

KIC 010818065

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})
010818065-01	OBS	No	492.212898	246.914445	3169.9	5.105	14.9	7.2	0.67	4701	4.46	0.18
010818065-02	OBS	No	684.584475	198.328251	3154.4	6.030	15.1	7.3	0.67	4701	3.63	0.11
010818065-03	OBS	No	332.574394	330.881920	2112.9	5.002	11.8	5.7	0.67	4701	3.08	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010818065-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010818065-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—CENT_FEW_DIFFS
010818065-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

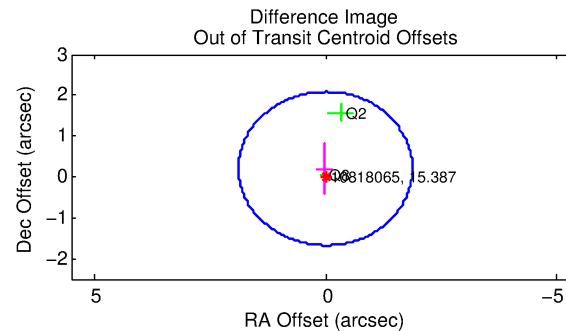
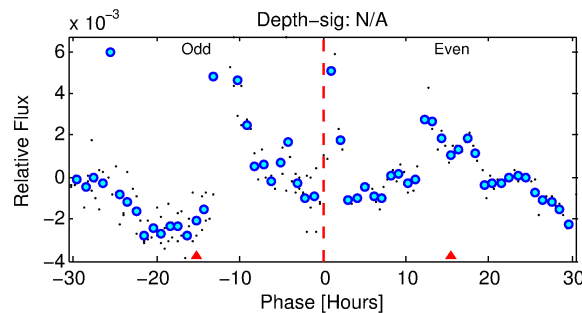
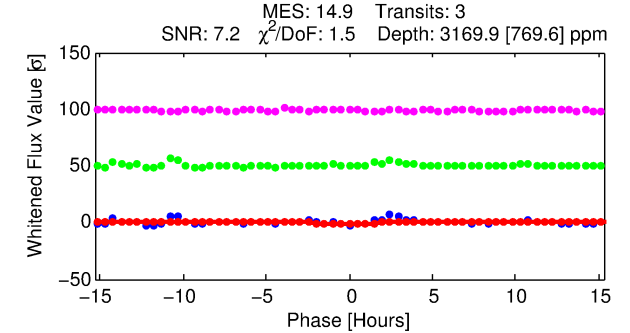
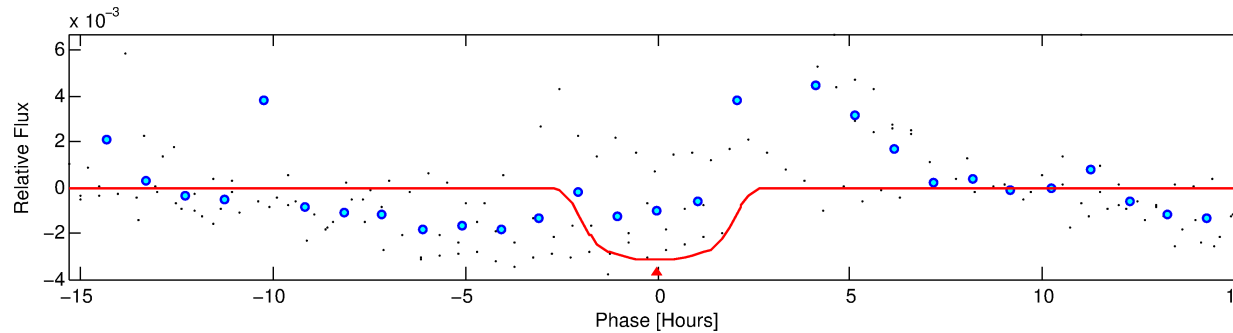
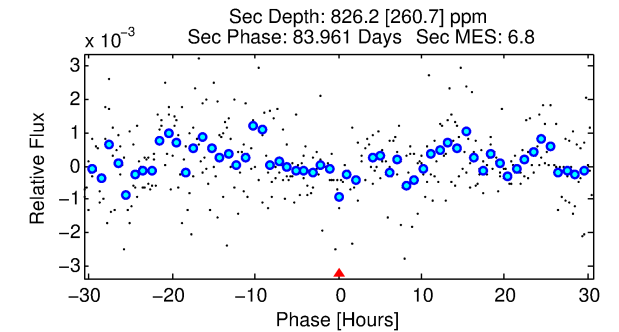
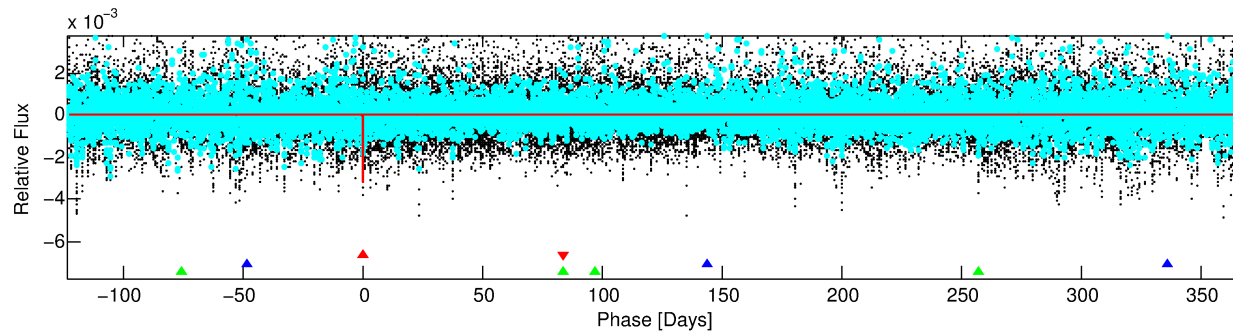
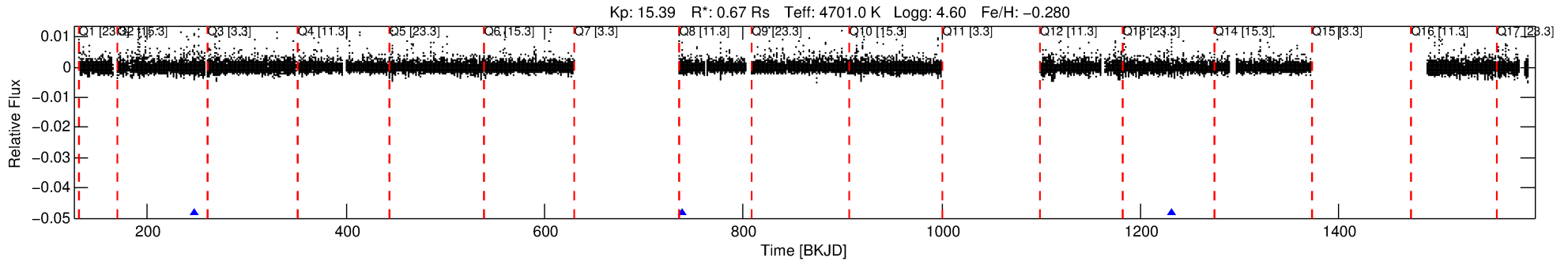
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010818065-01

No Significant Match Found

DV One-Page Summary

KIC: 10818065 Candidate: 1 of 3 Period: 492.213 d



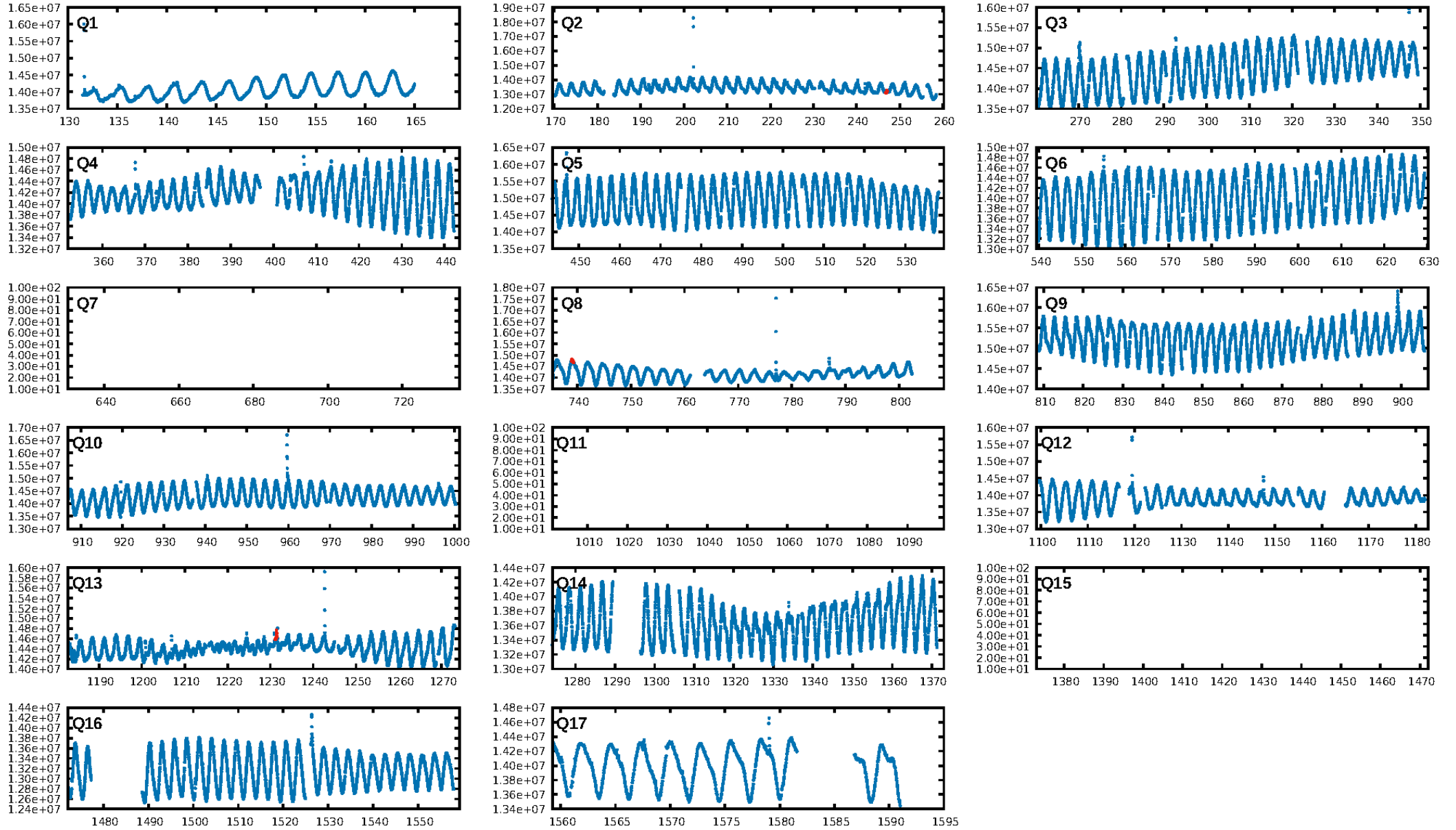
DV Fit Results:

Period = 492.21290 [0.00955] d
Epoch = 246.9144 [0.0120] BKJD
Rp/R* = 0.0608 [0.0114]
a/R* = 456.66 [183.25]
b = 0.86 [0.13]
Seff = 0.18 [0.03]
Teq = 165 [7] K
Rp = 4.46 [0.92] Re
a = 1.0610 [0.0770] AU
Ag = 25704.73 [12835.47] [2.00σ]
Teffp = 3231 [411] K [7.46σ]

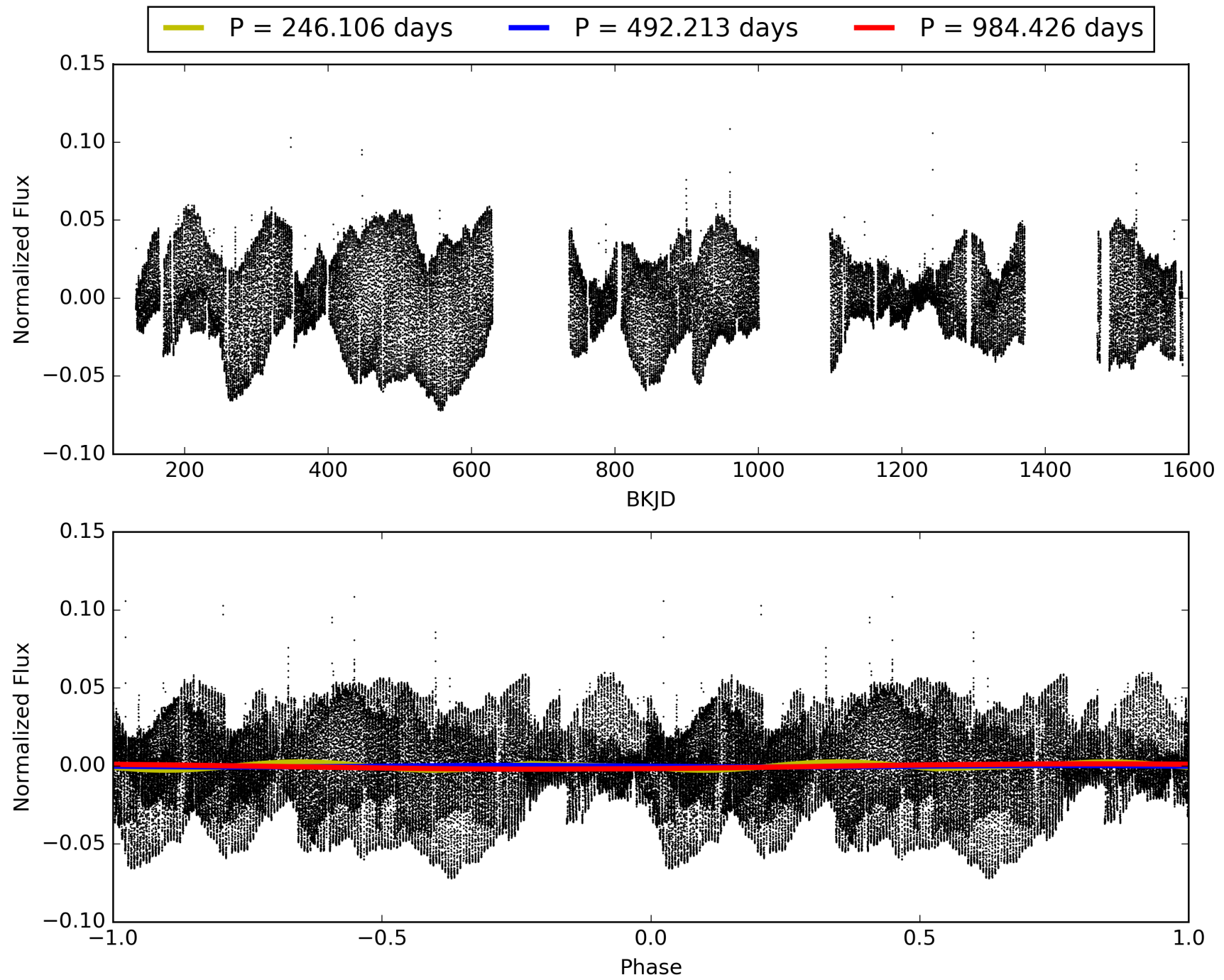
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [536.07σ]
LongPeriod-sig: 100.0% [584.35σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 22.9%
Bootstrap-pfa: 1.10e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.335
Centroid-sig: 8.8%
Centroid-so: 0.328 arcsec [0.28σ]
OotOffset-rm: 0.203 arcsec [0.32σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-rm: 0.139 arcsec [0.34σ]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 010818065-01, PDC Light Curves

