

KIC 011189127

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})
011189127-01	OBS	0347.01	2.671943	132.446743	15699.6	1.904	1705.9	1704.0	1.05	6116	19.58	1071.10
011189127-02	OBS	No	1.335977	132.445357	645.8	1.414	66.2	81.0	1.05	6116	3.16	2698.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011189127-01	OBS	PC	0.35	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
011189127-02	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.

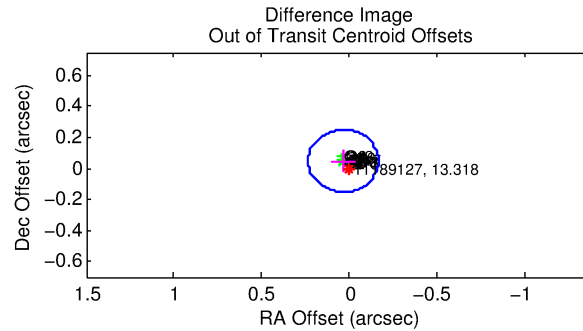
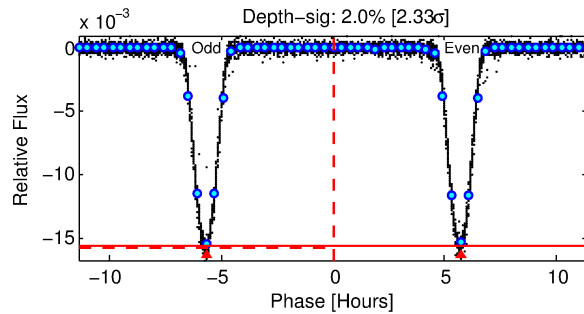
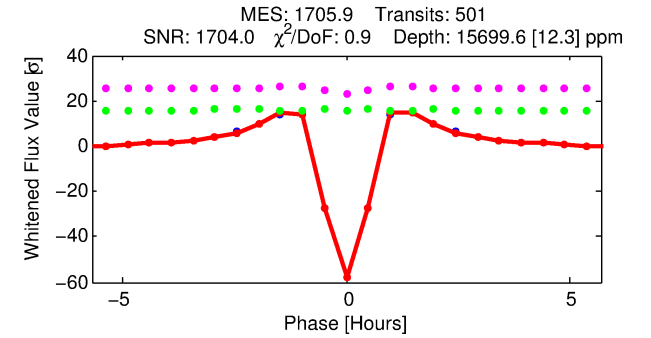
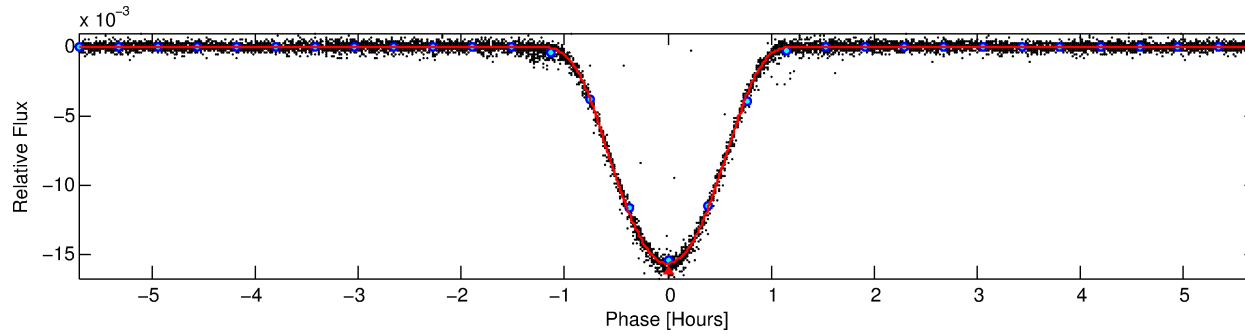
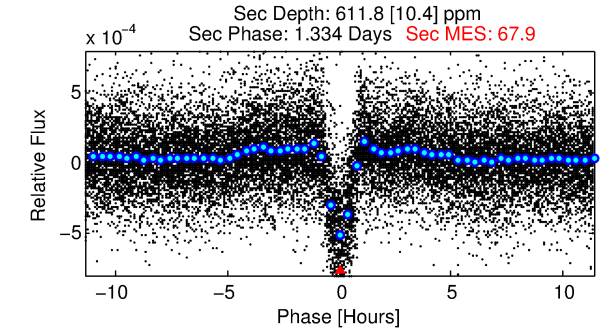
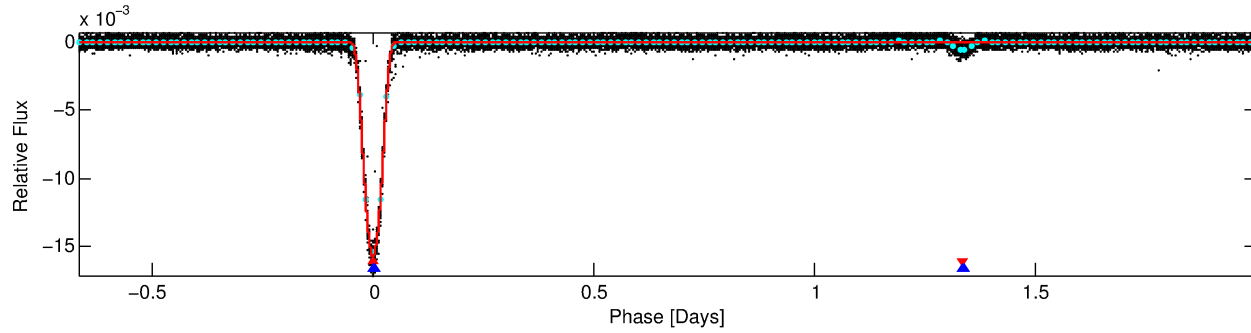
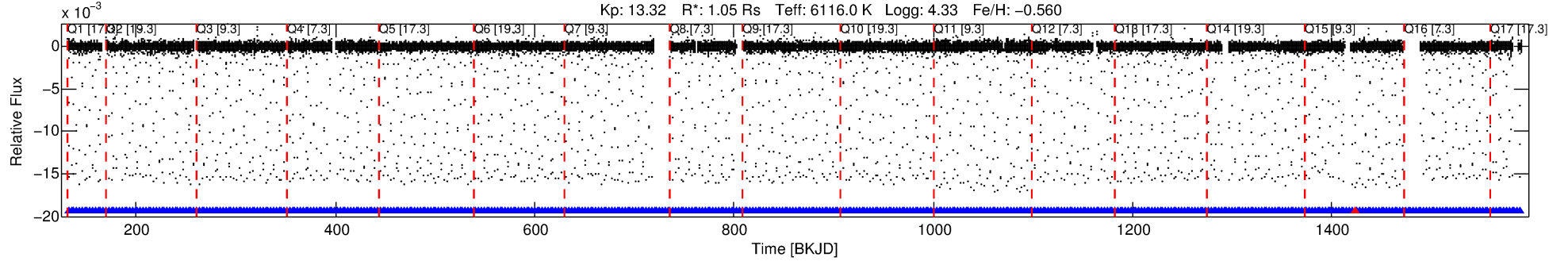
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011189127-01

No Significant Match Found

DV One-Page Summary

KIC: 11189127 Candidate: 1 of 2 Period: 2.672 d
KOI: K00347.01 Corr: 0.999



DV Fit Results:

Period = 2.67194 [0.00000] d
Epoch = 132.4467 [0.0000] BKJD
Rp/R* = 0.1701 [0.0031]
a/R* = 7.43 [0.03]
b = 0.95 [0.01]
Seff = 1071.10 [384.93]
Teff = 1459 [131] K
Rp = 19.58 [5.39] Re
a = 0.0361 [0.0083] AU
Ag = 1.14 [0.38] [0.38 σ]
Teffp = 2332 [84] K [5.61 σ]

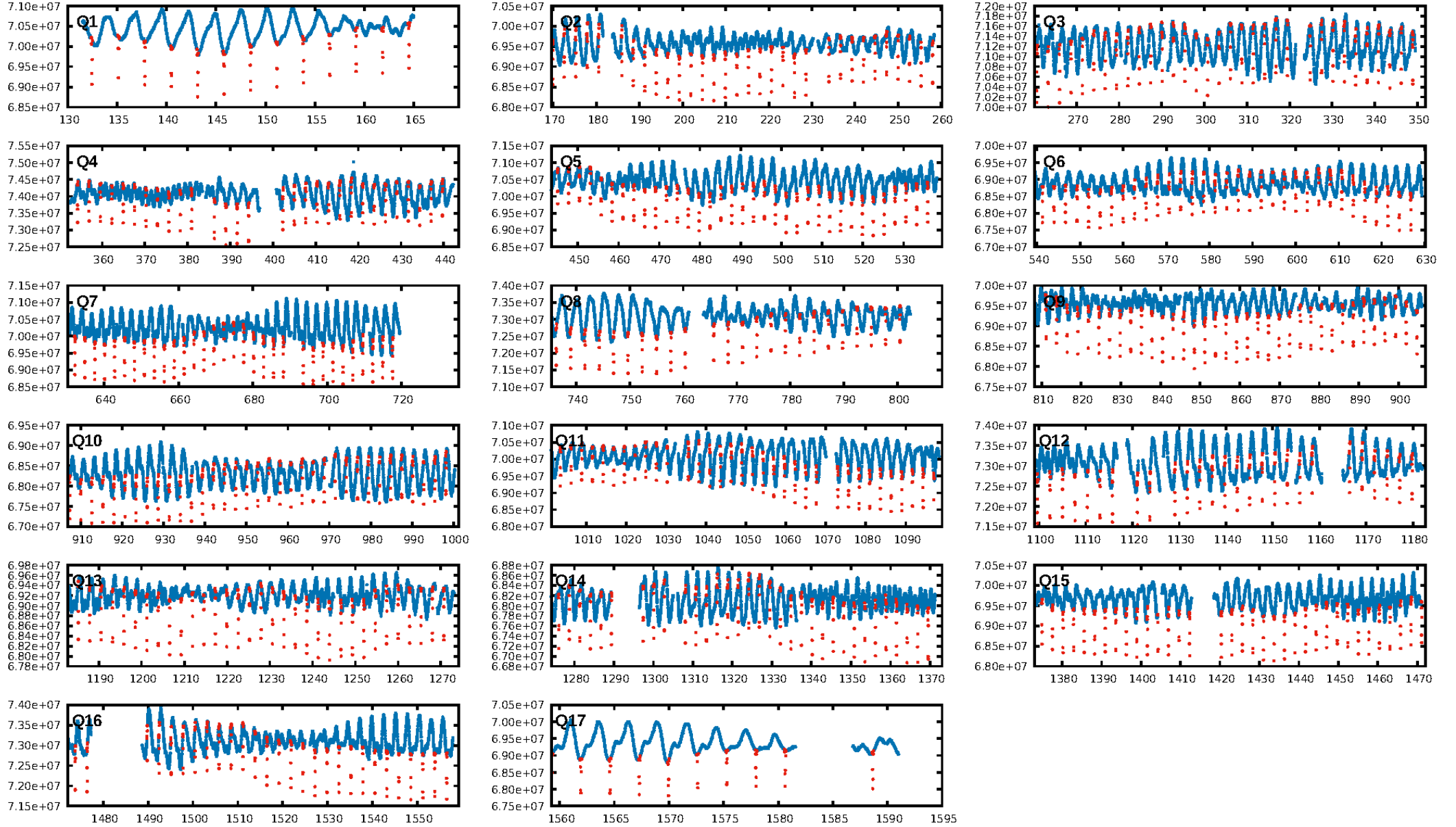
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.52 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [477/478]
GhostDiagnostic-chr: 5.061
Centroid-sig: 0.0%
Centroid-so: 0.286 arcsec [40.78 σ]
OotOffset-rm: 0.060 arcsec [0.90 σ]
KicOffset-rm: 0.069 arcsec [1.03 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

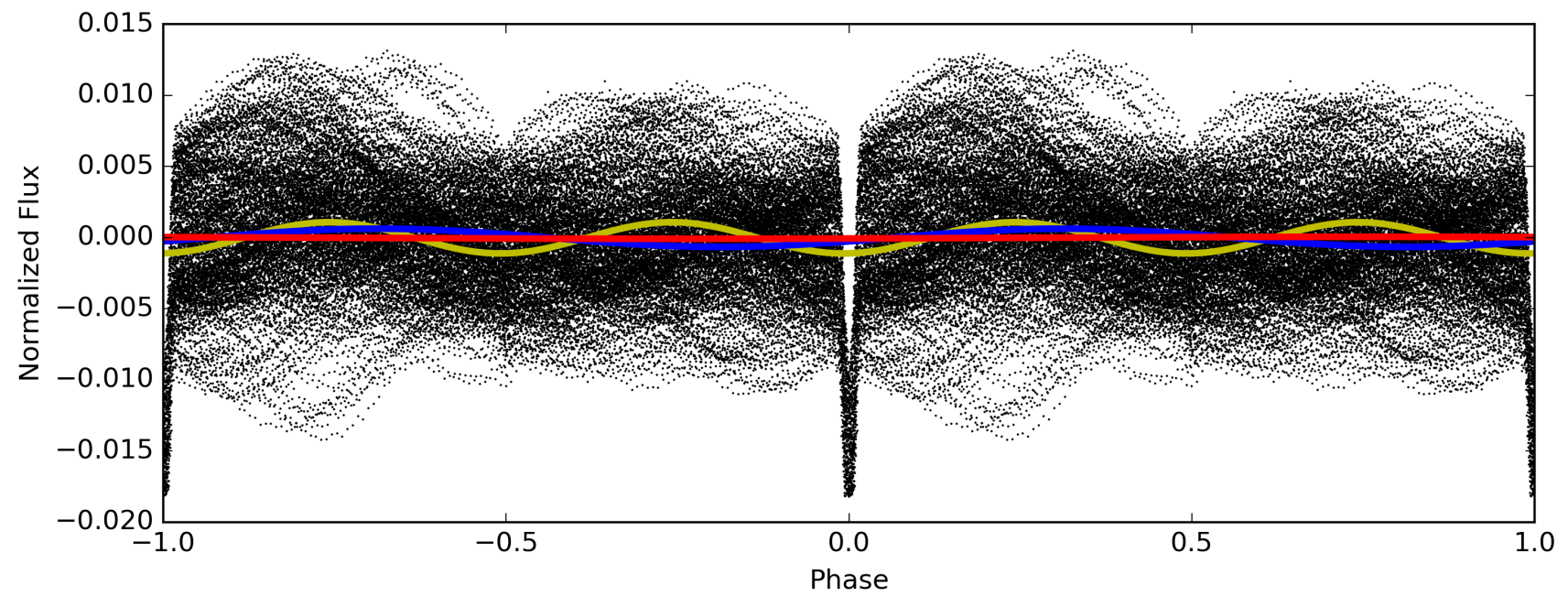
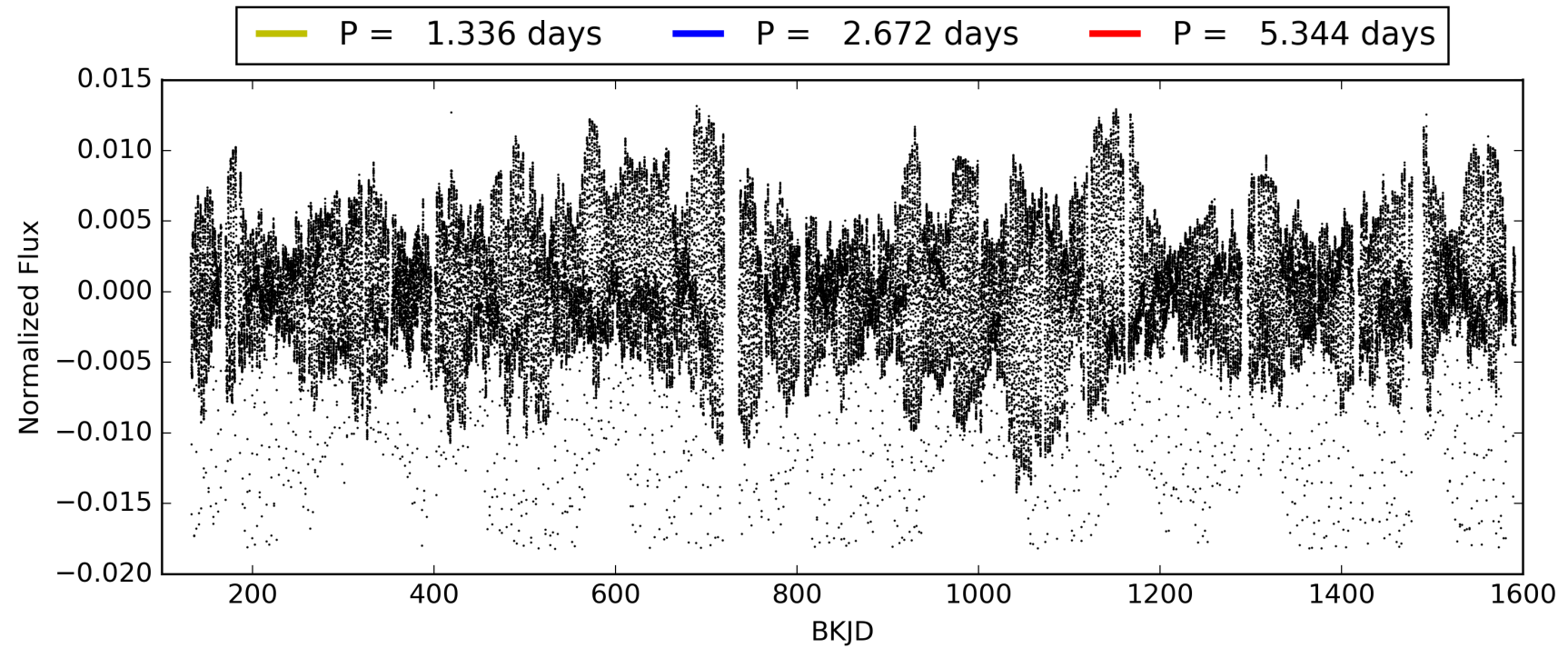
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:10:02 Z

