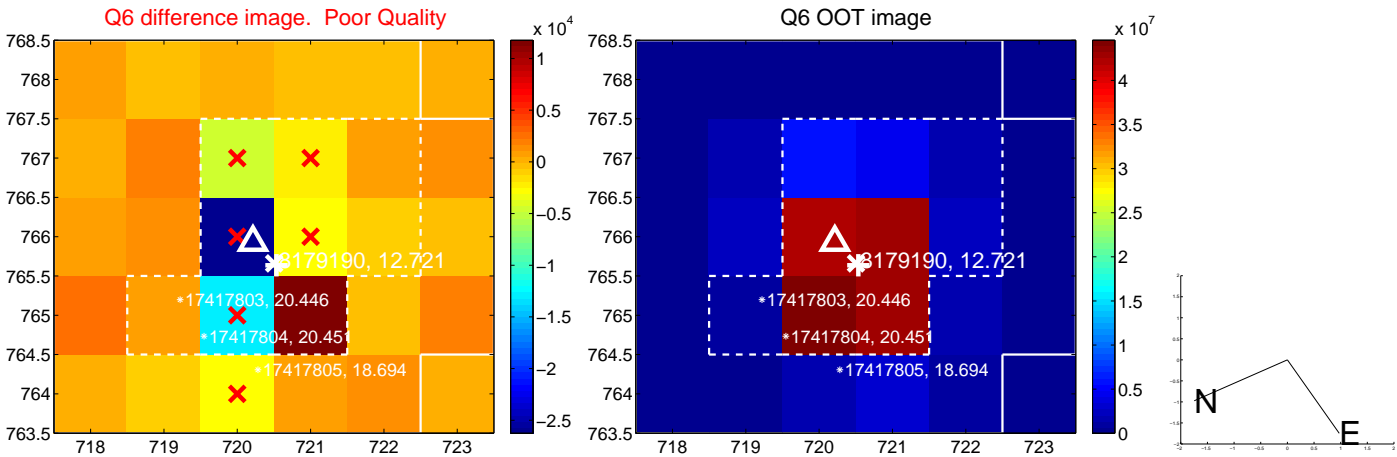
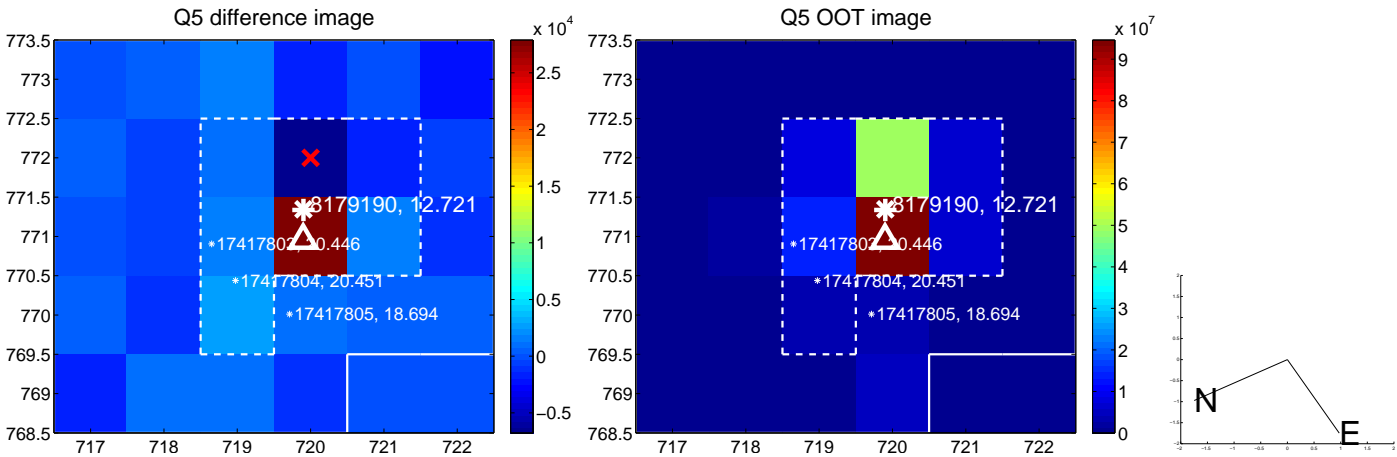
Q4 no difference image



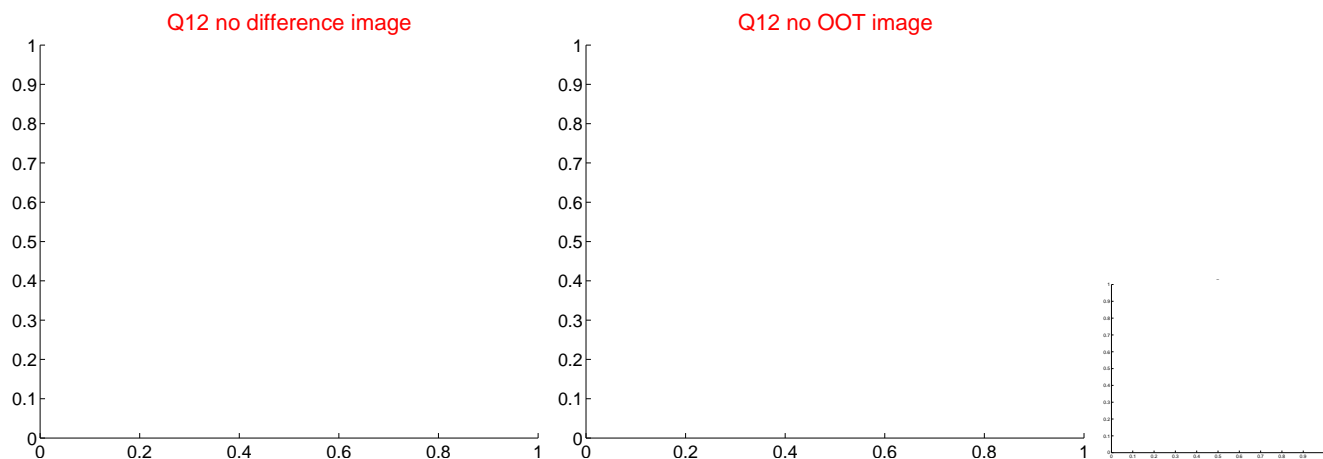
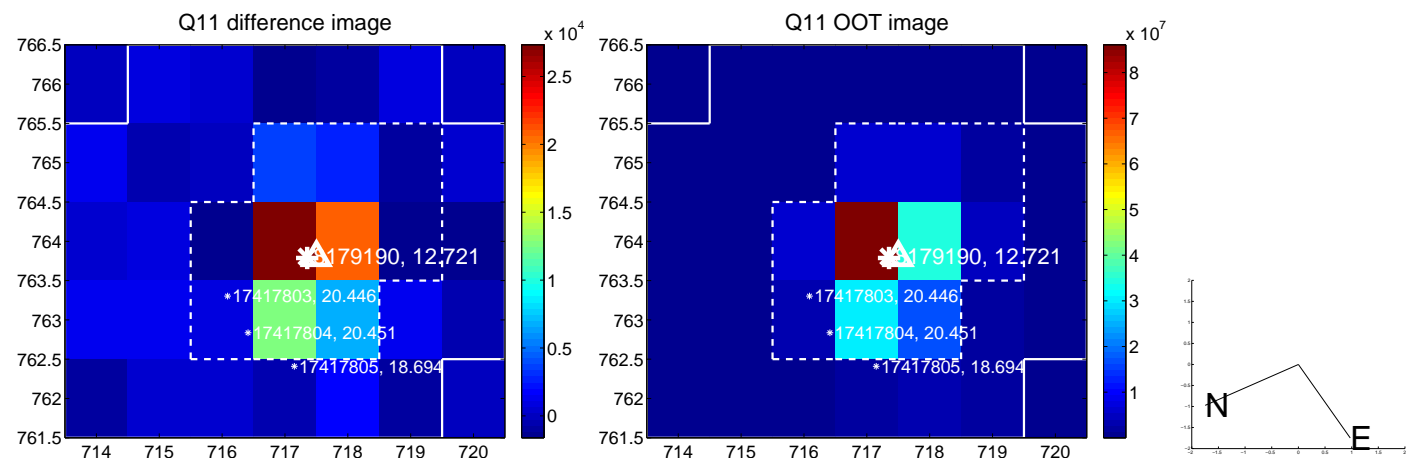
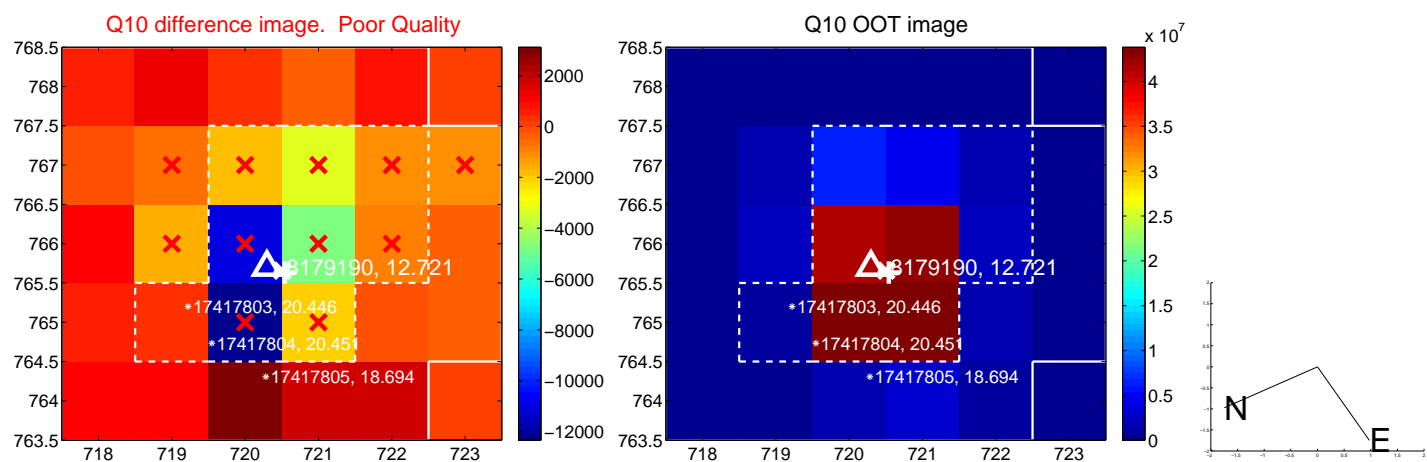
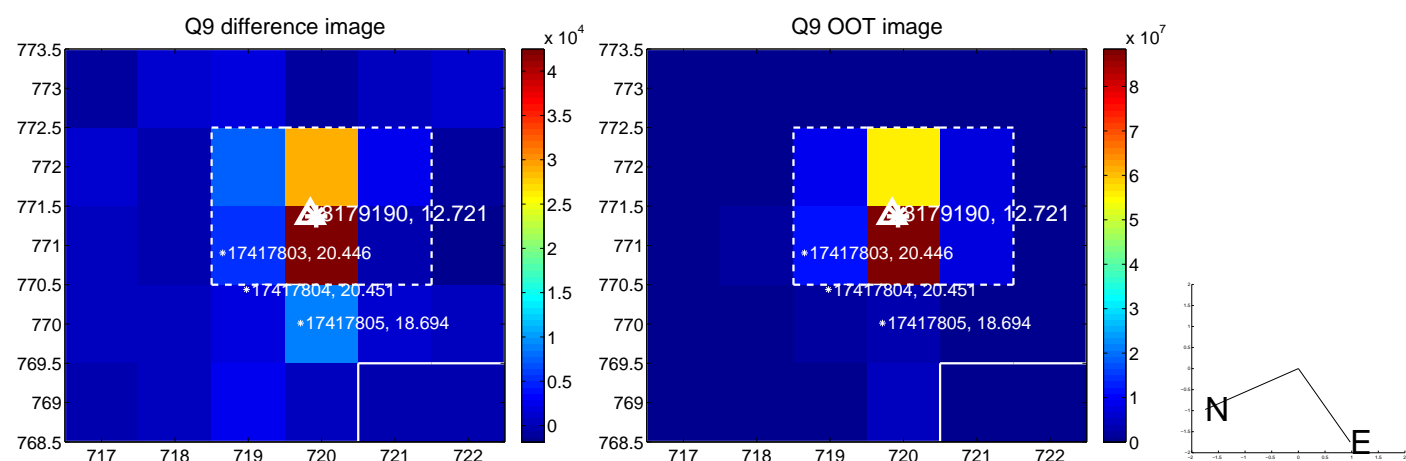
Q4 no OOT image