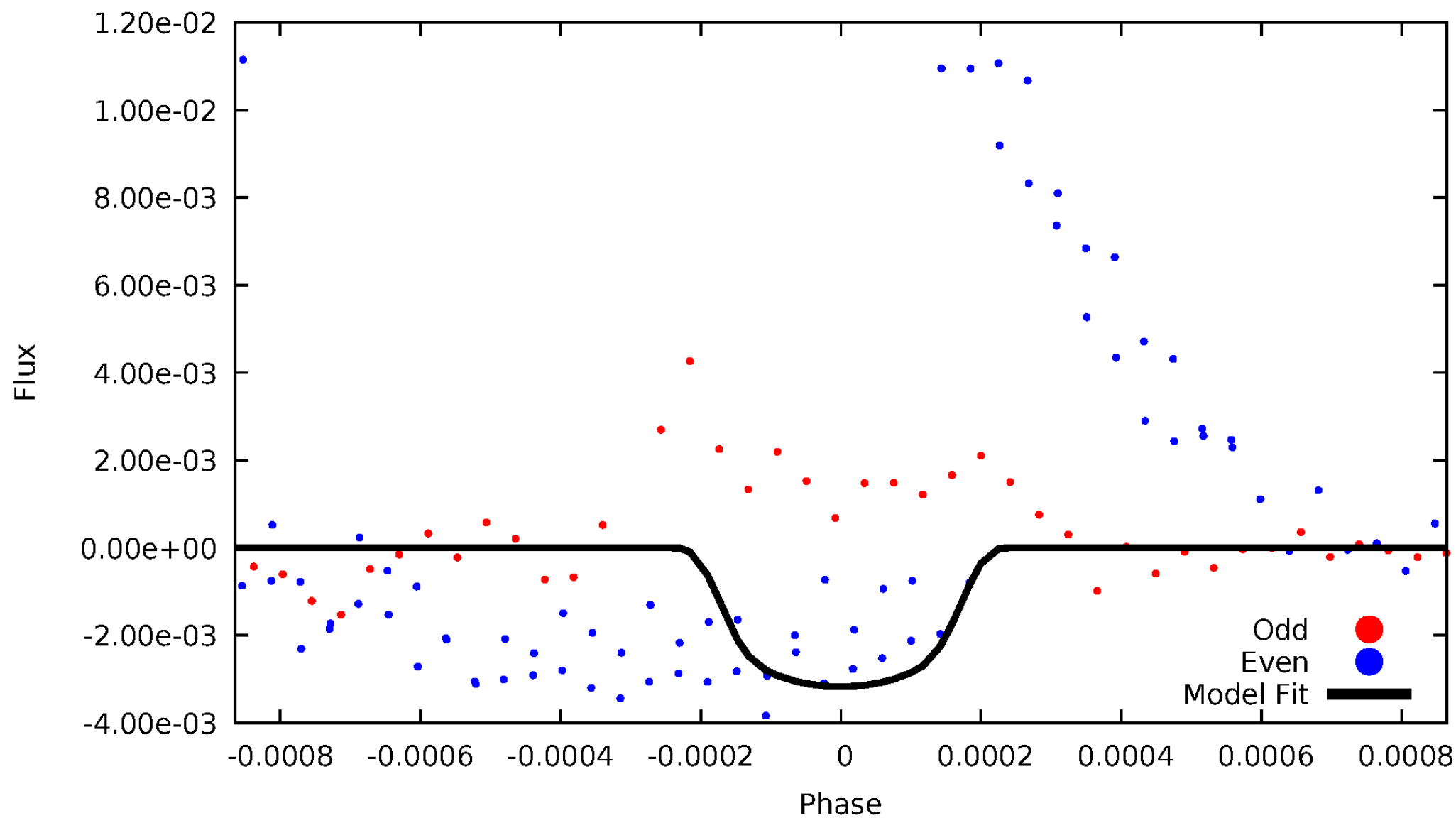


TCE 010818065-01



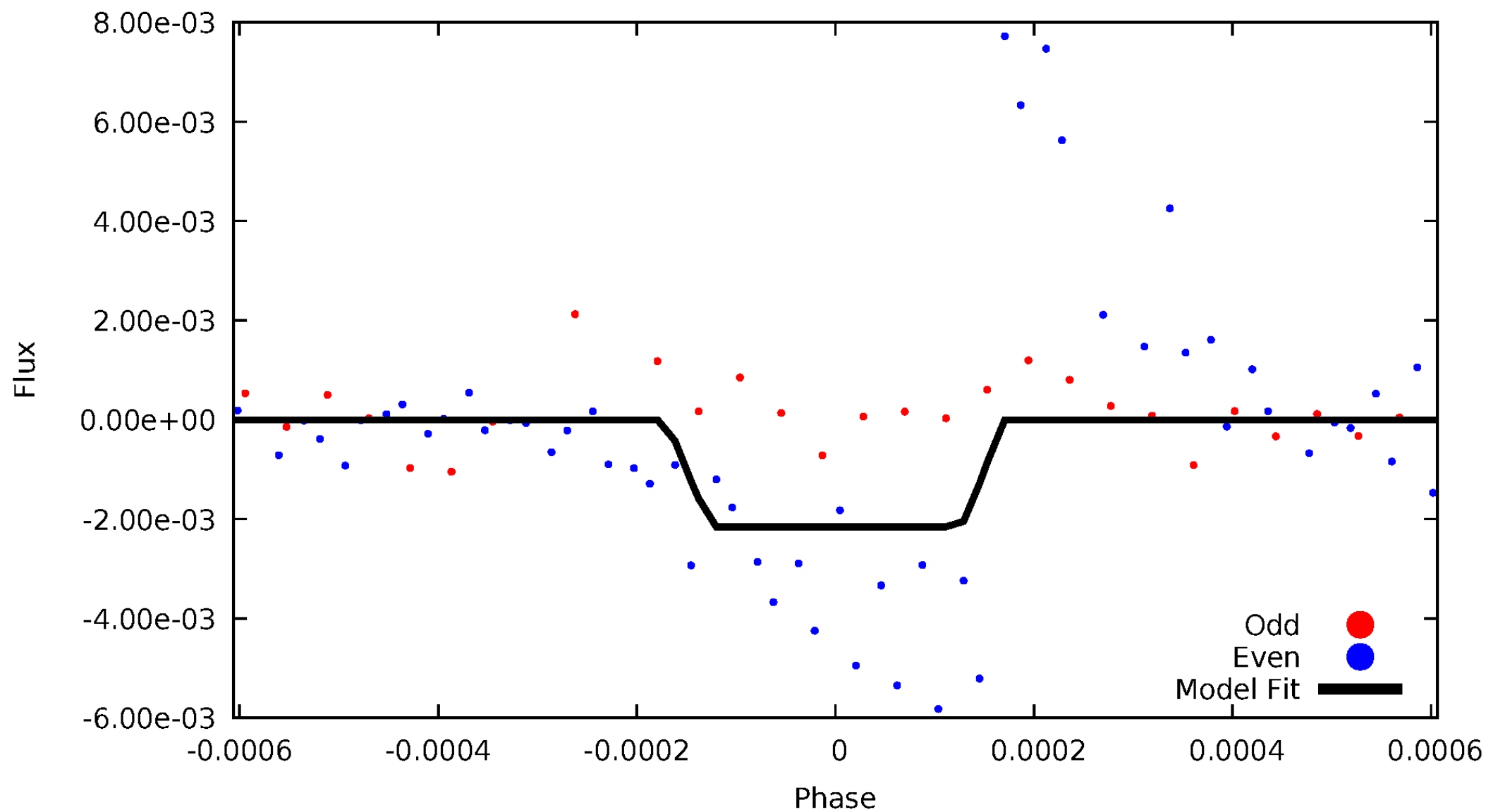
DV Odd/Even

TCE 010818065-01



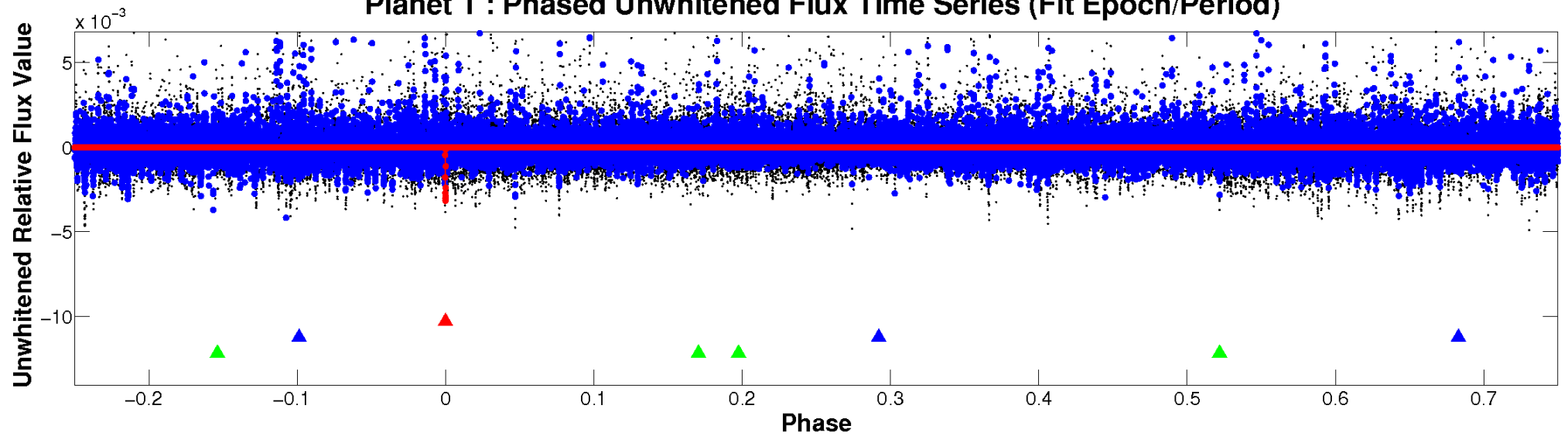
ALT Odd/Even

TCE 010818065-01

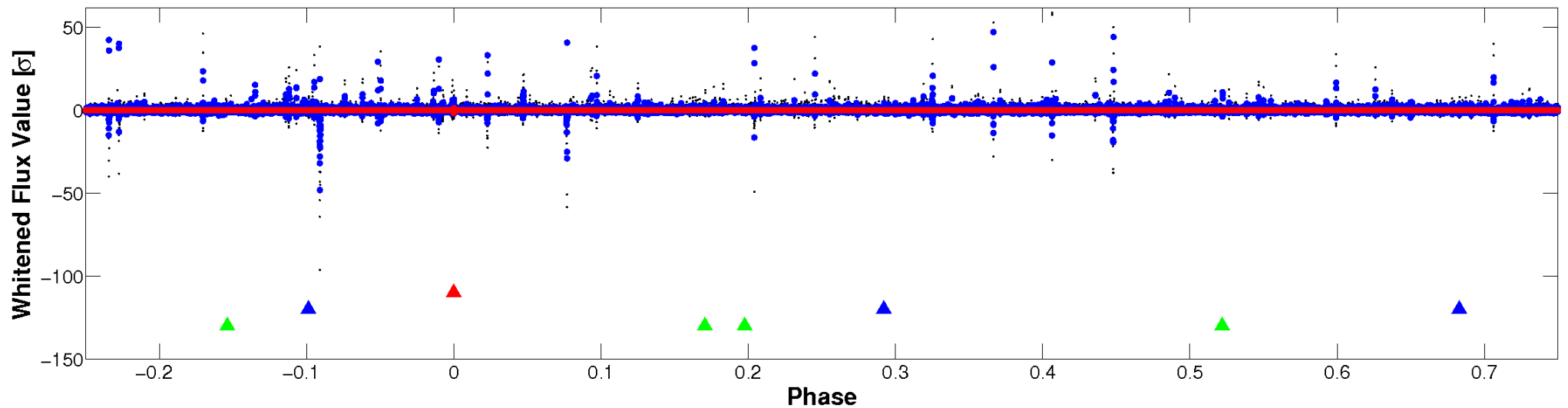


Non-Whitened Vs. Whitened Light Curve

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



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



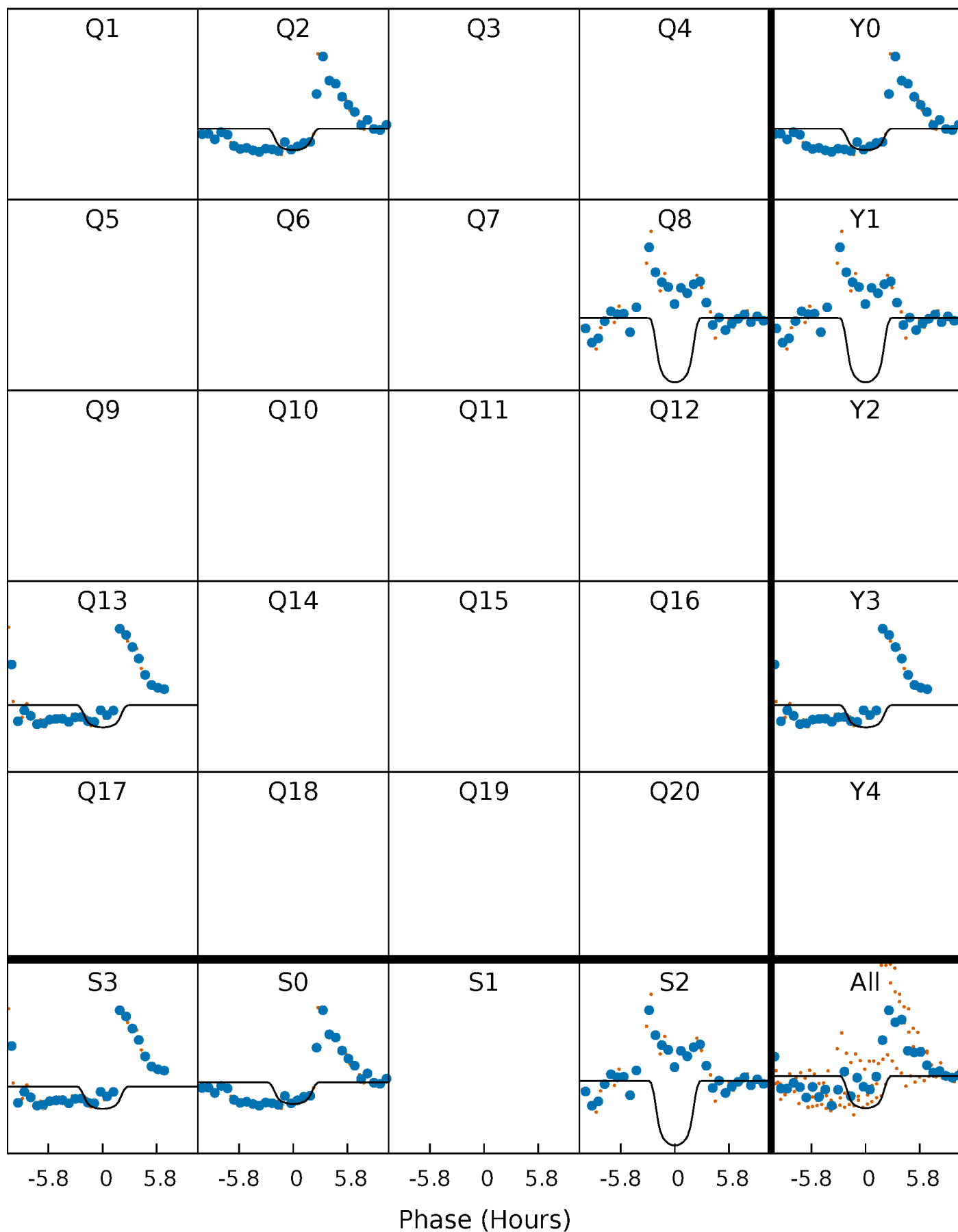
PDC Quarter-Phased Transit Curves

TCE 010818065-01 P=492.212898 Days $T_0=246.914445$ (BKJD)



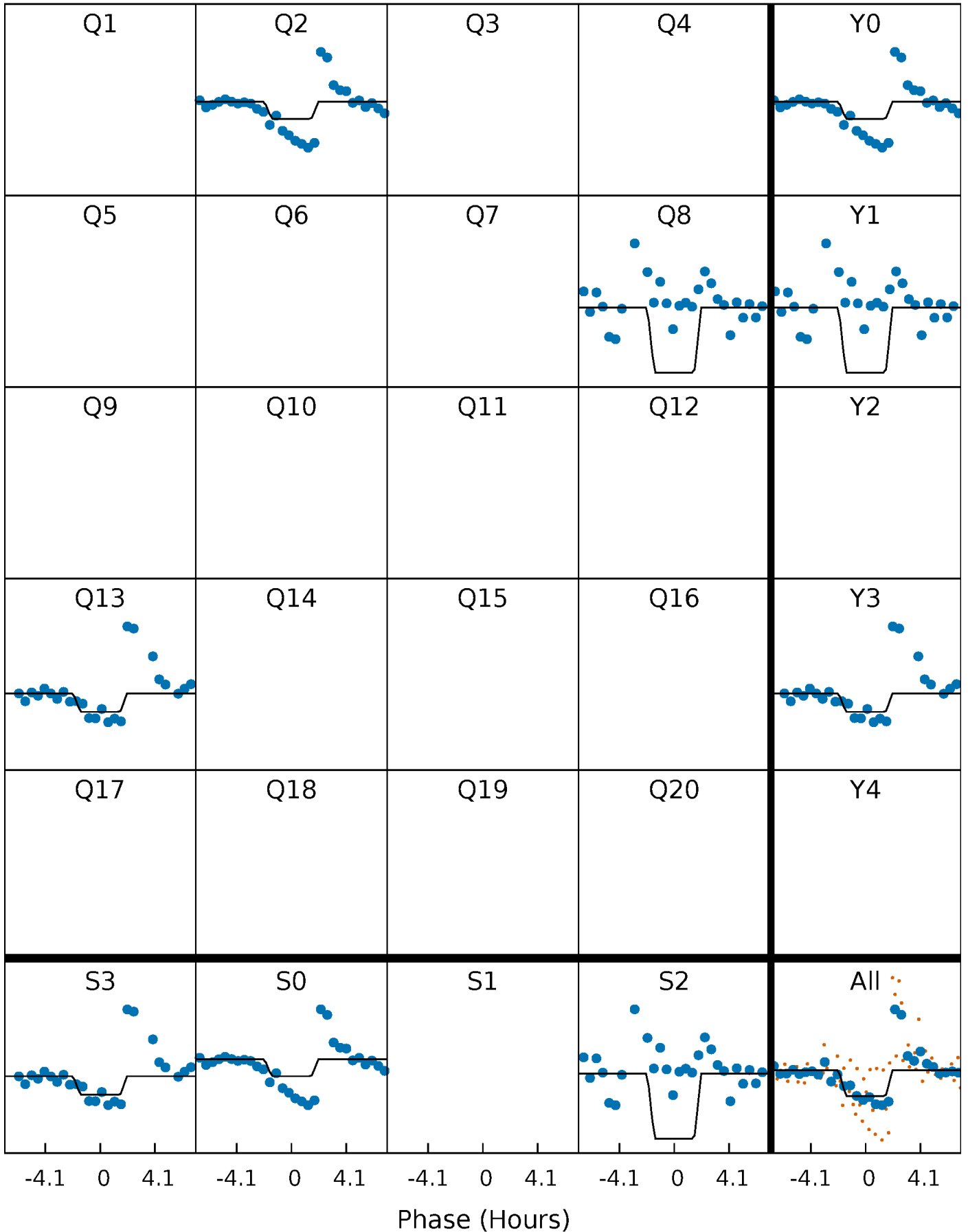
DV Quarter-Phased Transit Curves

TCE 010818065-01 P=492.212898 Days $T_0=246.914445$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

