

KIC 004932663

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})
004932663-01	OBS	No	356.919919	476.035115	1111.8	6.798	19.6	3.6	0.86	5628	2.96	0.78
004932663-02	OBS	No	510.542759	529.608889	1615.5	4.581	15.1	4.6	0.86	5628	3.59	0.48
004932663-03	OBS	No	494.357518	215.675232	1575.5	5.103	13.2	5.5	0.86	5628	3.45	0.51
004932663-04	OBS	No	317.496748	257.246959	1823.4	19.873	12.9	5.1	0.86	5628	3.91	0.91
004932663-05	OBS	No	207.080983	335.186069	1718.7	1.980	10.7	6.4	0.86	5628	3.79	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004932663-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004932663-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004932663-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

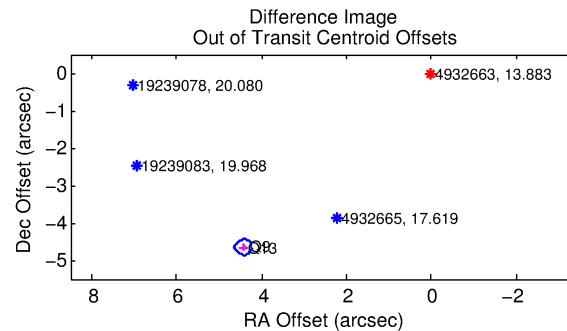
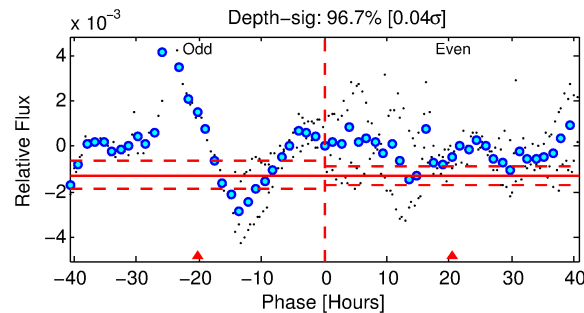
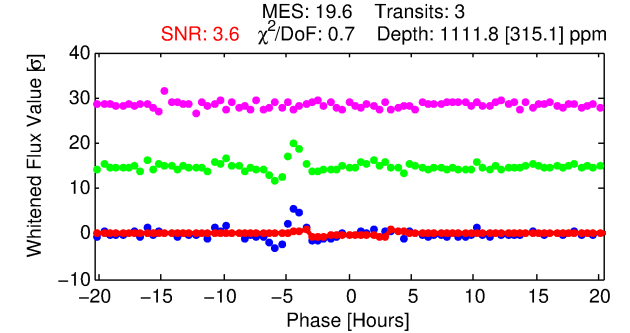
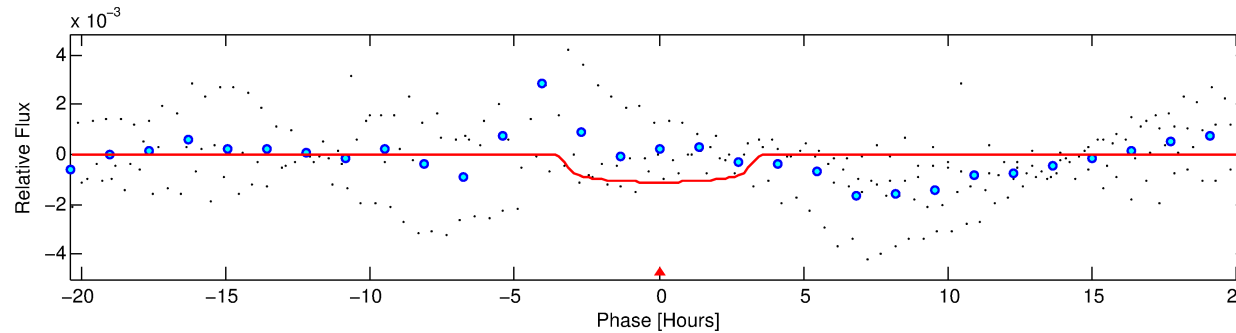
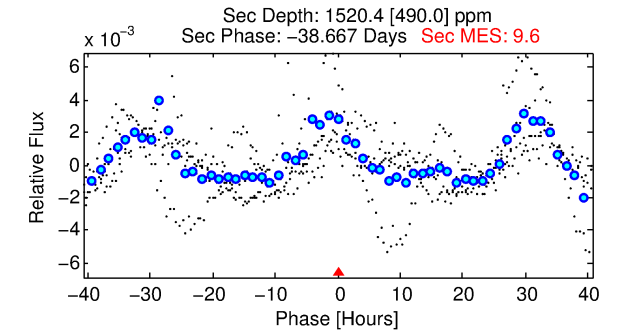
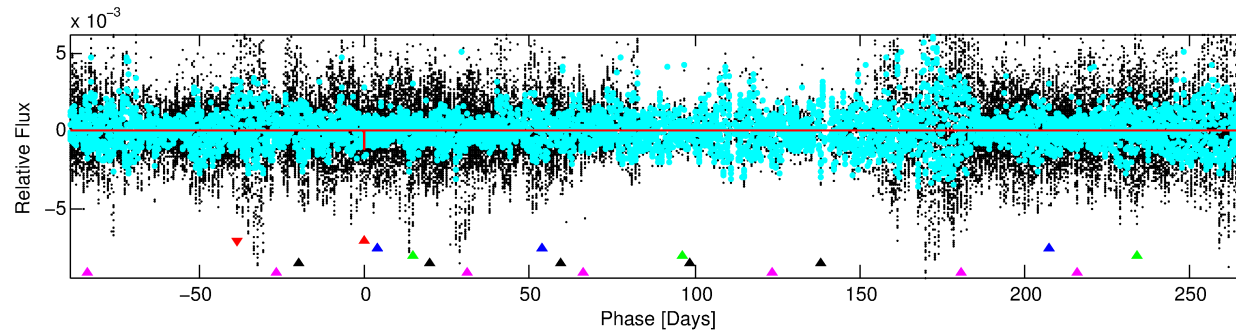
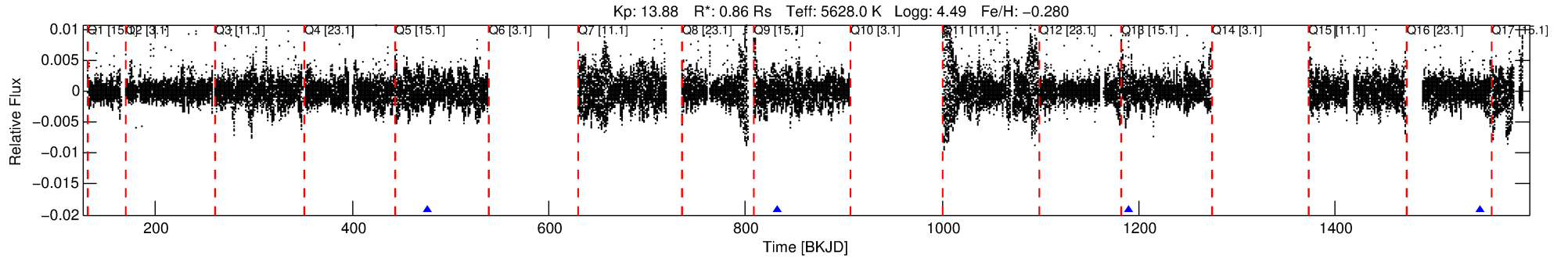
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004932663-01

No Significant Match Found

DV One-Page Summary

KIC: 4932663 Candidate: 1 of 5 Period: 356.920 d



DV Fit Results:

Period = 356.91992 [0.00653] d
Epoch = 476.0351 [0.0143] BKJD
Rp/R* = 0.0314 [0.0199]
a/R* = 354.32 [908.75]
b = 0.53 [3.49]
Seff = 0.78 [0.24]
Teq = 240 [18] K
Rp = 2.96 [2.01] Re
a = 0.9284 [0.1869] AU
Ag = 82172.55 [110280.47] [0.75σ]
Teffp = 6273 [2062] K [2.93σ]

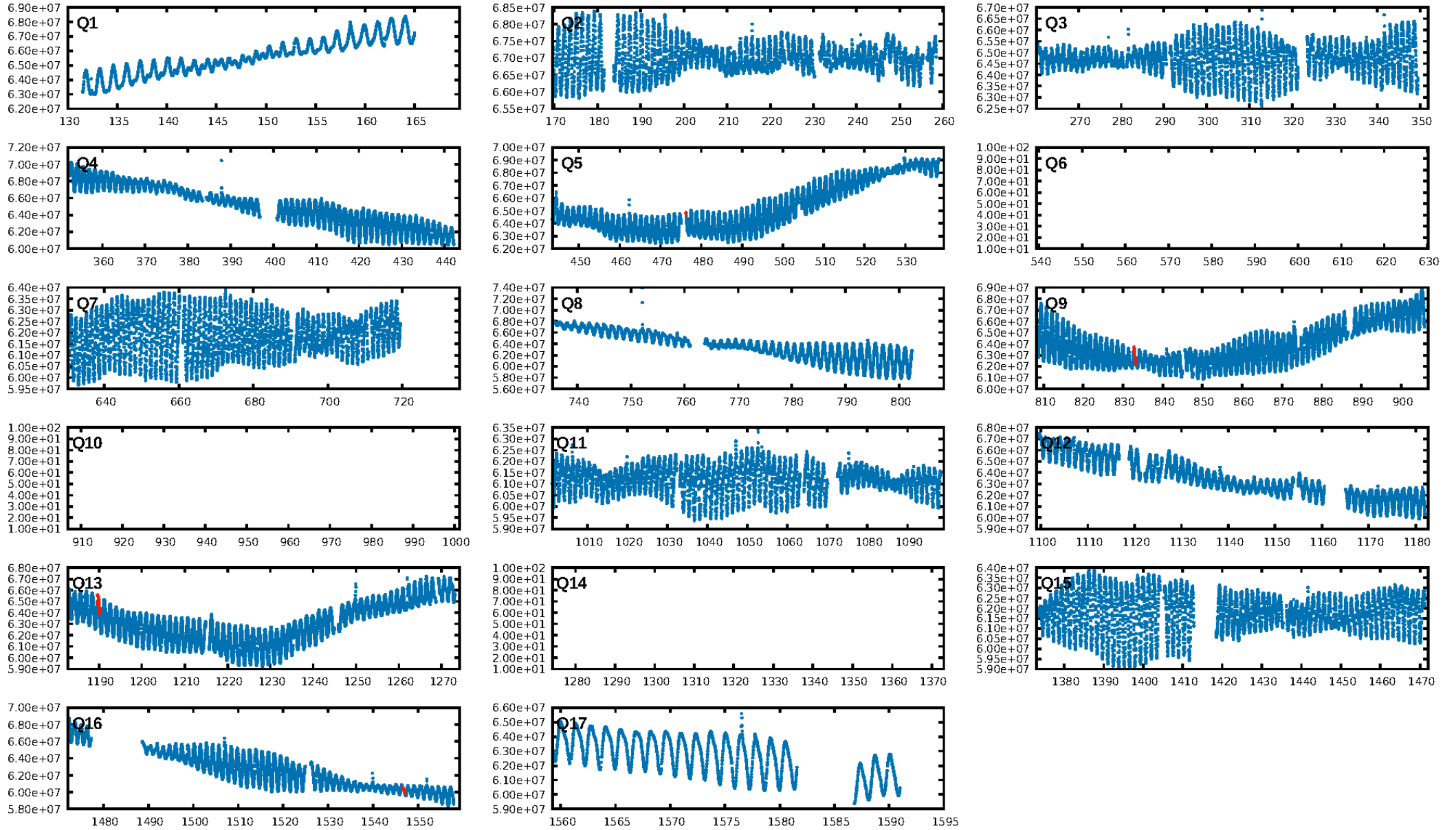
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [45.05σ]
LongPeriod-sig: 100.0% [388.03σ]
ModelChiSquare2-sig: 44.6%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 6.33e-19
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.382
Centroid-sig: 7.9%
Centroid-so: 1.324 arcsec [0.85σ]
OOTOffset-rm: 6.416 arcsec [94.69σ]
KicOffset-rm: 0.072 arcsec [1.06σ]
OOTOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

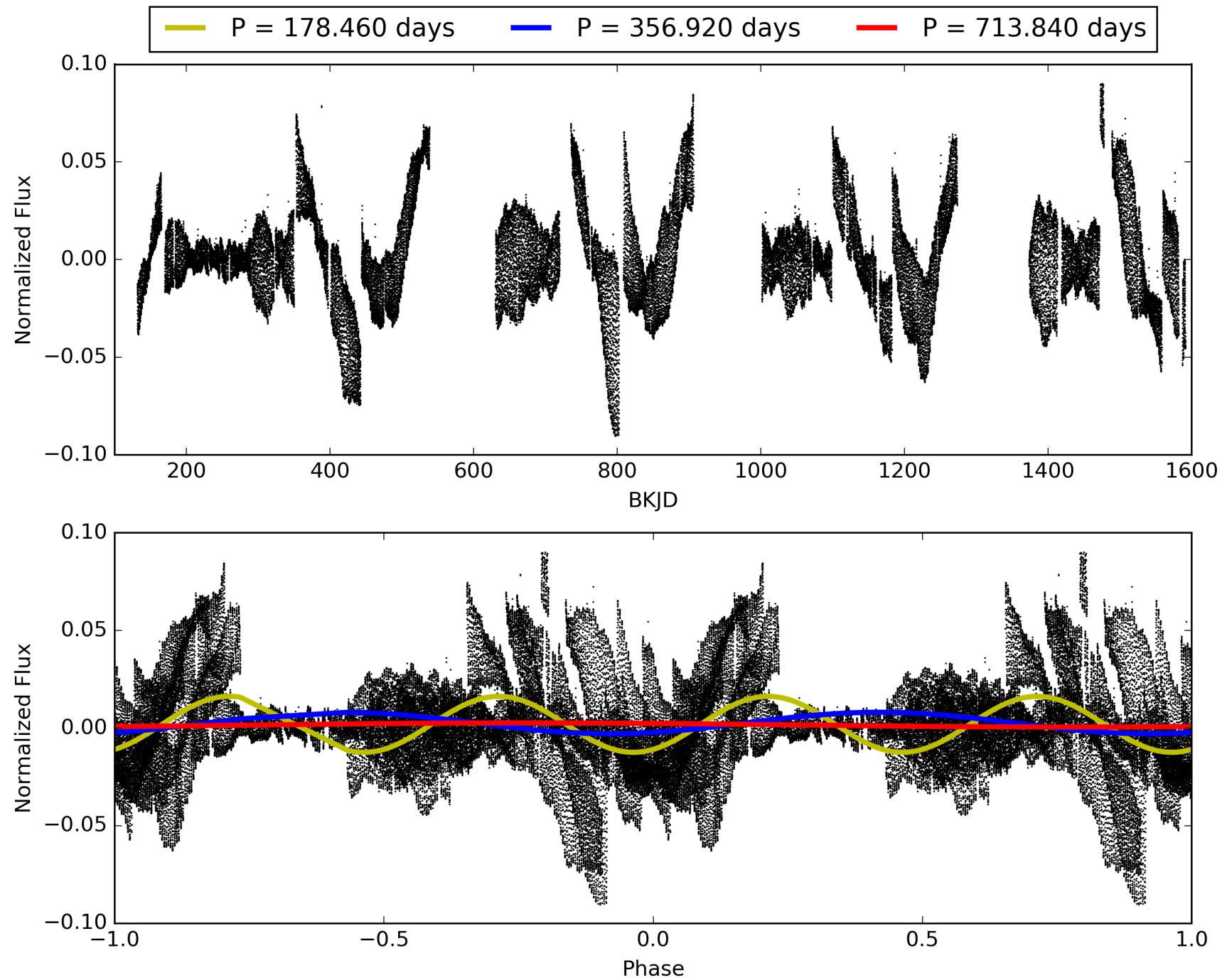
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:02:20 Z

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

TCE 004932663-01, PDC Light Curves

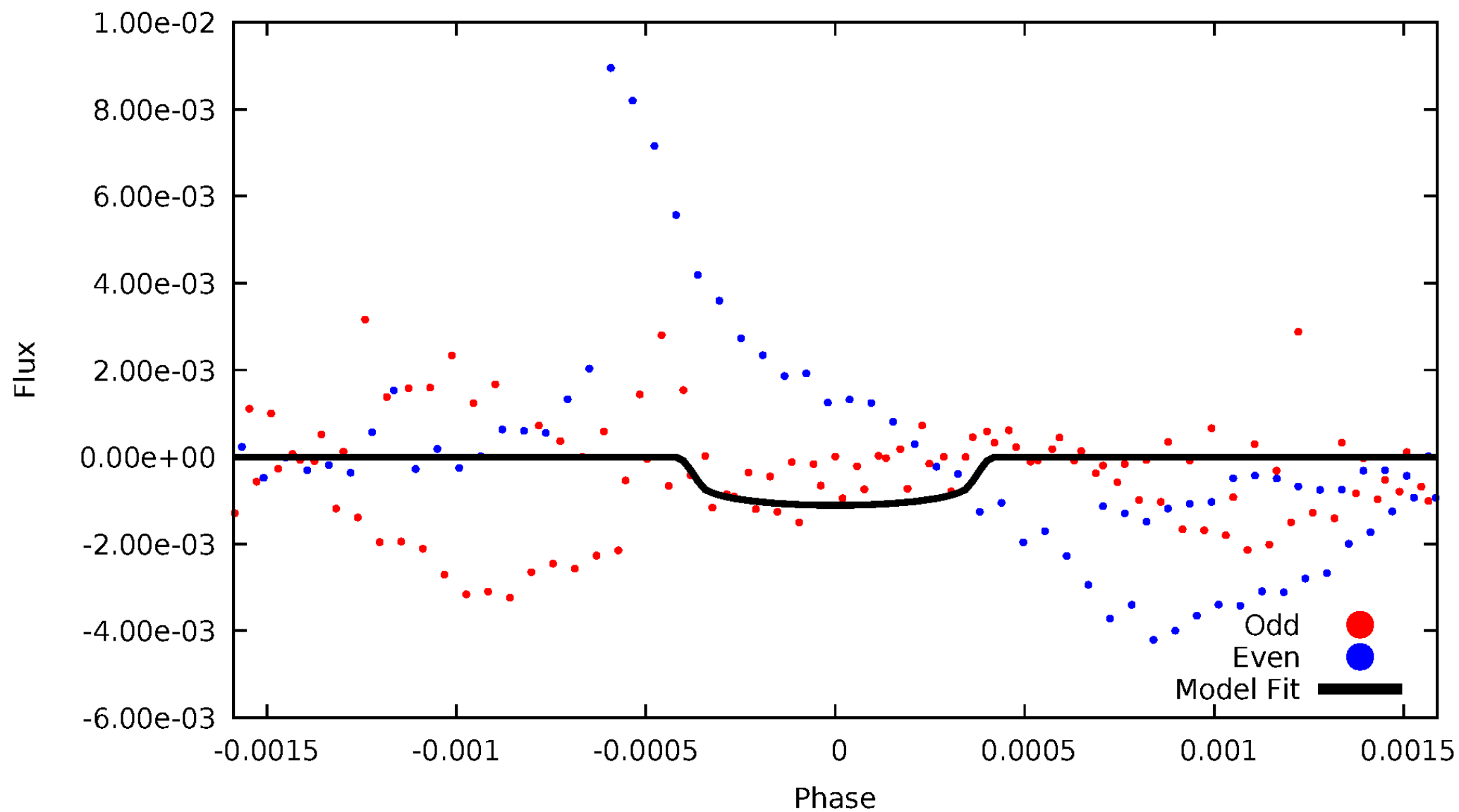


TCE 004932663-01



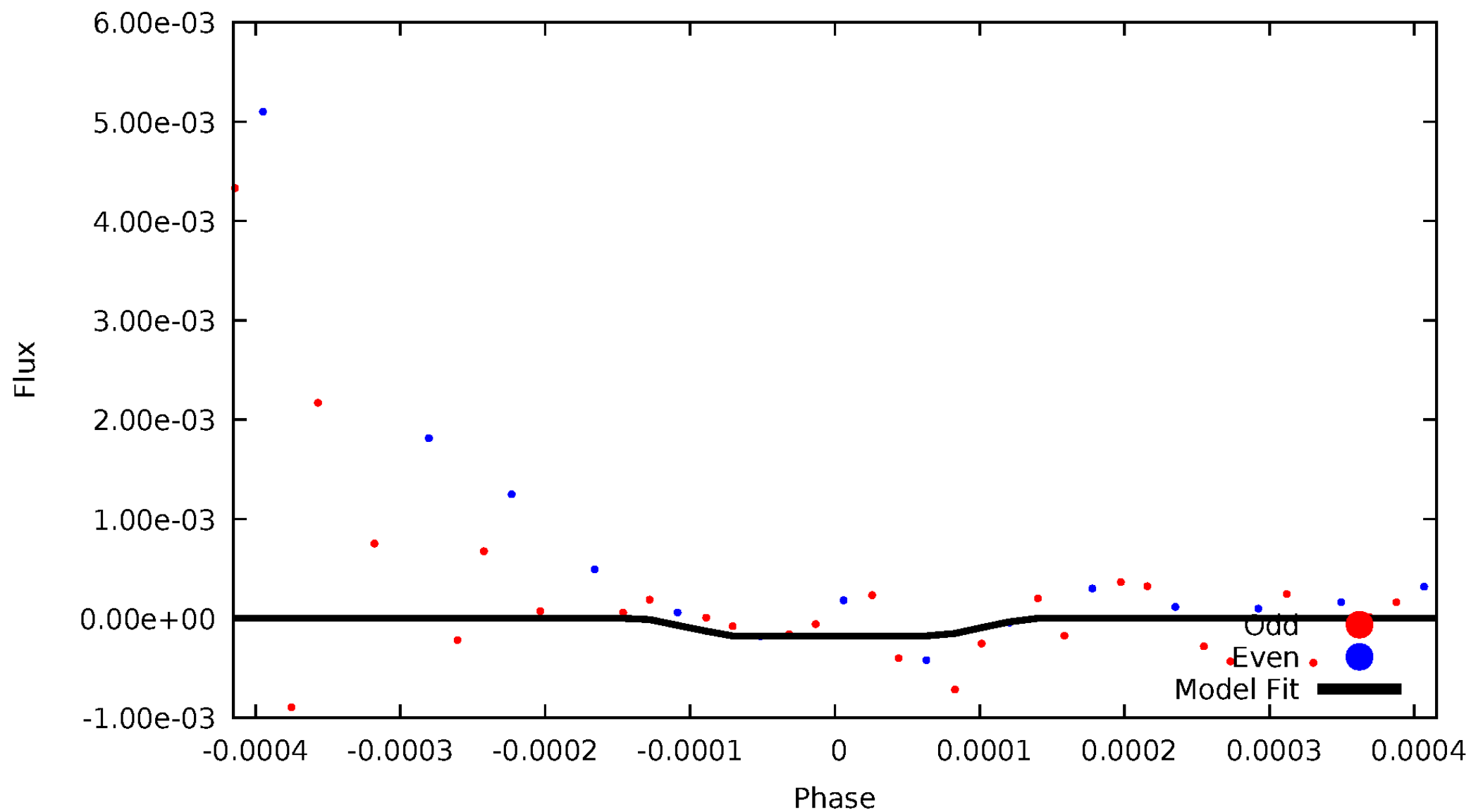
DV Odd/Even

TCE 004932663-01



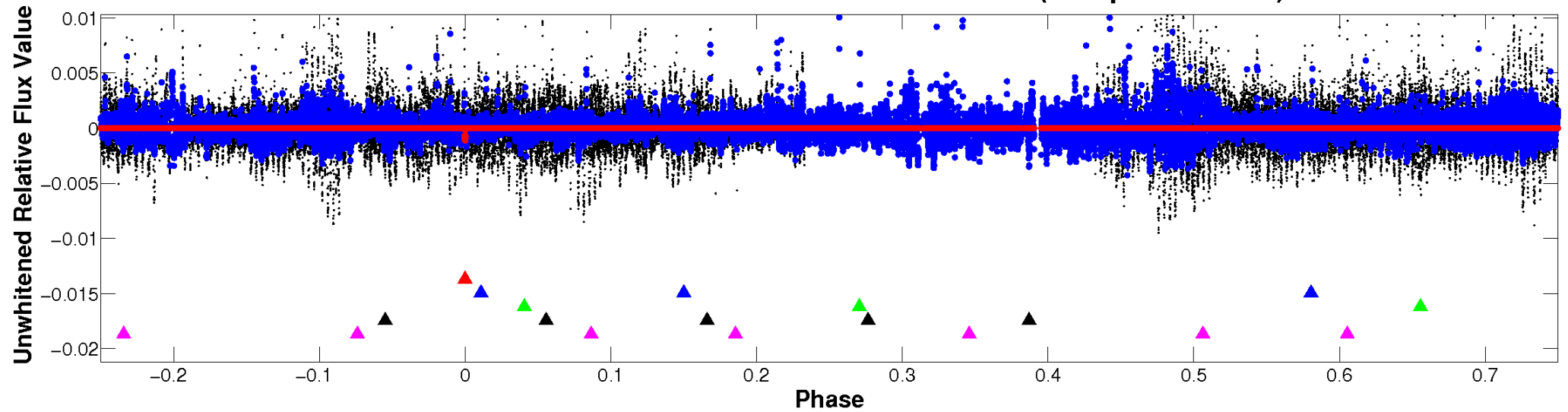
ALT Odd/Even

TCE 004932663-01

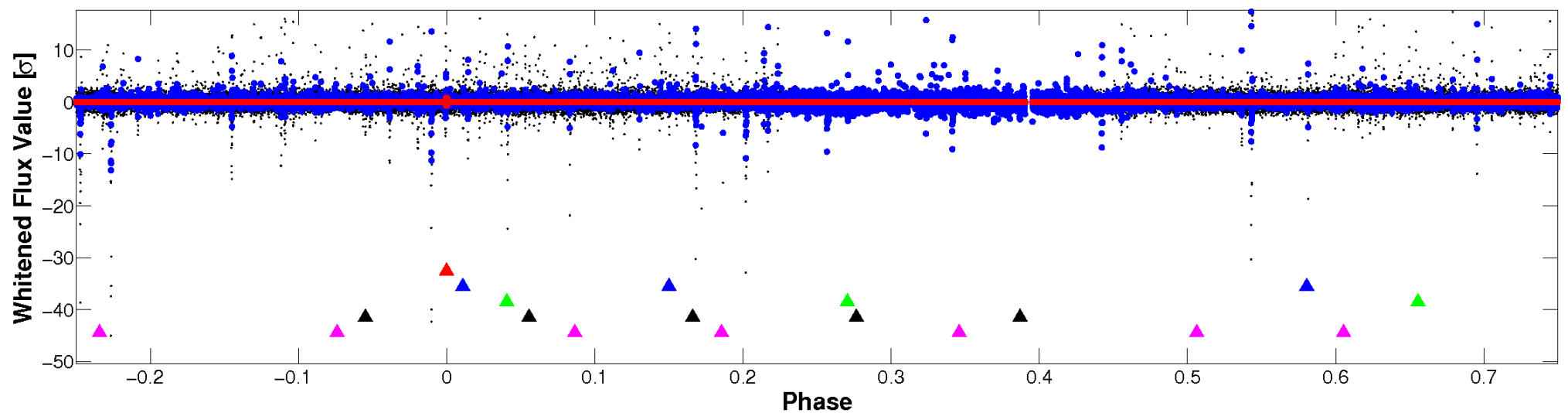


Non-Whitened Vs. Whitened Light Curve

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

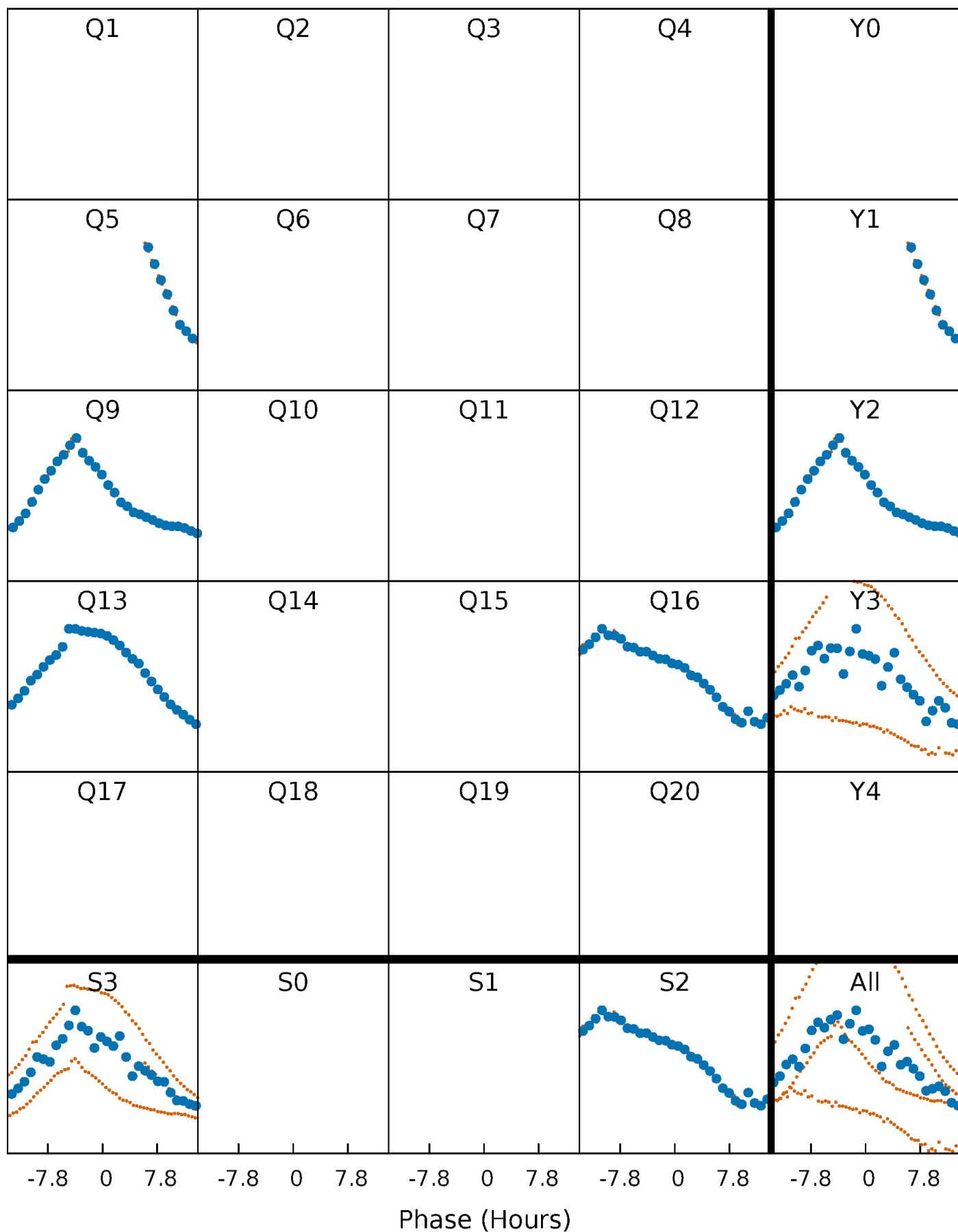


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



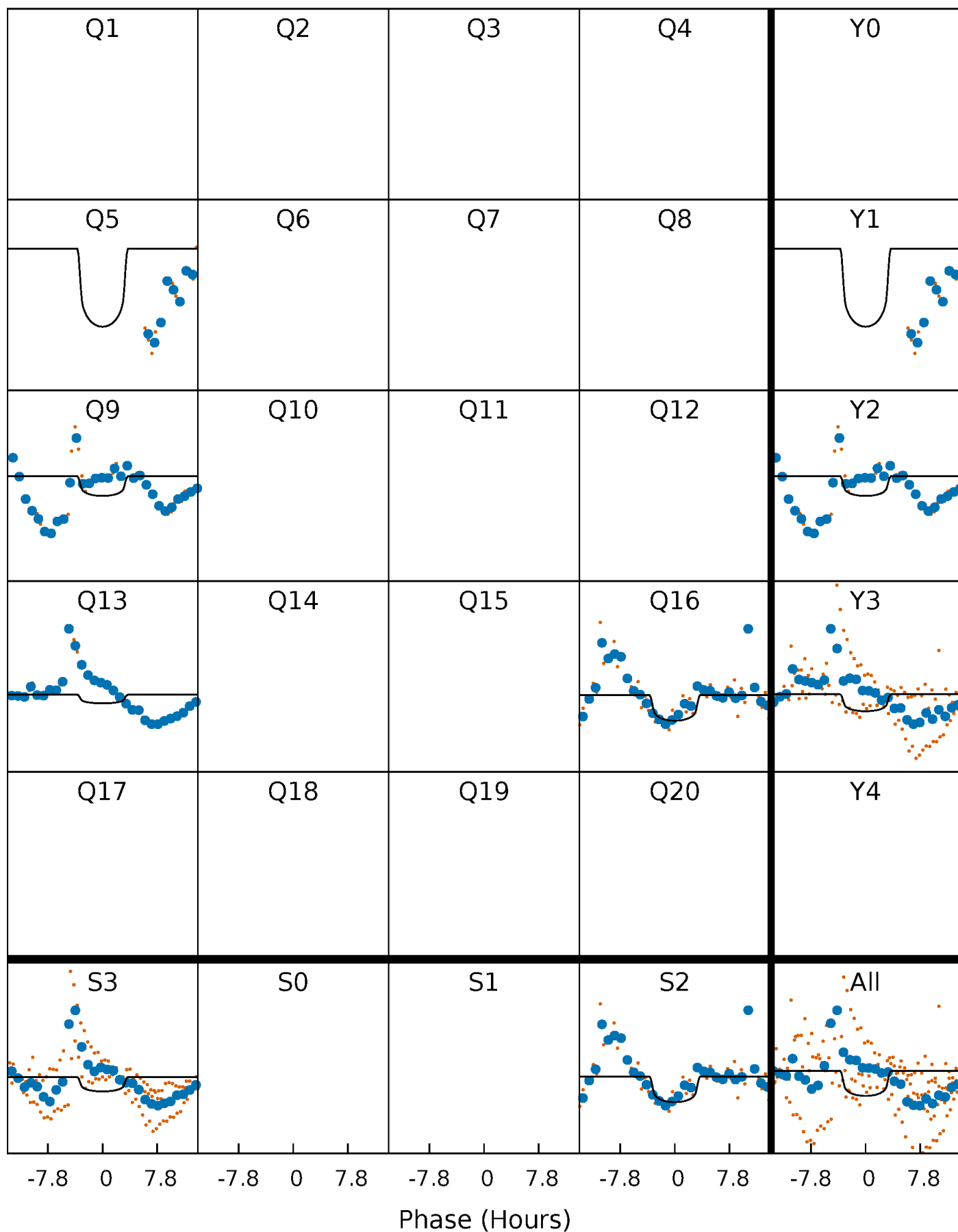
PDC Quarter-Phased Transit Curves

TCE 004932663-01 P=356.919919 Days $T_0=476.035115$ (BKJD)



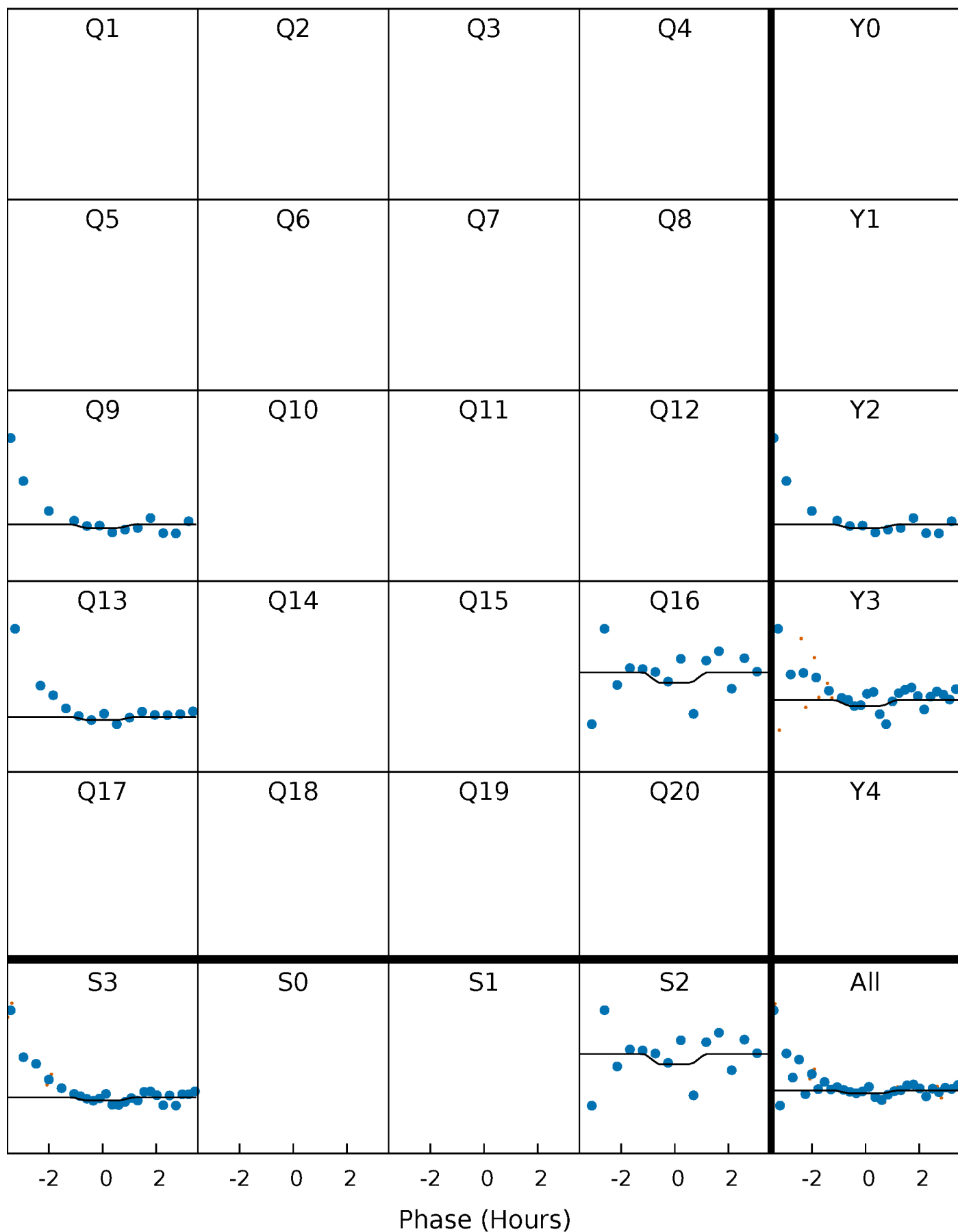
DV Quarter-Phased Transit Curves

TCE 004932663-01 P=356.919919 Days $T_0=476.035115$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

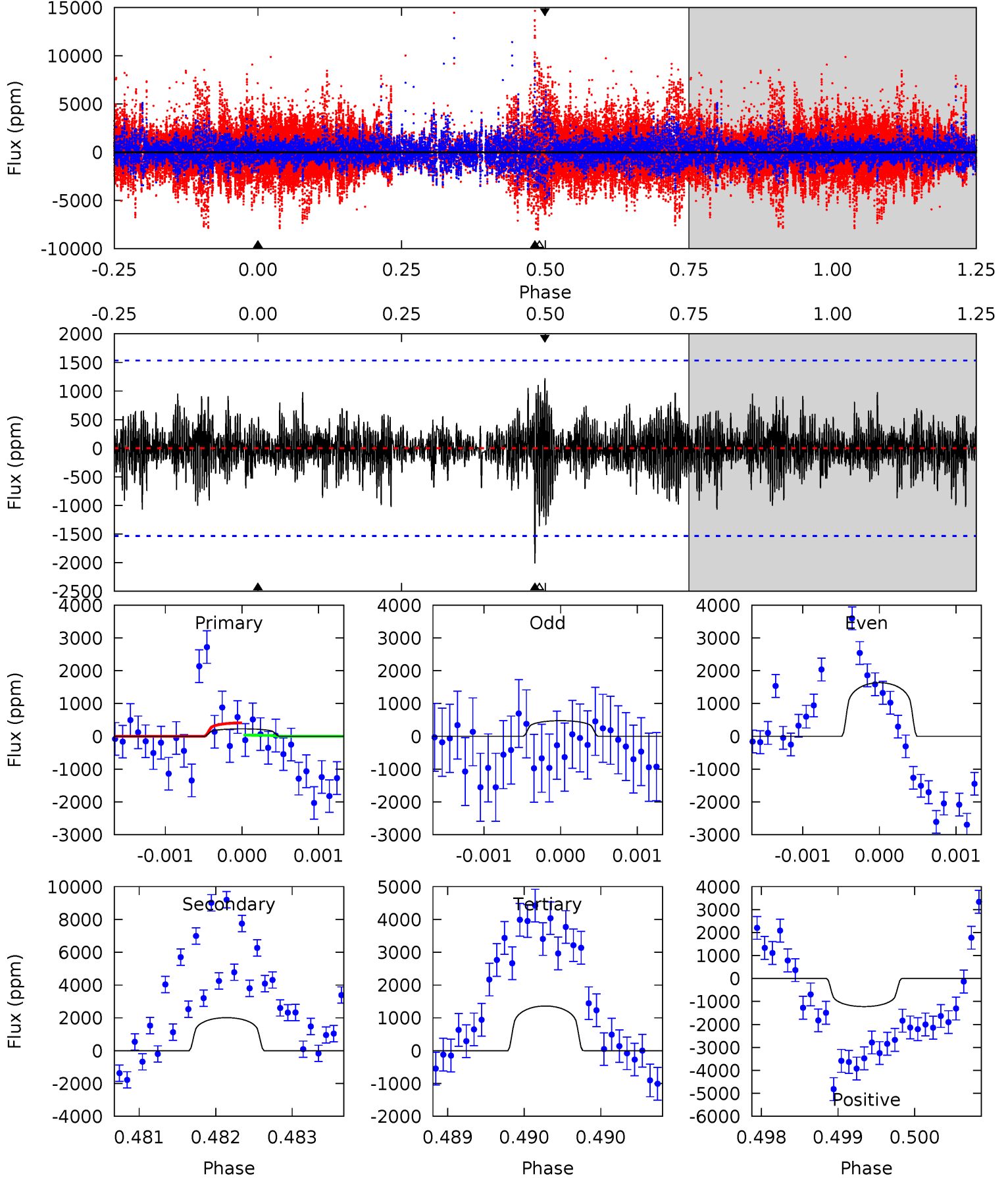
TCE 004932663-01 P=356.885748 Days $T_0=476.073981$ (BKJD)



