

KIC 010005758

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})
010005758-01	OBS	1783.01	134.478596	169.281156	3999.9	5.904	163.9	155.1	1.34	5791	10.43	6.83
010005758-02	OBS	1783.02	284.052664	200.847378	1654.5	7.514	58.1	54.1	1.34	5791	6.02	2.52
010005758-03	OBS	No	713.659840	148.463212	242.1	16.821	9.1	9.3	1.34	5791	2.40	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010005758-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010005758-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
010005758-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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.

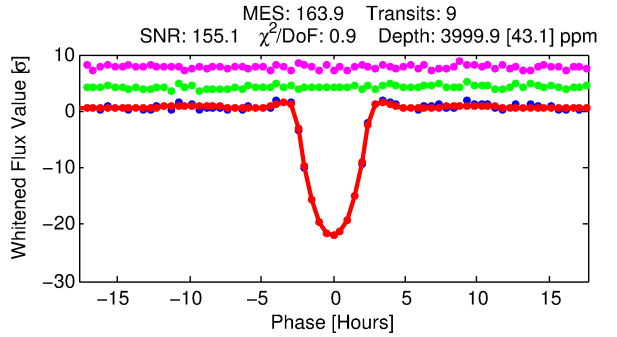
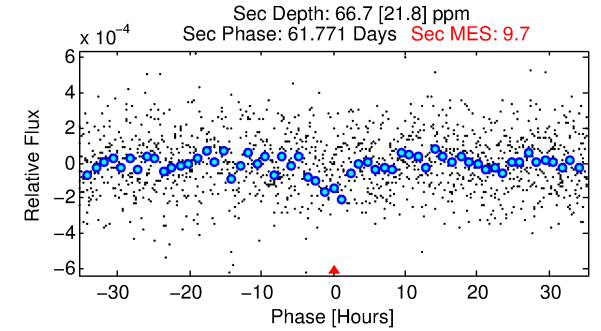
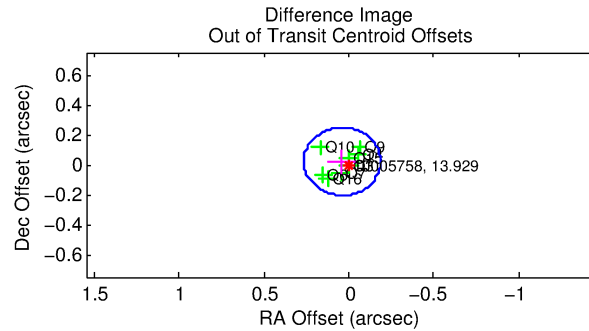
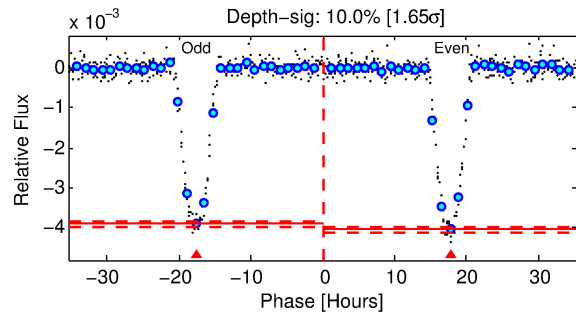
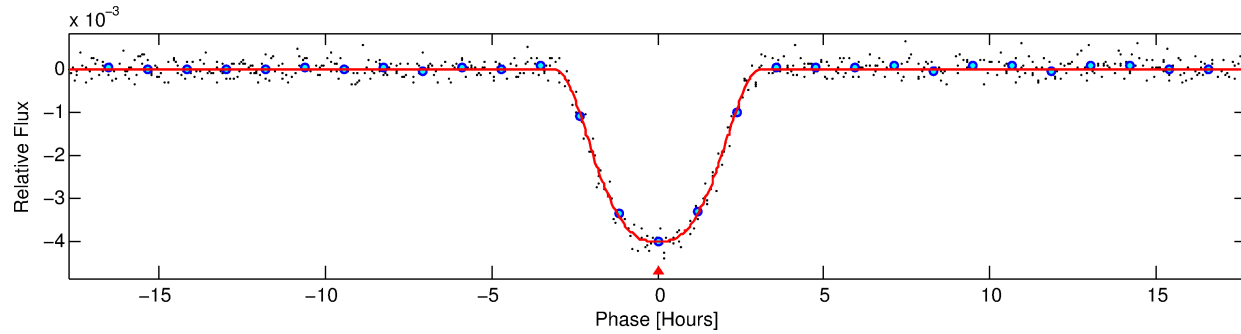
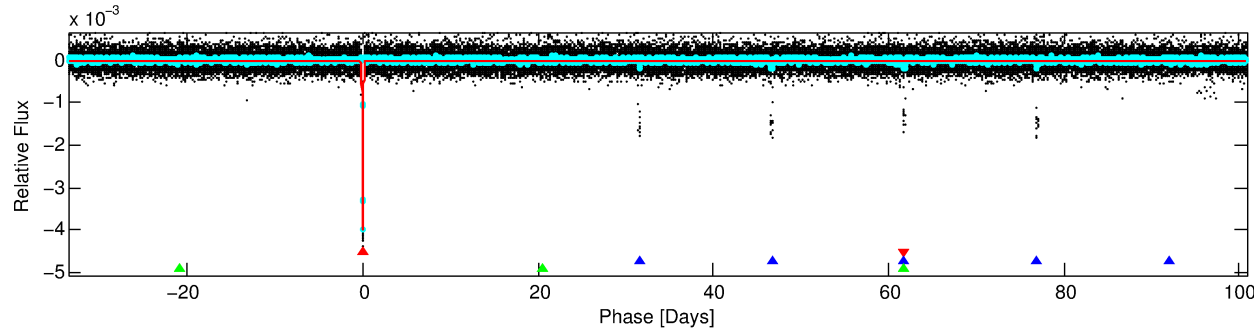
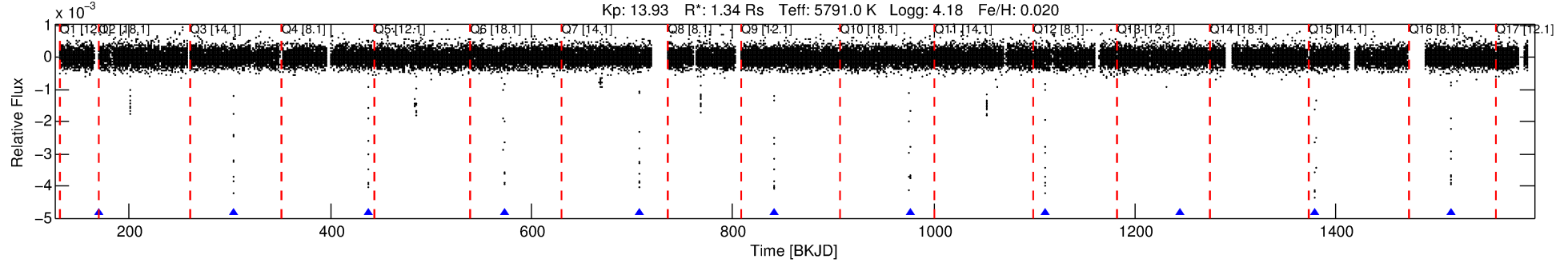
Ephemeris Match Information For 010005758-01

No Significant Match Found

DV One-Page Summary

KIC: 10005758 Candidate: 1 of 3 Period: 134.479 d
KOI: K01783.01 Corr: 0.998

Kp: 13.93 R*: 1.34 Rs Teff: 5791.0 K Logg: 4.18 Fe/H: 0.020



DV Fit Results:

Period = 134.47860 [0.00016] d
Epoch = 169.2812 [0.0009] BKJD
Rp/R* = 0.0715 [0.0007]
a/R* = 94.17 [1.34]
b = 0.92 [0.00]
Seff = 6.83 [2.17]
Teq = 412 [33] K
Rp = 10.43 [2.00] Re
a = 0.5133 [0.0972] AU
Ag = 88.97 [39.95] [2.20σ]
Teffp = 1957 [165] K [9.18σ]

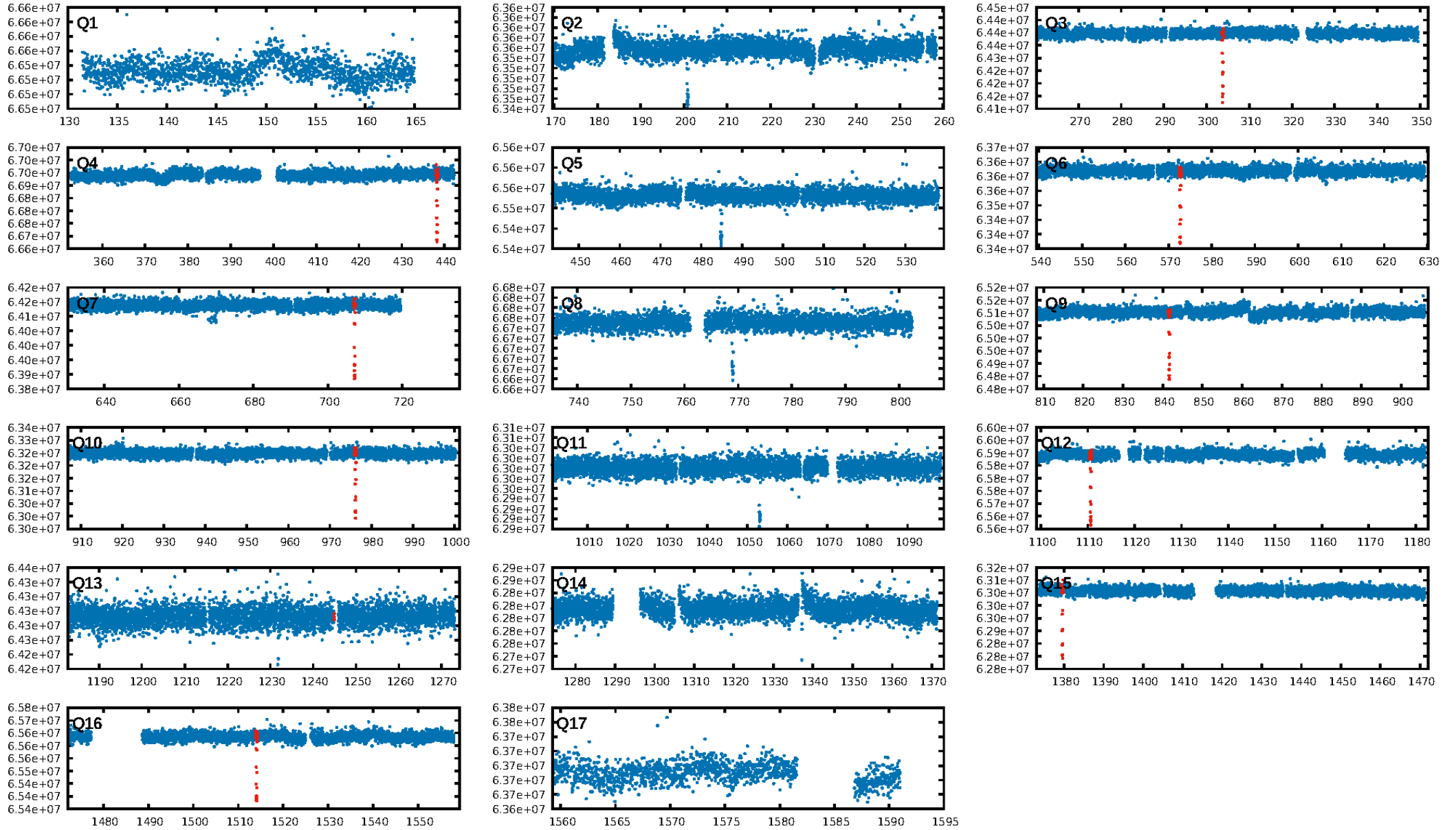
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [375.66σ]
ModelChiSquare2-sig: 44.7%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 12.42
Centroid-sig: 39.7%
Centroid-so: 0.335 arcsec [4.15σ]
OotOffset-rm: 0.046 arcsec [0.61σ]
KicOffset-rm: 0.286 arcsec [3.51σ]
OotOffset-st: 2/3/2/1 [8]
KicOffset-st: 2/3/2/1 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

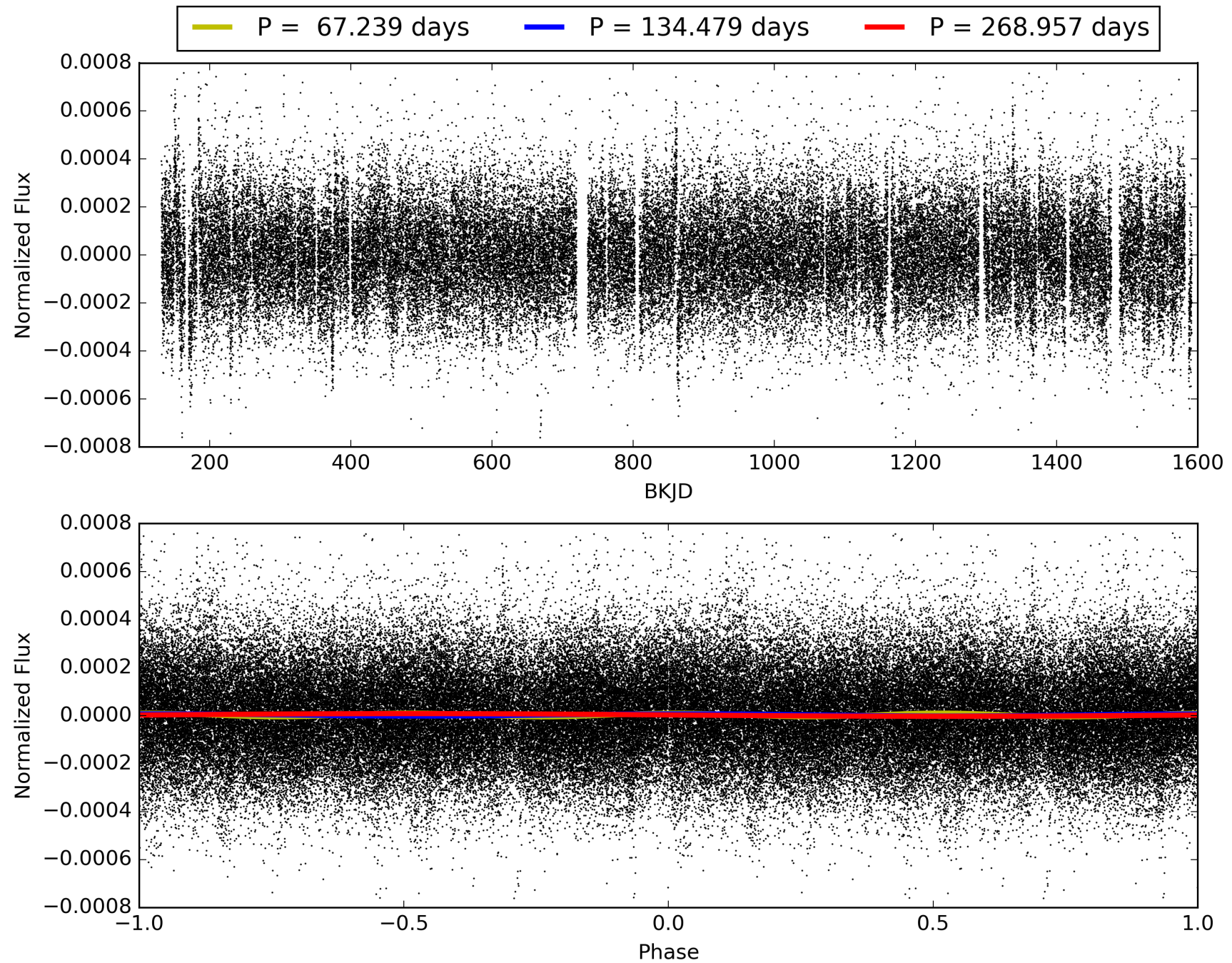
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:44:40 Z

