

KIC 006779260

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})
006779260-01	OBS	2678.01	3.833090	131.634836	448.3	1.443	112.1	124.4	0.83	5397	2.13	248.79
006779260-02	OBS	2678.02	2.216581	131.561529	32.6	1.125	9.3	11.6	0.83	5397	0.57	516.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006779260-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006779260-02	OBS	PC	0.98	0	0	0	0	NO_COMMENT

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

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

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

Ephemeris Match Information For 006779260-01

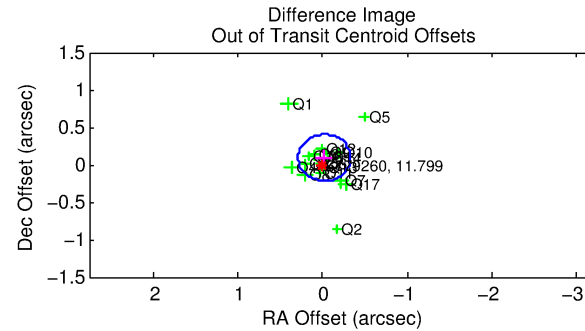
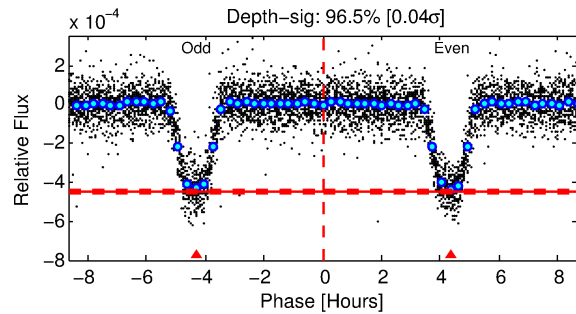
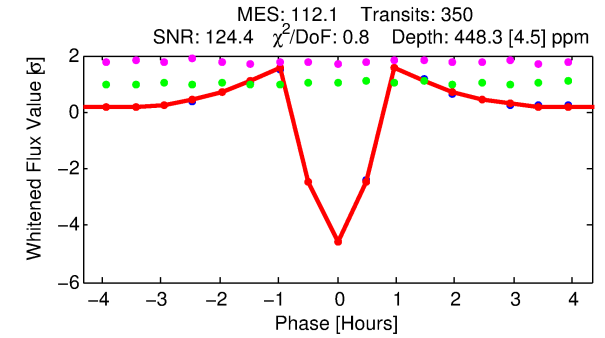
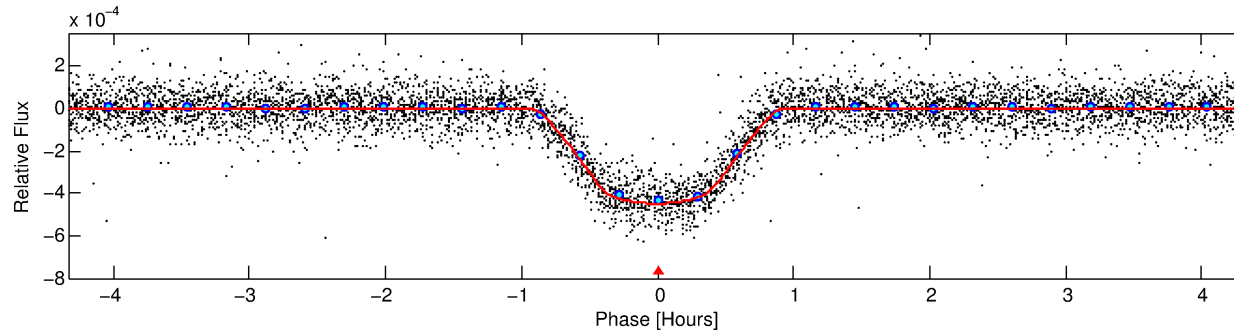
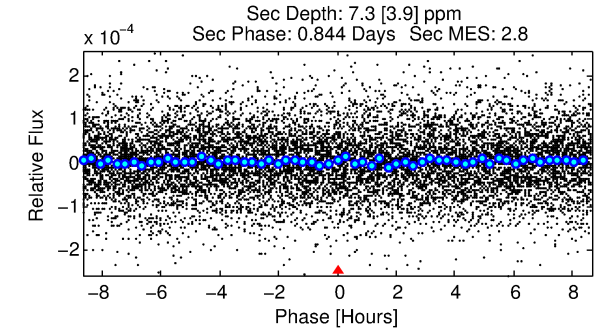
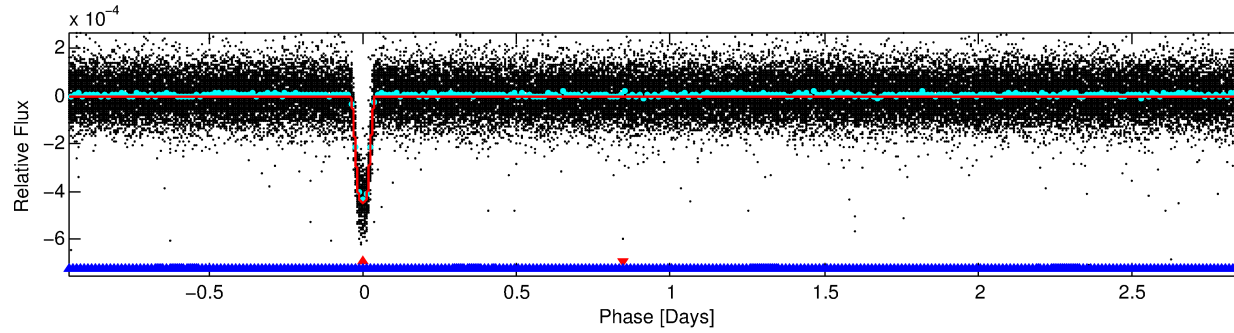
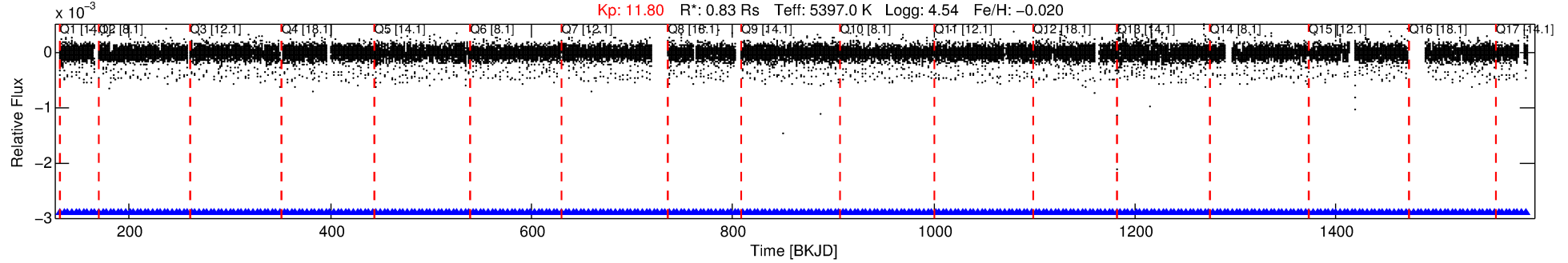
No Significant Match Found

DV One-Page Summary

KIC: 6779260 Candidate: 1 of 2 Period: 3.833 d

KOI: K02678.01 Corr: 0.975

Kp: 11.80 R*: 0.83 Rs Teff: 5397.0 K Logg: 4.54 Fe/H: -0.020



DV Fit Results:

Period = 3.83309 [0.00000] d
Epoch = 131.6348 [0.0002] BKJD
Rp/R* = 0.0235 [0.0010]
a/R* = 9.93 [1.79]
b = 0.90 [0.04]
Seff = 248.79 [40.93]
Teq = 1013 [42] K
Rp = 2.13 [0.23] Re
a = 0.0459 [0.0043] AU
Ag = 1.88 [1.05] [0.84σ]
Teffp = 1834 [249] K [3.25σ]

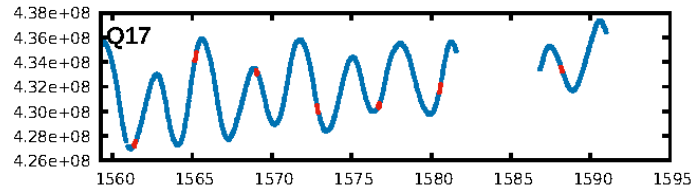
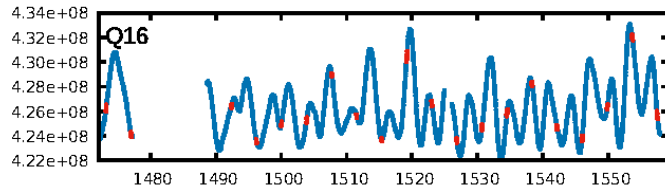
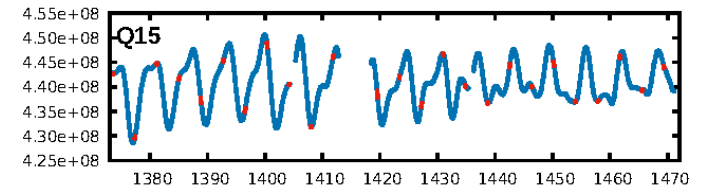
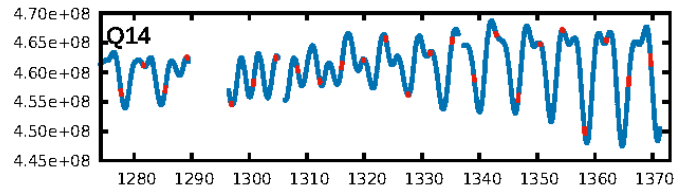
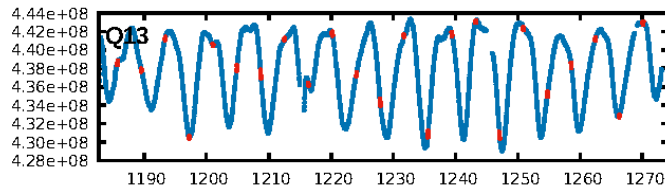
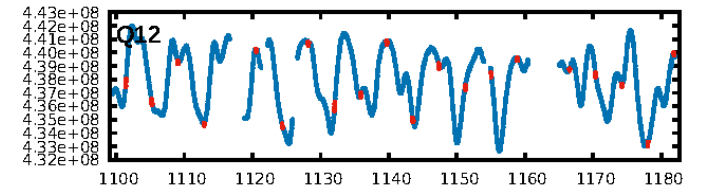
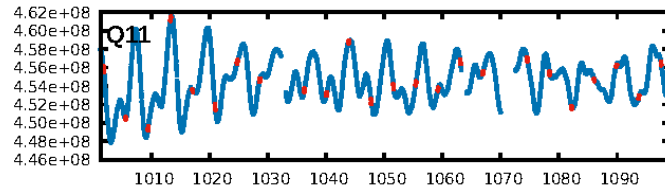
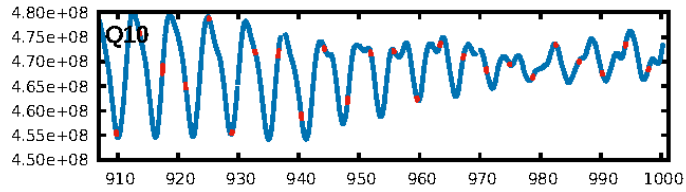
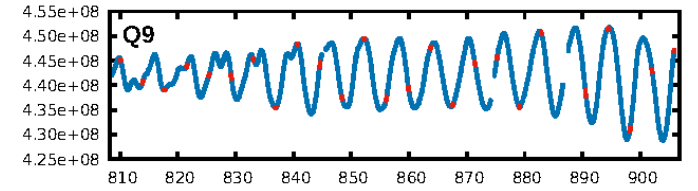
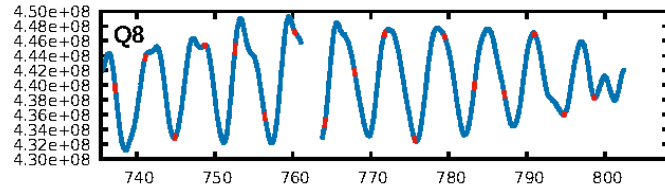
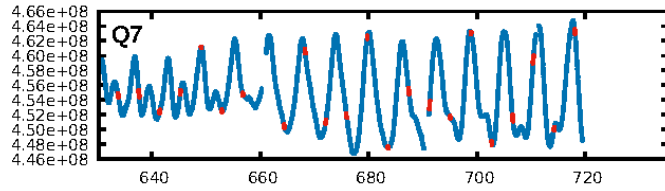
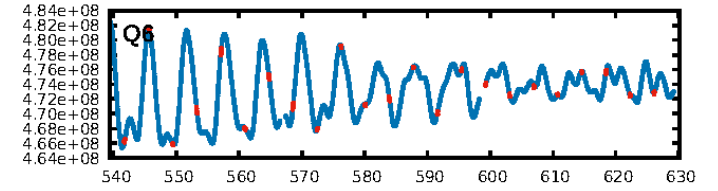
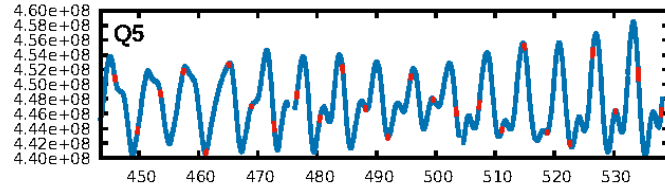
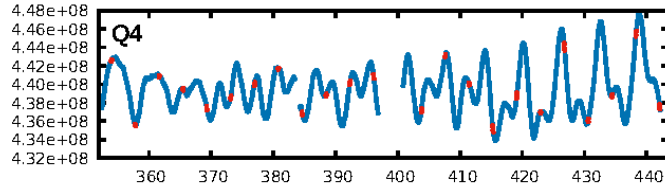
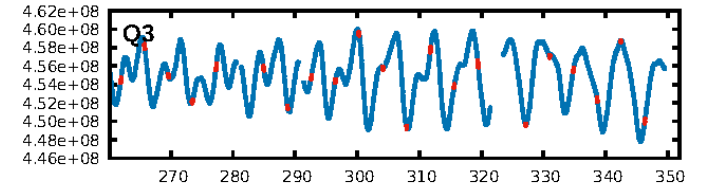
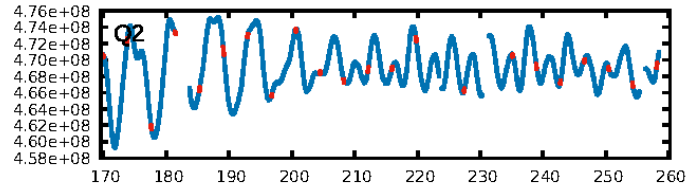
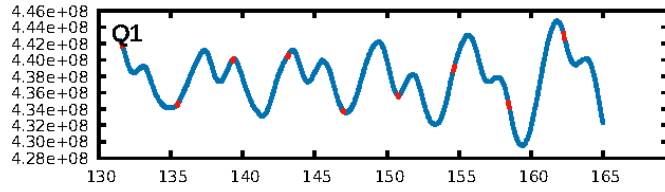
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.20σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [334/334]
GhostDiagnostic-chr: 1.082
Centroid-sig: 72.1%
Centroid-so: 0.147 arcsec [2.45σ]
OotOffset-rm: 0.096 arcsec [0.92σ]
KicOffset-rm: 0.205 arcsec [1.92σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

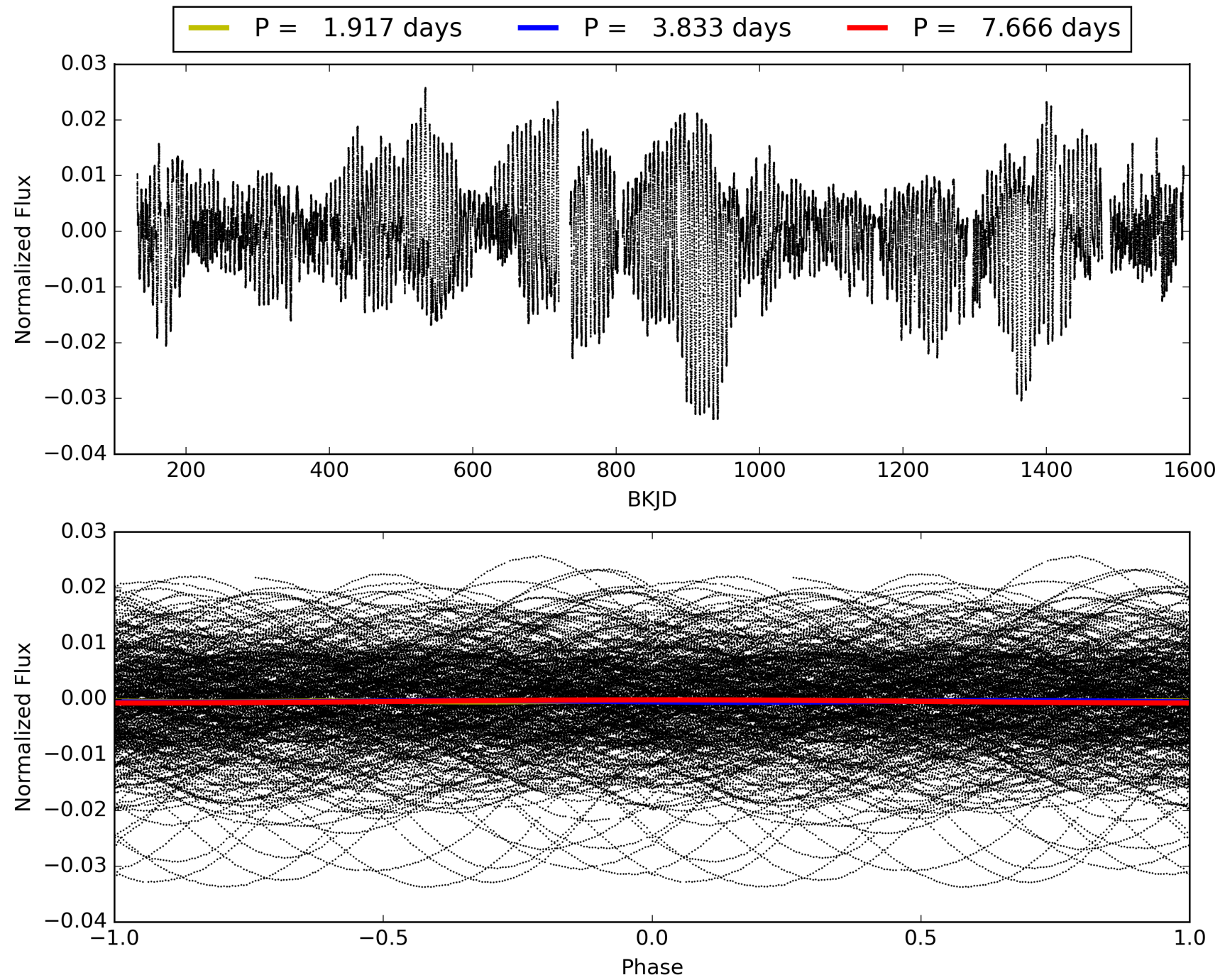
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:58:44 Z

