

KIC 005184911

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})
005184911-01	OBS	2719.01	4.115825	134.121520	390.8	1.574	24.1	26.2	0.82	4827	2.01	151.80
005184911-02	OBS	2719.02	106.261583	132.236132	441.1	6.811	10.0	9.8	0.82	4827	2.03	1.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005184911-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005184911-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

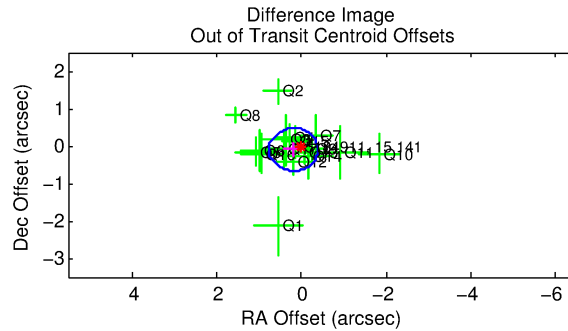
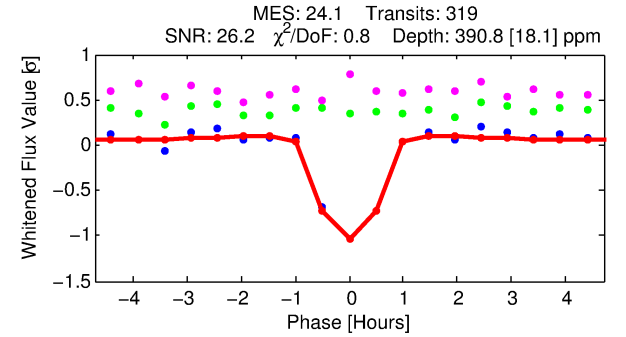
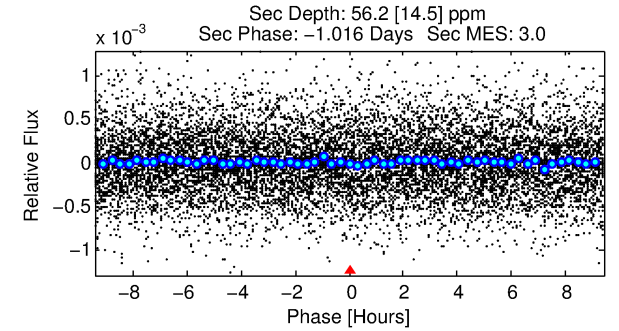
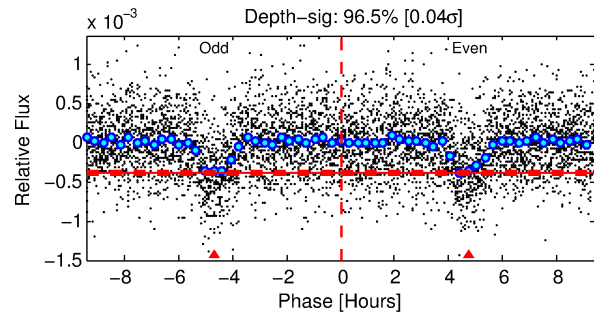
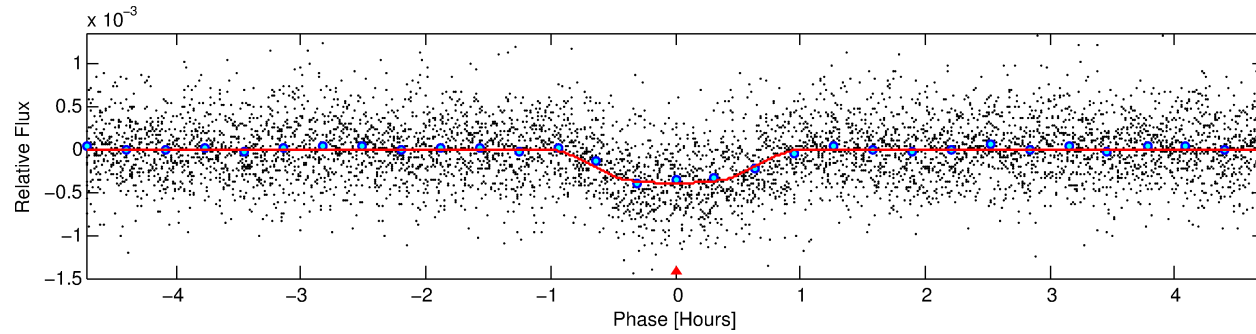
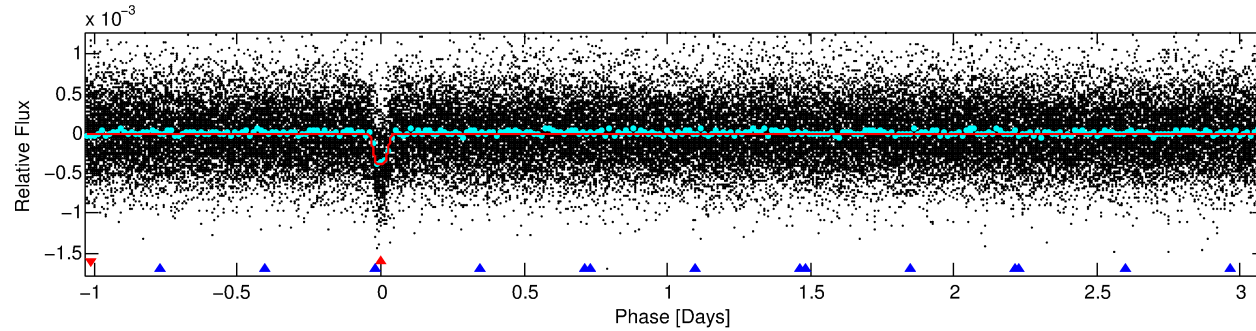
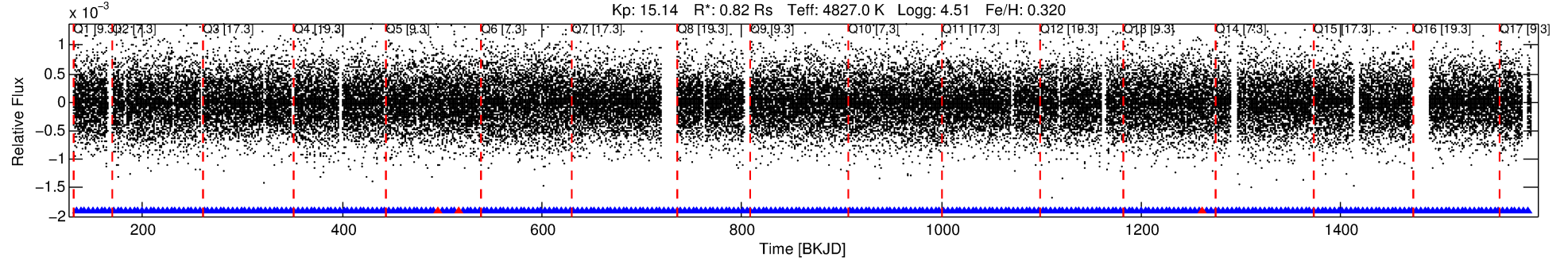
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005184911-01

No Significant Match Found

DV One-Page Summary

KIC: 5184911 Candidate: 1 of 2 Period: 4.116 d
KOI: K02719.01 Corr: 0.937



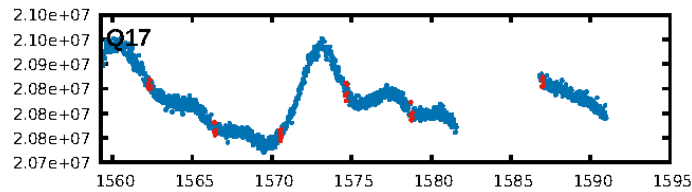
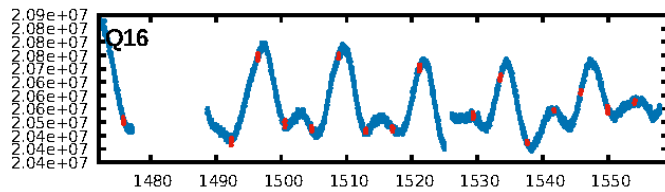
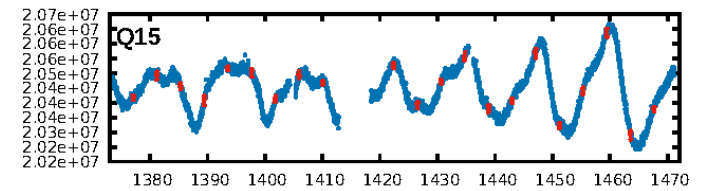
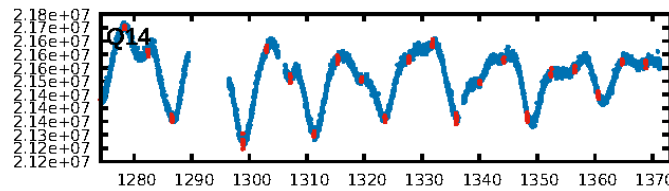
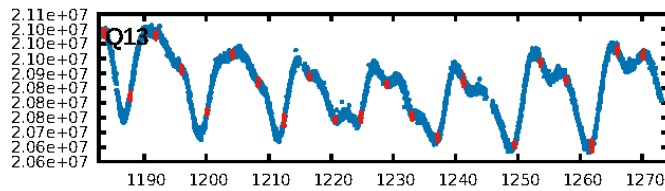
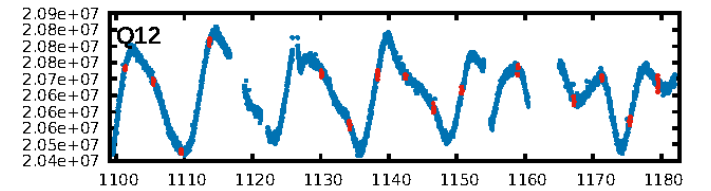
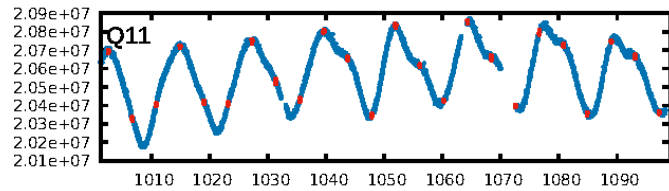
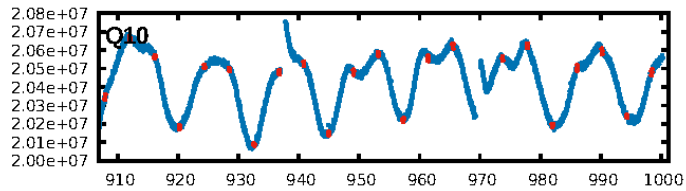
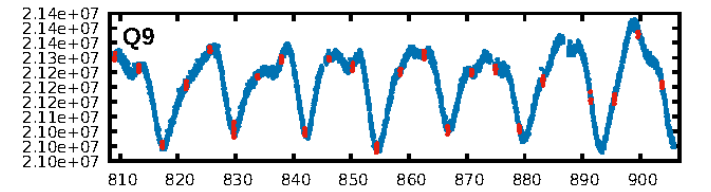
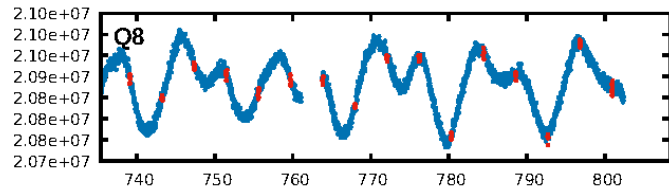
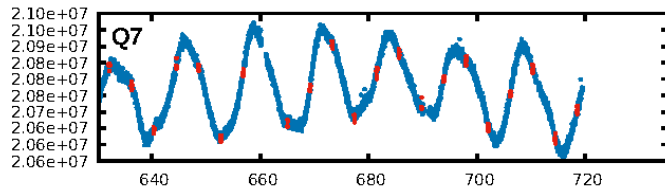
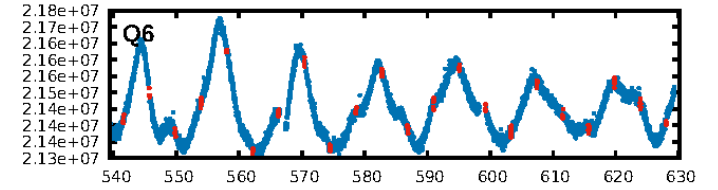
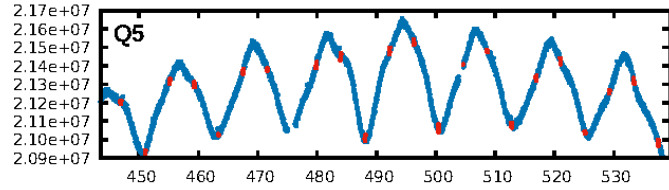
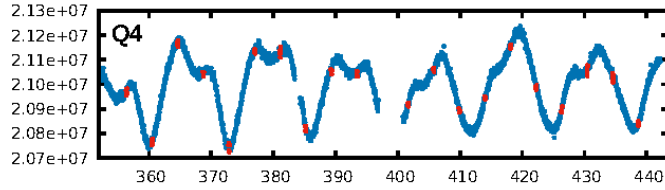
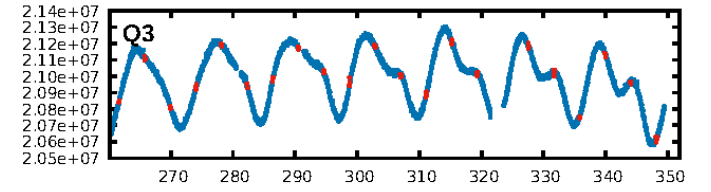
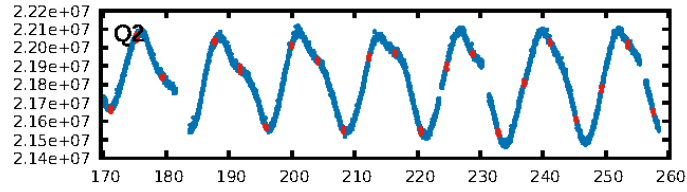
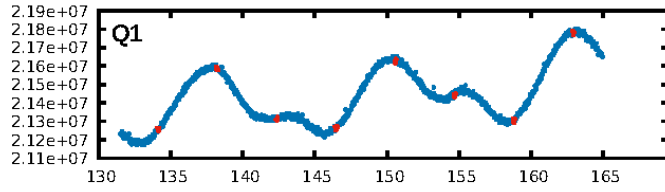
DV Fit Results:

Period = 4.11582 [0.00001] d
Epoch = 134.1215 [0.0011] BKJD
Rp/R* = 0.0224 [0.0076]
a/R* = 9.73 [12.18]
b = 0.90 [0.28]
Seff = 151.80 [28.69]
Teff = 895 [42] K
Rp = 2.01 [0.71] Re
a = 0.0466 [0.0044] AU
Ag = 16.64 [12.34] [1.27 σ]
Teffp = 2795 [515] K [3.68 σ]

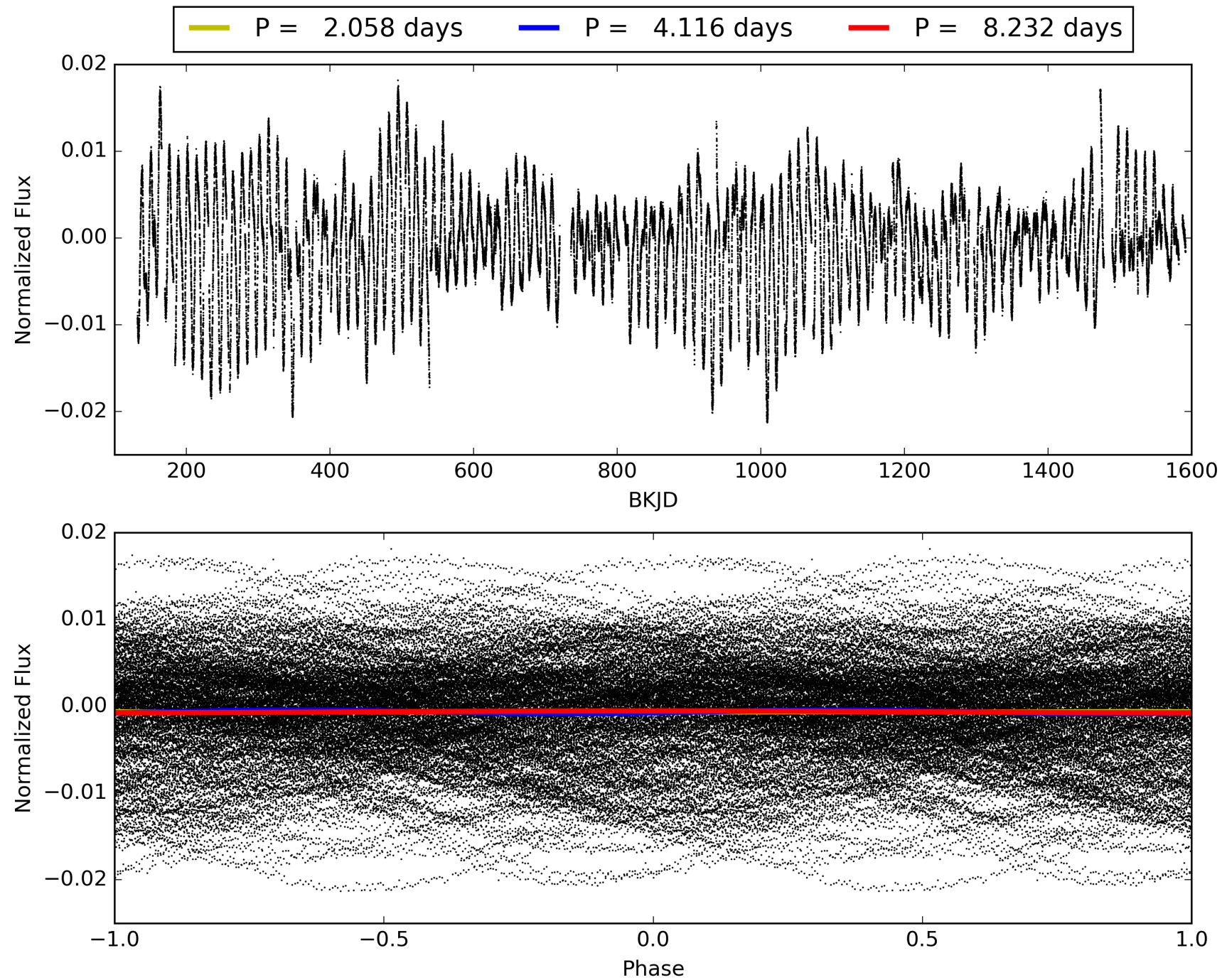
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [350.71 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.64e-123
RollingBand-fgt: 0.99 [302/305]
GhostDiagnostic-chr: 3.487
Centroid-sig: 55.2%
Centroid-so: 0.360 arcsec [0.70 σ]
OotOffset-rm: 0.212 arcsec [1.11 σ]
KicOffset-rm: 0.201 arcsec [1.08 σ]
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]