DV Model-Shift Uniqueness Test

004932663-01, P = 356.919919 Days, E = 119.115196 Days

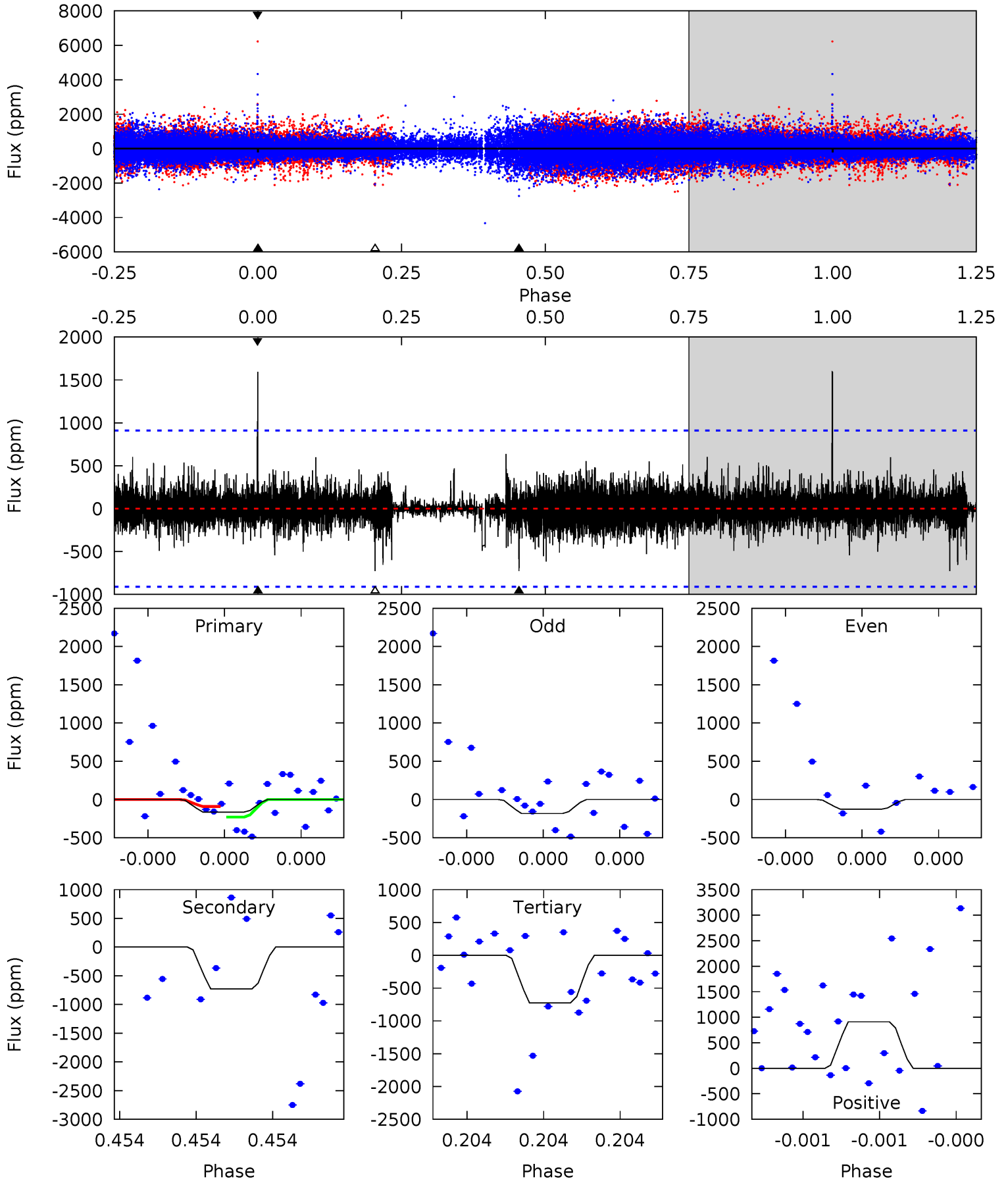
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.81	7.19	4.87	4.37	5.48	3.33	1.15	-4.06	-3.56	2.32	2.82	1.83	-2.65	0.38	0.67



Alt Model-Shift Uniqueness Test

004932663-01, P = 356.885748 Days, E = 119.188233 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.03	4.55	4.54	5.70	5.69	3.66	0.83	-3.51	-4.68	0.02	-1.15	0.16	1.00	0.69	0.44



Stellar Parameters For KIC 004932663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5628^{+152}_{-152}	$4.487^{+0.084}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$0.865^{+0.210}_{-0.113}$	$0.836^{+0.115}_{-0.071}$	$1.823^{+0.681}_{-0.815}$
	+3%/-3%	+2%/-3%	+107%/-107%	+24%/-13%	+14%/-8%	+37%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004932663-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2012 ± 280	$3.34^{+1.84}_{-1.76}$	339^{+19}_{-16}	6391^{+3727}_{-1165}	$87536^{+295457}_{-52066}$
Alt.	-728 ± 160	$1.87^{+1.71}_{-1.17}$	338^{+20}_{-17}	6561^{+6561}_{-1678}	$94567^{+620488}_{-68714}$

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

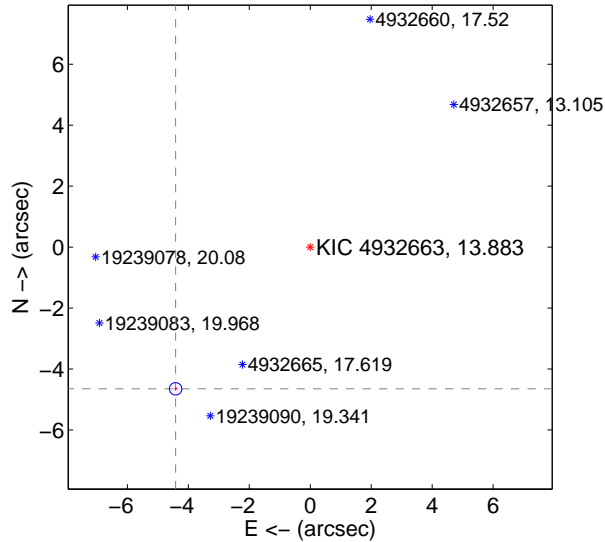
Supplemental centroid analysis for 004932663-01. Kepler magnitude: 13.88. Transit SNR 3.61

There are 0 quarters with good PRF difference image offsets

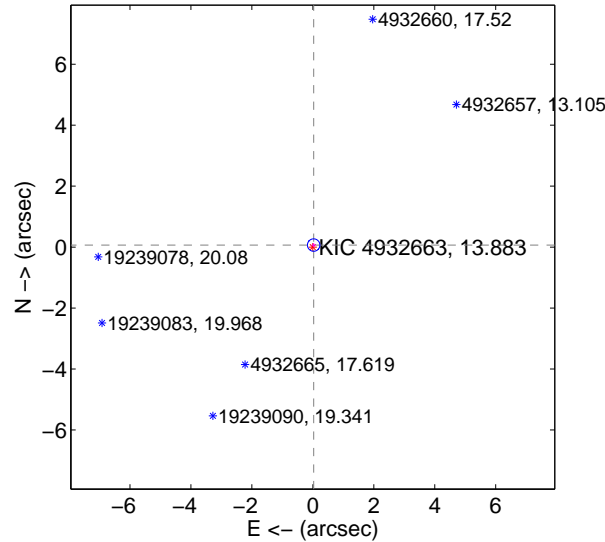
The OOT PRF centroid is offset from the target star catalog position by about 6.49 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.416 ± 0.068	94.69	4.419 ± 0.067	-4.652 ± 0.068
PRF-fit source offset from KIC position	0.072 ± 0.068	1.06	-0.027 ± 0.067	0.067 ± 0.068
photometric centroid source offset	1.32 ± 1.56	0.85	1.03 ± 1.70	0.83 ± 1.33

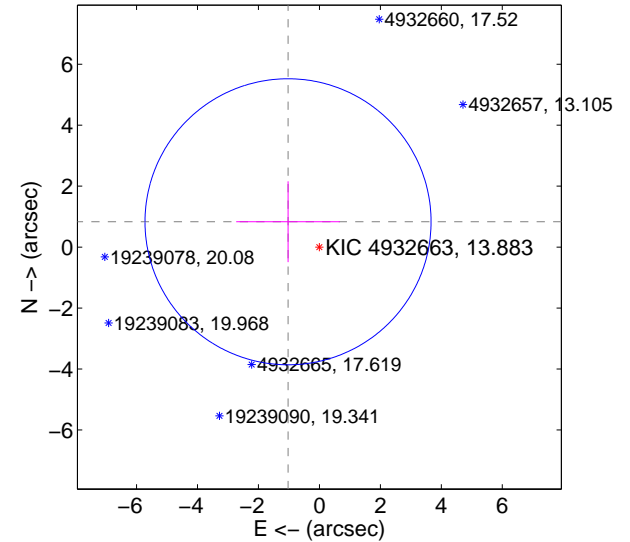
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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

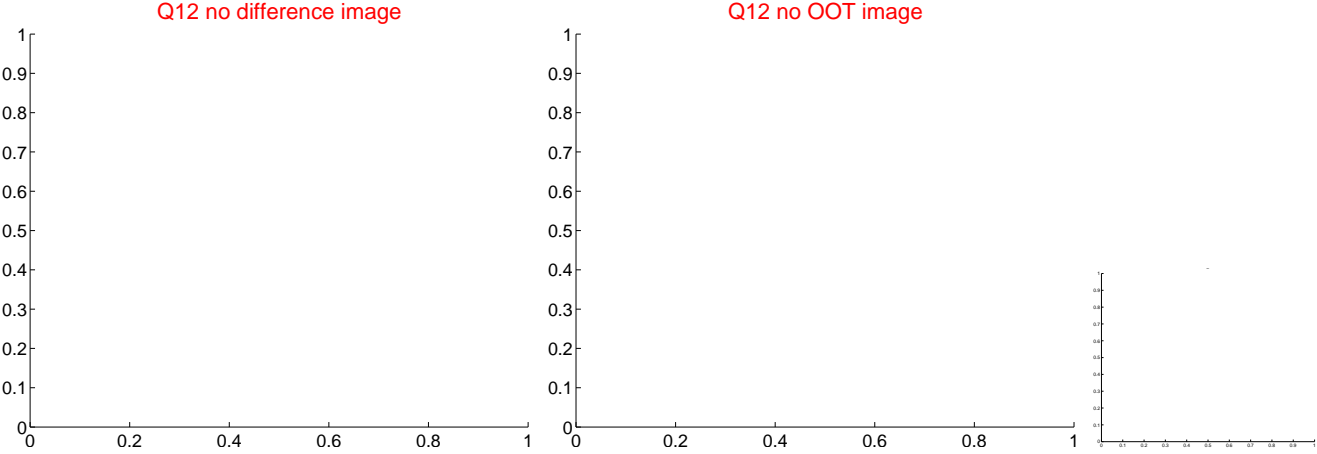
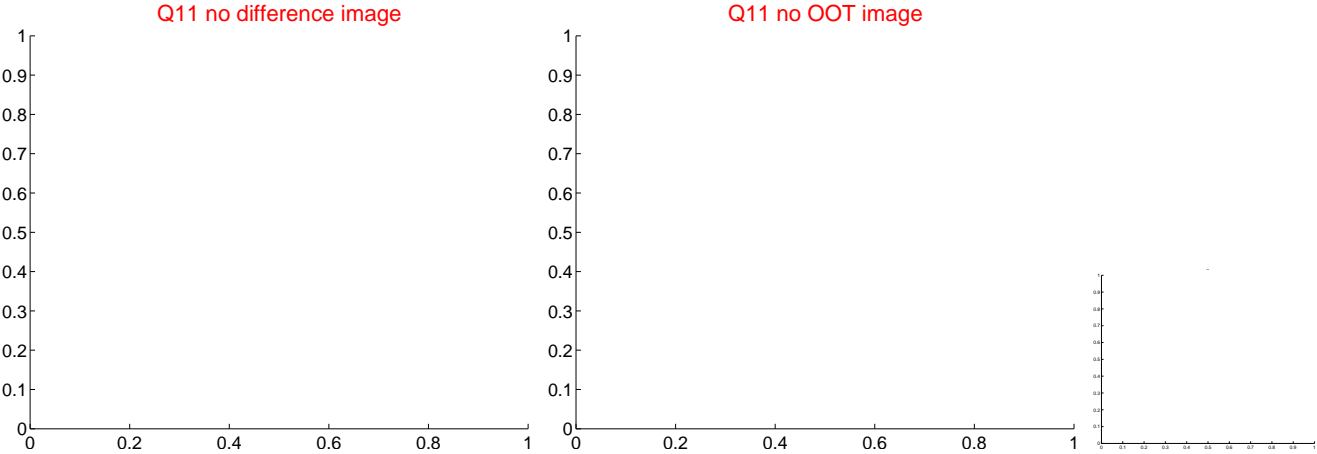
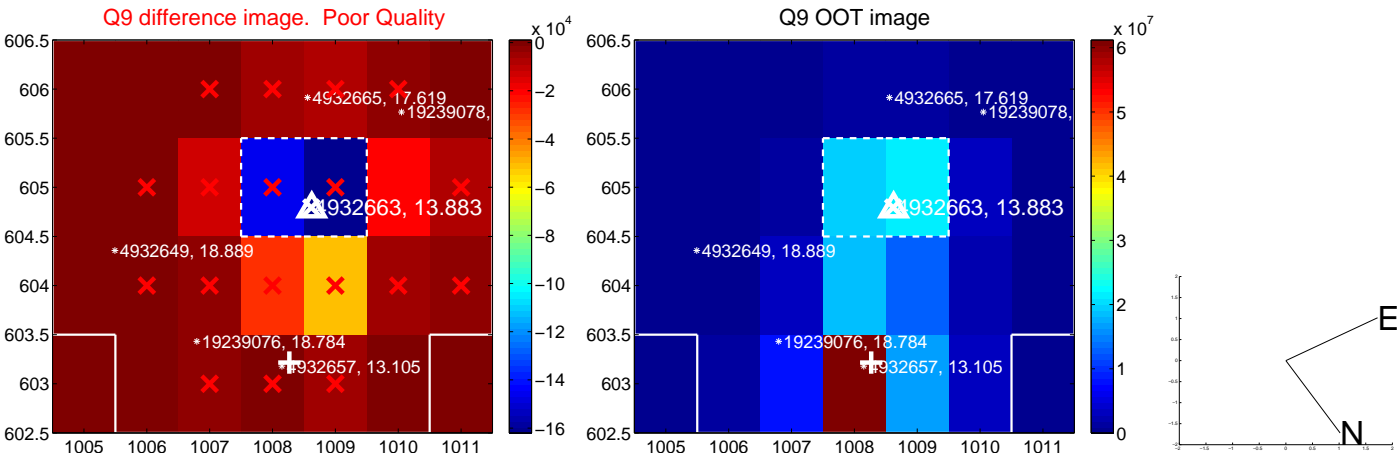
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



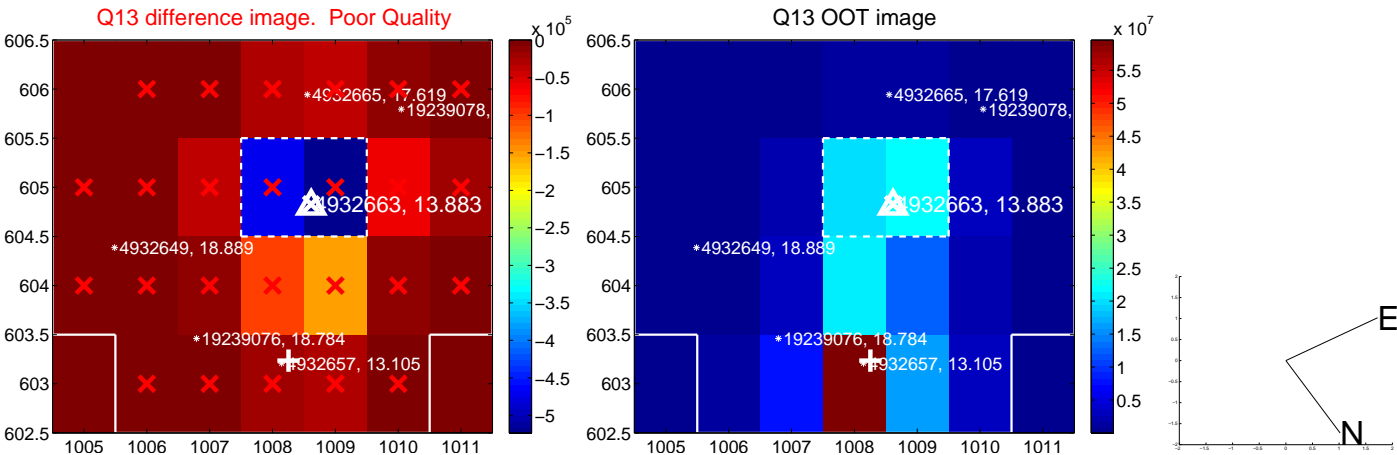
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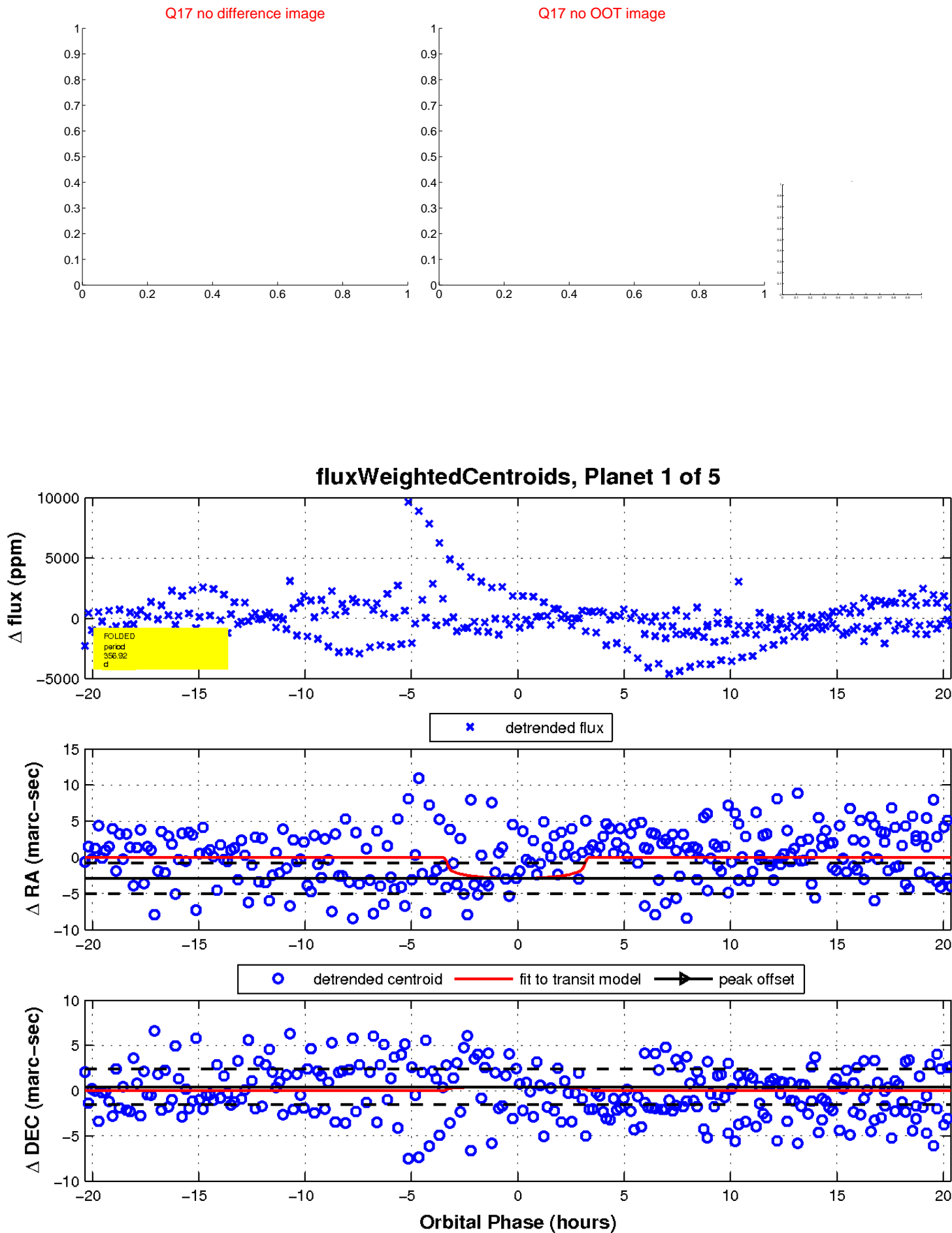
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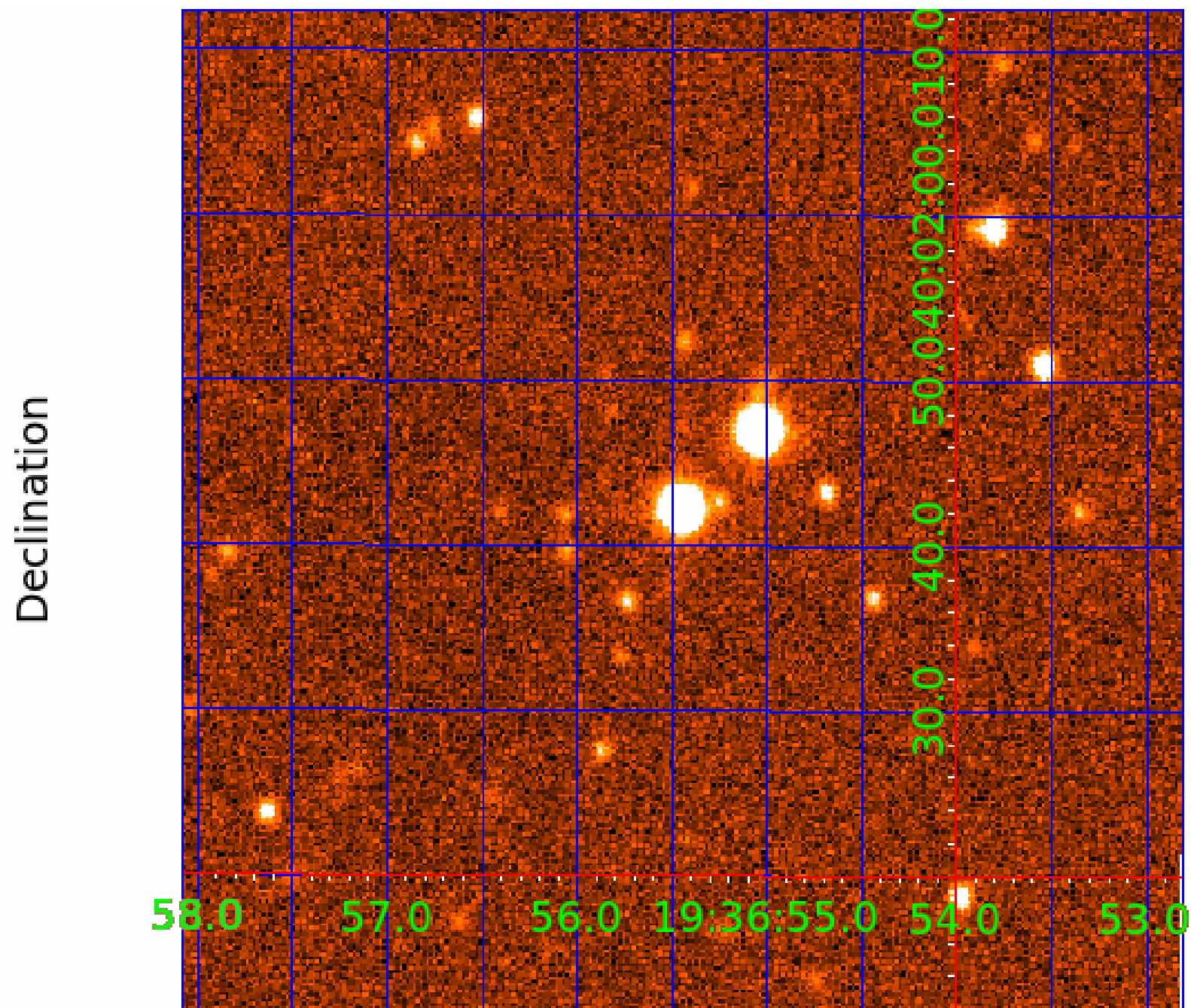
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 004932663

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})
004932663-01	OBS	No	356.919919	476.035115	1111.8	6.798	19.6	3.6	0.86	5628	2.96	0.78
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Robovetter Results

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004932663-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004932663-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

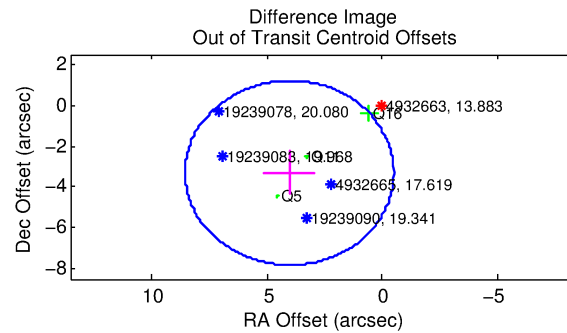
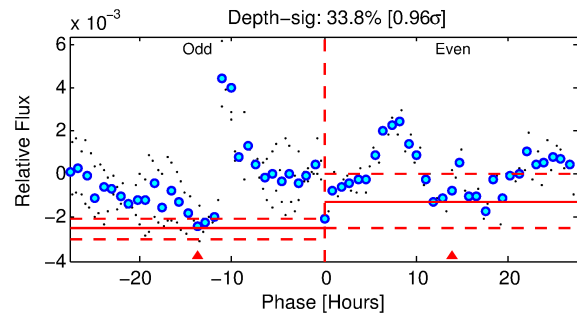
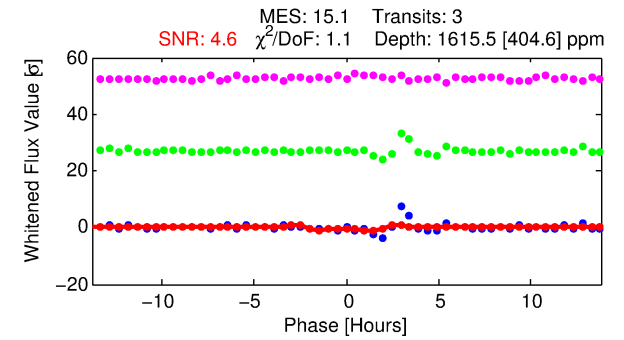
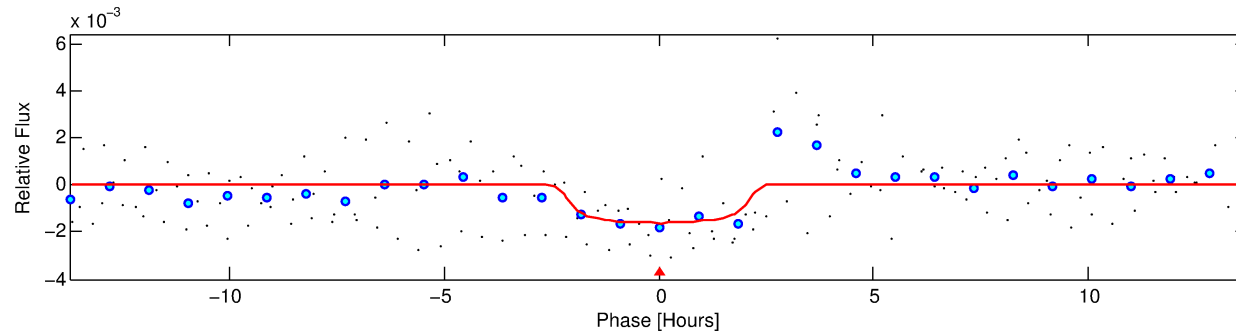
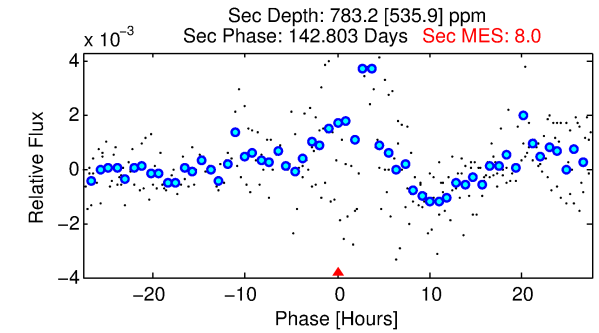
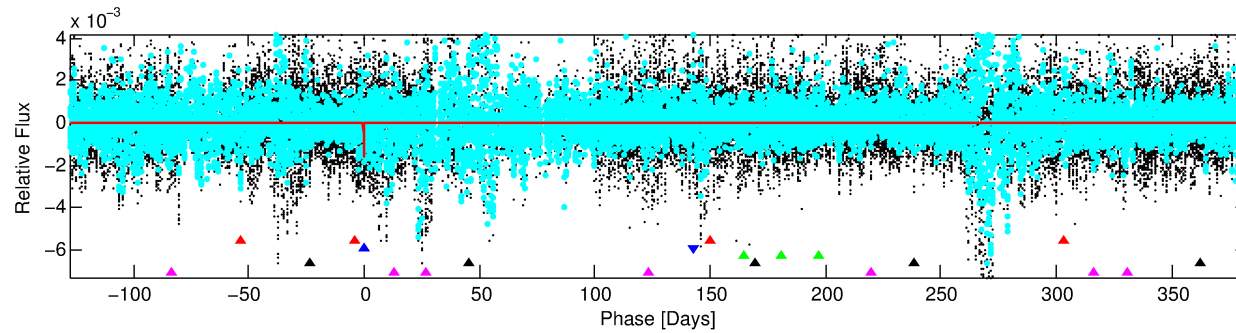
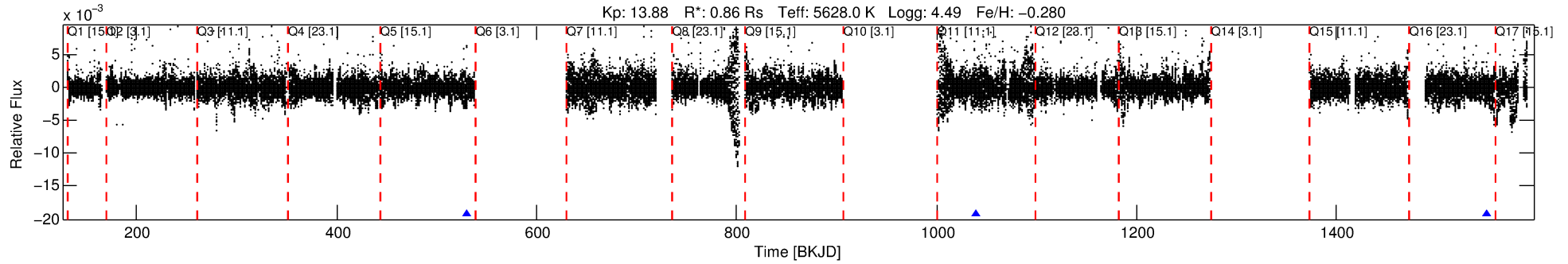
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004932663-02

No Significant Match Found

DV One-Page Summary

KIC: 4932663 Candidate: 2 of 5 Period: 510.543 d



DV Fit Results:

Period = 510.54276 [0.00503] d
Epoch = 529.6089 [0.0063] BKJD
Rp/R* = 0.0381 [0.0631]
a/R* = 742.14 [5321.00]
b = 0.56 [8.77]
Seff = 0.48 [0.15]
Teq = 213 [16] K
Rp = 3.59 [6.02] Re
a = 1.1787 [0.2373] AU
Ag = 46394.00 [157783.23] [0.29 σ]
Teffp = 4826 [4091] K [1.13 σ]

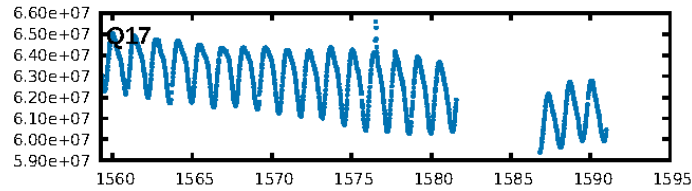
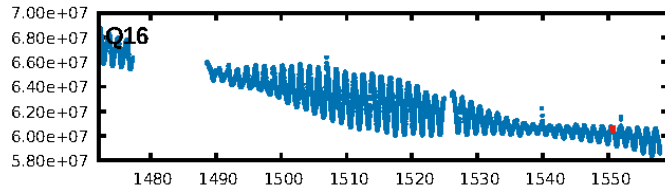
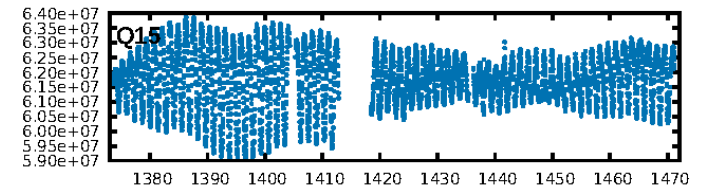
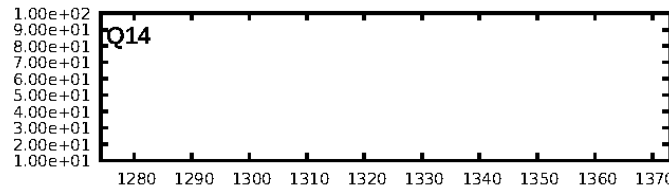
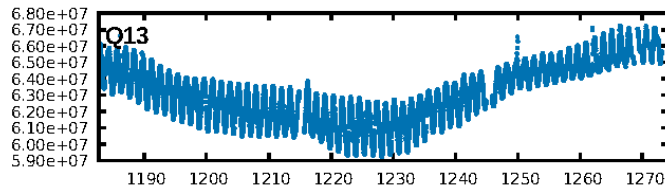
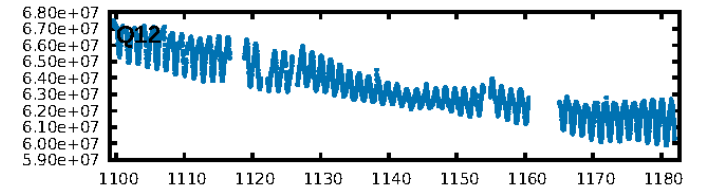
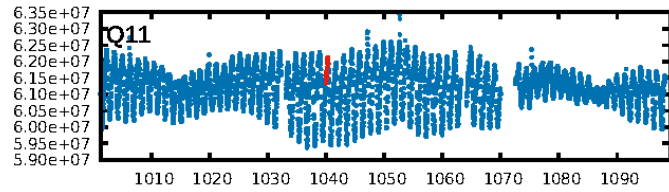
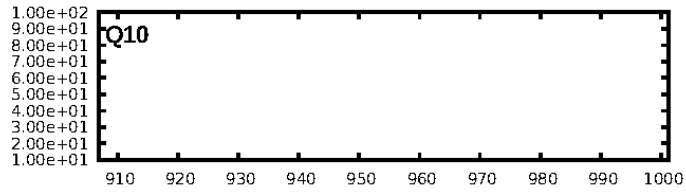
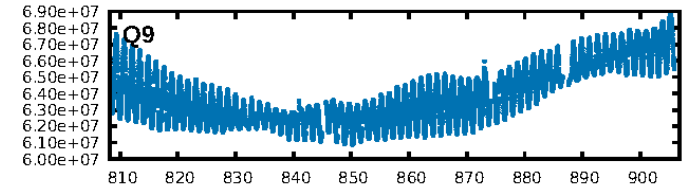
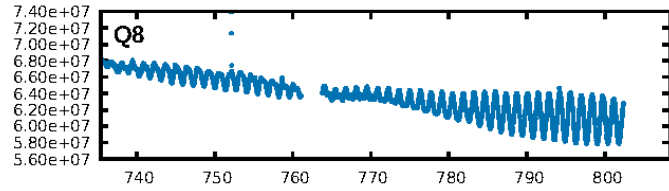
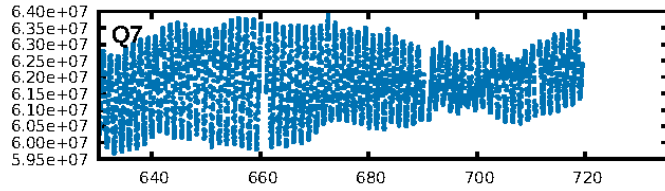
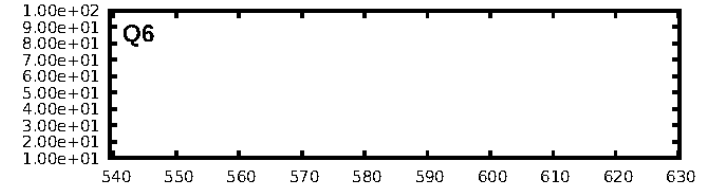
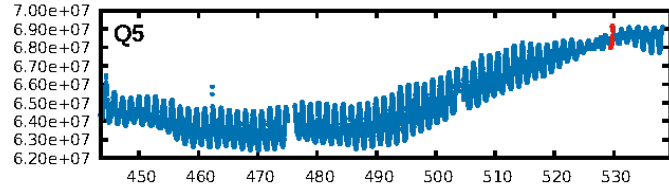
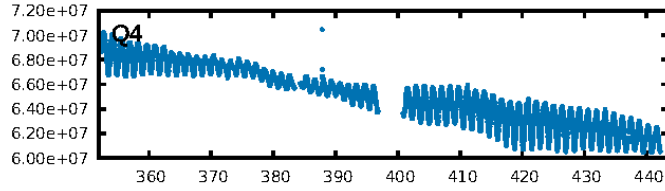
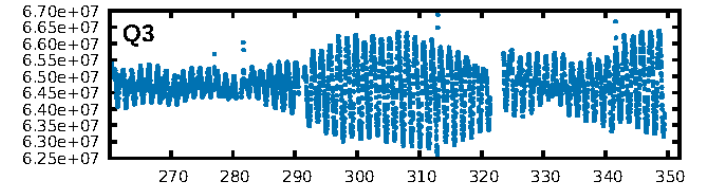
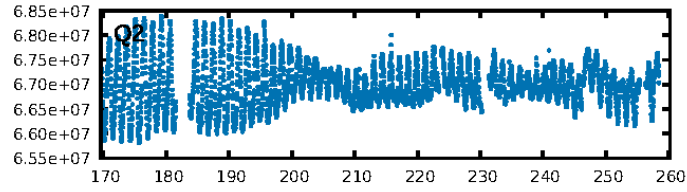
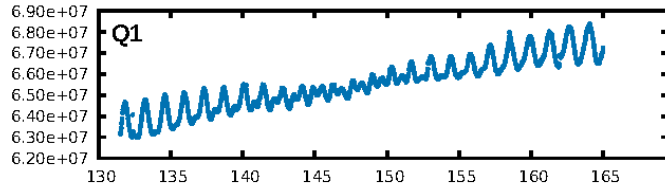
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [56.64 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.0%
ModelChiSquareGof-sig: 86.5%
Bootstrap-pfa: 1.93e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.05918
Centroid-sig: 63.1%
Centroid-so: 2.815 arcsec [2.41 σ]
OotOffset-rm: 5.204 arcsec [3.46 σ]
KicOffset-rm: 0.228 arcsec [0.97 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

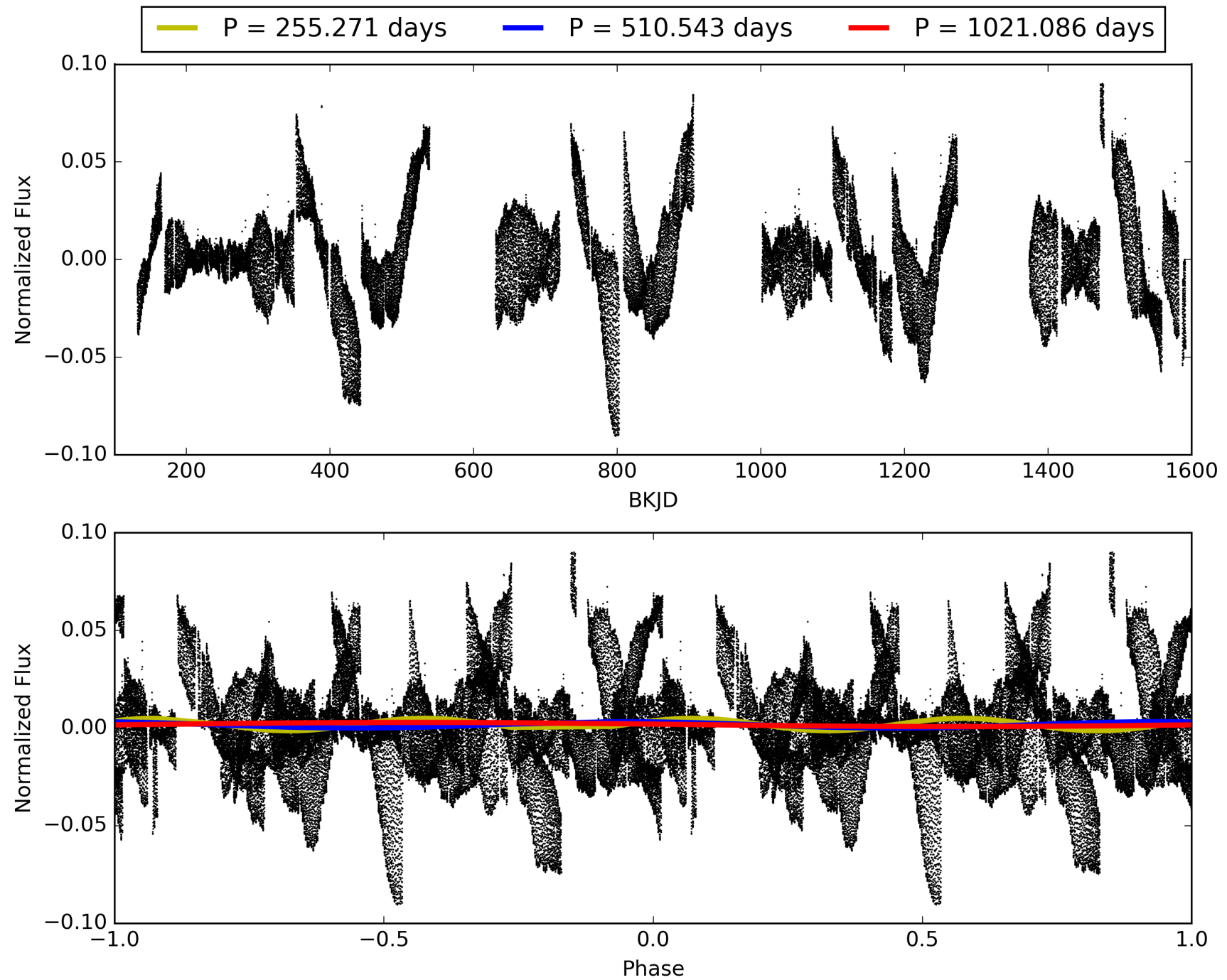
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:02:34 Z

