

KIC 010001167

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})
010001167-01	OBS	No	361.172747	485.849355	17166.0	95.741	13.0	71.0	12.83	4600	161.65	75.46
010001167-02	OBS	No	577.496809	365.491970	9979.9	100.041	10.3	20.0	12.83	4600	135.08	40.36
010001167-03	OBS	No	360.952026	246.504258	107.5	15.000	16.9	-1.0	12.83	4600	12.80	75.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010001167-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
010001167-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_SATURATED
010001167-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED

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

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

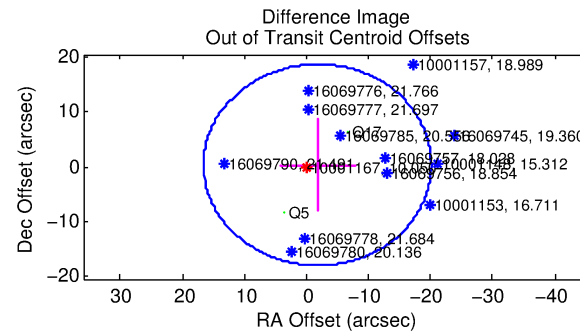
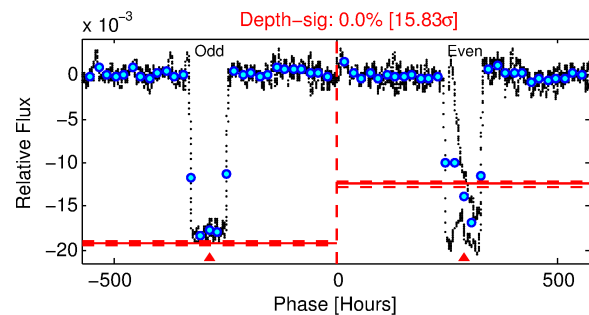
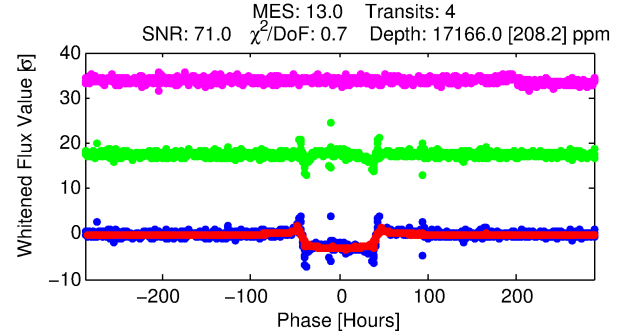
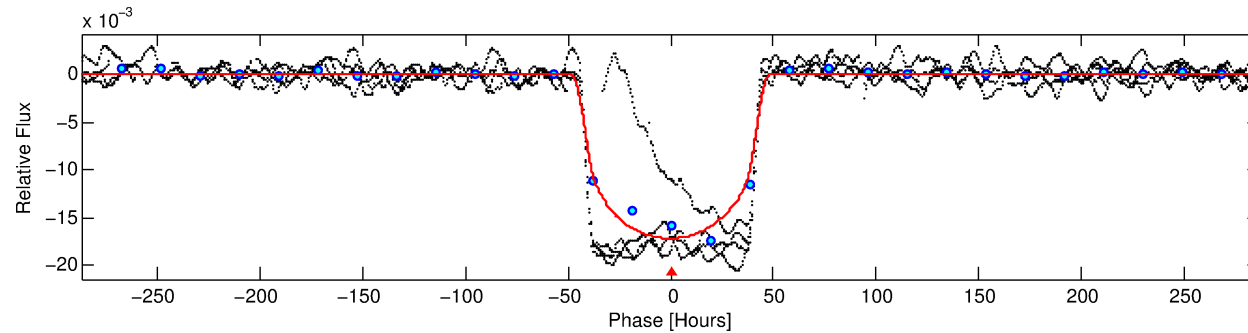
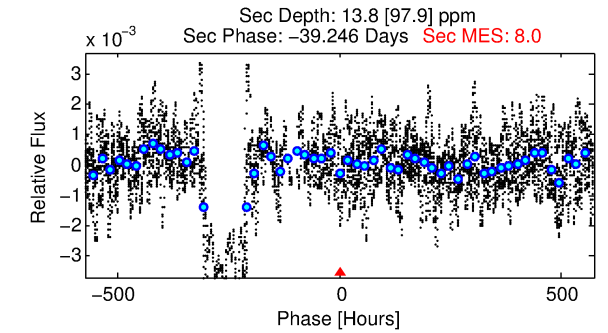
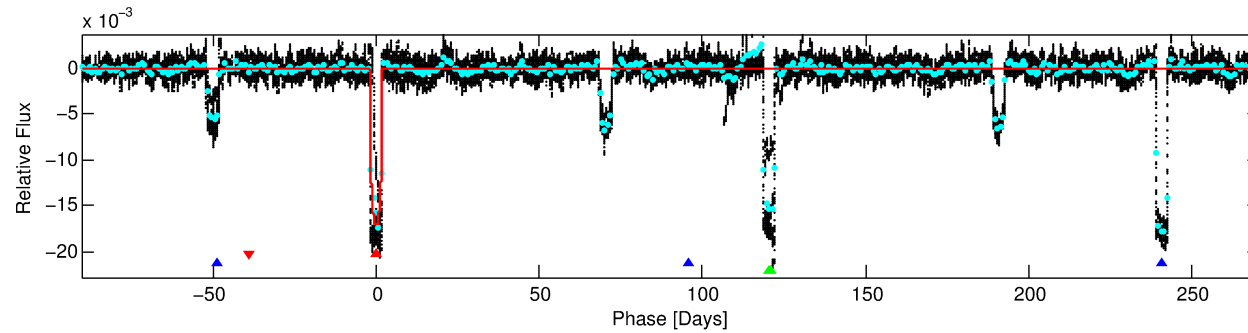
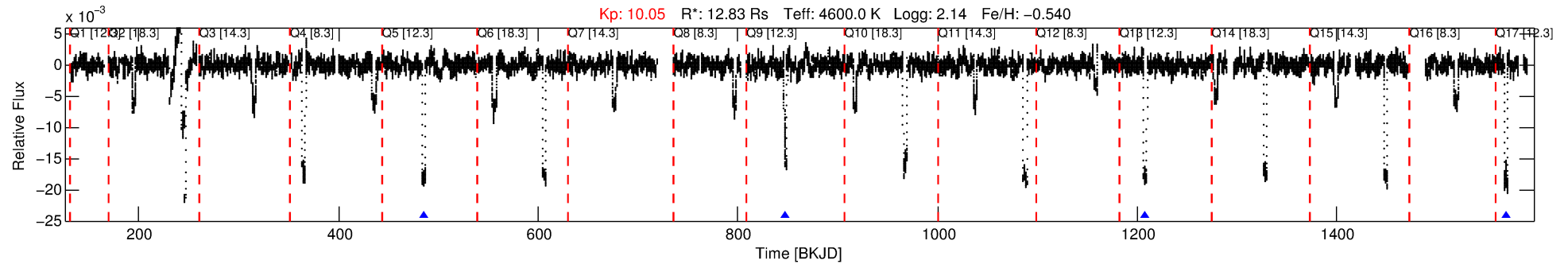
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010001167-01

No Significant Match Found

DV One-Page Summary

KIC: 10001167 Candidate: 1 of 3 Period: 361.173 d



DV Fit Results:

Period = 361.17275 [0.00343] d
Epoch = 485.8494 [0.0067] BKJD
Rp/R* = 0.1155 [0.0007]
a/R* = 32.15 [0.34]
b = 0.00 [5.59]
Seff = 75.46 [25.51]
Teq = 752 [64] K
Rp = 161.65 [53.47] Re
a = 0.9352 [0.2357] AU
Ag = 0.25 [1.80] [-0.41] σ
Teffp = 825 [1463] K [0.05] σ

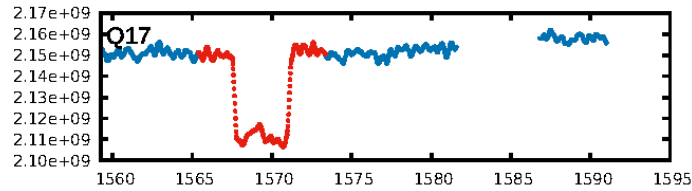
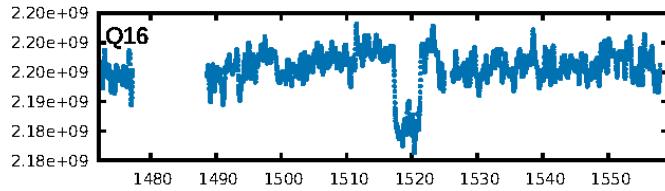
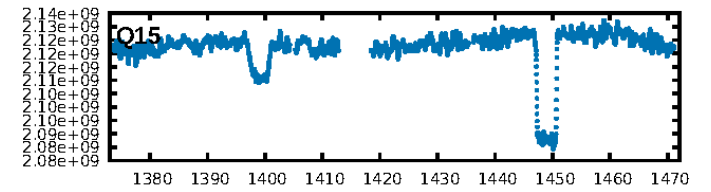
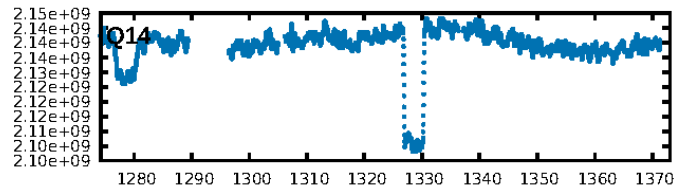
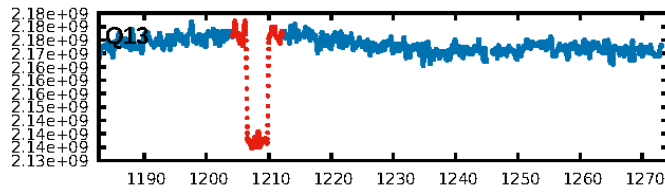
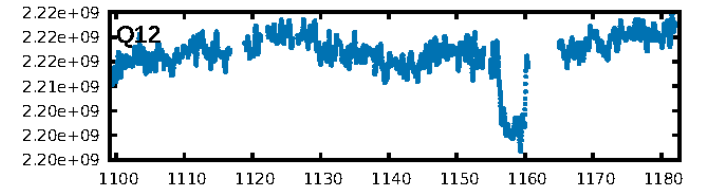
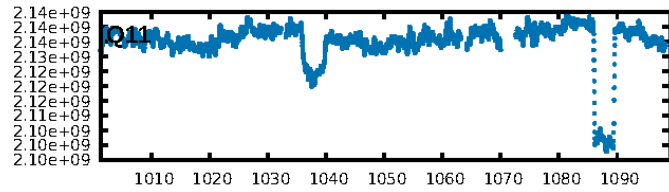
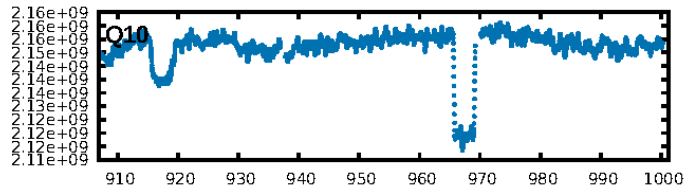
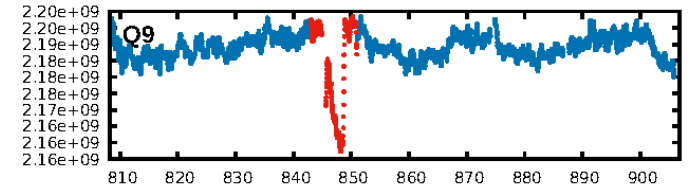
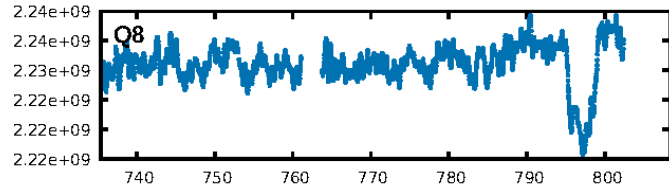
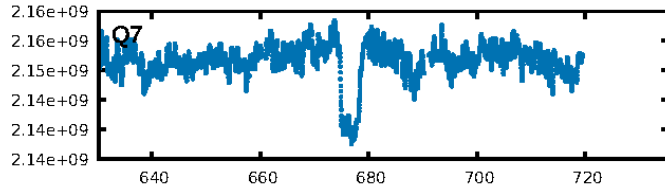
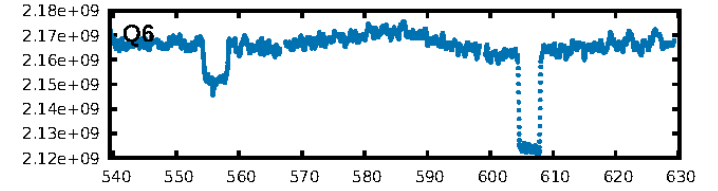
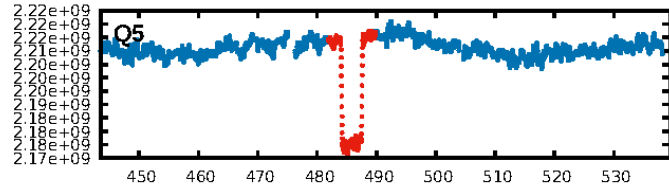
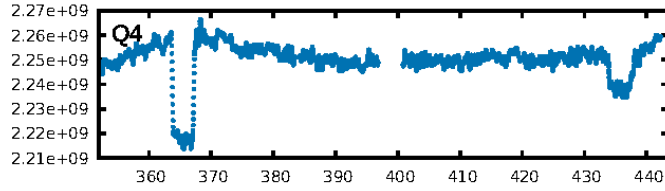
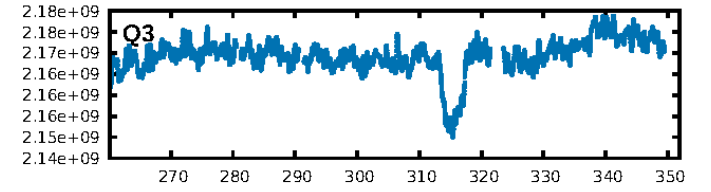
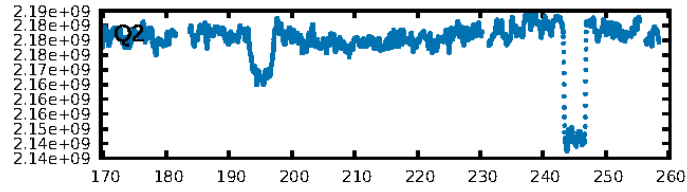
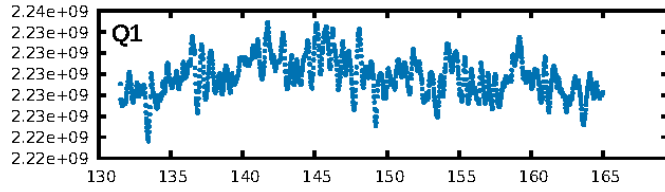
DV Diagnostic Results:

ShortPeriod-sig: 4.4% [0.05] σ
LongPeriod-sig: 100.0% [37.49] σ
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.53e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.556 arcsec [11.58] σ
OotOffset-rm: 1.771 arcsec [0.29] σ
OotOffset-st: 0/0/0/2 [2]
KicOffset-rm: 3.081 arcsec [0.39] σ
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

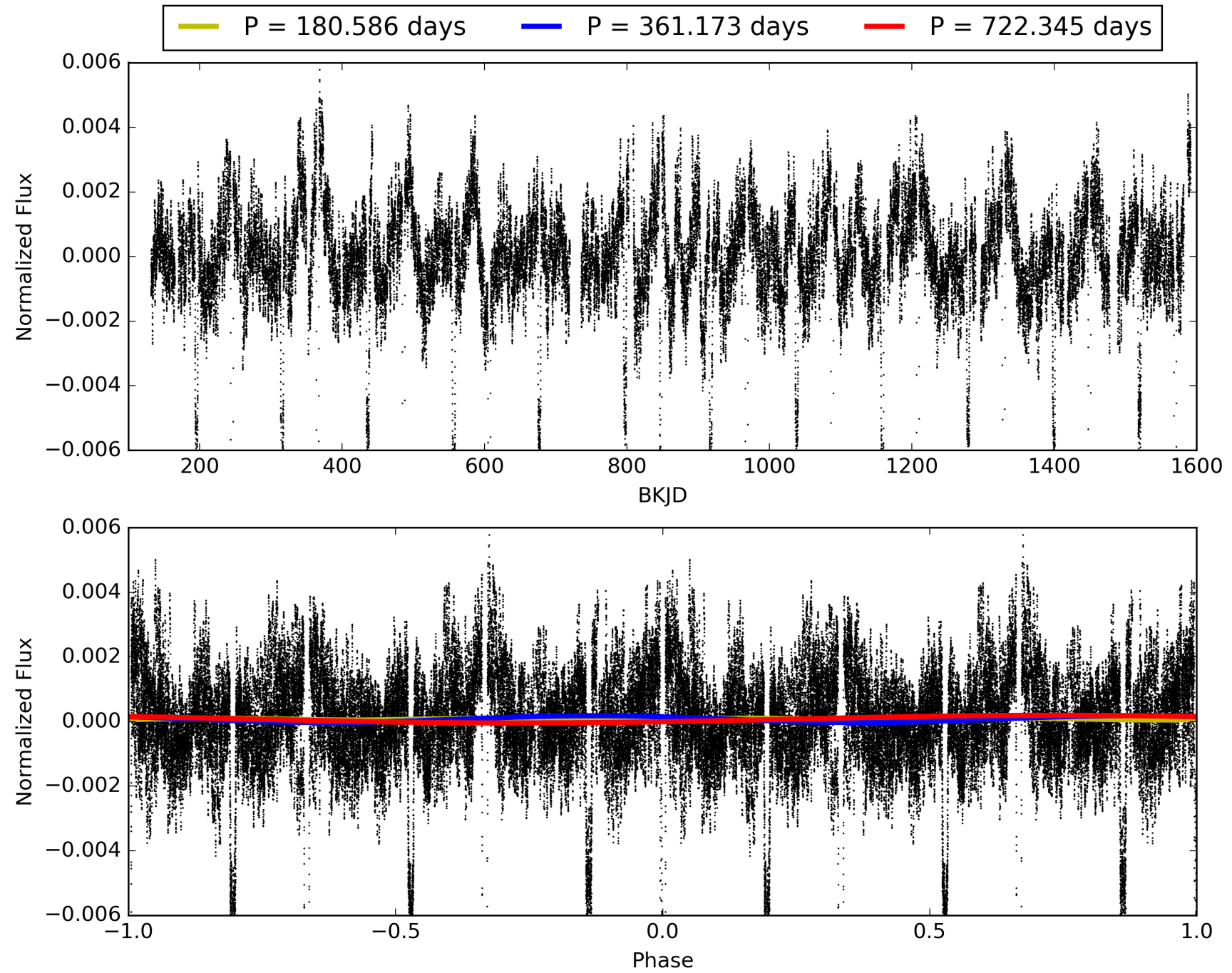
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:38:33 Z

