

KIC 006114118

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})
006114118-01	OBS	No	379.104289	295.854642	11210.5	6.059	53.9	58.0	1.05	6228	19.07	1.32
006114118-02	OBS	No	373.499193	290.255038	11921.2	5.723	58.3	61.6	1.05	6228	20.25	1.34
006114118-03	OBS	No	381.902201	282.784841	11426.4	6.174	62.0	58.9	1.05	6228	17.76	1.30
006114118-04	OBS	No	378.168020	288.390121	11694.2	6.218	64.7	56.1	1.05	6228	20.10	1.32
006114118-05	OBS	No	370.696938	296.788316	8254.1	3.000	58.8	-1.0	1.05	6228	9.55	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114118-01	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-02	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-03	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-05	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

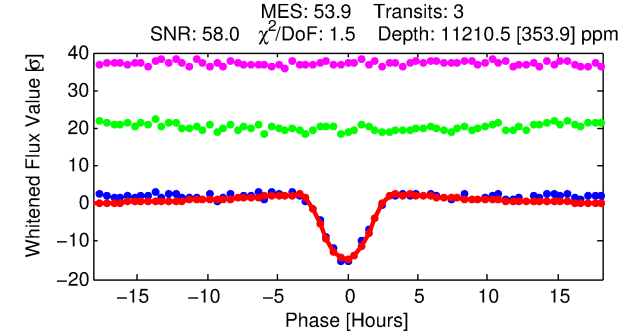
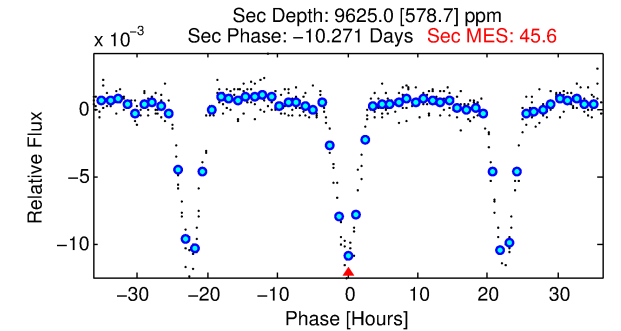
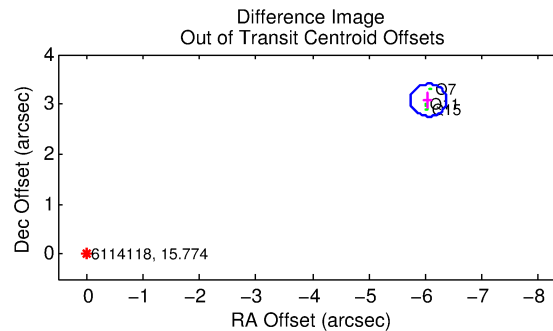
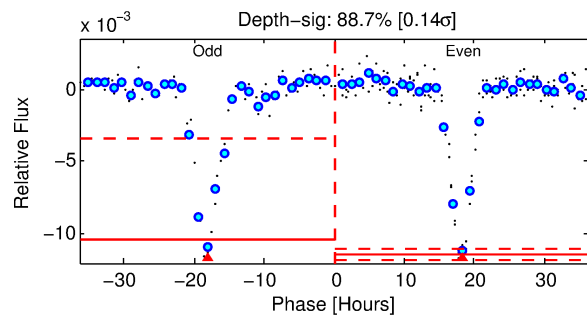
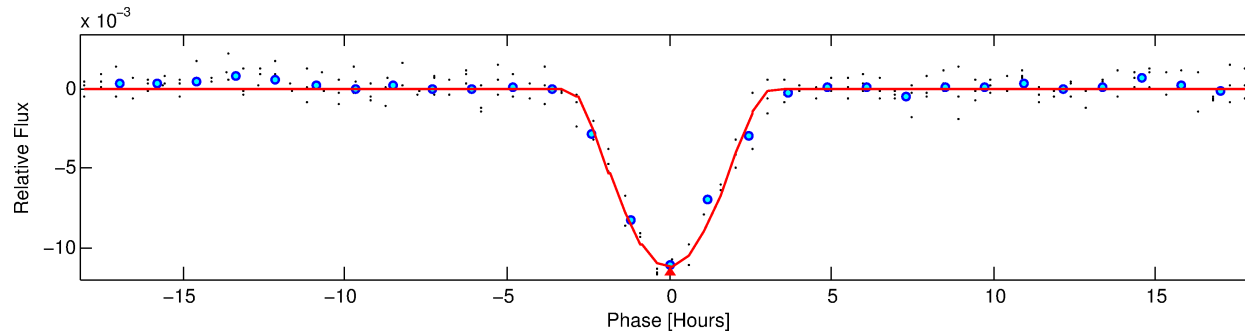
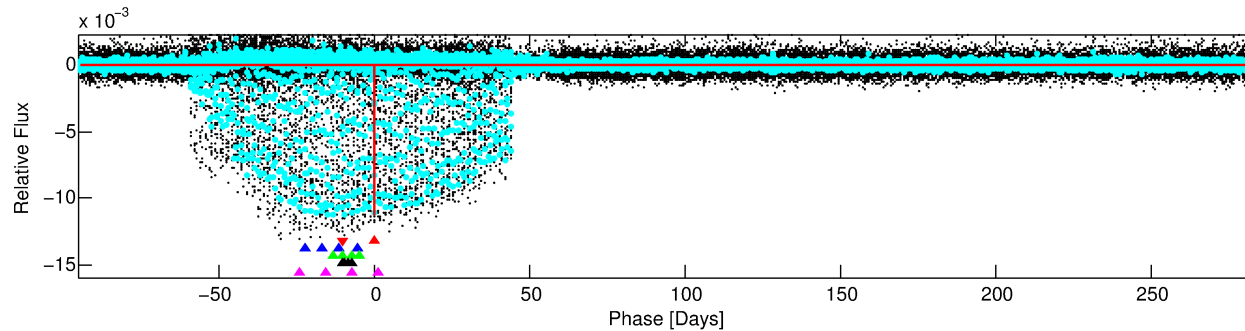
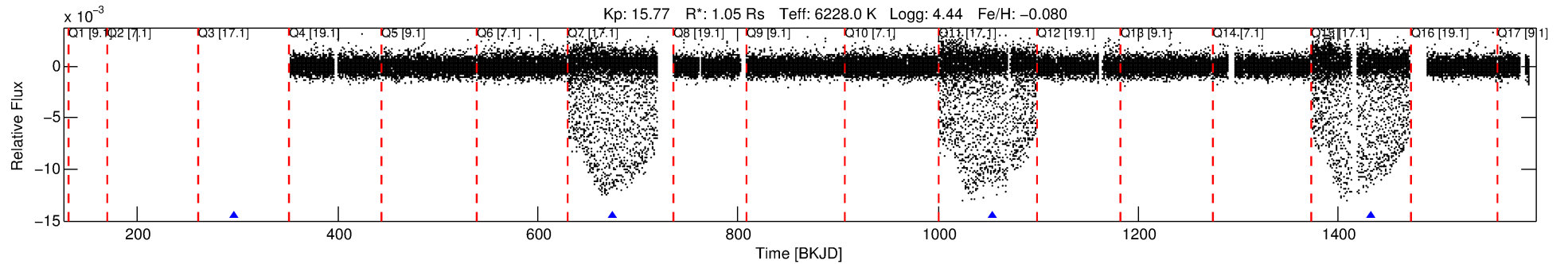
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114118-01

No Significant Match Found

DV One-Page Summary

KIC: 6114118 Candidate: 1 of 5 Period: 379.104 d



DV Fit Results:

Period = 379.10429 [0.00184] d
Epoch = 295.8546 [0.0039] BKJD
Rp/R* = 0.1666 [0.1617]
a/R* = 293.62 [44.40]
b = 0.99 [0.23]
Seff = 1.32 [0.57]
Teq = 273 [30] K
Rp = 19.07 [19.57] Re
a = 1.0610 [0.2938] AU
Ag = 16382.79 [32477.15] [0.50σ]
Teffp = 4779 [2328] K [1.93σ]

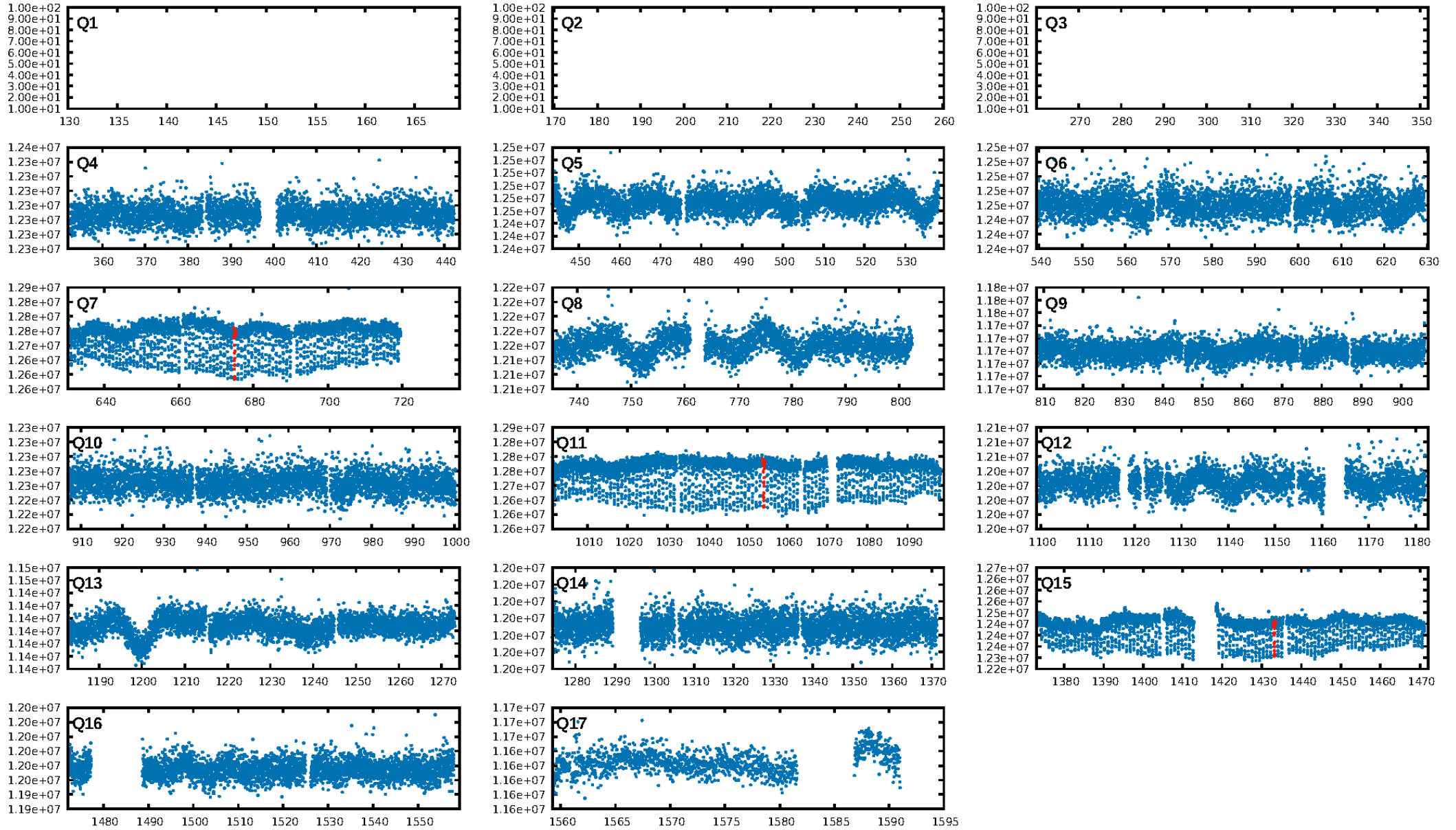
DV Diagnostic Results:

ShortPeriod-sig: 99.0% [2.59σ]
LongPeriod-sig: 100.0% [7.76σ]
ModelChiSquare2-sig: 36.2%
ModelChiSquareGof-sig: 29.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.04831
Centroid-sig: N/A
Centroid-so: 1.315 arcsec [3.94σ]
OotOffset-rm: 6.785 arcsec [63.05σ]
KicOffset-rm: 6.822 arcsec [63.40σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

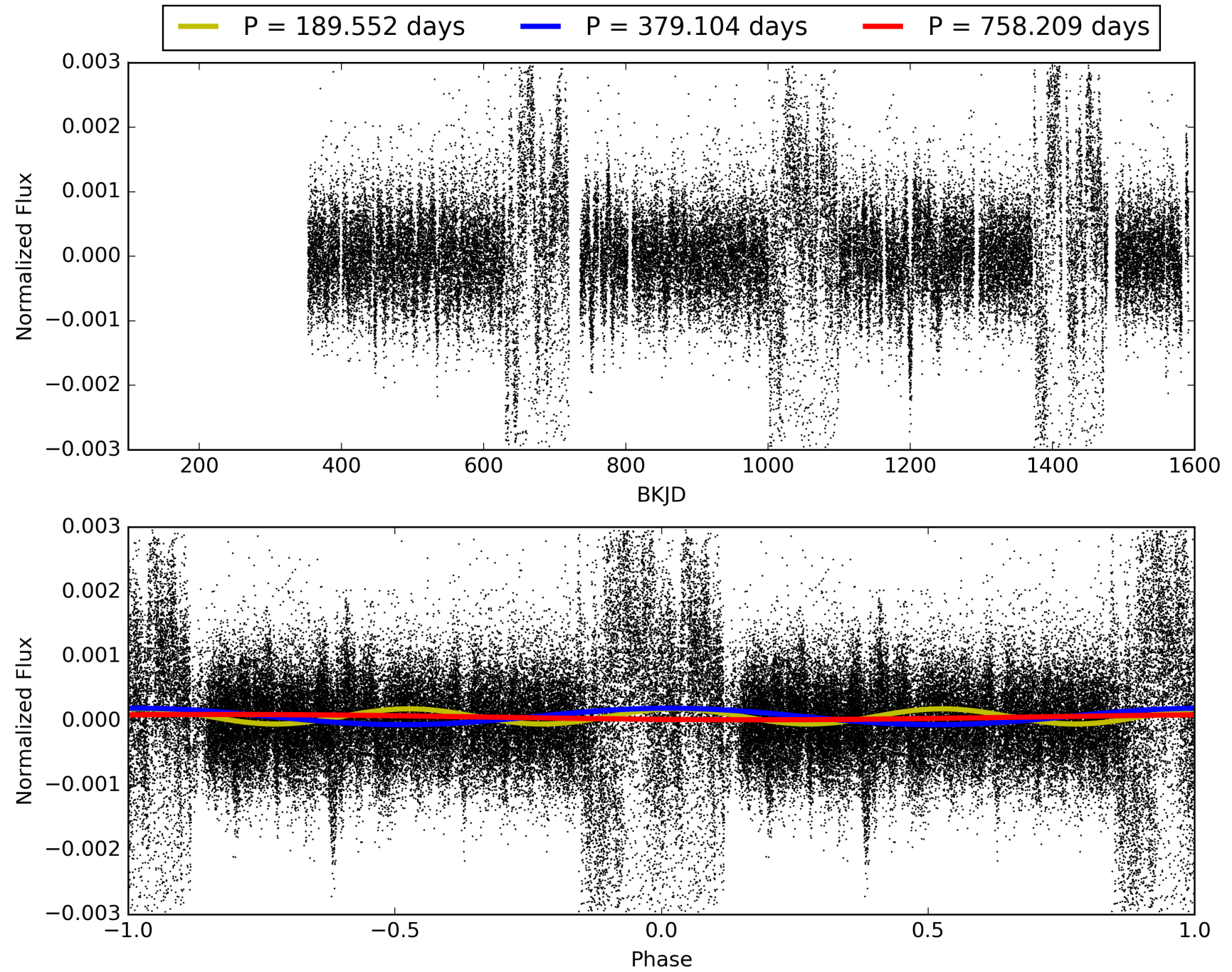
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:26:40 Z

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

TCE 006114118-01, PDC Light Curves

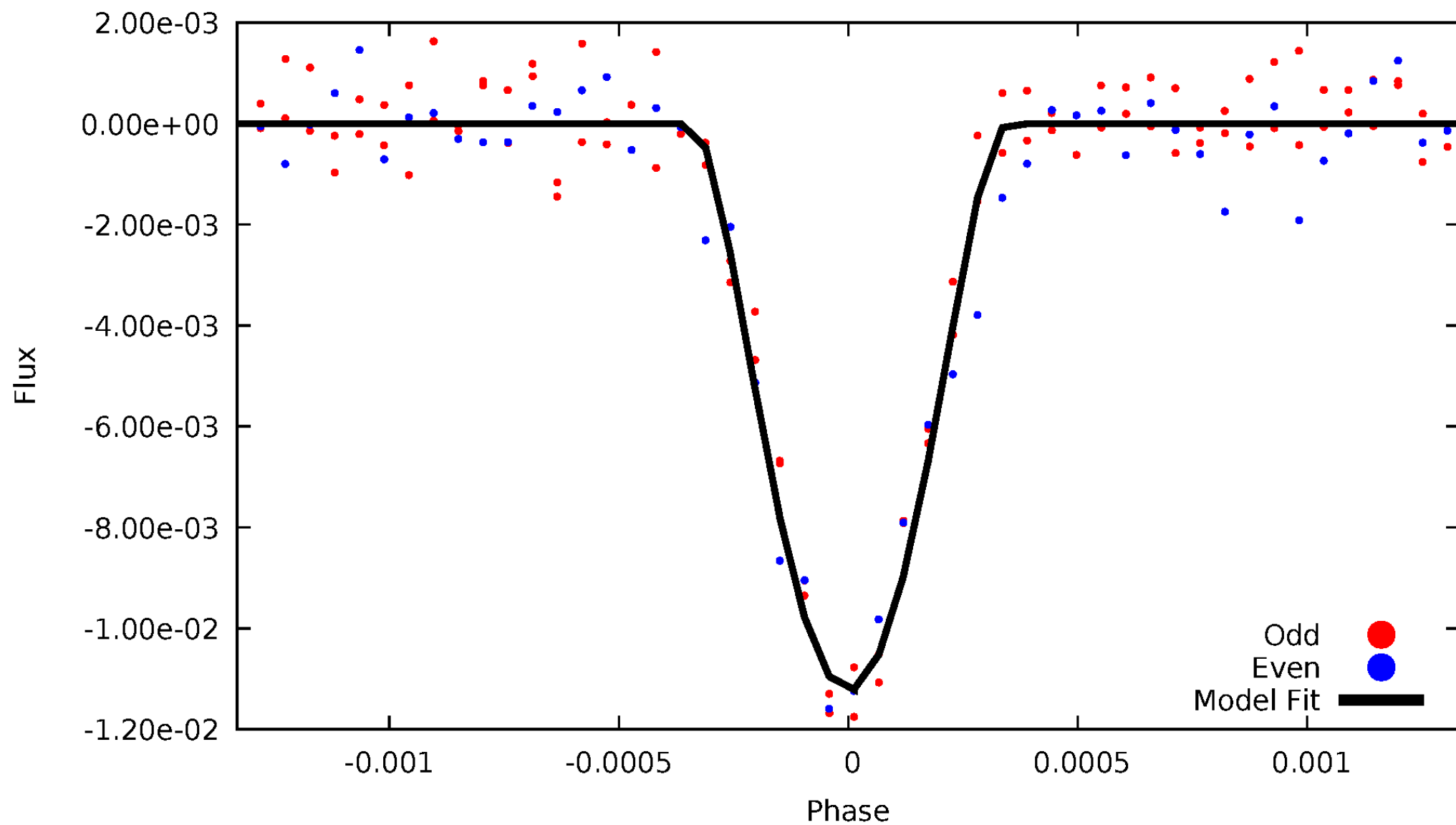


TCE 006114118-01



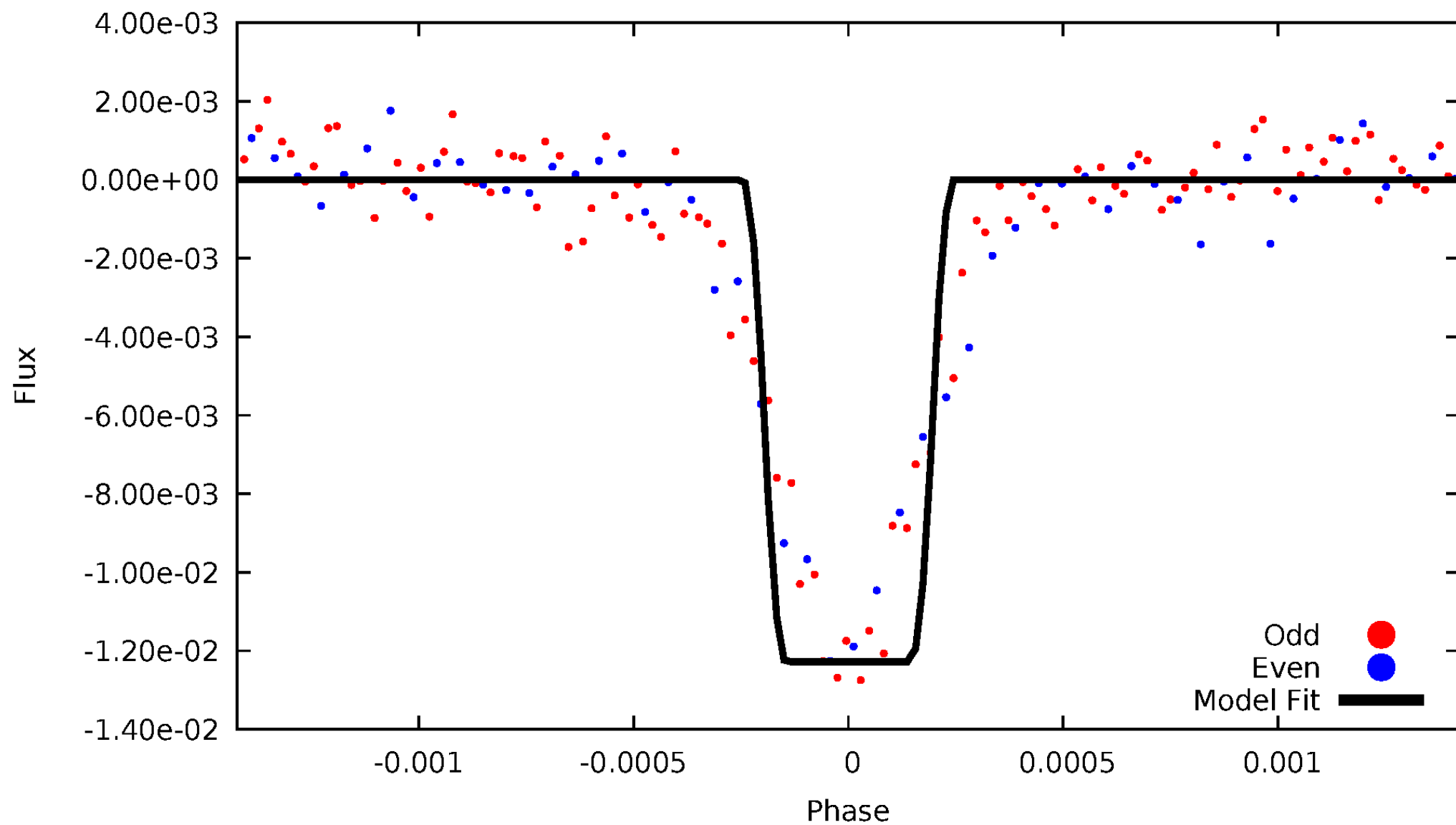
DV Odd/Even

TCE 006114118-01



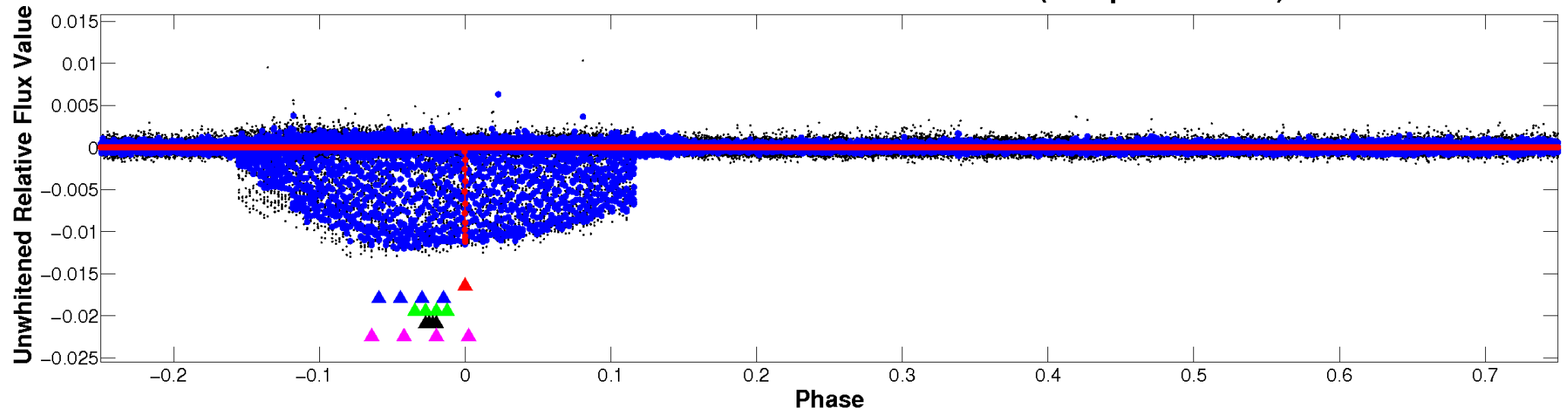
ALT Odd/Even

TCE 006114118-01

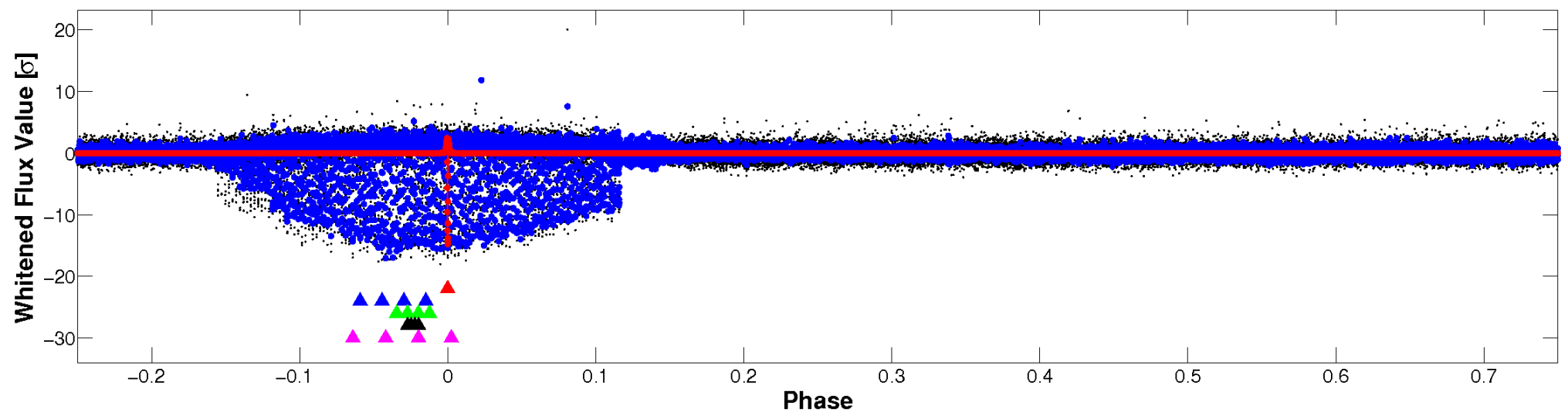


Non-Whitened Vs. Whitened Light Curve

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

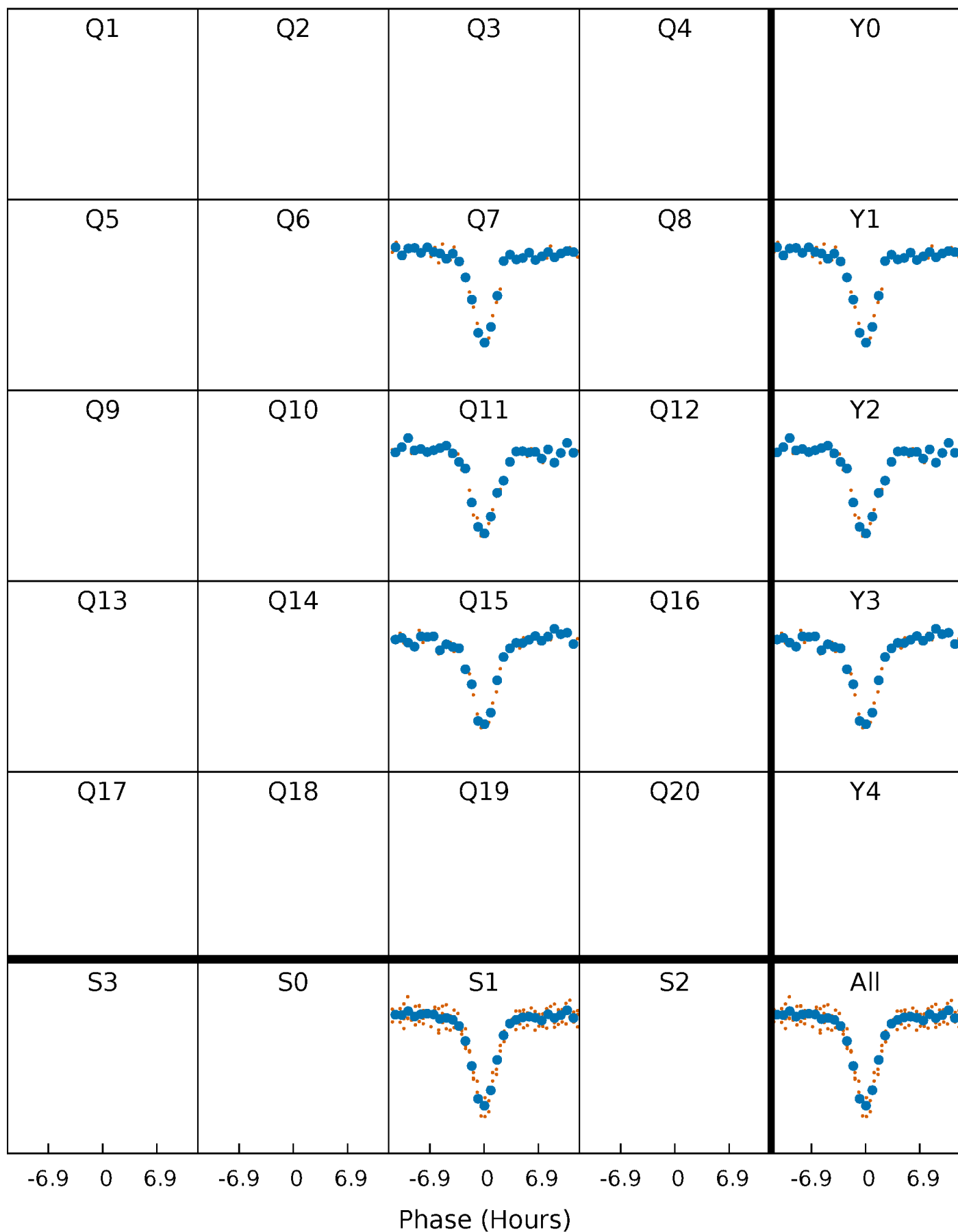


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



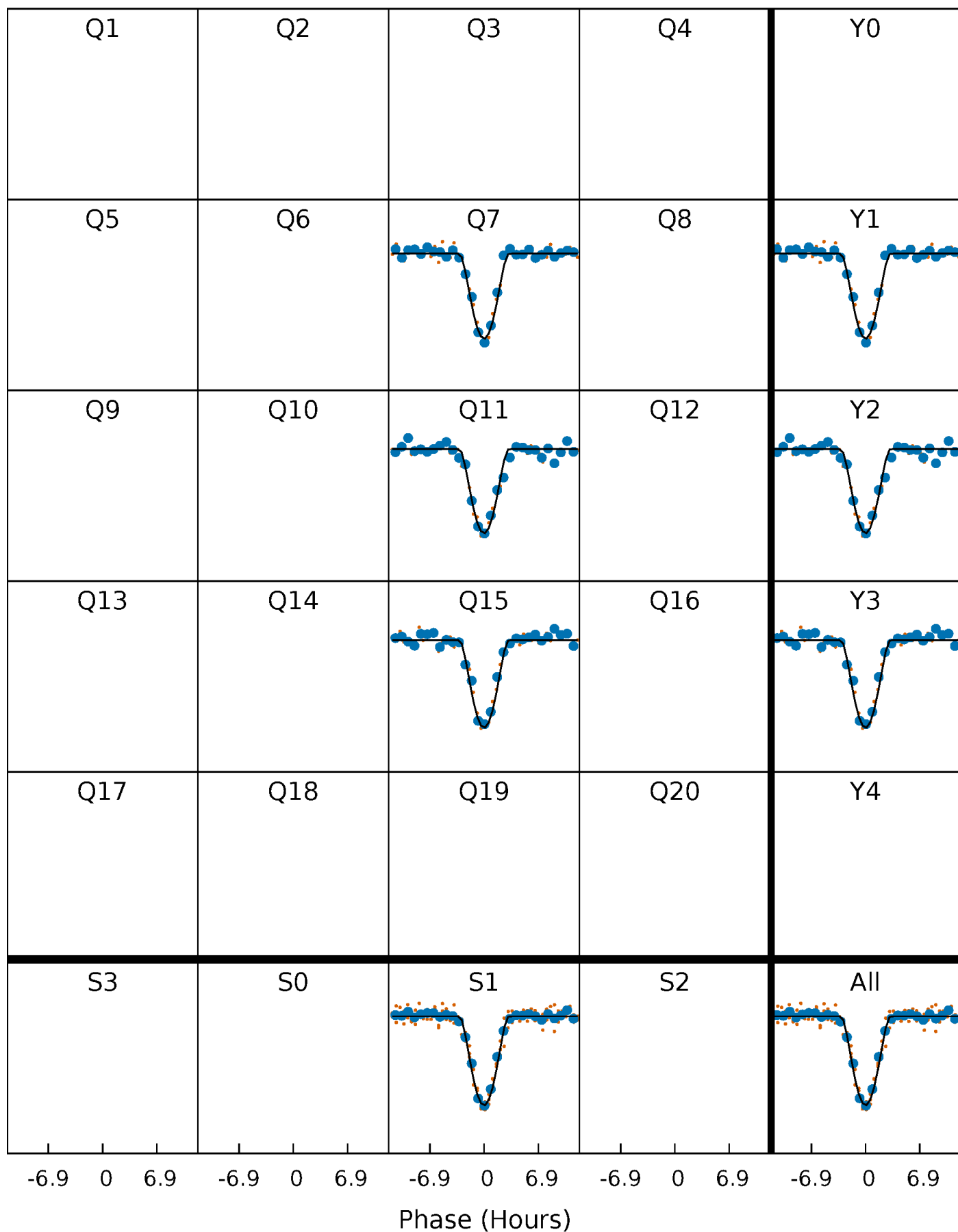
PDC Quarter-Phased Transit Curves

TCE 006114118-01 P=379.104289 Days $T_0=295.854643$ (BKJD)



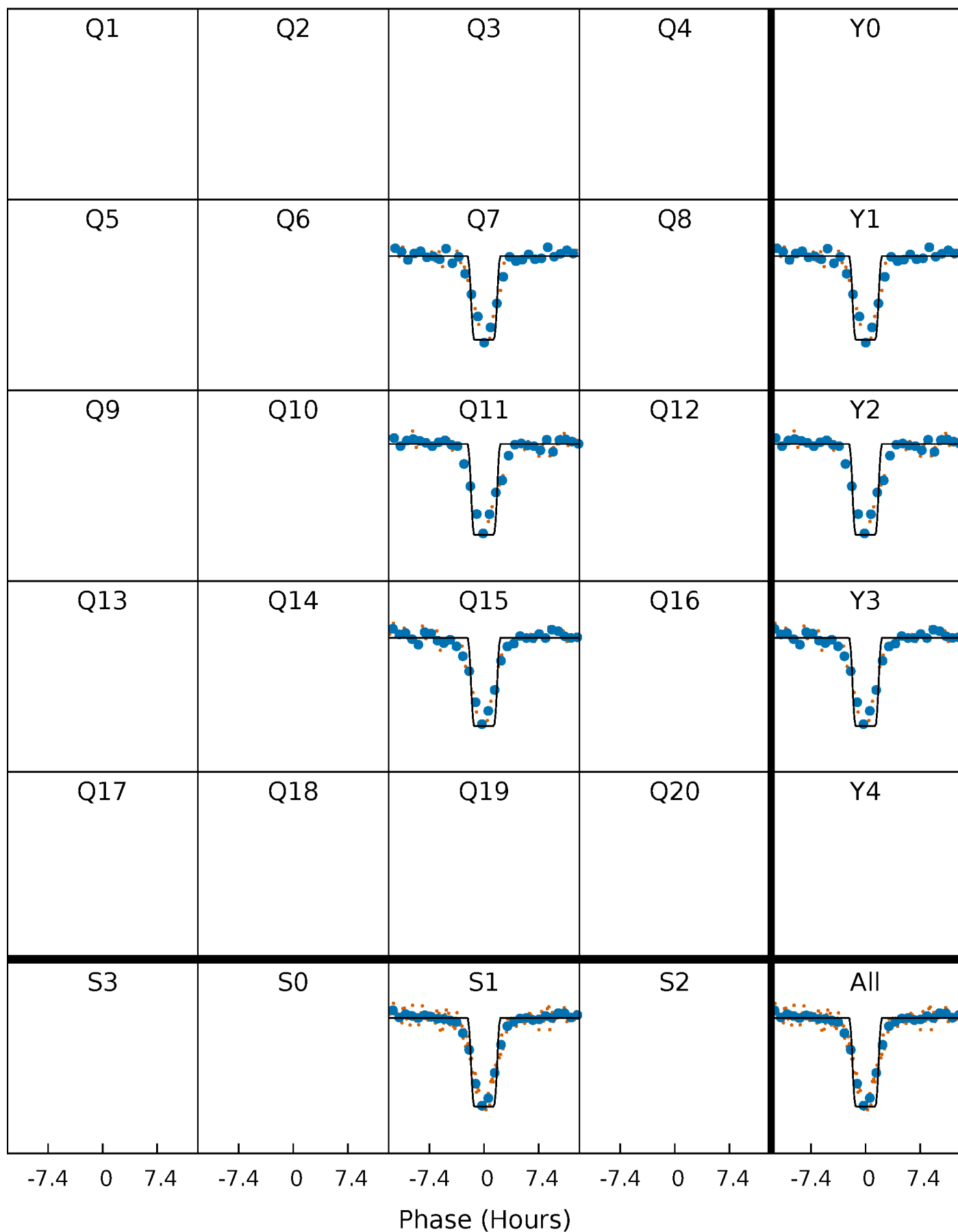
DV Quarter-Phased Transit Curves

TCE 006114118-01 P=379.104289 Days $T_0=295.854643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

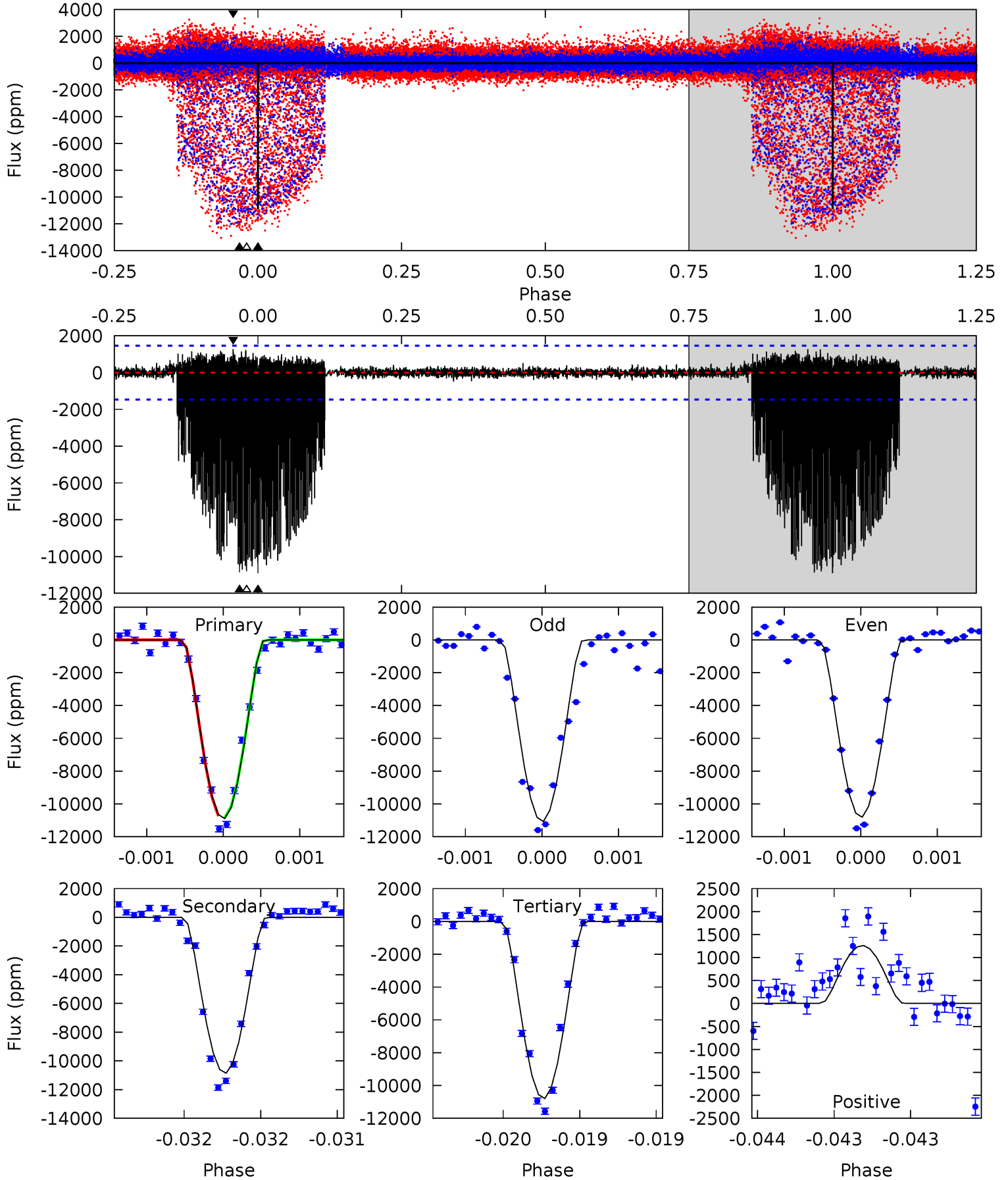
TCE 006114118-01 P=379.110650 Days $T_0=295.842007$ (BKJD)



