

KIC 008183622

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})
008183622-01	OBS	No	335.663526	139.377767	7916.0	1.583	58.8	62.8	153.06	3286	1953.76	2517.27
008183622-02	OBS	No	347.700414	142.120447	506.2	6.125	45.0	5.7	153.06	3286	446.31	2401.75
008183622-03	OBS	No	121.581415	202.980607	1652.3	4.548	23.6	16.1	153.06	3286	760.14	0.00
008183622-04	OBS	No	342.393769	160.221681	3660.6	1.722	19.8	19.4	153.06	3286	967.31	2451.51
008183622-05	OBS	No	302.607401	321.883661	1044.1	12.500	18.3	-1.0	153.06	3286	453.82	2890.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183622-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-05	OBS	FP	0.00	1	0	1	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—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.

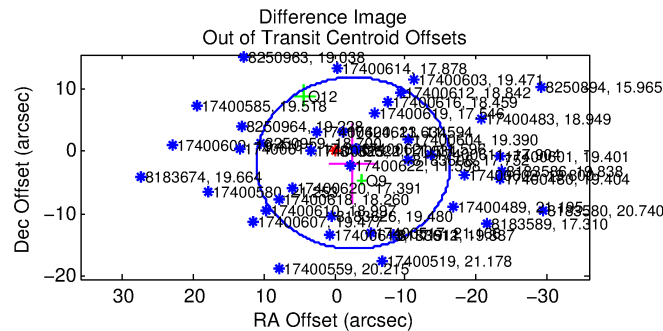
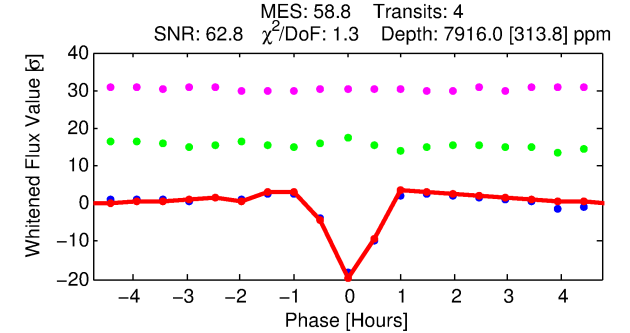
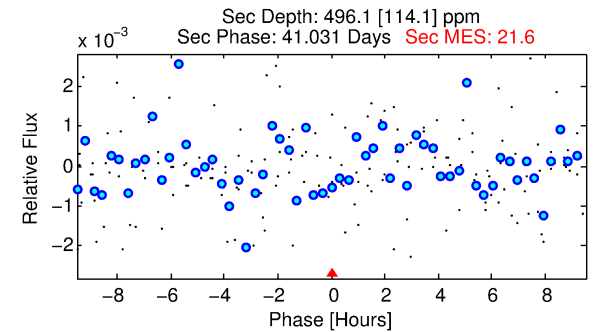
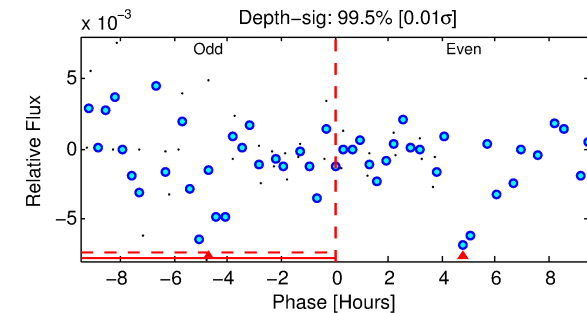
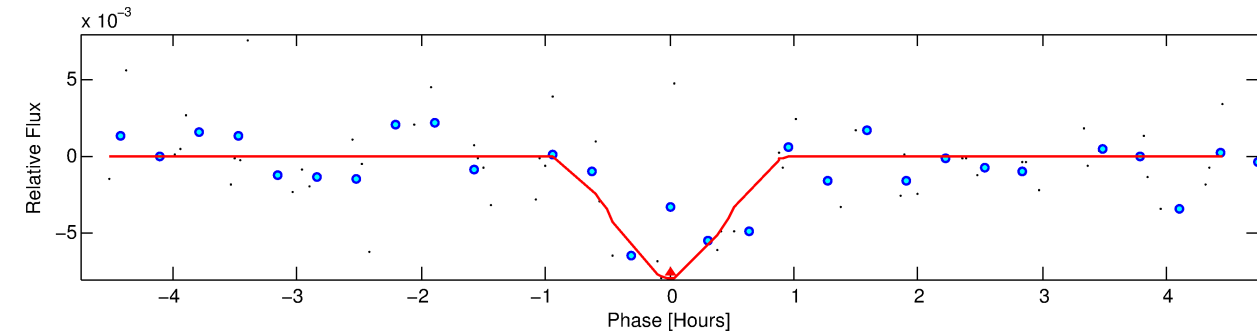
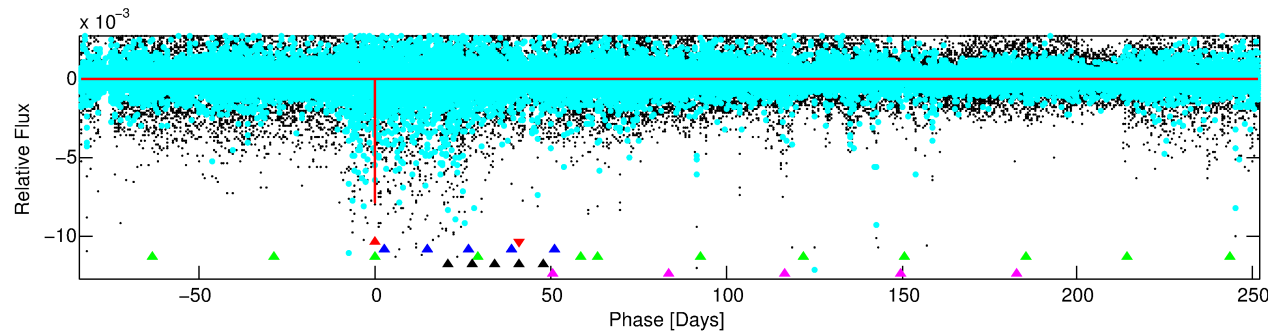
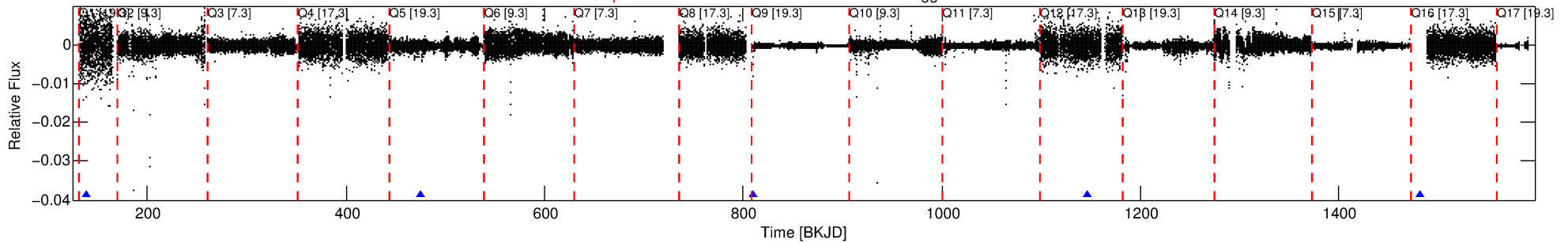
Ephemeris Match Information For 008183622-01

No Significant Match Found

DV One-Page Summary

KIC: 8183622 Candidate: 1 of 5 Period: 335.664 d

Kp: 11.03 R*: 153.06 Rs Teff: 3286.0 K Logg: 0.12 Fe/H: -0.080



DV Fit Results:

Period = 335.66353 [0.00330] d
Epoch = 139.3778 [0.0065] BKJD
Rp/R* = 0.1170 [0.1285]
a/R* = 1028.84 [512.55]
b = 0.92 [0.28]
Seff = 2517.27 [904.00]
Teq = 1806 [162] K
Rp = 1953.76 [2174.31] Re
a = 0.9860 [0.1922] AU
Ag = 0.07 [0.16] [-6.00σ]
Teffp = 1434 [793] K [-0.46σ]

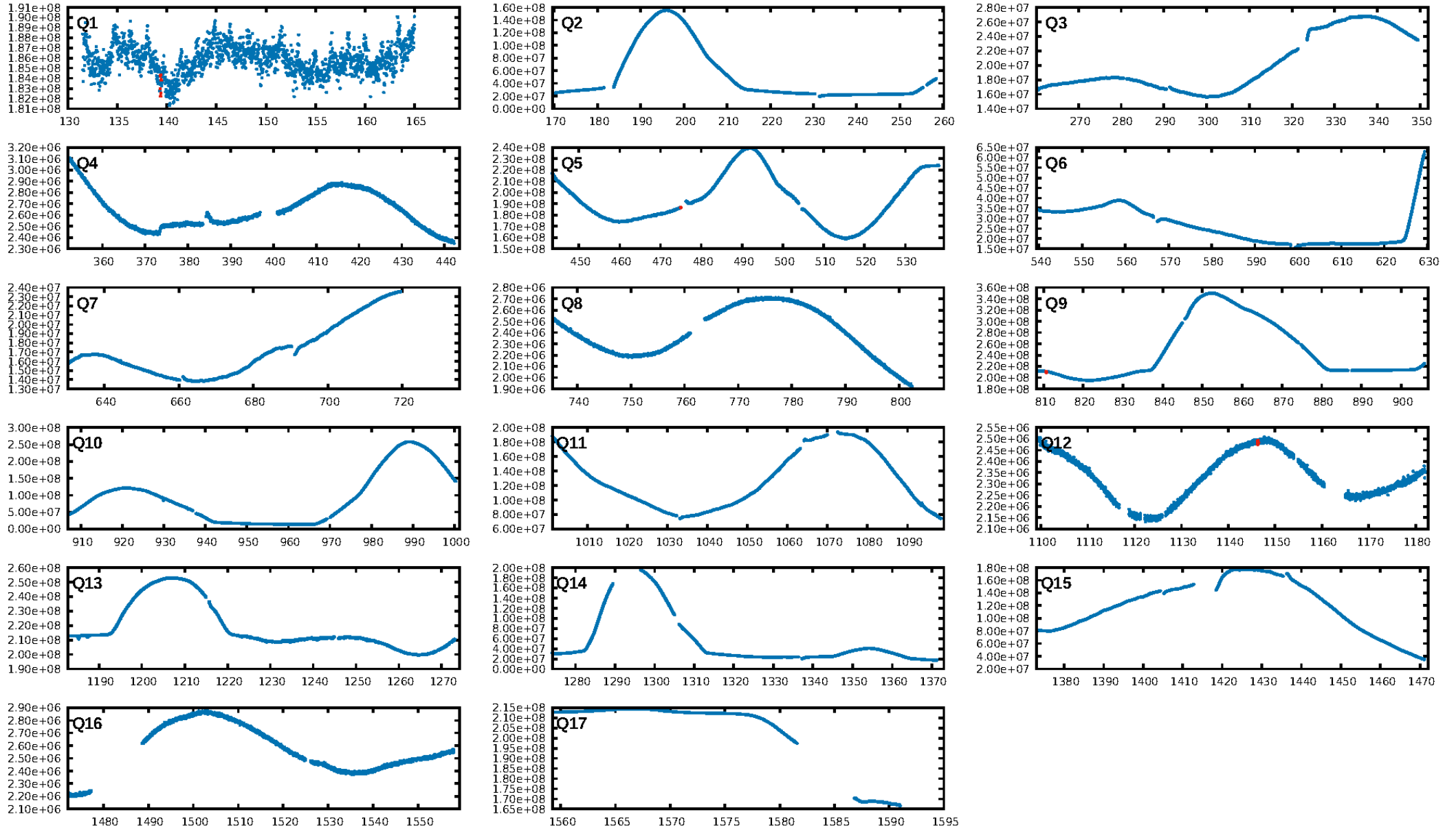
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [62.97σ]
LongPeriod-sig: 100.0% [69.07σ]
ModelChiSquare2-sig: 5.7%
ModelChiSquareGof-sig: 81.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.014
Centroid-sig: N/A
Centroid-so: 0.302 arcsec [5.53σ]
OotOffset-rm: 3.271 arcsec [0.71σ]
KicOffset-rm: 2.750 arcsec [0.50σ]
OotOffset-st: 0/0/1/1 [2]
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DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.67 [2/3]

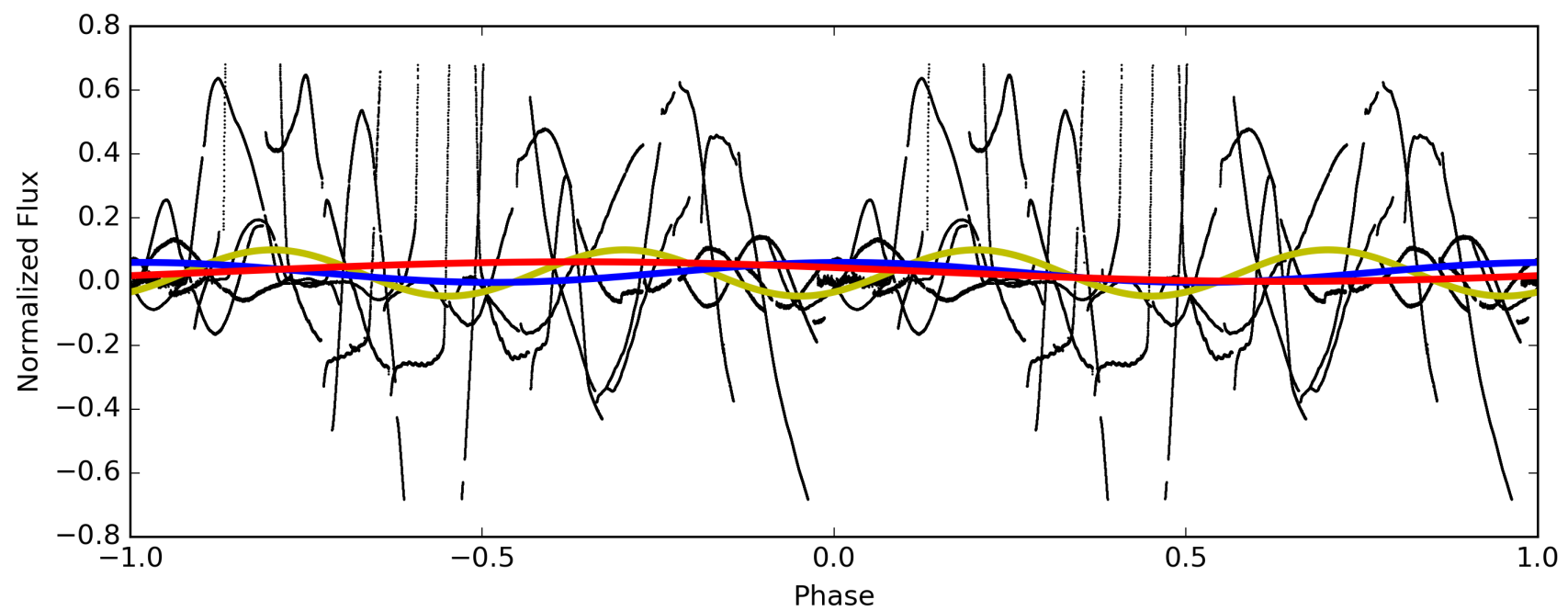
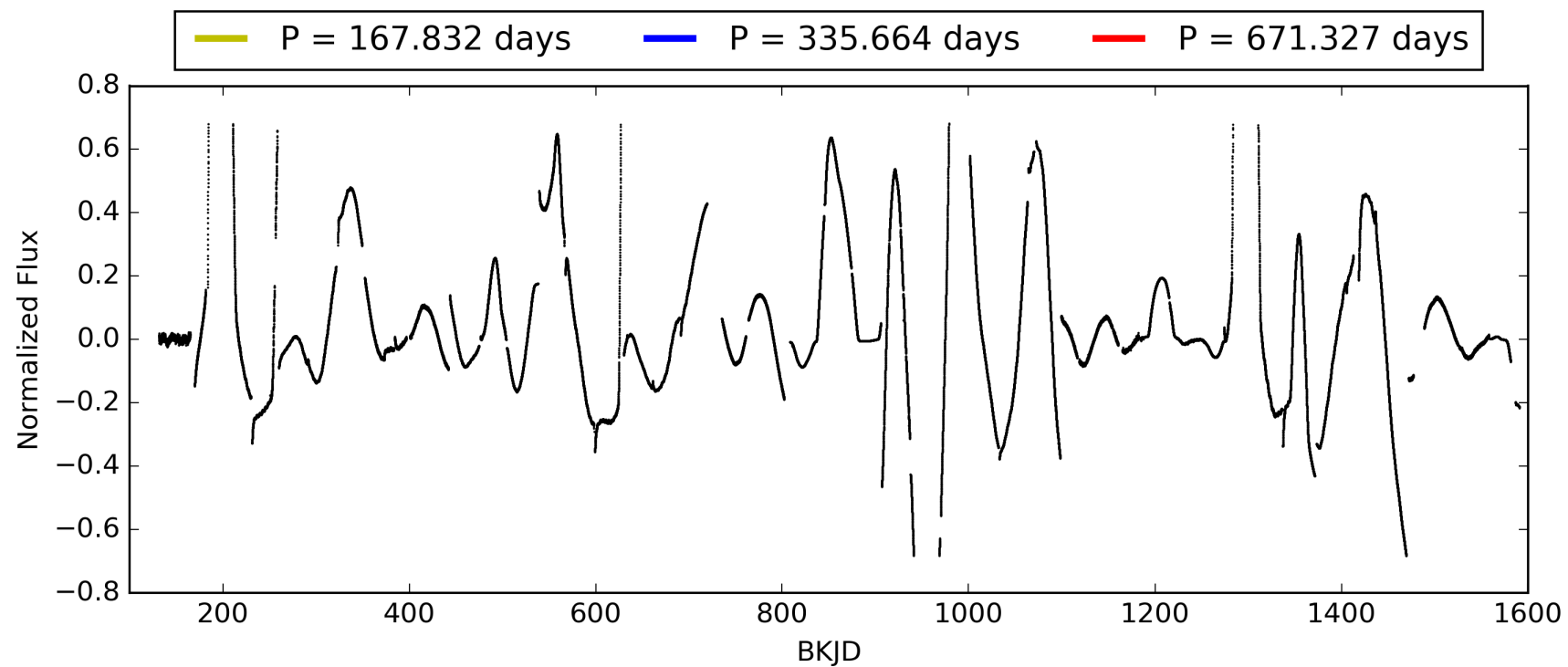
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:00:49 Z

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

TCE 008183622-01, PDC Light Curves

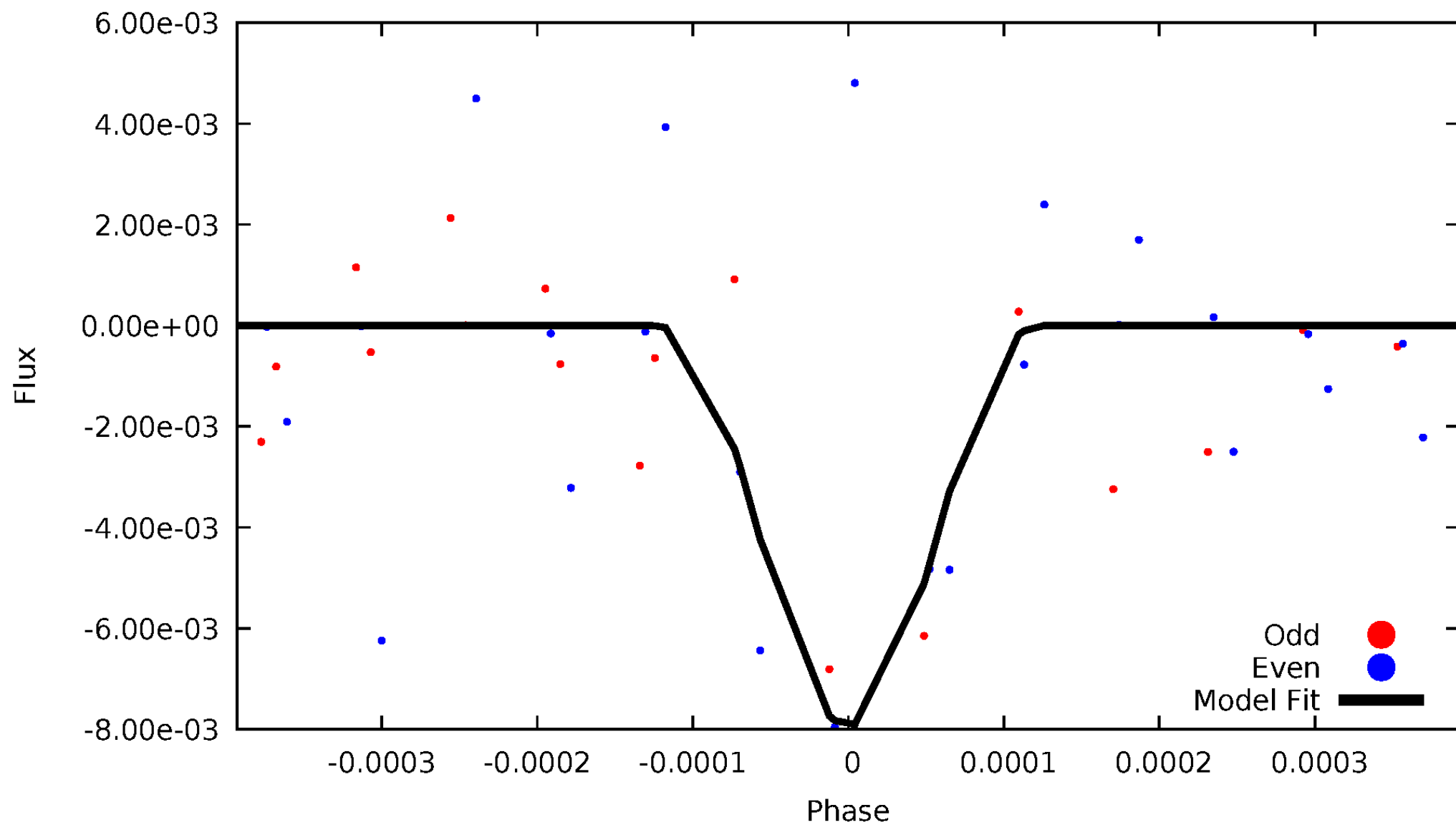


TCE 008183622-01



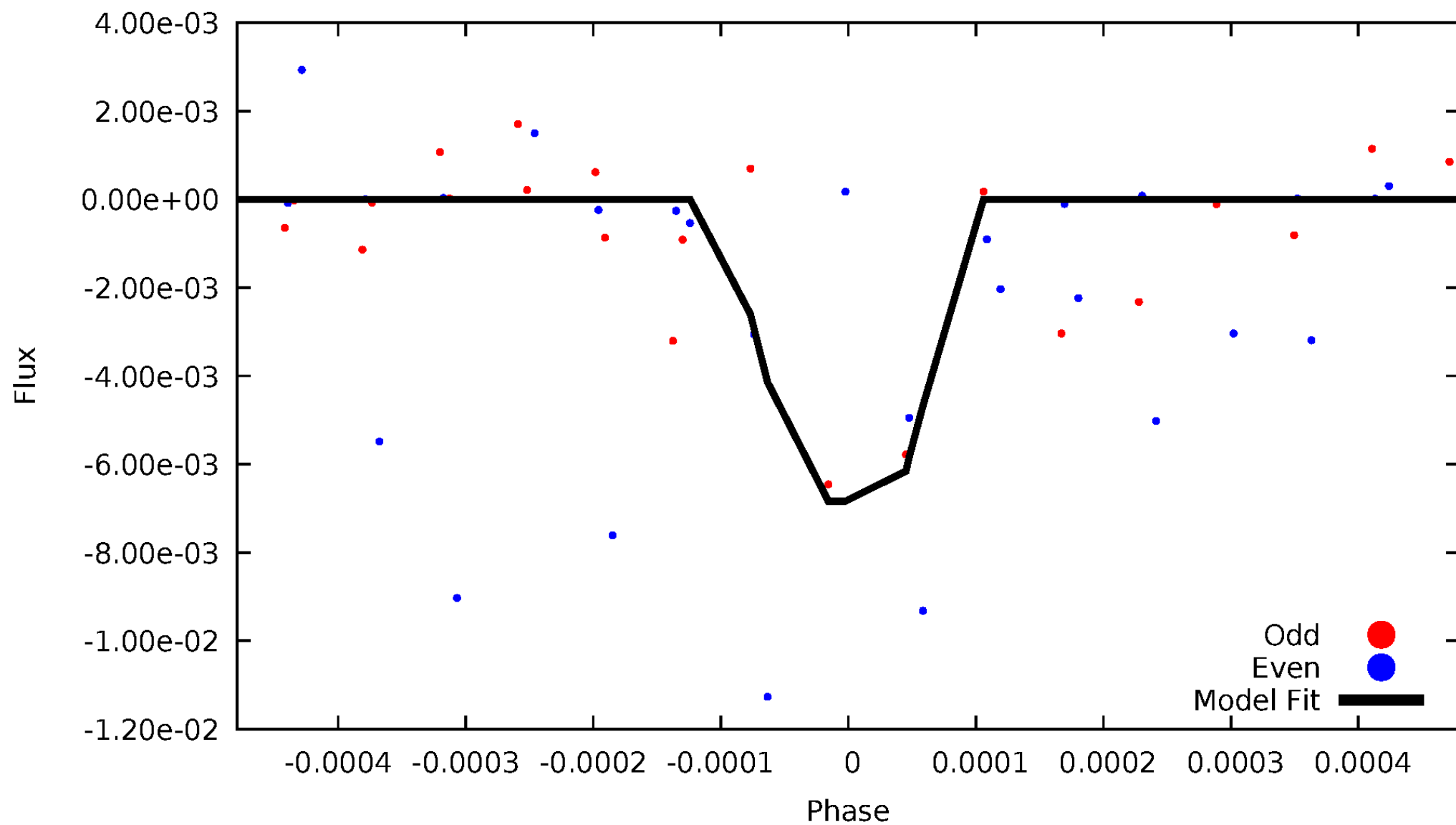
DV Odd/Even

TCE 008183622-01



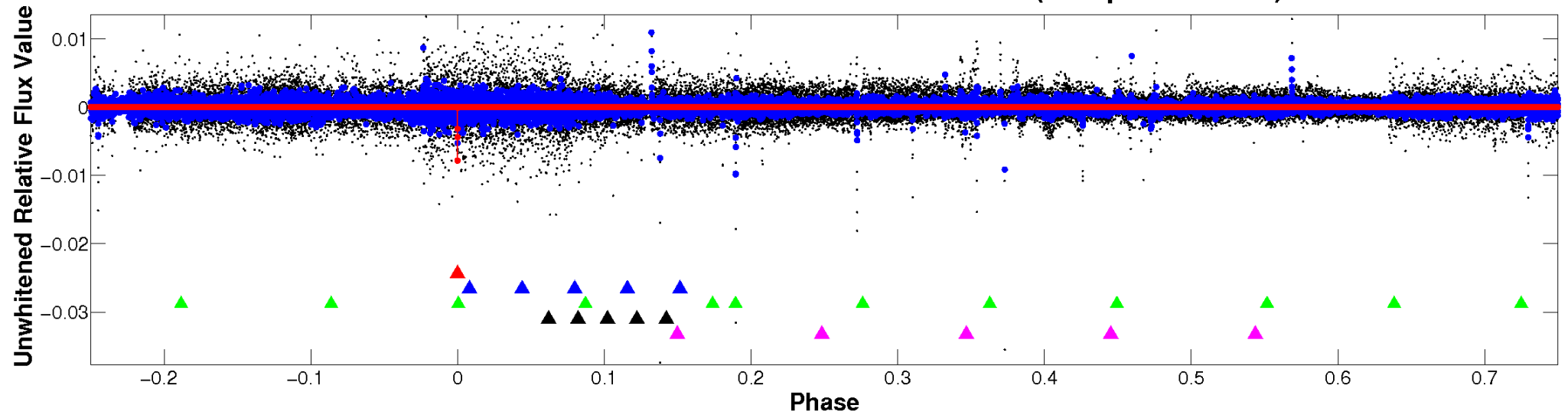
ALT Odd/Even

TCE 008183622-01

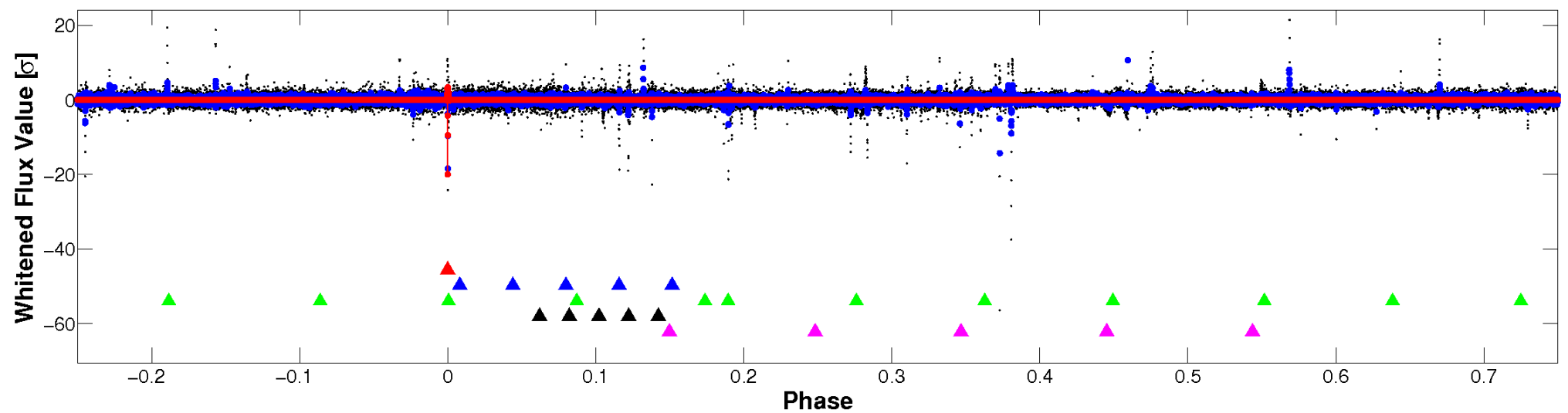


Non-Whitened Vs. Whitened Light Curve

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

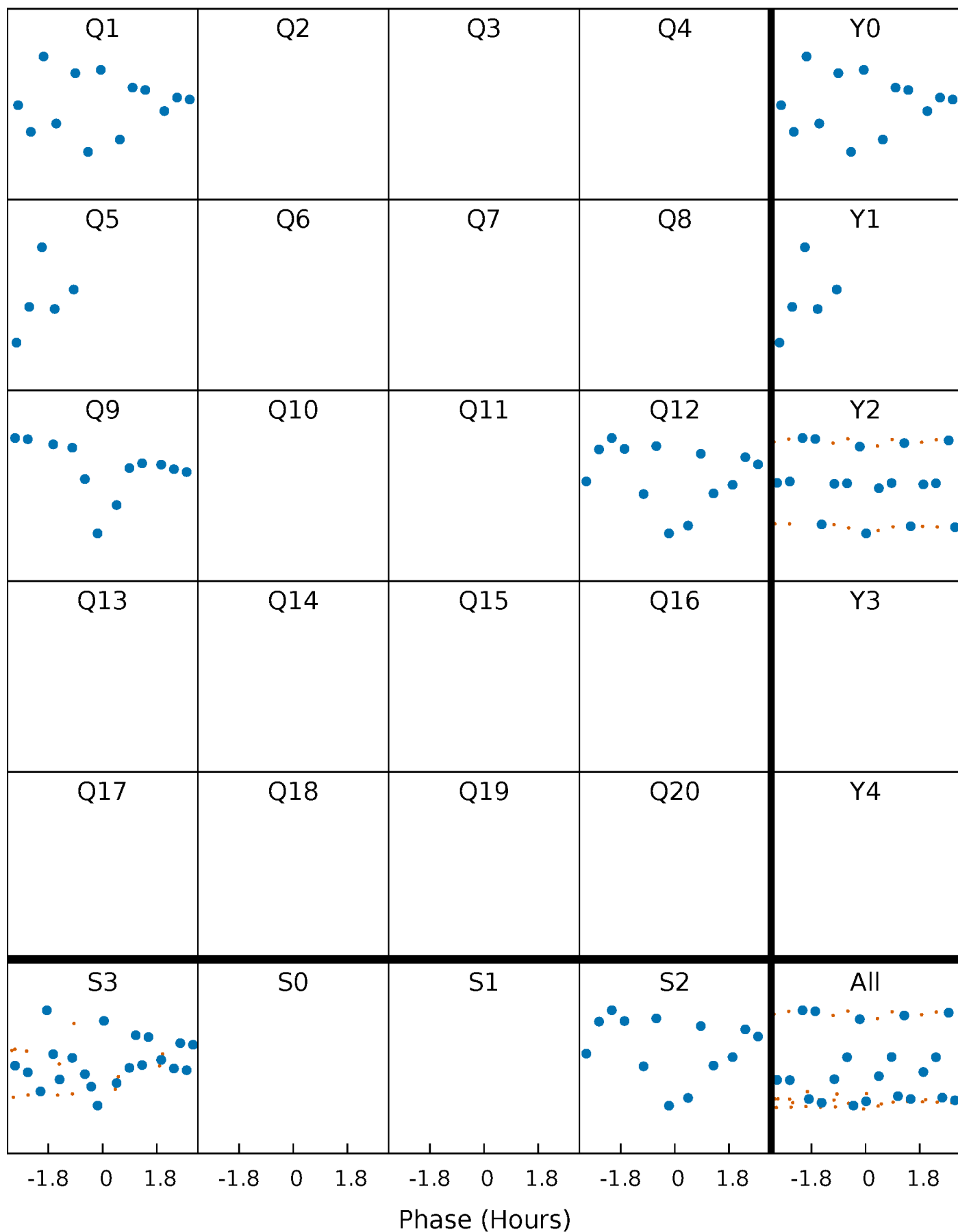


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



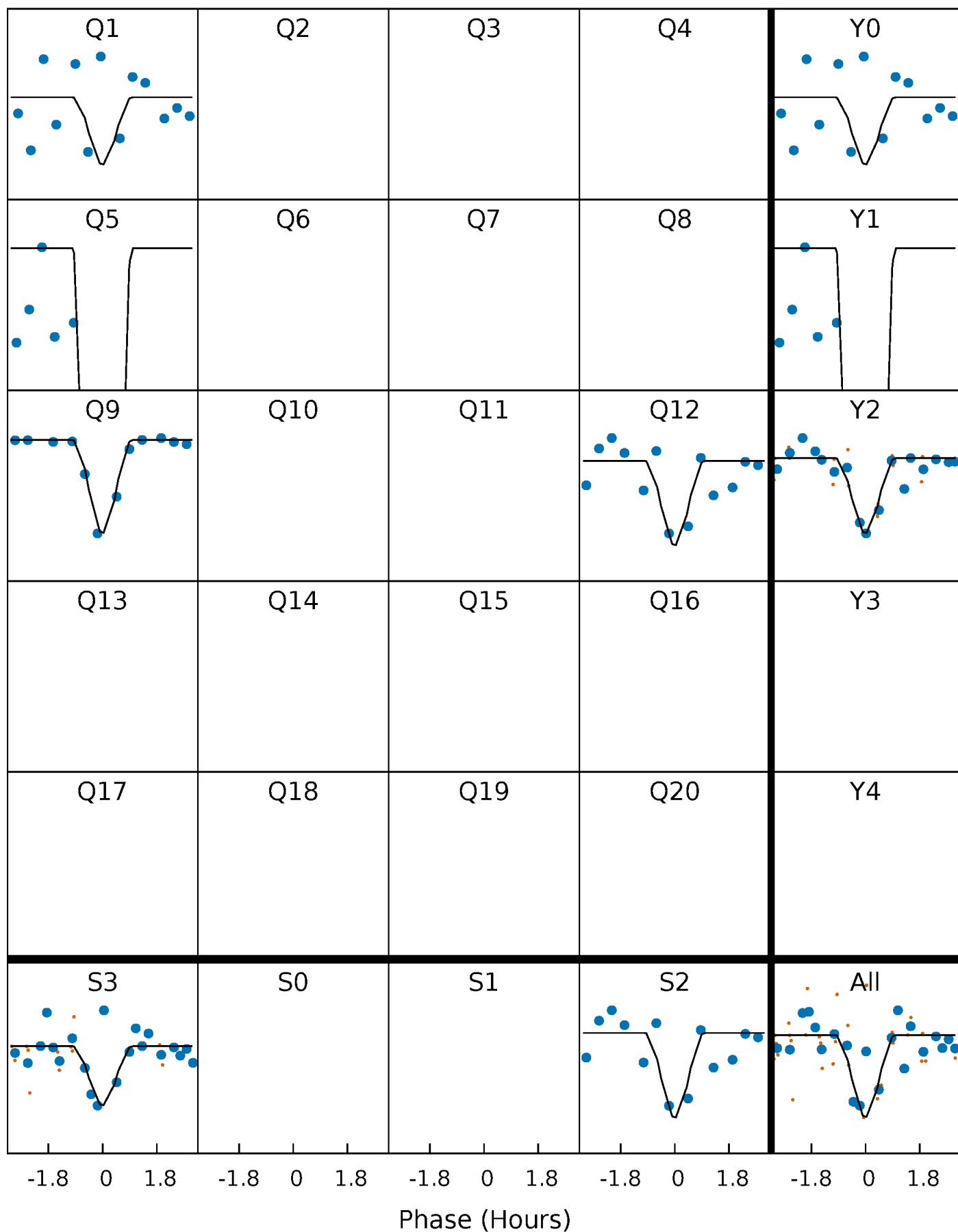
PDC Quarter-Phased Transit Curves

TCE 008183622-01 P=335.663526 Days $T_0=139.377767$ (BKJD)



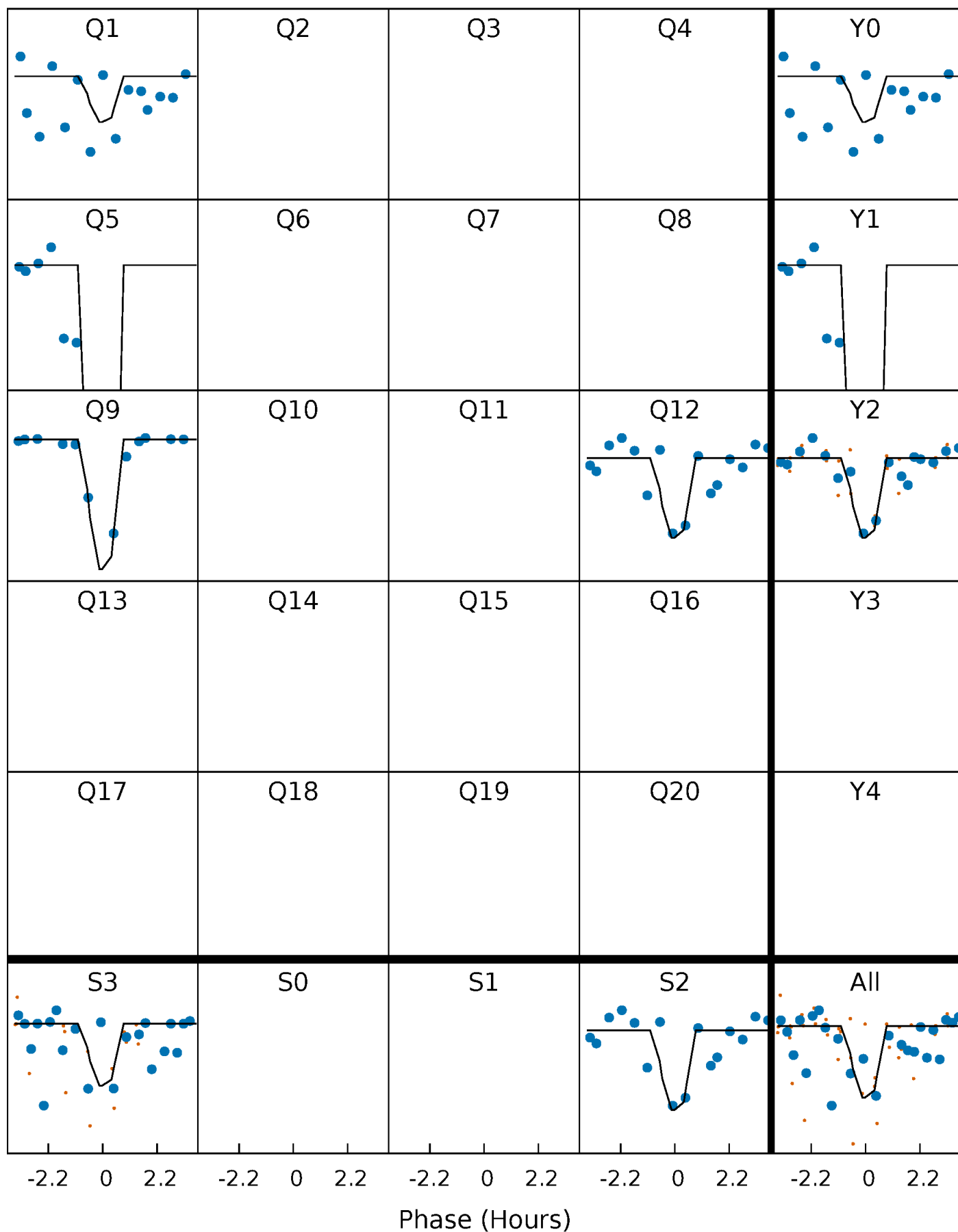
DV Quarter-Phased Transit Curves

TCE 008183622-01 P=335.663526 Days $T_0=139.377767$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

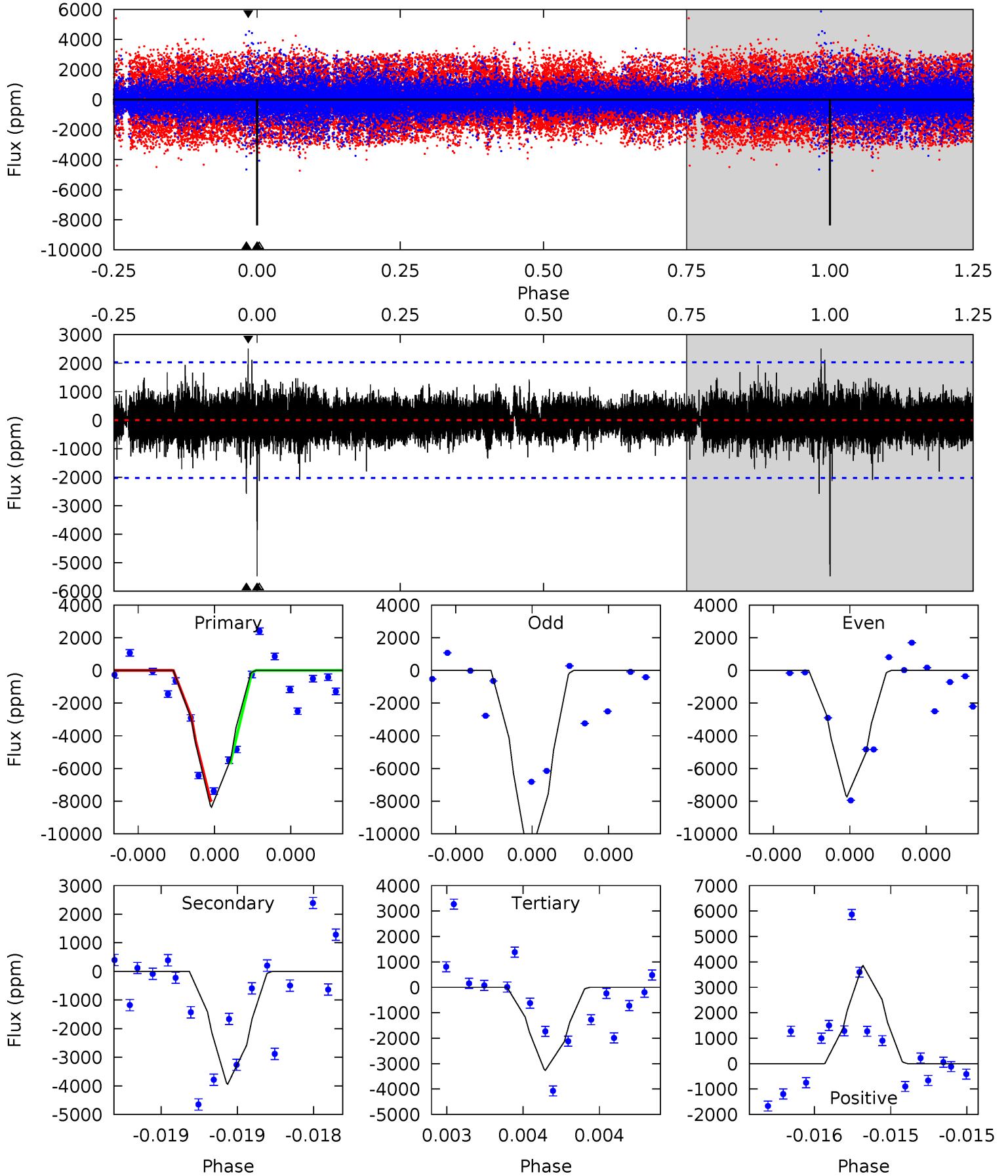
TCE 008183622-01 P=335.663180 Days $T_0=139.379973$ (BKJD)



