

KIC 010273000

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})
010273000-01	OBS	No	340.721976	203.547930	307.9	7.336	9.0	5.6	0.87	5845	1.60	1.03
010273000-02	OBS	No	649.414423	276.904668	535.5	17.919	10.7	6.8	0.87	5845	2.30	0.44
010273000-03	OBS	No	562.885298	224.801027	565.7	15.545	14.0	6.9	0.87	5845	2.31	0.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010273000-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_MEAS
010273000-02	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_UNCERTAIN
010273000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

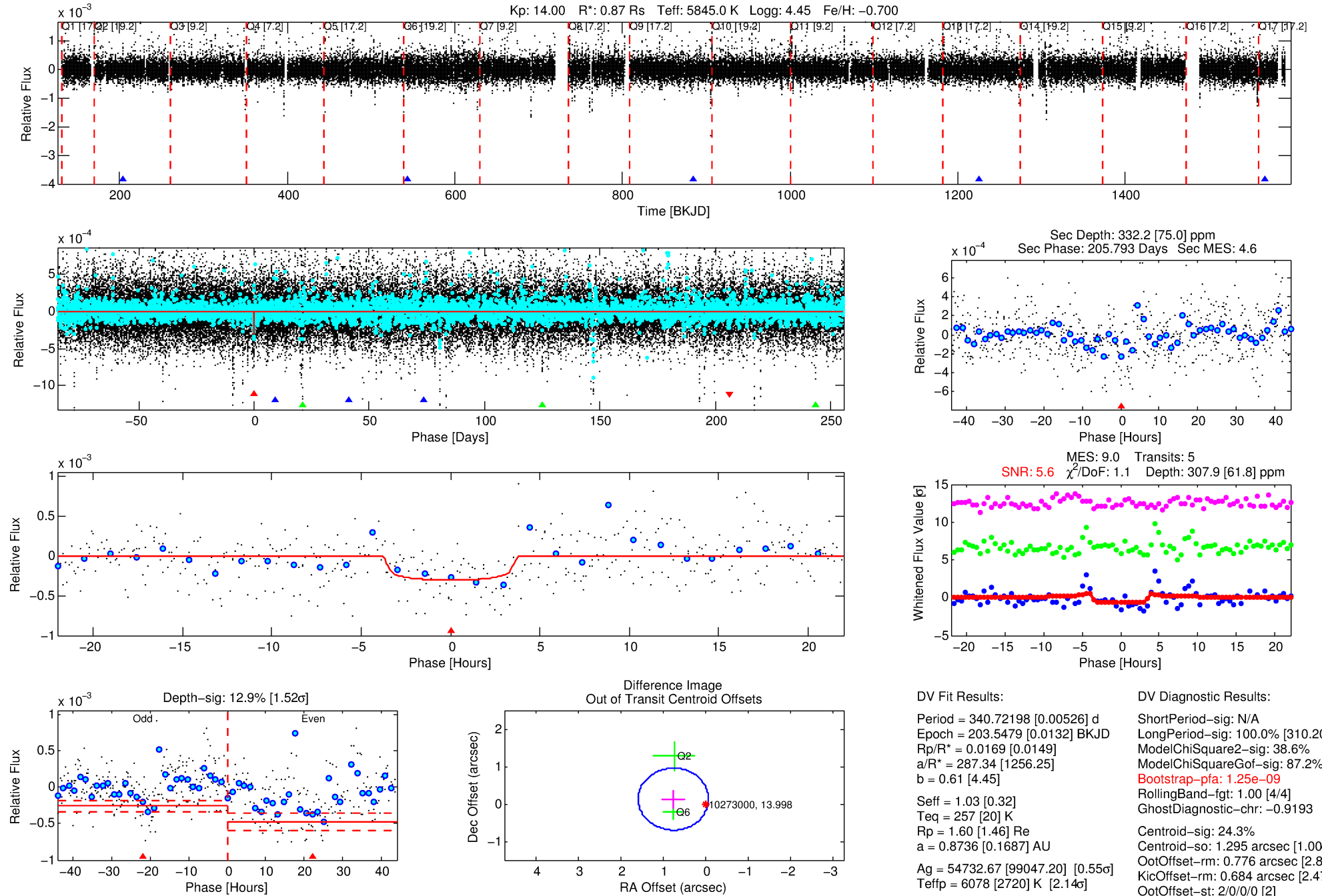
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010273000-01

No Significant Match Found

DV One-Page Summary

KIC: 10273000 Candidate: 1 of 3 Period: 340.722 d



DV Fit Results:

Period = 340.72198 [0.00526] d
Epoch = 203.5479 [0.0132] BKJD
Rp/R* = 0.0169 [0.0149]
a/R* = 287.34 [1256.25]
b = 0.61 [4.45]
Seff = 1.03 [0.32]
Teq = 257 [20] K
Rp = 1.60 [1.46] Re
a = 0.8736 [0.1687] AU
Ag = 54732.67 [99047.20] [0.55 σ]
Teffp = 6078 [2720] K [2.14 σ]

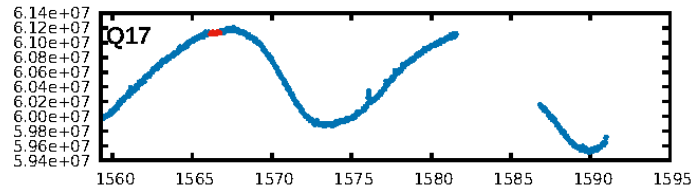
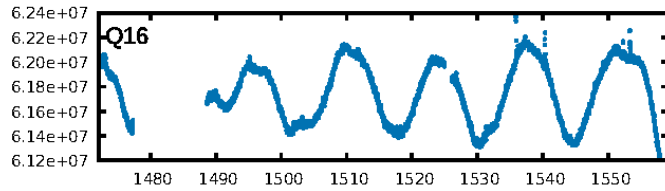
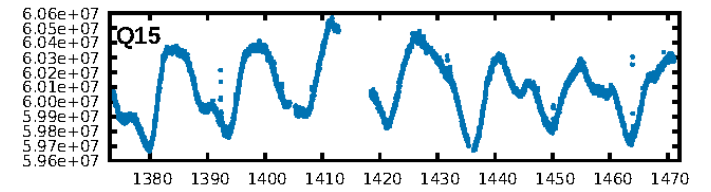
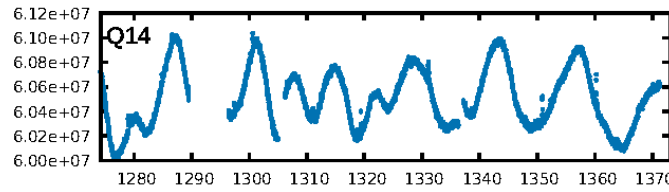
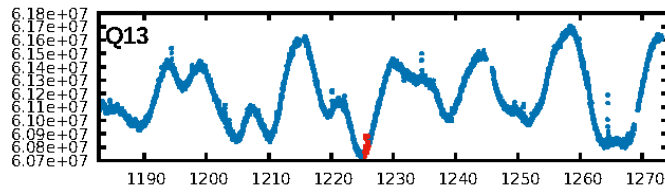
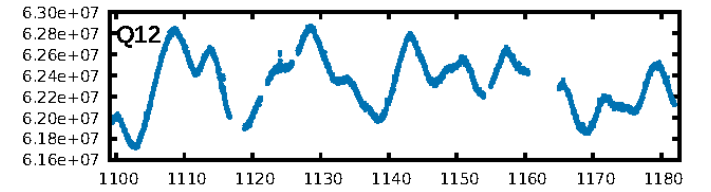
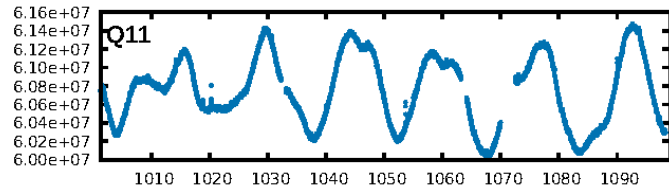
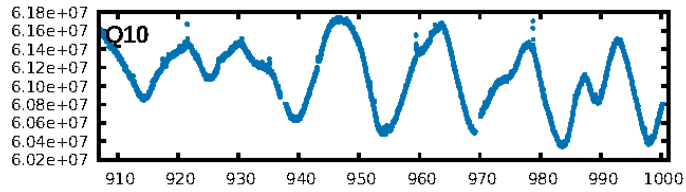
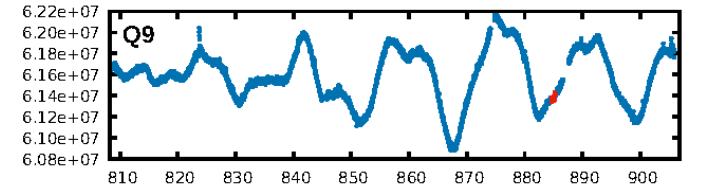
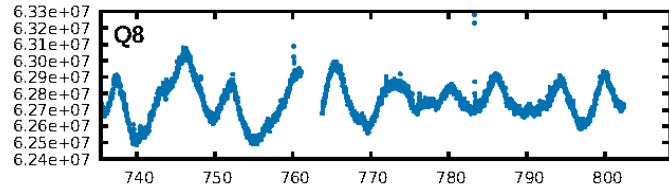
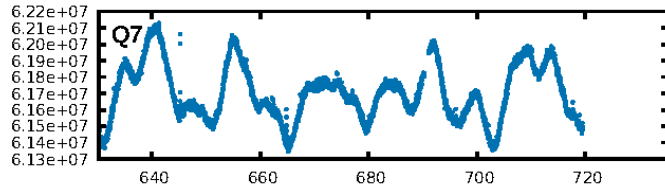
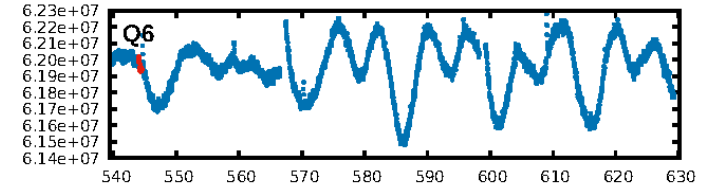
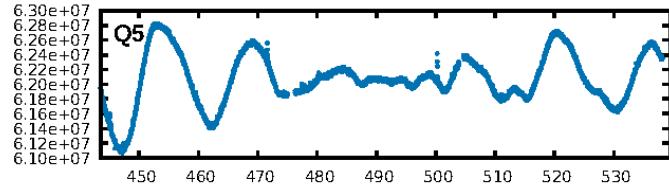
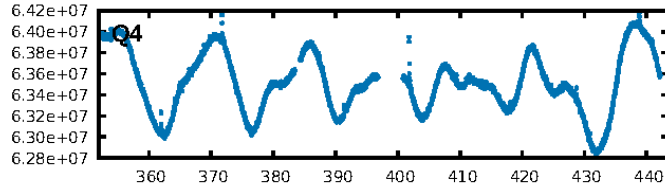
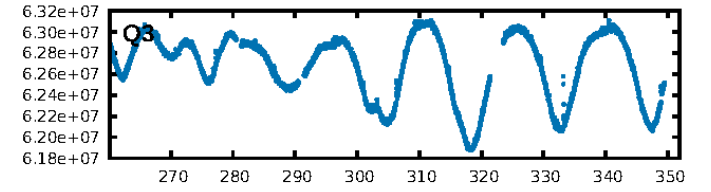
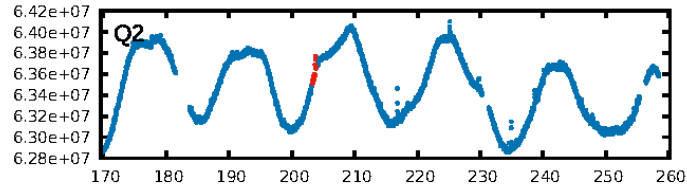
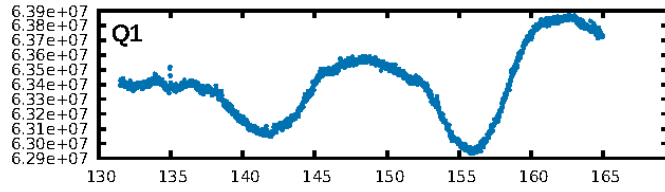
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [310.20 σ]
ModelChiSquare2-sig: 38.6%
ModelChiSquareGof-sig: 87.2%
Bootstrap-pfa: 1.25e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.9193
Centroid-sig: 24.3%
Centroid-so: 1.295 arcsec [1.00 σ]
OotOffset-rm: 0.776 arcsec [2.81 σ]
KicOffset-rm: 0.684 arcsec [2.47 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [5/5]

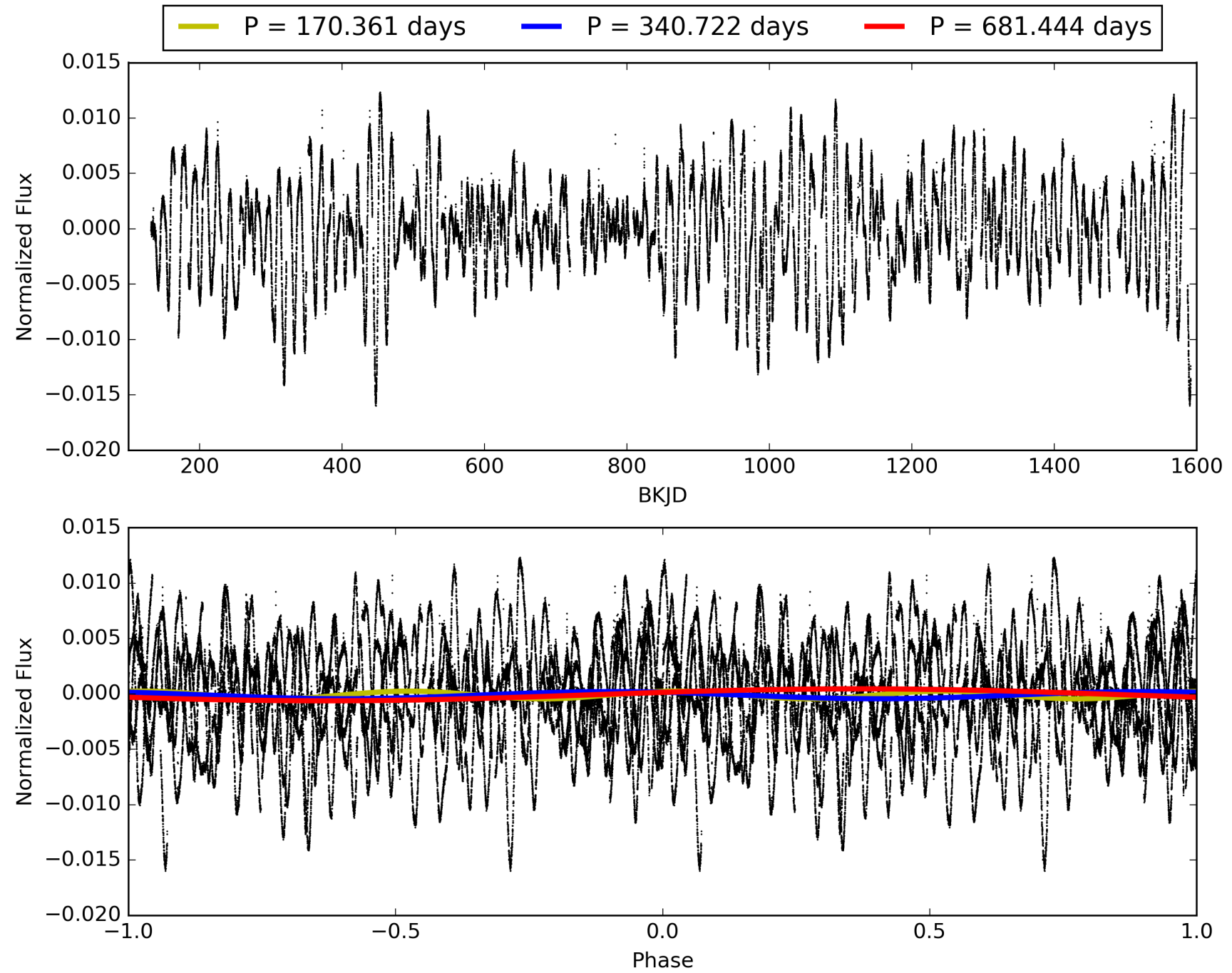
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:03:58 Z