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

TCE 004932663-02, PDC Light Curves

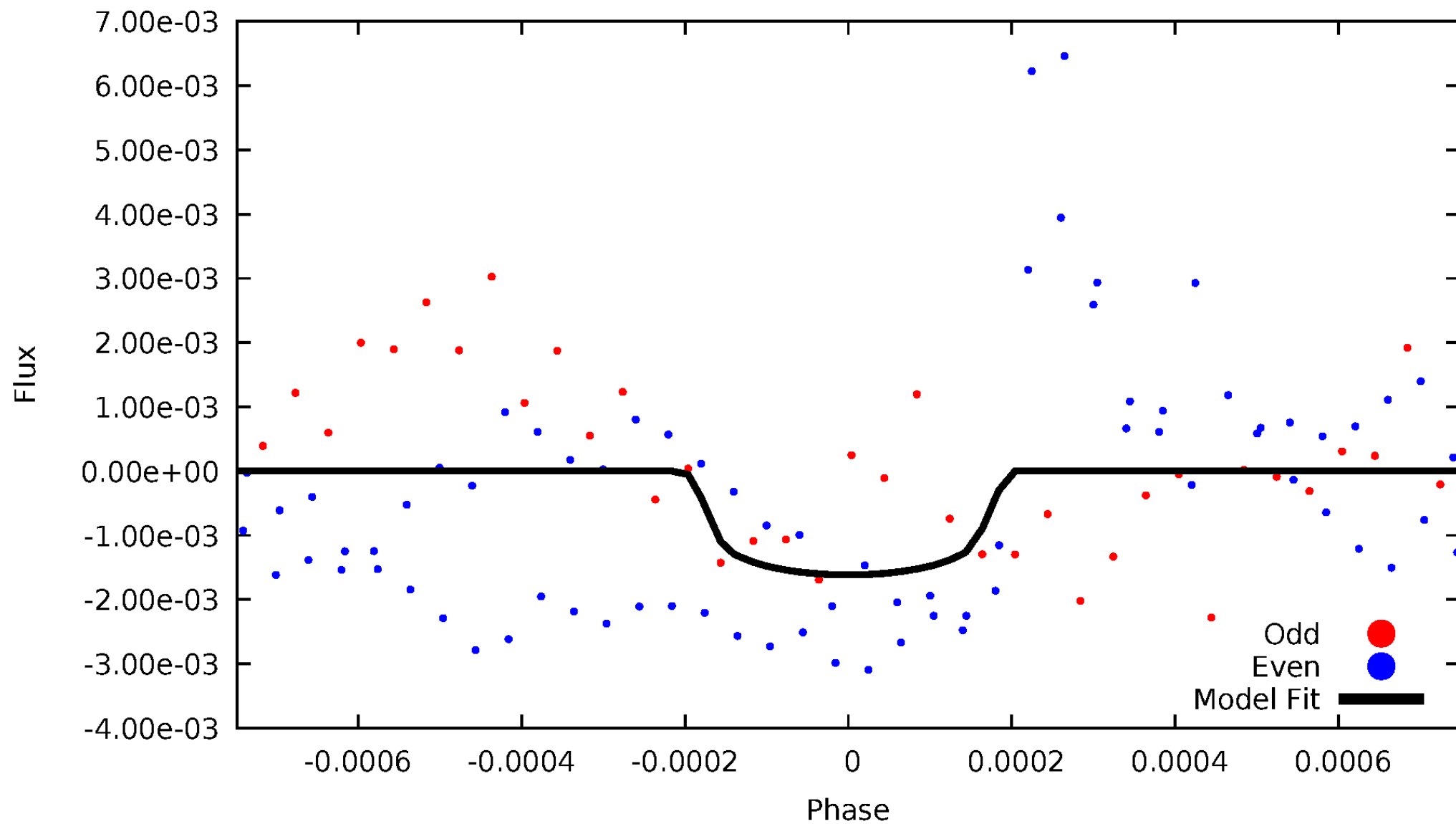


TCE 004932663-02



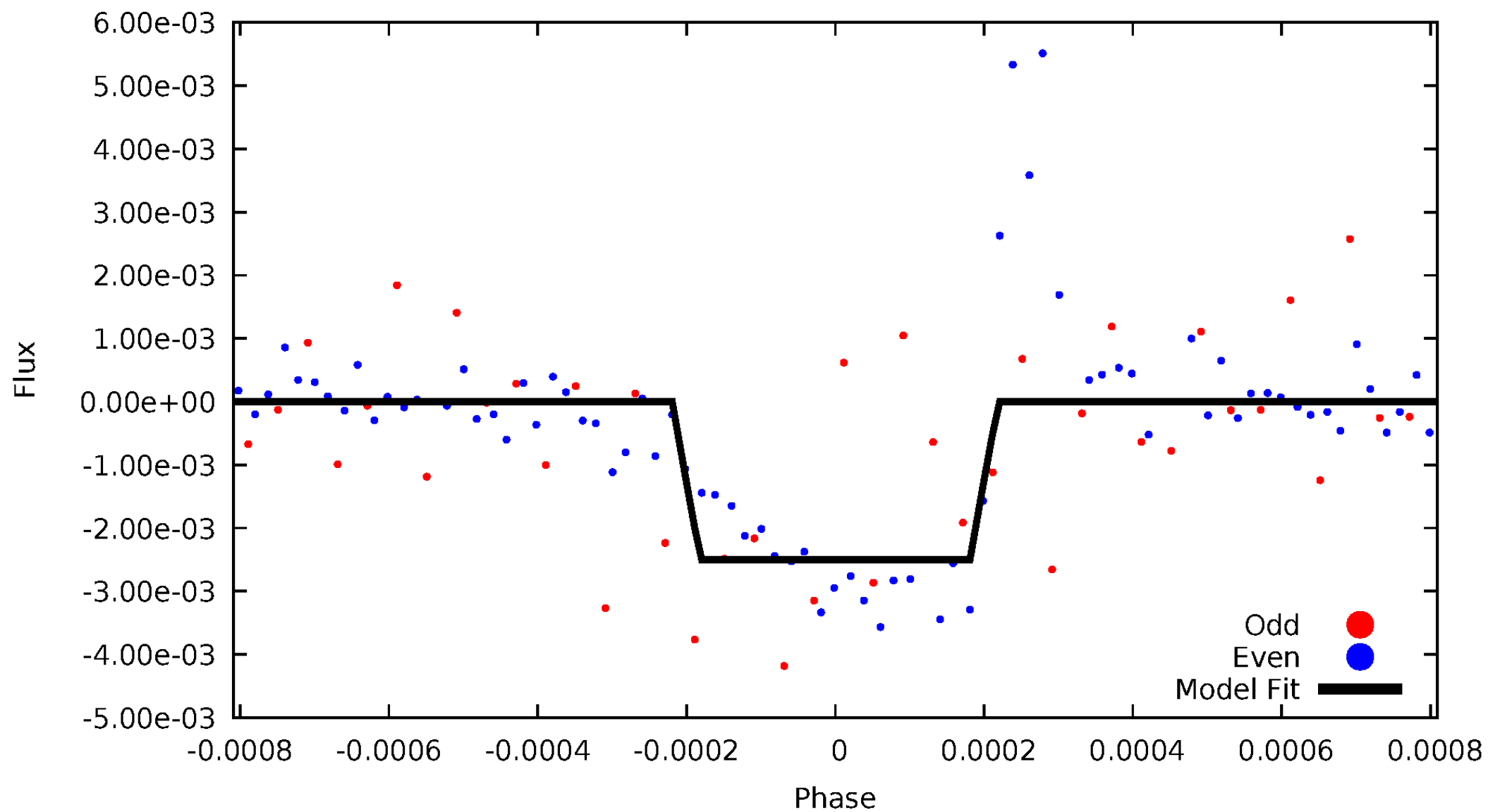
DV Odd/Even

TCE 004932663-02



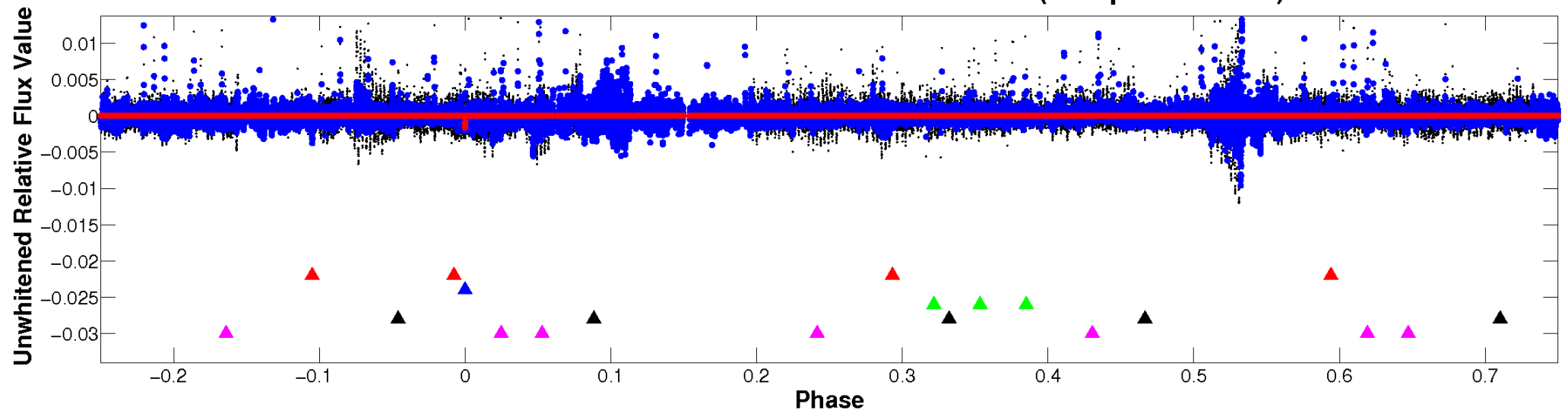
ALT Odd/Even

TCE 004932663-02

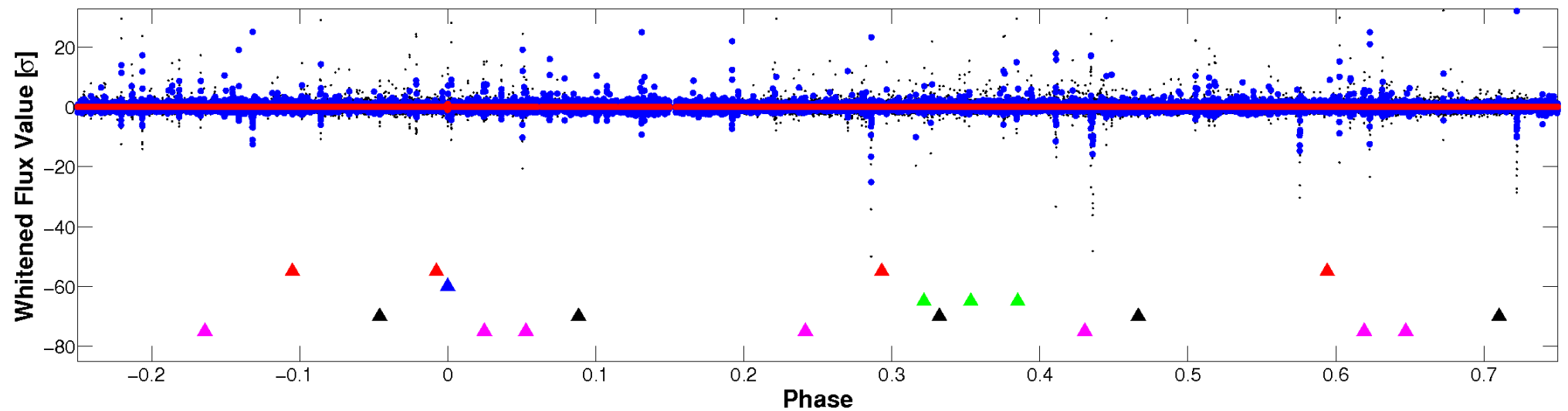


Non-Whitened Vs. Whitened Light Curve

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

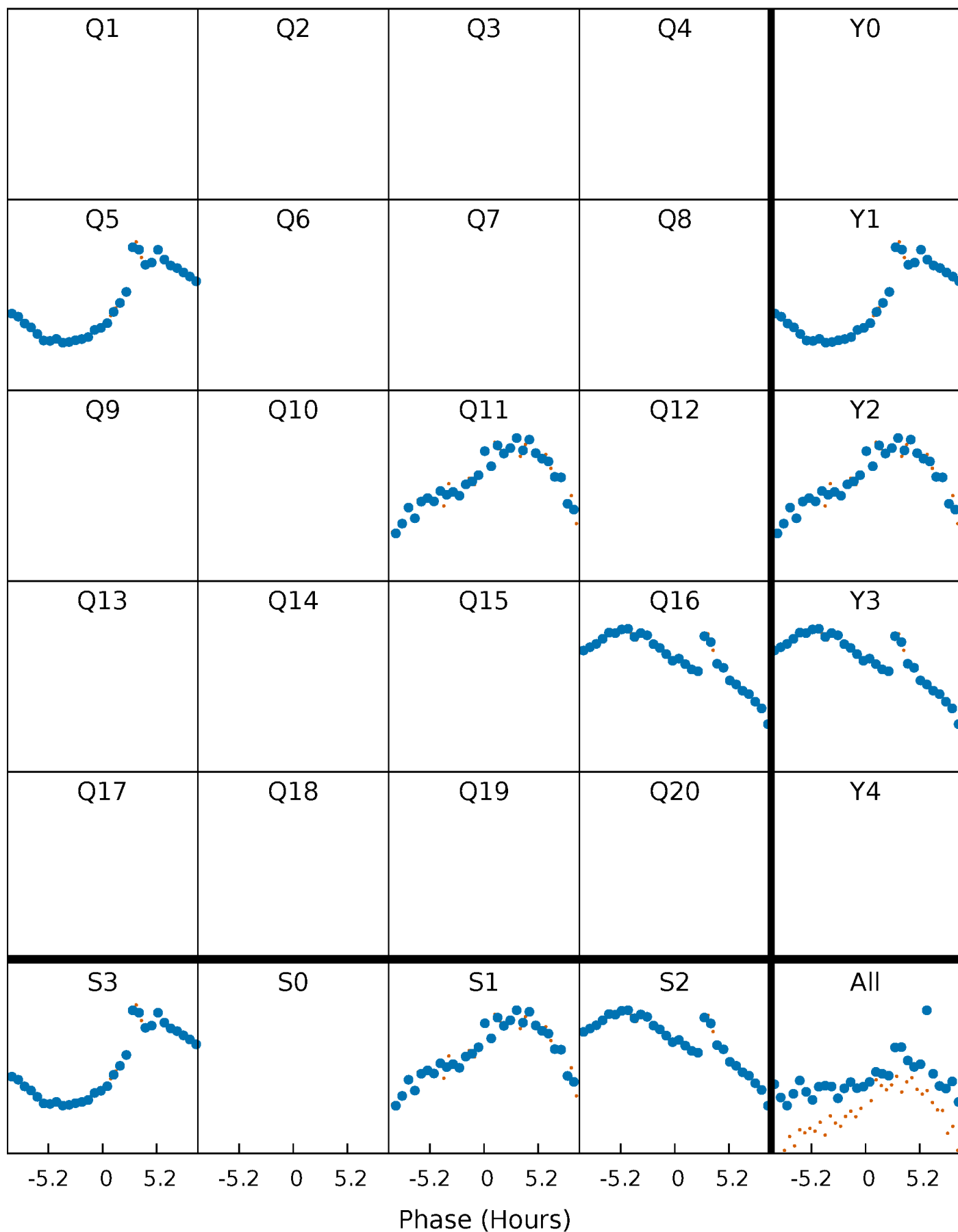


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



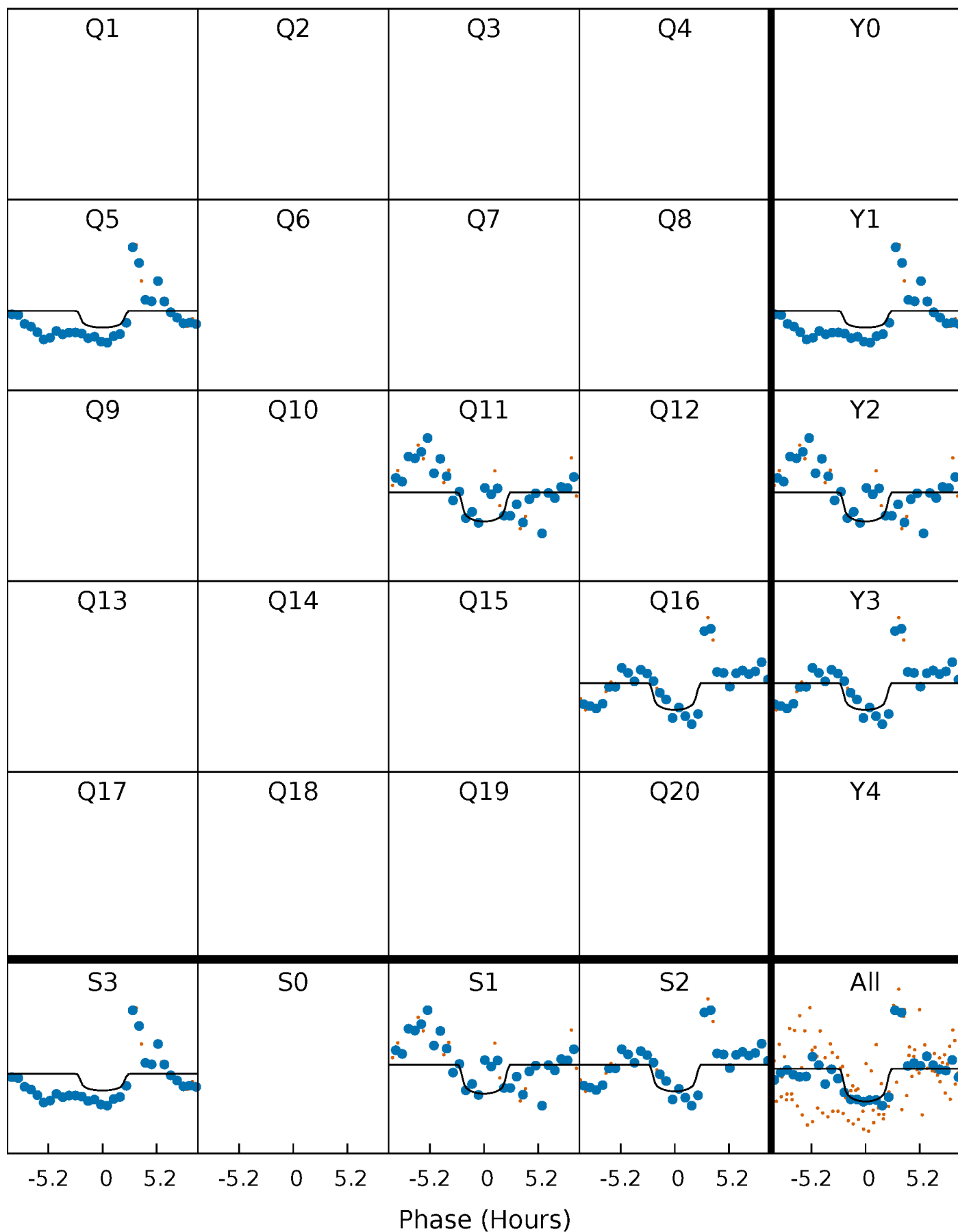
PDC Quarter-Phased Transit Curves

TCE 004932663-02 P=510.542759 Days $T_0=529.608889$ (BKJD)



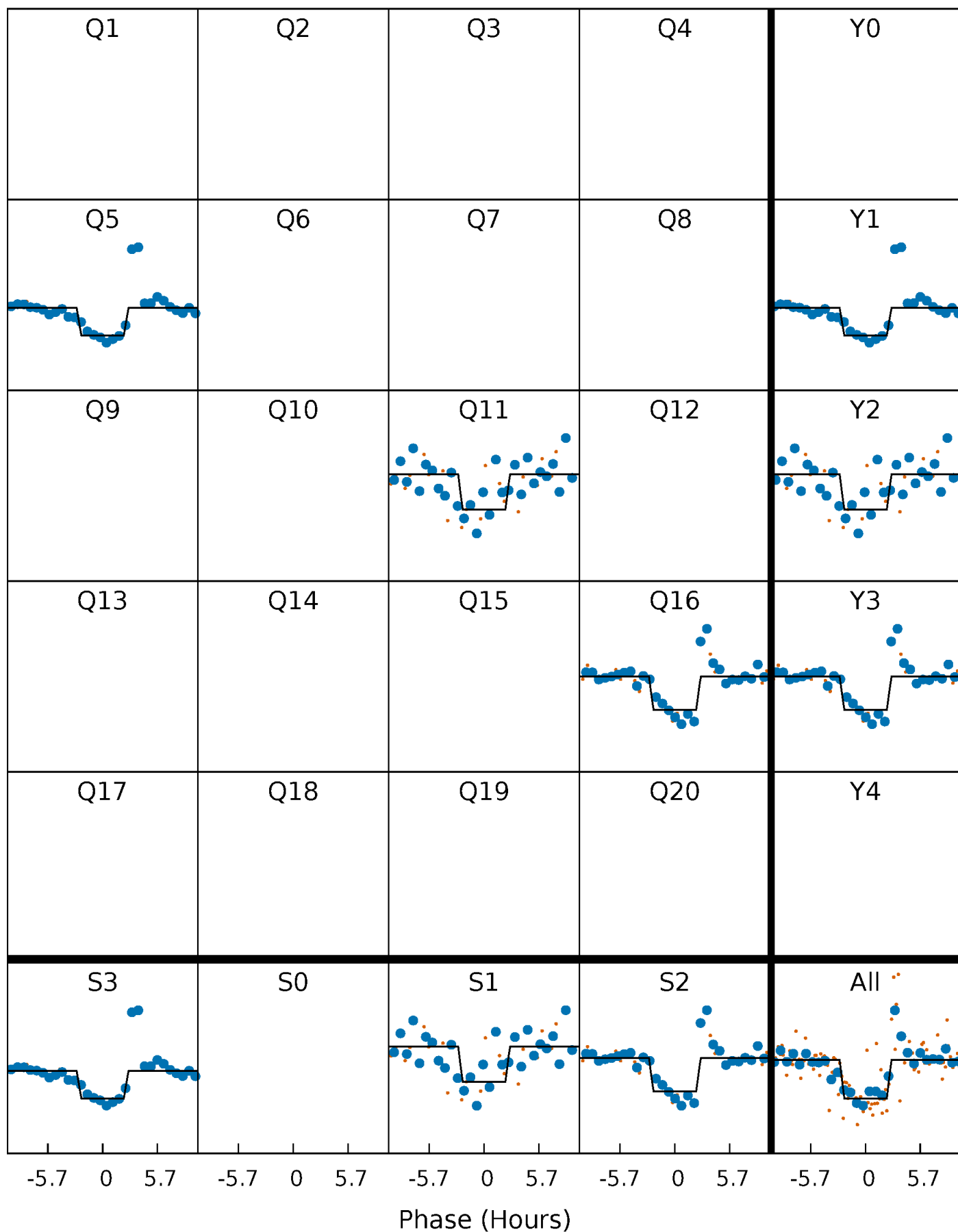
DV Quarter-Phased Transit Curves

TCE 004932663-02 $P=510.542759$ Days $T_0=529.608889$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

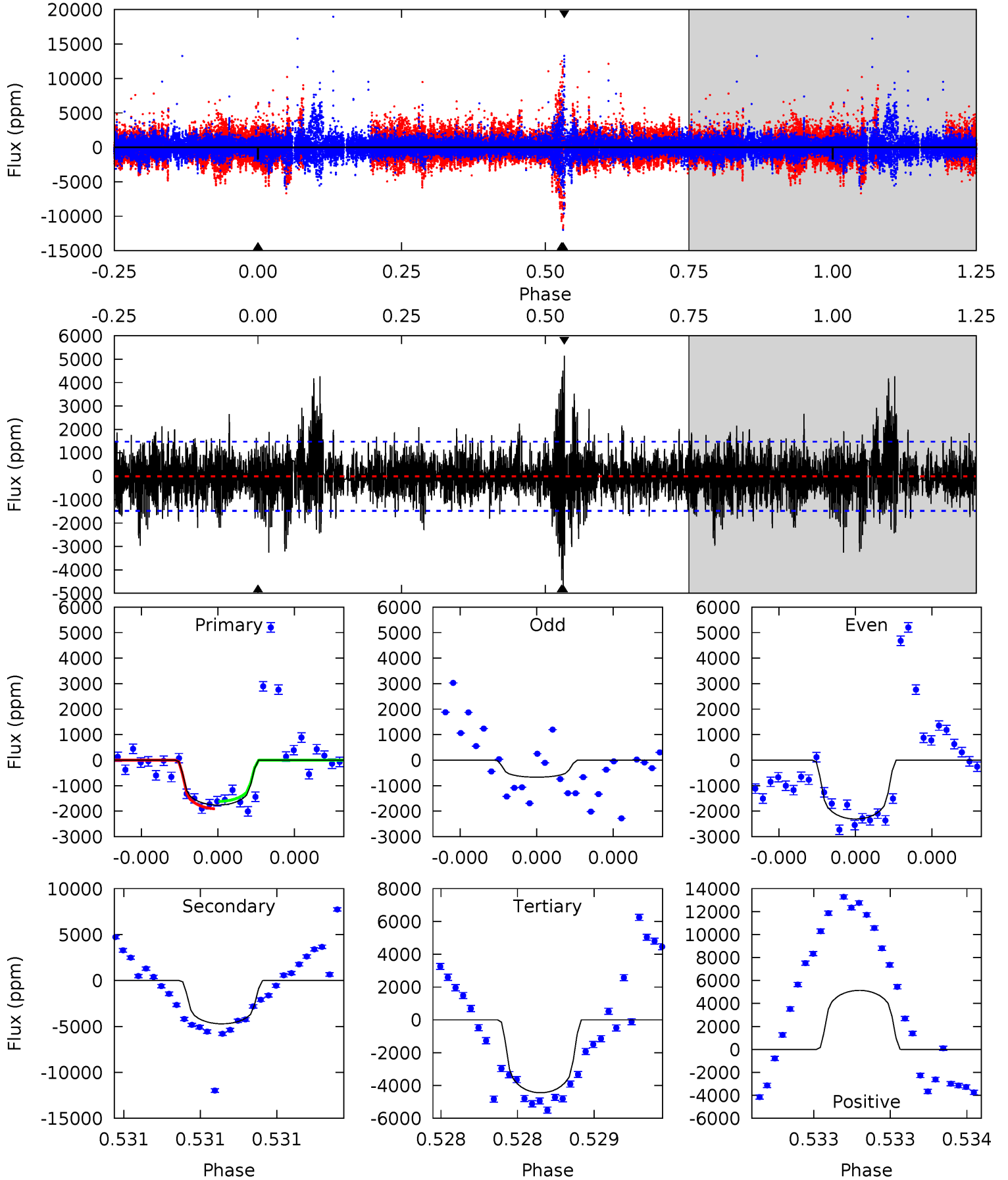
TCE 004932663-02 P=510.546119 Days $T_0=529.601779$ (BKJD)



DV Model-Shift Uniqueness Test

004932663-02, P = 510.542759 Days, E = 19.066130 Days

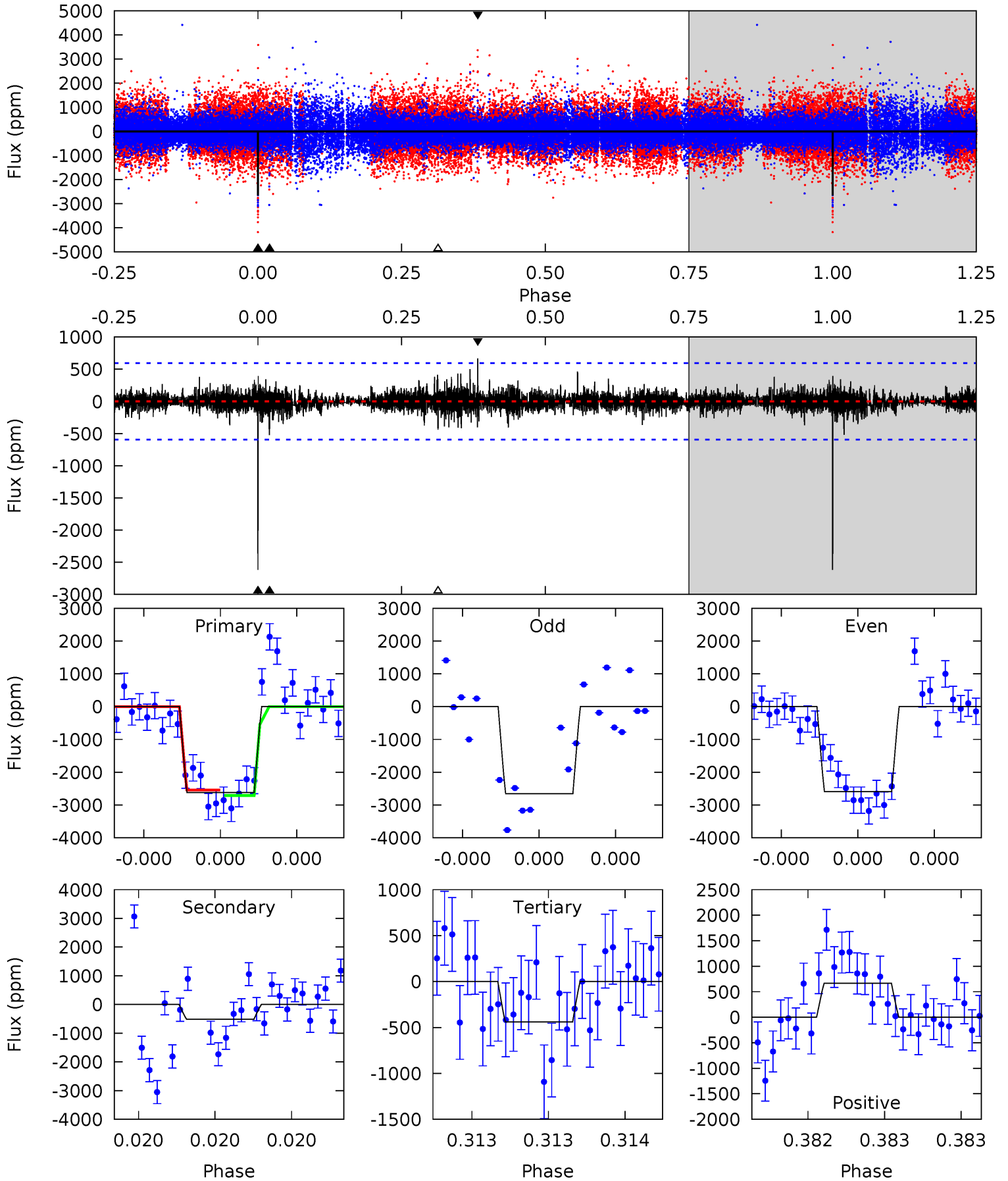
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.70	18.0	16.9	19.6	5.62	3.55	2.96	-10.2	-12.9	1.05	-1.60	2.56	1.05	0.52	0.55



Alt Model-Shift Uniqueness Test

004932663-02, P = 510.546119 Days, E = 19.055660 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.7	4.87	4.15	6.27	5.61	3.53	0.87	20.6	18.5	0.71	-1.40	0.29	0.95	0.20	0.78



Stellar Parameters For KIC 004932663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5628^{+152}_{-152}	$4.487^{+0.084}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$0.865^{+0.210}_{-0.113}$	$0.836^{+0.115}_{-0.071}$	$1.823^{+0.681}_{-0.815}$
	+3%/-3%	+2%/-3%	+107%/-107%	+24%/-13%	+14%/-8%	+37%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004932663-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4718 ± 263	$5.95^{+5.13}_{-3.89}$	301^{+19}_{-14}	5952^{+5812}_{-1397}	$99841^{+772736}_{-70411}$
Alt.	-516 ± 106	$6.70^{+5.18}_{-4.12}$	300^{+20}_{-14}	3654^{+1572}_{-606}	8382^{+49475}_{-5701}

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 $A_{obs} \gg 1.0$

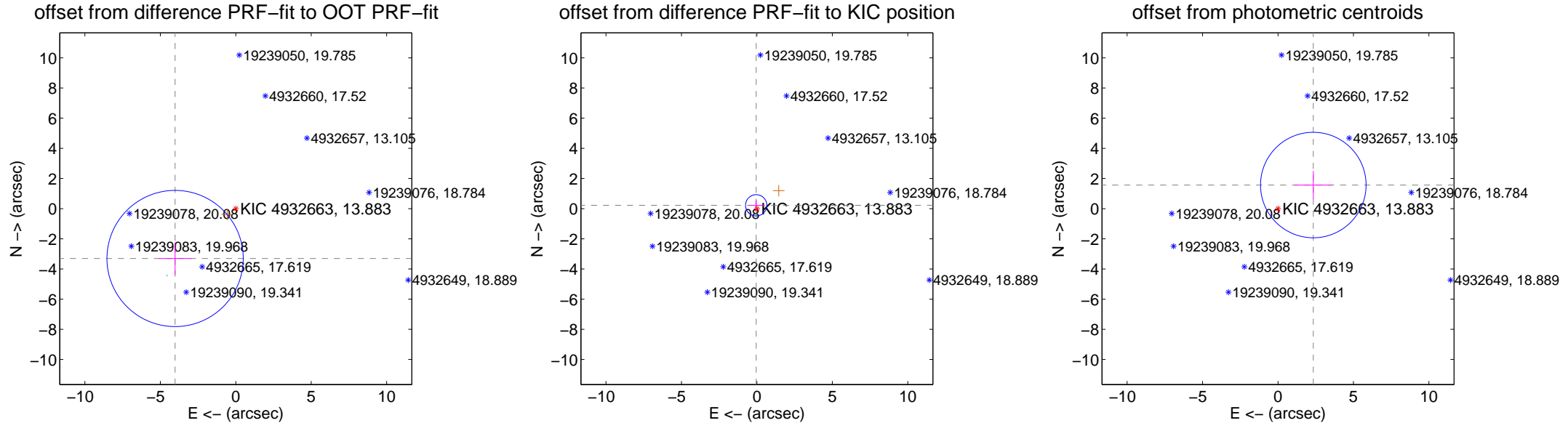
DV Centroid Data

Supplemental centroid analysis for 004932663-02. Kepler magnitude: 13.88. Transit SNR 4.56

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.56 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.204 ± 1.505	3.46	4.021 ± 1.079	-3.304 ± 1.070
PRF-fit source offset from KIC position	0.228 ± 0.235	0.97	0.047 ± 0.508	0.223 ± 0.341
photometric centroid source offset	2.81 ± 1.17	2.41	-2.34 ± 1.26	1.57 ± 0.93

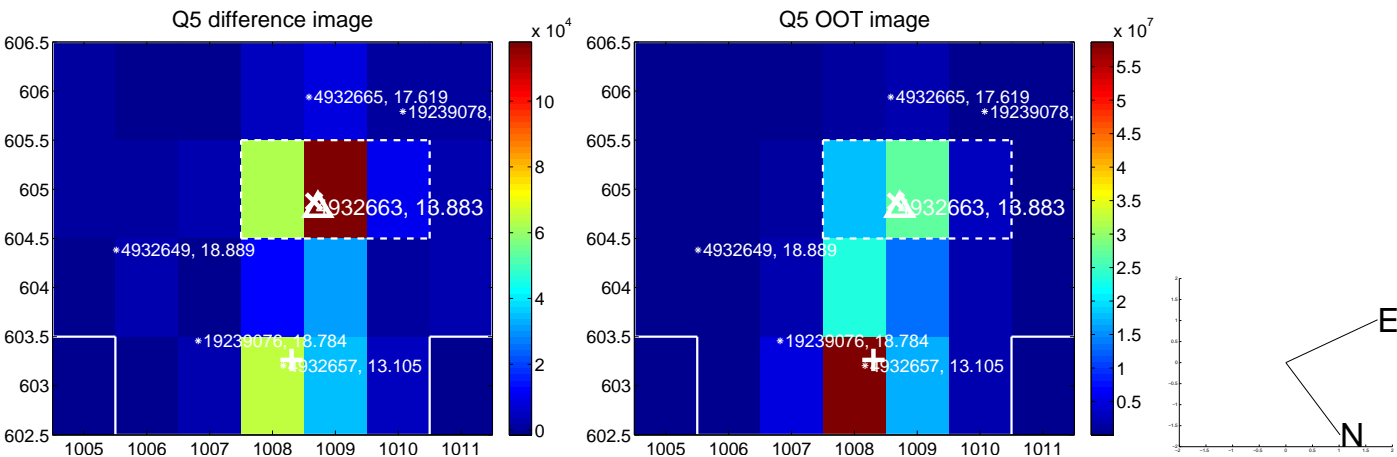


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

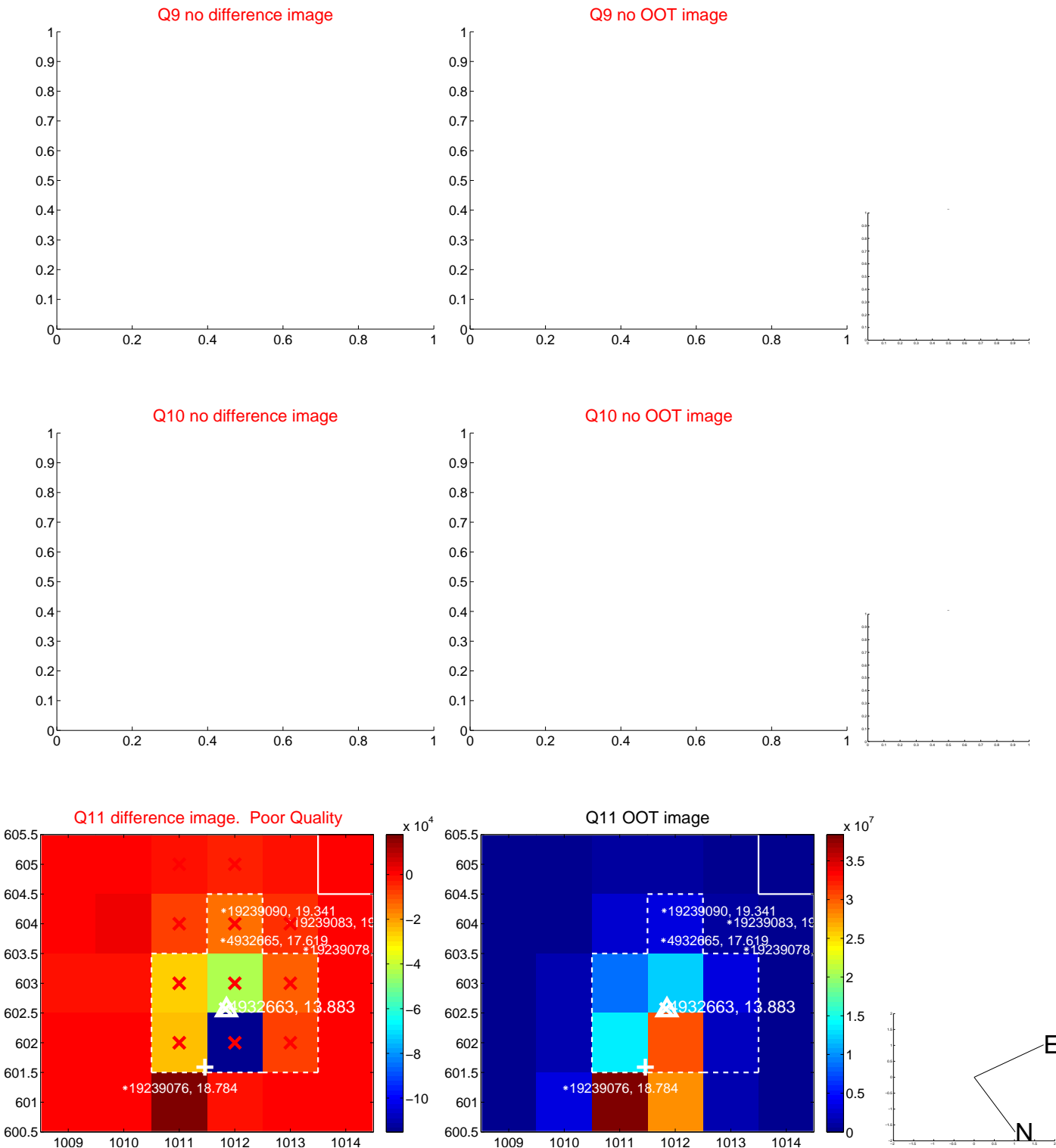
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