DV Model-Shift Uniqueness Test

006114118-01, P = 379.104289 Days, E = 295.854643 Days

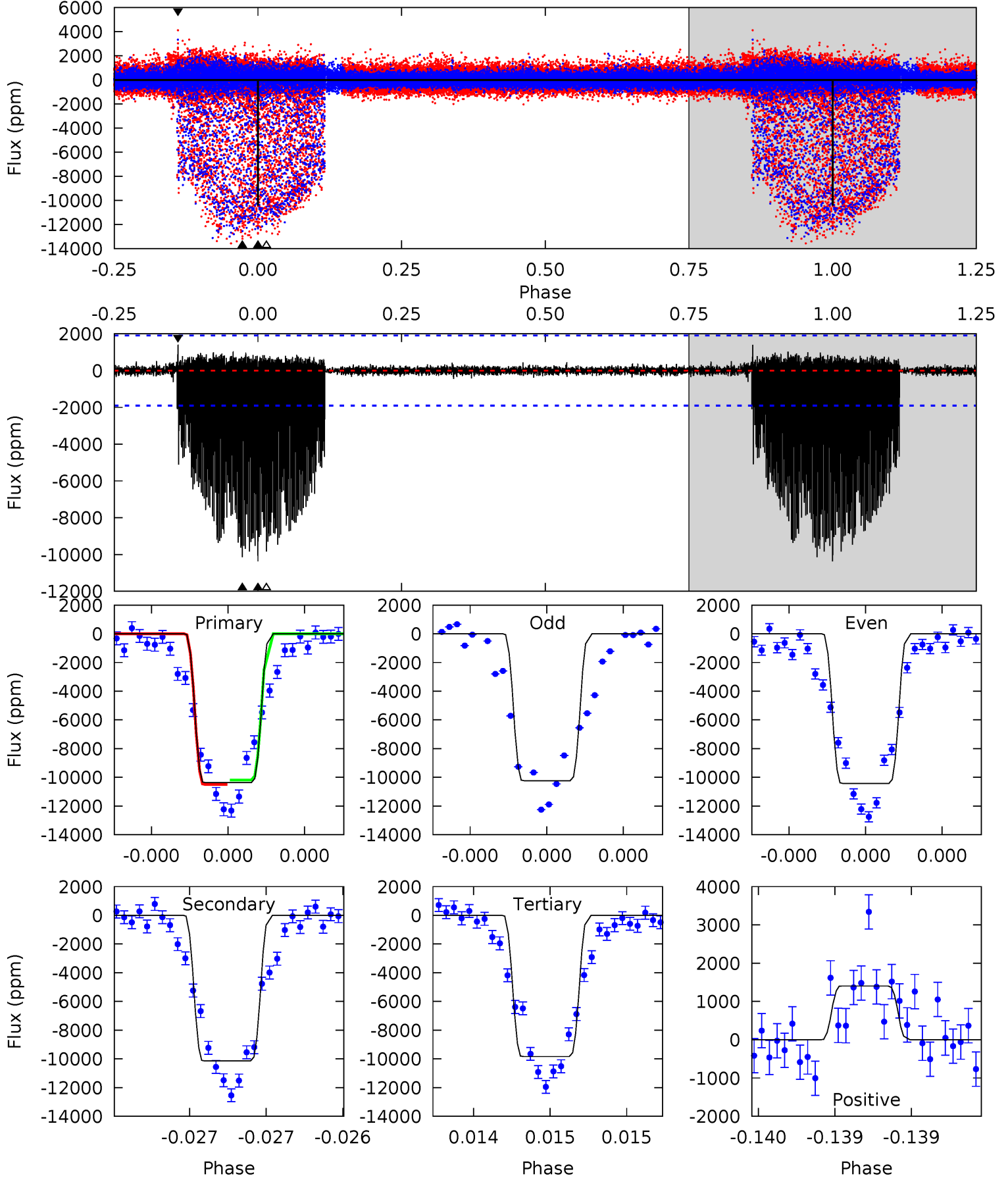
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.1	40.9	40.7	4.76	5.53	3.41	5.71	0.38	36.3	0.22	36.2	0.47	0.99	0.10	0.23



Alt Model-Shift Uniqueness Test

006114118-01, P = 379.110650 Days, E = 295.842007 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.4	29.8	28.9	4.12	5.59	3.51	4.08	1.54	26.3	0.89	25.6	0.26	1.01	0.12	0.46



Stellar Parameters For KIC 006114118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+194}_{-259}	$4.441^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.349}_{-0.116}$	$1.107^{+0.148}_{-0.164}$	$1.351^{+0.401}_{-0.732}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+13%/-15%	+30%/-54%
Source	KIC0	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 006114118-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10856 ± 265	$22.98^{+18.38}_{-14.12}$	390^{+30}_{-22}	4723^{+2713}_{-918}	12642^{+71630}_{-8742}
Alt.	-10142 ± 341	$19.17^{+17.94}_{-12.73}$	388^{+29}_{-21}	5018^{+3760}_{-1088}	$17306^{+127796}_{-12626}$

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

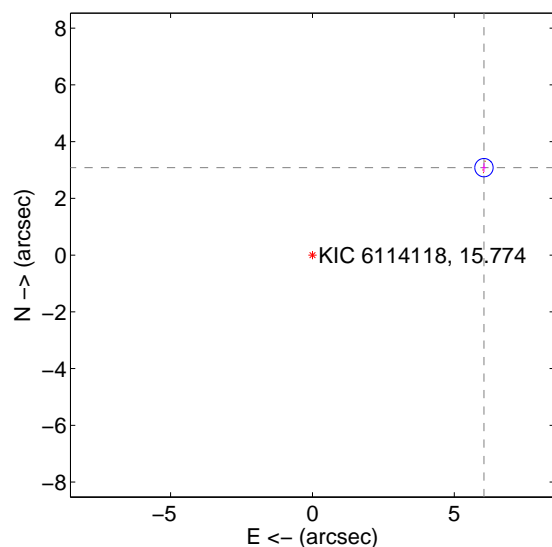
Supplemental centroid analysis for 006114118-01. Kepler magnitude: 15.77. Transit SNR 57.98

There are 0 quarters with good PRF difference image offsets

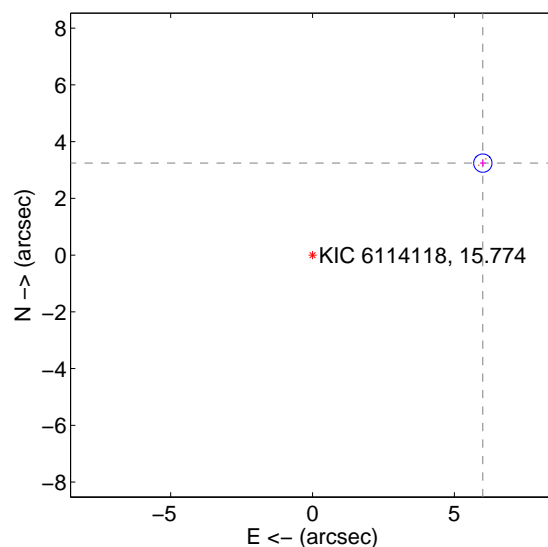
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.785 ± 0.108	63.05	-6.045 ± 0.071	3.082 ± 0.156
PRF-fit source offset from KIC position	6.822 ± 0.108	63.40	-6.002 ± 0.104	3.242 ± 0.120
photometric centroid source offset	1.32 ± 0.33	3.94	-1.31 ± 0.33	0.11 ± 0.23

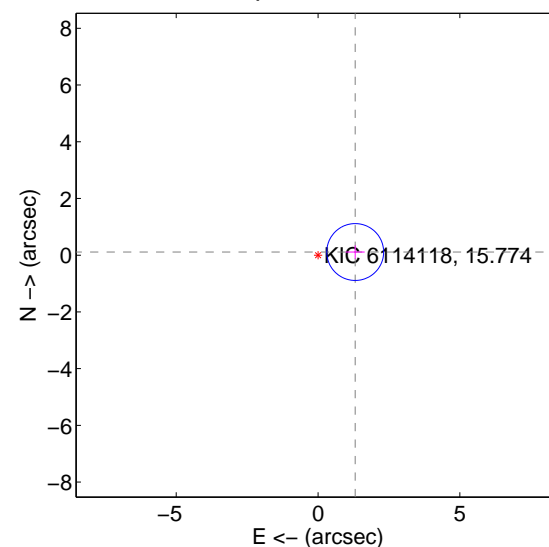
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

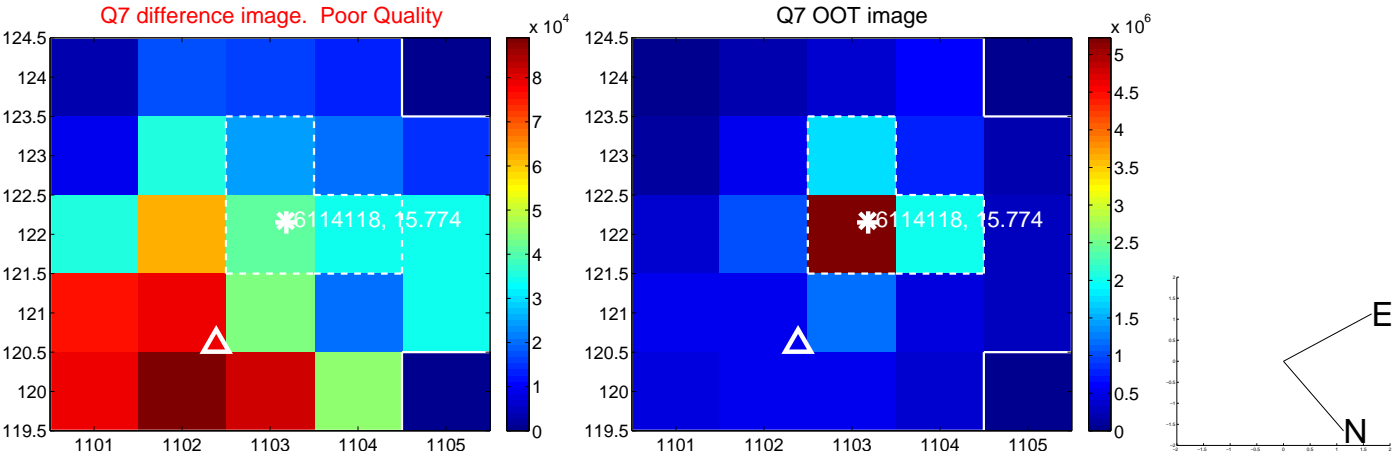


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

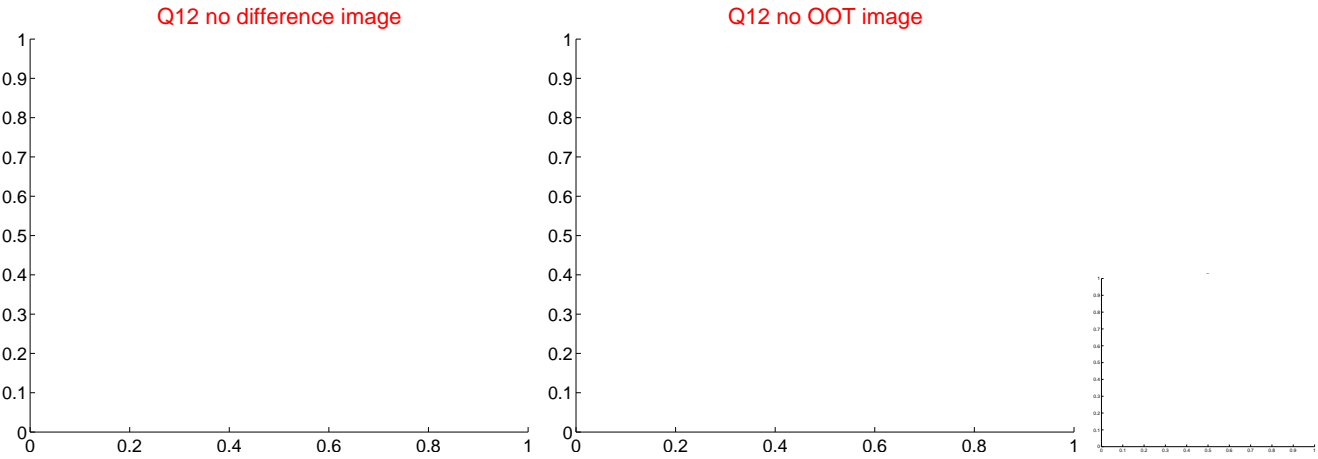
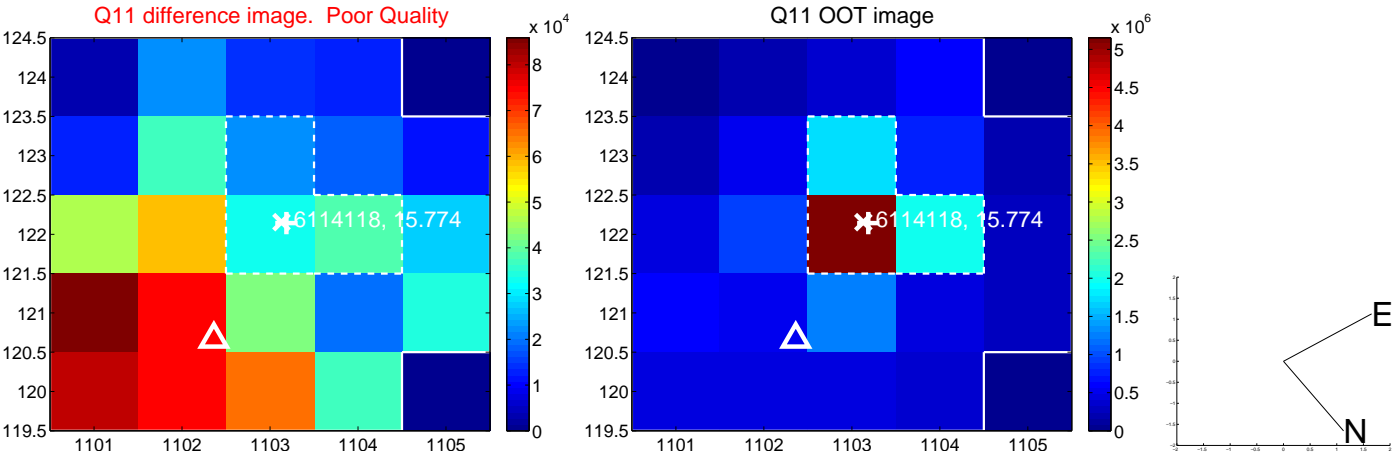
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



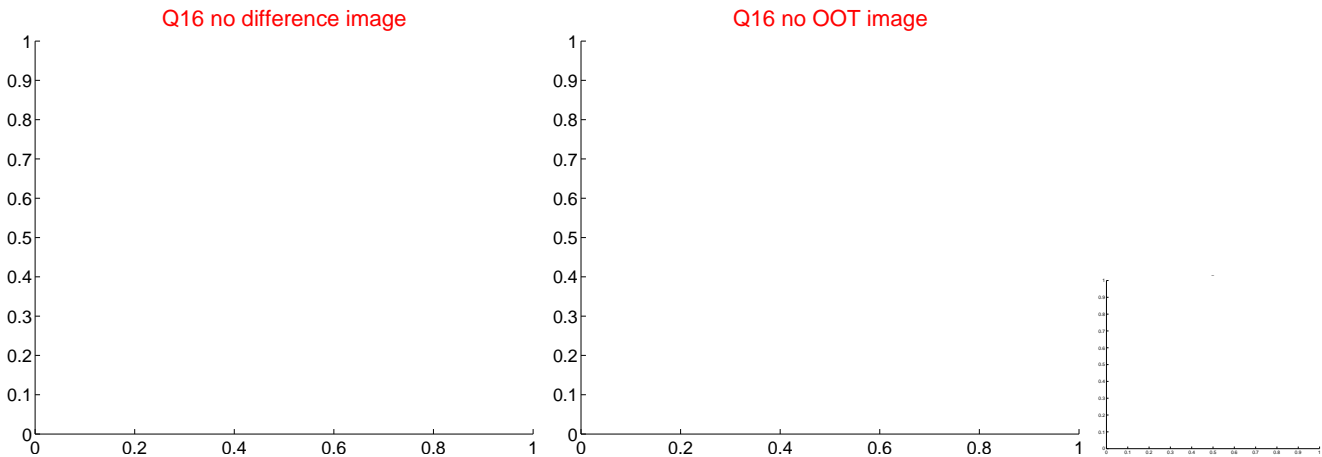
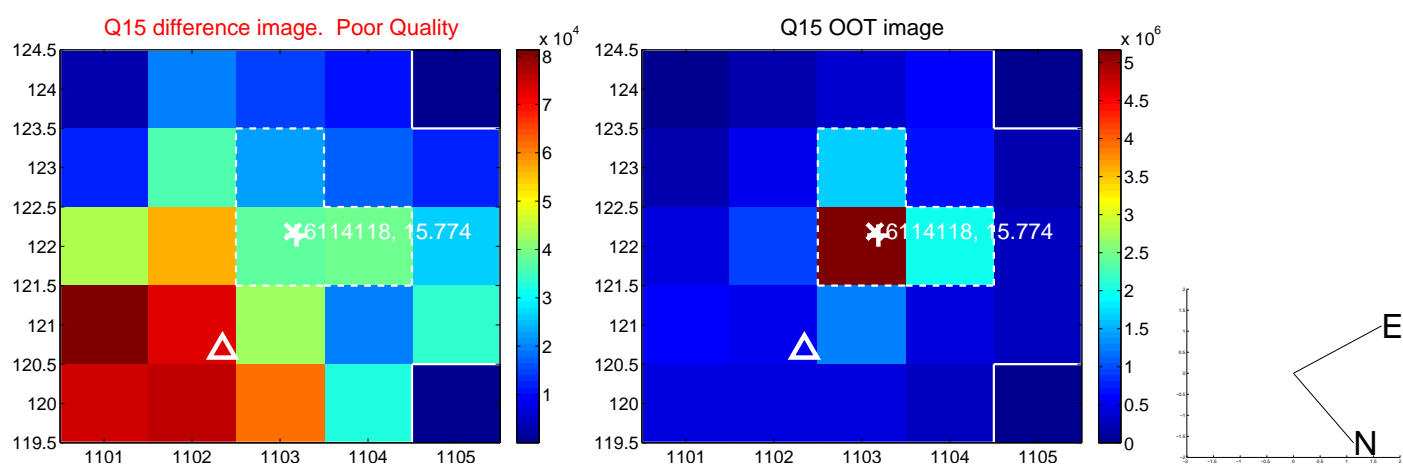
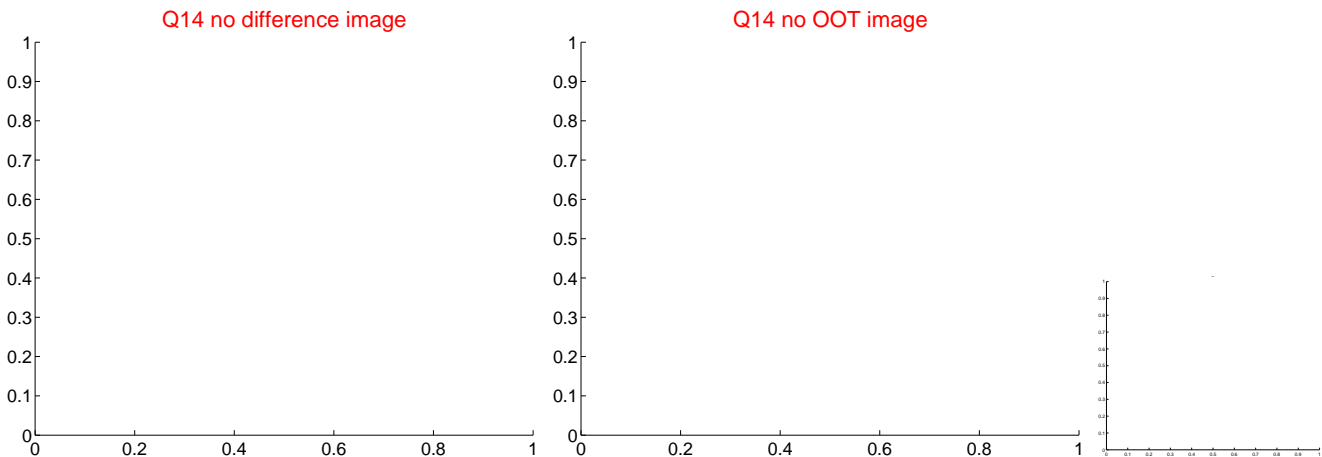
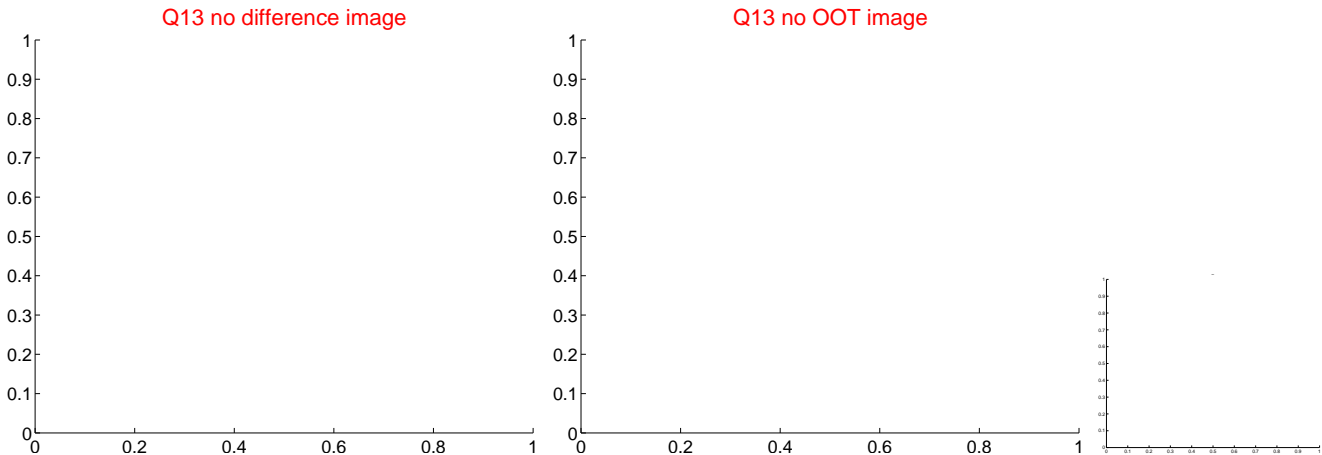
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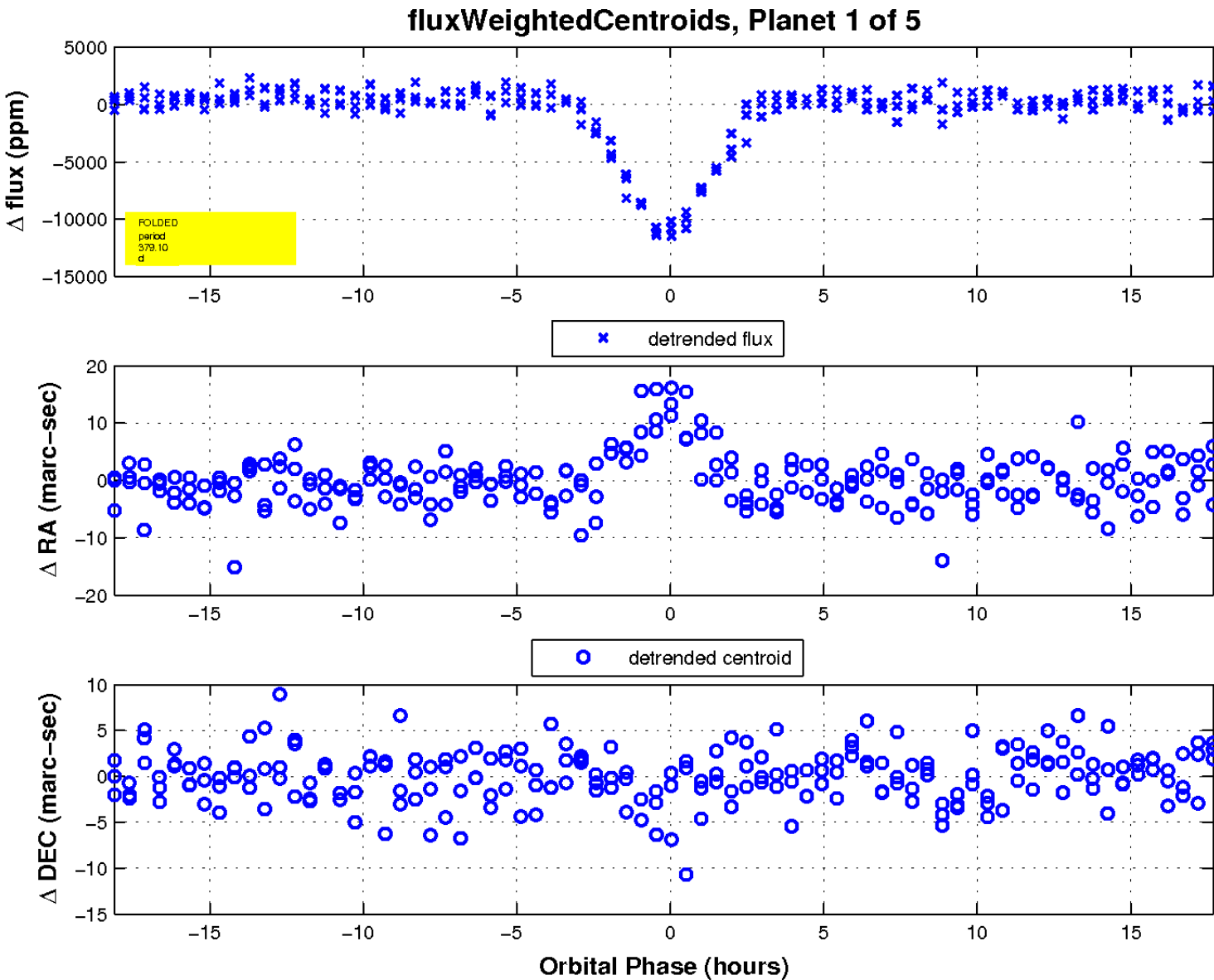
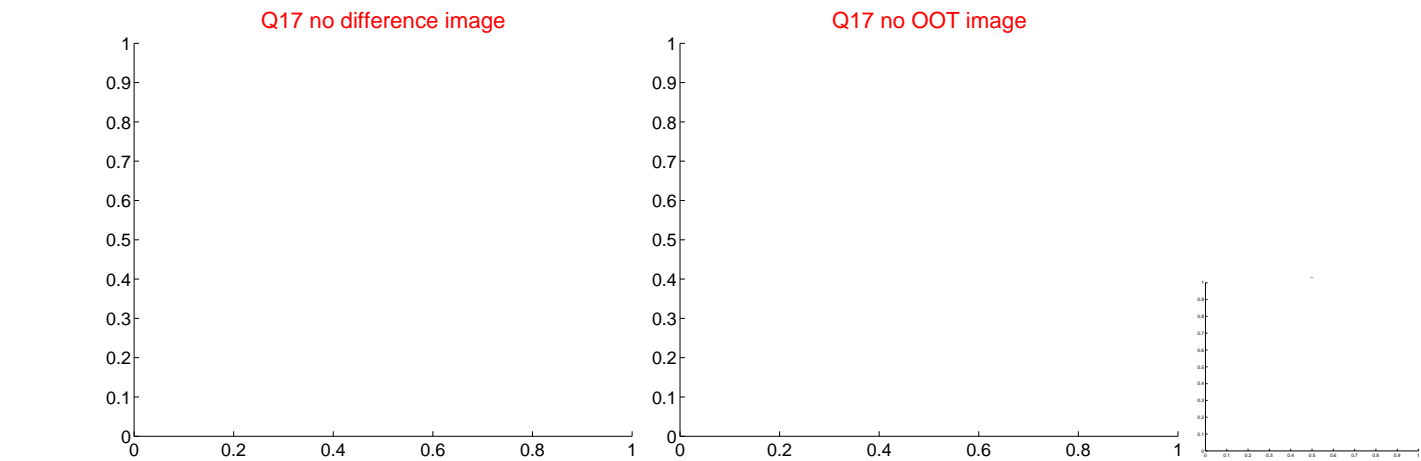
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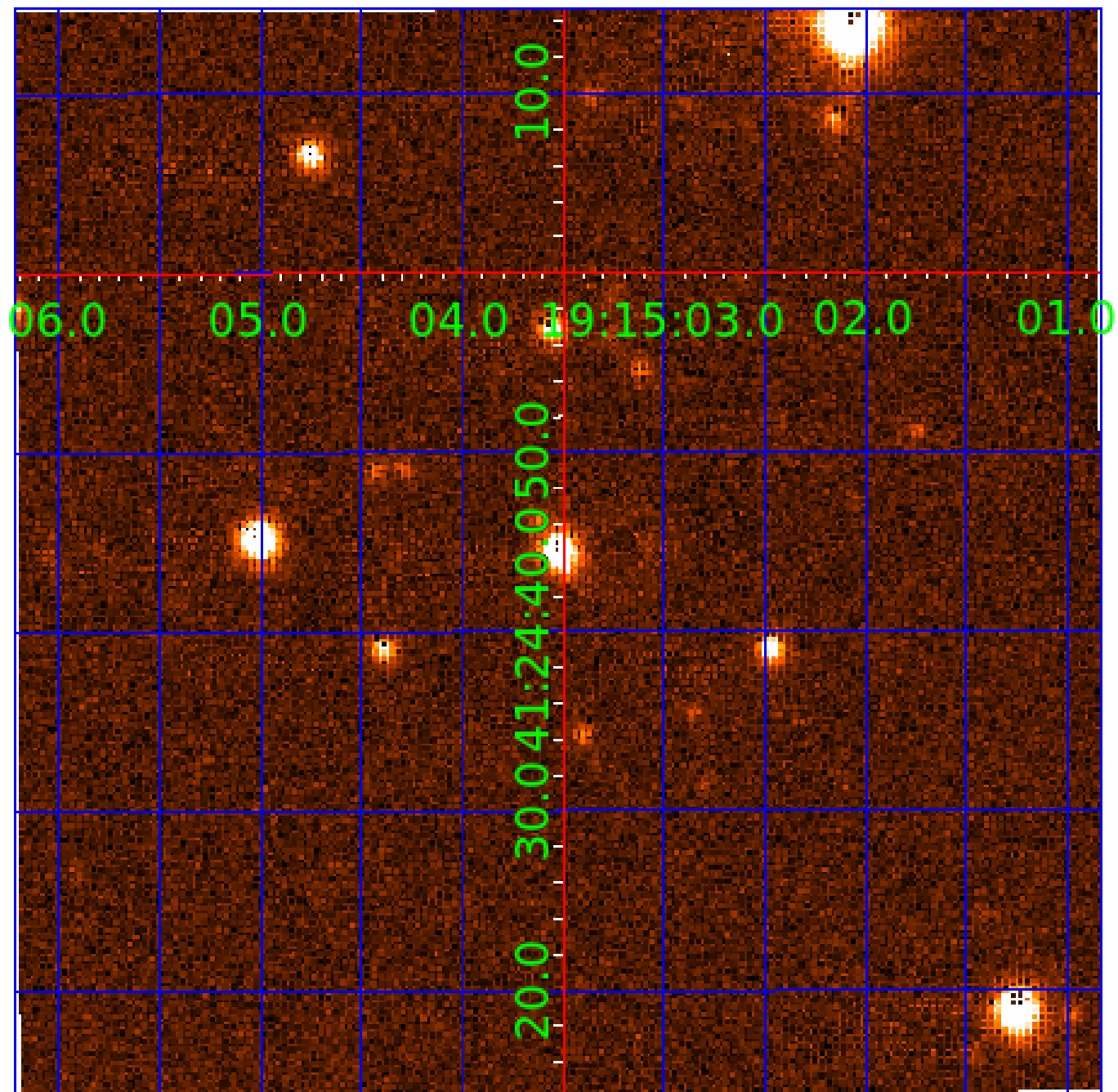


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UKIRT Image

Declination



KIC 006114118

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})
006114118-01	OBS	No	379.104289	295.854642	11210.5	6.059	53.9	58.0	1.05	6228	19.07	1.32
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Robovetter Results

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006114118-02	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-03	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-05	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

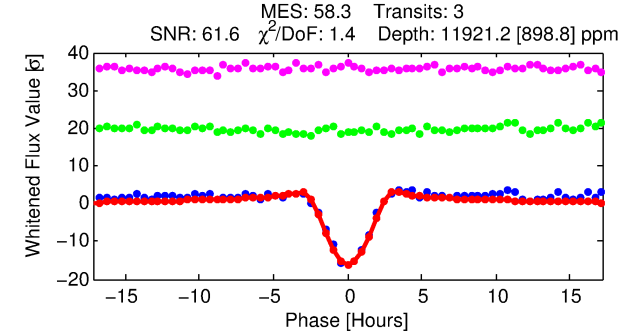
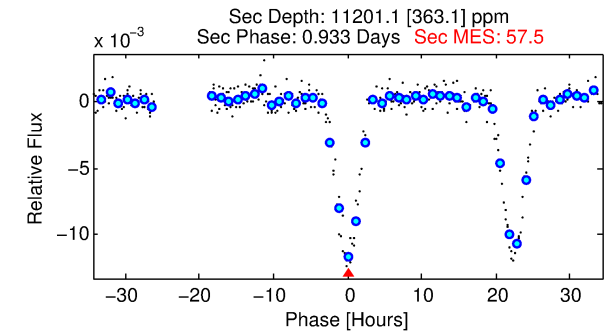
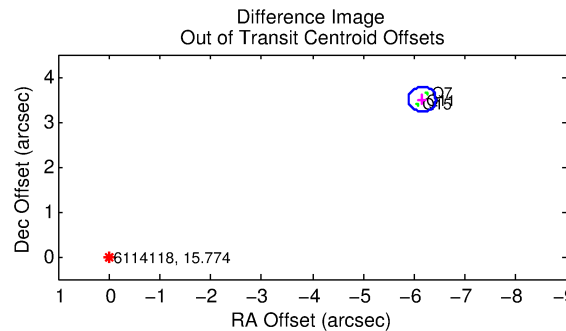
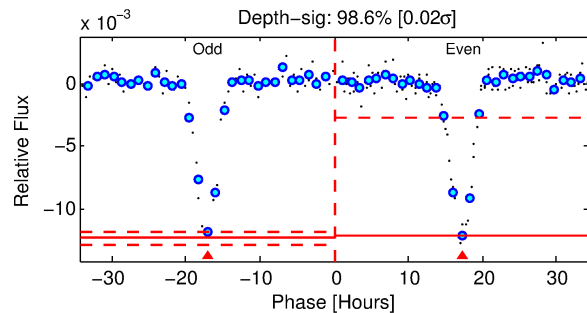
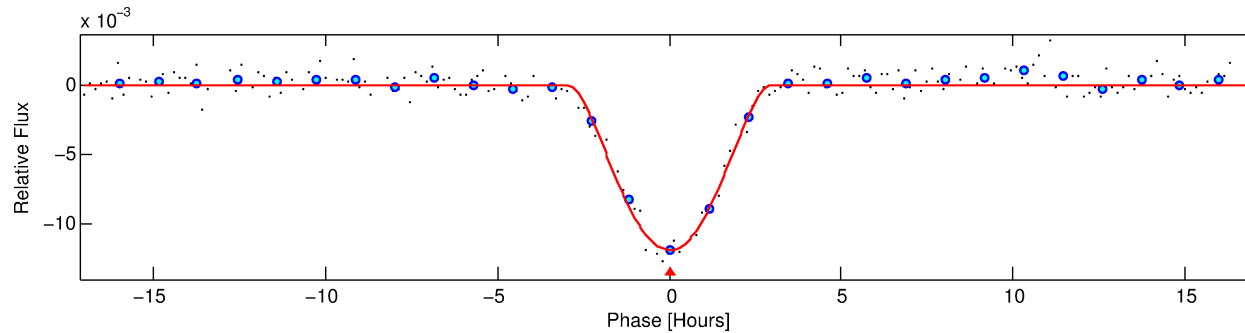
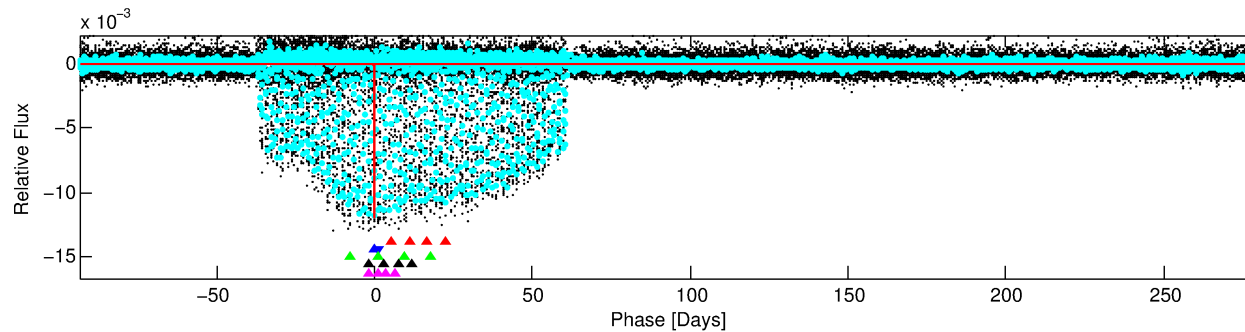
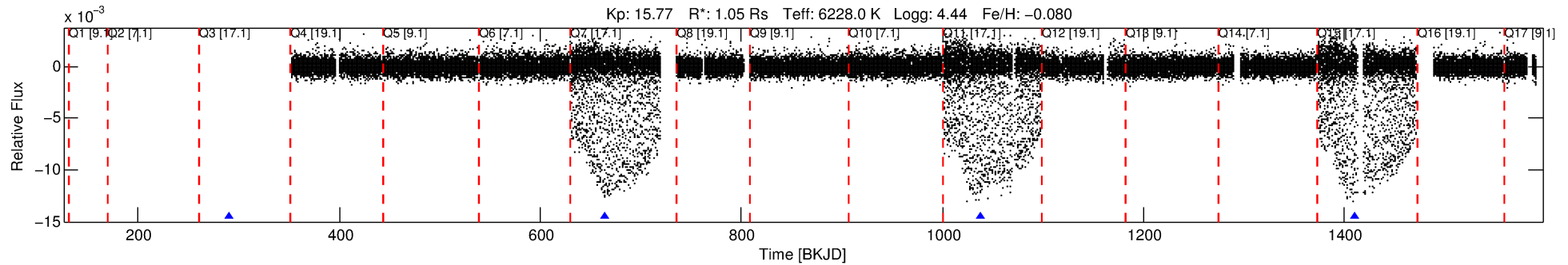
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114118-02

No Significant Match Found

DV One-Page Summary

KIC: 6114118 Candidate: 2 of 5 Period: 373.499 d



DV Fit Results:

Period = 373.49919 [0.00163] d
Epoch = 290.2550 [0.0035] BKJD
Rp/R* = 0.1769 [0.1924]
a/R* = 309.86 [47.20]
b = 1.00 [0.28]
Seff = 1.34 [0.58]
Teq = 275 [30] K
Rp = 20.25 [23.03] Re
a = 1.0505 [0.2909] AU
Ag = 16579.65 [36661.54] [0.45σ]
Teffp = 4817 [2627] K [1.73σ]

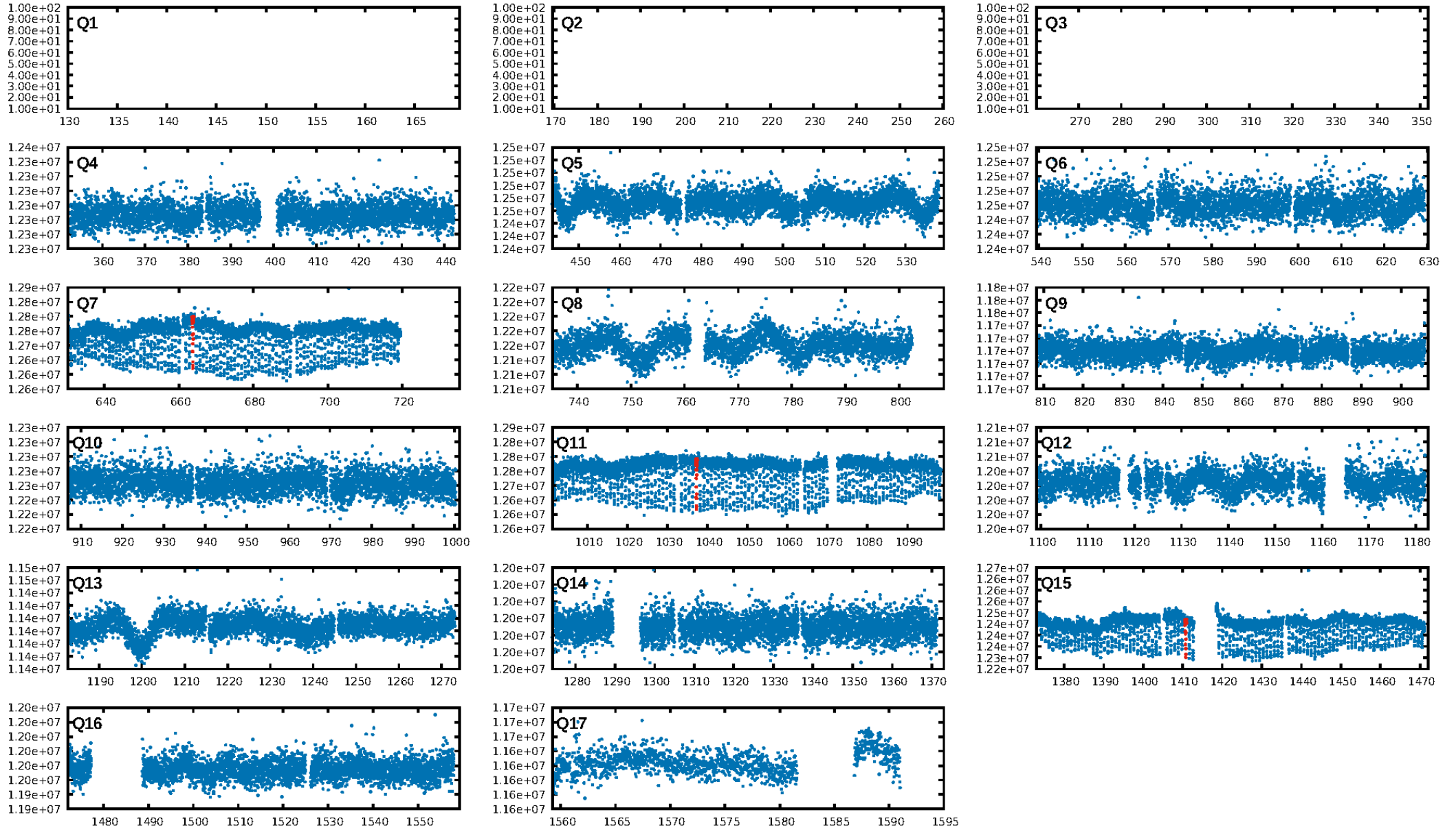
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [10.41σ]
LongPeriod-sig: 100.0% [13.26σ]
ModelChiSquare2-sig: 96.3%
ModelChiSquareGof-sig: 98.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.0229
Centroid-sig: N/A
Centroid-so: 1.319 arcsec [4.85σ]
OotOffset-rm: 7.080 arcsec [78.38σ]
KicOffset-rm: 7.119 arcsec [67.43σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