DV Model-Shift Uniqueness Test

008183622-01, P = 335.663526 Days, E = 139.377767 Days

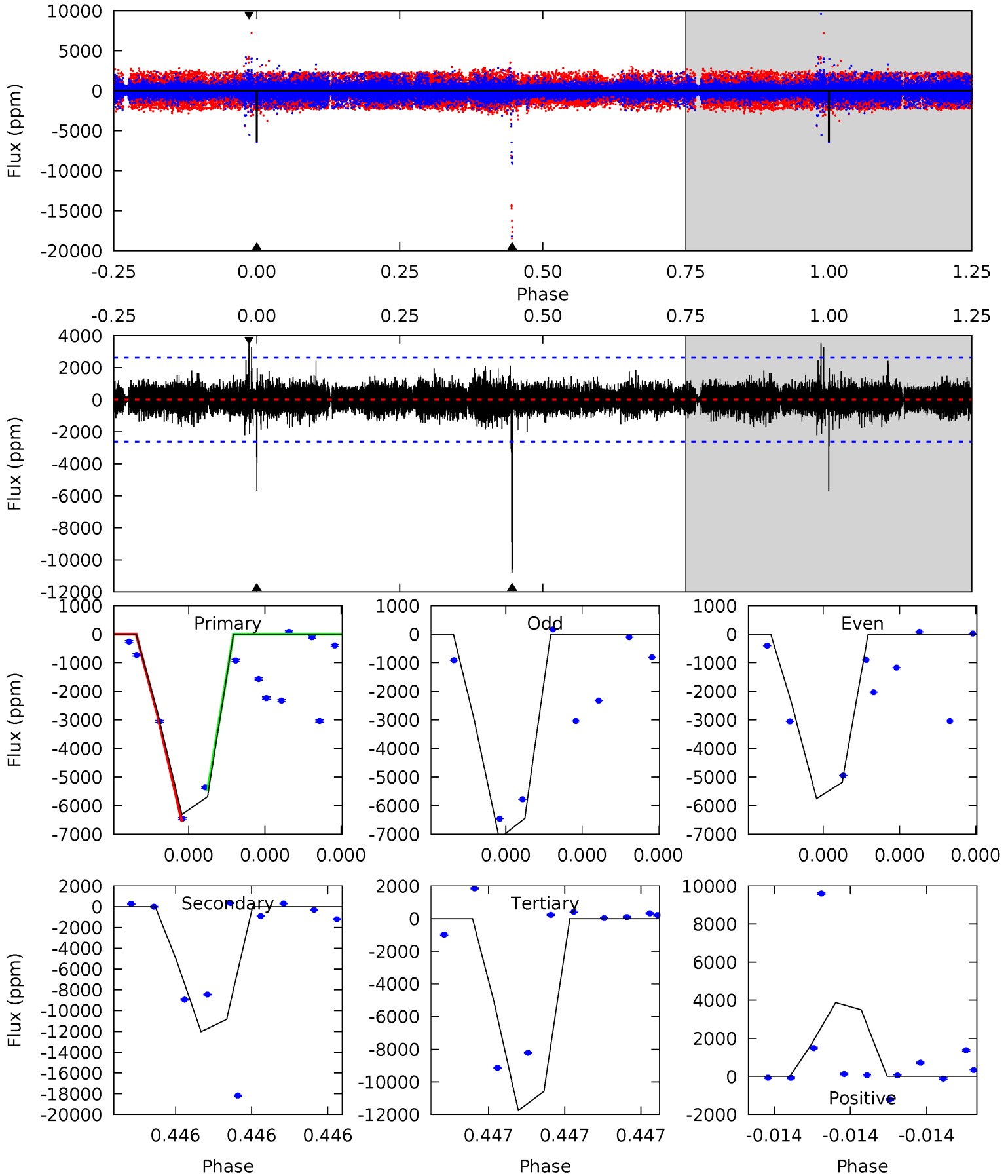
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	7.24	6.00	7.07	5.71	3.68	1.03	9.39	8.31	1.25	0.17	3.20	0.74	0.32	2.69



Alt Model-Shift Uniqueness Test

008183622-01, P = 335.663180 Days, E = 139.379973 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	23.7	23.2	7.65	5.75	3.75	0.97	-10.7	4.79	0.56	16.1	1.06	1.04	0.24	0



Stellar Parameters For KIC 008183622

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+86%/-14%
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 008183622-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2574 ± 355	$2325.52^{+1865.75}_{-1431.84}$	2478^{+116}_{-133}	-2006^{+5105}_{-431}	$0.259^{+1.468}_{-0.182}$
Alt.	-10827 ± 457	$2020.18^{+1872.47}_{-1383.35}$	2477^{+119}_{-127}	3028^{+1584}_{-810}	$1.457^{+13.071}_{-1.063}$

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

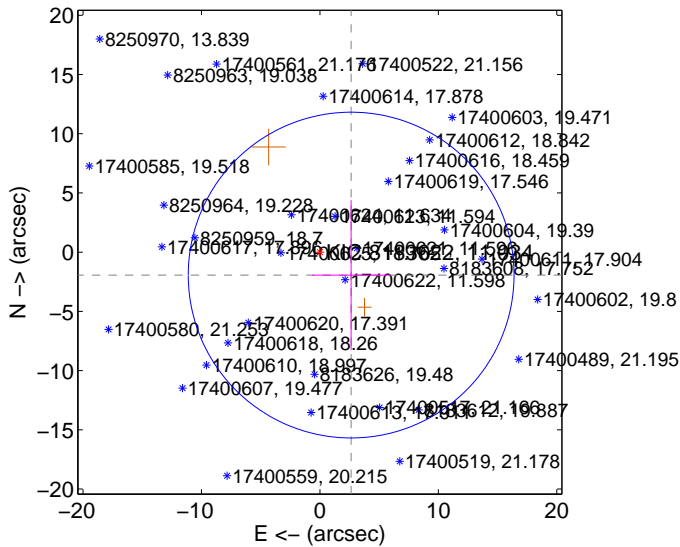
Supplemental centroid analysis for 008183622-01. **Kepler magnitude: 11.03.** Transit SNR 62.76

There are 0 quarters with good PRF difference image offsets

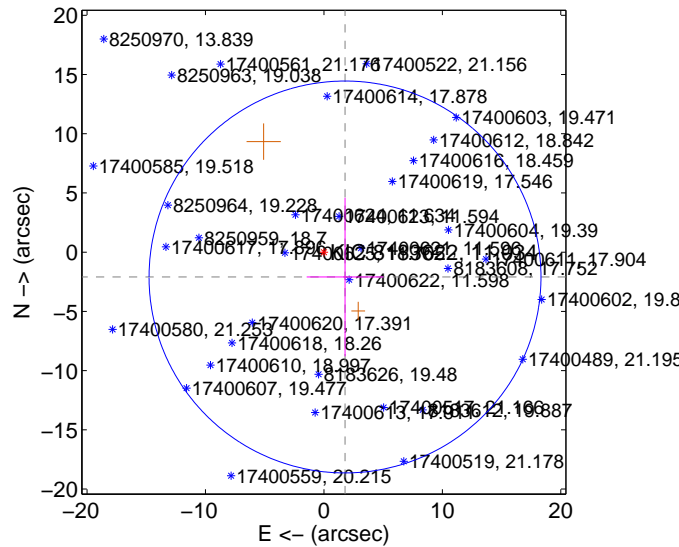
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.271 ± 4.584	0.71	-2.637 ± 3.282	-1.934 ± 6.330
PRF-fit source offset from KIC position	2.750 ± 5.514	0.50	-1.781 ± 3.238	-2.096 ± 6.693
photometric centroid source offset	0.30 ± 0.05	5.53	0.15 ± 0.07	-0.26 ± 0.05

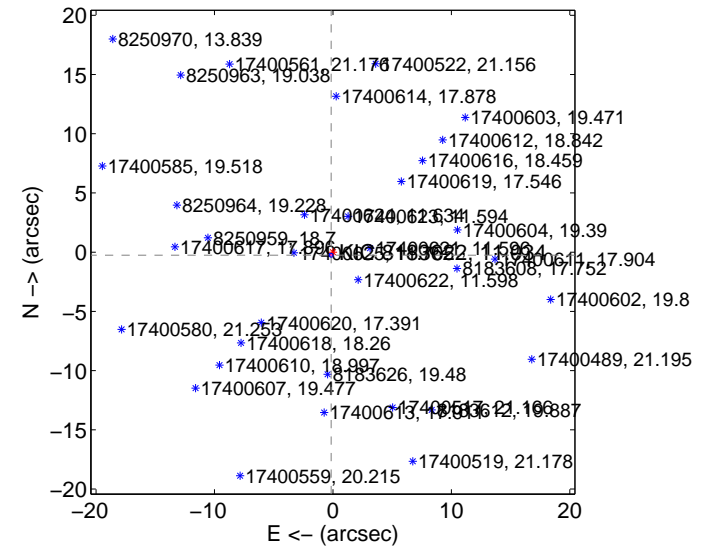
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

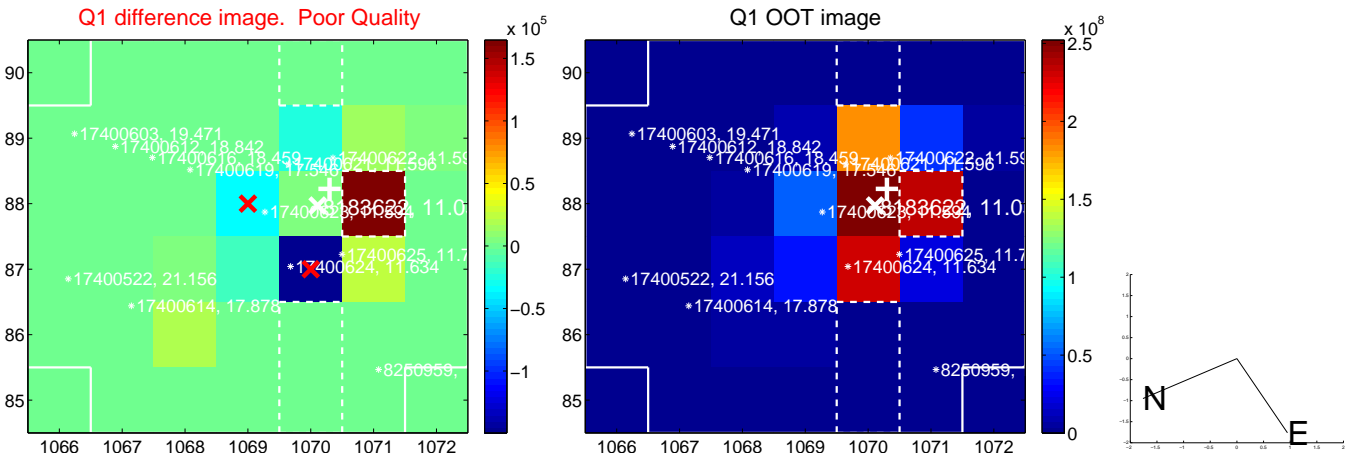


offset from photometric centroids



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

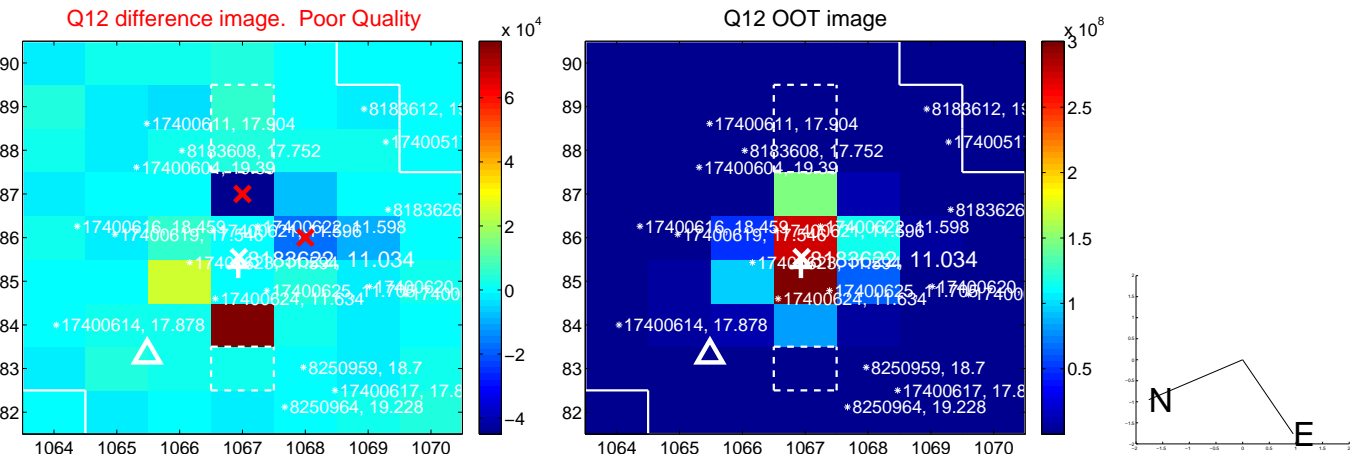
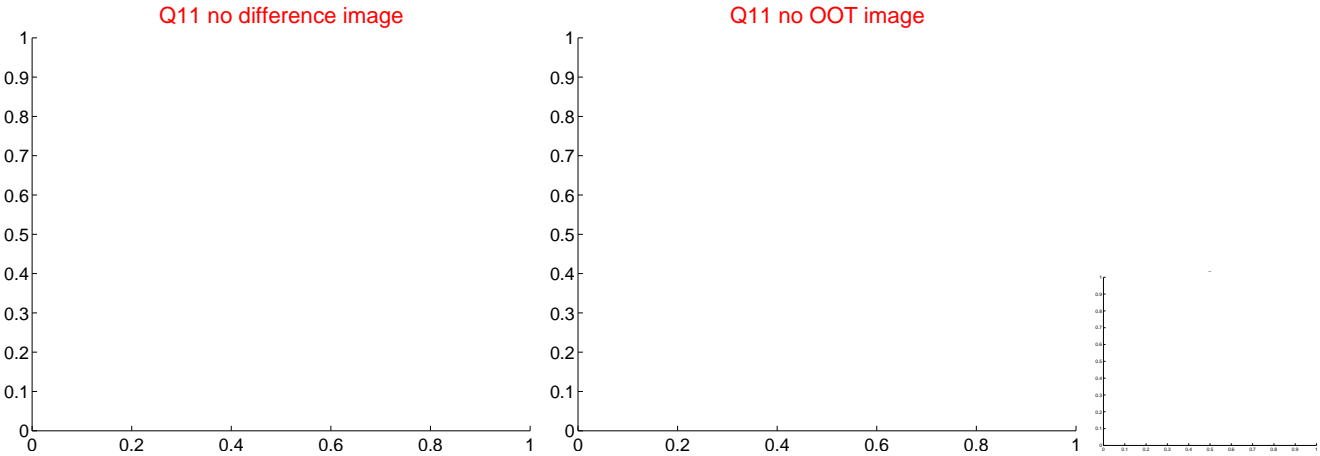
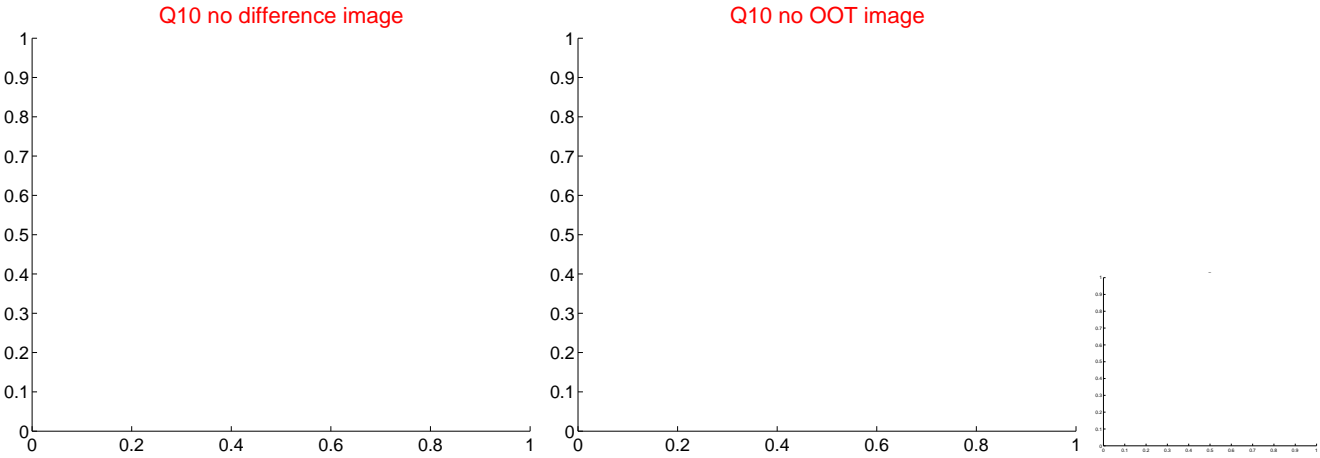
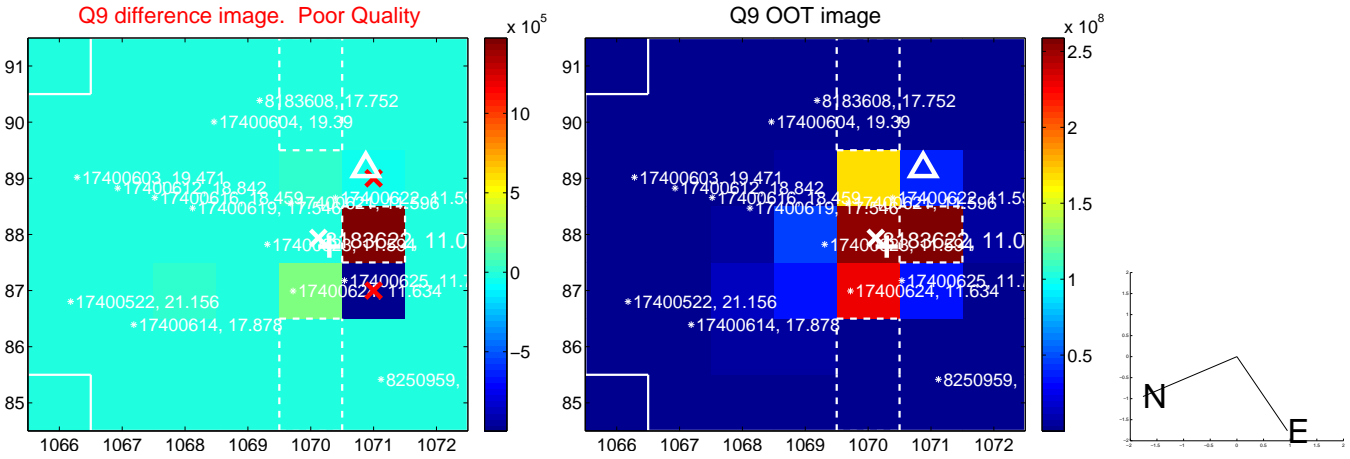
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



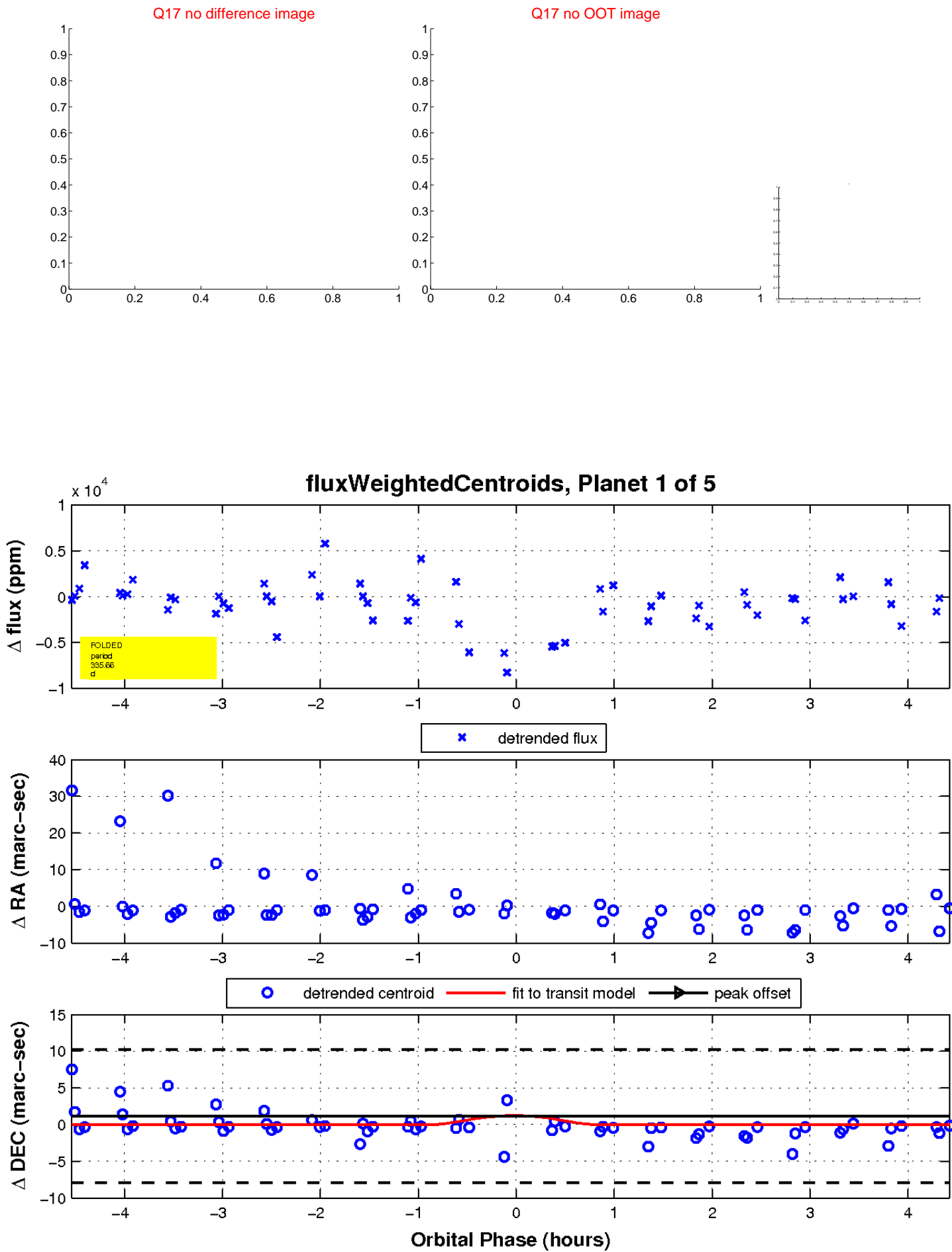
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



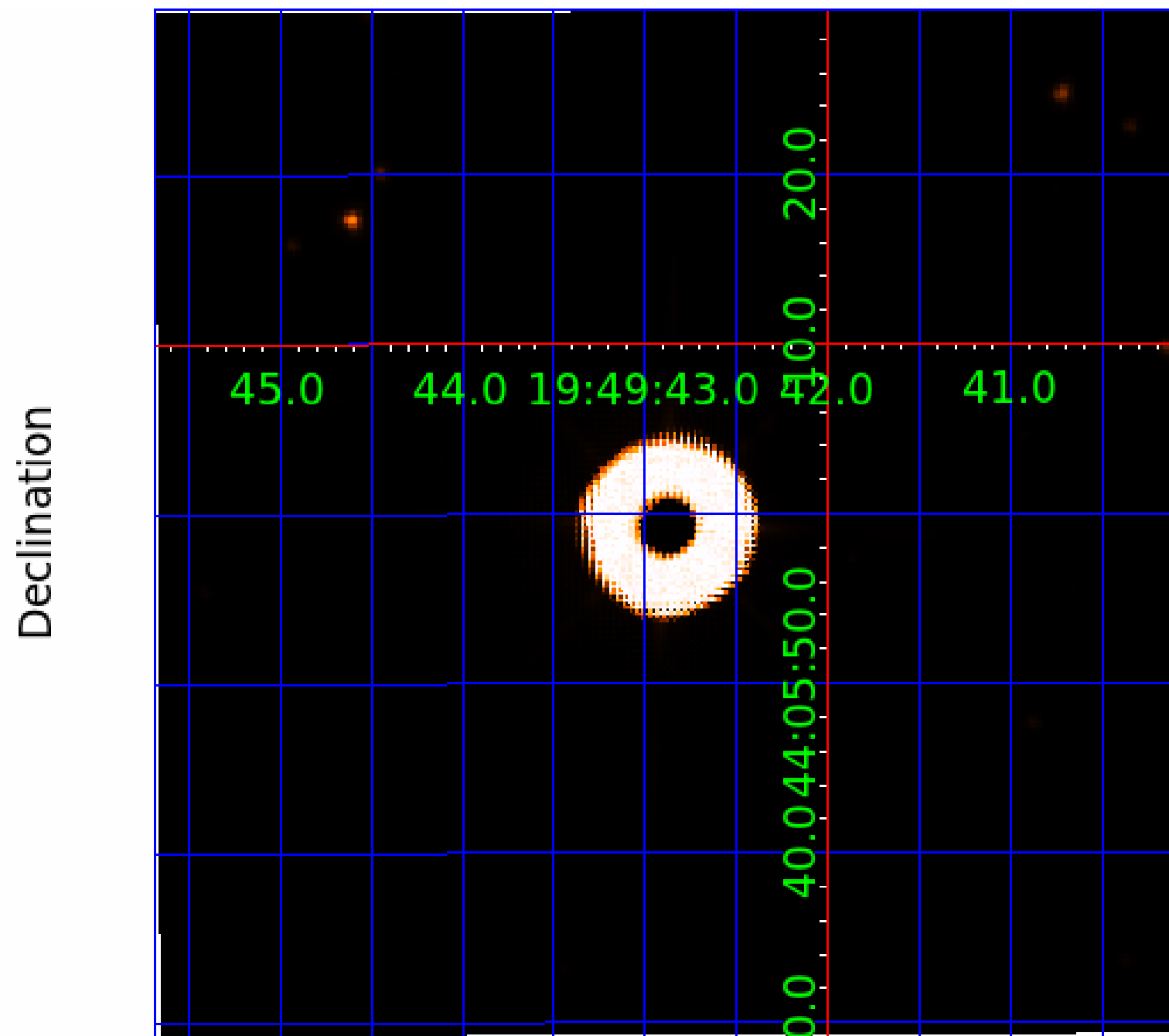
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008183622

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})
008183622-01	OBS	No	335.663526	139.377767	7916.0	1.583	58.8	62.8	153.06	3286	1953.76	2517.27
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008183622-05	OBS	No	302.607401	321.883661	1044.1	12.500	18.3	-1.0	153.06	3286	453.82	2890.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183622-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-05	OBS	FP	0.00	1	0	1	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—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.

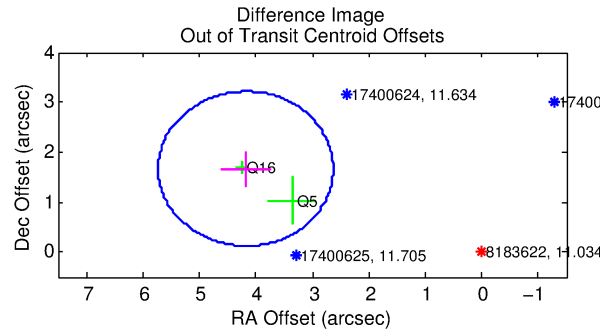
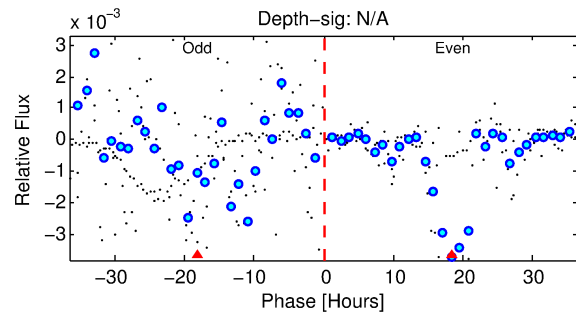
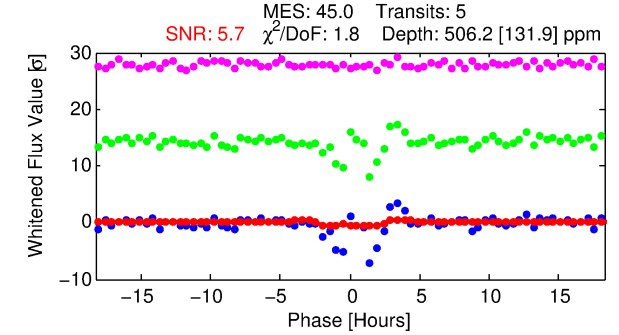
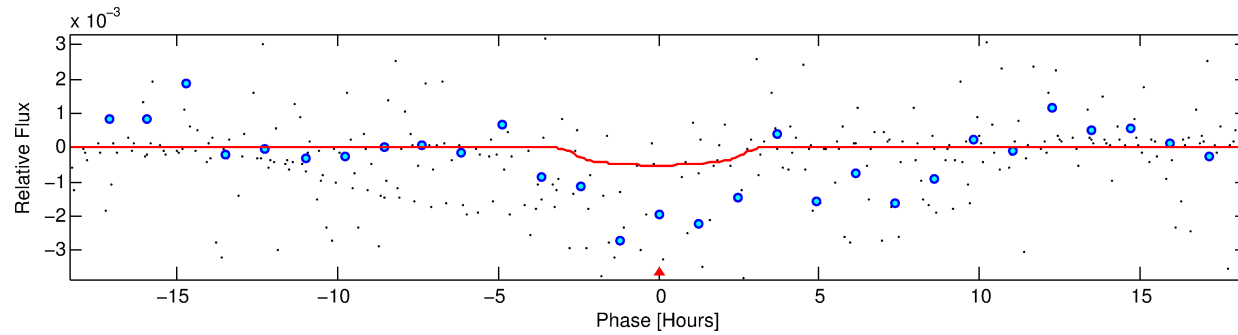
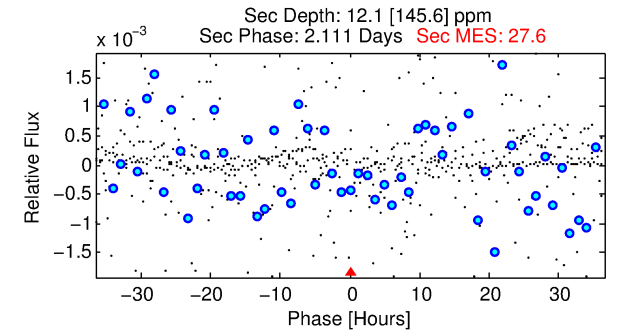
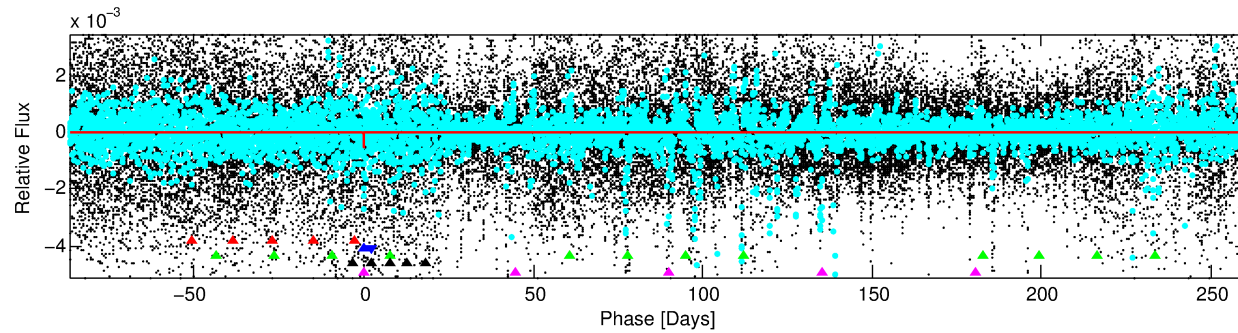
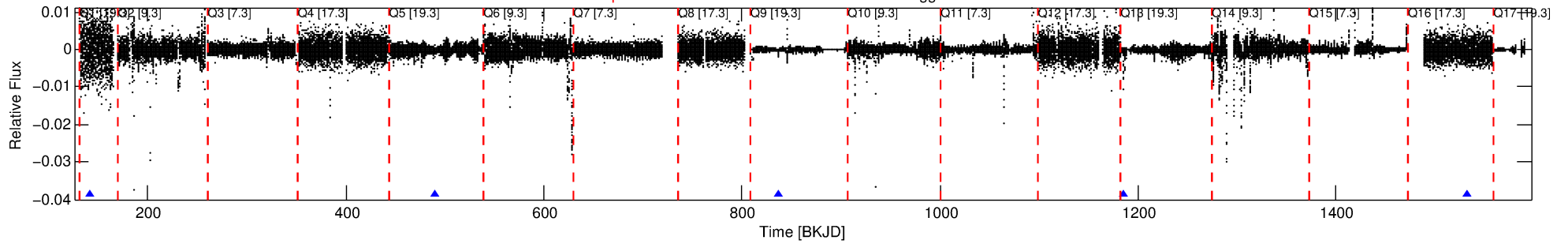
Ephemeris Match Information For 008183622-02

No Significant Match Found

DV One-Page Summary

KIC: 8183622 Candidate: 2 of 5 Period: 347.700 d

Kp: 11.03 R*: 153.06 Rs Teff: 3286.0 K Logg: 0.12 Fe/H: -0.080



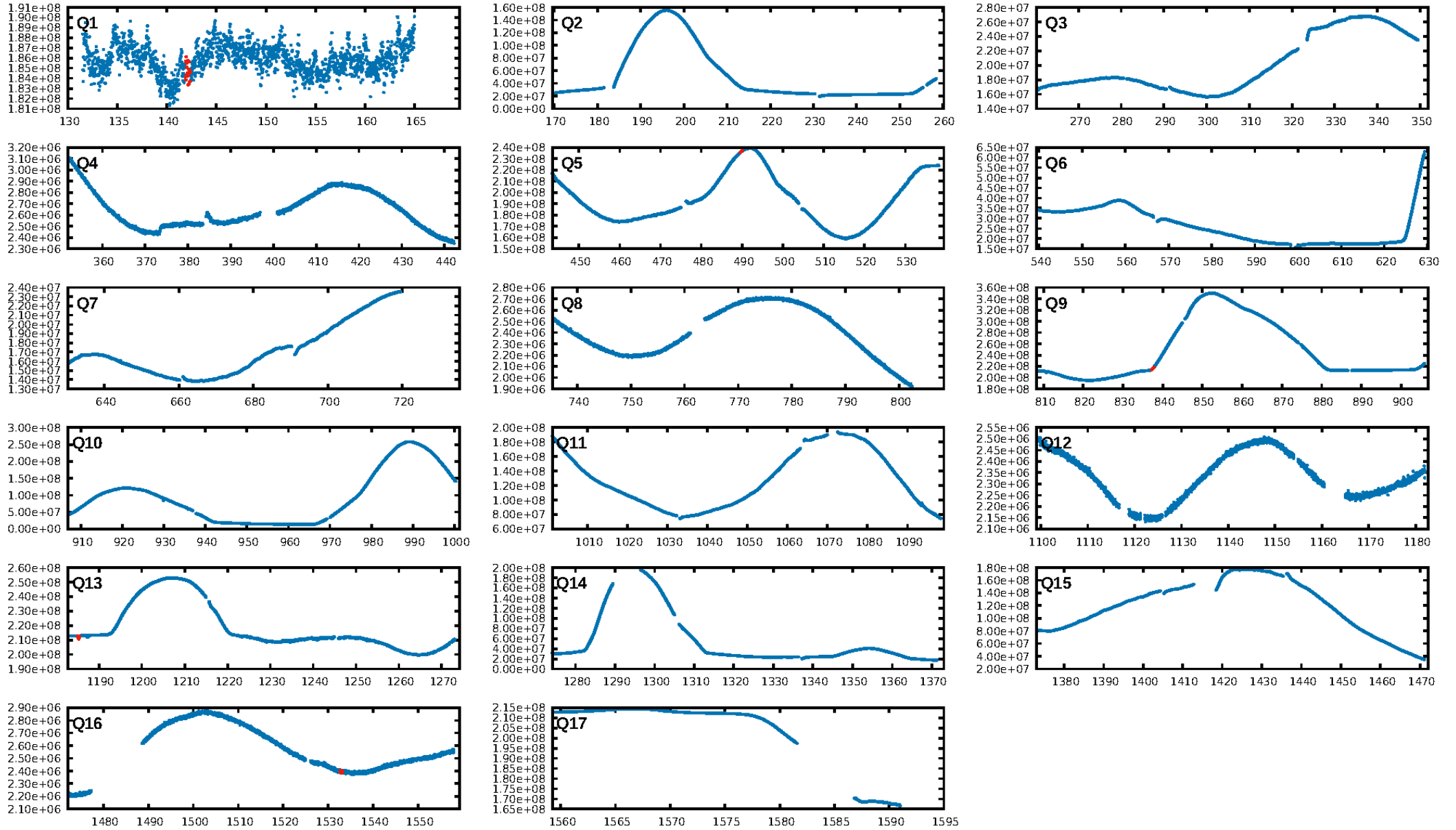
DV Fit Results:

Period = 347.70041 [0.01757] d
Epoch = 142.1204 [0.0388] BKJD
Rp/R* = 0.0267 [0.0125]
a/R* = 209.95 [268.14]
b = 0.91 [0.27]
Seff = 2401.75 [862.52]
Teq = 1785 [160] K
Re = 446.31 [223.21] Re
a = 1.0094 [0.1967] AU
Ag = 0.03 [0.41] [-2.35σ]
Teffp = 1185 [3579] K [-0.17σ]

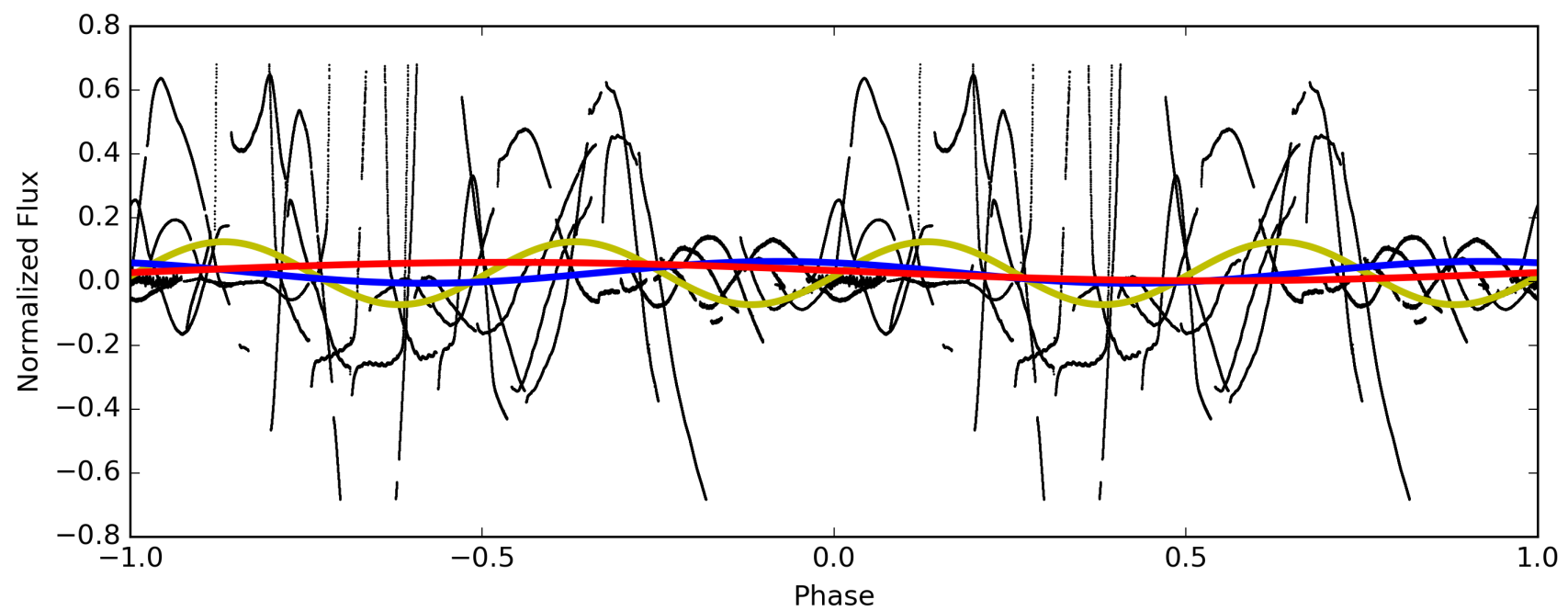
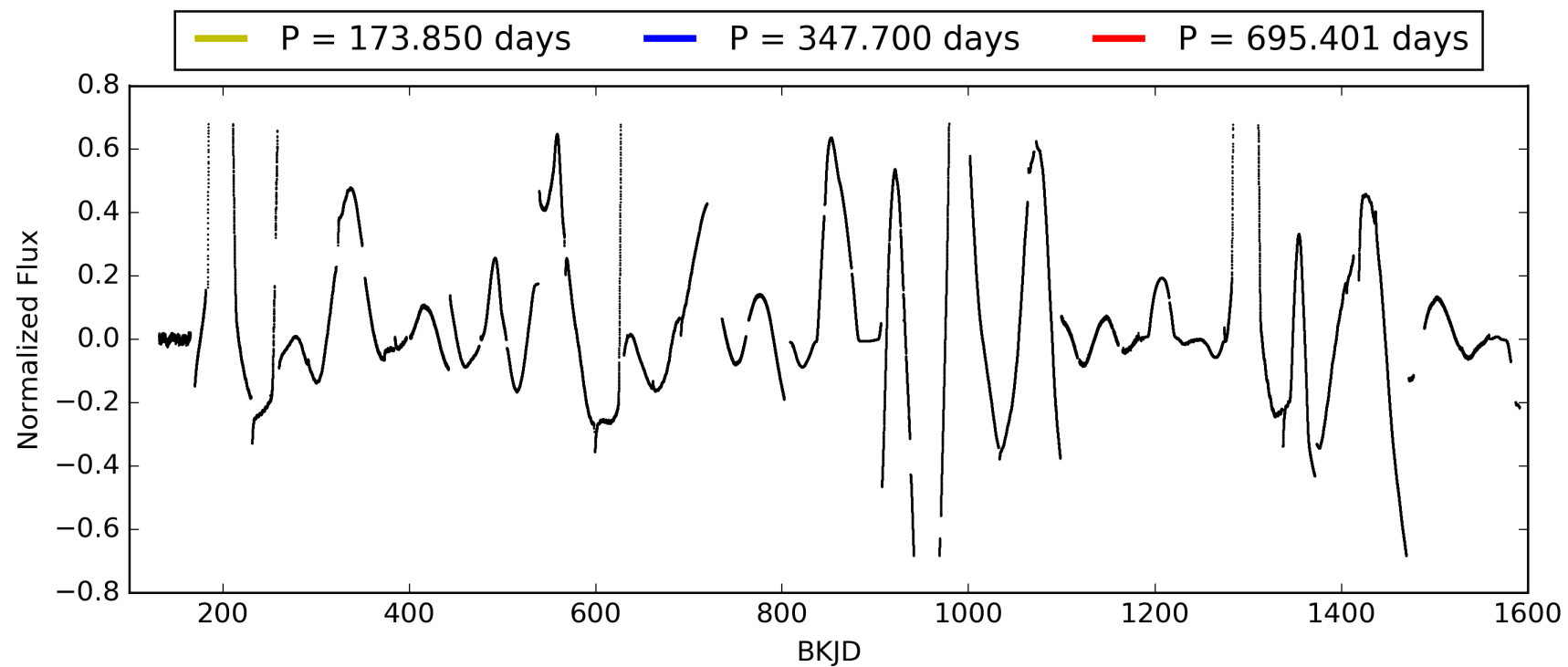
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [20.02σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.5%
ModelChiSquareGof-sig: 18.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.64
Centroid-sig: N/A
Centroid-so: 13.812 arcsec [13.70σ]
OotOffset-rm: 4.499 arcsec [8.72σ]
KicOffset-rm: 5.518 arcsec [24.61σ]
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TCE 008183622-02, PDC Light Curves

