

KIC 011198723

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})
011198723-01	OBS	7417.01	6.840307	137.571283	124979.5	4.337	5191.9	4099.1	0.91	5970	47.15	188.84
011198723-02	OBS	No	6.840310	134.134755	37710.3	4.260	1577.1	1432.4	0.91	5970	28.86	188.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011198723-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
011198723-02	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.

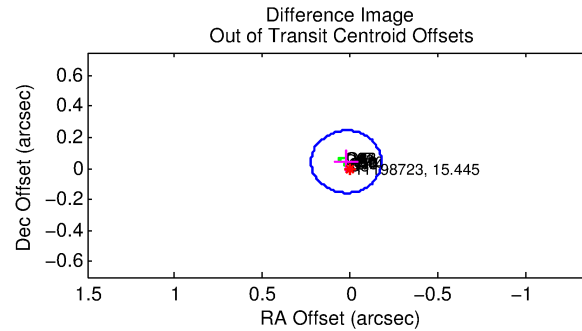
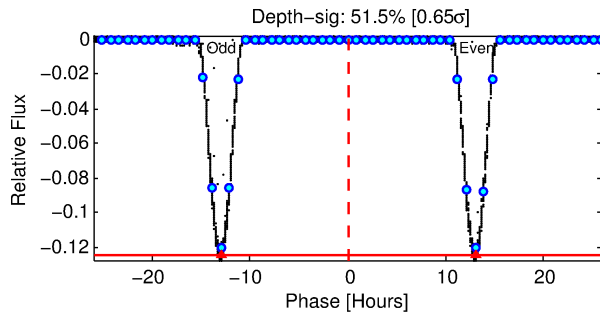
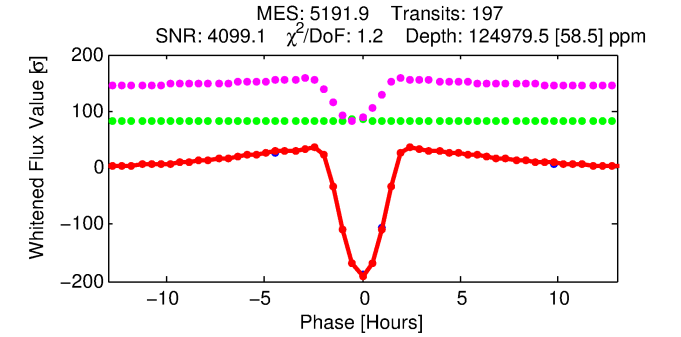
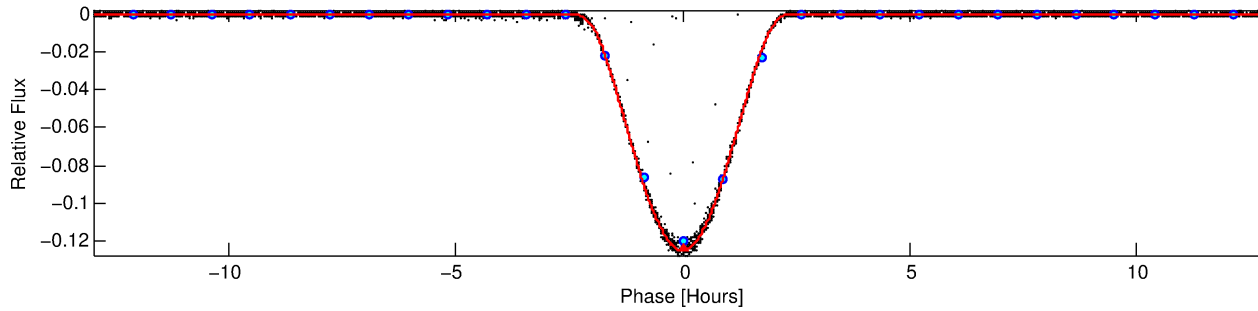
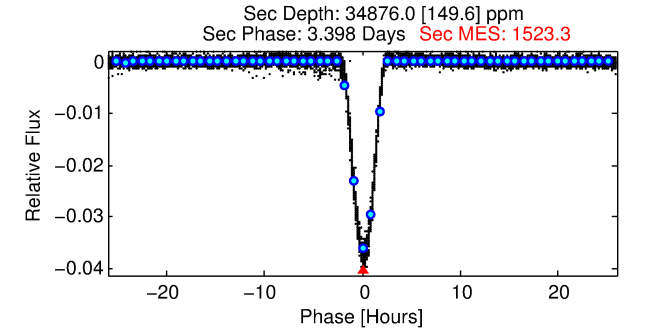
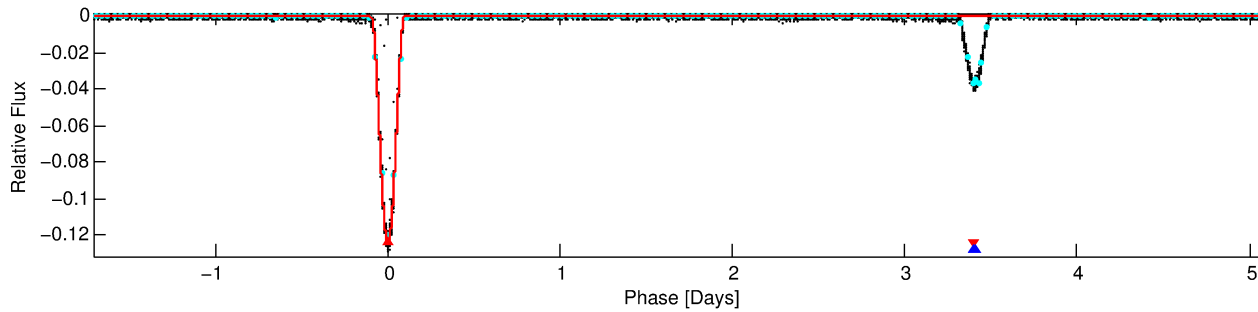
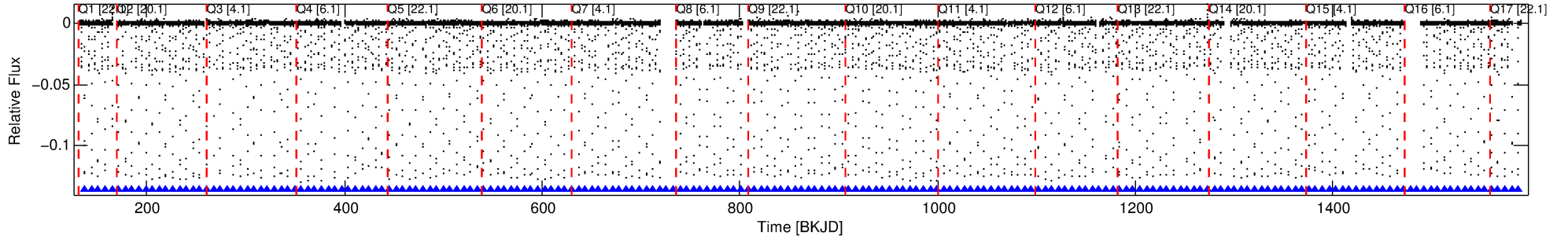
Ephemeris Match Information For 011198723-01

No Significant Match Found

DV One-Page Summary

KIC: 11198723 Candidate: 1 of 2 Period: 6.840 d
KOI: K07417.01 Corr: 0.999

Kp: 15.44 R*: 0.91 Rs Teff: 5970.0 K Logg: 4.52 Fe/H: -0.180



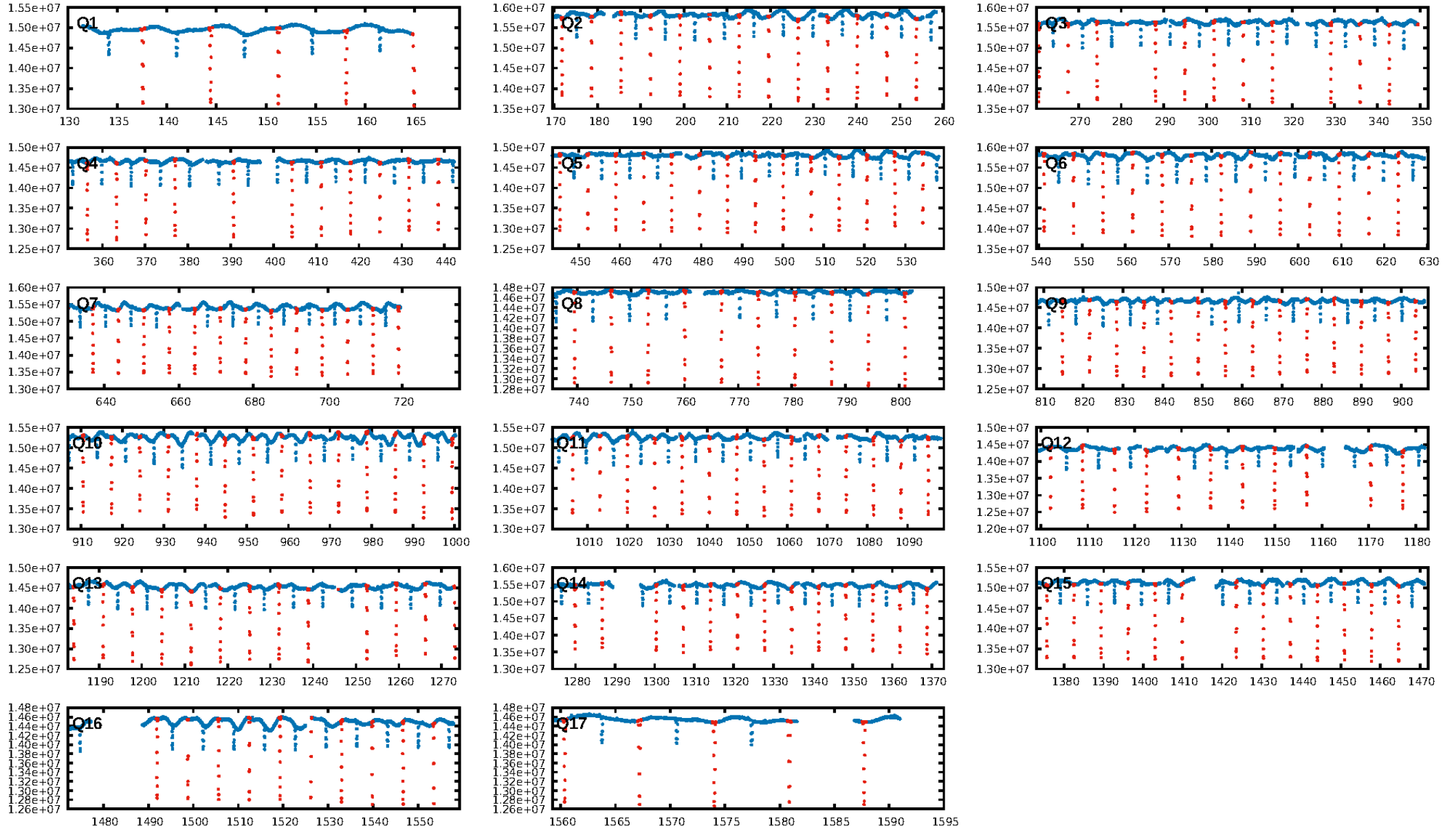
DV Fit Results:

Period = 6.84031 [0.00000] d
Epoch = 137.5713 [0.0000] BKJD
Rp/R* = 0.4758 [0.0218]
a/R* = 14.16 [0.04]
b = 0.90 [0.03]
Seff = 188.83 [73.02]
Teq = 945 [91] K
Rp = 47.15 [13.93] Re
a = 0.0705 [0.0175] AU
Ag = 42.89 [16.08] [2.61σ]
Teffp = 3740 [150] K [15.90σ]

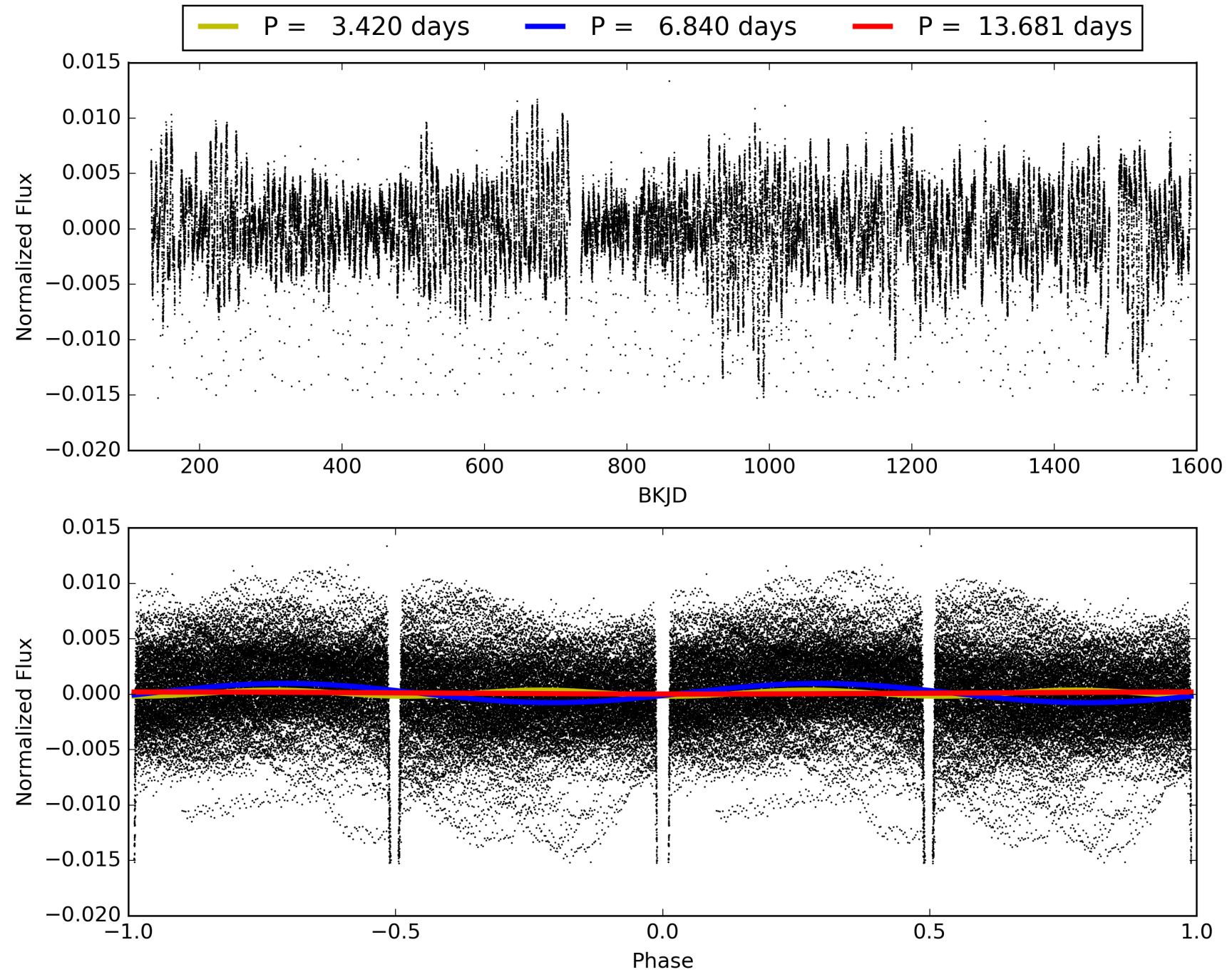
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 94.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [187/187]
GhostDiagnostic-chr: 2.624
Centroid-sig: 0.0%
Centroid-so: 0.073 arcsec [33.84σ]
OotOffset-rm: 0.050 arcsec [0.74σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.032 arcsec [0.48σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011198723-01, PDC Light Curves

