

KIC 005383476

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})
005383476-01	OBS	No	446.715585	430.964018	1614.5	6.783	13.1	9.1	2.39	5435	12.05	4.07
005383476-02	OBS	No	645.907835	255.321131	1039.1	5.610	11.3	6.5	2.39	5435	9.06	2.49
005383476-03	OBS	No	1.626397	132.315066	86.1	14.716	11.3	8.2	2.39	5435	2.90	7266.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005383476-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

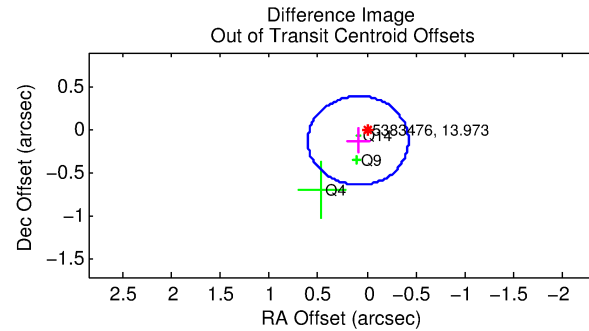
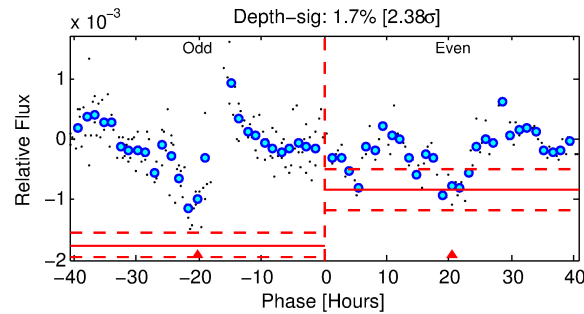
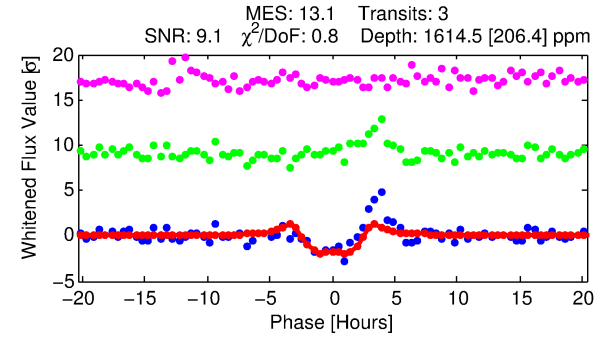
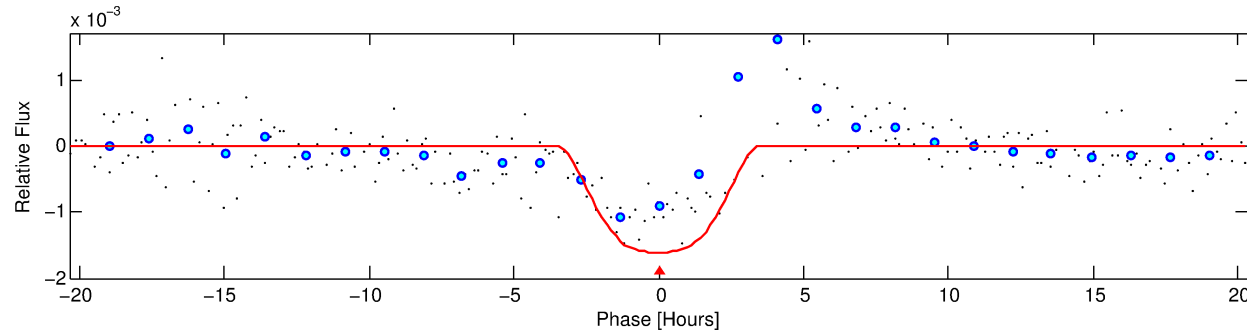
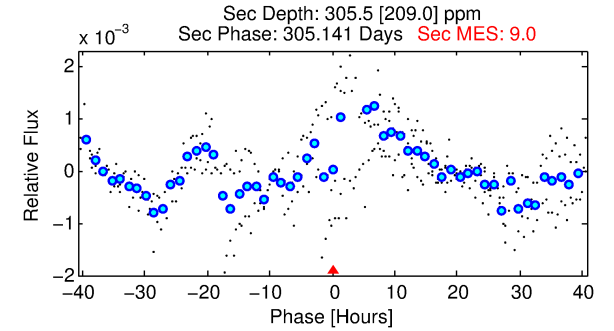
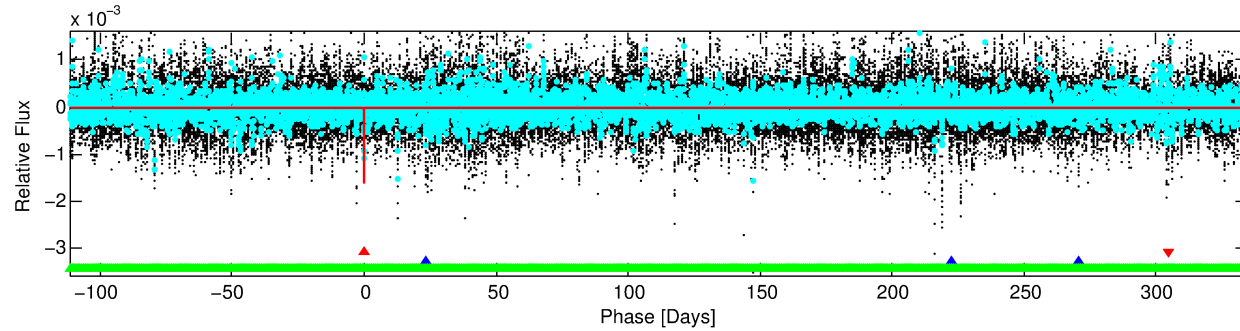
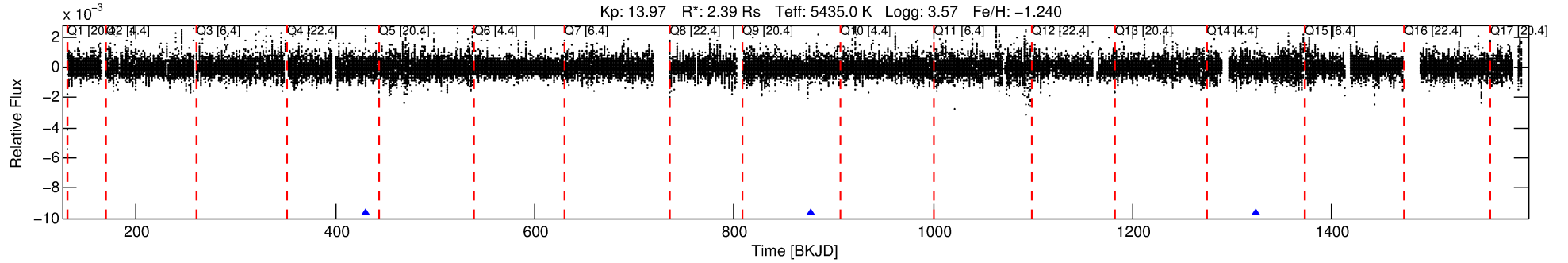
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005383476-01

No Significant Match Found

DV One-Page Summary

KIC: 5383476 Candidate: 1 of 3 Period: 446.716 d



DV Fit Results:

Period = 446.71559 [0.00654] d
Epoch = 430.9640 [0.0079] BKJD
Rp/R* = 0.0462 [0.0035]
a/R* = 224.03 [21.94]
b = 0.95 [0.01]
Seff = 4.07 [7.09]
Teq = 362 [158] K
Rp = 12.05 [8.86] Re
a = 1.0488 [1.0134] AU
Ag = 1272.44 [2384.83] [0.53 σ]
Teffp = 3344 [594] K [4.85 σ]

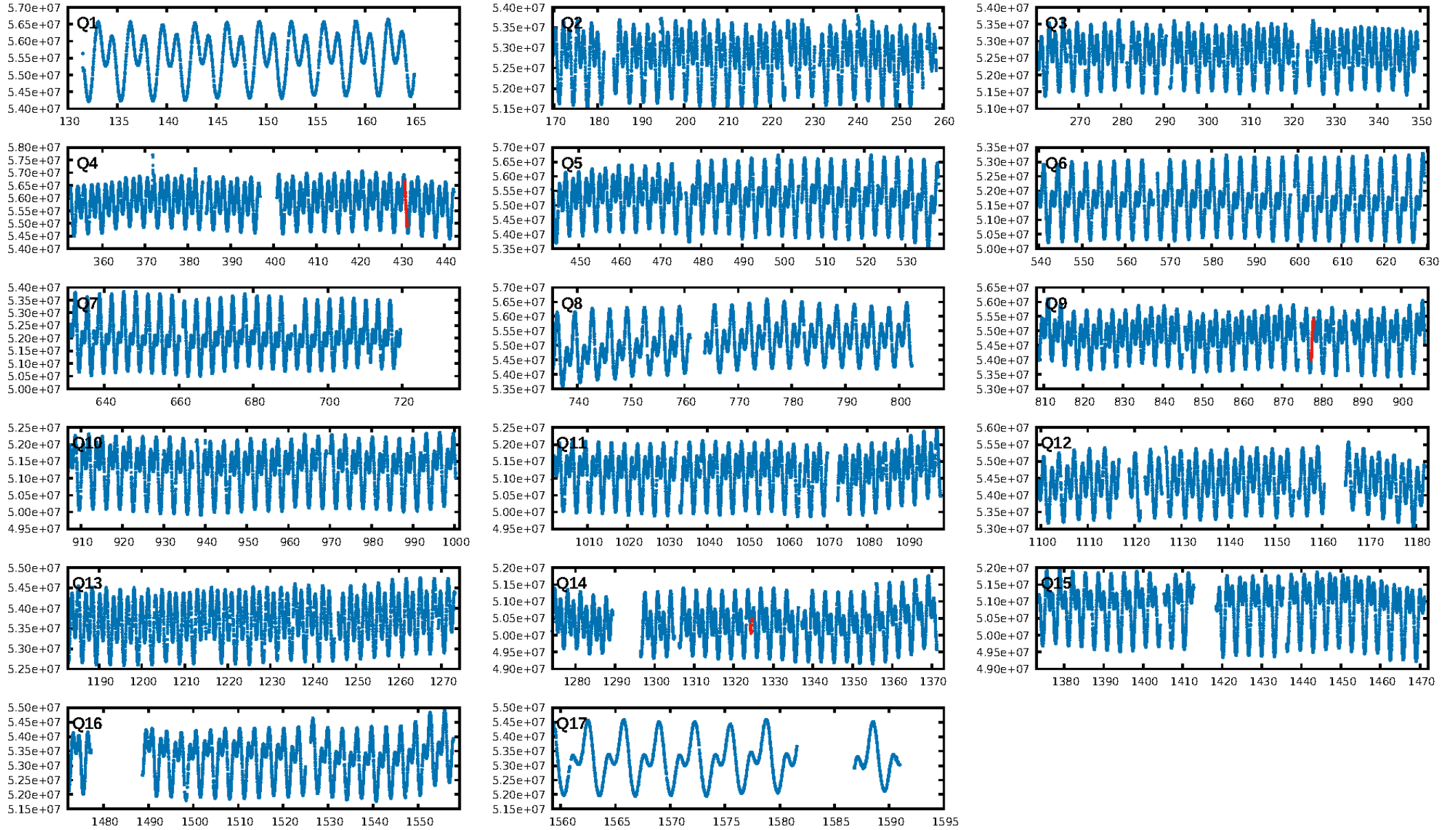
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [659.22 σ]
LongPeriod-sig: 100.0% [543.10 σ]
ModelChiSquare2-sig: 13.6%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.027
Centroid-sig: 92.9%
Centroid-so: 0.192 arcsec [0.41 σ]
OotOffset-rm: 0.152 arcsec [0.89 σ]
KicOffset-rm: 0.093 arcsec [0.42 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/3]

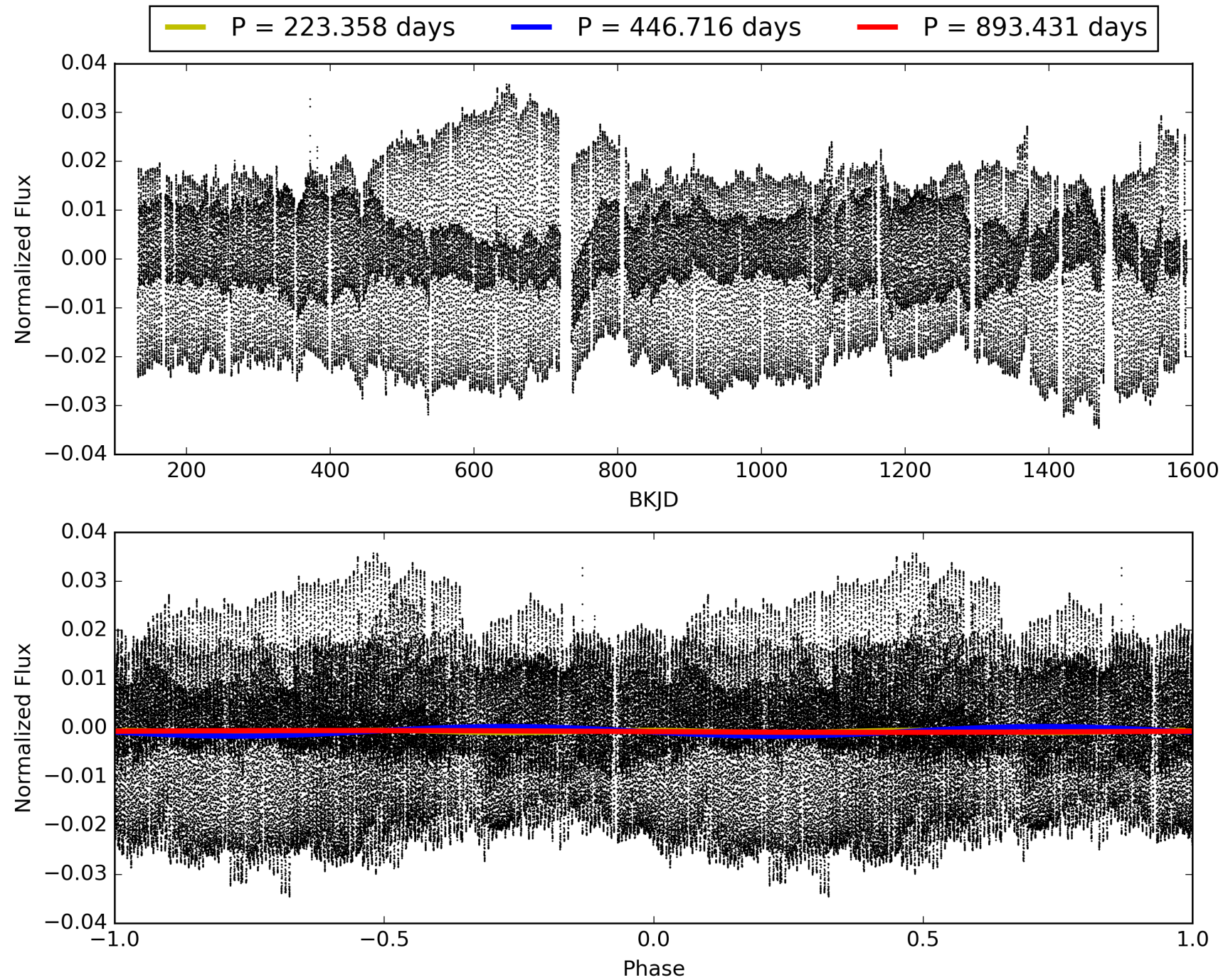
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:04:36 Z