TCE 005184911-01, PDC Light Curves

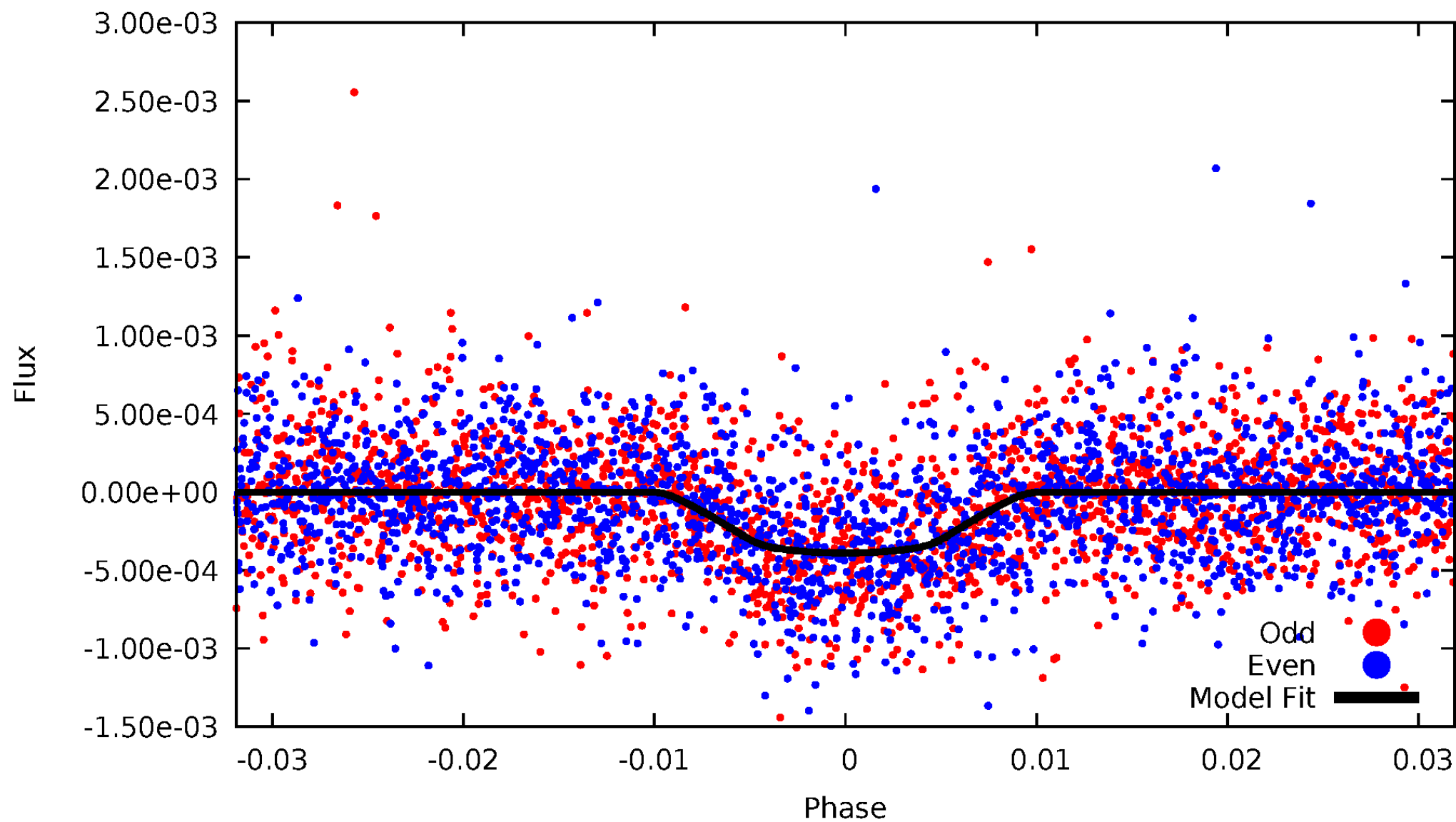


TCE 005184911-01



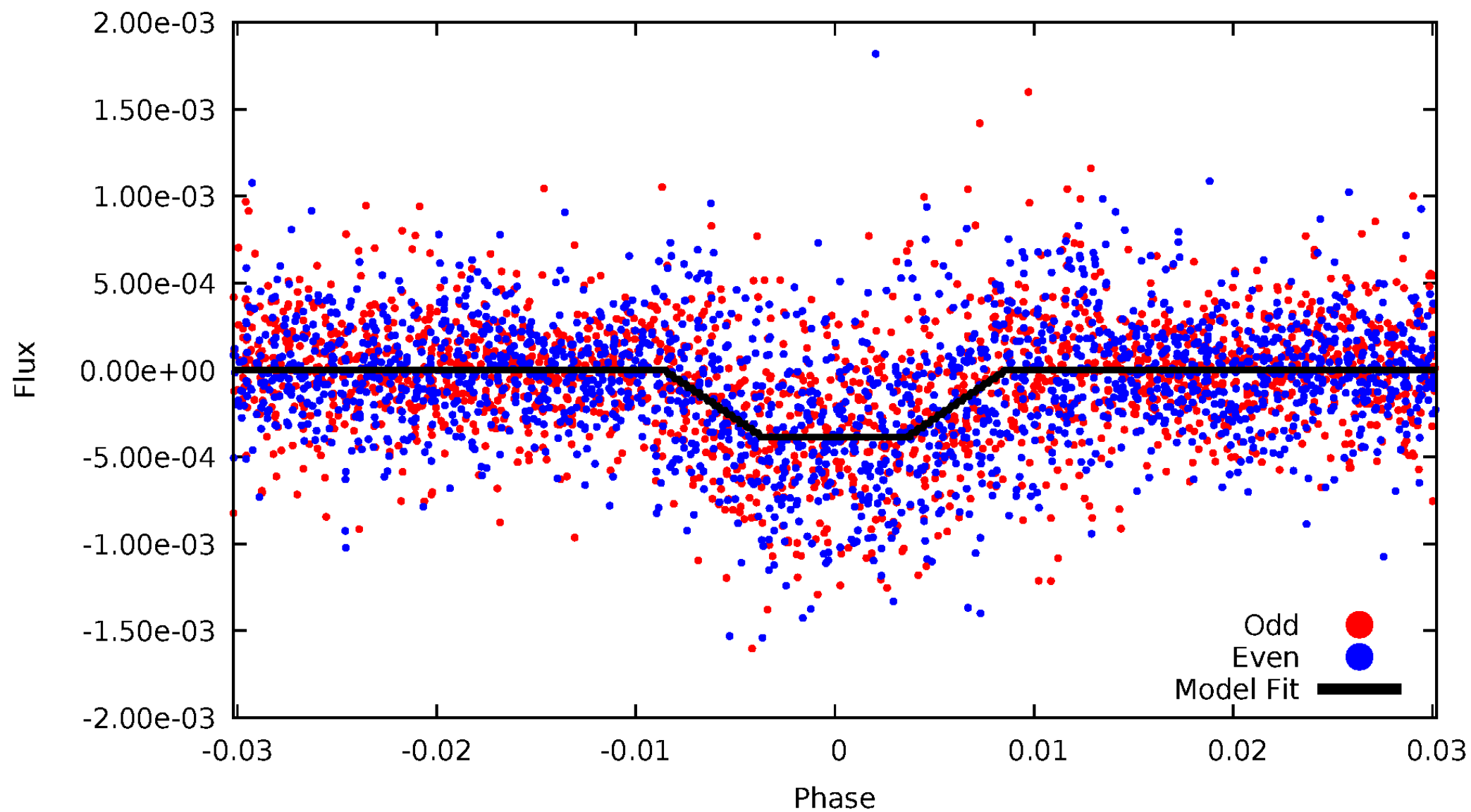
DV Odd/Even

TCE 005184911-01



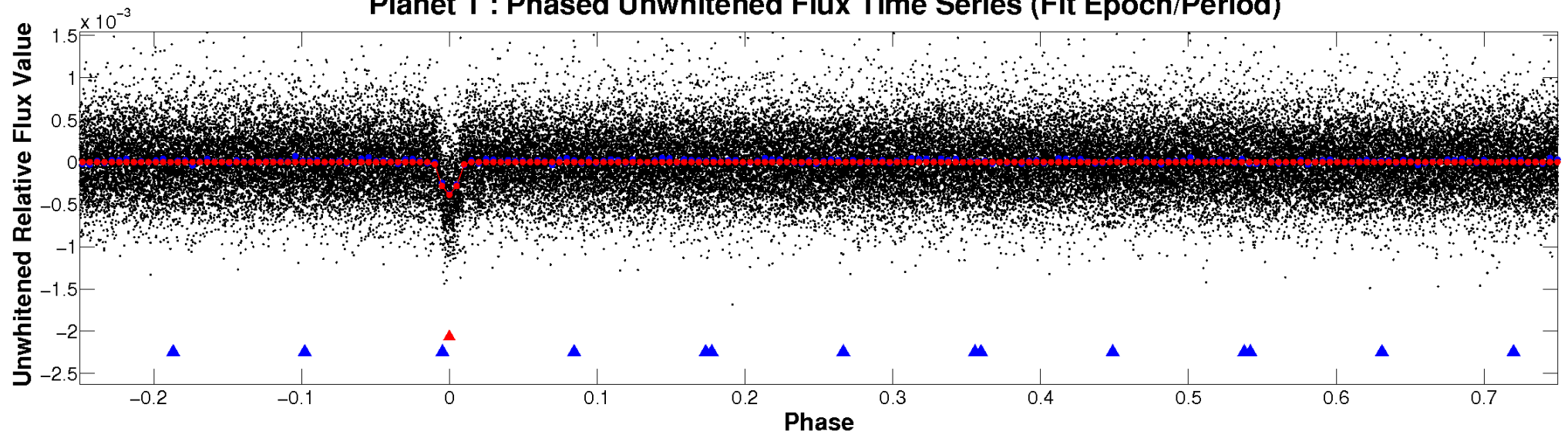
ALT Odd/Even

TCE 005184911-01

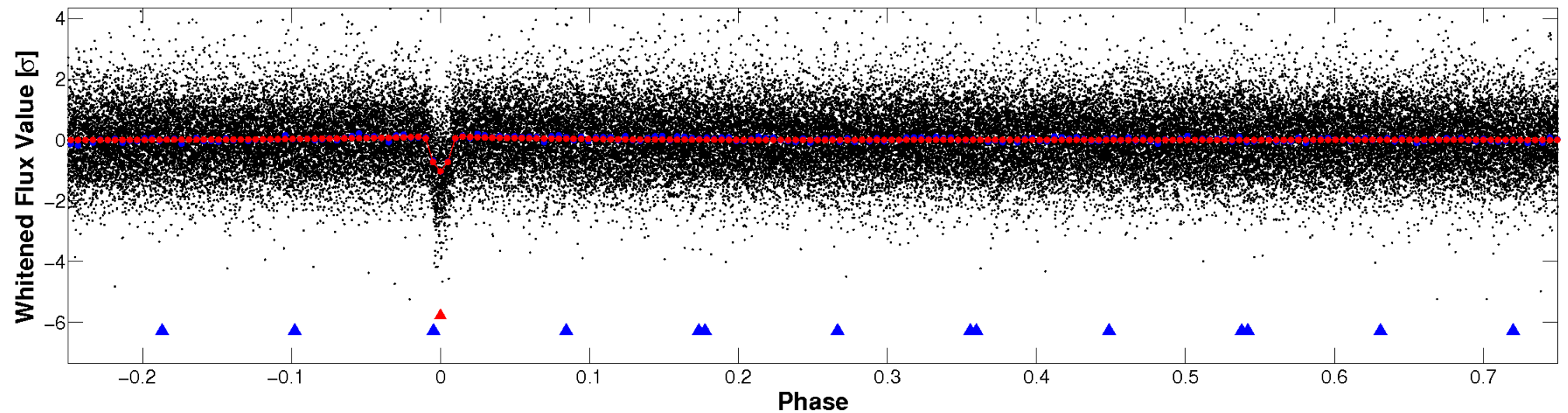


Non-Whitened Vs. Whitened Light Curve

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

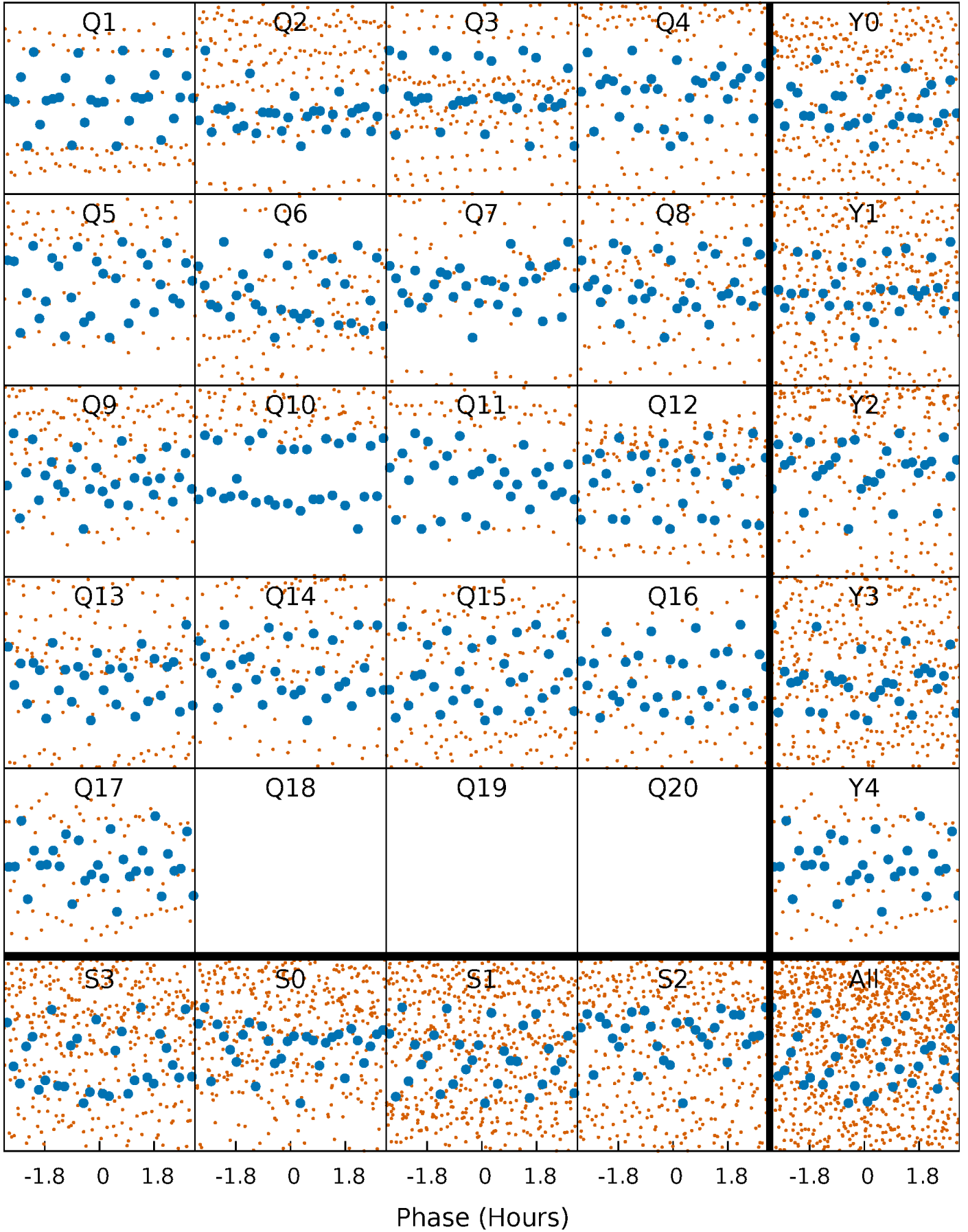


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



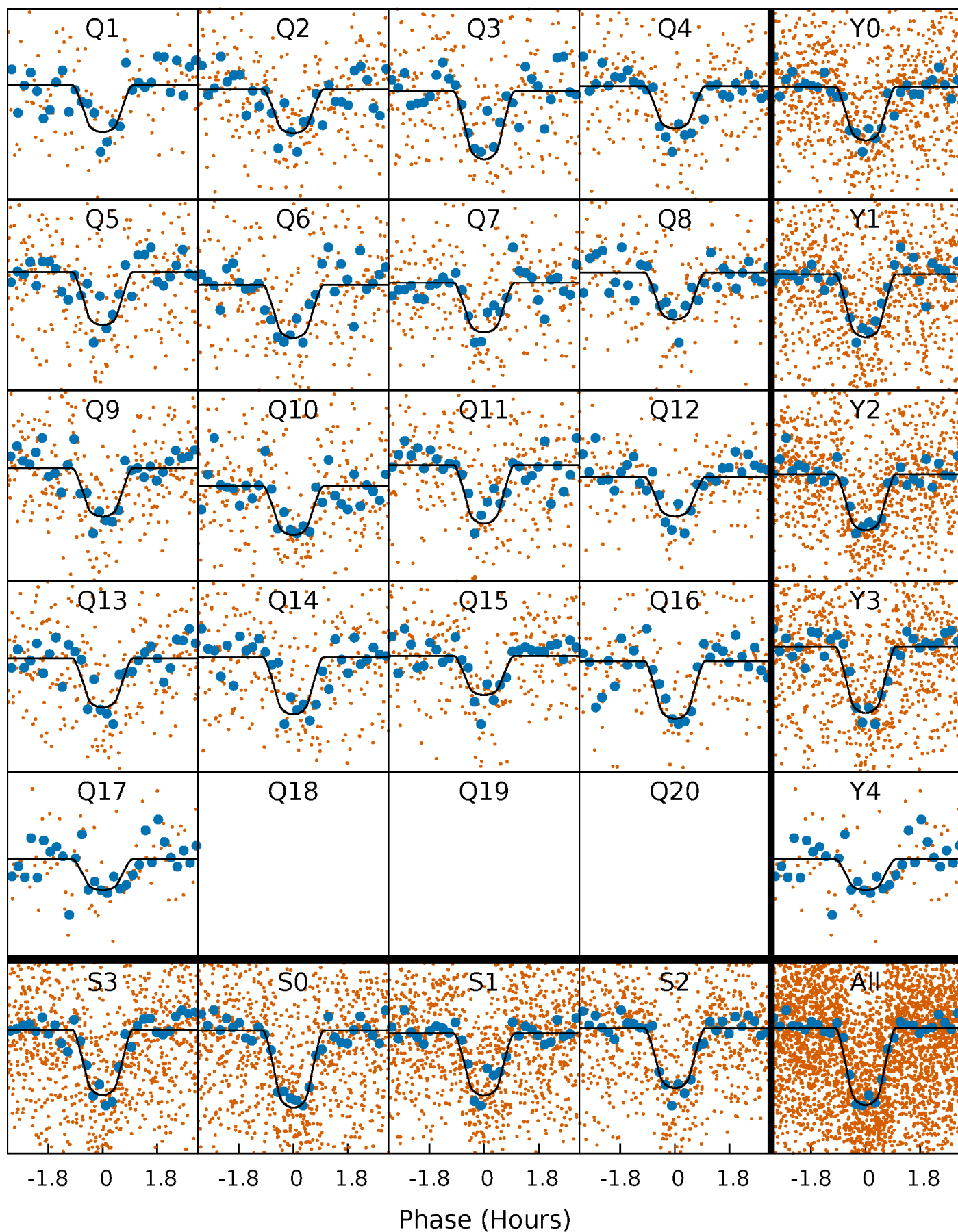
PDC Quarter-Phased Transit Curves

TCE 005184911-01 P= 4.115825 Days $T_0=134.121520$ (BKJD)



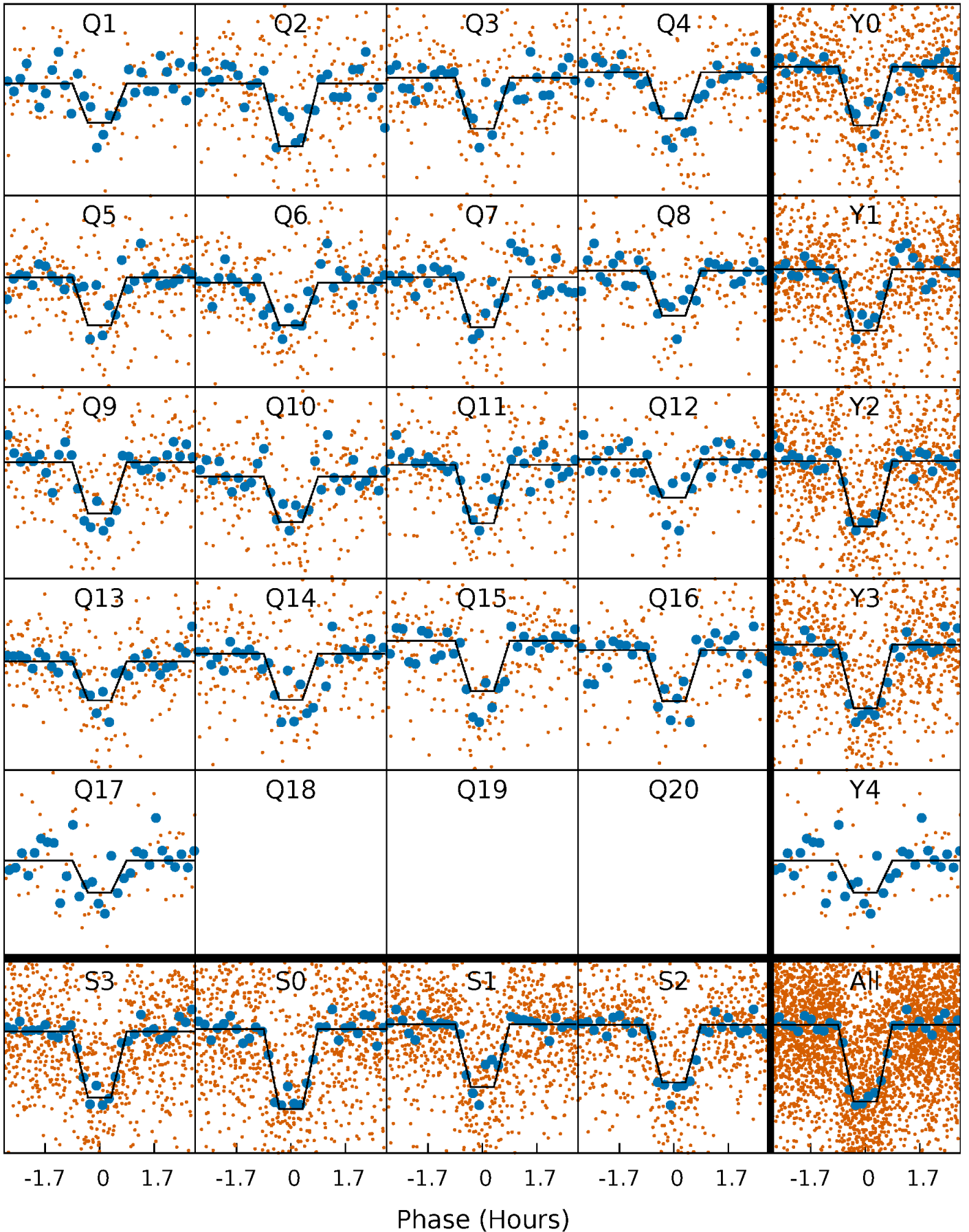
DV Quarter-Phased Transit Curves

TCE 005184911-01 P= 4.115825 Days $T_0=134.121520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

