

KIC 011197126

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})
011197126-01	OBS	1443.01	4.494498	134.776310	216.6	1.470	28.8	33.0	3.40	5117	6.19	1830.72
011197126-02	OBS	No	4.494521	135.943262	161.4	1.815	22.9	26.9	3.40	5117	5.41	1830.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011197126-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET
011197126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_UNRESOLVED_OFFSET

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 011197126-01

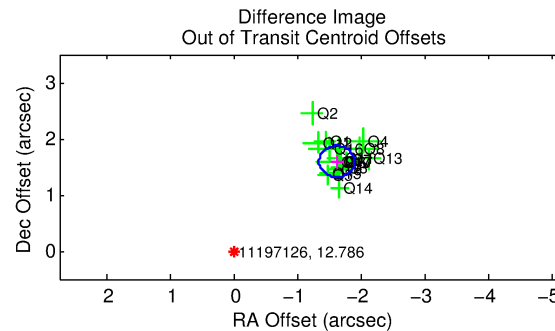
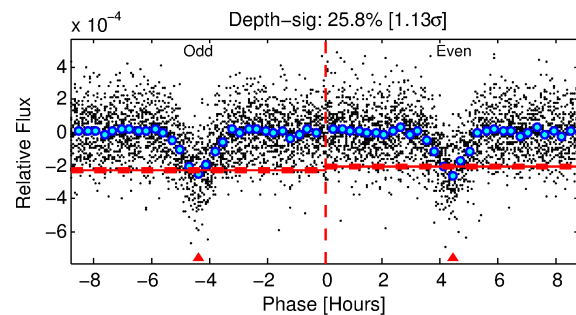
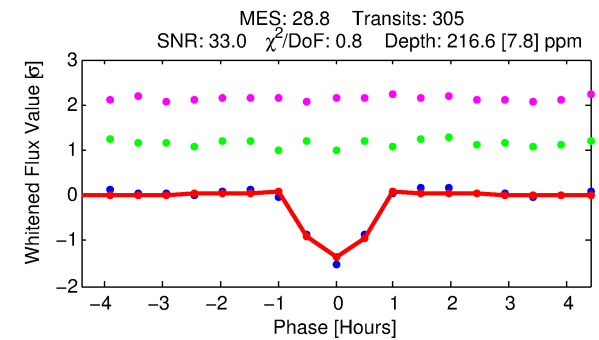
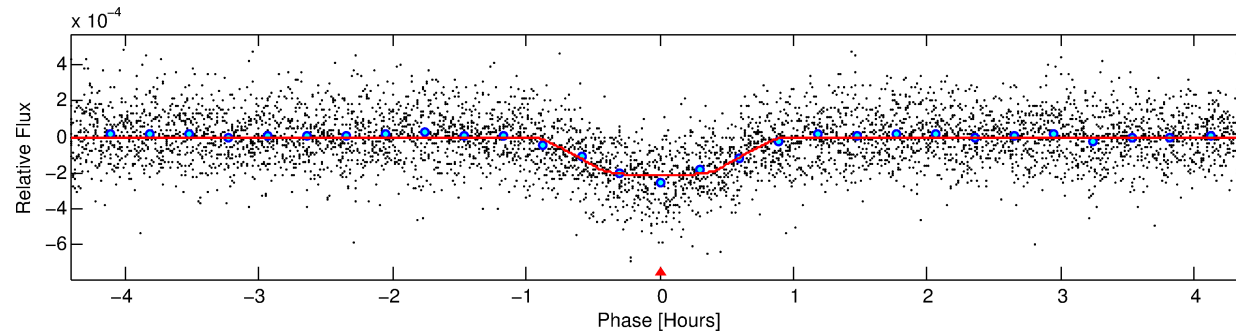
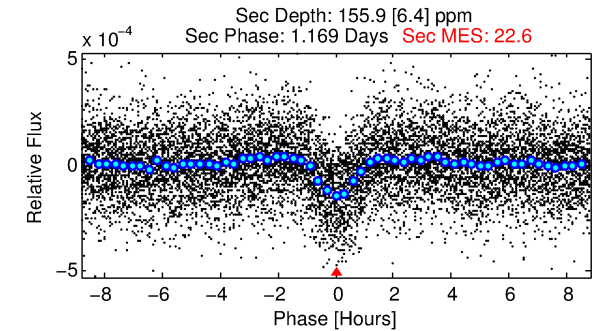
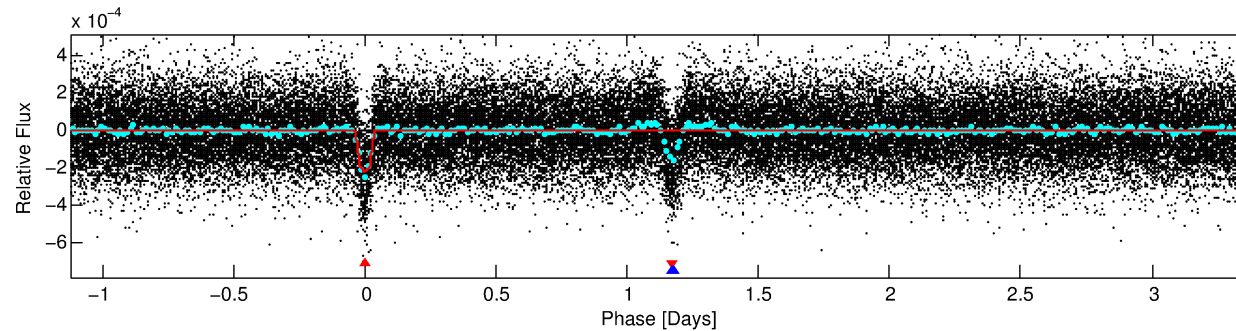
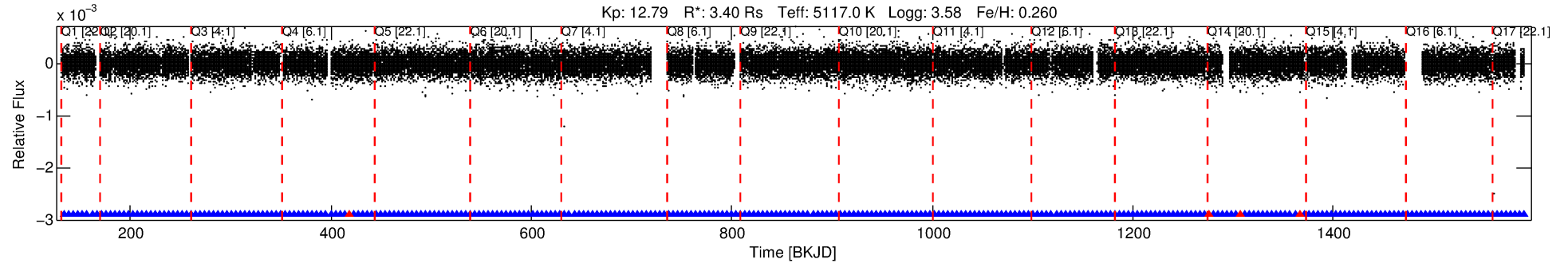
No Significant Match Found

DV One-Page Summary

KIC: 11197126 Candidate: 1 of 2 Period: 4.494 d

KOI: K01443.01 Corr: 0.877

Kp: 12.79 R*: 3.40 Rs Teff: 5117.0 K Logg: 3.58 Fe/H: 0.260



DV Fit Results:

Period = 4.49450 [0.00001] d
Epoch = 134.7763 [0.0008] BKJD
Rp/R* = 0.0167 [0.0039]
a/R* = 10.65 [9.90]
b = 0.91 [0.18]
Seff = 1830.72 [779.47]
Teq = 1668 [178] K
Rp = 6.19 [2.38] Re
a = 0.0623 [0.0166] AU
Ag = 8.70 [5.32] [1.45σ]
Teff = 4429 [541] K [4.85σ]

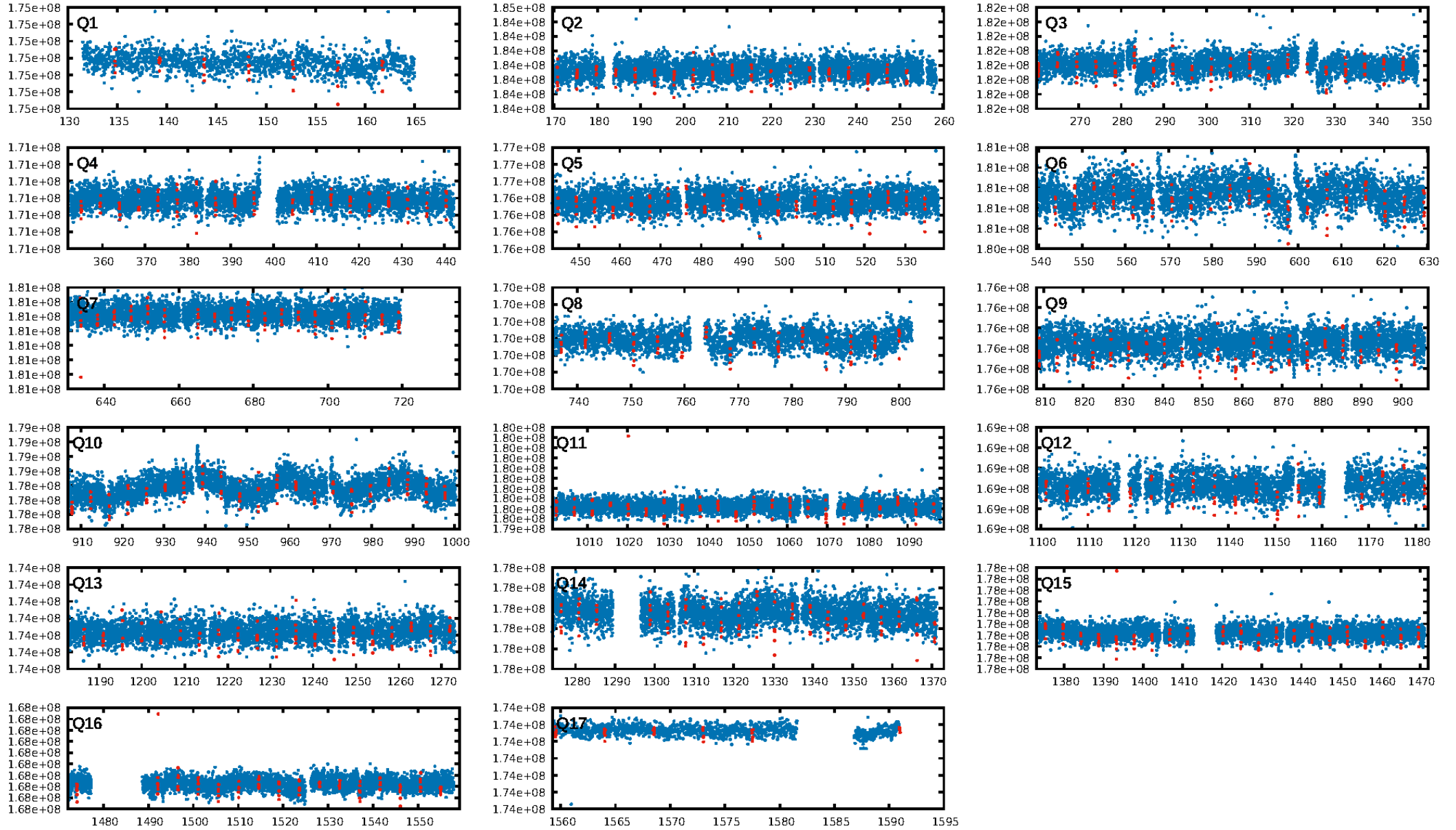
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 6.00e-168
RollingBand-fgt: 0.99 [288/292]
GhostDiagnostic-chr: 6.914
Centroid-sig: 0.0%
Centroid-so: 2.094 arcsec [8.11σ]
OotOffset-rm: 2.263 arcsec [24.58σ]
KicOffset-rm: 2.285 arcsec [24.32σ]
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]

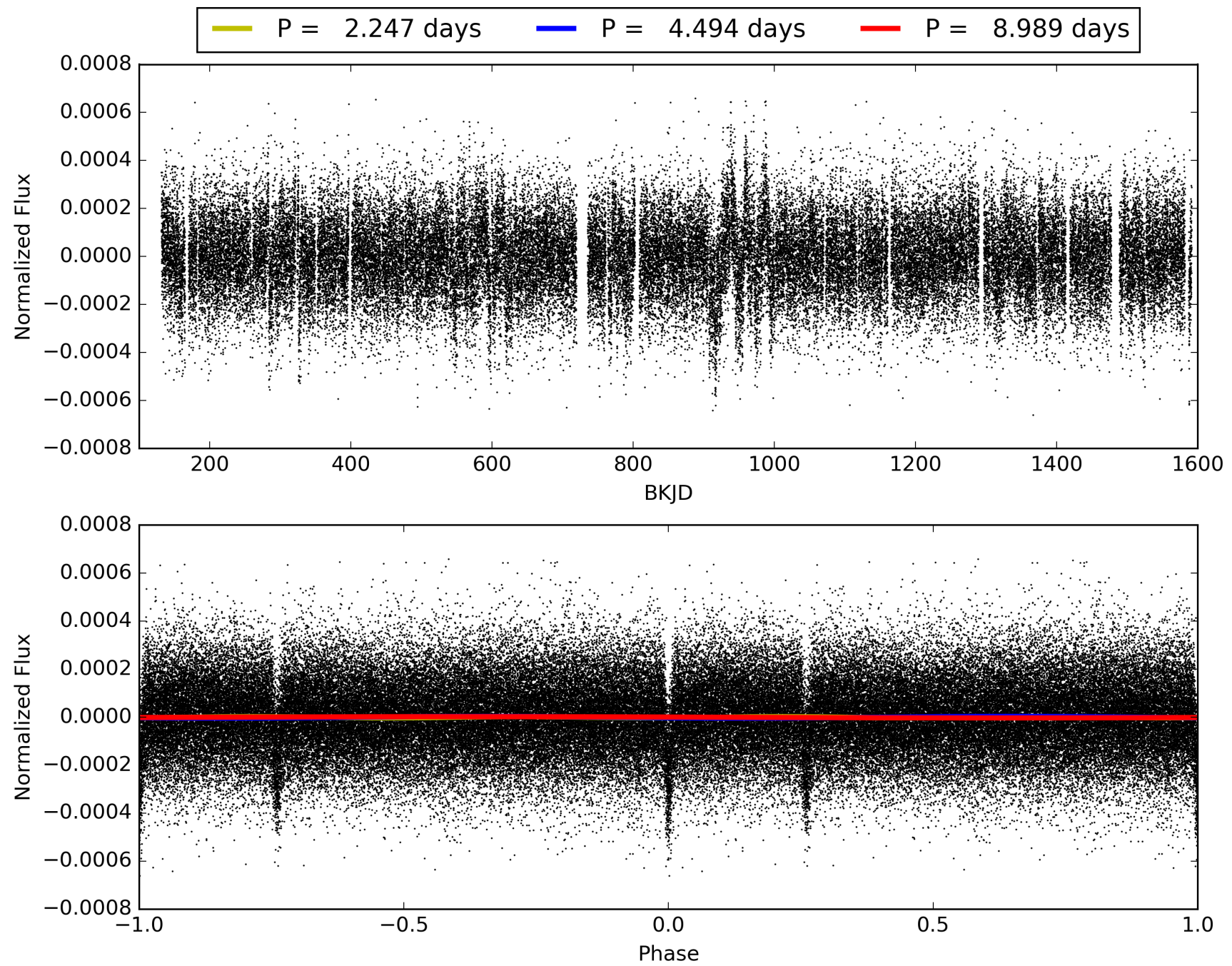
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:22:41 Z

