

KIC 011182260

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})
011182260-01	OBS	7415.01	1.291972	132.635169	770.4	1.519	72.5	25.2	0.64	4995	1.78	576.21
011182260-02	OBS	No	1.292000	132.547957	333.0	10.951	14.1	5.3	0.64	4995	1.18	576.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011182260-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS
011182260-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS

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

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

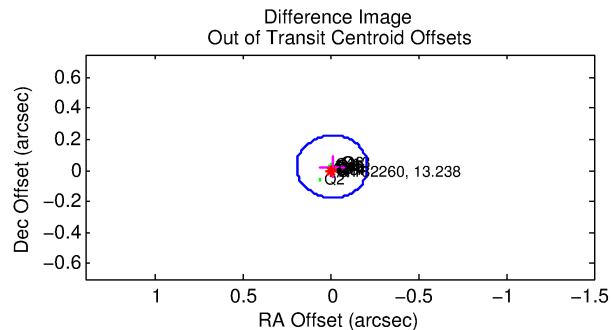
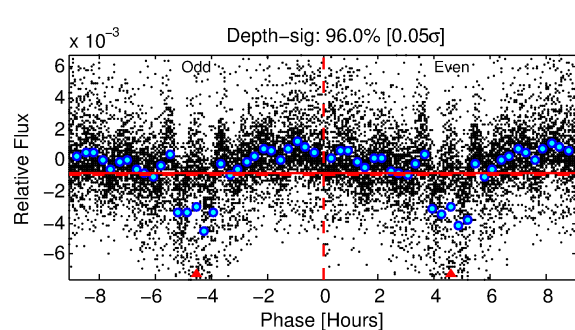
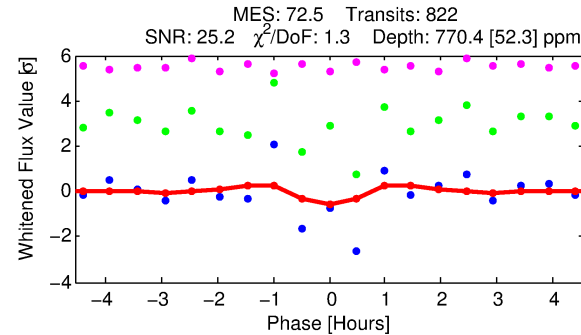
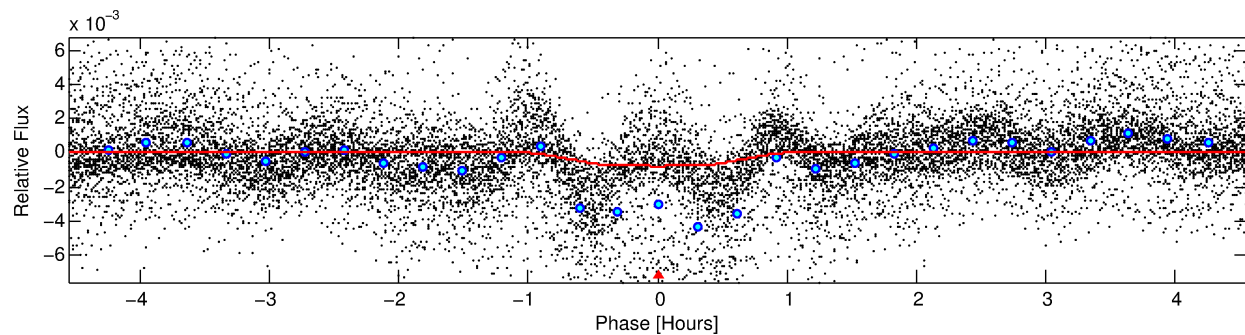
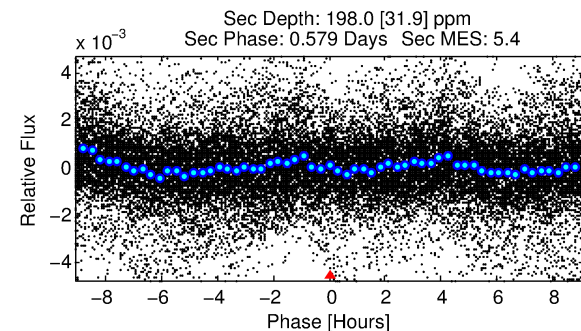
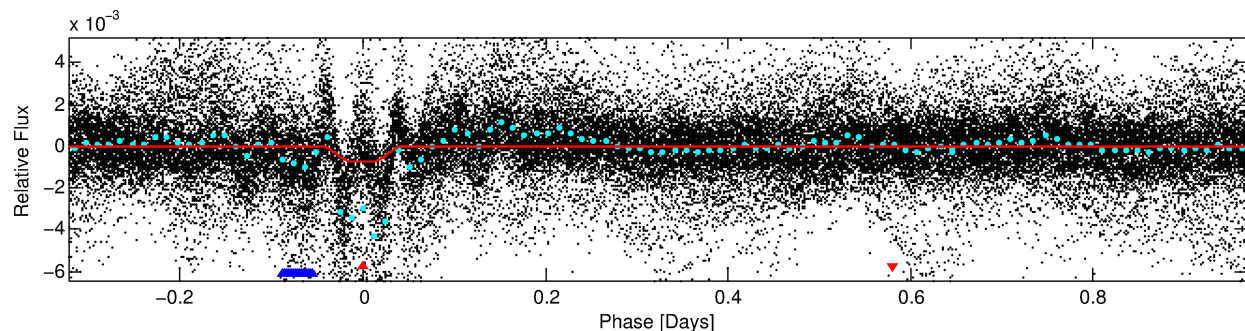
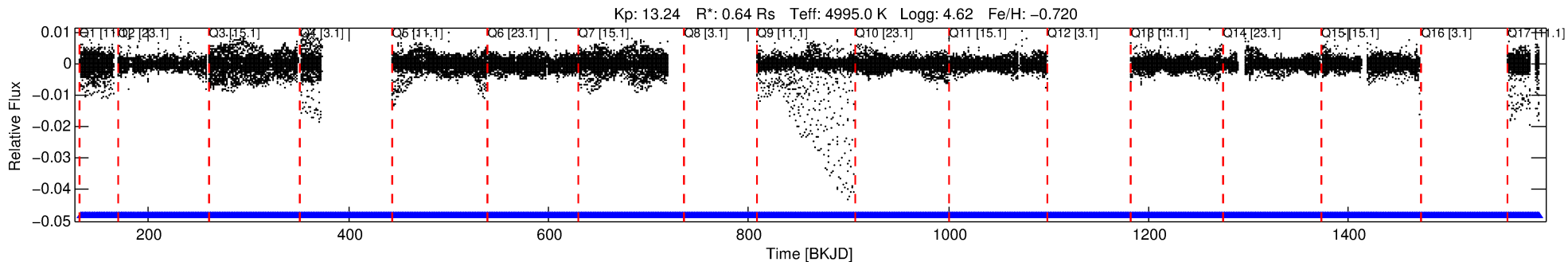
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011182260-01

No Significant Match Found

DV One-Page Summary

KIC: 11182260 Candidate: 1 of 2 Period: 1.292 d
KOI: K07415.01 Corr: 0.905



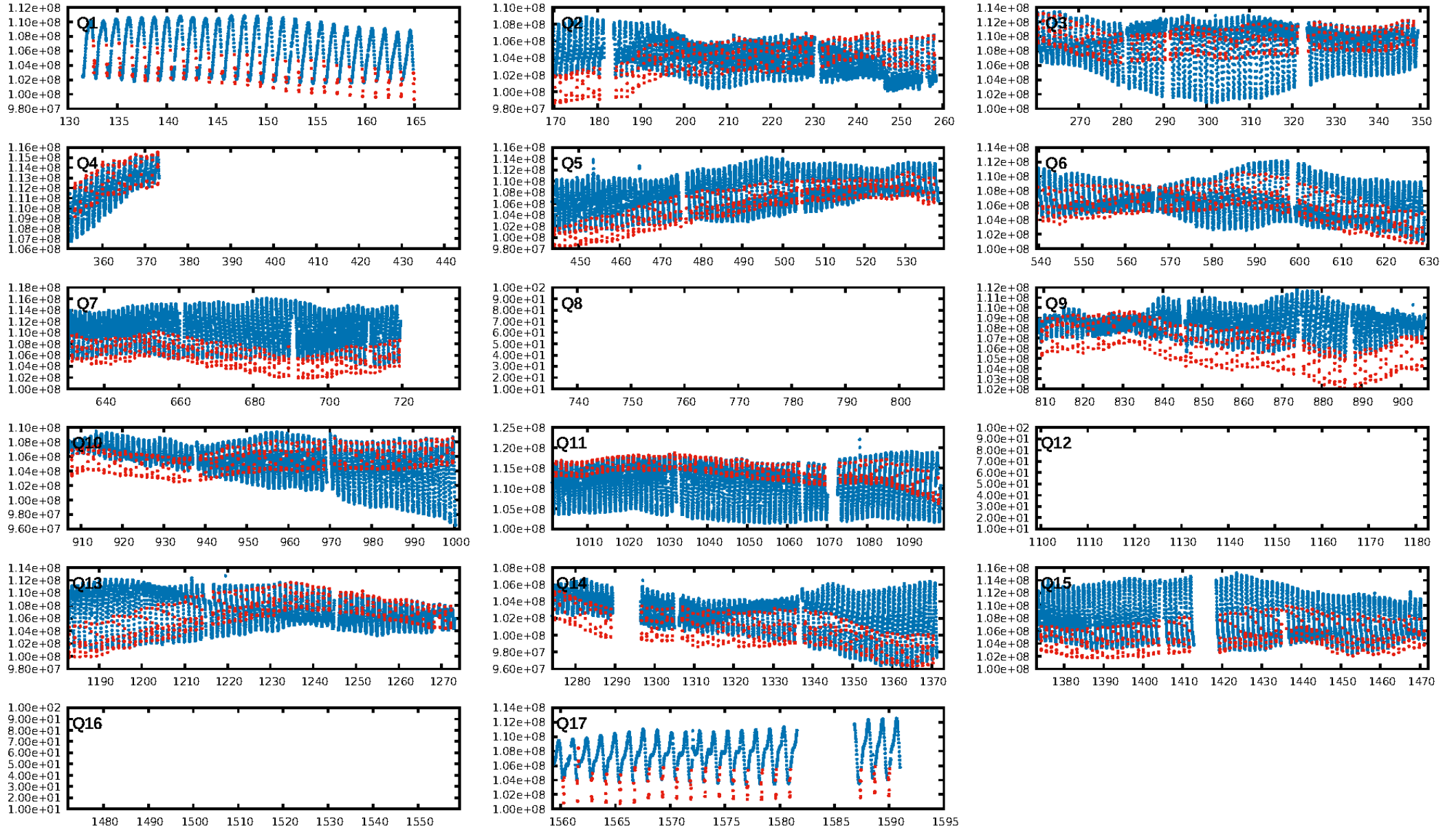
DV Fit Results:

Period = 1.29197 [0.00000] d
Epoch = 132.6352 [0.0008] BKJD
Rp/R* = 0.0256 [0.0106]
a/R* = 6.09 [9.26]
b = 0.43 [3.02]
Seff = 576.21 [99.33]
Teff = 1249 [54] K
Rp = 1.78 [0.76] Re
a = 0.0198 [0.0016] AU
Ag = 13.50 [11.55] [1.08σ]
Teffp = 3702 [791] K [3.09σ]

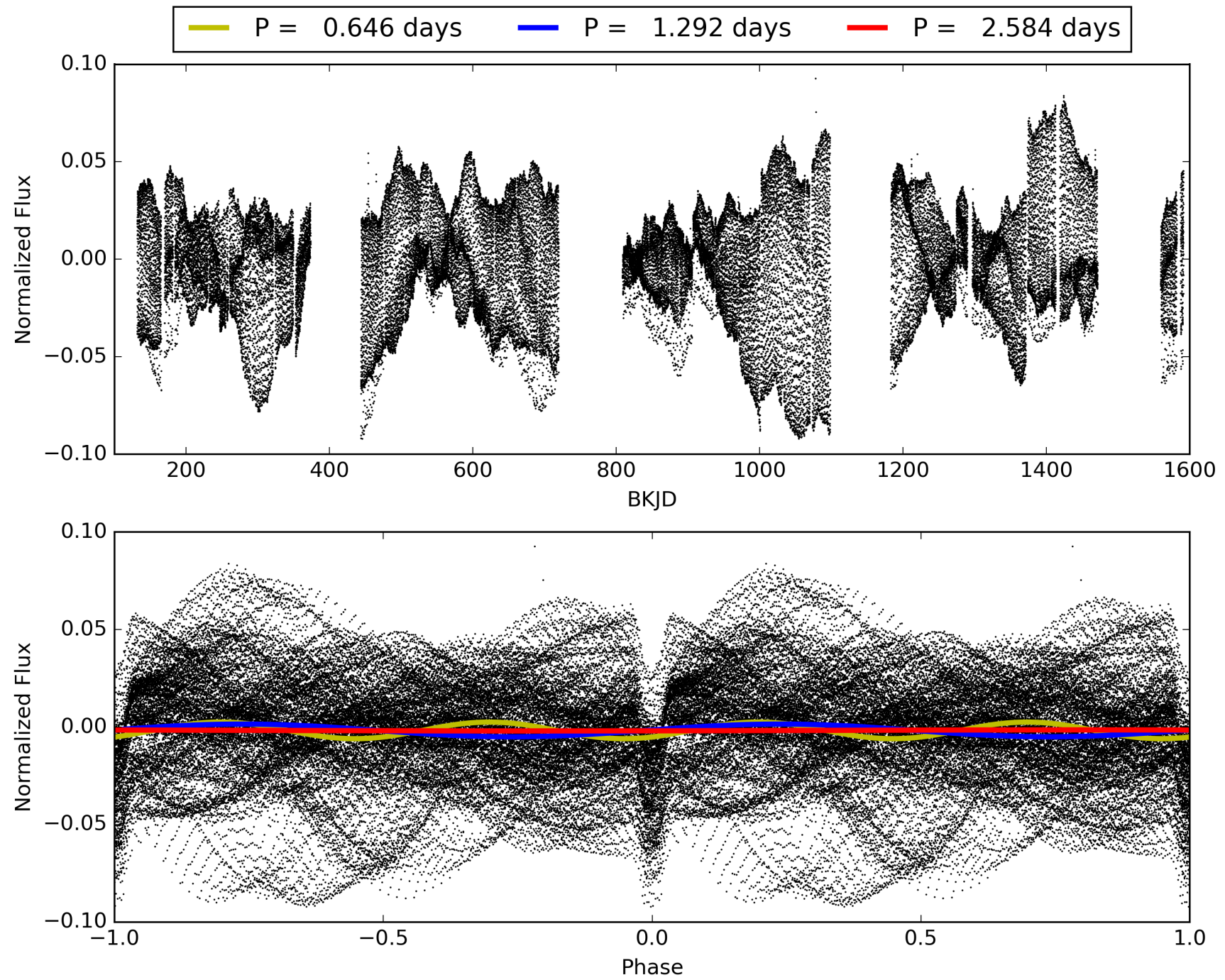
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [760/760]
GhostDiagnostic-chr: 1.061
Centroid-sig: 0.0%
Centroid-so: 1.366 arcsec [22.92σ]
OotOffset-rm: 0.026 arcsec [0.38σ]
KicOffset-rm: 0.450 arcsec [6.46σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 011182260-01, PDC Light Curves