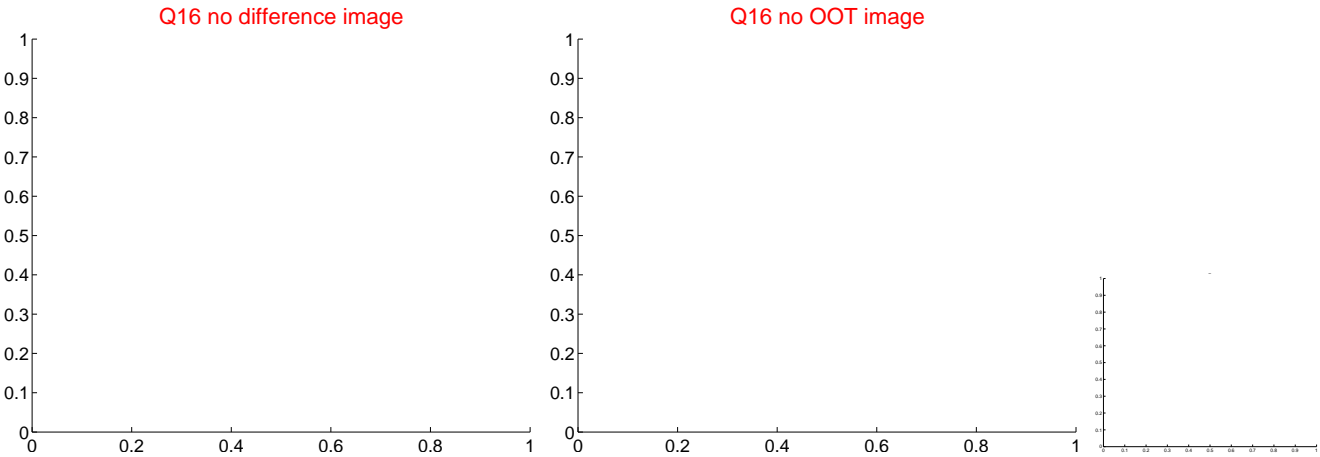
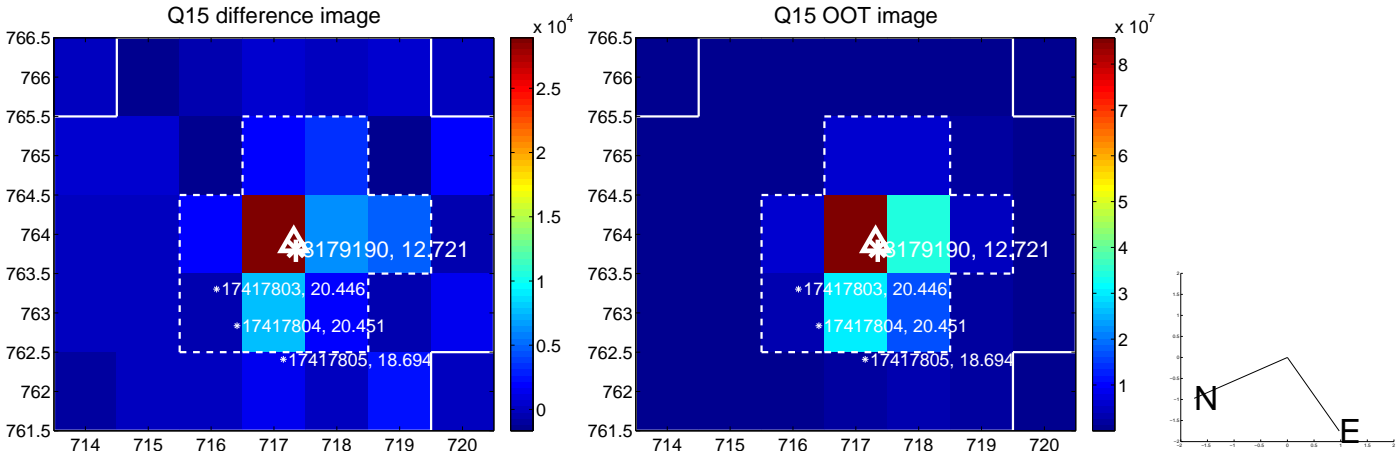
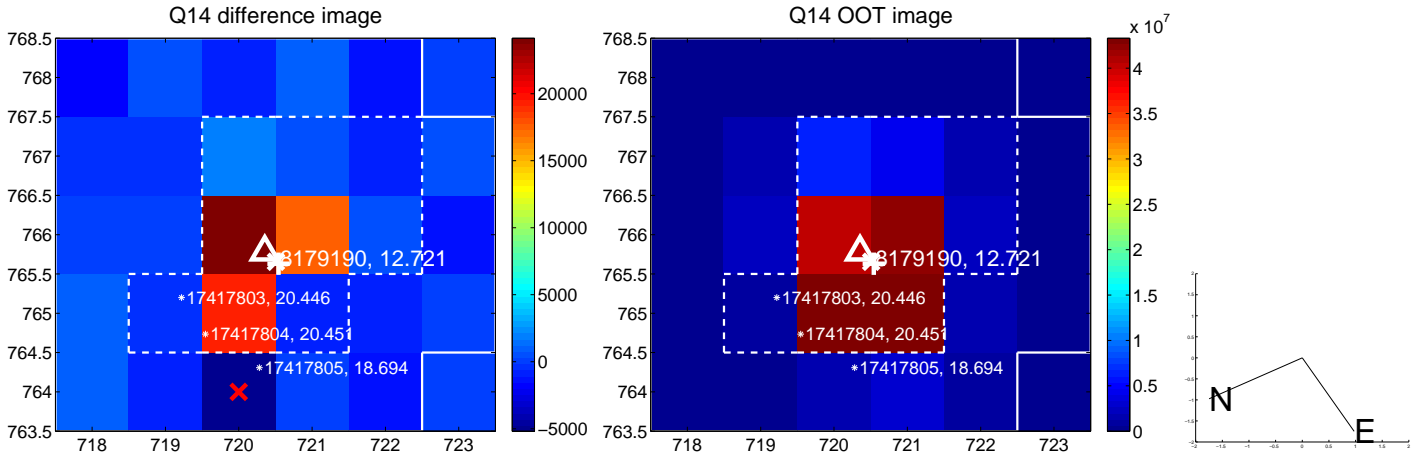
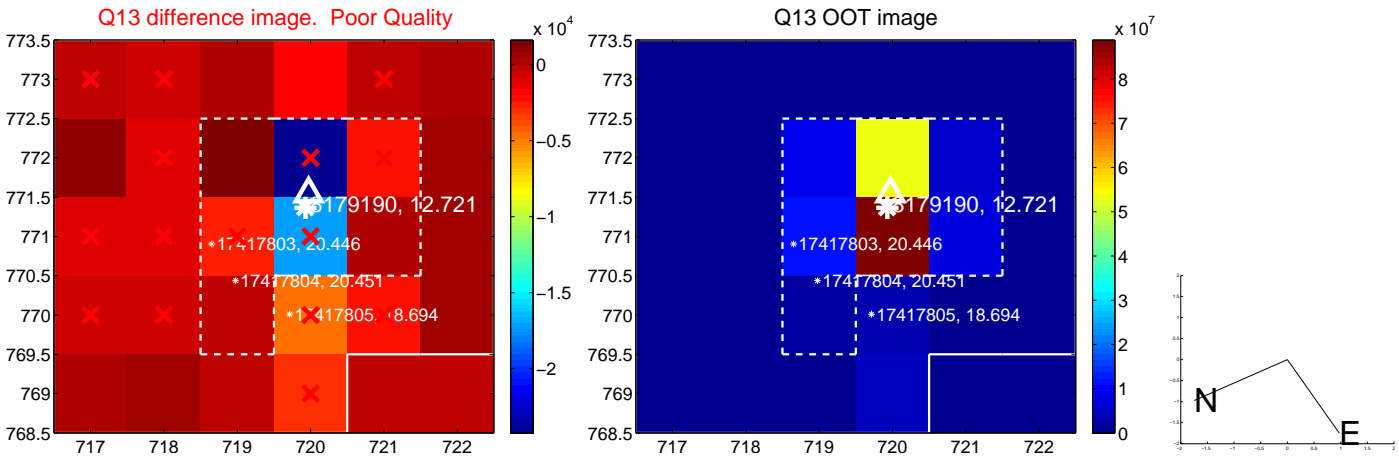
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



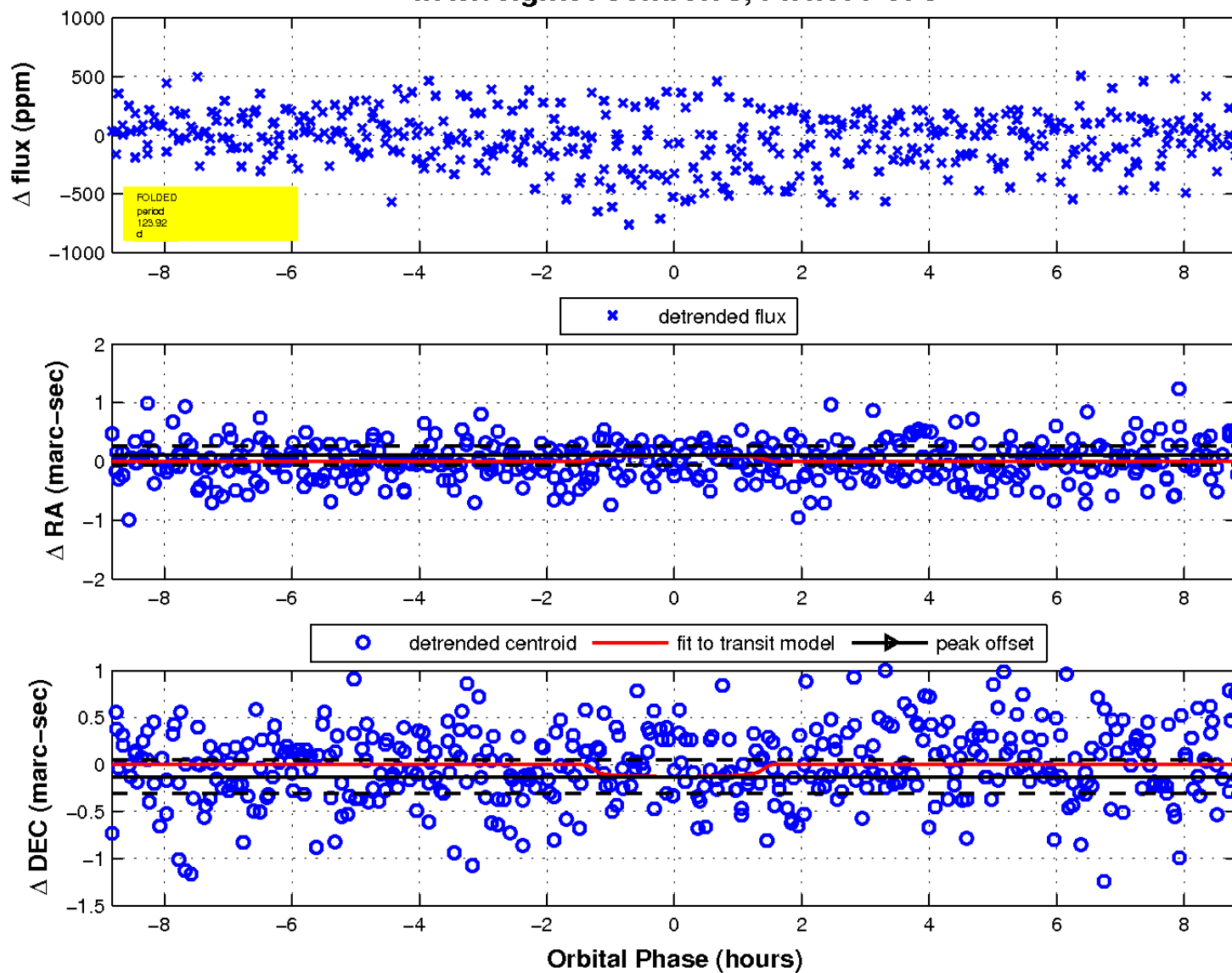
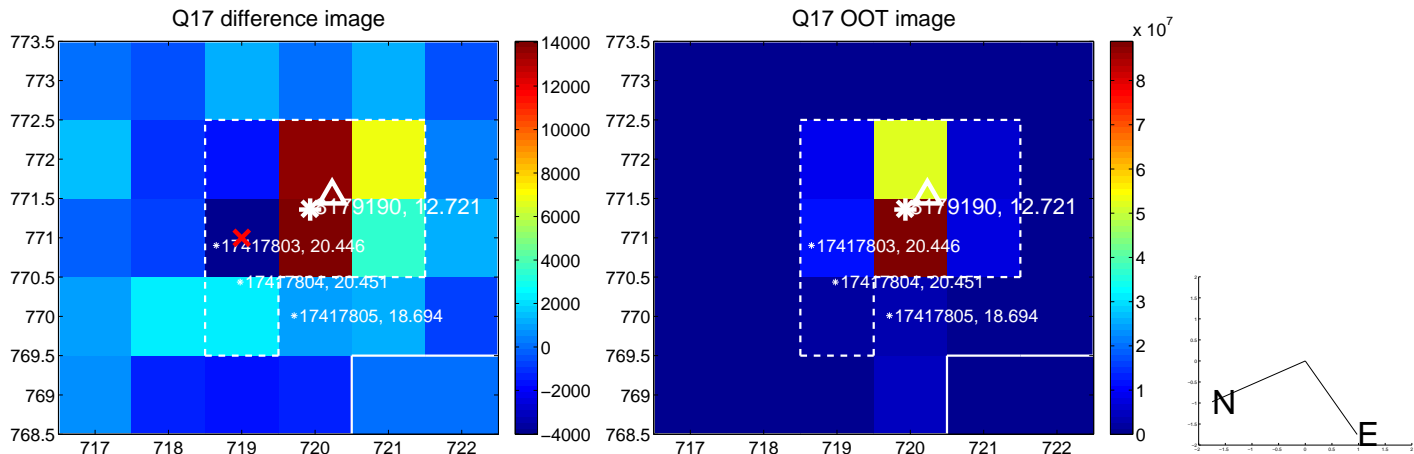
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