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

TCE 010001167-01, PDC Light Curves

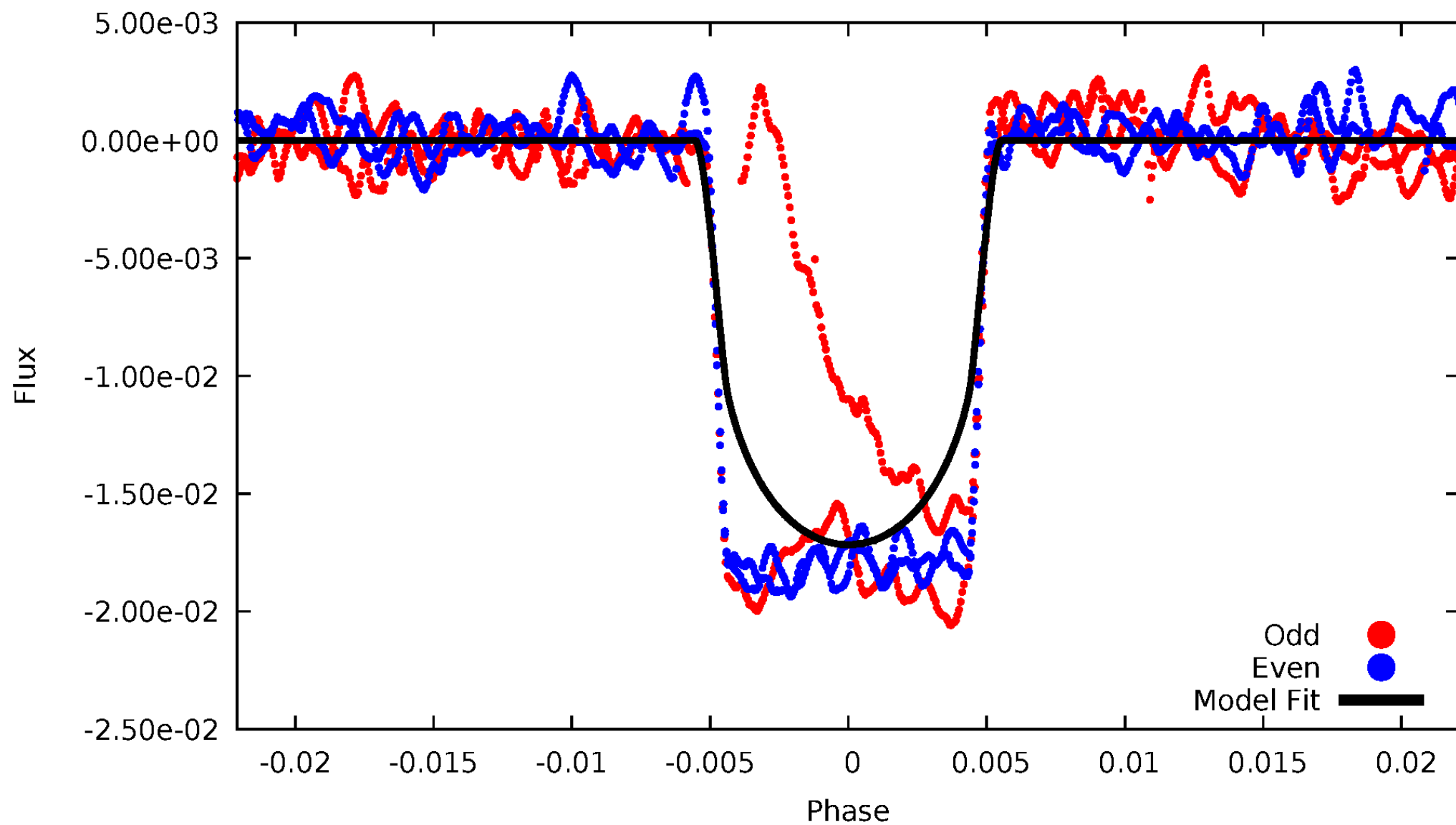


TCE 010001167-01



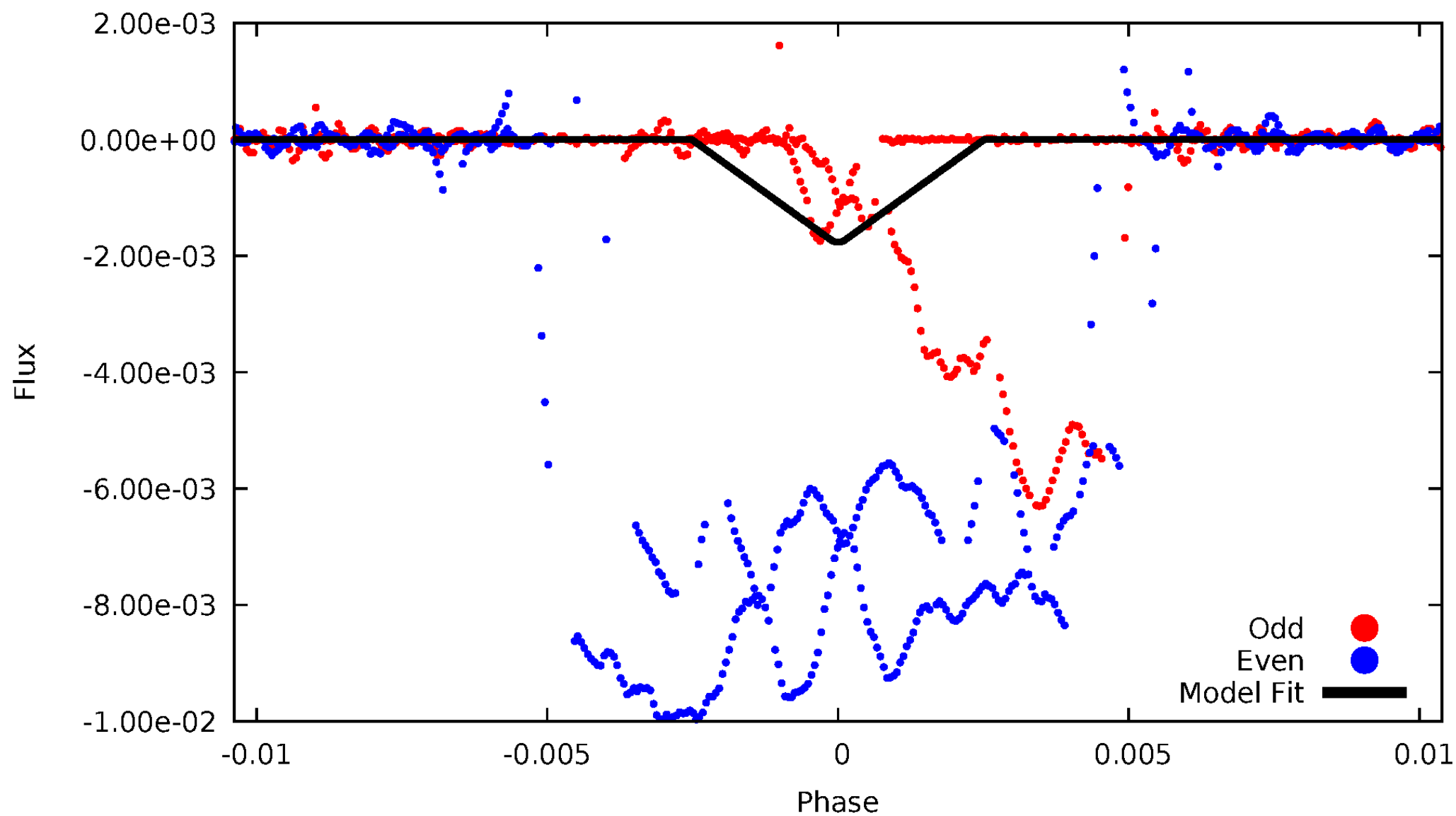
DV Odd/Even

TCE 010001167-01



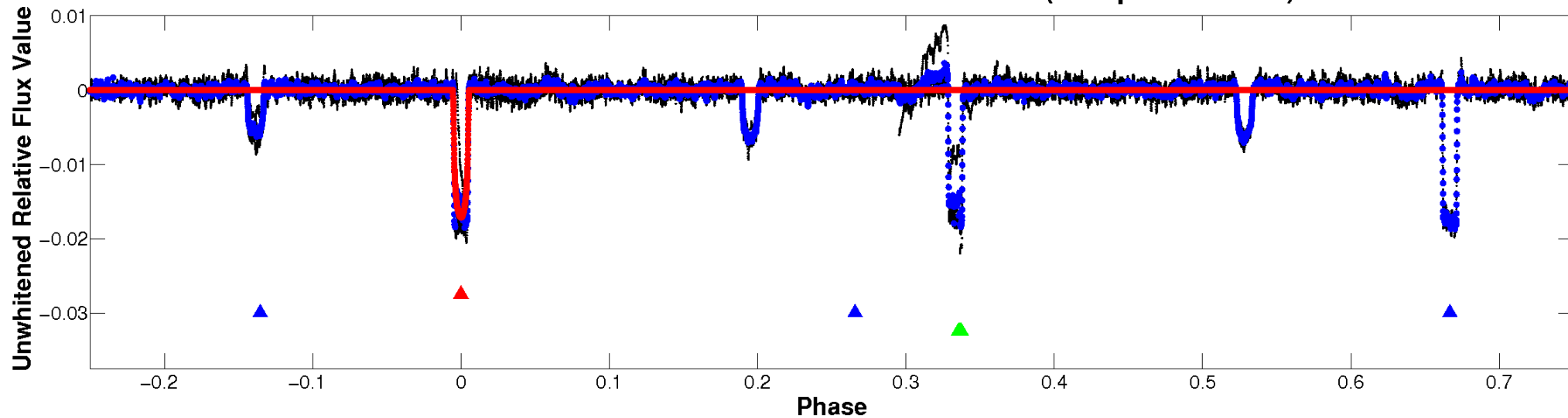
ALT Odd/Even

TCE 010001167-01

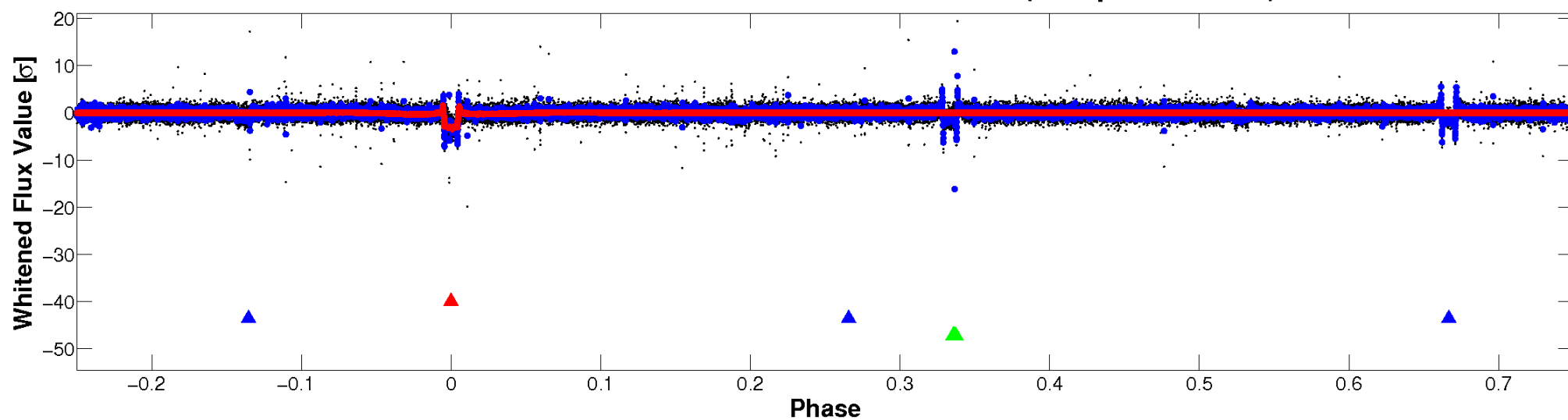


Non-Whitened Vs. Whitened Light Curve

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

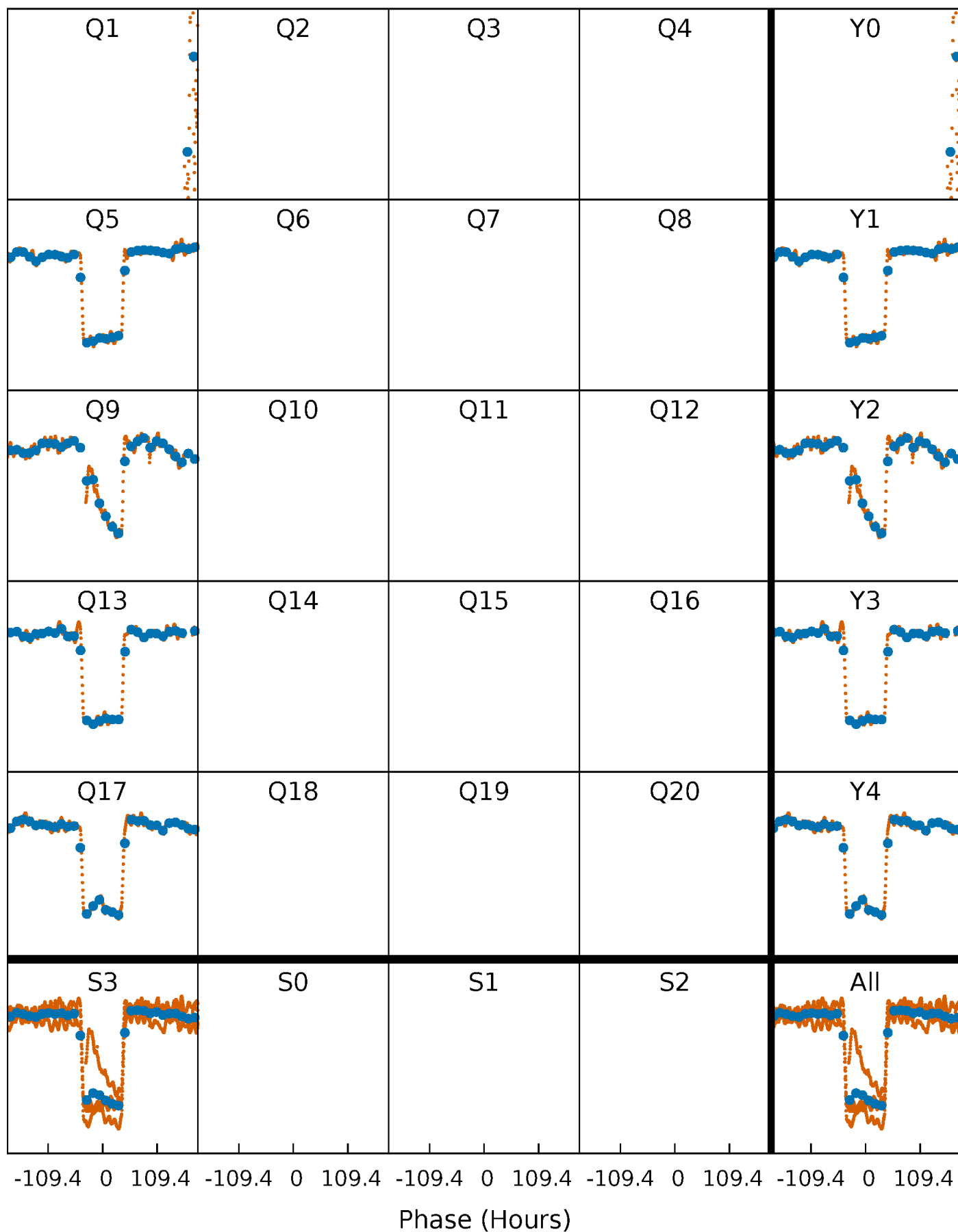


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



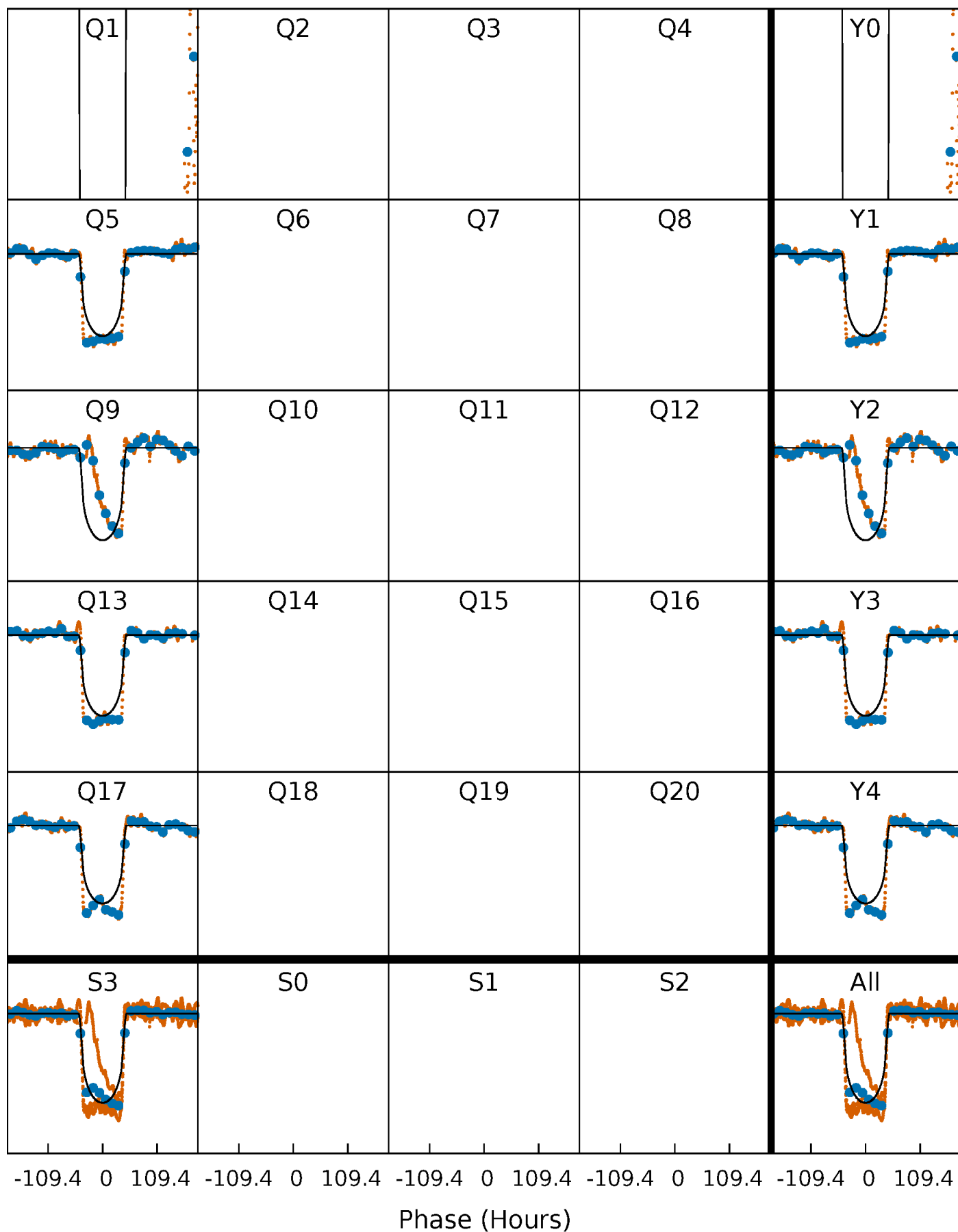
PDC Quarter-Phased Transit Curves

TCE 010001167-01 P=361.172747 Days $T_0=485.849355$ (BKJD)



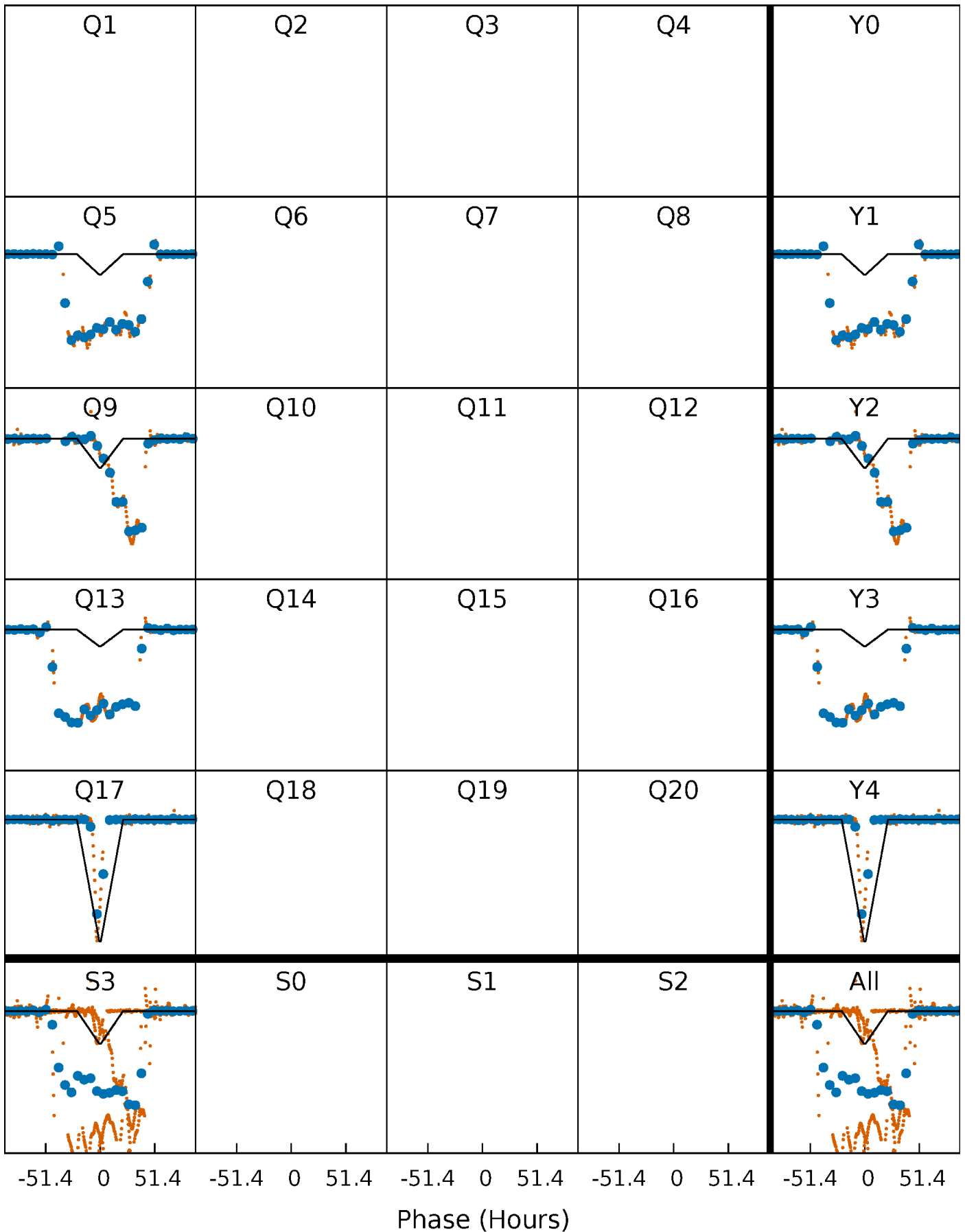
DV Quarter-Phased Transit Curves

TCE 010001167-01 P=361.172747 Days $T_0=485.849355$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

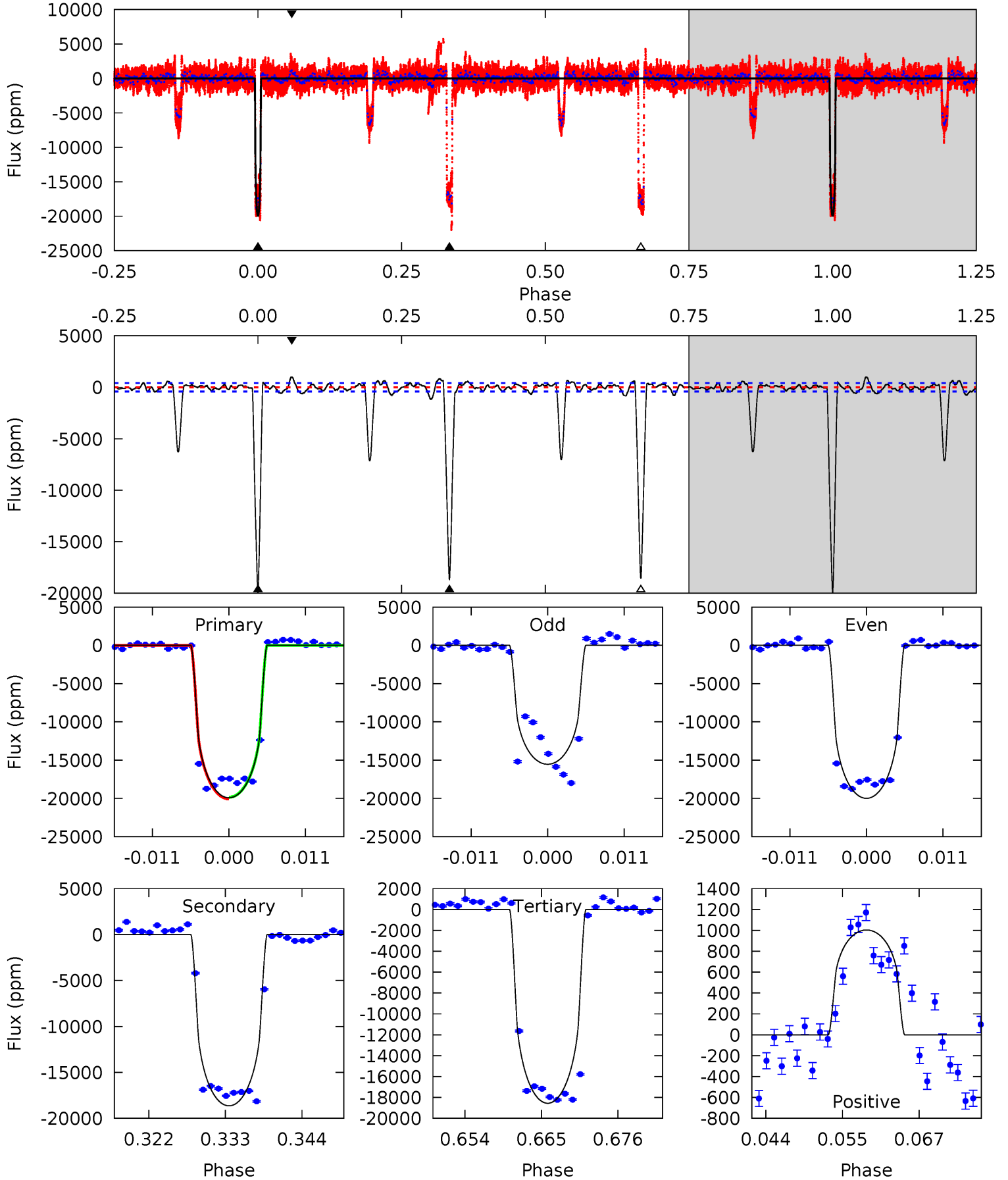
TCE 010001167-01 P=361.374320 Days $T_0=485.574343$ (BKJD)



DV Model-Shift Uniqueness Test

010001167-01, P = 361.172747 Days, E = 124.676608 Days

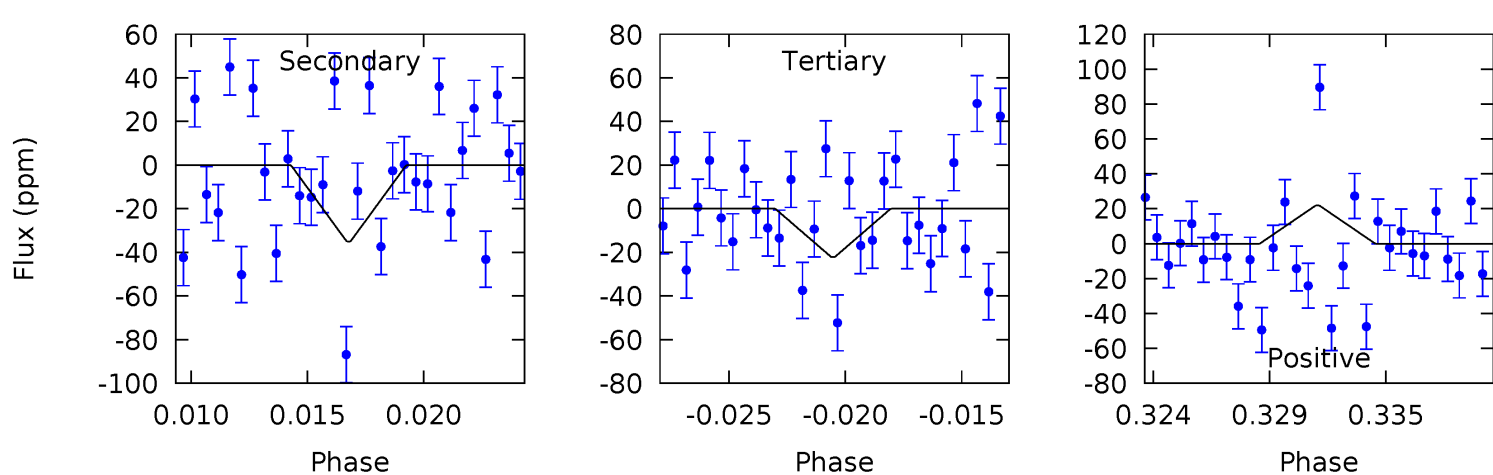
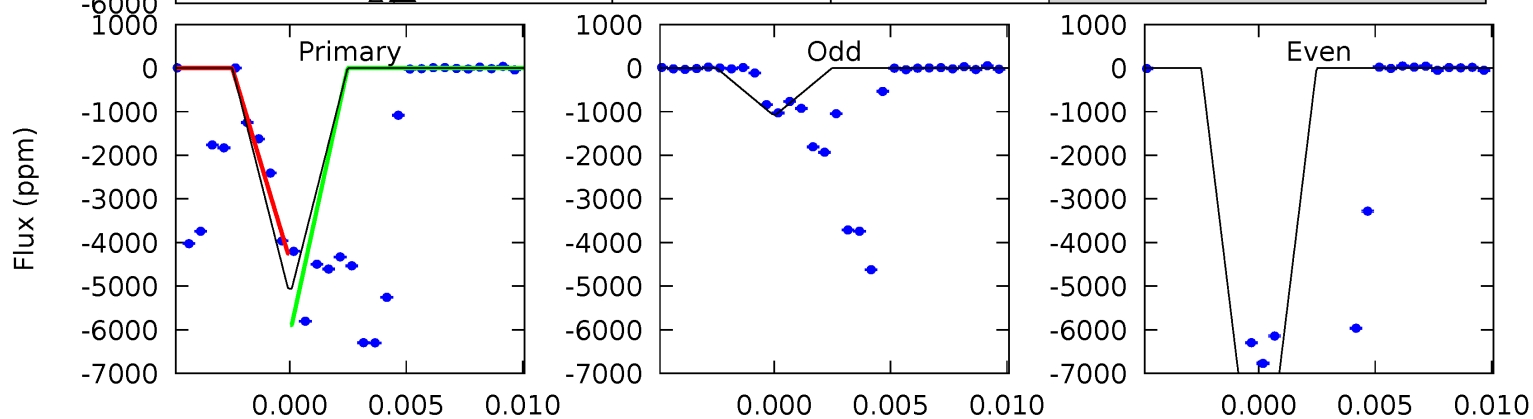
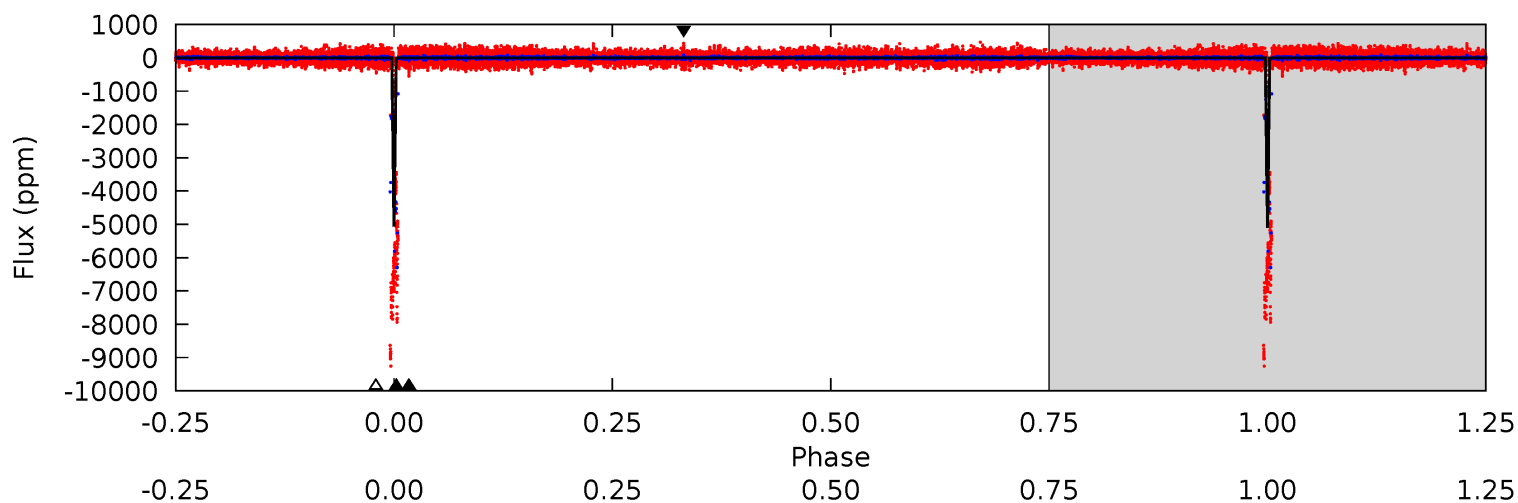
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
242.0	226.6	225.5	12.2	5.01	2.54	21.7	16.5	229.8	1.04	214.4	28.8	0.88	0.05	1.83