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

TCE 010273000-01, PDC Light Curves

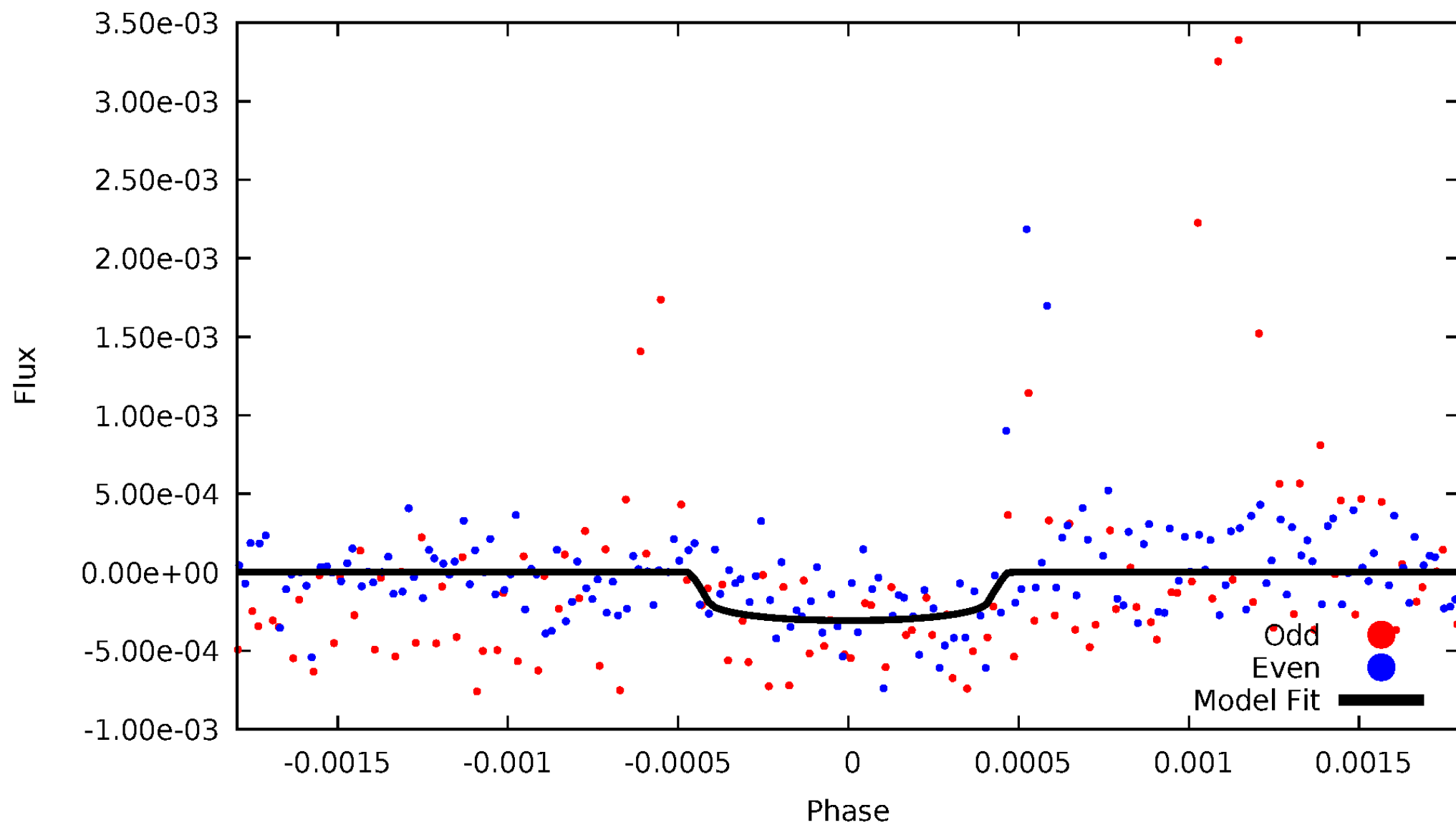


TCE 010273000-01



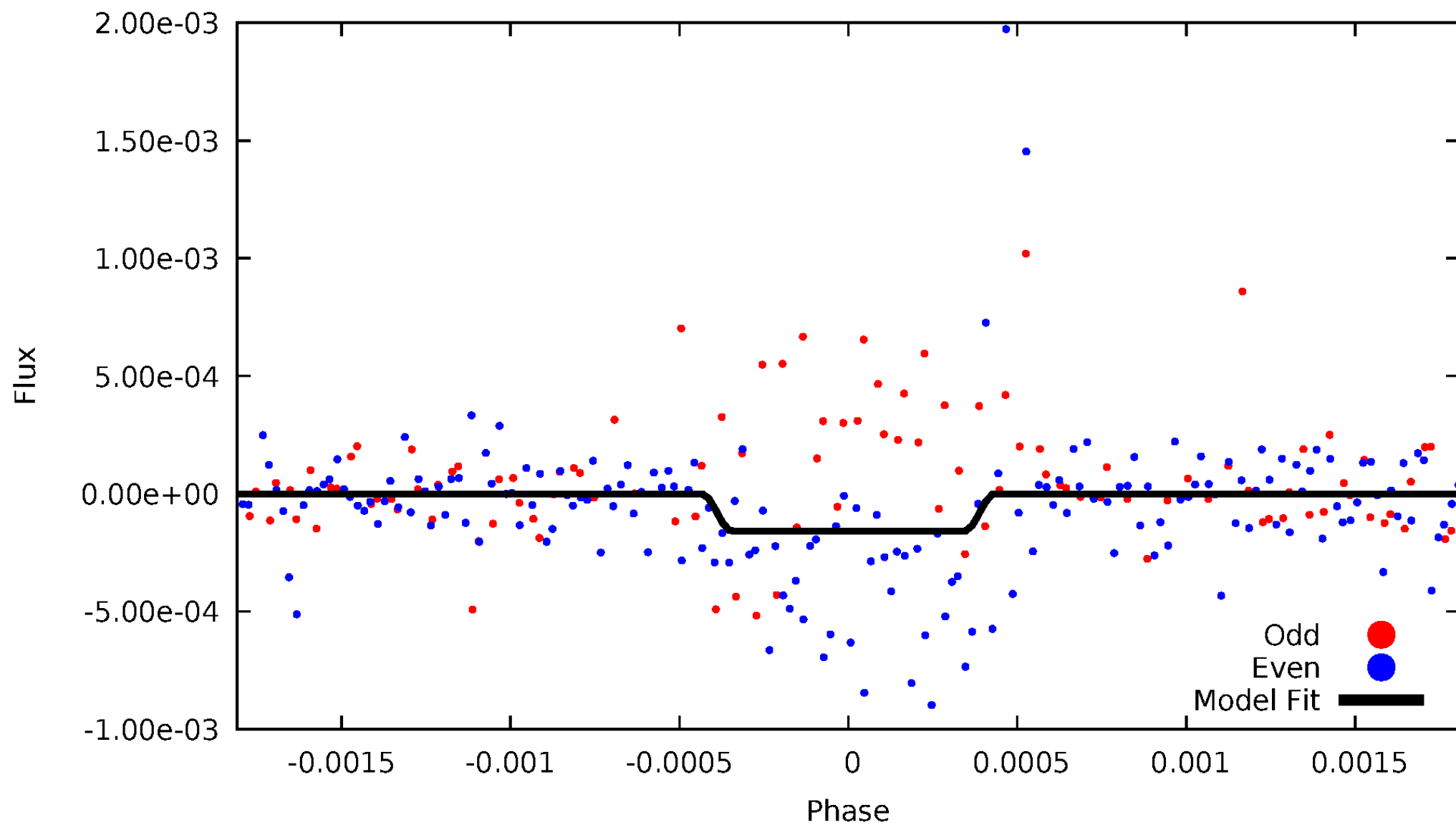
DV Odd/Even

TCE 010273000-01



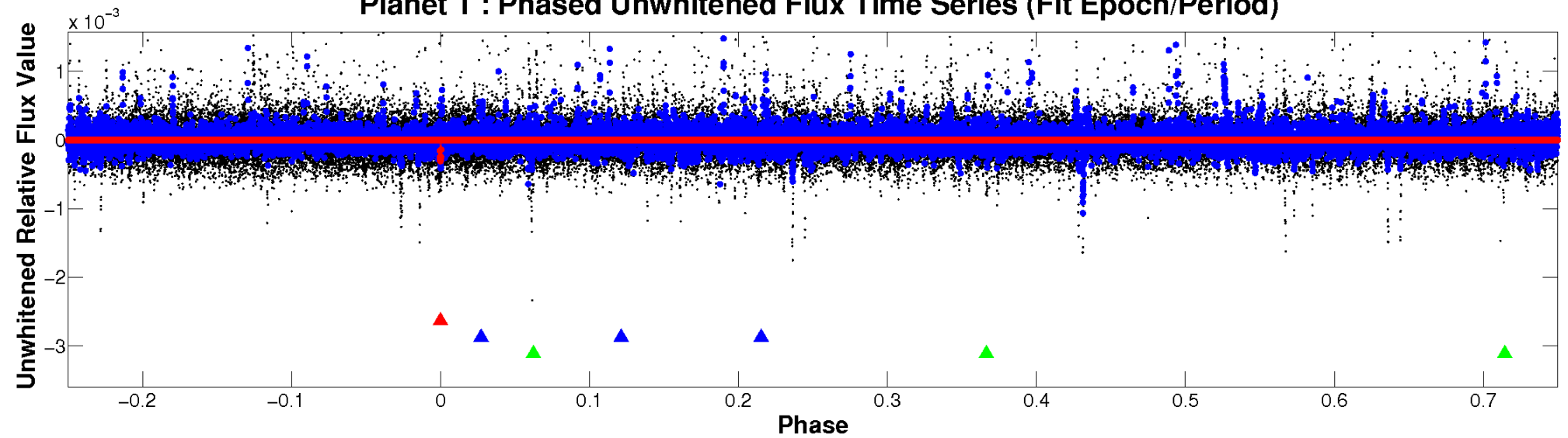
ALT Odd/Even

TCE 010273000-01

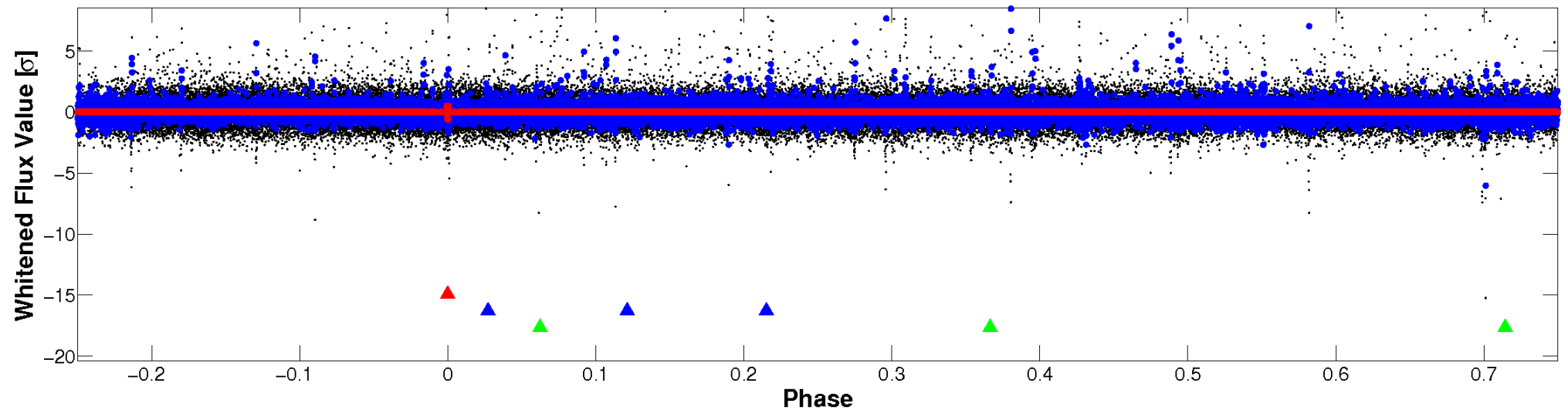


Non-Whitened Vs. Whitened Light Curve

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

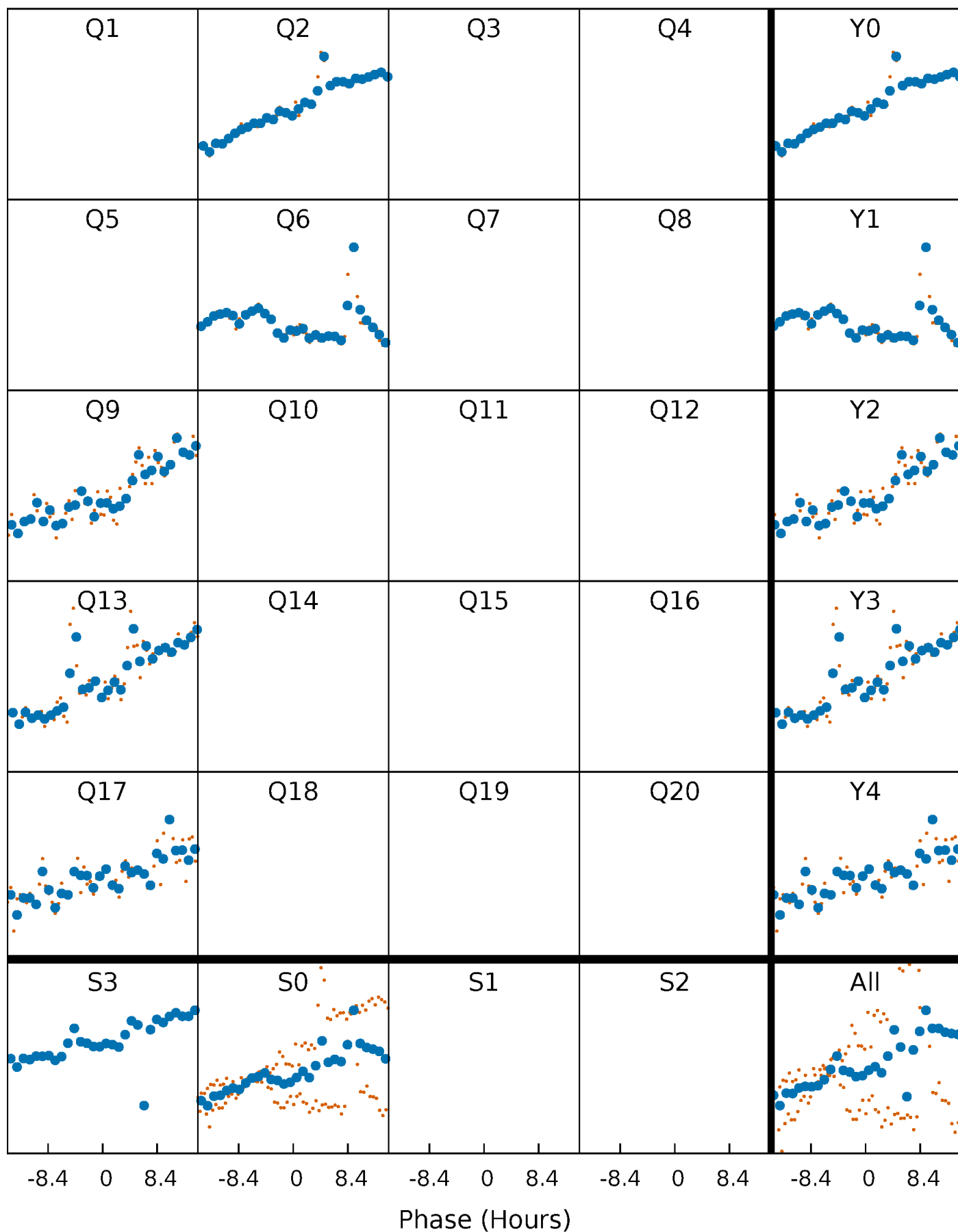


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



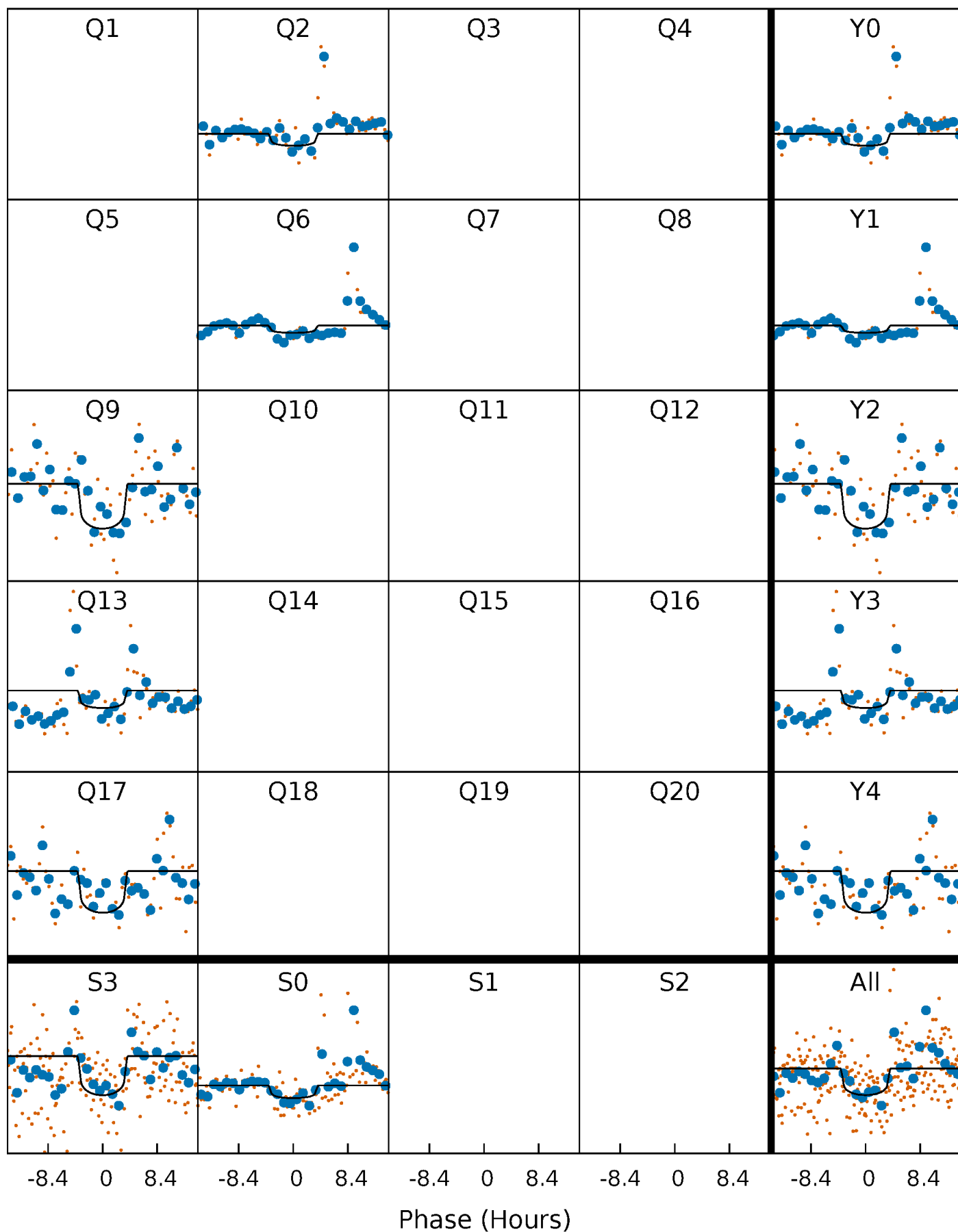
PDC Quarter-Phased Transit Curves

TCE 010273000-01 P=340.721976 Days $T_0=203.547930$ (BKJD)



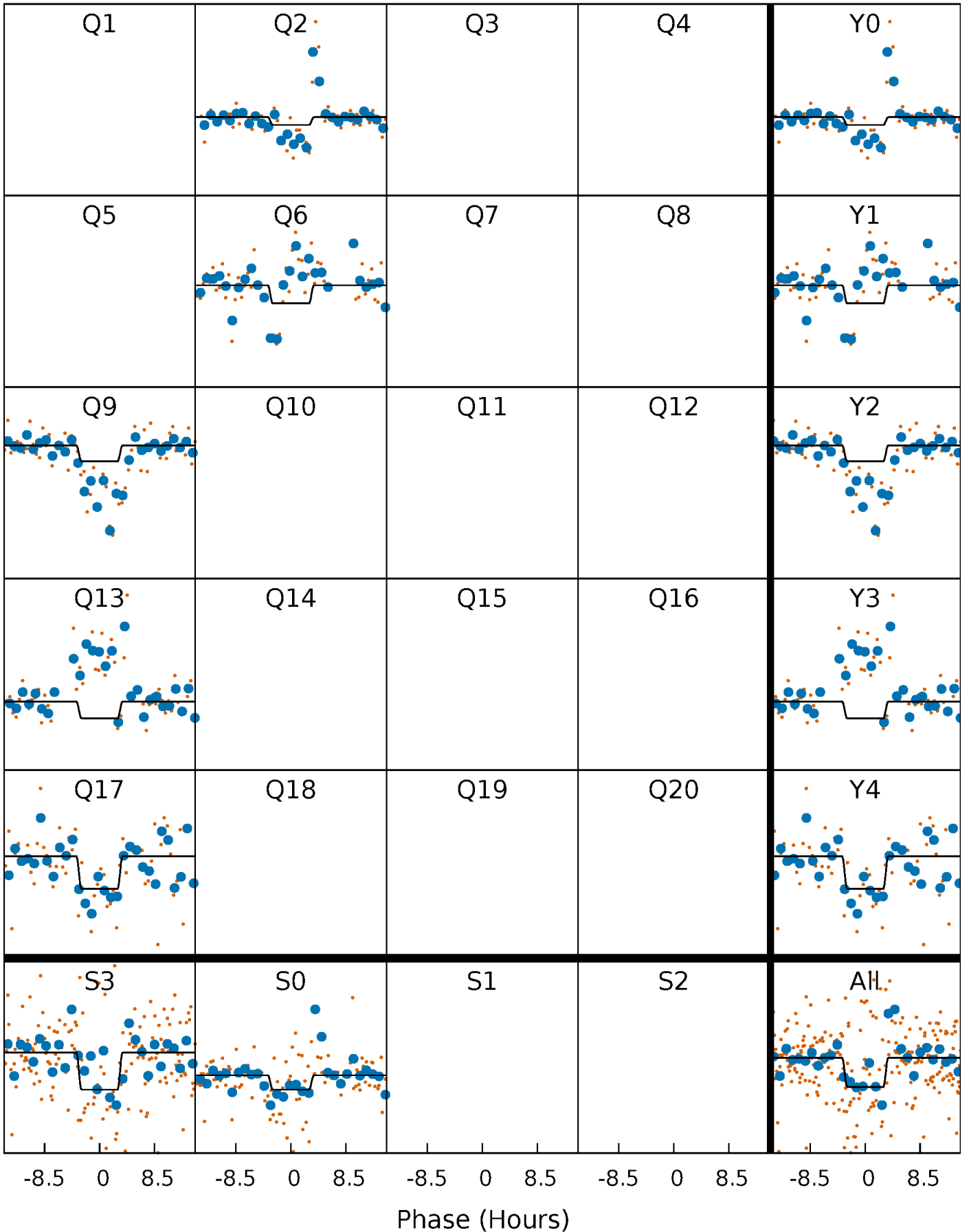
DV Quarter-Phased Transit Curves

TCE 010273000-01 $P=340.721976$ Days $T_0=203.547930$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

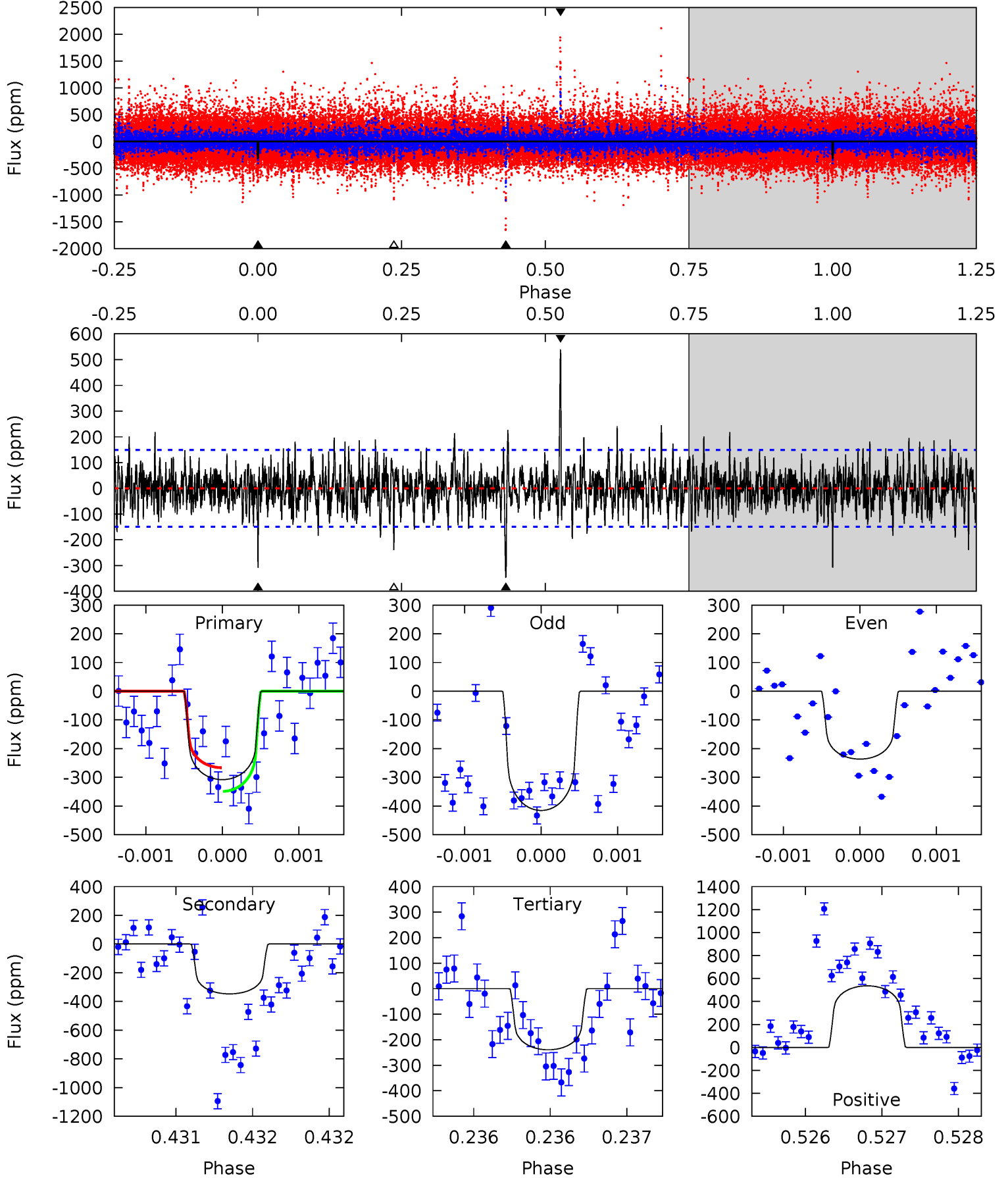
TCE 010273000-01 $P=340.715991$ Days $T_0=203.567192$ (BKJD)



DV Model-Shift Uniqueness Test

010273000-01, P = 340.721976 Days, E = 203.547930 Days

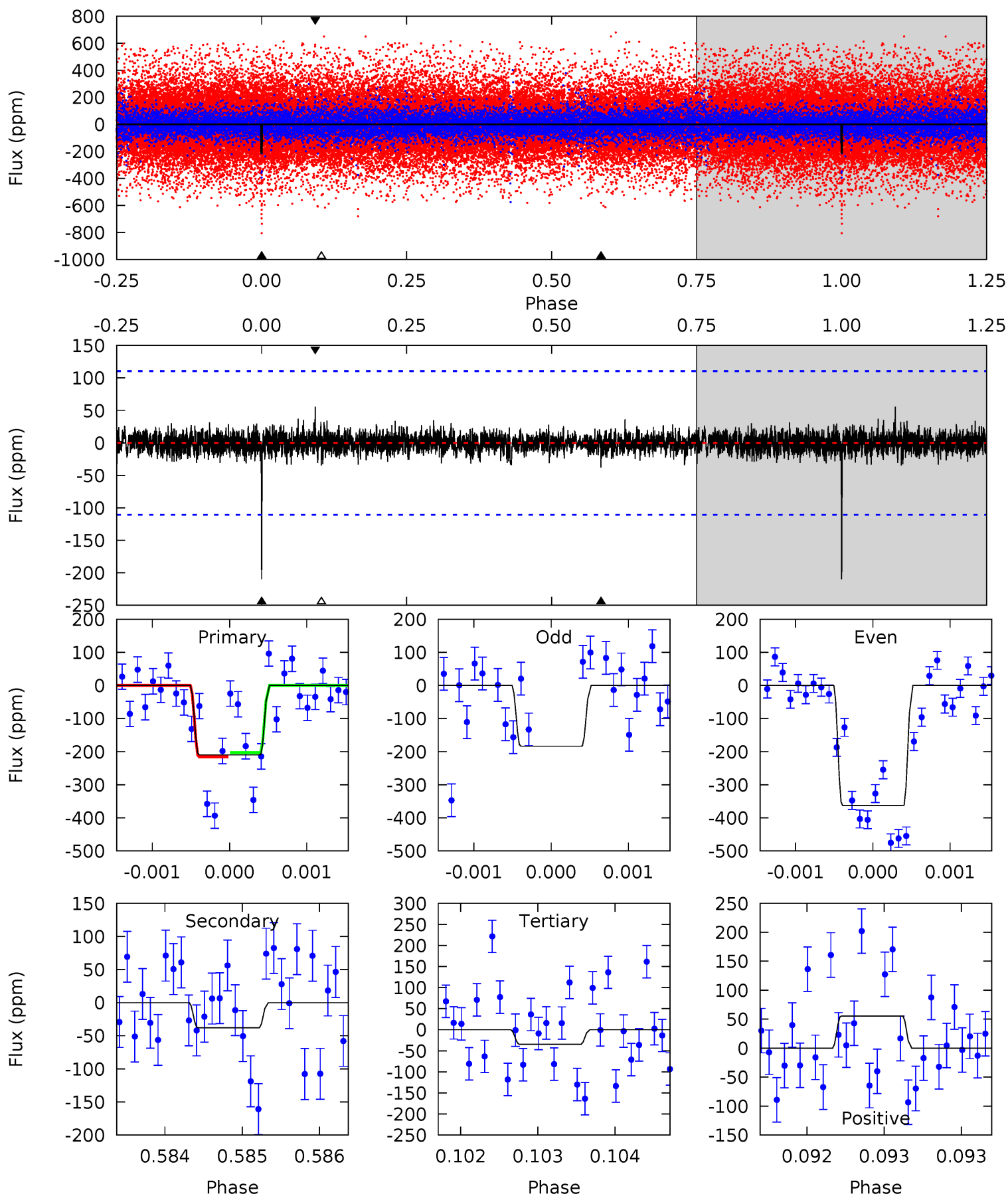
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	12.7	8.77	19.6	5.46	3.31	2.26	2.52	-8.36	3.95	-6.93	3.01	1.21	0.61	1.52



Alt Model-Shift Uniqueness Test

010273000-01, P = 340.715991 Days, E = 203.567192 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	1.88	1.71	2.75	5.48	3.33	0.46	8.69	7.65	0.17	-0.87	4.64	0.72	0.21	0.32



Stellar Parameters For KIC 010273000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5845^{+159}_{-159}	$4.445^{+0.131}_{-0.160}$	$-0.700^{+0.300}_{-0.300}$	$0.868^{+0.194}_{-0.129}$	$0.765^{+0.103}_{-0.039}$	$1.649^{+1.011}_{-0.731}$
	+3%/-3%	+3%/-4%	+43%/-43%	+22%/-15%	+13%/-5%	+61%/-44%
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 010273000-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-347 ± 27	$1.81^{+1.43}_{-1.07}$	360^{+21}_{-18}	5805^{+4232}_{-1248}	$44375^{+222015}_{-30399}$
Alt.	-38 ± 20	$1.59^{+1.18}_{-1.02}$	361^{+23}_{-20}	3852^{+2185}_{-789}	5855^{+45987}_{-4503}

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

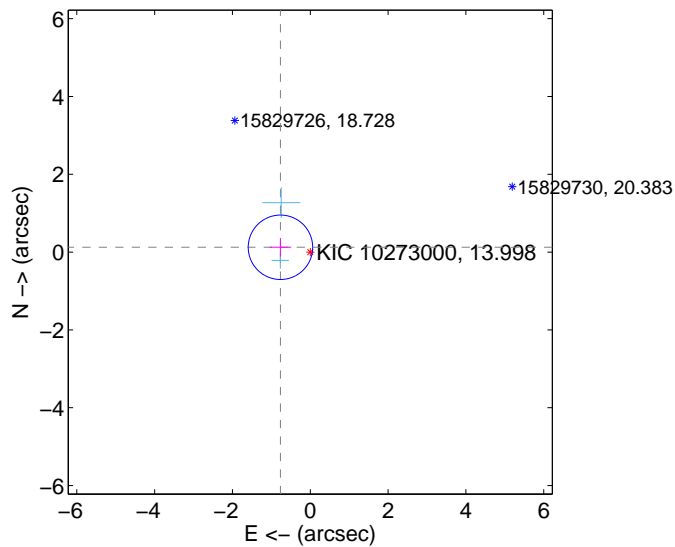
Supplemental centroid analysis for 010273000-01. Kepler magnitude: 14.00. Transit SNR 5.60

There are 2 quarters with good PRF difference image offsets

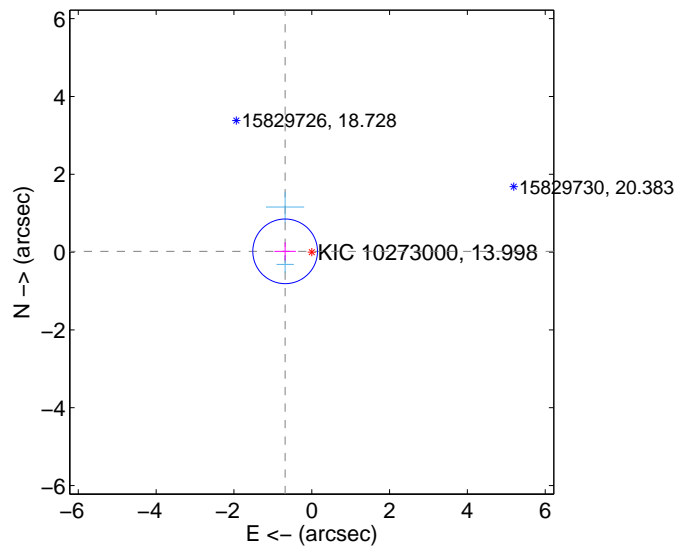
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.776 ± 0.276	2.81	0.766 ± 0.277	0.124 ± 0.234
PRF-fit source offset from KIC position	0.684 ± 0.277	2.47	0.684 ± 0.277	0.020 ± 0.234
photometric centroid source offset	1.29 ± 1.30	1.00	0.95 ± 1.33	0.88 ± 1.26

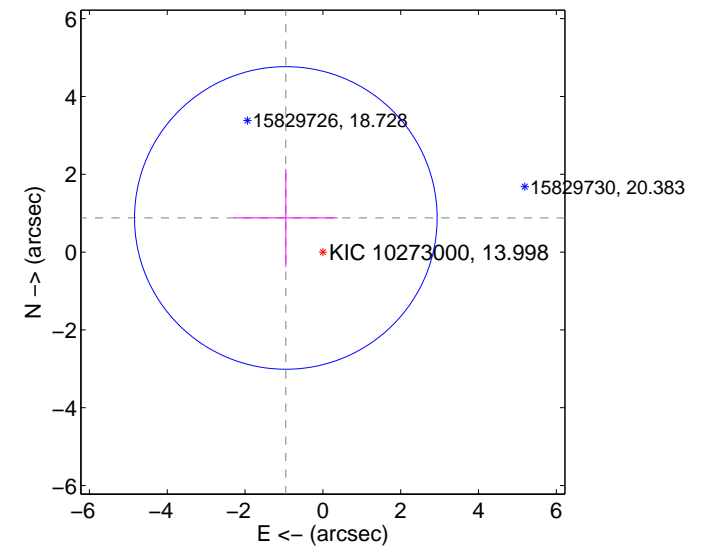
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



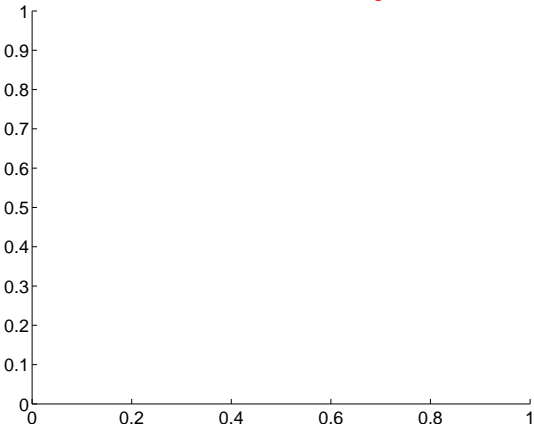
offset from photometric centroids



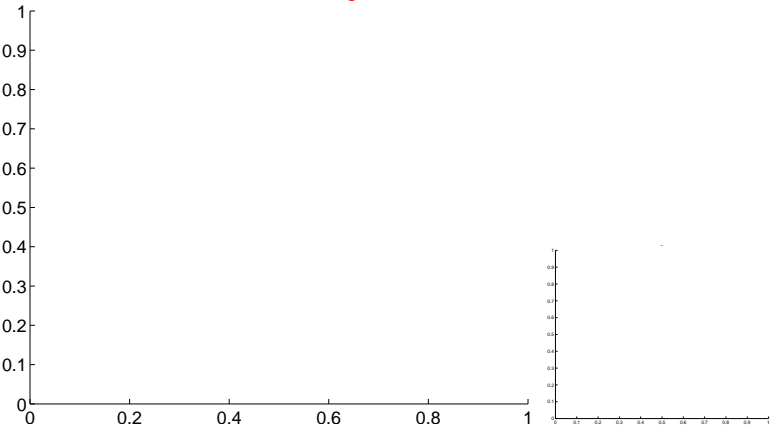
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

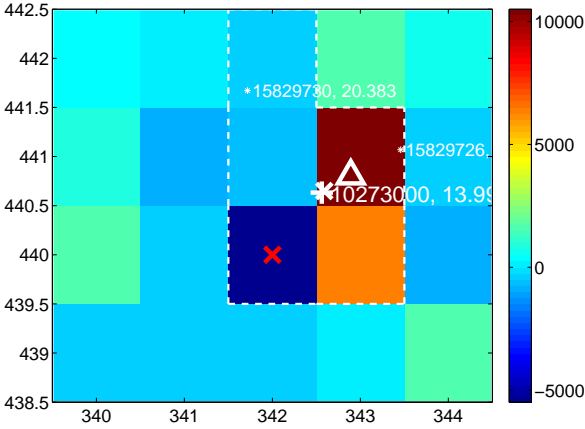
Q1 no difference image



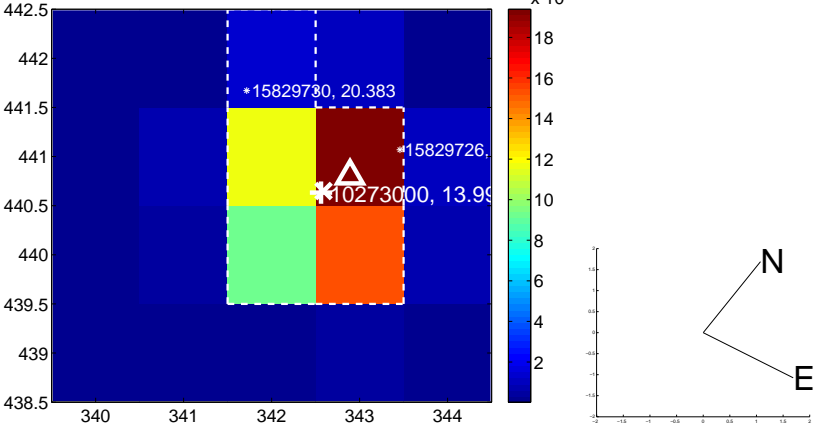
Q1 no OOT image



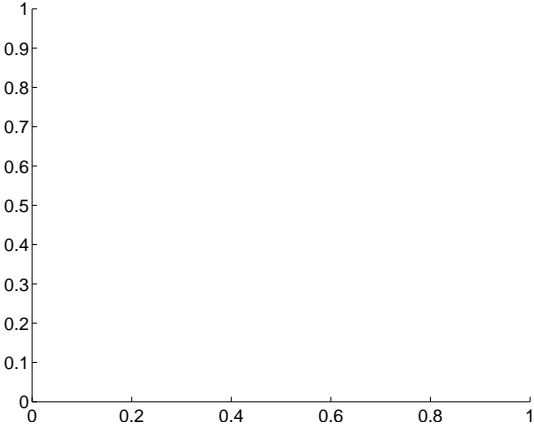
Q2 difference image



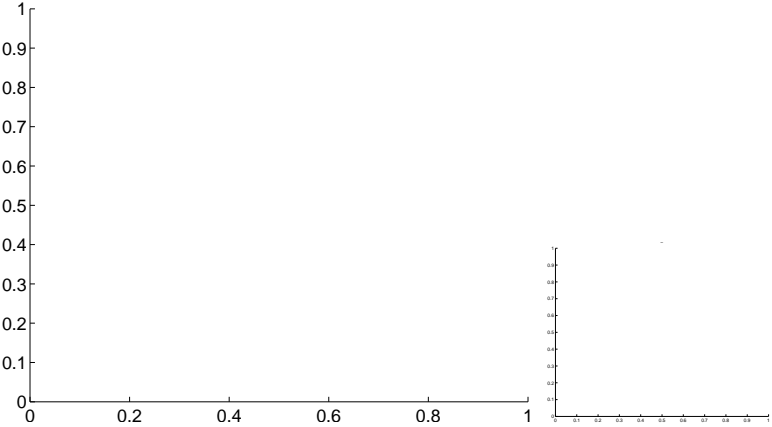
Q2 OOT image



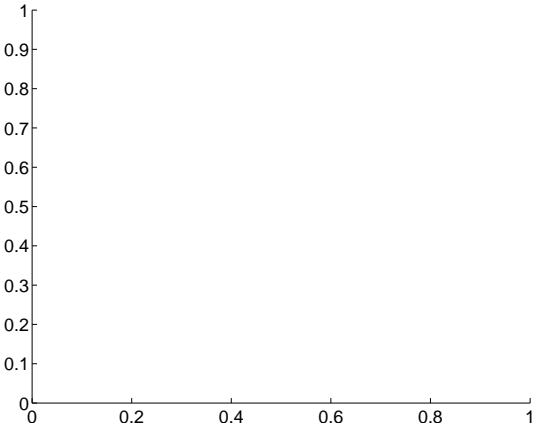
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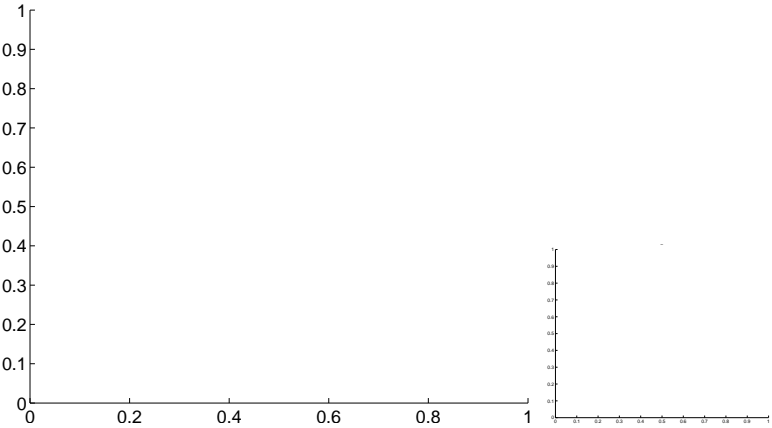
Q3 no OOT image