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

TCE 011197126-01, PDC Light Curves

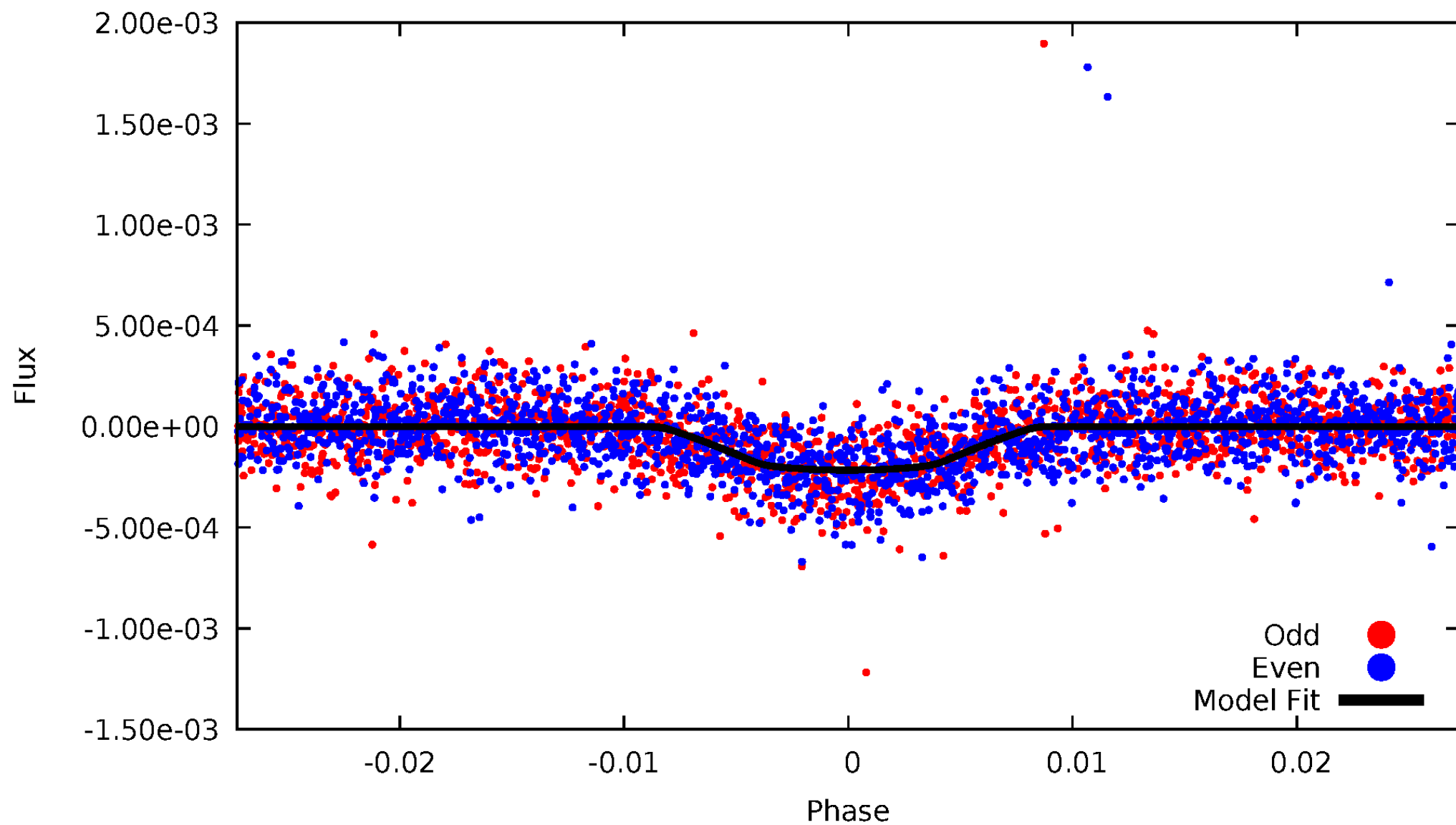


TCE 011197126-01



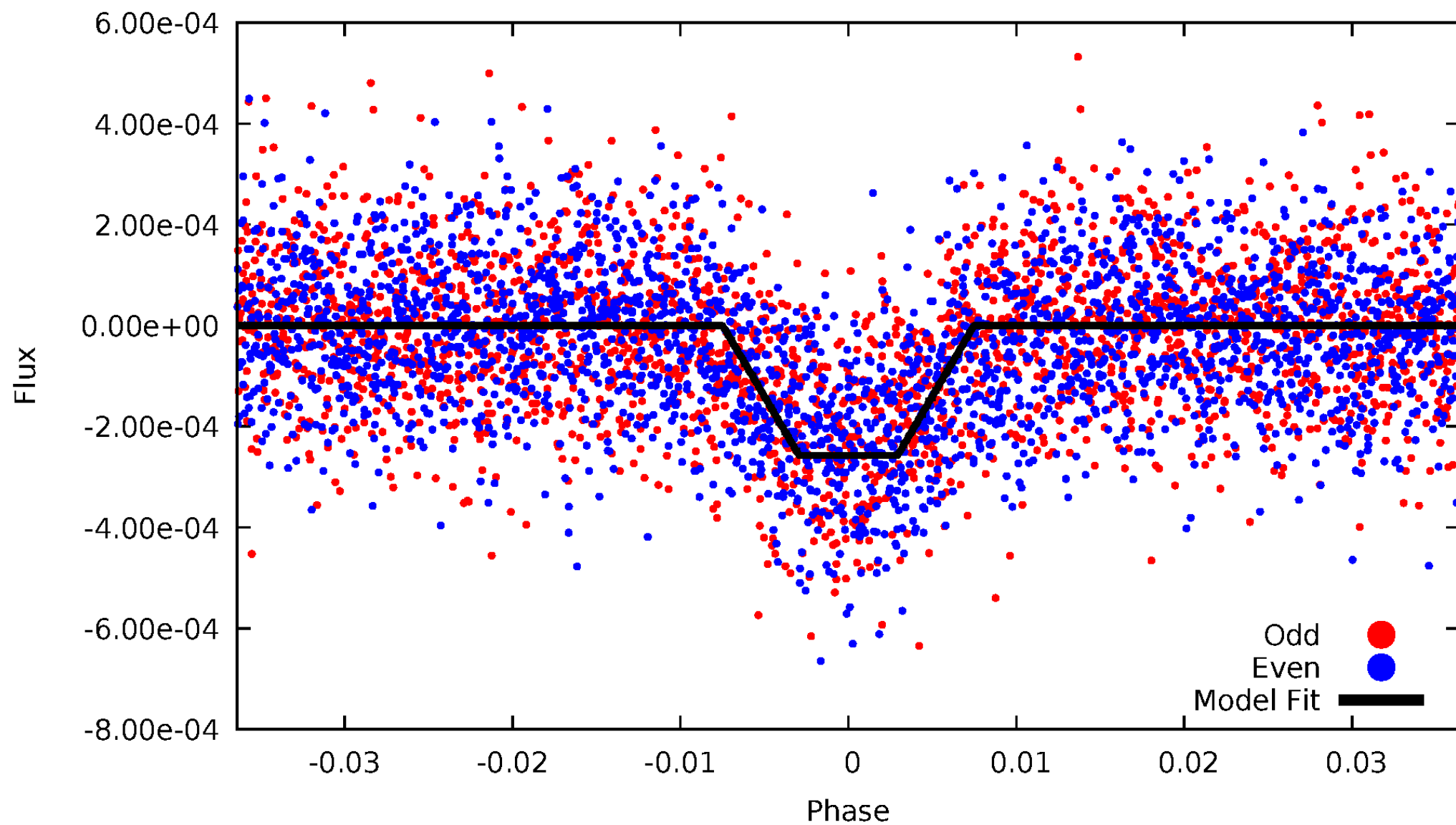
DV Odd/Even

TCE 011197126-01



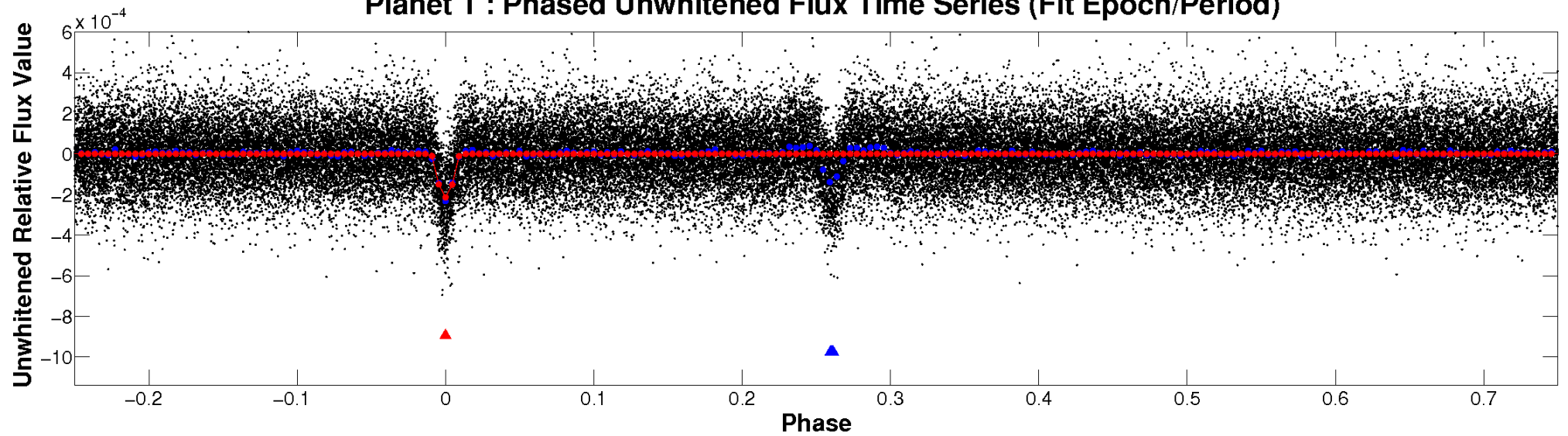
ALT Odd/Even

TCE 011197126-01

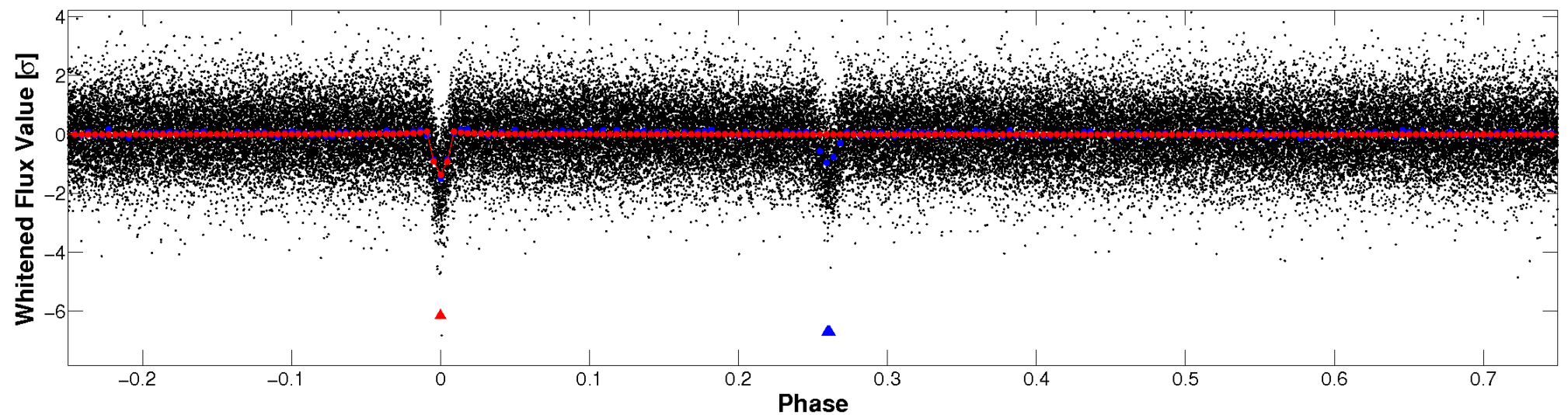


Non-Whitened Vs. Whitened Light Curve

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

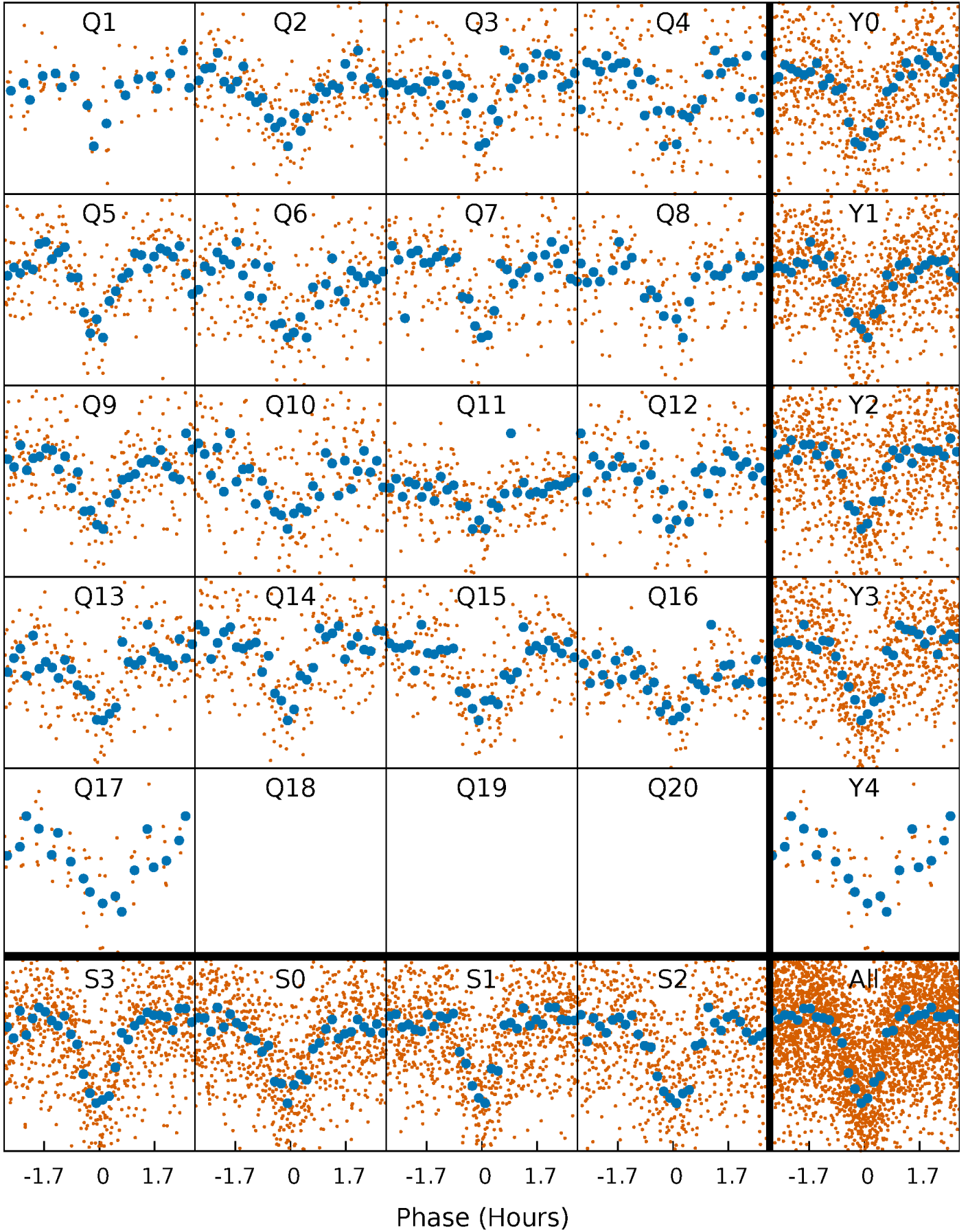


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



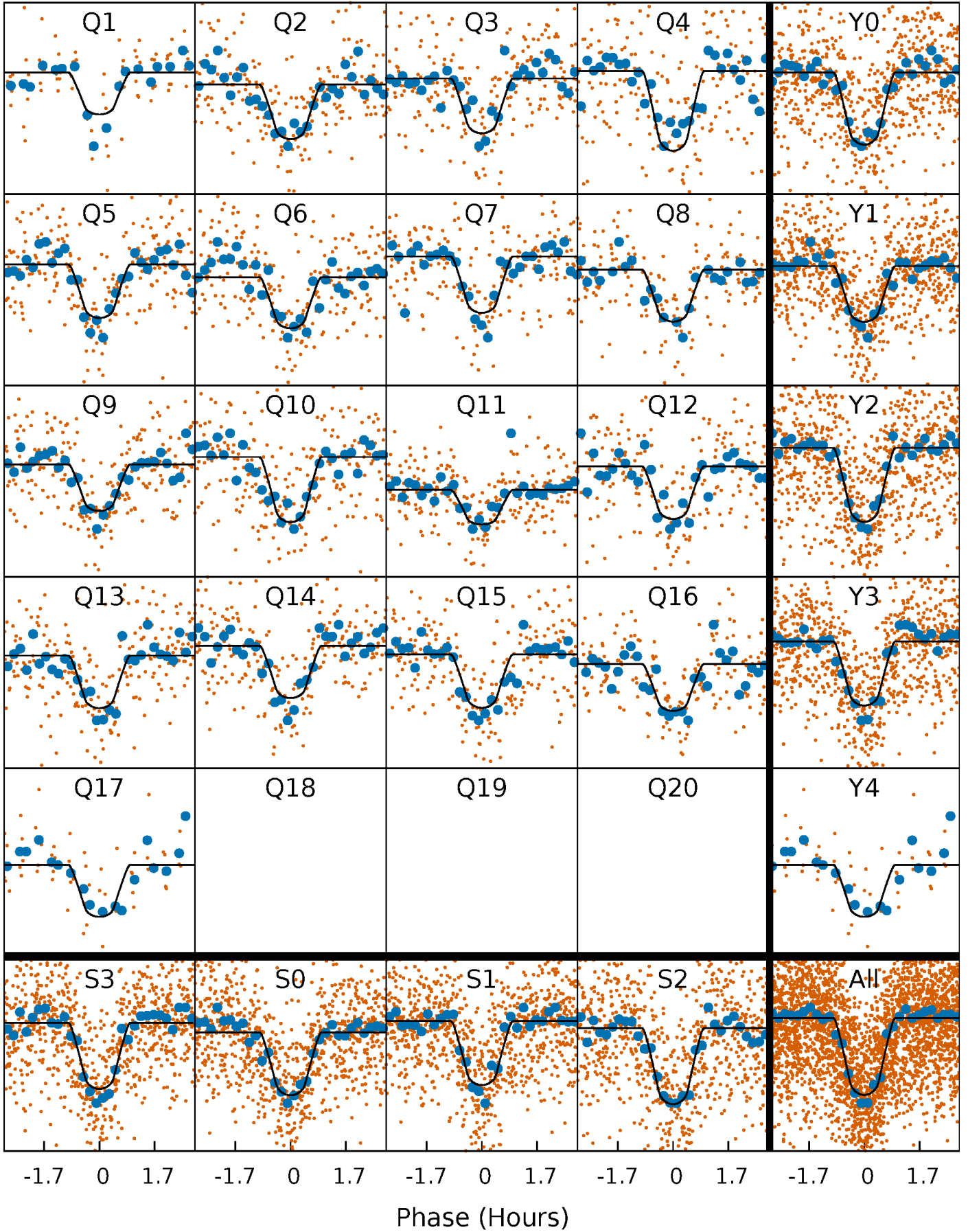
PDC Quarter-Phased Transit Curves

TCE 011197126-01 P= 4.494498 Days $T_0=134.776310$ (BKJD)