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

TCE 006779260-01, PDC Light Curves

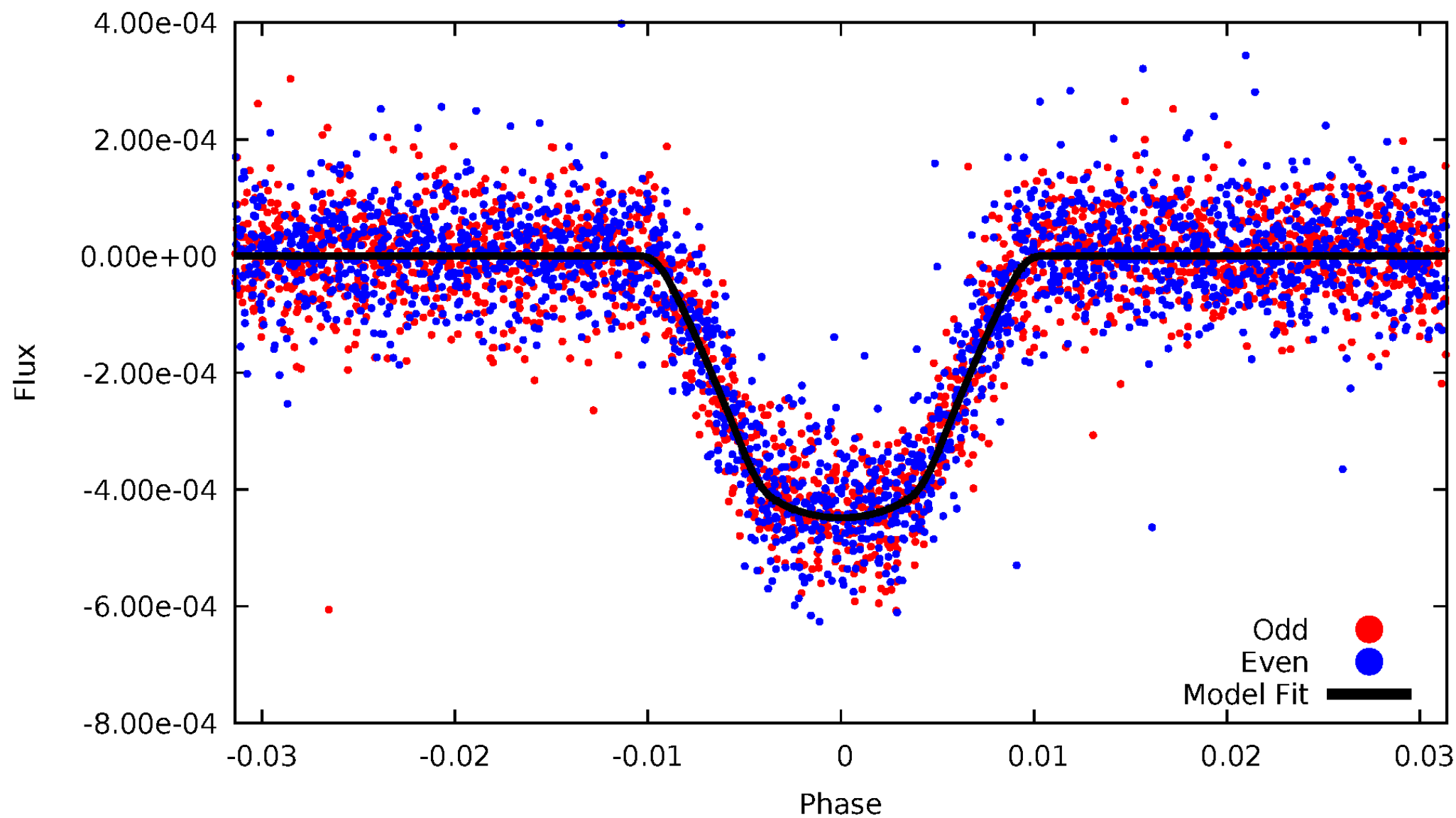


TCE 006779260-01



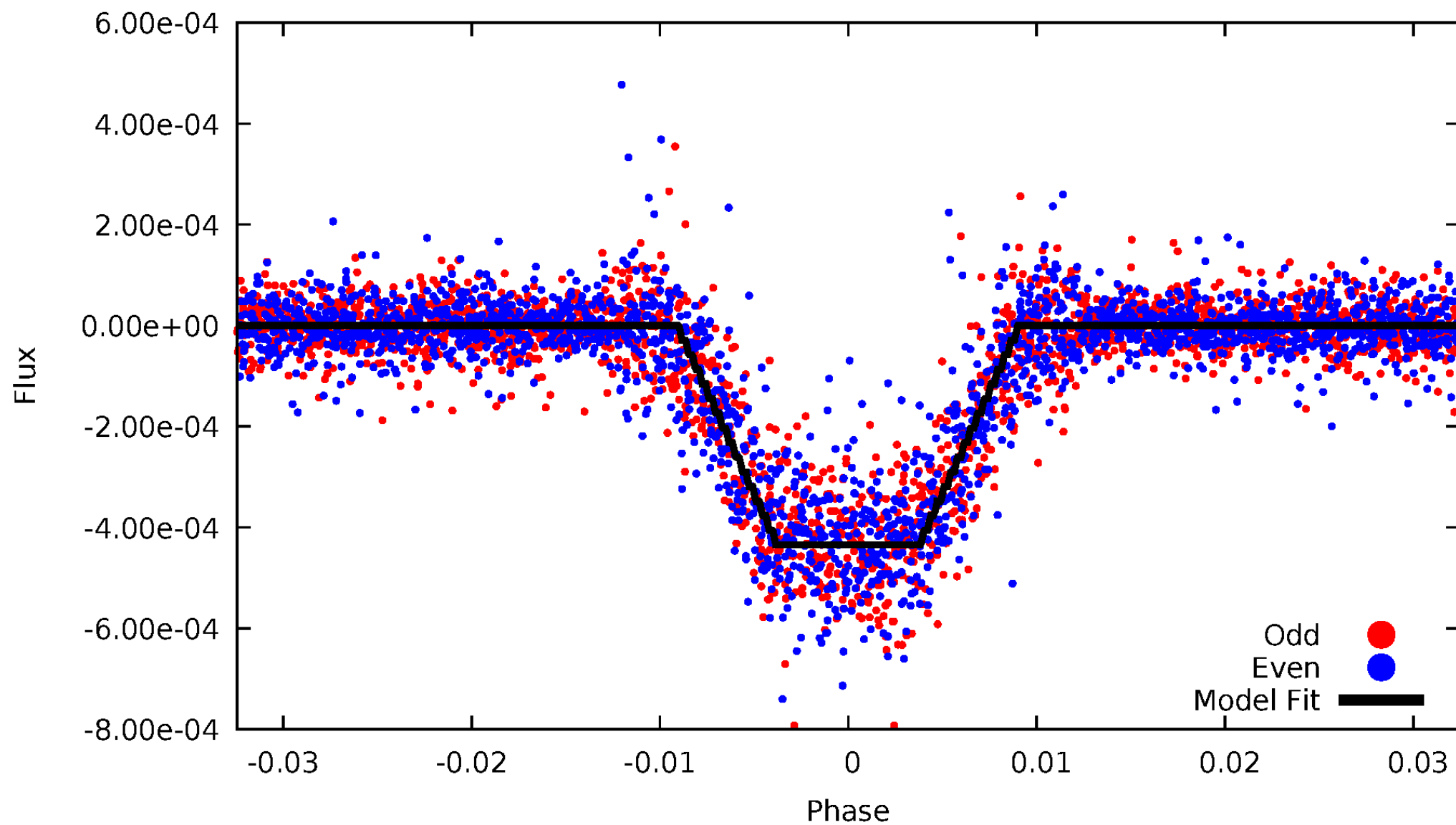
DV Odd/Even

TCE 006779260-01

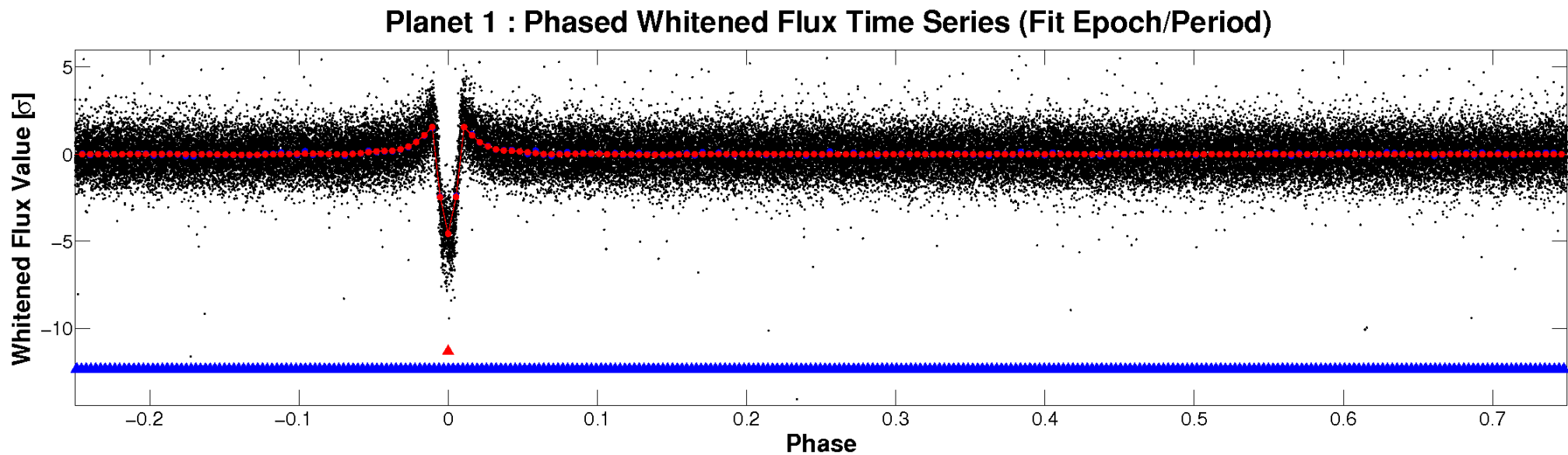
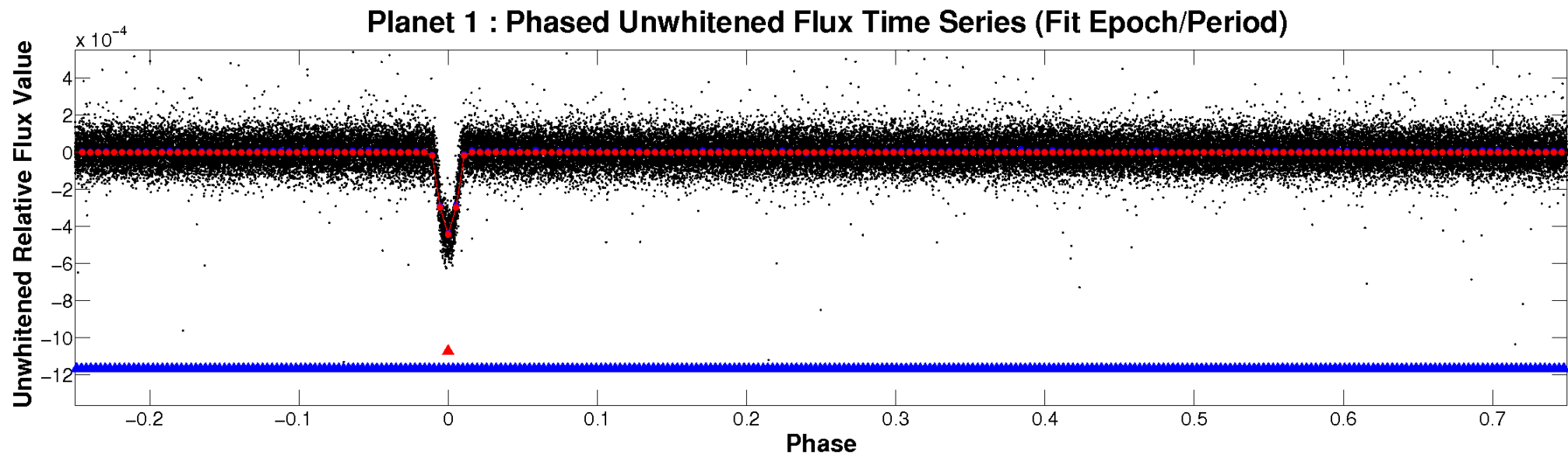


ALT Odd/Even

TCE 006779260-01

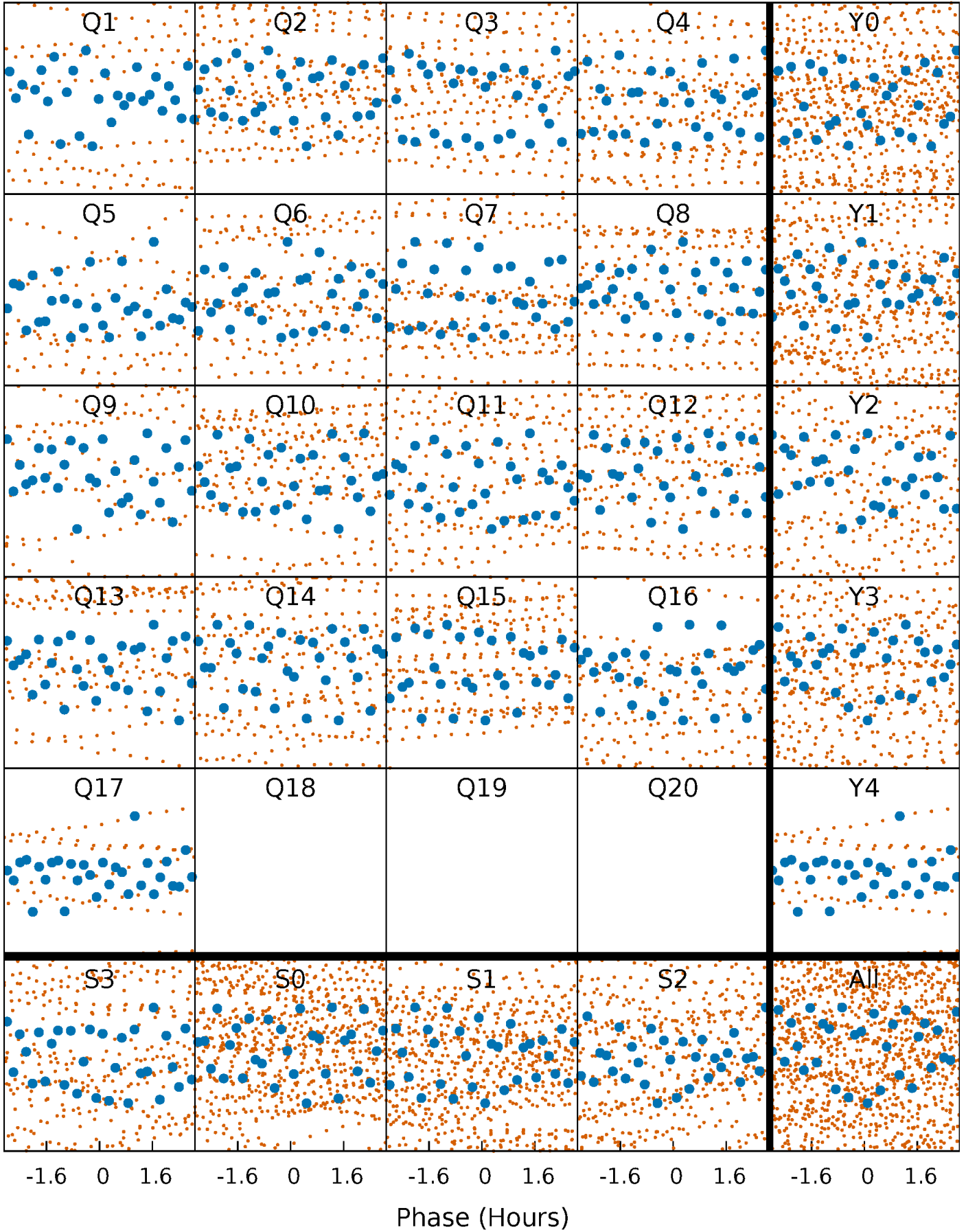


Non-Whitened Vs. Whitened Light Curve



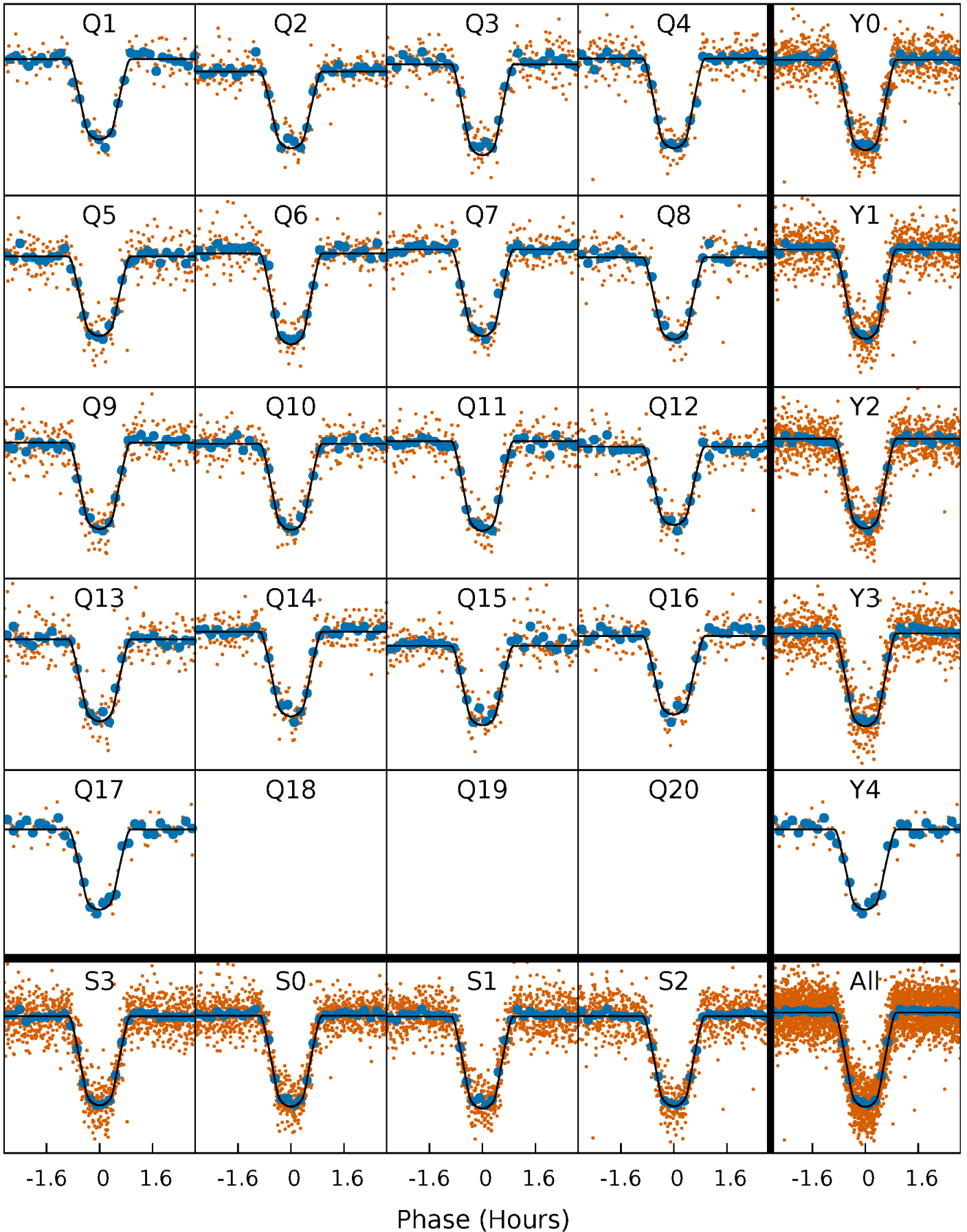
PDC Quarter-Phased Transit Curves

TCE 006779260-01 P= 3.833090 Days $T_0=131.634836$ (BKJD)



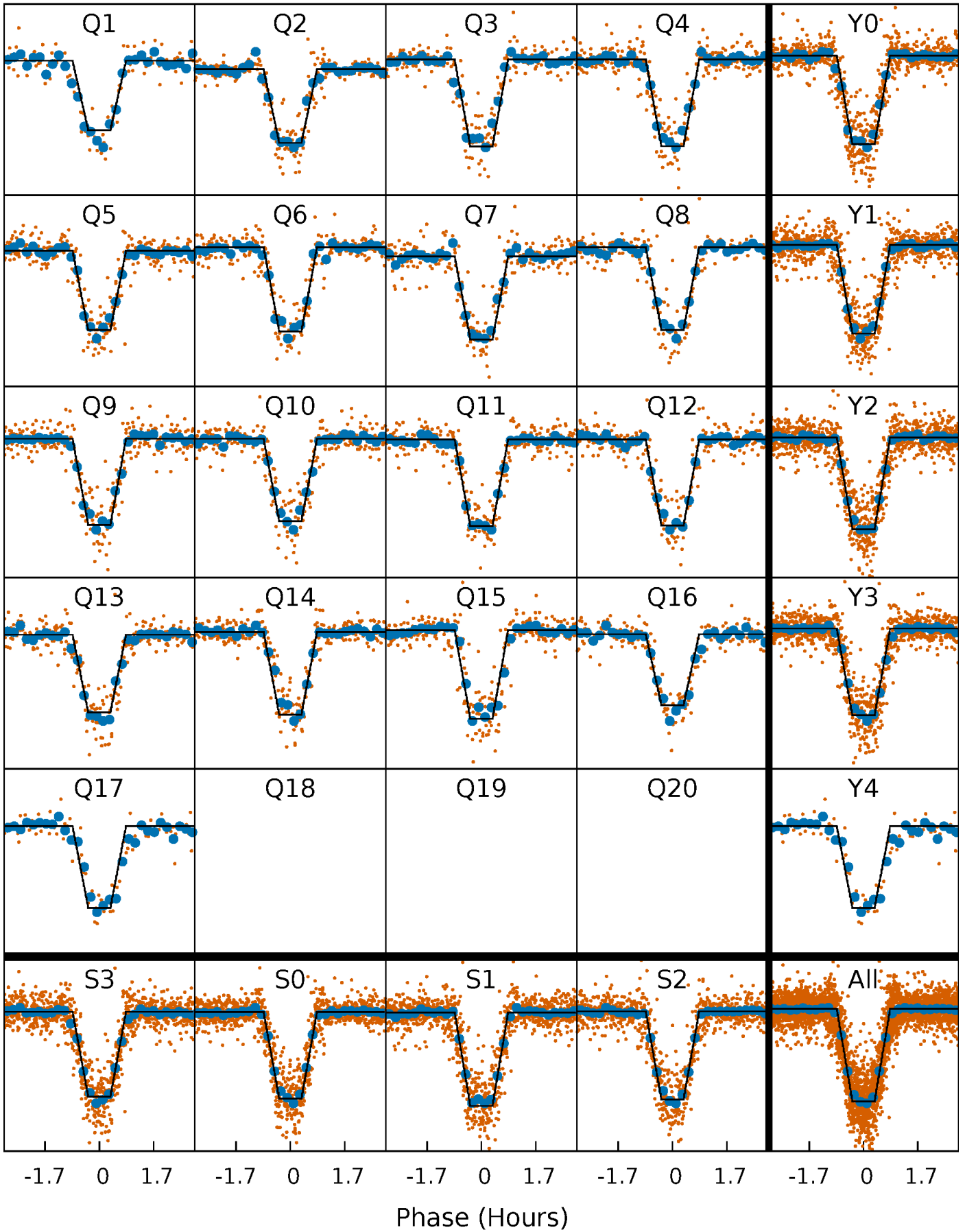
DV Quarter-Phased Transit Curves

TCE 006779260-01 P= 3.833090 Days $T_0=131.634836$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