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

TCE 011189127-01, PDC Light Curves

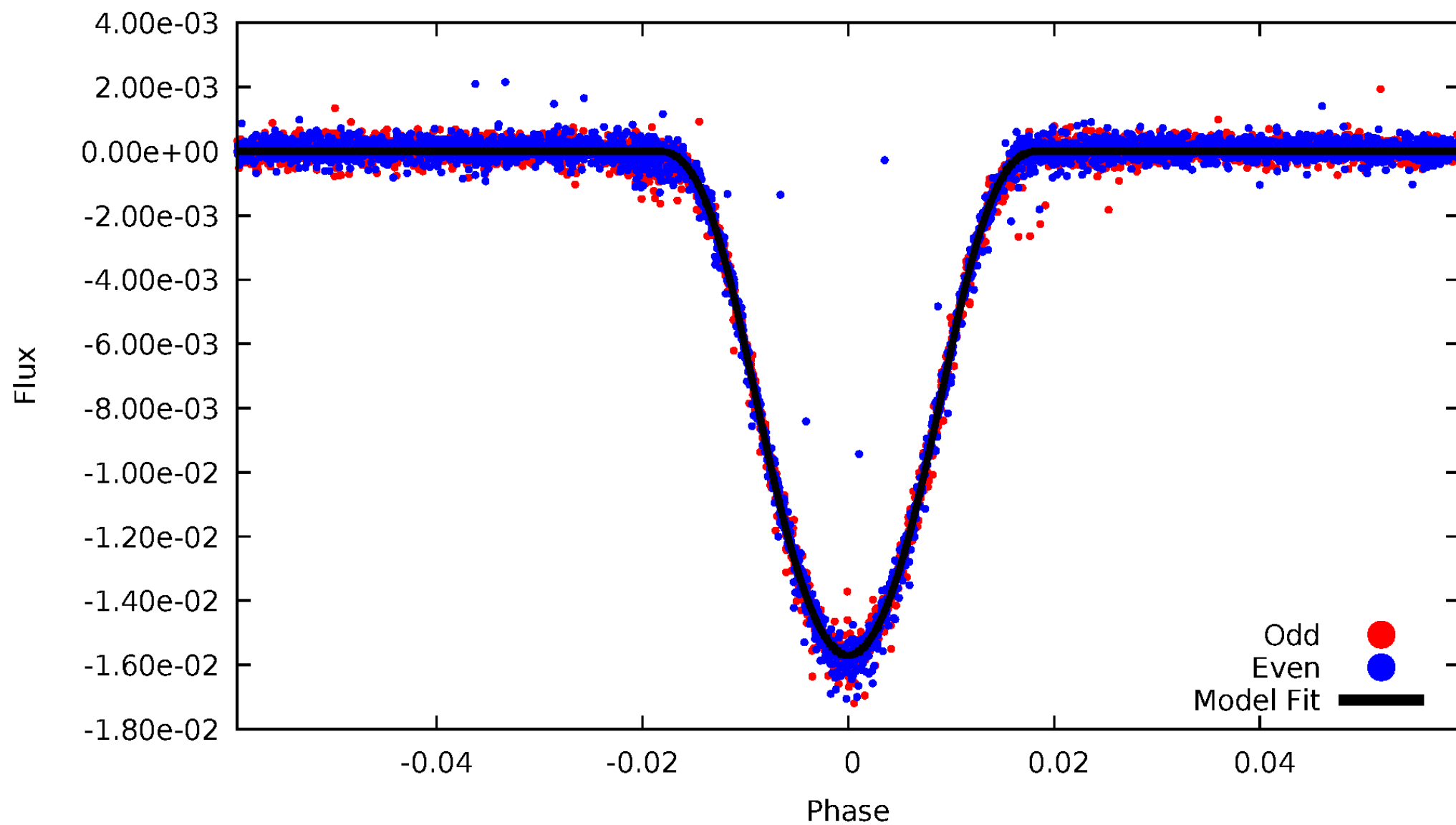


TCE 011189127-01



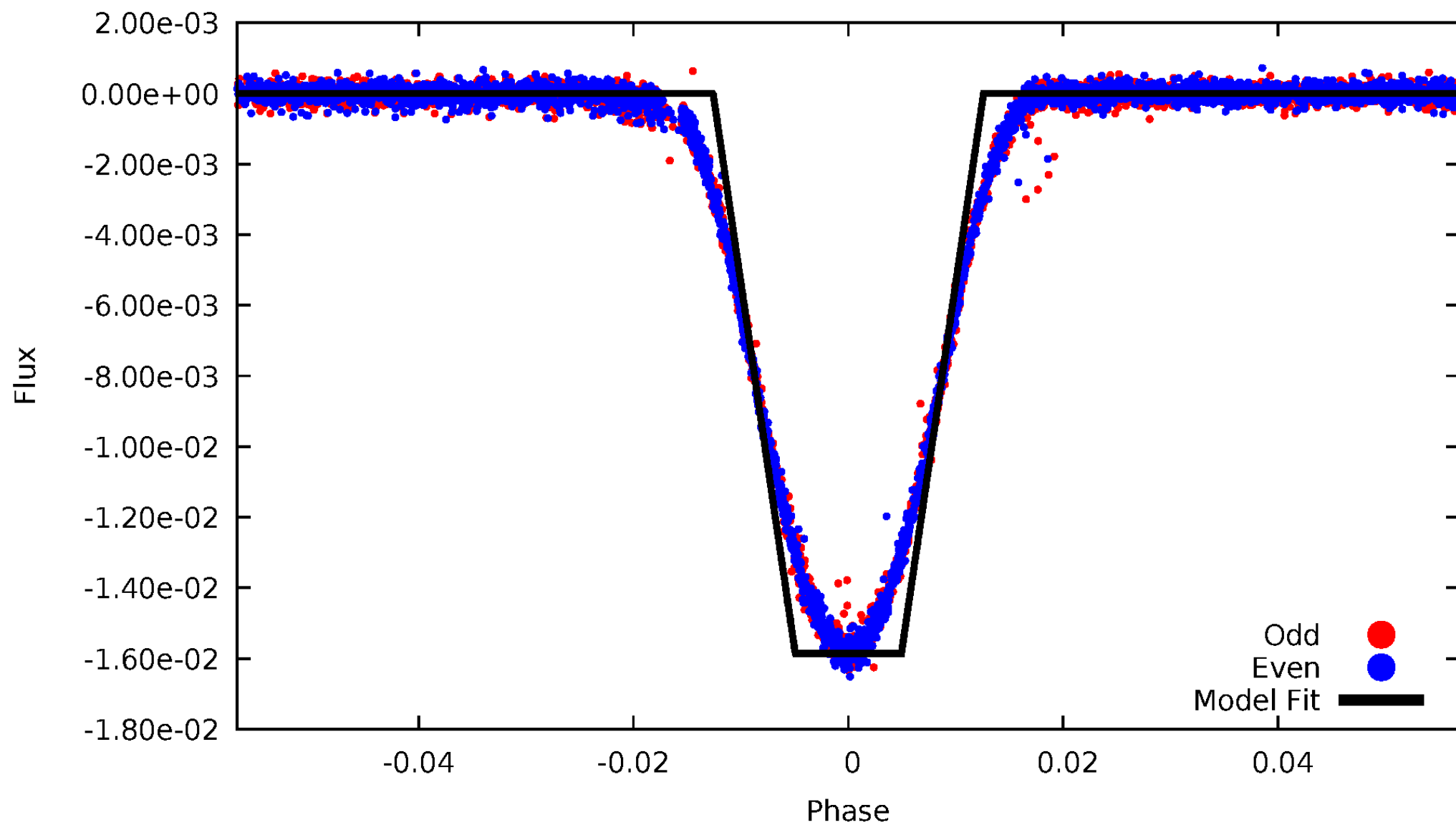
DV Odd/Even

TCE 011189127-01



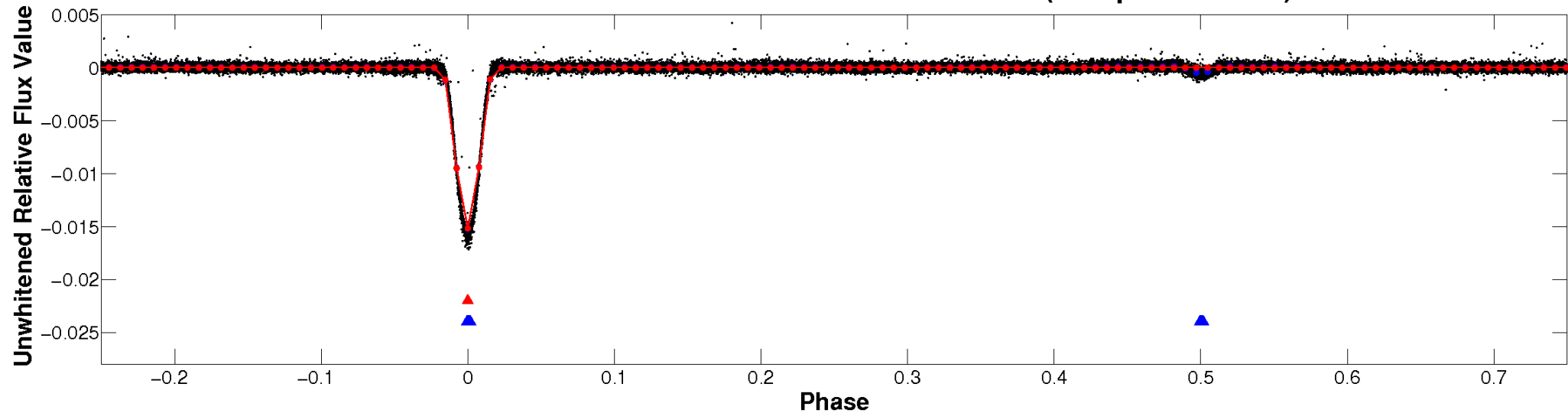
ALT Odd/Even

TCE 011189127-01

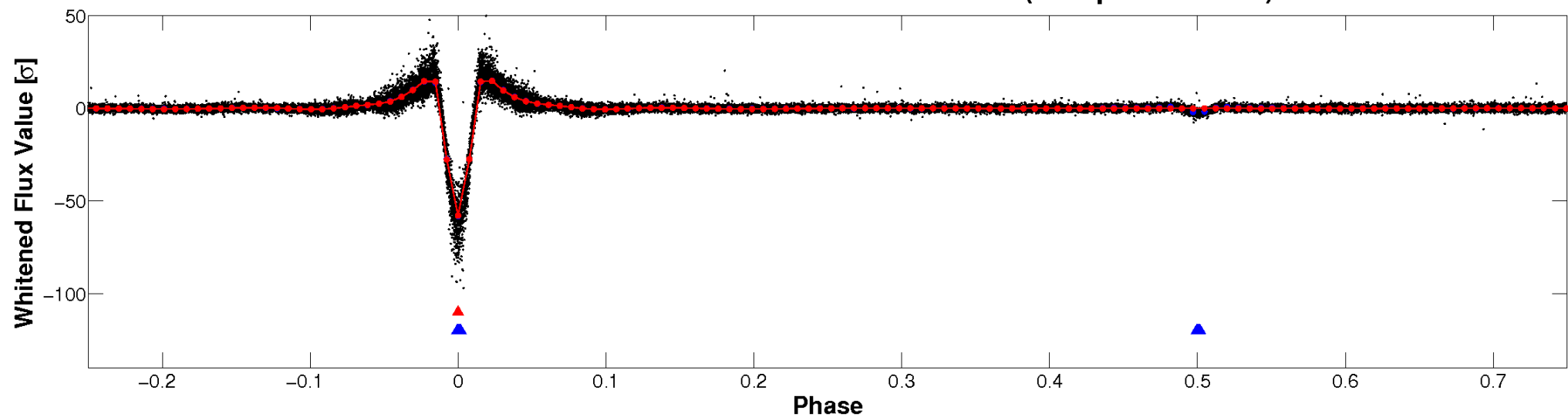


Non-Whitened Vs. Whitened Light Curve

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

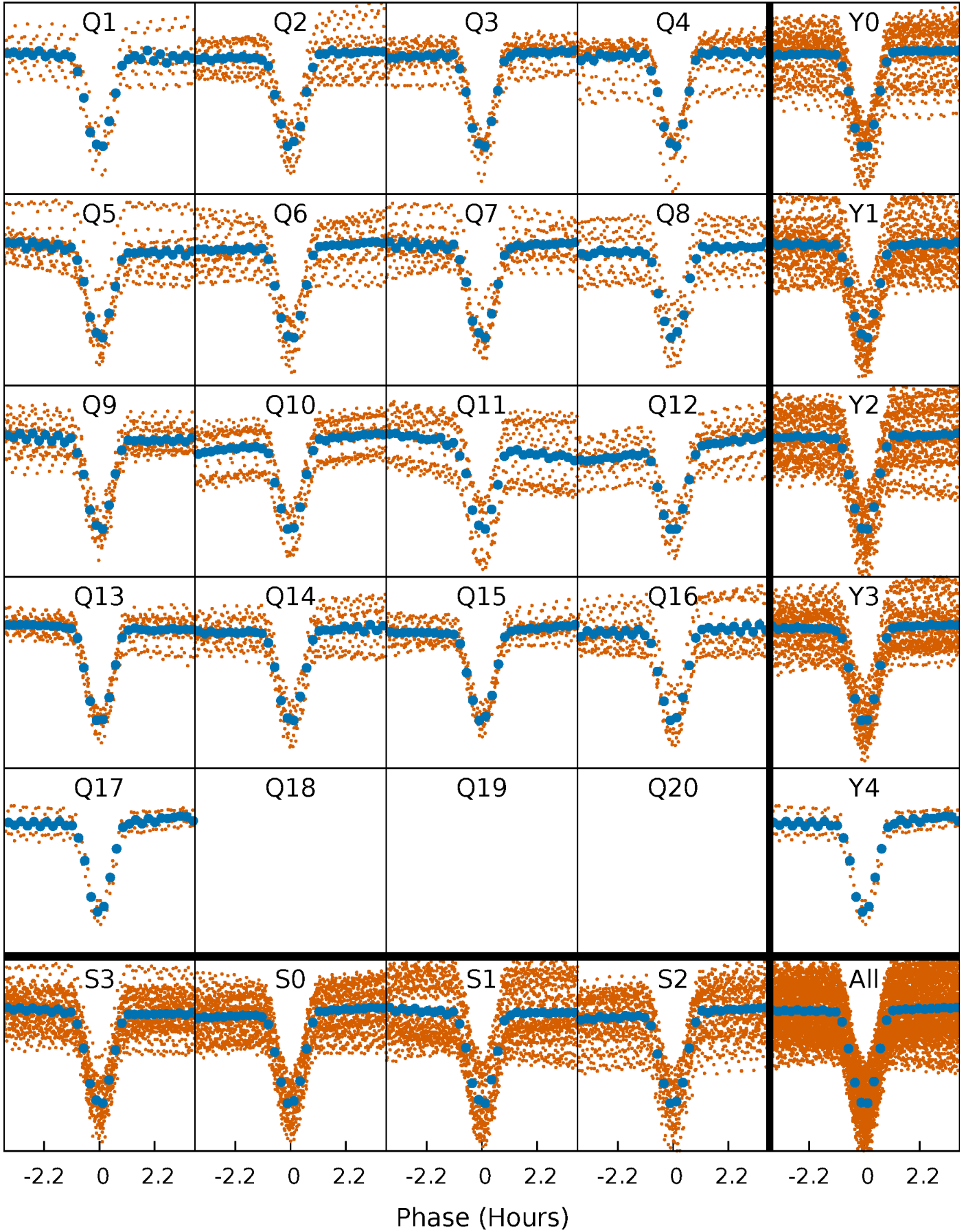


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



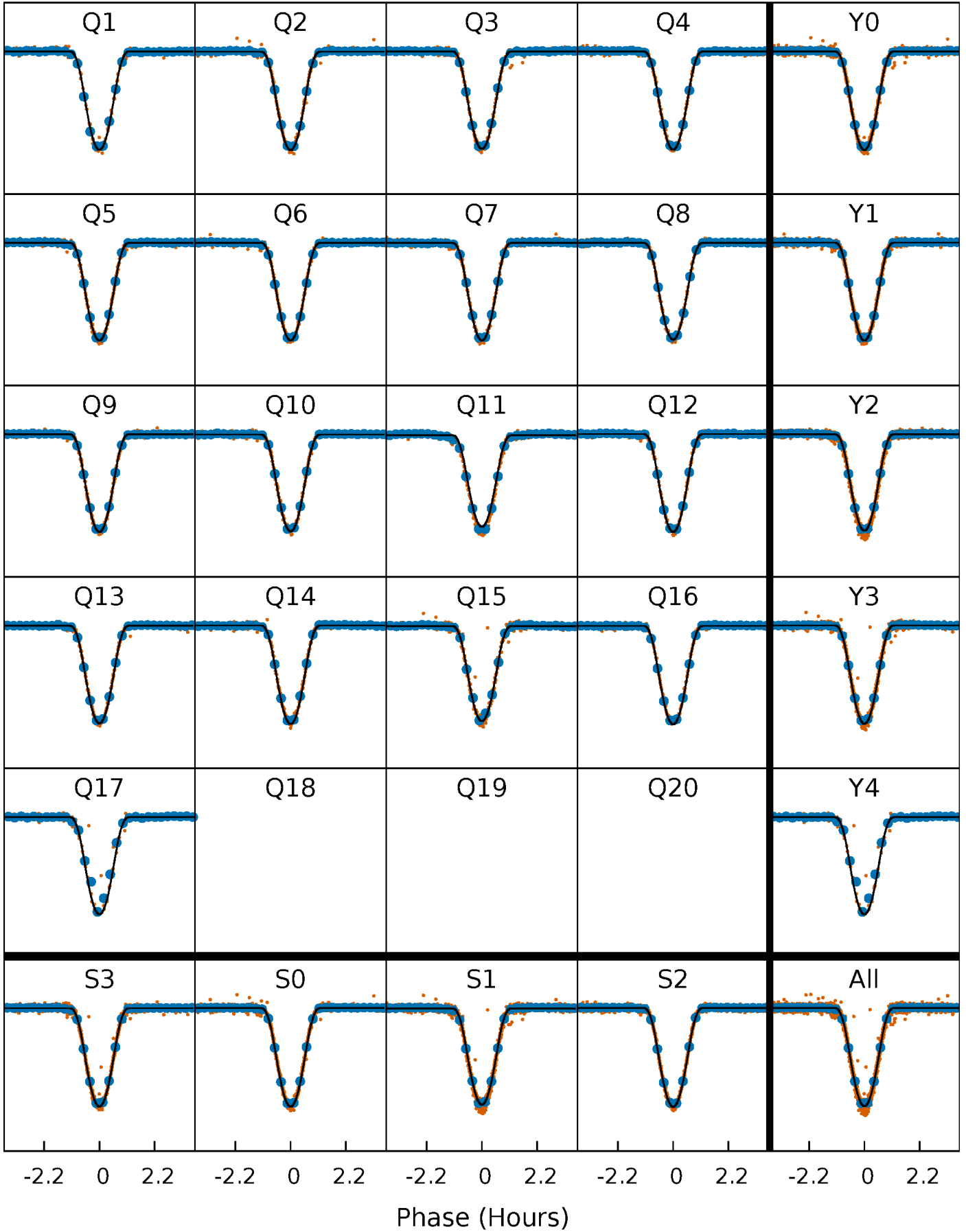
PDC Quarter-Phased Transit Curves

TCE 011189127-01 P= 2.671943 Days $T_0=132.446743$ (BKJD)



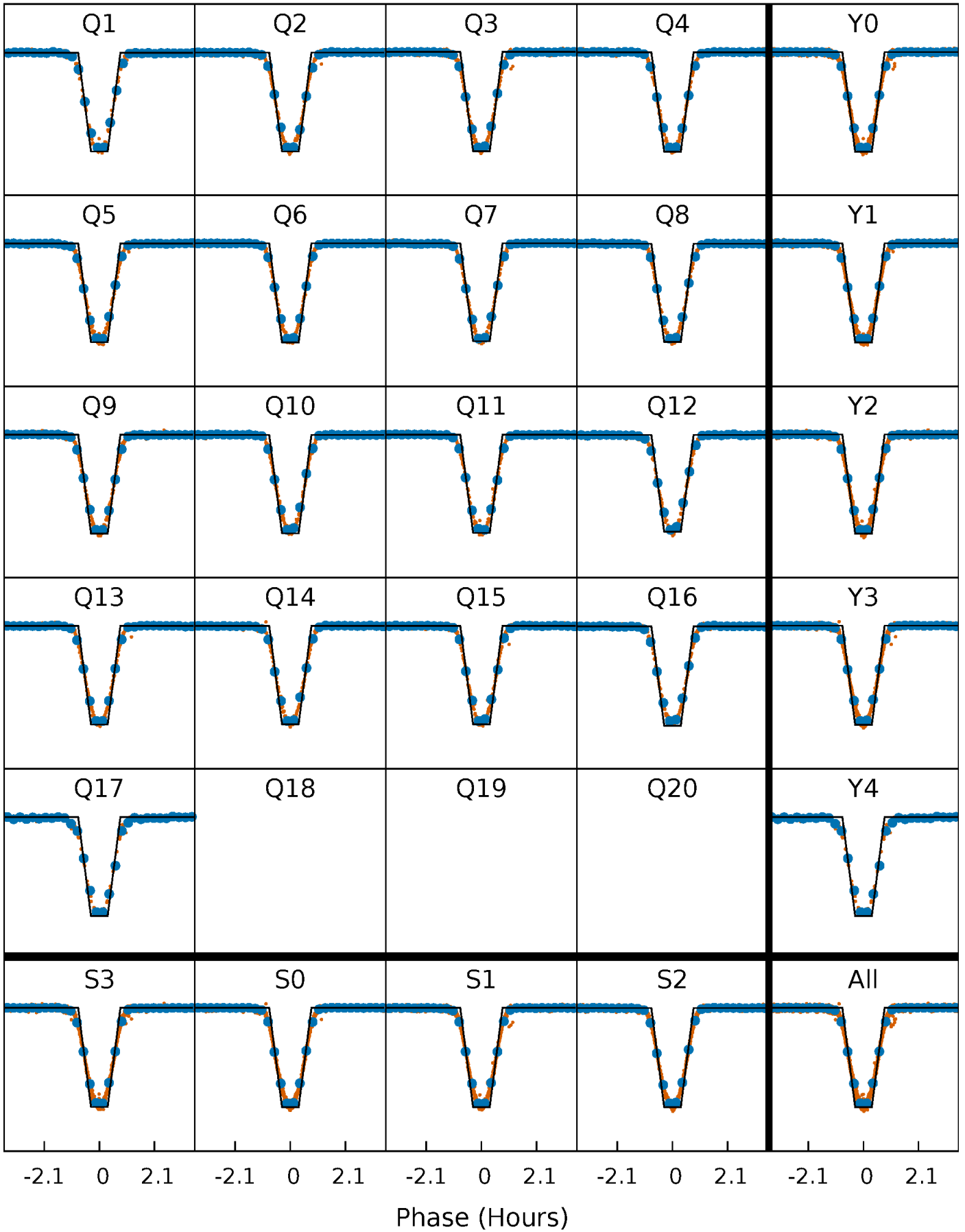
DV Quarter-Phased Transit Curves

TCE 011189127-01 P= 2.671943 Days $T_0=132.446743$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