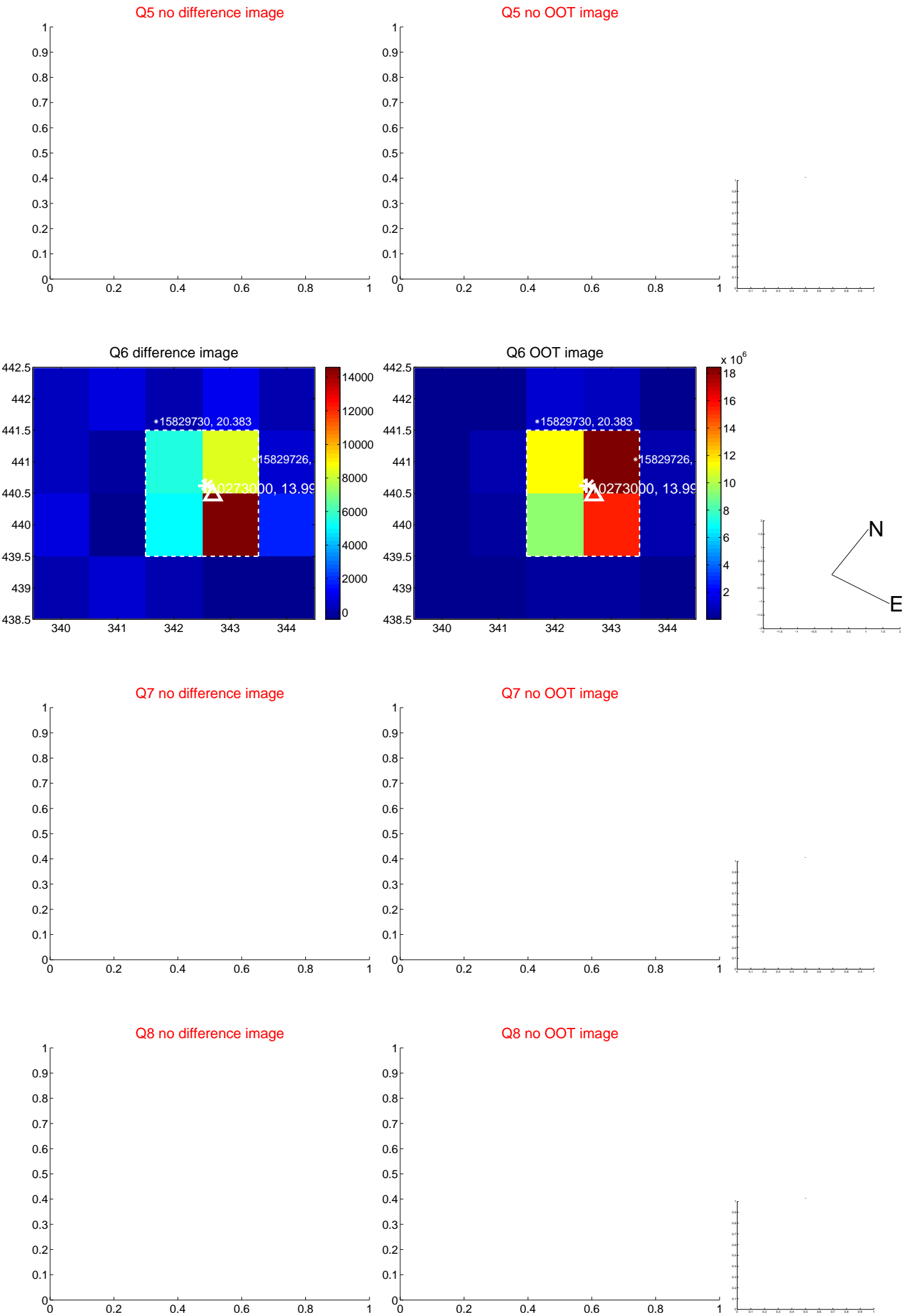
Q4 no difference image



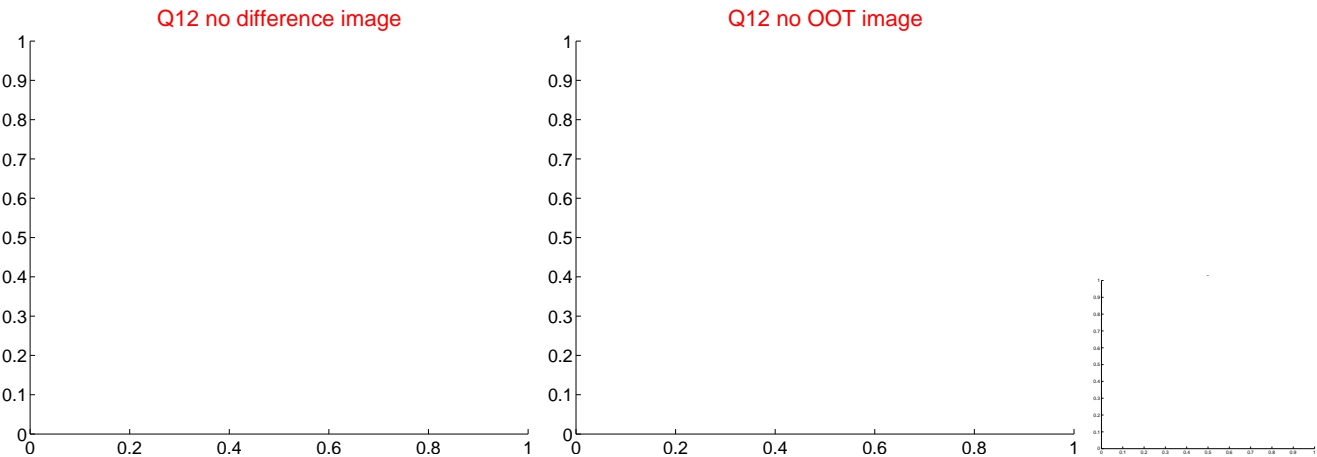
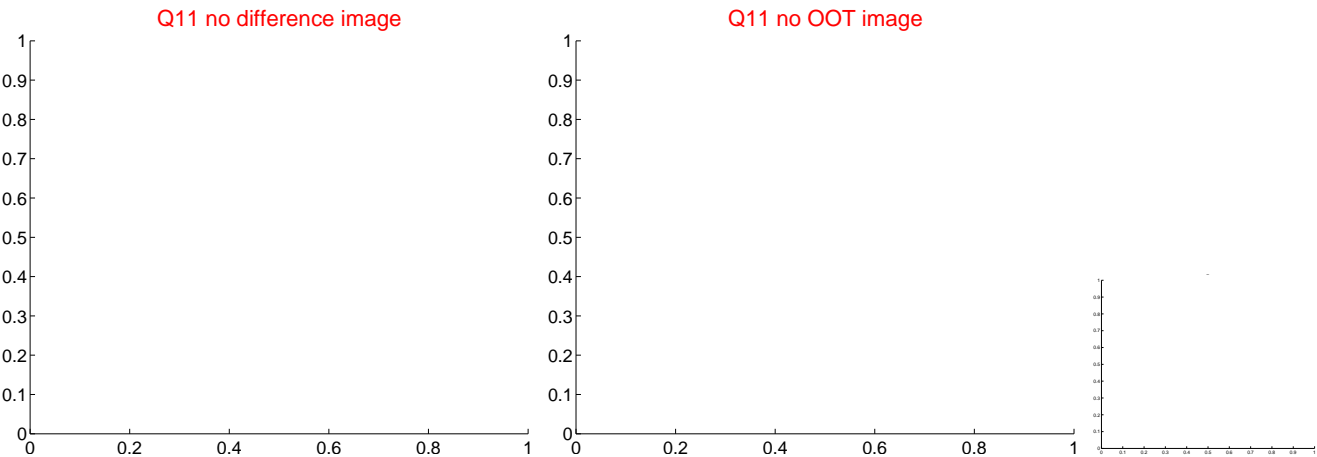
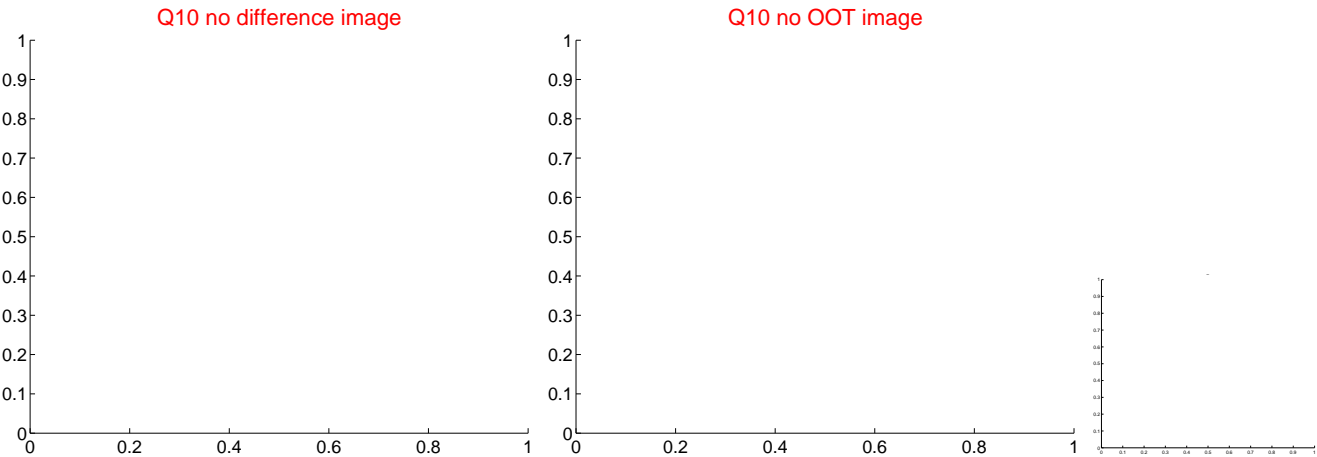
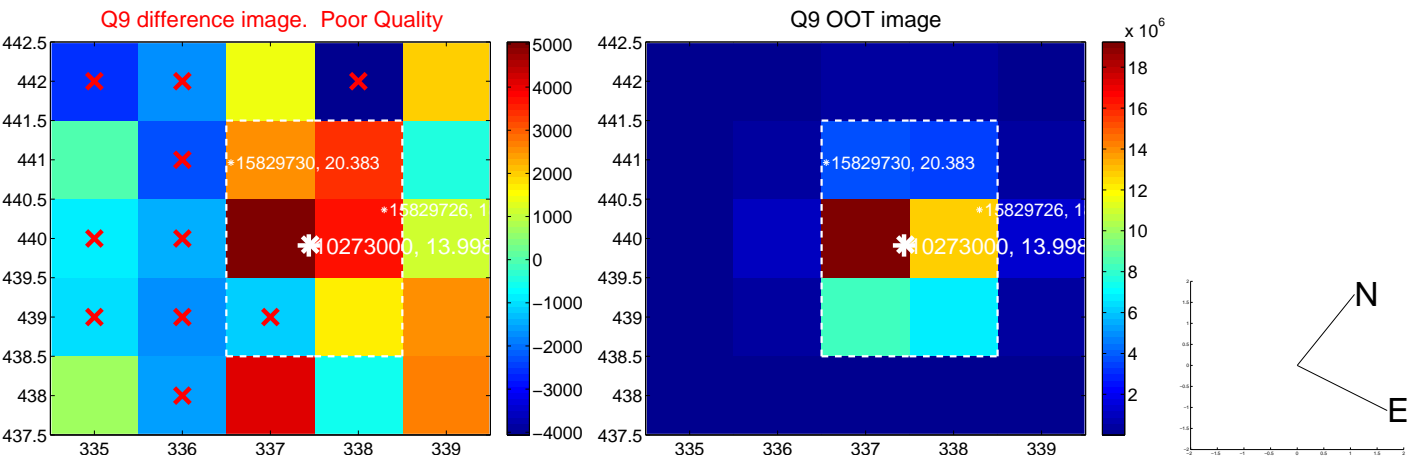
Q4 no OOT image



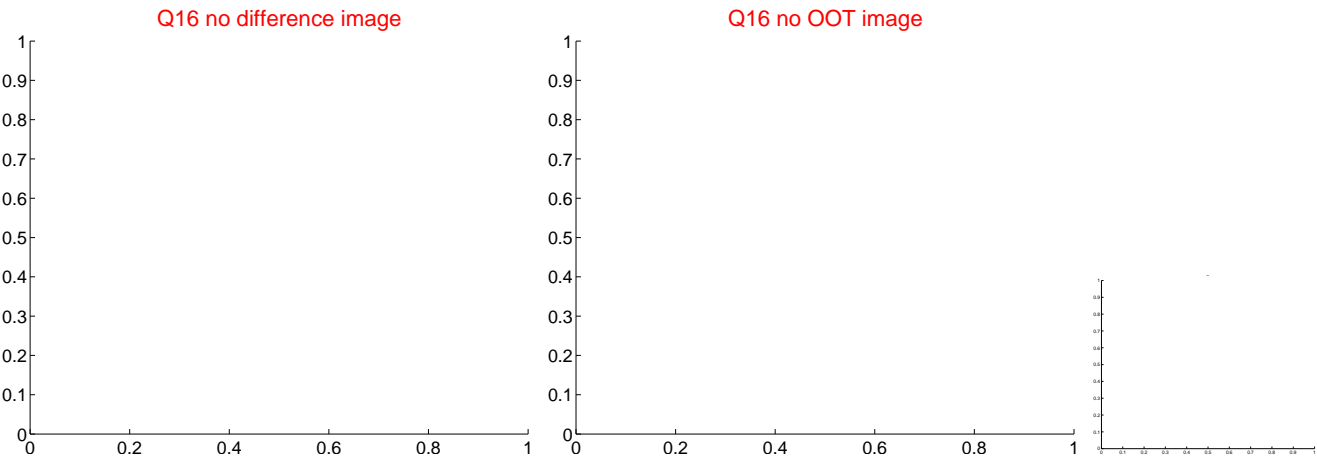
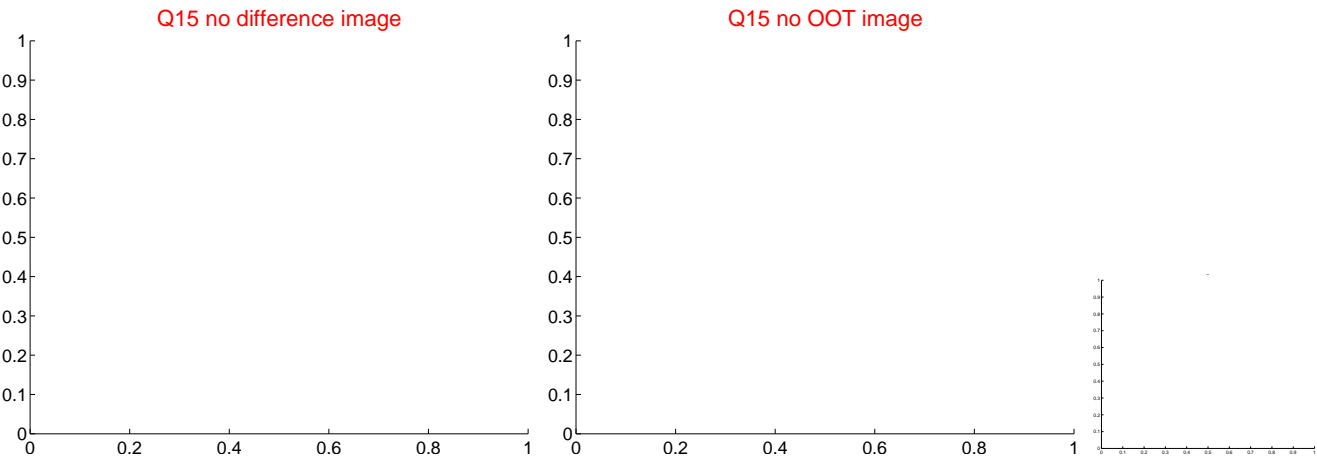
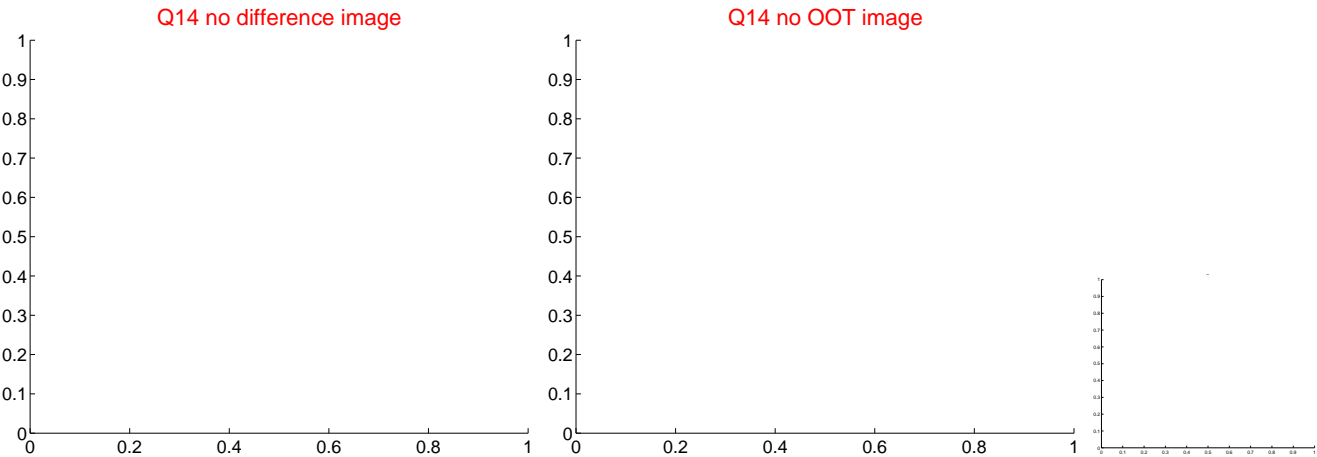
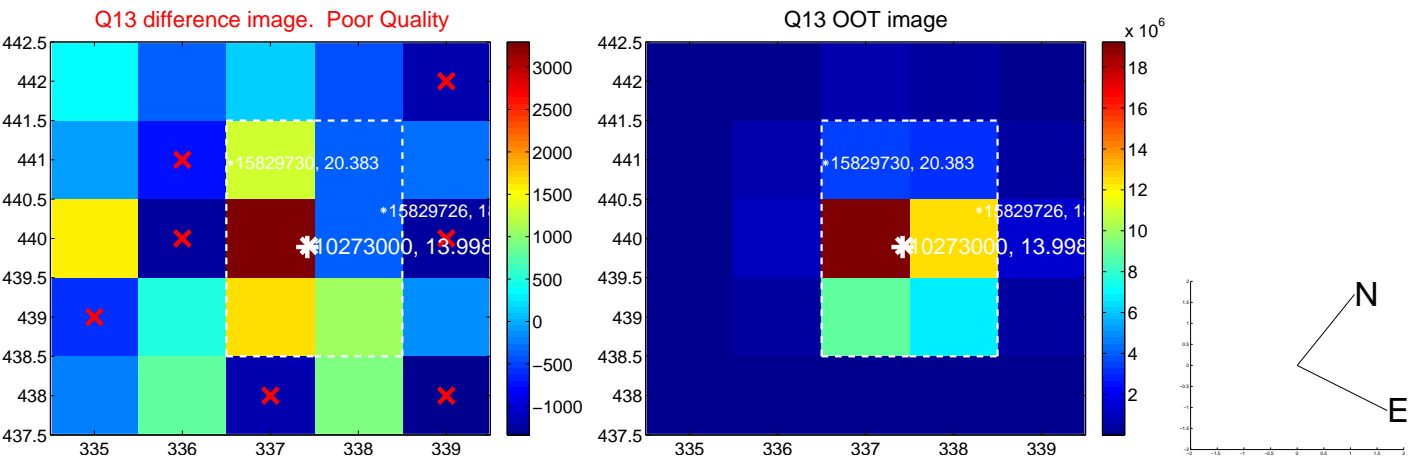
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



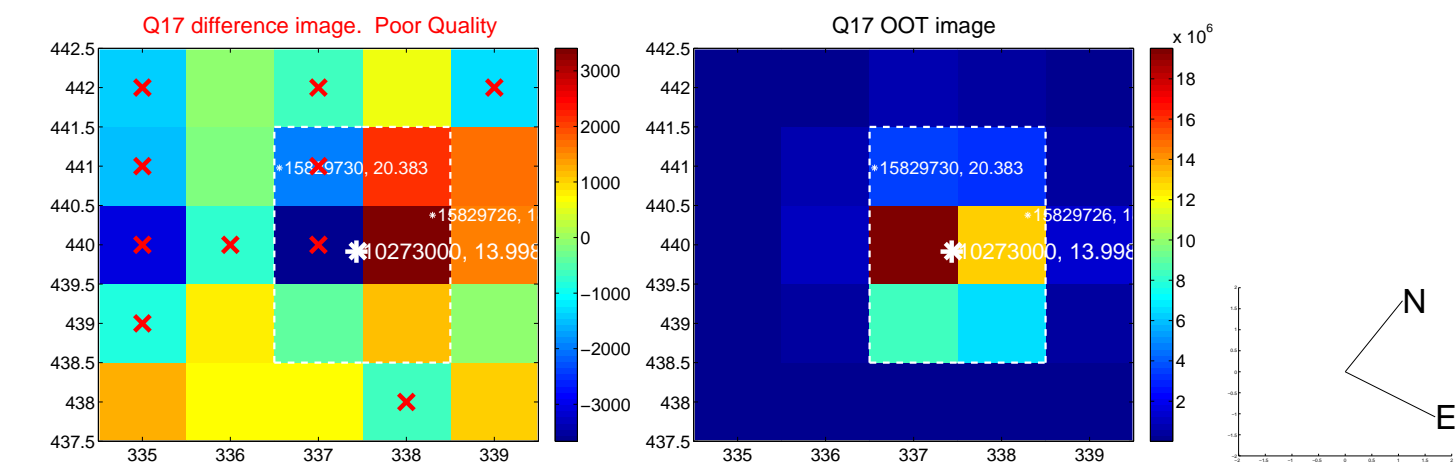
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



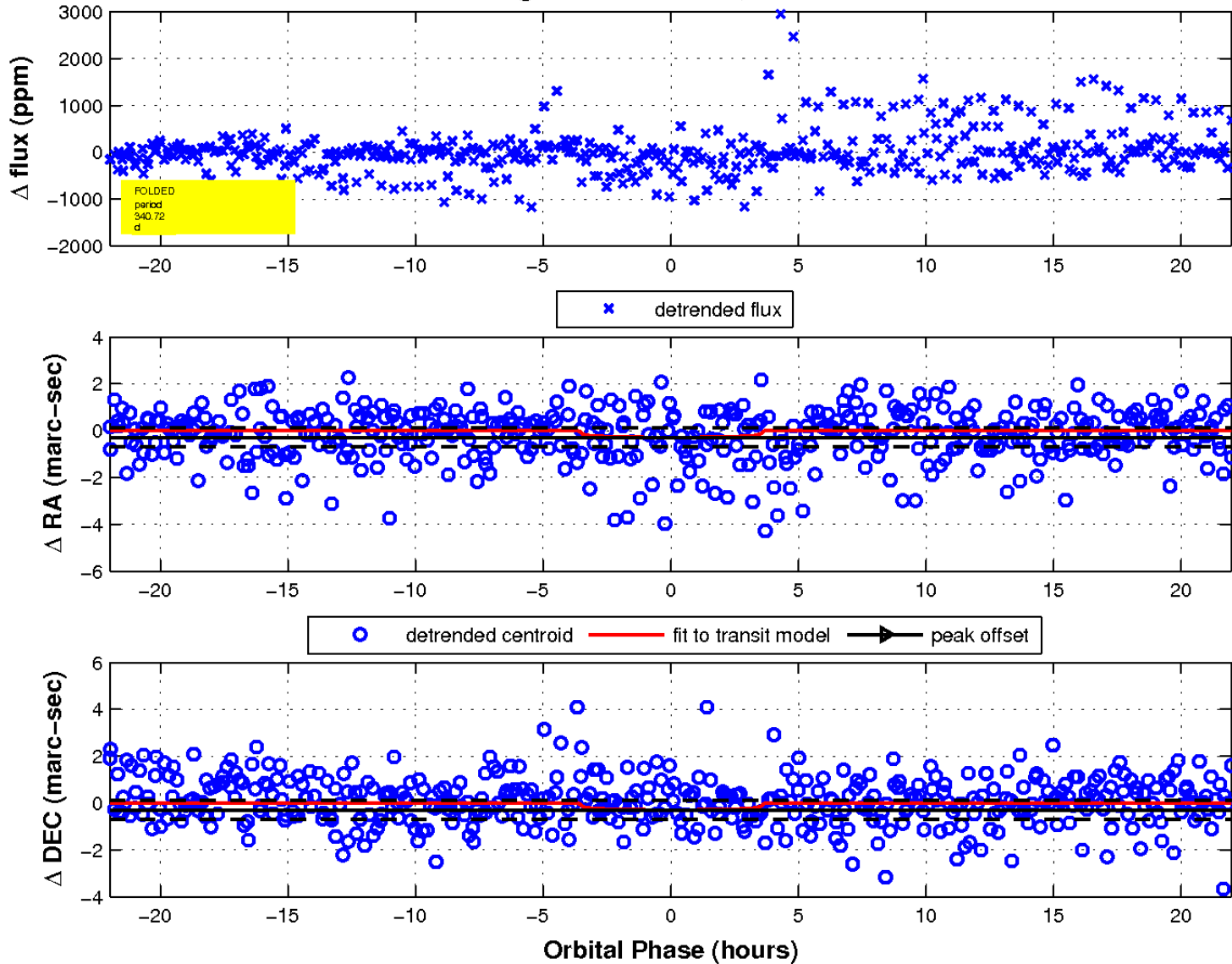
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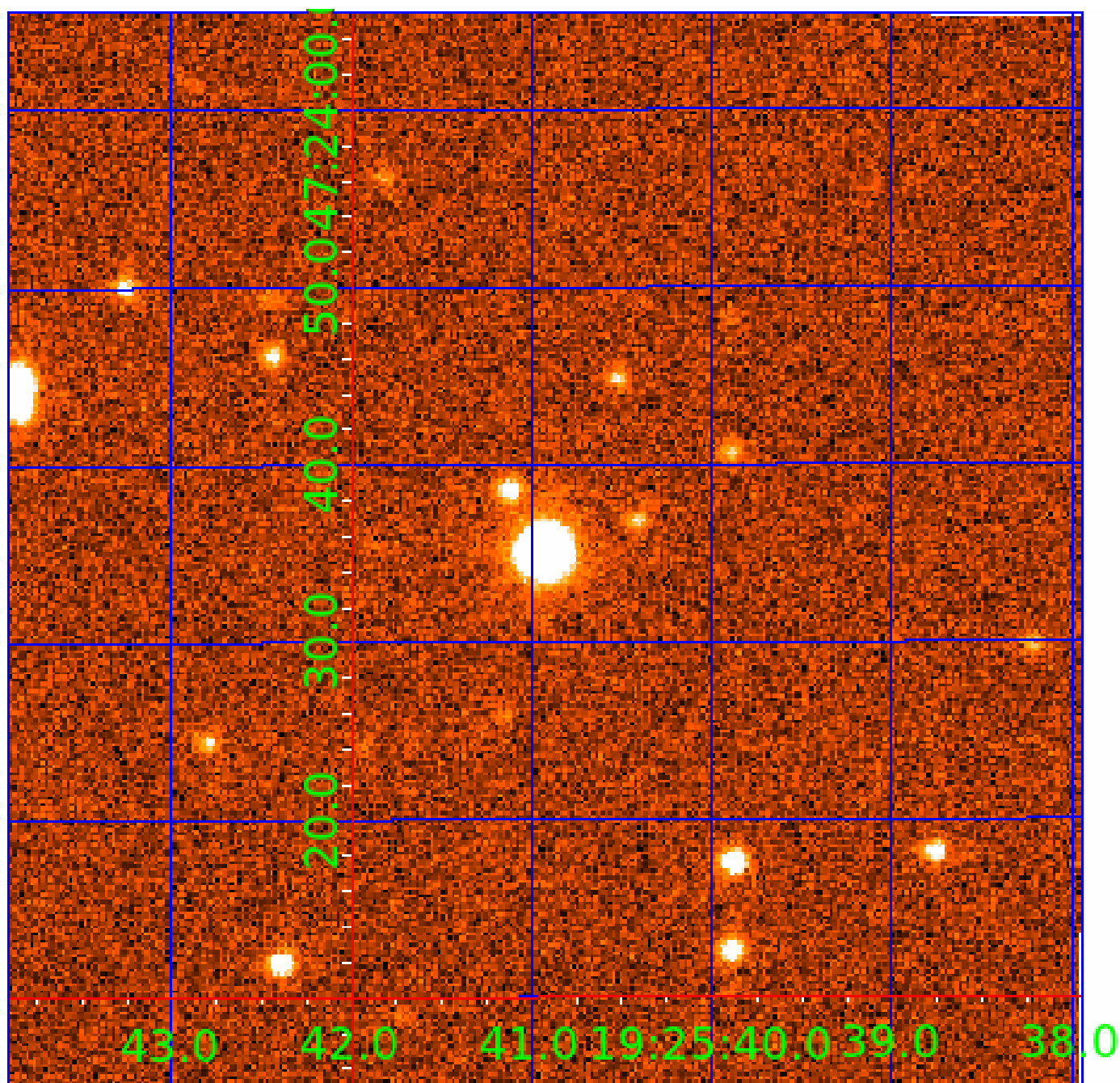