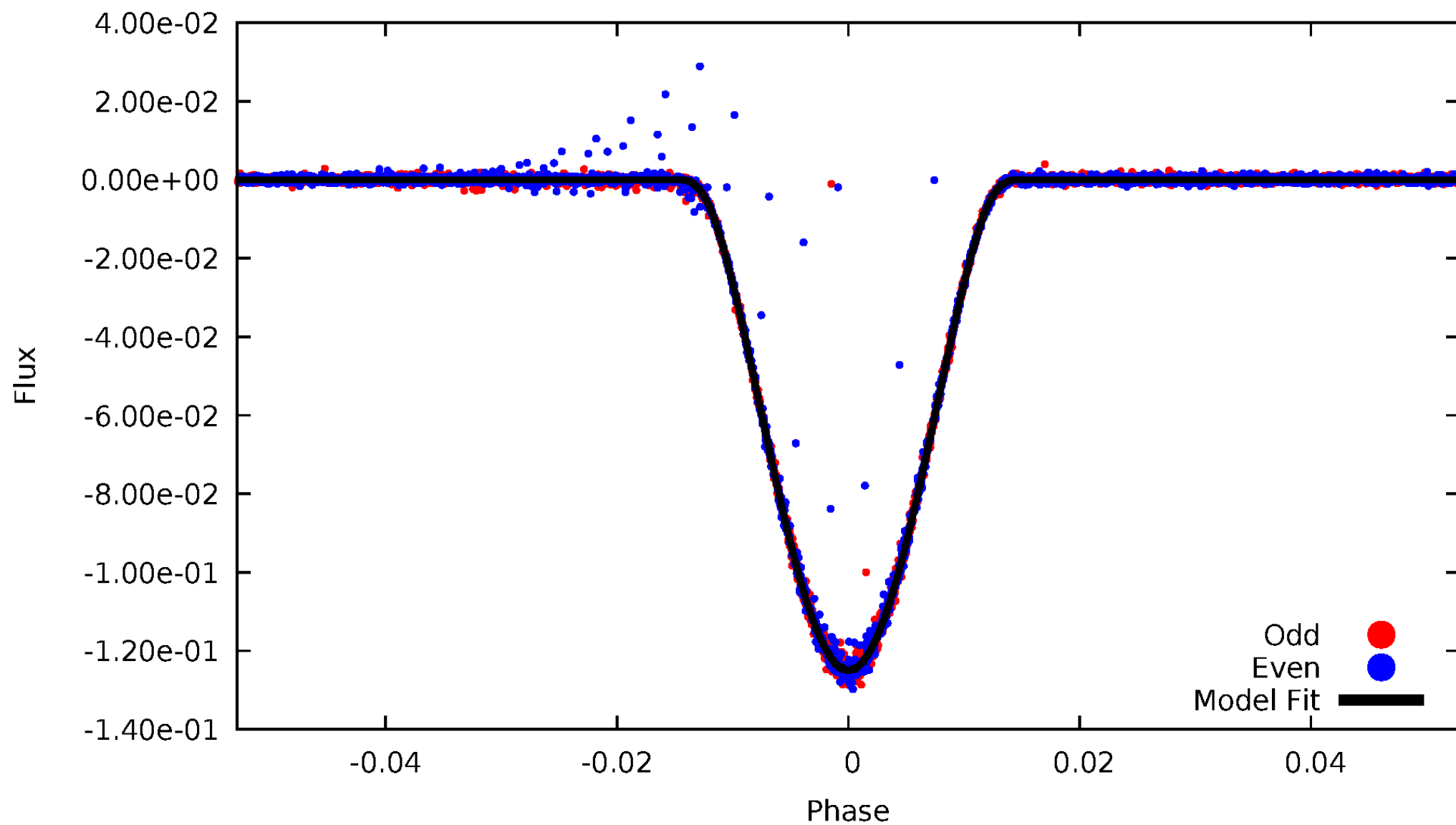


TCE 011198723-01



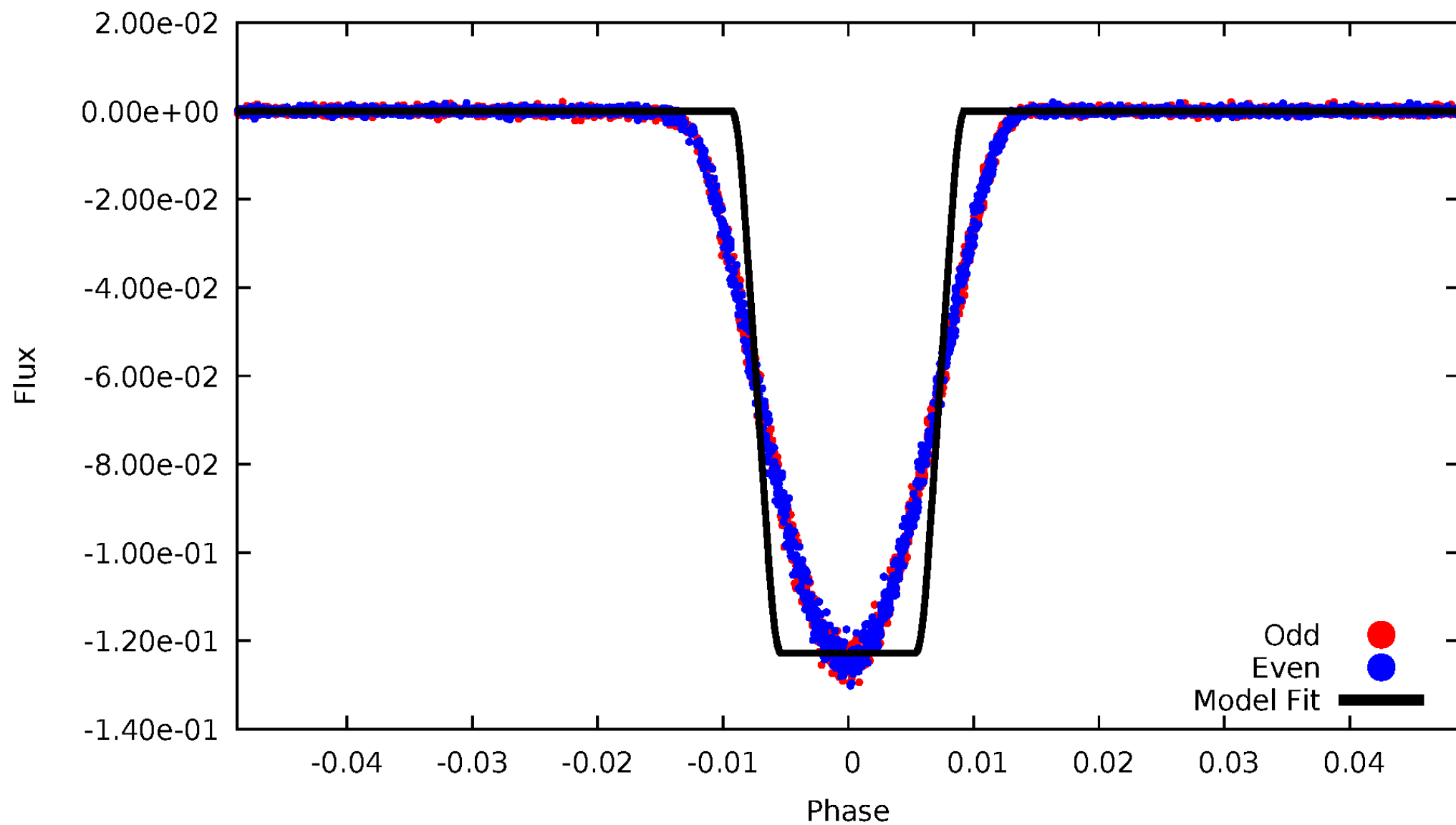
DV Odd/Even

TCE 011198723-01



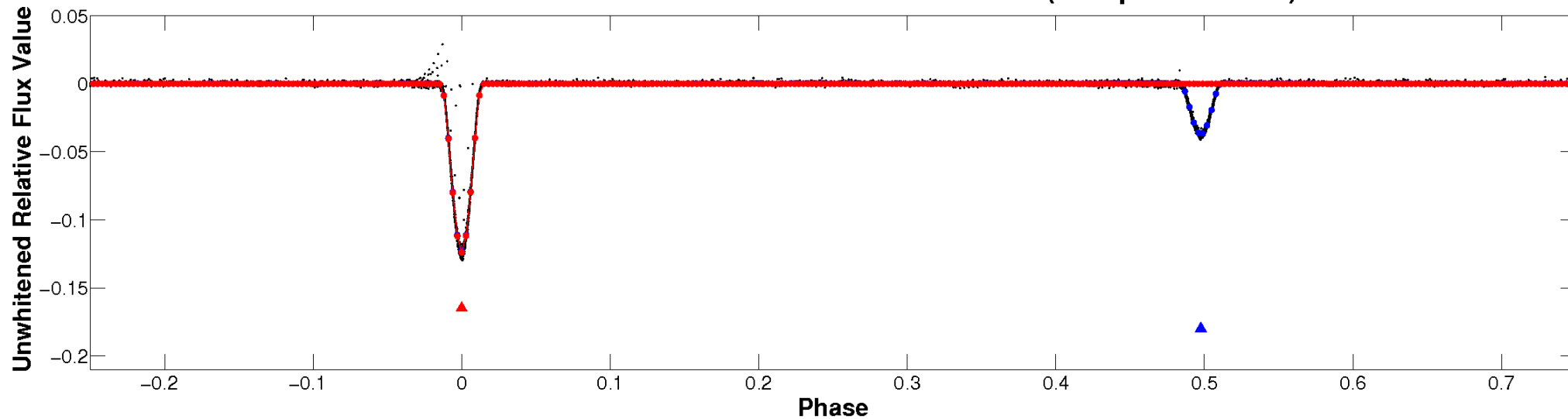
ALT Odd/Even

TCE 011198723-01

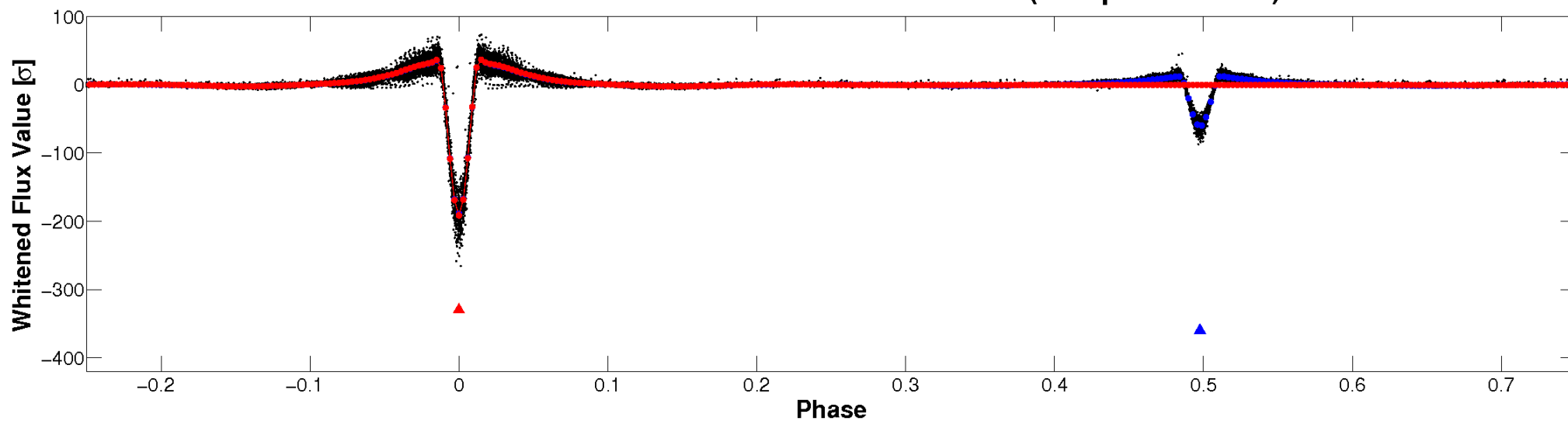


Non-Whitened Vs. Whitened Light Curve

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

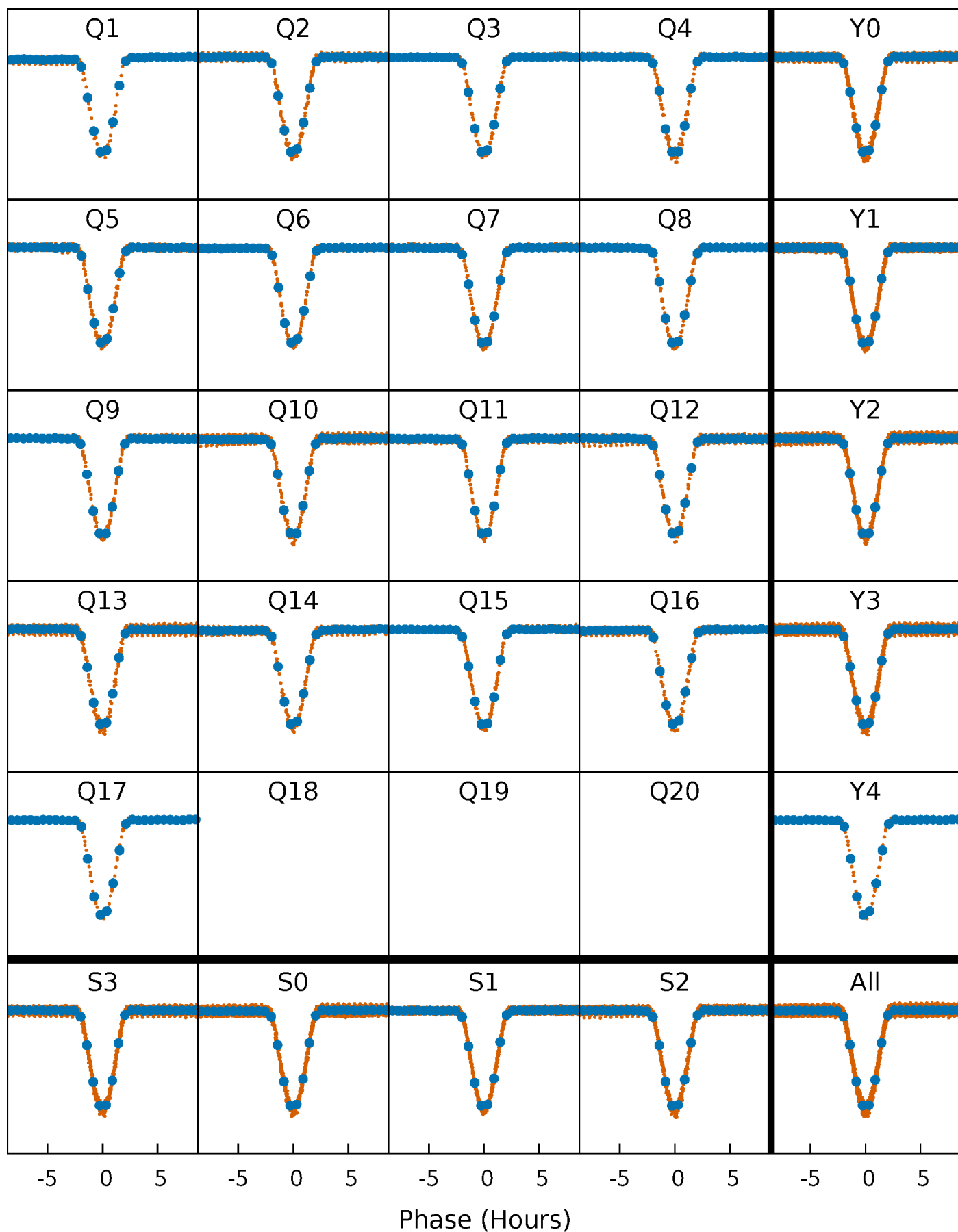


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



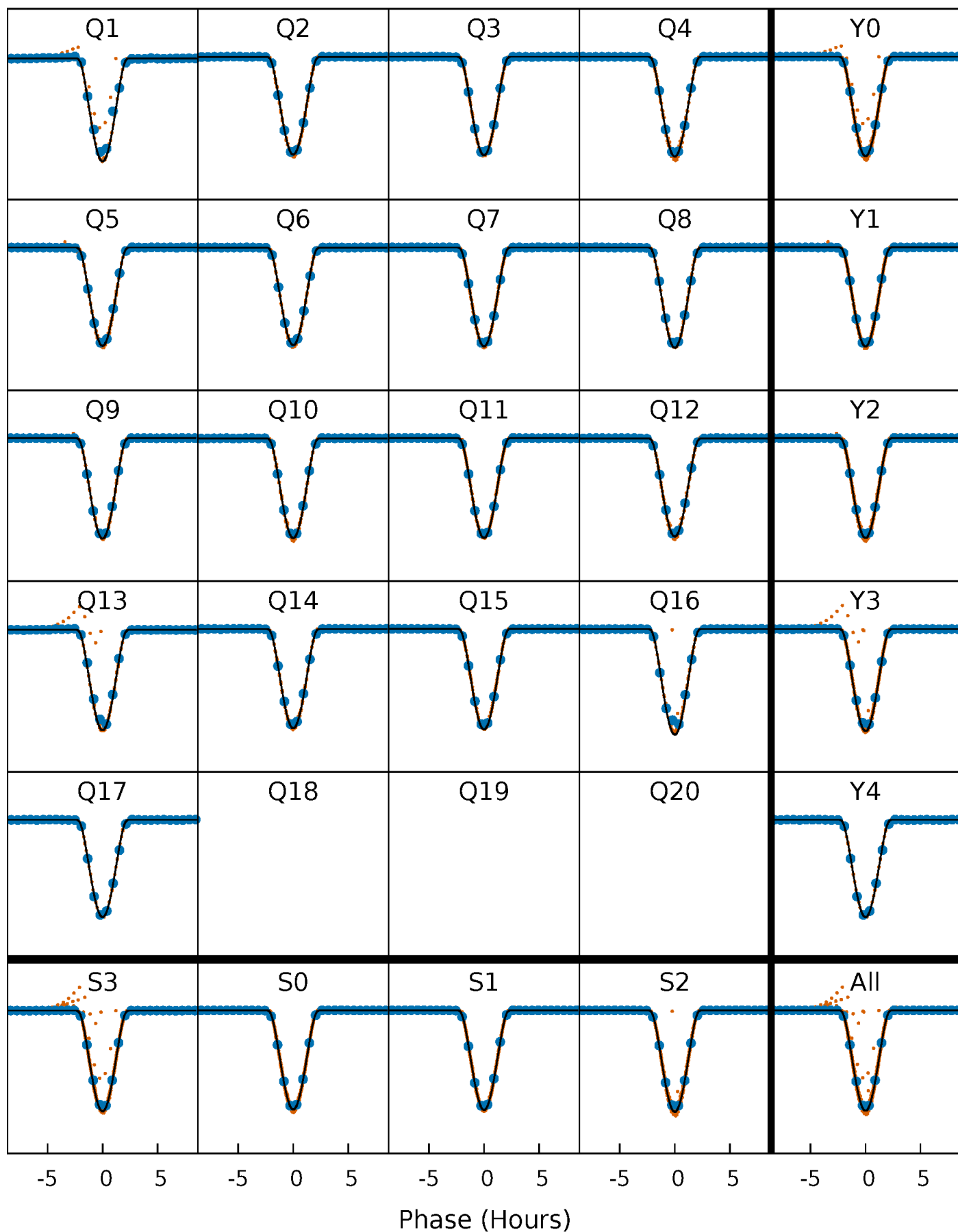
PDC Quarter-Phased Transit Curves

TCE 011198723-01 P= 6.840307 Days $T_0=137.571283$ (BKJD)



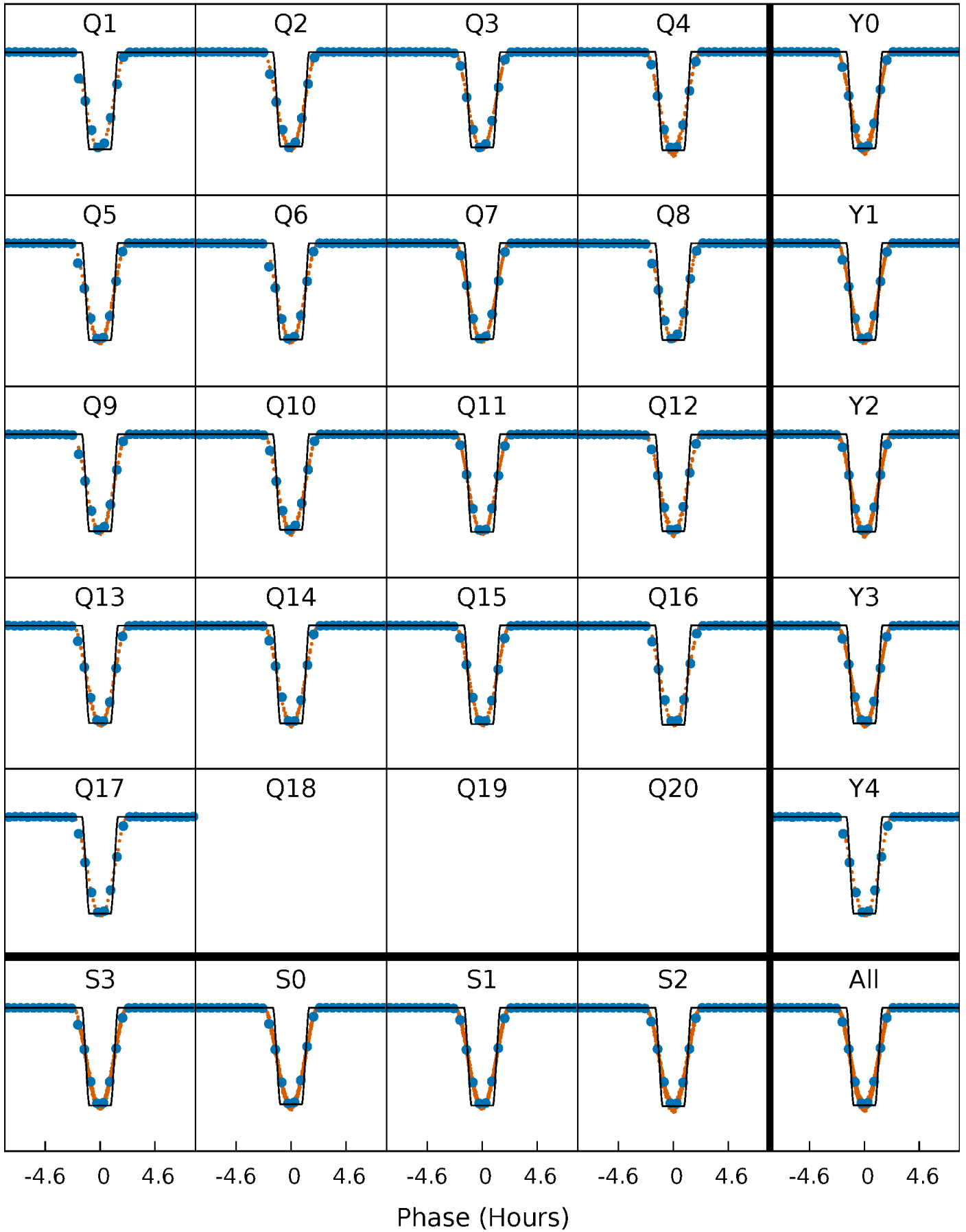
DV Quarter-Phased Transit Curves

TCE 011198723-01 P= 6.840307 Days $T_0=137.571283$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

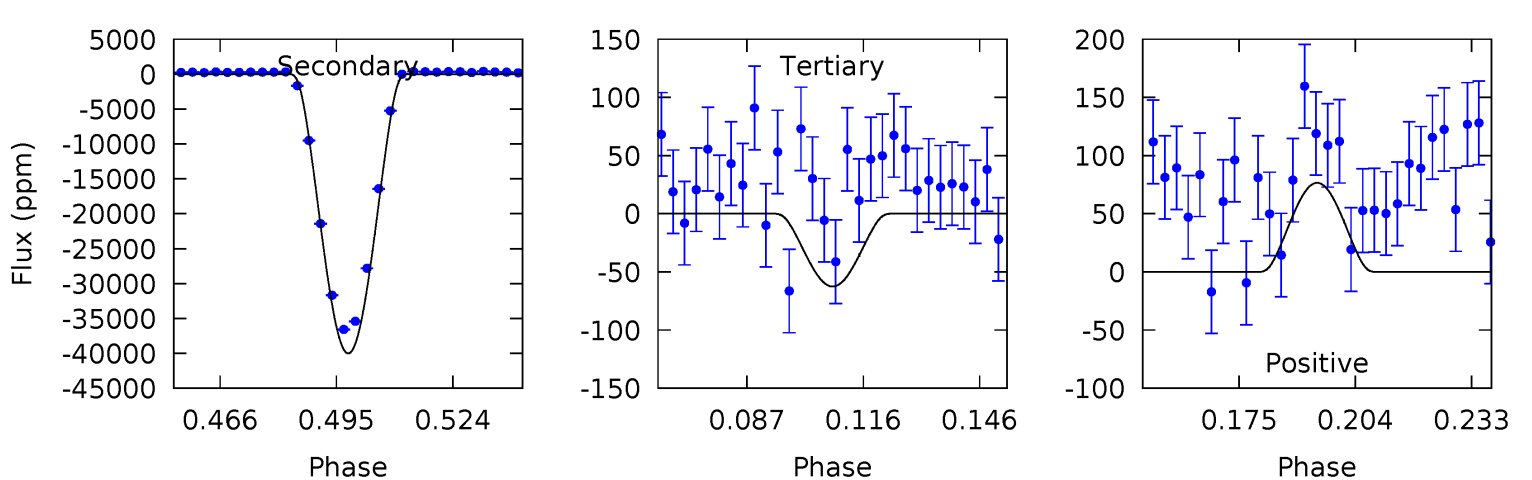
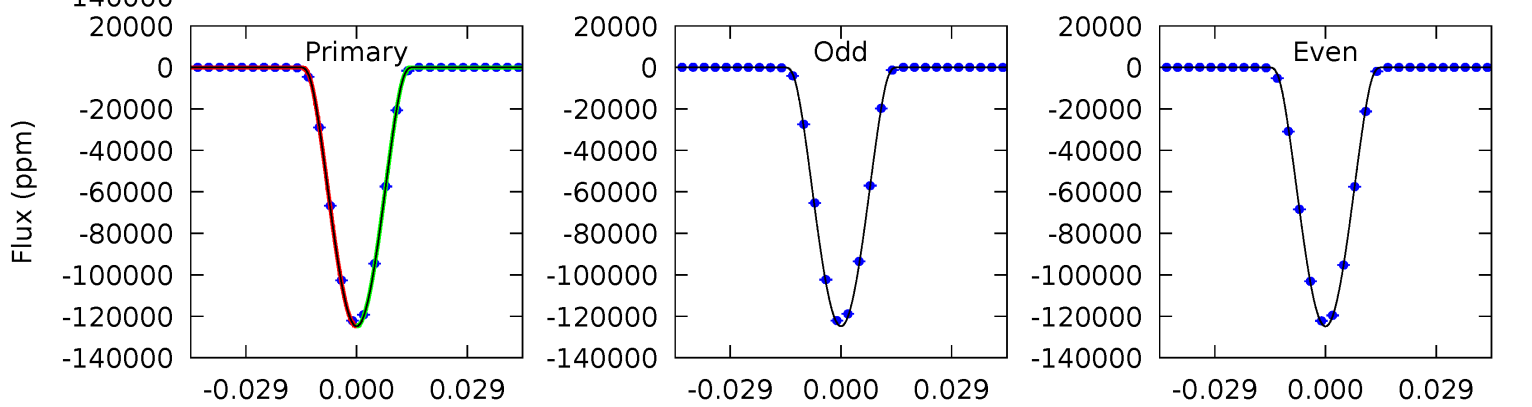
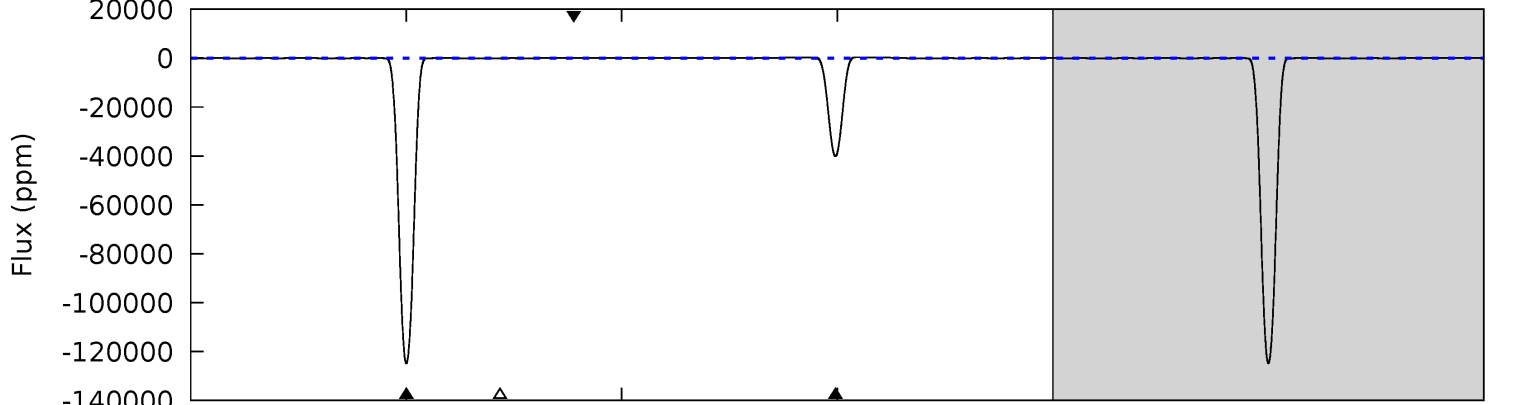
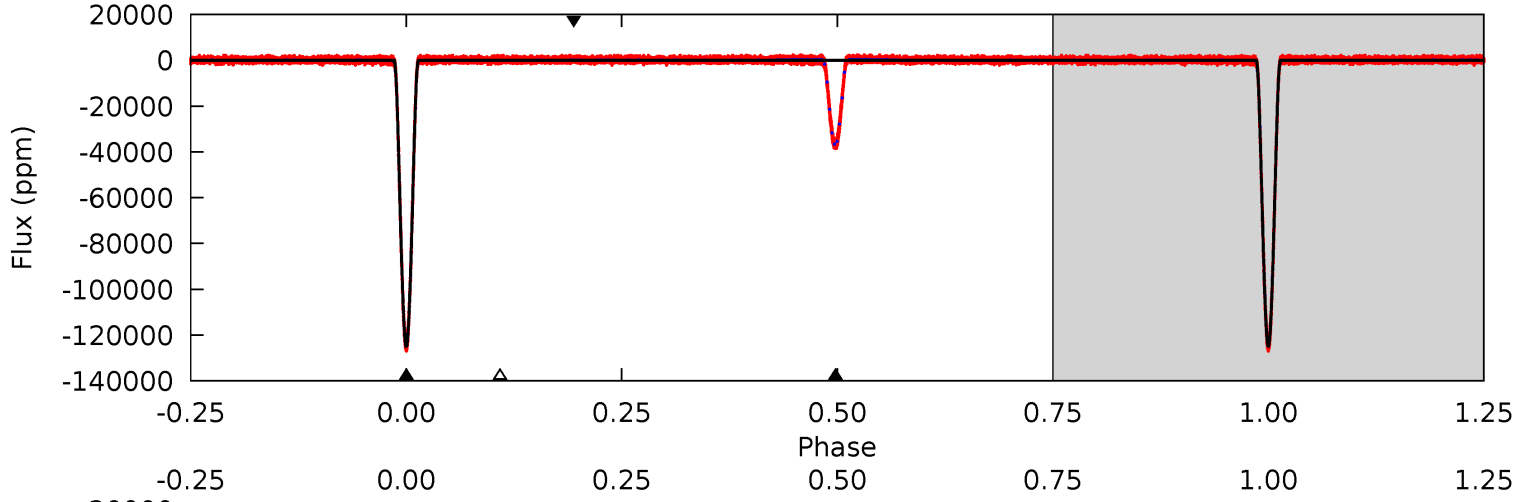
TCE 011198723-01 P= 6.840285 Days $T_0=137.573637$ (BKJD)