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

TCE 010005758-01, PDC Light Curves

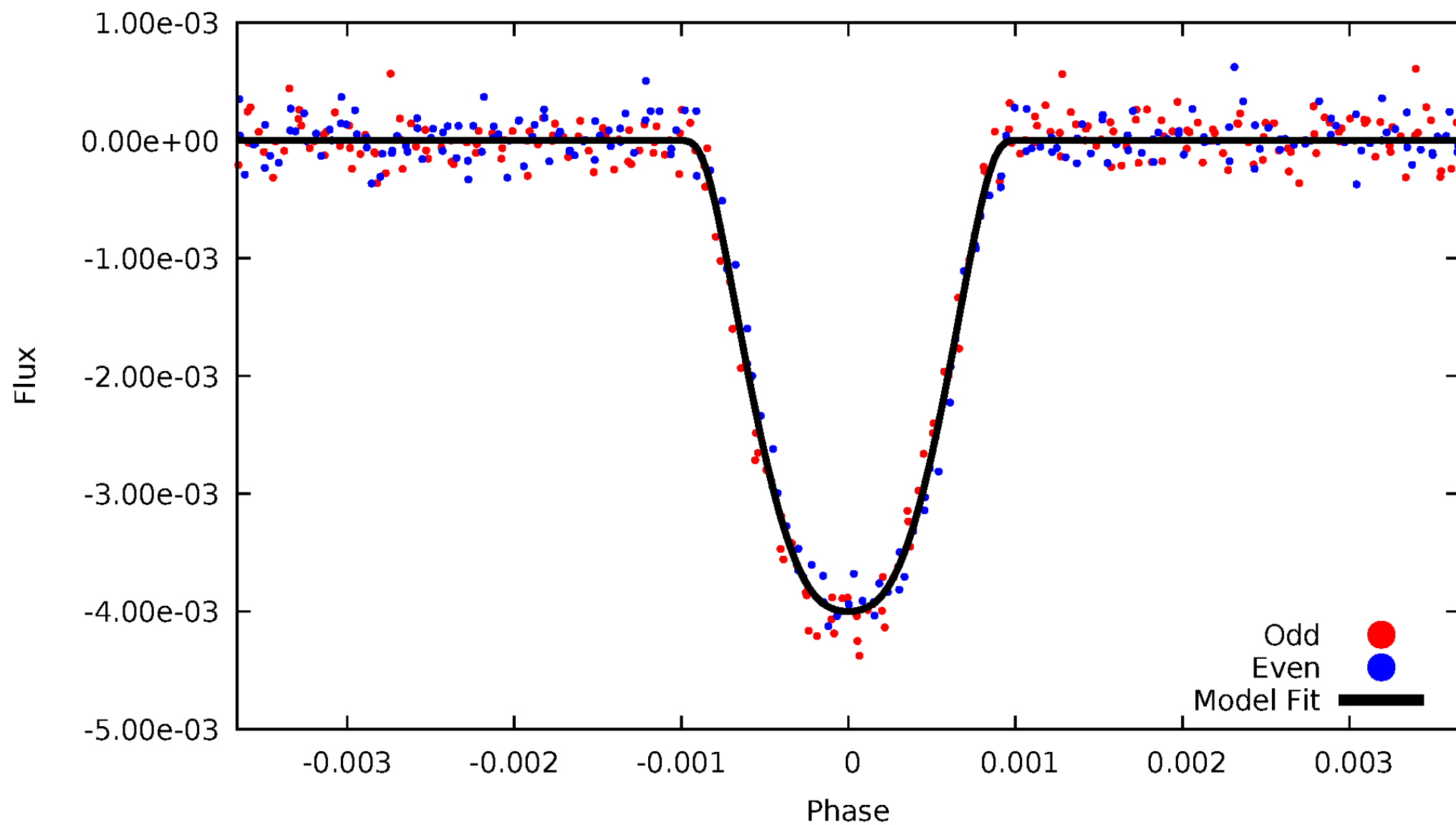


TCE 010005758-01



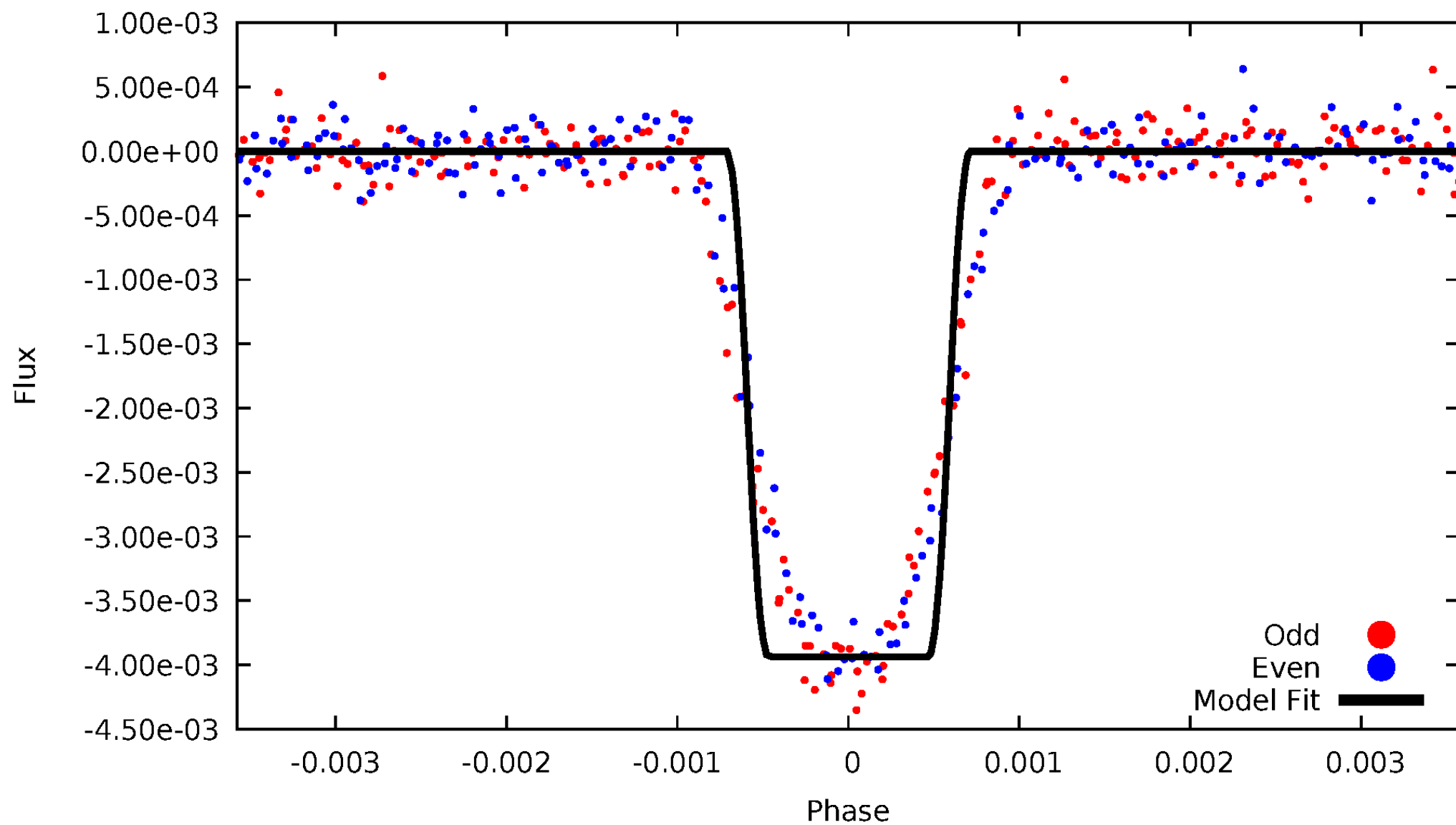
DV Odd/Even

TCE 010005758-01



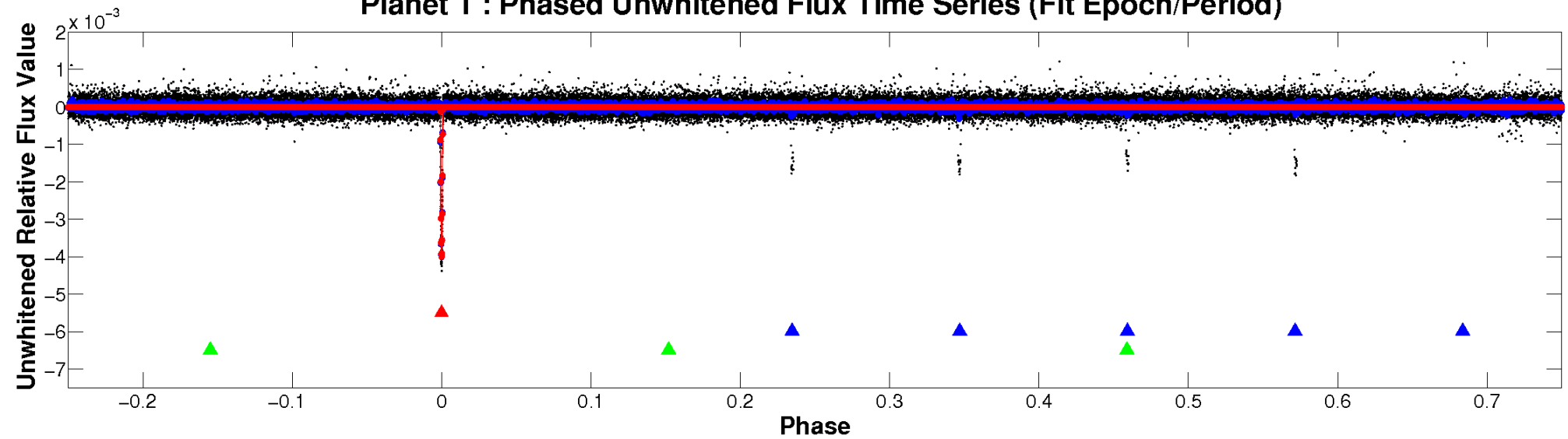
ALT Odd/Even

TCE 010005758-01

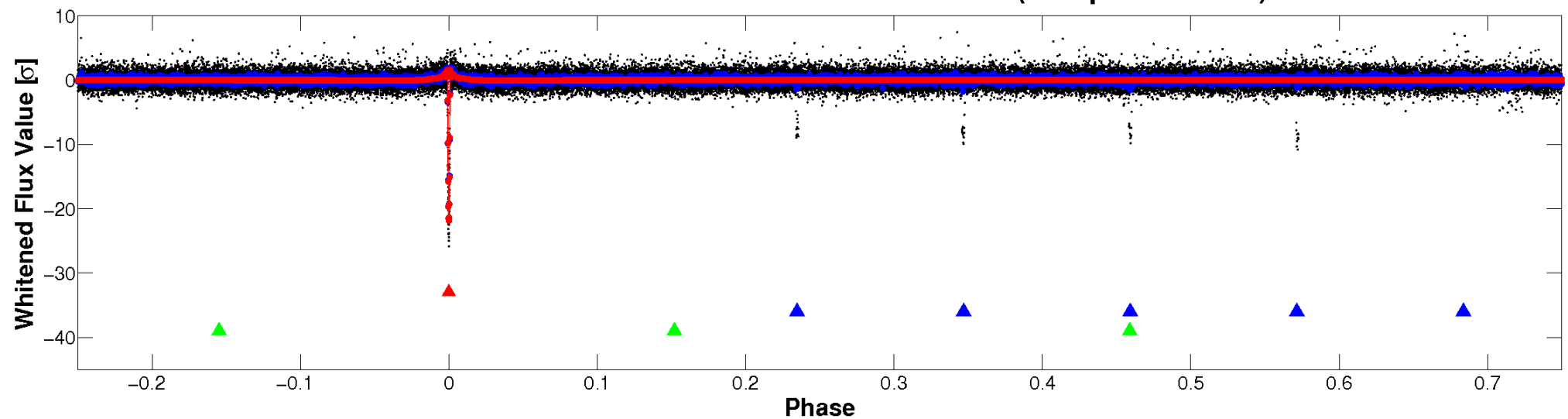


Non-Whitened Vs. Whitened Light Curve

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

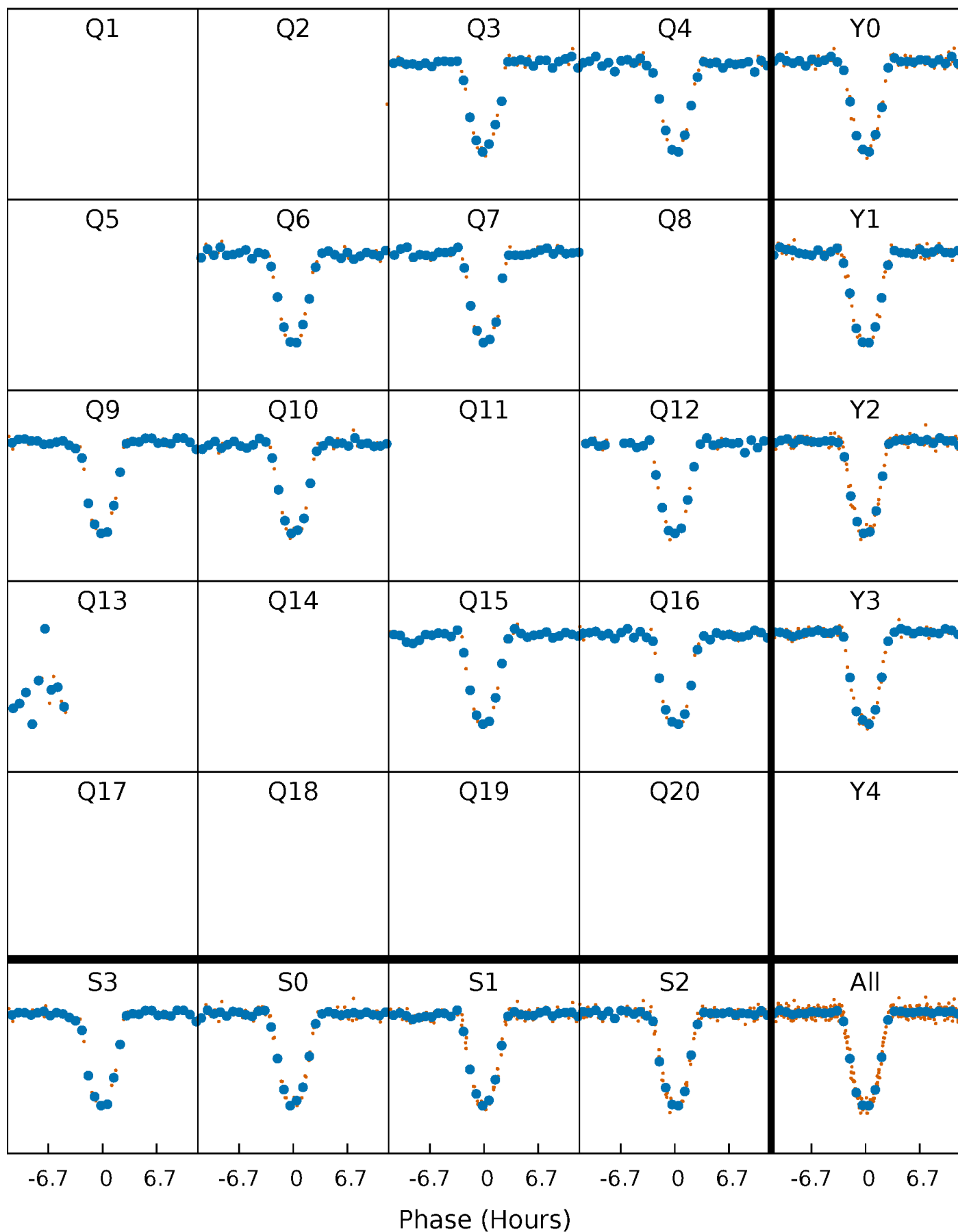


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



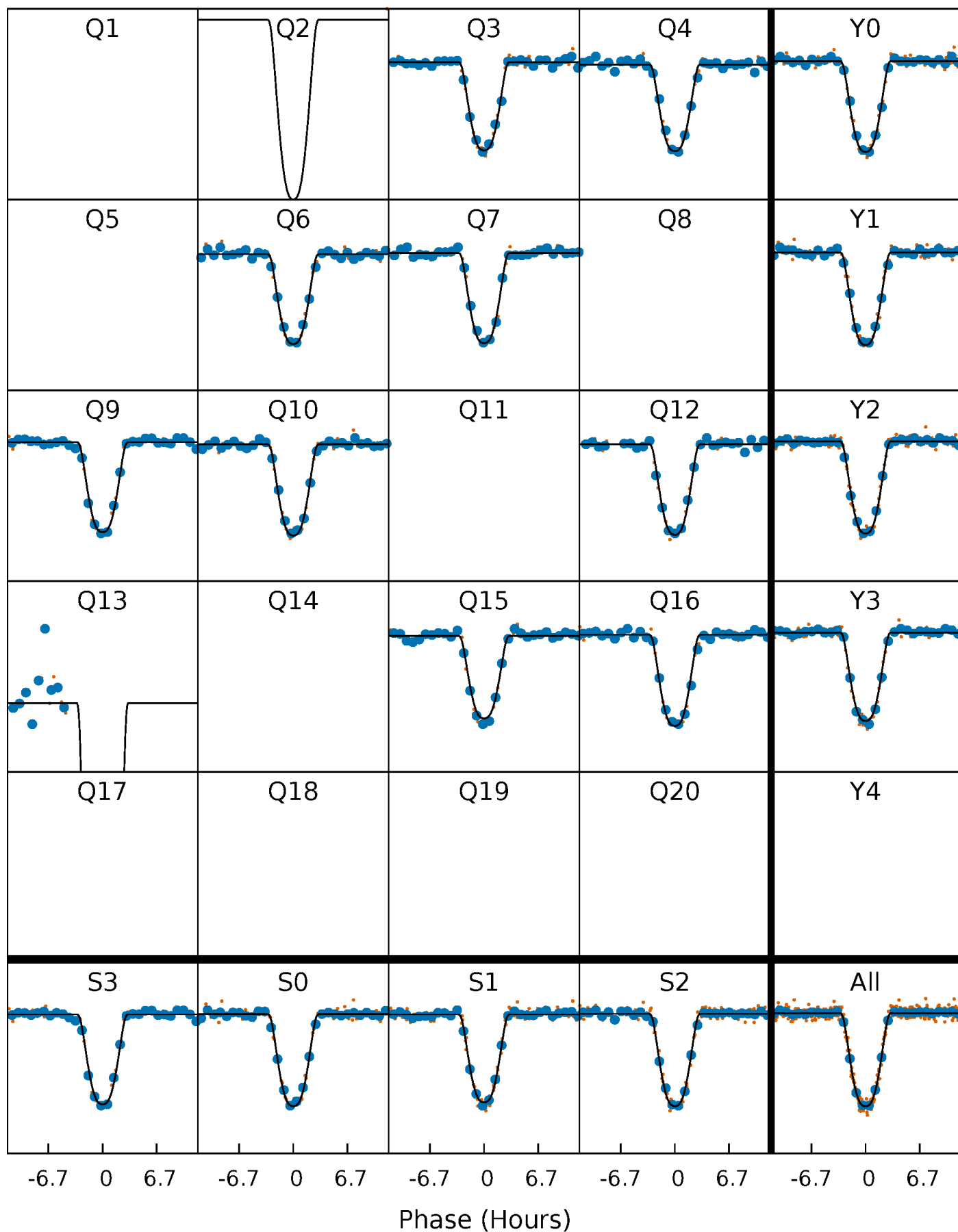
PDC Quarter-Phased Transit Curves

TCE 010005758-01 P=134.478596 Days $T_0=169.281156$ (BKJD)



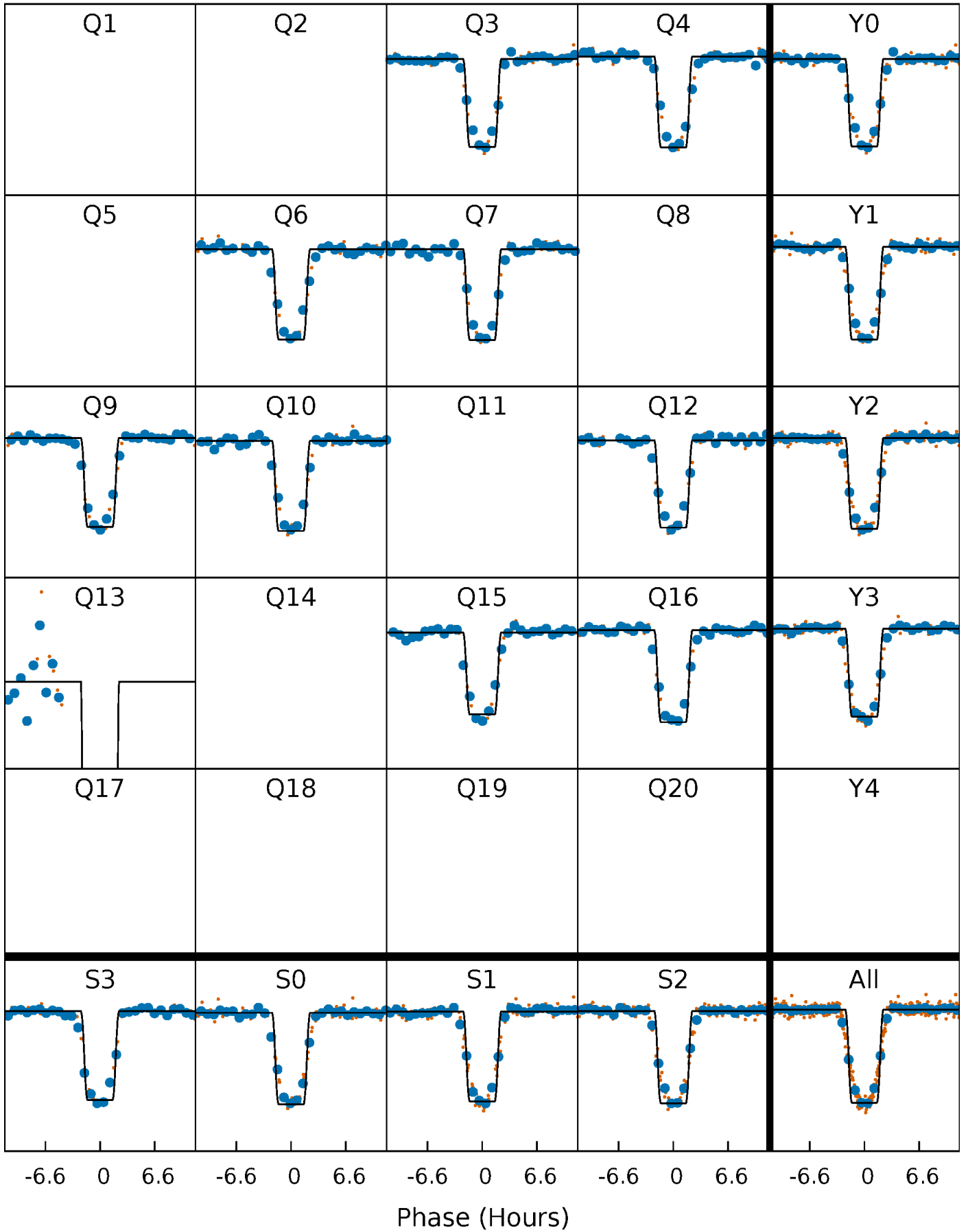
DV Quarter-Phased Transit Curves

TCE 010005758-01 P=134.478596 Days $T_0=169.281156$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

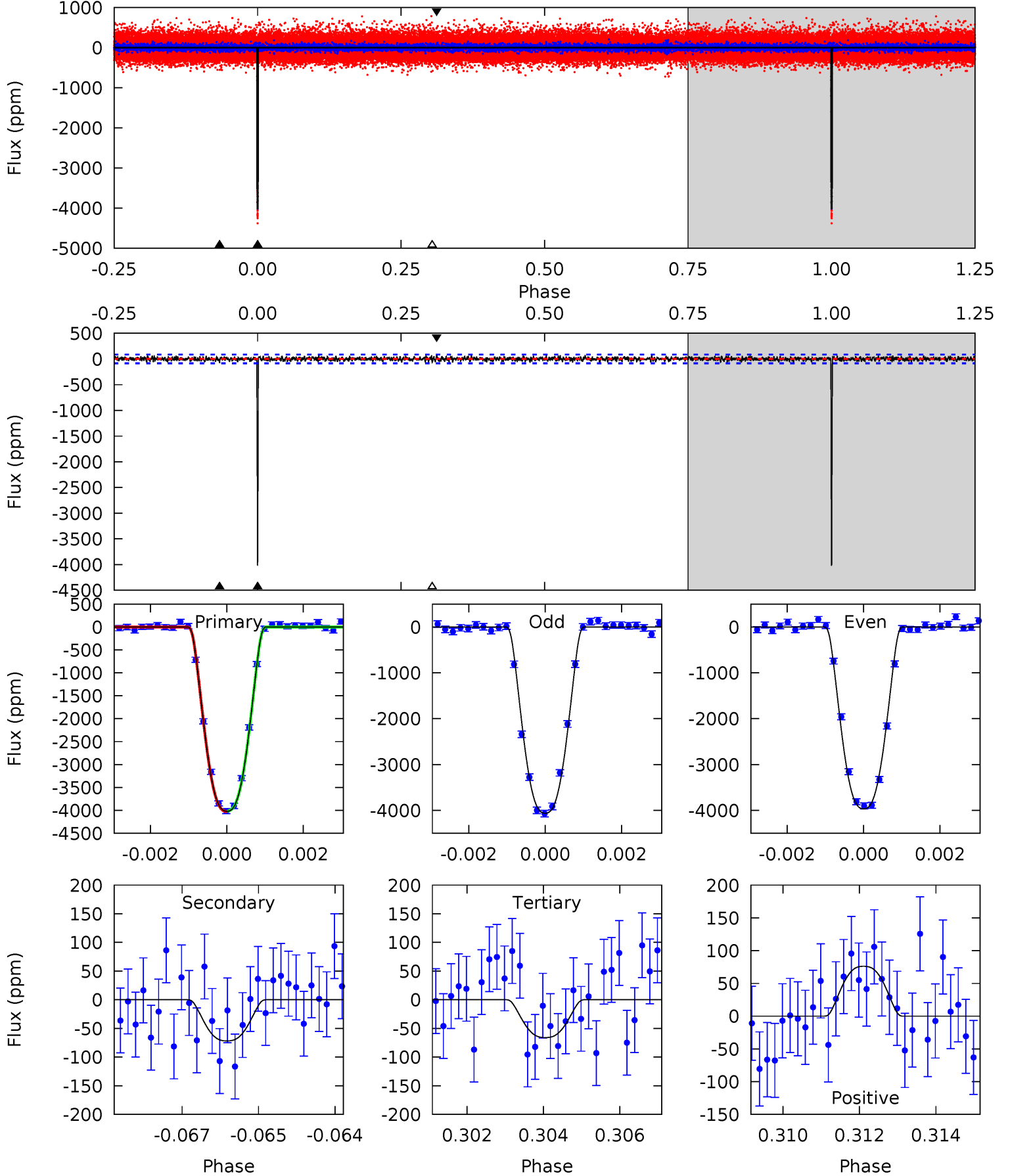
TCE 010005758-01 P=134.479308 Days $T_0=169.277217$ (BKJD)



DV Model-Shift Uniqueness Test

010005758-01, $P = 134.478596$ Days, $E = 34.802560$ Days

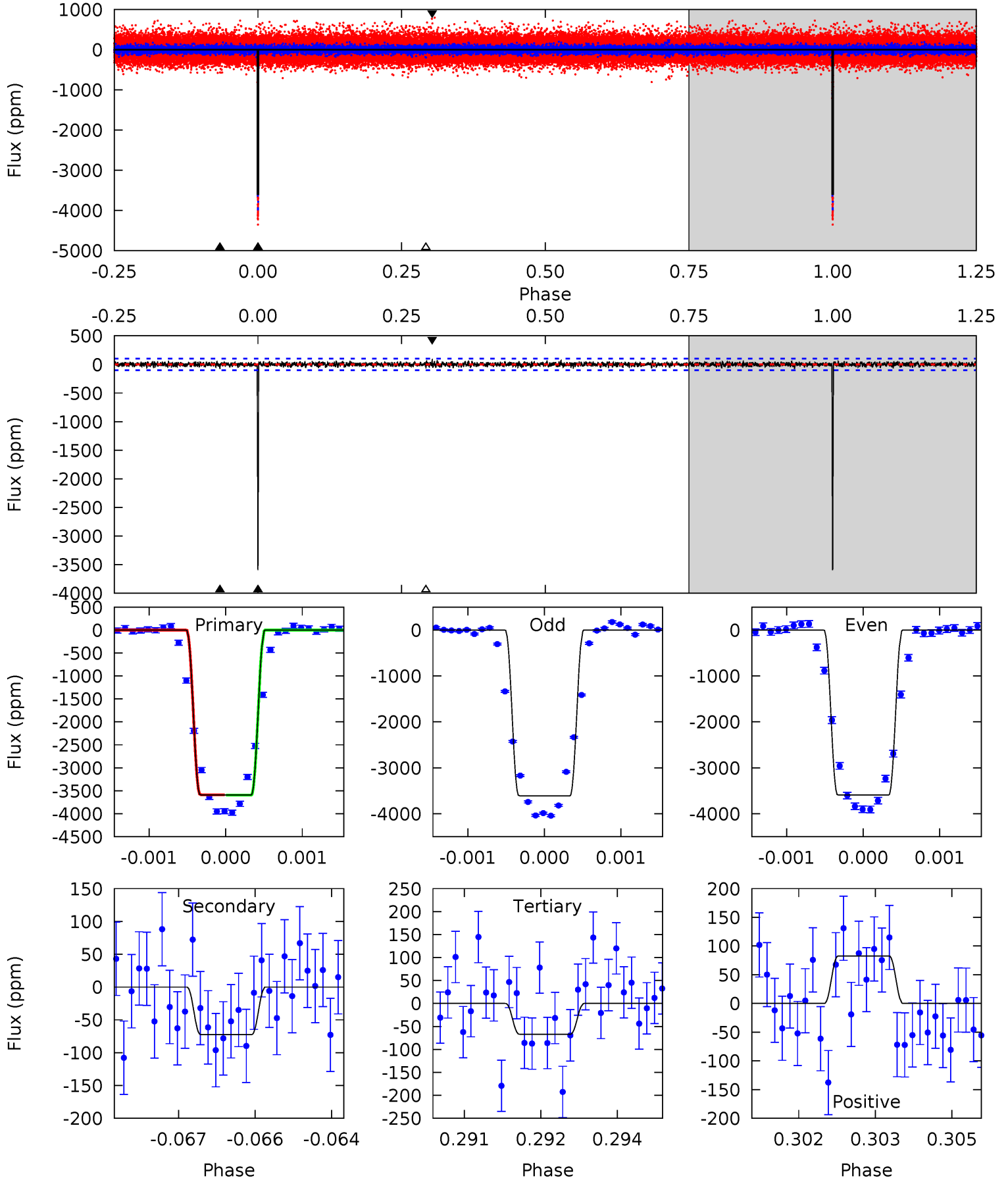
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
251.6	4.49	4.13	4.76	5.33	3.10	1.36	247.5	246.8	0.36	-0.27	3.01	1.01	0.02	0.38



Alt Model-Shift Uniqueness Test

010005758-01, $P = 134.479308$ Days, $E = 34.797909$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
190.6	3.85	3.55	4.39	5.39	3.20	1.04	187.1	186.3	0.29	-0.55	0.42	1.01	0.02	0.26



Stellar Parameters For KIC 010005758

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5791^{+117}_{-105}	$4.185^{+0.182}_{-0.098}$	$0.020^{+0.150}_{-0.150}$	$1.336^{+0.209}_{-0.256}$	$0.996^{+0.093}_{-0.070}$	$0.588^{+0.488}_{-0.197}$
	+2%/-2%	+4%/-2%	+750%/-750%	+16%/-19%	+9%/-7%	+83%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010005758-01 / KOI 1783.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-72 ± 16	$10.27^{+1.01}_{-1.02}$	572^{+26}_{-29}	2752^{+82}_{-95}	98^{+31}_{-26}
Alt.	-72 ± 19	$9.03^{+0.78}_{-0.92}$	572^{+26}_{-31}	2854^{+101}_{-115}	131^{+47}_{-39}

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 $A_{obs} \gg 1.0$

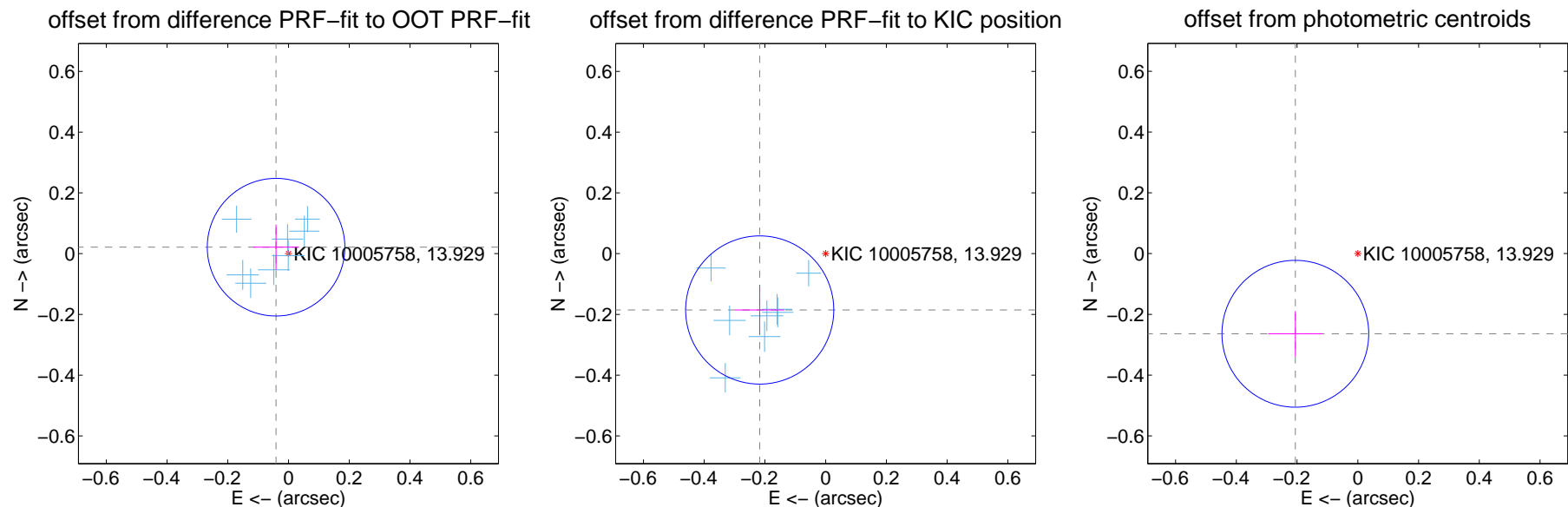
DV Centroid Data

Supplemental centroid analysis for 010005758-01. Kepler magnitude: 13.93. Transit SNR 155.08