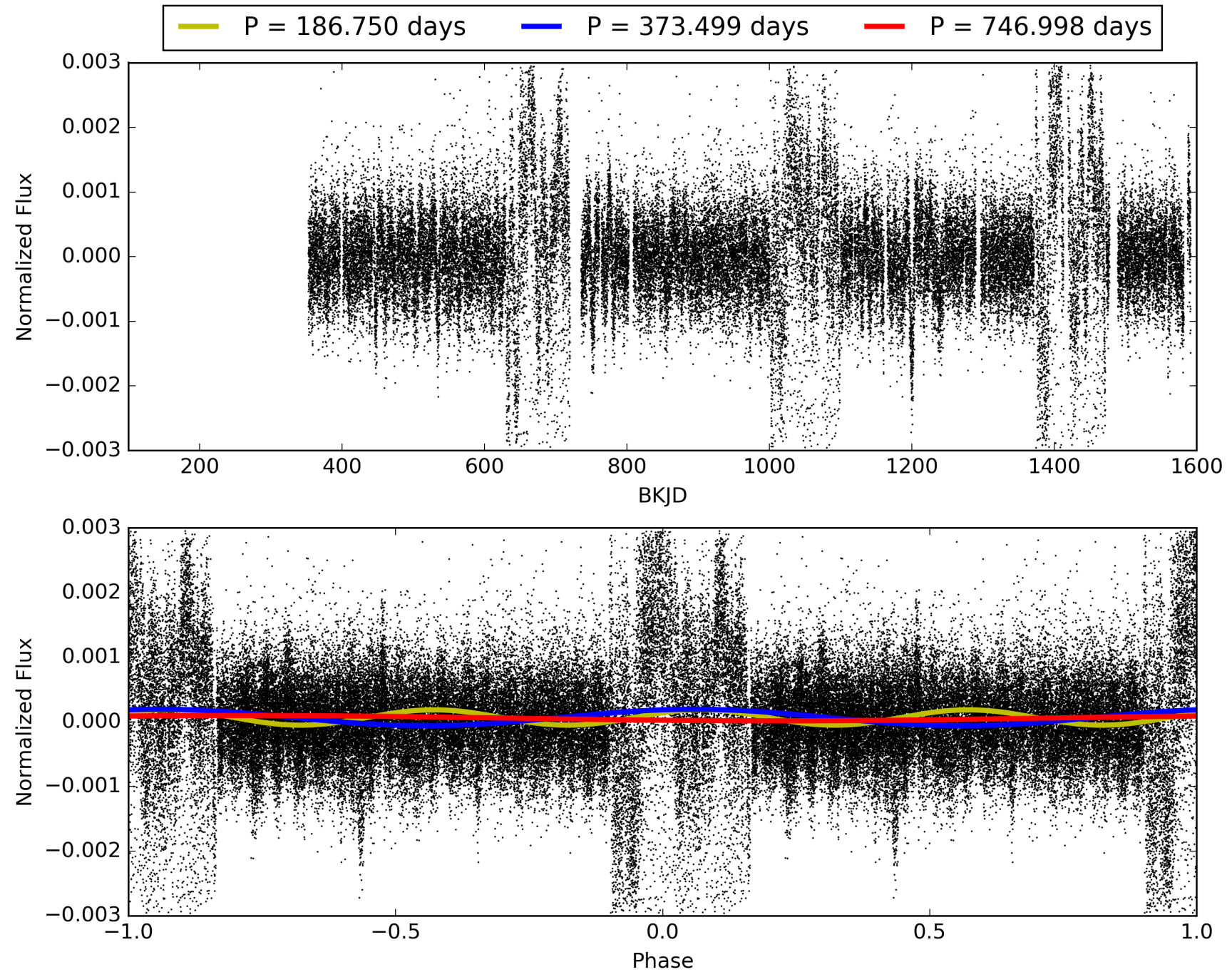
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:26:51 Z

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

TCE 006114118-02, PDC Light Curves

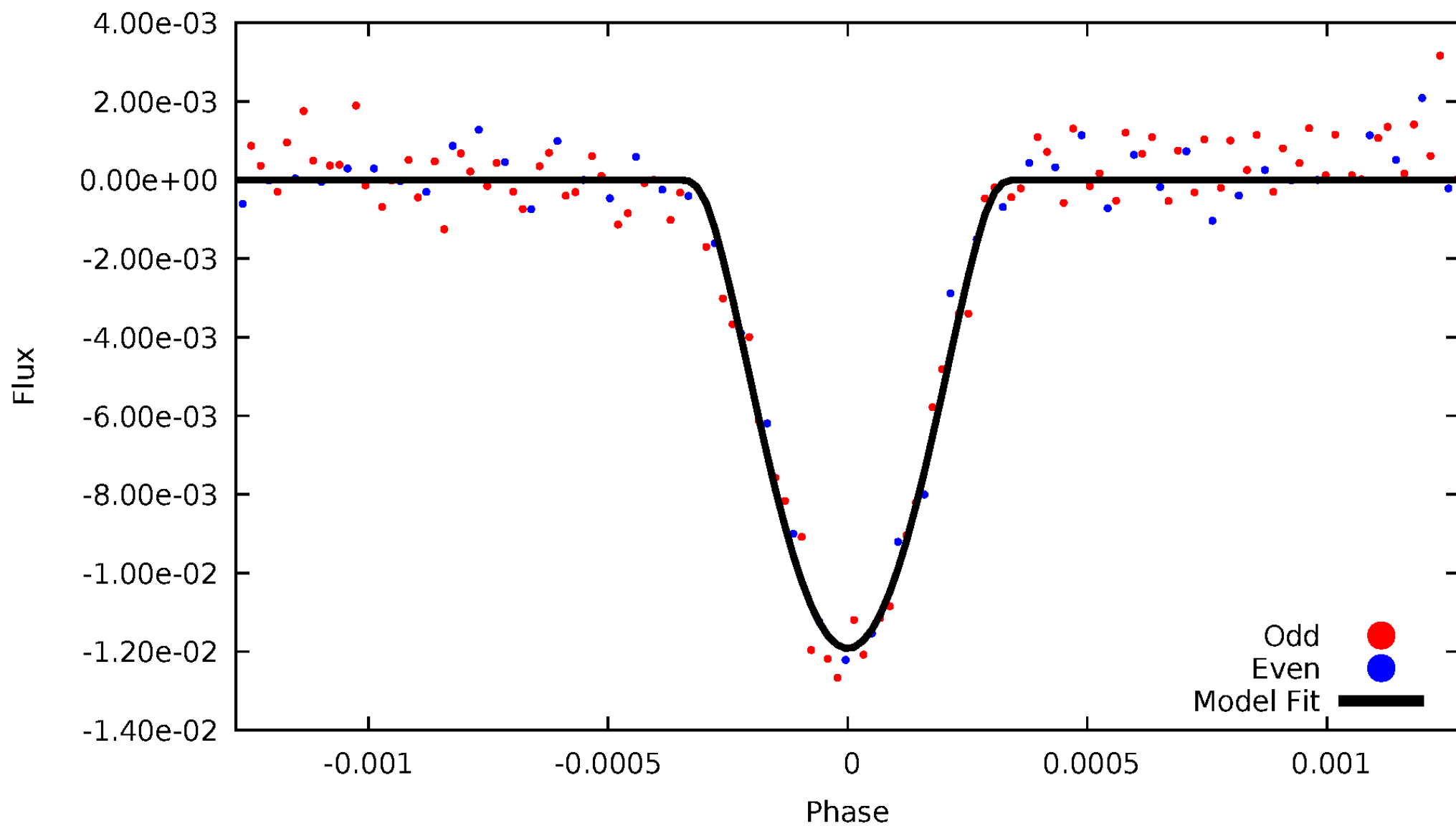


TCE 006114118-02



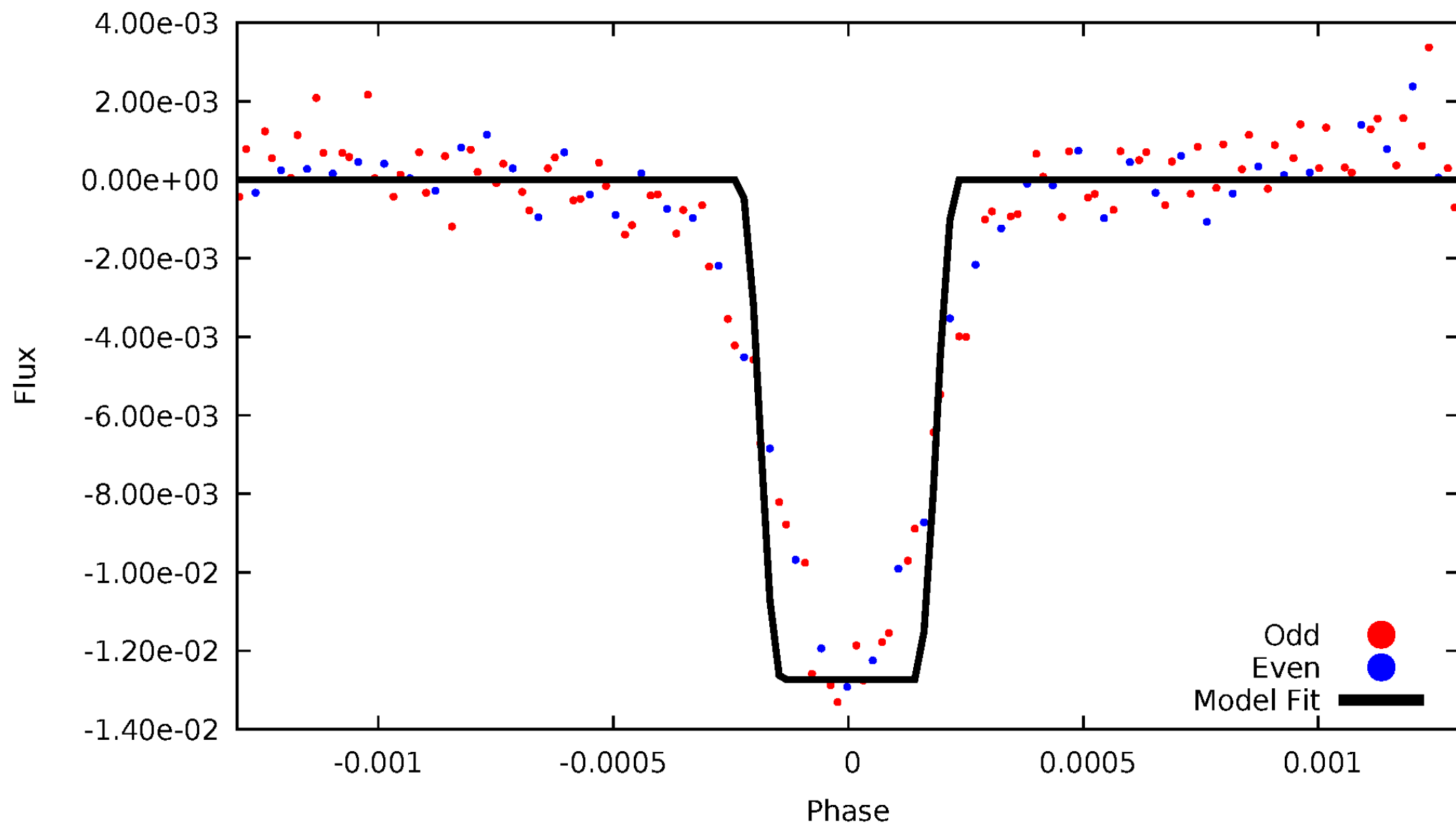
DV Odd/Even

TCE 006114118-02



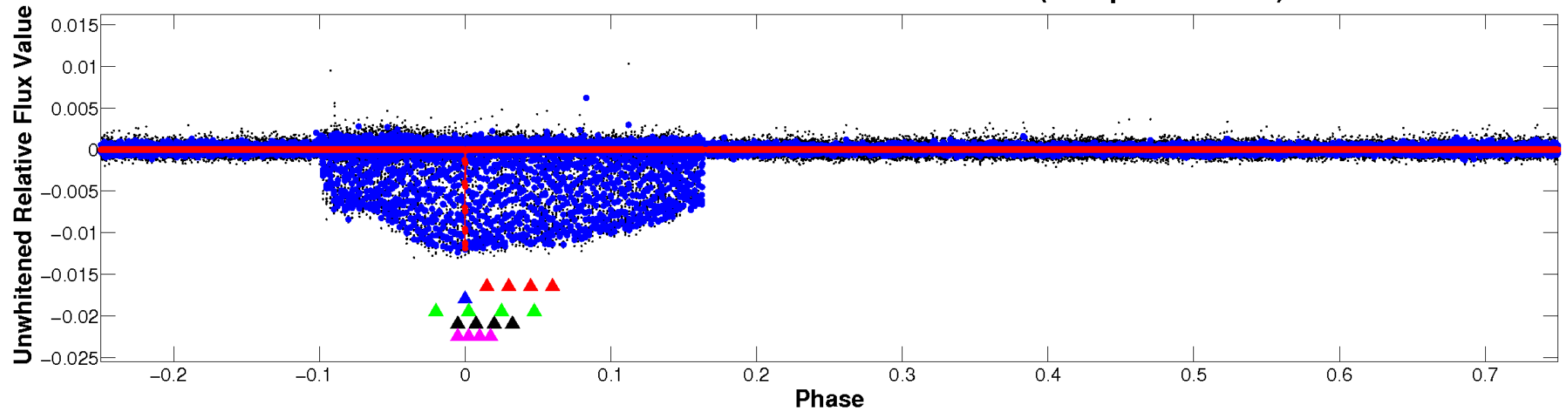
ALT Odd/Even

TCE 006114118-02

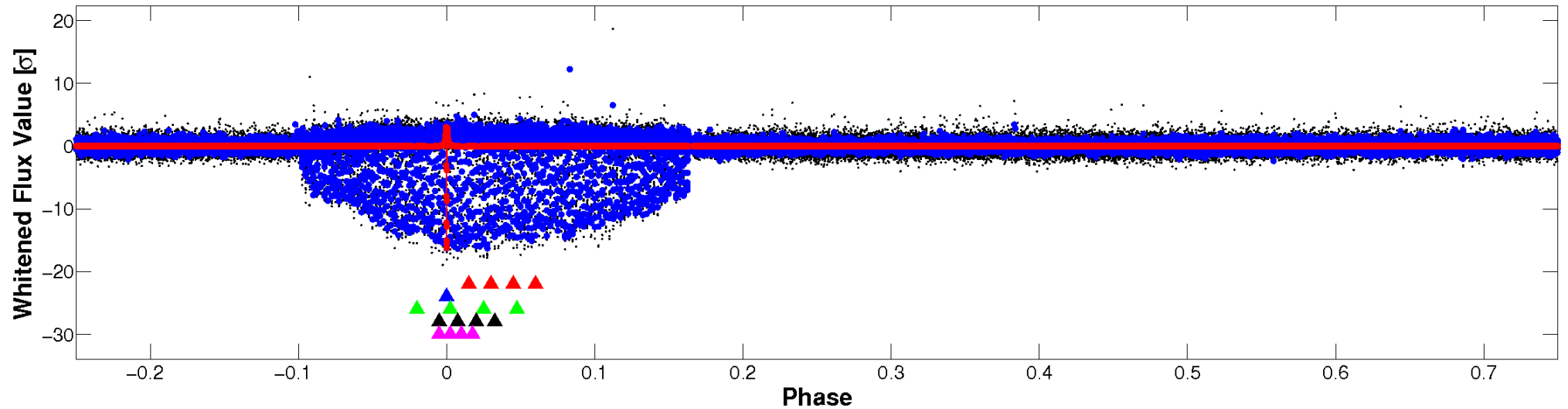


Non-Whitened Vs. Whitened Light Curve

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

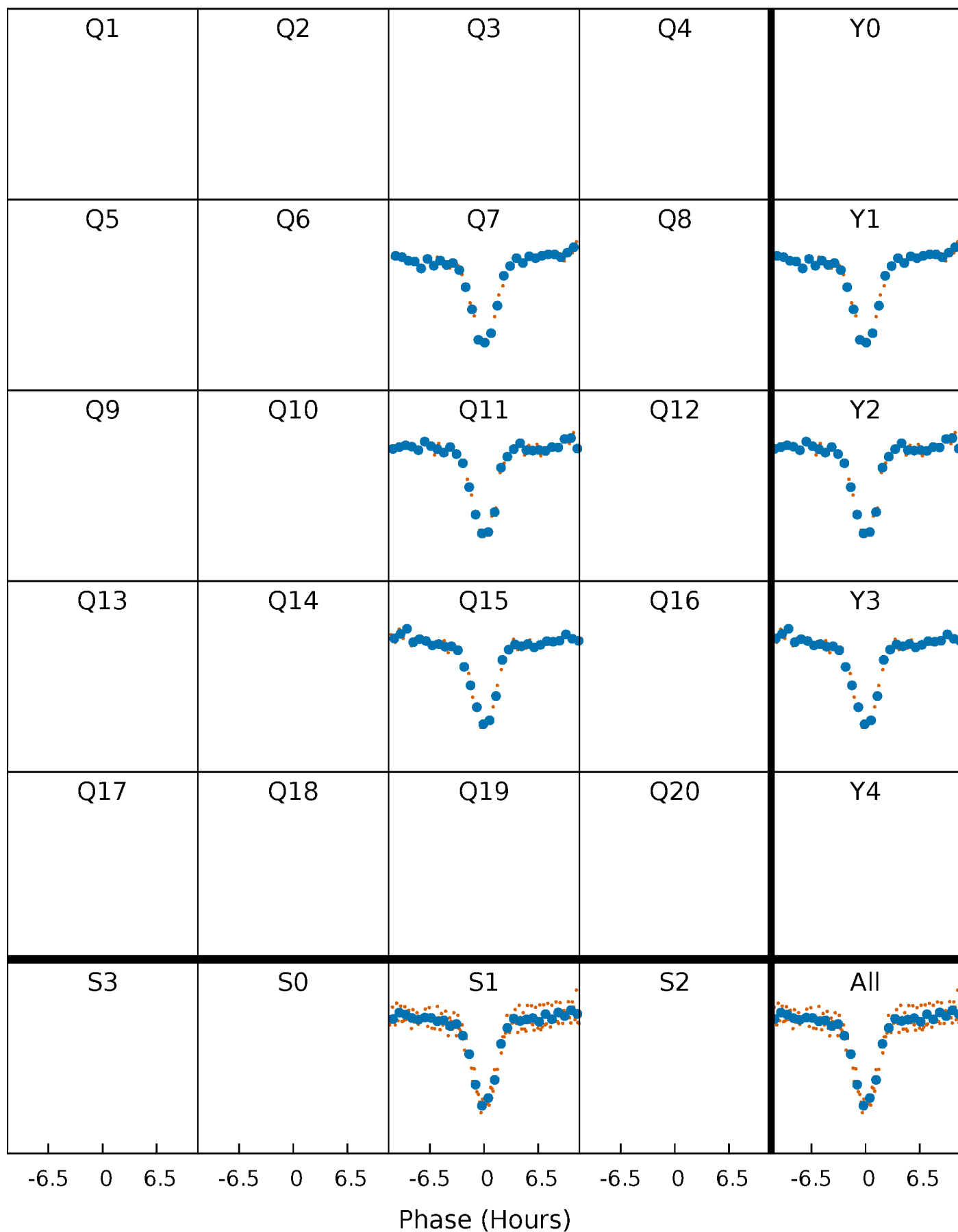


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



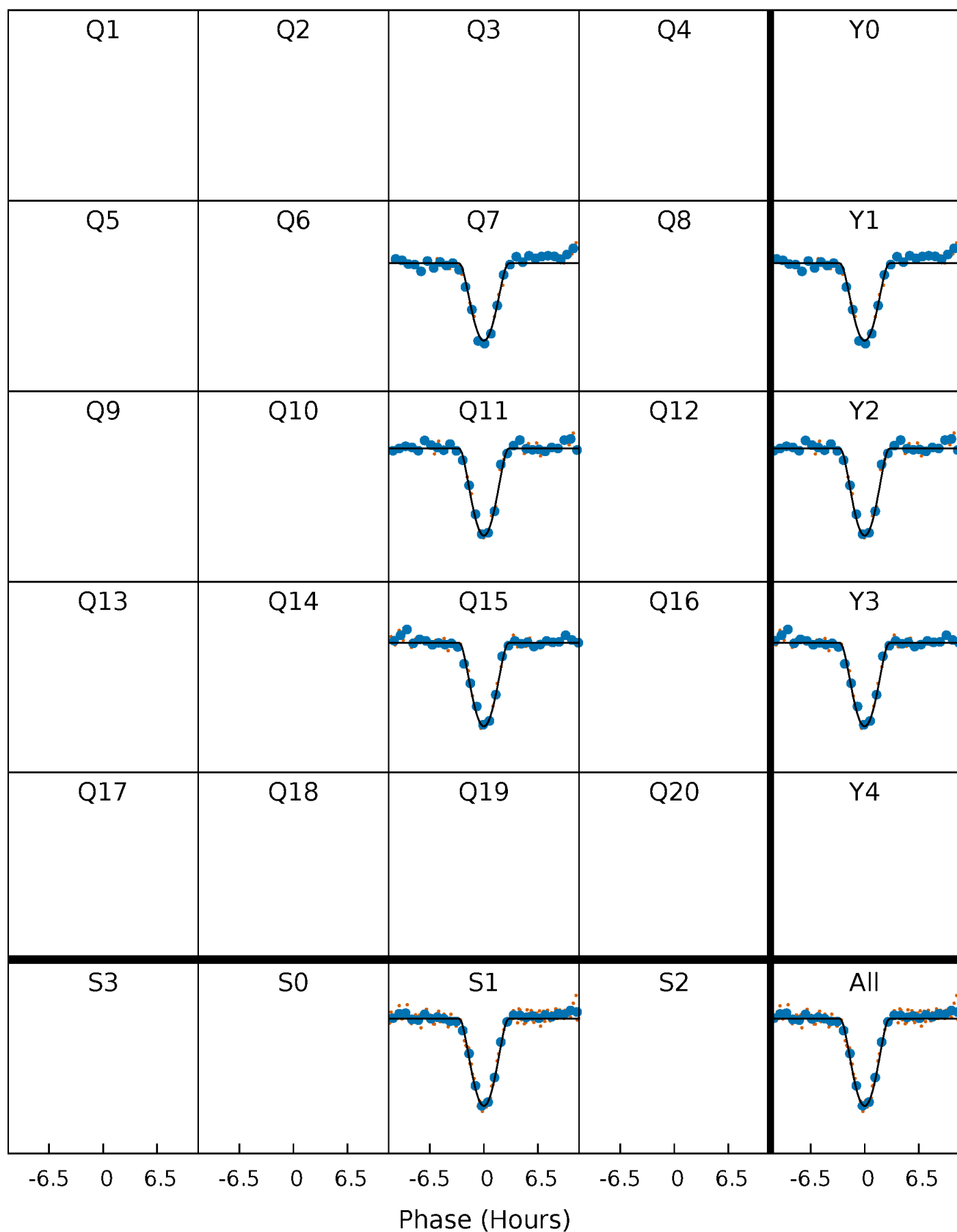
PDC Quarter-Phased Transit Curves

TCE 006114118-02 P=373.499193 Days $T_0=290.255038$ (BKJD)



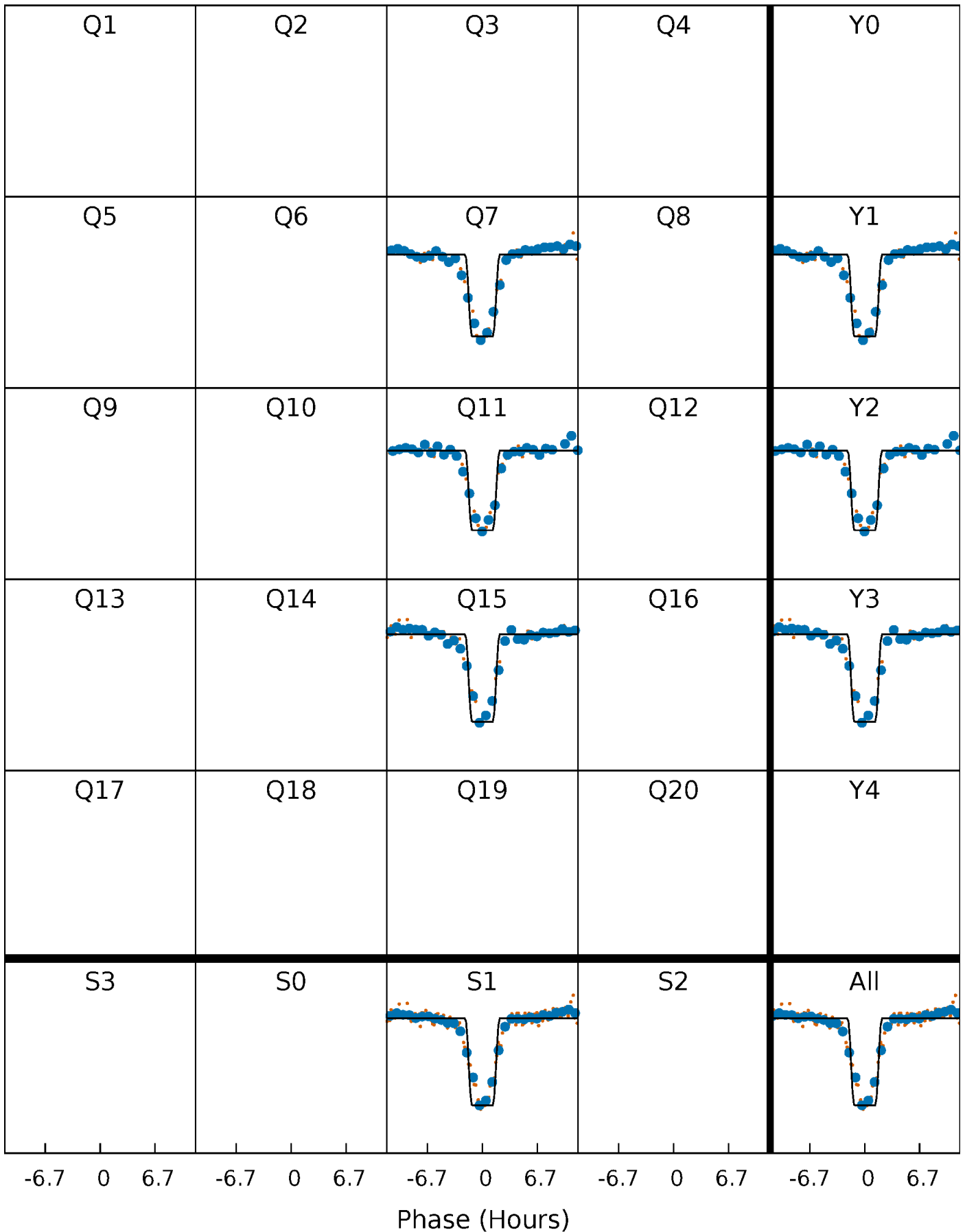
DV Quarter-Phased Transit Curves

TCE 006114118-02 P=373.499193 Days $T_0=290.255038$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

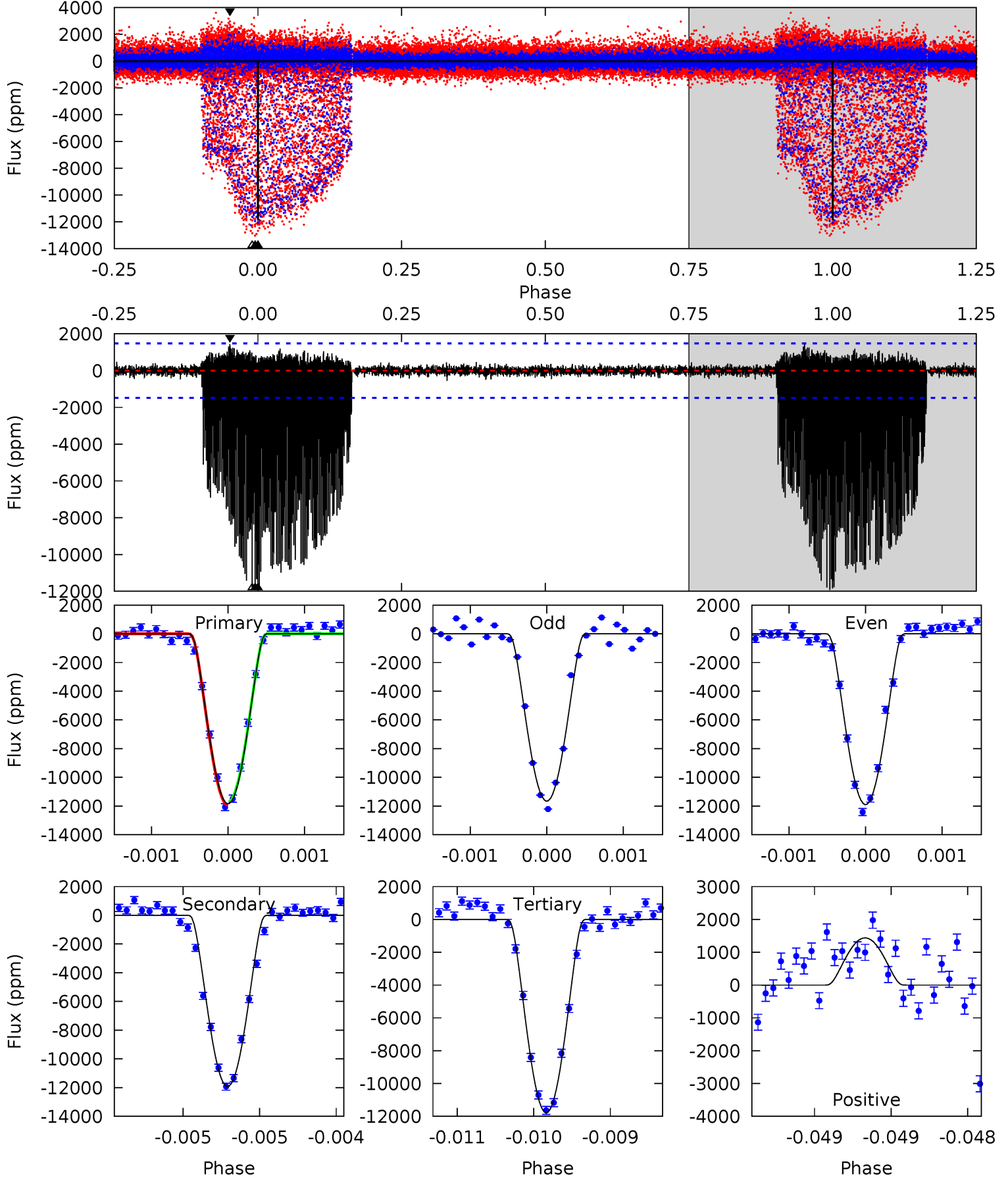
TCE 006114118-02 P=373.498232 Days $T_0=290.256426$ (BKJD)



DV Model-Shift Uniqueness Test

006114118-02, P = 373.499193 Days, E = 290.255038 Days

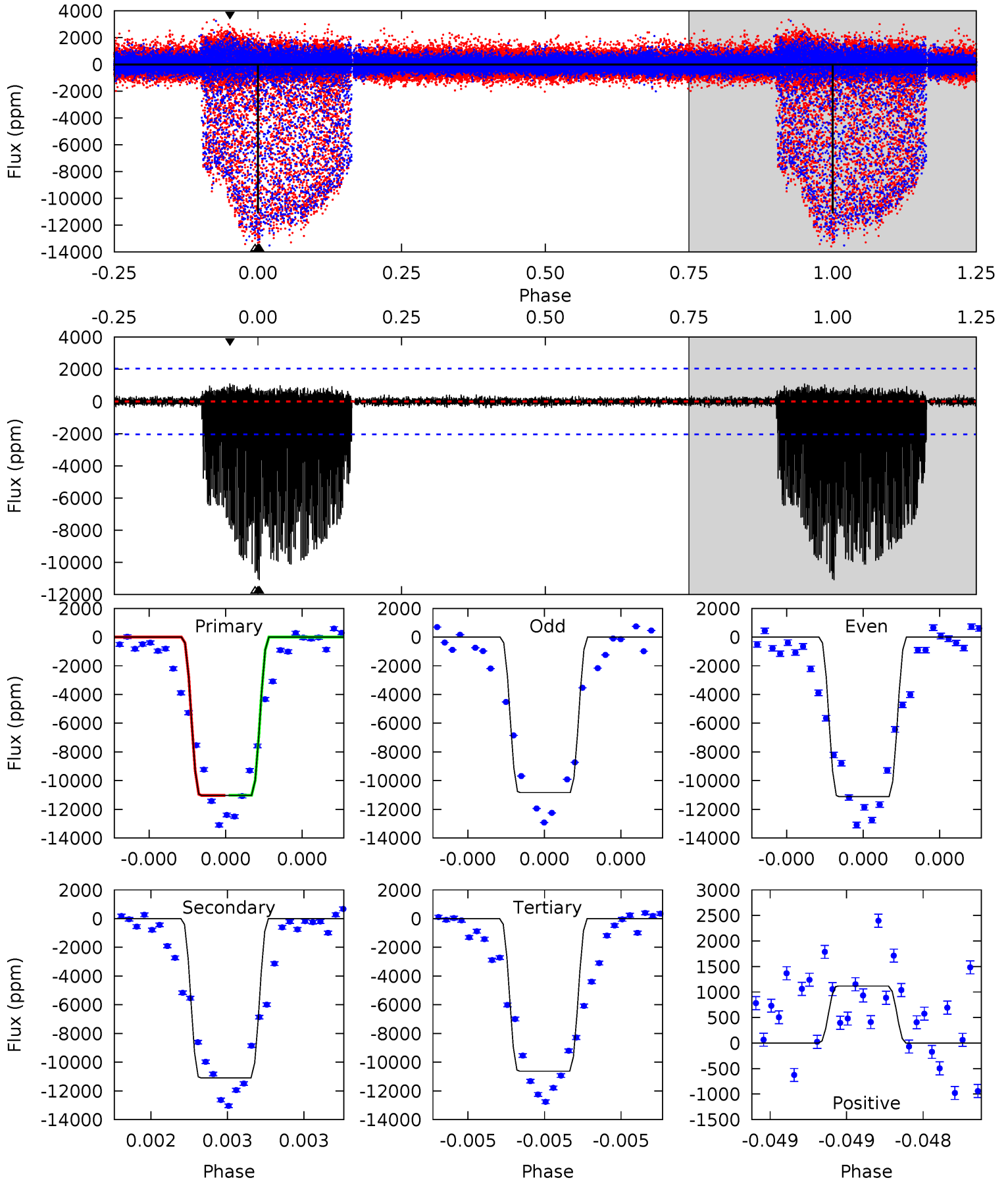
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.1	44.4	43.9	5.35	5.52	3.40	5.92	0.21	38.8	0.51	39.1	0.45	1.02	0.11	0.45



Alt Model-Shift Uniqueness Test

006114118-02, P = 373.498232 Days, E = 290.256426 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.2	30.4	29.1	3.06	5.60	3.53	4.02	1.10	27.2	1.29	27.4	0.37	1.02	0.09	0.02



Stellar Parameters For KIC 006114118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+194}_{-259}	$4.441^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.349}_{-0.116}$	$1.107^{+0.148}_{-0.164}$	$1.351^{+0.401}_{-0.732}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+13%/-15%	+30%/-54%
Source	KIC0	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 006114118-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11927 ± 269	$26.27^{+20.39}_{-16.88}$	391^{+28}_{-22}	4542^{+3068}_{-834}	10460^{+73627}_{-7116}
Alt.	-11096 ± 365	$20.61^{+20.32}_{-13.12}$	391^{+28}_{-22}	4929^{+3401}_{-1091}	15870^{+99151}_{-11886}

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 $A_{obs} \gg 1.0$

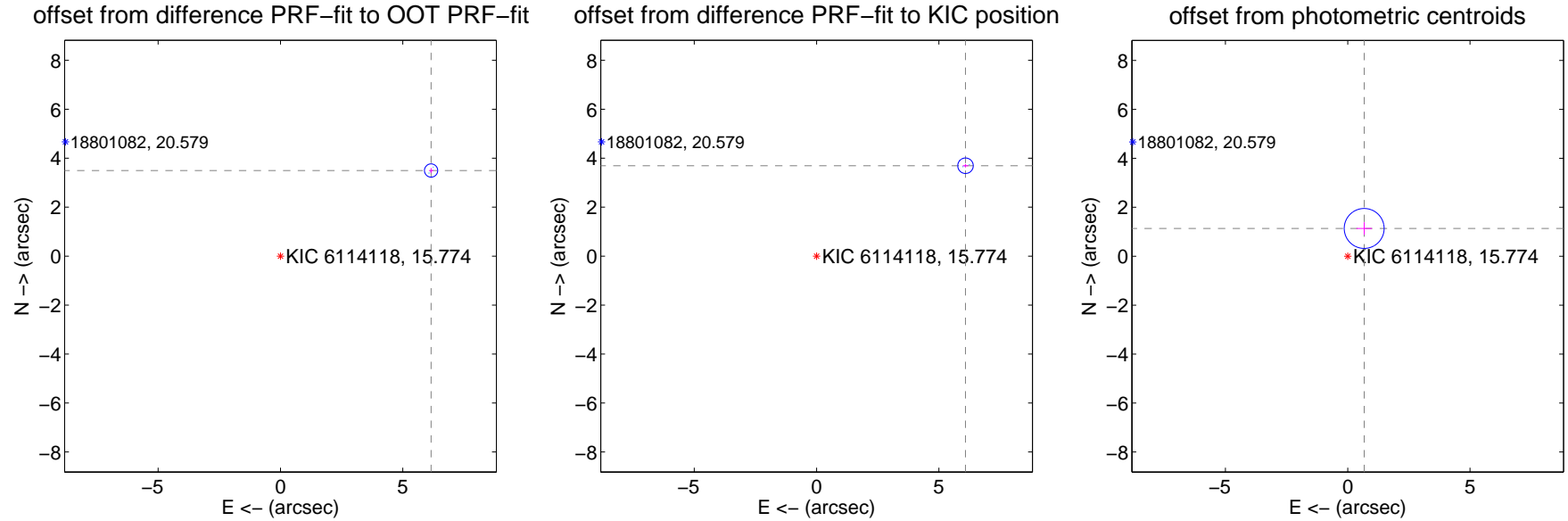
DV Centroid Data

Supplemental centroid analysis for 006114118-02. Kepler magnitude: 15.77. Transit SNR 61.62

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.080 ± 0.090	78.38	-6.156 ± 0.086	3.498 ± 0.103
PRF-fit source offset from KIC position	7.119 ± 0.106	67.43	-6.087 ± 0.116	3.693 ± 0.072
photometric centroid source offset	1.32 ± 0.27	4.85	-0.67 ± 0.32	1.13 ± 0.25



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



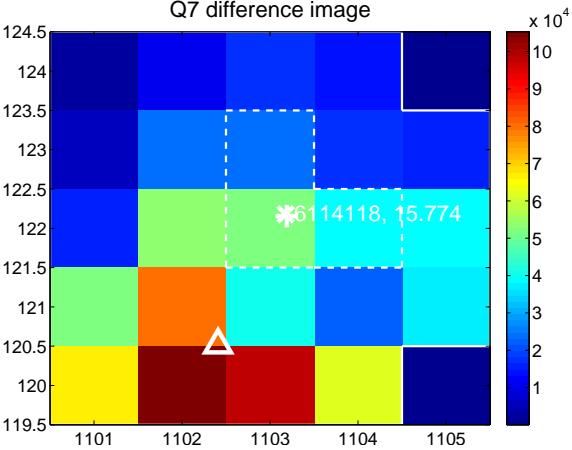
Q6 no difference image



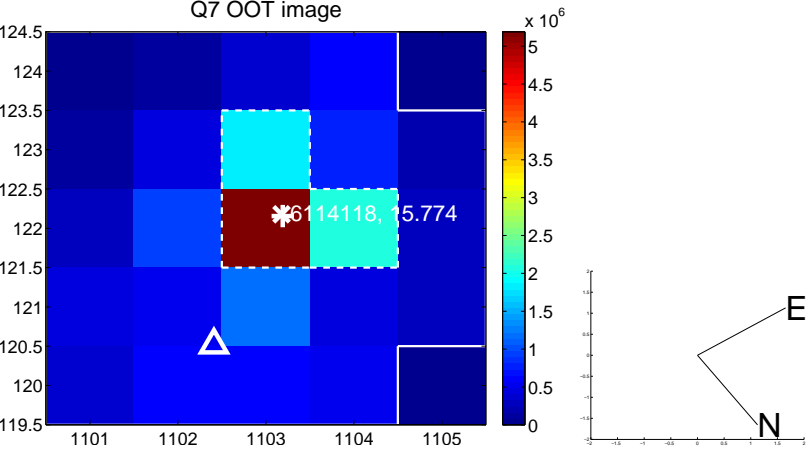
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