DV Model-Shift Uniqueness Test

011198723-01, P = 6.840307 Days, E = 130.730976 Days

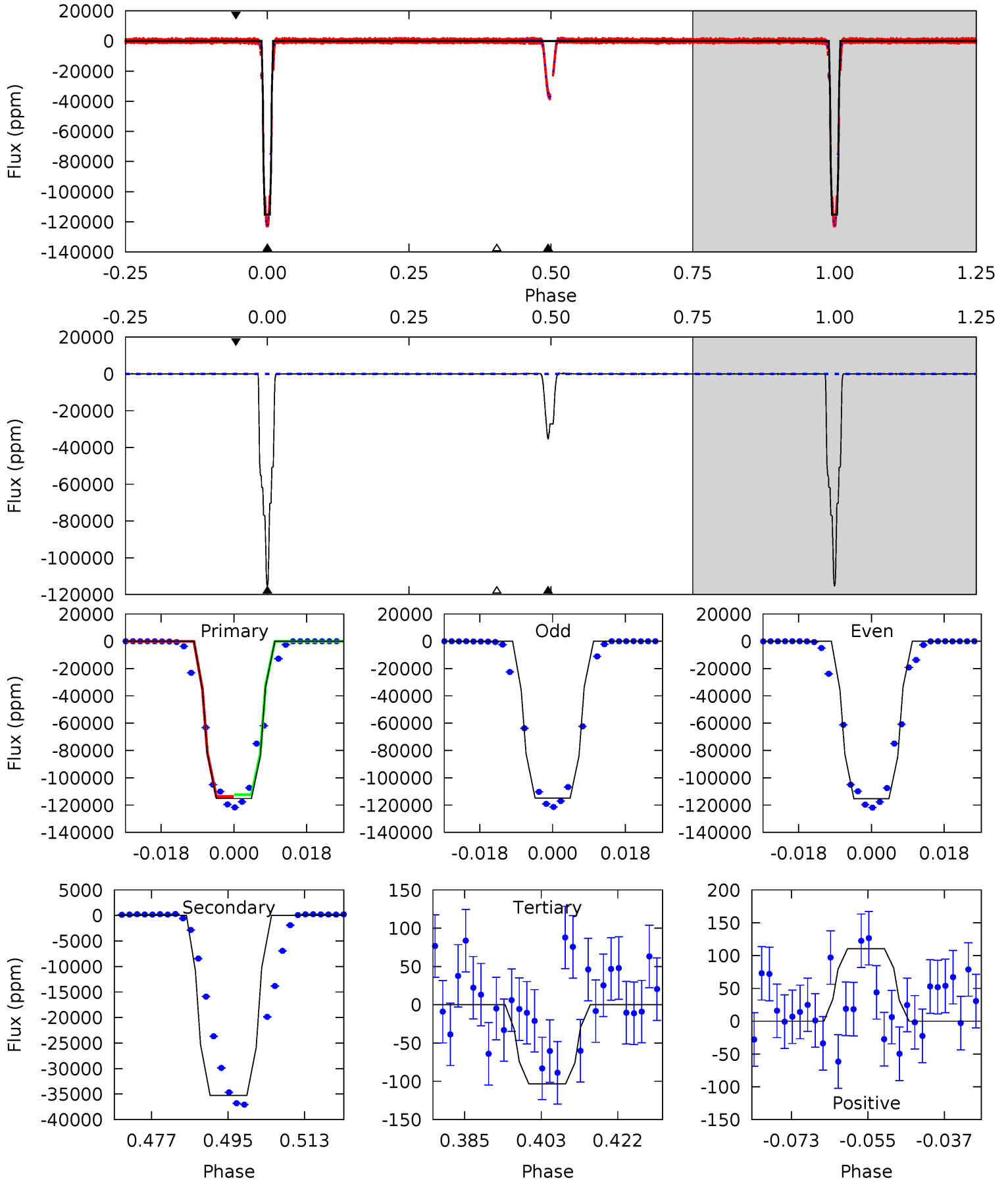
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9829	3151	4.92	6.03	4.82	2.18	6.53	9824	9823	3146	3145	1.43	0.99	0.00	1.24



Alt Model-Shift Uniqueness Test

011198723-01, P = 6.840285 Days, E = 130.733352 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4518	1382	4.05	4.33	4.91	2.36	1.97	4513	4513	1378	1378	8.83	1.00	0.00	0



Stellar Parameters For KIC 011198723

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5970^{+161}_{-197}	$4.521^{+0.050}_{-0.200}$	$-0.180^{+0.300}_{-0.300}$	$0.908^{+0.265}_{-0.088}$	$0.996^{+0.118}_{-0.131}$	$1.877^{+0.476}_{-0.918}$
	+3%/-3%	+1%/-4%	+167%/-167%	+29%/-10%	+12%/-13%	+25%/-49%
Source	PHO1	KIC0	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 011198723-01 / KOI 7417.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-40020 ± 13	$48.28^{+7.55}_{-4.01}$	1344^{+84}_{-58}	4167^{+117}_{-118}	48^{+8}_{-11}
Alt.	-35258 ± 26	$35.84^{+5.54}_{-3.63}$	1352^{+91}_{-67}	4572^{+157}_{-152}	75^{+18}_{-17}

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

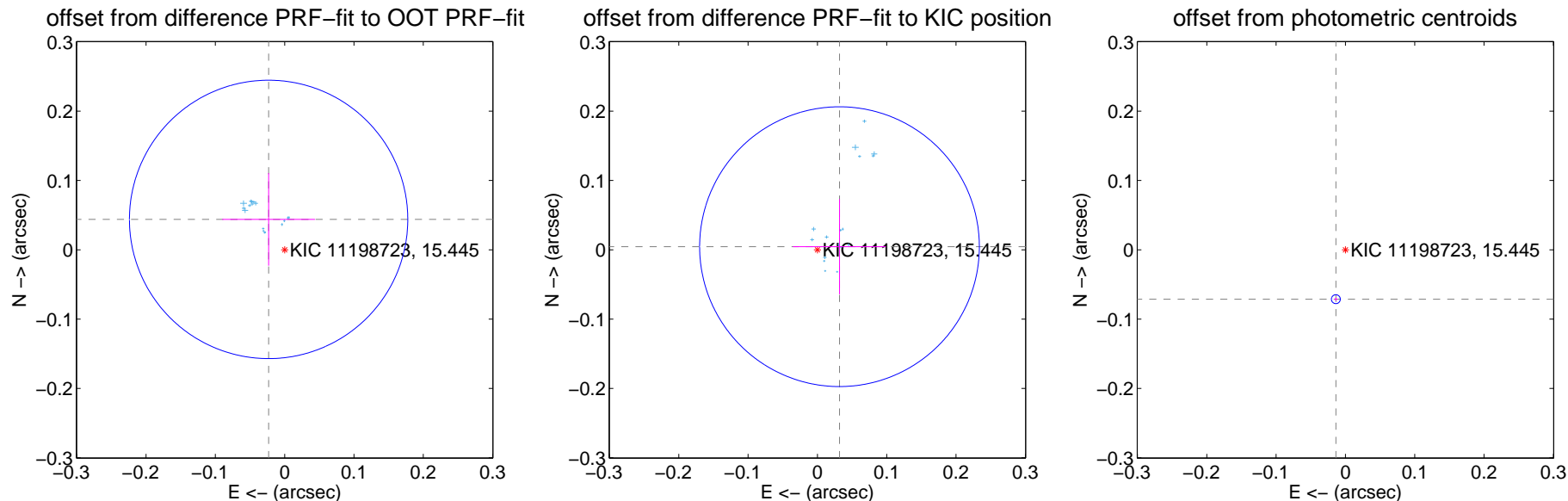
DV Centroid Data

Supplemental centroid analysis for 011198723-01. Kepler magnitude: 15.45. Transit SNR 4099.13

There are 17 quarters with good PRF difference image offsets

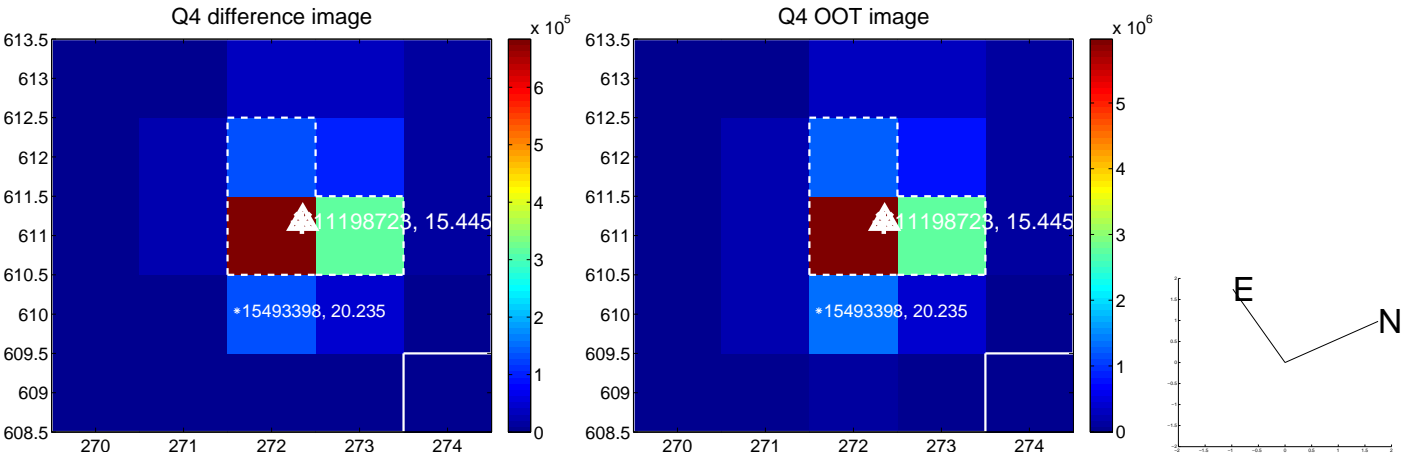
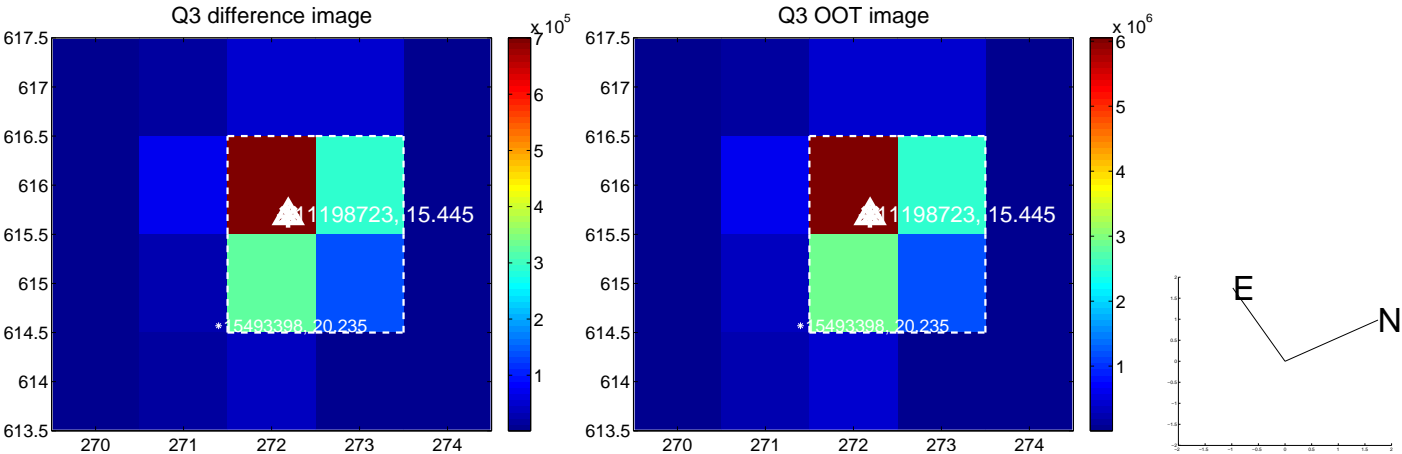
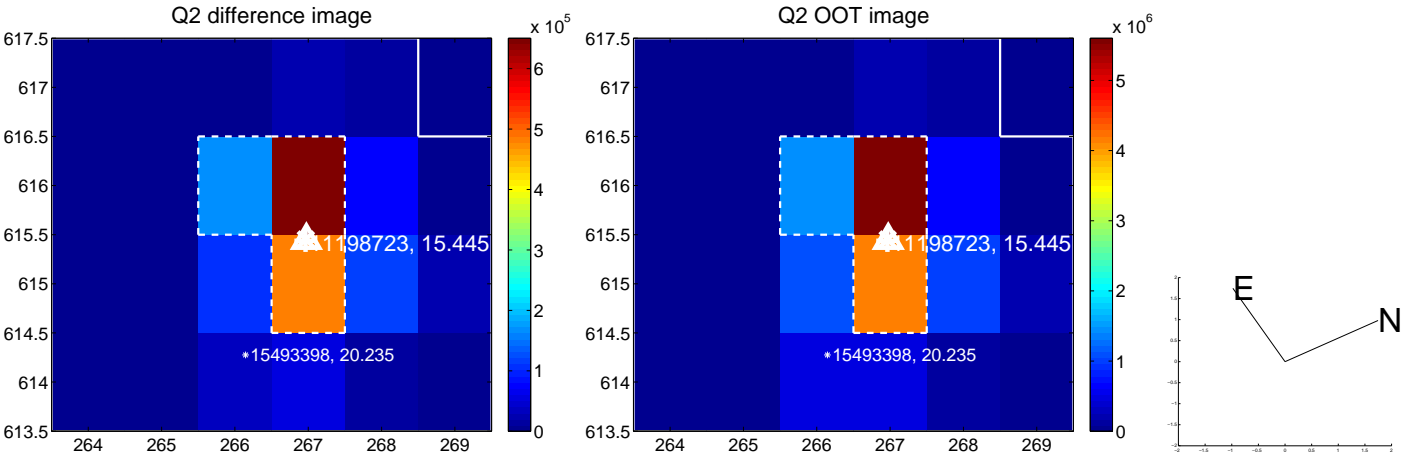
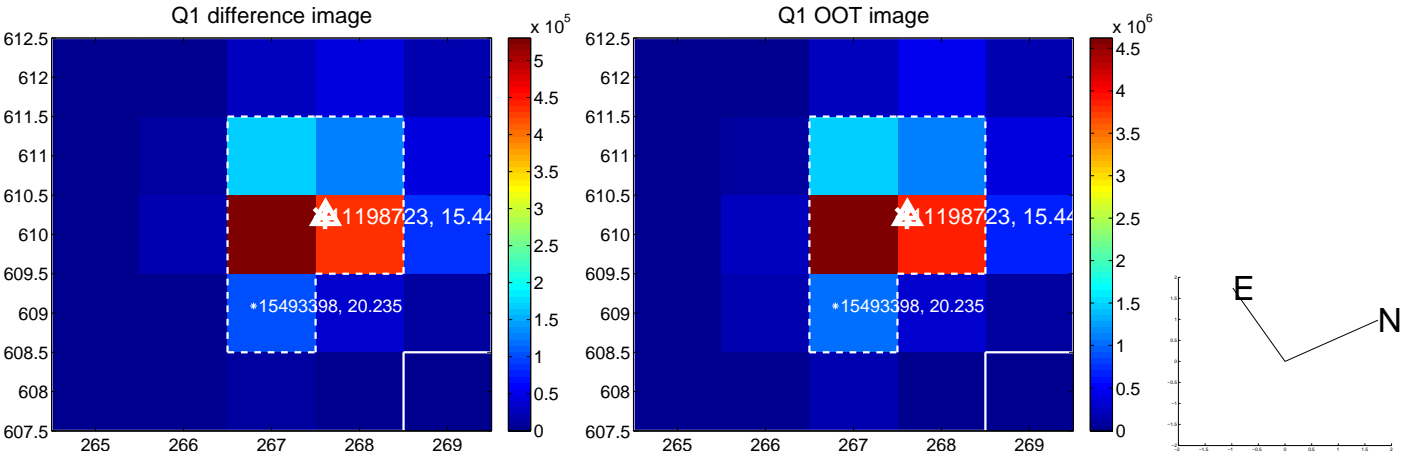
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.067	0.74	0.023 ± 0.067	0.044 ± 0.067
PRF-fit source offset from KIC position	0.032 ± 0.067	0.48	-0.032 ± 0.067	0.004 ± 0.069
photometric centroid source offset	0.07 ± 0.00	33.84	0.01 ± 0.00	-0.07 ± 0.00