There are 8 quarters with good PRF difference image offsets

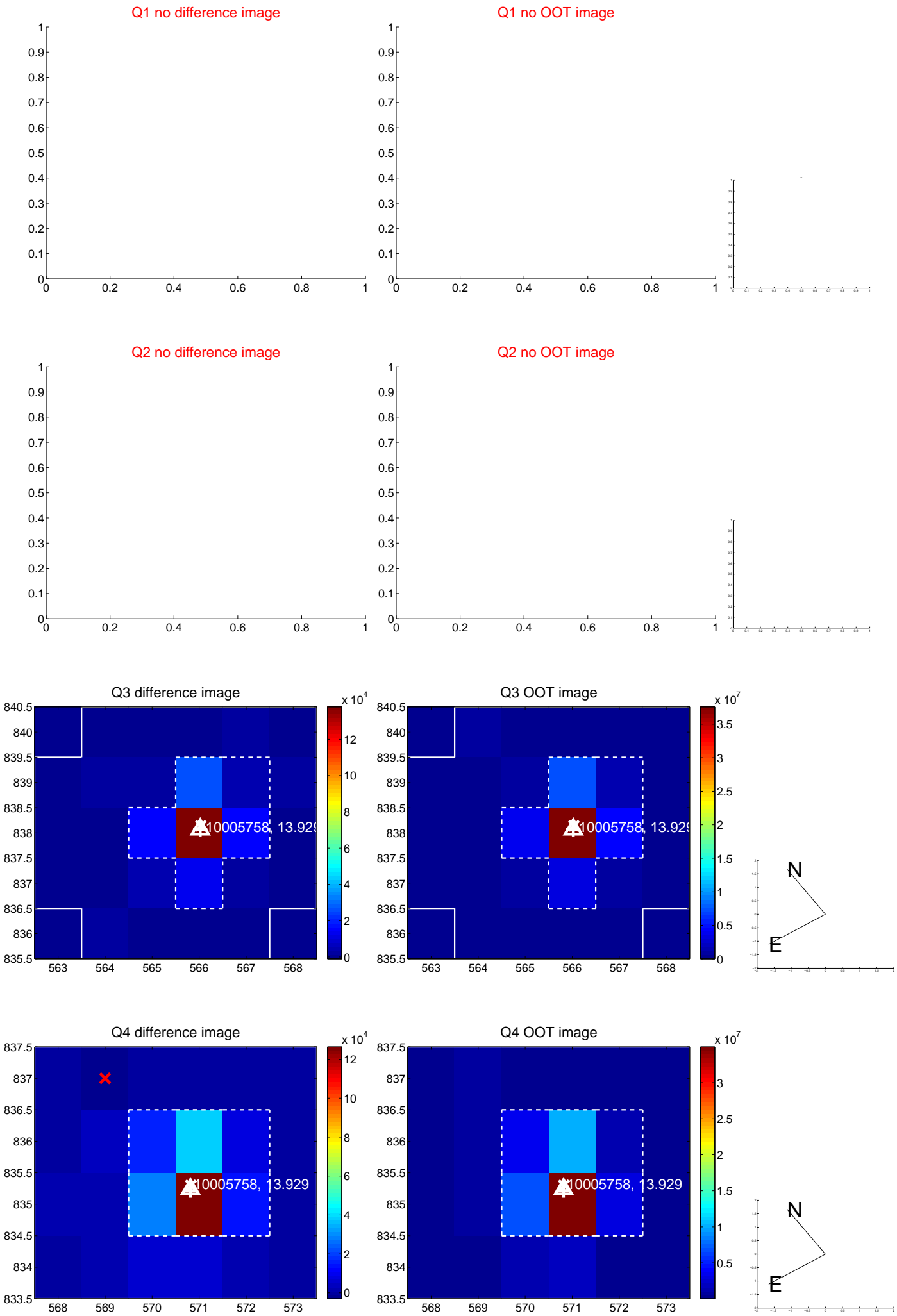
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.046 ± 0.075	0.61	0.041 ± 0.076	0.021 ± 0.074
PRF-fit source offset from KIC position	0.286 ± 0.081	3.51	0.217 ± 0.081	-0.185 ± 0.082
photometric centroid source offset	0.33 ± 0.08	4.15	0.21 ± 0.09	-0.26 ± 0.07



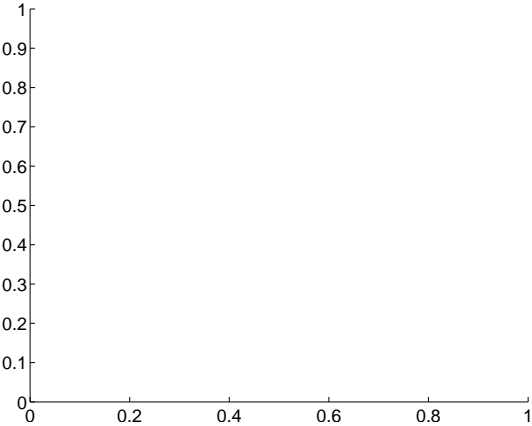
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

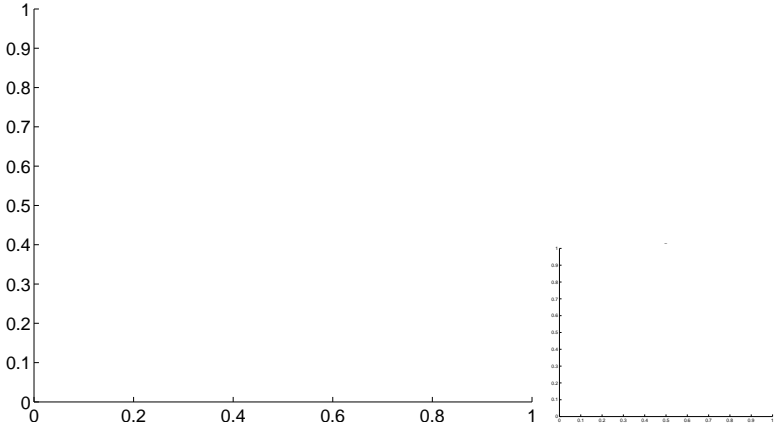


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

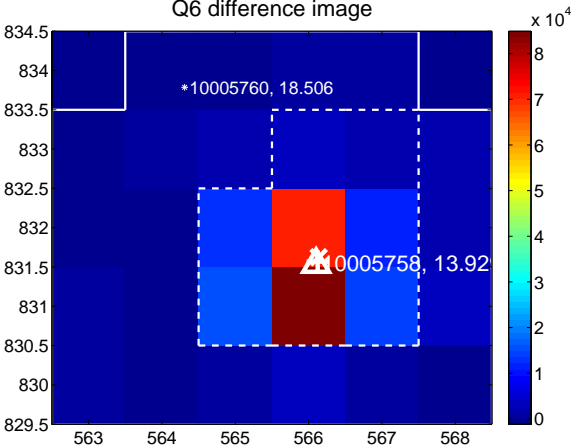
Q5 no difference image



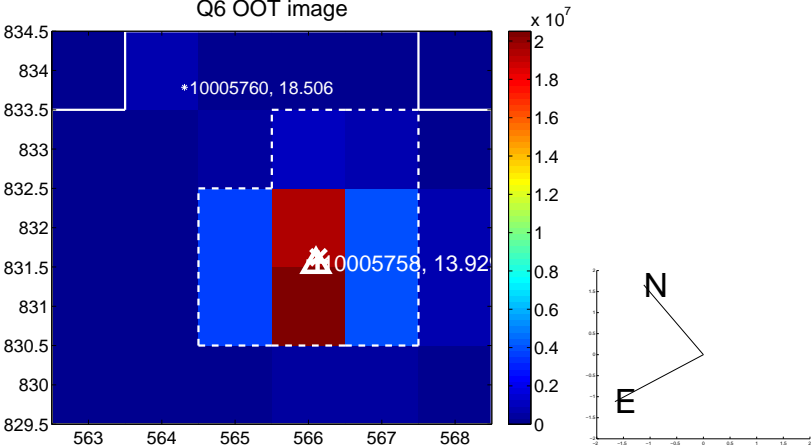
Q5 no OOT image



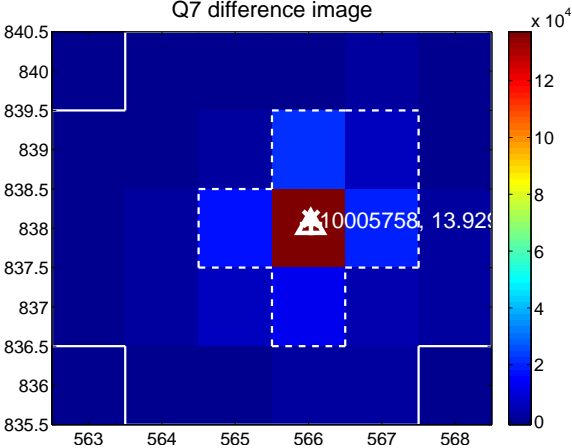
Q6 difference image



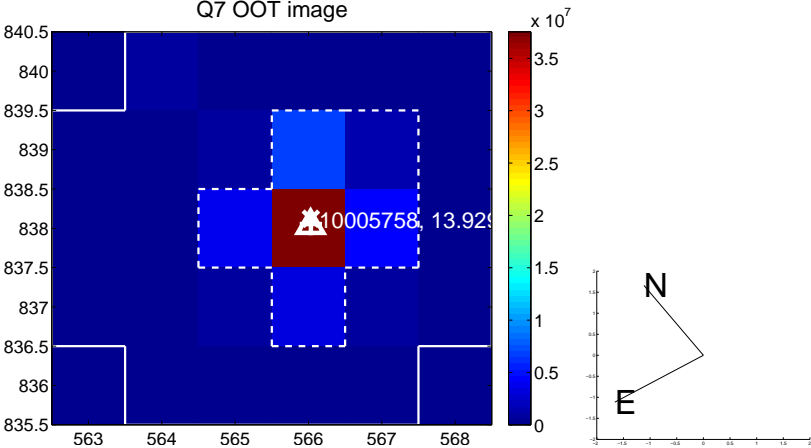
Q6 OOT image



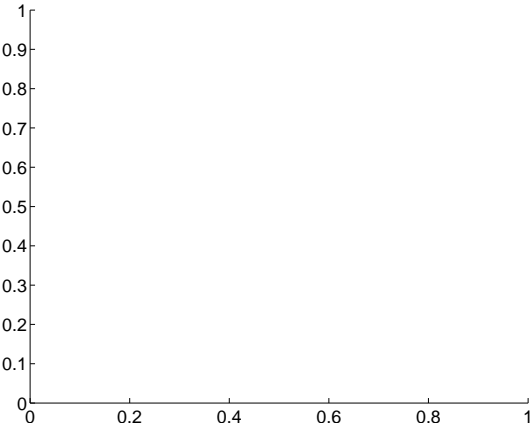
Q7 difference image



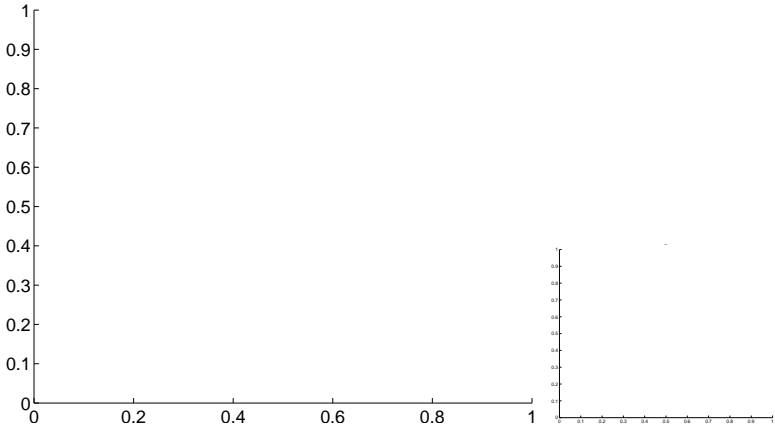
Q7 OOT image



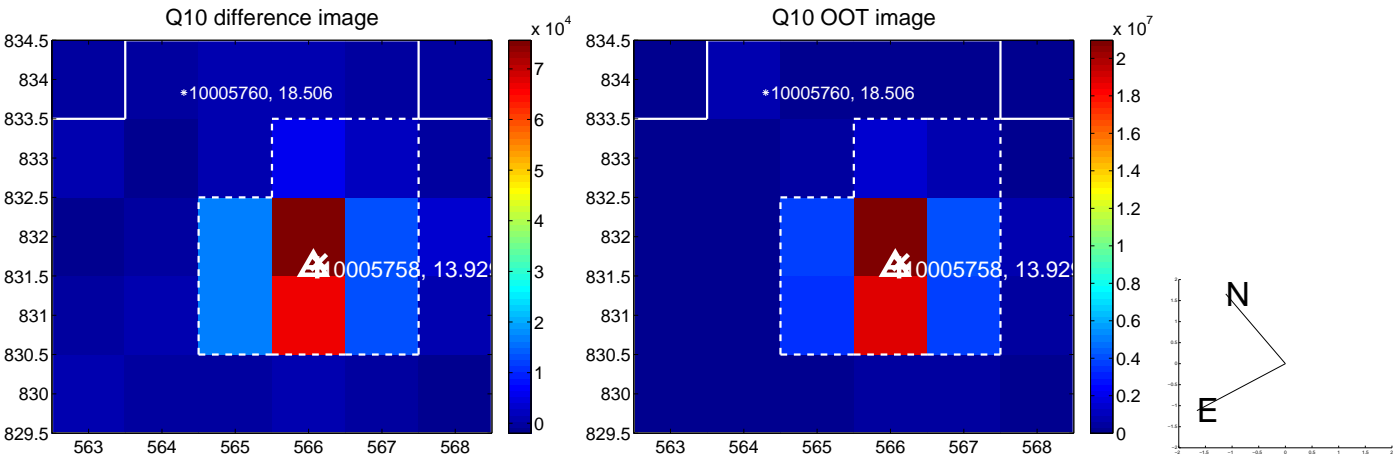
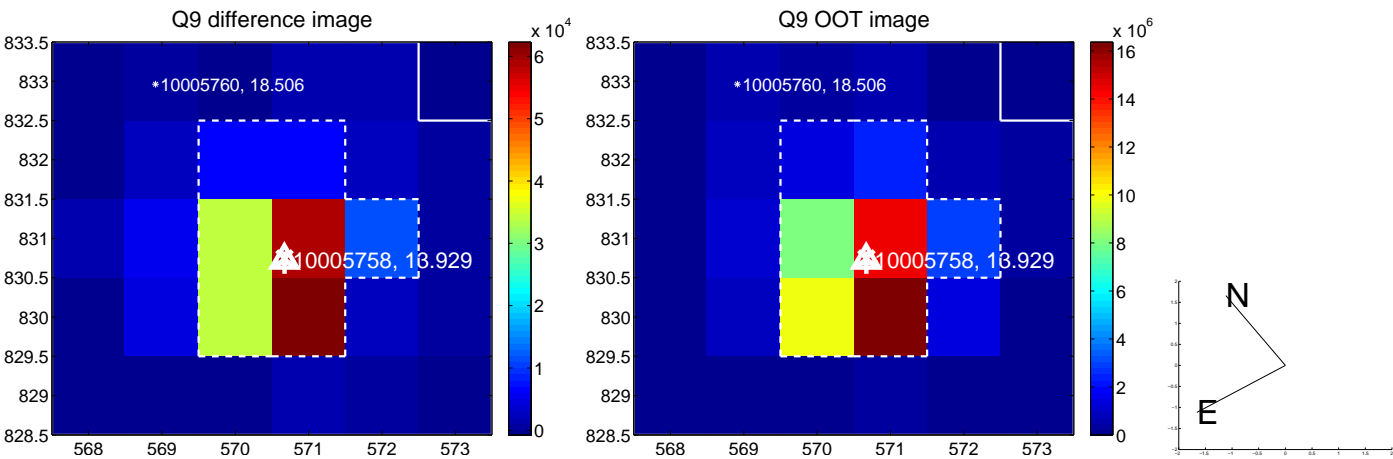
Q8 no difference image



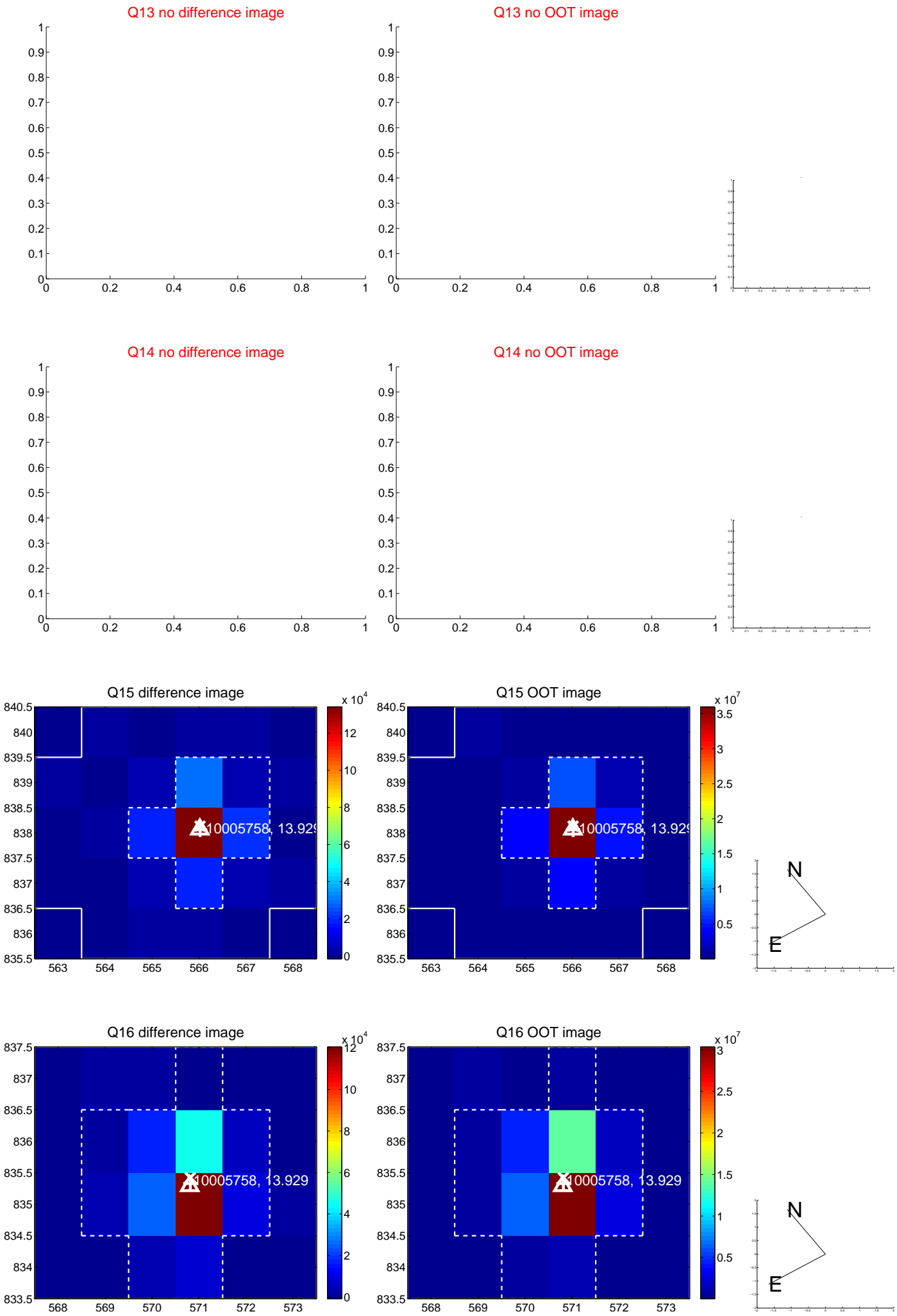
Q8 no OOT image



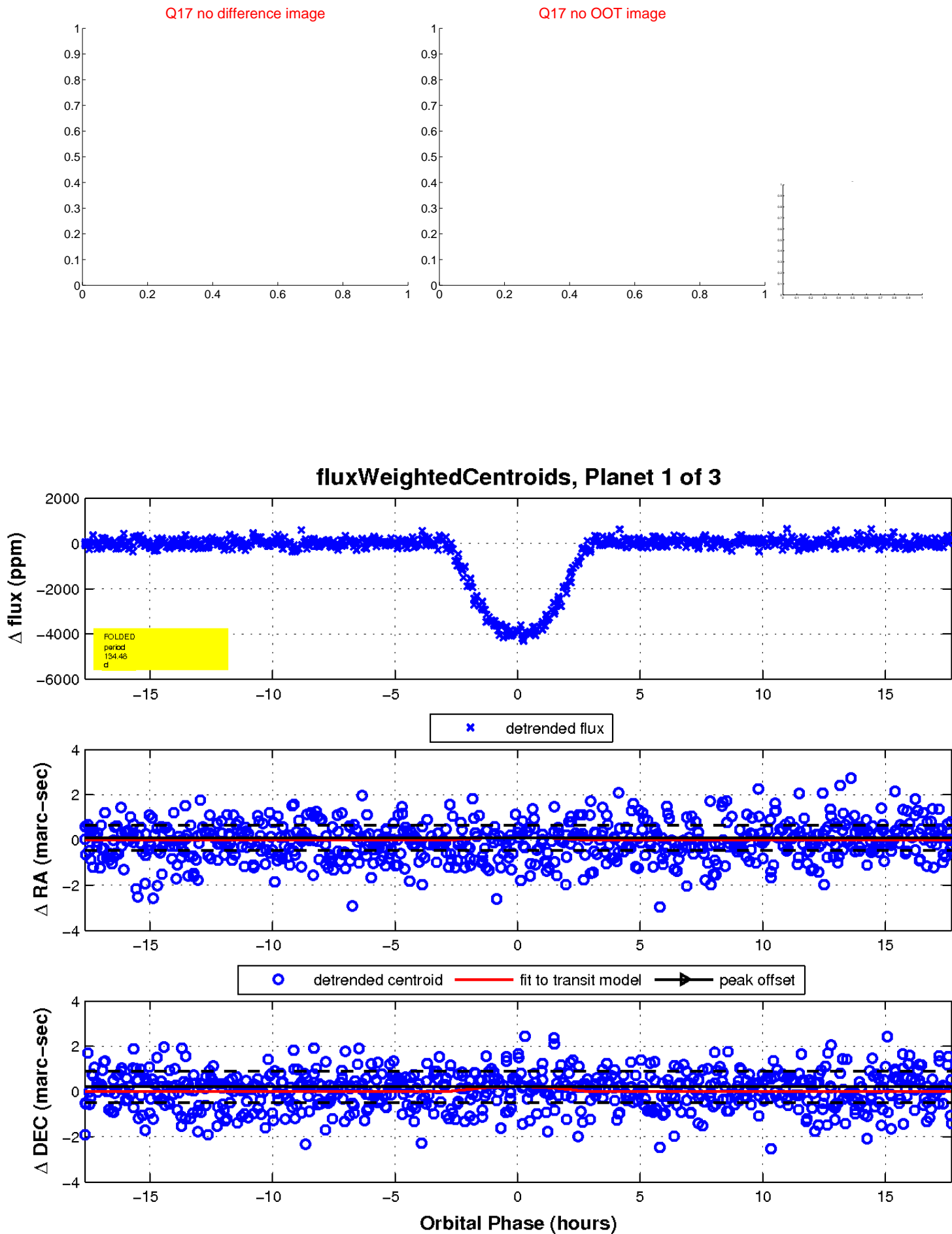
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

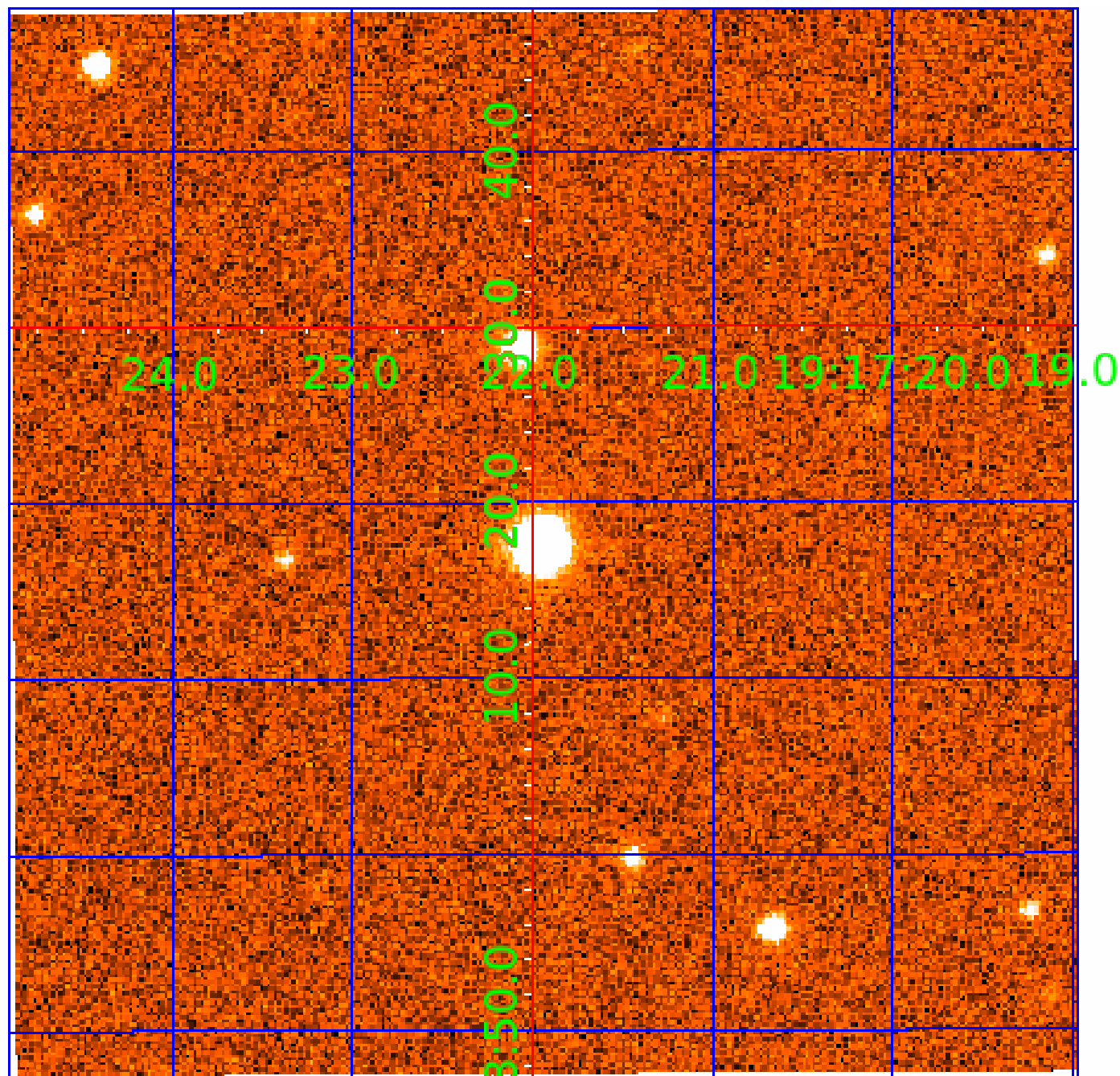


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010005758

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})
010005758-01	OBS	1783.01	134.478596	169.281156	3999.9	5.904	163.9	155.1	1.34	5791	10.43	6.83
010005758-02	OBS	1783.02	284.052664	200.847378	1654.5	7.514	58.1	54.1	1.34	5791	6.02	2.52
010005758-03	OBS	No	713.659840	148.463212	242.1	16.821	9.1	9.3	1.34	5791	2.40	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010005758-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010005758-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
010005758-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

