

KIC 008316195

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})
008316195-01	OBS	No	586.306948	343.151592	265.7	6.000	14.3	-1.0	1.54	7230	2.55	2.44
008316195-02	OBS	No	616.647407	277.325402	1168.6	4.780	13.5	13.9	1.54	7230	8.86	2.29
008316195-03	OBS	No	1.754547	132.114952	50.1	7.112	12.1	11.3	1.54	7230	1.23	5668.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008316195-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008316195-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008316195-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

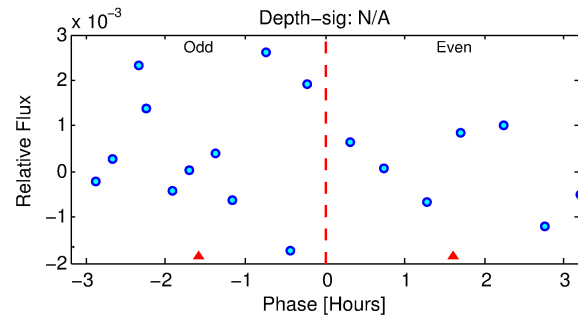
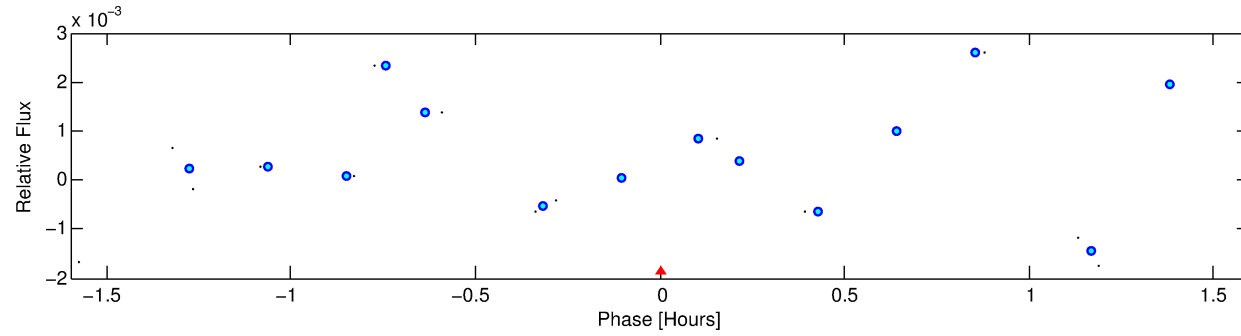
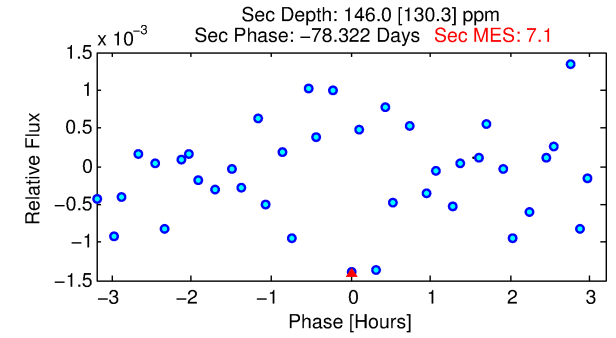
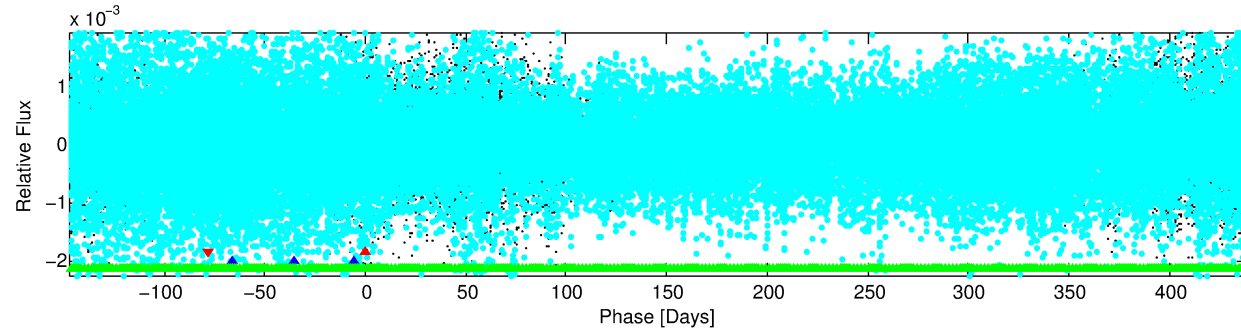
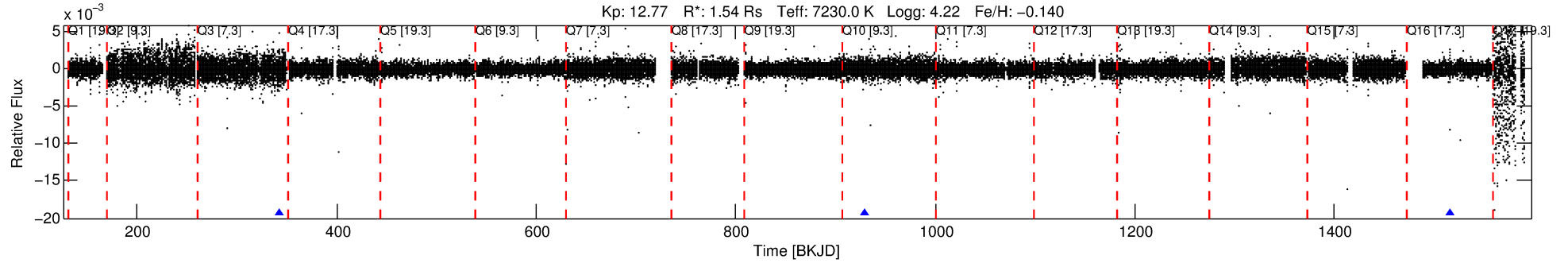
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008316195-01

No Significant Match Found

DV One-Page Summary

KIC: 8316195 Candidate: 1 of 3 Period: 586.307 d



TPS TCE Results:

Period = 586.30695 d
Epoch = 343.1516 BKJD

DV fit results are unavailable

DV Diagnostic Results:

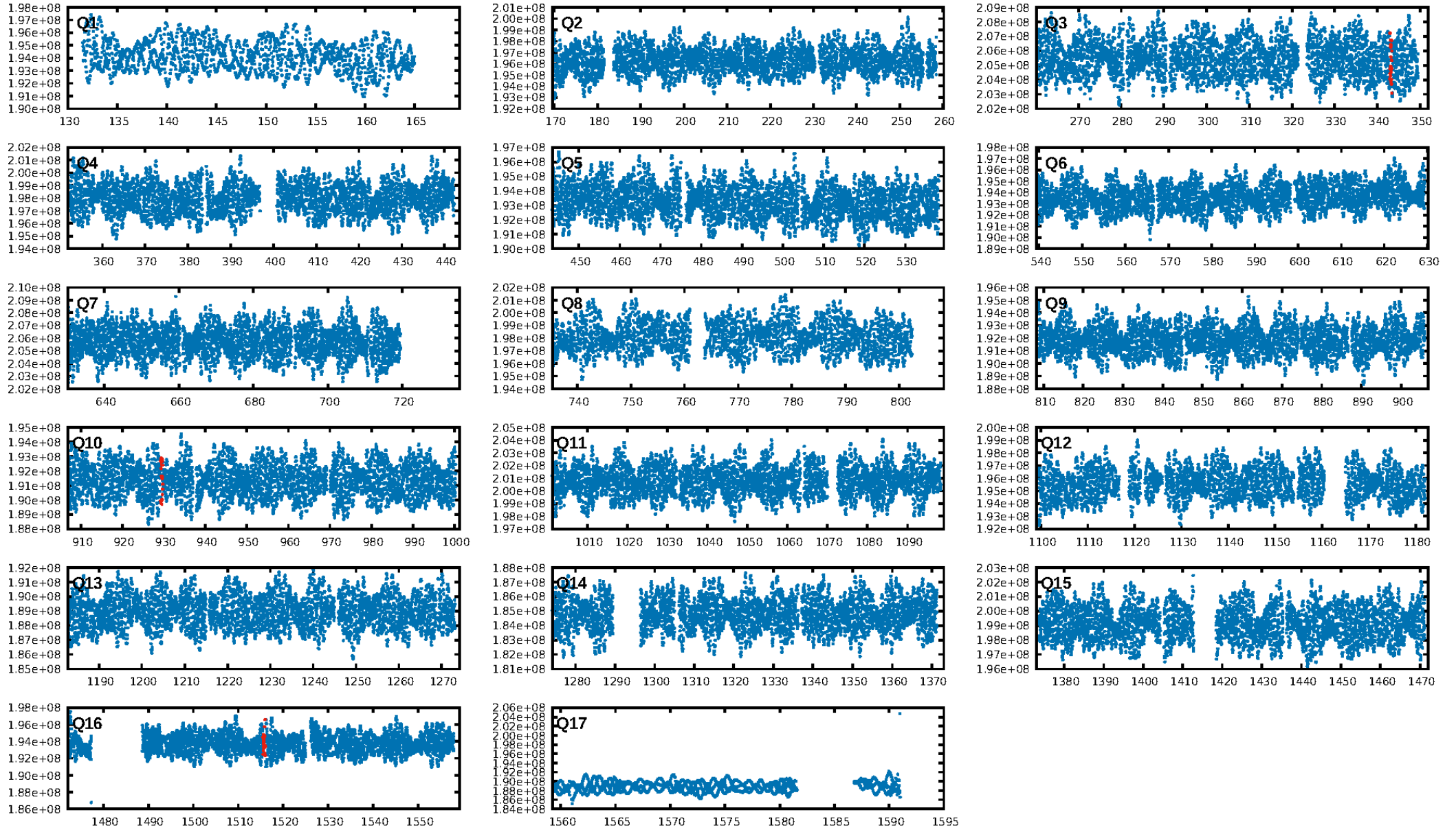
ShortPeriod-sig: 100.0% [1507.72 σ]
LongPeriod-sig: 100.0% [94.92 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.91e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.126

Centroid-sig: 59.3%
Centroid-so: 12.676 arcsec [0.39 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

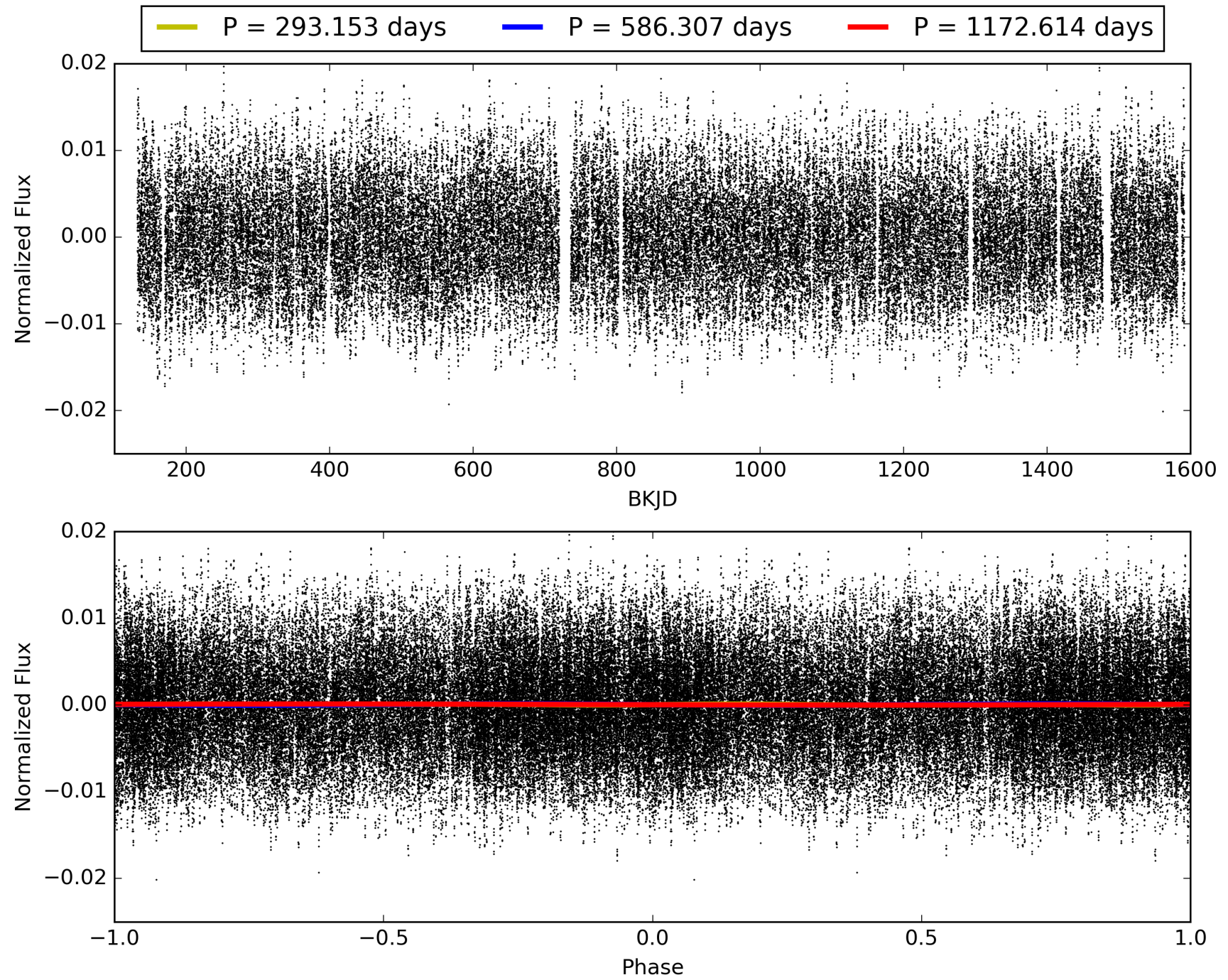
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:35:05 Z

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

TCE 008316195-01, PDC Light Curves

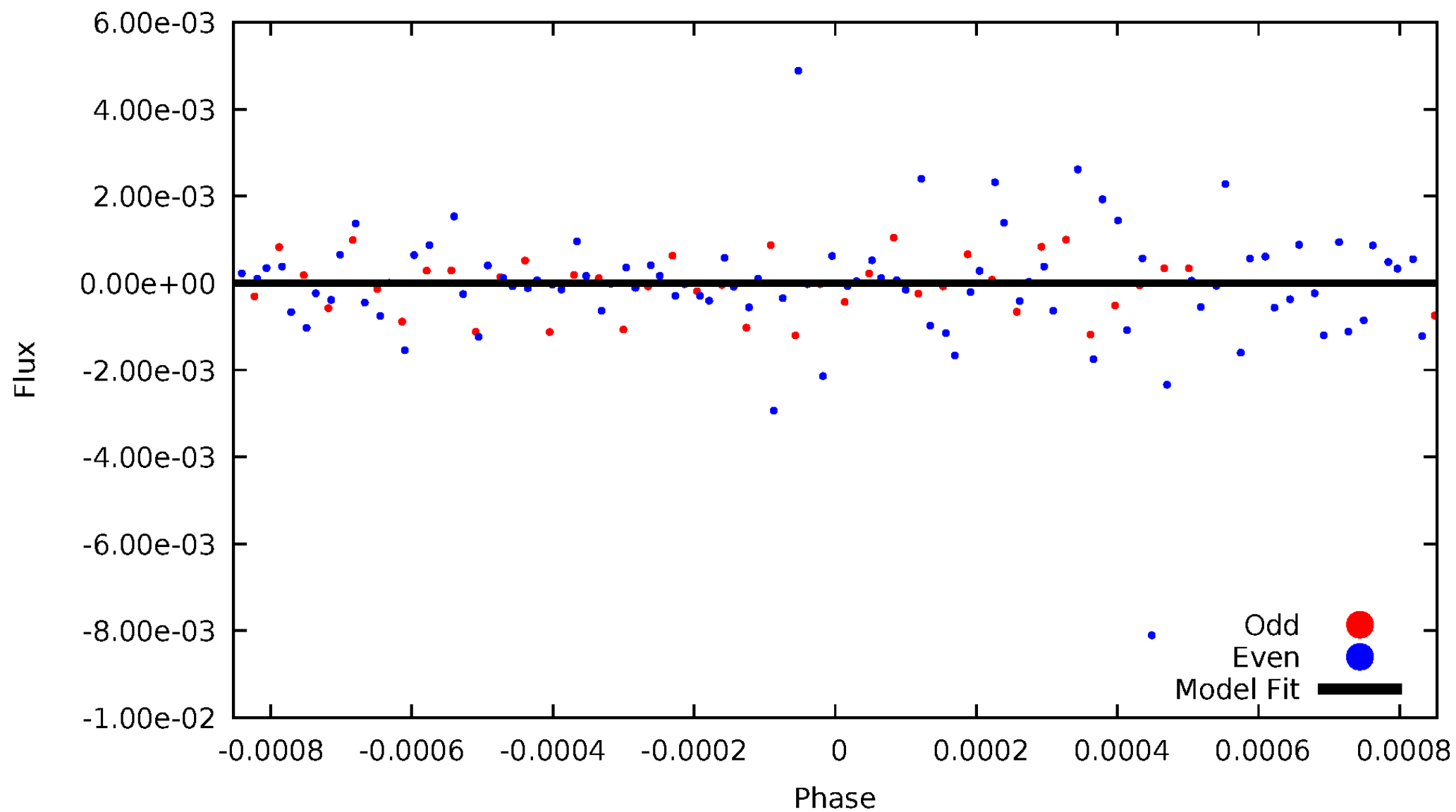


TCE 008316195-01



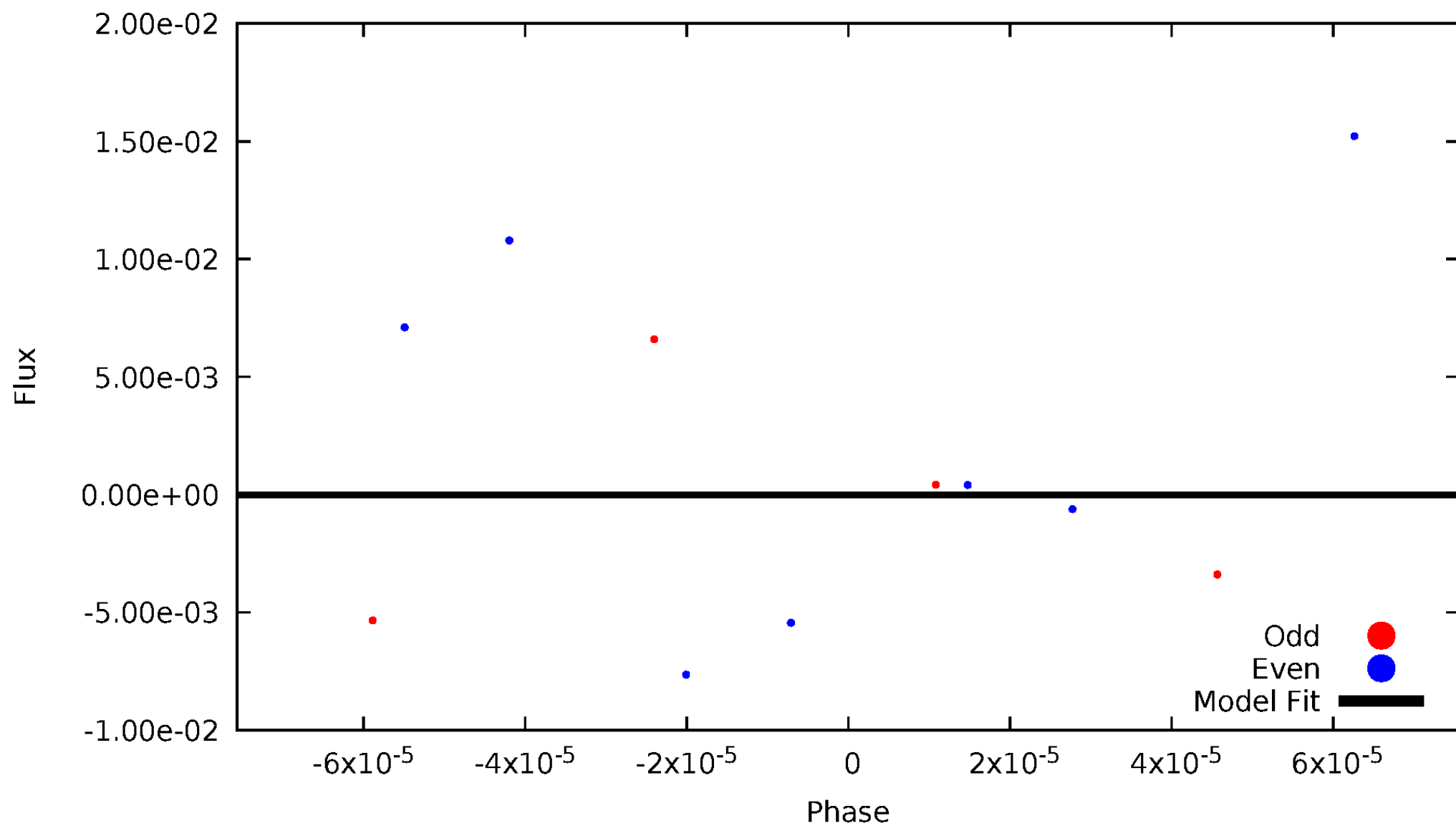
DV Odd/Even

TCE 008316195-01

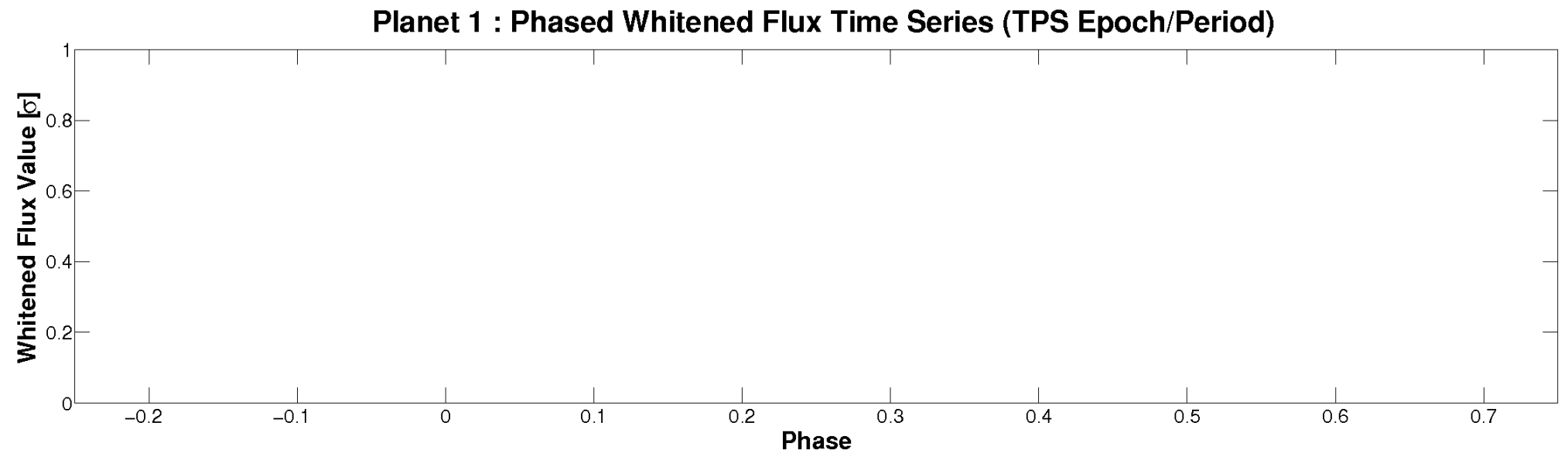
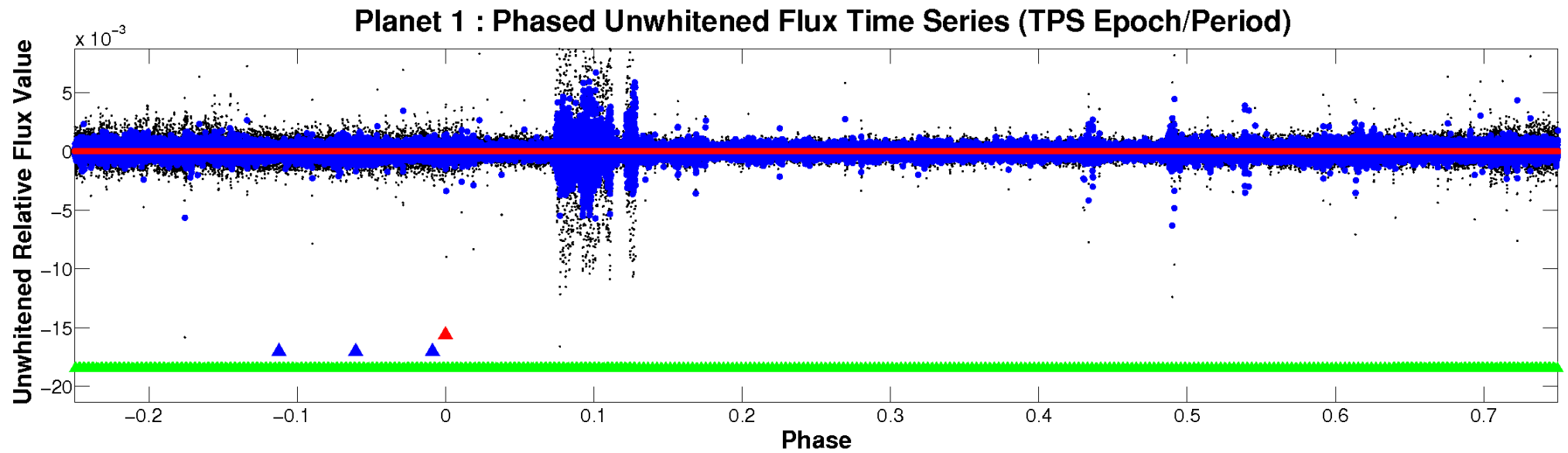