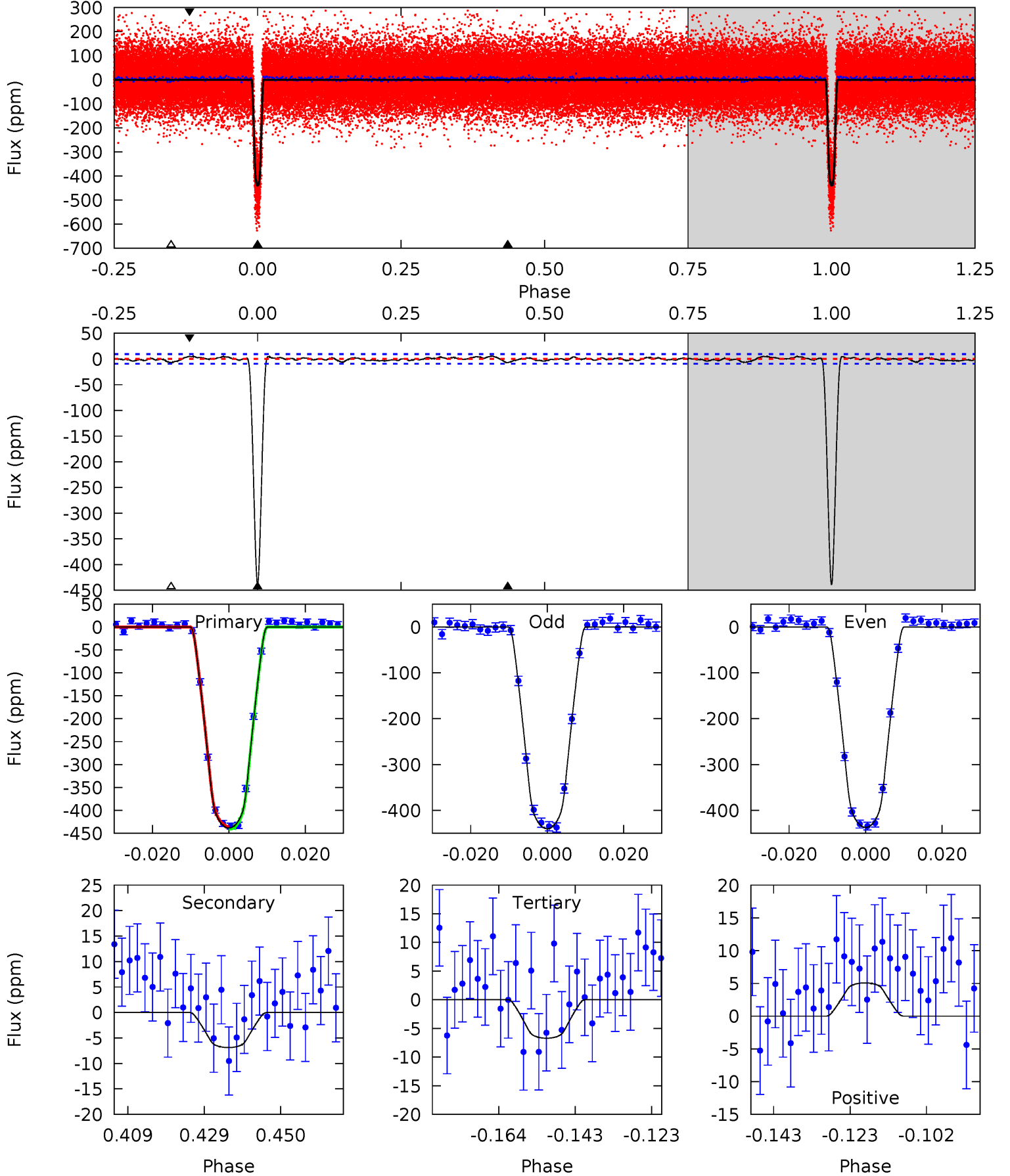
TCE 006779260-01 P= 3.833074 Days $T_0=131.637620$ (BKJD)



DV Model-Shift Uniqueness Test

006779260-01, P = 3.833090 Days, E = 127.801746 Days

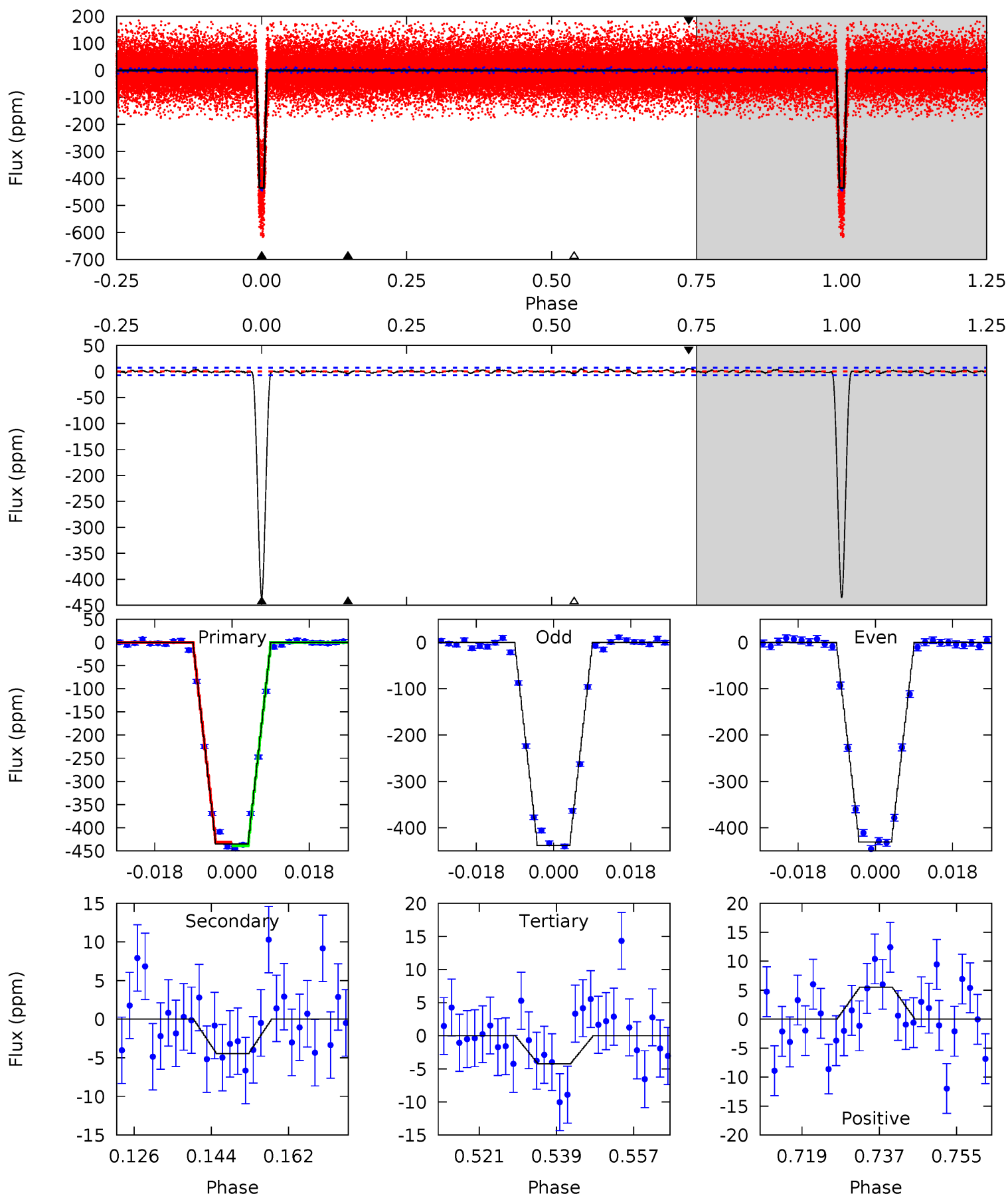
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
226.4	3.55	3.47	2.62	4.89	2.32	1.20	222.9	223.8	0.09	0.93	0.75	1.00	0.01	1.40



Alt Model-Shift Uniqueness Test

006779260-01, P = 3.833074 Days, E = 127.804546 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
297.8	3.04	2.91	3.79	4.91	2.37	1.11	294.9	294.0	0.14	-0.74	2.65	0.99	0.01	2.83



Stellar Parameters For KIC 006779260

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5397^{+107}_{-107}	$4.543^{+0.033}_{-0.083}$	$-0.020^{+0.150}_{-0.150}$	$0.831^{+0.084}_{-0.045}$	$0.878^{+0.043}_{-0.059}$	$2.159^{+0.284}_{-0.507}$
	+2%/-2%	+1%/-2%	+750%/-750%	+10%/-5%	+5%/-7%	+13%/-23%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 006779260-01 / KOI 2678.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 2	$2.16^{+0.16}_{-0.13}$	1427^{+44}_{-39}	2542^{+108}_{-133}	$1.681^{+0.527}_{-0.511}$
Alt.	-4 ± 1	$1.91^{+0.13}_{-0.12}$	1426^{+44}_{-39}	2470^{+119}_{-157}	$1.387^{+0.498}_{-0.473}$

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

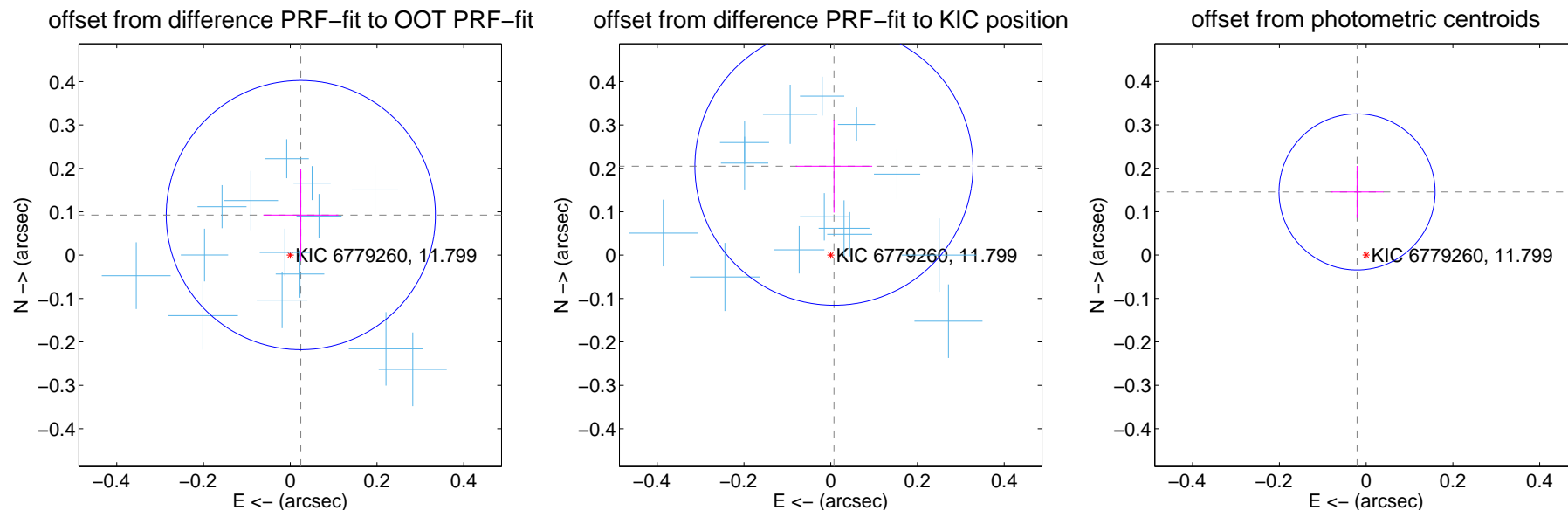
DV Centroid Data

Supplemental centroid analysis for 006779260-01. **Kepler magnitude: 11.80.** Transit SNR 124.43

There are 17 quarters with good PRF difference image offsets

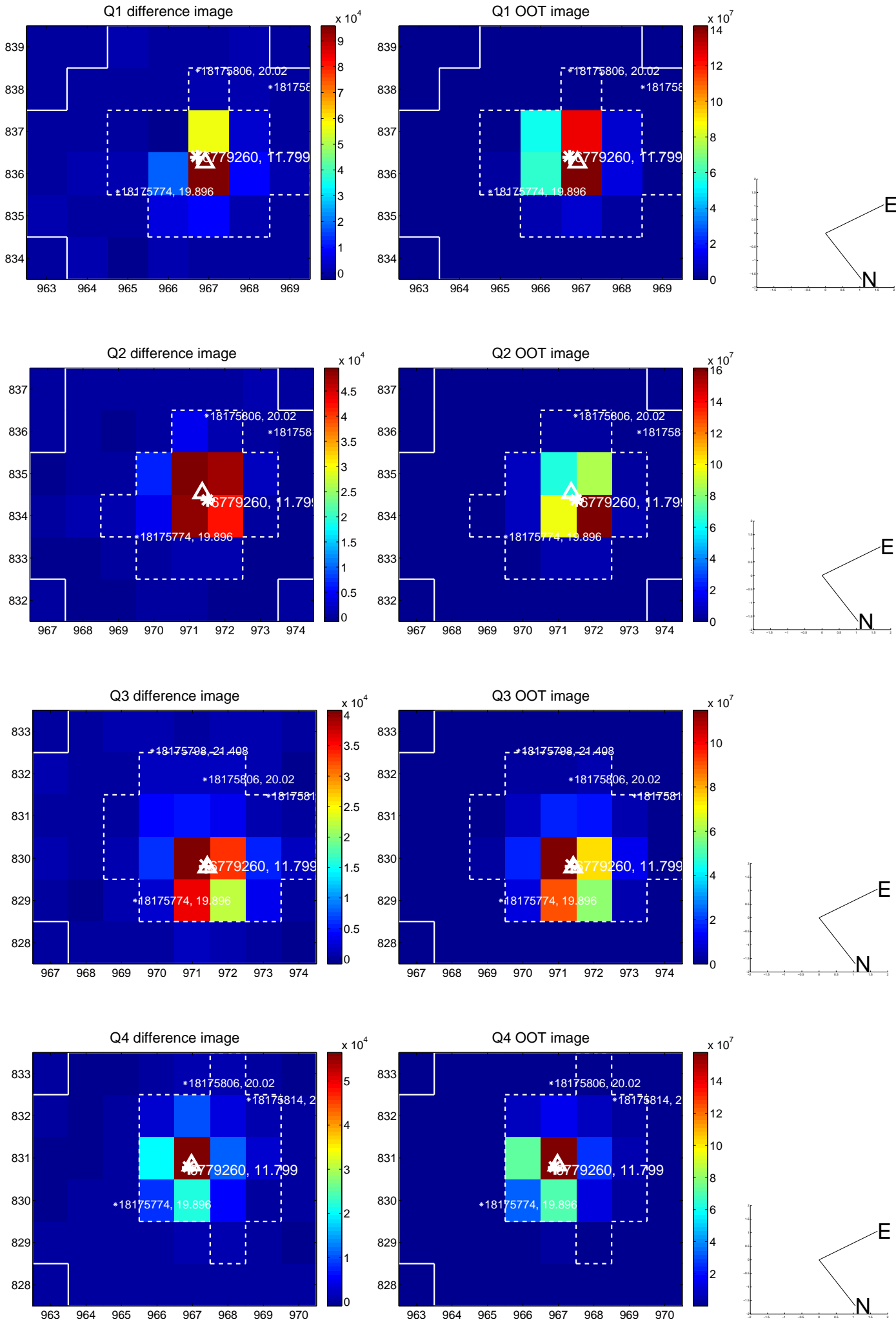
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.103	0.92	-0.024 ± 0.086	0.092 ± 0.106
PRF-fit source offset from KIC position	0.205 ± 0.107	1.92	-0.007 ± 0.088	0.205 ± 0.107
photometric centroid source offset	0.15 ± 0.06	2.45	0.02 ± 0.06	0.15 ± 0.06

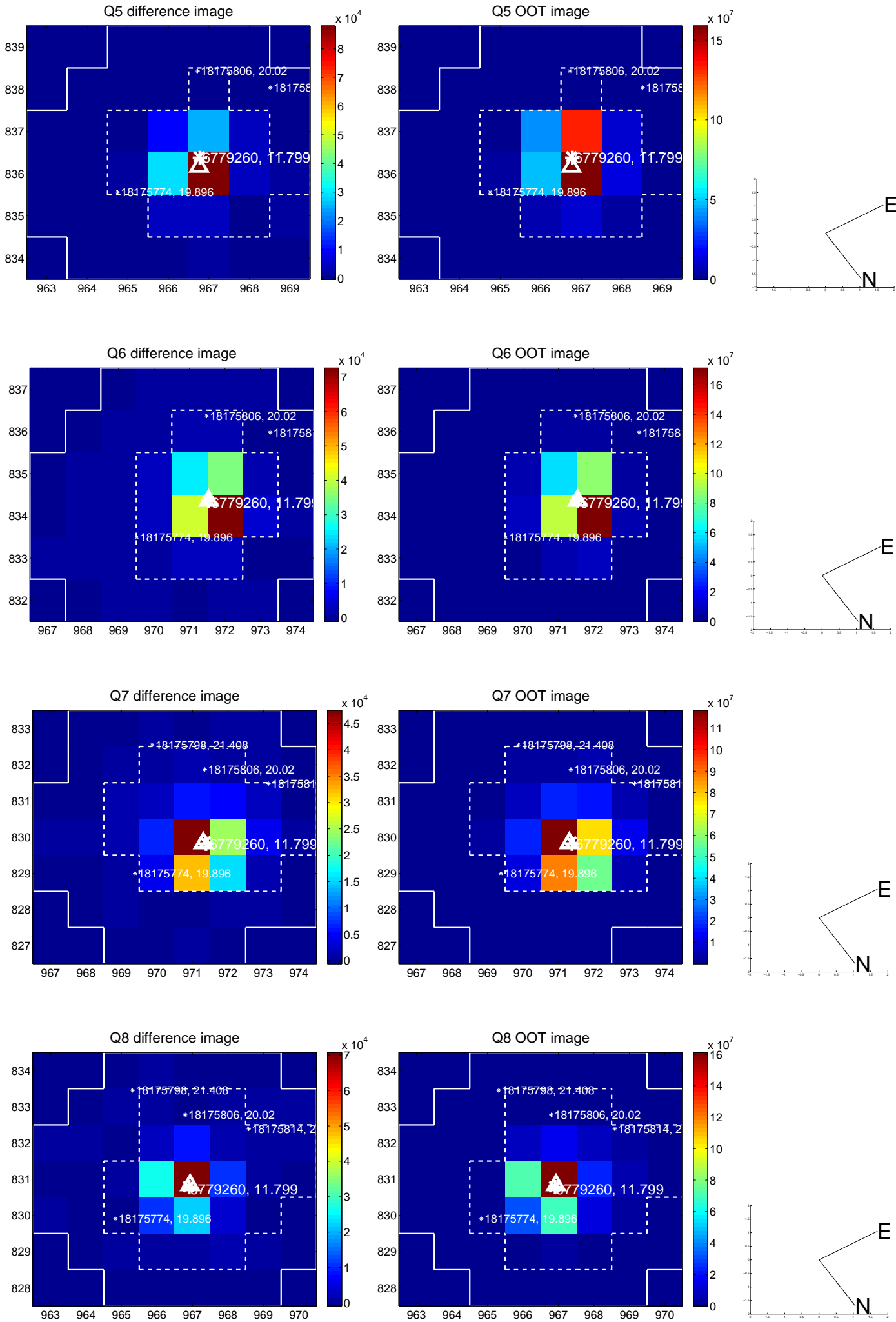


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

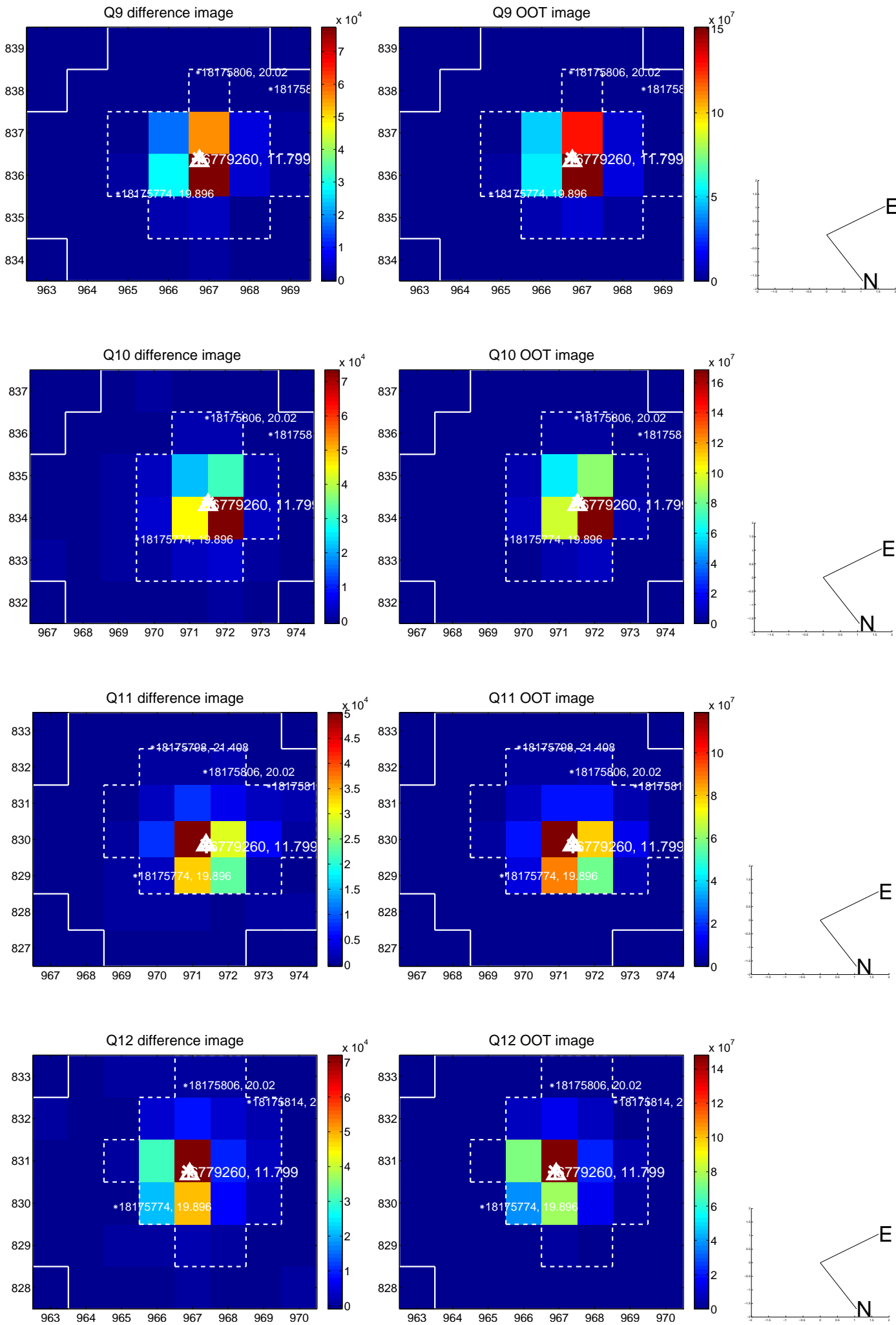
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