Alt Model-Shift Uniqueness Test

010001167-01, P = 361.374320 Days, E = 124.200023 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
361.8	2.50	1.58	1.56	5.16	2.80	4.52	360.2	360.2	0.92	0.94	336.9	1.14	0.00	0



Stellar Parameters For KIC 010001167

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4600^{+90}_{-55}	$2.144^{+0.159}_{-0.116}$	$-0.540^{+0.150}_{-0.150}$	$12.826^{+4.242}_{-1.818}$	$0.837^{+0.406}_{-0.021}$	$0.001^{+0.000}_{-0.000}$
	+2%/-1%	+7%/-5%	+28%/-28%	+33%/-14%	+49%/-3%	+67%/-40%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 010001167-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-18643 ± 82	$161.37^{+30.70}_{-14.26}$	1046^{+61}_{-52}	4950^{+95}_{-68}	359^{+82}_{-70}
Alt.	-35 ± 14	$57.86^{+10.31}_{-5.29}$	1037^{+64}_{-53}	2497^{+109}_{-161}	$4.965^{+2.522}_{-2.066}$

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 $A_{obs} \gg 1.0$

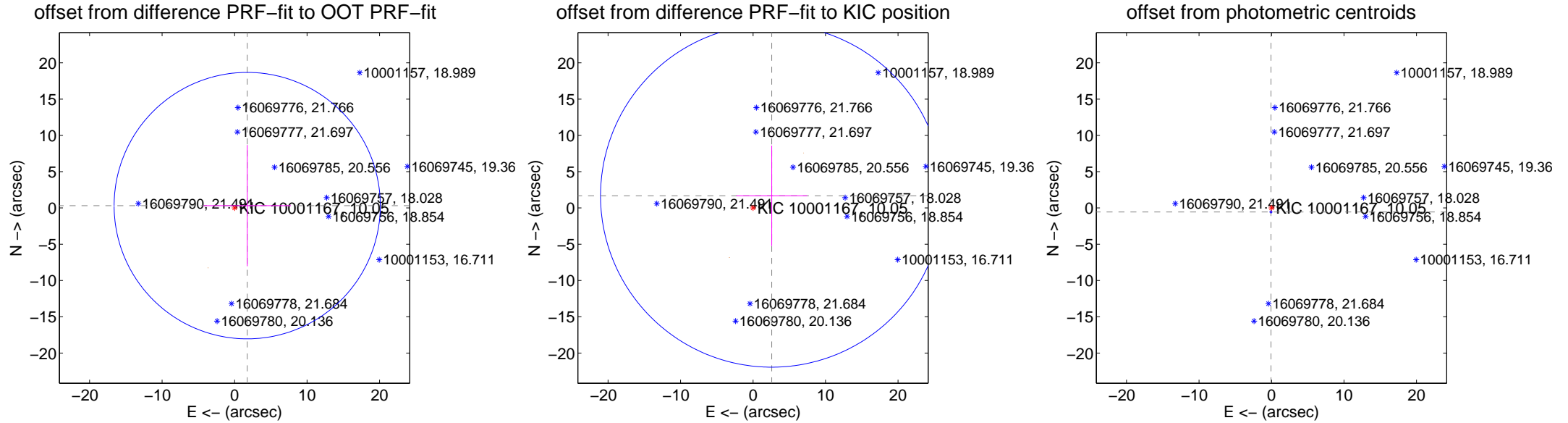
DV Centroid Data

Supplemental centroid analysis for 010001167-01. **Kepler magnitude: 10.05**. Transit SNR 71.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.771 ± 6.121	0.29	-1.742 ± 6.032	0.320 ± 8.350
PRF-fit source offset from KIC position	3.081 ± 7.875	0.39	-2.583 ± 4.900	1.678 ± 6.913
photometric centroid source offset	0.56 ± 0.05	11.58	0.08 ± 0.03	-0.55 ± 0.05

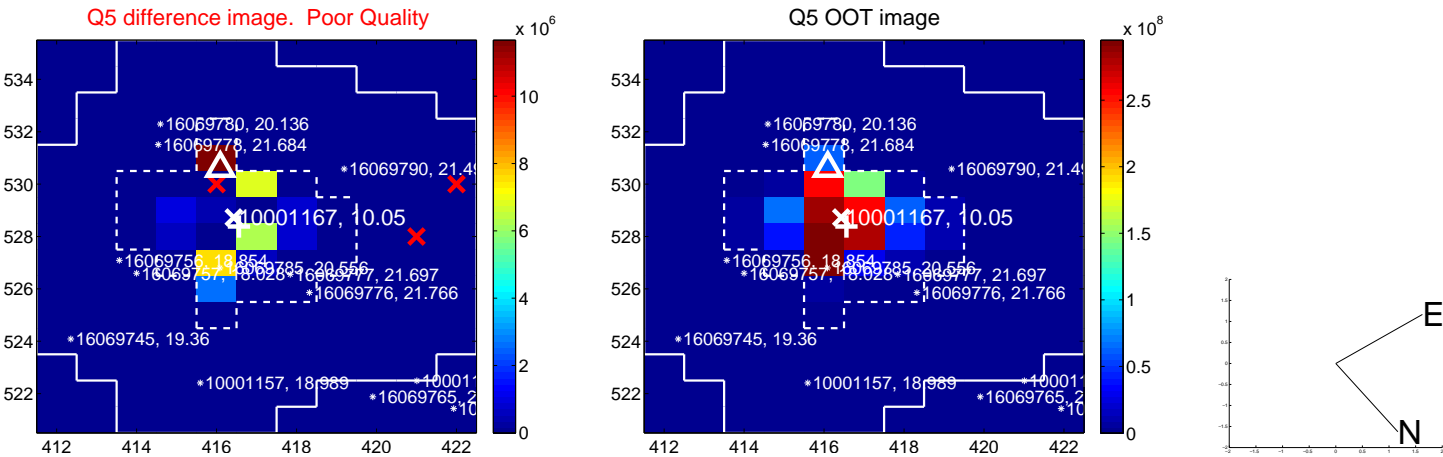


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



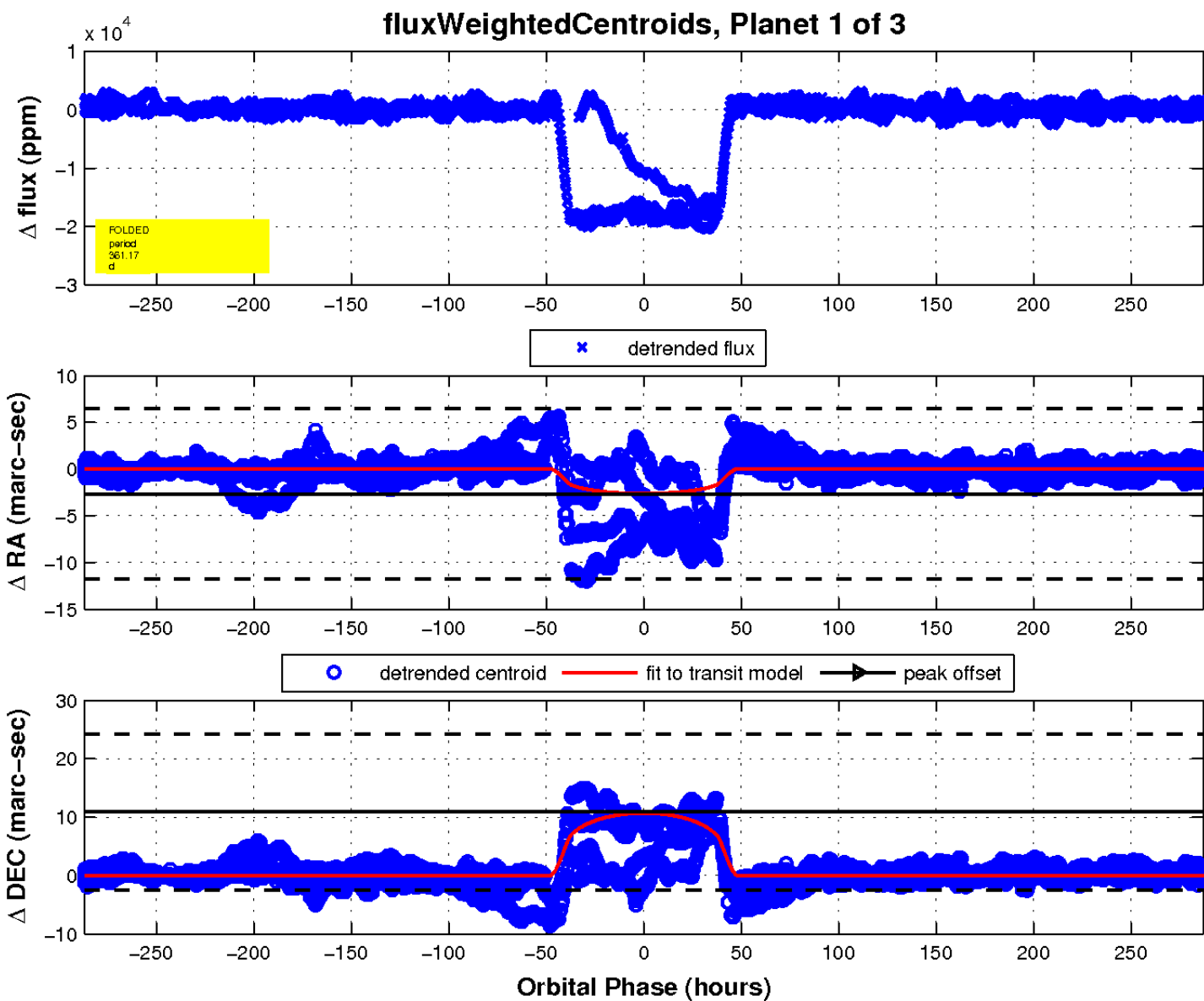
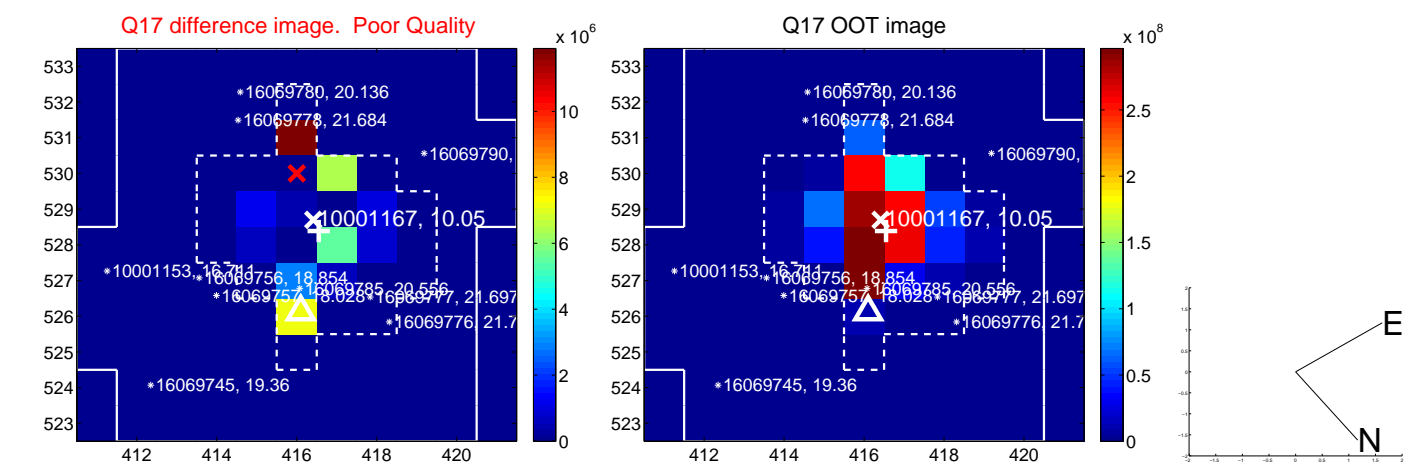
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

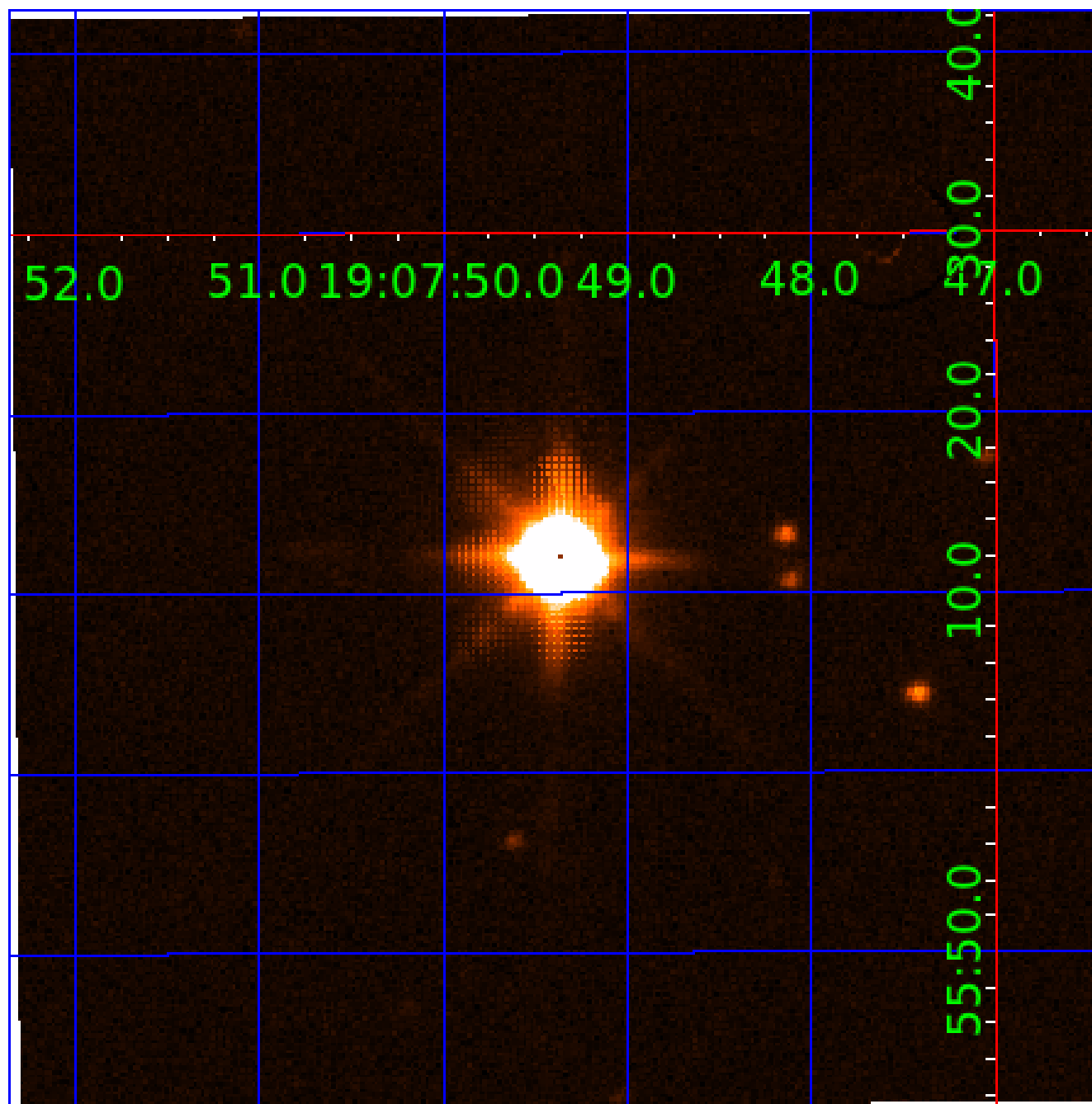


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010001167

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})
010001167-01	OBS	No	361.172747	485.849355	17166.0	95.741	13.0	71.0	12.83	4600	161.65	75.46
010001167-02	OBS	No	577.496809	365.491970	9979.9	100.041	10.3	20.0	12.83	4600	135.08	40.36
010001167-03	OBS	No	360.952026	246.504258	107.5	15.000	16.9	-1.0	12.83	4600	12.80	75.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010001167-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
010001167-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_SATURATED
010001167-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED

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

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

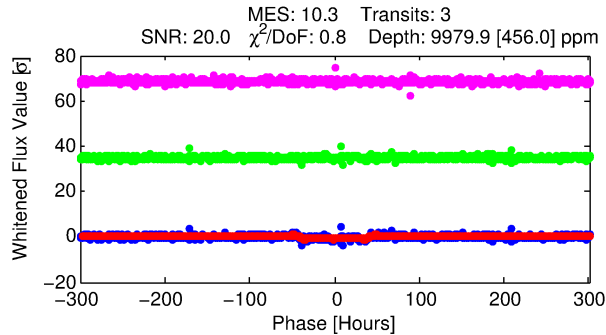
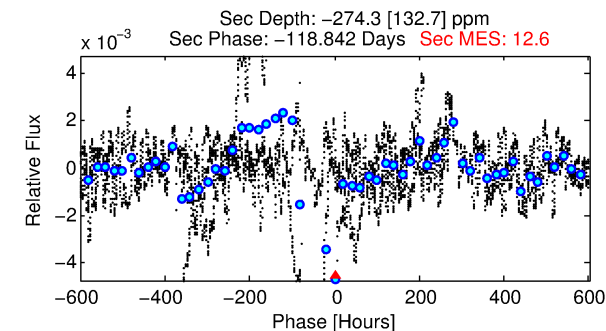
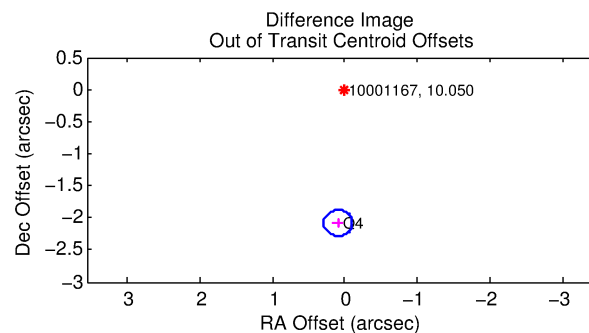
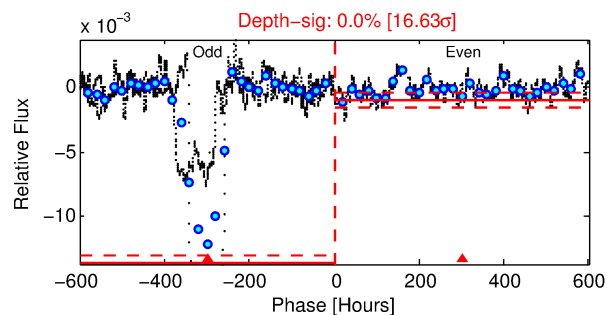
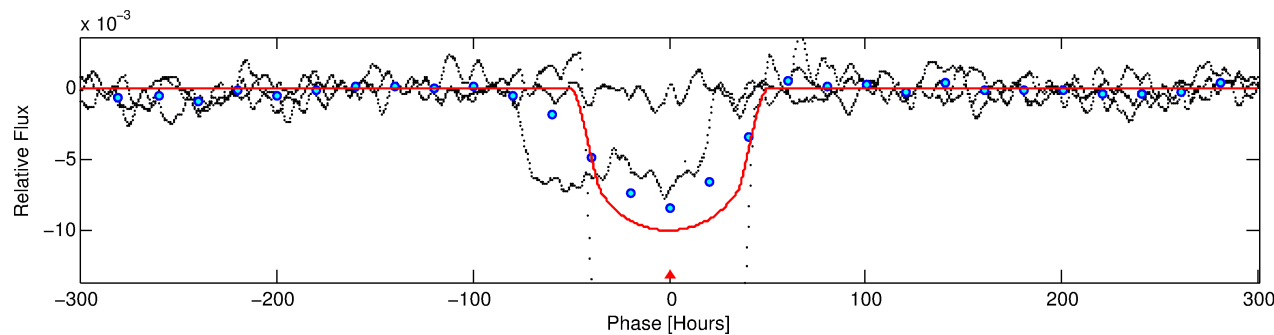
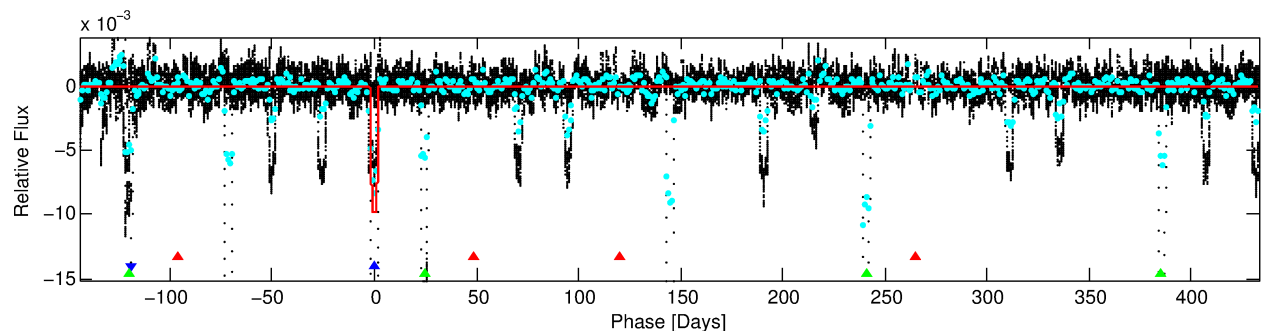
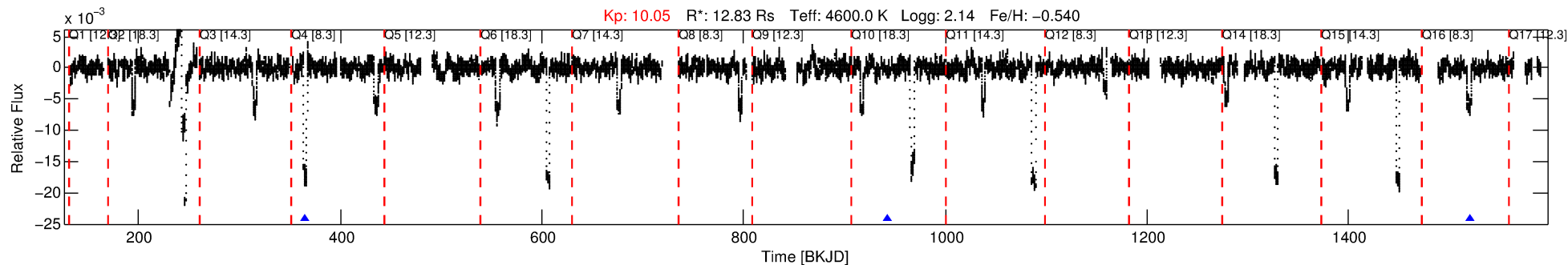
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010001167-02

No Significant Match Found

DV One-Page Summary

KIC: 10001167 Candidate: 2 of 3 Period: 577.497 d



DV Fit Results:

Period = 577.49681 [0.01346] d
Epoch = 365.4920 [0.0180] BKJD
Rp/R* = 0.0965 [0.0020]
a/R* = 38.37 [0.73]
b = 0.67 [0.02]
Seff = 40.36 [13.64]
Teq = 643 [54] K
Rp = 135.08 [44.77] Re
a = 1.2788 [0.3223] AU
Ag = N/A
Teffp = N/A