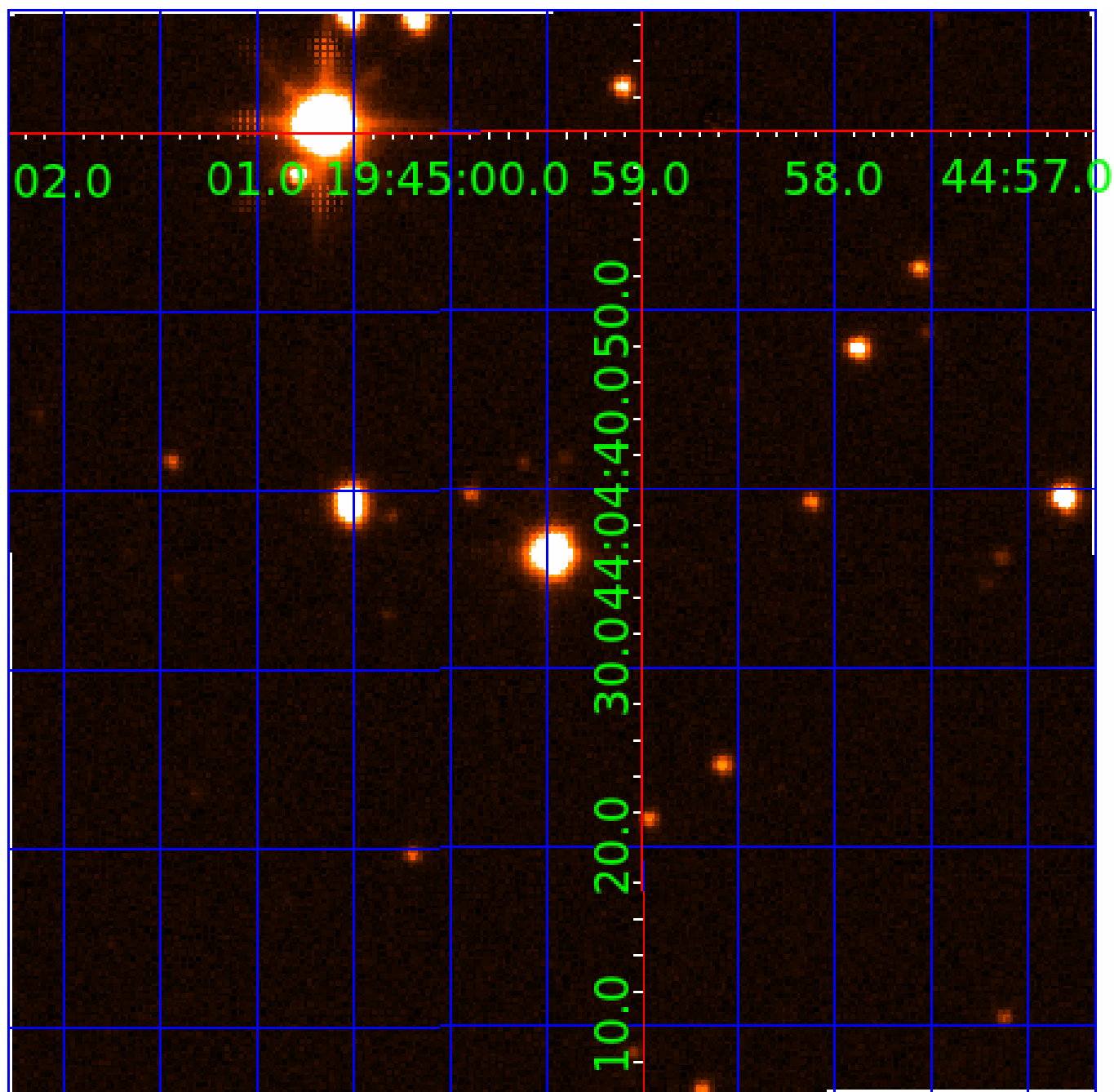


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008179190

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})
008179190-01	OBS	No	3.372119	133.813014	45.1	10.795	8.2	7.6	2.16	6425	1.87	3187.76
008179190-02	OBS	4196.01	0.662451	131.911514	41.5	1.309	10.9	12.7	2.16	6425	1.64	27913.72
008179190-03	OBS	No	0.662459	131.573673	48.5	0.978	10.4	14.1	2.16	6425	1.73	27913.28
008179190-04	OBS	No	82.083518	140.077782	266.5	4.123	10.2	5.6	2.16	6425	3.86	45.19
008179190-05	OBS	No	58.377813	180.415312	461.7	5.876	8.3	9.1	2.16	6425	5.99	71.18
008179190-07	OBS	No	123.918862	200.926502	451.9	2.946	7.6	8.8	2.16	6425	5.26	26.09
008179190-08	OBS	No	75.484202	131.565483	166.9	4.500	7.4	-1.0	2.16	6425	2.81	50.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008179190-02	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
008179190-03	OBS	FP	0.00	1	0	1	0	LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
008179190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008179190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008179190-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

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

Ephemeris Match Information For 008179190-08

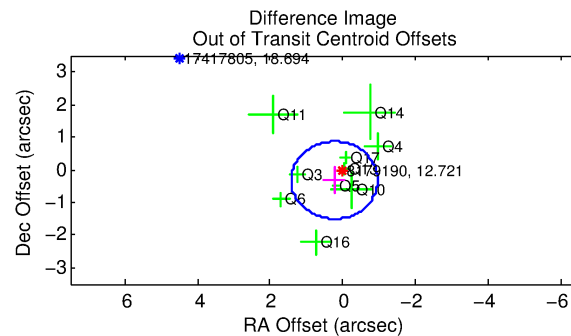
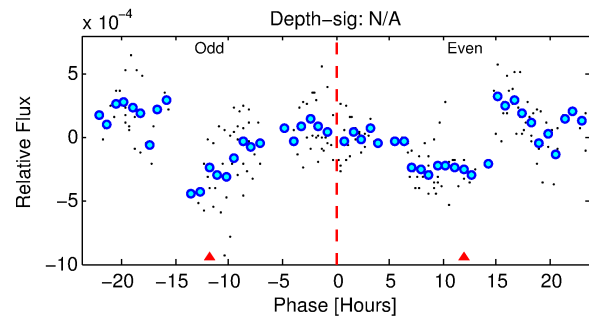
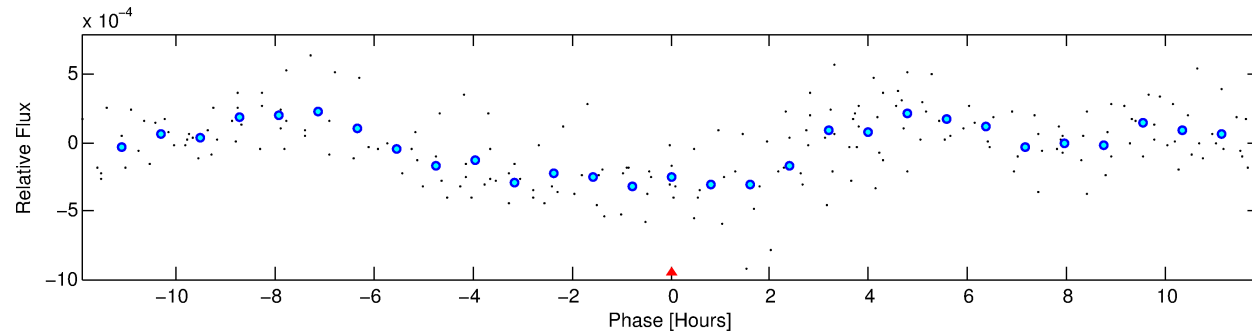
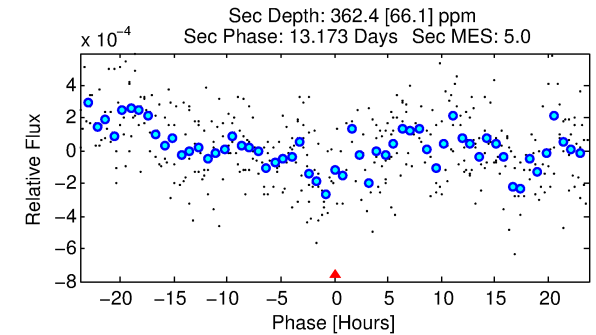
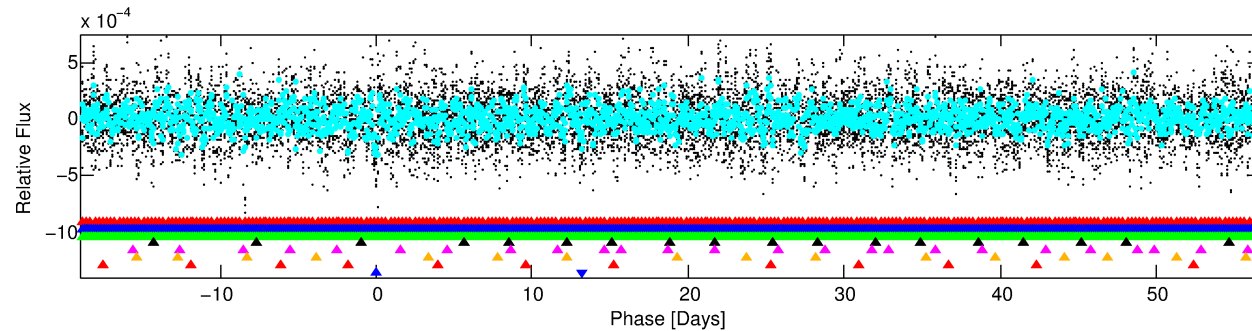
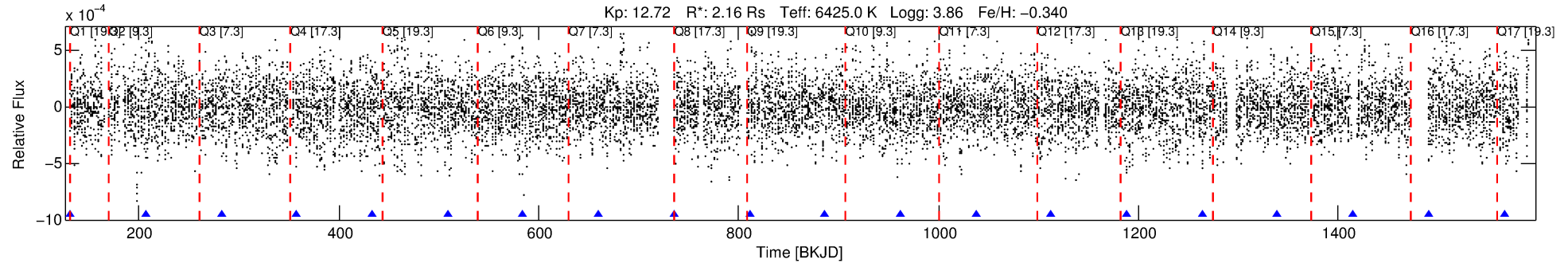
No Significant Match Found

DV One-Page Summary

KIC: 8179190 Candidate: 8 of 8 Period: 75.484 d

KOI: K04196 Corr: No Ephemeris Match

Kp: 12.72 R*: 2.16 Rs Teff: 6425.0 K Logg: 3.86 Fe/H: -0.340



TPS TCE Results:

Period = 75.48420 d
Epoch = 131.5655 BKJD

DV fit results are unavailable

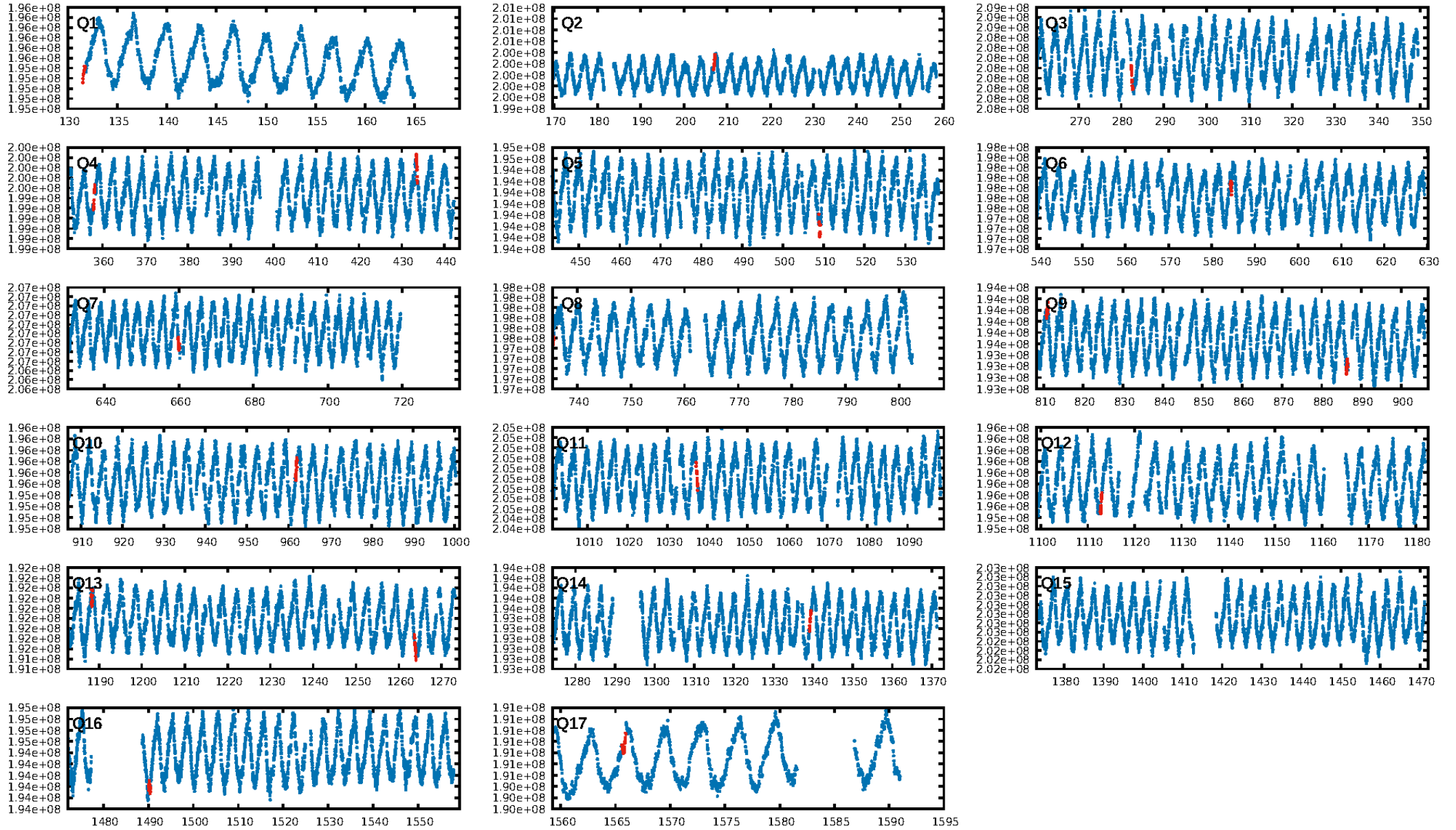
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [55.47σ]
LongPeriod-sig: 100.0% [25.95σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -2.397
Centroid-sig: 6.4%
Centroid-so: 1.024 arcsec [2.23σ]
OotOffset-rm: 0.395 arcsec [1.00σ]
KicOffset-rm: 0.419 arcsec [1.16σ]
OotOffset-st: 3/2/2/3 [10]
KicOffset-st: 3/2/2/3 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 0.00 [0/12]