Q13 no difference image



Q13 no OOT image



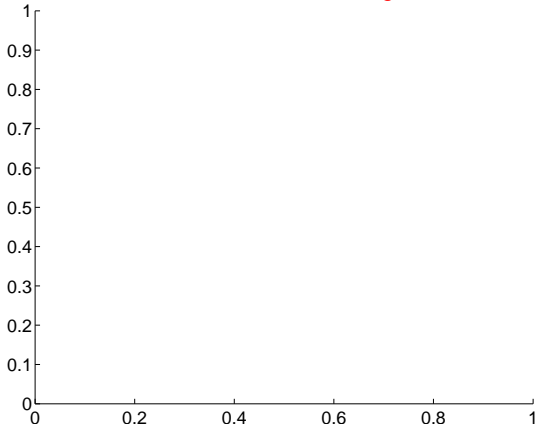
Q14 no difference image



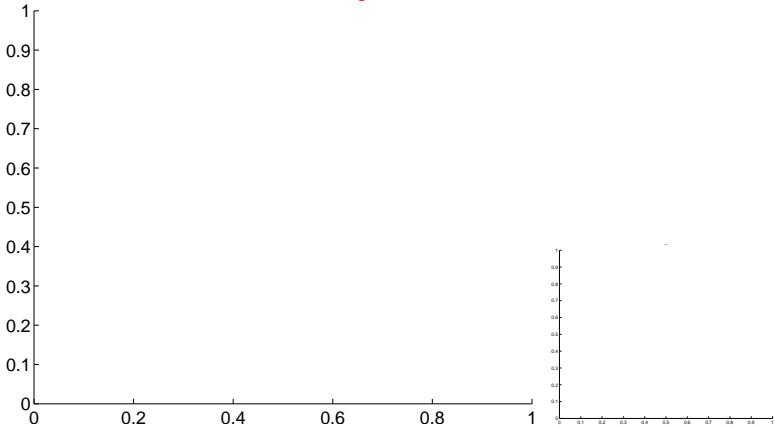
Q14 no OOT image



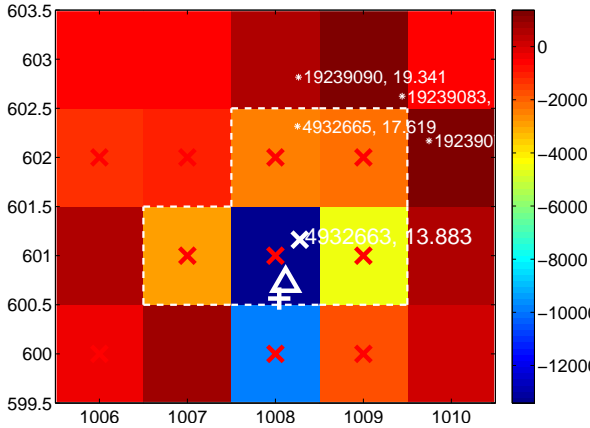
Q15 no difference image



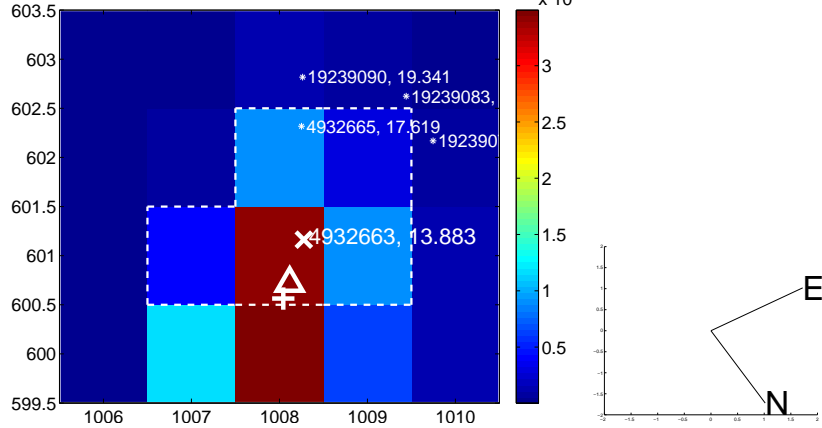
Q15 no OOT image



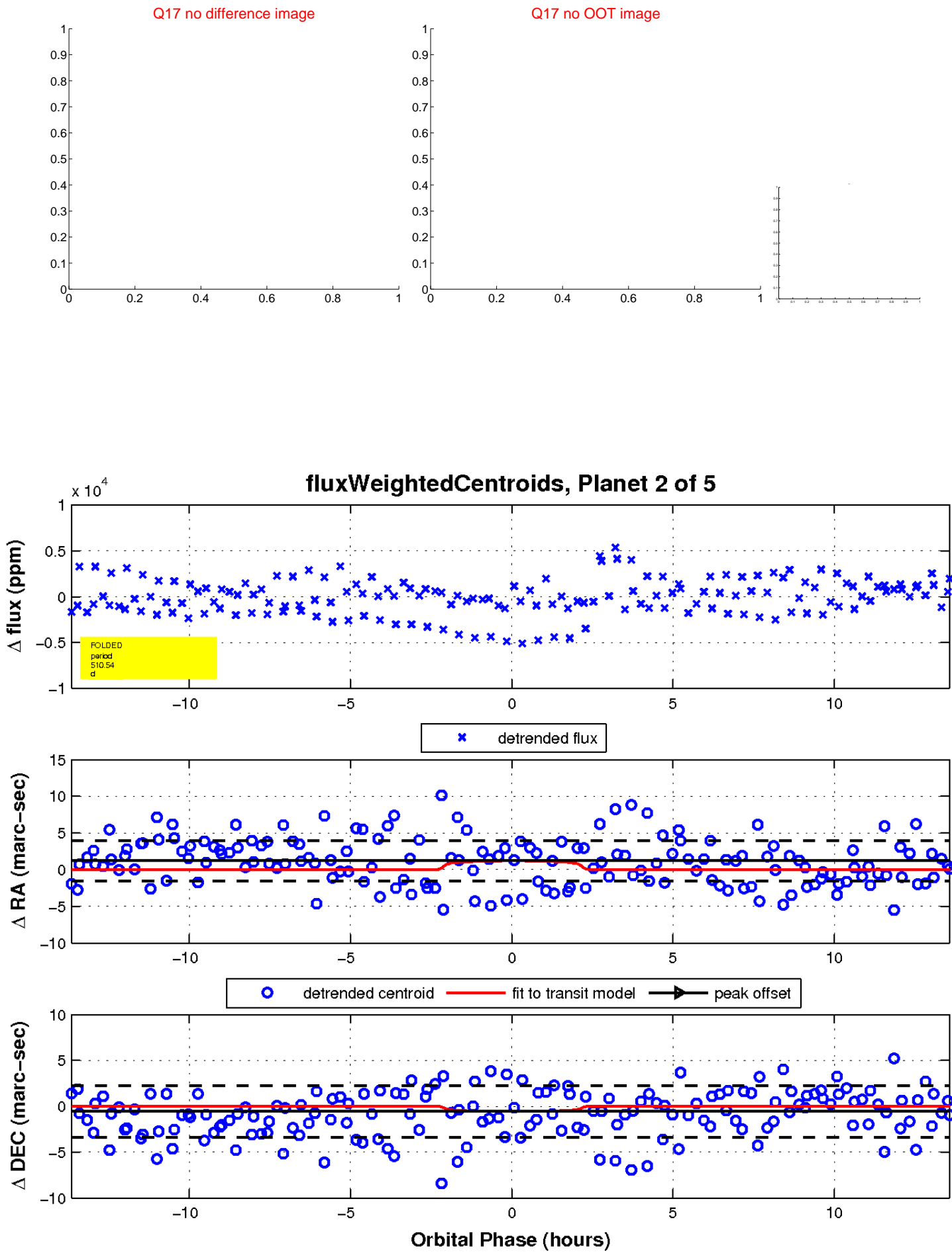
Q16 difference image. Poor Quality



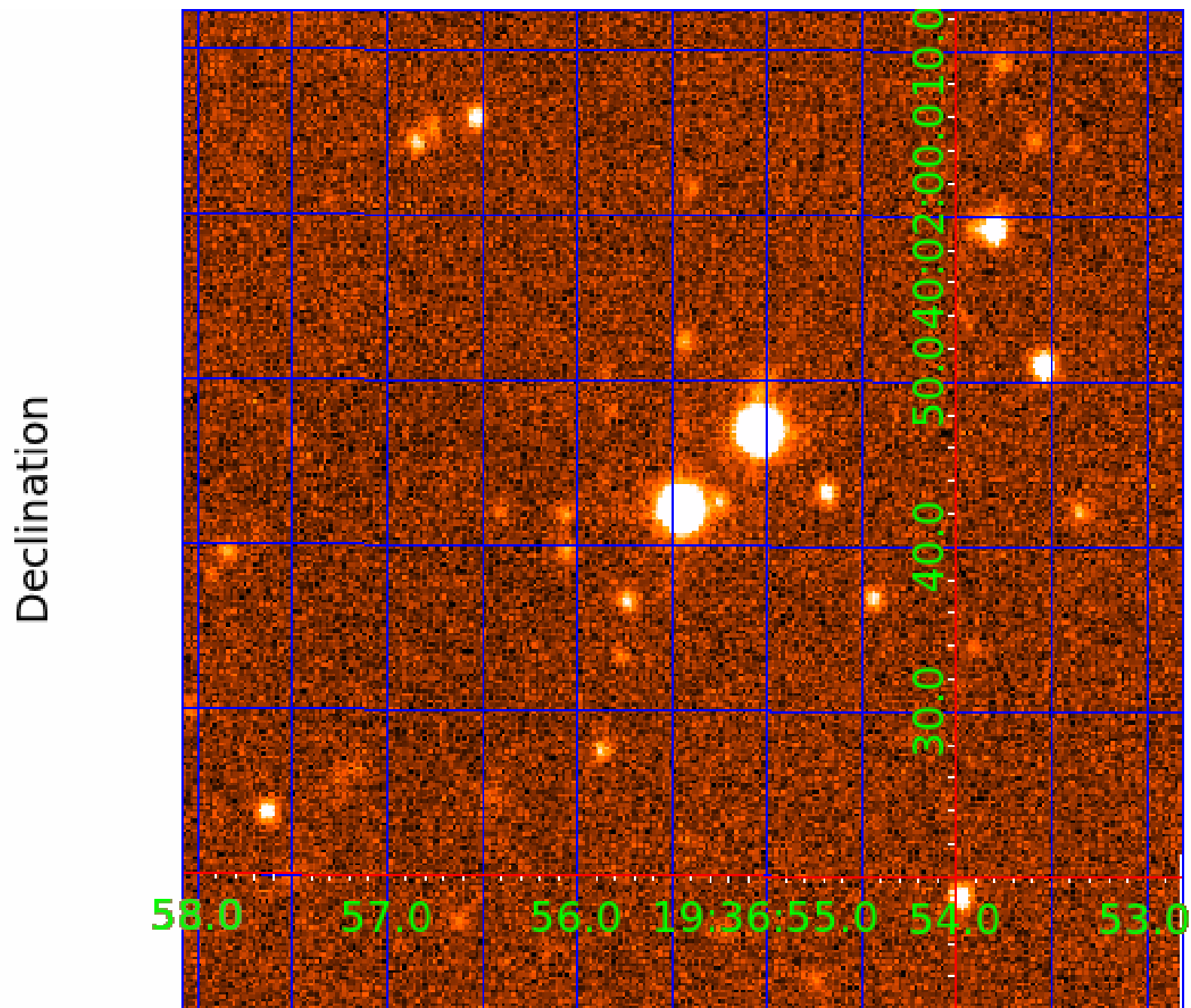
Q16 OOT image



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



UKIRT Image



KIC 004932663

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})
004932663-01	OBS	No	356.919919	476.035115	1111.8	6.798	19.6	3.6	0.86	5628	2.96	0.78
004932663-02	OBS	No	510.542759	529.608889	1615.5	4.581	15.1	4.6	0.86	5628	3.59	0.48
004932663-03	OBS	No	494.357518	215.675232	1575.5	5.103	13.2	5.5	0.86	5628	3.45	0.51
004932663-04	OBS	No	317.496748	257.246959	1823.4	19.873	12.9	5.1	0.86	5628	3.91	0.91
004932663-05	OBS	No	207.080983	335.186069	1718.7	1.980	10.7	6.4	0.86	5628	3.79	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004932663-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004932663-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004932663-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

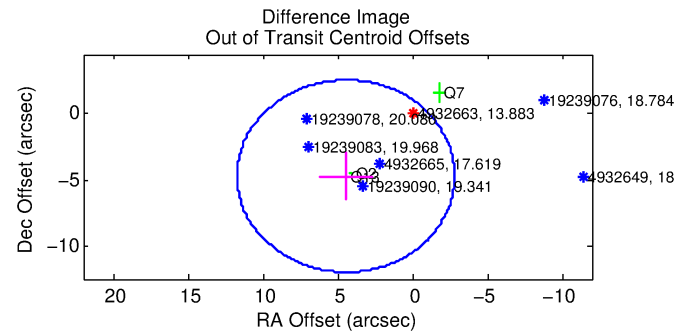
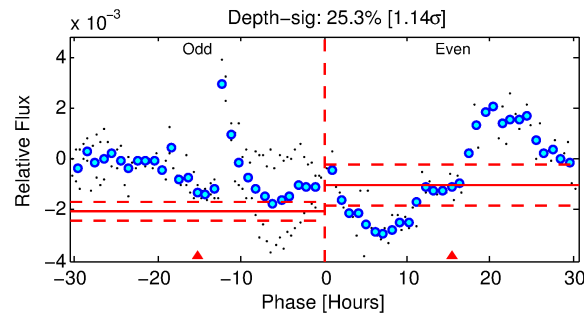
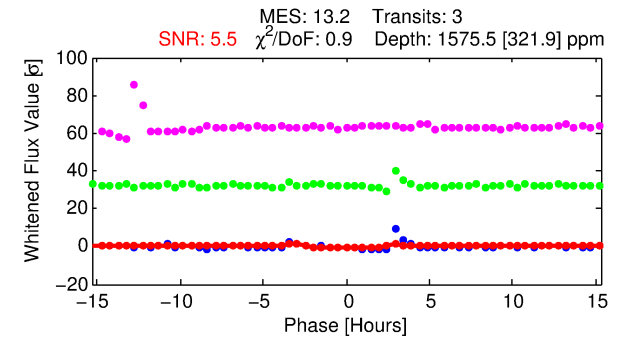
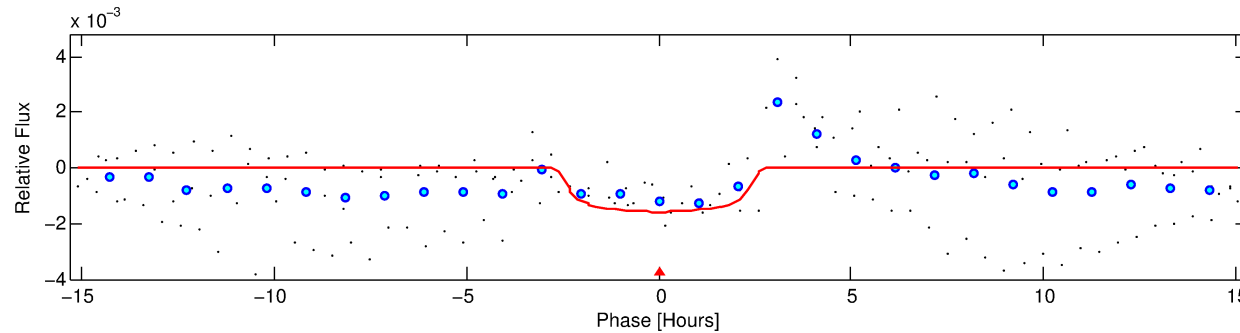
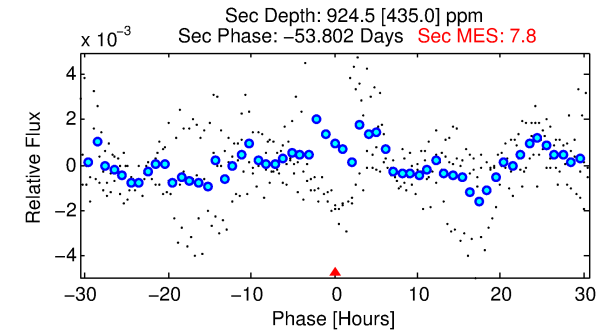
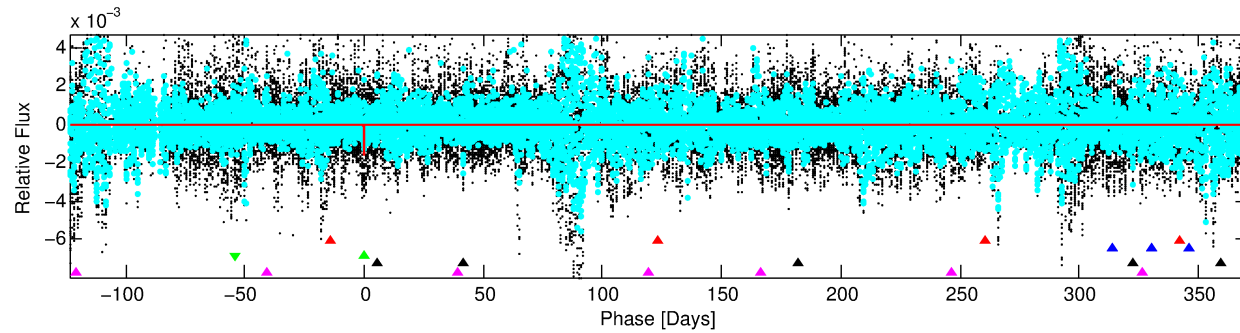
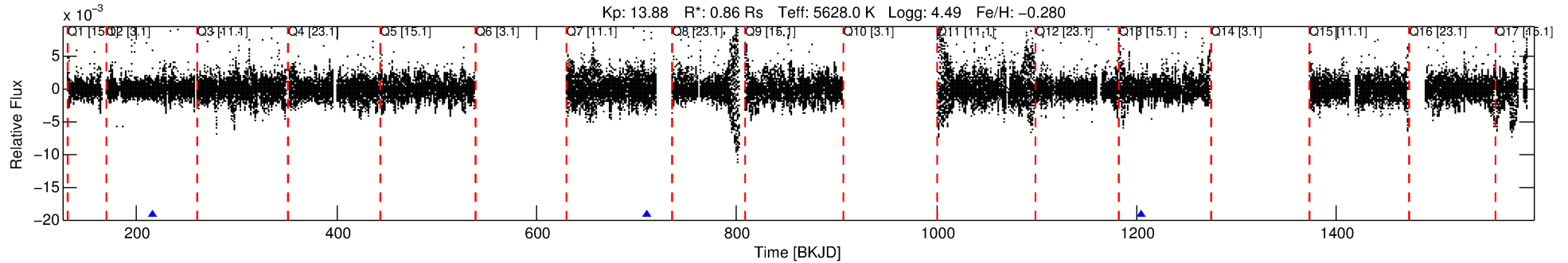
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004932663-03

No Significant Match Found

DV One-Page Summary

KIC: 4932663 Candidate: 3 of 5 Period: 494.358 d



DV Fit Results:

Period = 494.35752 [0.00584] d
Epoch = 215.6752 [0.0106] BKJD
Rp/R* = 0.0366 [0.2371]
a/R* = 719.03 [20200.56]
b = 0.36 [68.45]
Seff = 0.51 [0.16]
Teq = 215 [17] K
Rp = 3.45 [22.40] Re
a = 1.1536 [0.2323] AU
Ag = 56819.87 [737542.98] [0.08 σ]
Teff = 5132 [16650] K [0.30 σ]

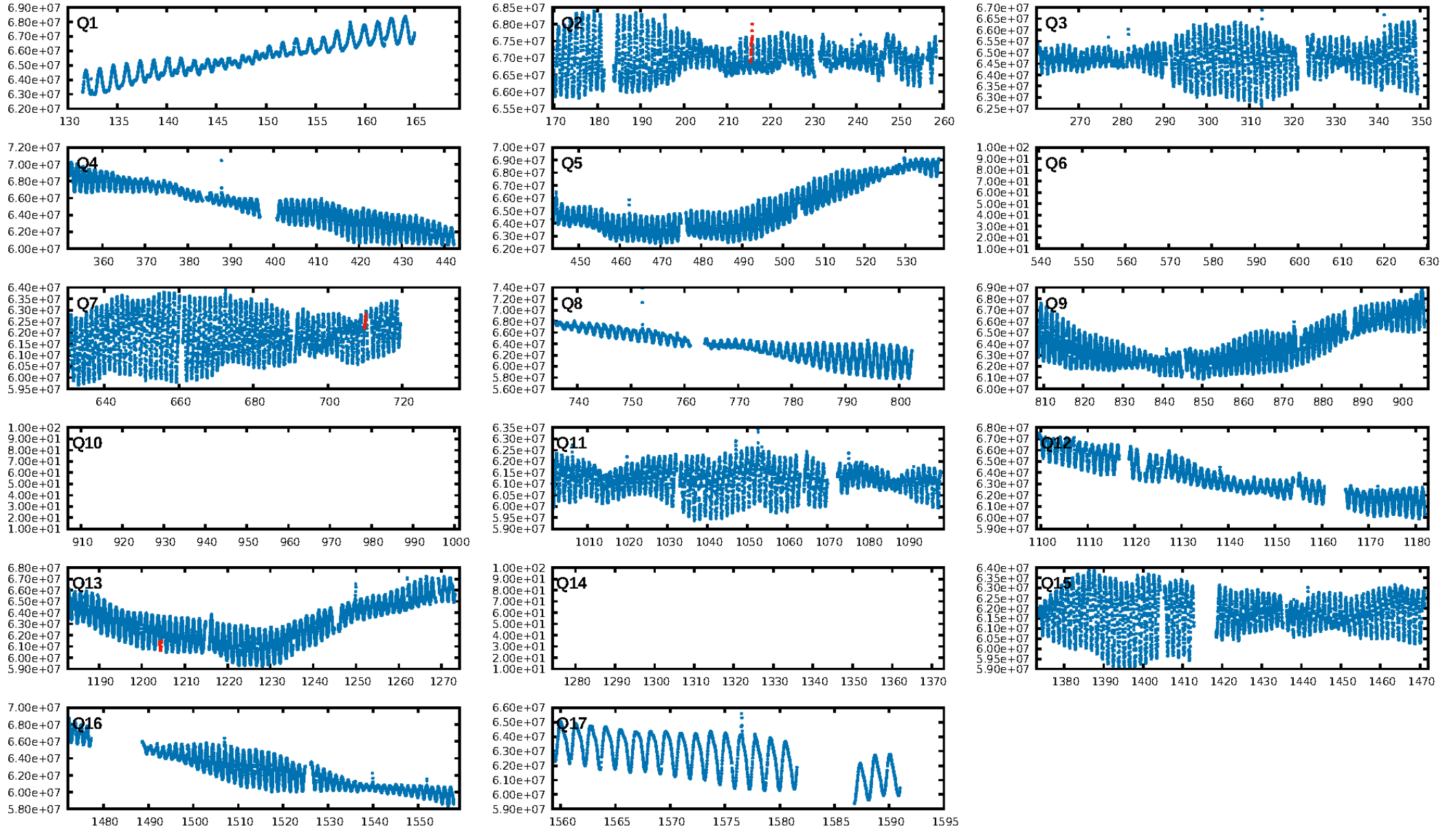
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [388.03 σ]
LongPeriod-sig: 100.0% [56.64 σ]
ModelChiSquare2-sig: 55.0%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: 8.83e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.06
Centroid-sig: 7.8%
Centroid-so: 0.999 arcsec [1.01 σ]
OotOffset-rm: 6.483 arcsec [2.67 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.057 arcsec [0.04 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

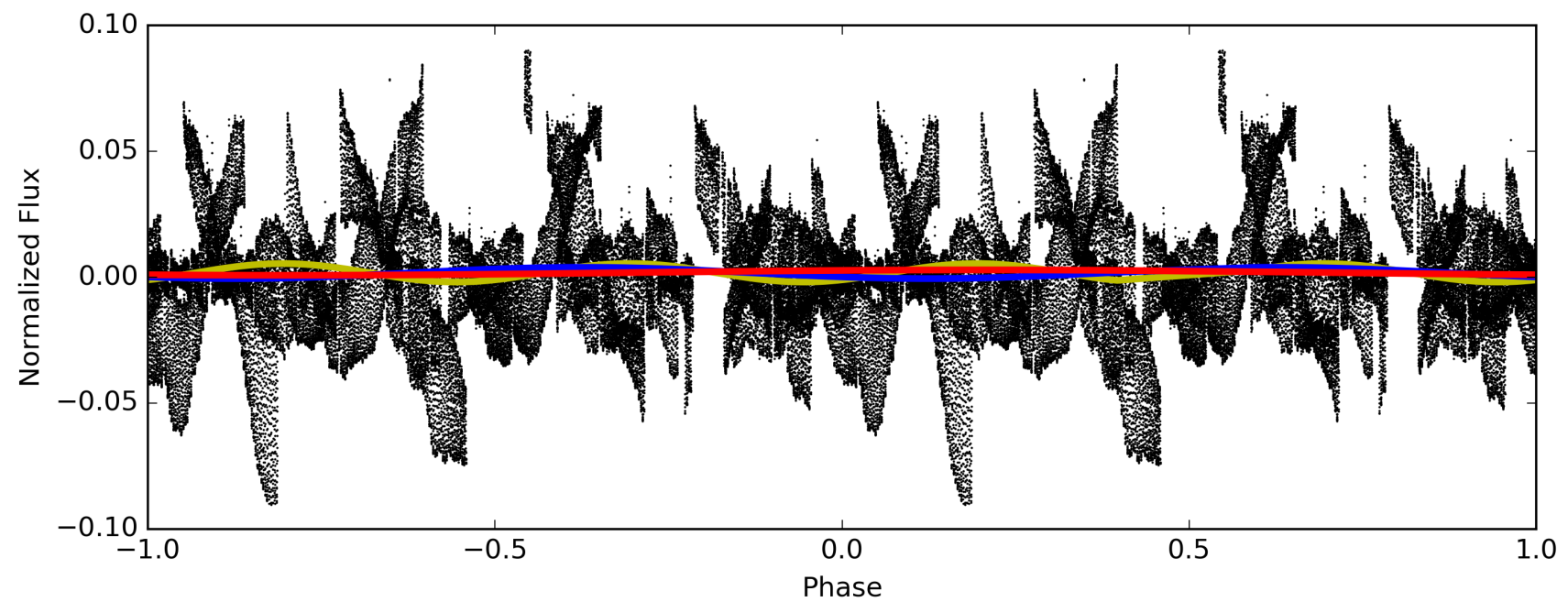
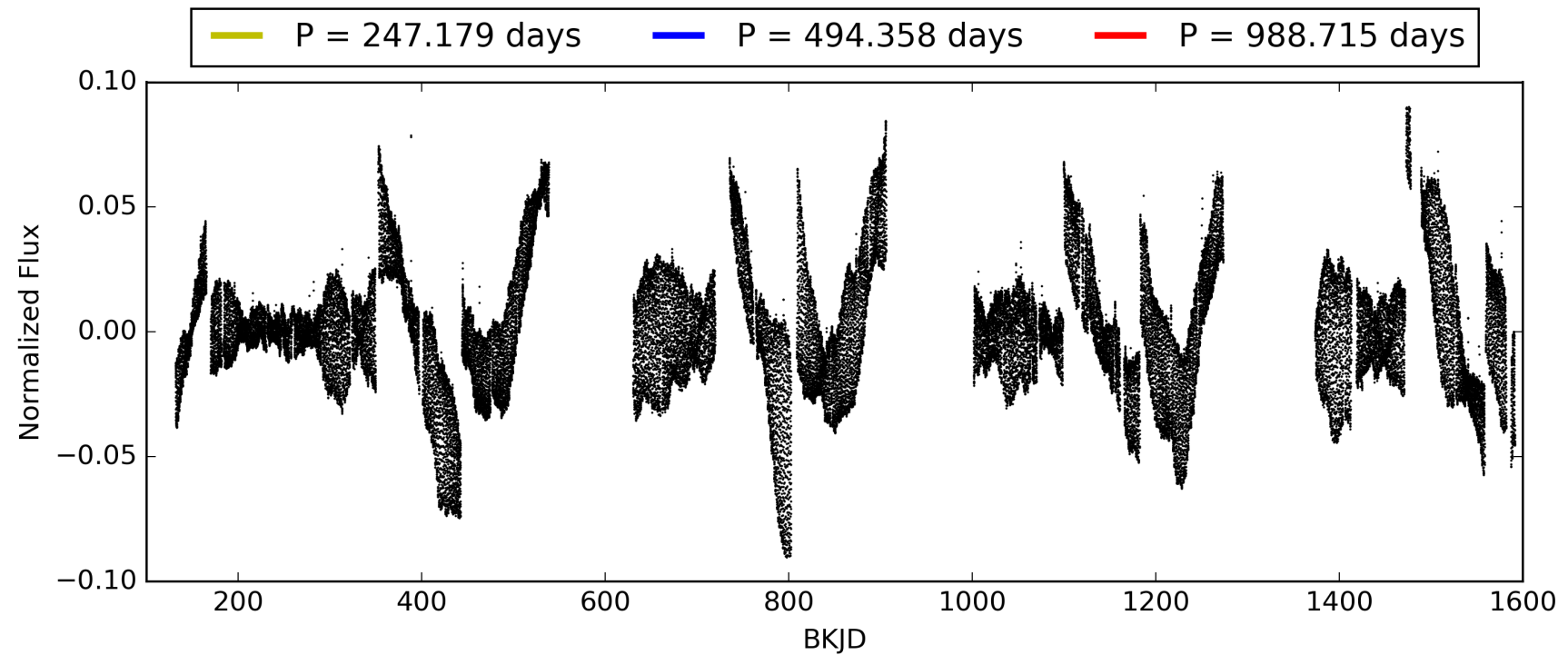
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:02:48 Z

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

TCE 004932663-03, PDC Light Curves

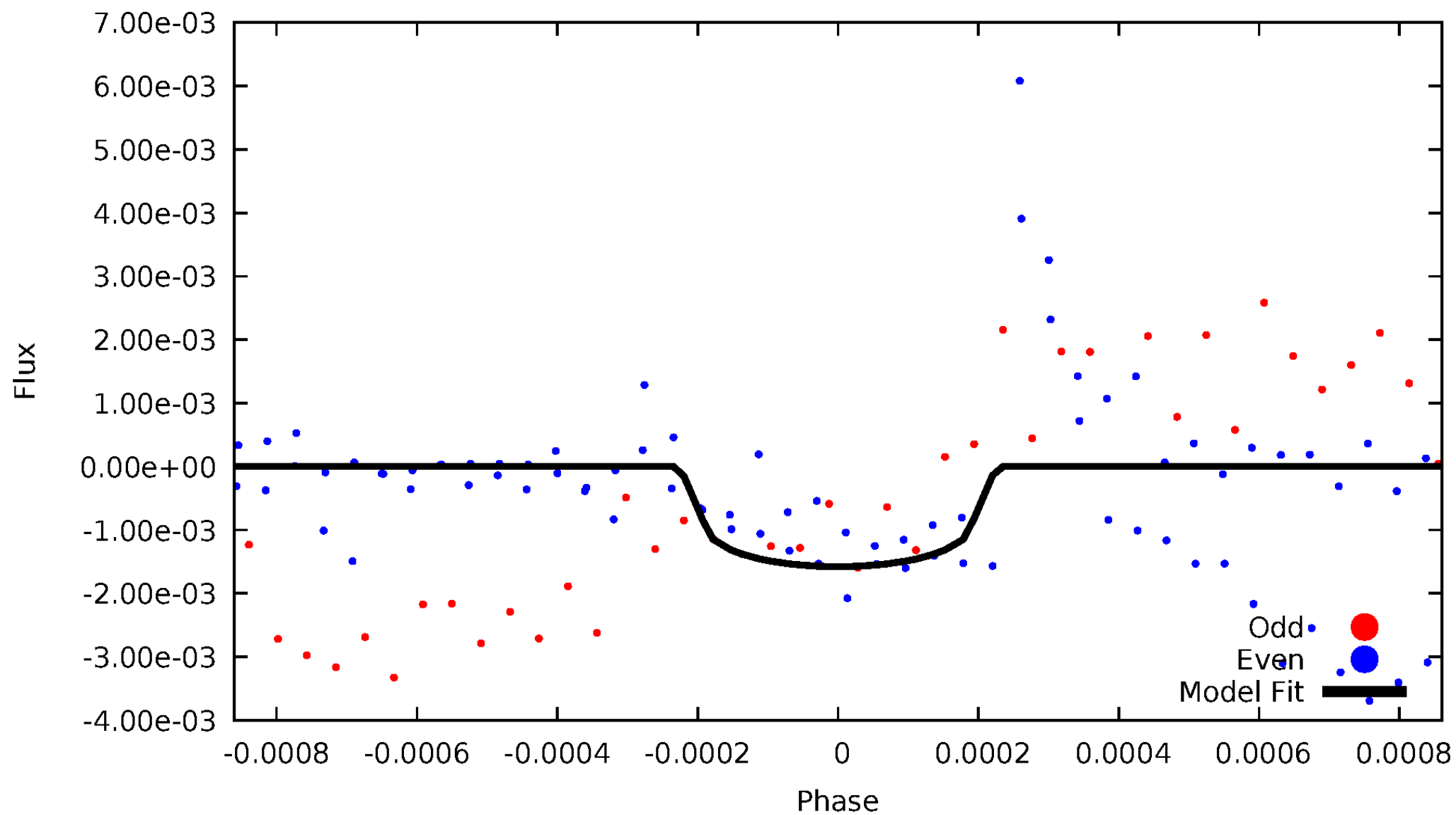


TCE 004932663-03



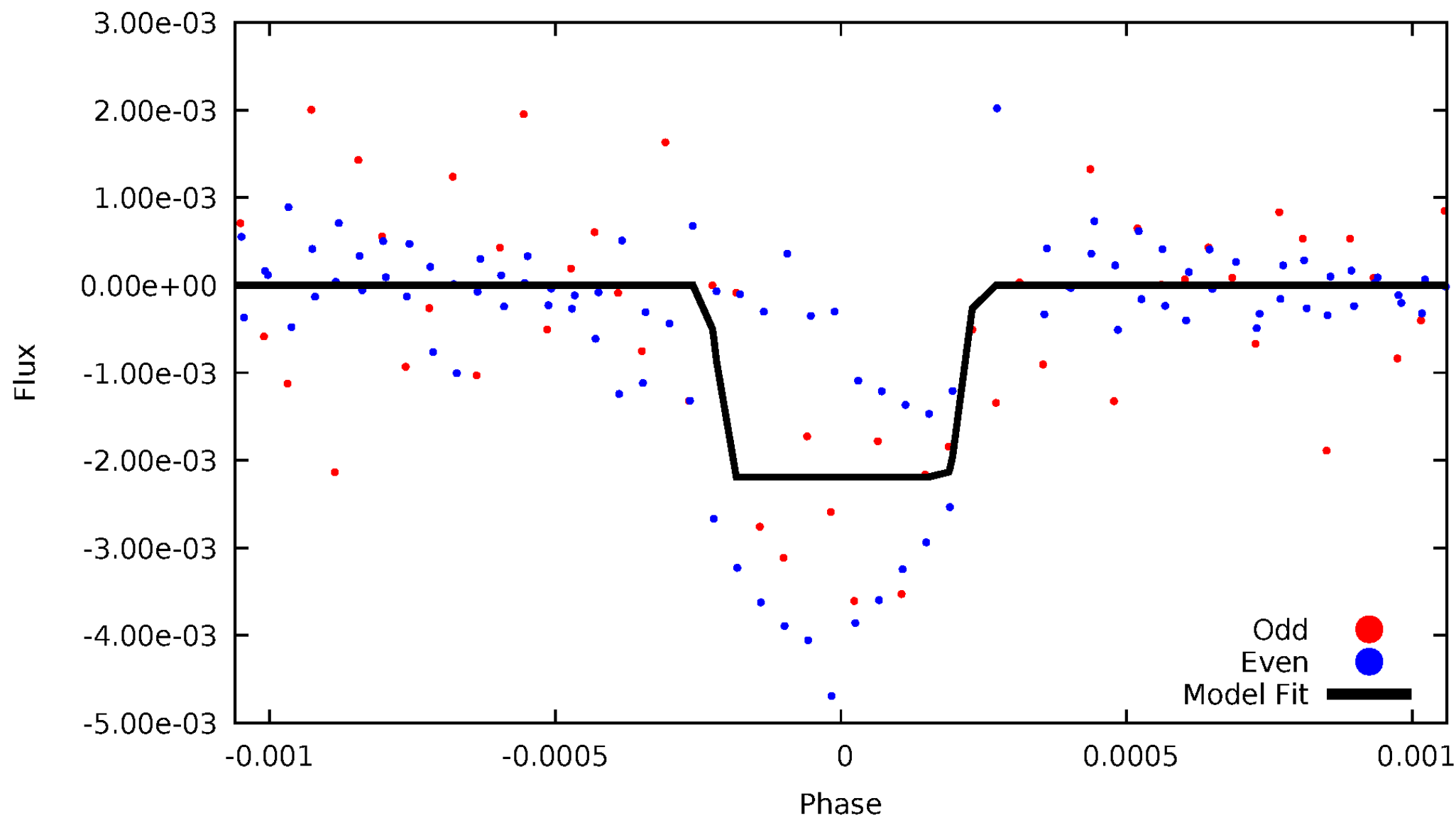
DV Odd/Even

TCE 004932663-03



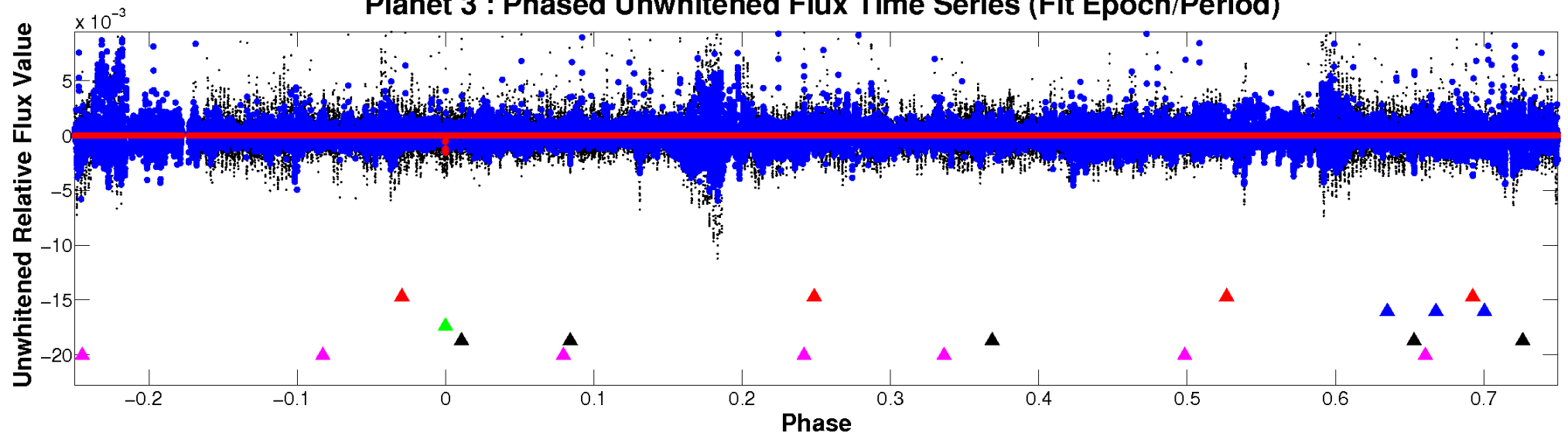
ALT Odd/Even

TCE 004932663-03

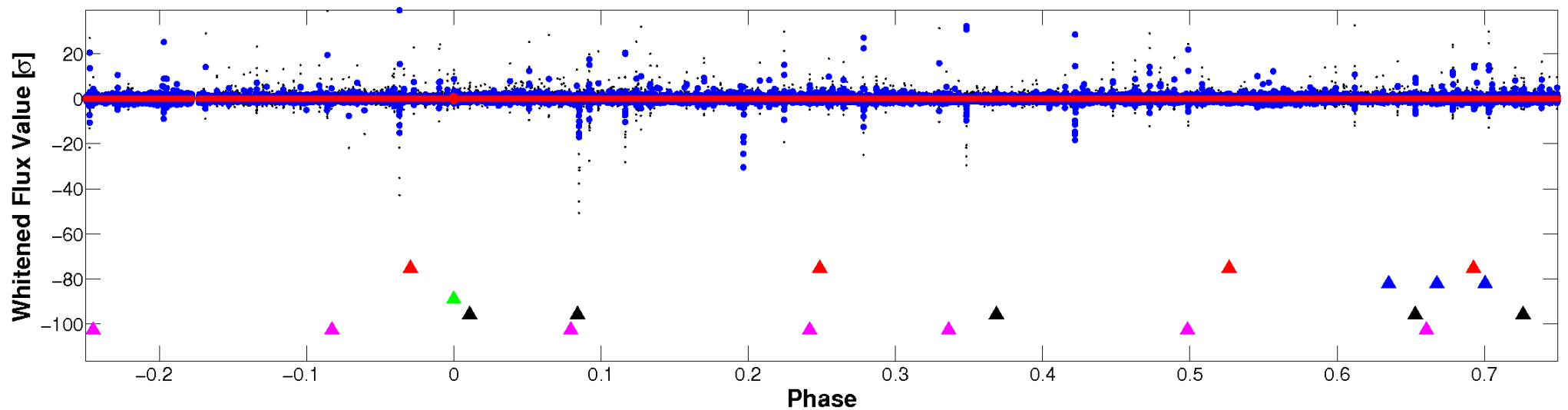


Non-Whitened Vs. Whitened Light Curve

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

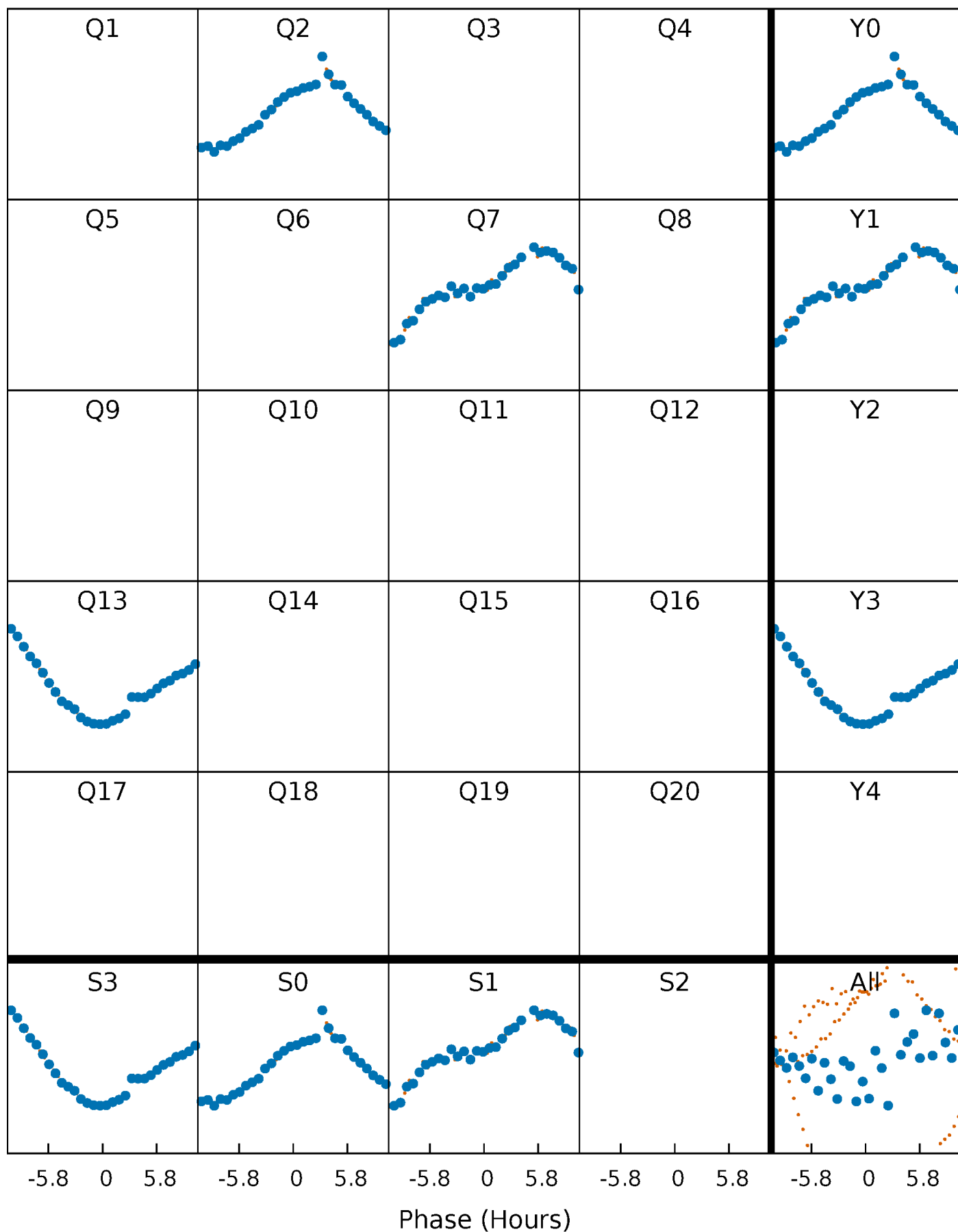


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



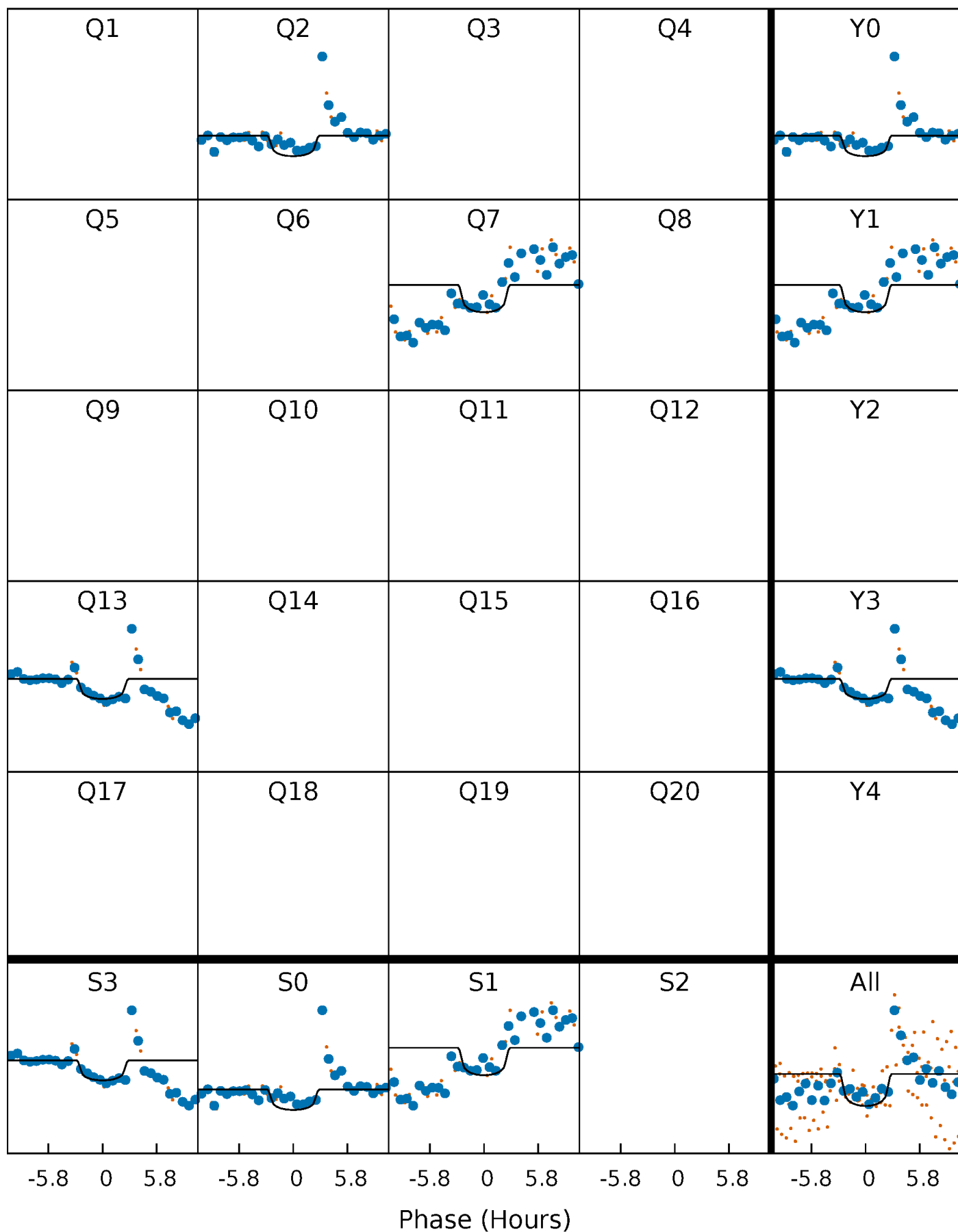
PDC Quarter-Phased Transit Curves

TCE 004932663-03 P=494.357518 Days $T_0=215.675232$ (BKJD)