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

TCE 005383476-01, PDC Light Curves

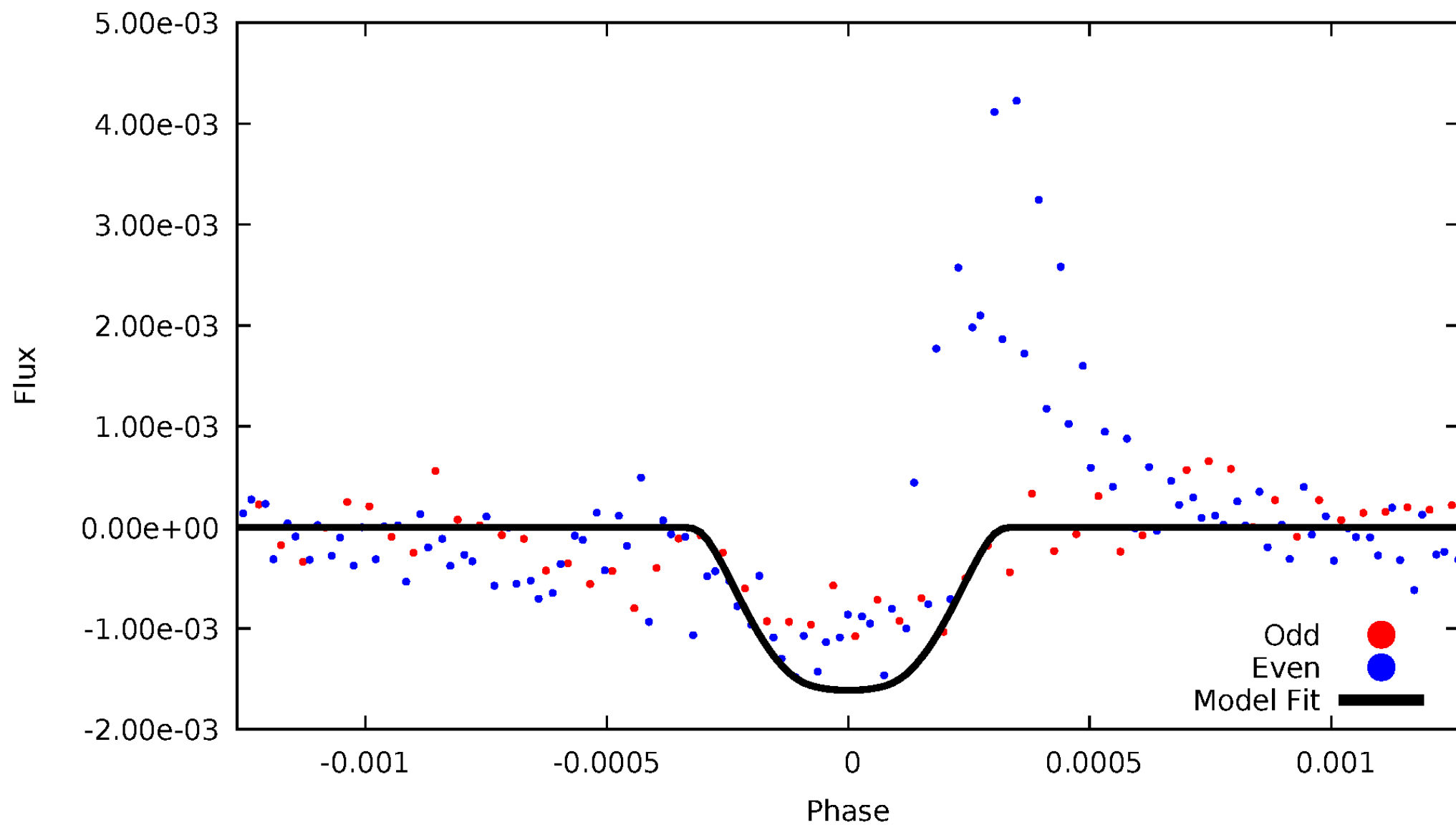


TCE 005383476-01



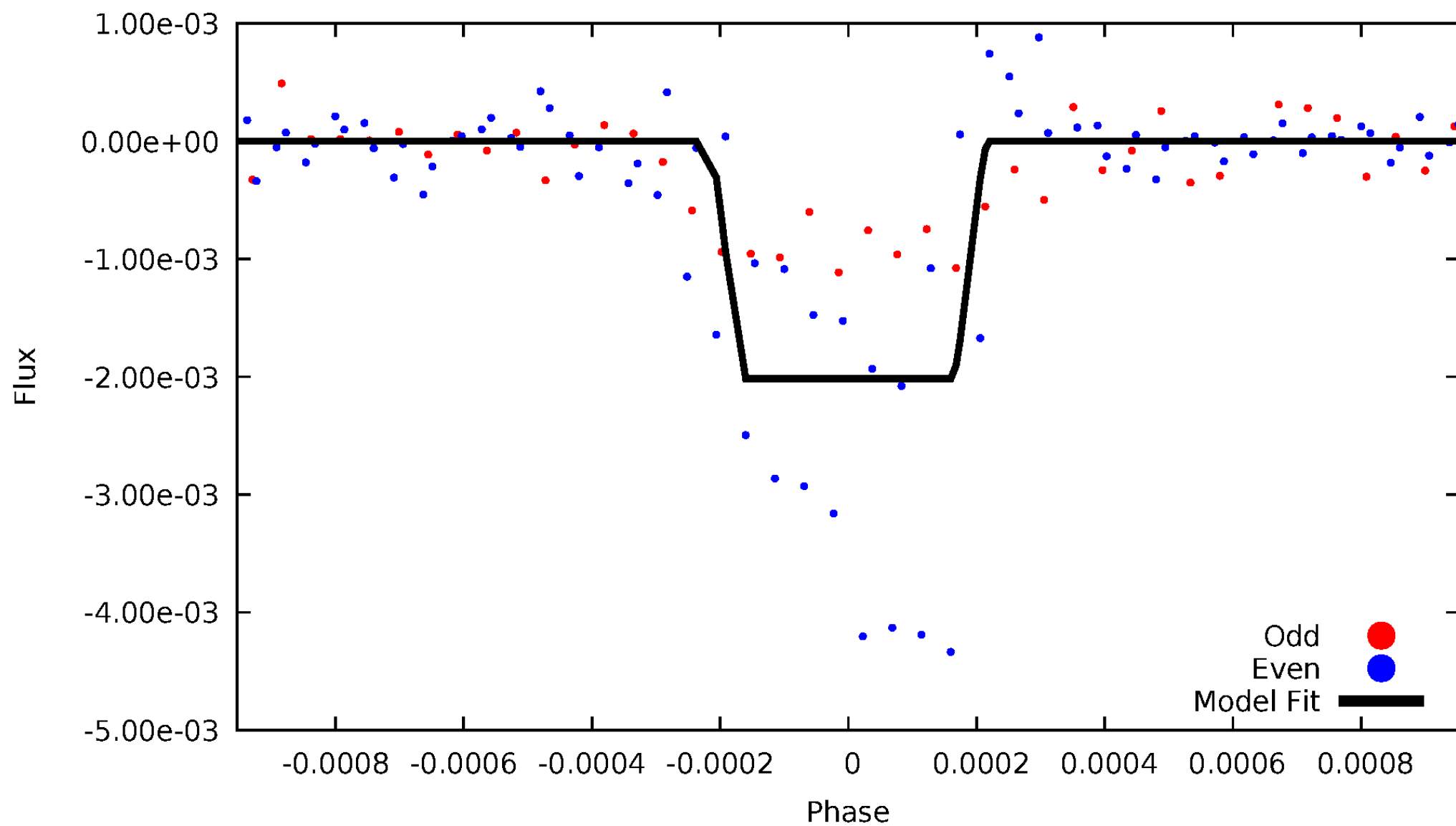
DV Odd/Even

TCE 005383476-01



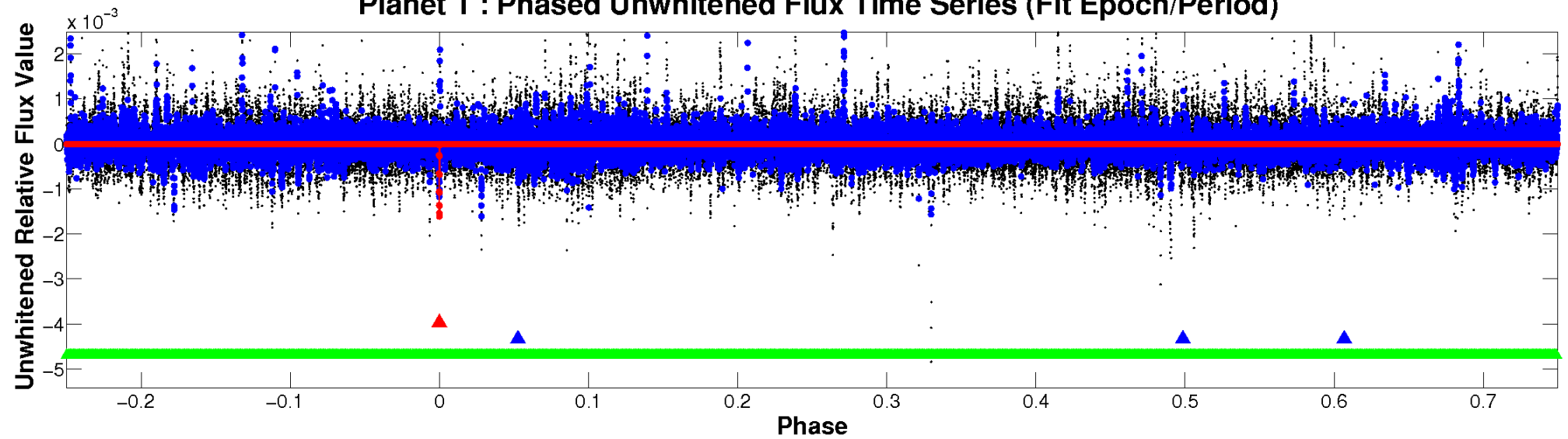
ALT Odd/Even

TCE 005383476-01

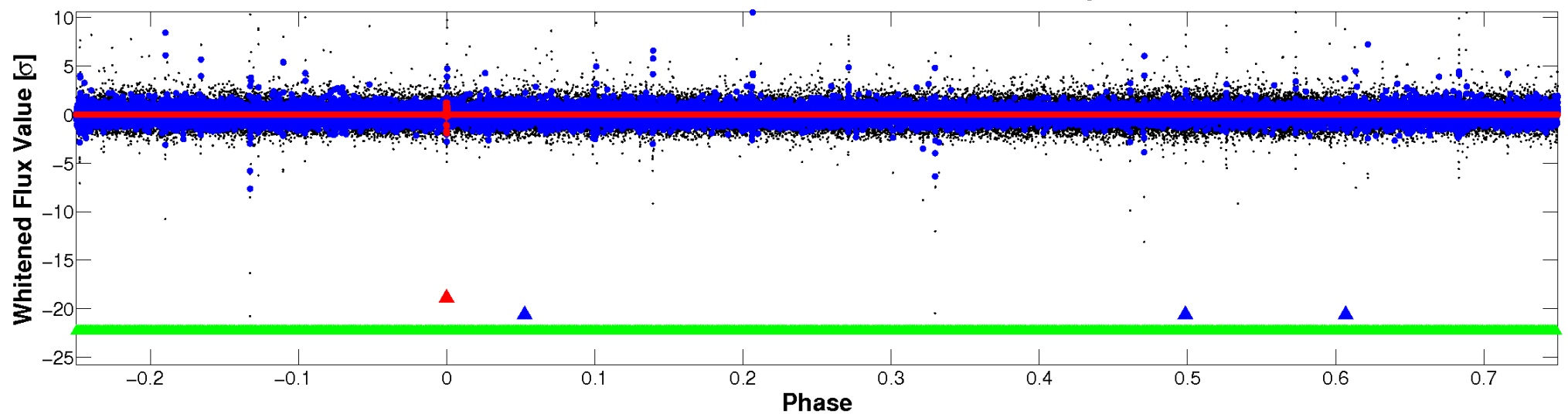


Non-Whitened Vs. Whitened Light Curve

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

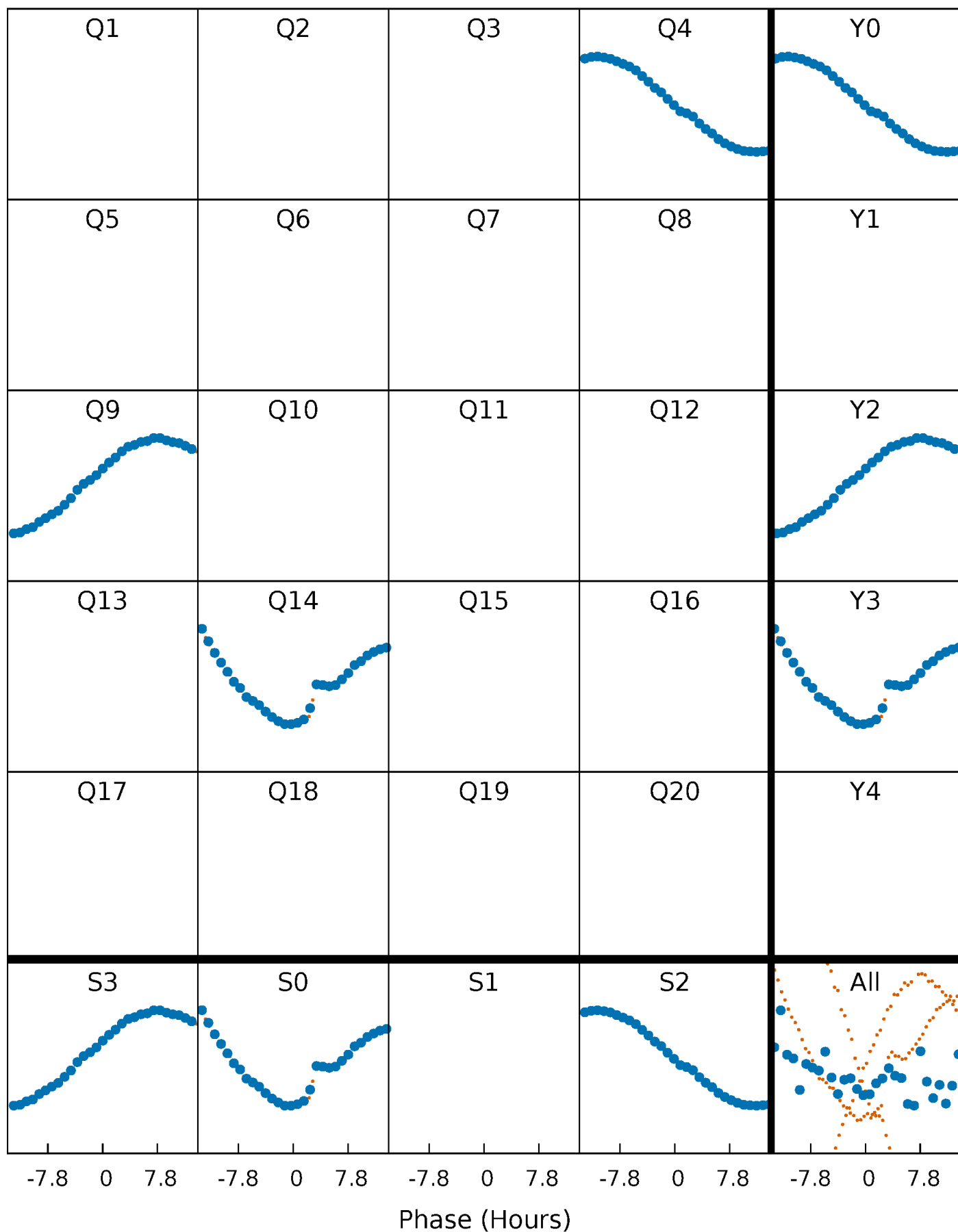


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



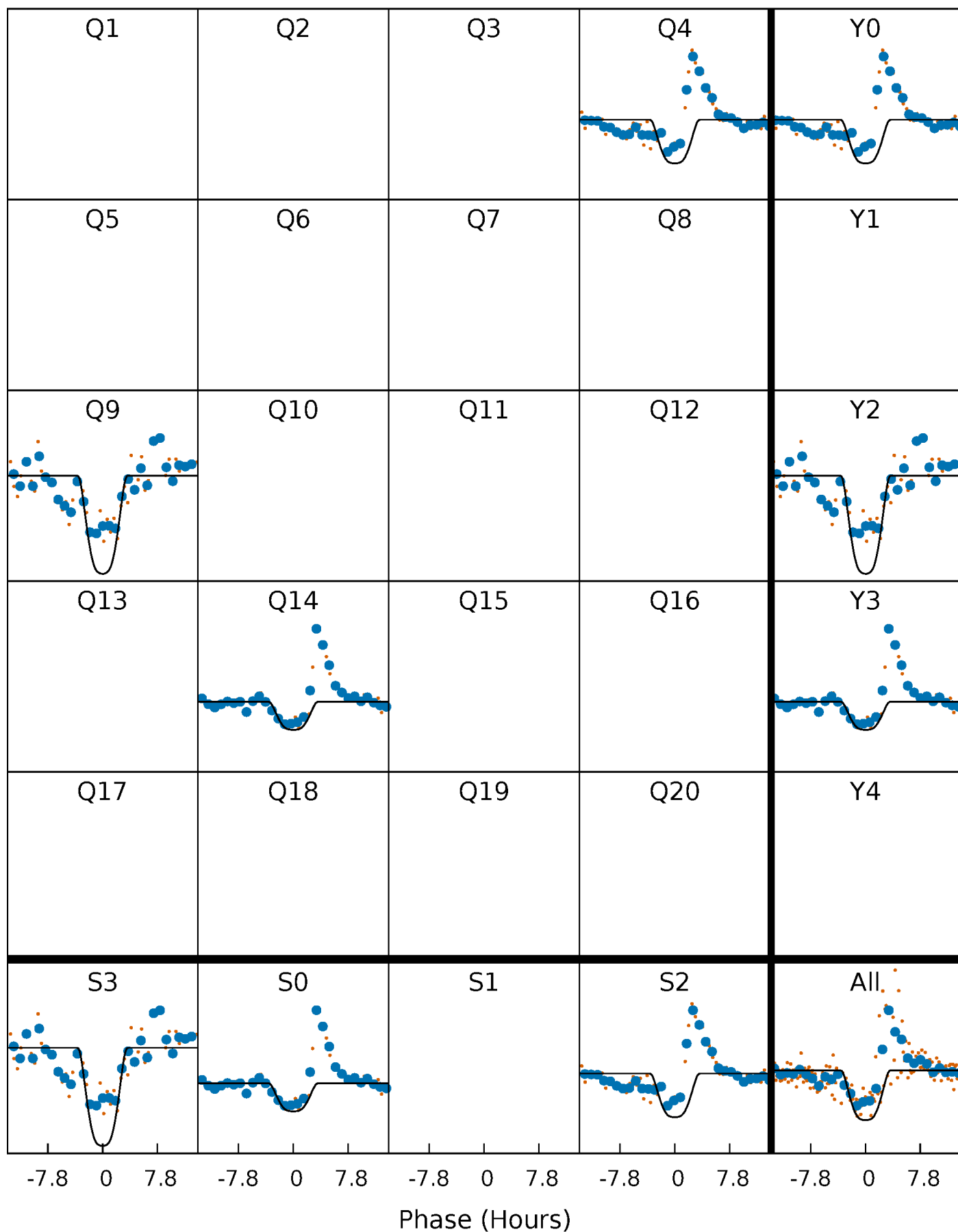
PDC Quarter-Phased Transit Curves

TCE 005383476-01 P=446.715585 Days $T_0=430.964018$ (BKJD)



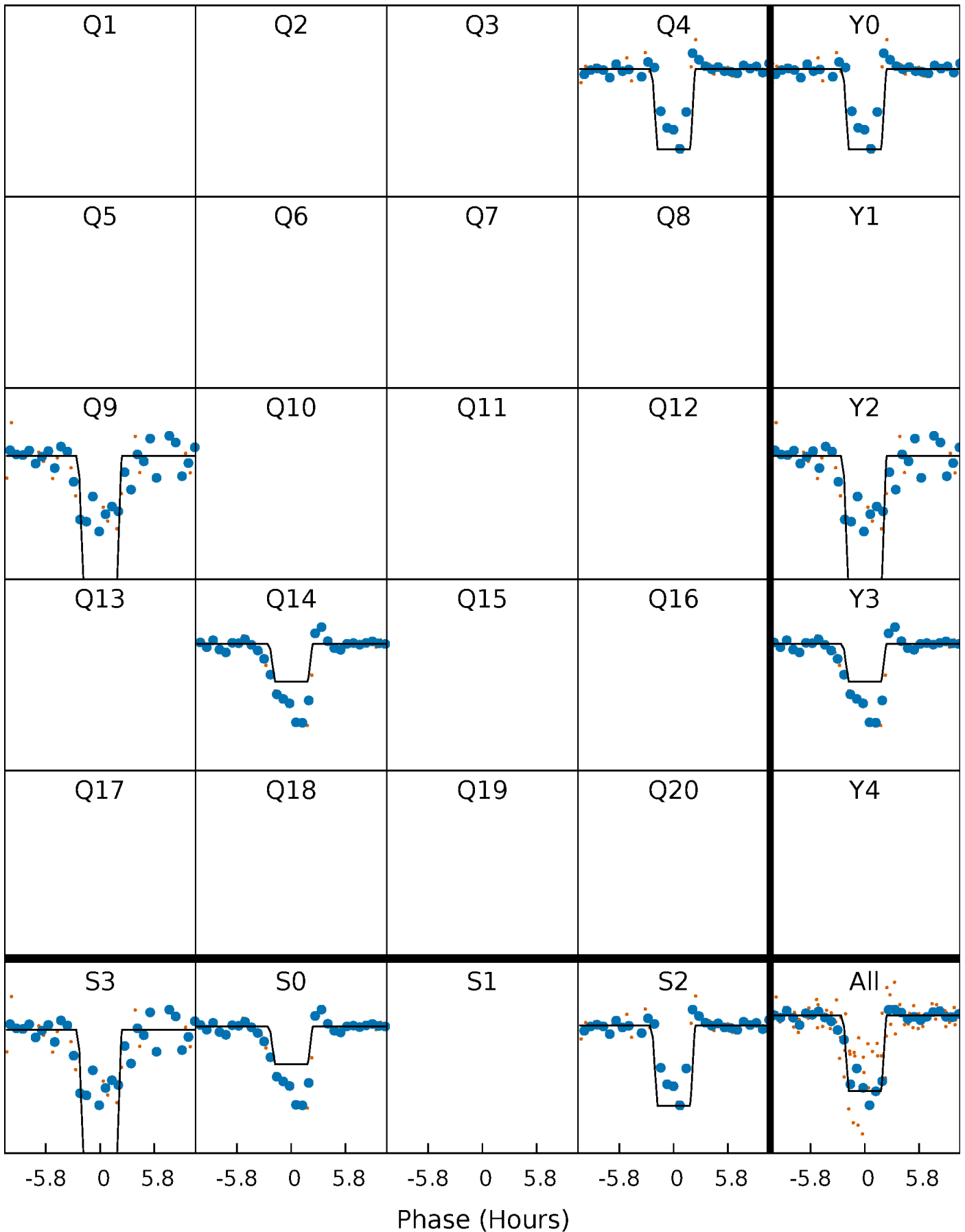
DV Quarter-Phased Transit Curves

TCE 005383476-01 P=446.715585 Days $T_0=430.964018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

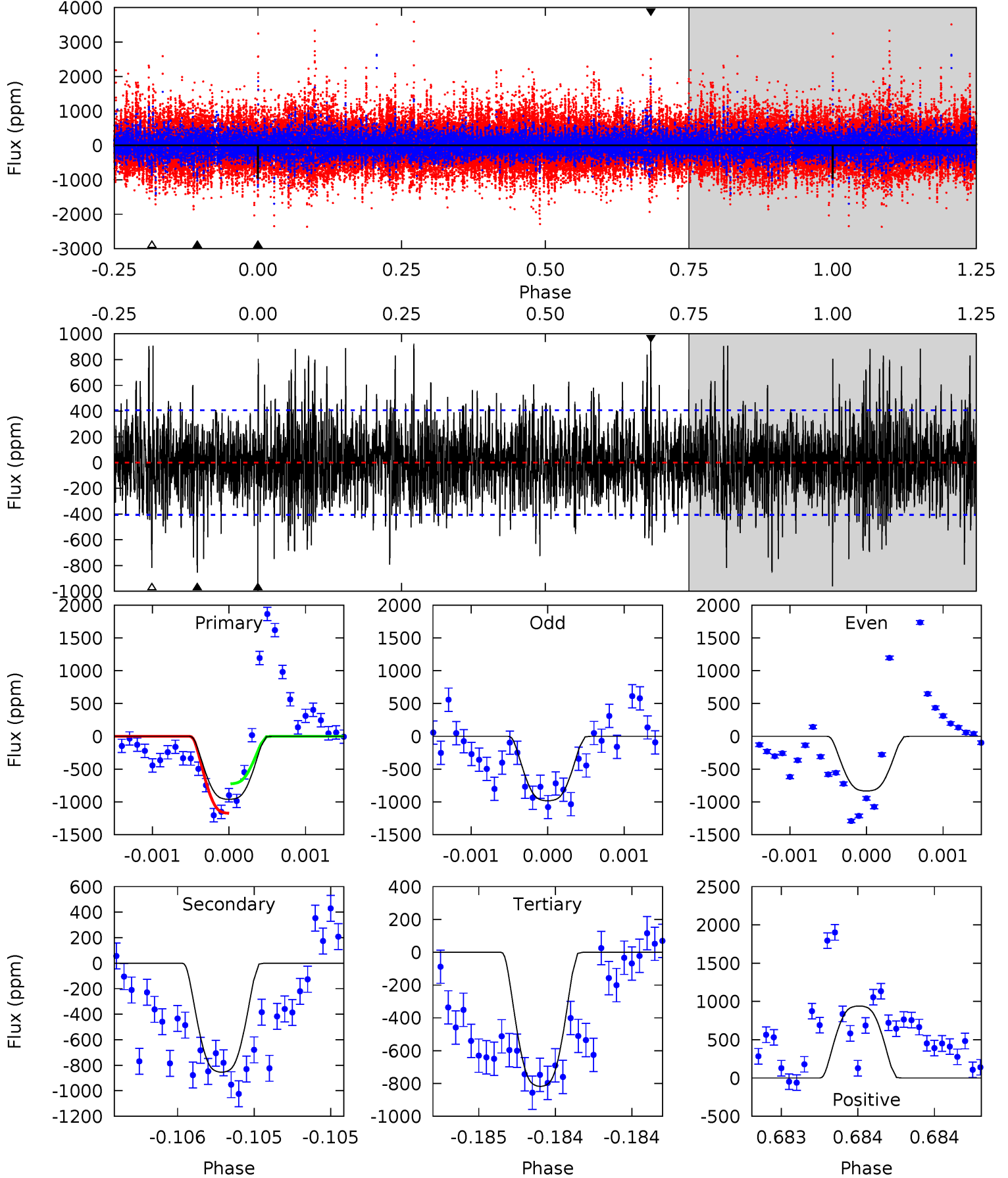
TCE 005383476-01 P=446.725300 Days $T_0=430.967433$ (BKJD)



DV Model-Shift Uniqueness Test

005383476-01, P = 446.715585 Days, E = 430.964018 Days

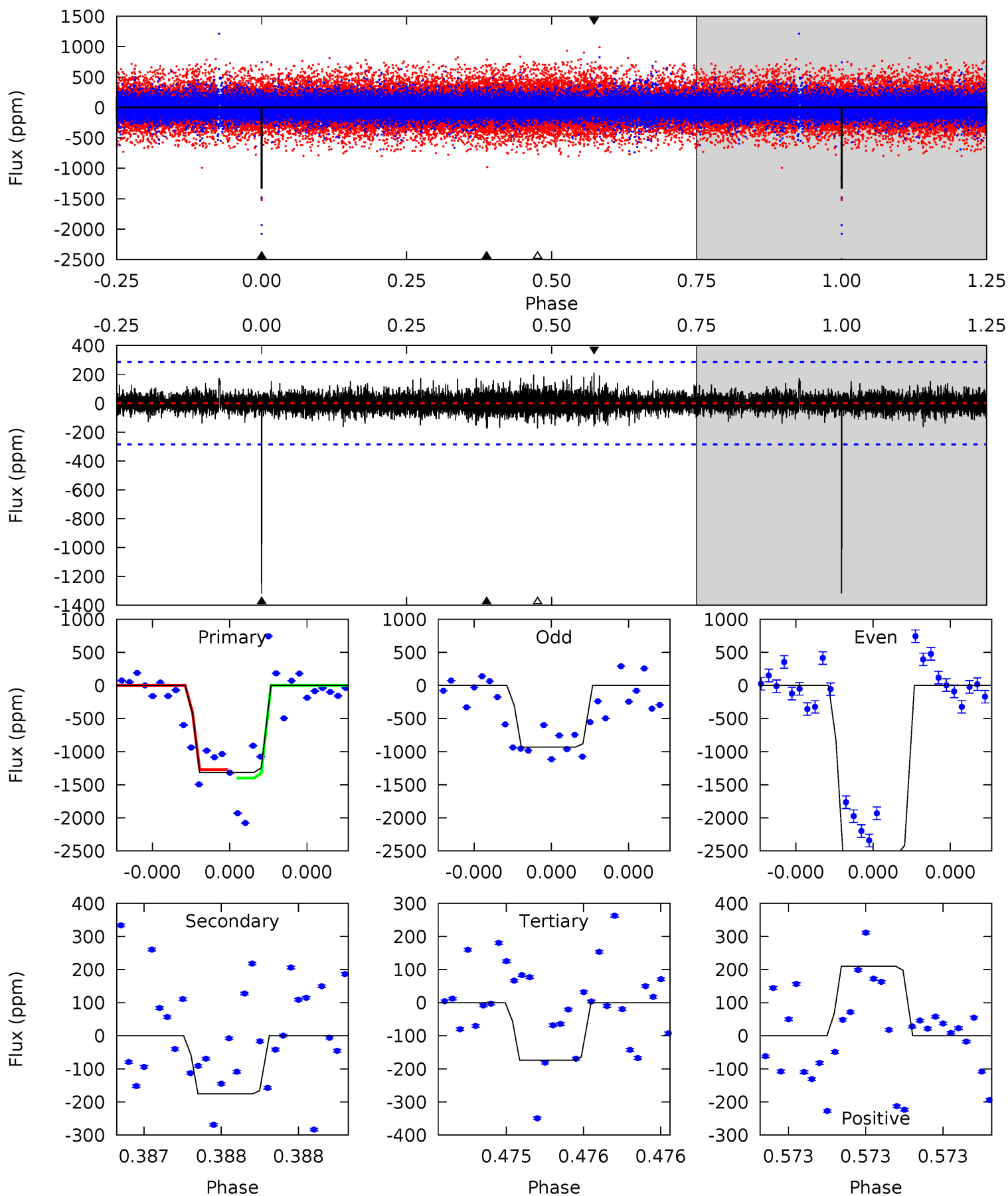
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	11.6	11.1	12.8	5.53	3.41	3.02	1.95	0.28	0.50	-1.18	0.93	0.90	0.49	3.06



Alt Model-Shift Uniqueness Test

005383476-01, P = 446.725300 Days, E = 430.967433 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	3.45	3.42	4.12	5.61	3.53	0.74	22.5	21.8	0.03	-0.67	18.7	1.51	0.14	1.22



Stellar Parameters For KIC 005383476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5435^{+165}_{-132}	$3.567^{+1.087}_{-0.362}$	$-1.240^{+0.300}_{-0.250}$	$2.393^{+1.750}_{-1.750}$	$0.771^{+0.275}_{-0.118}$	$0.079^{+3.187}_{-0.068}$
	+3%/-2%	+30%/-10%	+24%/-20%	+73%/-73%	+36%/-15%	+4021%/-85%
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 005383476-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-854 ± 74	$11.61^{+4.85}_{-4.60}$	492^{+85}_{-107}	4505^{+192}_{-183}	4099^{+6630}_{-2022}
Alt.	-176 ± 51	$11.30^{+4.72}_{-4.46}$	494^{+82}_{-115}	3443^{+183}_{-194}	873^{+1500}_{-464}

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

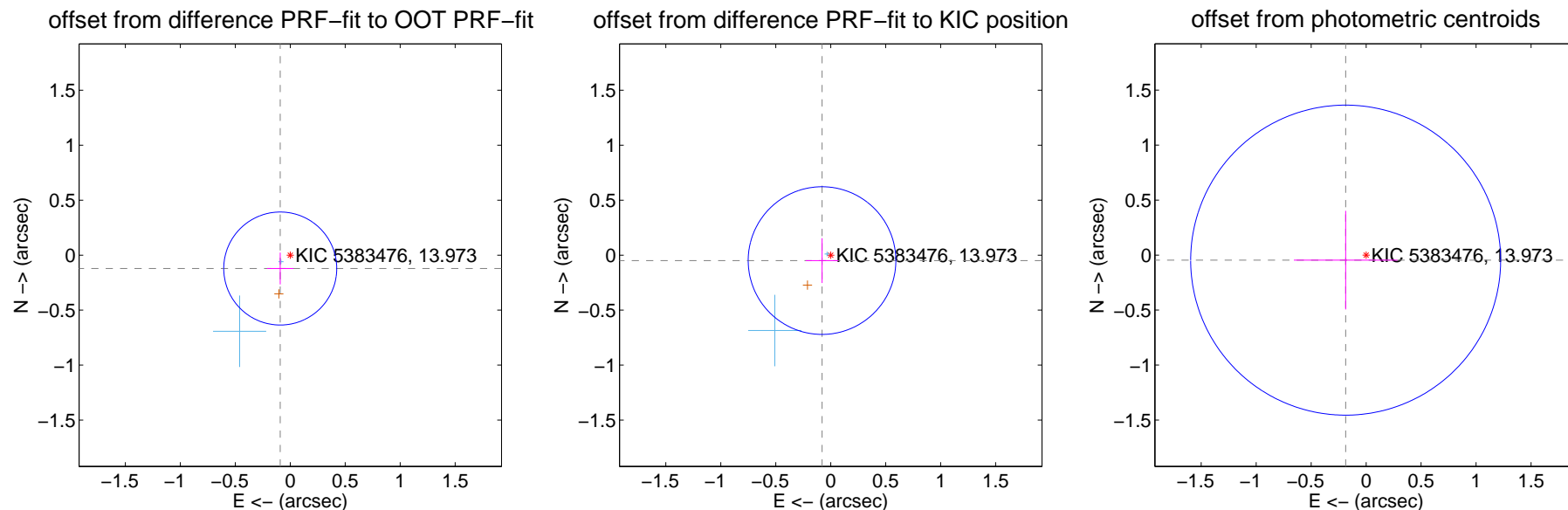
DV Centroid Data

Supplemental centroid analysis for 005383476-01. Kepler magnitude: 13.97. Transit SNR 9.10

There are 2 quarters with good PRF difference image offsets

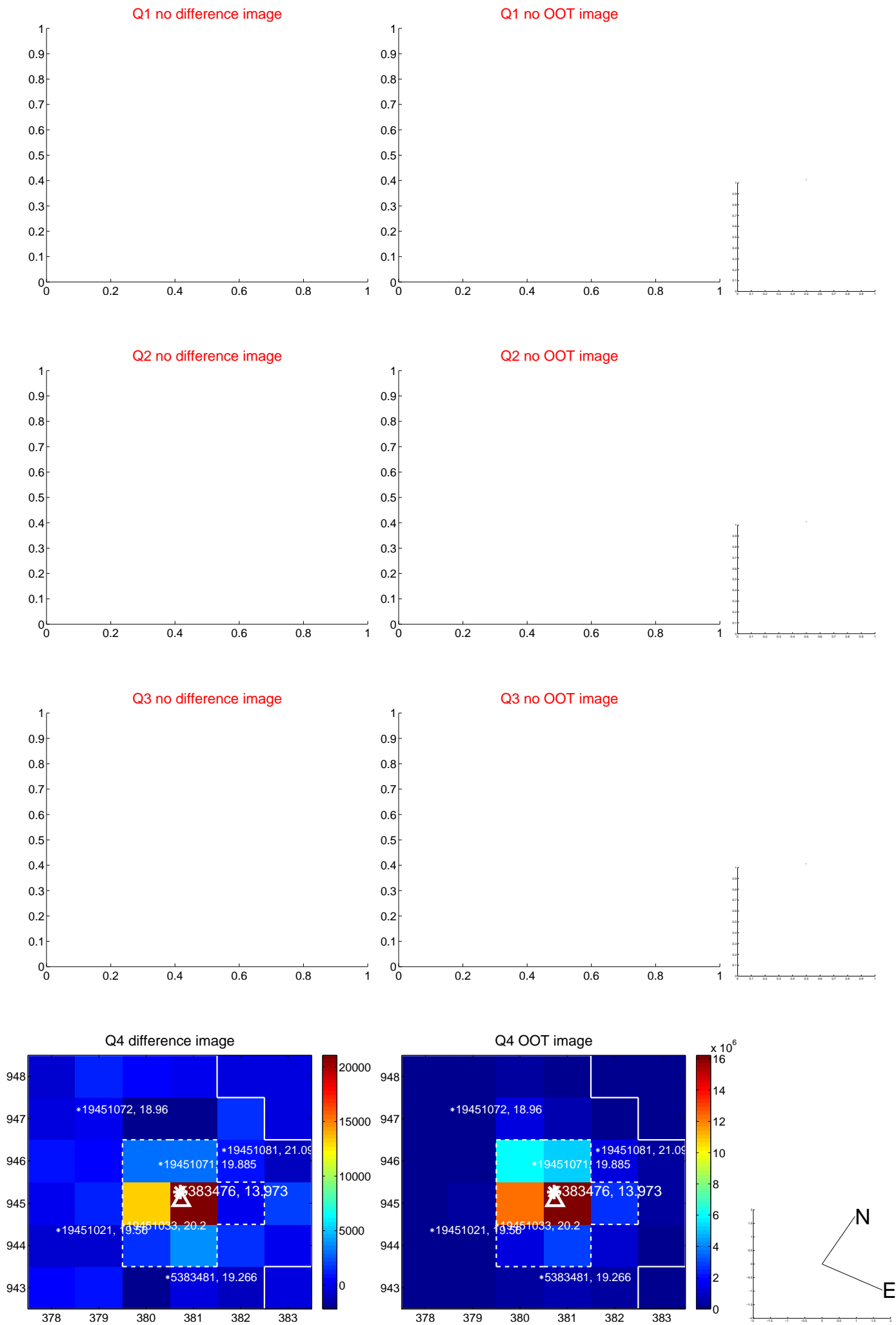
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.171	0.89	0.091 ± 0.120	-0.122 ± 0.144
PRF-fit source offset from KIC position	0.093 ± 0.224	0.42	0.079 ± 0.148	-0.049 ± 0.204
photometric centroid source offset	0.19 ± 0.47	0.41	0.19 ± 0.47	-0.05 ± 0.45



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.