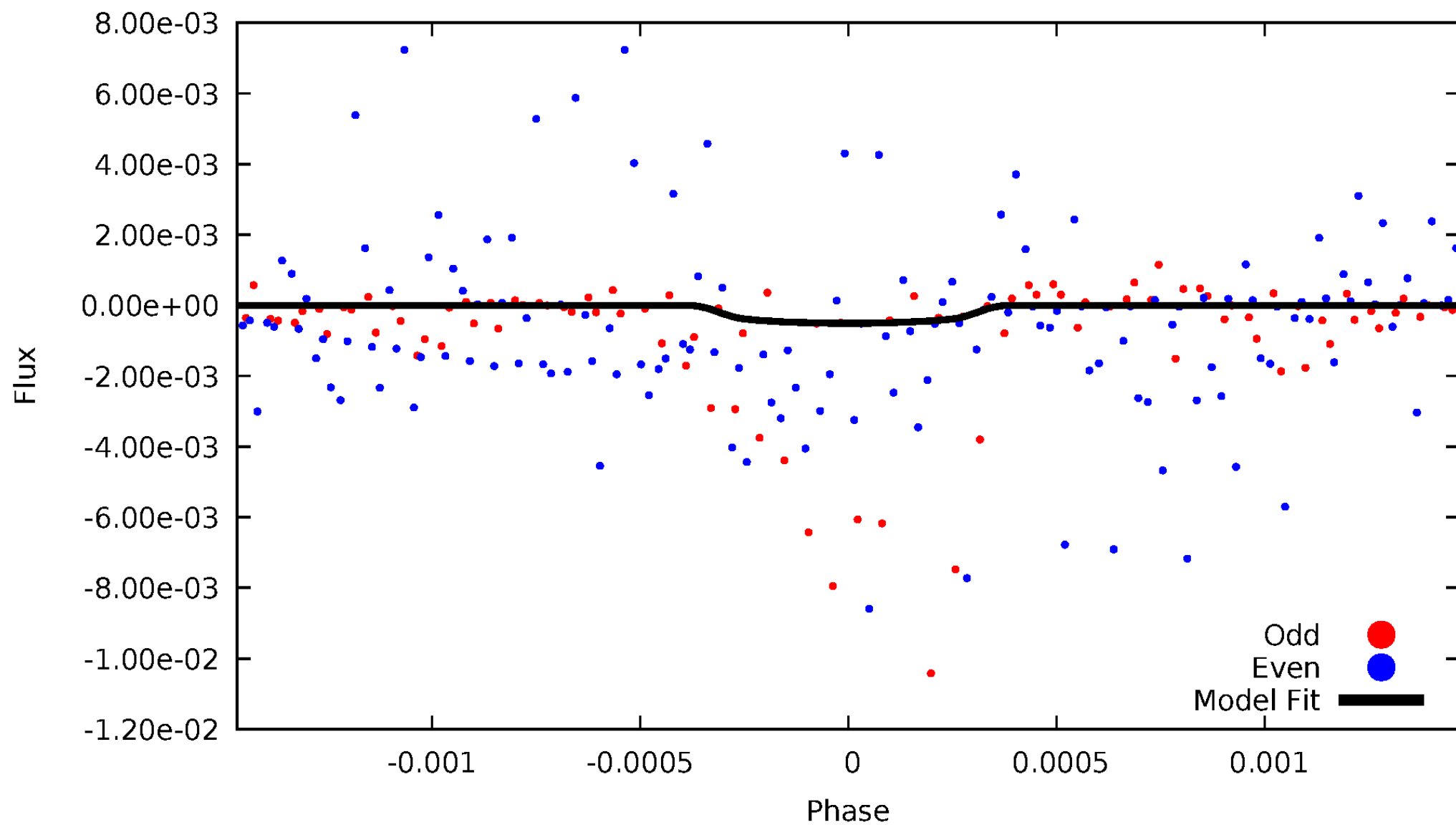


TCE 008183622-02



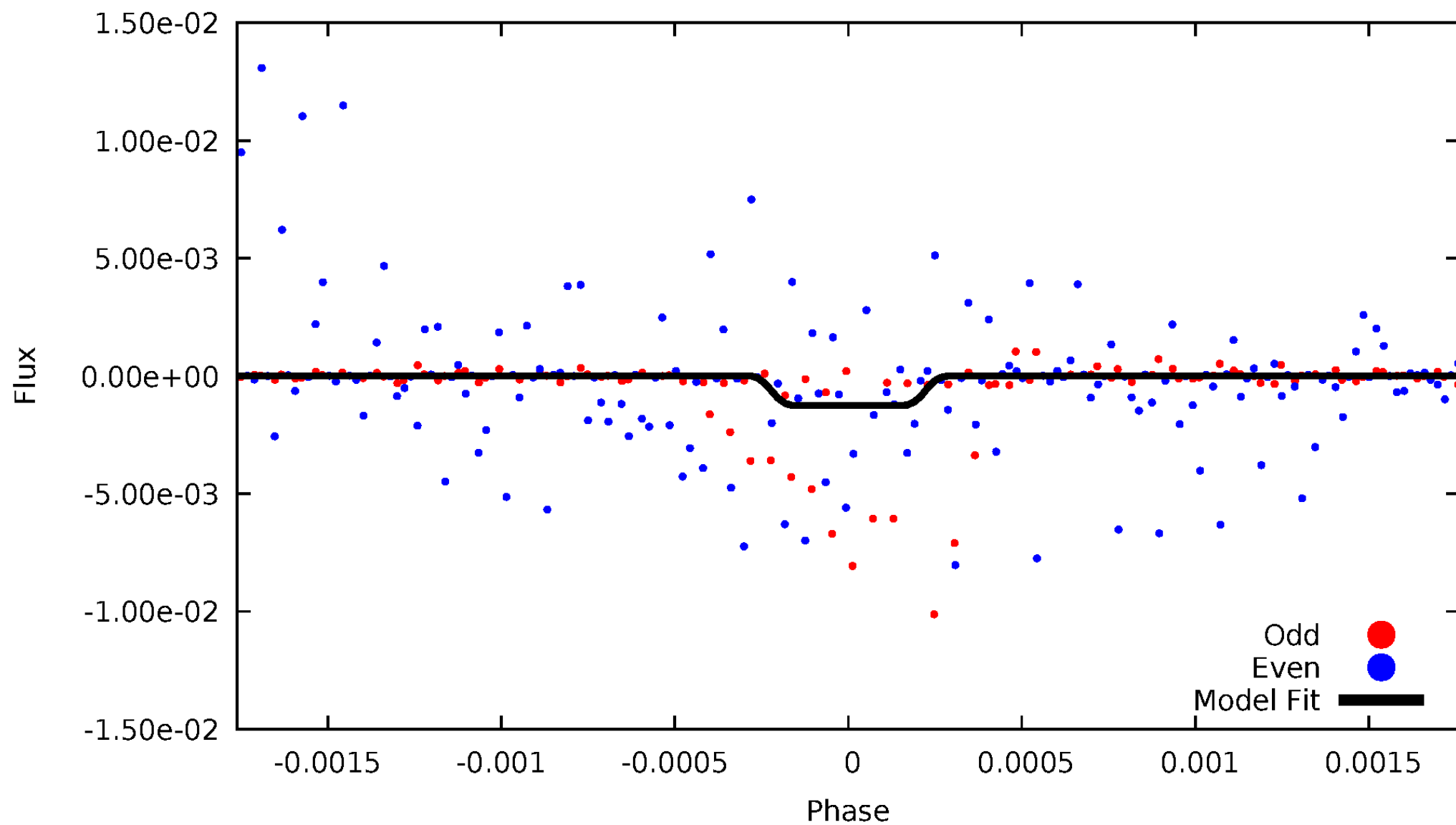
DV Odd/Even

TCE 008183622-02



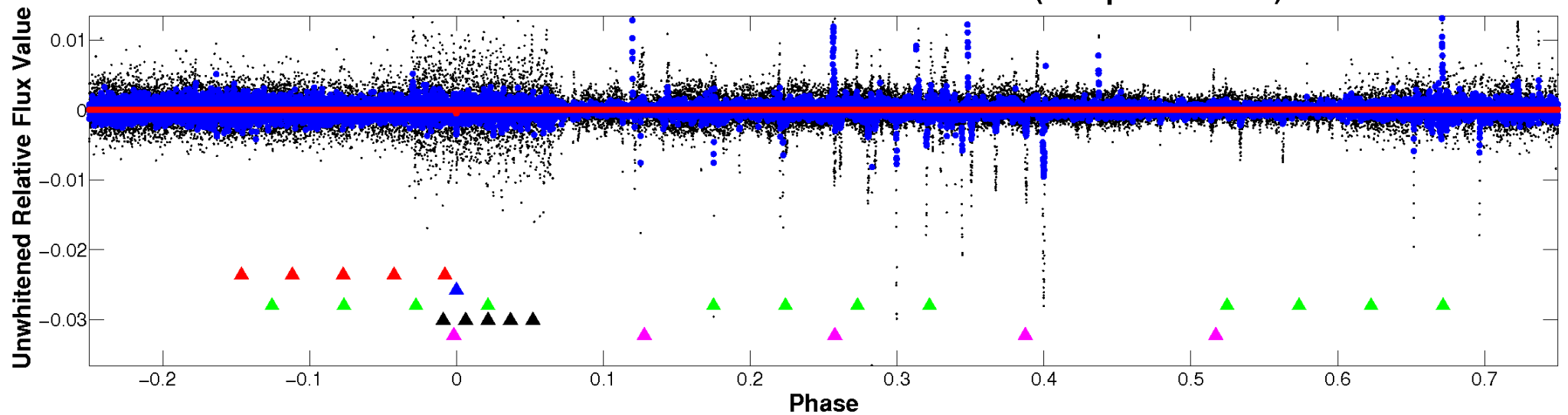
ALT Odd/Even

TCE 008183622-02

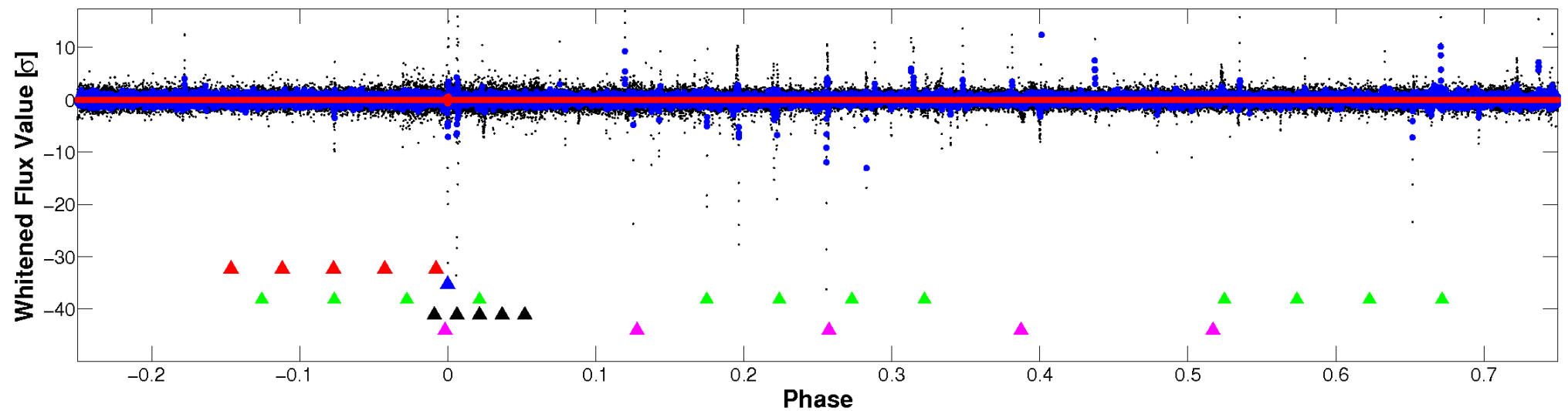


Non-Whitened Vs. Whitened Light Curve

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

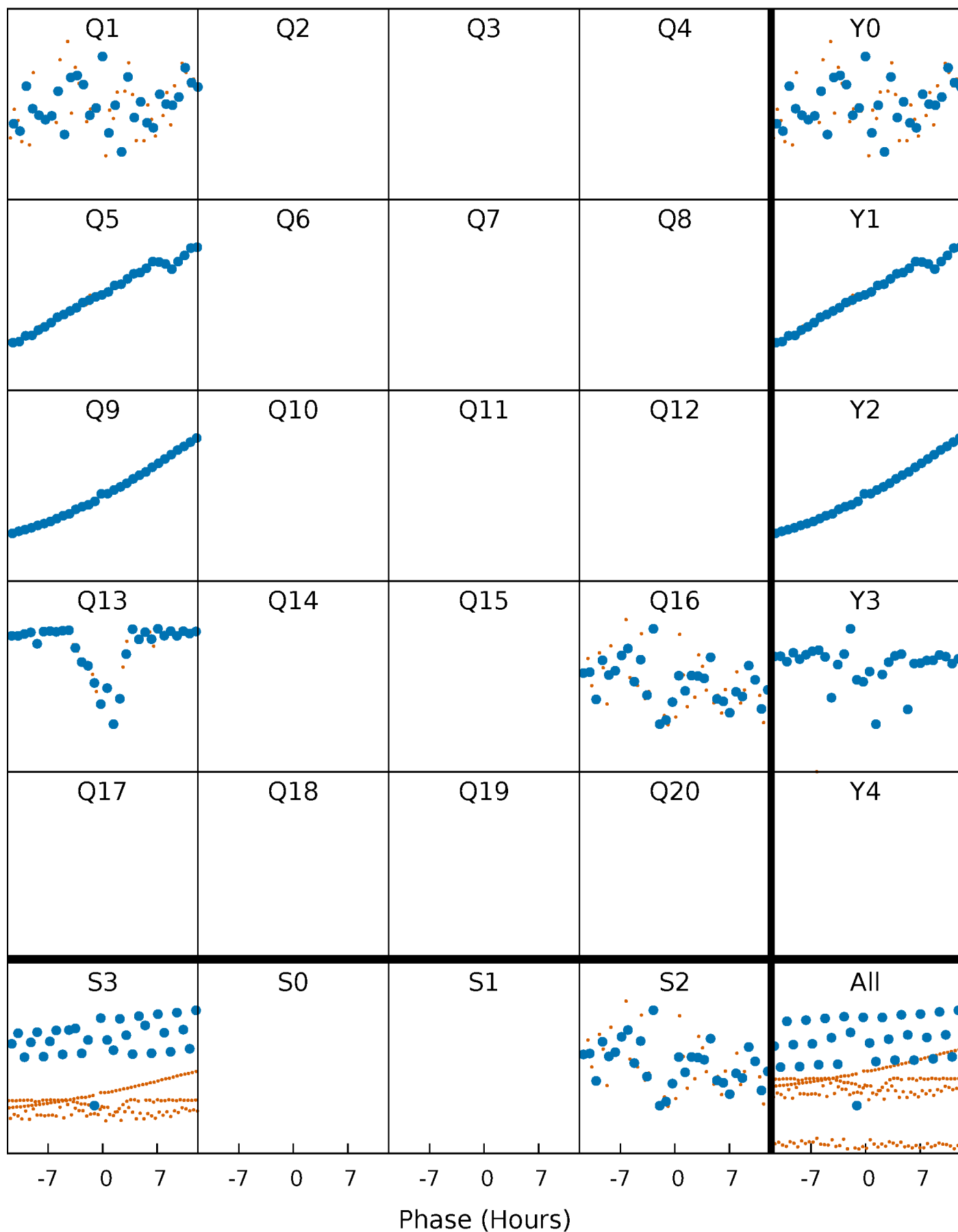


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



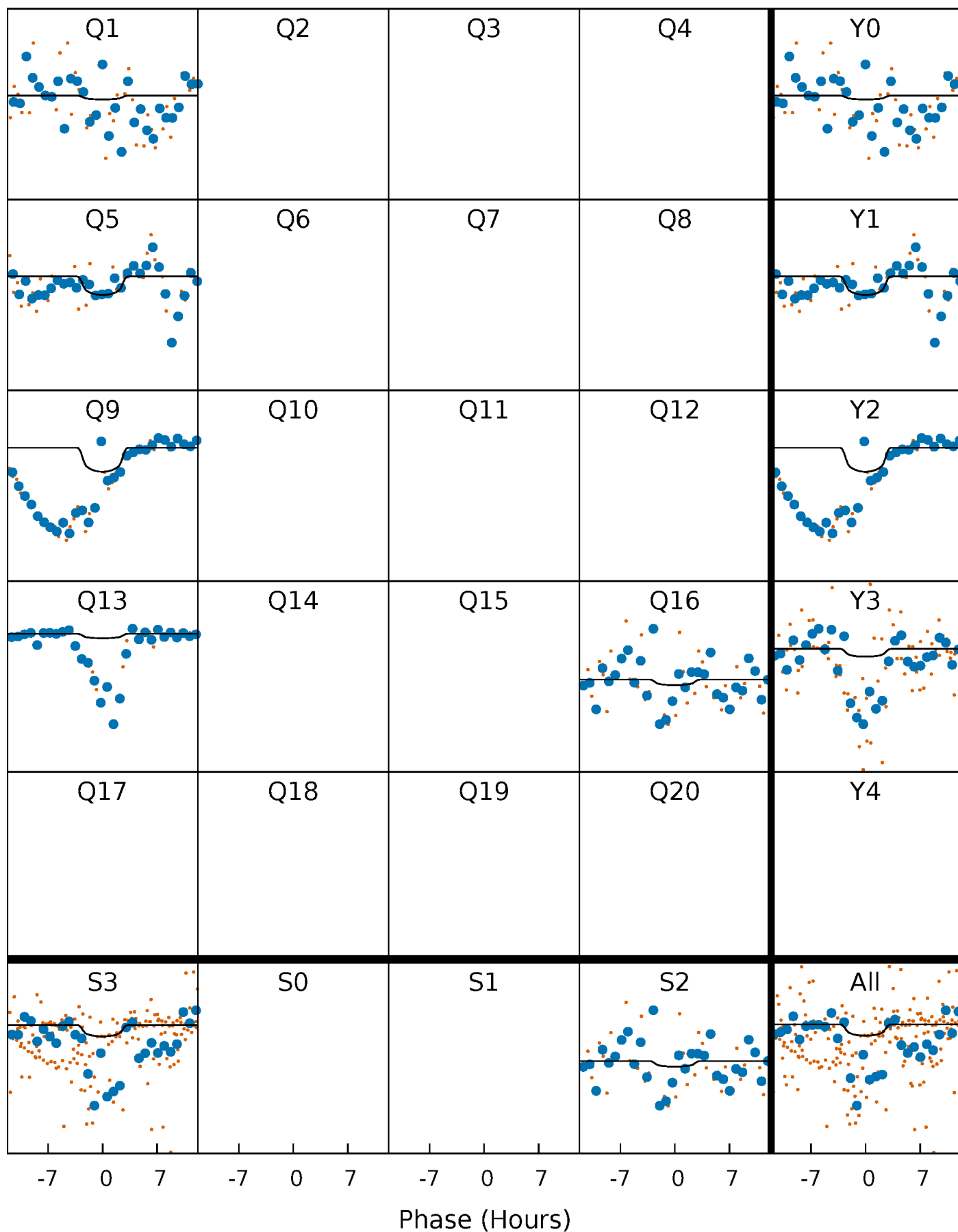
PDC Quarter-Phased Transit Curves

TCE 008183622-02 $P=347.700414$ Days $T_0=142.120447$ (BKJD)



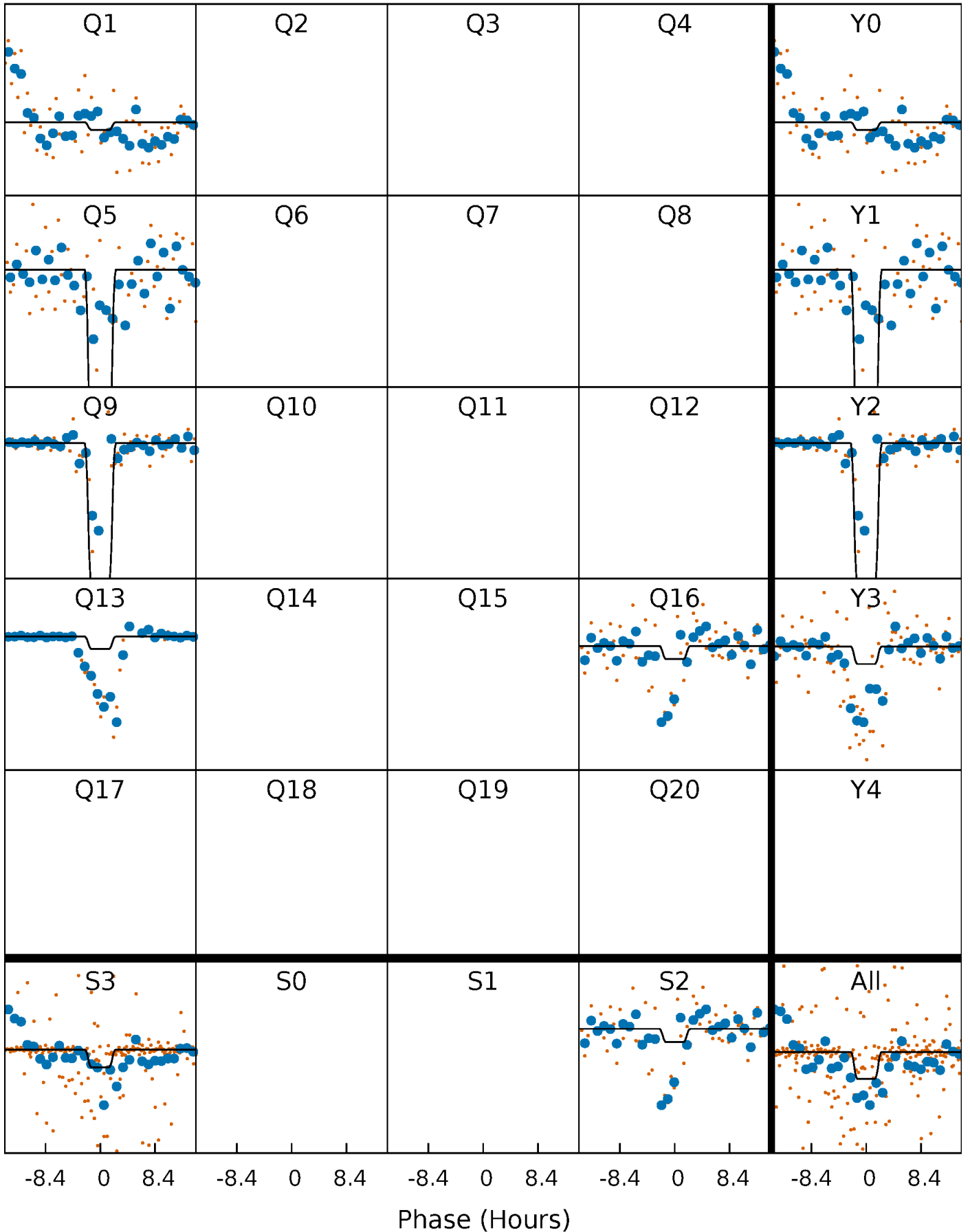
DV Quarter-Phased Transit Curves

TCE 008183622-02 $P=347.700414$ Days $T_0=142.120447$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

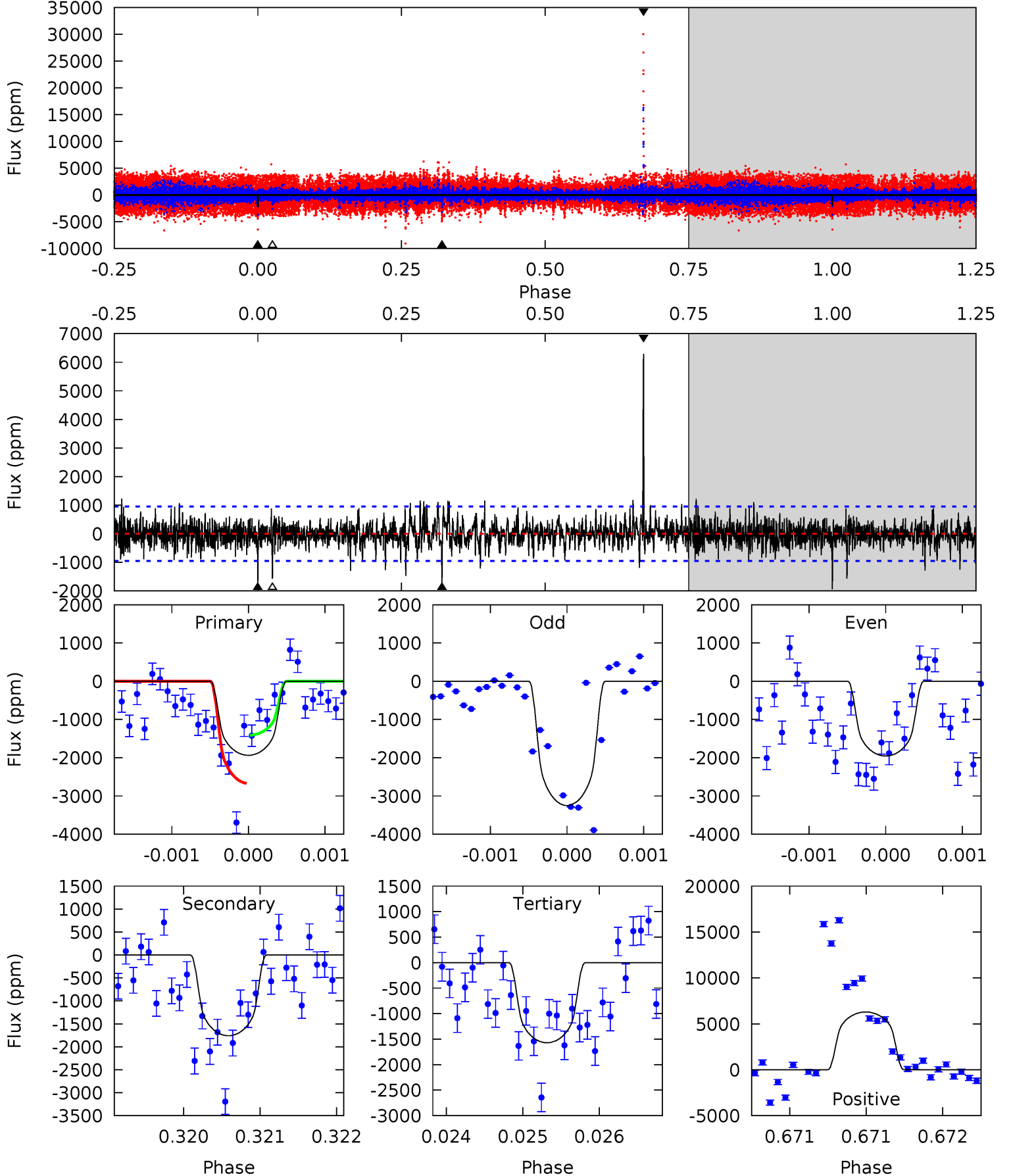
TCE 008183622-02 P=347.724702 Days $T_0=142.030698$ (BKJD)



DV Model-Shift Uniqueness Test

008183622-02, P = 347.700414 Days, E = 142.120447 Days

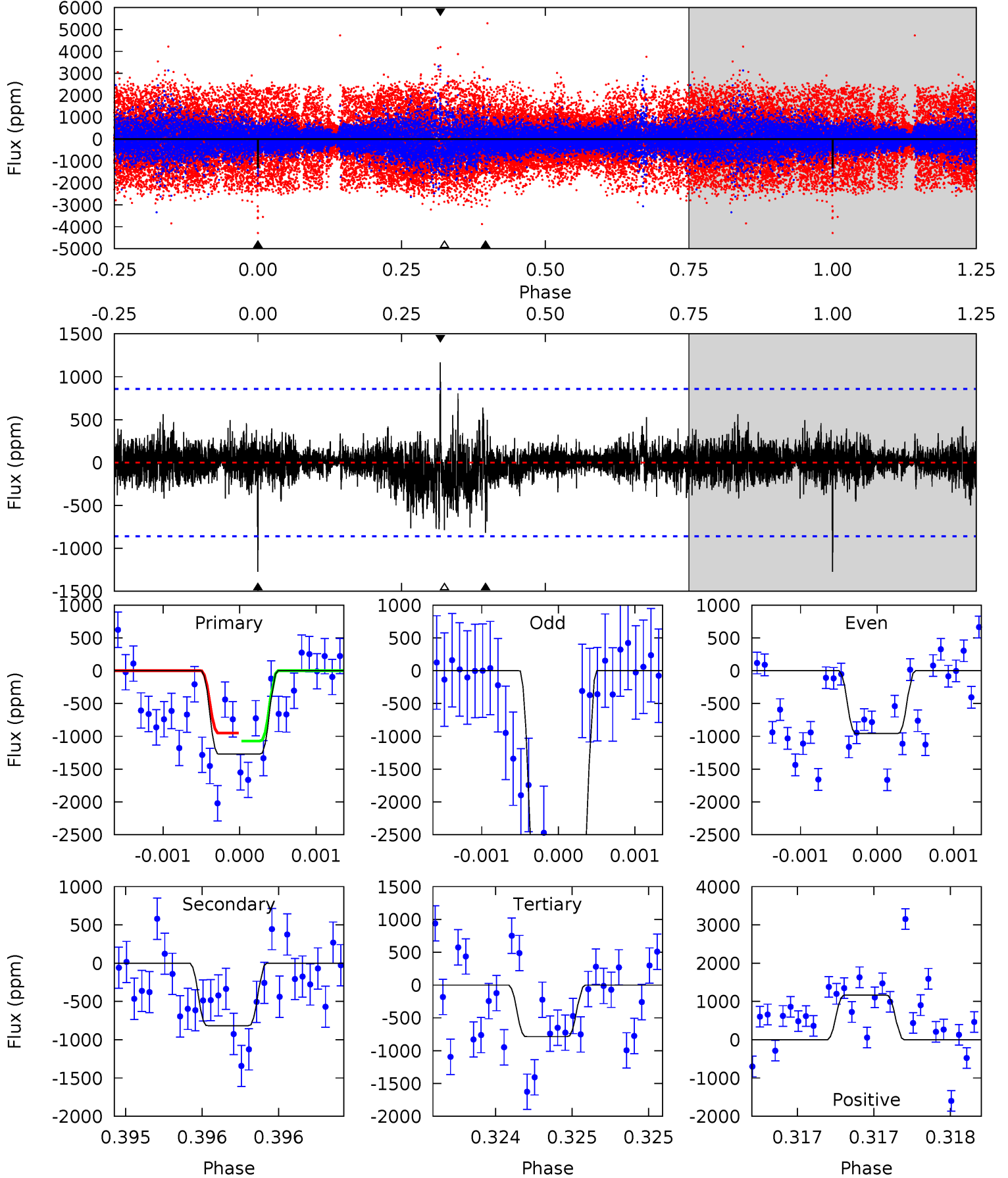
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	10.2	9.06	36.3	5.49	3.36	1.96	2.11	-25.1	1.09	-26.2	3.10	1.80	0.76	0



Alt Model-Shift Uniqueness Test

008183622-02, P = 347.724702 Days, E = 142.030698 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.22	5.28	5.08	7.55	5.55	3.45	0.88	3.14	0.67	0.20	-2.27	6.32	4.18	0.48	0.40



Stellar Parameters For KIC 008183622

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+86%/-14%
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 008183622-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1759 ± 173	$430.89^{+226.54}_{-191.77}$	2458^{+116}_{-126}	3786^{+954}_{-533}	$5.423^{+11.741}_{-3.125}$
Alt.	-817 ± 155	$580.24^{+211.30}_{-203.53}$	2454^{+117}_{-134}	2988^{+491}_{-381}	$1.400^{+1.981}_{-0.675}$

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 $A_{obs} \gg 1.0$

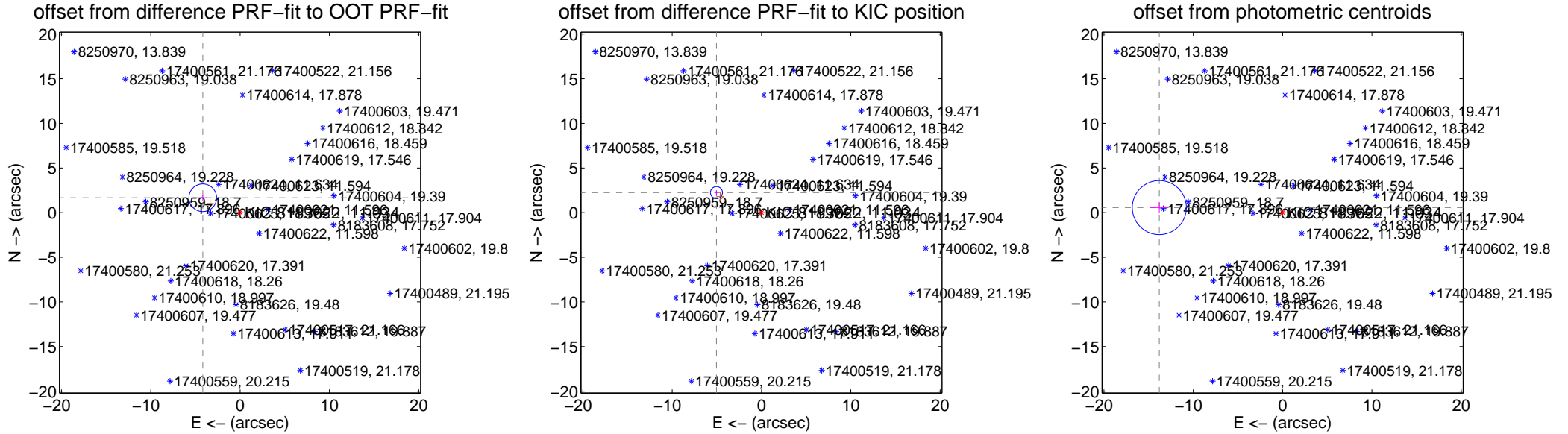
DV Centroid Data

Supplemental centroid analysis for 008183622-02. **Kepler magnitude: 11.03.** Transit SNR 5.72

There are 1 quarters with good PRF difference image offsets

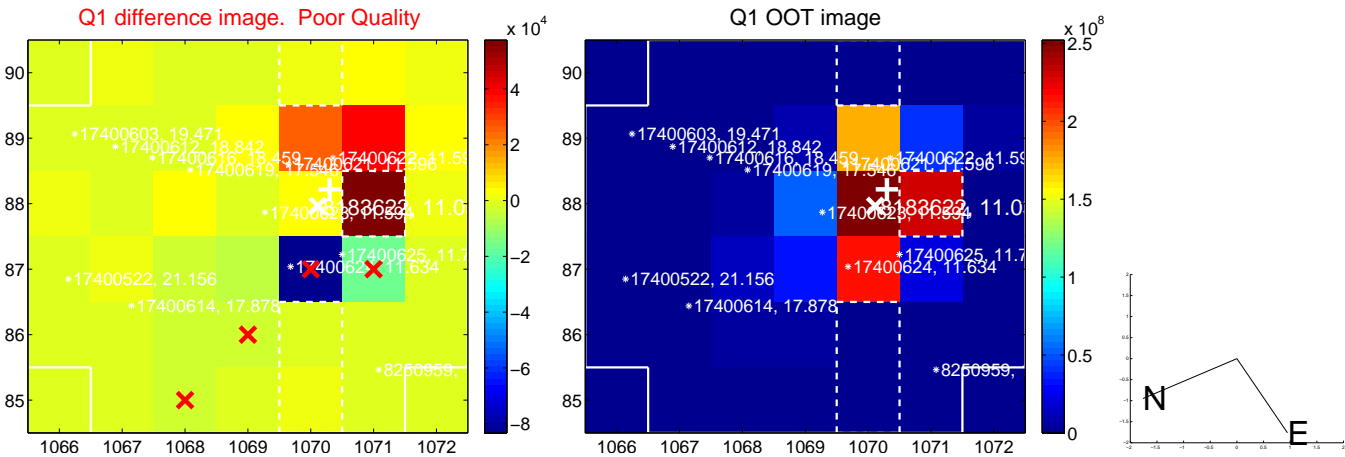
The direct PRF centroid is offset from the target star catalog position by about 1.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.499 ± 0.516	8.72	4.178 ± 0.426	1.668 ± 0.332
PRF-fit source offset from KIC position	5.518 ± 0.224	24.61	5.041 ± 0.219	2.245 ± 0.248
photometric centroid source offset	13.81 ± 1.01	13.70	13.80 ± 1.01	0.57 ± 0.63

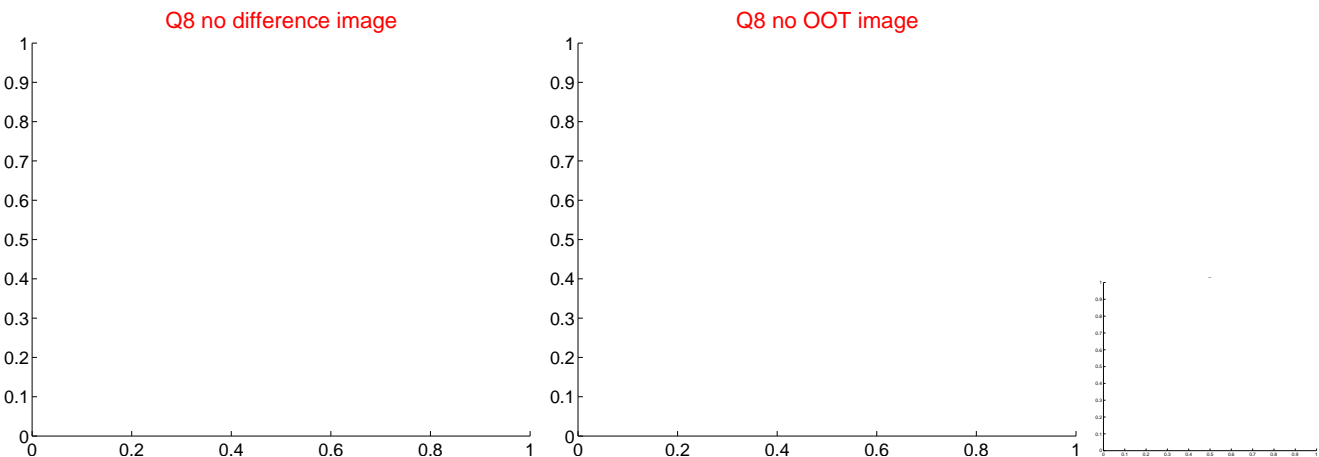
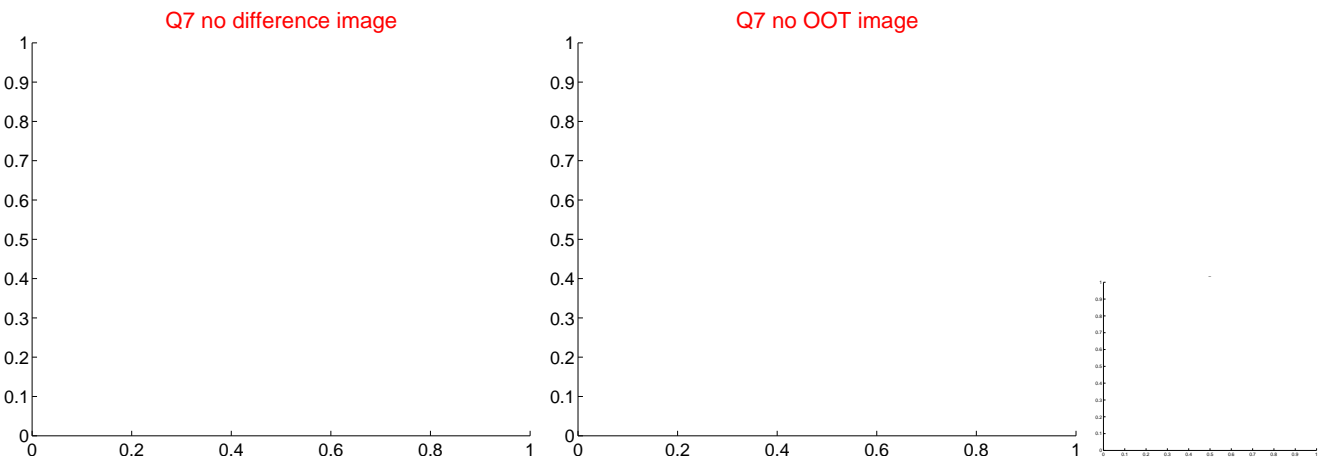
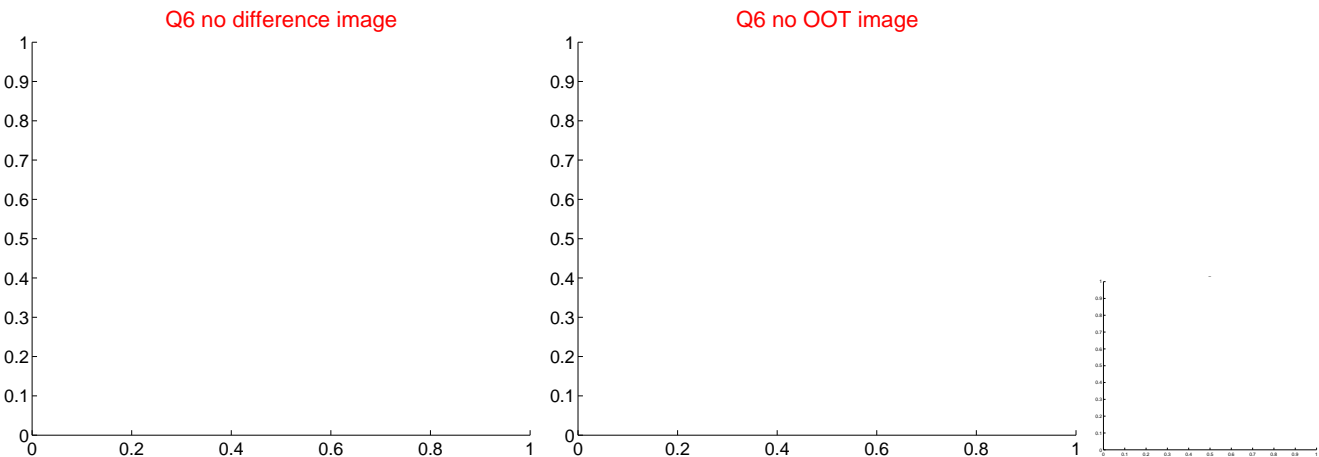
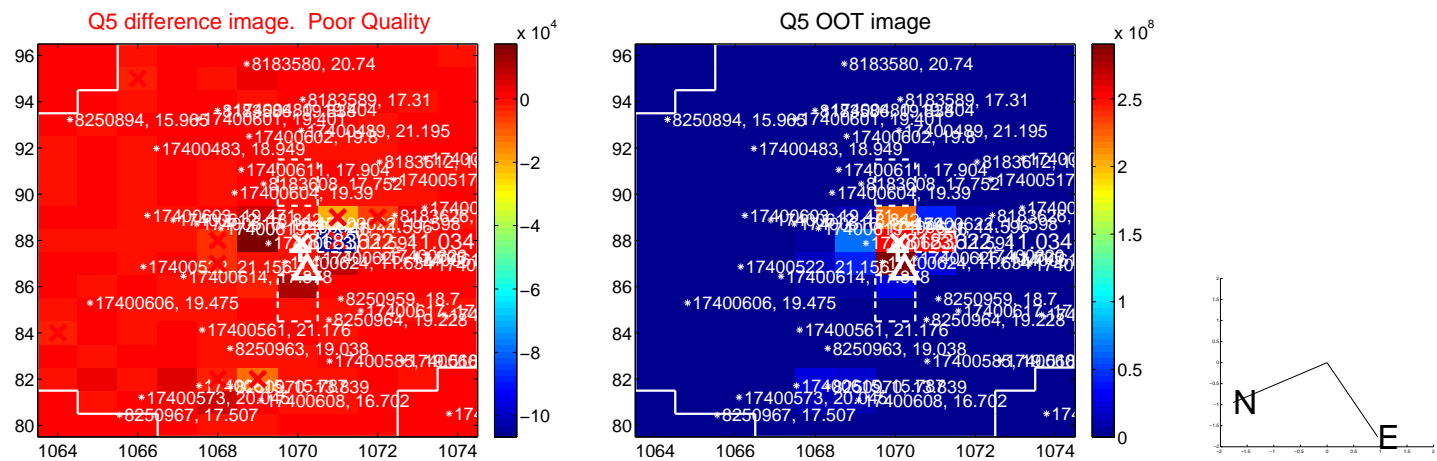