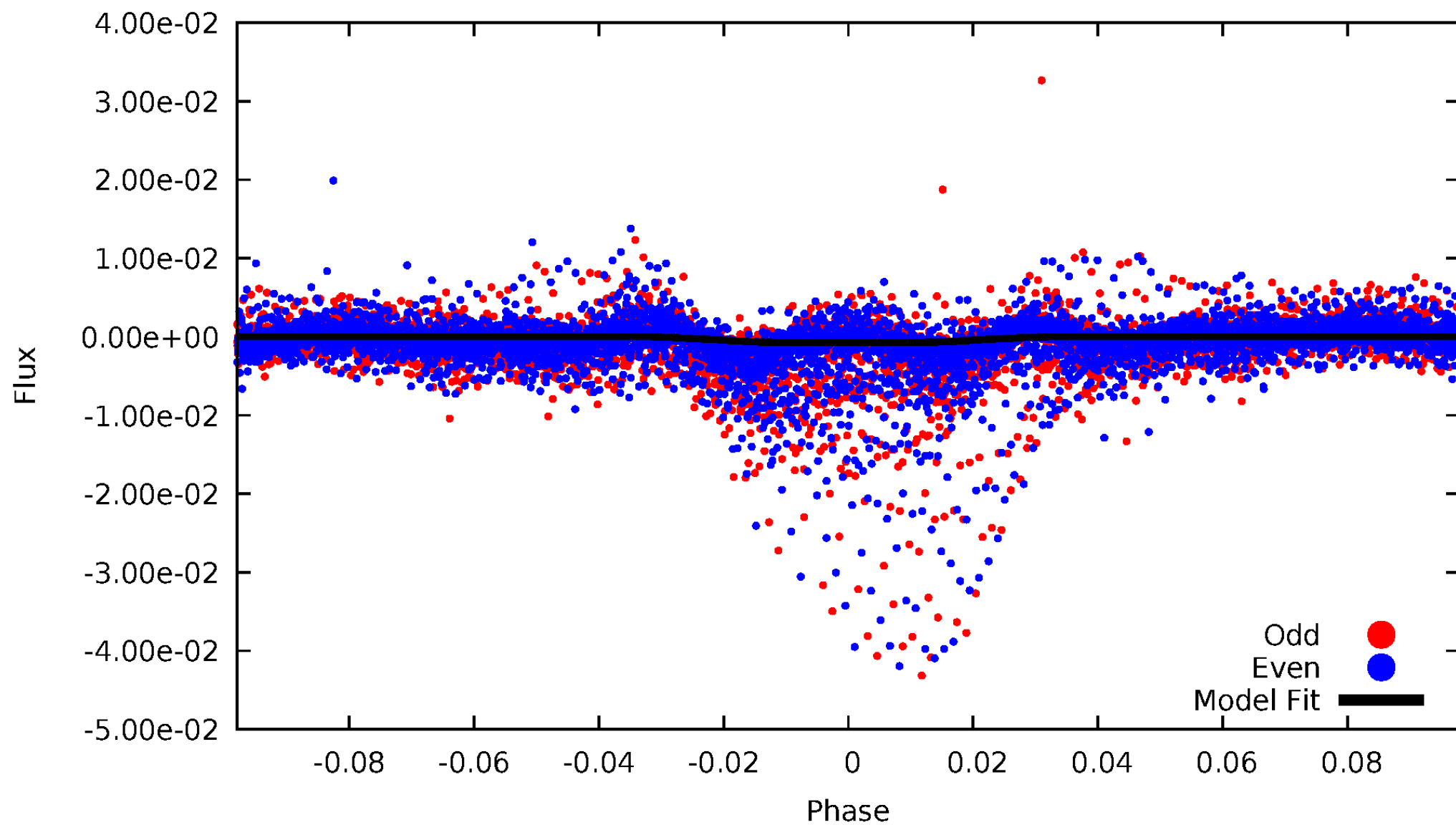


TCE 011182260-01



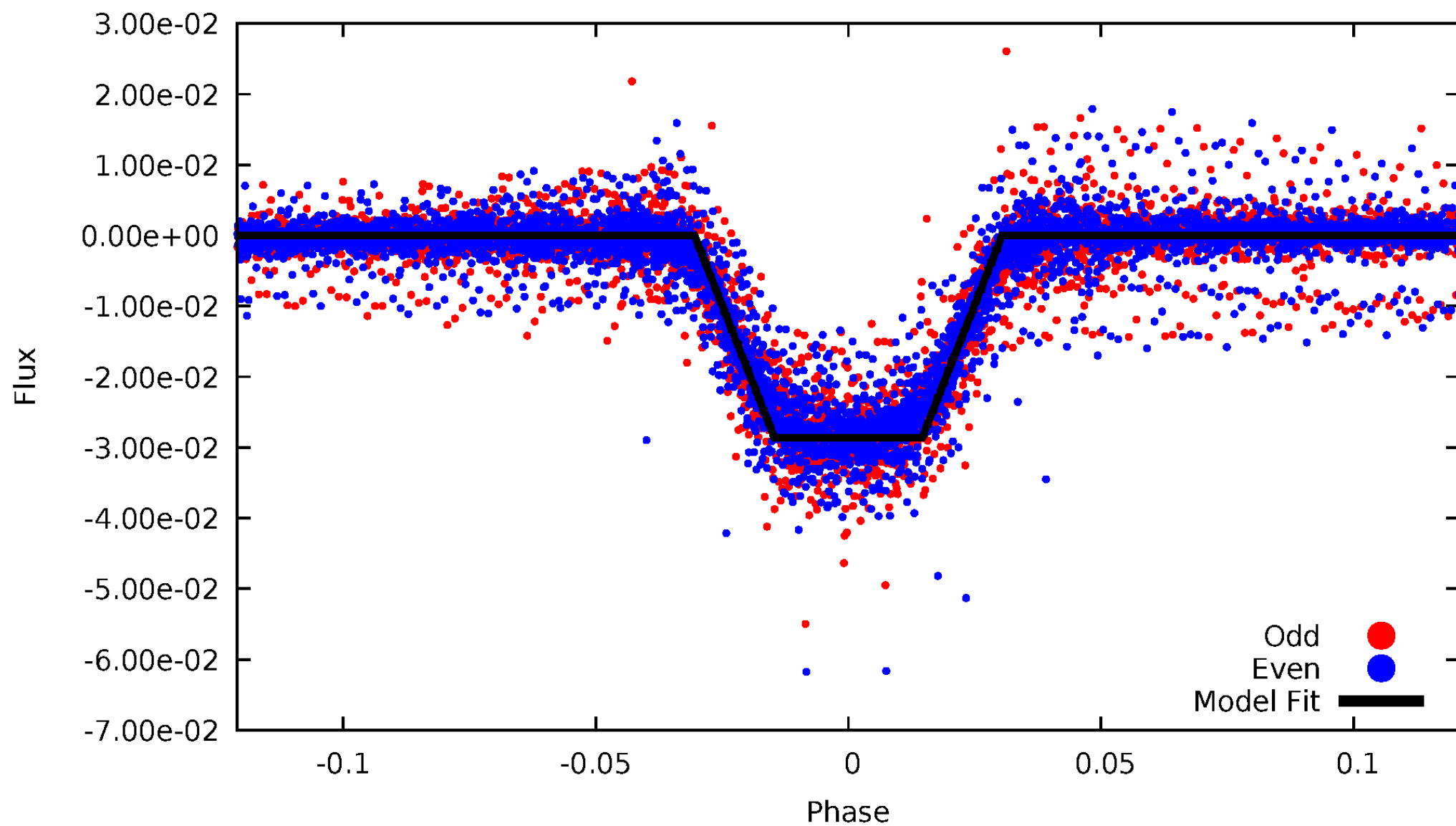
DV Odd/Even

TCE 011182260-01



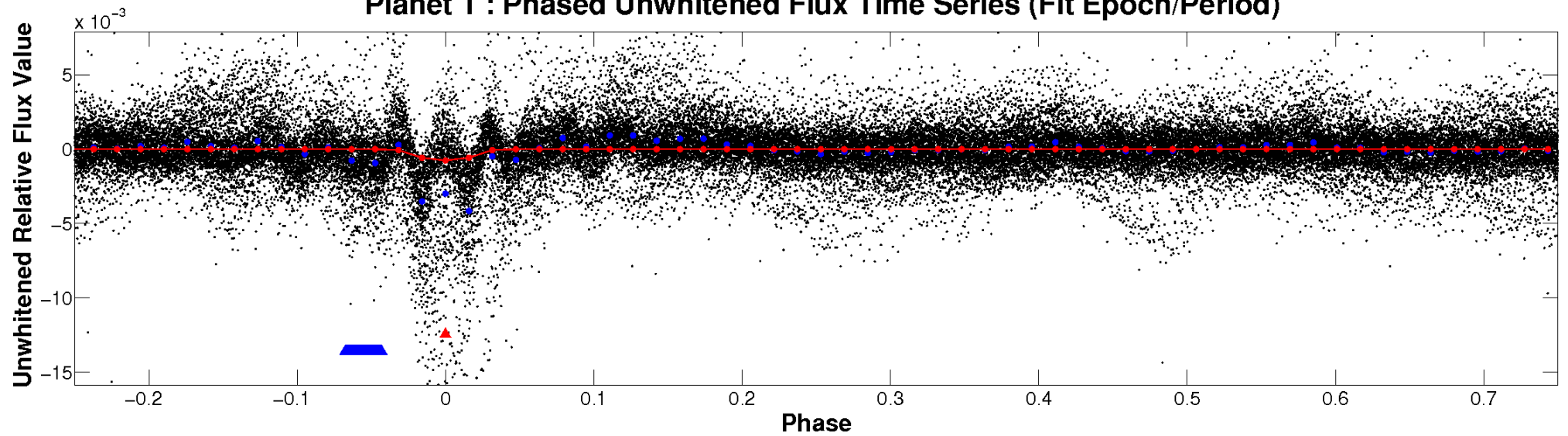
ALT Odd/Even

TCE 011182260-01

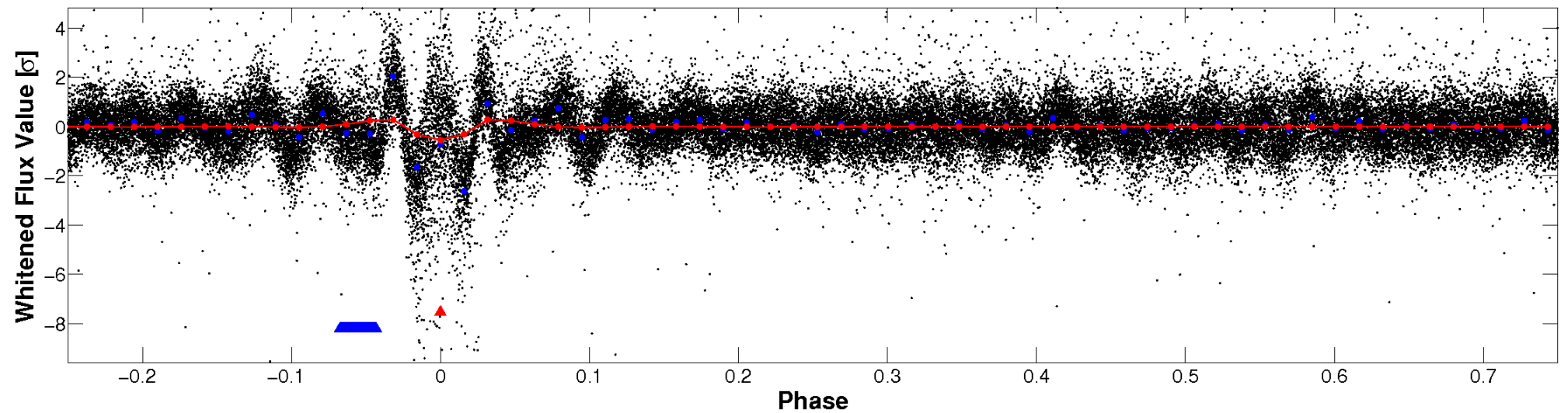


Non-Whitened Vs. Whitened Light Curve

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

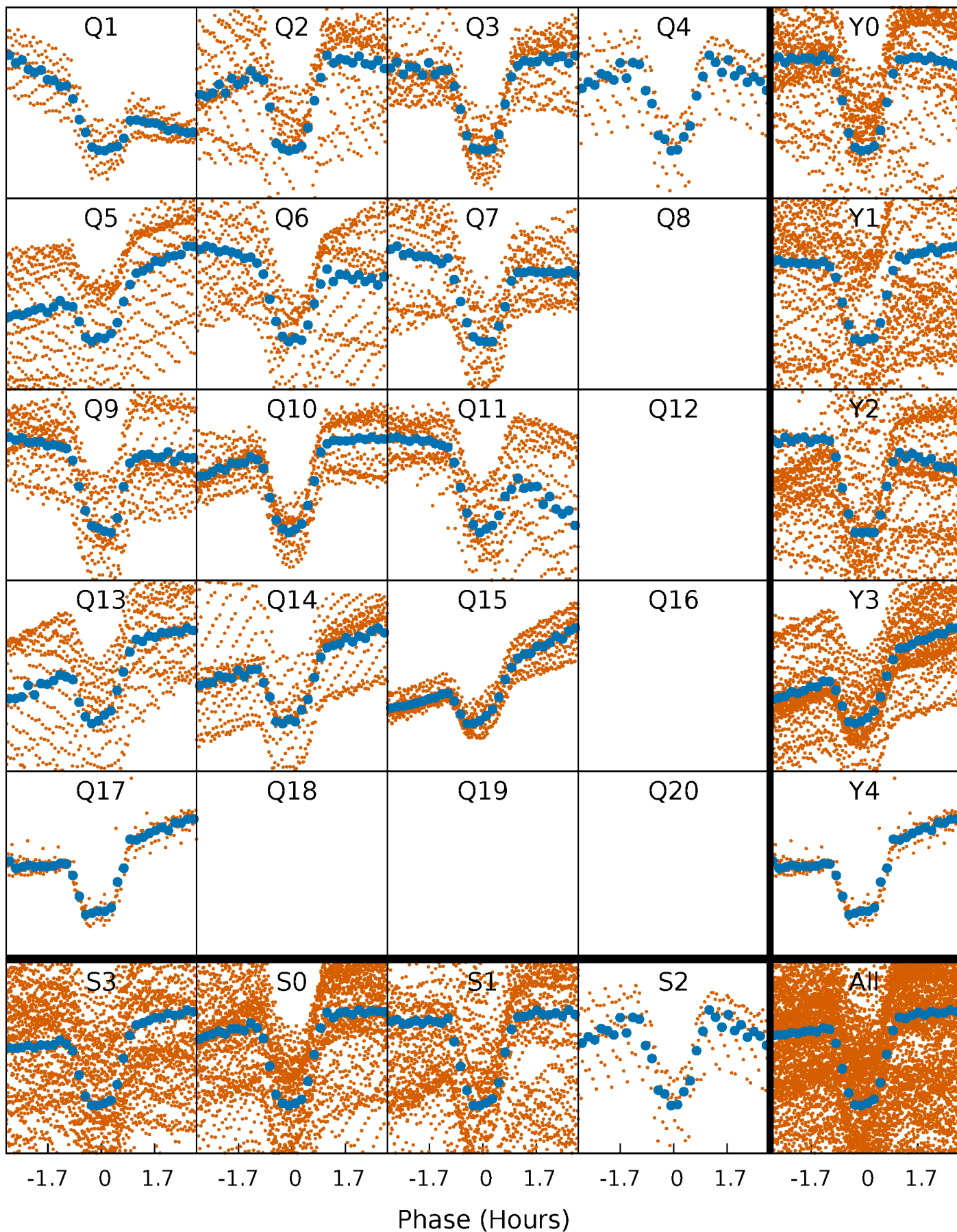


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



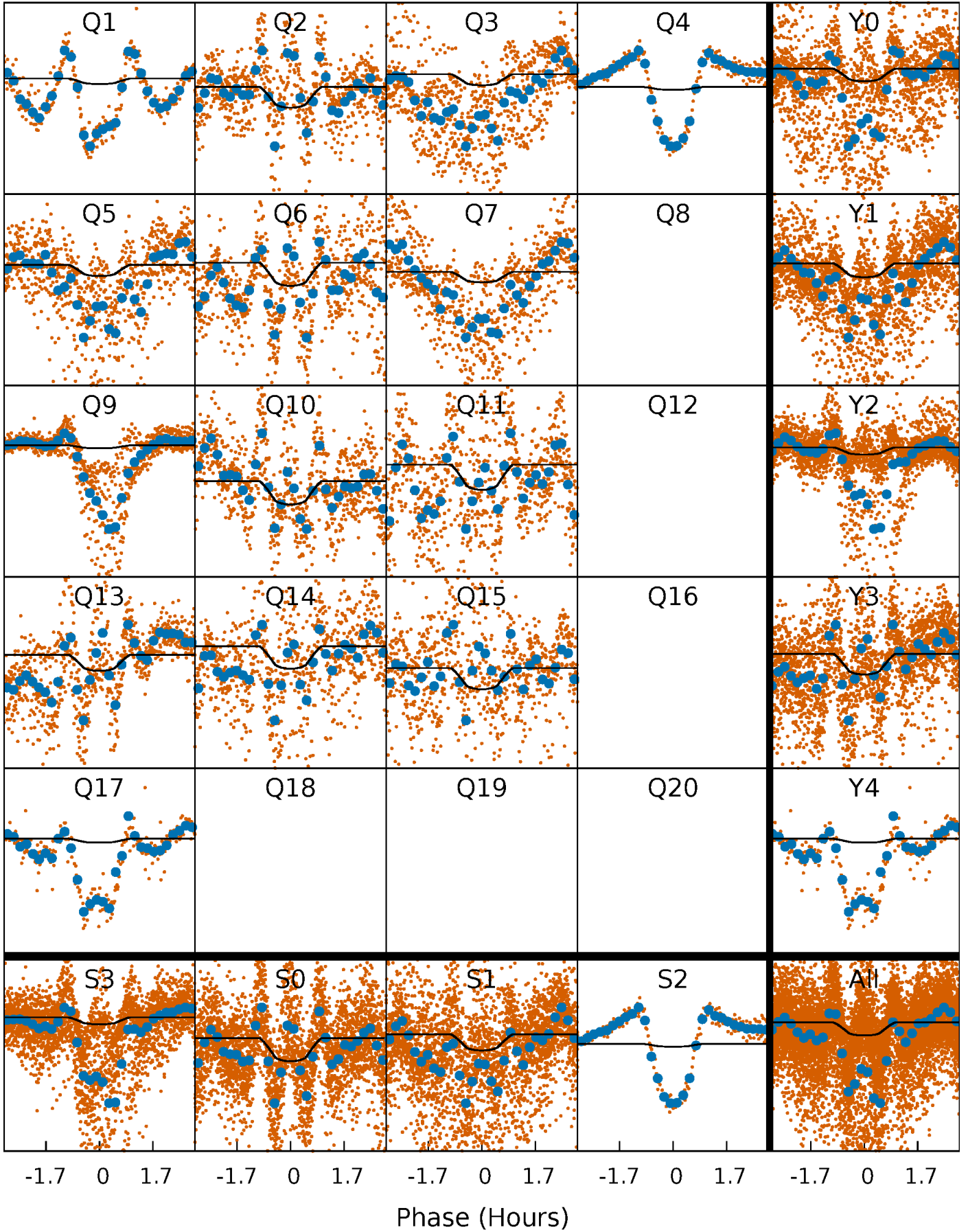
PDC Quarter-Phased Transit Curves

TCE 011182260-01 P= 1.291972 Days $T_0=132.635169$ (BKJD)



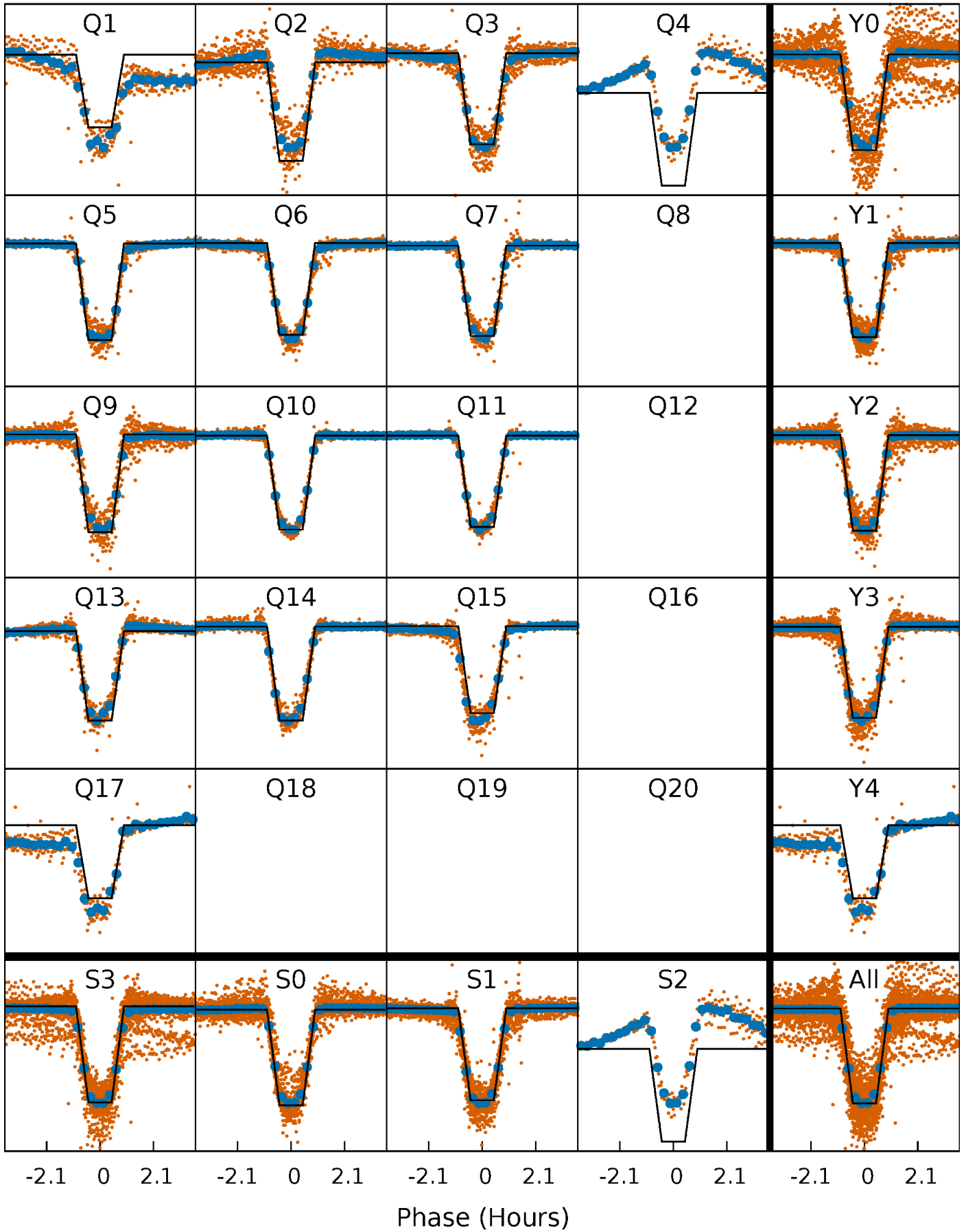
DV Quarter-Phased Transit Curves

TCE 011182260-01 P= 1.291972 Days $T_0=132.635169$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

