

KIC 008695779

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})
008695779-01	OBS	6061.01	10.238941	132.722624	3123.8	3.449	386.7	379.4	1.81	6244	16.34	474.65
008695779-02	OBS	No	10.238889	137.638189	259.1	5.006	33.0	38.0	1.81	6244	3.91	474.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008695779-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
008695779-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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 008695779-01

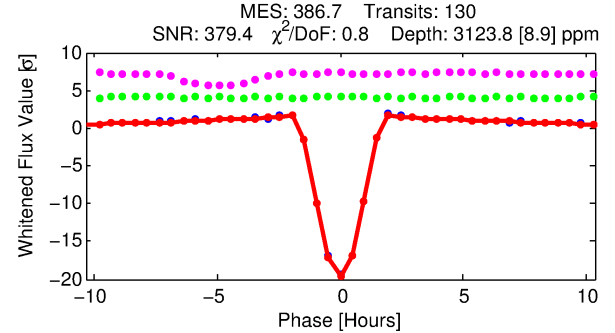
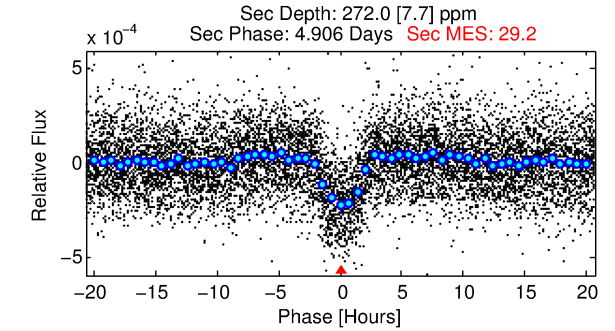
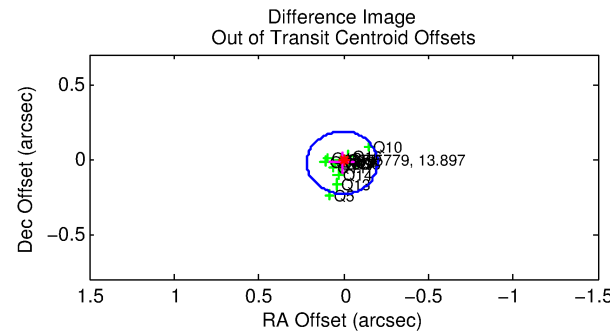
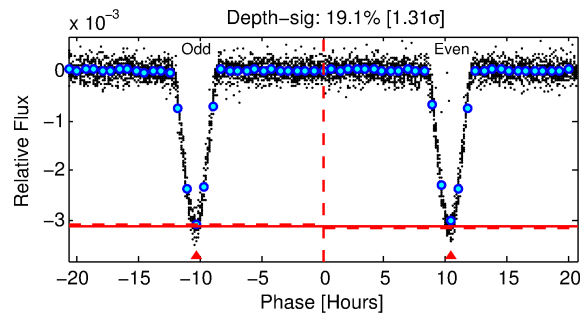
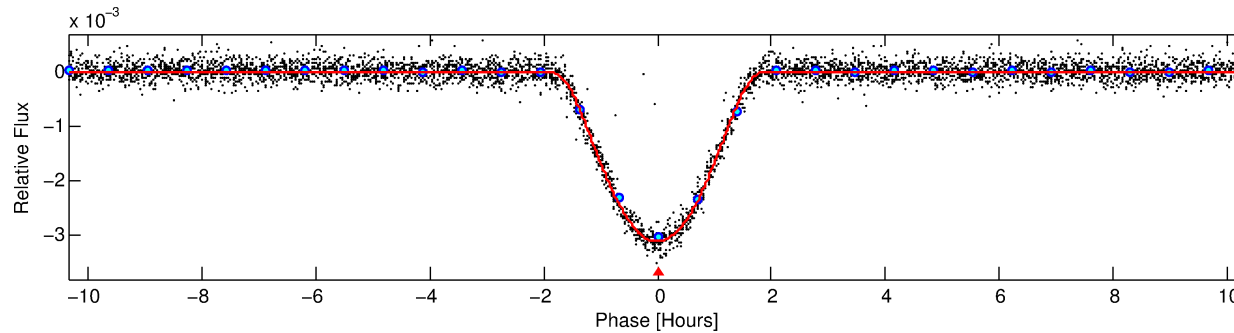
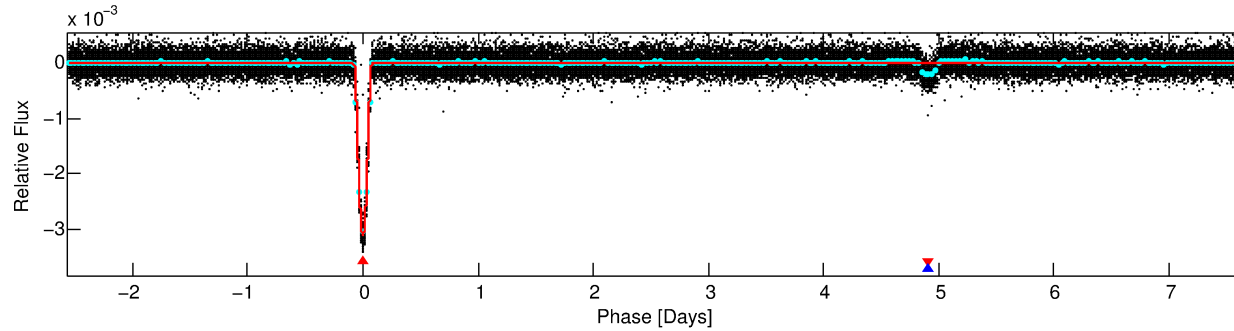
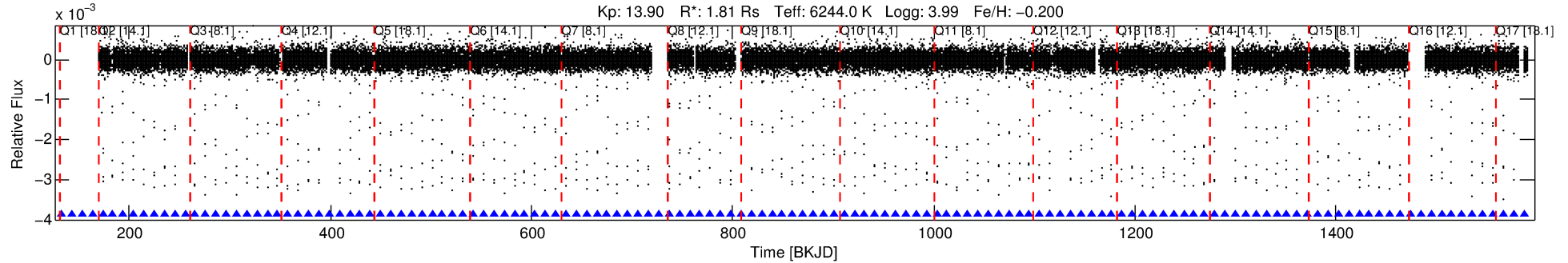
No Significant Match Found

DV One-Page Summary

KIC: 8695779 Candidate: 1 of 2 Period: 10.239 d

KOI: K06061.01 Corr: 0.995

Kp: 13.90 R*: 1.81 Rs Teff: 6244.0 K Logg: 3.99 Fe/H: -0.200



DV Fit Results:

Period = 10.23894 [0.00000] d
Epoch = 132.7226 [0.0002] BKJD
Rp/R* = 0.0829 [0.0059]
a/R* = 10.40 [0.20]
b = 0.98 [0.01]
Seff = 474.65 [321.29]
Teq = 1190 [201] K
Rp = 16.35 [6.79] Re
a = 0.0968 [0.0392] AU
Ag = 5.25 [3.54] [1.20σ]
Teffp = 2785 [150] K [6.35σ]

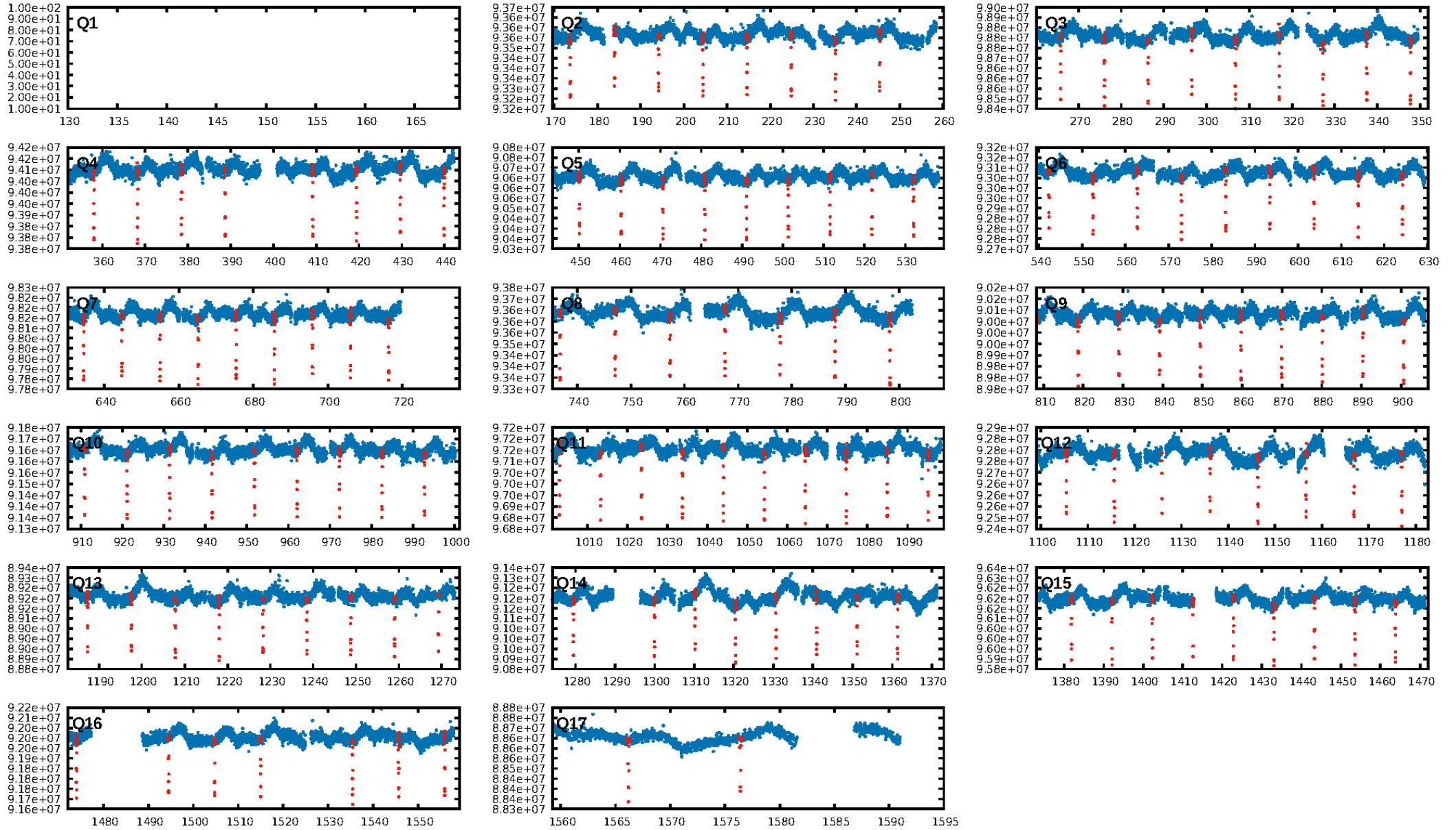
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [128/128]
GhostDiagnostic-chr: 8.013
Centroid-sig: 0.1%
Centroid-so: 0.068 arcsec [2.30σ]
OotOffset-rm: 0.025 arcsec [0.35σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.012 arcsec [0.17σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

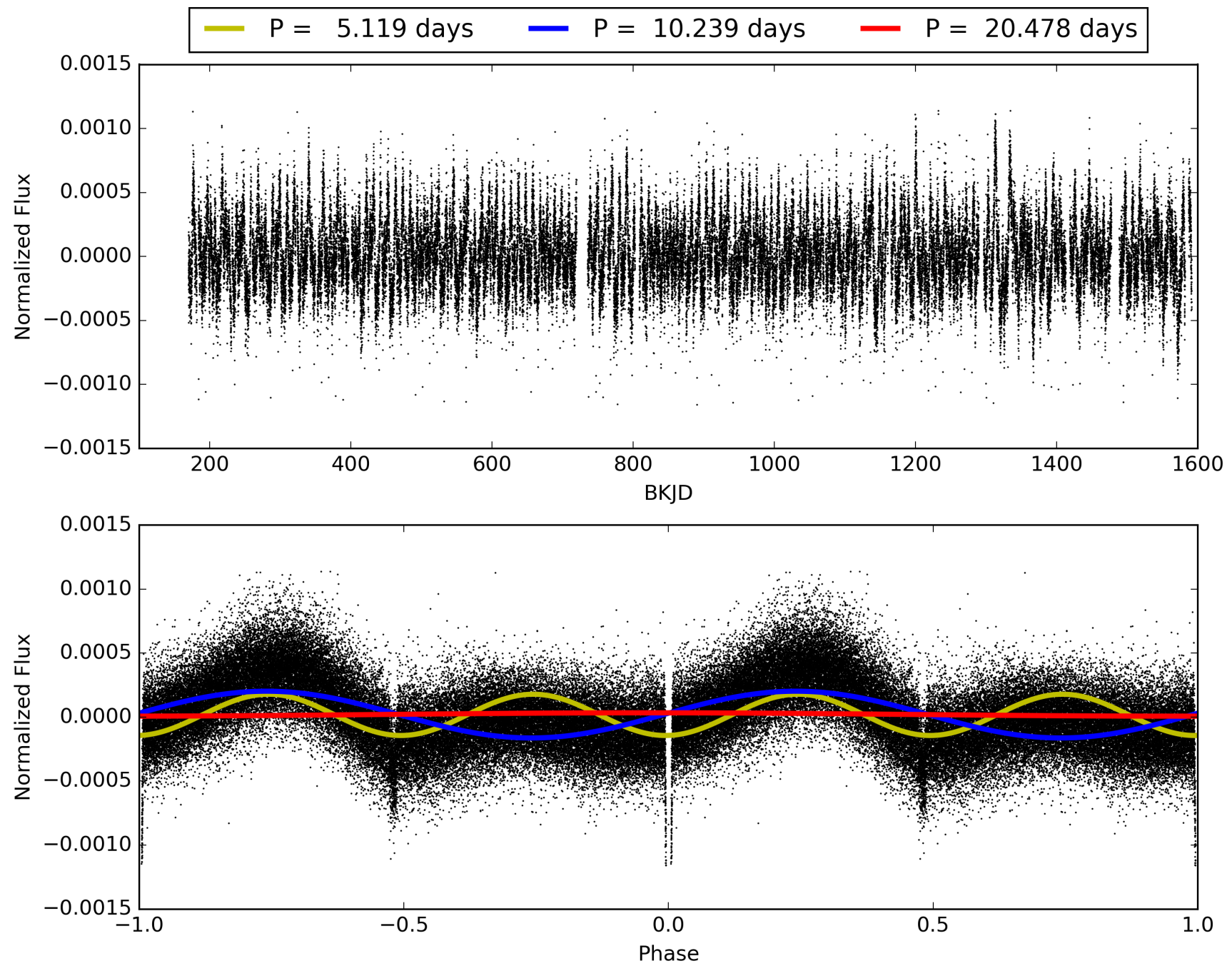
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:13:03 Z