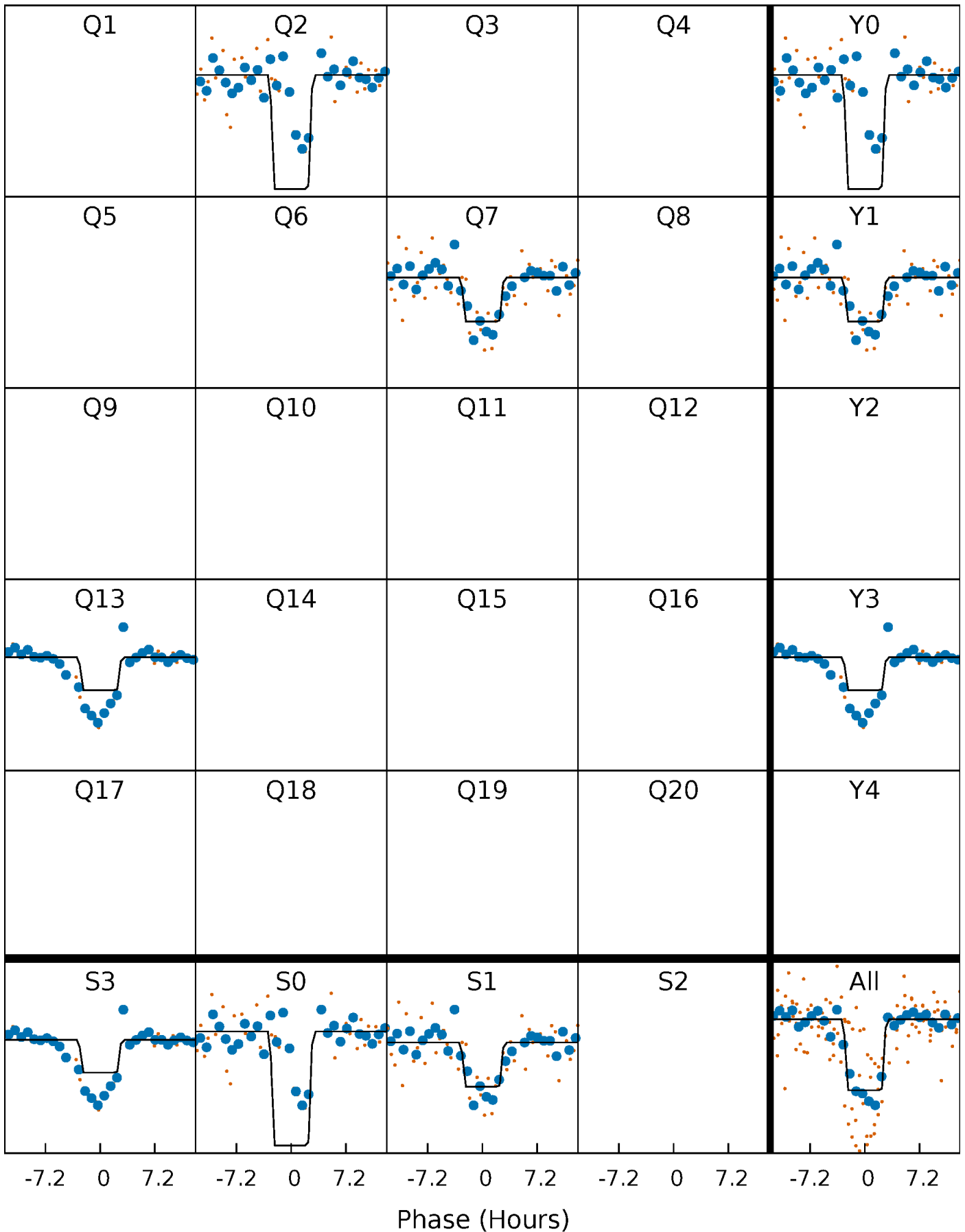
DV Quarter-Phased Transit Curves

TCE 004932663-03 $P=494.357518$ Days $T_0=215.675232$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

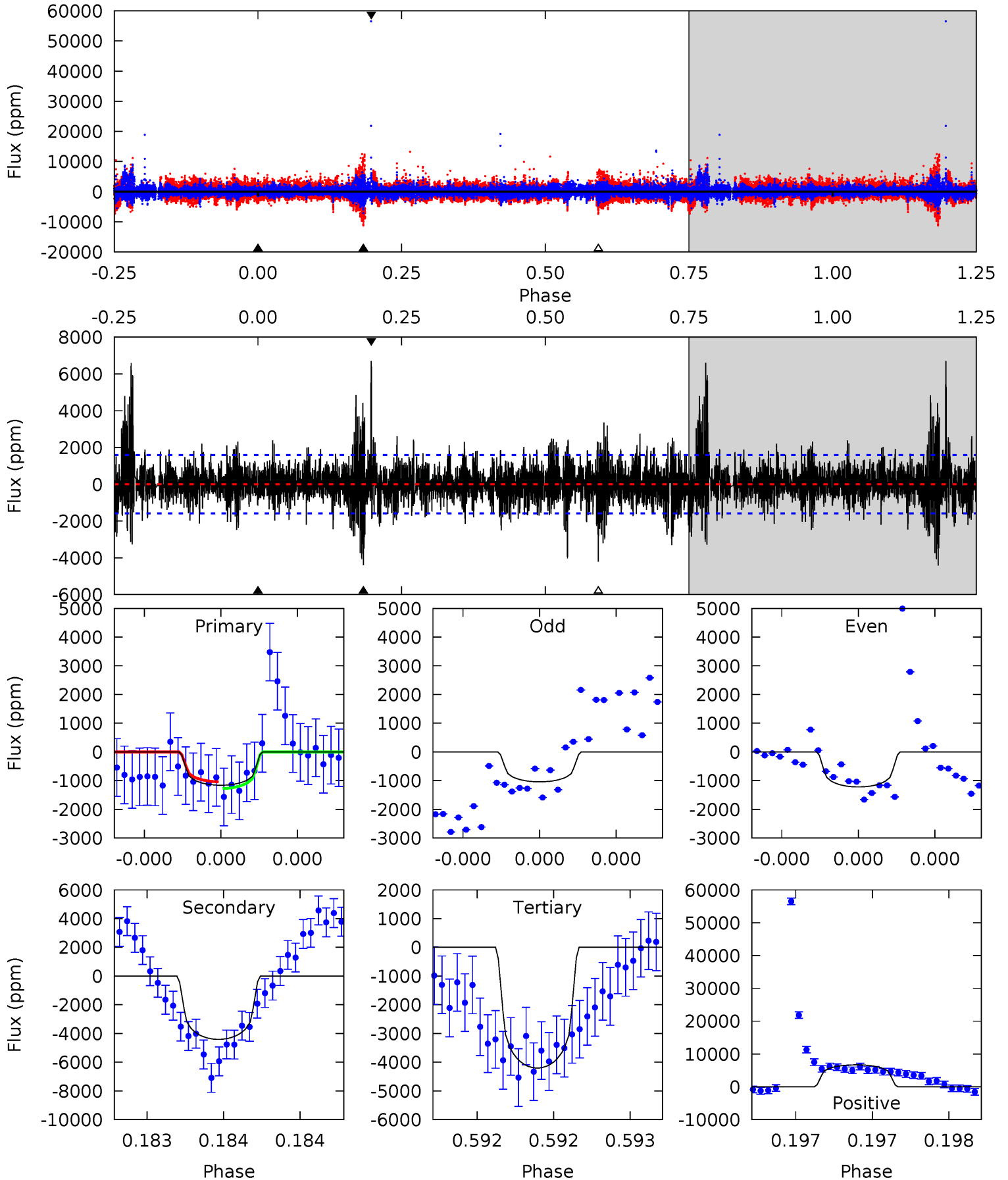
TCE 004932663-03 $P=494.369551$ Days $T_0=215.665717$ (BKJD)



DV Model-Shift Uniqueness Test

004932663-03, P = 494.357518 Days, E = 215.675232 Days

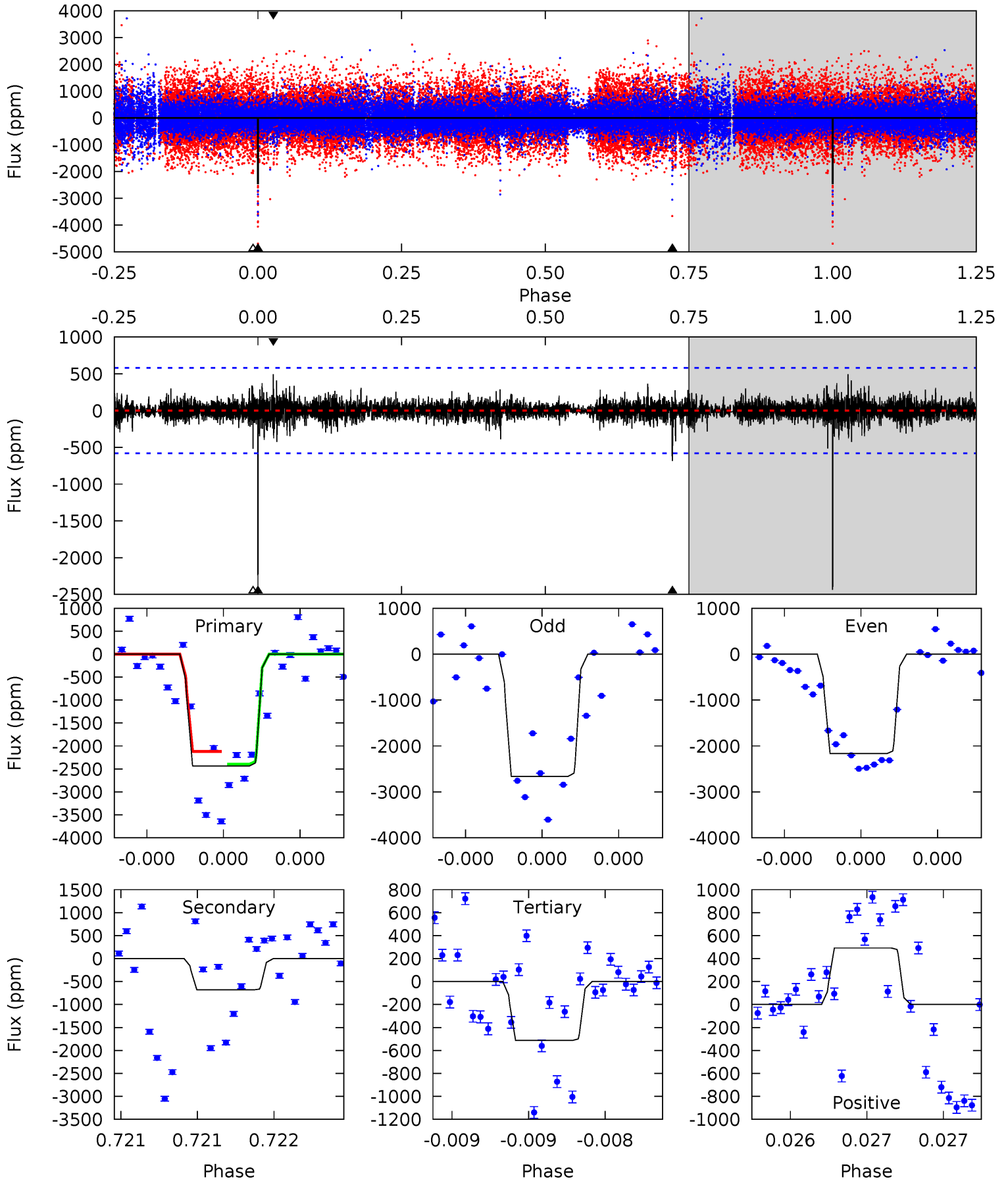
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.10	15.6	14.8	23.6	5.60	3.52	3.26	-10.7	-19.5	0.73	-8.07	0.26	1.11	0.60	0.41



Alt Model-Shift Uniqueness Test

004932663-03, P = 494.369551 Days, E = 215.665717 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.5	6.58	4.95	4.75	5.59	3.51	0.74	18.5	18.7	1.63	1.83	2.30	0.96	0.17	1.35



Stellar Parameters For KIC 004932663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5628^{+152}_{-152}	$4.487^{+0.084}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$0.865^{+0.210}_{-0.113}$	$0.836^{+0.115}_{-0.071}$	$1.823^{+0.681}_{-0.815}$
	+3%/-3%	+2%/-3%	+107%/-107%	+24%/-13%	+14%/-8%	+37%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004932663-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4407 ± 283	$17.43^{+18.37}_{-11.95}$	303^{+17}_{-14}	3810^{+2145}_{-758}	10570^{+98447}_{-7981}
Alt.	-682 ± 104	$17.46^{+17.82}_{-11.93}$	303^{+19}_{-14}	2855^{+1264}_{-454}	1666^{+15283}_{-1270}

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 $A_{obs} \gg 1.0$

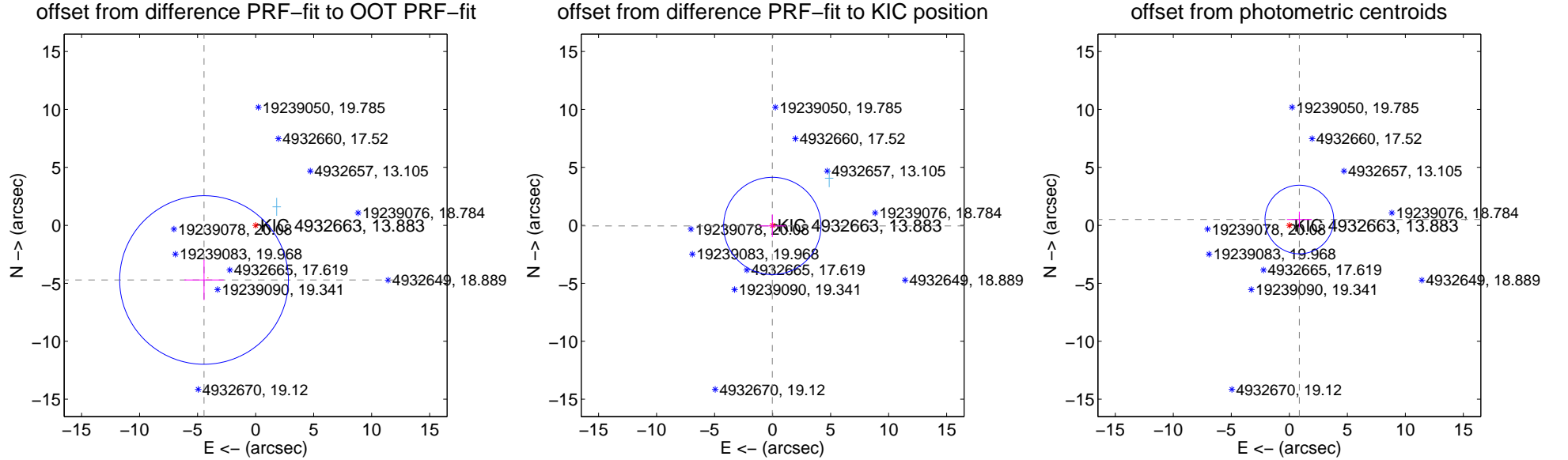
DV Centroid Data

Supplemental centroid analysis for 004932663-03. Kepler magnitude: 13.88. Transit SNR 5.53

There are 2 quarters with good PRF difference image offsets

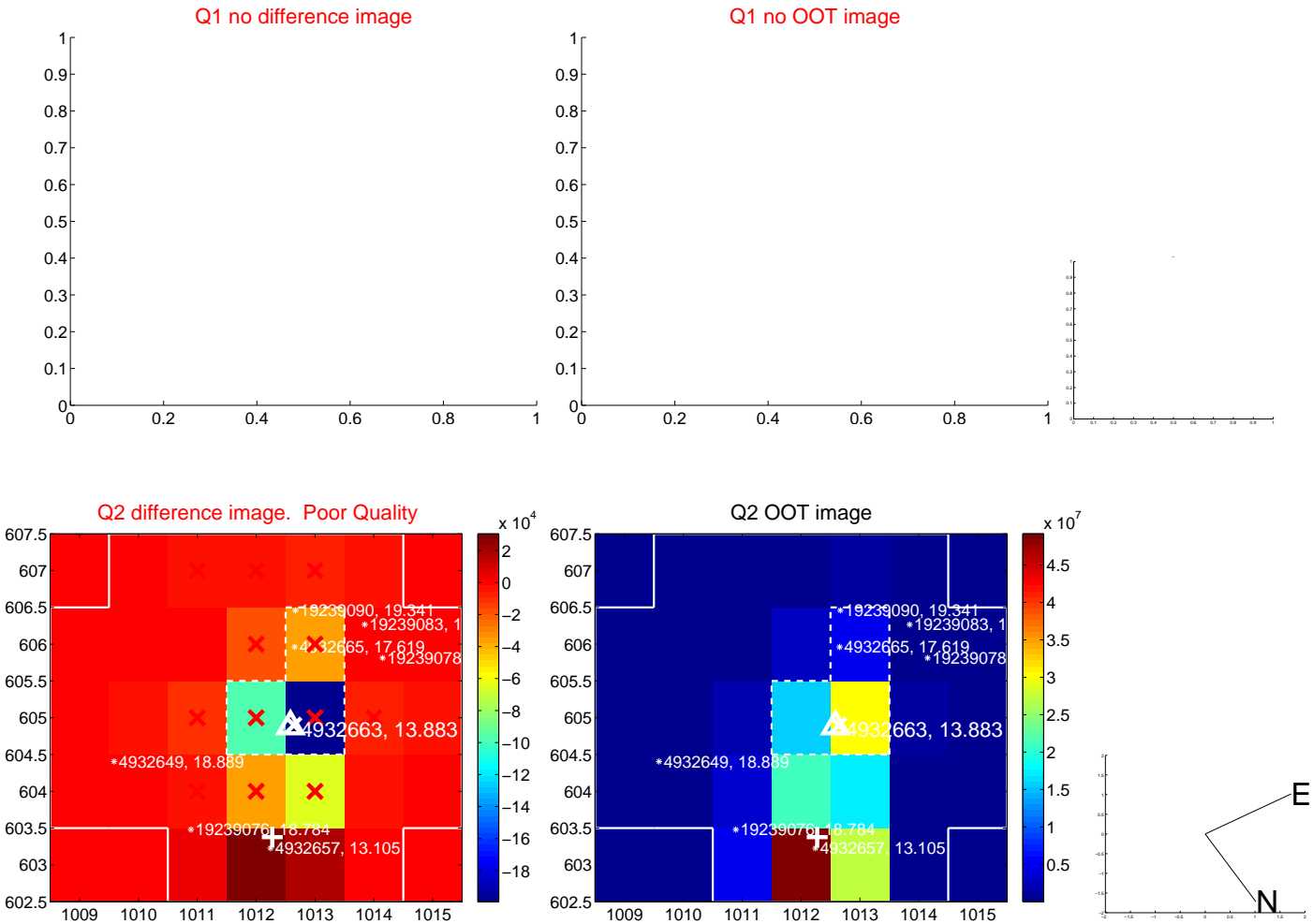
The OOT PRF centroid is offset from the target star catalog position by about 6.46 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.483 ± 2.424	2.67	4.448 ± 1.698	-4.716 ± 1.732
PRF-fit source offset from KIC position	0.057 ± 1.399	0.04	0.026 ± 1.156	-0.050 ± 0.973
photometric centroid source offset	1.00 ± 0.99	1.01	-0.86 ± 1.07	0.50 ± 0.68

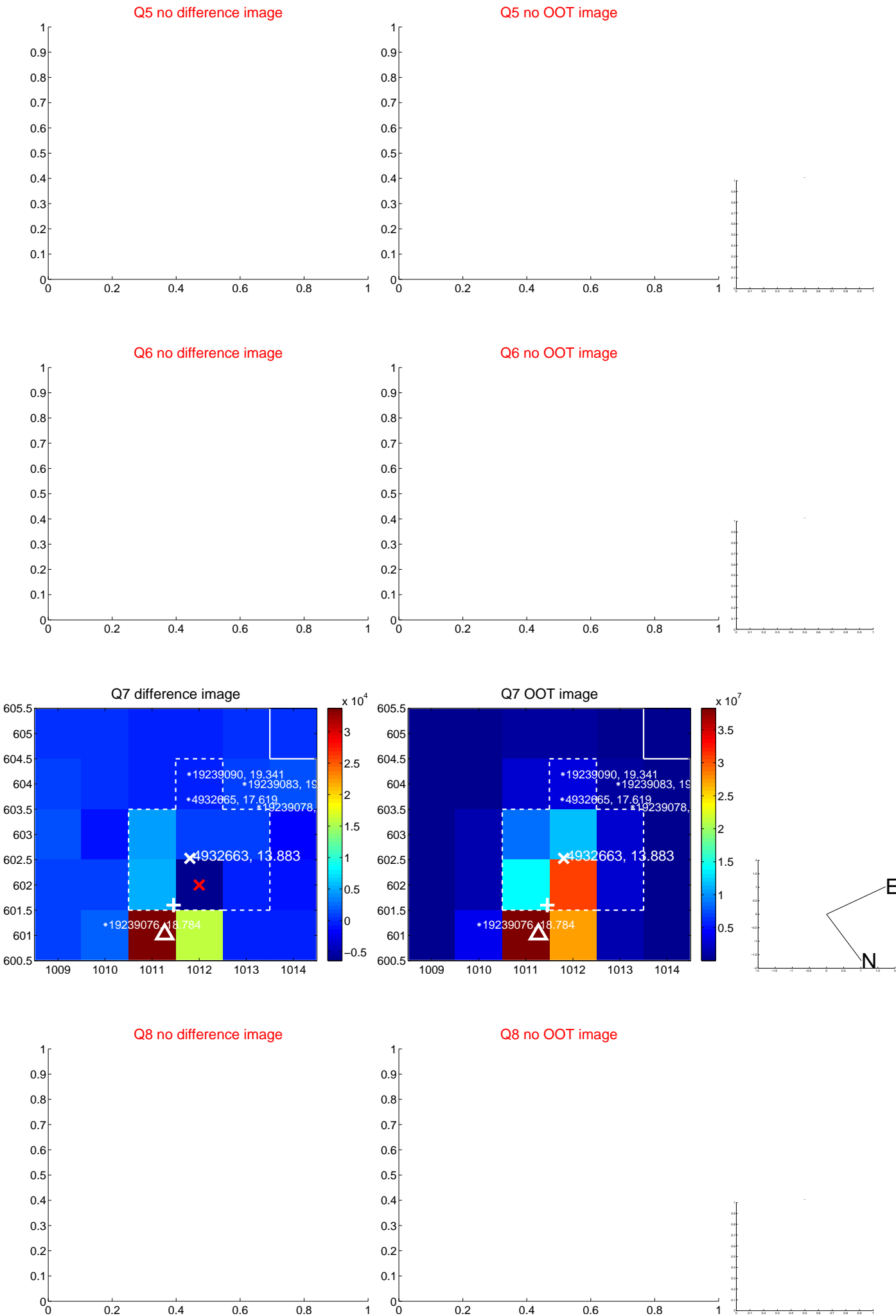


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



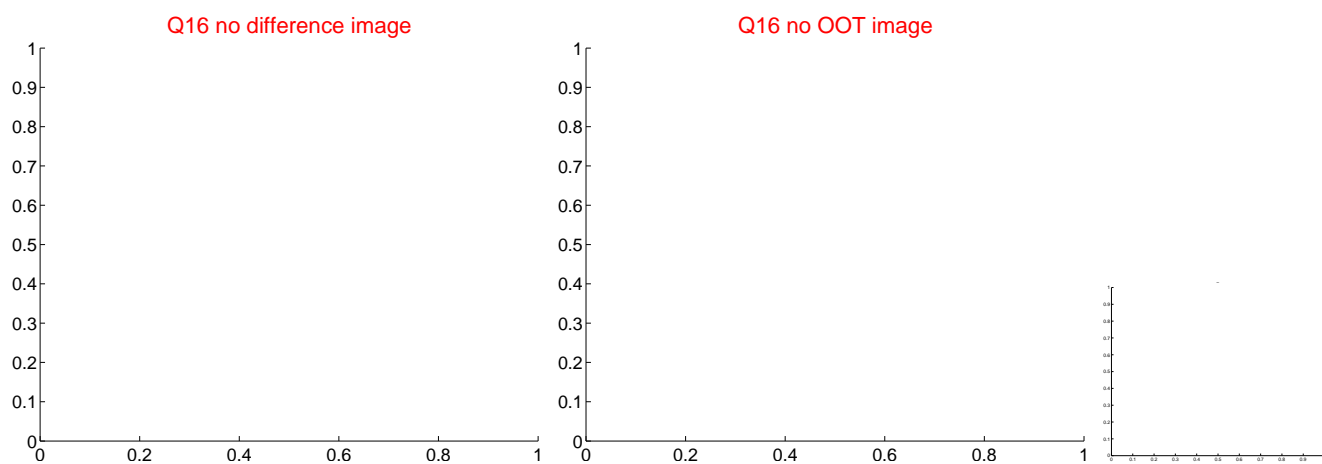
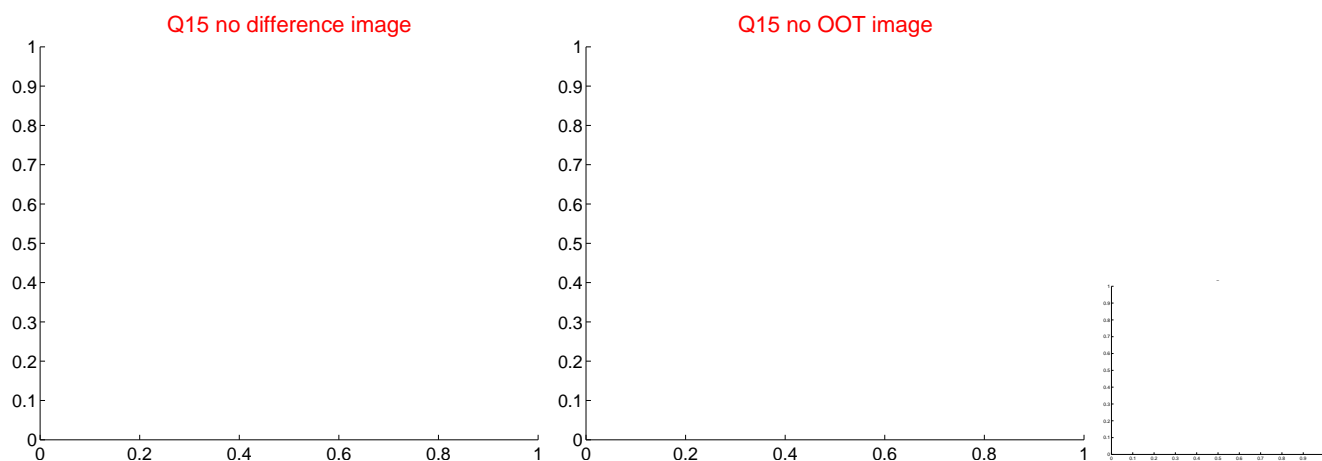
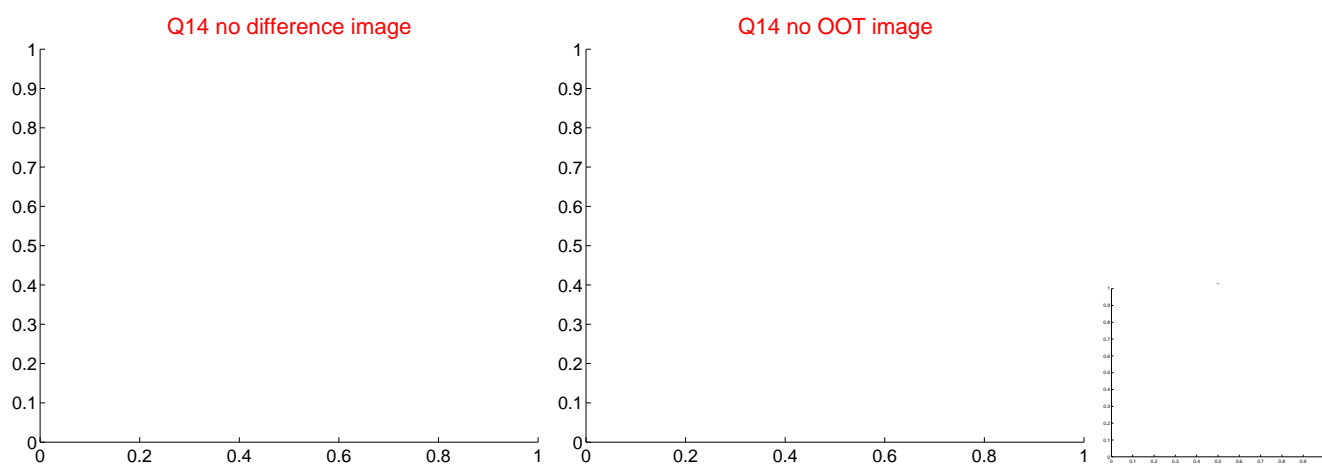
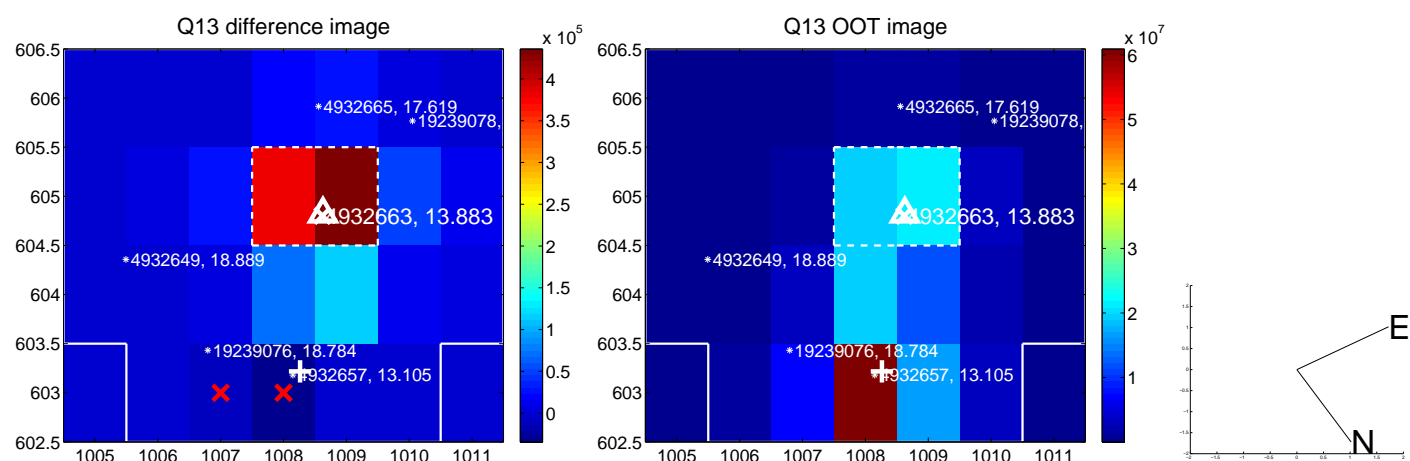
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



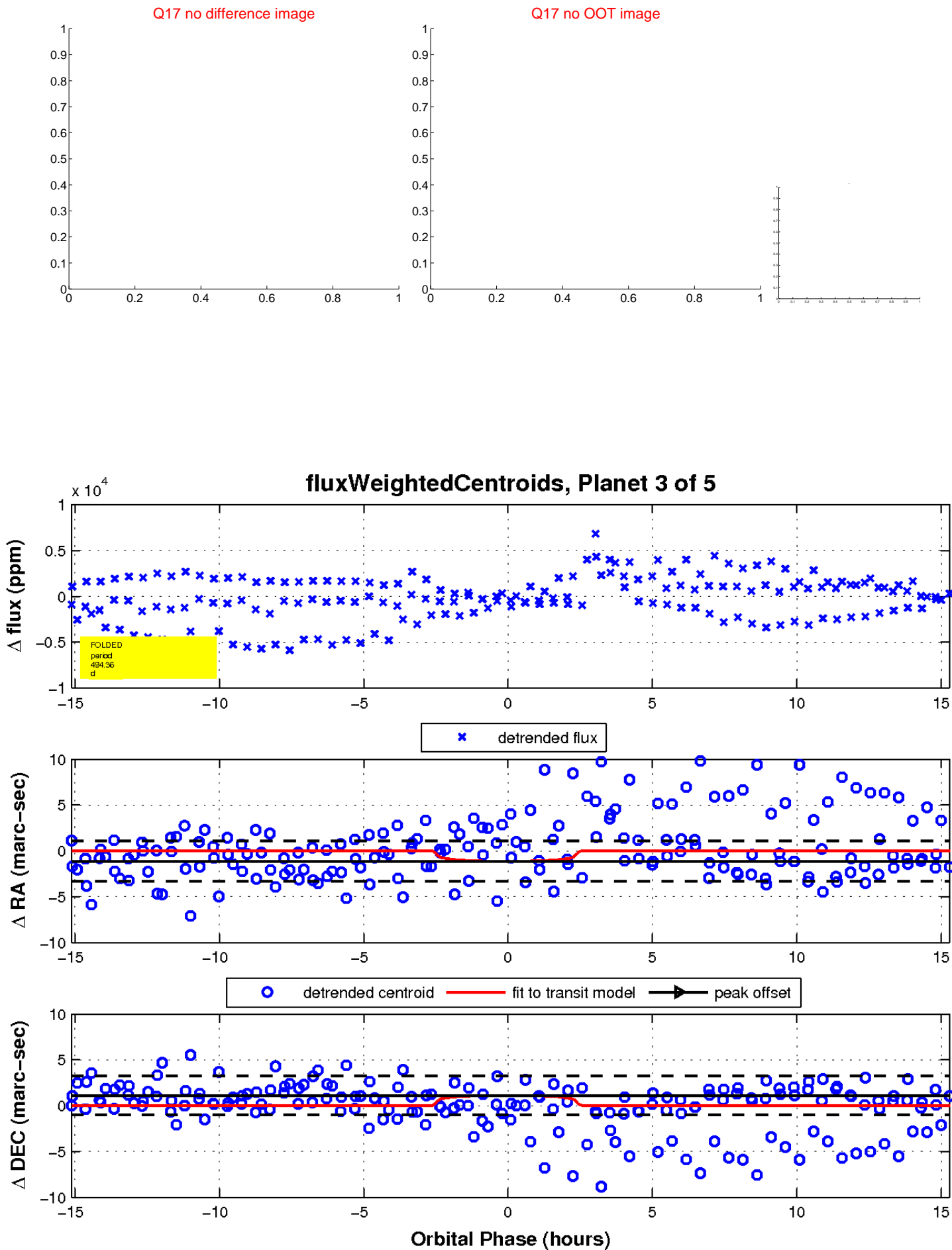
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

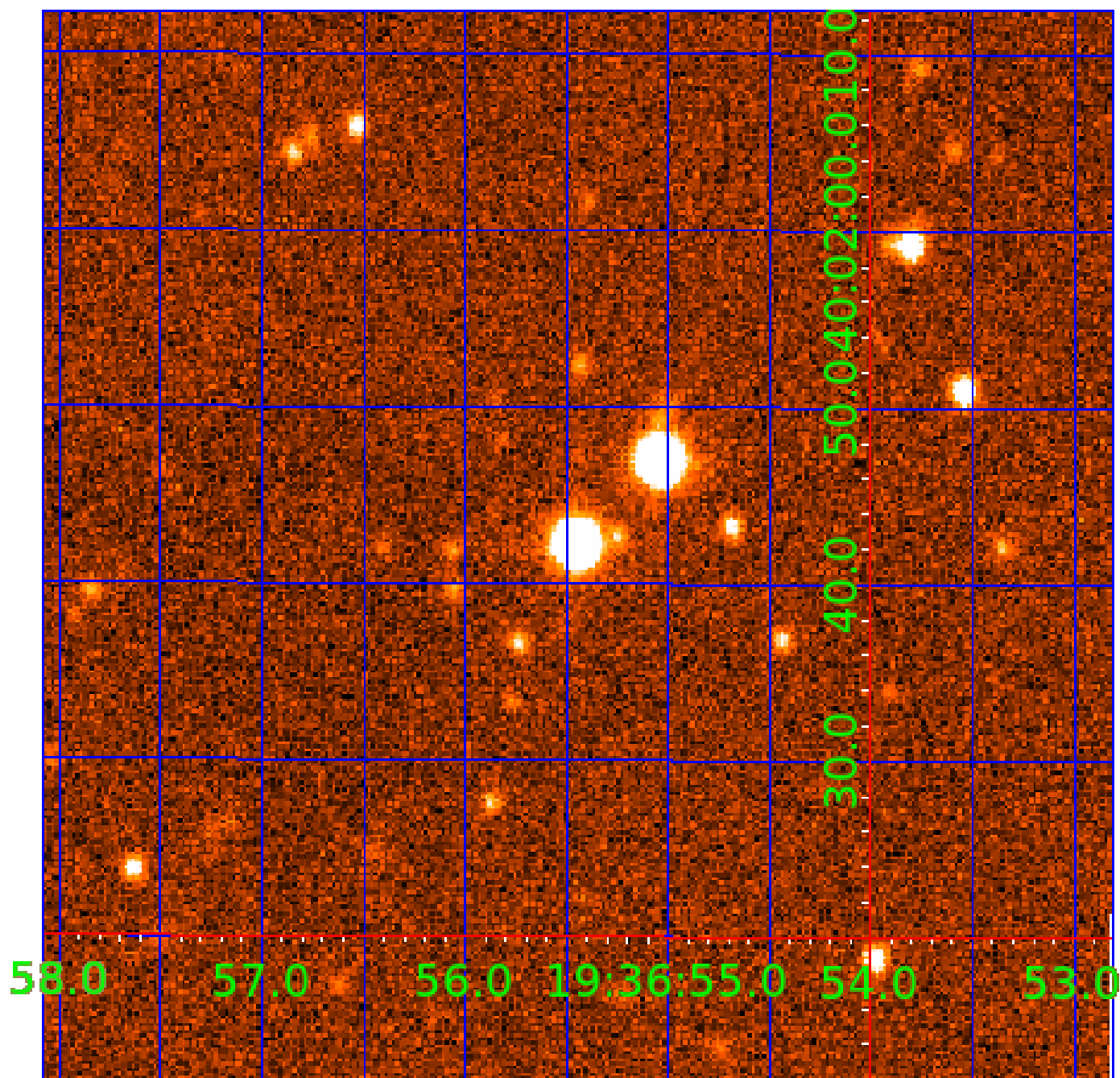


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004932663

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})
004932663-01	OBS	No	356.919919	476.035115	1111.8	6.798	19.6	3.6	0.86	5628	2.96	0.78
004932663-02	OBS	No	510.542759	529.608889	1615.5	4.581	15.1	4.6	0.86	5628	3.59	0.48
004932663-03	OBS	No	494.357518	215.675232	1575.5	5.103	13.2	5.5	0.86	5628	3.45	0.51
004932663-04	OBS	No	317.496748	257.246959	1823.4	19.873	12.9	5.1	0.86	5628	3.91	0.91
004932663-05	OBS	No	207.080983	335.186069	1718.7	1.980	10.7	6.4	0.86	5628	3.79	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004932663-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004932663-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004932663-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