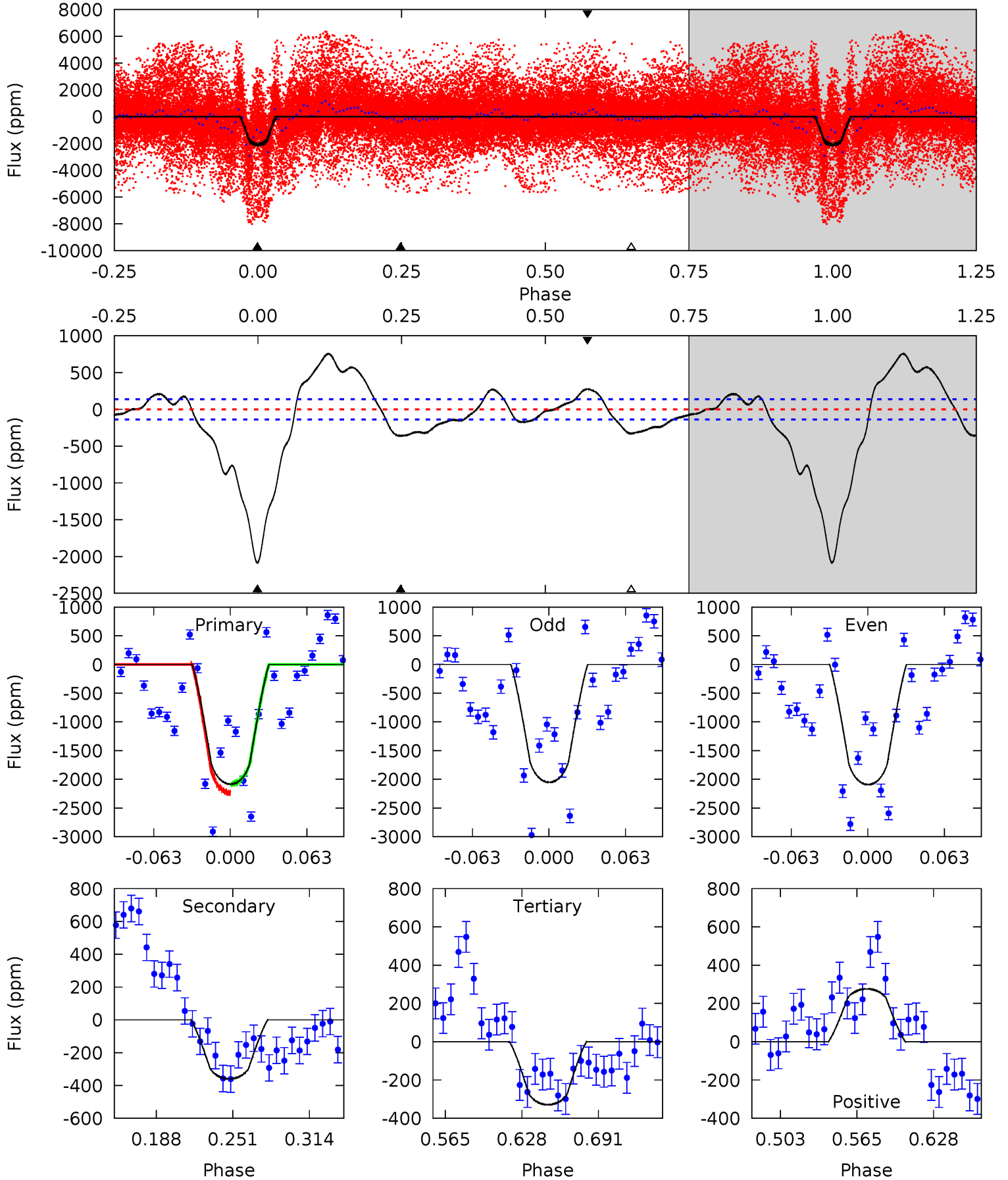
TCE 011182260-01 P= 1.291974 Days $T_0=132.633584$ (BKJD)



DV Model-Shift Uniqueness Test

011182260-01, P = 1.291972 Days, E = 131.343197 Days

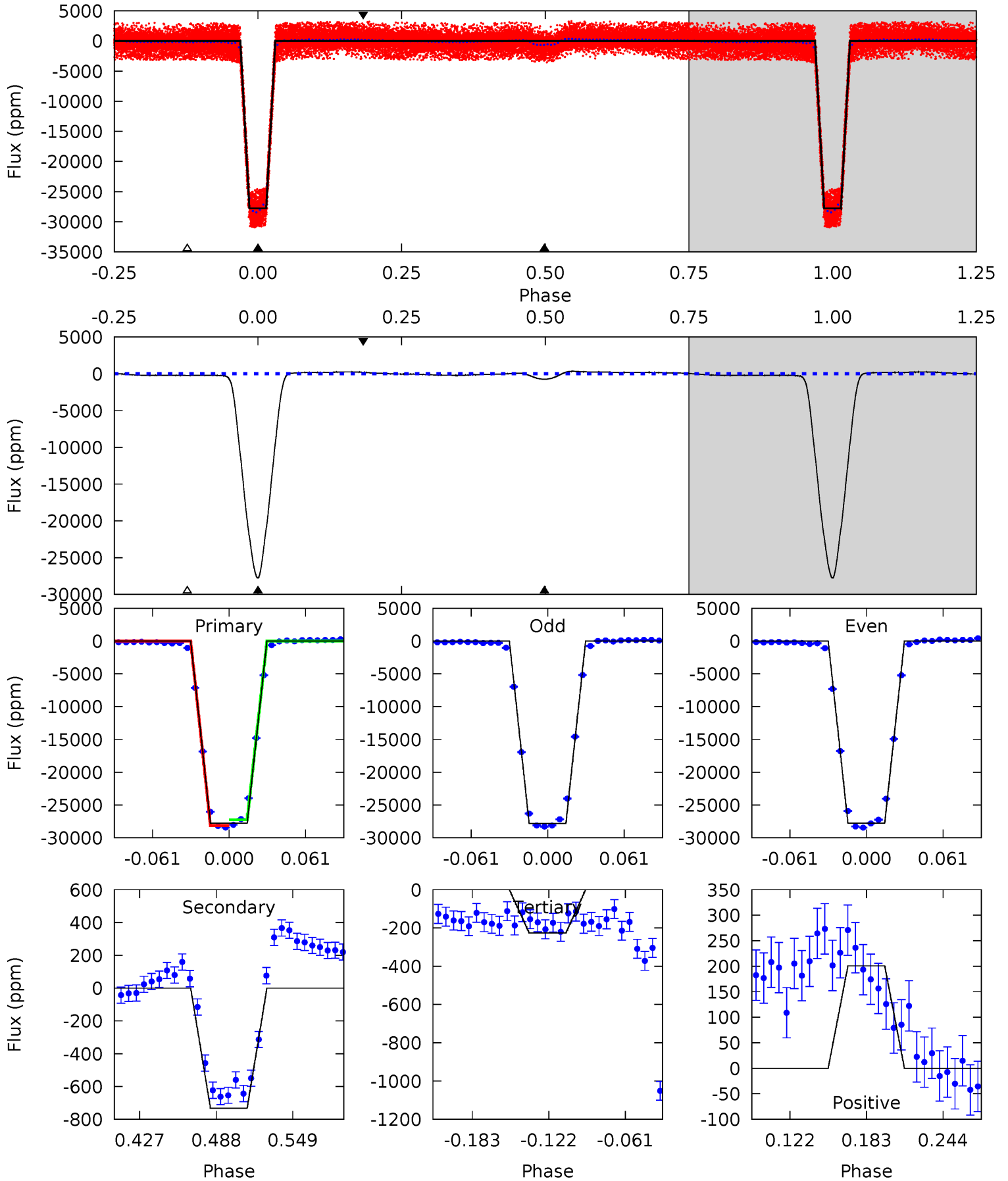
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.4	12.1	11.1	9.31	4.66	1.86	9.34	59.3	61.1	1.02	2.82	0.69	2.07	0.27	2.65



Alt Model-Shift Uniqueness Test

011182260-01, P = 1.291974 Days, E = 131.341610 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1433	37.7	11.6	10.4	4.67	1.87	8.98	1421	1423	26.1	27.4	1.01	1.00	0.01	22.7



Stellar Parameters For KIC 011182260

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4995^{+134}_{-149}	$4.624^{+0.070}_{-0.040}$	$-0.720^{+0.300}_{-0.300}$	$0.638^{+0.060}_{-0.060}$	$0.625^{+0.066}_{-0.031}$	$3.386^{+0.925}_{-0.546}$
	+3%/-3%	+2%/-1%	+42%/-42%	+9%/-9%	+11%/-5%	+27%/-16%
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 011182260-01 / KOI 7415.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-359 ± 30	$1.75^{+0.76}_{-0.67}$	1736^{+58}_{-63}	4408^{+1035}_{-530}	26^{+41}_{-13}
Alt.	-732 ± 19	$11.69^{+0.97}_{-0.98}$	1735^{+63}_{-63}	2632^{+75}_{-74}	$1.169^{+0.221}_{-0.158}$

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

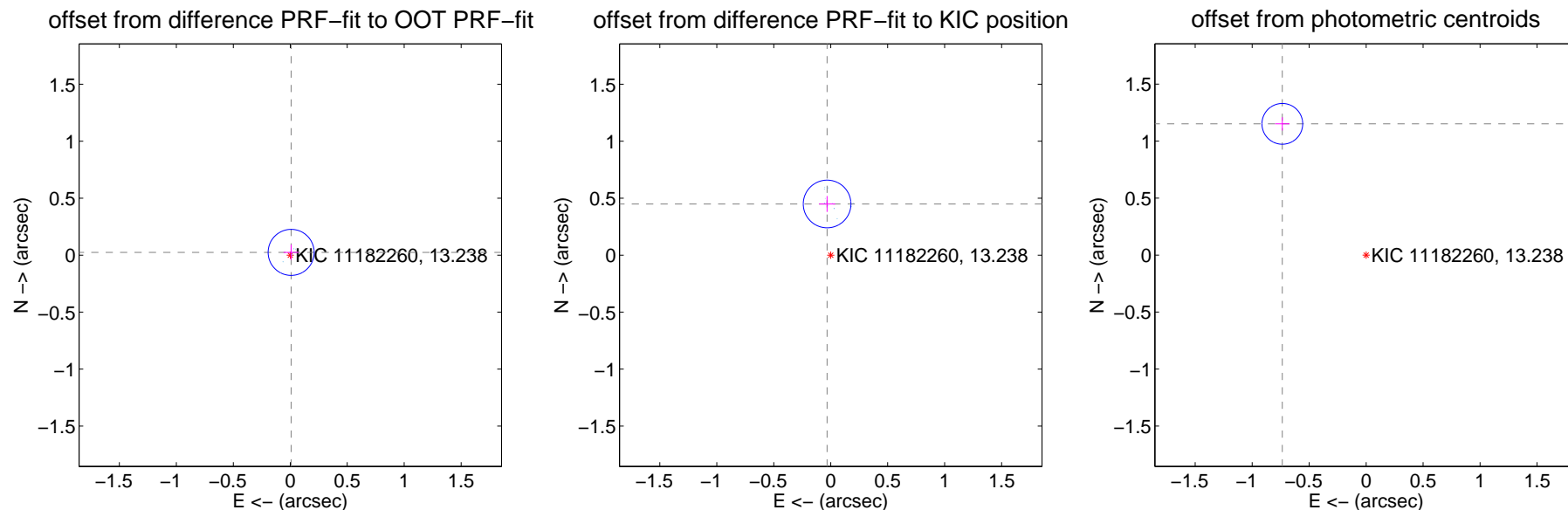
DV Centroid Data

Supplemental centroid analysis for 011182260-01. Kepler magnitude: 13.24. Transit SNR 25.18

There are 14 quarters with good PRF difference image offsets

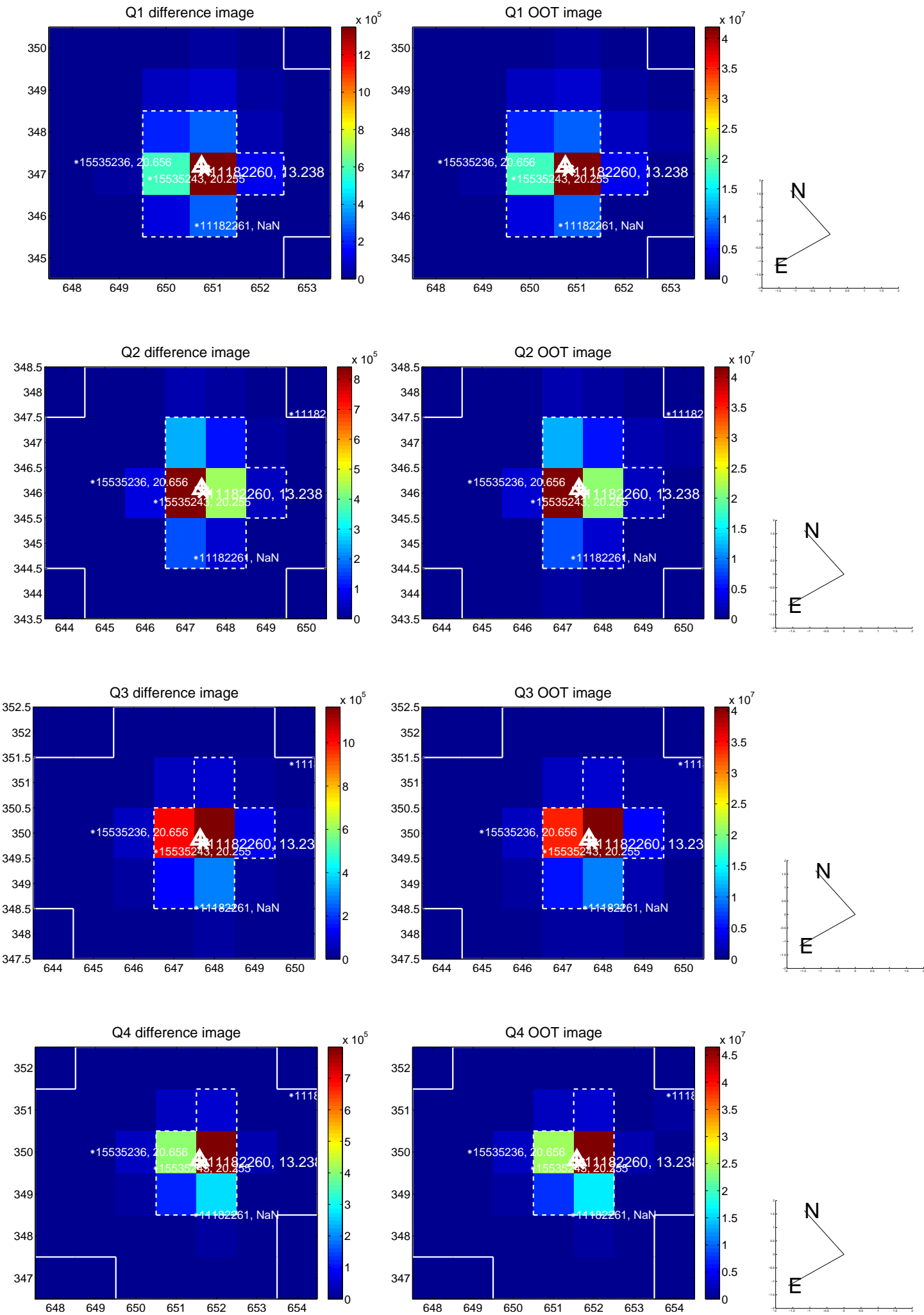
The direct PRF centroid is offset from the target star catalog position by about 0.58 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.026 ± 0.067	0.38	-0.008 ± 0.067	0.024 ± 0.067
PRF-fit source offset from KIC position	0.450 ± 0.070	6.46	0.032 ± 0.071	0.449 ± 0.070
photometric centroid source offset	1.37 ± 0.06	22.92	0.74 ± 0.06	1.15 ± 0.06