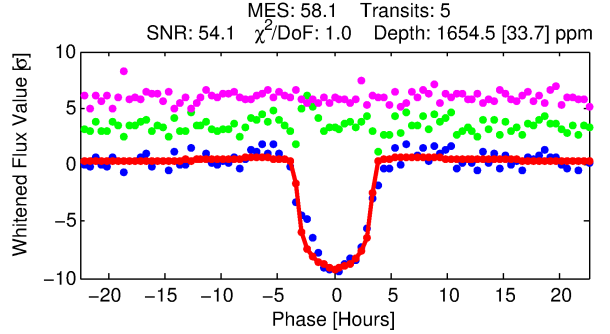
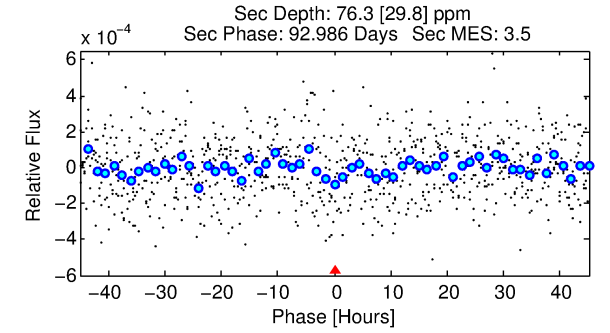
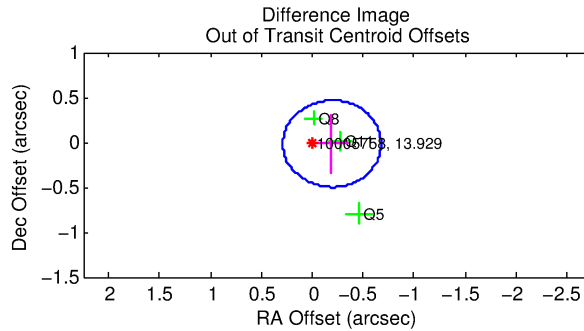
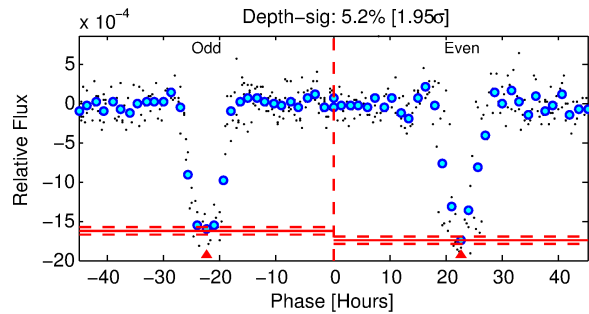
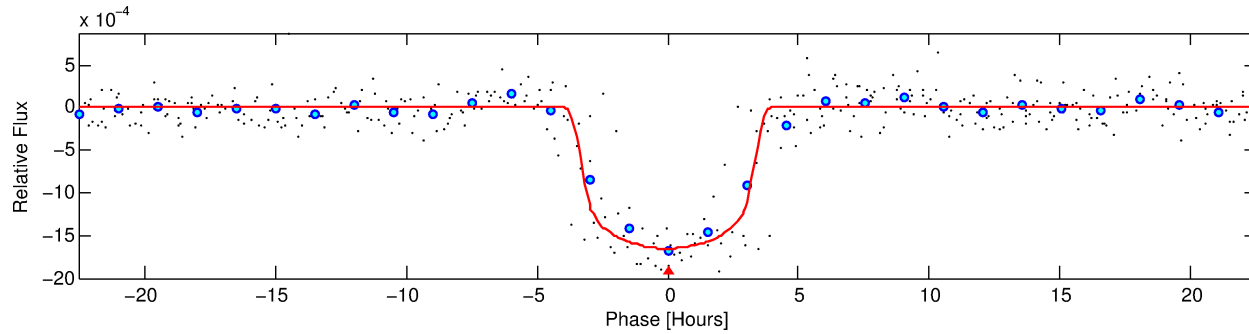
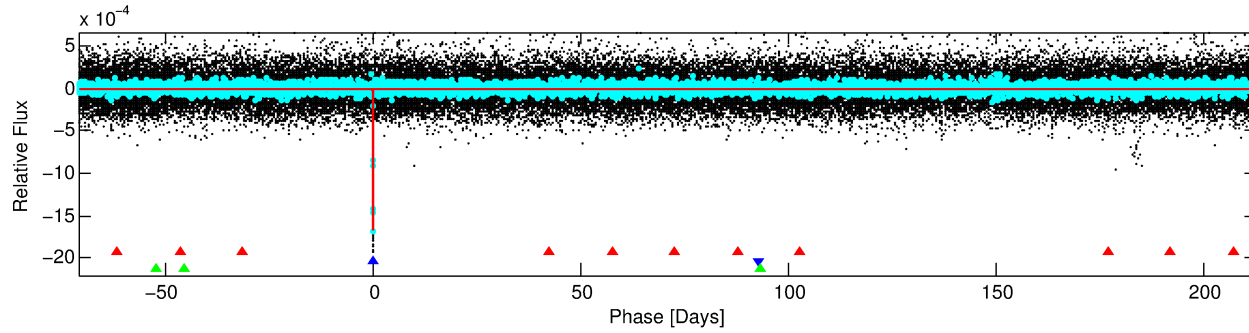
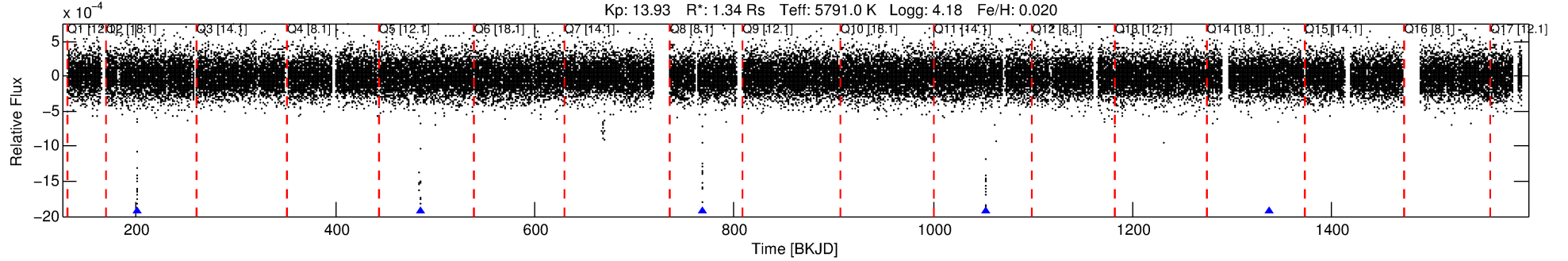
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010005758-02

No Significant Match Found

DV One-Page Summary

KIC: 10005758 Candidate: 2 of 3 Period: 284.053 d
KOI: K01783.02 Corr: 0.960



DV Fit Results:

Period = 284.05266 [0.00110] d
Epoch = 200.8474 [0.0025] BKJD
Rp/R* = 0.0413 [0.0017]
a/R* = 193.50 [32.28]
b = 0.80 [0.08]
Seff = 2.52 [0.80]
Teq = 321 [26] K
Rp = 6.02 [1.18] Re
a = 0.8450 [0.1599] AU
Ag = 826.12 [415.61] [1.99σ]
Teffp = 2663 [271] K [8.61σ]

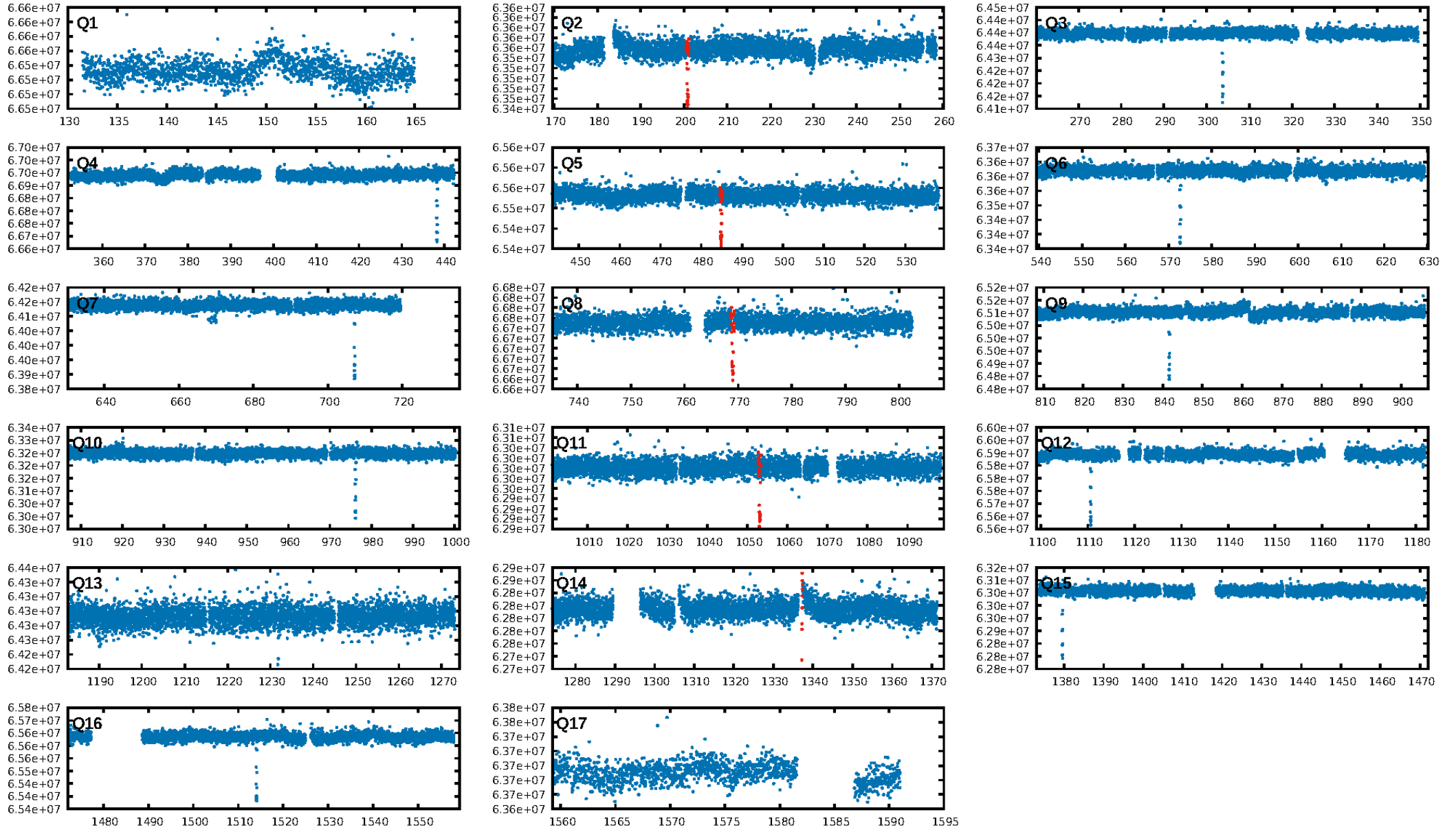
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [375.66σ]
LongPeriod-sig: 100.0% [559.66σ]
ModelChiSquare2-sig: 30.1%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 5.693
Centroid-sig: 1.6%
Centroid-so: 0.230 arcsec [0.94σ]
OotOffset-rm: 0.194 arcsec [1.21σ]
KicOffset-rm: 0.244 arcsec [0.82σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

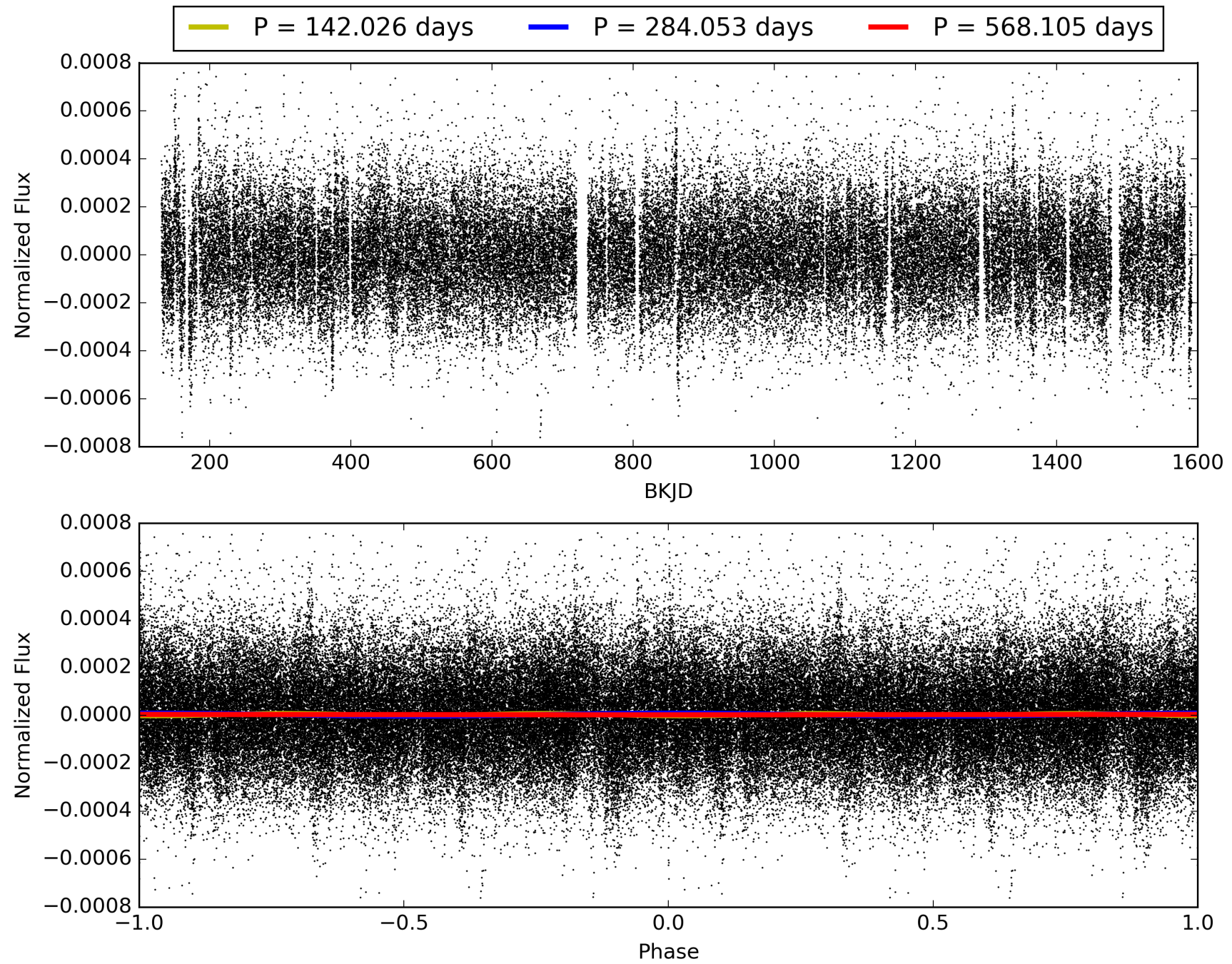
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:44:49 Z