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

TCE 008695779-01, PDC Light Curves

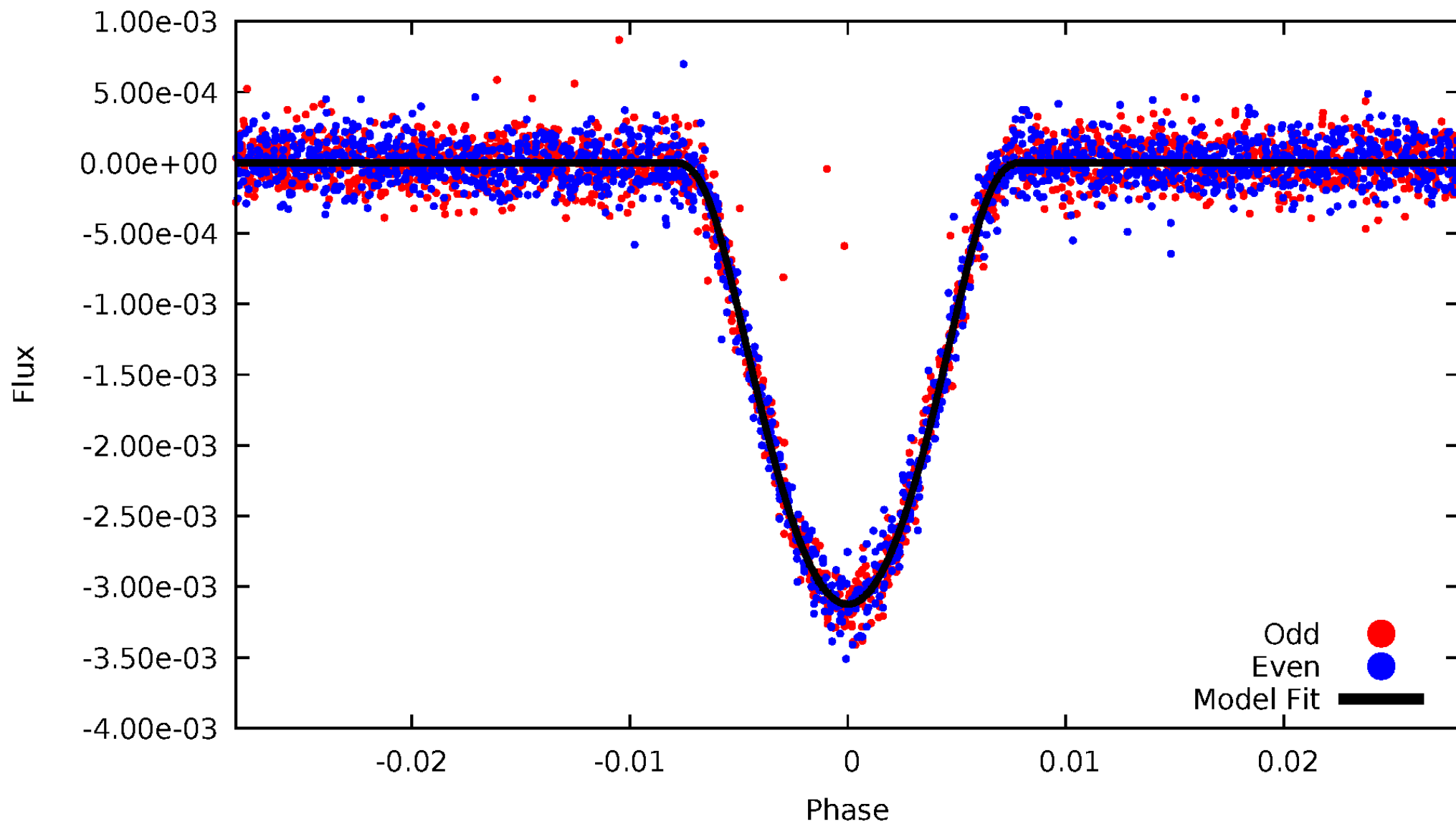


TCE 008695779-01



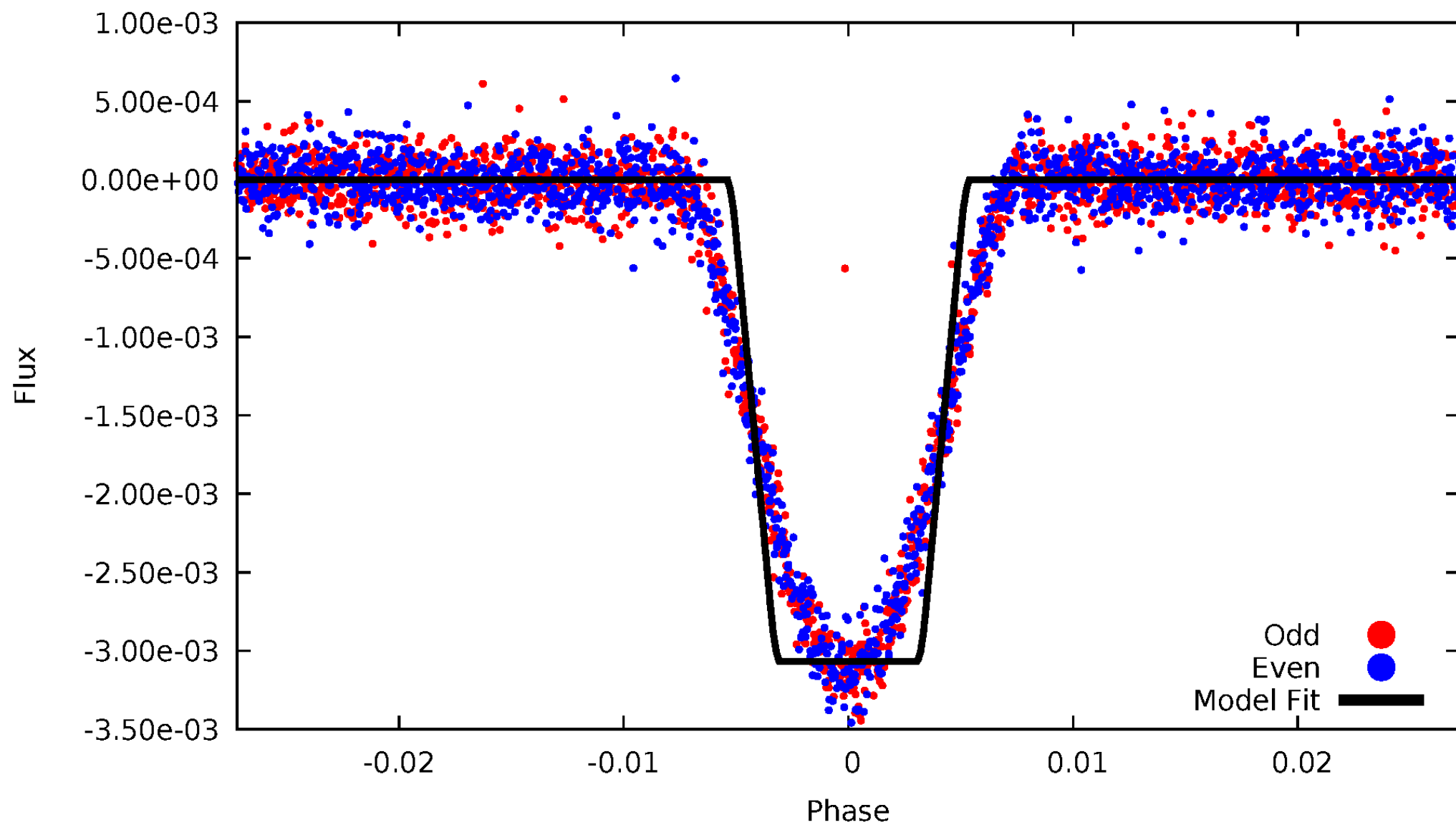
DV Odd/Even

TCE 008695779-01



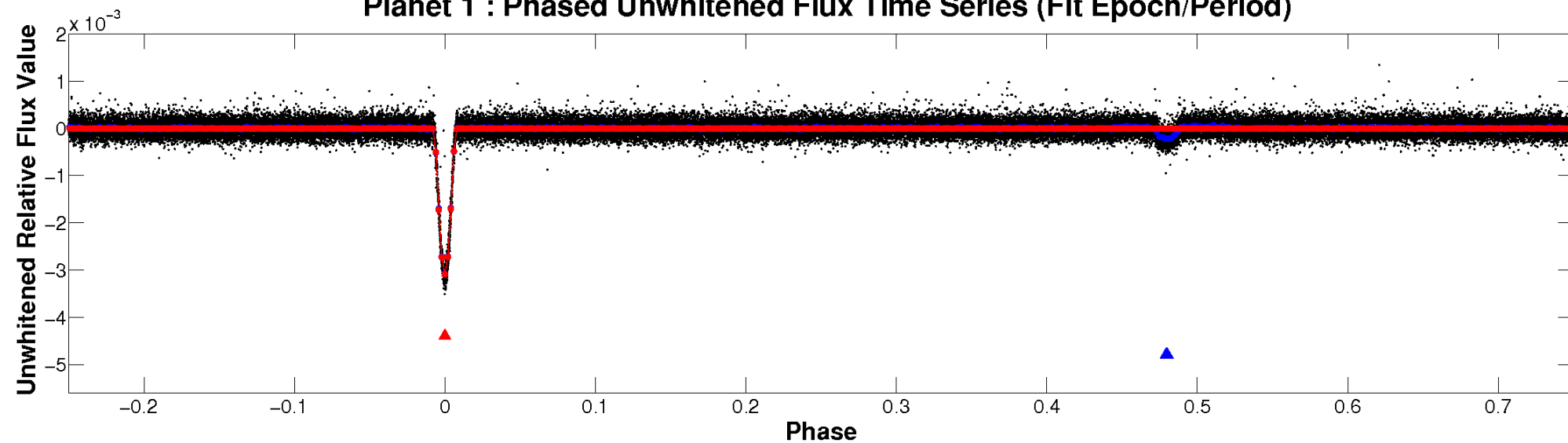
ALT Odd/Even

TCE 008695779-01

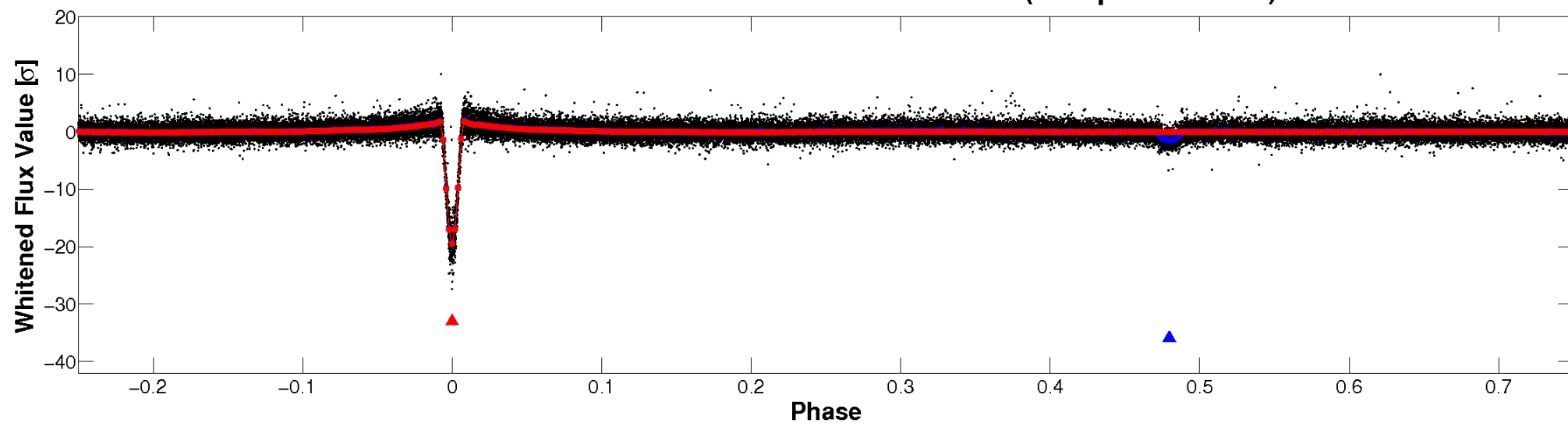


Non-Whitened Vs. Whitened Light Curve

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

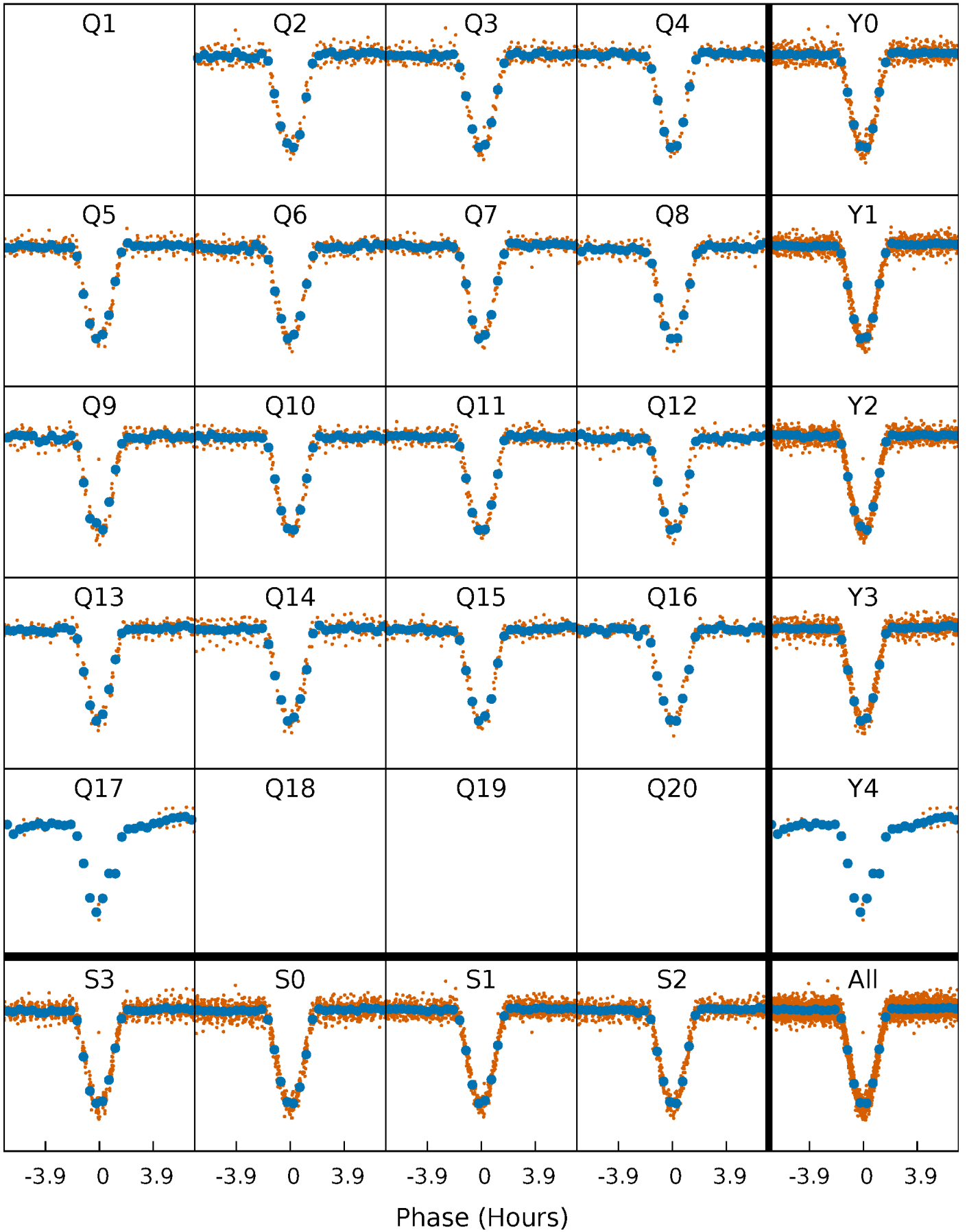


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



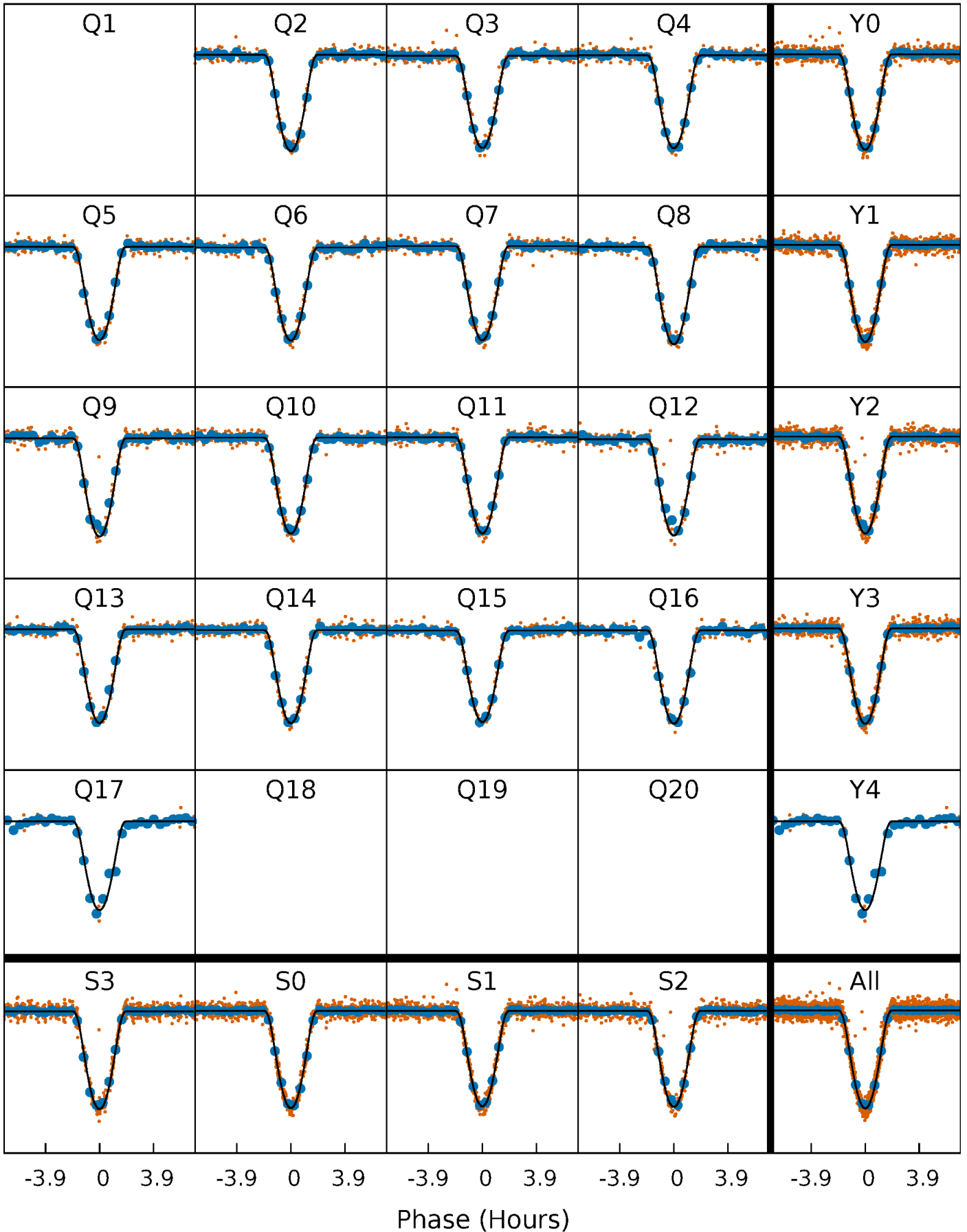
PDC Quarter-Phased Transit Curves

TCE 008695779-01 P= 10.238941 Days $T_0=132.722624$ (BKJD)



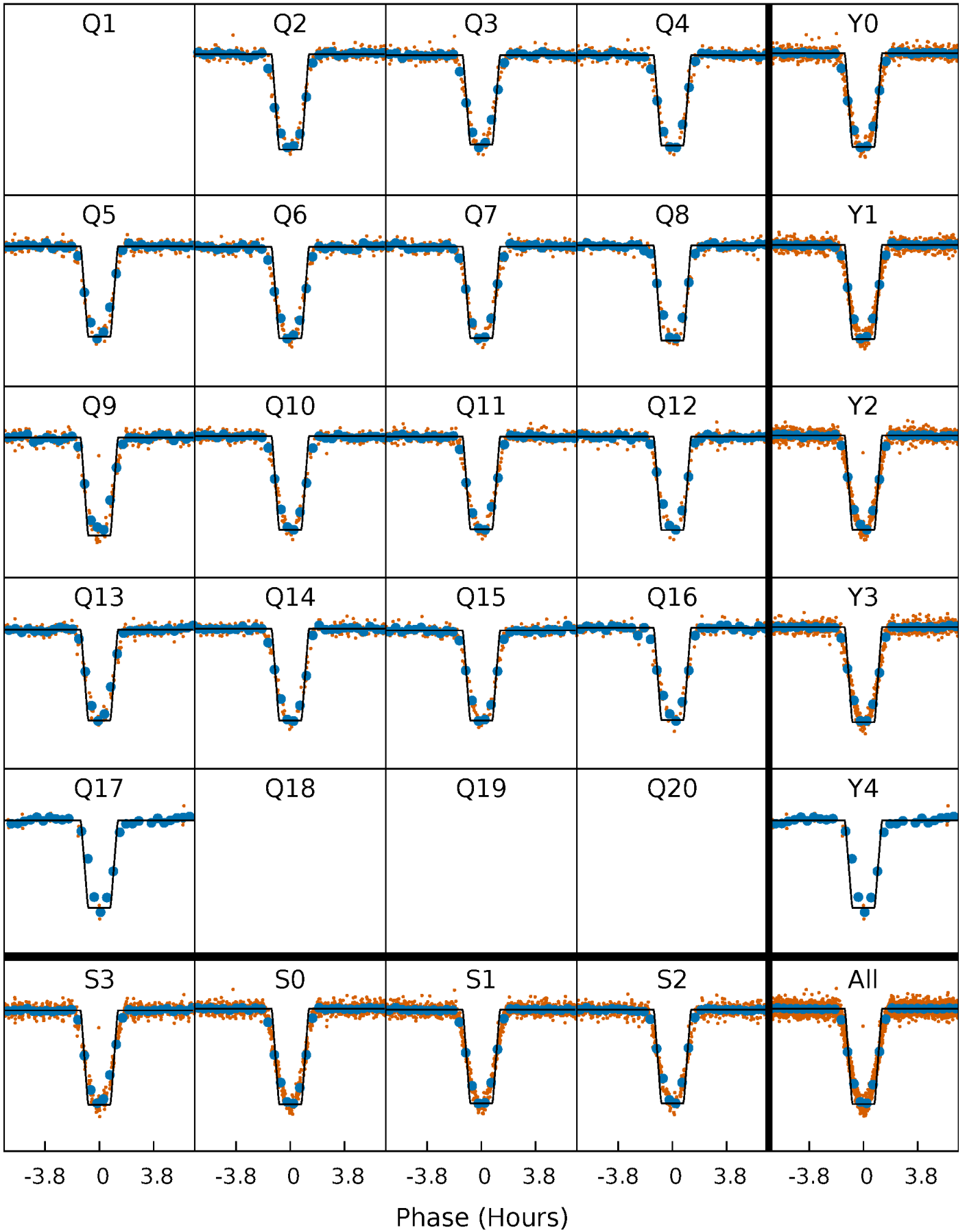
DV Quarter-Phased Transit Curves

TCE 008695779-01 P= 10.238941 Days $T_0=132.722624$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

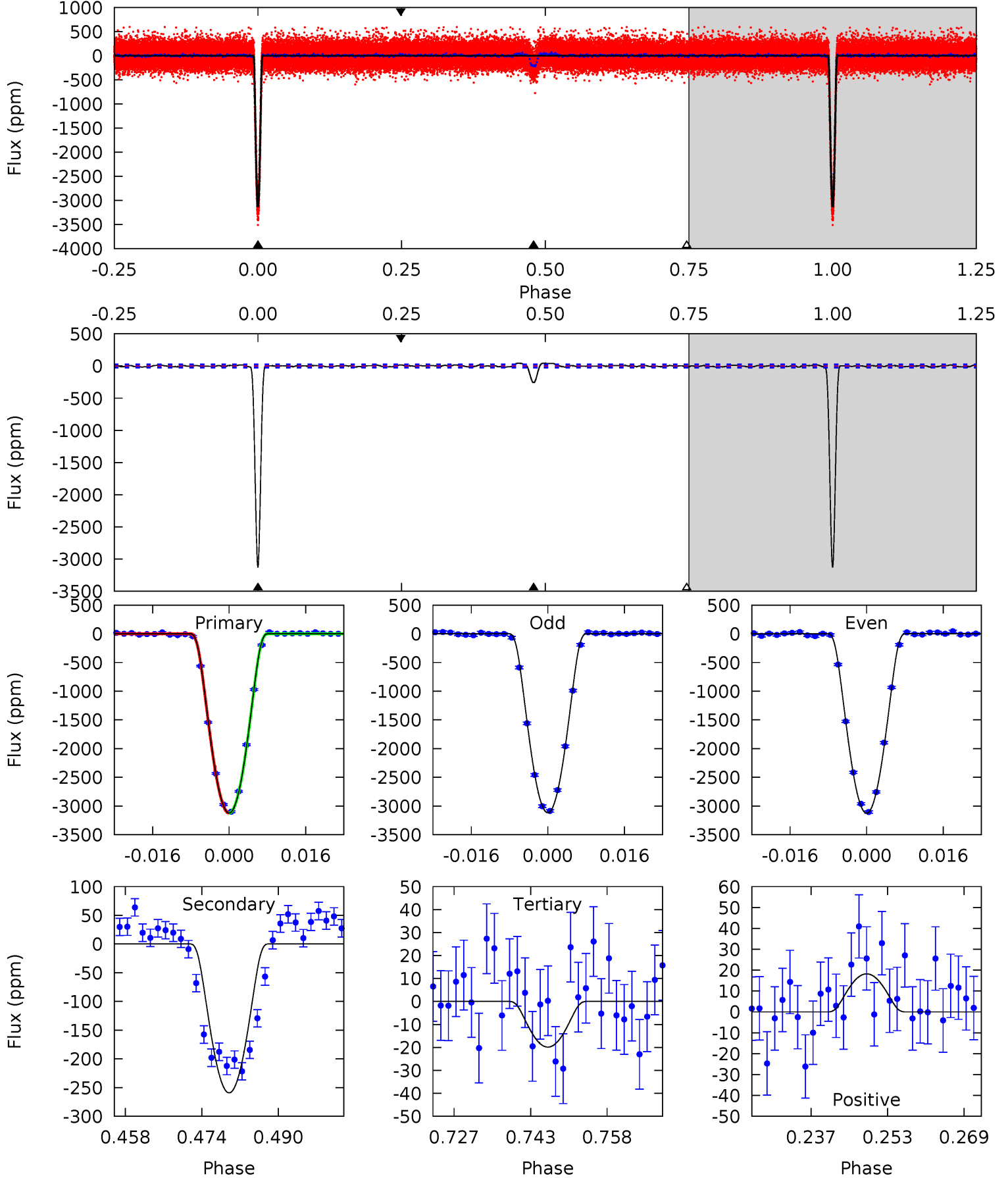
TCE 008695779-01 P= 10.238910 Days $T_0=132.724707$ (BKJD)