ALT Odd/Even

TCE 008316195-01

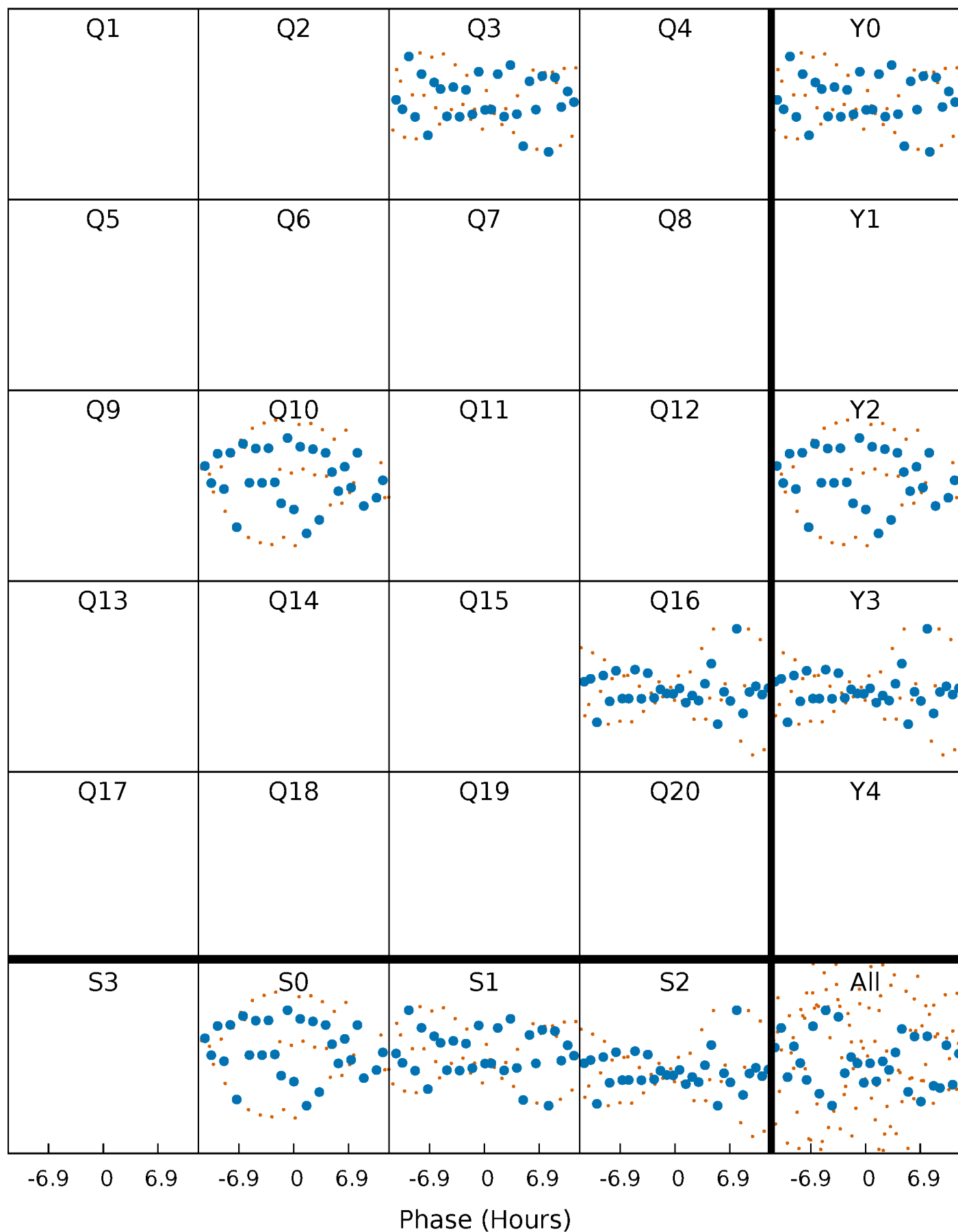


Non-Whitened Vs. Whitened Light Curve



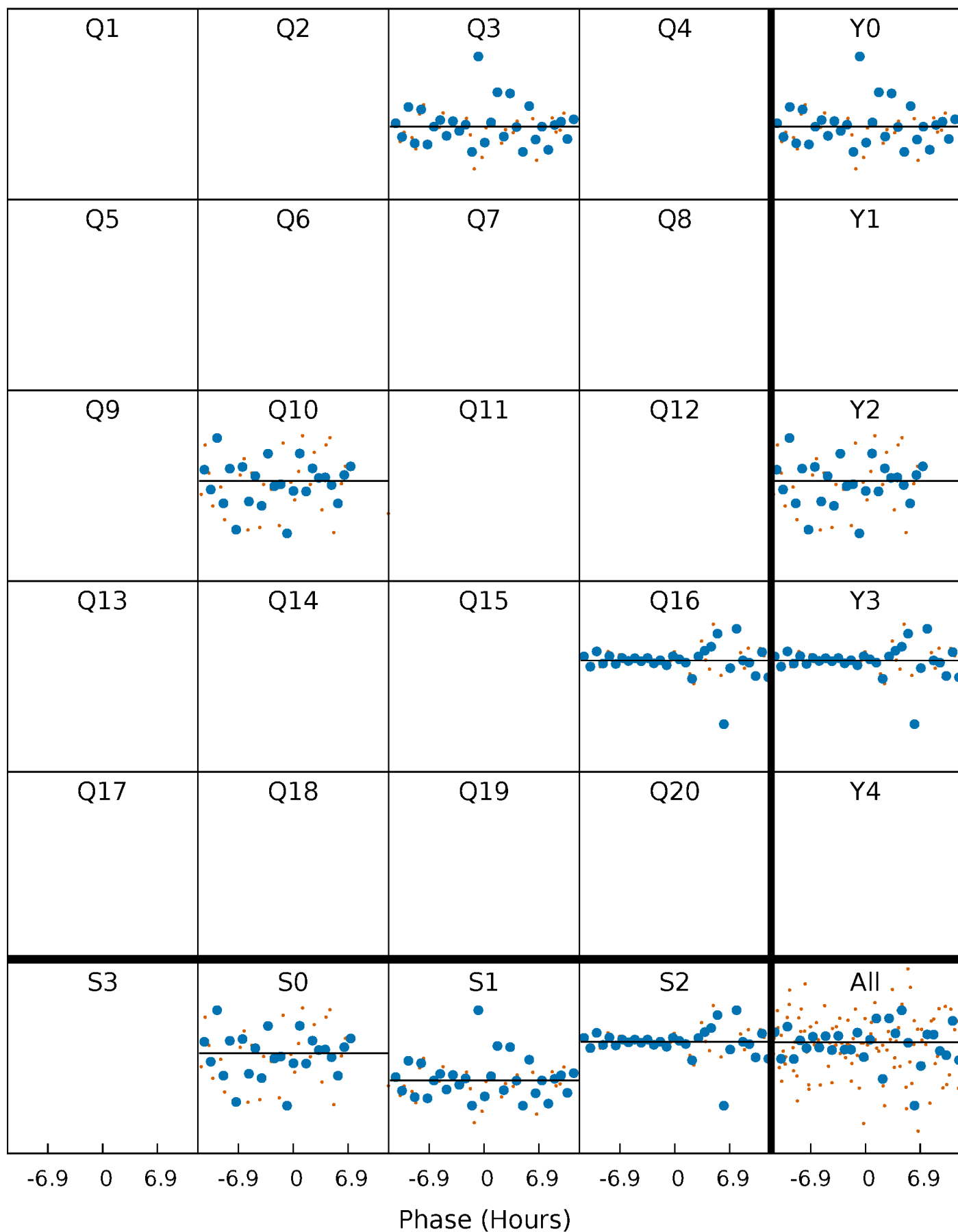
PDC Quarter-Phased Transit Curves

TCE 008316195-01 P=586.306948 Days $T_0=343.151591$ (BKJD)



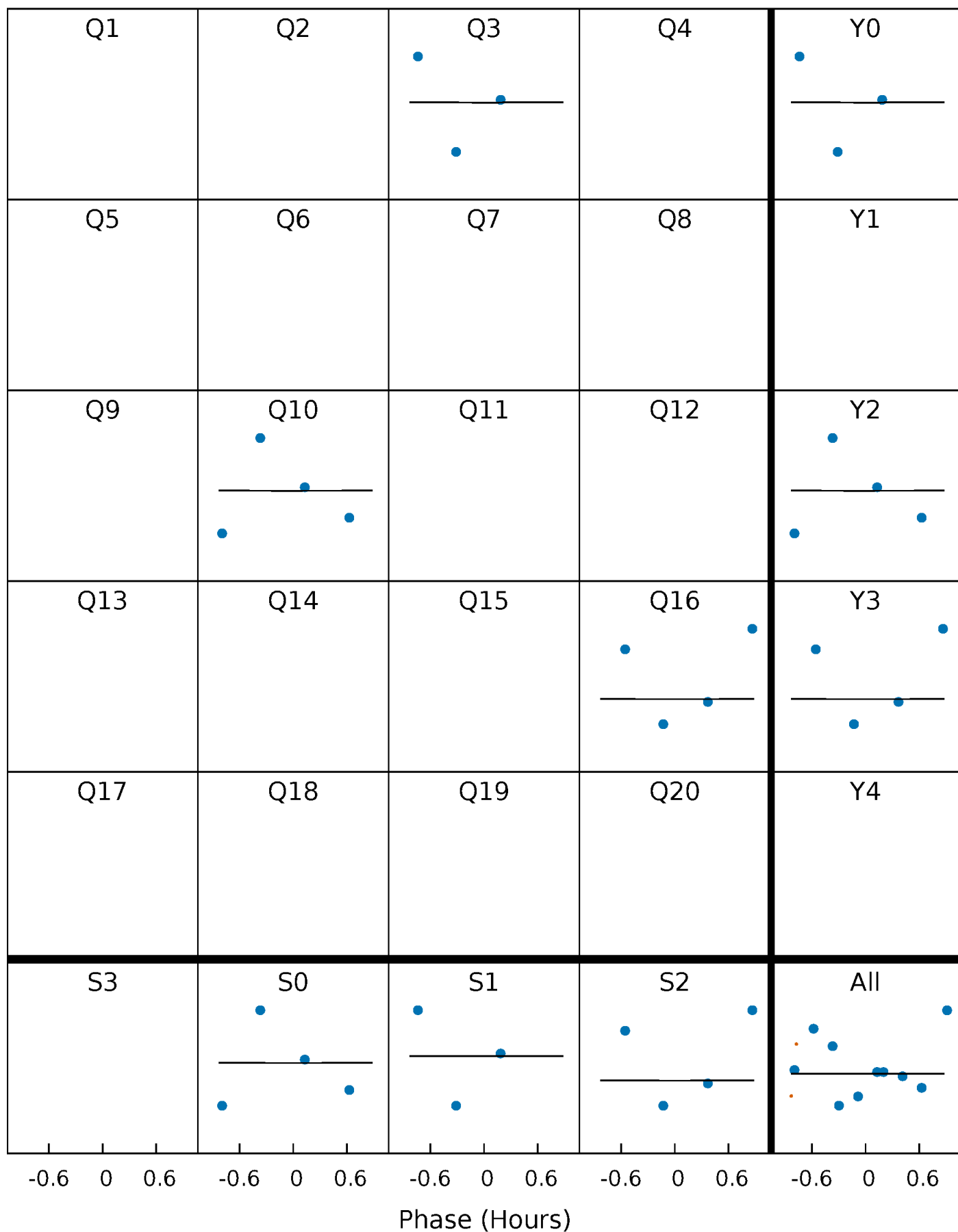
DV Quarter-Phased Transit Curves

TCE 008316195-01 P=586.306948 Days $T_0=343.151591$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

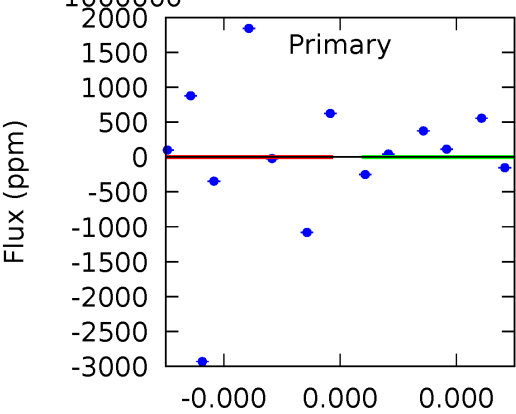
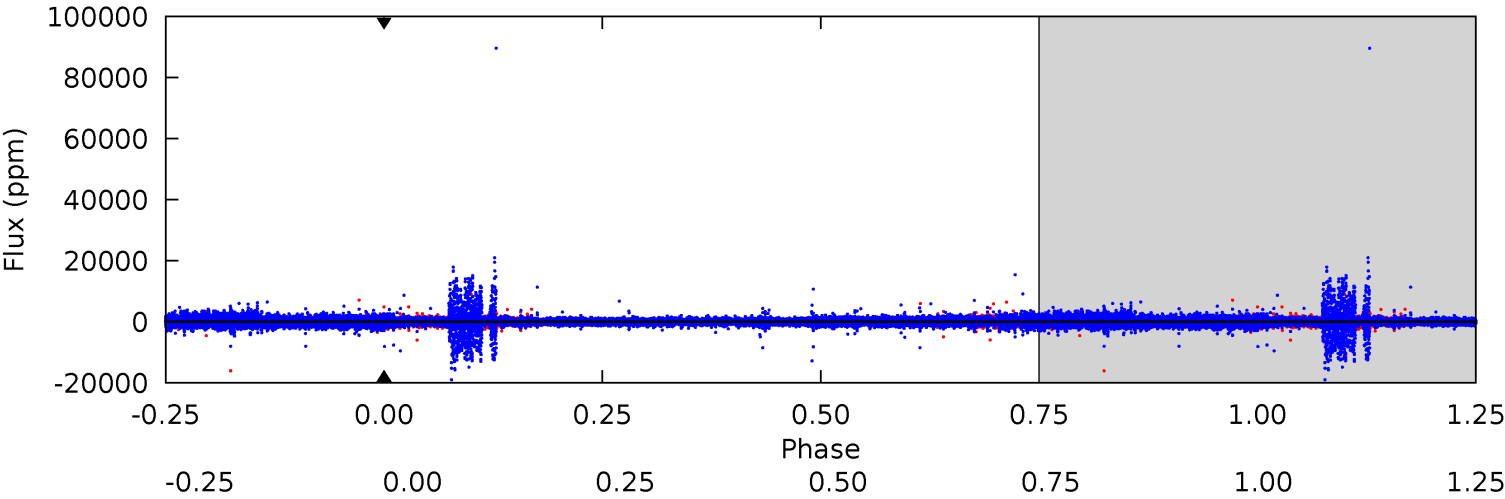
TCE 008316195-01 P=586.306948 Days $T_0=343.316583$ (BKJD)



DV Model-Shift Uniqueness Test

008316195-01, P = 586.306948 Days, E = 343.151591 Days

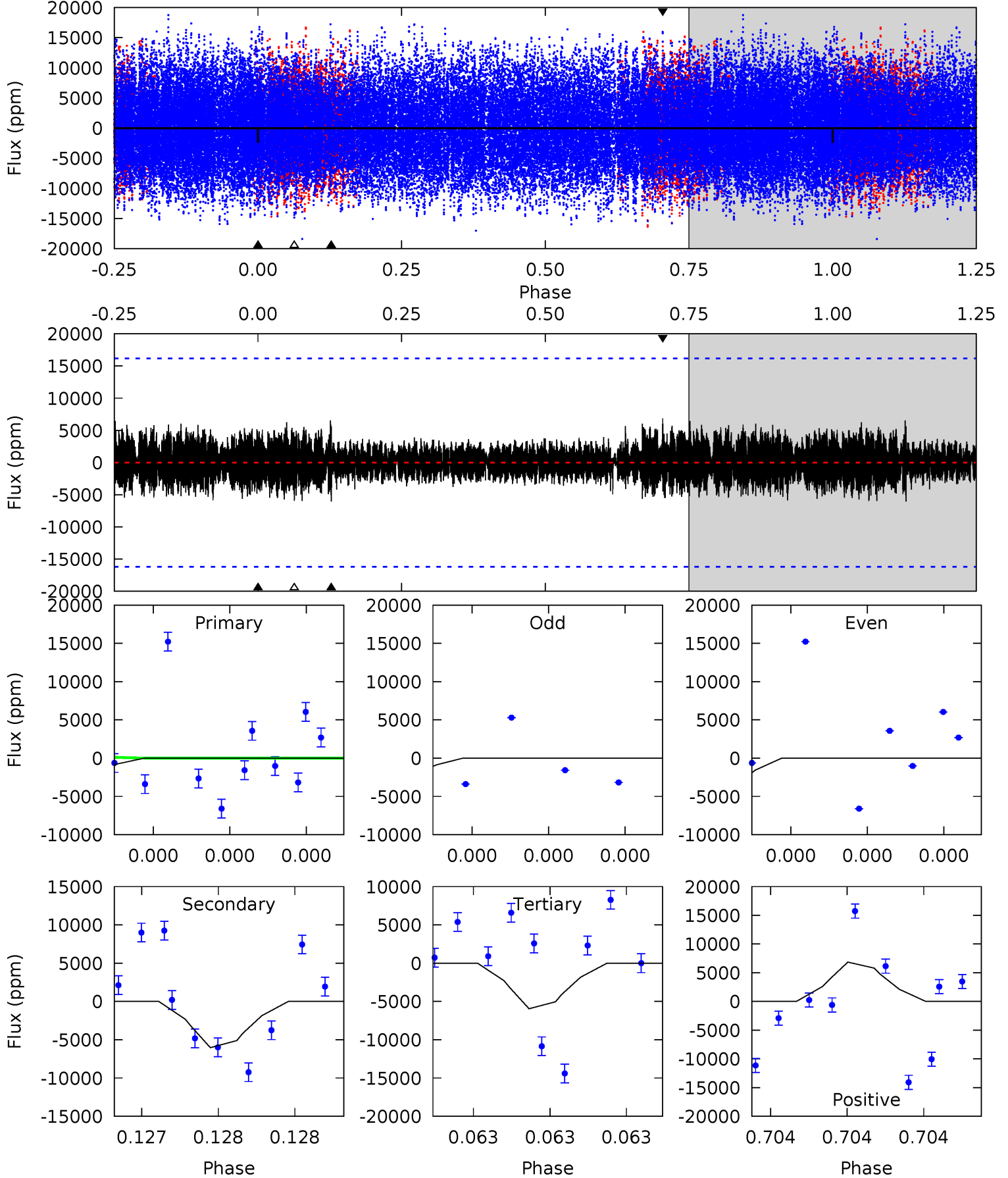
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008316195-01, P = 586.306948 Days, E = 343.316583 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.89	2.22	2.19	2.52	5.96	4.05	0.64	-1.30	-1.64	0.03	-0.30	0.37	0.45	0.53	0.85



Stellar Parameters For KIC 008316195

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7230^{+201}_{-302}	$4.216^{+0.105}_{-0.195}$	$-0.140^{+0.250}_{-0.400}$	$1.543^{+0.494}_{-0.266}$	$1.432^{+0.216}_{-0.216}$	$0.549^{+0.320}_{-0.285}$
	+3%/-4%	+2%/-5%	+179%/-286%	+32%/-17%	+15%/-15%	+58%/-52%
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 008316195-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$13.85^{+12.84}_{-10.06}$	449^{+37}_{-26}	-3028^{+38570}_{-31290}	$-553.087^{+1394980.174}_{-1216200.527}$
Alt.	-6033 ± 2717	$11.74^{+13.25}_{-8.18}$	450^{+34}_{-27}	7574^{+11756}_{-2565}	$51100^{+489311}_{-41418}$

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

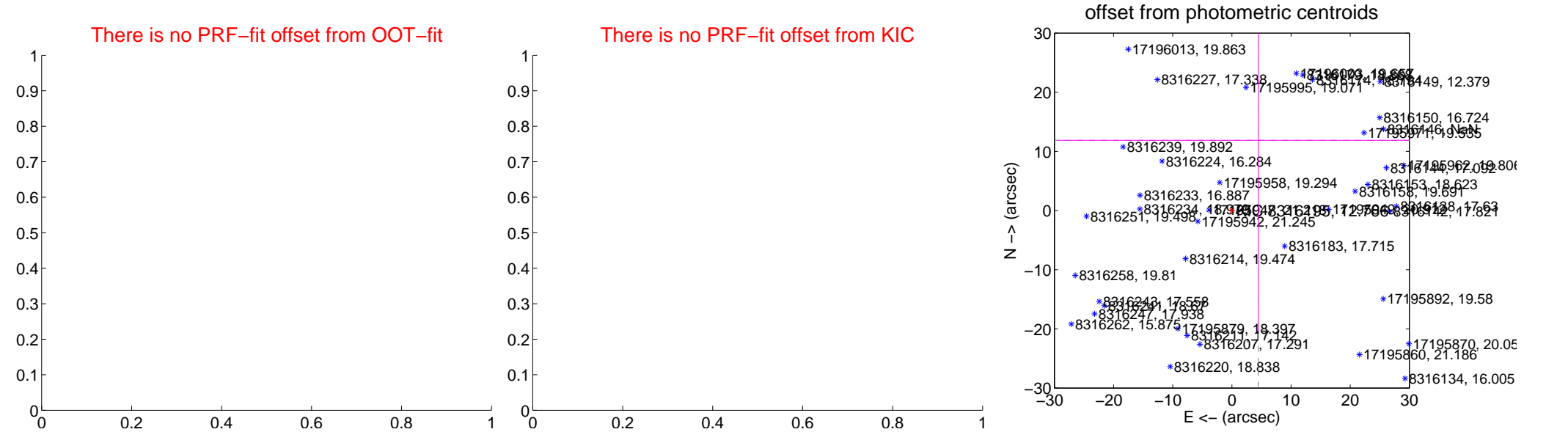
DV Centroid Data

Supplemental centroid analysis for 008316195-01. Kepler magnitude: 12.77. 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 NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	12.68 ± 32.62	0.39	-4.43 ± 33.90	11.88 ± 32.43



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.



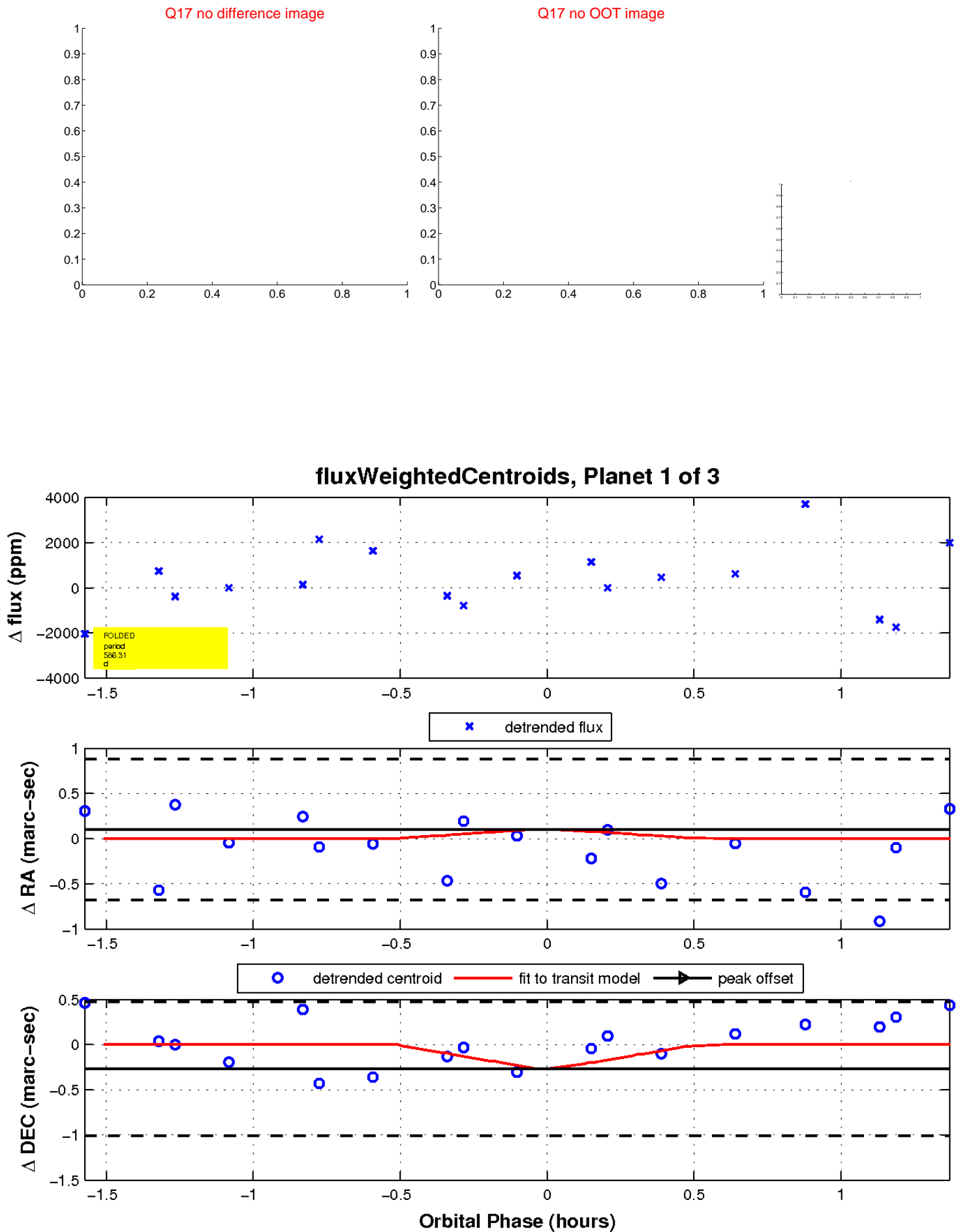
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