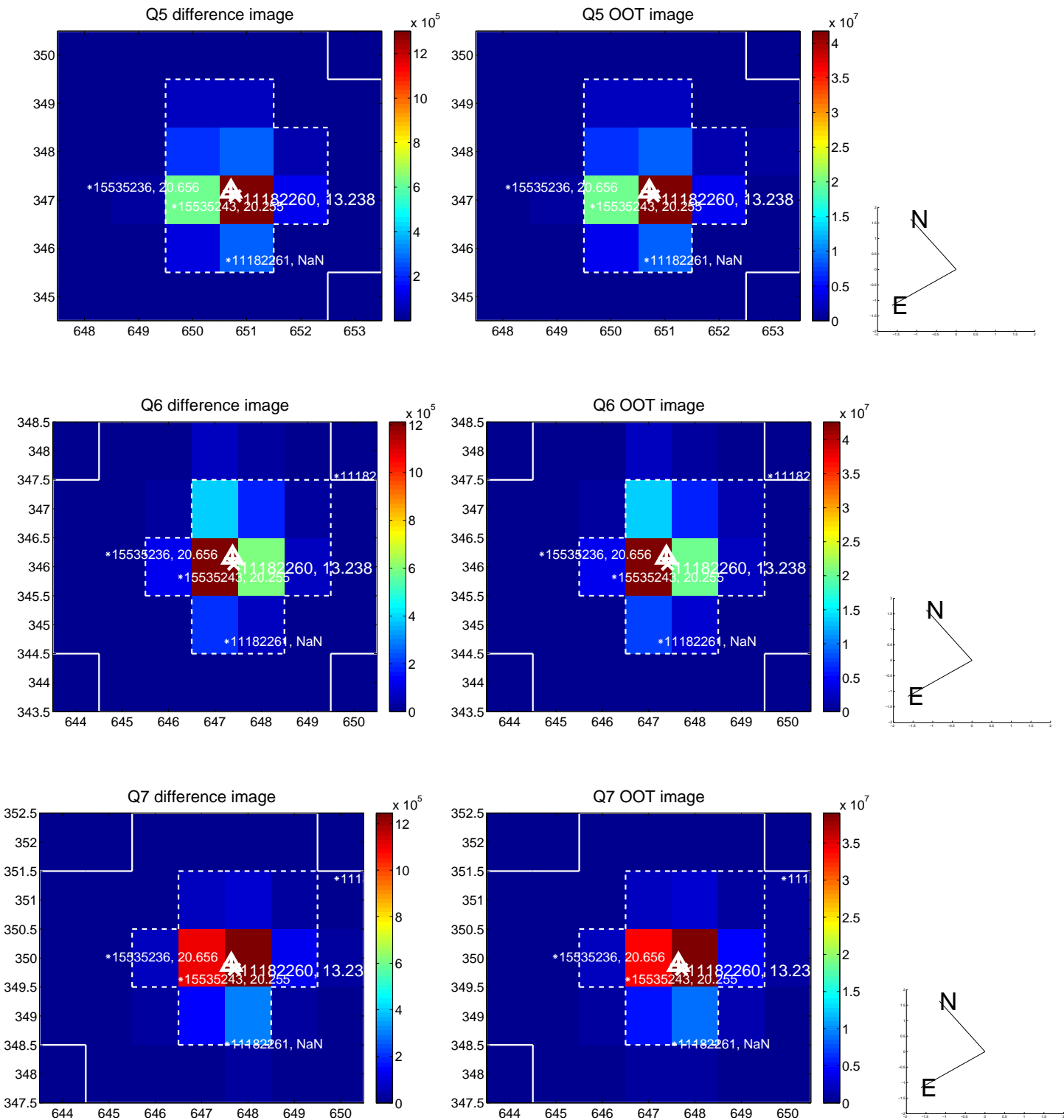


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

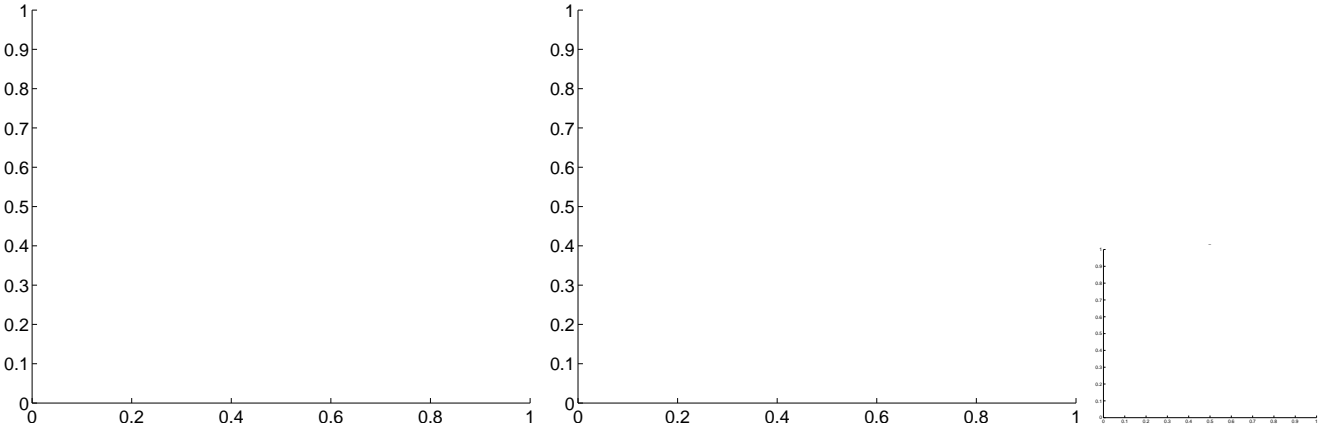


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

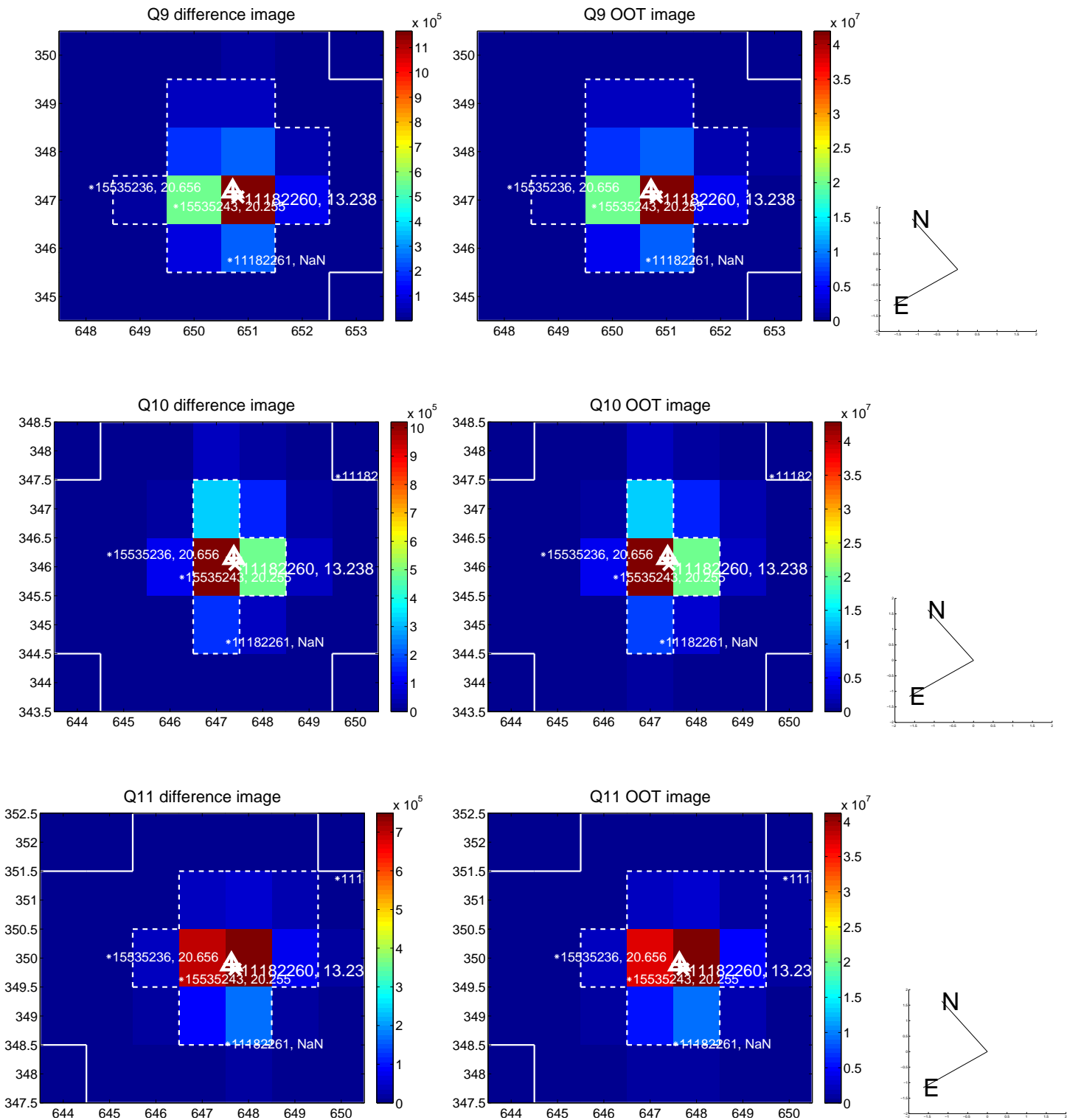


Q8 no difference image

Q8 no OOT image

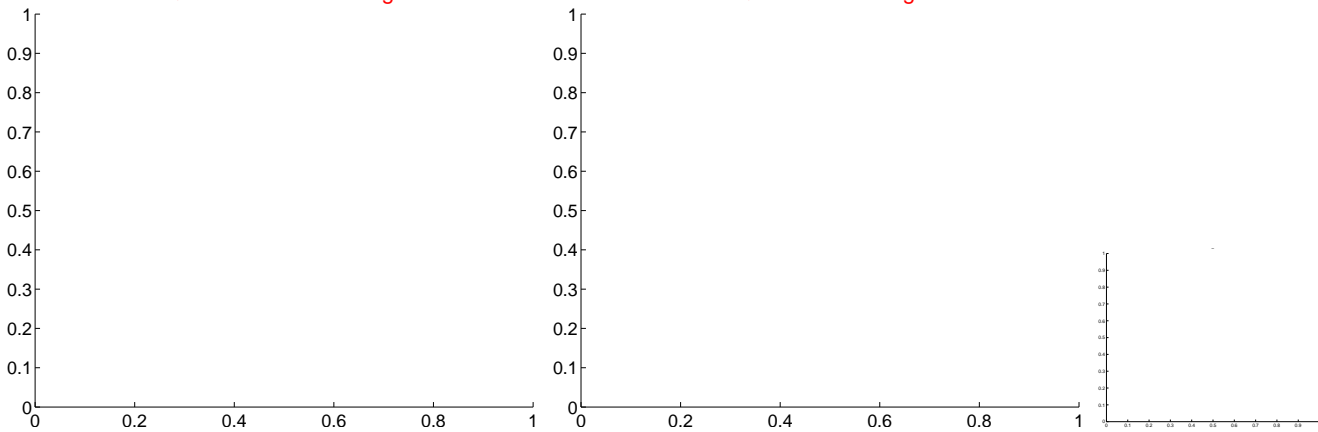


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

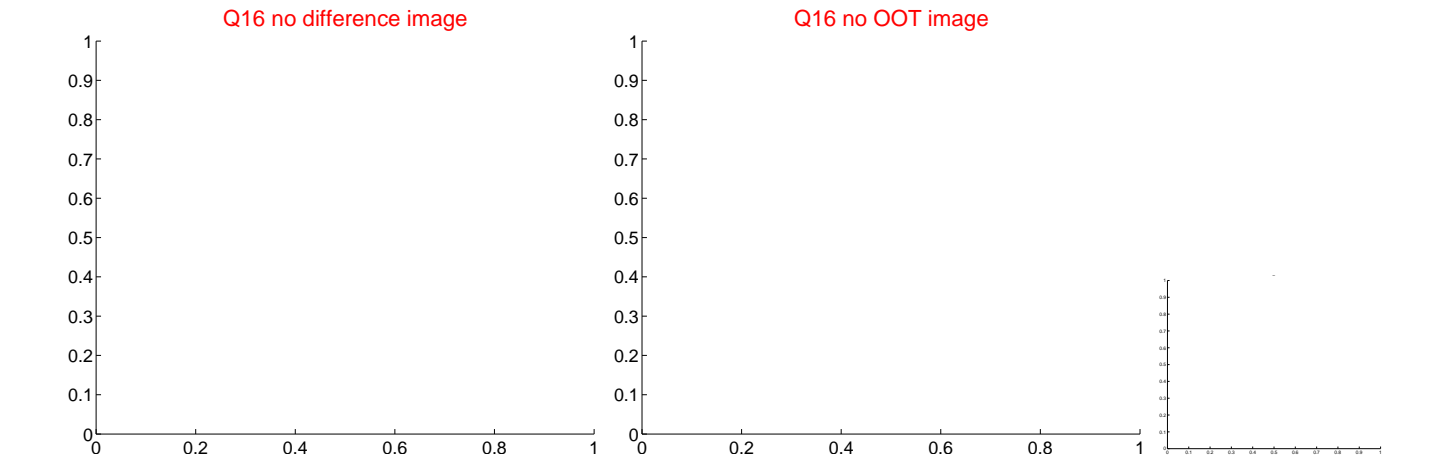
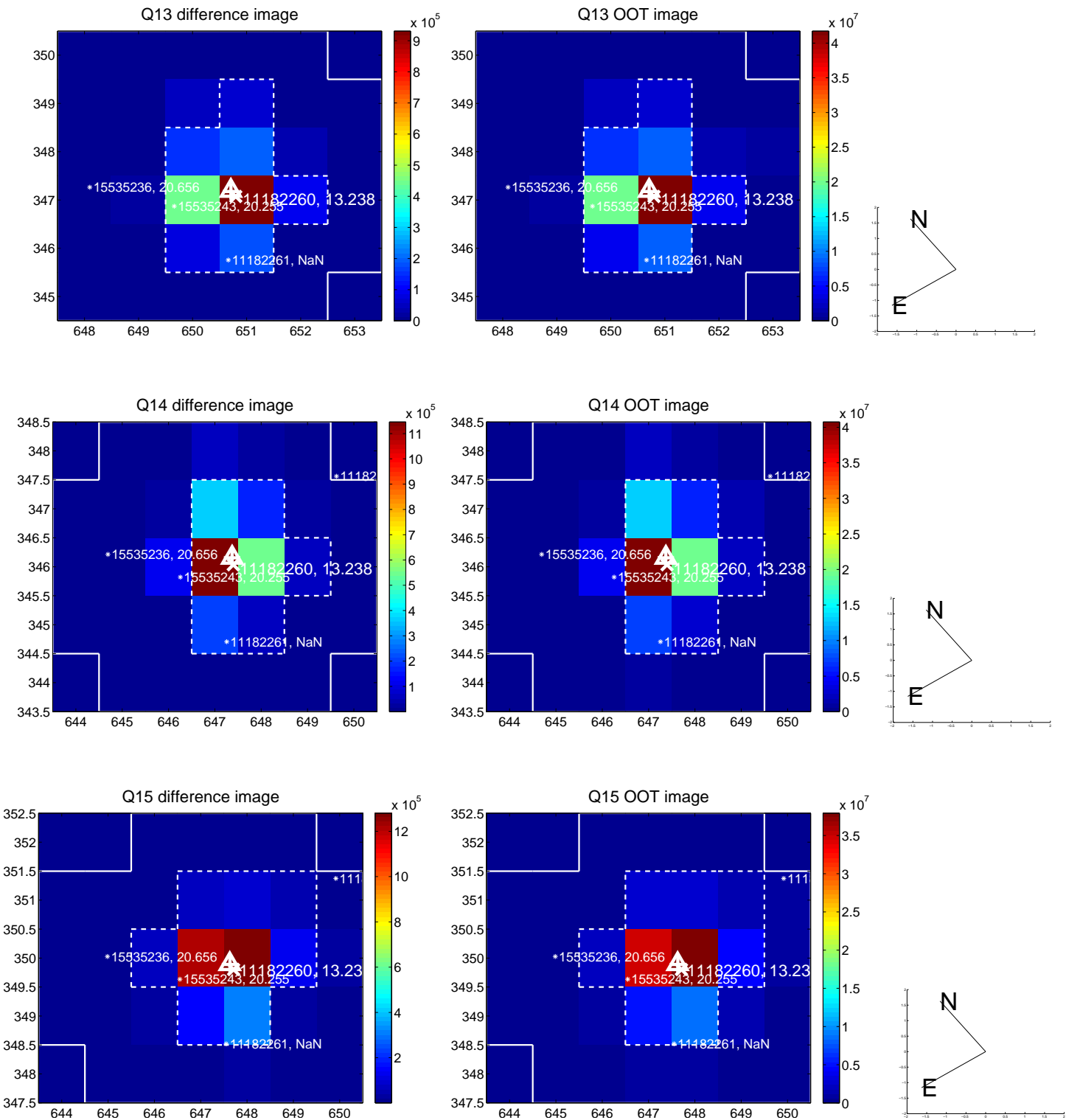


Q12 no difference image

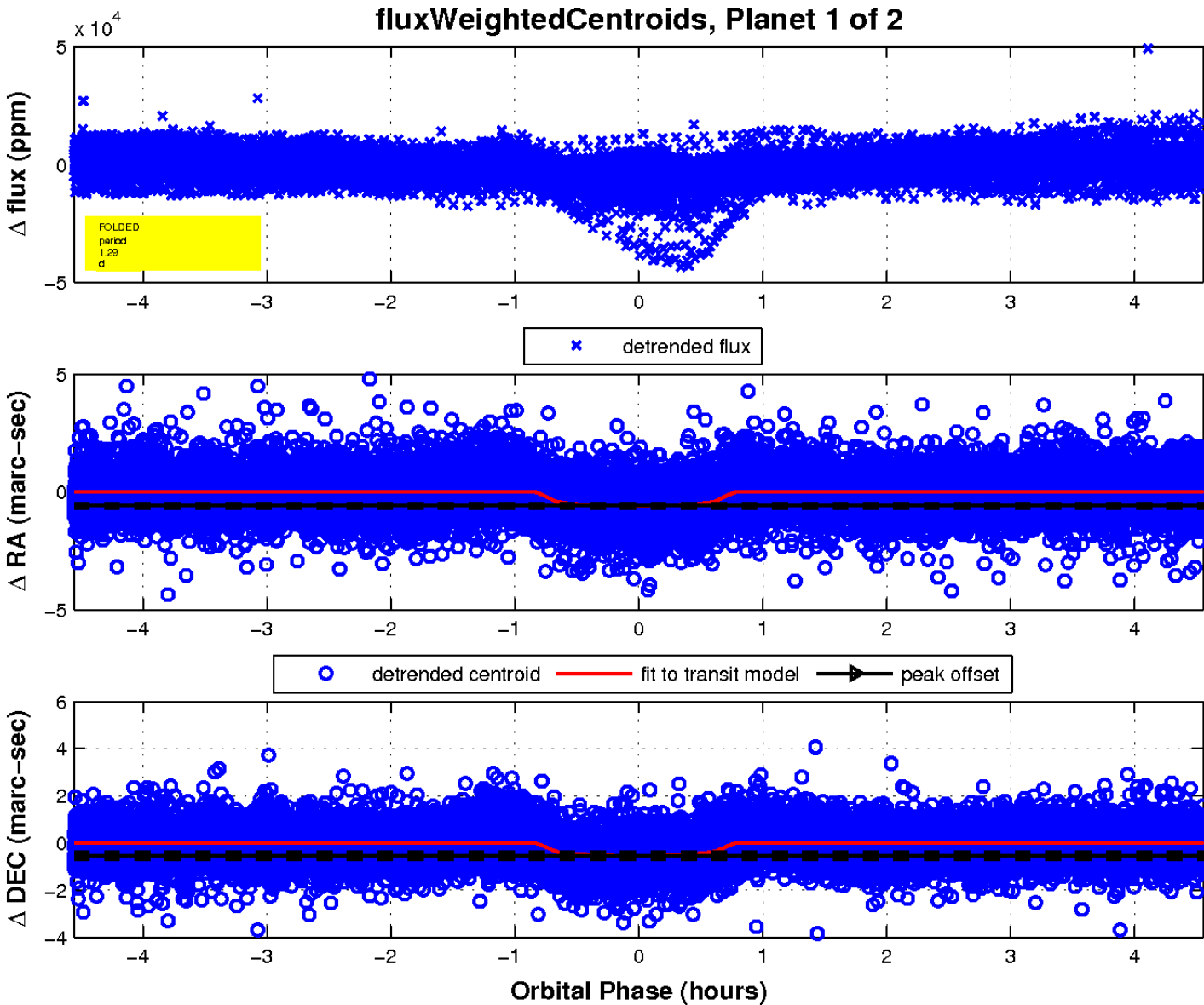
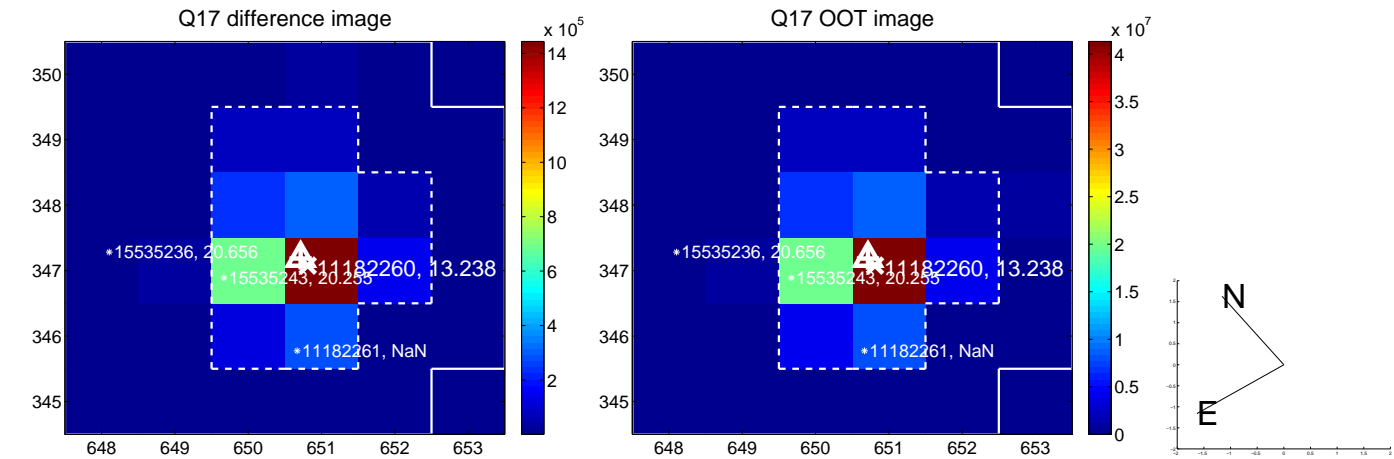
Q12 no OOT image



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

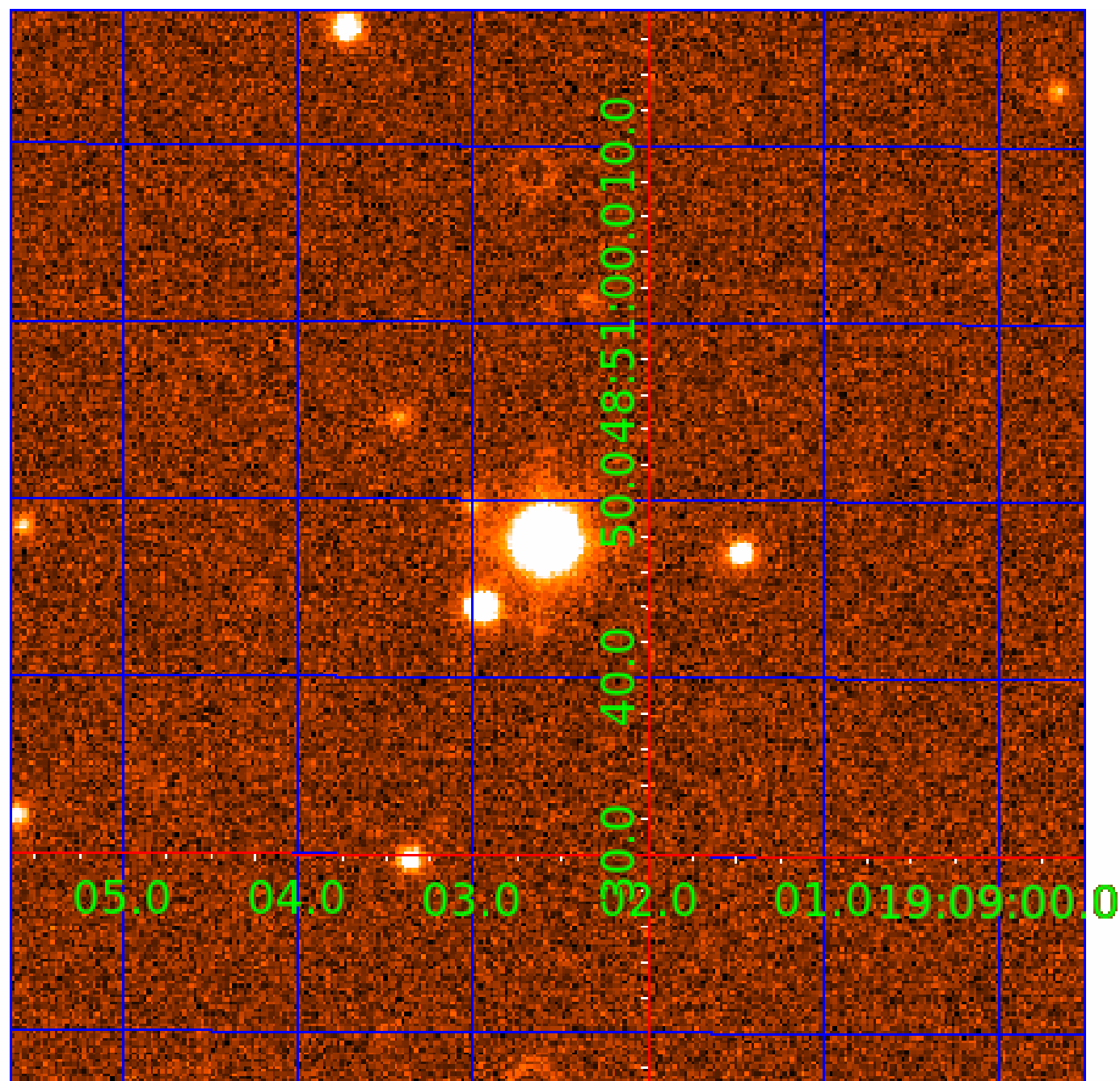


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011182260

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})
011182260-01	OBS	7415.01	1.291972	132.635169	770.4	1.519	72.5	25.2	0.64	4995	1.78	576.21
011182260-02	OBS	No	1.292000	132.547957	333.0	10.951	14.1	5.3	0.64	4995	1.18	576.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011182260-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS
011182260-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS

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.