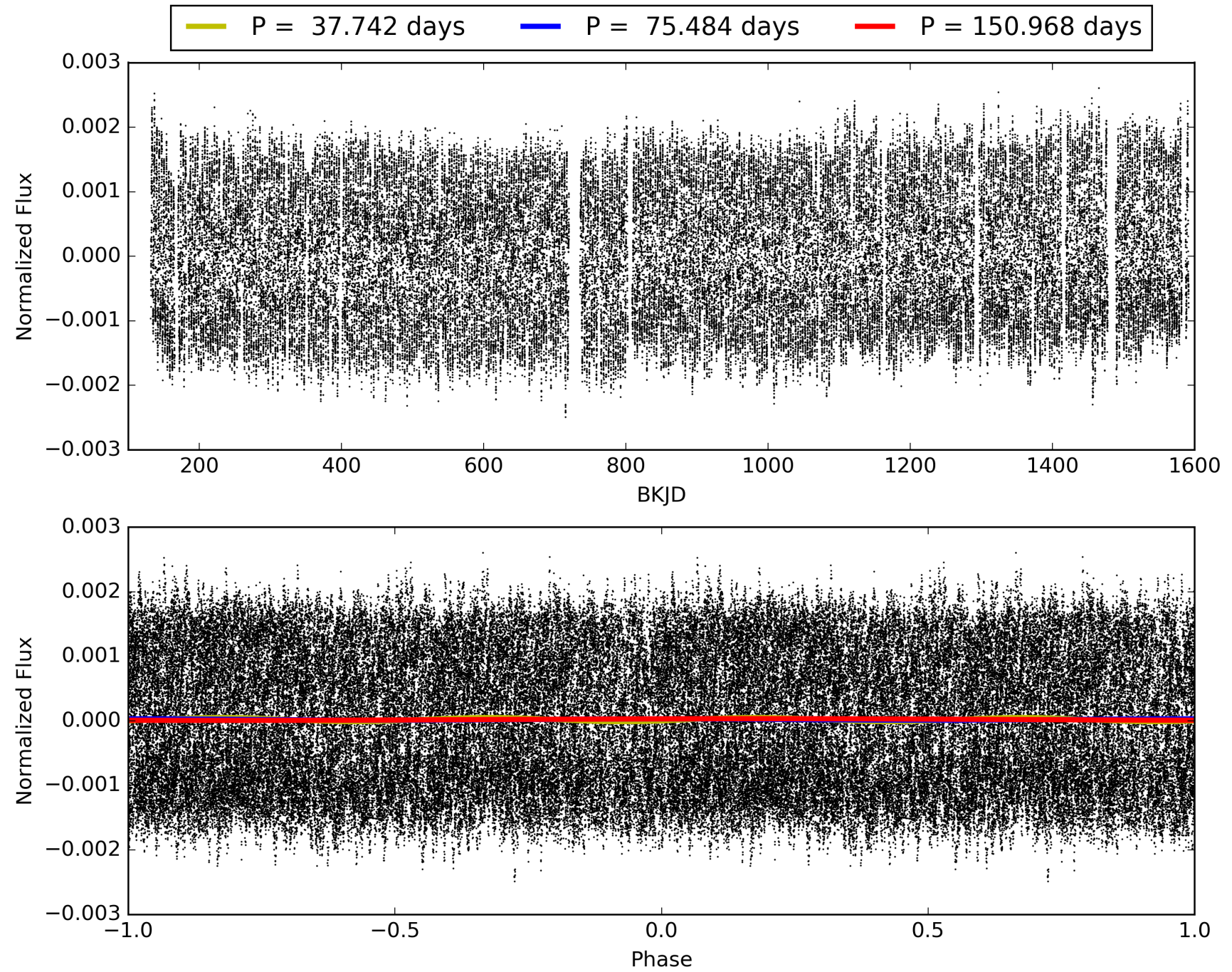
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:32:57 Z