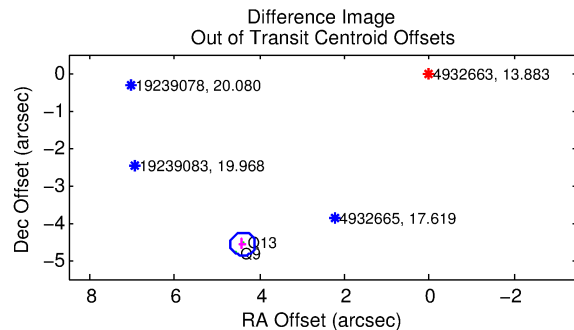
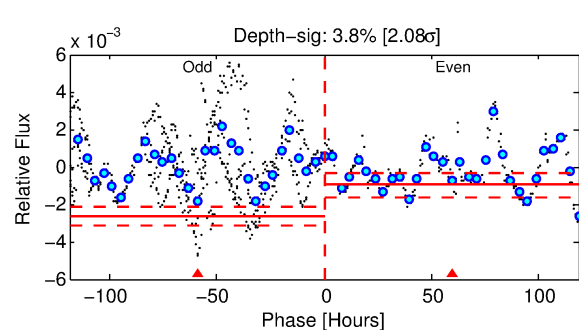
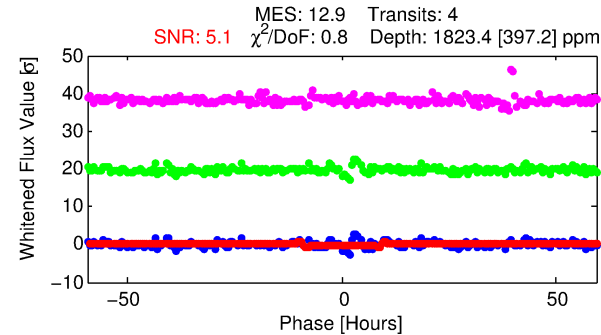
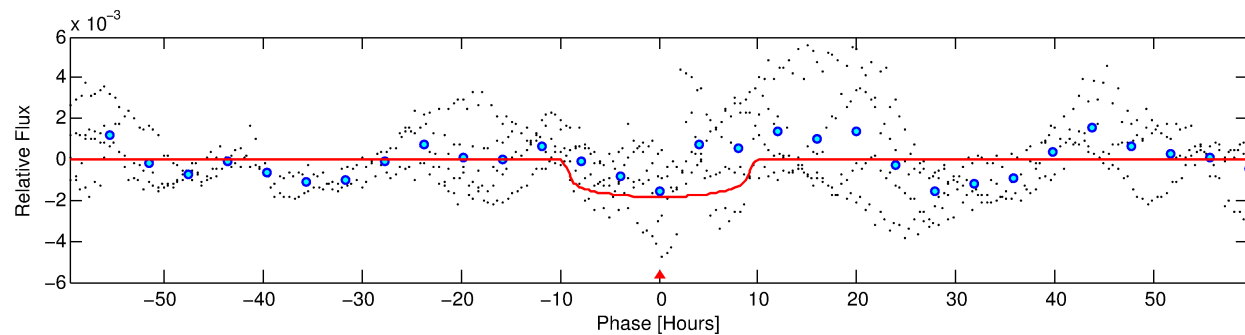
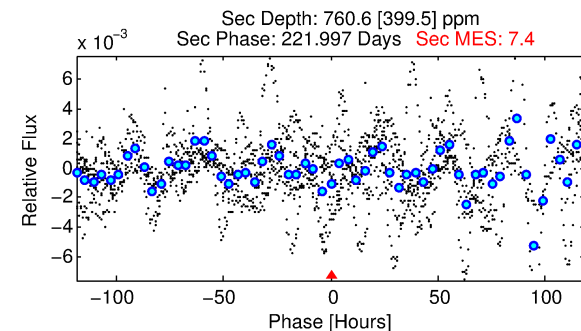
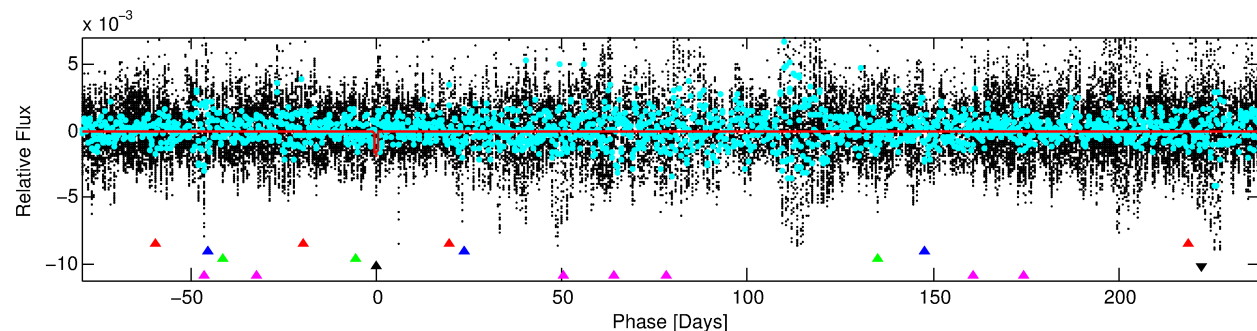
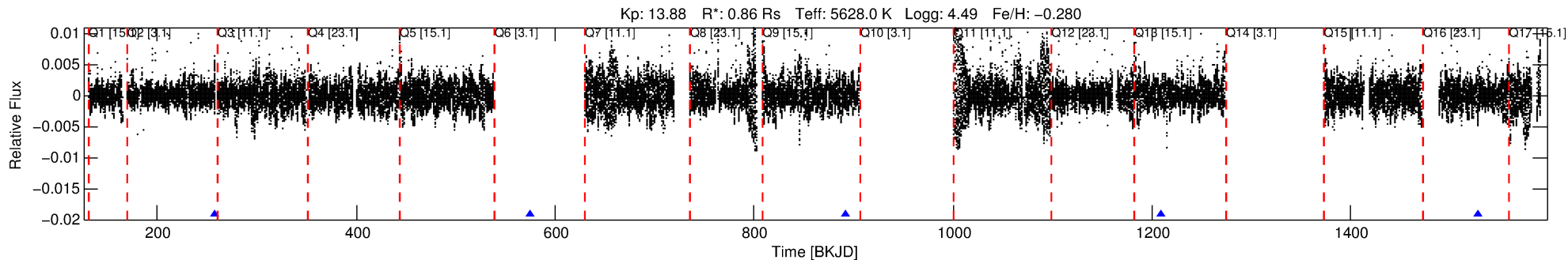
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004932663-04

No Significant Match Found

DV One-Page Summary

KIC: 4932663 Candidate: 4 of 5 Period: 317.497 d



DV Fit Results:

Period = 317.49675 [0.00476] d
Epoch = 257.2470 [0.0129] BKJD
Rp/R* = 0.0414 [0.0053]
a/R* = 96.98 [18.14]
b = 0.67 [0.15]
Seff = 0.91 [0.28]
Teq = 249 [19] K
Rp = 3.91 [1.07] Re
a = 0.8588 [0.1729] AU
Ag = 20165.13 [13136.09] [1.54σ]
Teffp = 4591 [681] K [6.37σ]

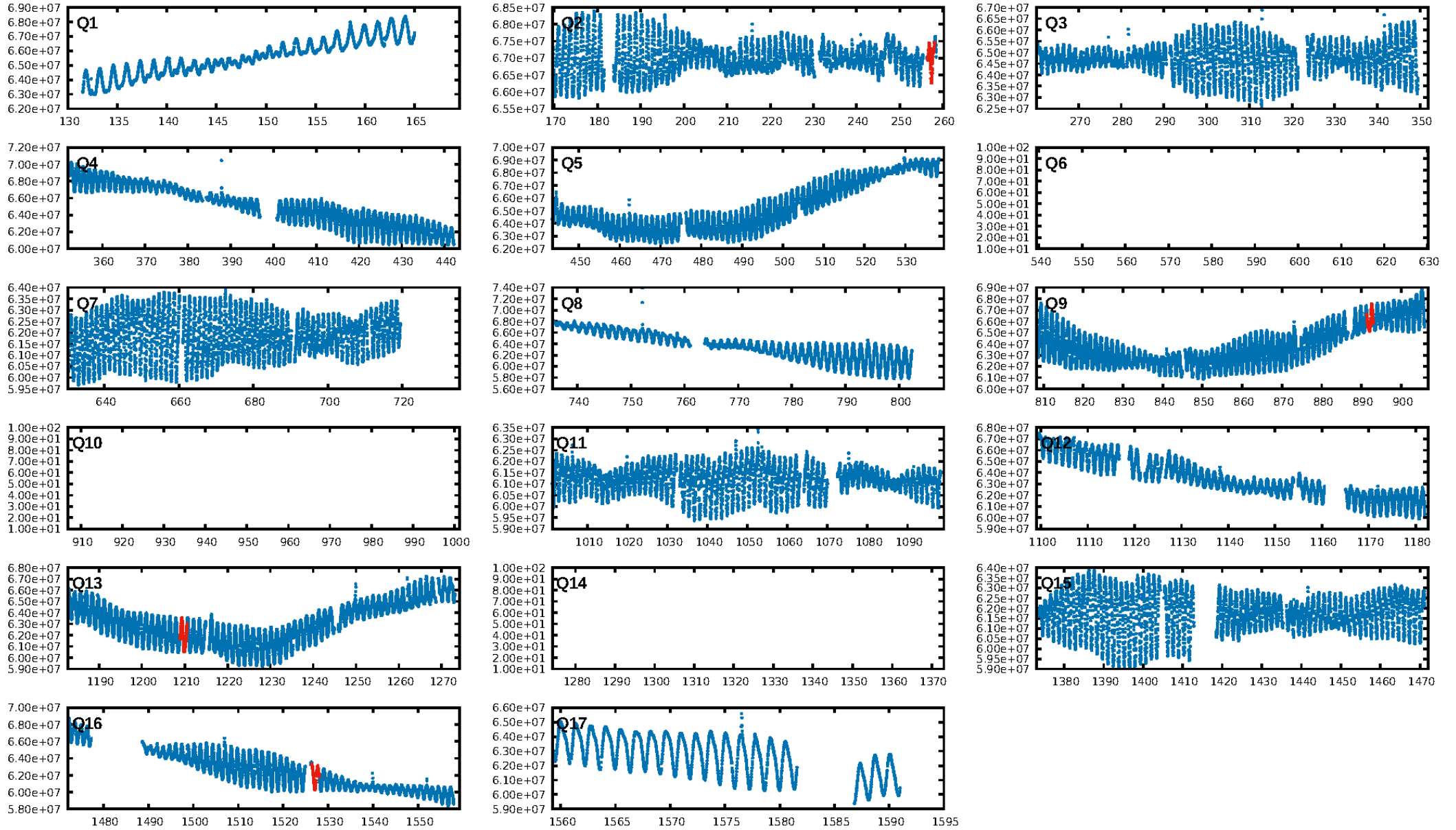
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [132.68σ]
LongPeriod-sig: 100.0% [45.05σ]
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.22e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.911
Centroid-sig: 0.3%
Centroid-so: 1.734 arcsec [2.47σ]
OotOffset-rm: 6.340 arcsec [62.56σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-rm: 0.142 arcsec [1.53σ]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

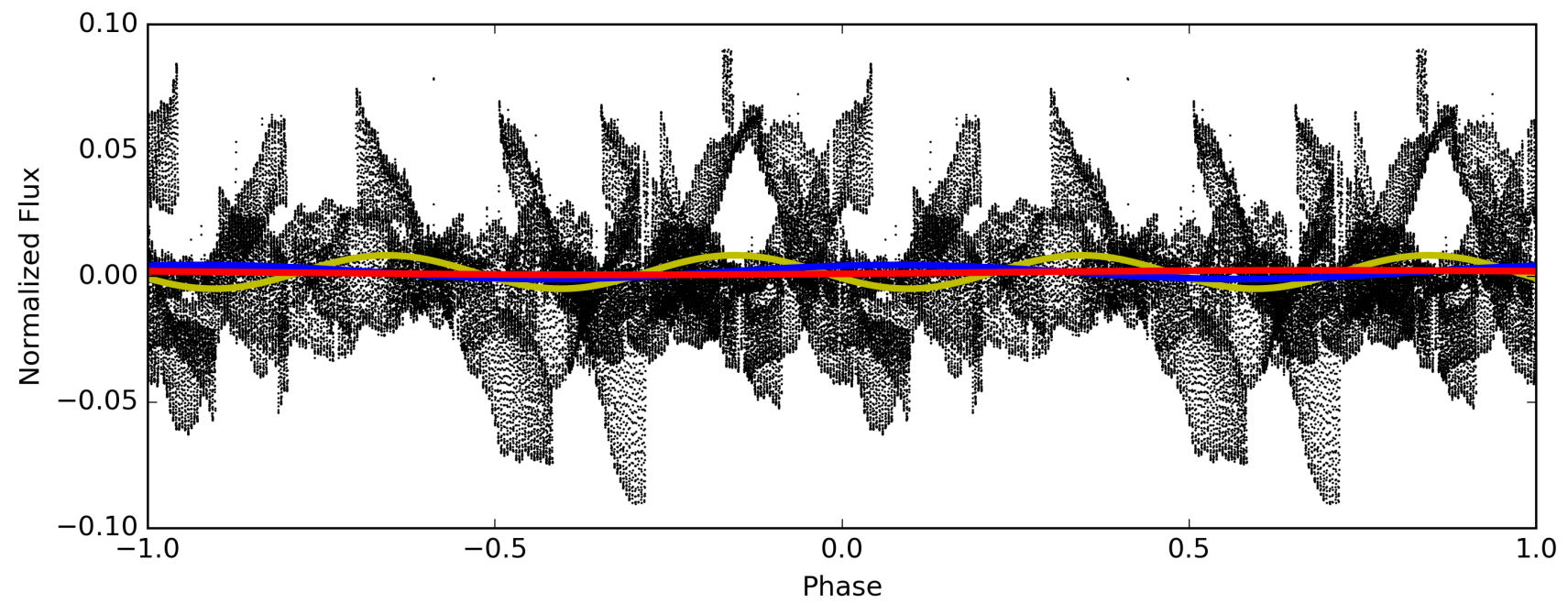
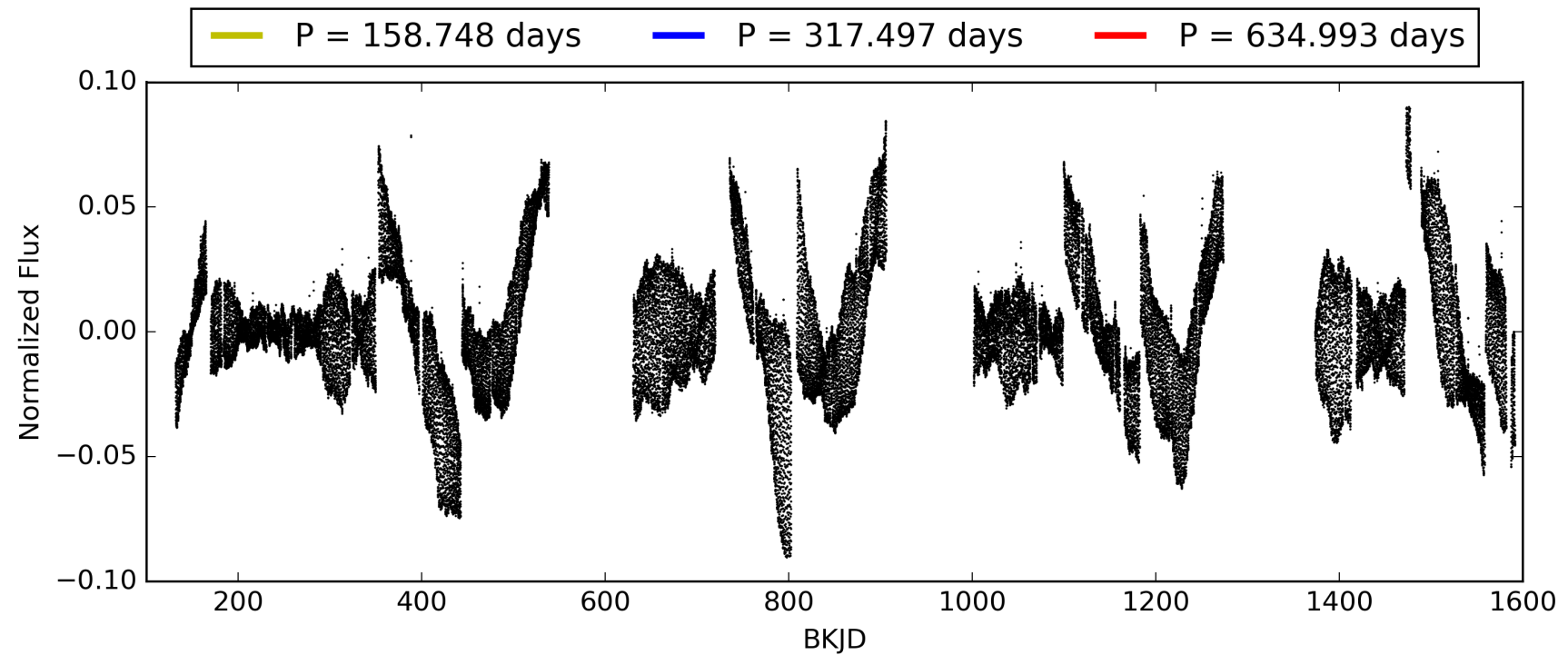
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:02:55 Z

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

TCE 004932663-04, PDC Light Curves

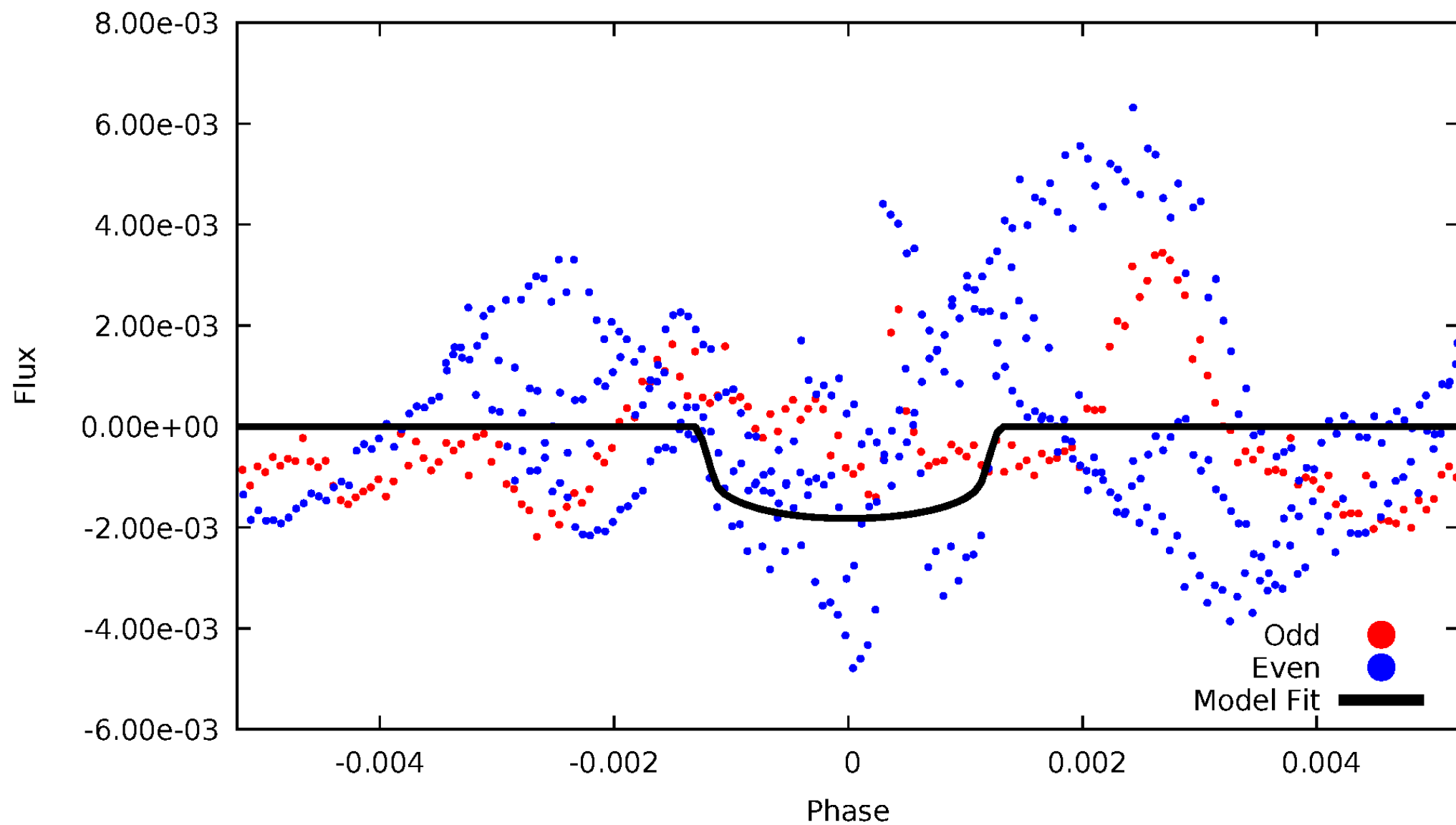


TCE 004932663-04



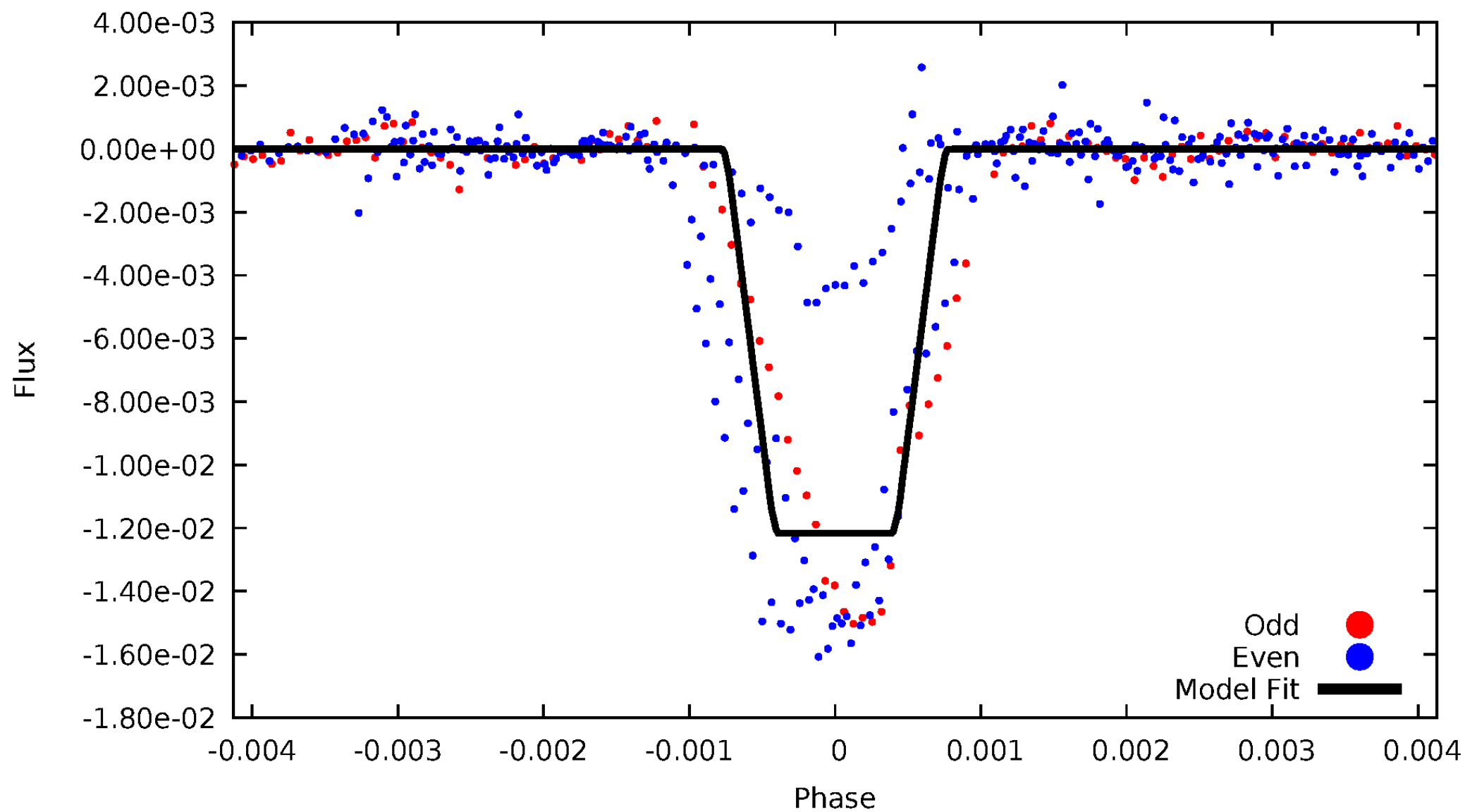
DV Odd/Even

TCE 004932663-04



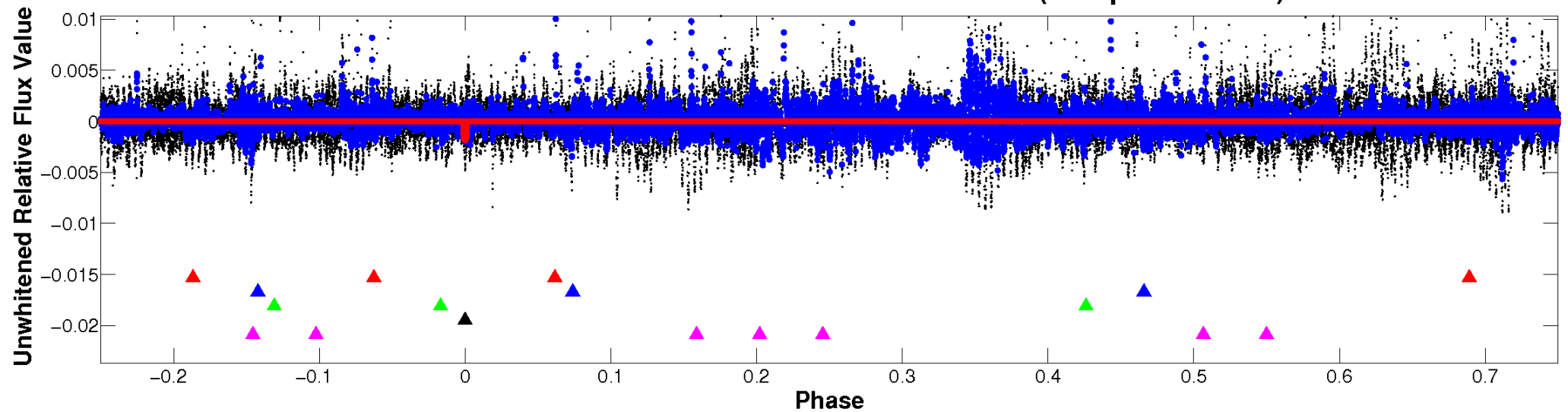
ALT Odd/Even

TCE 004932663-04

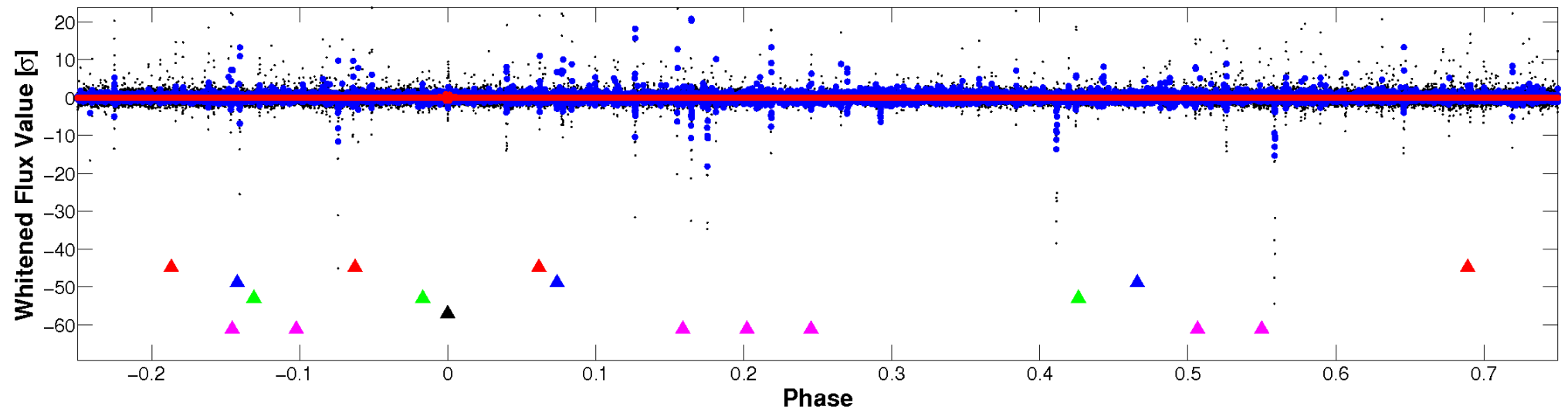


Non-Whitened Vs. Whitened Light Curve

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

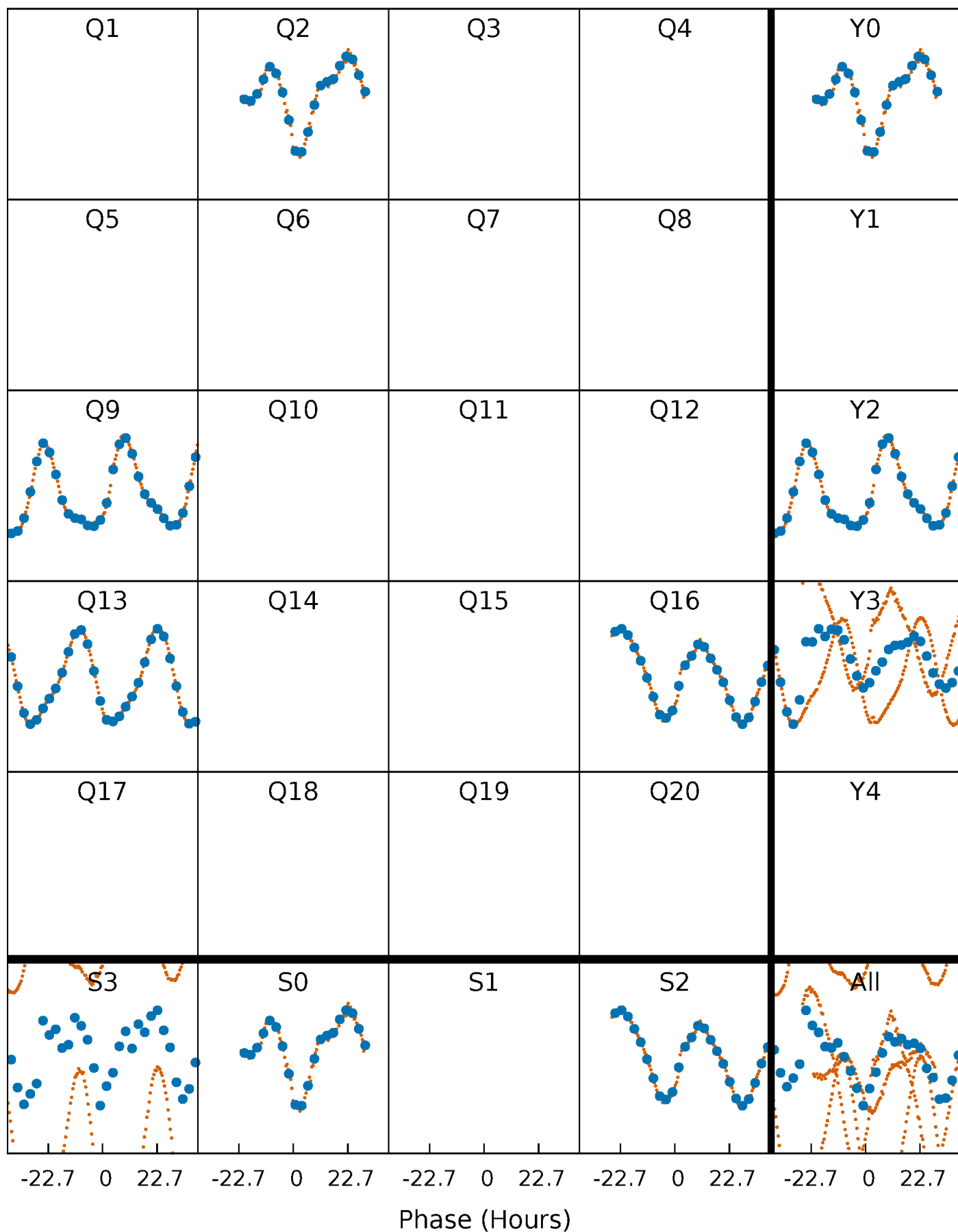


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



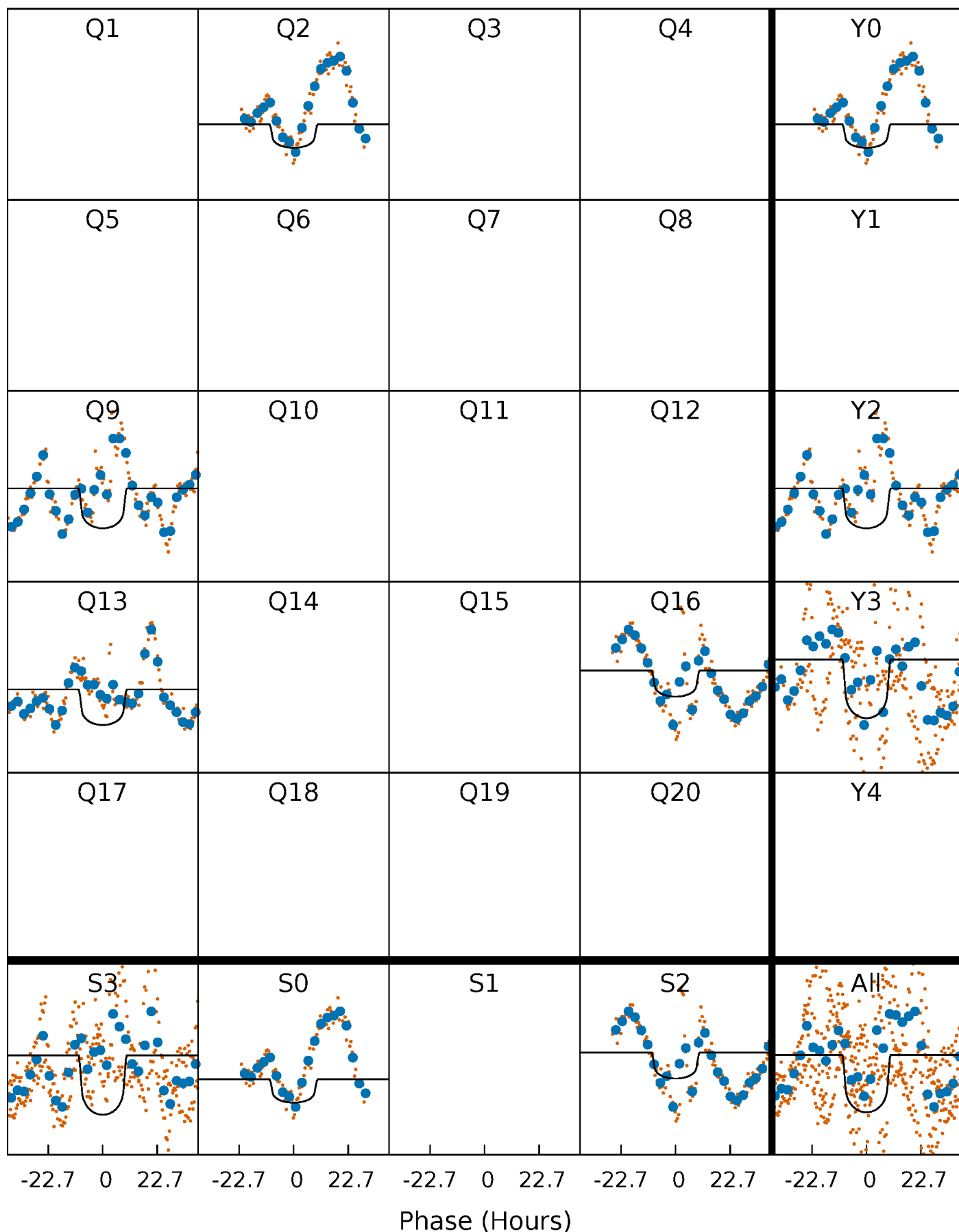
PDC Quarter-Phased Transit Curves

TCE 004932663-04 P=317.496748 Days $T_0=257.246959$ (BKJD)



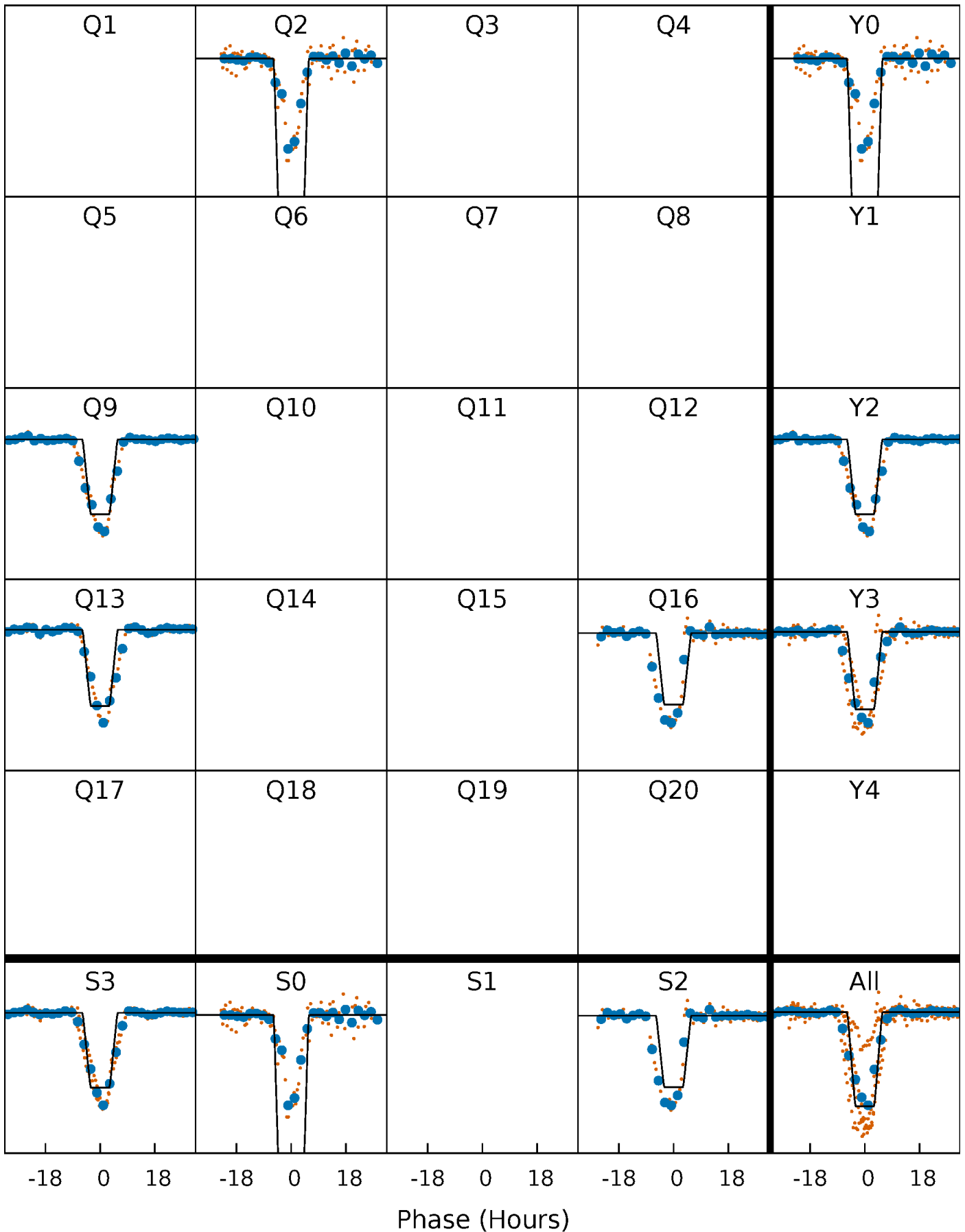
DV Quarter-Phased Transit Curves

TCE 004932663-04 P=317.496748 Days $T_0=257.246959$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