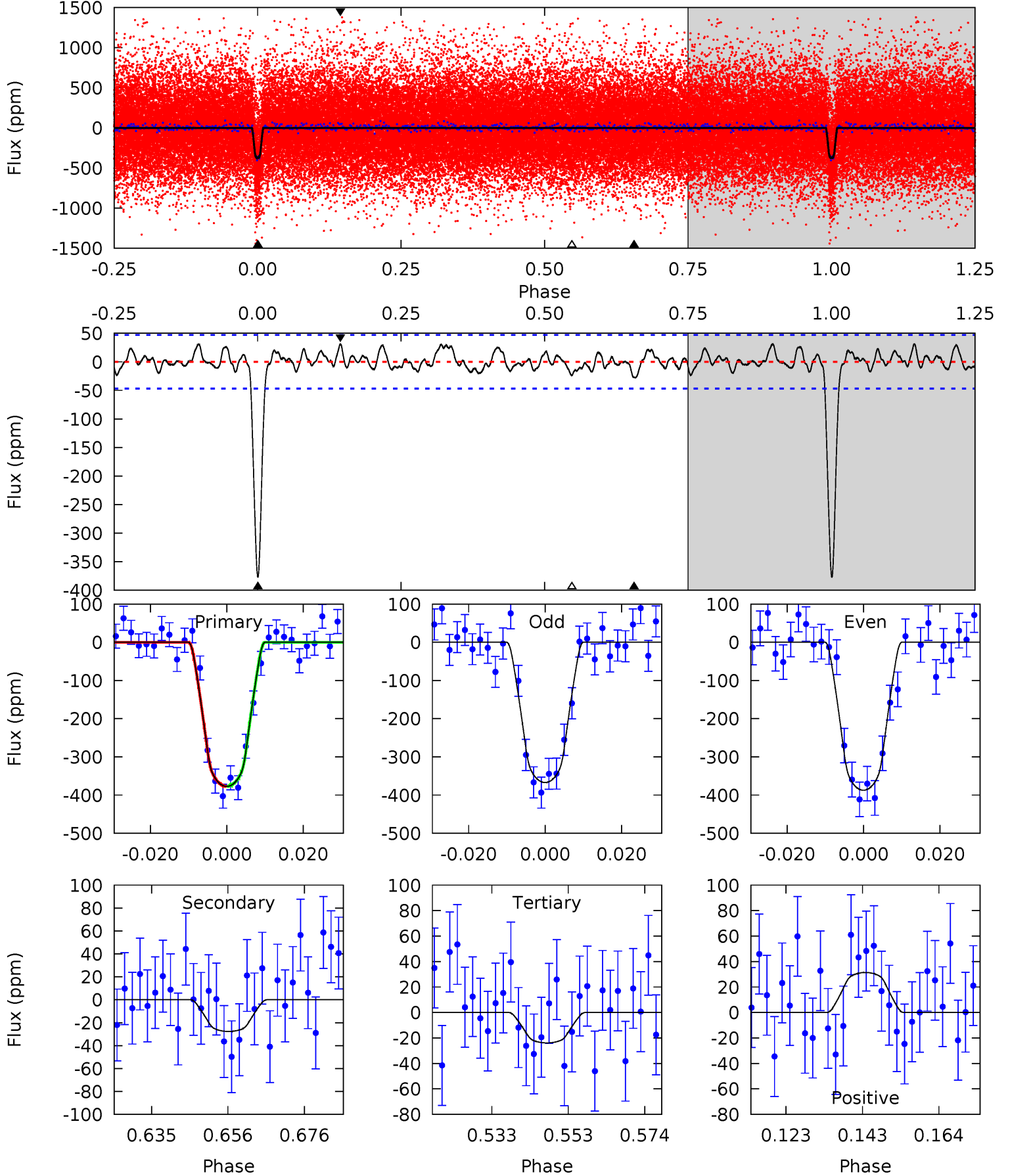
TCE 005184911-01 P= 4.115845 Days $T_0=134.118818$ (BKJD)



DV Model-Shift Uniqueness Test

005184911-01, P = 4.115825 Days, E = 130.005695 Days

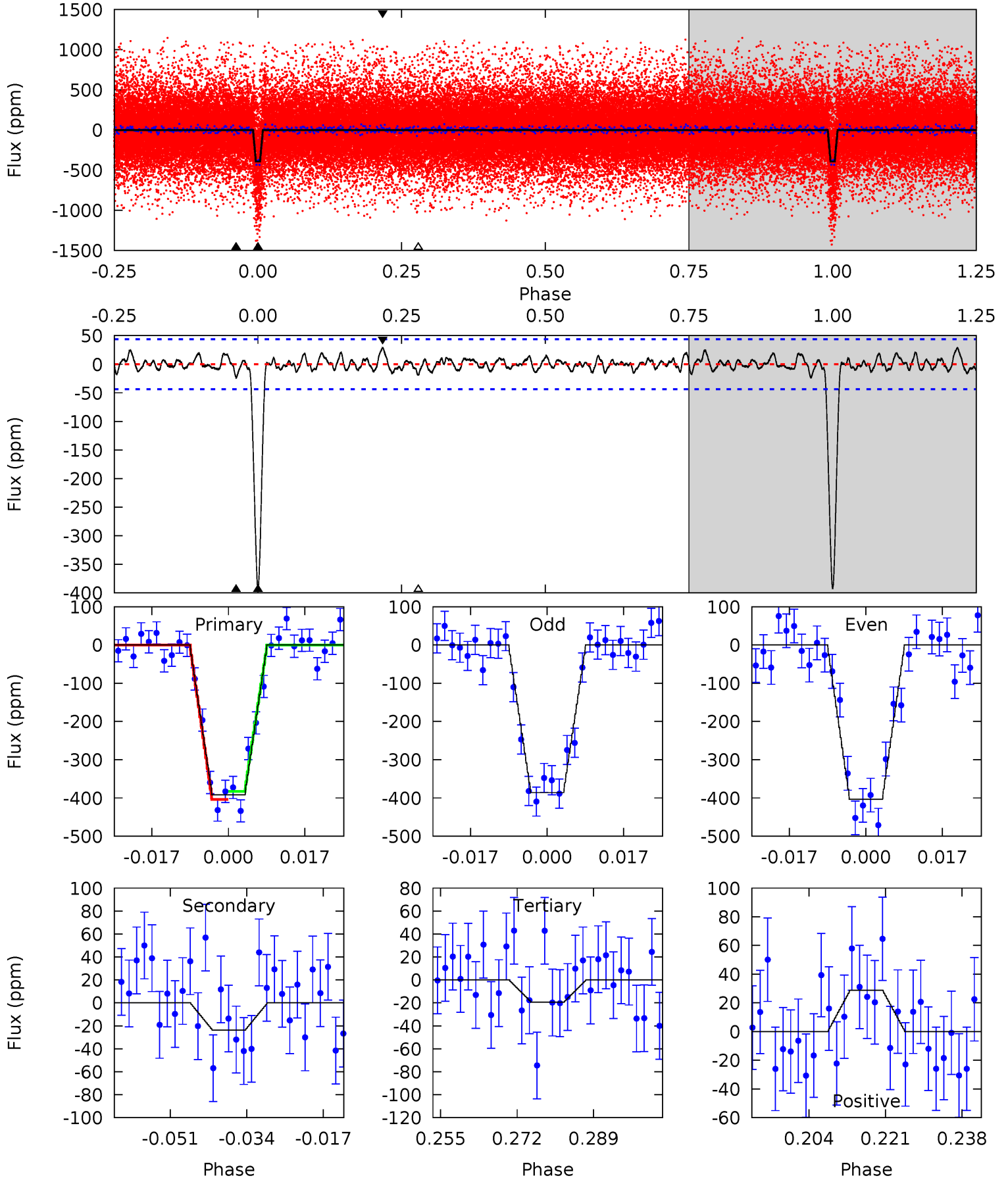
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.3	2.88	2.48	3.27	4.89	2.32	1.24	36.8	36.0	0.39	-0.39	1.05	0.97	0.08	0.01



Alt Model-Shift Uniqueness Test

005184911-01, P = 4.115845 Days, E = 130.002973 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.2	2.68	2.18	3.24	4.92	2.39	0.93	42.0	41.0	0.50	-0.57	0.99	1.00	0.07	1.21



Stellar Parameters For KIC 005184911

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4827^{+129}_{-144}	$4.508^{+0.084}_{-0.070}$	$0.320^{+0.150}_{-0.300}$	$0.823^{+0.056}_{-0.086}$	$0.796^{+0.051}_{-0.051}$	$2.013^{+0.719}_{-0.371}$
	+3%/-3%	+2%/-2%	+47%/-94%	+7%/-10%	+6%/-6%	+36%/-18%
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 005184911-01 / KOI 2719.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 10	$2.00^{+0.69}_{-0.66}$	1251^{+45}_{-55}	2932^{+430}_{-274}	$7.868^{+10.856}_{-3.896}$
Alt.	-24 ± 9	$1.71^{+0.77}_{-0.63}$	1251^{+42}_{-45}	3002^{+492}_{-334}	$9.464^{+16.163}_{-5.398}$

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

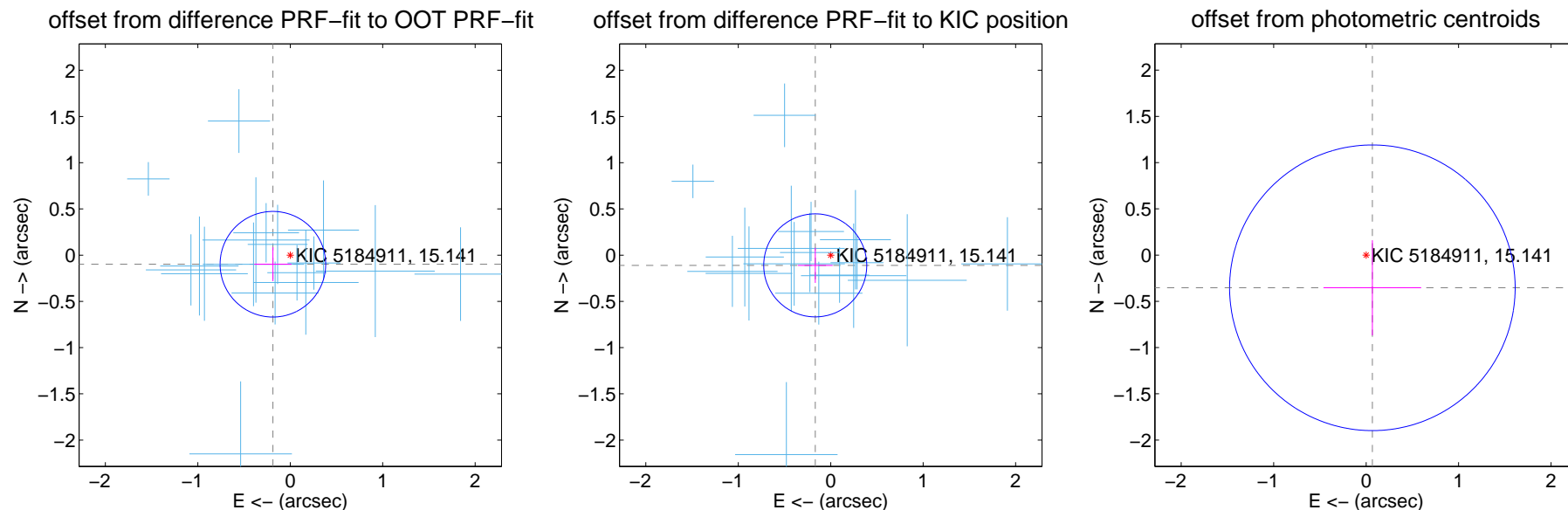
DV Centroid Data

Supplemental centroid analysis for 005184911-01. Kepler magnitude: 15.14. Transit SNR 26.18

There are 17 quarters with good PRF difference image offsets

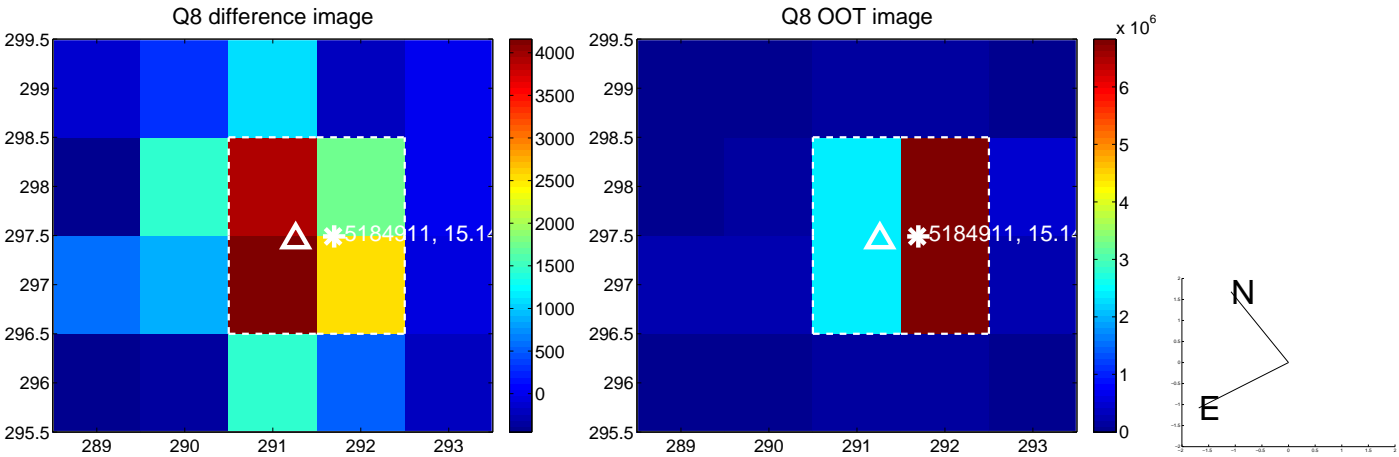
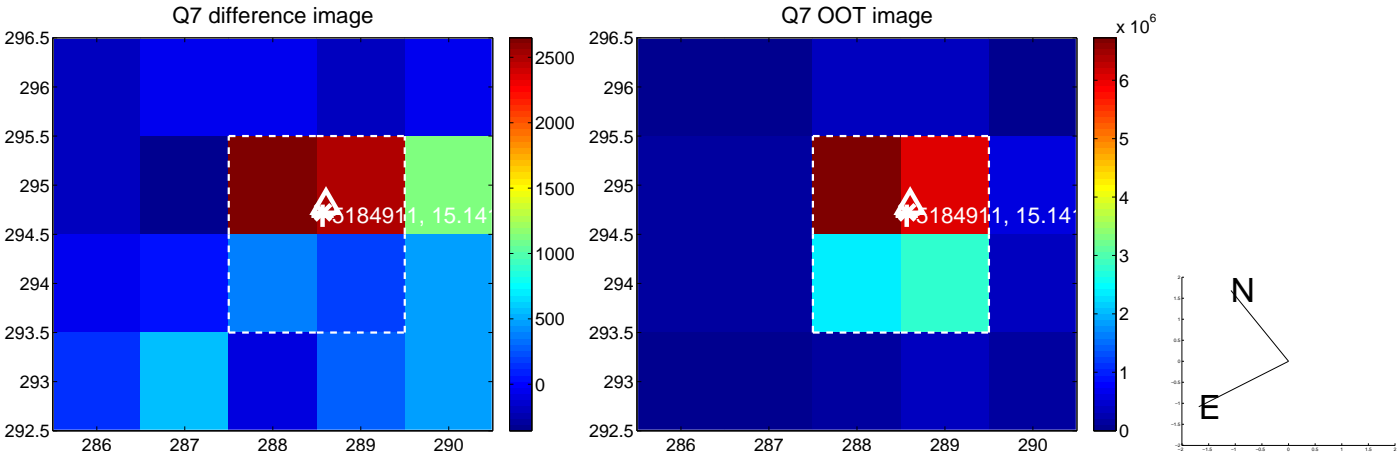
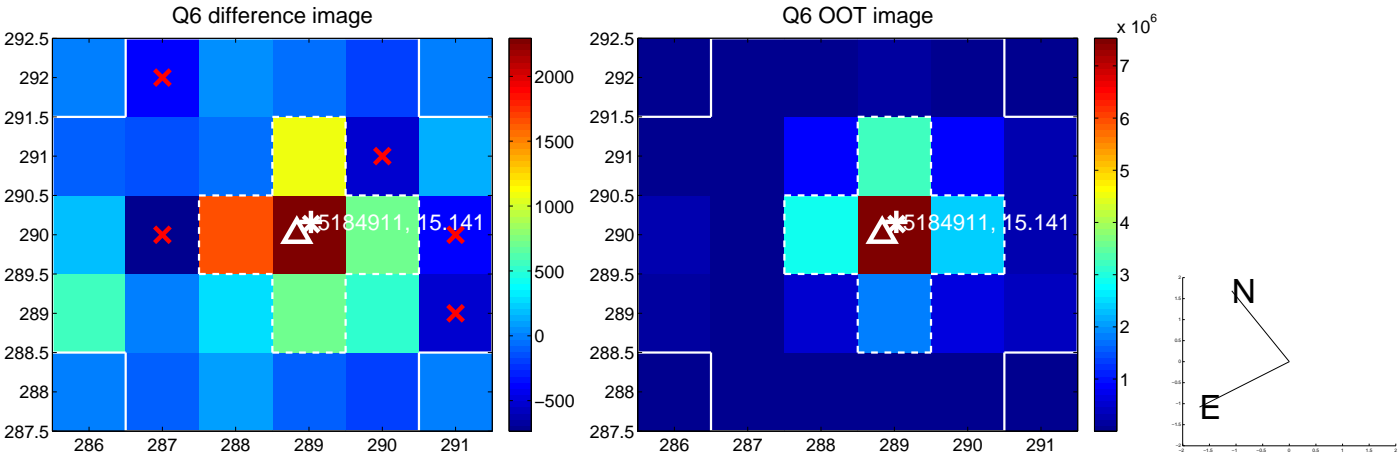
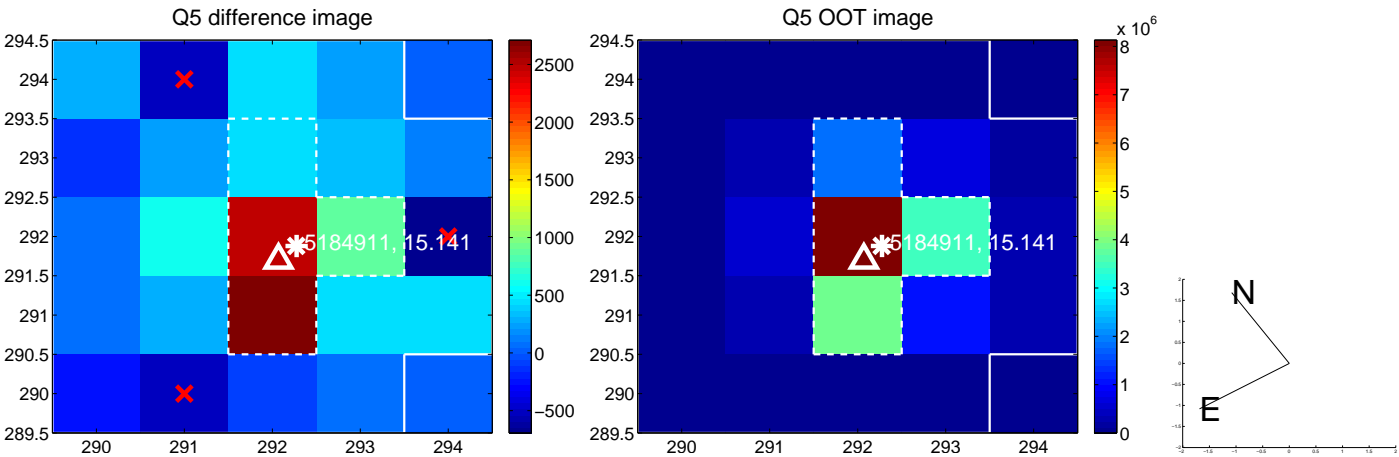
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.212 ± 0.190	1.11	0.188 ± 0.201	-0.098 ± 0.183
PRF-fit source offset from KIC position	0.201 ± 0.186	1.08	0.167 ± 0.189	-0.110 ± 0.189
photometric centroid source offset	0.36 ± 0.51	0.70	-0.07 ± 0.53	-0.35 ± 0.51