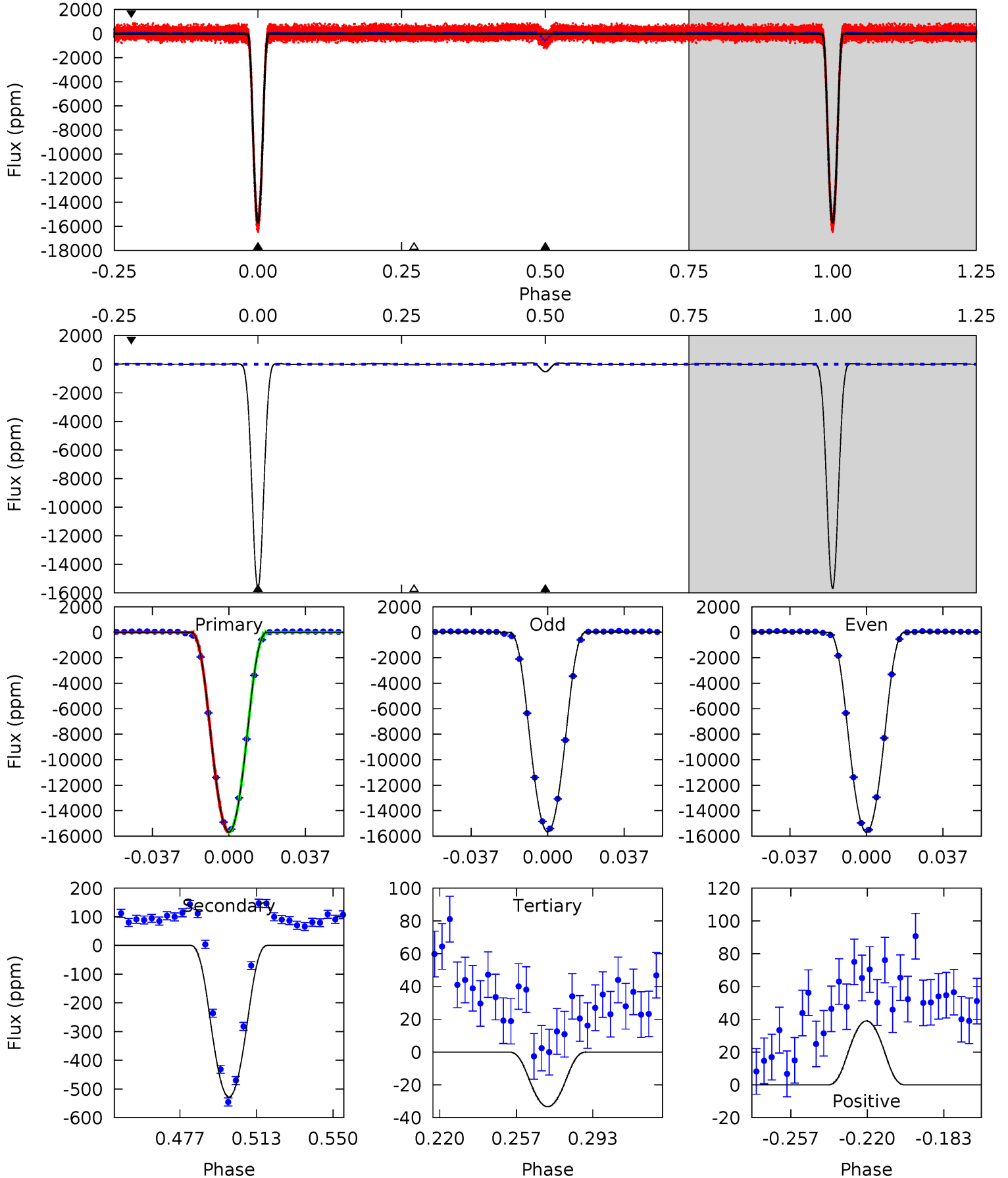
TCE 011189127-01 P= 2.671943 Days $T_0=132.446775$ (BKJD)



DV Model-Shift Uniqueness Test

011189127-01, P = 2.671943 Days, E = 129.774800 Days

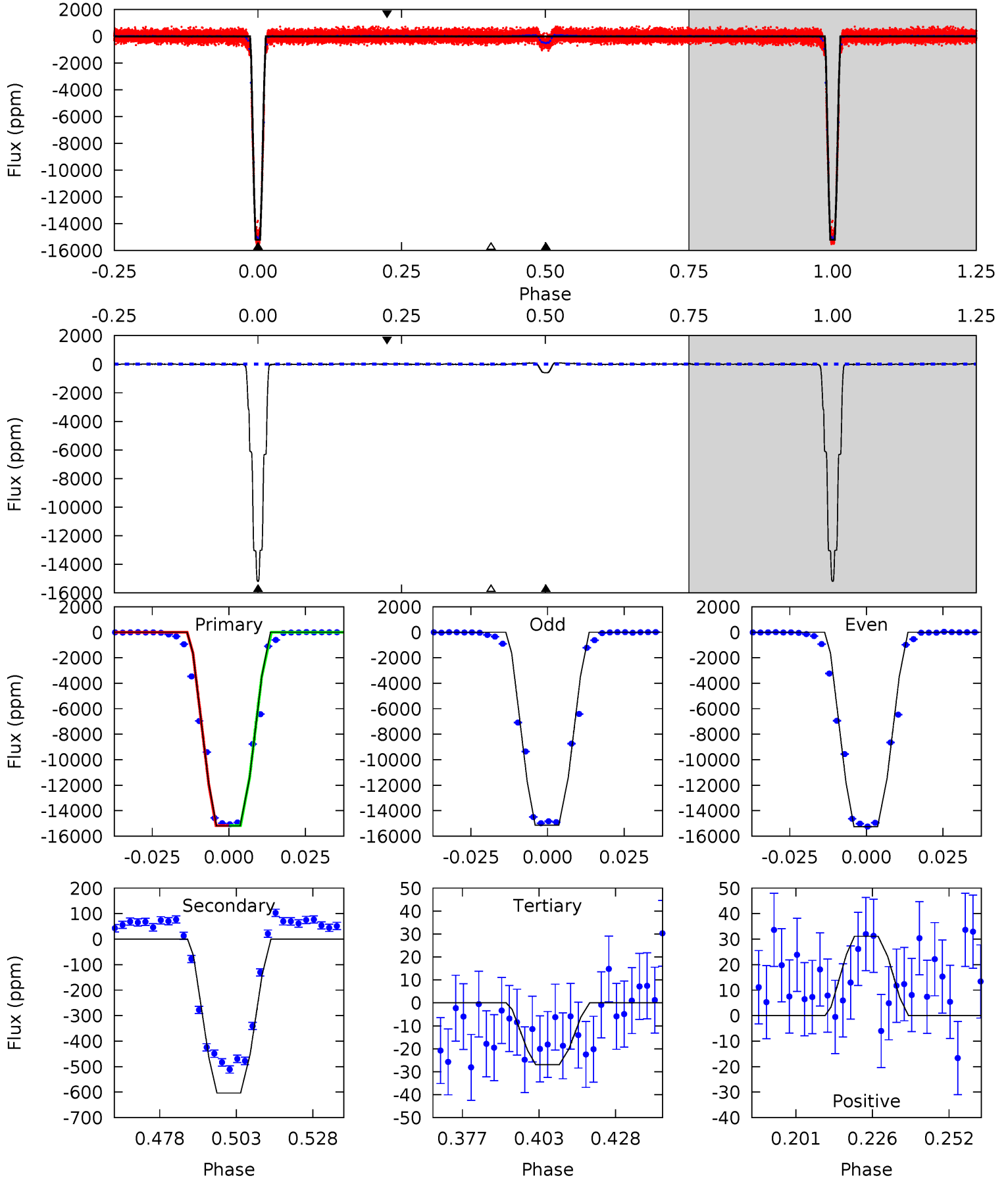
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3508	118.3	7.46	8.72	4.77	2.09	5.42	3500	3499	110.8	109.5	3.18	1.00	0.01	1.64



Alt Model-Shift Uniqueness Test

011189127-01, P = 2.671943 Days, E = 129.774832 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2188	86.9	3.87	4.48	4.85	2.24	2.65	2184	2183	83.0	82.4	7.74	1.00	0.01	0



Stellar Parameters For KIC 011189127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6116^{+212}_{-212}	$4.335^{+0.180}_{-0.180}$	$-0.560^{+0.300}_{-0.300}$	$1.055^{+0.290}_{-0.217}$	$0.876^{+0.119}_{-0.079}$	$1.053^{+0.958}_{-0.503}$
	+3%/-3%	+4%/-4%	+54%/-54%	+27%/-21%	+14%/-9%	+91%/-48%
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 011189127-01 / KOI 0347.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-528 ± 4	$19.64^{+2.93}_{-2.31}$	2046^{+158}_{-144}	2798^{+64}_{-75}	$0.985^{+0.283}_{-0.227}$
Alt.	-604 ± 7	$14.54^{+2.26}_{-1.67}$	2046^{+152}_{-145}	3192^{+69}_{-71}	$2.049^{+0.566}_{-0.475}$

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 $A_{obs} \gg 1.0$

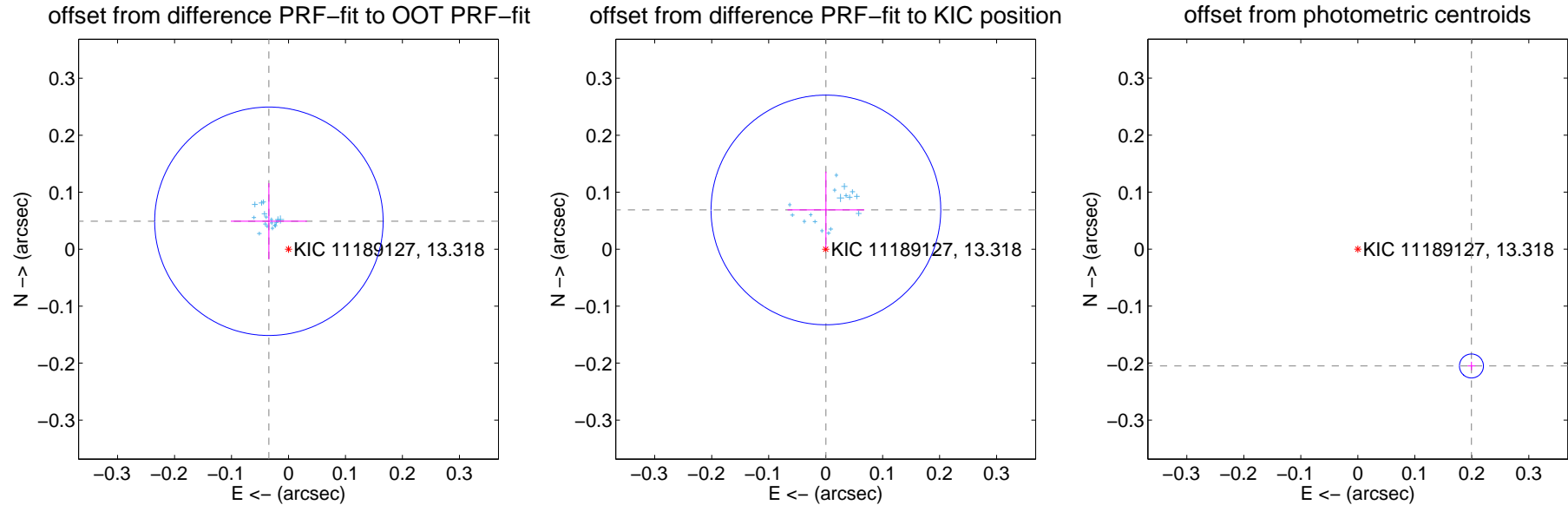
DV Centroid Data

Supplemental centroid analysis for 011189127-01. Kepler magnitude: 13.32. Transit SNR 1704.00

There are 17 quarters with good PRF difference image offsets

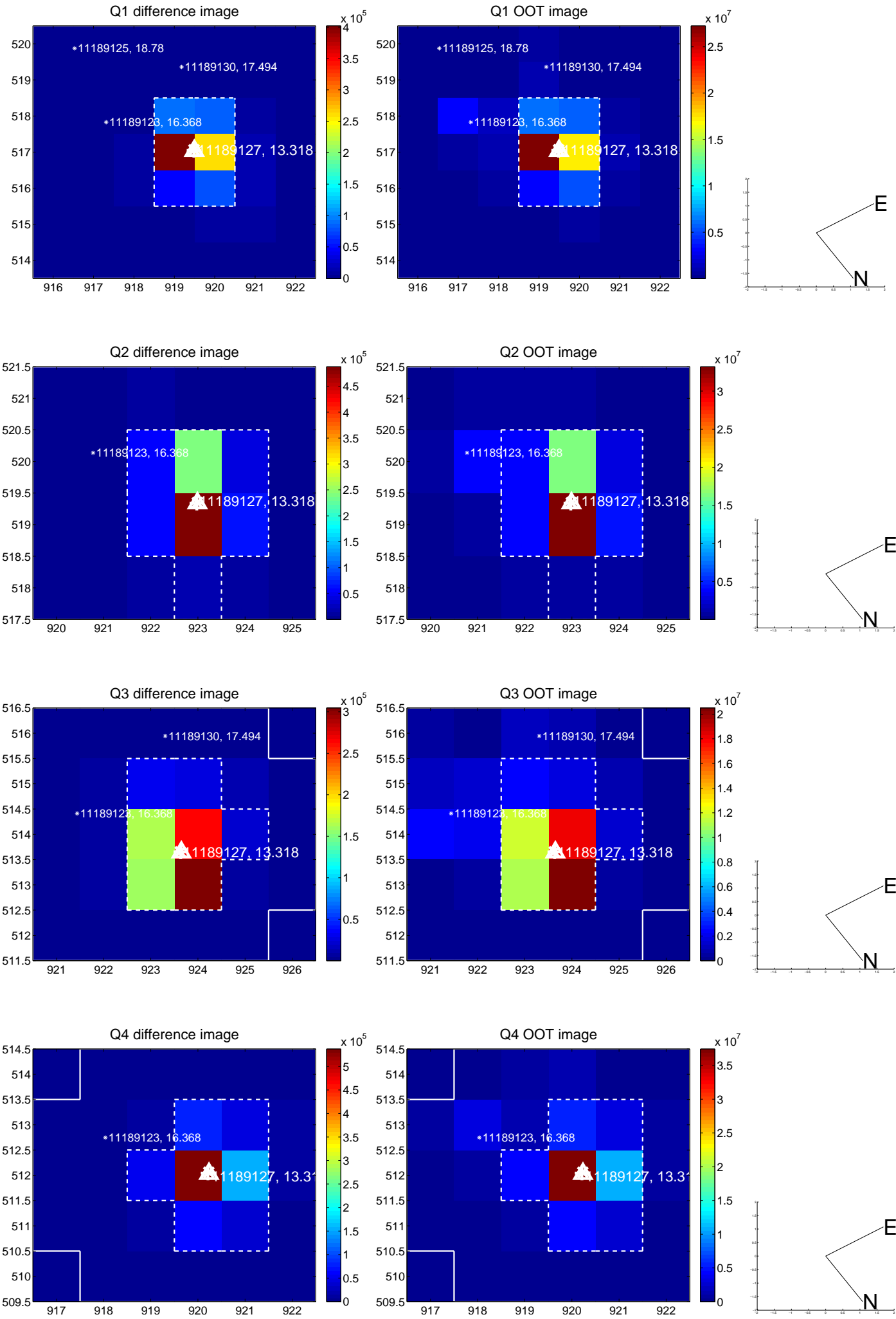
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.067	0.90	0.034 ± 0.067	0.049 ± 0.067
PRF-fit source offset from KIC position	0.069 ± 0.067	1.03	-0.000 ± 0.067	0.069 ± 0.067
photometric centroid source offset	0.29 ± 0.01	40.78	-0.20 ± 0.01	-0.21 ± 0.01