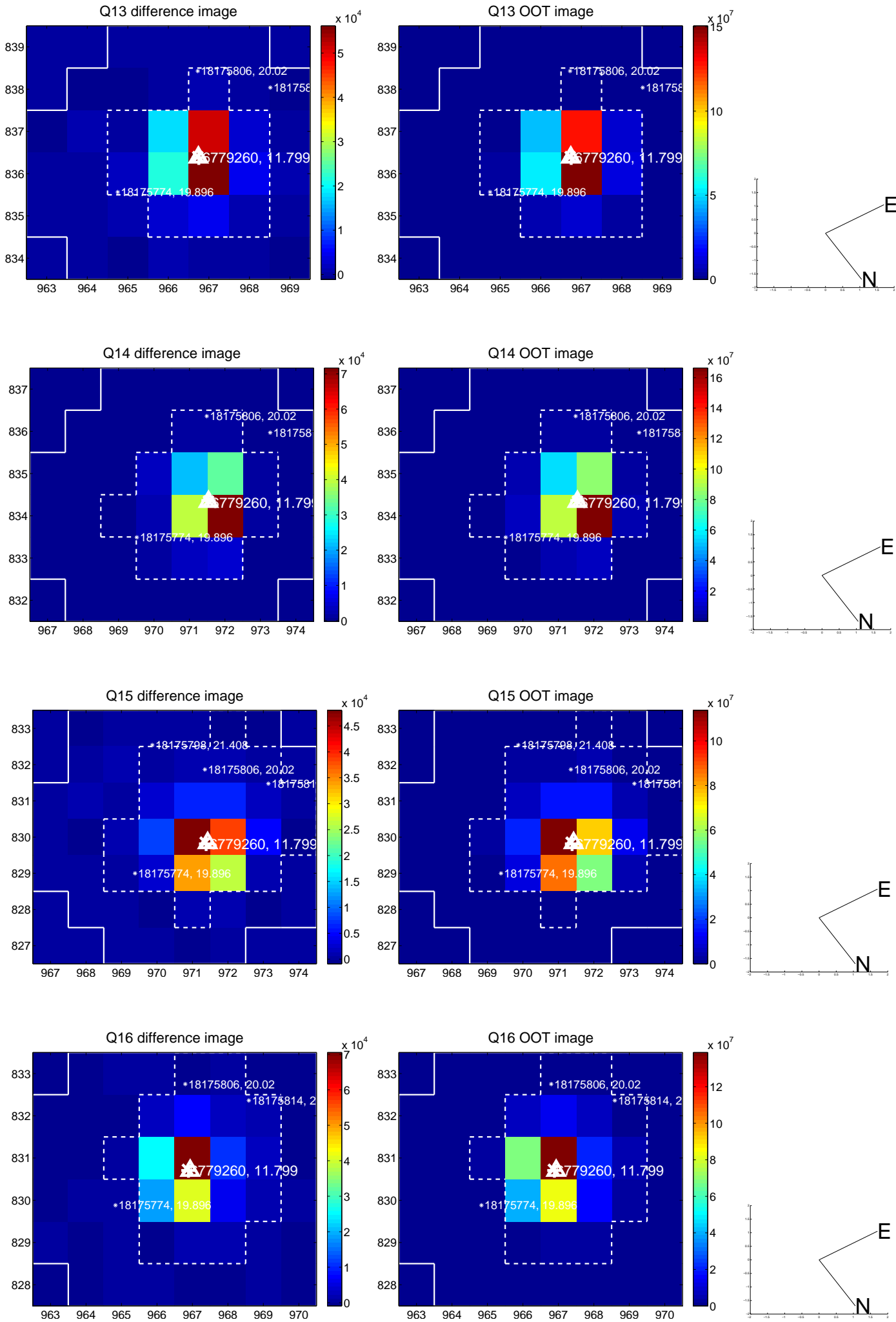
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



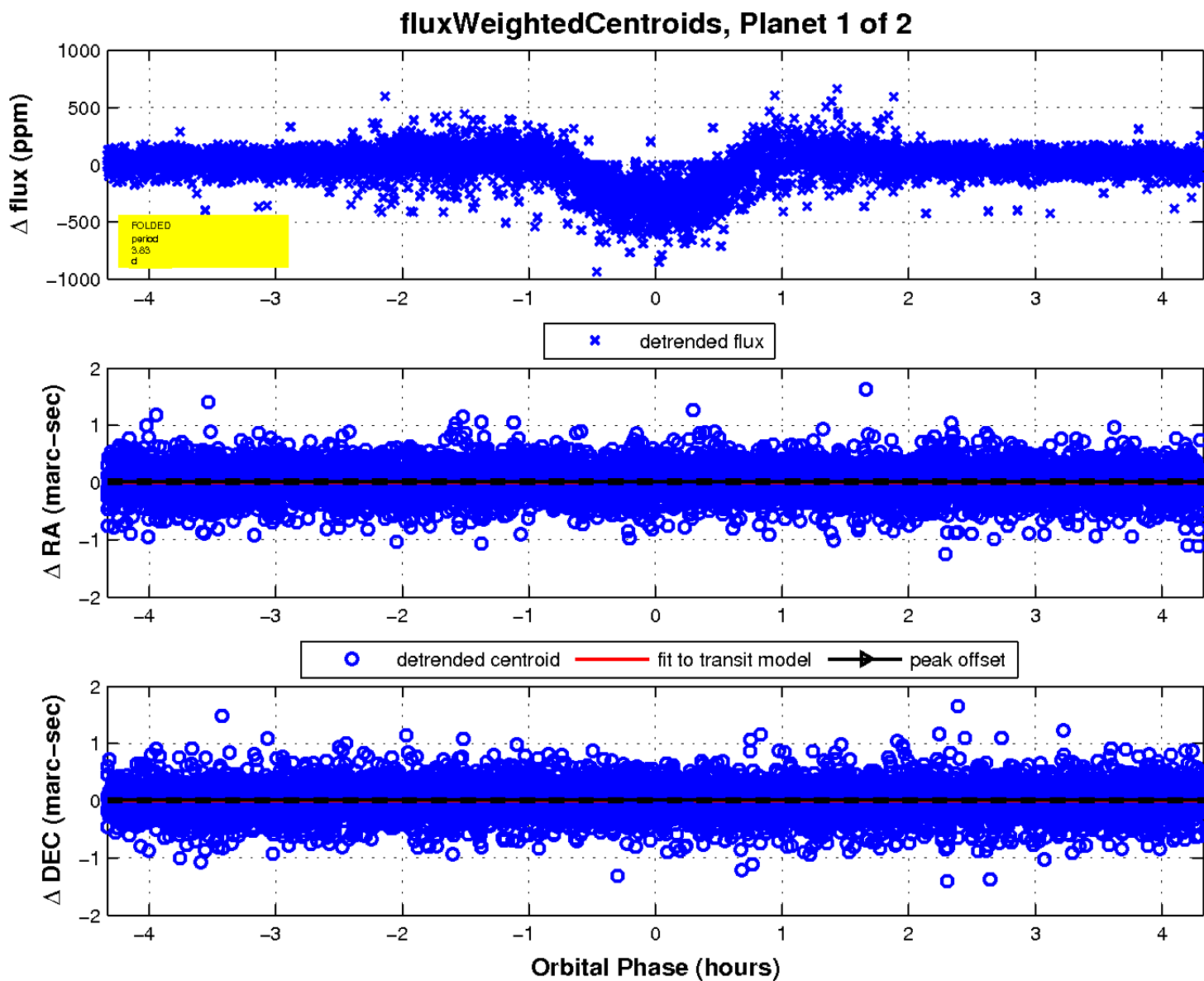
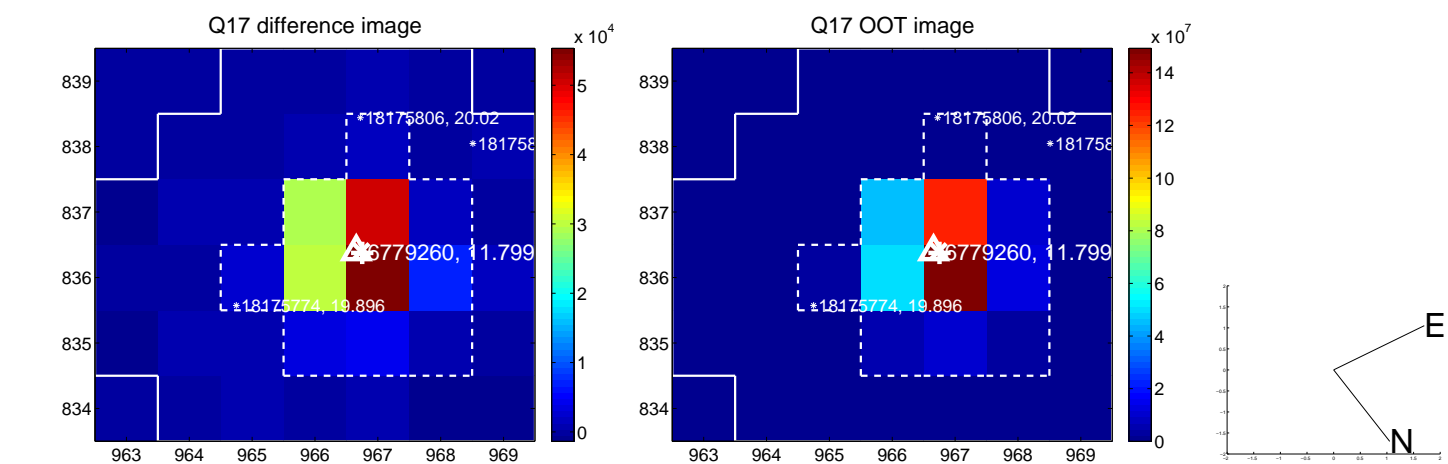
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

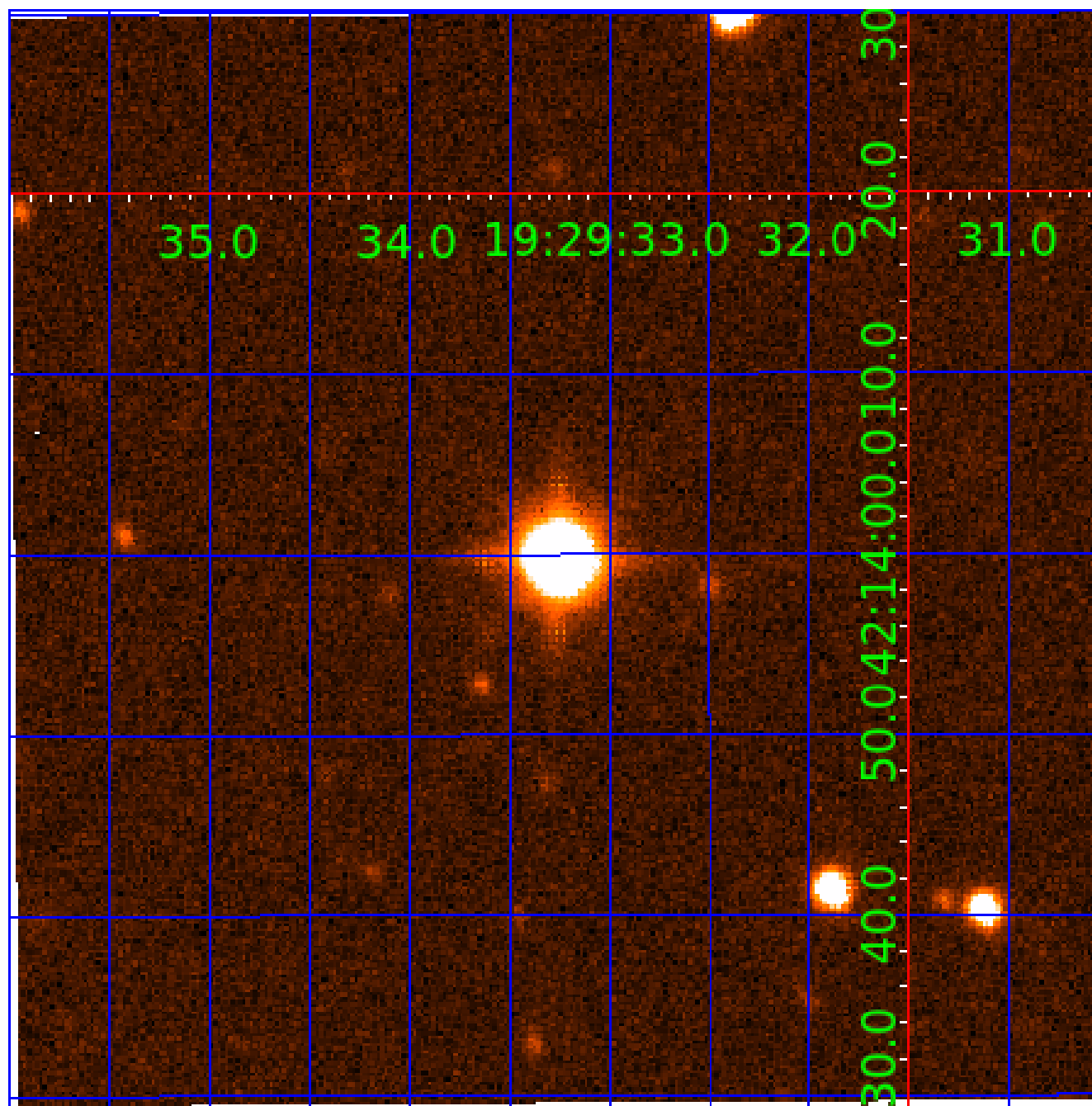


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006779260

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})
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006779260-02	OBS	PC	0.98	0	0	0	0	NO_COMMENT

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

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

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

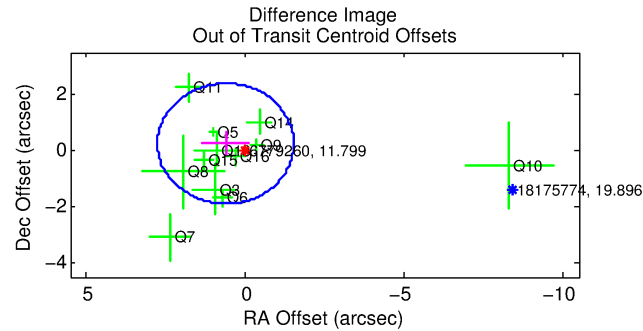
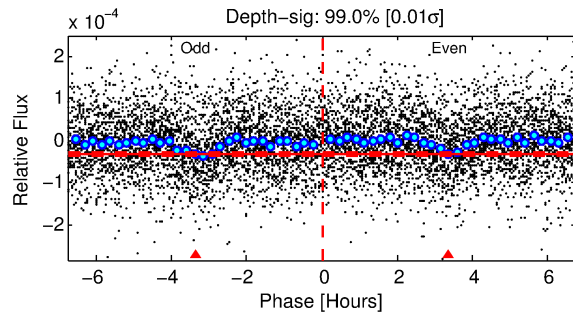
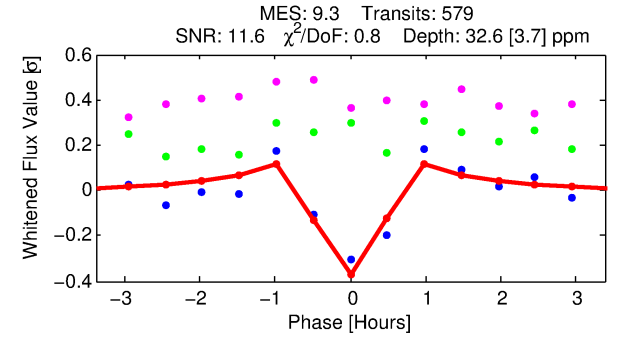
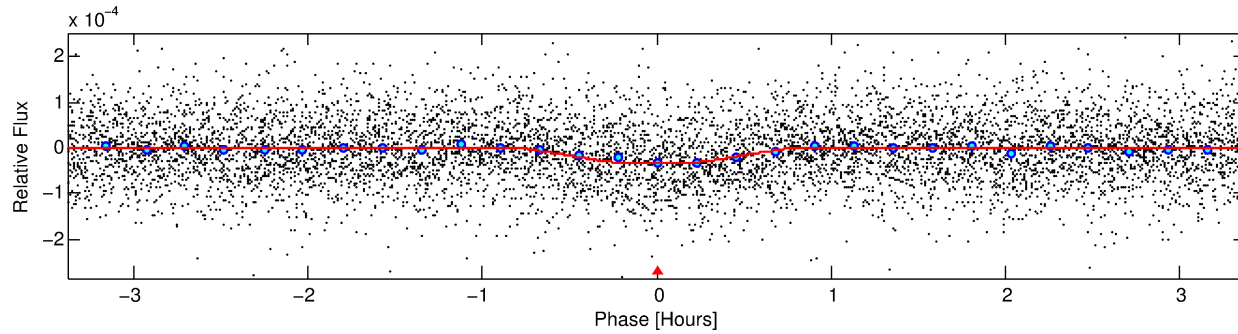
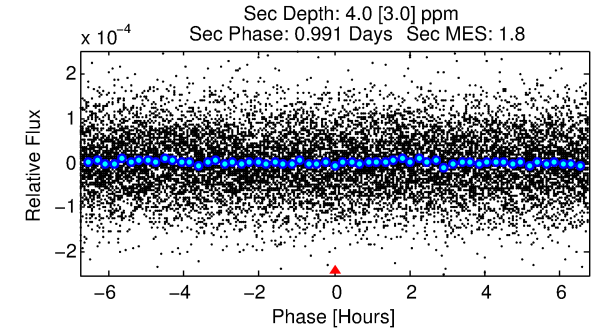
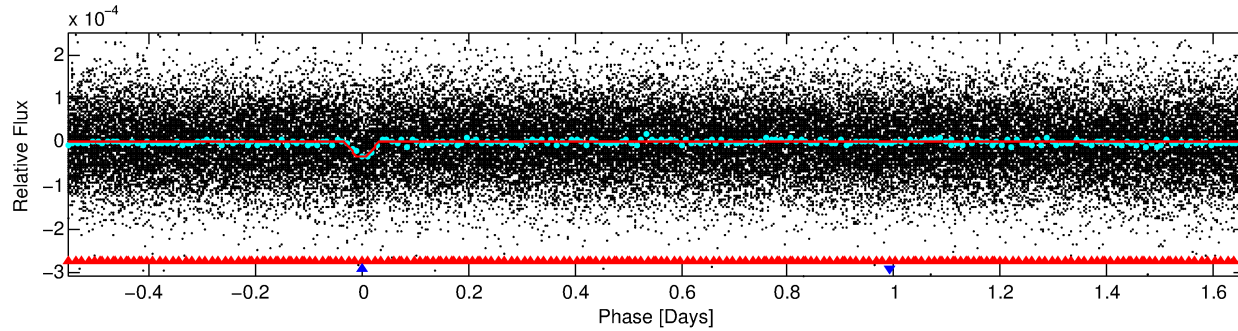
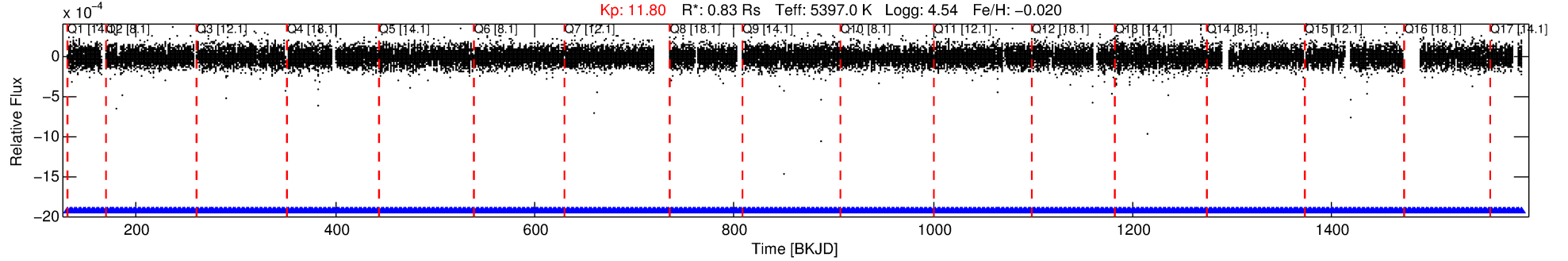
Ephemeris Match Information For 006779260-02