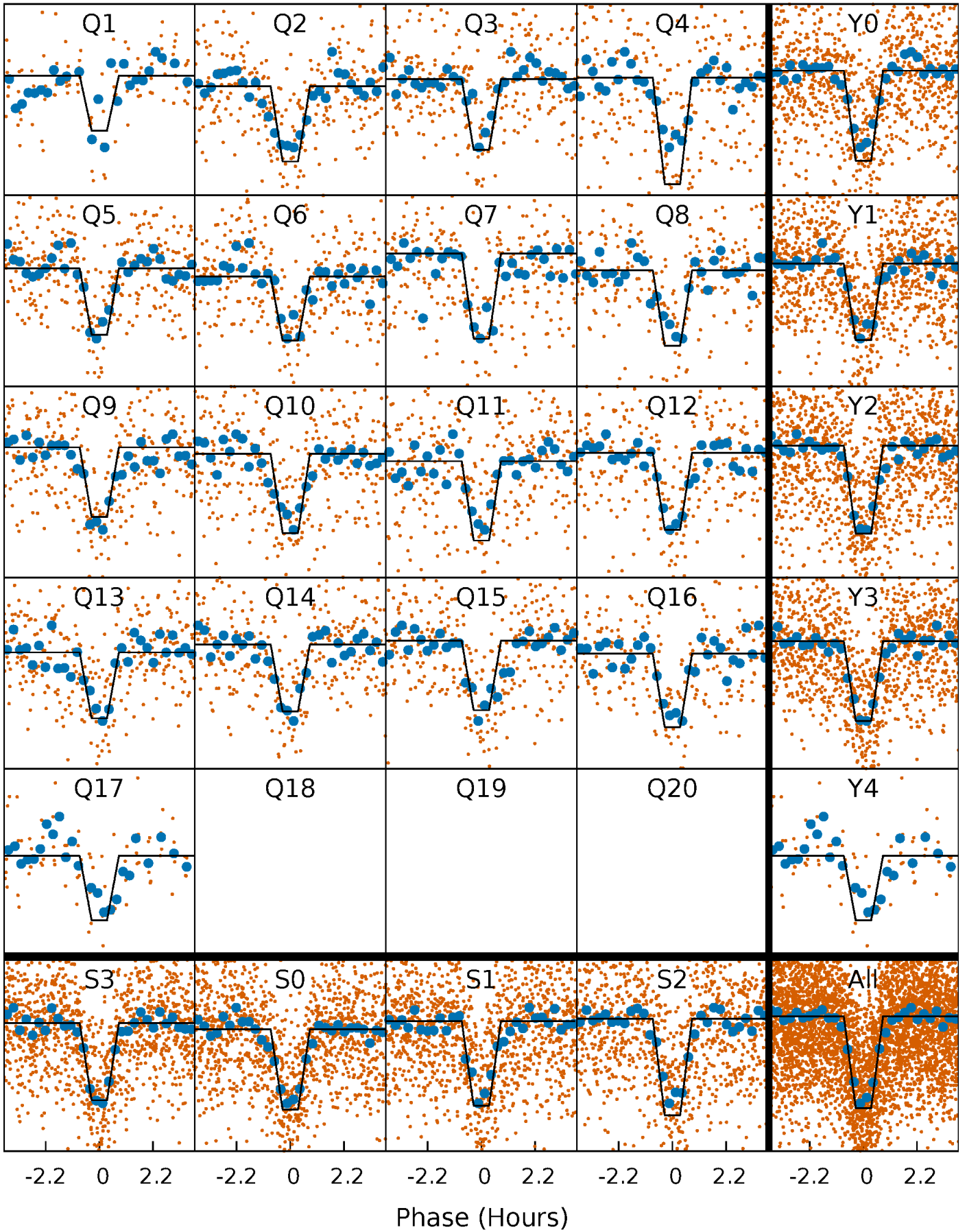
DV Quarter-Phased Transit Curves

TCE 011197126-01 P= 4.494498 Days $T_0=134.776310$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

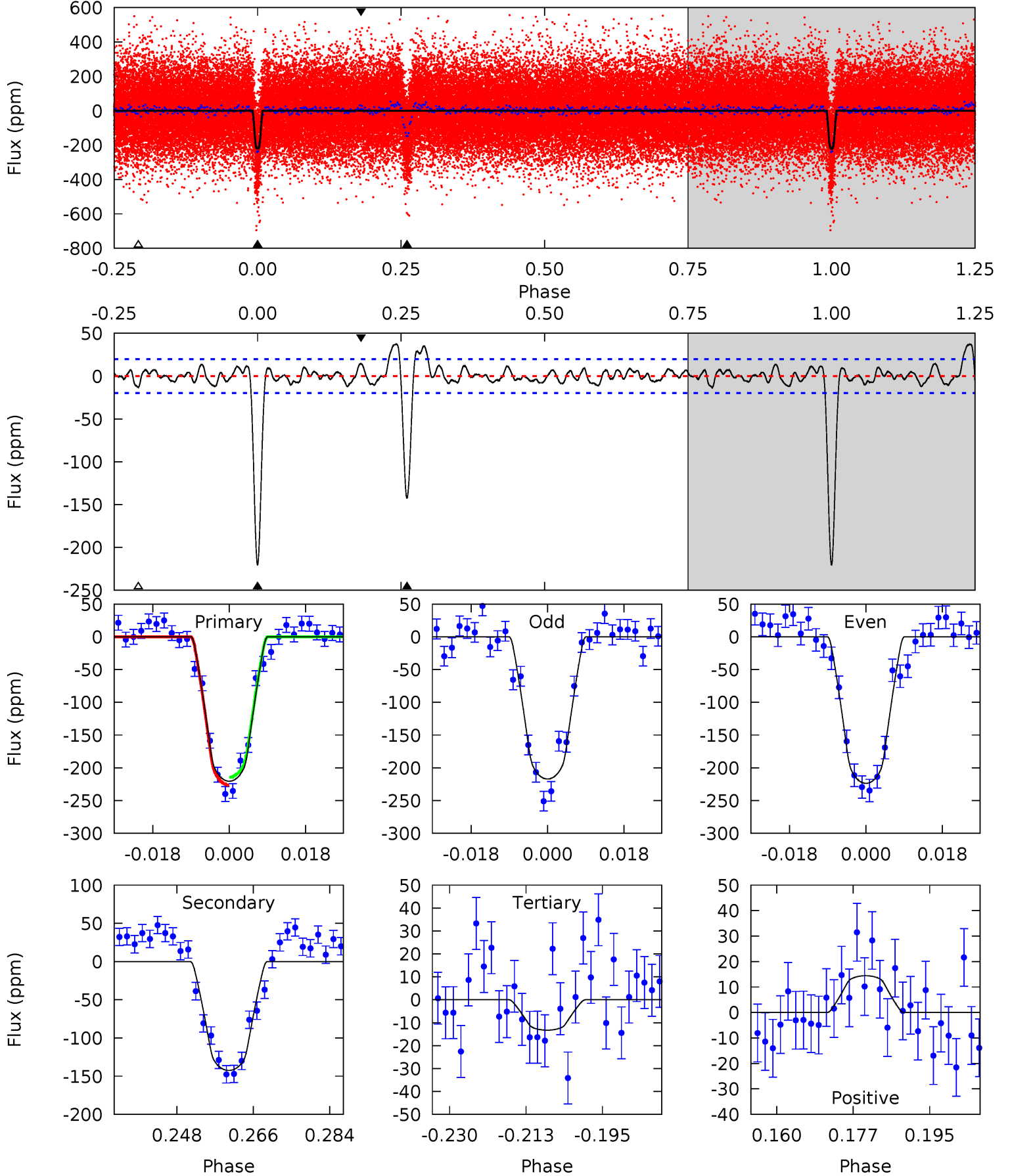
TCE 011197126-01 P= 4.494487 Days $T_0=134.777566$ (BKJD)



DV Model-Shift Uniqueness Test

011197126-01, P = 4.494498 Days, E = 130.281812 Days

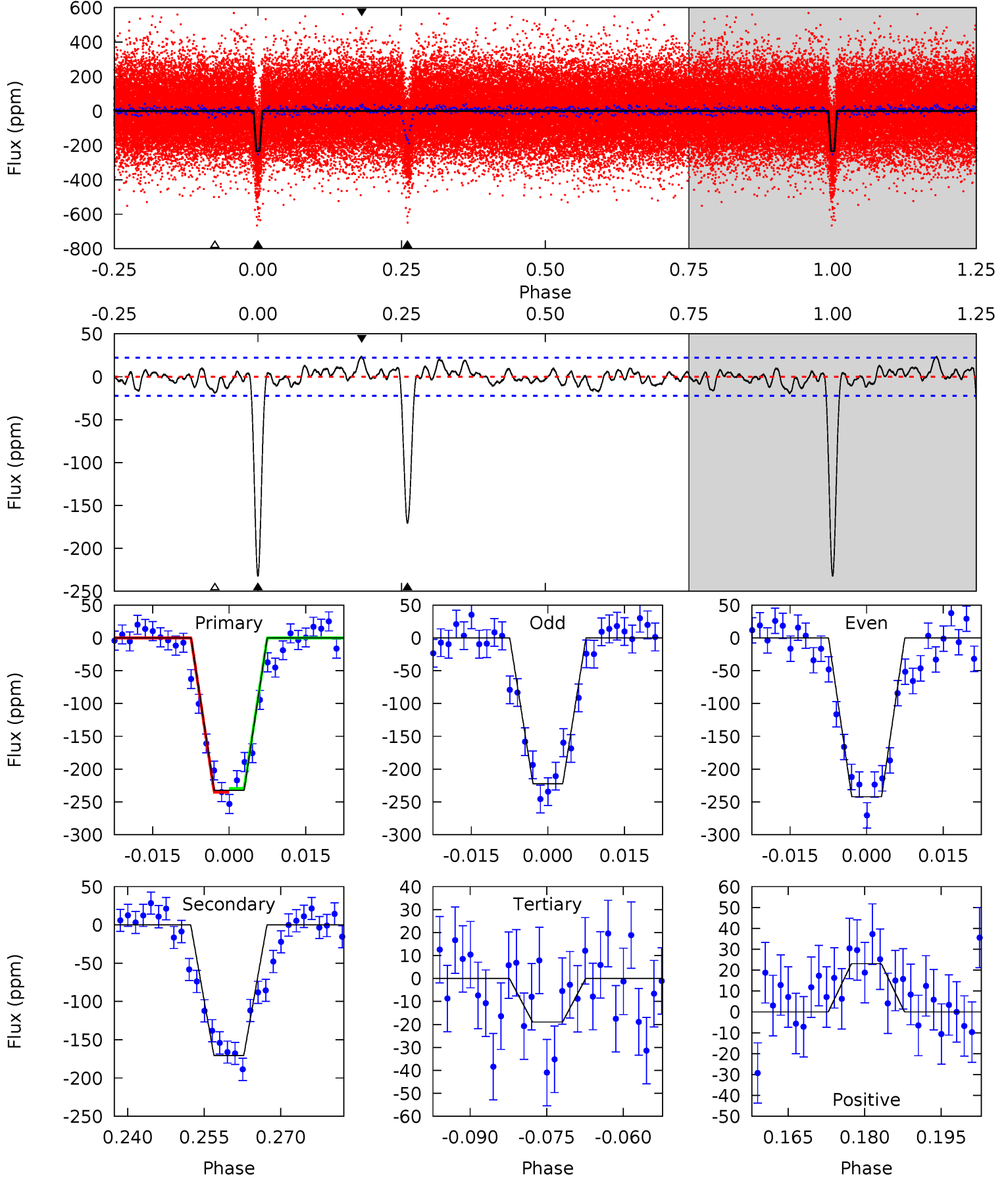
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.7	35.3	3.29	3.58	4.92	2.37	2.03	51.4	51.1	32.1	31.8	0.82	1.02	0.14	1.51



Alt Model-Shift Uniqueness Test

011197126-01, P = 4.494487 Days, E = 130.283079 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.7	38.0	4.22	5.14	4.95	2.43	1.64	47.5	46.6	33.7	32.8	2.23	1.00	0.09	0.64



Stellar Parameters For KIC 011197126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5117^{+124}_{-195}	$3.578^{+0.222}_{-0.148}$	$0.260^{+0.150}_{-0.350}$	$3.403^{+0.609}_{-1.045}$	$1.598^{+0.176}_{-0.565}$	$0.057^{+0.082}_{-0.022}$
	+2%/-4%	+6%/-4%	+58%/-135%	+18%/-31%	+11%/-35%	+144%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011197126-01 / KOI 1443.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-143 ± 4	$6.00^{+1.70}_{-1.66}$	2307^{+155}_{-179}	4392^{+544}_{-349}	$8.369^{+6.861}_{-3.290}$
Alt.	-171 ± 4	$5.76^{+1.66}_{-1.65}$	2314^{+159}_{-173}	4684^{+570}_{-440}	11^{+9}_{-4}

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

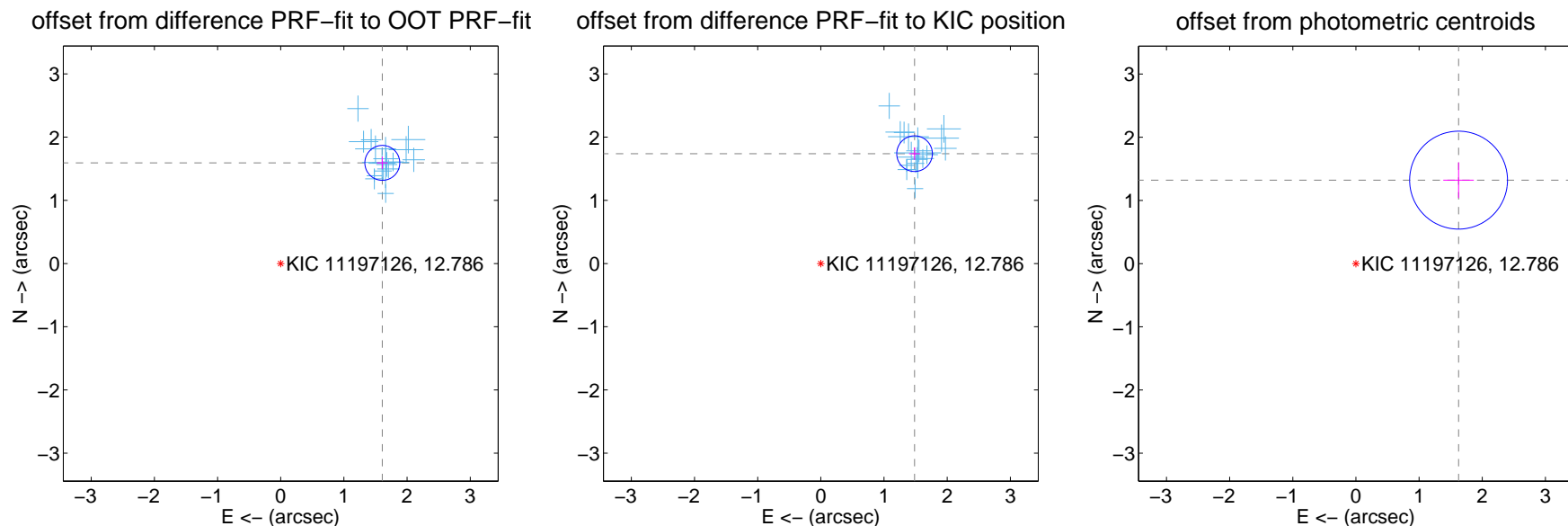
DV Centroid Data

Supplemental centroid analysis for 011197126-01. Kepler magnitude: 12.79. Transit SNR 33.05

There are 17 quarters with good PRF difference image offsets

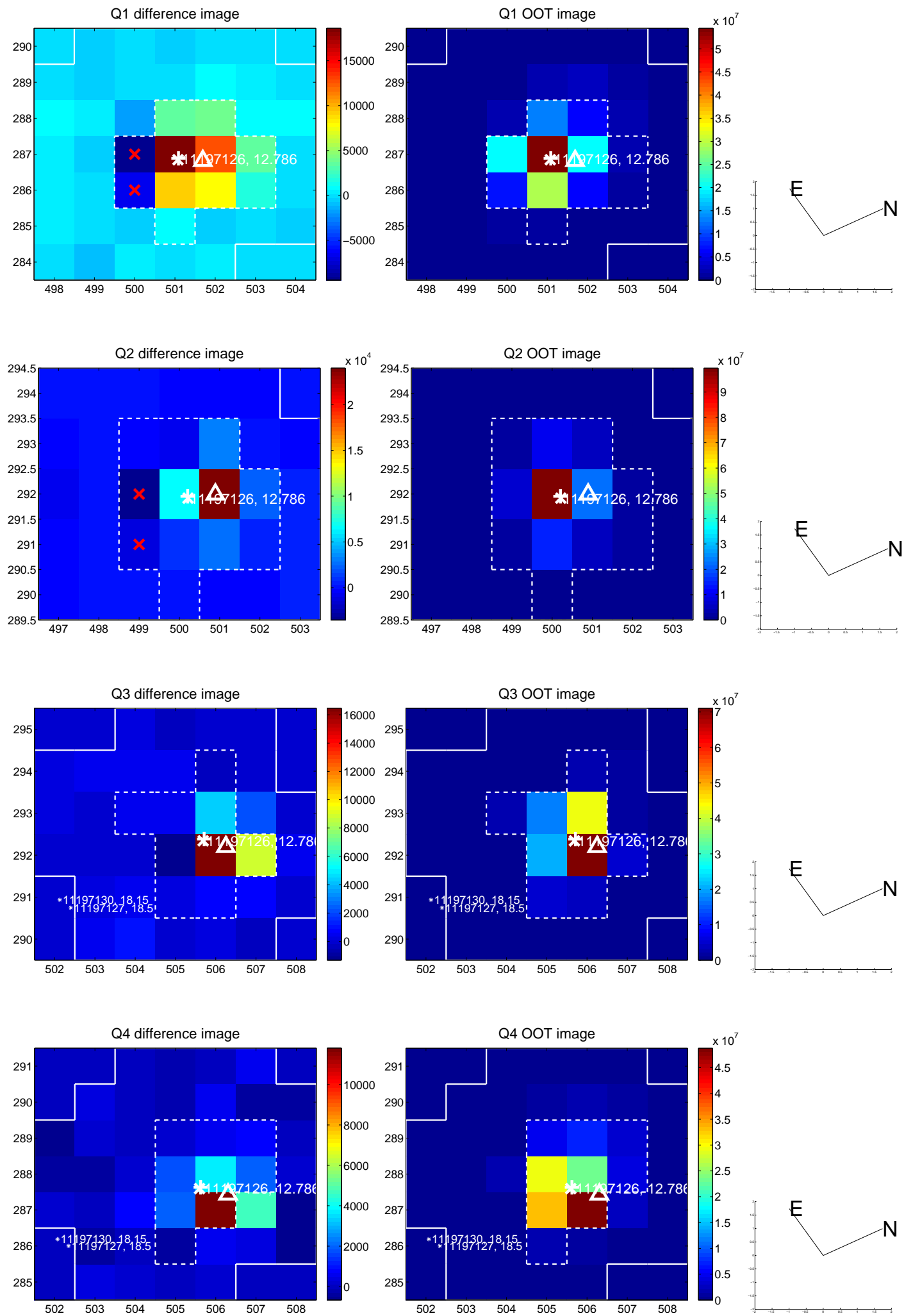
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.263 ± 0.092	24.58	-1.608 ± 0.085	1.593 ± 0.099
PRF-fit source offset from KIC position	2.285 ± 0.094	24.32	-1.483 ± 0.086	1.739 ± 0.100
photometric centroid source offset	2.09 ± 0.26	8.11	-1.62 ± 0.24	1.32 ± 0.28