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 010273000

Q1-17 DR25 TCE Parameters

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Robovetter Results

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

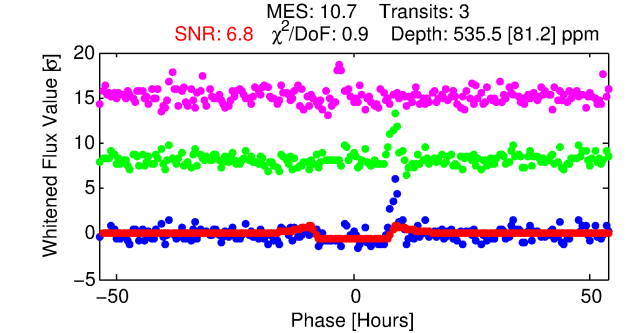
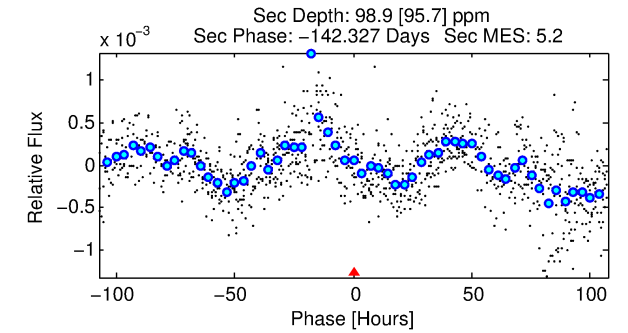
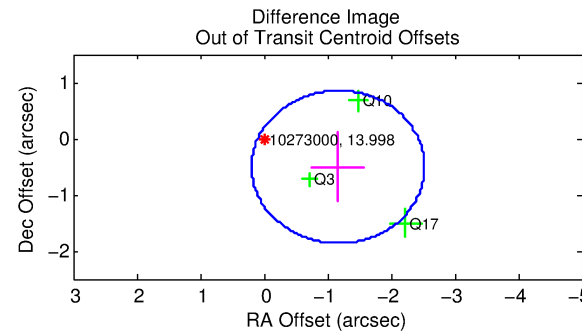
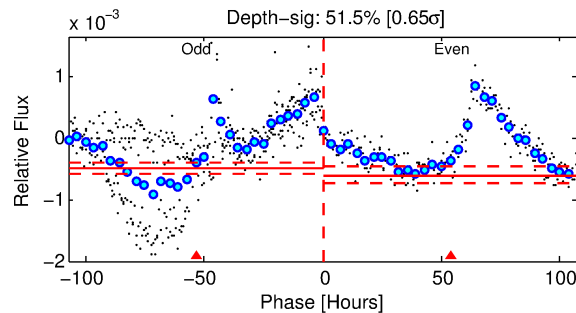
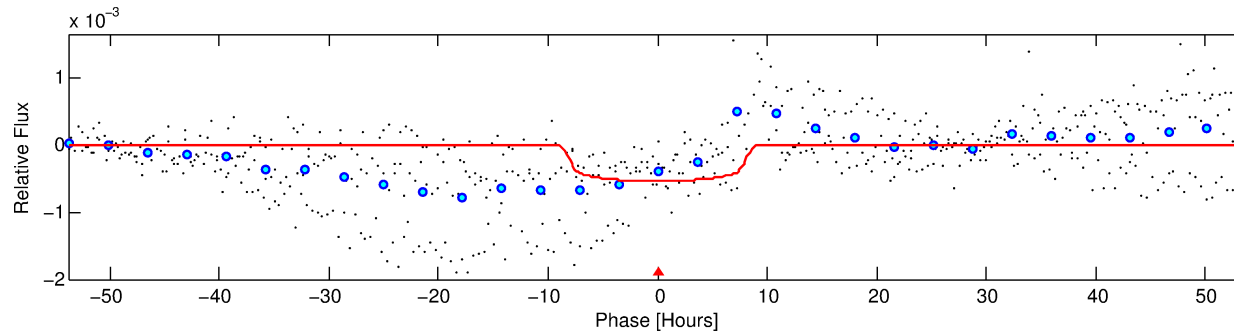
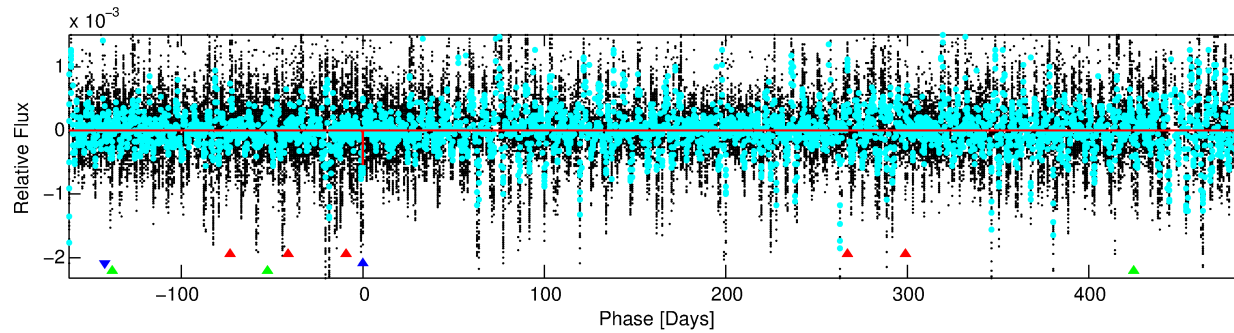
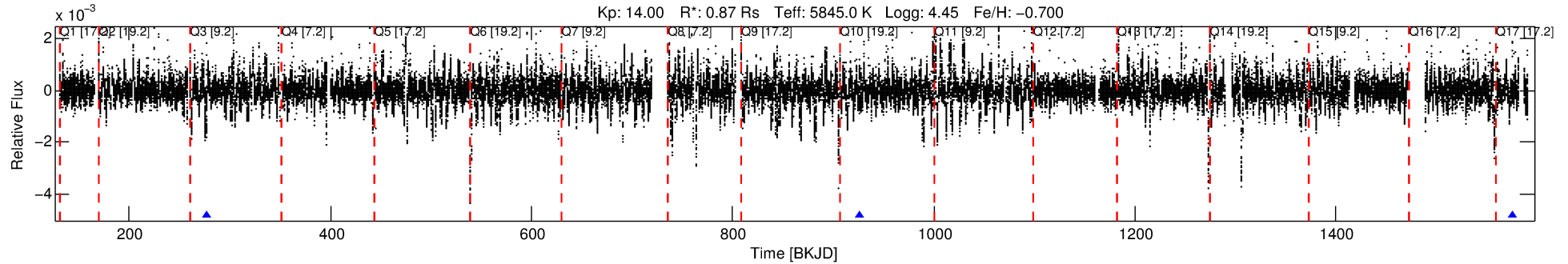
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010273000-02

No Significant Match Found

DV One-Page Summary

KIC: 10273000 Candidate: 2 of 3 Period: 649.414 d



DV Fit Results:

Period = 649.41442 [0.01188] d
Epoch = 276.9047 [0.0145] BKJD
Rp/R* = 0.0243 [0.0025]
a/R* = 150.33 [44.59]
b = 0.87 [0.08]
Seff = 0.44 [0.13]
Teq = 207 [16] K
Rp = 2.30 [0.57] Re
a = 1.3429 [0.2593] AU
Ag = 18484.99 [19034.27] [0.97 σ]
Teffp = 3737 [929] K [3.80 σ]

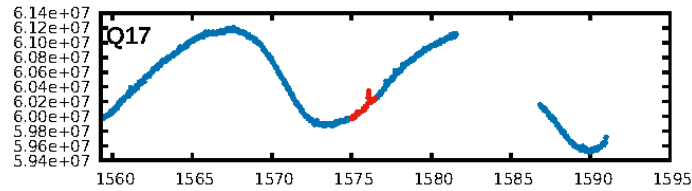
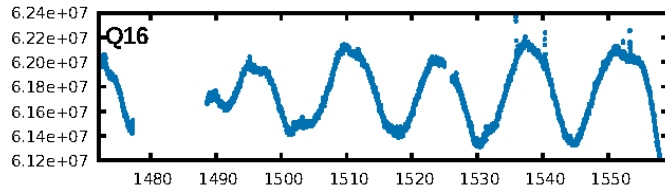
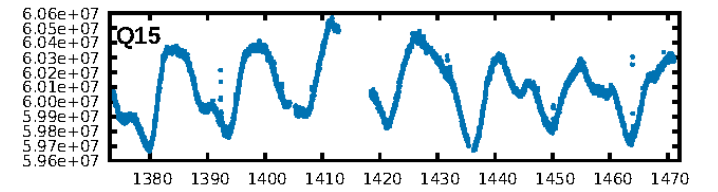
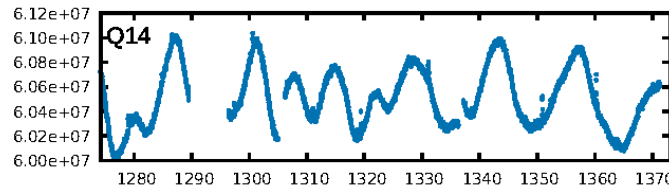
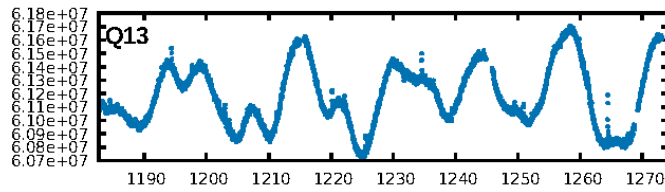
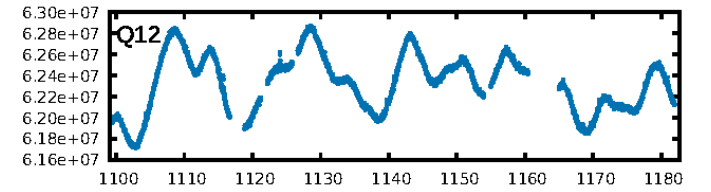
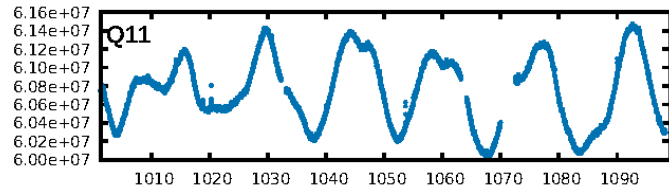
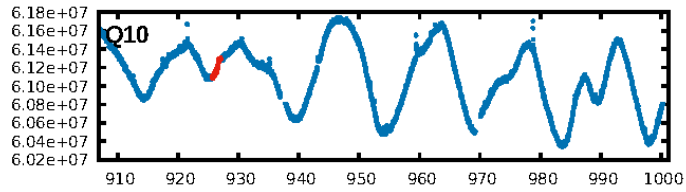
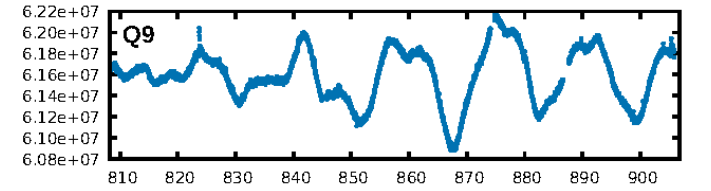
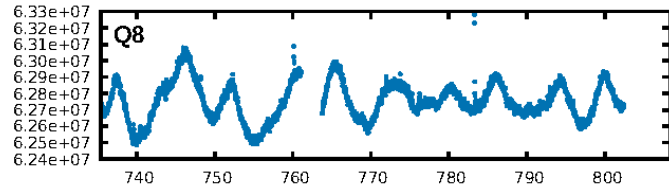
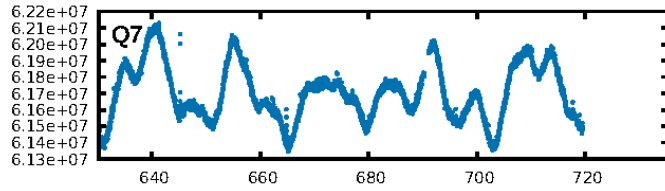
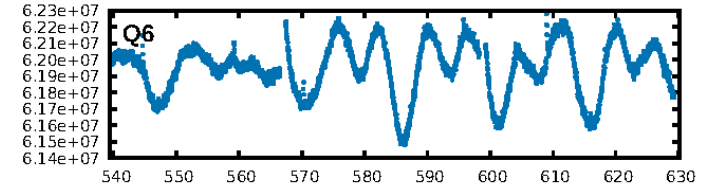
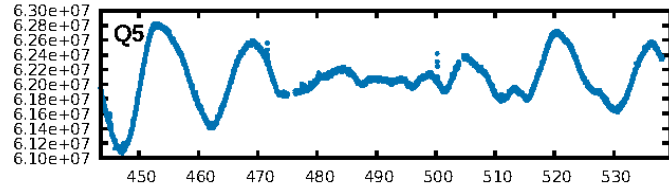
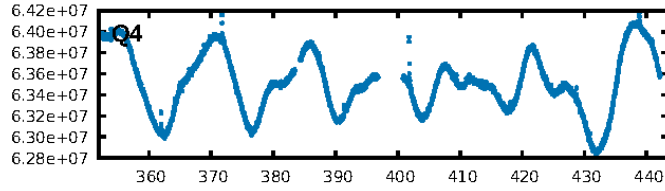
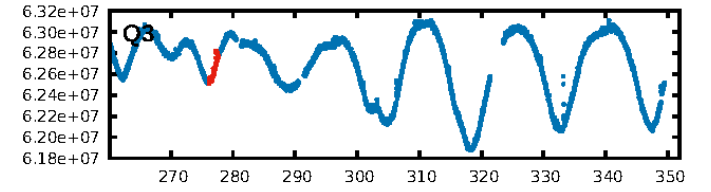
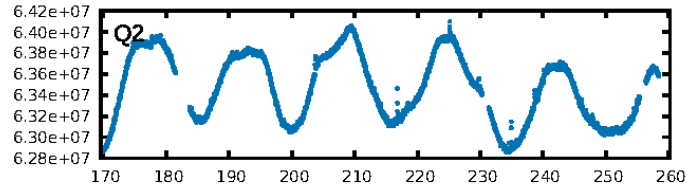
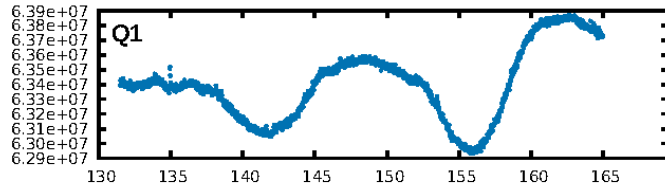
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [87.54 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.02e-08
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -3.706
Centroid-sig: 14.4%
Centroid-so: 0.982 arcsec [1.53 σ]
OotOffset-rm: 1.270 arcsec [2.80 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 1.362 arcsec [2.23 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

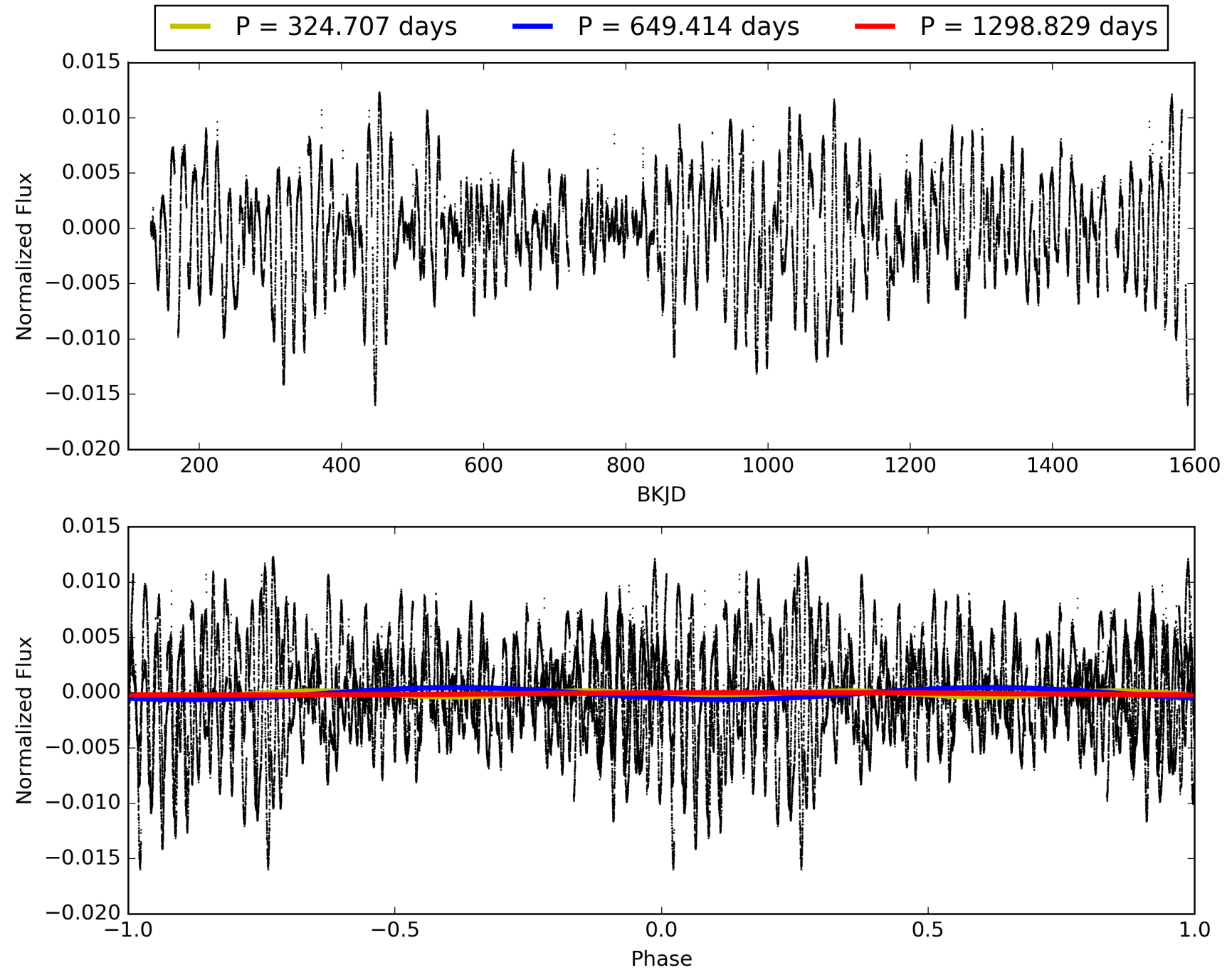
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:04:08 Z