No Significant Match Found

DV One-Page Summary

KIC: 6779260 Candidate: 2 of 2 Period: 2.217 d

KOI: K02678 Corr: No Ephemeris Match



DV Fit Results:

Period = 2.21658 [0.00001] d
Epoch = 131.5615 [0.0013] BKJD
Rp/R* = 0.0063 [0.0015]
a/R* = 6.92 [6.73]
b = 0.90 [0.22]
Seff = 516.41 [84.95]
Teq = 1216 [50] K
Rp = 0.57 [0.15] Re
a = 0.0319 [0.0030] AU
Ag = 6.89 [6.17] [0.95σ]
Teffp = 3045 [676] K [2.70σ]

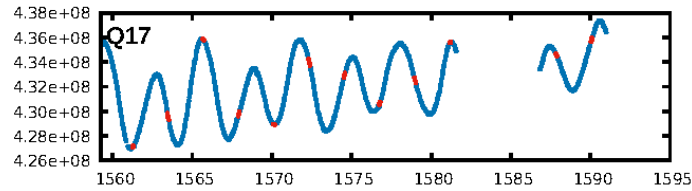
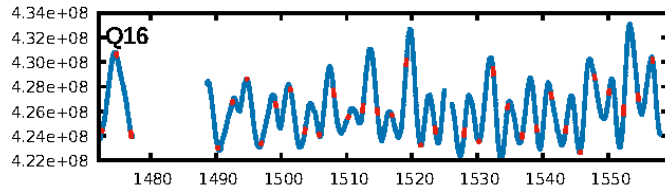
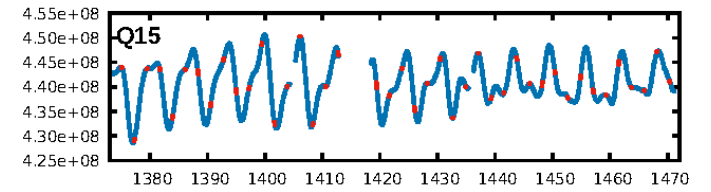
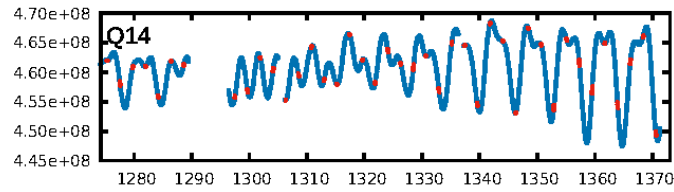
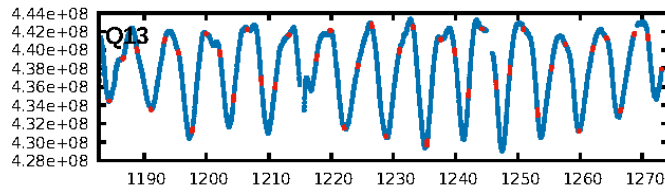
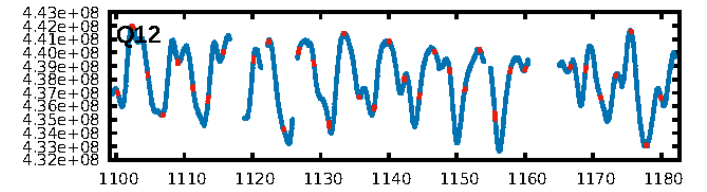
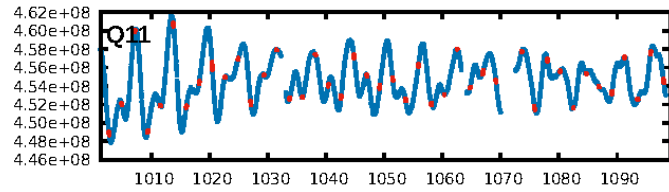
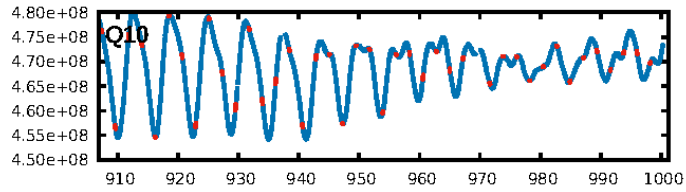
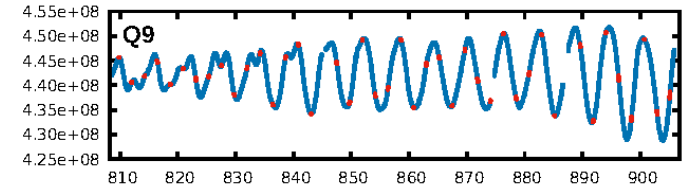
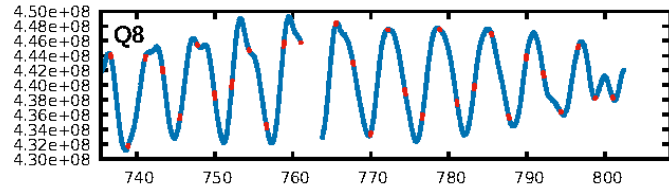
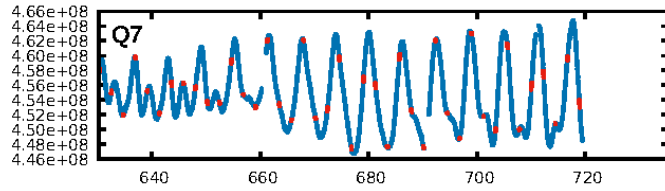
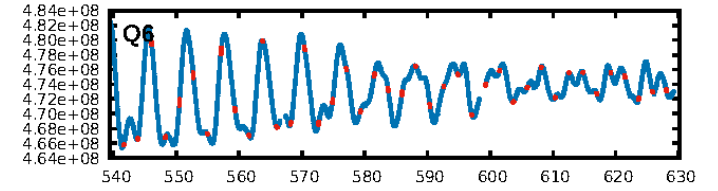
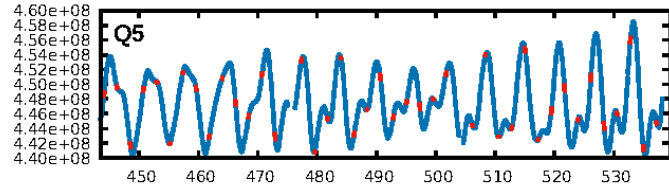
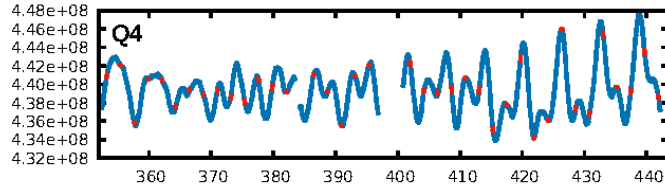
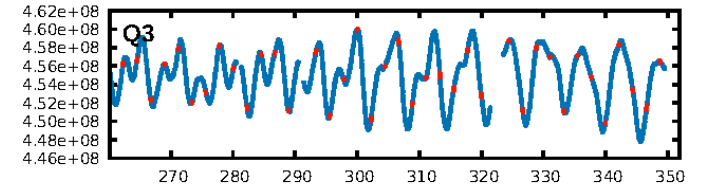
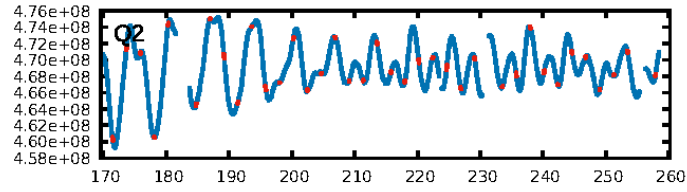
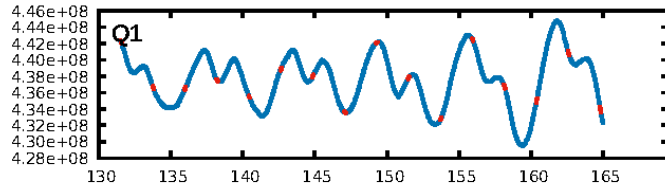
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [21.20σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.18e-18
RollingBand-fgt: 1.00 [553/553]
GhostDiagnostic-chr: -0.976
Centroid-sig: 0.3%
Centroid-so: 1.455 arcsec [2.12σ]
OotOffset-rm: 0.663 arcsec [0.93σ]
KicOffset-rm: 0.751 arcsec [1.15σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

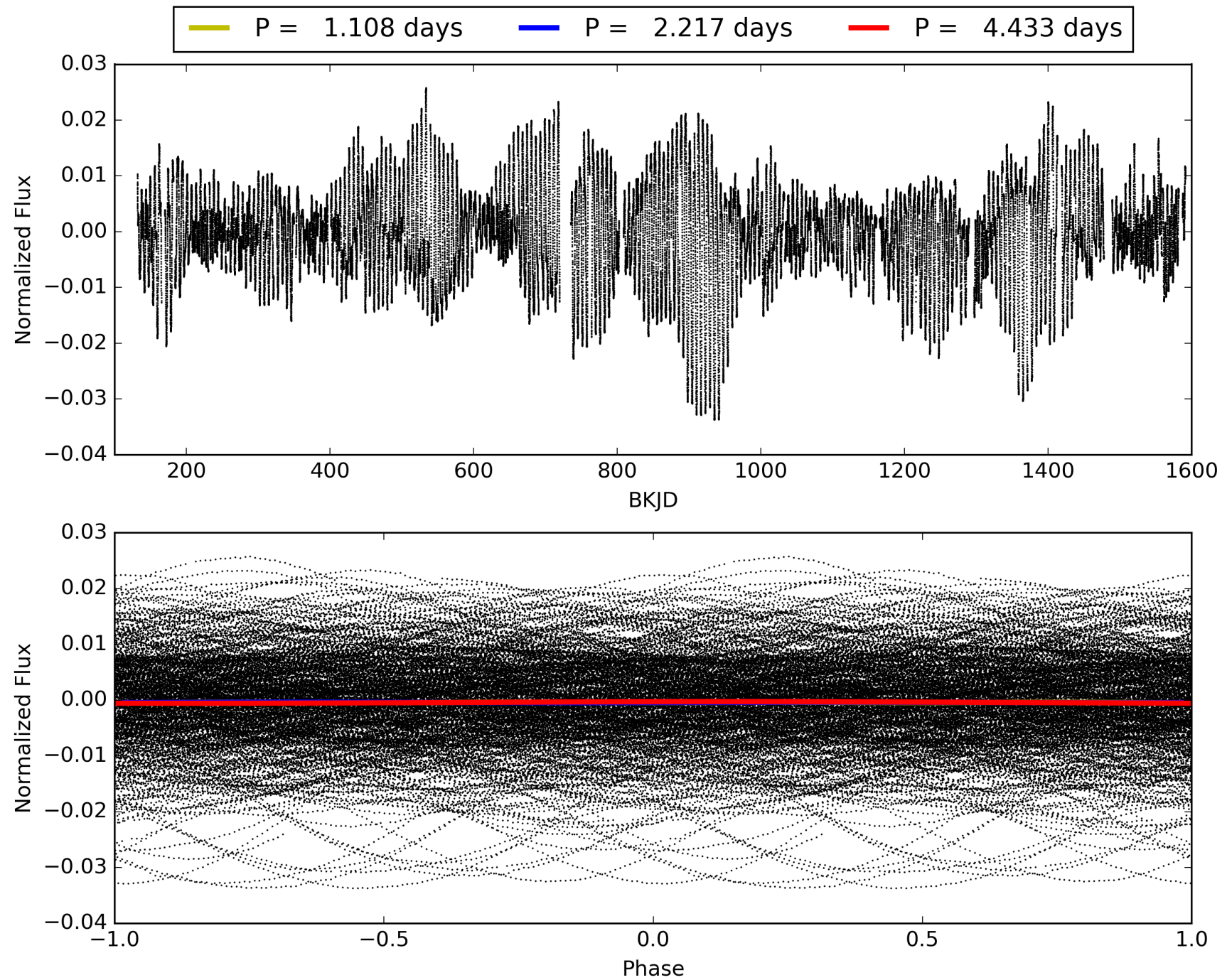
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:58:50 Z