DV Model-Shift Uniqueness Test

008695779-01, P = 10.238941 Days, E = 132.722624 Days

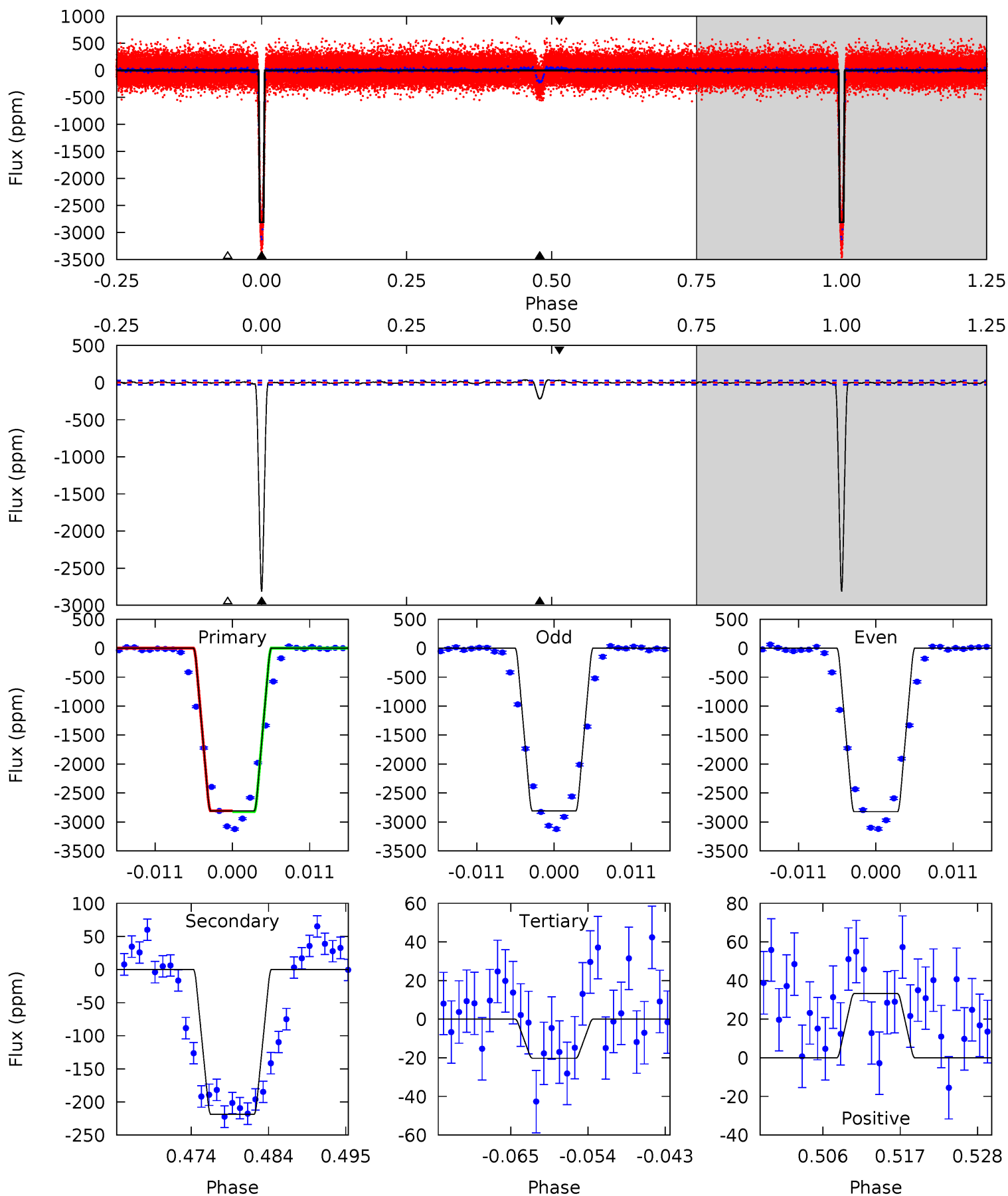
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
690.0	57.3	4.39	4.02	4.94	2.41	2.36	685.6	686.0	52.9	53.3	0.78	0.99	0.01	0.31



Alt Model-Shift Uniqueness Test

008695779-01, P = 10.238910 Days, E = 132.724707 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
508.5	39.5	3.66	6.01	5.01	2.55	1.62	504.8	502.5	35.9	33.5	1.28	0.99	0.01	1.21



Stellar Parameters For KIC 008695779

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6244^{+203}_{-248}	$3.986^{+0.390}_{-0.130}$	$-0.200^{+0.250}_{-0.300}$	$1.807^{+0.456}_{-0.740}$	$1.152^{+0.191}_{-0.191}$	$0.275^{+0.840}_{-0.115}$
	+3%/-4%	+10%/-3%	+125%/-150%	+25%/-41%	+17%/-17%	+306%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008695779-01 / KOI 6061.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-259 ± 5	$15.61^{+3.07}_{-3.32}$	1624^{+134}_{-182}	3275^{+96}_{-104}	$5.534^{+3.124}_{-1.610}$
Alt.	-219 ± 6	$10.49^{+2.22}_{-2.21}$	1635^{+133}_{-183}	3637^{+169}_{-154}	10^{+6}_{-3}

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

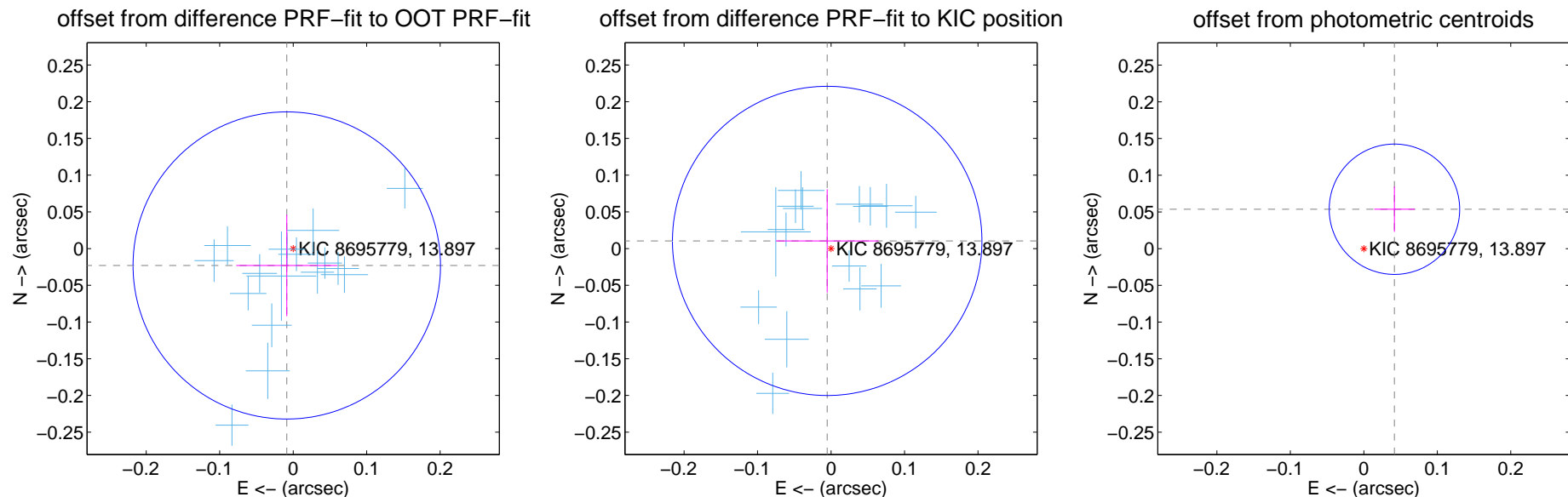
DV Centroid Data

Supplemental centroid analysis for 008695779-01. Kepler magnitude: 13.90. Transit SNR 379.35

There are 16 quarters with good PRF difference image offsets

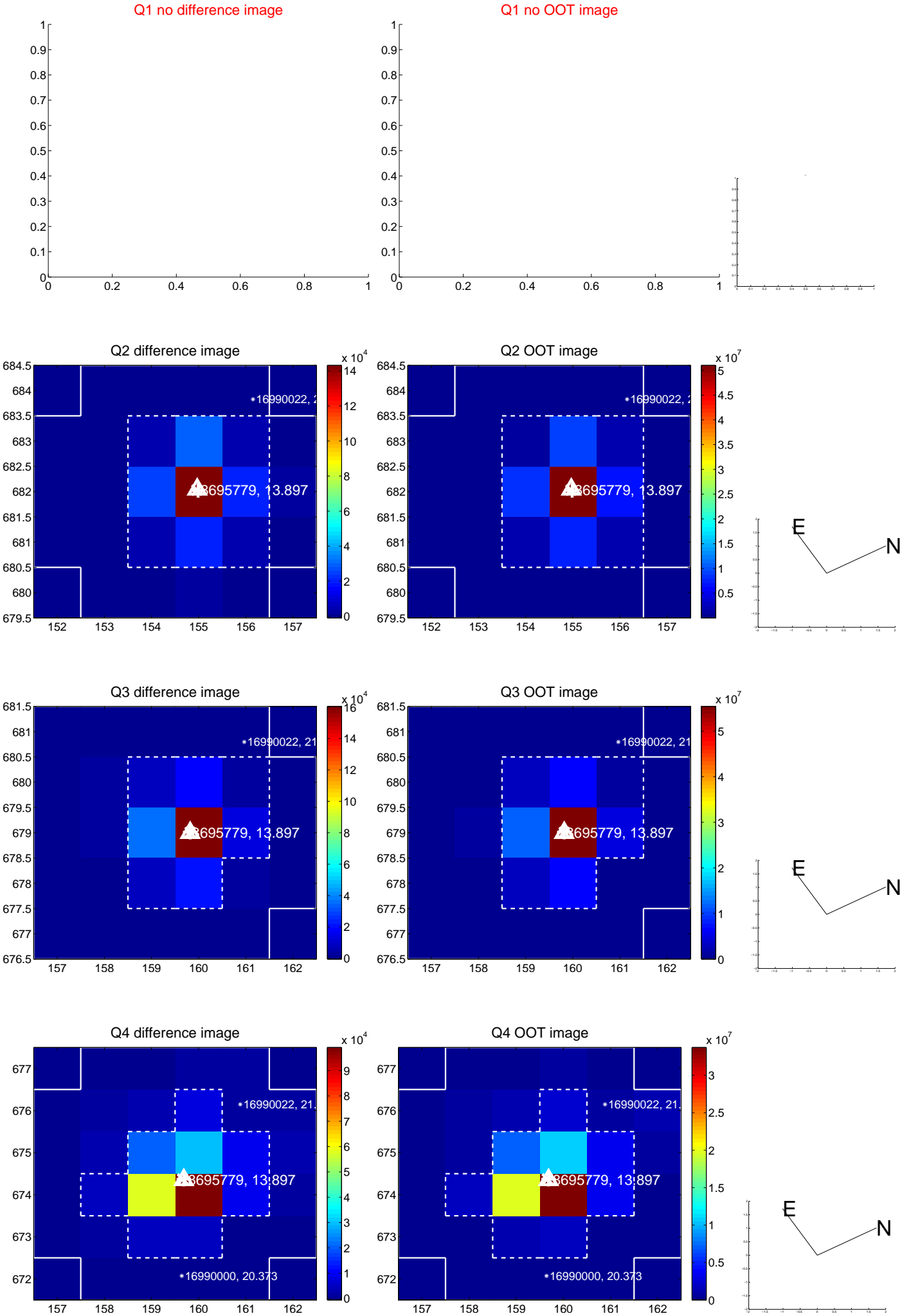
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.070	0.35	0.009 ± 0.069	-0.023 ± 0.069
PRF-fit source offset from KIC position	0.012 ± 0.070	0.17	0.005 ± 0.070	0.010 ± 0.070
photometric centroid source offset	0.07 ± 0.03	2.30	-0.04 ± 0.03	0.05 ± 0.03

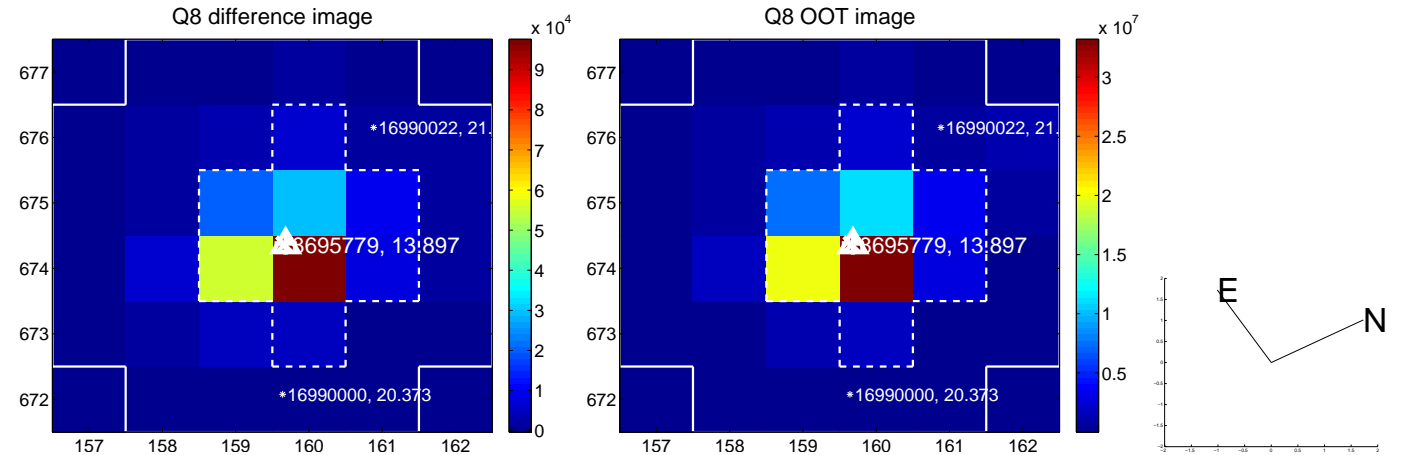
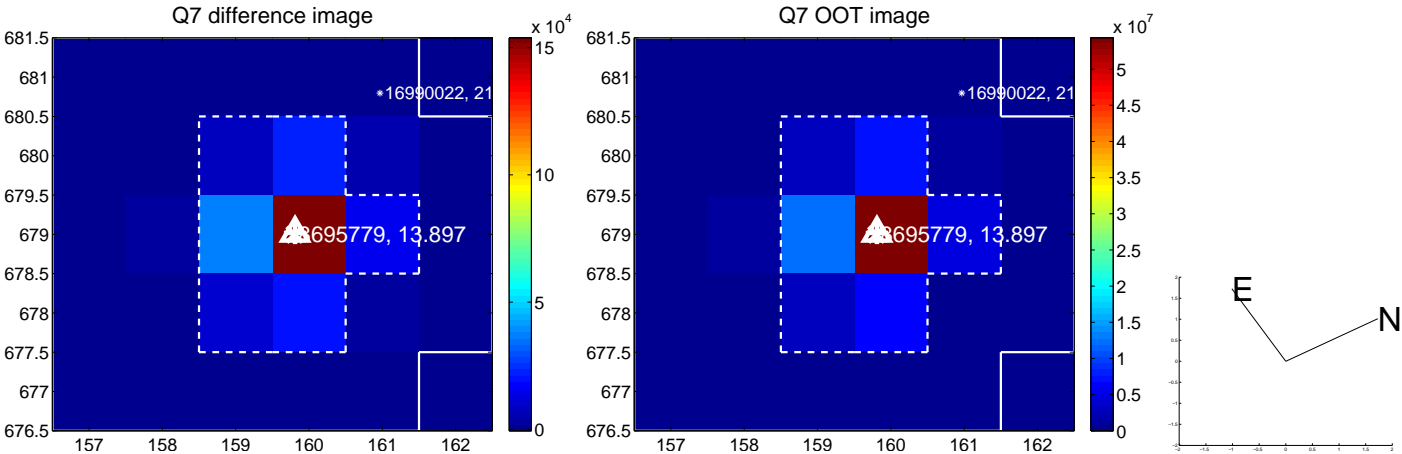
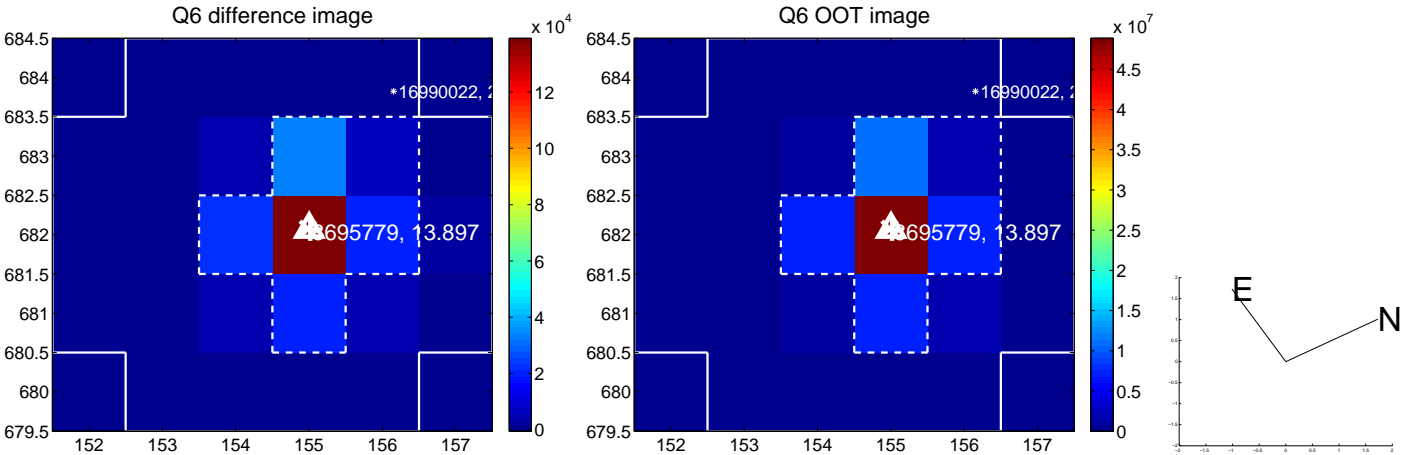
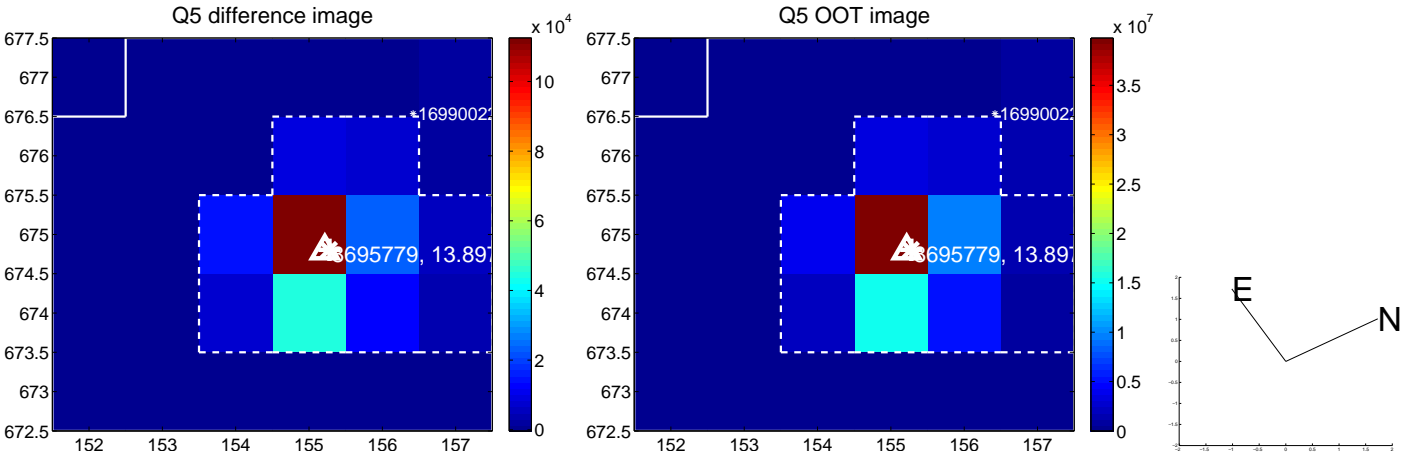