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

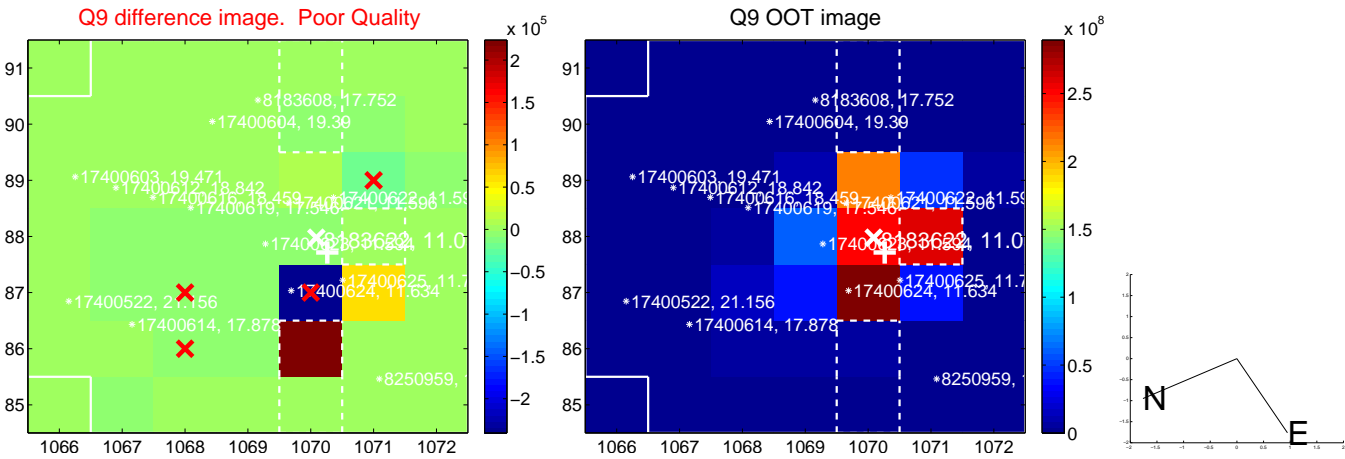
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



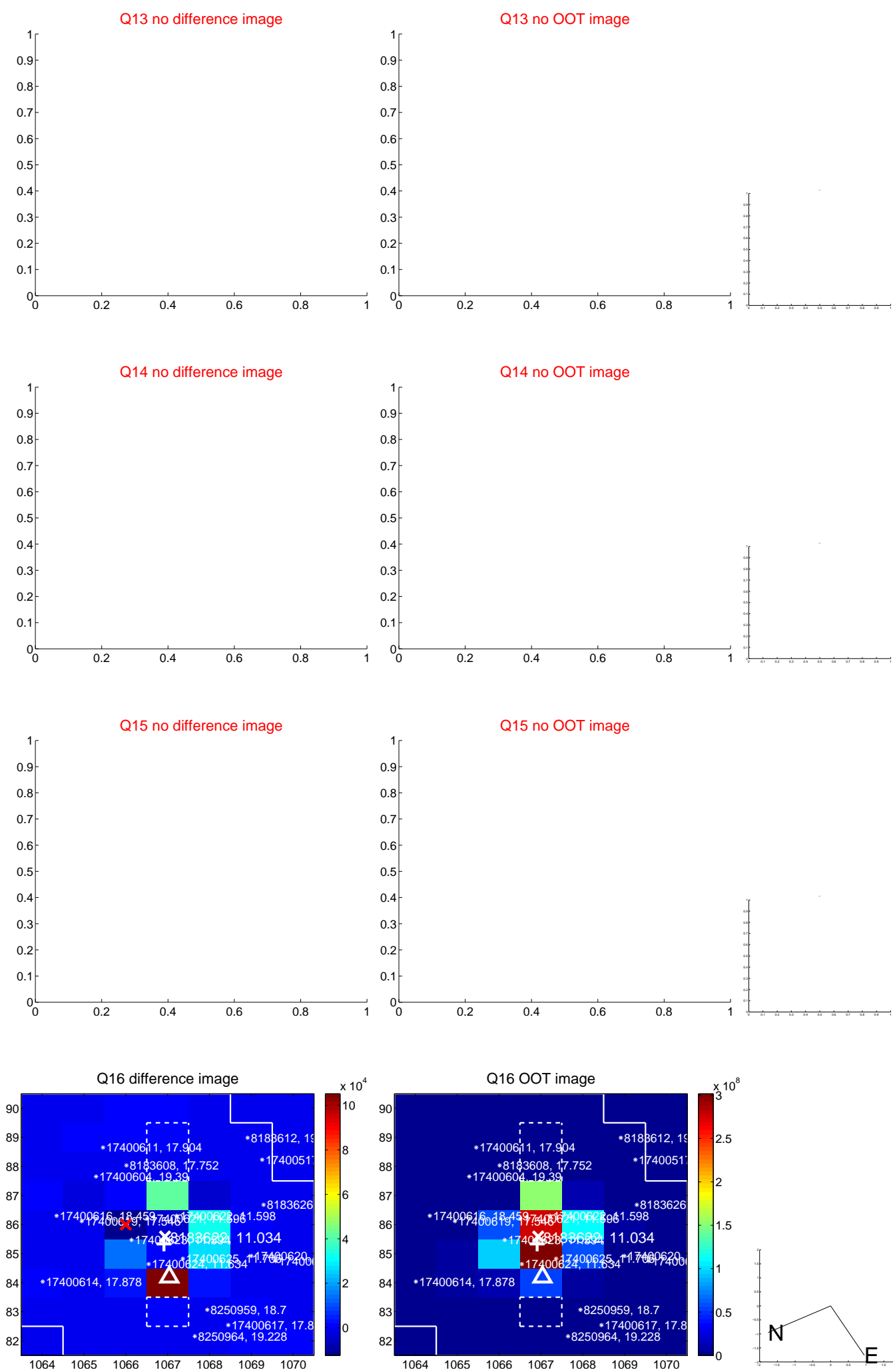
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



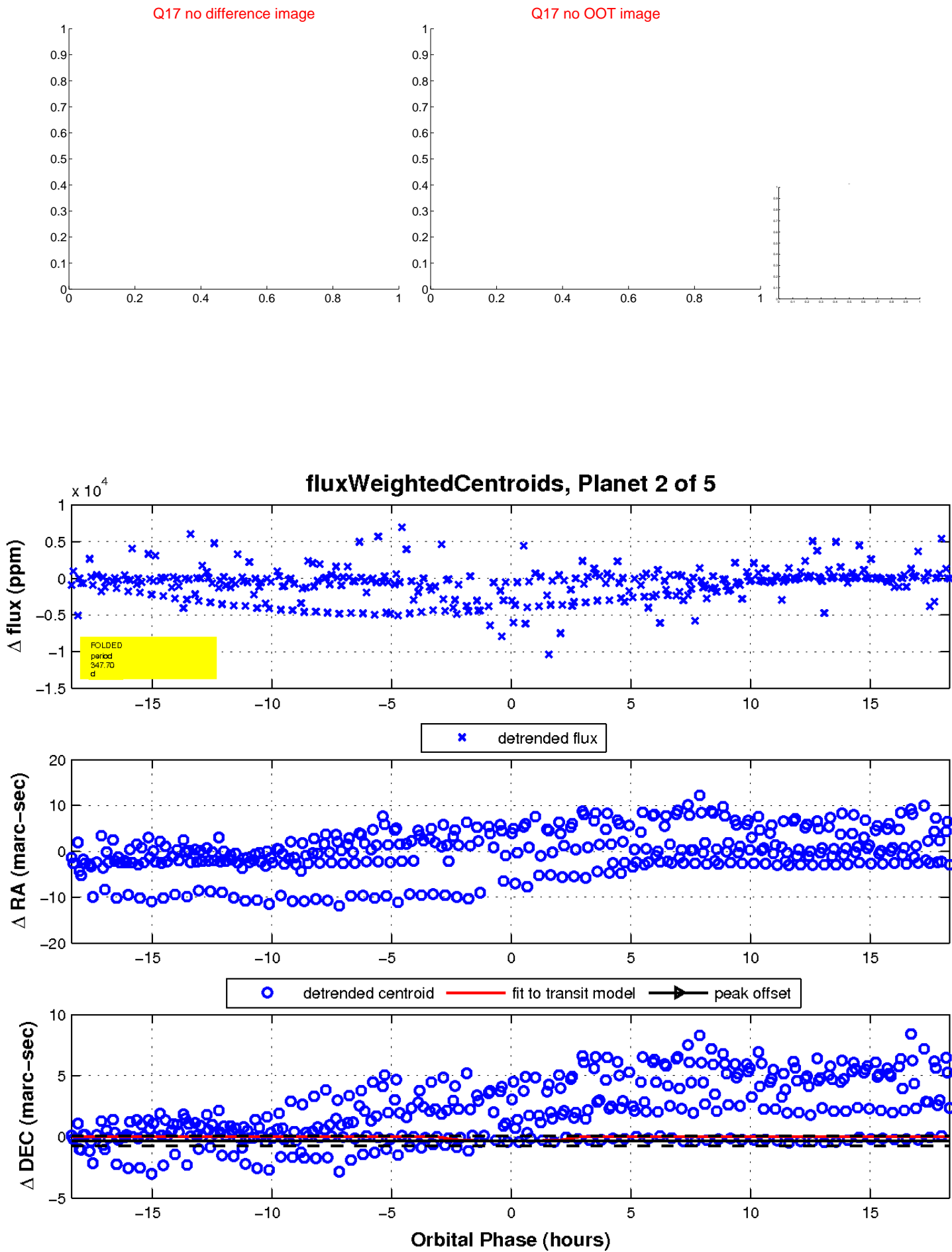
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



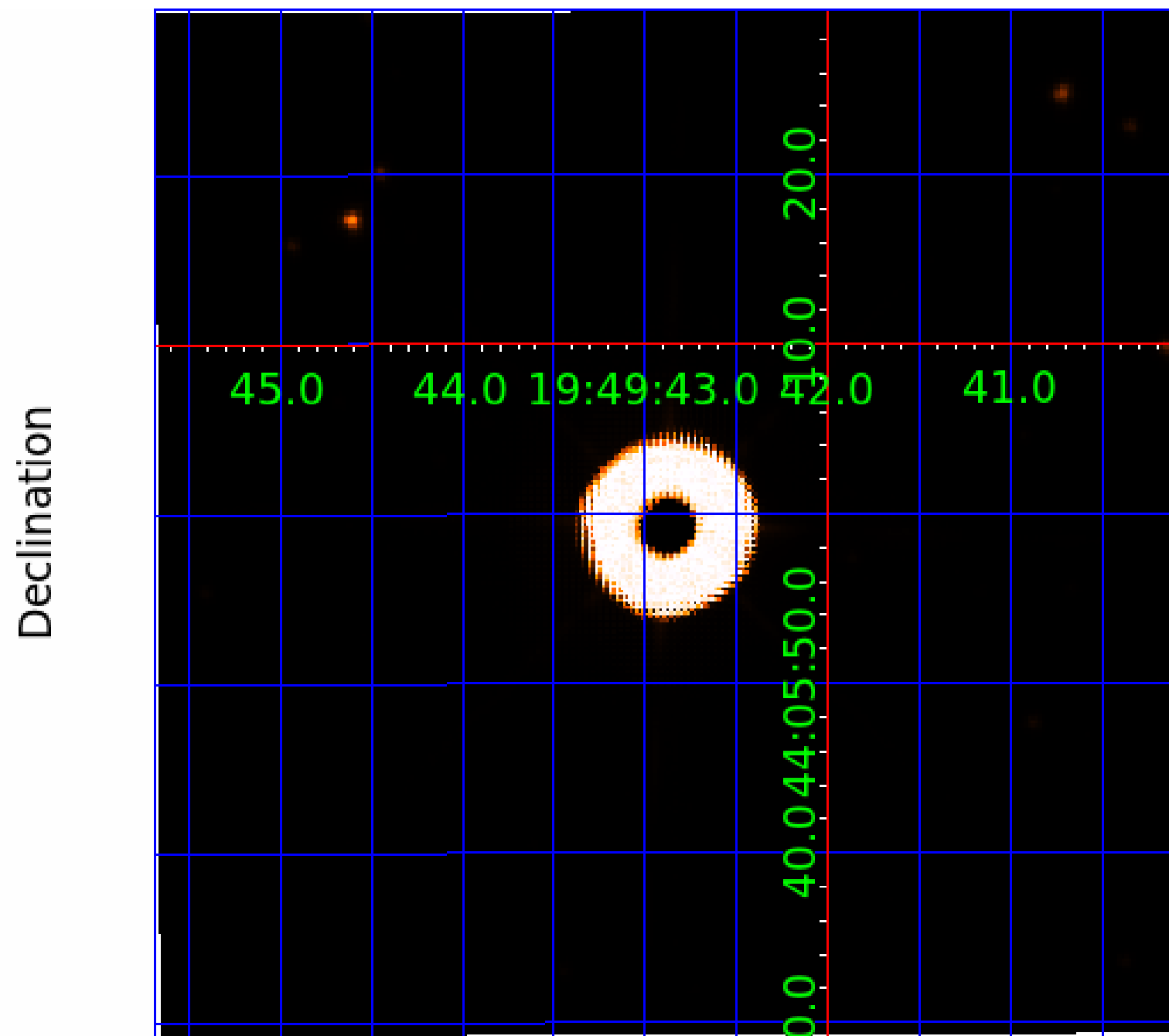
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008183622

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})
008183622-01	OBS	No	335.663526	139.377767	7916.0	1.583	58.8	62.8	153.06	3286	1953.76	2517.27
008183622-02	OBS	No	347.700414	142.120447	506.2	6.125	45.0	5.7	153.06	3286	446.31	2401.75
008183622-03	OBS	No	121.581415	202.980607	1652.3	4.548	23.6	16.1	153.06	3286	760.14	0.00
008183622-04	OBS	No	342.393769	160.221681	3660.6	1.722	19.8	19.4	153.06	3286	967.31	2451.51
008183622-05	OBS	No	302.607401	321.883661	1044.1	12.500	18.3	-1.0	153.06	3286	453.82	2890.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183622-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-05	OBS	FP	0.00	1	0	1	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

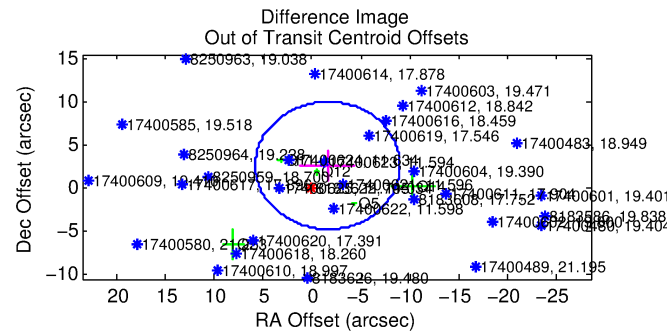
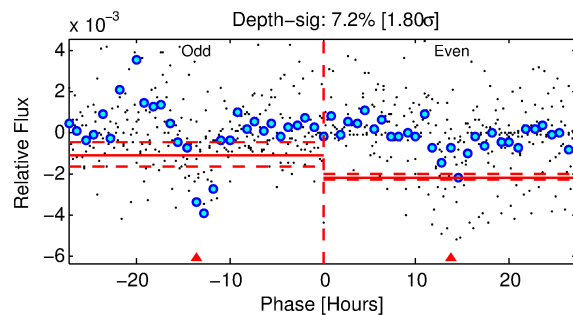
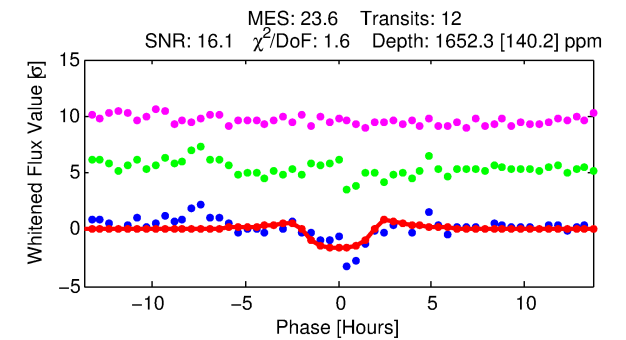
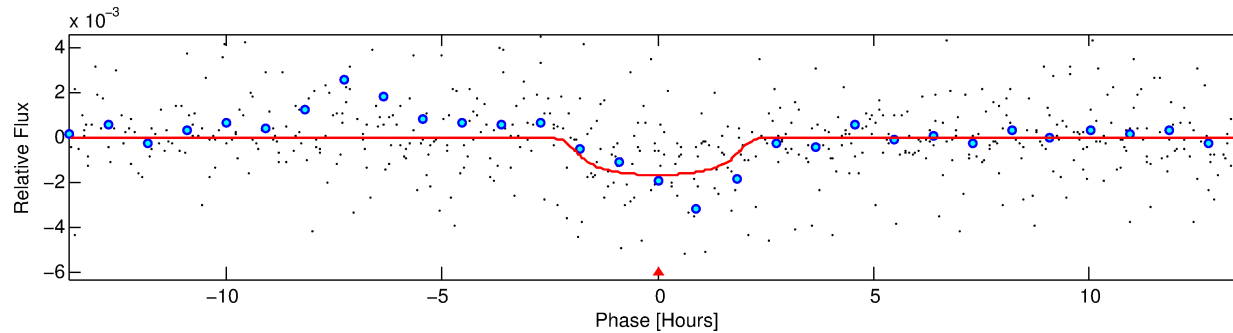
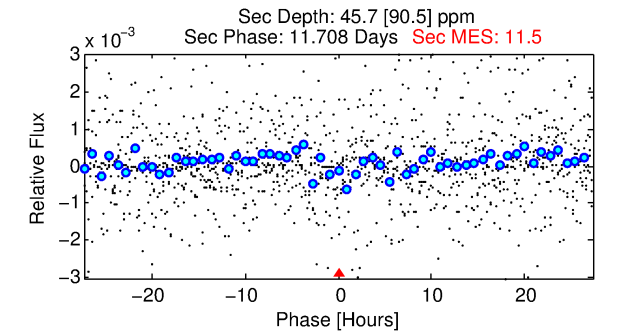
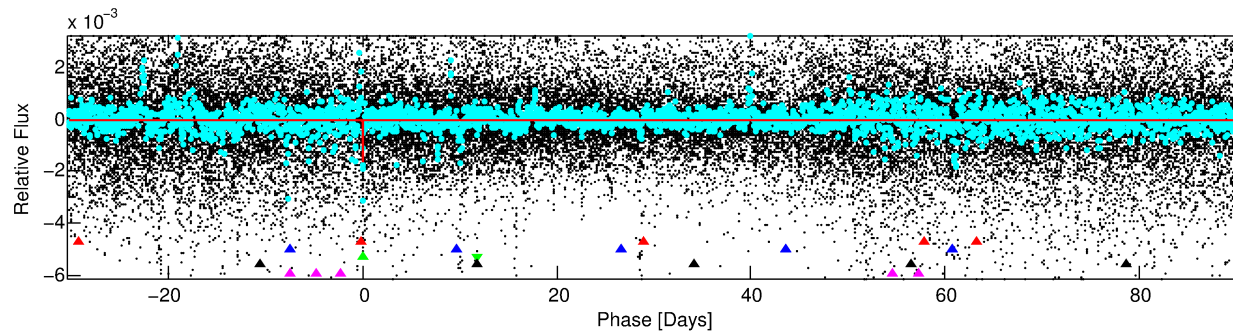
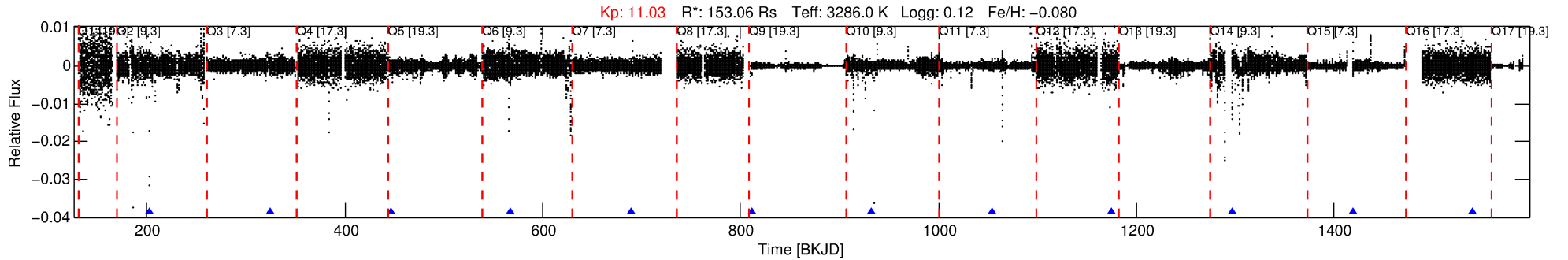
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008183622-03

No Significant Match Found

DV One-Page Summary

KIC: 8183622 Candidate: 3 of 5 Period: 121.581 d



DV Fit Results:

Period = 121.58142 [0.00167] d
Epoch = 202.9806 [0.0099] BKJD
Rp/R* = 0.0455 [0.0132]
a/R* = 121.11 [91.84]
b = 0.86 [0.24]
Seff = N/A
Teq = N/A
Ag = N/A
Teffp = N/A
Rp = 760.14 [259.16] Re
a = N/A

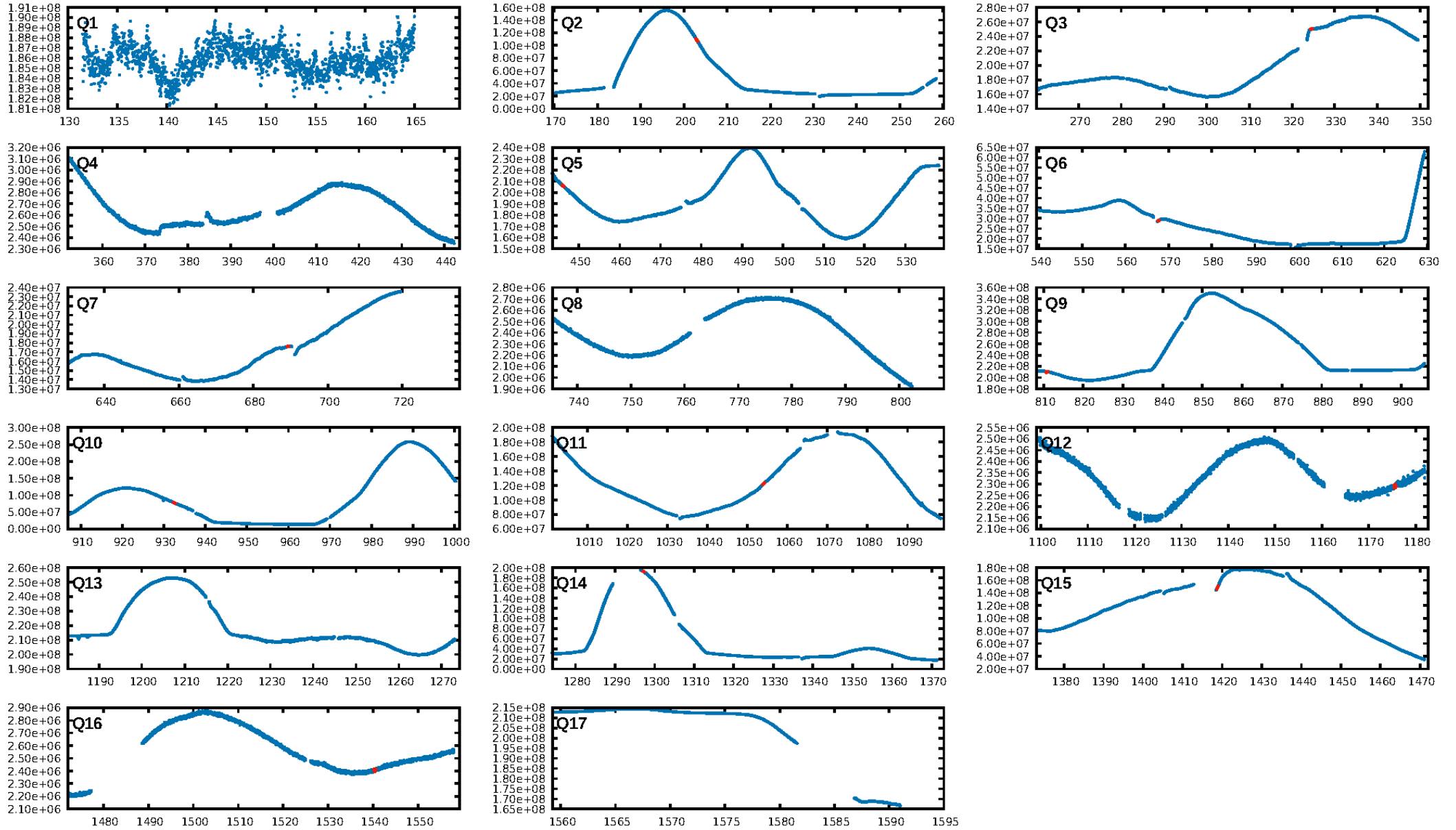
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [326.62σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 8.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -0.4508
Centroid-sig: N/A
Centroid-so: 0.035 arcsec [0.07σ]
OotOffset-rm: 3.068 arcsec [1.25σ]
OotOffset-st: 2/1/1/1 [5]
KicOffset-rm: 1.010 arcsec [0.40σ]
KicOffset-st: 2/1/1/1 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.89 [8/9]

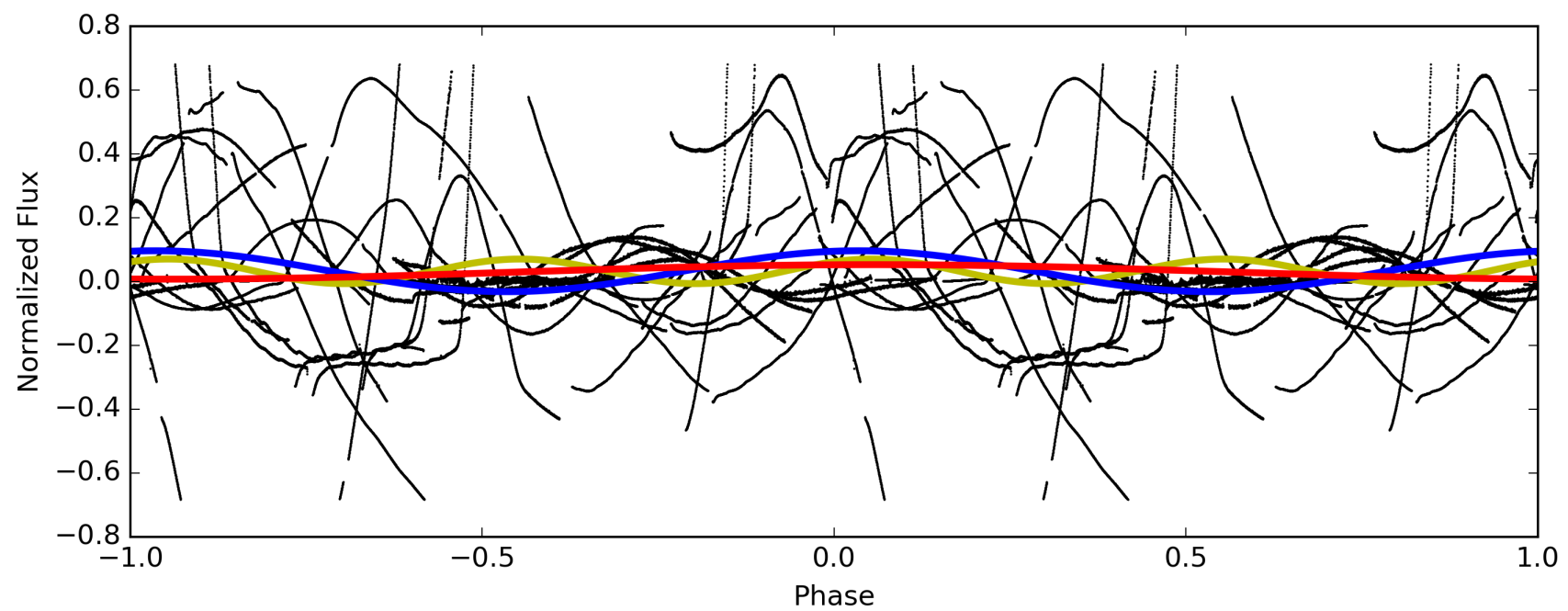
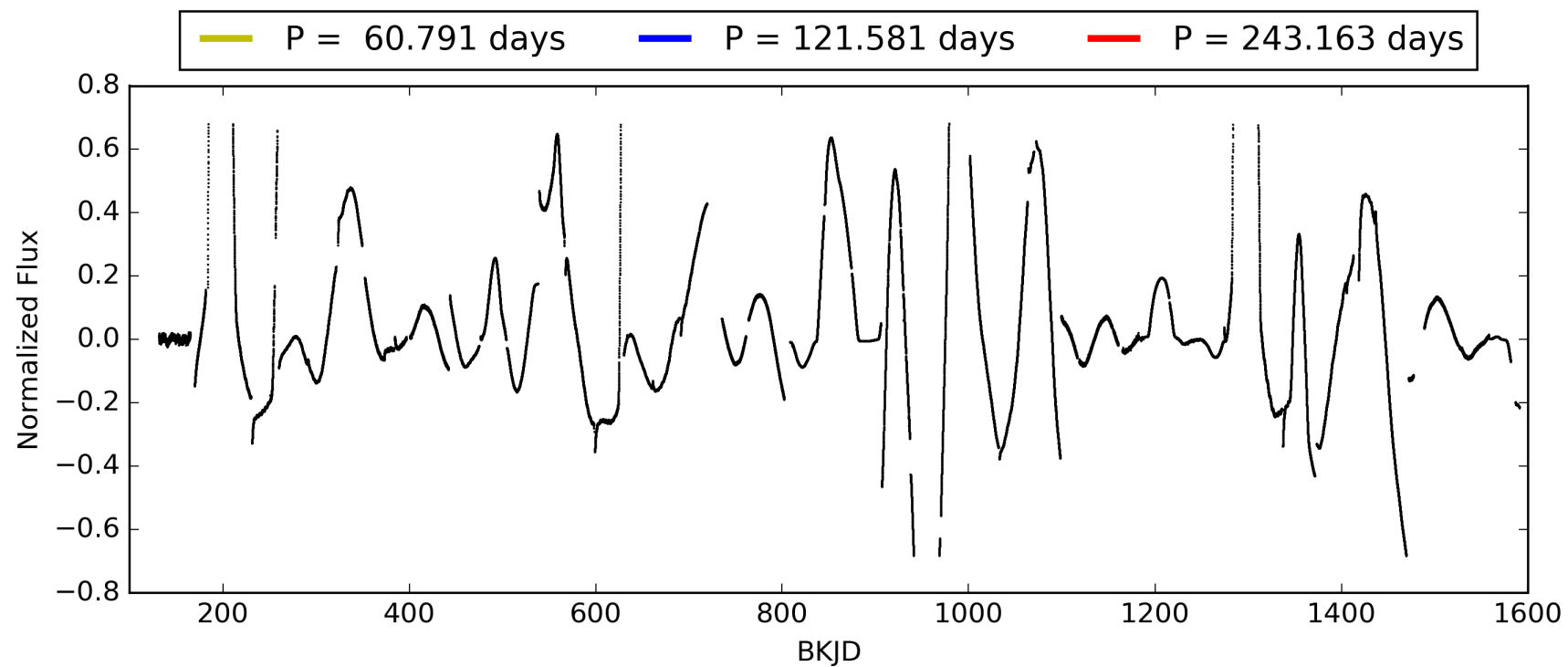
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:01:09 Z

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

TCE 008183622-03, PDC Light Curves

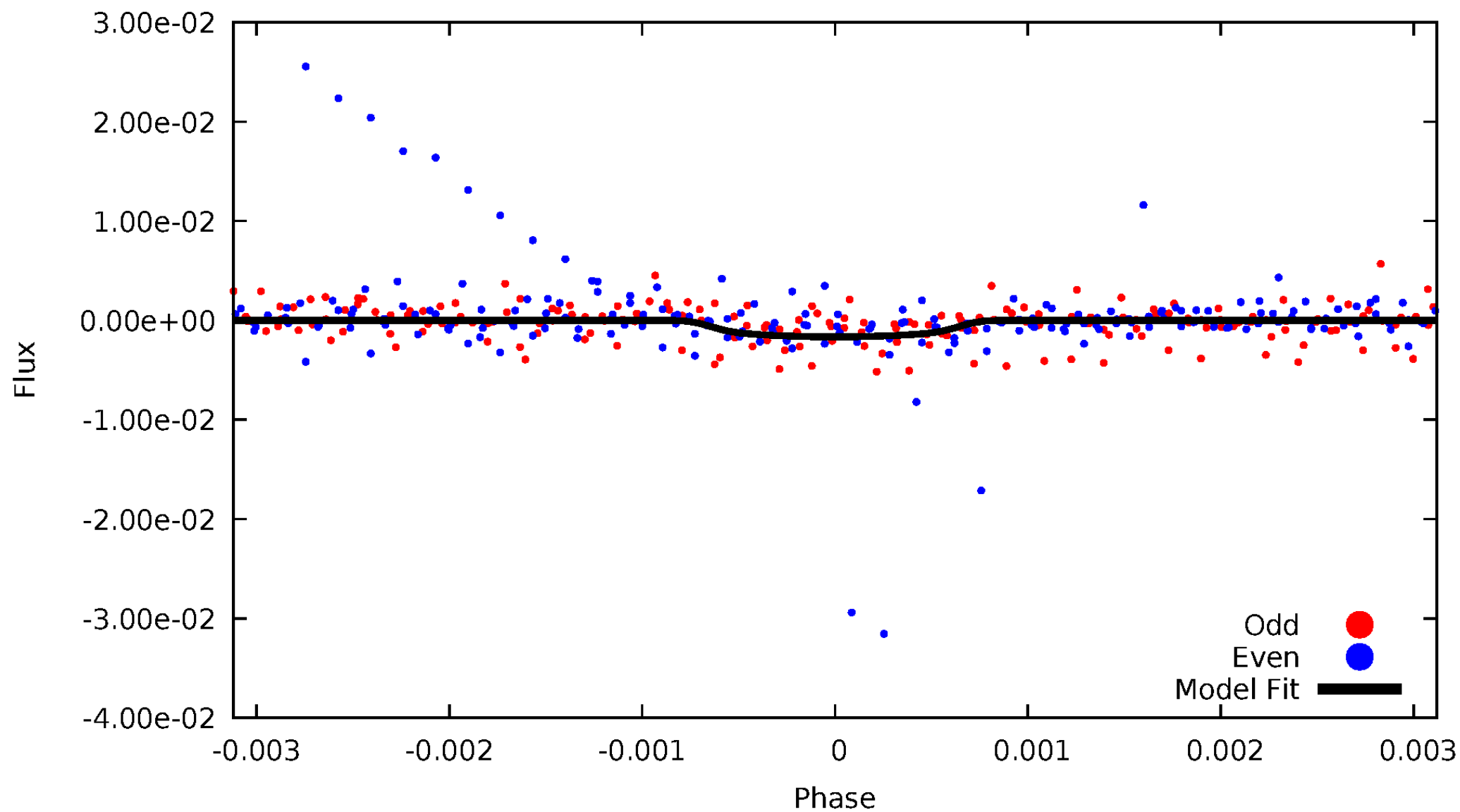


TCE 008183622-03



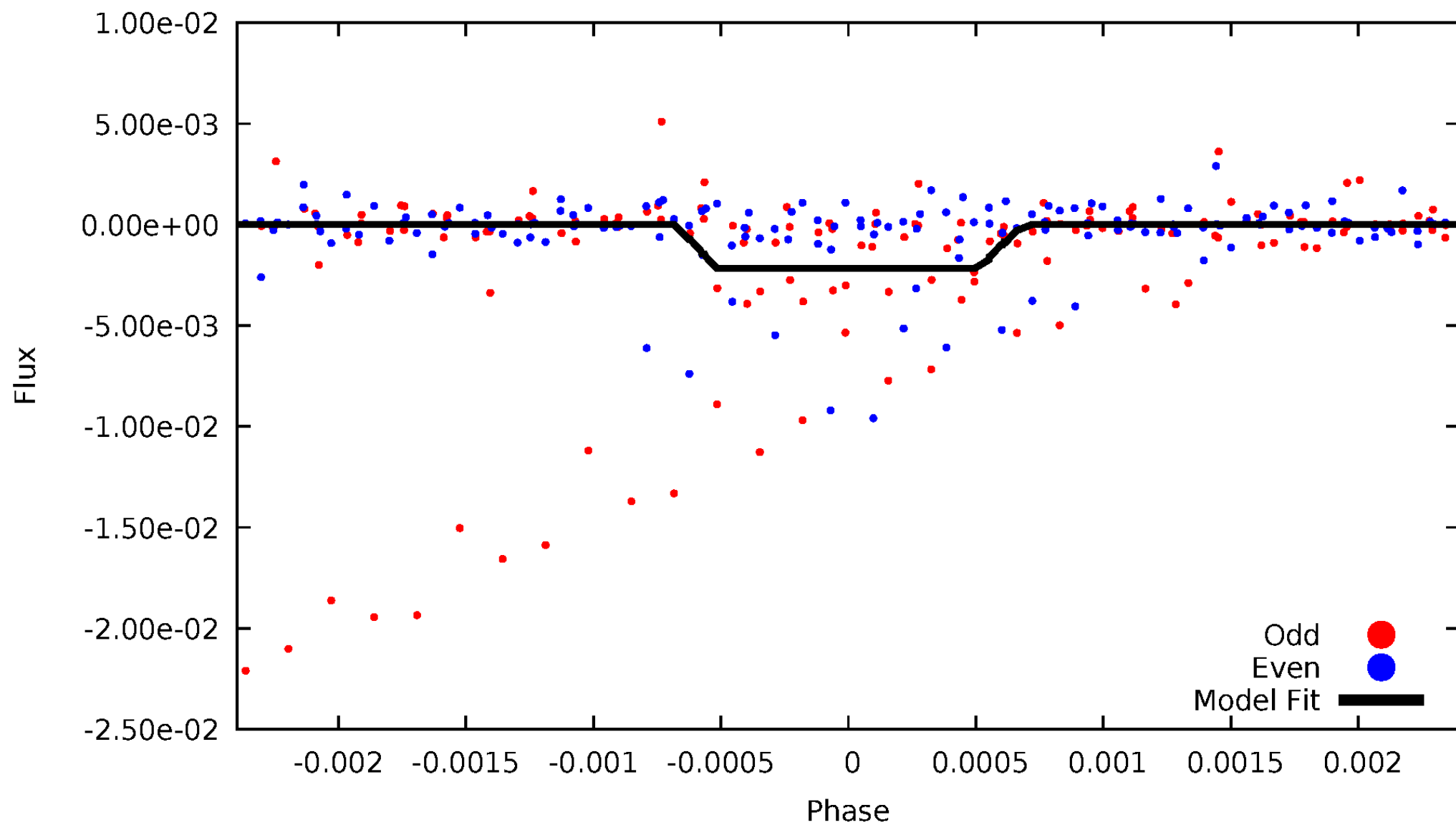
DV Odd/Even

TCE 008183622-03



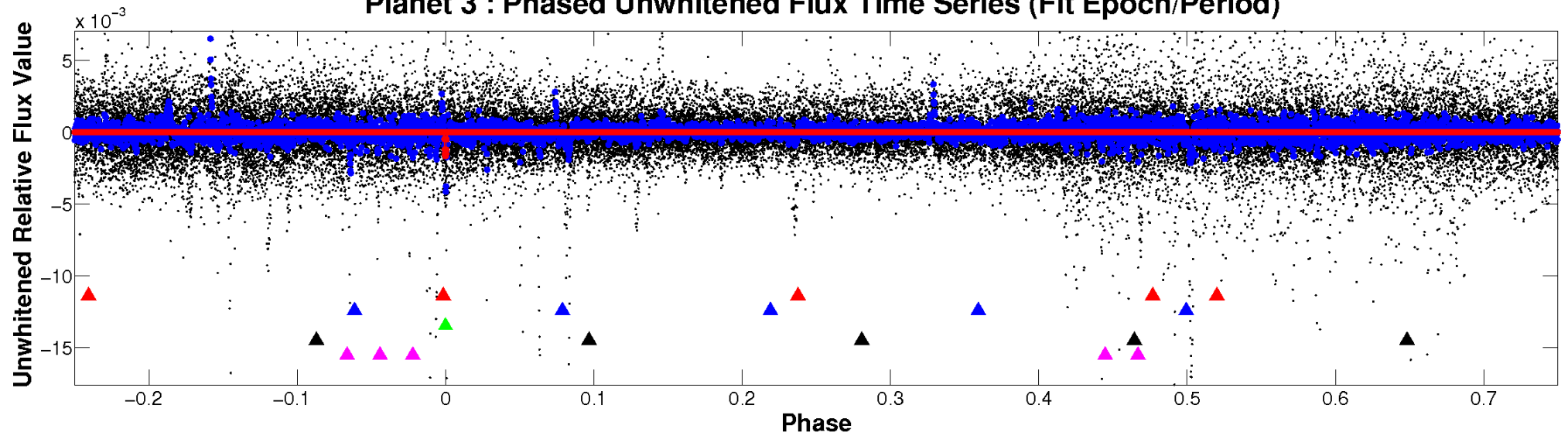
ALT Odd/Even

TCE 008183622-03

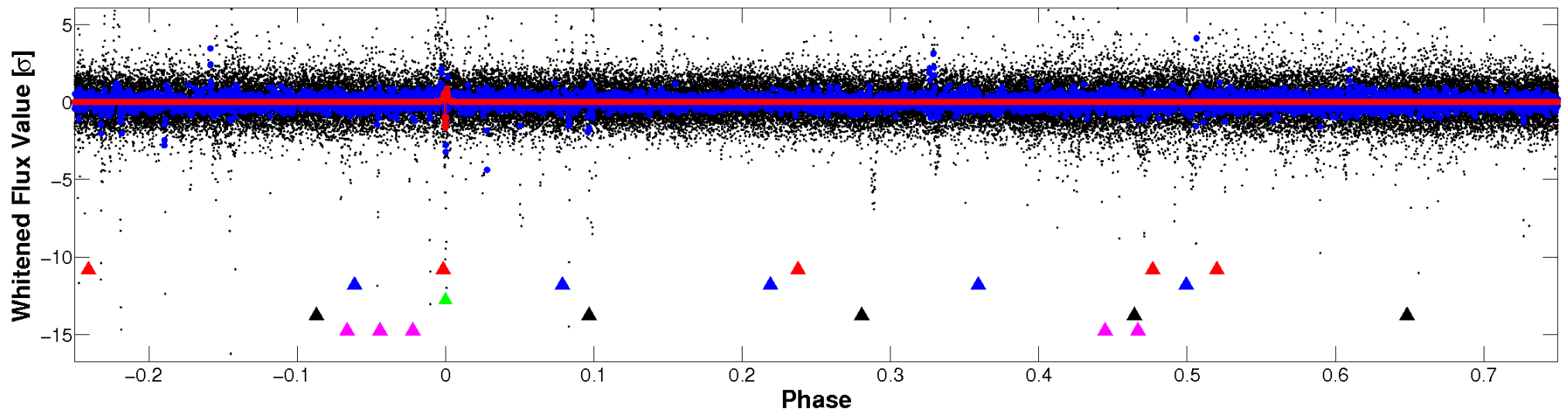


Non-Whitened Vs. Whitened Light Curve

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

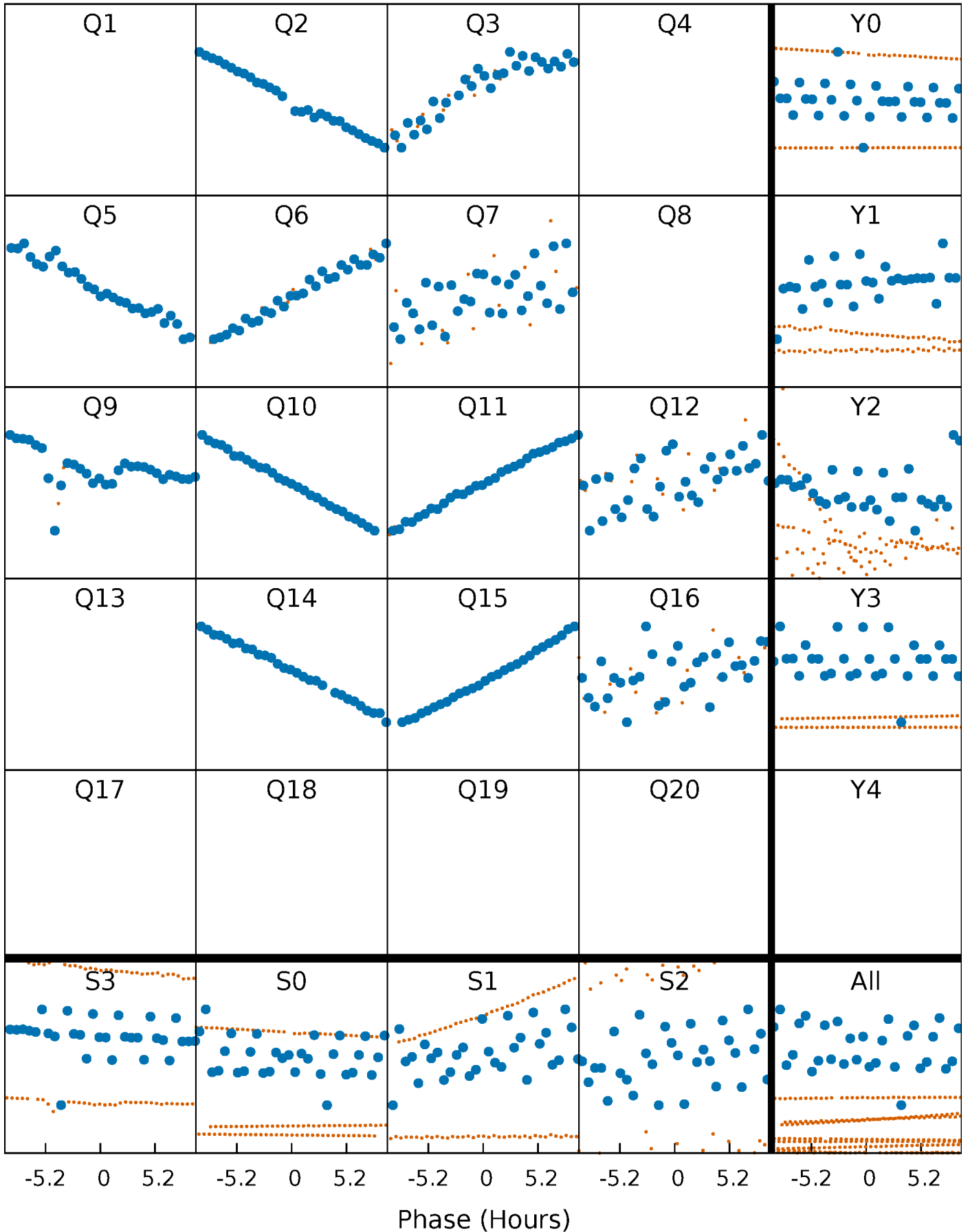


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



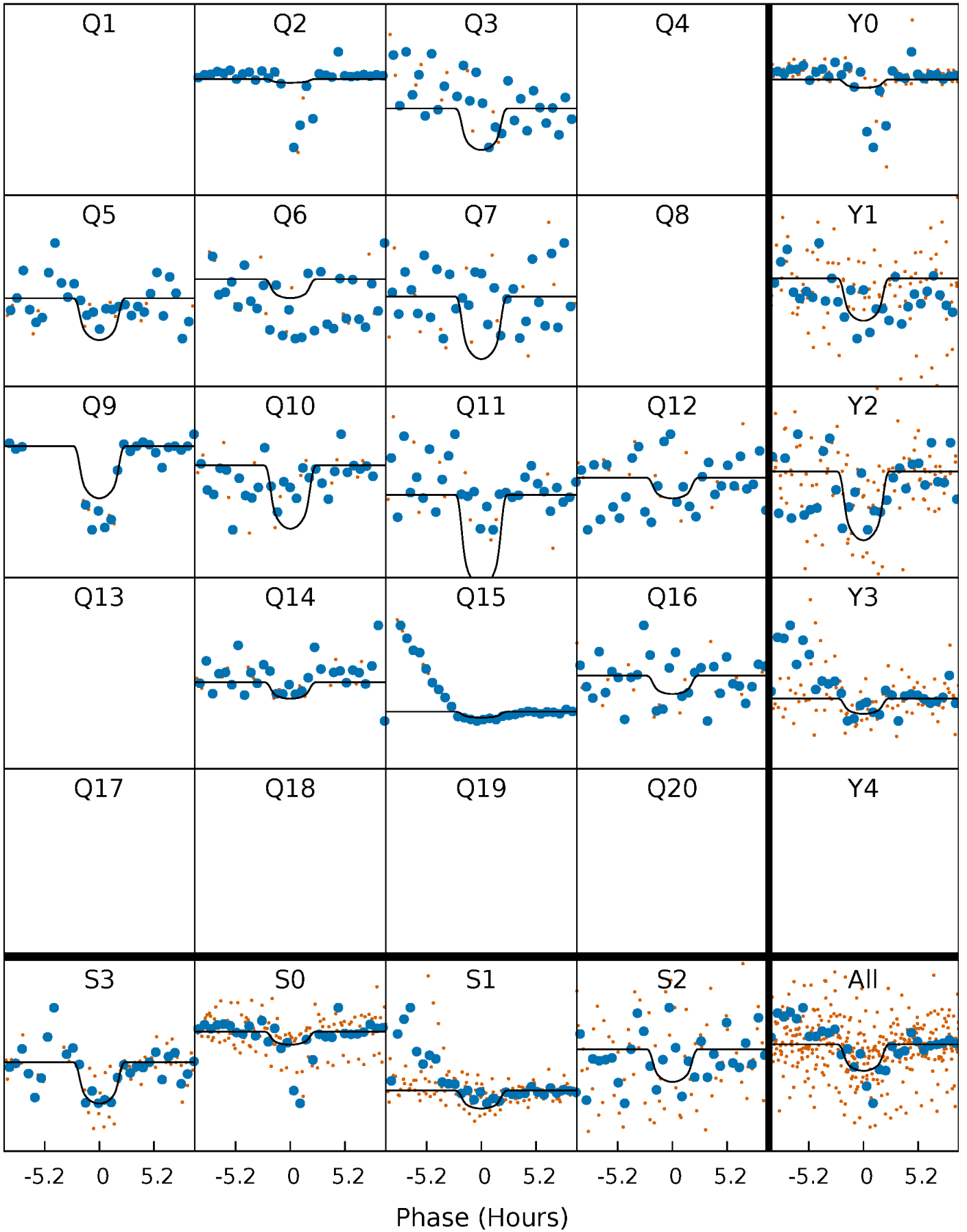
PDC Quarter-Phased Transit Curves

TCE 008183622-03 P=121.581416 Days $T_0=202.980607$ (BKJD)