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

TCE 006779260-02, PDC Light Curves

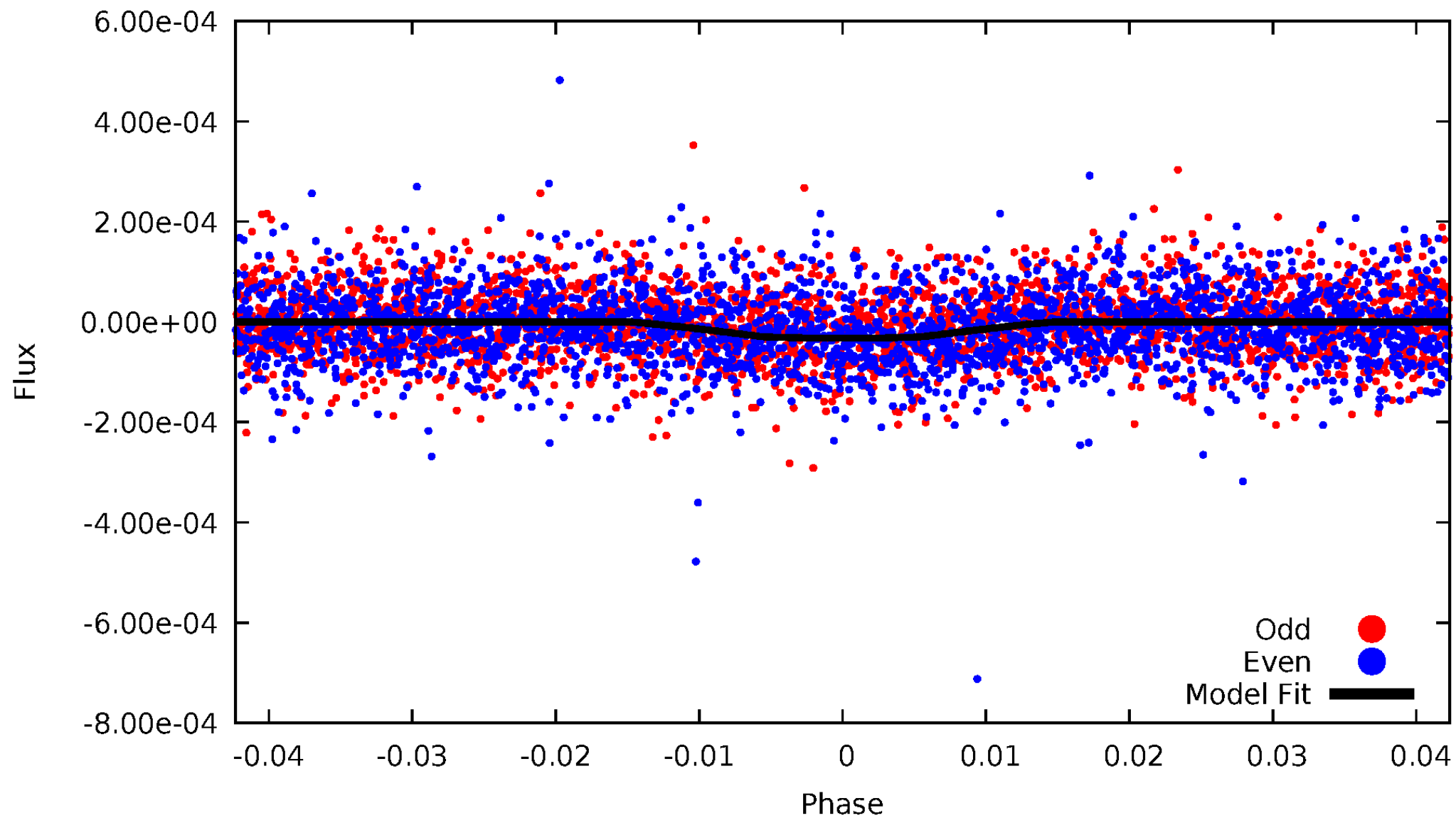


TCE 006779260-02



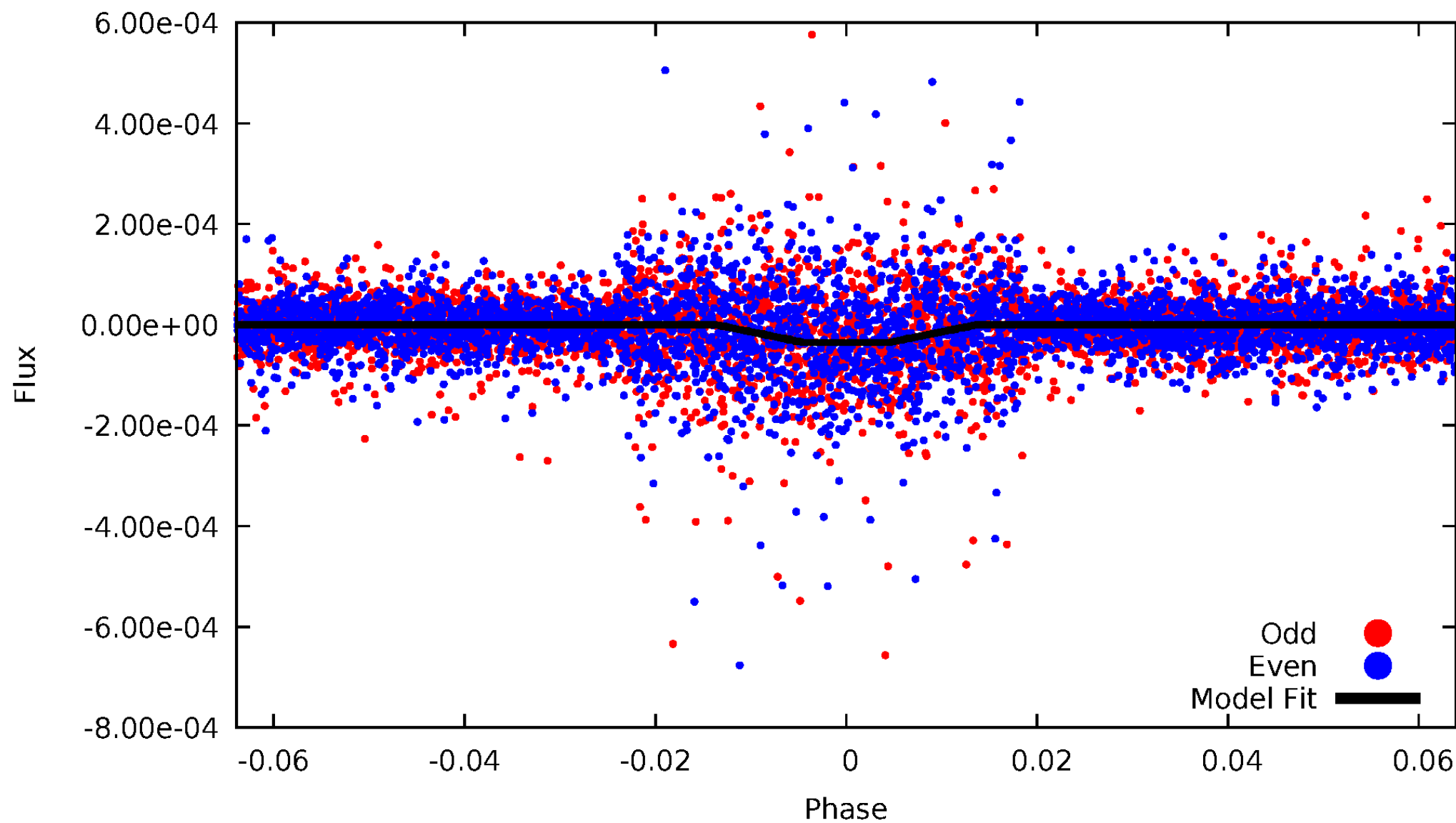
DV Odd/Even

TCE 006779260-02



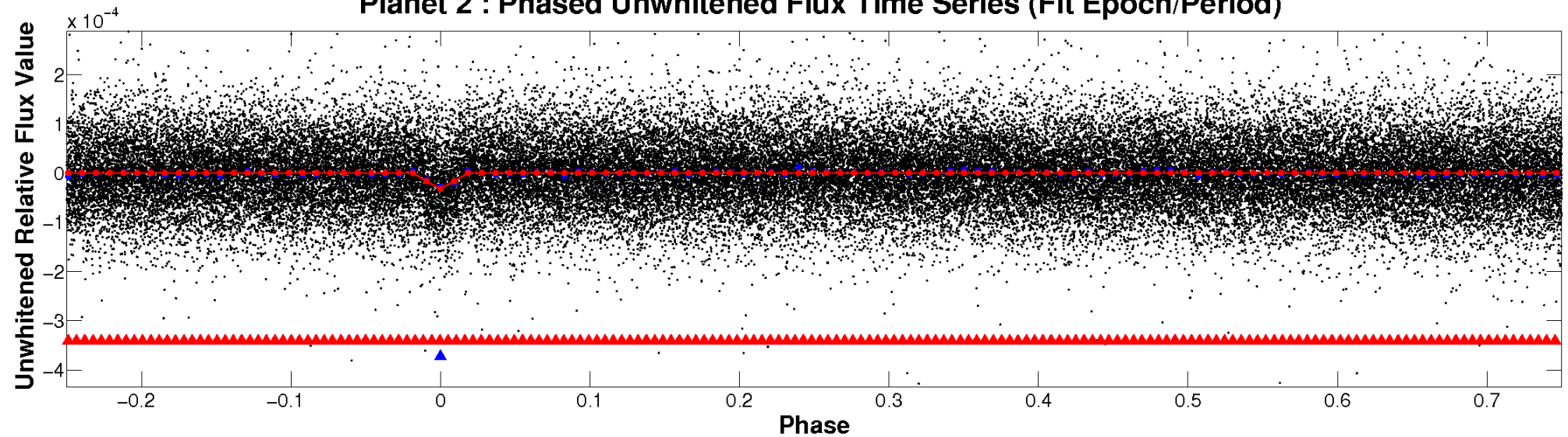
ALT Odd/Even

TCE 006779260-02

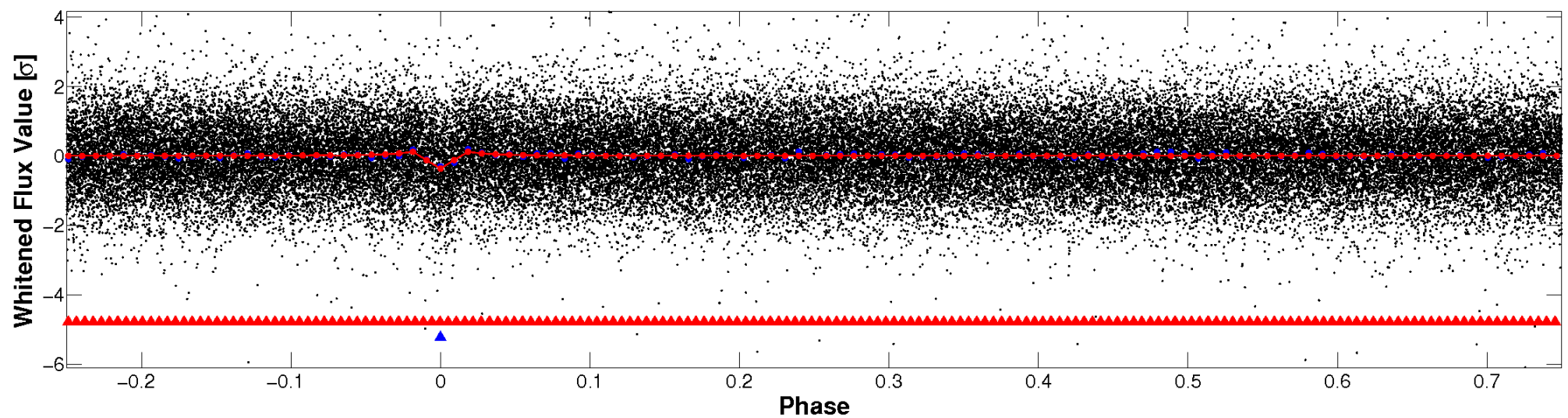


Non-Whitened Vs. Whitened Light Curve

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

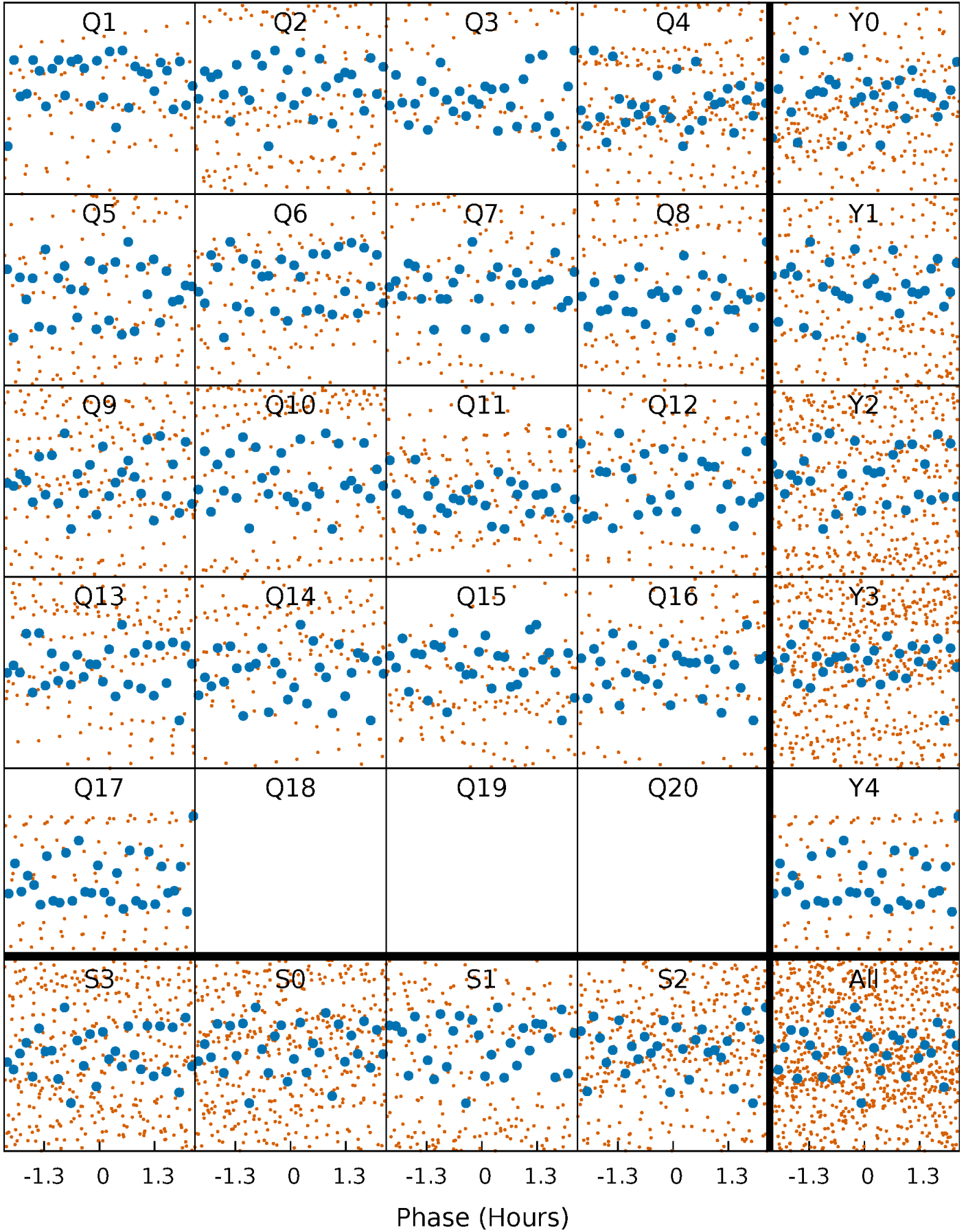


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



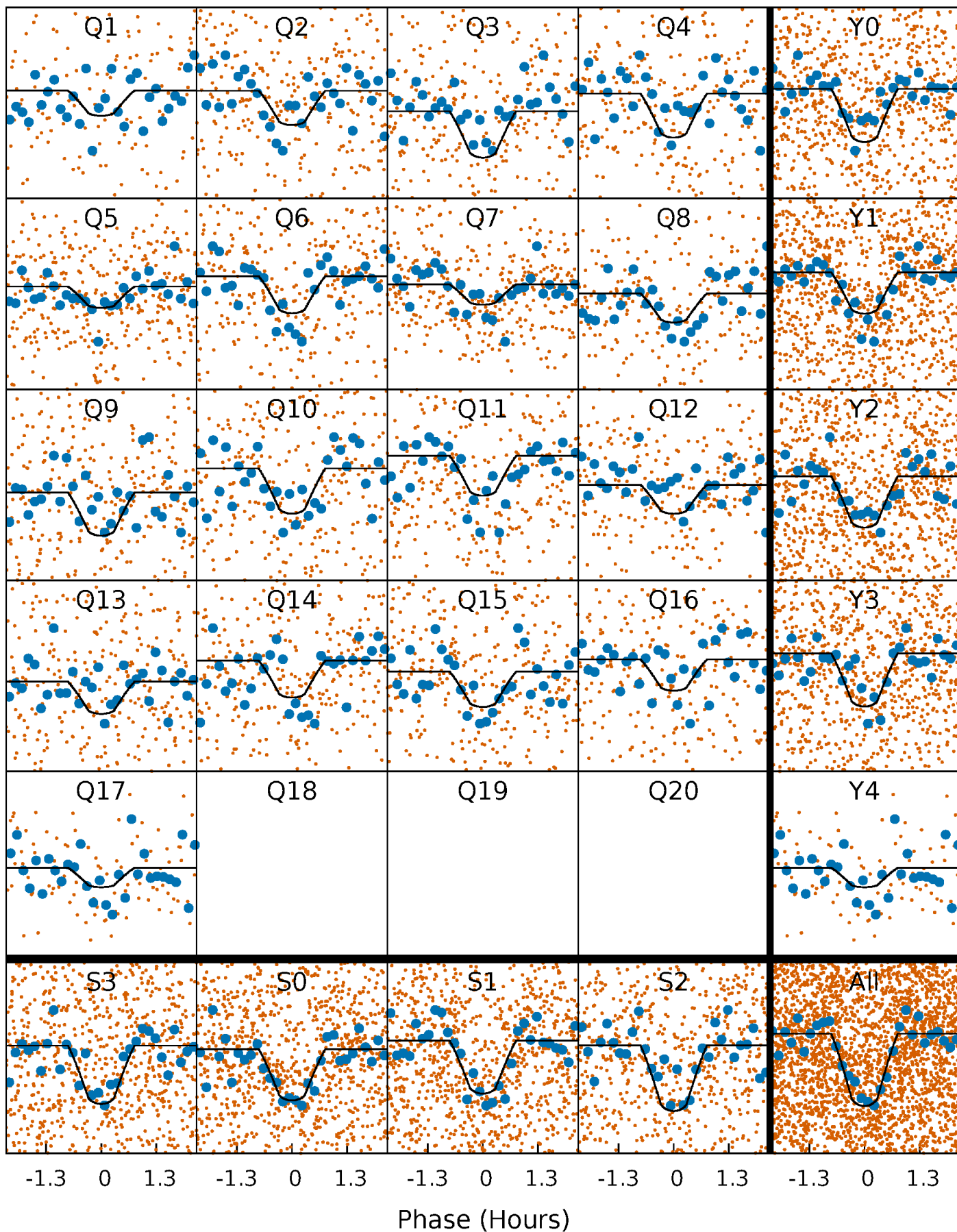
PDC Quarter-Phased Transit Curves

TCE 006779260-02 P= 2.216581 Days $T_0=131.561529$ (BKJD)



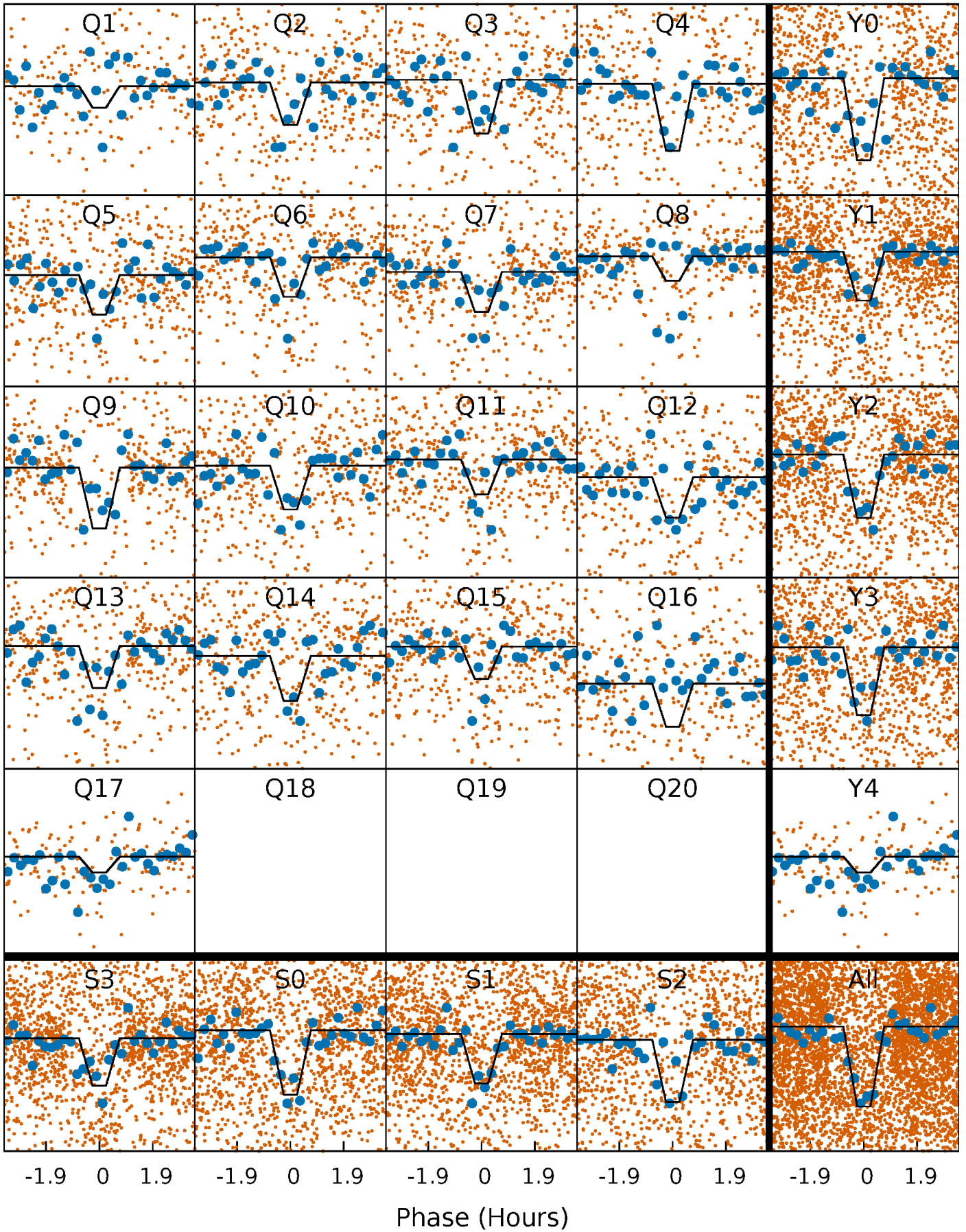
DV Quarter-Phased Transit Curves

TCE 006779260-02 P= 2.216581 Days $T_0=131.561529$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

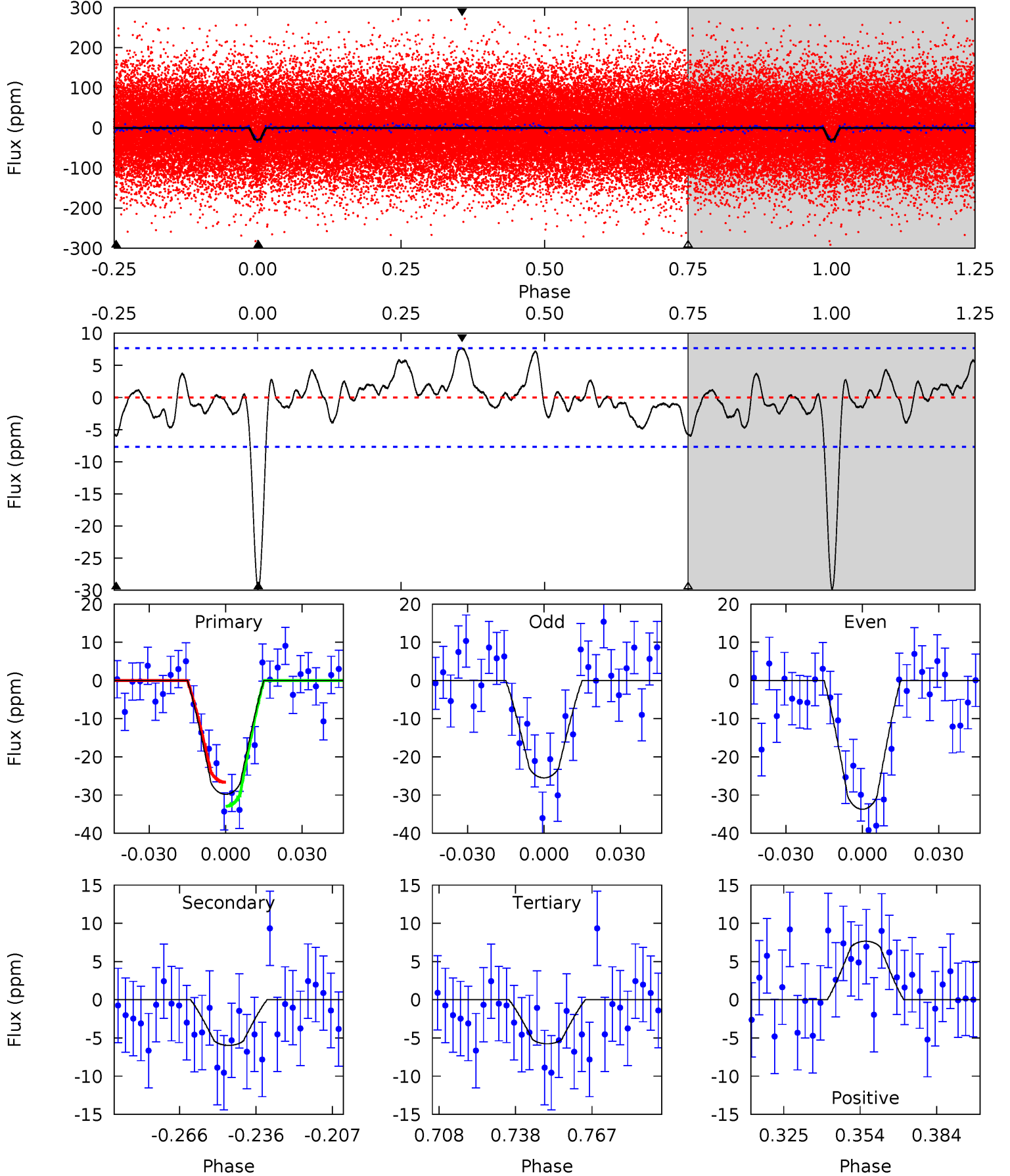
TCE 006779260-02 P= 2.216597 Days $T_0=131.558178$ (BKJD)



DV Model-Shift Uniqueness Test

006779260-02, P = 2.216581 Days, E = 129.344948 Days

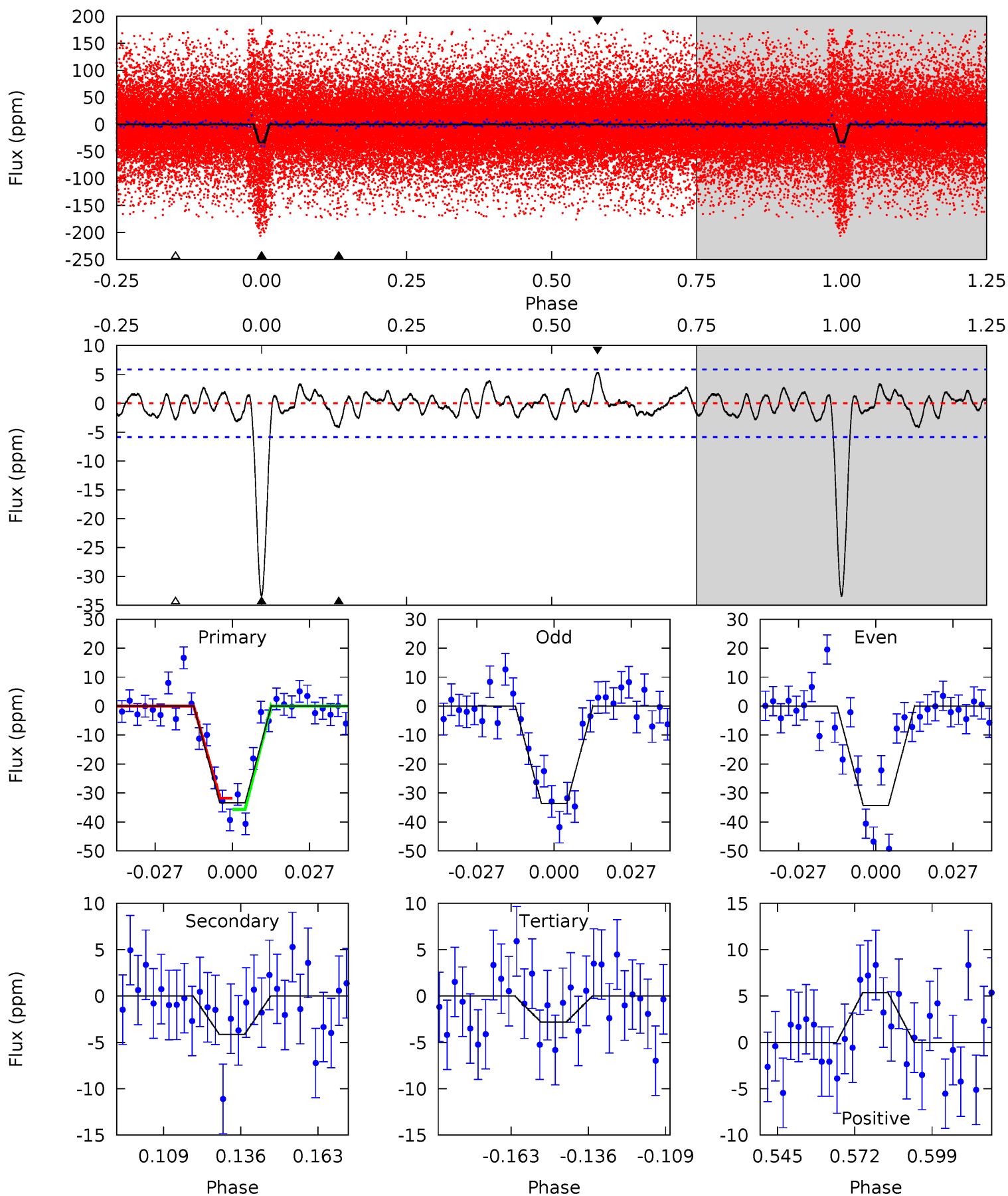
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	3.75	3.62	4.81	4.81	2.18	1.62	15.1	13.9	0.13	-1.06	2.59	0.90	0.20	1.98