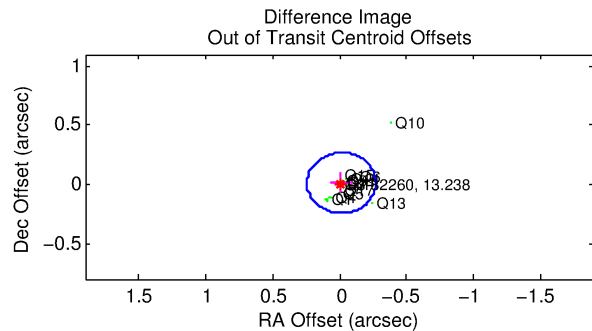
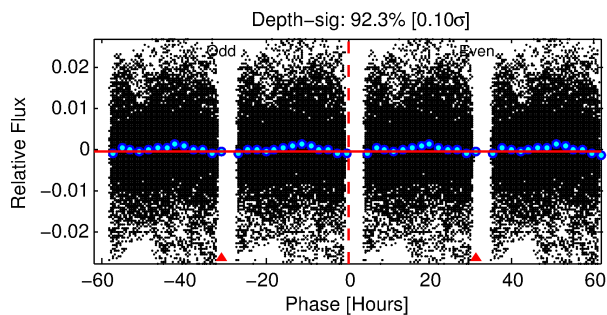
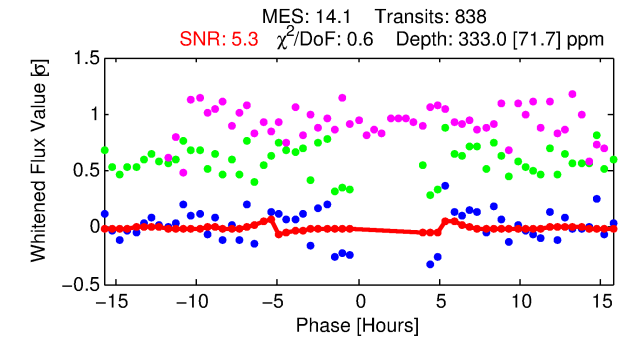
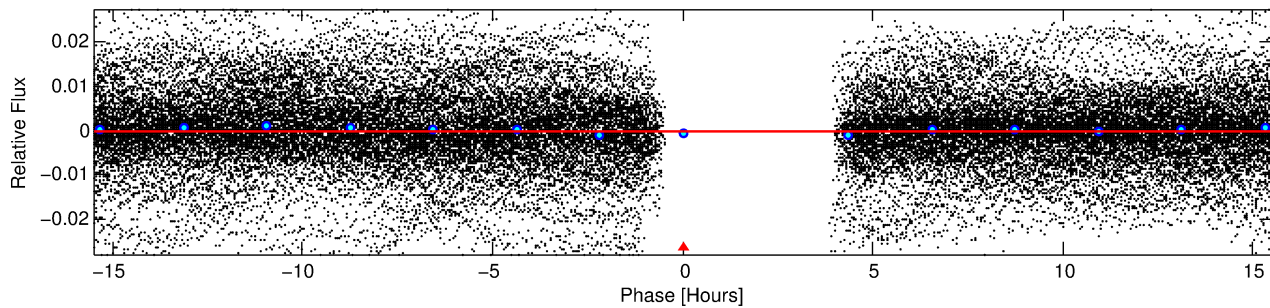
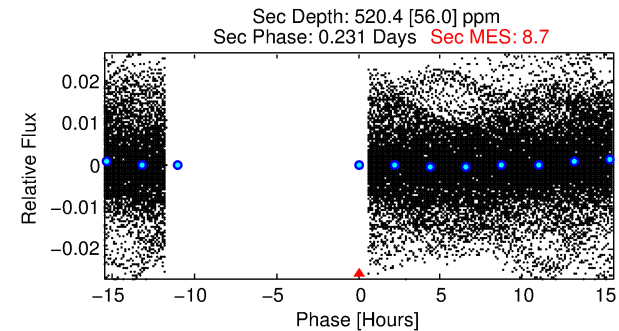
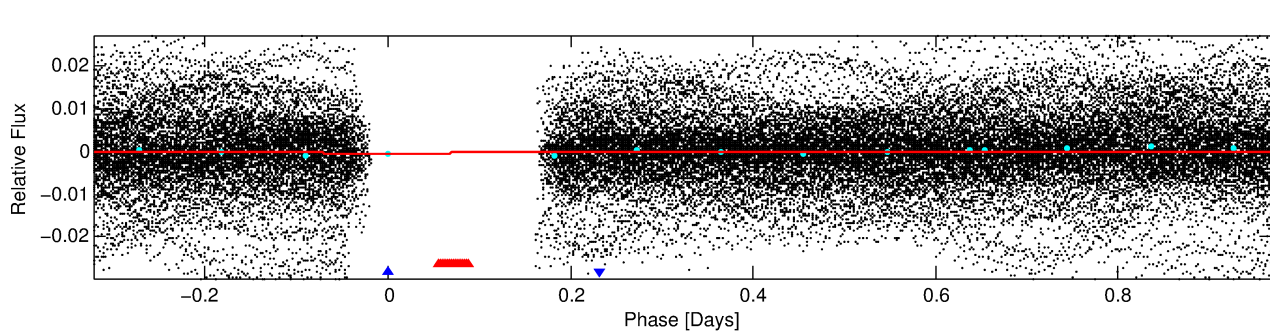
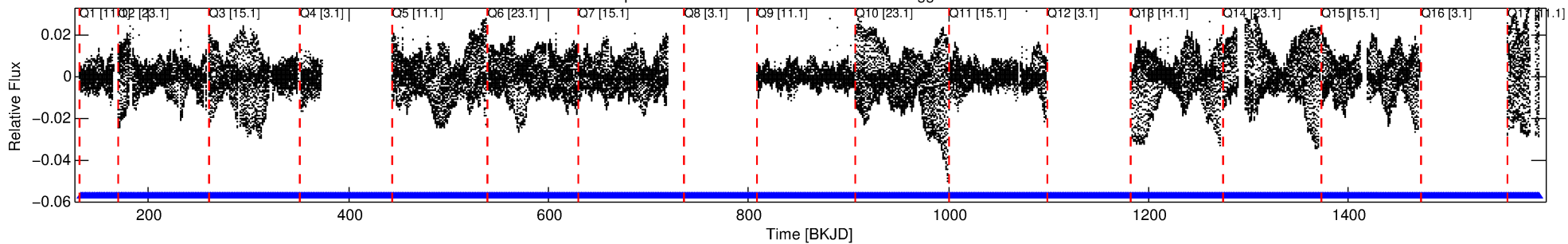
Ephemeris Match Information For 011182260-02

No Significant Match Found

DV One-Page Summary

KIC: 11182260 Candidate: 2 of 2 Period: 1.292 d
KOI: K07415 Corr: No Ephemeris Match

Kp: 13.24 R*: 0.64 Rs Teff: 4995.0 K Logg: 4.62 Fe/H: -0.720



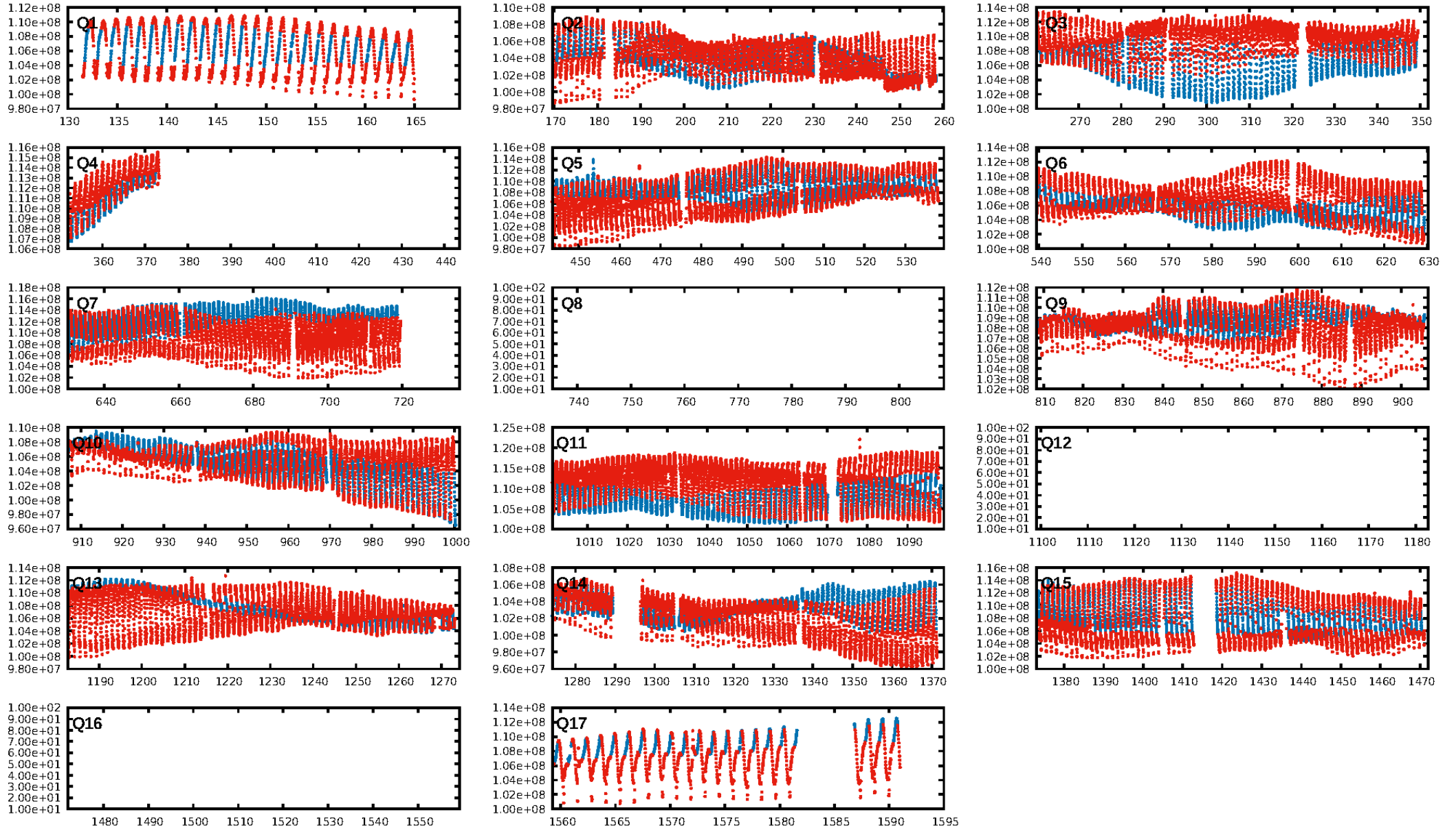
DV Fit Results:

Period = 1.29200 [0.00002] d
Epoch = 132.5480 [0.0028] BKJD
Rp/R* = 0.0170 [0.0037]
a/R* = 1.11 [0.14]
b = 0.50 [1.03]
Seff = 576.19 [99.32]
Teff = 1249 [54] K
Rp = 1.18 [0.28] Re
a = 0.0198 [0.0016] AU
Ag = 80.92 [38.15] [2.10σ]
Teffp = 5793 [681] K [6.65σ]

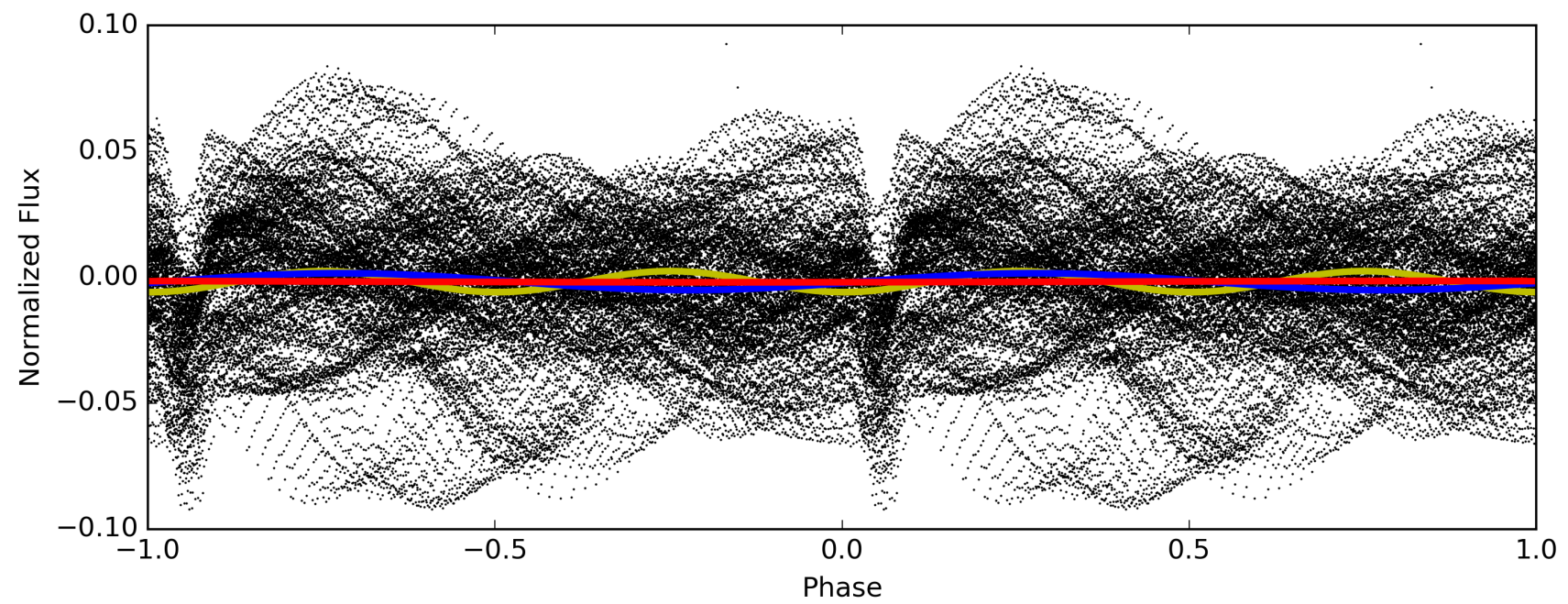
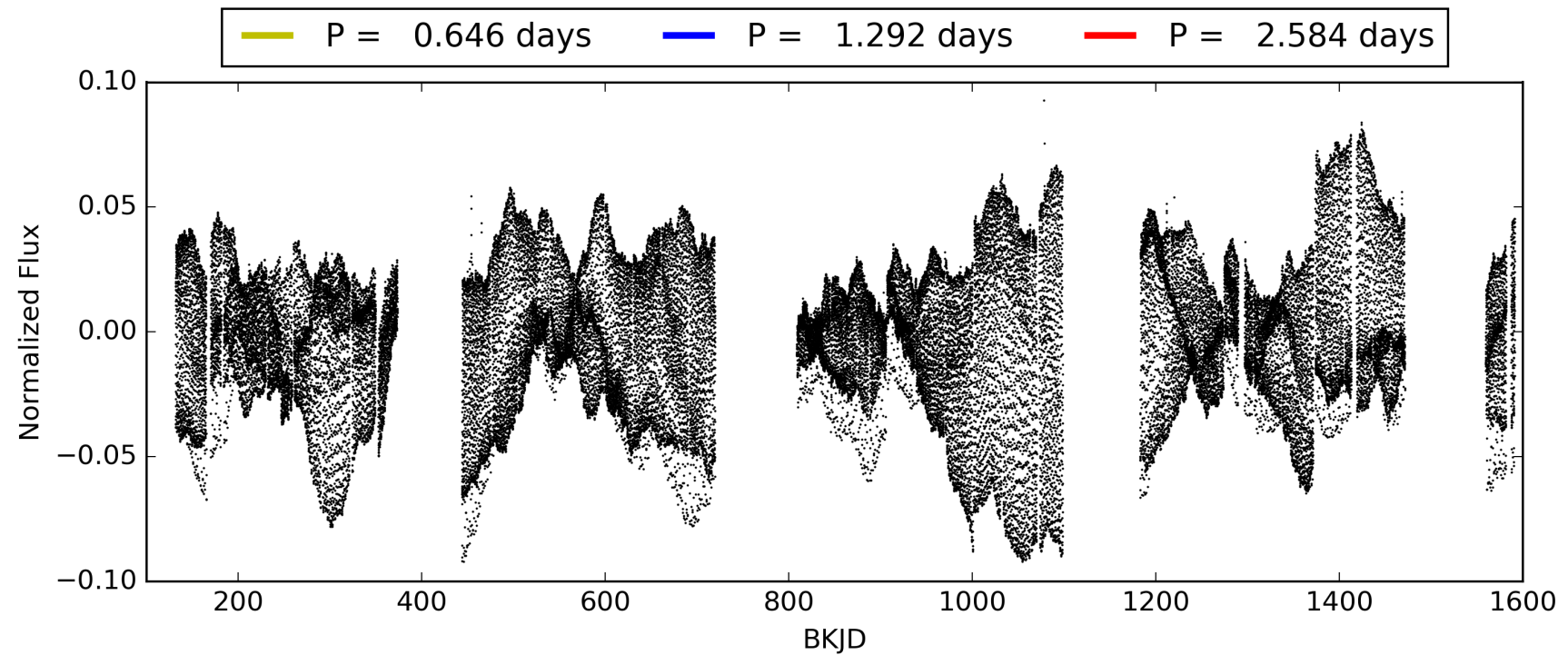
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [774/774]
GhostDiagnostic-chr: 0.785
Centroid-sig: 0.0%
Centroid-so: 0.306 arcsec [4.94σ]
OotOffset-rm: 0.017 arcsec [0.20σ]
KicOffset-rm: 0.450 arcsec [5.74σ]
OotOffset-st: 3/4/1/5 [13]
KicOffset-st: 3/4/1/5 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 011182260-02, PDC Light Curves