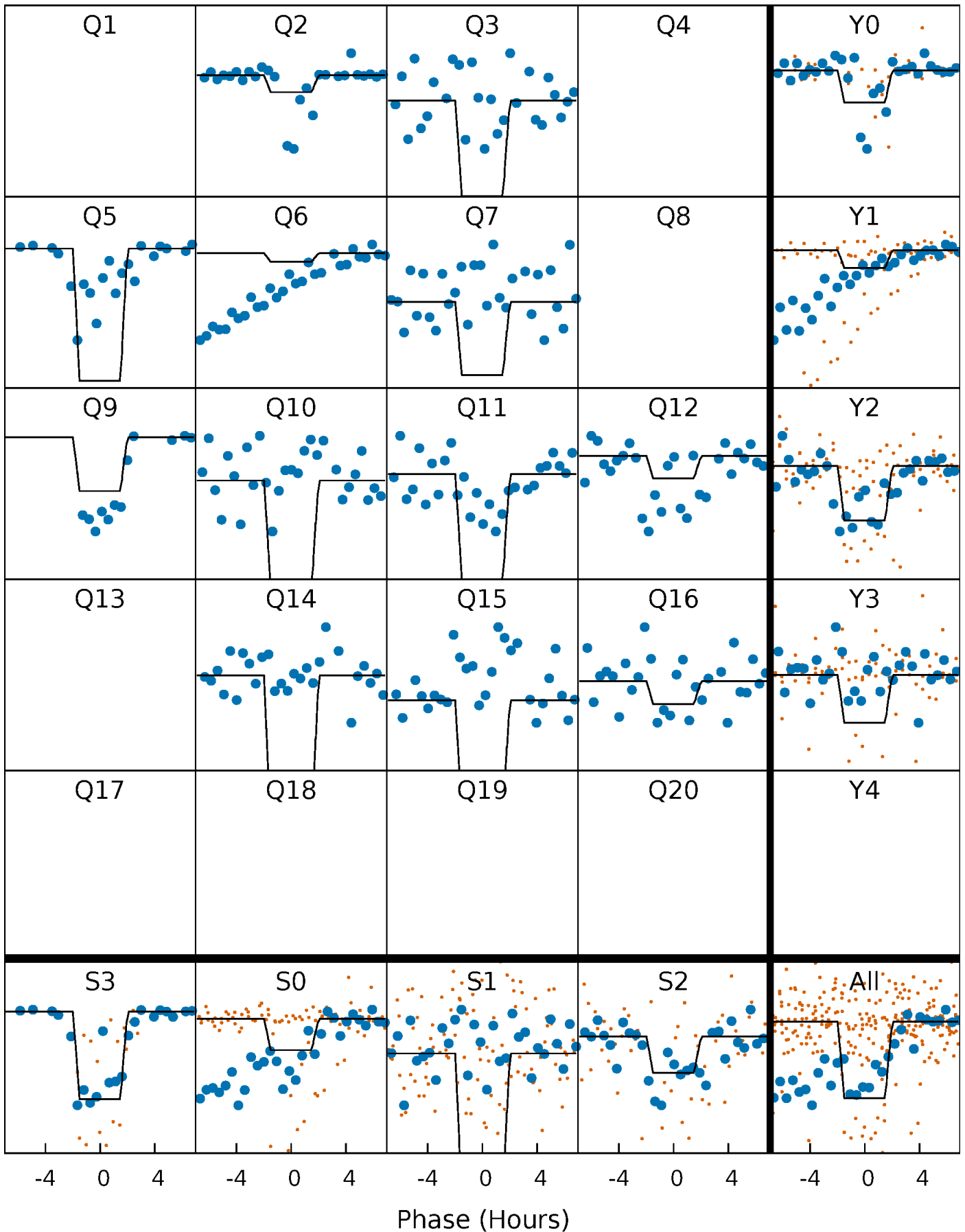
DV Quarter-Phased Transit Curves

TCE 008183622-03 P=121.581416 Days $T_0=202.980607$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

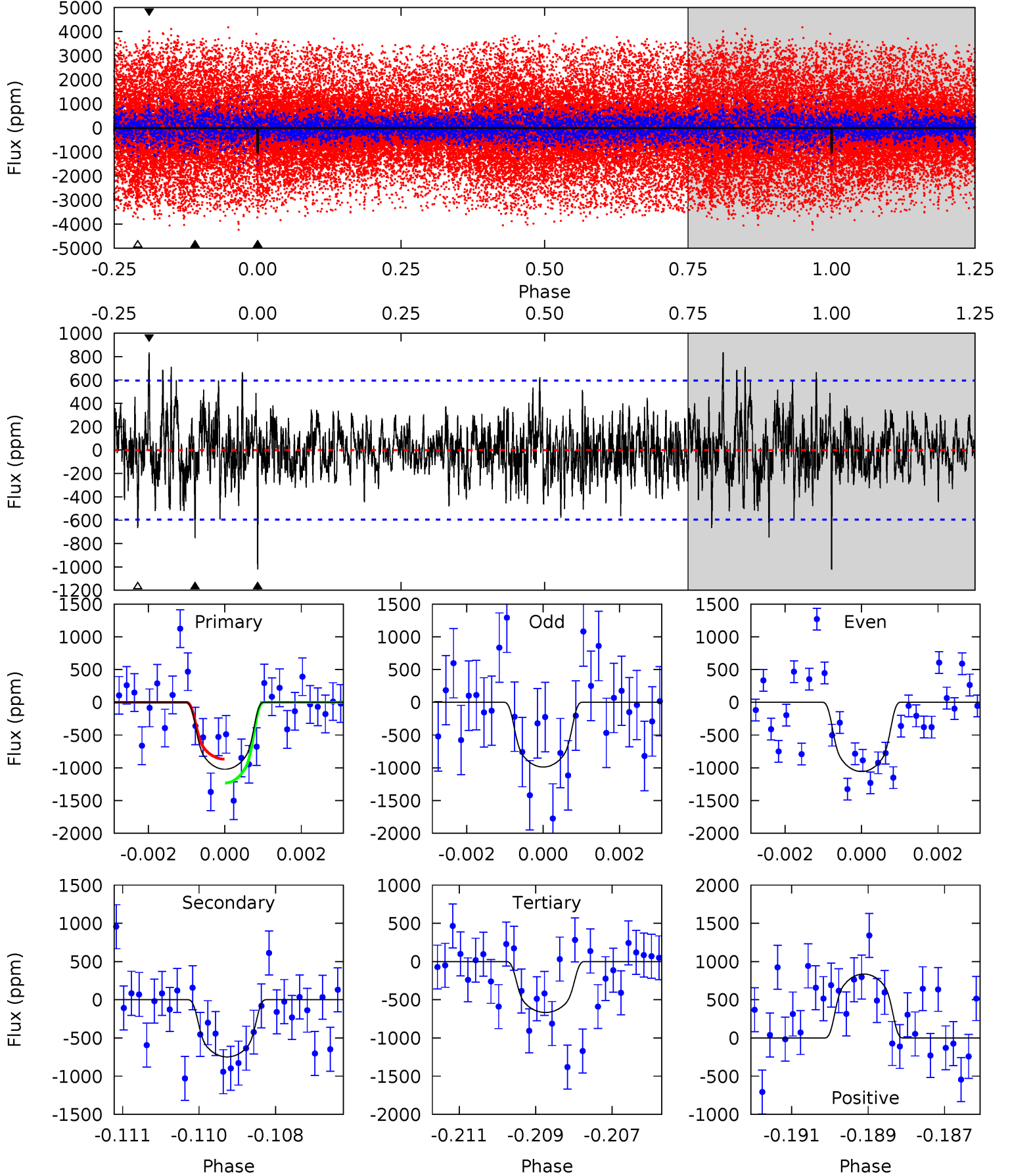
TCE 008183622-03 P=121.577488 Days $T_0=202.999531$ (BKJD)



DV Model-Shift Uniqueness Test

008183622-03, P = 121.581416 Days, E = 81.399191 Days

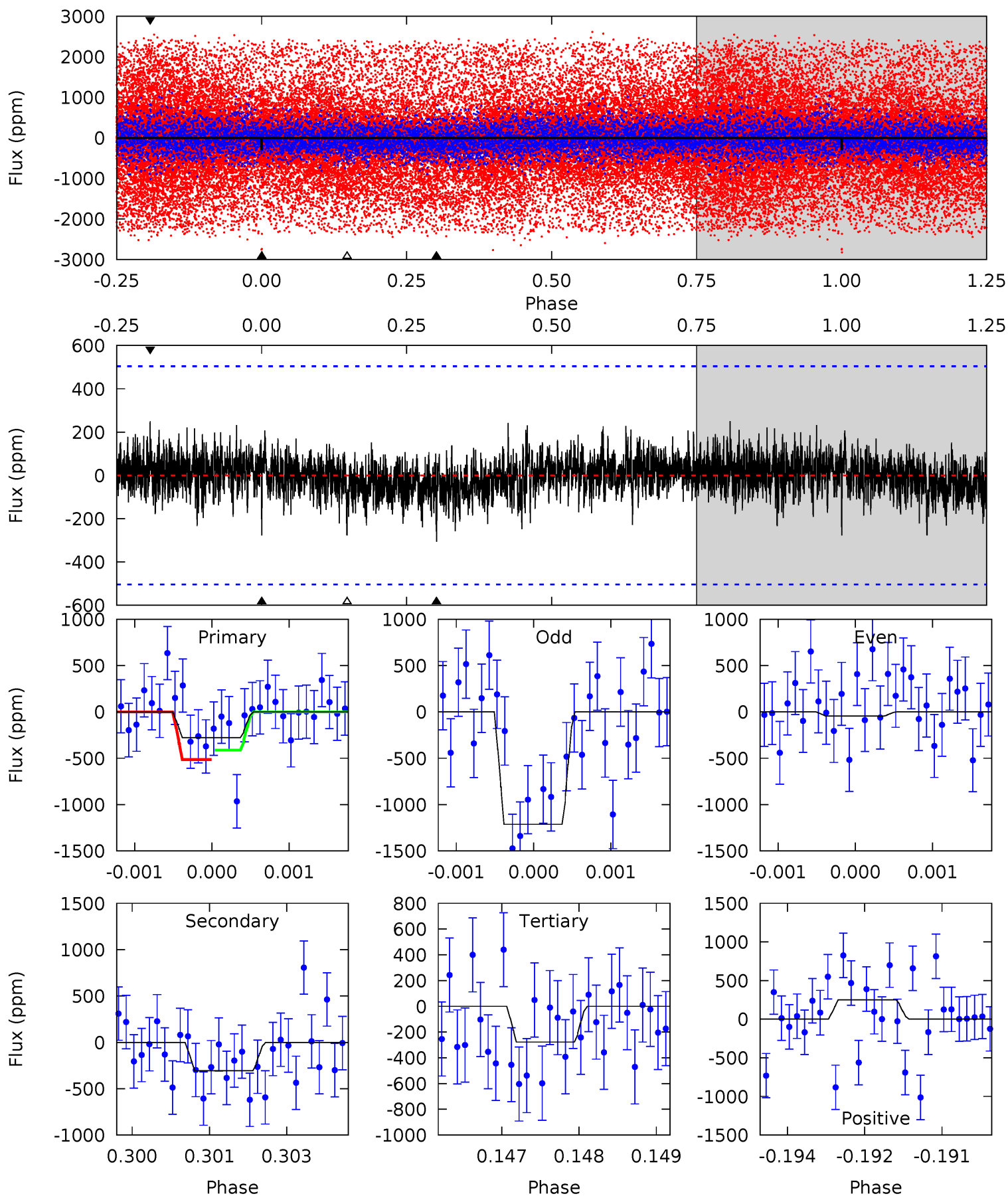
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.21	6.74	6.01	7.54	5.36	3.14	1.64	3.20	1.67	0.73	-0.80	0.32	2.72	0.45	1.65



Alt Model-Shift Uniqueness Test

008183622-03, P = 121.577488 Days, E = 81.422043 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.97	3.29	2.97	2.68	5.40	3.21	0.75	-0.00	0.29	0.31	0.61	6.72	2.29	0.45	0.57



Stellar Parameters For KIC 008183622

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+86%/-14%
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 008183622-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-748 ± 111	$725.57^{+230.49}_{-199.82}$	3486^{+163}_{-179}	-2602^{+5188}_{-262}	$0.199^{+0.193}_{-0.090}$
Alt.	-307 ± 93	$761.57^{+219.35}_{-227.96}$	3492^{+160}_{-199}	-2887^{+218}_{-146}	$0.075^{+0.083}_{-0.035}$

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 $A_{obs} \gg 1.0$

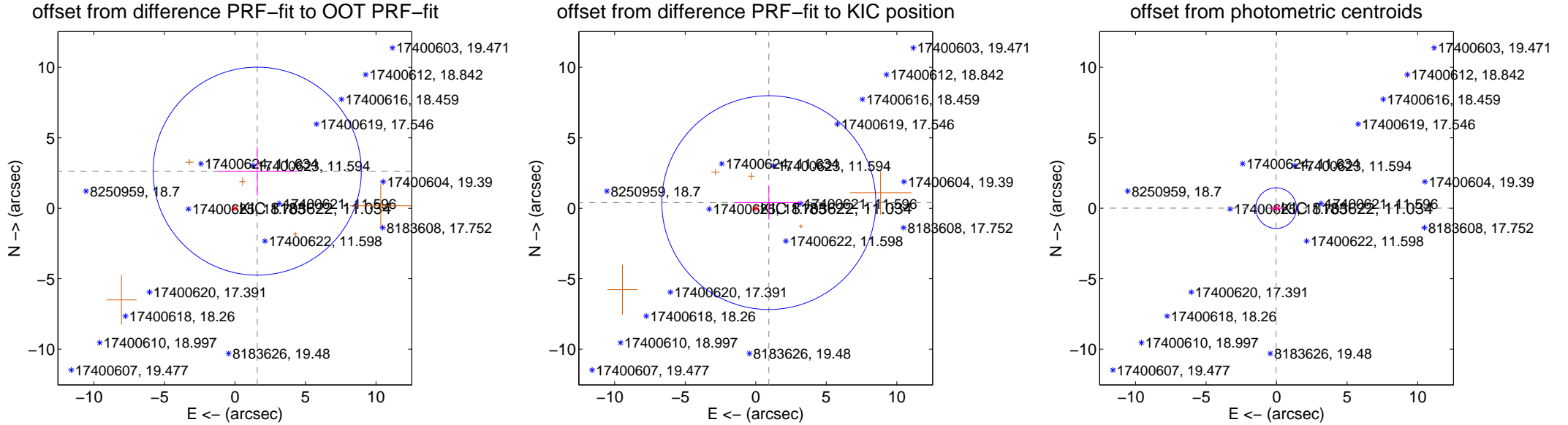
DV Centroid Data

Supplemental centroid analysis for 008183622-03. **Kepler magnitude: 11.03.** Transit SNR 16.06

There are 0 quarters with good PRF difference image offsets

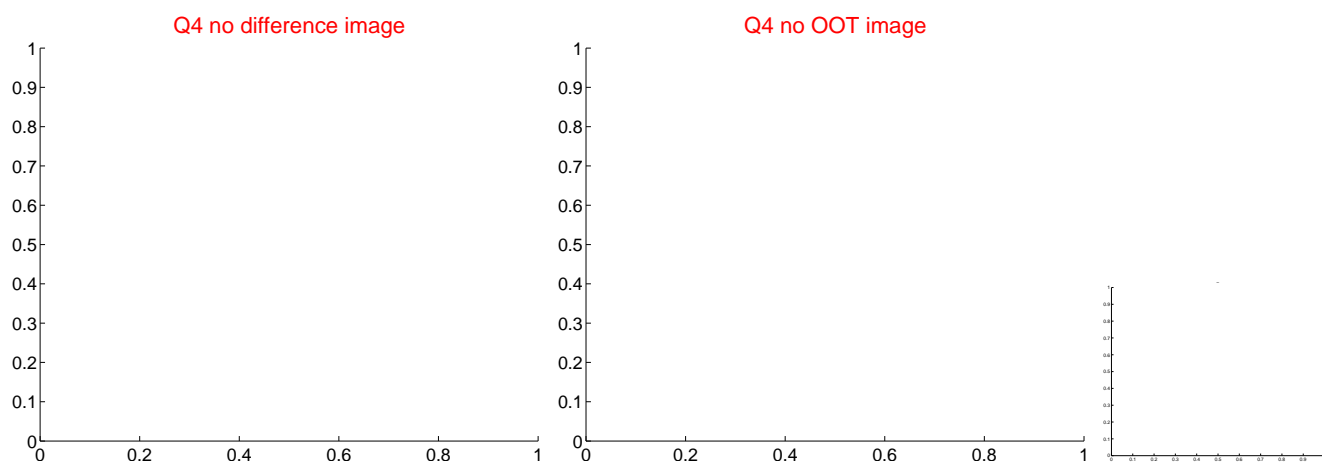
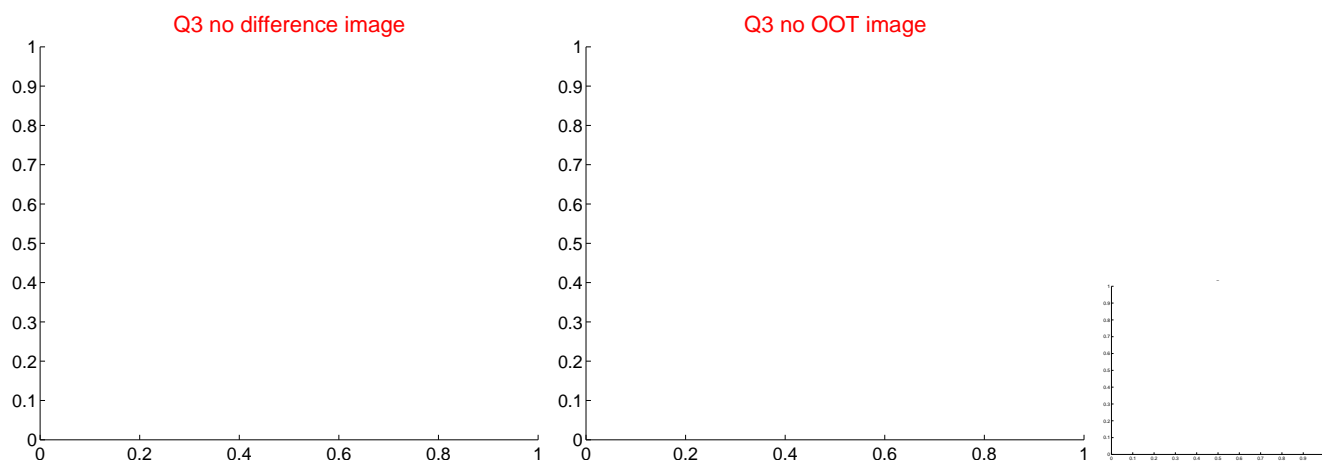
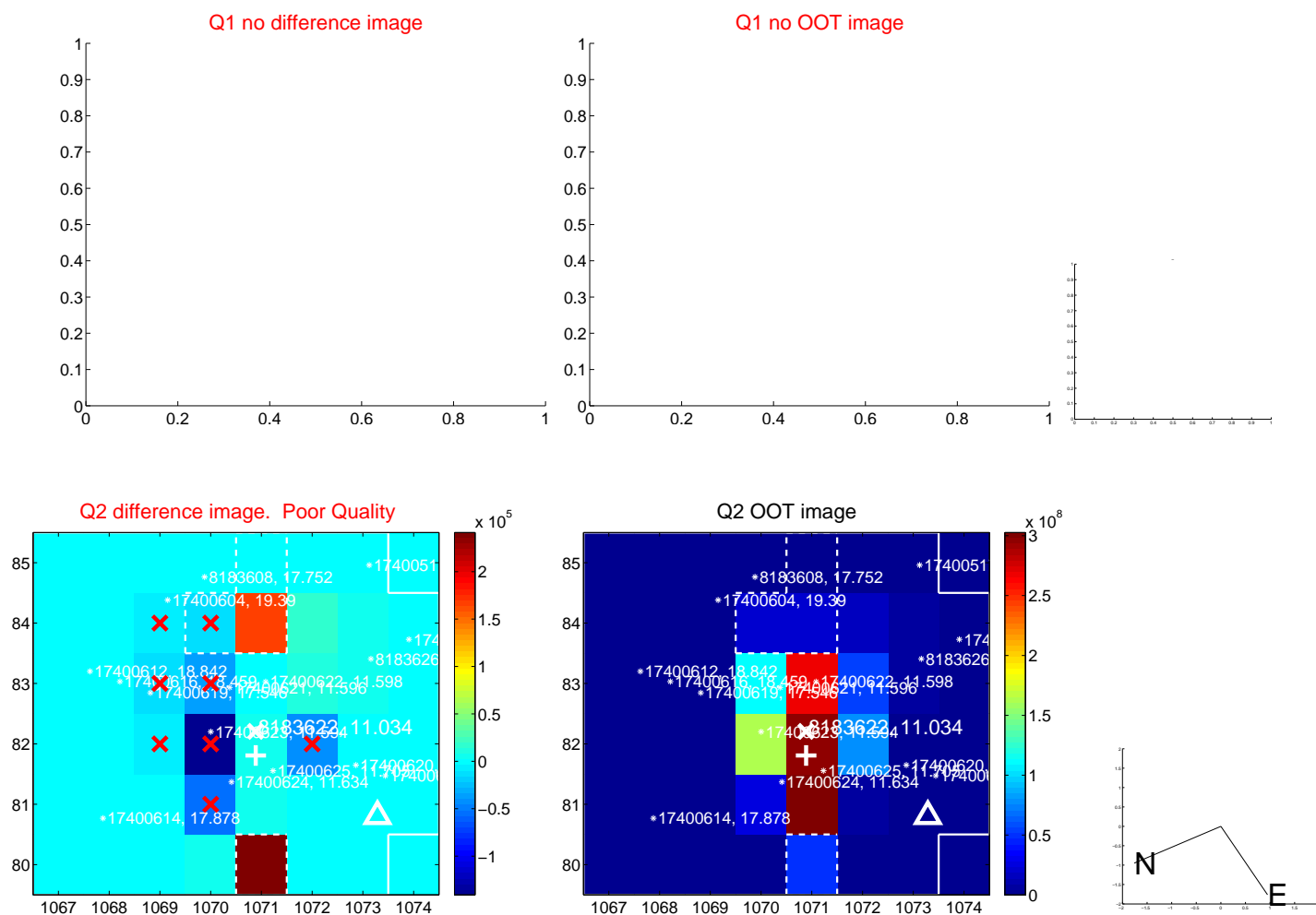
The direct PRF centroid is offset from the target star catalog position by about 1.75 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.068 ± 2.459	1.25	-1.580 ± 2.811	2.630 ± 1.755
PRF-fit source offset from KIC position	1.010 ± 2.528	0.40	-0.927 ± 2.466	0.400 ± 1.217
photometric centroid source offset	0.04 ± 0.48	0.07	0.03 ± 0.49	0.01 ± 0.27

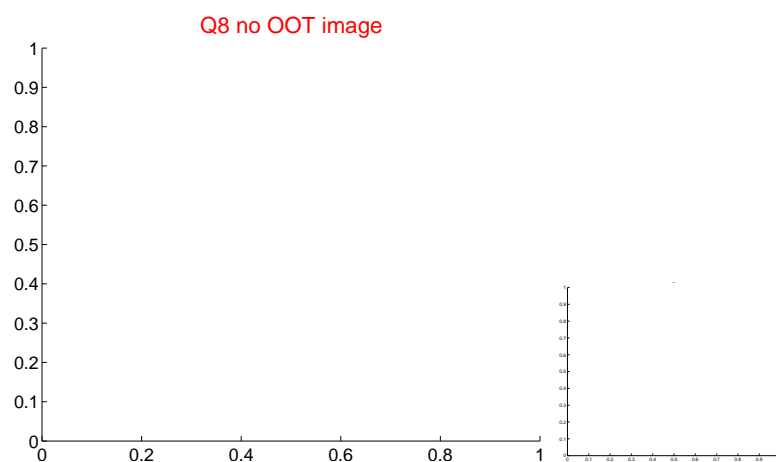
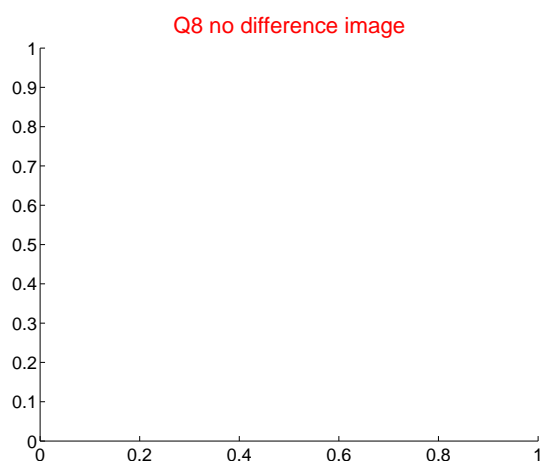
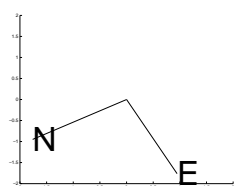
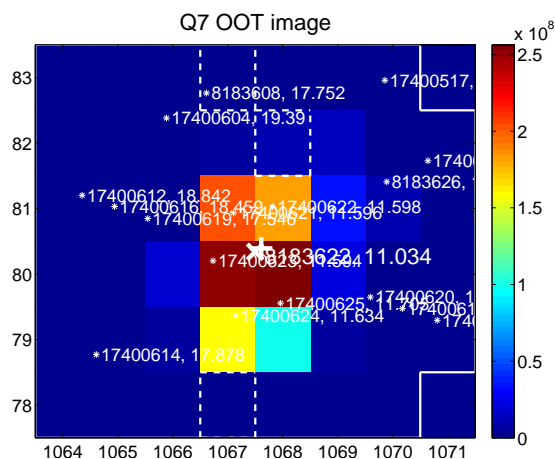
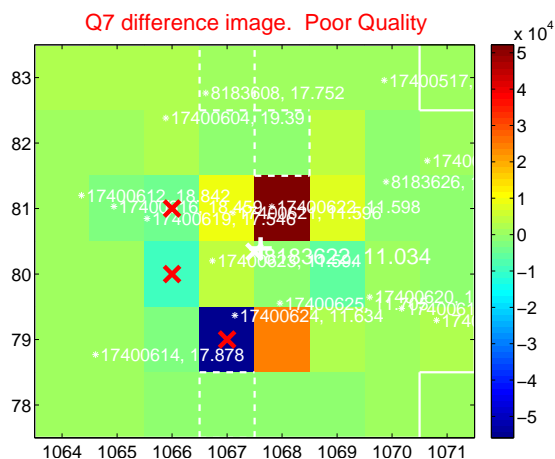
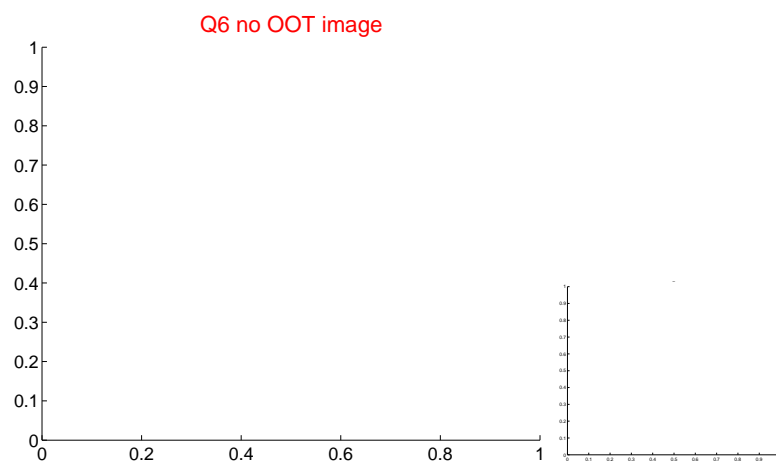
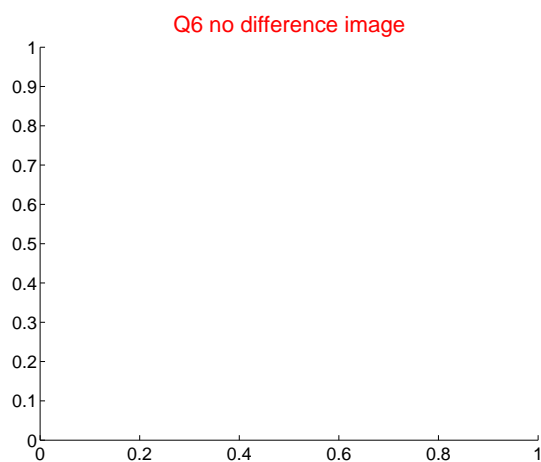
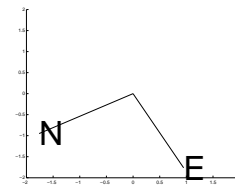
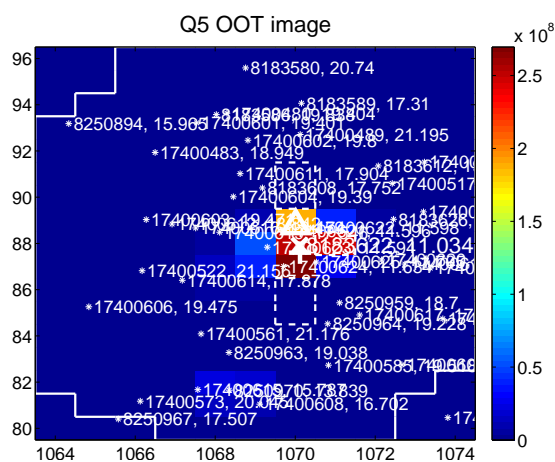
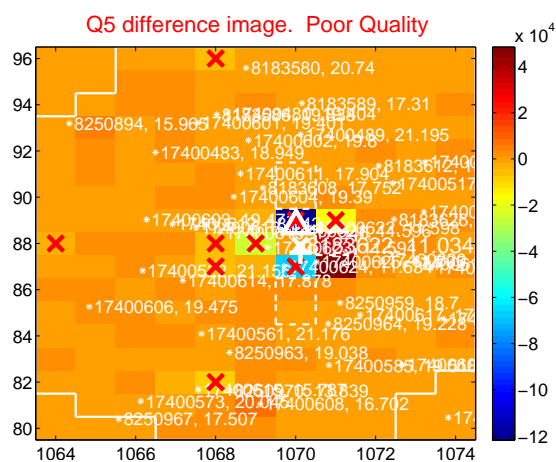


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

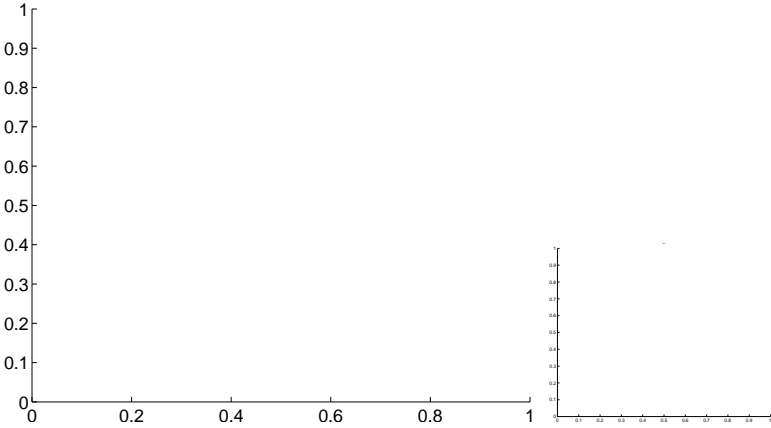


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

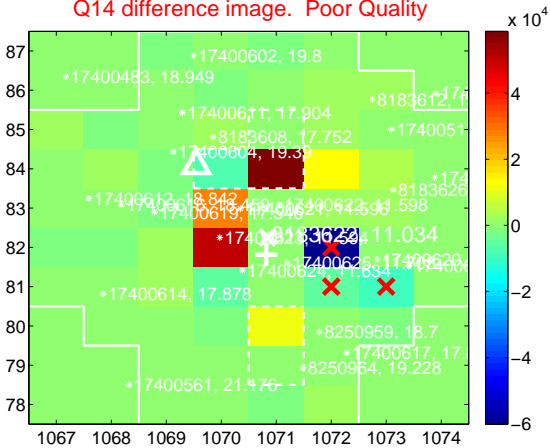
Q13 no difference image



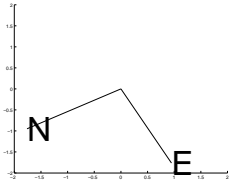
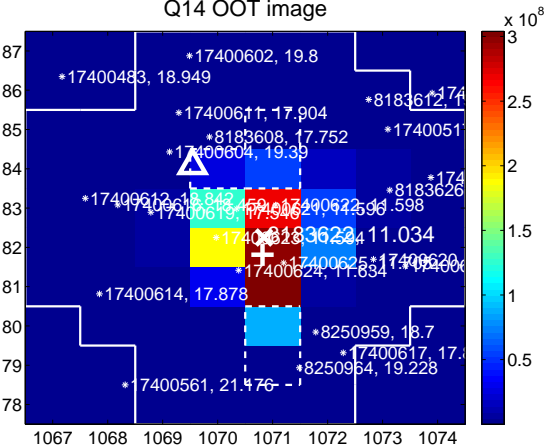
Q13 no OOT image



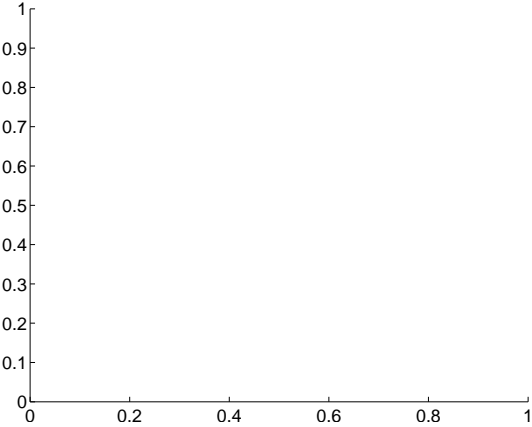
Q14 difference image. Poor Quality



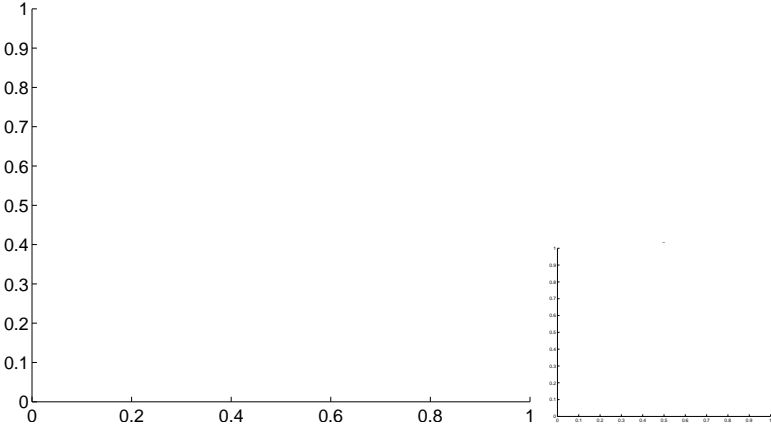
Q14 OOT image



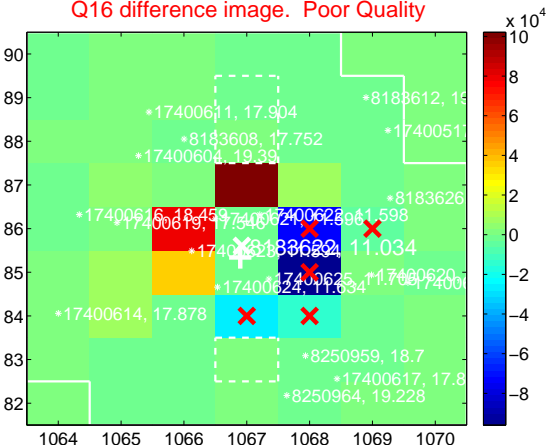
Q15 no difference image



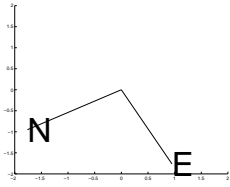
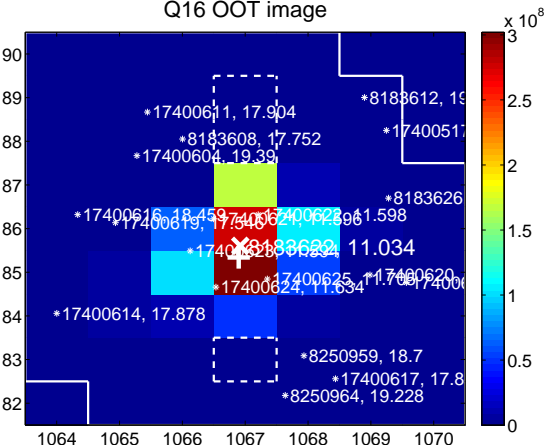
Q15 no OOT image



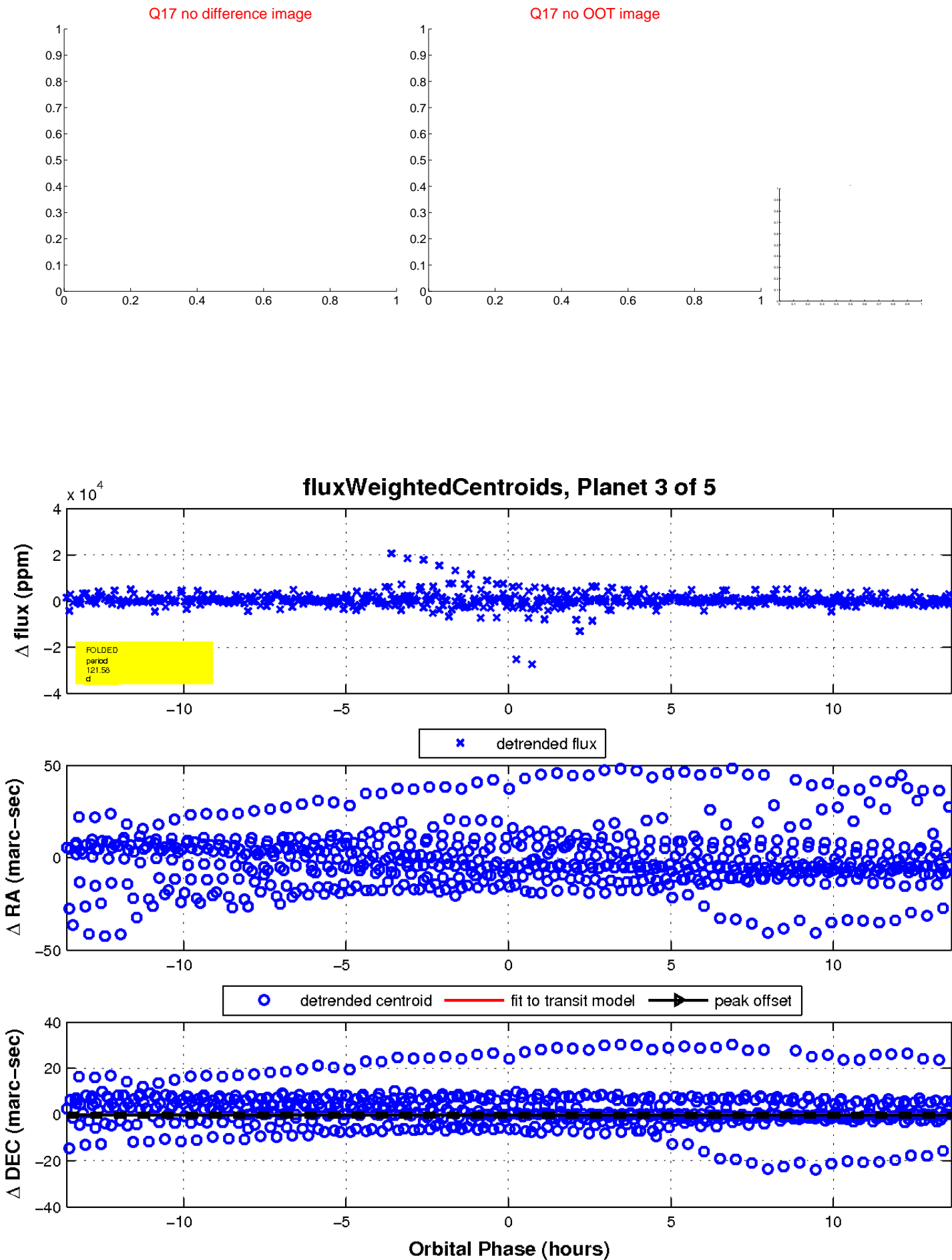
Q16 difference image. Poor Quality



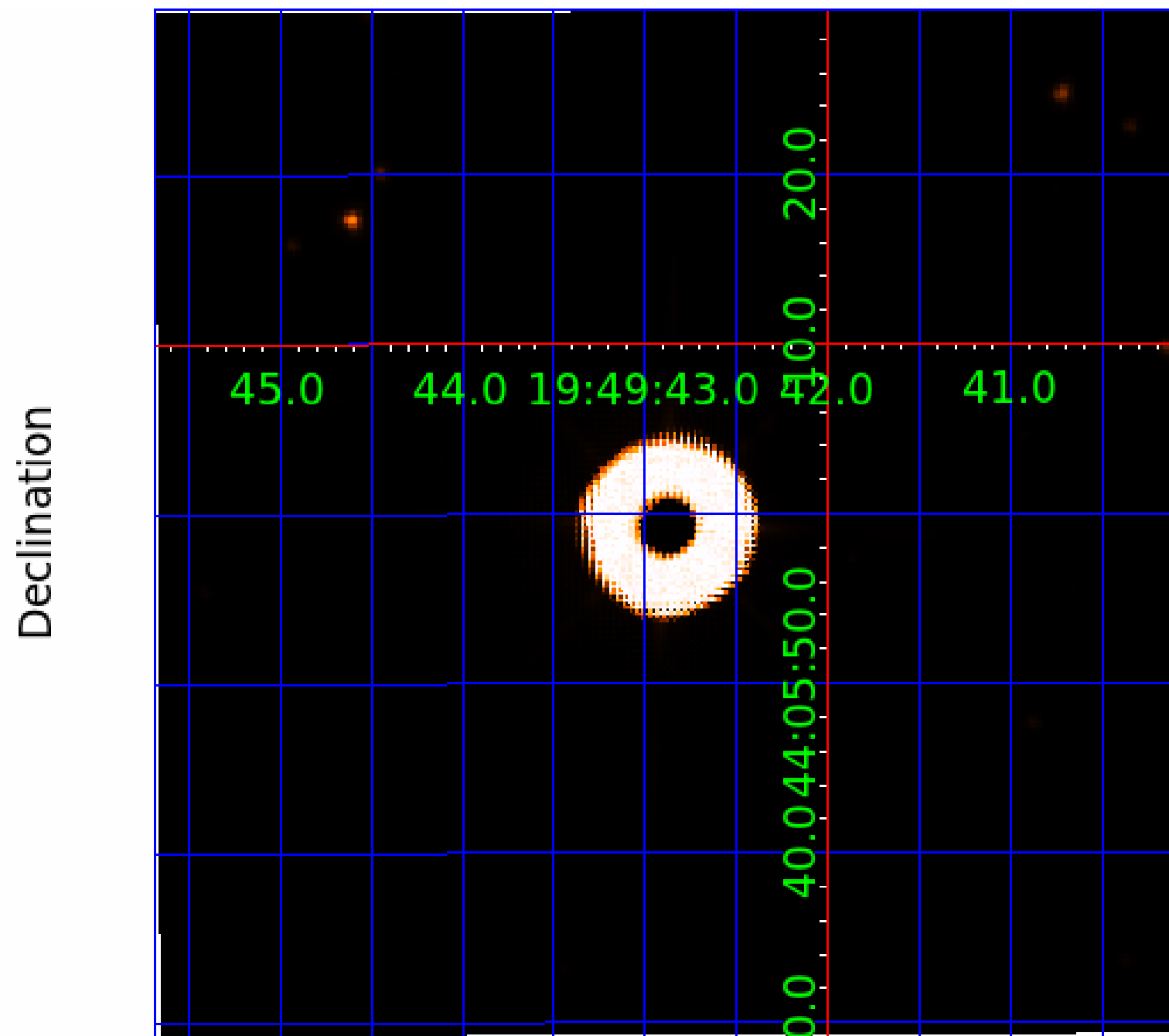
Q16 OOT image



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



UKIRT Image



KIC 008183622

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})
008183622-01	OBS	No	335.663526	139.377767	7916.0	1.583	58.8	62.8	153.06	3286	1953.76	2517.27
008183622-02	OBS	No	347.700414	142.120447	506.2	6.125	45.0	5.7	153.06	3286	446.31	2401.75
008183622-03	OBS	No	121.581415	202.980607	1652.3	4.548	23.6	16.1	153.06	3286	760.14	0.00
008183622-04	OBS	No	342.393769	160.221681	3660.6	1.722	19.8	19.4	153.06	3286	967.31	2451.51
008183622-05	OBS	No	302.607401	321.883661	1044.1	12.500	18.3	-1.0	153.06	3286	453.82	2890.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183622-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-05	OBS	FP	0.00	1	0	1	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—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.