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

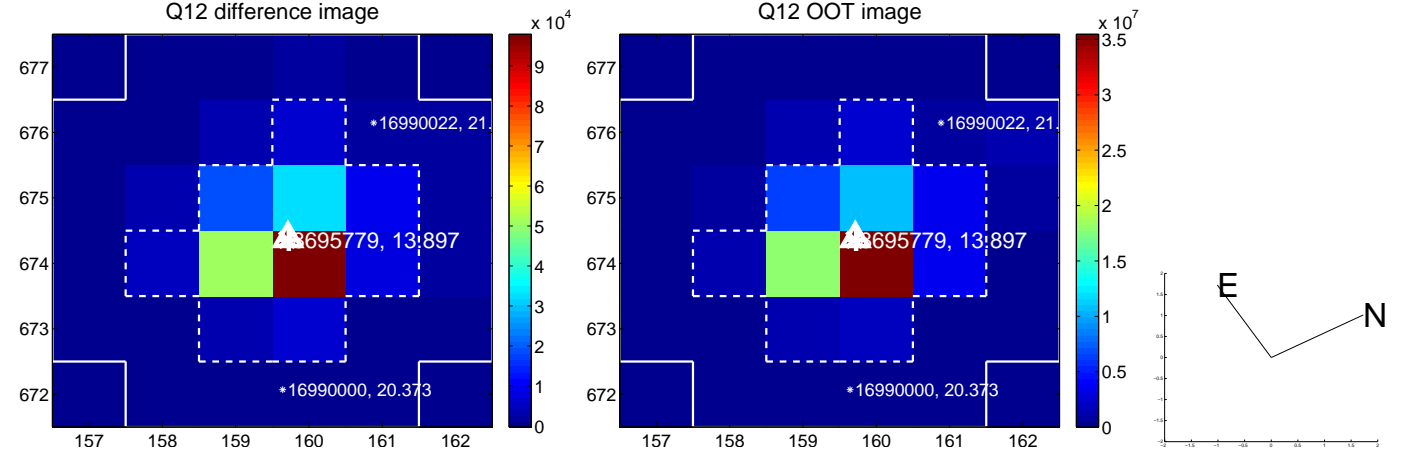
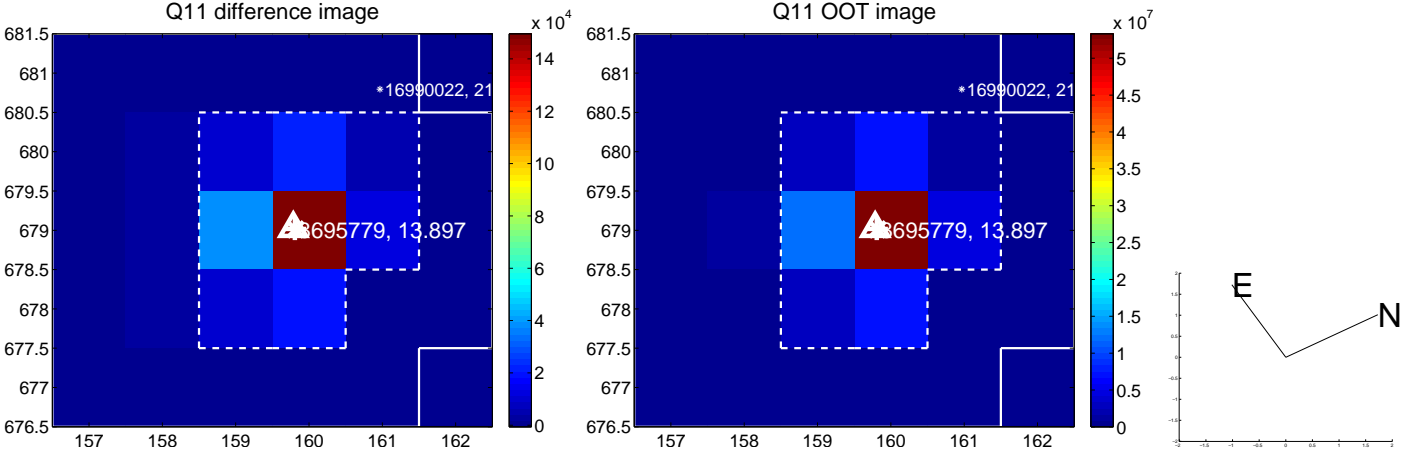
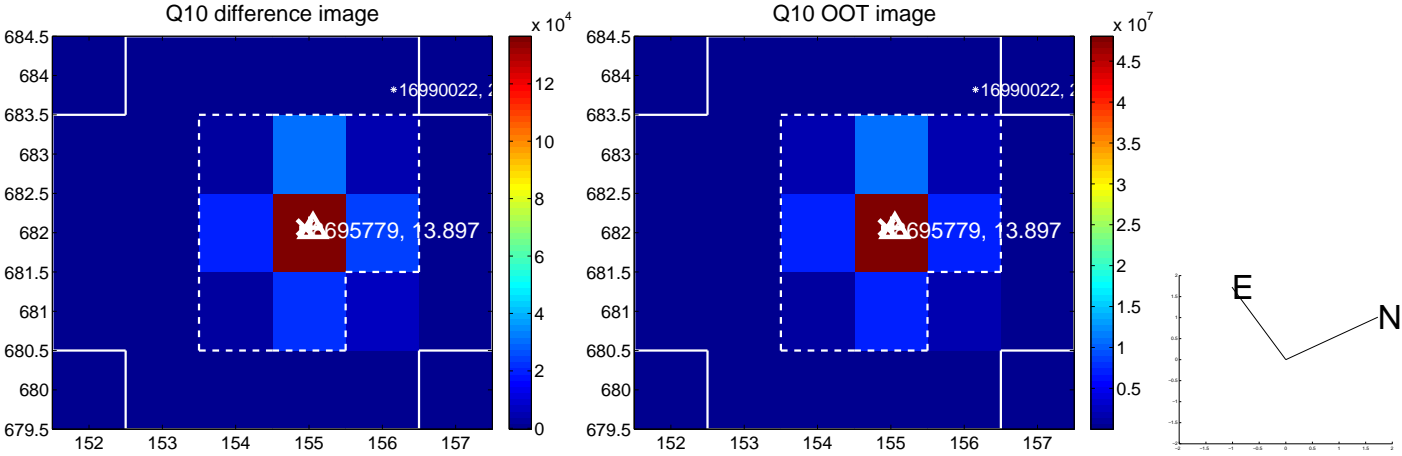
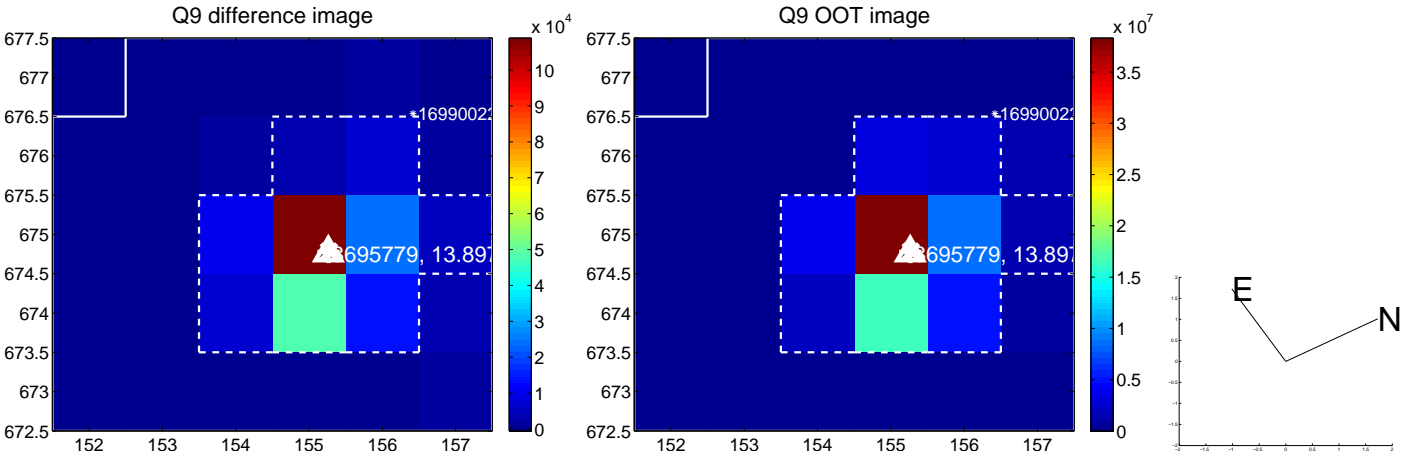
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



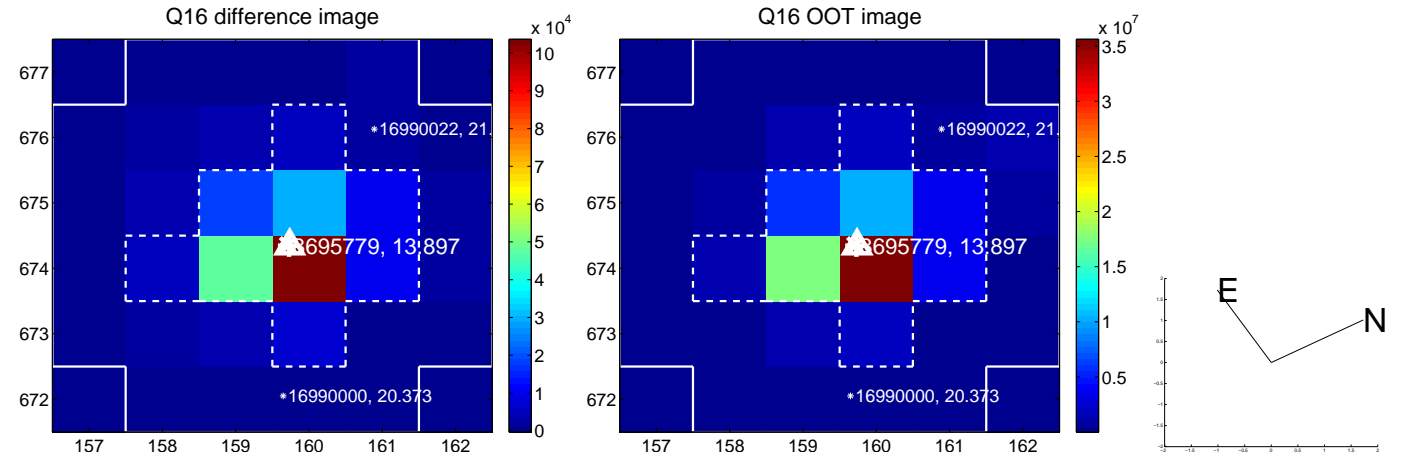
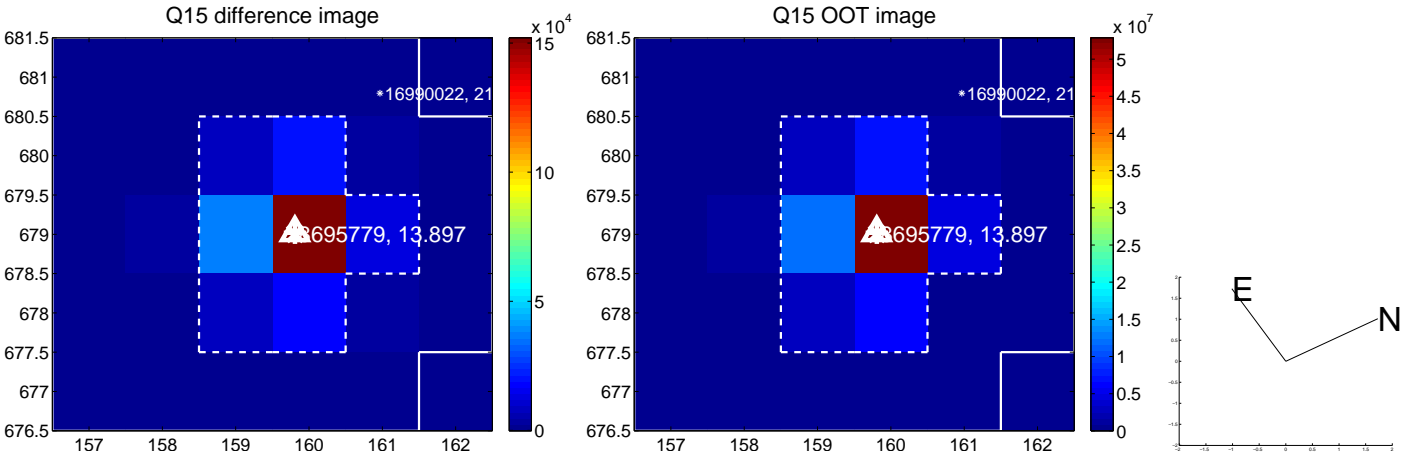
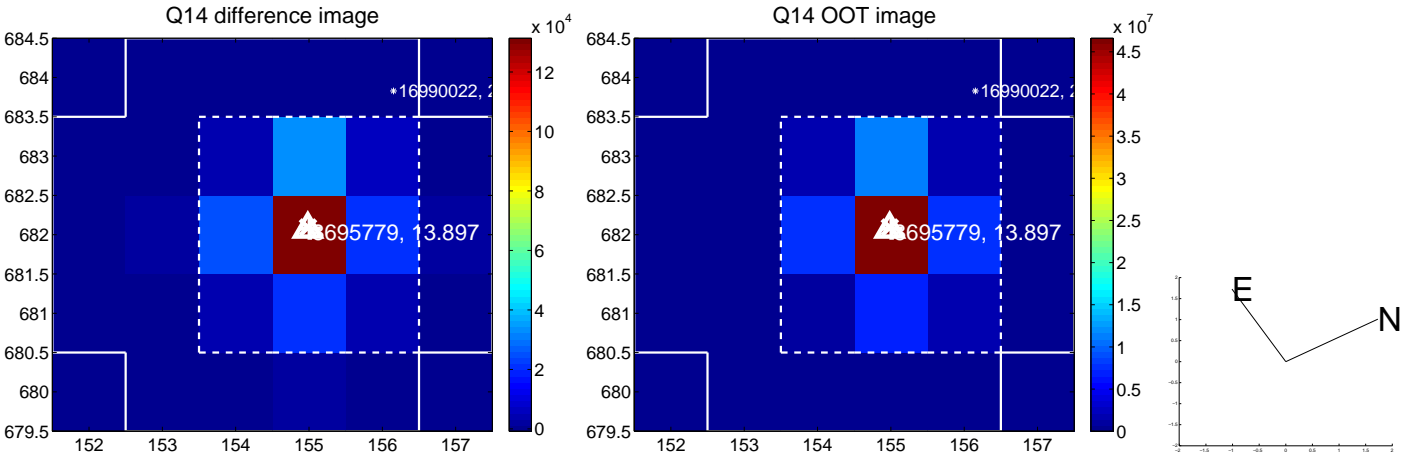
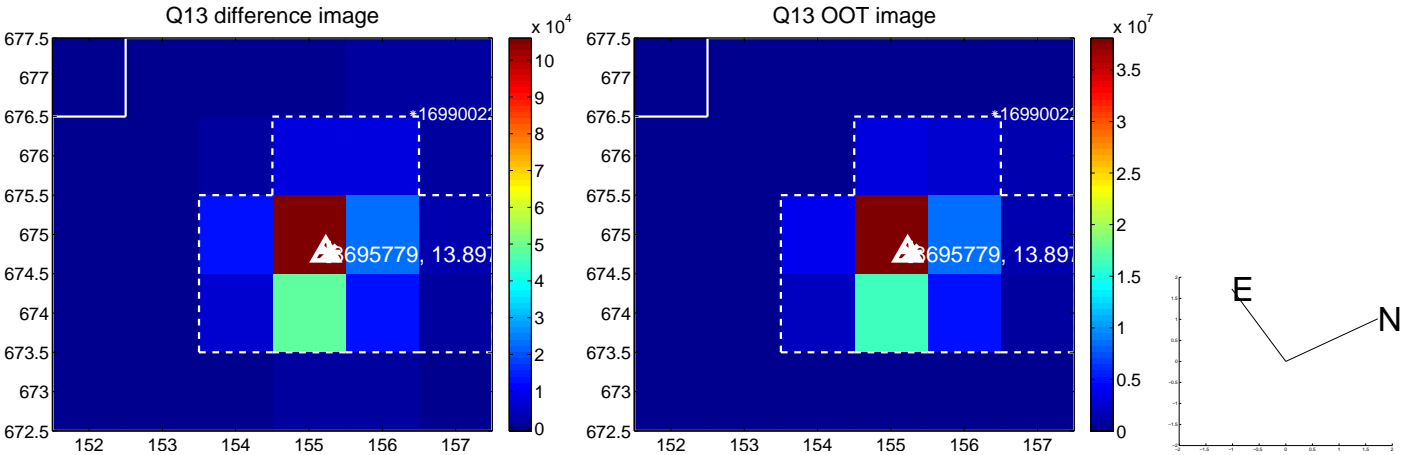
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



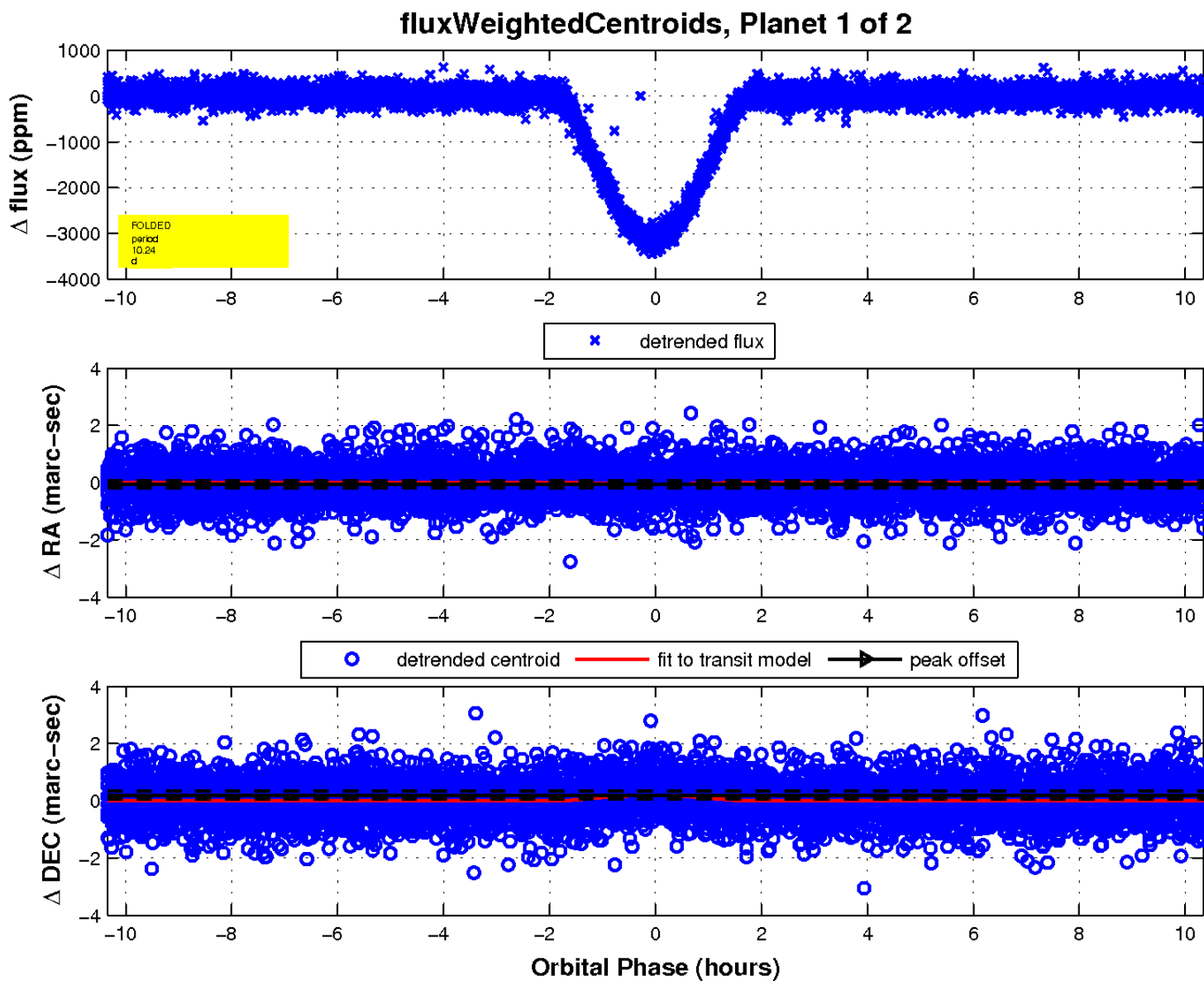
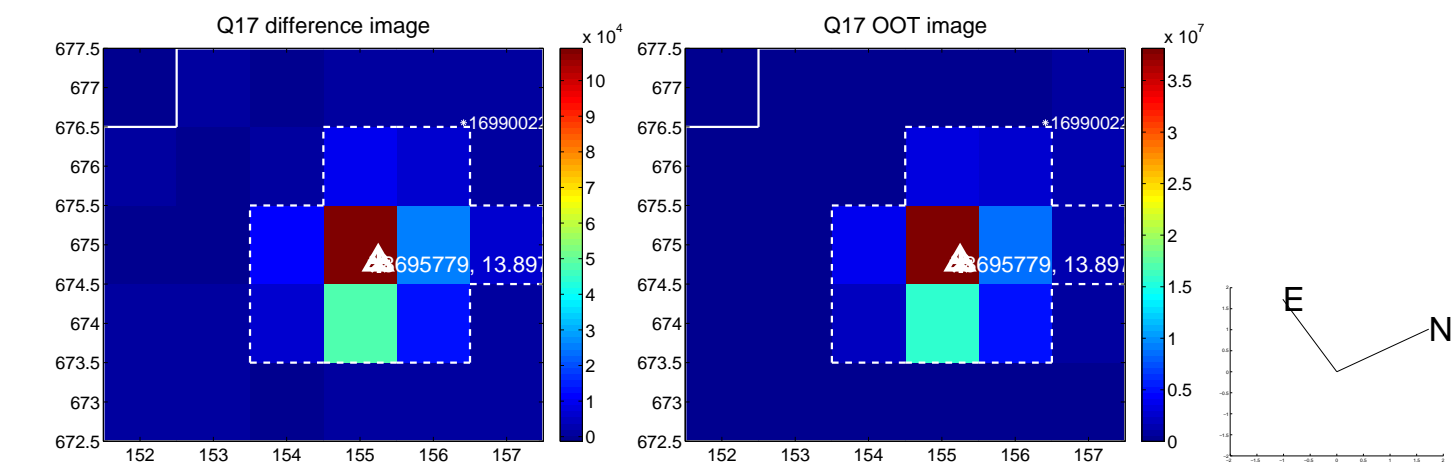
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