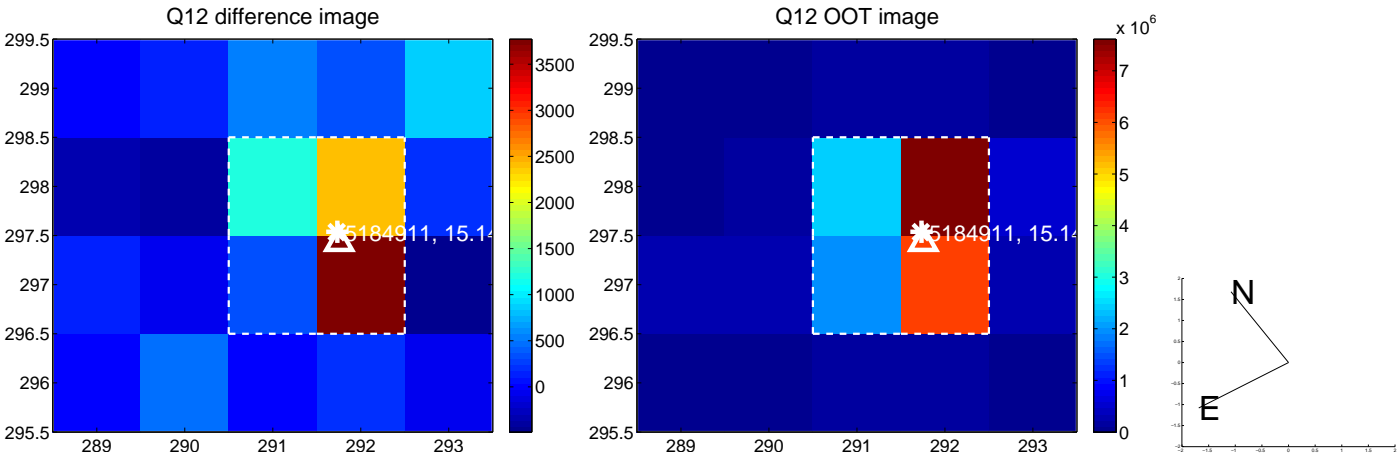
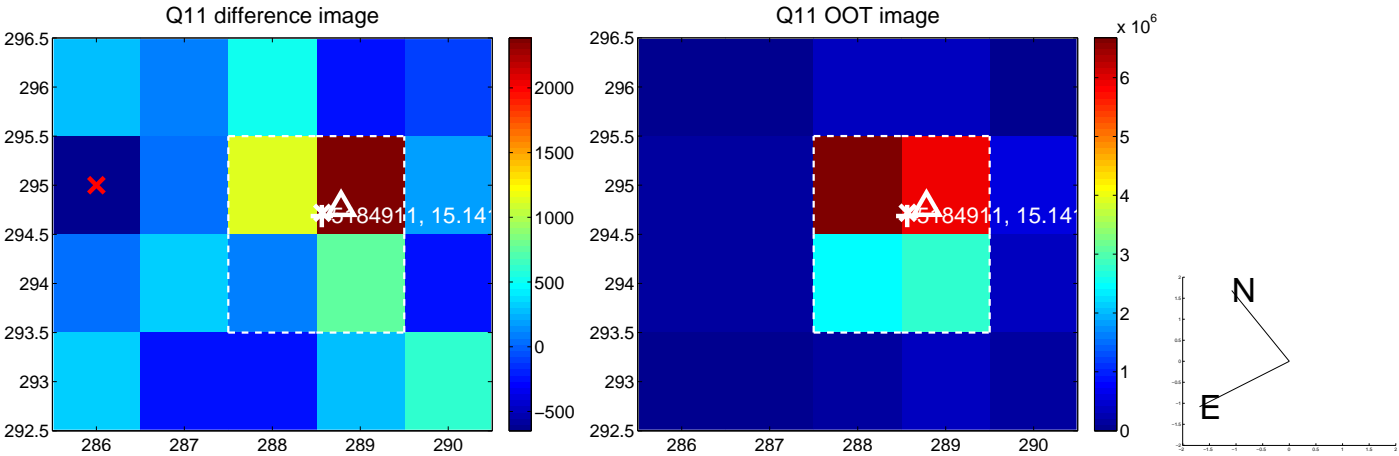
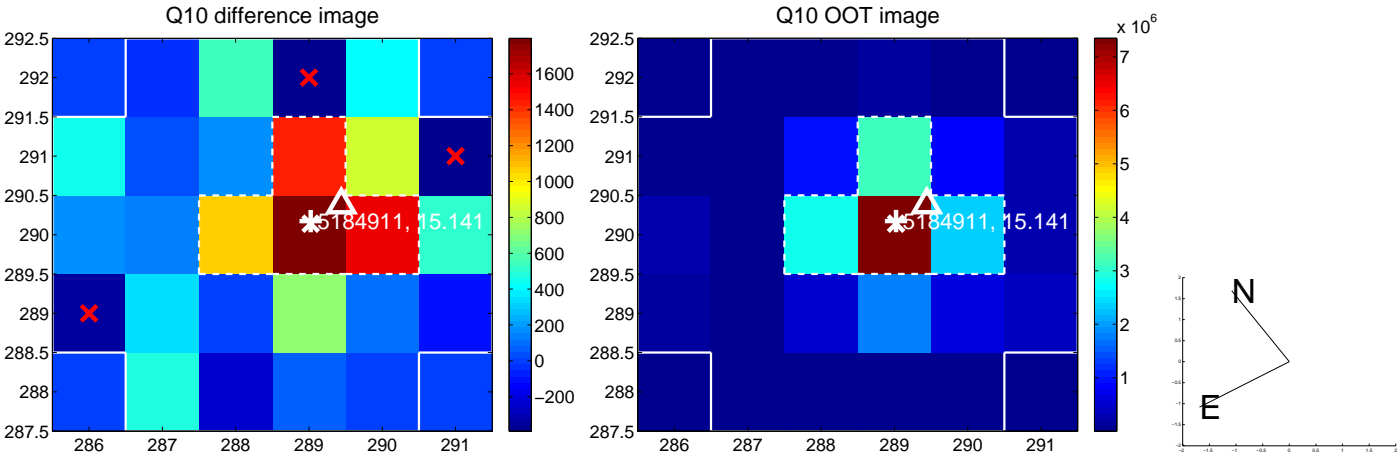
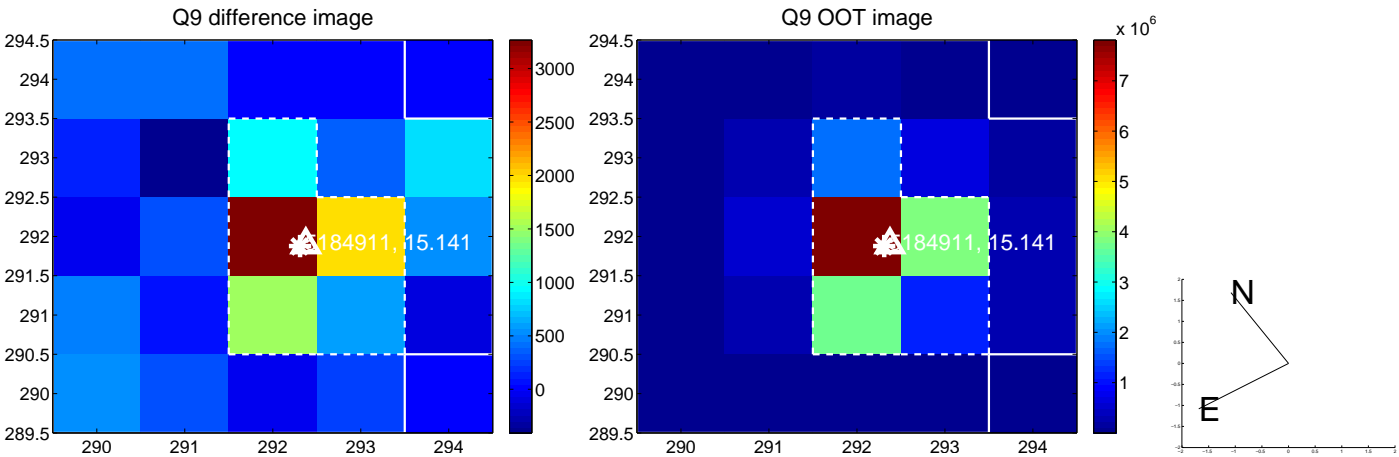


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

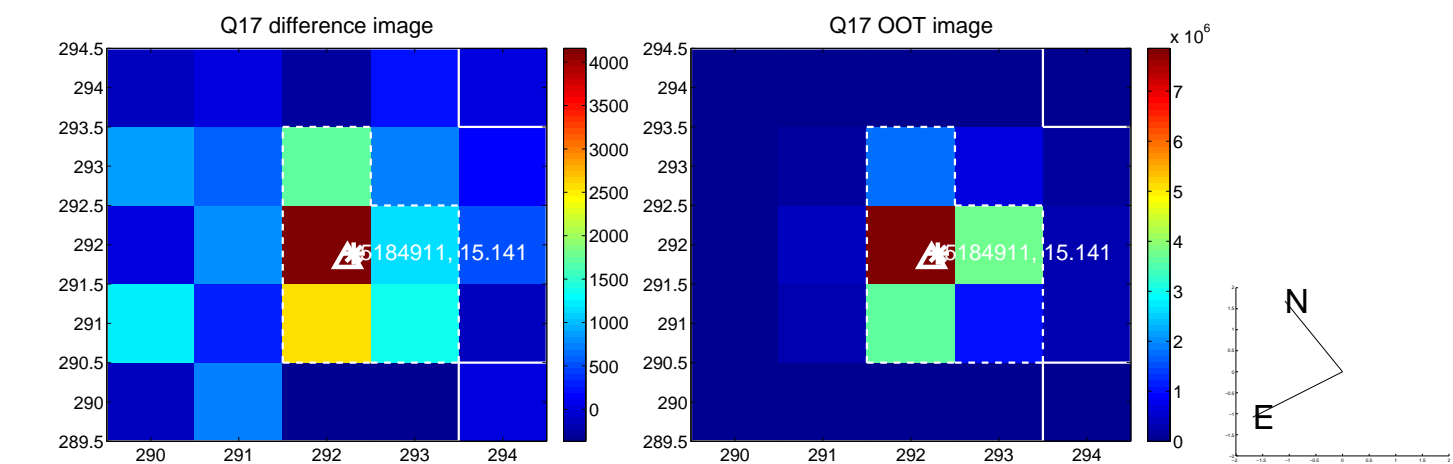
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



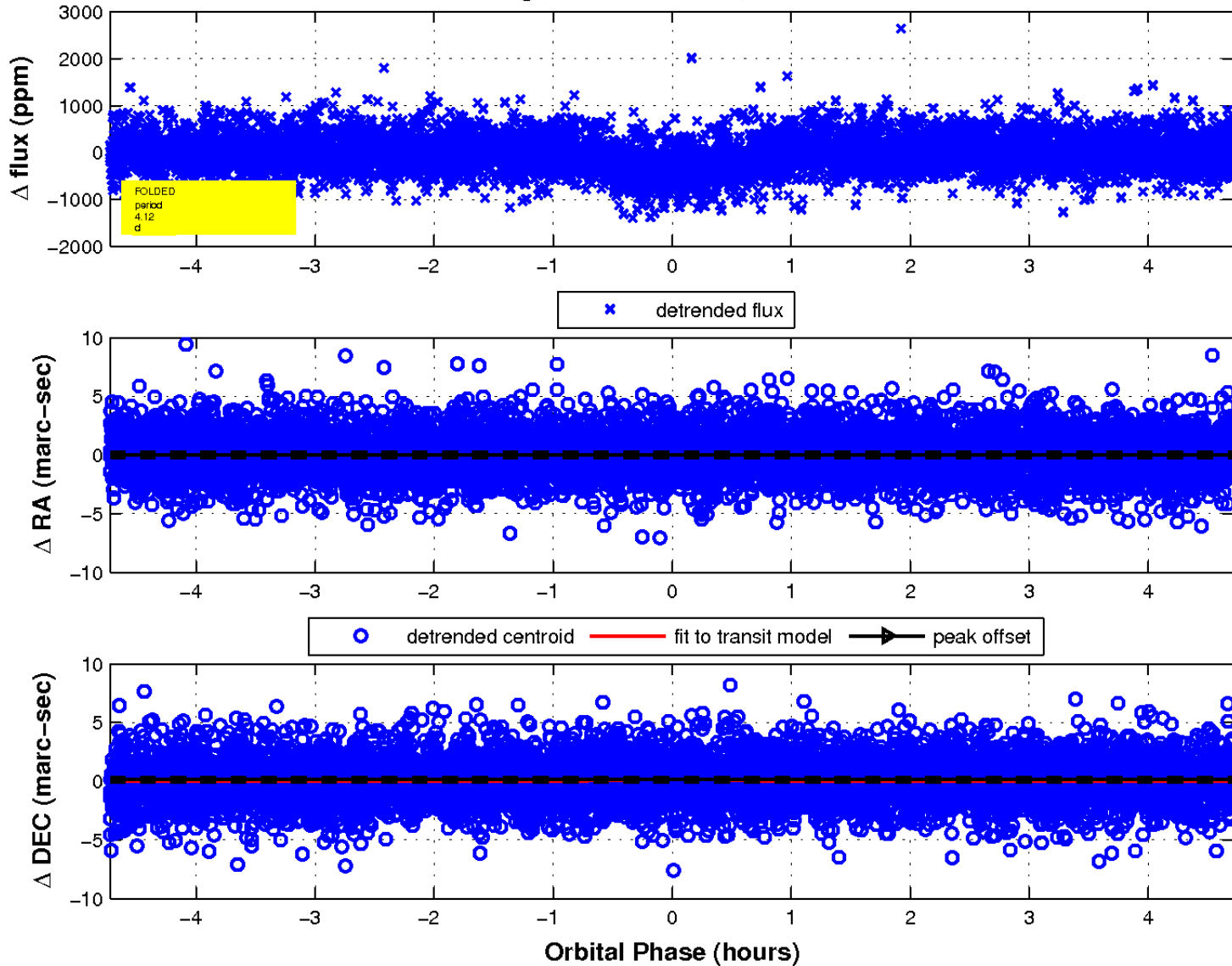
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

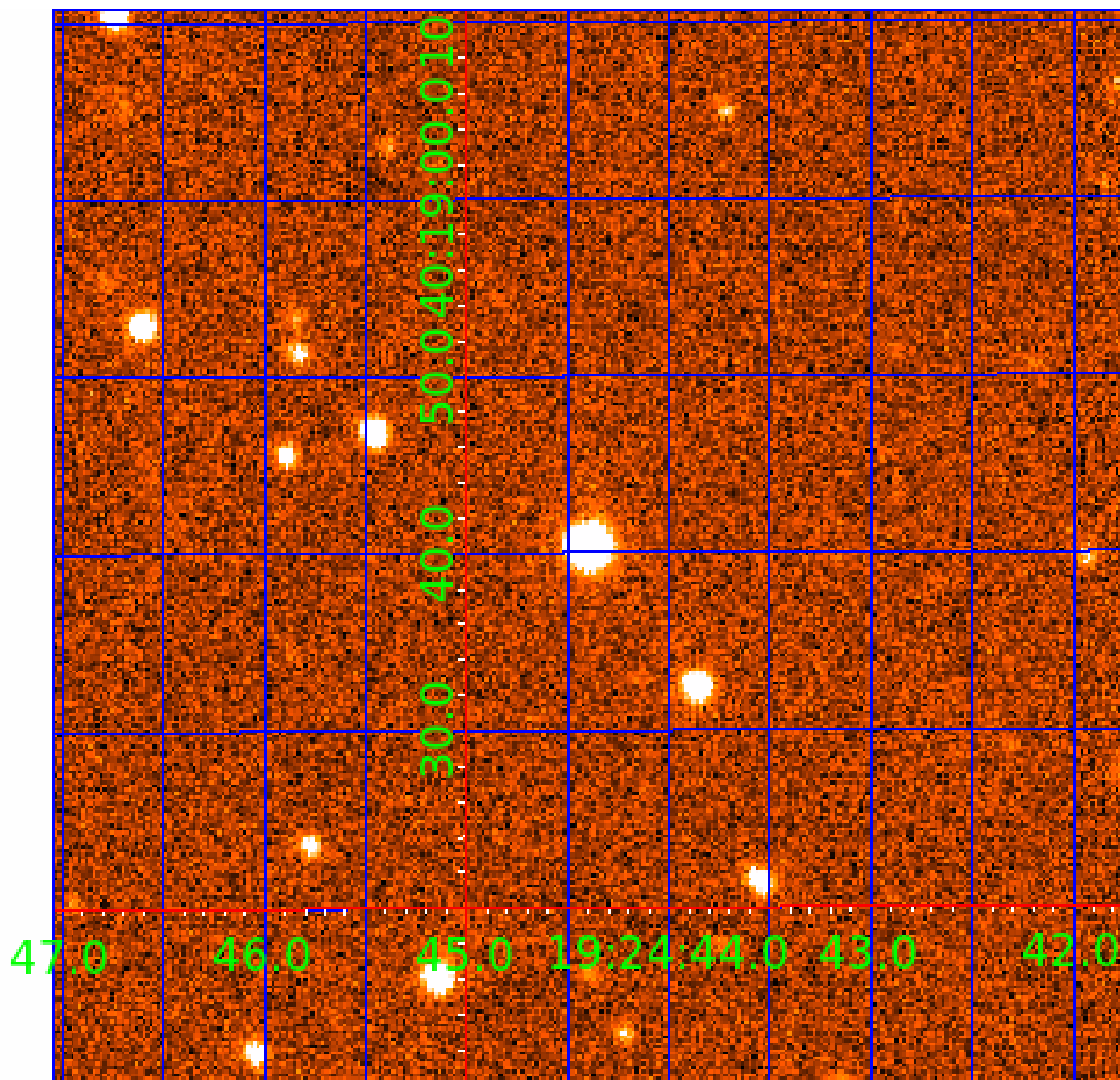


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 005184911

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005184911-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005184911-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

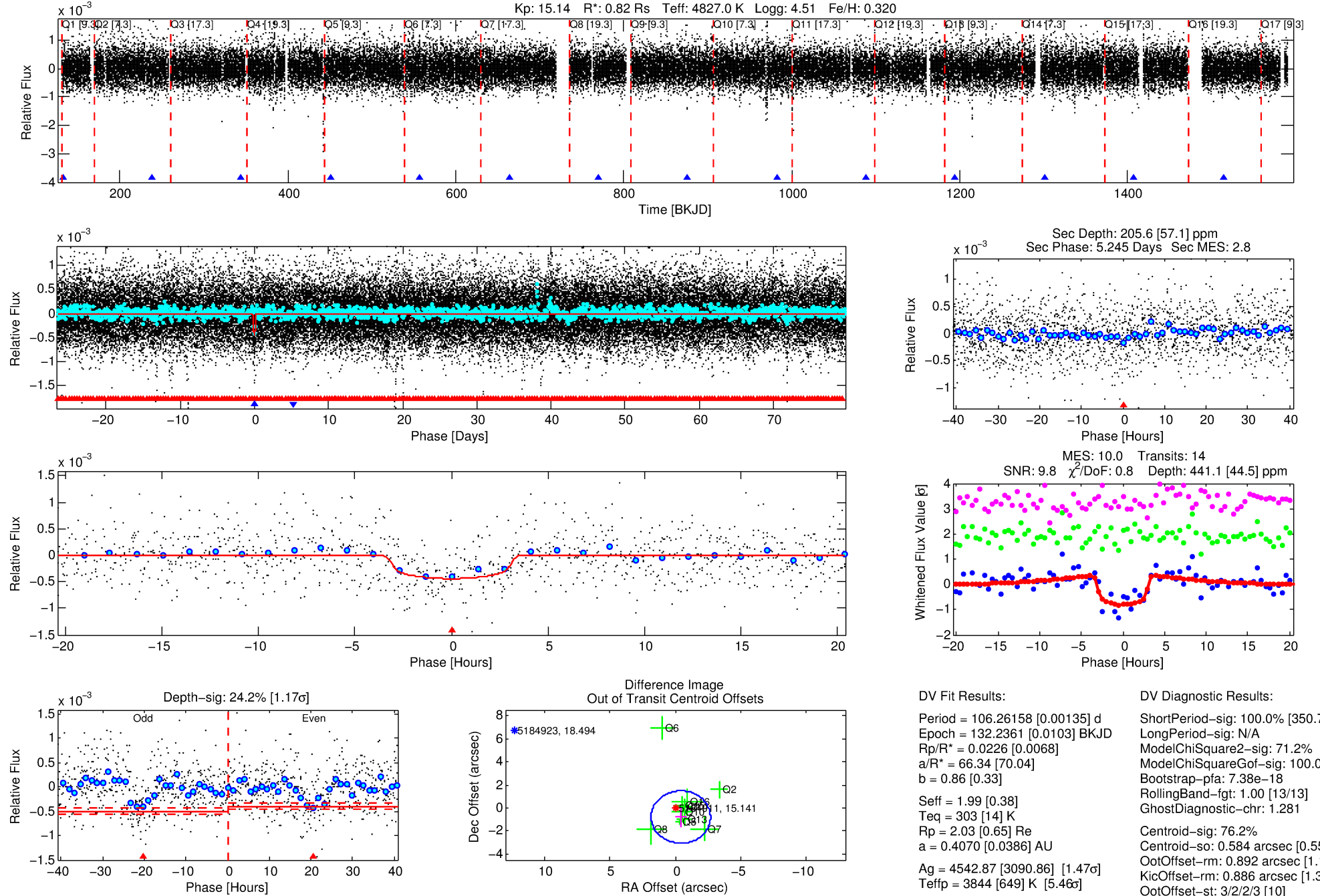
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005184911-02