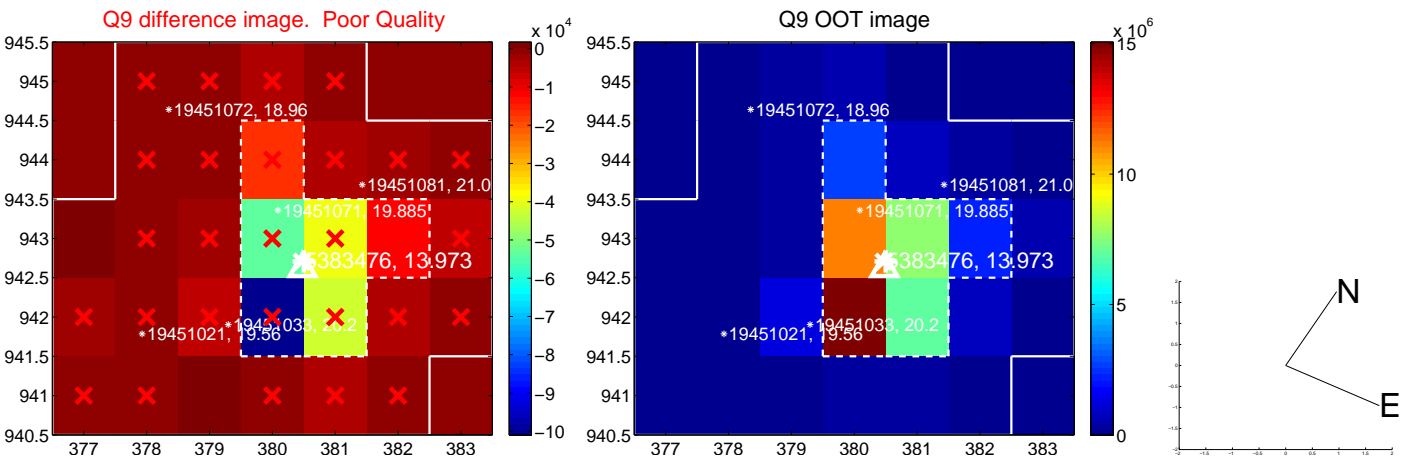
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



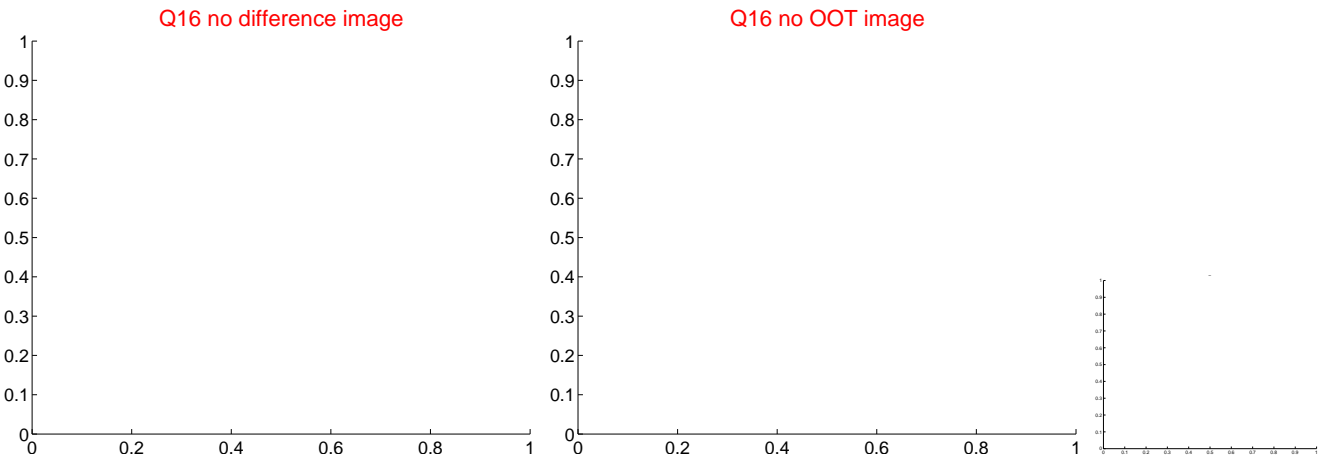
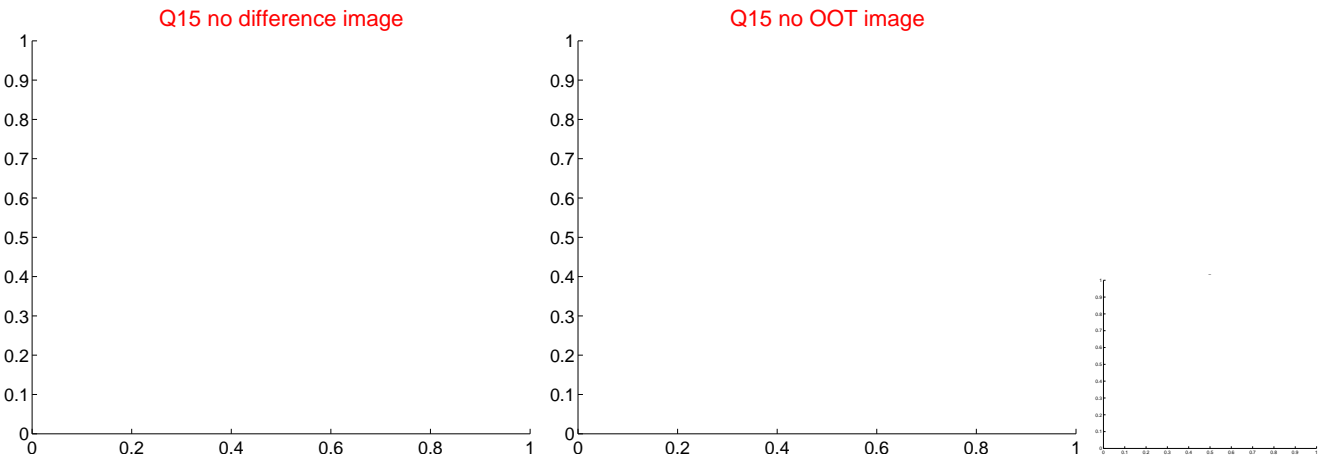
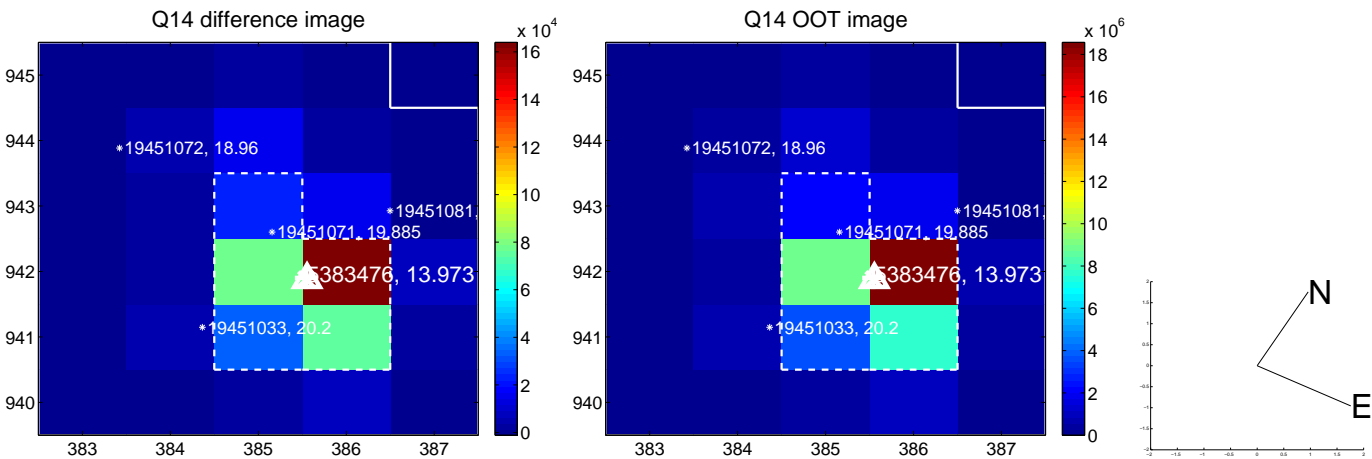
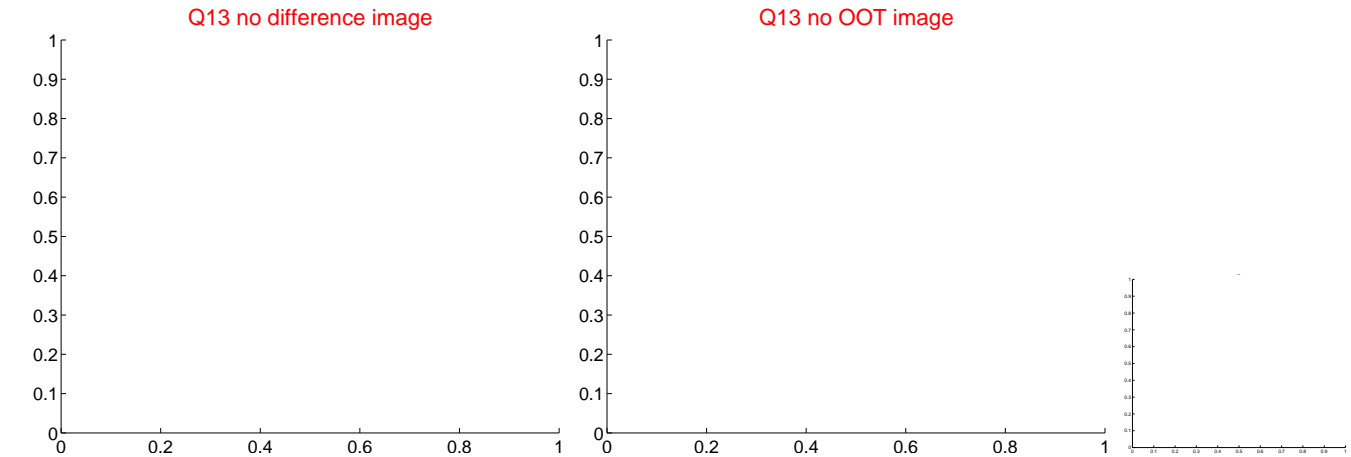
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



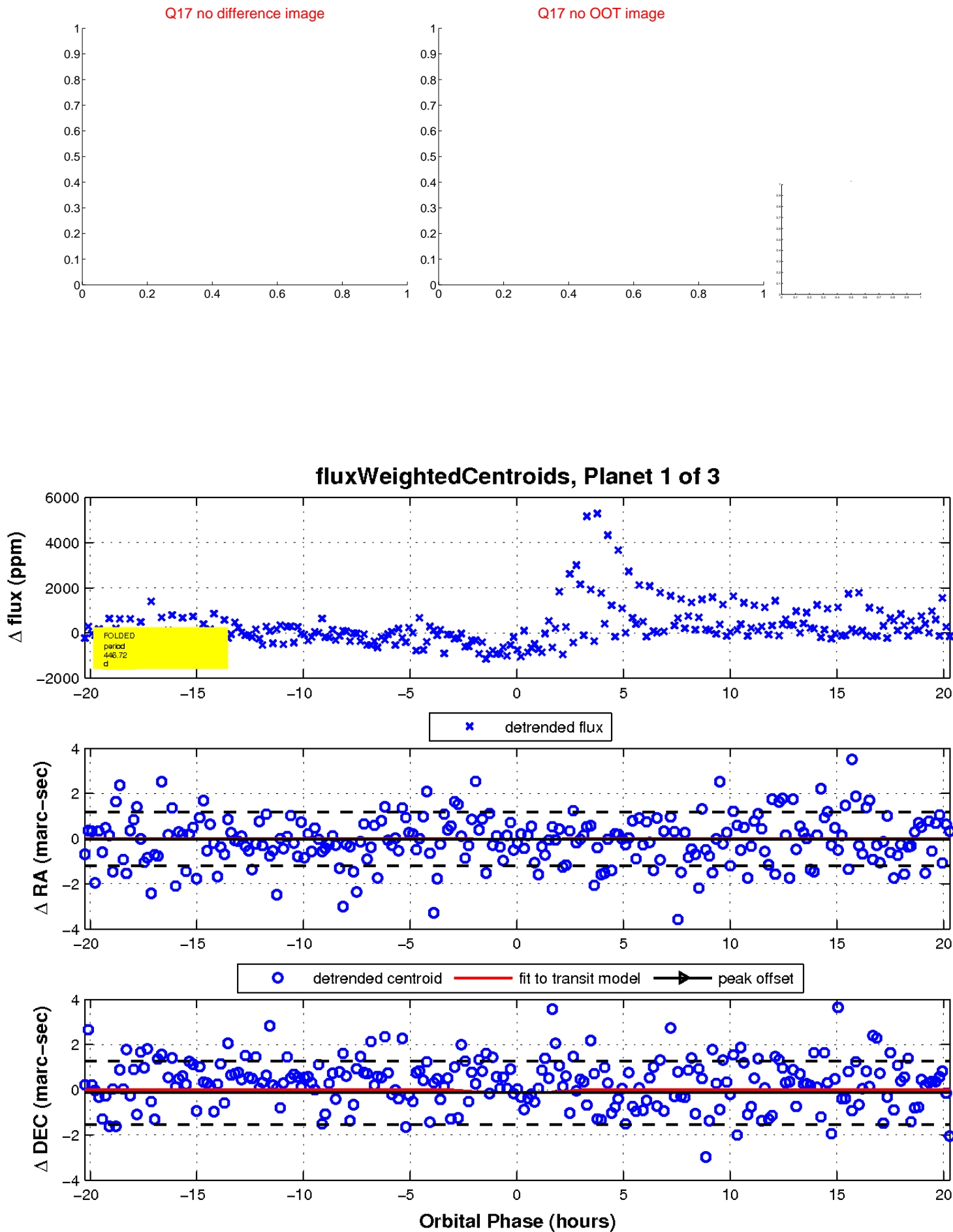
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

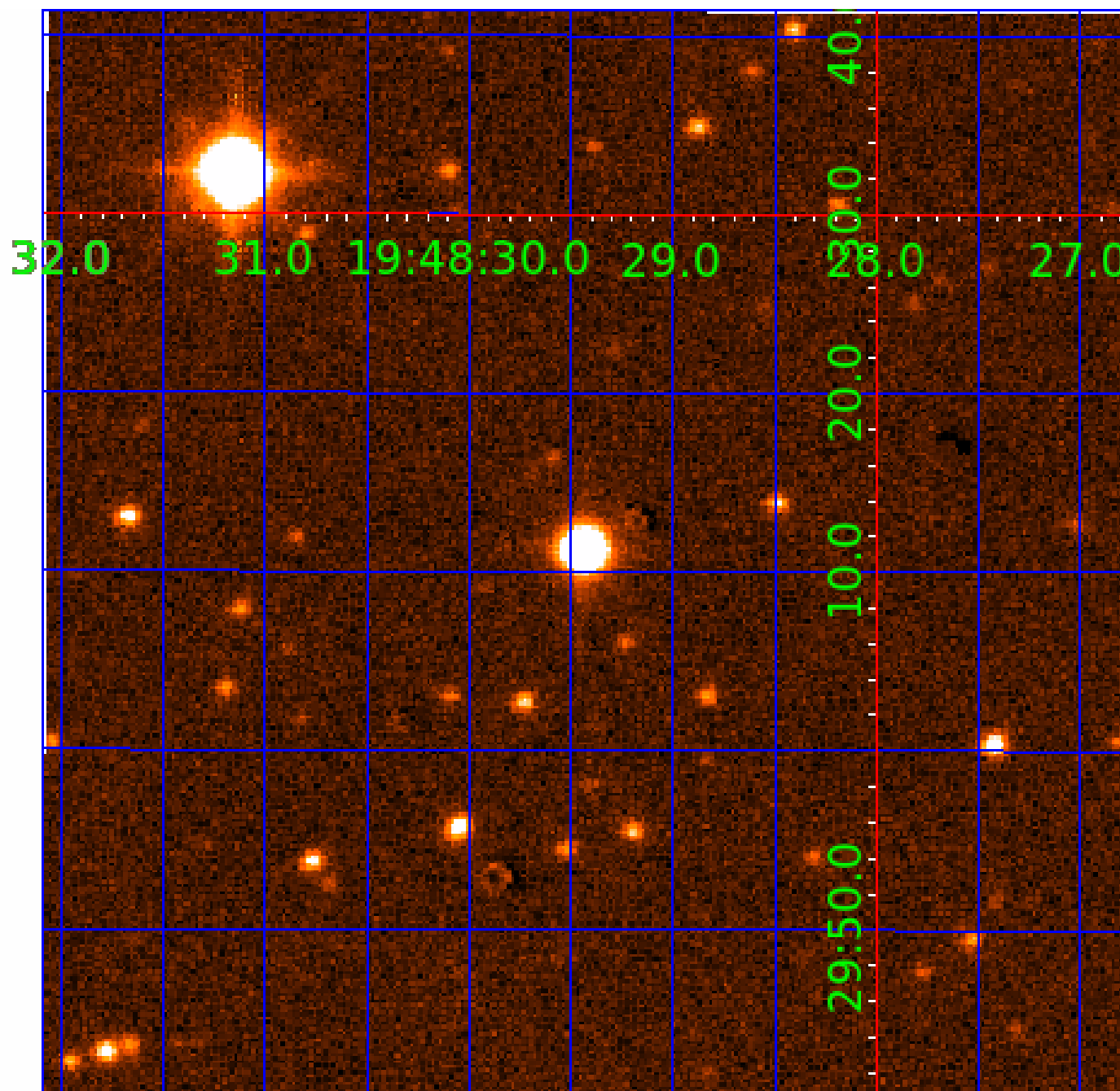


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005383476

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})
005383476-01	OBS	No	446.715585	430.964018	1614.5	6.783	13.1	9.1	2.39	5435	12.05	4.07
005383476-02	OBS	No	645.907835	255.321131	1039.1	5.610	11.3	6.5	2.39	5435	9.06	2.49
005383476-03	OBS	No	1.626397	132.315066	86.1	14.716	11.3	8.2	2.39	5435	2.90	7266.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005383476-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

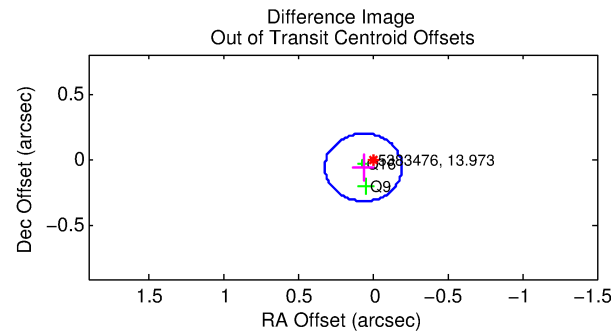
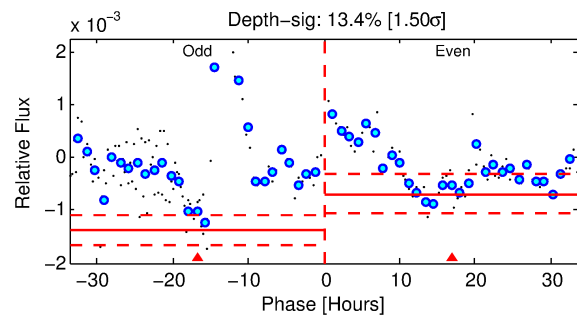
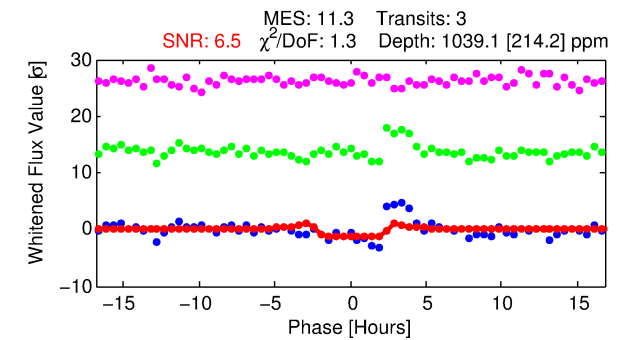
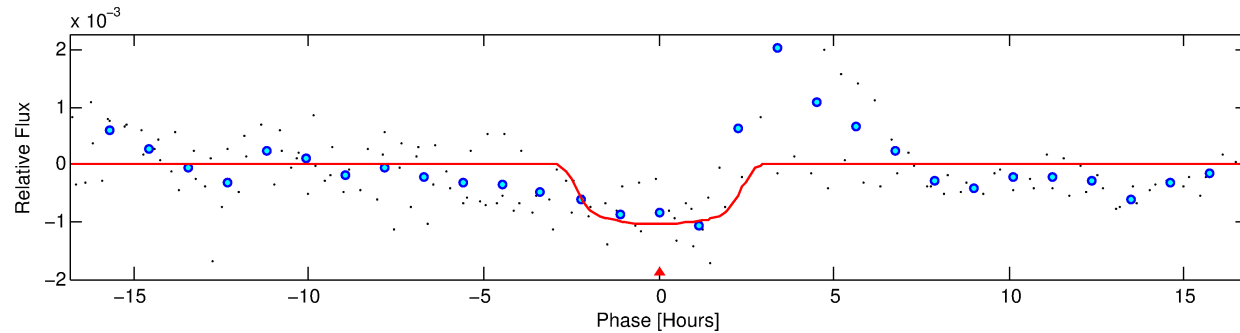
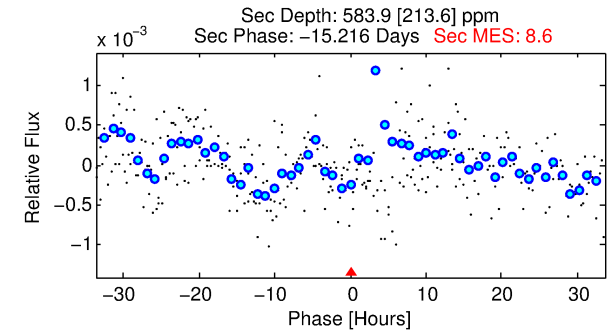
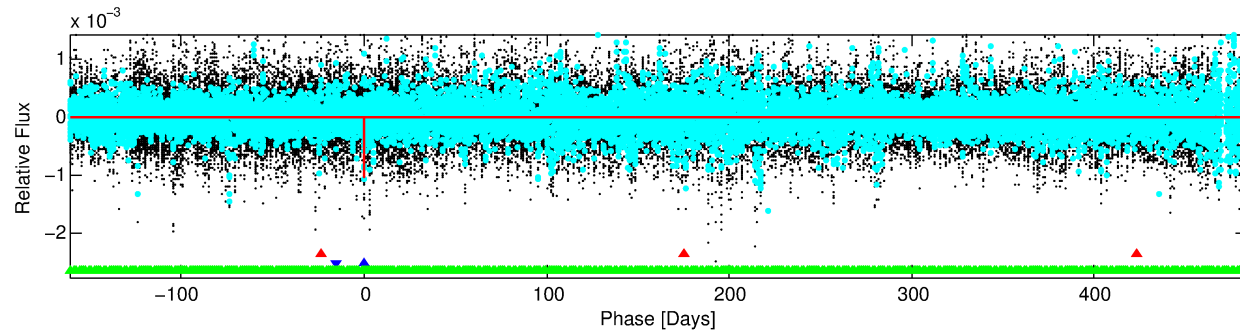
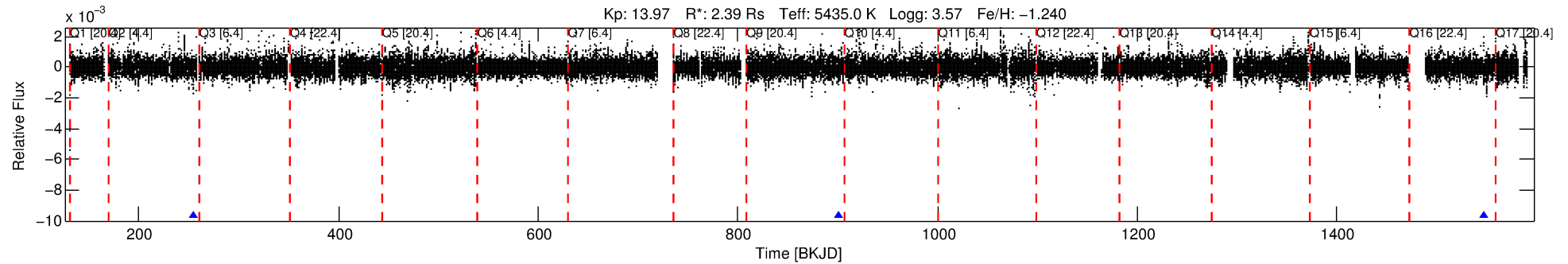
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005383476-02

No Significant Match Found

DV One-Page Summary

KIC: 5383476 Candidate: 2 of 3 Period: 645.908 d



DV Fit Results:

Period = 645.90783 [0.00975] d
Epoch = 255.3211 [0.0136] BKJD
Rp/R* = 0.0347 [0.0050]
a/R* = 453.87 [195.63]
b = 0.90 [0.10]
Seff = 2.49 [4.34]
Teq = 320 [140] K
Rp = 9.06 [6.76] Re
a = 1.3410 [1.2959] AU
Ag = 7035.29 [12664.13] [0.56 σ]
Teffp = 4535 [547] K [7.46 σ]

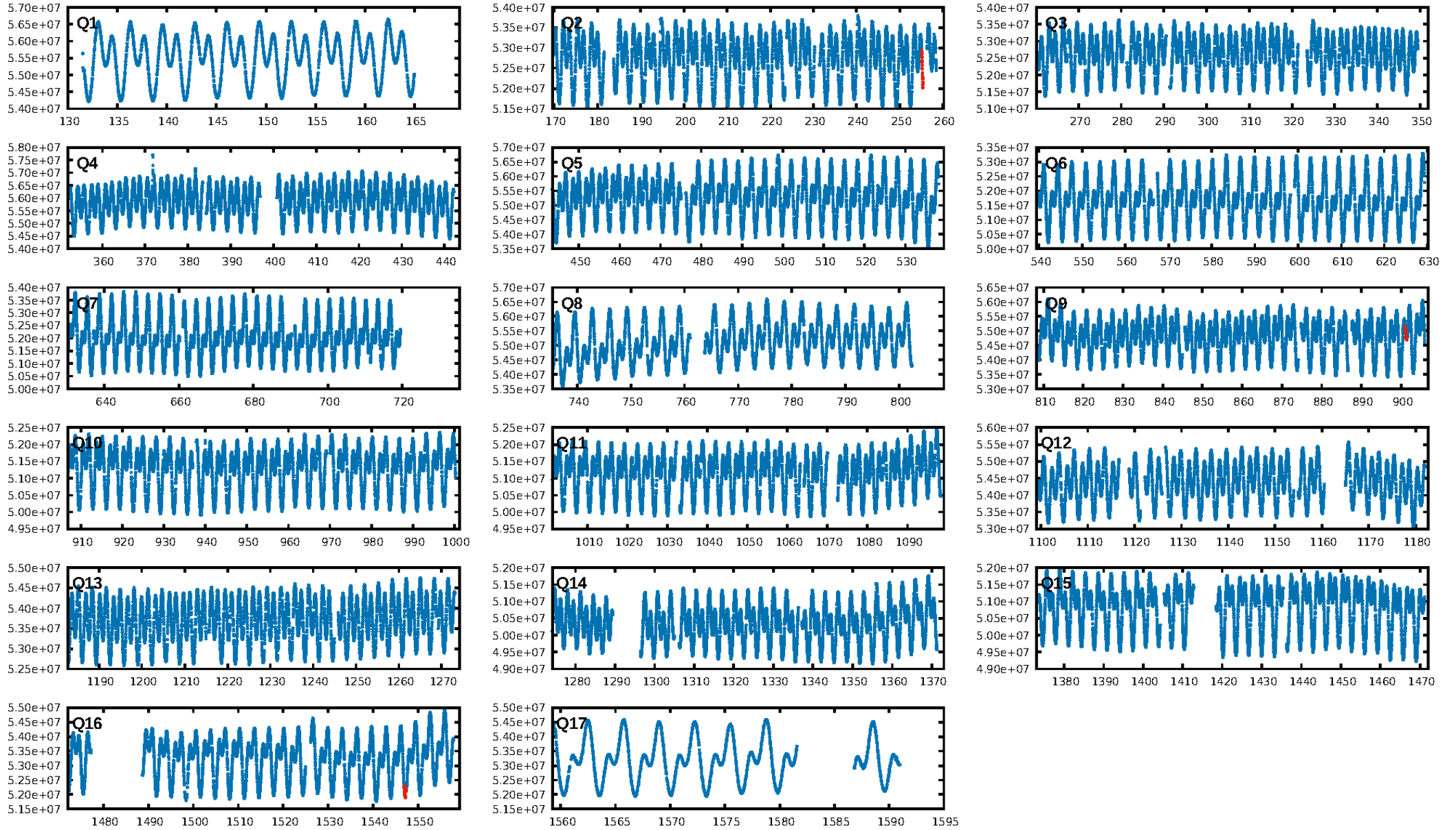
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [543.10 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.4%
ModelChiSquareGof-sig: 83.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7016
Centroid-sig: 13.7%
Centroid-so: 0.824 arcsec [1.28 σ]
OotOffset-rm: 0.083 arcsec [0.97 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 0.160 arcsec [2.20 σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