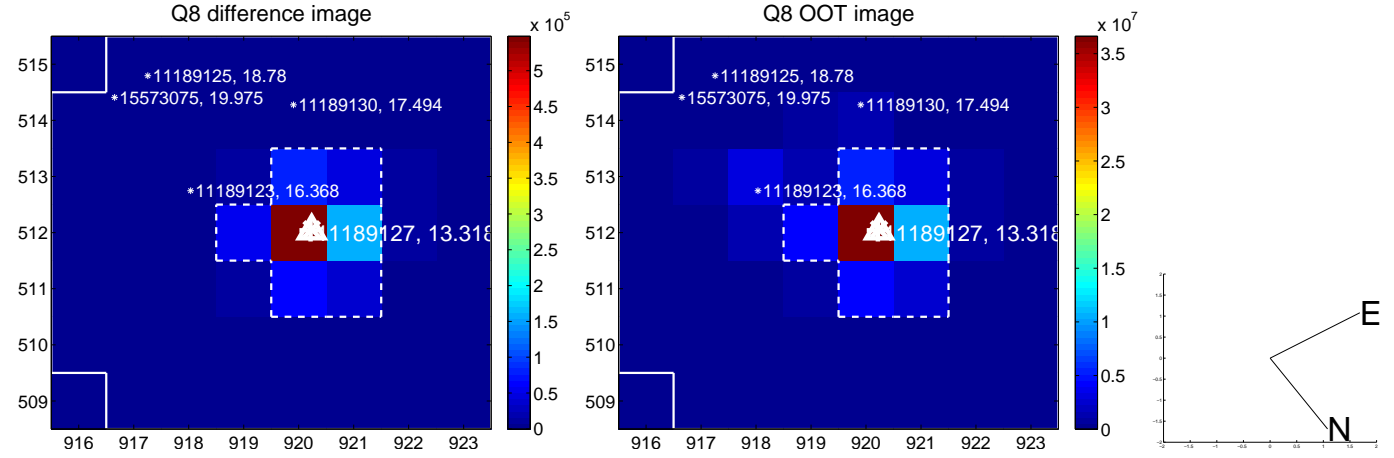
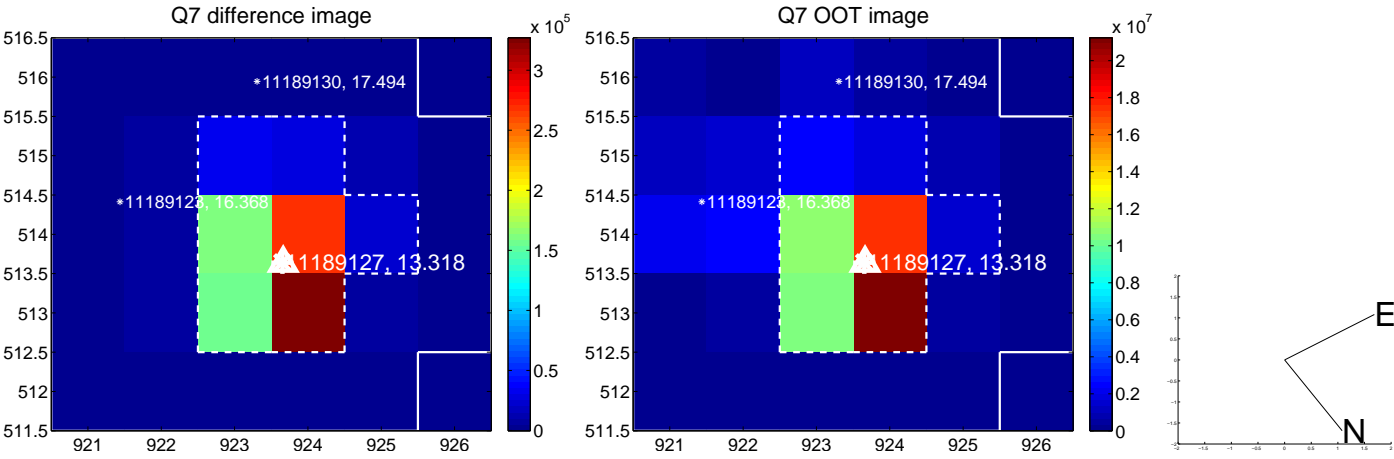
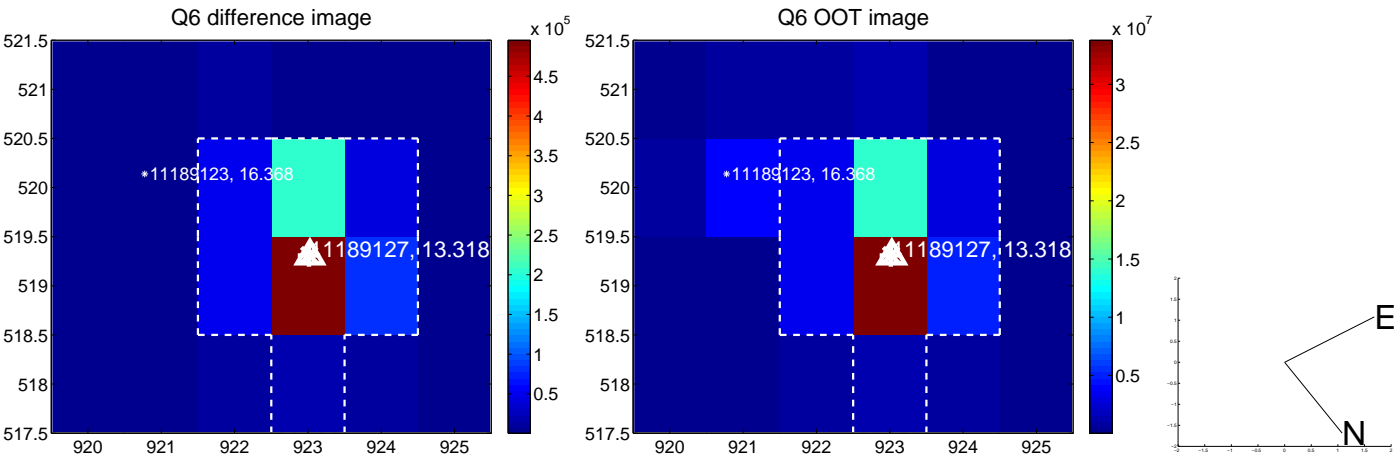
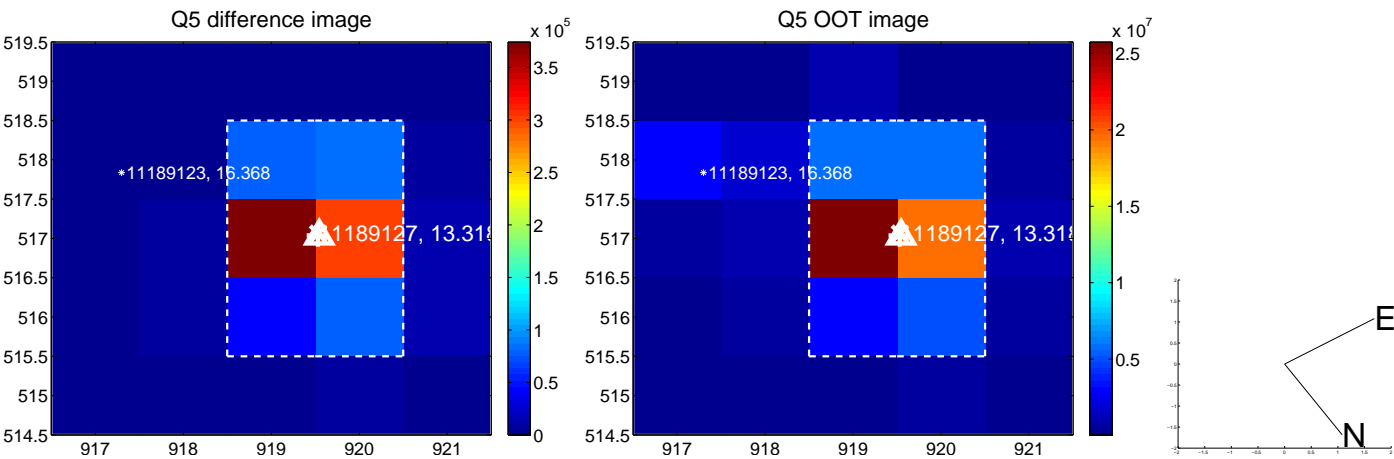


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

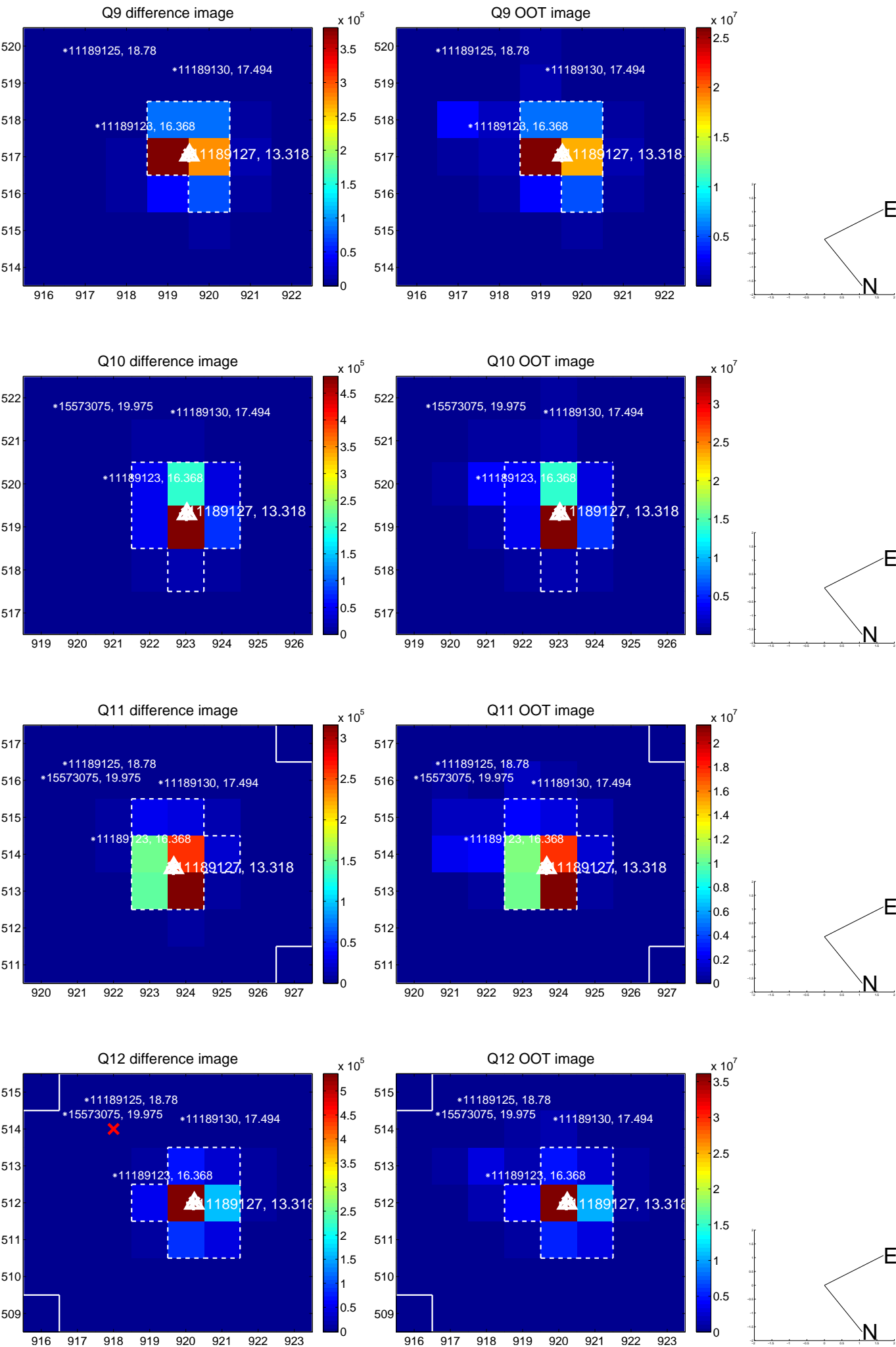
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



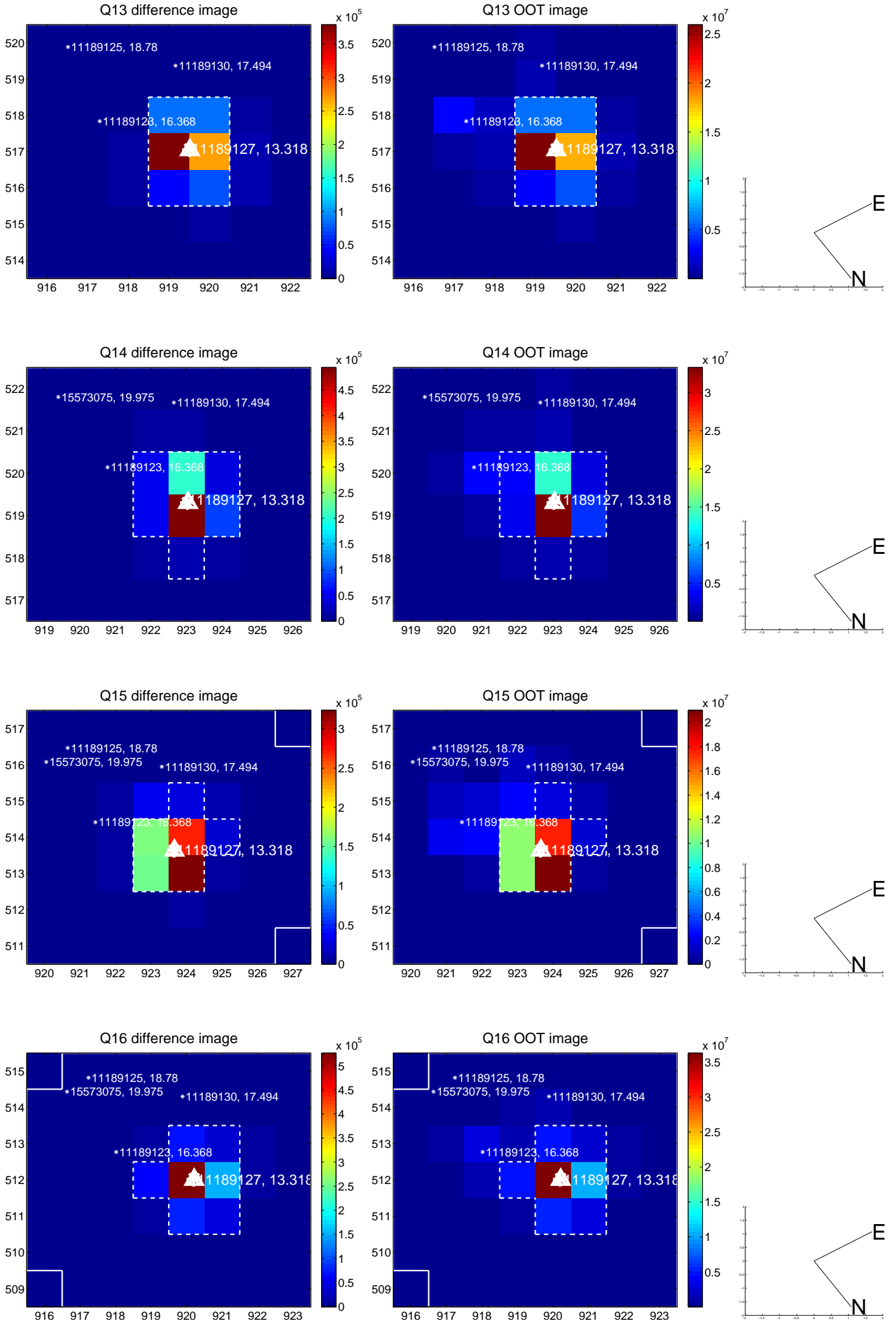
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



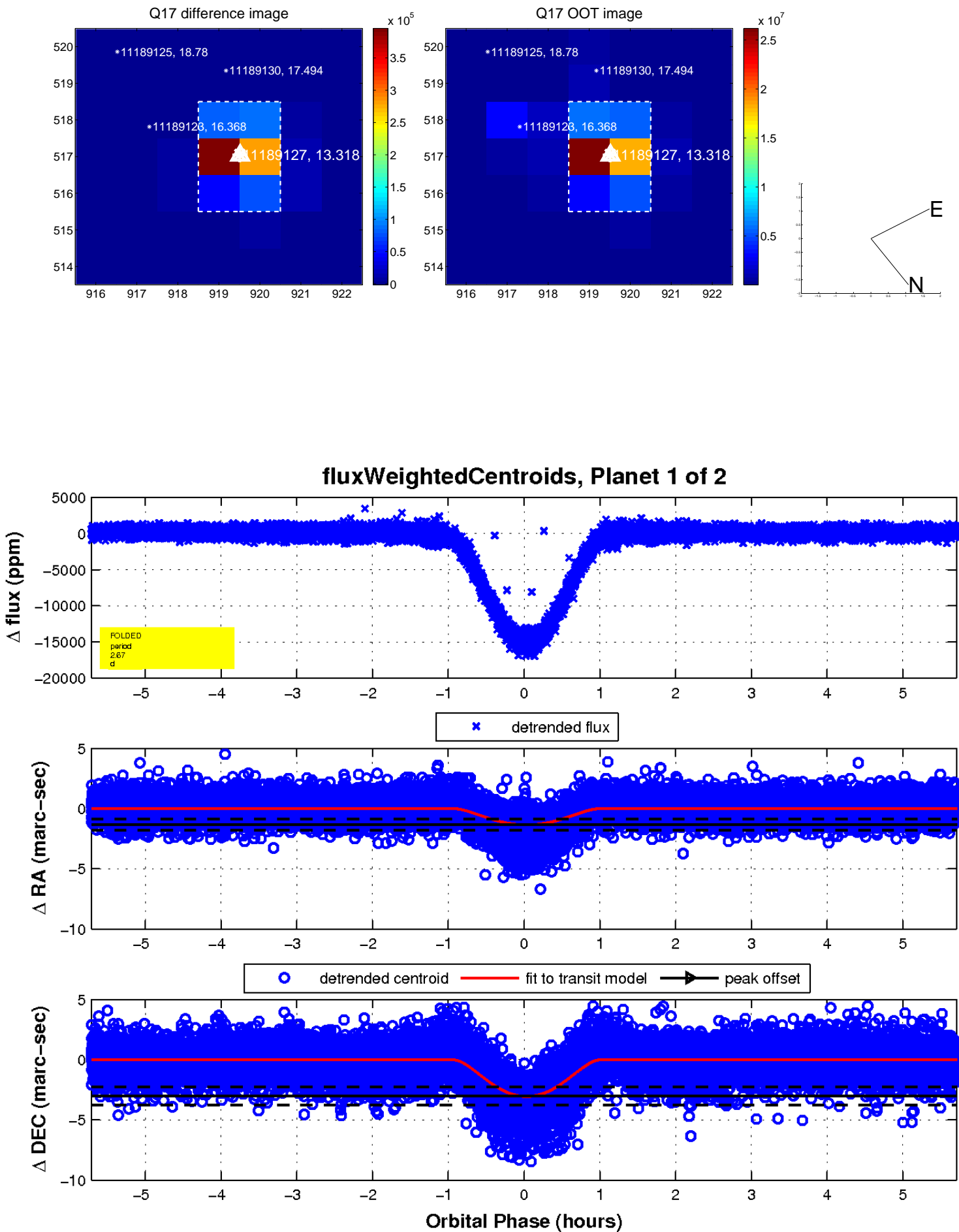
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

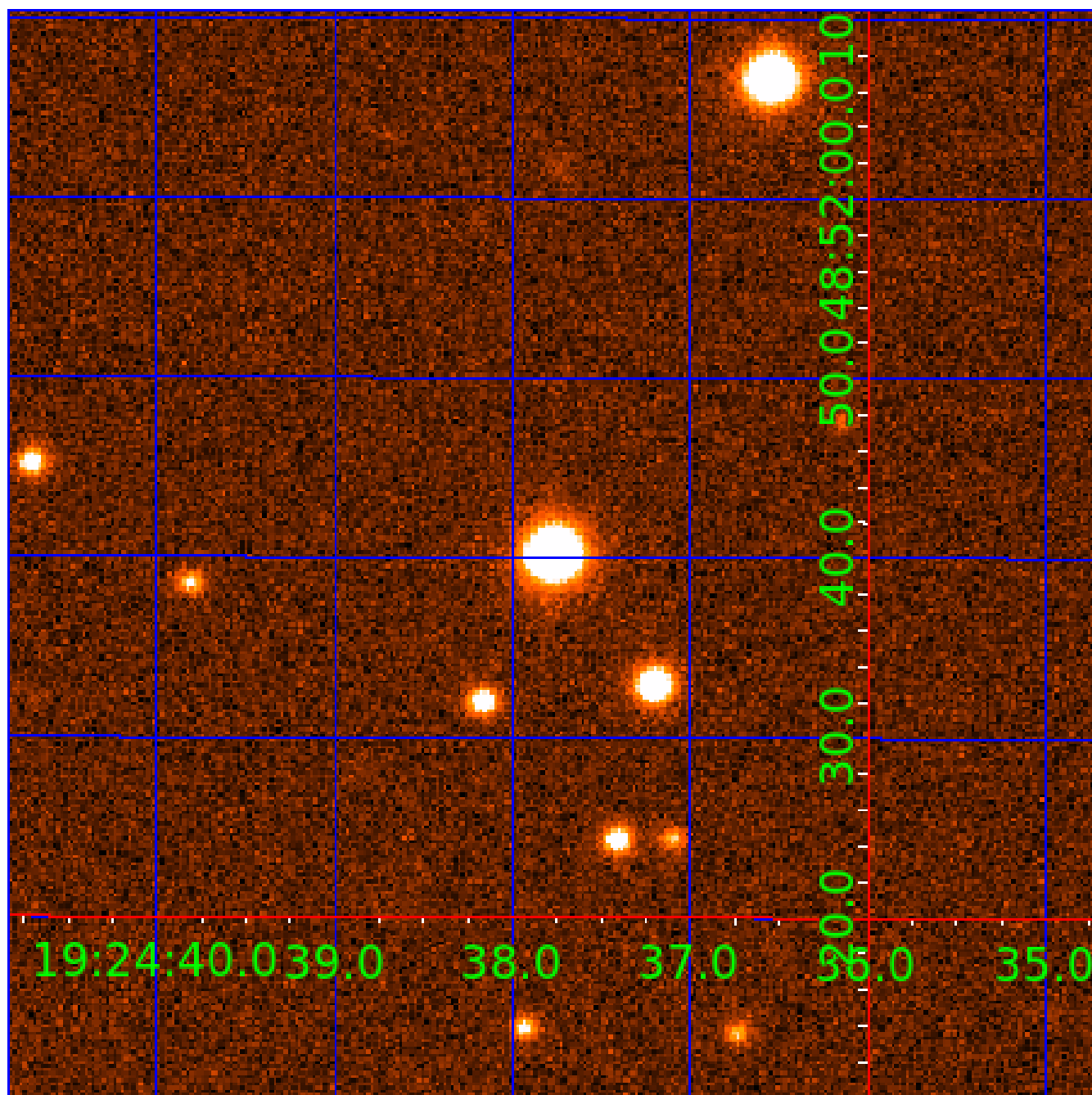


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011189127

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})
011189127-01	OBS	0347.01	2.671943	132.446743	15699.6	1.904	1705.9	1704.0	1.05	6116	19.58	1071.10
011189127-02	OBS	No	1.335977	132.445357	645.8	1.414	66.2	81.0	1.05	6116	3.16	2698.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011189127-01	OBS	PC	0.35	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
011189127-02	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 011189127-02