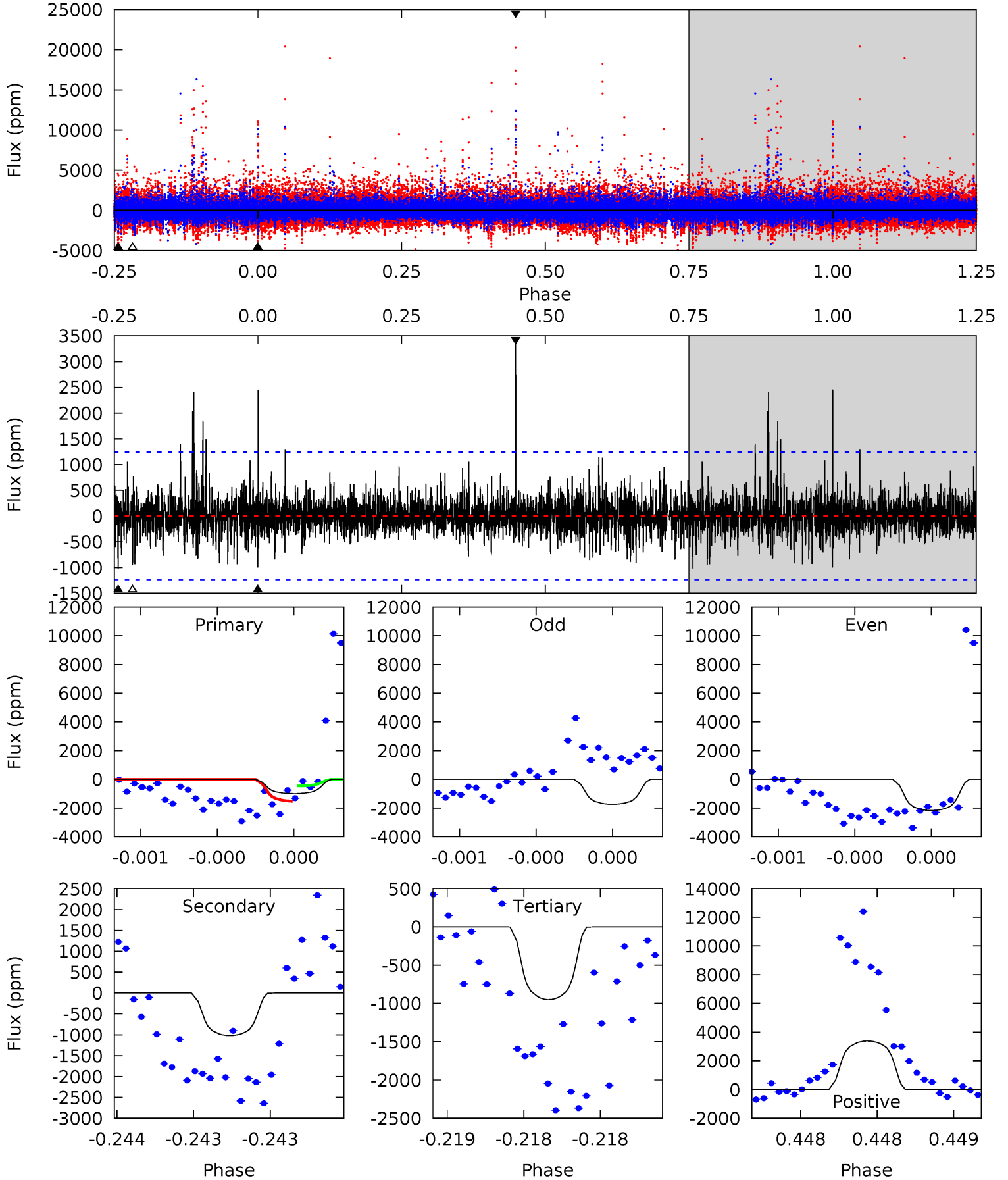
TCE 010818065-01 P=492.196782 Days $T_0=246.933263$ (BKJD)



DV Model-Shift Uniqueness Test

010818065-01, P = 492.212898 Days, E = 246.914445 Days

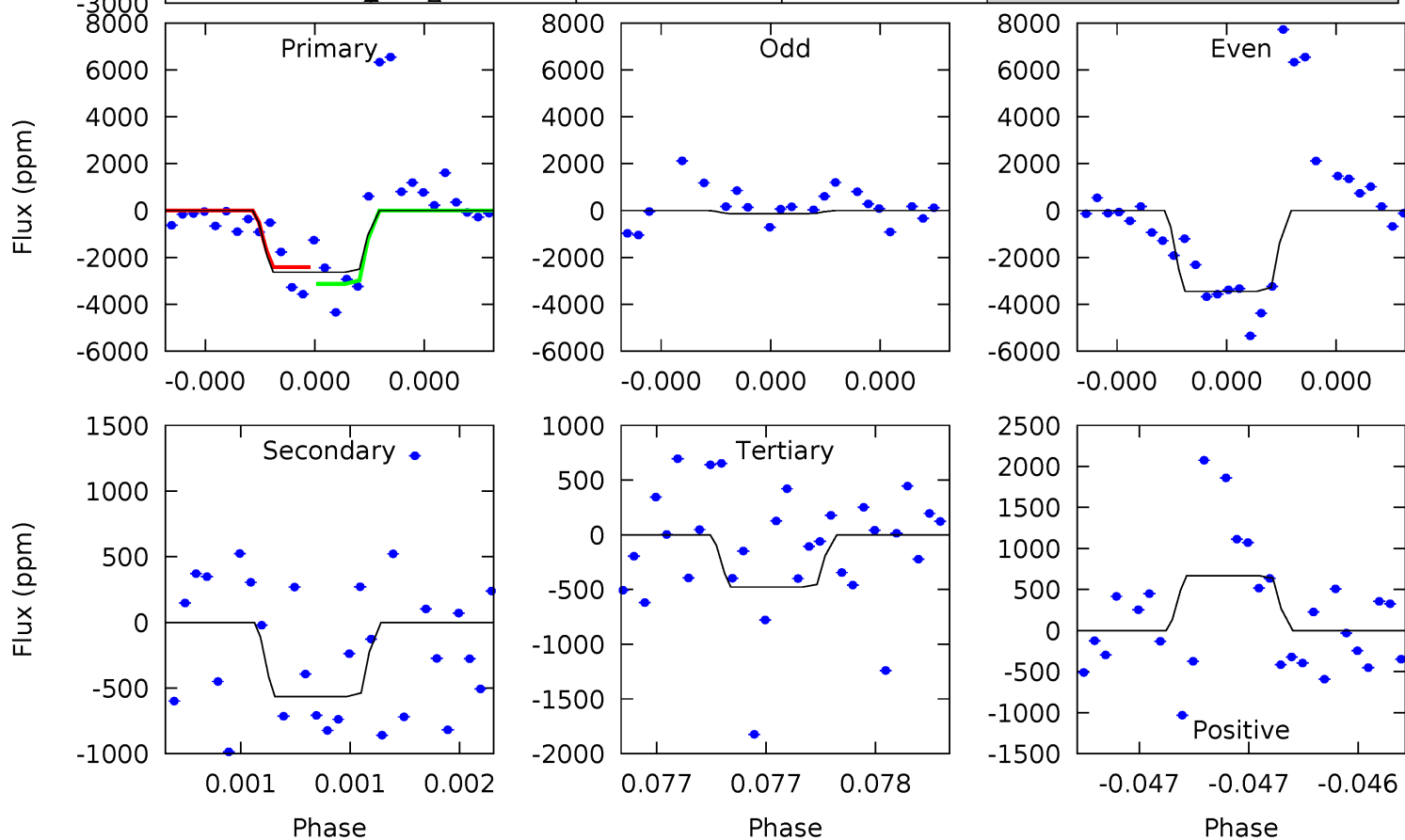
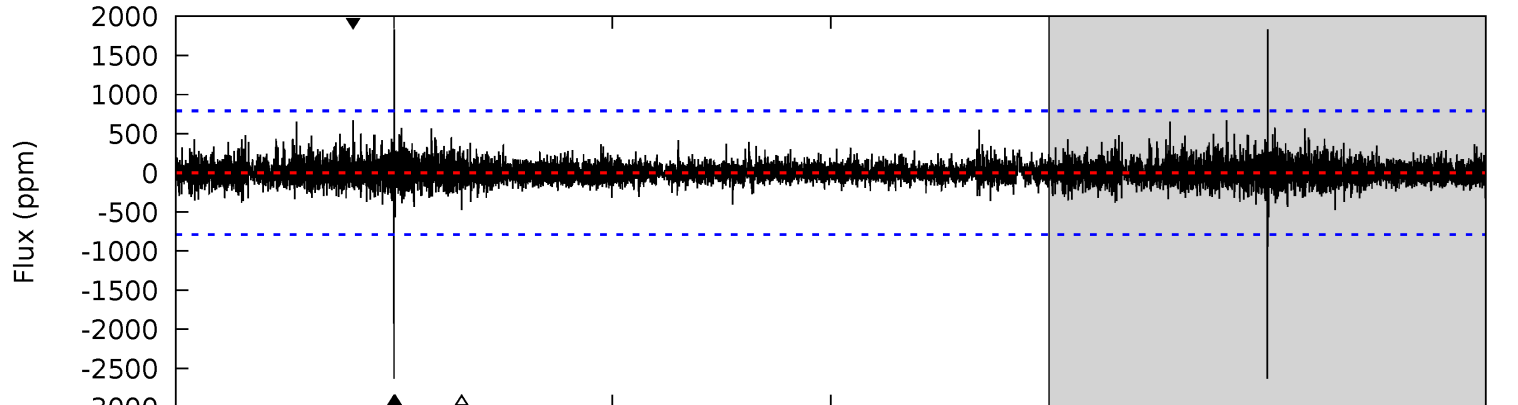
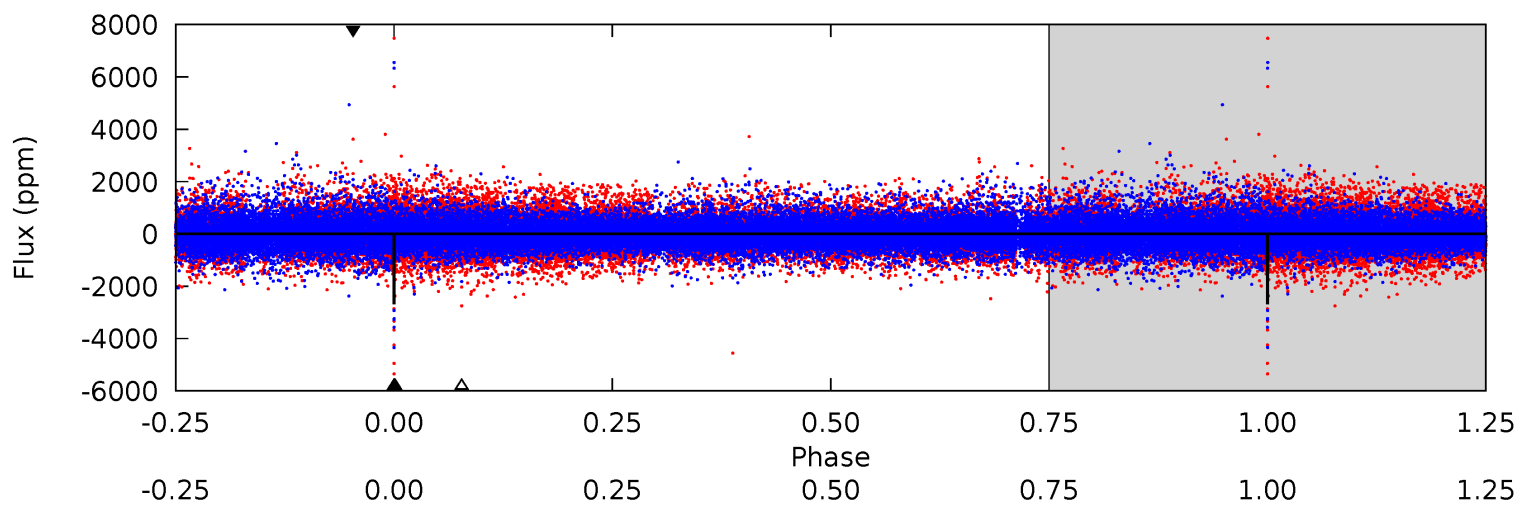
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.48	4.58	4.27	15.2	5.59	3.50	1.27	0.22	-10.7	0.31	-10.6	0.70	31.3	0.77	2.36



Alt Model-Shift Uniqueness Test

010818065-01, P = 492.196782 Days, E = 246.933263 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	4.05	3.41	4.79	5.65	3.60	0.69	15.4	14.1	0.63	-0.74	13.6	0.90	0.41	2.40



Stellar Parameters For KIC 010818065

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4701^{+166}_{-166}	$4.601^{+0.054}_{-0.031}$	$-0.280^{+0.300}_{-0.300}$	$0.672^{+0.060}_{-0.060}$	$0.659^{+0.081}_{-0.050}$	$3.055^{+0.755}_{-0.418}$
	+4%/-4%	+1%/-1%	+107%/-107%	+9%/-9%	+12%/-8%	+25%/-14%
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 010818065-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1019 ± 223	$4.43^{+0.90}_{-0.85}$	230^{+10}_{-9}	3718^{+325}_{-256}	31750^{+19674}_{-10543}
Alt.	-565 ± 140	$3.43^{+0.80}_{-0.82}$	230^{+9}_{-9}	3666^{+432}_{-315}	29760^{+24257}_{-12175}

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

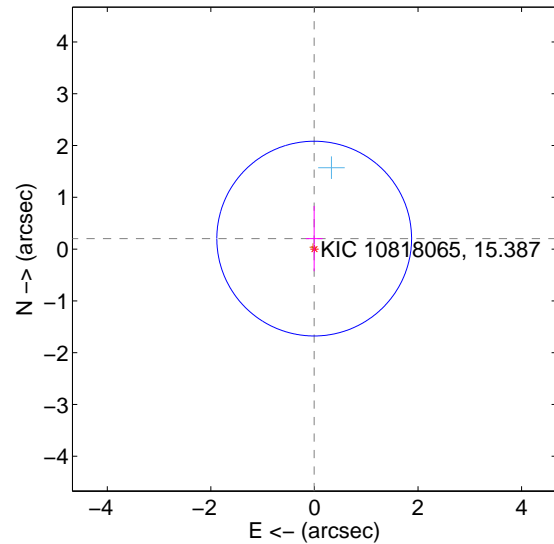
Supplemental centroid analysis for 010818065-01. Kepler magnitude: 15.39. Transit SNR 7.20

There are 1 quarters with good PRF difference image offsets

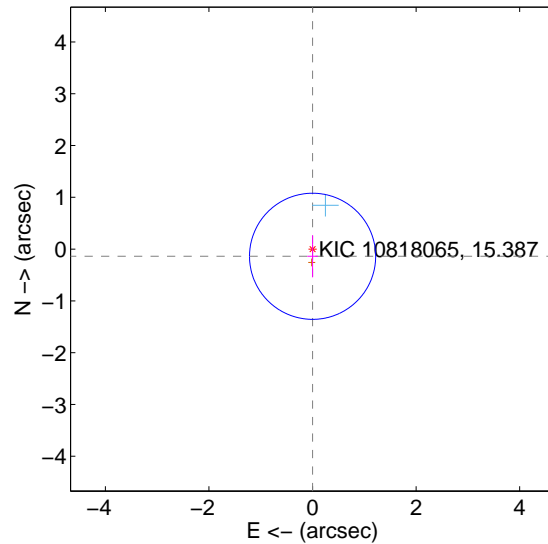
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.203 ± 0.627	0.32	0.005 ± 0.160	0.203 ± 0.630
PRF-fit source offset from KIC position	0.139 ± 0.406	0.34	-0.001 ± 0.101	-0.139 ± 0.406
photometric centroid source offset	0.33 ± 1.19	0.28	-0.07 ± 0.90	0.32 ± 1.20

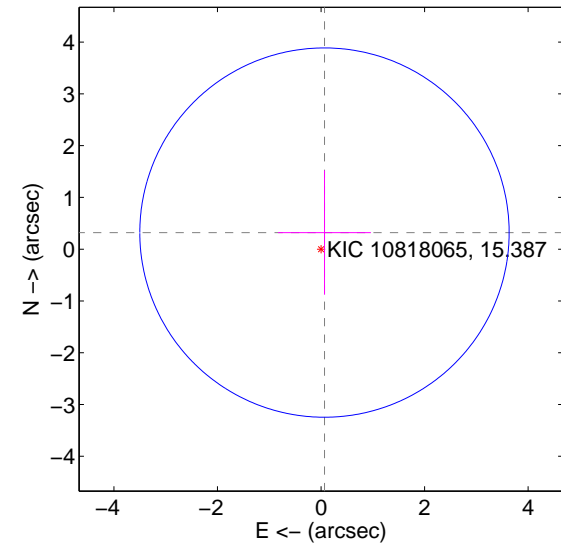
offset from difference PRF-fit to OOT PRF-fit



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.