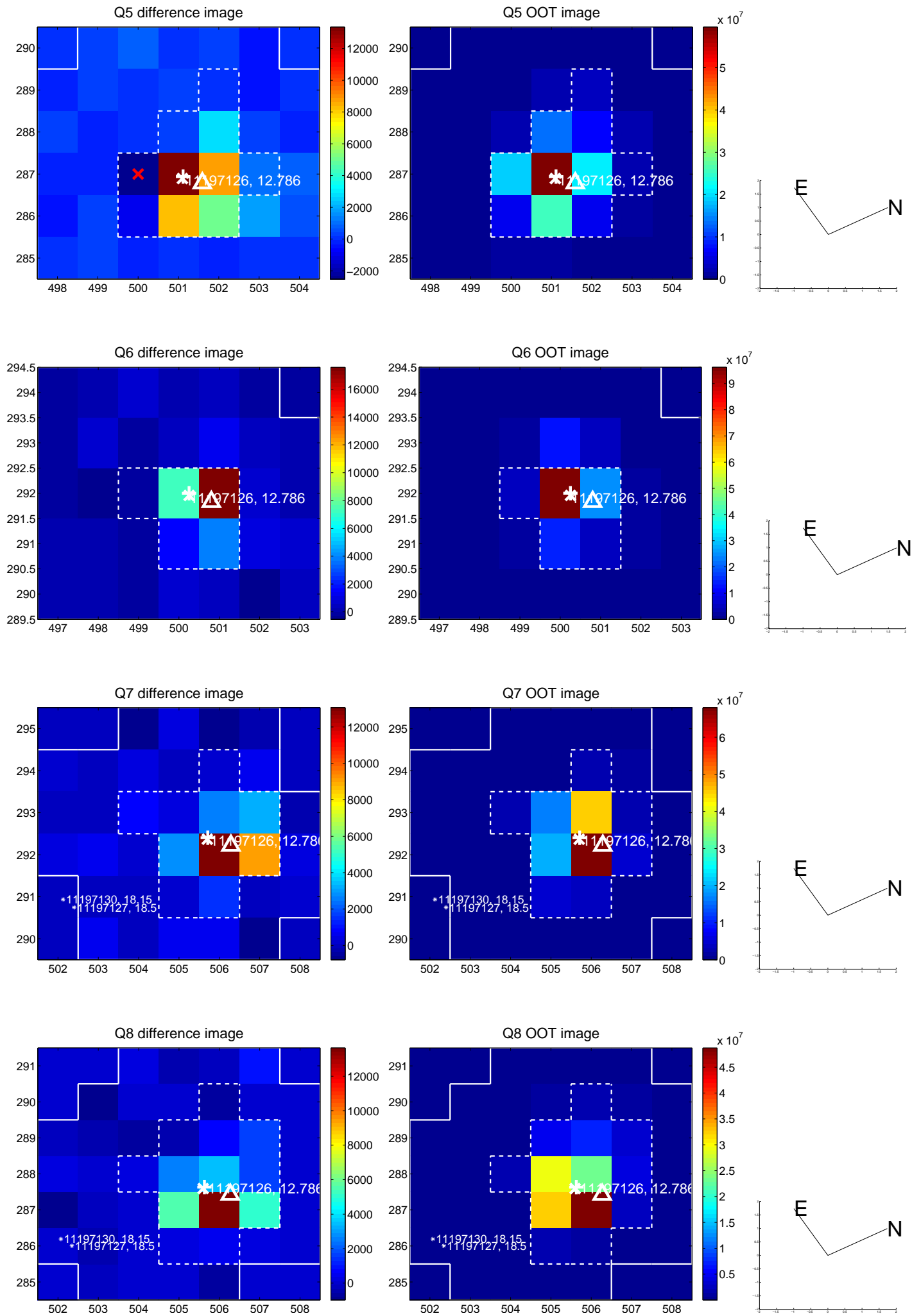


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

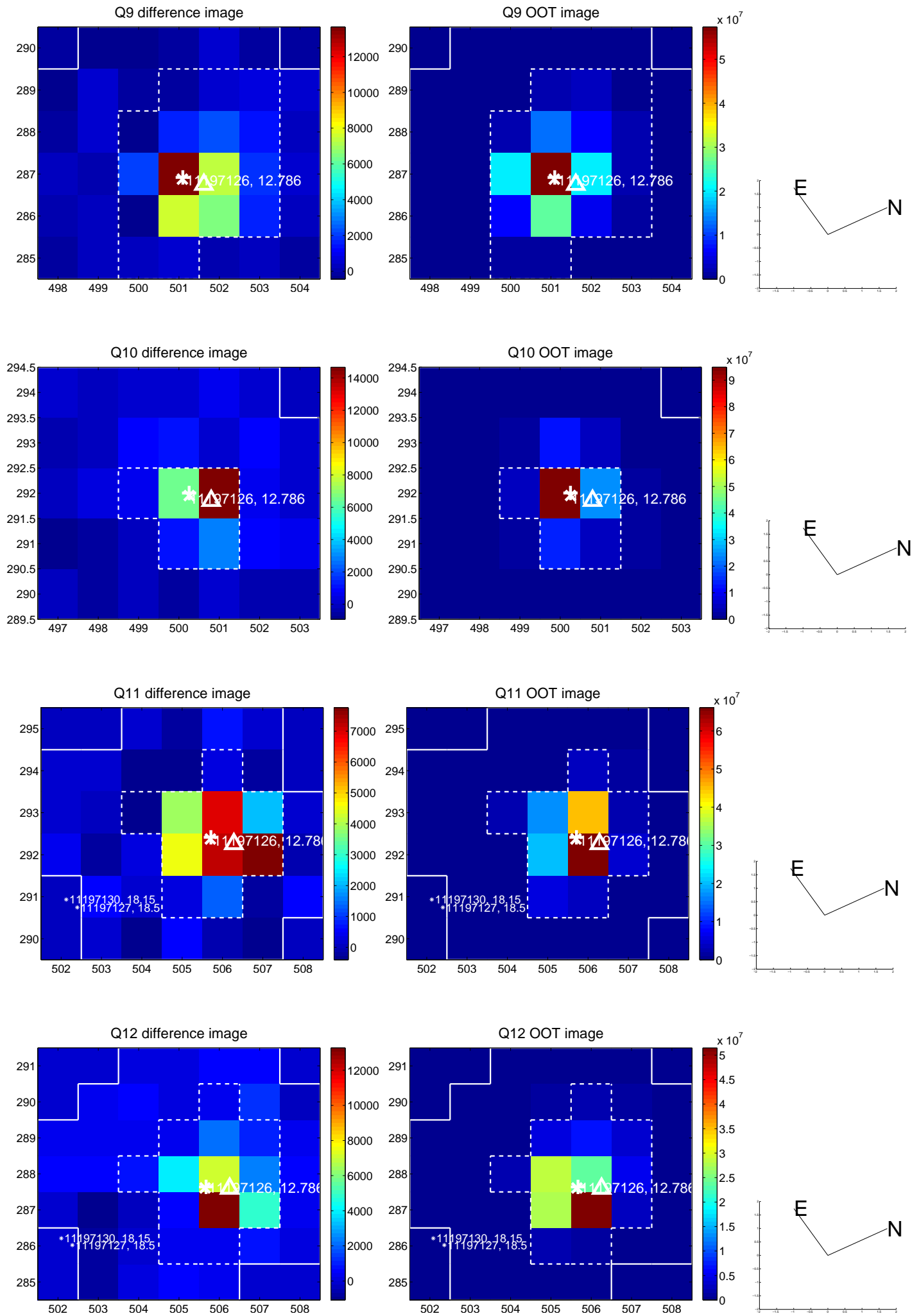
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



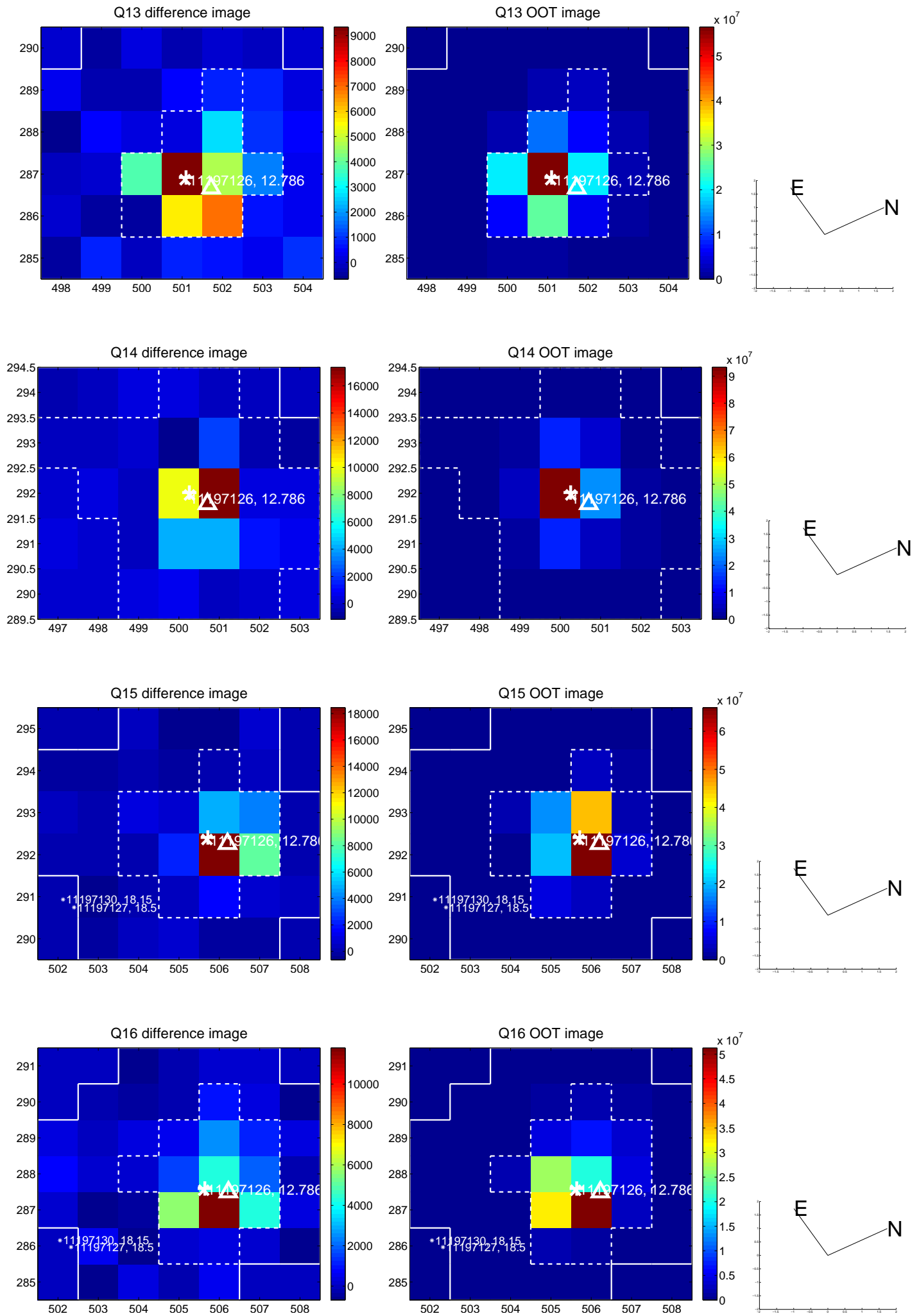
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



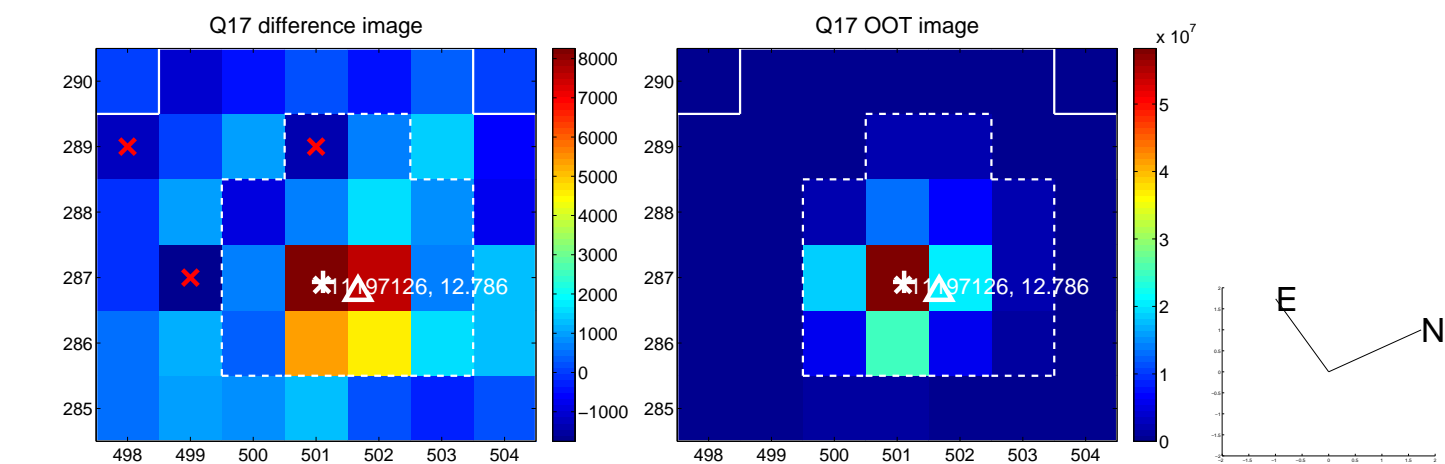
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



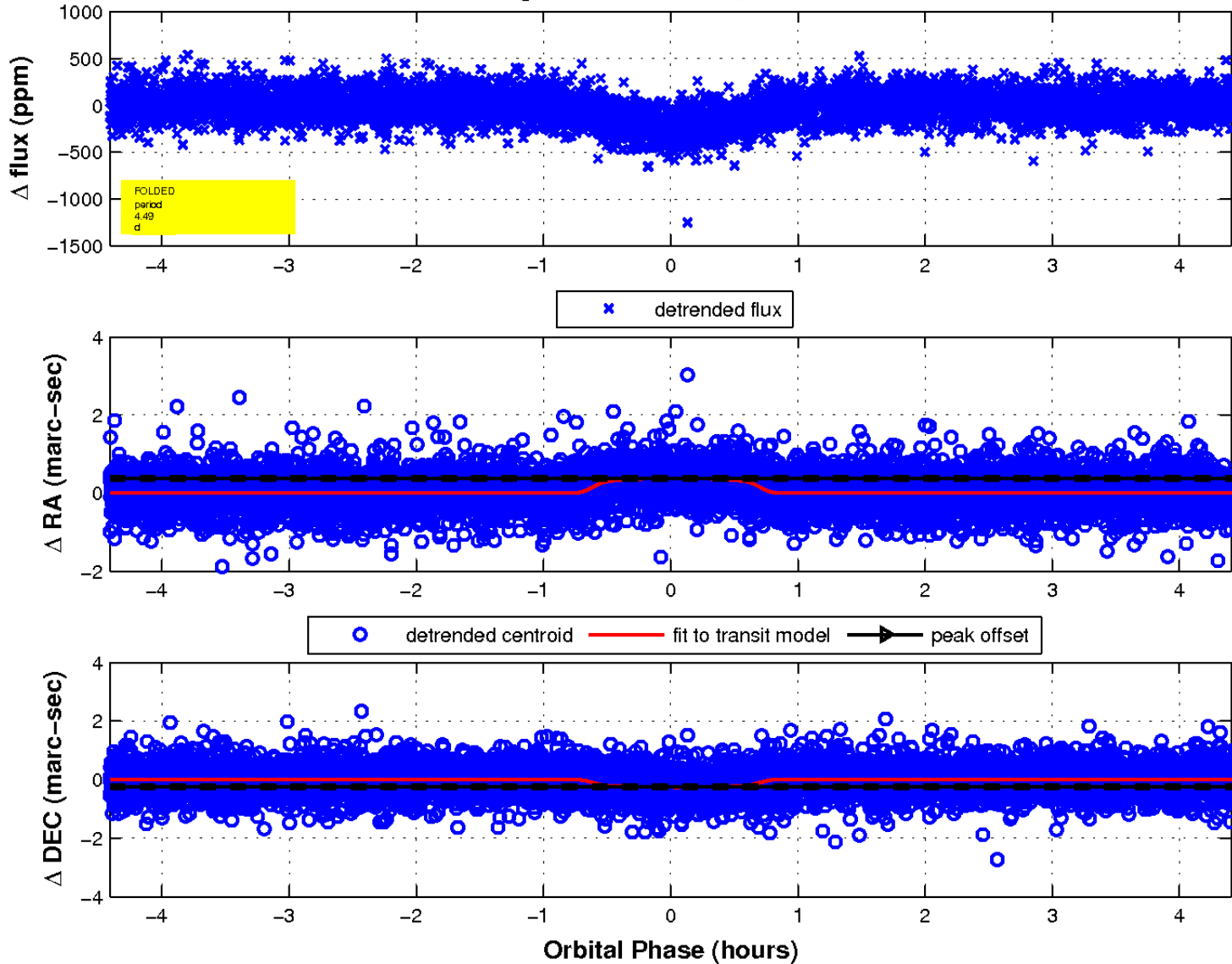
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