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

TCE 010005758-02, PDC Light Curves

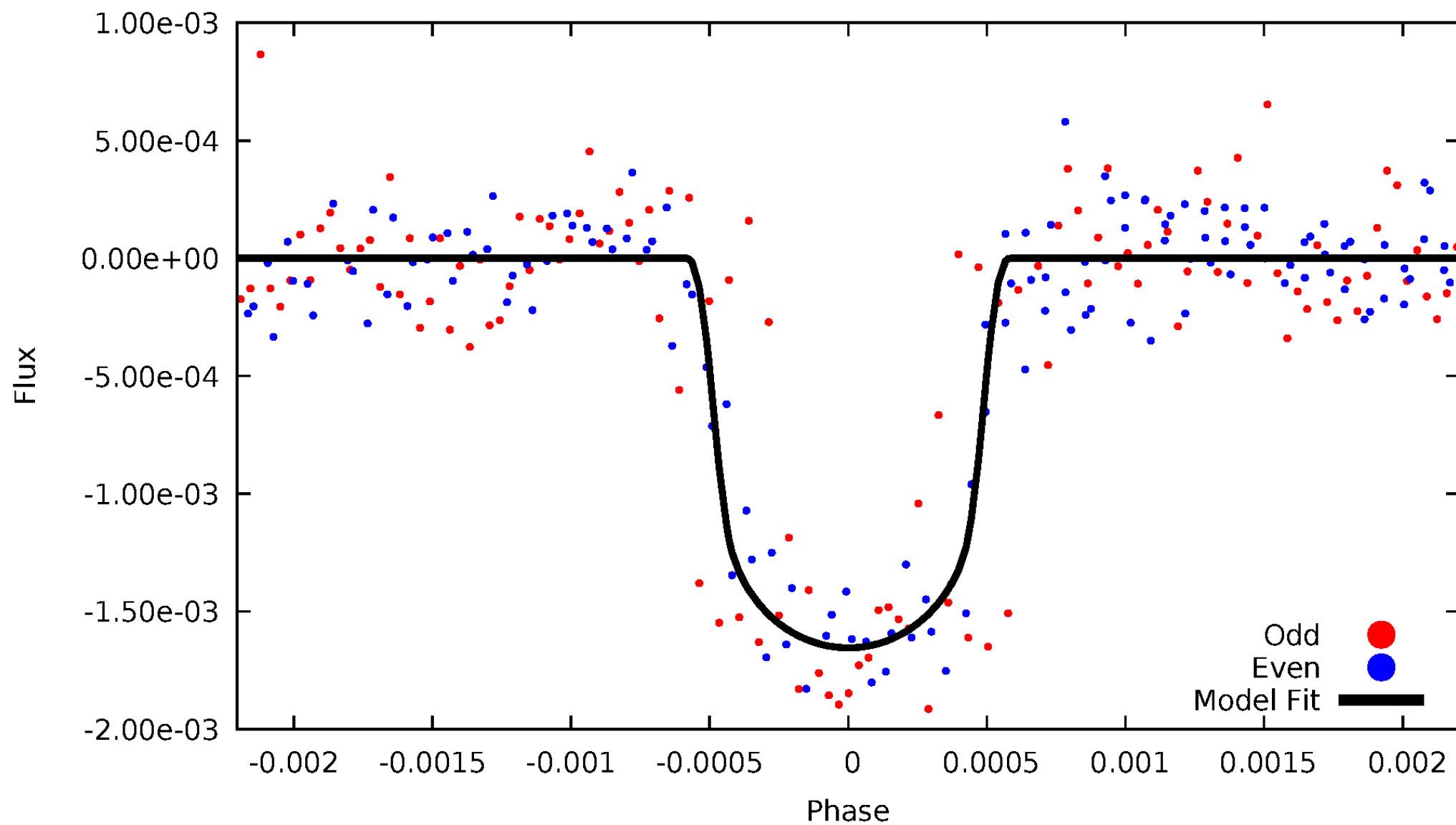


TCE 010005758-02



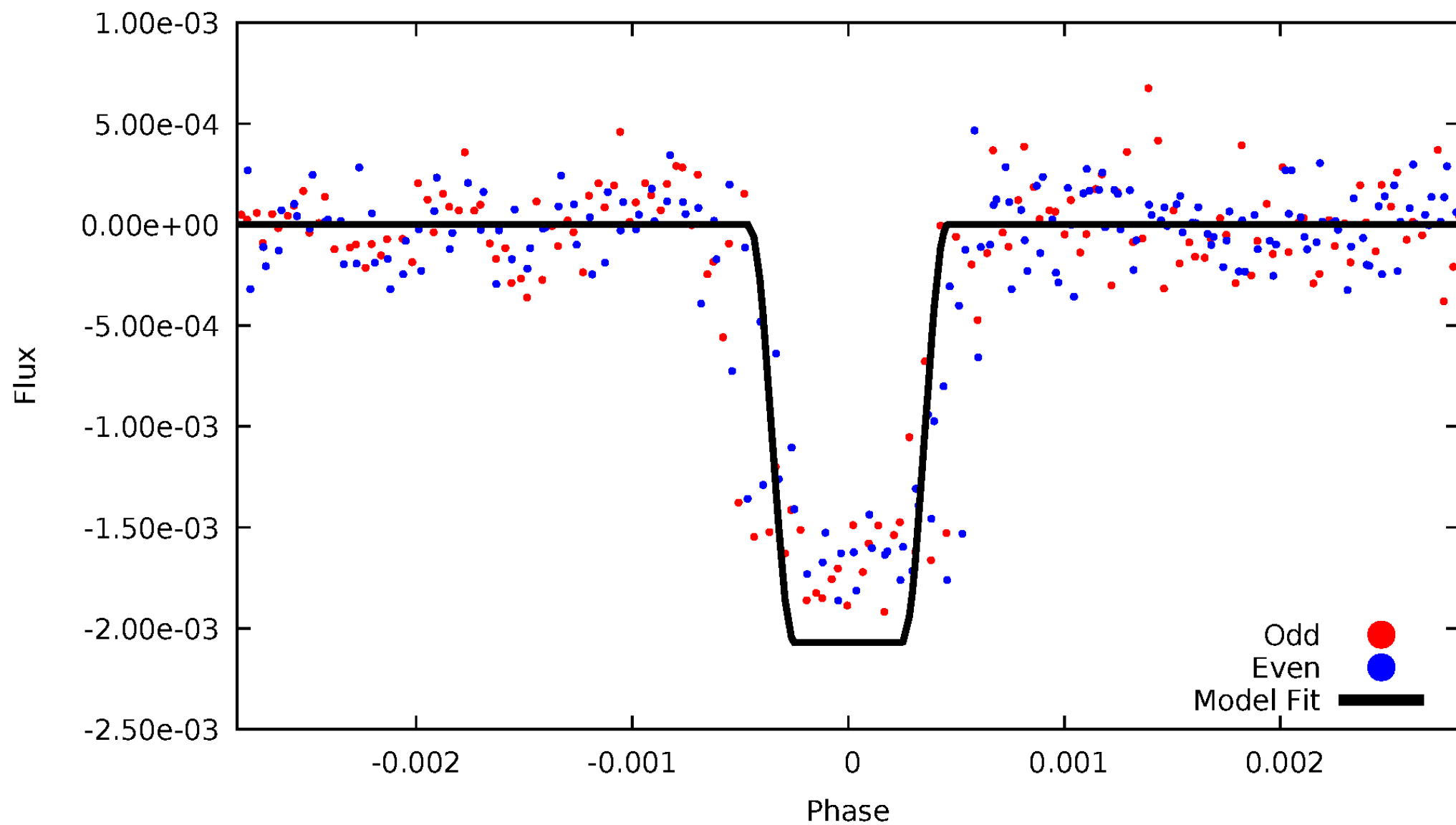
DV Odd/Even

TCE 010005758-02



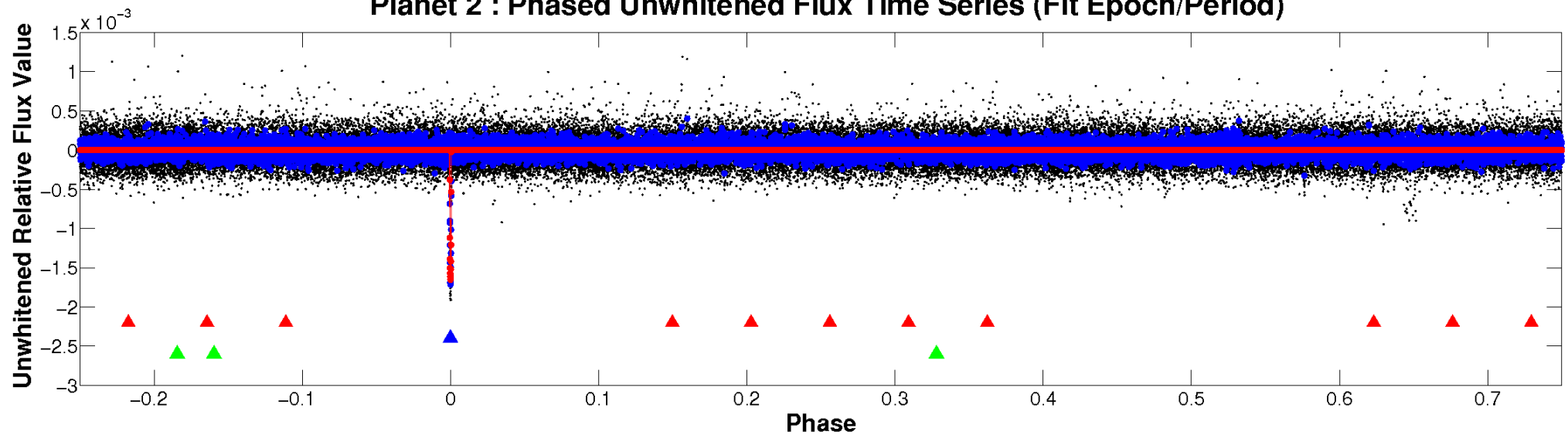
ALT Odd/Even

TCE 010005758-02

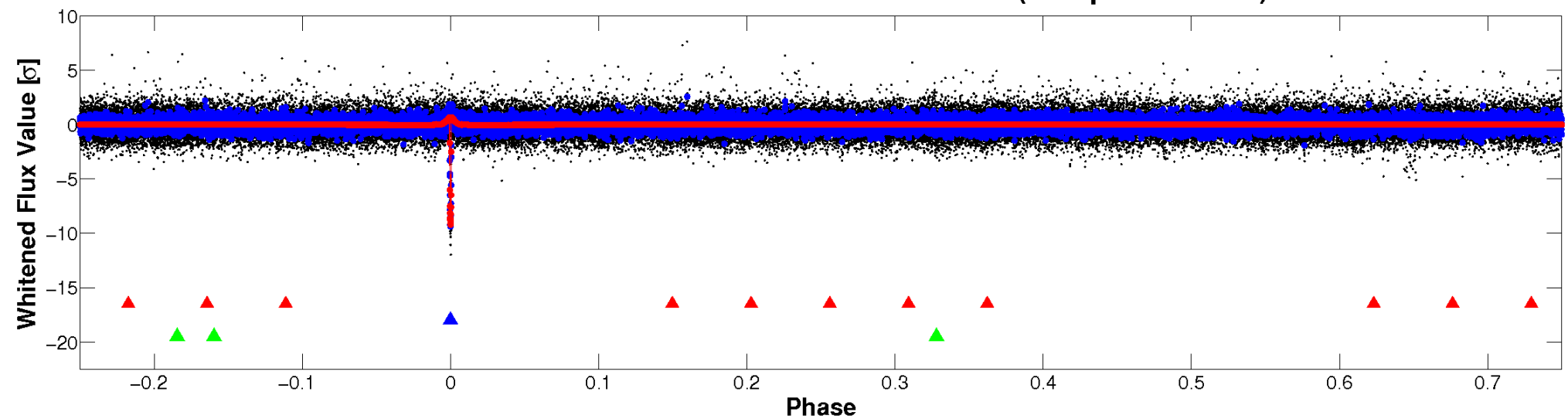


Non-Whitened Vs. Whitened Light Curve

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

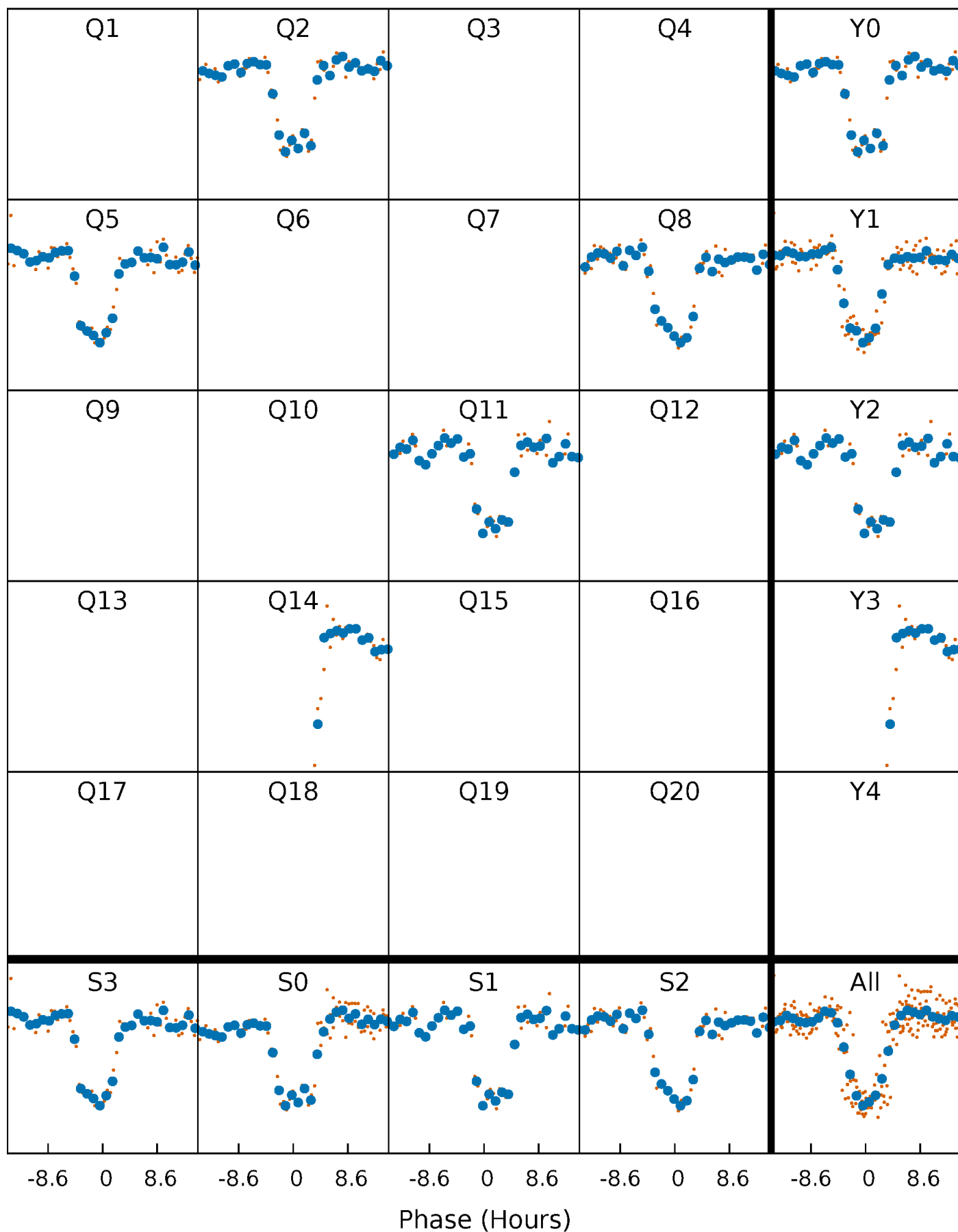


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



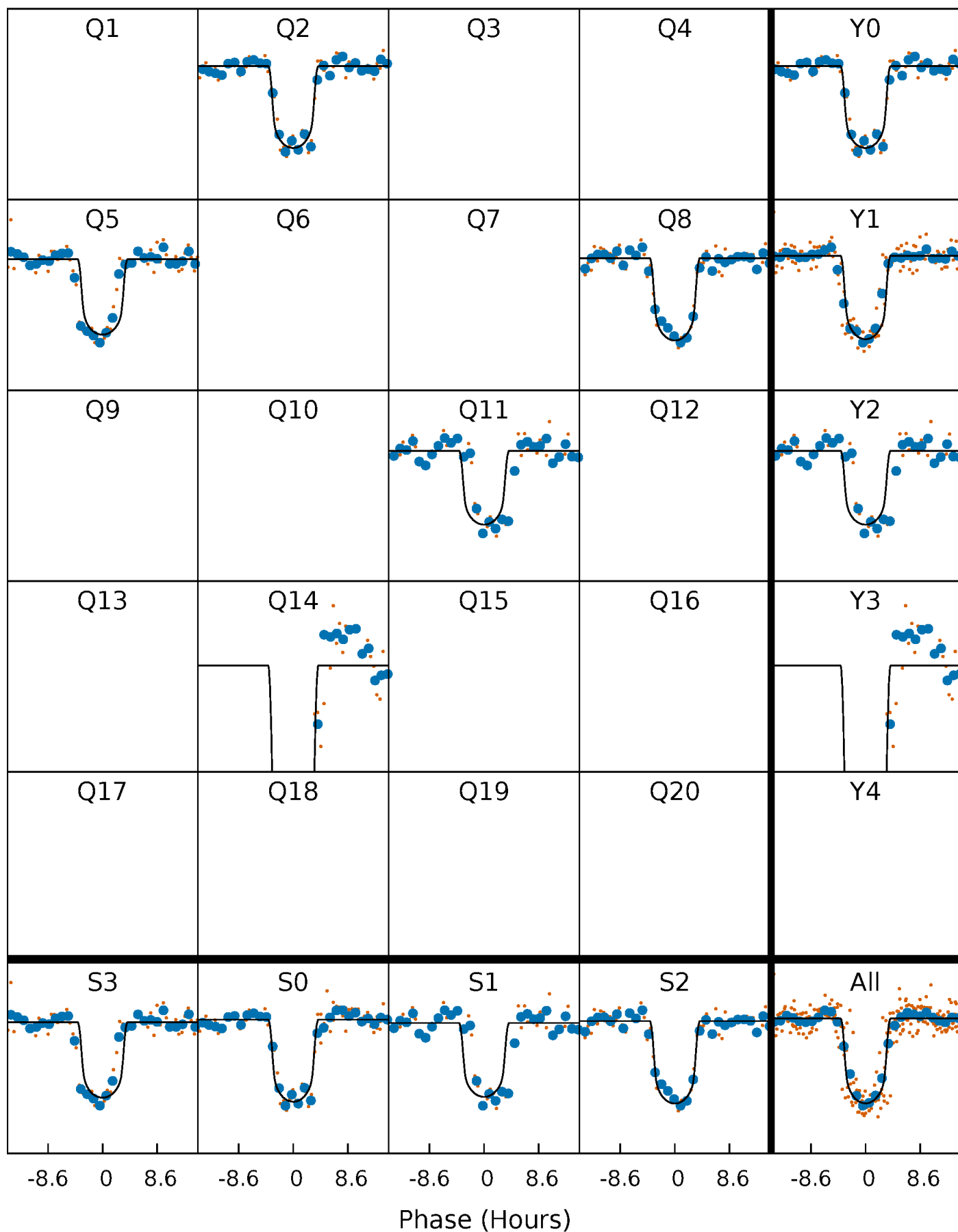
PDC Quarter-Phased Transit Curves

TCE 010005758-02 $P=284.052663$ Days $T_0=200.847378$ (BKJD)



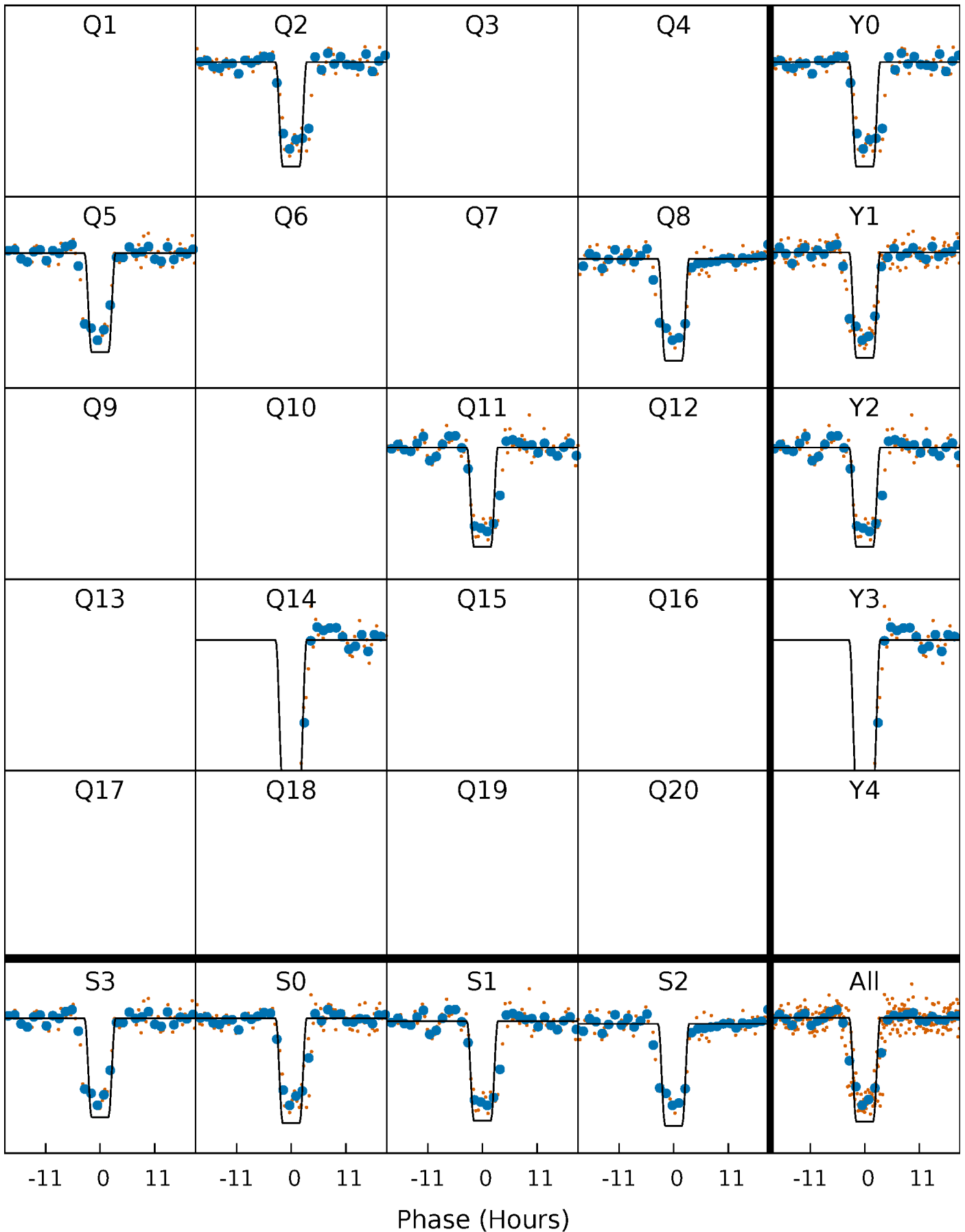
DV Quarter-Phased Transit Curves

TCE 010005758-02 $P=284.052663$ Days $T_0=200.847378$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

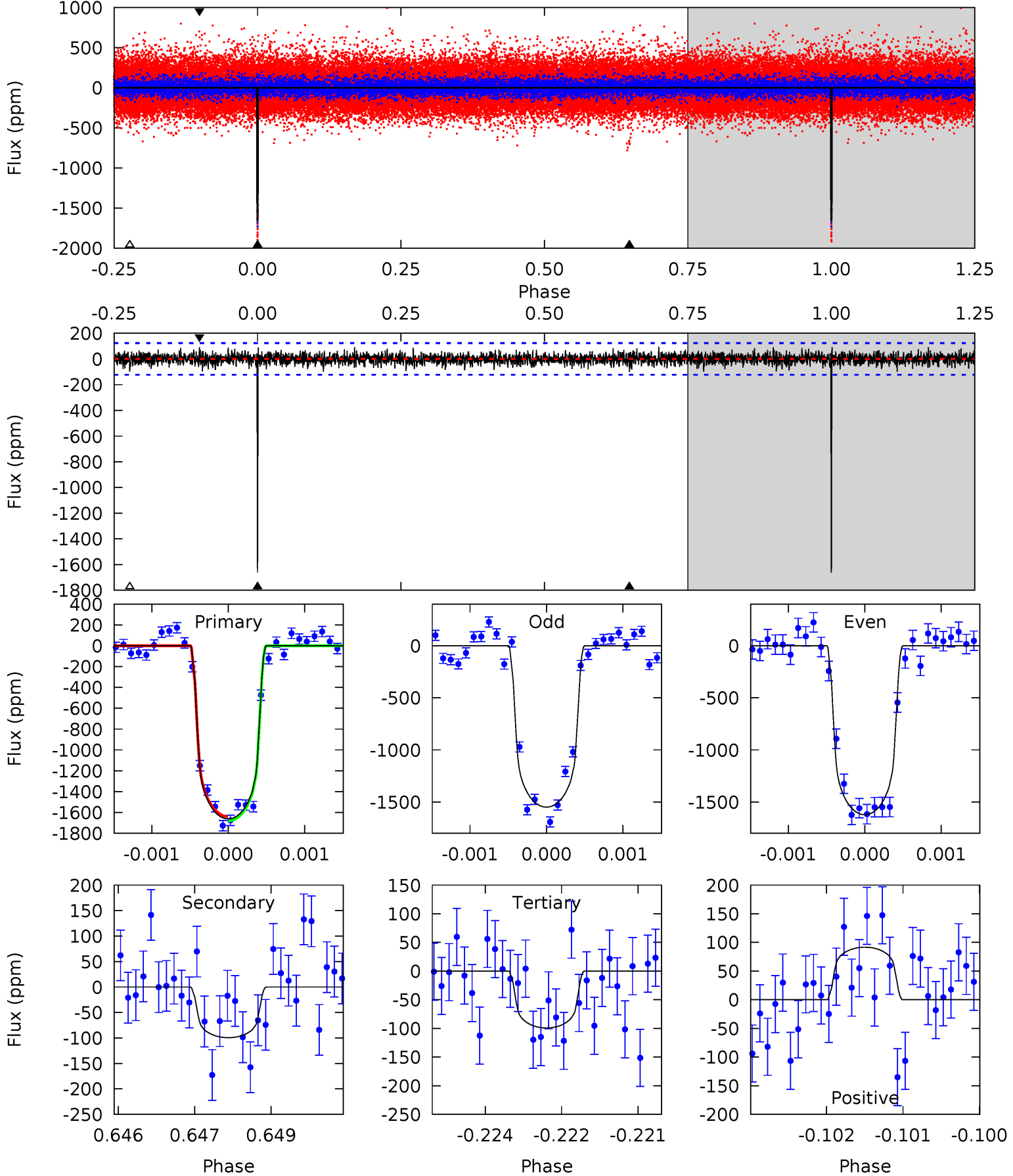
TCE 010005758-02 $P=284.074162$ Days $T_0=200.817563$ (BKJD)



DV Model-Shift Uniqueness Test

010005758-02, P = 284.052663 Days, E = 200.847378 Days

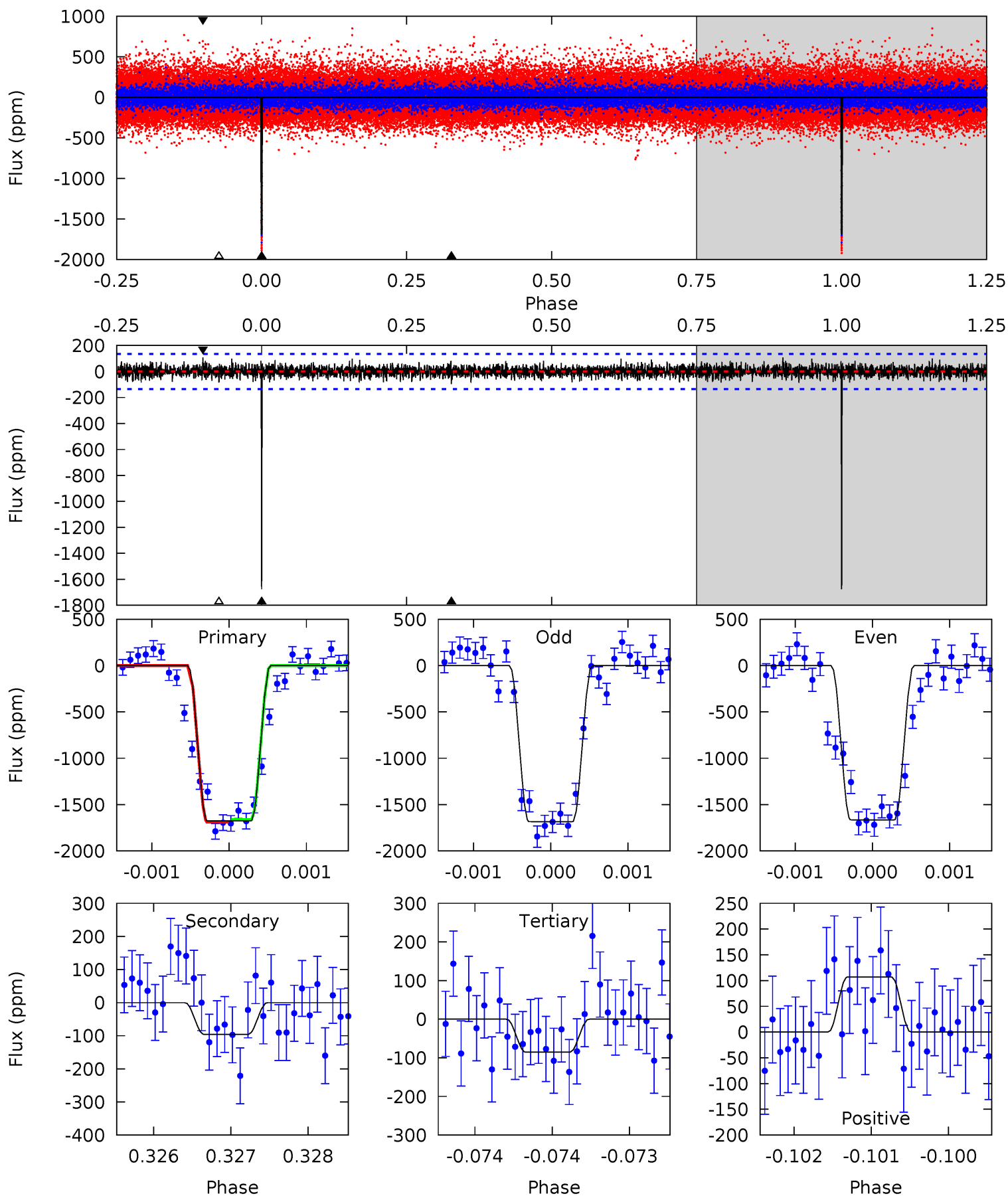
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
73.4	4.39	4.38	4.05	5.42	3.25	1.17	69.0	69.4	0.01	0.34	1.65	0.93	0.05	0.90



Alt Model-Shift Uniqueness Test

010005758-02, $P = 284.074162$ Days, $E = 200.817563$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
67.9	3.88	3.46	4.33	5.48	3.33	1.05	64.5	63.6	0.42	-0.45	0.38	1.04	0.06	0.57



Stellar Parameters For KIC 010005758

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5791^{+117}_{-105}	$4.185^{+0.182}_{-0.098}$	$0.020^{+0.150}_{-0.150}$	$1.336^{+0.209}_{-0.256}$	$0.996^{+0.093}_{-0.070}$	$0.588^{+0.488}_{-0.197}$
	+2%/-2%	+4%/-2%	+750%/-750%	+16%/-19%	+9%/-7%	+83%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010005758-02 / KOI 1783.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-99 ± 23	$5.97^{+0.64}_{-0.67}$	447^{+21}_{-24}	3372^{+121}_{-142}	1091^{+401}_{-300}
Alt.	-96 ± 25	$6.55^{+0.62}_{-0.73}$	446^{+20}_{-25}	3259^{+129}_{-144}	894^{+322}_{-268}

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

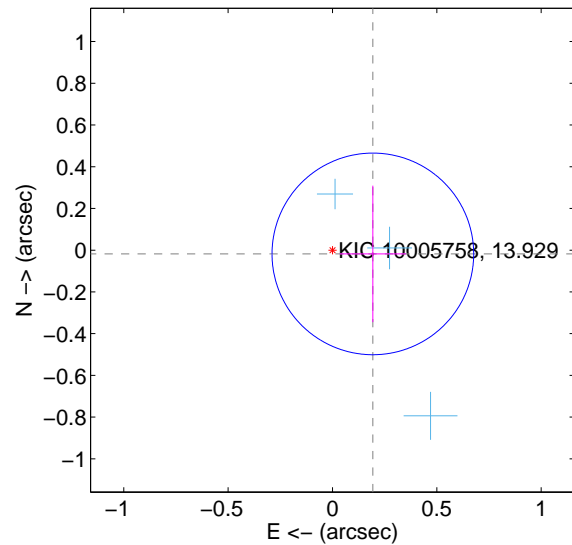
Supplemental centroid analysis for 010005758-02. Kepler magnitude: 13.93. Transit SNR 54.07

There are 3 quarters with good PRF difference image offsets

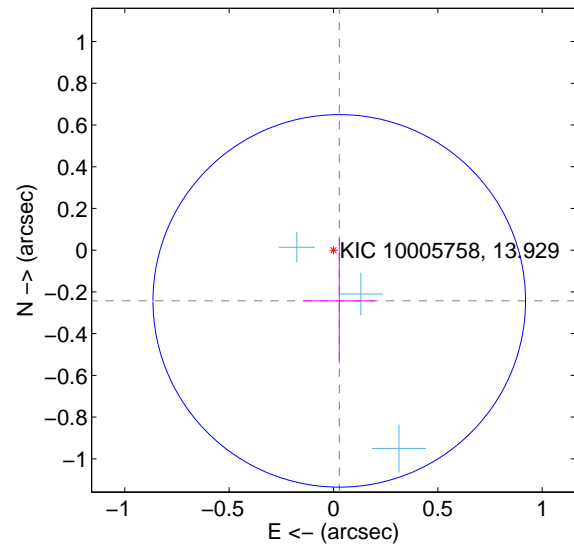
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.194 ± 0.161	1.21	-0.194 ± 0.159	-0.018 ± 0.327
PRF-fit source offset from KIC position	0.244 ± 0.298	0.82	-0.028 ± 0.173	-0.243 ± 0.299
photometric centroid source offset	0.23 ± 0.25	0.94	0.17 ± 0.26	0.15 ± 0.23