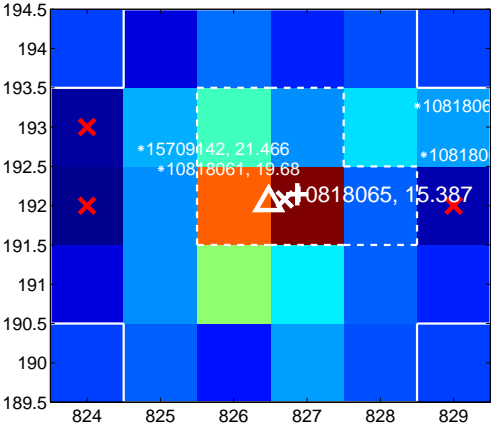
Q1 no difference image



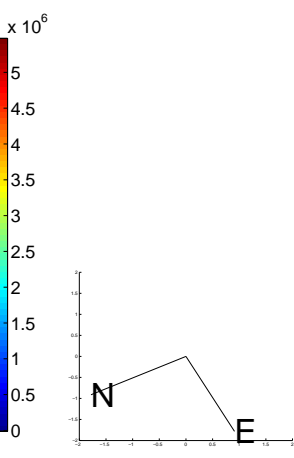
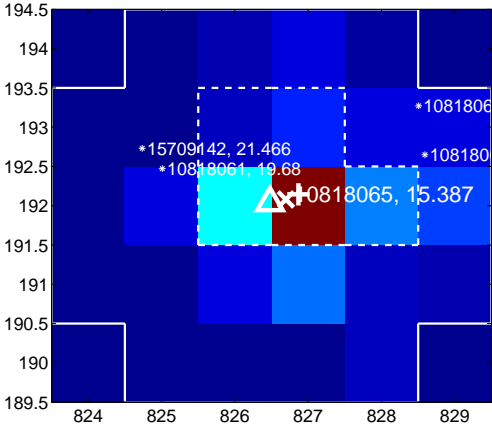
Q1 no OOT image



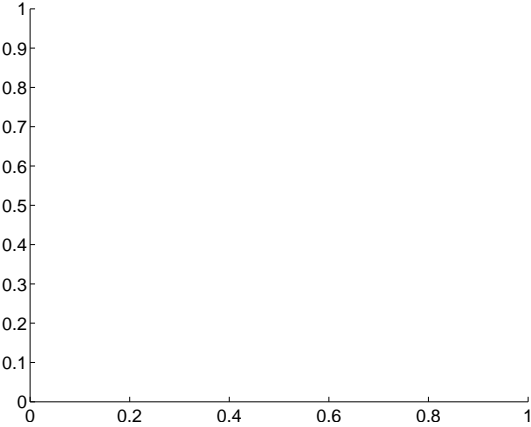
Q2 difference image



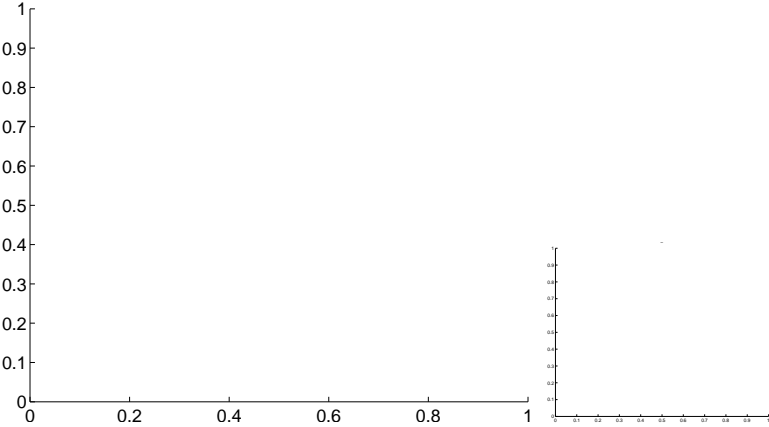
Q2 OOT image



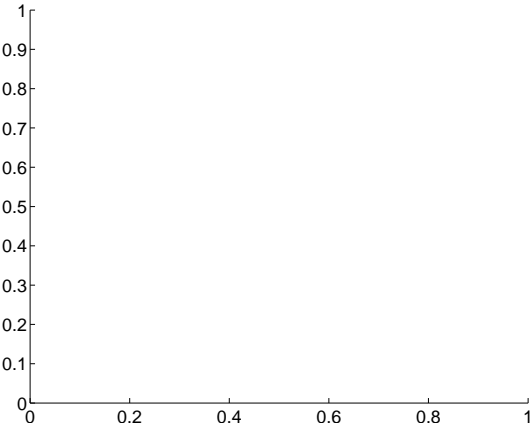
Q3 no difference image



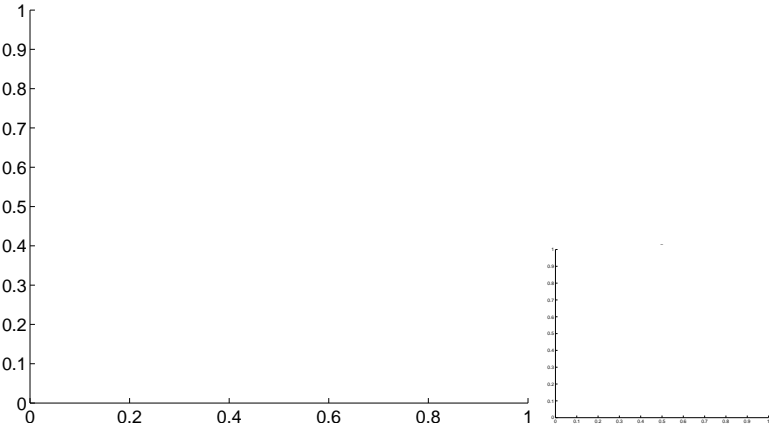
Q3 no OOT image



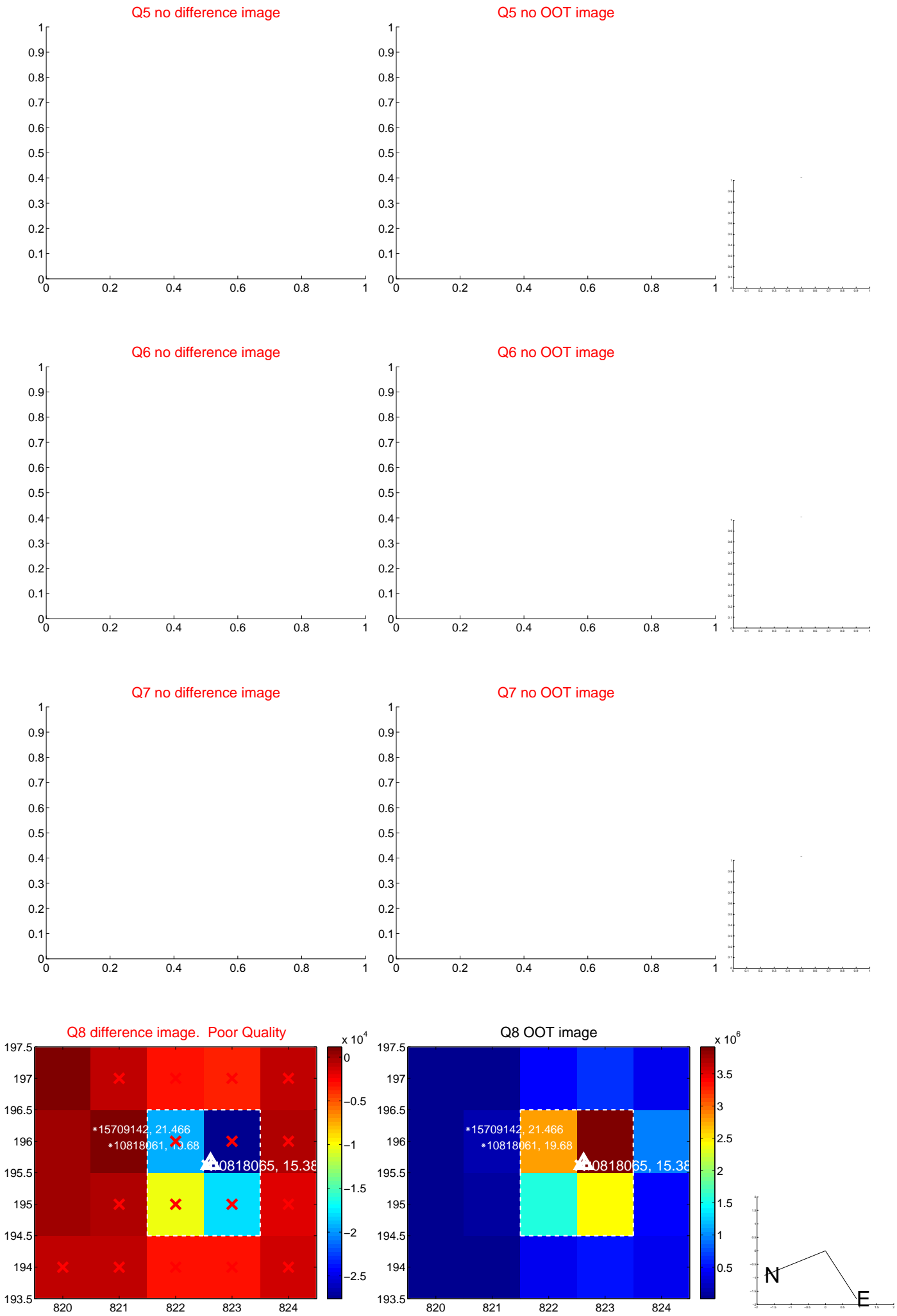
Q4 no difference image



Q4 no OOT image



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



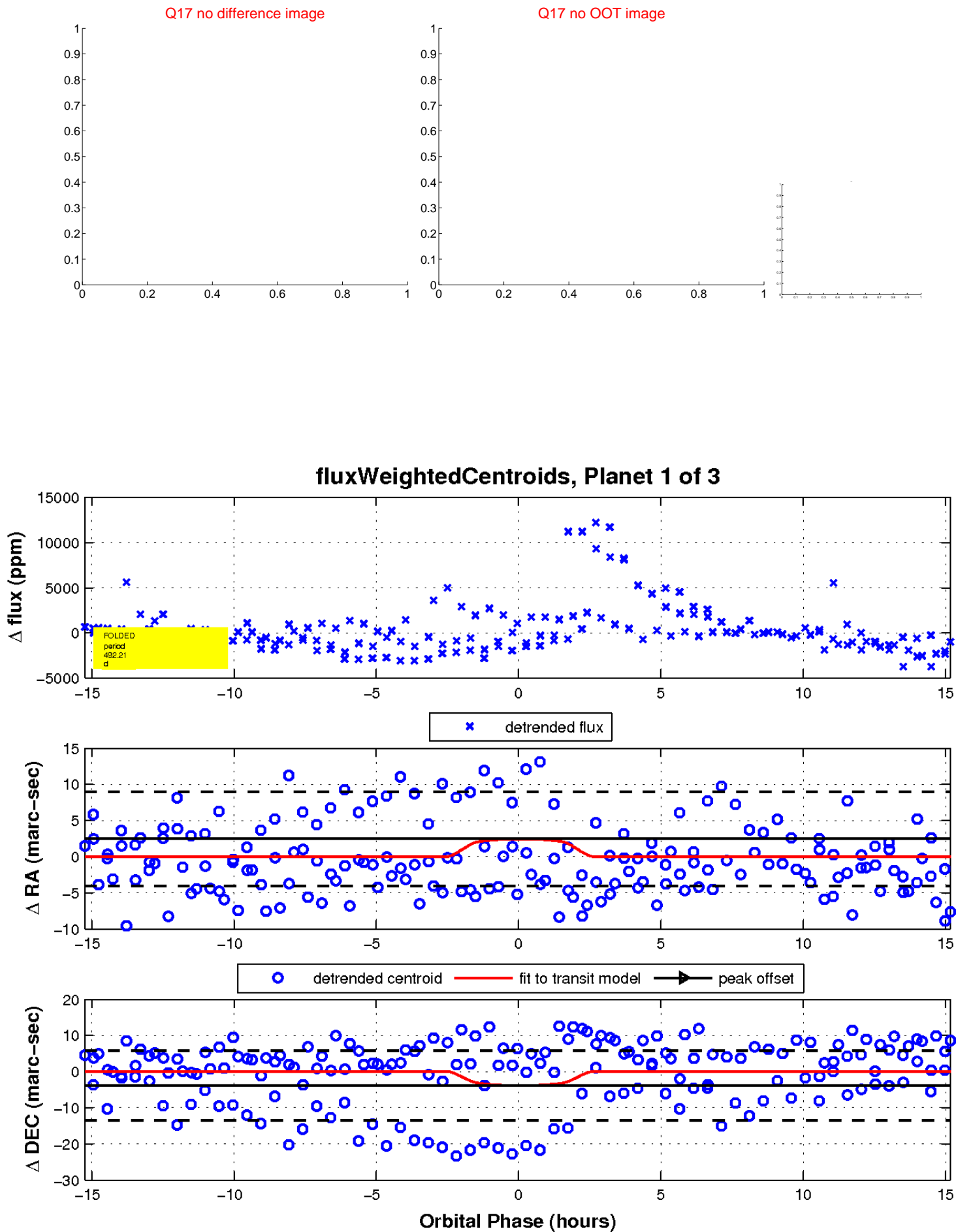
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