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

TCE 008179190-08, PDC Light Curves

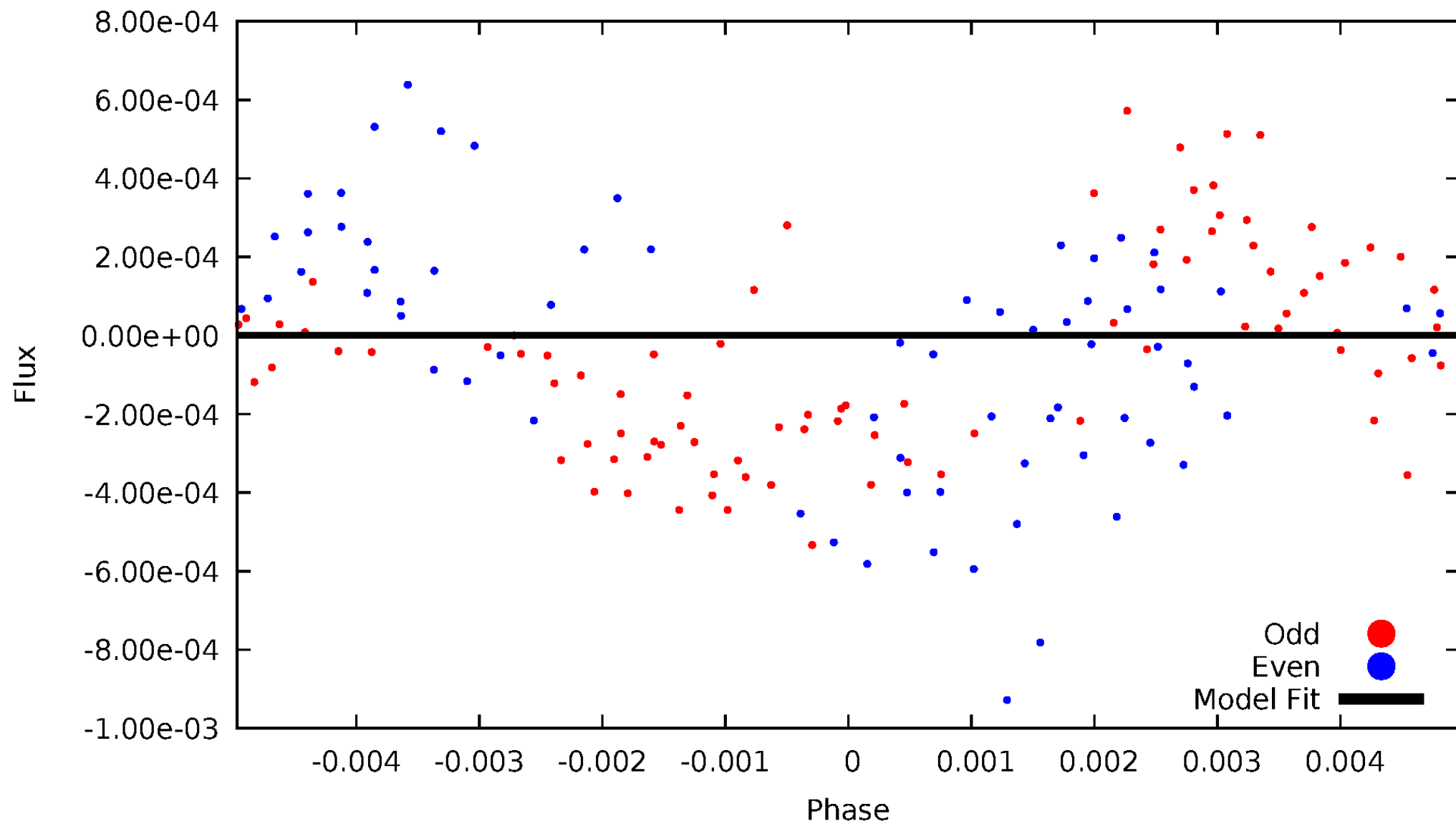


TCE 008179190-08



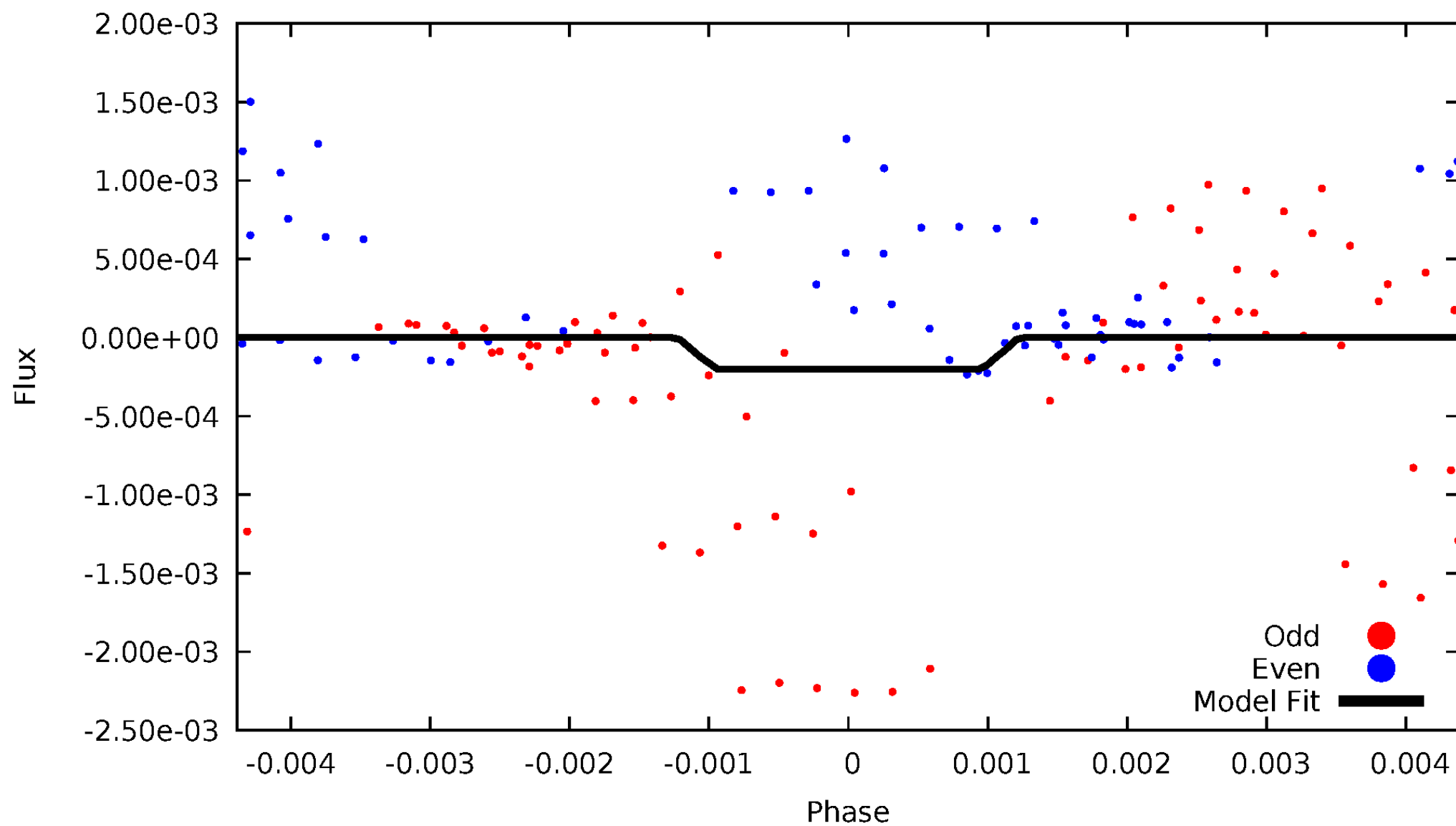
DV Odd/Even

TCE 008179190-08



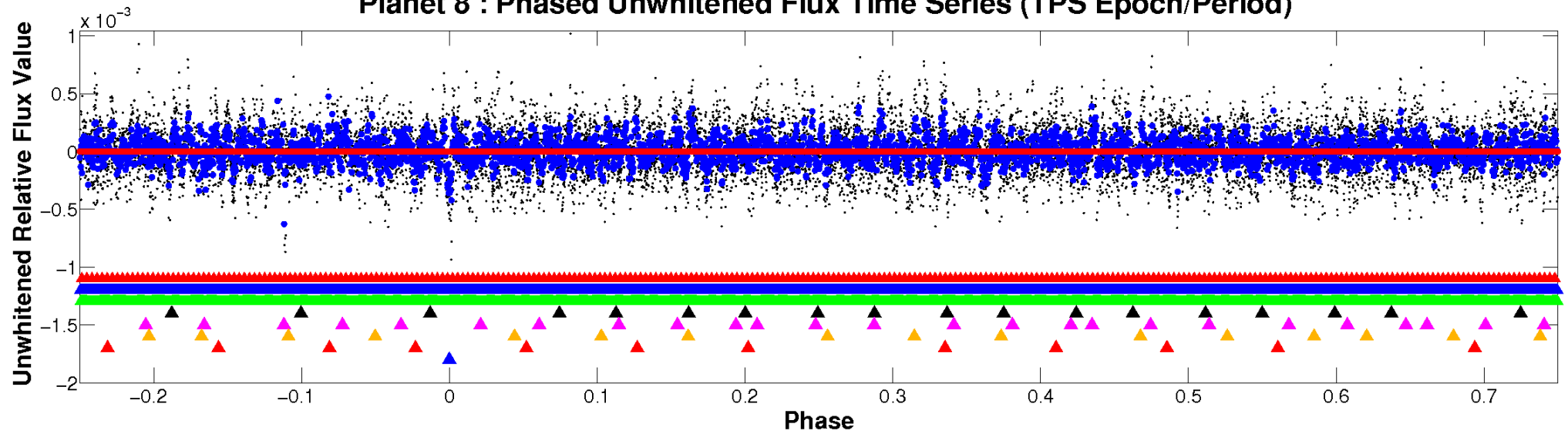
ALT Odd/Even

TCE 008179190-08

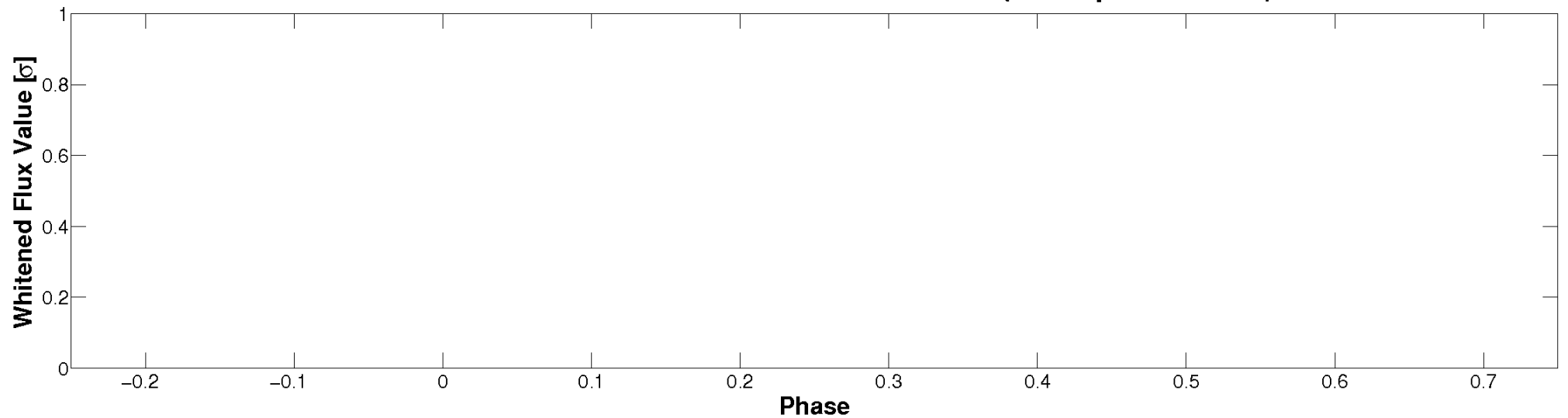


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

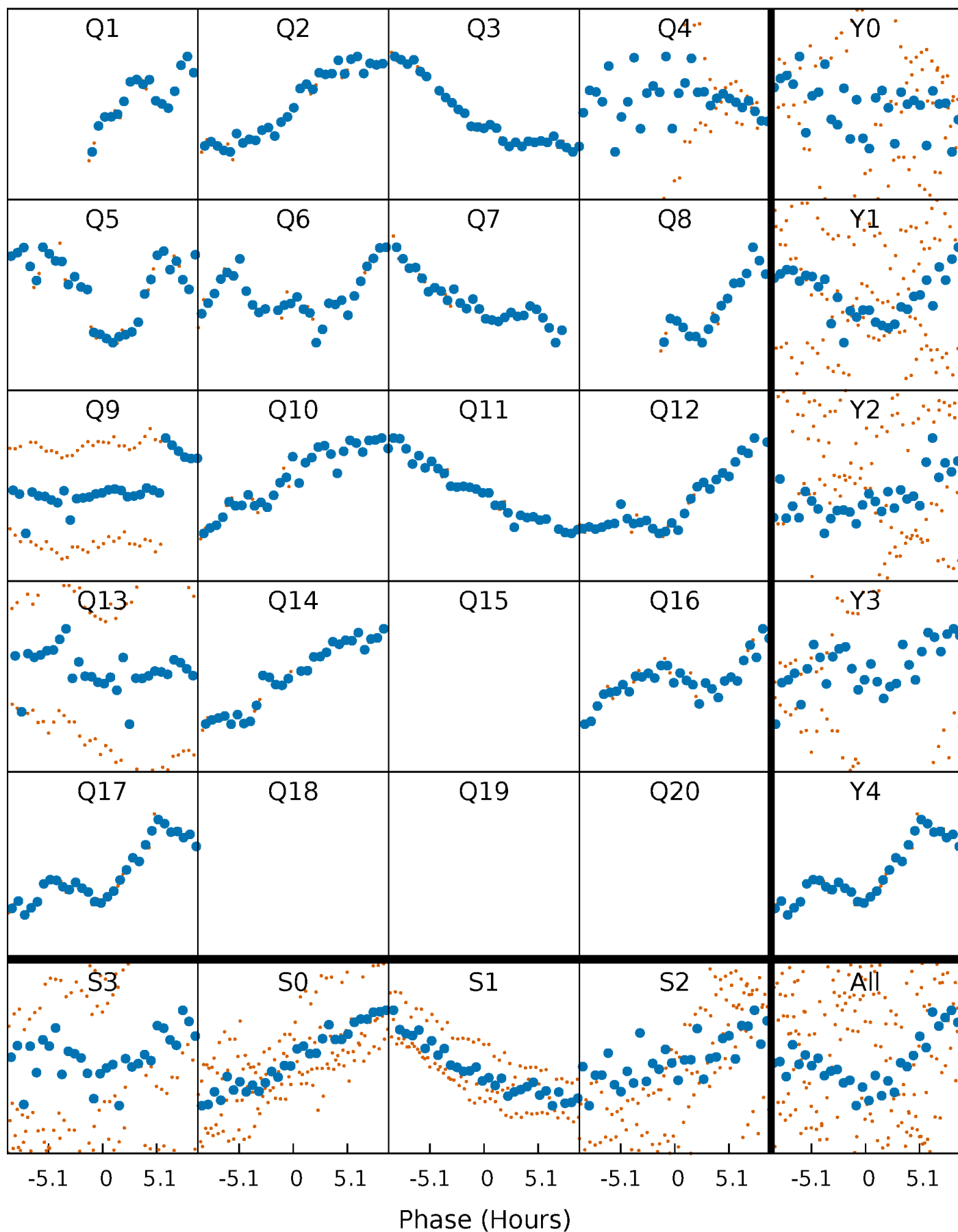


Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



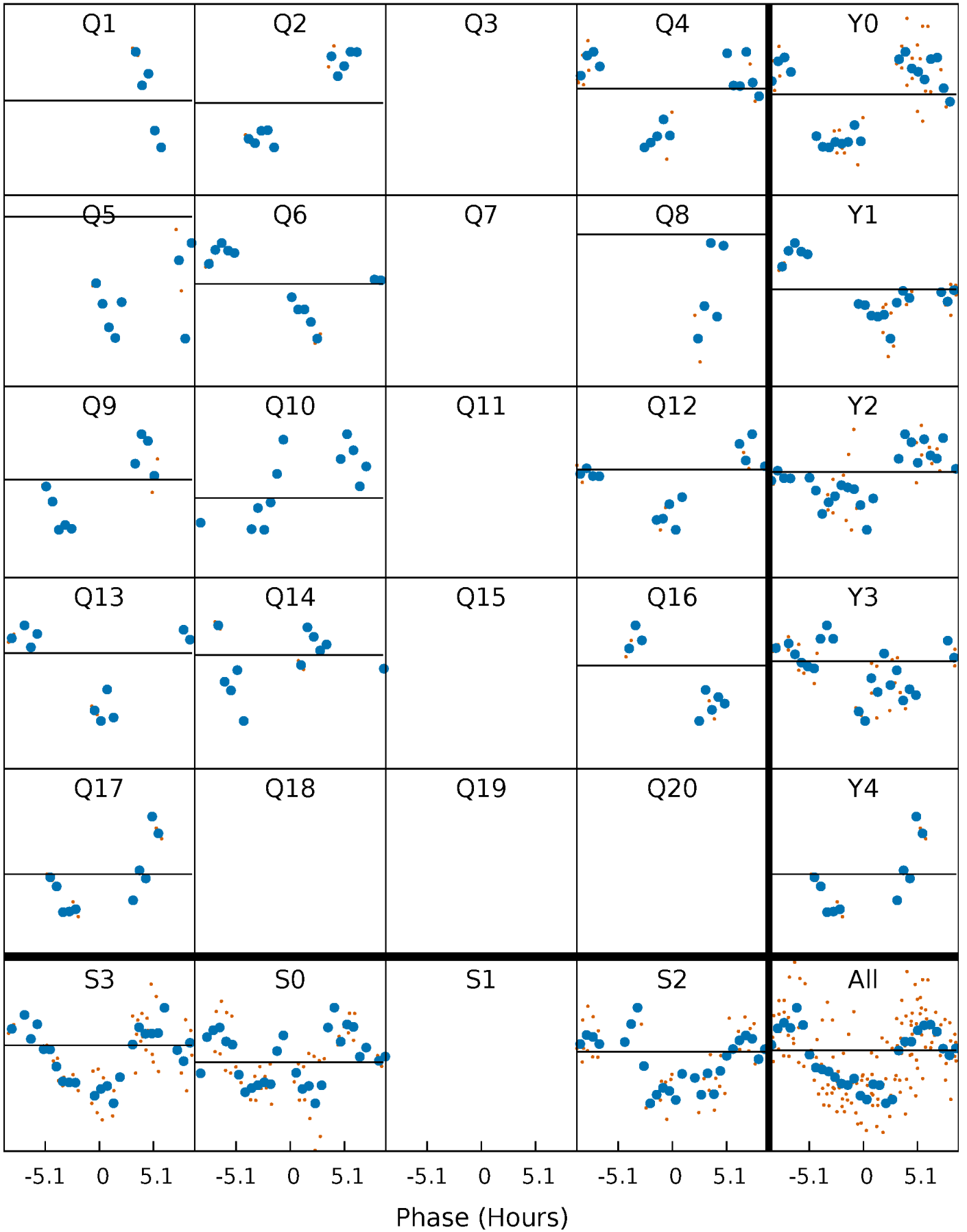
PDC Quarter-Phased Transit Curves

TCE 008179190-08 $P = 75.484202$ Days $T_0 = 131.565483$ (BKJD)



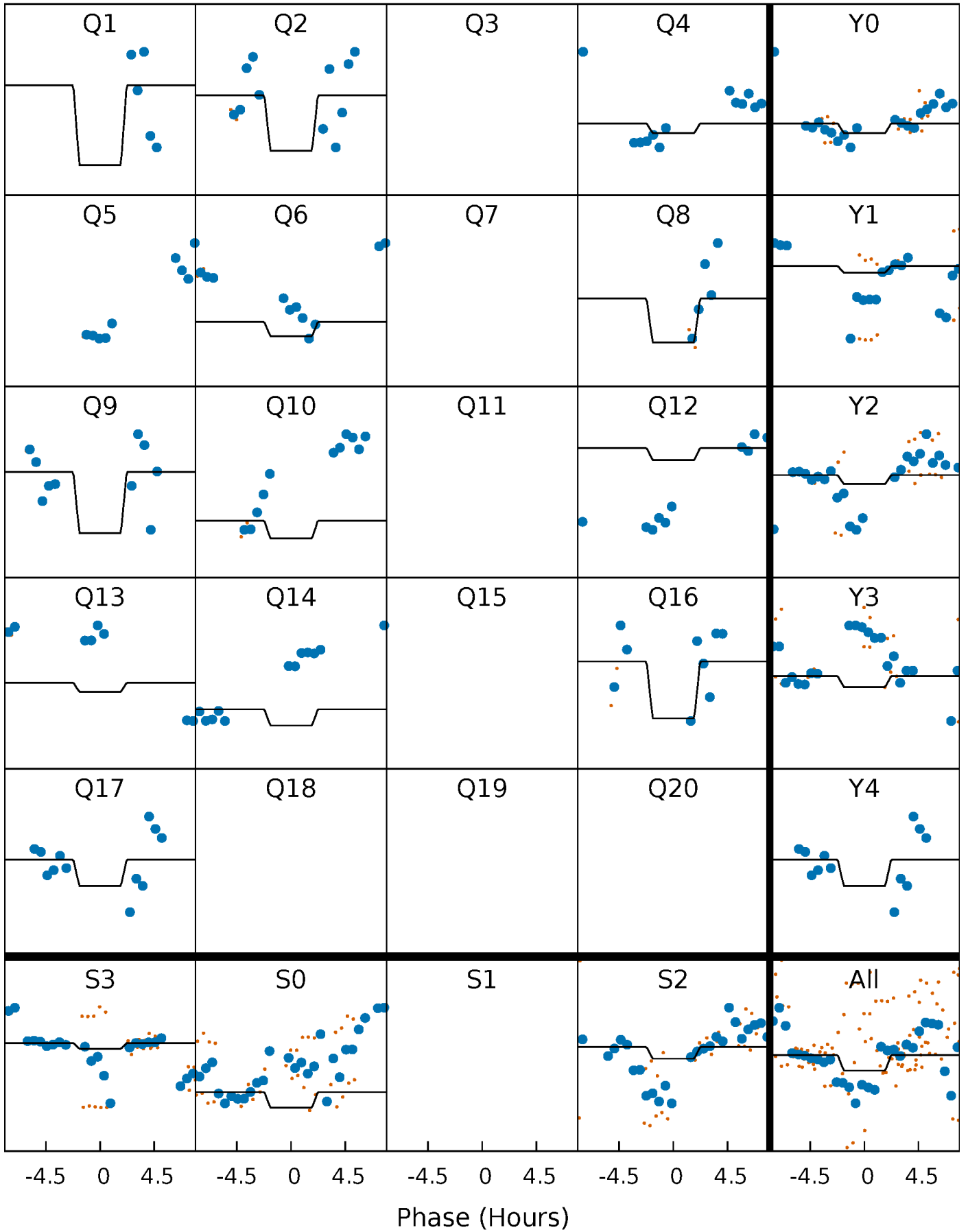
DV Quarter-Phased Transit Curves

TCE 008179190-08 P= 75.484202 Days $T_0=131.565483$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

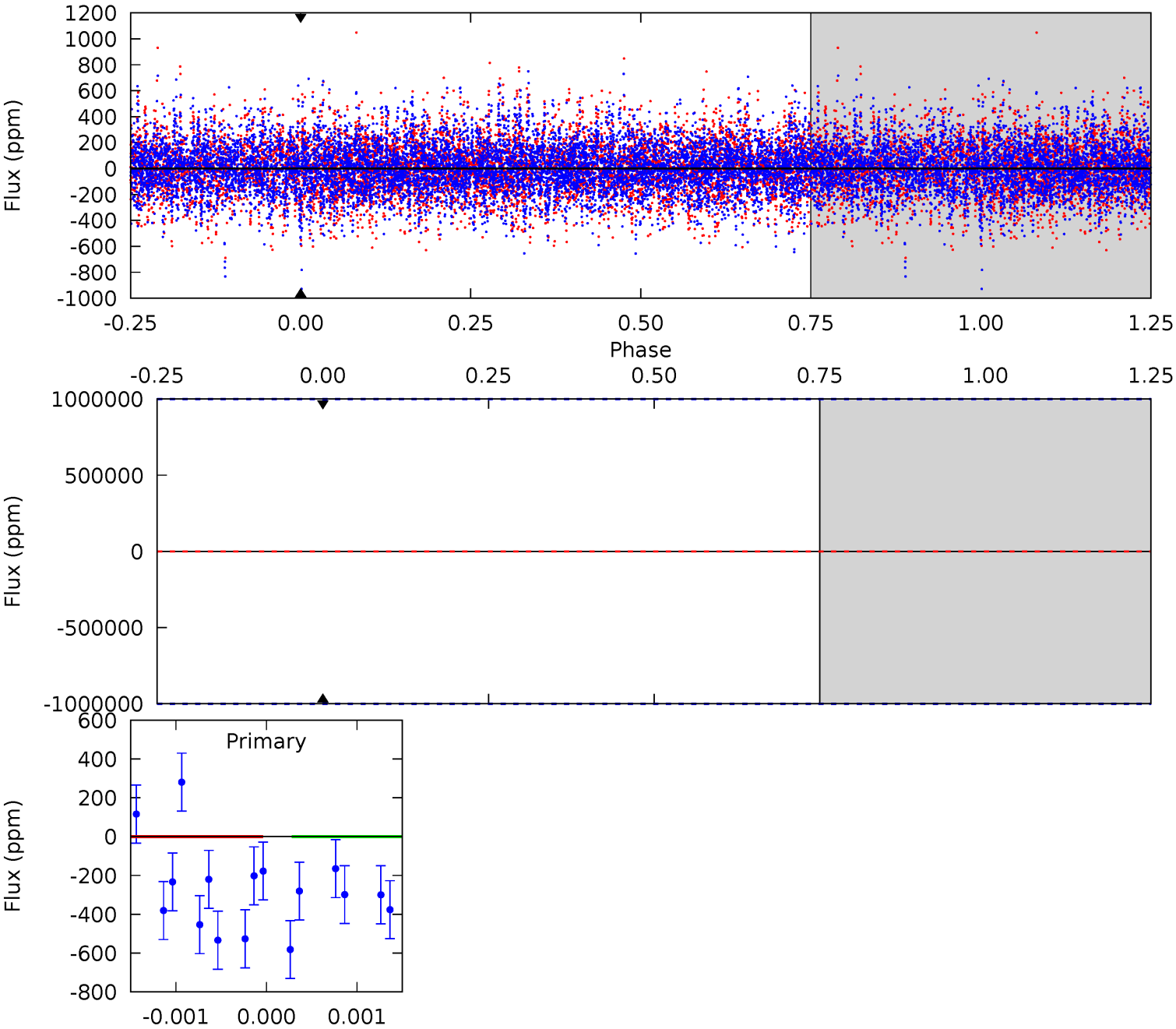
TCE 008179190-08 P= 75.484202 Days $T_0=131.598542$ (BKJD)