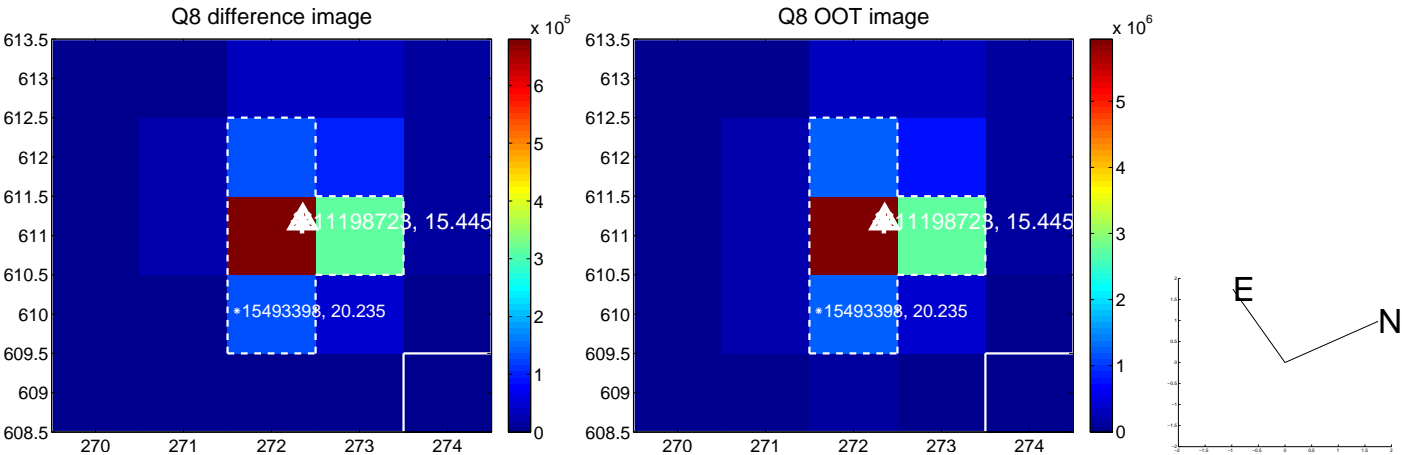
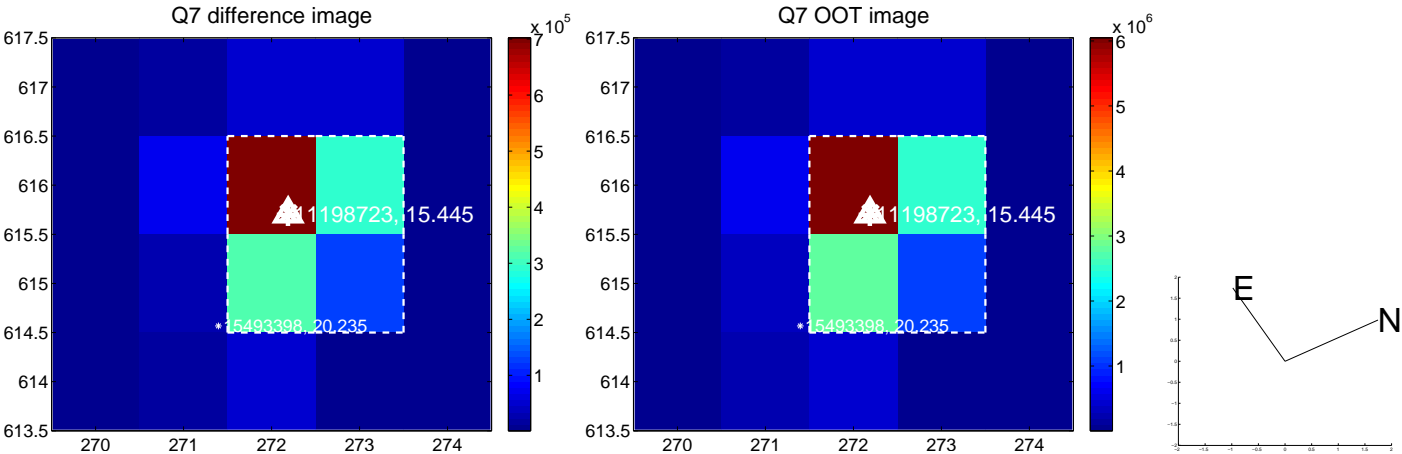
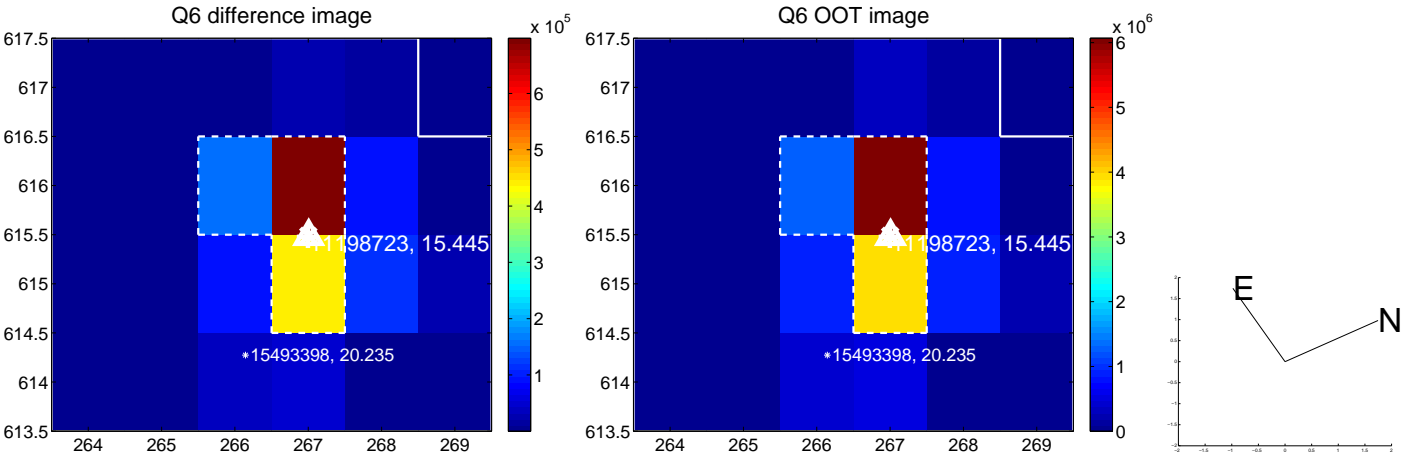
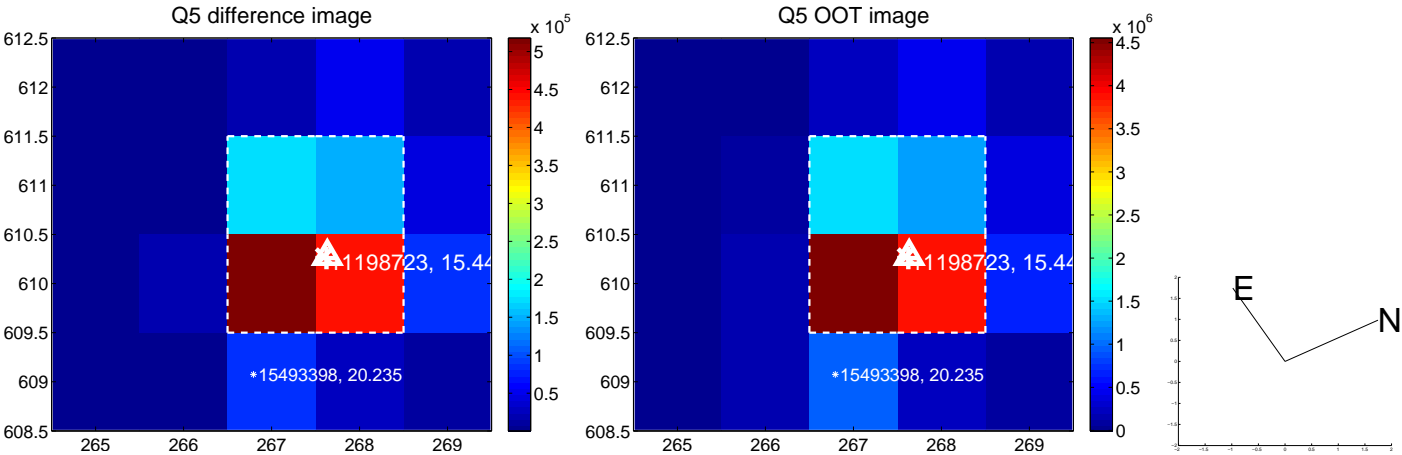


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

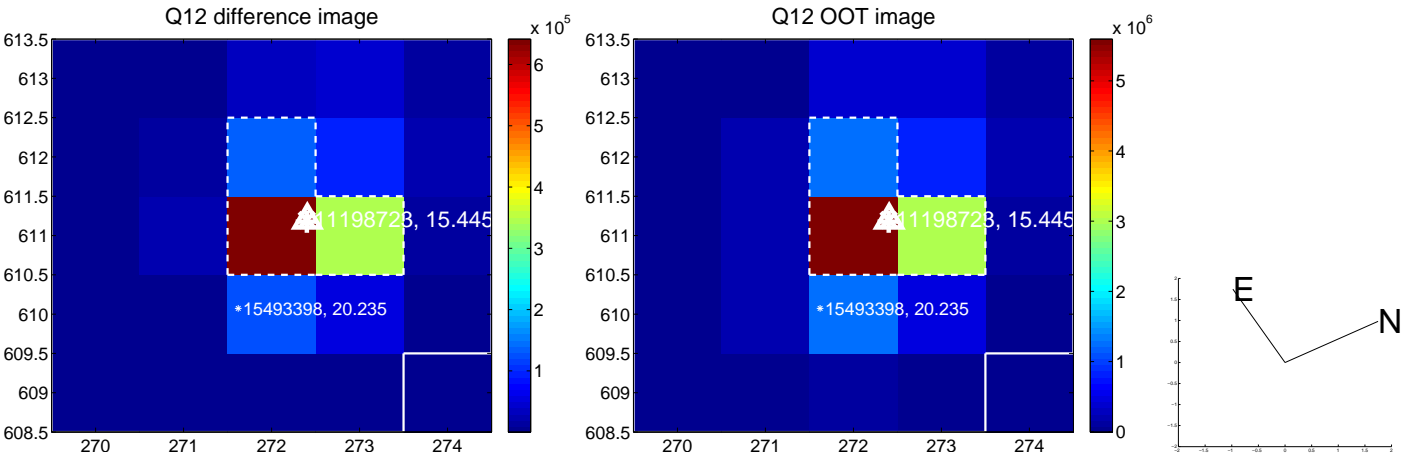
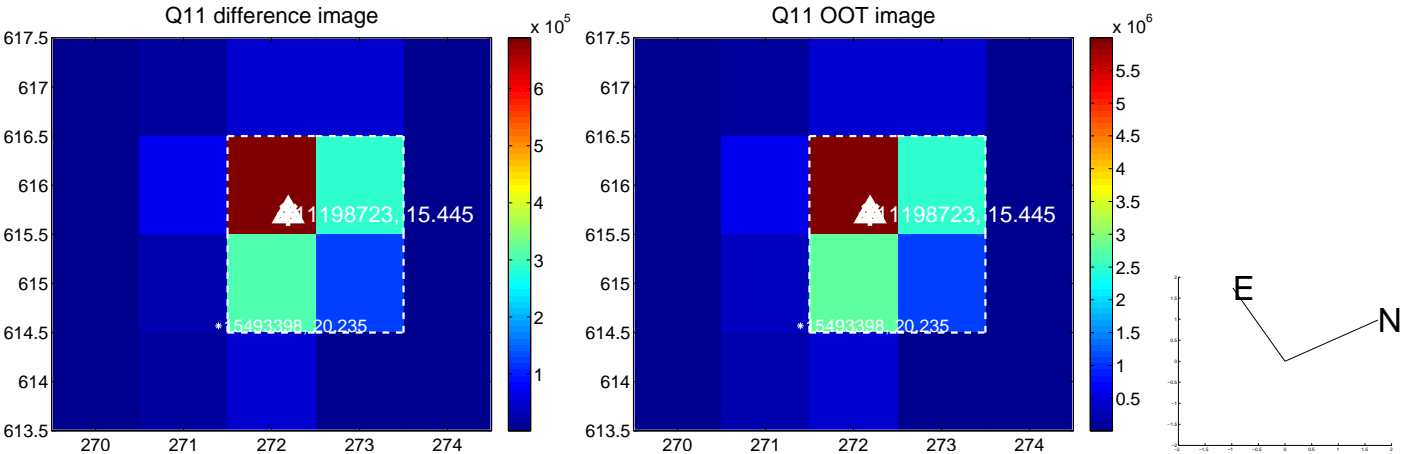
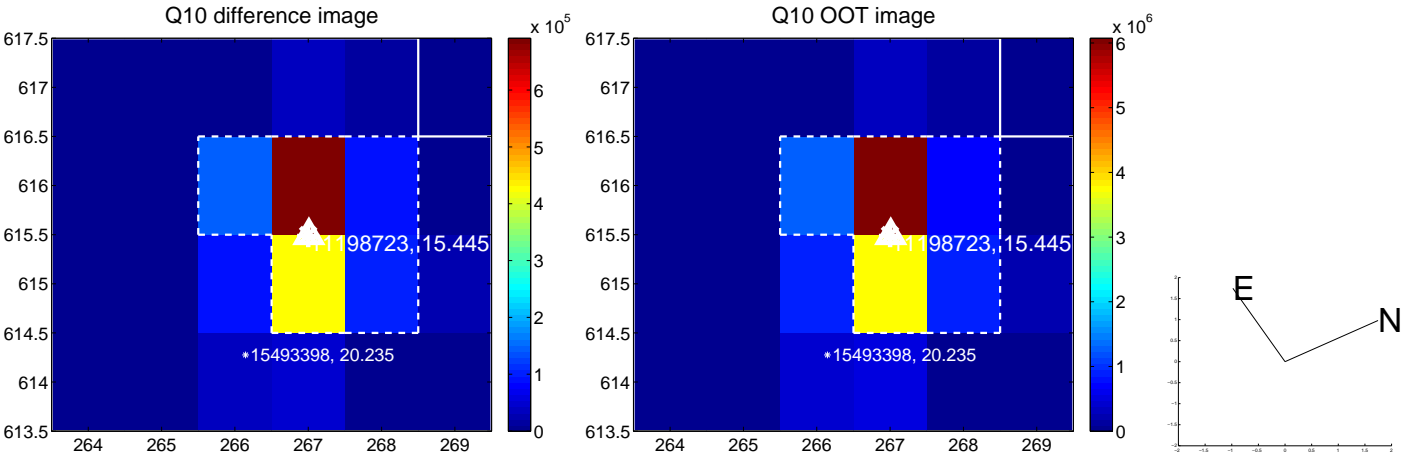
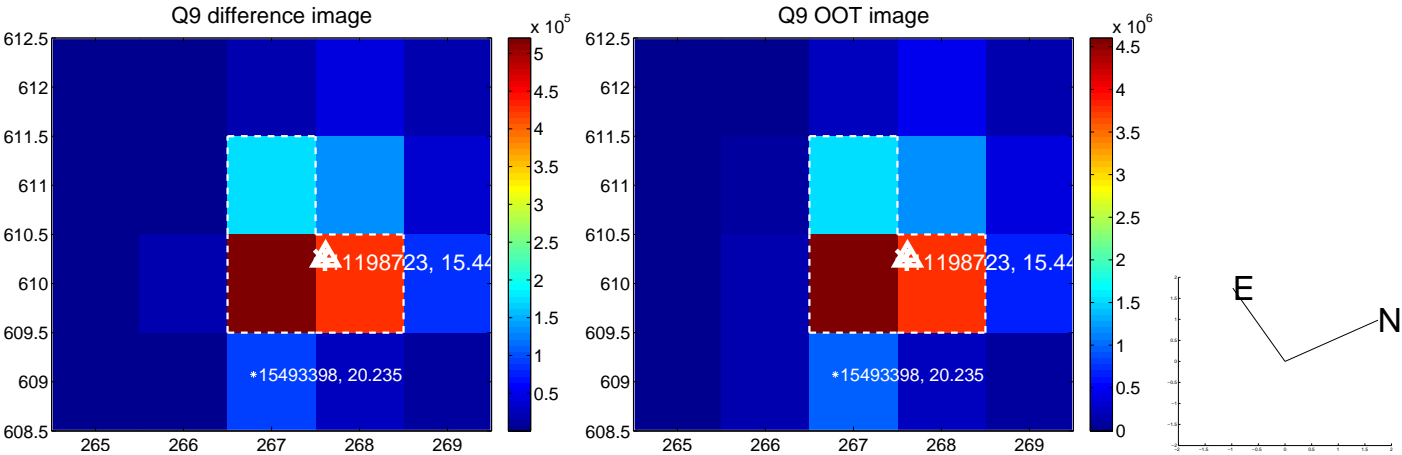
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



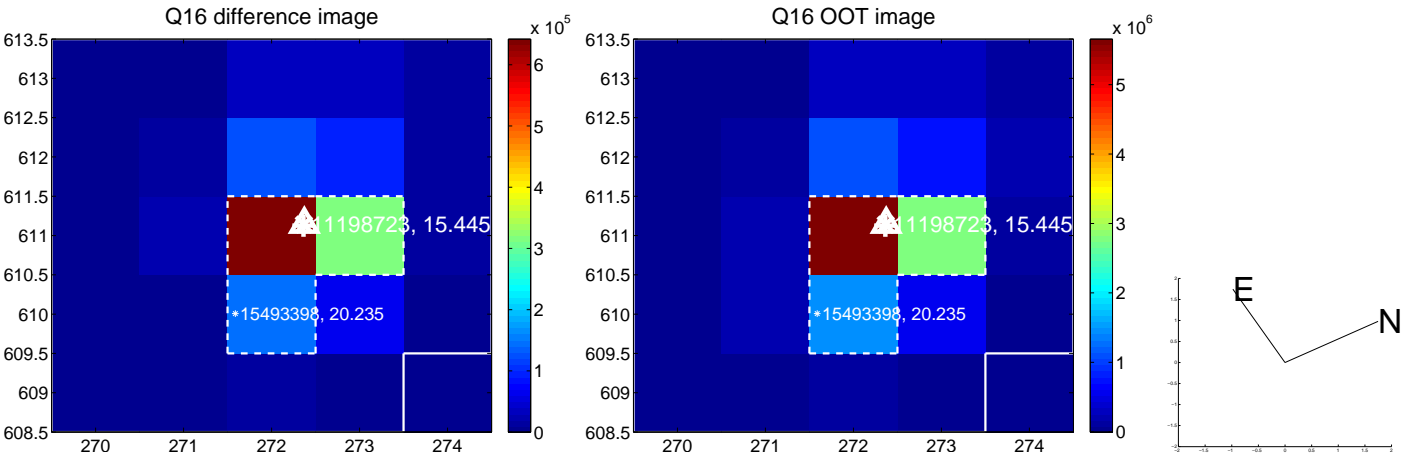
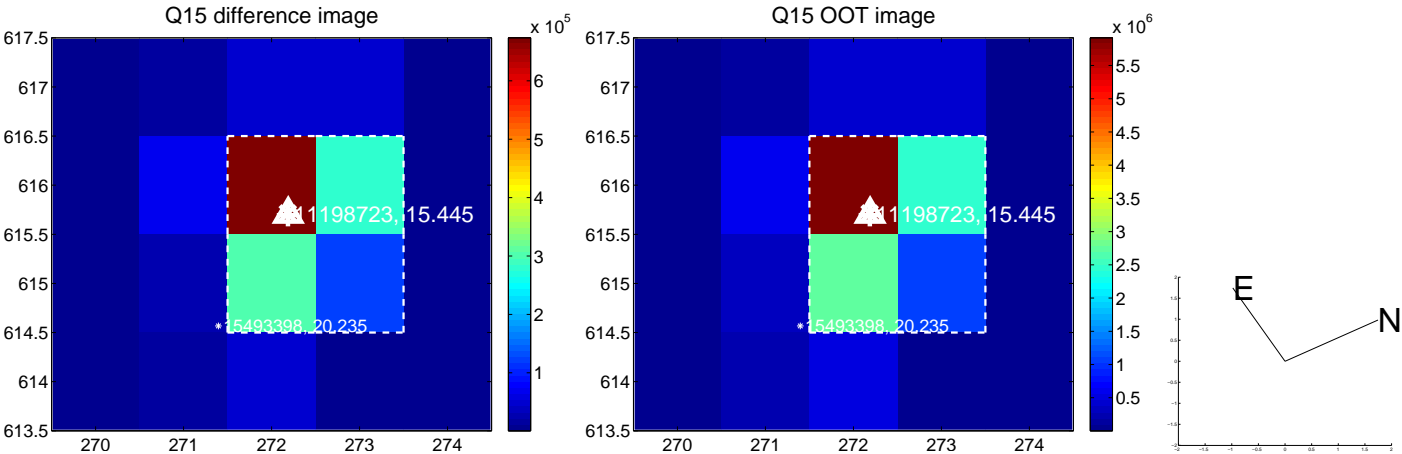
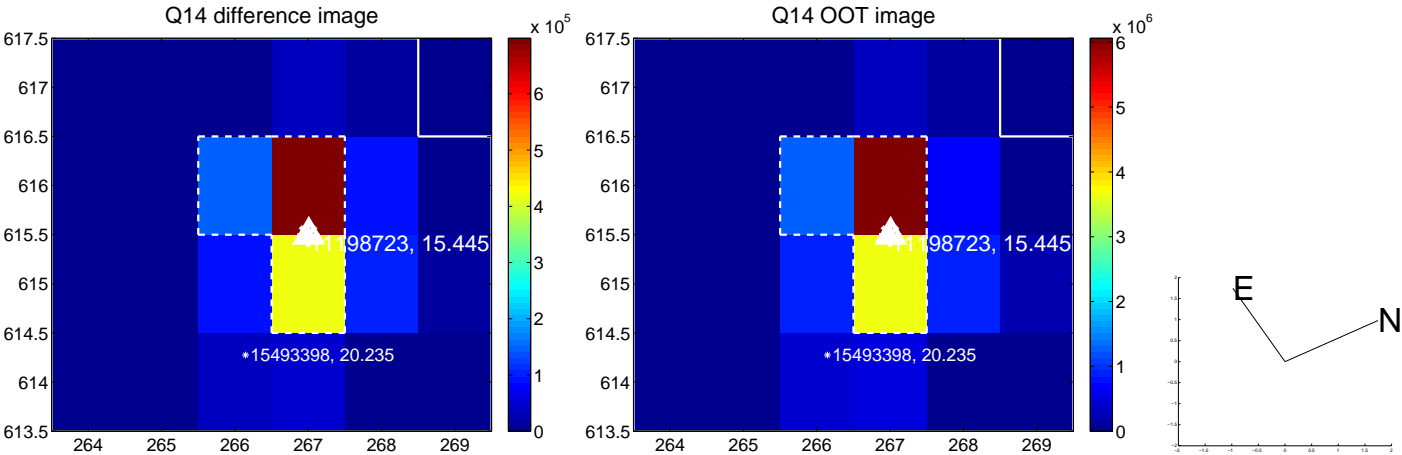
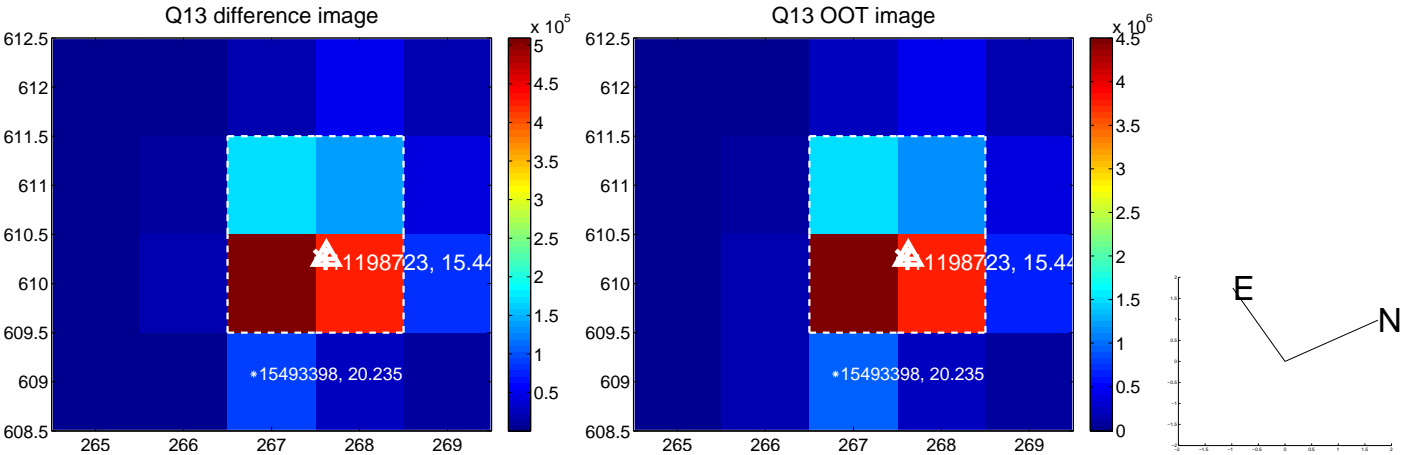
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