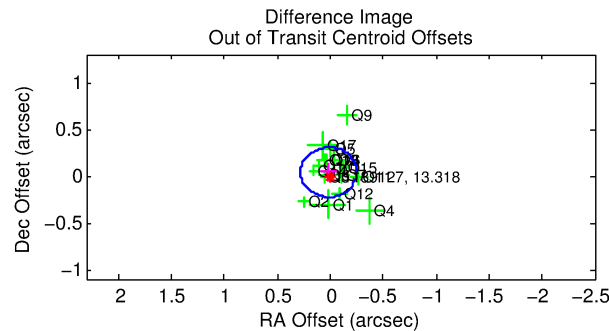
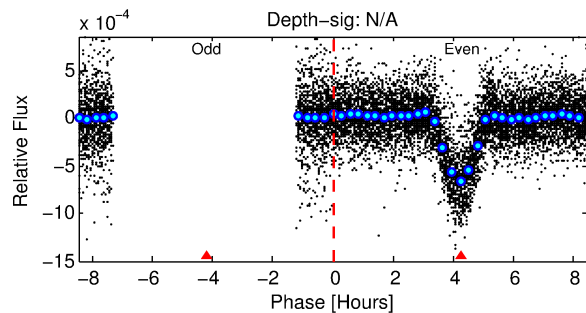
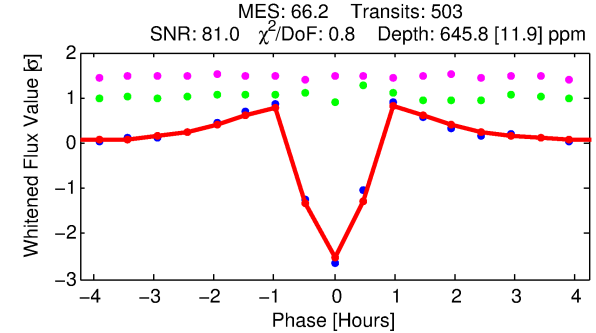
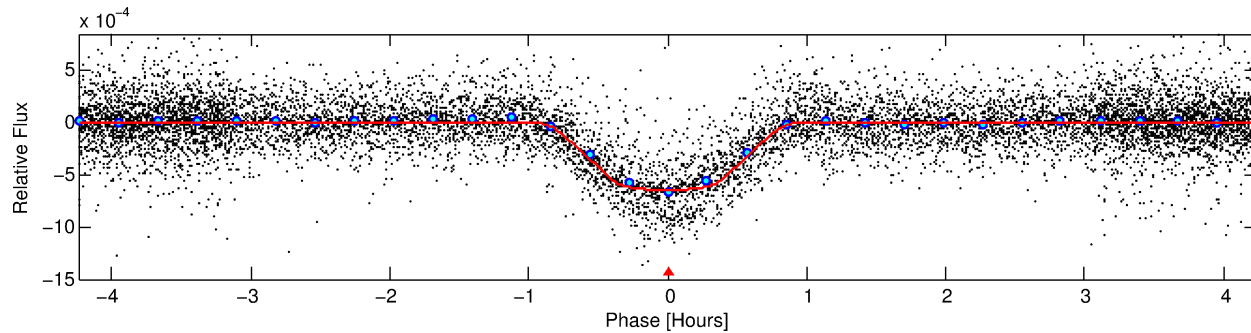
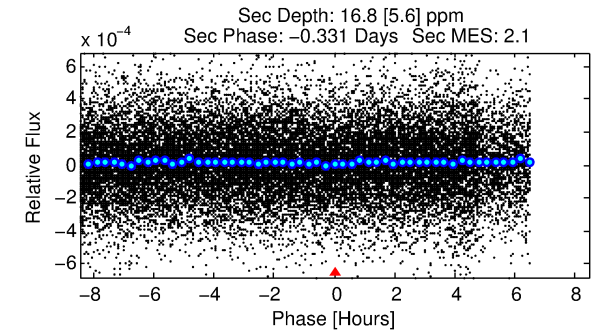
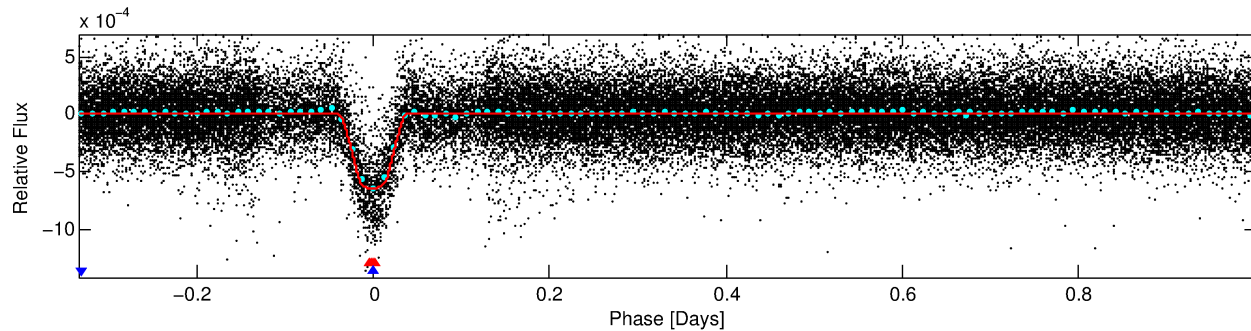
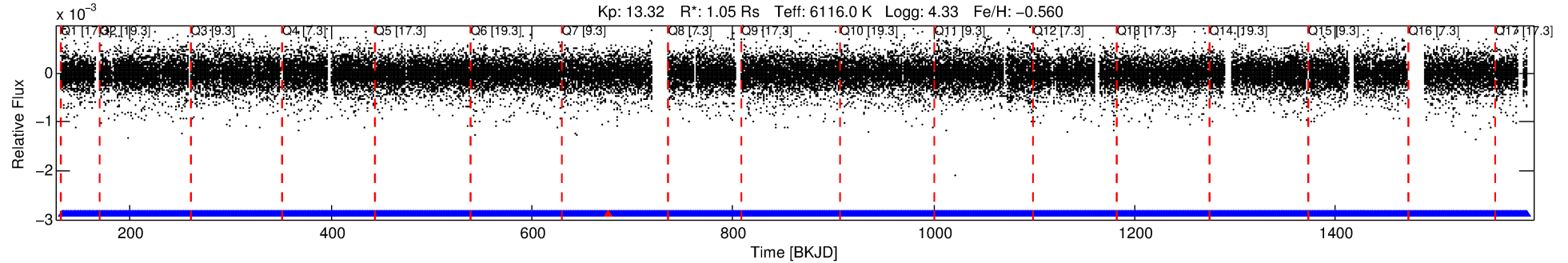
No Significant Match Found

DV One-Page Summary

KIC: 11189127 Candidate: 2 of 2 Period: 1.336 d

KOI: K00347 Corr: No Ephemeris Match

Kp: 13.32 R*: 1.05 Rs Teff: 6116.0 K Logg: 4.33 Fe/H: -0.560



DV Fit Results:

Period = 1.33598 [0.00000] d
Epoch = 132.4454 [0.0002] BKJD
Rp/R* = 0.0275 [0.0012]
a/R* = 3.68 [0.77]
b = 0.90 [0.05]
Seff = 2698.99 [969.96]
Teq = 1838 [165] K
Rp = 3.16 [0.88] Re
a = 0.0227 [0.0052] AU
Ag = 0.48 [0.23] [-2.28σ]
Teffp = 2363 [219] K [1.91σ]

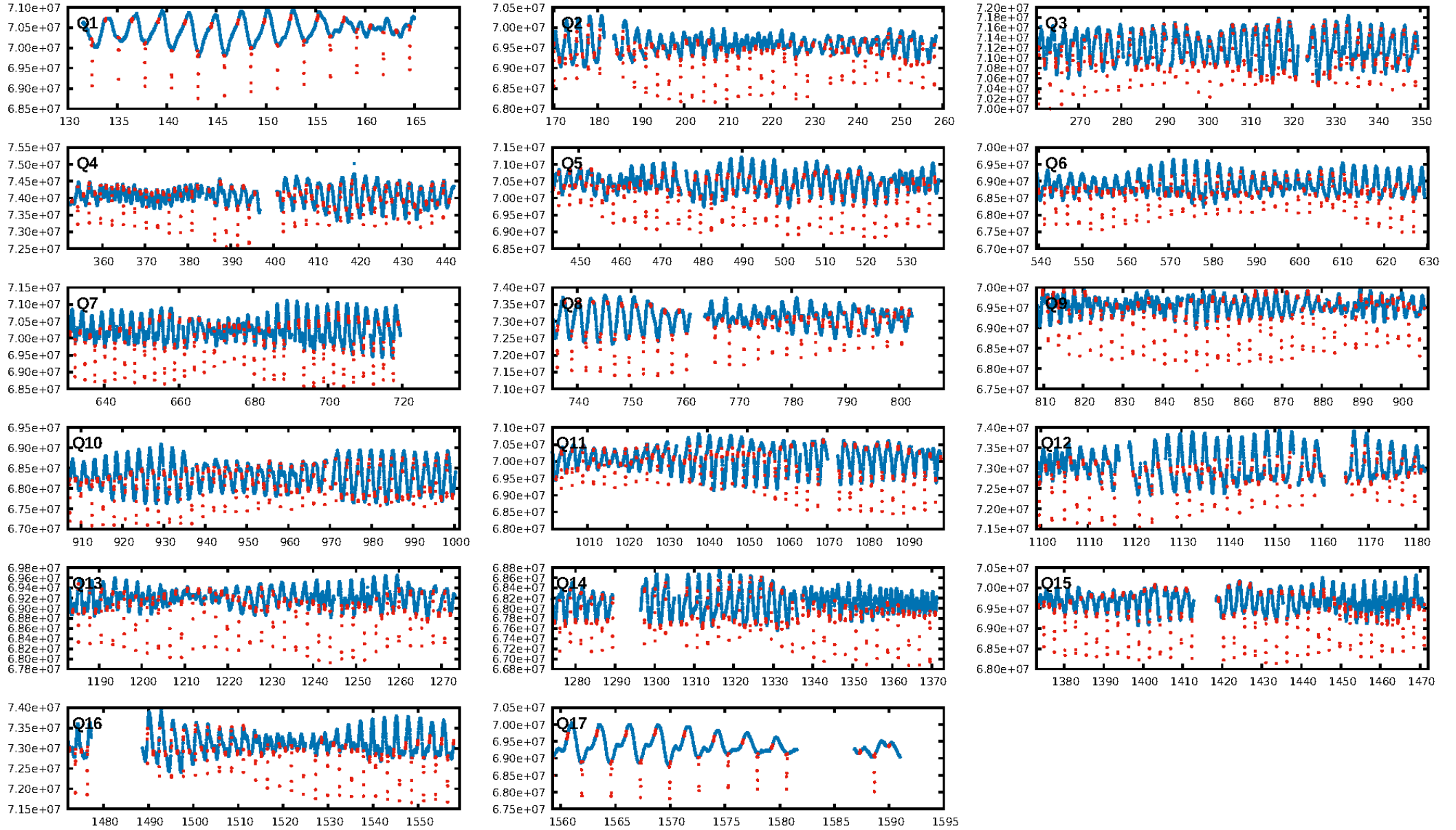
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [13.52σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [480/481]
GhostDiagnostic-chr: 5.681
Centroid-sig: 33.0%
Centroid-so: 0.544 arcsec [4.92σ]
OotOffset-rm: 0.043 arcsec [0.48σ]
KicOffset-rm: 0.056 arcsec [0.63σ]
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]

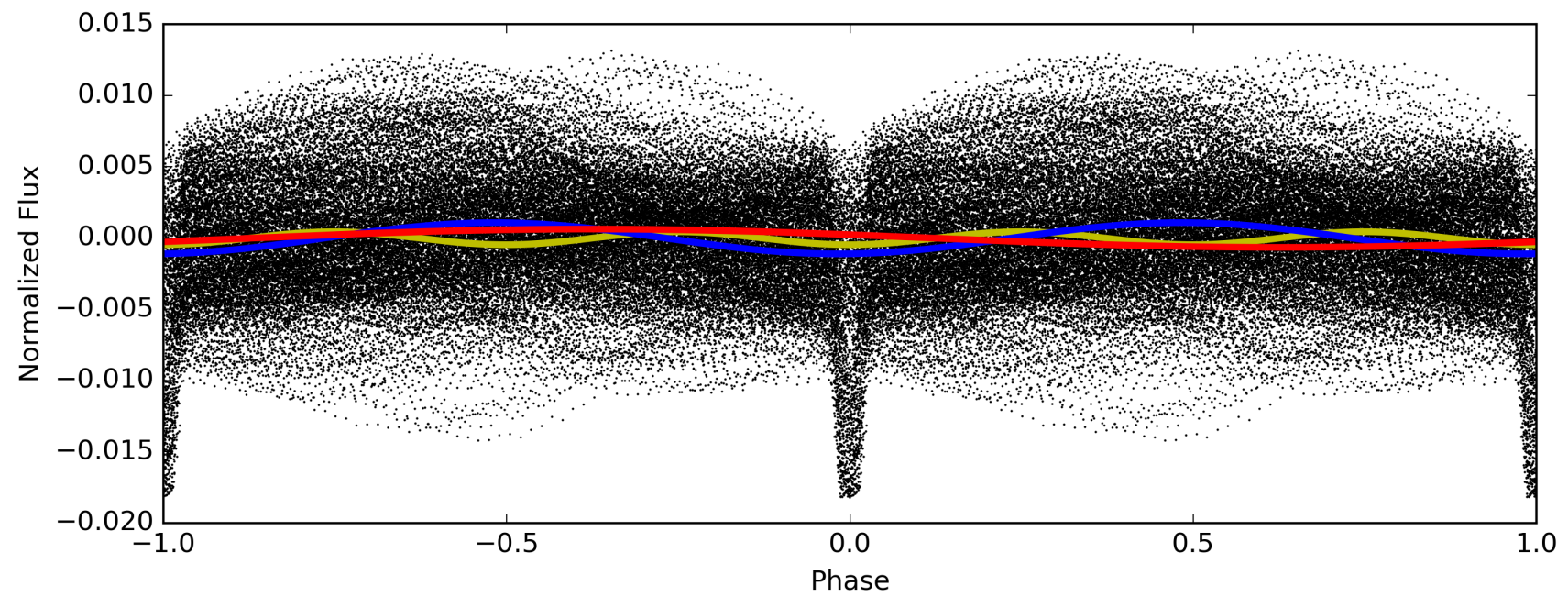
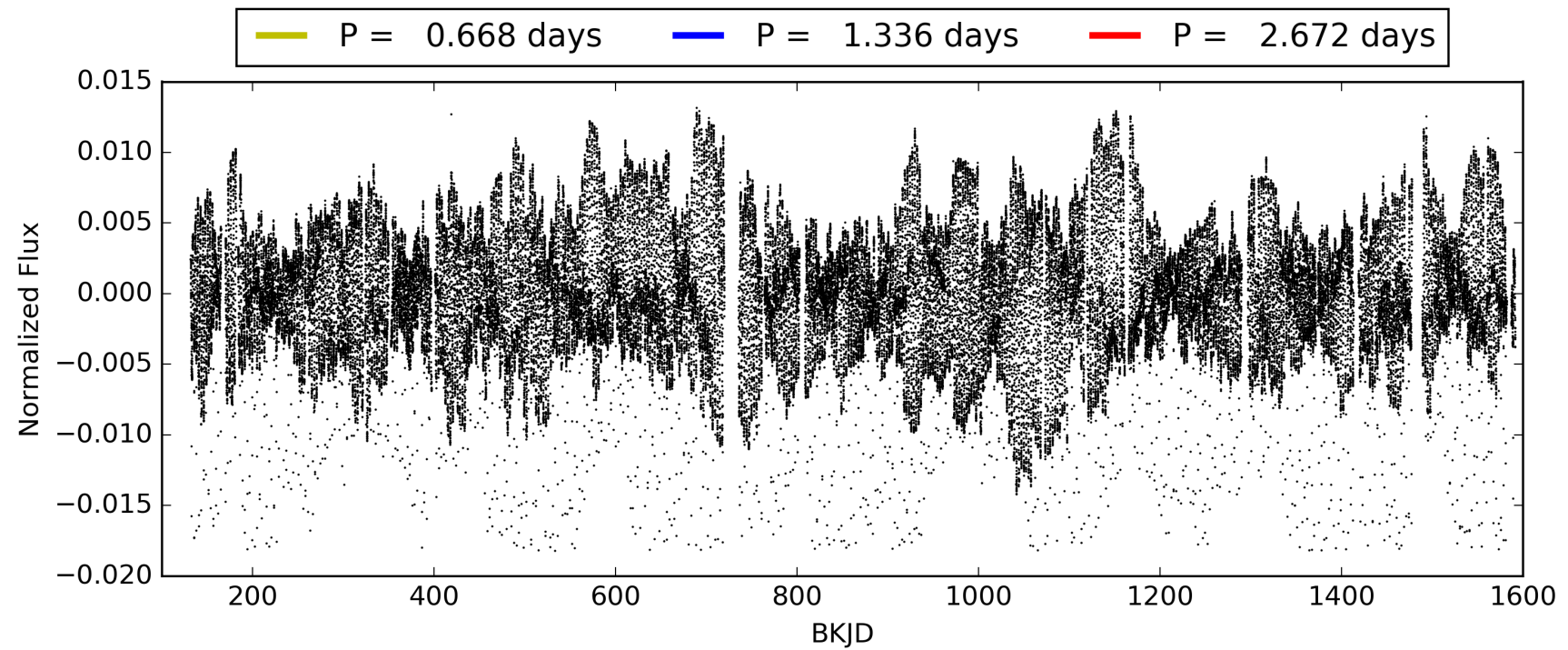
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:10:09 Z