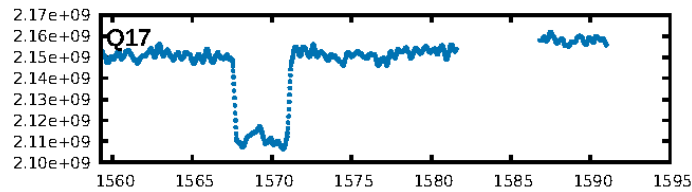
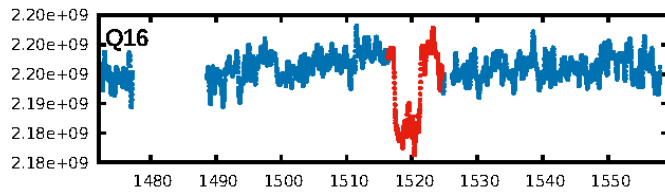
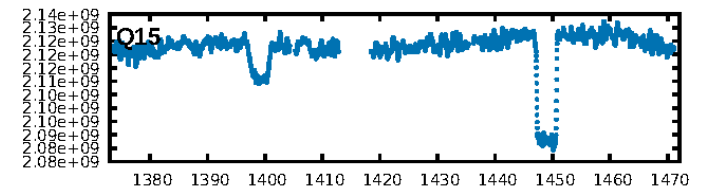
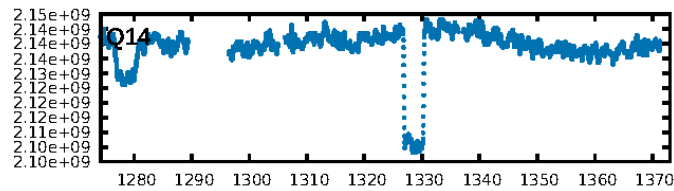
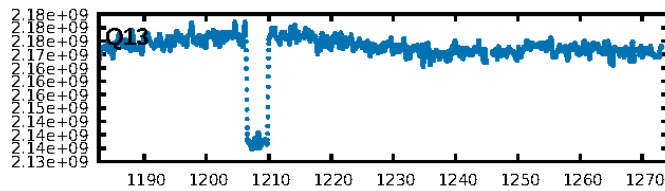
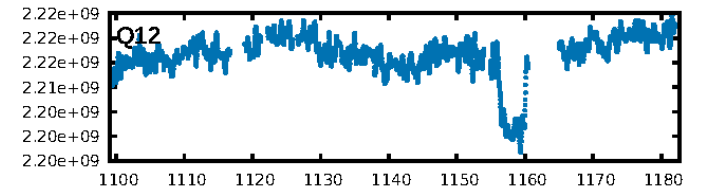
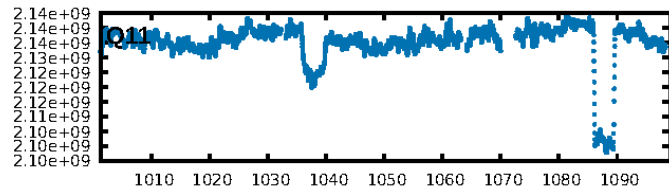
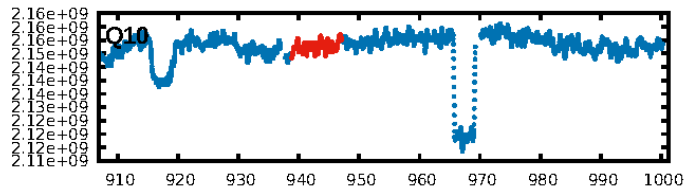
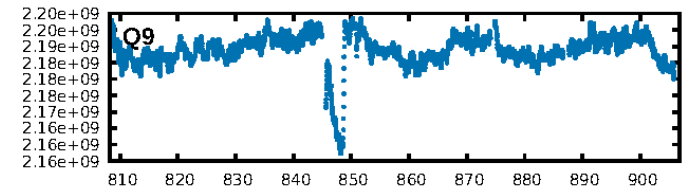
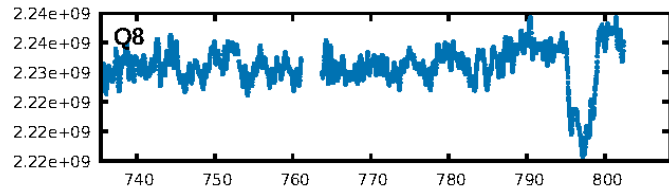
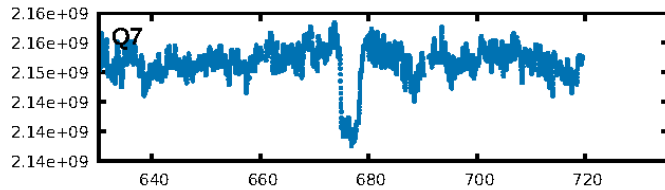
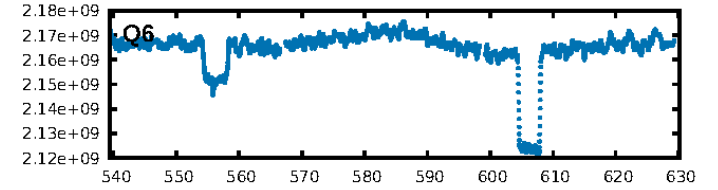
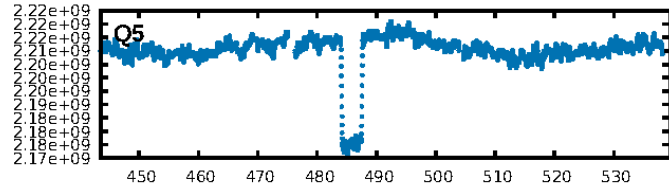
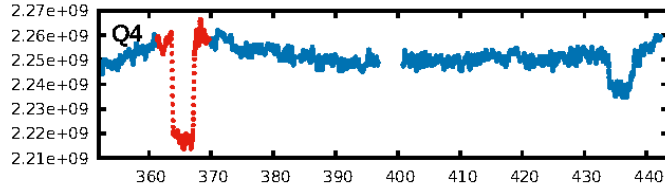
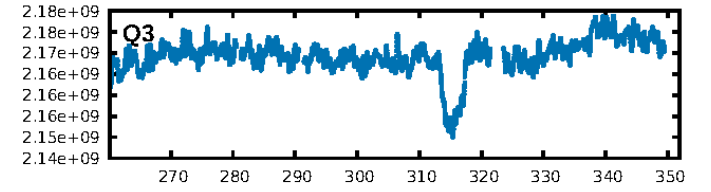
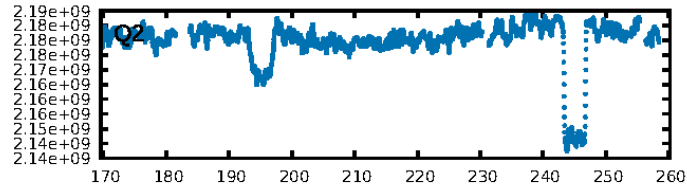
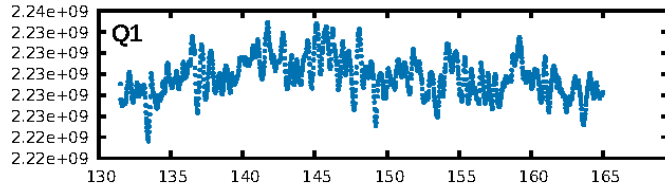
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.49 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.16e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 7.0%
Centroid-so: 0.084 arcsec [1.06 σ]
OotOffset-rm: 2.083 arcsec [31.22 σ]
KicOffset-rm: 3.374 arcsec [50.58 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

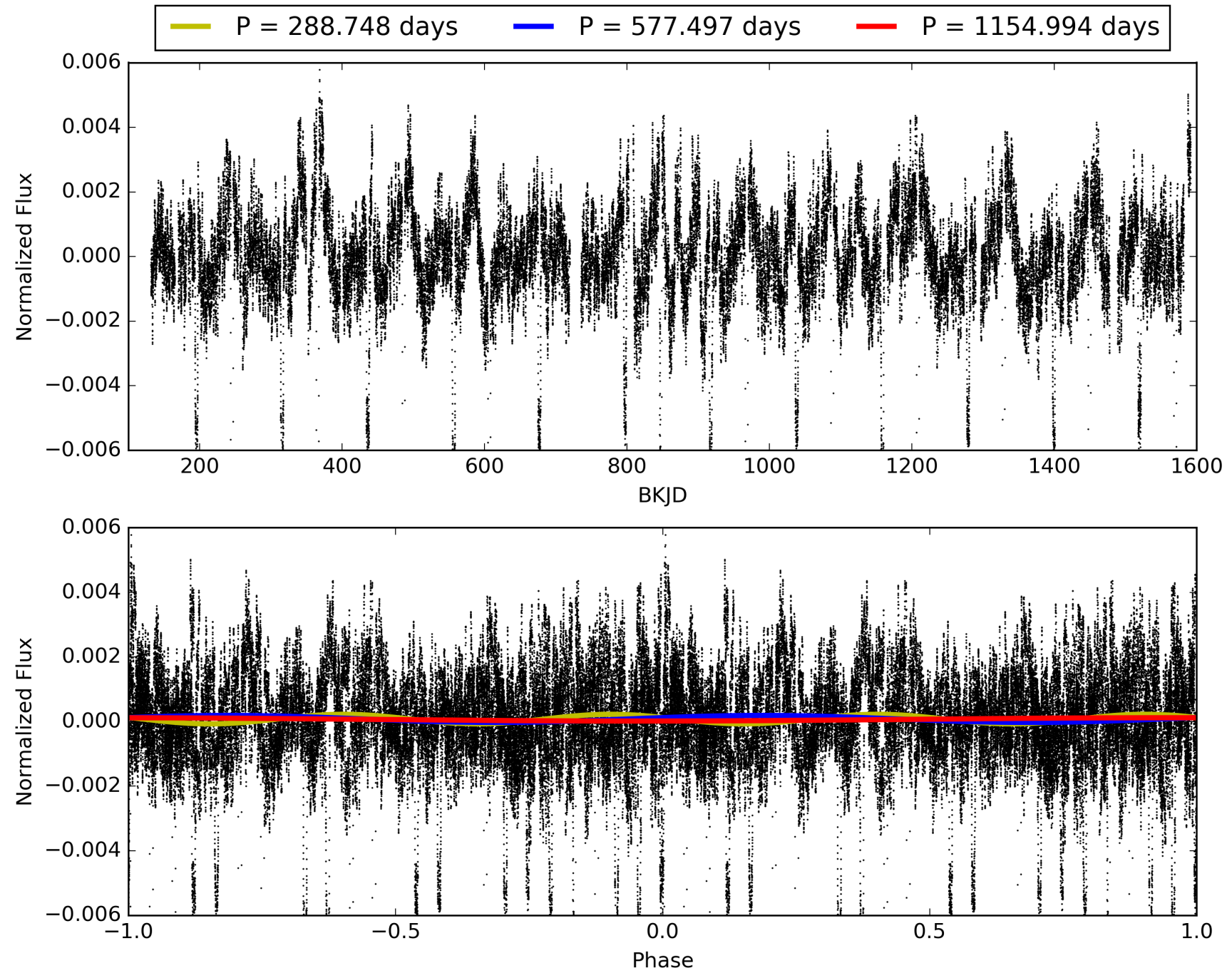
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:38:42 Z

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

TCE 010001167-02, PDC Light Curves

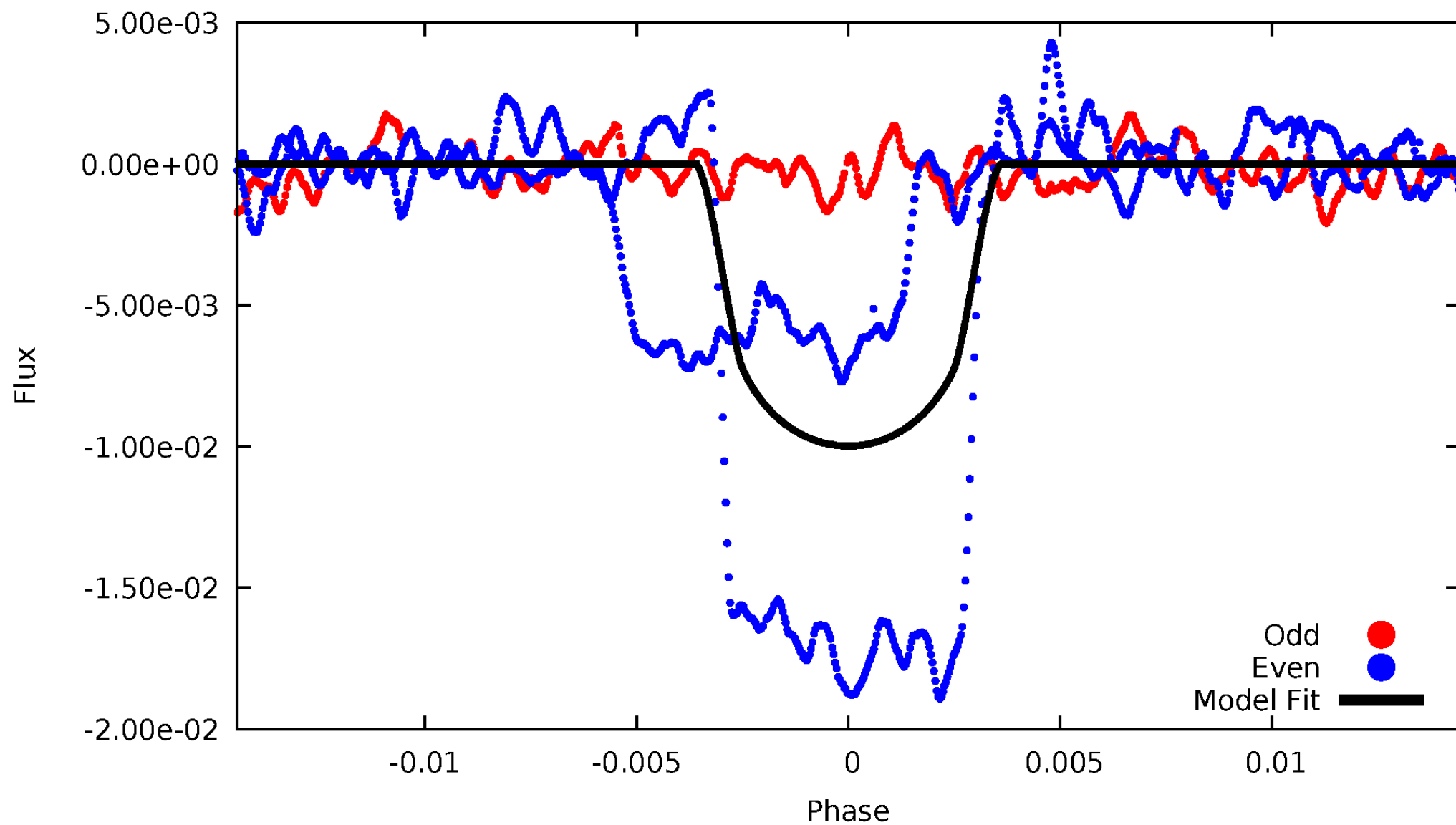


TCE 010001167-02



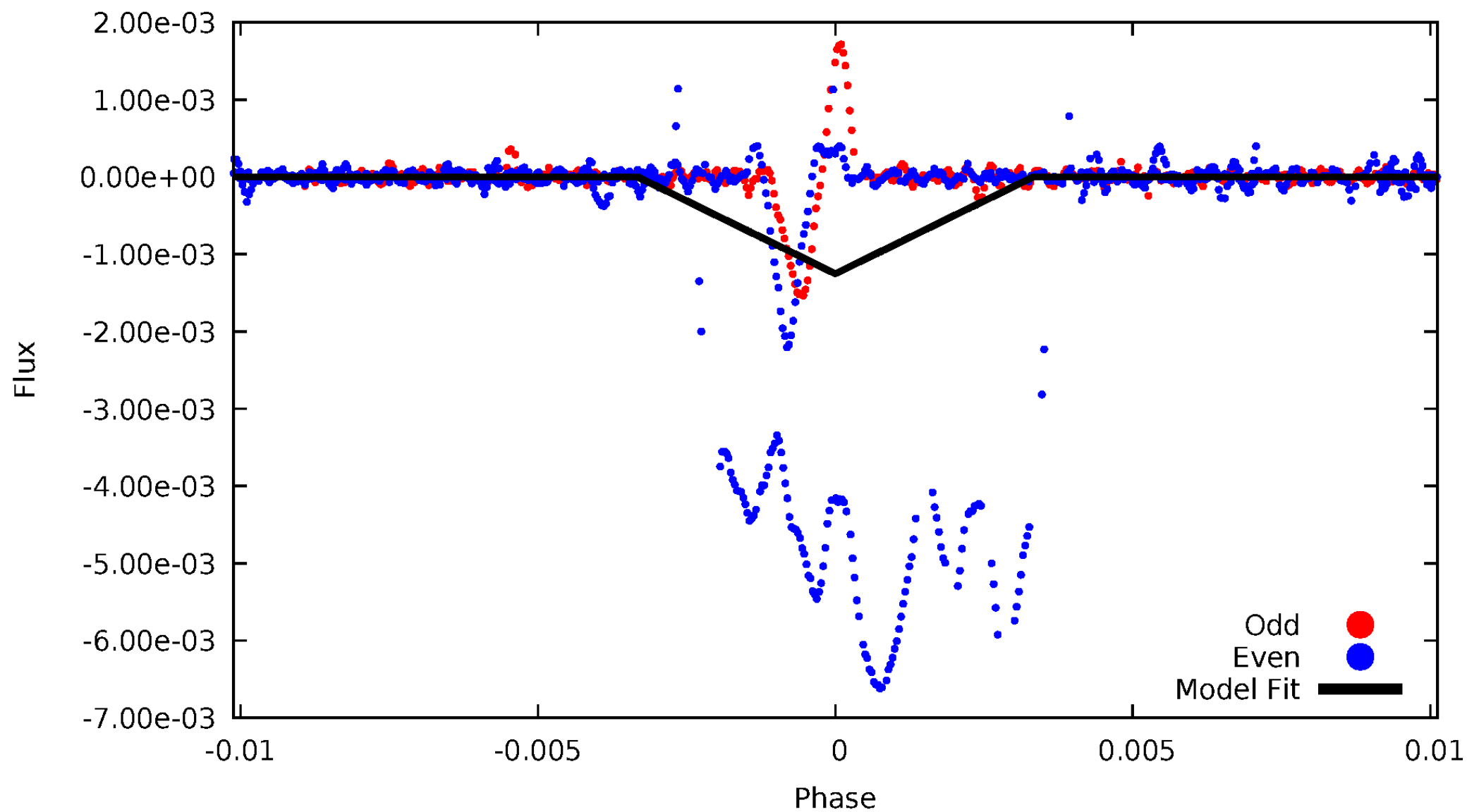
DV Odd/Even

TCE 010001167-02



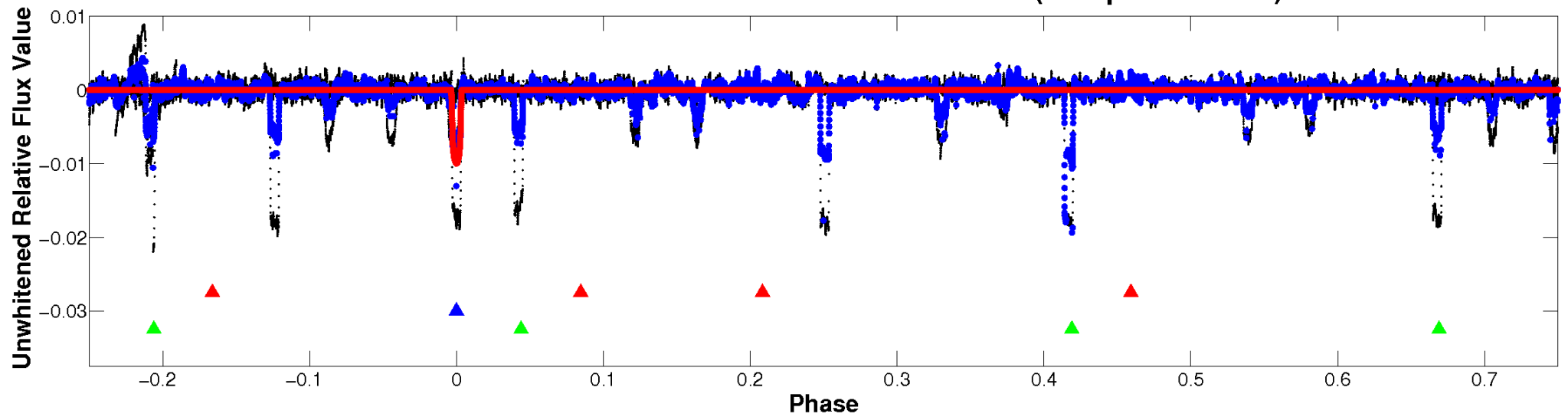
ALT Odd/Even

TCE 010001167-02

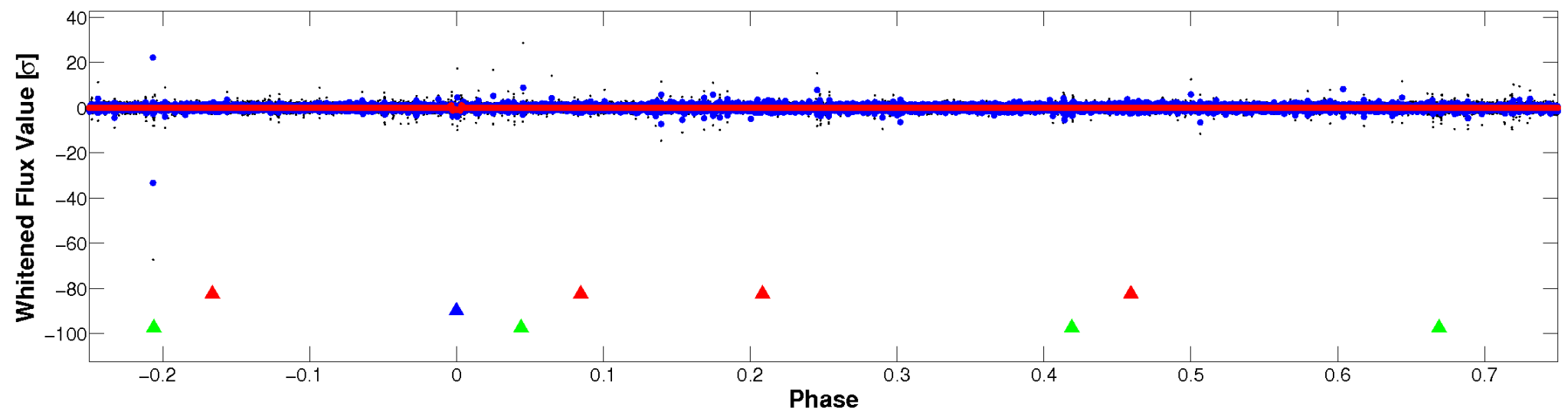


Non-Whitened Vs. Whitened Light Curve

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

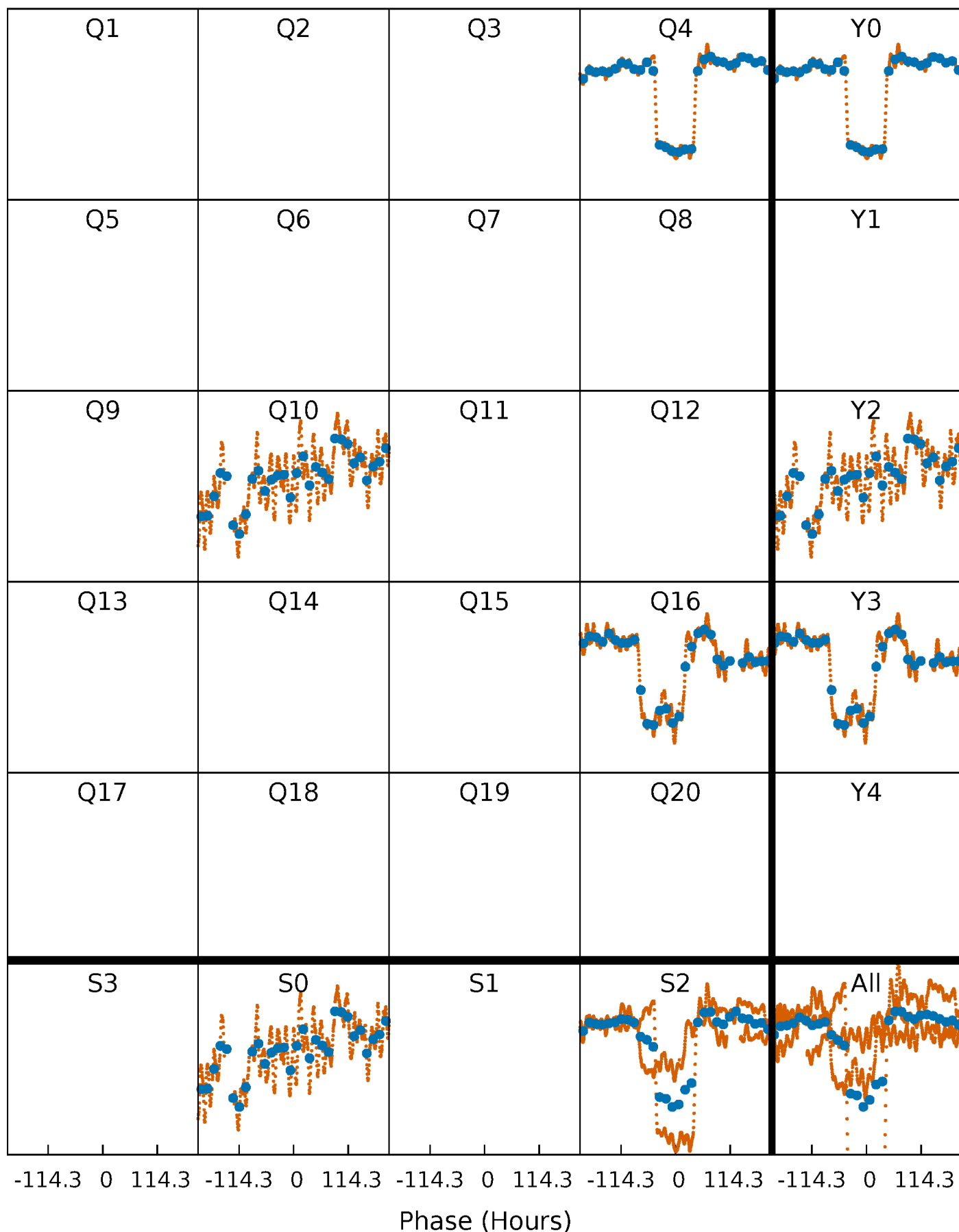


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



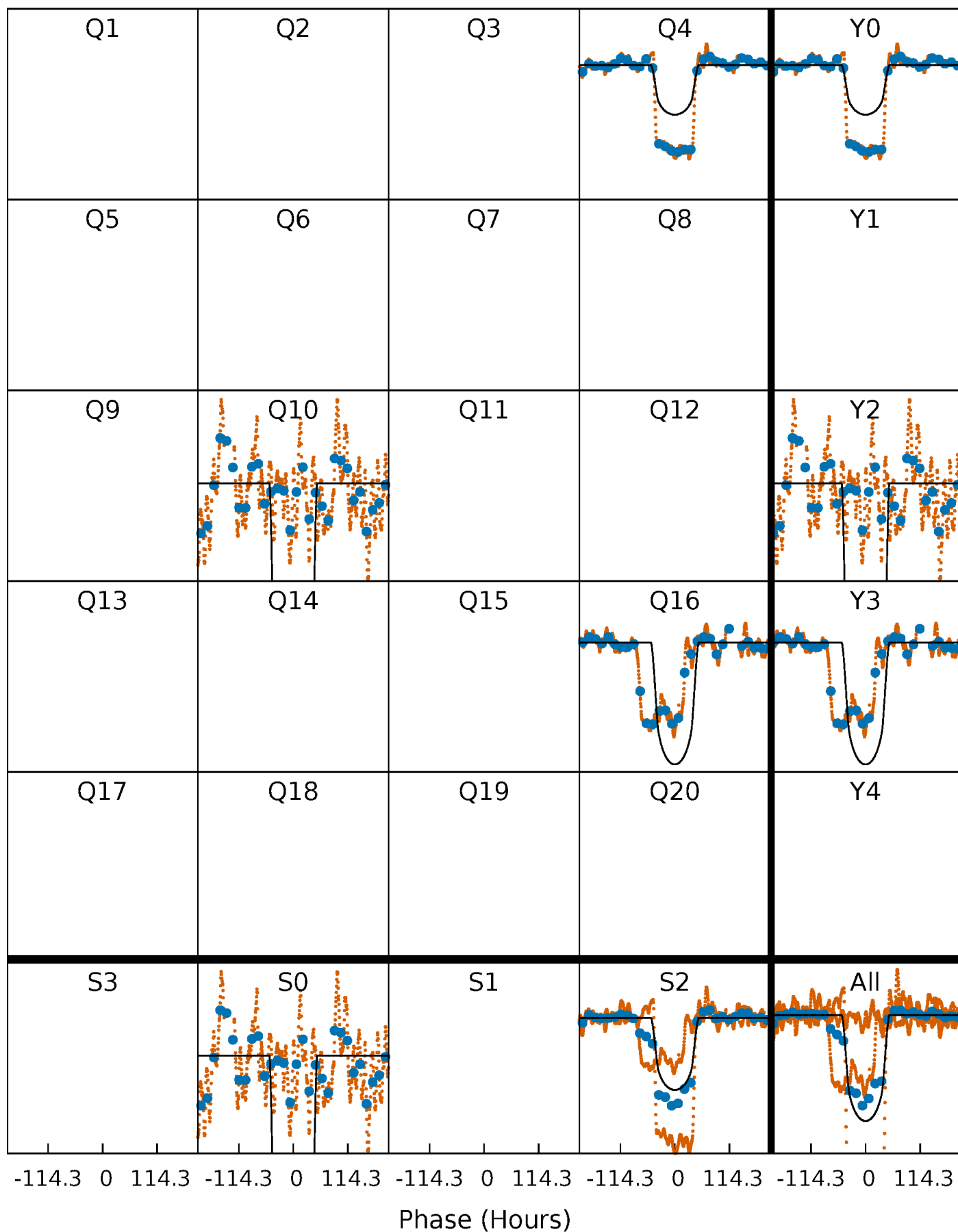
PDC Quarter-Phased Transit Curves

TCE 010001167-02 P=577.496809 Days $T_0=365.491970$ (BKJD)