No Significant Match Found

DV One-Page Summary

KIC: 5184911 Candidate: 2 of 2 Period: 106.262 d
KOI: K02719.02 Corr: 0.981



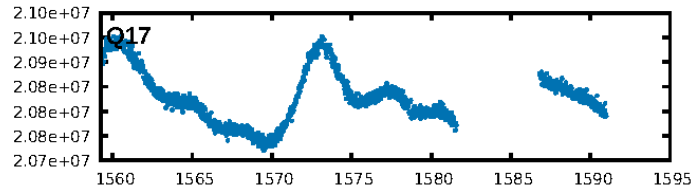
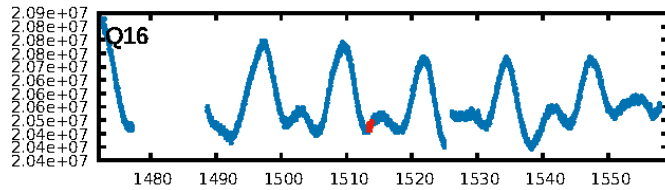
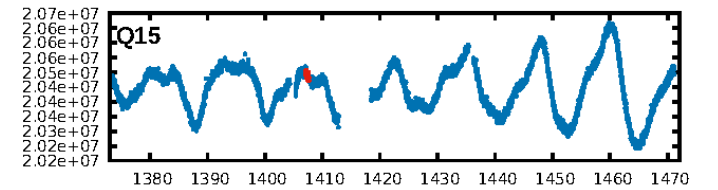
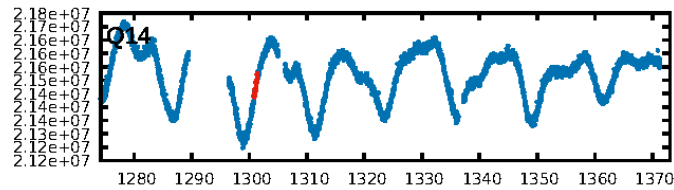
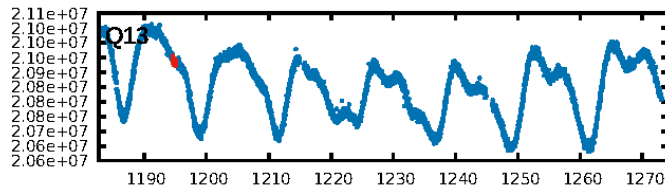
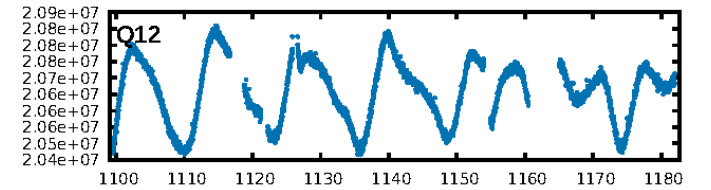
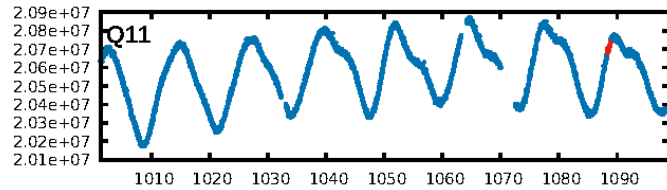
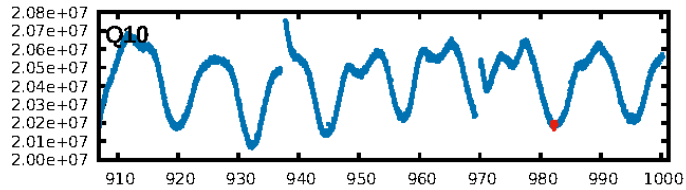
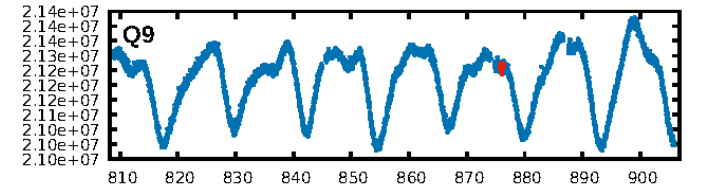
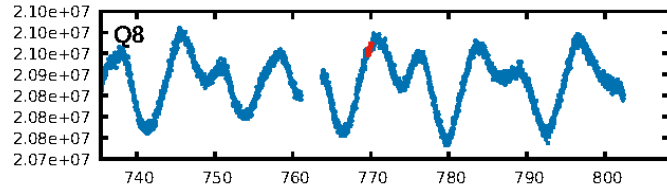
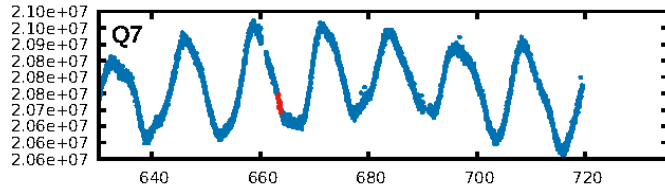
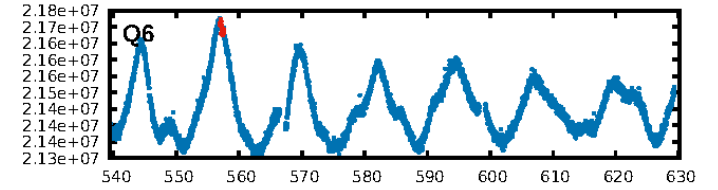
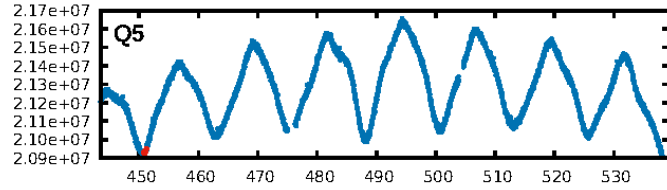
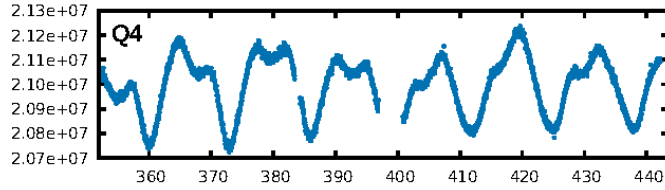
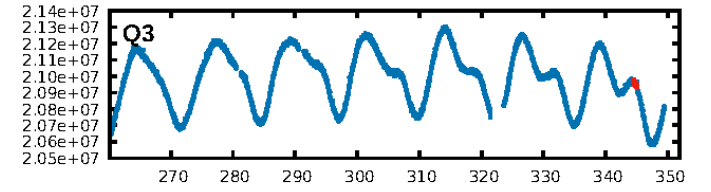
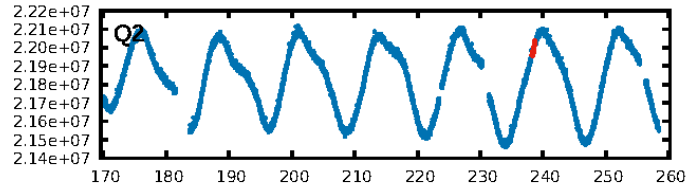
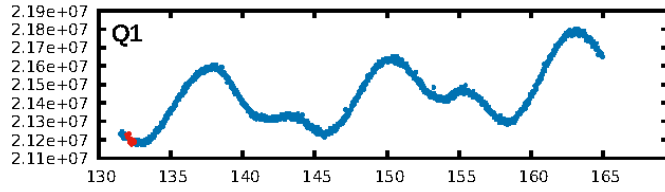
DV Fit Results:

Period = 106.26158 [0.00135] d
Epoch = 132.2361 [0.0103] BKJD
Rp/R* = 0.0226 [0.0068]
a/R* = 66.34 [70.04]
b = 0.86 [0.33]
Seff = 1.99 [0.38]
Teff = 303 [14] K
Rp = 2.03 [0.65] Re
a = 0.4070 [0.0386] AU
Ag = 4542.87 [3090.86] [1.47σ]
Teffp = 3844 [649] K [5.46σ]

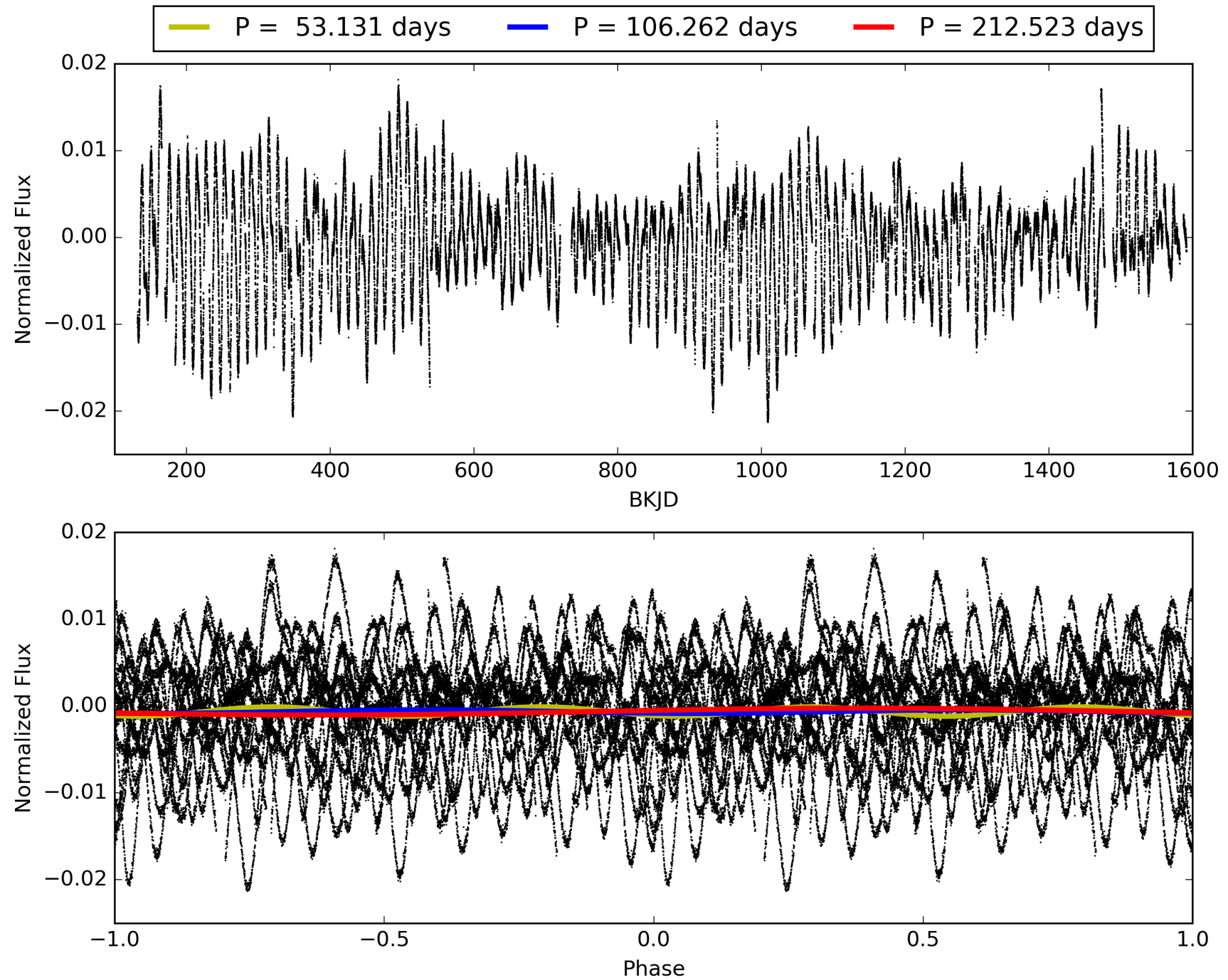
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [350.71σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.38e-18
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 1.281
Centroid-sig: 76.2%
Centroid-so: 0.584 arcsec [0.55σ]
OotOffset-rm: 0.892 arcsec [1.18σ]
KicOffset-rm: 0.886 arcsec [1.37σ]
OotOffset-st: 3/2/2/3 [10]
KicOffset-st: 3/2/2/3 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 0.77 [10/13]