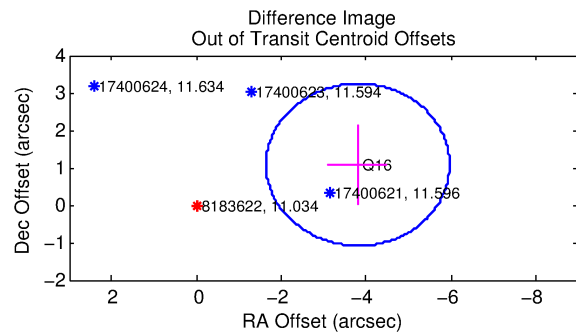
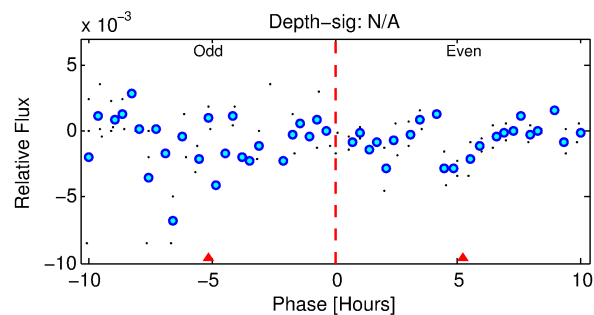
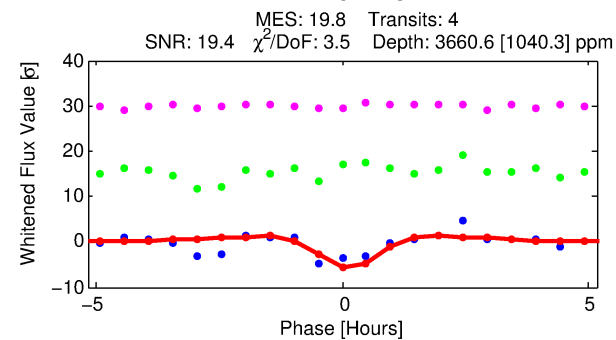
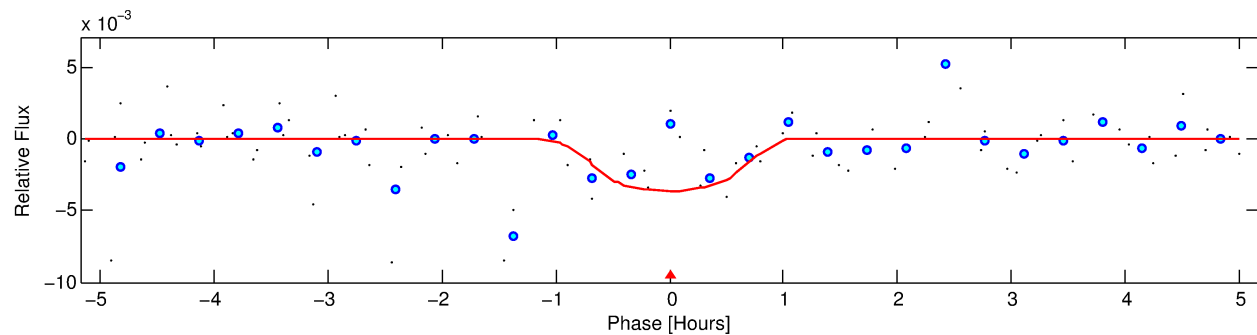
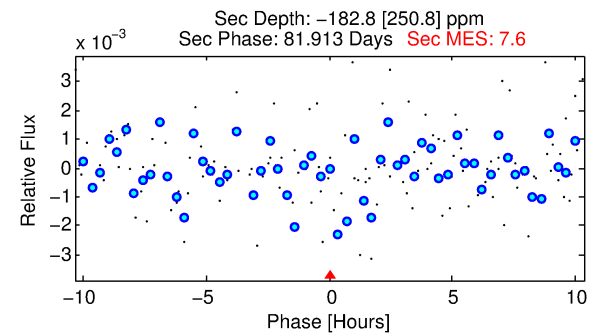
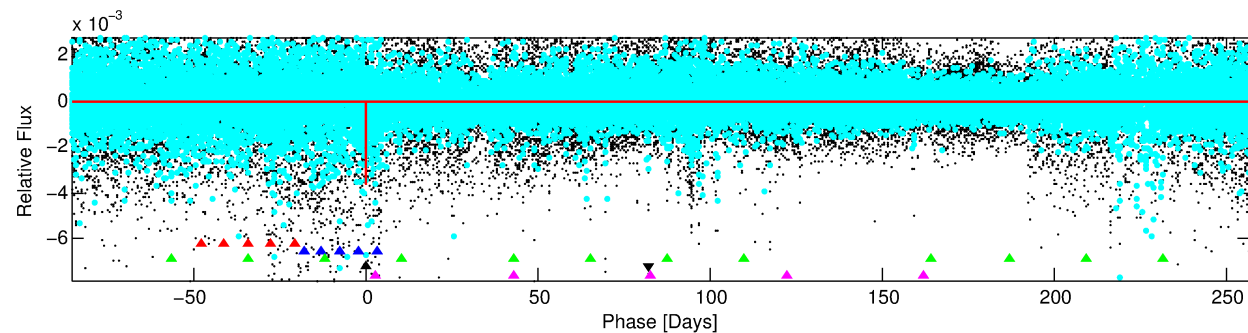
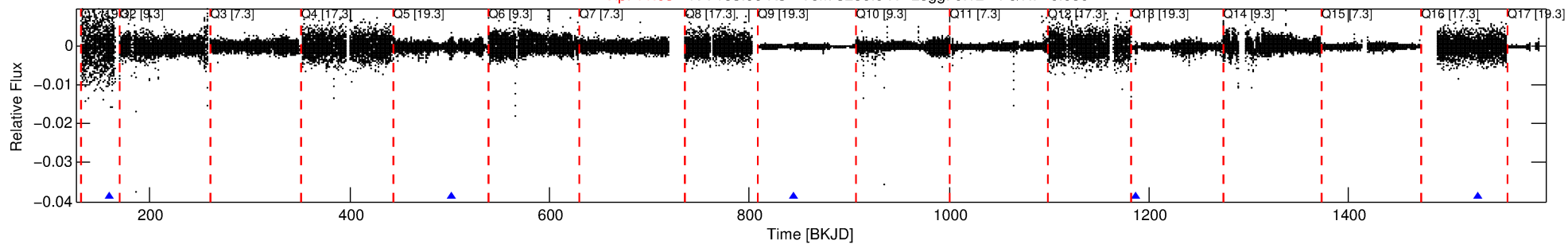
Ephemeris Match Information For 008183622-04

No Significant Match Found

DV One-Page Summary

KIC: 8183622 Candidate: 4 of 5 Period: 342.394 d

Kp: 11.03 R*: 153.06 Rs Teff: 3286.0 K Logg: 0.12 Fe/H: -0.080



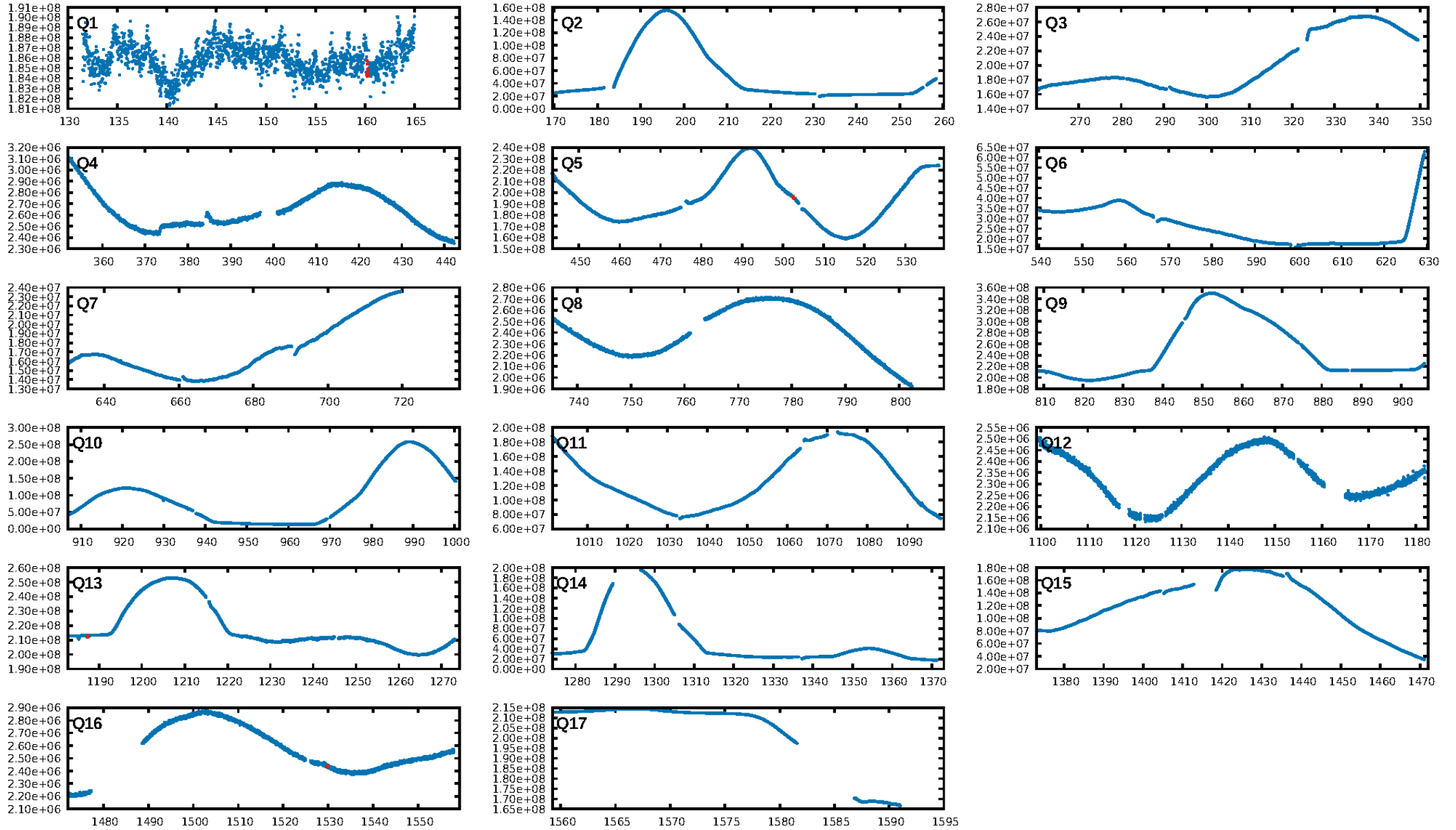
DV Fit Results:

Period = 342.39377 [0.00572] d
Epoch = 160.2217 [0.0172] BKJD
Rp/R* = 0.0579 [0.4669]
a/R* = 1279.61 [22218.46]
b = 0.64 [17.20]
Seff = 2451.51 [880.39]
Teff = 1794 [161] K
Rp = 967.31 [7800.28] Re
a = 0.9991 [0.1947] AU
Ag = N/A
Teffp = N/A

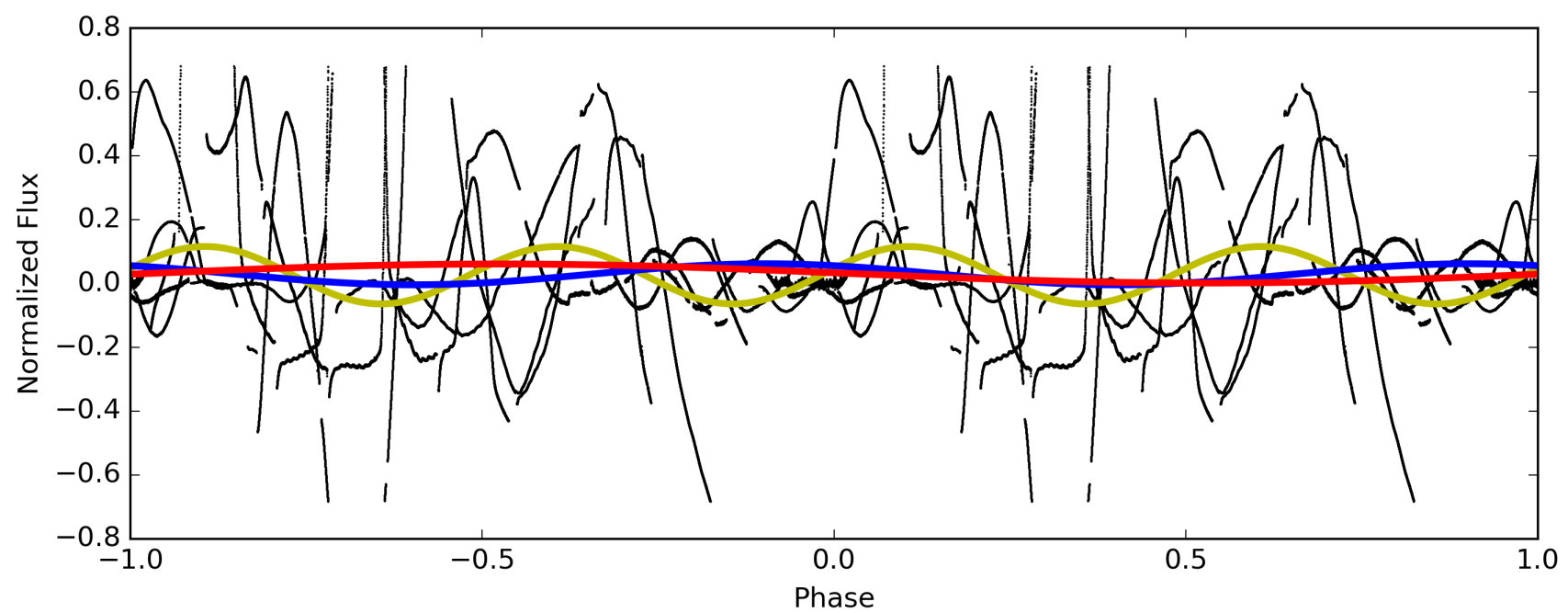
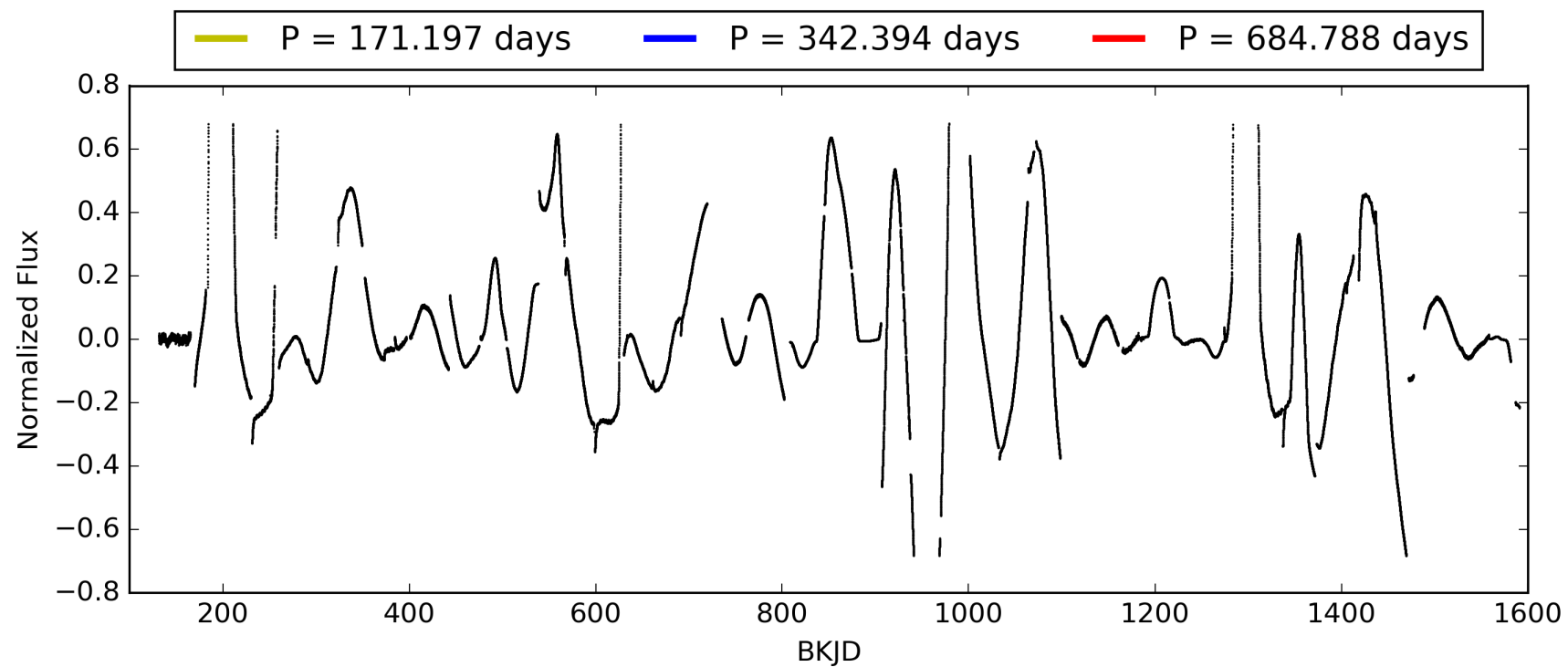
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [69.07σ]
LongPeriod-sig: 100.0% [20.02σ]
ModelChiSquare2-sig: 4.1%
ModelChiSquareGof-sig: 25.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.7467
Centroid-sig: N/A
Centroid-so: 0.368 arcsec [2.61σ]
OotOffset-rm: 3.958 arcsec [5.49σ]
KicOffset-rm: 3.419 arcsec [4.33σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008183622-04, PDC Light Curves

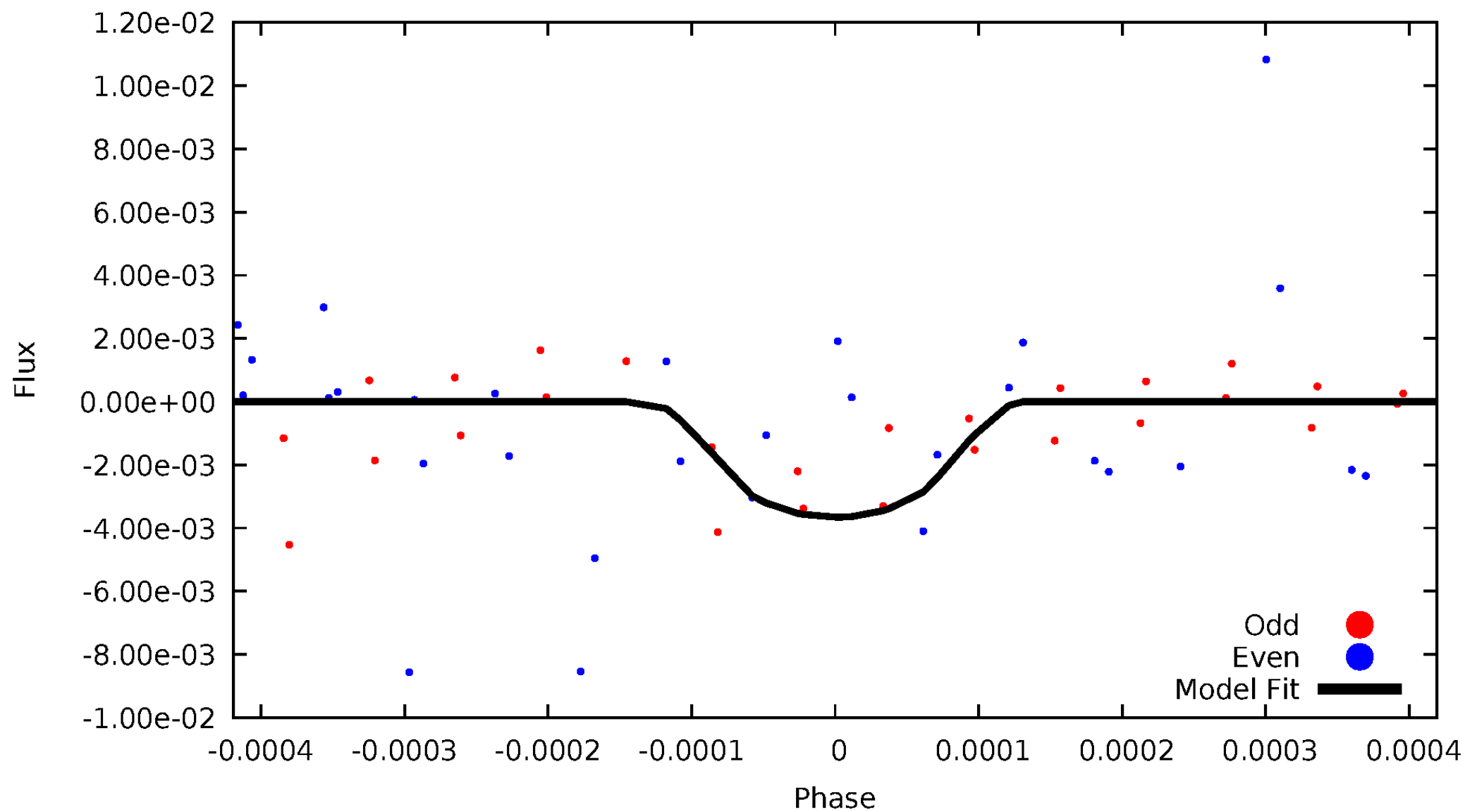


TCE 008183622-04



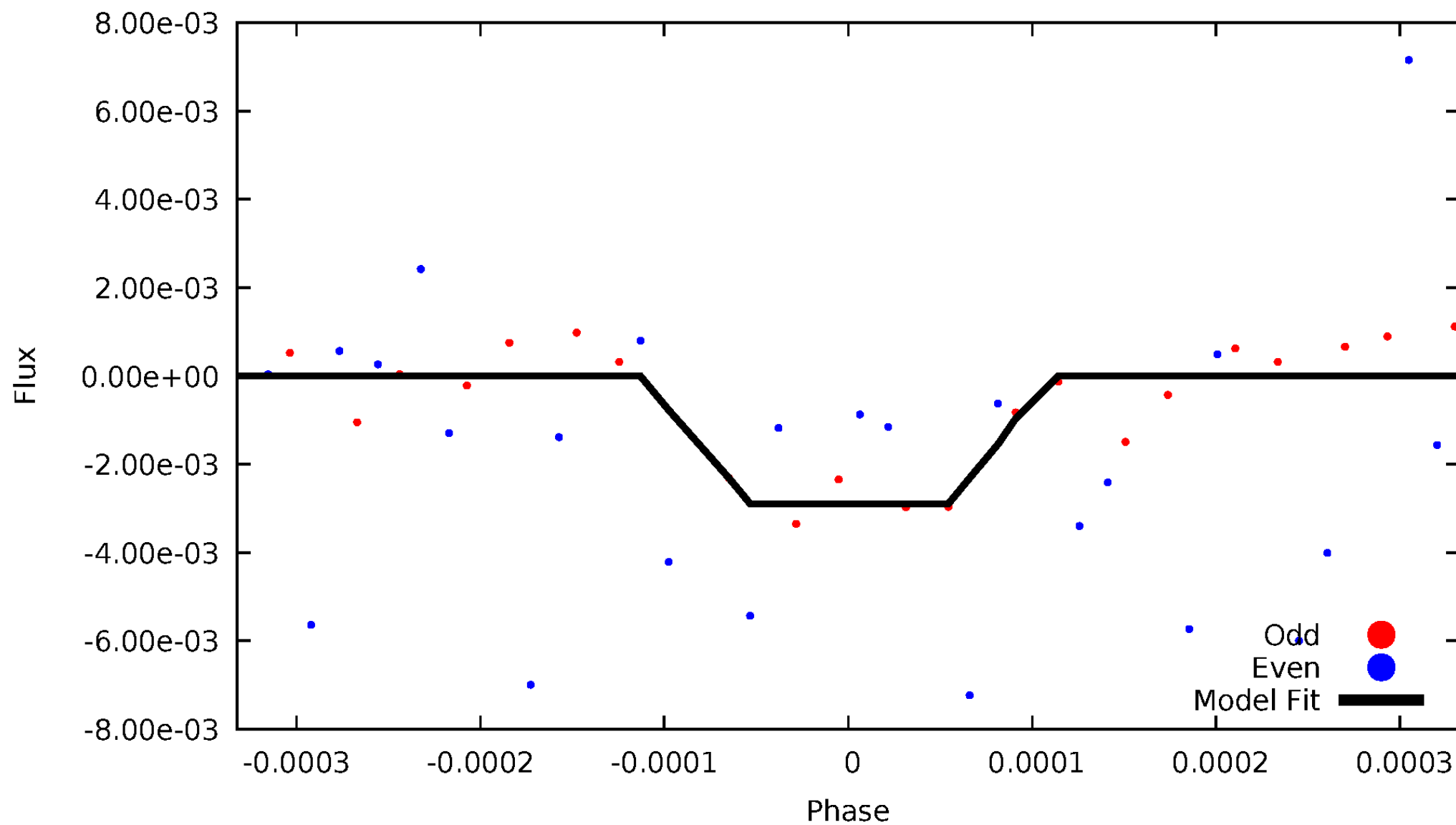
DV Odd/Even

TCE 008183622-04



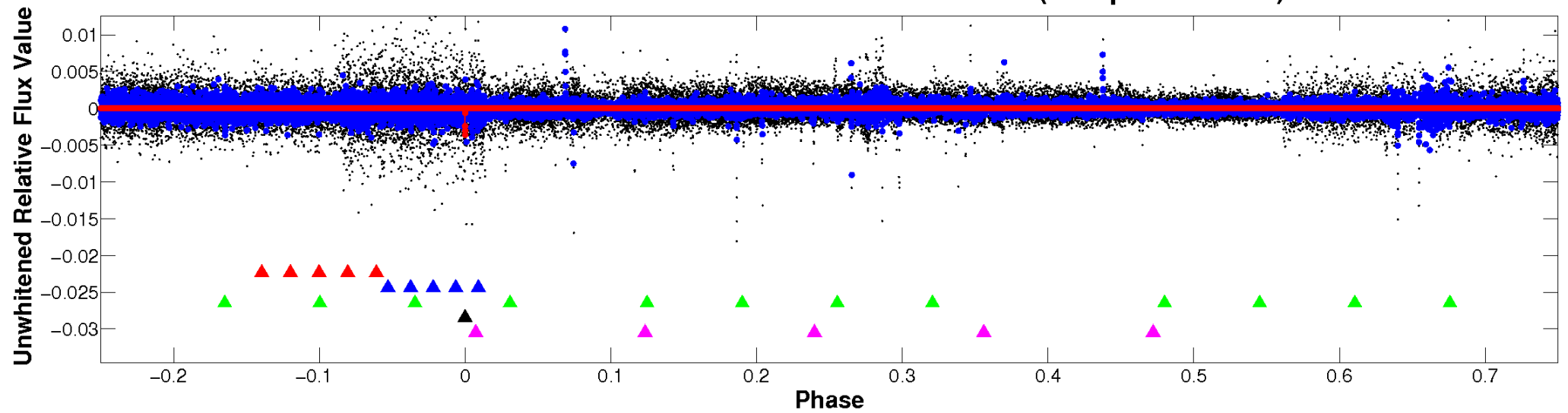
ALT Odd/Even

TCE 008183622-04

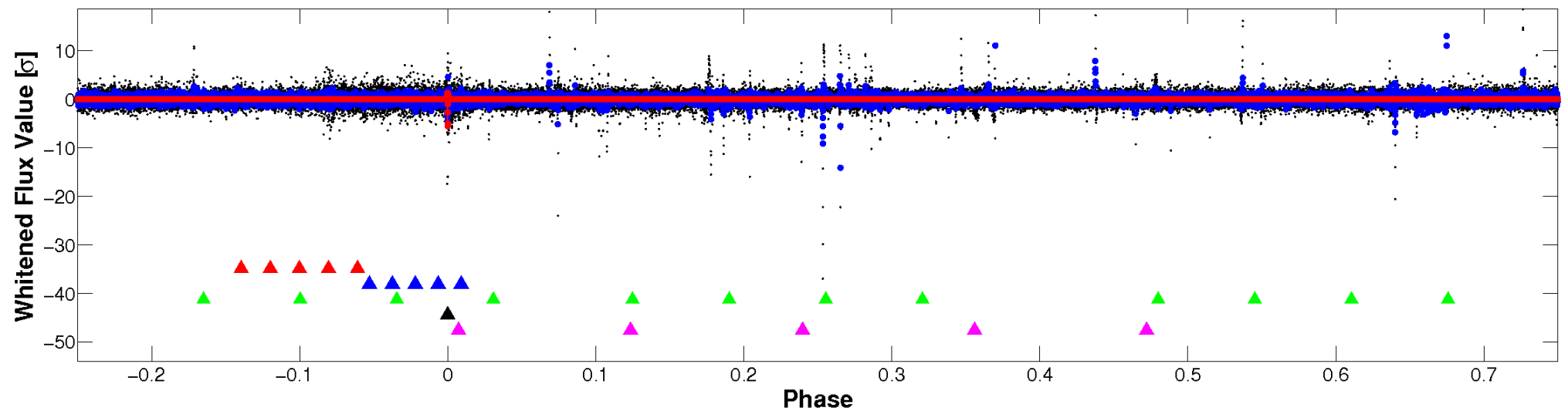


Non-Whitened Vs. Whitened Light Curve

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

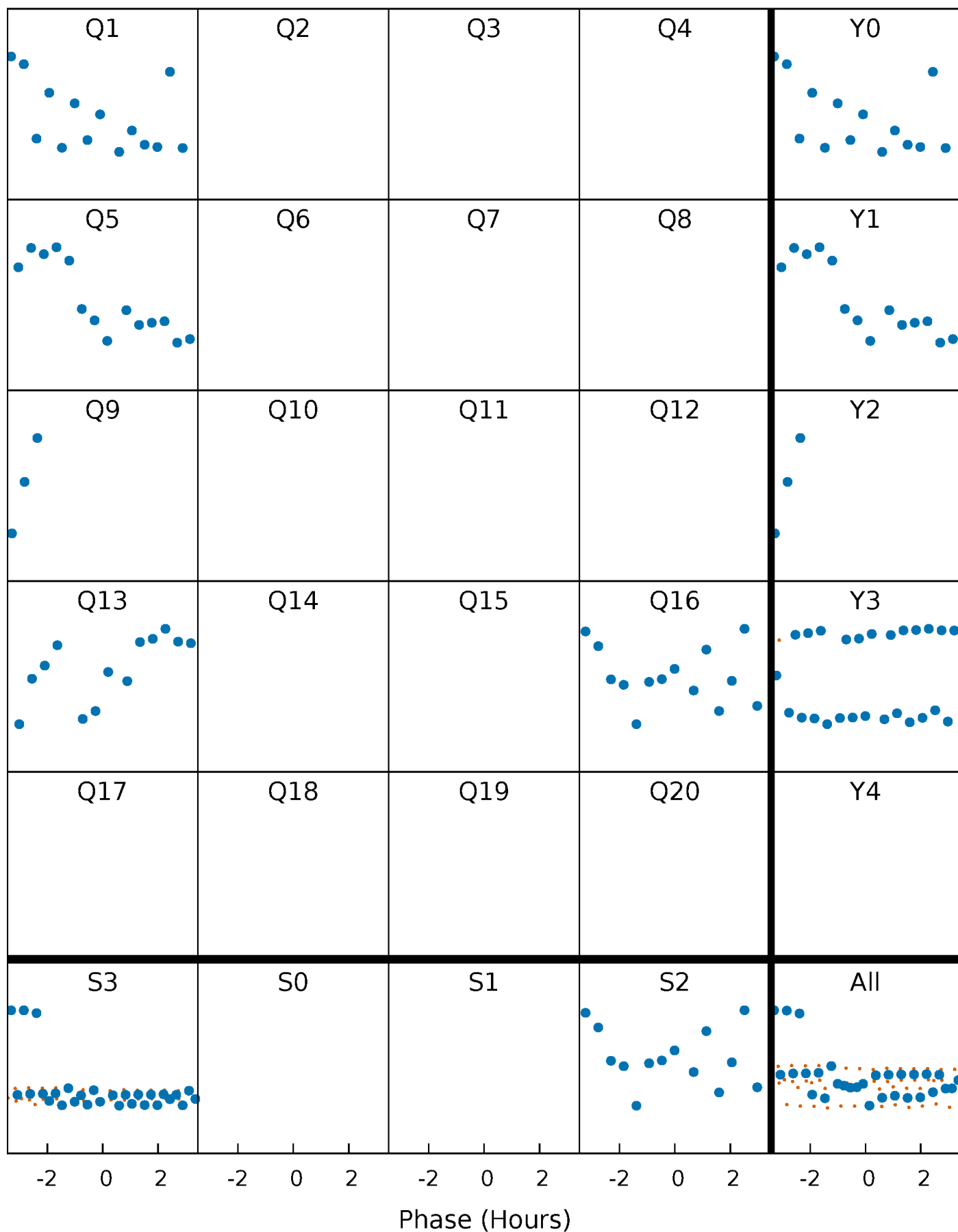


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



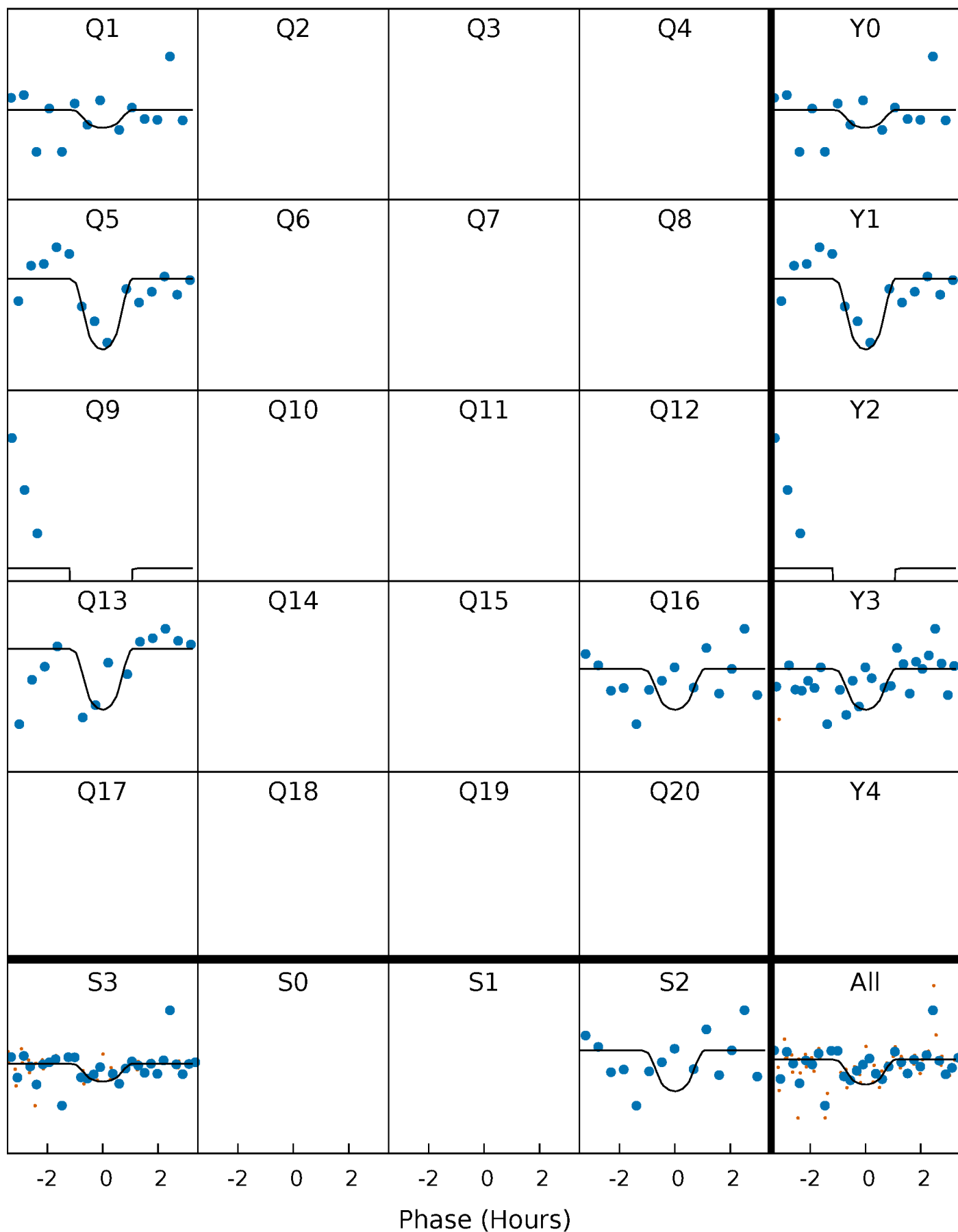
PDC Quarter-Phased Transit Curves

TCE 008183622-04 P=342.393769 Days $T_0=160.221681$ (BKJD)



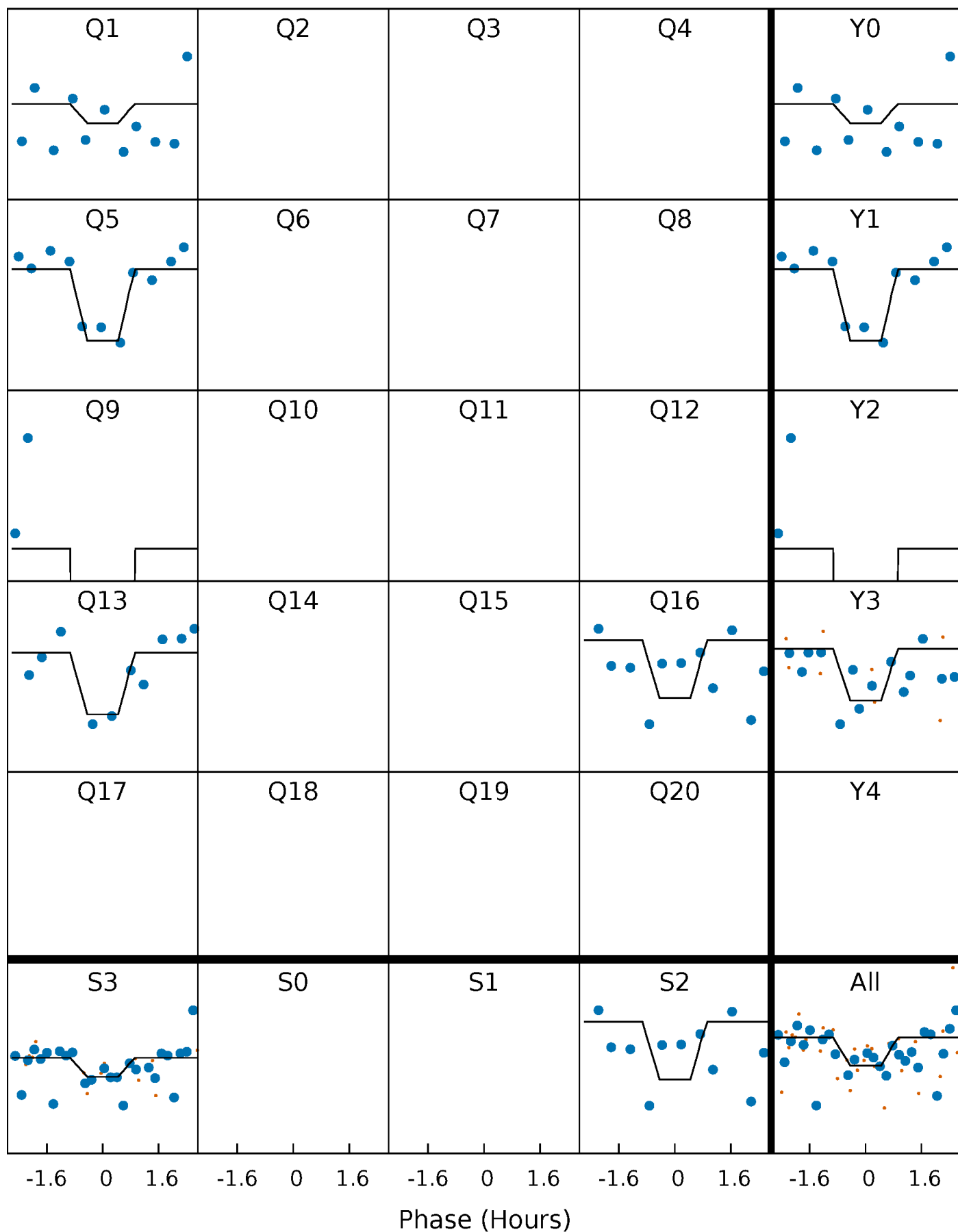
DV Quarter-Phased Transit Curves

TCE 008183622-04 $P=342.393769$ Days $T_0=160.221681$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