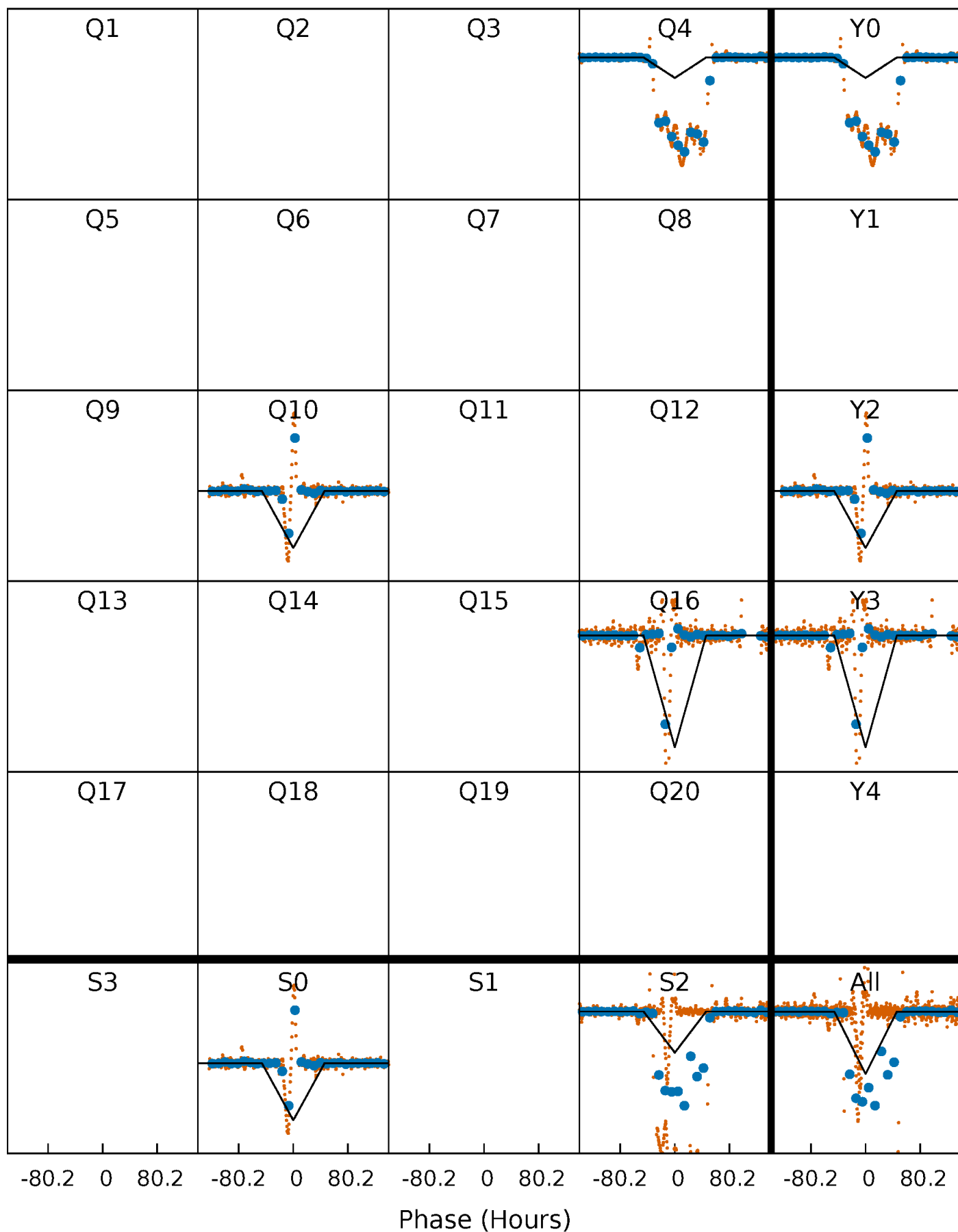
DV Quarter-Phased Transit Curves

TCE 010001167-02 P=577.496809 Days $T_0=365.491970$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

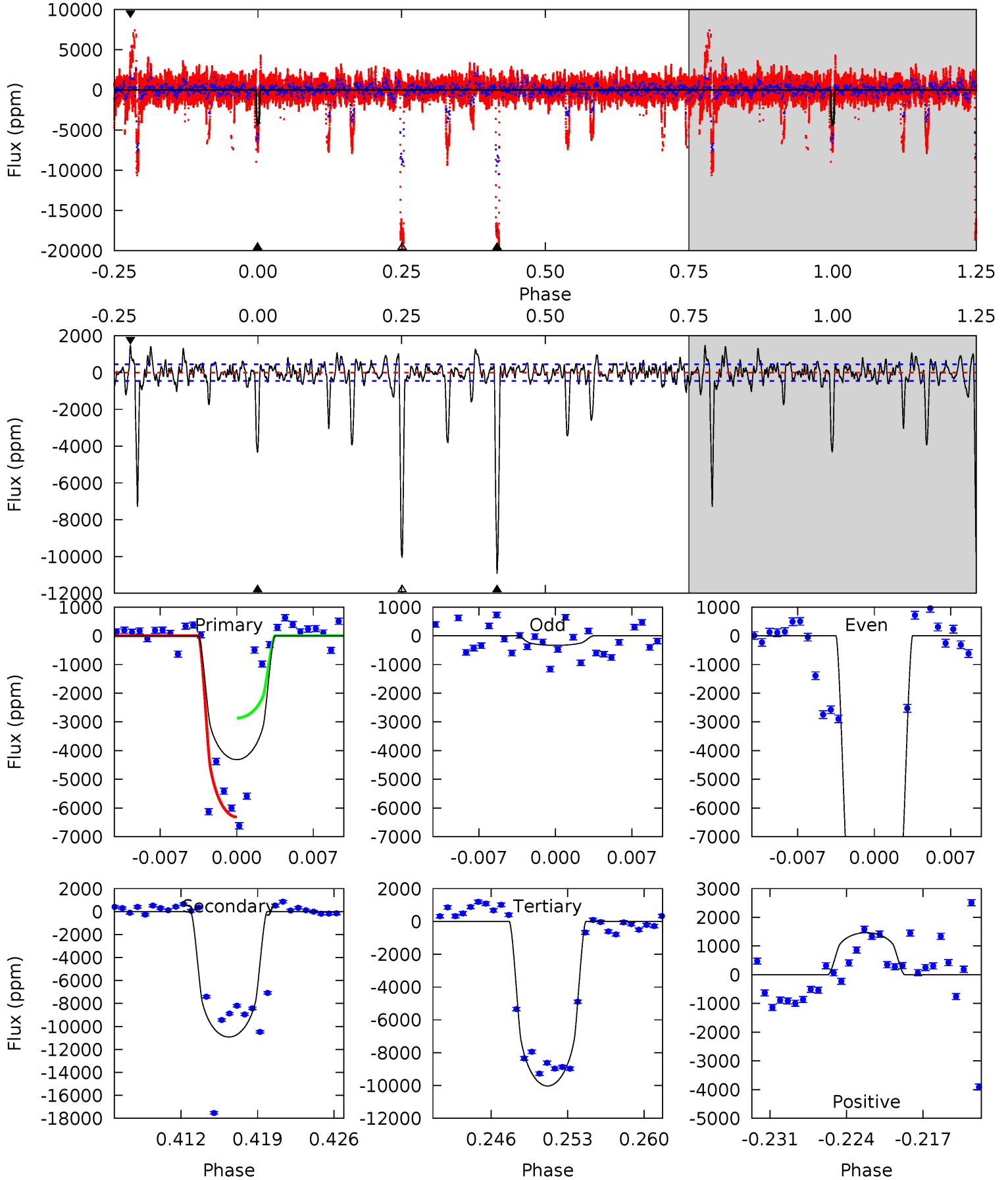
TCE 010001167-02 P=577.874699 Days $T_0=365.103054$ (BKJD)



DV Model-Shift Uniqueness Test

010001167-02, P = 577.496809 Days, E = 365.491970 Days

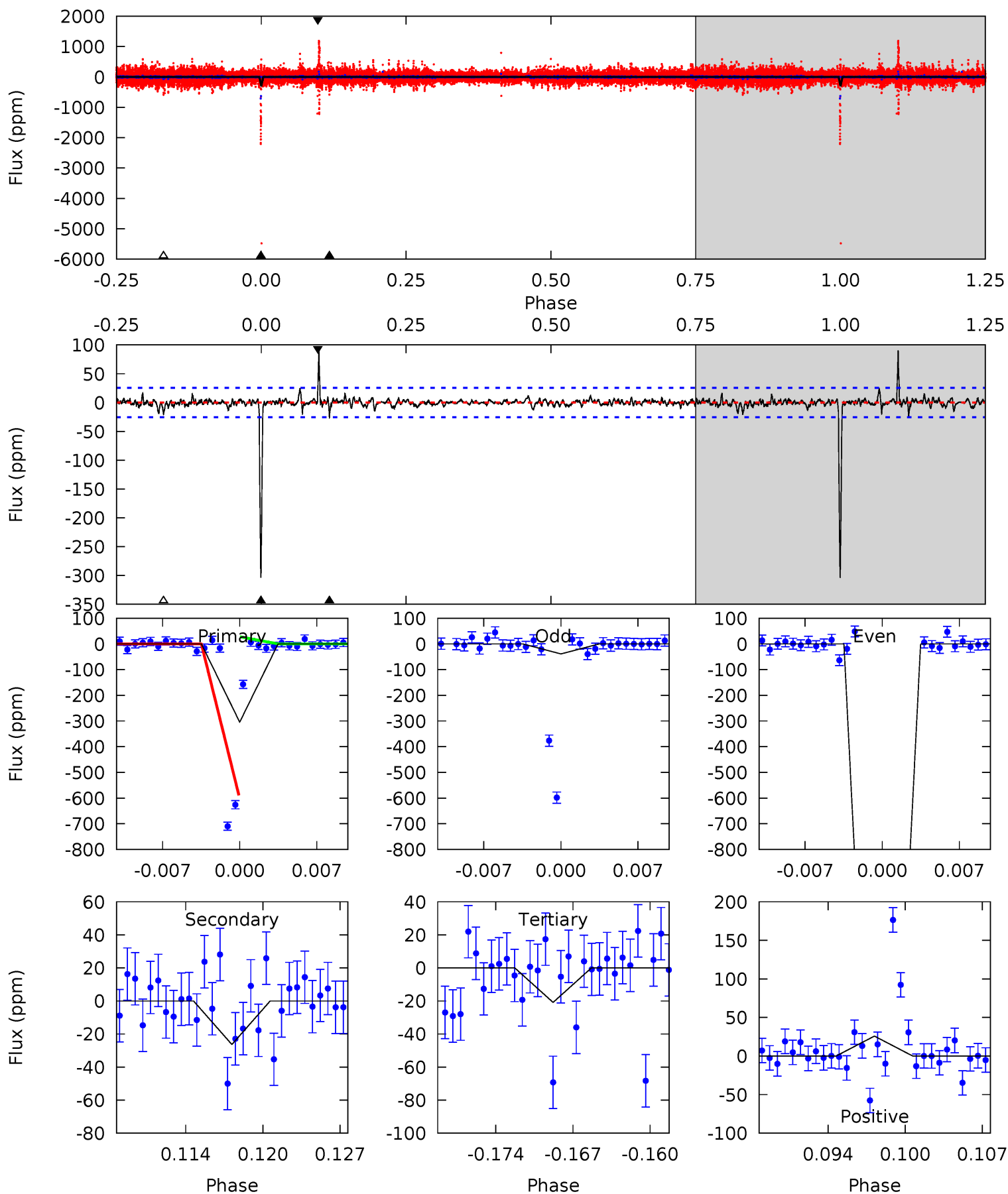
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.3	122.2	112.2	16.4	5.09	2.69	10.8	-63.9	31.9	9.96	105.8	66.6	1.53	0.12	20.1



Alt Model-Shift Uniqueness Test

010001167-02, P = 577.874699 Days, E = 365.103054 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.5	5.23	4.14	5.13	5.10	2.71	1.08	56.3	55.3	1.09	0.10	292.5	10.3	0.23	0



Stellar Parameters For KIC 010001167

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4600^{+90}_{-55}	$2.144^{+0.159}_{-0.116}$	$-0.540^{+0.150}_{-0.150}$	$12.826^{+4.242}_{-1.818}$	$0.837^{+0.406}_{-0.021}$	$0.001^{+0.000}_{-0.000}$
	+2%/-1%	+7%/-5%	+28%/-28%	+33%/-14%	+49%/-3%	+67%/-40%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 010001167-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10922 ± 89	$133.51^{+24.51}_{-11.39}$	889^{+53}_{-46}	4761^{+103}_{-76}	573^{+126}_{-117}
Alt.	-26 ± 5	$49.77^{+8.18}_{-5.13}$	888^{+48}_{-42}	2524^{+75}_{-81}	$9.814^{+3.445}_{-2.563}$

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 $A_{obs} \gg 1.0$

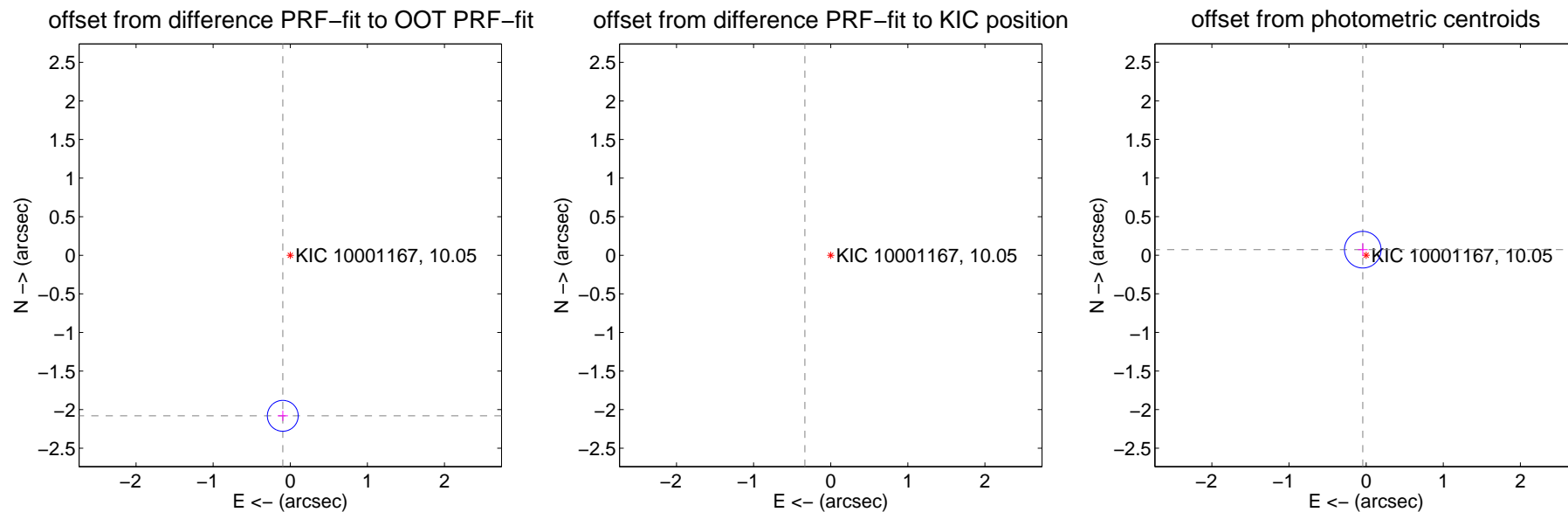
DV Centroid Data

Supplemental centroid analysis for 010001167-02. **Kepler magnitude: 10.05.** Transit SNR 20.01

There are 0 quarters with good PRF difference image offsets

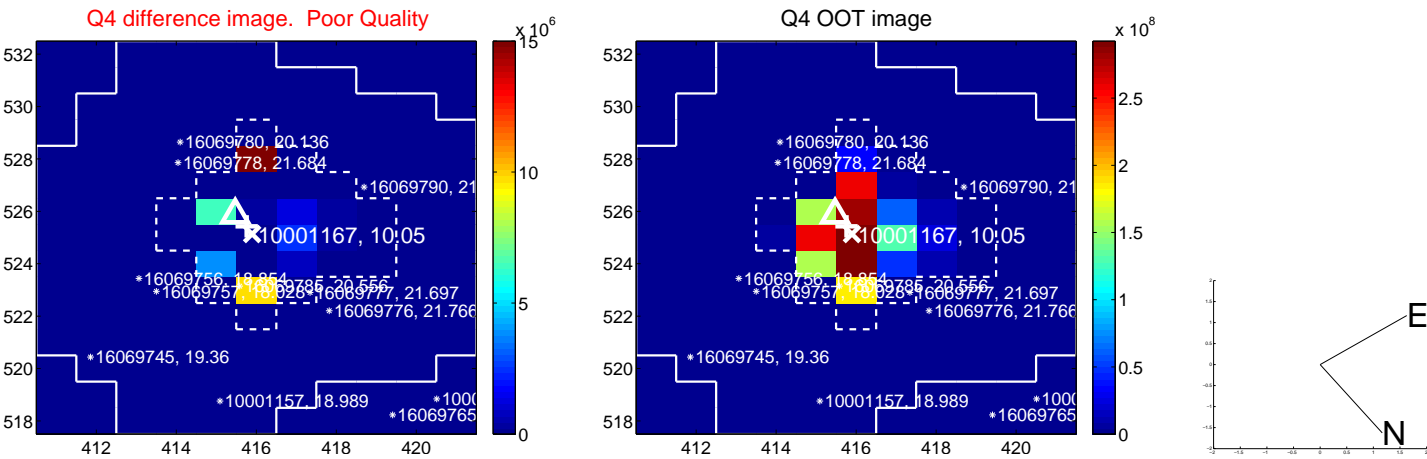
The direct PRF centroid is offset from the target star catalog position by about 1.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.083 ± 0.067	31.22	0.097 ± 0.067	-2.080 ± 0.067
PRF-fit source offset from KIC position	3.374 ± 0.067	50.58	0.335 ± 0.067	-3.357 ± 0.067
photometric centroid source offset	0.08 ± 0.08	1.06	0.04 ± 0.06	0.07 ± 0.08



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.

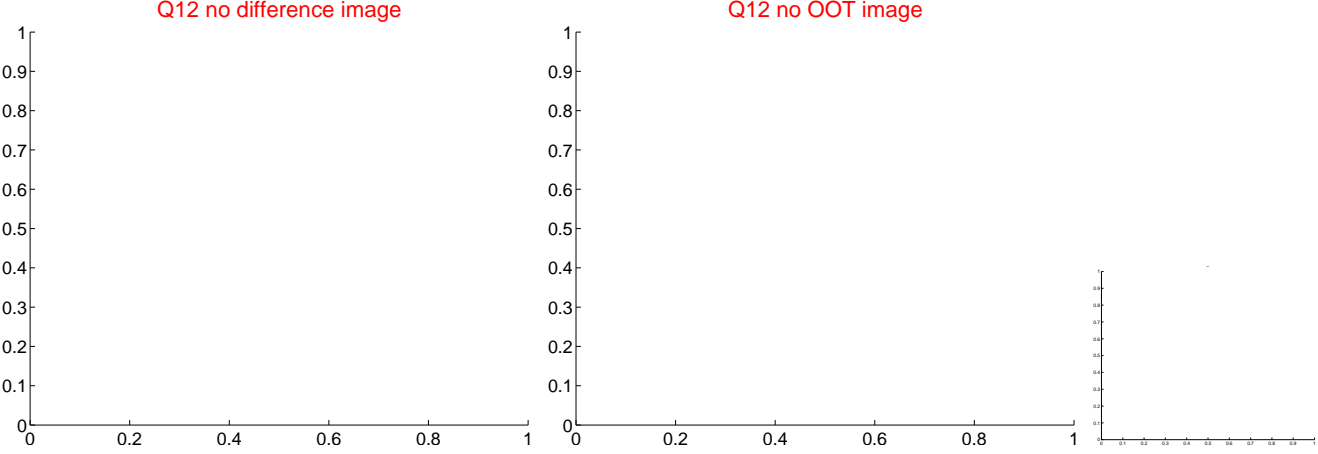
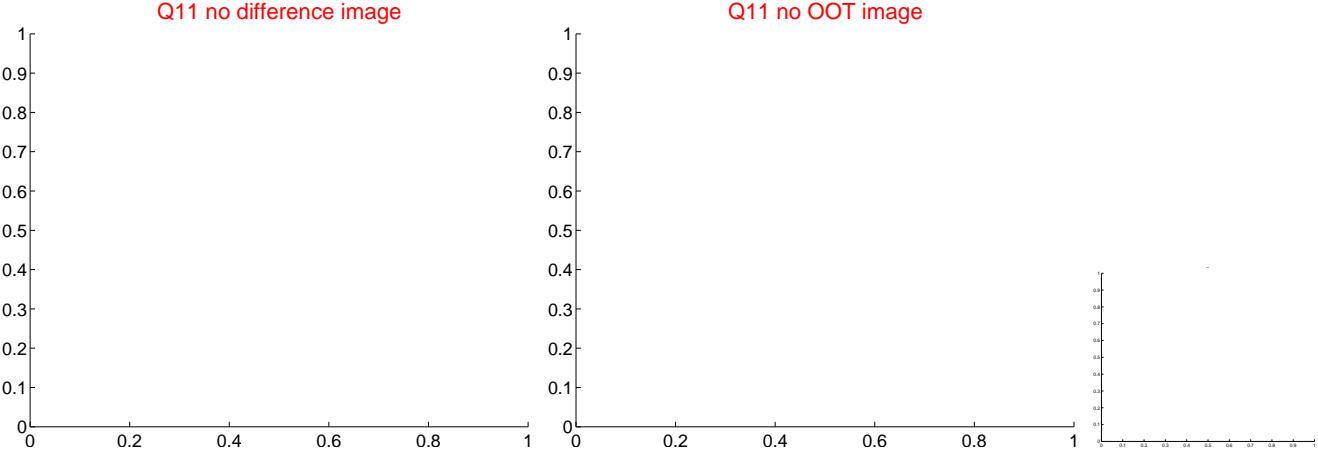
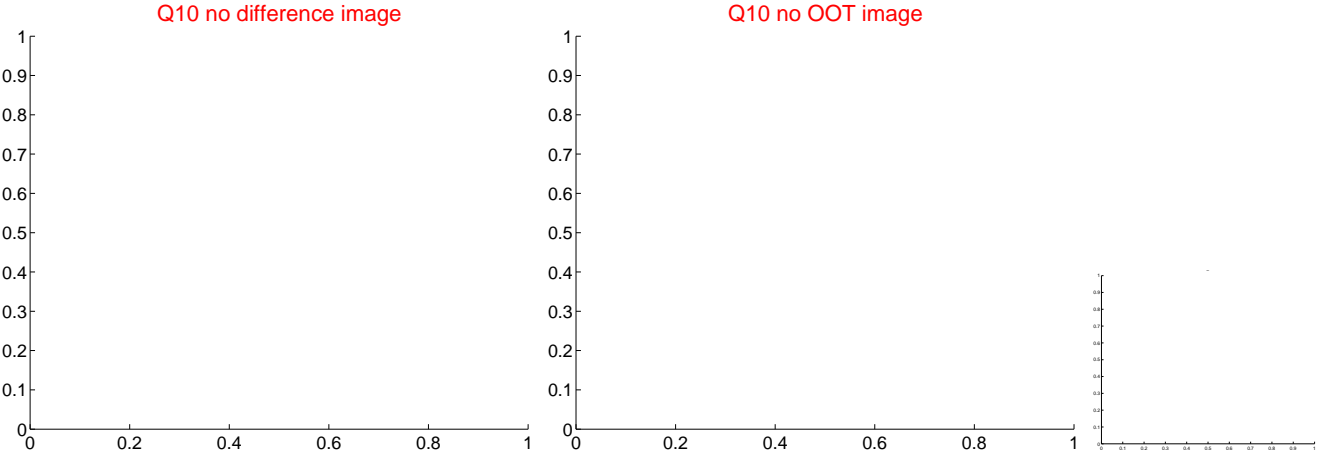
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