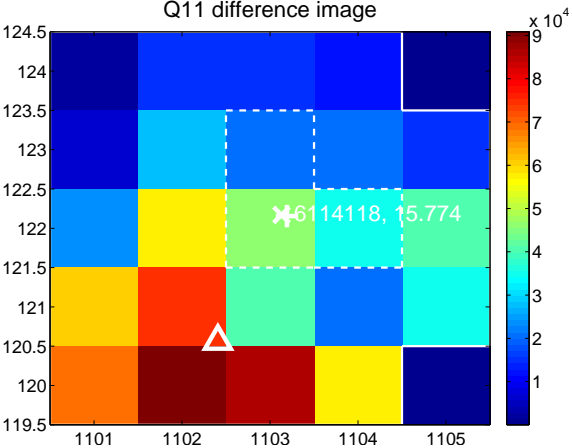
Q10 no difference image



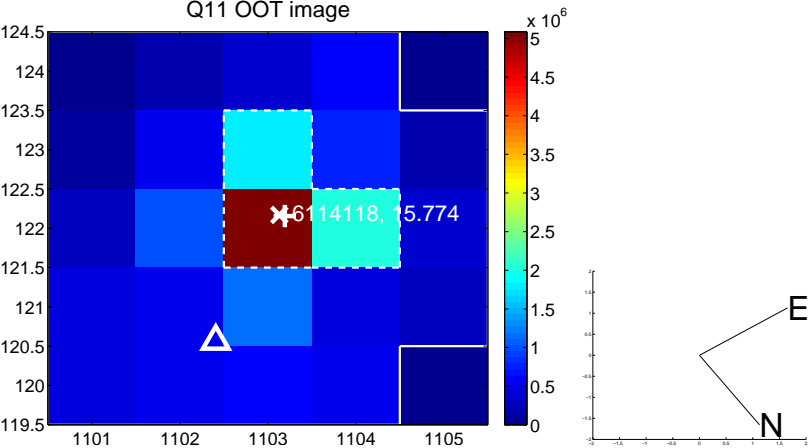
Q10 no OOT image



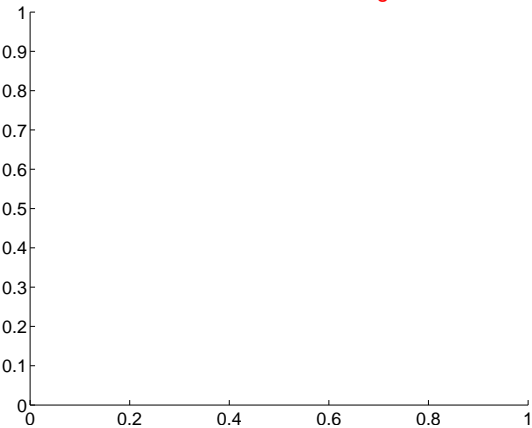
Q11 difference image



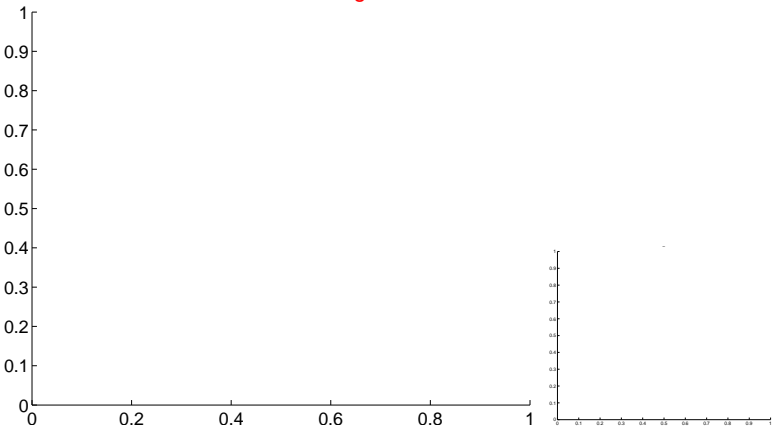
Q11 OOT image



Q12 no difference image



Q12 no OOT image



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

Q13 no difference image



Q13 no OOT image



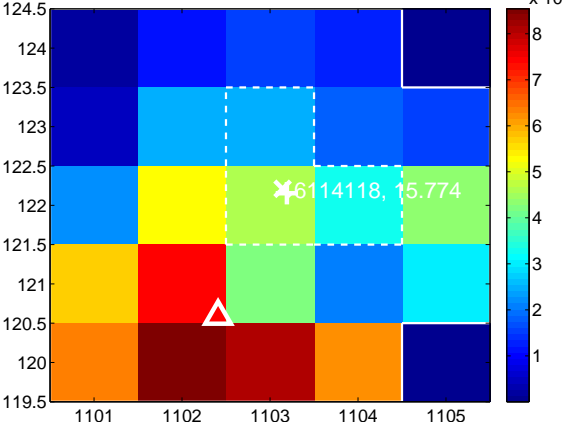
Q14 no difference image



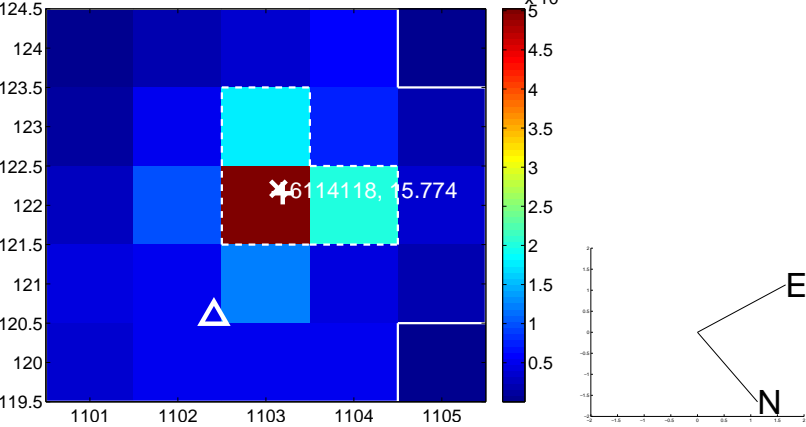
Q14 no OOT image



Q15 difference image



Q15 OOT image



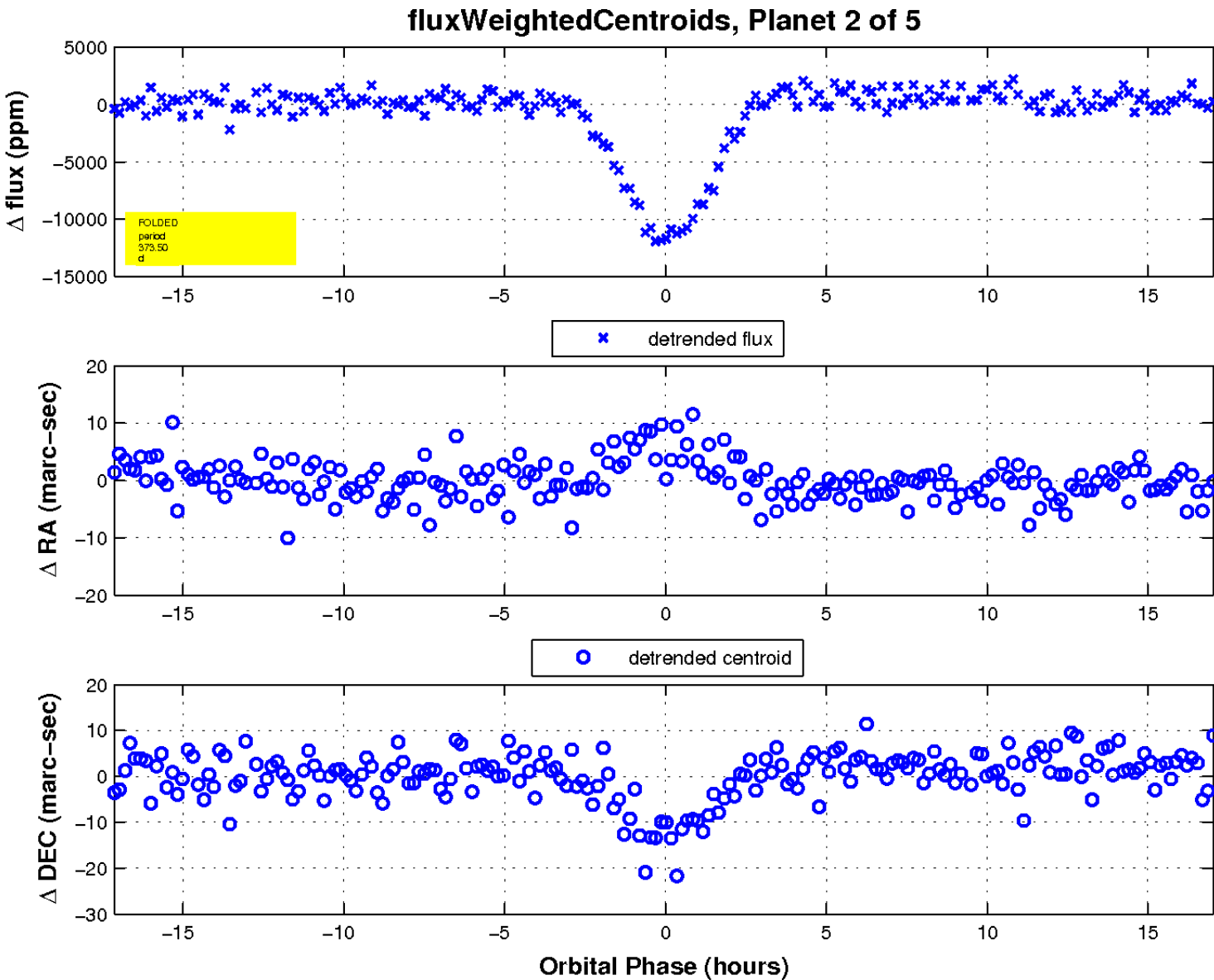
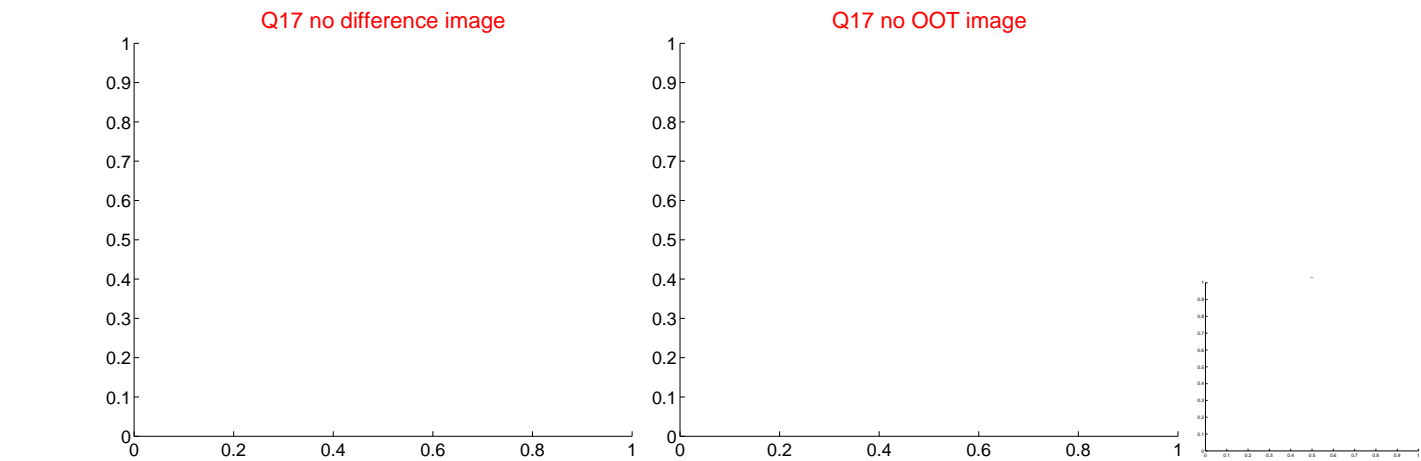
Q16 no difference image



Q16 no OOT image

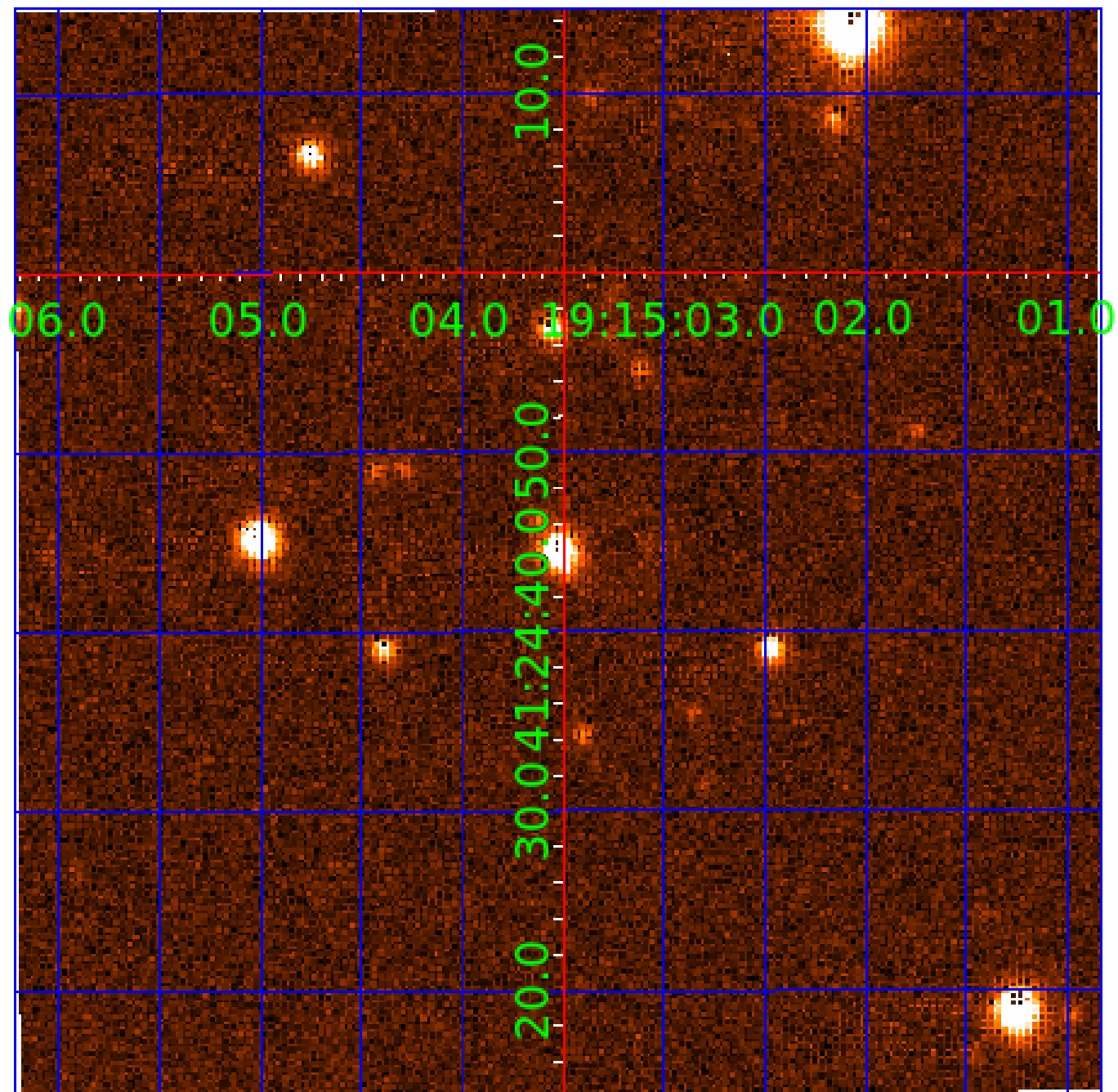


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006114118

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})
006114118-01	OBS	No	379.104289	295.854642	11210.5	6.059	53.9	58.0	1.05	6228	19.07	1.32
006114118-02	OBS	No	373.499193	290.255038	11921.2	5.723	58.3	61.6	1.05	6228	20.25	1.34
006114118-03	OBS	No	381.902201	282.784841	11426.4	6.174	62.0	58.9	1.05	6228	17.76	1.30
006114118-04	OBS	No	378.168020	288.390121	11694.2	6.218	64.7	56.1	1.05	6228	20.10	1.32
006114118-05	OBS	No	370.696938	296.788316	8254.1	3.000	58.8	-1.0	1.05	6228	9.55	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114118-01	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-02	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-03	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-05	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

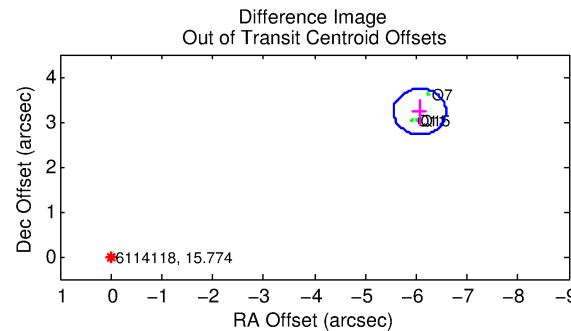
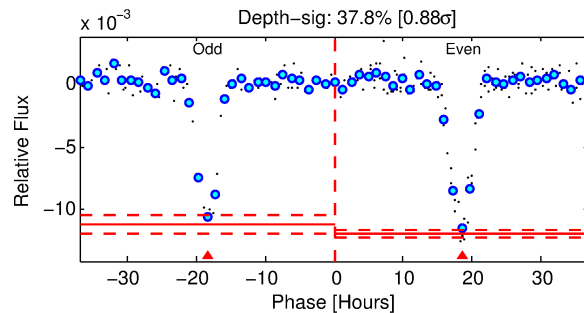
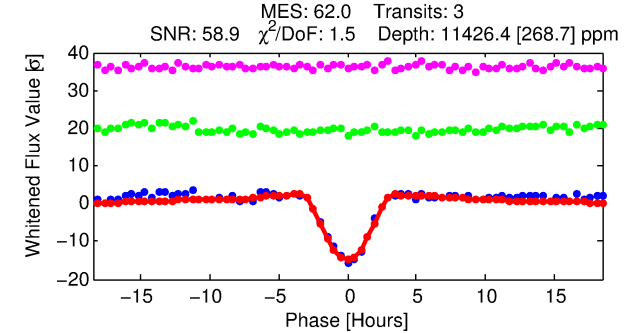
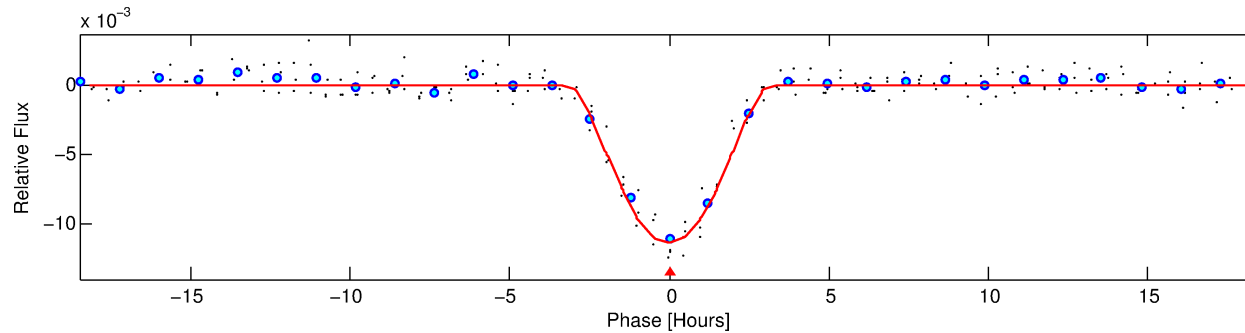
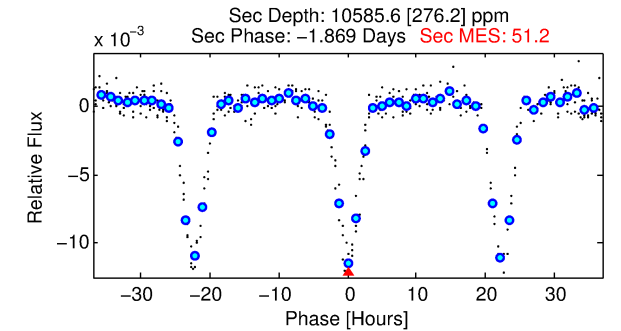
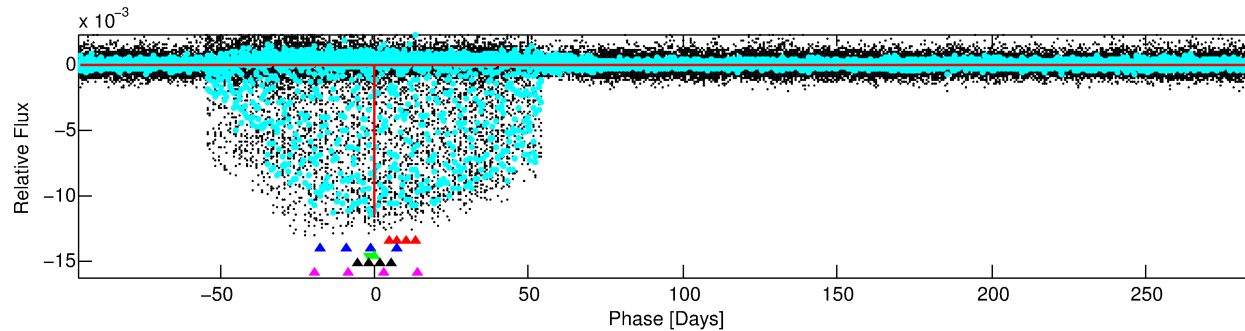
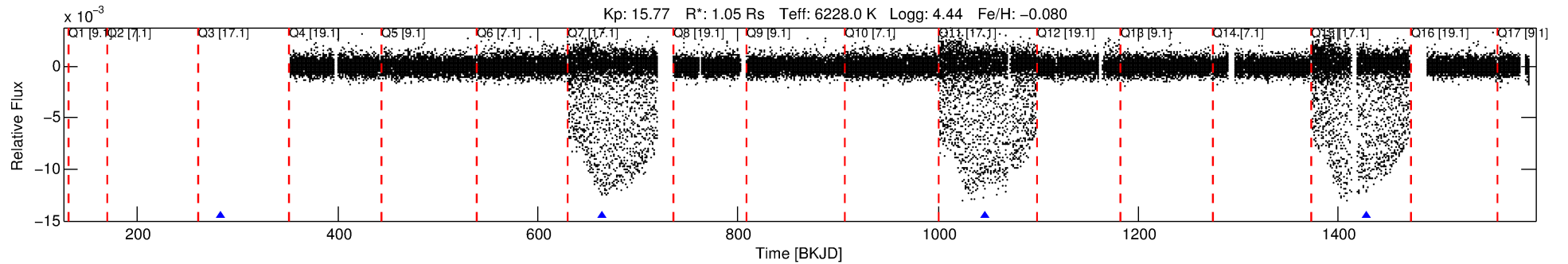
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114118-03

No Significant Match Found

DV One-Page Summary

KIC: 6114118 Candidate: 3 of 5 Period: 381.902 d



DV Fit Results:

Period = 381.90220 [0.00177] d
Epoch = 282.7848 [0.0040] BKJD
Rp/R* = 0.1552 [0.1163]
a/R* = 294.64 [42.34]
b = 0.97 [0.18]
Seff = 1.30 [0.56]
Teq = 273 [29] K
Rp = 17.76 [14.56] Re
a = 1.0662 [0.2952] AU
Ag = 20983.96 [32545.73] [0.64σ]
Teffp = 5071 [1912] K [2.51σ]

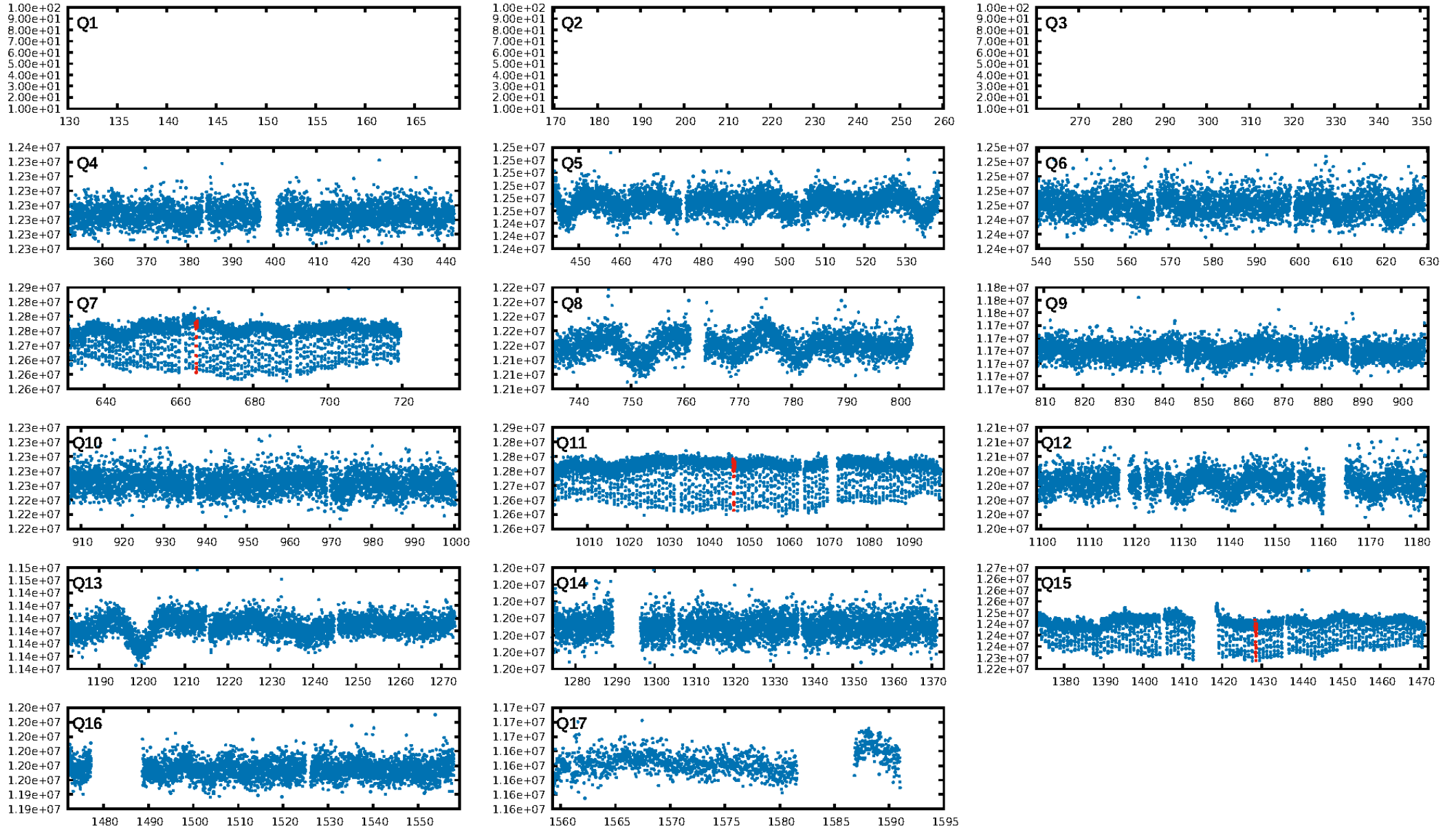
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.76σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 37.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.03903
Centroid-sig: N/A
Centroid-so: 1.091 arcsec [4.13σ]
OotOffset-rm: 6.870 arcsec [40.15σ]
KicOffset-rm: 6.923 arcsec [39.62σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

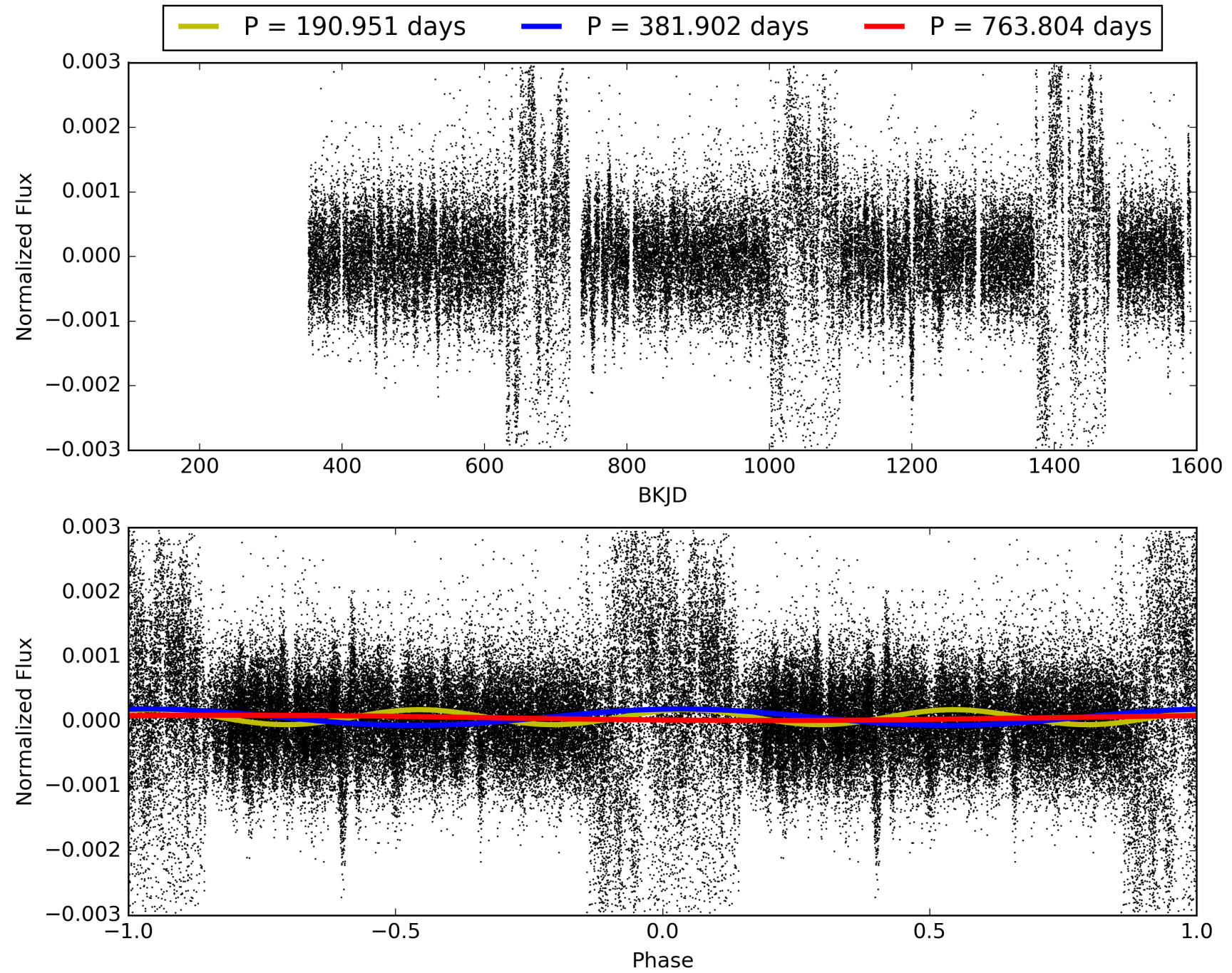
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:27:02 Z