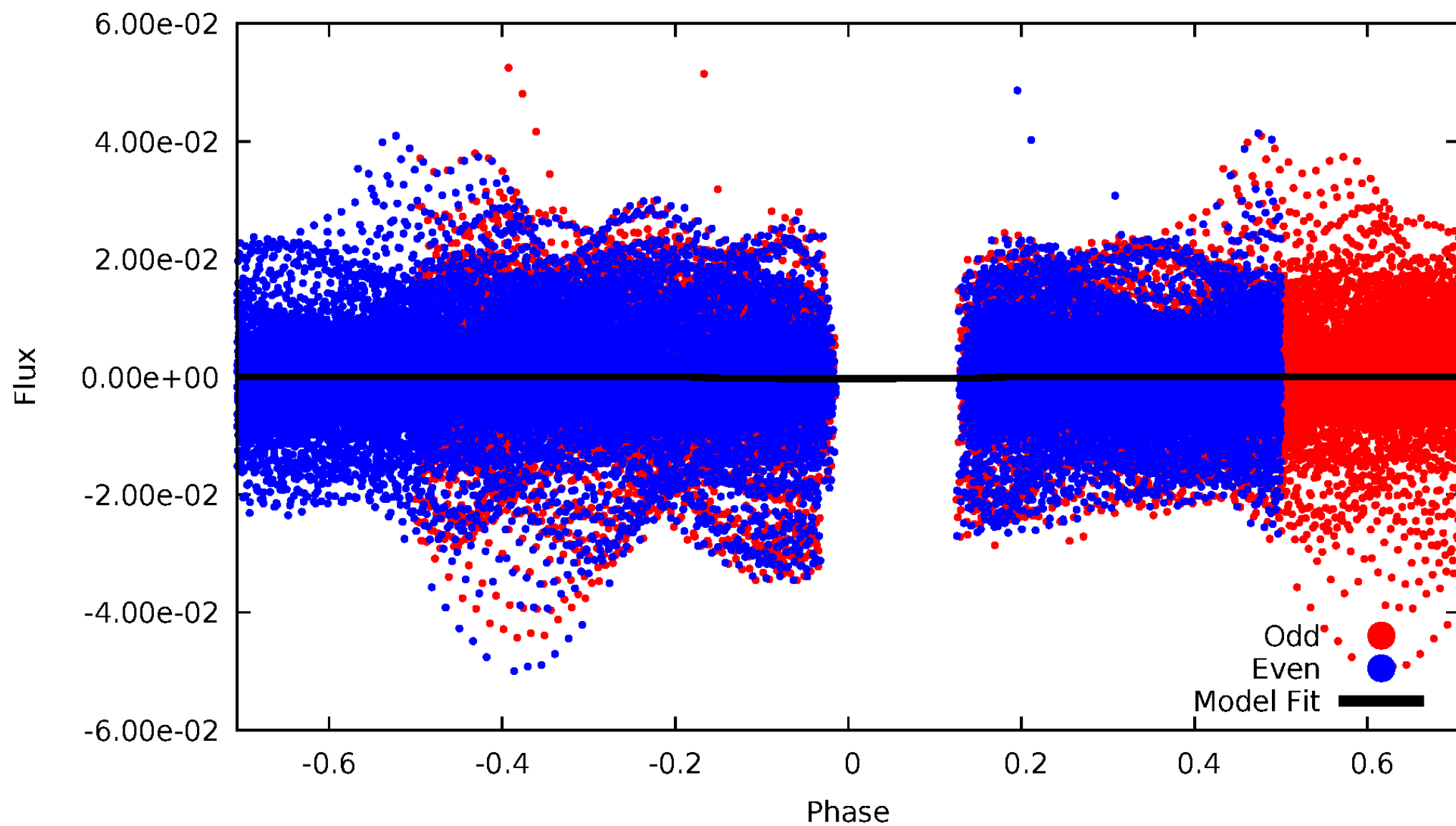


TCE 011182260-02



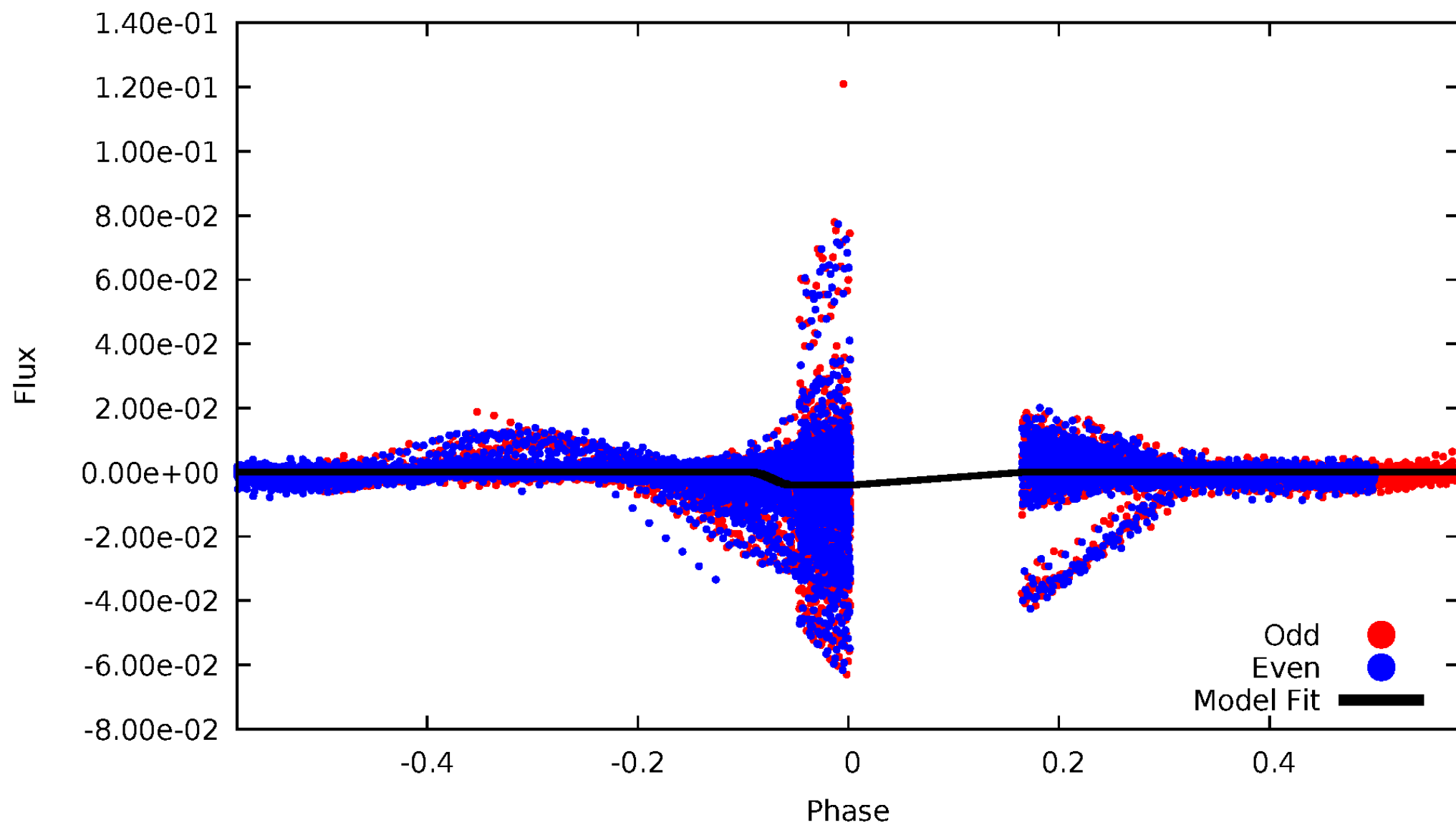
DV Odd/Even

TCE 011182260-02



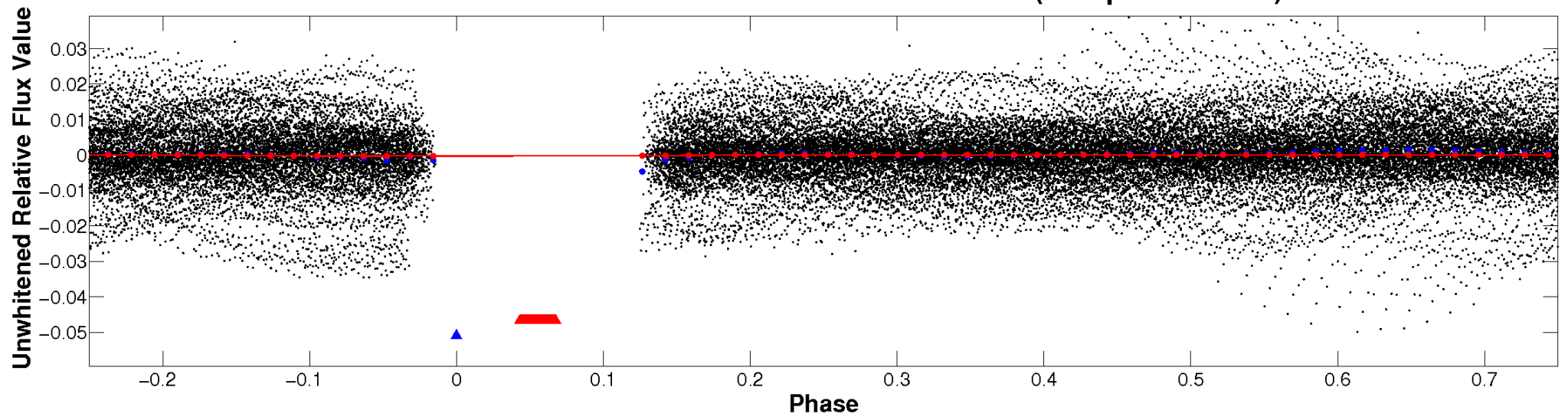
ALT Odd/Even

TCE 011182260-02

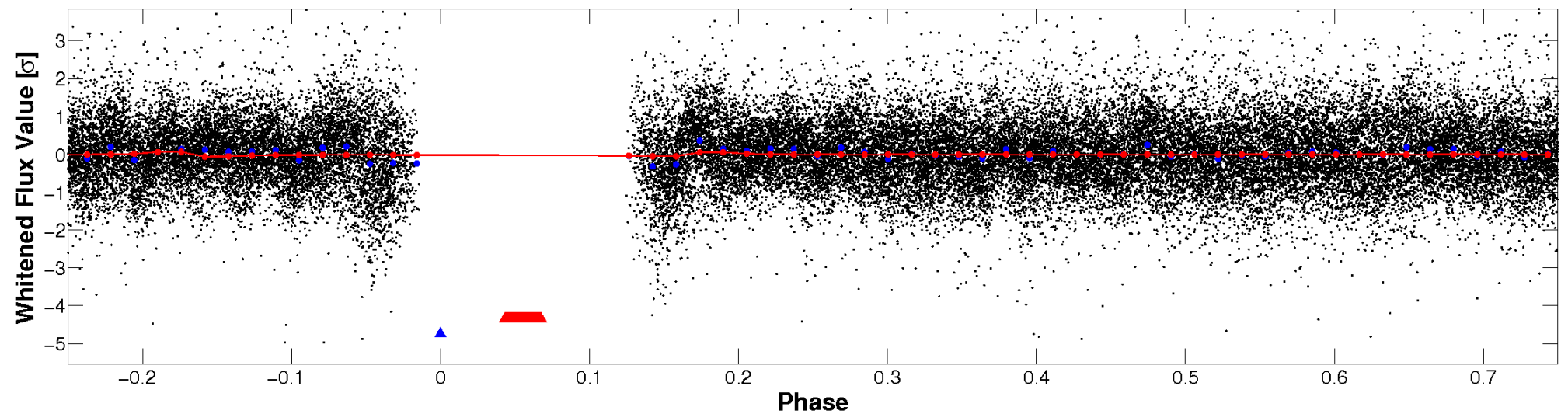


Non-Whitened Vs. Whitened Light Curve

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

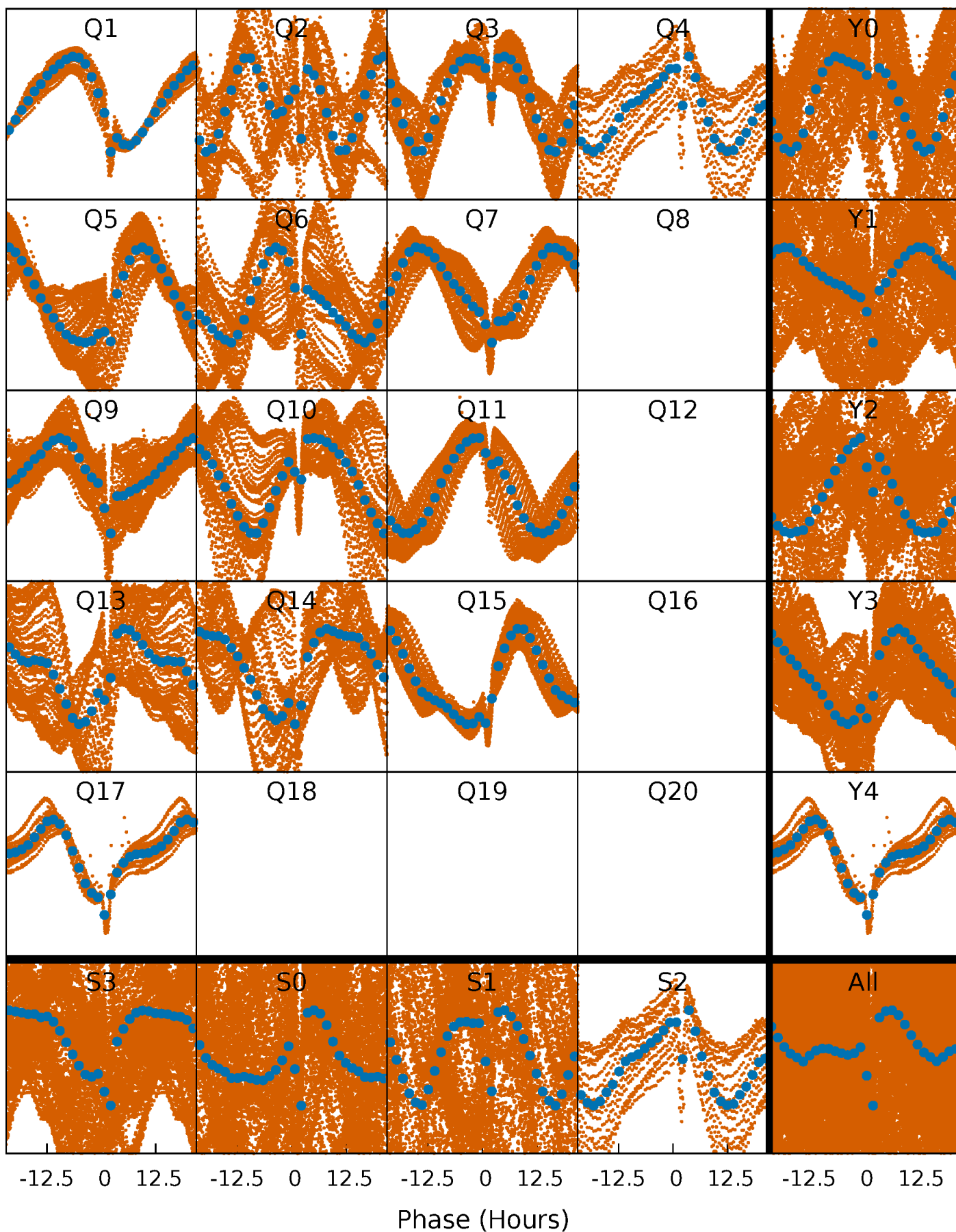


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



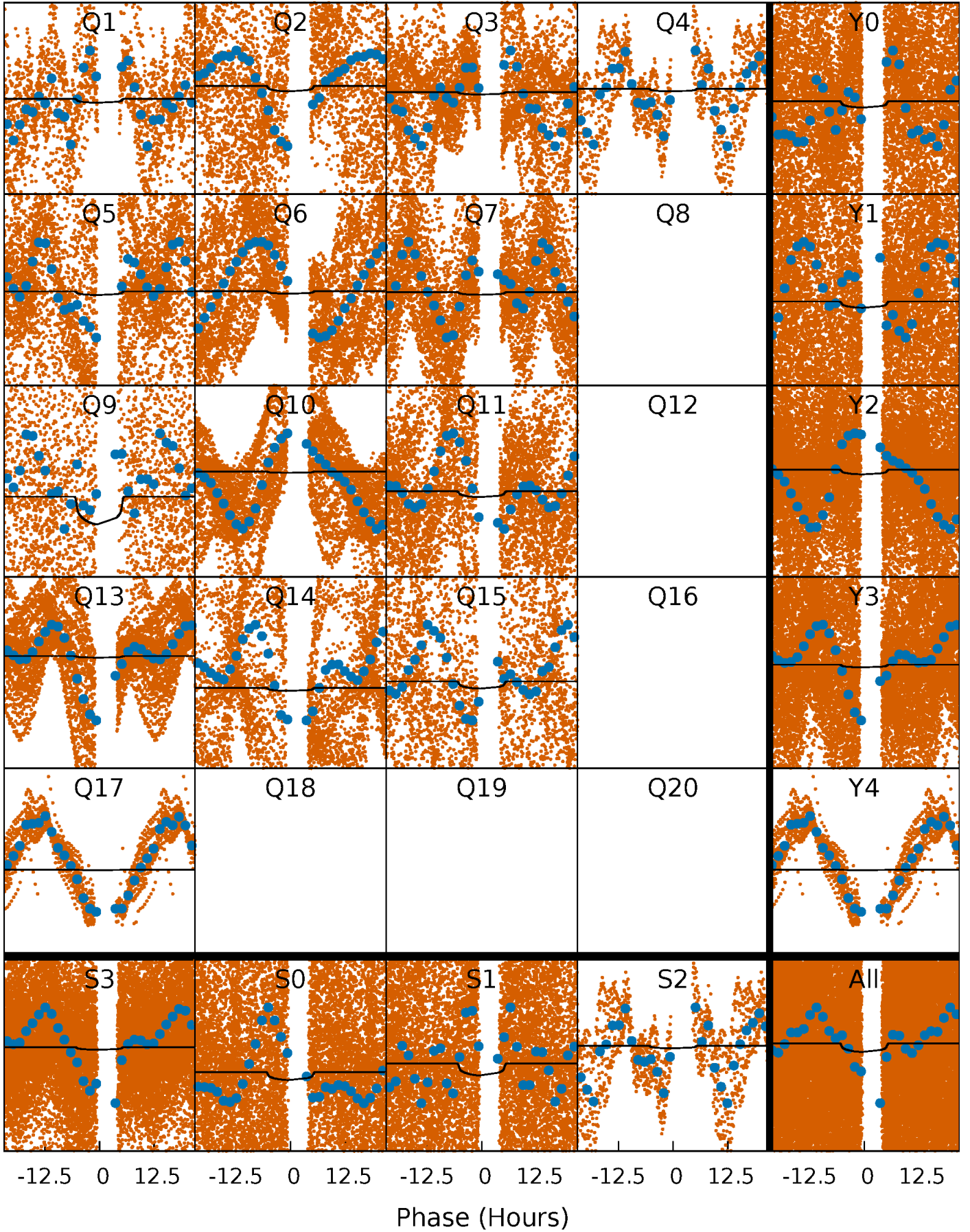
PDC Quarter-Phased Transit Curves

TCE 011182260-02 P= 1.292000 Days $T_0=132.547957$ (BKJD)