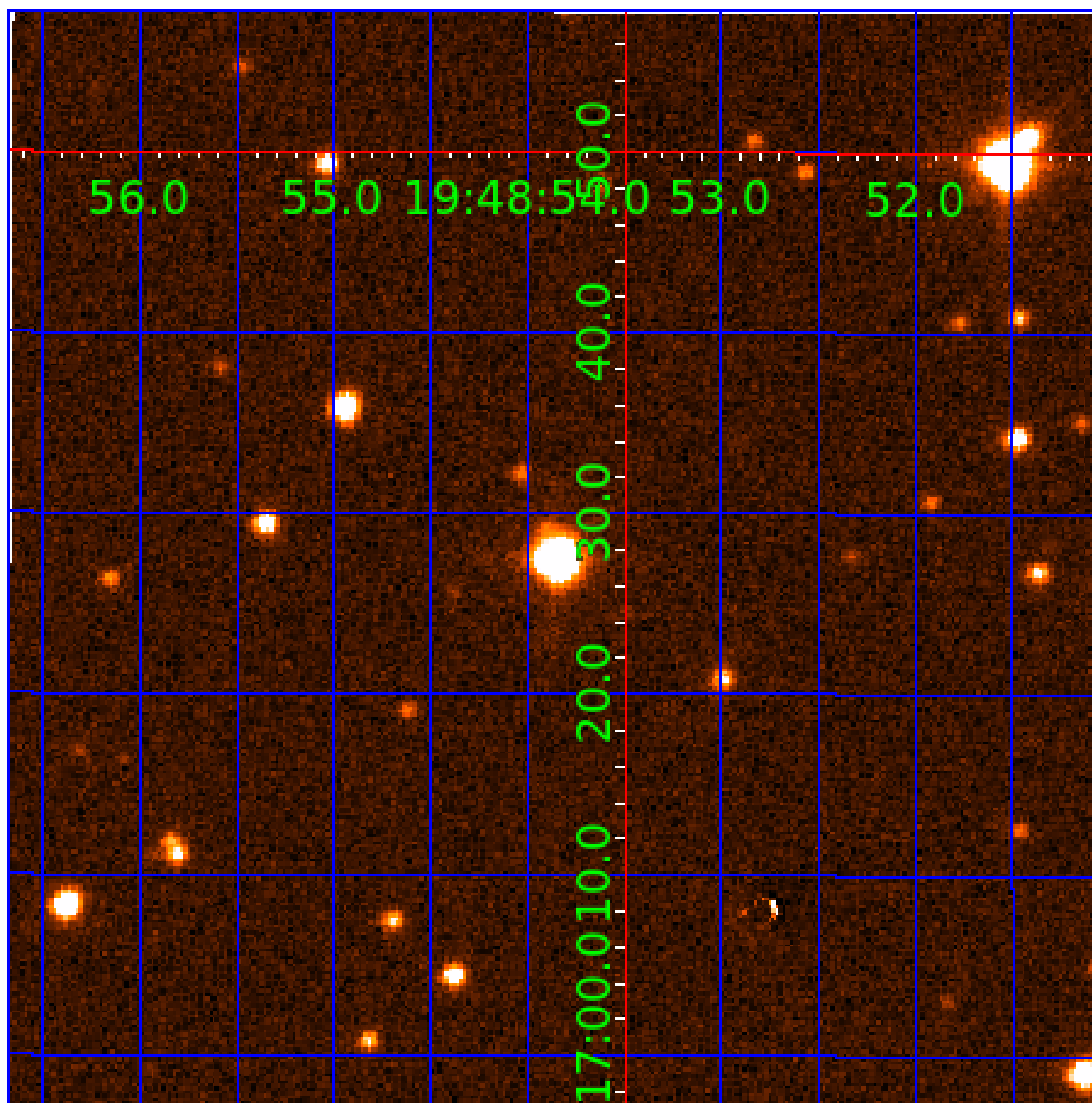


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008316195

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})
008316195-01	OBS	No	586.306948	343.151592	265.7	6.000	14.3	-1.0	1.54	7230	2.55	2.44
008316195-02	OBS	No	616.647407	277.325402	1168.6	4.780	13.5	13.9	1.54	7230	8.86	2.29
008316195-03	OBS	No	1.754547	132.114952	50.1	7.112	12.1	11.3	1.54	7230	1.23	5668.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008316195-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008316195-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008316195-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

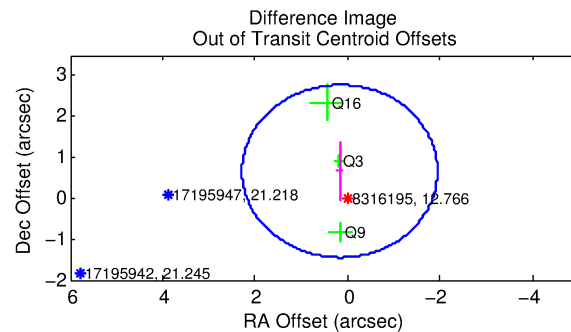
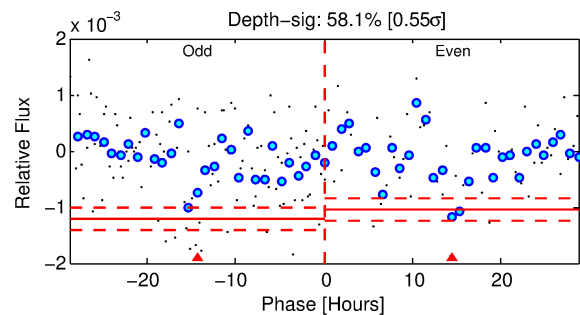
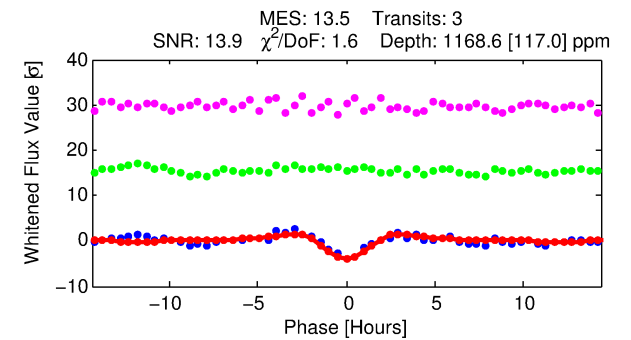
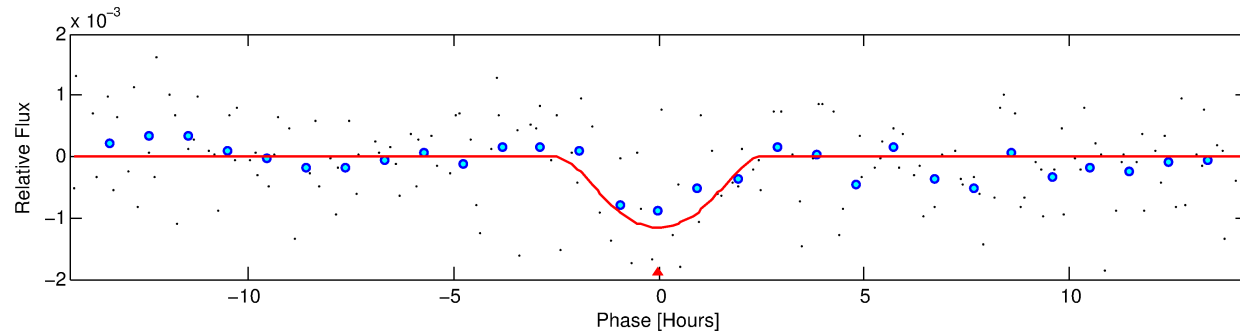
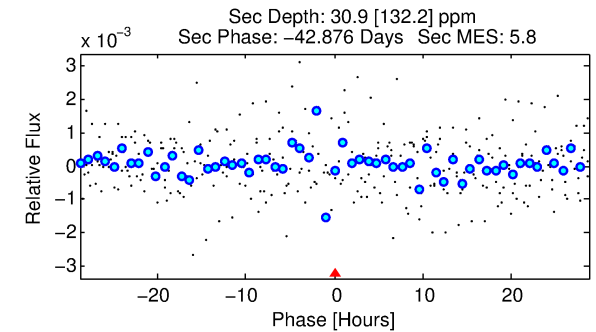
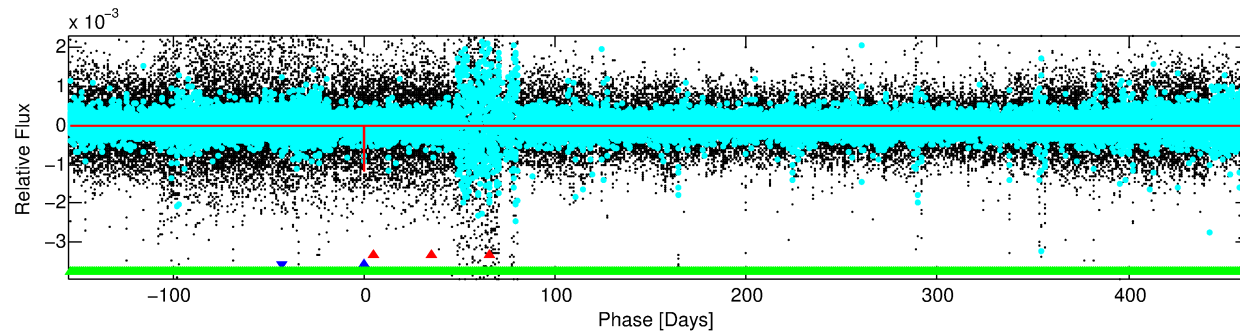
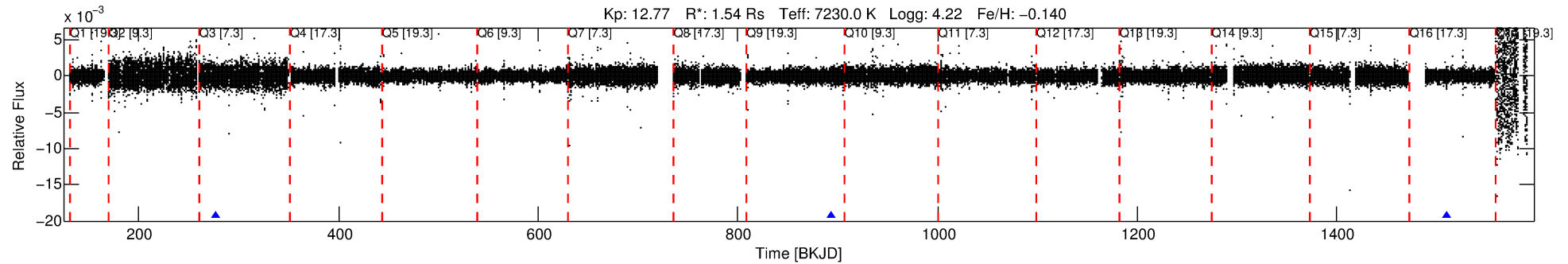
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008316195-02

No Significant Match Found

DV One-Page Summary

KIC: 8316195 Candidate: 2 of 3 Period: 616.647 d



DV Fit Results:

Period = 616.64741 [0.00626] d
Epoch = 277.3254 [0.0086] BKJD
Rp/R* = 0.0526 [0.1786]
a/R* = 348.03 [339.47]
b = 0.99 [0.29]
Seff = 2.29 [0.92]
Teq = 314 [32] K
Rp = 8.86 [30.21] Re
a = 1.5970 [0.4163] AU
Ag = 551.56 [4430.11] [0.12 σ]
Teffp = 2349 [4713] K [0.43 σ]

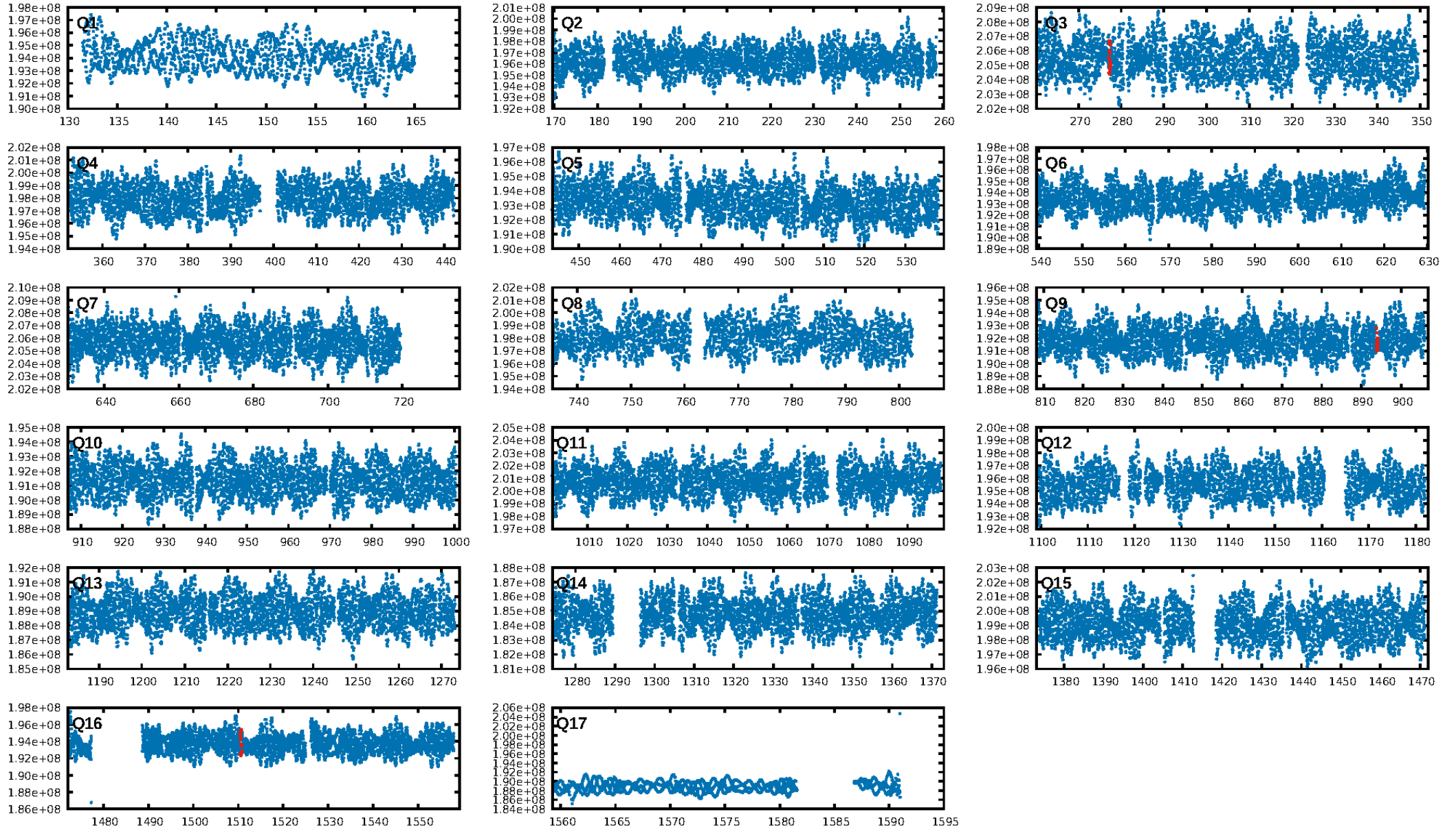
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [94.92 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 8.3%
Bootstrap-pfa: 1.28e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.099
Centroid-sig: 64.3%
Centroid-so: 0.201 arcsec [0.68 σ]
OotOffset-rm: 0.684 arcsec [0.97 σ]
KicOffset-rm: 0.770 arcsec [1.14 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/3]

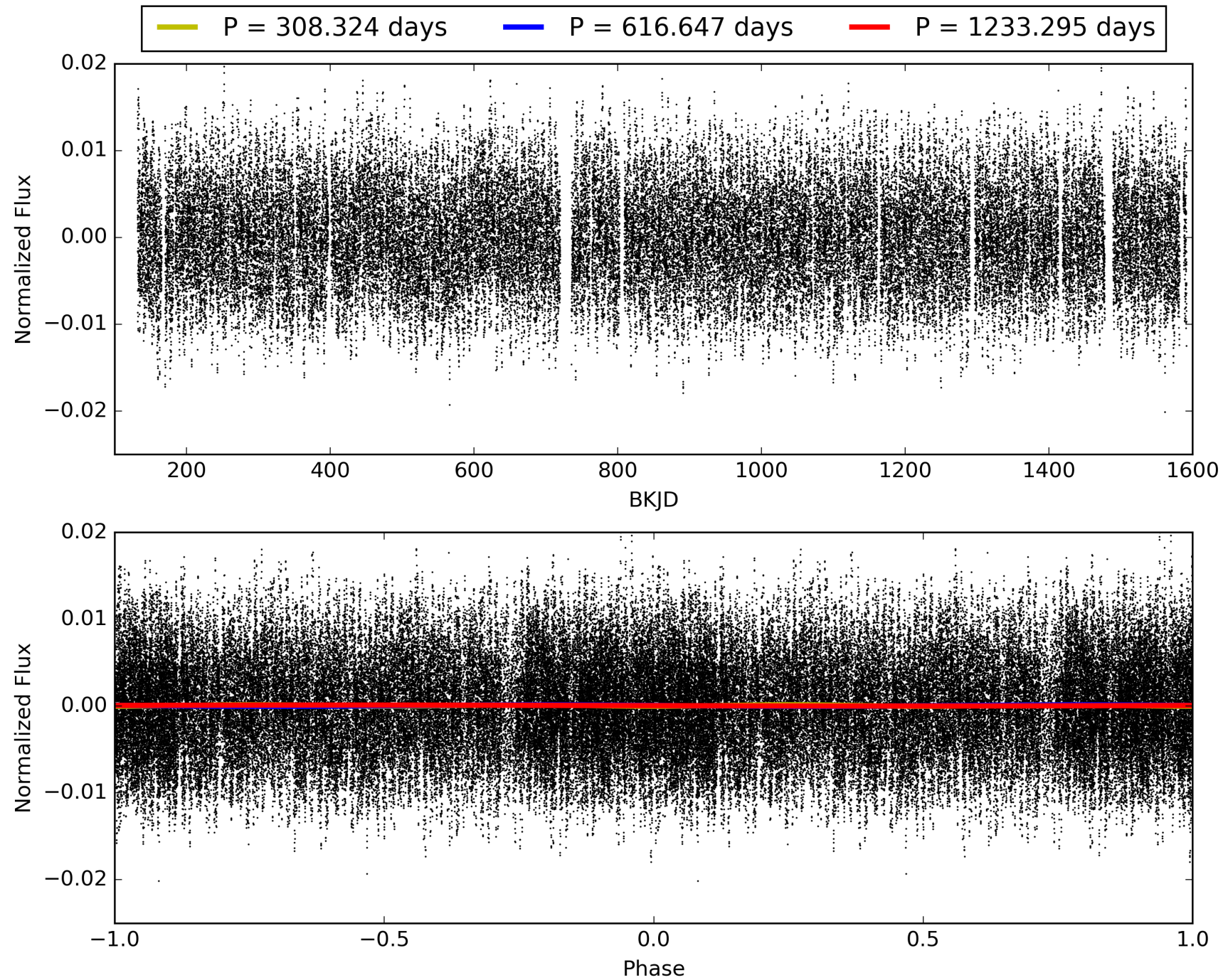
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:35:25 Z