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

TCE 006114118-03, PDC Light Curves

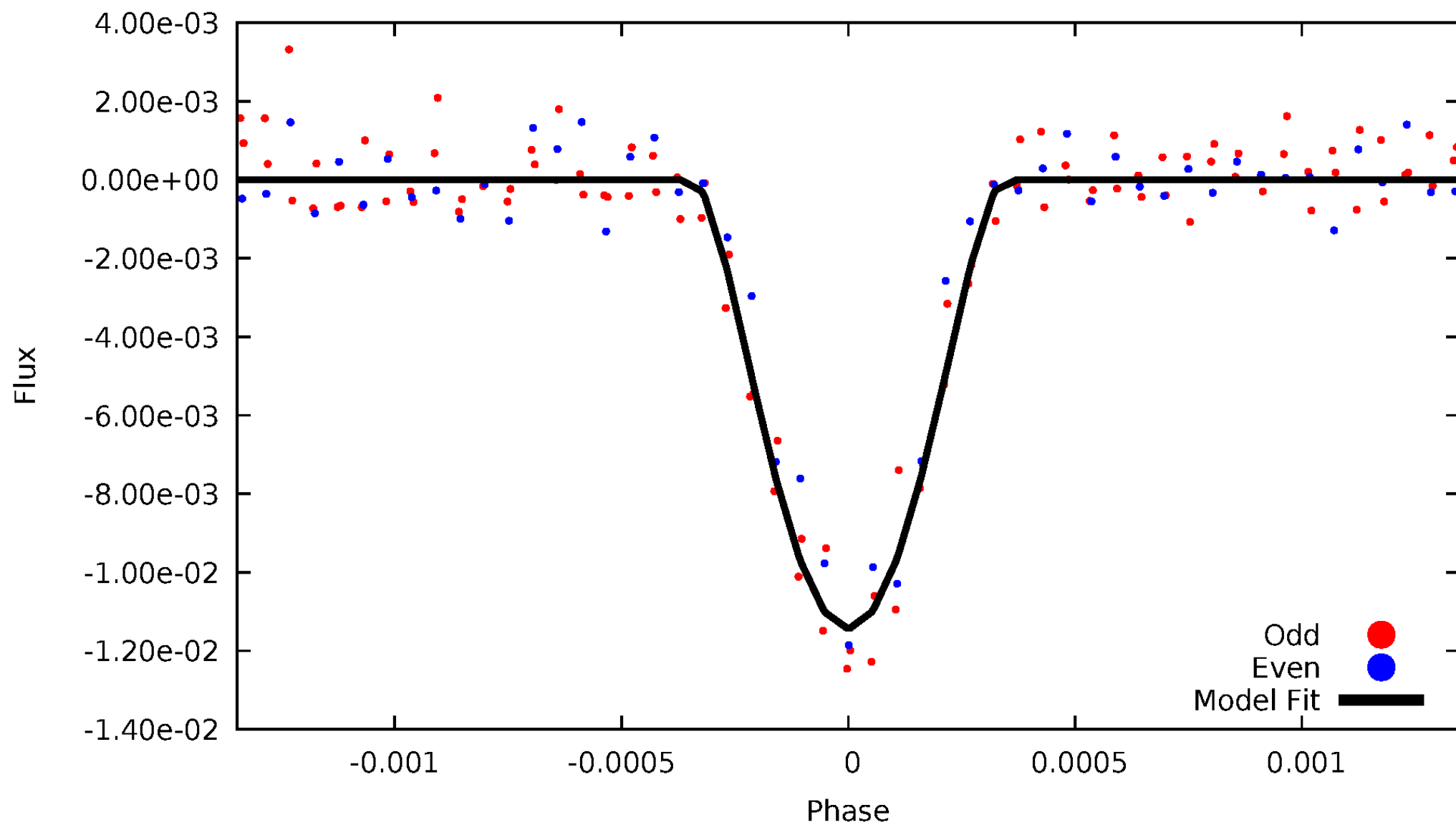


TCE 006114118-03



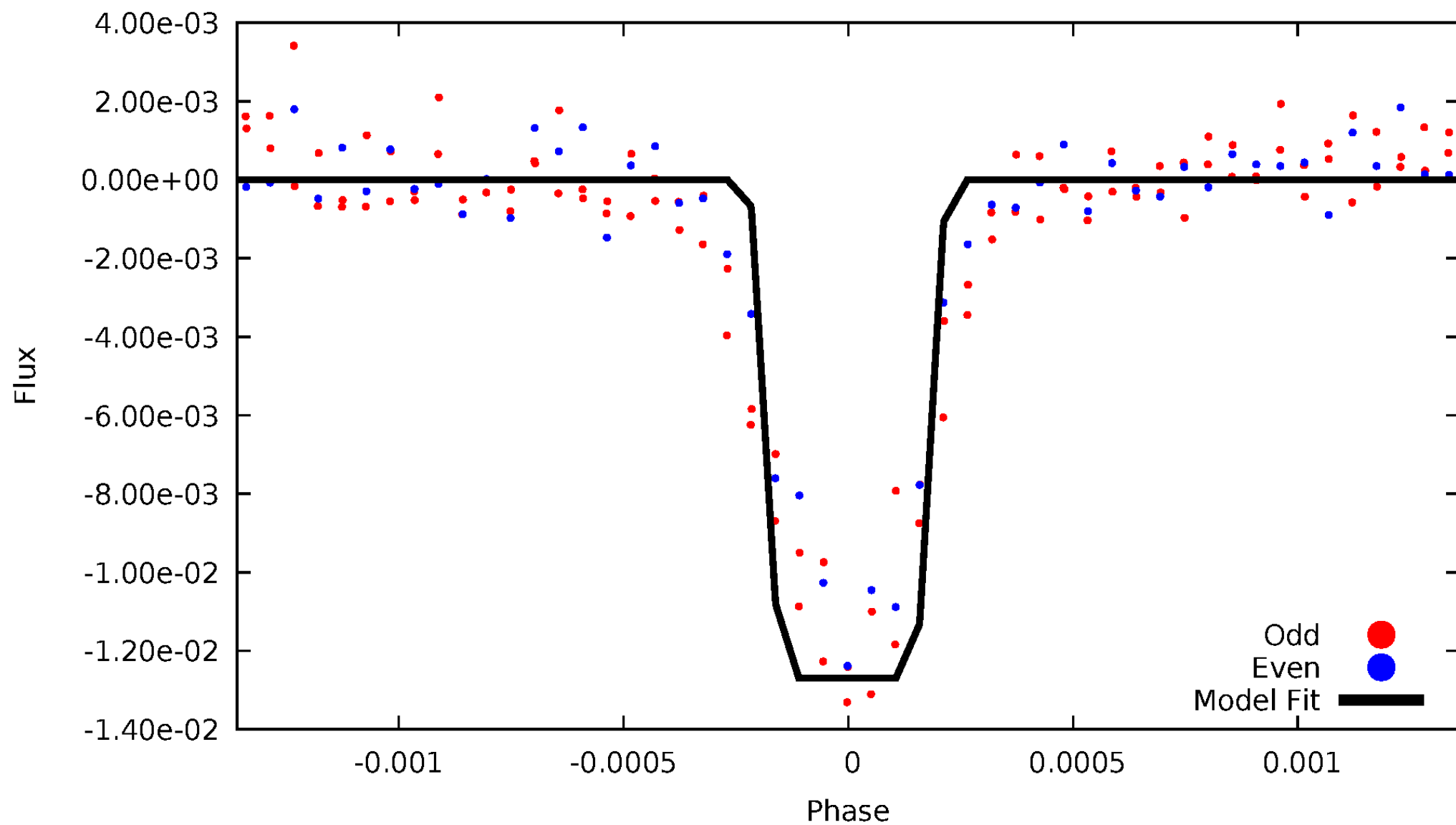
DV Odd/Even

TCE 006114118-03



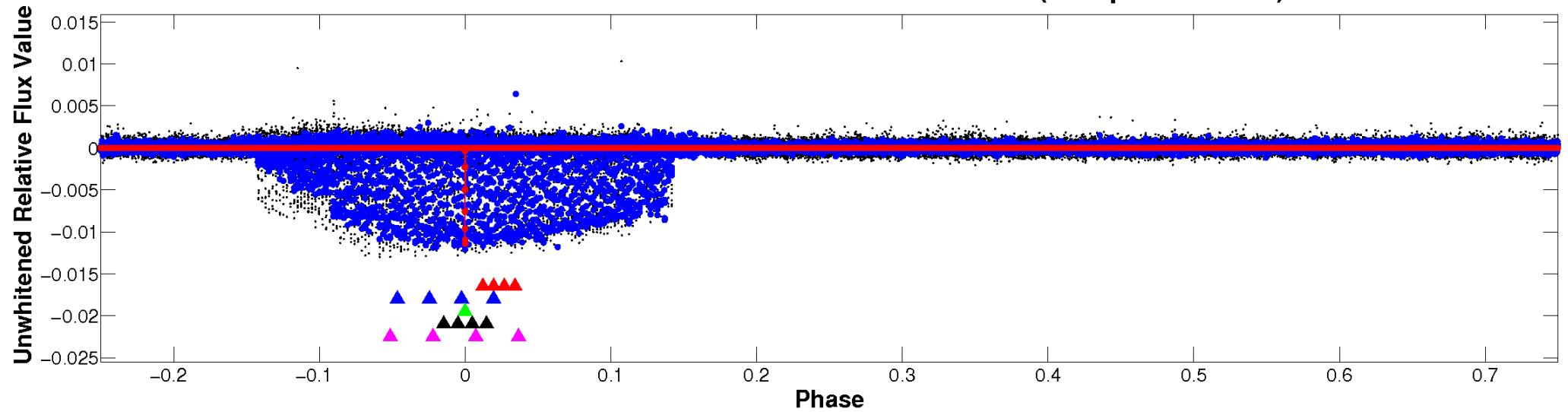
ALT Odd/Even

TCE 006114118-03

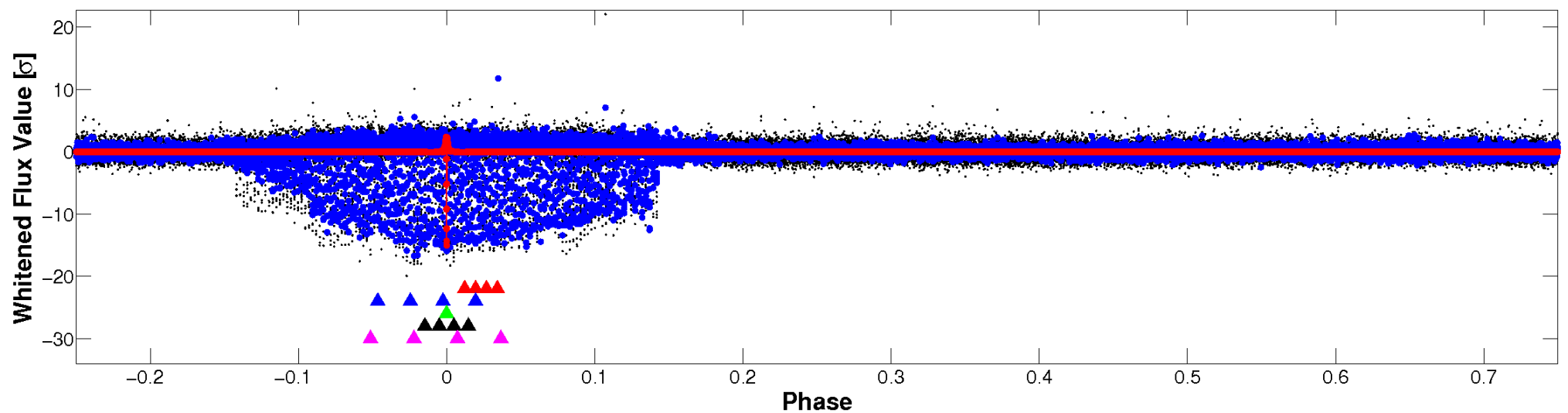


Non-Whitened Vs. Whitened Light Curve

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

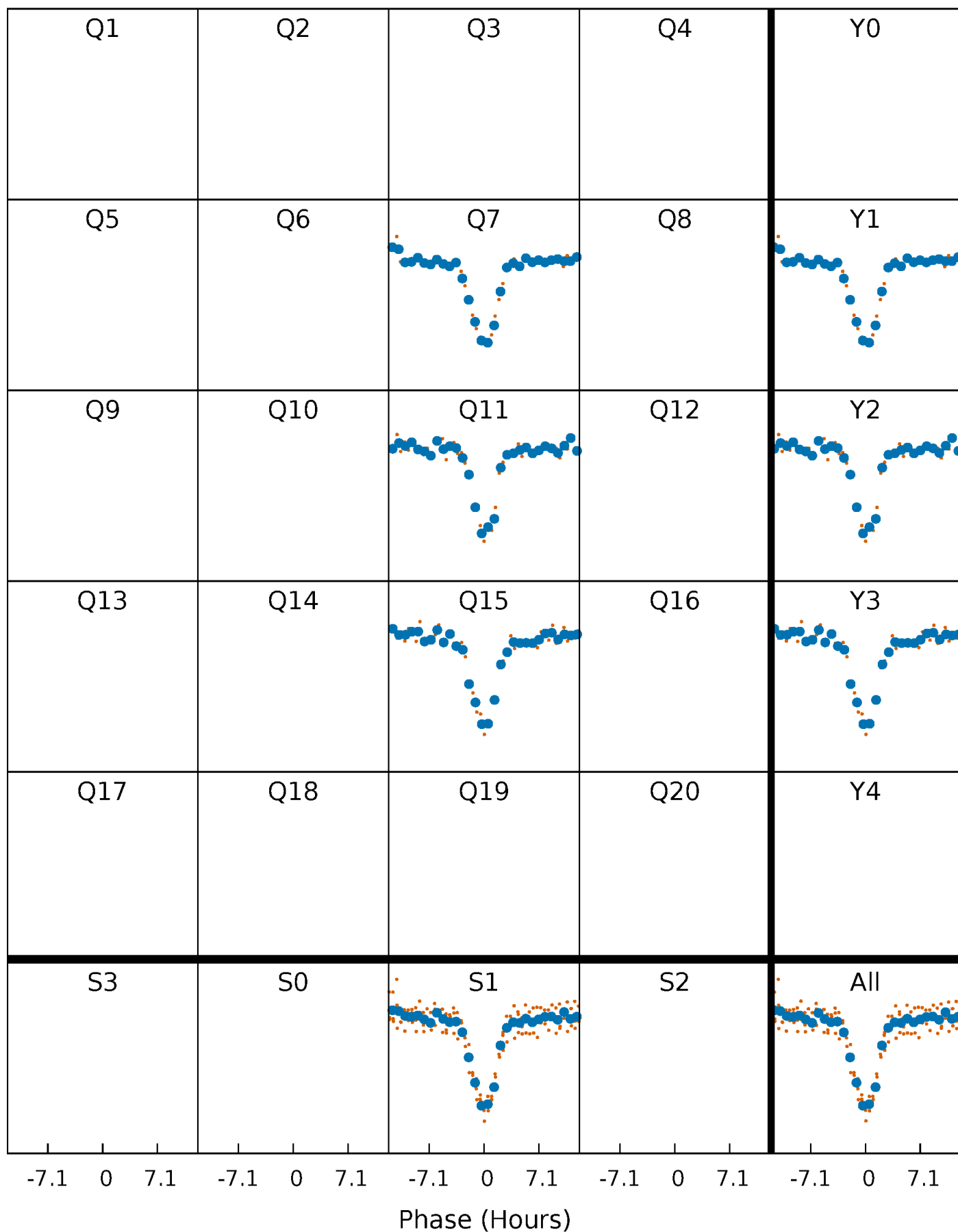


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



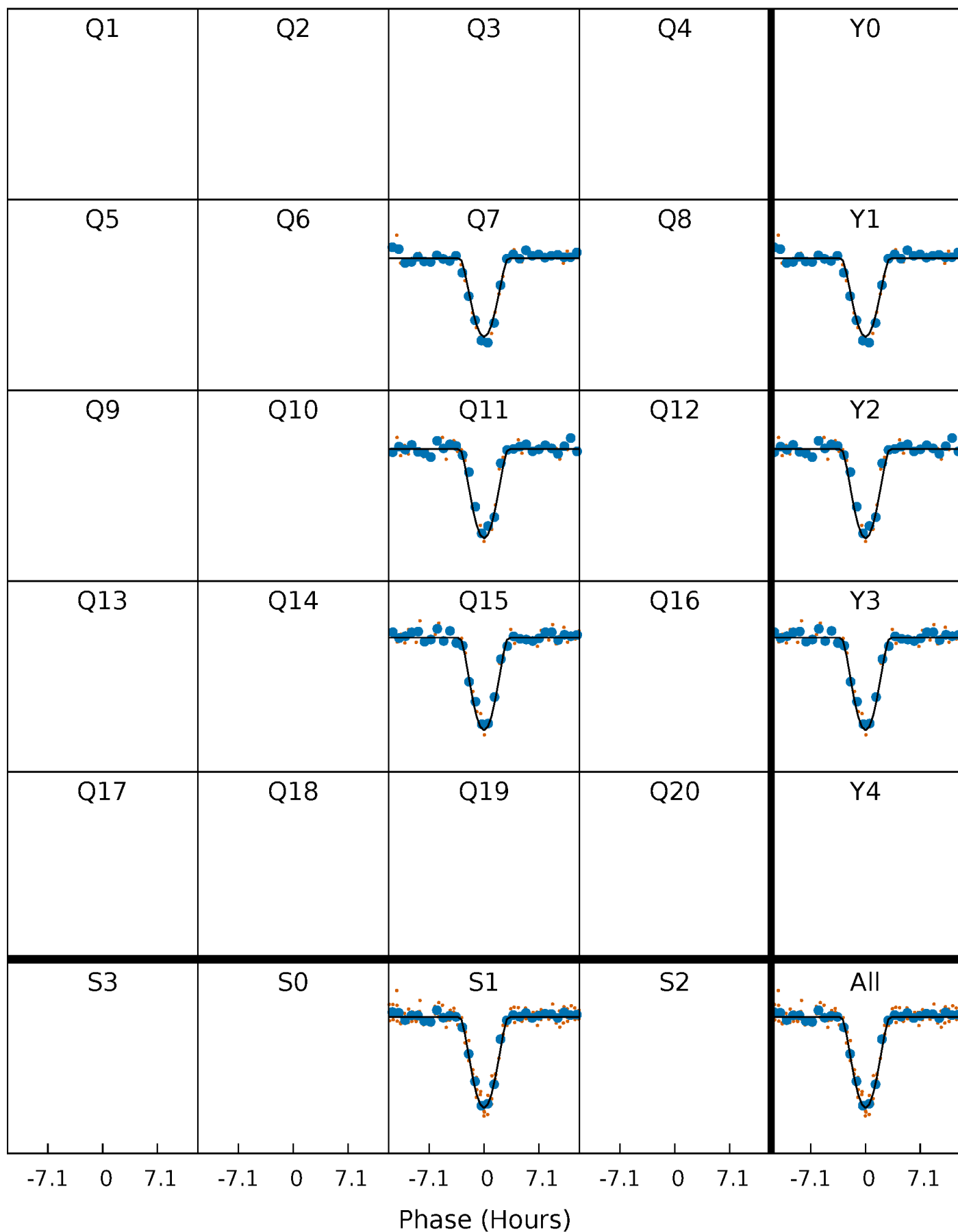
PDC Quarter-Phased Transit Curves

TCE 006114118-03 P=381.902201 Days $T_0=282.784841$ (BKJD)



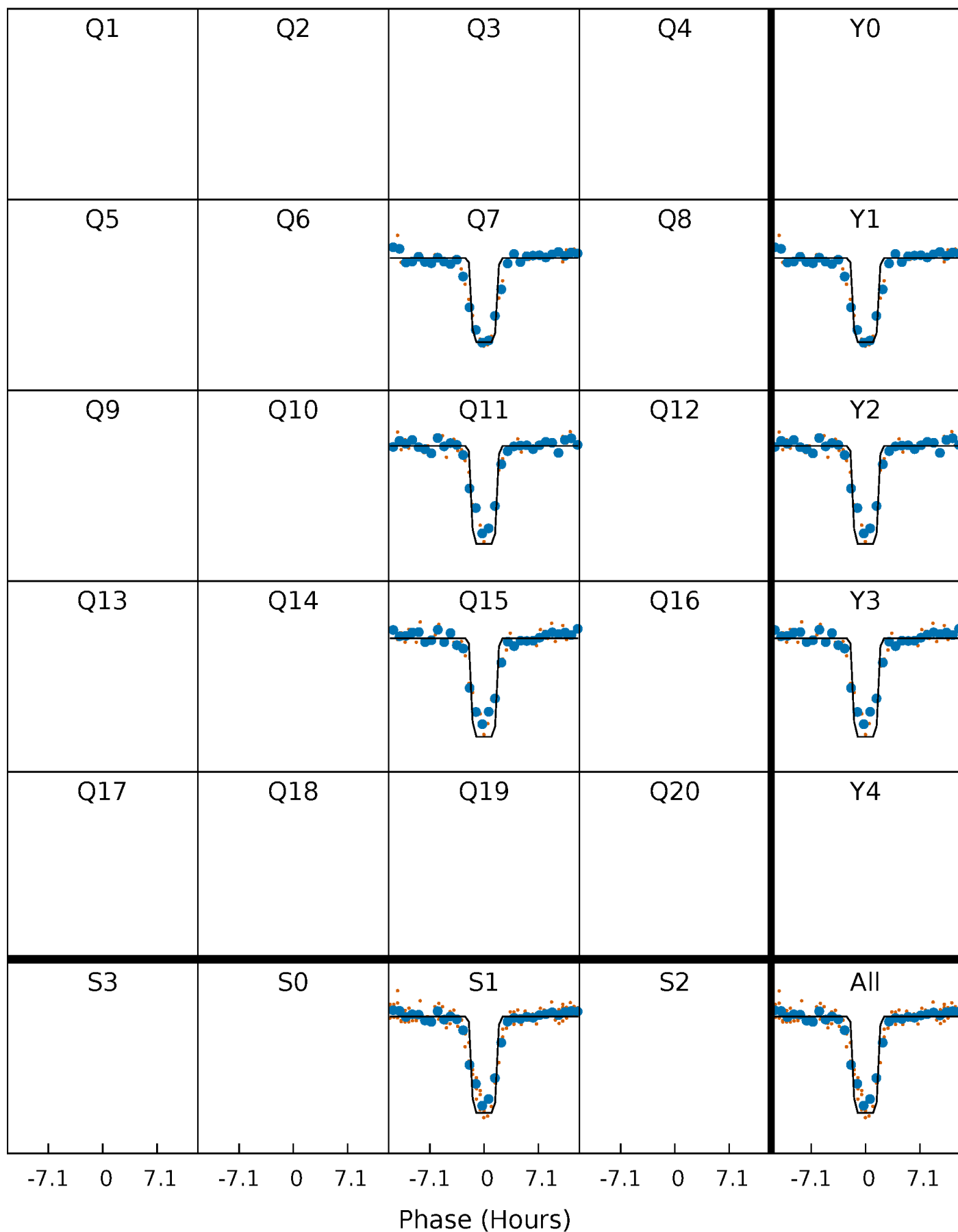
DV Quarter-Phased Transit Curves

TCE 006114118-03 P=381.902201 Days $T_0=282.784841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

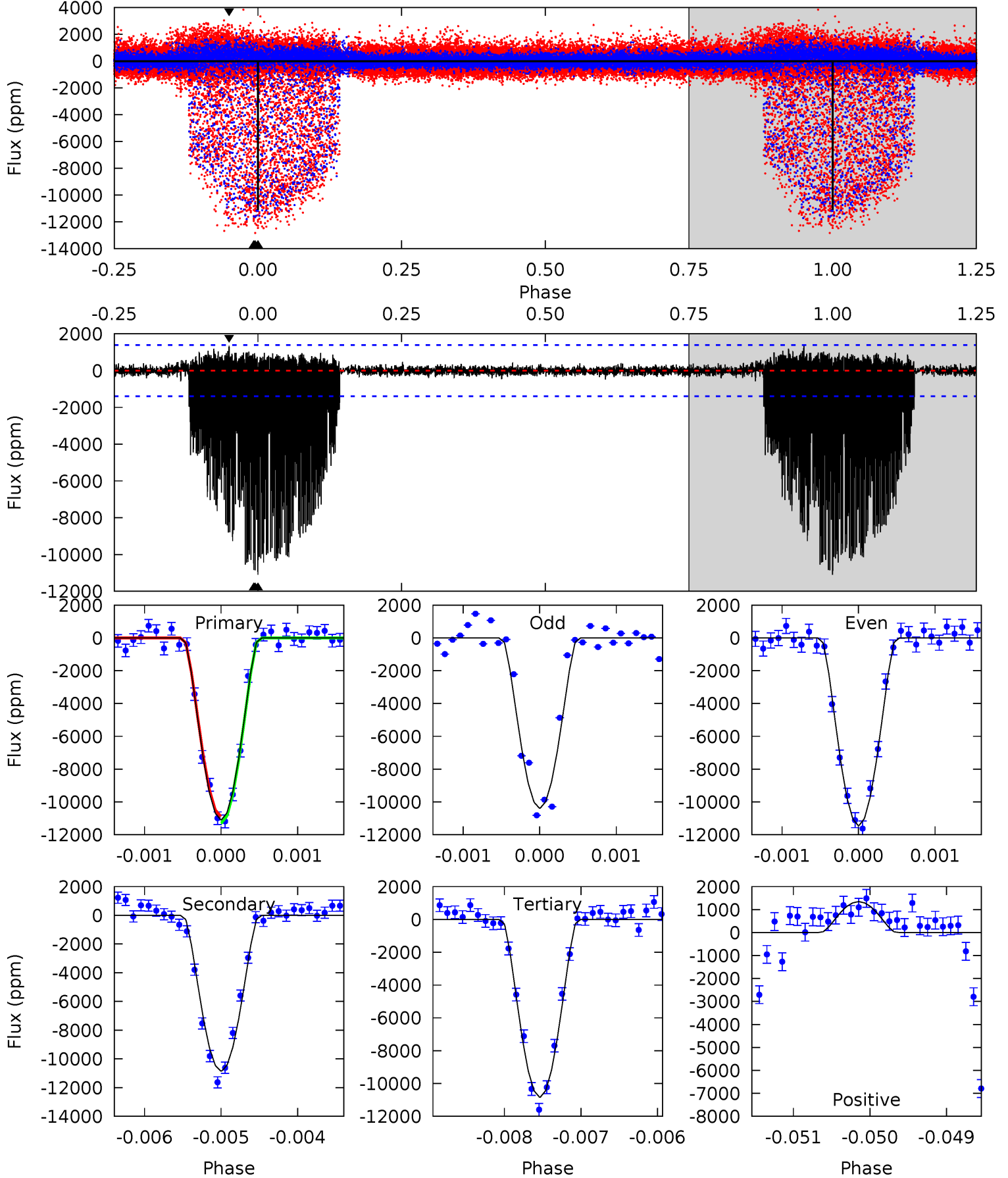
TCE 006114118-03 P=381.903191 Days $T_0=282.783923$ (BKJD)



DV Model-Shift Uniqueness Test

006114118-03, P = 381.902201 Days, E = 282.784841 Days

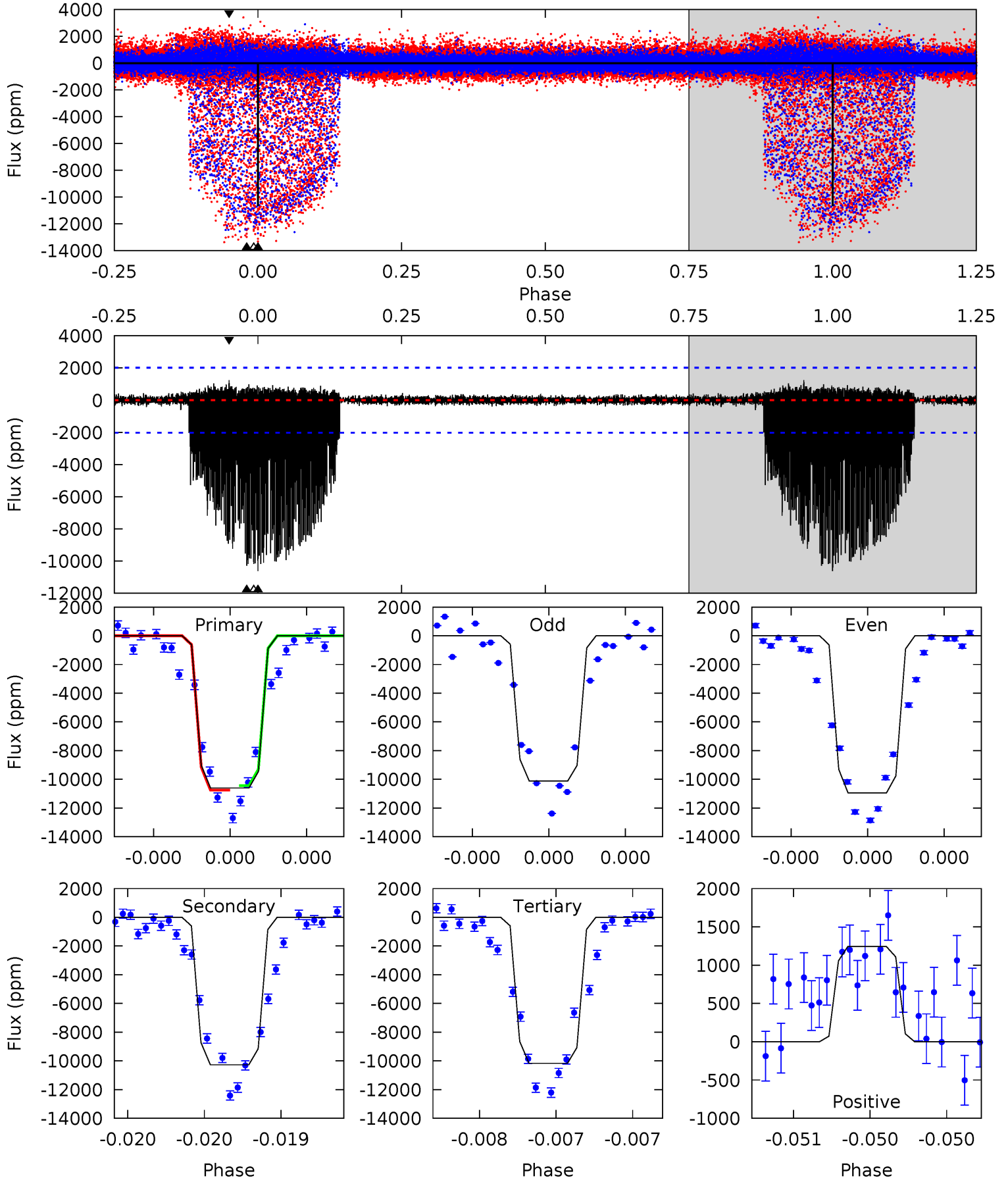
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.9	43.0	42.9	5.32	5.52	3.39	5.76	1.00	38.6	0.06	37.7	2.03	1.05	0.11	0.80



Alt Model-Shift Uniqueness Test

006114118-03, P = 381.903191 Days, E = 282.783923 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.4	28.4	28.2	3.44	5.60	3.52	3.85	1.21	25.9	0.27	25.0	1.15	1.05	0.10	0.43



Stellar Parameters For KIC 006114118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+194}_{-259}	$4.441^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.349}_{-0.116}$	$1.107^{+0.148}_{-0.164}$	$1.351^{+0.401}_{-0.732}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+13%/-15%	+30%/-54%
Source	KIC0	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 006114118-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10855 ± 253	$20.14^{+14.44}_{-11.26}$	389^{+29}_{-22}	4997^{+2525}_{-930}	16285^{+66499}_{-10700}
Alt.	-10271 ± 361	$17.30^{+12.73}_{-10.66}$	386^{+31}_{-21}	5228^{+3440}_{-1003}	$21002^{+116518}_{-14035}$

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 $A_{obs} \gg 1.0$

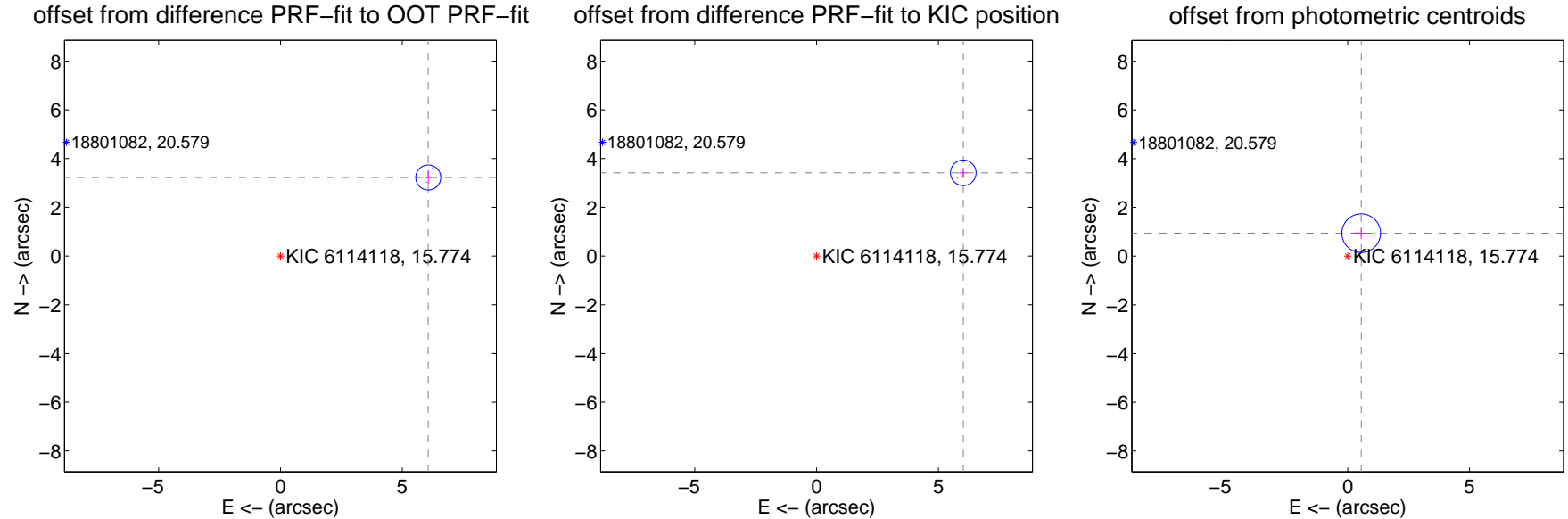
DV Centroid Data

Supplemental centroid analysis for 006114118-03. Kepler magnitude: 15.77. Transit SNR 58.95

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.870 ± 0.171	40.15	-6.066 ± 0.127	3.224 ± 0.276
PRF-fit source offset from KIC position	6.923 ± 0.175	39.62	-6.021 ± 0.165	3.416 ± 0.203
photometric centroid source offset	1.09 ± 0.26	4.13	-0.55 ± 0.33	0.94 ± 0.24



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

Q5 no difference image



Q5 no OOT image



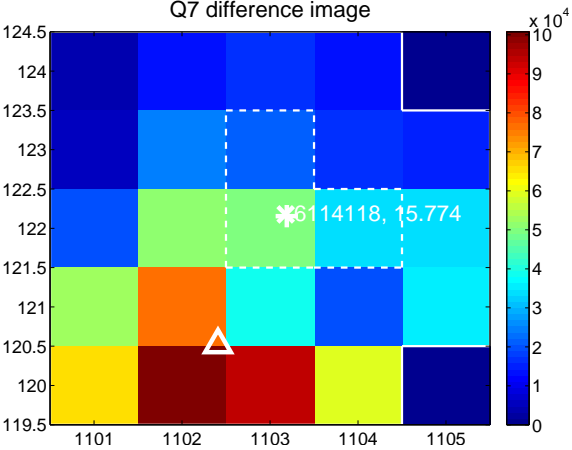
Q6 no difference image



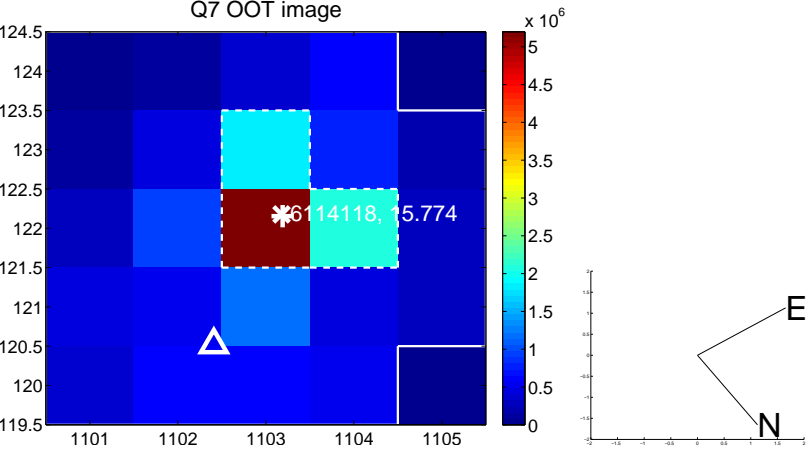
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



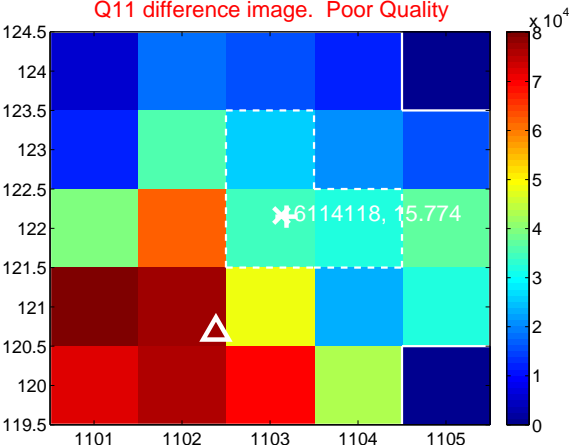
Q10 no difference image



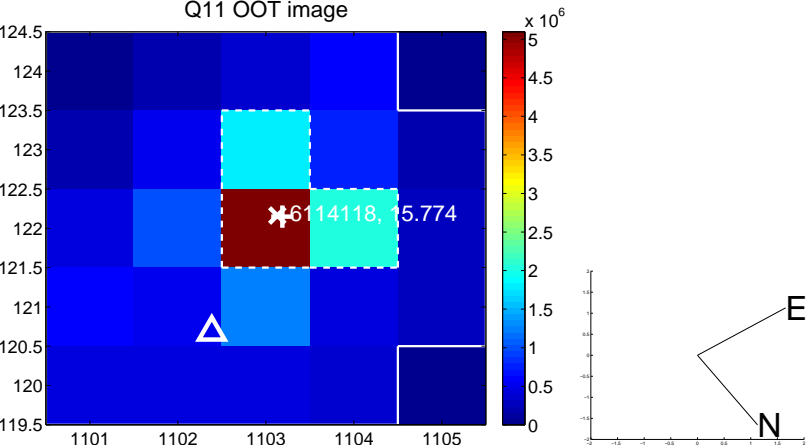
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



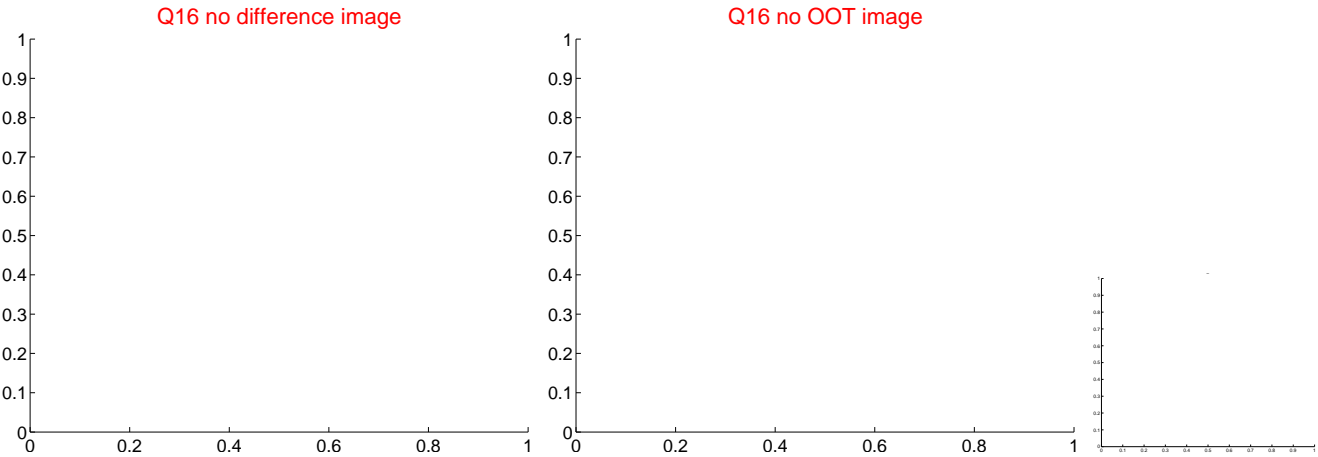
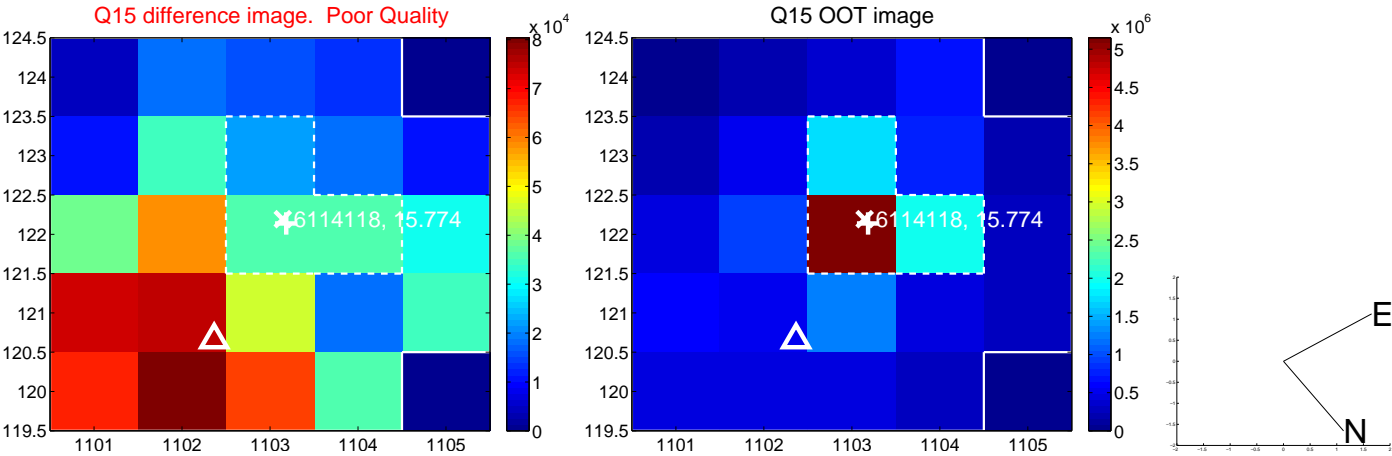
Q12 no difference image



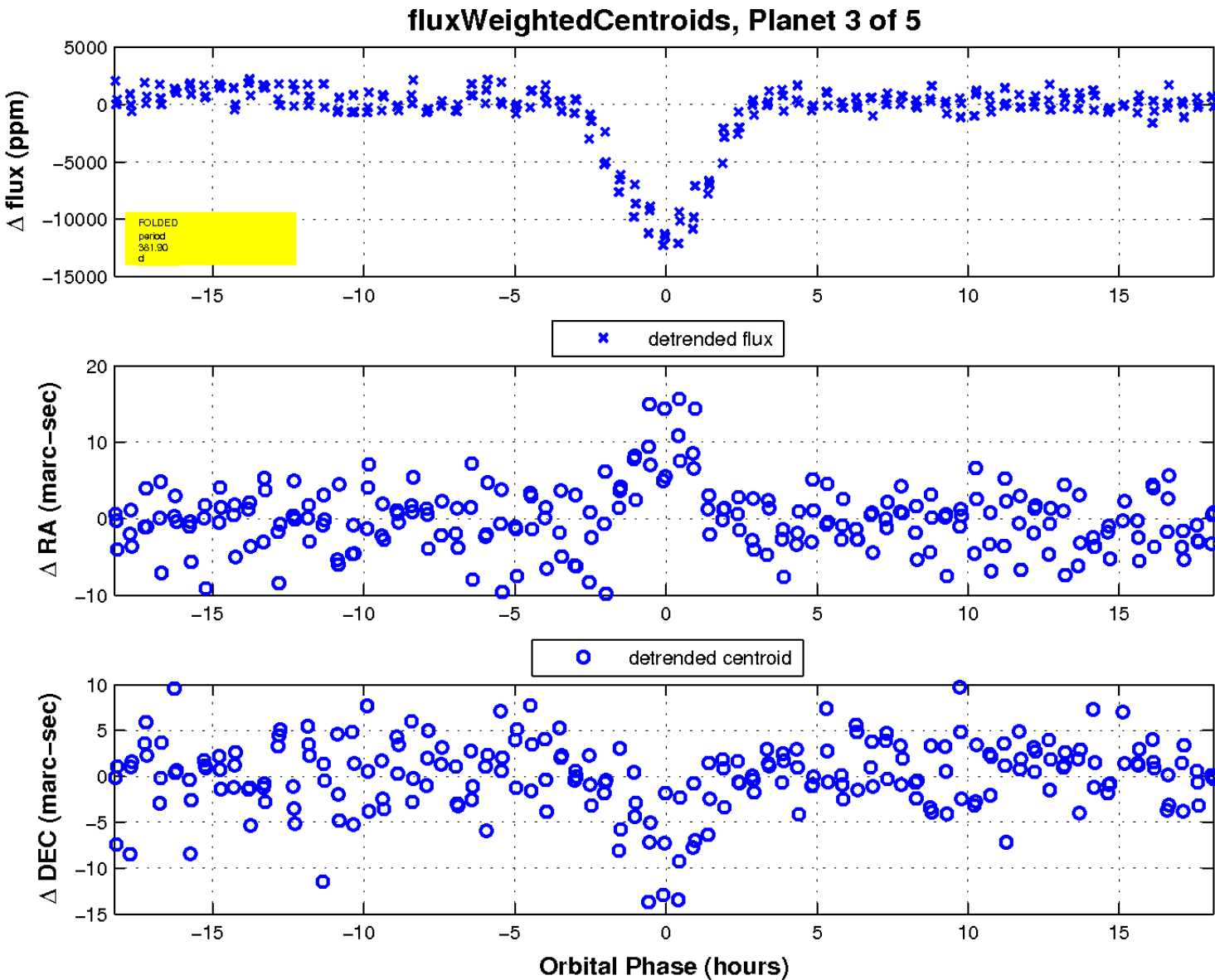
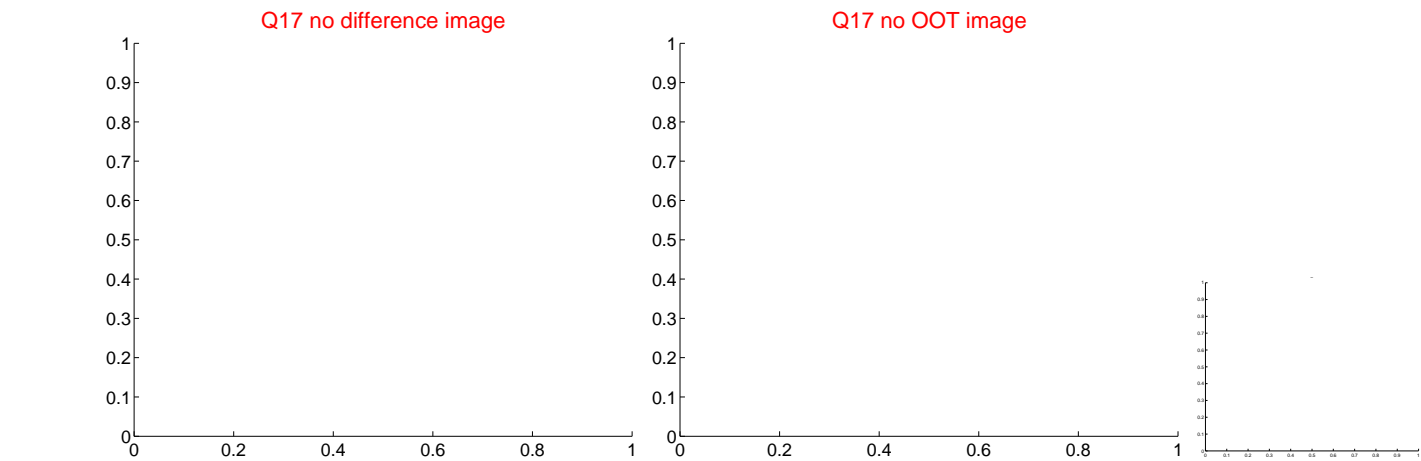
Q12 no OOT image



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

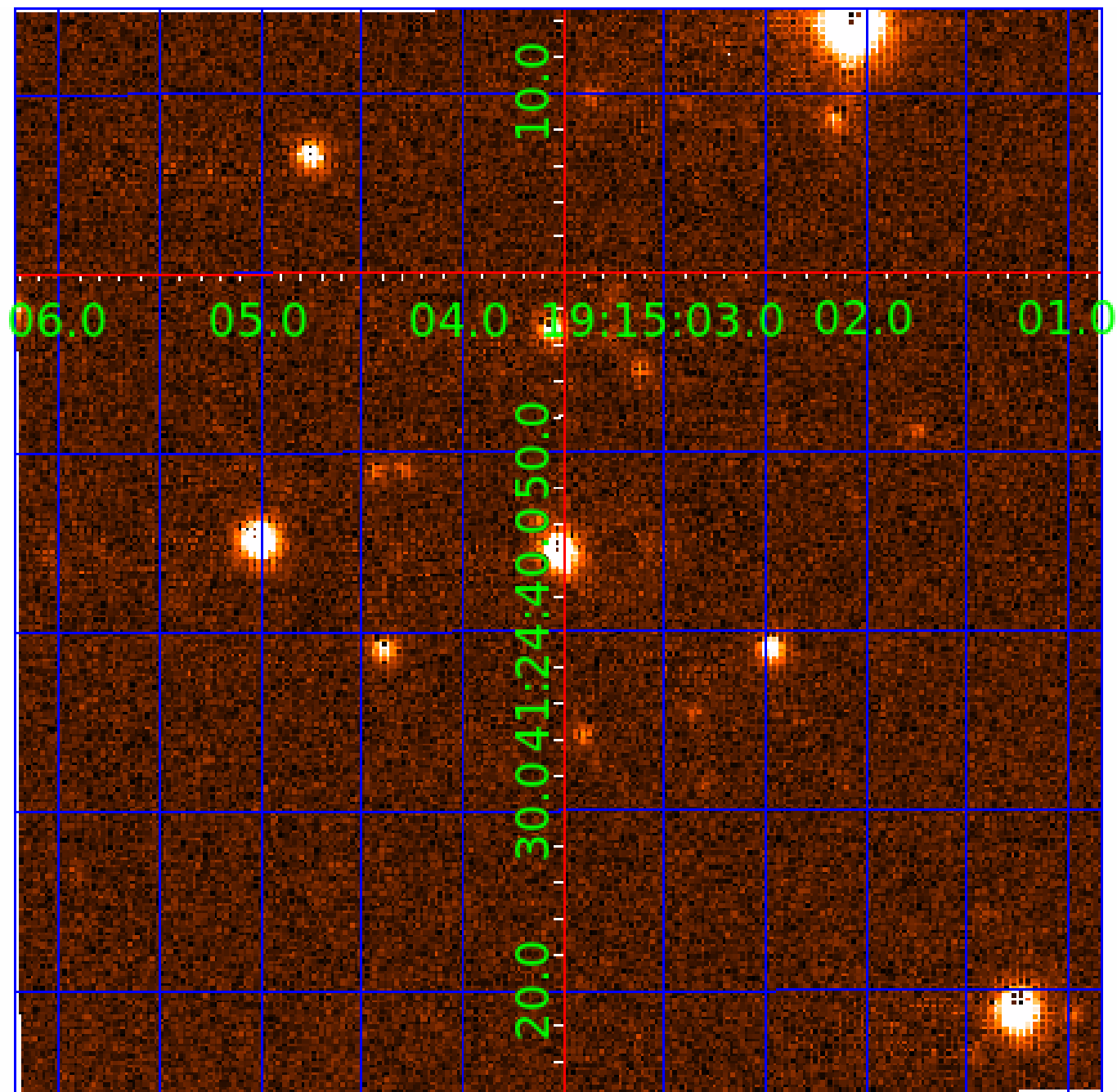


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006114118

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})
006114118-01	OBS	No	379.104289	295.854642	11210.5	6.059	53.9	58.0	1.05	6228	19.07	1.32
006114118-02	OBS	No	373.499193	290.255038	11921.2	5.723	58.3	61.6	1.05	6228	20.25	1.34
006114118-03	OBS	No	381.902201	282.784841	11426.4	6.174	62.0	58.9	1.05	6228	17.76	1.30
006114118-04	OBS	No	378.168020	288.390121	11694.2	6.218	64.7	56.1	1.05	6228	20.10	1.32
006114118-05	OBS	No	370.696938	296.788316	8254.1	3.000	58.8	-1.0	1.05	6228	9.55	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114118-01	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-02	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-03	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-05	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