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

TCE 011189127-02, PDC Light Curves

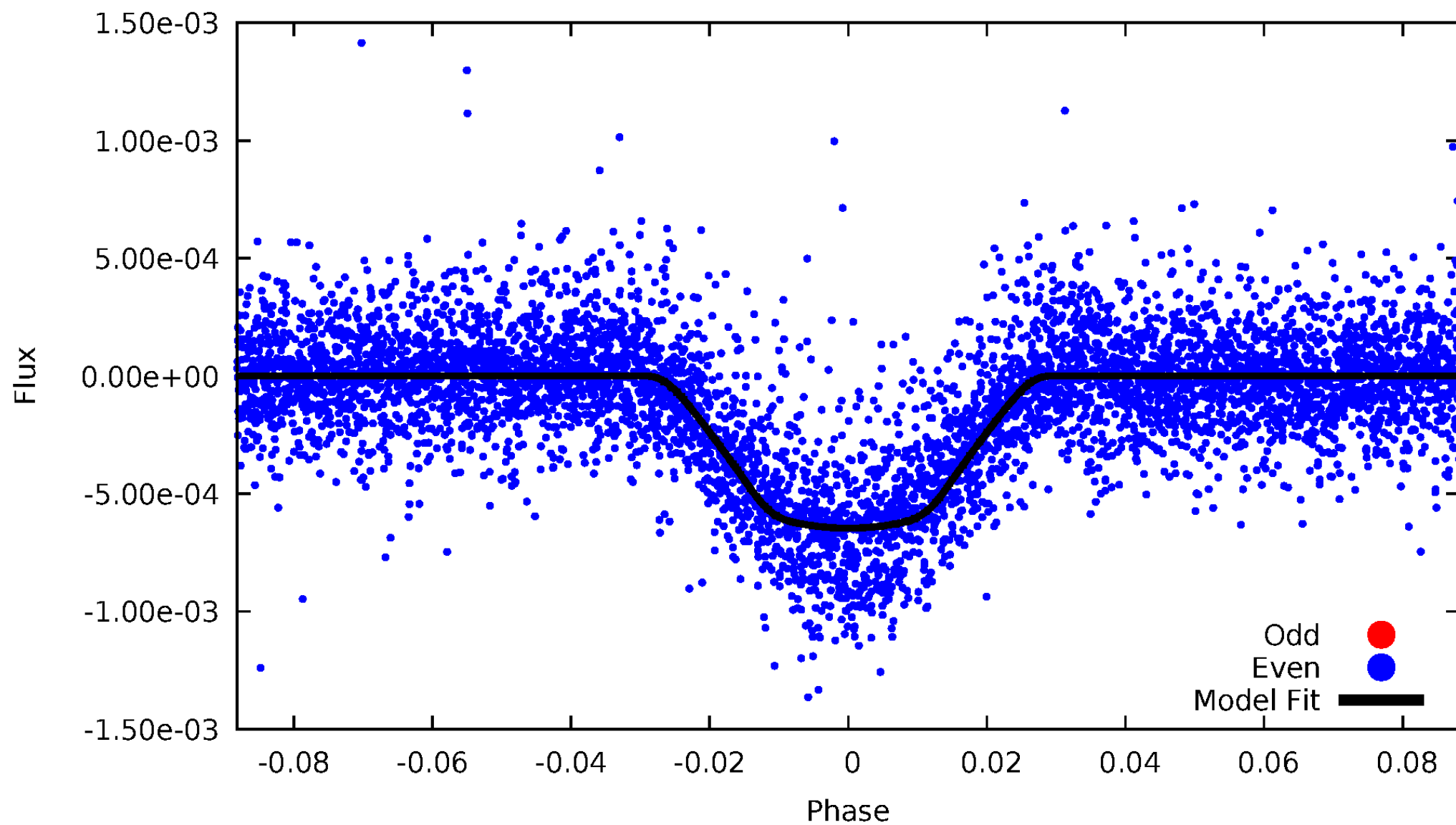


TCE 011189127-02



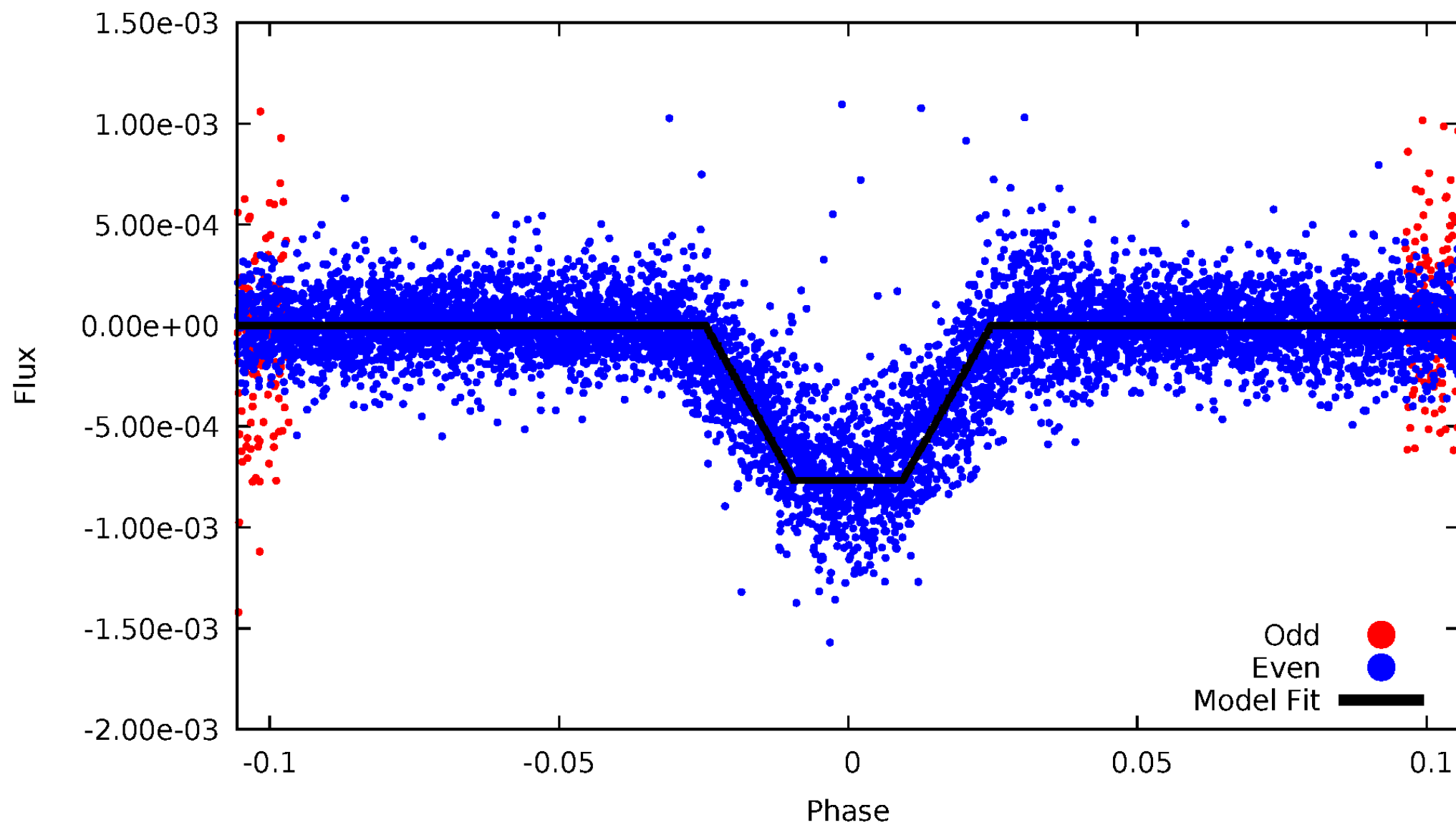
DV Odd/Even

TCE 011189127-02



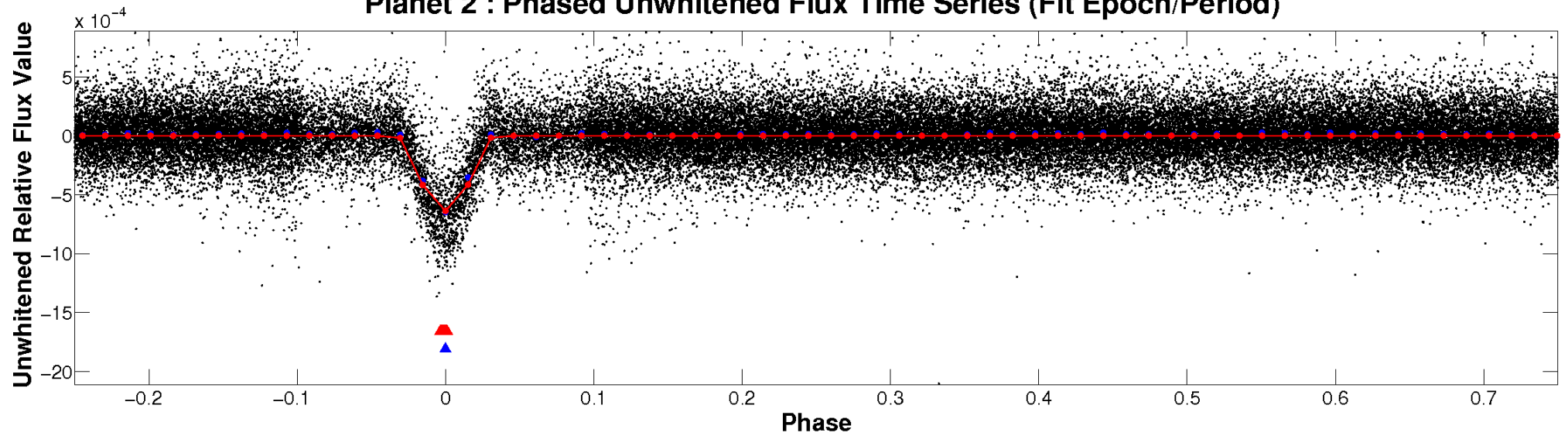
ALT Odd/Even

TCE 011189127-02

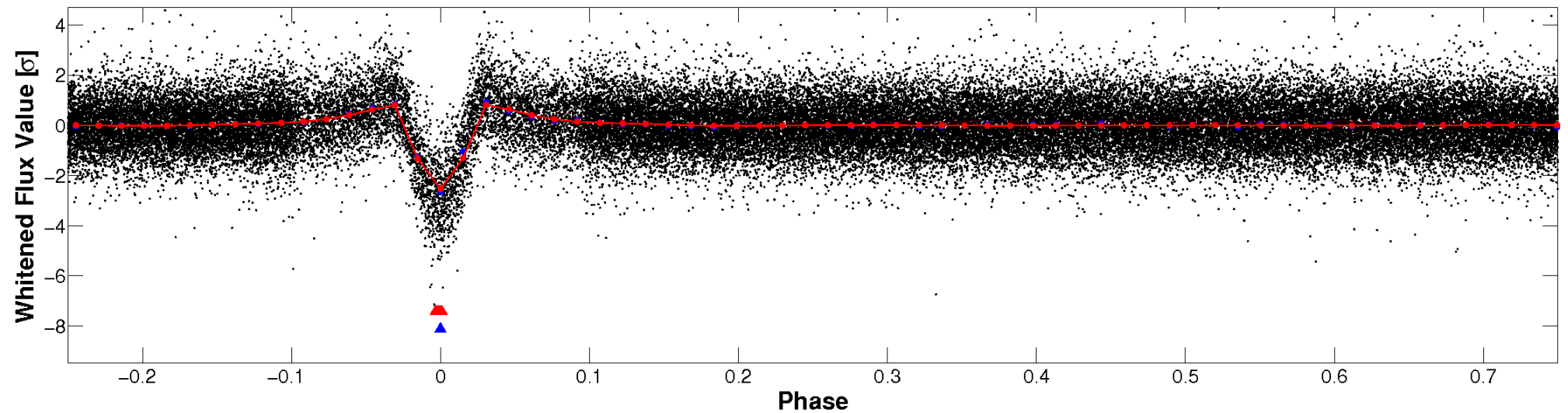


Non-Whitened Vs. Whitened Light Curve

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

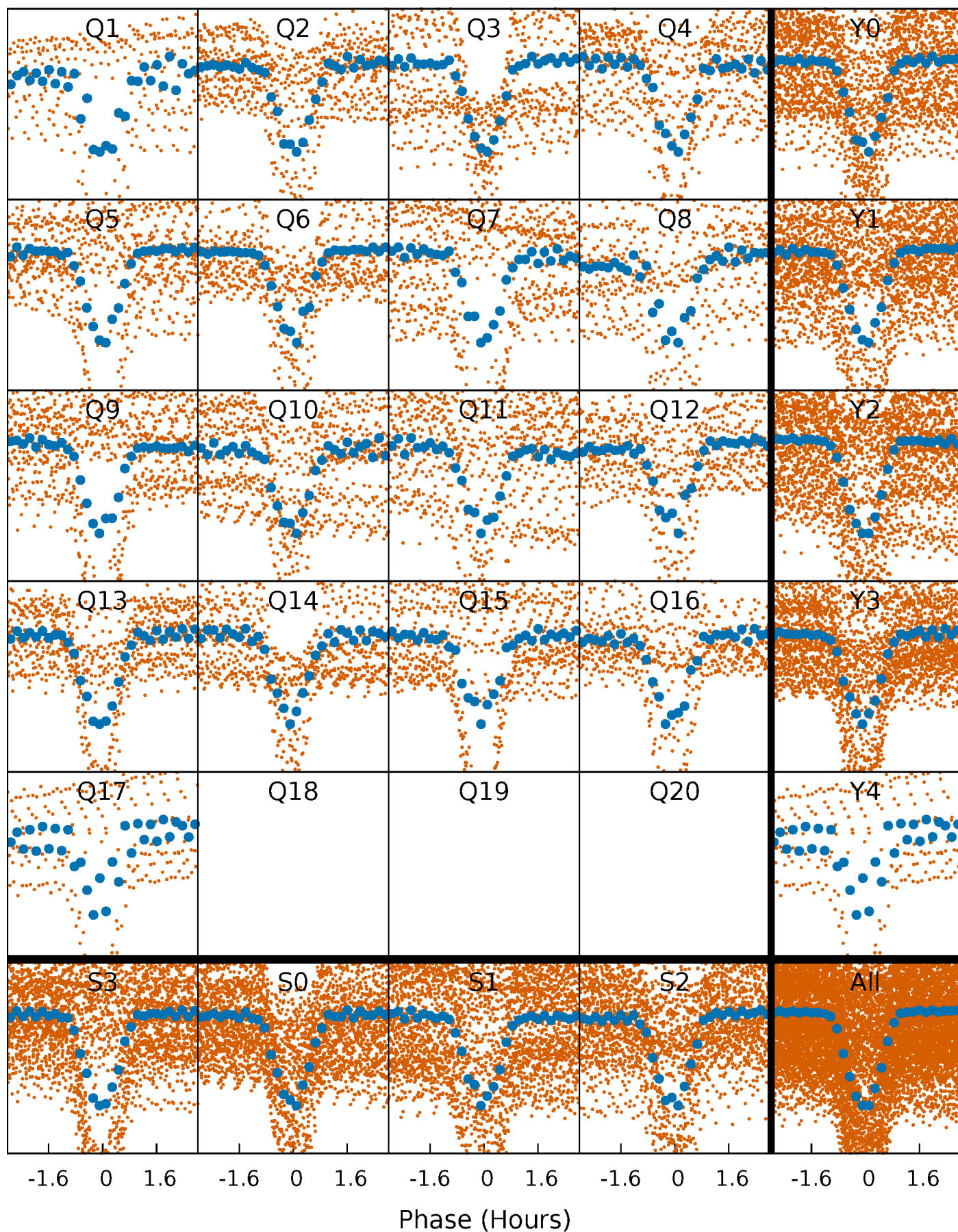


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



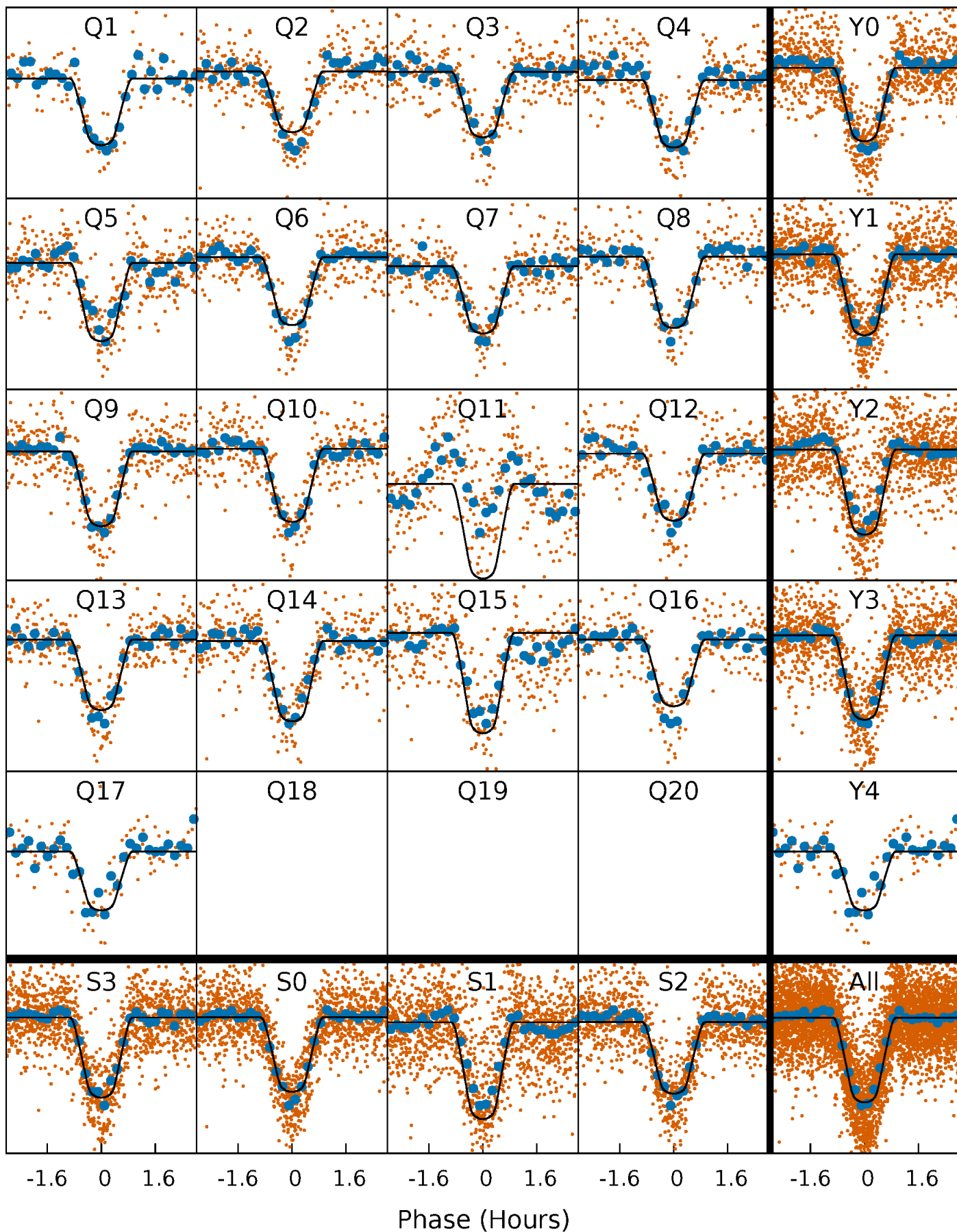
PDC Quarter-Phased Transit Curves

TCE 011189127-02 P= 1.335977 Days $T_0=132.445357$ (BKJD)