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

TCE 008316195-02, PDC Light Curves

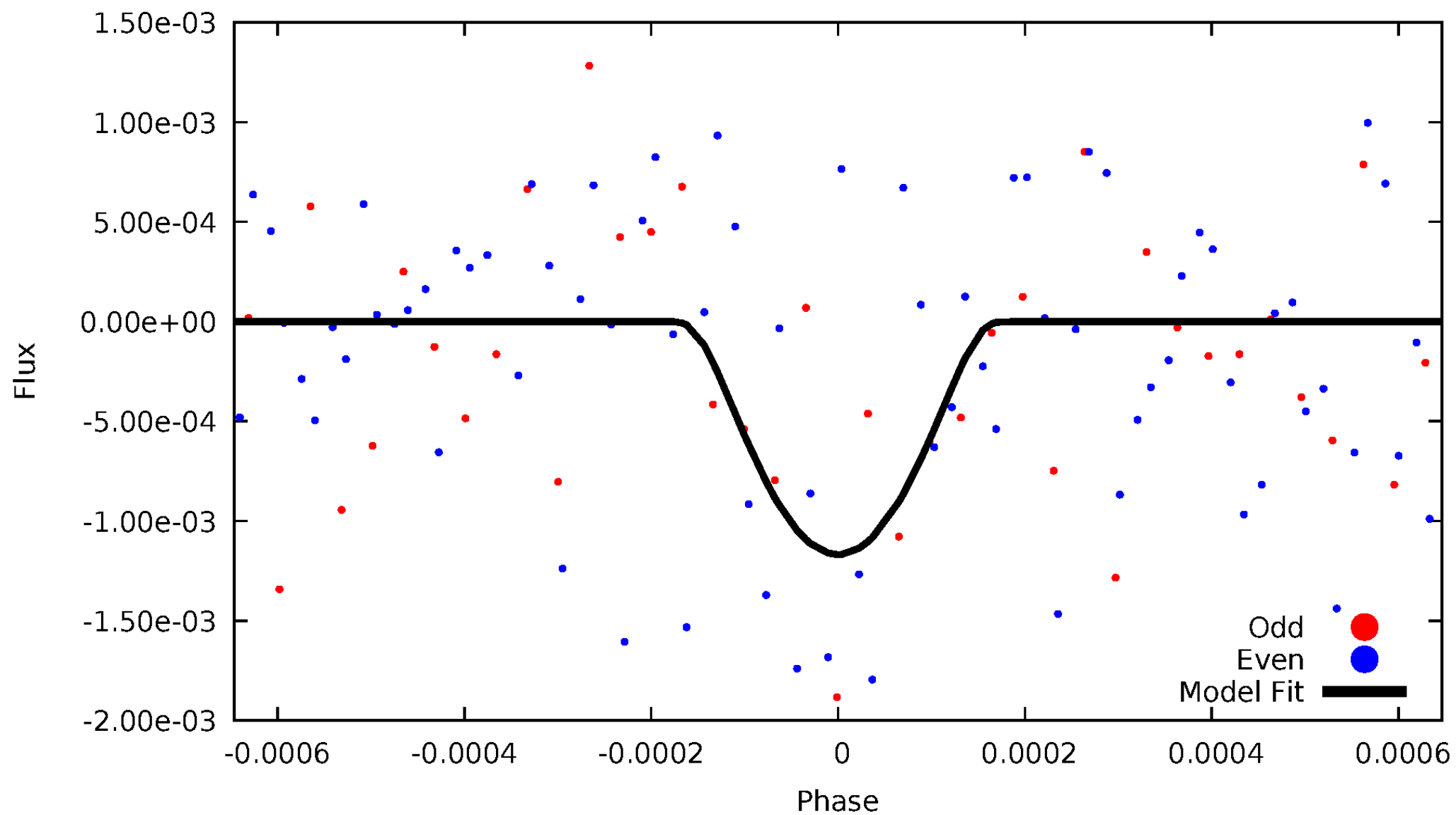


TCE 008316195-02



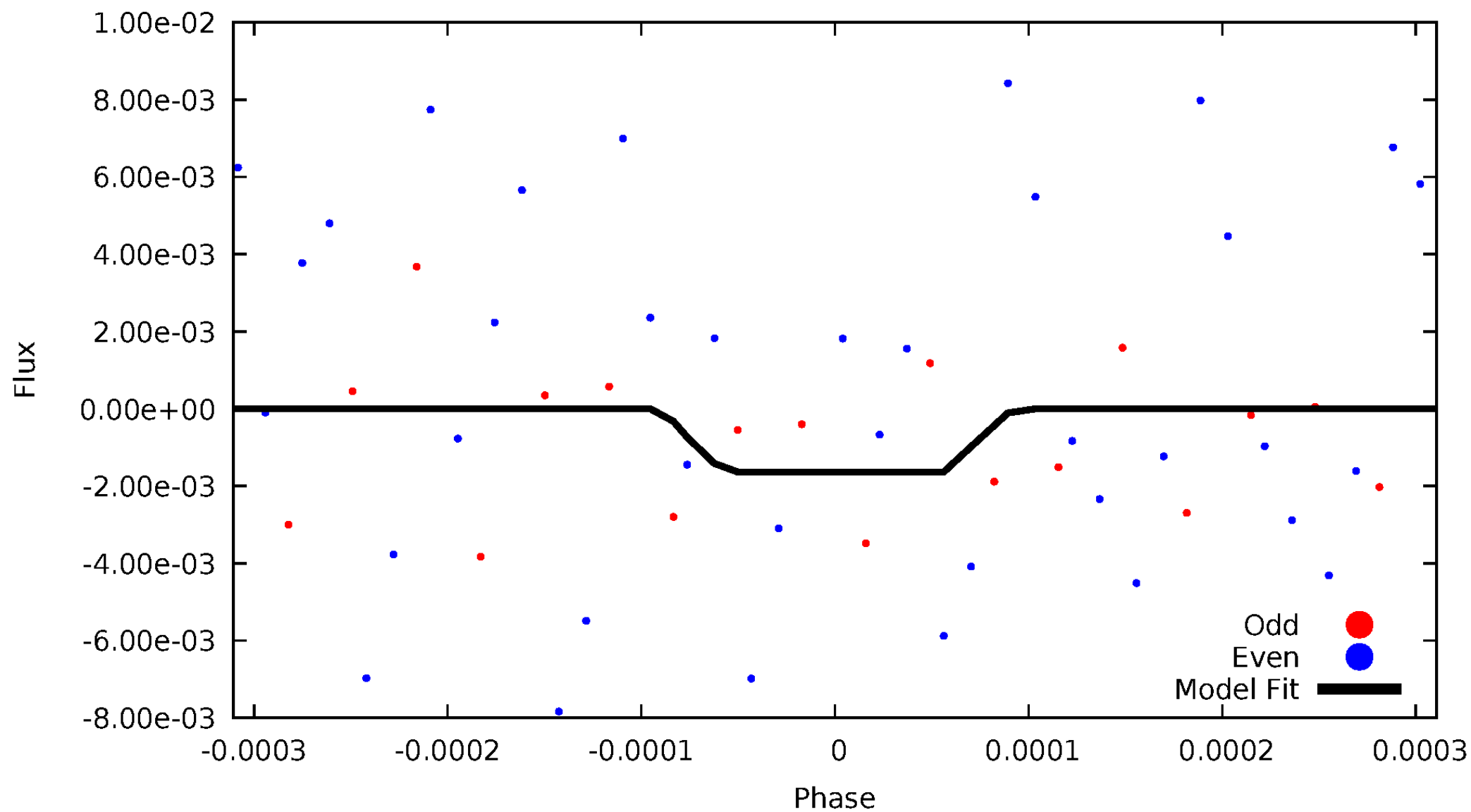
DV Odd/Even

TCE 008316195-02



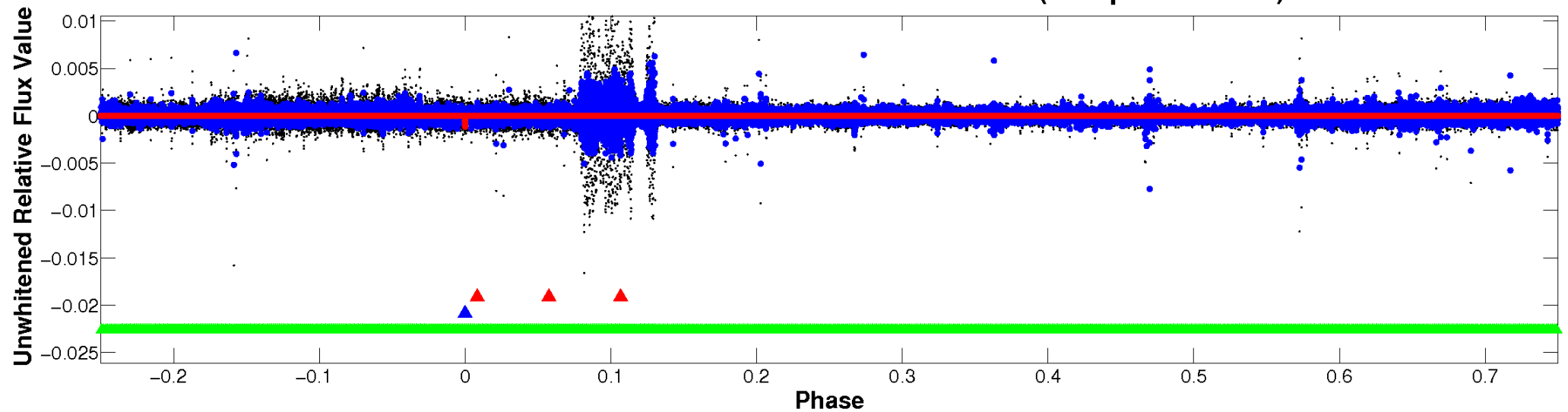
ALT Odd/Even

TCE 008316195-02

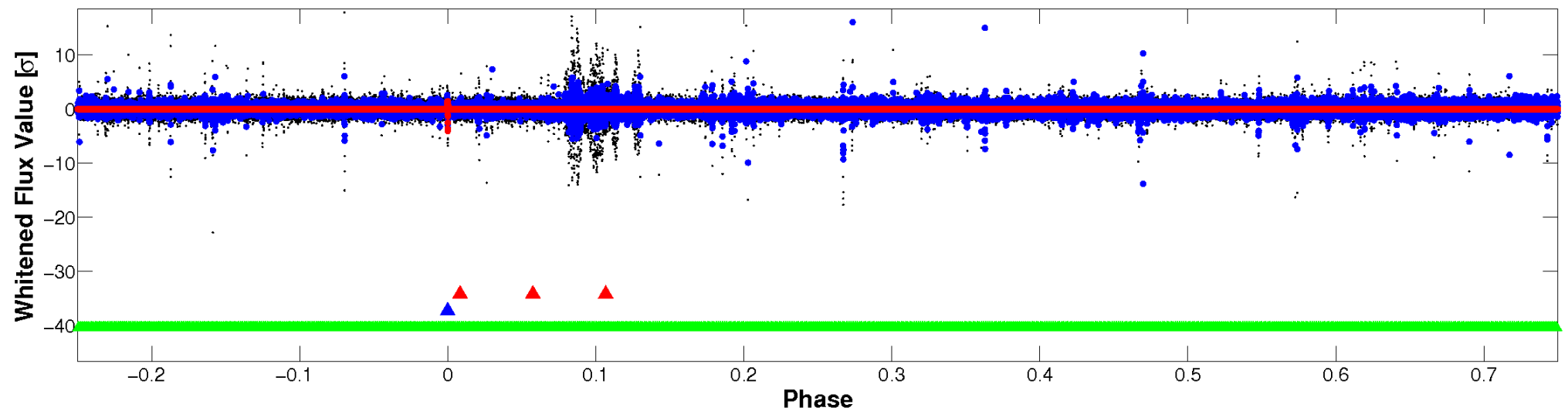


Non-Whitened Vs. Whitened Light Curve

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

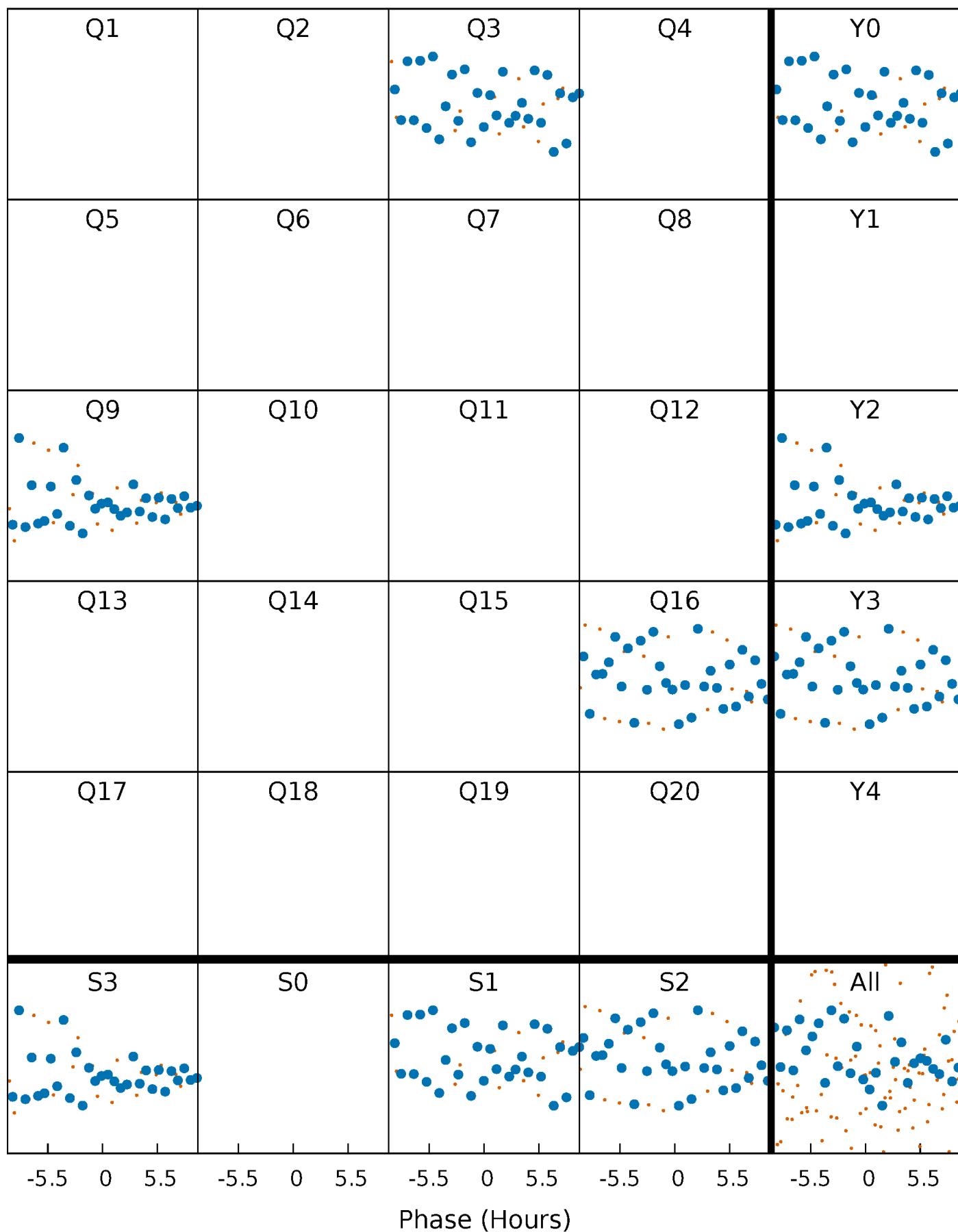


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



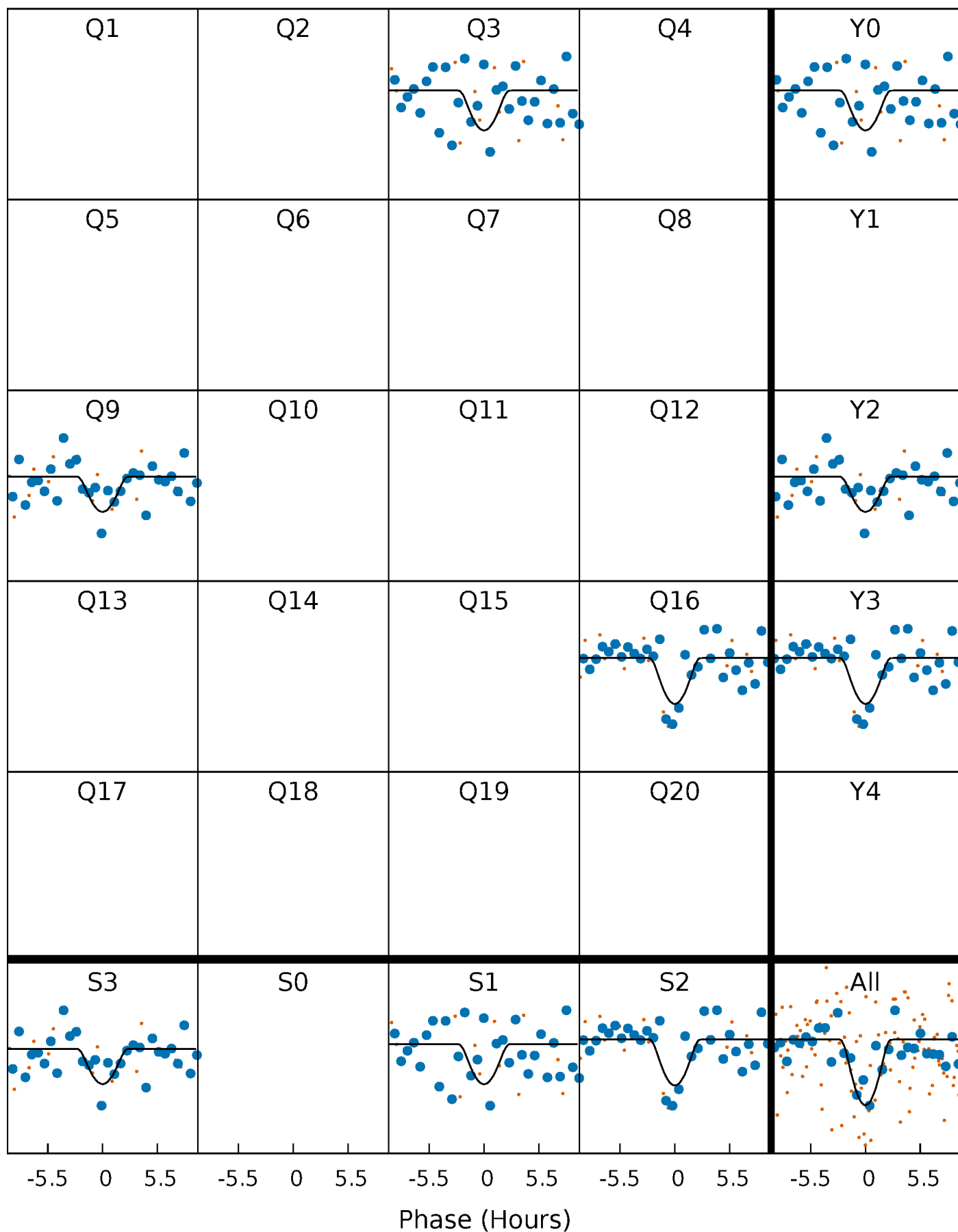
PDC Quarter-Phased Transit Curves

TCE 008316195-02 P=616.647407 Days $T_0=277.325402$ (BKJD)



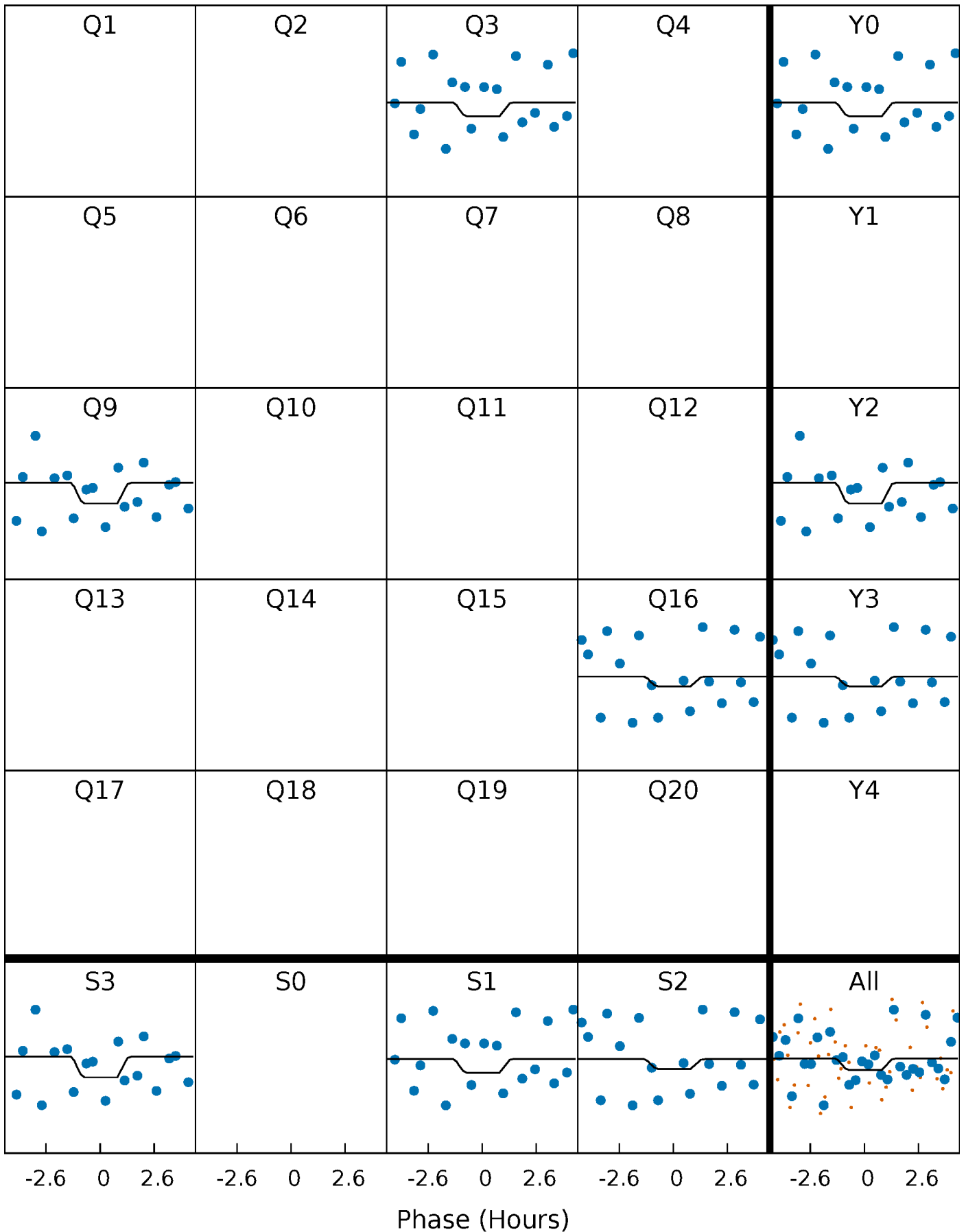
DV Quarter-Phased Transit Curves

TCE 008316195-02 P=616.647407 Days $T_0=277.325402$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

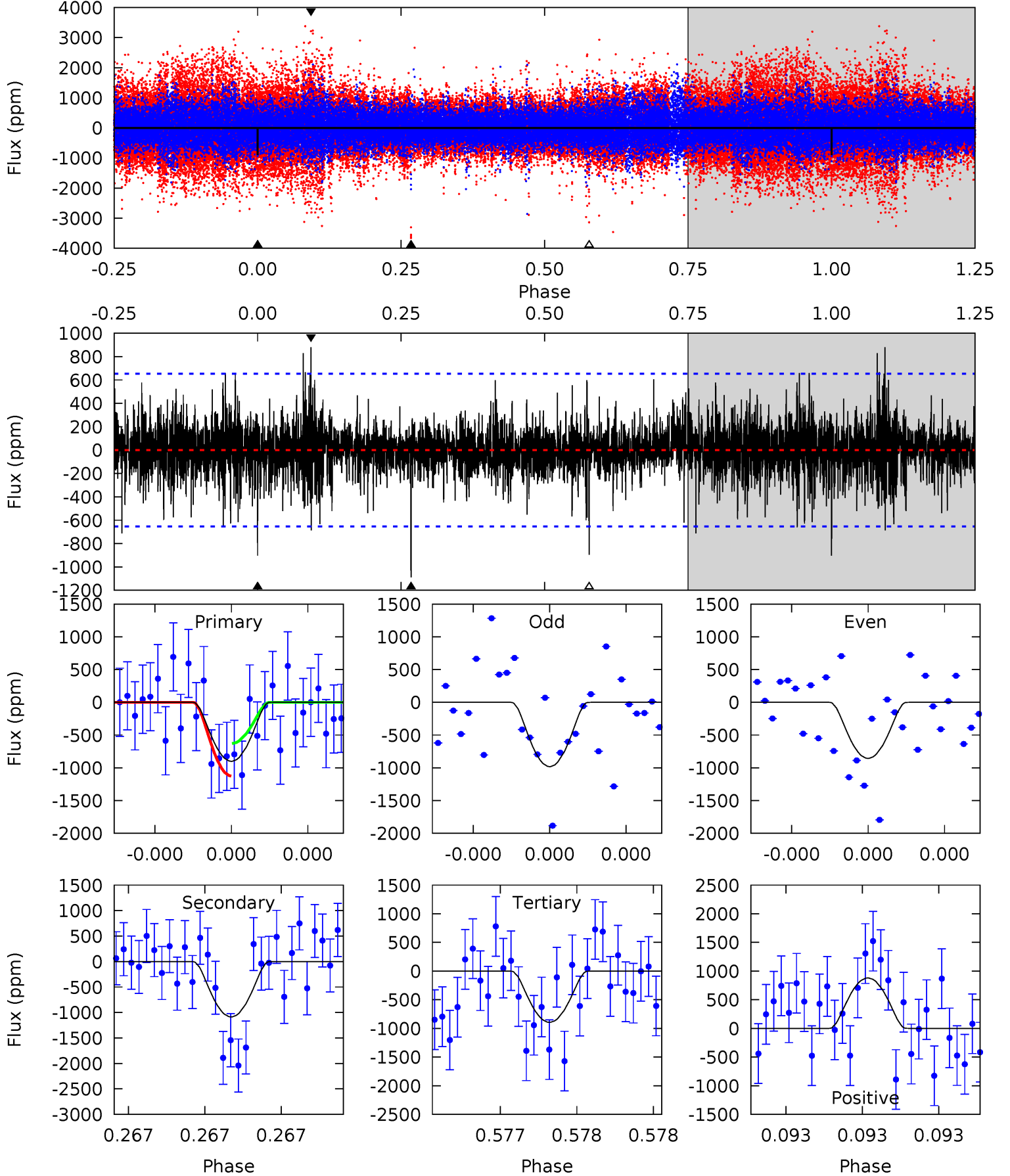
TCE 008316195-02 P=616.657596 Days $T_0=277.345473$ (BKJD)



DV Model-Shift Uniqueness Test

008316195-02, P = 616.647407 Days, E = 277.325402 Days

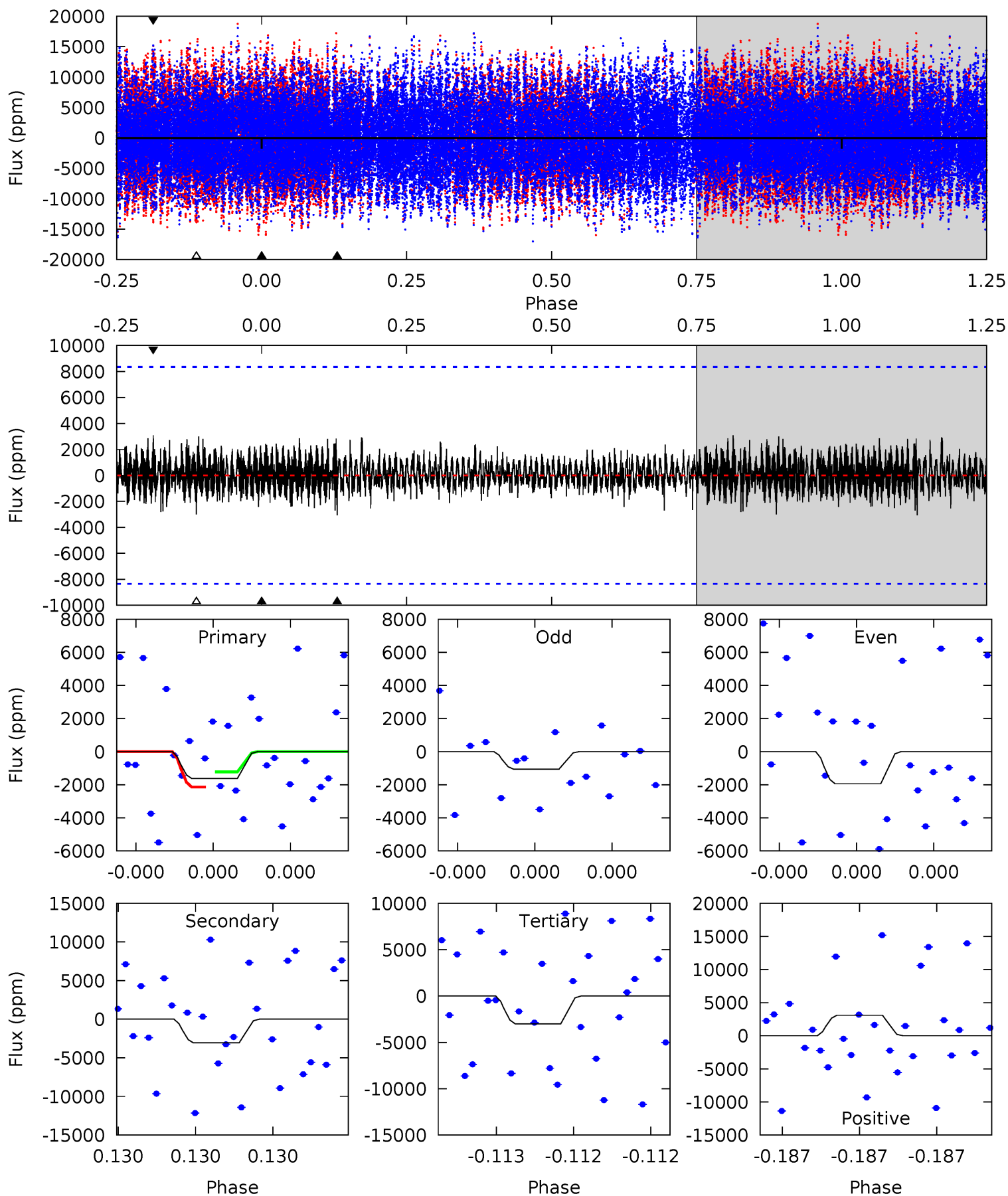
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.78	9.39	7.72	7.60	5.64	3.58	1.34	0.06	0.18	1.66	1.78	0.55	0.94	0.45	2.17



Alt Model-Shift Uniqueness Test

008316195-02, P = 616.657596 Days, E = 277.345473 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.12	2.11	2.06	2.12	5.75	3.75	0.51	-0.94	-1.00	0.05	-0.01	0.30	1.72	0.50	0.30



Stellar Parameters For KIC 008316195

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7230^{+201}_{-302}	$4.216^{+0.105}_{-0.195}$	$-0.140^{+0.250}_{-0.400}$	$1.543^{+0.494}_{-0.266}$	$1.432^{+0.216}_{-0.216}$	$0.549^{+0.320}_{-0.285}$
	+3%/-4%	+2%/-5%	+179%/-286%	+32%/-17%	+15%/-15%	+58%/-52%
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 008316195-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1088 ± 116	$24.29^{+26.32}_{-16.37}$	442^{+34}_{-27}	3849^{+2285}_{-758}	2574^{+22437}_{-1967}
Alt.	-3065 ± 1452	$23.96^{+24.02}_{-16.63}$	442^{+32}_{-27}	4474^{+3799}_{-1043}	6362^{+70293}_{-5108}

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 $A_{obs} \gg 1.0$

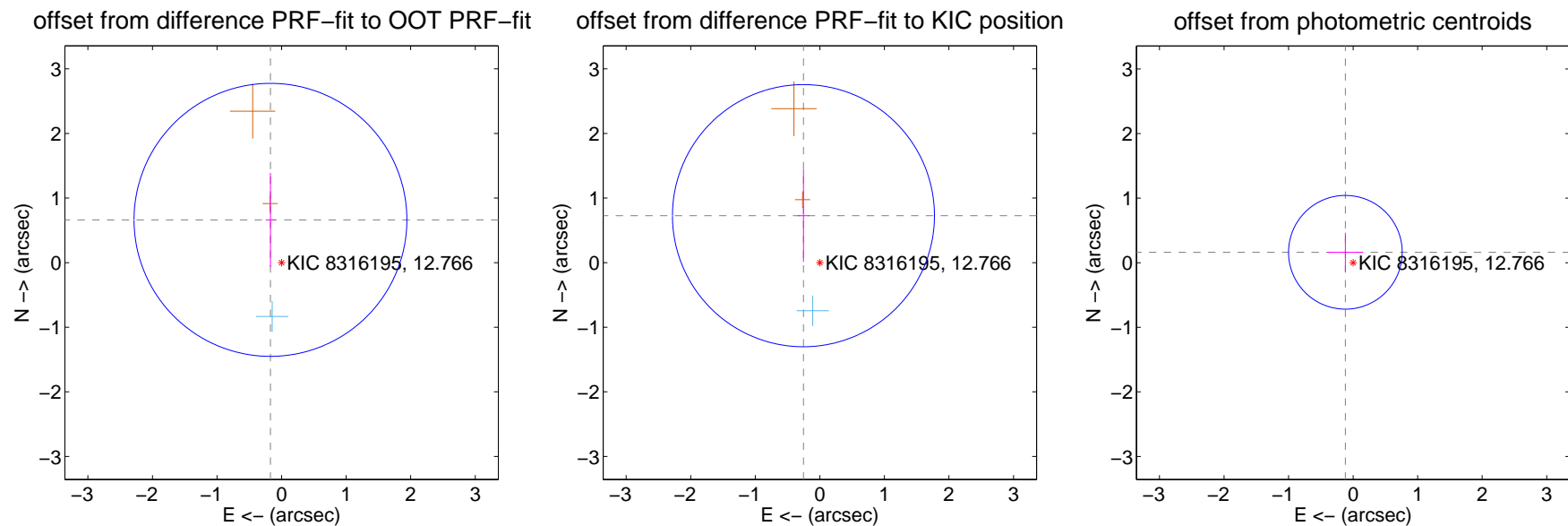
DV Centroid Data

Supplemental centroid analysis for 008316195-02. Kepler magnitude: 12.77. Transit SNR 13.91

There are 1 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.684 ± 0.704	0.97	0.172 ± 0.074	0.662 ± 0.728
PRF-fit source offset from KIC position	0.770 ± 0.676	1.14	0.254 ± 0.089	0.727 ± 0.716
photometric centroid source offset	0.20 ± 0.29	0.68	0.12 ± 0.27	0.16 ± 0.30



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



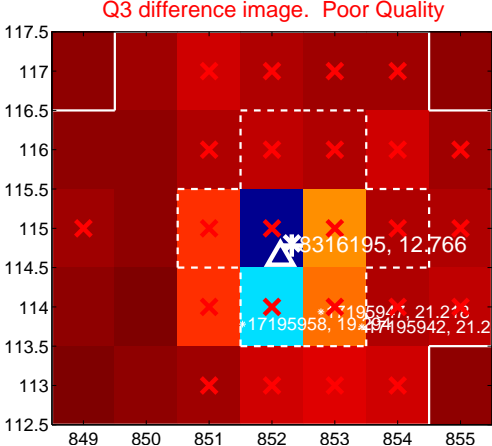
Q2 no difference image



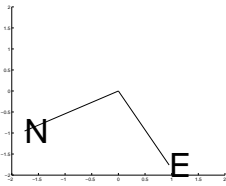
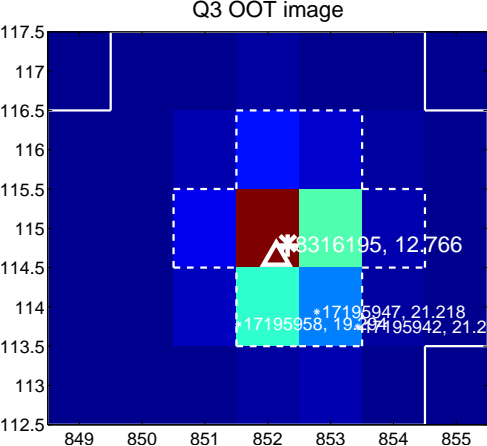
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