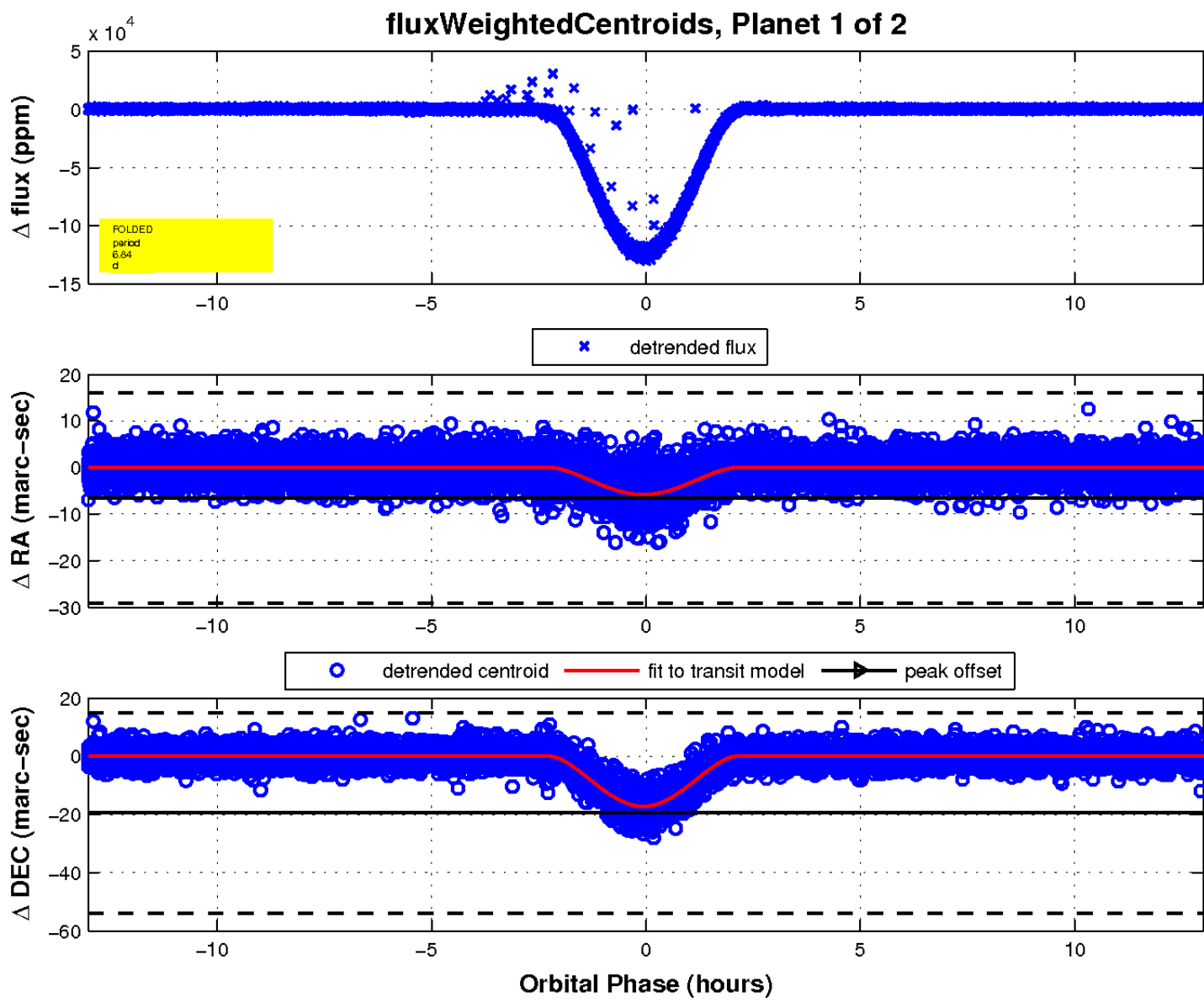
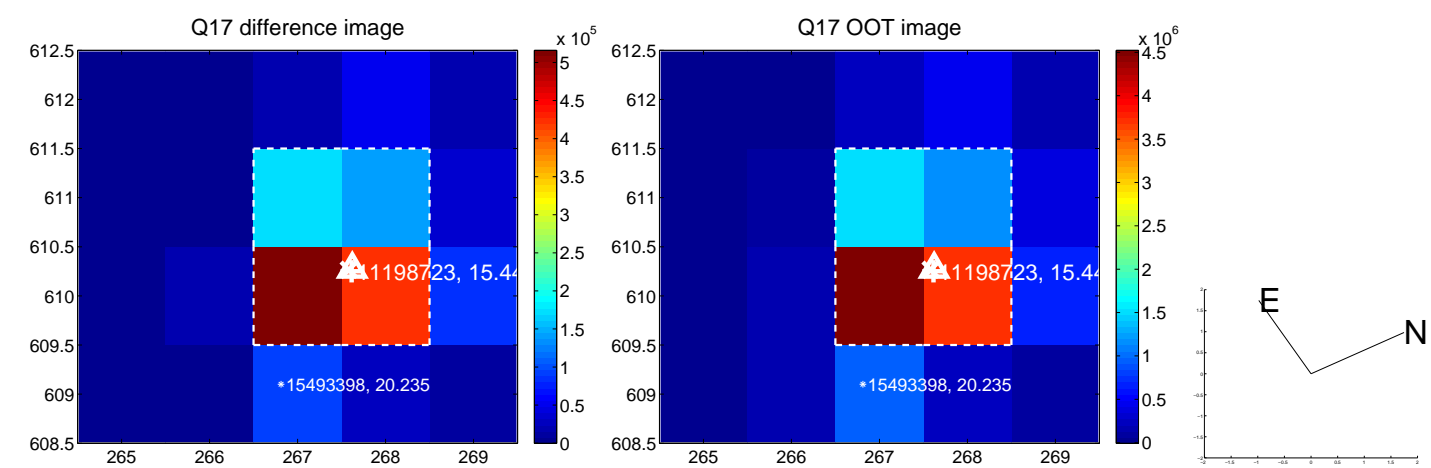
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

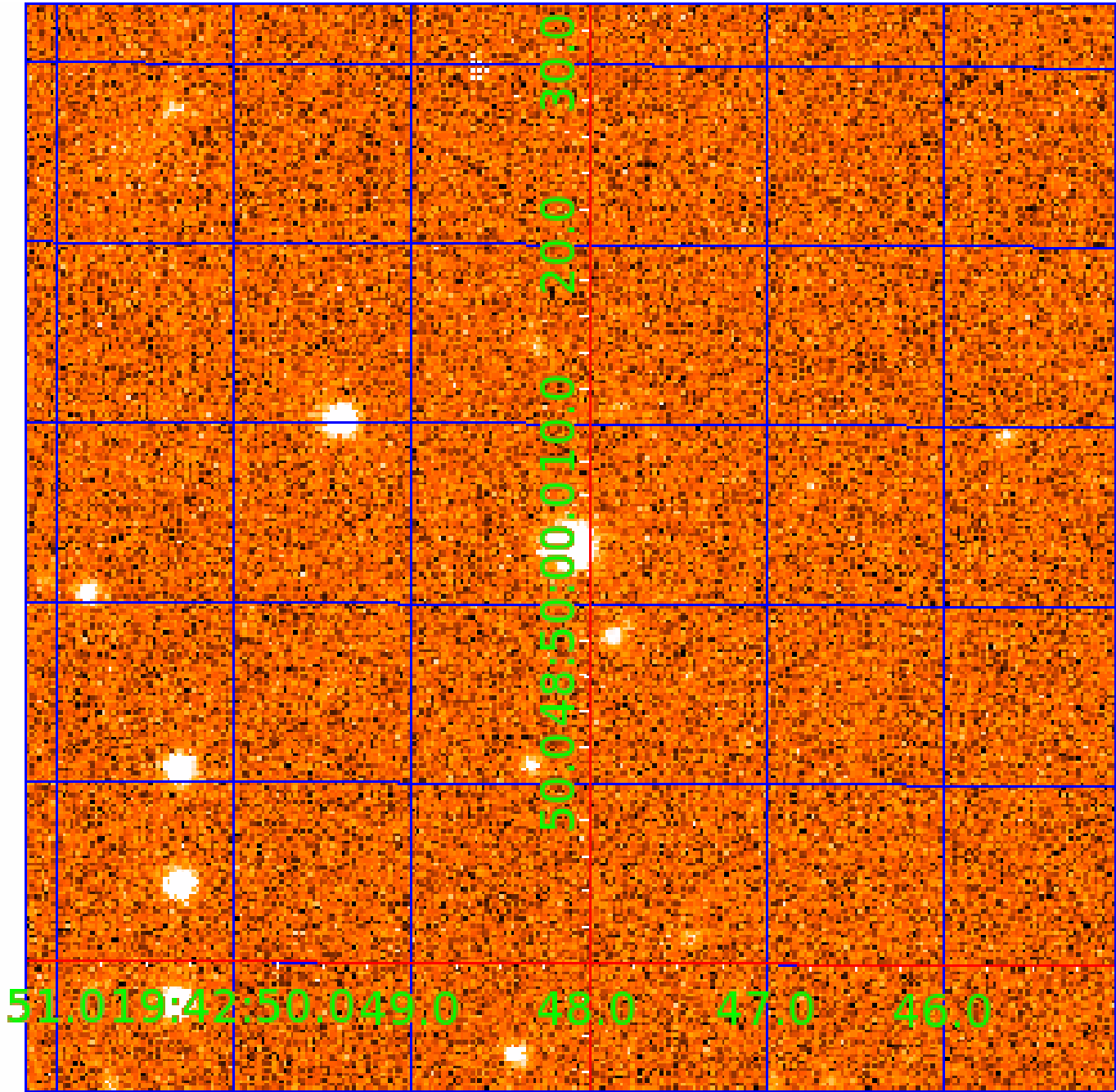


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011198723

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})
011198723-01	OBS	7417.01	6.840307	137.571283	124979.5	4.337	5191.9	4099.1	0.91	5970	47.15	188.84
011198723-02	OBS	No	6.840310	134.134755	37710.3	4.260	1577.1	1432.4	0.91	5970	28.86	188.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011198723-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
011198723-02	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.

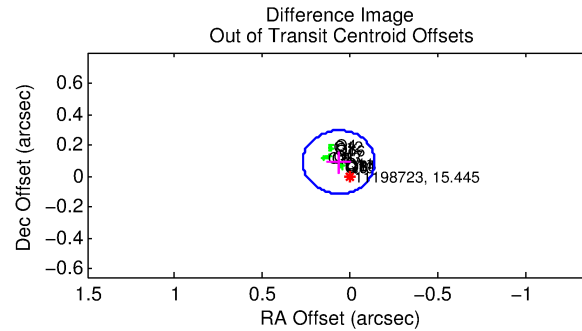
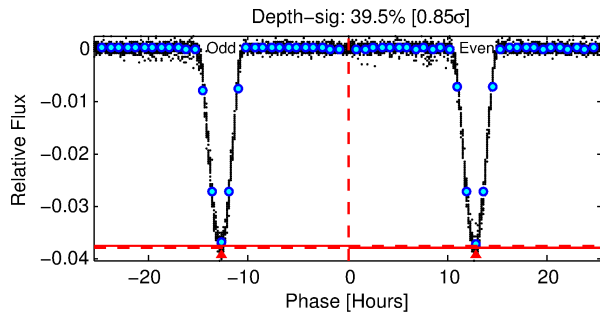
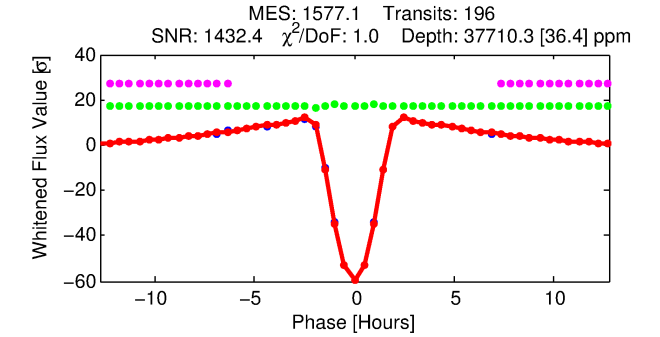
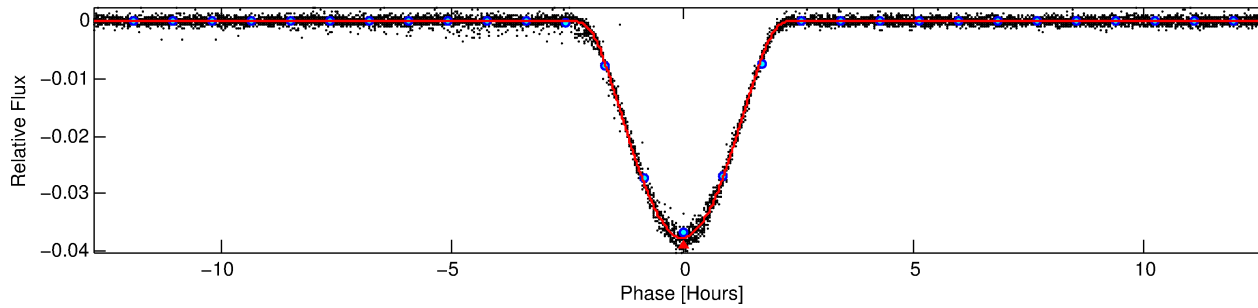
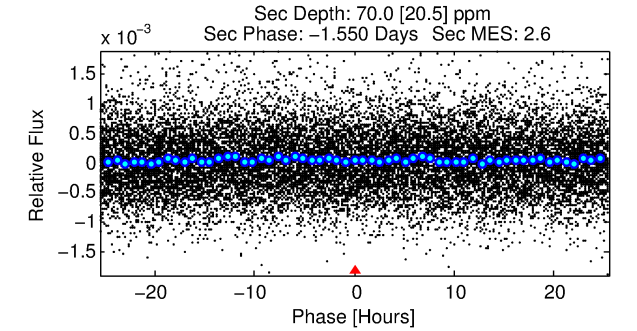
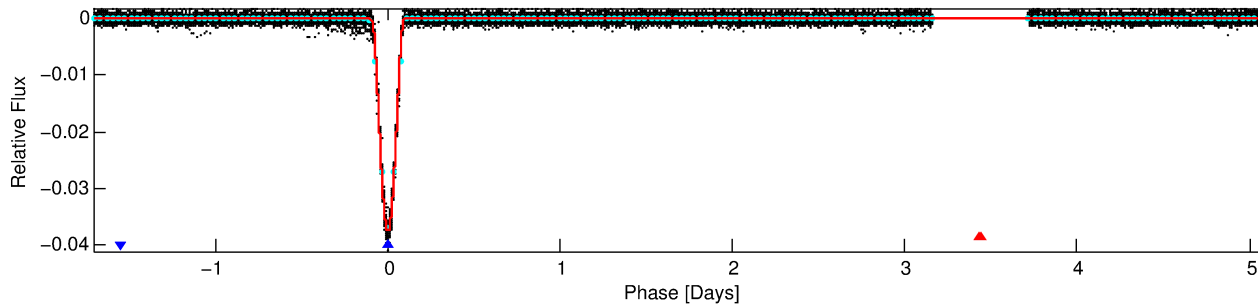
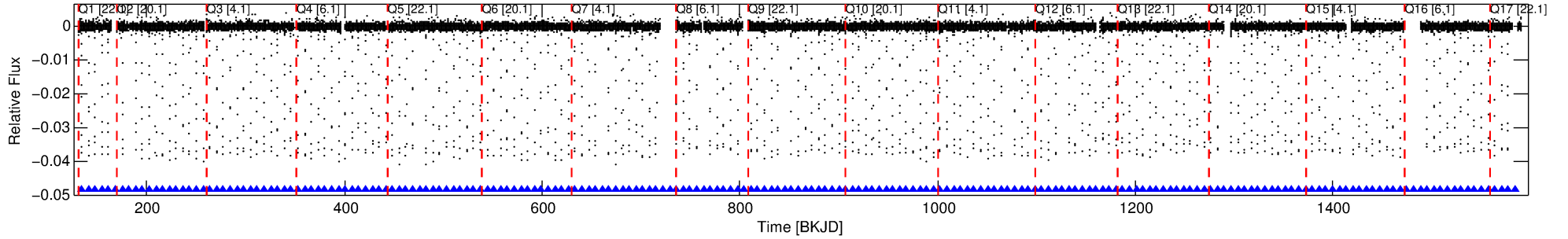
Ephemeris Match Information For 011198723-02

No Significant Match Found

DV One-Page Summary

KIC: 11198723 Candidate: 2 of 2 Period: 6.840 d
KOI: K07417 Corr: No Ephemeris Match

Kp: 15.44 R*: 0.91 Rs Teff: 5970.0 K Logg: 4.52 Fe/H: -0.180



DV Fit Results:

Period = 6.84031 [0.00000] d
Epoch = 134.1348 [0.0001] BKJD
Rp/R* = 0.2912 [0.0126]
a/R* = 10.42 [0.03]
b = 0.98 [0.02]
Seff = 188.83 [73.02]
Teq = 945 [91] K
Rp = 28.86 [8.51] Re
a = 0.0705 [0.0175] AU
Ag = 0.23 [0.11] [-7.06σ]
Teffp = 1012 [84] K [0.54σ]

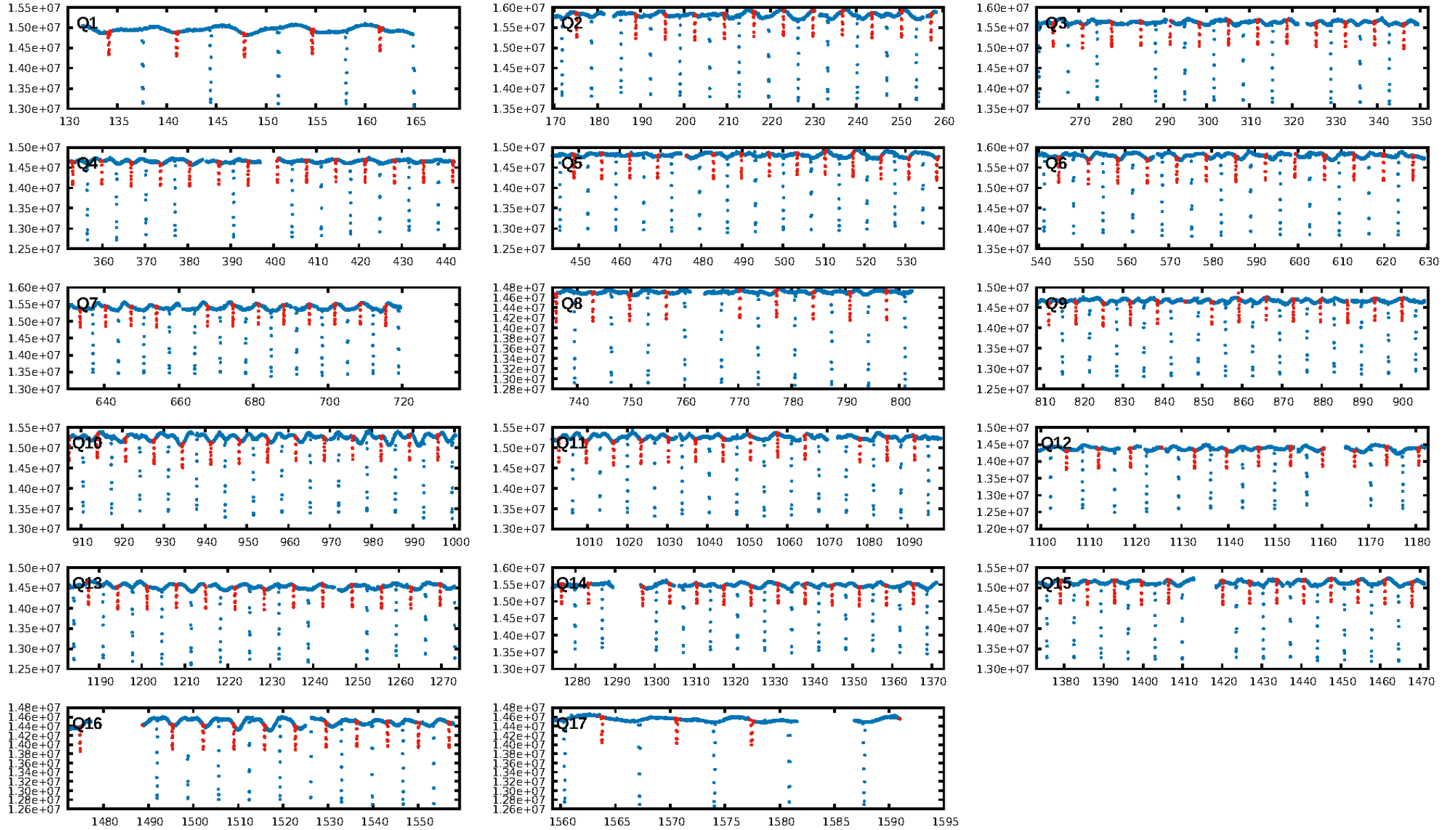
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [188/188]
GhostDiagnostic-chr: 2.901
Centroid-sig: 0.0%
Centroid-so: 0.052 arcsec [7.62σ]
OotOffset-rm: 0.114 arcsec [1.67σ]
KicOffset-rm: 0.076 arcsec [1.10σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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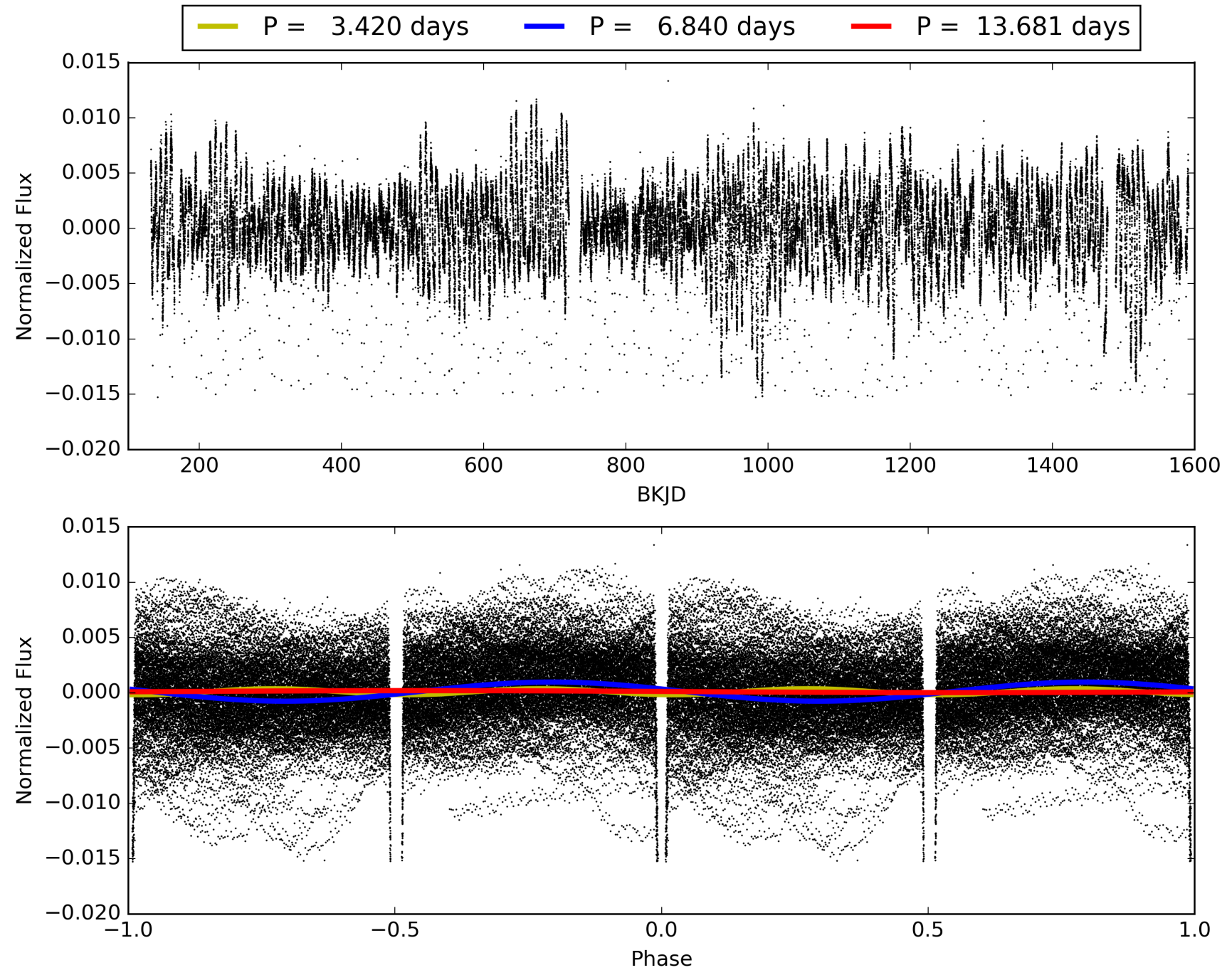
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:34:43 Z