DV Model-Shift Uniqueness Test

008179190-08, P = 75.484202 Days, E = 131.565483 Days

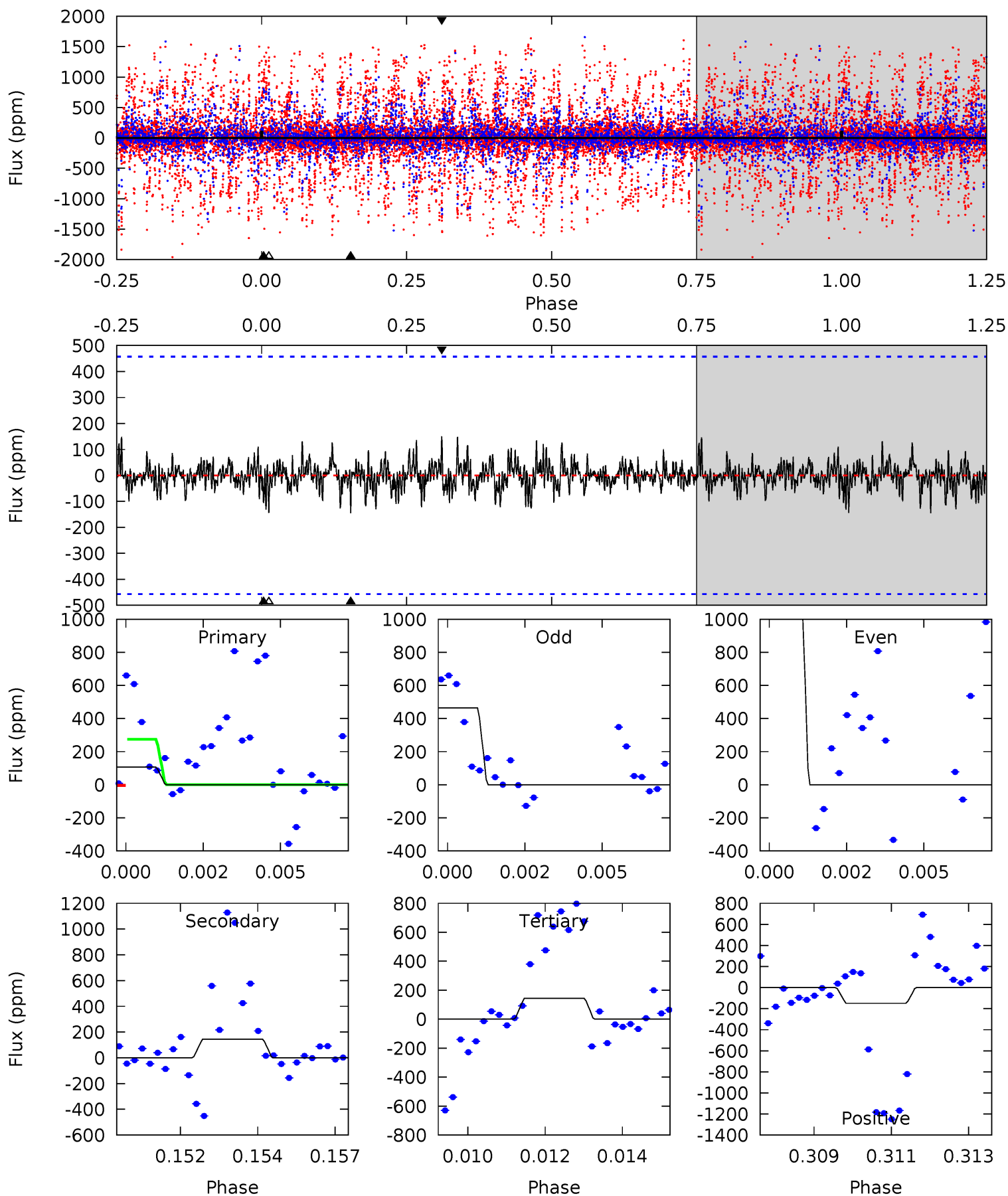
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008179190-08, P = 75.484202 Days, E = 131.598542 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.23	1.68	1.67	1.73	5.29	3.03	0.46	-0.44	-0.50	0.01	-0.05	5.05	1.04	0.51	1.54



Stellar Parameters For KIC 008179190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6425^{+176}_{-176}	$3.862^{+0.300}_{-0.100}$	$-0.340^{+0.300}_{-0.250}$	$2.160^{+0.410}_{-0.703}$	$1.237^{+0.220}_{-0.220}$	$0.173^{+0.358}_{-0.054}$
	+3%/-3%	+8%/-3%	+88%/-74%	+19%/-33%	+18%/-18%	+207%/-31%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008179190-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$16.97^{+16.35}_{-11.94}$	936^{+55}_{-81}	4176^{+24490}_{-28988}	164^{+56477}_{-42451}
Alt.	-145 ± 86	$16.19^{+16.66}_{-11.13}$	933^{+58}_{-81}	3146^{+1577}_{-699}	40^{+374}_{-34}

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 $A_{obs} \gg 1.0$

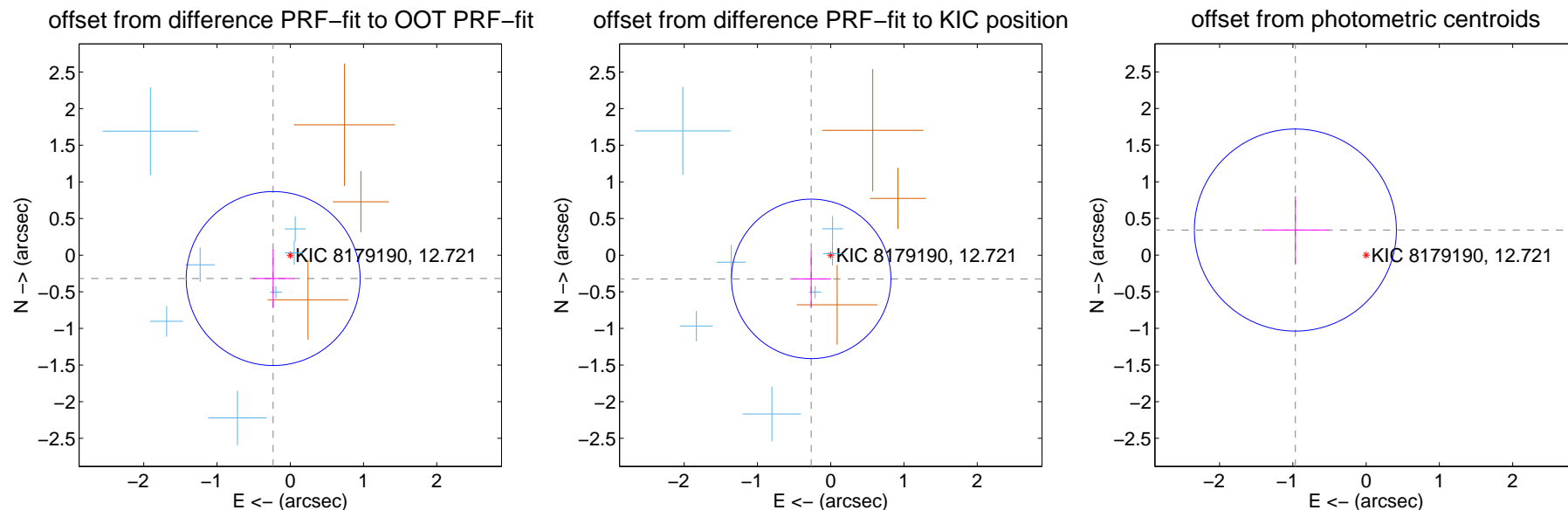
DV Centroid Data

Supplemental centroid analysis for 008179190-08. Kepler magnitude: 12.72. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

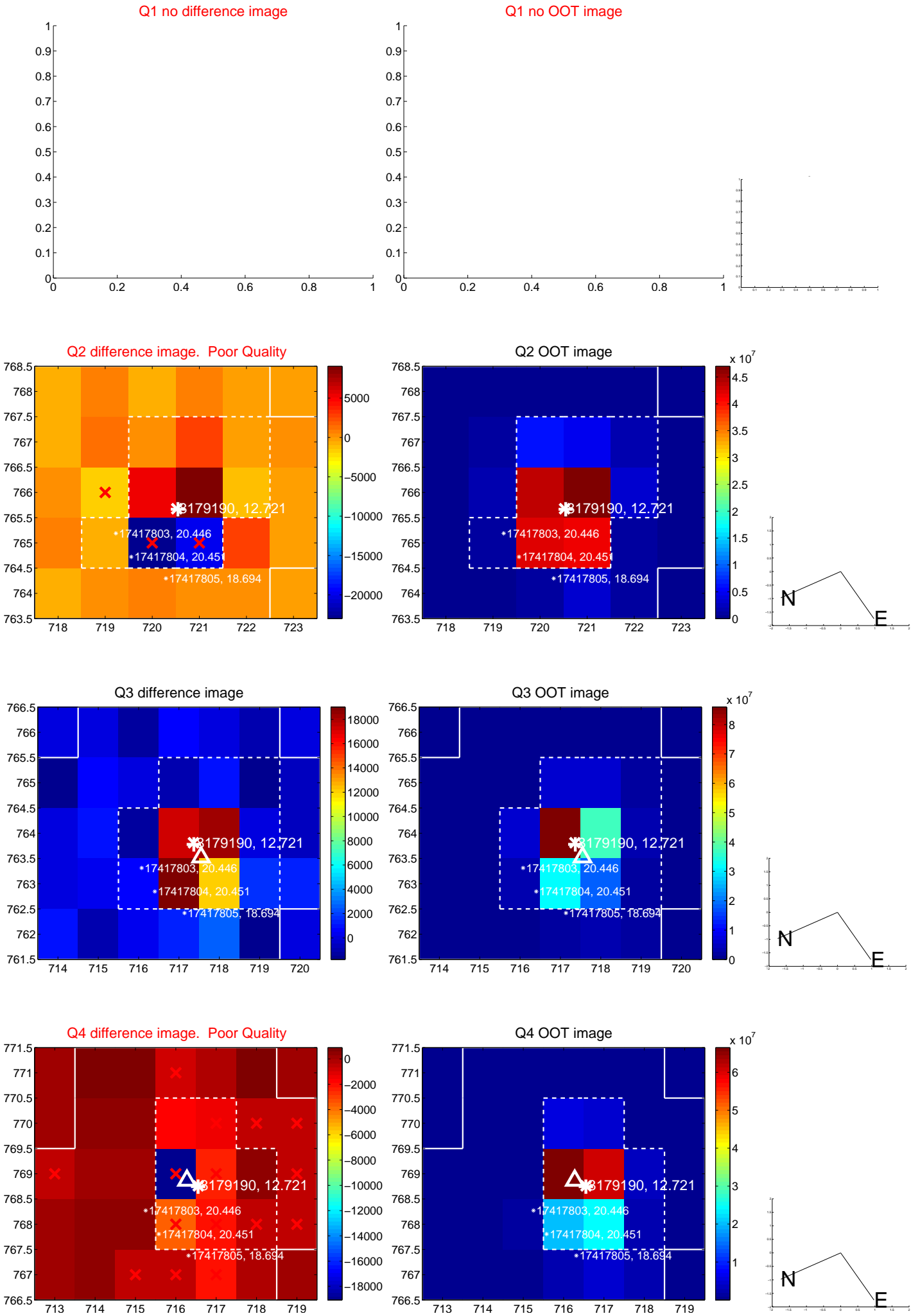
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.395 ± 0.396	1.00	0.233 ± 0.286	-0.319 ± 0.395
PRF-fit source offset from KIC position	0.419 ± 0.363	1.16	0.266 ± 0.267	-0.324 ± 0.386
photometric centroid source offset	1.02 ± 0.46	2.23	0.97 ± 0.46	0.34 ± 0.46