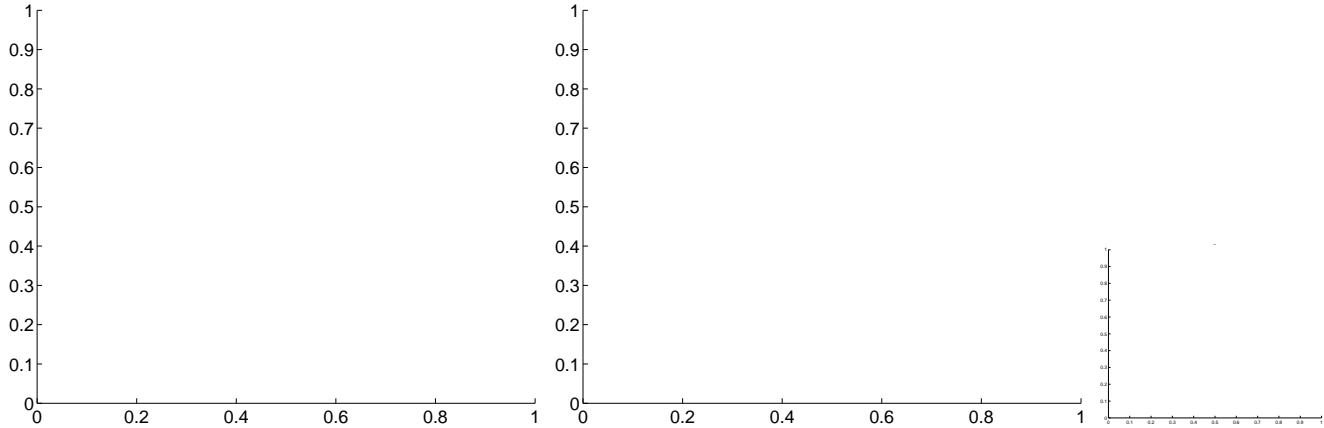
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



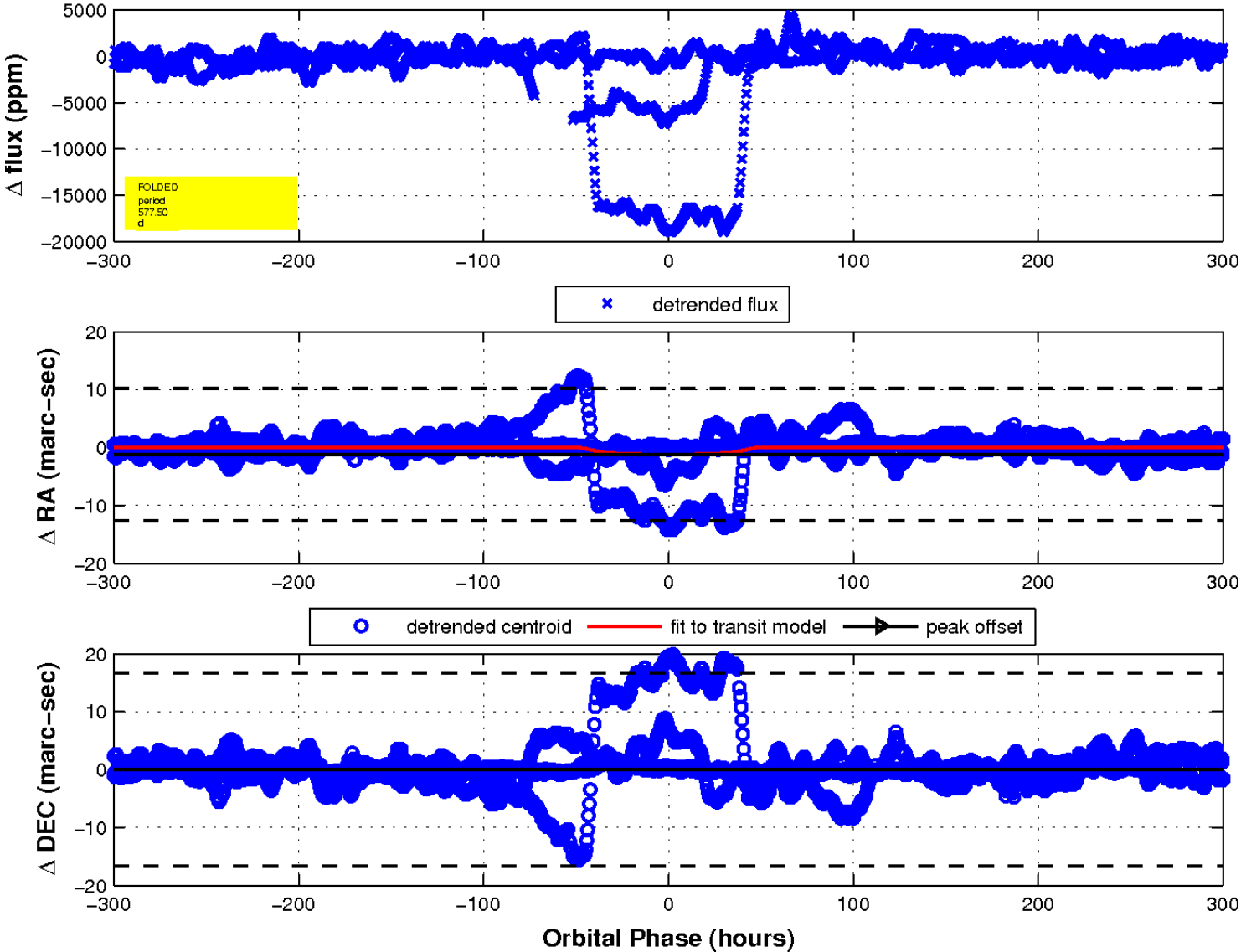
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image

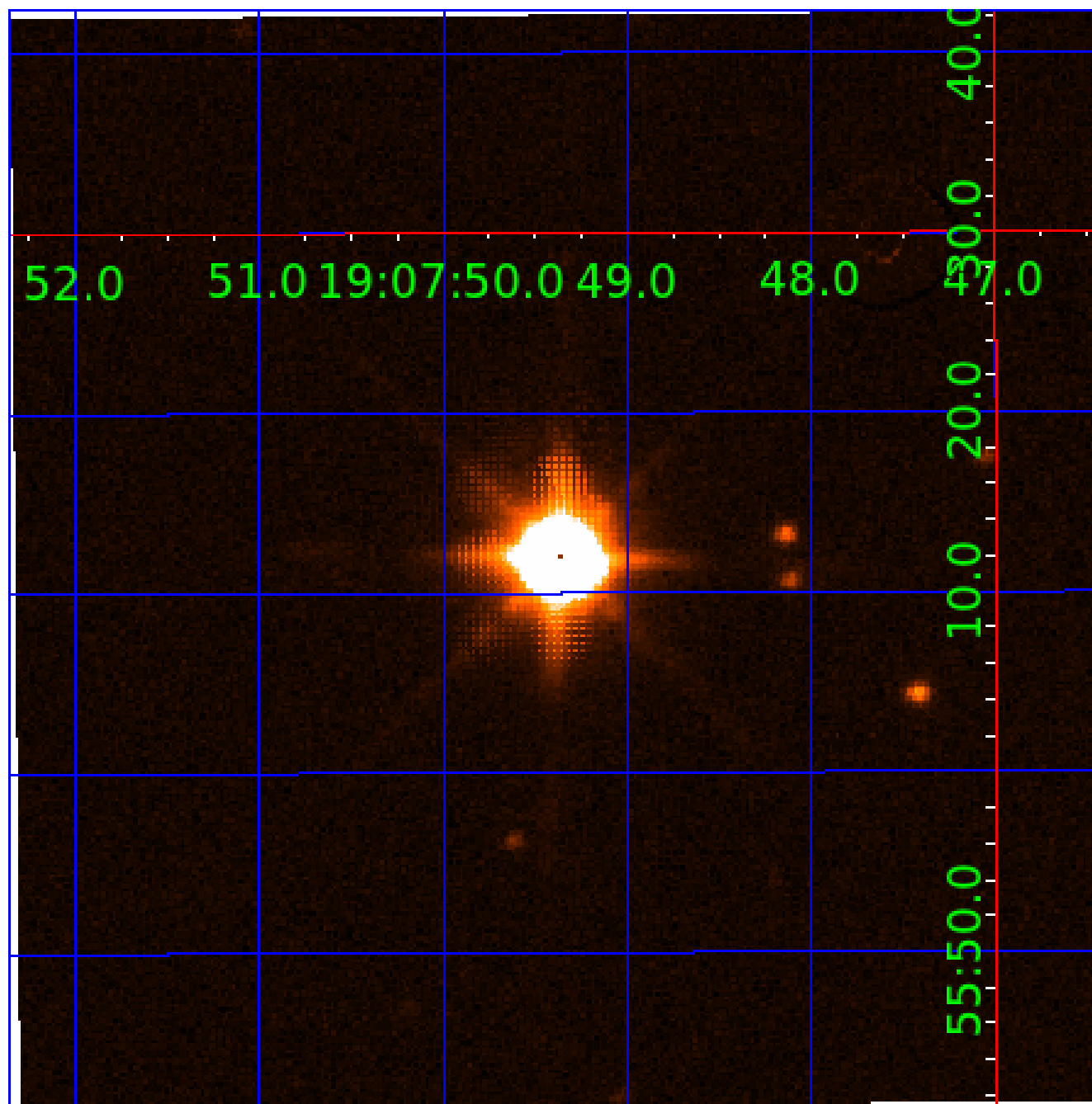


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 010001167

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})
010001167-01	OBS	No	361.172747	485.849355	17166.0	95.741	13.0	71.0	12.83	4600	161.65	75.46
010001167-02	OBS	No	577.496809	365.491970	9979.9	100.041	10.3	20.0	12.83	4600	135.08	40.36
010001167-03	OBS	No	360.952026	246.504258	107.5	15.000	16.9	-1.0	12.83	4600	12.80	75.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010001167-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED
010001167-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_SATURATED
010001167-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED

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

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

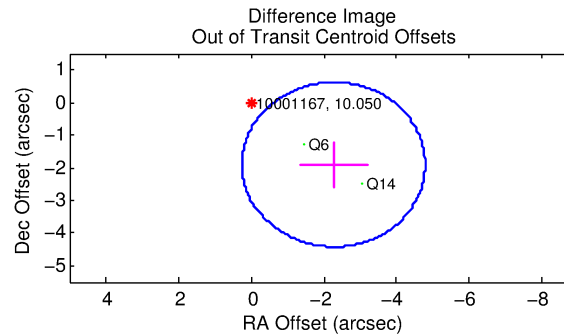
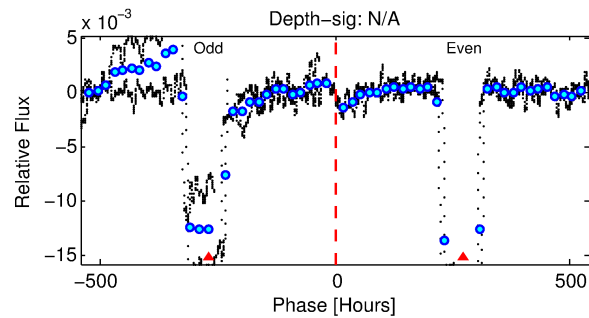
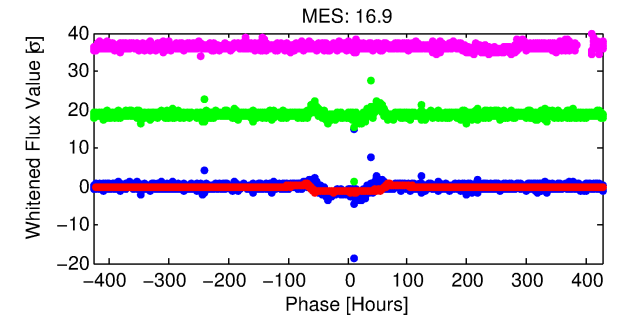
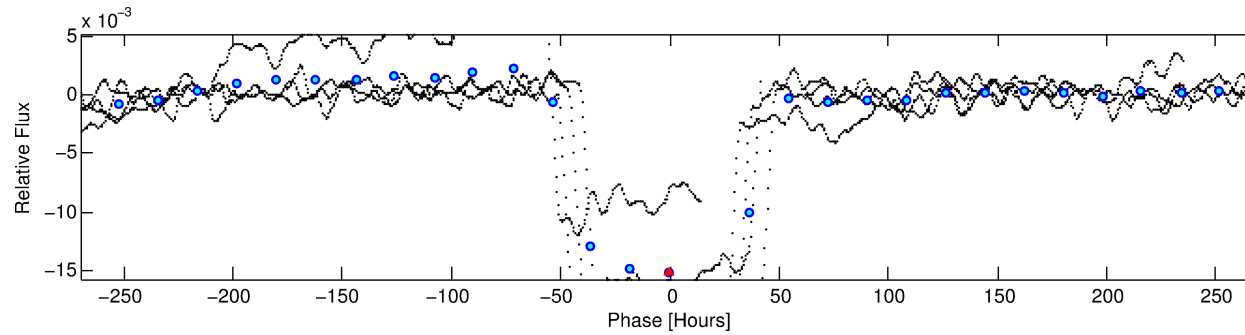
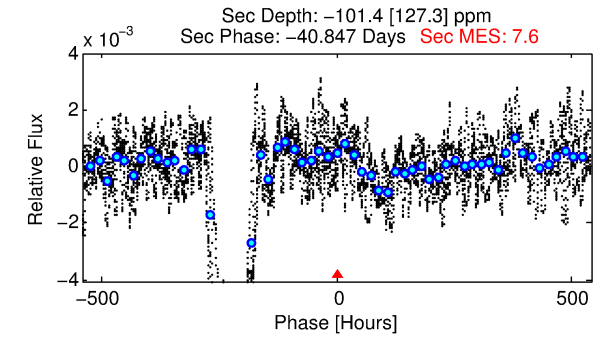
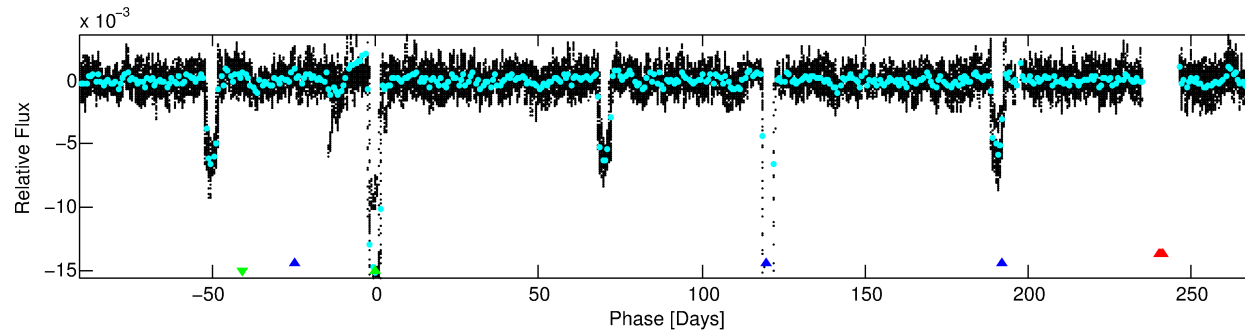
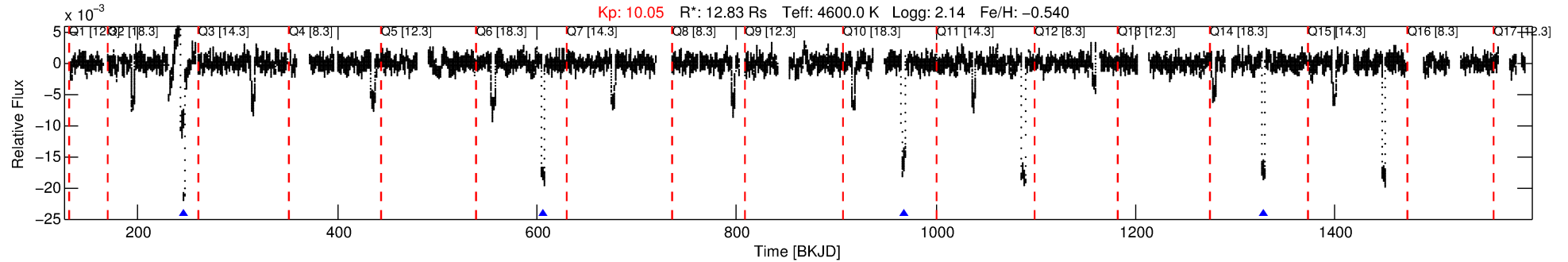
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010001167-03

No Significant Match Found

DV One-Page Summary

KIC: 10001167 Candidate: 3 of 3 Period: 360.952 d



TPS TCE Results:

Period = 360.95203 d
Epoch = 246.5043 BKJD

DV fit results are unavailable

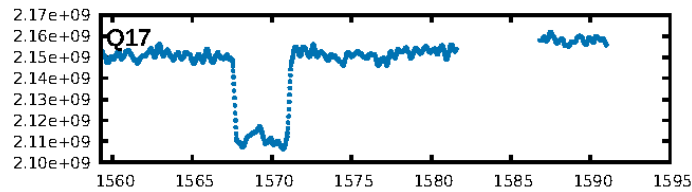
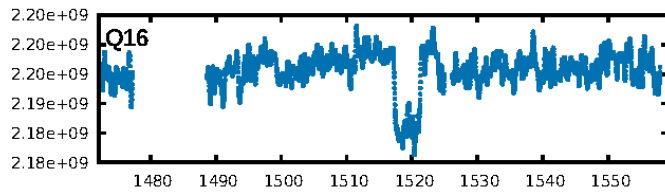
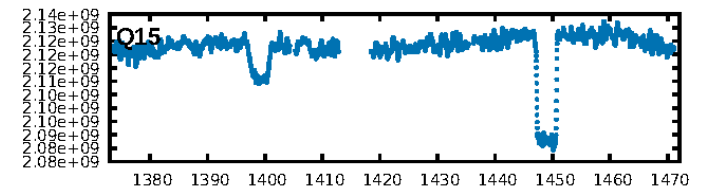
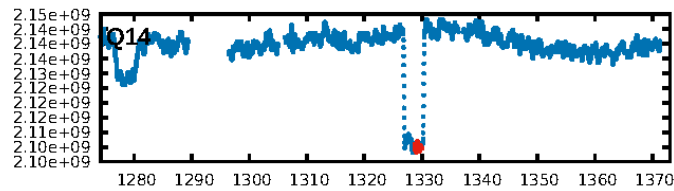
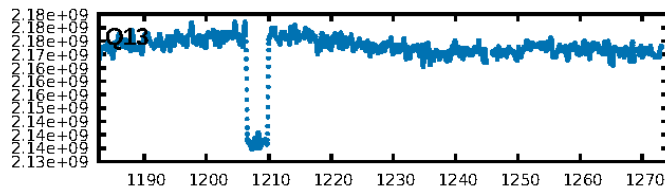
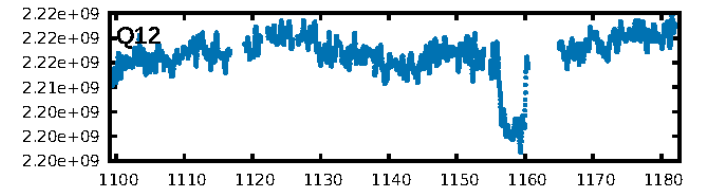
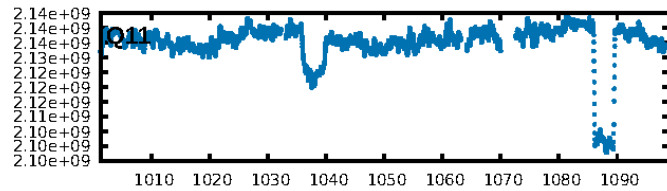
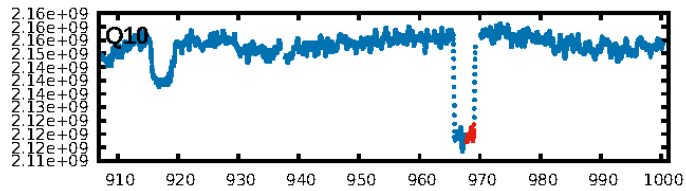
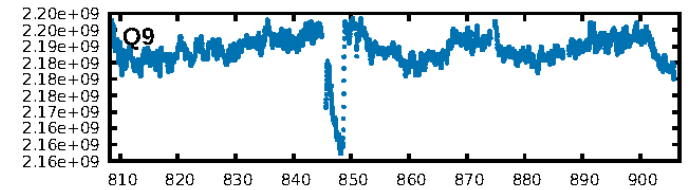
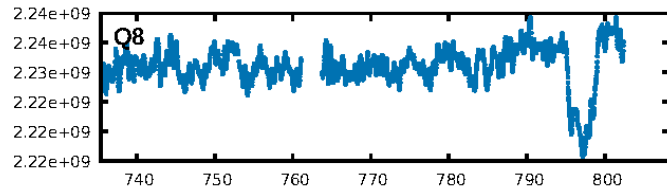
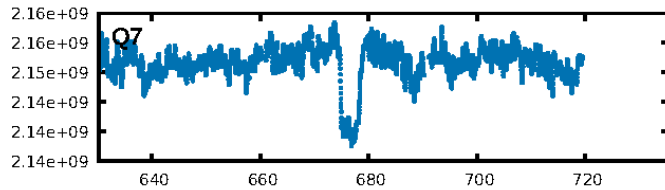
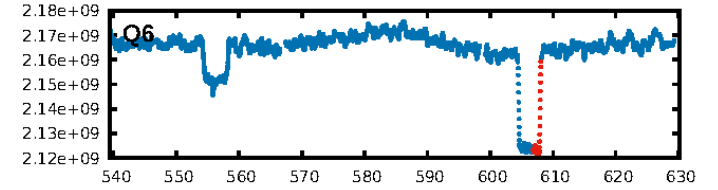
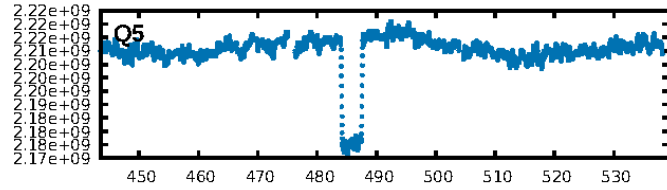
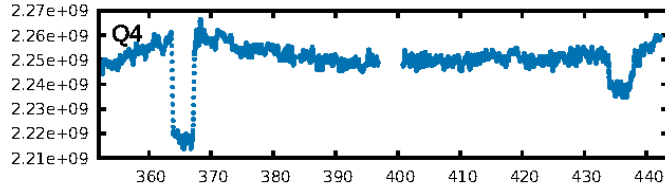
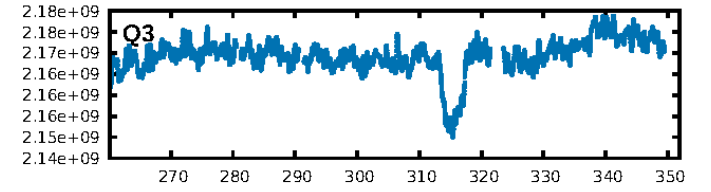
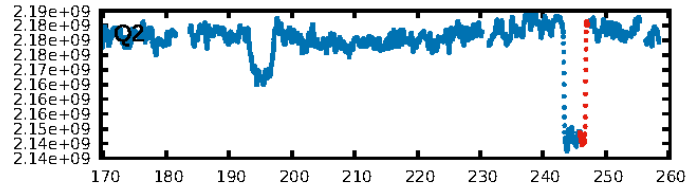
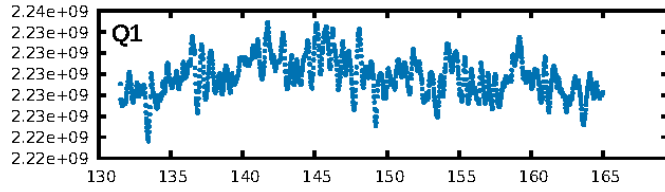
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 4.4% [0.05 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.183 arcsec [2.01 σ]
OotOffset-rm: 2.959 arcsec [3.52 σ]
KicOffset-rm: 3.102 arcsec [34.90 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