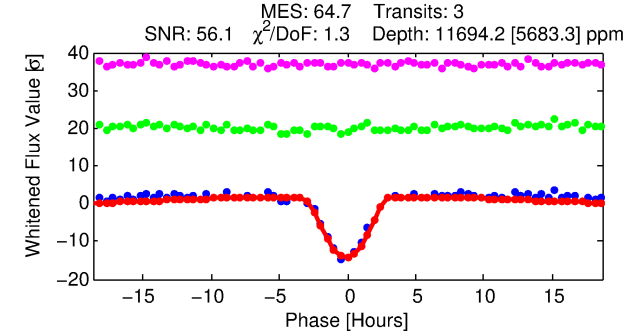
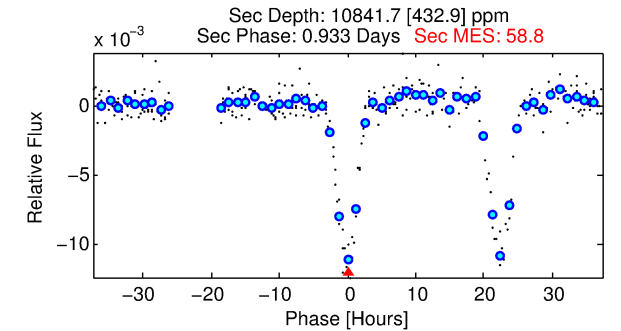
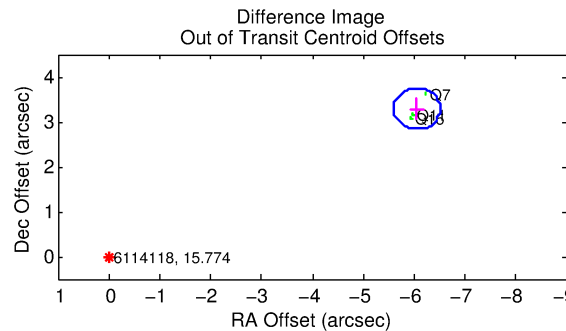
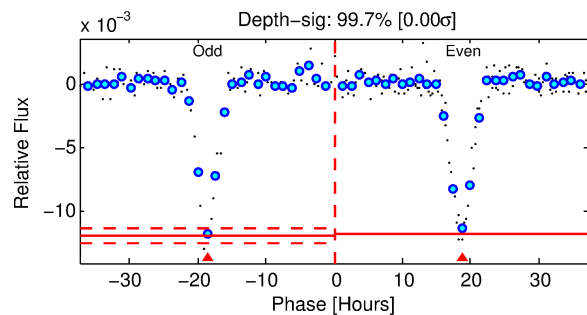
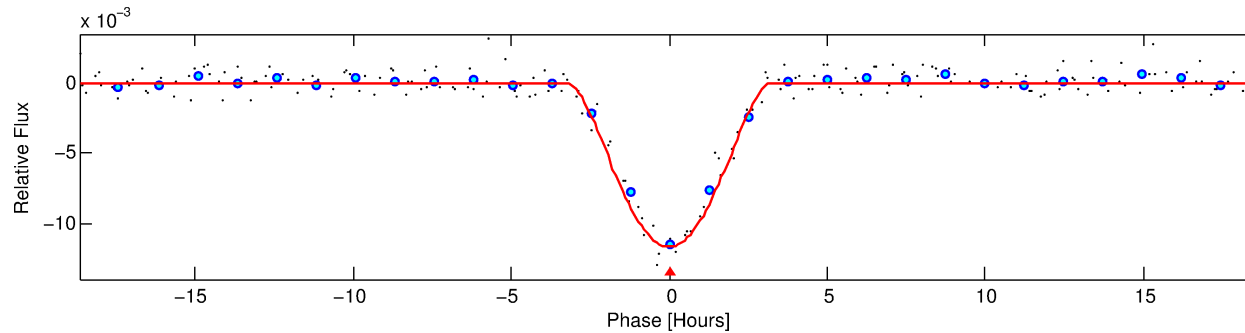
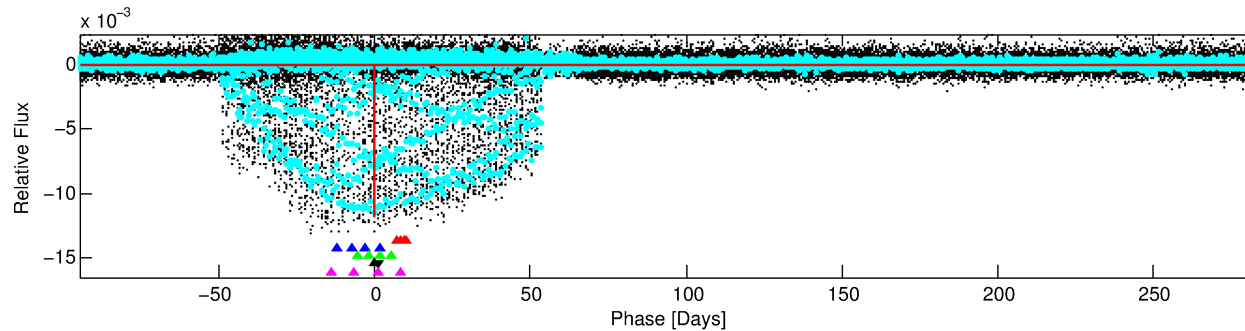
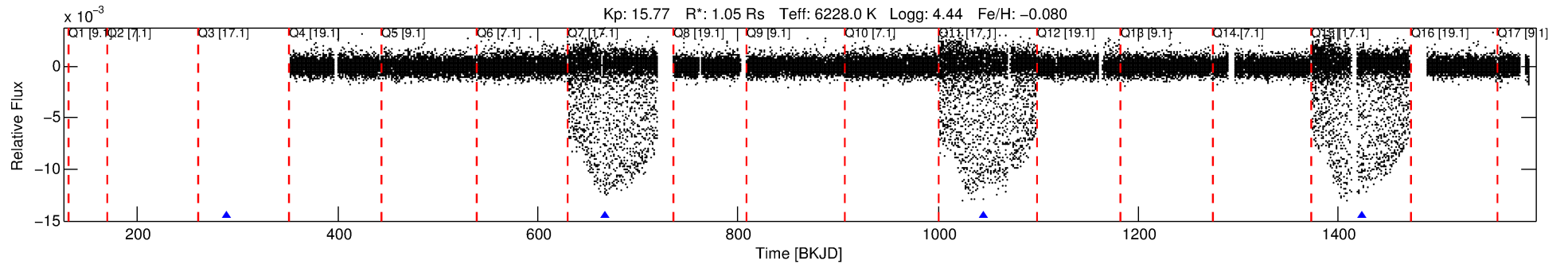
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114118-04

No Significant Match Found

DV One-Page Summary

KIC: 6114118 Candidate: 4 of 5 Period: 378.168 d



DV Fit Results:

Period = 378.16802 [0.00188] d
Epoch = 288.3901 [0.0041] BKJD
Rp/R* = 0.1756 [0.1948]
a/R* = 287.18 [44.78]
b = 1.00 [0.22]
Seff = 1.32 [0.57]
Teq = 273 [30] K
Rp = 20.10 [23.28] Re
a = 1.0593 [0.2933] AU
Ag = 16559.21 [37337.79] [0.44σ]
Teffp = 4795 [2668] K [1.69σ]

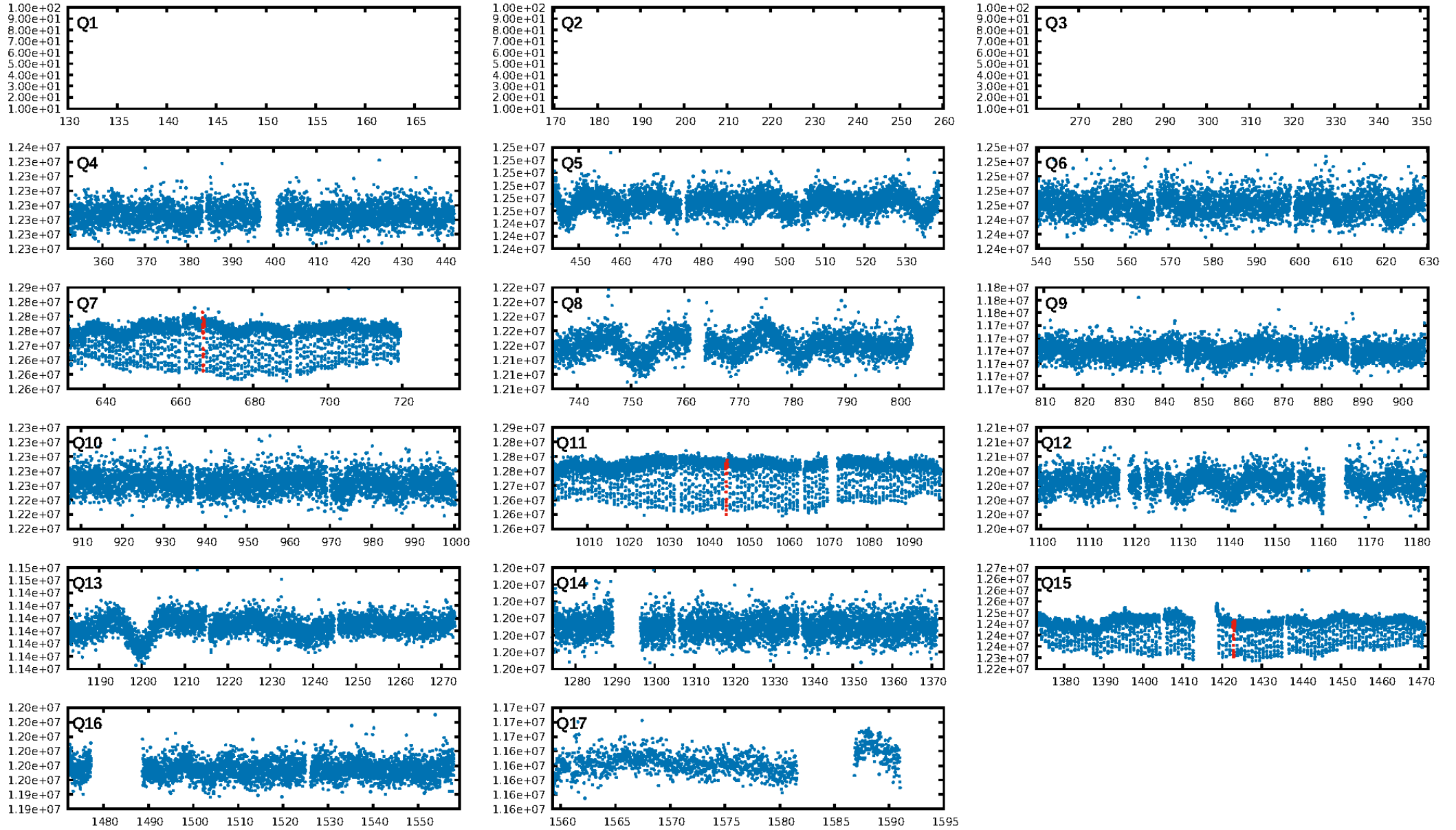
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.26σ]
LongPeriod-sig: 99.0% [2.59σ]
ModelChiSquare2-sig: 24.6%
ModelChiSquareGof-sig: 73.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.04481
Centroid-sig: N/A
Centroid-so: 0.741 arcsec [2.57σ]
OotOffset-rm: 6.891 arcsec [45.32σ]
KicOffset-rm: 6.936 arcsec [34.62σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

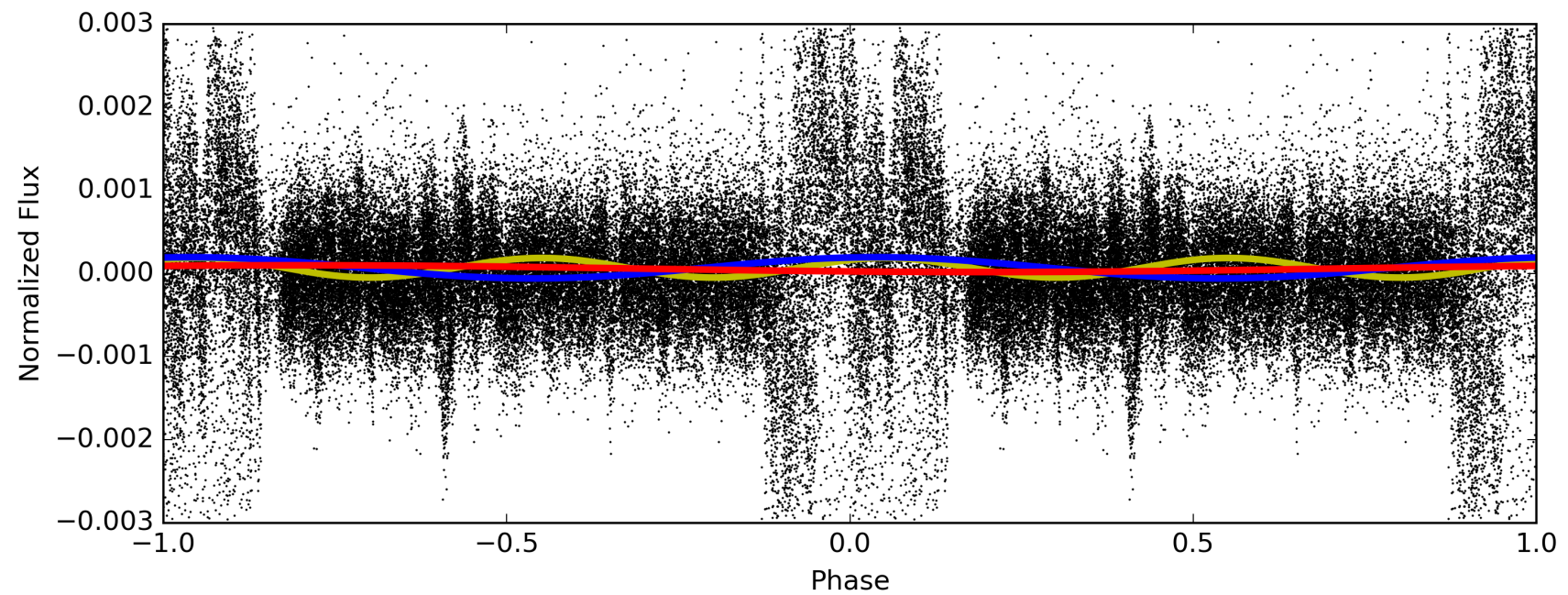
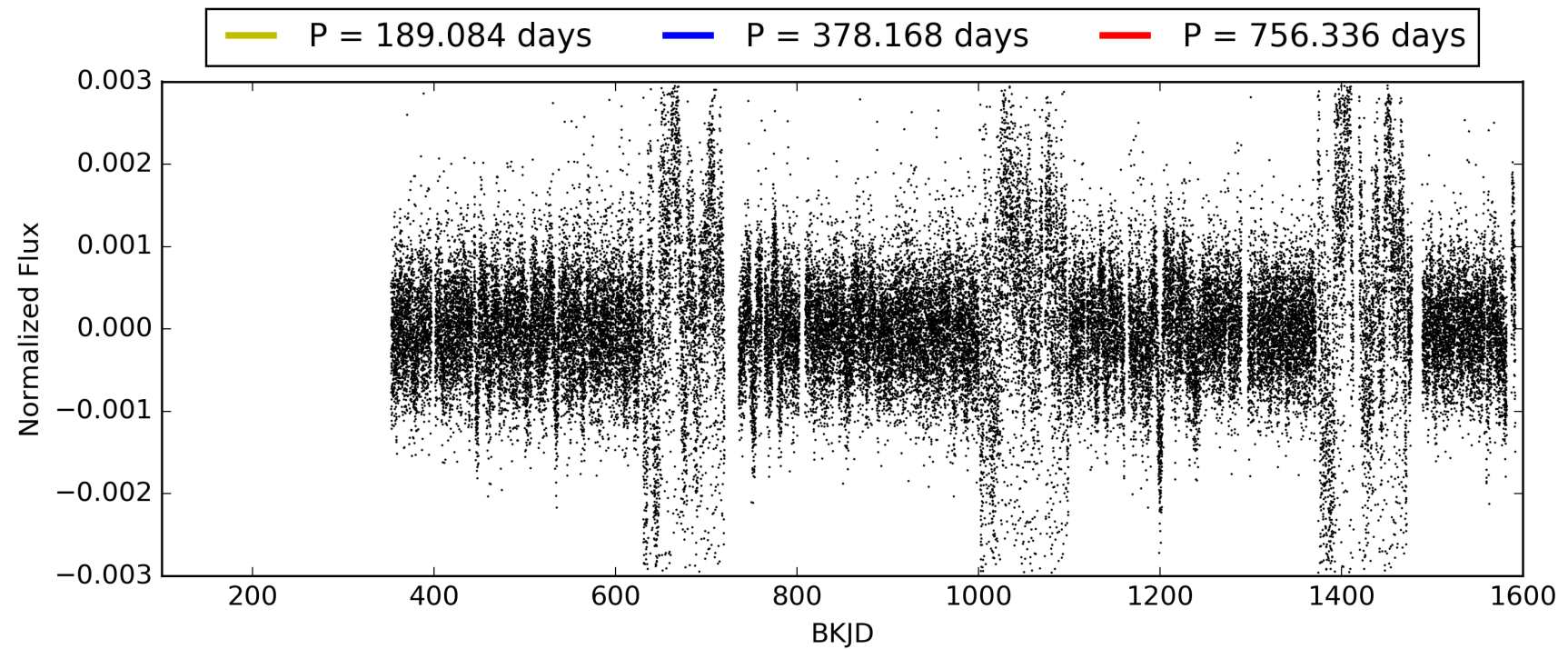
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:27:13 Z

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

TCE 006114118-04, PDC Light Curves

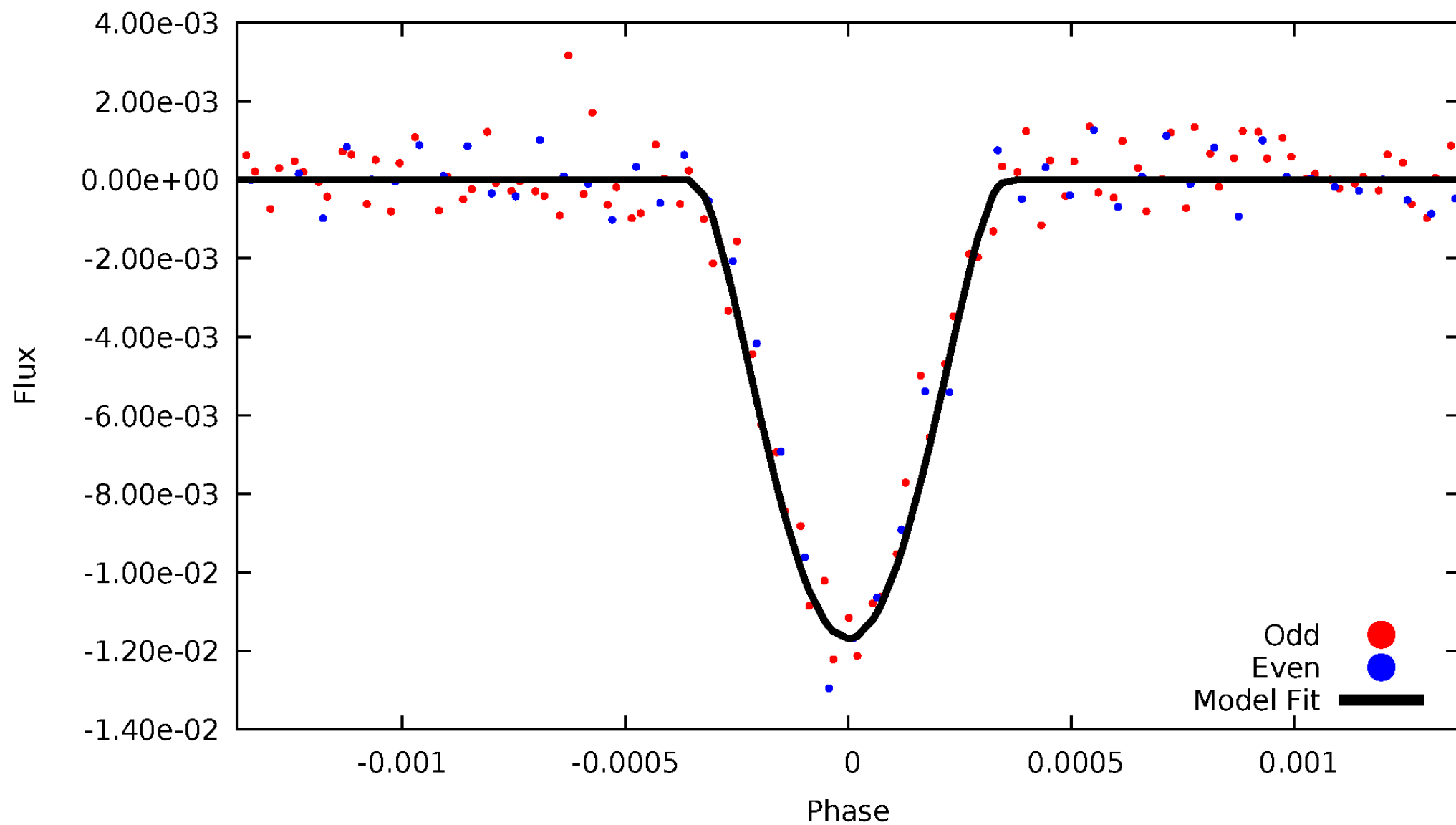


TCE 006114118-04



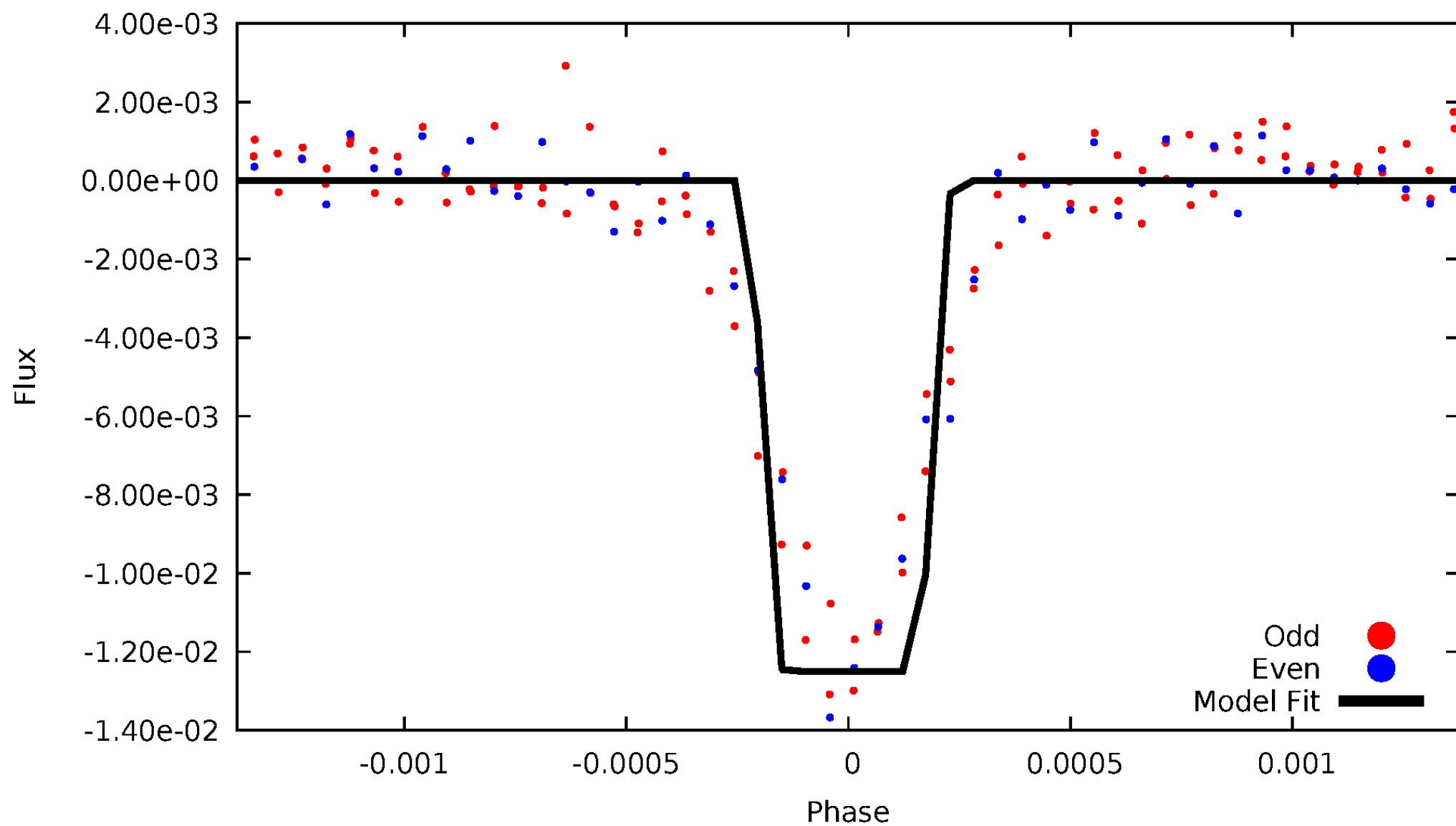
DV Odd/Even

TCE 006114118-04



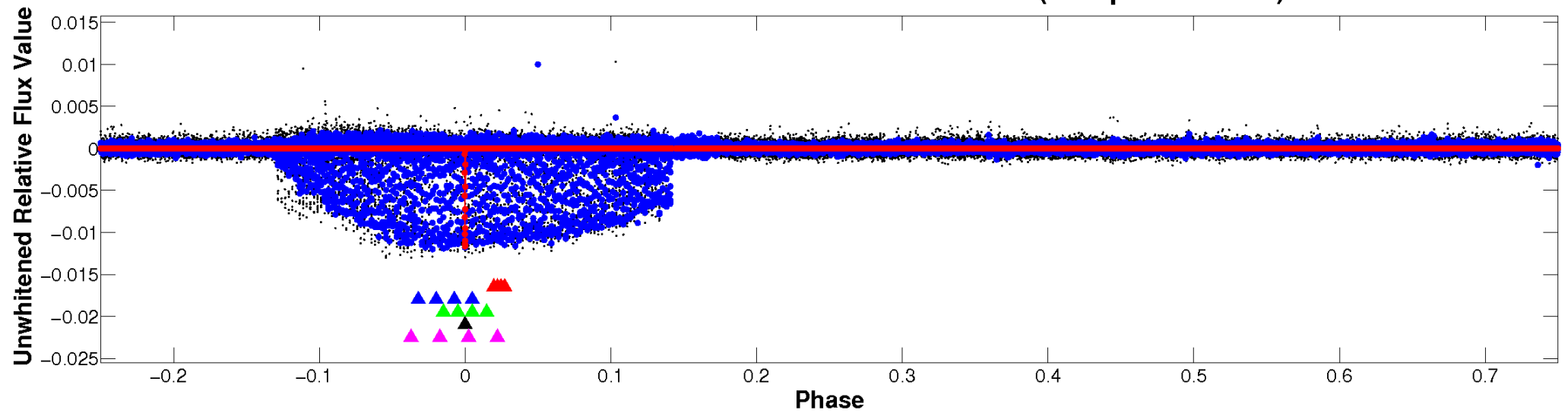
ALT Odd/Even

TCE 006114118-04

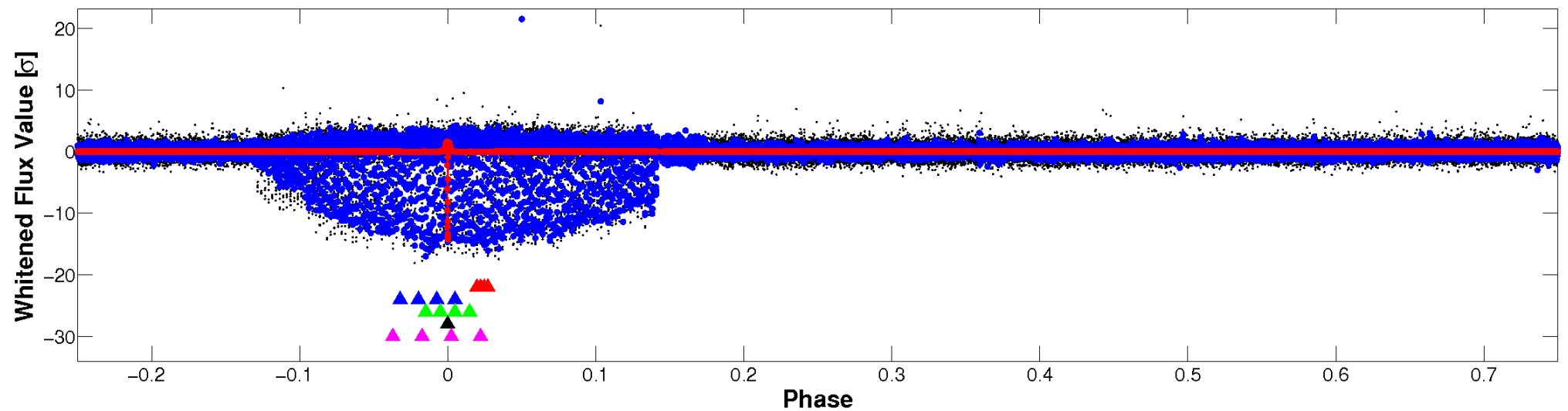


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

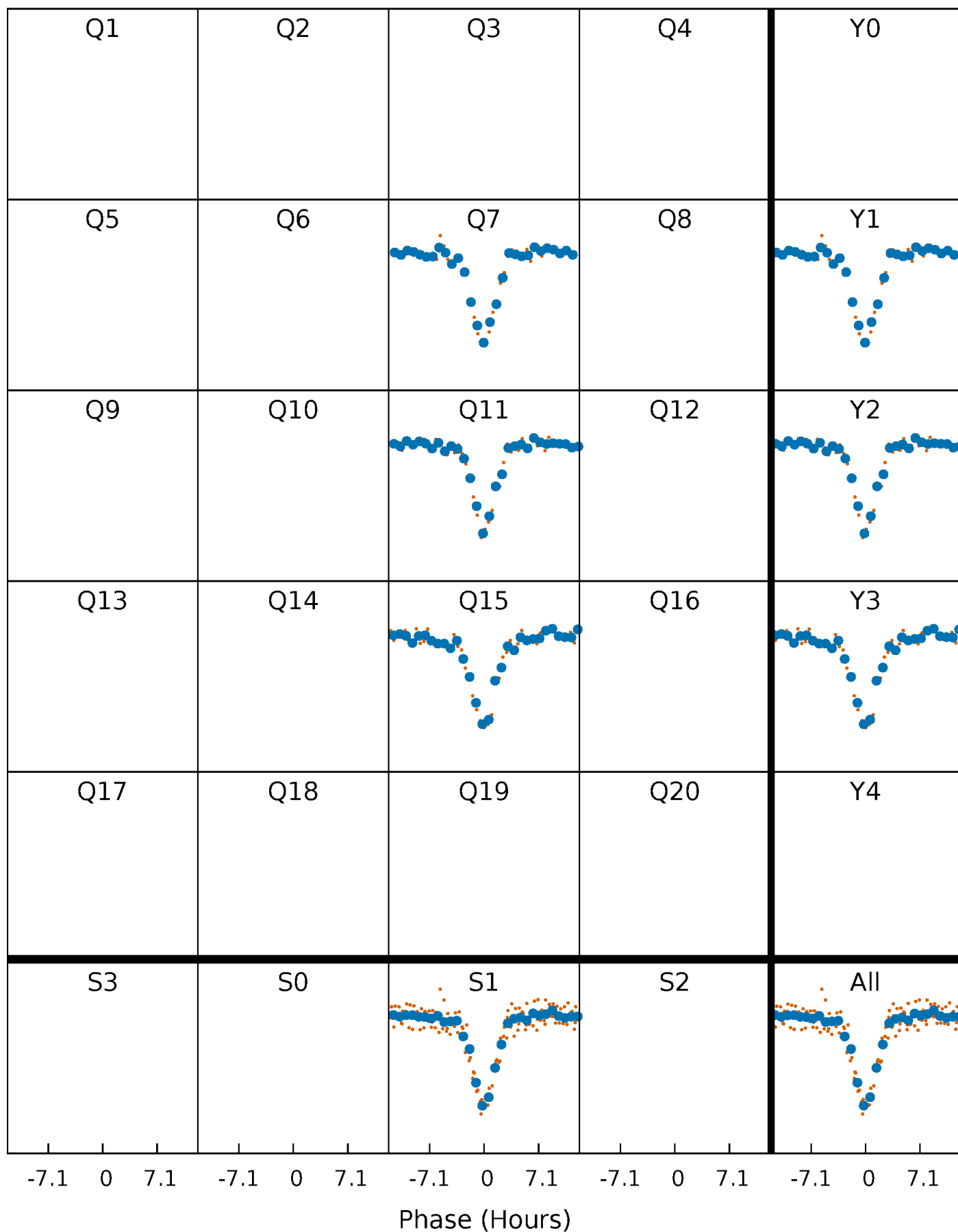


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



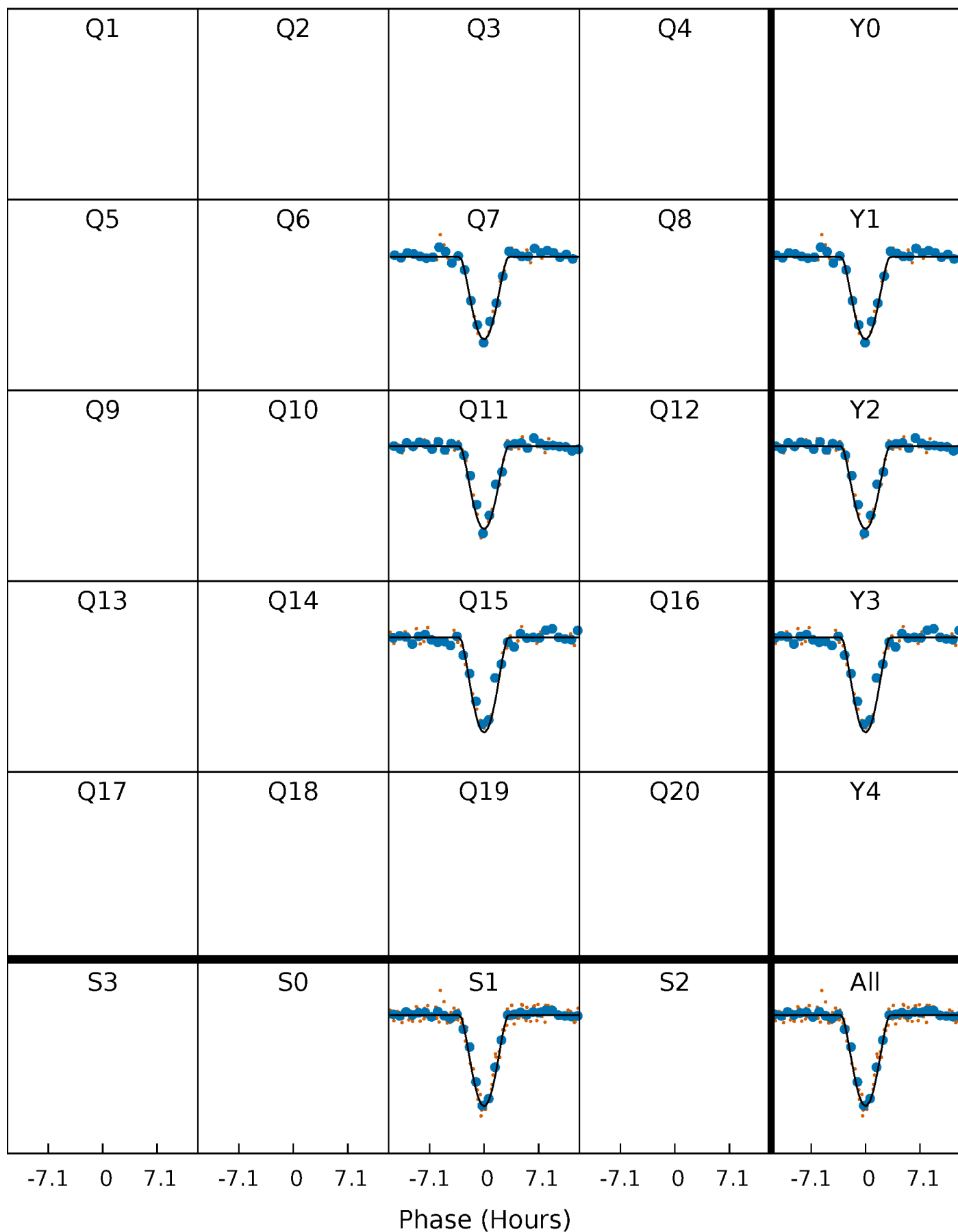
PDC Quarter-Phased Transit Curves

TCE 006114118-04 P=378.168020 Days $T_0=288.390121$ (BKJD)



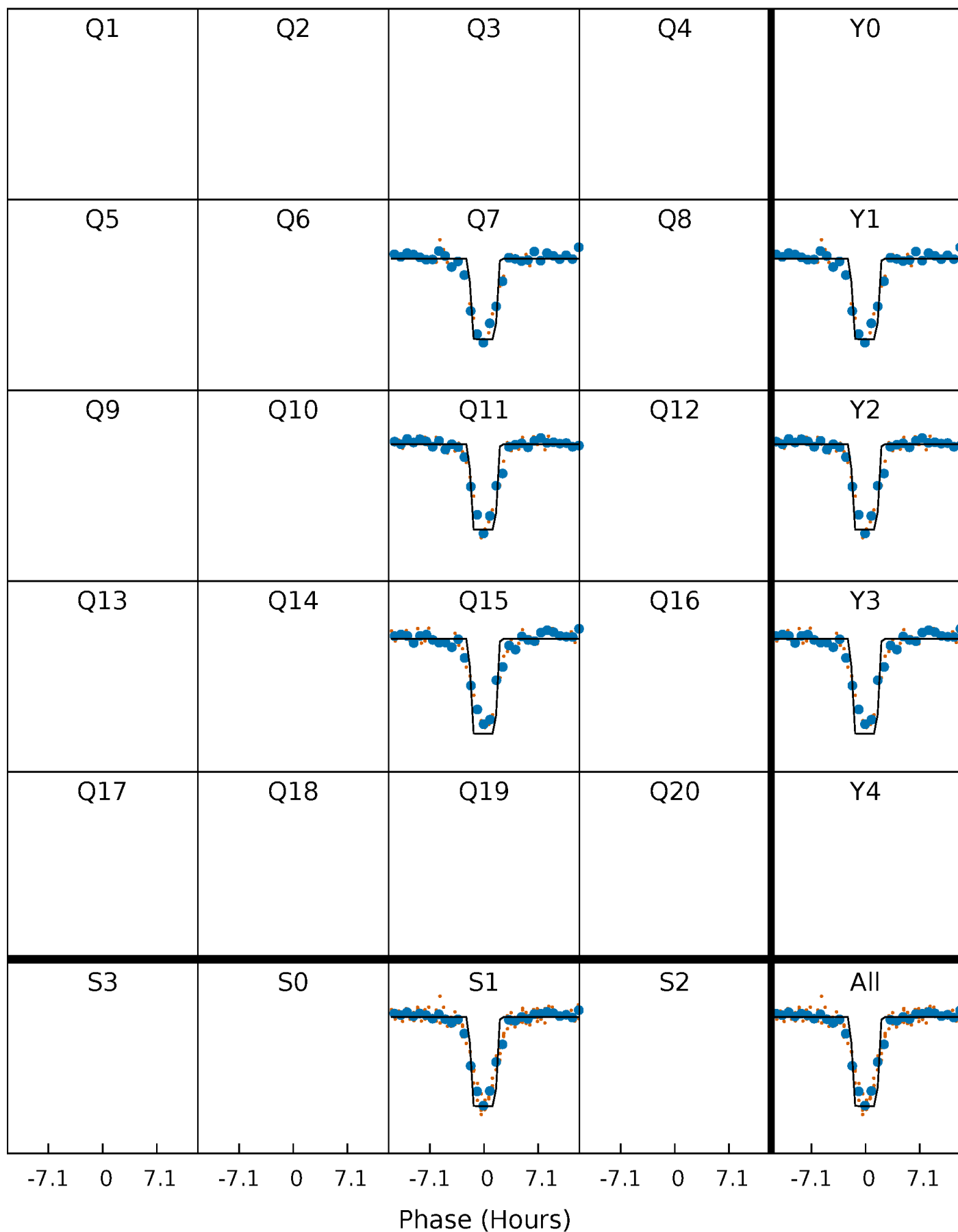
DV Quarter-Phased Transit Curves

TCE 006114118-04 P=378.168020 Days $T_0=288.390121$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

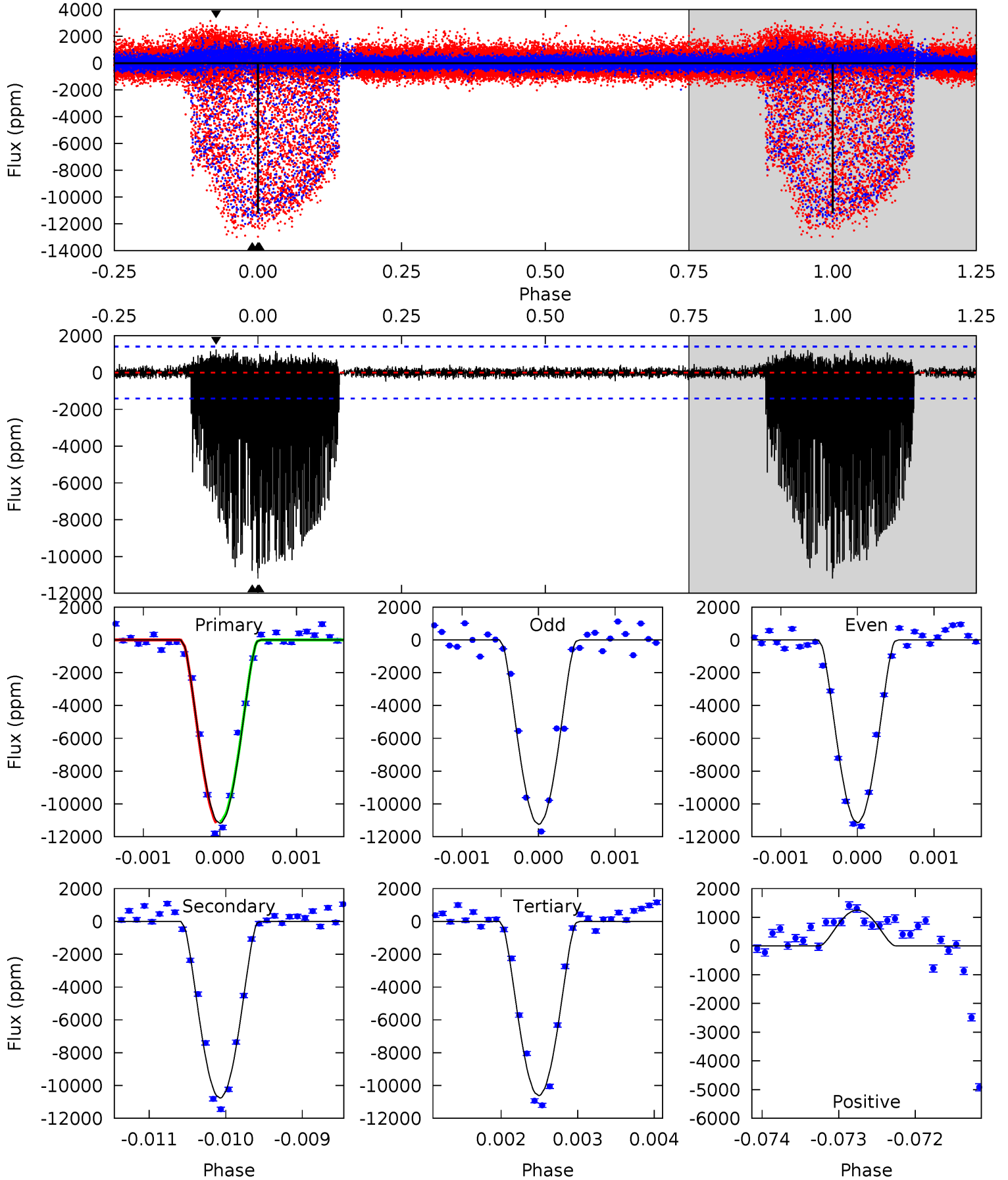
TCE 006114118-04 P=378.163895 Days $T_0=288.397436$ (BKJD)