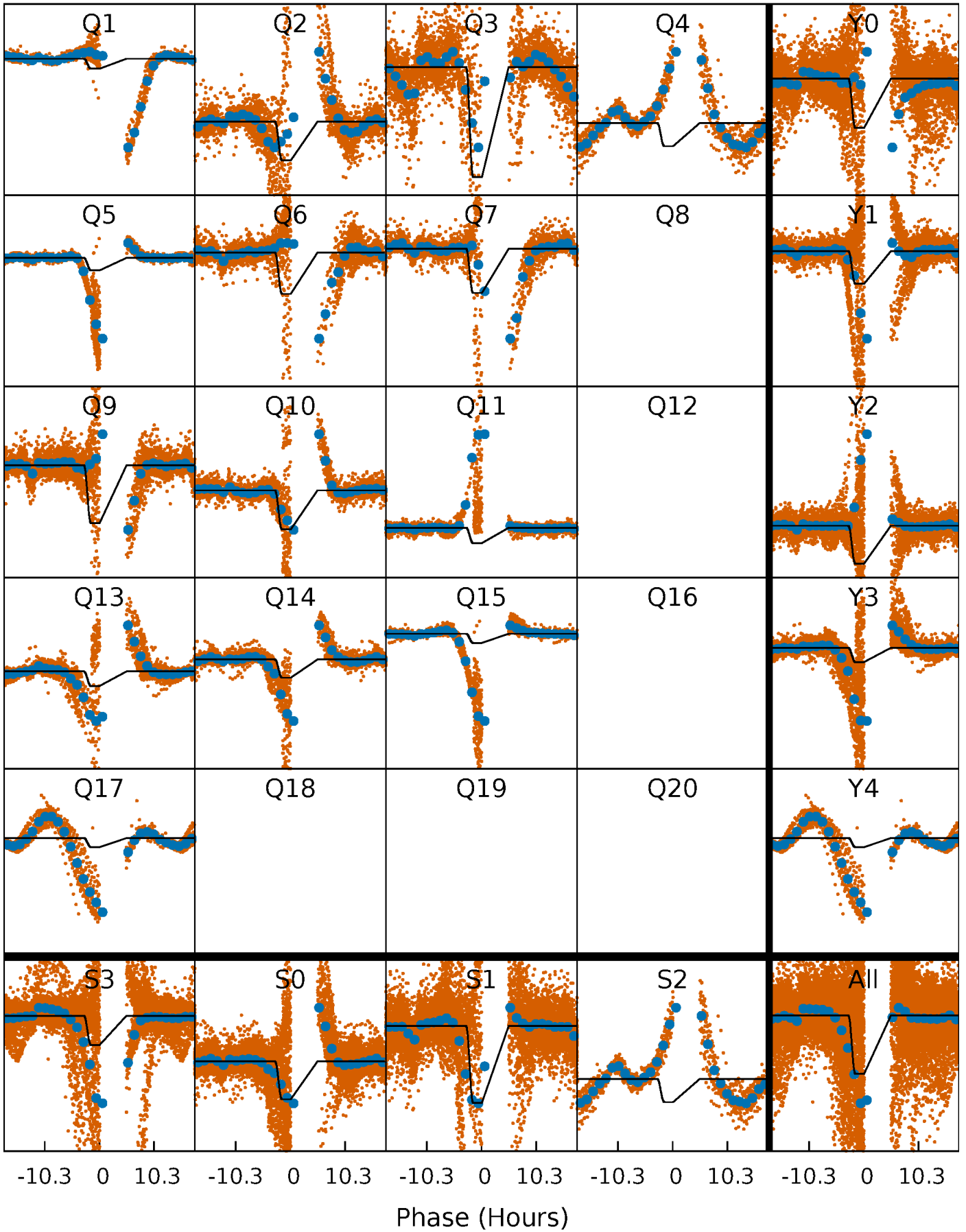
DV Quarter-Phased Transit Curves

TCE 011182260-02 $P = 1.292000$ Days $T_0 = 132.547957$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

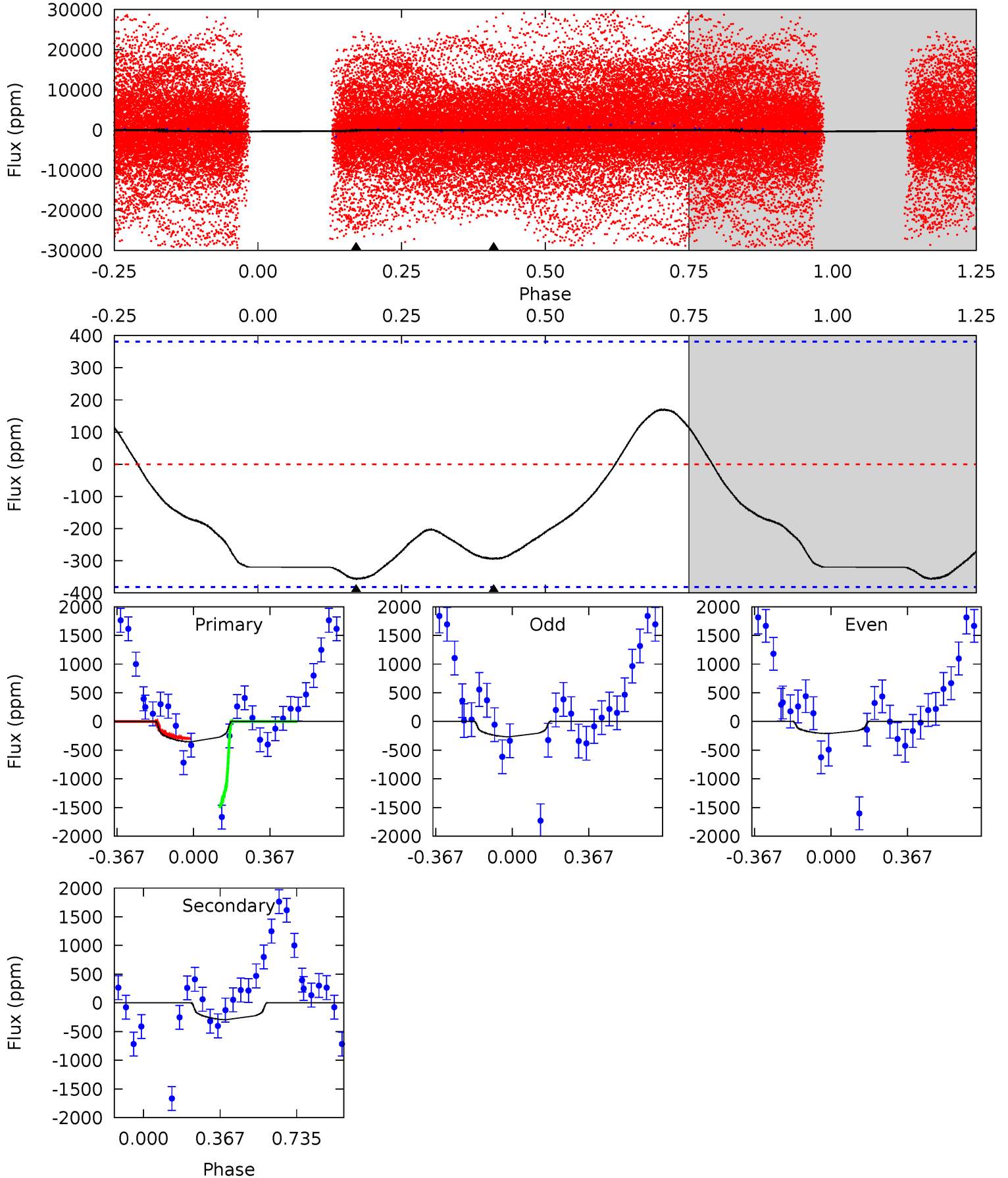
TCE 011182260-02 P= 1.291972 Days $T_0=132.527431$ (BKJD)



DV Model-Shift Uniqueness Test

011182260-02, P = 1.292000 Days, E = 131.255957 Days

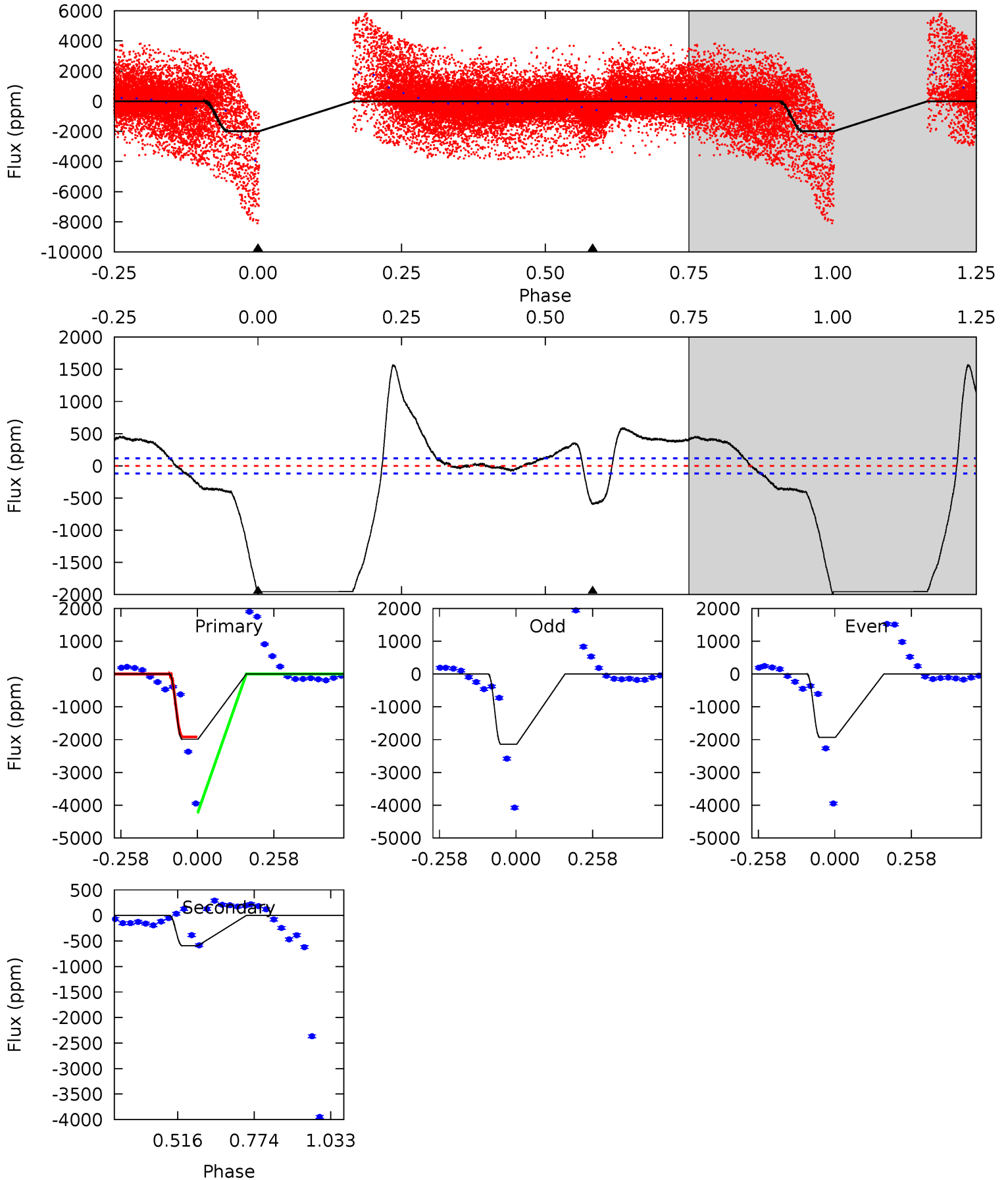
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.01	3.30	0	0	4.28	0.90	0.76	4.01	4.01	3.30	3.30	0.32	-1.86	0.32	6.24



Alt Model-Shift Uniqueness Test

011182260-02, P = 1.291972 Days, E = 131.235459 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
73.6	21.9	0	0	4.36	1.13	0.73	73.6	73.6	21.9	21.9	3.92	1.86	0.44	0



Stellar Parameters For KIC 011182260

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4995^{+134}_{-149}	$4.624^{+0.070}_{-0.040}$	$-0.720^{+0.300}_{-0.300}$	$0.638^{+0.060}_{-0.060}$	$0.625^{+0.066}_{-0.031}$	$3.386^{+0.925}_{-0.546}$
	+3%/-3%	+2%/-1%	+42%/-42%	+9%/-9%	+11%/-5%	+27%/-16%
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 011182260-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-294 ± 89	$1.18^{+0.28}_{-0.27}$	1737^{+63}_{-65}	4952^{+755}_{-530}	44^{+39}_{-18}
Alt.	-591 ± 27	$4.39^{+0.36}_{-0.34}$	1735^{+66}_{-61}	3497^{+109}_{-110}	$6.723^{+1.155}_{-0.888}$

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

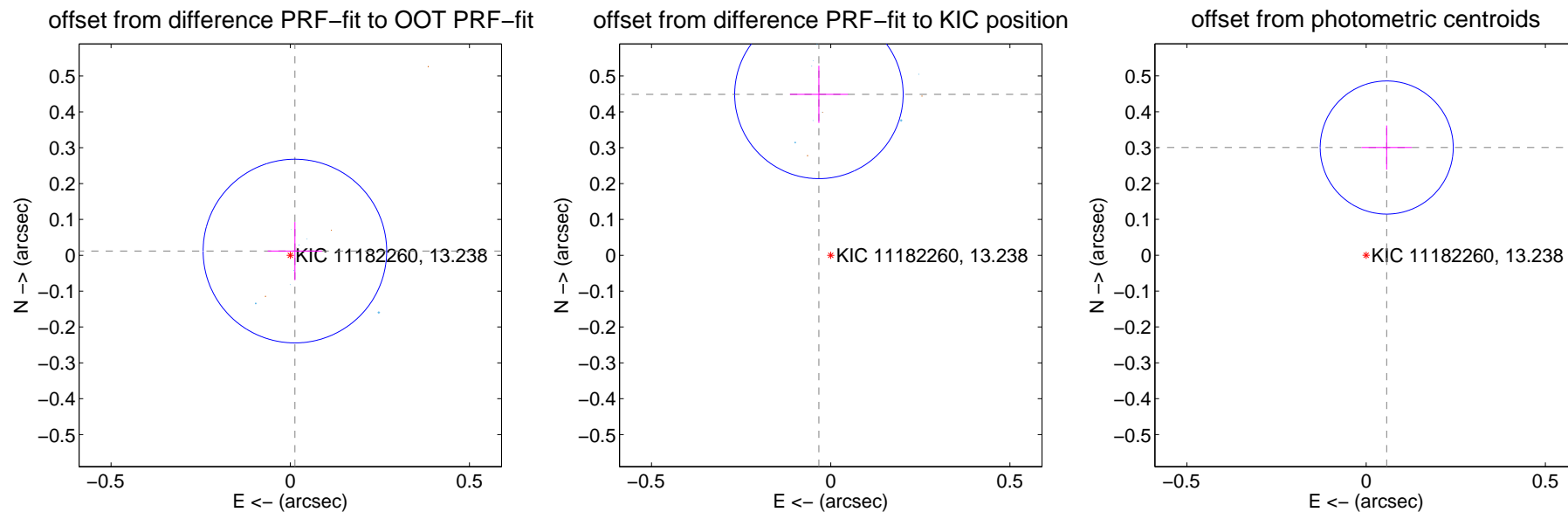
DV Centroid Data

Supplemental centroid analysis for 01182260-02. Kepler magnitude: 13.24. Transit SNR 5.33

There are 8 quarters with good PRF difference image offsets

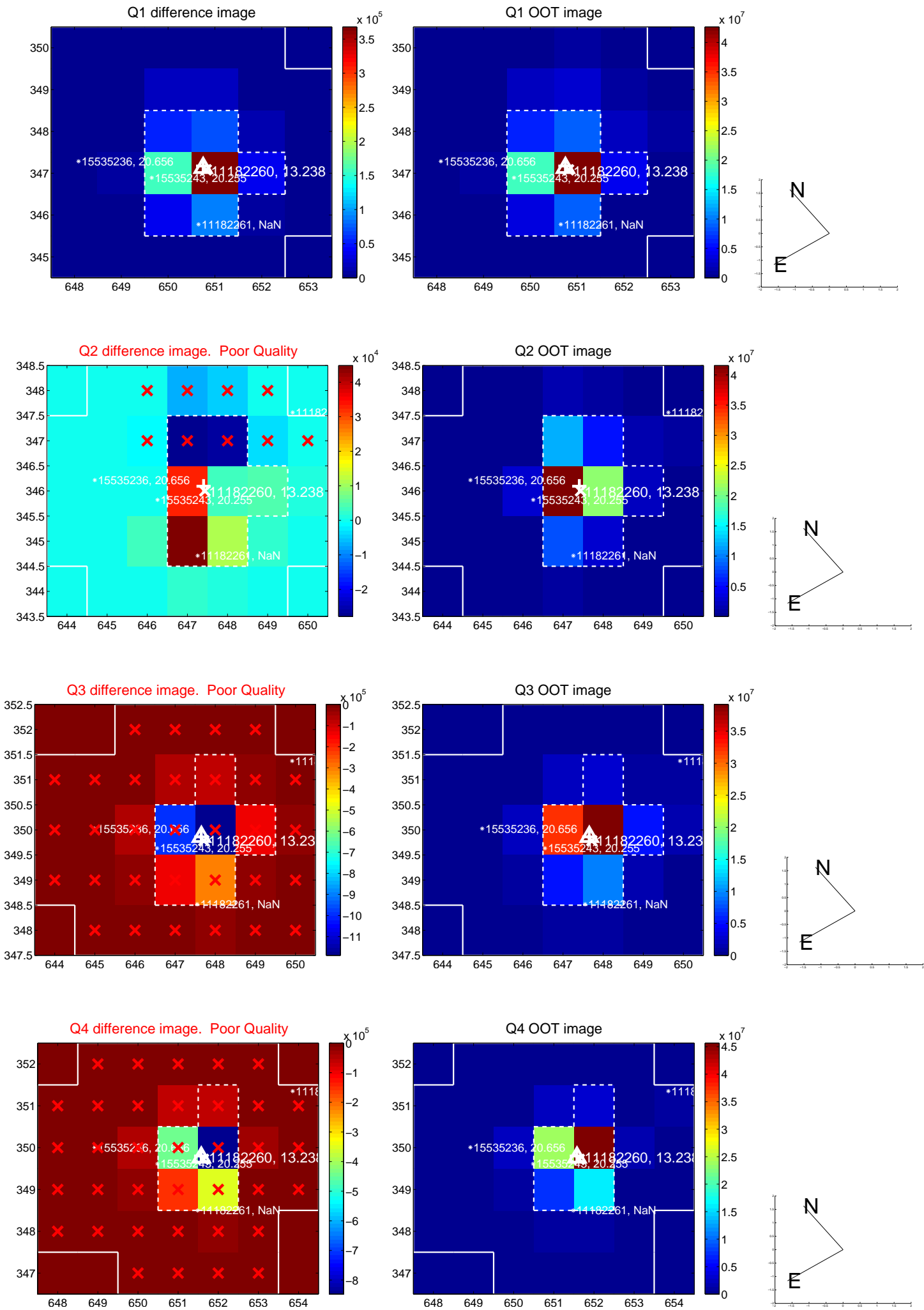
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.017 ± 0.085	0.20	-0.013 ± 0.076	0.012 ± 0.081
PRF-fit source offset from KIC position	0.450 ± 0.078	5.74	0.033 ± 0.081	0.449 ± 0.080
photometric centroid source offset	0.31 ± 0.06	4.94	-0.06 ± 0.07	0.30 ± 0.06