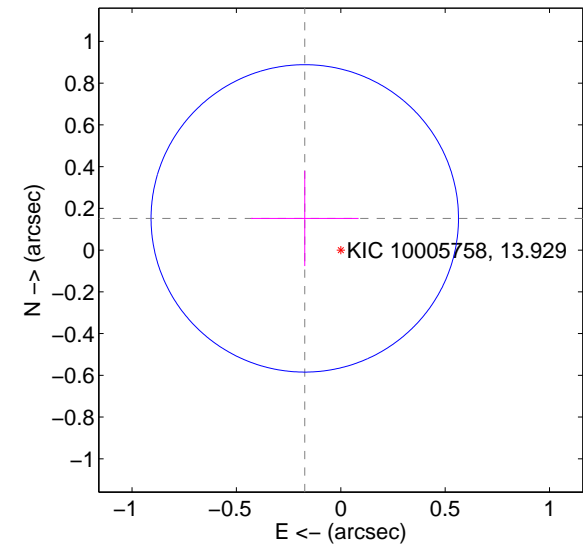
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

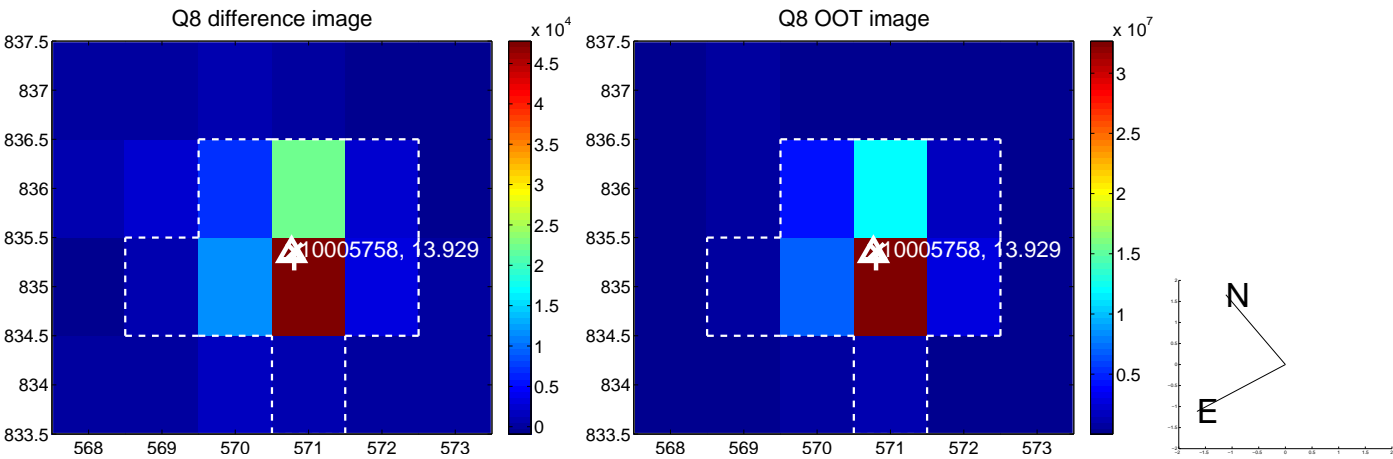
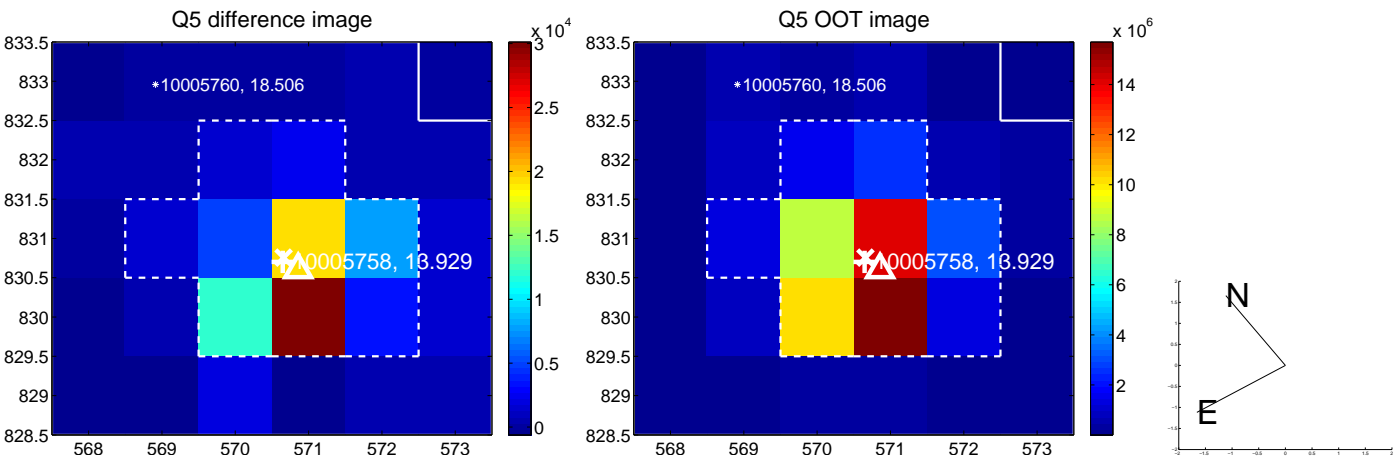


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

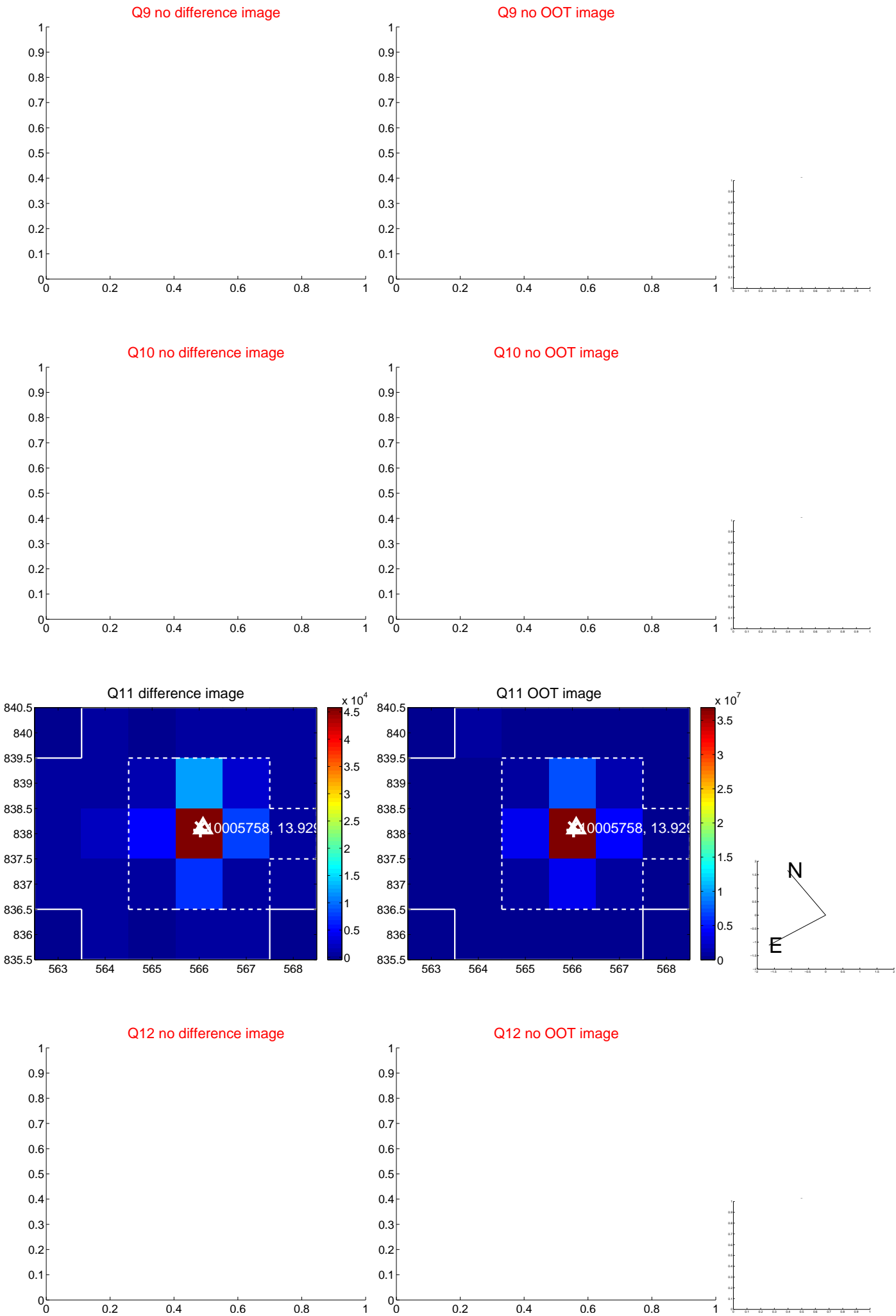
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



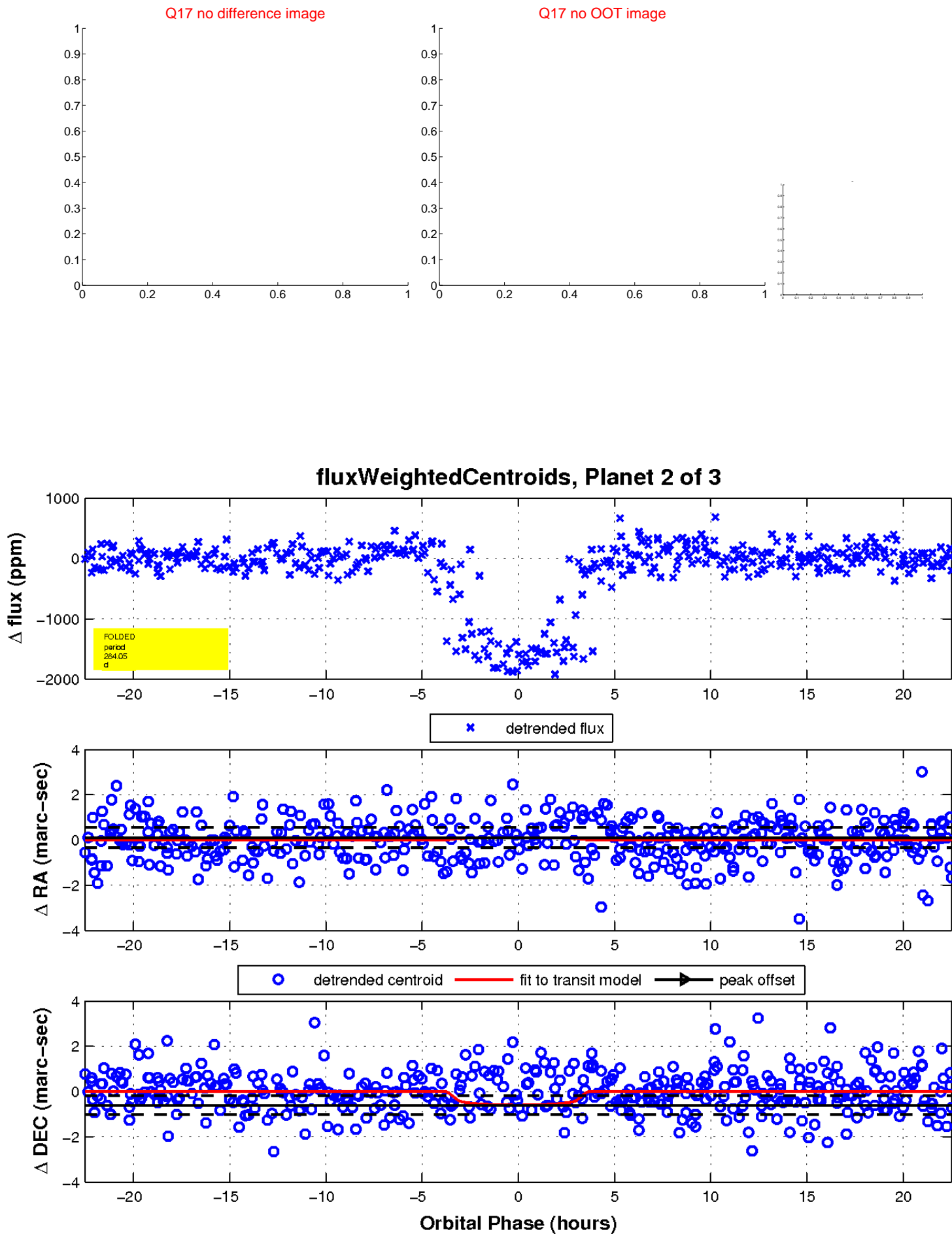
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

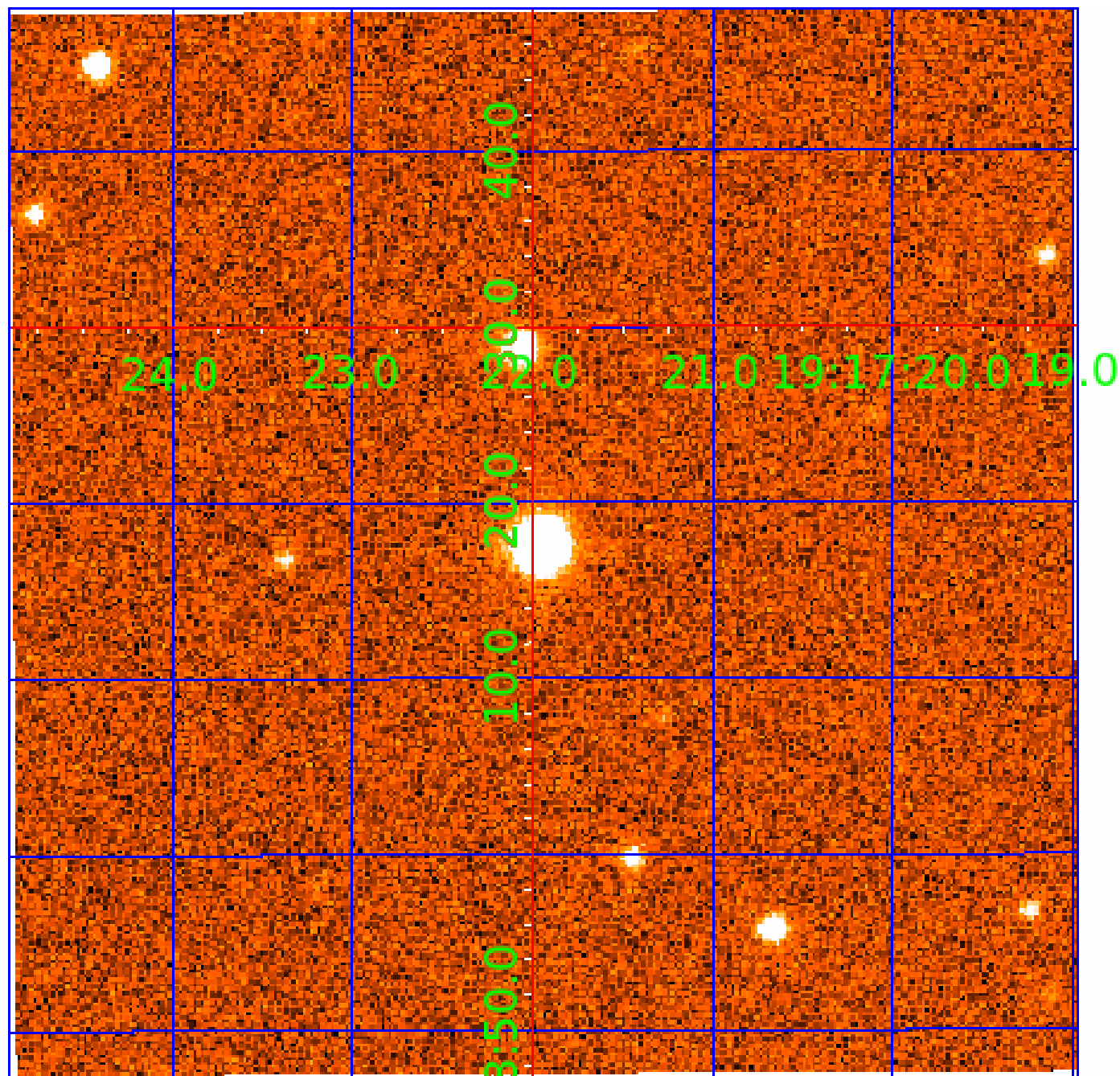


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010005758

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})
010005758-01	OBS	1783.01	134.478596	169.281156	3999.9	5.904	163.9	155.1	1.34	5791	10.43	6.83
010005758-02	OBS	1783.02	284.052664	200.847378	1654.5	7.514	58.1	54.1	1.34	5791	6.02	2.52
010005758-03	OBS	No	713.659840	148.463212	242.1	16.821	9.1	9.3	1.34	5791	2.40	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010005758-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010005758-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
010005758-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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.

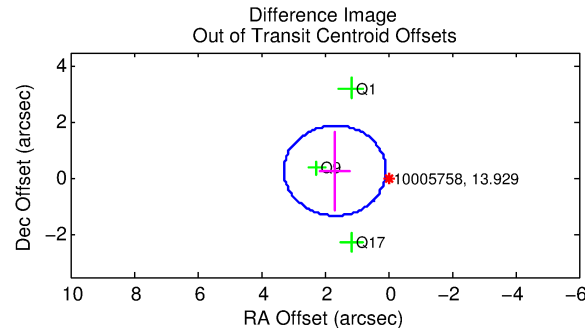
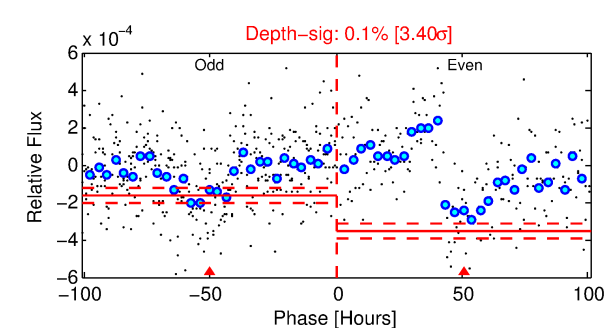
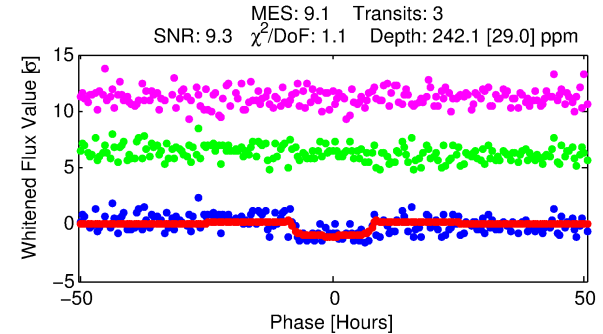
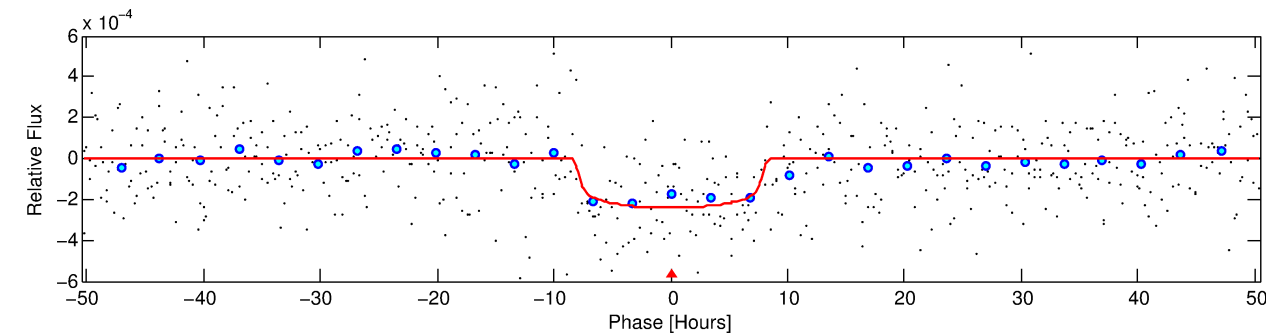
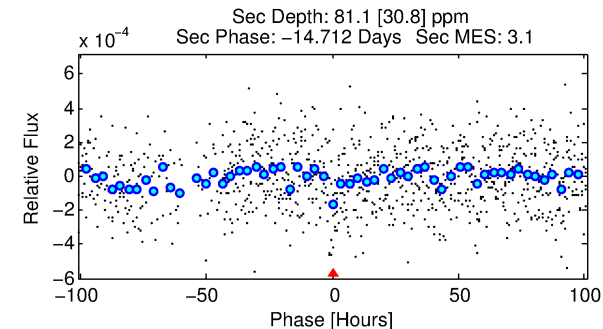
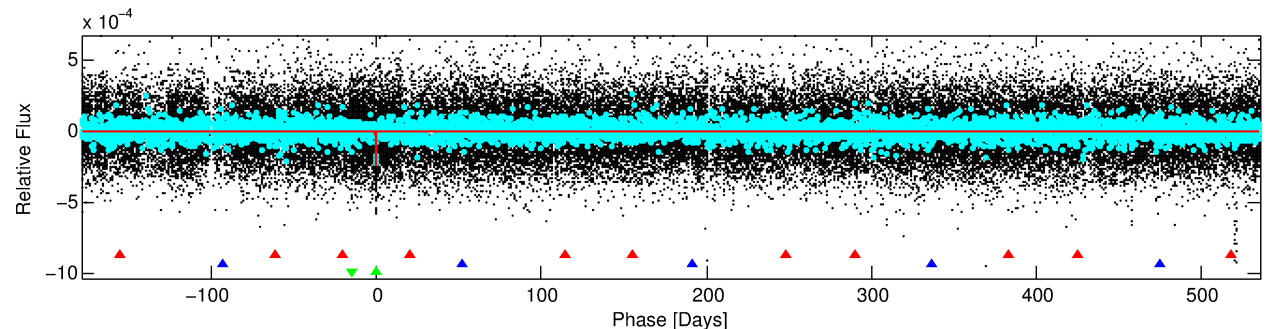
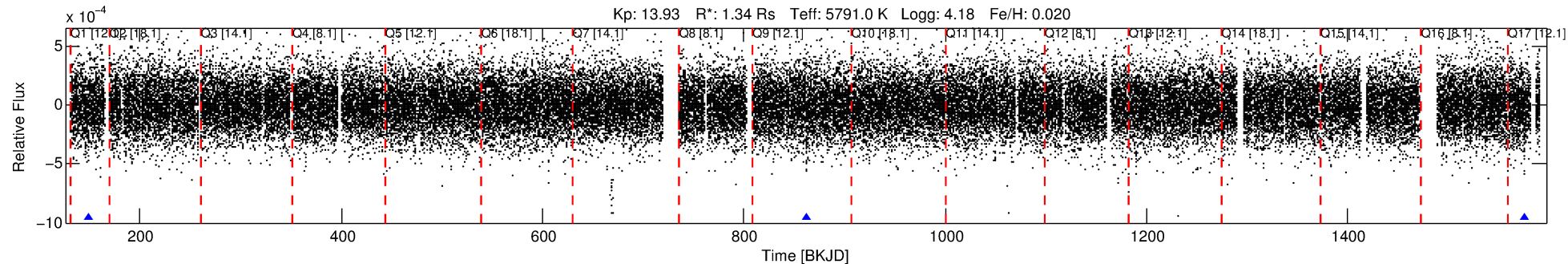
Ephemeris Match Information For 010005758-03

No Significant Match Found

DV One-Page Summary

KIC: 10005758 Candidate: 3 of 3 Period: 713.660 d
KOI: K01783 Corr: No Ephemeris Match

Kp: 13.93 R*: 1.34 Rs Teff: 5791.0 K Logg: 4.18 Fe/H: 0.020



DV Fit Results:

Period = 713.65984 [0.01744] d
Epoch = 148.4632 [0.0226] BKJD
Rp/R* = 0.0165 [0.0028]
a/R* = 171.46 [125.67]
b = 0.87 [0.21]
Seff = 0.74 [0.23]
Teq = 236 [19] K
Rp = 2.40 [0.61] Re
a = 1.5616 [0.2956] AU
Ag = 18847.24 [11193.29] [1.68σ]
Teffp = 4281 [551] K [7.34σ]

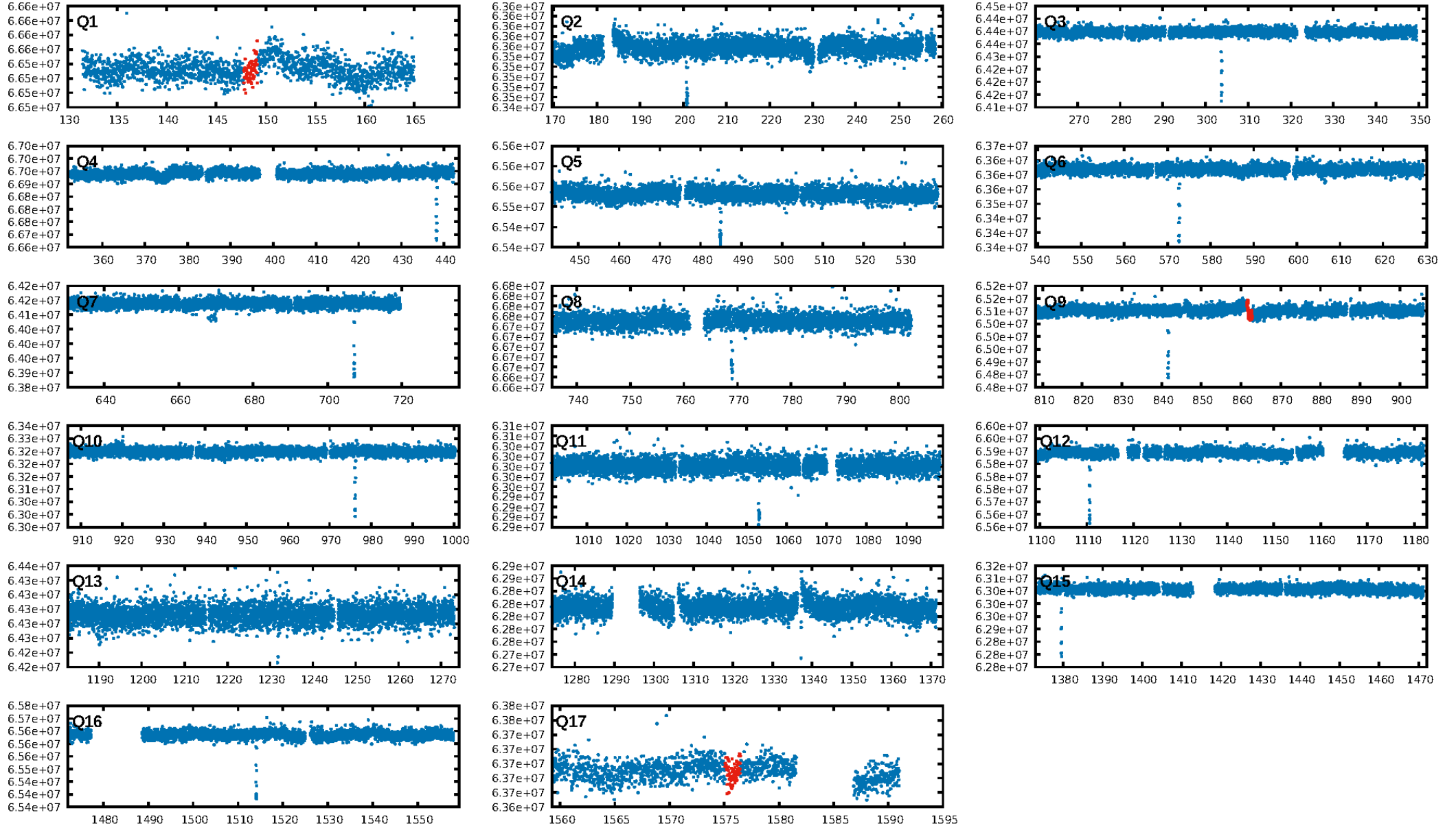
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [559.66σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.6%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 2.66e-16
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: -22.19
Centroid-sig: 64.8%
Centroid-so: 1.041 arcsec [0.73σ]
OotOffset-rm: 1.701 arcsec [3.18σ]
KicOffset-rm: 1.799 arcsec [3.68σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