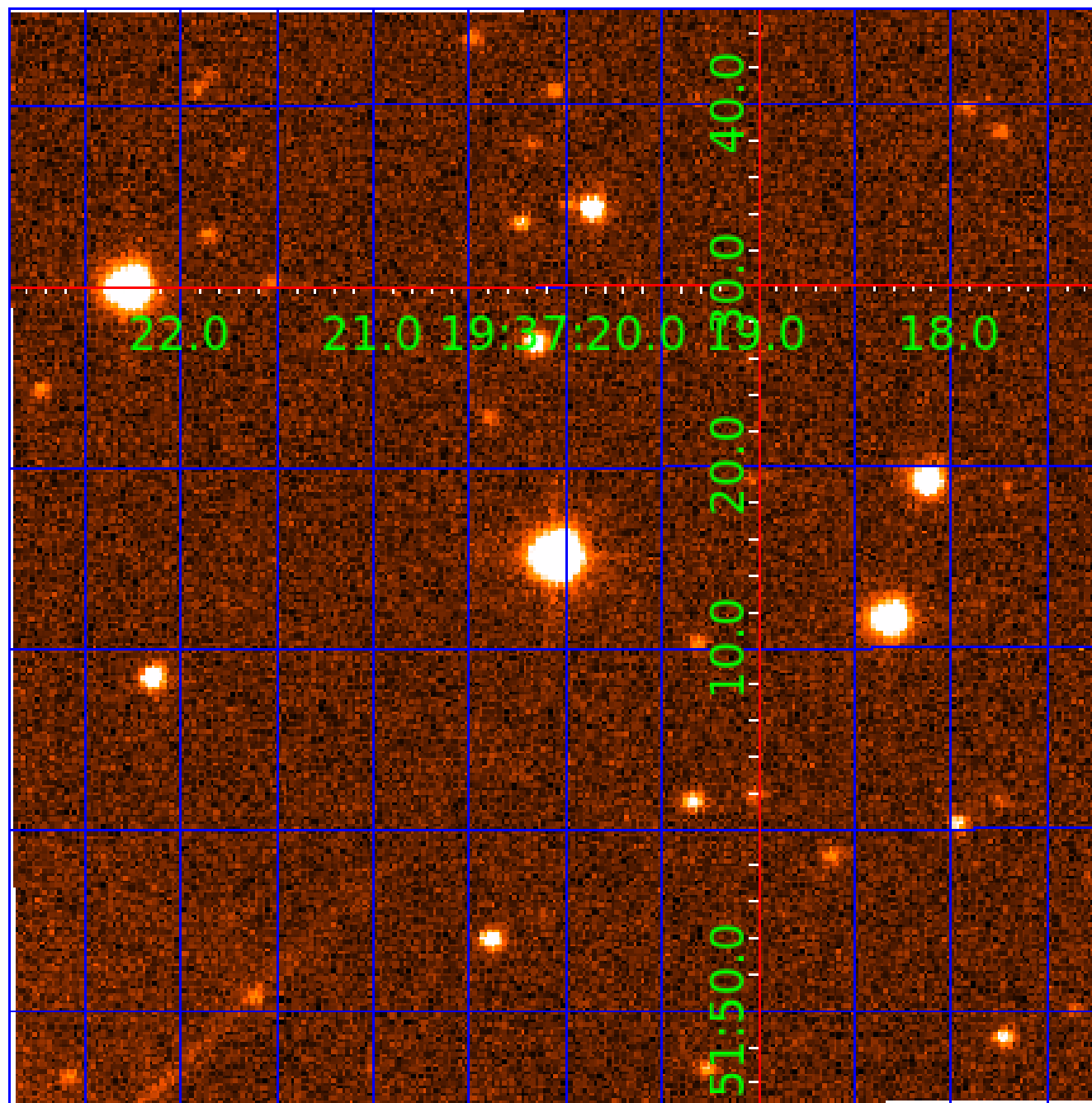


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008695779

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})
008695779-01	OBS	6061.01	10.238941	132.722624	3123.8	3.449	386.7	379.4	1.81	6244	16.34	474.65
008695779-02	OBS	No	10.238889	137.638189	259.1	5.006	33.0	38.0	1.81	6244	3.91	474.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008695779-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
008695779-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

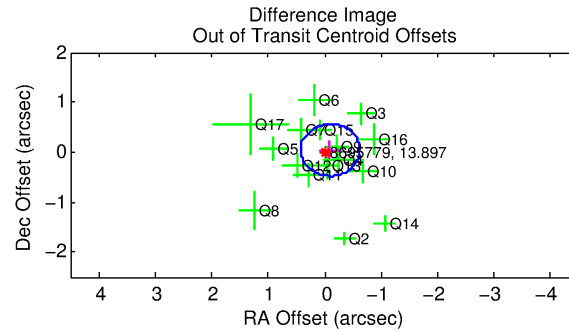
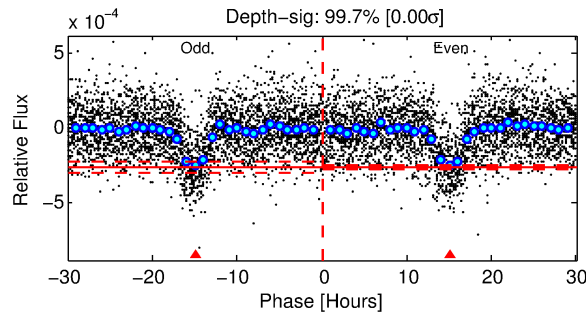
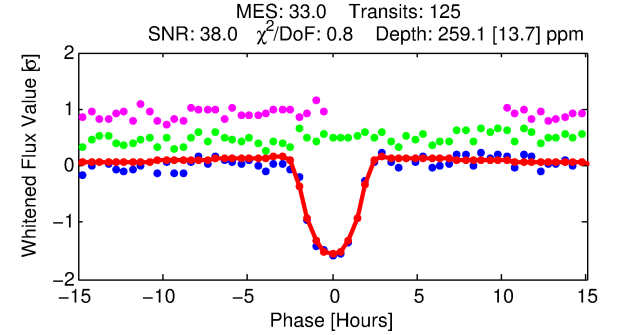
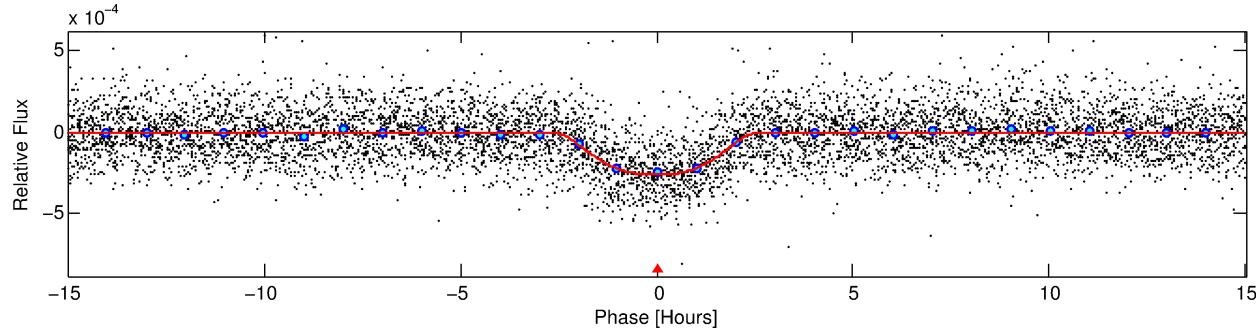
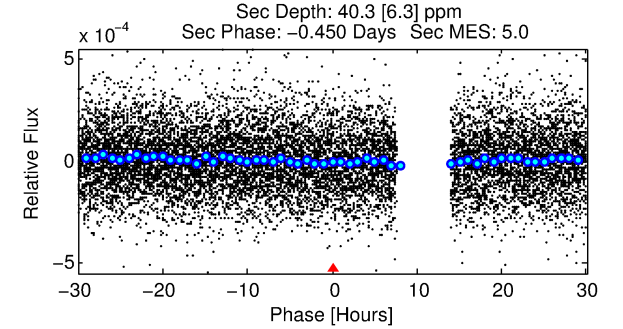
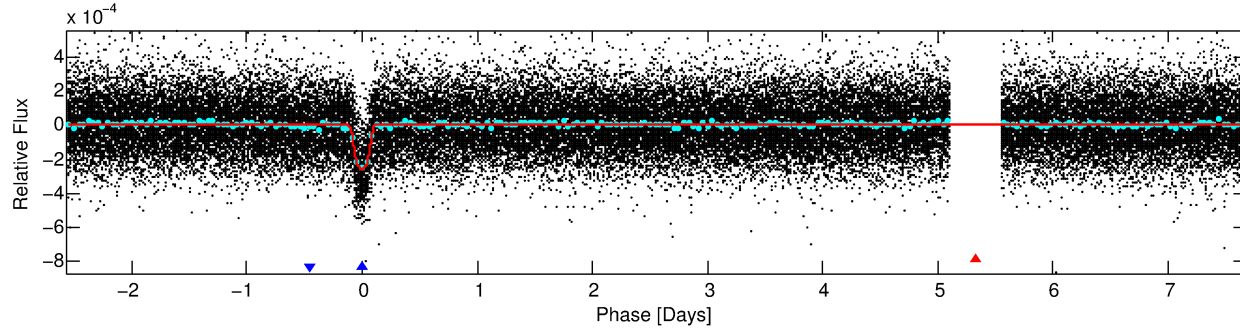
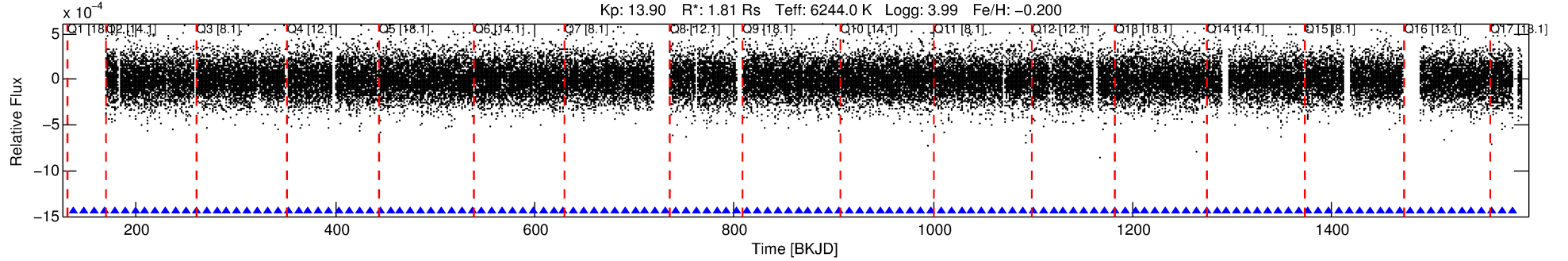
Ephemeris Match Information For 008695779-02

No Significant Match Found

DV One-Page Summary

KIC: 8695779 Candidate: 2 of 2 Period: 10.239 d

KOI: K06061 Corr: No Ephemeris Match



DV Fit Results:

Period = 10.23889 [0.00004] d
Epoch = 137.6382 [0.0031] BKJD
Rp/R* = 0.0198 [0.0008]
a/R* = 4.52 [0.24]
b = 0.98 [0.00]
Seff = 474.66 [321.29]
Teq = 1190 [201] K
Rp = 3.91 [1.61] Re
a = 0.0968 [0.0392] AU
Ag = 13.58 [9.24] [1.36σ]
Teffp = 3533 [208] K [8.08σ]

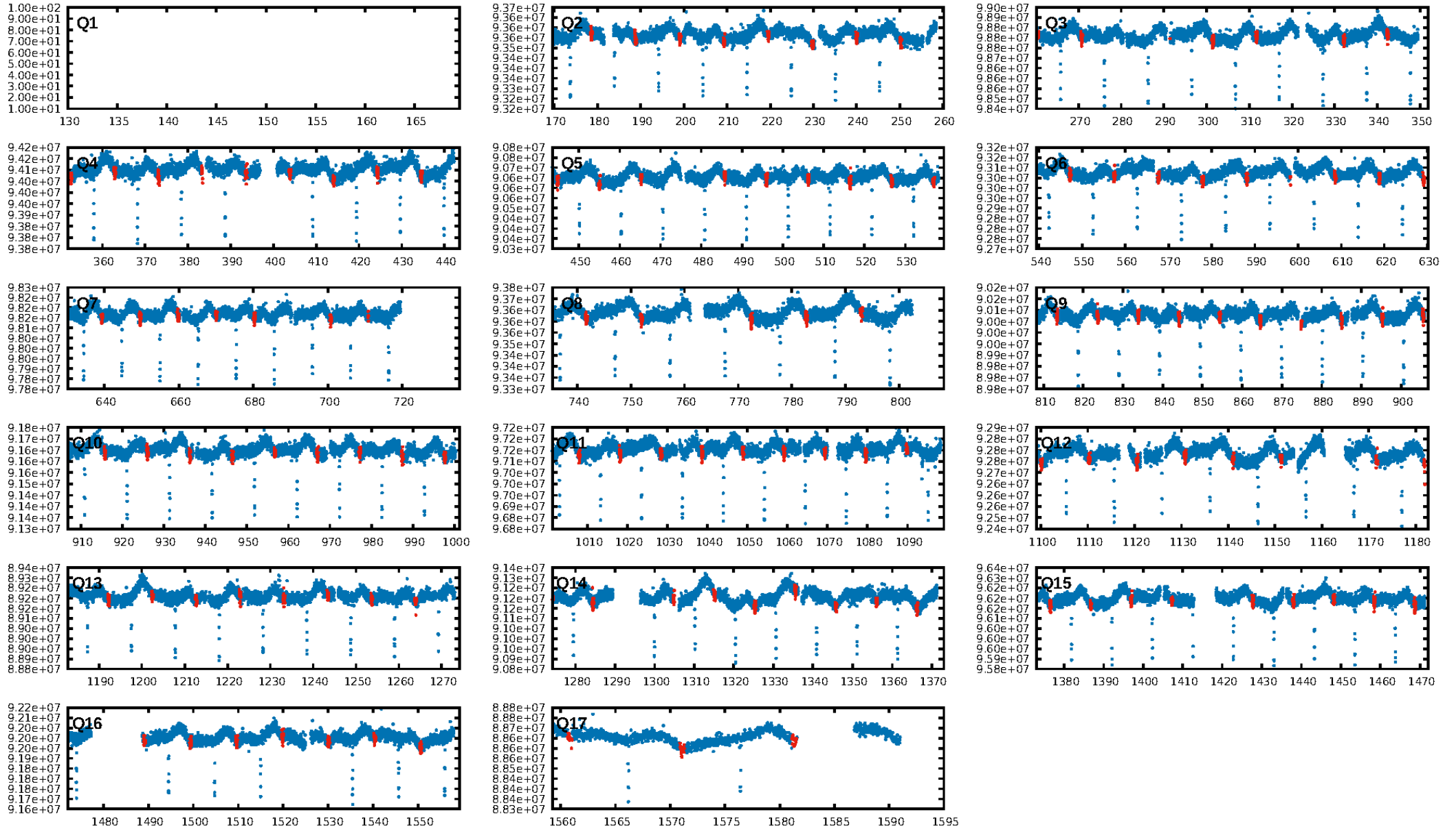
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 98.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.68e-229
RollingBand-fgt: 1.00 [122/122]
GhostDiagnostic-chr: 3.166
Centroid-sig: 10.0%
Centroid-so: 0.287 arcsec [1.04σ]
OotOffset-rm: 0.107 arcsec [0.62σ]
KicOffset-rm: 0.184 arcsec [0.98σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

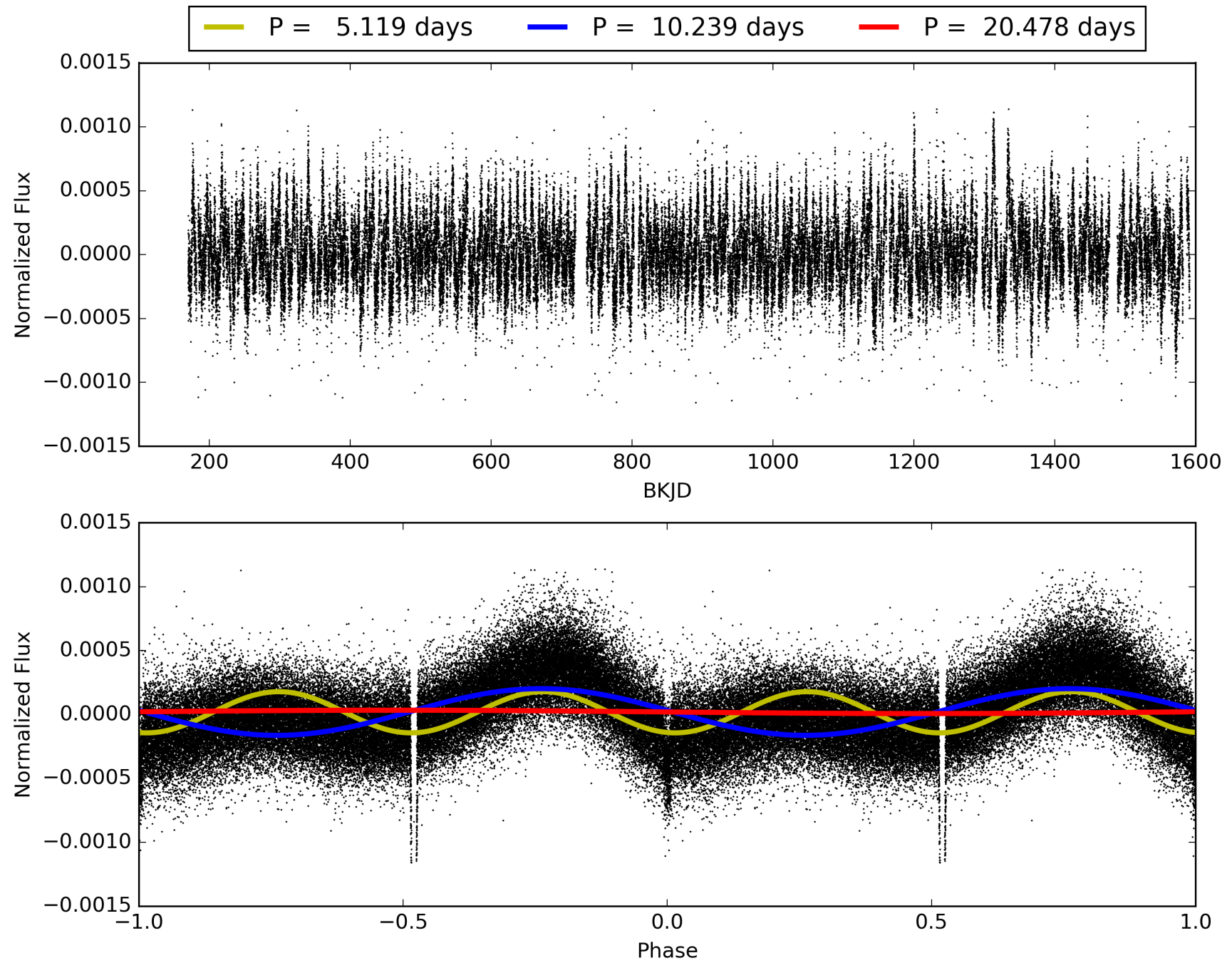
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:13:09 Z