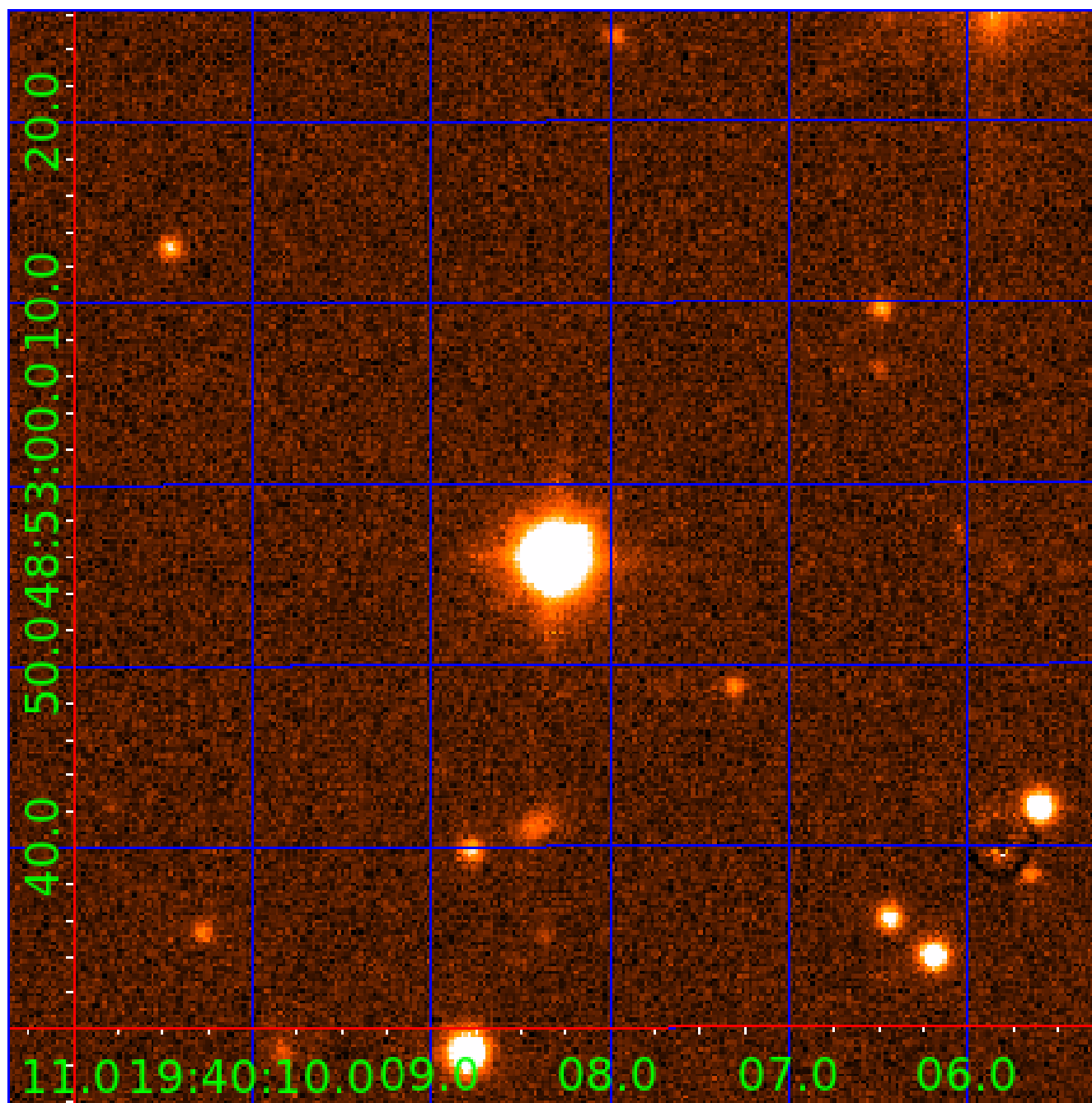


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 011197126

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})
011197126-01	OBS	1443.01	4.494498	134.776310	216.6	1.470	28.8	33.0	3.40	5117	6.19	1830.72
011197126-02	OBS	No	4.494521	135.943262	161.4	1.815	22.9	26.9	3.40	5117	5.41	1830.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011197126-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET
011197126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_UNRESOLVED_OFFSET

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 011197126-02

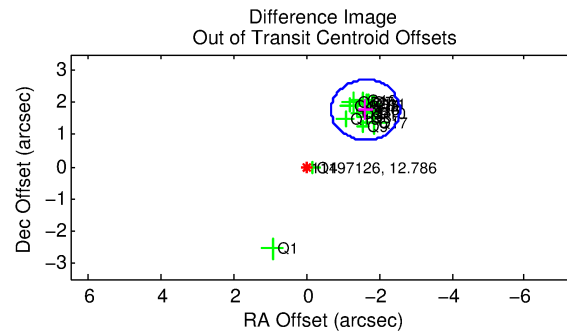
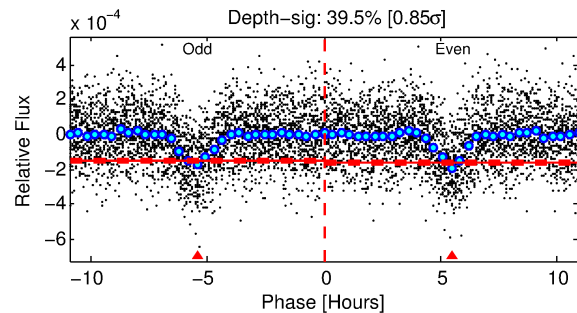
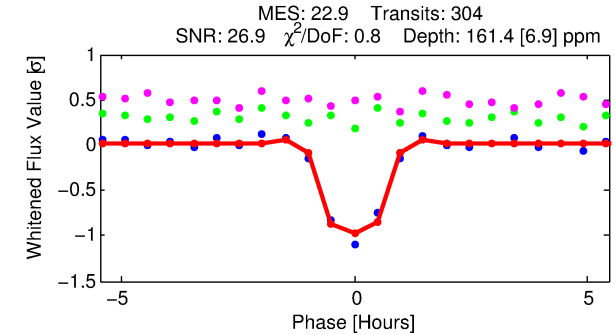
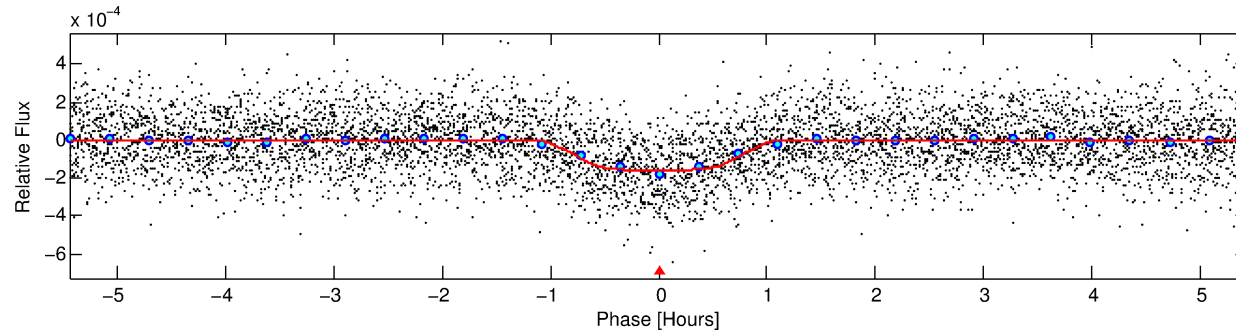
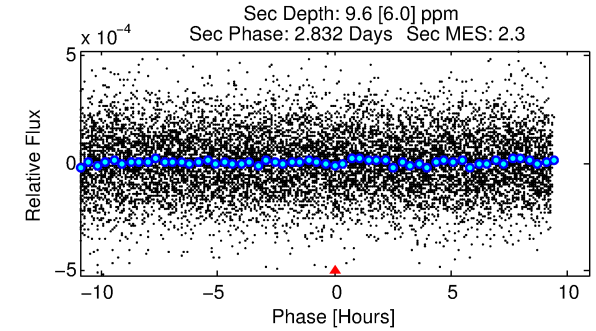
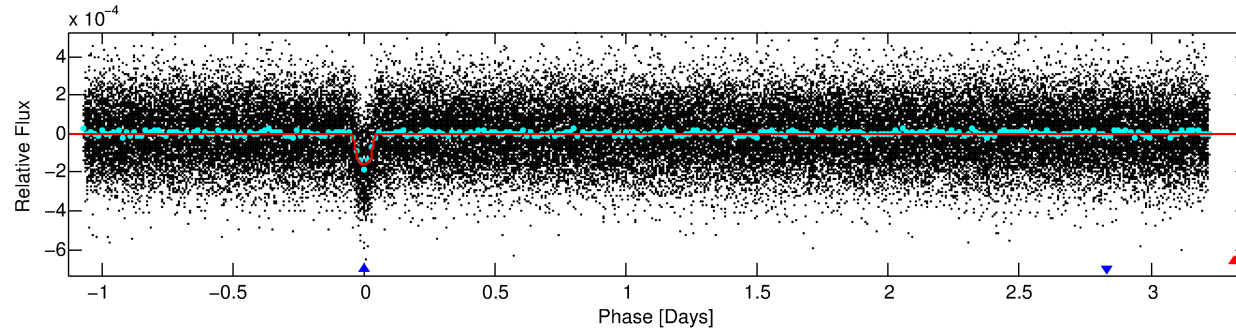
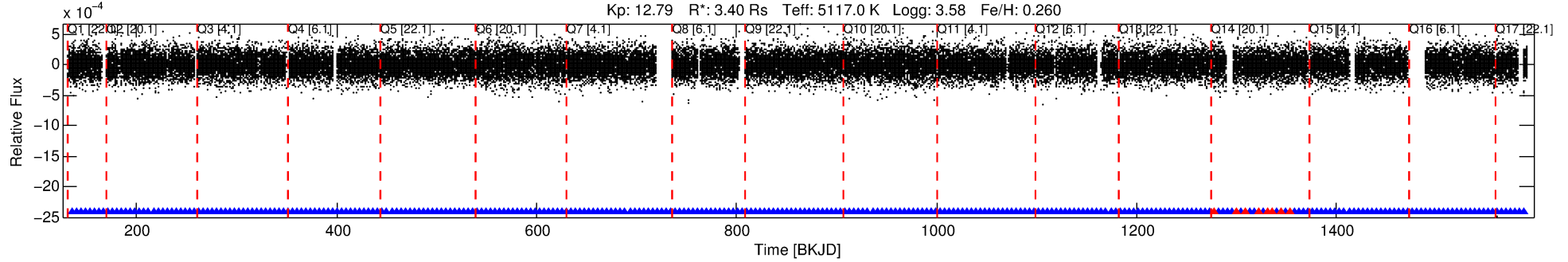
No Significant Match Found

DV One-Page Summary

KIC: 11197126 Candidate: 2 of 2 Period: 4.495 d

KOI: K01443 Corr: No Ephemeris Match

Kp: 12.79 R*: 3.40 Rs Teff: 5117.0 K Logg: 3.58 Fe/H: 0.260



DV Fit Results:

Period = 4.49452 [0.00001] d
Epoch = 135.9433 [0.0011] BKJD
Rp/R* = 0.0146 [0.0037]
a/R* = 8.11 [8.55]
b = 0.92 [0.18]
Seff = 1830.71 [779.46]
Teq = 1668 [178] K
Rp = 5.41 [2.16] Re
a = 0.0623 [0.0166] AU
Ag = 0.70 [0.63] [-0.47σ]
Teffp = 2360 [484] K [1.34σ]

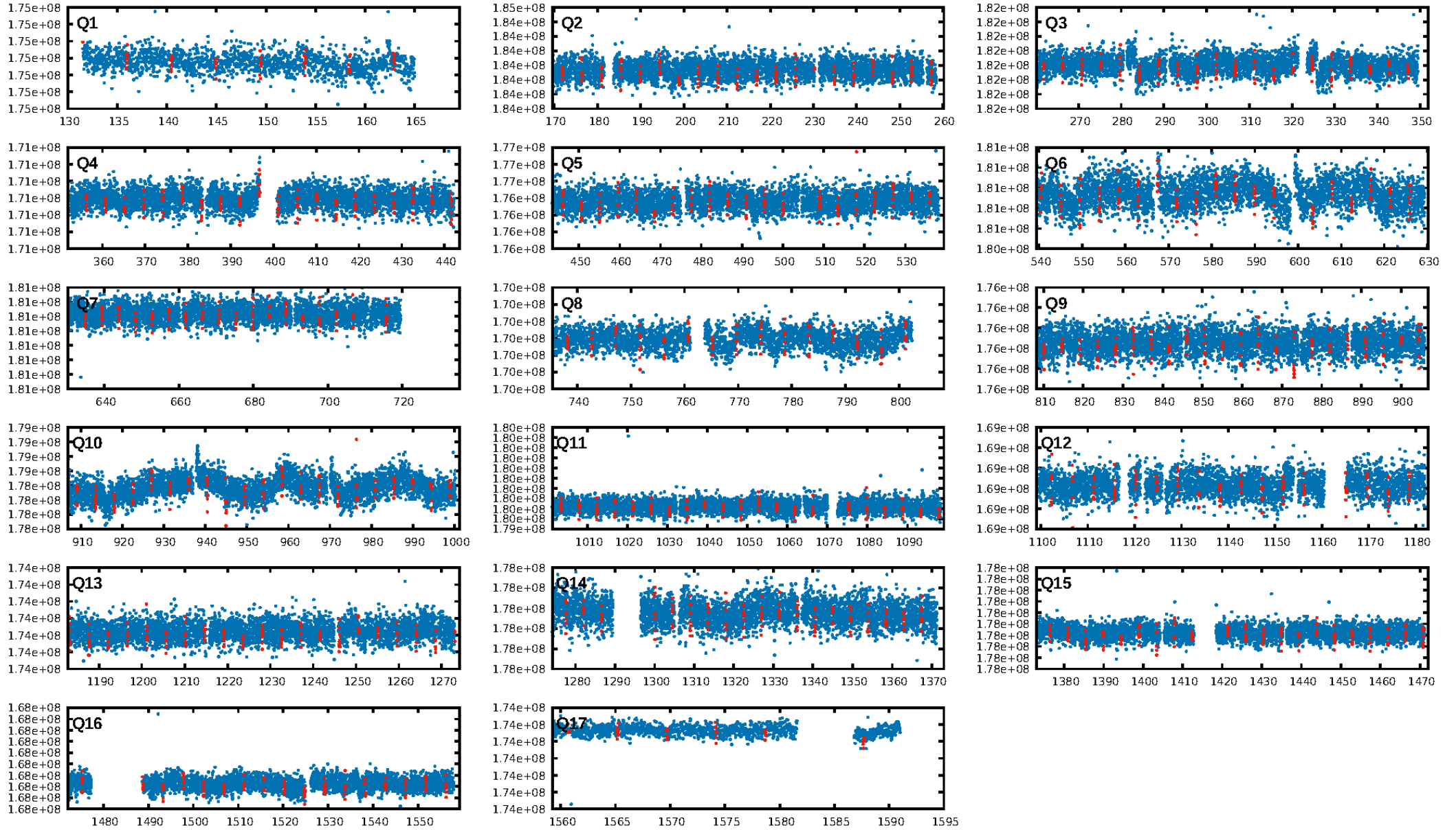
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.29e-107
RollingBand-fgt: 0.97 [283/291]
GhostDiagnostic-chr: 5.951
Centroid-sig: 0.0%
Centroid-so: 2.096 arcsec [6.37σ]
OotOffset-rm: 2.398 arcsec [7.60σ]
KicOffset-rm: 2.432 arcsec [8.34σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

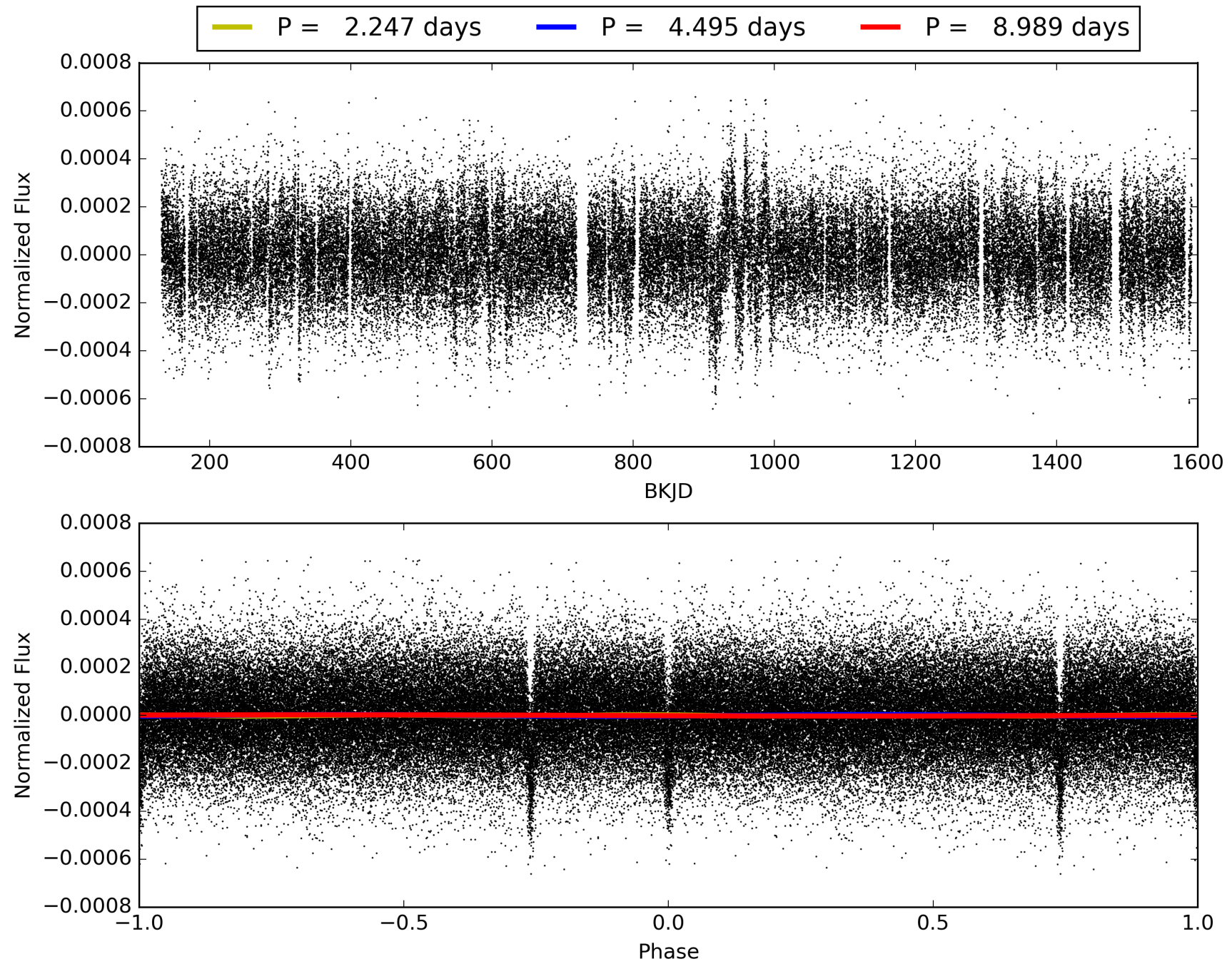
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:22:55 Z