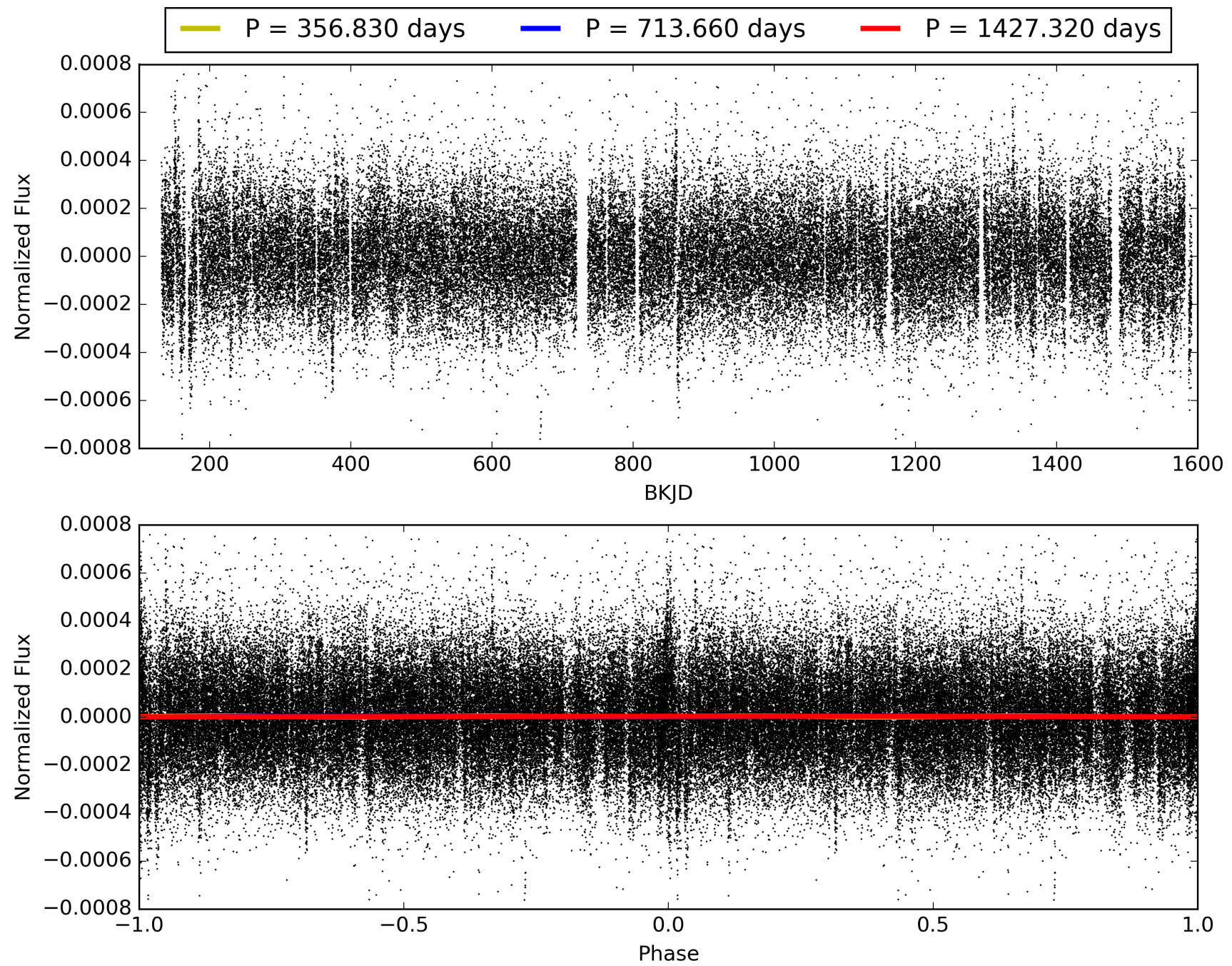
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:45:00 Z

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

TCE 010005758-03, PDC Light Curves

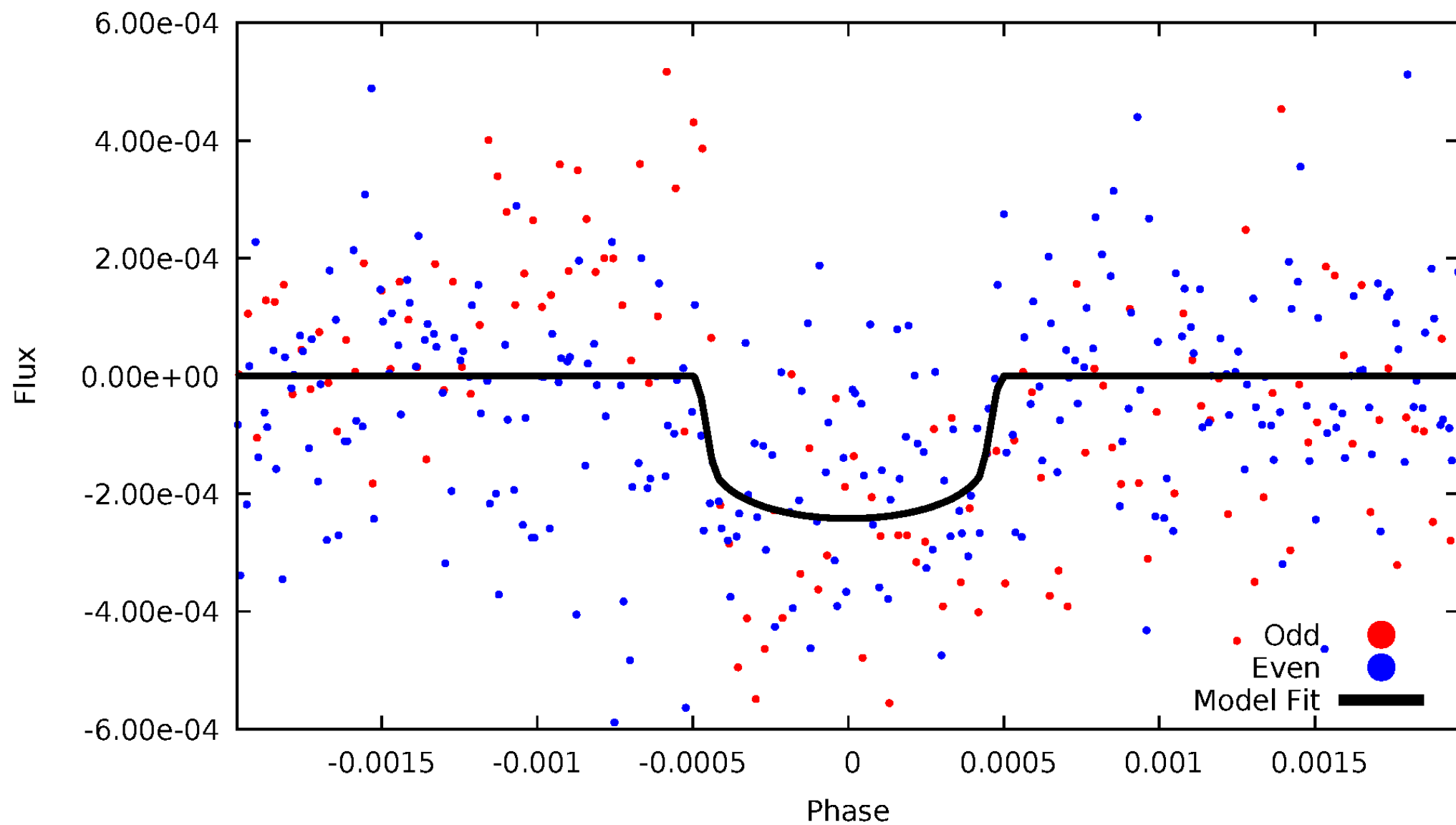


TCE 010005758-03



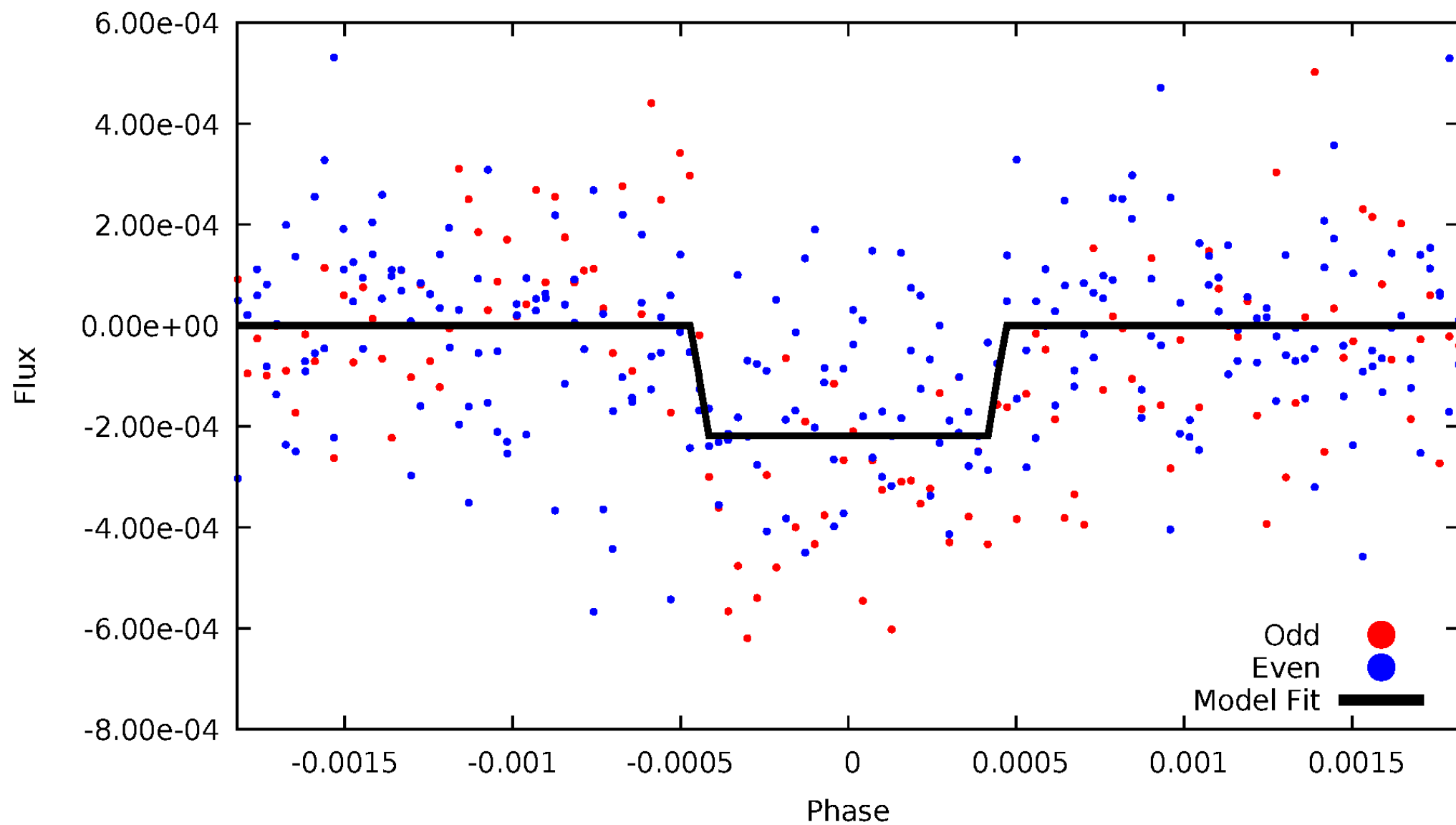
DV Odd/Even

TCE 010005758-03

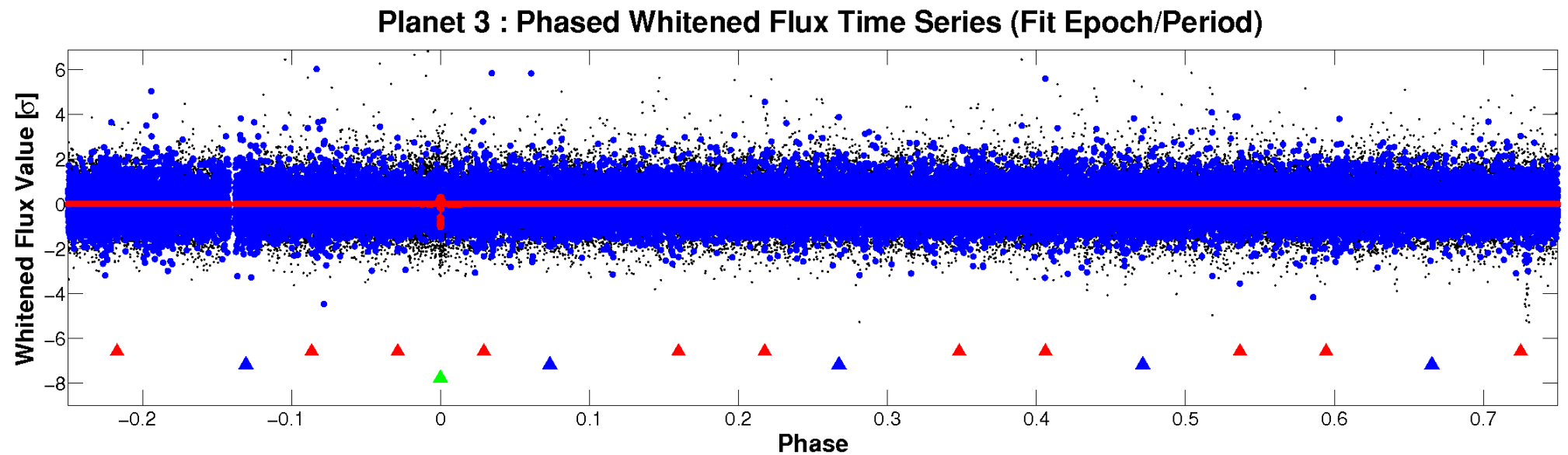
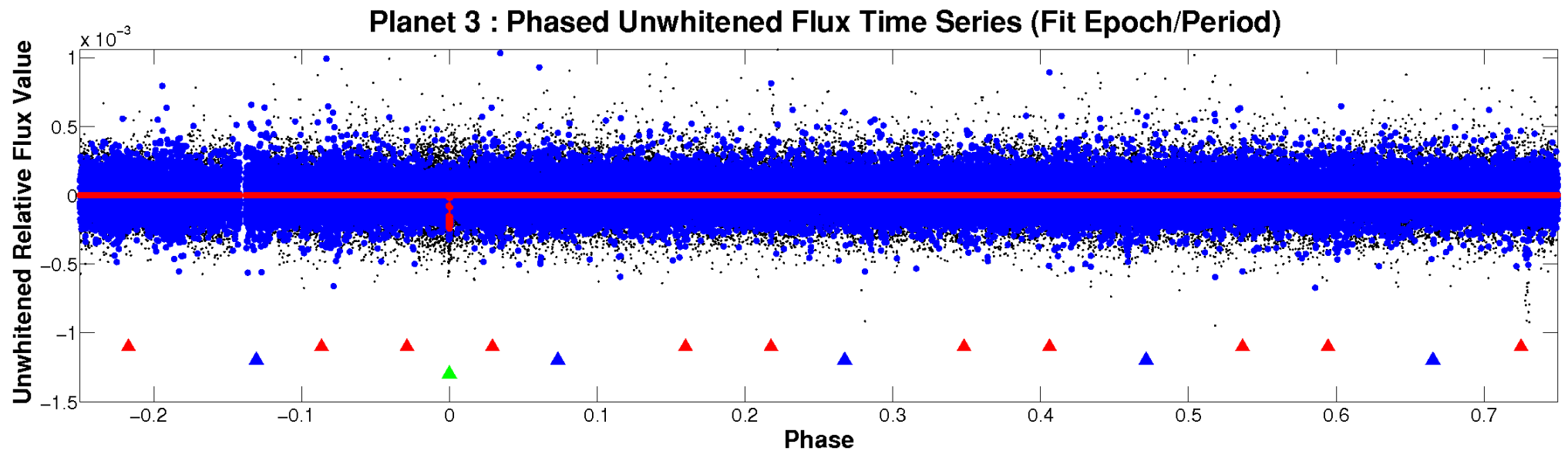


ALT Odd/Even

TCE 010005758-03

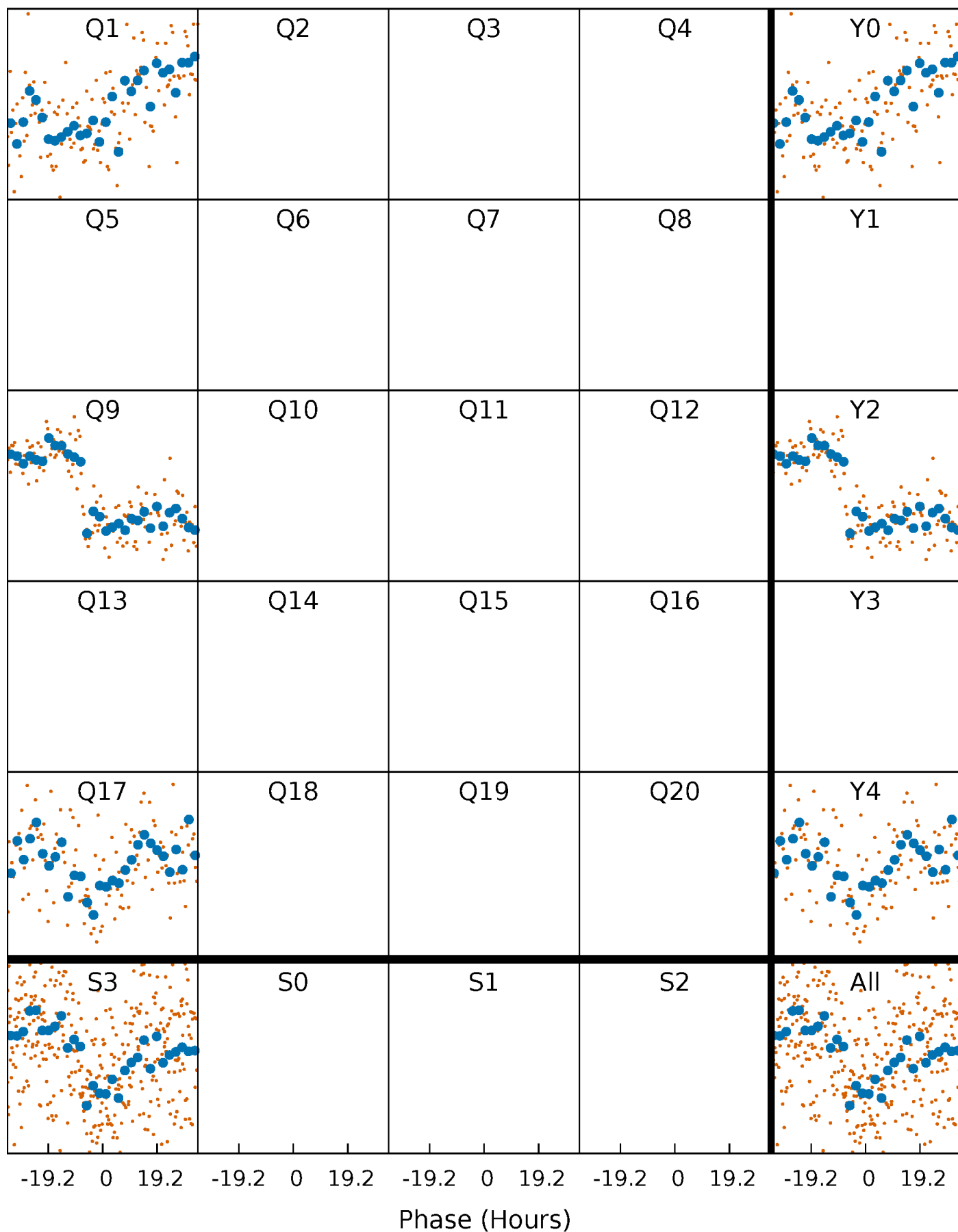


Non-Whitened Vs. Whitened Light Curve



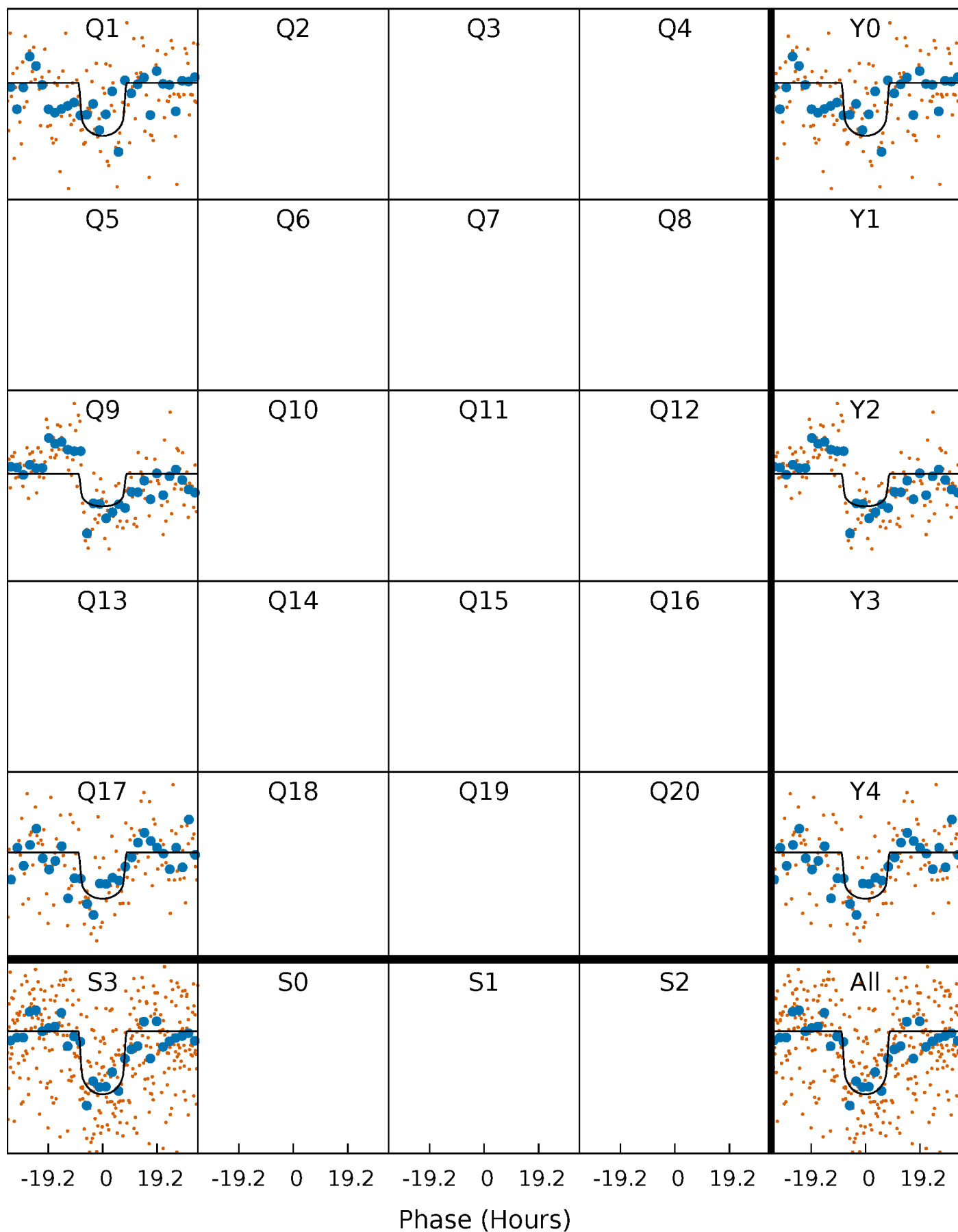
PDC Quarter-Phased Transit Curves

TCE 010005758-03 $P=713.659840$ Days $T_0=148.463212$ (BKJD)