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

TCE 011198723-02, PDC Light Curves

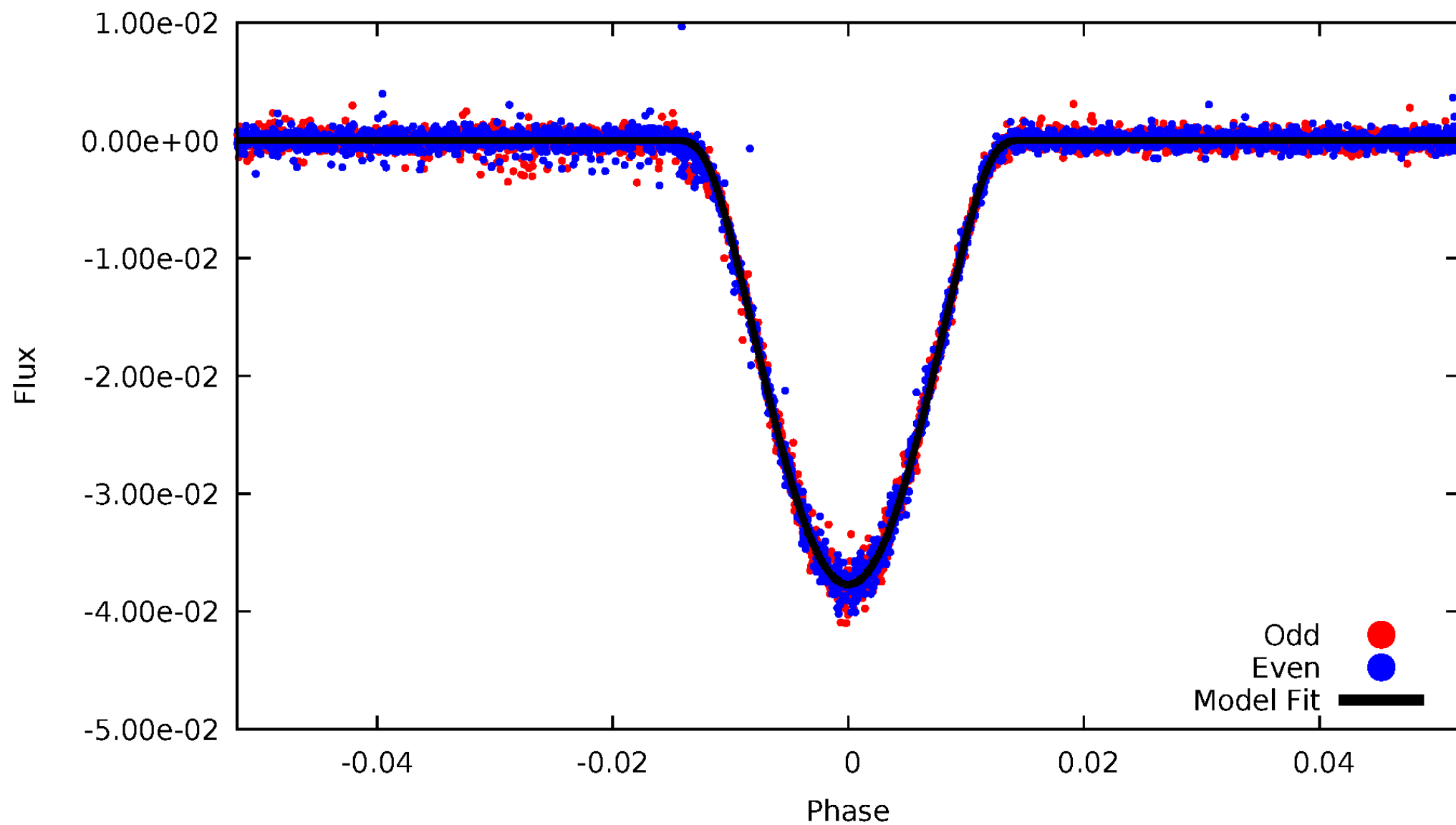


TCE 011198723-02



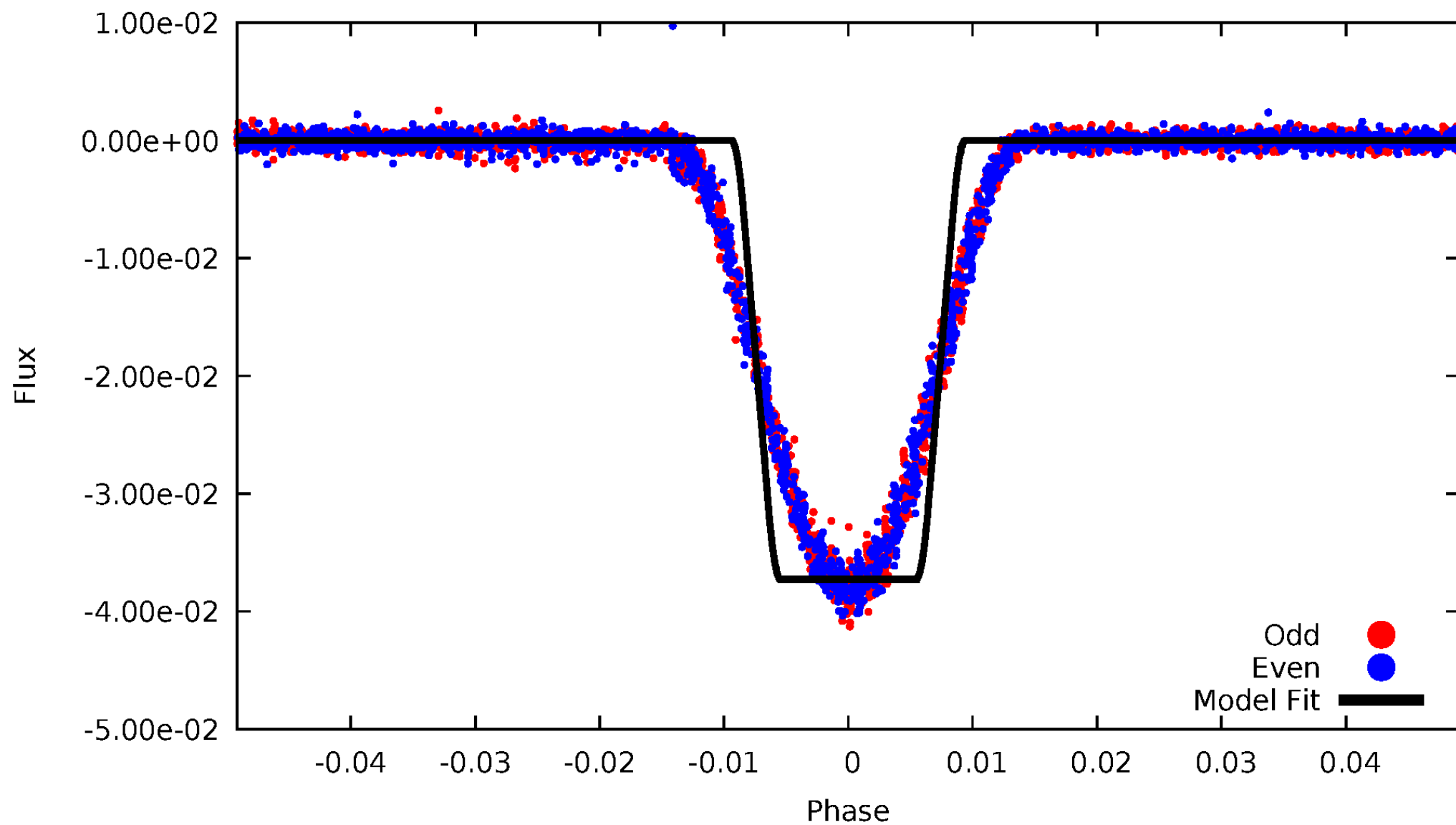
DV Odd/Even

TCE 011198723-02



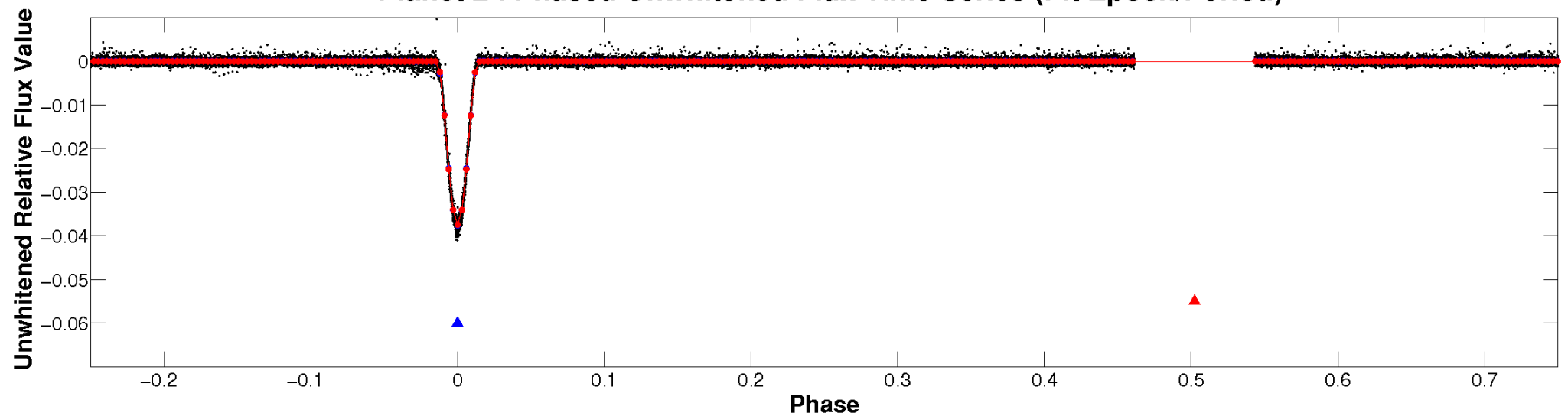
ALT Odd/Even

TCE 011198723-02

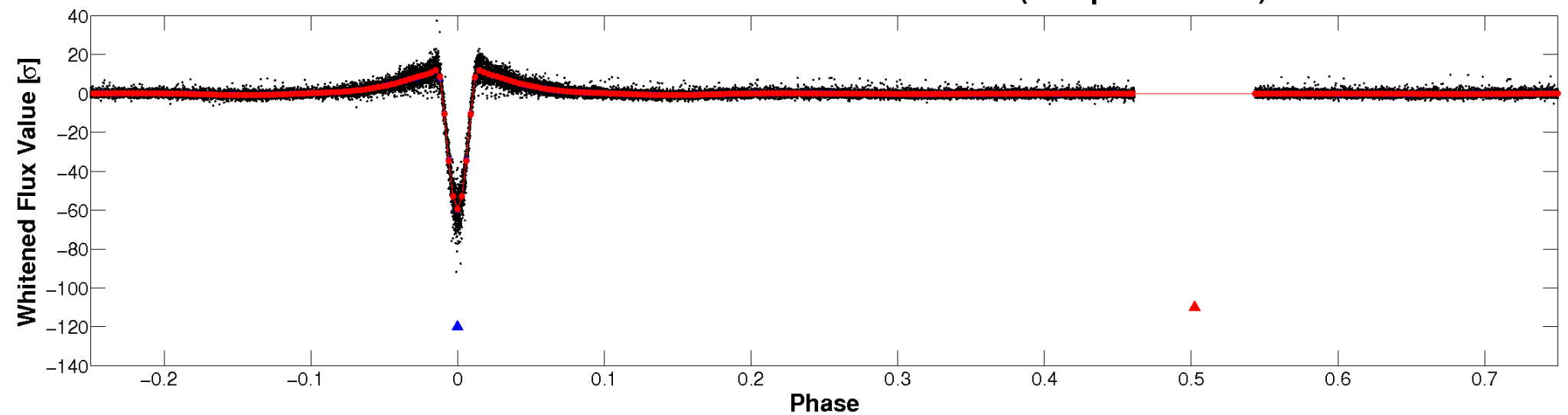


Non-Whitened Vs. Whitened Light Curve

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

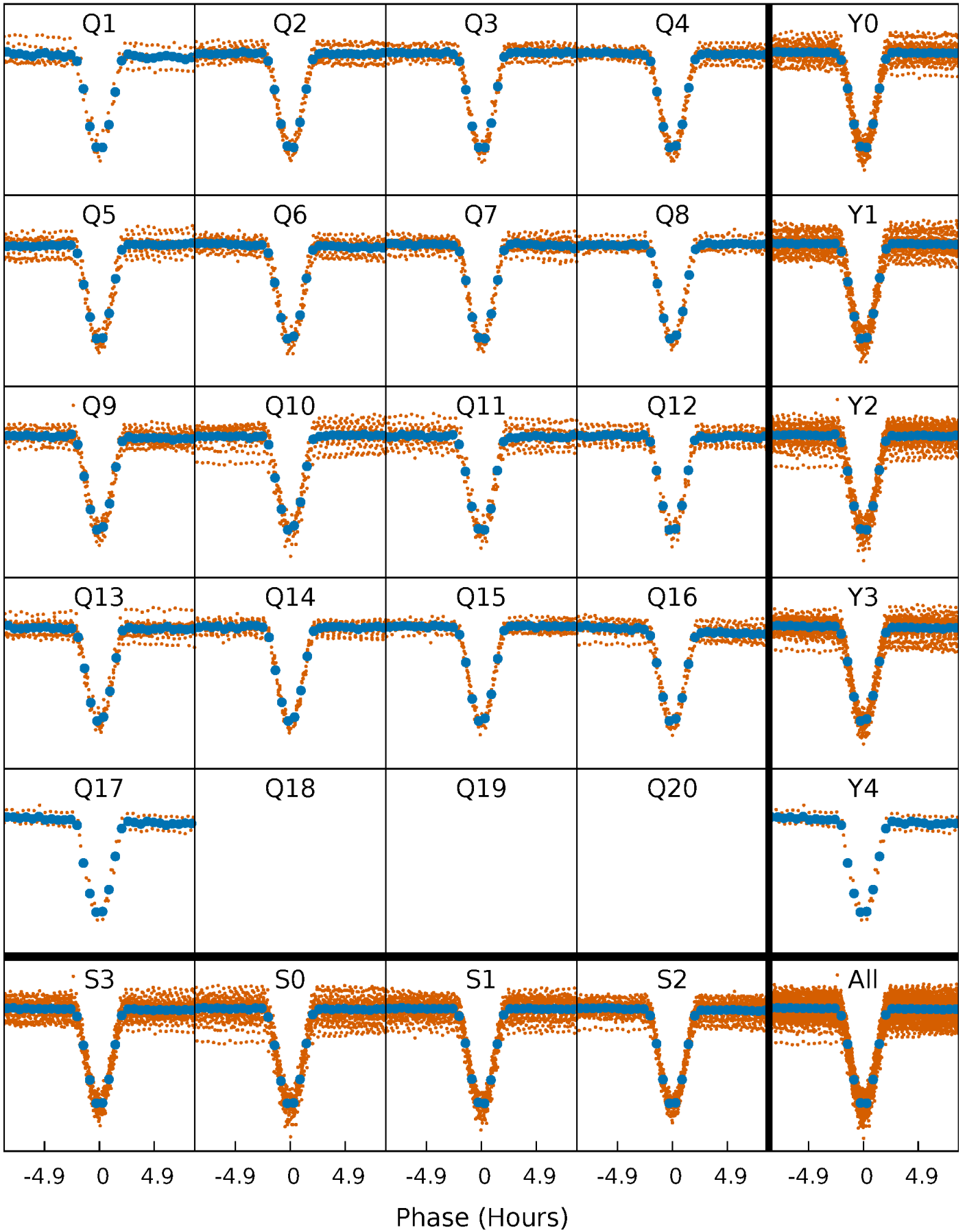


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



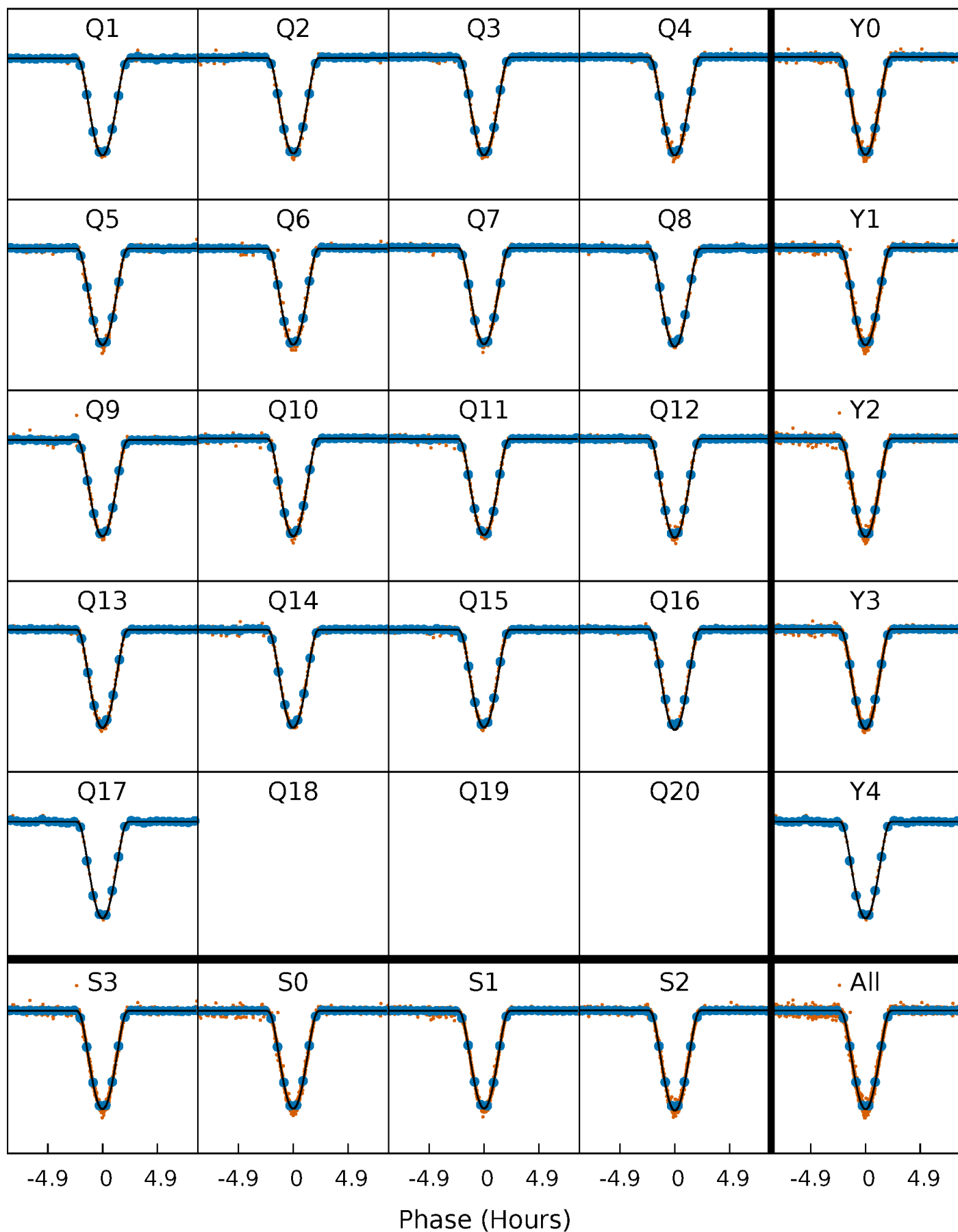
PDC Quarter-Phased Transit Curves

TCE 011198723-02 P= 6.840310 Days $T_0=134.134755$ (BKJD)