DV Model-Shift Uniqueness Test

006114118-04, P = 378.168020 Days, E = 288.390121 Days

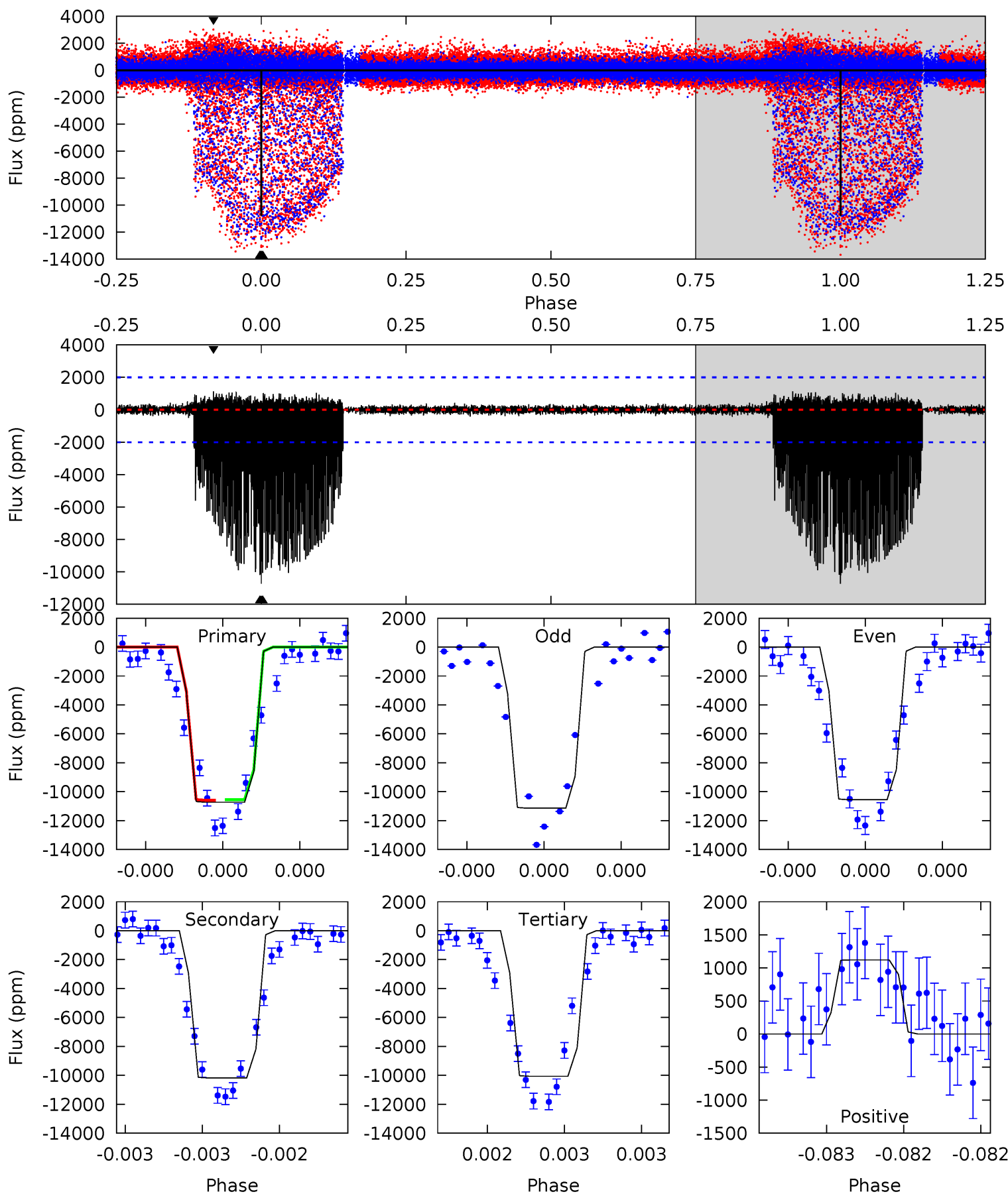
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.7	42.1	41.5	4.90	5.51	3.39	5.83	2.22	38.8	0.60	37.2	0.19	0.99	0.10	0.17



Alt Model-Shift Uniqueness Test

006114118-04, P = 378.163895 Days, E = 288.397436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	28.5	28.2	3.13	5.60	3.52	3.96	1.86	26.9	0.33	25.4	0.75	0.99	0.09	0.06



Stellar Parameters For KIC 006114118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+194}_{-259}	$4.441^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.349}_{-0.116}$	$1.107^{+0.148}_{-0.164}$	$1.351^{+0.401}_{-0.732}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+13%/-15%	+30%/-54%
Source	KIC0	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 006114118-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10772 ± 256	$27.56^{+21.82}_{-17.74}$	390^{+29}_{-22}	4365^{+2581}_{-776}	8828^{+59839}_{-6084}
Alt.	-10183 ± 357	$22.07^{+21.72}_{-14.94}$	388^{+30}_{-20}	4764^{+3642}_{-1057}	$12874^{+105726}_{-9617}$

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

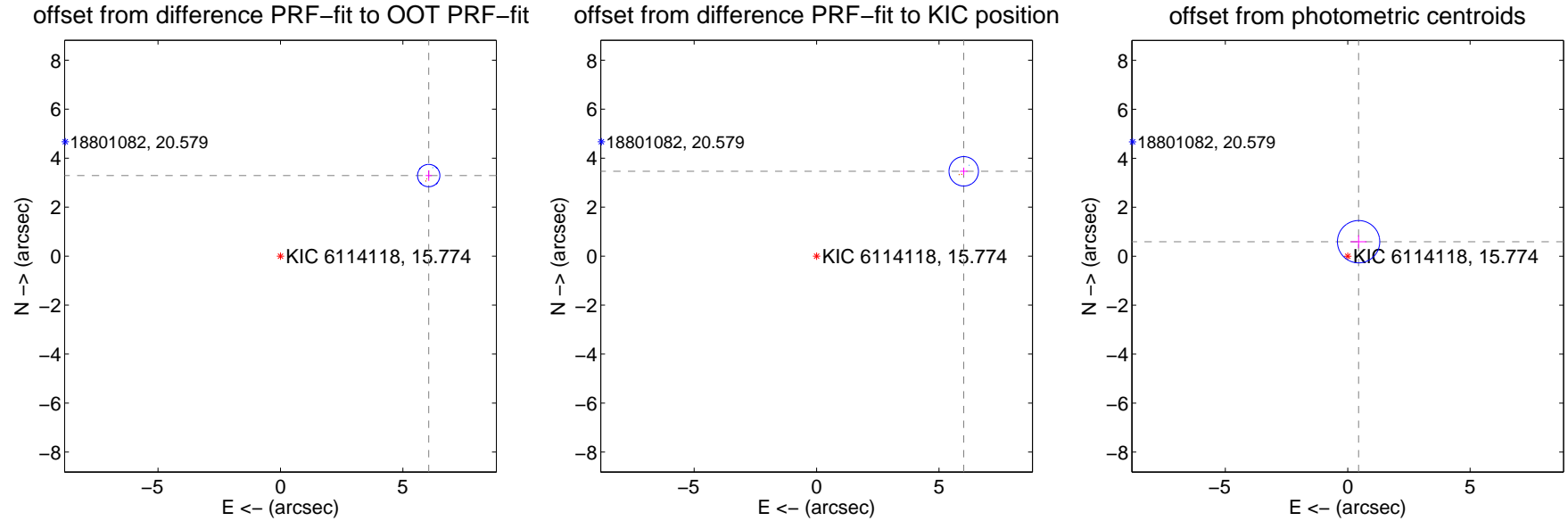
DV Centroid Data

Supplemental centroid analysis for 006114118-04. Kepler magnitude: 15.77. Transit SNR 56.10

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.891 ± 0.152	45.32	-6.055 ± 0.128	3.290 ± 0.215
PRF-fit source offset from KIC position	6.936 ± 0.200	34.62	-6.010 ± 0.155	3.463 ± 0.152
photometric centroid source offset	0.74 ± 0.29	2.57	-0.44 ± 0.32	0.59 ± 0.27



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



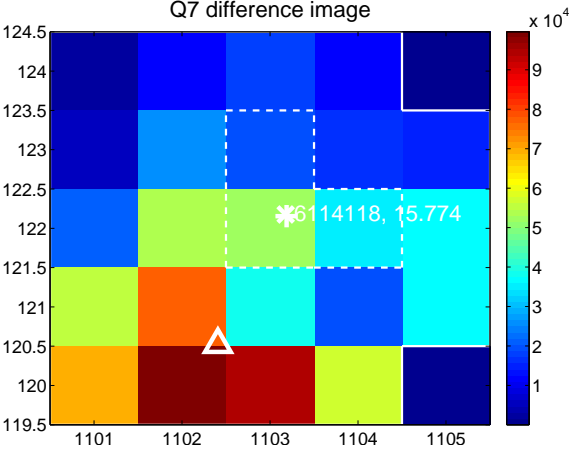
Q6 no difference image



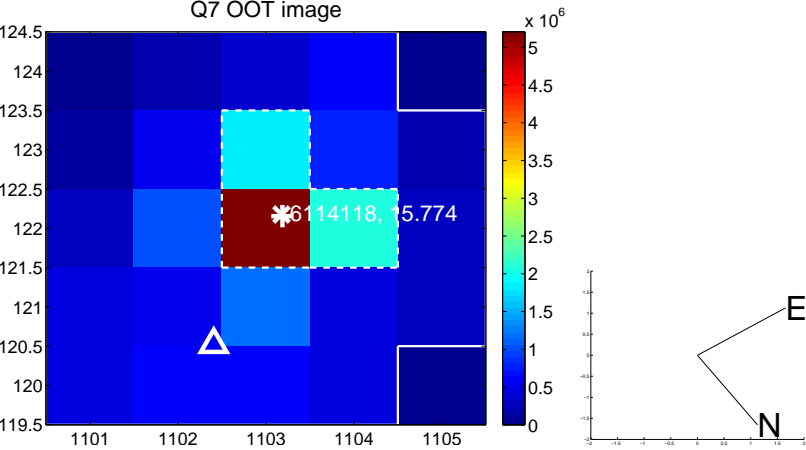
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



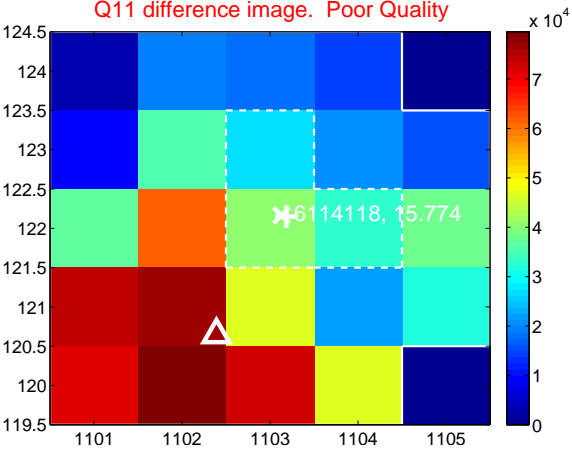
Q10 no difference image



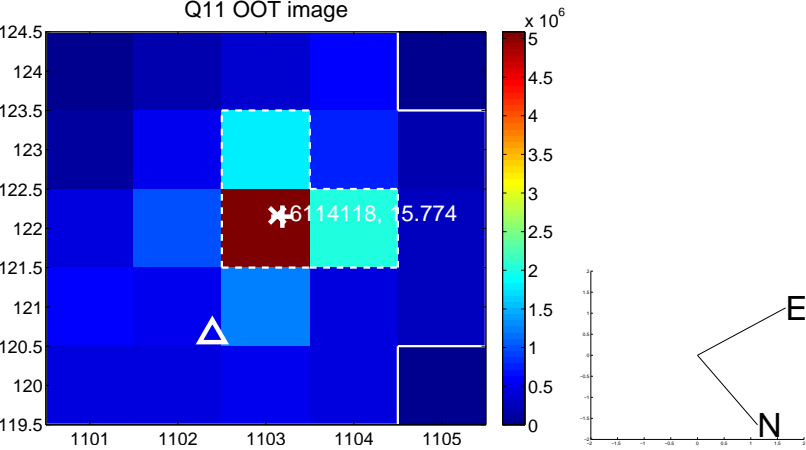
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



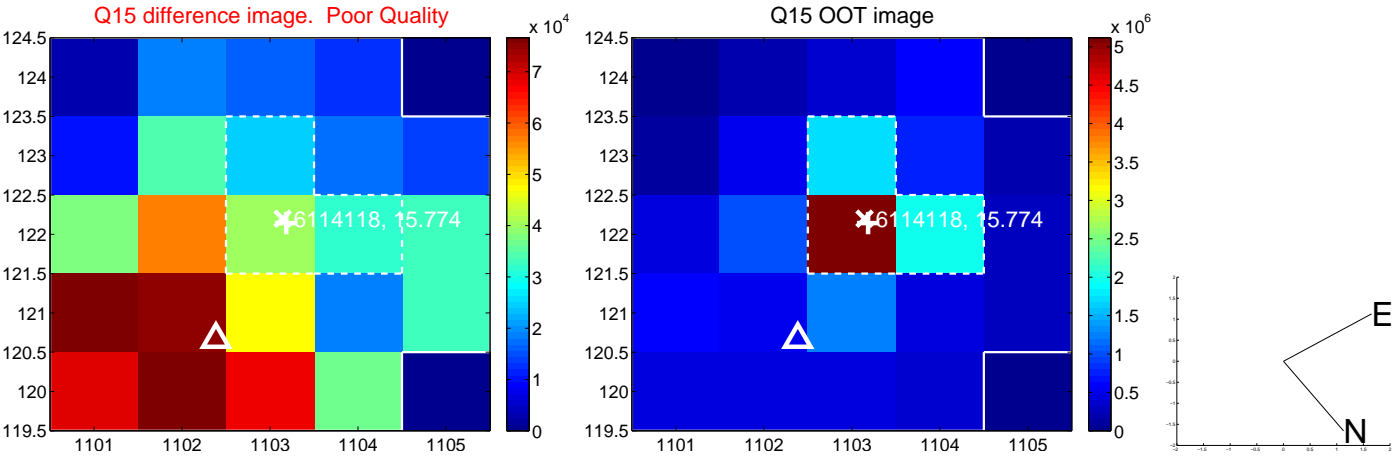
Q12 no difference image



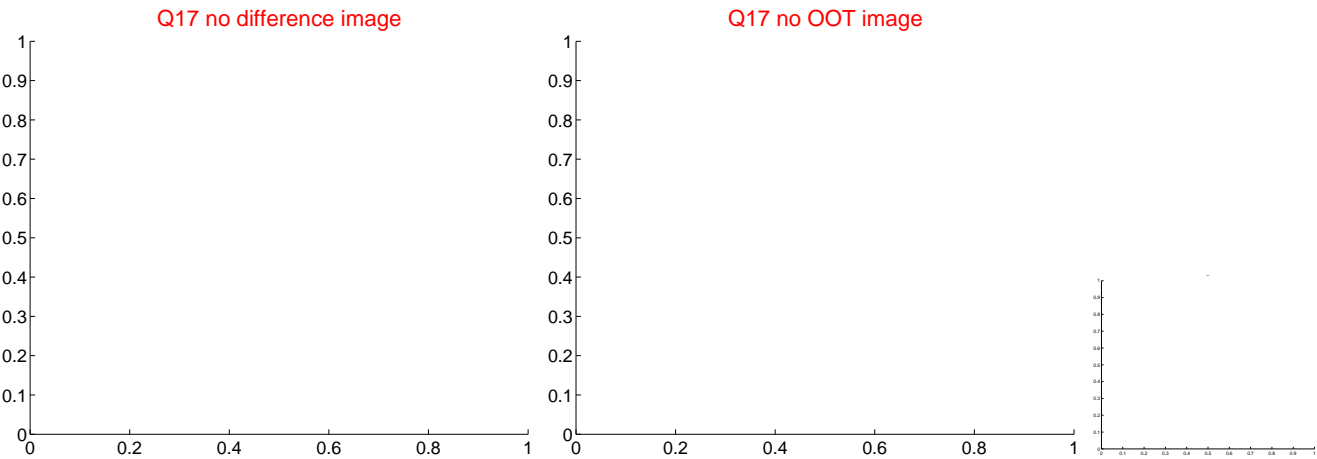
Q12 no OOT image



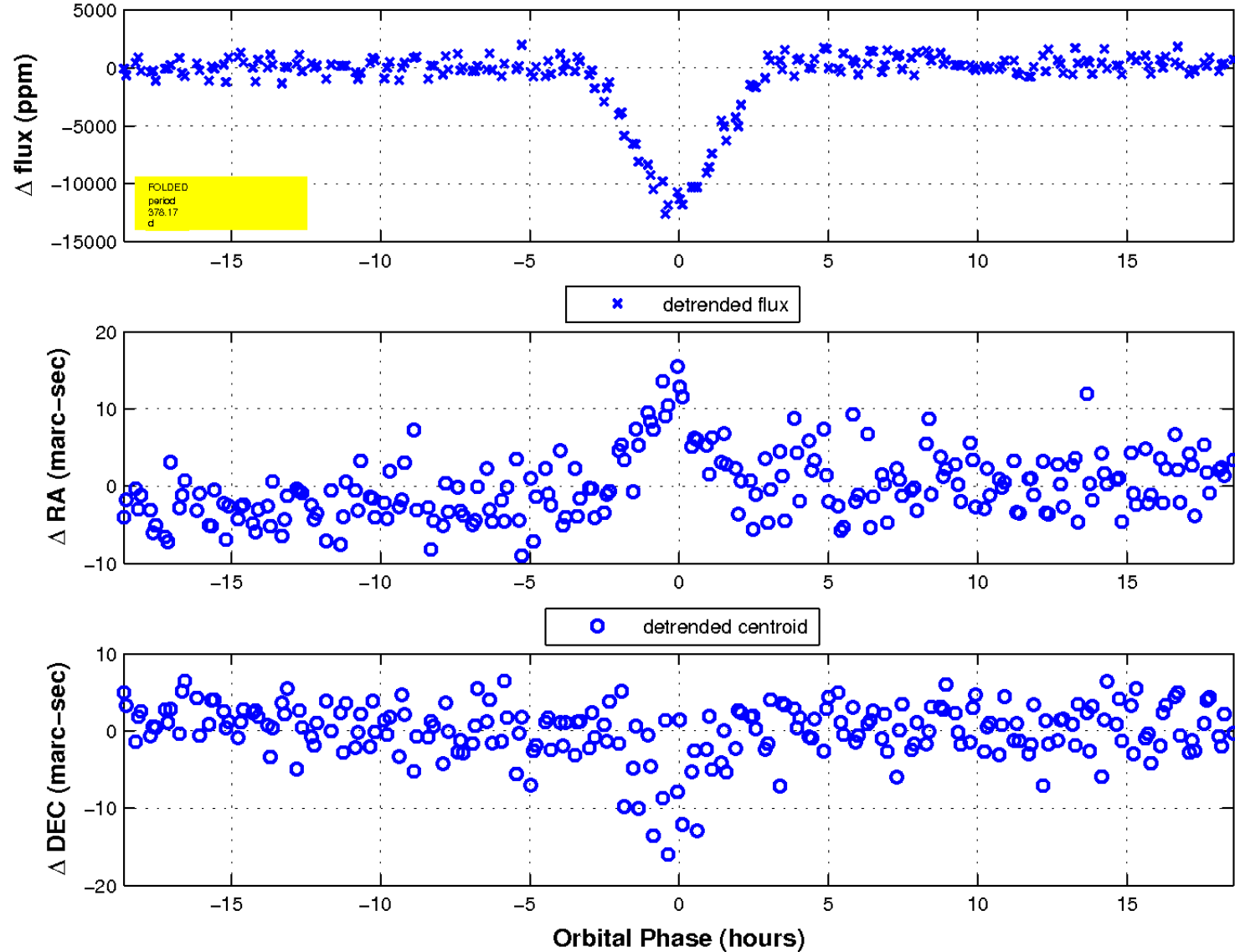
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

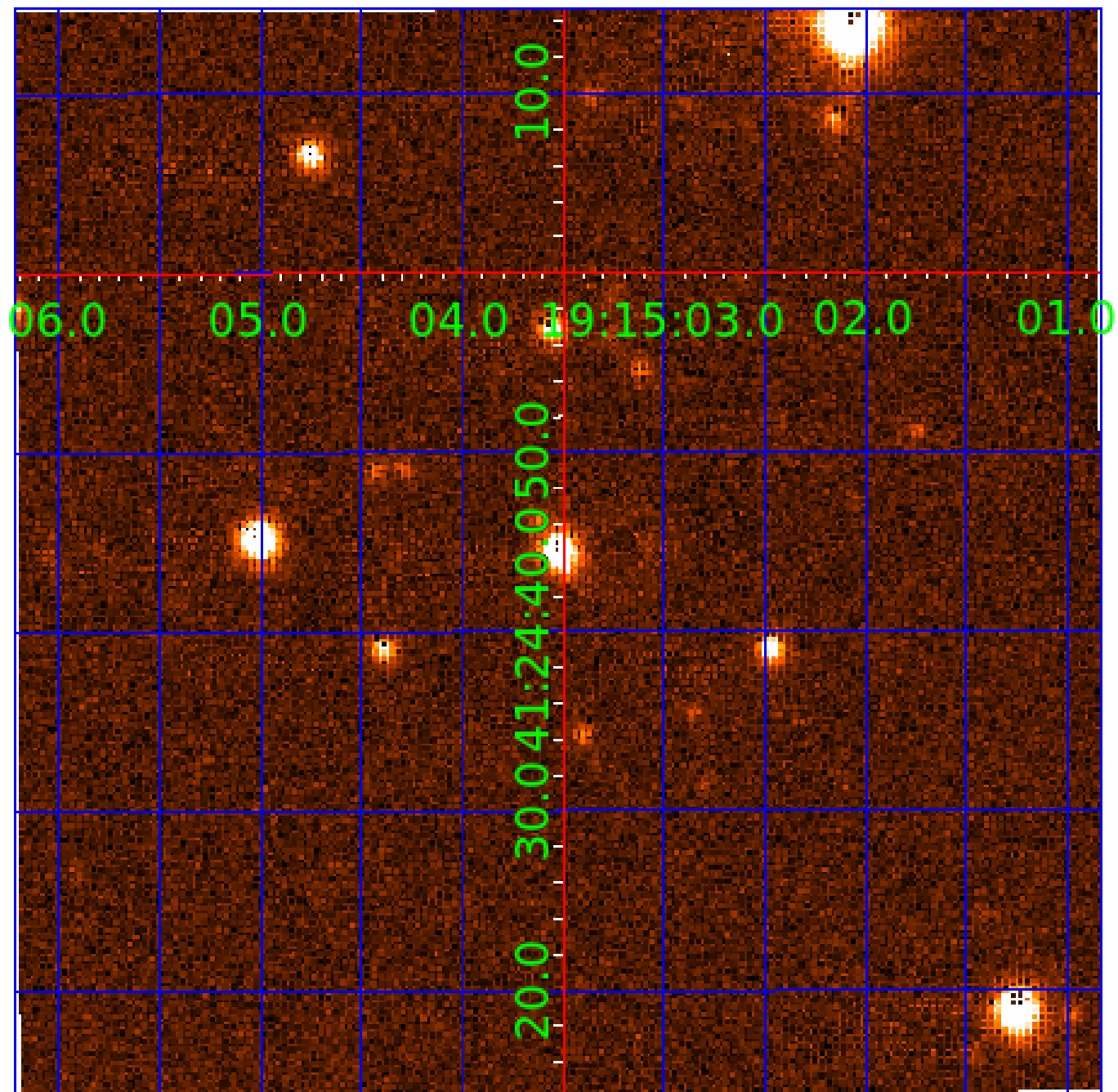


fluxWeightedCentroids, Planet 4 of 5



UKIRT Image

Declination



KIC 006114118

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})
006114118-01	OBS	No	379.104289	295.854642	11210.5	6.059	53.9	58.0	1.05	6228	19.07	1.32
006114118-02	OBS	No	373.499193	290.255038	11921.2	5.723	58.3	61.6	1.05	6228	20.25	1.34
006114118-03	OBS	No	381.902201	282.784841	11426.4	6.174	62.0	58.9	1.05	6228	17.76	1.30
006114118-04	OBS	No	378.168020	288.390121	11694.2	6.218	64.7	56.1	1.05	6228	20.10	1.32
006114118-05	OBS	No	370.696938	296.788316	8254.1	3.000	58.8	-1.0	1.05	6228	9.55	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114118-01	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-02	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-03	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
006114118-05	OBS	FP	0.00	1	0	1	0	ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

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

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

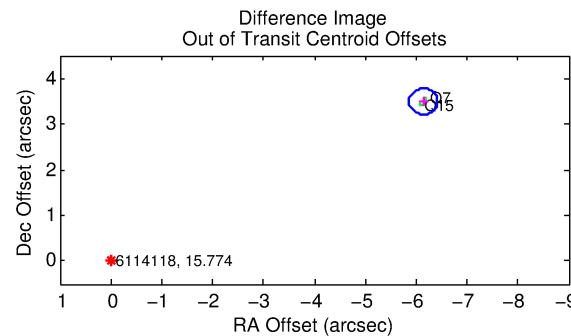
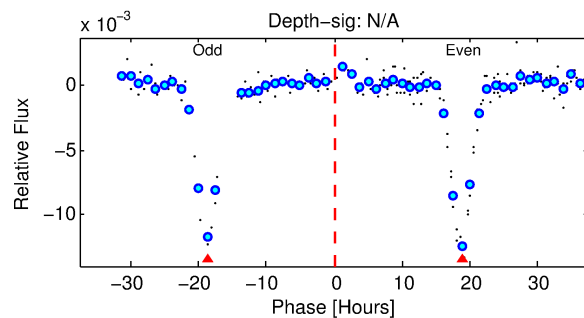
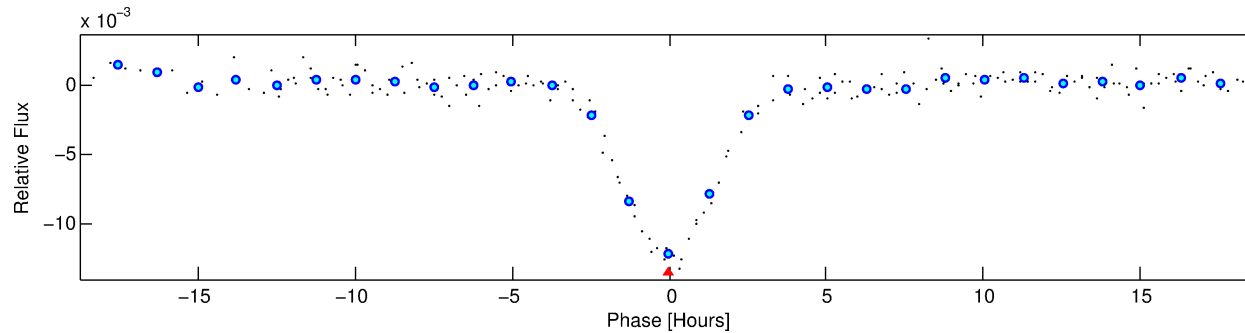
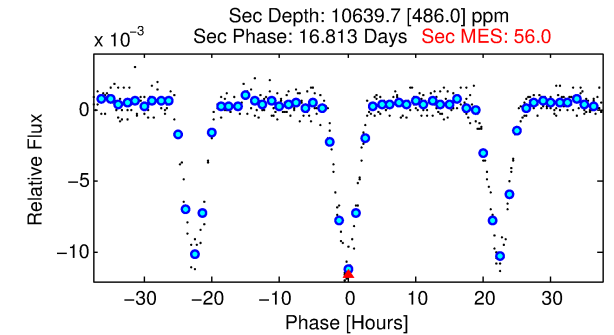
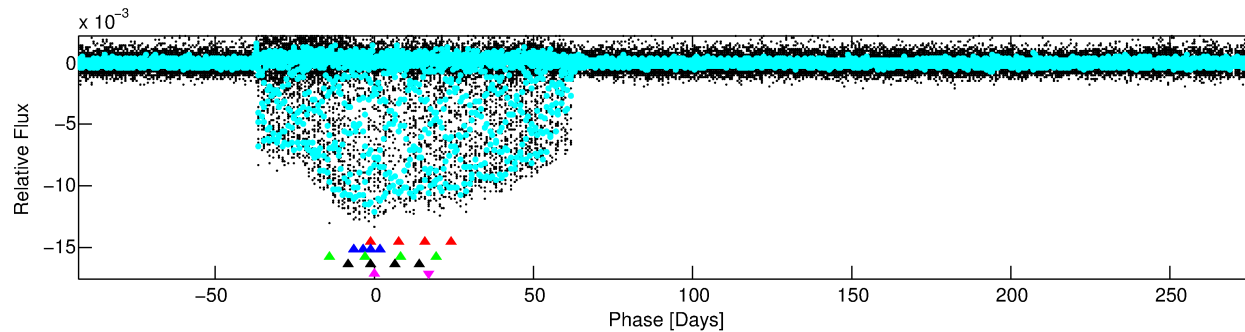
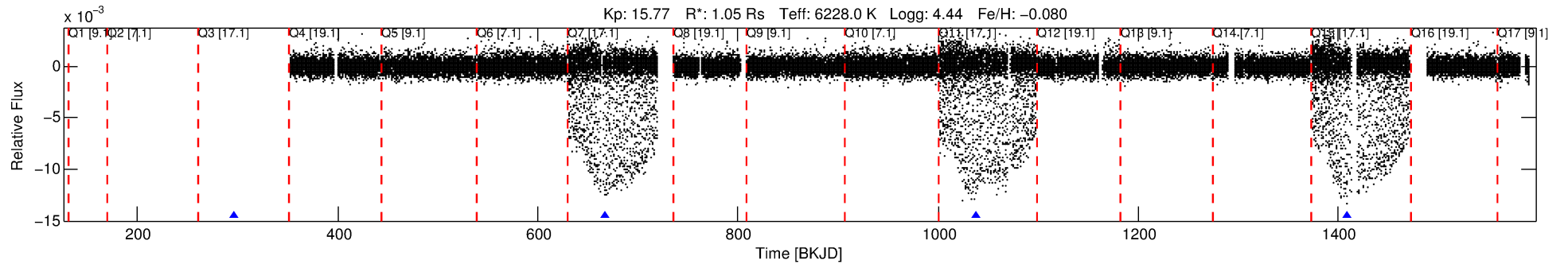
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114118-05

No Significant Match Found

DV One-Page Summary

KIC: 6114118 Candidate: 5 of 5 Period: 370.697 d



TPS TCE Results:

Period = 370.69694 d
Epoch = 296.7883 BKJD

DV fit results are unavailable

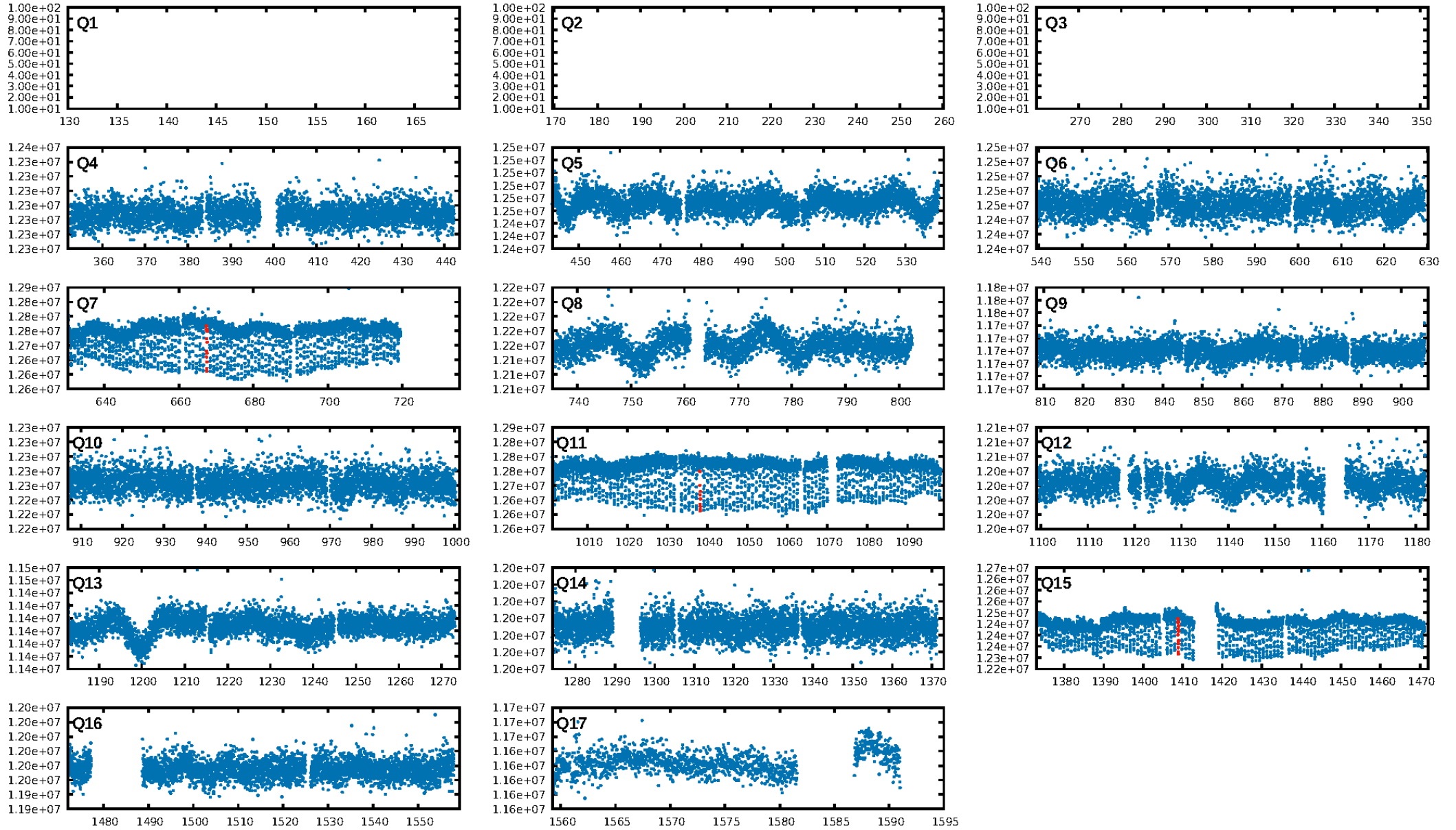
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [10.41 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.03174
Centroid-sig: N/A
Centroid-so: 0.714 arcsec [3.44 σ]
OotOffset-rm: 7.066 arcsec [75.33 σ]
KicOffset-rm: 7.153 arcsec [71.66 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

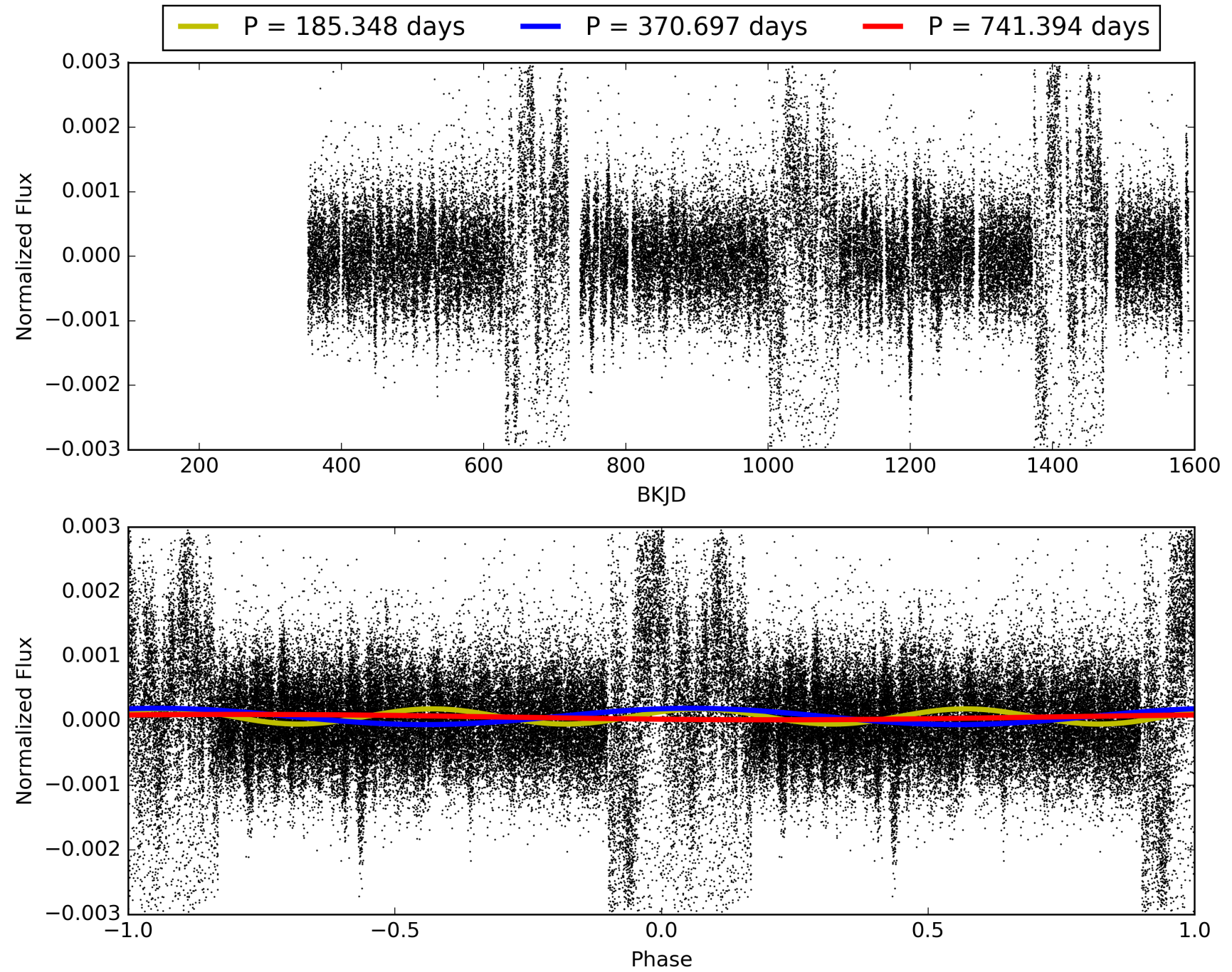
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:27:24 Z