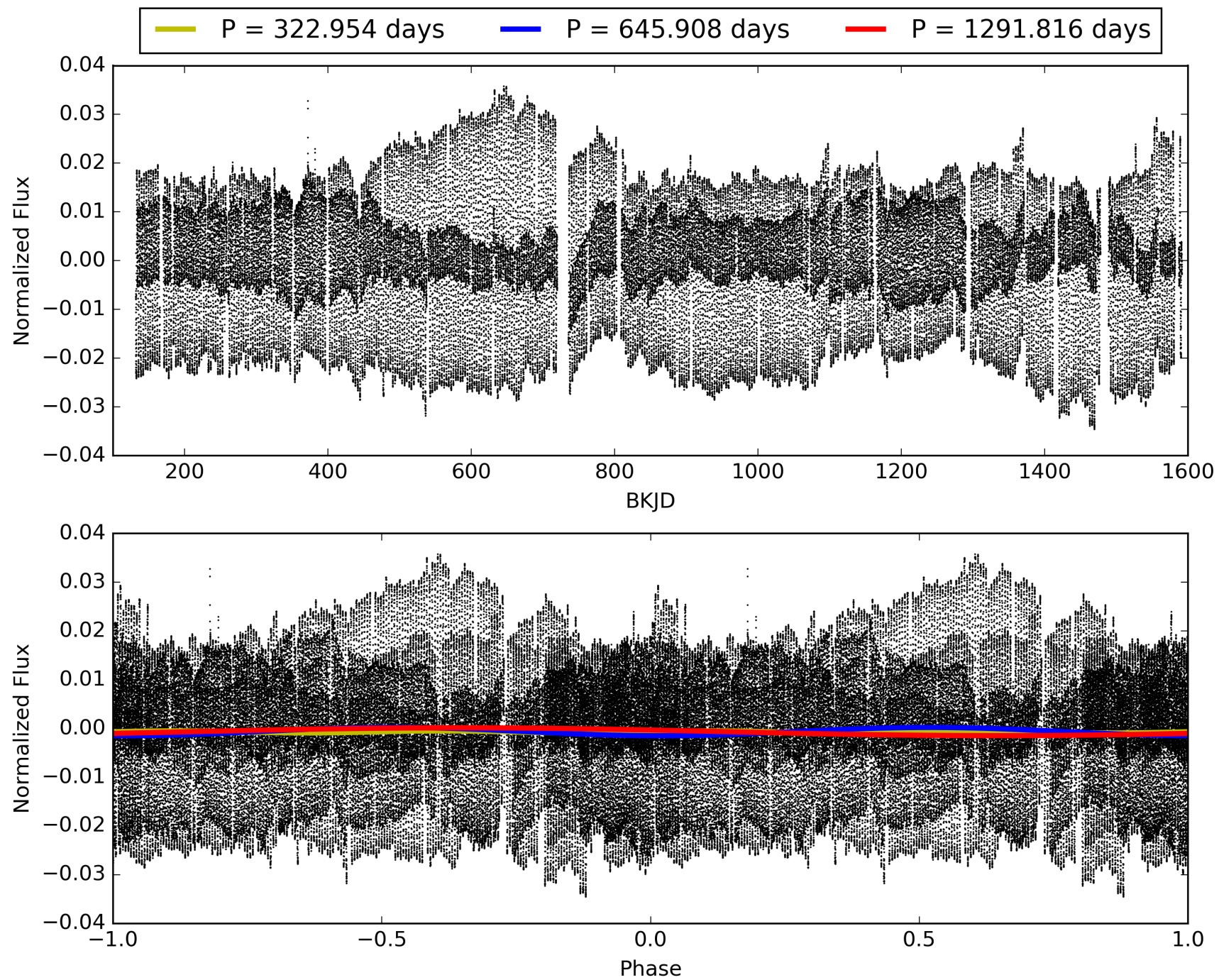
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:04:53 Z

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

TCE 005383476-02, PDC Light Curves

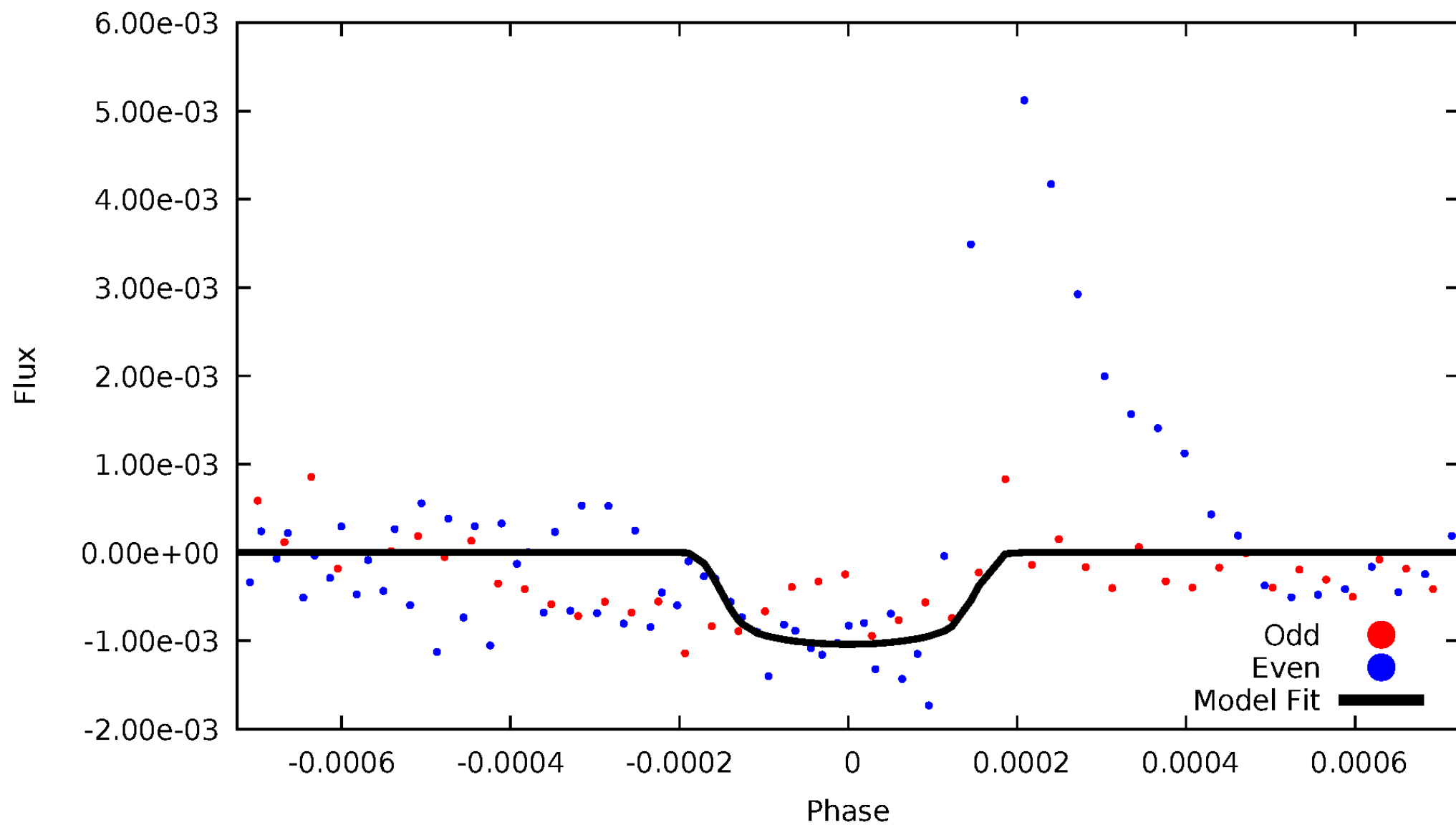


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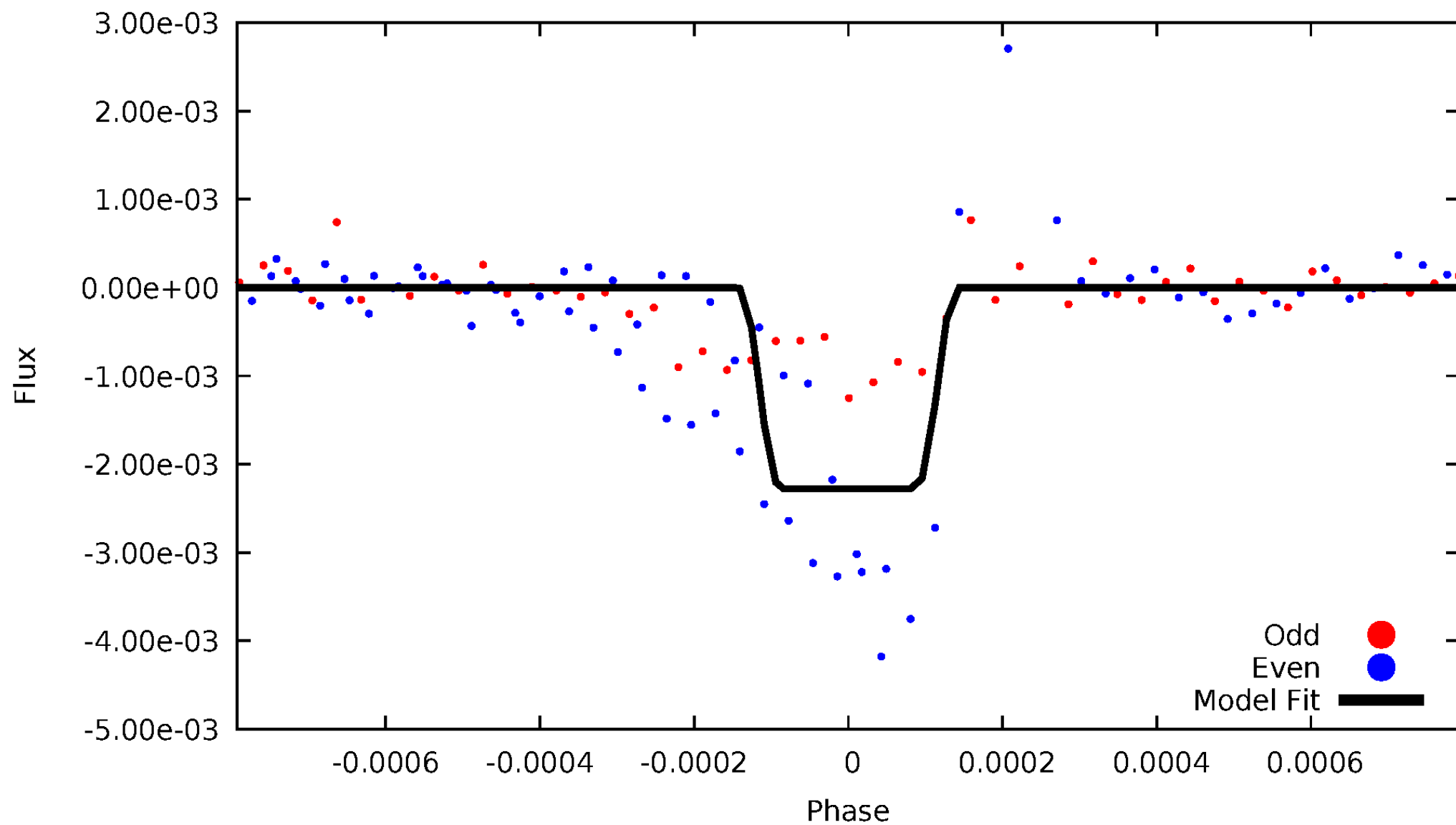
DV Odd/Even

TCE 005383476-02



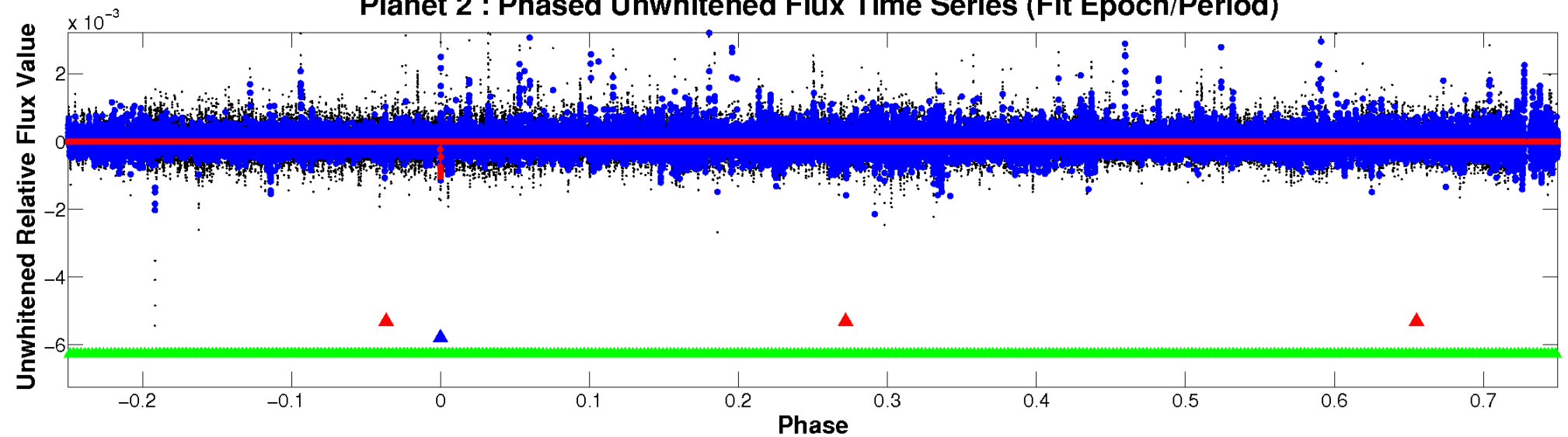
ALT Odd/Even

TCE 005383476-02

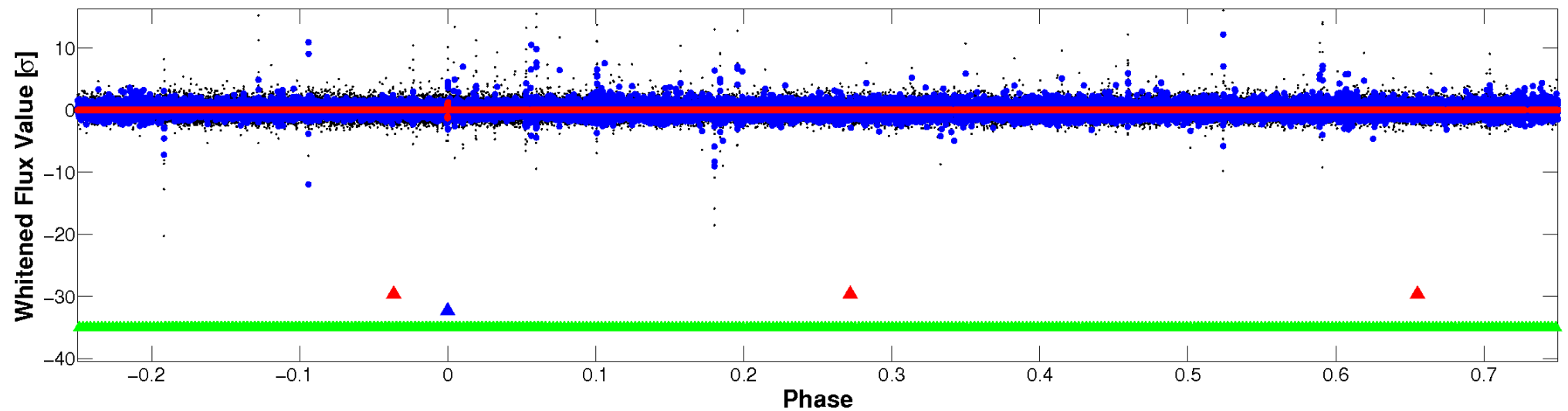


Non-Whitened Vs. Whitened Light Curve

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

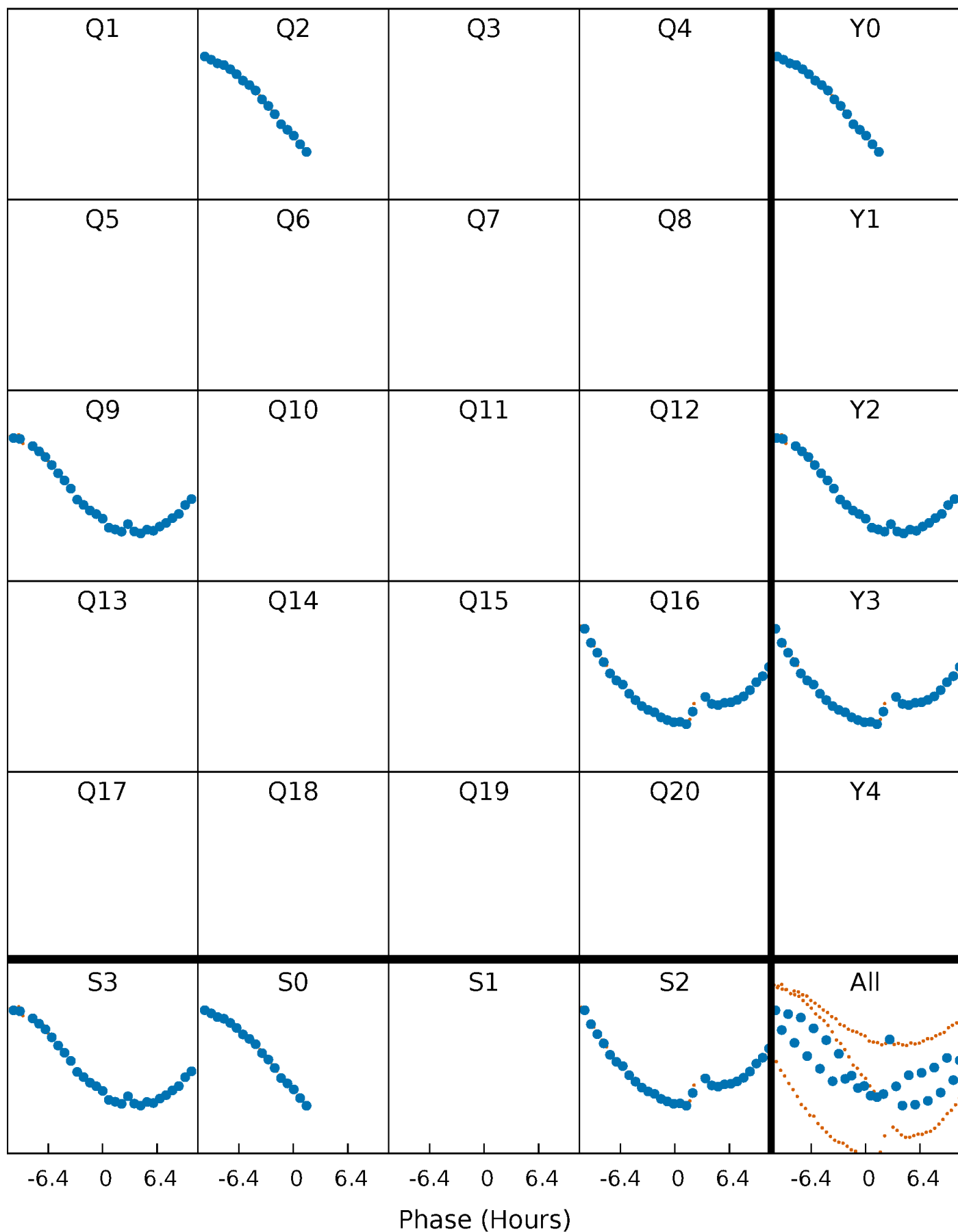


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



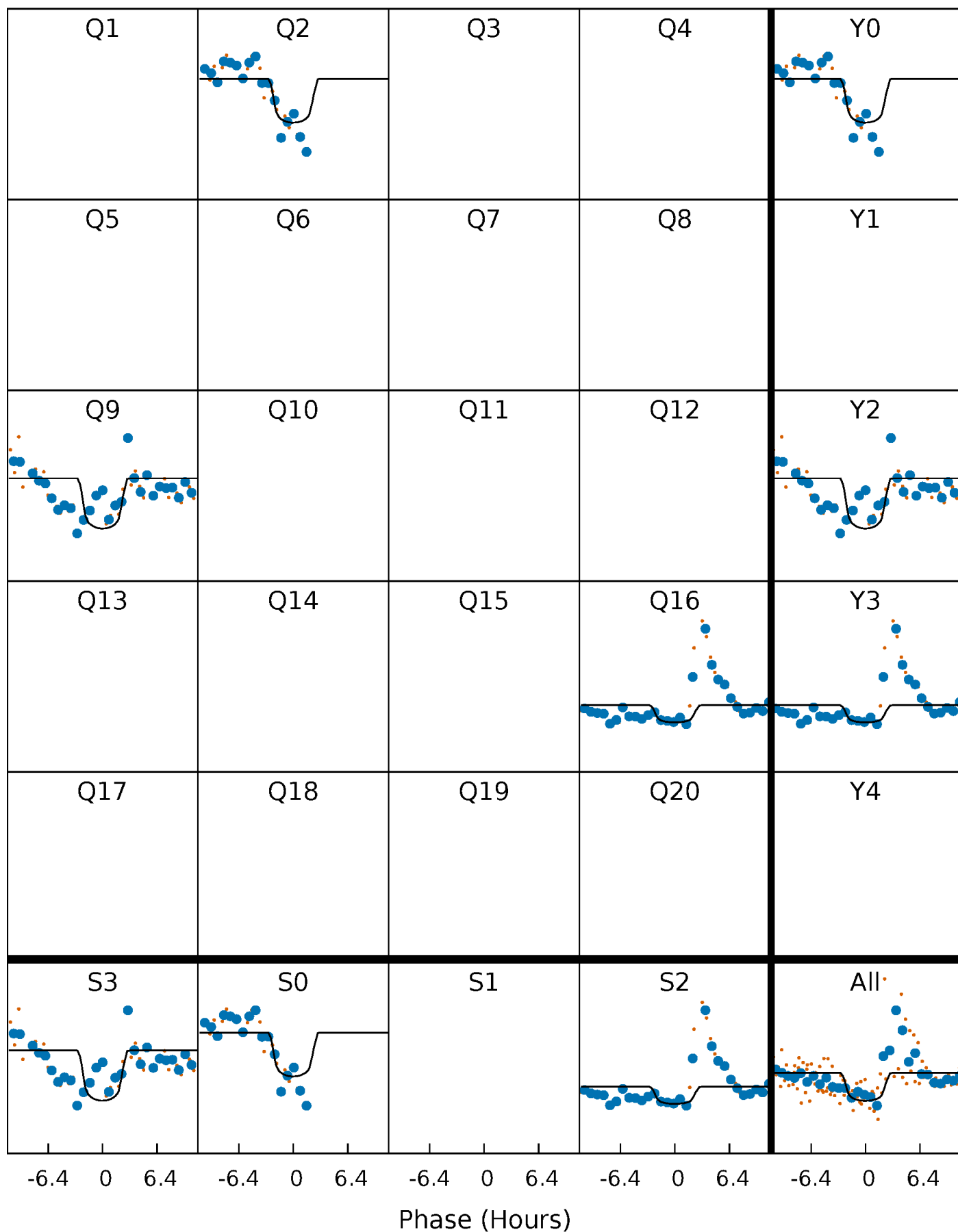
PDC Quarter-Phased Transit Curves

TCE 005383476-02 P=645.907835 Days $T_0=255.321131$ (BKJD)



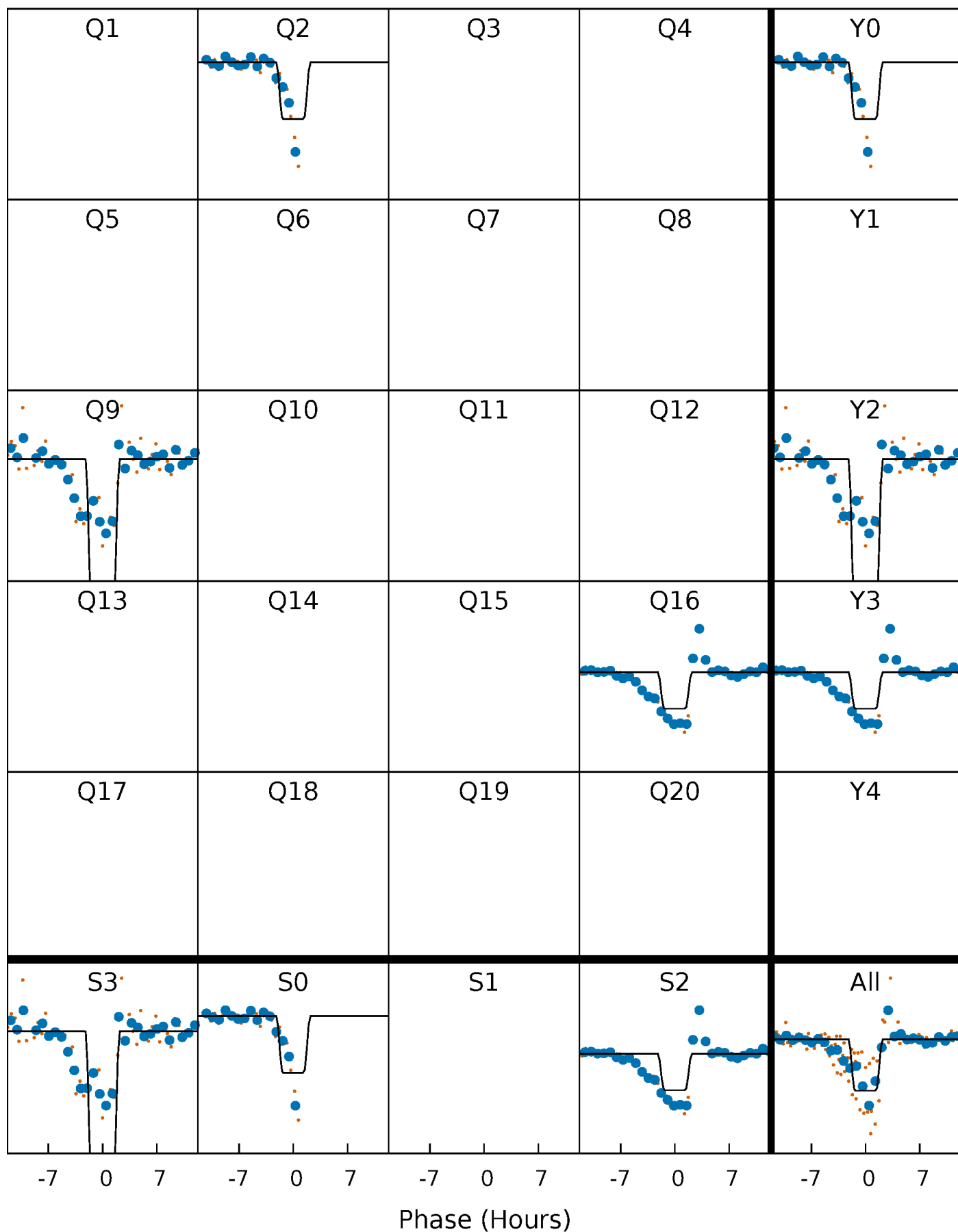
DV Quarter-Phased Transit Curves

TCE 005383476-02 P=645.907835 Days $T_0=255.321131$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