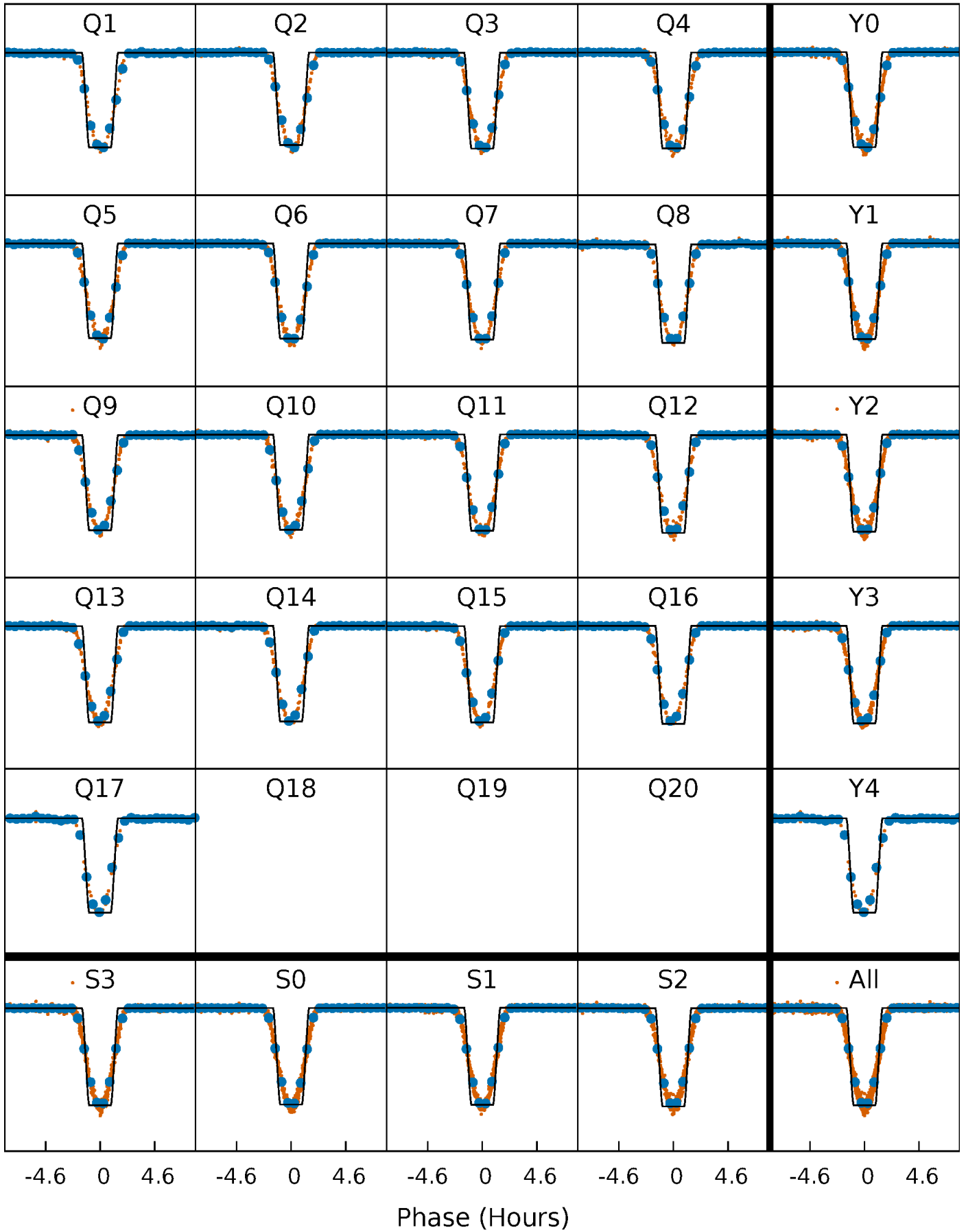
DV Quarter-Phased Transit Curves

TCE 011198723-02 P= 6.840310 Days $T_0=134.134755$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

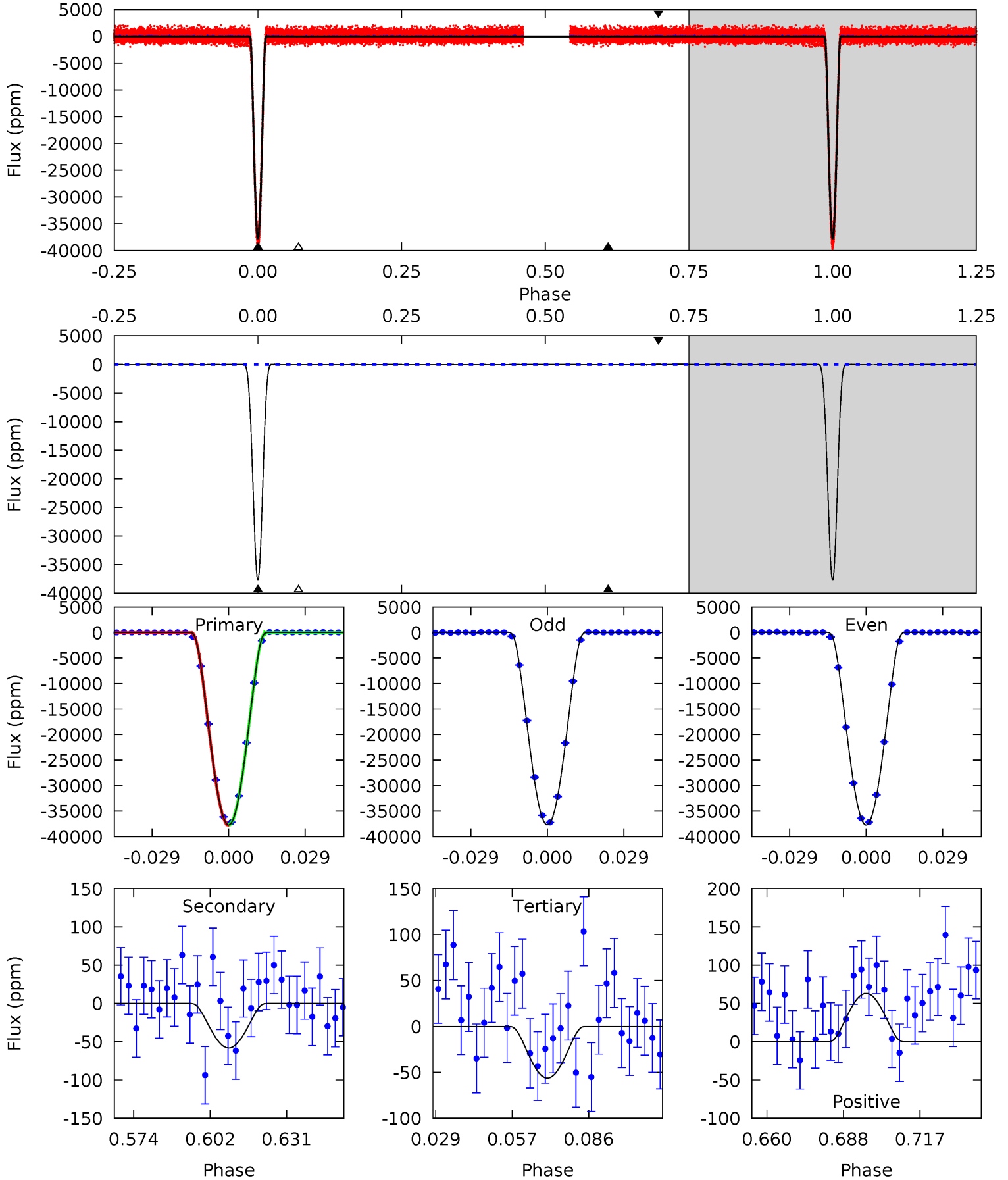
TCE 011198723-02 P= 6.840344 Days $T_0=134.131001$ (BKJD)



DV Model-Shift Uniqueness Test

011198723-02, P = 6.840310 Days, E = 127.294445 Days

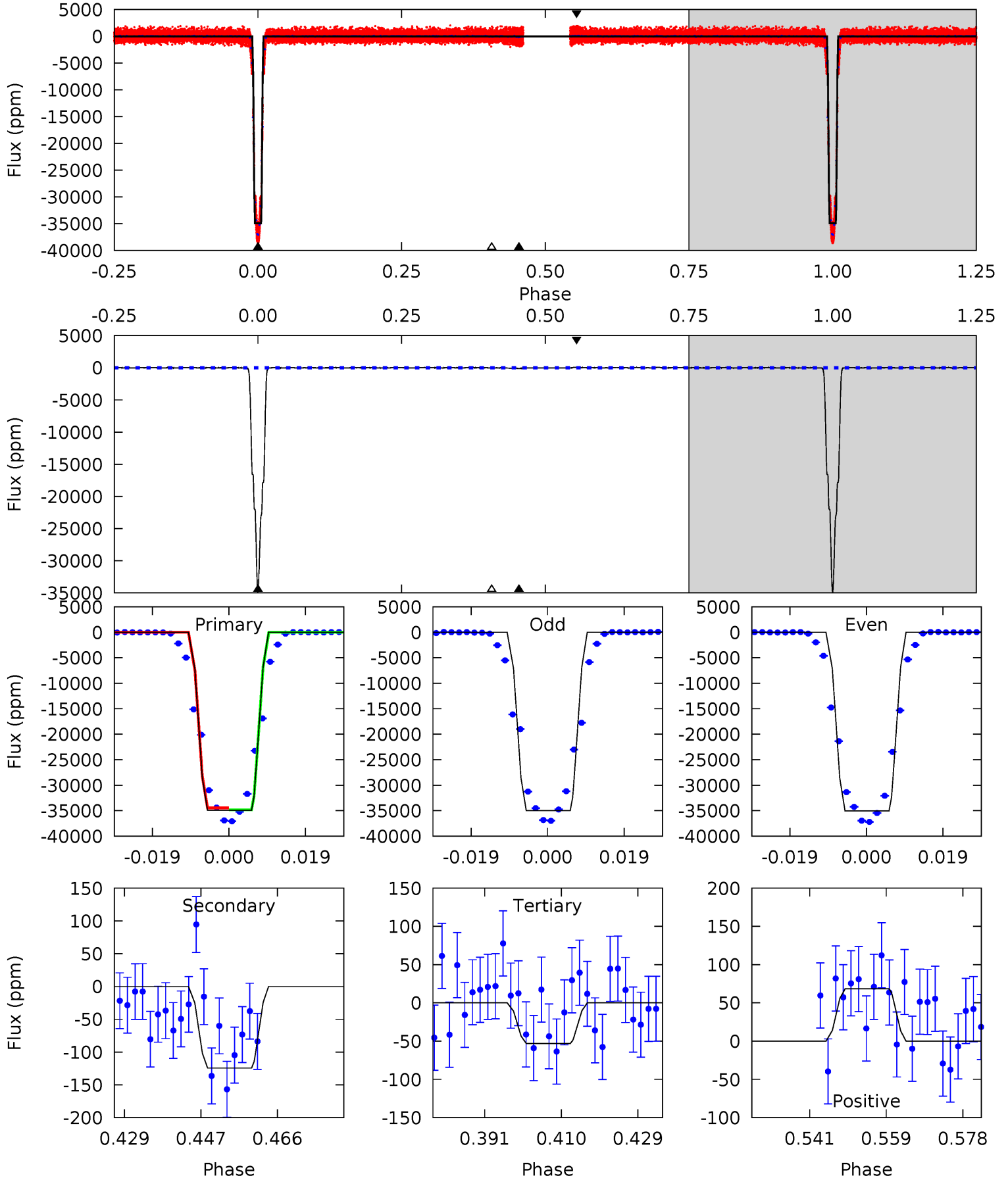
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3157	4.86	4.71	5.28	4.82	2.19	2.06	3152	3152	0.15	-0.42	0.99	1.00	0.00	0



Alt Model-Shift Uniqueness Test

011198723-02, P = 6.840344 Days, E = 127.290657 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1933	6.88	2.94	3.79	4.91	2.35	1.11	1930	1929	3.94	3.10	1.86	1.00	0.00	9.64



Stellar Parameters For KIC 011198723

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5970^{+161}_{-197}	$4.521^{+0.050}_{-0.200}$	$-0.180^{+0.300}_{-0.300}$	$0.908^{+0.265}_{-0.088}$	$0.996^{+0.118}_{-0.131}$	$1.877^{+0.476}_{-0.918}$
	+3%/-3%	+1%/-4%	+167%/-167%	+29%/-10%	+12%/-13%	+25%/-49%
Source	PHO1	KIC0	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 011198723-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-58 ± 12	$29.44^{+4.72}_{-2.54}$	1345^{+89}_{-65}	-1908^{+113}_{-102}	$0.170^{+0.052}_{-0.043}$
Alt.	-124 ± 18	$19.53^{+3.18}_{-1.83}$	1344^{+88}_{-60}	2222^{+82}_{-99}	$0.850^{+0.223}_{-0.229}$

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 $A_{obs} \gg 1.0$

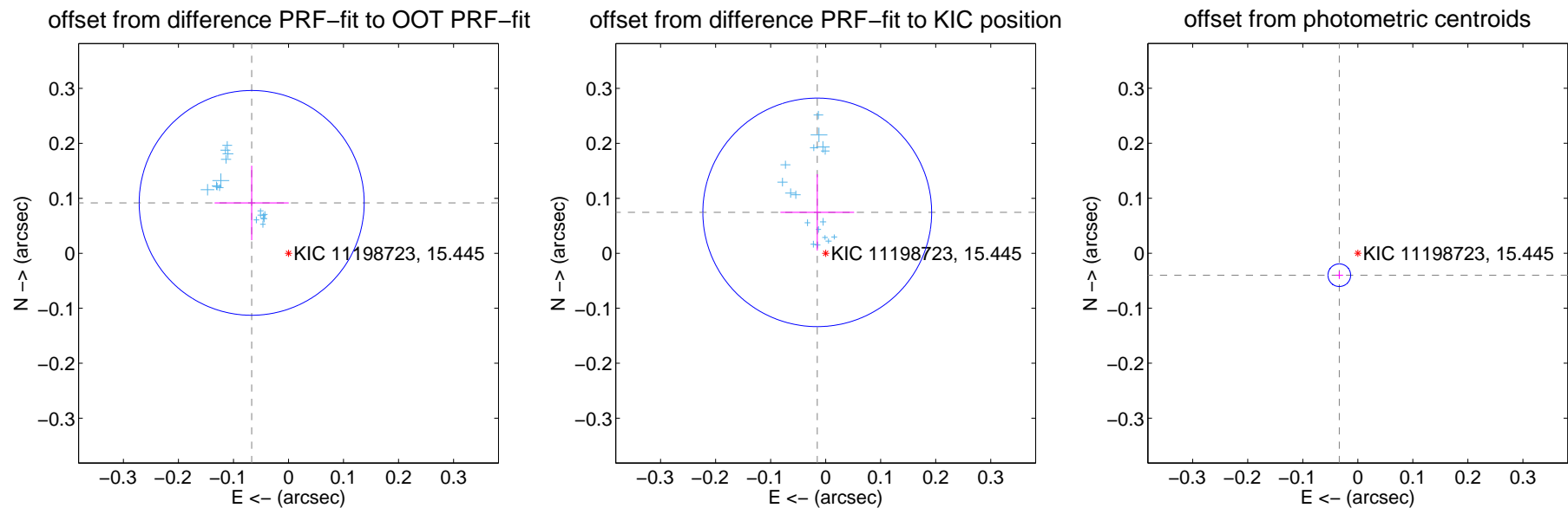
DV Centroid Data

Supplemental centroid analysis for 011198723-02. Kepler magnitude: 15.45. Transit SNR 1432.35

There are 17 quarters with good PRF difference image offsets

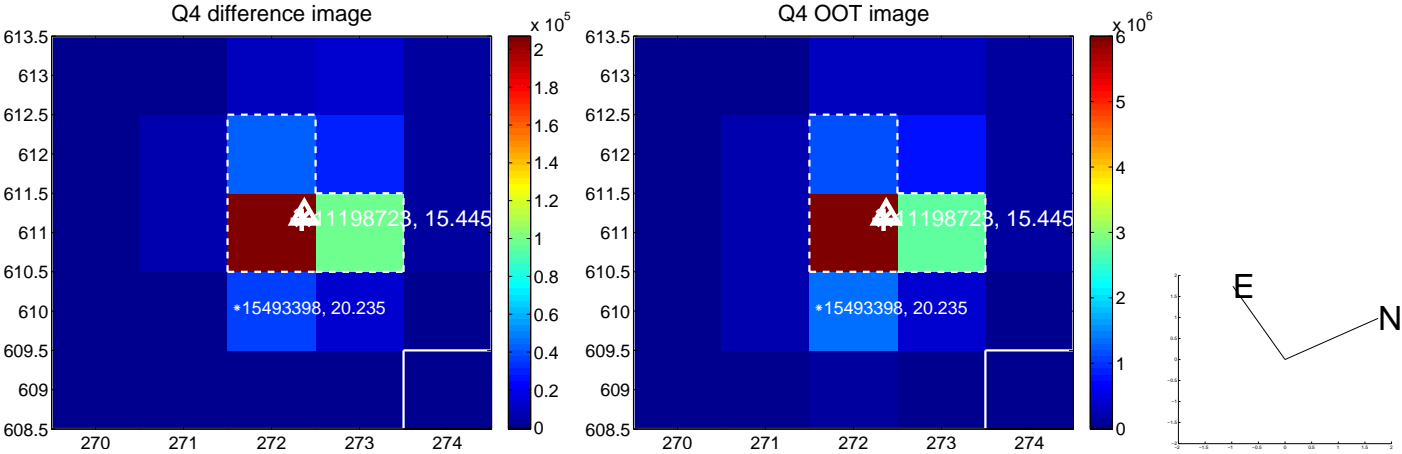
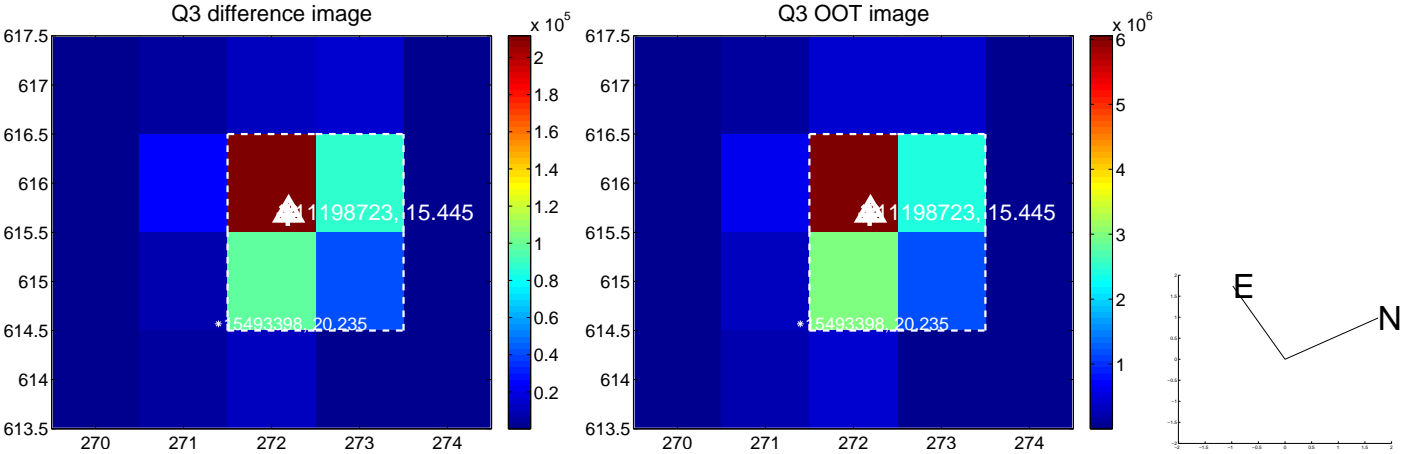
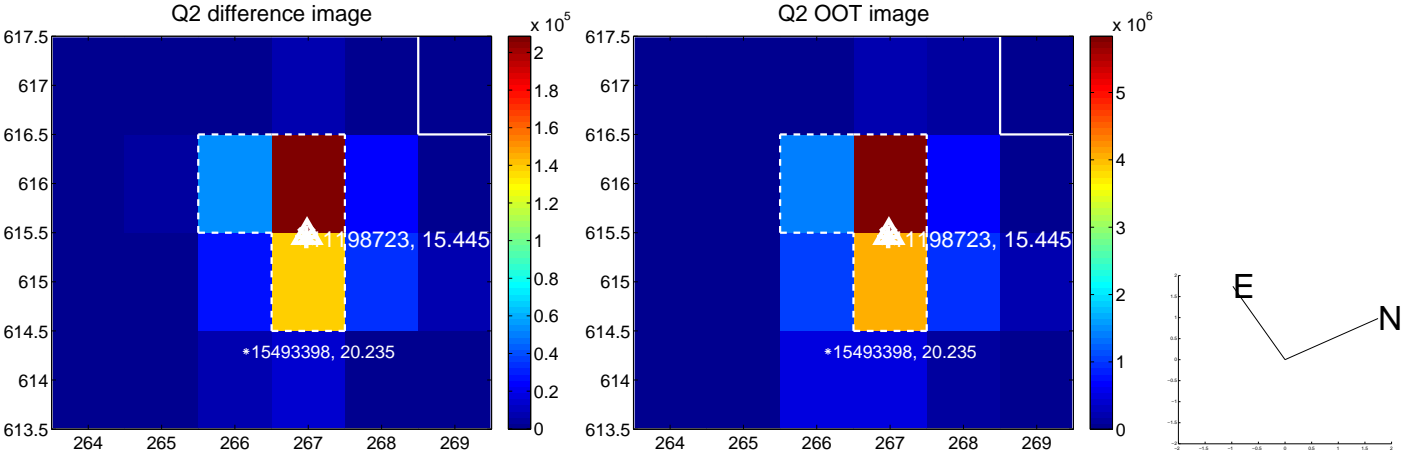
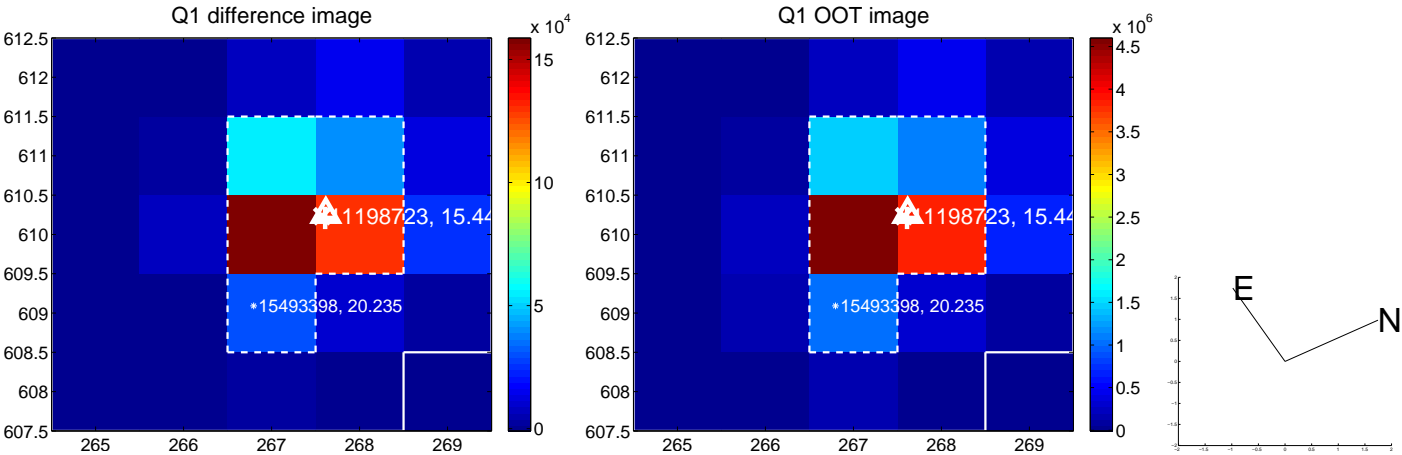
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.114 ± 0.068	1.67	0.067 ± 0.067	0.092 ± 0.068
PRF-fit source offset from KIC position	0.076 ± 0.069	1.10	0.015 ± 0.067	0.074 ± 0.069
photometric centroid source offset	0.05 ± 0.01	7.62	0.03 ± 0.01	-0.04 ± 0.01