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

TCE 006114118-05, PDC Light Curves

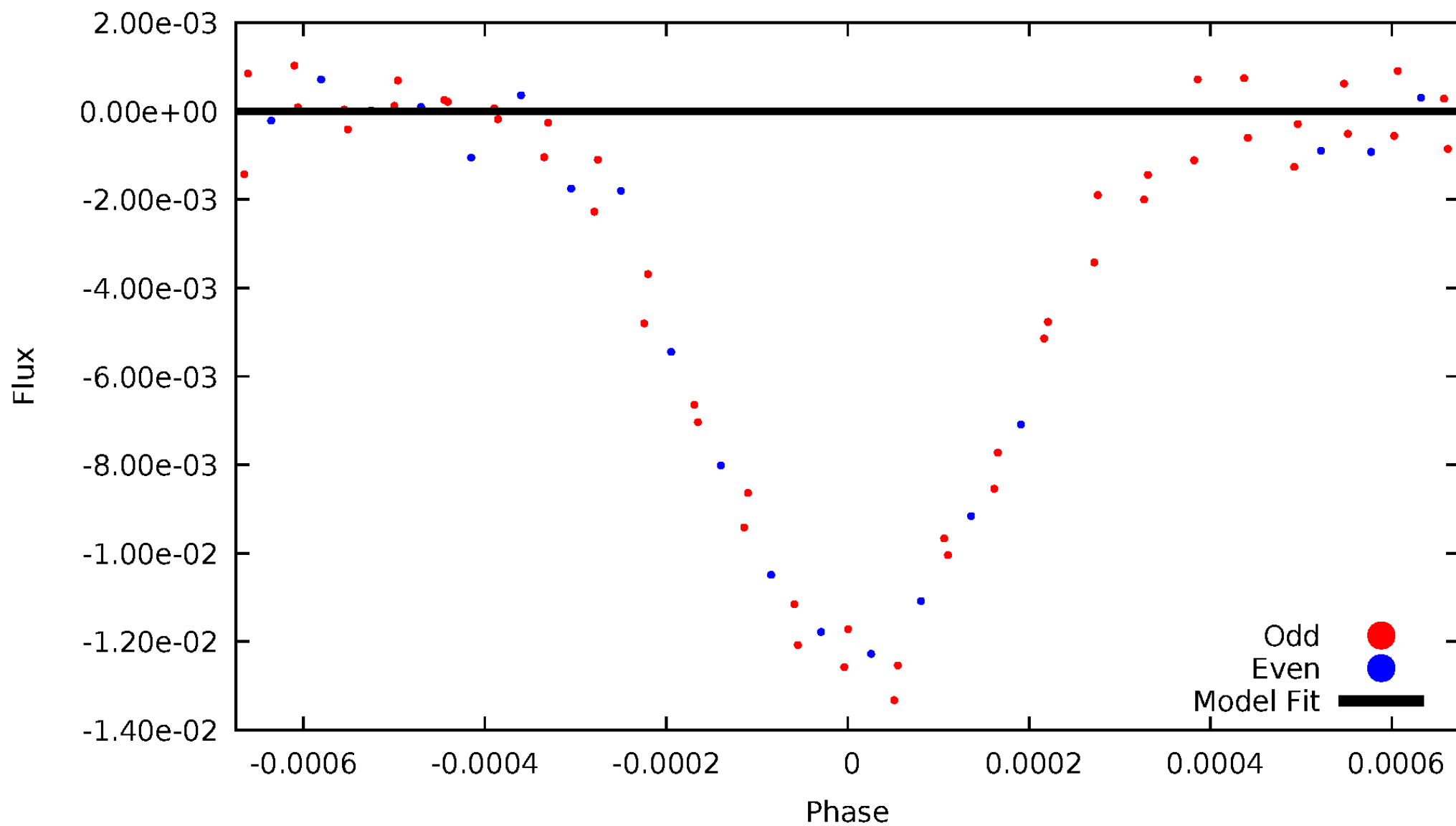


TCE 006114118-05



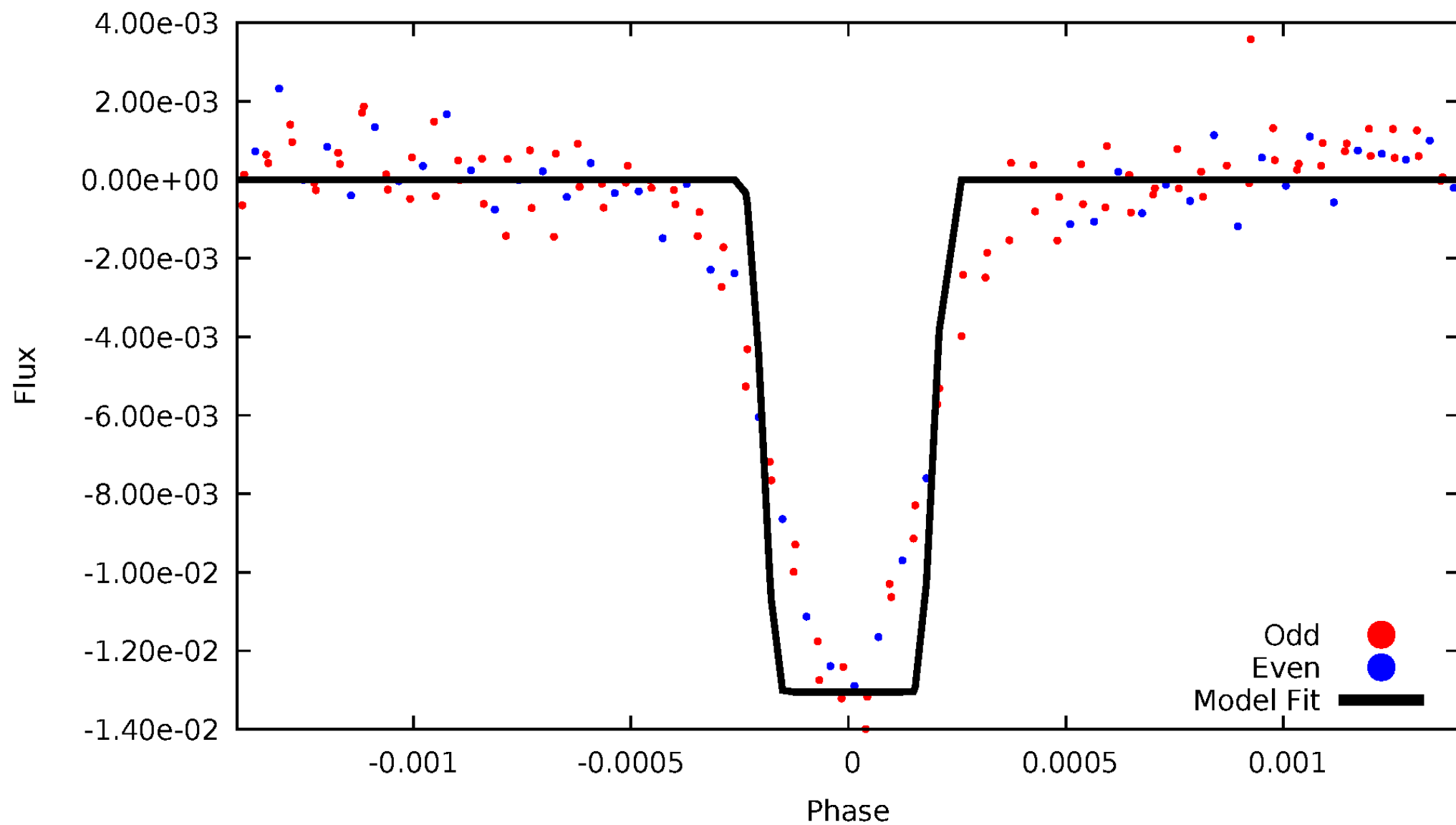
DV Odd/Even

TCE 006114118-05



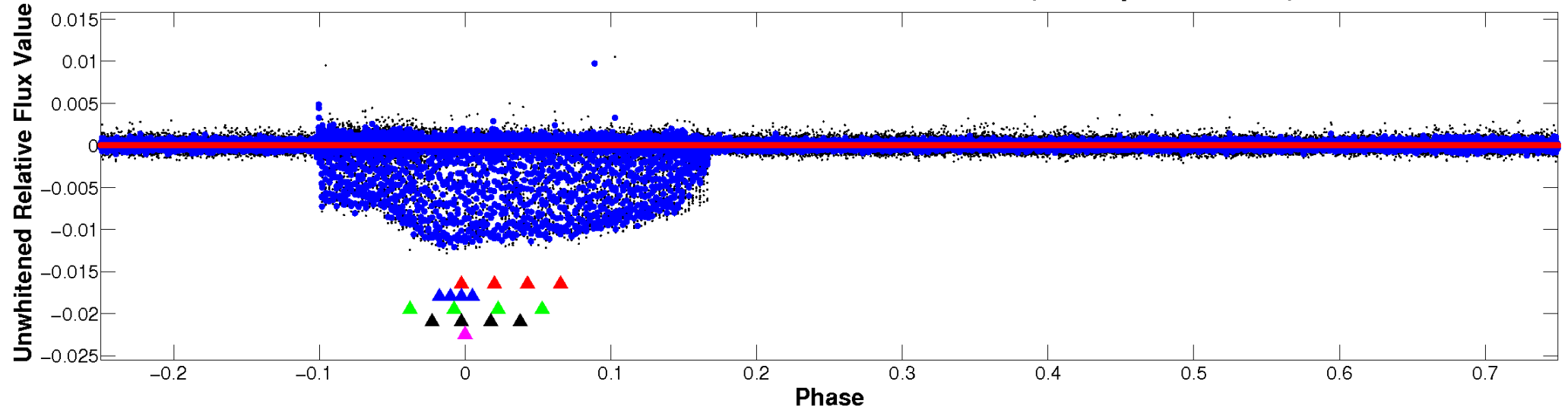
ALT Odd/Even

TCE 006114118-05

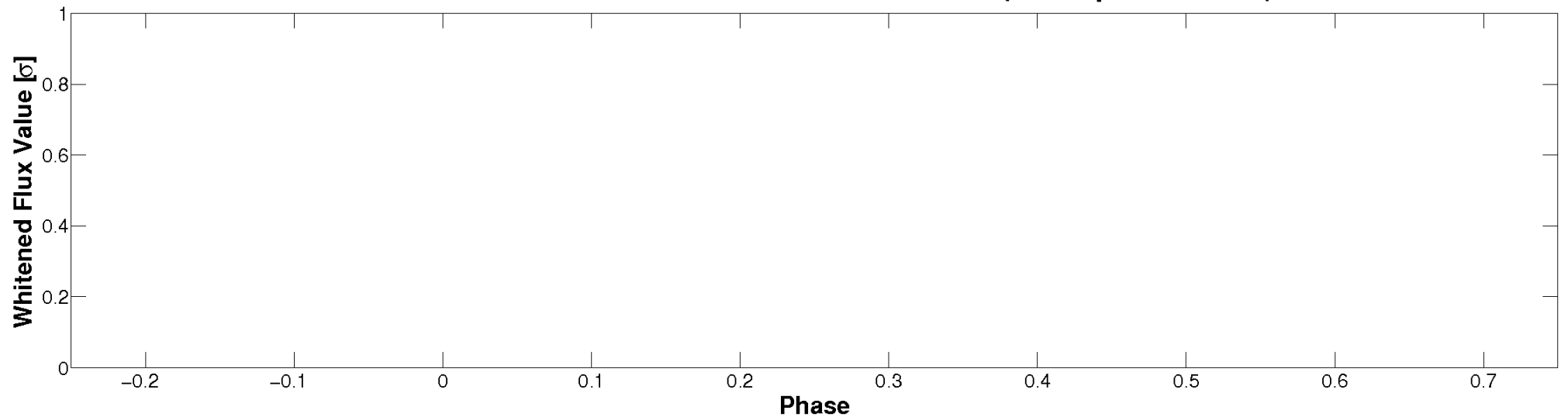


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

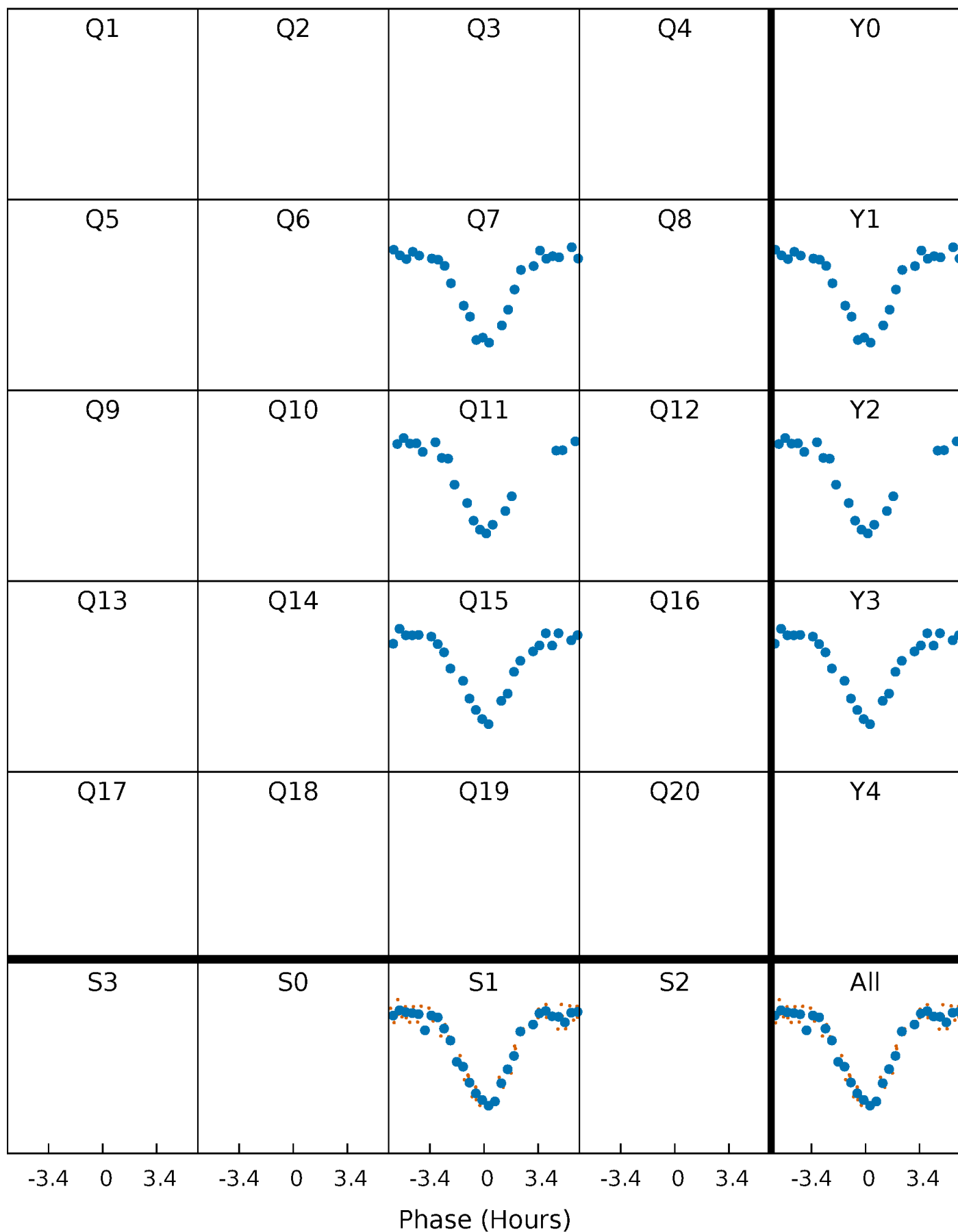


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



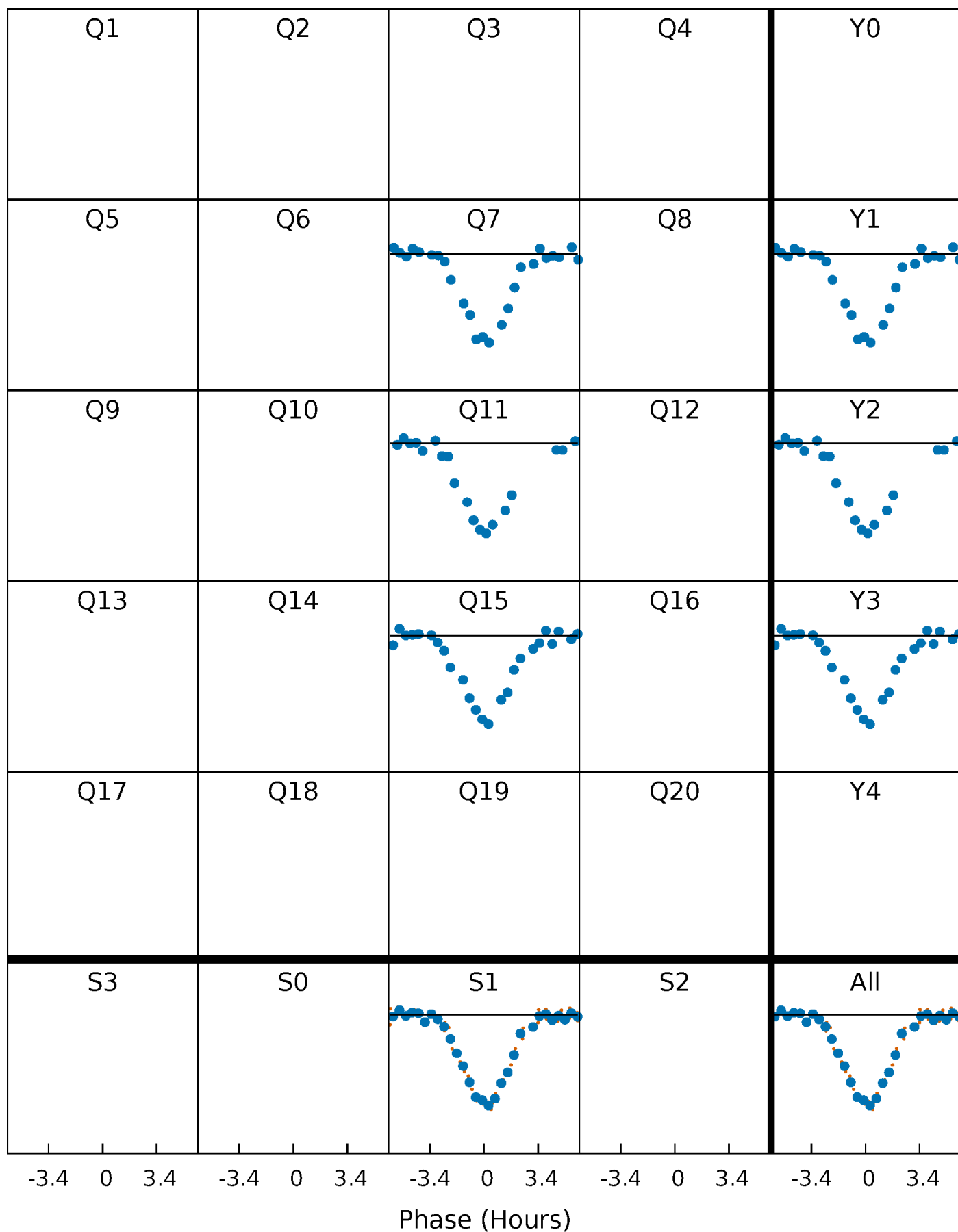
PDC Quarter-Phased Transit Curves

TCE 006114118-05 $P=370.696938$ Days $T_0=296.788316$ (BKJD)



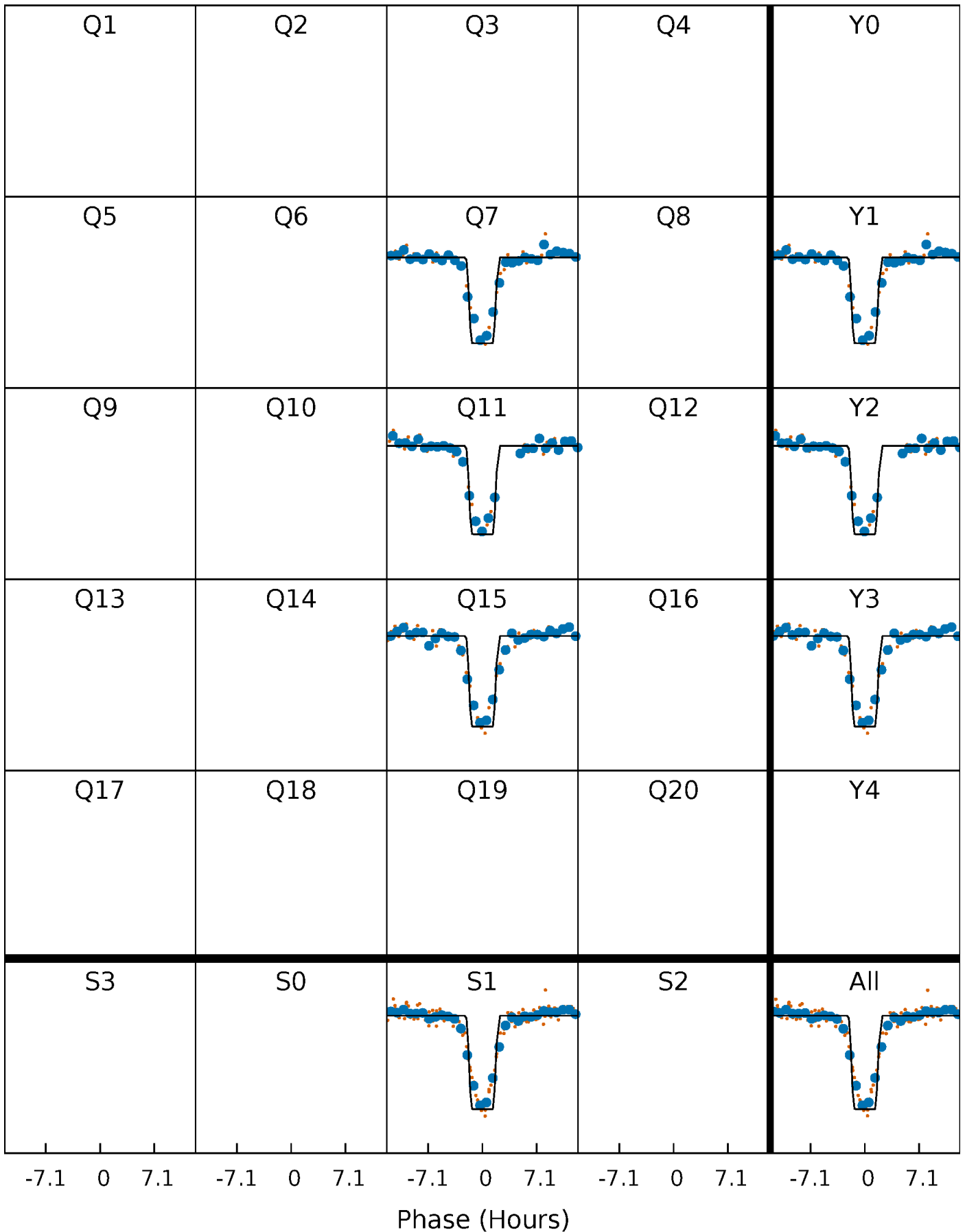
DV Quarter-Phased Transit Curves

TCE 006114118-05 $P=370.696938$ Days $T_0=296.788316$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

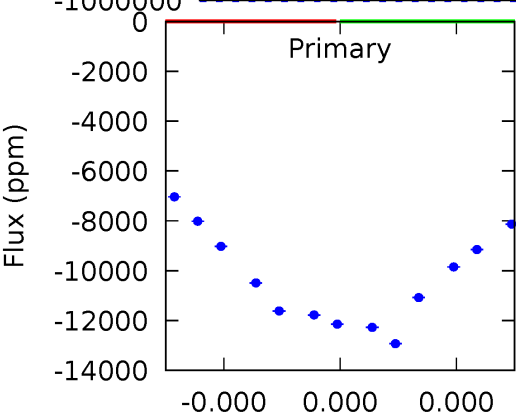
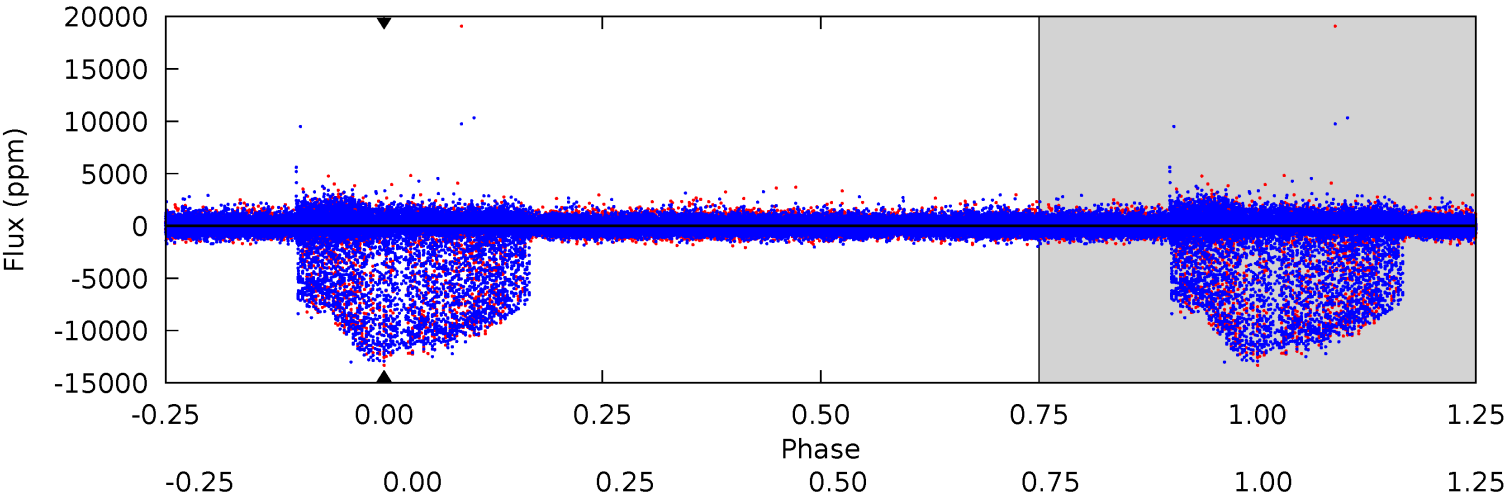
TCE 006114118-05 $P=370.696938$ Days $T_0=296.792618$ (BKJD)



DV Model-Shift Uniqueness Test

006114118-05, P = 370.696938 Days, E = 296.788316 Days

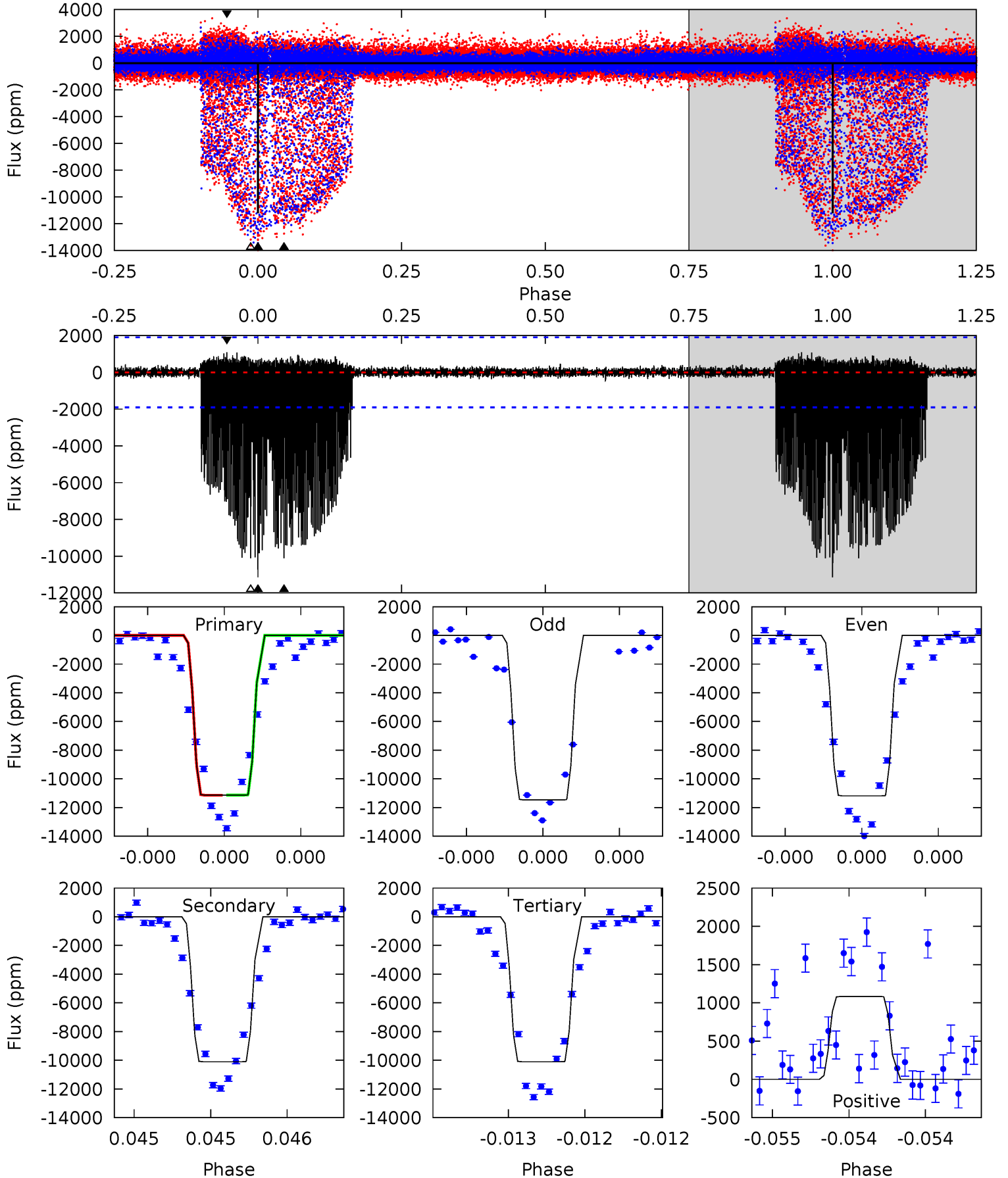
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006114118-05, P = 370.696938 Days, E = 296.792618 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	29.5	29.5	3.16	5.58	3.49	4.11	3.01	29.4	0.01	26.4	0.39	1.01	0.09	0.01



Stellar Parameters For KIC 006114118

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+194}_{-259}	$4.441^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.349}_{-0.116}$	$1.107^{+0.148}_{-0.164}$	$1.351^{+0.401}_{-0.732}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+13%/-15%	+30%/-54%
Source	KIC0	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 006114118-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$13.08^{+10.94}_{-8.78}$	391^{+31}_{-23}	4849^{+12682}_{-20304}	$13254^{+659573}_{-563092}$
Alt.	-10109 ± 342	$15.47^{+11.12}_{-9.50}$	391^{+32}_{-21}	5447^{+3796}_{-1073}	$24961^{+145114}_{-16479}$

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

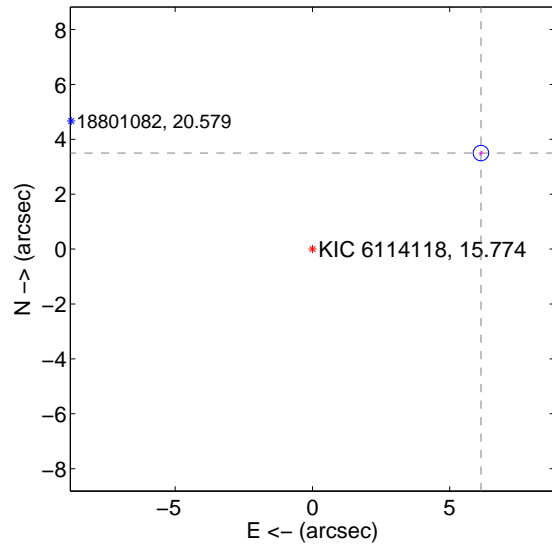
Supplemental centroid analysis for 006114118-05. Kepler magnitude: 15.77. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

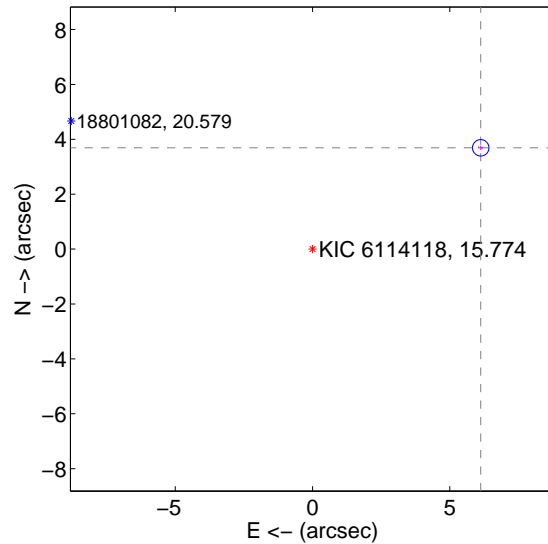
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.066 ± 0.094	75.33	-6.139 ± 0.079	3.498 ± 0.090
PRF-fit source offset from KIC position	7.153 ± 0.100	71.66	-6.128 ± 0.106	3.690 ± 0.081
photometric centroid source offset	0.71 ± 0.21	3.44	-0.19 ± 0.23	0.69 ± 0.21

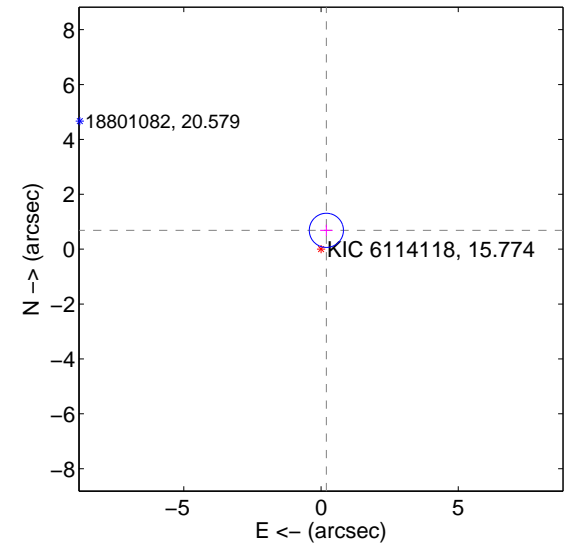
offset from difference PRF-fit to OOT PRF-fit



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



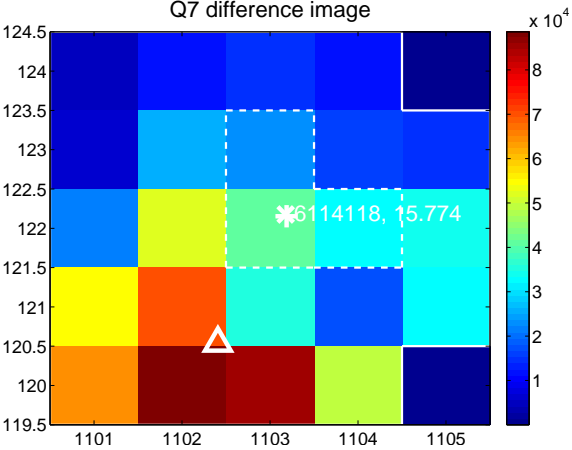
Q6 no difference image



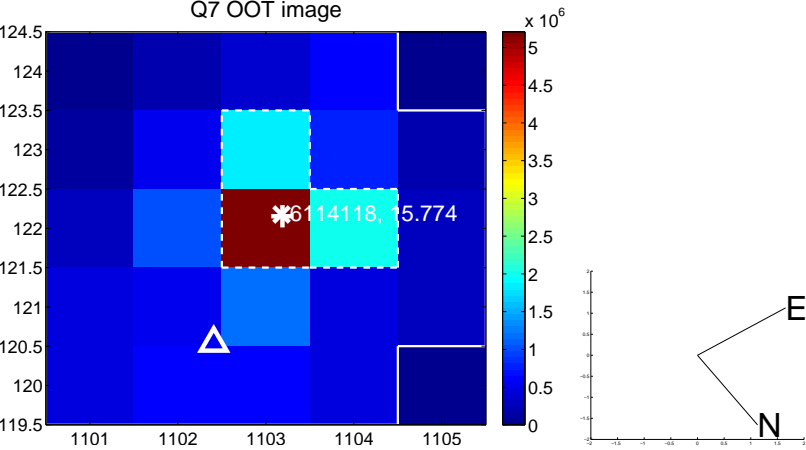
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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



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

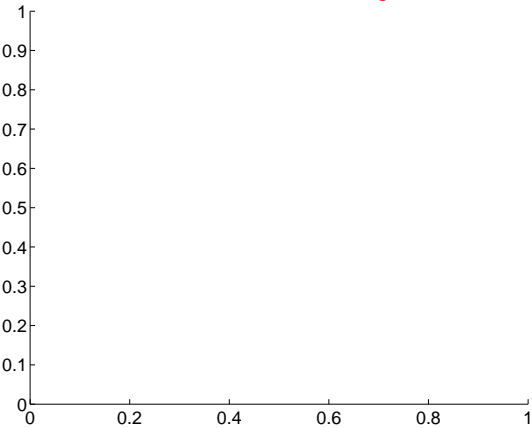
Q13 no difference image



Q13 no OOT image



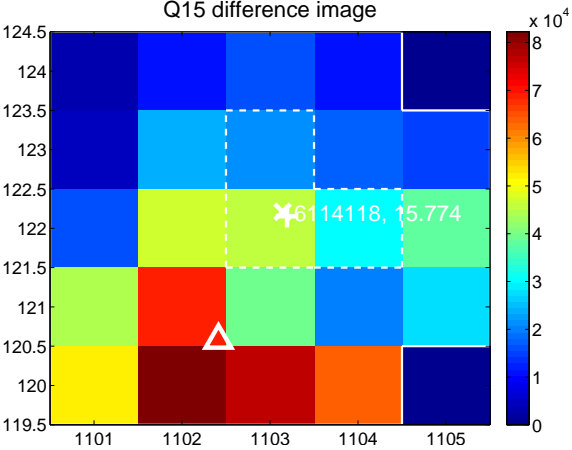
Q14 no difference image



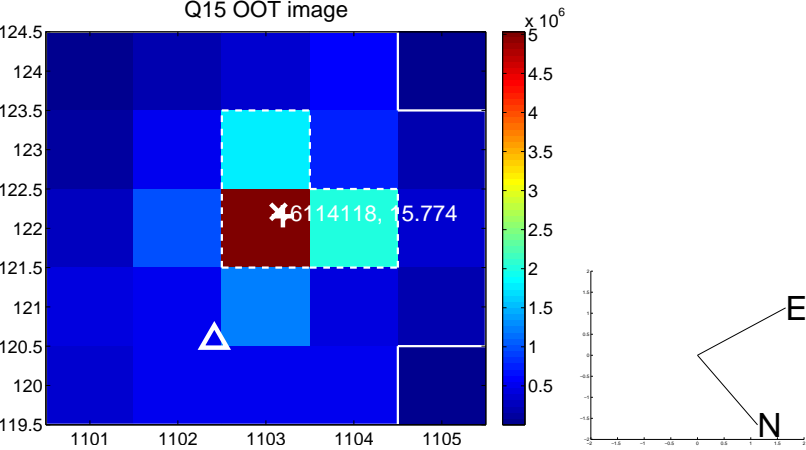
Q14 no OOT image



Q15 difference image



Q15 OOT image



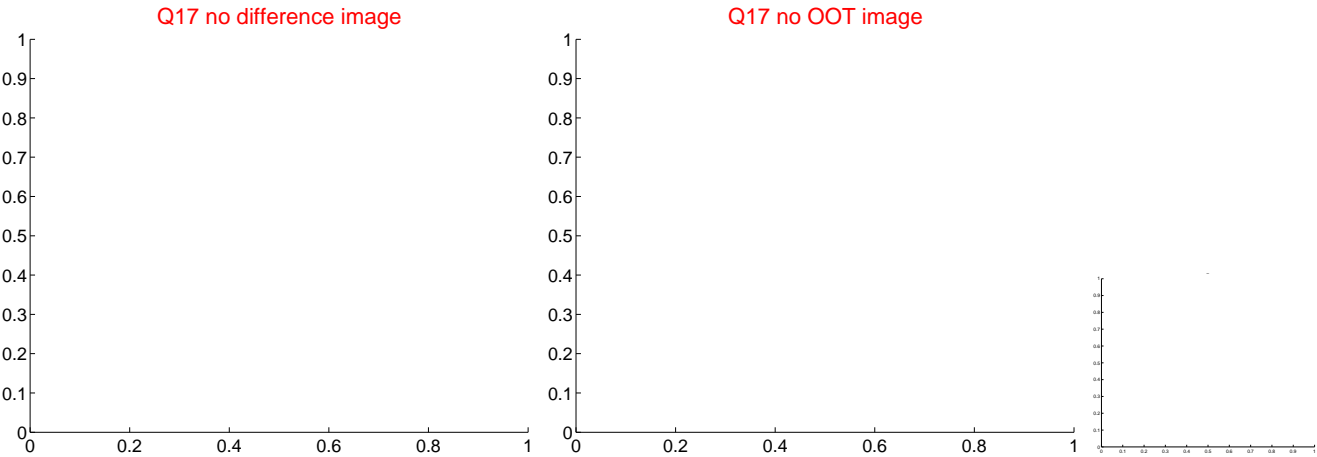
Q16 no difference image



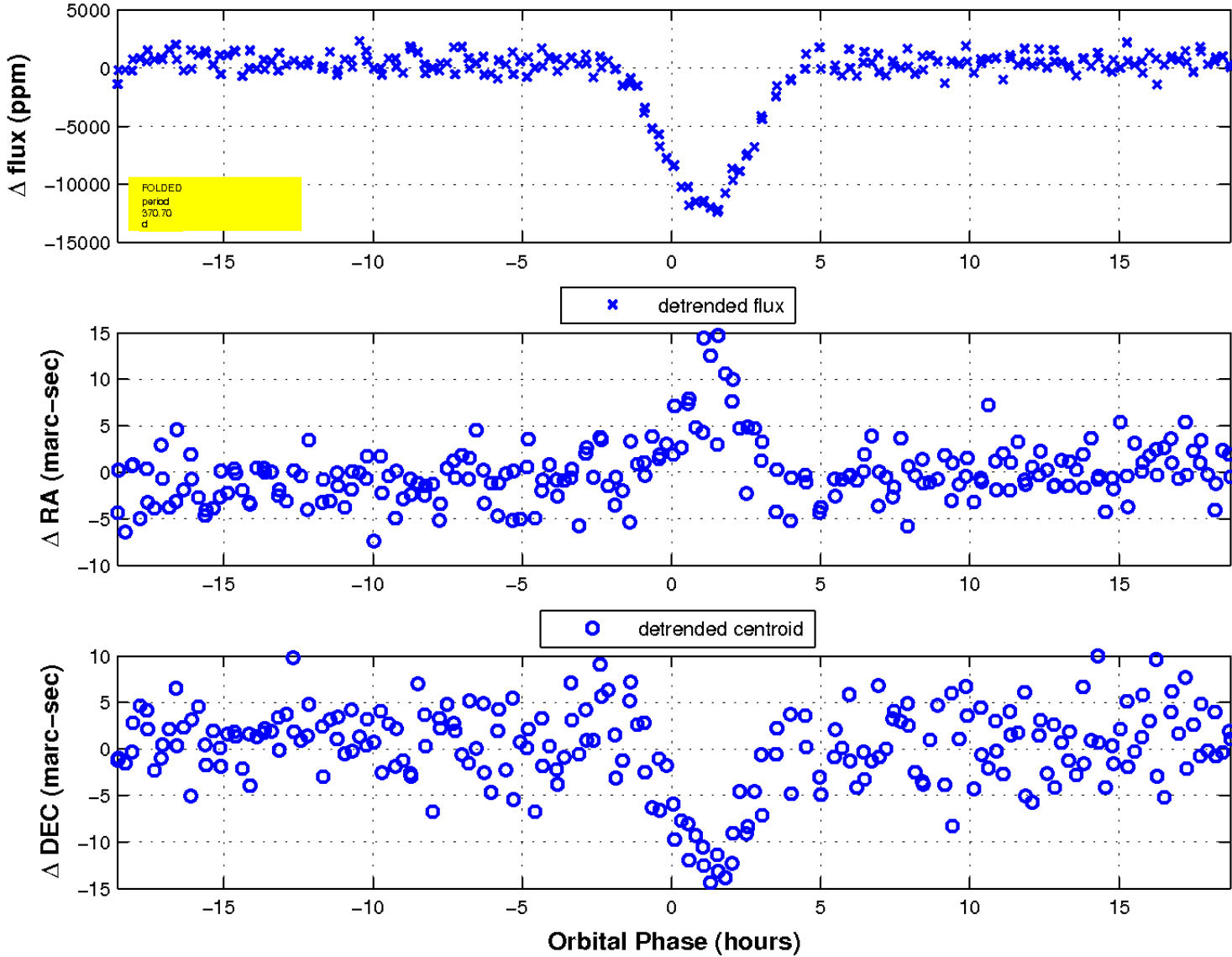
Q16 no OOT image



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



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