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

TCE 010273000-02, PDC Light Curves

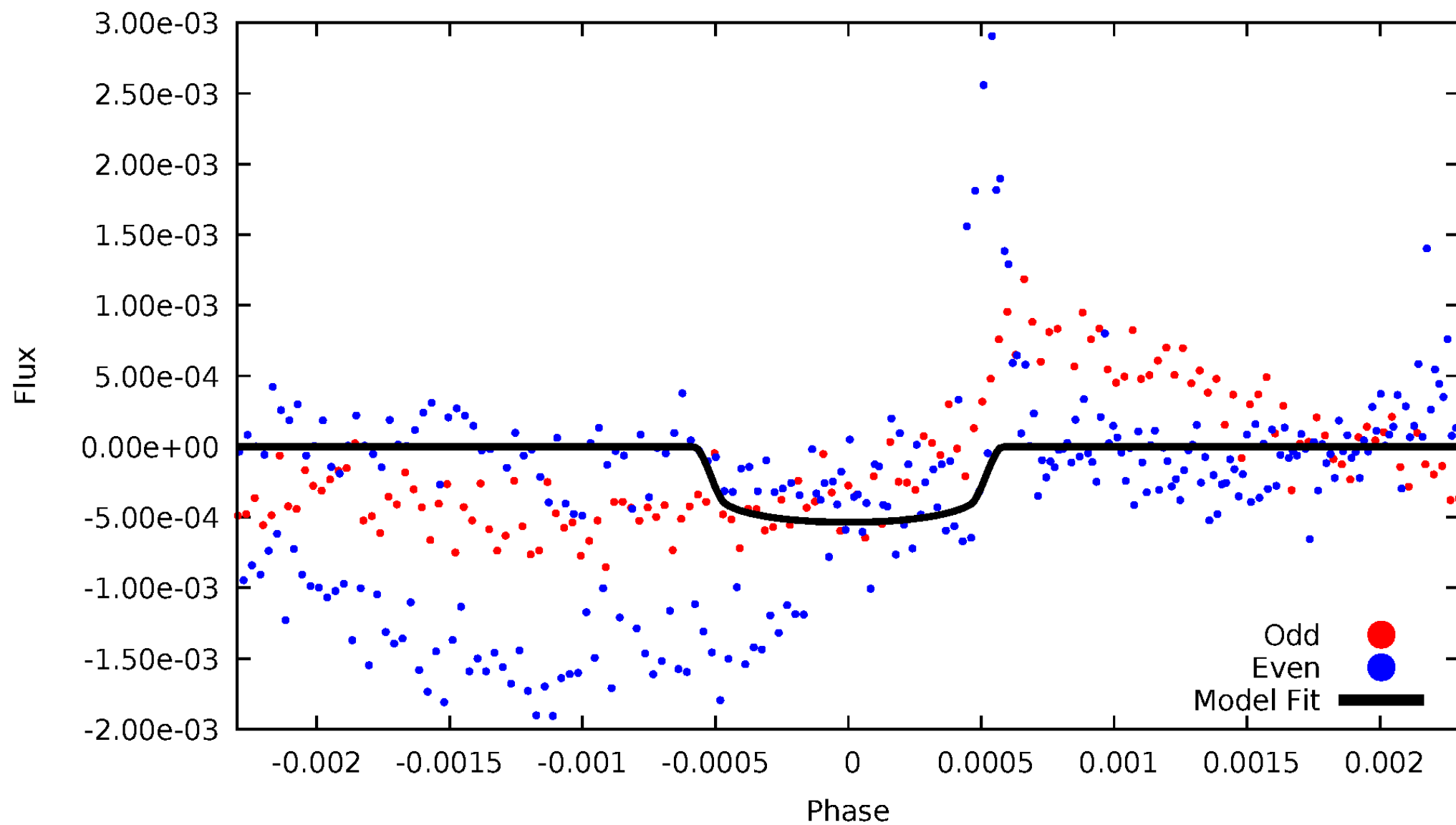


TCE 010273000-02



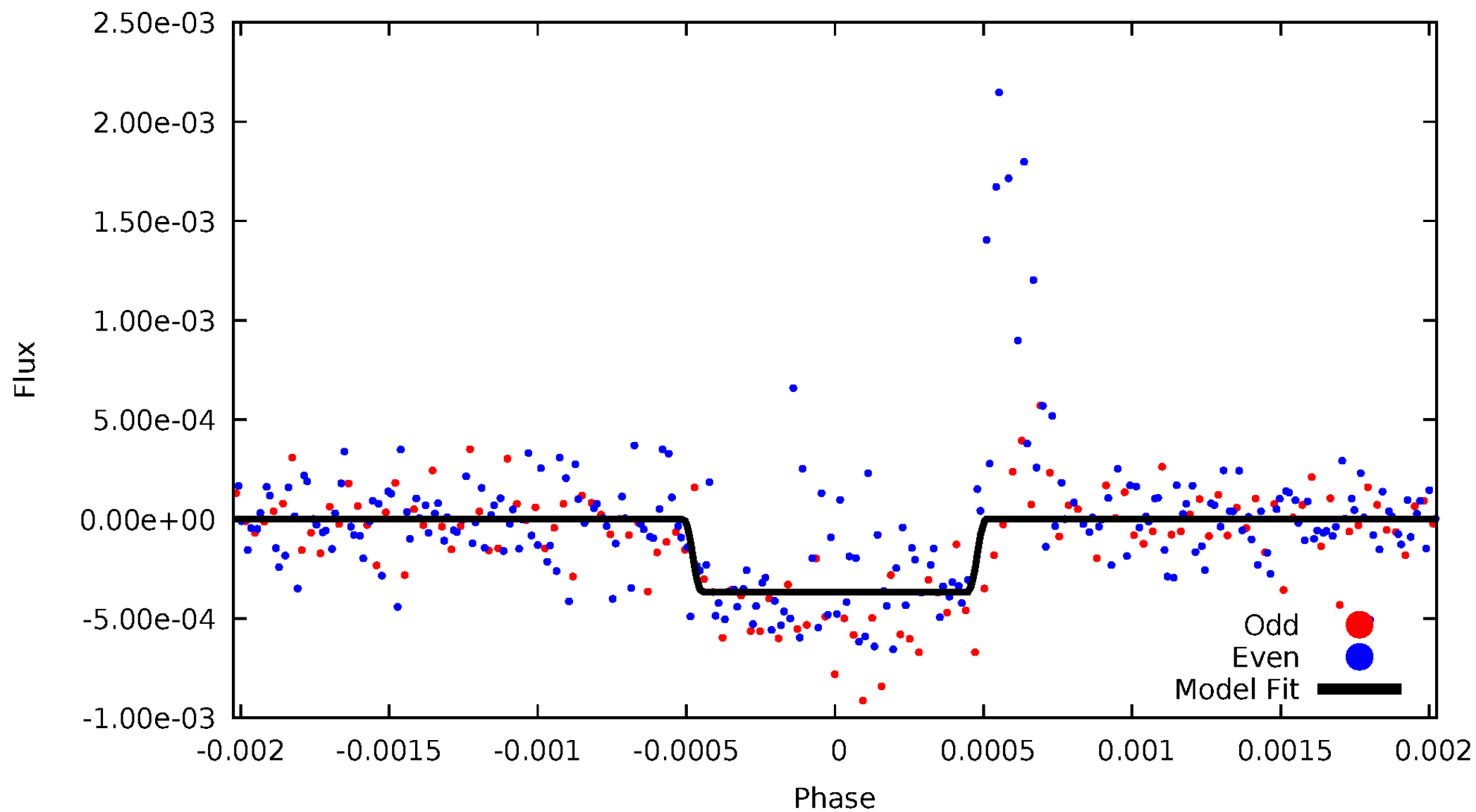
DV Odd/Even

TCE 010273000-02



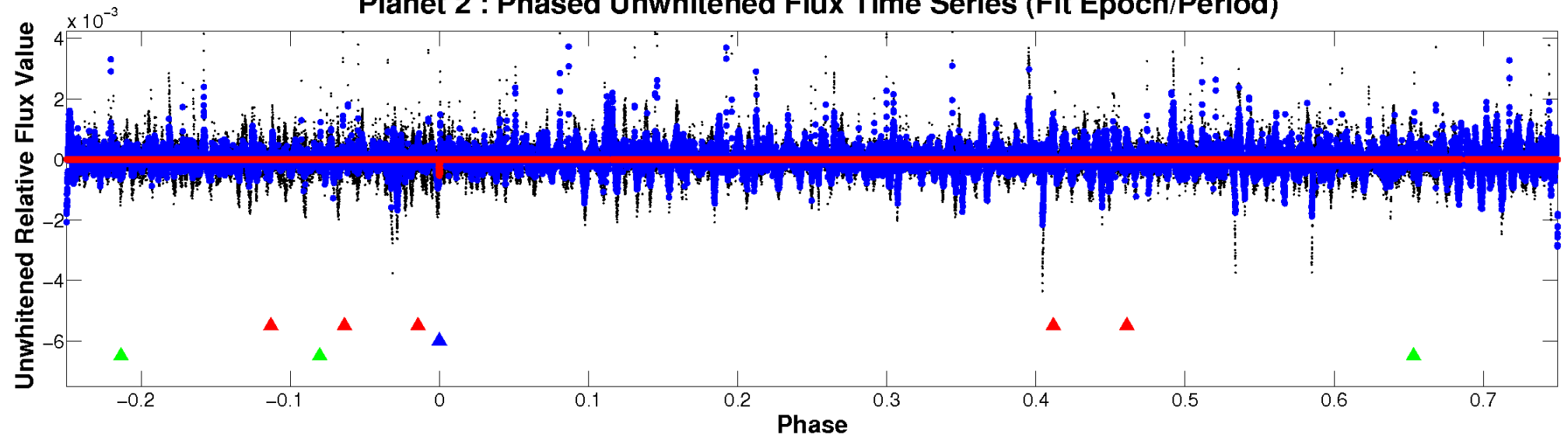
ALT Odd/Even

TCE 010273000-02

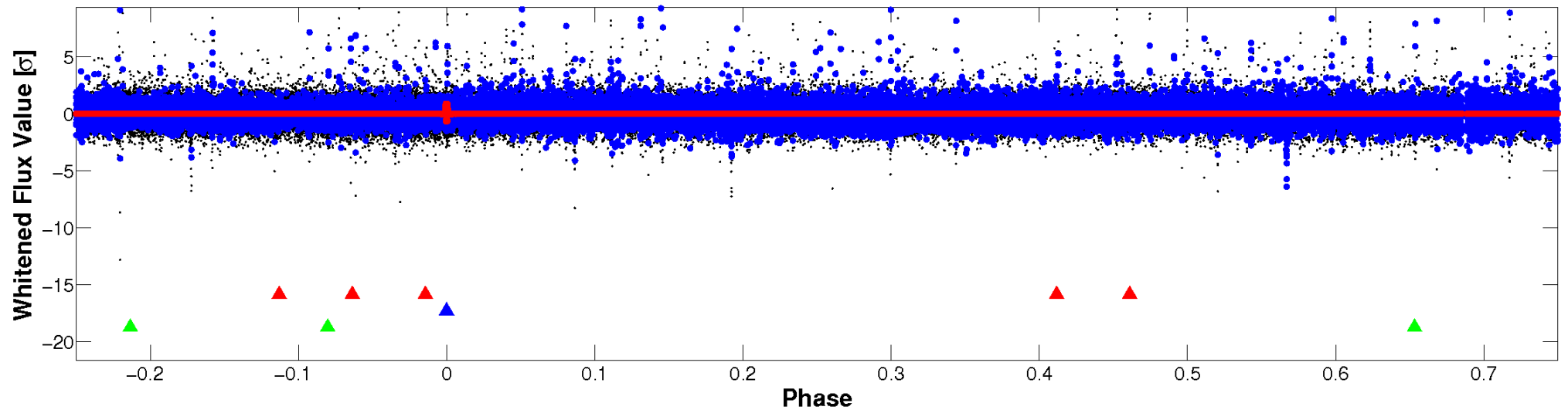


Non-Whitened Vs. Whitened Light Curve

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

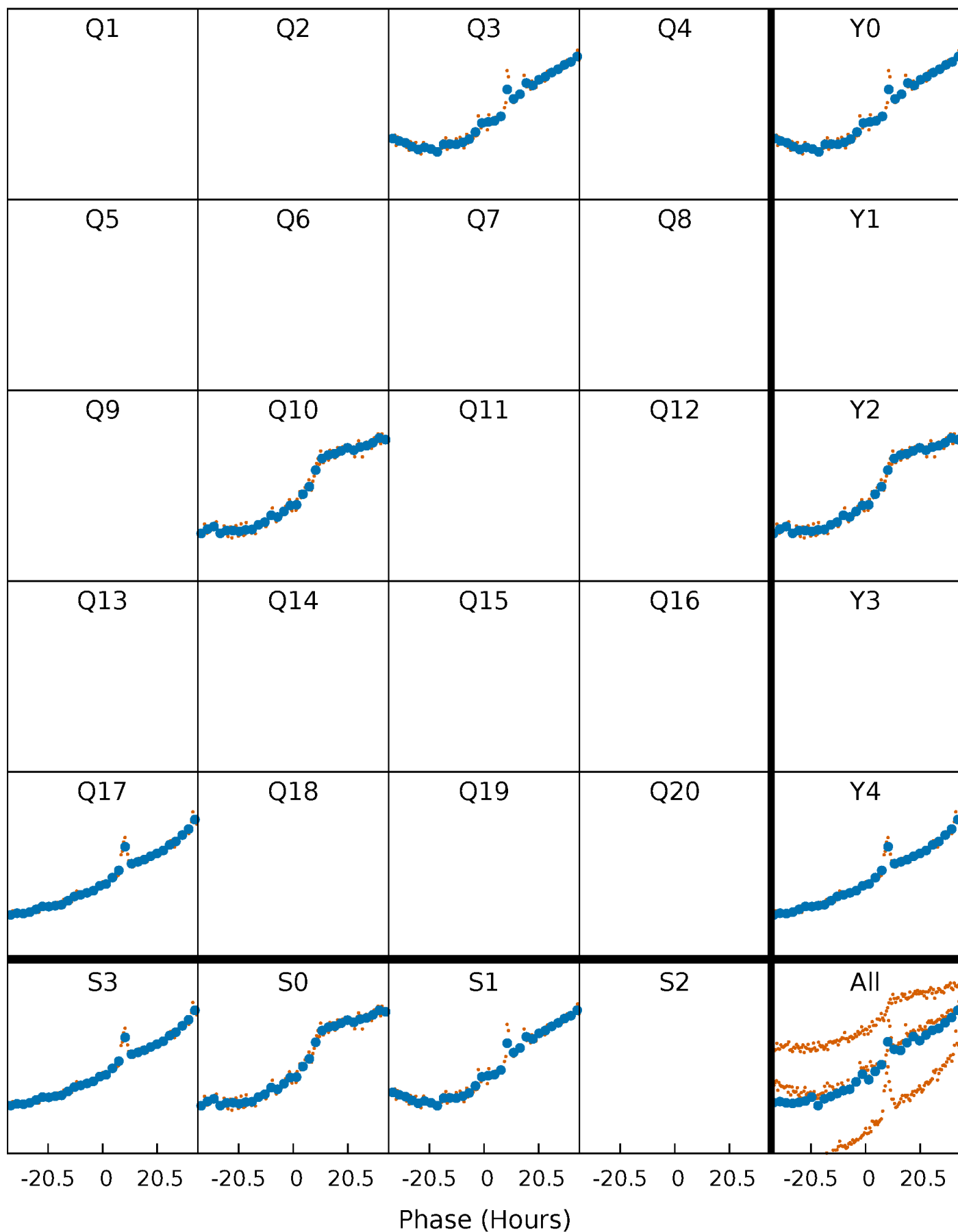


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



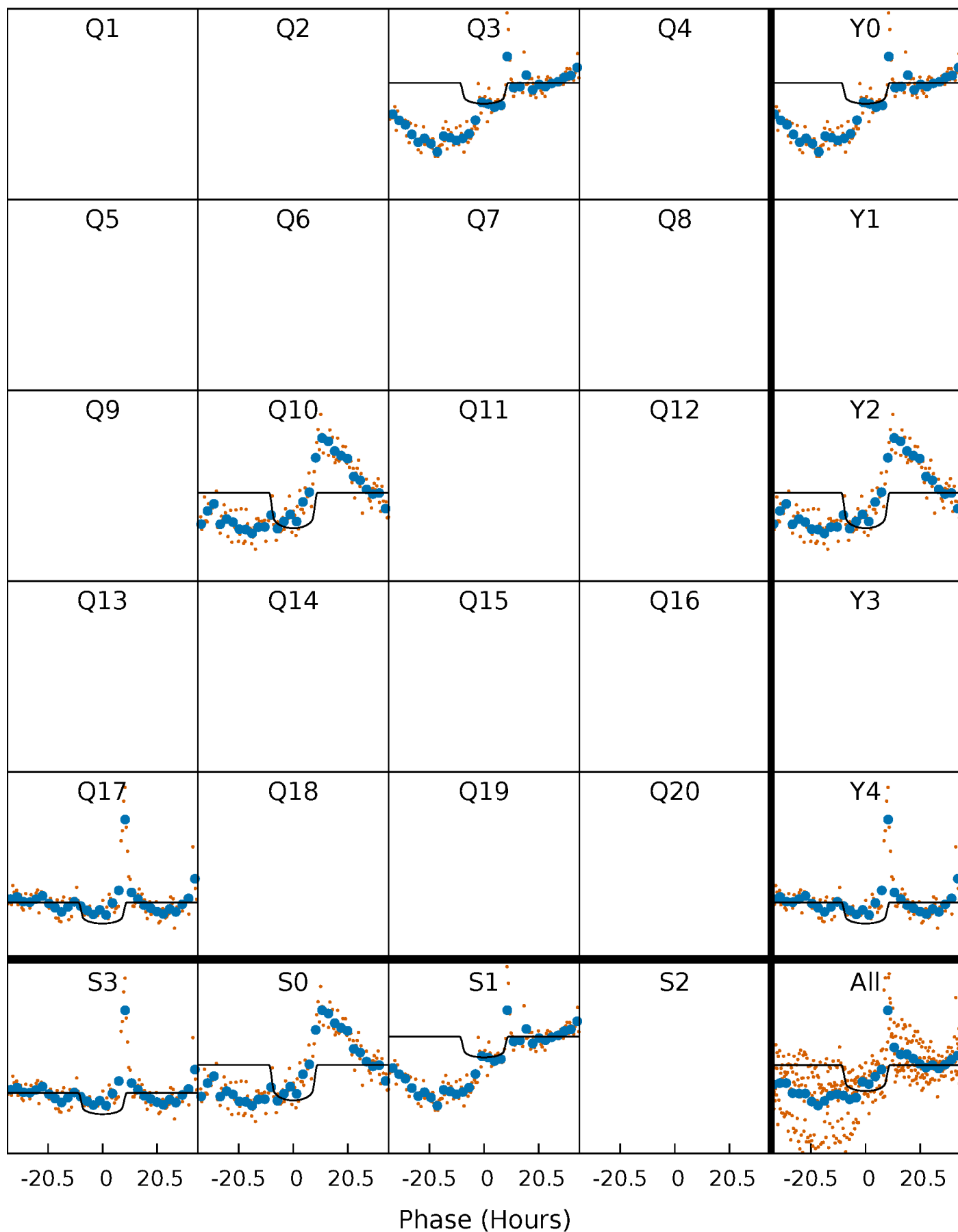
PDC Quarter-Phased Transit Curves

TCE 010273000-02 $P=649.414423$ Days $T_0=276.904668$ (BKJD)



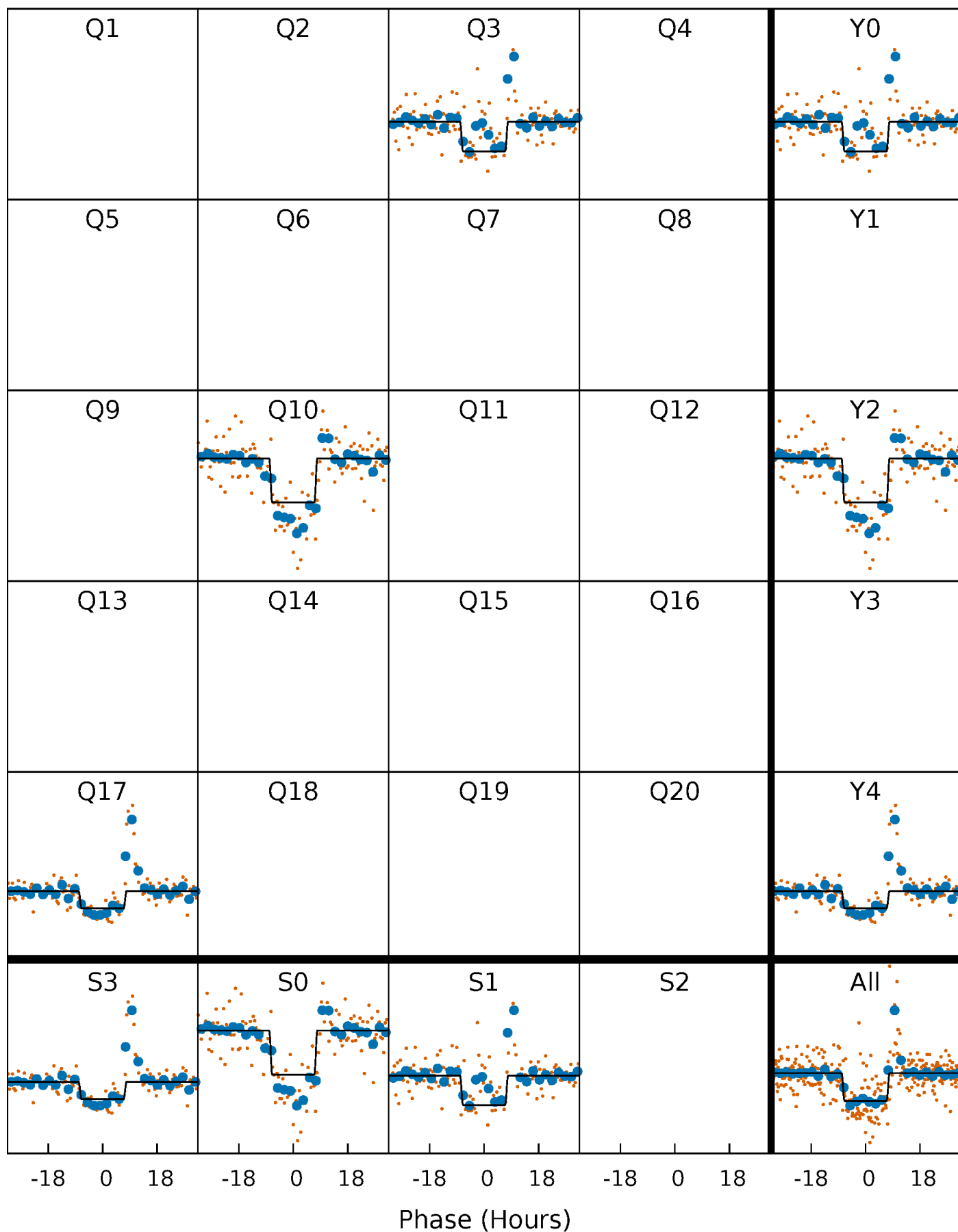
DV Quarter-Phased Transit Curves

TCE 010273000-02 $P=649.414423$ Days $T_0=276.904668$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

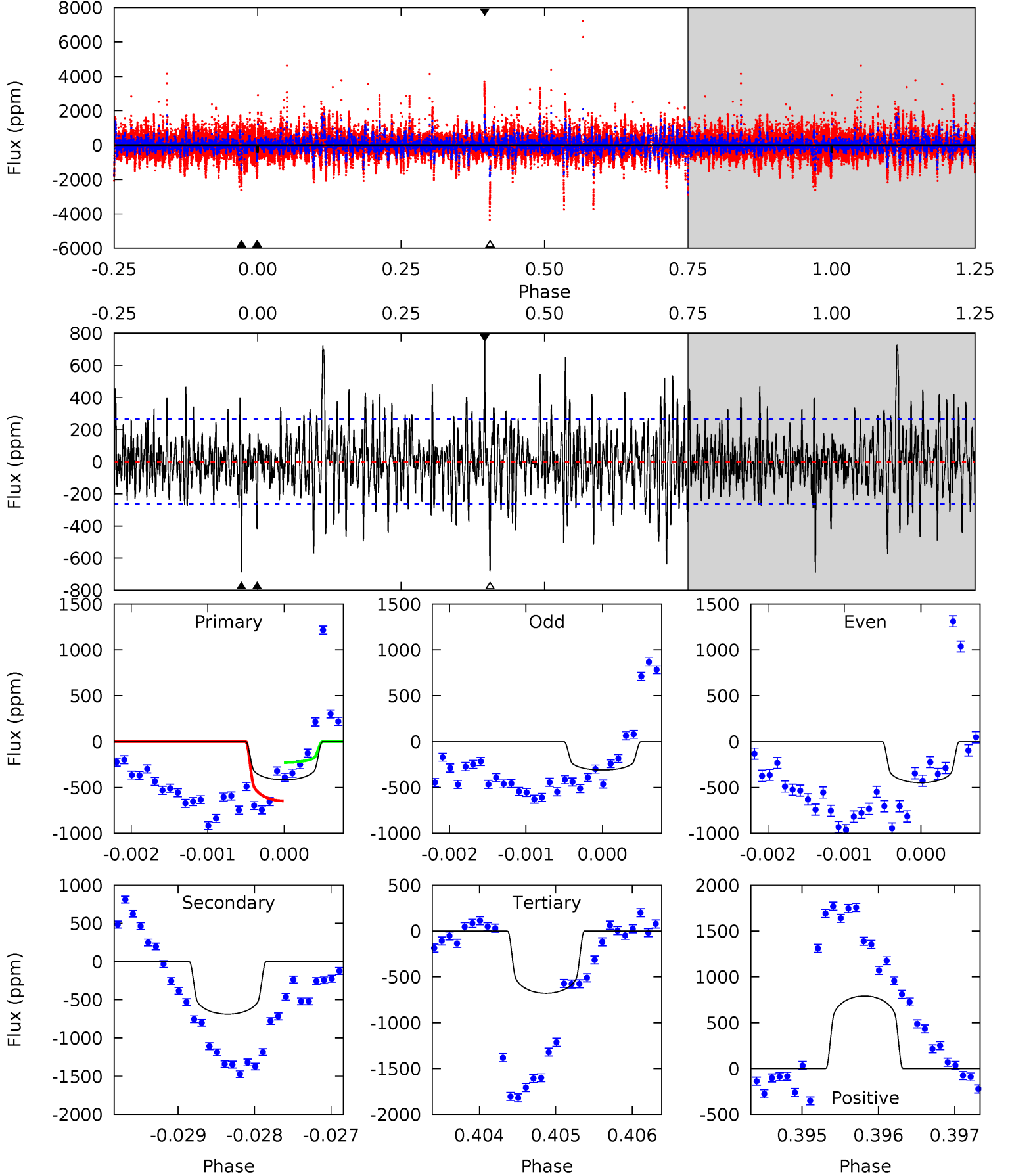
TCE 010273000-02 $P=649.392159$ Days $T_0=276.907051$ (BKJD)



DV Model-Shift Uniqueness Test

010273000-02, P = 649.414423 Days, E = 276.904668 Days

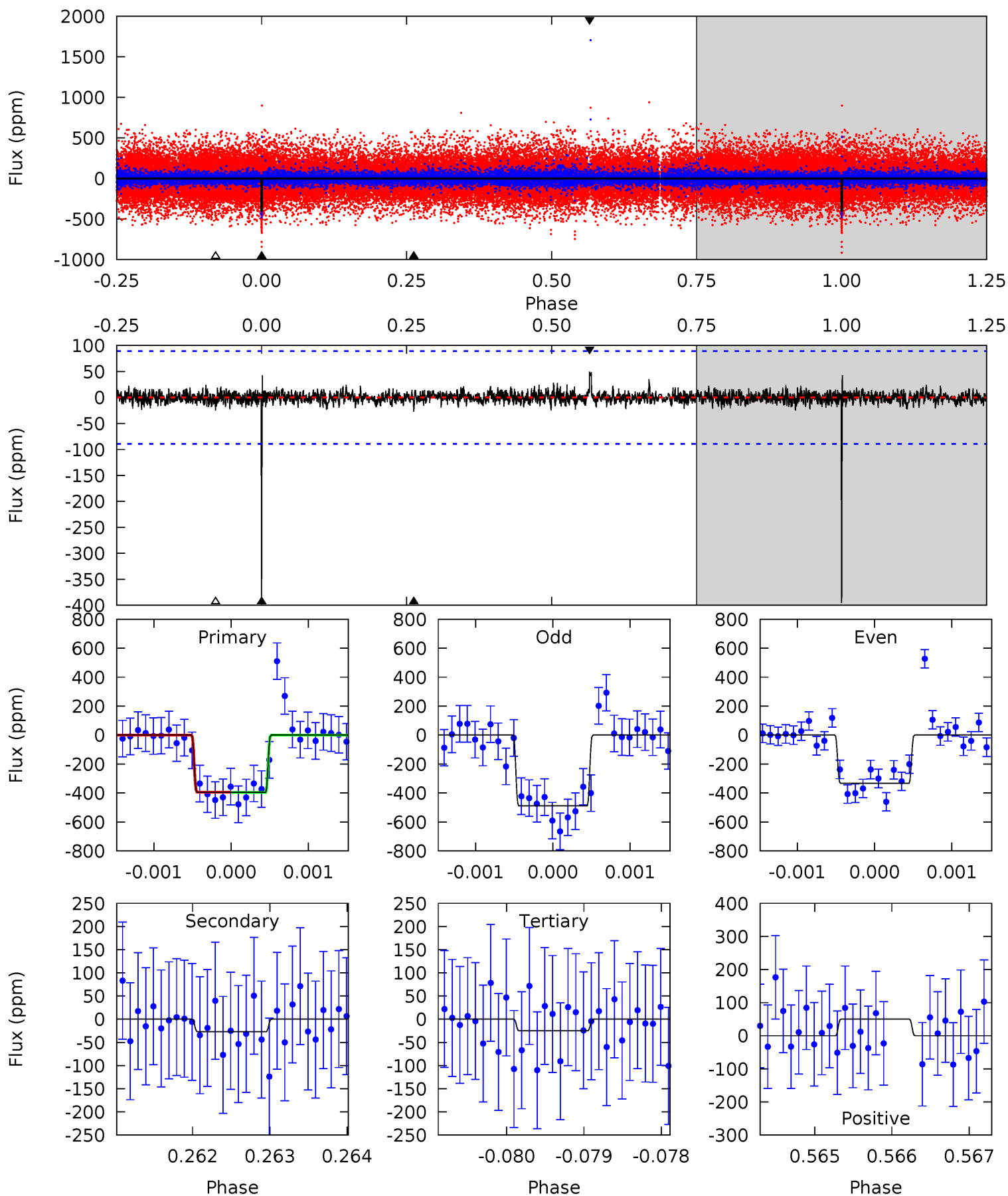
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.56	14.1	14.0	16.2	5.42	3.25	3.30	-5.39	-7.68	0.18	-2.11	1.27	1.29	0.53	4.31



Alt Model-Shift Uniqueness Test

010273000-02, P = 649.392159 Days, E = 276.907051 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.1	1.66	1.53	3.04	5.45	3.29	0.43	22.6	21.1	0.12	-1.39	4.52	0.90	0.11	0.08



Stellar Parameters For KIC 010273000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5845^{+159}_{-159}	$4.445^{+0.131}_{-0.160}$	$-0.700^{+0.300}_{-0.300}$	$0.868^{+0.194}_{-0.129}$	$0.765^{+0.103}_{-0.039}$	$1.649^{+1.011}_{-0.731}$
	+3%/-3%	+3%/-4%	+43%/-43%	+22%/-15%	+13%/-5%	+61%/-44%
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 010273000-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-688 ± 49	$2.30^{+0.38}_{-0.31}$	291^{+17}_{-15}	6115^{+378}_{-372}	131395^{+43141}_{-36129}
Alt.	-27 ± 16	$1.86^{+0.33}_{-0.31}$	291^{+20}_{-15}	3505^{+382}_{-458}	7554^{+6692}_{-4570}

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

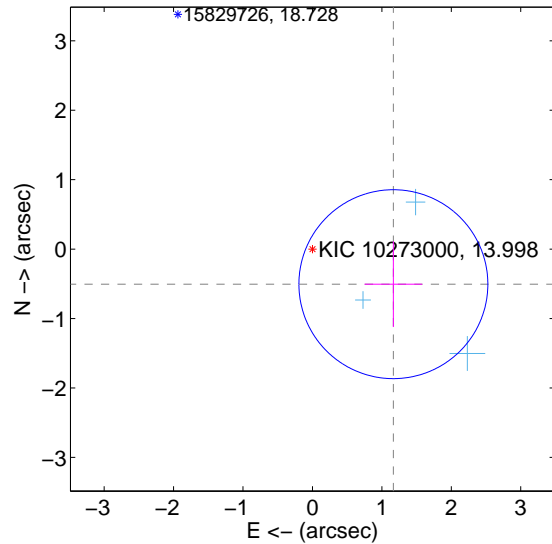
Supplemental centroid analysis for 010273000-02. Kepler magnitude: 14.00. Transit SNR 6.76

There are 3 quarters with good PRF difference image offsets

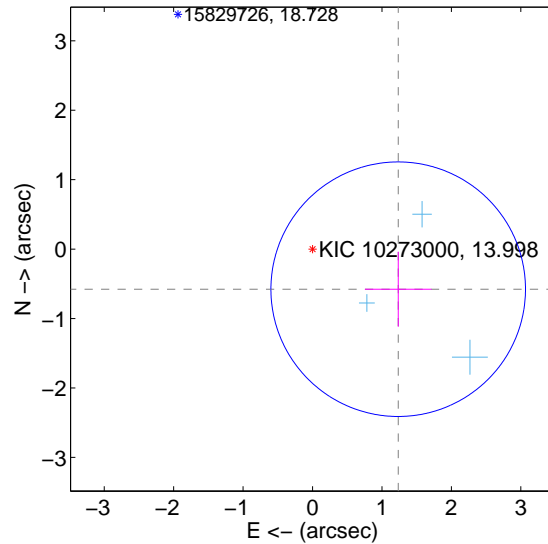
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.270 ± 0.453	2.80	-1.165 ± 0.416	-0.505 ± 0.617
PRF-fit source offset from KIC position	1.362 ± 0.611	2.23	-1.234 ± 0.480	-0.578 ± 0.540
photometric centroid source offset	0.98 ± 0.64	1.53	-0.98 ± 0.64	-0.05 ± 0.66

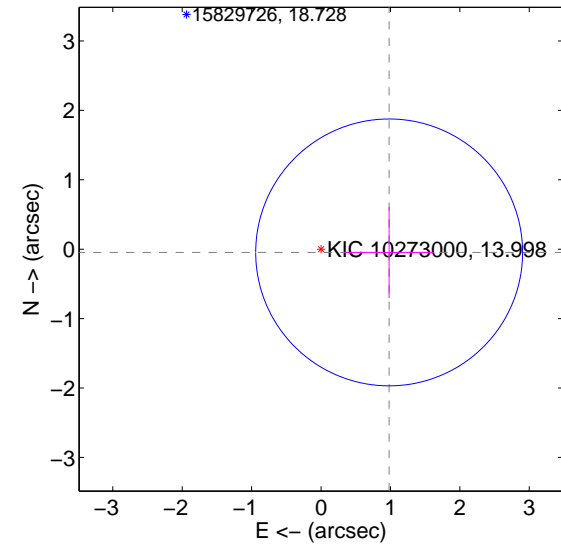
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

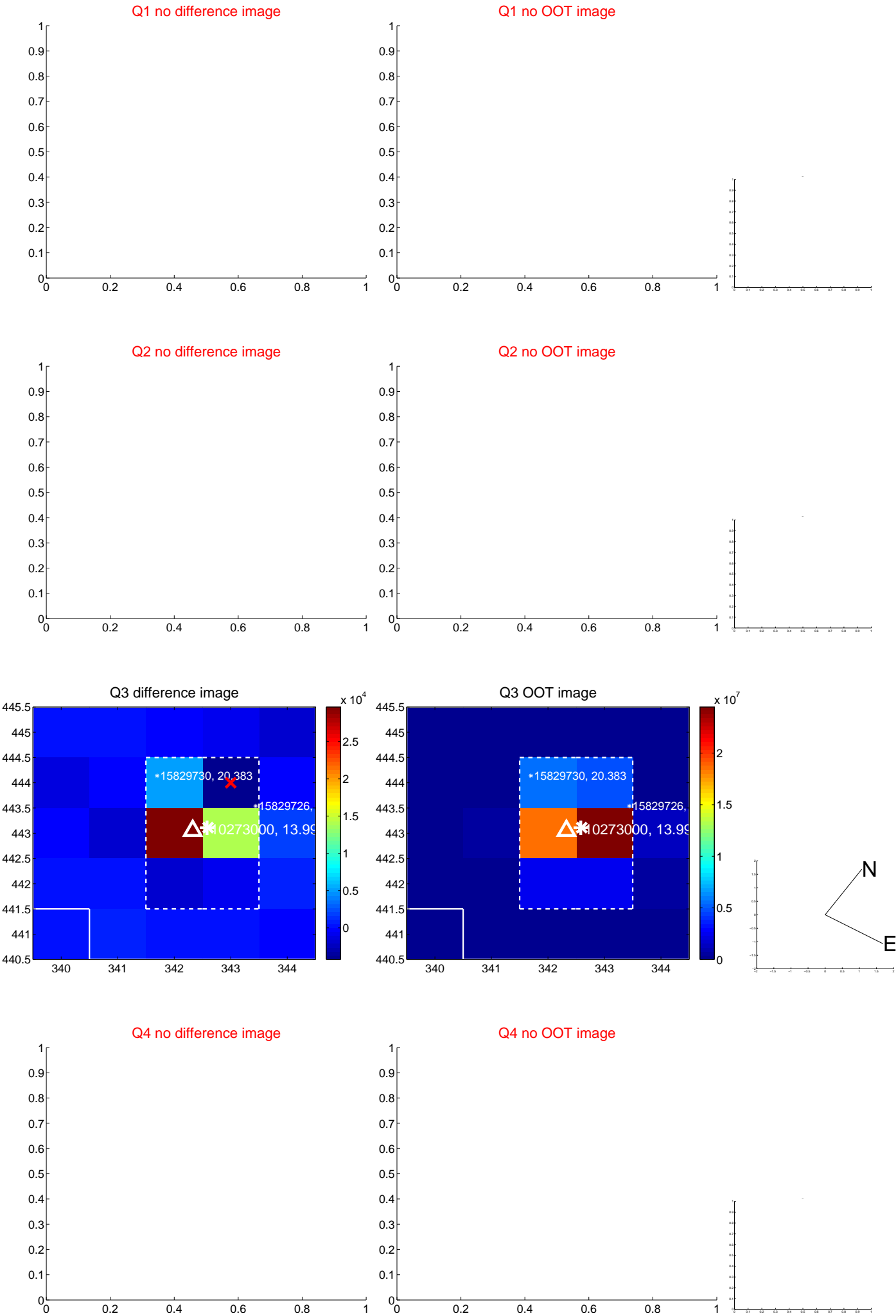


offset from photometric centroids



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.