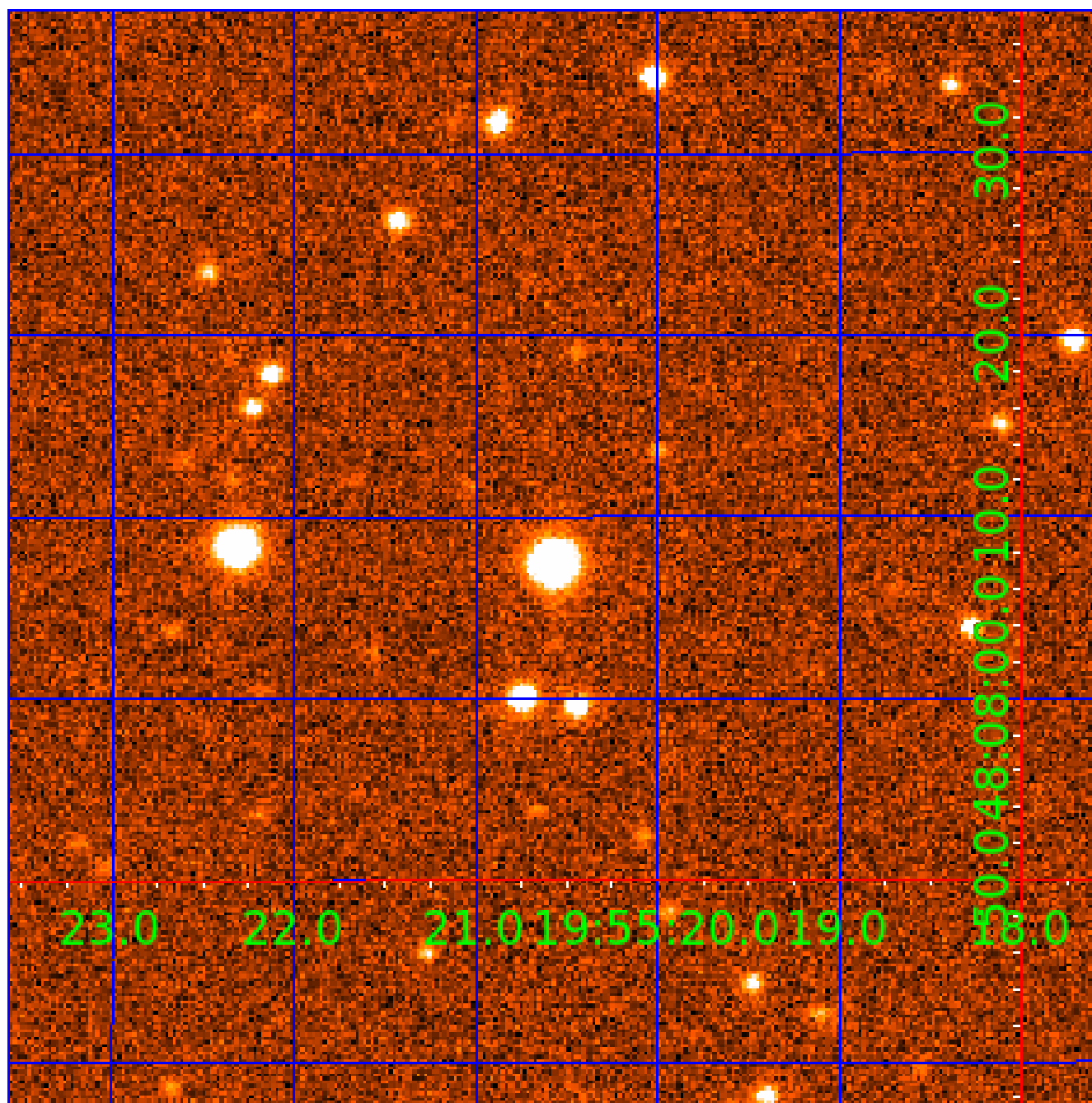


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010818065

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})
010818065-01	OBS	No	492.212898	246.914445	3169.9	5.105	14.9	7.2	0.67	4701	4.46	0.18
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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010818065-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—CENT_FEW_DIFFS
010818065-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

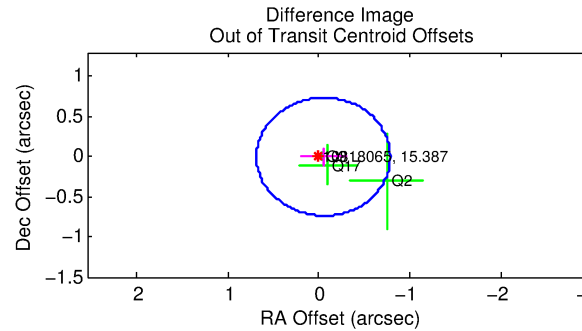
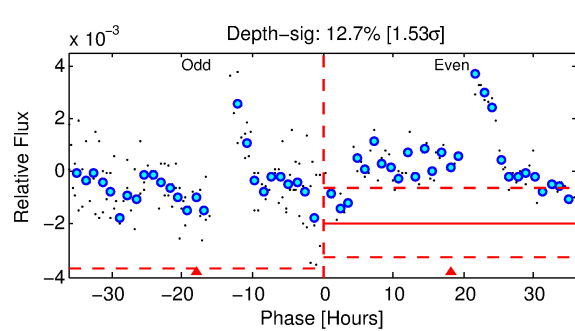
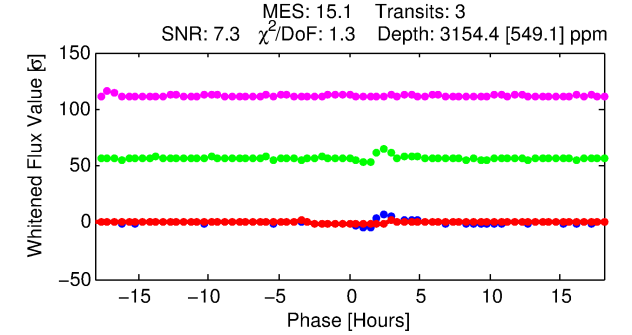
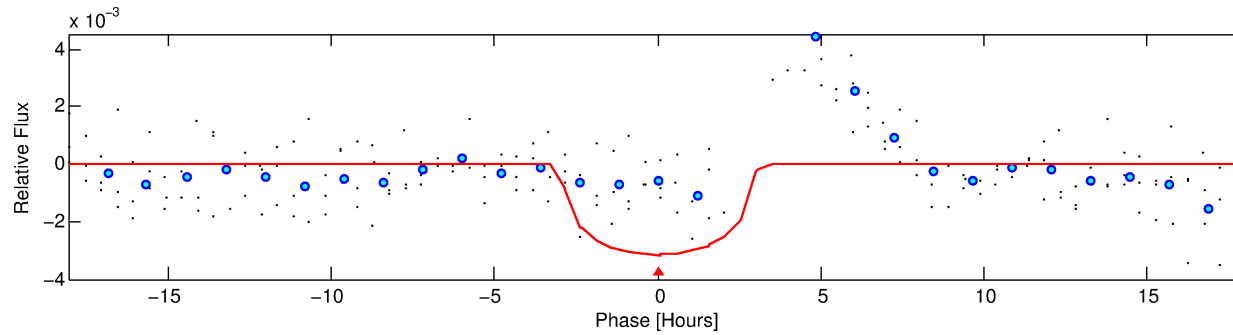
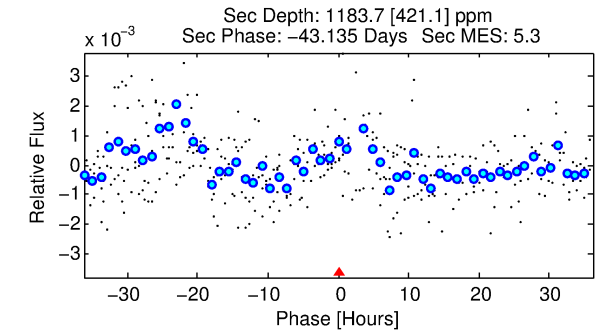
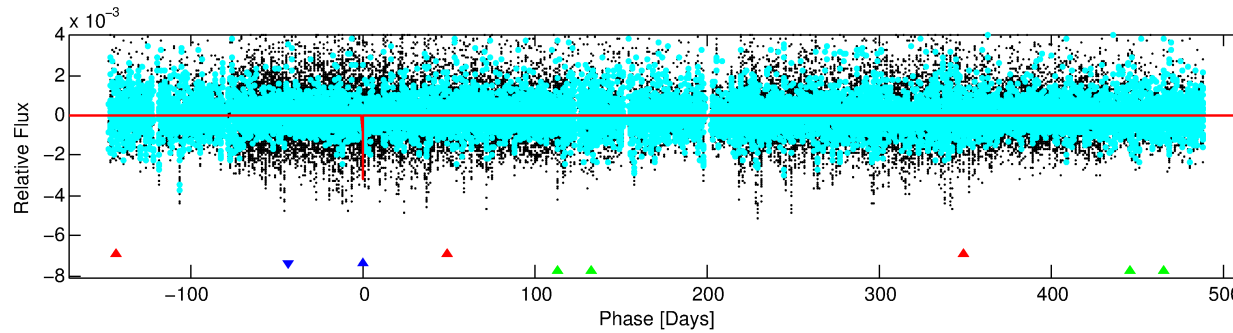
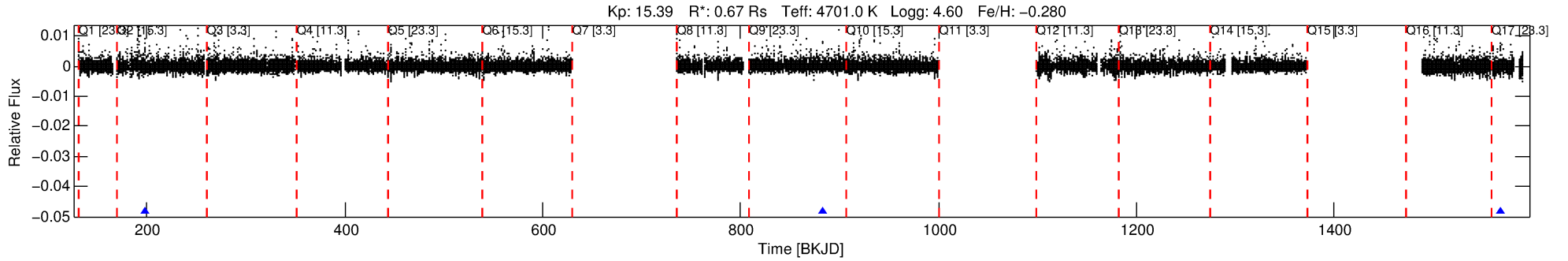
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010818065-02

No Significant Match Found

DV One-Page Summary

KIC: 10818065 Candidate: 2 of 3 Period: 684.584 d



DV Fit Results:

Period = 684.58447 [0.00762] d
Epoch = 198.3283 [0.0094] BKJD
Rp/R* = 0.0495 [0.0866]
a/R* = 906.71 [4952.12]
b = 0.09 [59.86]
Seff = 0.11 [0.02]
Teq = 148 [6] K
Rp = 3.63 [6.36] Re
a = 1.3220 [0.0959] AU
Ag = 86218.99 [303126.56] [0.28σ]
Teffp = 3917 [3445] K [1.09σ]

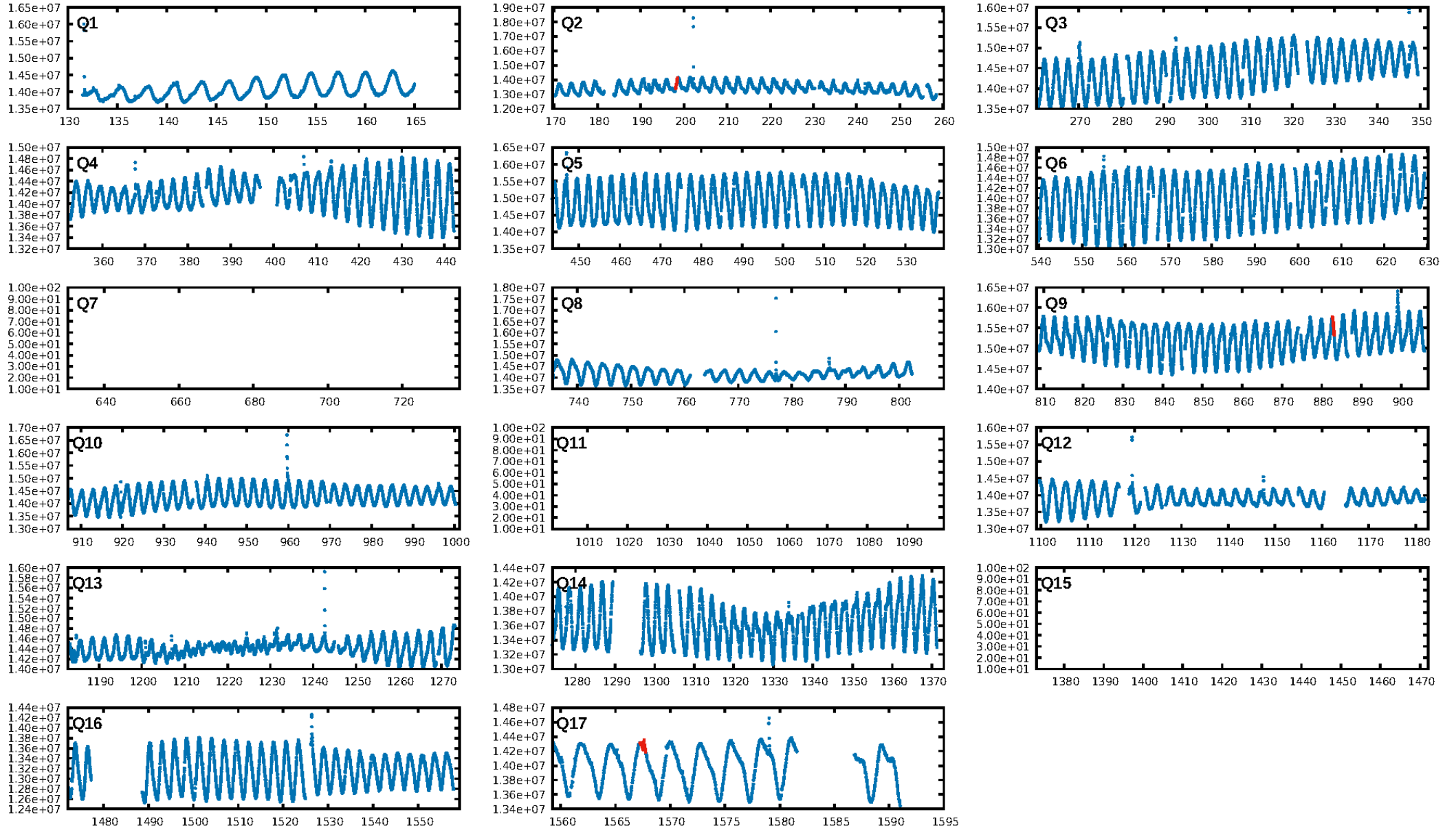
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [584.35σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 50.0%
ModelChiSquareGof-sig: 91.5%
Bootstrap-pfa: 5.76e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -6.001
Centroid-sig: 9.4%
Centroid-so: 1.485 arcsec [1.72σ]
OotOffset-rm: 0.050 arcsec [0.20σ]
KicOffset-rm: 0.286 arcsec [1.26σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

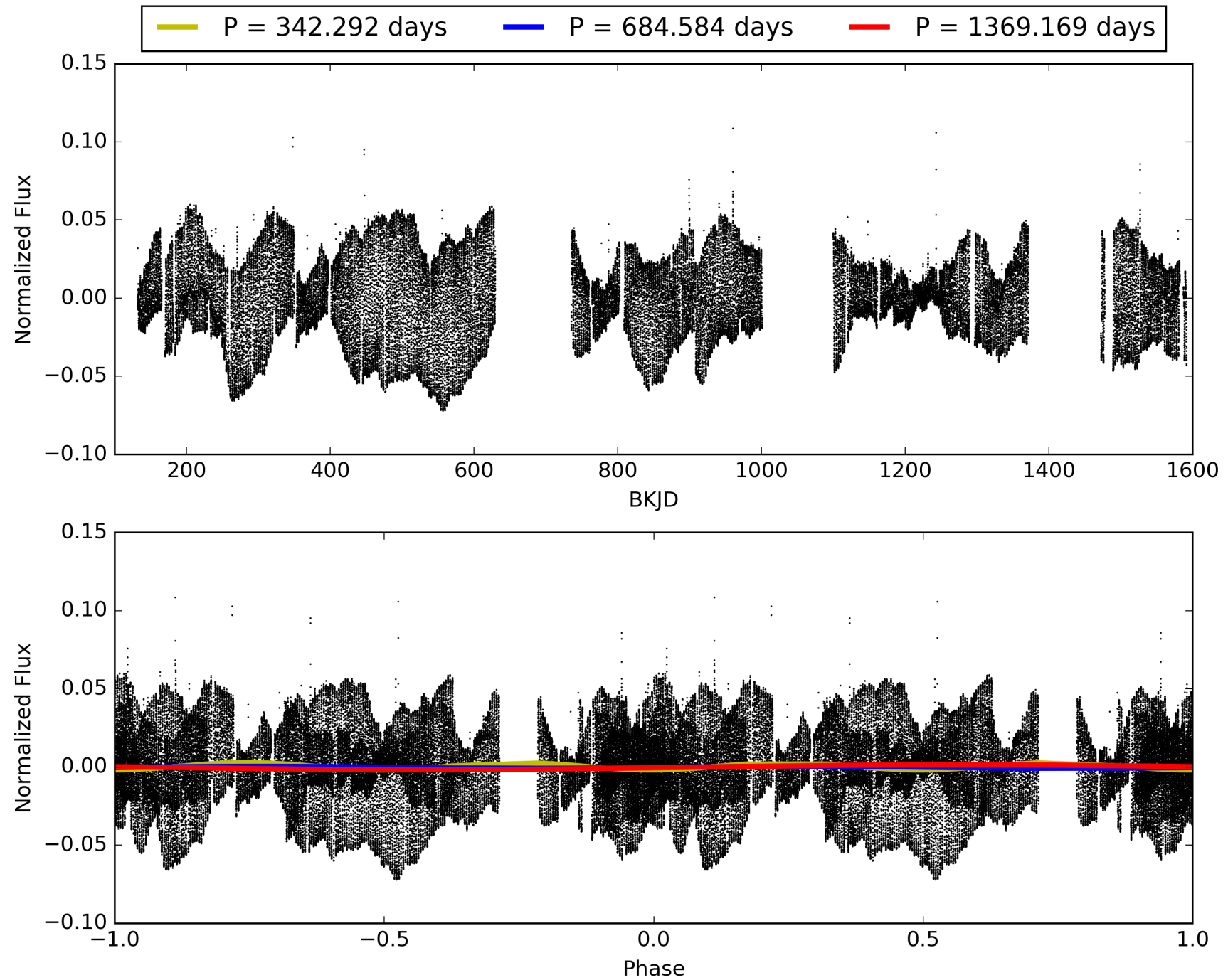
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:10:41 Z