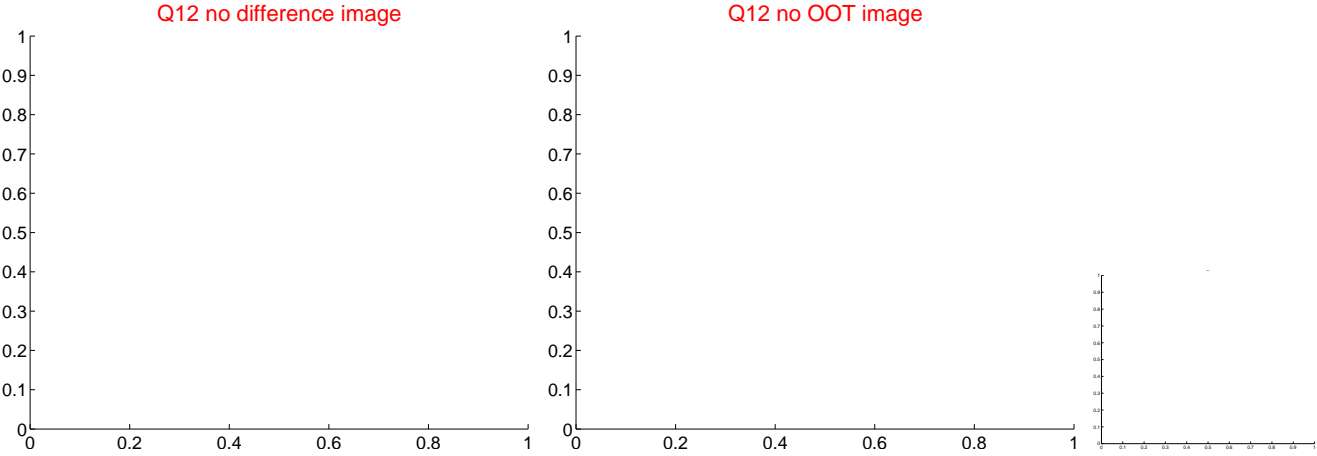
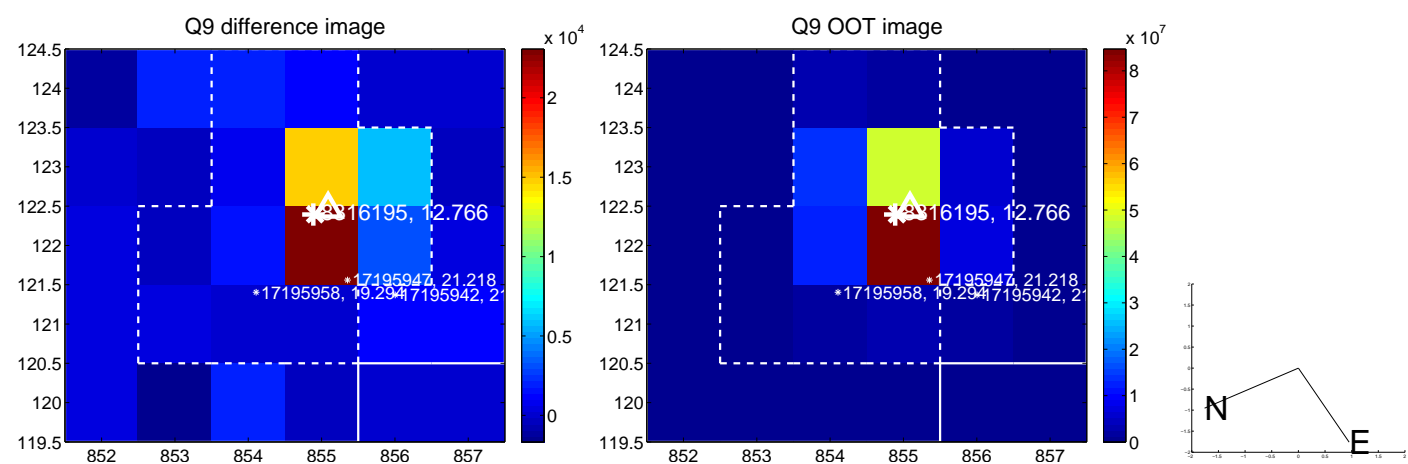
Q4 no OOT image



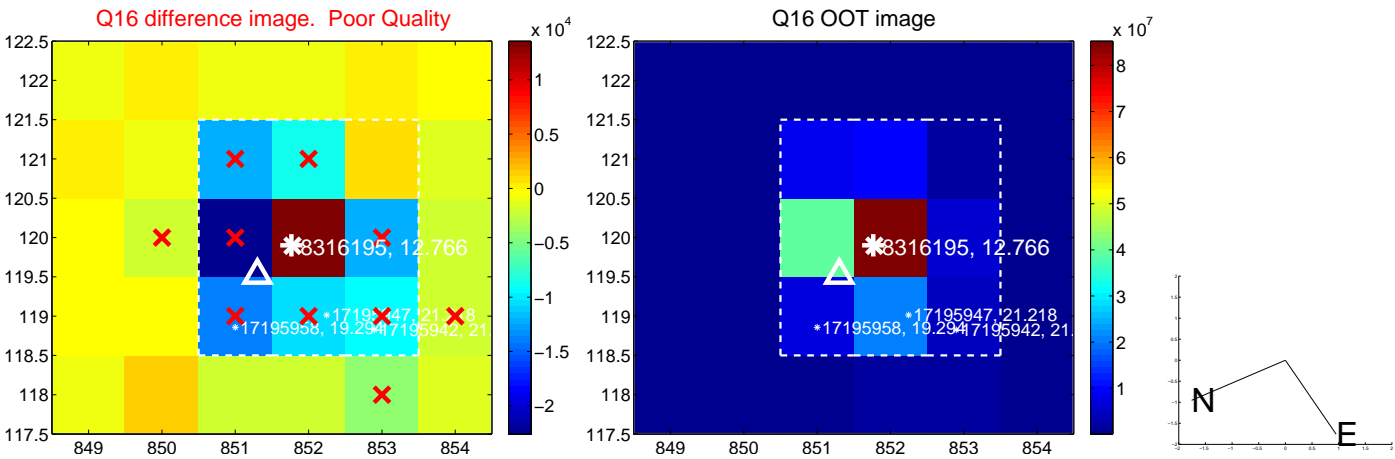
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



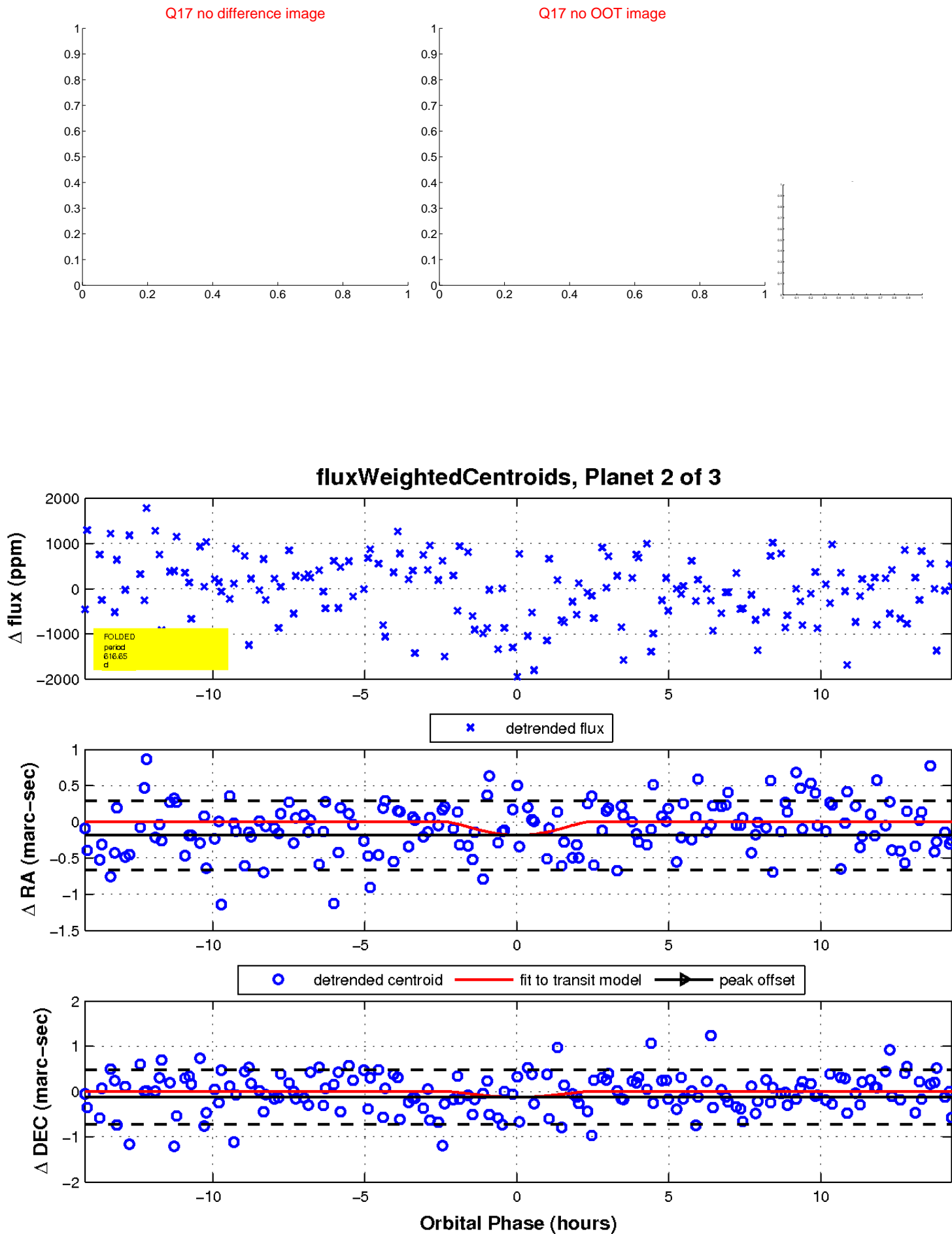
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

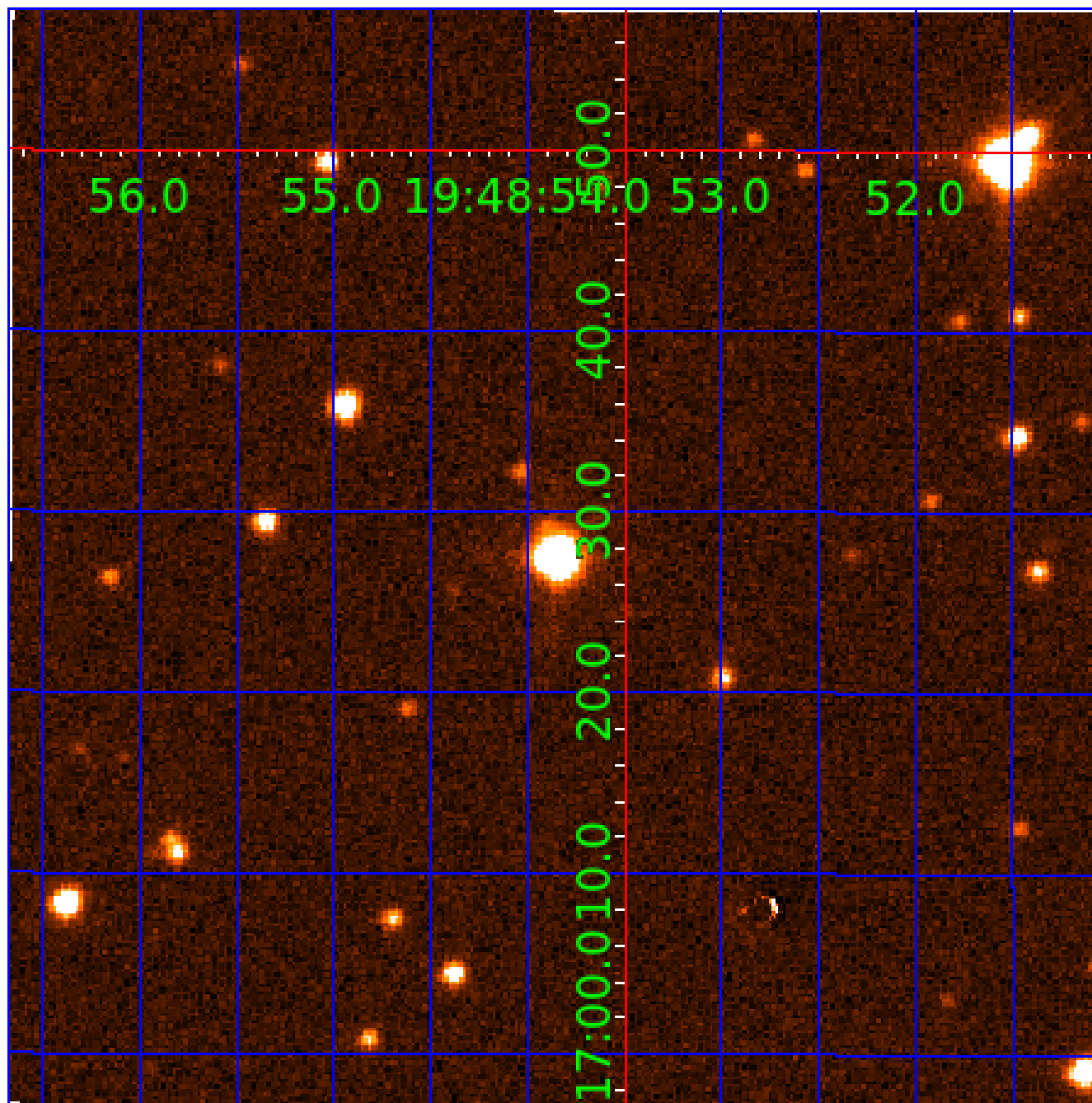


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008316195

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})
008316195-01	OBS	No	586.306948	343.151592	265.7	6.000	14.3	-1.0	1.54	7230	2.55	2.44
008316195-02	OBS	No	616.647407	277.325402	1168.6	4.780	13.5	13.9	1.54	7230	8.86	2.29
008316195-03	OBS	No	1.754547	132.114952	50.1	7.112	12.1	11.3	1.54	7230	1.23	5668.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008316195-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008316195-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008316195-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

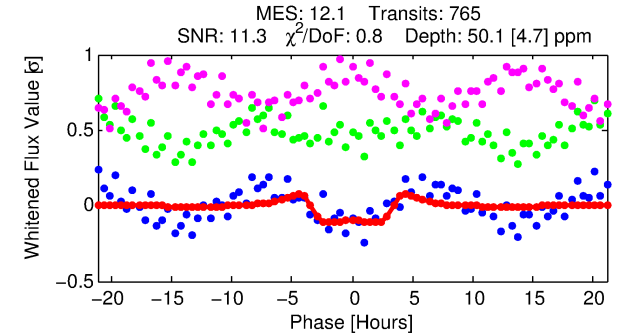
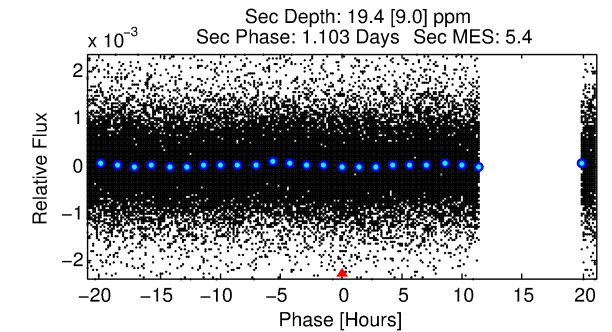
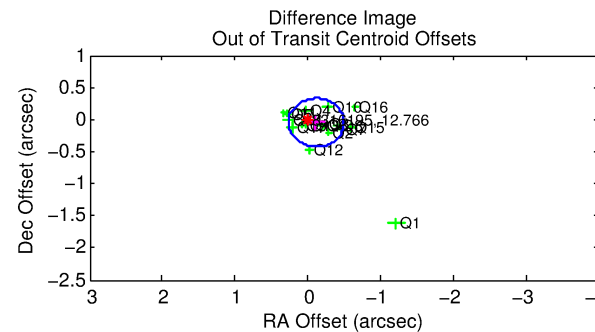
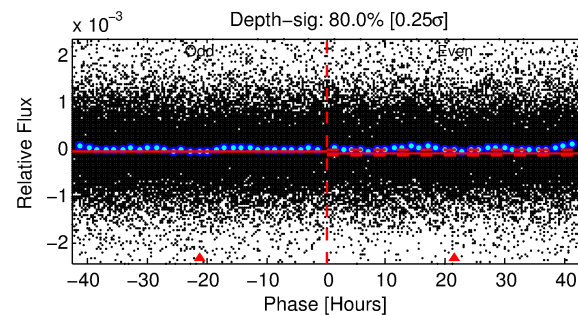
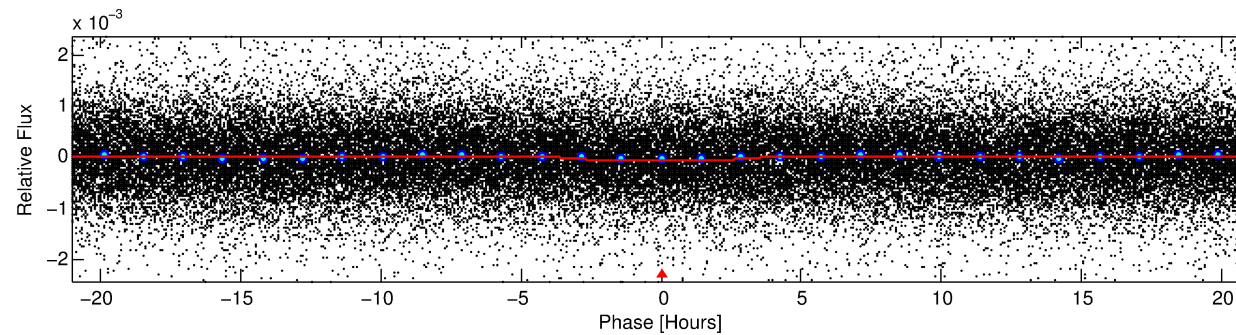
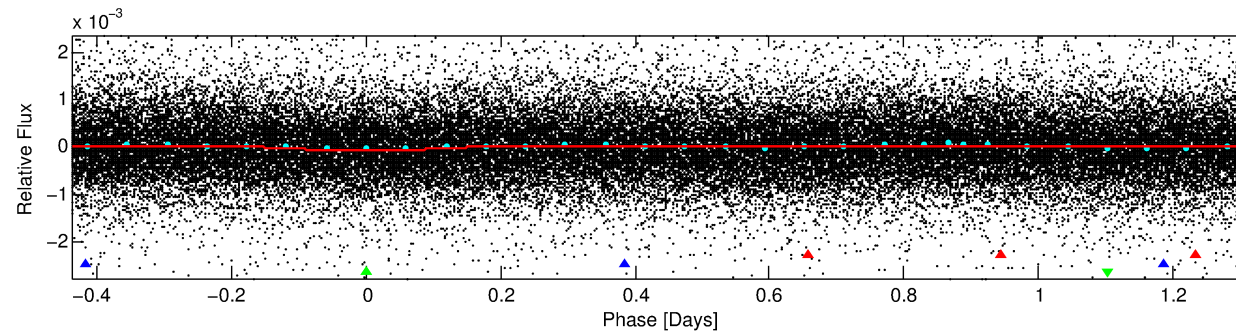
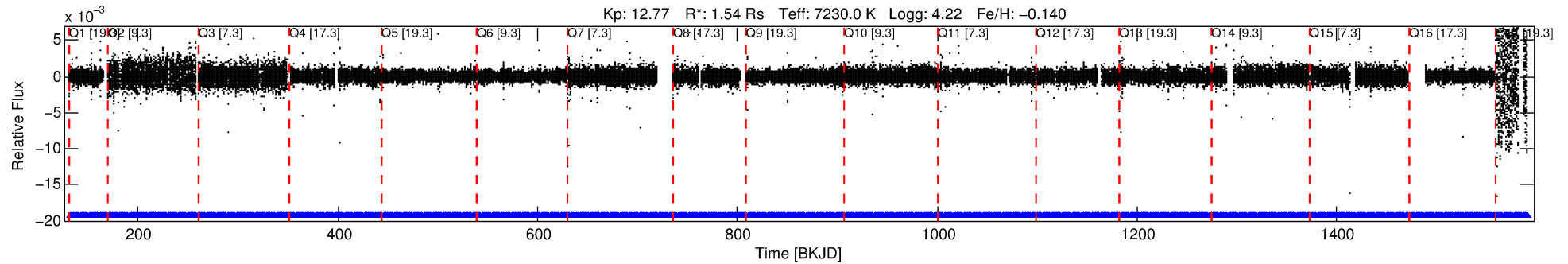
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008316195-03

No Significant Match Found

DV One-Page Summary

KIC: 8316195 Candidate: 3 of 3 Period: 1.755 d



DV Fit Results:

Period = 1.75455 [0.00002] d
Epoch = 132.1150 [0.0058] BKJD
Rp/R* = 0.0073 [0.0034]
a/R* = 1.36 [1.81]
b = 0.85 [0.94]
Seff = 5668.54 [2289.09]
Teq = 2213 [223] K
Rp = 1.23 [0.69] Re
a = 0.0321 [0.0084] AU
Ag = 7.24 [7.98] [0.78 σ]
Teffp = 5611 [1476] K [2.28 σ]

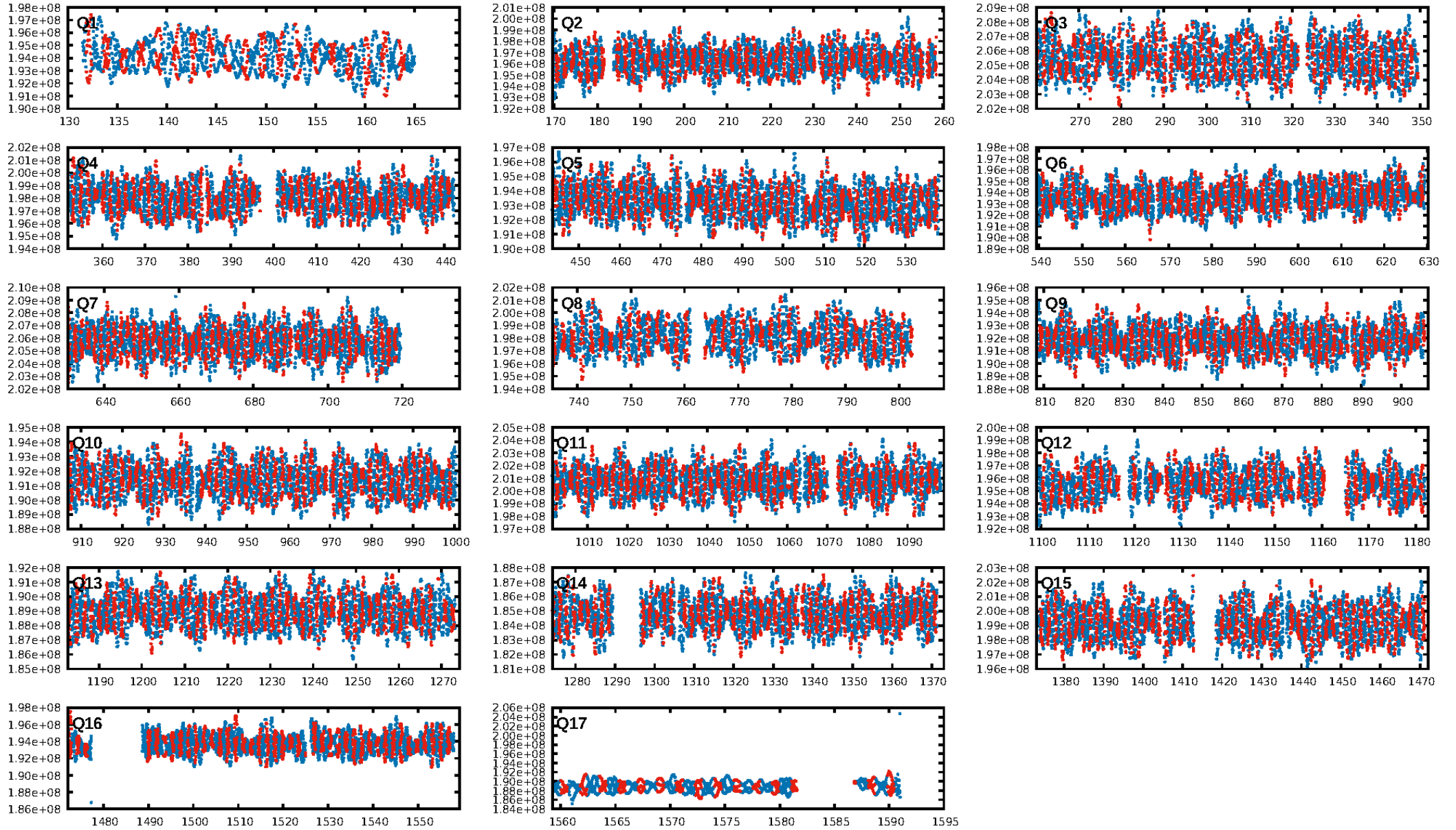
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1507.72 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.96e-33
RollingBand-fgt: 1.00 [731/731]
GhostDiagnostic-chr: 5.474
Centroid-sig: 9.5%
Centroid-so: 0.252 arcsec [0.96 σ]
OotOffset-rm: 0.124 arcsec [0.98 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.143 arcsec [1.27 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 1.00 [17/17]