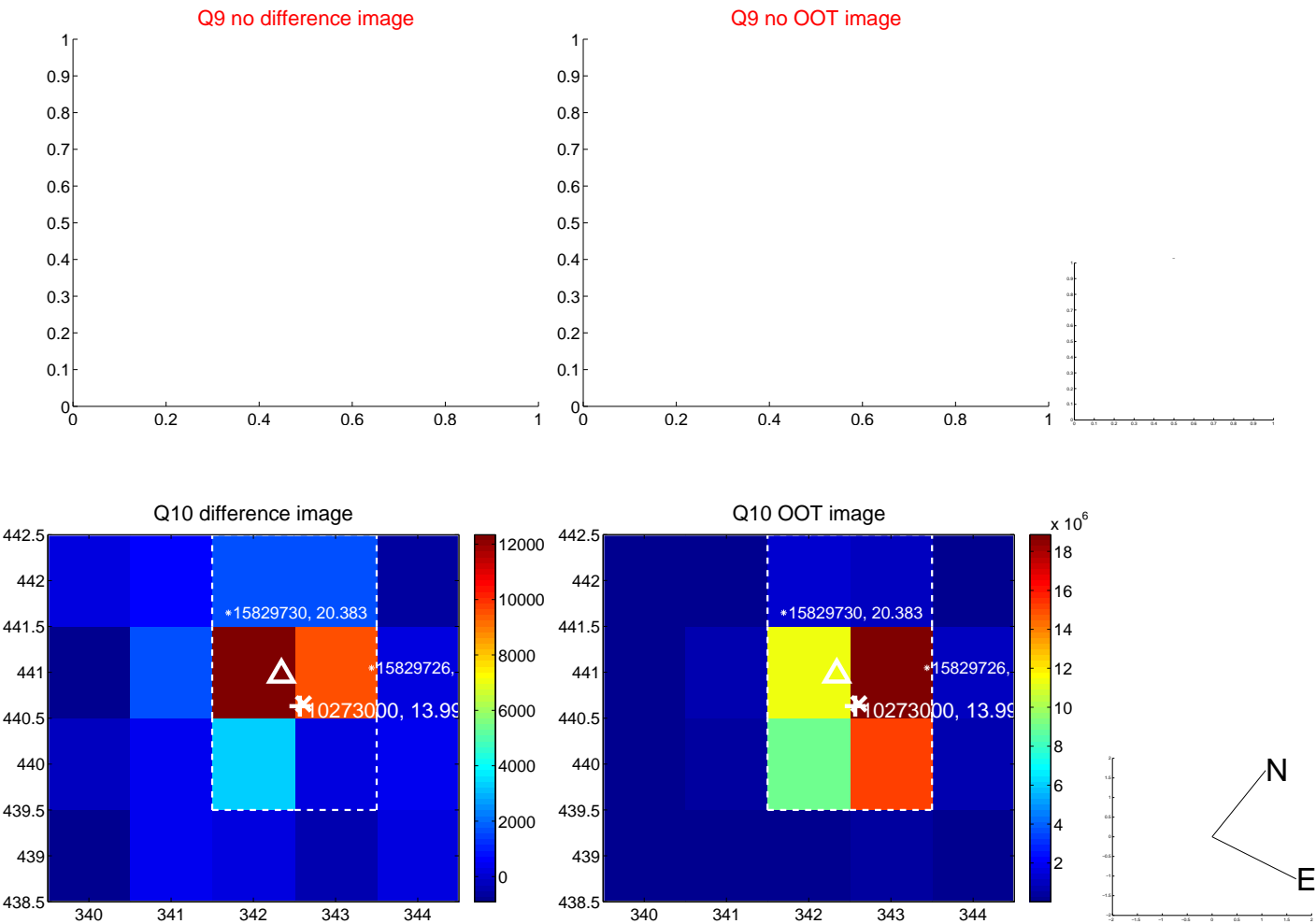
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

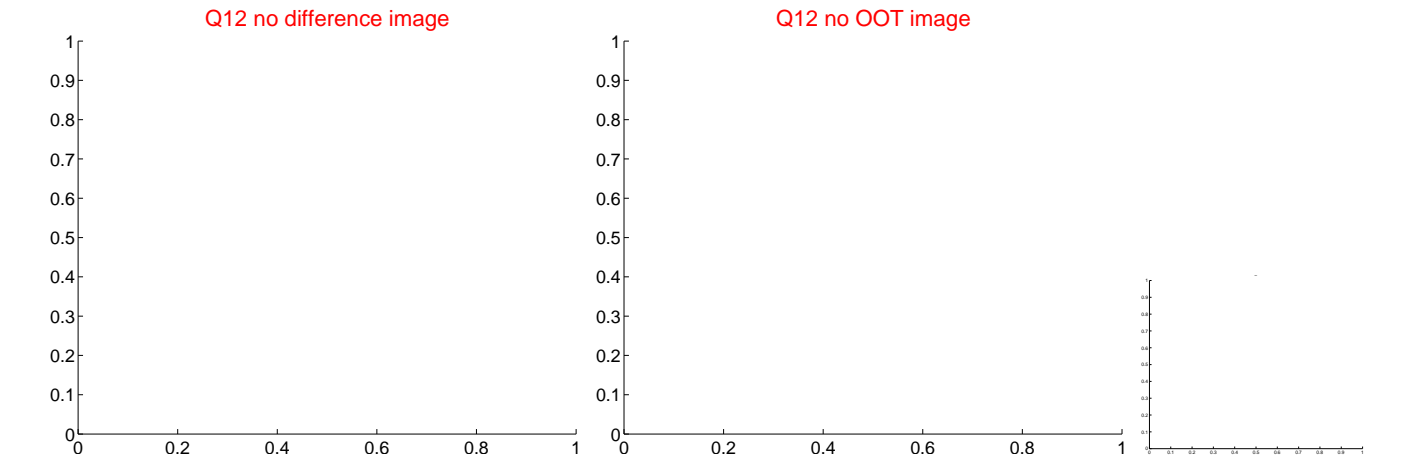
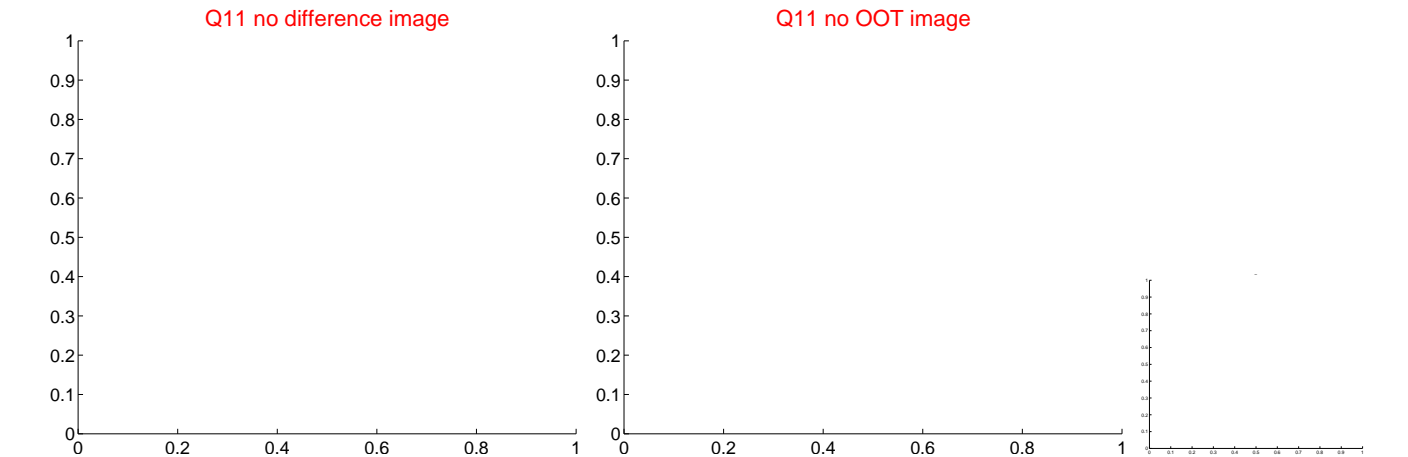


Q10 difference image

Q10 OOT image

N

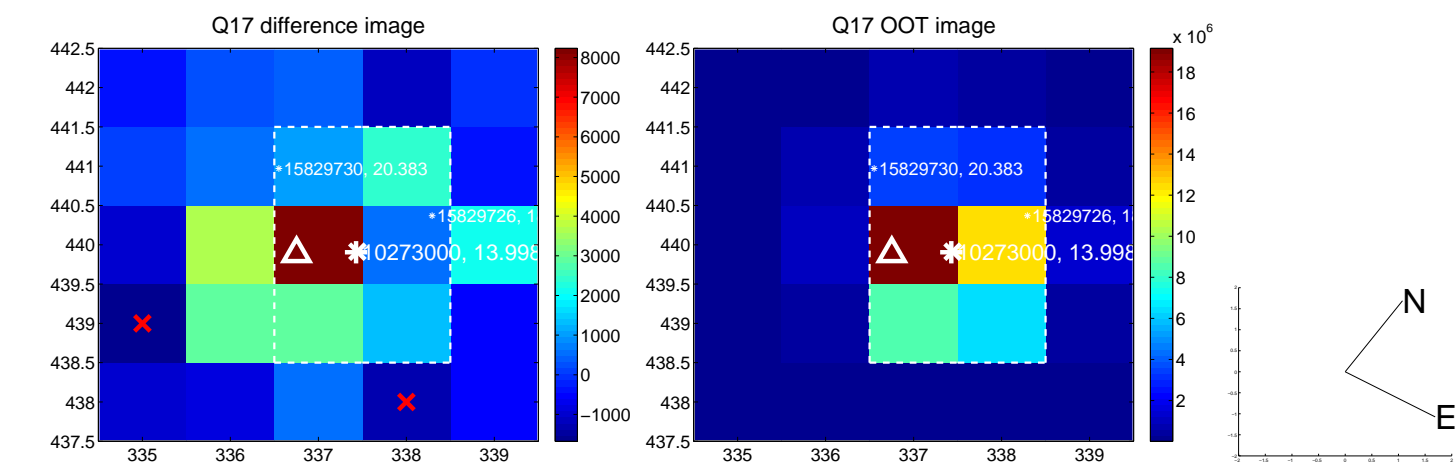
E



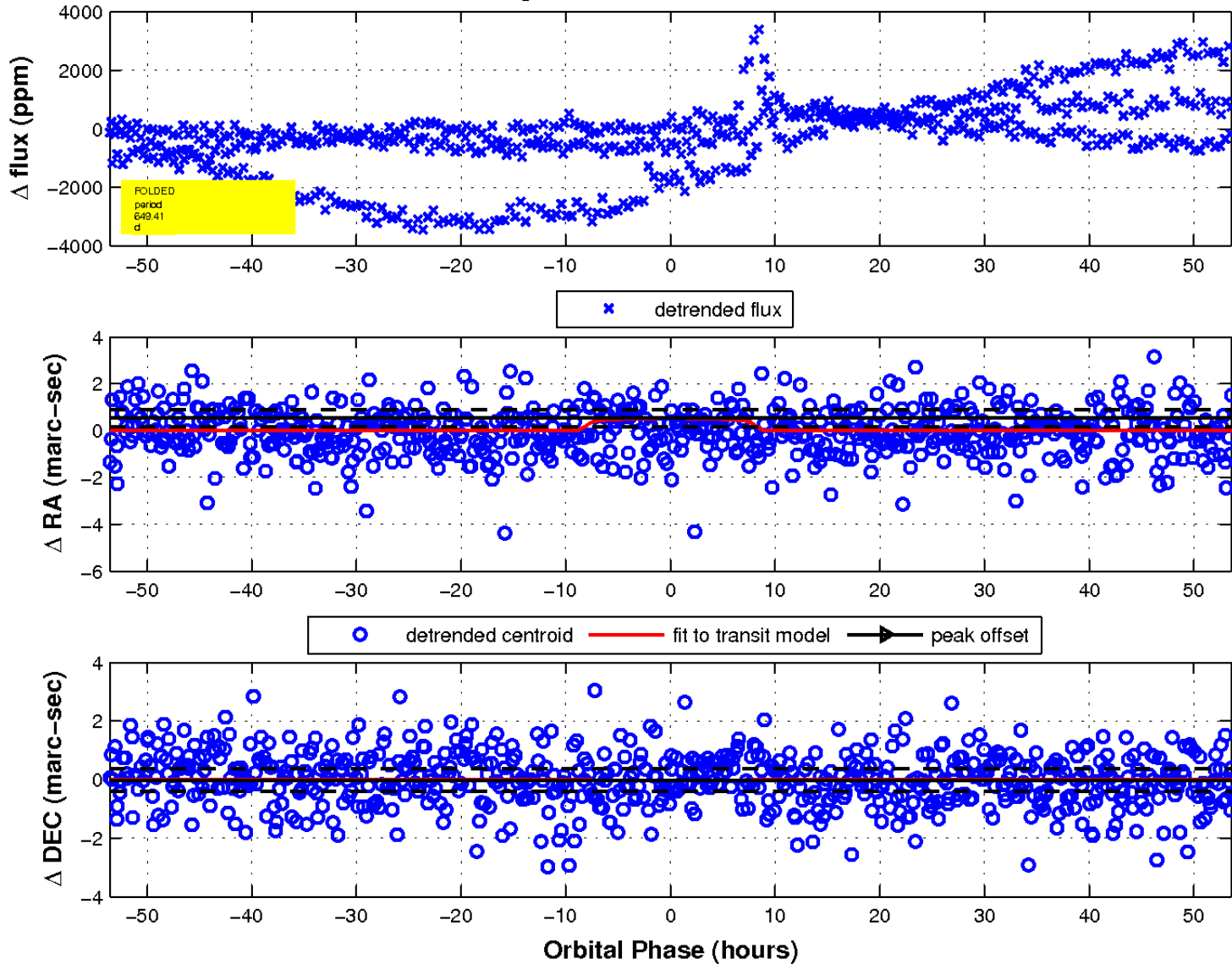
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

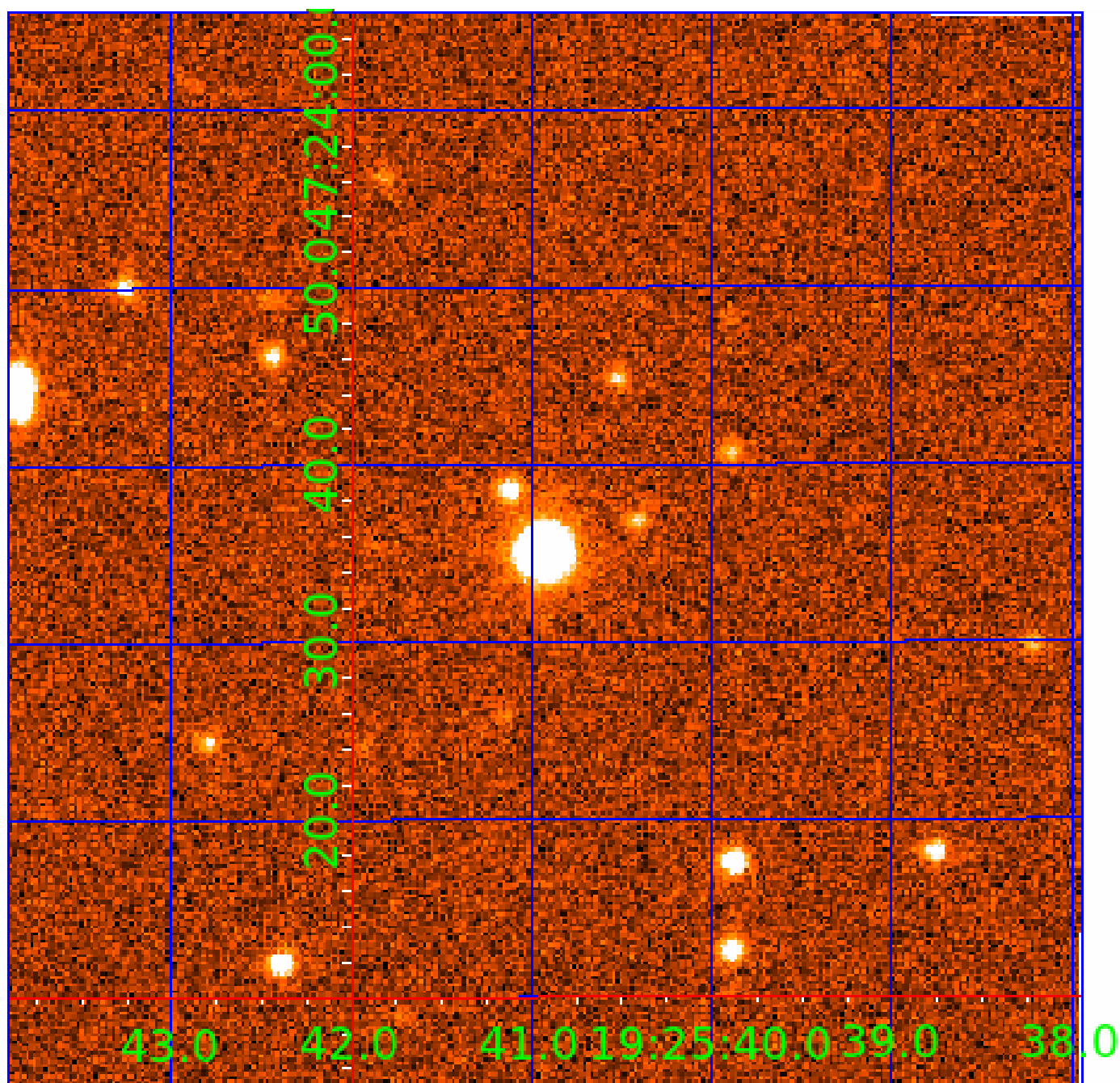


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 010273000

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})
010273000-01	OBS	No	340.721976	203.547930	307.9	7.336	9.0	5.6	0.87	5845	1.60	1.03
010273000-02	OBS	No	649.414423	276.904668	535.5	17.919	10.7	6.8	0.87	5845	2.30	0.44
010273000-03	OBS	No	562.885298	224.801027	565.7	15.545	14.0	6.9	0.87	5845	2.31	0.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010273000-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_MEAS
010273000-02	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_UNCERTAIN
010273000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

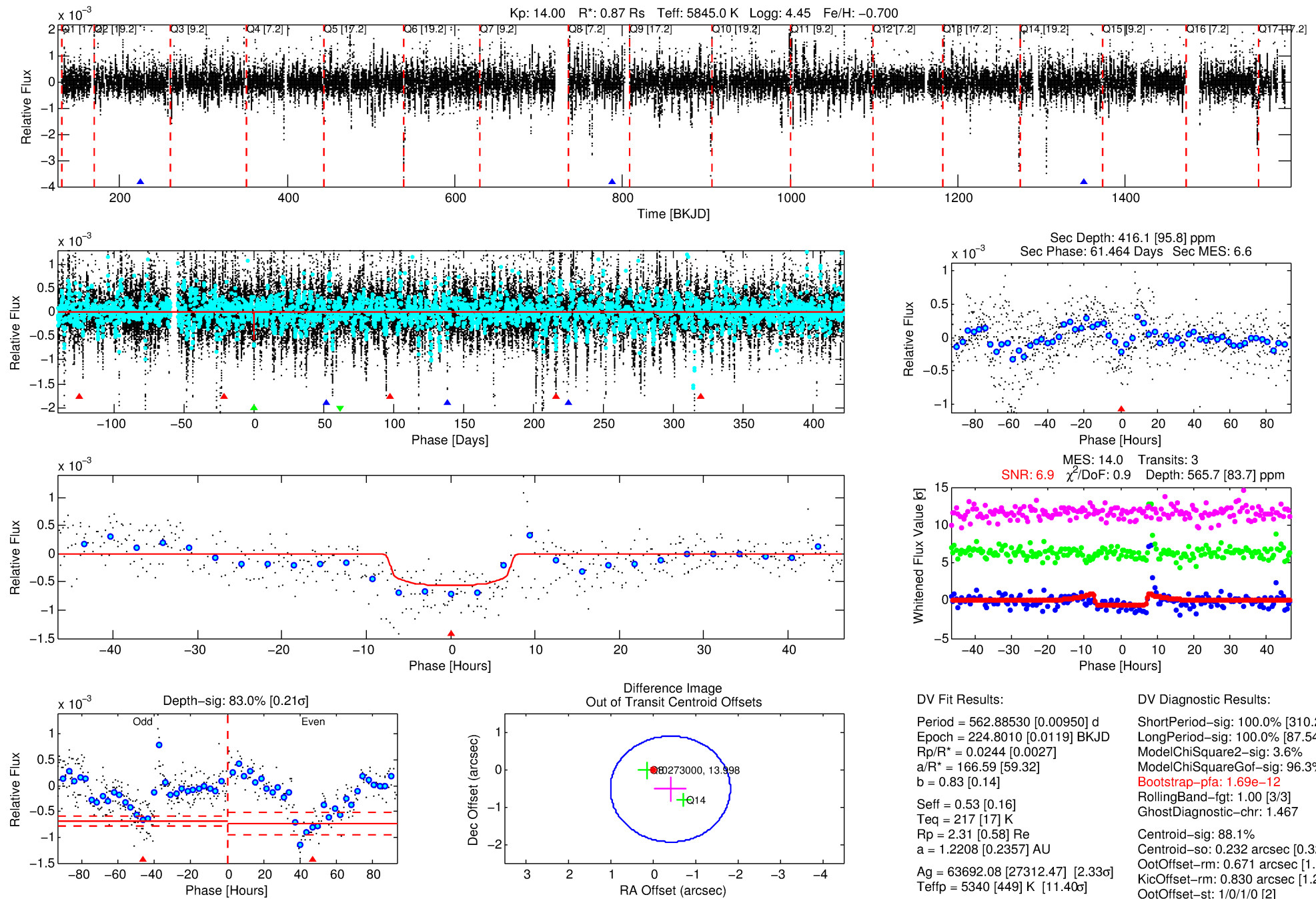
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010273000-03

No Significant Match Found

DV One-Page Summary

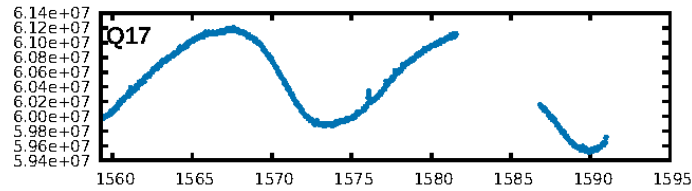
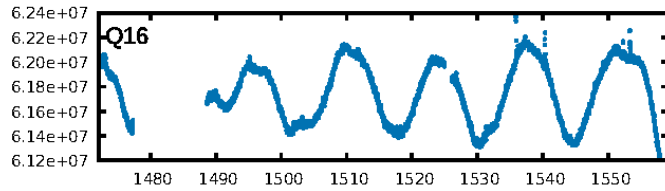
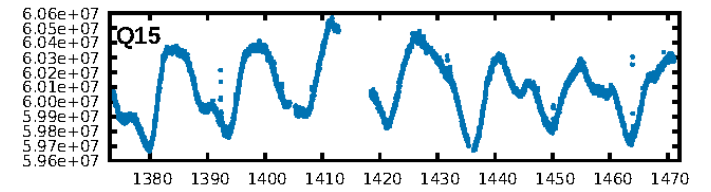
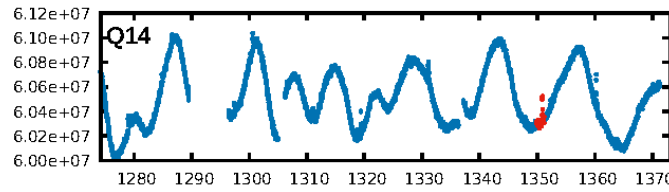
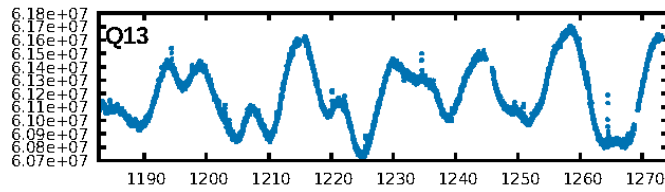
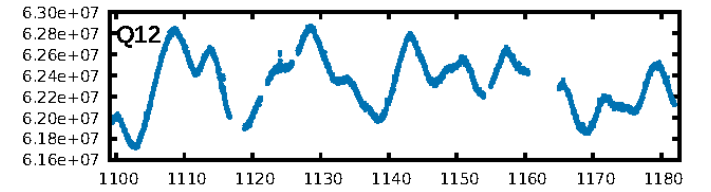
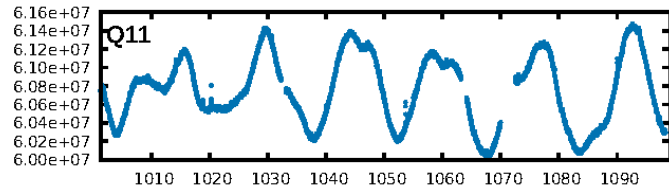
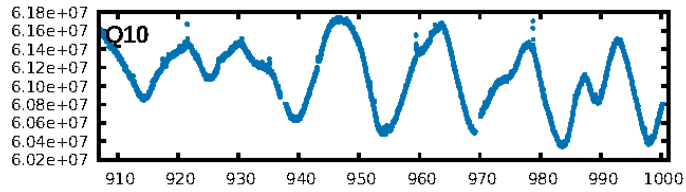
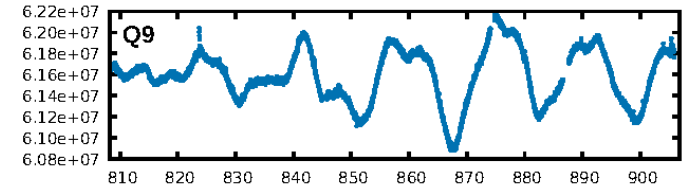
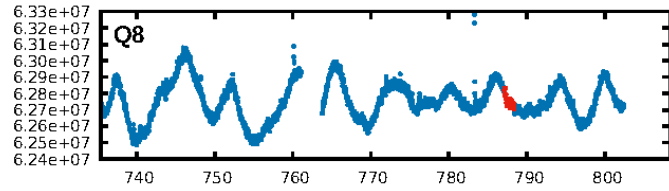
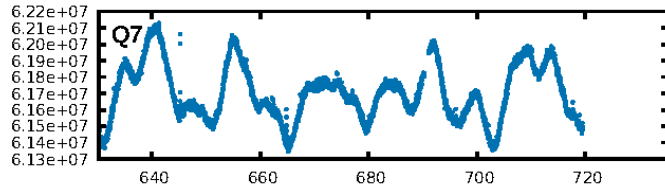
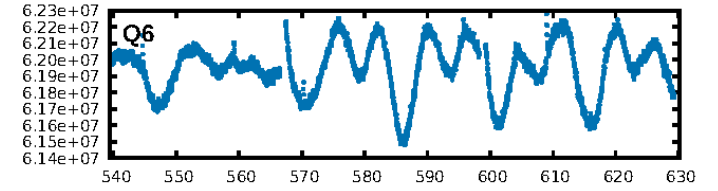
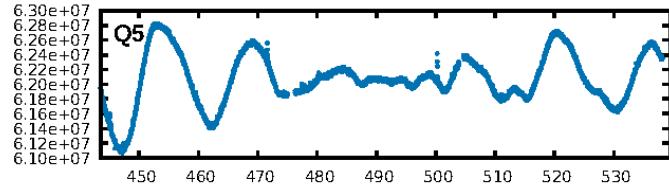
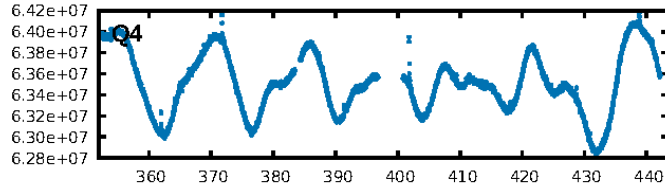
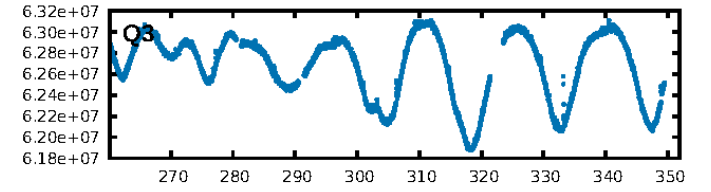
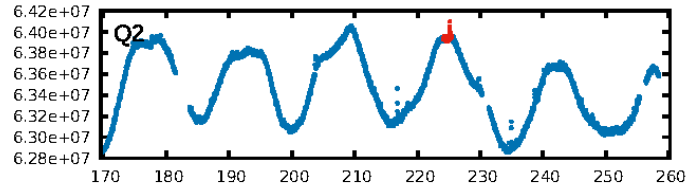
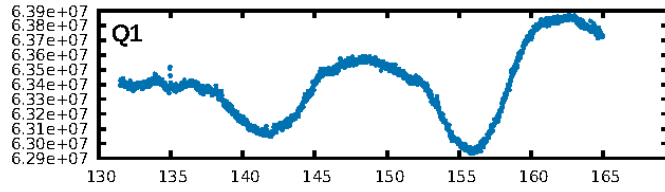
KIC: 10273000 Candidate: 3 of 3 Period: 562.885 d