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

TCE 008695779-02, PDC Light Curves

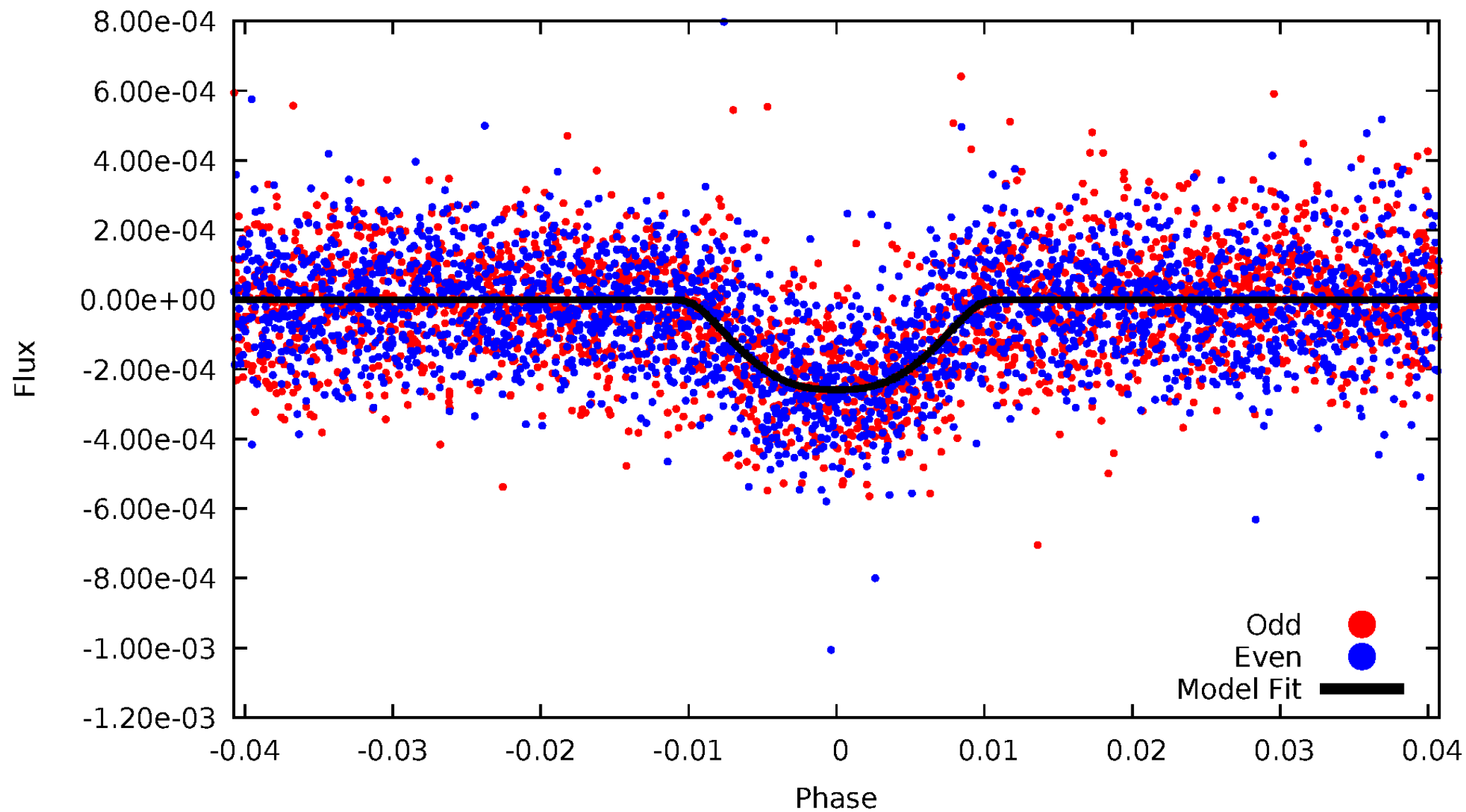


TCE 008695779-02



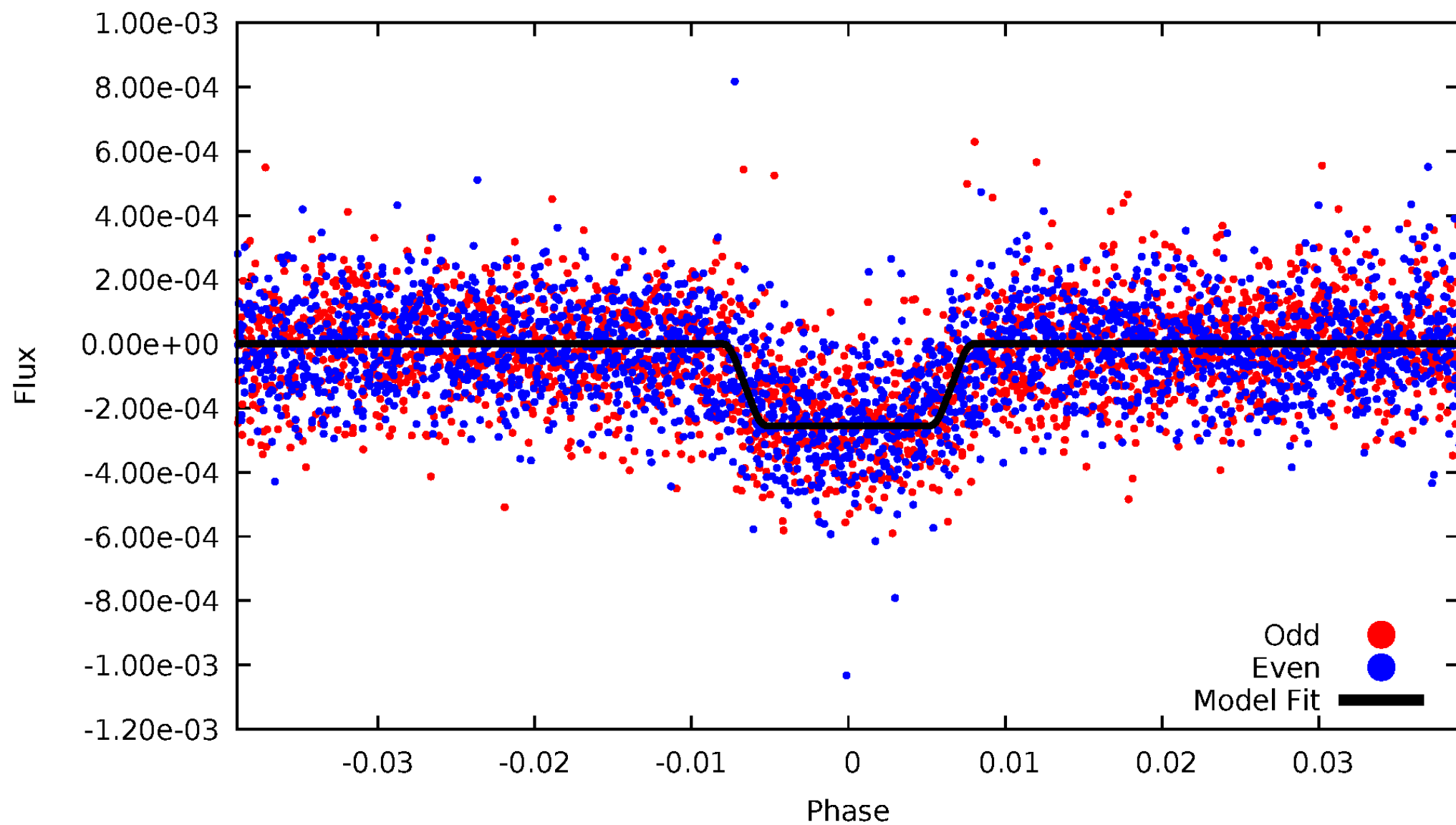
DV Odd/Even

TCE 008695779-02



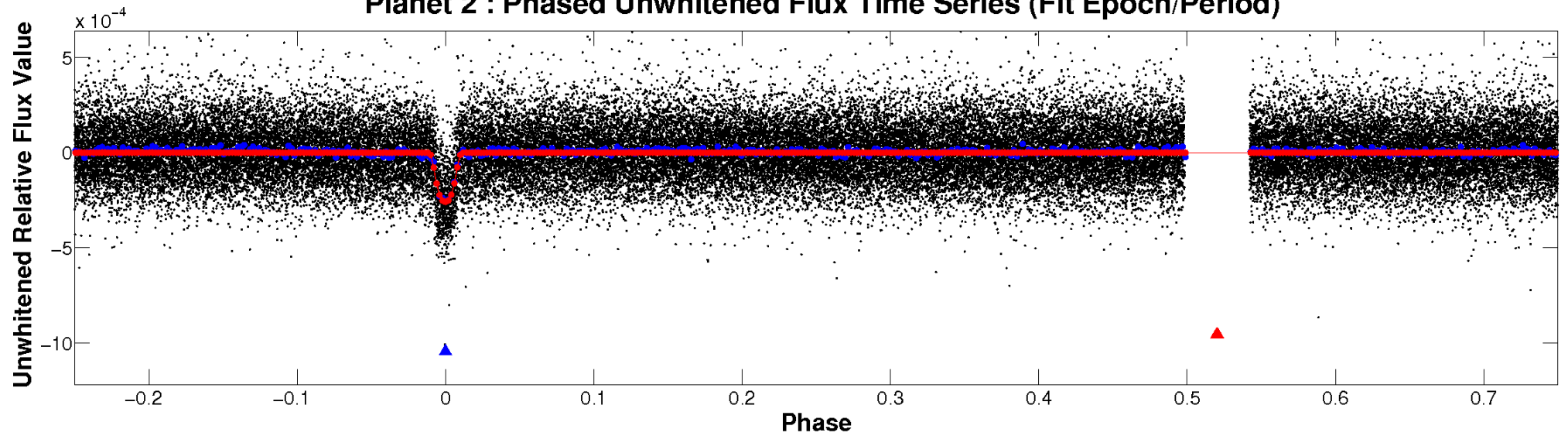
ALT Odd/Even

TCE 008695779-02

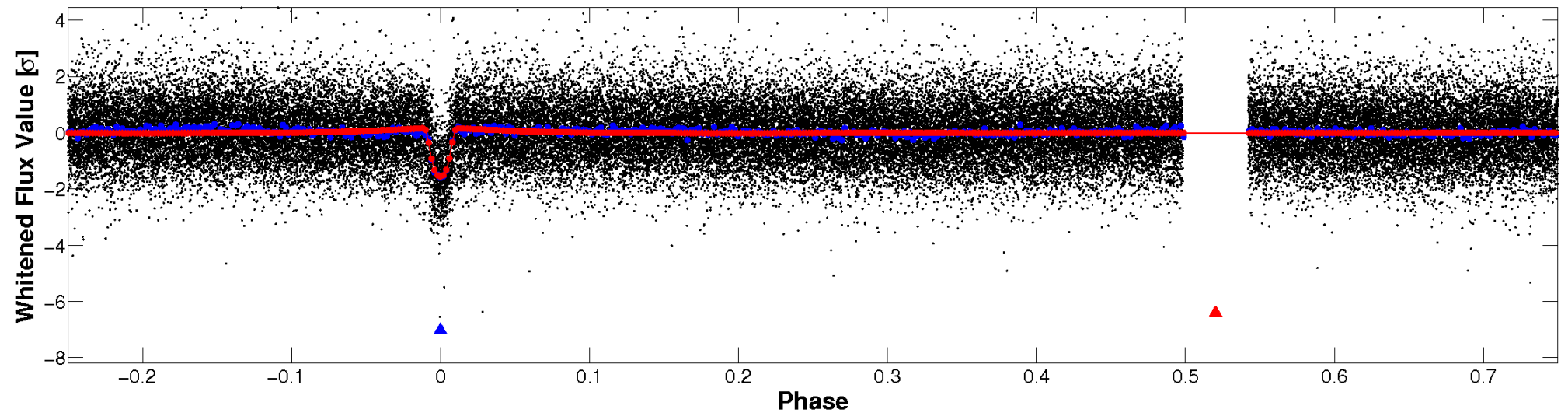


Non-Whitened Vs. Whitened Light Curve

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

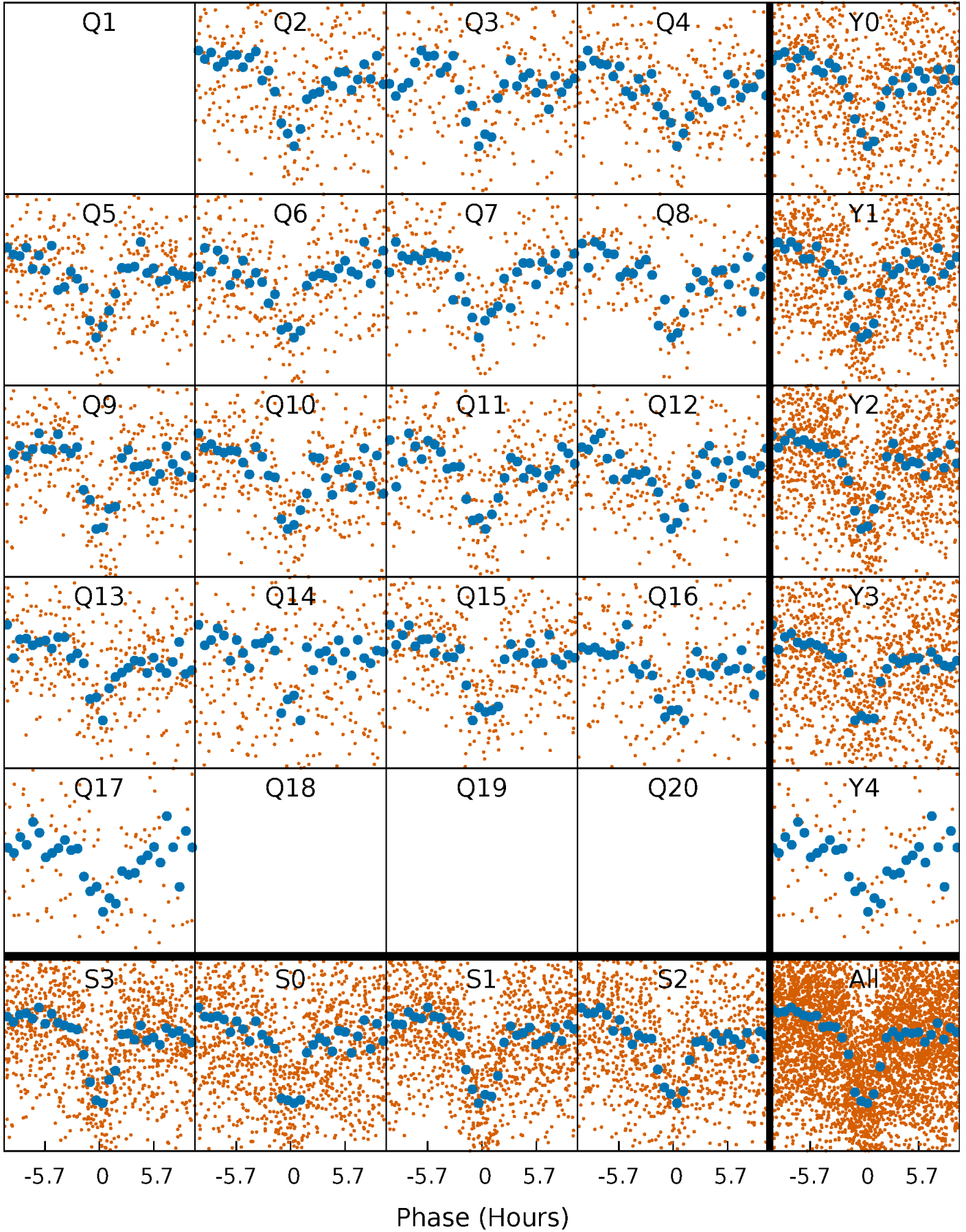


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



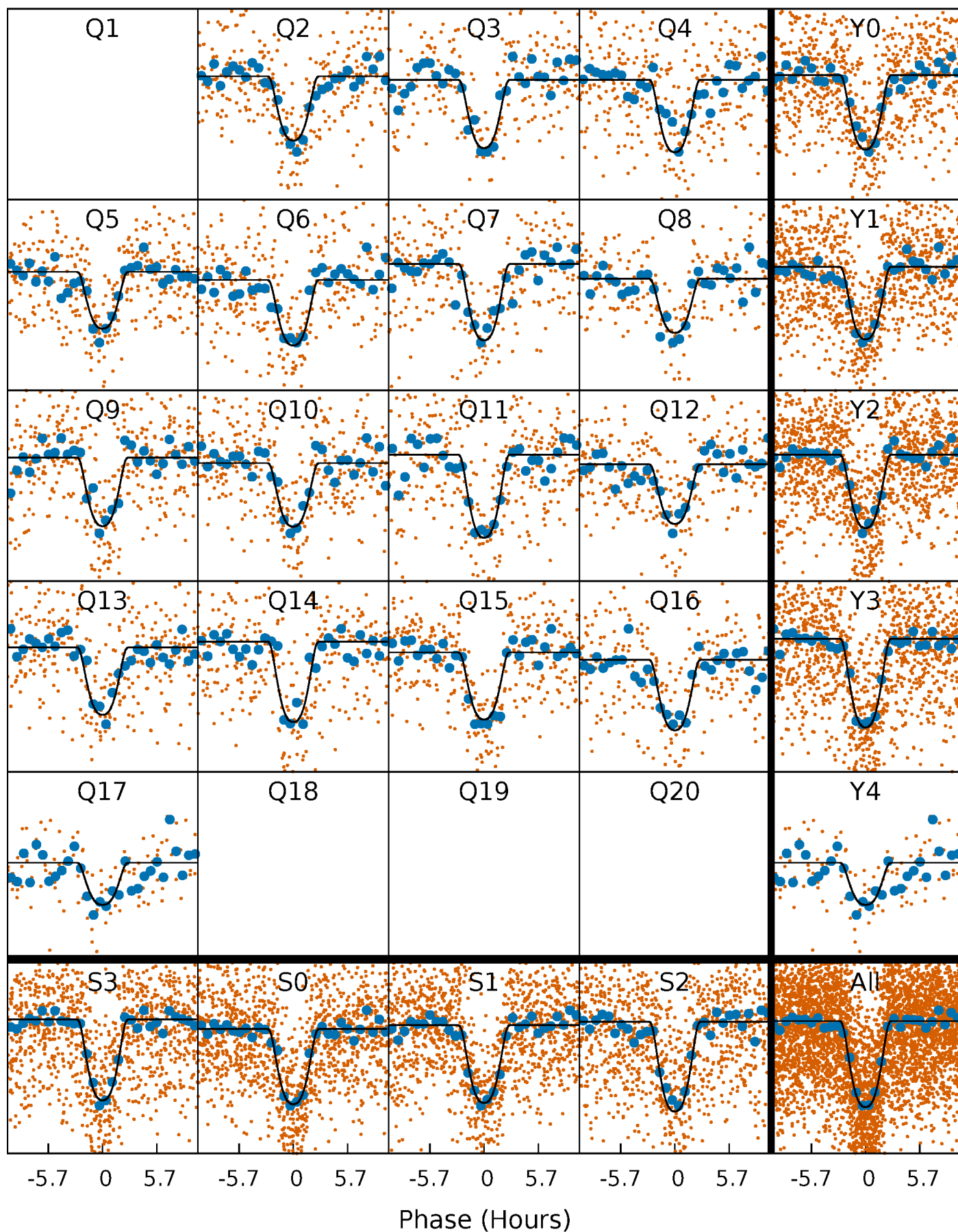
PDC Quarter-Phased Transit Curves

TCE 008695779-02 P= 10.238889 Days $T_0=137.638189$ (BKJD)



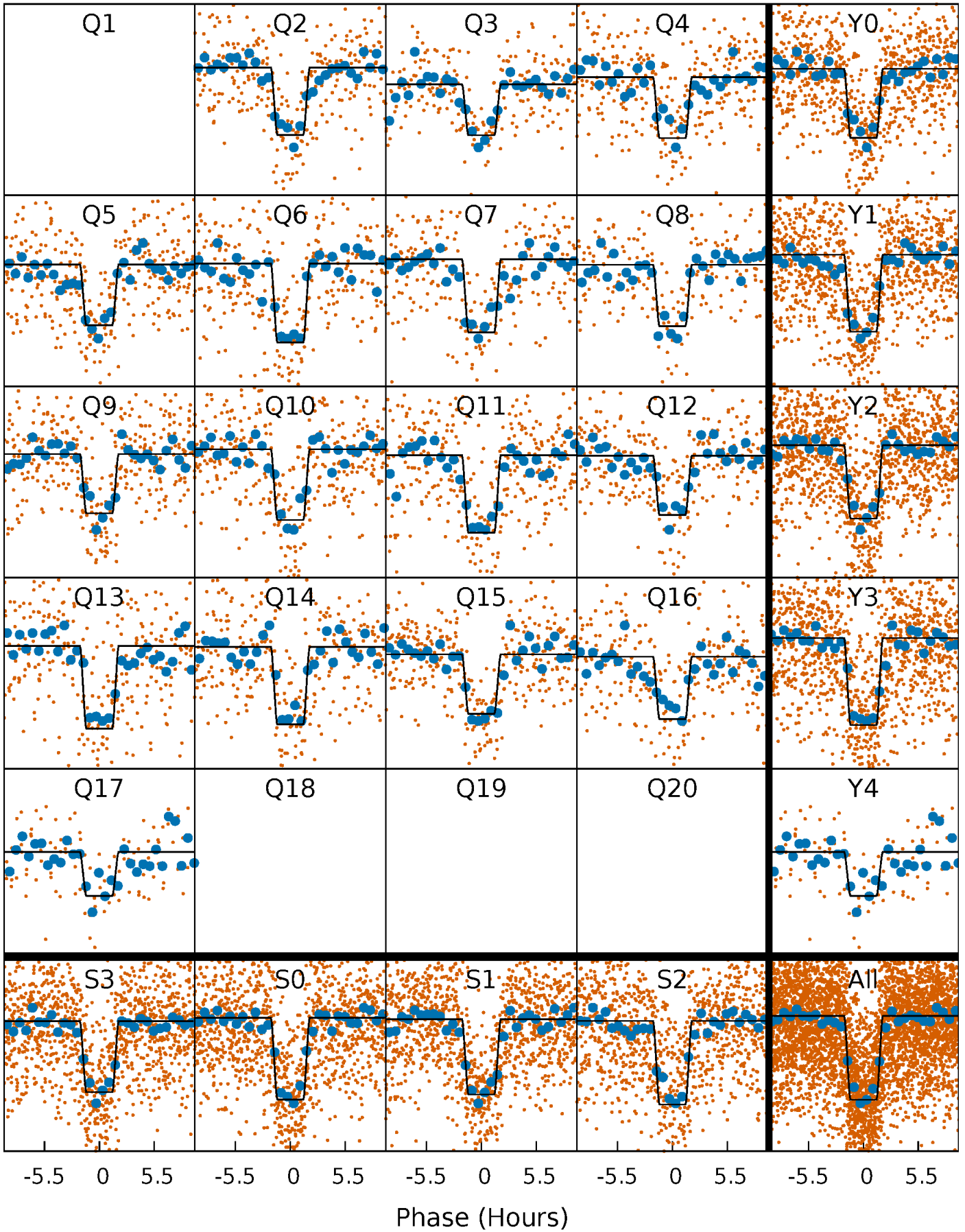
DV Quarter-Phased Transit Curves

TCE 008695779-02 P= 10.238889 Days $T_0=137.638189$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