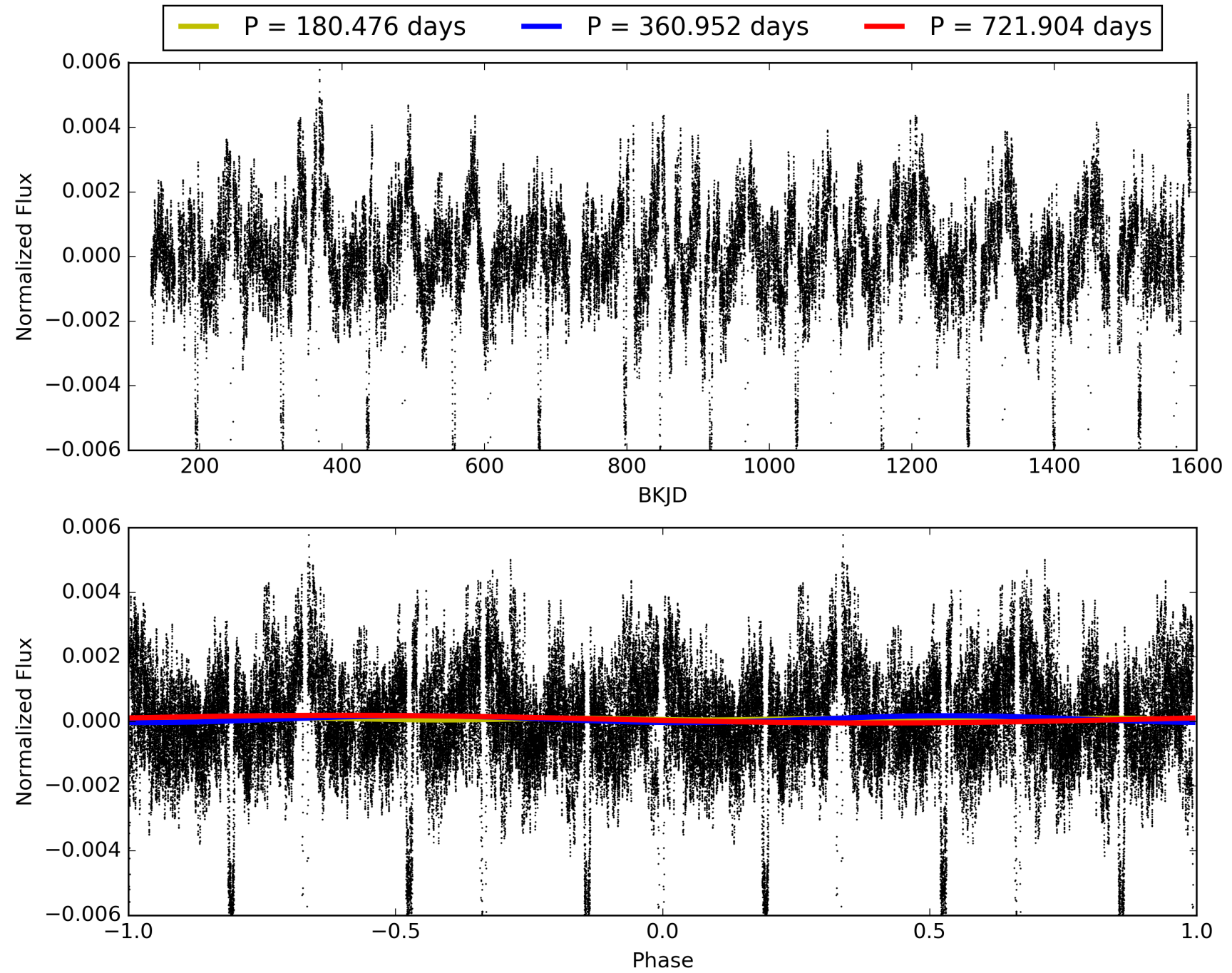
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:38:50 Z

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

TCE 010001167-03, PDC Light Curves

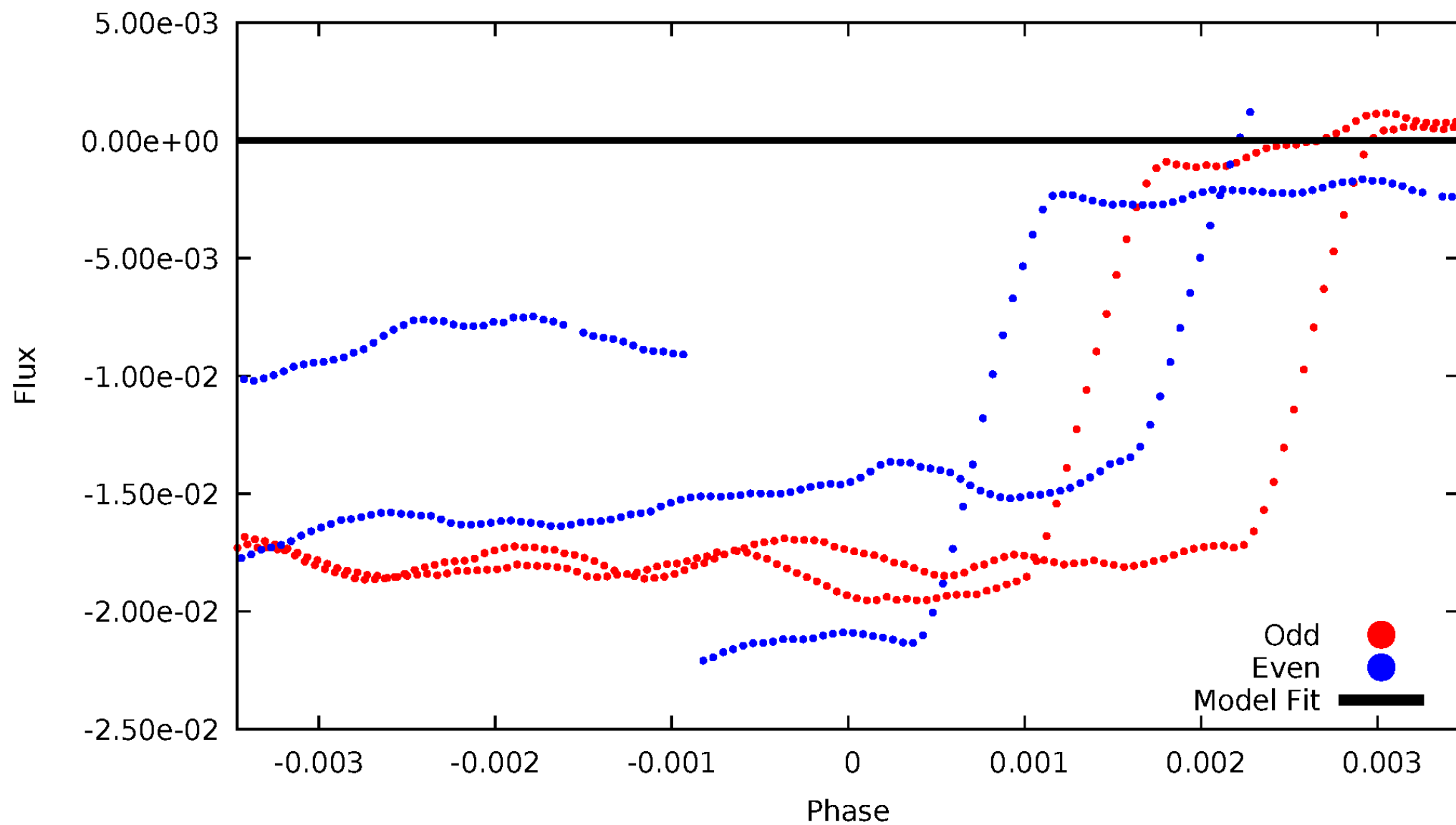


TCE 010001167-03



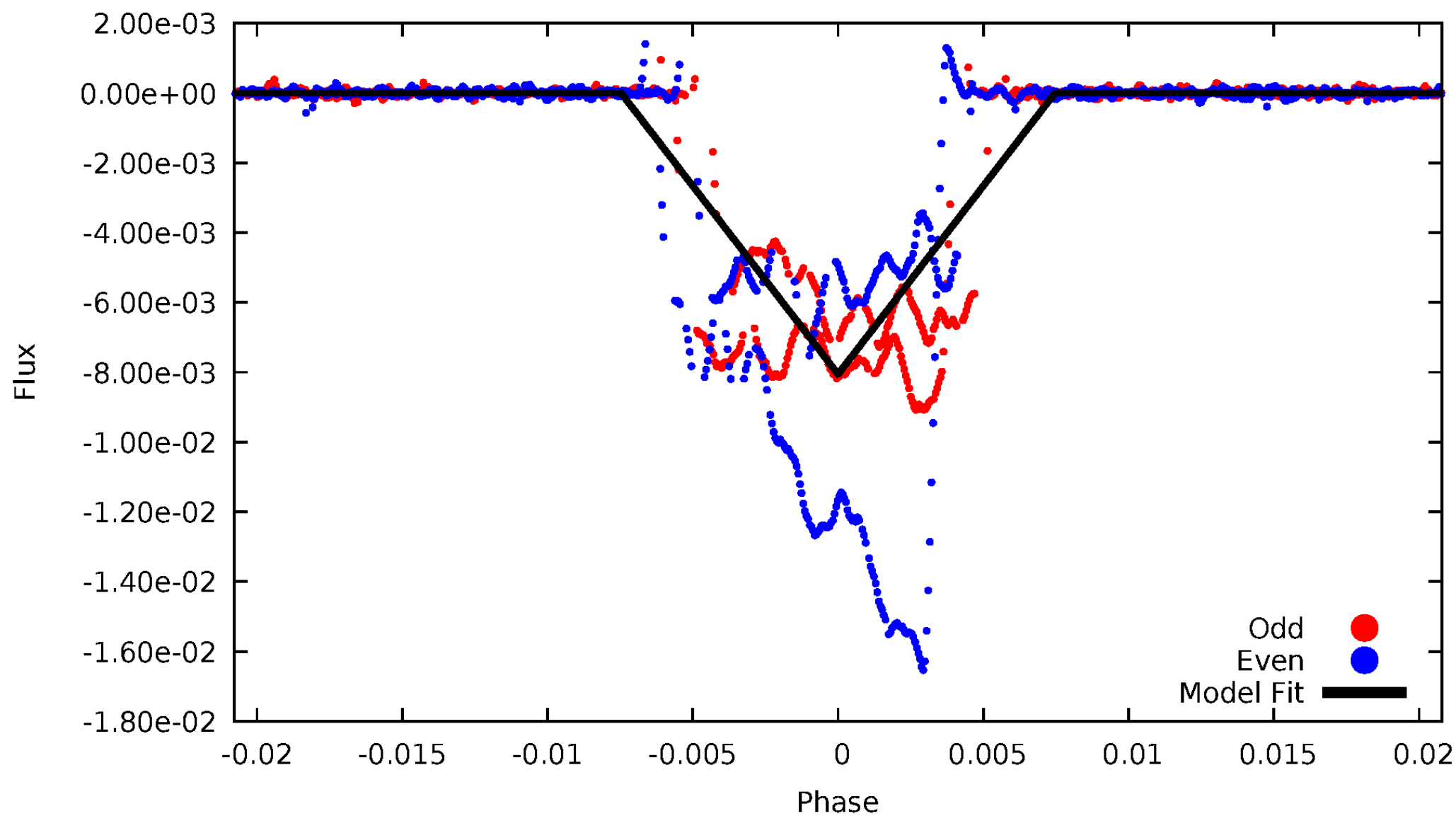
DV Odd/Even

TCE 010001167-03

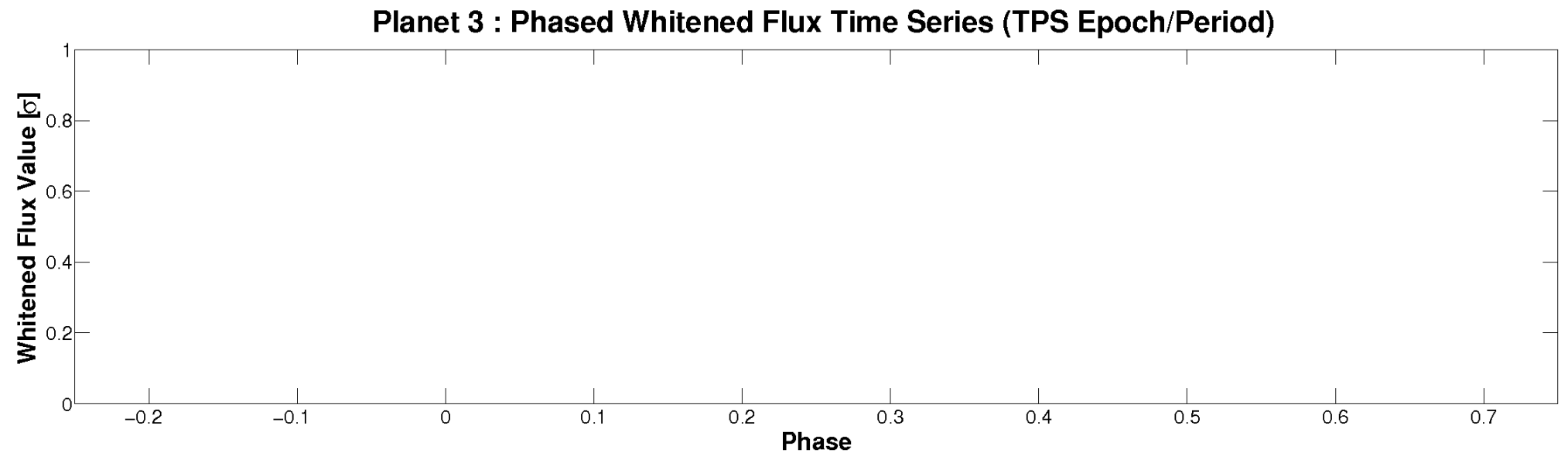
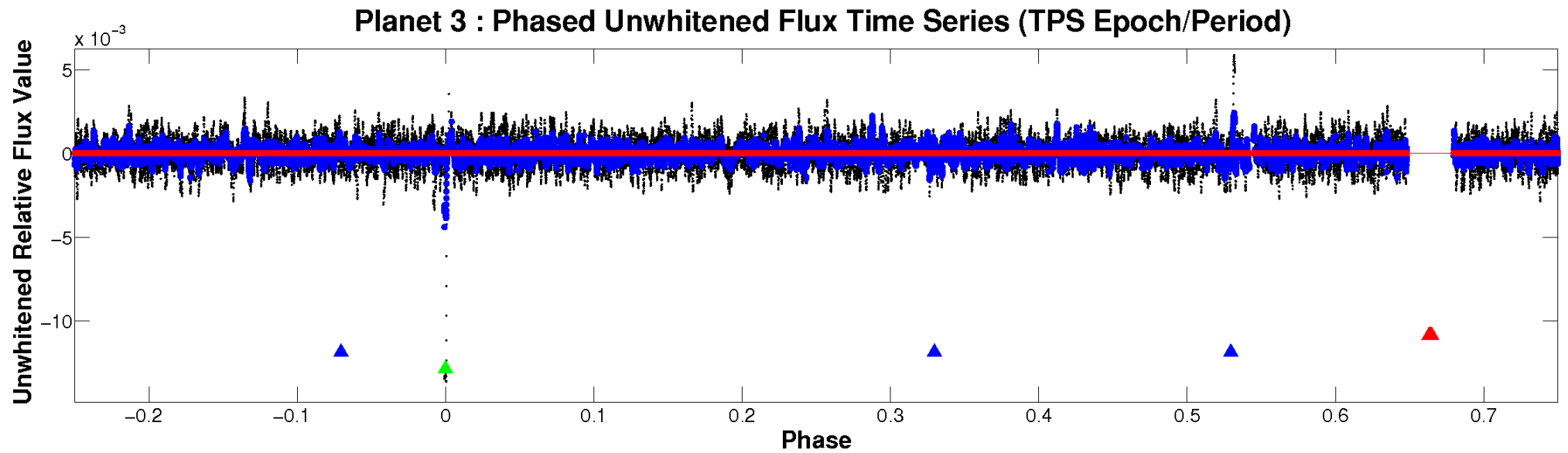


ALT Odd/Even

TCE 010001167-03

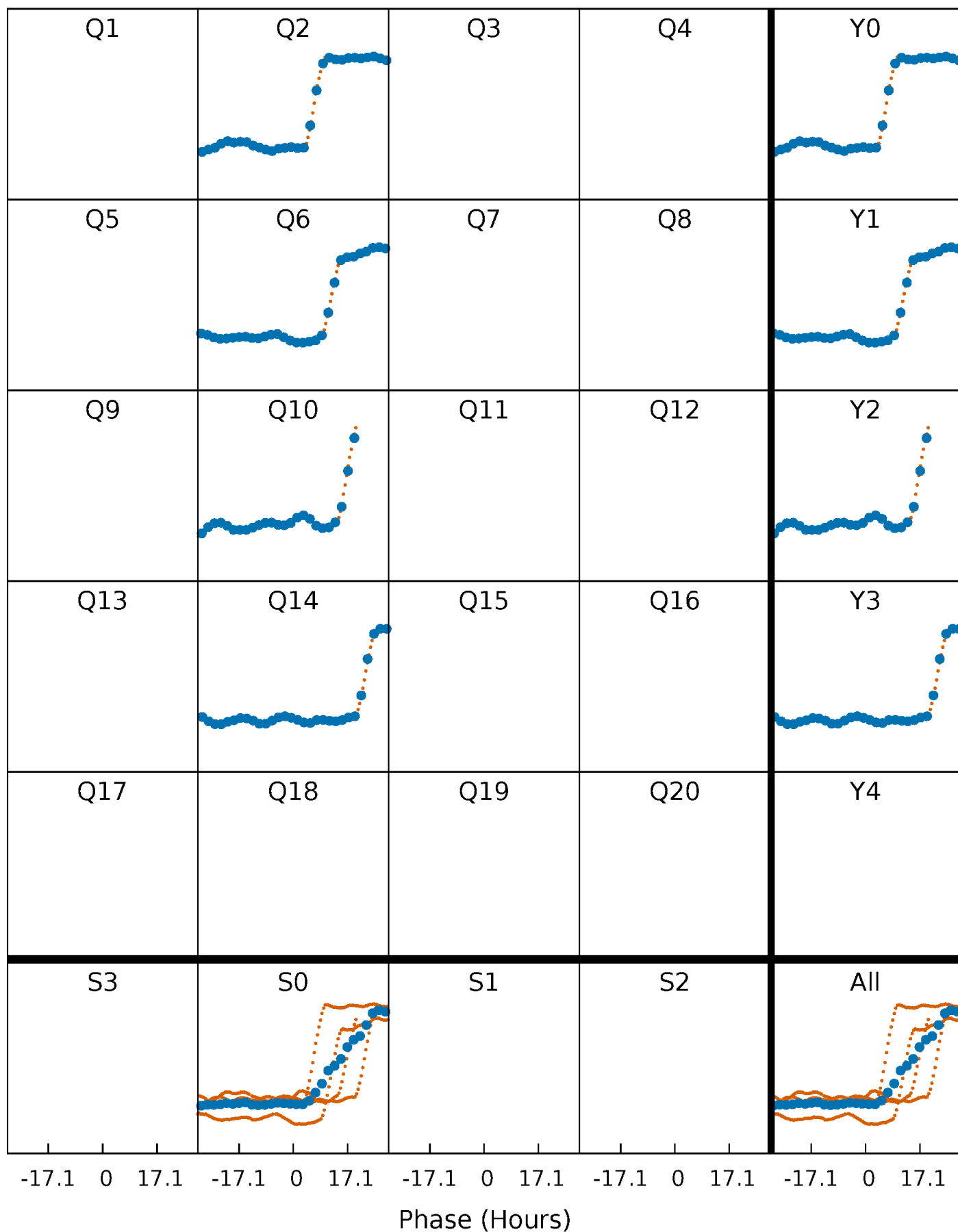


Non-Whitened Vs. Whitened Light Curve



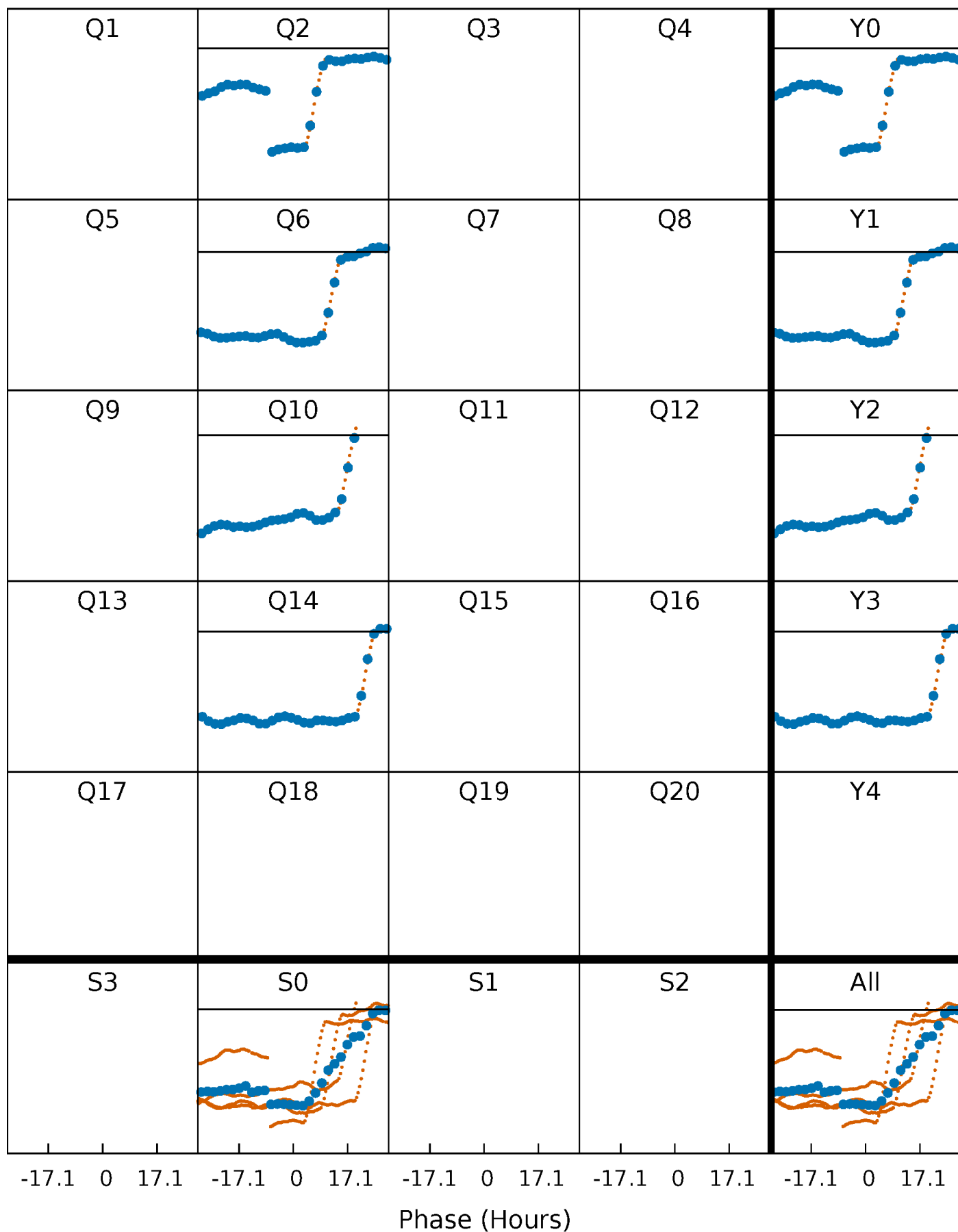
PDC Quarter-Phased Transit Curves

TCE 010001167-03 P=360.952026 Days $T_0=246.504258$ (BKJD)



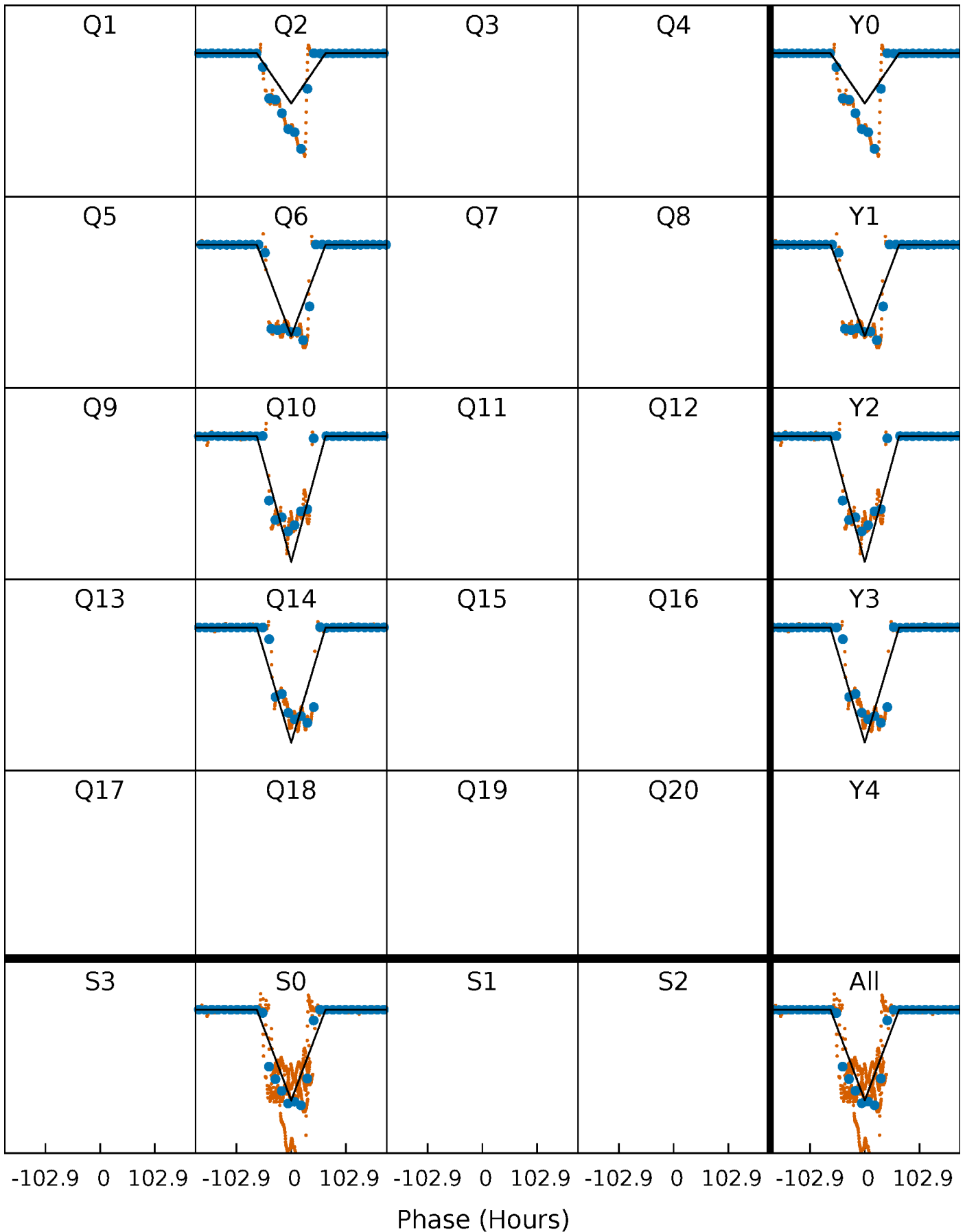
DV Quarter-Phased Transit Curves

TCE 010001167-03 P=360.952026 Days $T_0=246.504258$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