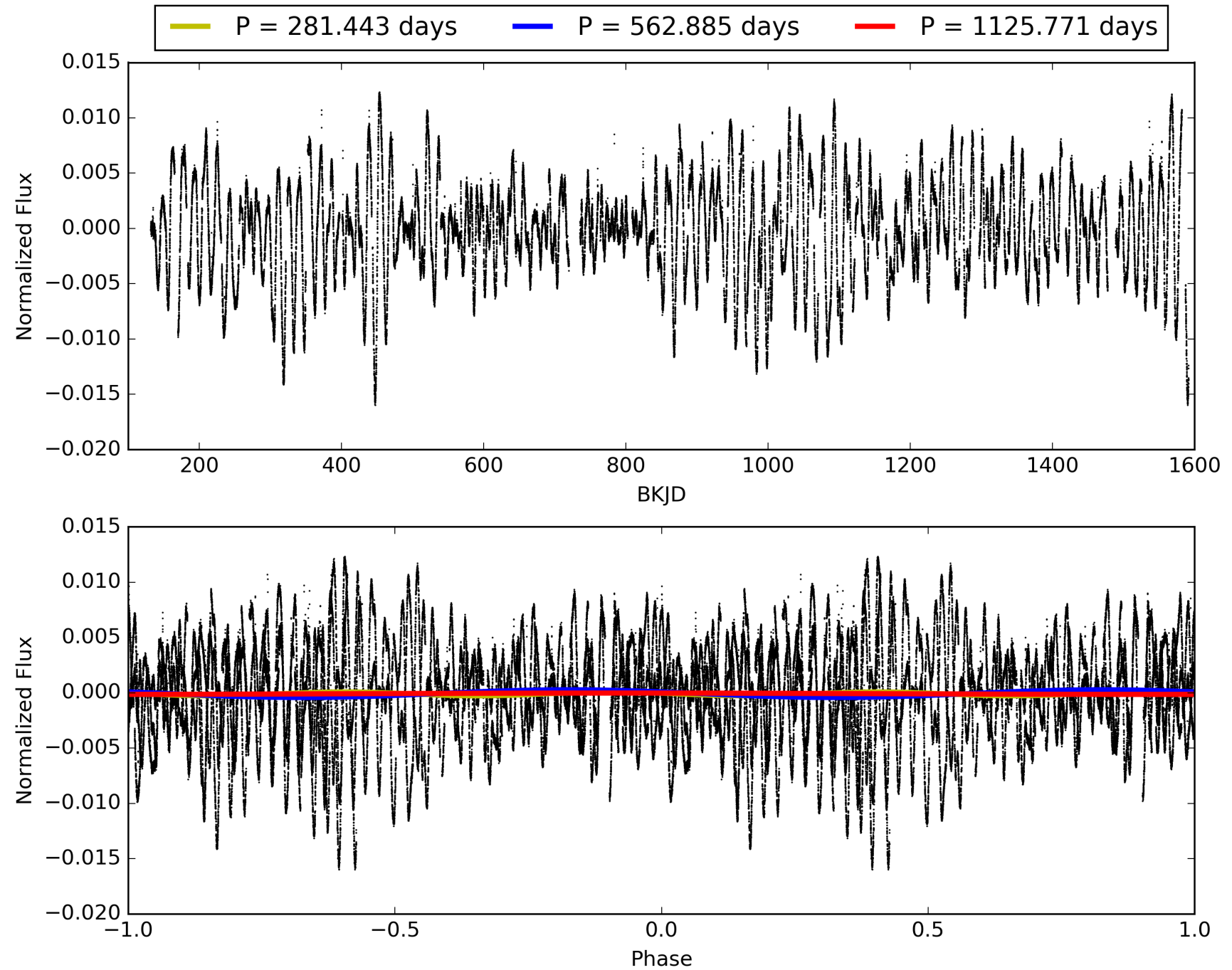
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:04:18 Z

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

TCE 010273000-03, PDC Light Curves

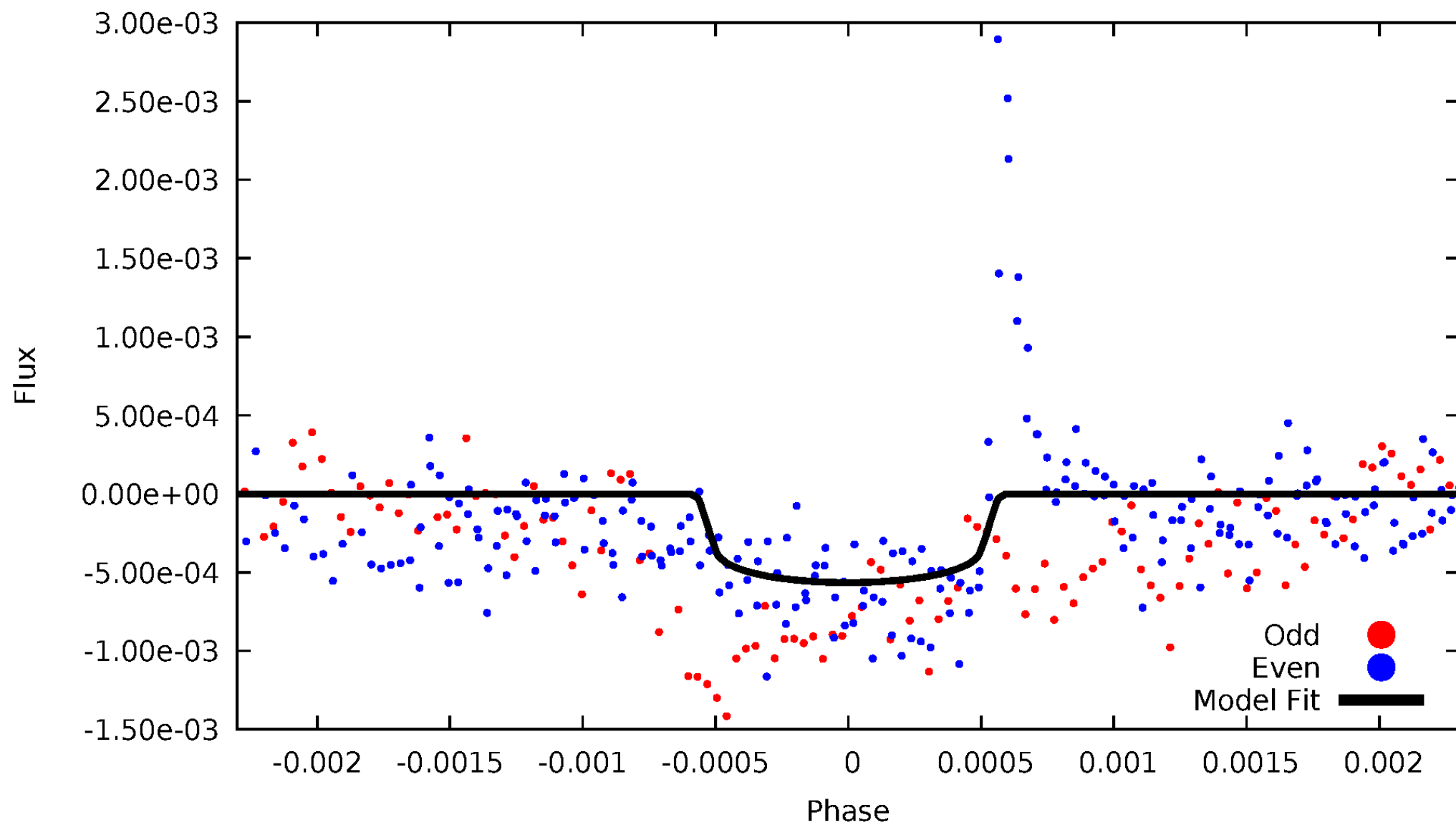


TCE 010273000-03



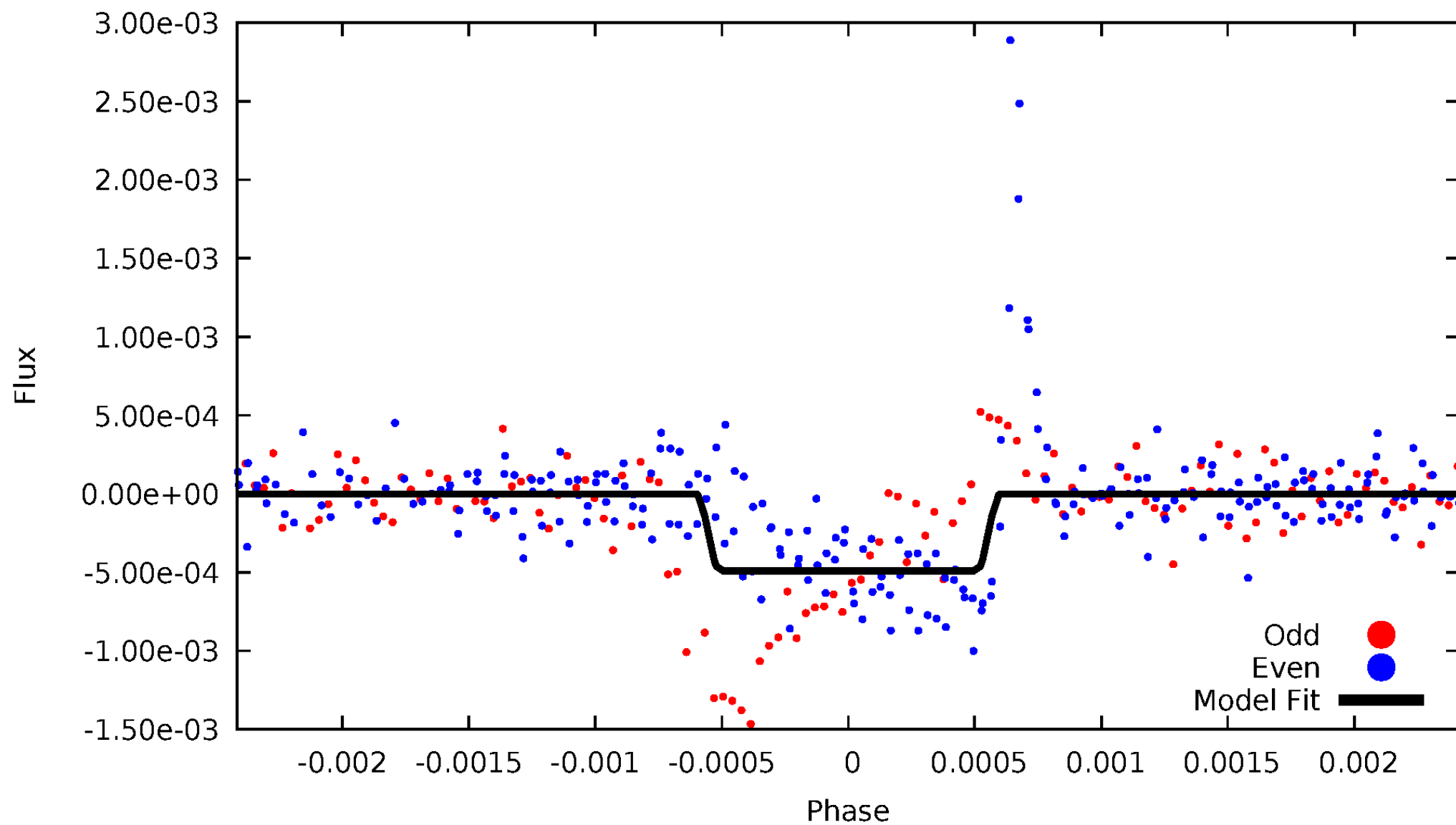
DV Odd/Even

TCE 010273000-03



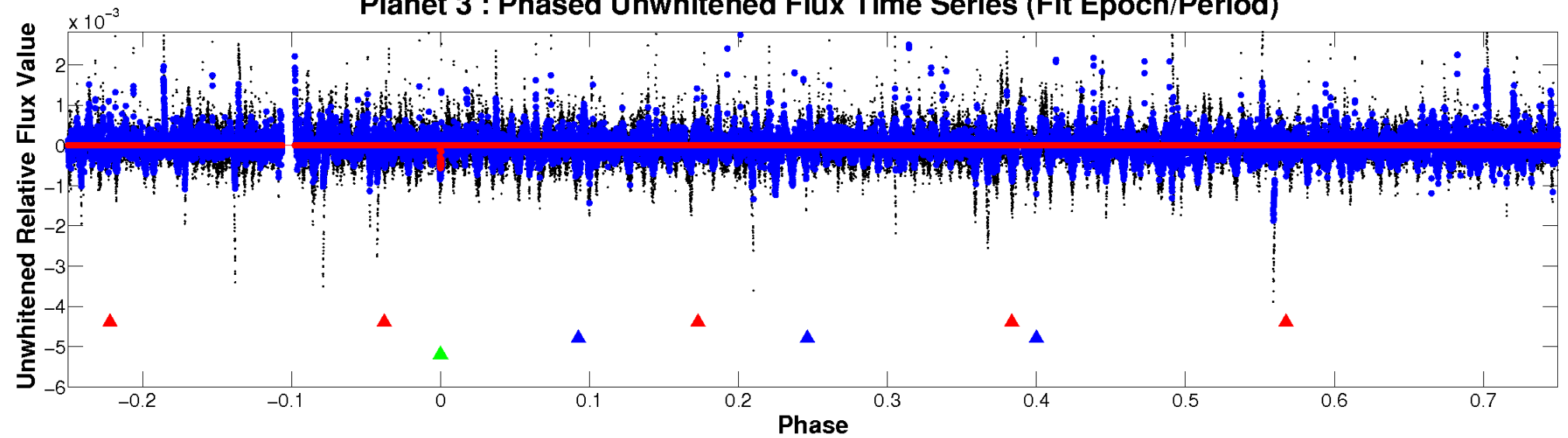
ALT Odd/Even

TCE 010273000-03

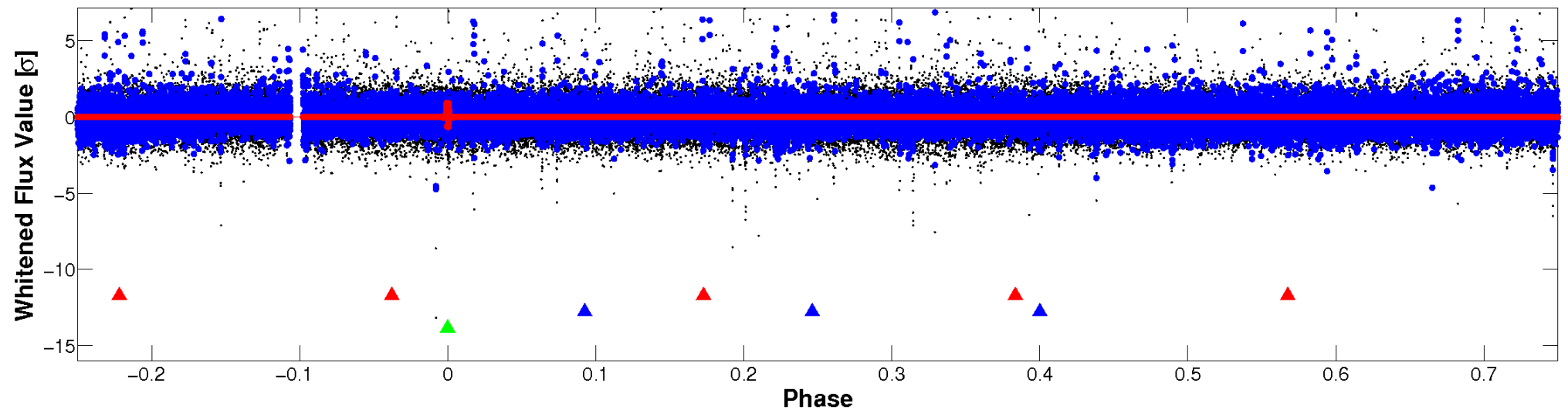


Non-Whitened Vs. Whitened Light Curve

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

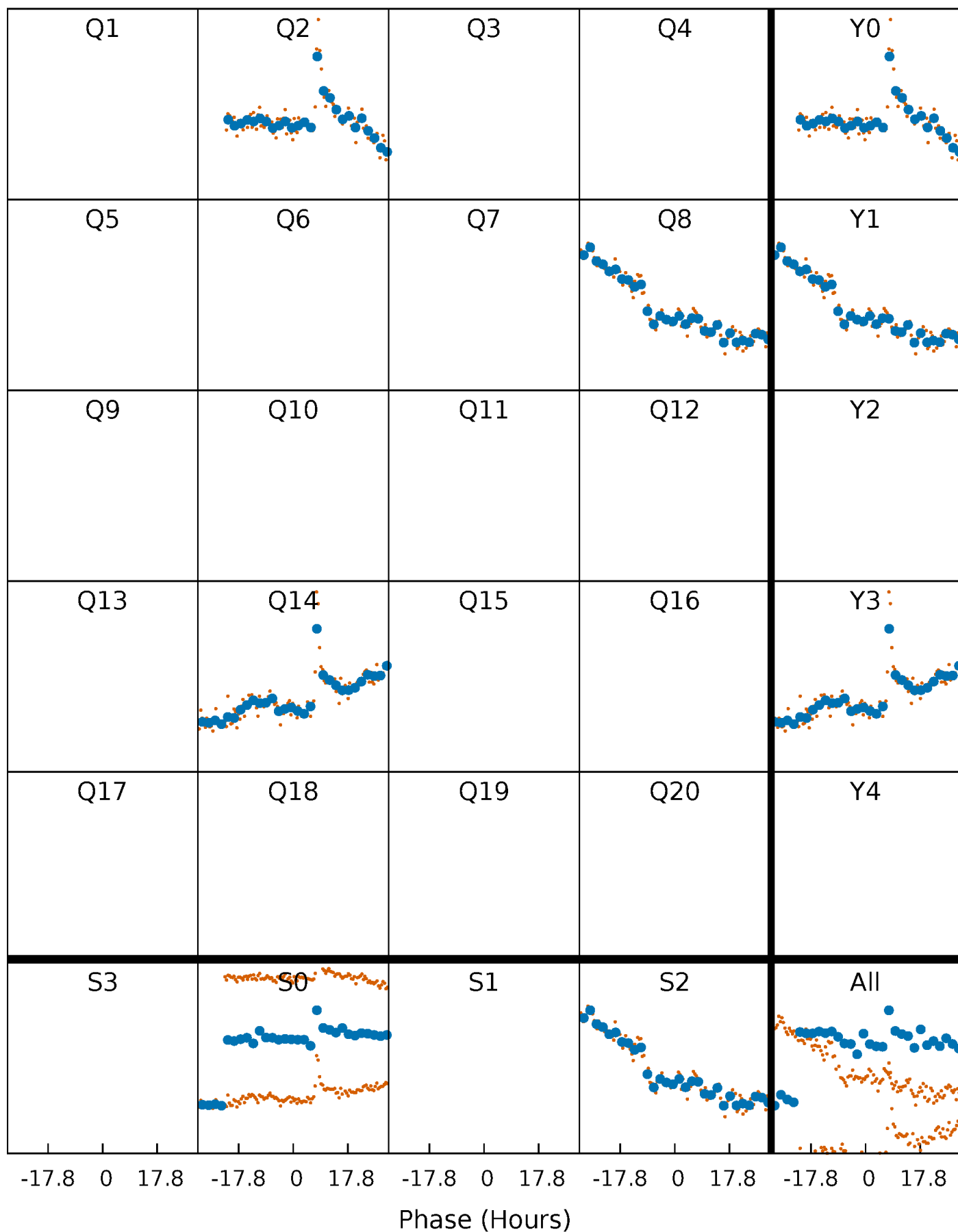


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



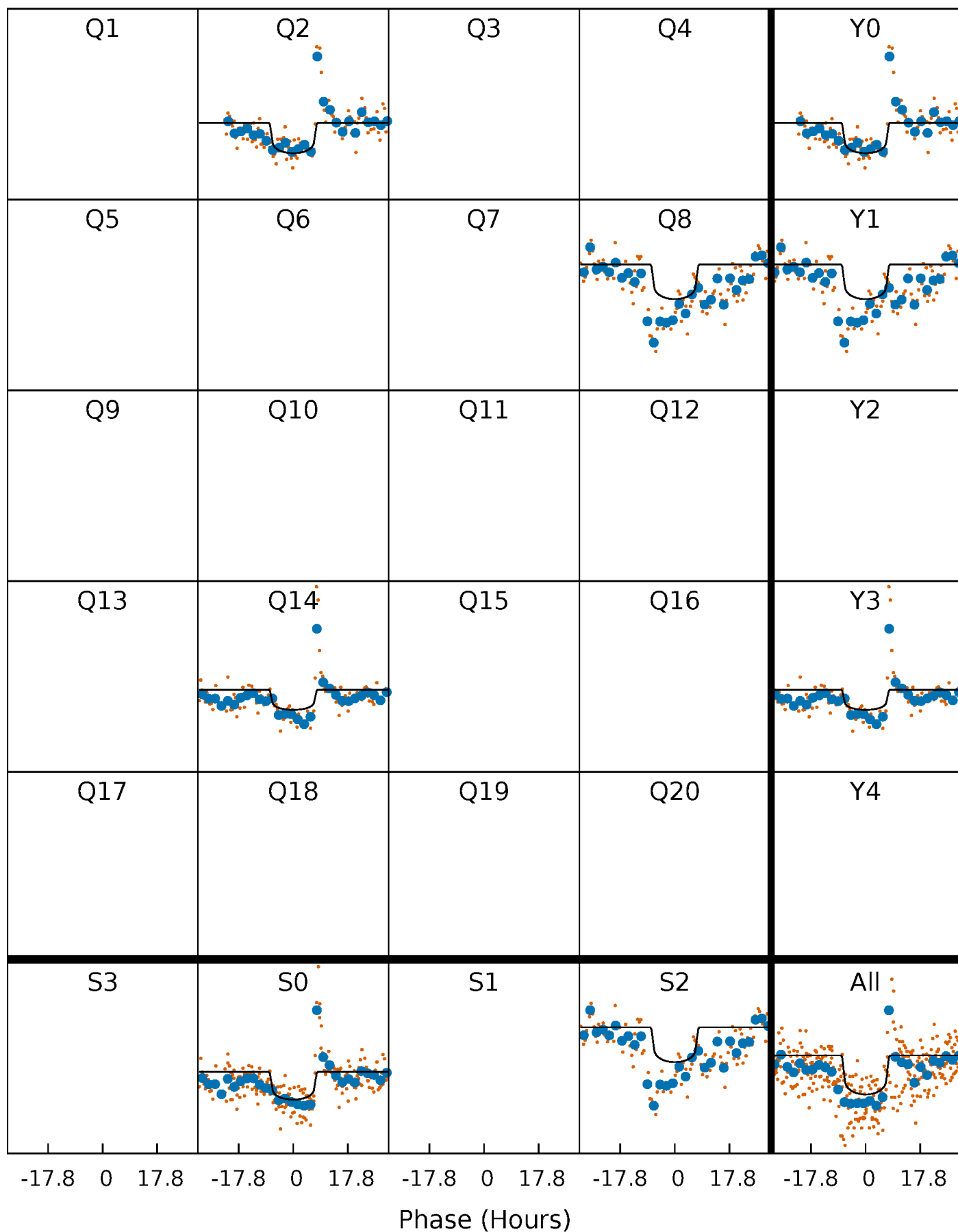
PDC Quarter-Phased Transit Curves

TCE 010273000-03 P=562.885298 Days $T_0=224.801027$ (BKJD)



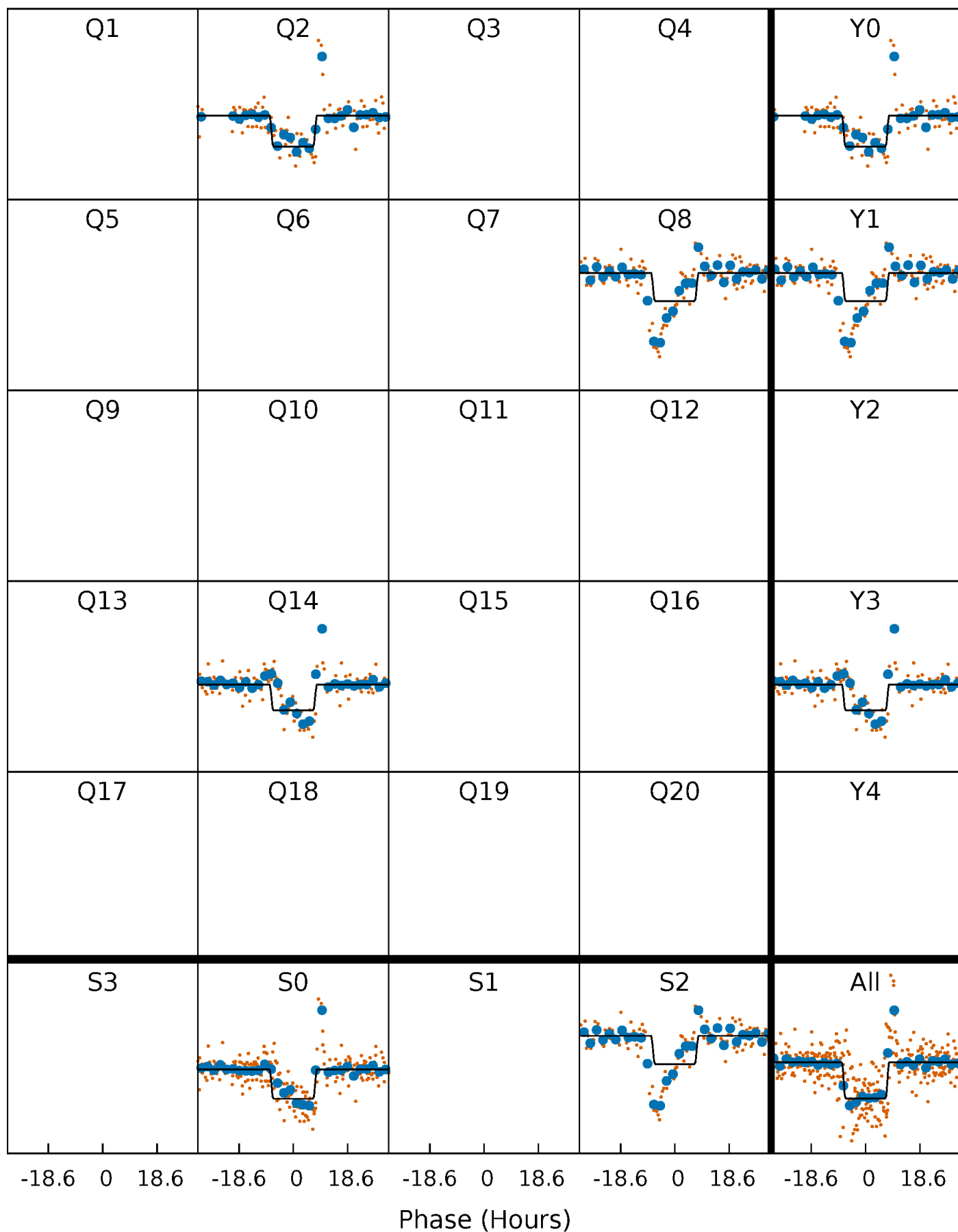
DV Quarter-Phased Transit Curves

TCE 010273000-03 $P=562.885298$ Days $T_0=224.801027$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