Alt Model-Shift Uniqueness Test

006779260-02, P = 2.216597 Days, E = 131.558178 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.5	3.42	2.32	4.41	4.83	2.21	1.28	25.2	23.1	1.09	-1.00	0.29	0.95	0.14	1.61



Stellar Parameters For KIC 006779260

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5397^{+107}_{-107}	$4.543^{+0.033}_{-0.083}$	$-0.020^{+0.150}_{-0.150}$	$0.831^{+0.084}_{-0.045}$	$0.878^{+0.043}_{-0.059}$	$2.159^{+0.284}_{-0.507}$
	+2%/-2%	+1%/-2%	+750%/-750%	+10%/-5%	+5%/-7%	+13%/-23%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 006779260-02 / KOI 2678.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 2	$0.57^{+0.14}_{-0.13}$	1713^{+47}_{-48}	3720^{+429}_{-317}	$9.884^{+7.907}_{-3.997}$
Alt.	-4 ± 1	$0.54^{+0.14}_{-0.13}$	1710^{+53}_{-48}	3554^{+397}_{-314}	$7.462^{+6.651}_{-3.125}$

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

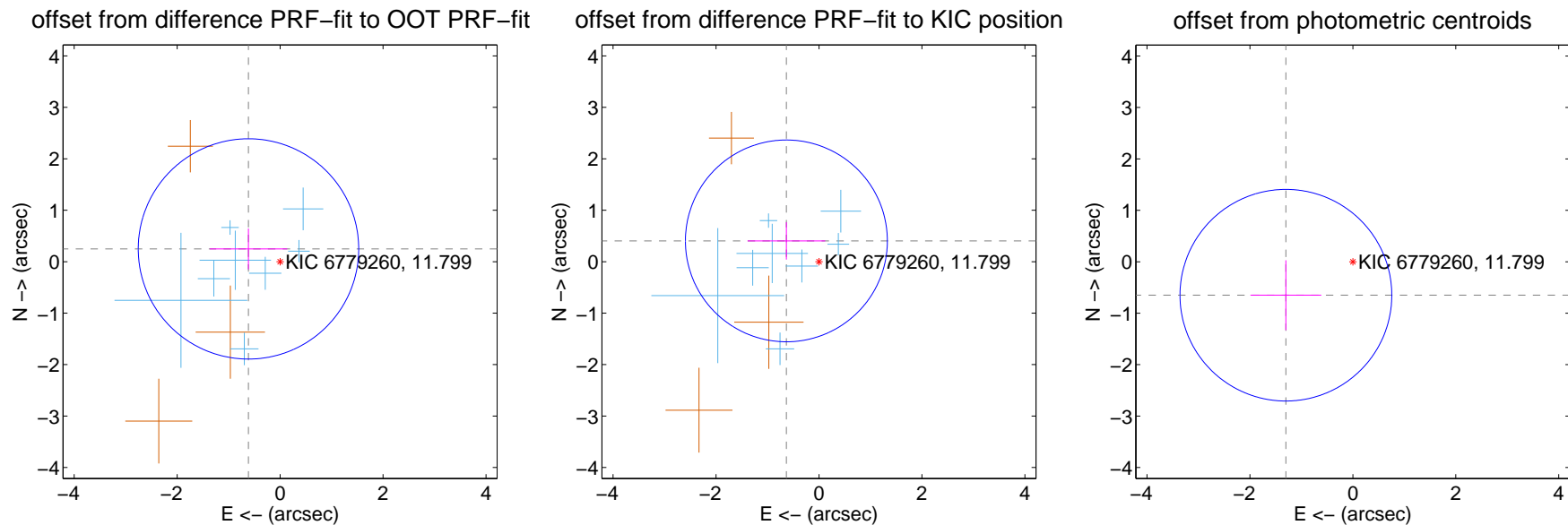
DV Centroid Data

Supplemental centroid analysis for 006779260-02. **Kepler magnitude: 11.80.** Transit SNR 11.63

There are 8 quarters with good PRF difference image offsets

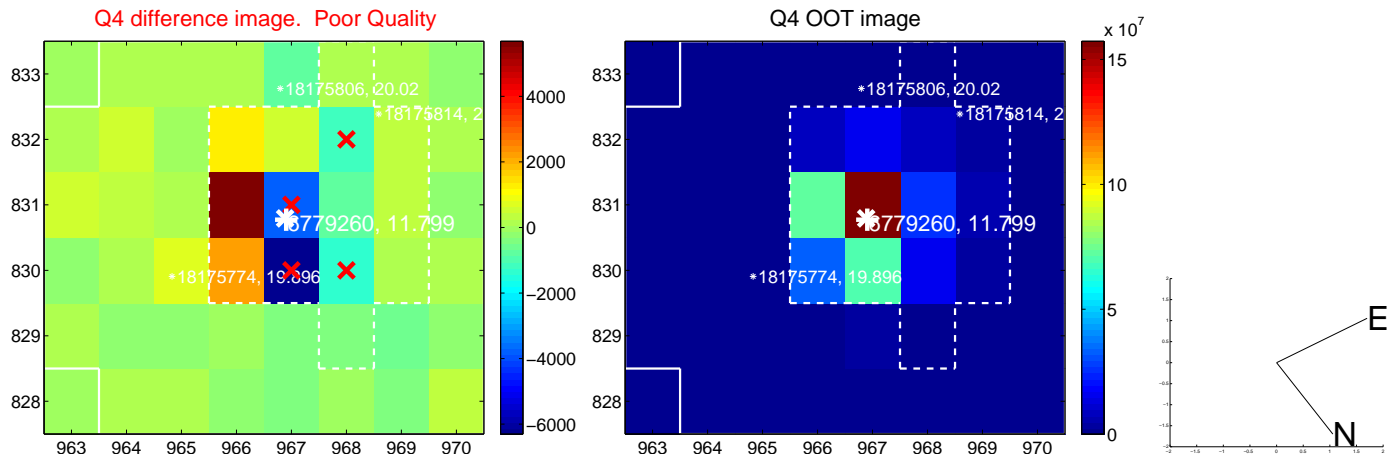
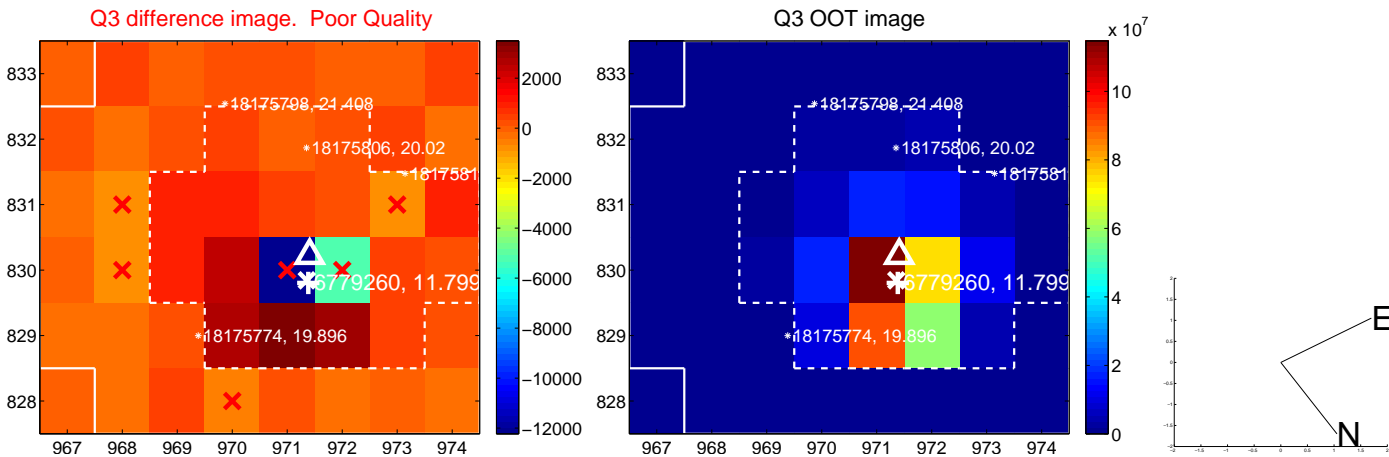
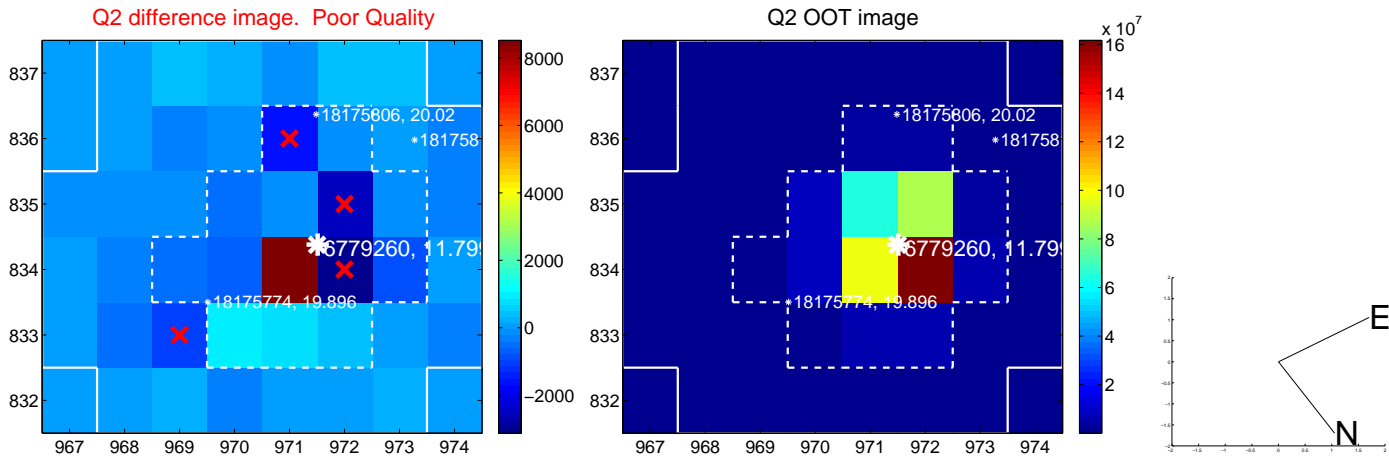
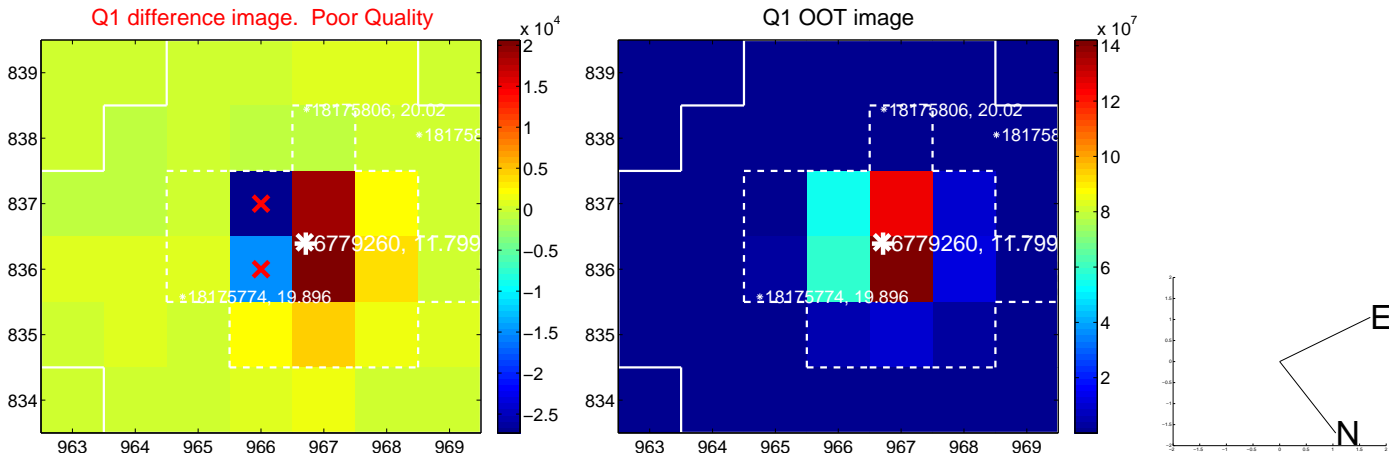
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.663 ± 0.714	0.93	0.614 ± 0.753	0.248 ± 0.396
PRF-fit source offset from KIC position	0.751 ± 0.654	1.15	0.633 ± 0.754	0.404 ± 0.363
photometric centroid source offset	1.45 ± 0.69	2.12	1.30 ± 0.69	-0.65 ± 0.68

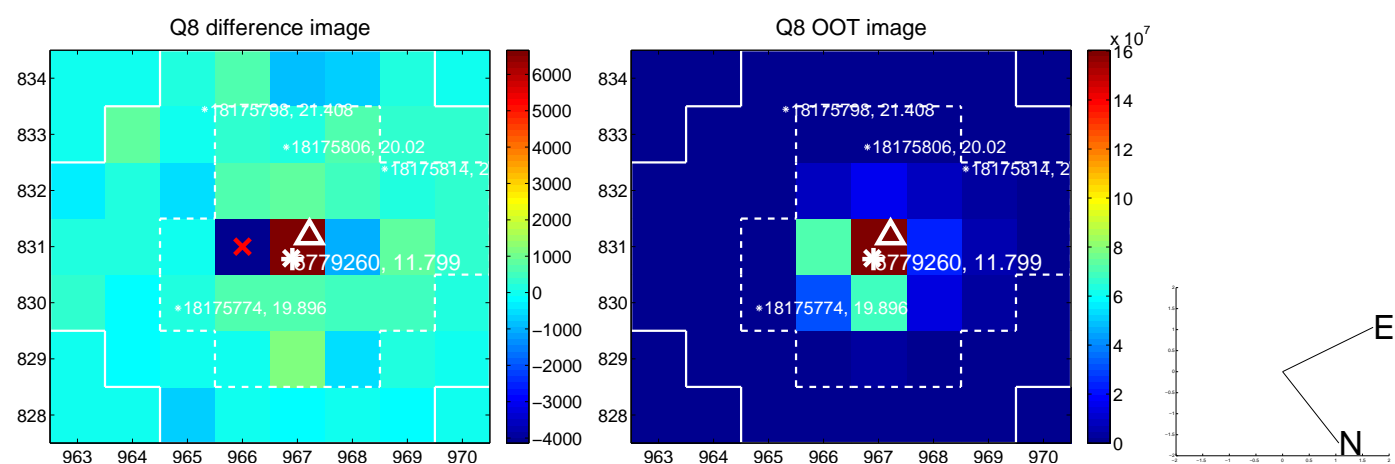
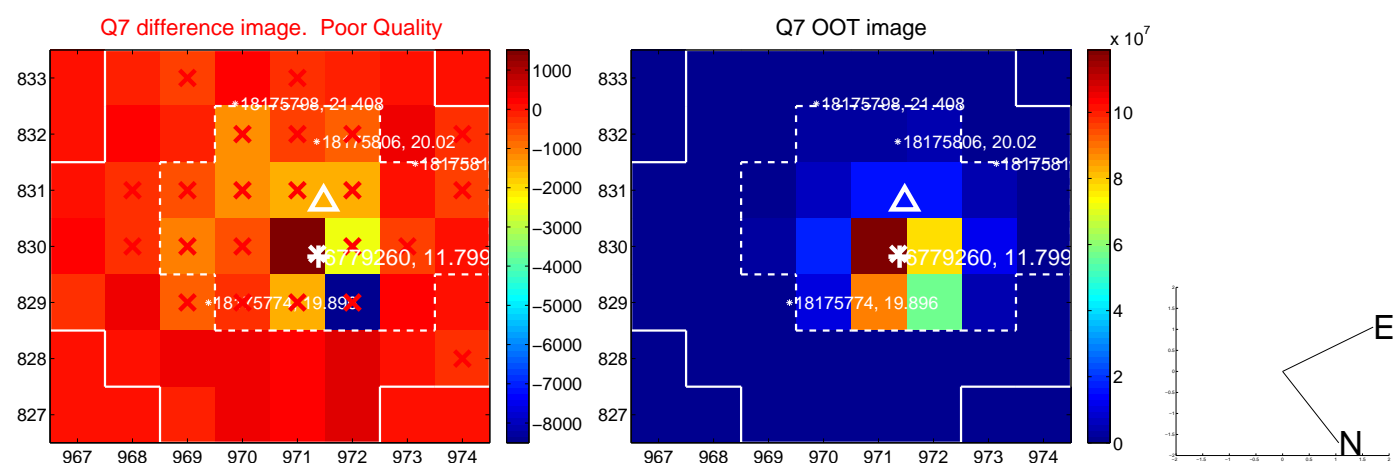
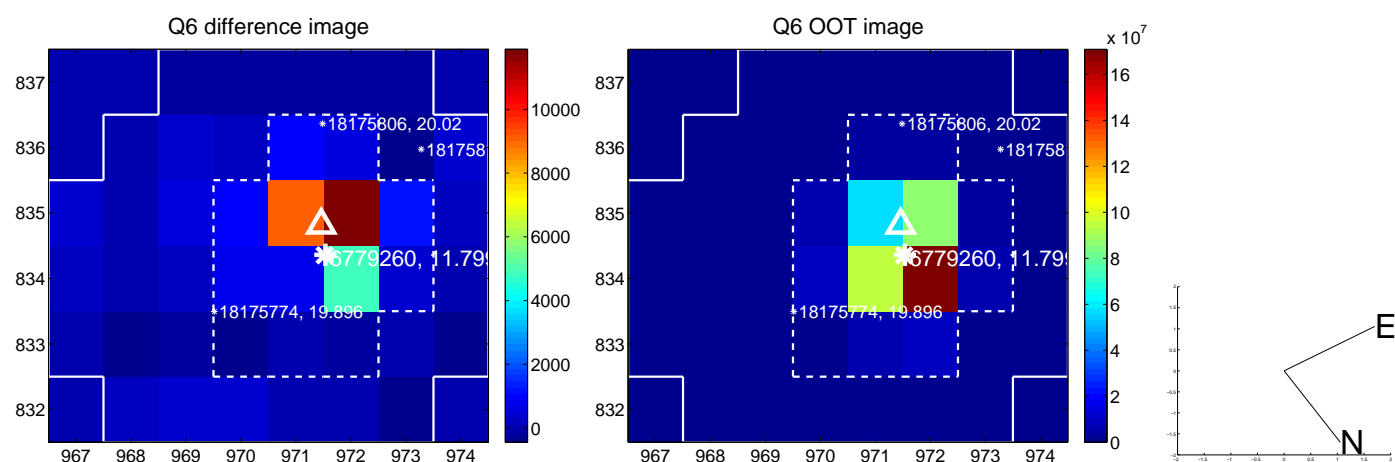
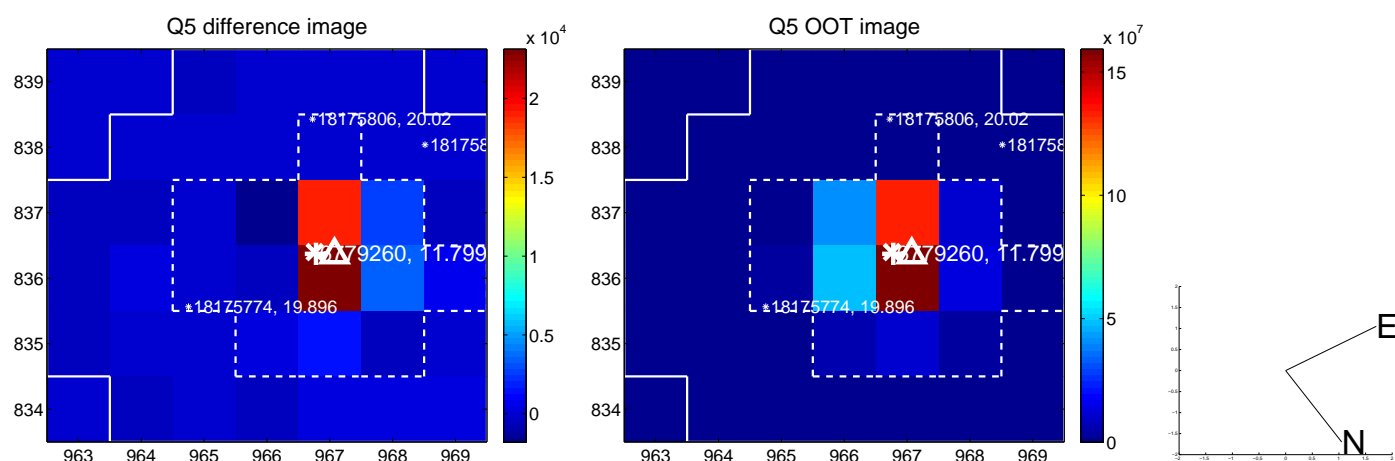