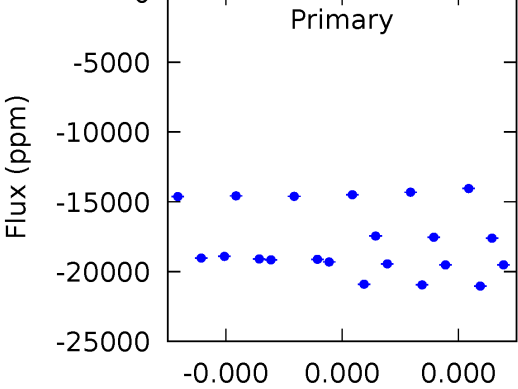
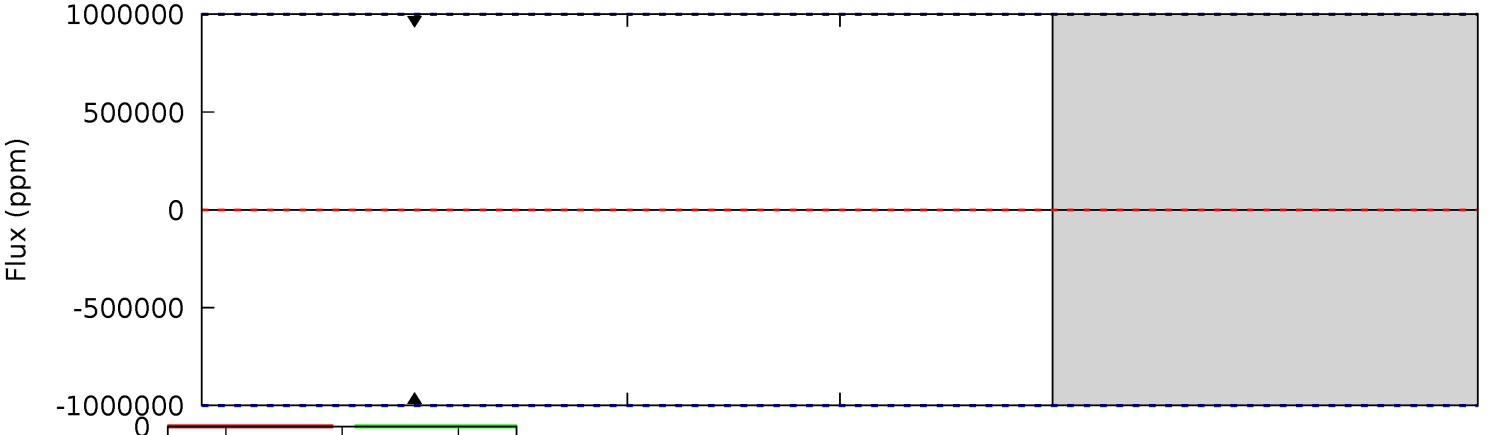
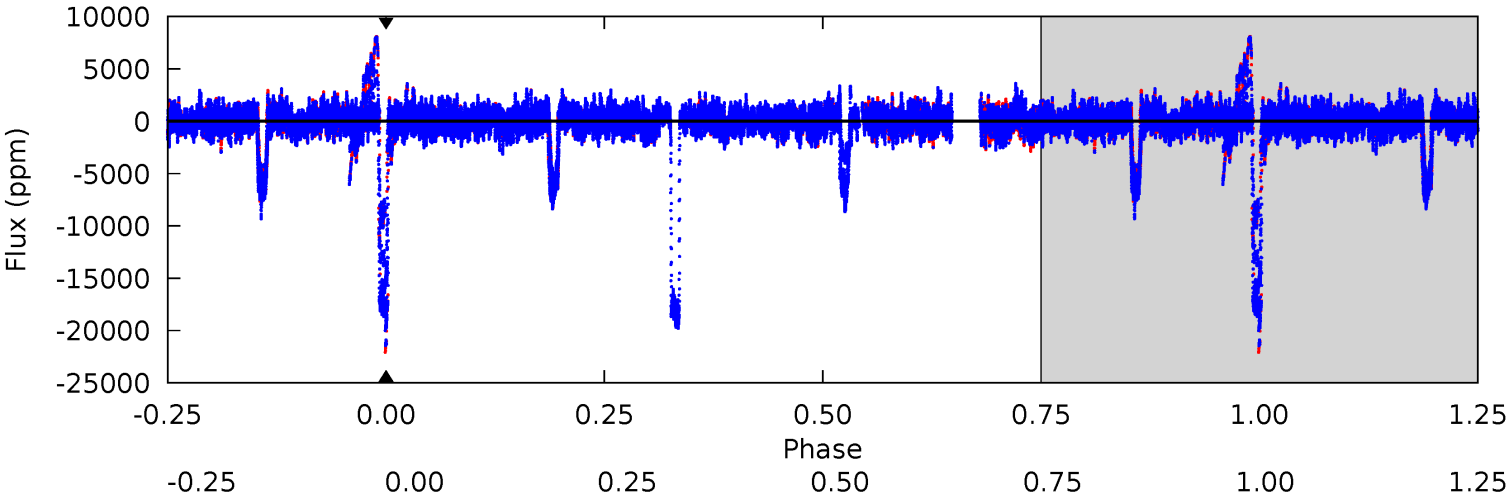
TCE 010001167-03 $P=360.952026$ Days $T_0=245.577312$ (BKJD)



DV Model-Shift Uniqueness Test

010001167-03, P = 360.952026 Days, E = 246.504258 Days

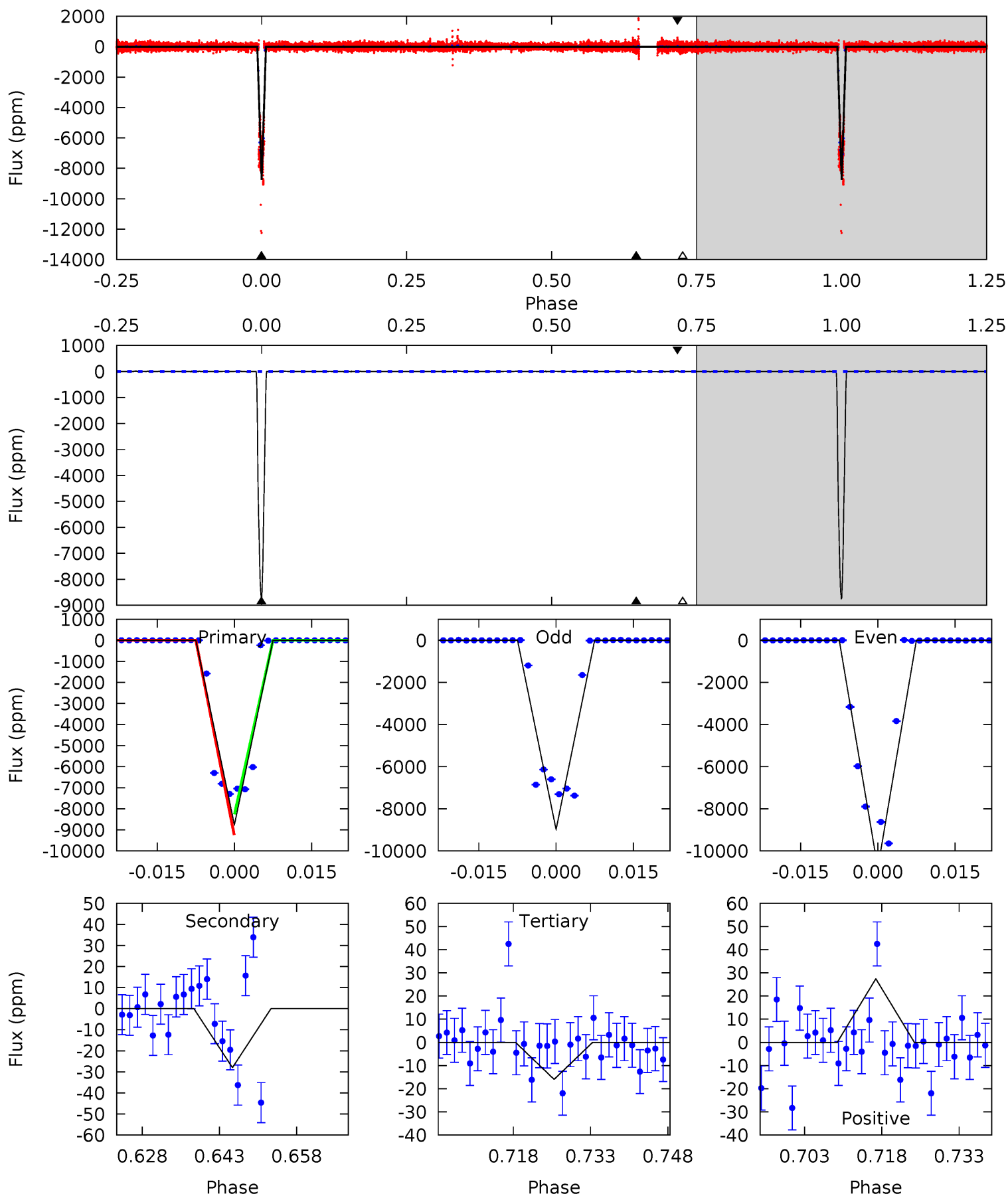
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010001167-03, P = 360.952026 Days, E = 245.577312 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2157	6.89	3.93	6.75	4.95	2.43	1.05	2153	2150	2.96	0.14	252.0	1.10	0.00	0



Stellar Parameters For KIC 010001167

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4600^{+90}_{-55}	$2.144^{+0.159}_{-0.116}$	$-0.540^{+0.150}_{-0.150}$	$12.826^{+4.242}_{-1.818}$	$0.837^{+0.406}_{-0.021}$	$0.001^{+0.000}_{-0.000}$
	+2%/-1%	+7%/-5%	+28%/-28%	+33%/-14%	+49%/-3%	+67%/-40%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 010001167-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$102.62^{+108.77}_{-74.55}$	1042^{+60}_{-50}	3955^{+10019}_{-15942}	115^{+10563}_{-7623}
Alt.	-28 ± 4	$164.48^{+129.58}_{-99.95}$	1042^{+61}_{-53}	1804^{+616}_{-3531}	$0.515^{+3.211}_{-0.346}$

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

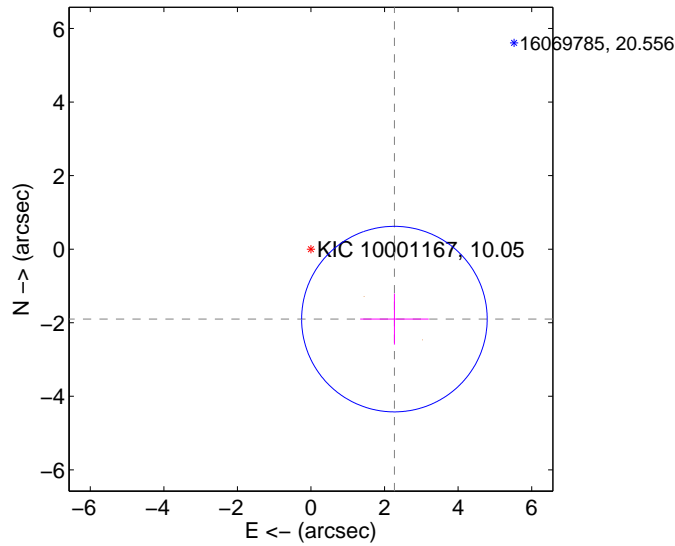
Supplemental centroid analysis for 010001167-03. **Kepler magnitude: 10.05**. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

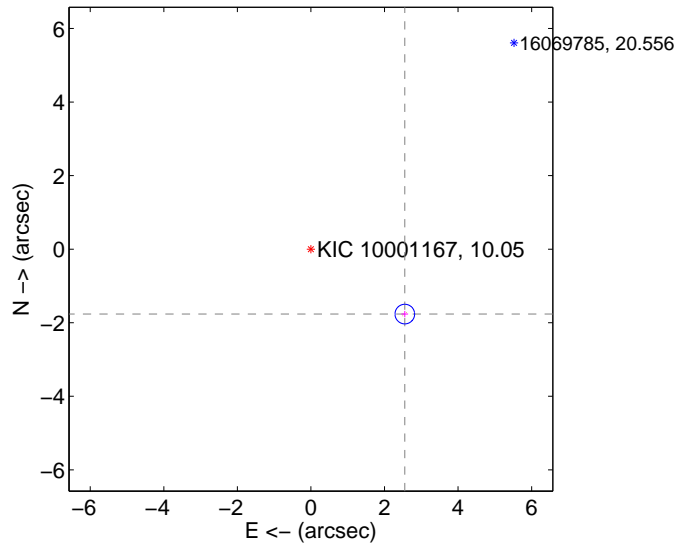
The direct PRF centroid is offset from the target star catalog position by about 0.86 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.959 \pm 0.841	3.52	-2.267 \pm 0.931	-1.902 \pm 0.692
PRF-fit source offset from KIC position	3.102 \pm 0.089	34.90	-2.551 \pm 0.090	-1.765 \pm 0.086
photometric centroid source offset	0.18 \pm 0.09	2.01	-0.08 \pm 0.06	-0.17 \pm 0.10

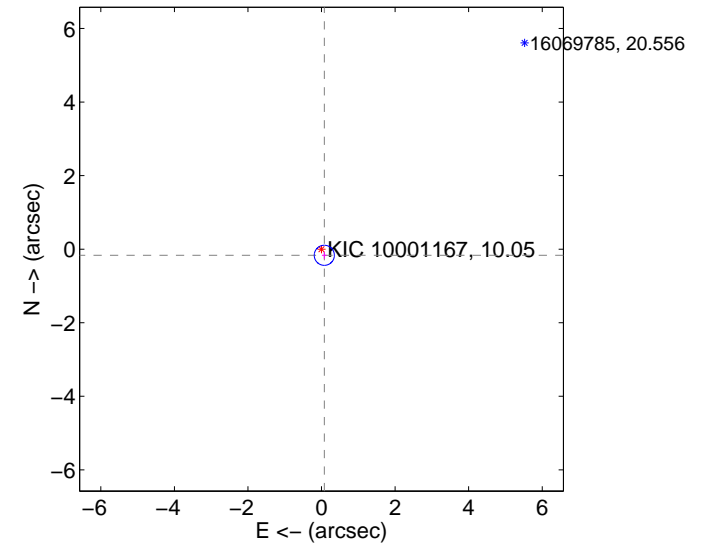
offset from difference PRF-fit to OOT PRF-fit



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.

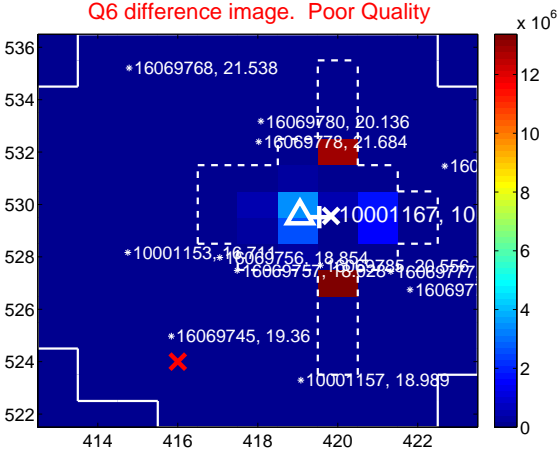
Q5 no difference image



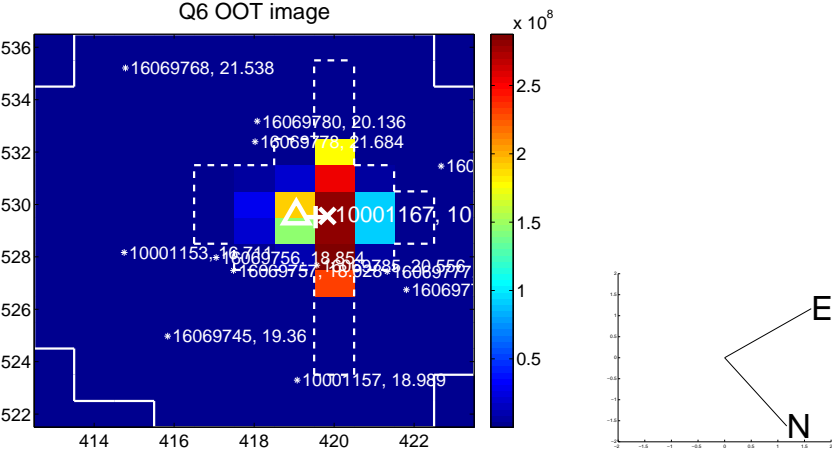
Q5 no OOT image



Q6 difference image. Poor Quality



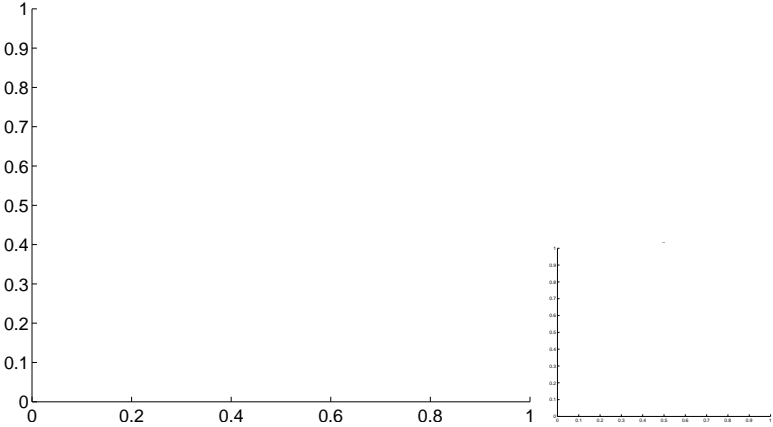
Q6 OOT image



Q7 no difference image



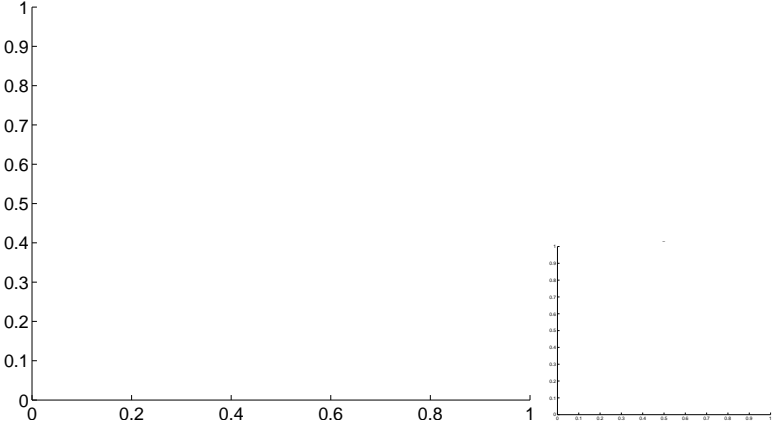
Q7 no OOT image



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

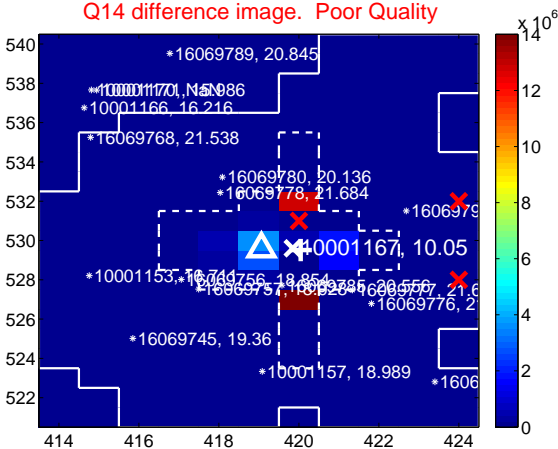
Q13 no difference image



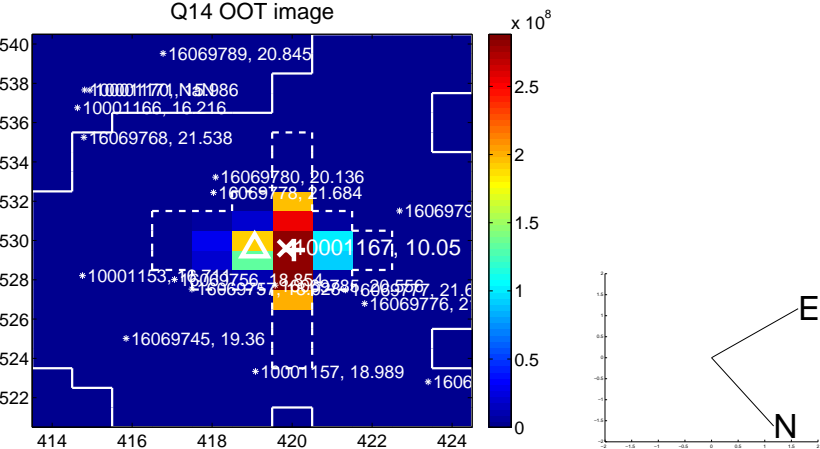
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



Q15 no difference image



Q15 no OOT image



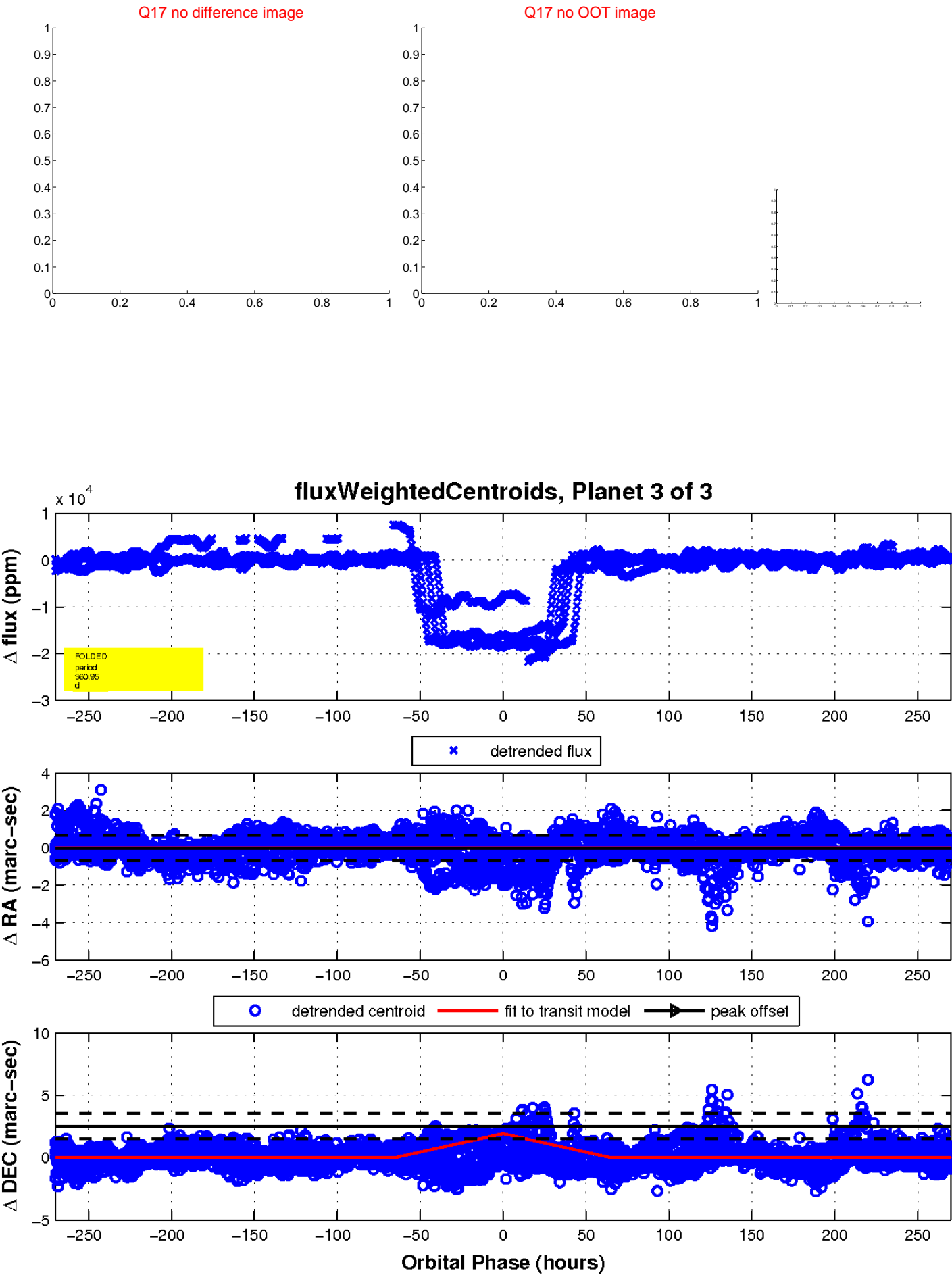
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