TCE 005184911-02, PDC Light Curves

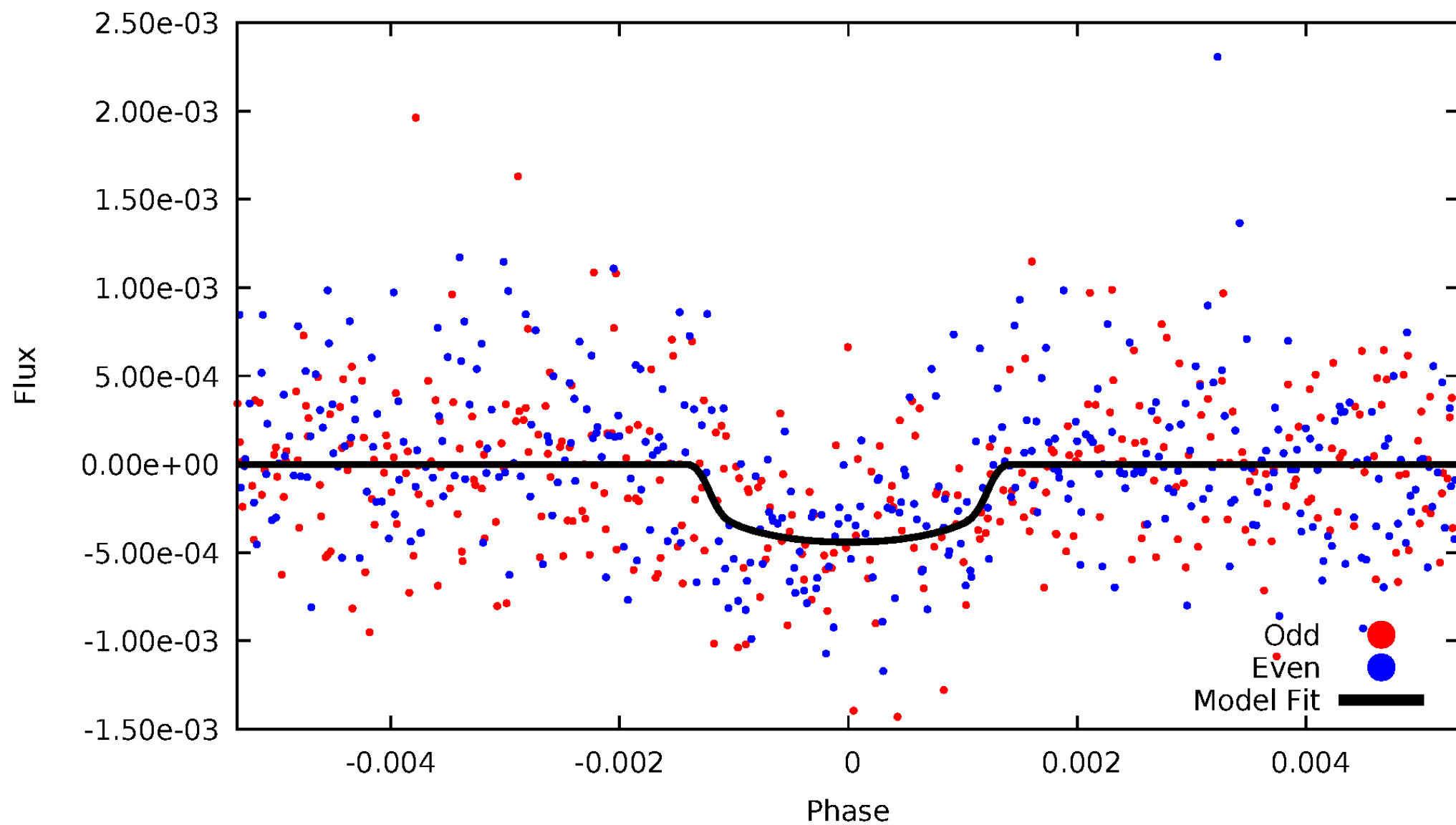


TCE 005184911-02



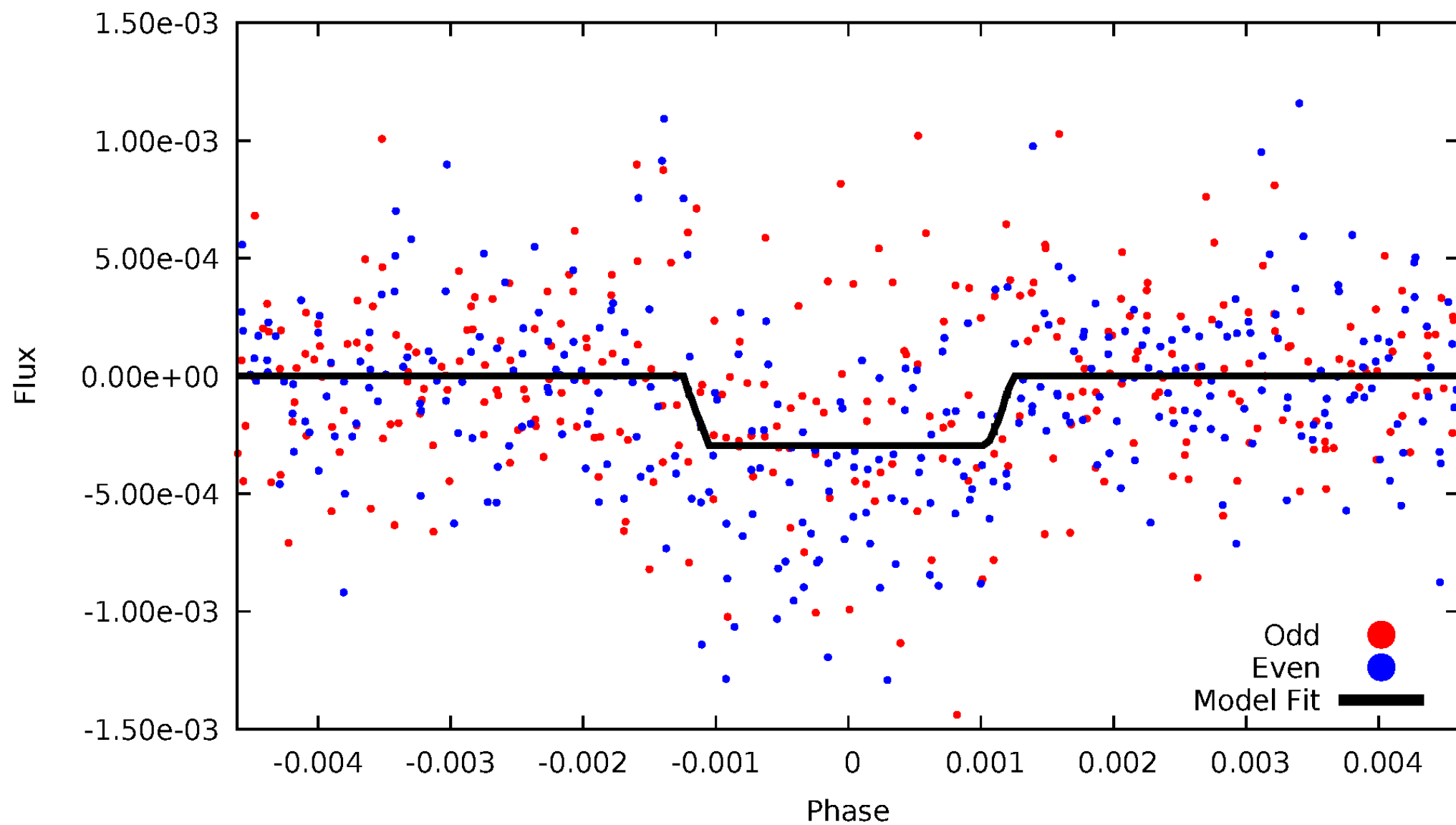
DV Odd/Even

TCE 005184911-02



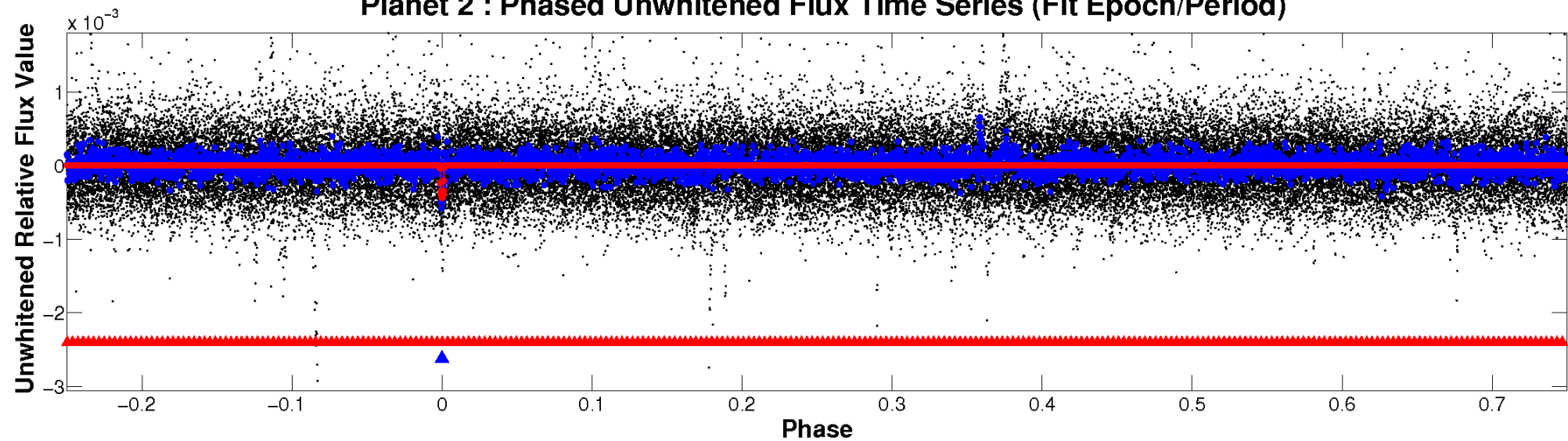
ALT Odd/Even

TCE 005184911-02

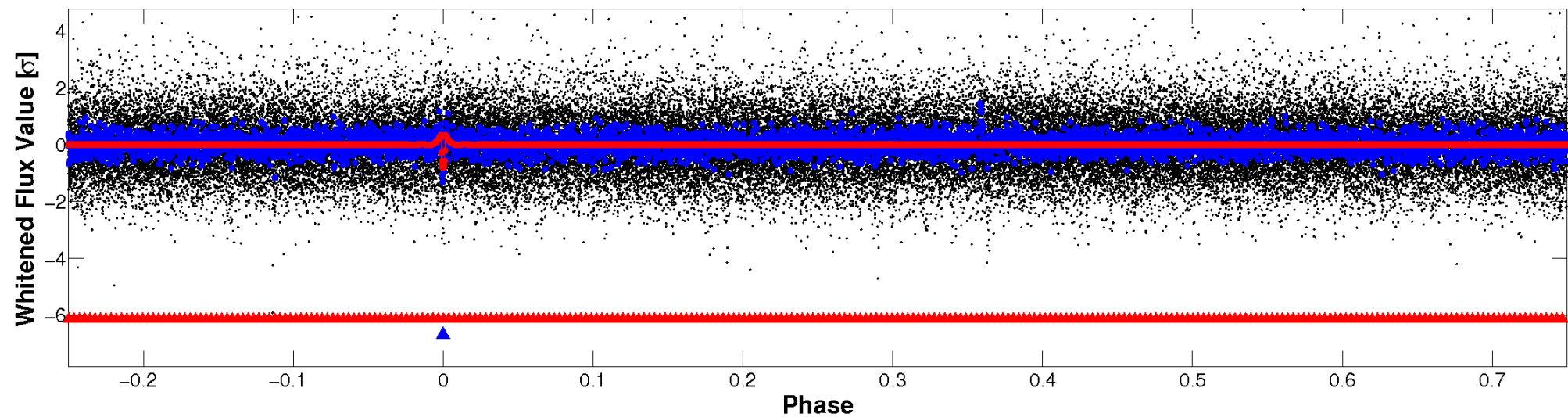


Non-Whitened Vs. Whitened Light Curve

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

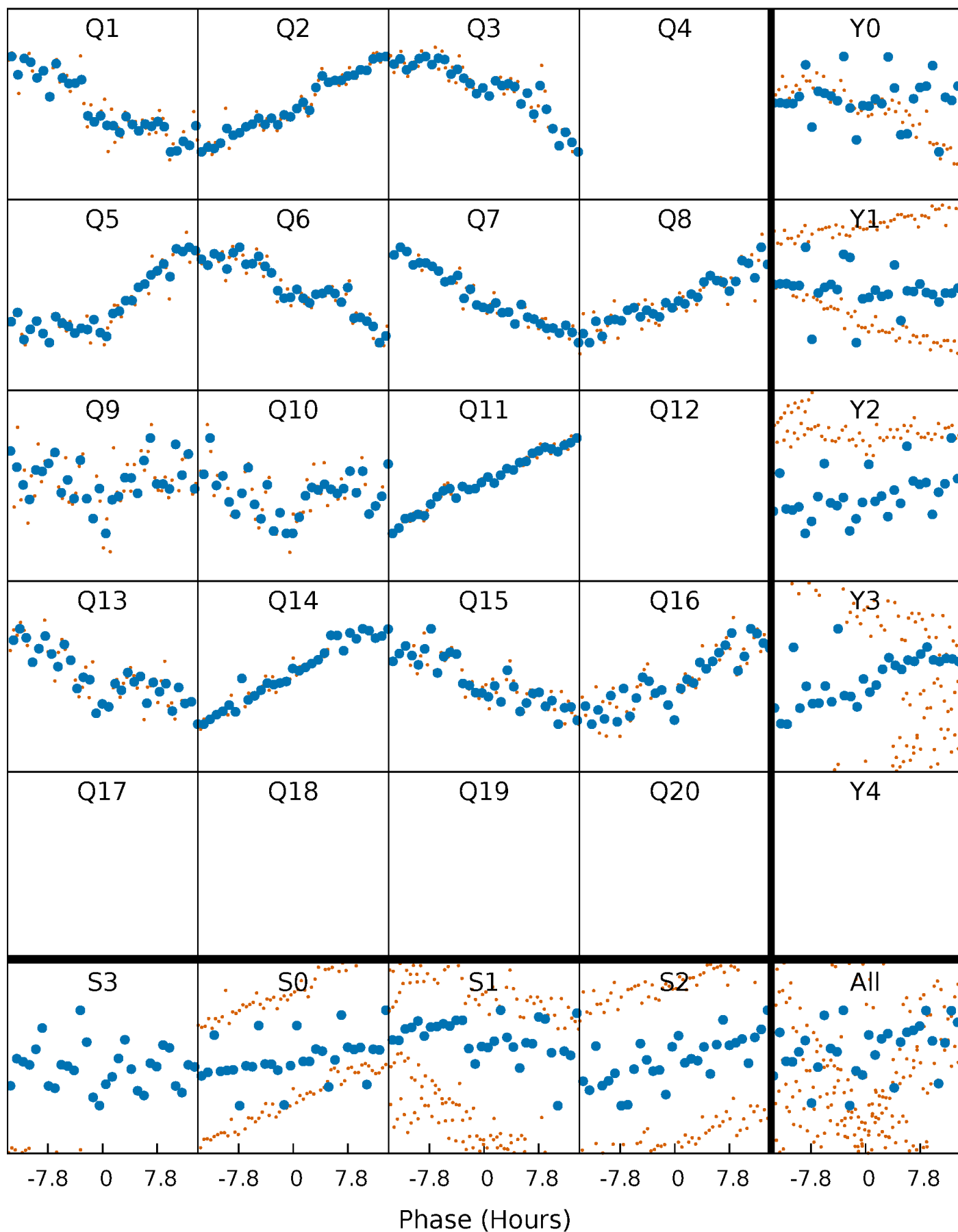


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



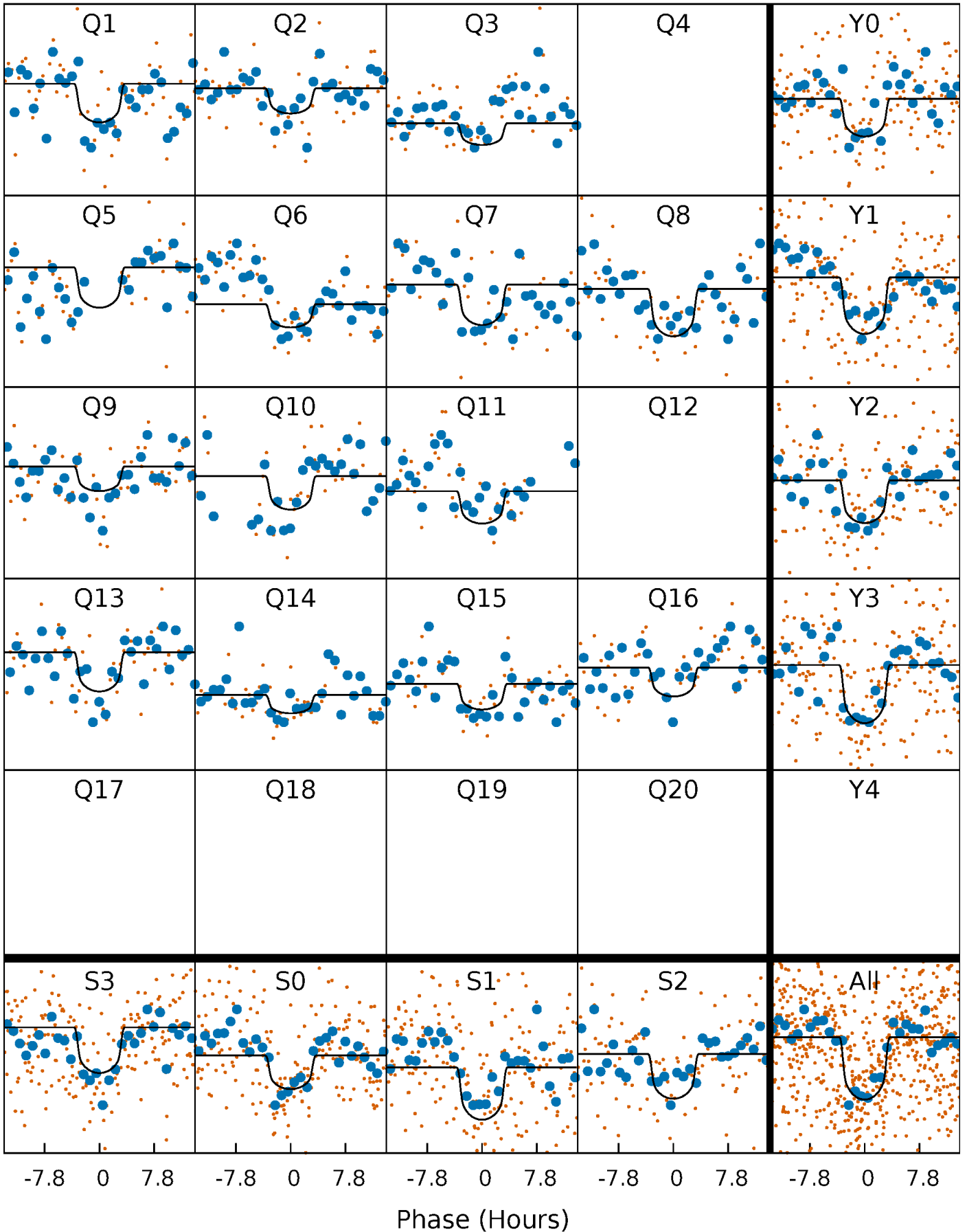
PDC Quarter-Phased Transit Curves

TCE 005184911-02 P=106.261583 Days $T_0=132.236132$ (BKJD)



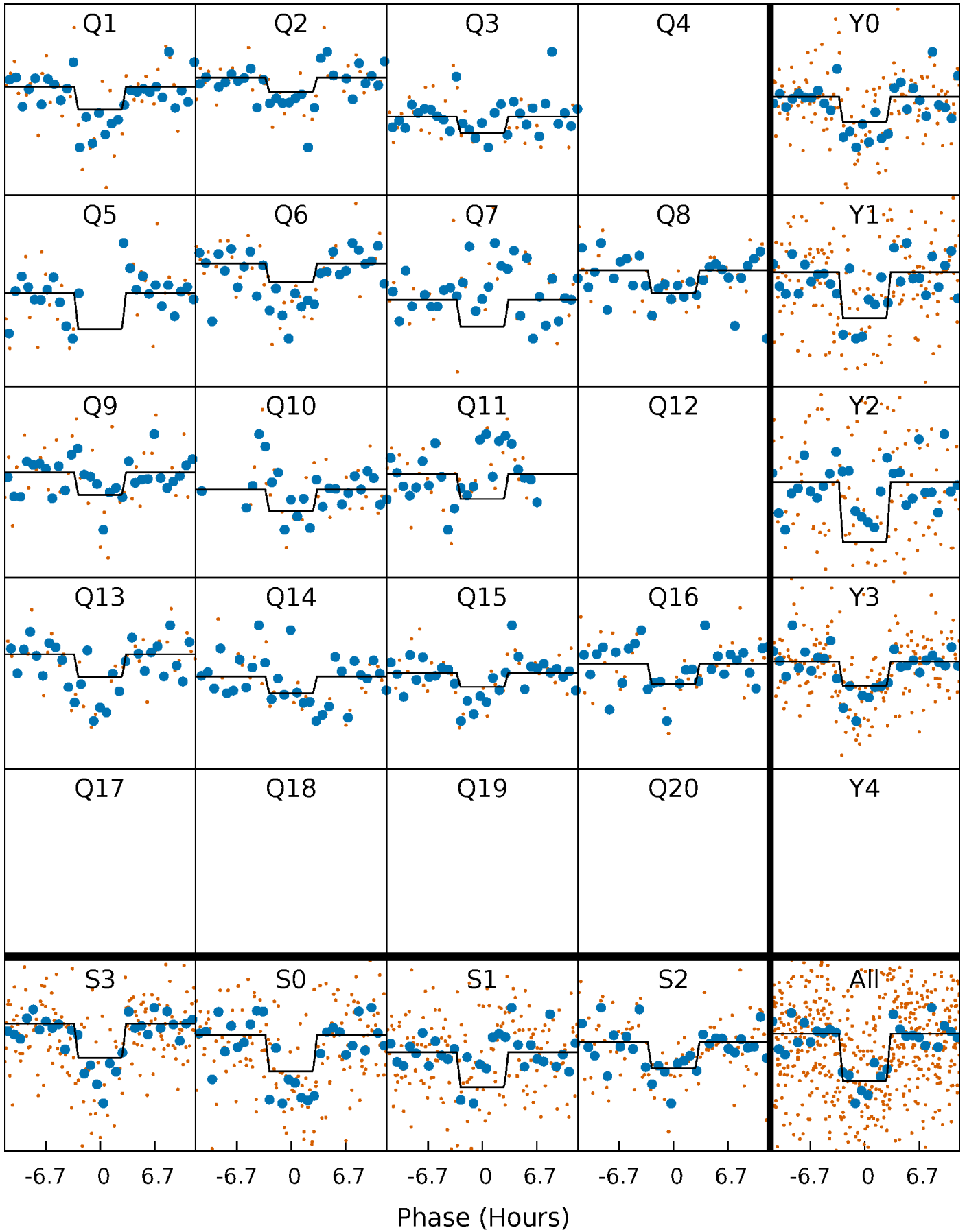
DV Quarter-Phased Transit Curves

TCE 005184911-02 P=106.261583 Days $T_0=132.236132$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

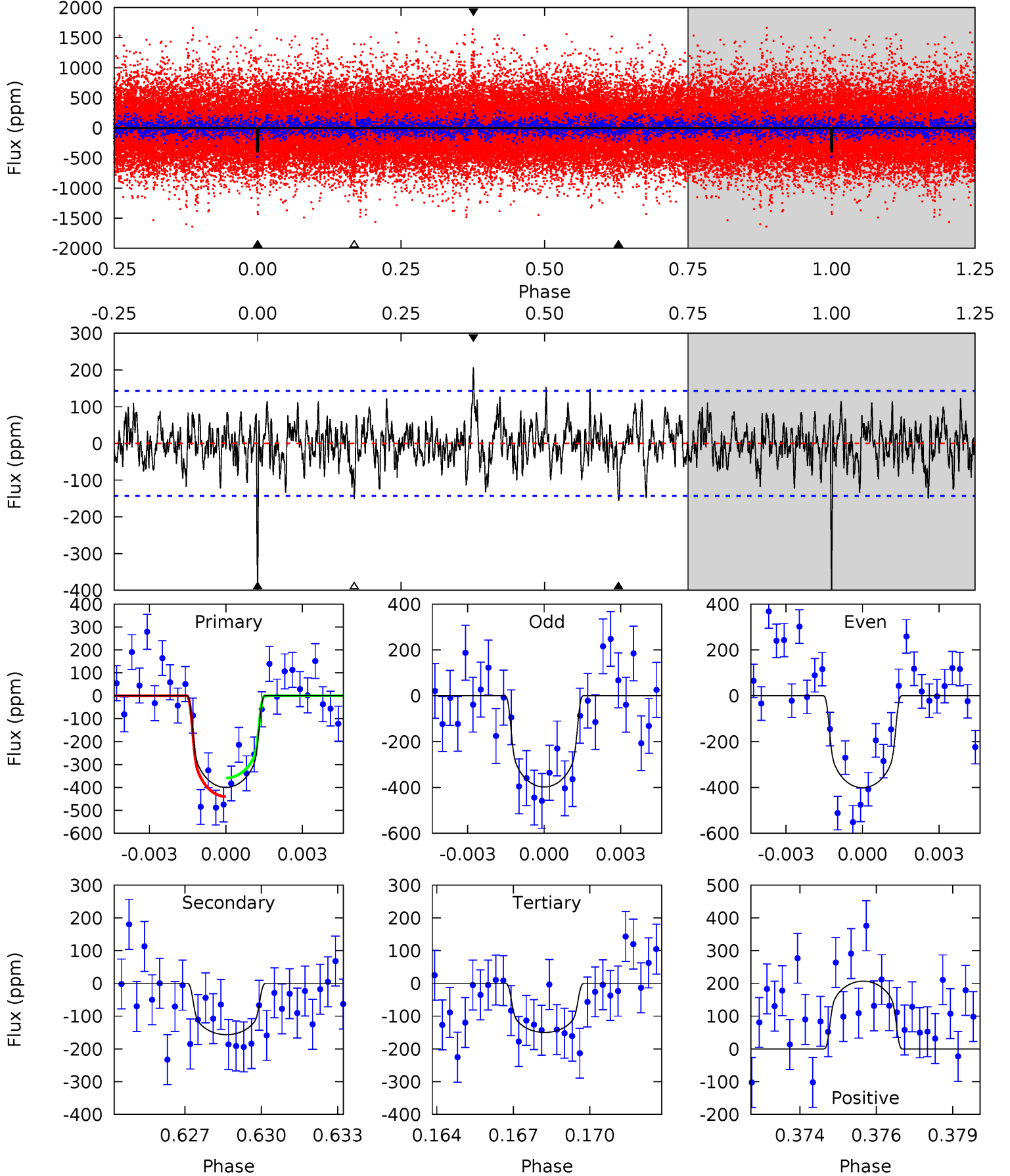
TCE 005184911-02 P=106.262001 Days $T_0=132.237225$ (BKJD)