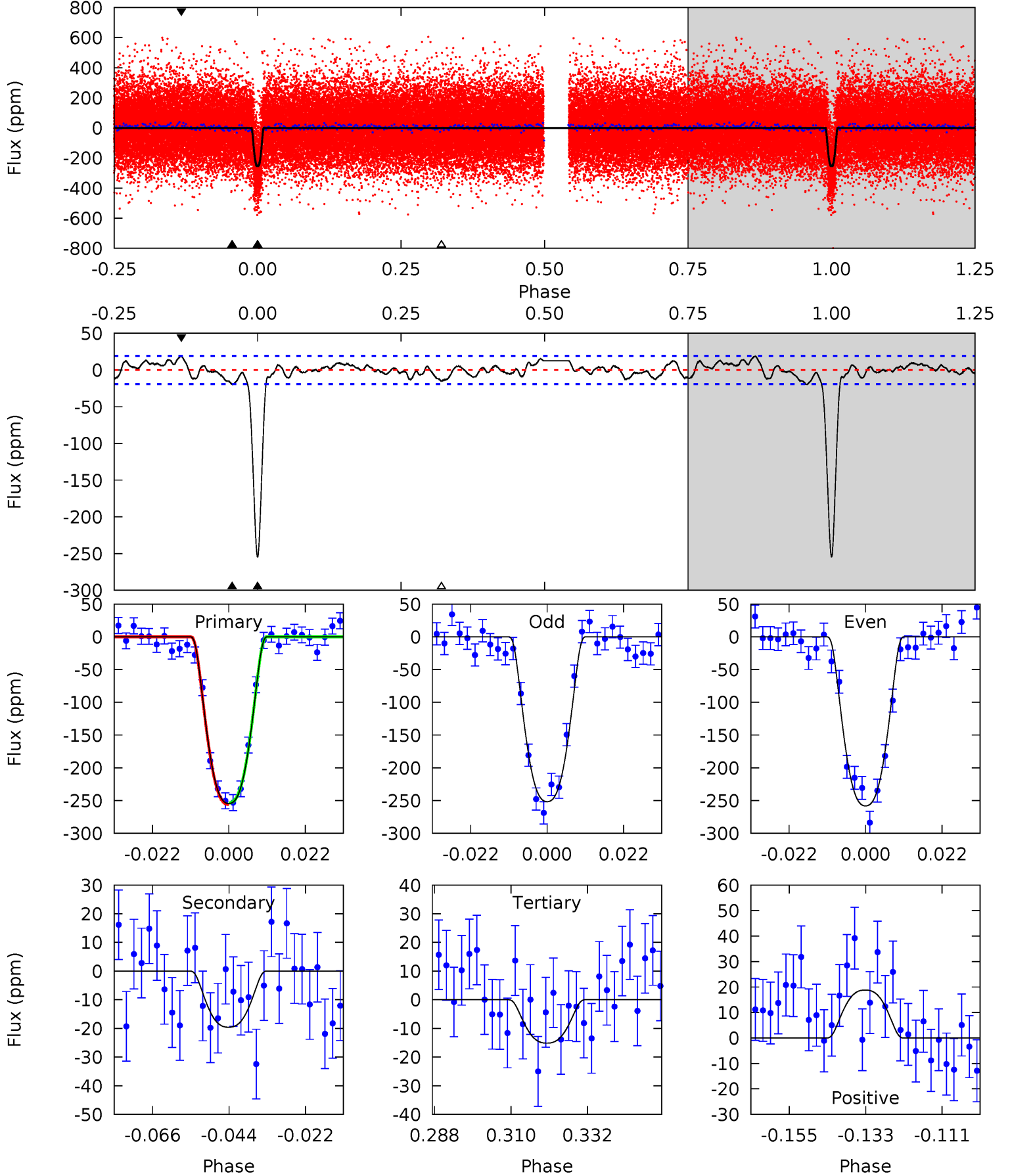
TCE 008695779-02 P= 10.238789 Days $T_0=137.645676$ (BKJD)



DV Model-Shift Uniqueness Test

008695779-02, P = 10.238889 Days, E = 137.638189 Days

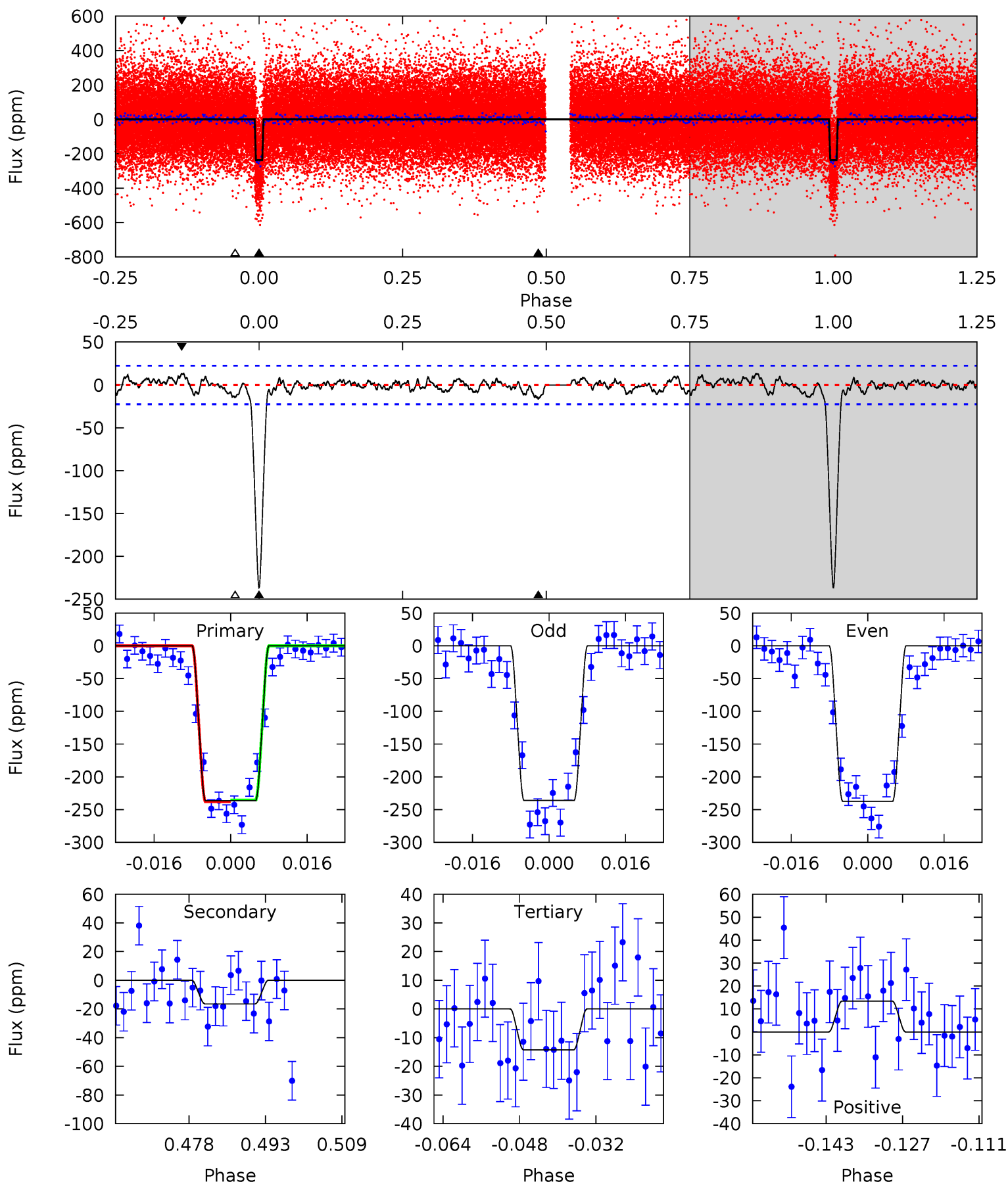
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.6	4.97	3.84	4.78	4.87	2.29	1.74	60.8	59.8	1.13	0.20	0.83	1.02	0.07	0.30



Alt Model-Shift Uniqueness Test

008695779-02, $P = 10.238789$ Days, $E = 137.645676$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.0	3.62	3.14	2.95	4.94	2.41	1.17	48.9	49.1	0.48	0.66	0.12	1.04	0.05	0.30



Stellar Parameters For KIC 008695779

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6244^{+203}_{-248}	$3.986^{+0.390}_{-0.130}$	$-0.200^{+0.250}_{-0.300}$	$1.807^{+0.456}_{-0.740}$	$1.152^{+0.191}_{-0.191}$	$0.275^{+0.840}_{-0.115}$
	+3%/-4%	+10%/-3%	+125%/-150%	+25%/-41%	+17%/-17%	+306%/-42%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008695779-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 4	$3.83^{+0.57}_{-0.80}$	1630^{+123}_{-170}	3419^{+149}_{-141}	$7.197^{+3.810}_{-2.290}$
Alt.	-16 ± 5	$3.03^{+0.51}_{-0.65}$	1621^{+131}_{-168}	3566^{+196}_{-214}	$9.278^{+6.064}_{-3.161}$

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

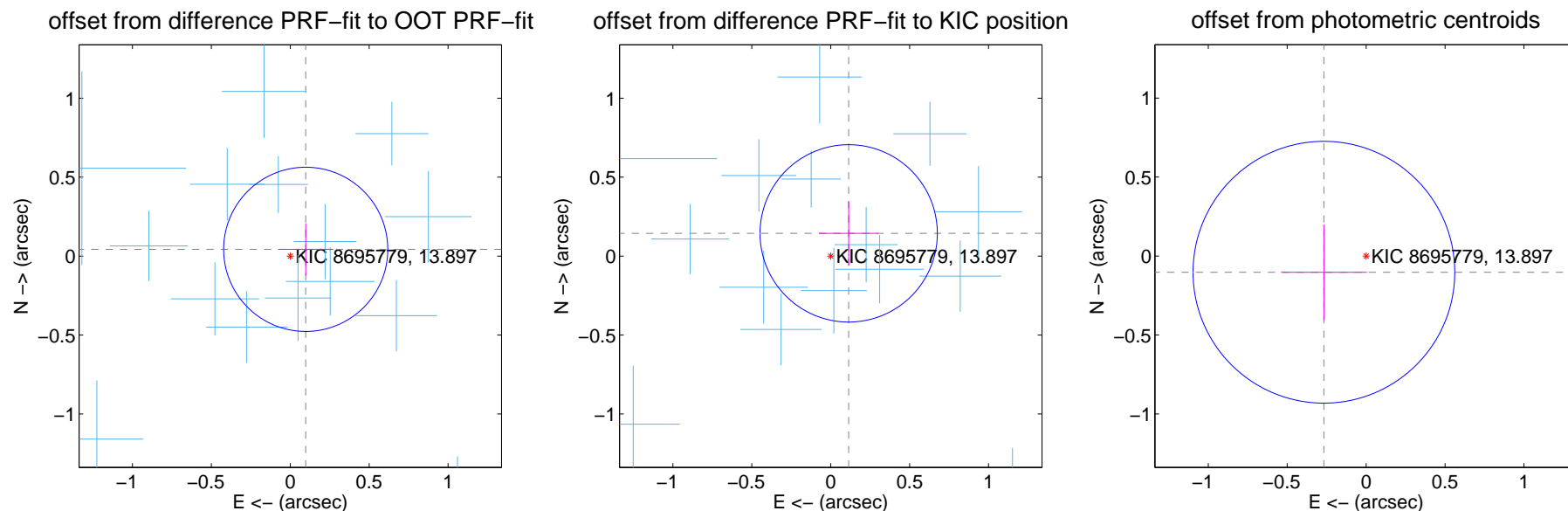
DV Centroid Data

Supplemental centroid analysis for 008695779-02. Kepler magnitude: 13.90. Transit SNR 37.95

There are 16 quarters with good PRF difference image offsets

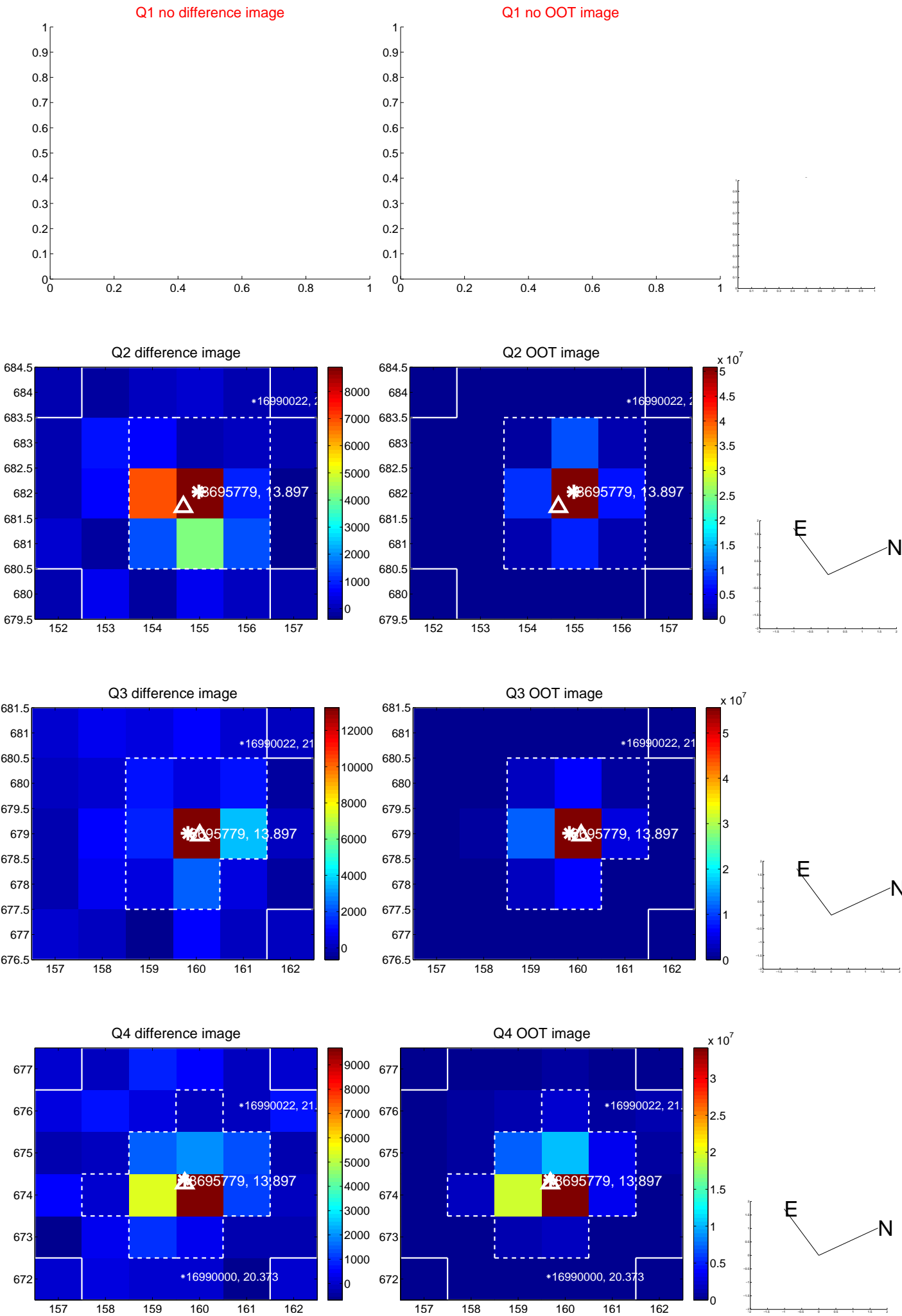
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.173	0.62	-0.098 ± 0.175	0.043 ± 0.164
PRF-fit source offset from KIC position	0.184 ± 0.187	0.98	-0.114 ± 0.188	0.144 ± 0.203
photometric centroid source offset	0.29 ± 0.28	1.04	0.27 ± 0.27	-0.10 ± 0.30