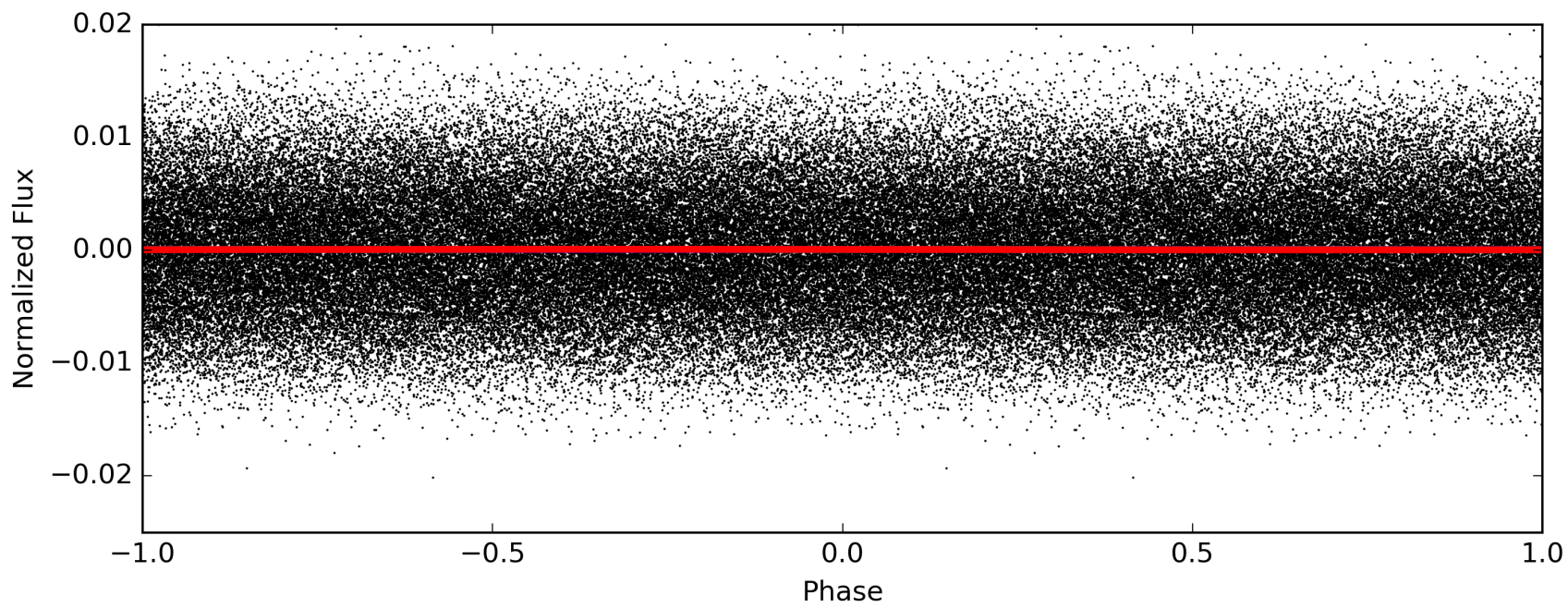
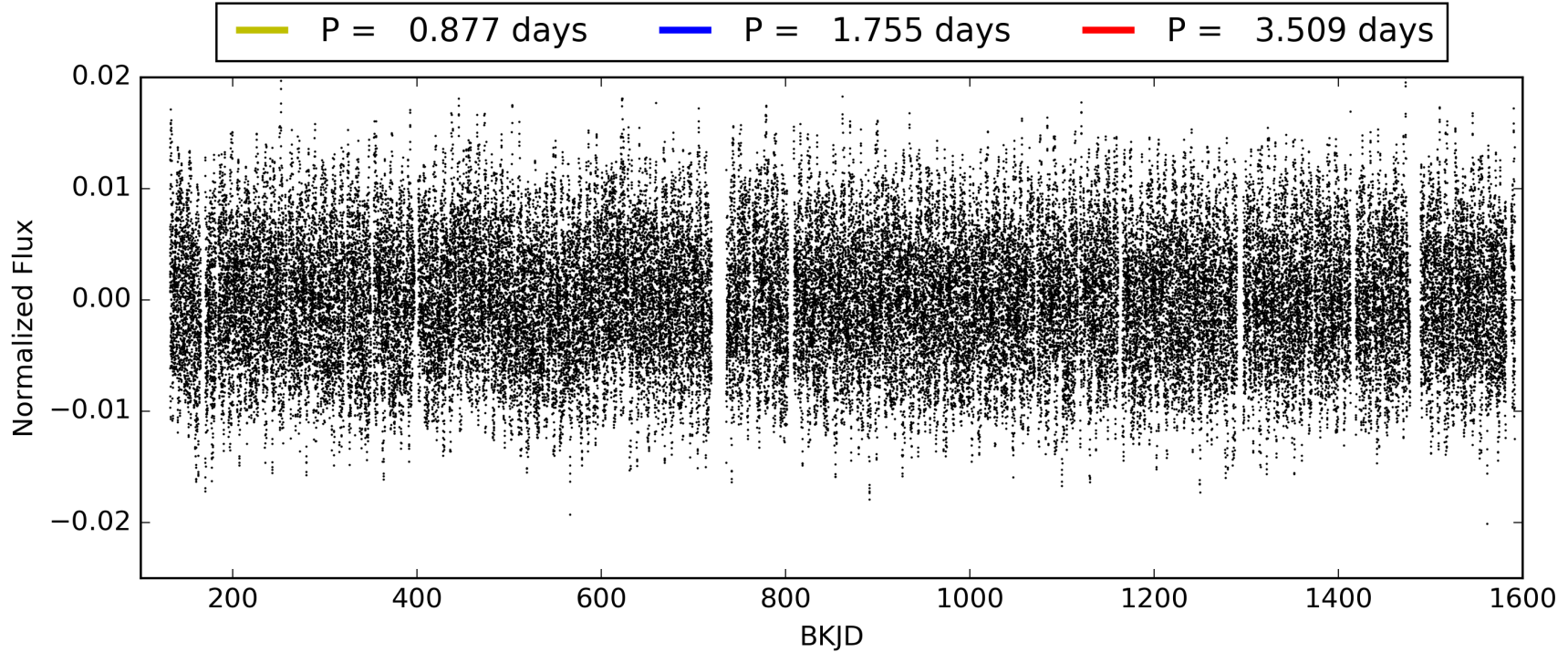
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:35:34 Z

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

TCE 008316195-03, PDC Light Curves

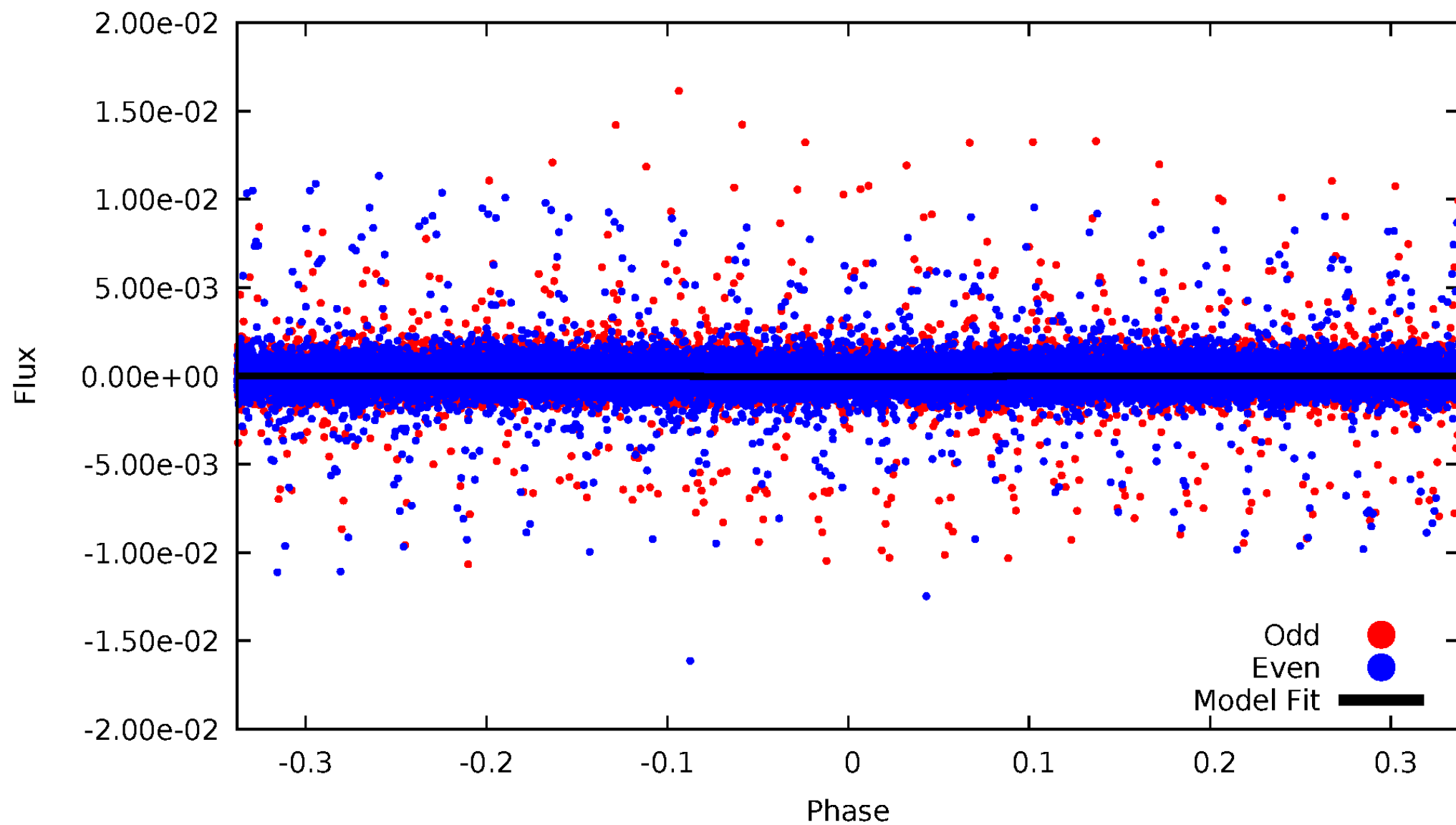


TCE 008316195-03



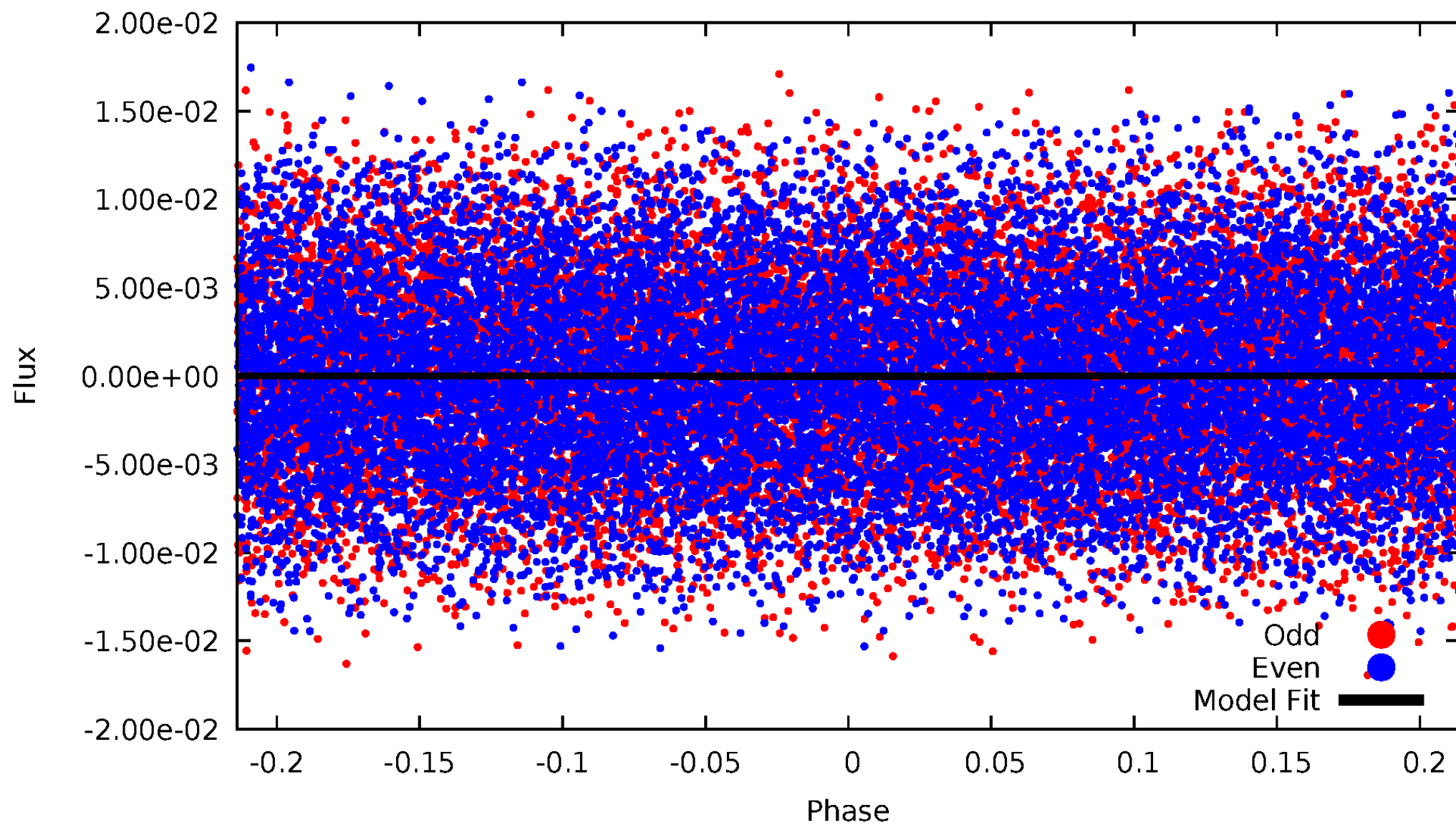
DV Odd/Even

TCE 008316195-03

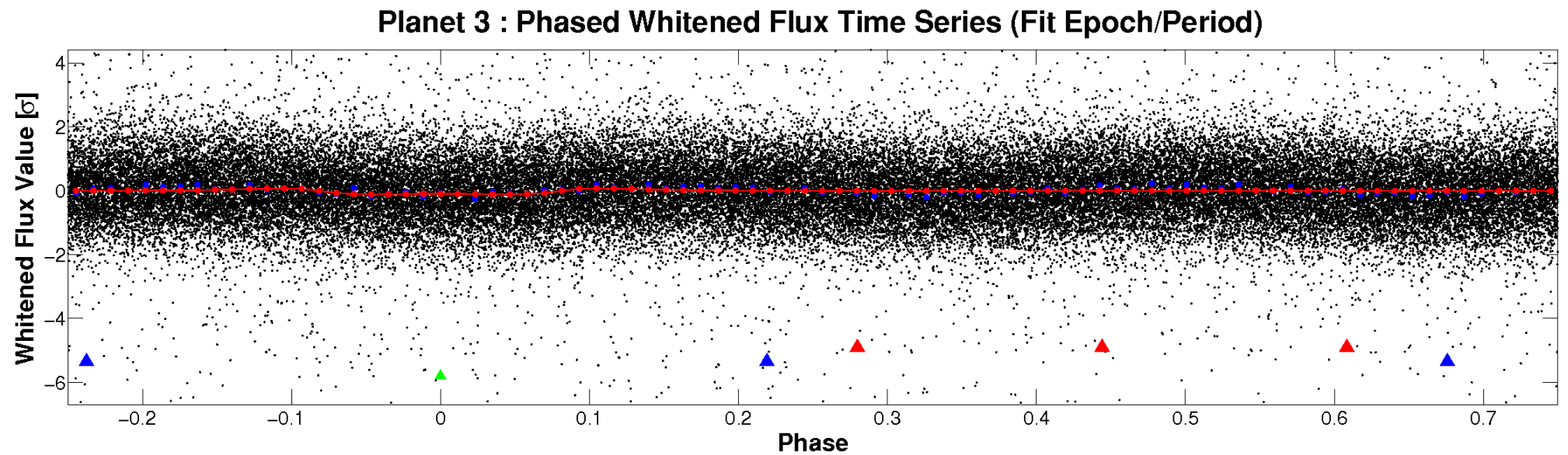
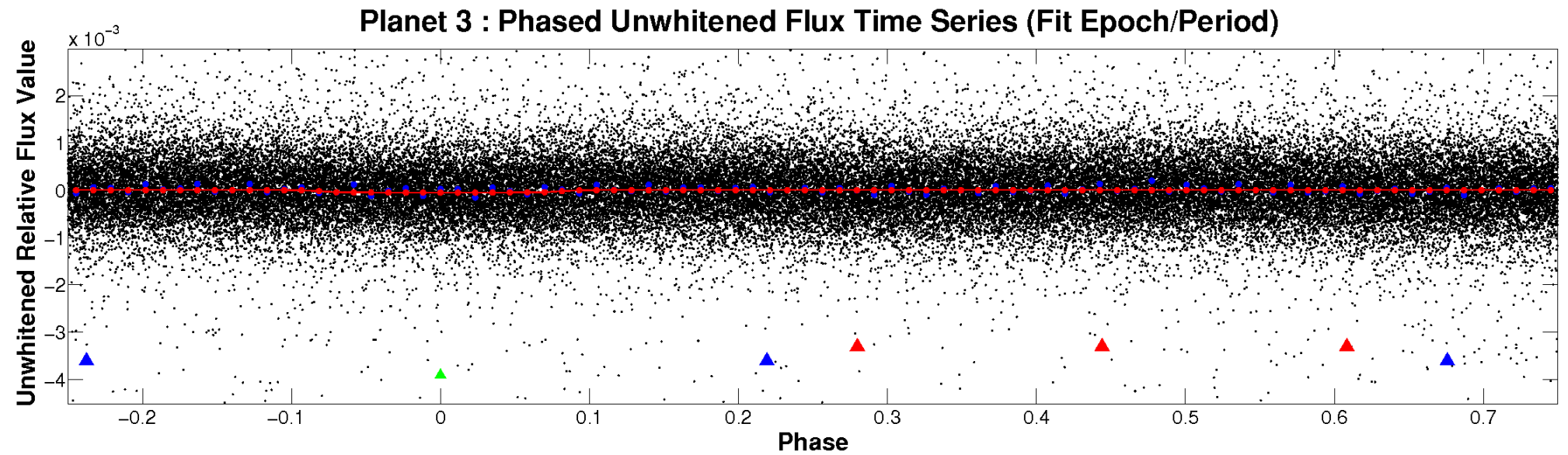


ALT Odd/Even

TCE 008316195-03

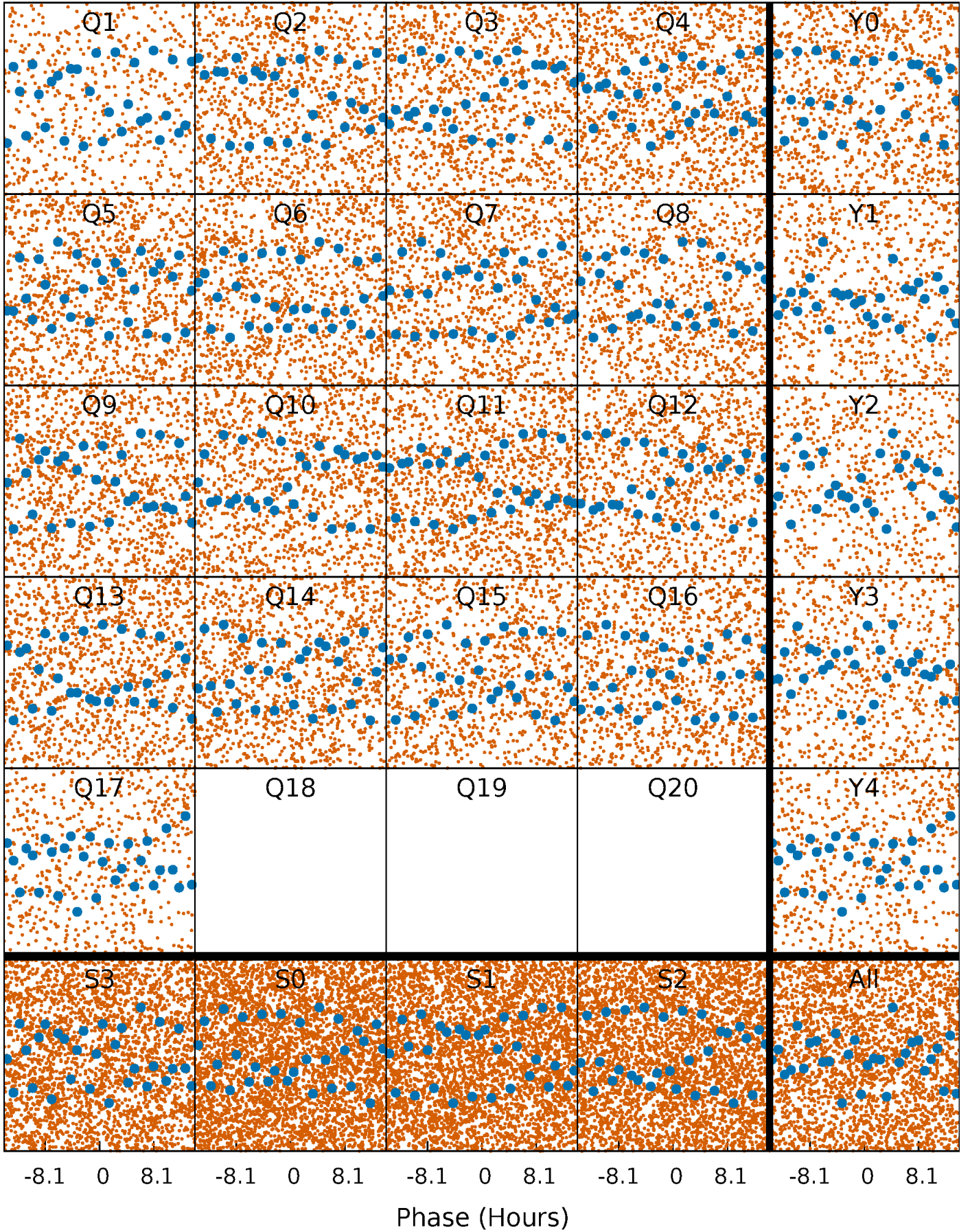


Non-Whitened Vs. Whitened Light Curve



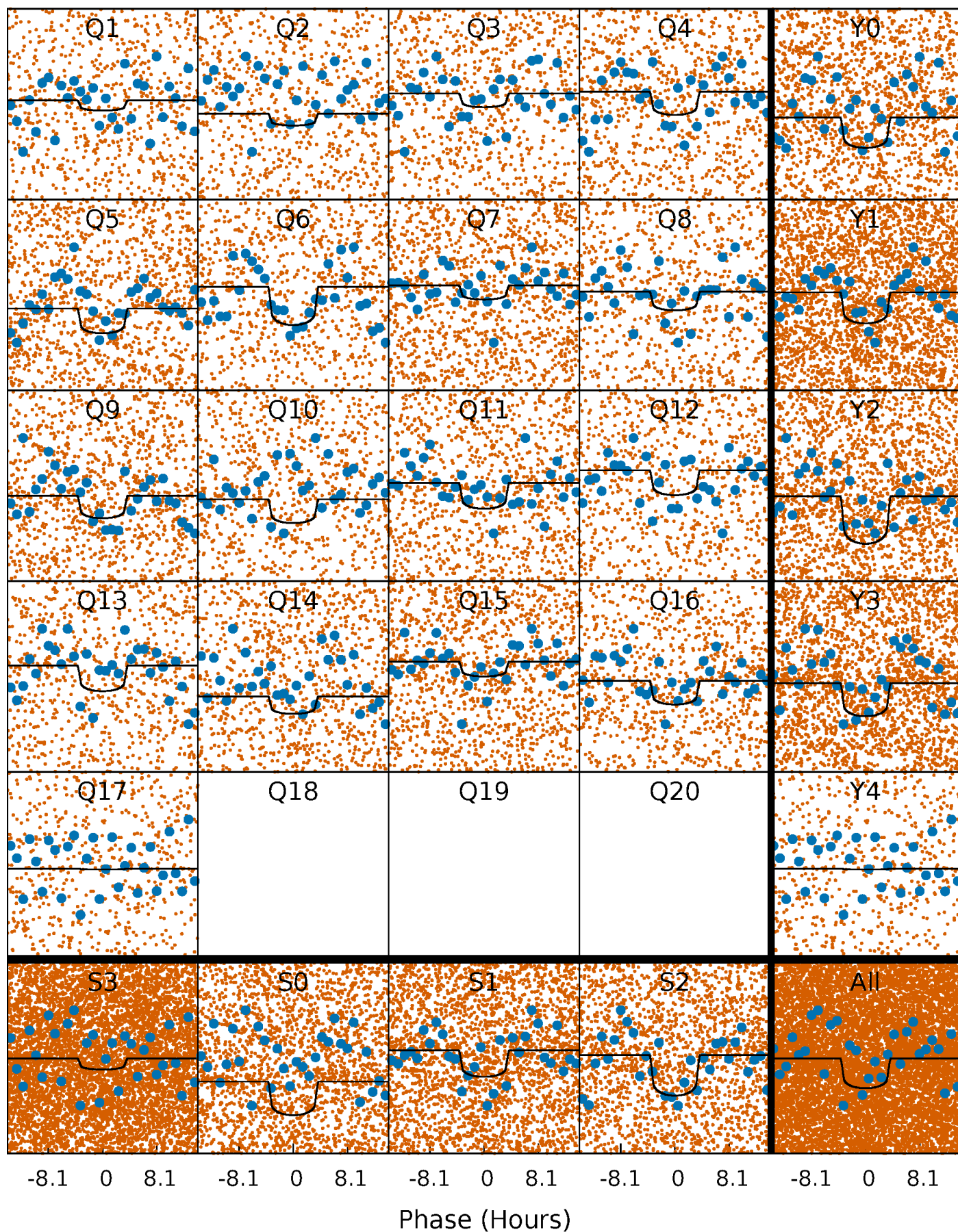
PDC Quarter-Phased Transit Curves

TCE 008316195-03 P= 1.754547 Days $T_0=132.114952$ (BKJD)