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

TCE 011197126-02, PDC Light Curves

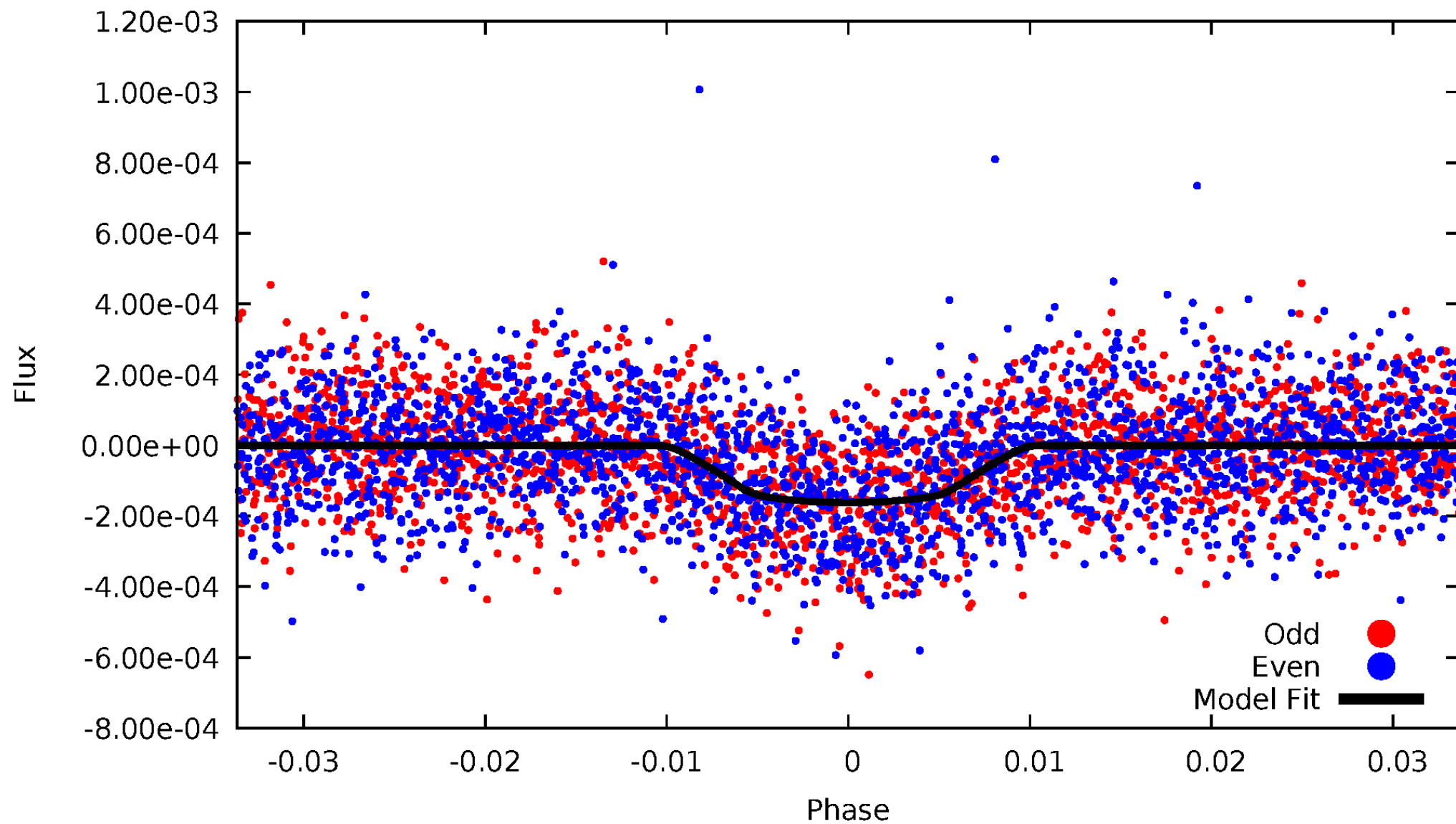


TCE 011197126-02



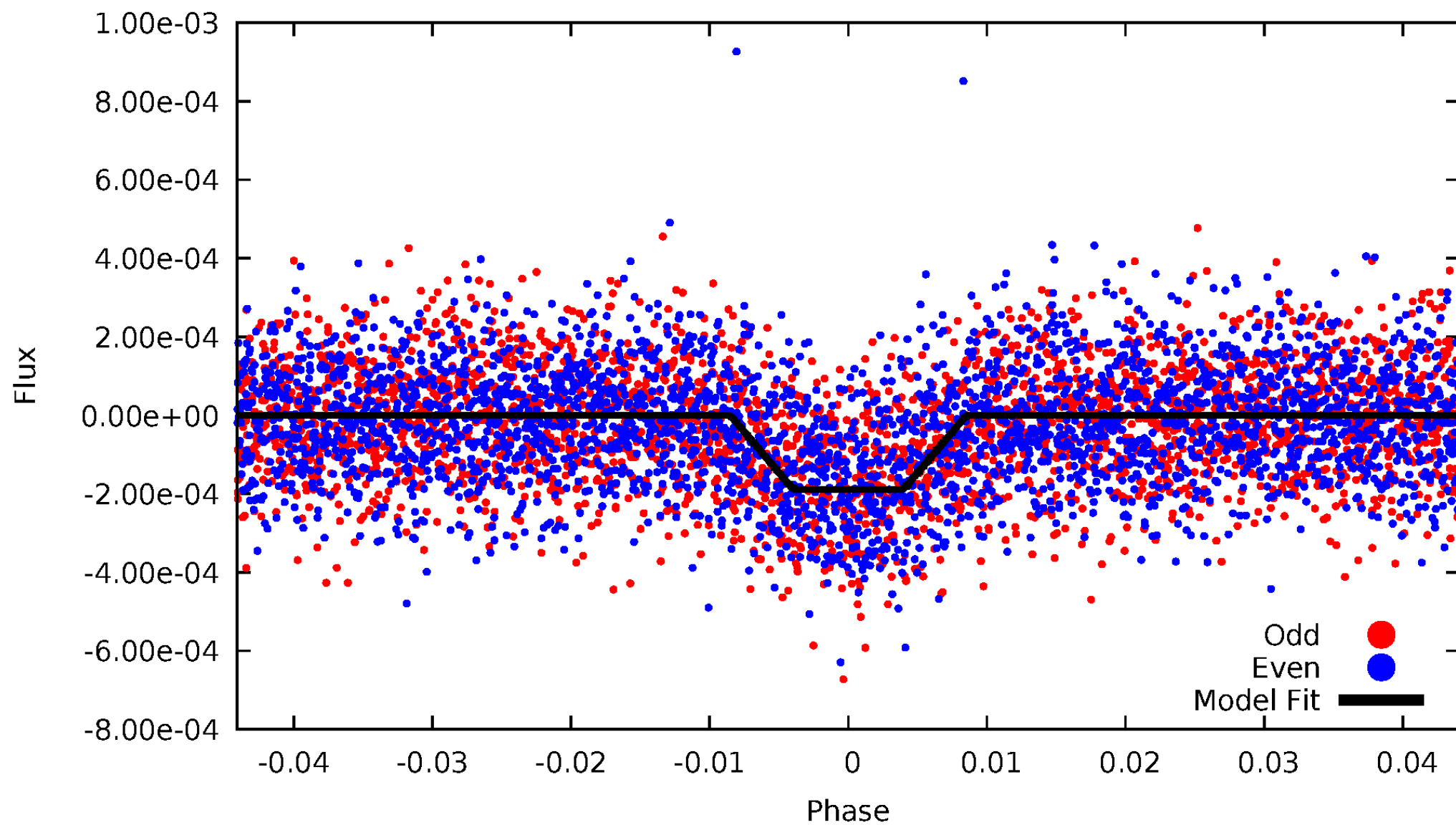
DV Odd/Even

TCE 011197126-02



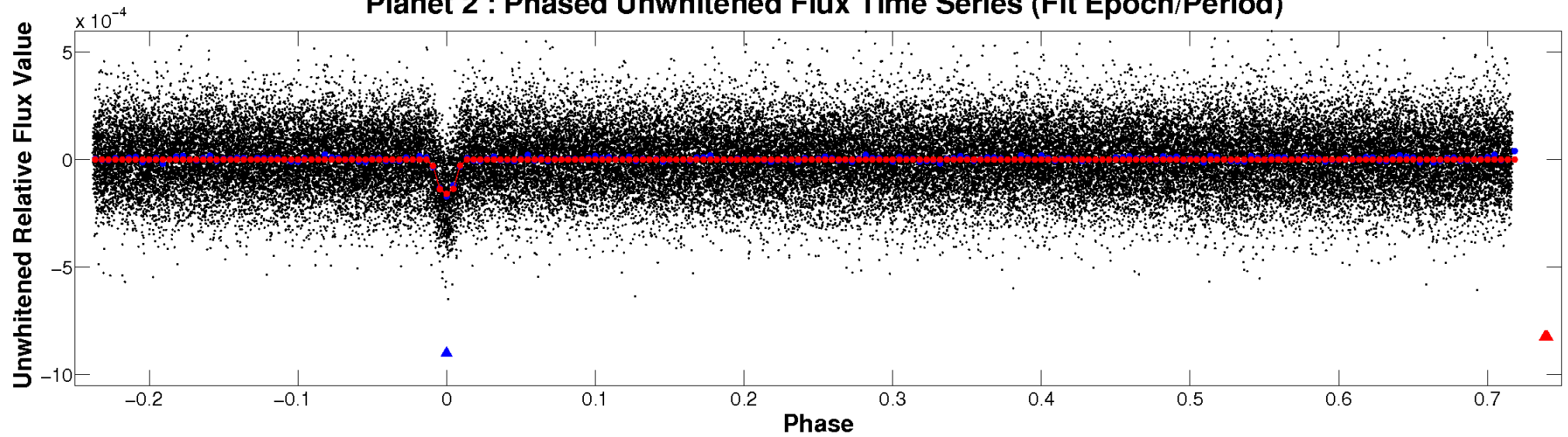
ALT Odd/Even

TCE 011197126-02

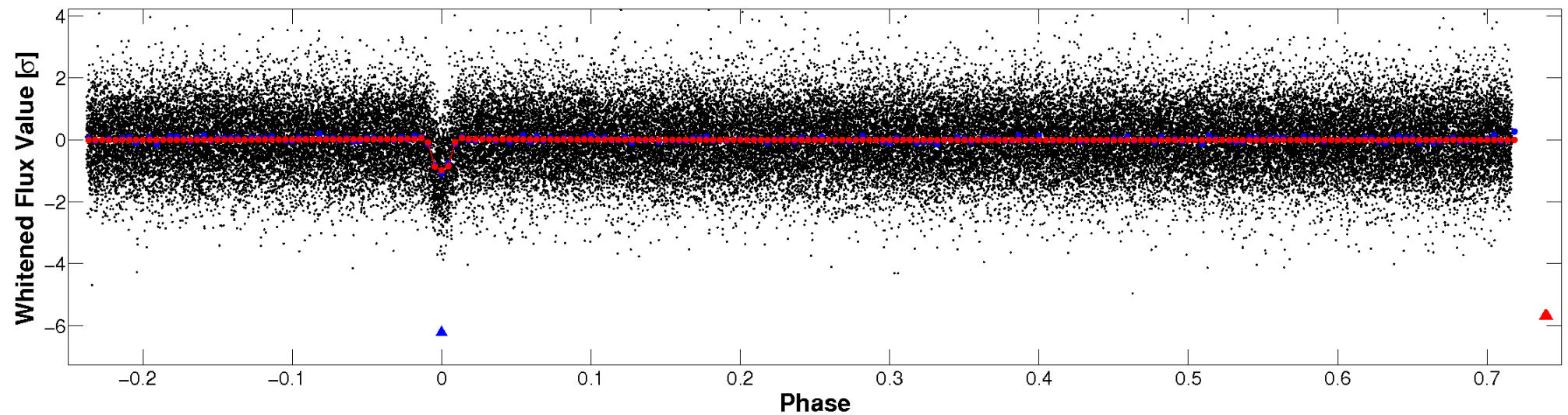


Non-Whitened Vs. Whitened Light Curve

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

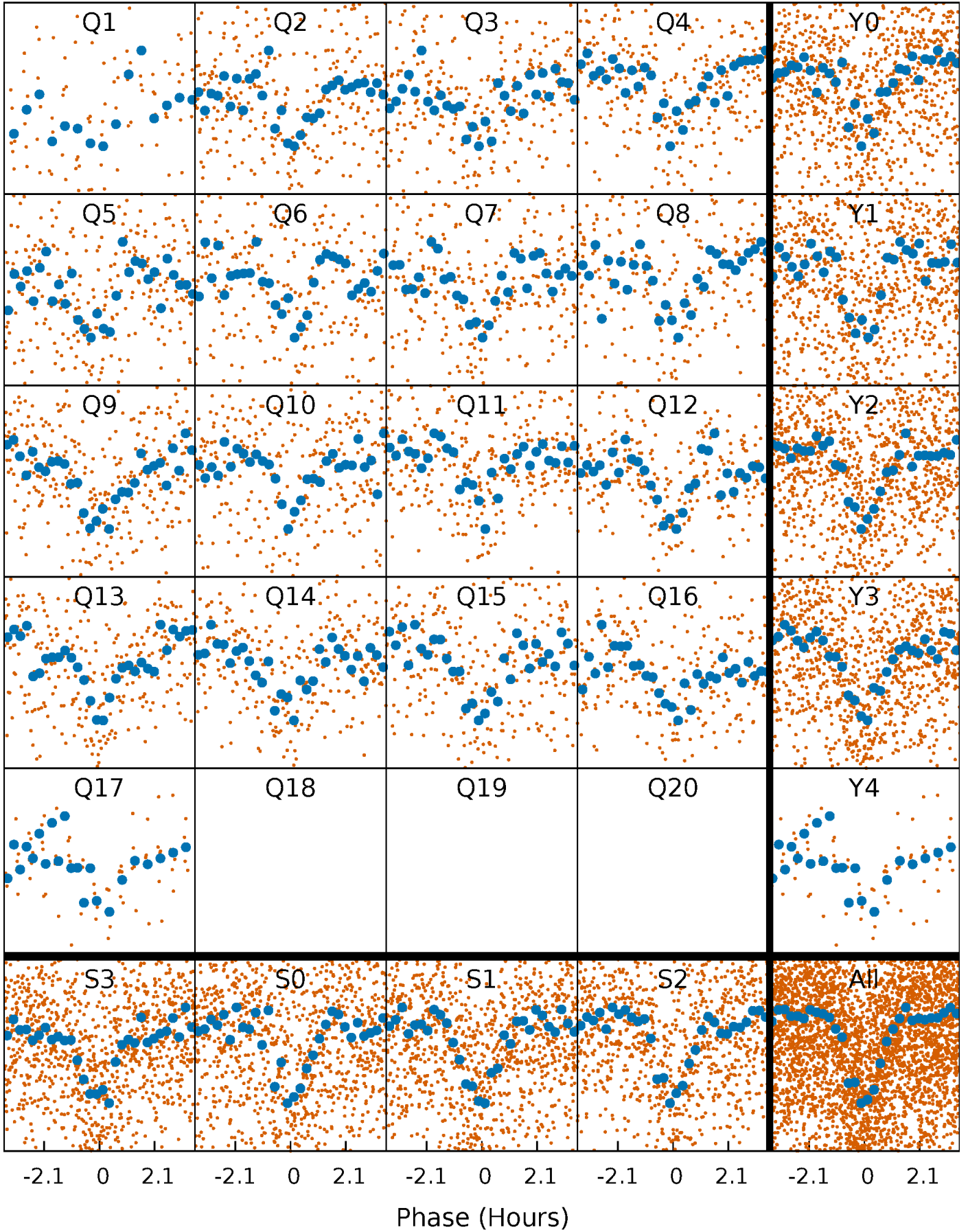


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



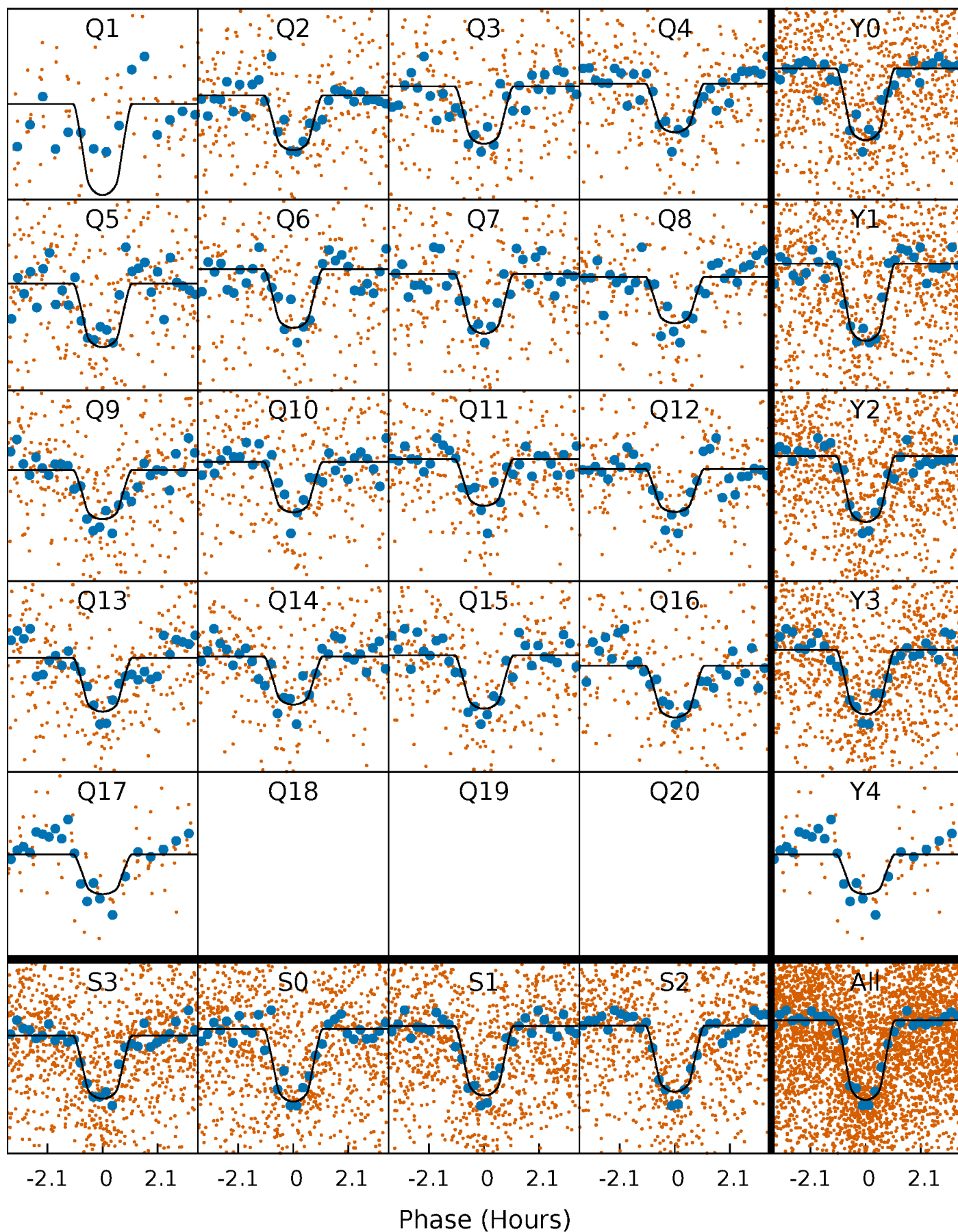
PDC Quarter-Phased Transit Curves

TCE 011197126-02 P= 4.494521 Days $T_0=135.943262$ (BKJD)