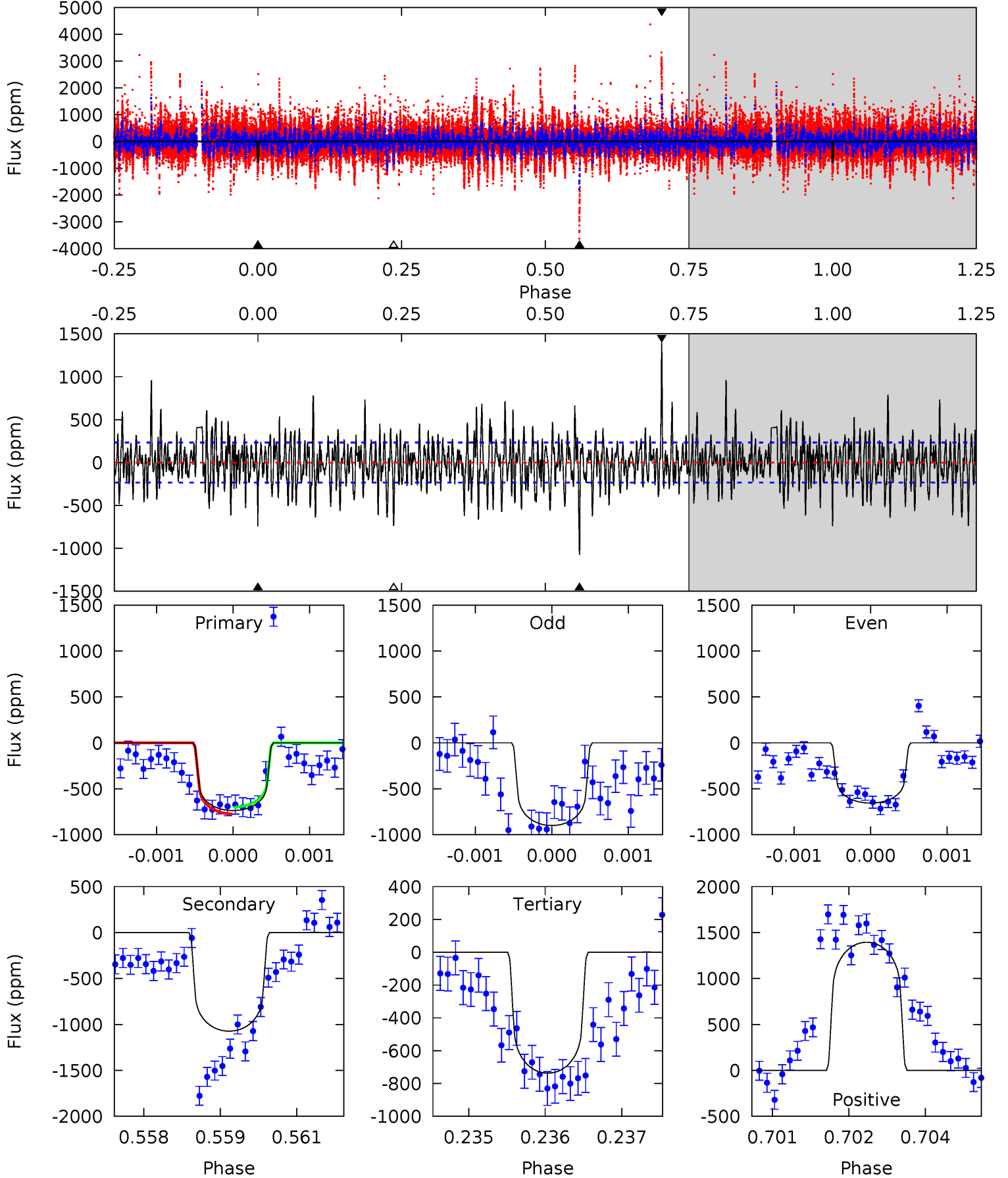
TCE 010273000-03 $P=562.883277$ Days $T_0=224.762105$ (BKJD)



DV Model-Shift Uniqueness Test

010273000-03, P = 562.885298 Days, E = 224.801027 Days

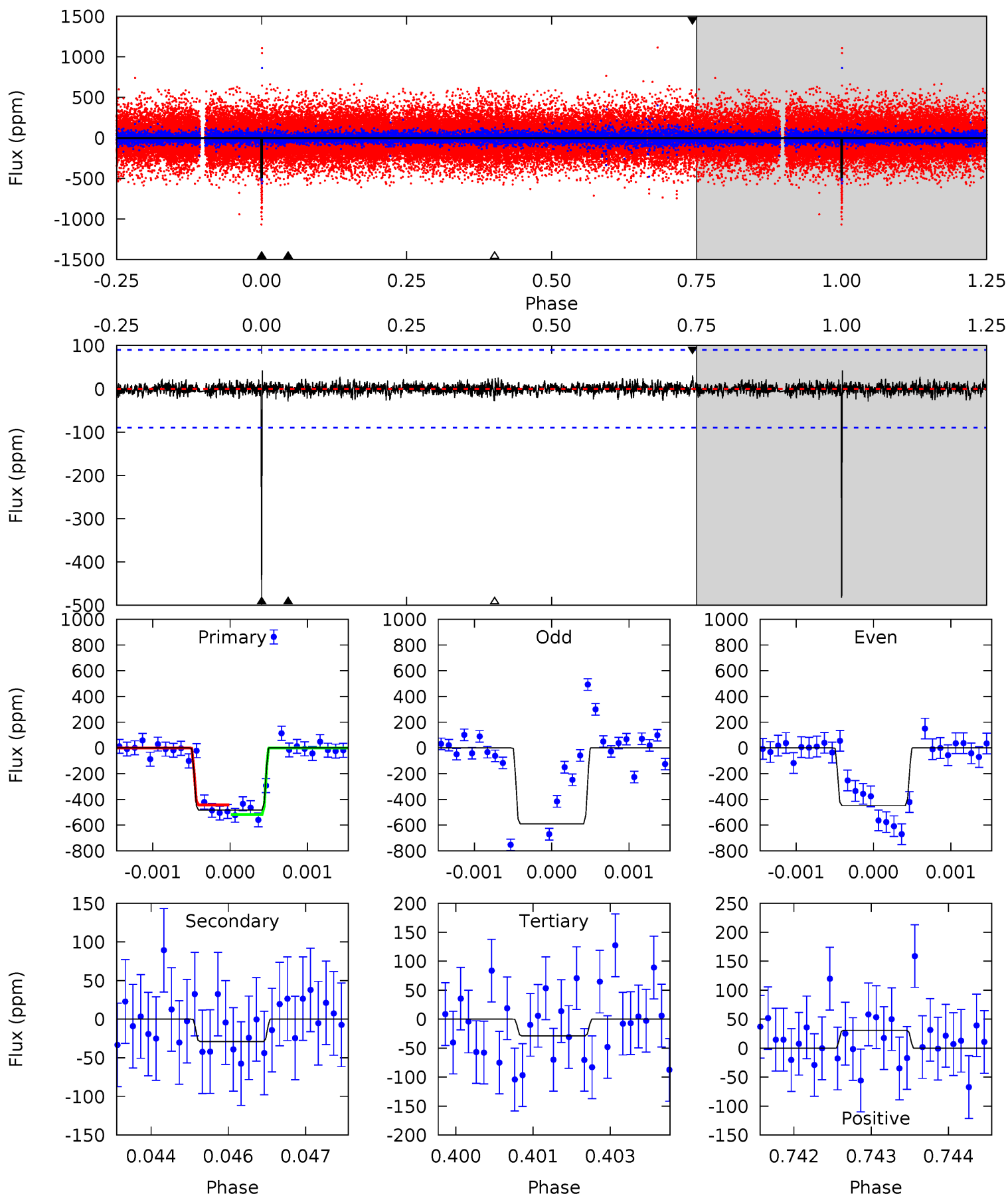
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	25.0	17.1	32.4	5.43	3.25	5.18	0.01	-15.3	7.82	-7.47	2.40	0.93	0.57	0.87



Alt Model-Shift Uniqueness Test

010273000-03, P = 562.883277 Days, E = 224.762105 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.1	1.75	1.74	1.85	5.42	3.24	0.43	27.4	27.3	0.01	-0.11	4.25	1.10	0.08	2.24



Stellar Parameters For KIC 010273000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5845^{+159}_{-159}	$4.445^{+0.131}_{-0.160}$	$-0.700^{+0.300}_{-0.300}$	$0.868^{+0.194}_{-0.129}$	$0.765^{+0.103}_{-0.039}$	$1.649^{+1.011}_{-0.731}$
	+3%/-3%	+3%/-4%	+43%/-43%	+22%/-15%	+13%/-5%	+61%/-44%
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 010273000-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1073 ± 43	$2.34^{+0.36}_{-0.35}$	304^{+19}_{-17}	6798^{+529}_{-418}	165022^{+58348}_{-43200}
Alt.	-29 ± 17	$2.15^{+0.36}_{-0.33}$	304^{+20}_{-15}	3379^{+326}_{-447}	5175^{+4069}_{-3202}

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 $A_{obs} \gg 1.0$

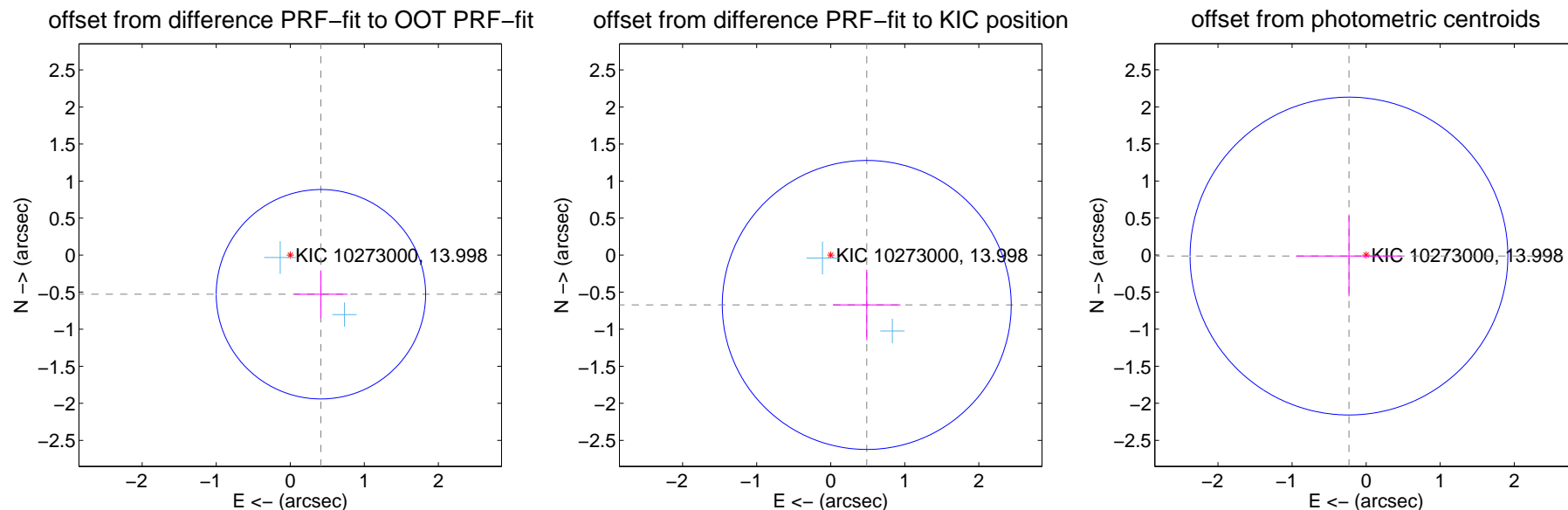
DV Centroid Data

Supplemental centroid analysis for 010273000-03. Kepler magnitude: 14.00. Transit SNR 6.92

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.671 ± 0.471	1.42	-0.414 ± 0.361	-0.528 ± 0.322
PRF-fit source offset from KIC position	0.830 ± 0.650	1.28	-0.486 ± 0.457	-0.672 ± 0.476
photometric centroid source offset	0.23 ± 0.71	0.32	0.23 ± 0.72	-0.01 ± 0.54

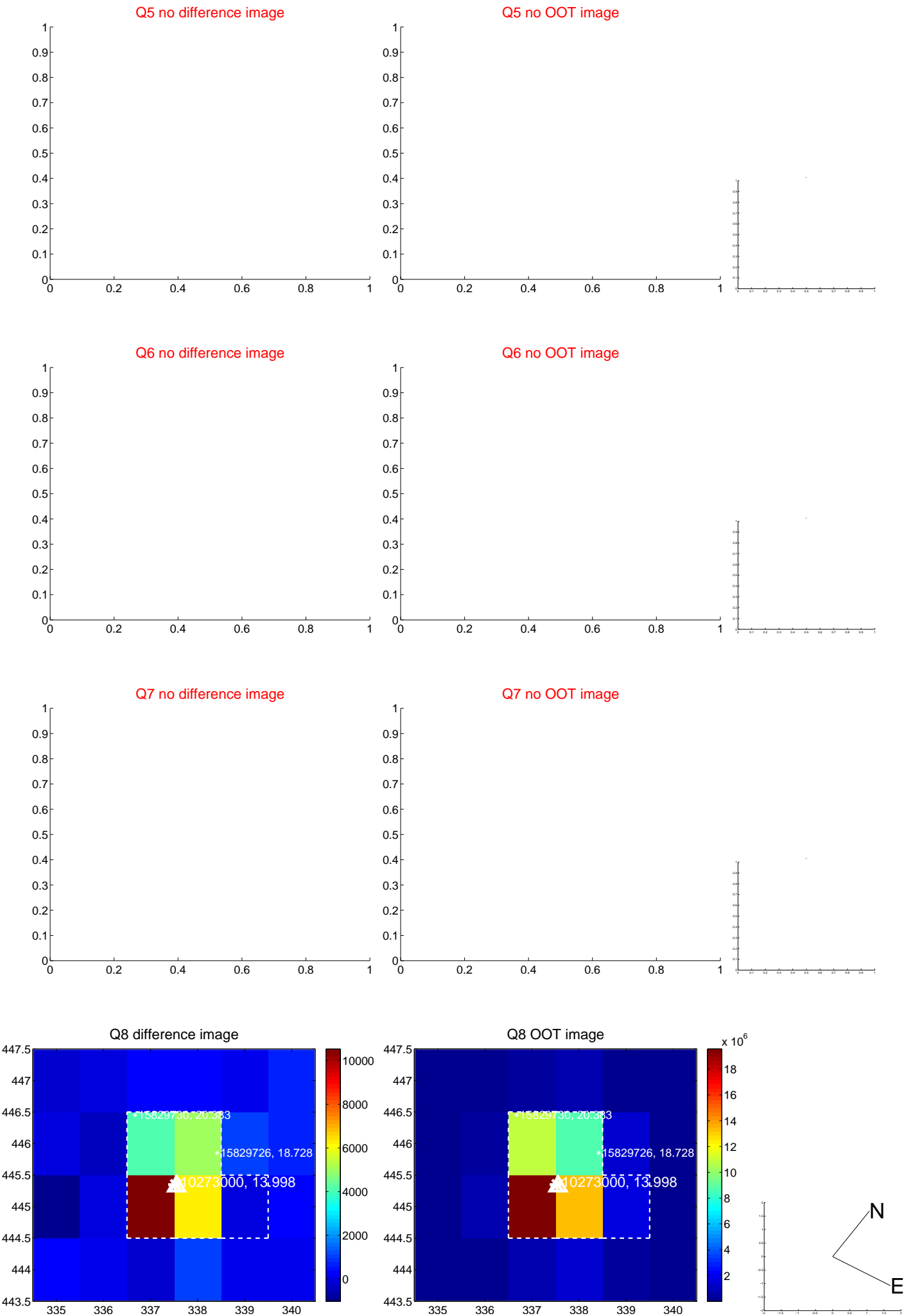


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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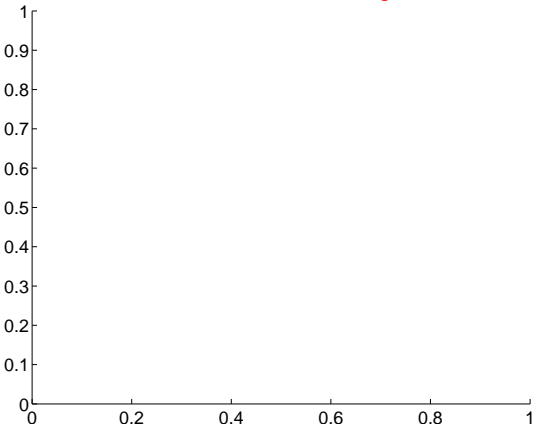


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

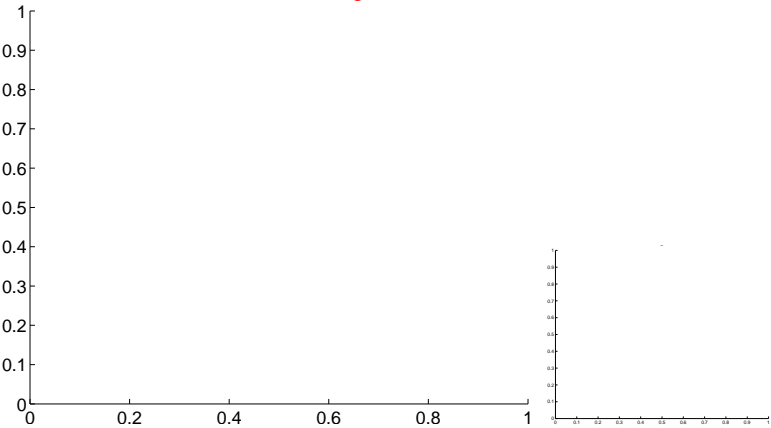


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

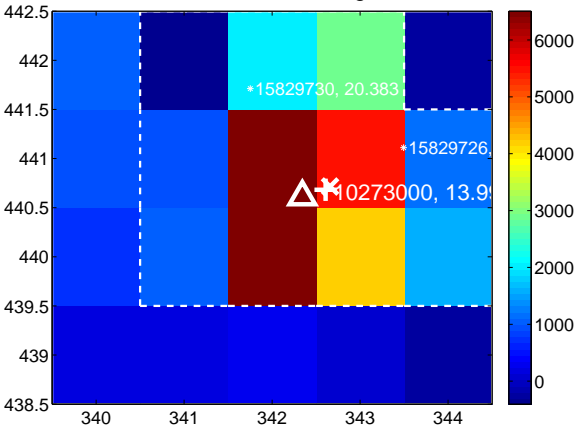
Q13 no difference image



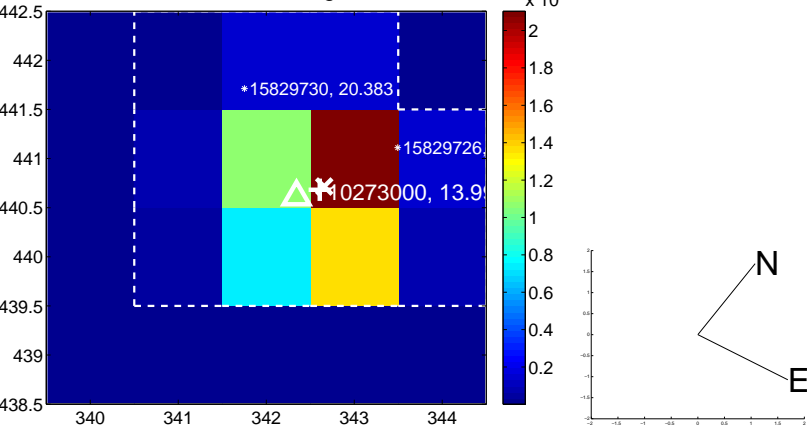
Q13 no OOT image



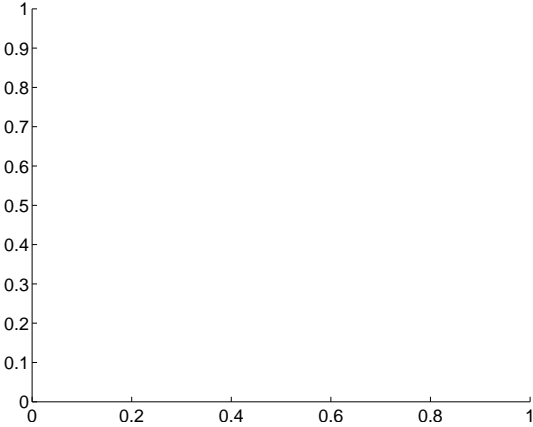
Q14 difference image



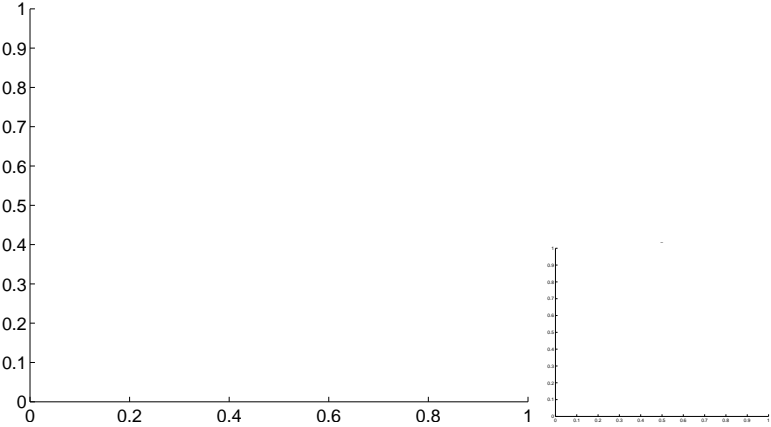
Q14 OOT image



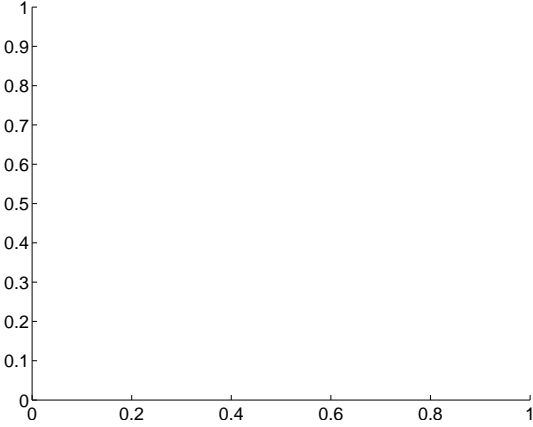
Q15 no difference image



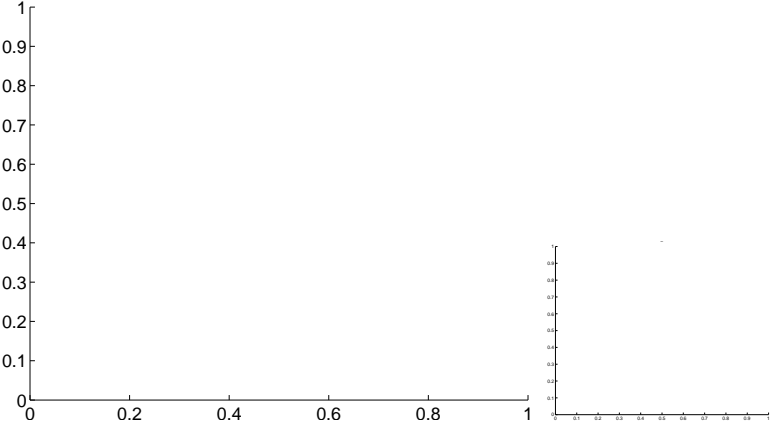
Q15 no OOT image



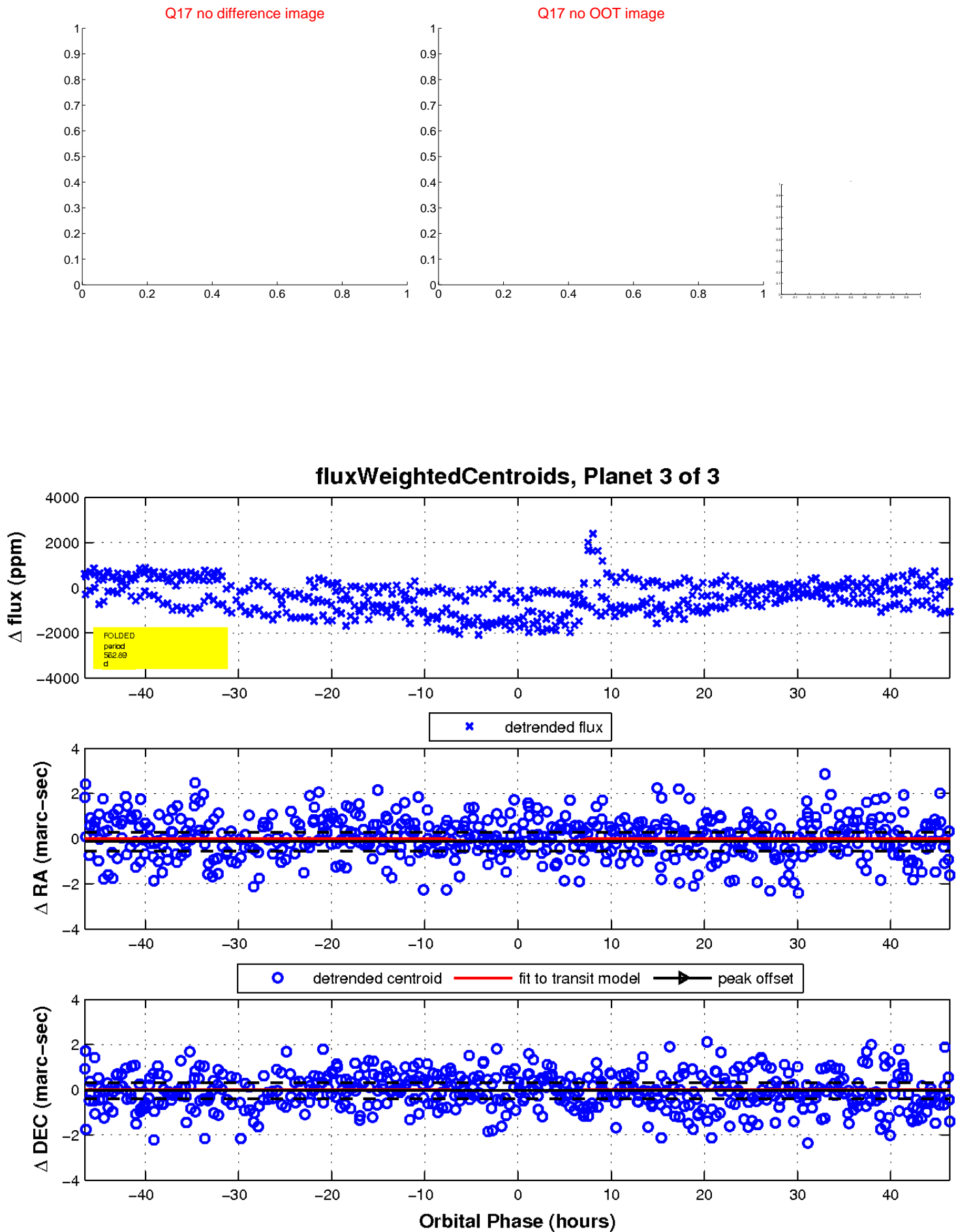
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