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

TCE 010818065-02, PDC Light Curves

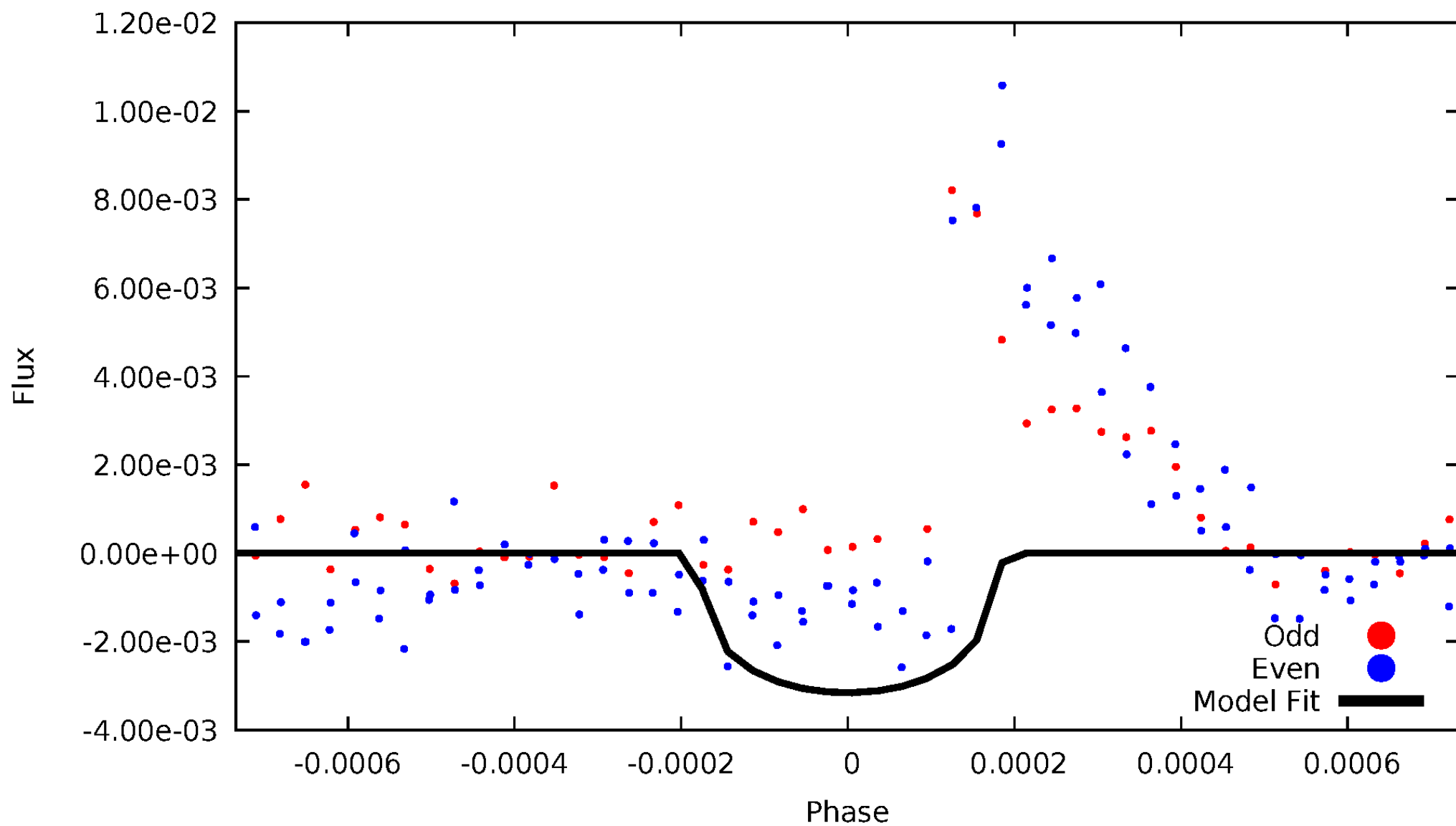


TCE 010818065-02



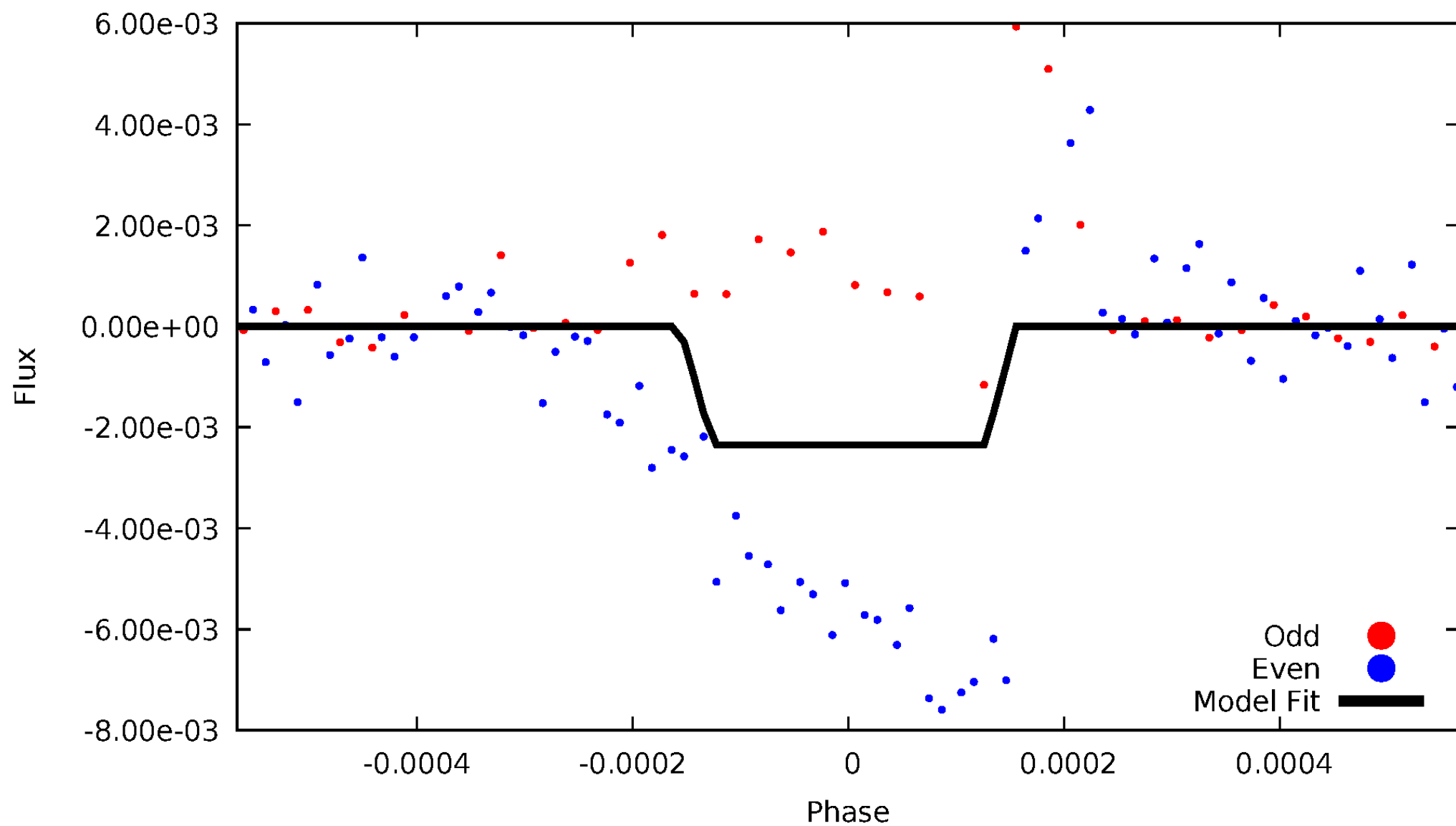
DV Odd/Even

TCE 010818065-02



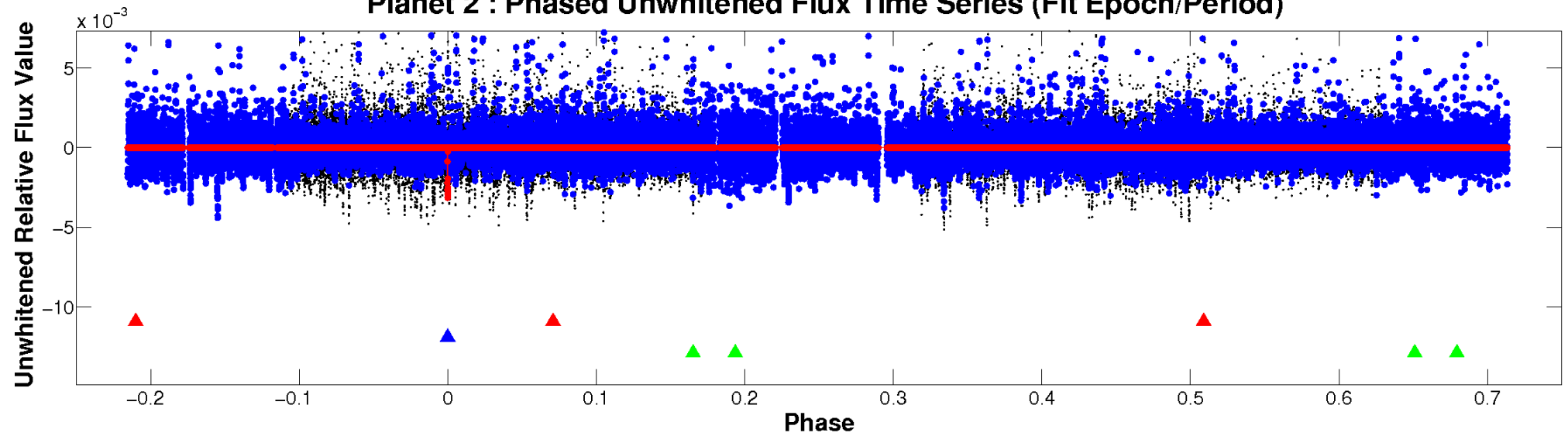
ALT Odd/Even

TCE 010818065-02

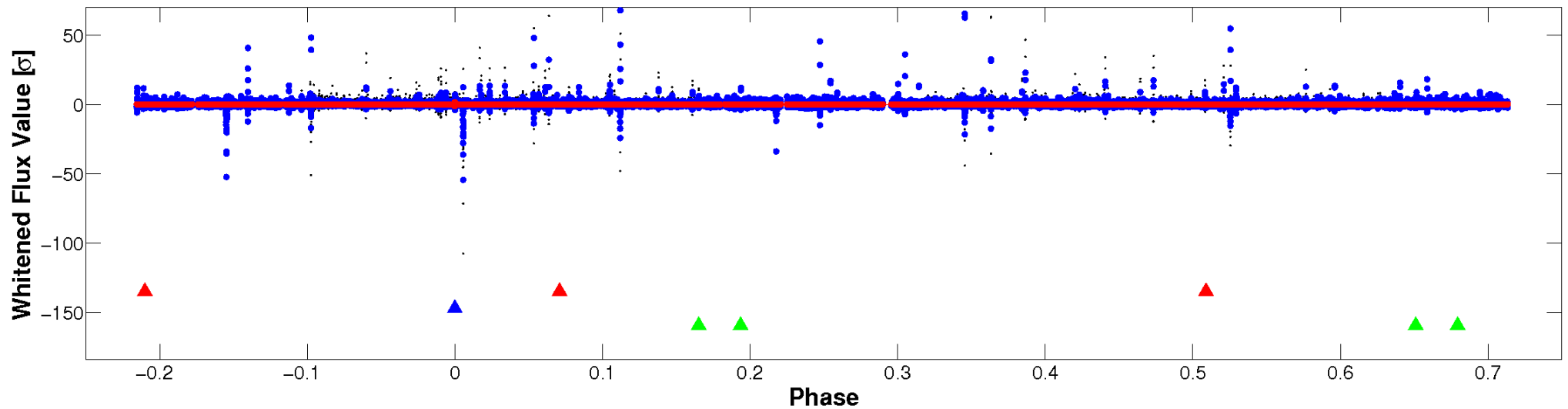


Non-Whitened Vs. Whitened Light Curve

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

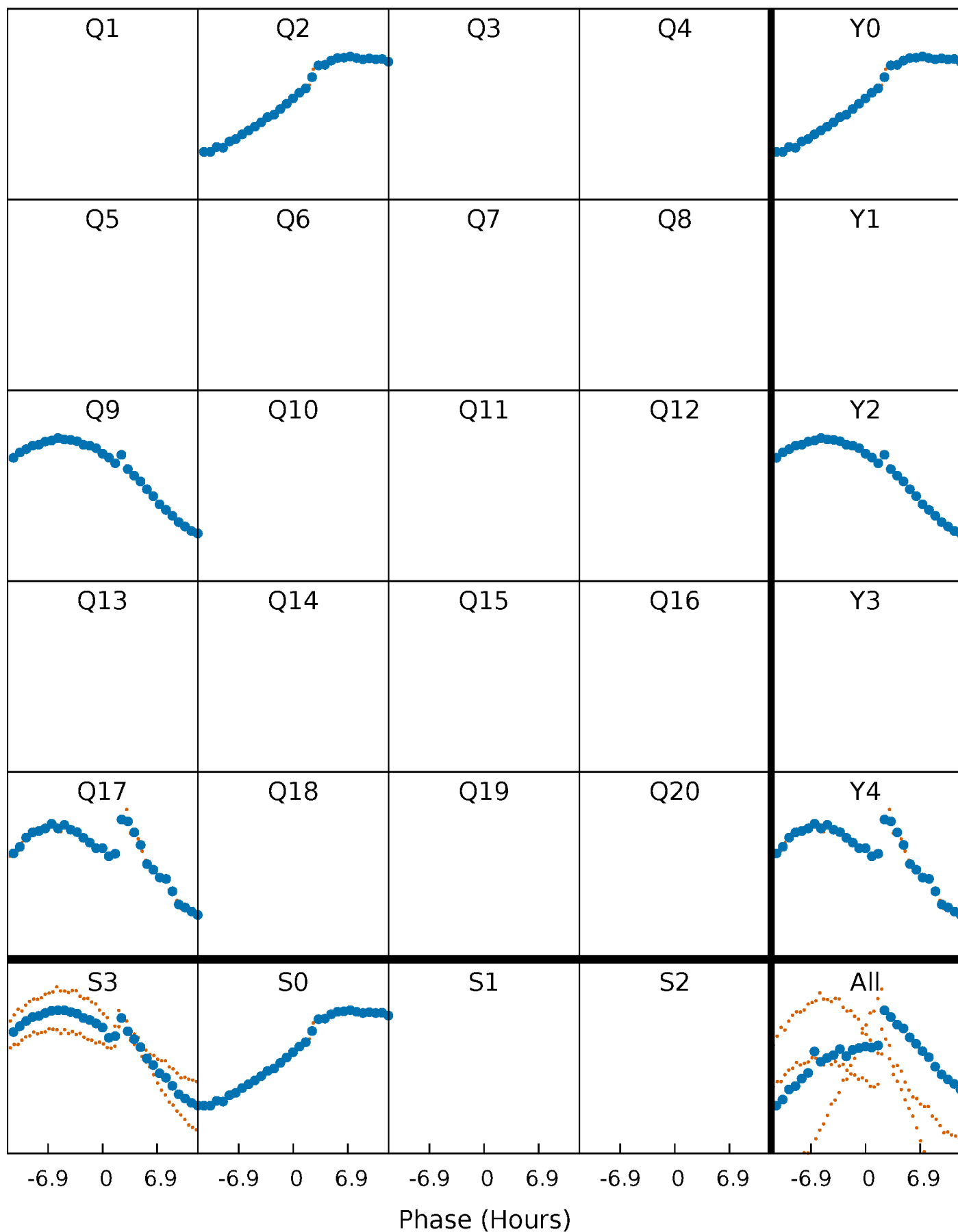


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



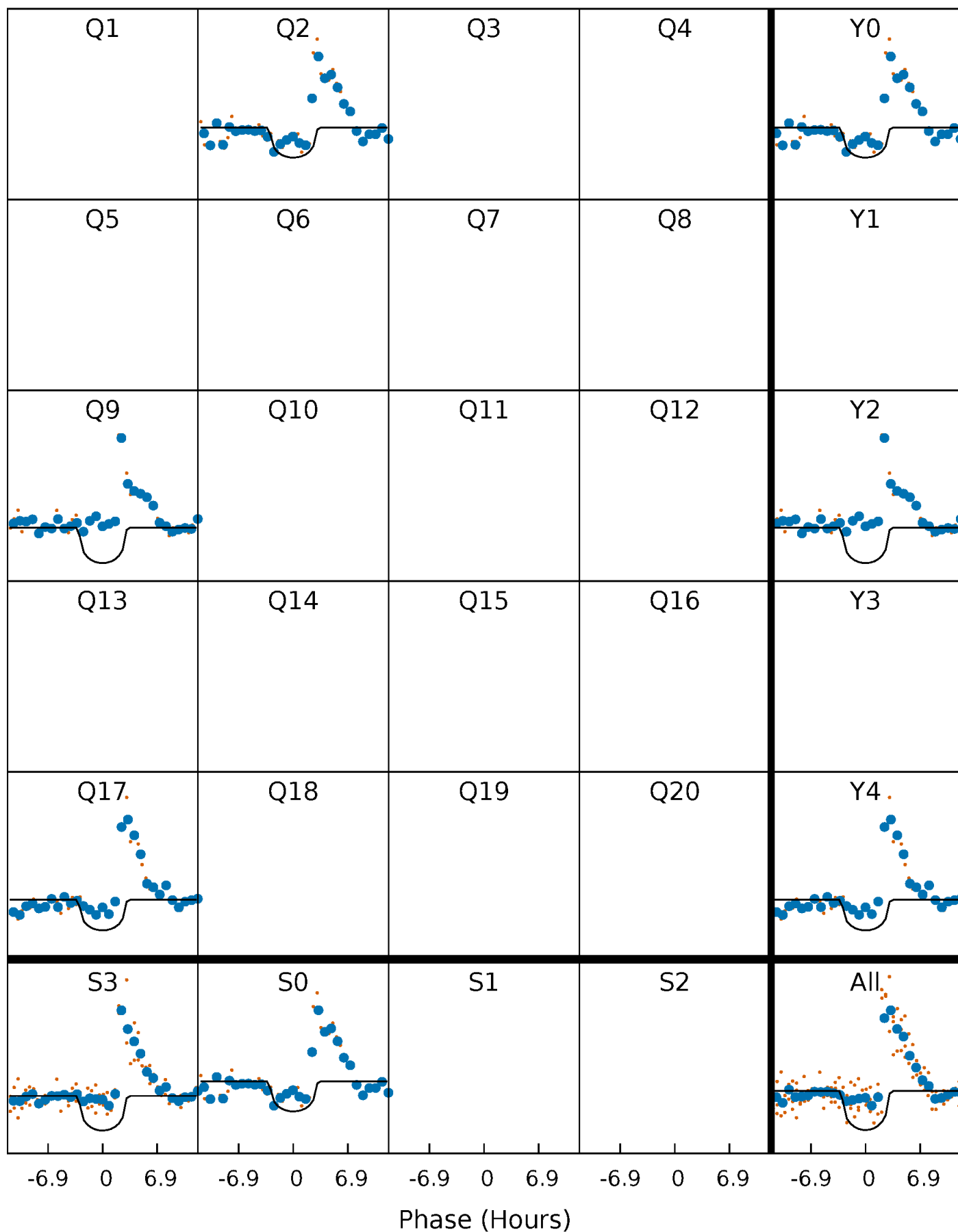
PDC Quarter-Phased Transit Curves

TCE 010818065-02 P=684.584475 Days $T_0=198.328251$ (BKJD)



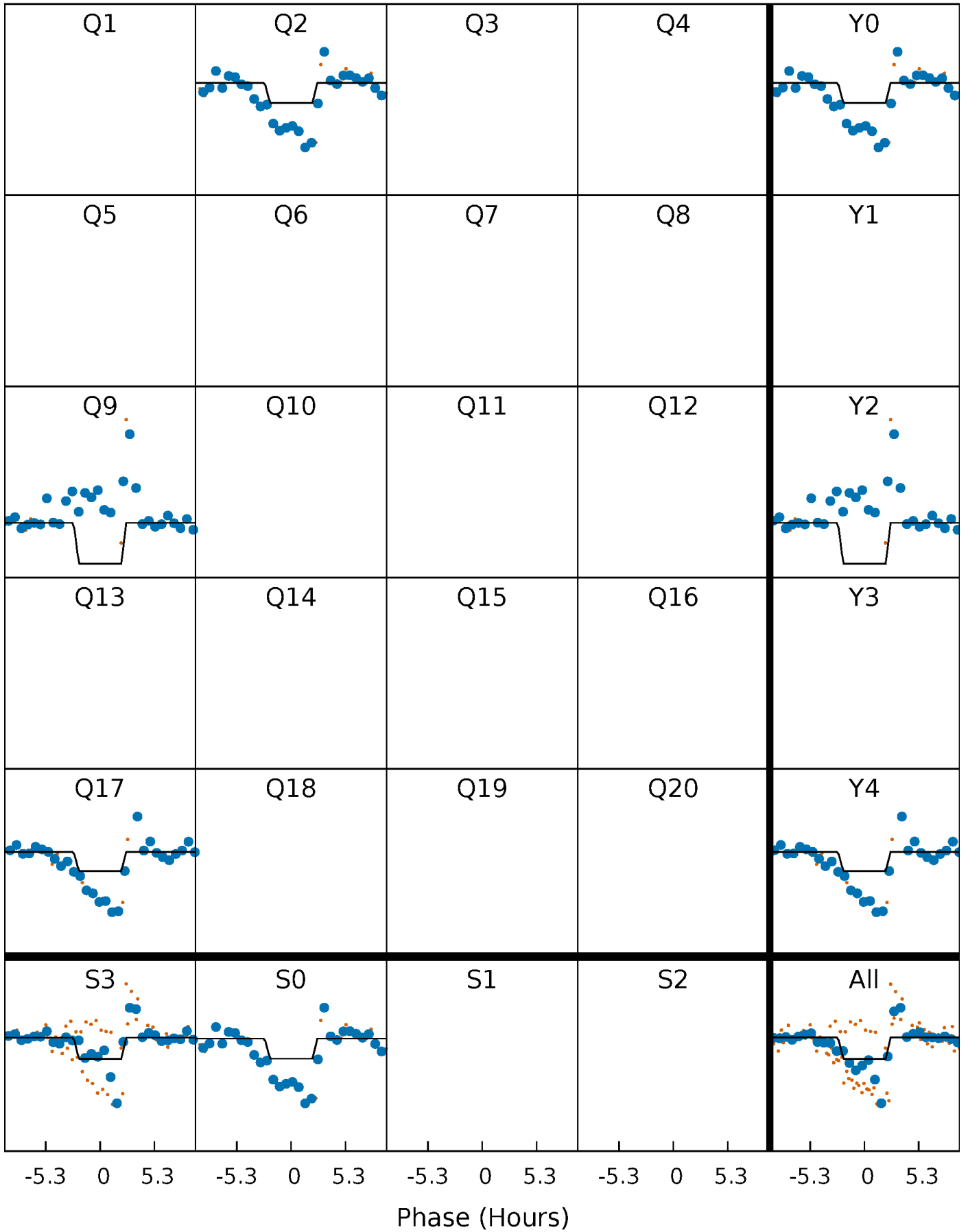
DV Quarter-Phased Transit Curves

TCE 010818065-02 P=684.584475 Days $T_0=198.328251$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

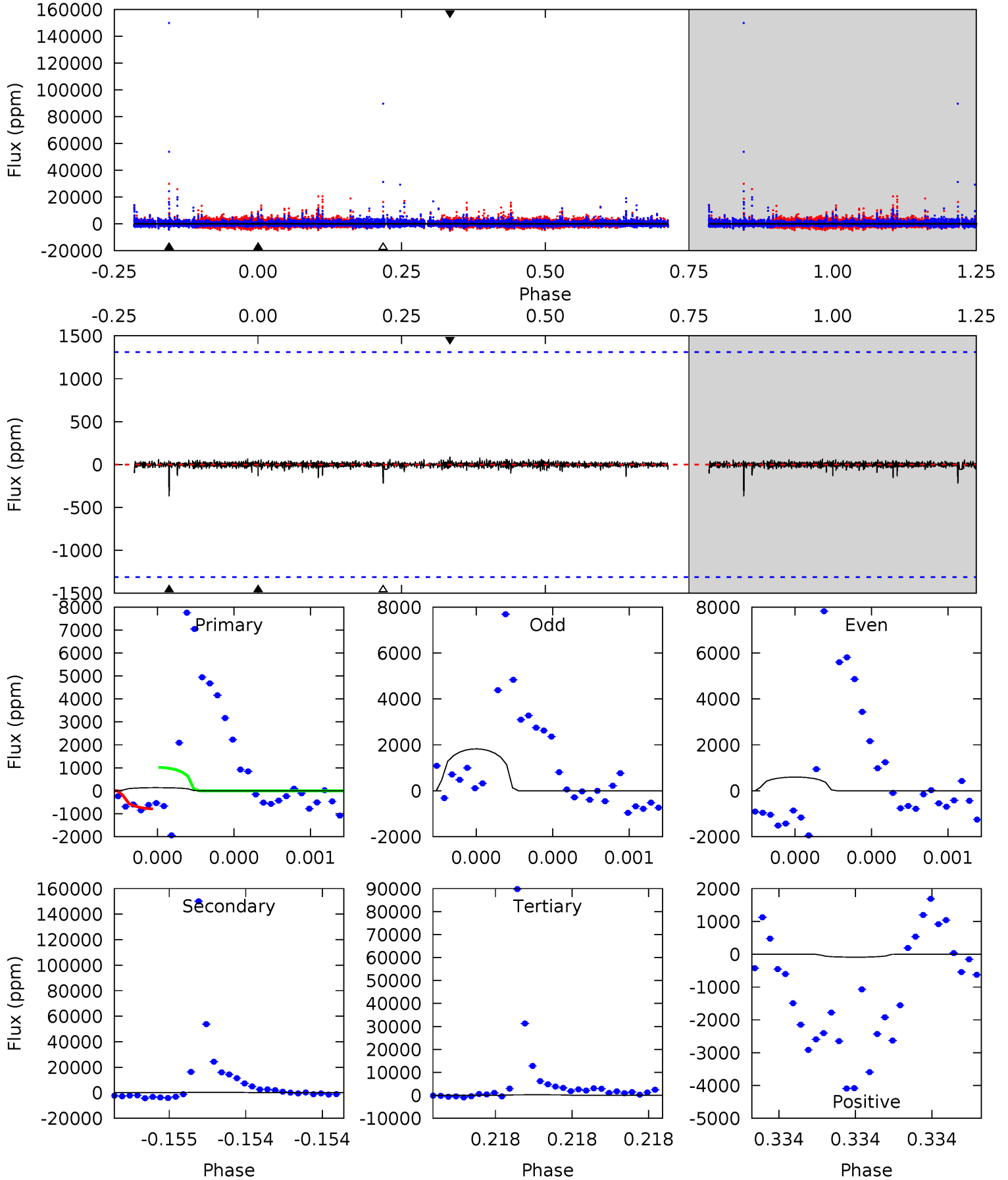
TCE 010818065-02 P=684.578749 Days $T_0=198.313226$ (BKJD)



DV Model-Shift Uniqueness Test