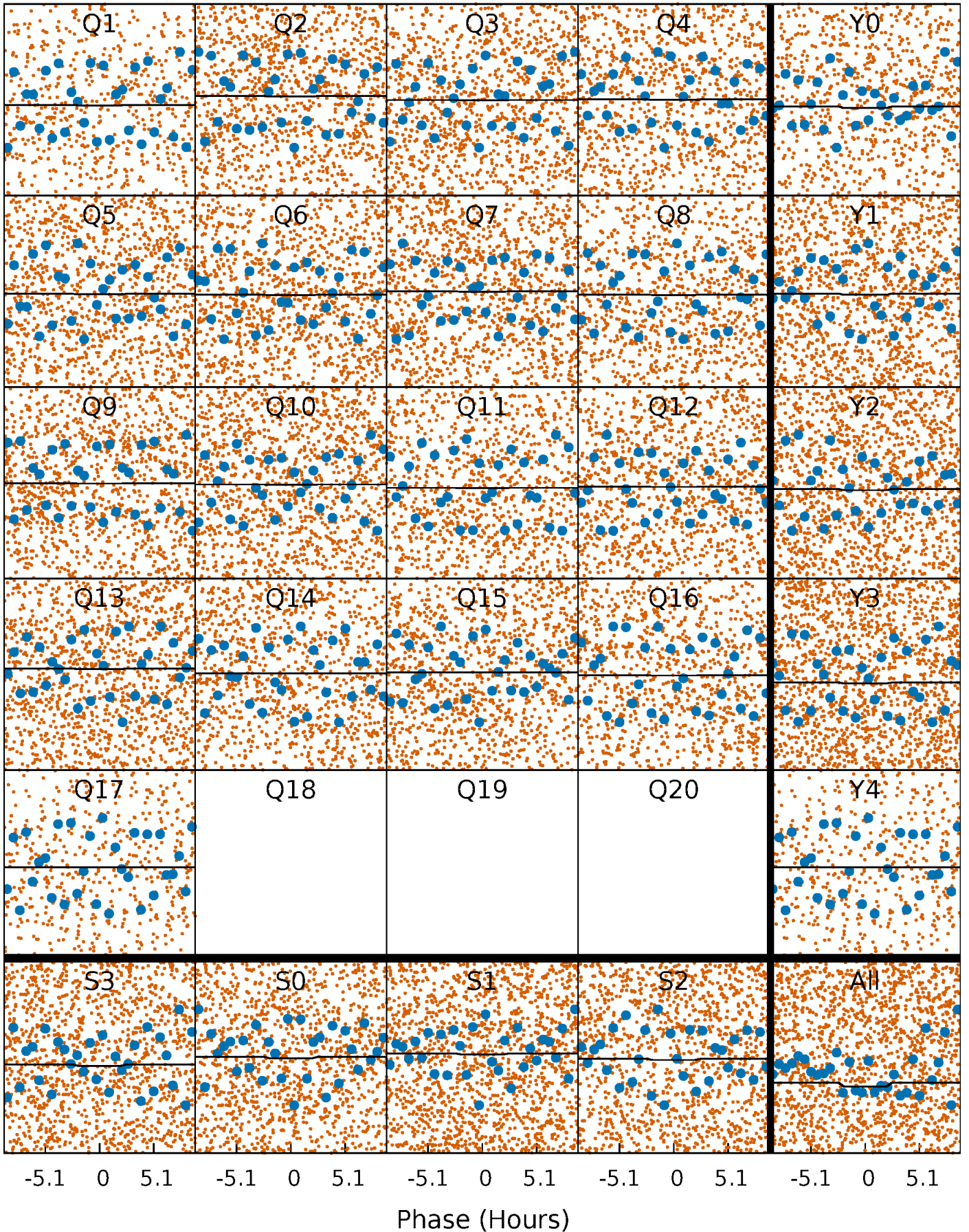
DV Quarter-Phased Transit Curves

TCE 008316195-03 P= 1.754547 Days $T_0=132.114952$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

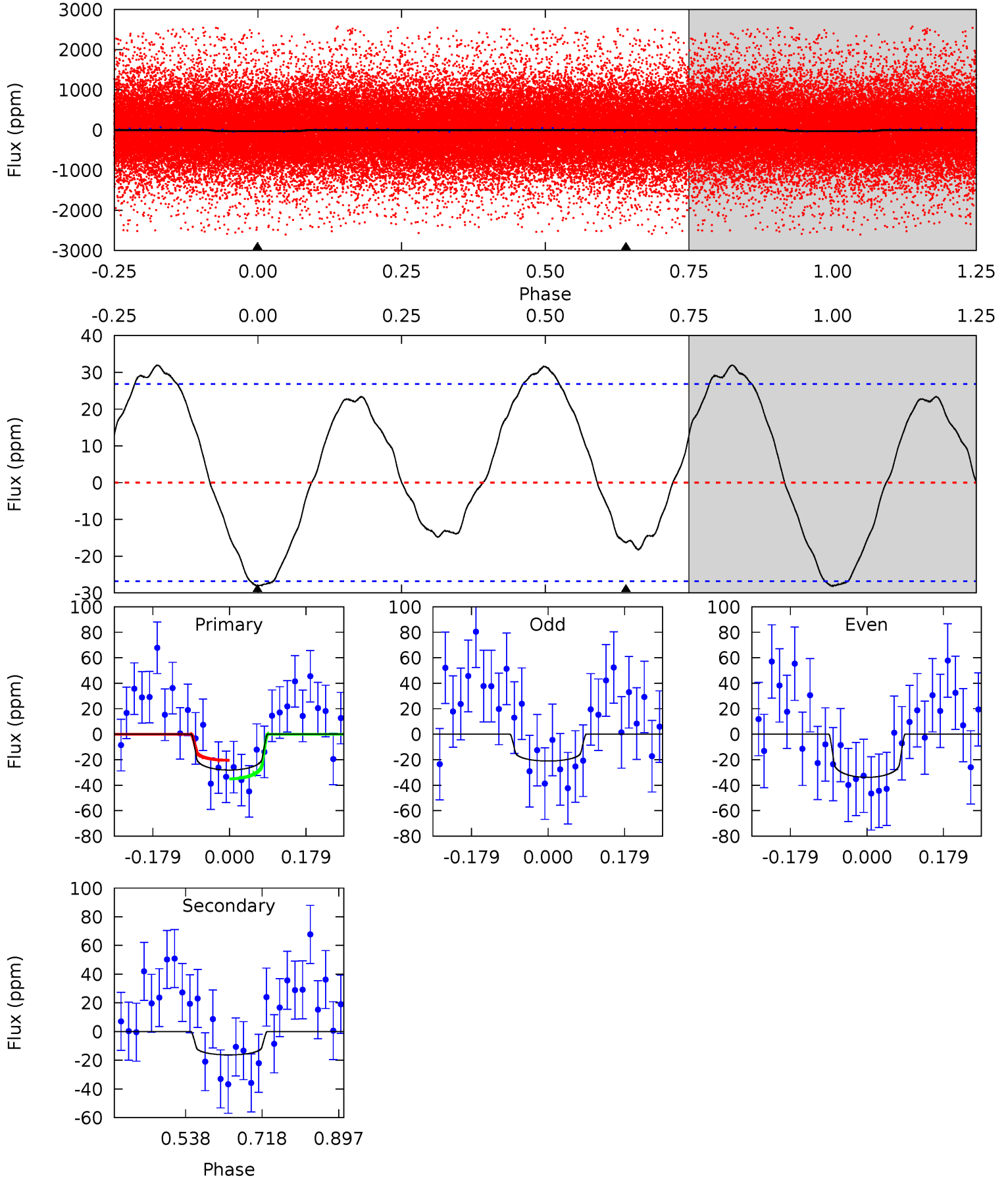
TCE 008316195-03 P= 1.754439 Days $T_0=132.083298$ (BKJD)



DV Model-Shift Uniqueness Test

008316195-03, P = 1.754547 Days, E = 130.360405 Days

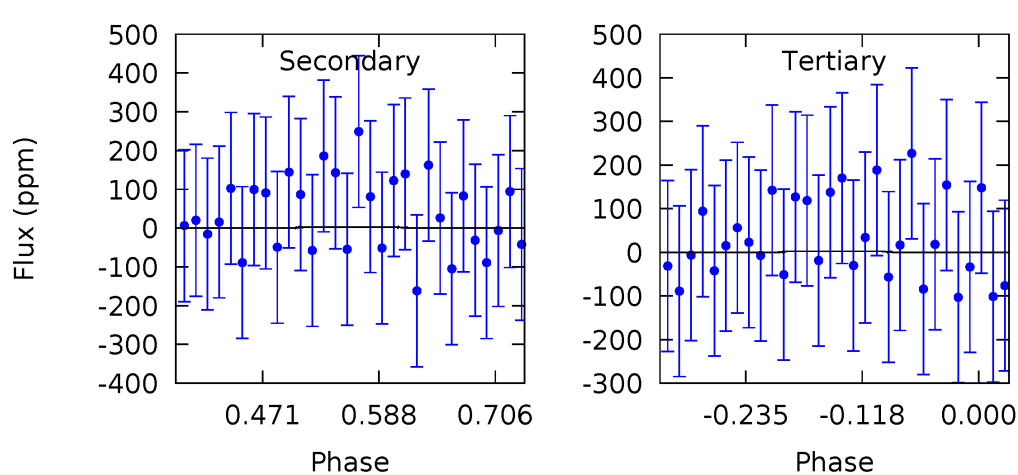
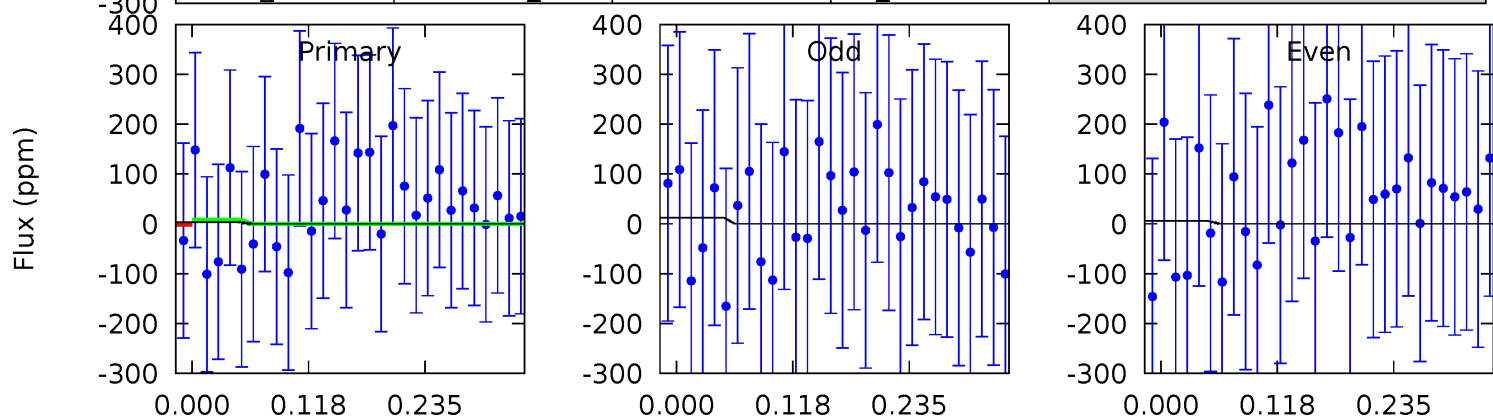
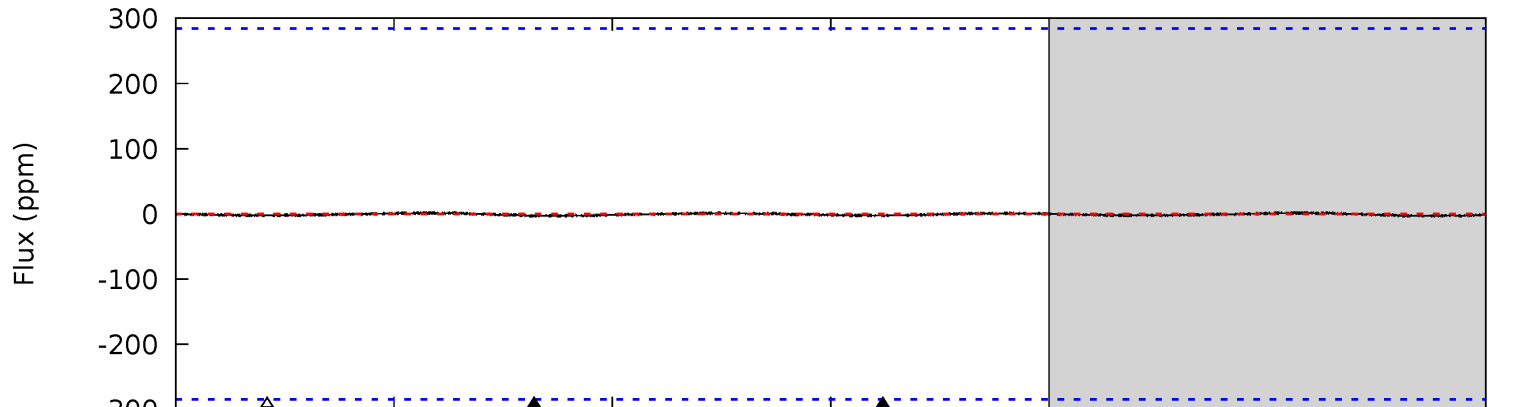
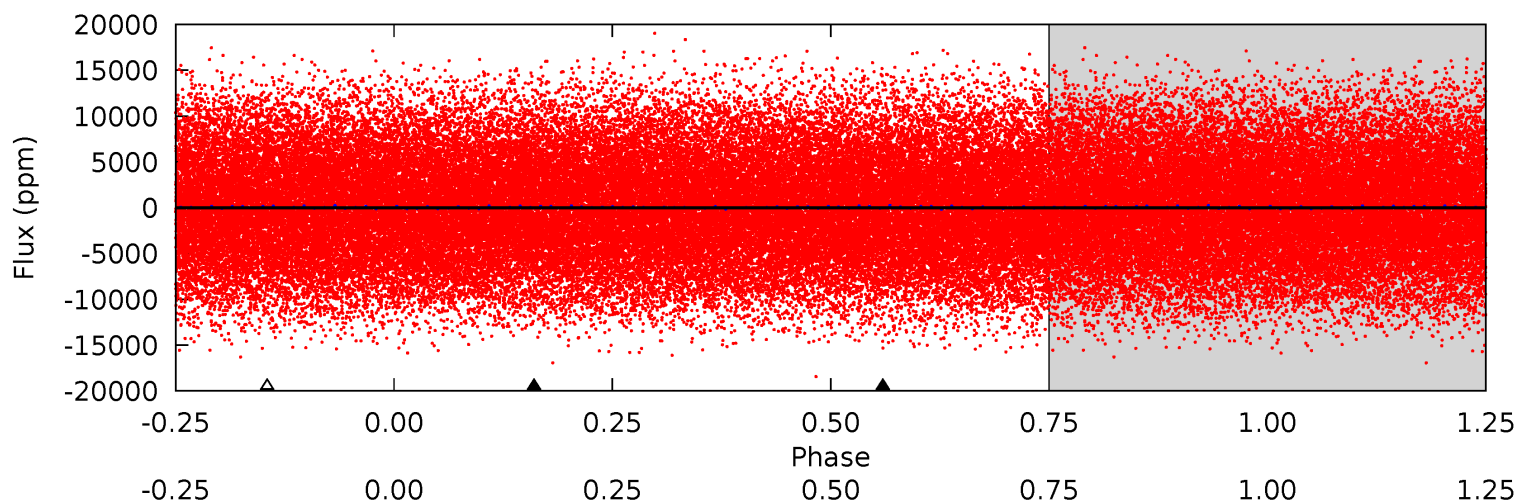
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.65	2.69	0	0	4.44	1.34	2.16	4.65	4.65	2.69	2.69	1.06	0.70	0.53	1.20



Alt Model-Shift Uniqueness Test

008316195-03, P = 1.754439 Days, E = 130.328859 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.05	0.04	0.04	0	4.53	1.56	0.02	0.01	0.05	0.00	0.04	0.05	0.07	0.29	0.05



Stellar Parameters For KIC 008316195

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7230^{+201}_{-302}	$4.216^{+0.105}_{-0.195}$	$-0.140^{+0.250}_{-0.400}$	$1.543^{+0.494}_{-0.266}$	$1.432^{+0.216}_{-0.216}$	$0.549^{+0.320}_{-0.285}$
	+3%/-4%	+2%/-5%	+179%/-286%	+32%/-17%	+15%/-15%	+58%/-52%
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 008316195-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 6	$1.30^{+0.63}_{-0.56}$	3112^{+238}_{-186}	5121^{+1793}_{-940}	$5.133^{+10.724}_{-3.110}$
Alt.	-3 ± 63	$0.79^{+0.50}_{-0.51}$	3119^{+238}_{-179}	4633^{+8528}_{-17152}	$2.960^{+97.922}_{-93.930}$

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 $A_{obs} \gg 1.0$

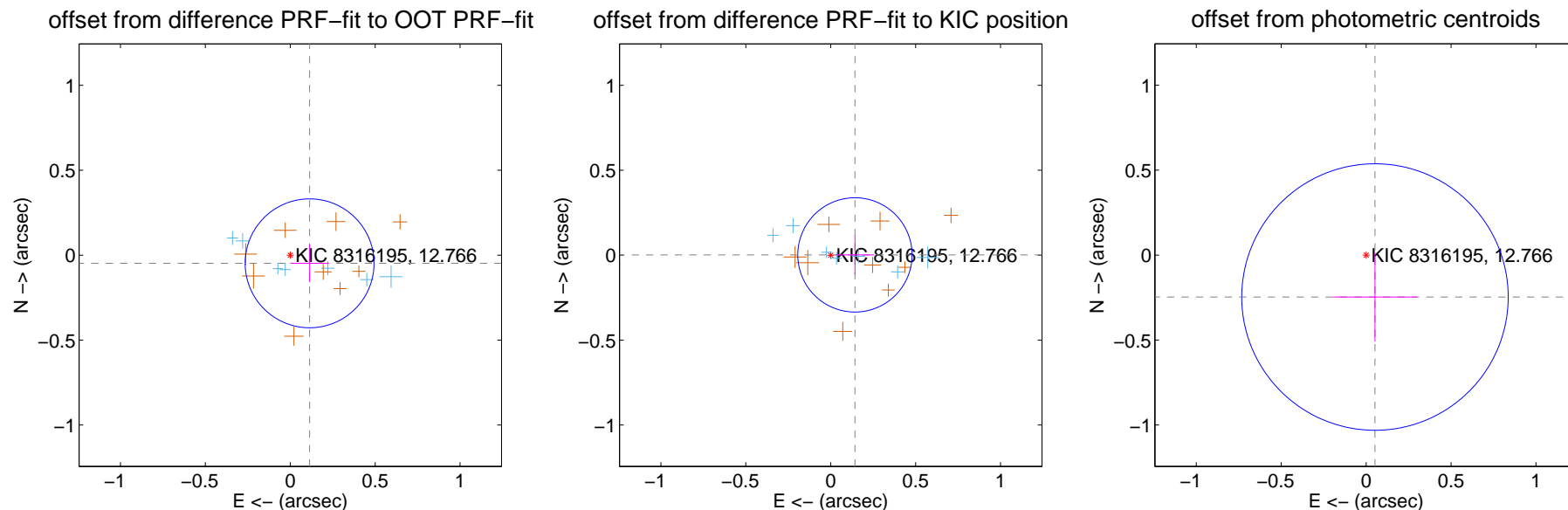
DV Centroid Data

Supplemental centroid analysis for 008316195-03. Kepler magnitude: 12.77. Transit SNR 11.28

There are 7 quarters with good PRF difference image offsets

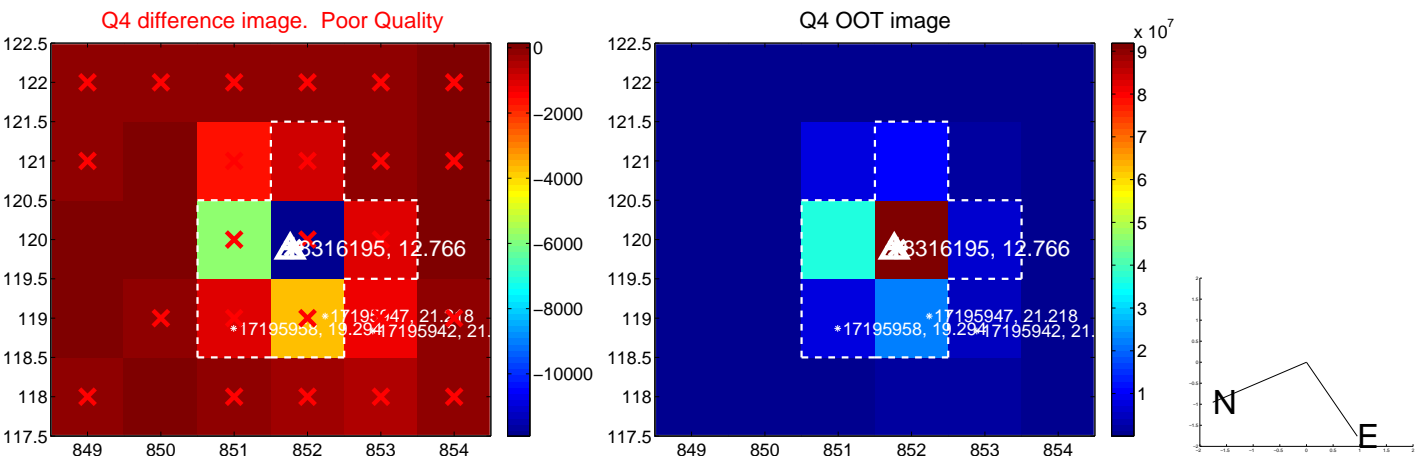
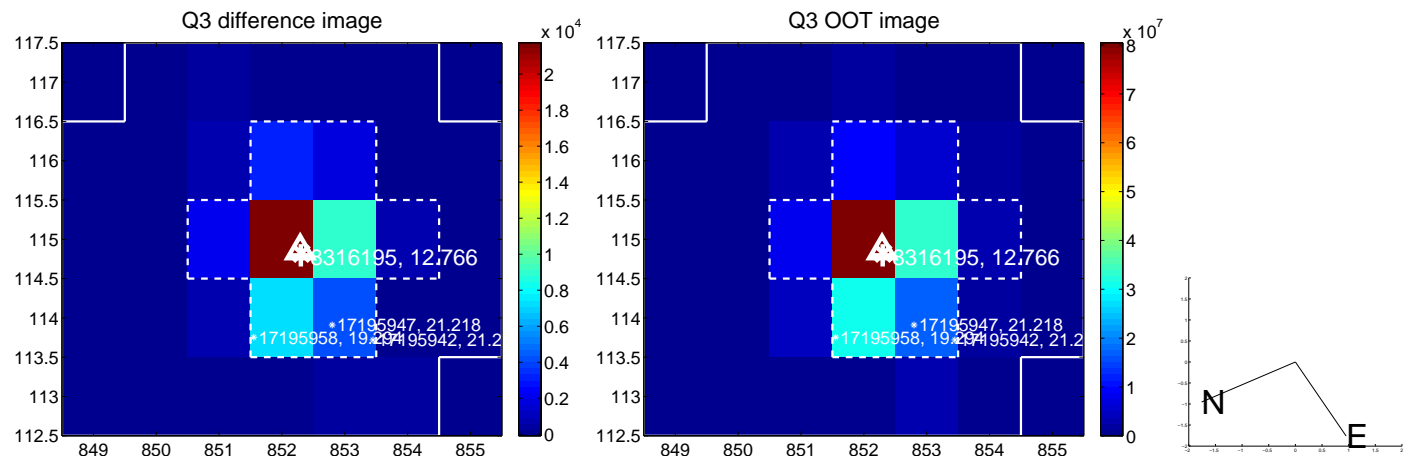
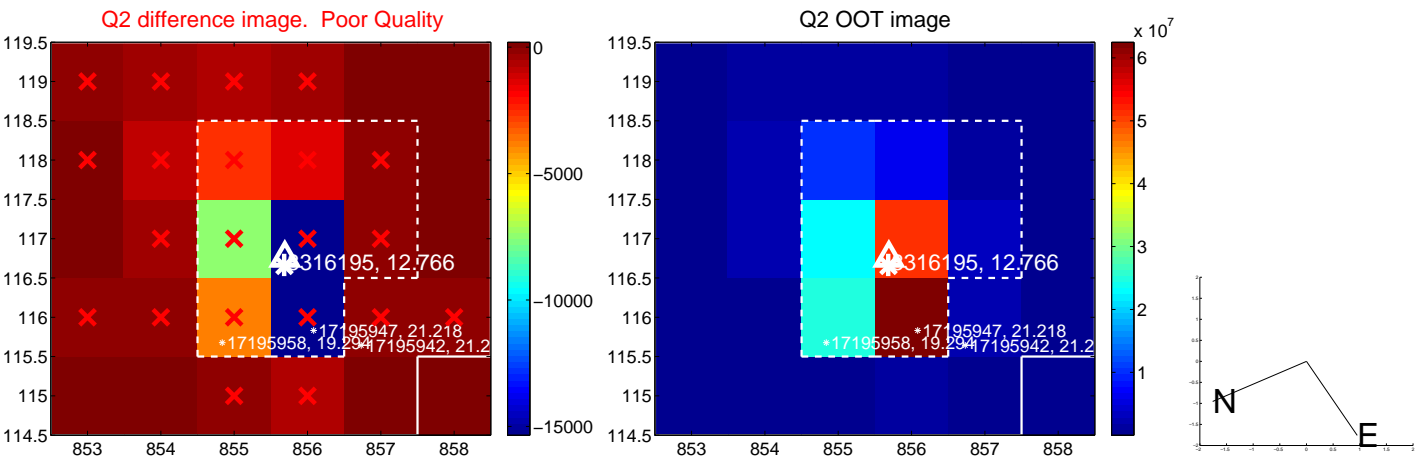
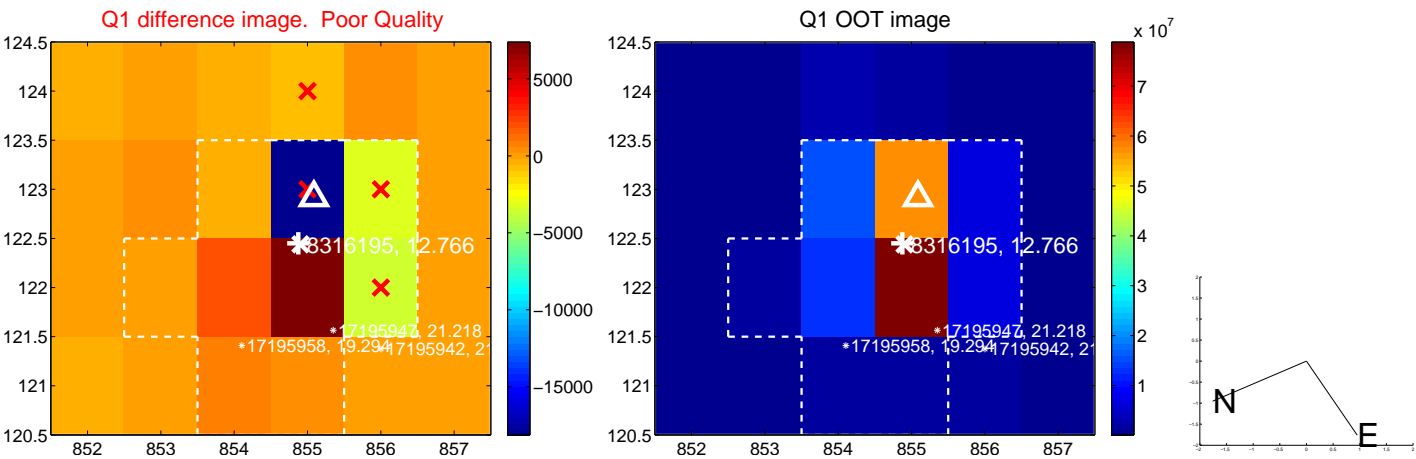
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.124 ± 0.126	0.98	-0.114 ± 0.113	-0.048 ± 0.111
PRF-fit source offset from KIC position	0.143 ± 0.112	1.27	-0.143 ± 0.113	0.001 ± 0.116
photometric centroid source offset	0.25 ± 0.26	0.96	-0.05 ± 0.25	-0.25 ± 0.26