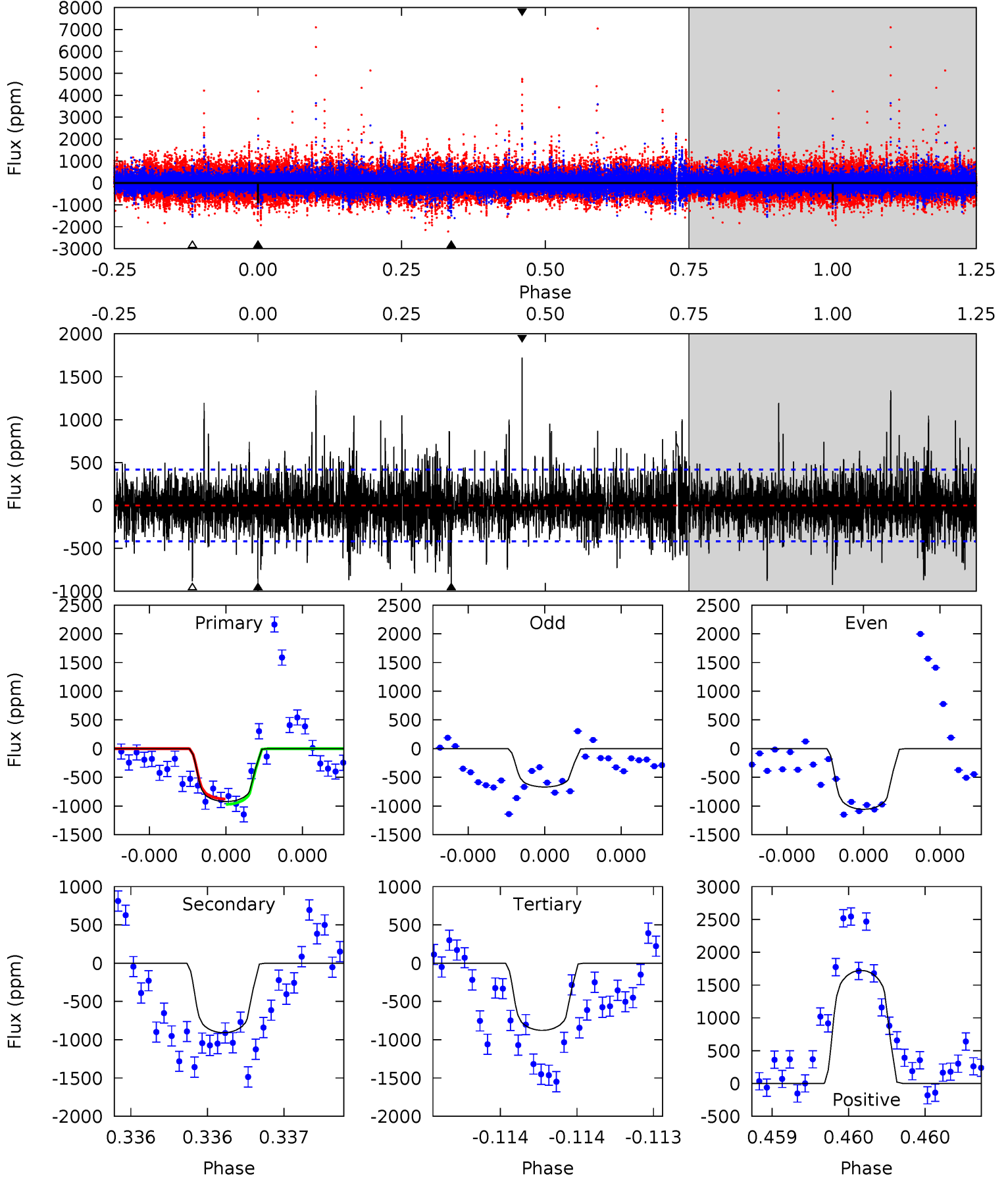
TCE 005383476-02 P=645.891209 Days $T_0=255.355257$ (BKJD)



DV Model-Shift Uniqueness Test

005383476-02, P = 645.907835 Days, E = 255.321131 Days

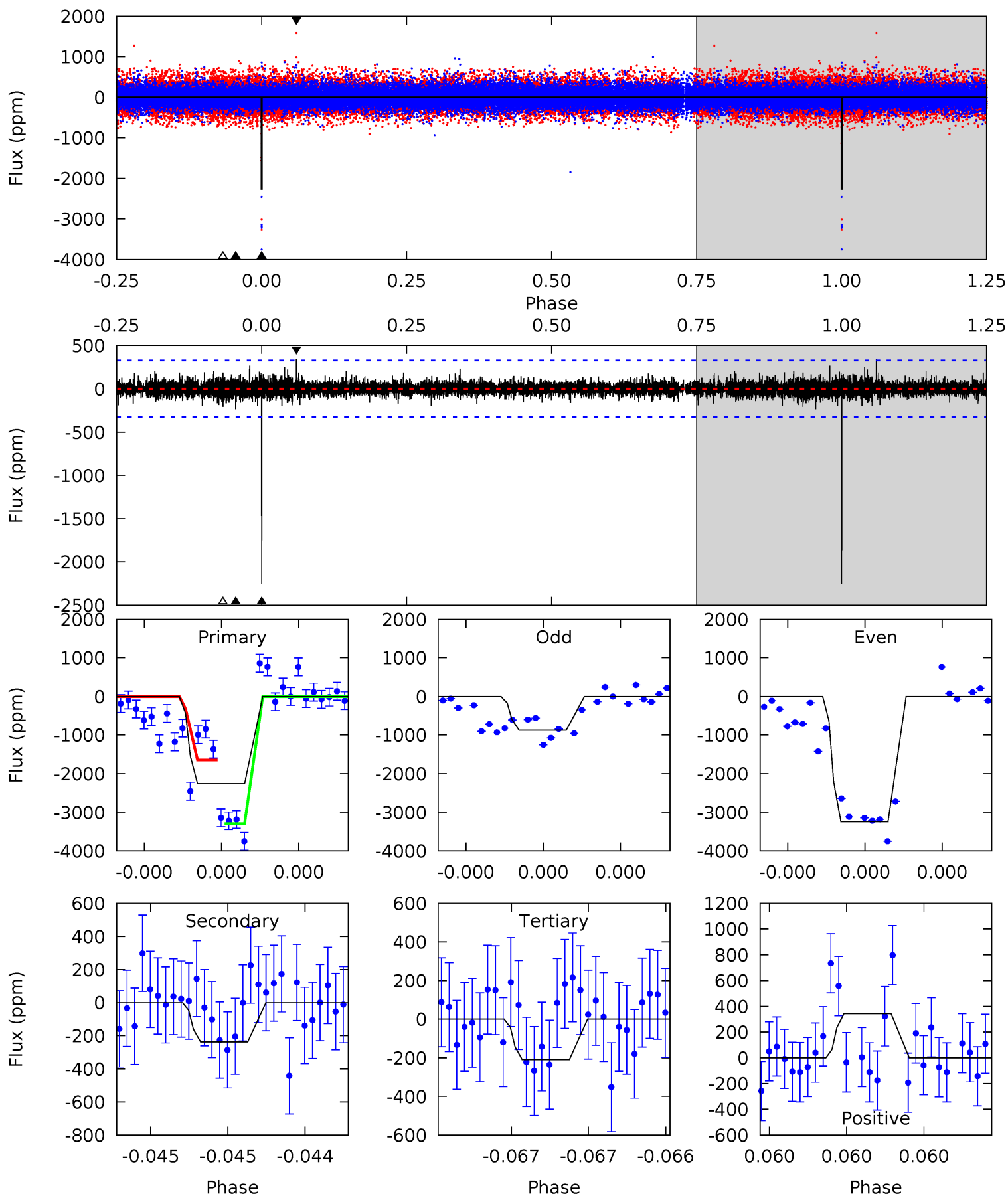
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	12.2	11.8	23.1	5.61	3.54	2.97	0.61	-10.7	0.41	-10.9	2.44	1.26	0.65	0.61



Alt Model-Shift Uniqueness Test

005383476-02, P = 645.891209 Days, E = 255.355257 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.0	4.10	3.63	5.93	5.68	3.64	0.73	35.4	33.1	0.47	-1.84	24.1	0.96	0.13	12.9



Stellar Parameters For KIC 005383476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5435^{+165}_{-132}	$3.567^{+1.087}_{-0.362}$	$-1.240^{+0.300}_{-0.250}$	$2.393^{+1.750}_{-1.750}$	$0.771^{+0.275}_{-0.118}$	$0.079^{+3.187}_{-0.068}$
	+3%/-2%	+30%/-10%	+24%/-20%	+73%/-73%	+36%/-15%	+4021%/-85%
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 005383476-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-908 ± 74	$8.45^{+4.19}_{-3.50}$	433^{+85}_{-97}	5136^{+419}_{-357}	13216^{+24249}_{-7429}
Alt.	-237 ± 58	$11.96^{+5.45}_{-4.87}$	437^{+85}_{-100}	3535^{+206}_{-197}	1700^{+3520}_{-959}

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

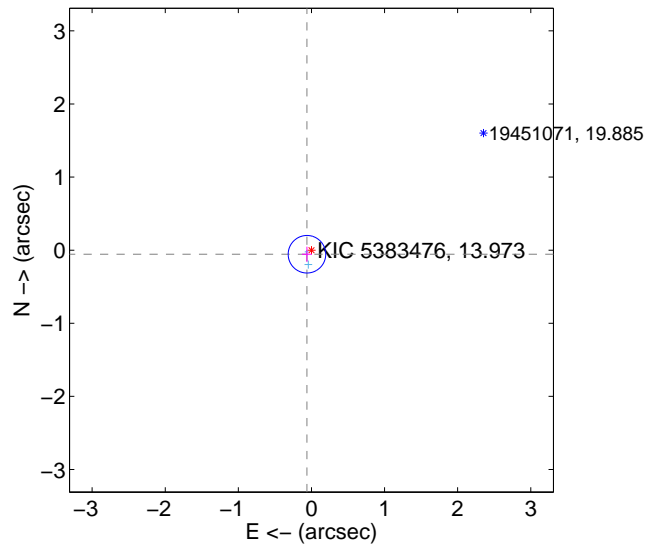
Supplemental centroid analysis for 005383476-02. Kepler magnitude: 13.97. Transit SNR 6.46

There are 2 quarters with good PRF difference image offsets

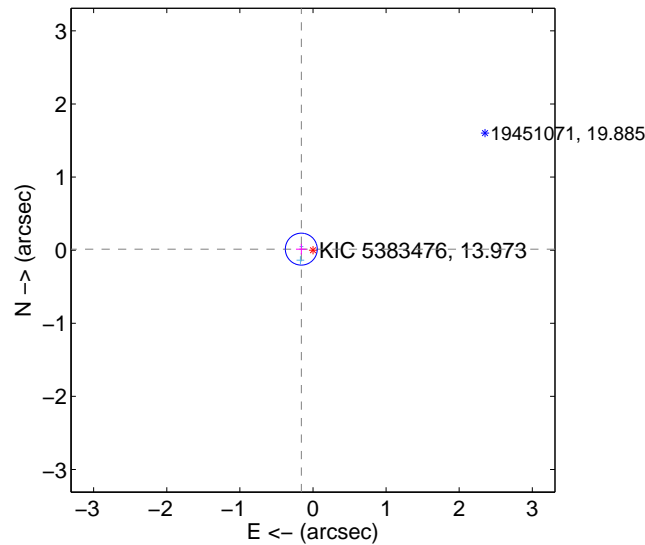
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.083 ± 0.086	0.97	0.061 ± 0.068	-0.056 ± 0.103
PRF-fit source offset from KIC position	0.160 ± 0.073	2.20	0.160 ± 0.073	0.014 ± 0.074
photometric centroid source offset	0.82 ± 0.64	1.28	-0.33 ± 0.68	-0.75 ± 0.64

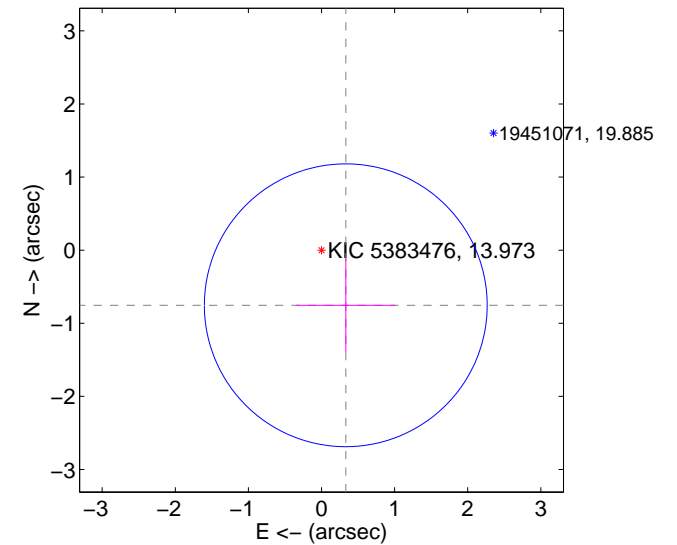
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

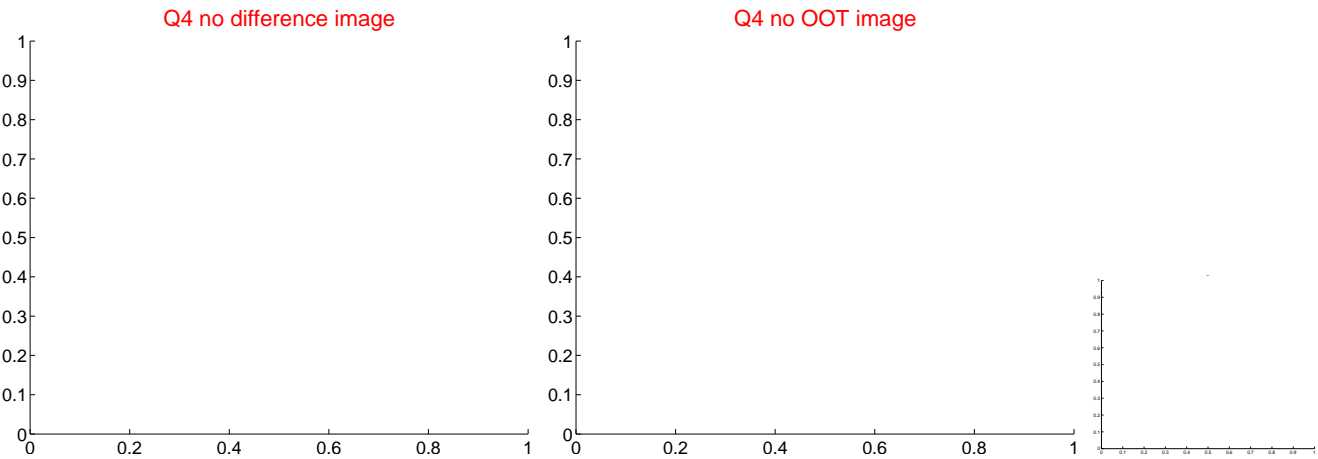
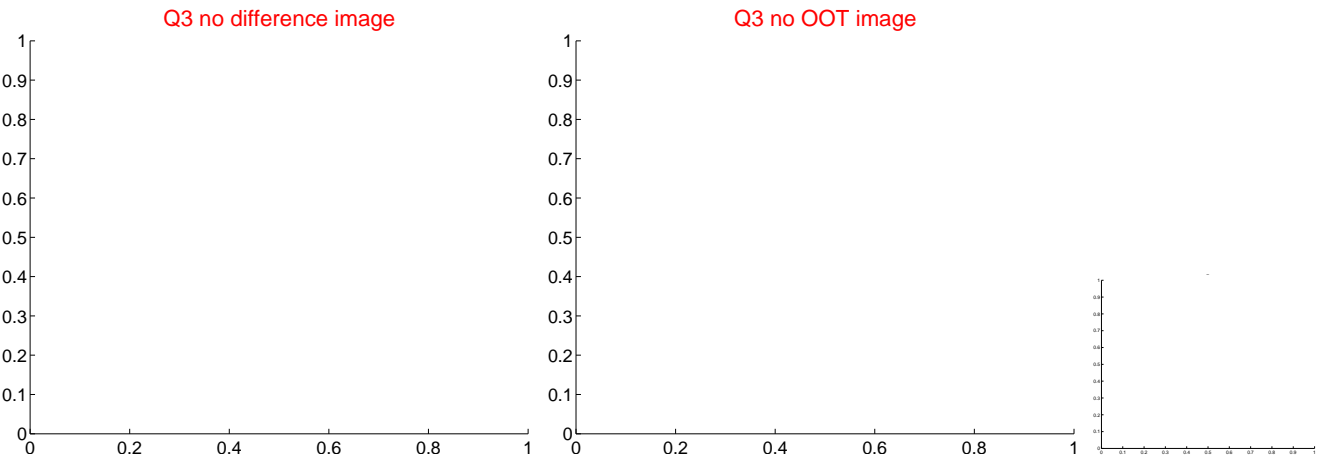
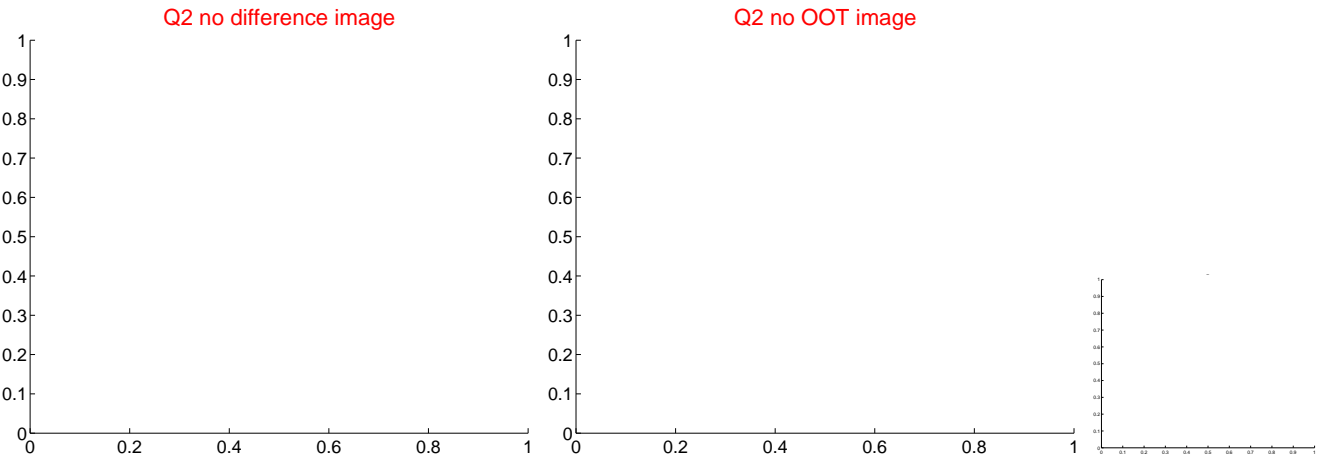
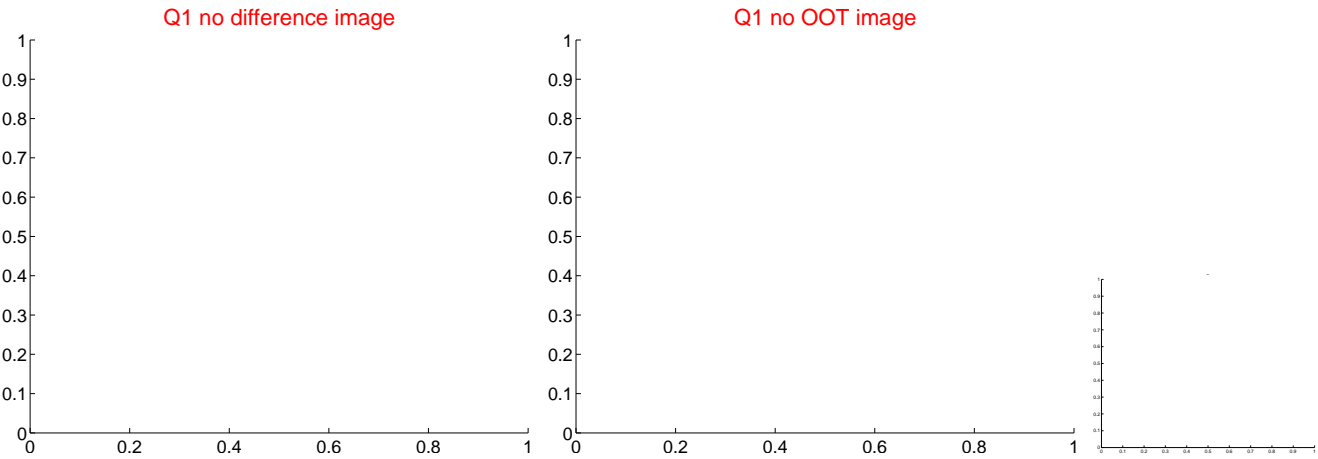


offset from photometric centroids



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.

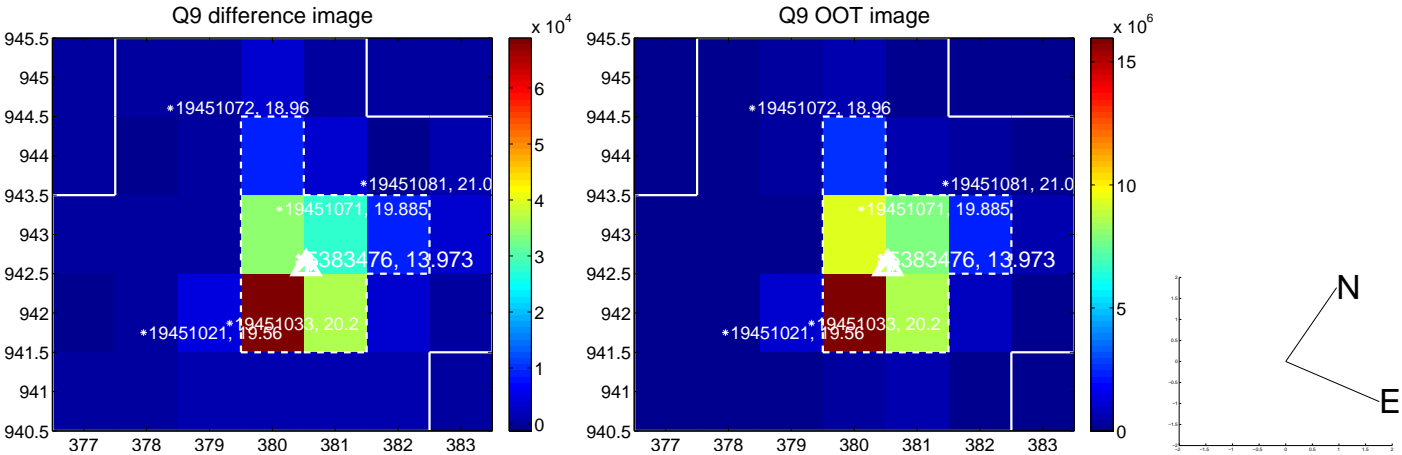
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



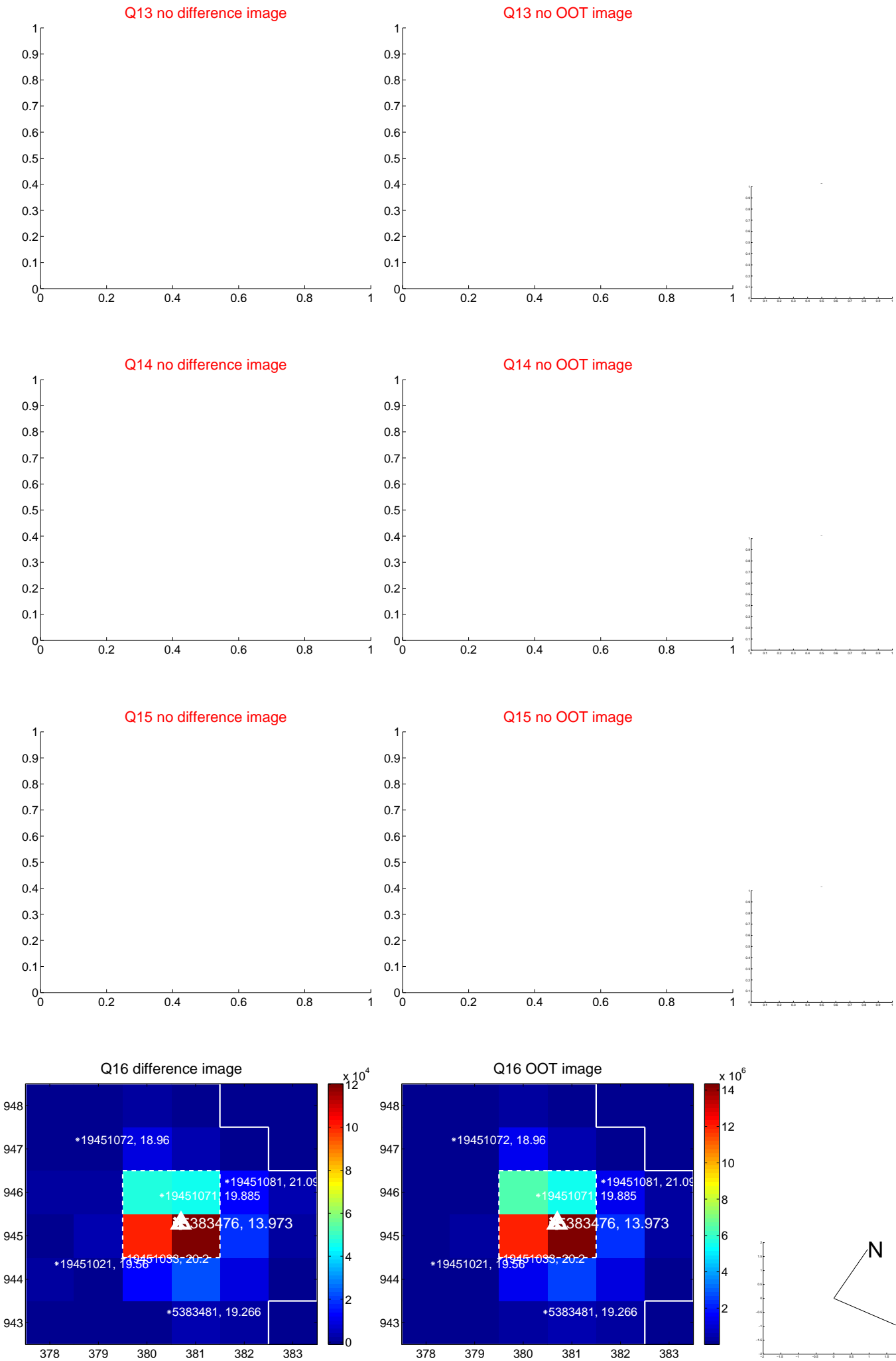
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