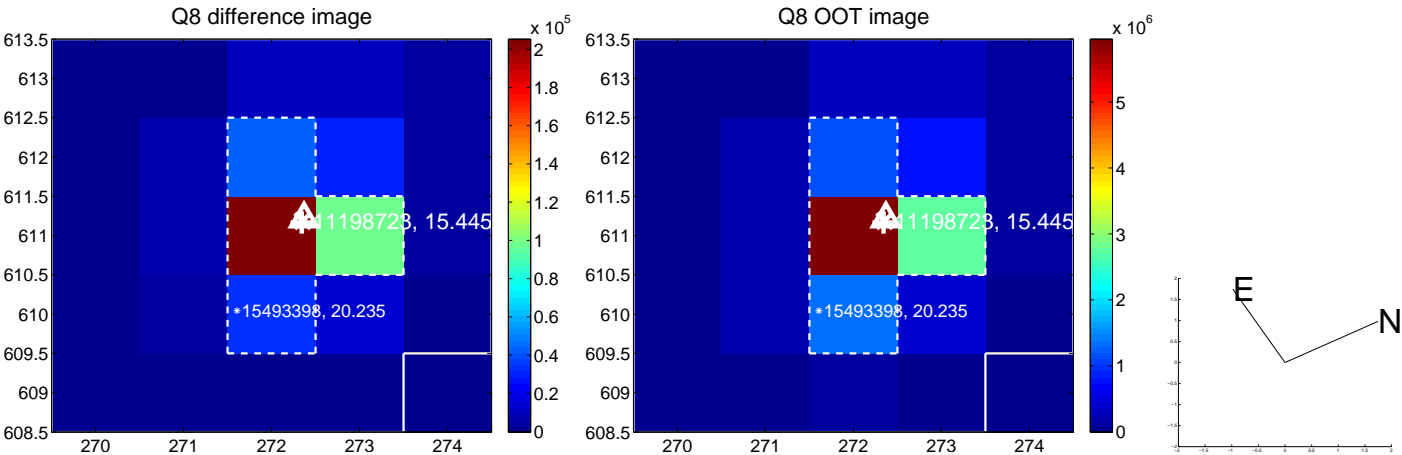
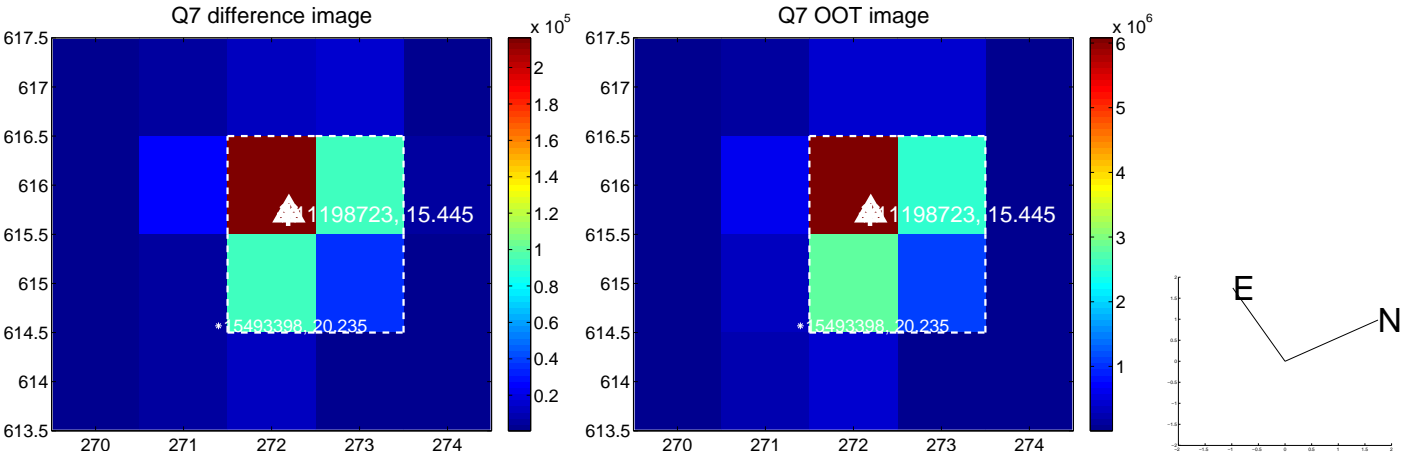
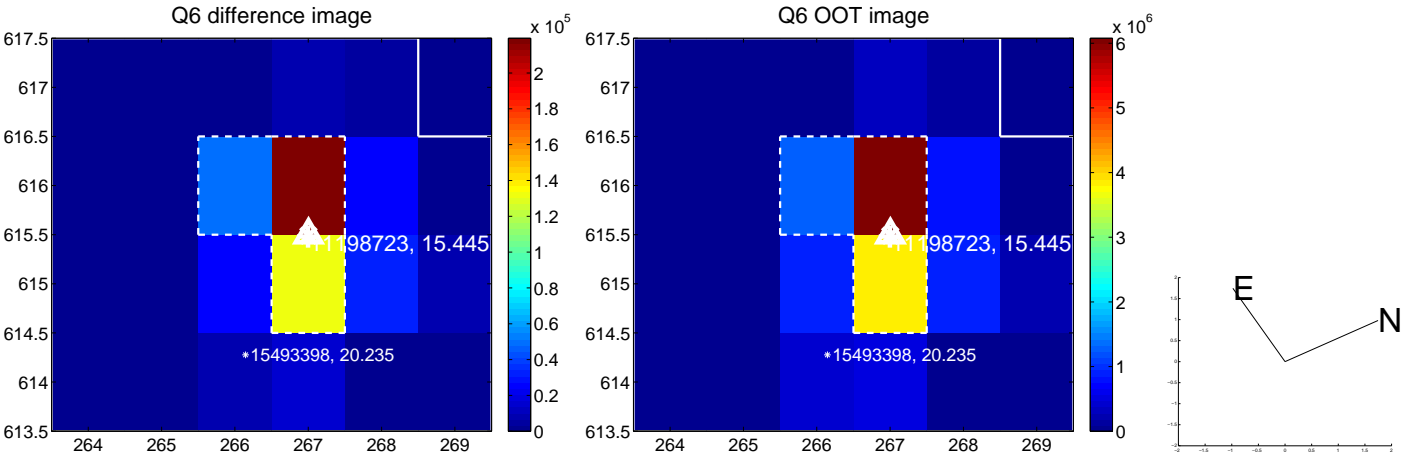
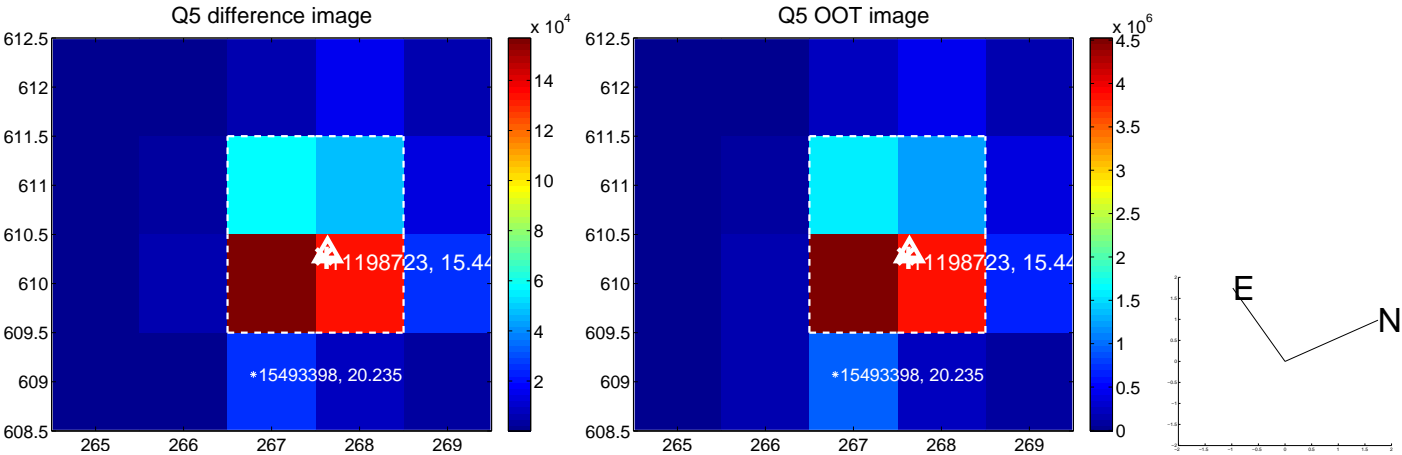


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

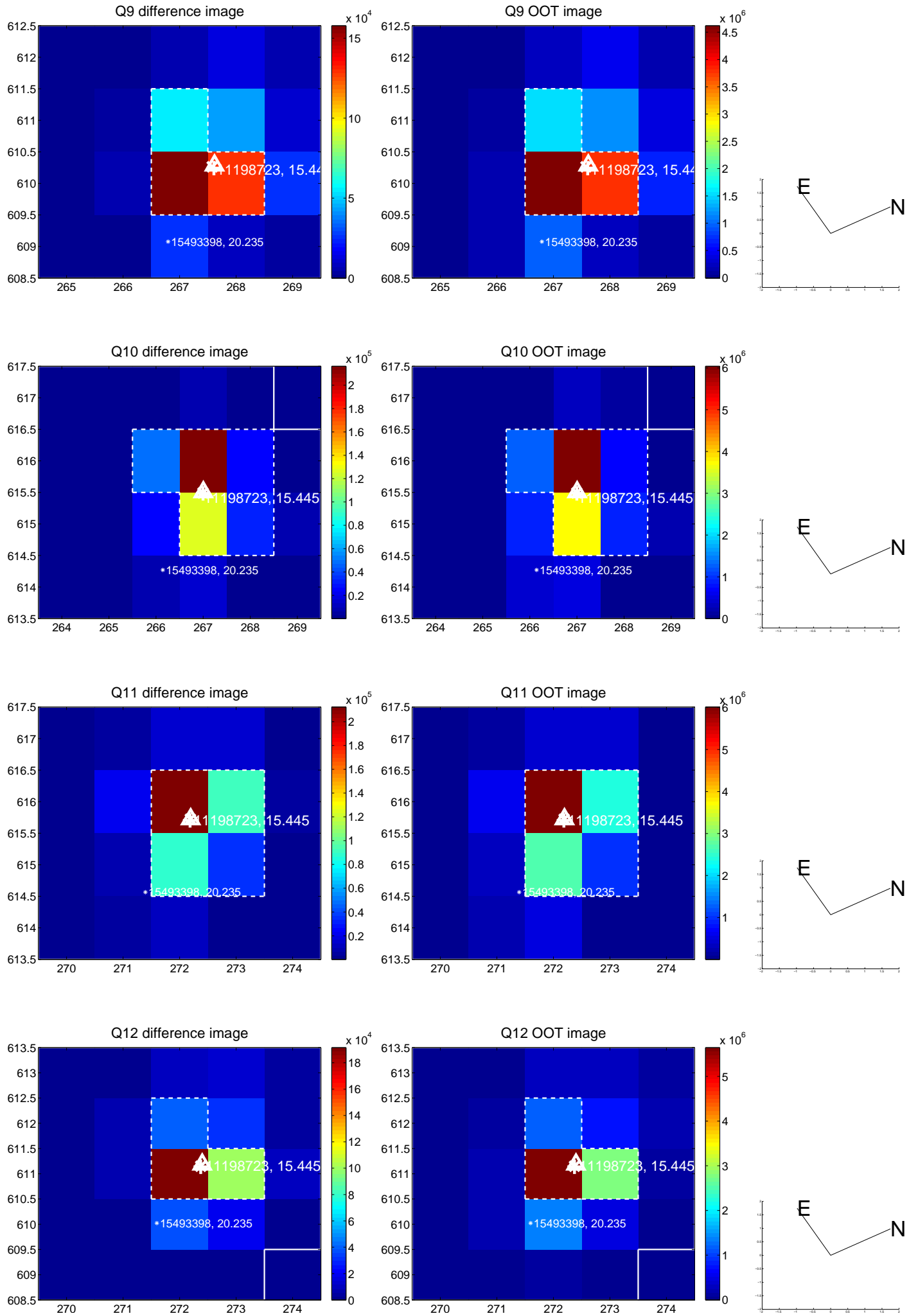
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



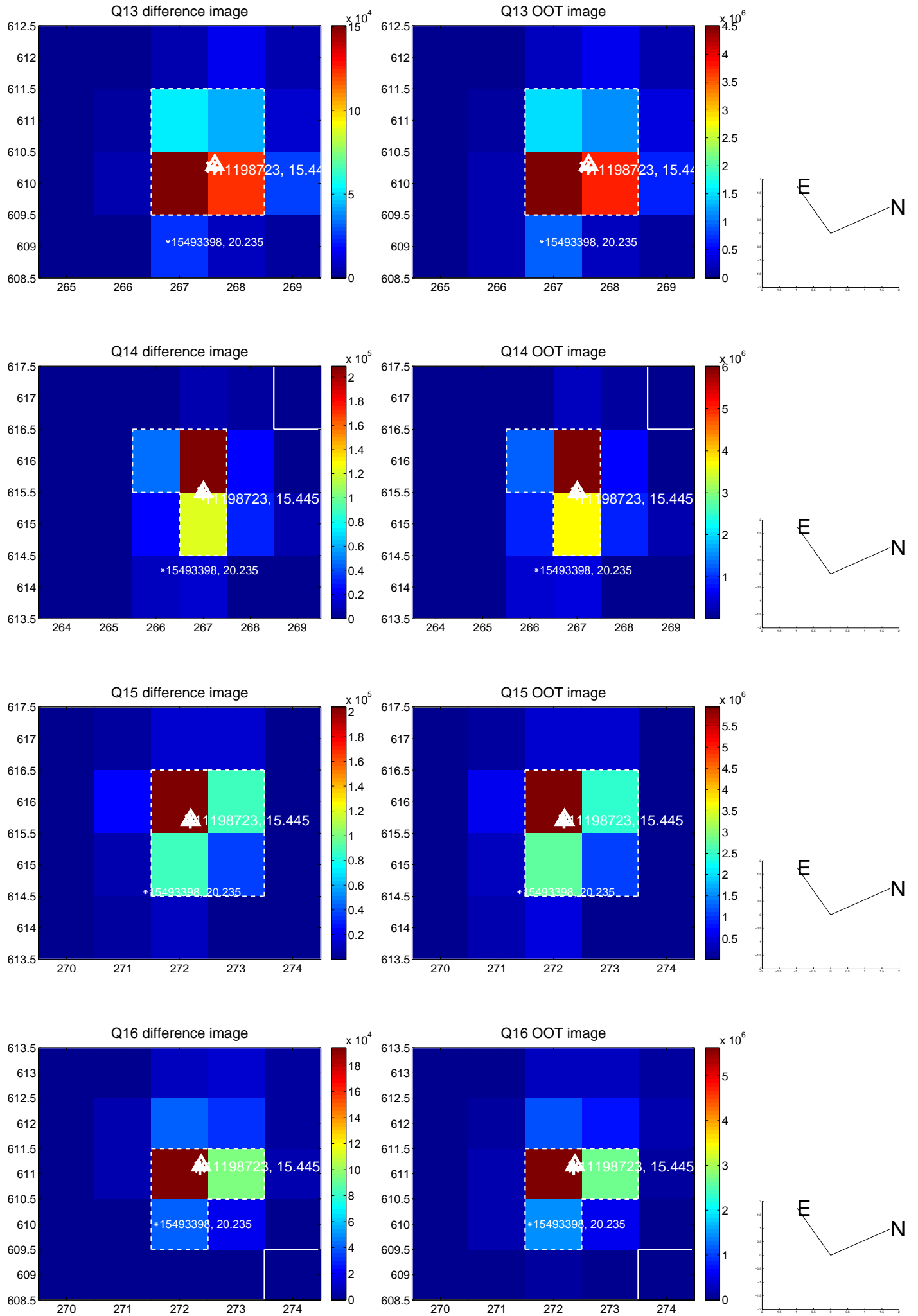
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



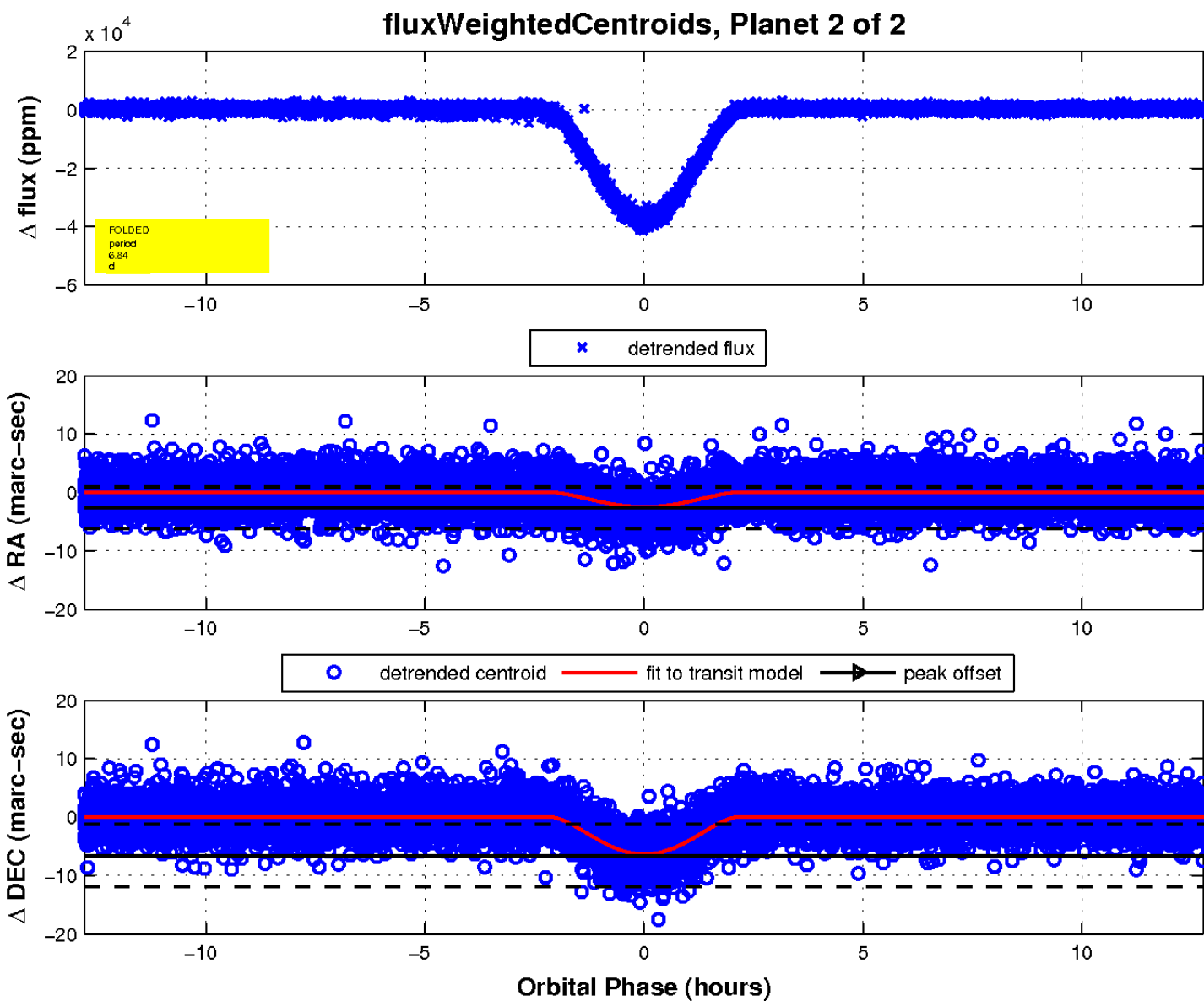
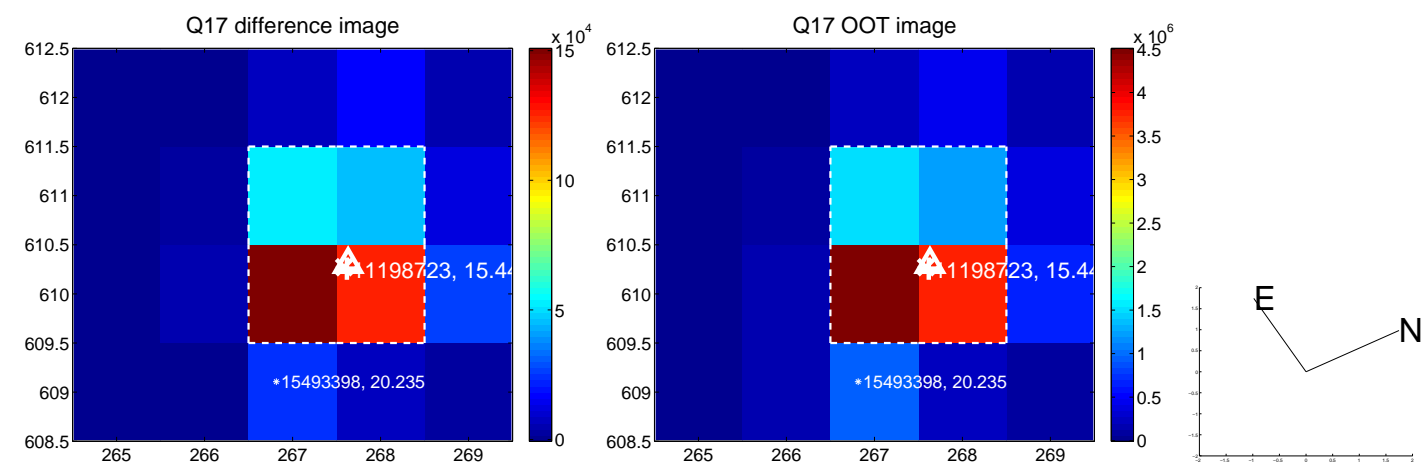
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