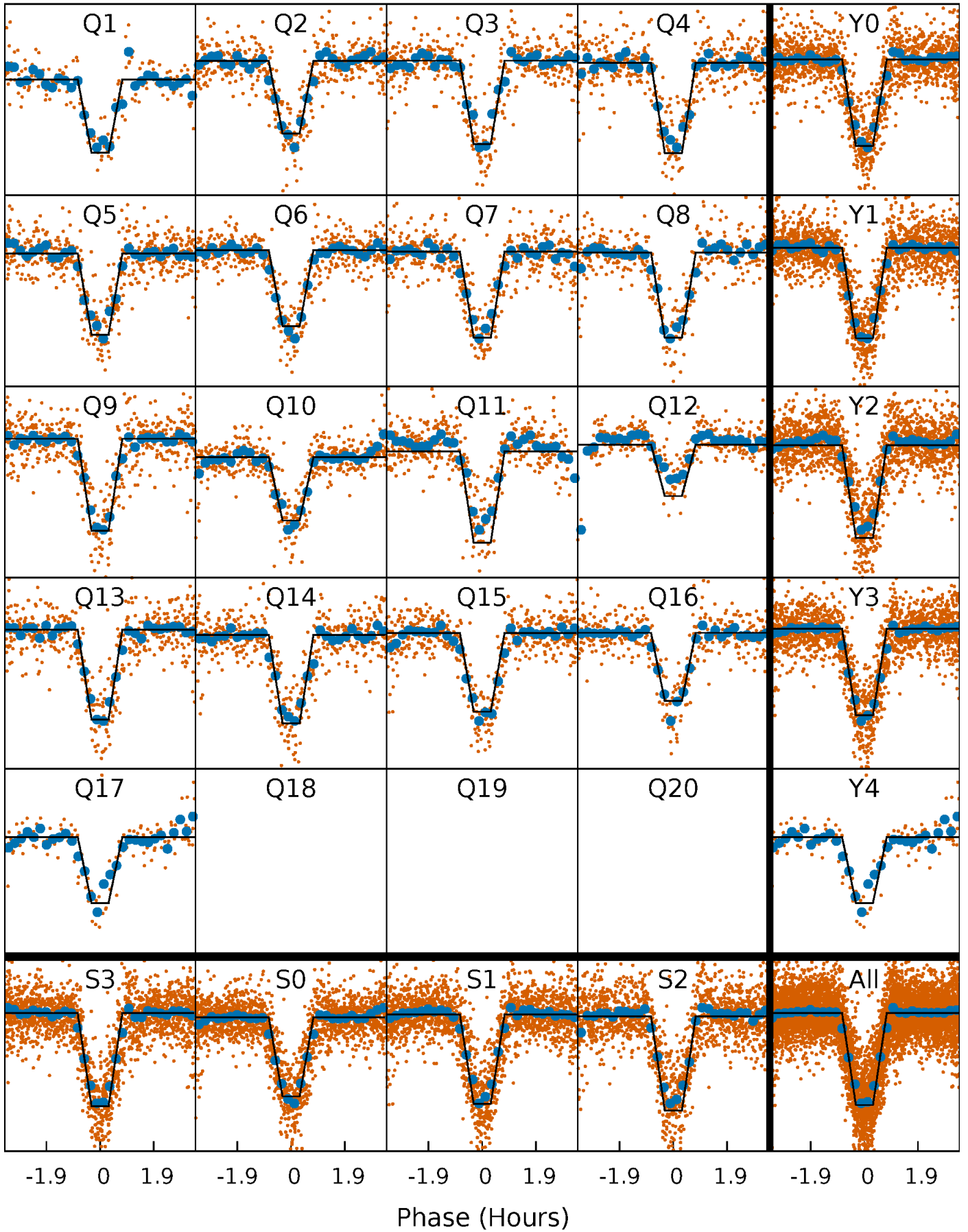
DV Quarter-Phased Transit Curves

TCE 011189127-02 P= 1.335977 Days $T_0=132.445357$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

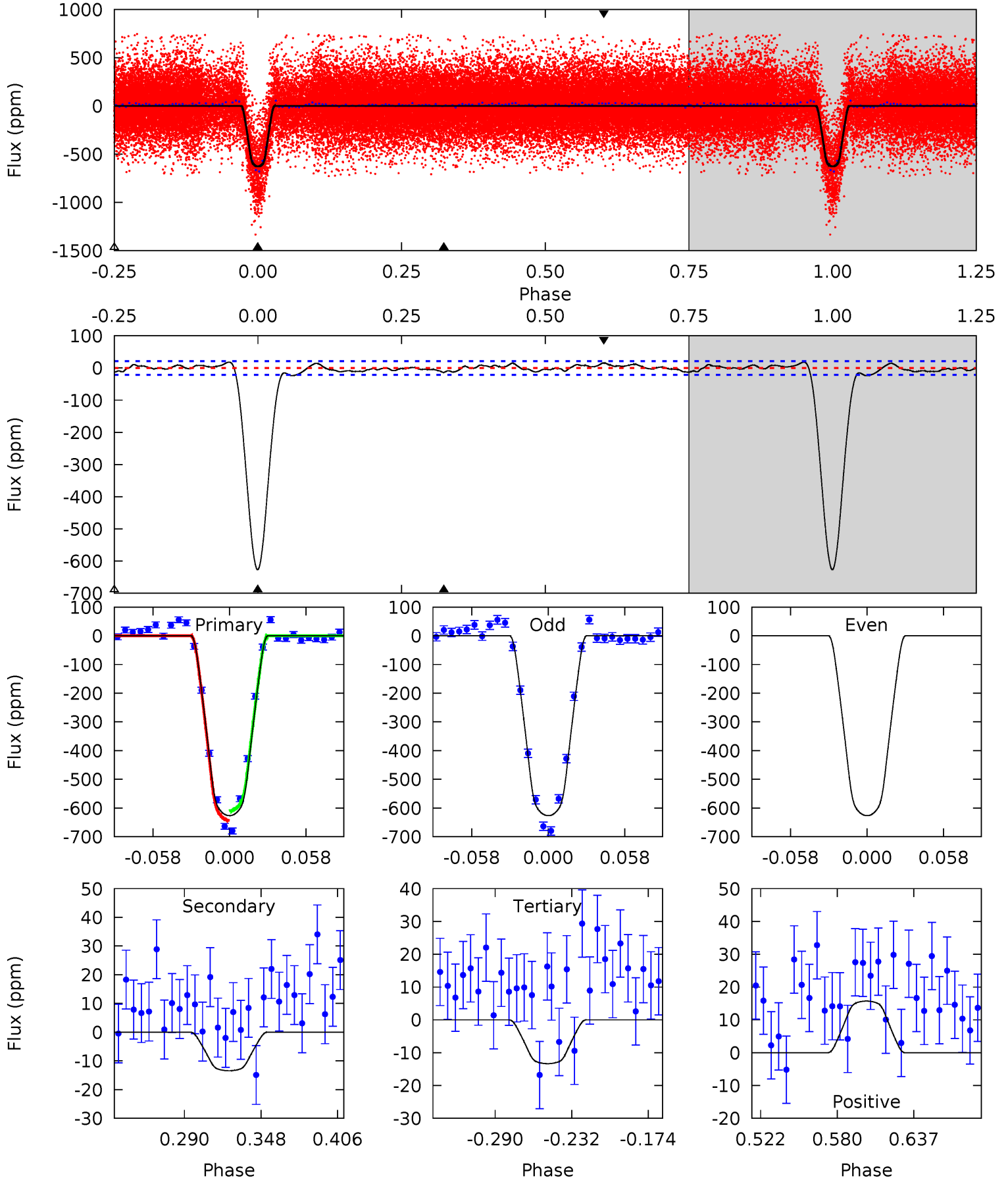
TCE 011189127-02 P= 1.335972 Days $T_0=132.446600$ (BKJD)



DV Model-Shift Uniqueness Test

011189127-02, P = 1.335977 Days, E = 131.109380 Days

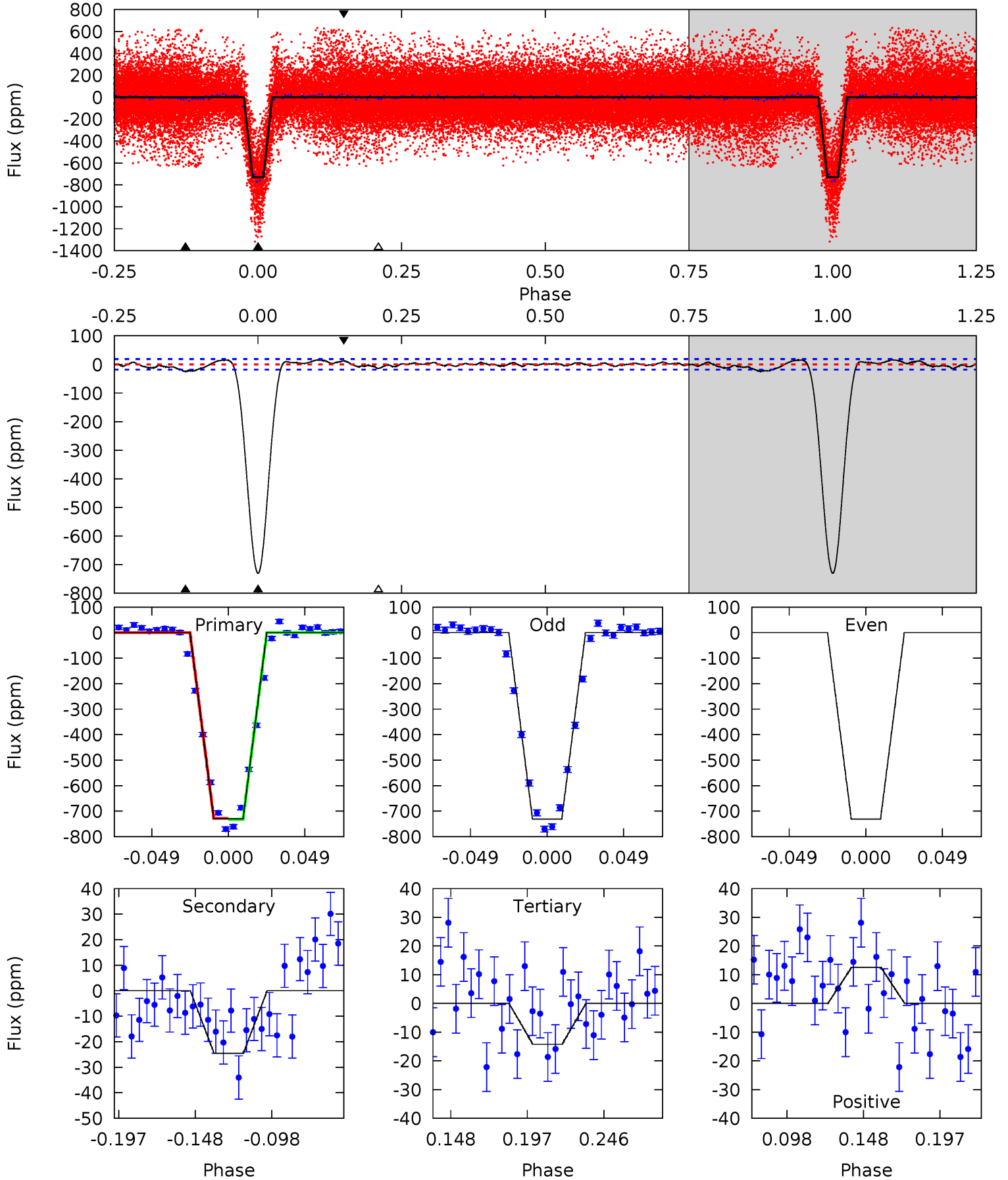
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
137.6	2.95	2.93	3.46	4.68	1.90	1.63	134.7	134.2	0.02	-0.50	0	0.95	0.03	3.72



Alt Model-Shift Uniqueness Test

011189127-02, P = 1.335972 Days, E = 131.110628 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
185.3	6.23	3.61	3.19	4.71	1.97	1.38	181.7	182.1	2.62	3.03	0	0.99	0.02	0.56



Stellar Parameters For KIC 011189127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6116^{+212}_{-212}	$4.335^{+0.180}_{-0.180}$	$-0.560^{+0.300}_{-0.300}$	$1.055^{+0.290}_{-0.217}$	$0.876^{+0.119}_{-0.079}$	$1.053^{+0.958}_{-0.503}$
	+3%/-3%	+4%/-4%	+54%/-54%	+27%/-21%	+14%/-9%	+91%/-48%
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 011189127-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 5	$3.16^{+0.50}_{-0.41}$	2570^{+199}_{-171}	2340^{+399}_{-4752}	$0.365^{+0.194}_{-0.139}$
Alt.	-25 ± 4	$3.22^{+0.52}_{-0.42}$	2585^{+195}_{-189}	2921^{+159}_{-197}	$0.674^{+0.250}_{-0.193}$

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 $A_{obs} \gg 1.0$

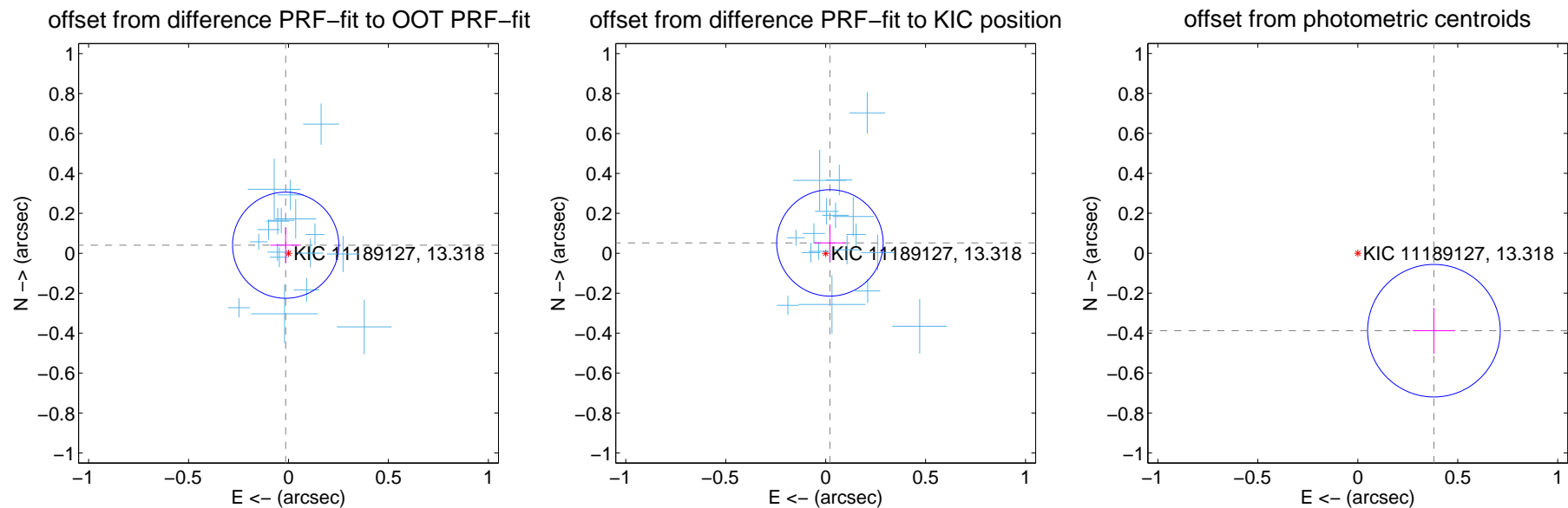
DV Centroid Data

Supplemental centroid analysis for 011189127-02. Kepler magnitude: 13.32. Transit SNR 81.04

There are 17 quarters with good PRF difference image offsets

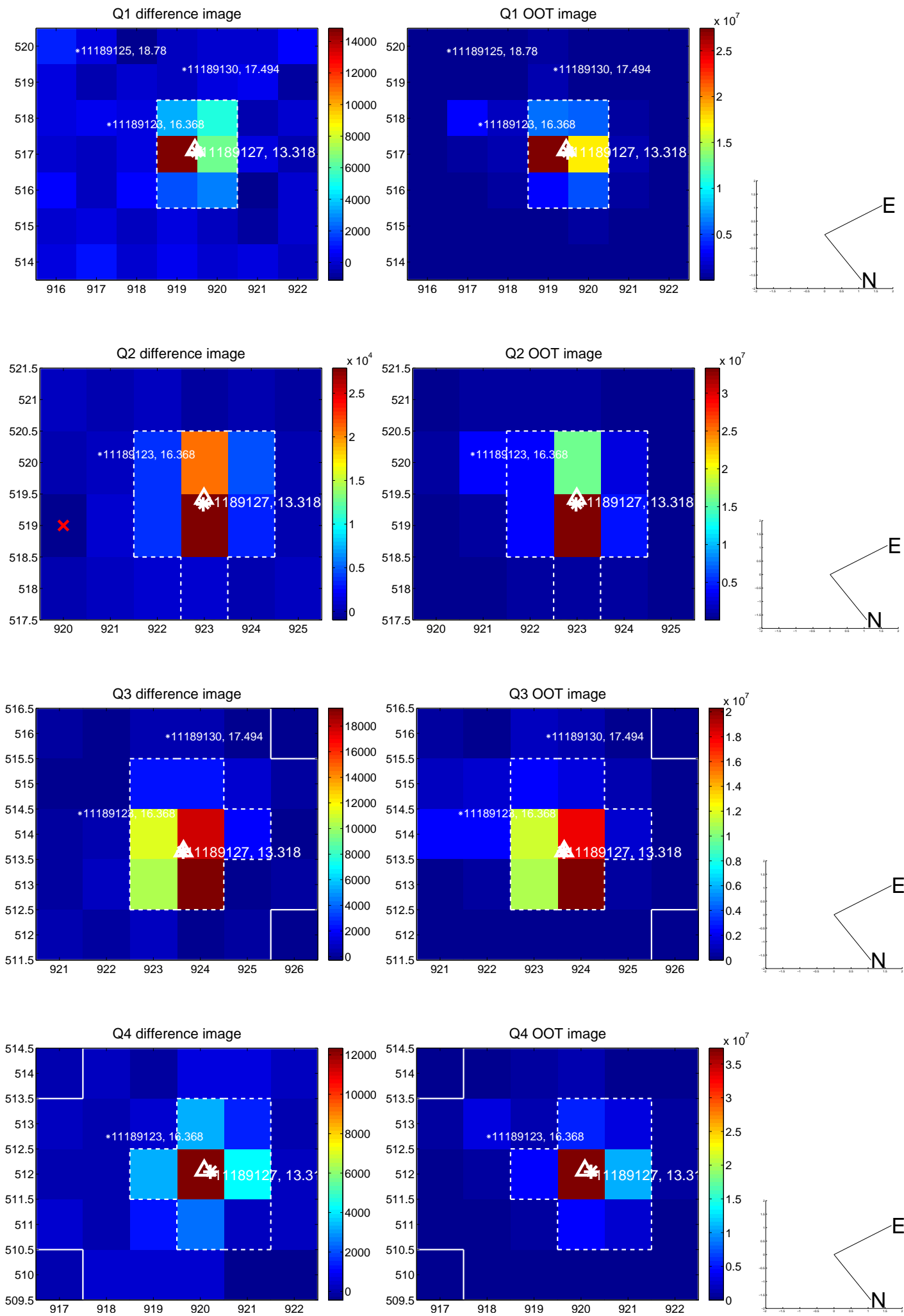
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.089	0.48	0.014 ± 0.076	0.040 ± 0.090
PRF-fit source offset from KIC position	0.056 ± 0.089	0.63	-0.021 ± 0.078	0.052 ± 0.092
photometric centroid source offset	0.54 ± 0.11	4.92	-0.38 ± 0.11	-0.39 ± 0.11