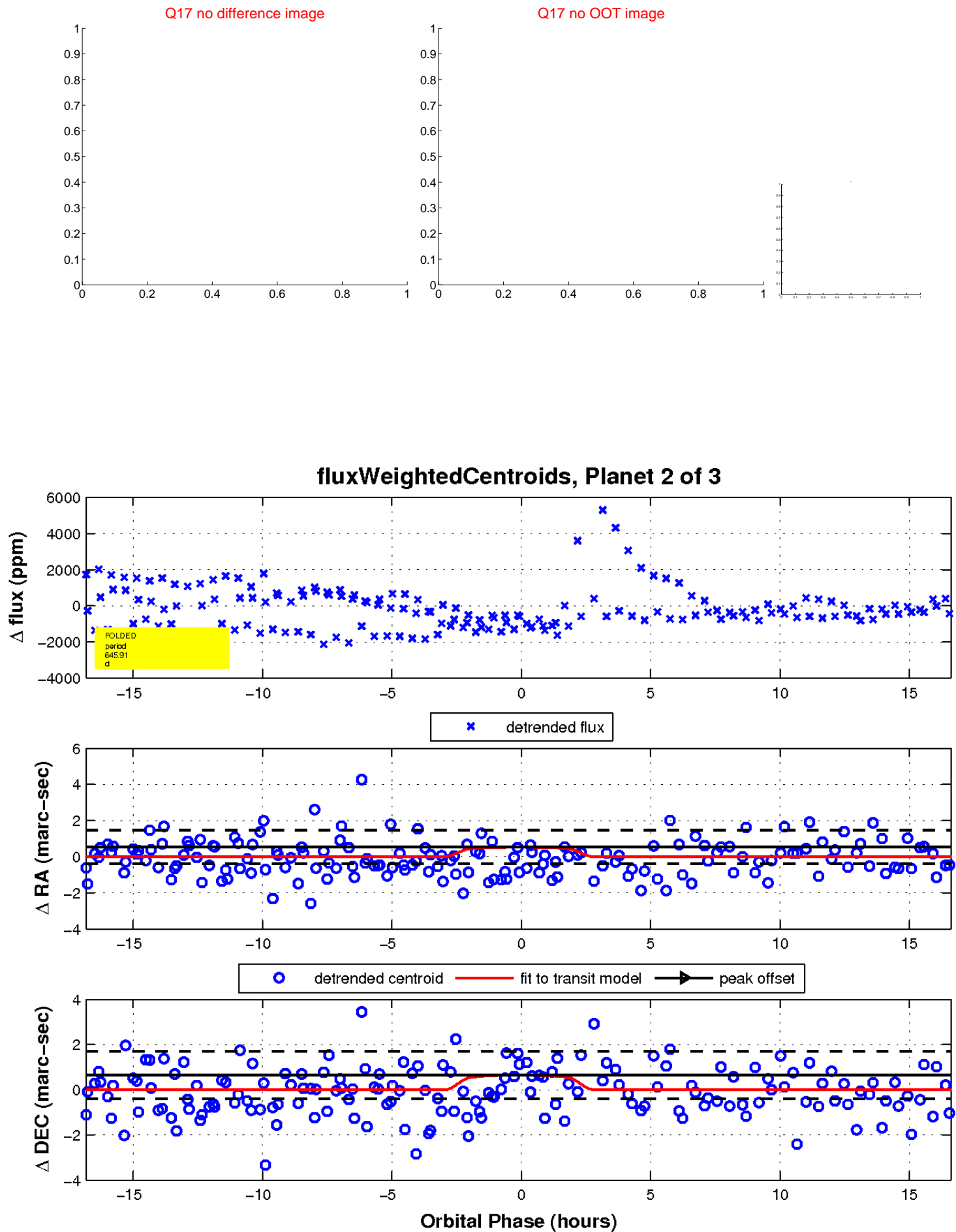
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

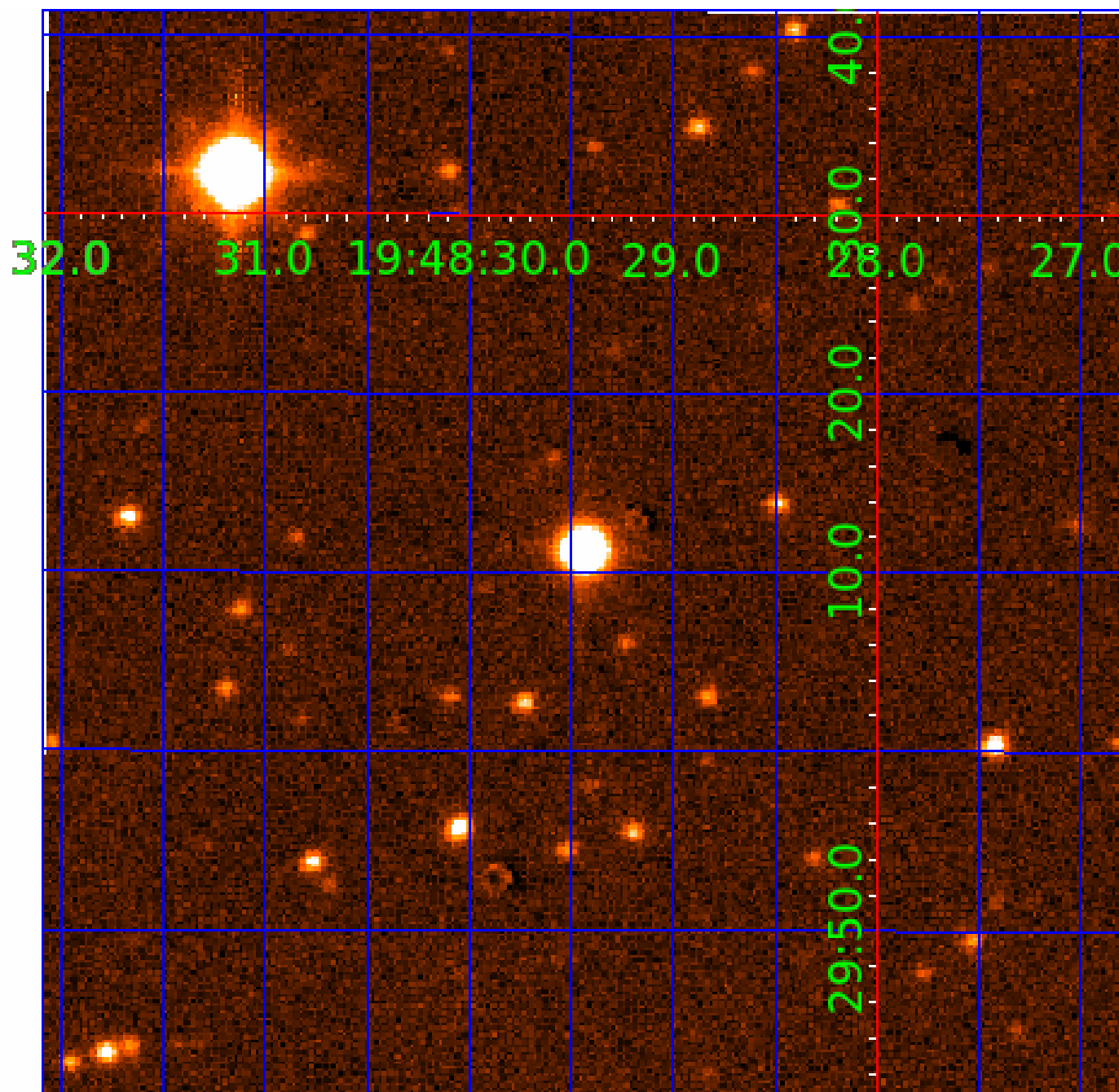


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005383476

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})
005383476-01	OBS	No	446.715585	430.964018	1614.5	6.783	13.1	9.1	2.39	5435	12.05	4.07
005383476-02	OBS	No	645.907835	255.321131	1039.1	5.610	11.3	6.5	2.39	5435	9.06	2.49
005383476-03	OBS	No	1.626397	132.315066	86.1	14.716	11.3	8.2	2.39	5435	2.90	7266.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005383476-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005383476-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

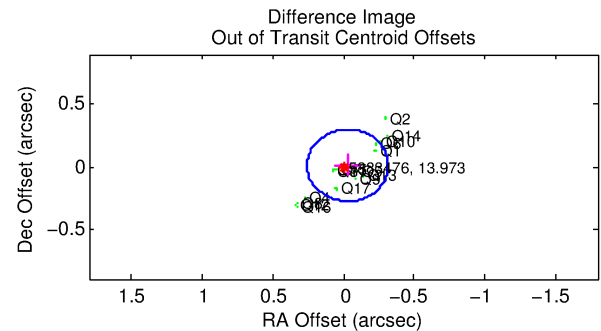
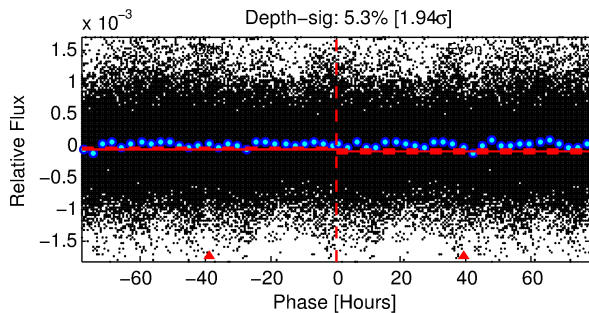
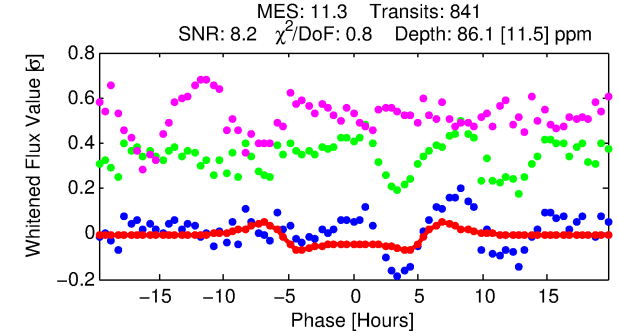
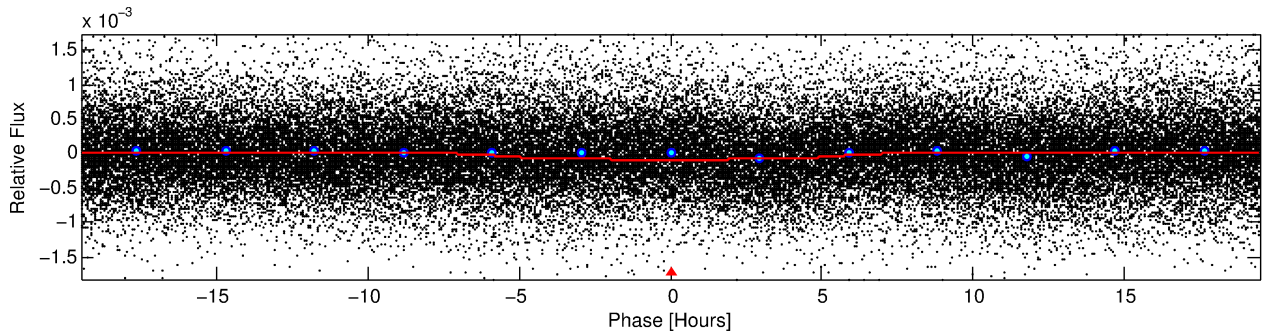
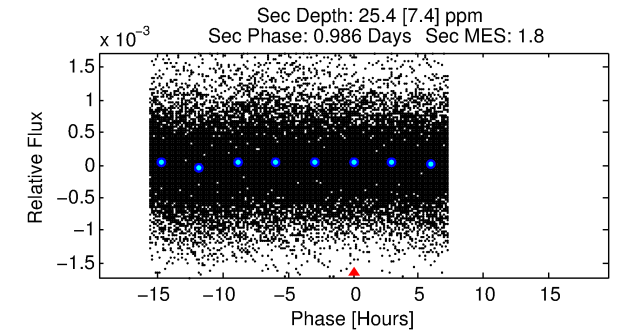
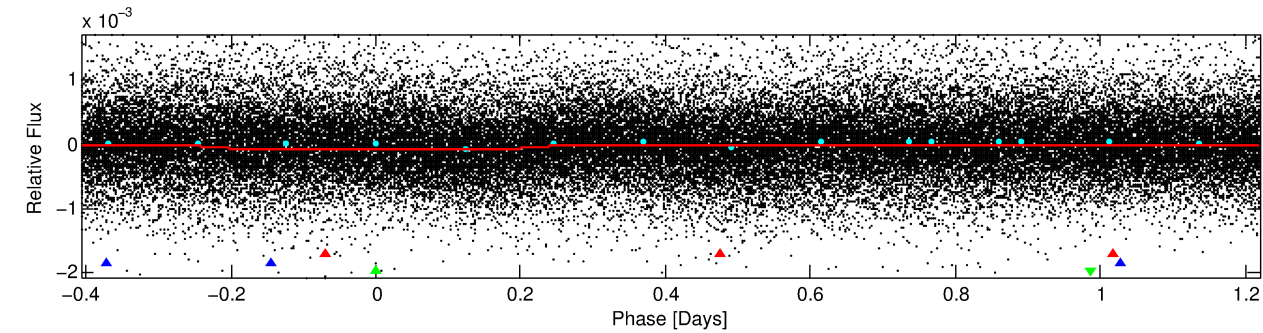
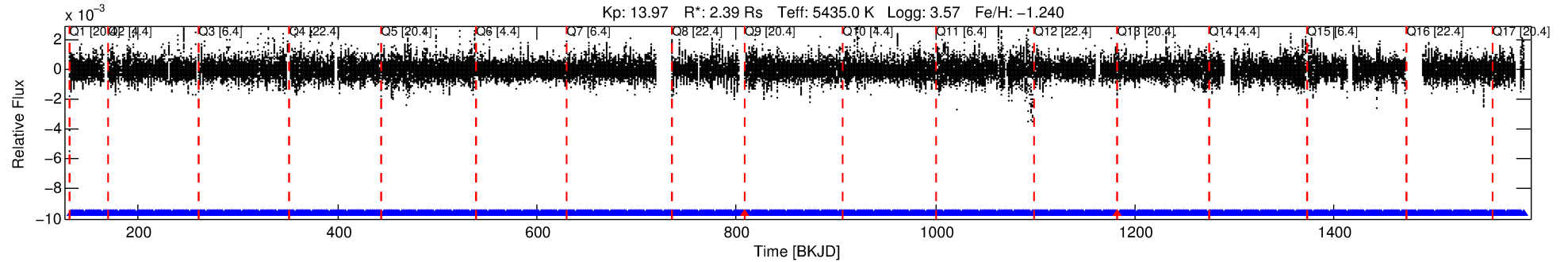
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005383476-03

No Significant Match Found

DV One-Page Summary

KIC: 5383476 Candidate: 3 of 3 Period: 1.626 d



DV Fit Results:

Period = 1.62640 [0.00003] d
Epoch = 132.3151 [0.0118] BKJD
Rp/R* = 0.0111 [0.0008]
a/R* = 1.02 [0.00]
b = 0.97 [0.01]
Seff = 7266.95 [12663.45]
Teq = 2354 [1026] K
Rp = 2.89 [2.13] Re
a = 0.0248 [0.0240] AU
Ag = 1.03 [1.82] [0.02σ]
Teffp = 3666 [315] K [1.22σ]

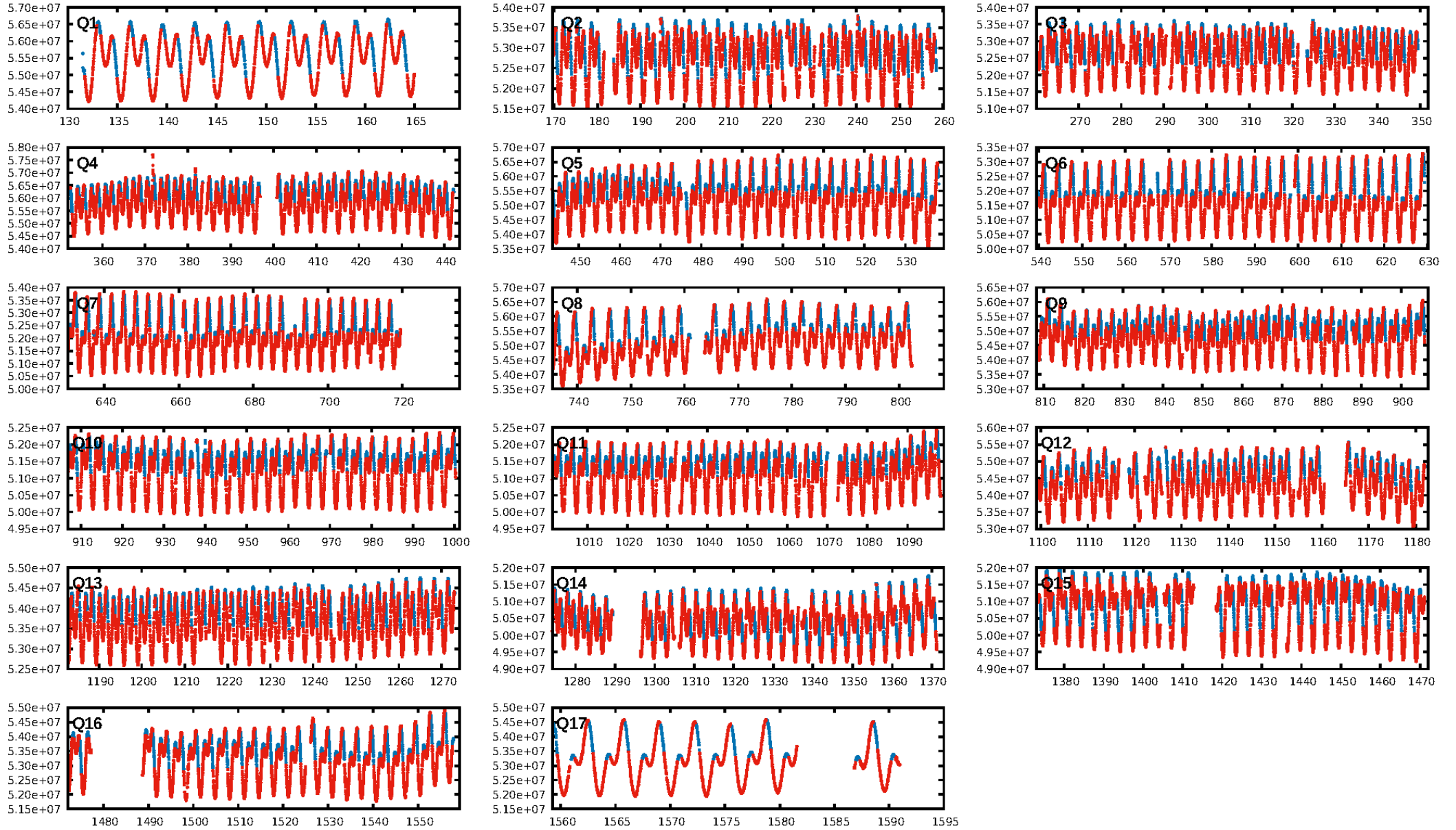
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [659.22σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [801/803]
GhostDiagnostic-chr: 0.7317
Centroid-sig: 0.0%
Centroid-so: 1.552 arcsec [4.45σ]
OotOffset-rm: 0.031 arcsec [0.32σ]
KicOffset-rm: 0.082 arcsec [0.98σ]
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]

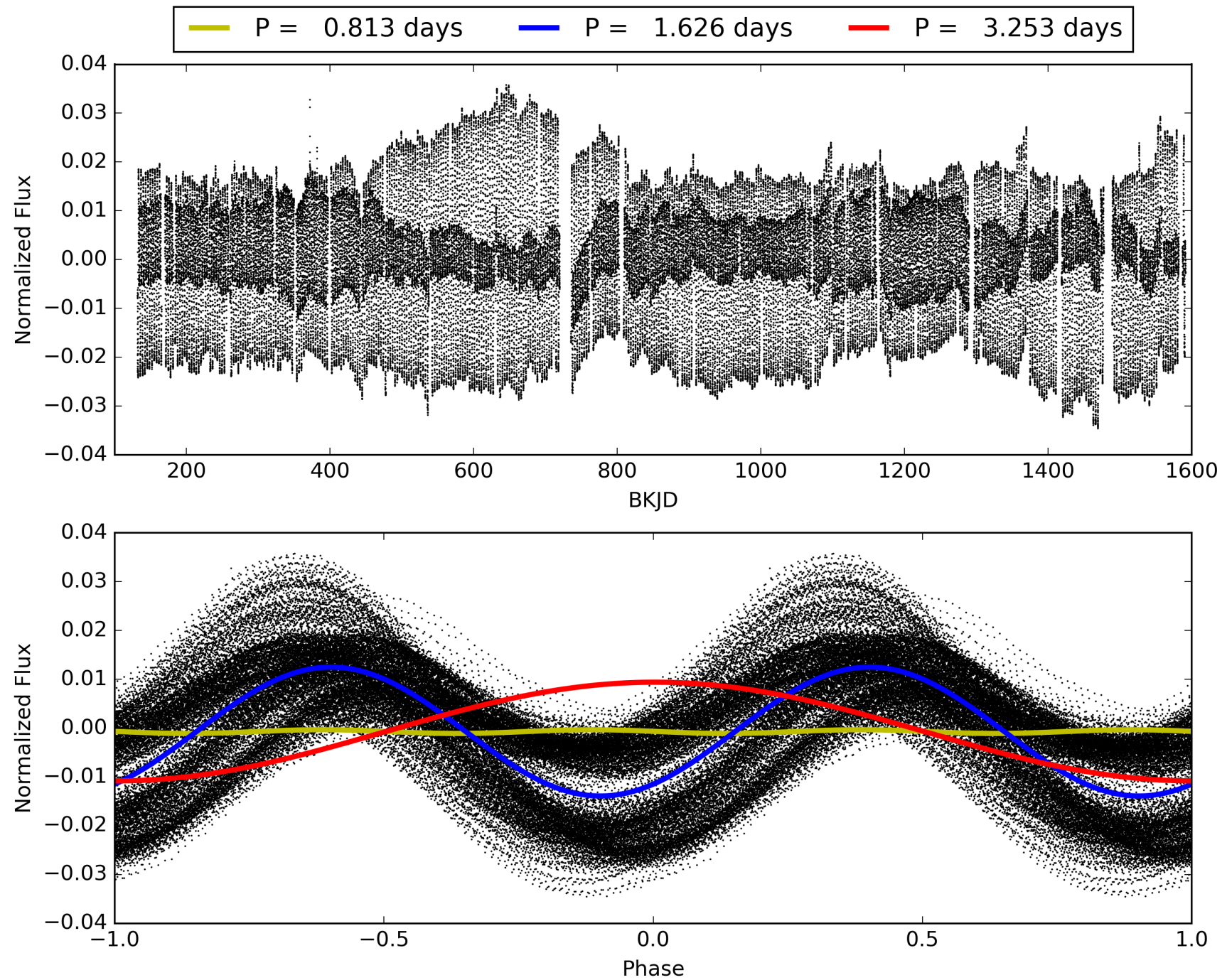
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:05:04 Z