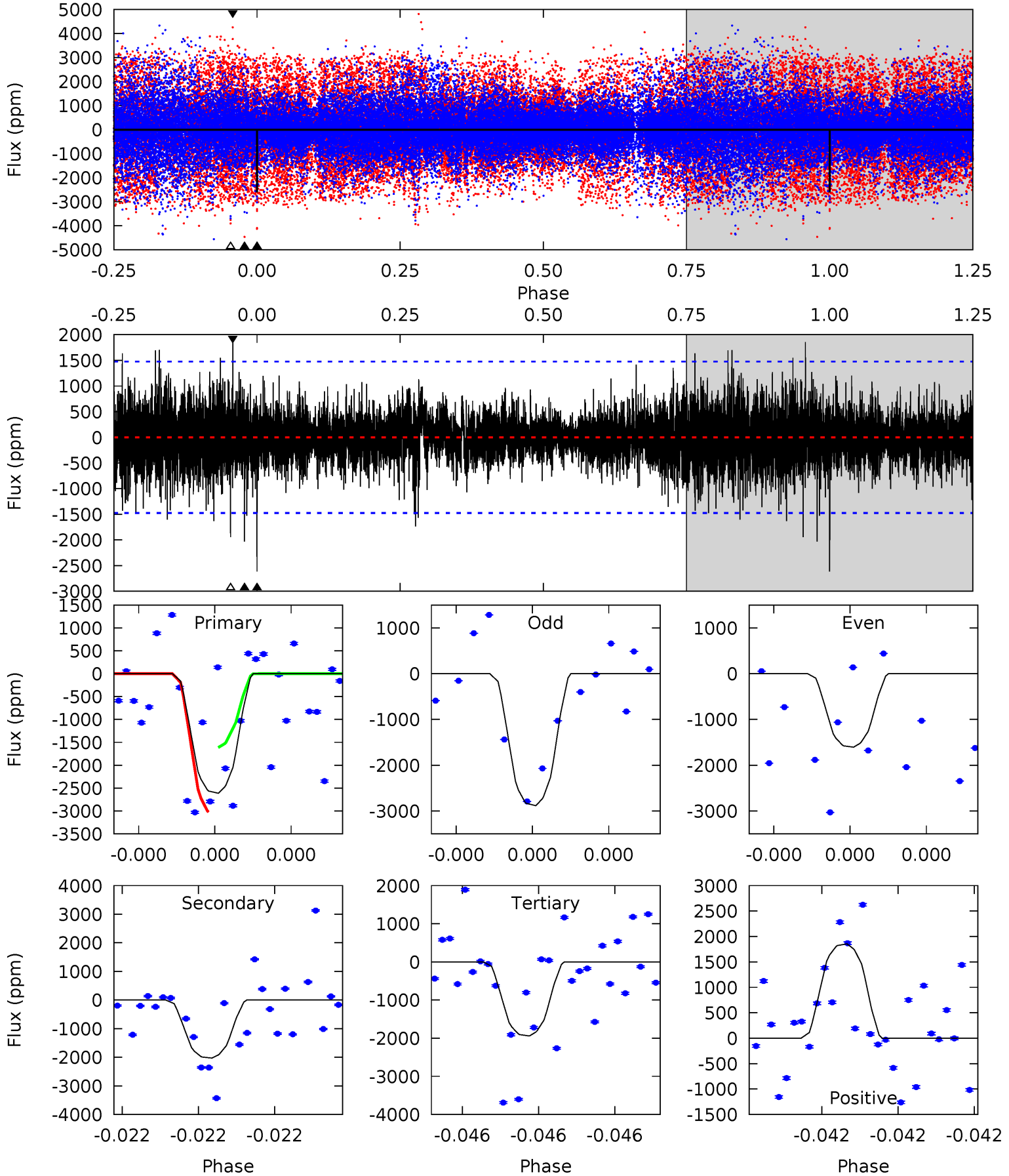
TCE 008183622-04 P=342.388181 Days $T_0=160.220133$ (BKJD)



DV Model-Shift Uniqueness Test

008183622-04, P = 342.393769 Days, E = 160.221681 Days

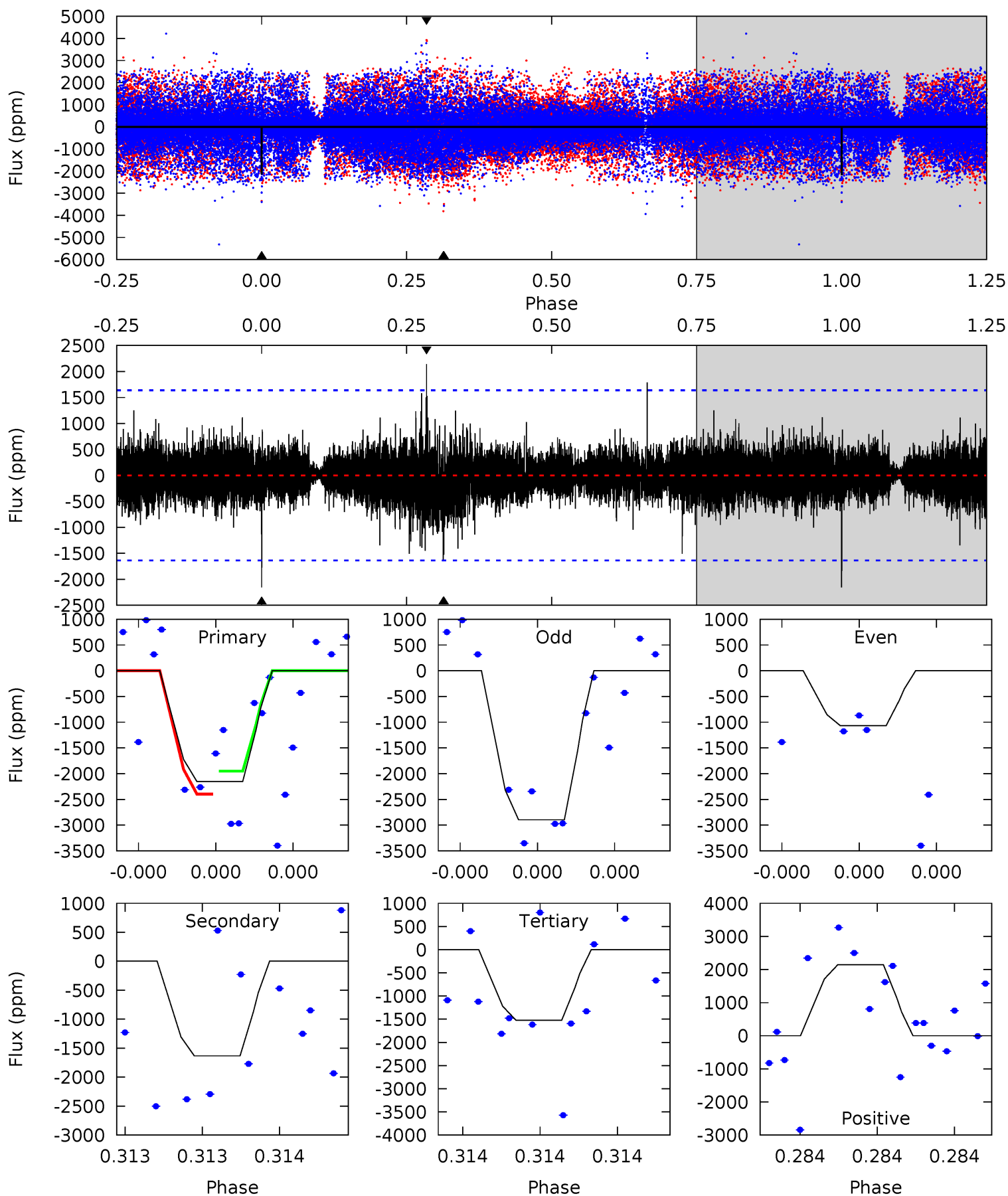
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.81	7.48	7.15	5.69	3.65	1.31	2.59	2.92	0.33	0.66	2.31	0.96	0.42	2.61



Alt Model-Shift Uniqueness Test

008183622-04, P = 342.388181 Days, E = 160.220133 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.59	5.76	5.37	7.55	5.77	3.78	0.93	2.22	0.03	0.39	-1.79	2.48	1.03	0.50	0.78



Stellar Parameters For KIC 008183622

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+86%/-14%
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 008183622-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2027 ± 259	$5379.37^{+5927.60}_{-3719.37}$	2472^{+102}_{-144}	-2439^{+4631}_{-117}	$0.040^{+0.351}_{-0.031}$
Alt.	-1634 ± 284	$5541.22^{+6225.98}_{-3699.66}$	2471^{+107}_{-136}	-2458^{+545}_{-104}	$0.031^{+0.241}_{-0.024}$

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 $A_{obs} \gg 1.0$

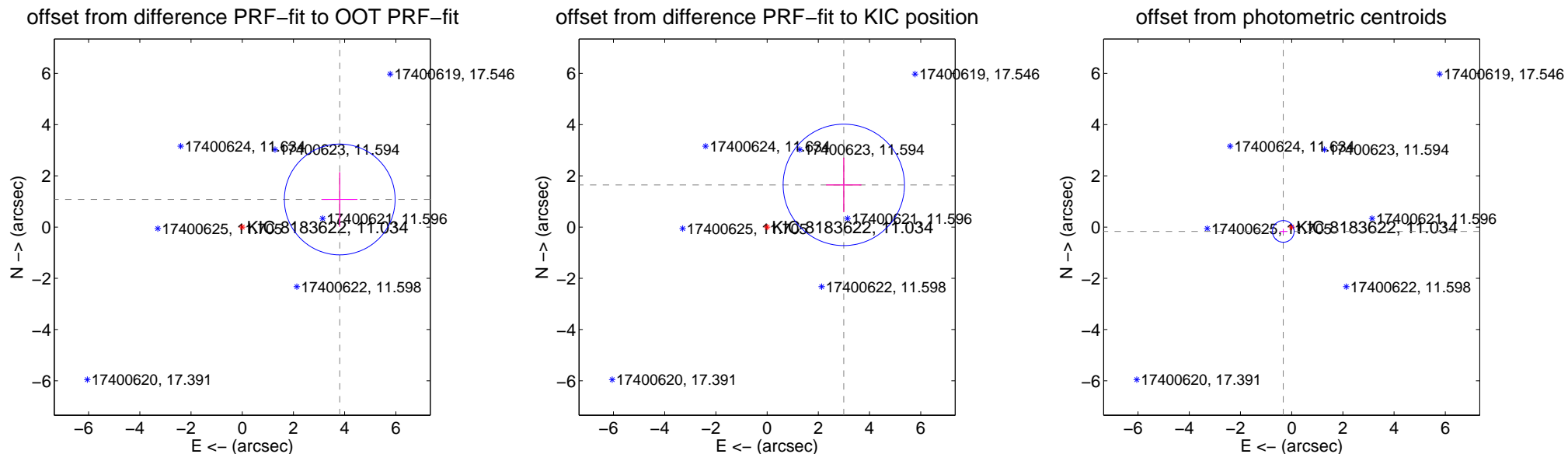
DV Centroid Data

Supplemental centroid analysis for 008183622-04. **Kepler magnitude: 11.03.** Transit SNR 19.43

There are 0 quarters with good PRF difference image offsets

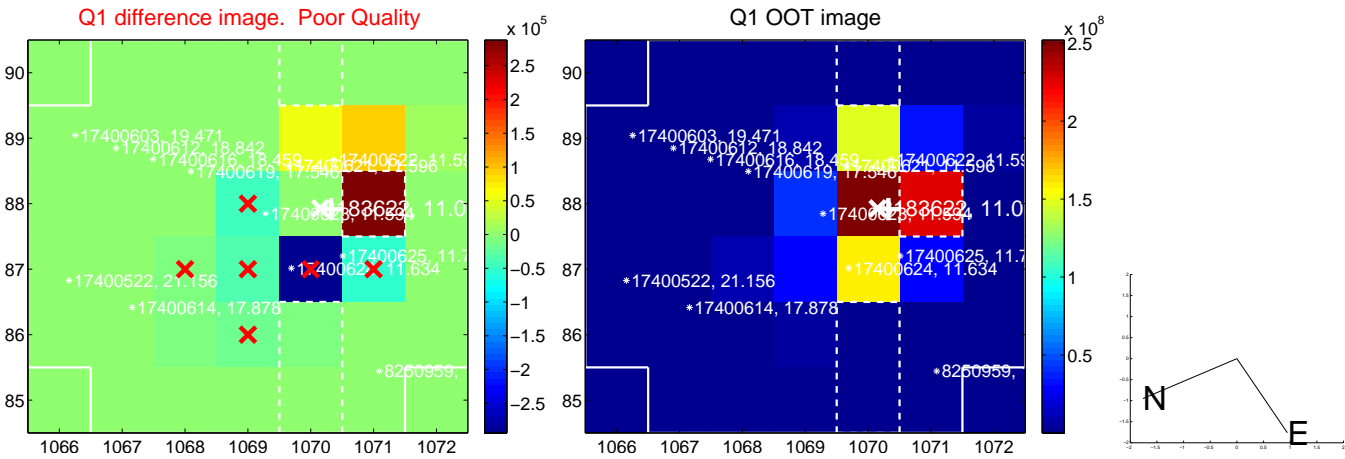
The direct PRF centroid is offset from the target star catalog position by about 0.99 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.958 ± 0.721	5.49	-3.808 ± 0.686	1.078 ± 1.063
PRF-fit source offset from KIC position	3.419 ± 0.790	4.33	-2.996 ± 0.686	1.647 ± 1.063
photometric centroid source offset	0.37 ± 0.14	2.61	0.33 ± 0.15	-0.17 ± 0.11



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.

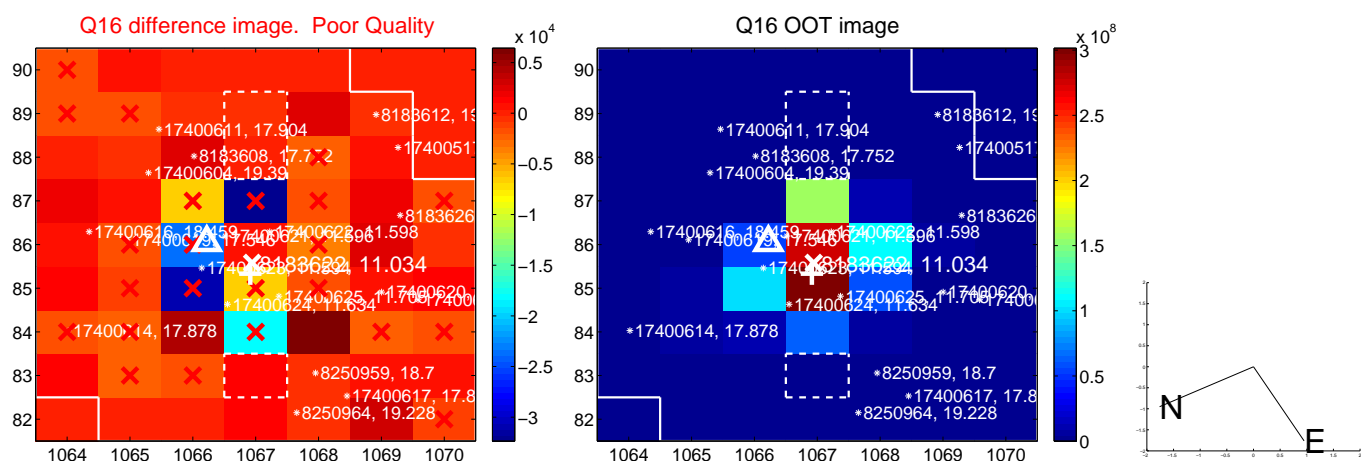
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

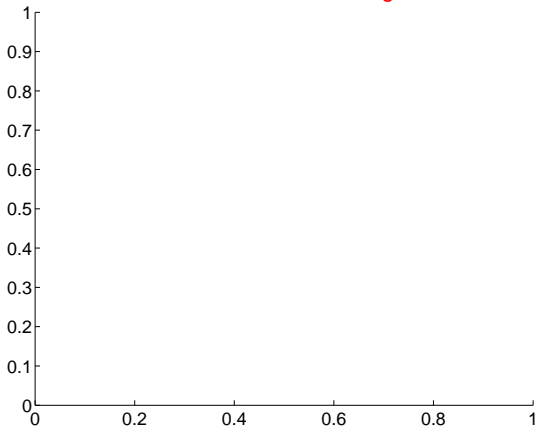


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value

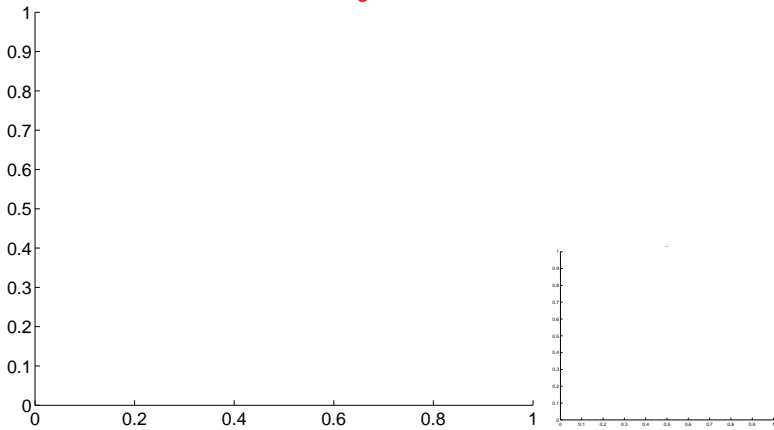


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

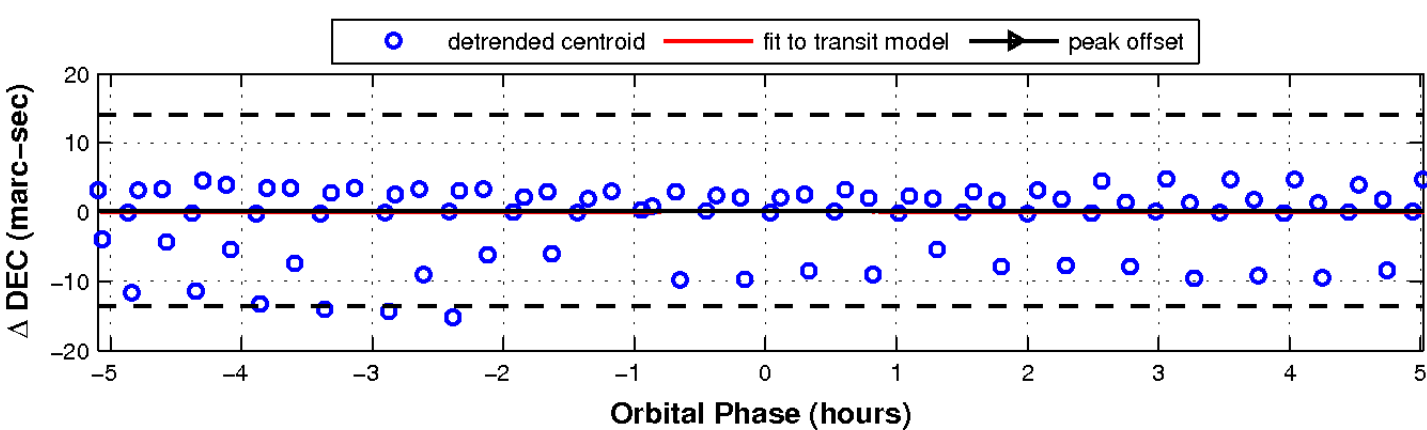
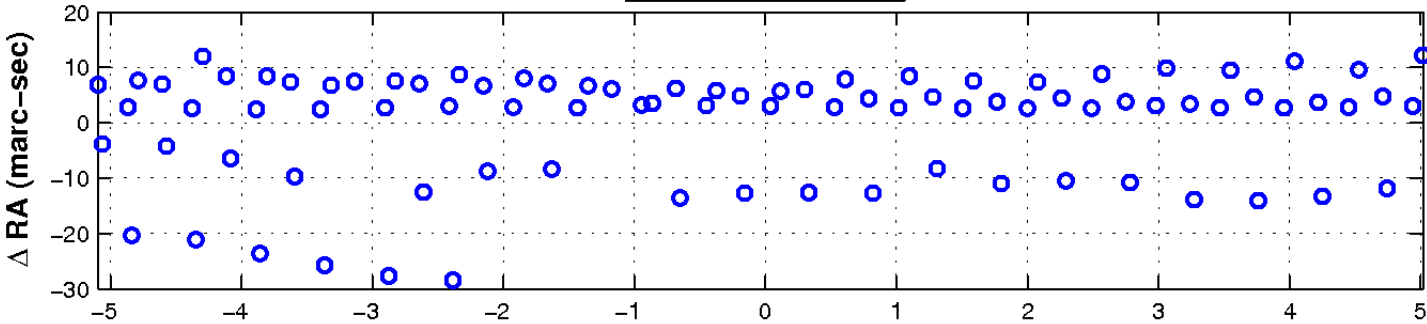
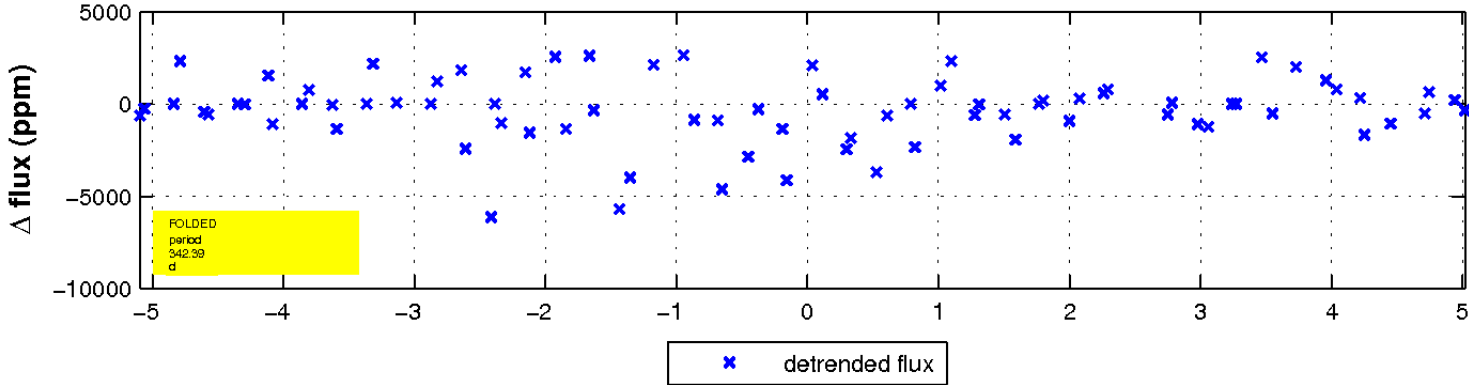
Q17 no difference image



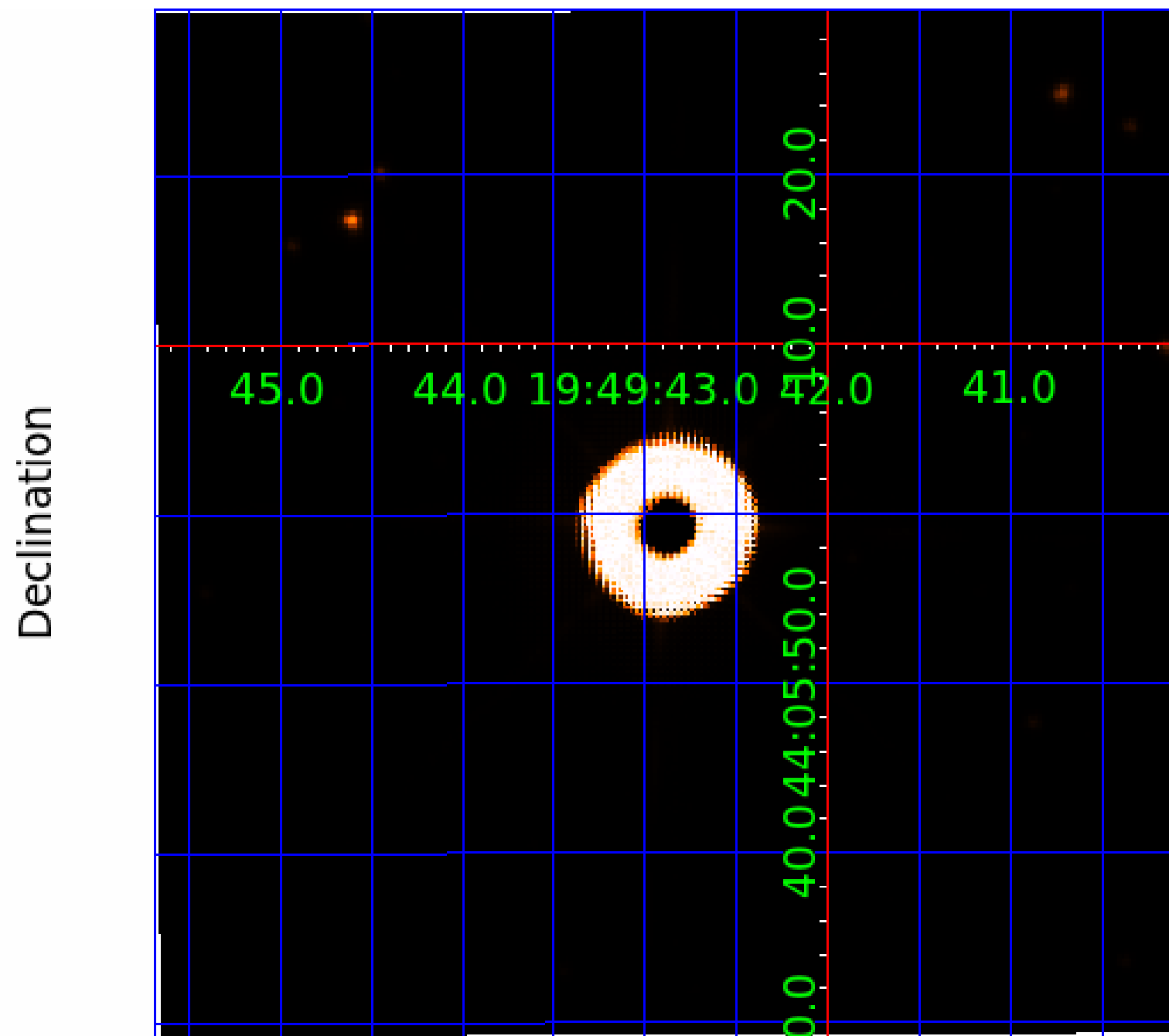
Q17 no OOT image



fluxWeightedCentroids, Planet 4 of 5



UKIRT Image



KIC 008183622

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183622-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
008183622-05	OBS	FP	0.00	1	0	1	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—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.

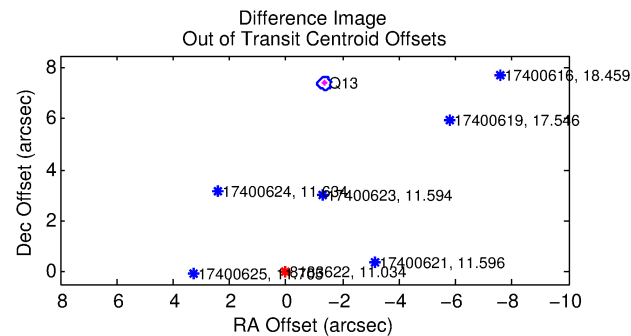
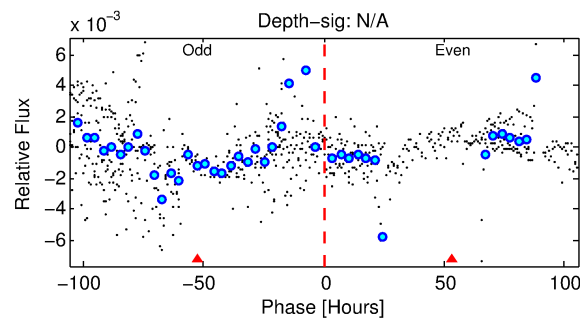
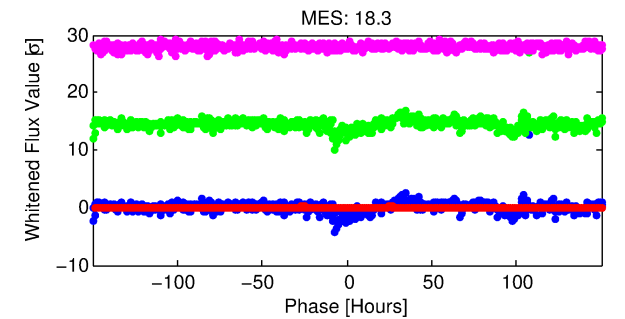
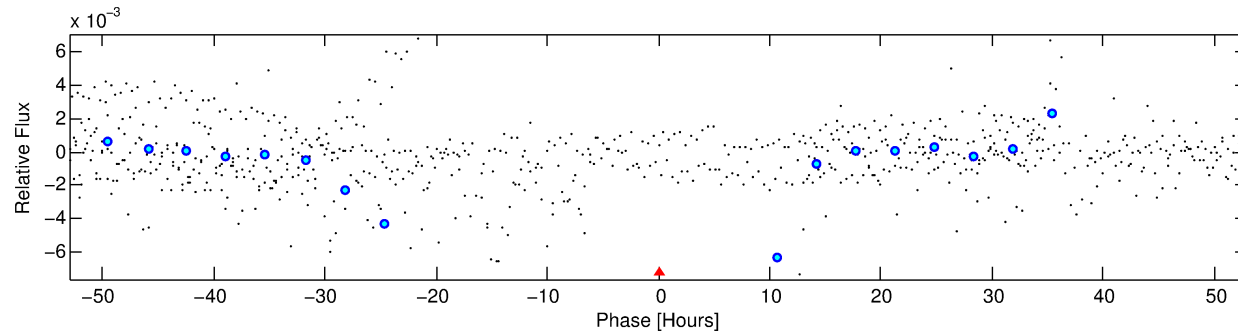
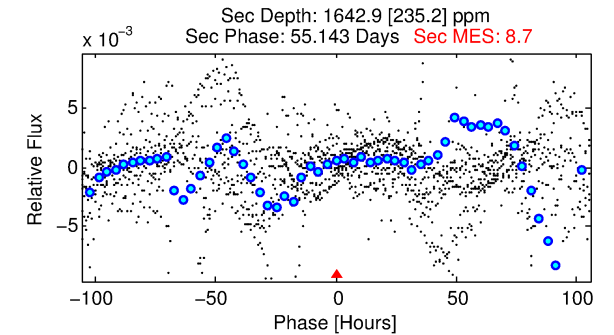
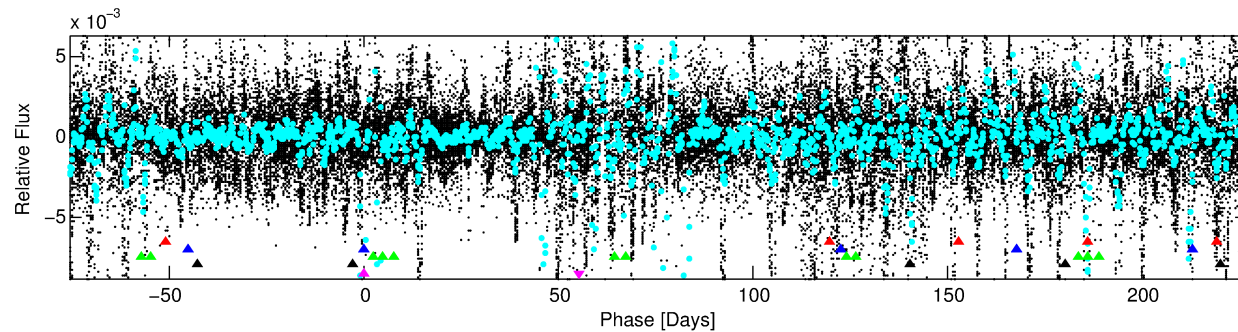
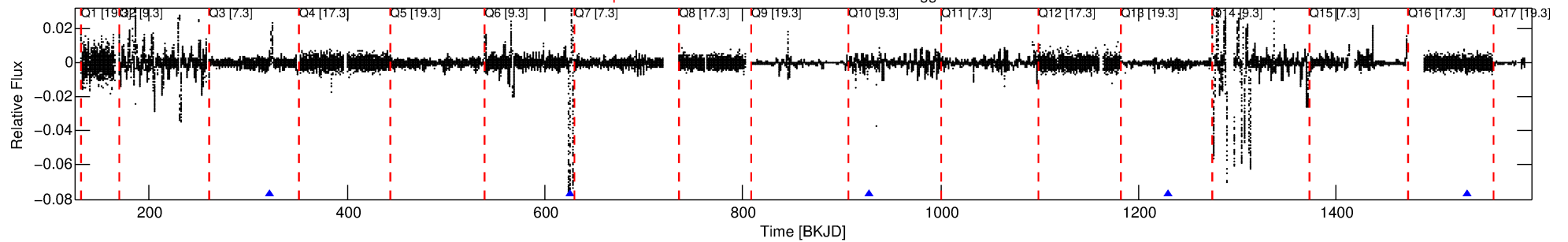
Ephemeris Match Information For 008183622-05

No Significant Match Found

DV One-Page Summary

KIC: 8183622 Candidate: 5 of 5 Period: 302.607 d

Kp: 11.03 R*: 153.06 Rs Teff: 3286.0 K Logg: 0.12 Fe/H: -0.080



TPS TCE Results:

Period = 302.60740 d
Epoch = 321.8837 BKJD

DV fit results are unavailable

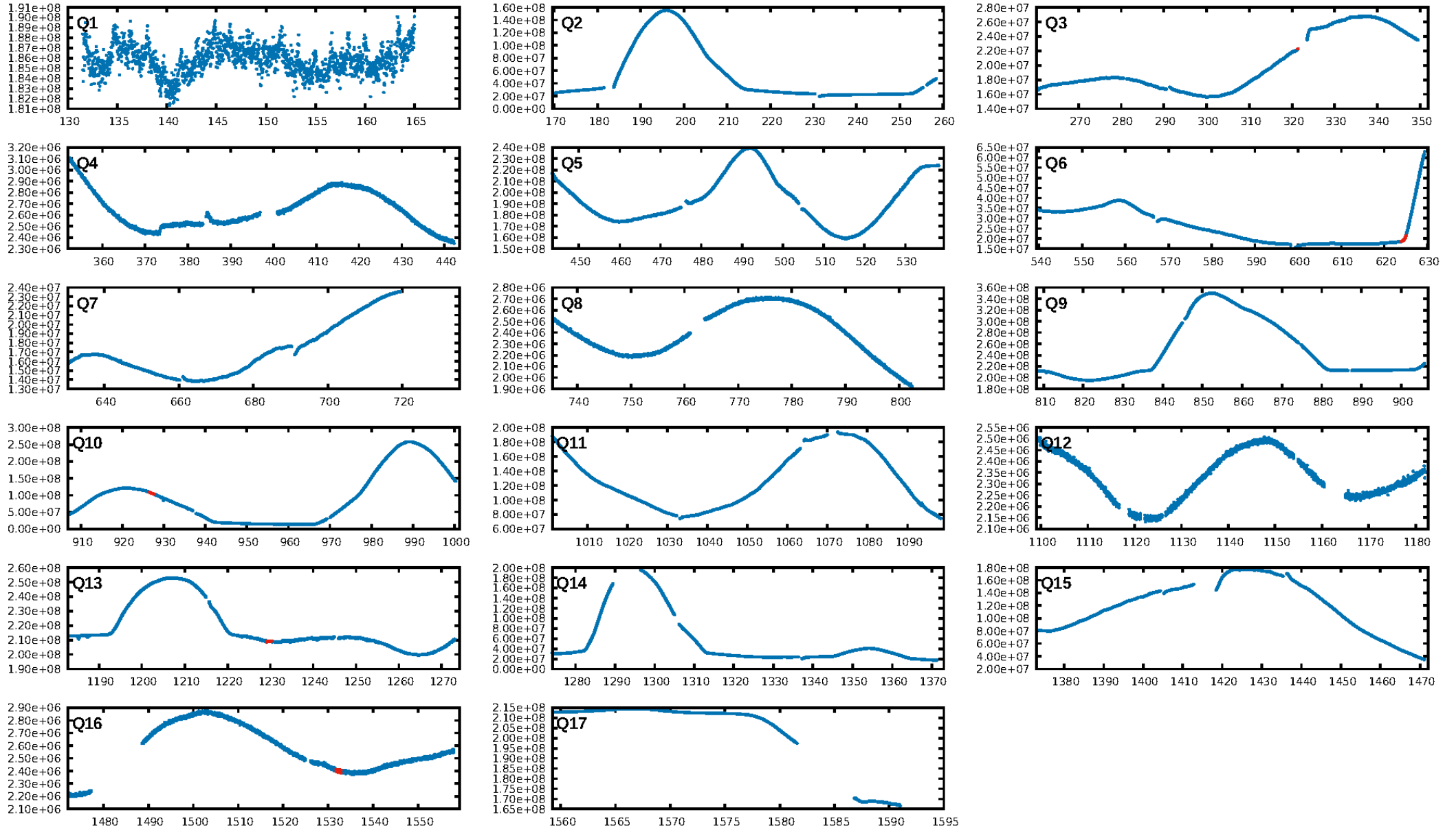
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [326.62σ]
LongPeriod-sig: 100.0% [62.97σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.1922
Centroid-sig: N/A
Centroid-so: 1.558 arcsec [0.51σ]
OotOffset-rm: 7.526 arcsec [92.85σ]
KicOffset-rm: 6.401 arcsec [78.69σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

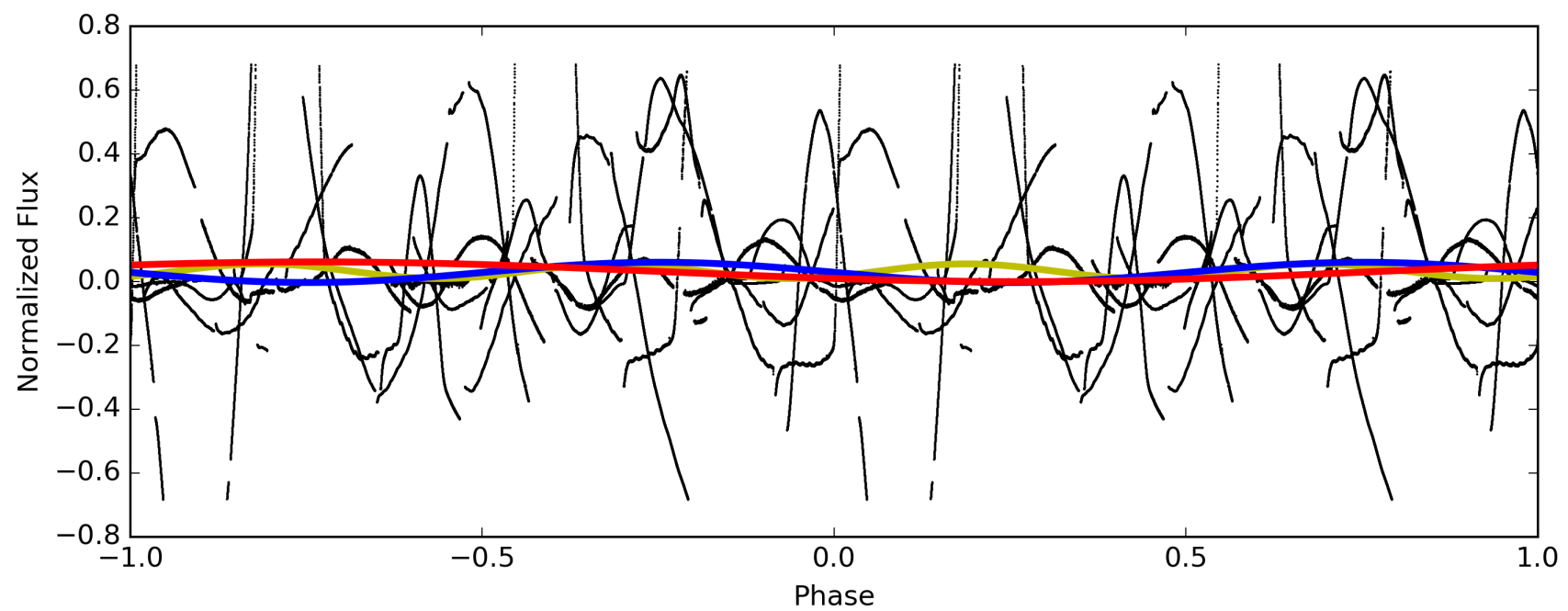
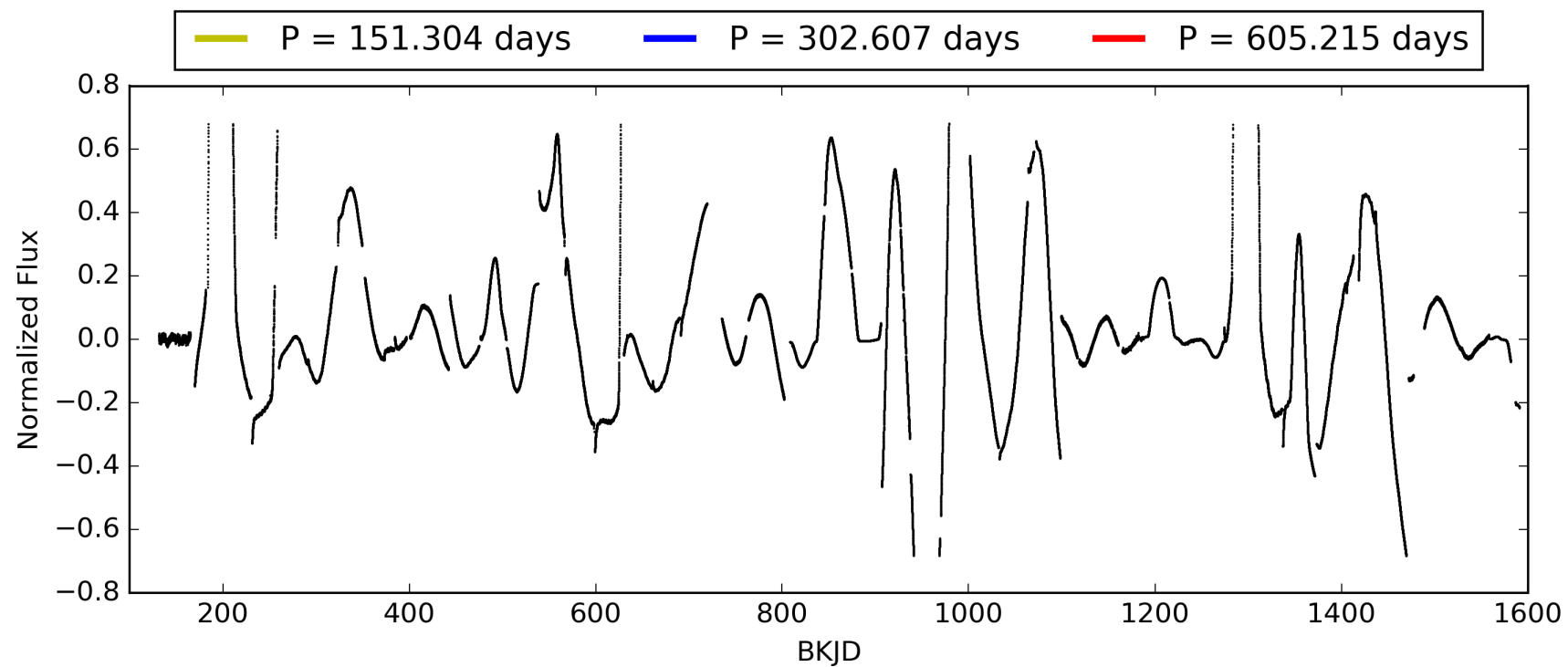
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:01:43 Z