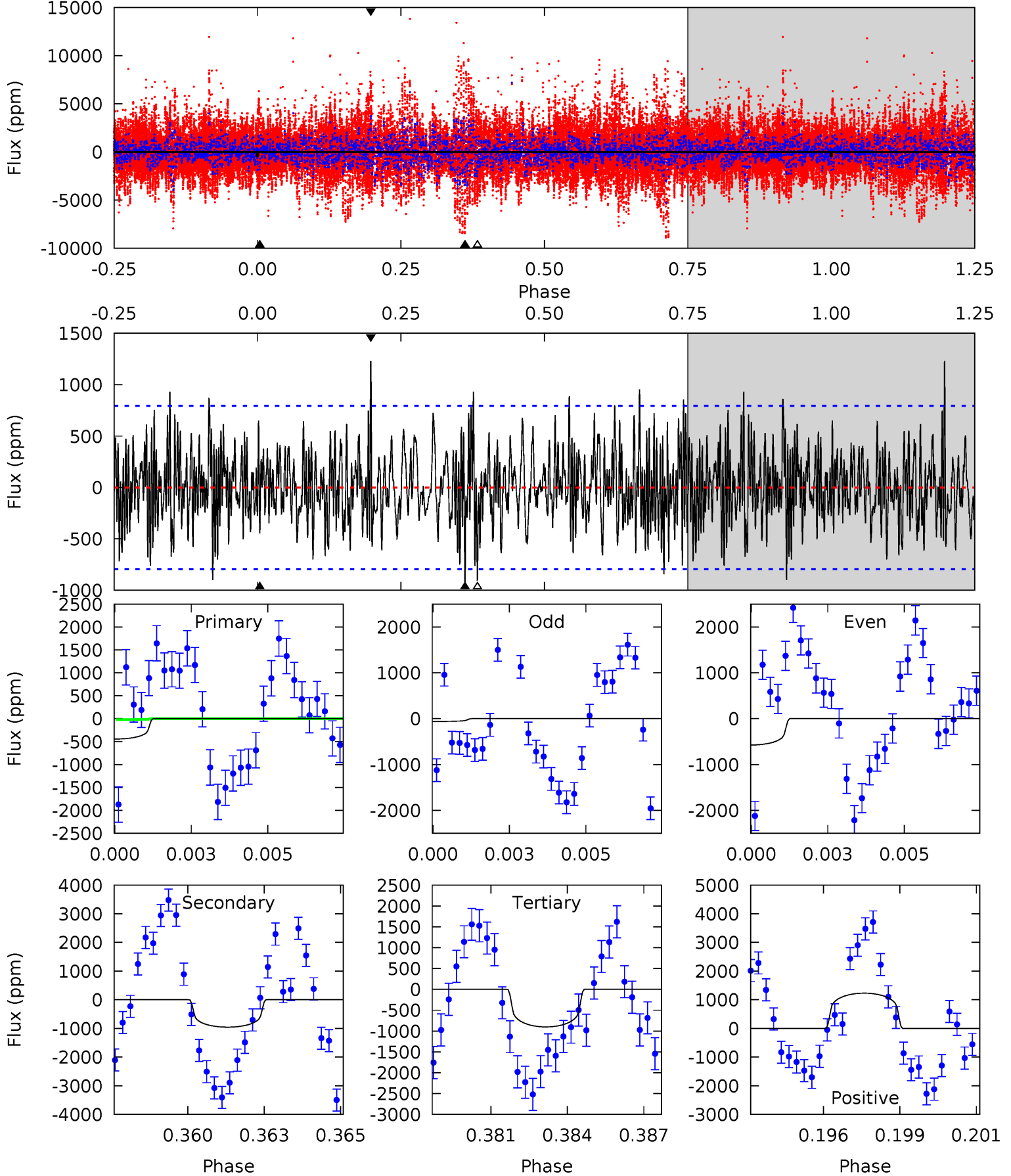
TCE 004932663-04 P=317.469410 Days $T_0=257.302762$ (BKJD)



DV Model-Shift Uniqueness Test

004932663-04, P = 317.496748 Days, E = 257.246959 Days

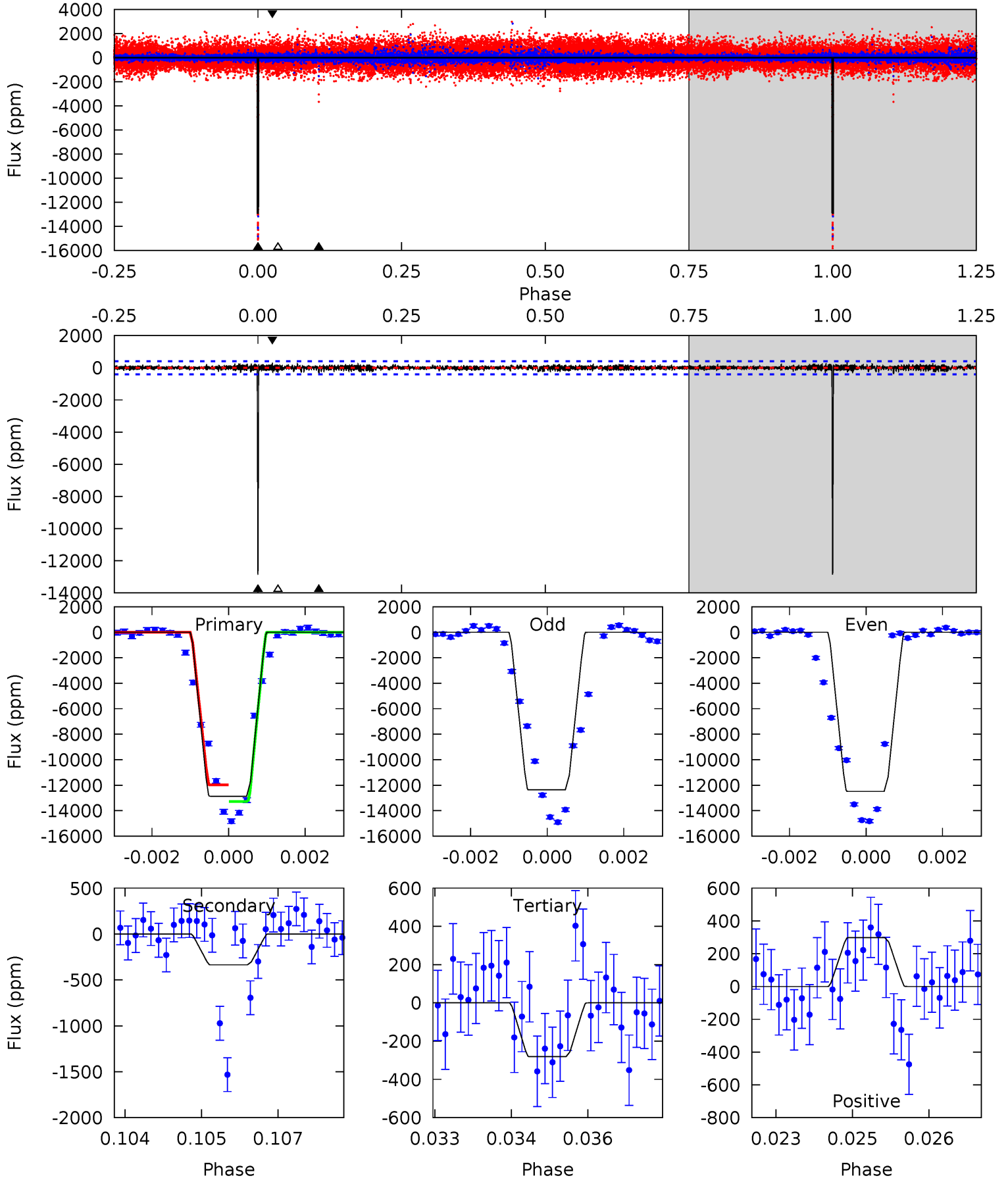
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.95	6.35	5.99	8.17	5.28	3.01	2.09	-3.03	-5.21	0.36	-1.82	1.35	2.26	0.56	2.77



Alt Model-Shift Uniqueness Test

004932663-04, P = 317.469410 Days, E = 257.302762 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
169.2	4.42	3.70	3.92	5.37	3.17	0.93	165.5	165.3	0.72	0.50	0.90	0.83	0.02	8.57



Stellar Parameters For KIC 004932663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5628^{+152}_{-152}	$4.487^{+0.084}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$0.865^{+0.210}_{-0.113}$	$0.836^{+0.115}_{-0.071}$	$1.823^{+0.681}_{-0.815}$
	+3%/-3%	+2%/-3%	+107%/-107%	+24%/-13%	+14%/-8%	+37%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004932663-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-956 ± 151	$4.00^{+0.69}_{-0.63}$	351^{+21}_{-16}	4933^{+398}_{-313}	23641^{+11570}_{-6910}
Alt.	-336 ± 76	$10.65^{+1.53}_{-0.95}$	352^{+22}_{-18}	2967^{+108}_{-134}	1165^{+419}_{-349}

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

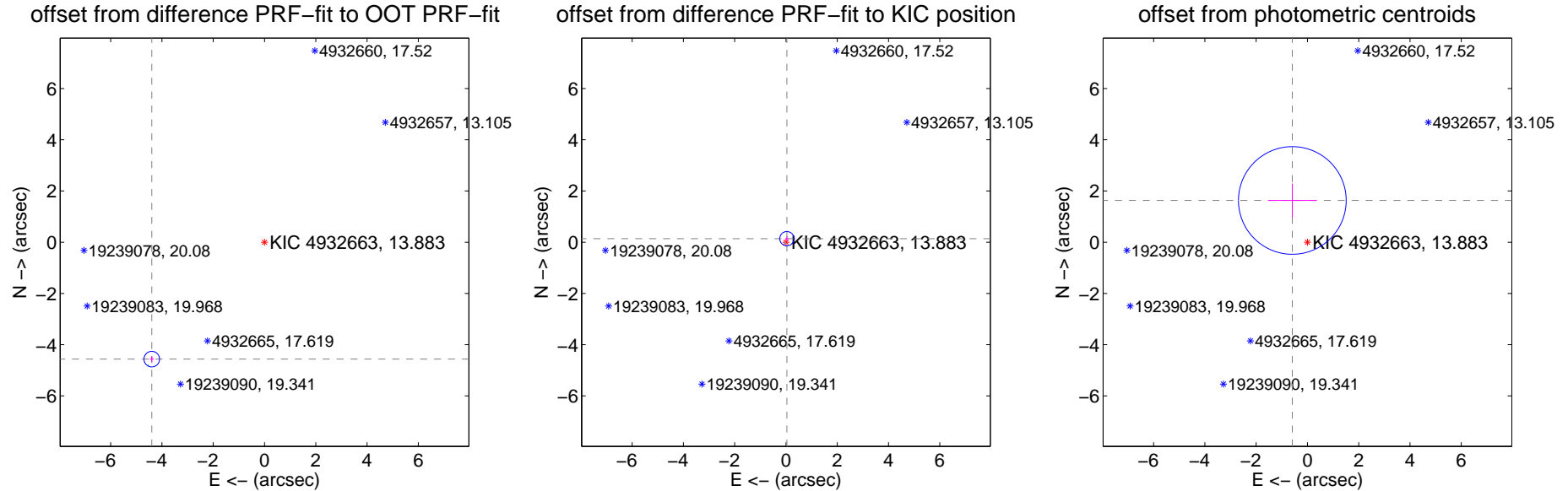
DV Centroid Data

Supplemental centroid analysis for 004932663-04. Kepler magnitude: 13.88. Transit SNR 5.10

There are 2 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 6.45 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.340 ± 0.101	62.56	4.399 ± 0.083	-4.566 ± 0.116
PRF-fit source offset from KIC position	0.142 ± 0.093	1.53	-0.036 ± 0.069	0.138 ± 0.094
photometric centroid source offset	1.73 ± 0.70	2.47	0.59 ± 0.94	1.63 ± 0.66



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

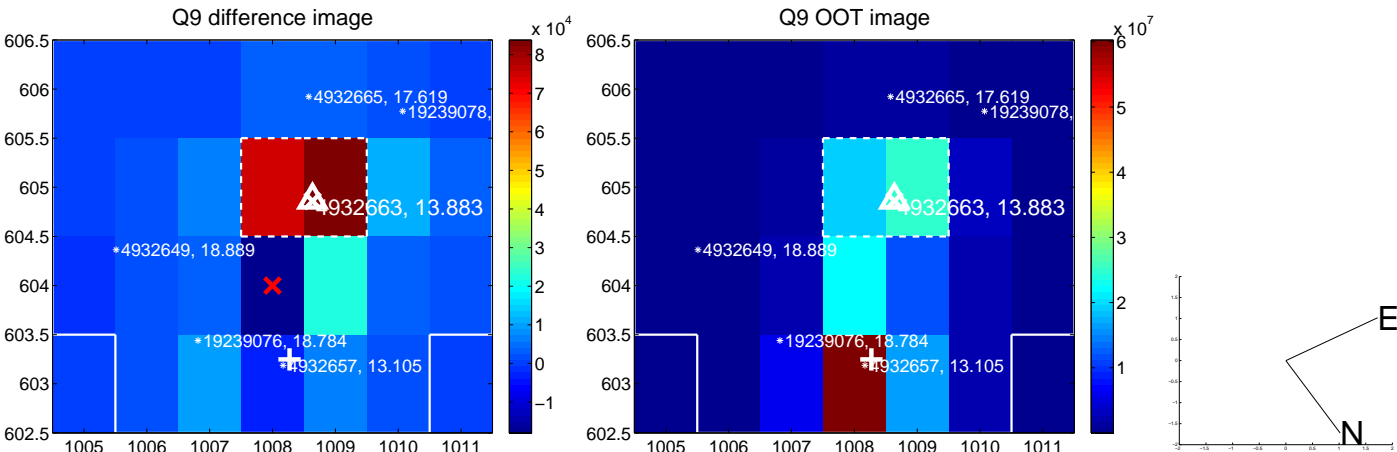
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



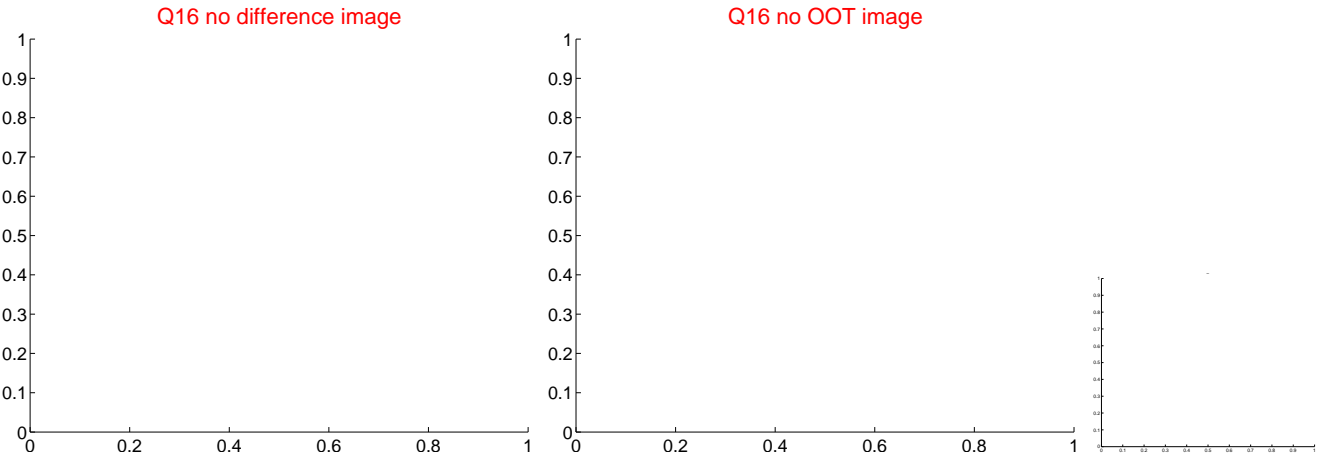
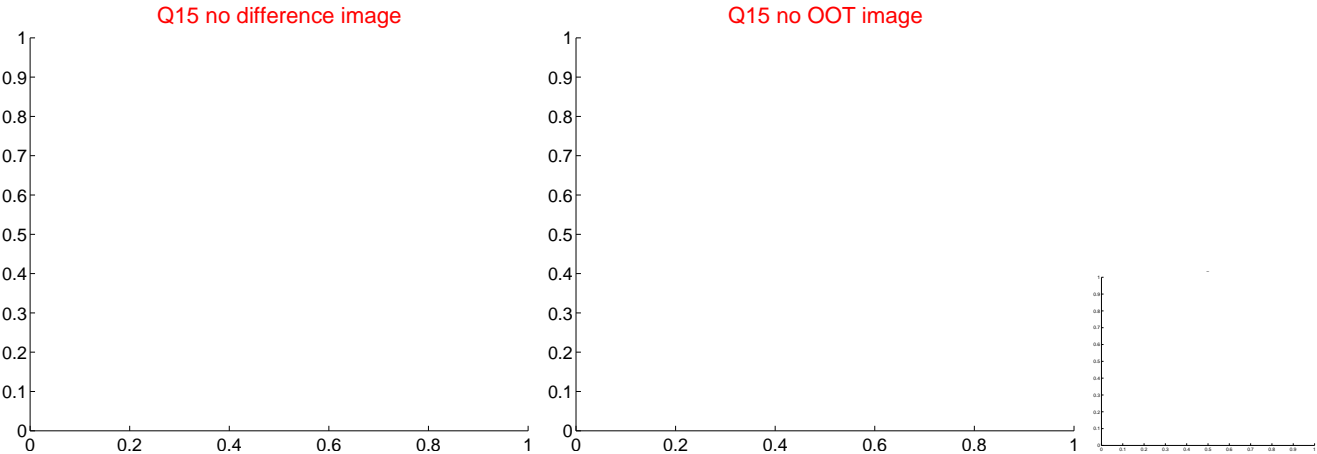
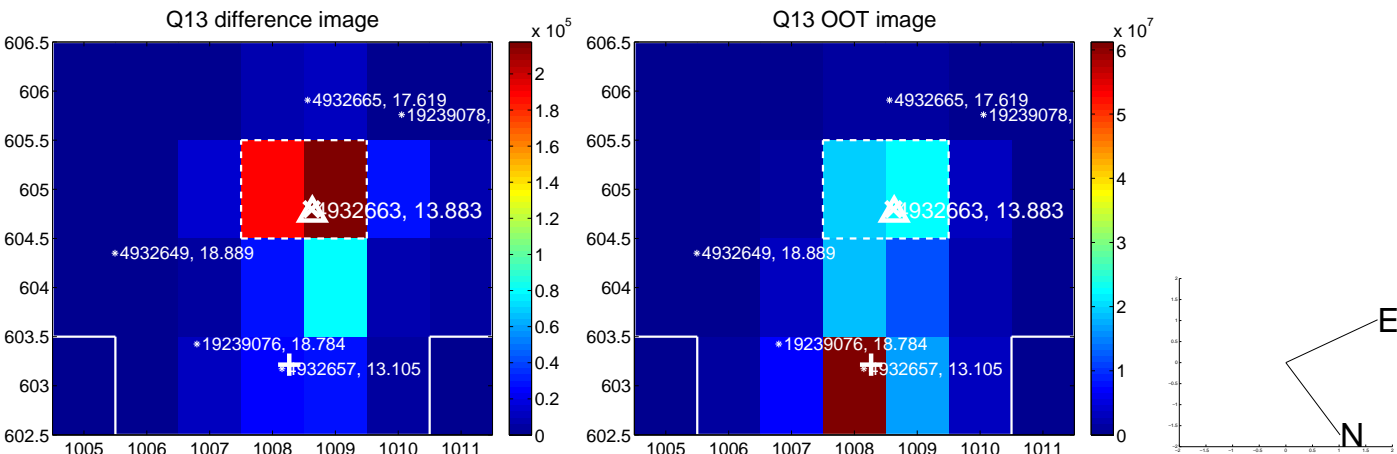
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



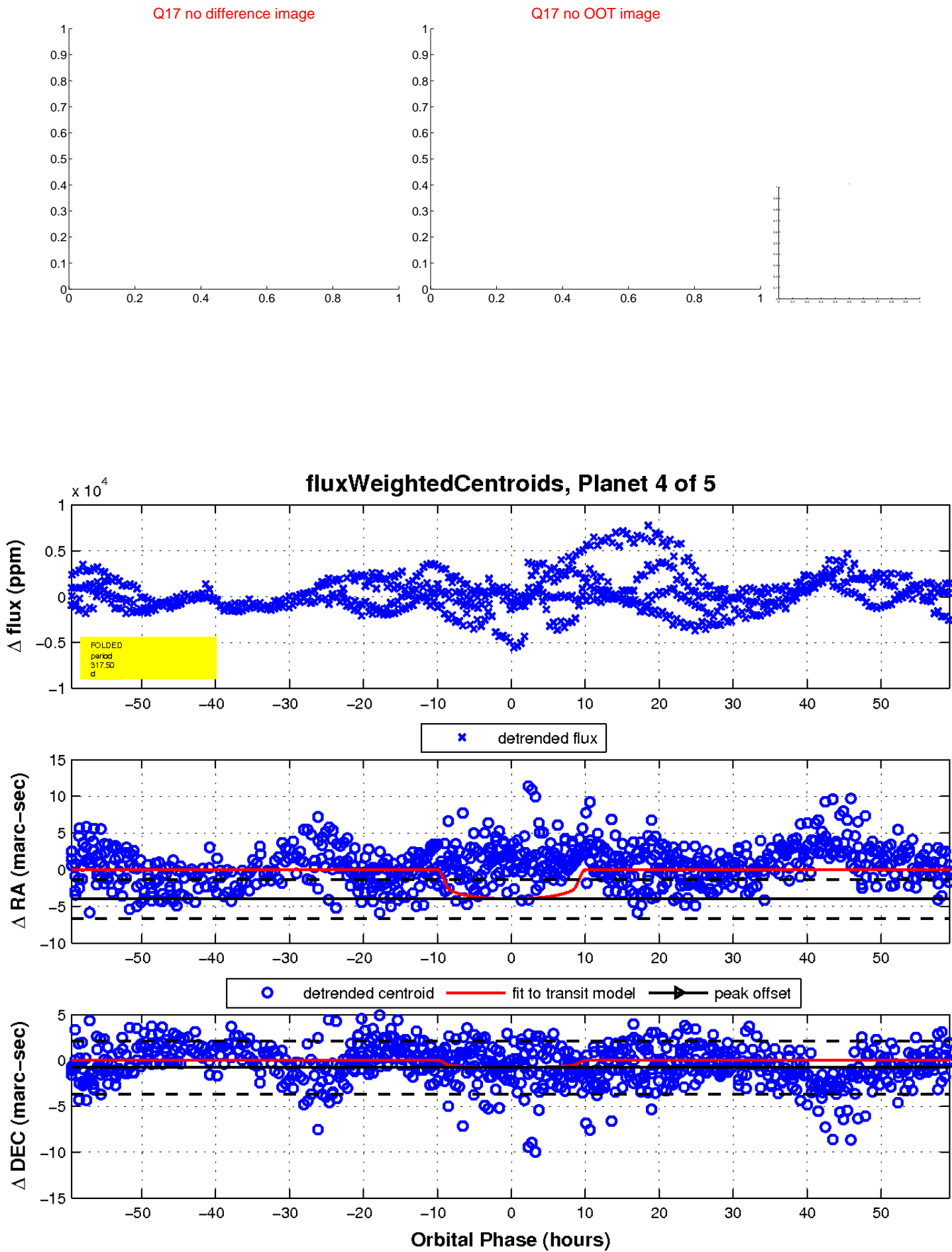
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



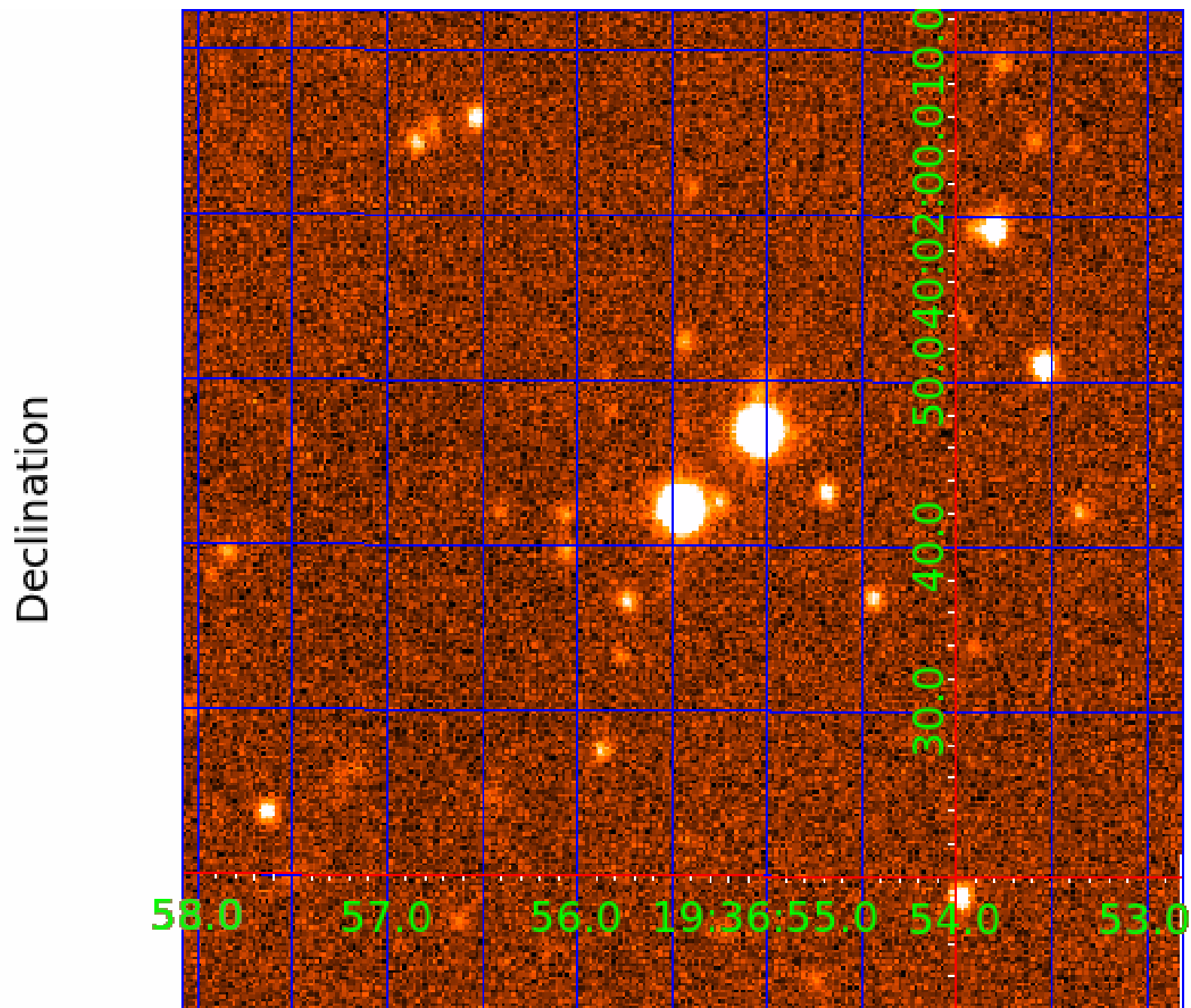
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image



KIC 004932663

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})
004932663-01	OBS	No	356.919919	476.035115	1111.8	6.798	19.6	3.6	0.86	5628	2.96	0.78
004932663-02	OBS	No	510.542759	529.608889	1615.5	4.581	15.1	4.6	0.86	5628	3.59	0.48
004932663-03	OBS	No	494.357518	215.675232	1575.5	5.103	13.2	5.5	0.86	5628	3.45	0.51
004932663-04	OBS	No	317.496748	257.246959	1823.4	19.873	12.9	5.1	0.86	5628	3.91	0.91
004932663-05	OBS	No	207.080983	335.186069	1718.7	1.980	10.7	6.4	0.86	5628	3.79	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004932663-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004932663-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
004932663-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
004932663-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

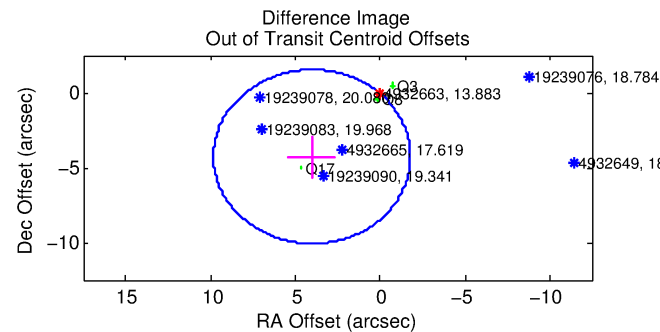
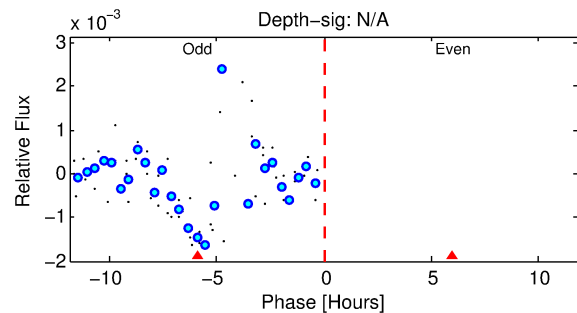
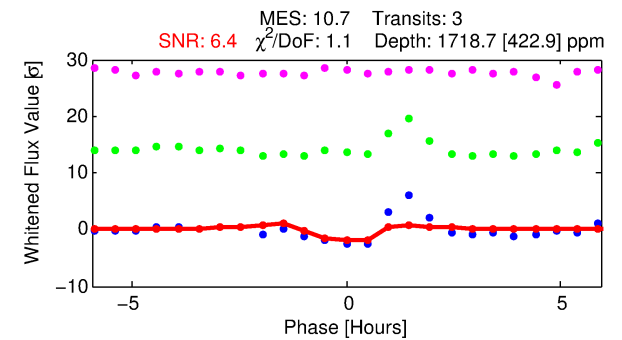
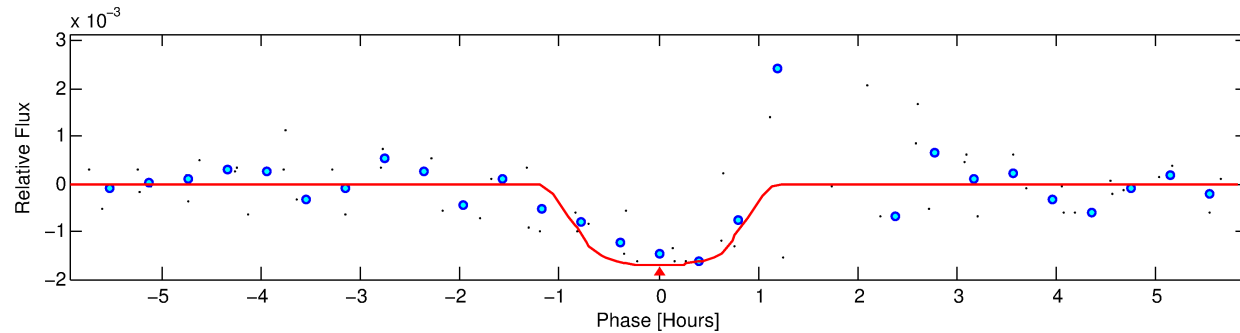
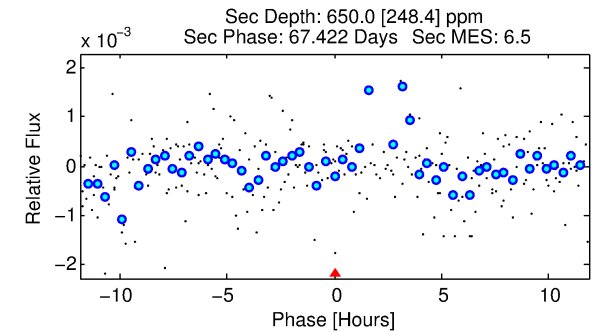
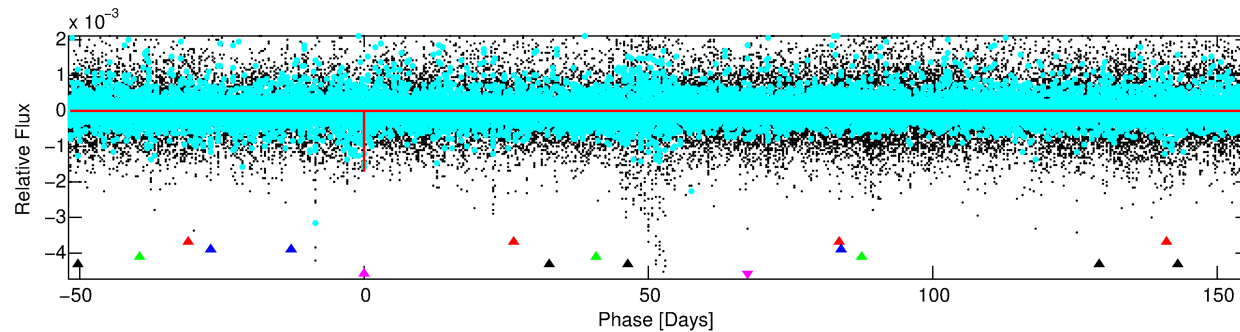
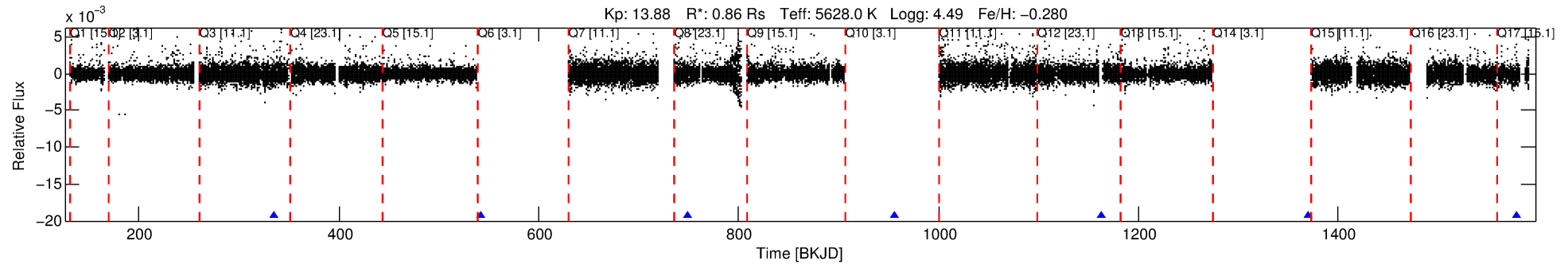
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004932663-05

No Significant Match Found

DV One-Page Summary

KIC: 4932663 Candidate: 5 of 5 Period: 207.081 d



DV Fit Results:

Period = 207.08098 [0.00169] d
Epoch = 335.1861 [0.0081] BKJD
Rp/R* = 0.0402 [0.0777]
a/R* = 643.23 [5218.77]
b = 0.66 [7.12]
Seff = 1.61 [0.50]
Teq = 287 [22] K
Rp = 3.79 [7.39] Re
a = 0.6459 [0.1300] AU
Ag = 10362.24 [40384.13] [0.26σ]
Teffp = 4482 [4357] K [0.96σ]

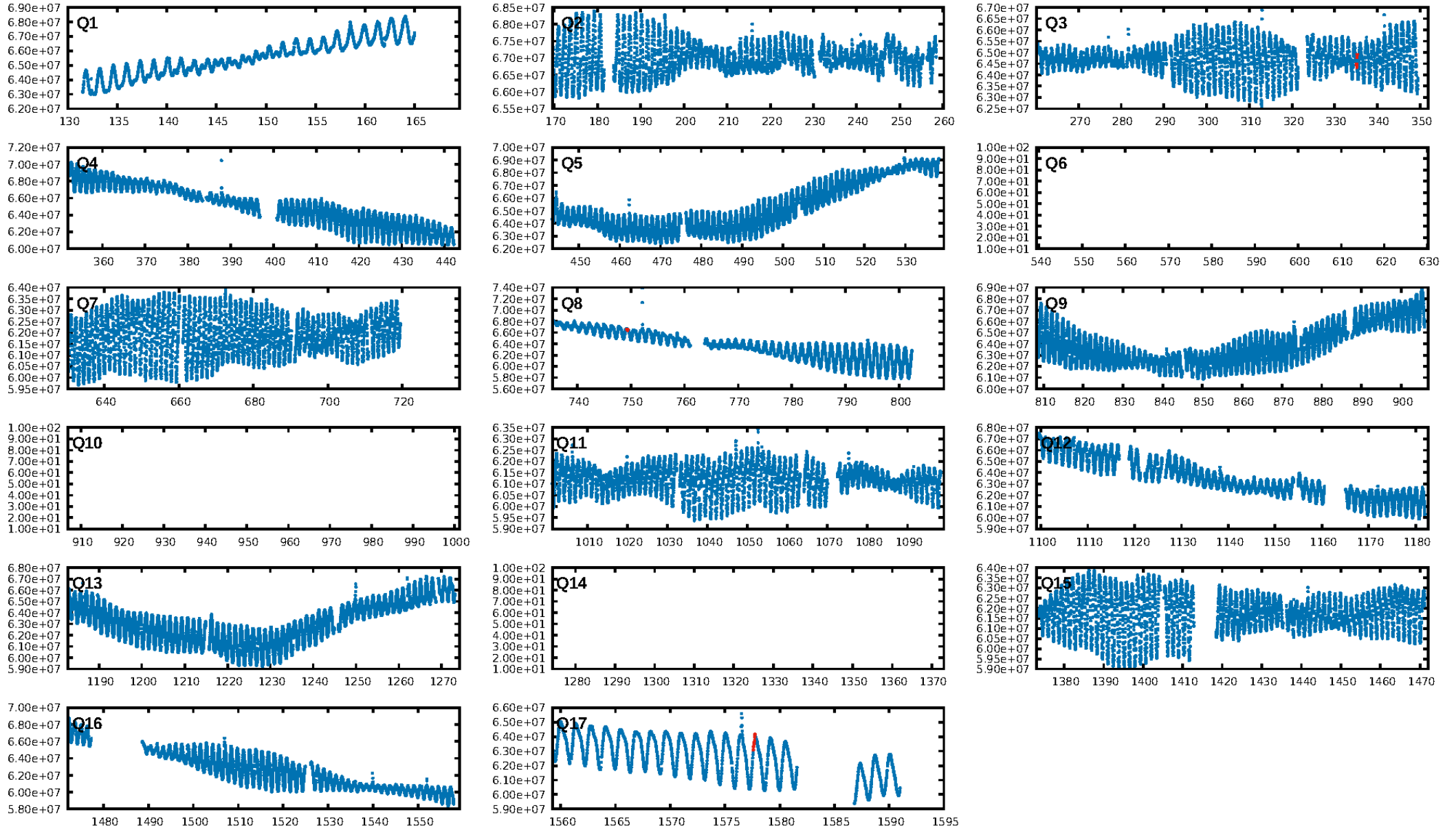
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [132.68σ]
ModelChiSquare2-sig: 3.3%
ModelChiSquareGof-sig: 83.0%
Bootstrap-pfa: 1.32e-09
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 6.411
Centroid-sig: 0.2%
Centroid-so: 1.258 arcsec [0.85σ]
OotOffset-rm: 5.857 arcsec [3.03σ]
KicOffset-rm: 0.240 arcsec [0.16σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

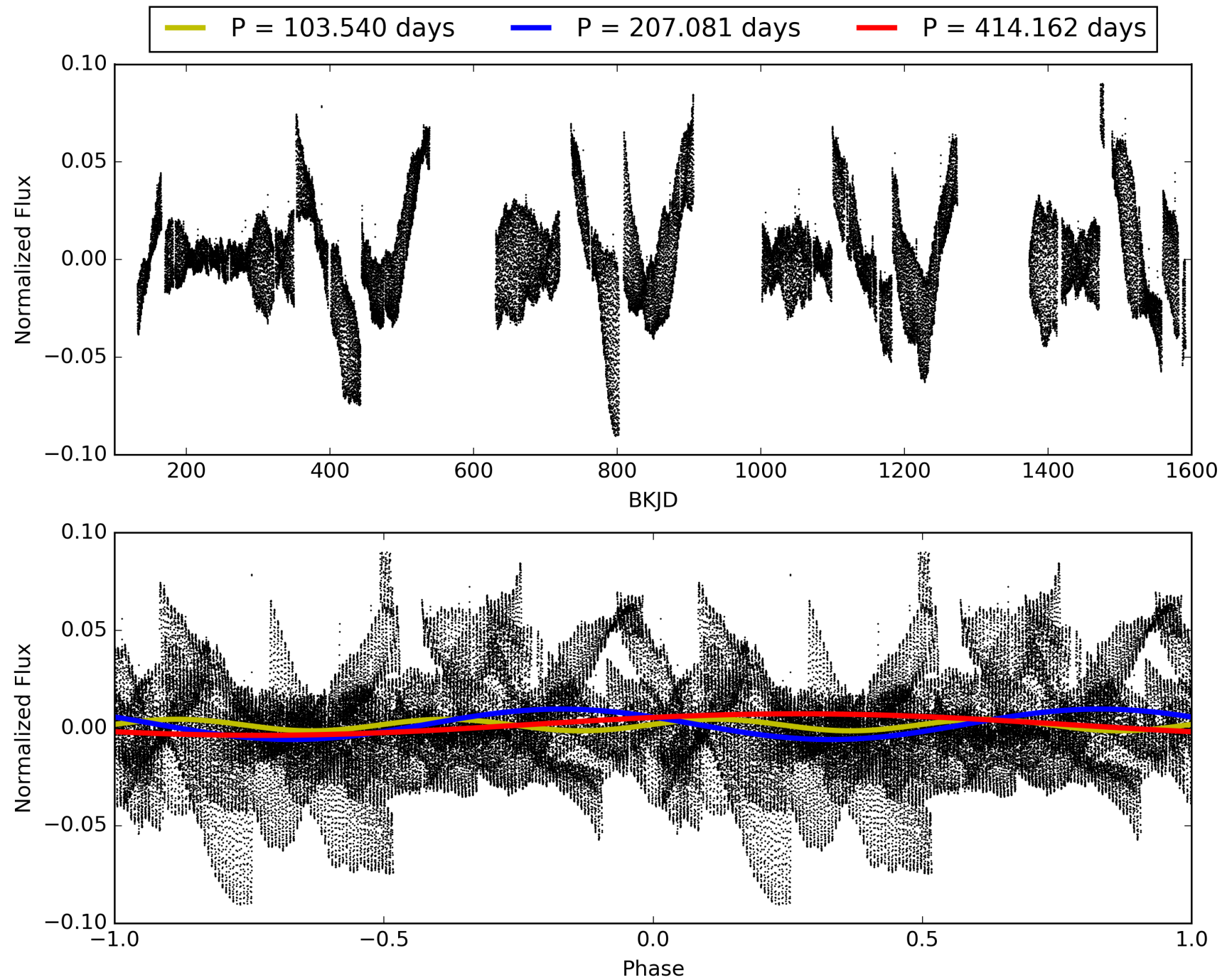
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:03:08 Z