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

TCE 005383476-03, PDC Light Curves

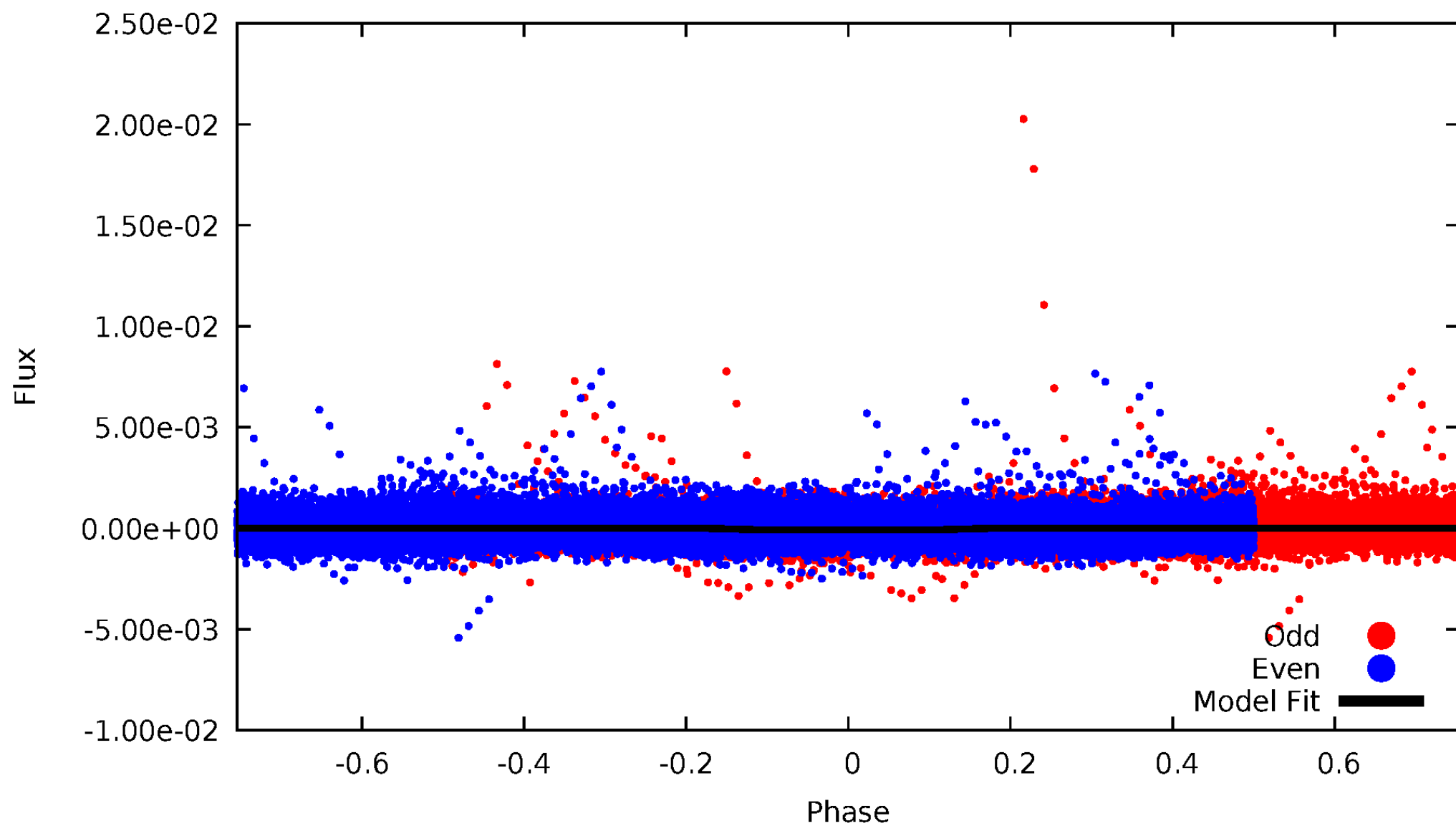


TCE 005383476-03



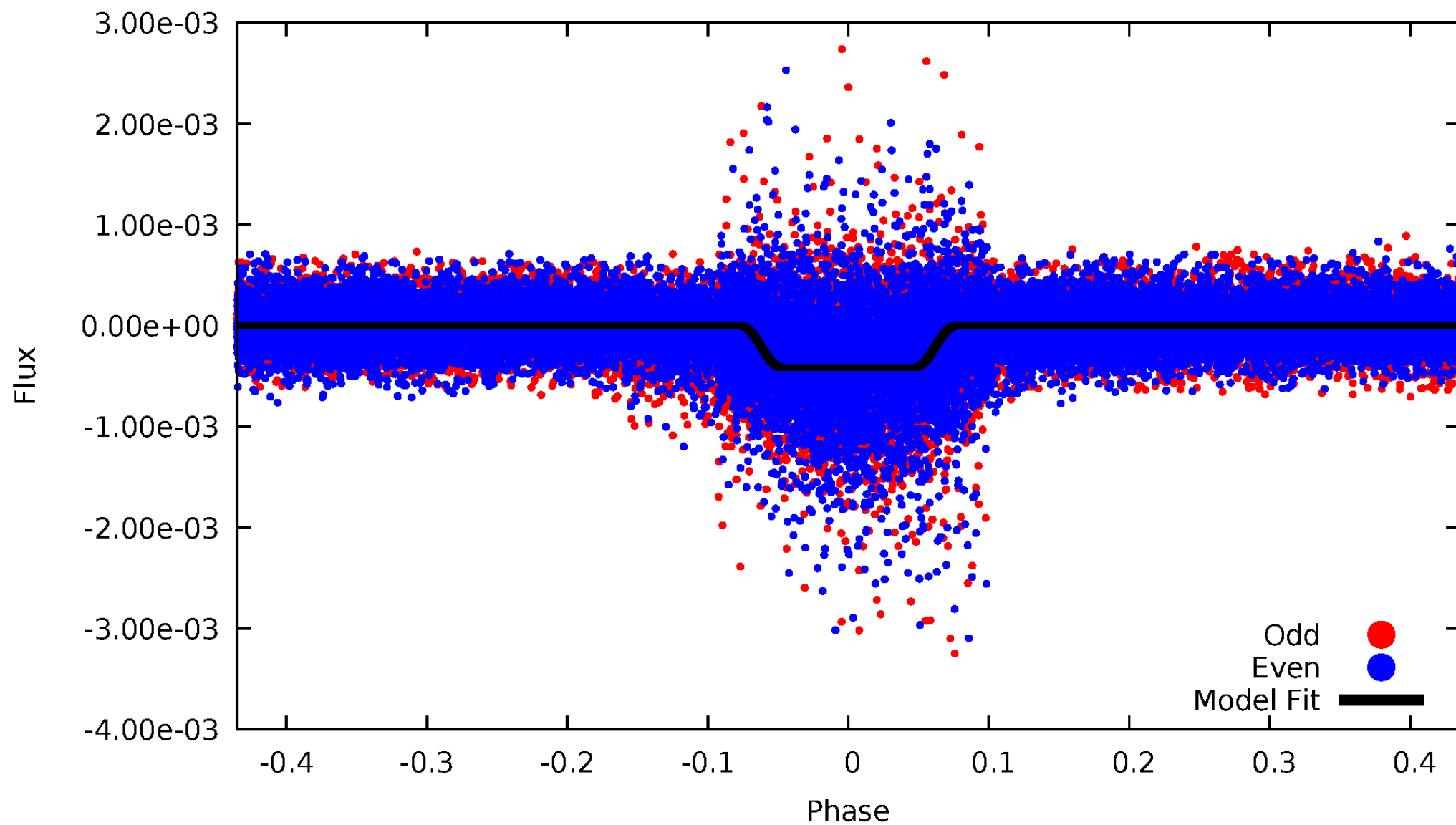
DV Odd/Even

TCE 005383476-03



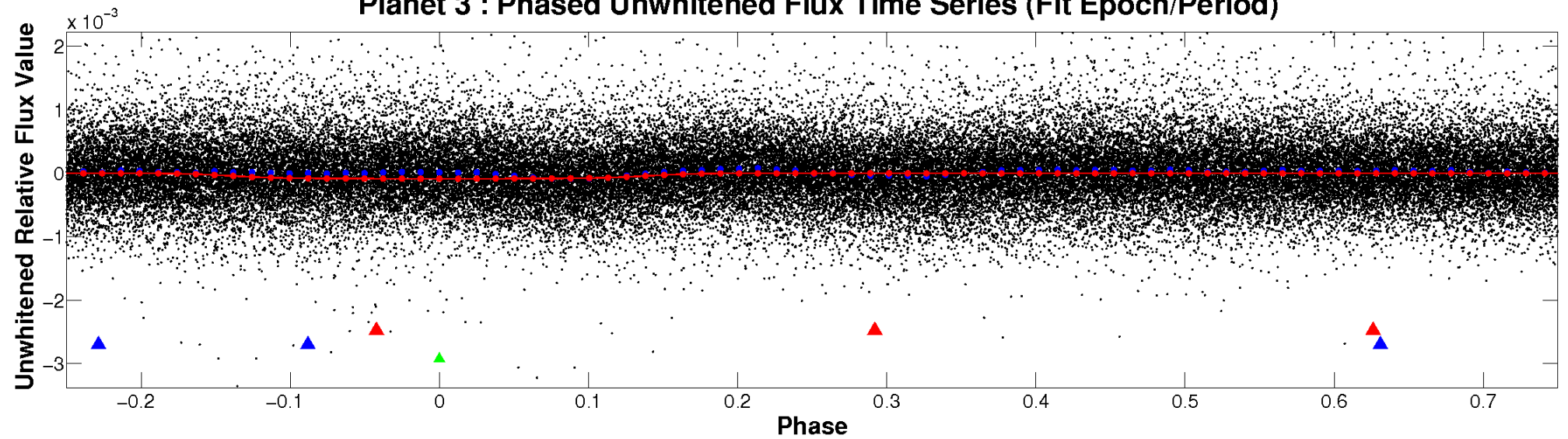
ALT Odd/Even

TCE 005383476-03

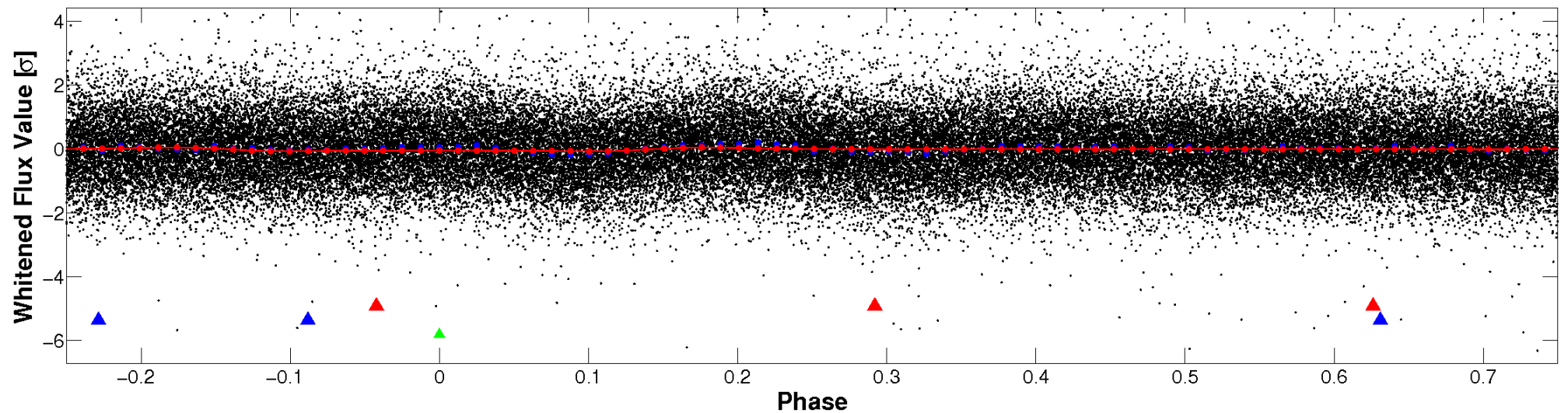


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

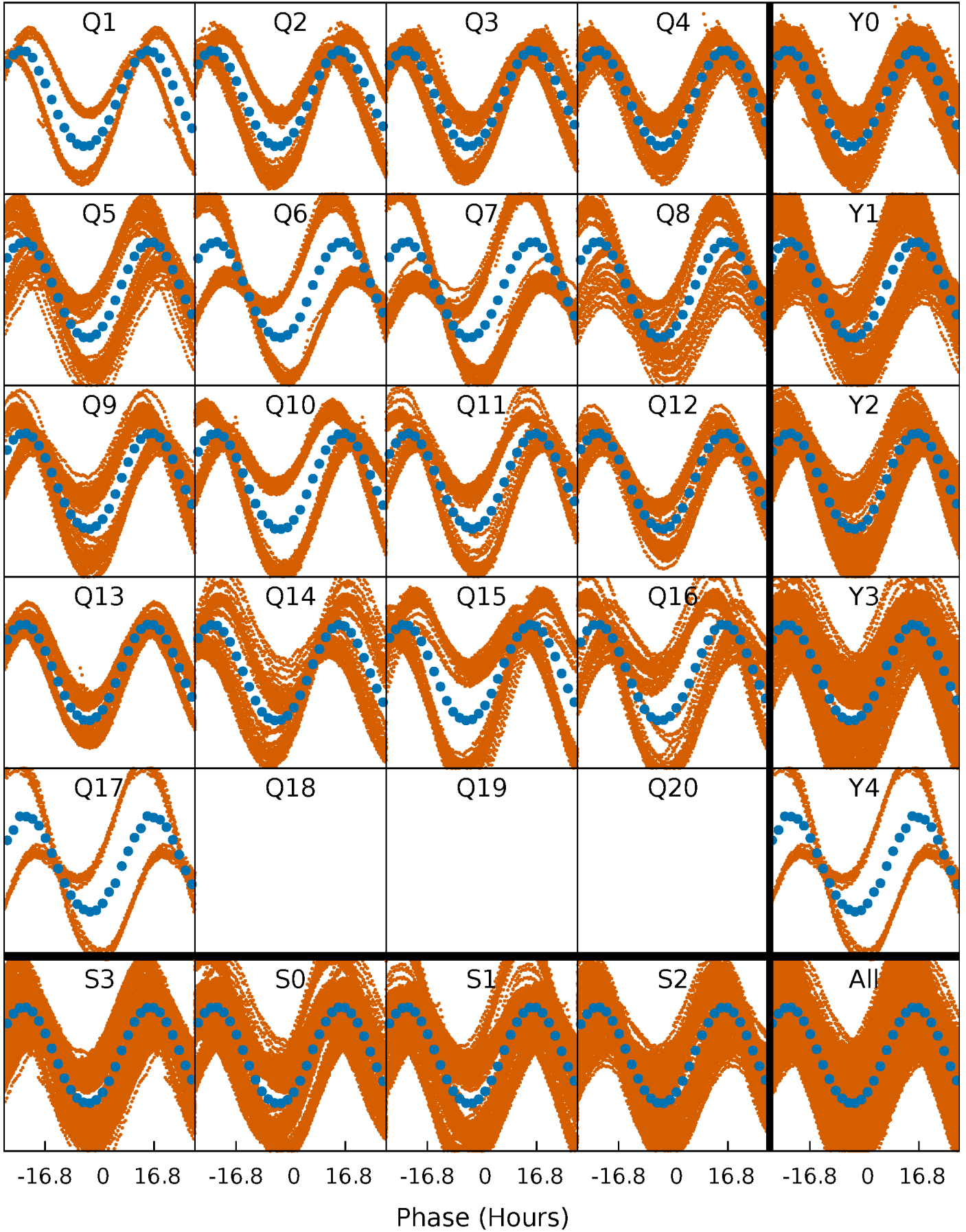


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



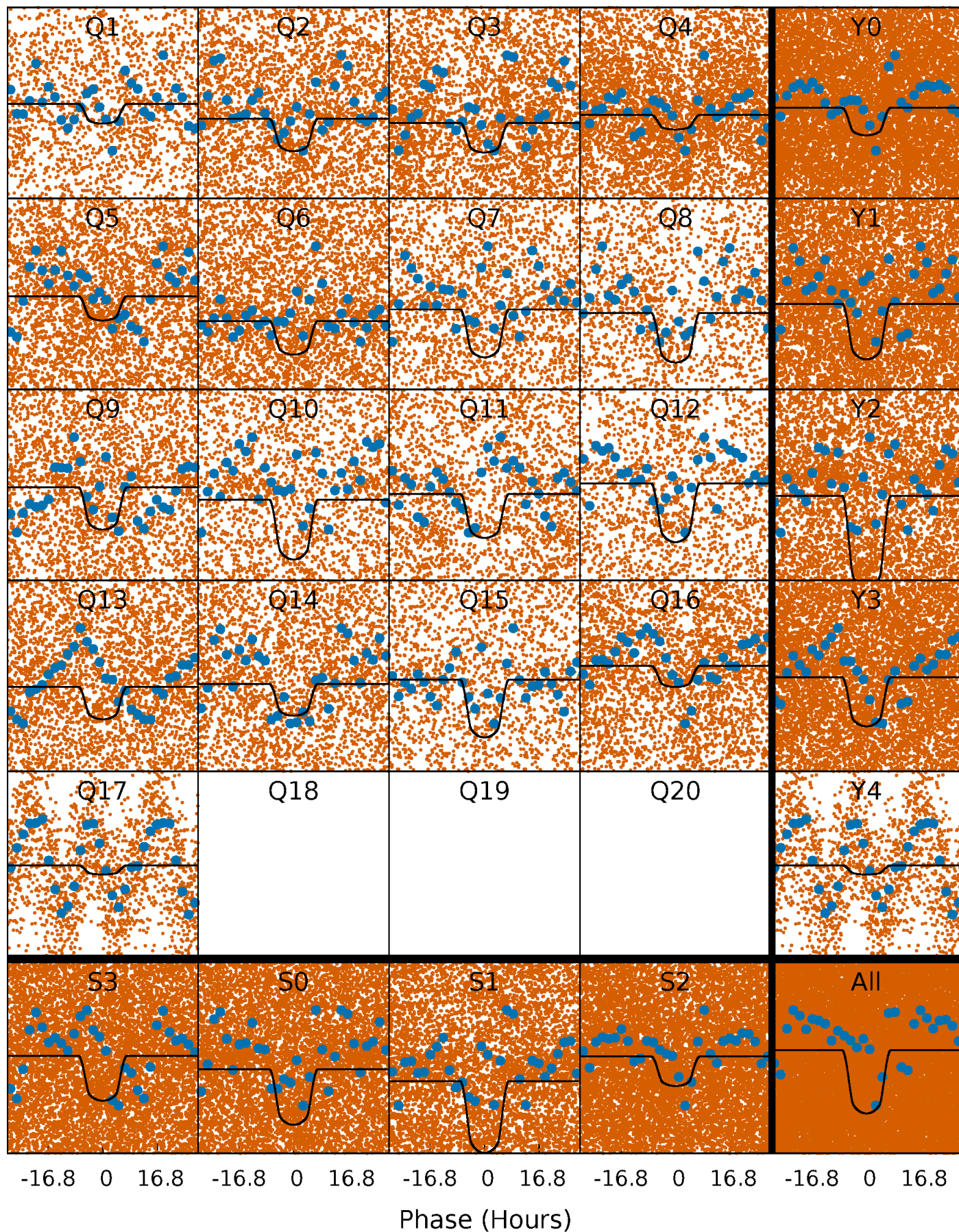
PDC Quarter-Phased Transit Curves

TCE 005383476-03 P= 1.626397 Days $T_0=132.315066$ (BKJD)



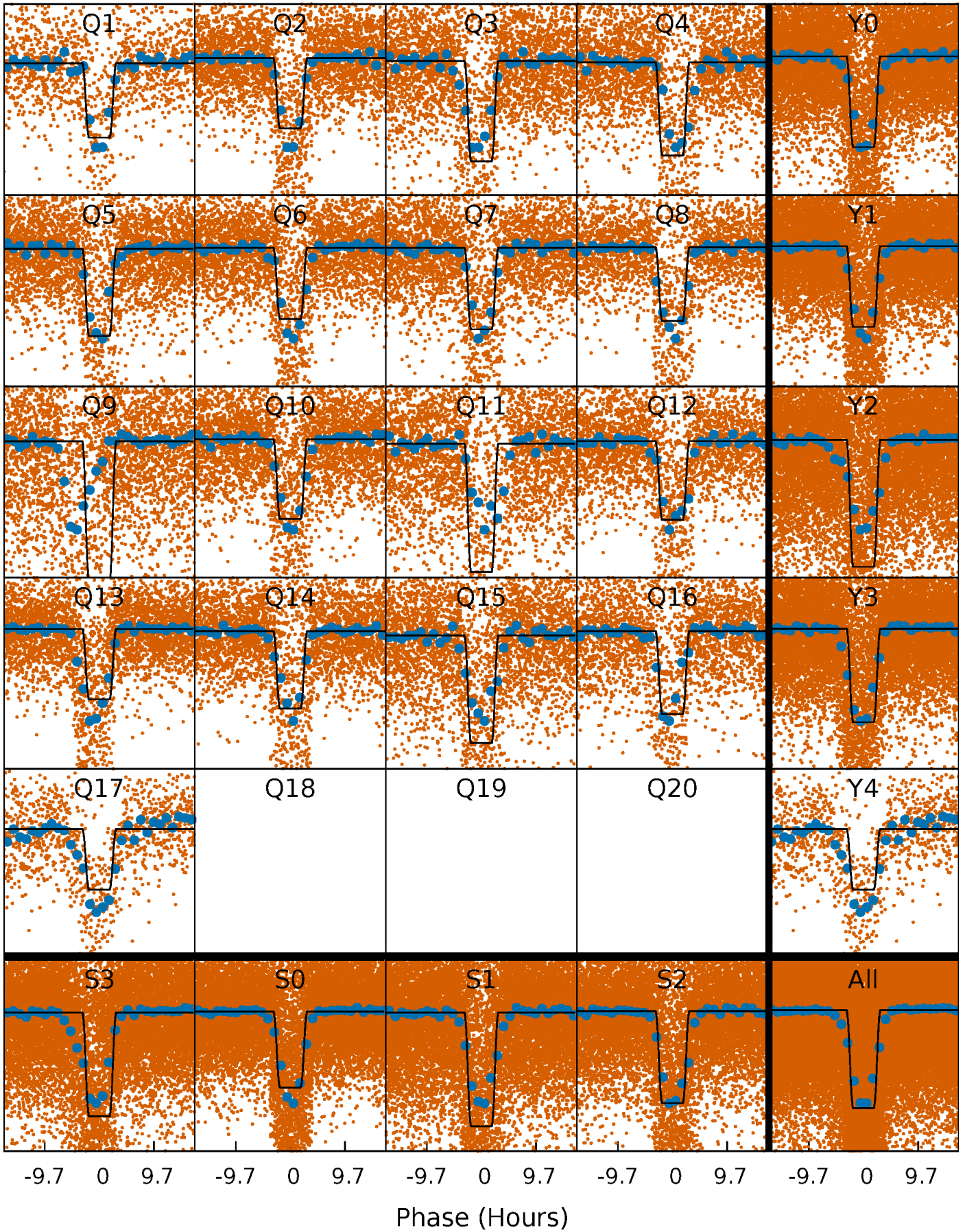
DV Quarter-Phased Transit Curves

TCE 005383476-03 P= 1.626397 Days $T_0=132.315066$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

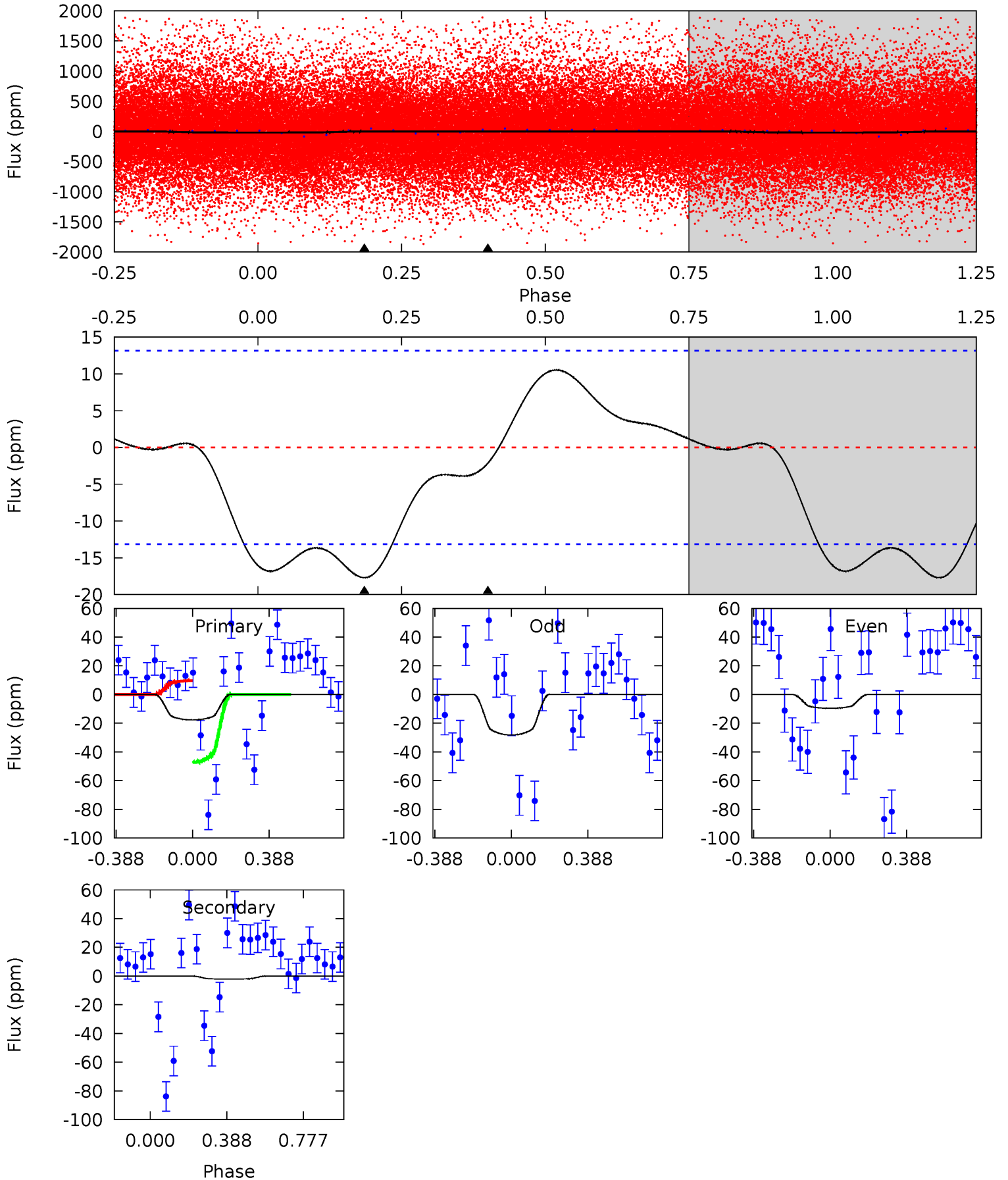
TCE 005383476-03 P= 1.626428 Days $T_0=132.447162$ (BKJD)



DV Model-Shift Uniqueness Test

005383476-03, P = 1.626397 Days, E = 130.688669 Days

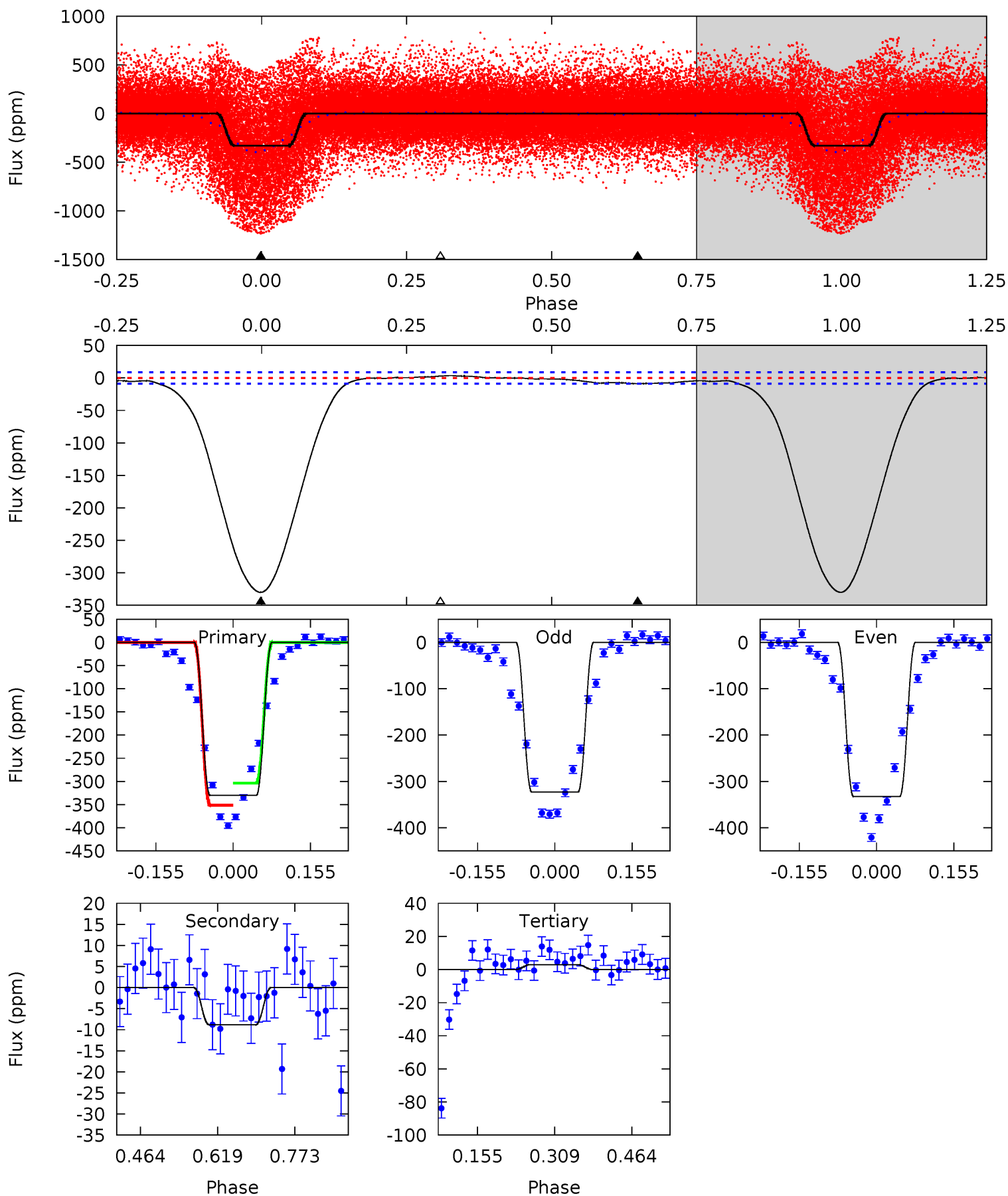
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.75	0.69	0	0	4.27	0.86	0.17	5.75	5.75	0.69	0.69	2.97	0.36	0.37	6.06



Alt Model-Shift Uniqueness Test

005383476-03, P = 1.626428 Days, E = 130.820734 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
167.9	4.50	-1.51	0	4.47	1.42	1.88	169.4	167.9	6.01	4.50	2.49	1.07	0.01	12.0



Stellar Parameters For KIC 005383476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5435^{+165}_{-132}	$3.567^{+1.087}_{-0.362}$	$-1.240^{+0.300}_{-0.250}$	$2.393^{+1.750}_{-1.750}$	$0.771^{+0.275}_{-0.118}$	$0.079^{+3.187}_{-0.068}$
	+3%/-2%	+30%/-10%	+24%/-20%	+73%/-73%	+36%/-15%	+4021%/-85%
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 005383476-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 3	$2.82^{+1.15}_{-1.09}$	3199^{+630}_{-697}	-3046^{+4582}_{-453}	$0.093^{+0.211}_{-0.122}$
Alt.	-9 ± 2	$5.05^{+2.15}_{-1.92}$	3169^{+605}_{-667}	-2952^{+4986}_{-473}	$0.121^{+0.204}_{-0.064}$

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

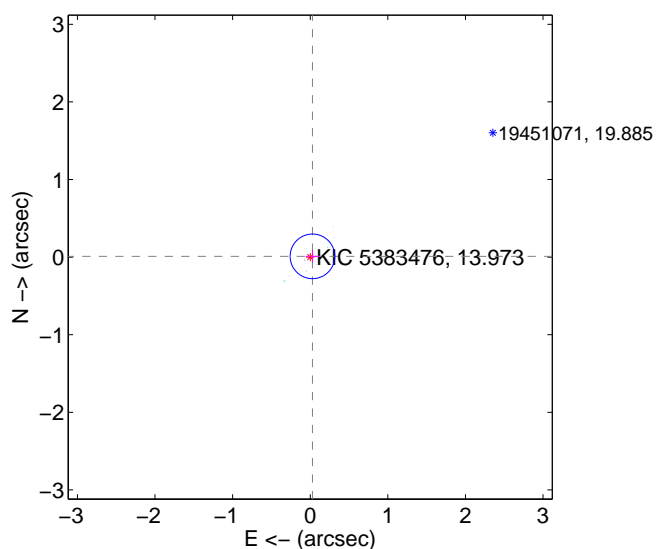
Supplemental centroid analysis for 005383476-03. Kepler magnitude: 13.97. Transit SNR 8.18