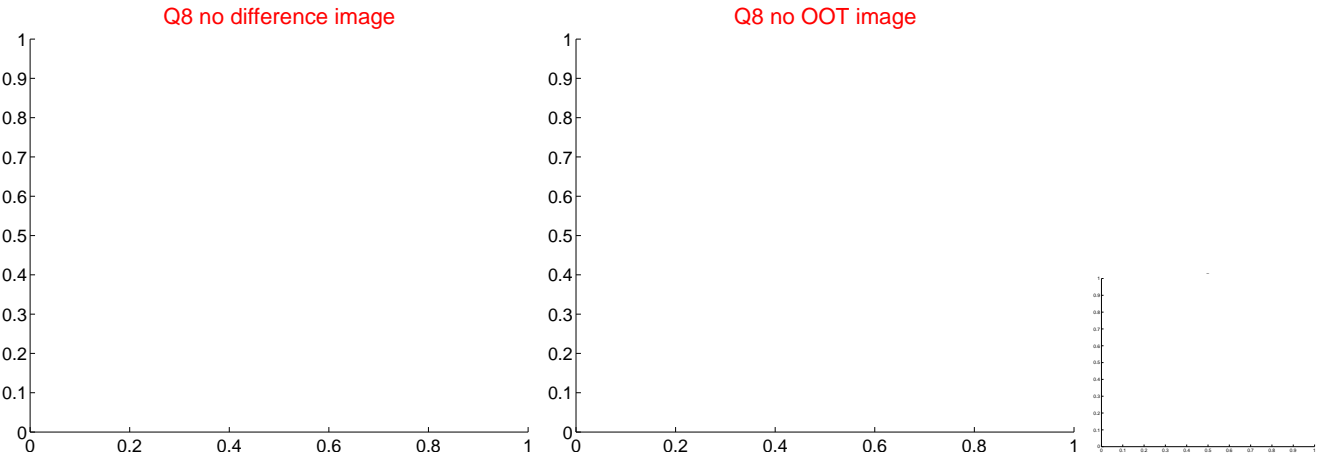
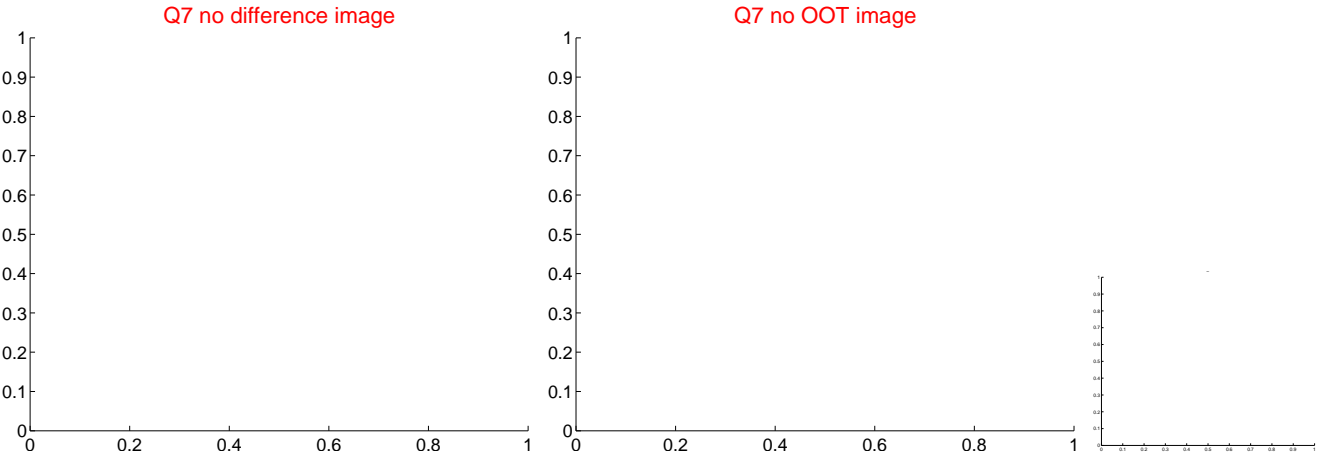
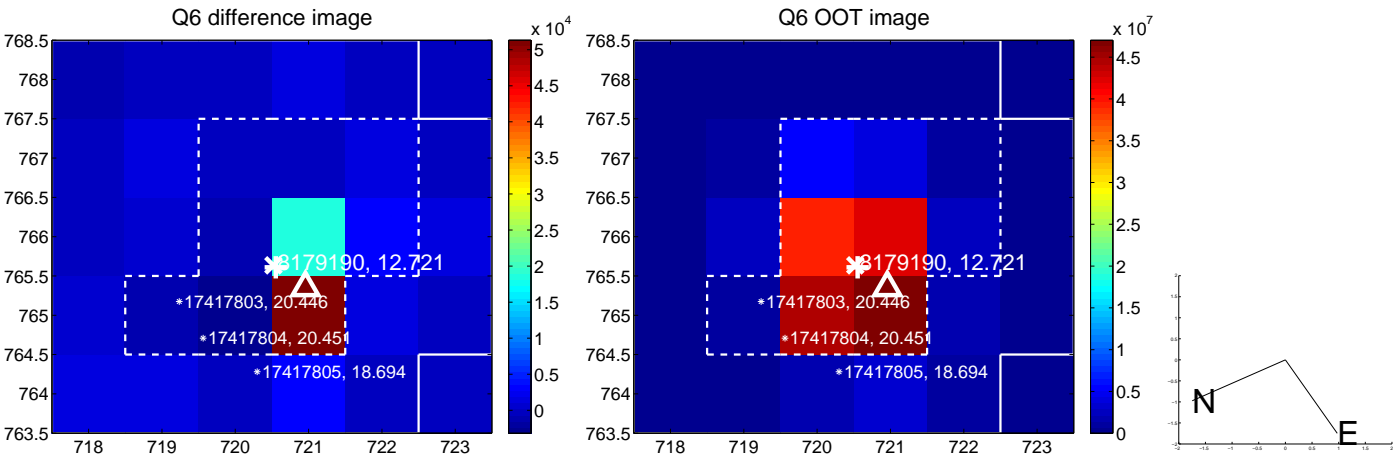
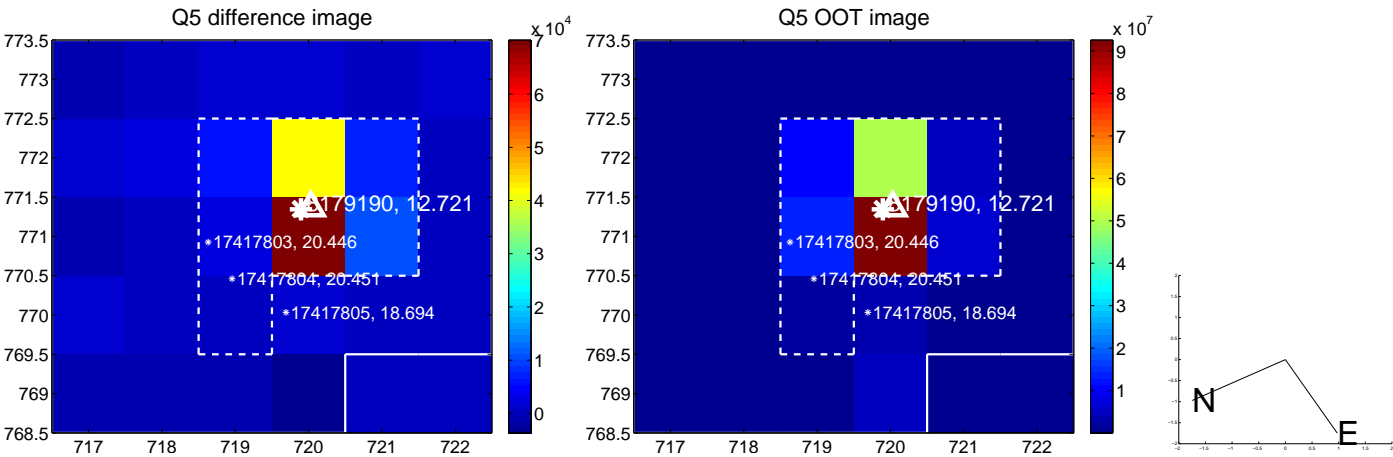


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

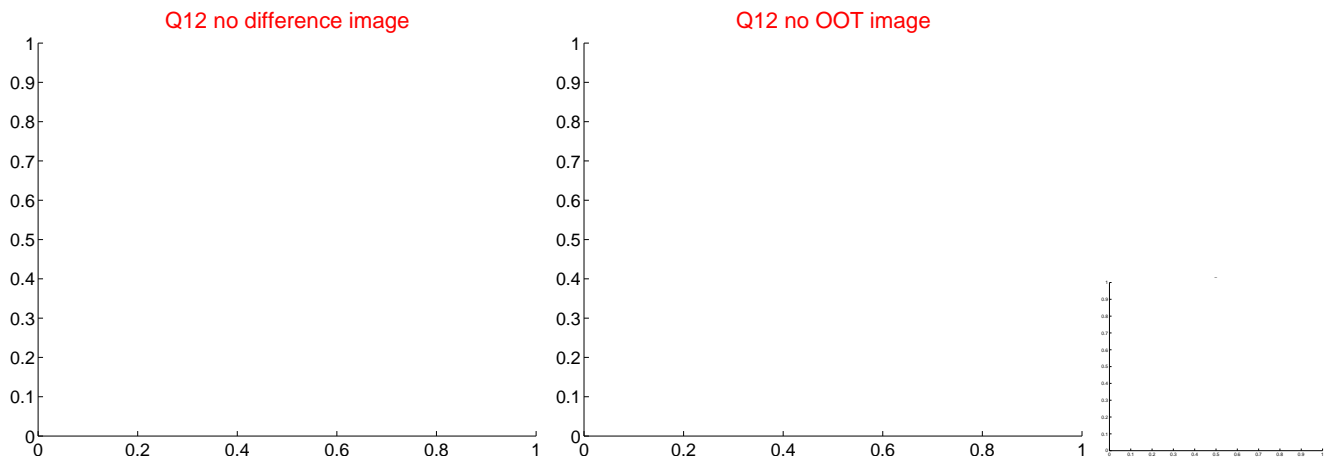
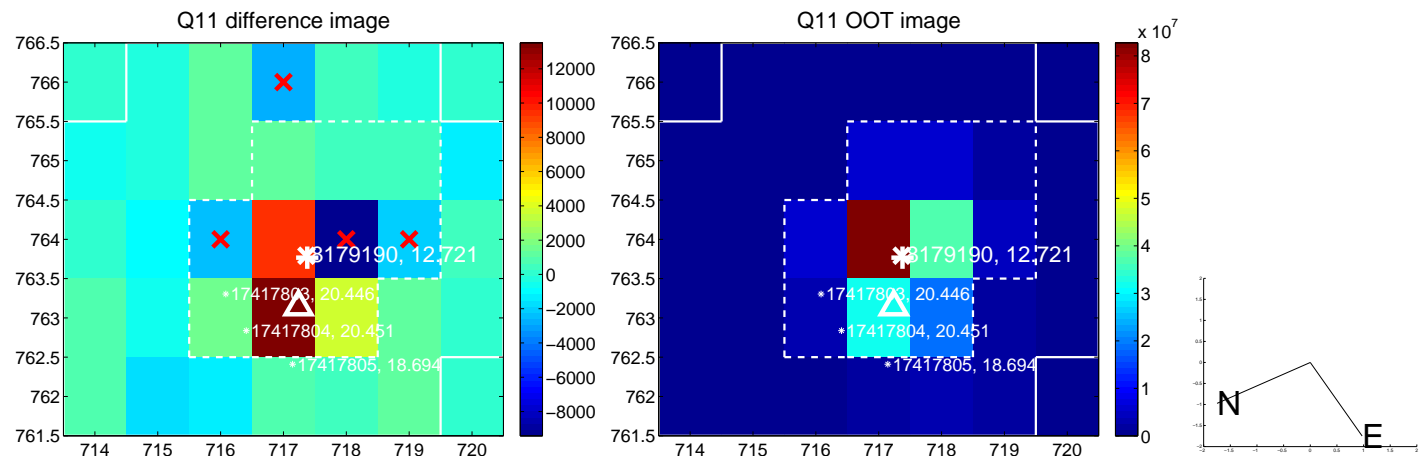
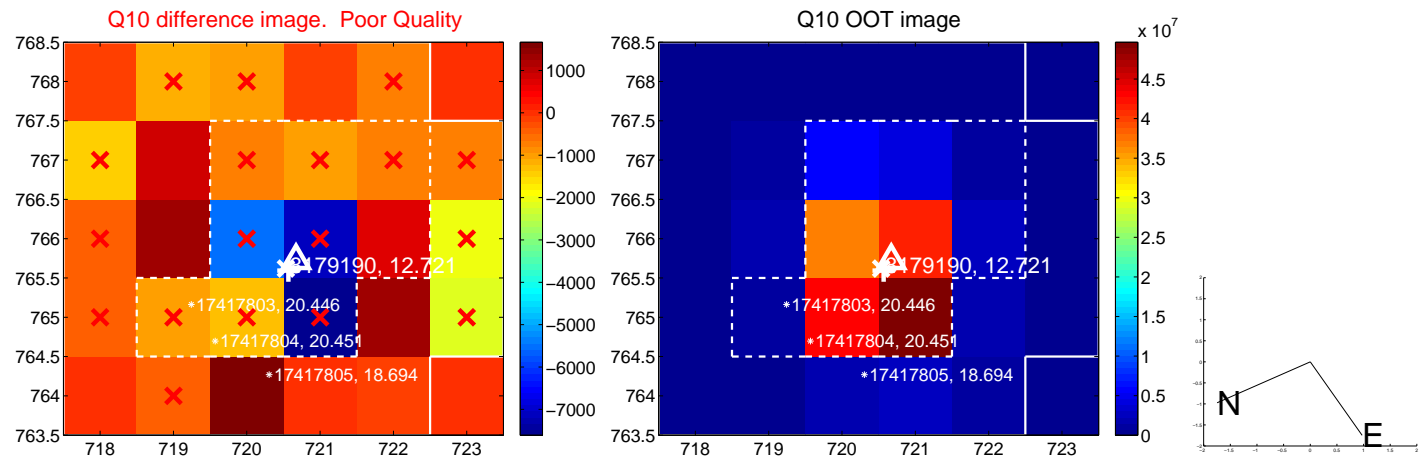
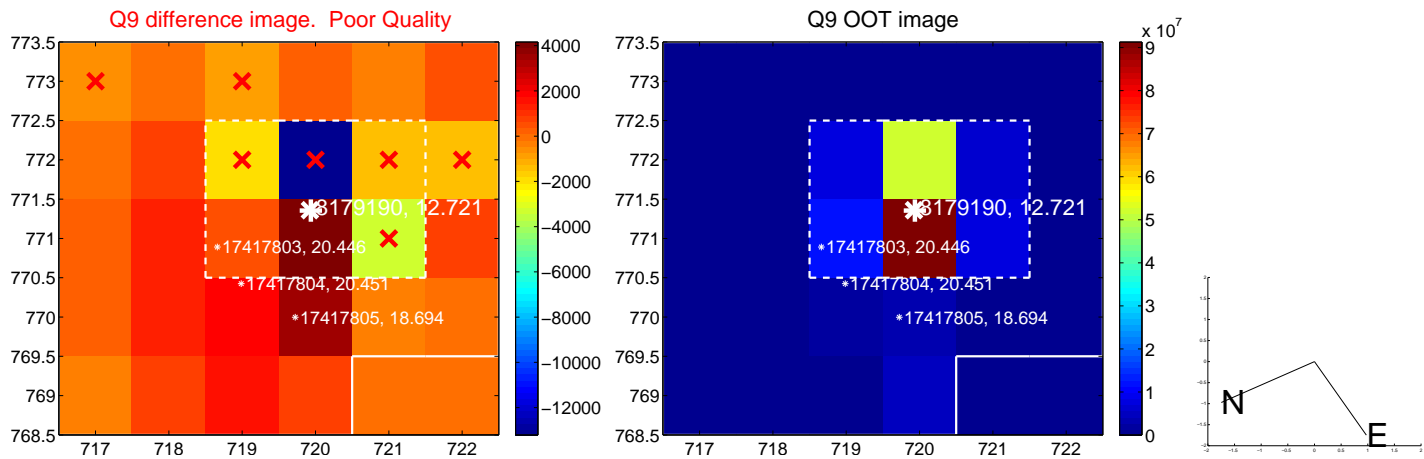
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