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

TCE 008183622-05, PDC Light Curves

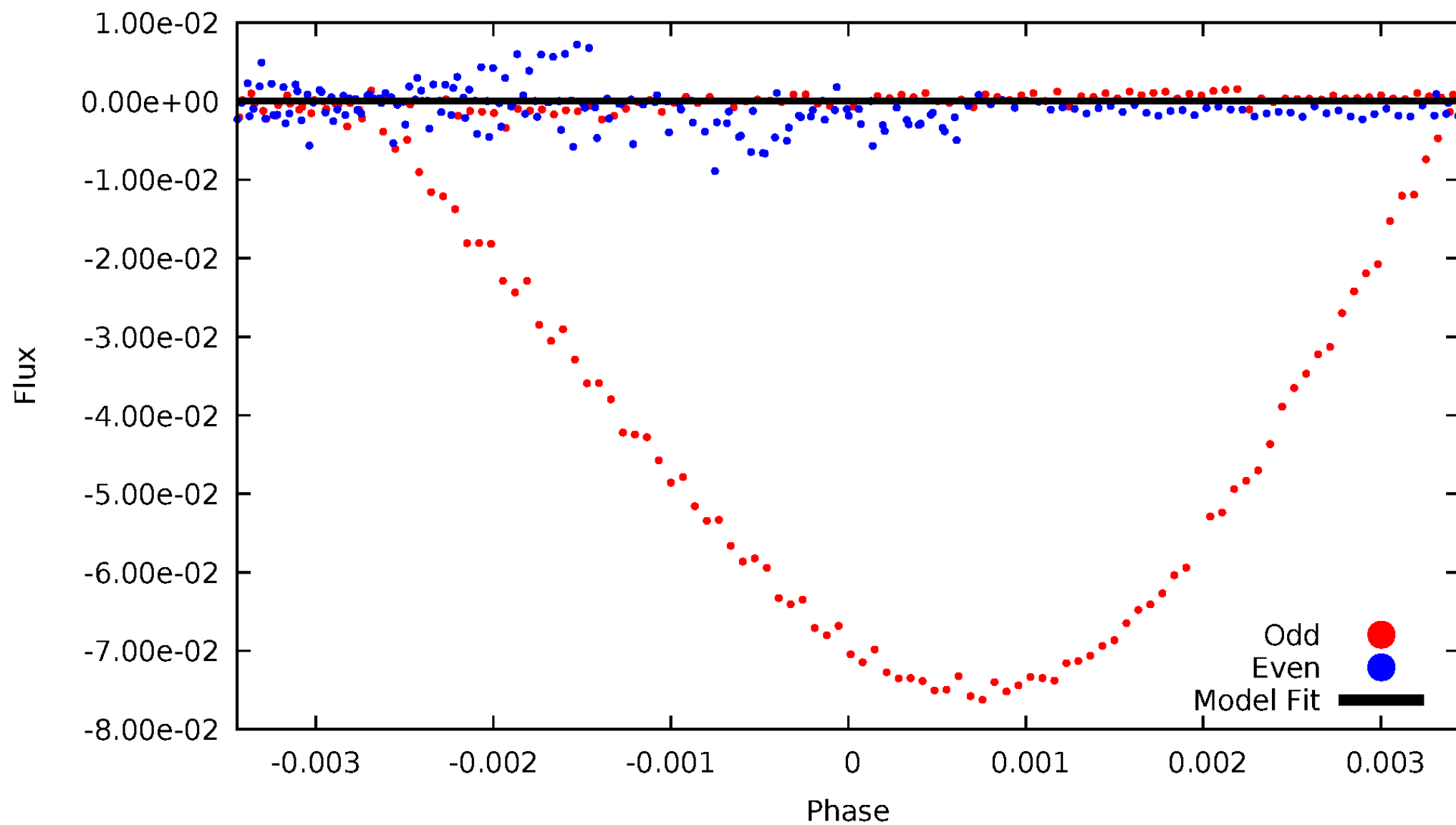


TCE 008183622-05



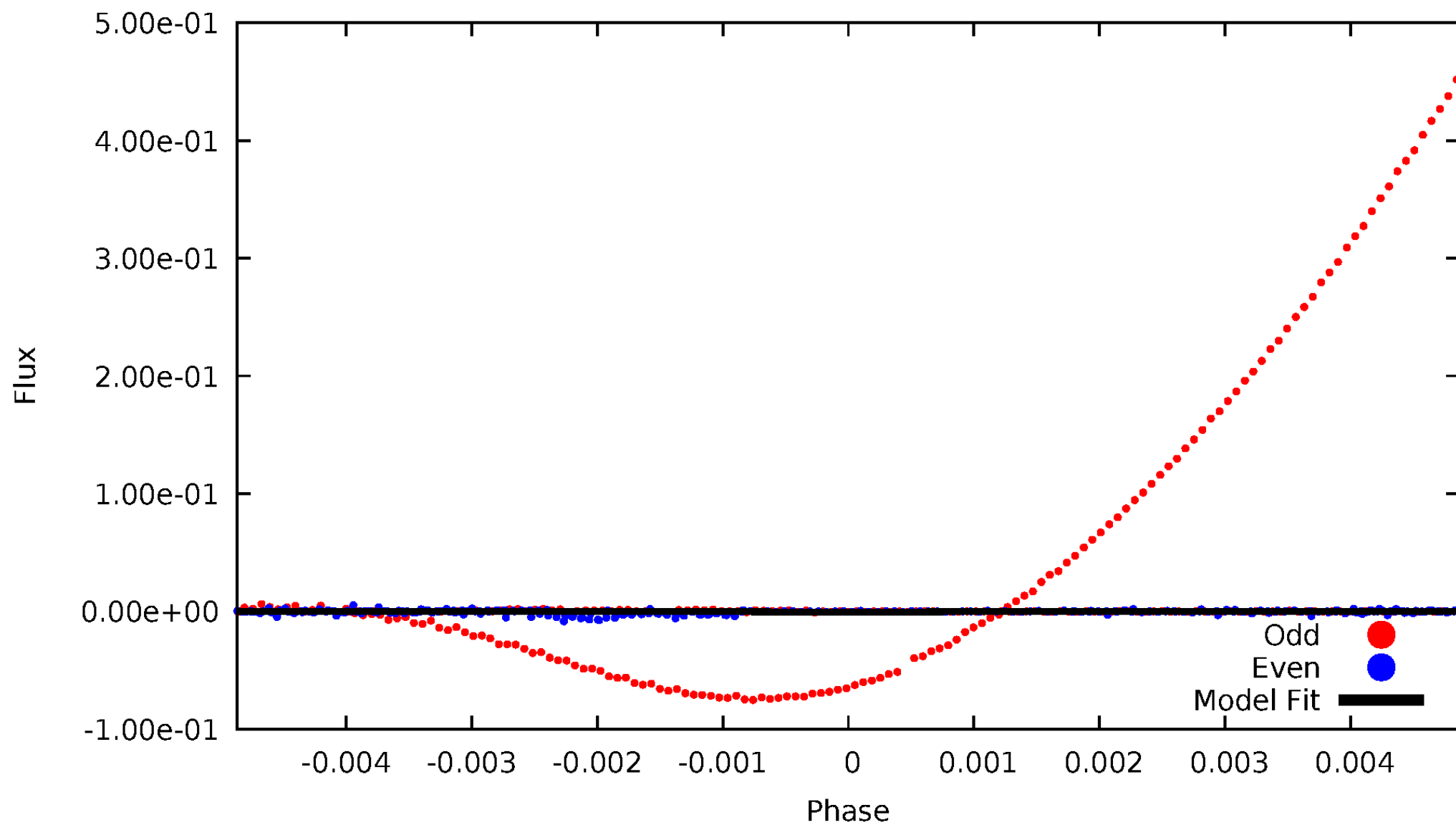
DV Odd/Even

TCE 008183622-05



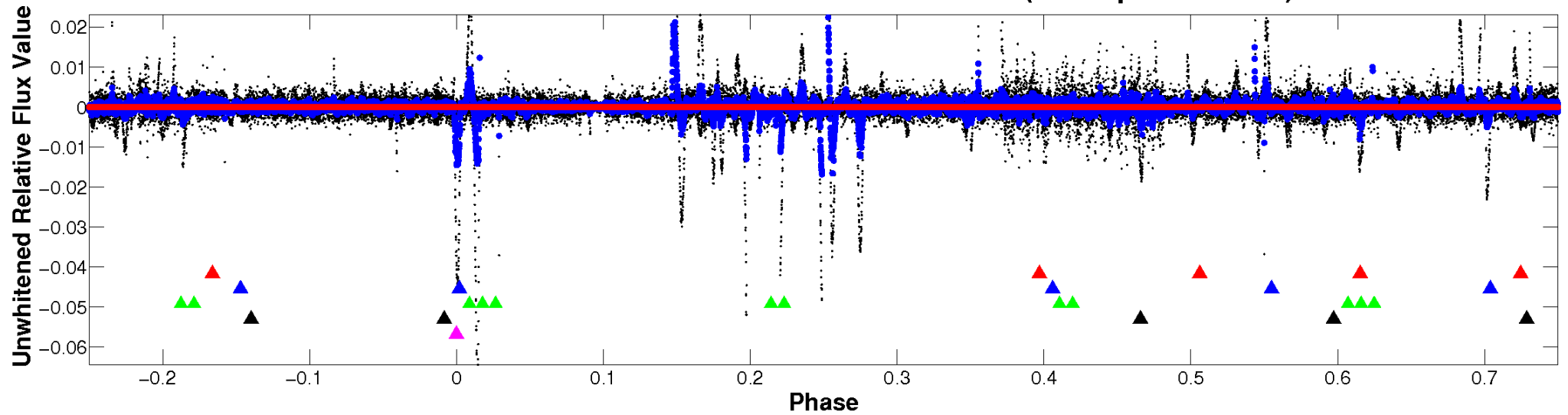
ALT Odd/Even

TCE 008183622-05



Non-Whitened Vs. Whitened Light Curve

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

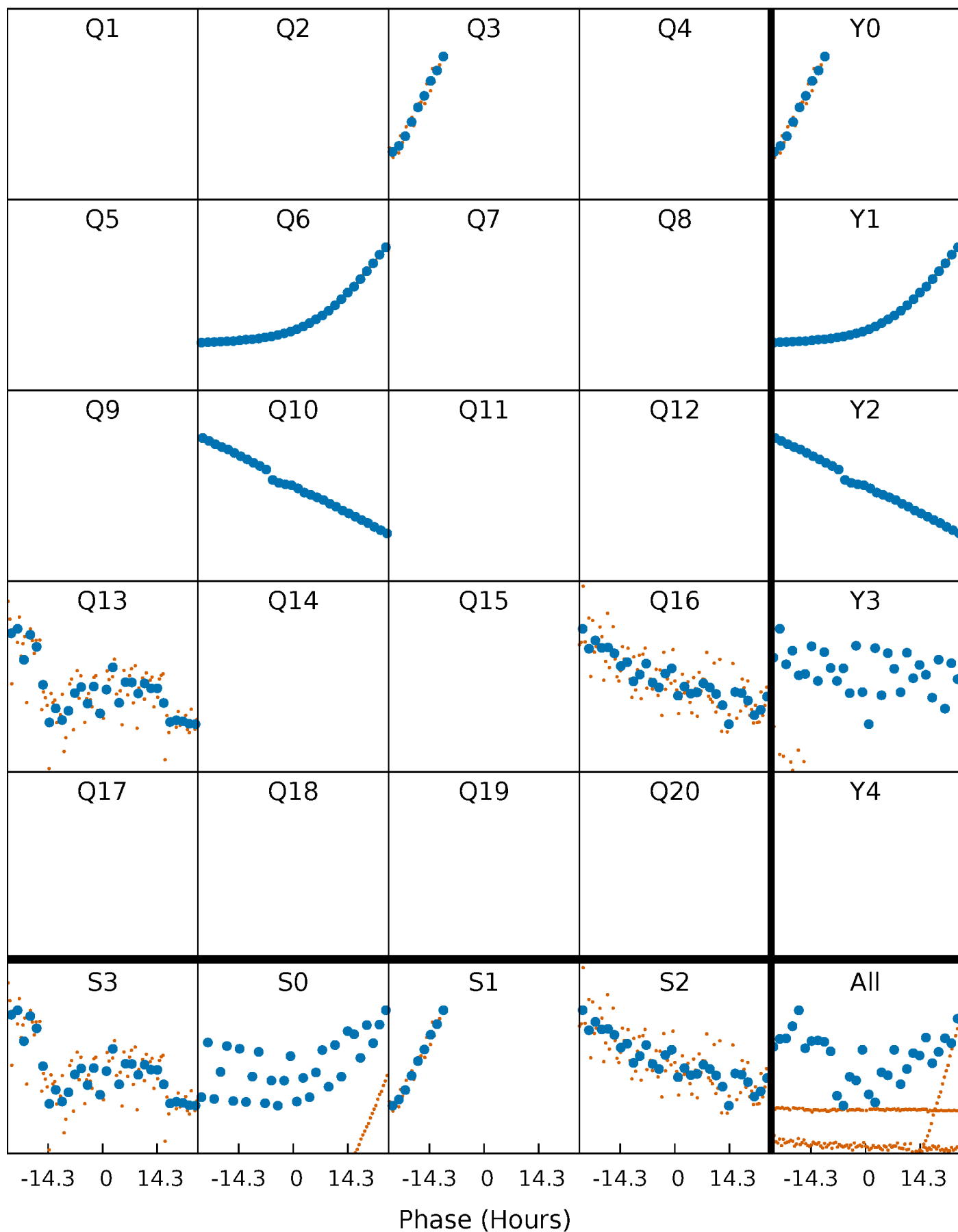


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



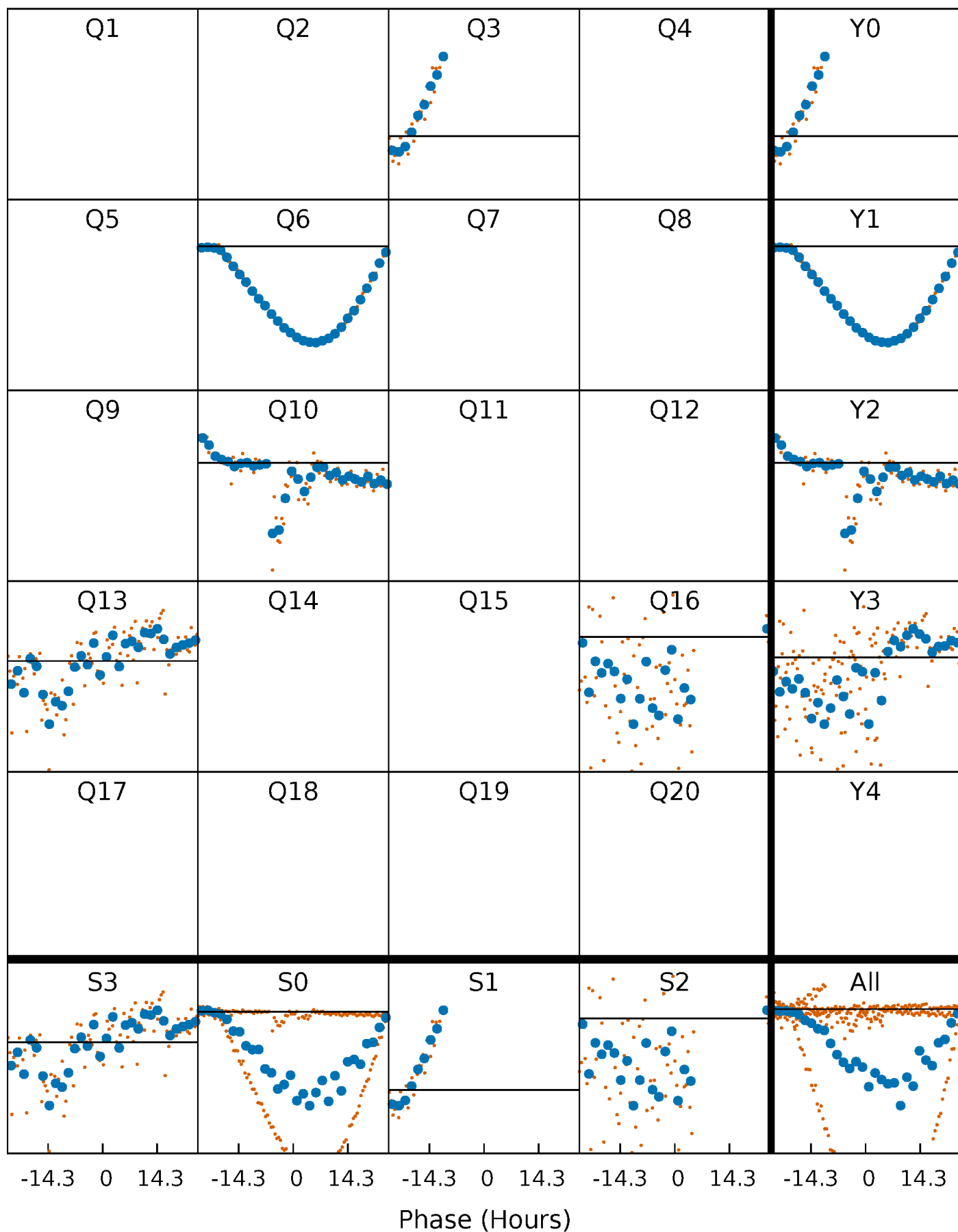
PDC Quarter-Phased Transit Curves

TCE 008183622-05 $P=302.607401$ Days $T_0=321.883661$ (BKJD)



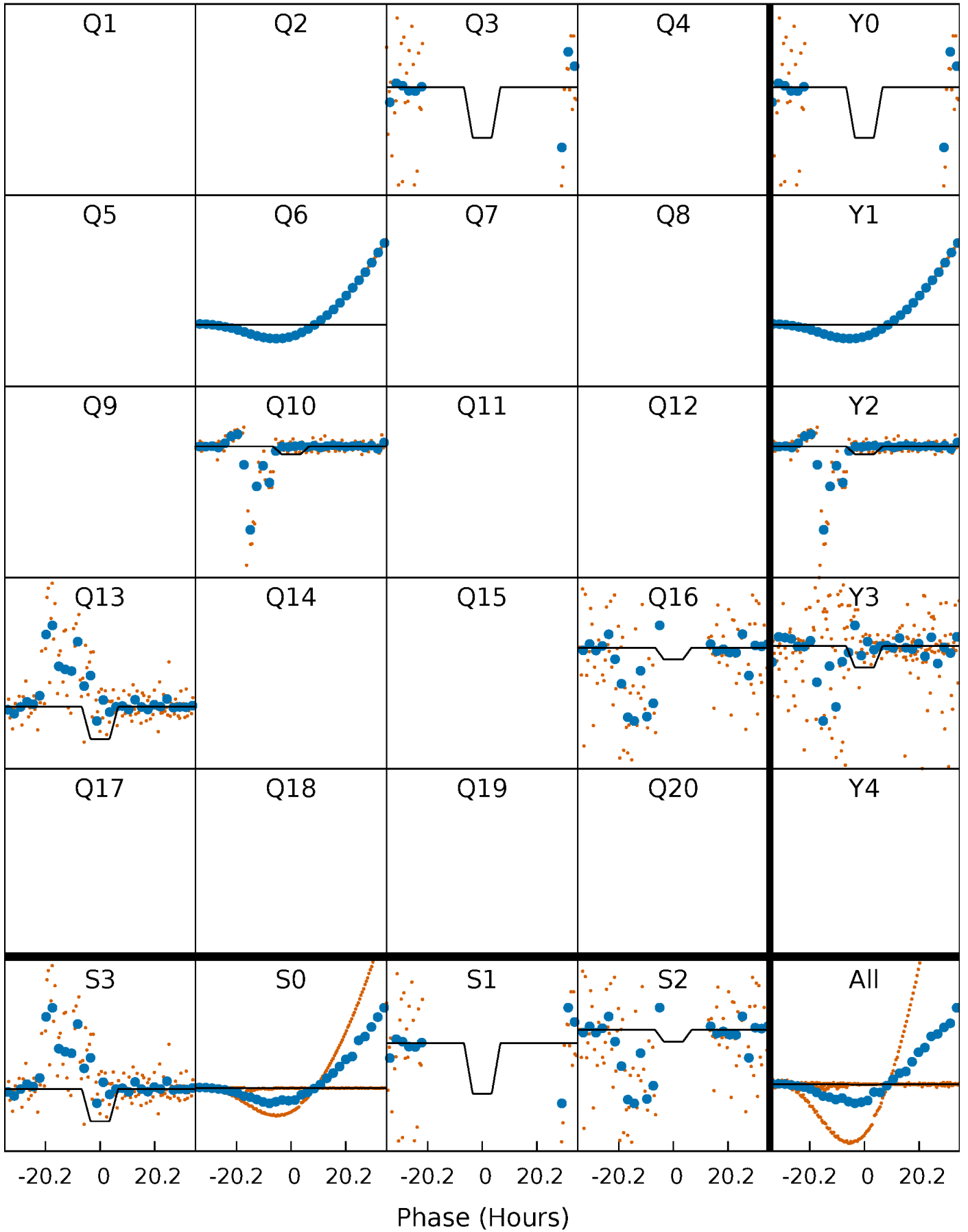
DV Quarter-Phased Transit Curves

TCE 008183622-05 $P=302.607401$ Days $T_0=321.883661$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

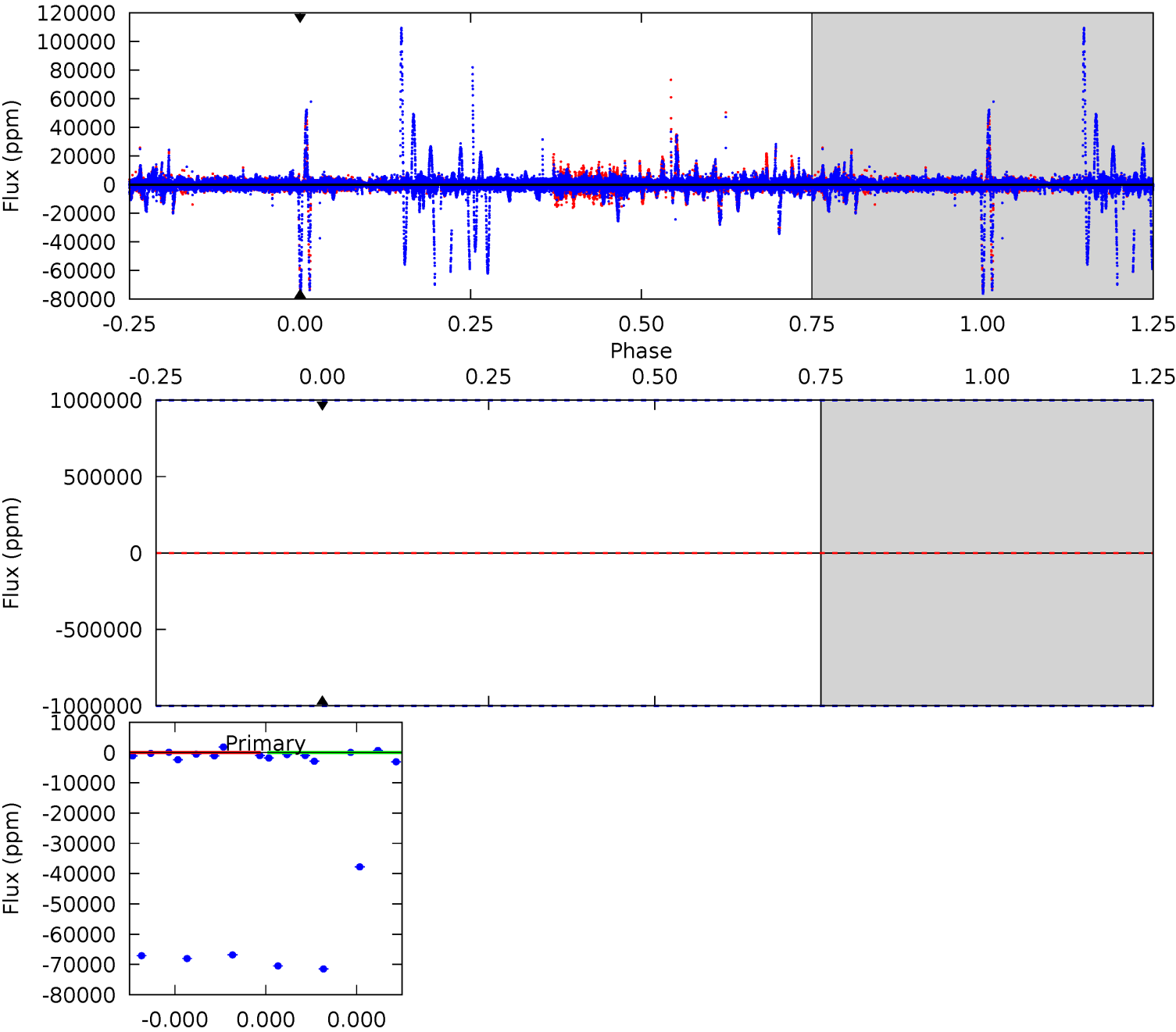
TCE 008183622-05 $P=302.607401$ Days $T_0=322.341951$ (BKJD)



DV Model-Shift Uniqueness Test

008183622-05, P = 302.607401 Days, E = 19.276260 Days

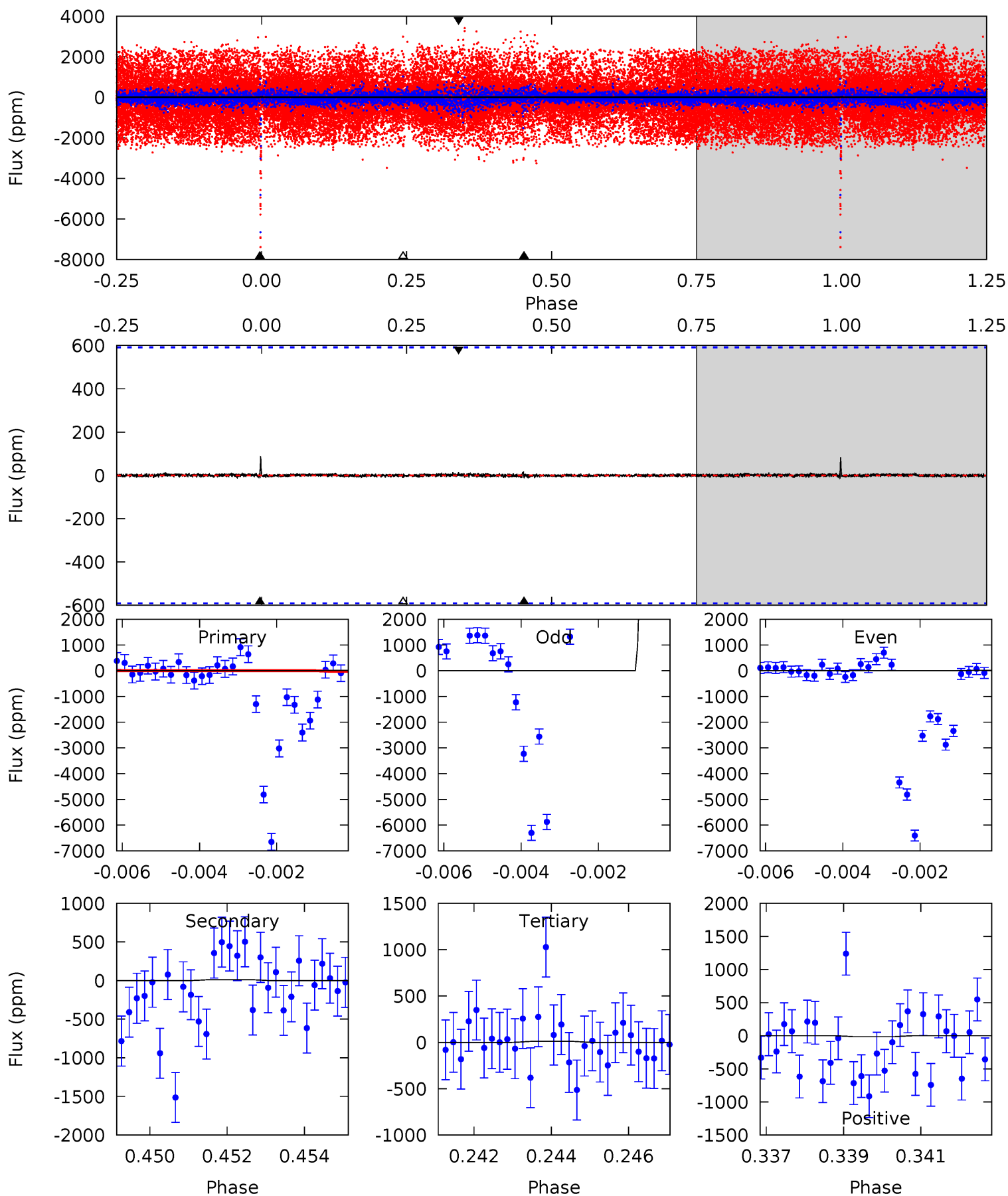
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008183622-05, P = 302.607401 Days, E = 19.734550 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.12	0.11	0.10	0.12	5.34	3.11	0.02	0.01	-0.01	0.01	-0.01	10.8	-294.6	0.87	0



Stellar Parameters For KIC 008183622

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+86%/-14%
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 008183622-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$1250.46^{+1353.28}_{-852.16}$	2576^{+119}_{-137}	-2967^{+9582}_{-3163}	$-0.523^{+61.101}_{-44.052}$
Alt.	-12 ± 111	$1209.58^{+1308.59}_{-866.32}$	2555^{+127}_{-139}	-2557^{+172}_{-137}	$0.002^{+0.096}_{-0.049}$

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 $A_{obs} \gg 1.0$

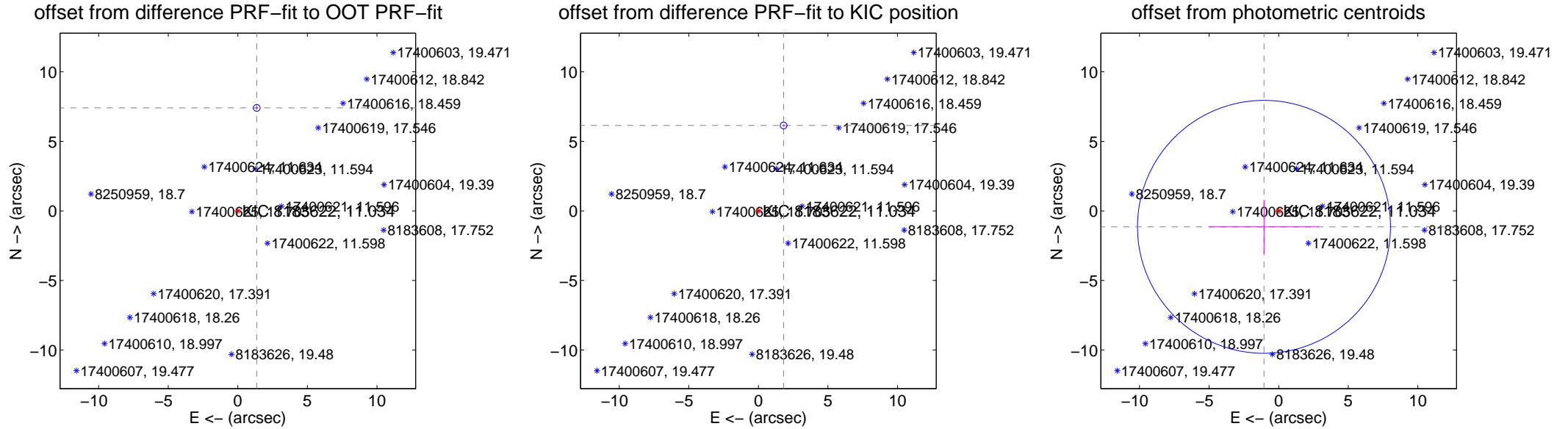
DV Centroid Data

Supplemental centroid analysis for 008183622-05. **Kepler magnitude: 11.03.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.526 \pm 0.081	92.85	-1.360 \pm 0.087	7.402 \pm 0.081
PRF-fit source offset from KIC position	6.401 \pm 0.081	78.69	-1.813 \pm 0.087	6.139 \pm 0.081
photometric centroid source offset	1.56 \pm 3.03	0.51	1.06 \pm 3.94	-1.15 \pm 1.94



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.

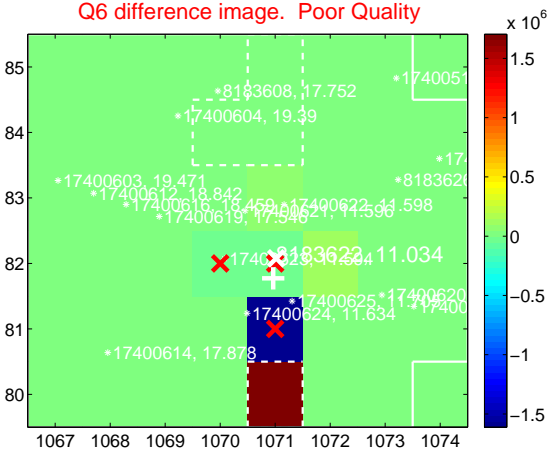
Q5 no difference image



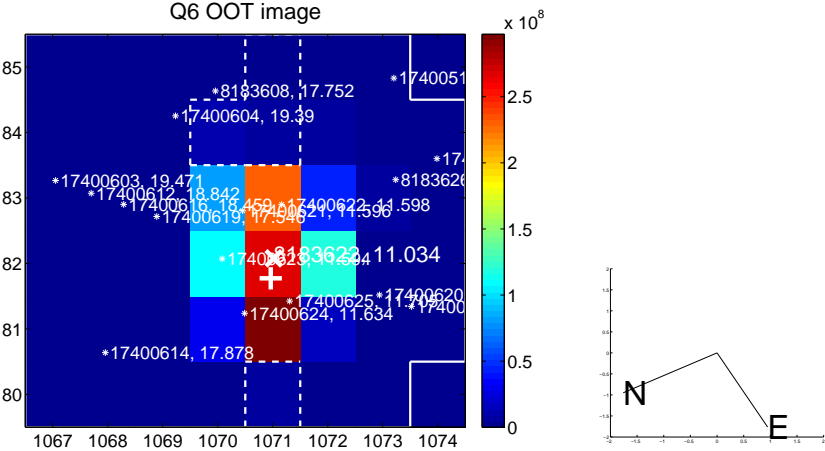
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



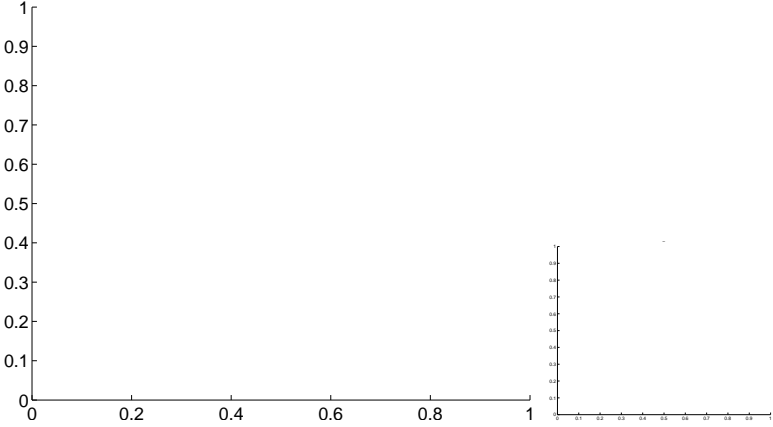
Q7 no OOT image



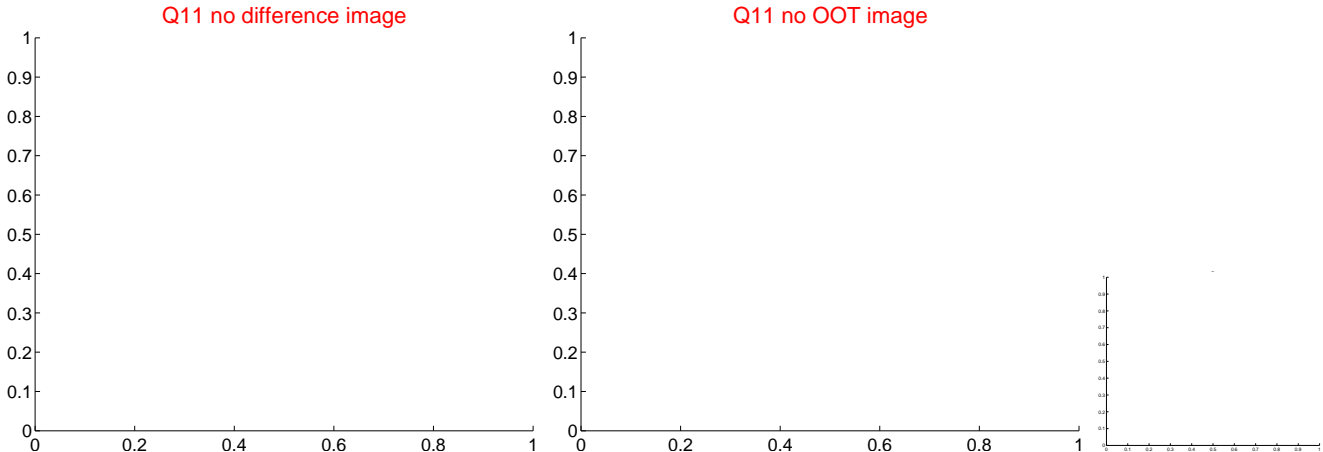
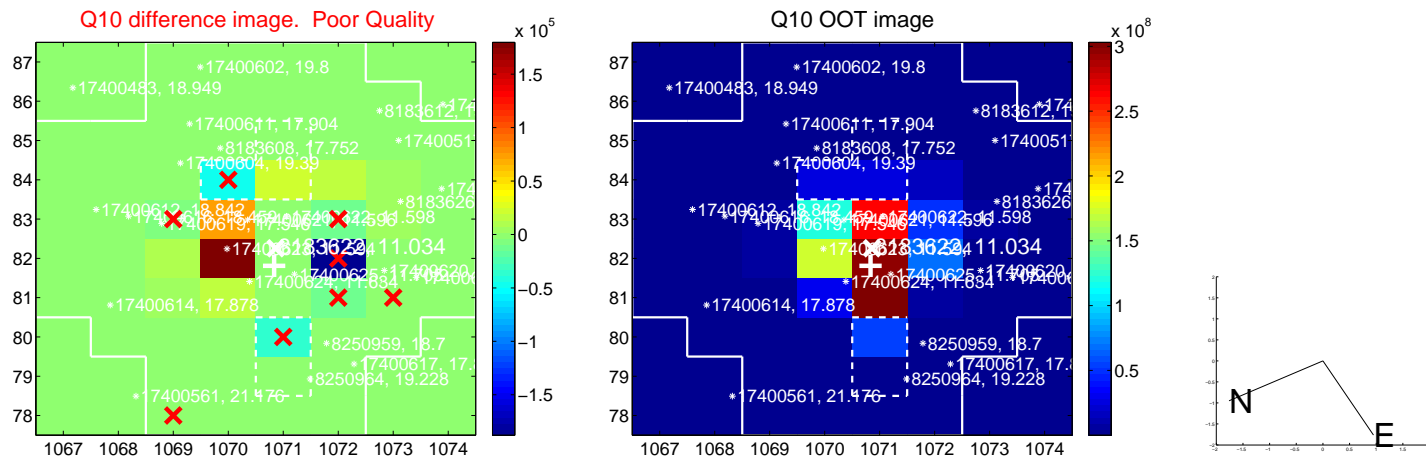
Q8 no difference image



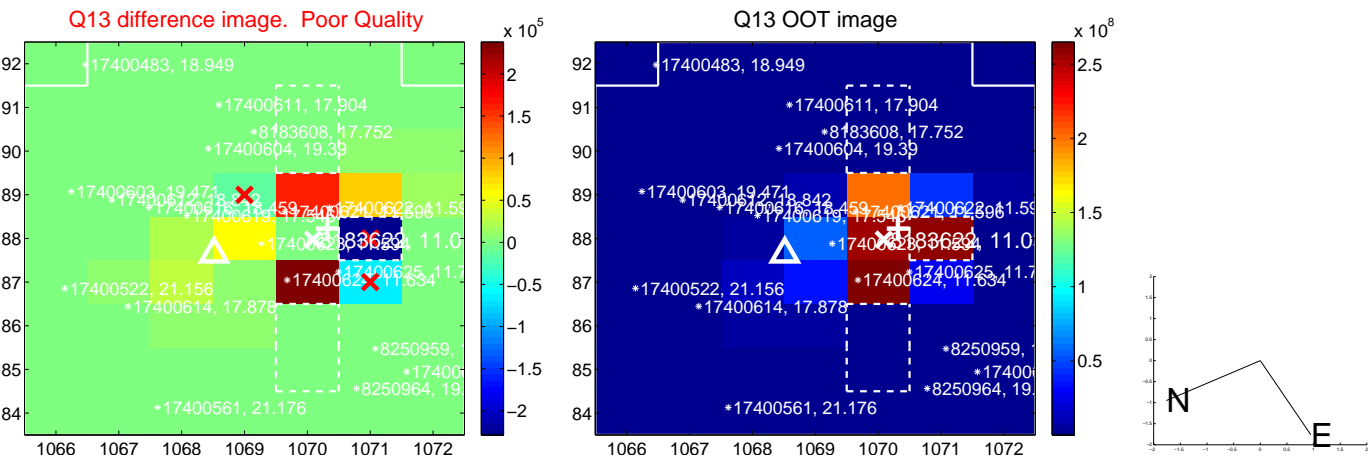
Q8 no OOT image



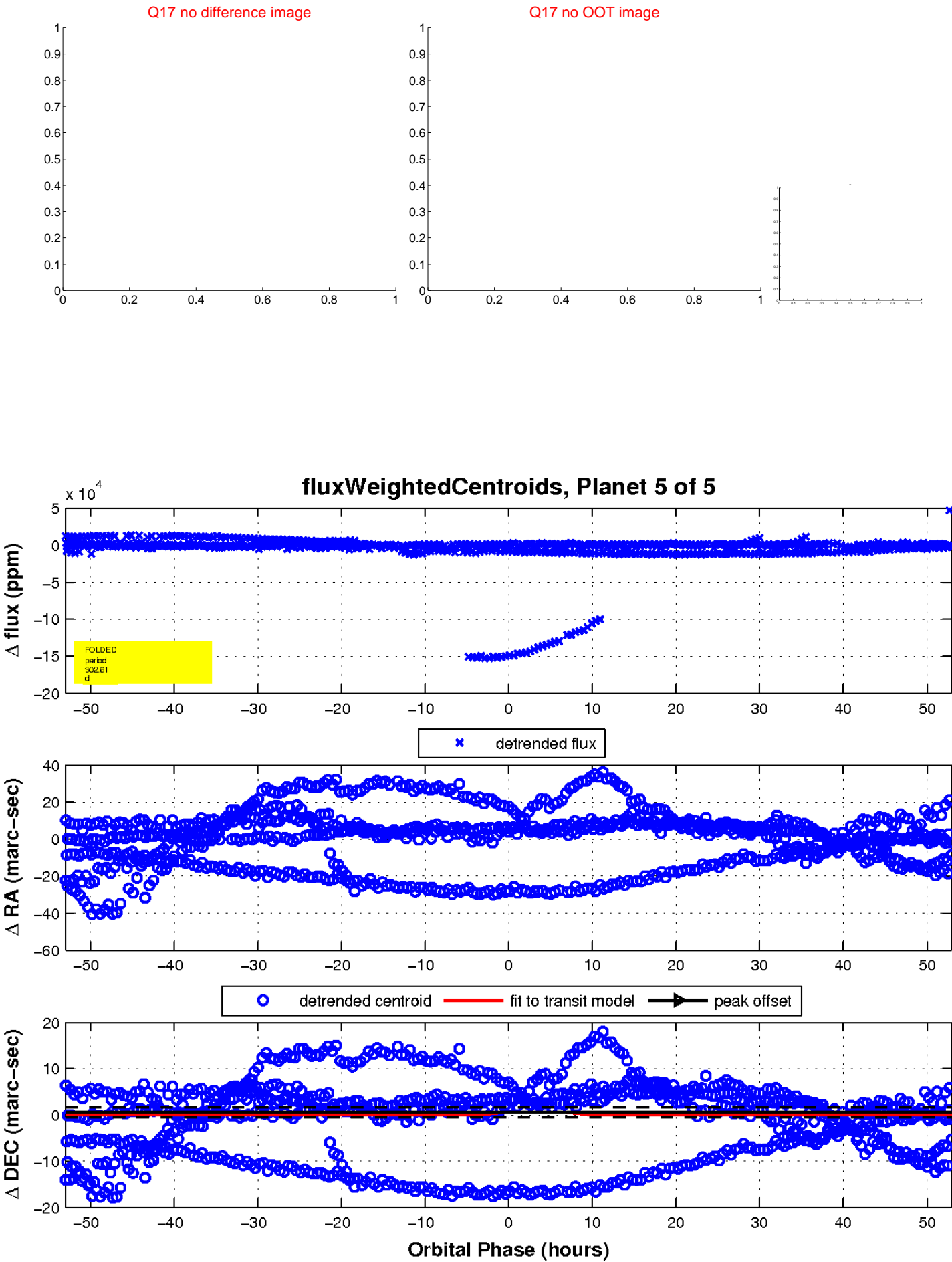
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