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

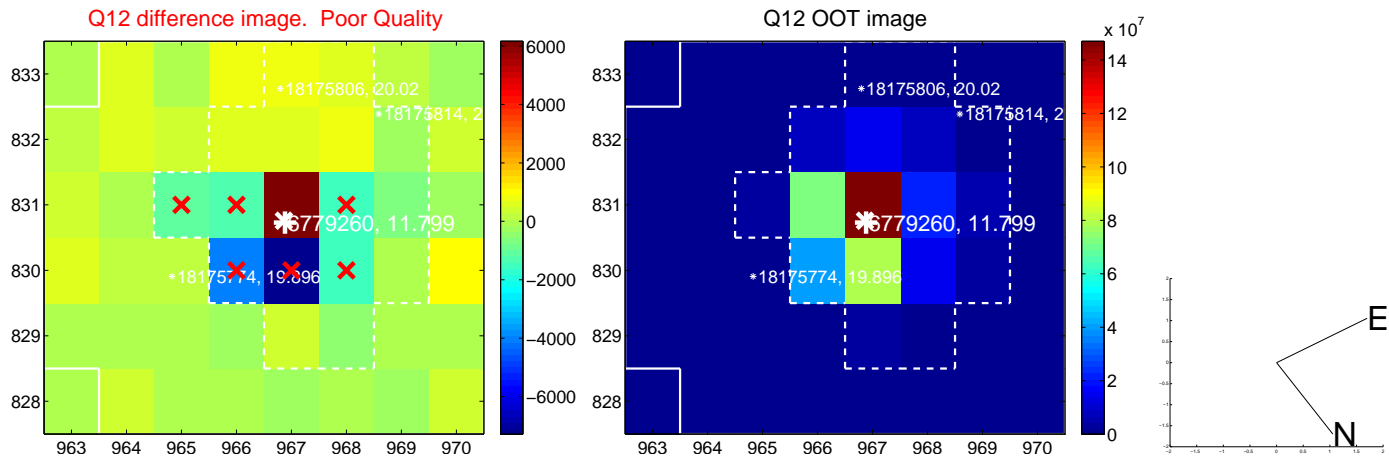
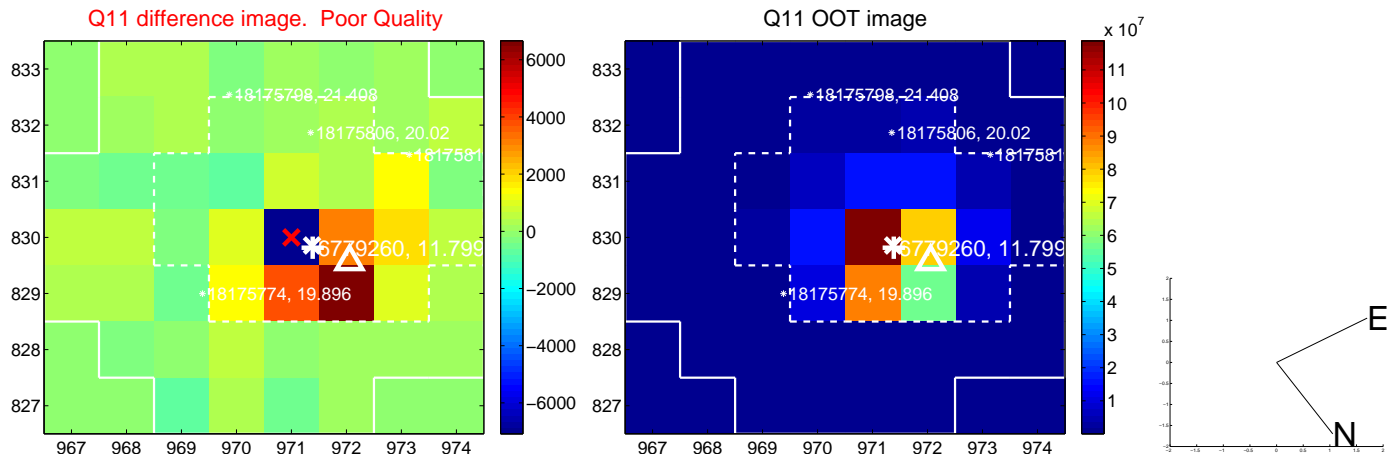
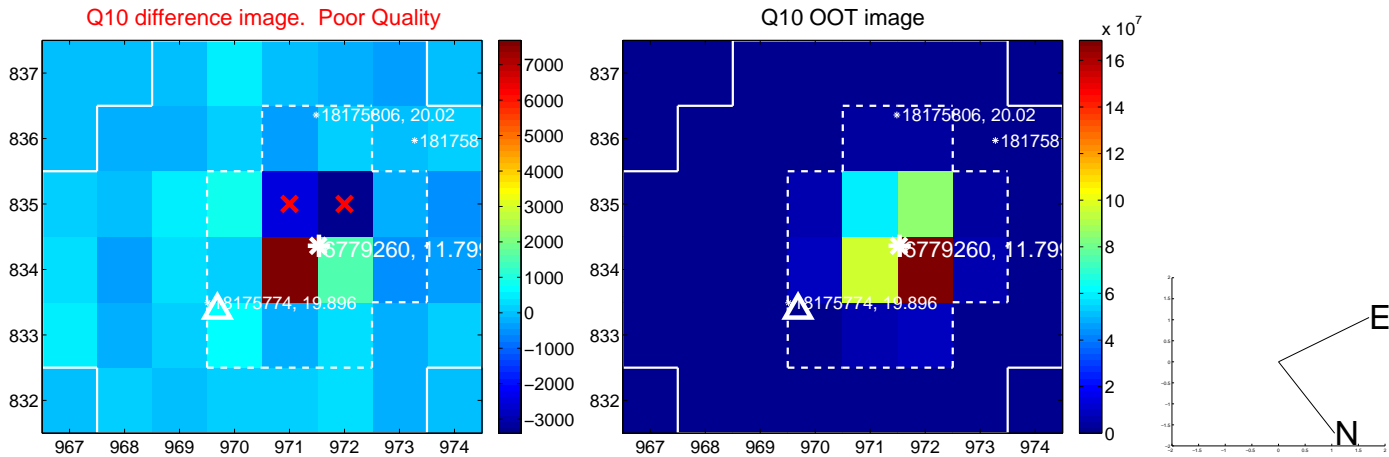
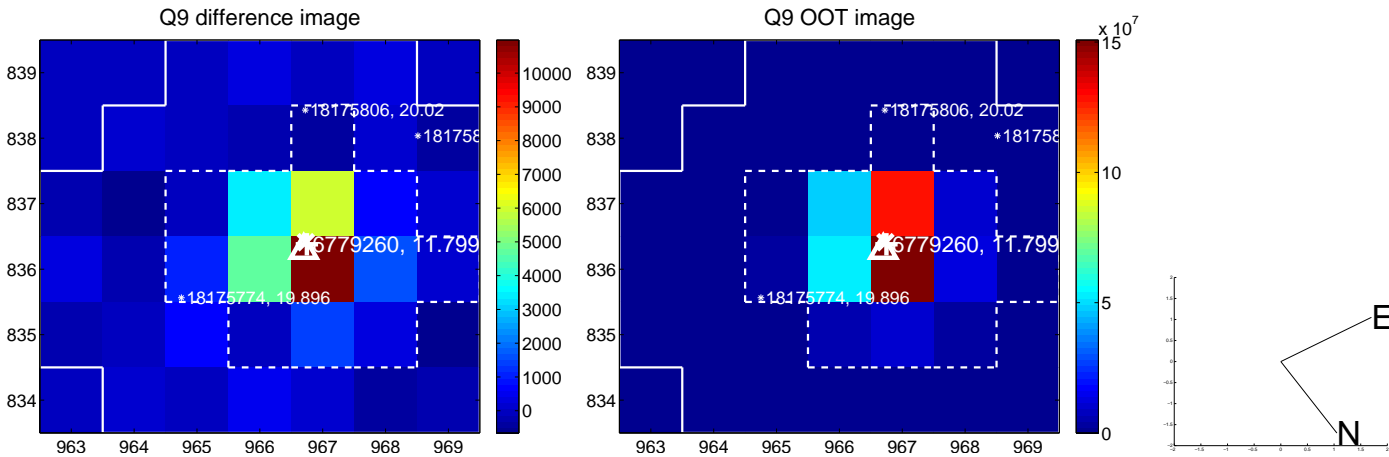
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



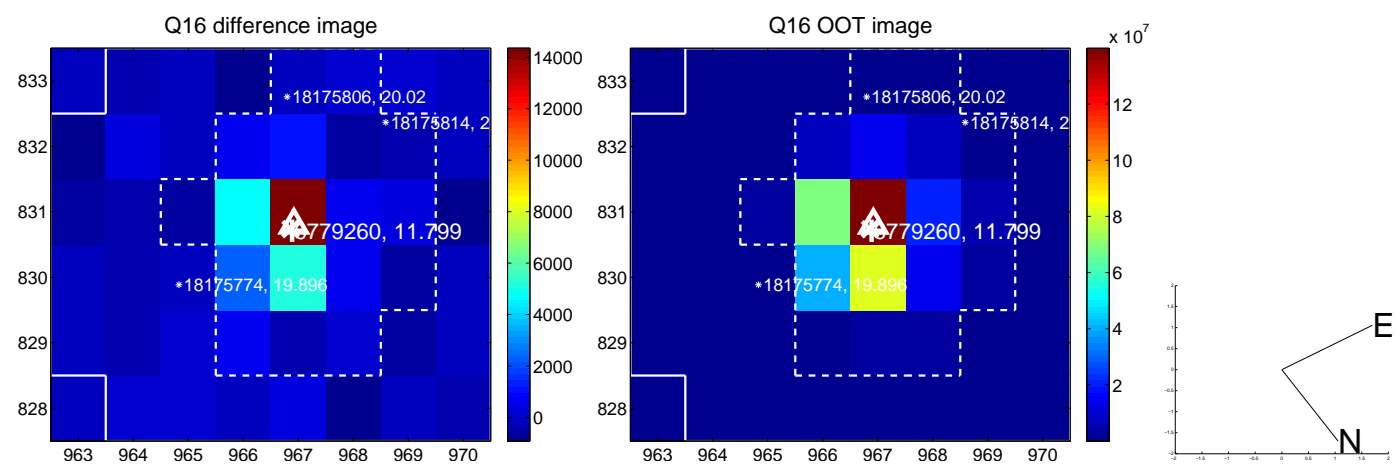
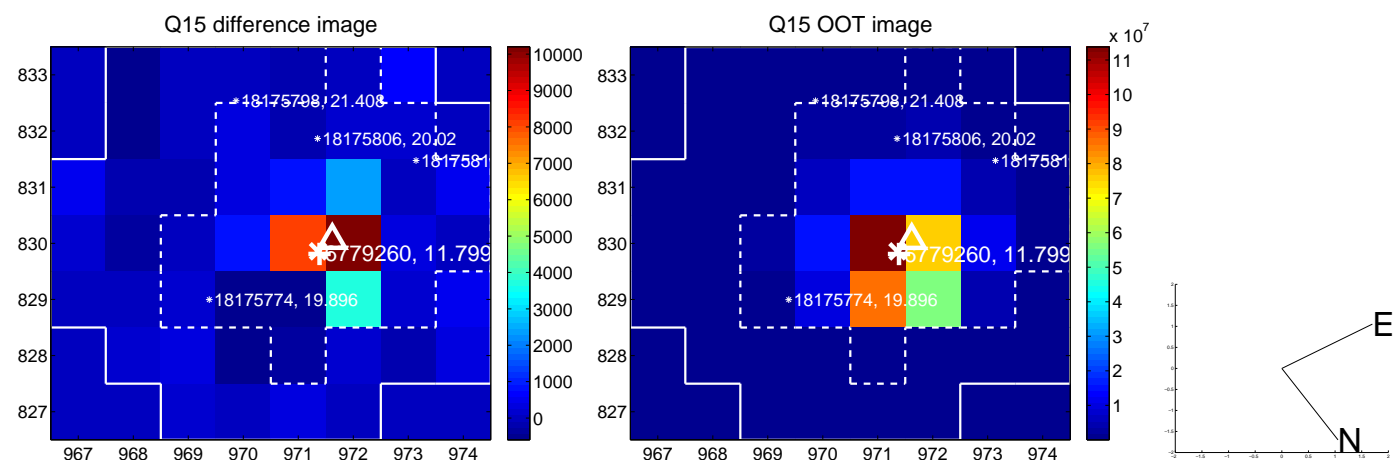
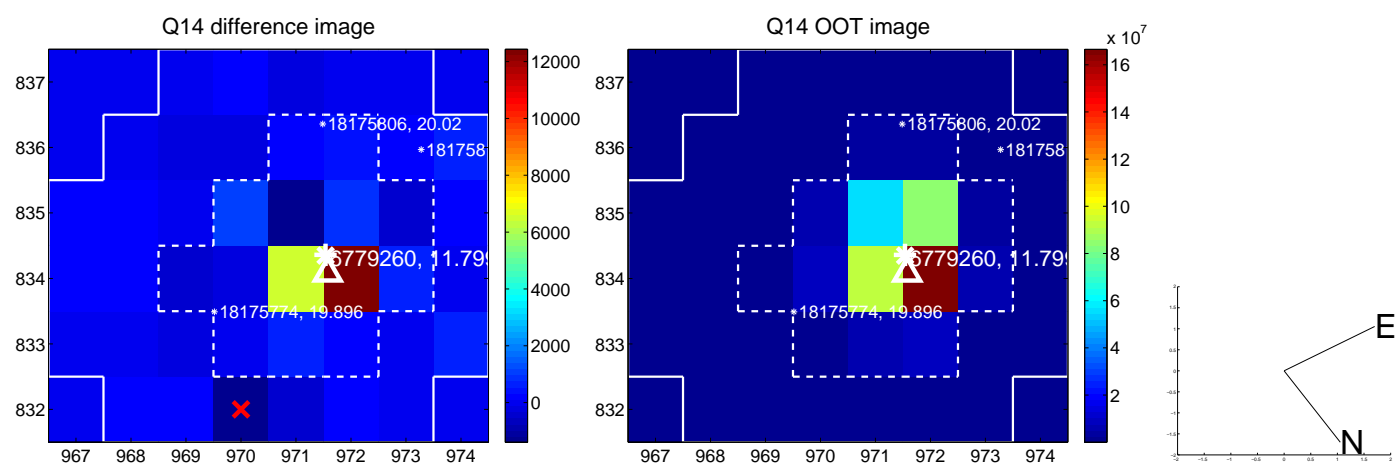
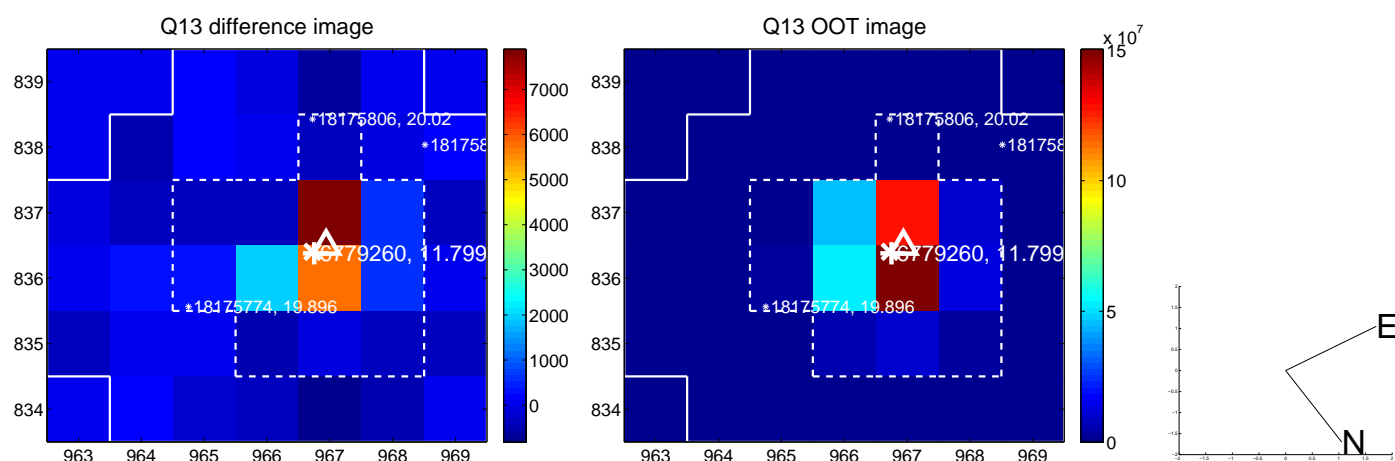
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



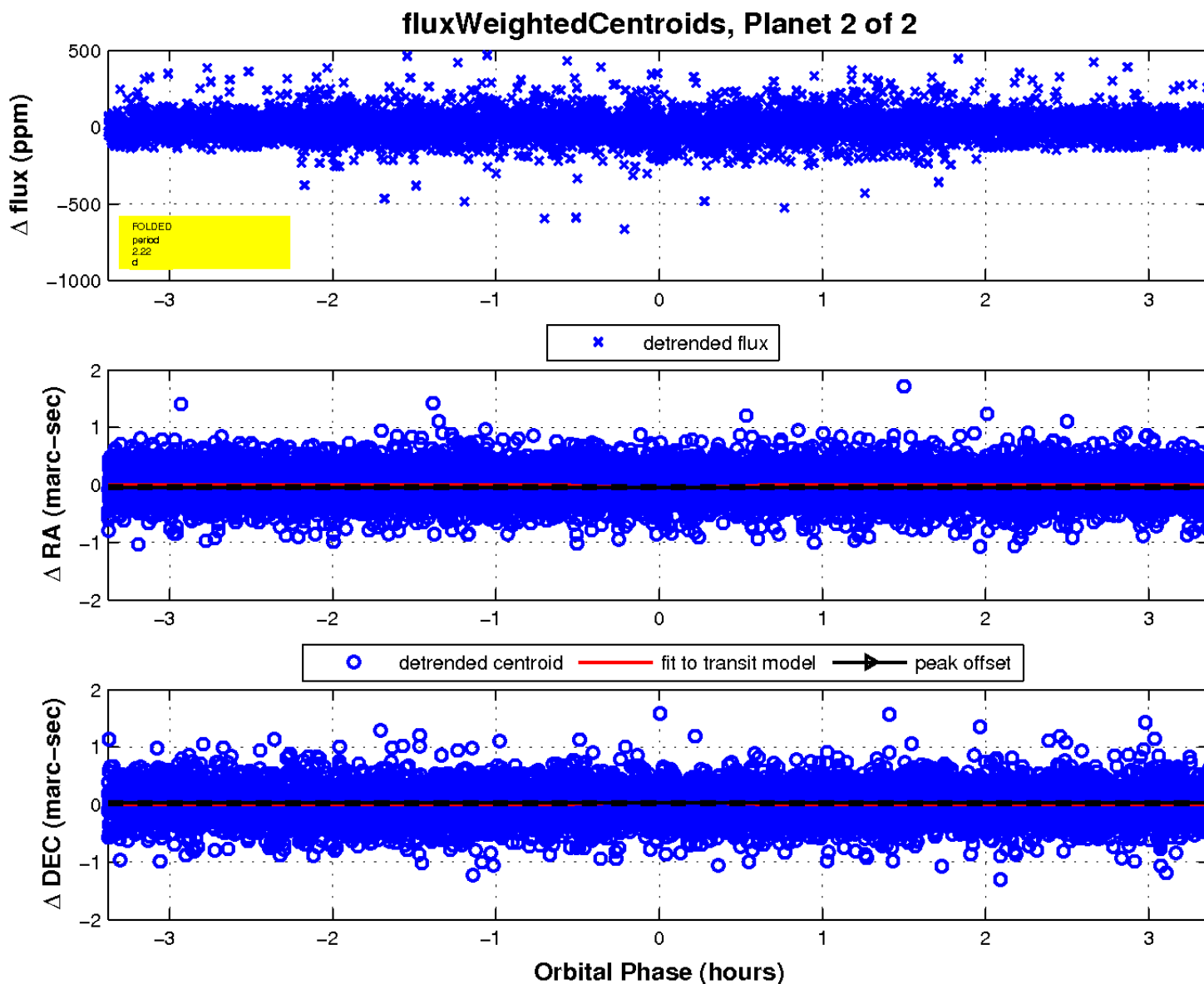
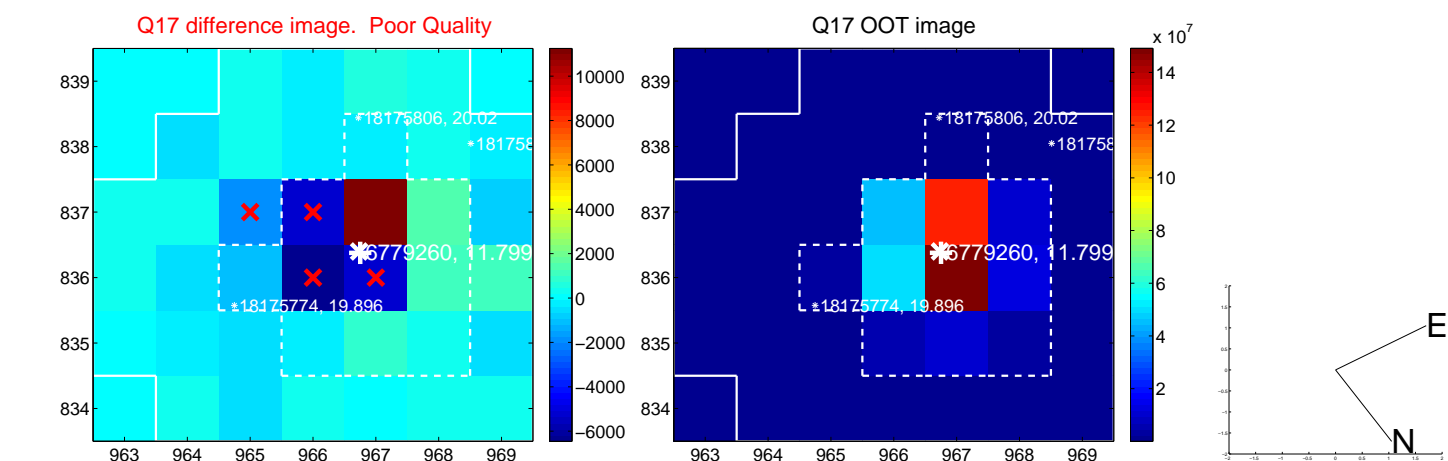
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