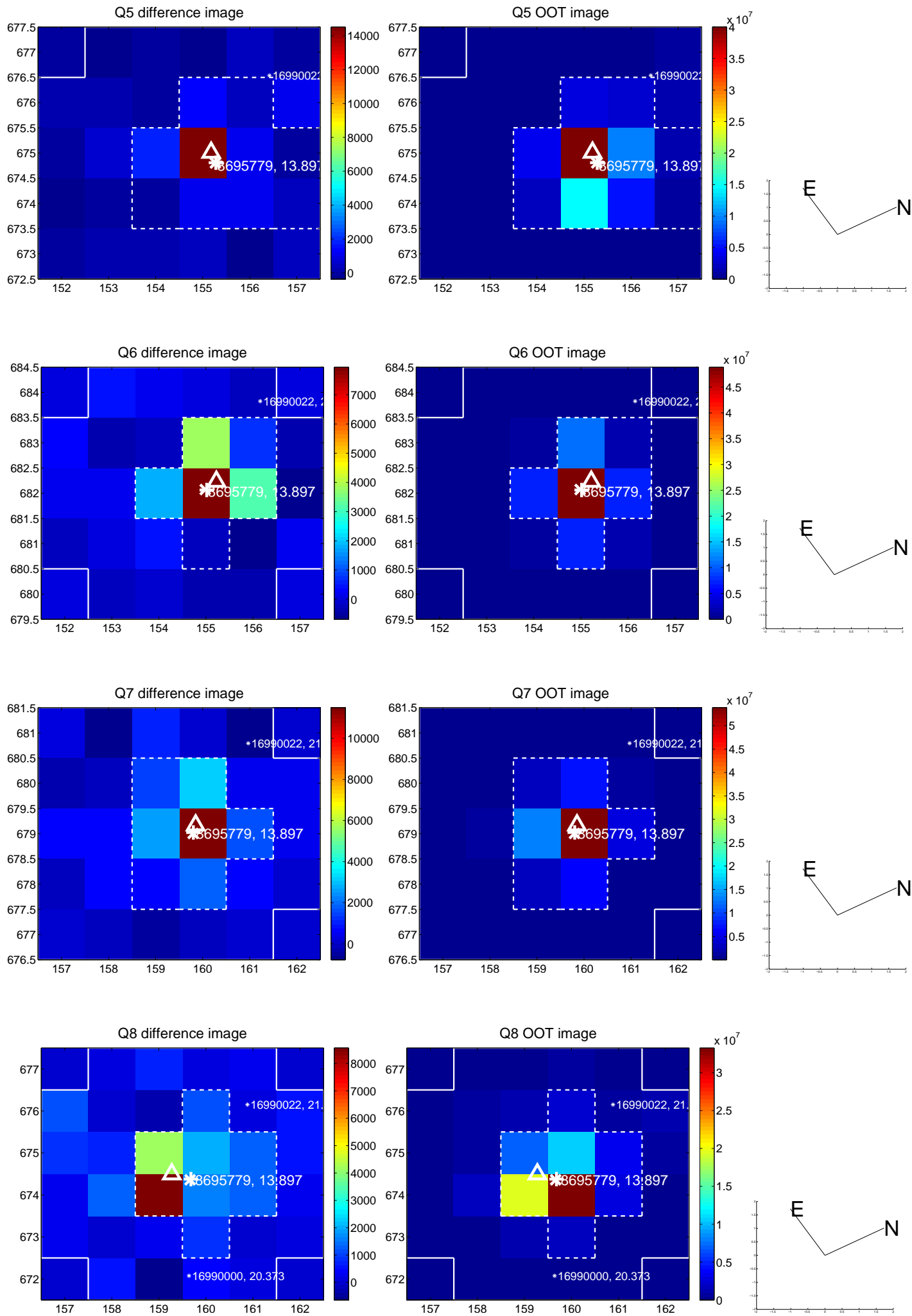


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

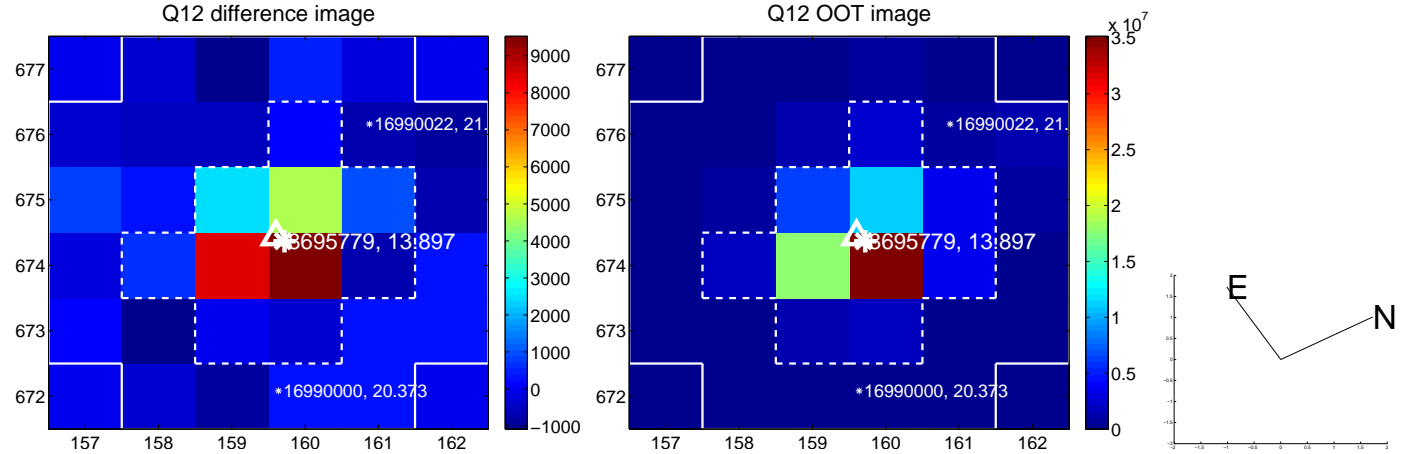
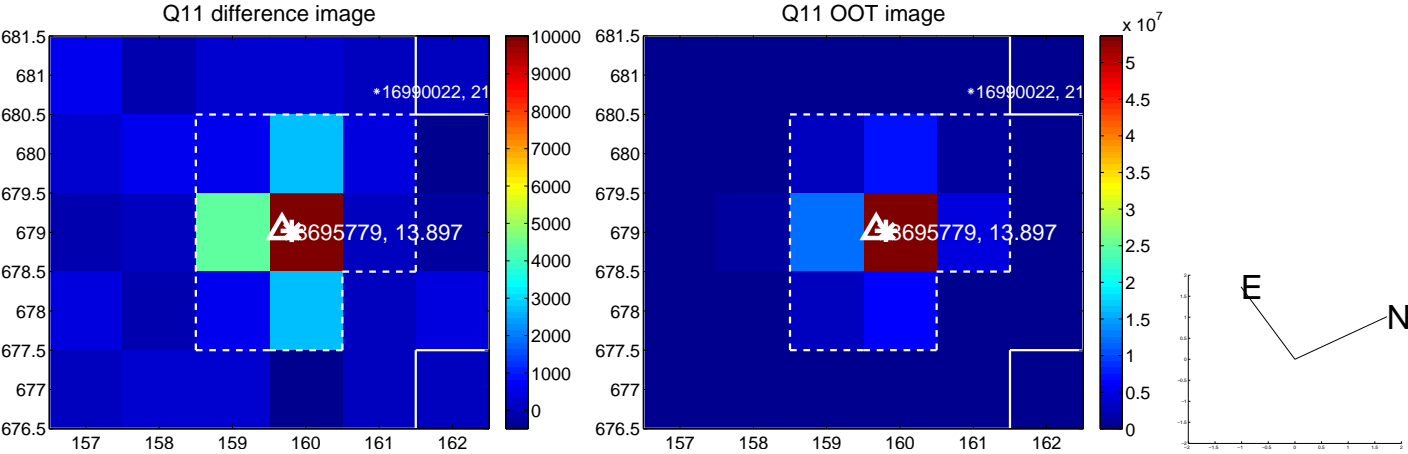
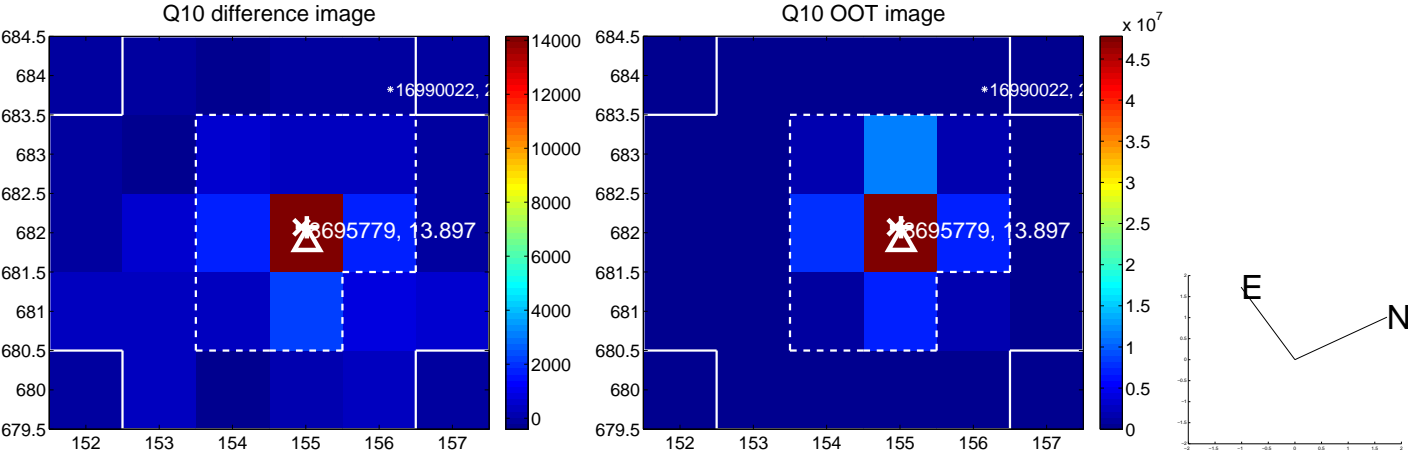
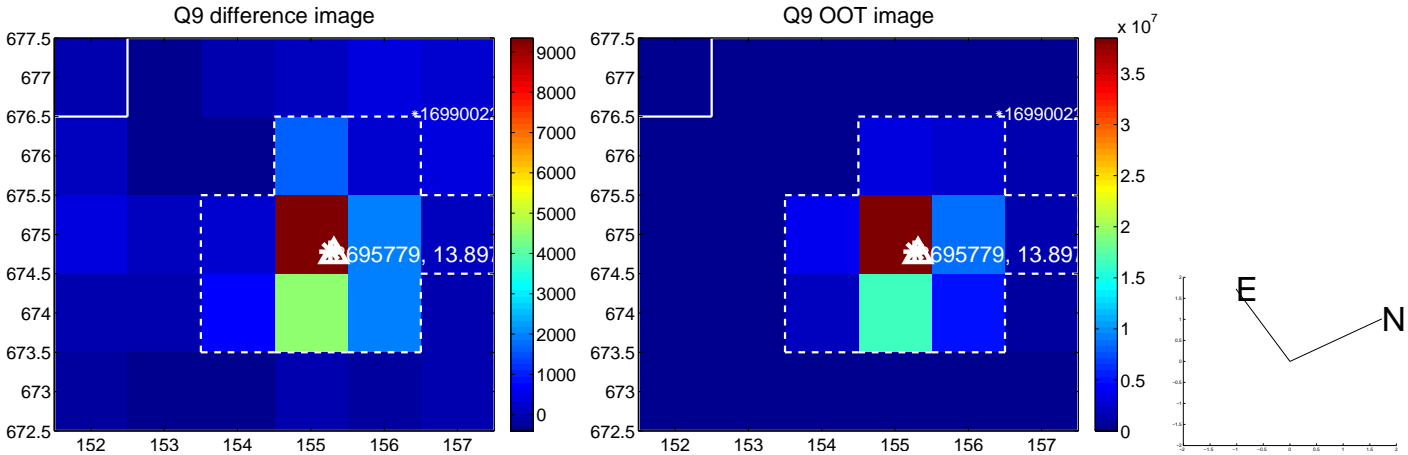
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



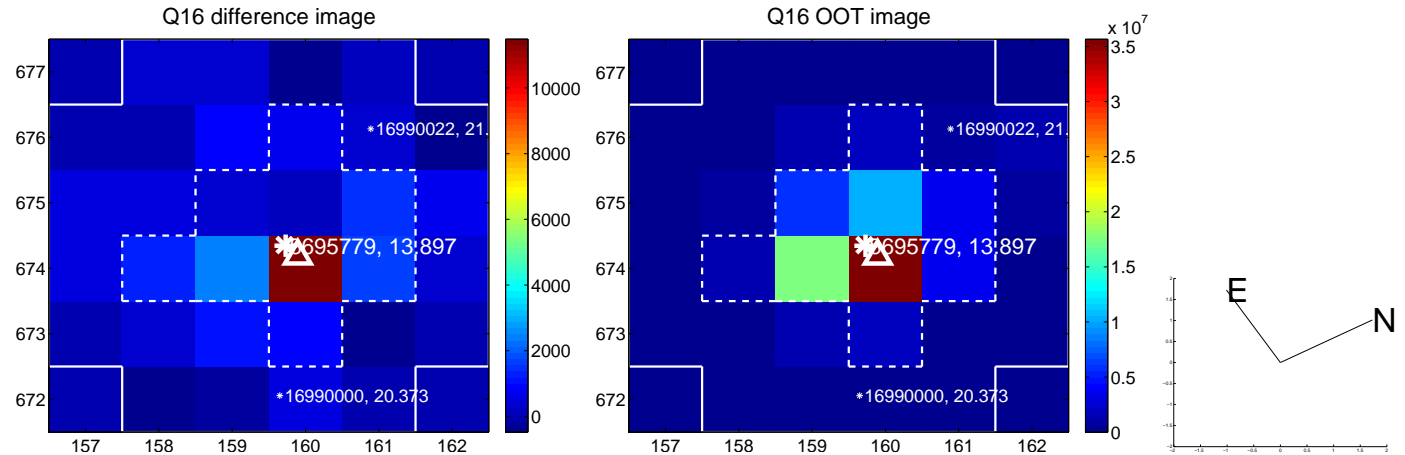
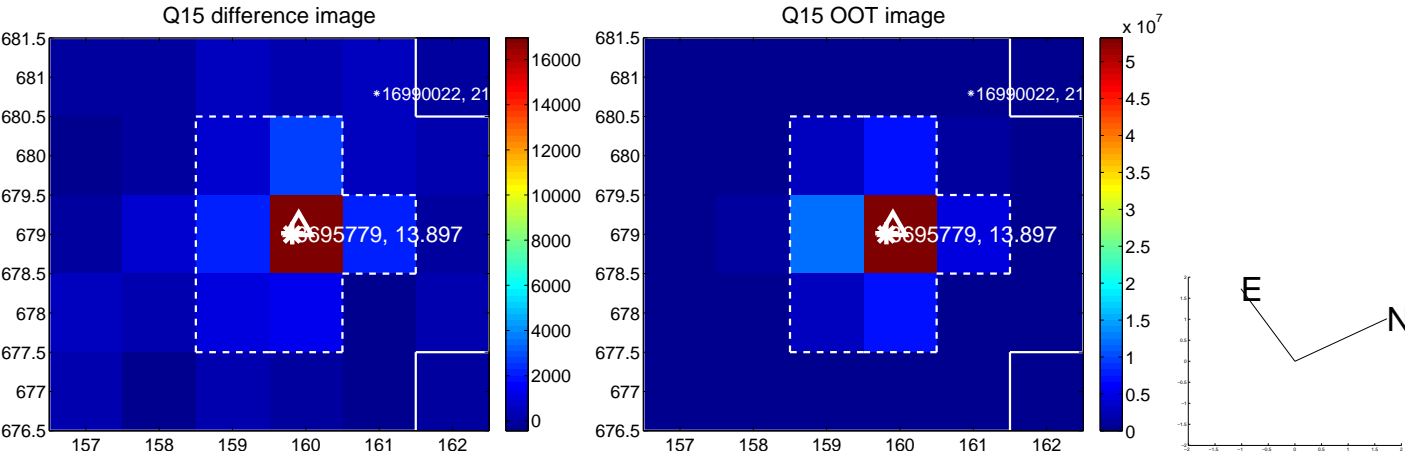
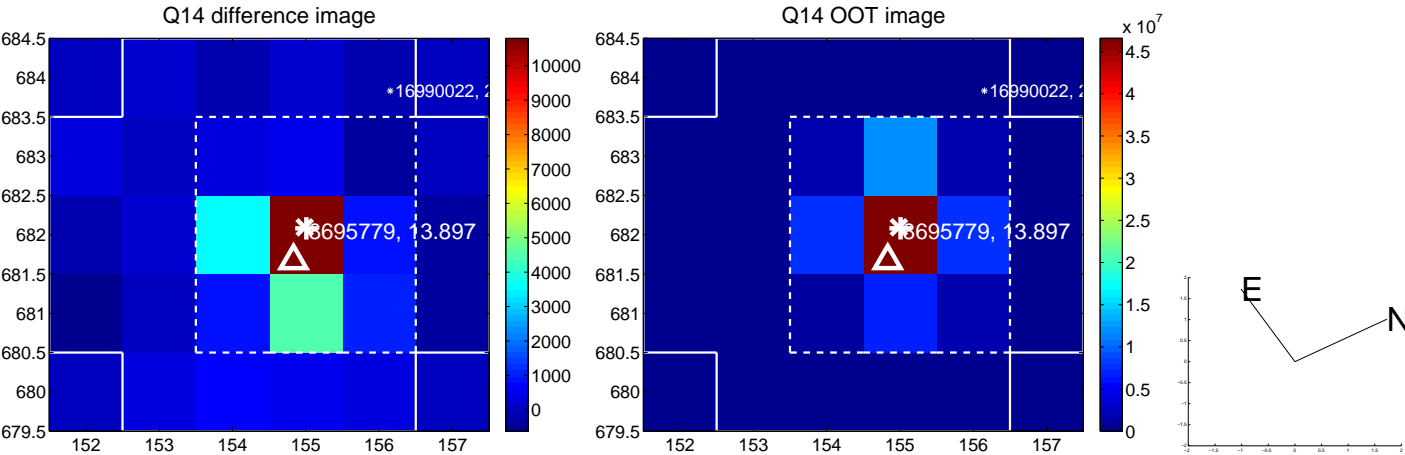
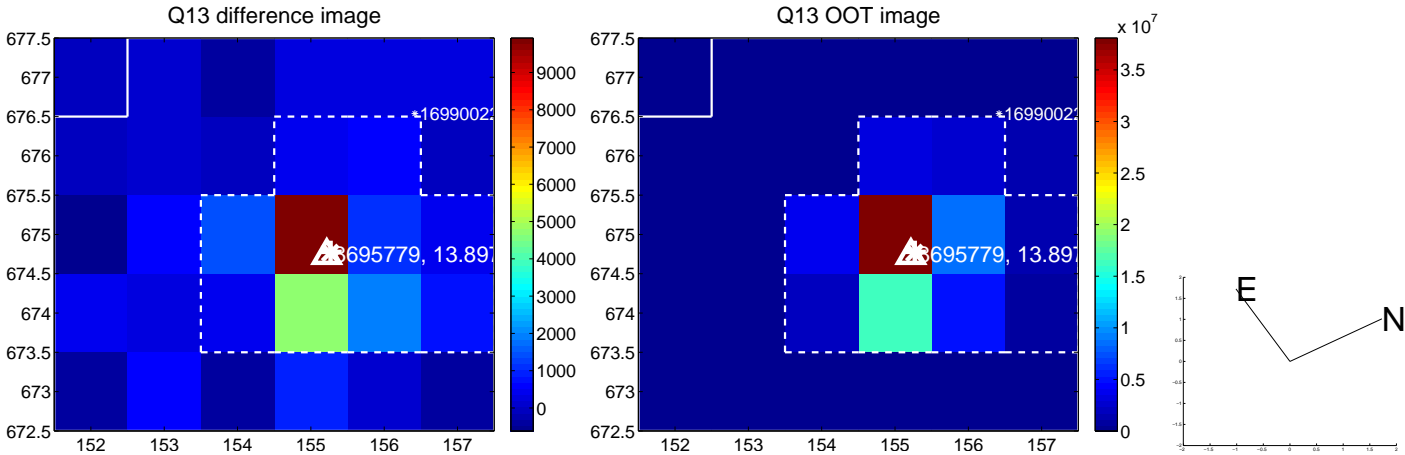
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



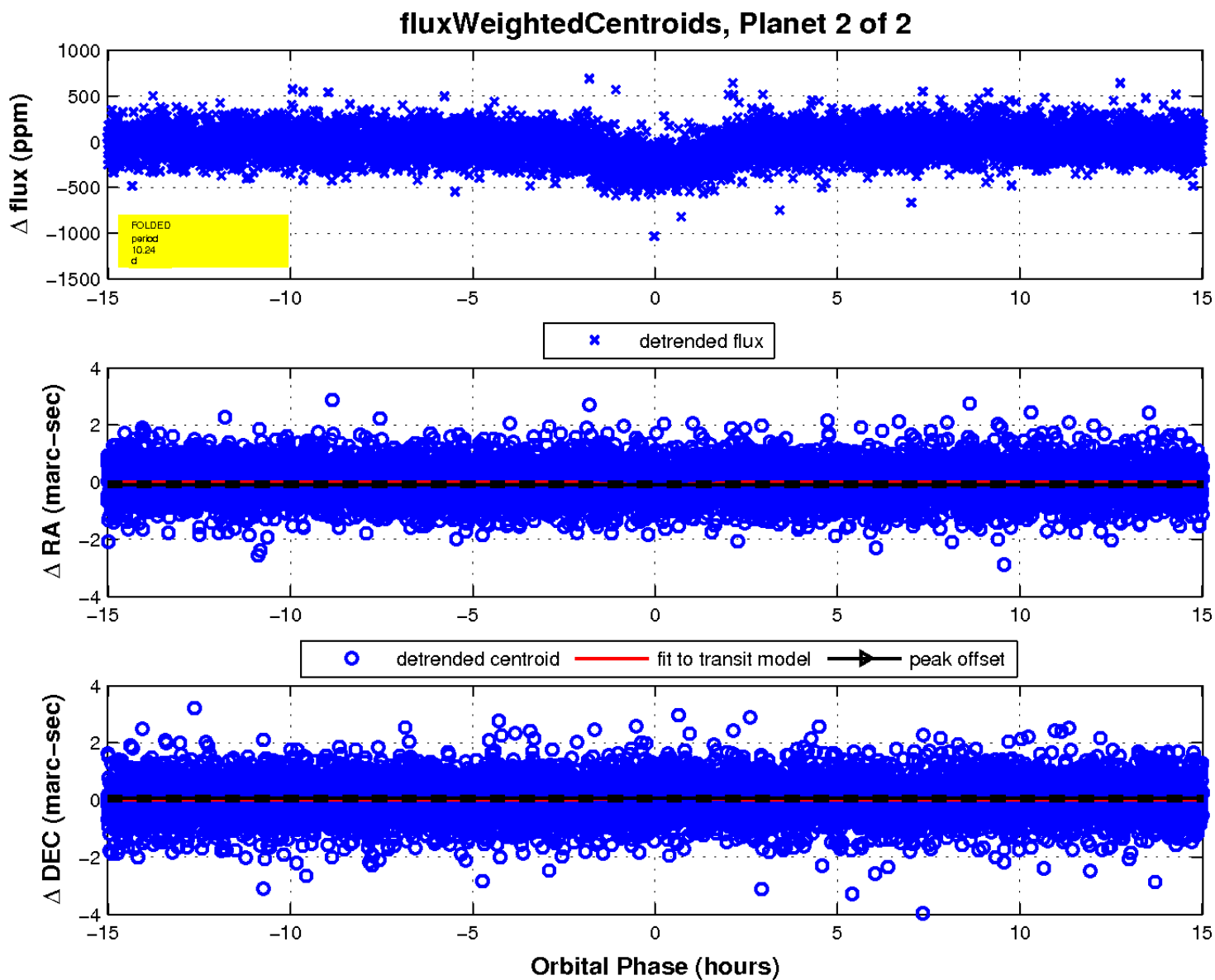
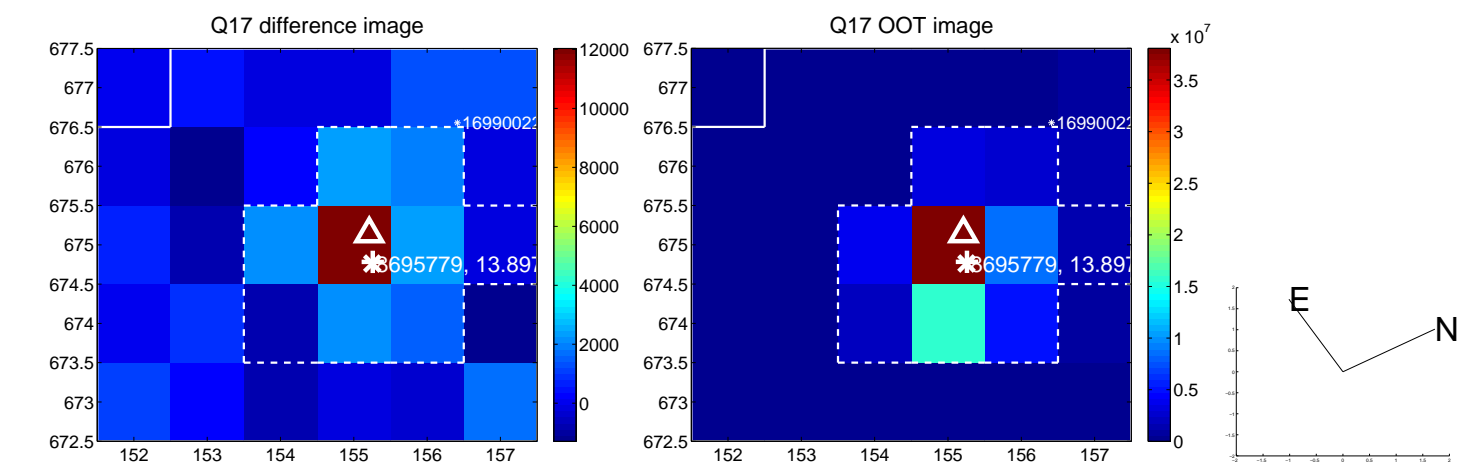
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