010818065-02, P = 684.584475 Days, E = 198.328251 Days

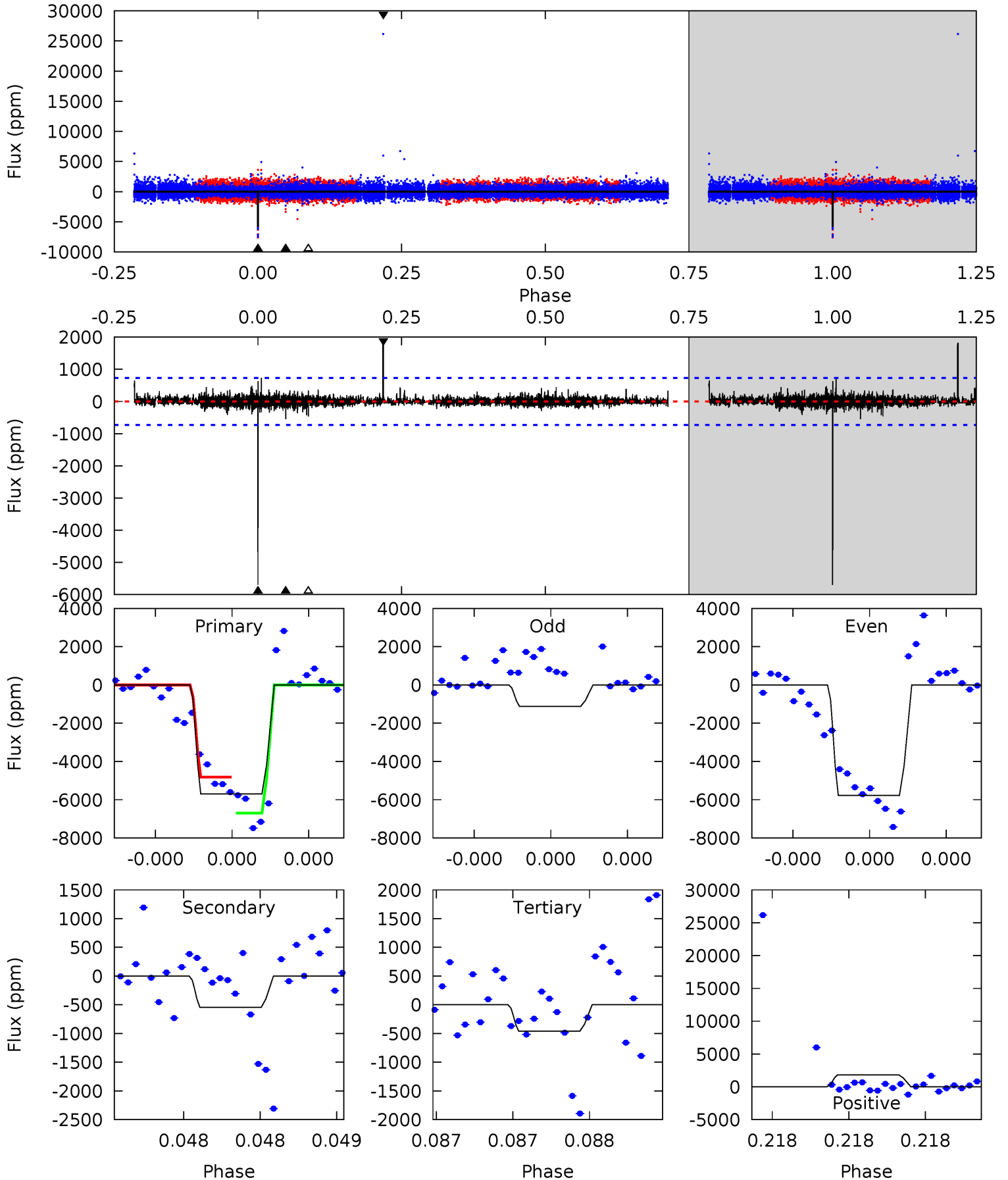
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.58	1.57	0.94	0.38	5.62	3.55	0.09	-0.36	0.20	0.64	1.19	1.81	-1.15	0.20	0.52



Alt Model-Shift Uniqueness Test

010818065-02, P = 684.578749 Days, E = 198.313226 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.2	4.24	3.56	14.1	5.66	3.62	0.68	40.6	30.0	0.68	-9.90	18.4	0.63	0.24	7.30



Stellar Parameters For KIC 010818065

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4701^{+166}_{-166}	$4.601^{+0.054}_{-0.031}$	$-0.280^{+0.300}_{-0.300}$	$0.672^{+0.060}_{-0.060}$	$0.659^{+0.081}_{-0.050}$	$3.055^{+0.755}_{-0.418}$
	+4%/-4%	+1%/-1%	+107%/-107%	+9%/-9%	+12%/-8%	+25%/-14%
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 010818065-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-367 ± 233	$6.12^{+5.51}_{-4.10}$	206^{+9}_{-8}	2841^{+1178}_{-494}	8437^{+73946}_{-6539}
Alt.	-547 ± 129	$5.69^{+5.10}_{-3.64}$	206^{+8}_{-8}	3090^{+1359}_{-498}	$15578^{+113158}_{-11205}$