DV Model-Shift Uniqueness Test

005184911-02, P = 106.261583 Days, E = 25.974549 Days

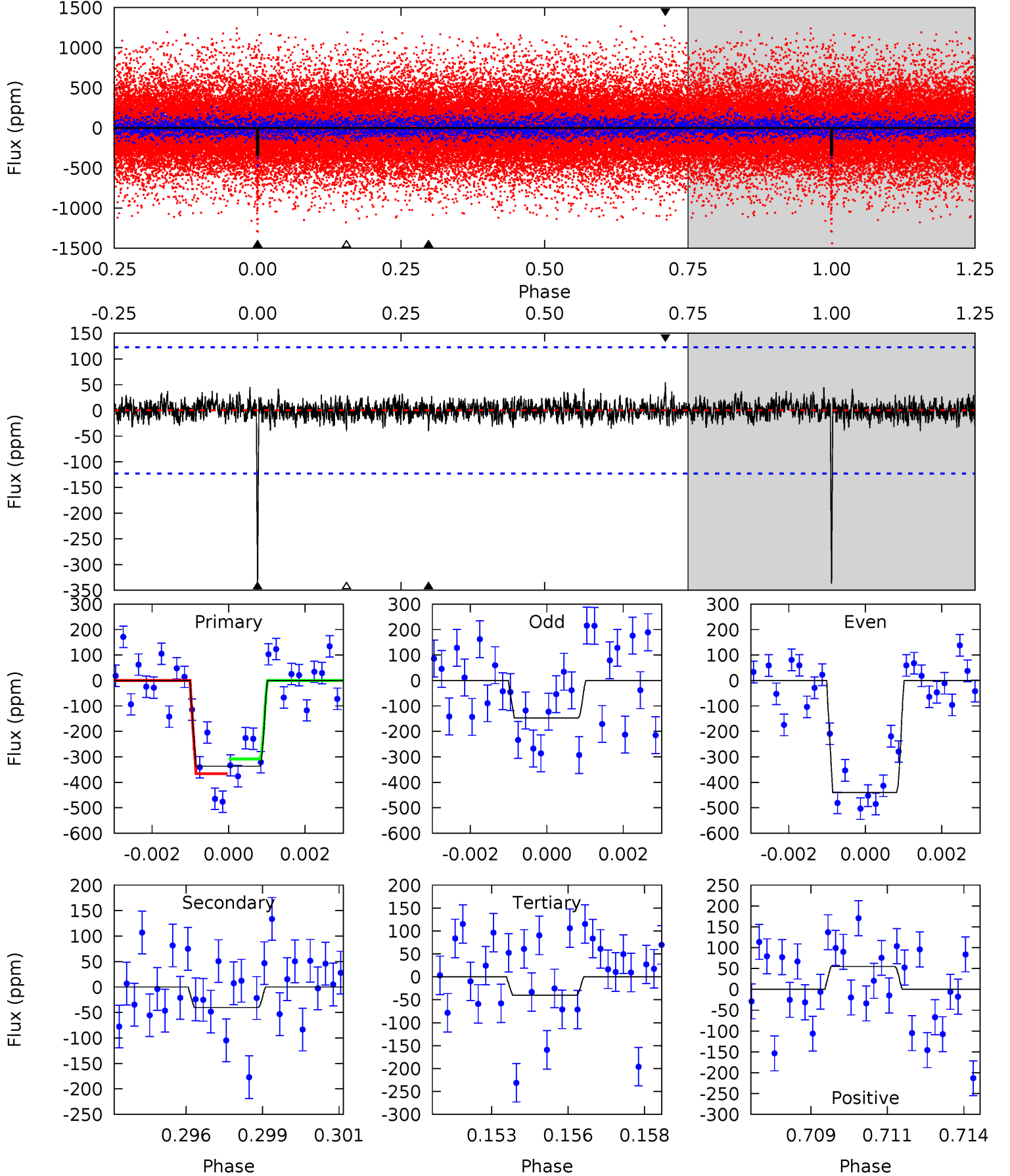
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	5.78	5.53	7.63	5.27	2.99	1.72	9.22	7.12	0.25	-1.85	0.06	0.98	0.34	1.50



Alt Model-Shift Uniqueness Test

005184911-02, P = 106.262001 Days, E = 25.975224 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	1.74	1.73	2.36	5.29	3.03	0.50	12.8	12.2	0.01	-0.63	6.38	1.04	0.14	1.24



Stellar Parameters For KIC 005184911

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4827^{+129}_{-144}	$4.508^{+0.084}_{-0.070}$	$0.320^{+0.150}_{-0.300}$	$0.823^{+0.056}_{-0.086}$	$0.796^{+0.051}_{-0.051}$	$2.013^{+0.719}_{-0.371}$
	+3%/-3%	+2%/-2%	+47%/-94%	+7%/-10%	+6%/-6%	+36%/-18%
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 005184911-02 / KOI 2719.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-157 ± 27	$2.05^{+0.59}_{-0.63}$	422^{+15}_{-17}	3841^{+549}_{-336}	3411^{+3778}_{-1440}
Alt.	-40 ± 23	$1.53^{+0.67}_{-0.60}$	422^{+15}_{-17}	3360^{+651}_{-471}	1481^{+2868}_{-947}

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 $A_{obs} \gg 1.0$

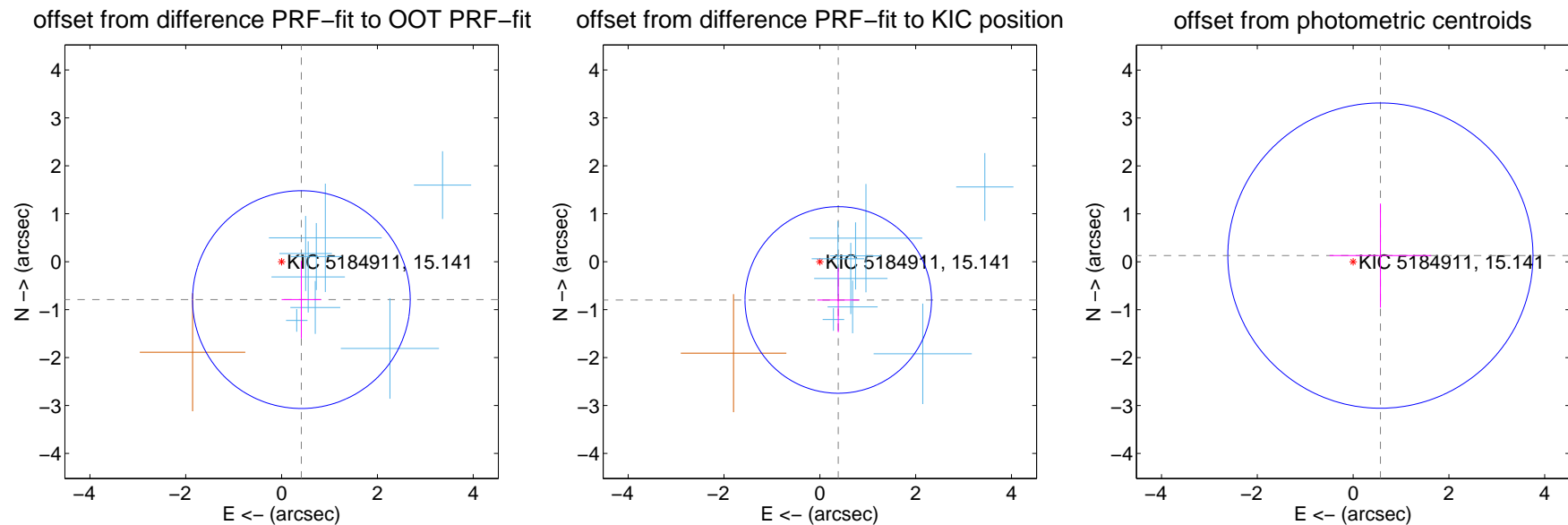
DV Centroid Data

Supplemental centroid analysis for 005184911-02. Kepler magnitude: 15.14. Transit SNR 9.80

There are 8 quarters with good PRF difference image offsets

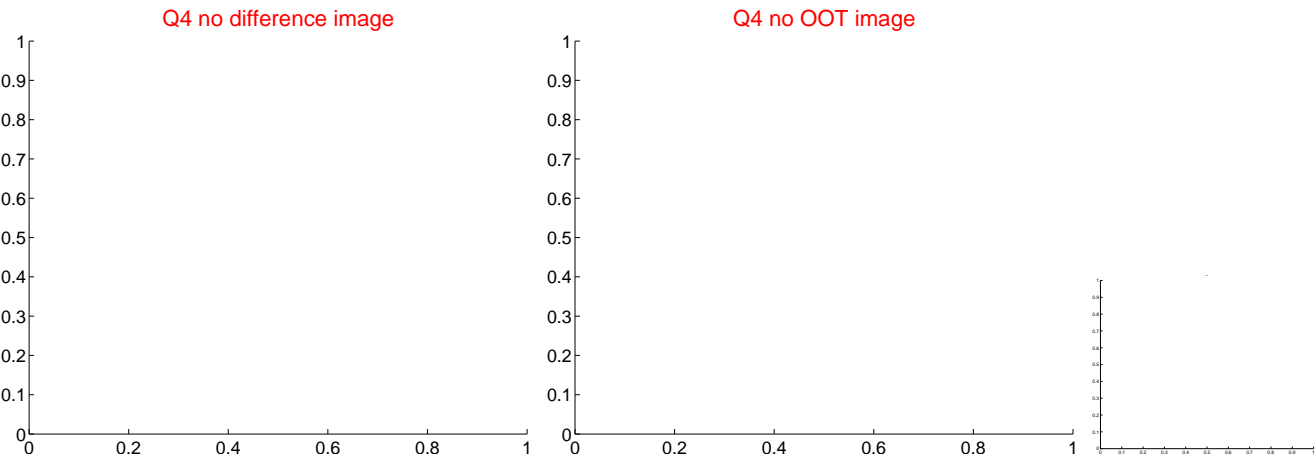
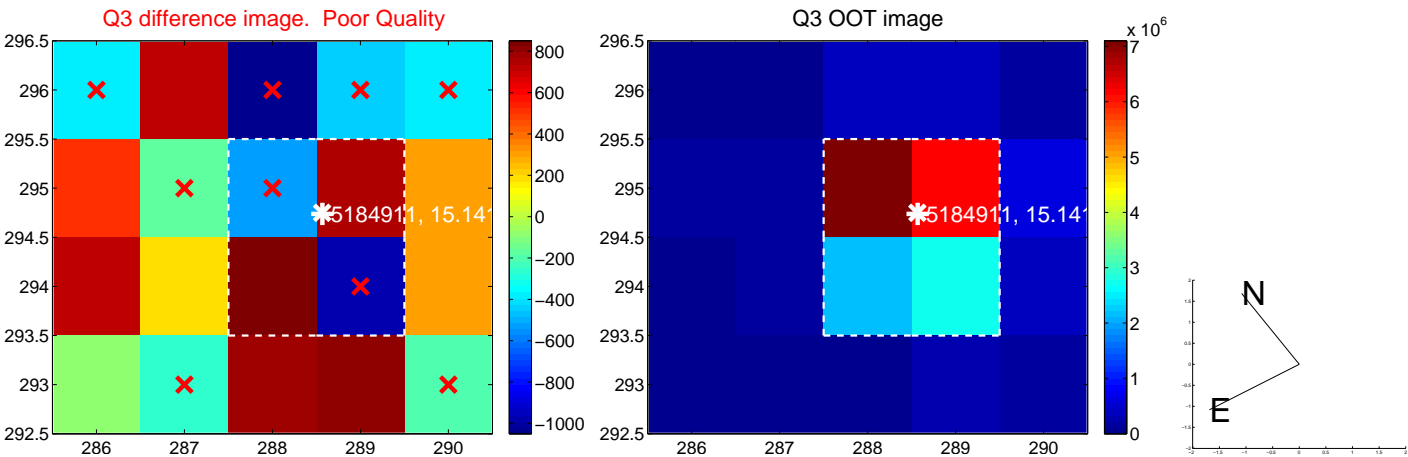
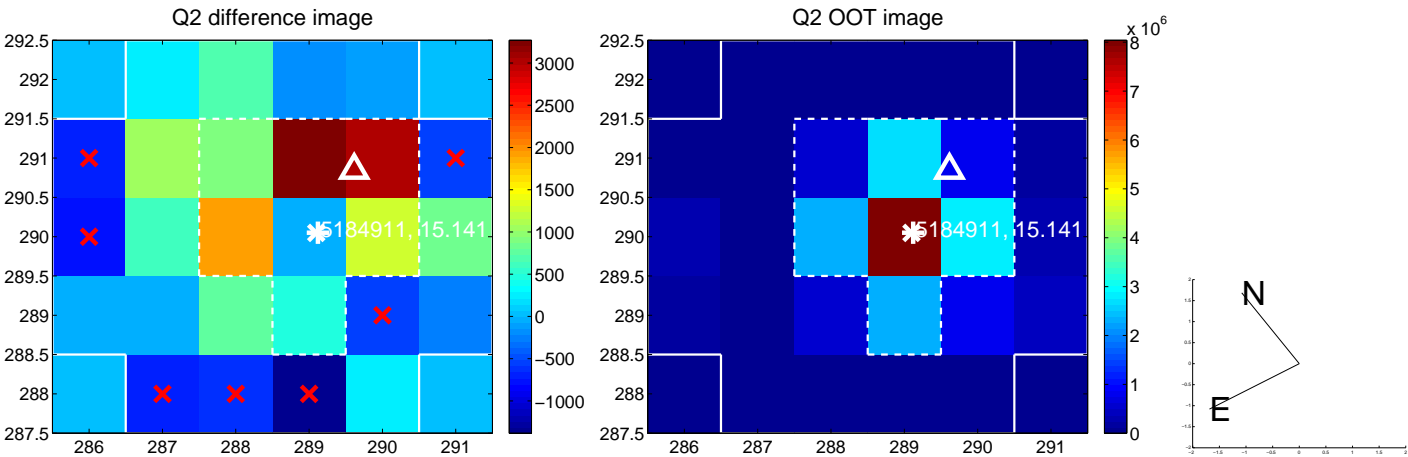
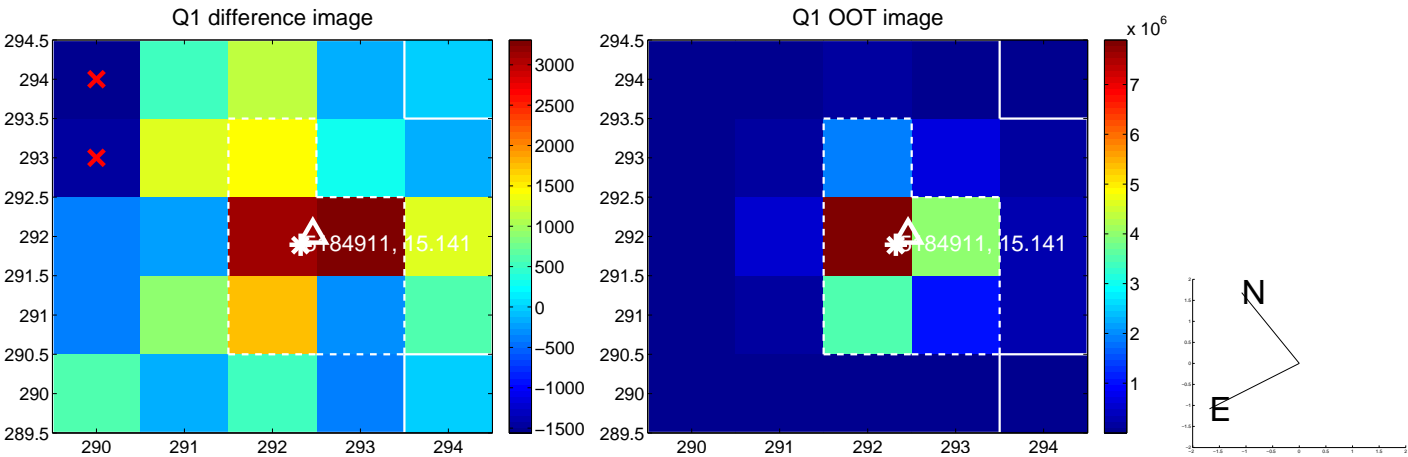
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.892 ± 0.757	1.18	-0.413 ± 0.412	-0.791 ± 0.809
PRF-fit source offset from KIC position	0.886 ± 0.649	1.37	-0.384 ± 0.437	-0.798 ± 0.671
photometric centroid source offset	0.58 ± 1.06	0.55	-0.57 ± 1.06	0.13 ± 1.09

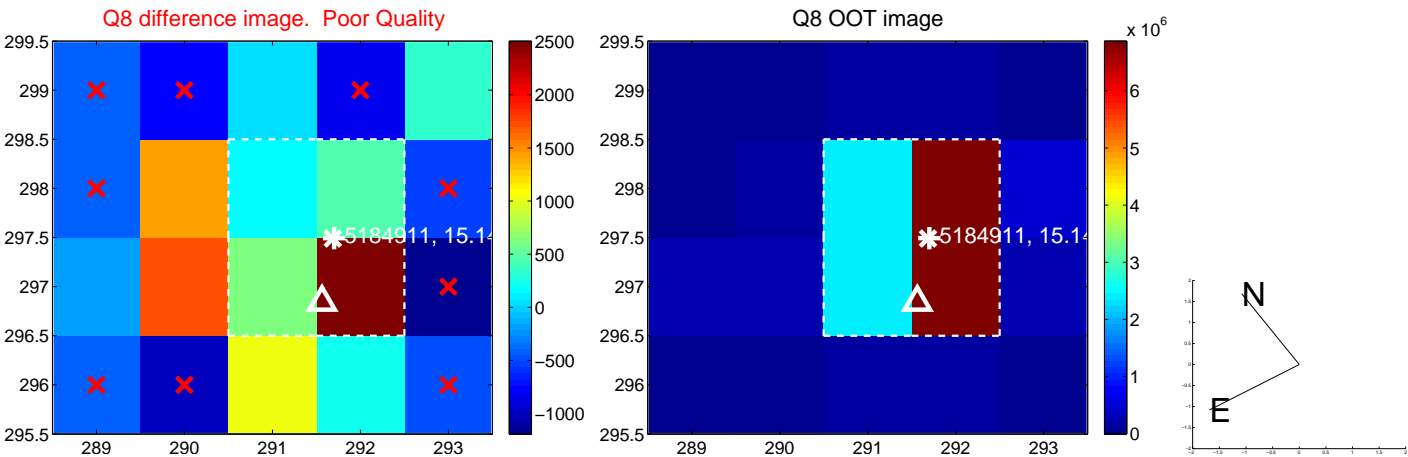
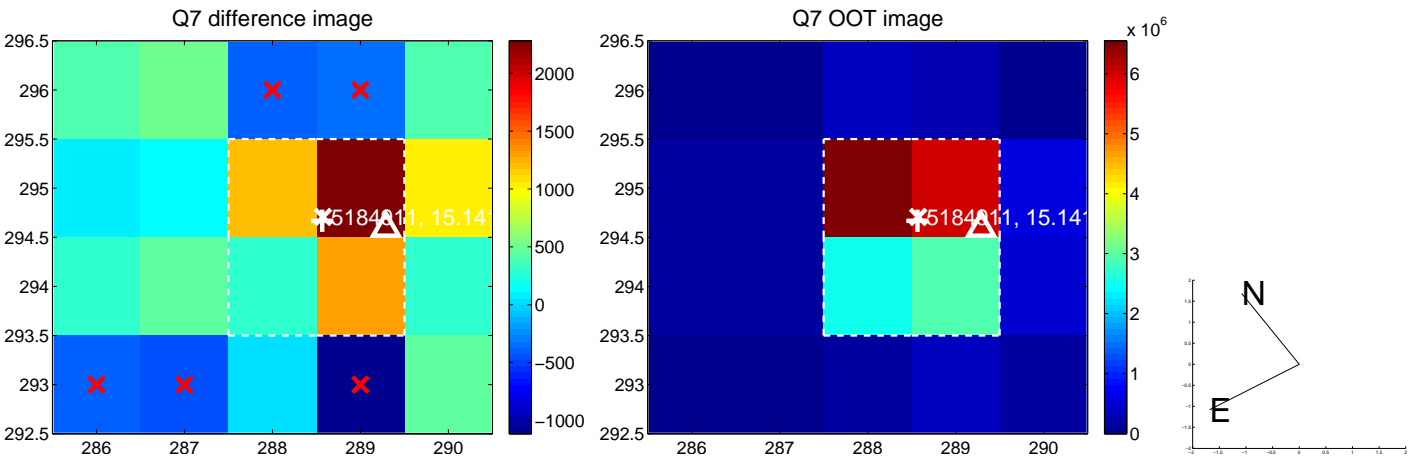
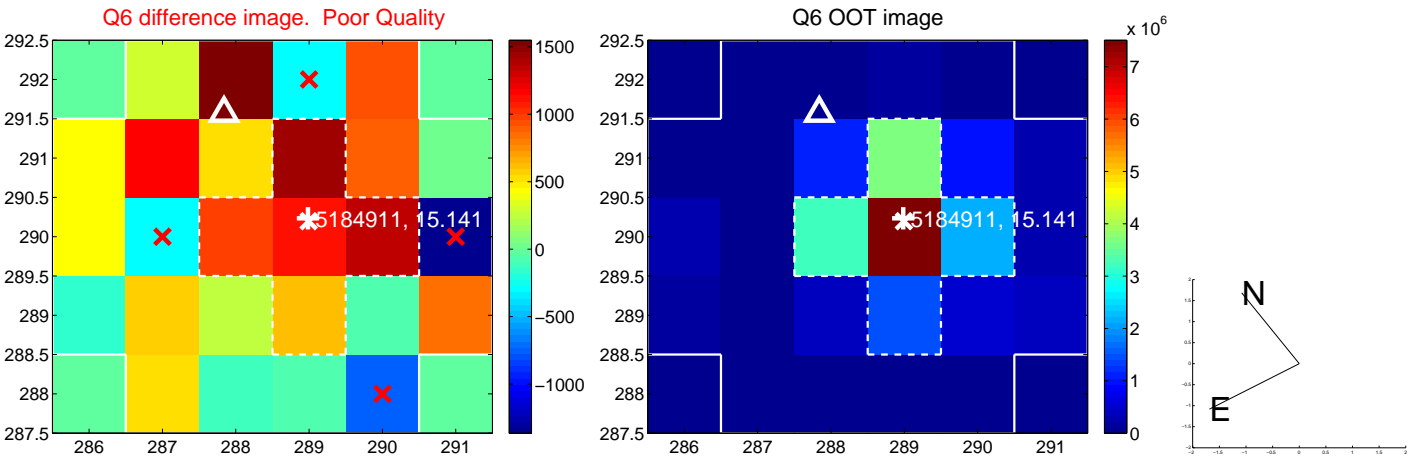
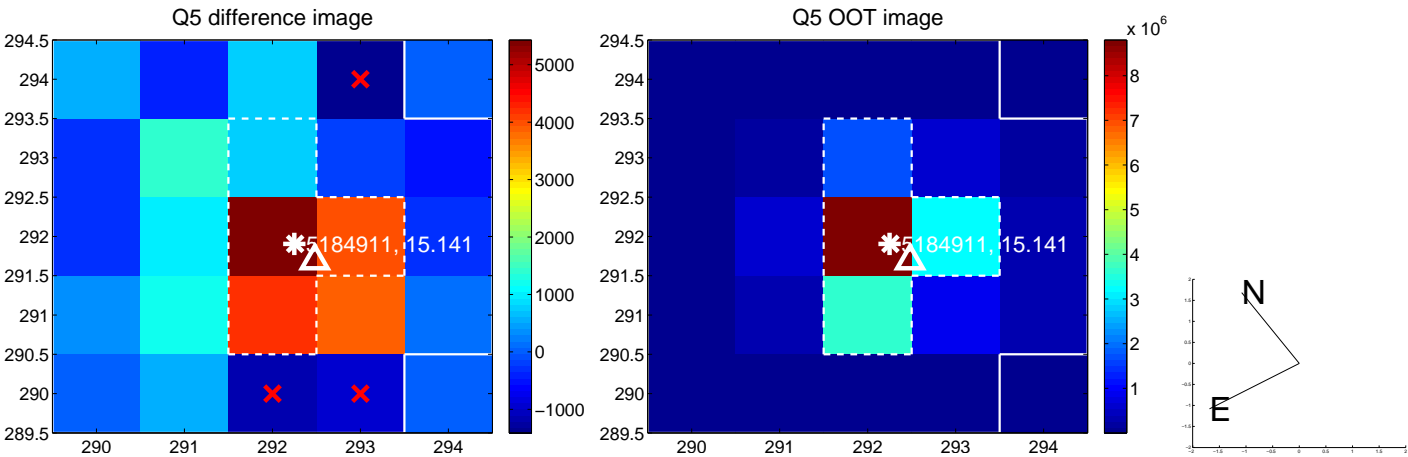