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

TCE 004932663-05, PDC Light Curves

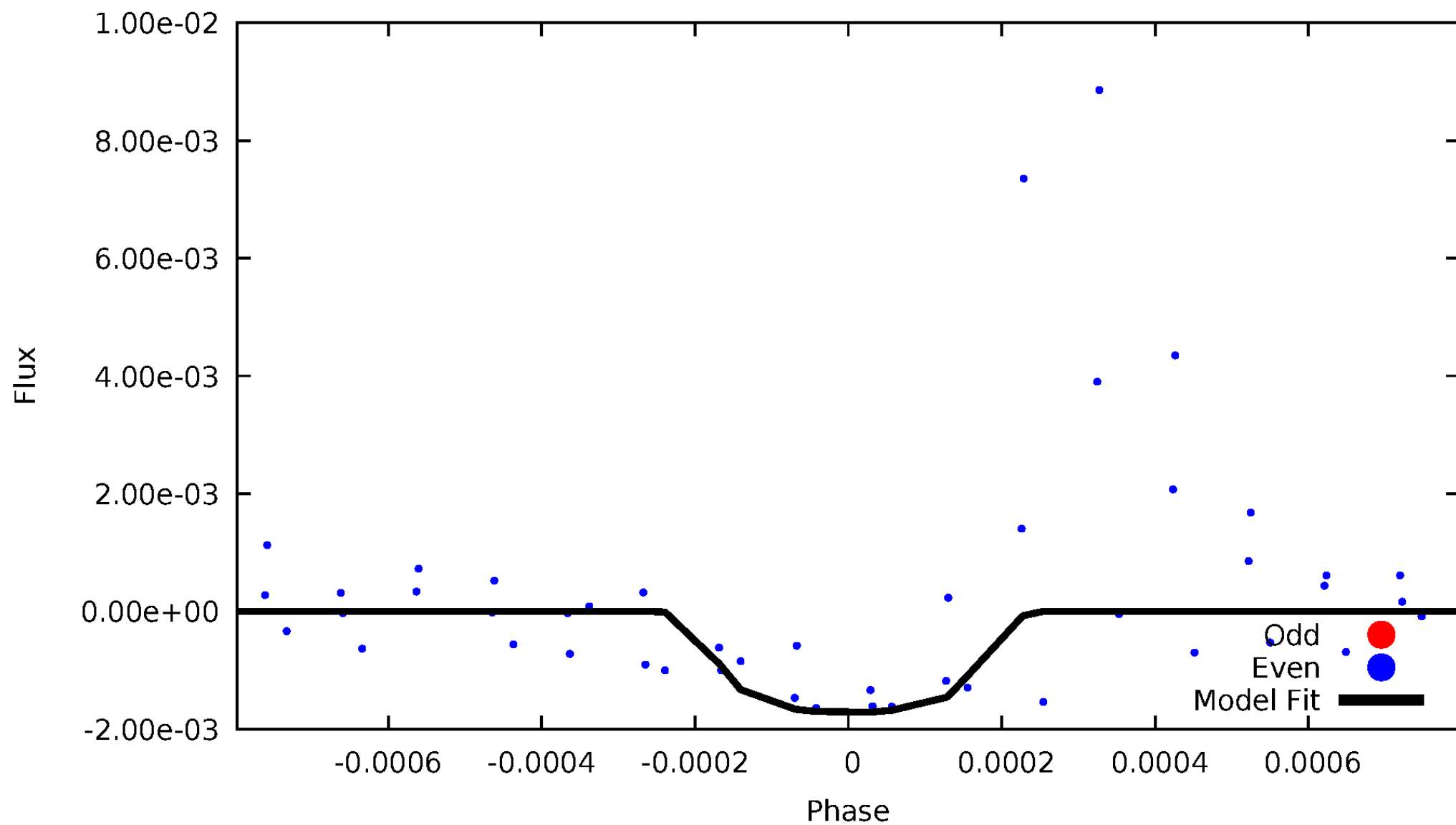


TCE 004932663-05



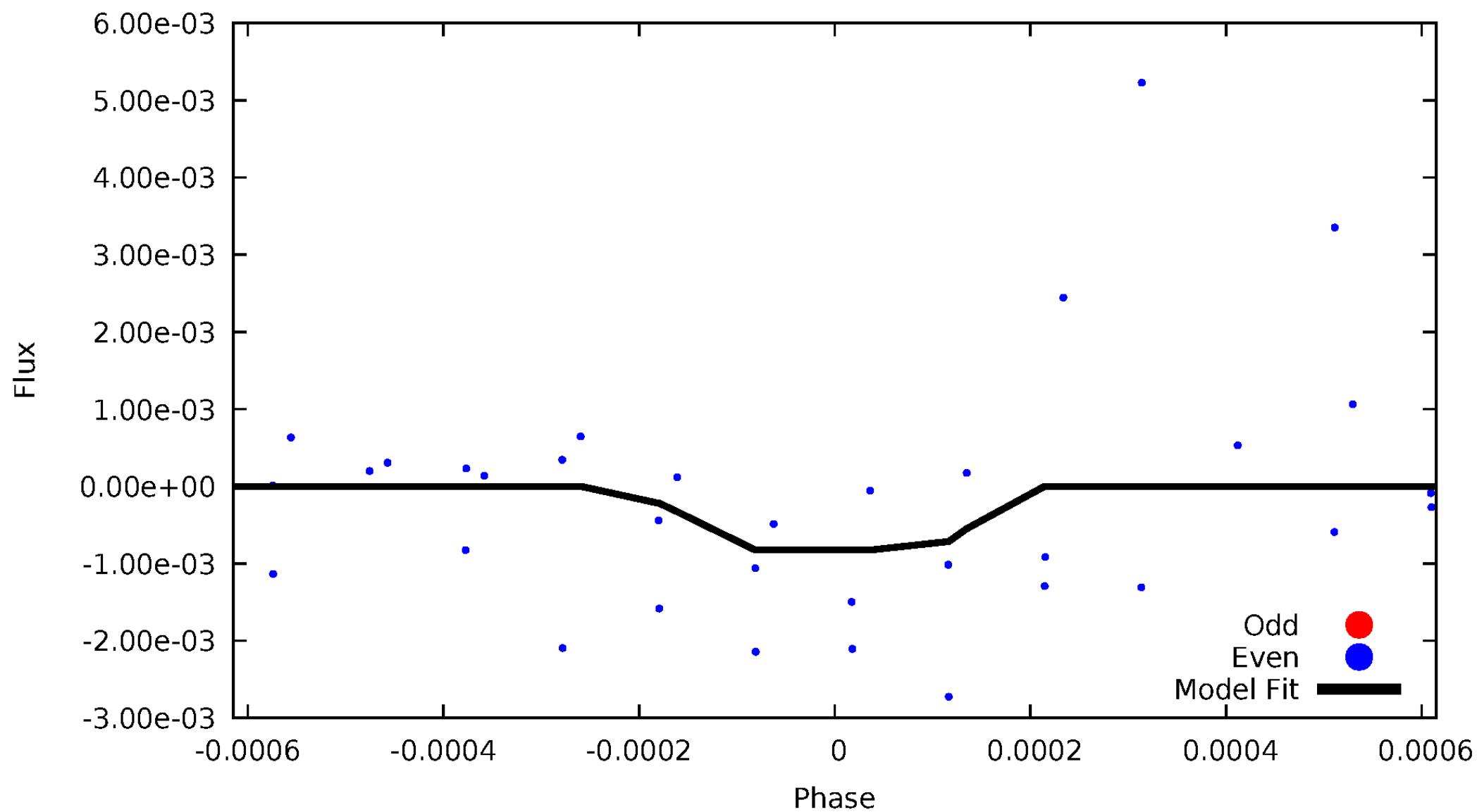
DV Odd/Even

TCE 004932663-05



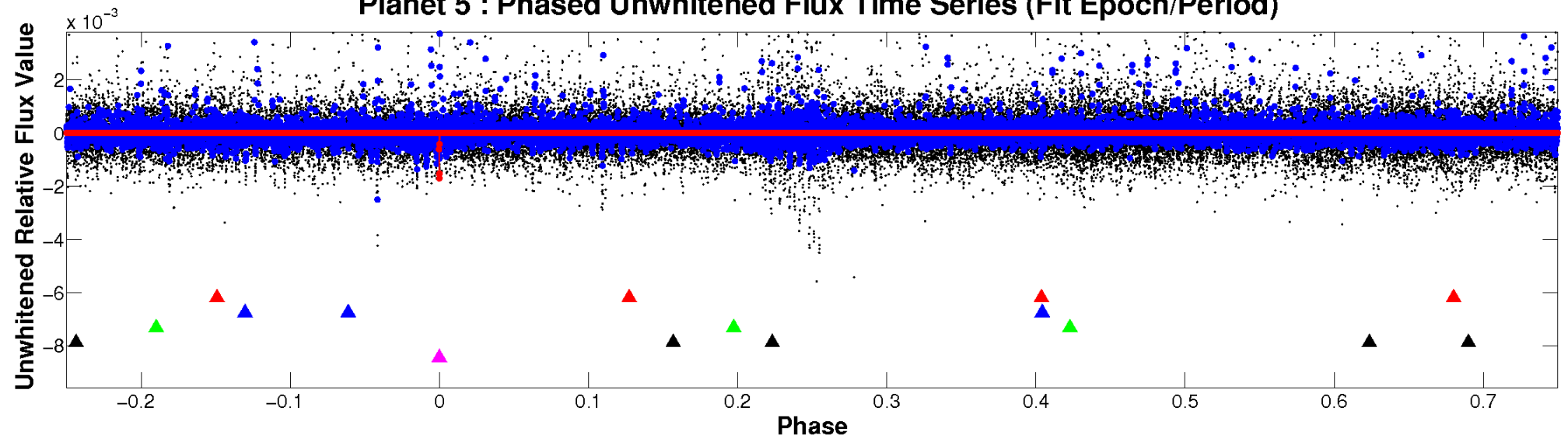
ALT Odd/Even

TCE 004932663-05

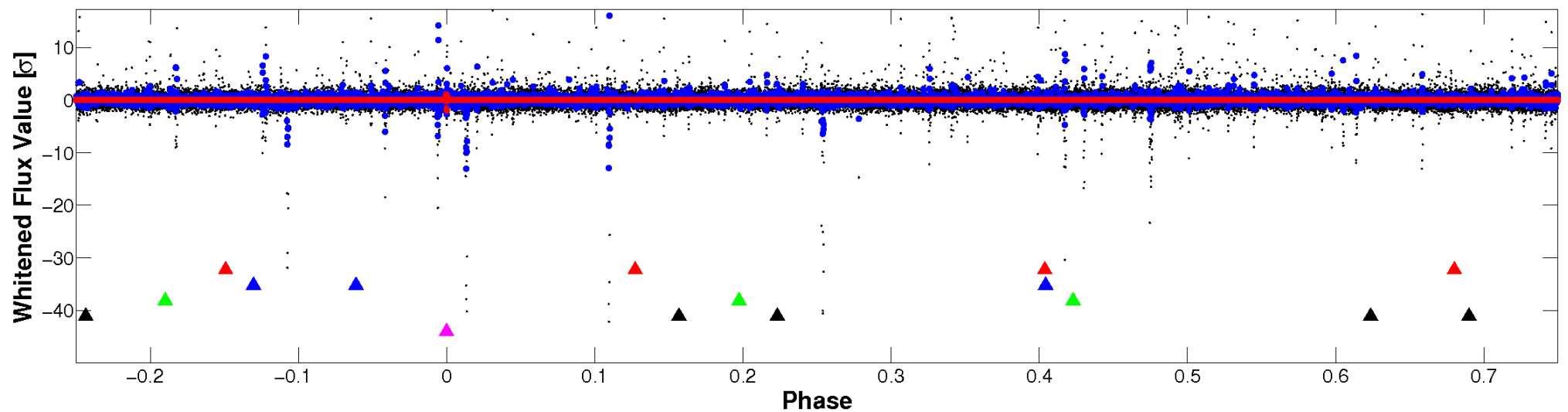


Non-Whitened Vs. Whitened Light Curve

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

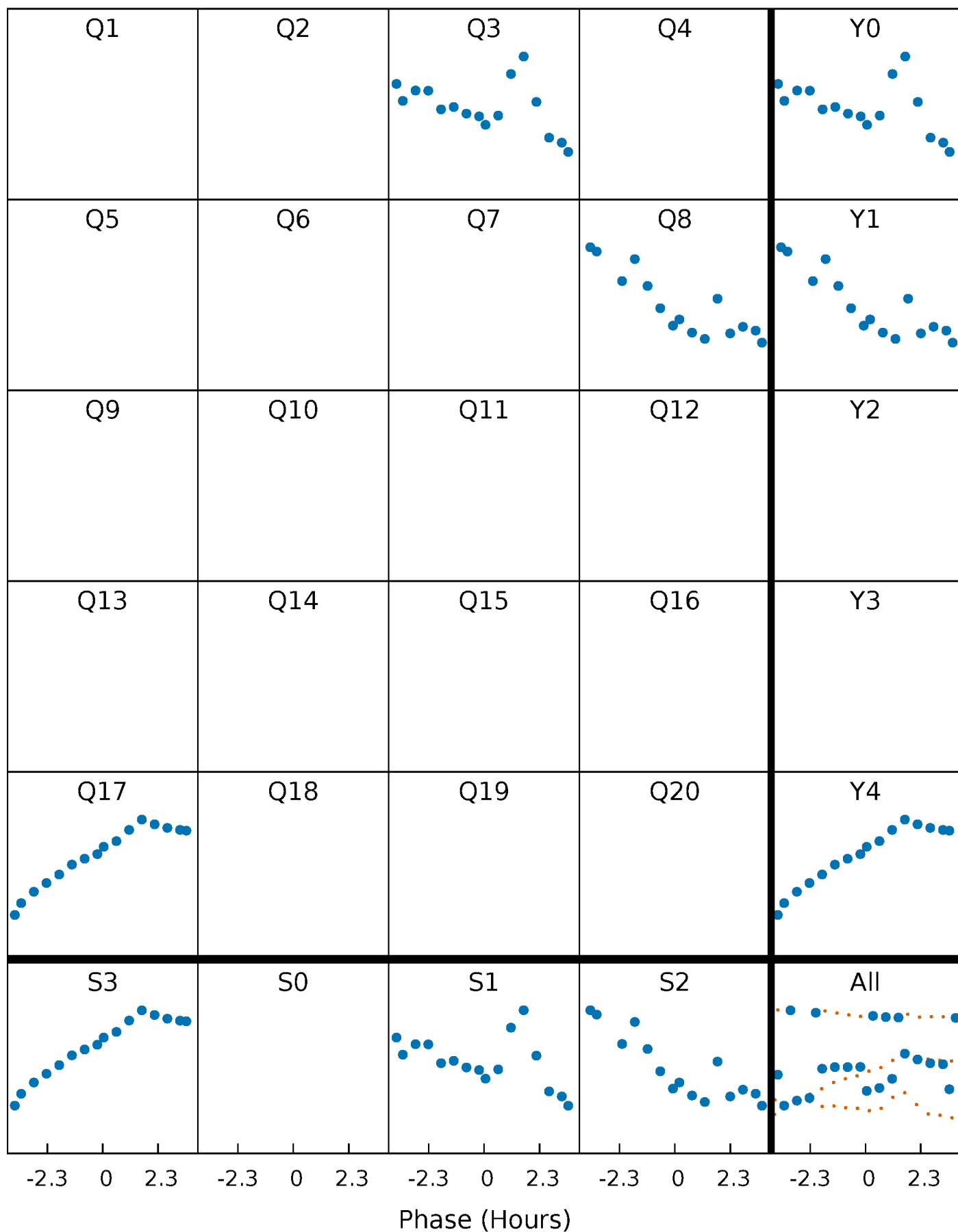


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



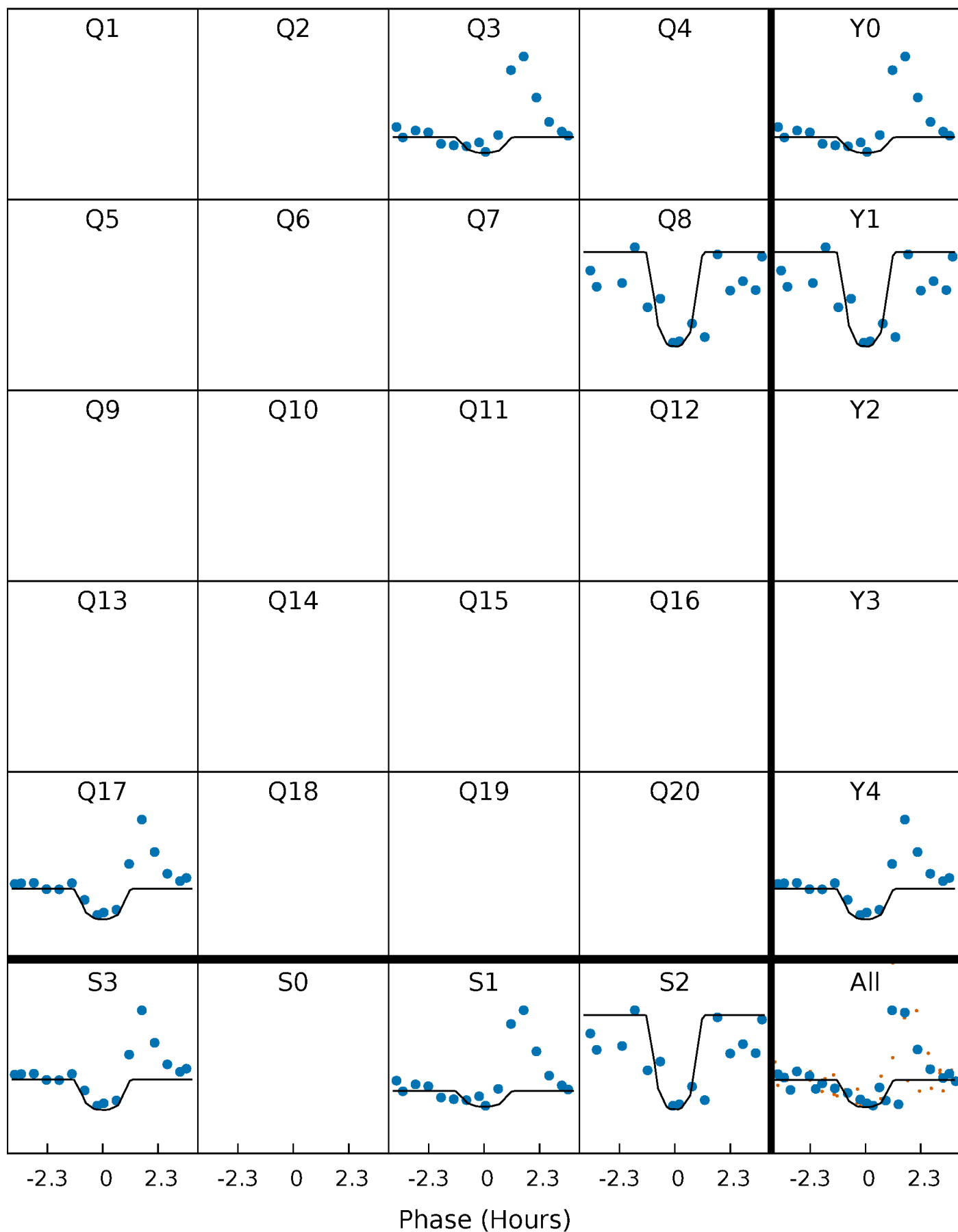
PDC Quarter-Phased Transit Curves

TCE 004932663-05 $P=207.080983$ Days $T_0=335.186069$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 004932663-05 $P=207.080983$ Days $T_0=335.186069$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

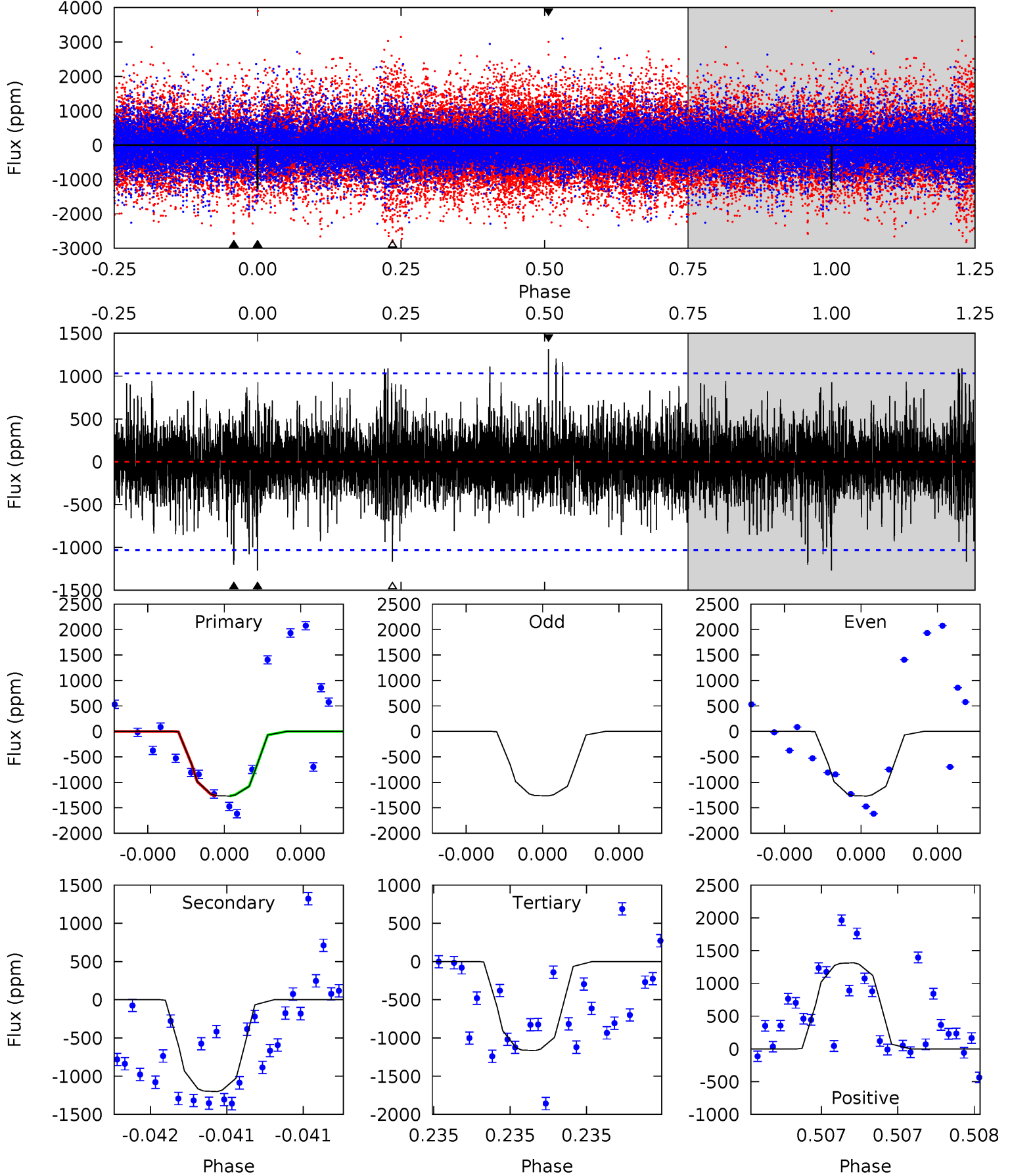
TCE 004932663-05 $P=207.083660$ Days $T_0=335.168437$ (BKJD)



DV Model-Shift Uniqueness Test

004932663-05, P = 207.080983 Days, E = 128.105086 Days

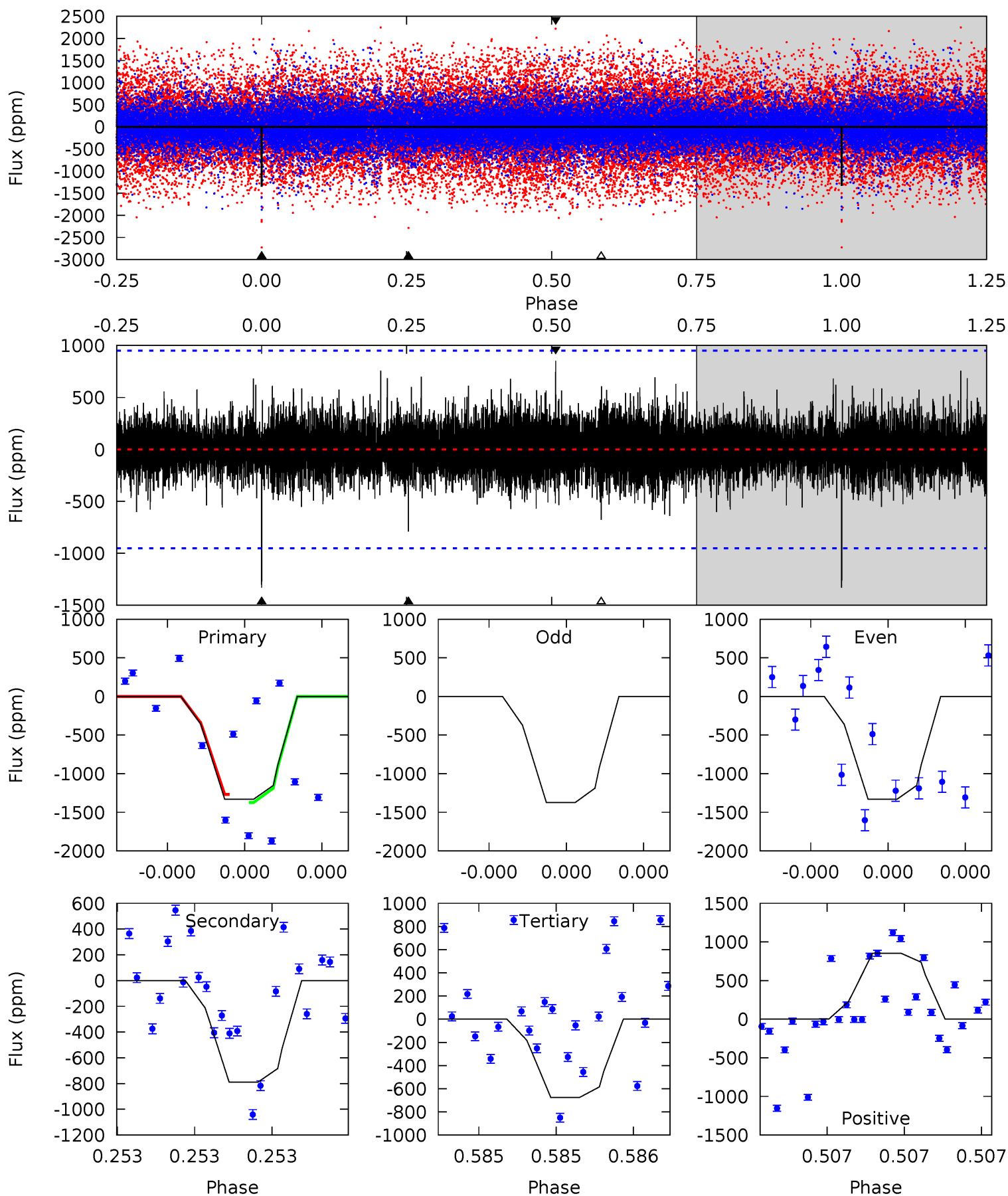
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.90	6.53	6.34	7.15	5.61	3.54	1.39	0.57	-0.25	0.20	-0.61	0.01	0.91	0.51	0.00



Alt Model-Shift Uniqueness Test

004932663-05, P = 207.083660 Days, E = 128.084777 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.91	4.69	4.01	5.06	5.65	3.60	0.97	3.90	2.85	0.68	-0.37	0.14	1.03	0.39	0.32



Stellar Parameters For KIC 004932663

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5628^{+152}_{-152}	$4.487^{+0.084}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$0.865^{+0.210}_{-0.113}$	$0.836^{+0.115}_{-0.071}$	$1.823^{+0.681}_{-0.815}$
	+3%/-3%	+2%/-3%	+107%/-107%	+24%/-13%	+14%/-8%	+37%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004932663-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1202 ± 184	$6.83^{+6.33}_{-4.53}$	406^{+22}_{-19}	4216^{+2670}_{-847}	5994^{+46136}_{-4459}
Alt.	-789 ± 168	$6.28^{+6.54}_{-4.32}$	406^{+24}_{-20}	3976^{+2760}_{-801}	4566^{+41073}_{-3479}

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 $A_{obs} \gg 1.0$

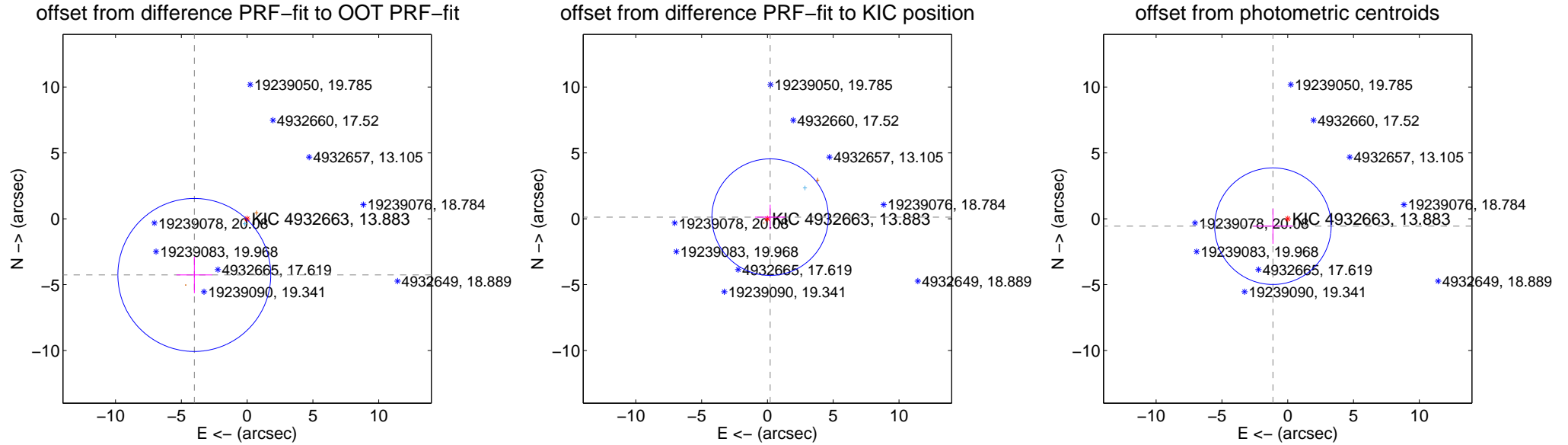
DV Centroid Data

Supplemental centroid analysis for 004932663-05. Kepler magnitude: 13.88. Transit SNR 6.36

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 6.44 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.857 ± 1.936	3.03	4.014 ± 1.356	-4.265 ± 1.384
PRF-fit source offset from KIC position	0.240 ± 1.474	0.16	-0.206 ± 1.152	0.123 ± 0.948
photometric centroid source offset	1.26 ± 1.48	0.85	1.12 ± 1.51	-0.56 ± 1.34



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

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

Q1 no difference image



Q1 no OOT image



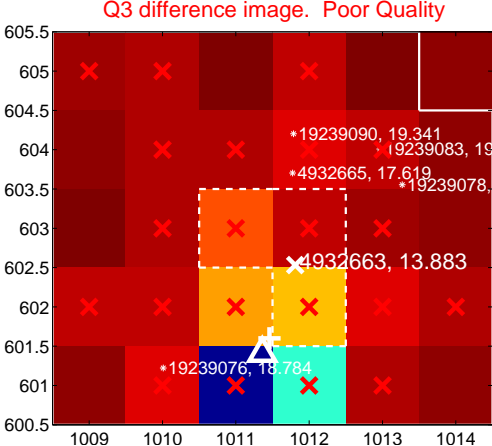
Q2 no difference image



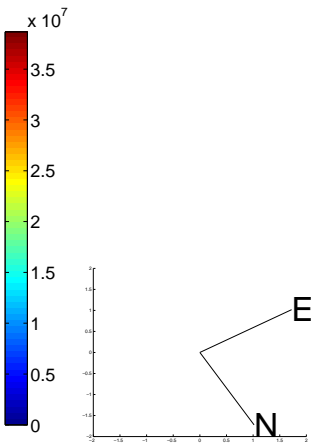
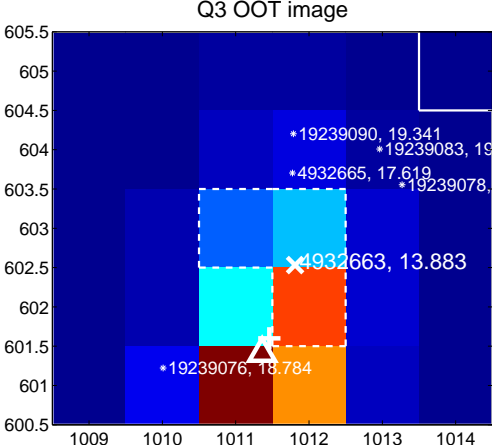
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



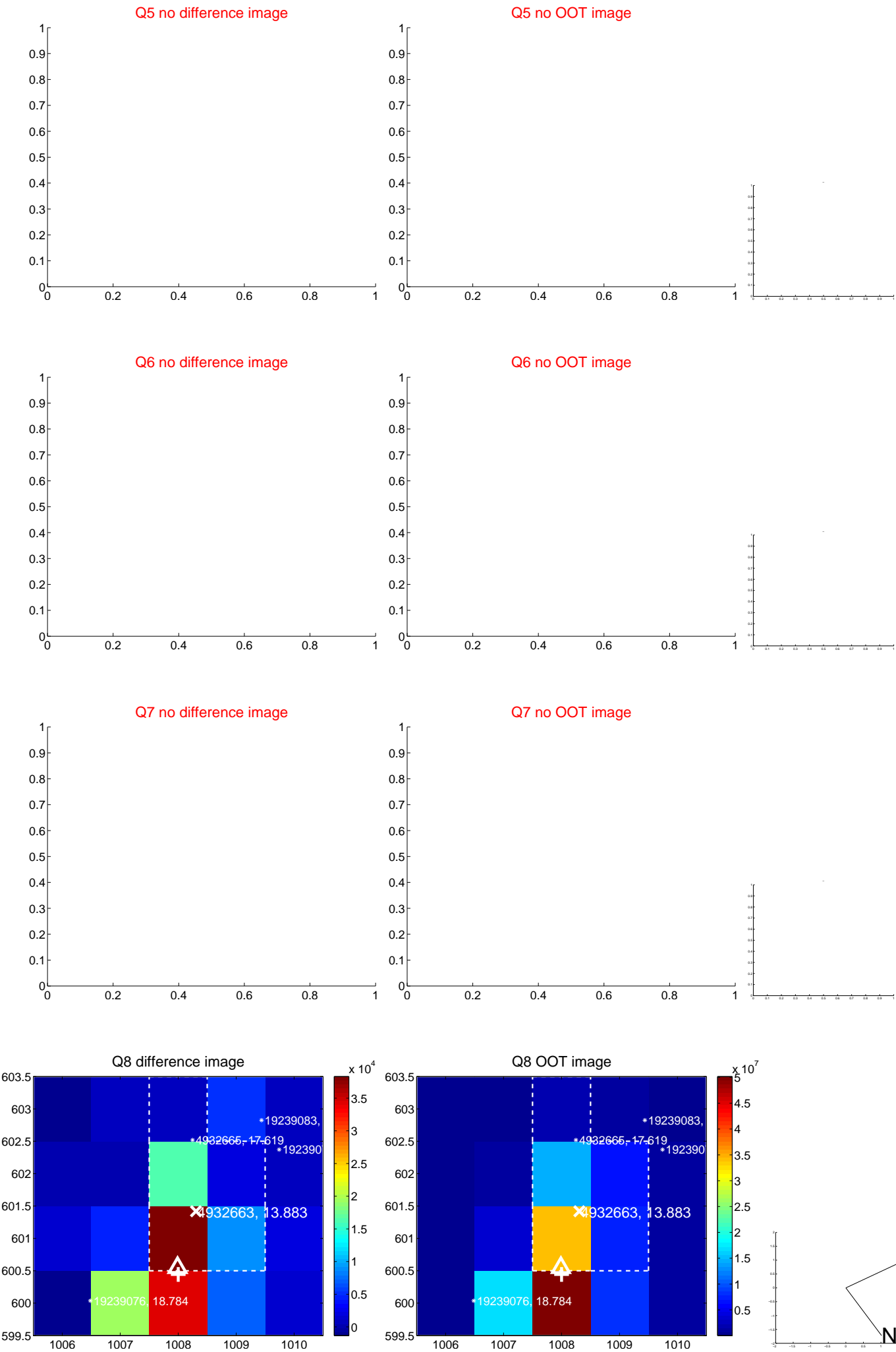
Q4 no difference image



Q4 no OOT image



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



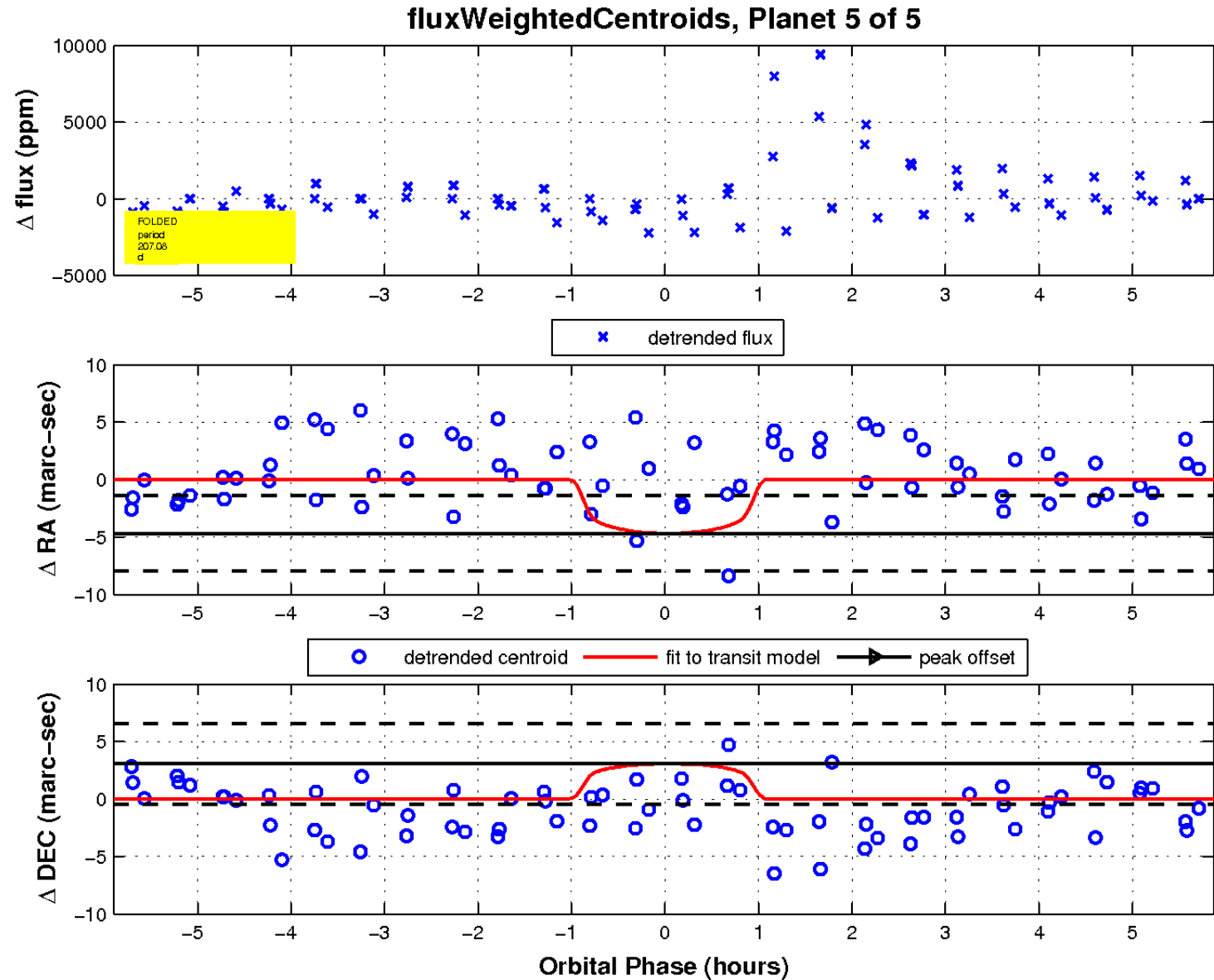
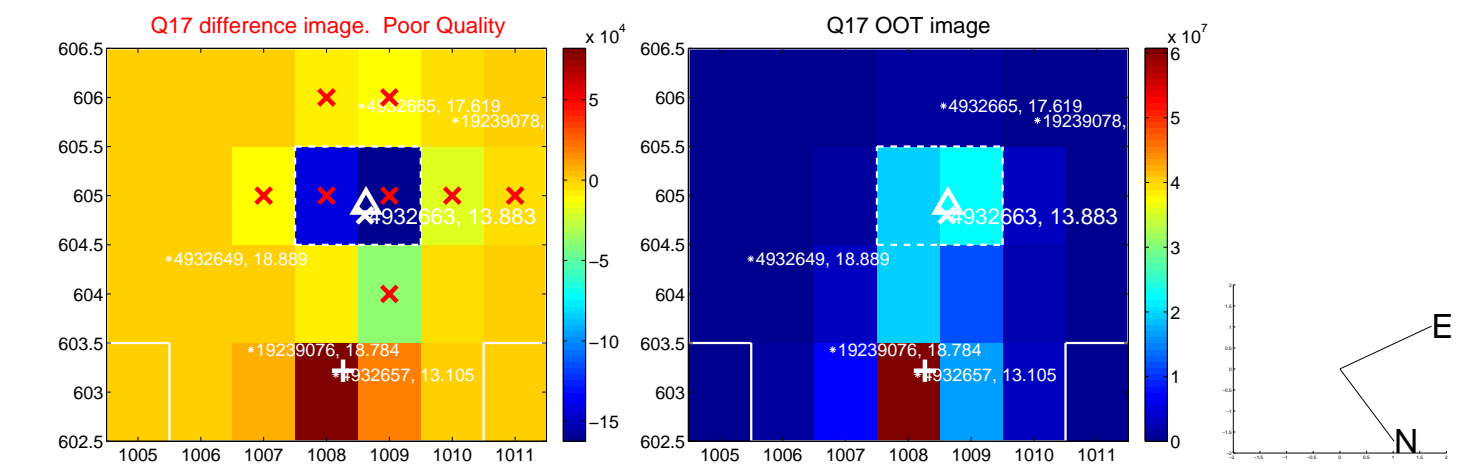
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