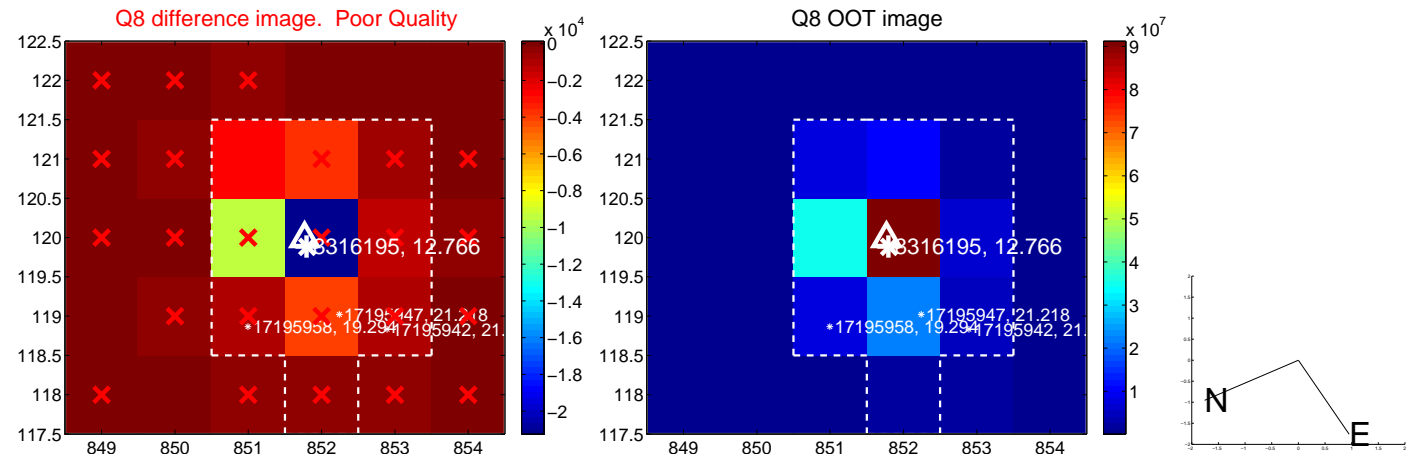
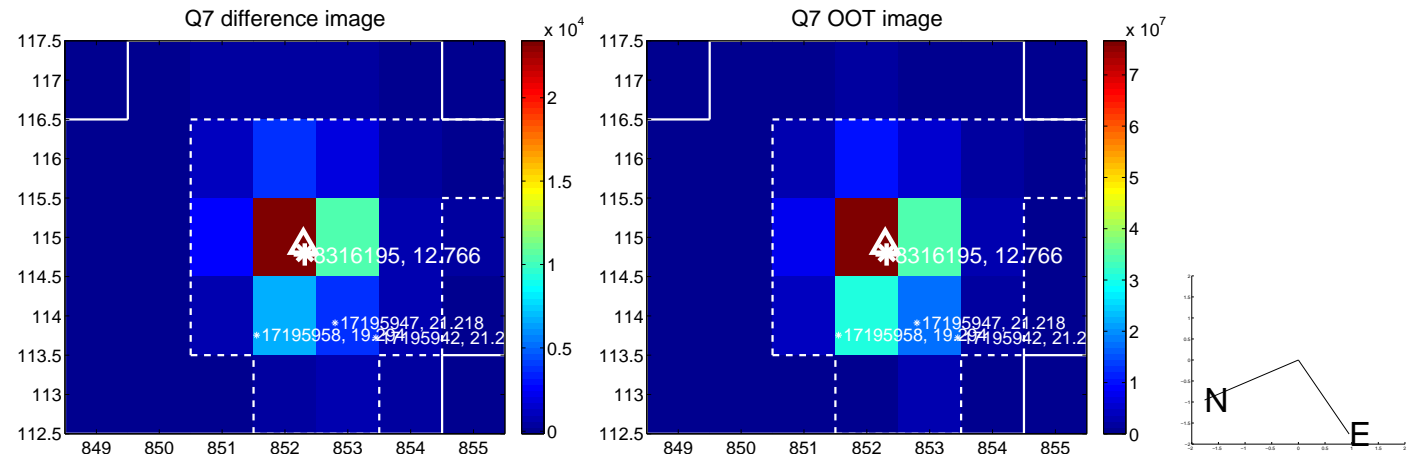
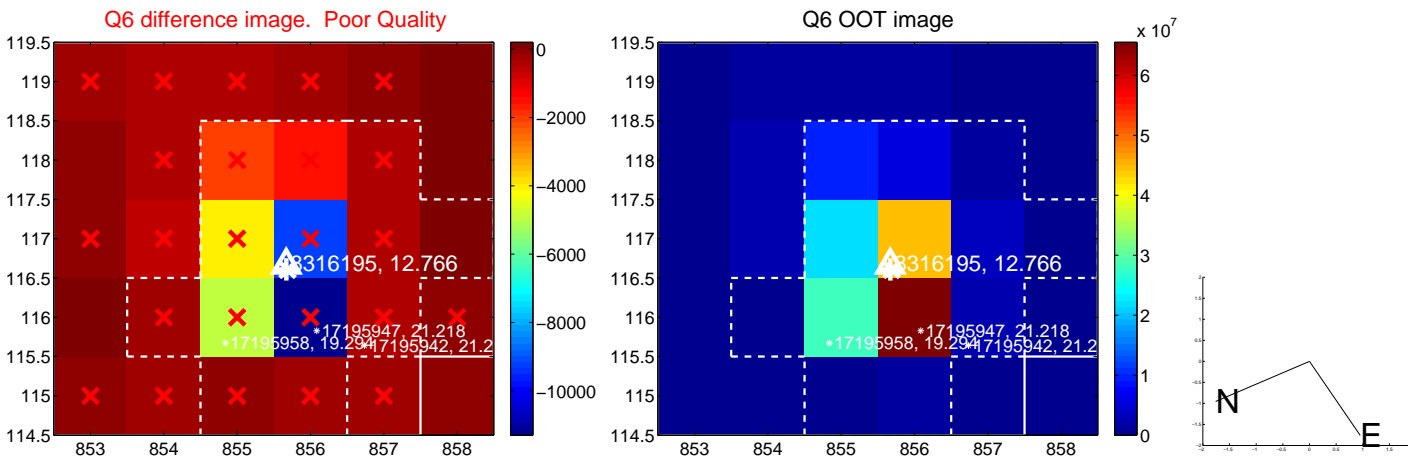
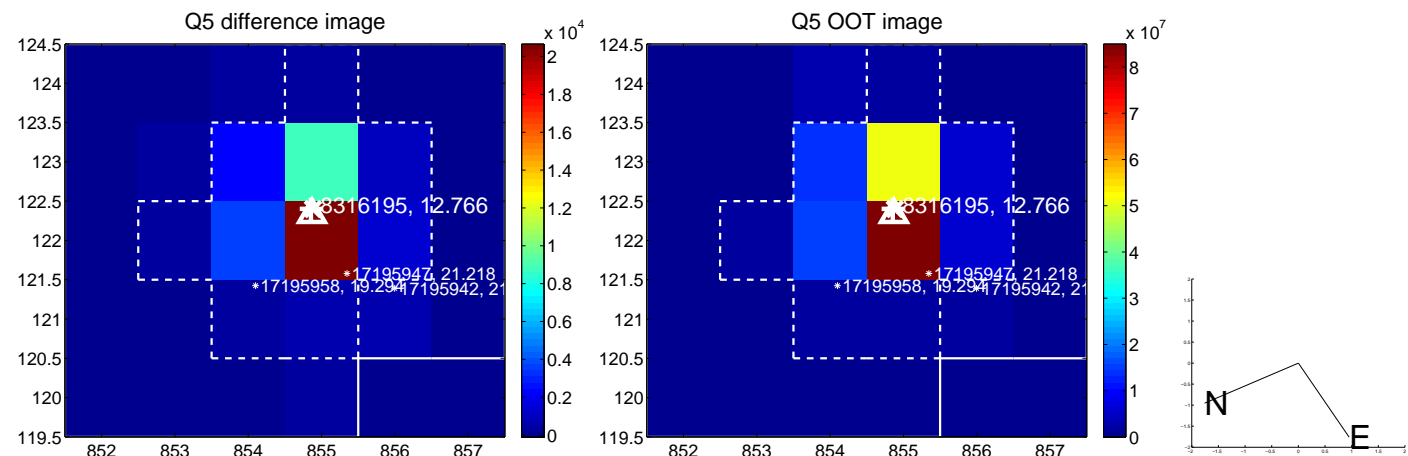


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

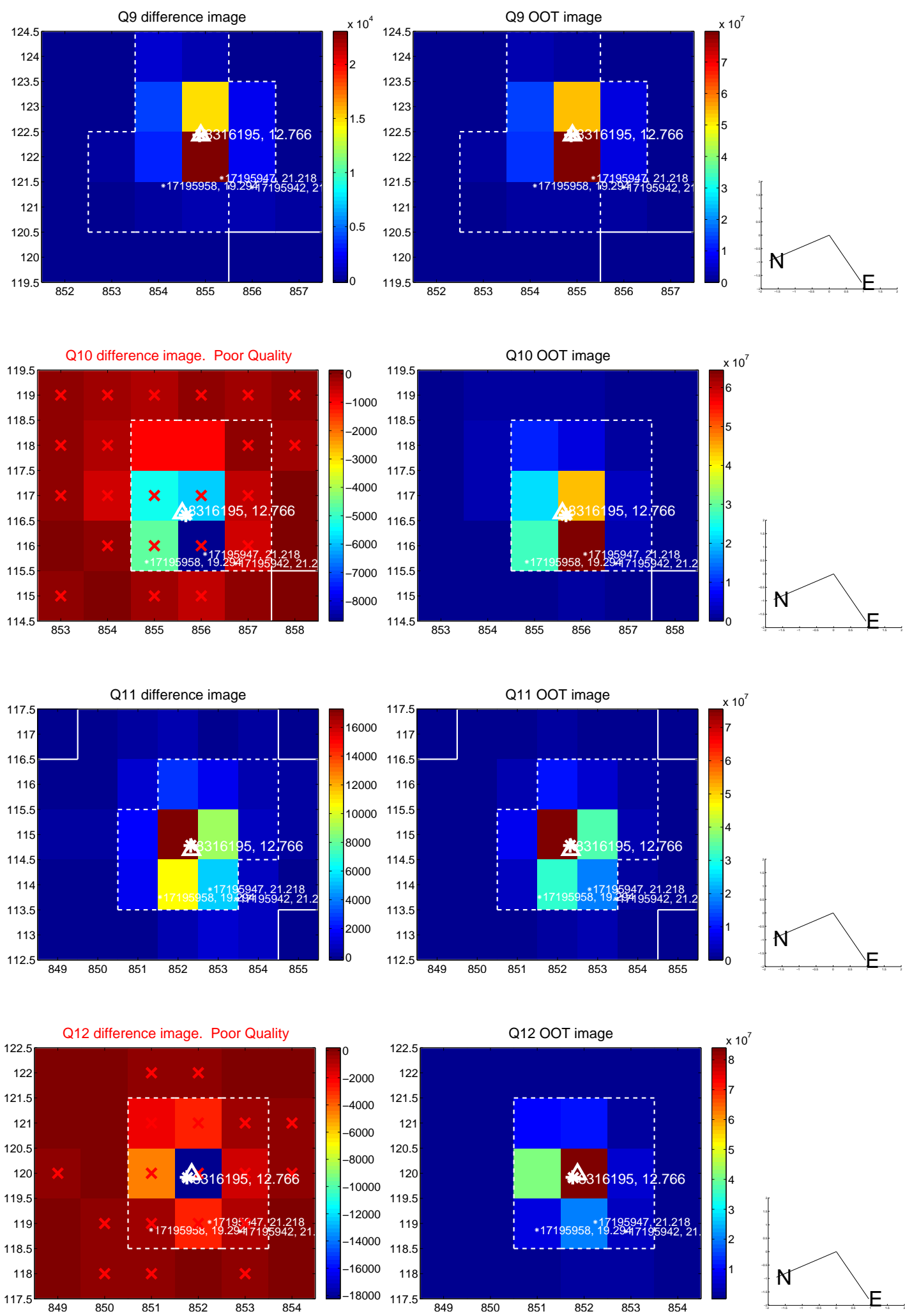
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



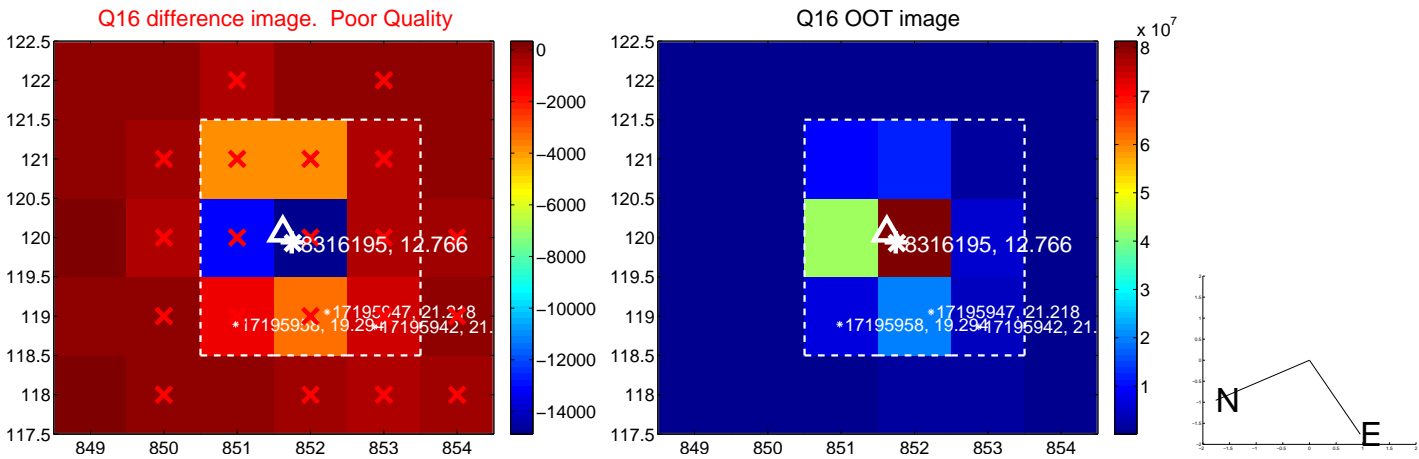
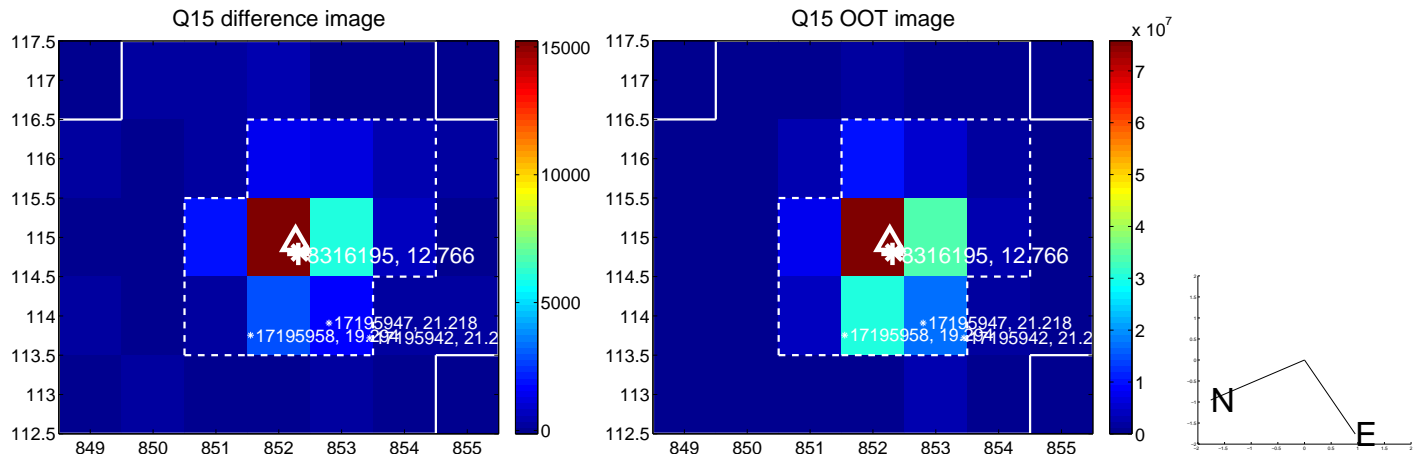
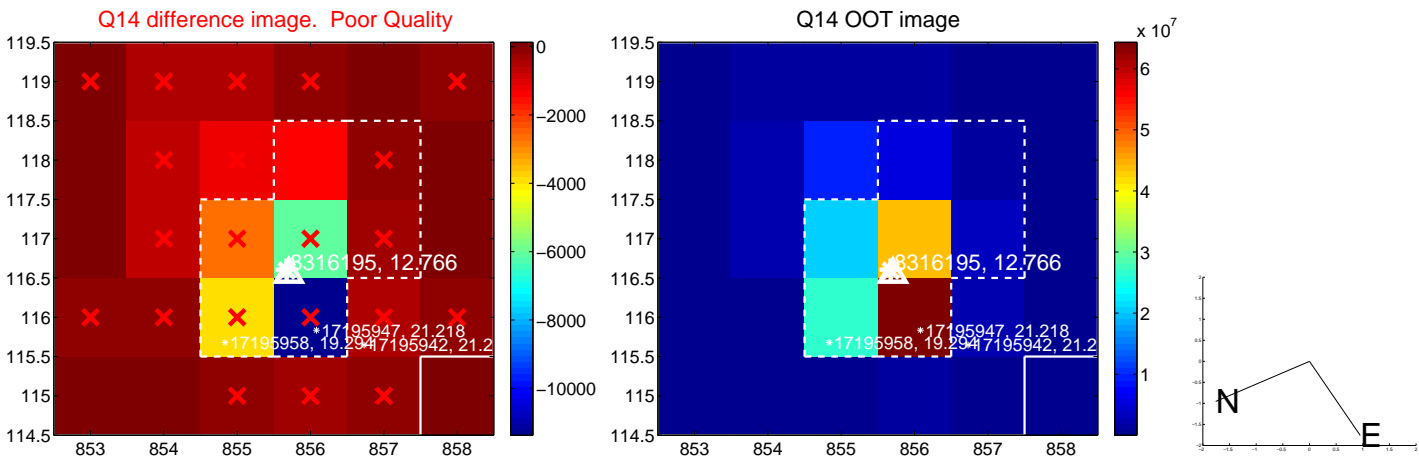
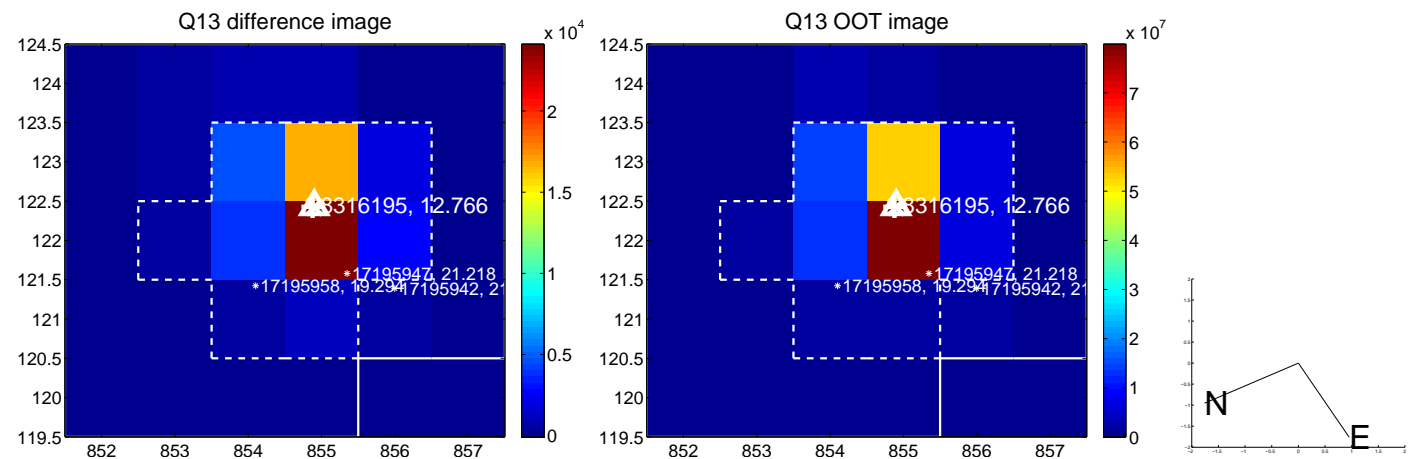
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



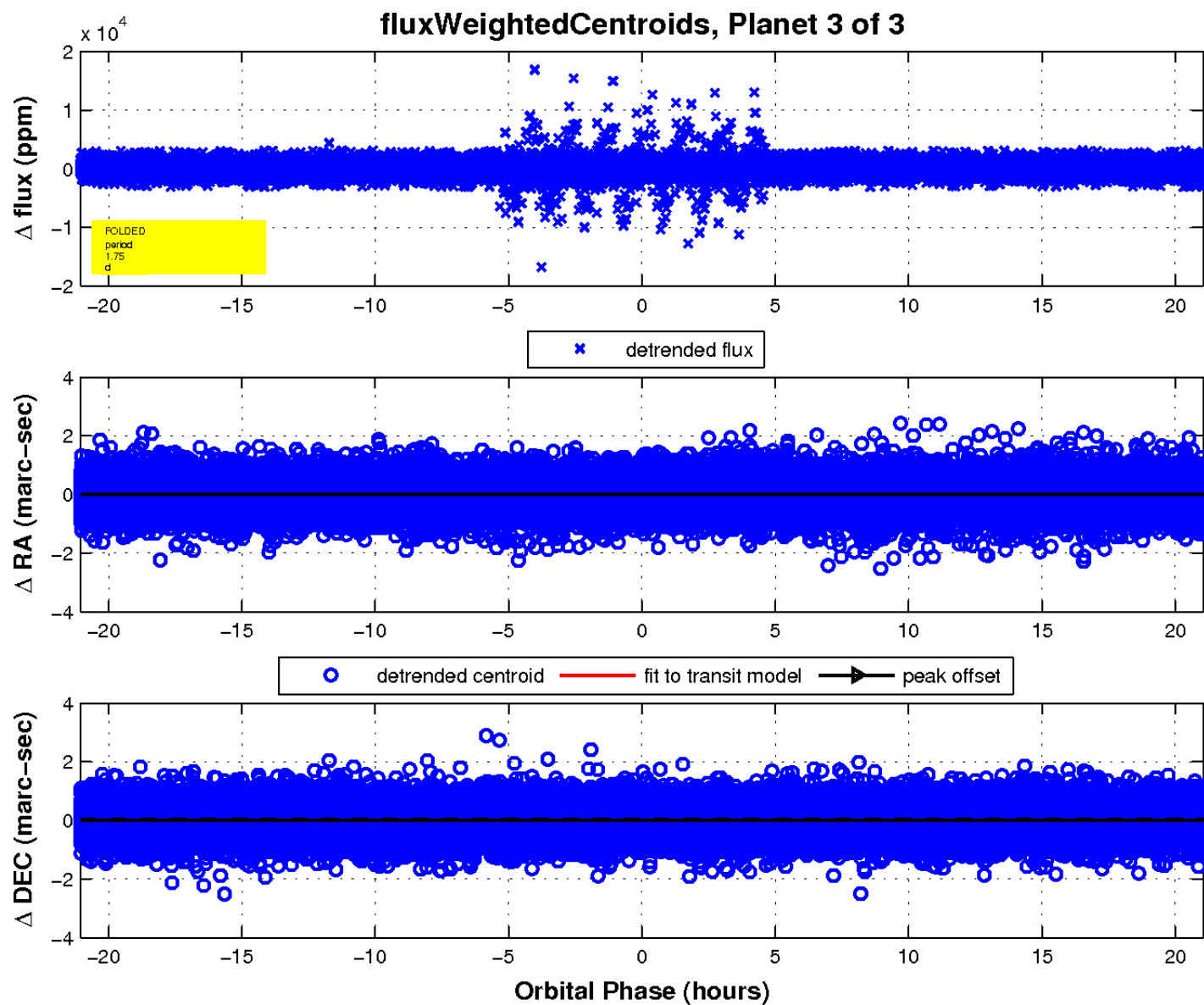
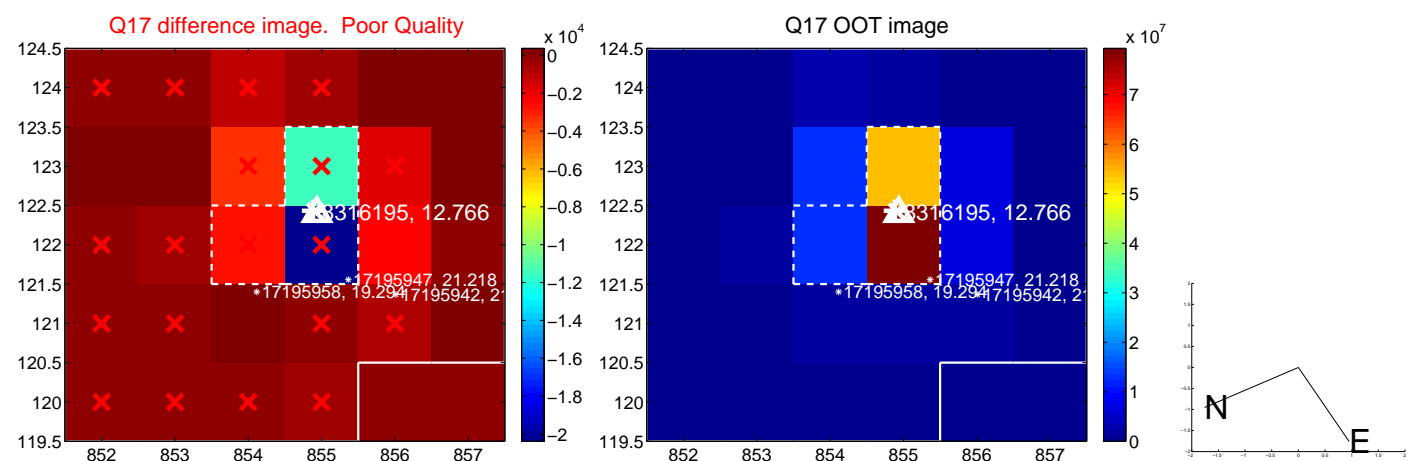
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