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

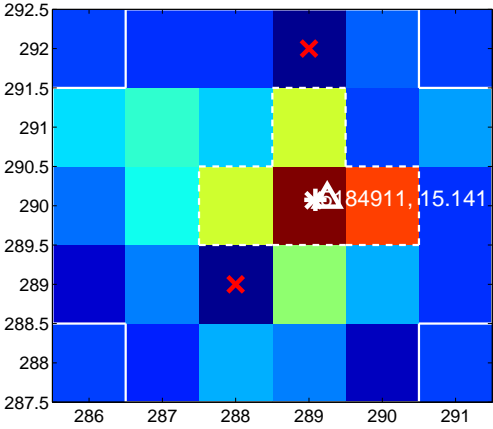
Q9 no difference image



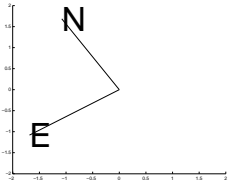
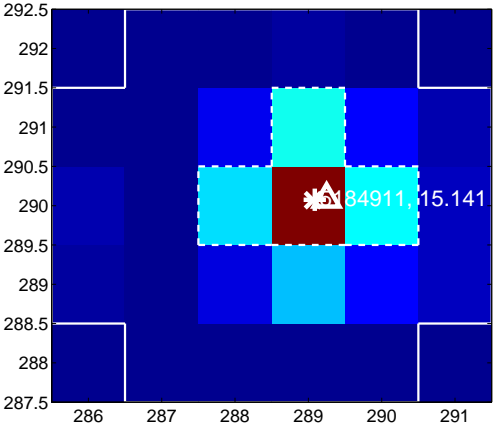
Q9 no OOT image



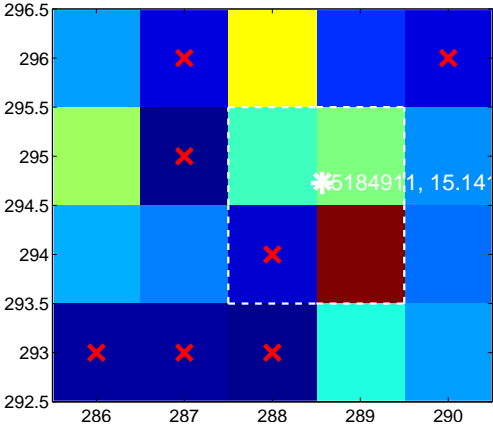
Q10 difference image



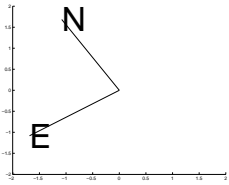
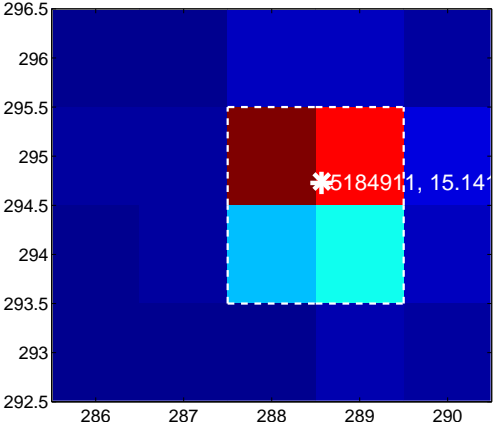
Q10 OOT image



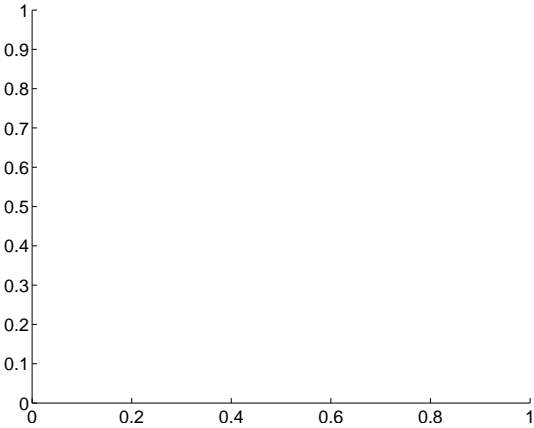
Q11 difference image. Poor Quality



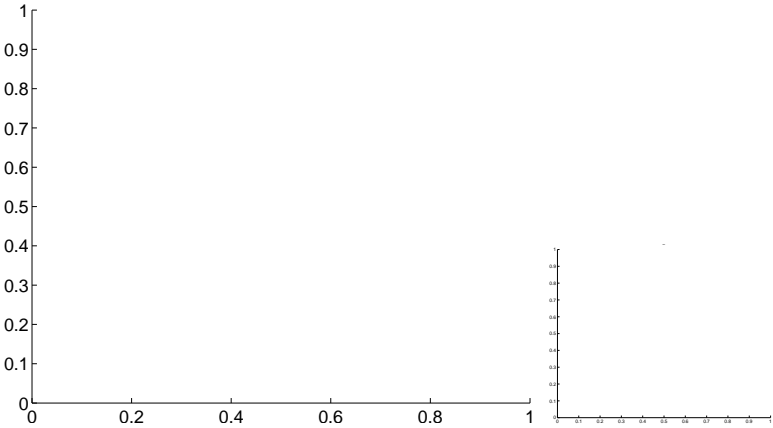
Q11 OOT image



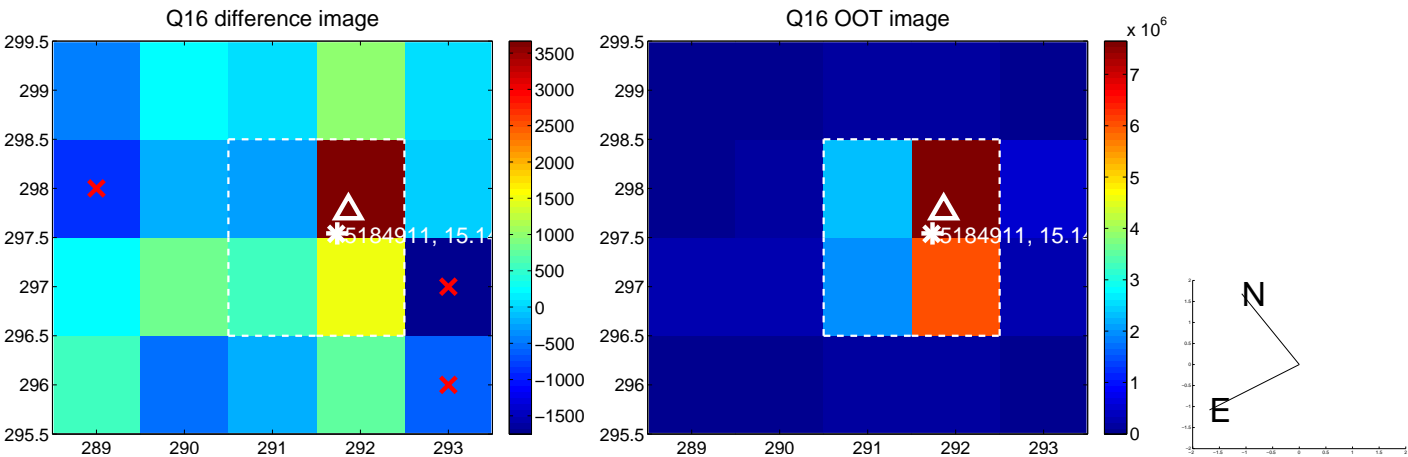
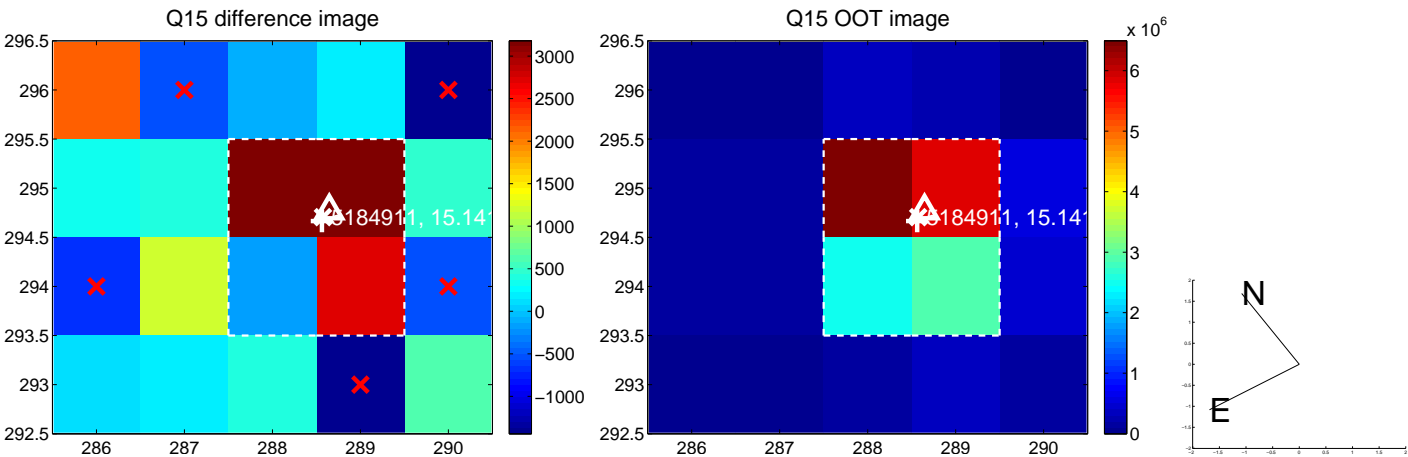
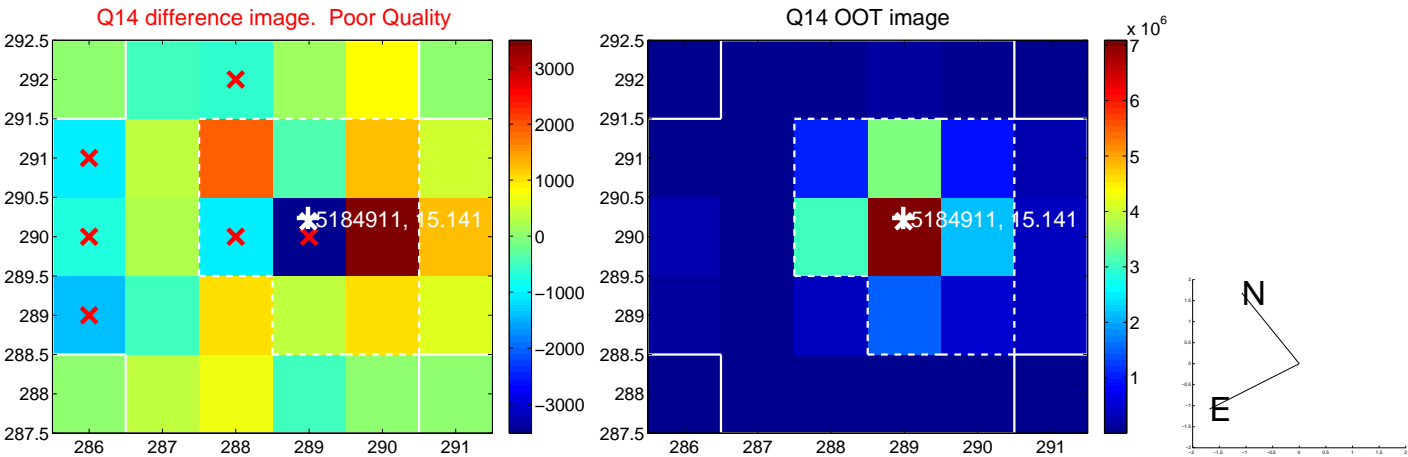
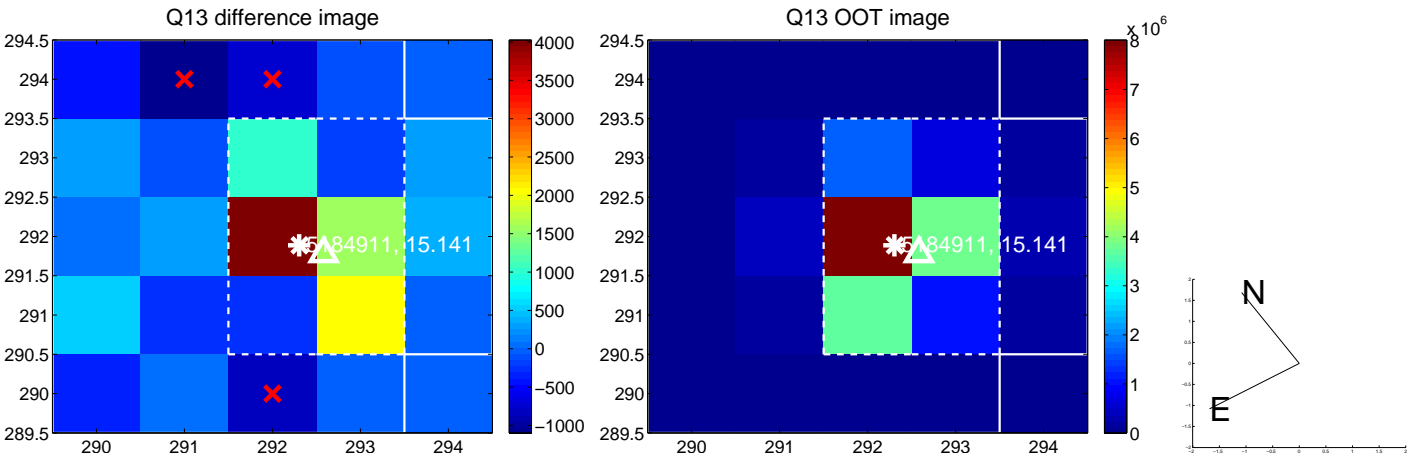
Q12 no difference image



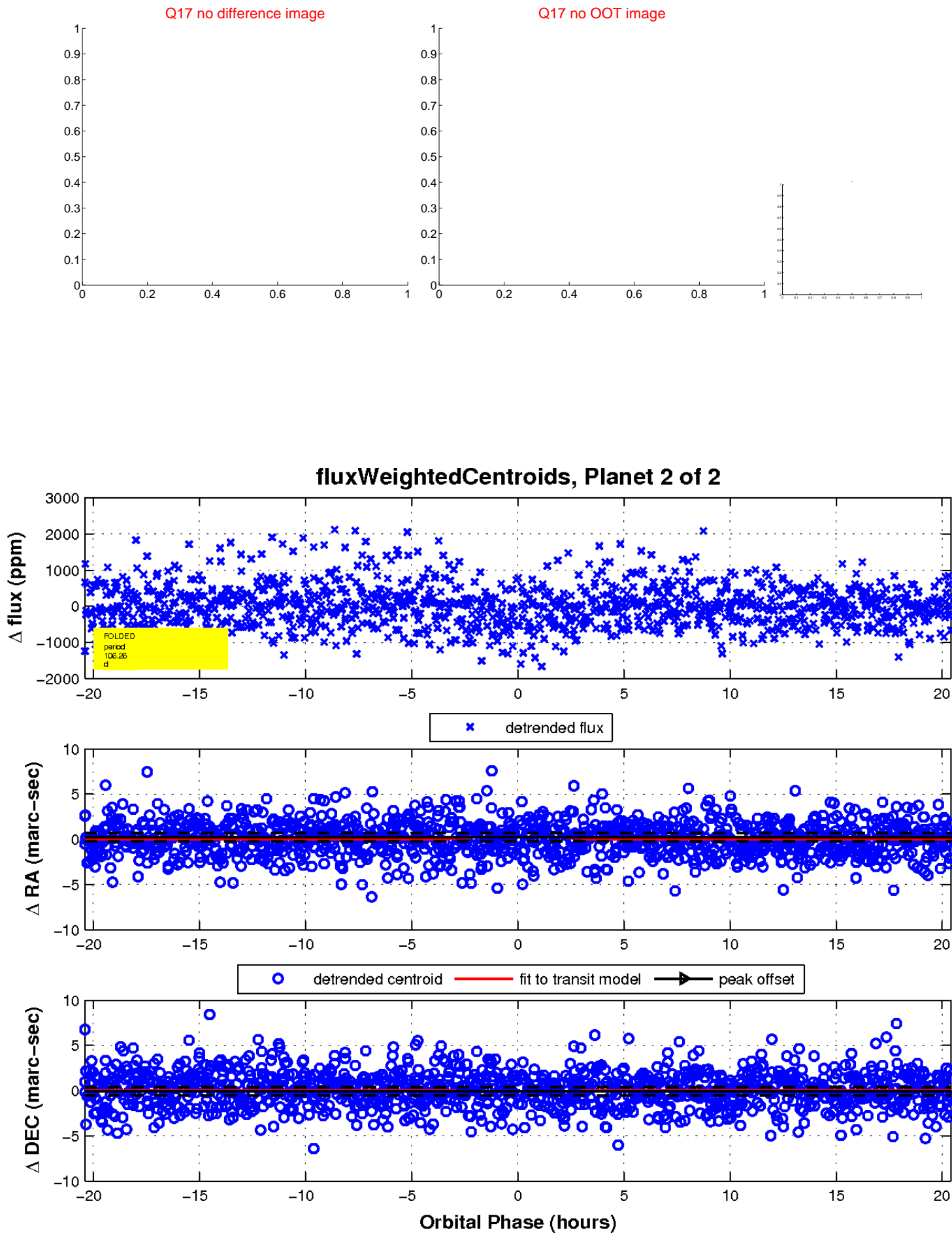
Q12 no OOT image



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