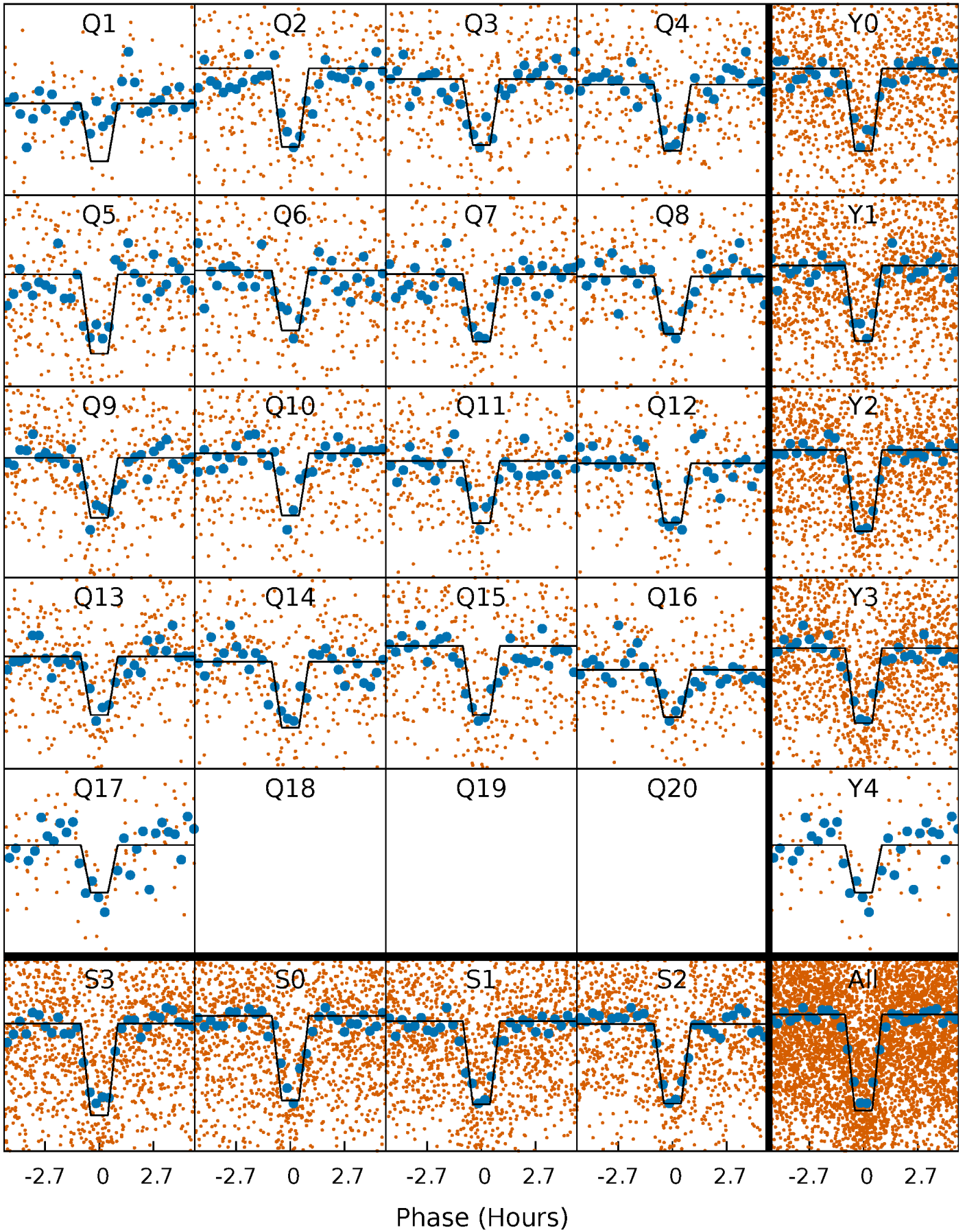
DV Quarter-Phased Transit Curves

TCE 011197126-02 P= 4.494521 Days $T_0=135.943262$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

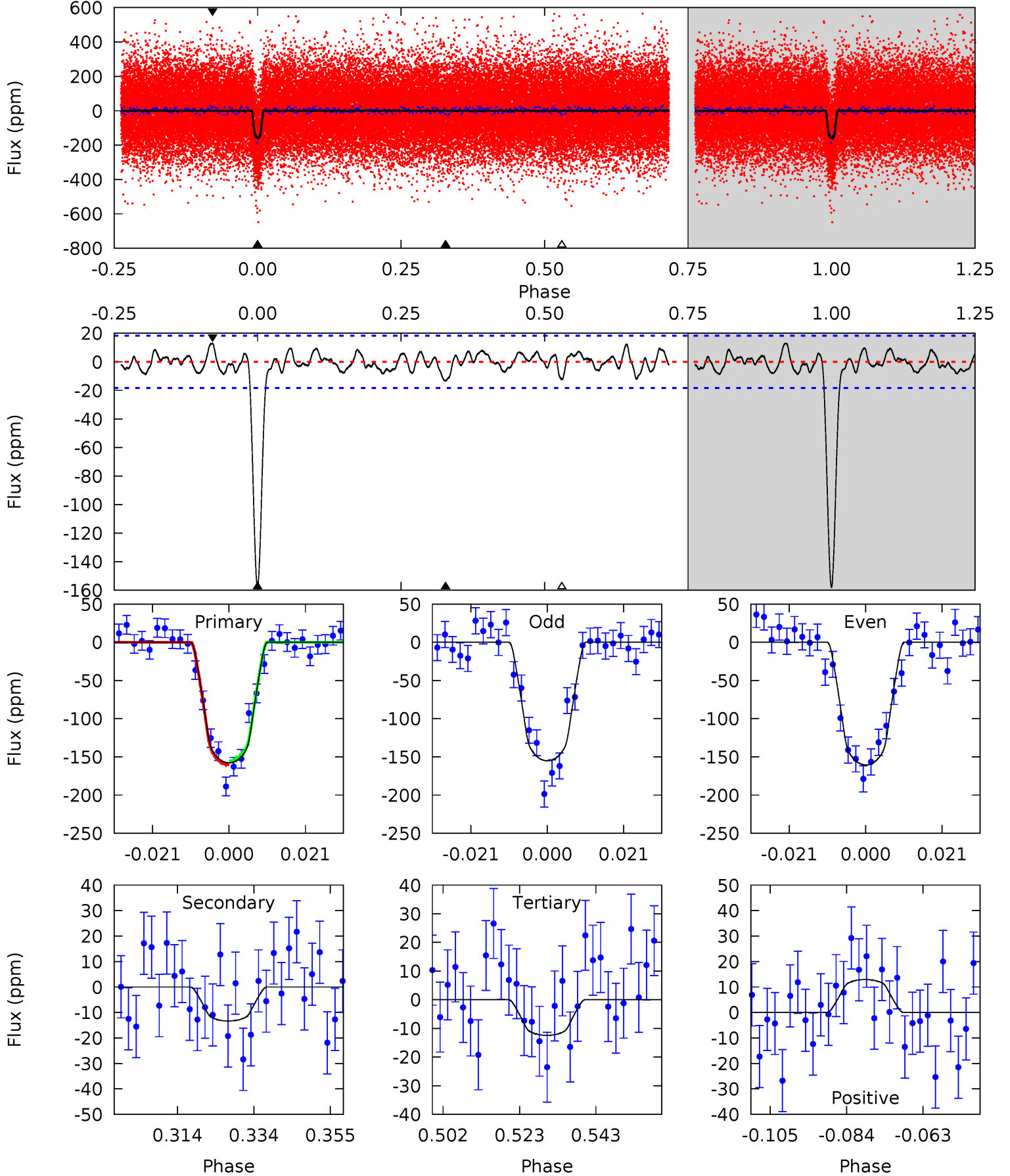
TCE 011197126-02 P= 4.494526 Days $T_0=135.941958$ (BKJD)



DV Model-Shift Uniqueness Test

011197126-02, P = 4.494521 Days, E = 131.448741 Days

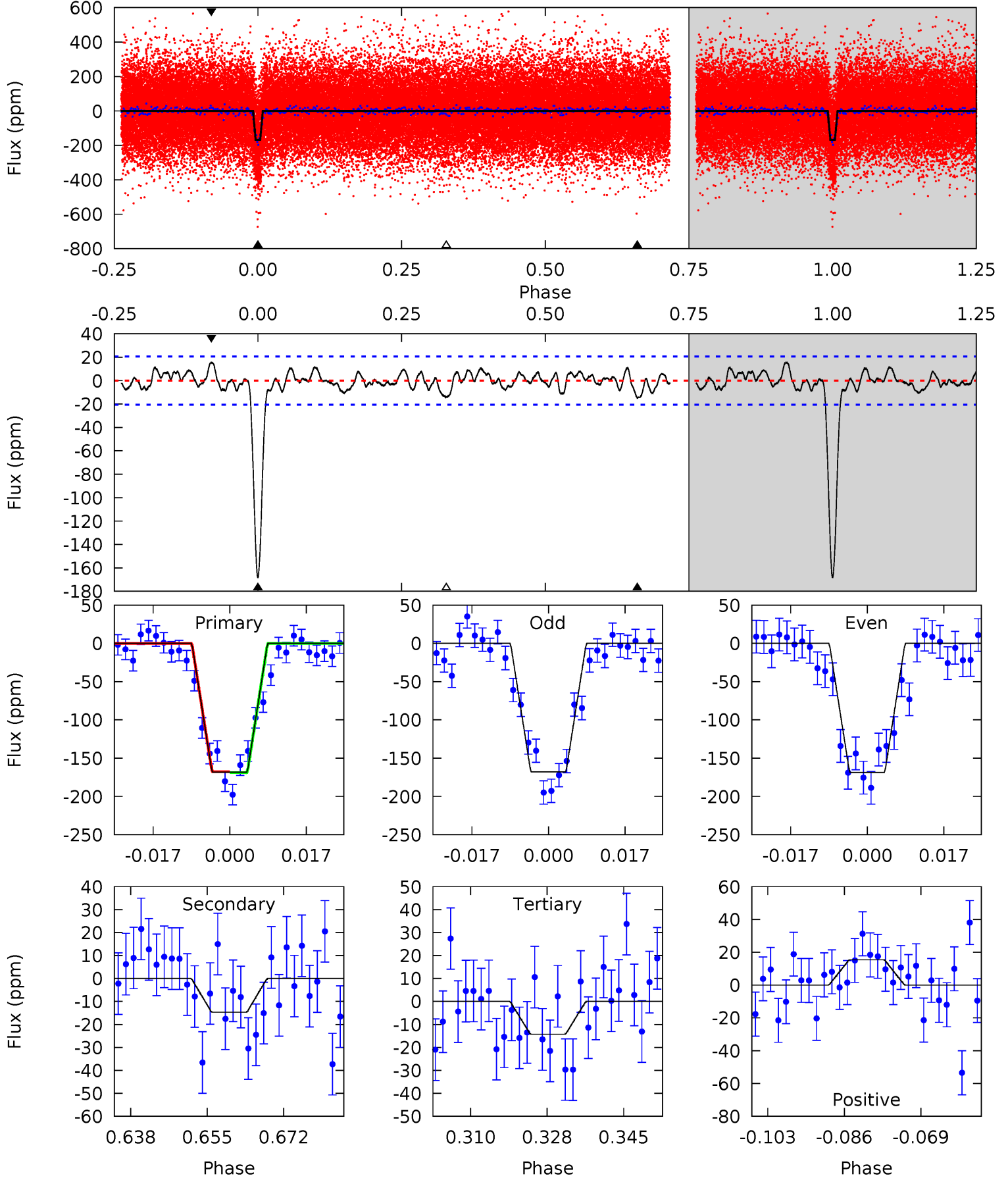
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.2	3.57	3.32	3.46	4.88	2.31	1.32	38.9	38.7	0.25	0.11	0.73	1.03	0.08	0.66



Alt Model-Shift Uniqueness Test

011197126-02, P = 4.494526 Days, E = 131.447432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.3	3.52	3.41	3.69	4.92	2.38	1.35	36.9	36.6	0.10	-0.17	0.08	1.01	0.08	0.16



Stellar Parameters For KIC 011197126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5117^{+124}_{-195}	$3.578^{+0.222}_{-0.148}$	$0.260^{+0.150}_{-0.350}$	$3.403^{+0.609}_{-1.045}$	$1.598^{+0.176}_{-0.565}$	$0.057^{+0.082}_{-0.022}$
	+2%/-4%	+6%/-4%	+58%/-135%	+18%/-31%	+11%/-35%	+144%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011197126-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-13 ± 4	$5.22^{+1.64}_{-1.58}$	2321^{+148}_{-167}	2973^{+396}_{-365}	$1.010^{+1.065}_{-0.470}$
Alt.	-15 ± 4	$4.88^{+1.67}_{-1.50}$	2315^{+145}_{-178}	3107^{+441}_{-369}	$1.265^{+1.438}_{-0.604}$

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

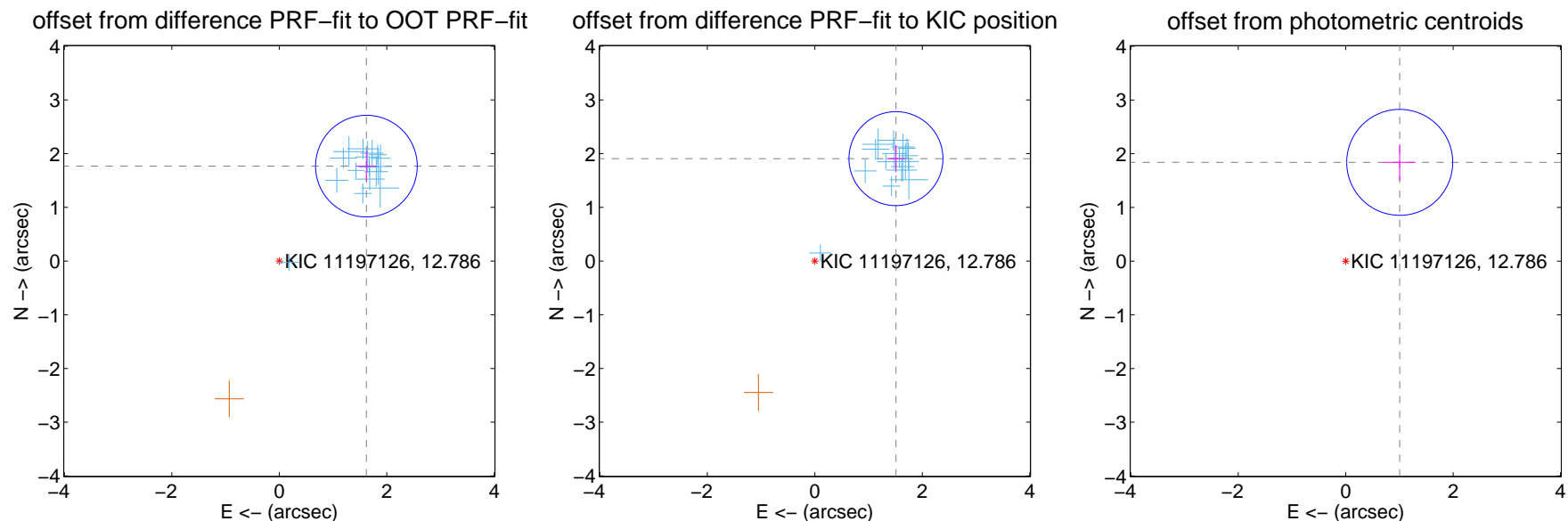
DV Centroid Data

Supplemental centroid analysis for 011197126-02. Kepler magnitude: 12.79. Transit SNR 26.90

There are 16 quarters with good PRF difference image offsets

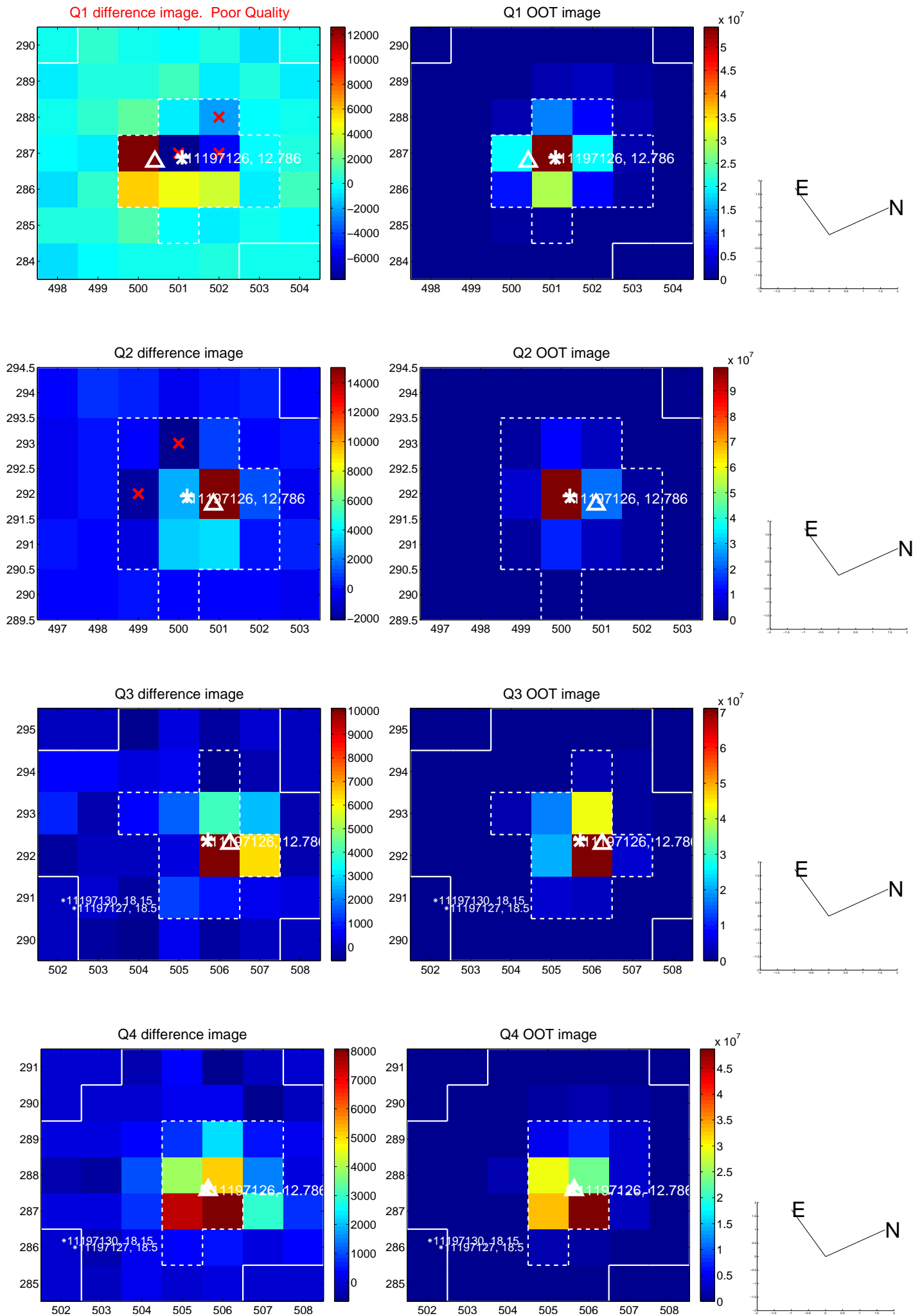
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.398 ± 0.315	7.60	-1.621 ± 0.183	1.767 ± 0.278
PRF-fit source offset from KIC position	2.432 ± 0.292	8.34	-1.510 ± 0.173	1.906 ± 0.253
photometric centroid source offset	2.10 ± 0.33	6.37	-1.01 ± 0.29	1.84 ± 0.34