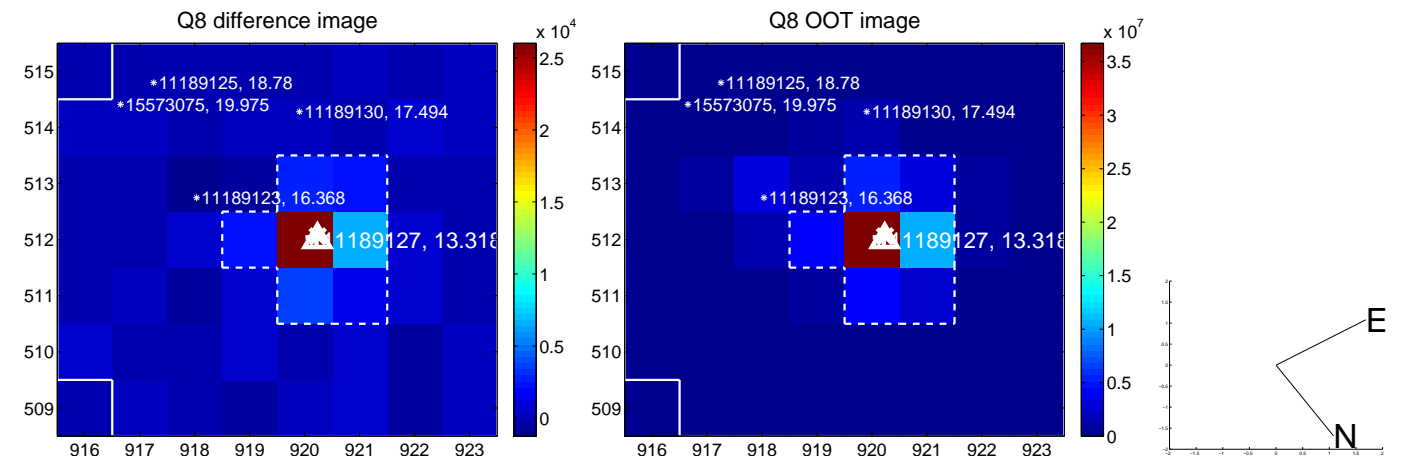
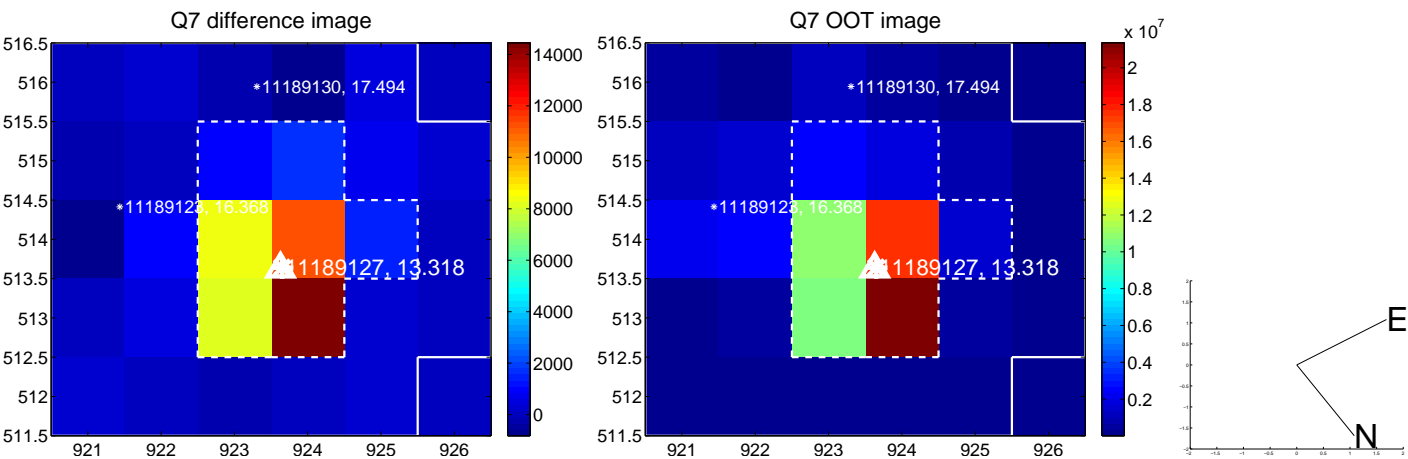
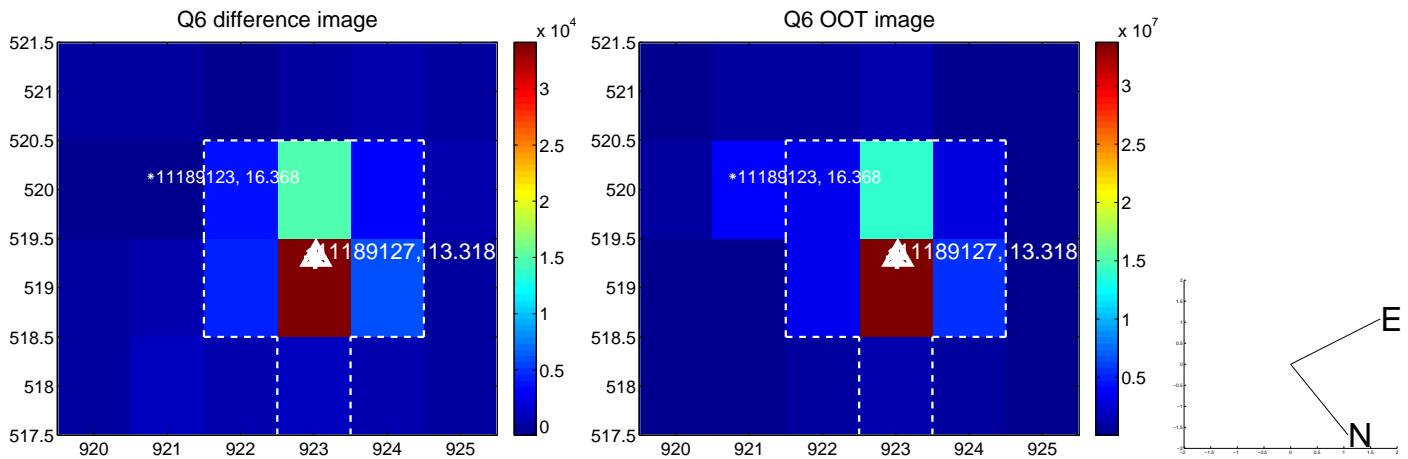
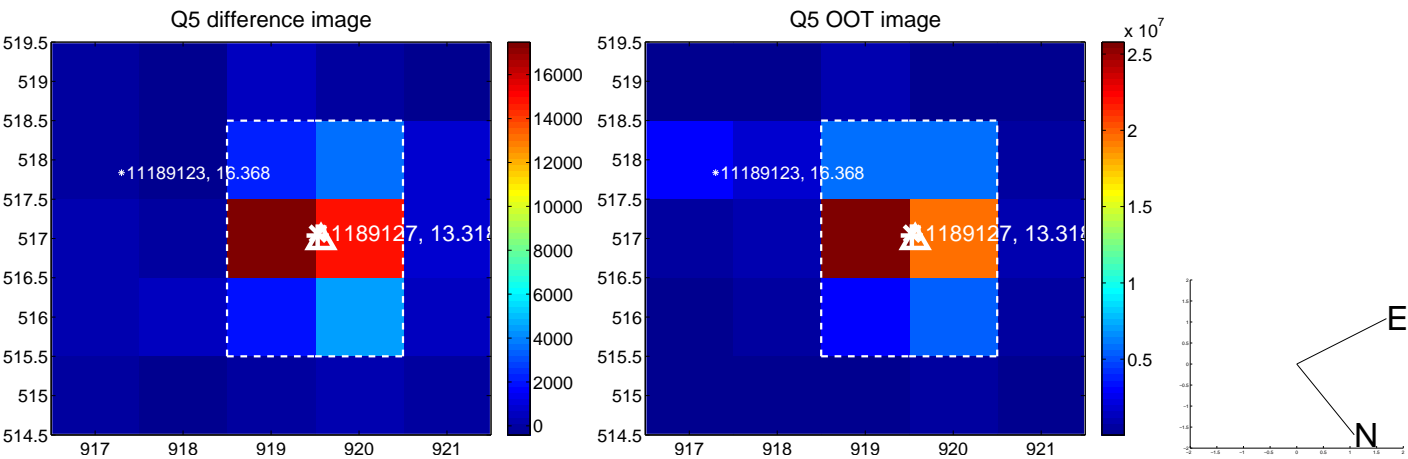


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

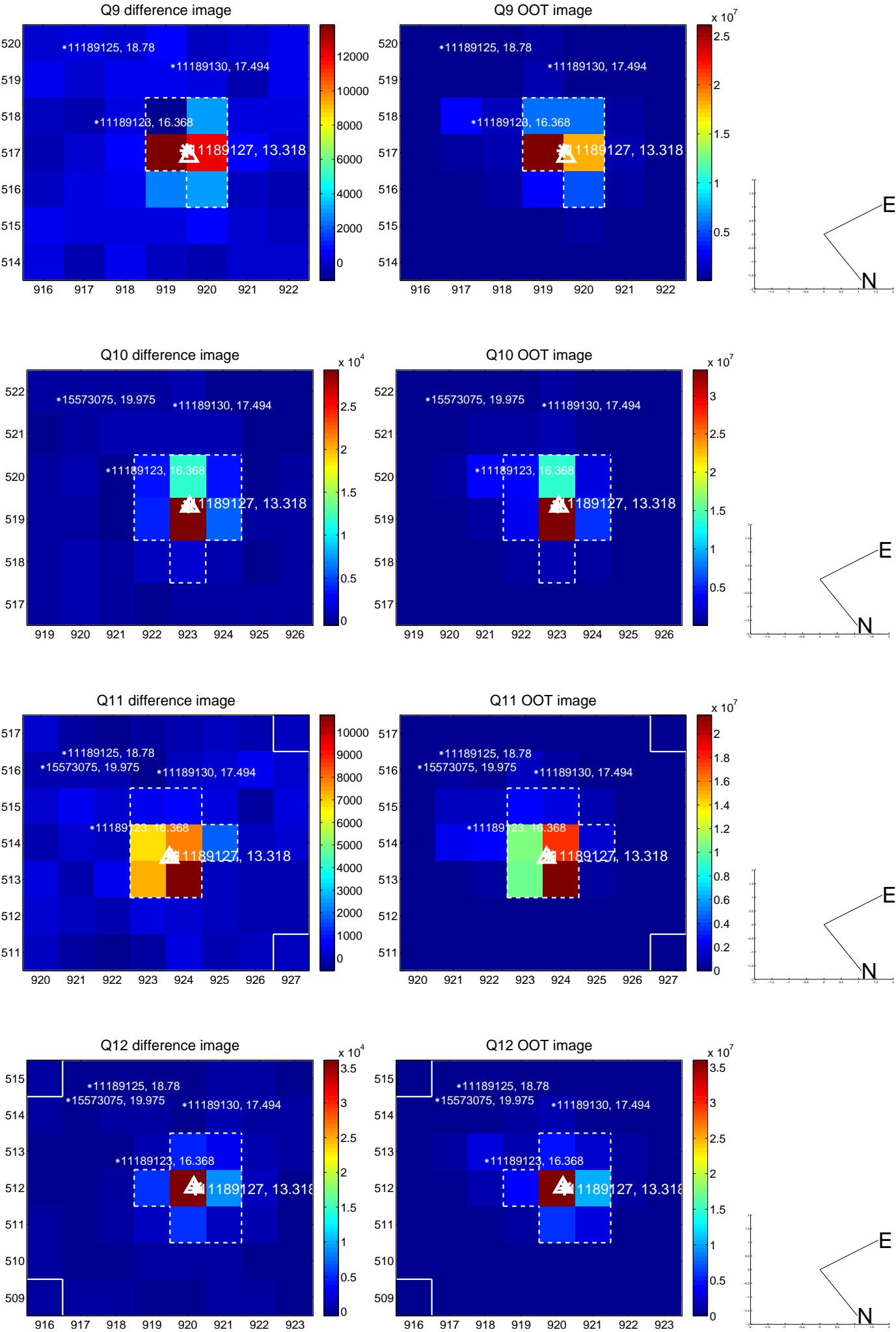
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



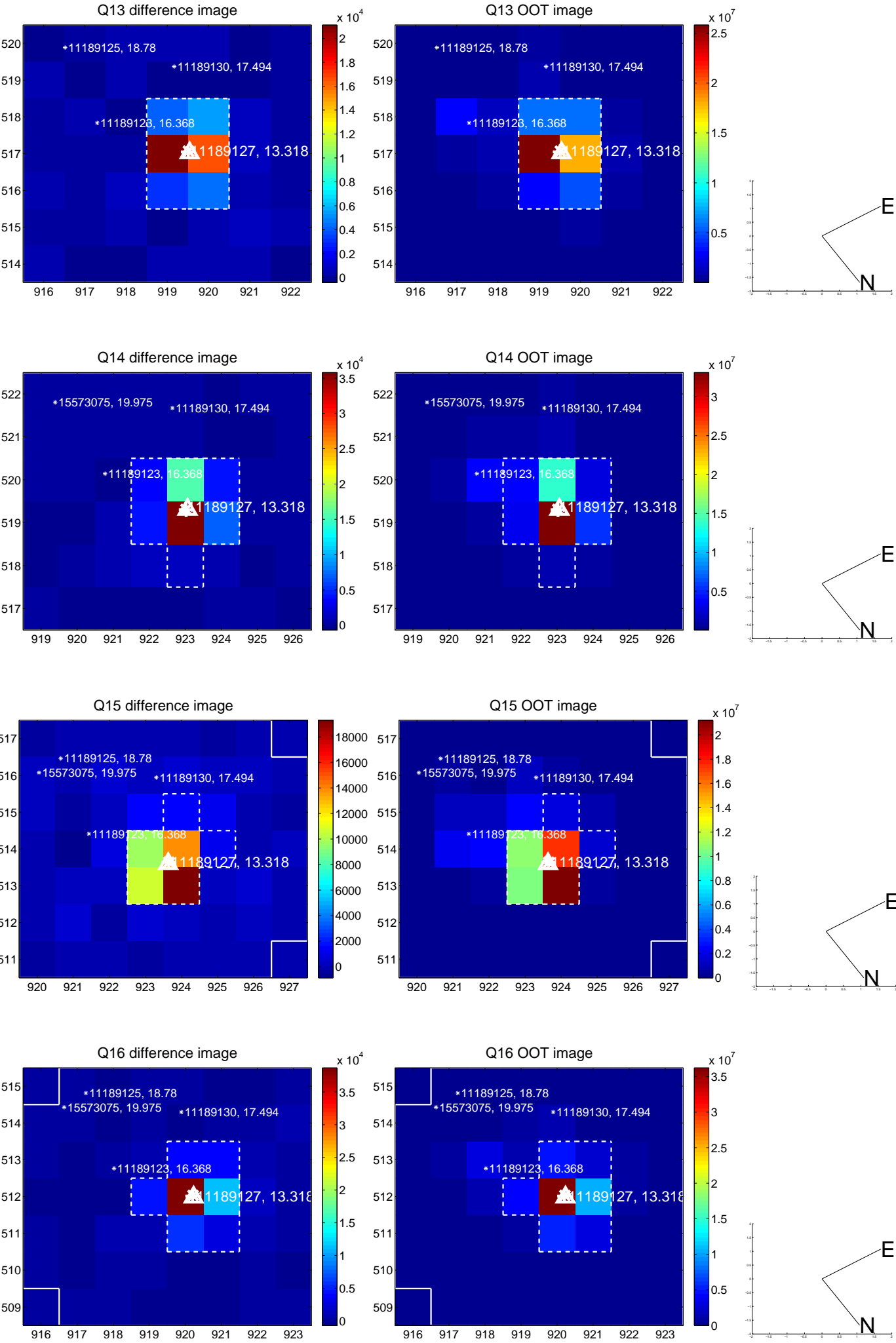
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



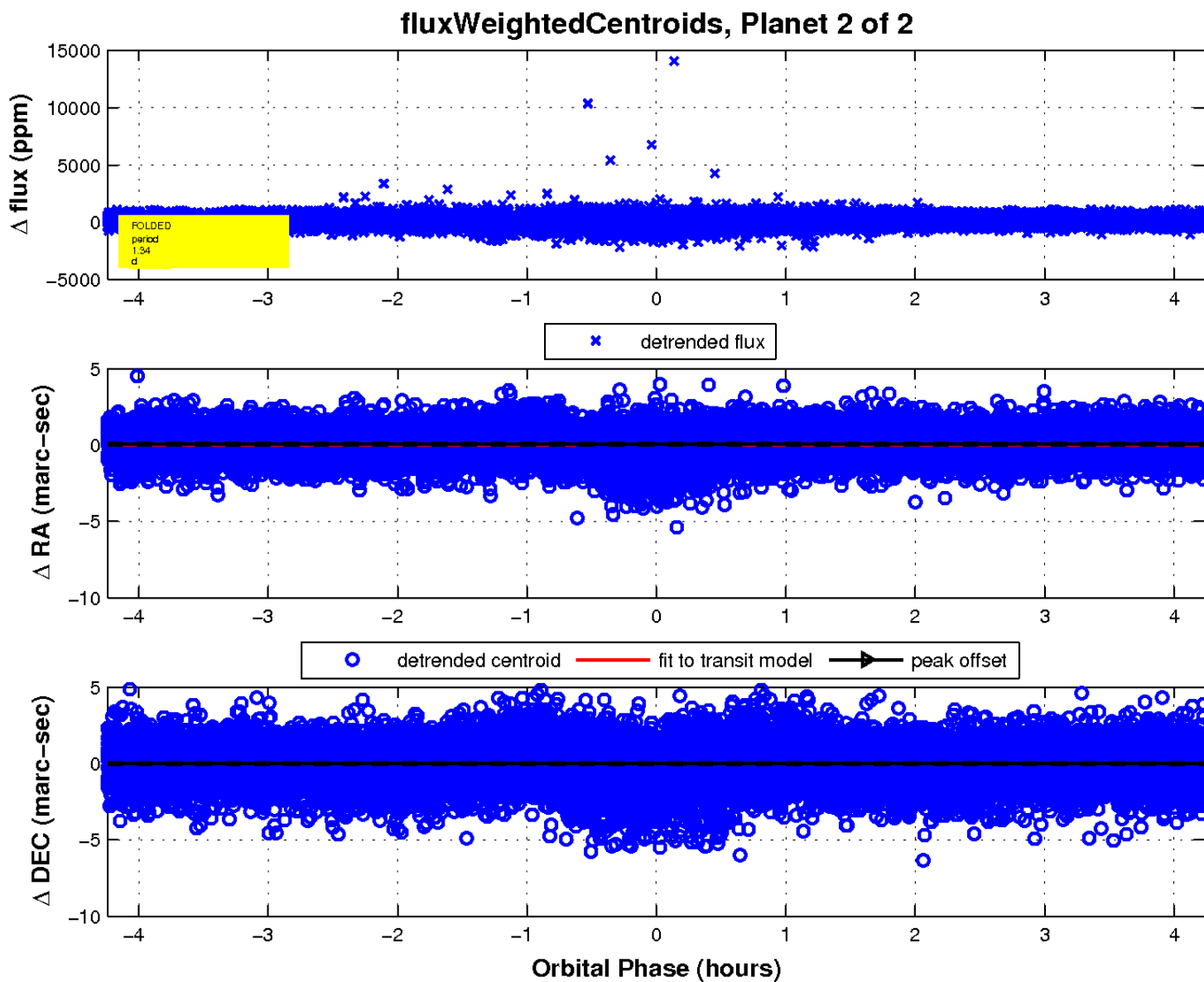
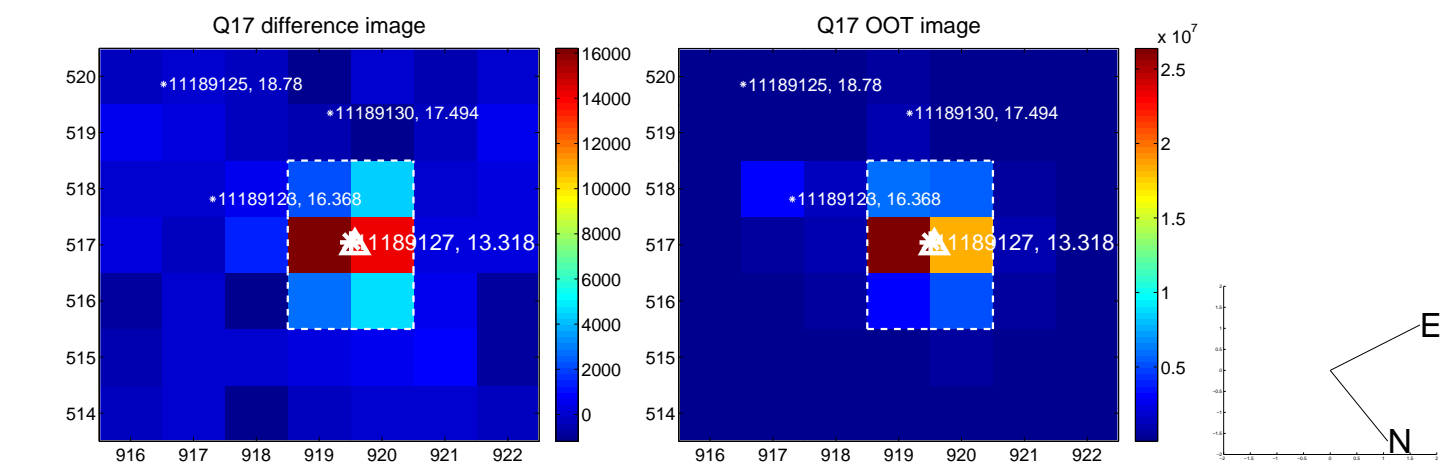
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