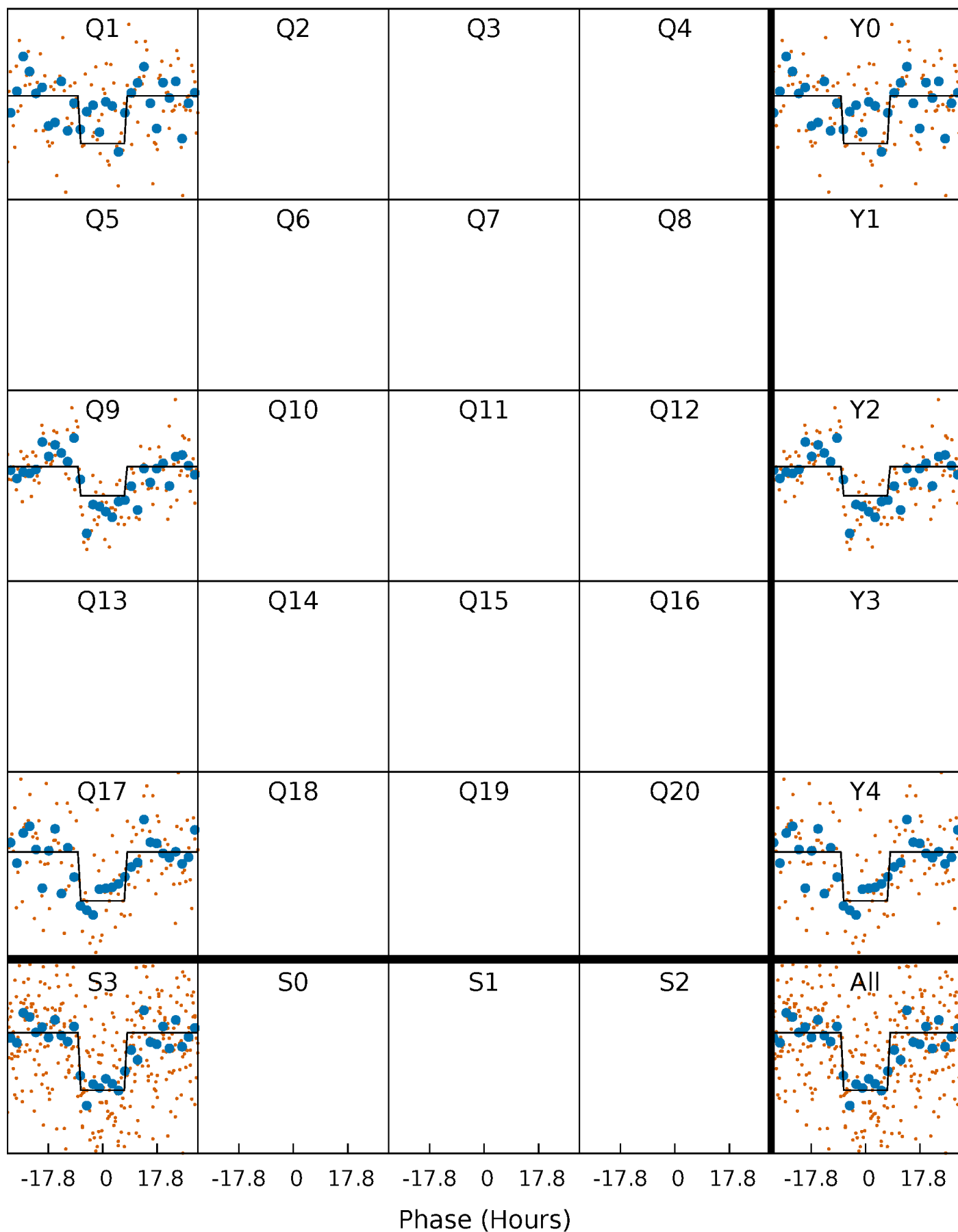
DV Quarter-Phased Transit Curves

TCE 010005758-03 $P=713.659840$ Days $T_0=148.463212$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

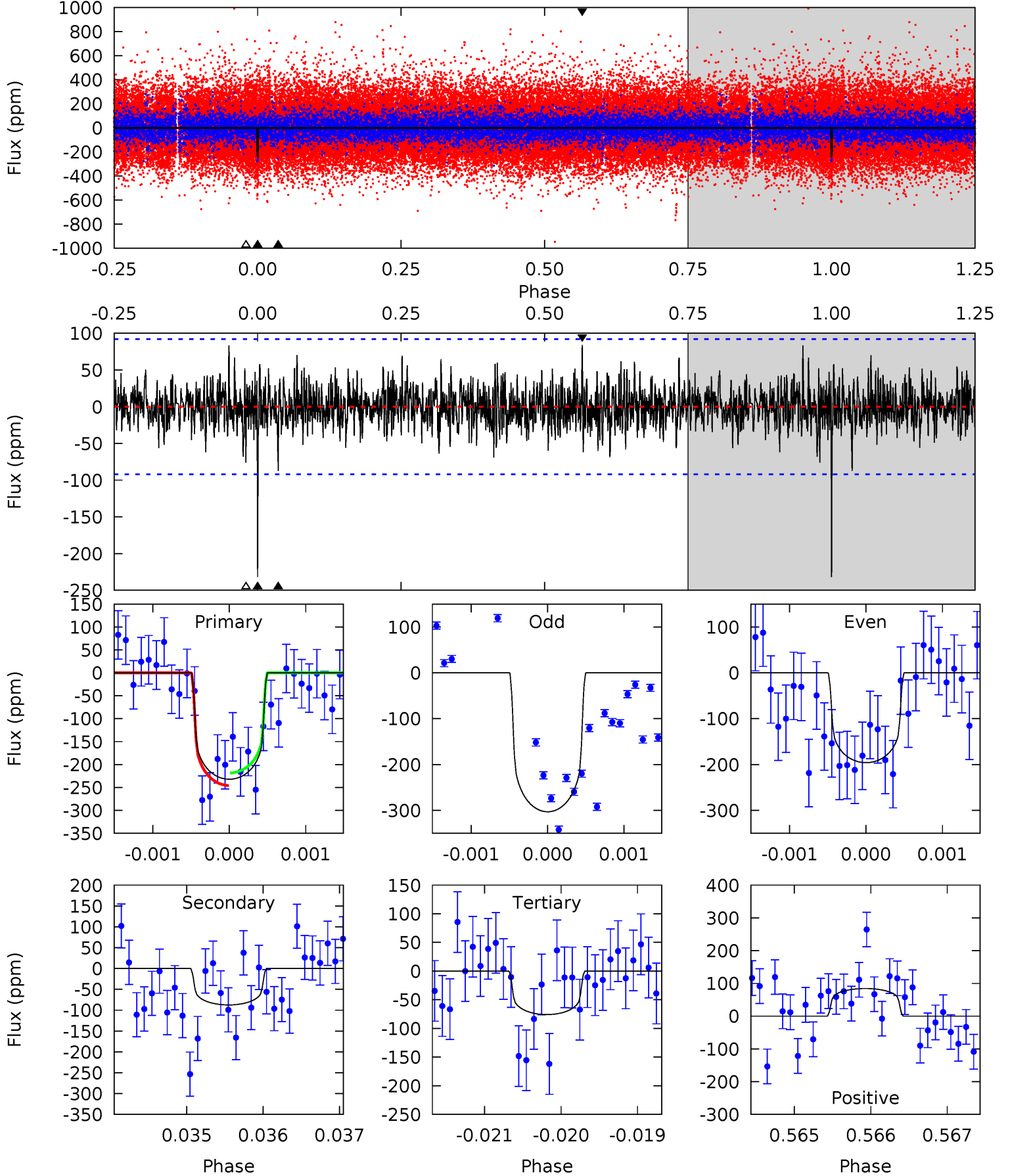
TCE 010005758-03 P=713.662517 Days $T_0=148.462668$ (BKJD)



DV Model-Shift Uniqueness Test

010005758-03, P = 713.659840 Days, E = 148.463212 Days

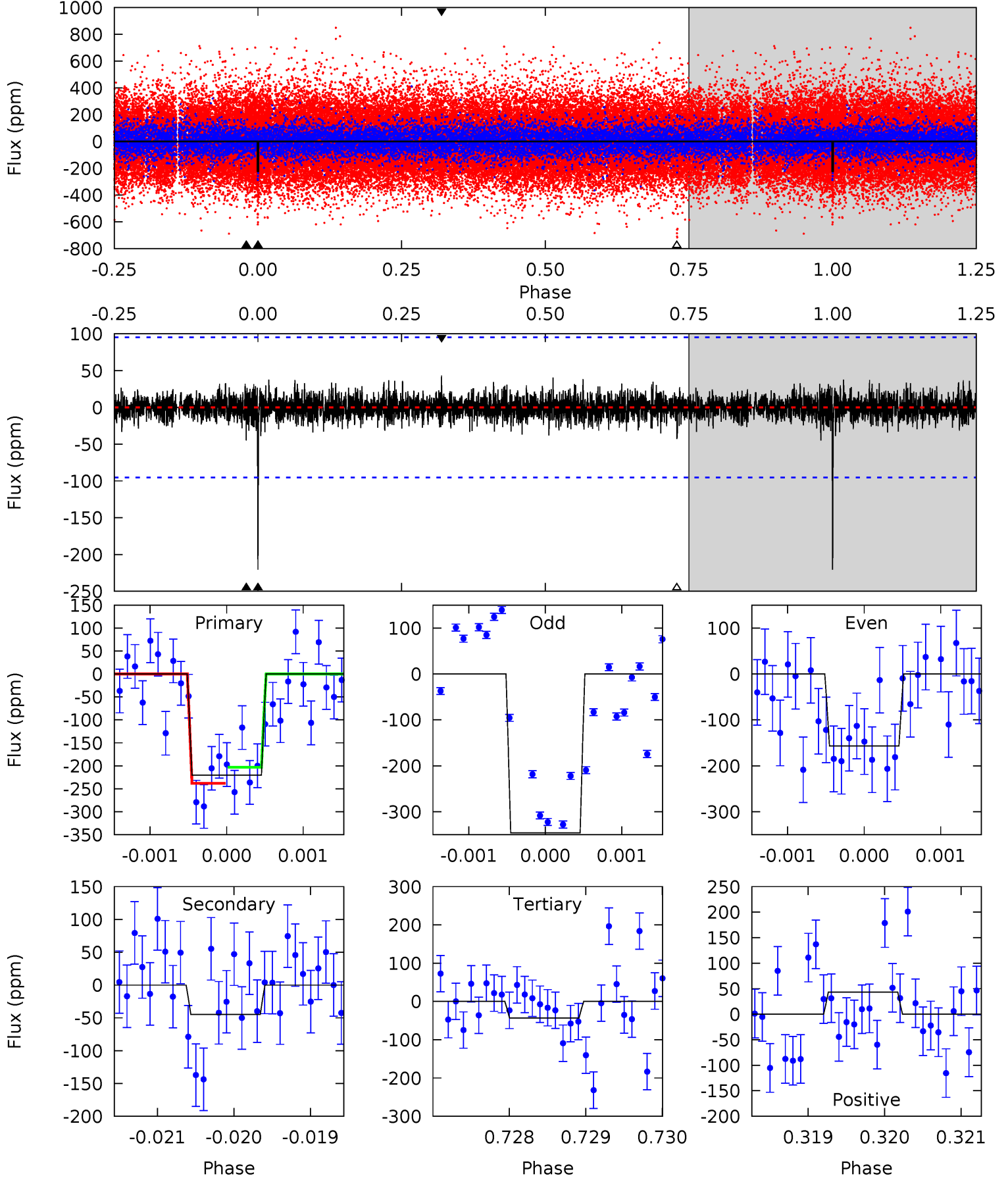
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	5.18	4.50	4.99	5.45	3.29	1.25	9.25	8.75	0.68	0.18	3.00	1.06	0.27	0.81



Alt Model-Shift Uniqueness Test

010005758-03, P = 713.662517 Days, E = 148.462668 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	2.57	2.47	2.49	5.47	3.32	0.61	10.2	10.2	0.10	0.09	5.17	1.08	0.16	0.99



Stellar Parameters For KIC 010005758

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5791^{+117}_{-105}	$4.185^{+0.182}_{-0.098}$	$0.020^{+0.150}_{-0.150}$	$1.336^{+0.209}_{-0.256}$	$0.996^{+0.093}_{-0.070}$	$0.588^{+0.488}_{-0.197}$
	+2%/-2%	+4%/-2%	+750%/-750%	+16%/-19%	+9%/-7%	+83%/-33%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010005758-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-87 ± 17	$2.36^{+0.49}_{-0.45}$	329^{+15}_{-18}	4526^{+403}_{-321}	20736^{+12645}_{-7139}
Alt.	-45 ± 17	$2.10^{+0.47}_{-0.44}$	328^{+15}_{-19}	4140^{+497}_{-400}	13057^{+11039}_{-5960}

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 $A_{obs} \gg 1.0$

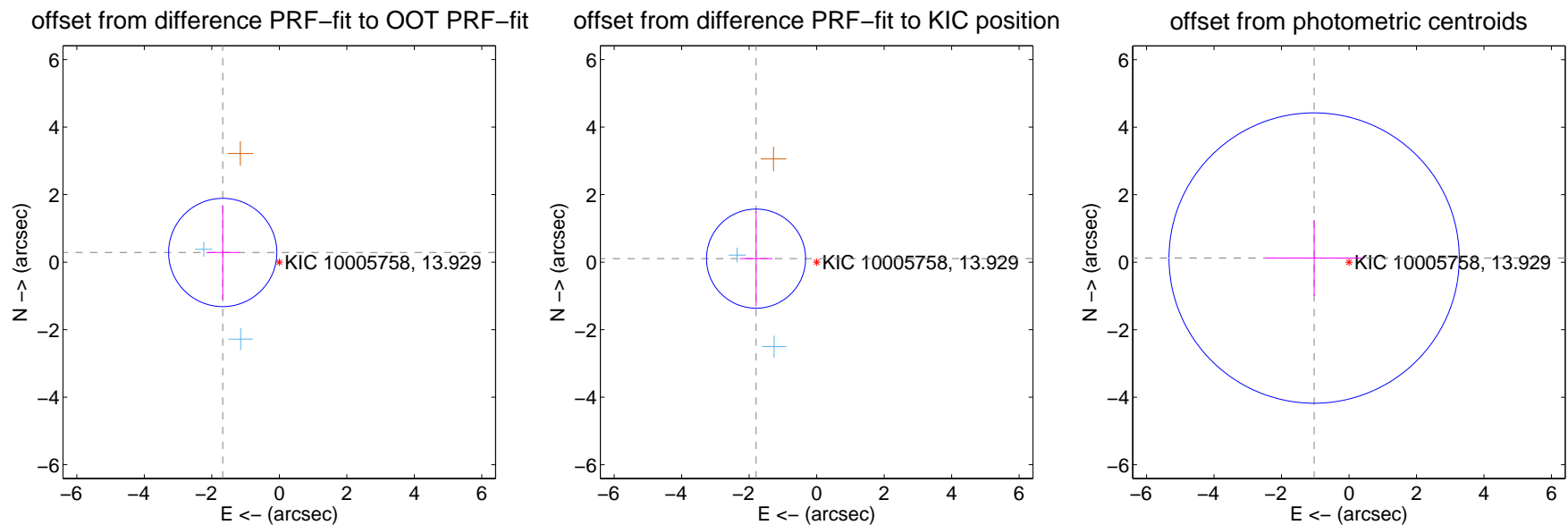
DV Centroid Data

Supplemental centroid analysis for 010005758-03. Kepler magnitude: 13.93. Transit SNR 9.33

There are 2 quarters with good PRF difference image offsets

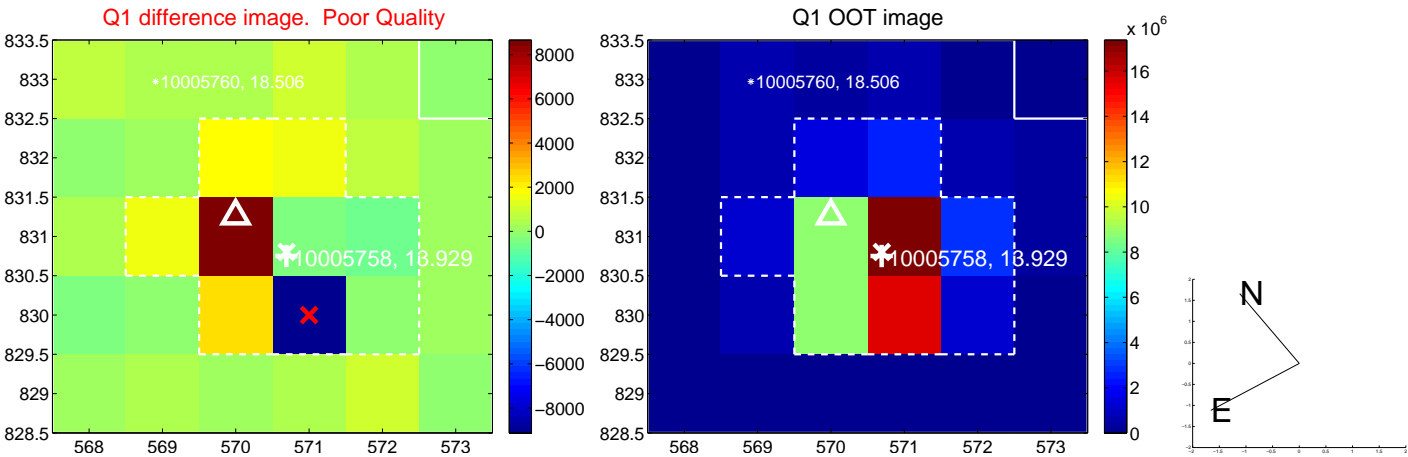
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.701 ± 0.534	3.18	1.677 ± 0.487	0.286 ± 1.399
PRF-fit source offset from KIC position	1.799 ± 0.489	3.68	1.796 ± 0.483	0.104 ± 1.416
photometric centroid source offset	1.04 ± 1.43	0.73	1.03 ± 1.44	0.12 ± 1.13



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.

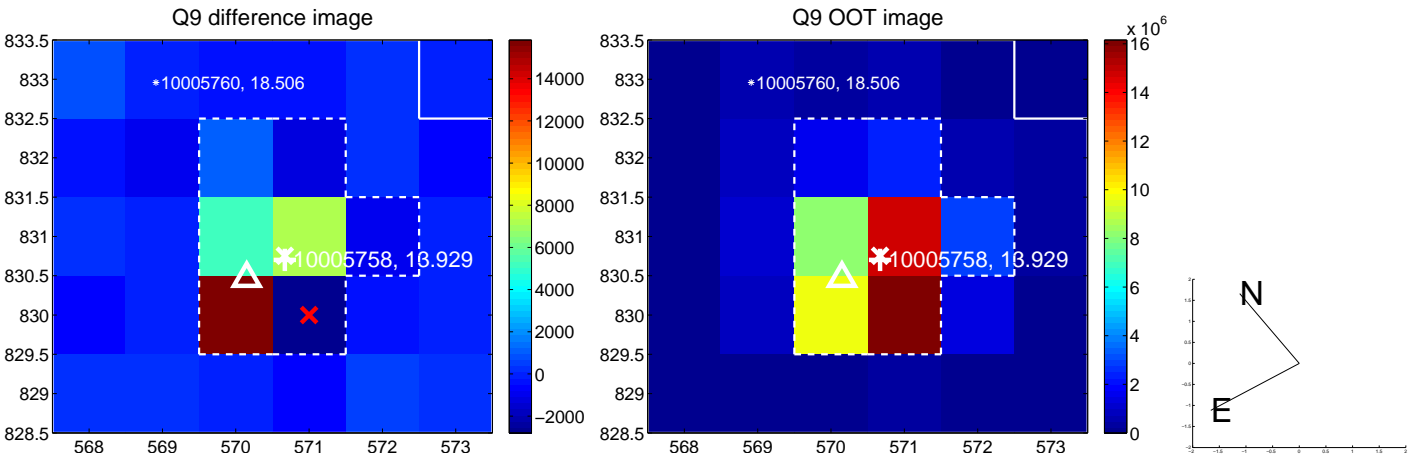
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



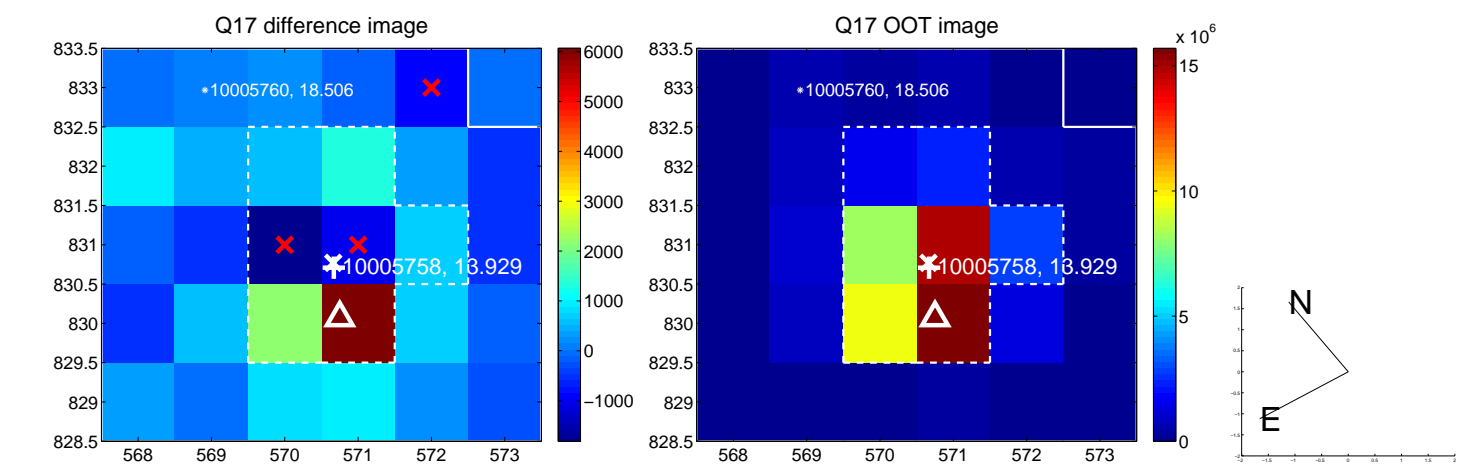
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



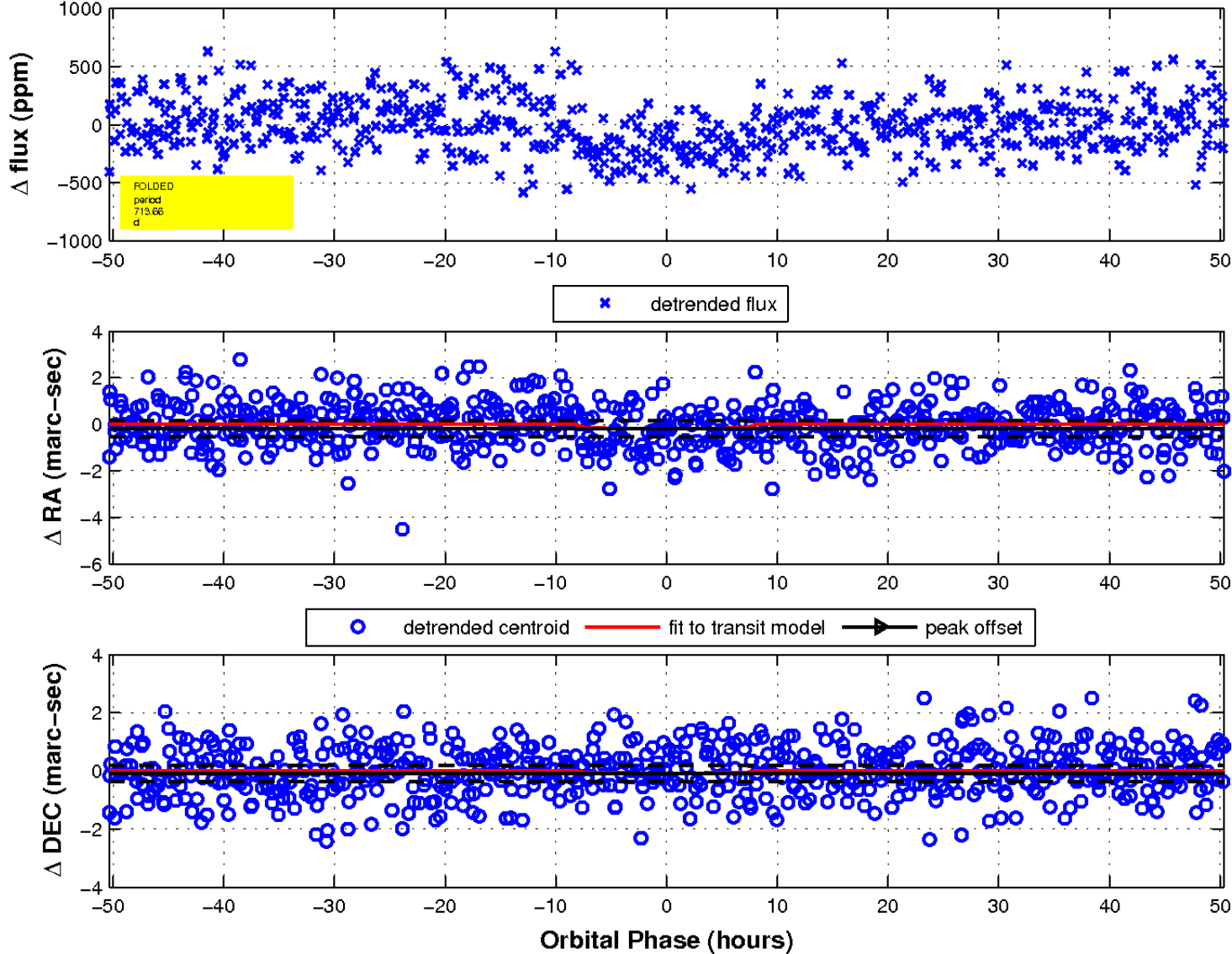
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