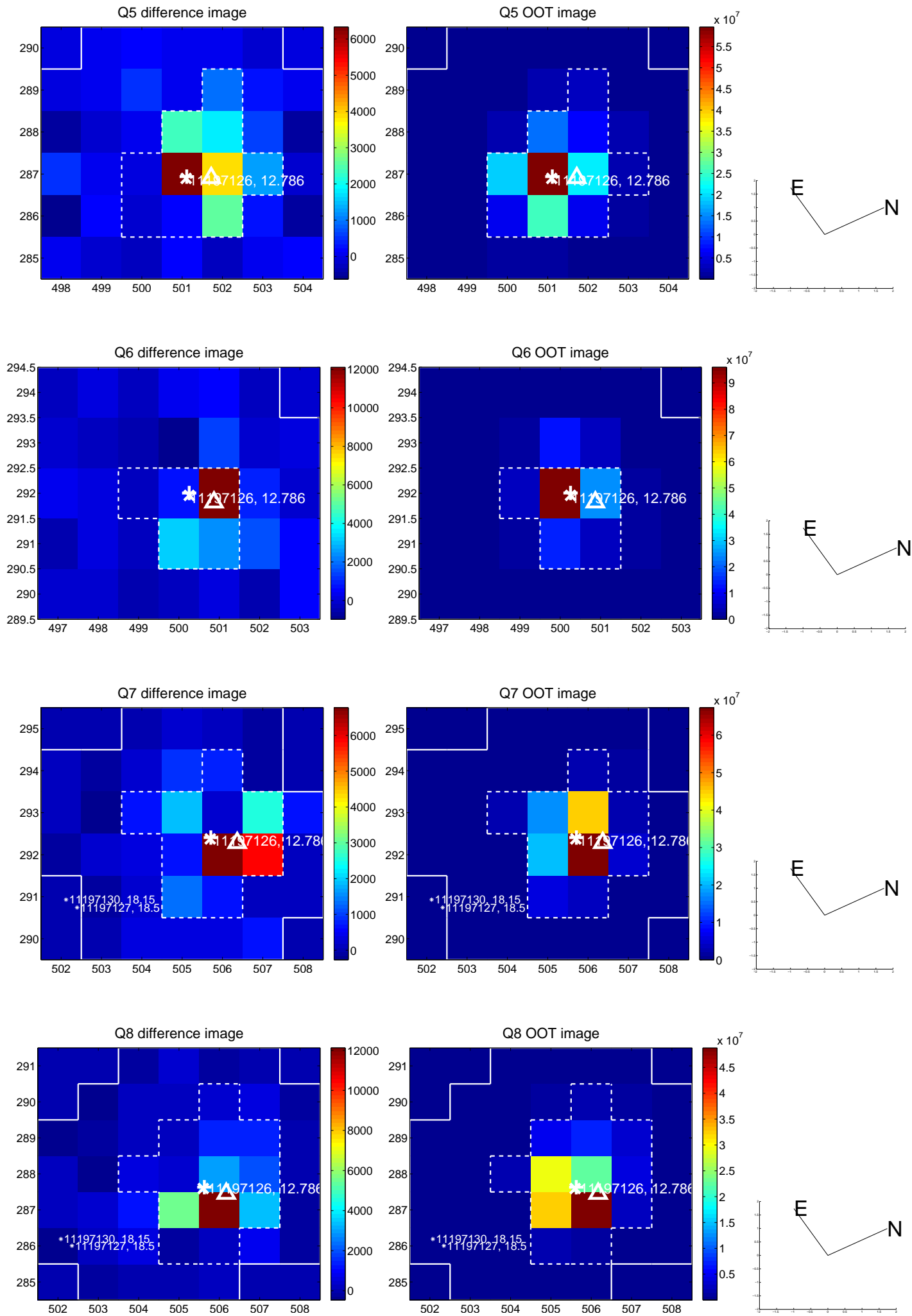


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

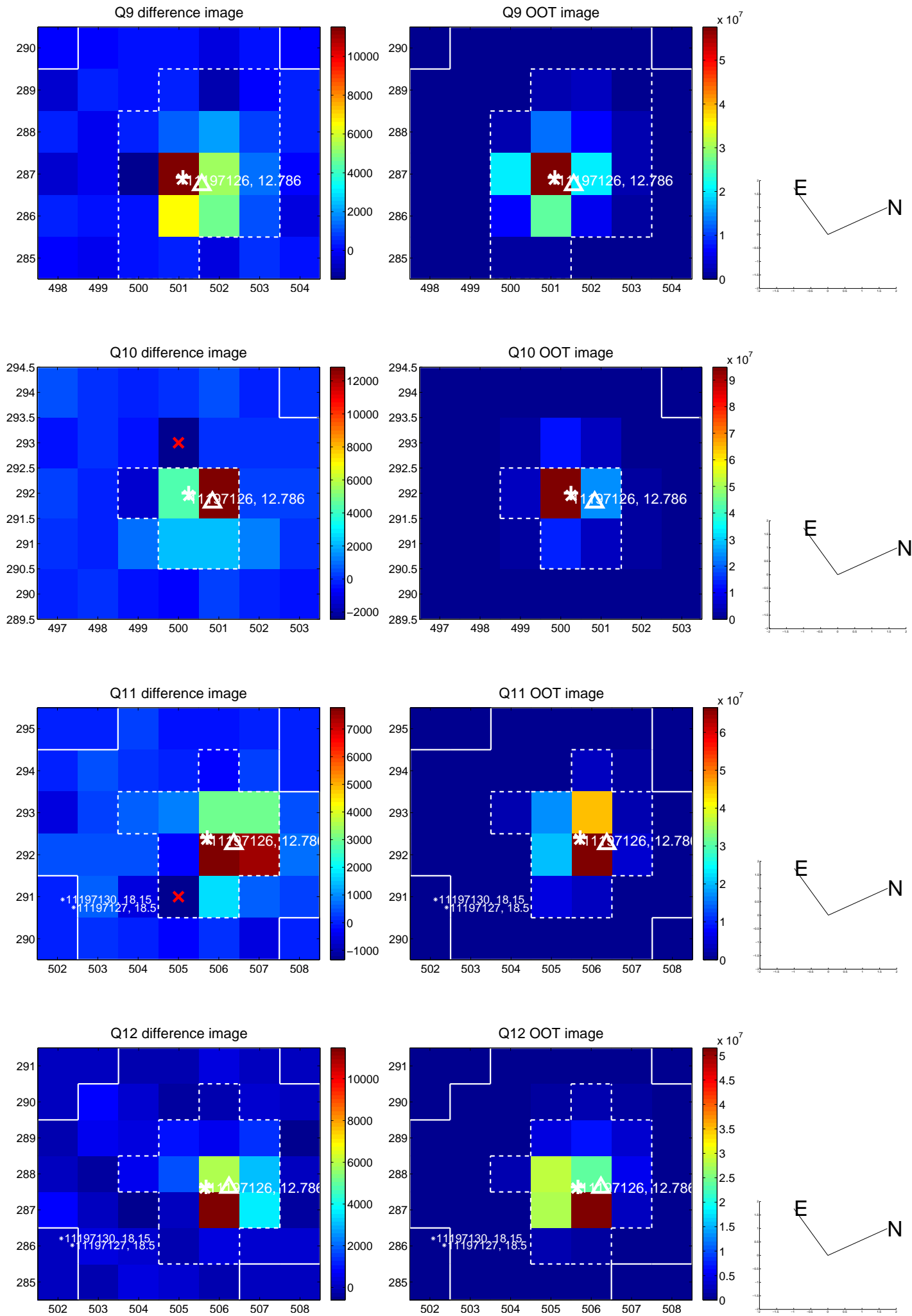
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



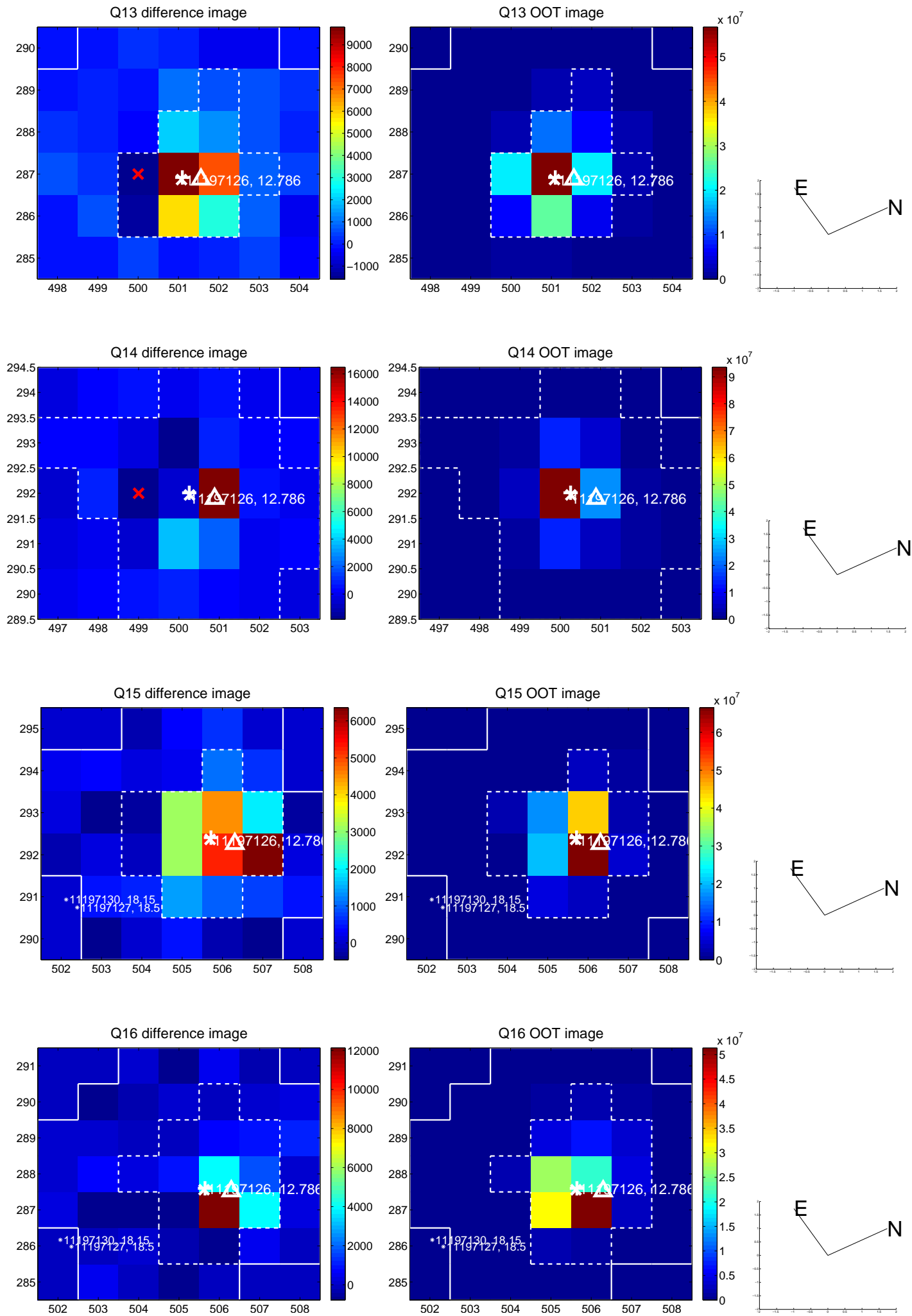
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



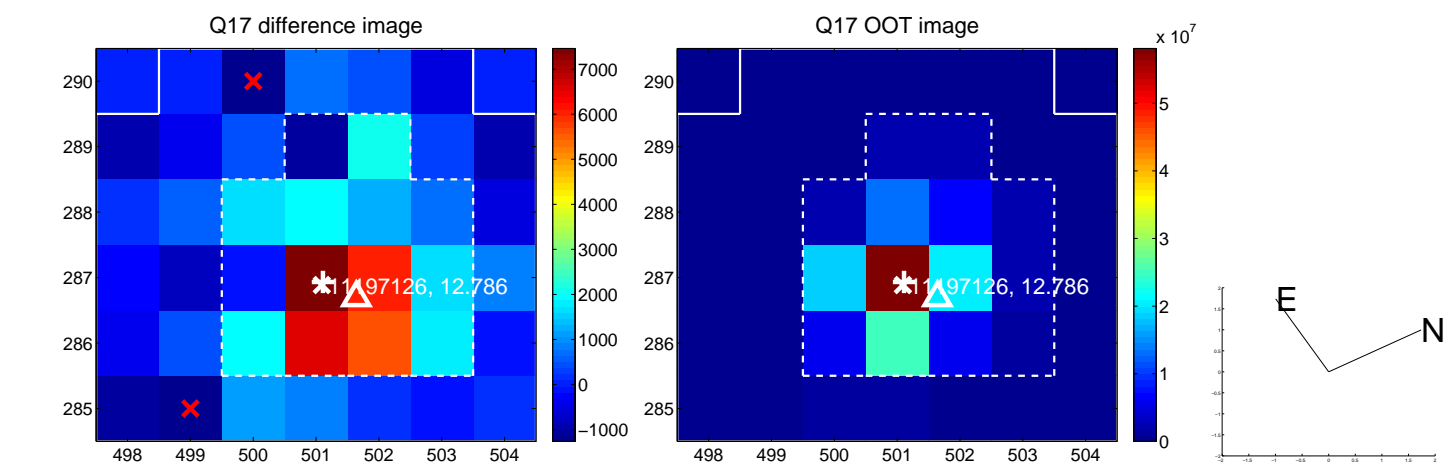
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



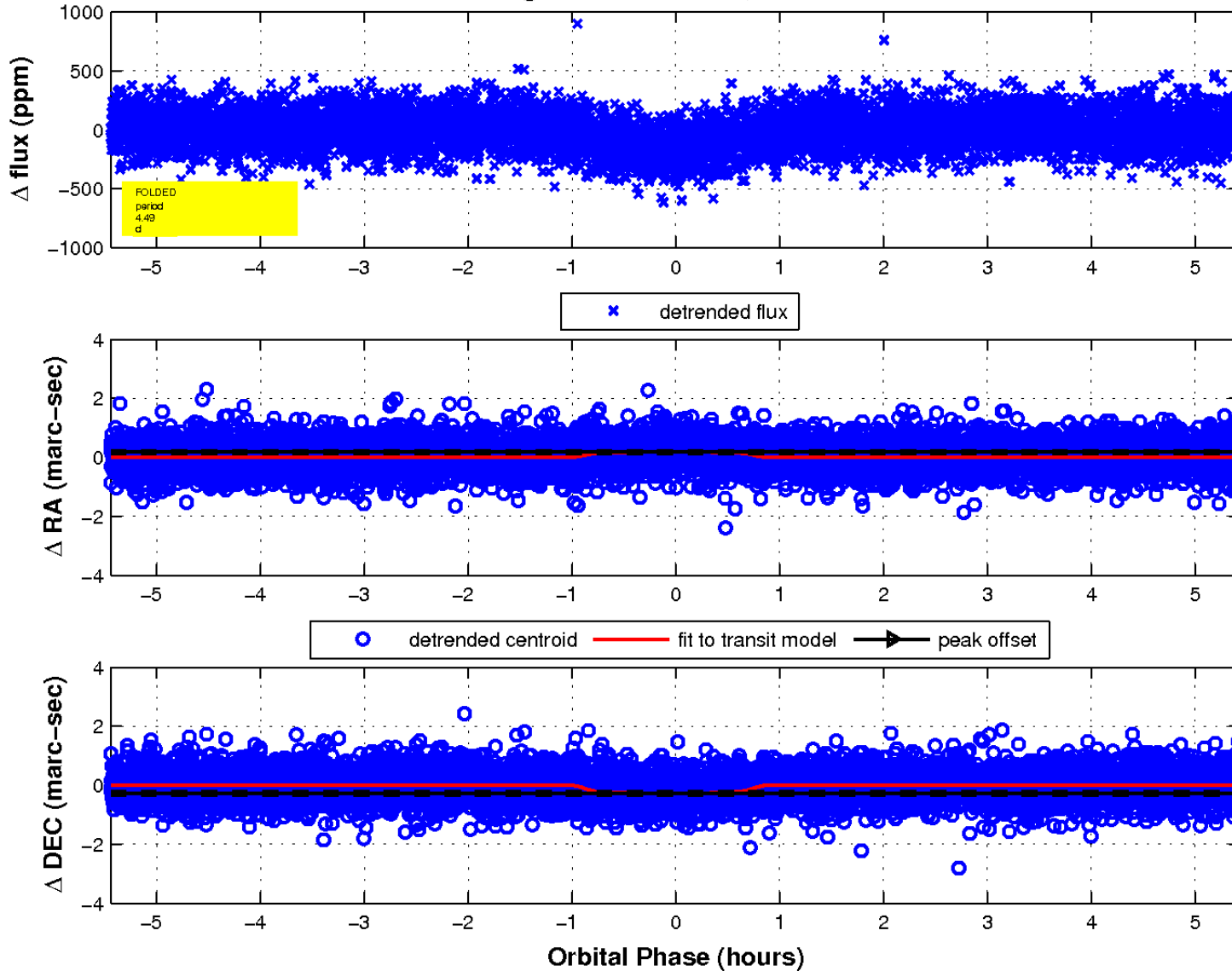
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

Declination