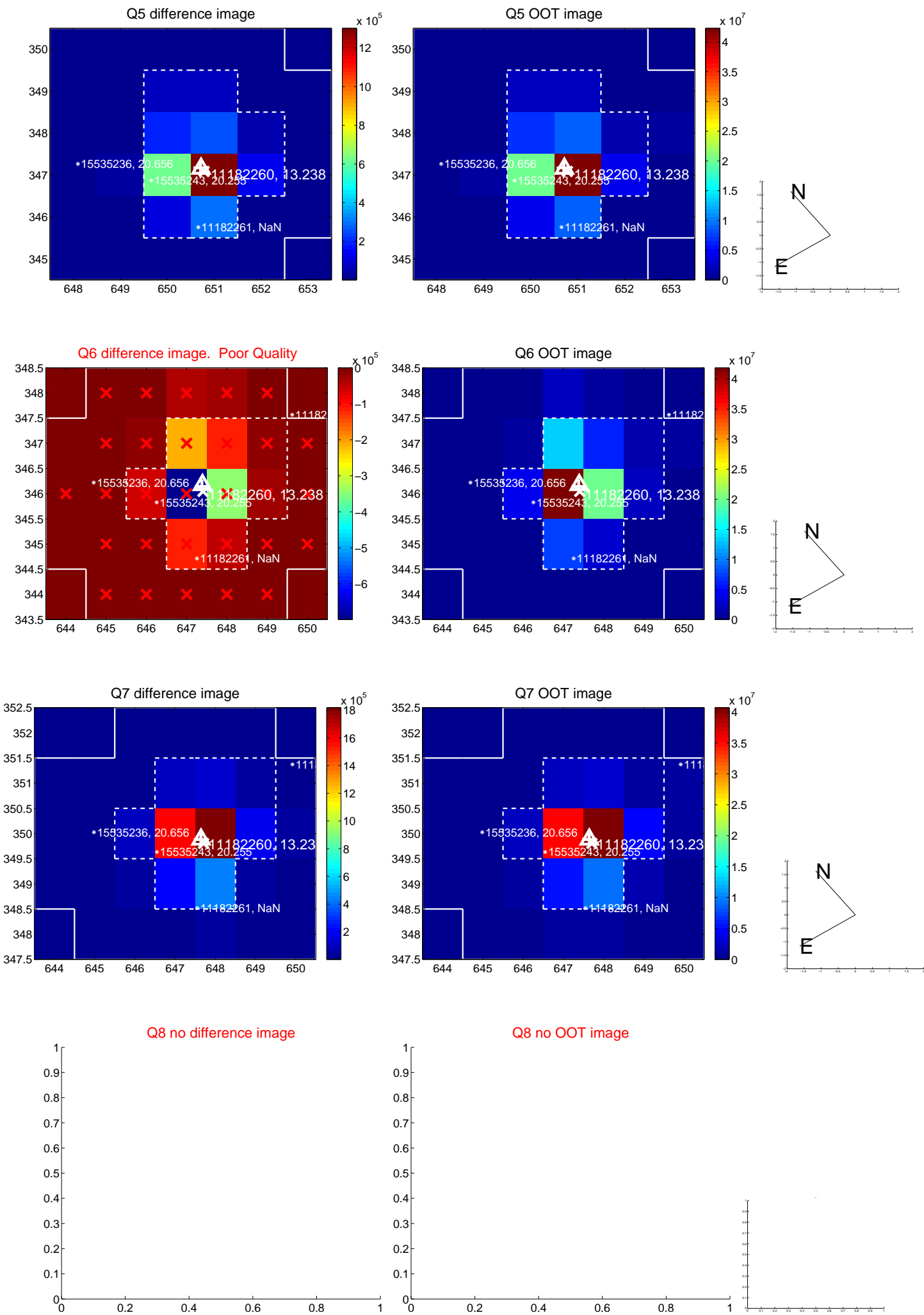


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

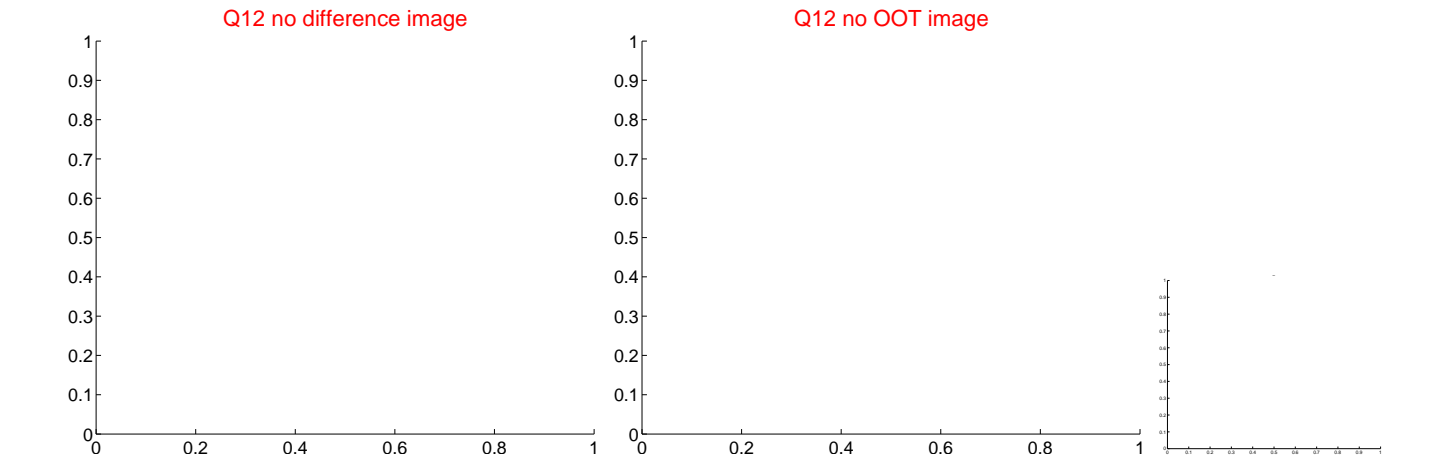
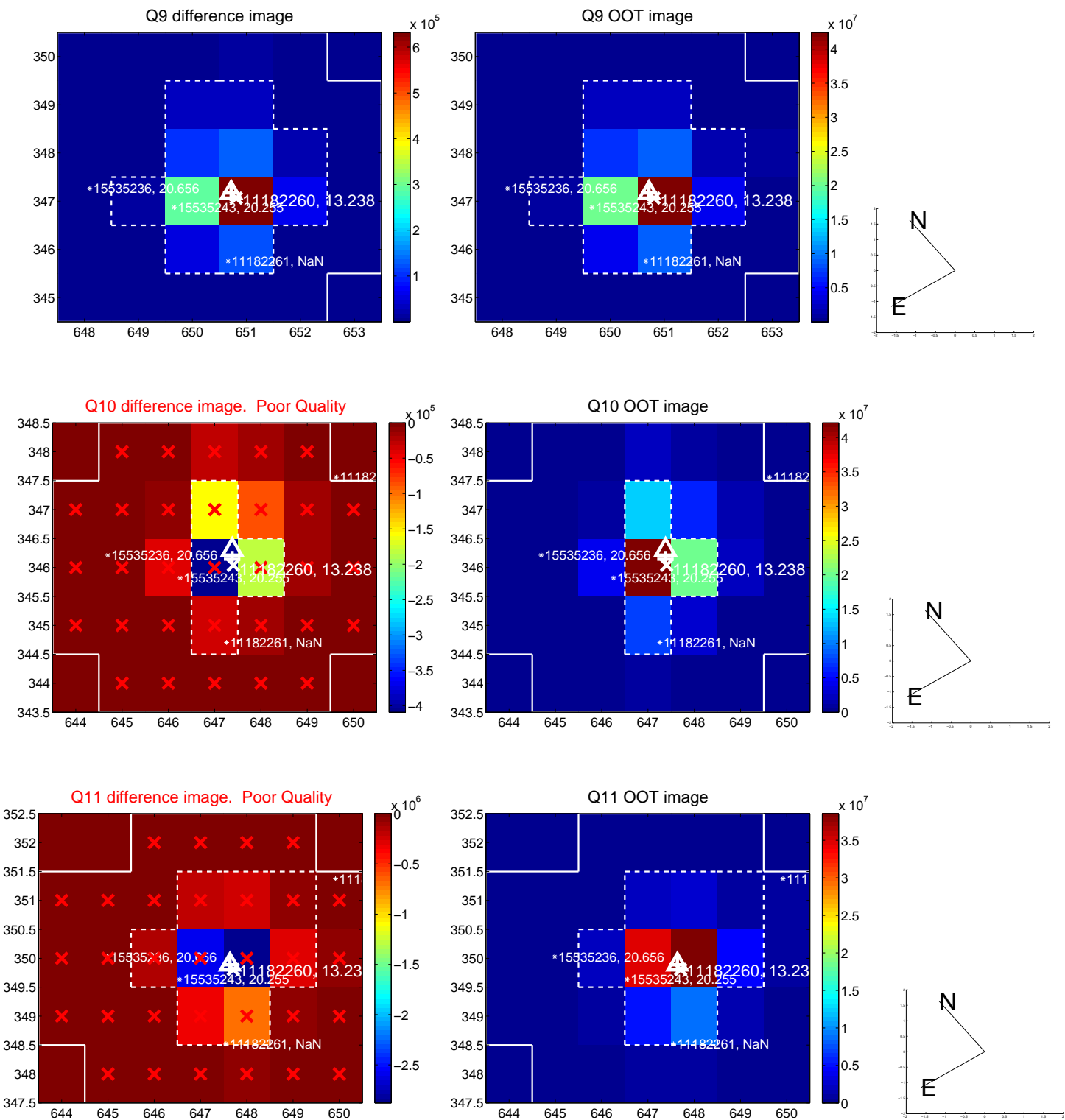
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



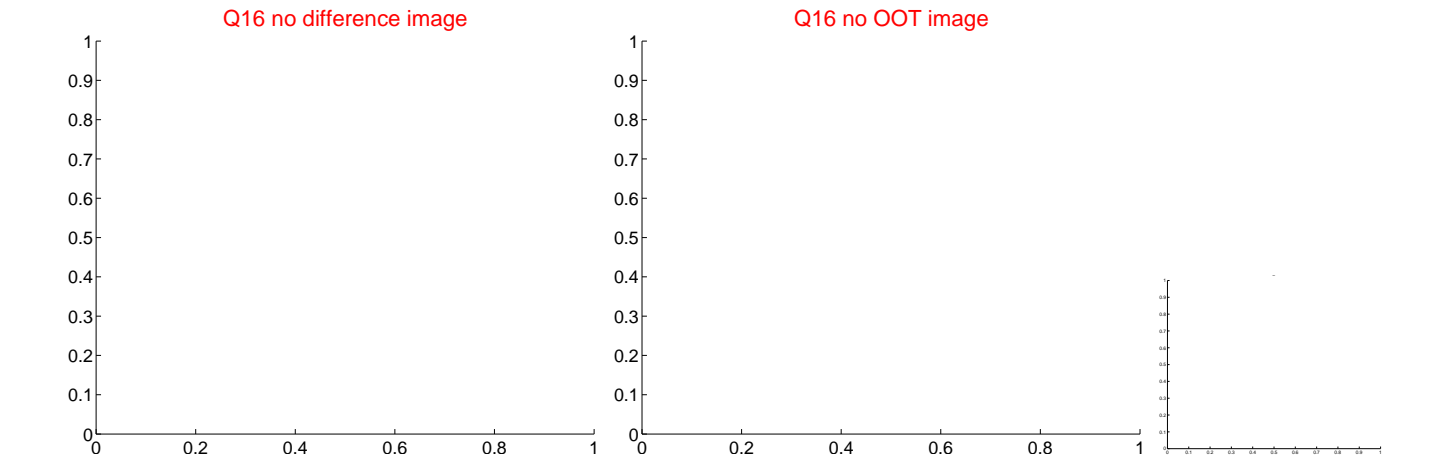
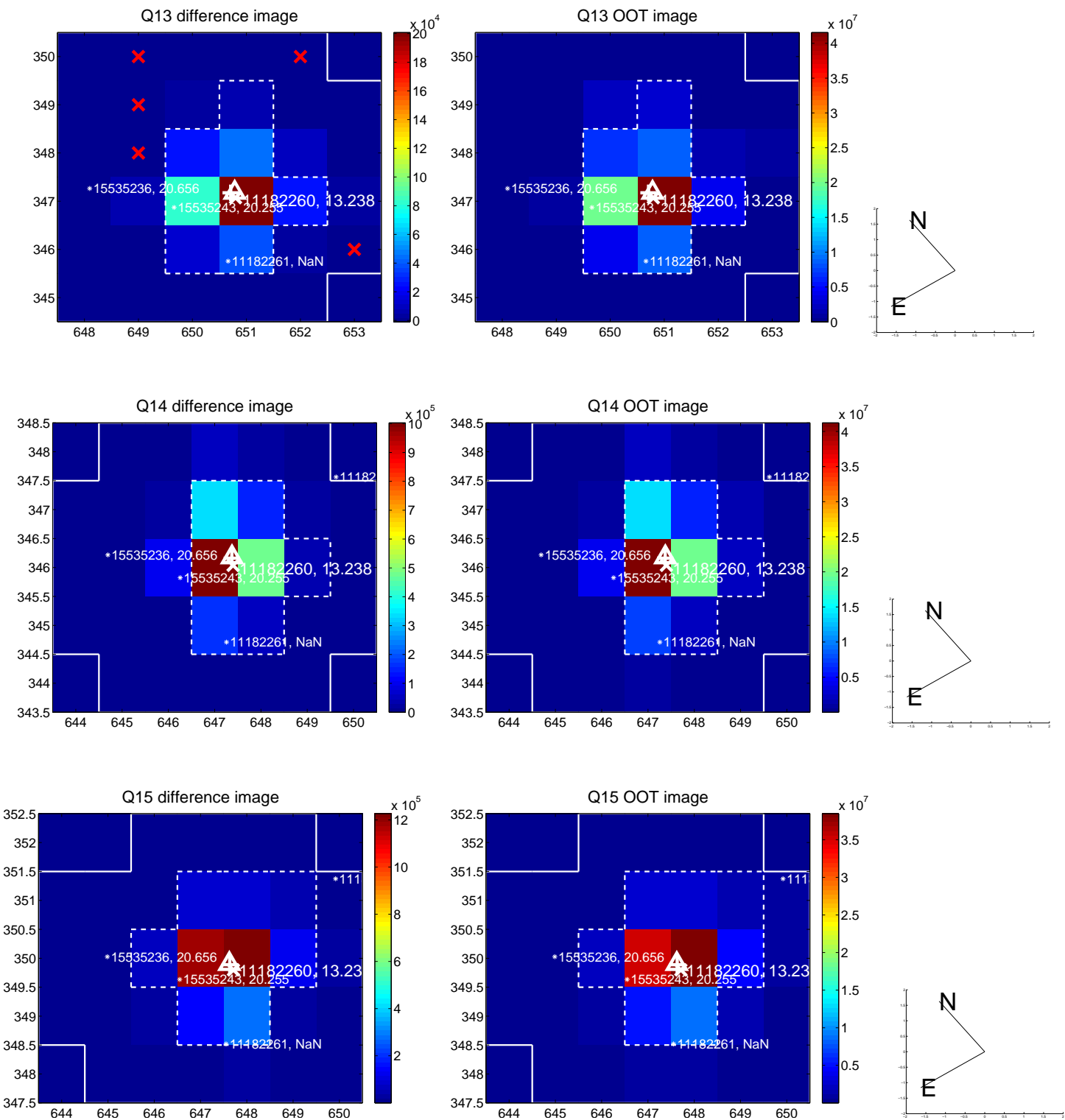
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



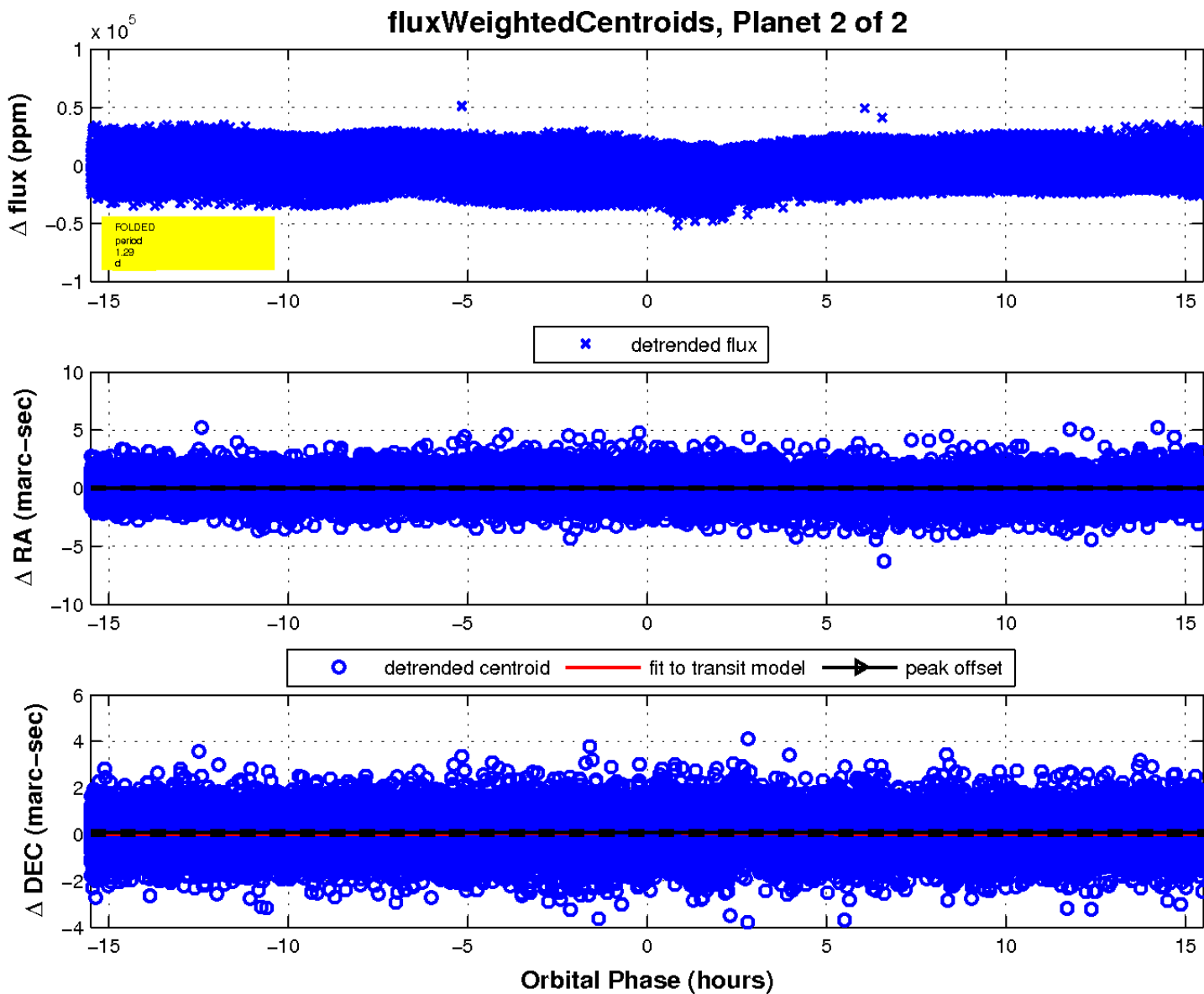
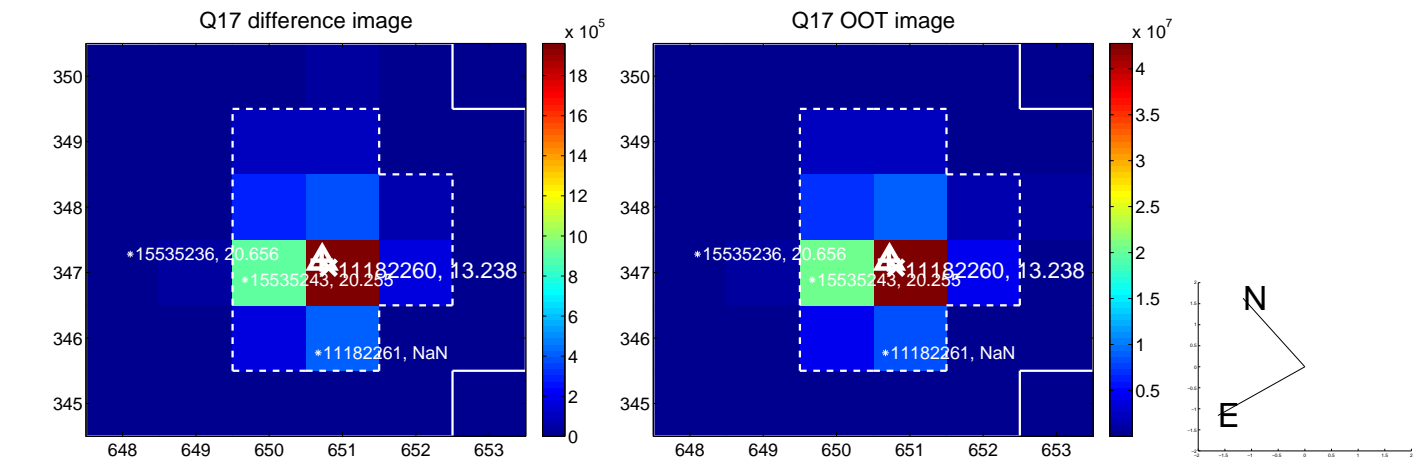
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UKIRT Image

Declination