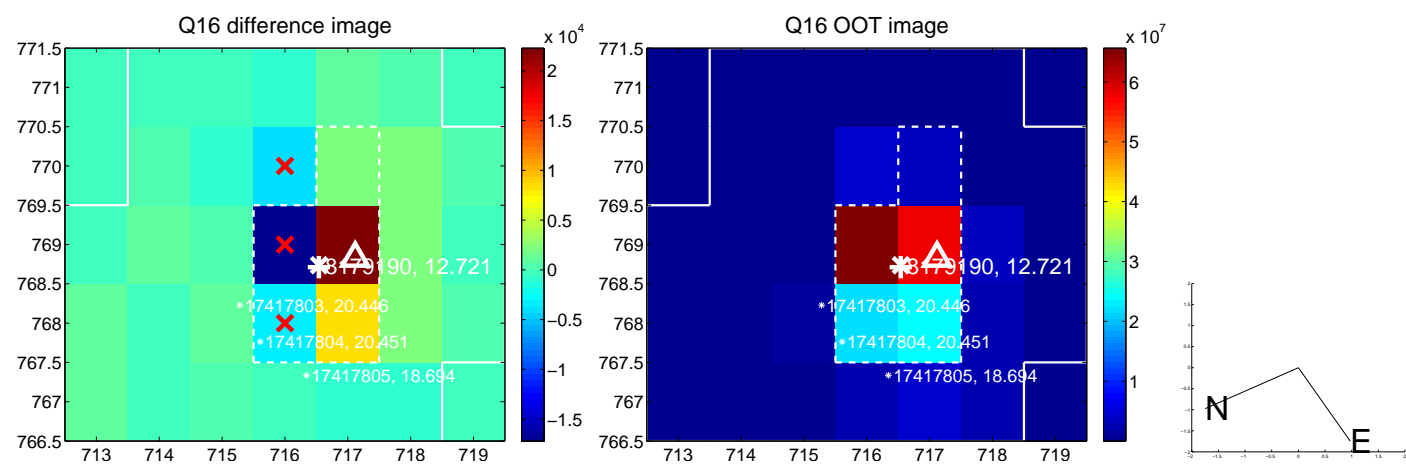
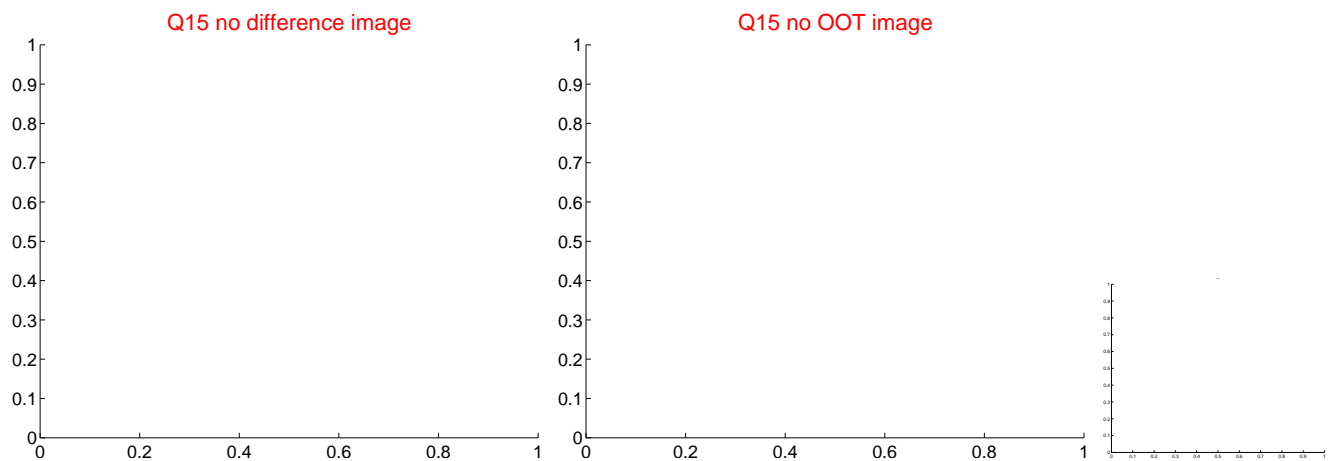
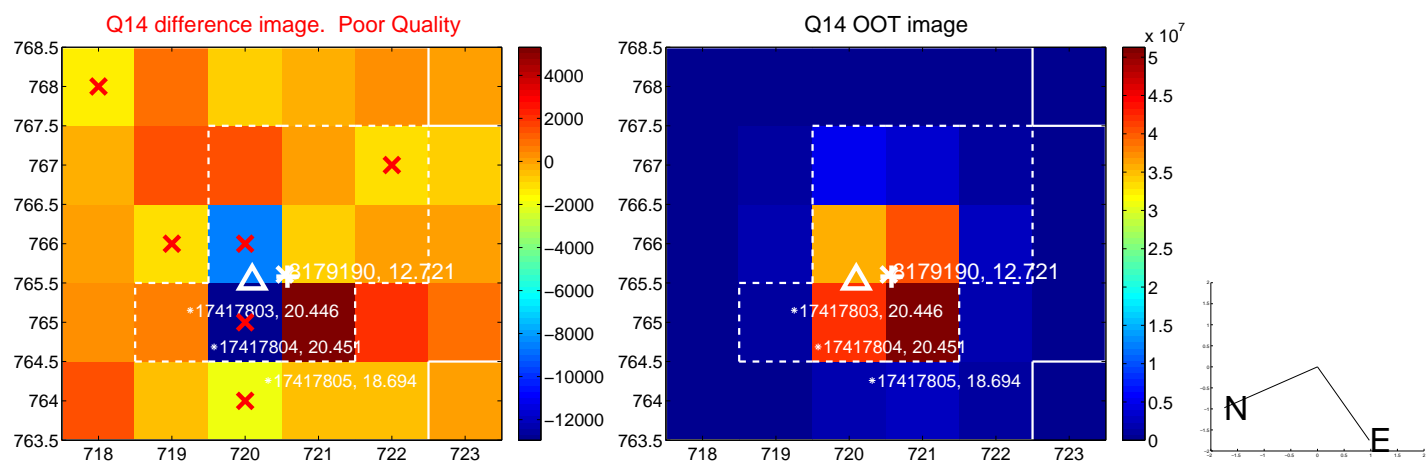
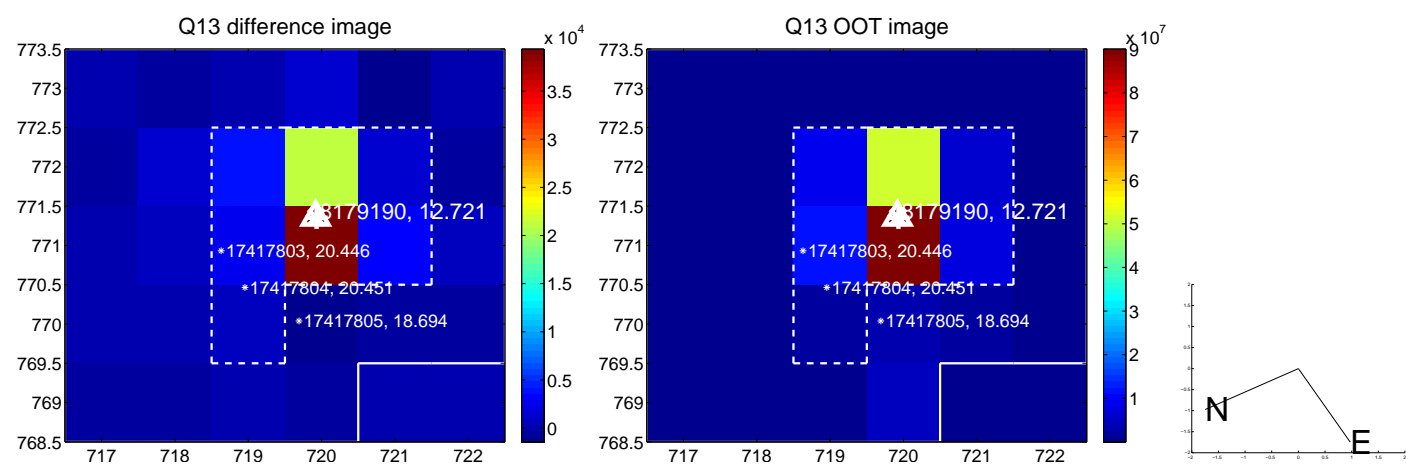
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



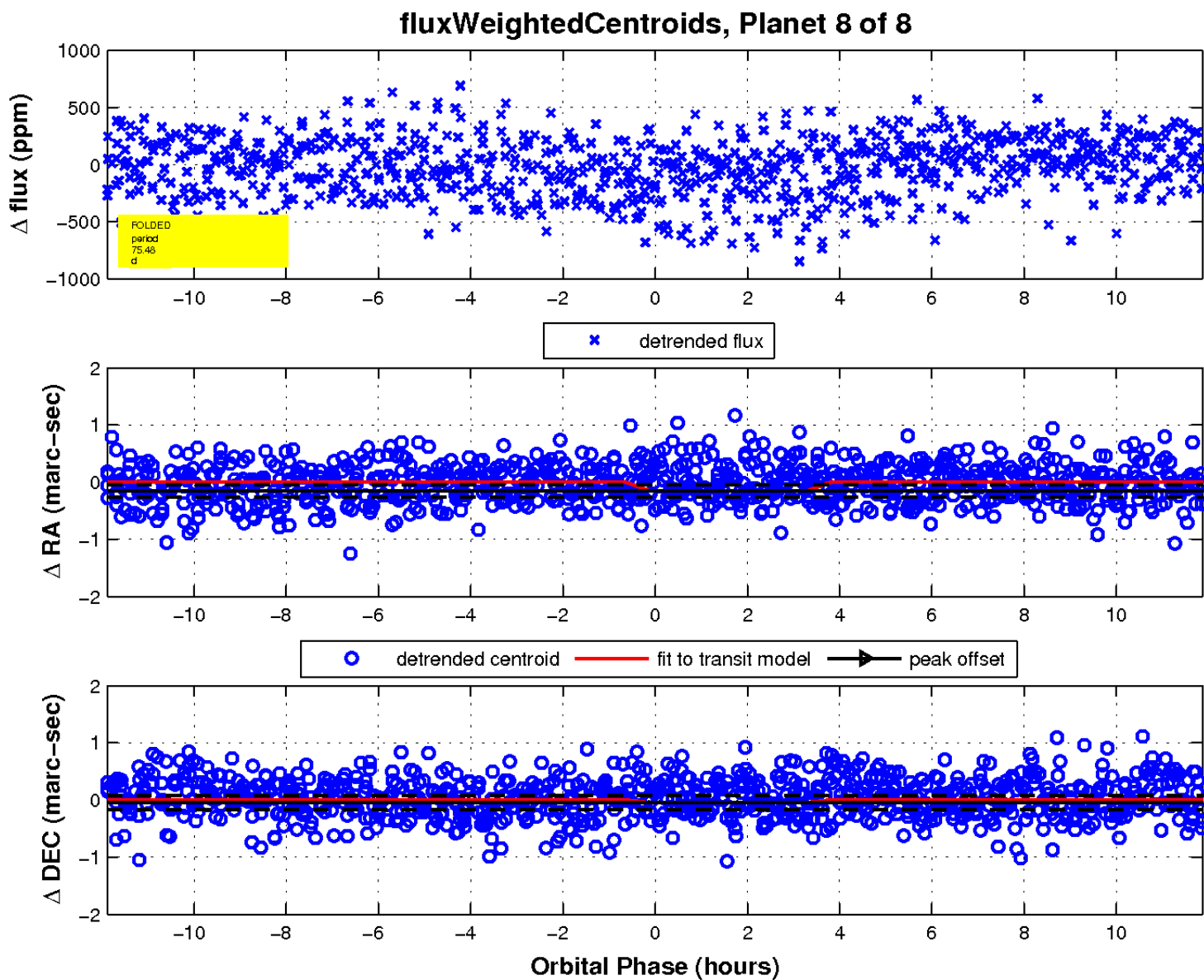
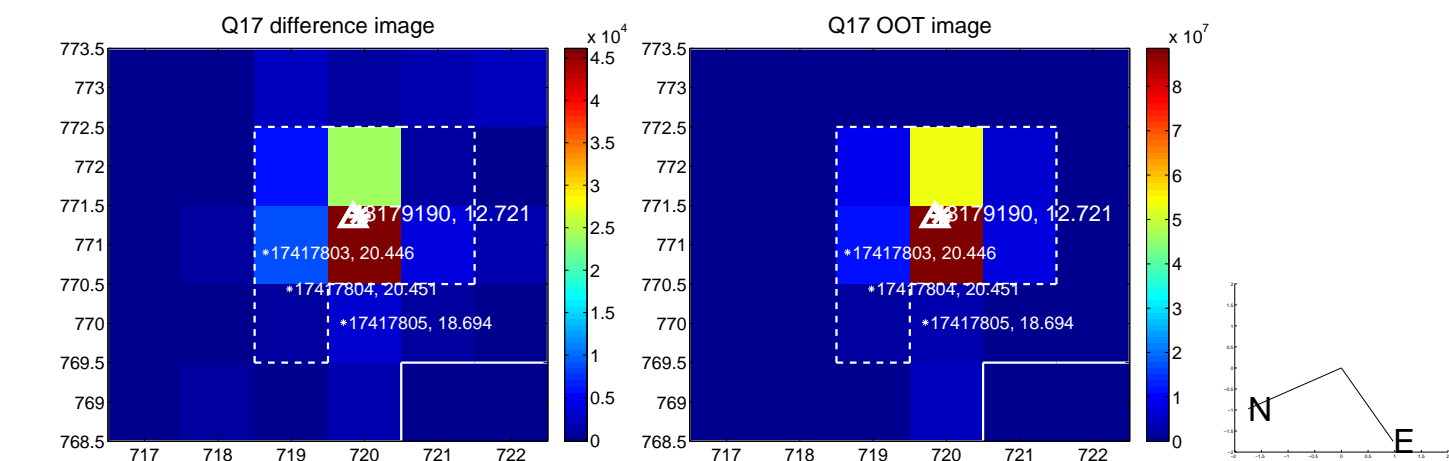
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