There are 17 quarters with good PRF difference image offsets

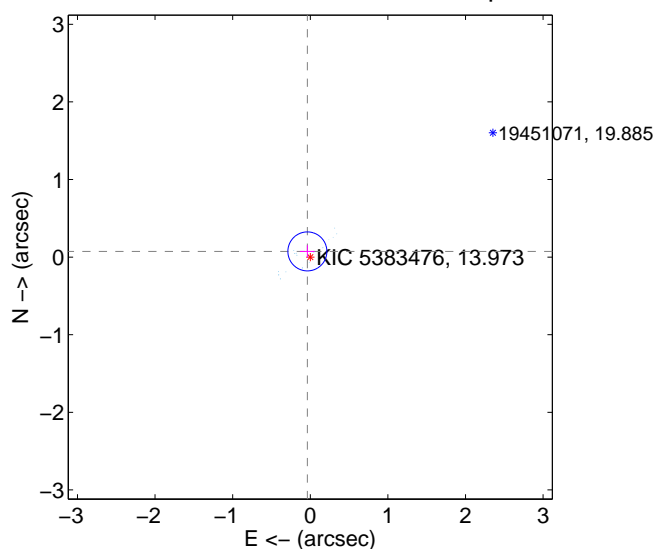
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.096	0.32	-0.029 ± 0.088	0.010 ± 0.083
PRF-fit source offset from KIC position	0.082 ± 0.084	0.98	0.037 ± 0.096	0.073 ± 0.080
photometric centroid source offset	1.55 ± 0.35	4.45	1.51 ± 0.35	0.35 ± 0.33

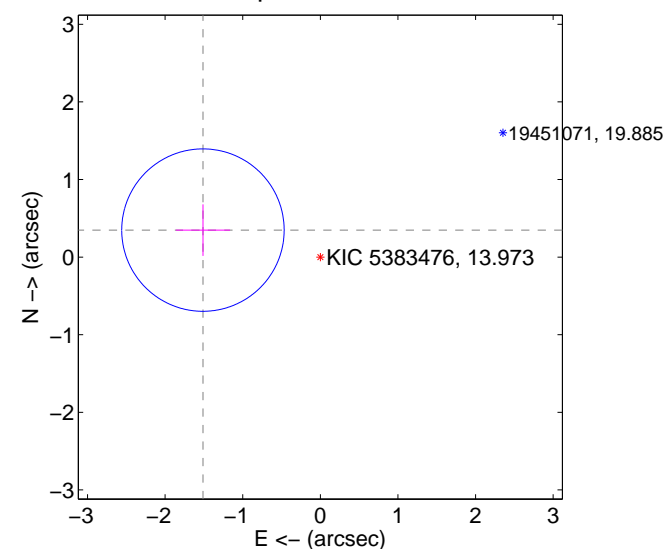
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

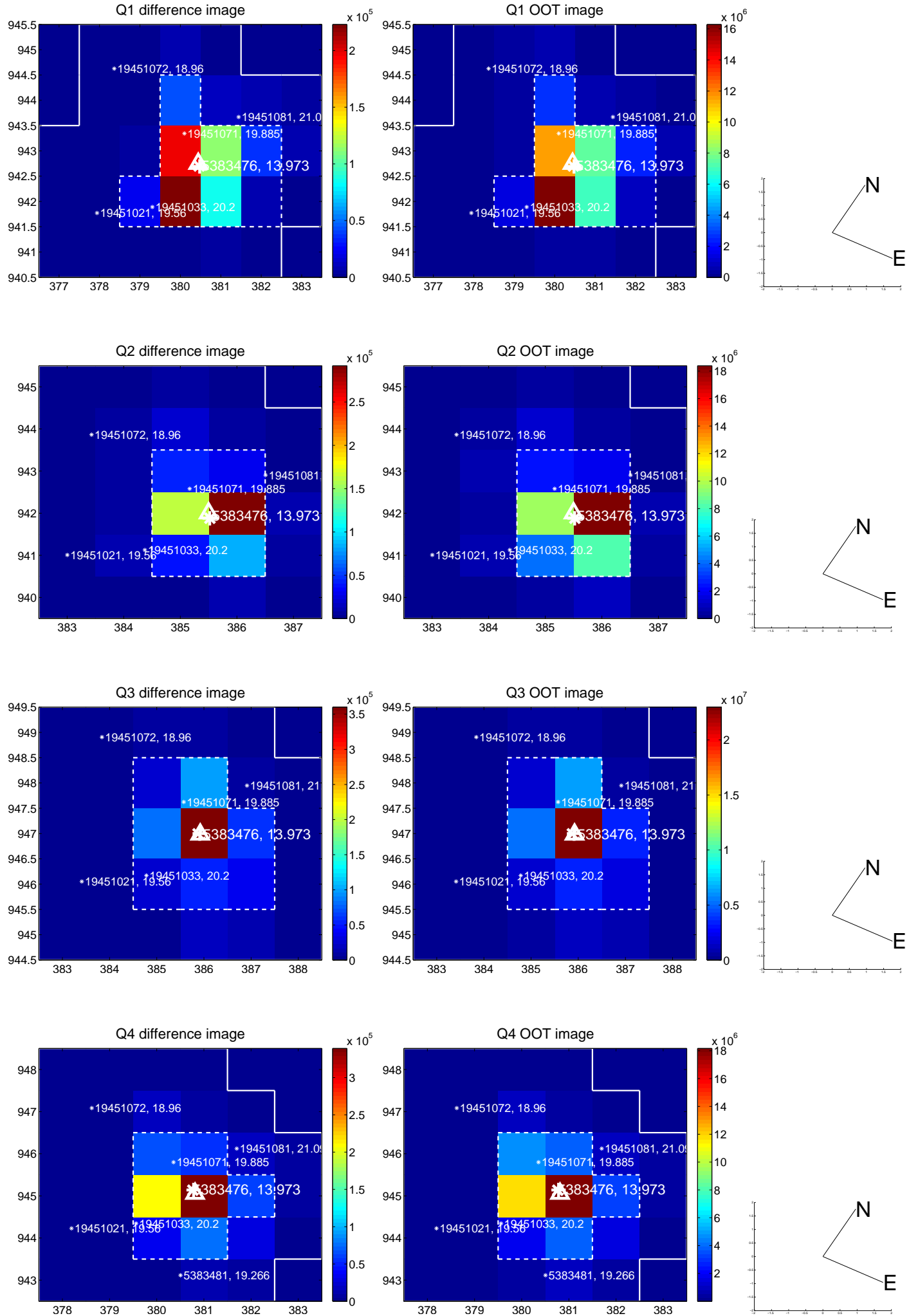


offset from photometric centroids

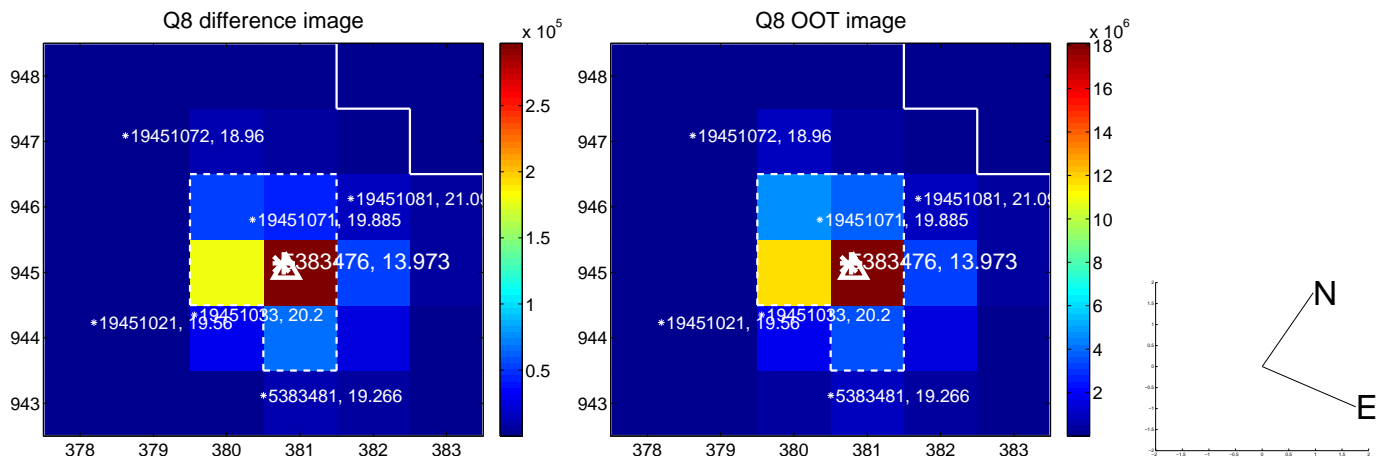
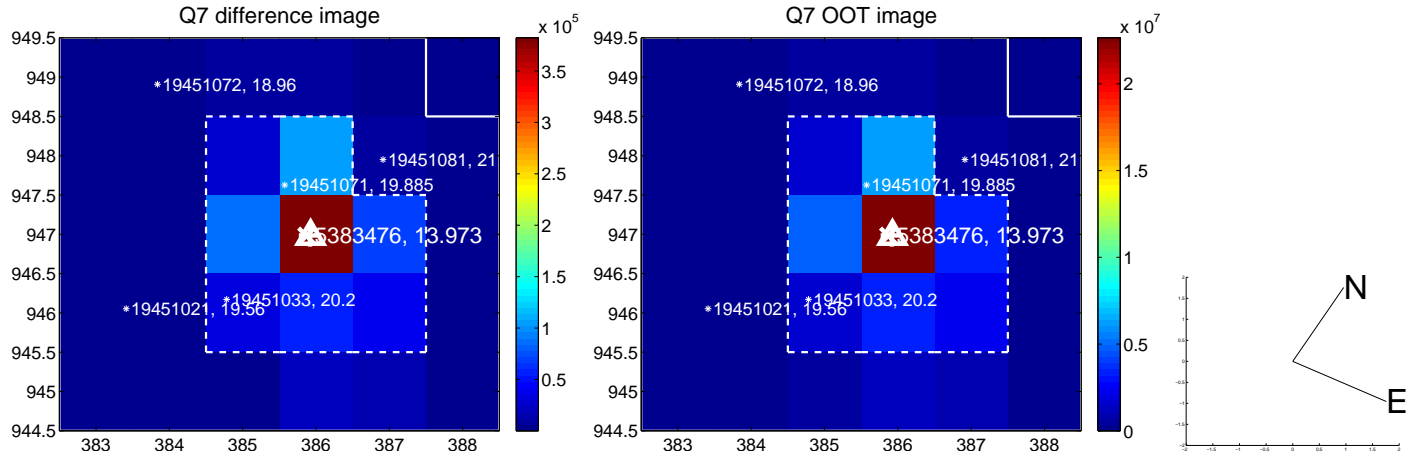
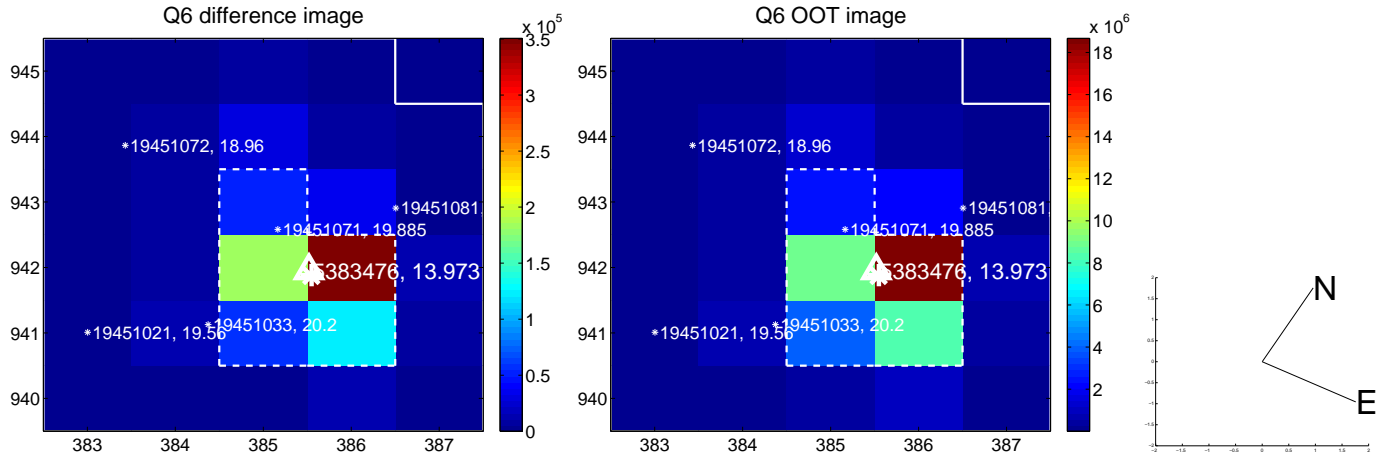
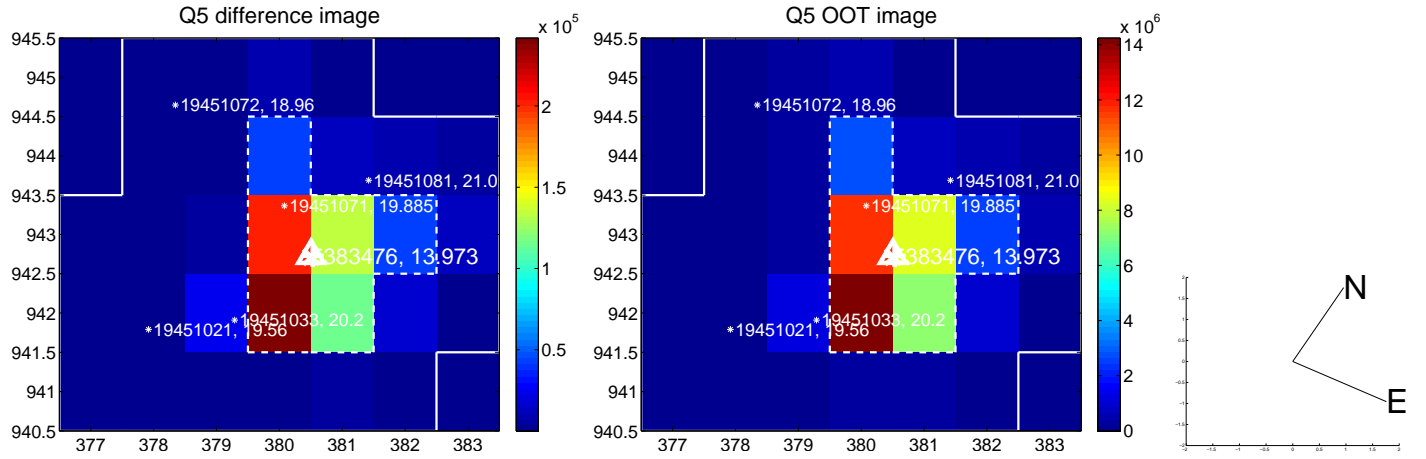


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

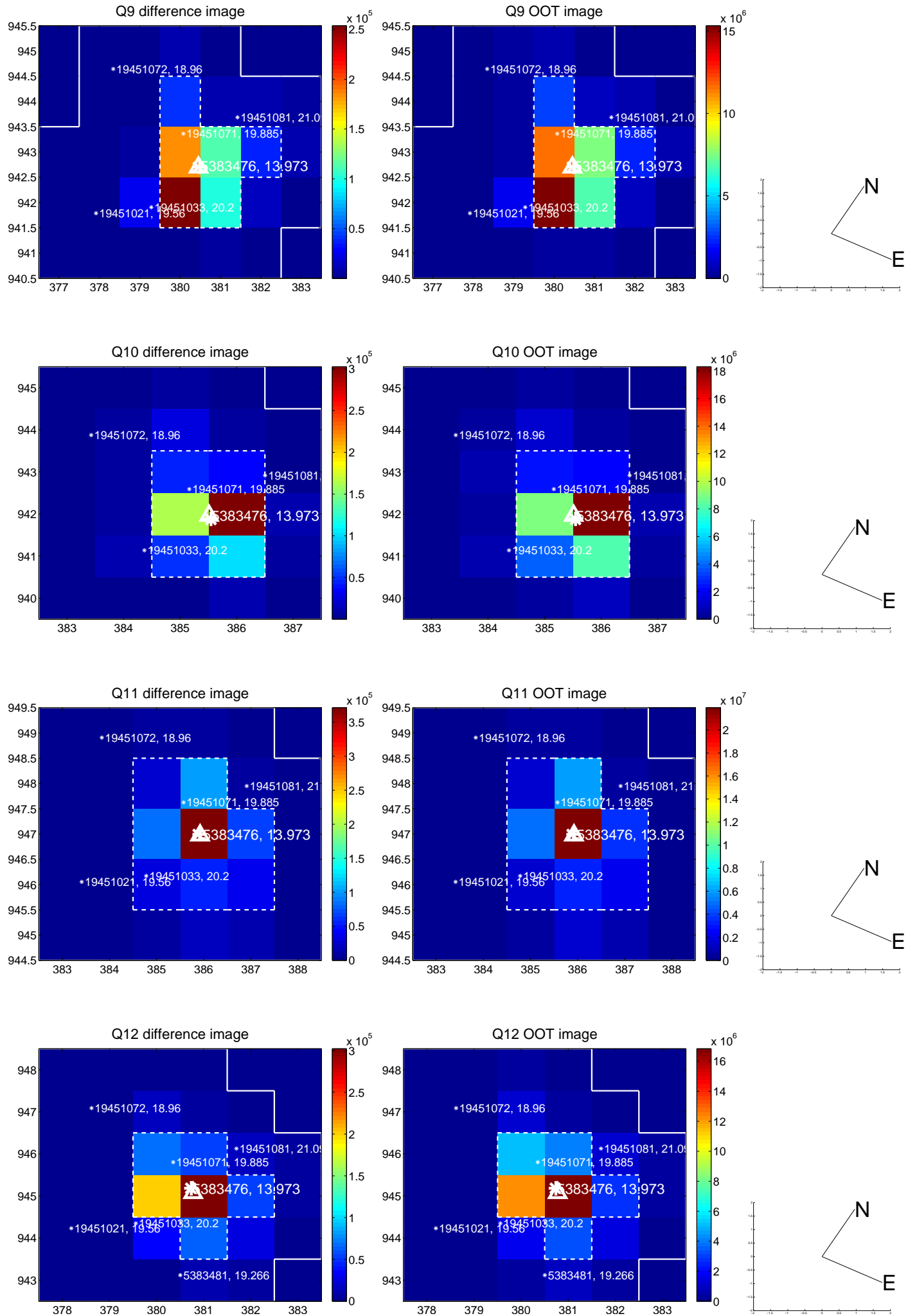
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



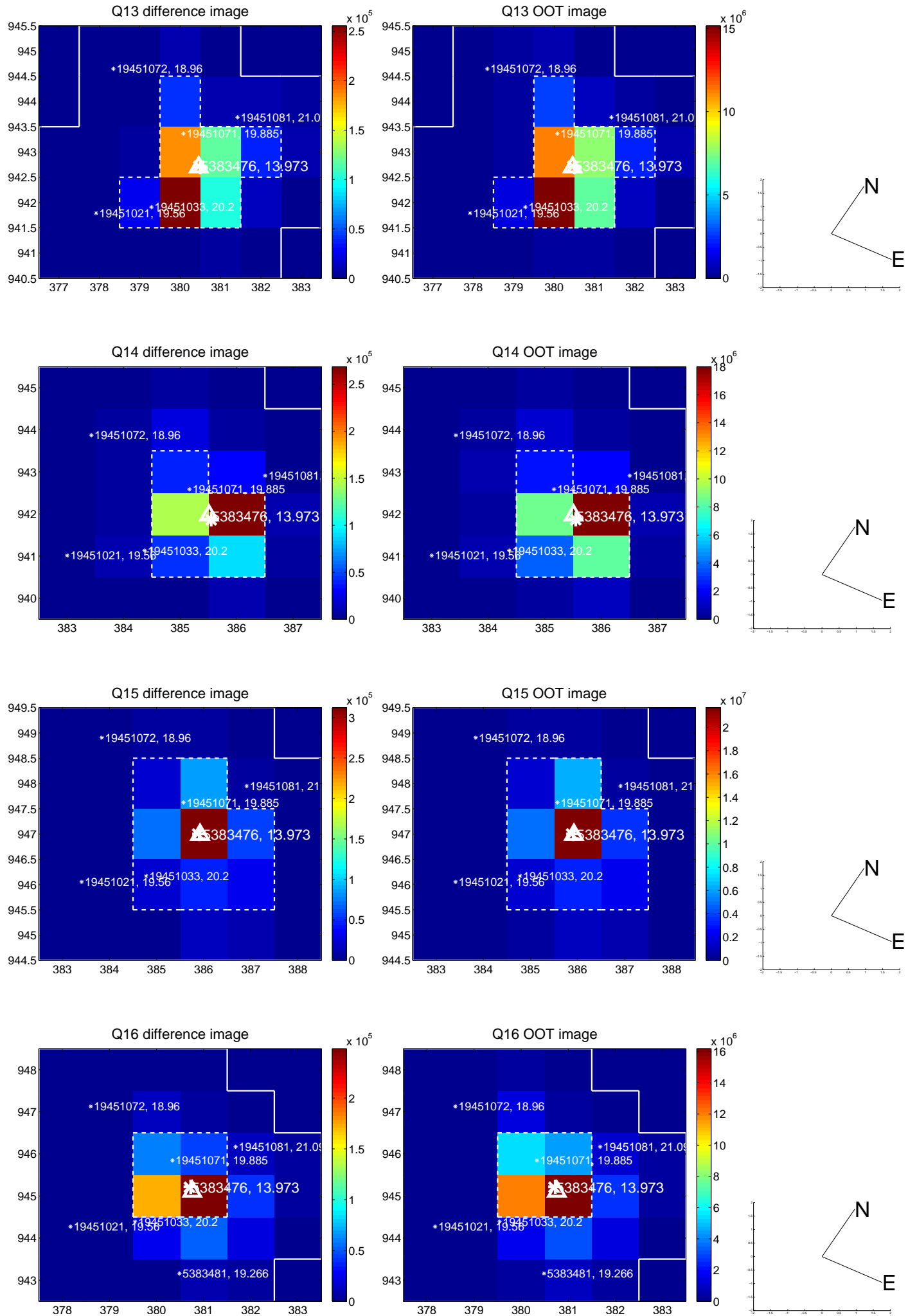
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



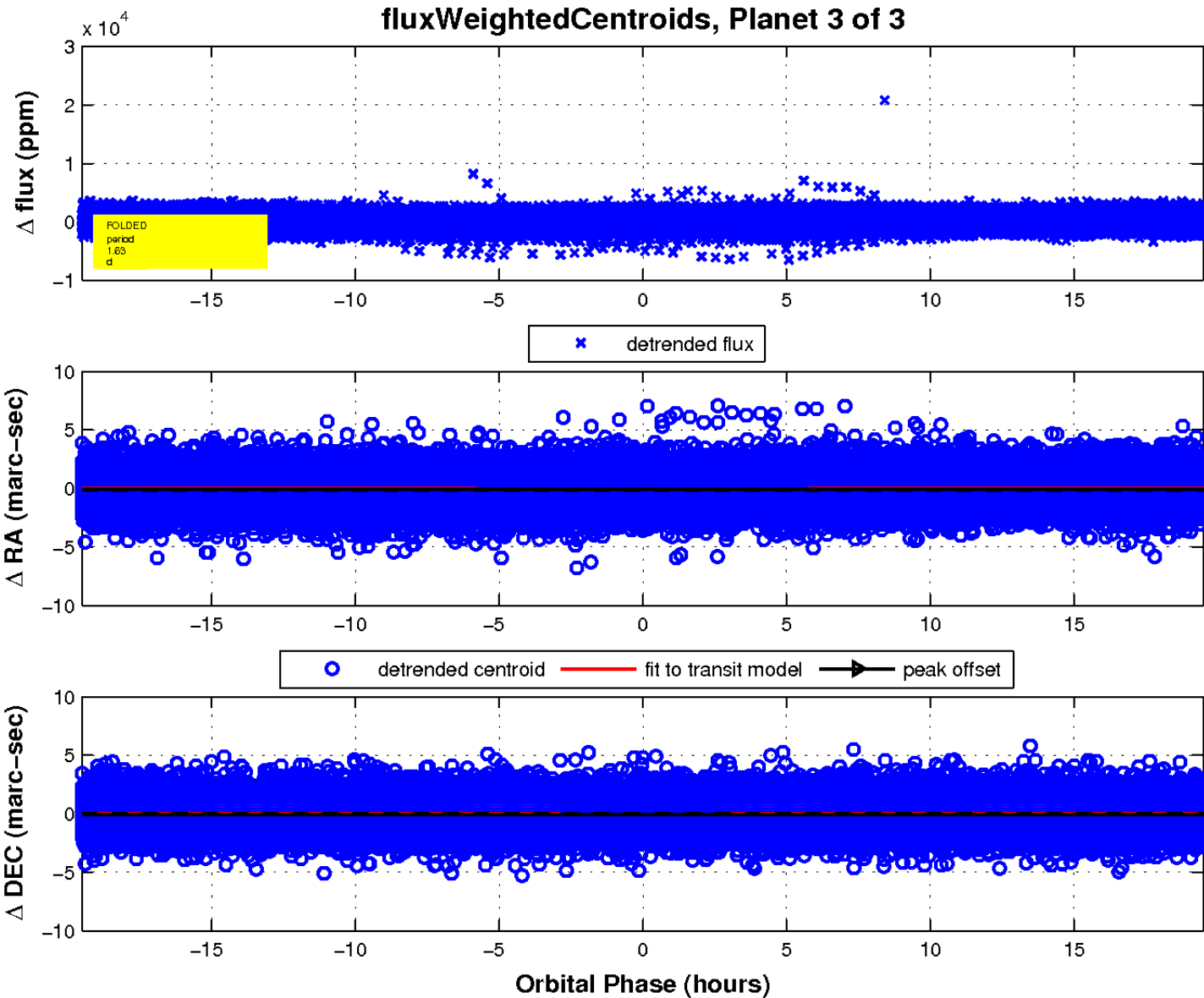
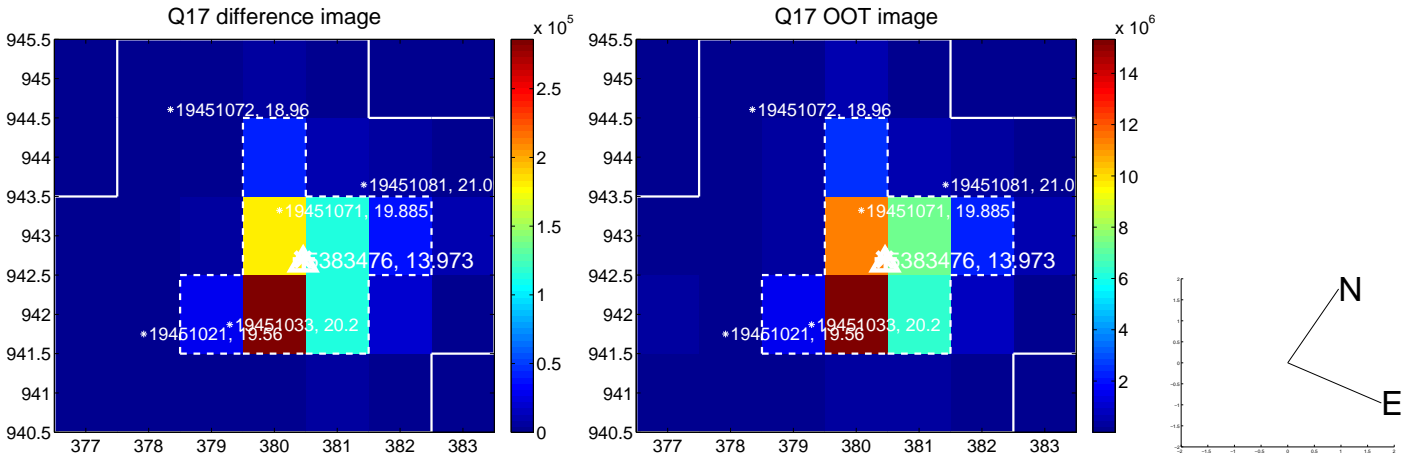
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