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 $A_{obs} \gg 1.0$

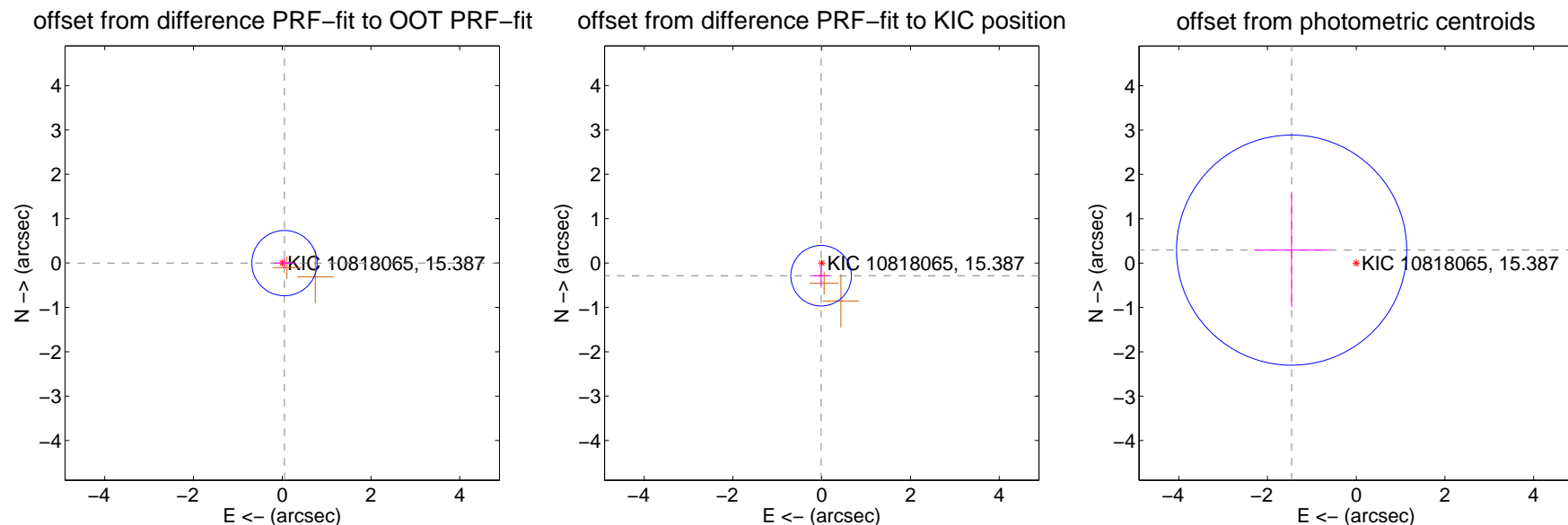
DV Centroid Data

Supplemental centroid analysis for 010818065-02. Kepler magnitude: 15.39. Transit SNR 7.27

There are 0 quarters with good PRF difference image offsets

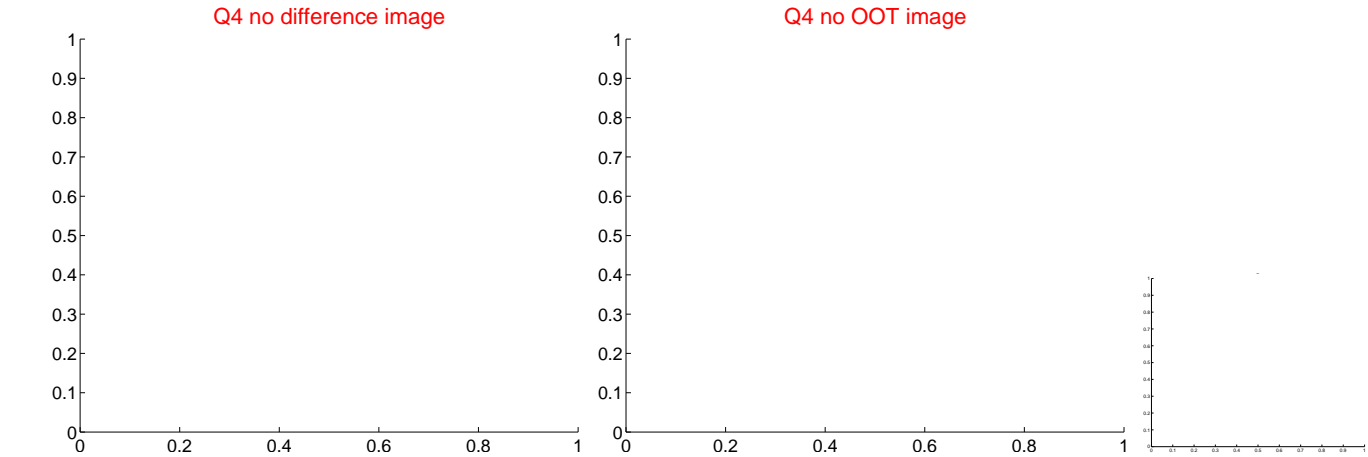
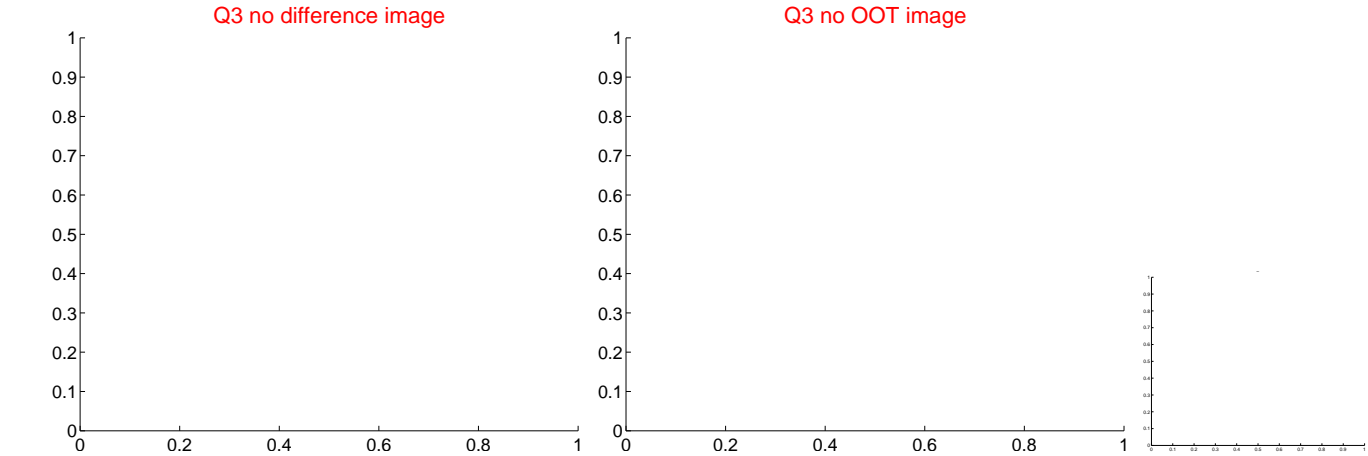
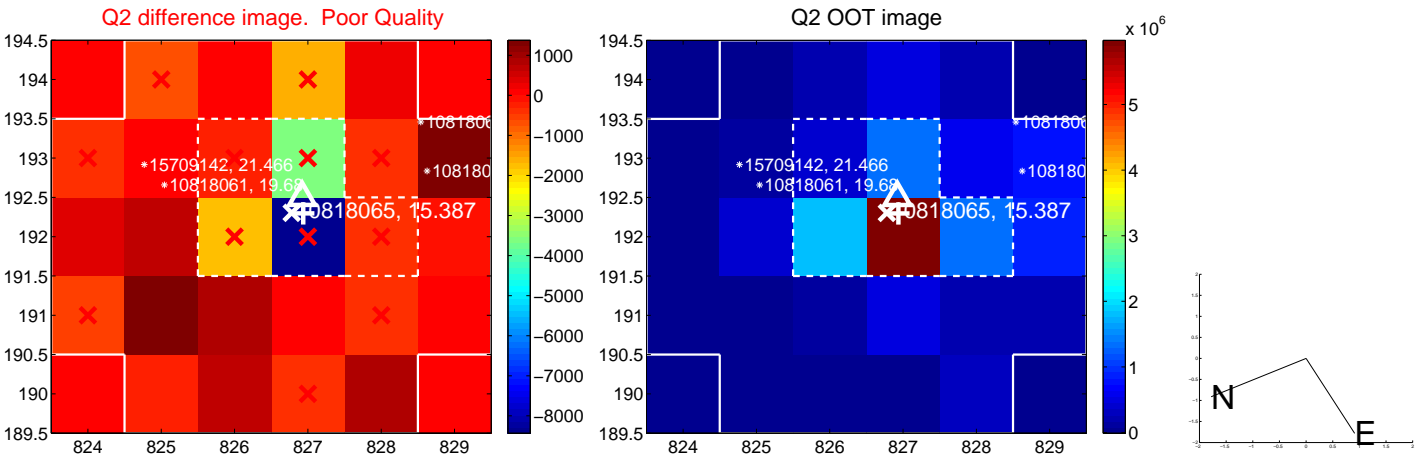
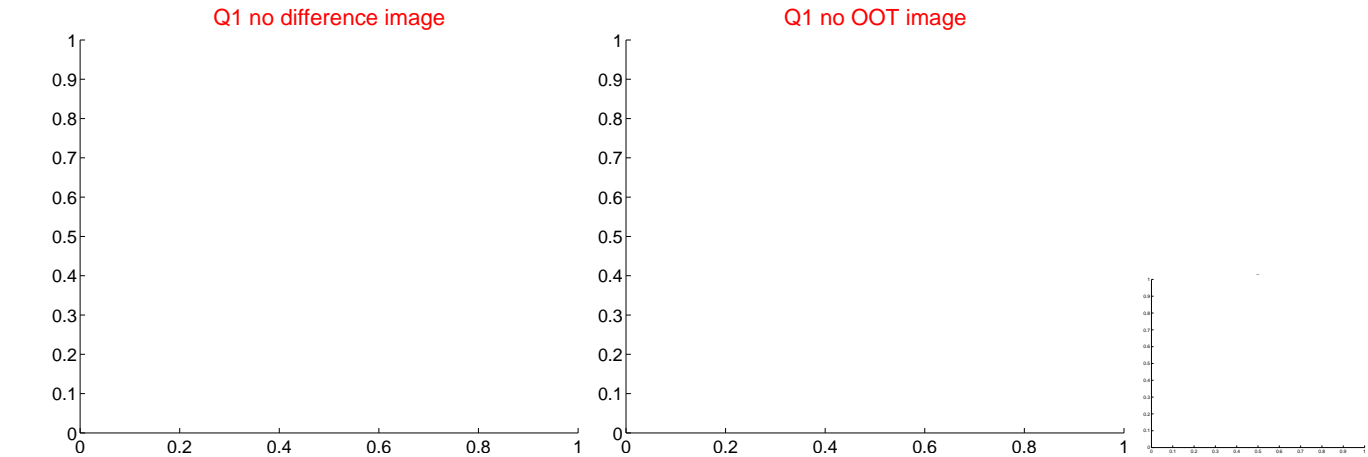
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.245	0.20	-0.050 ± 0.243	-0.001 ± 0.111
PRF-fit source offset from KIC position	0.286 ± 0.227	1.26	0.014 ± 0.187	-0.286 ± 0.227
photometric centroid source offset	1.49 ± 0.86	1.72	1.46 ± 0.84	0.29 ± 1.28



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

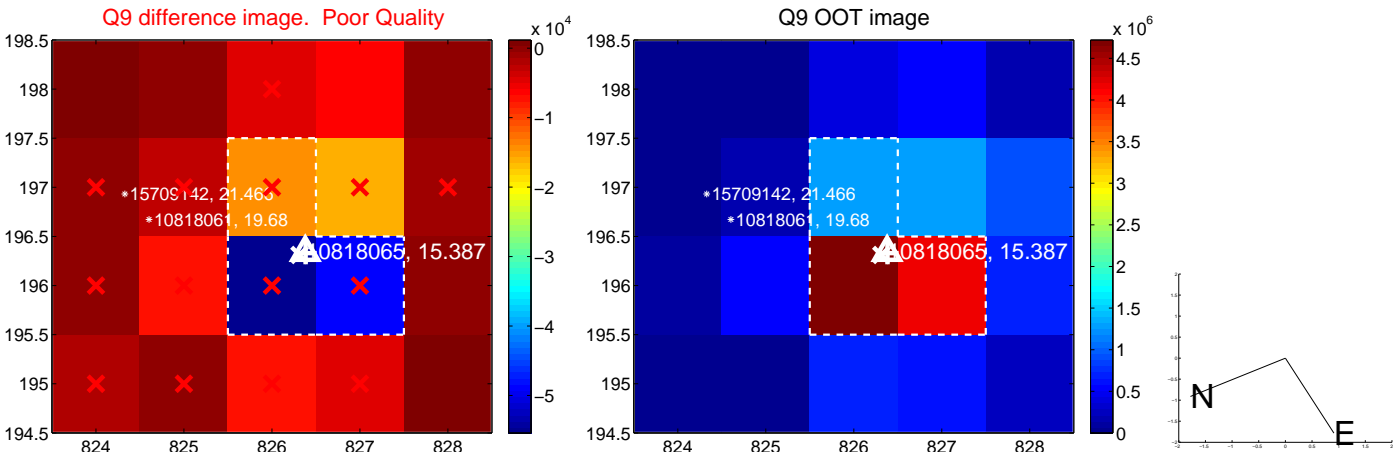
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



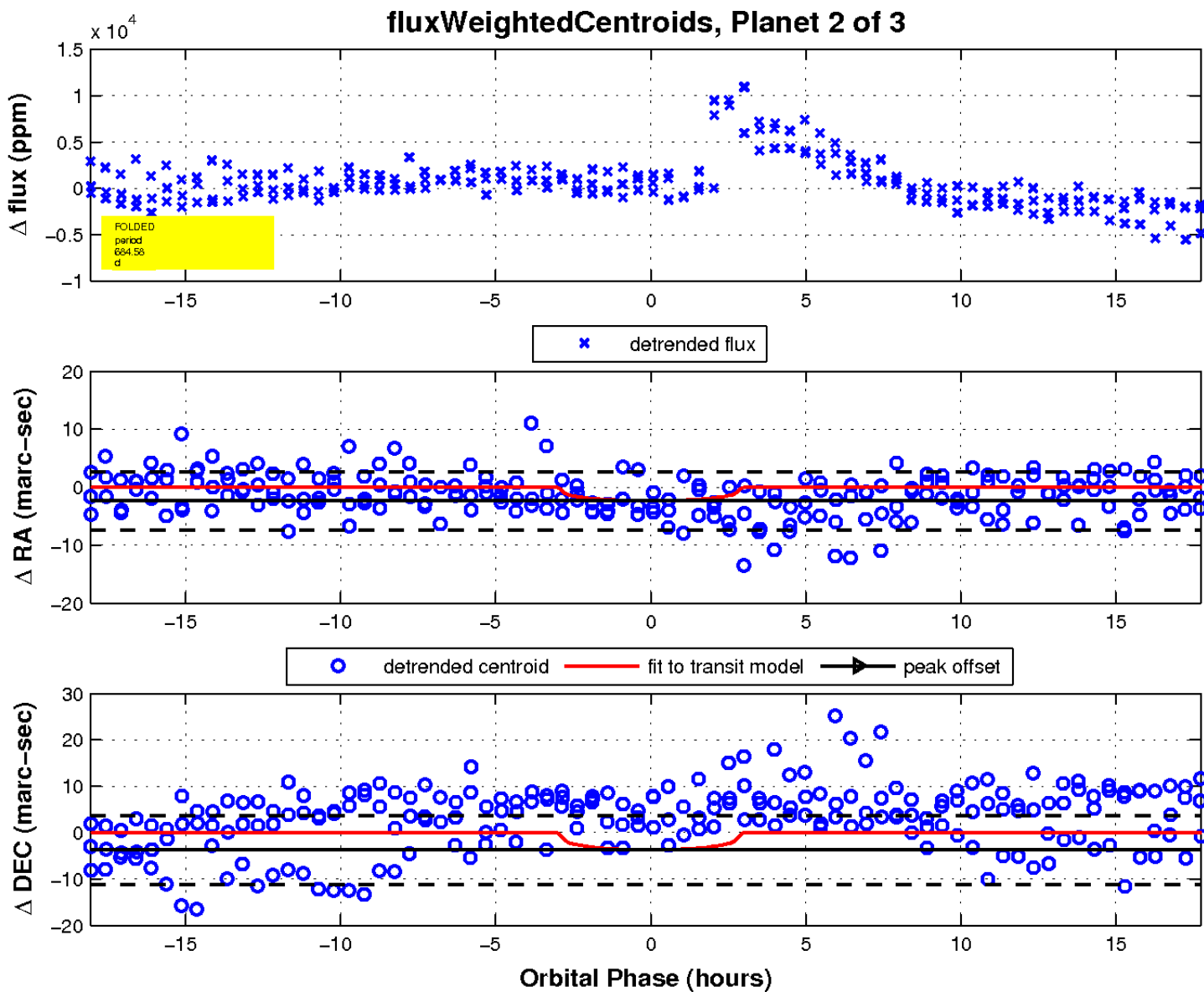
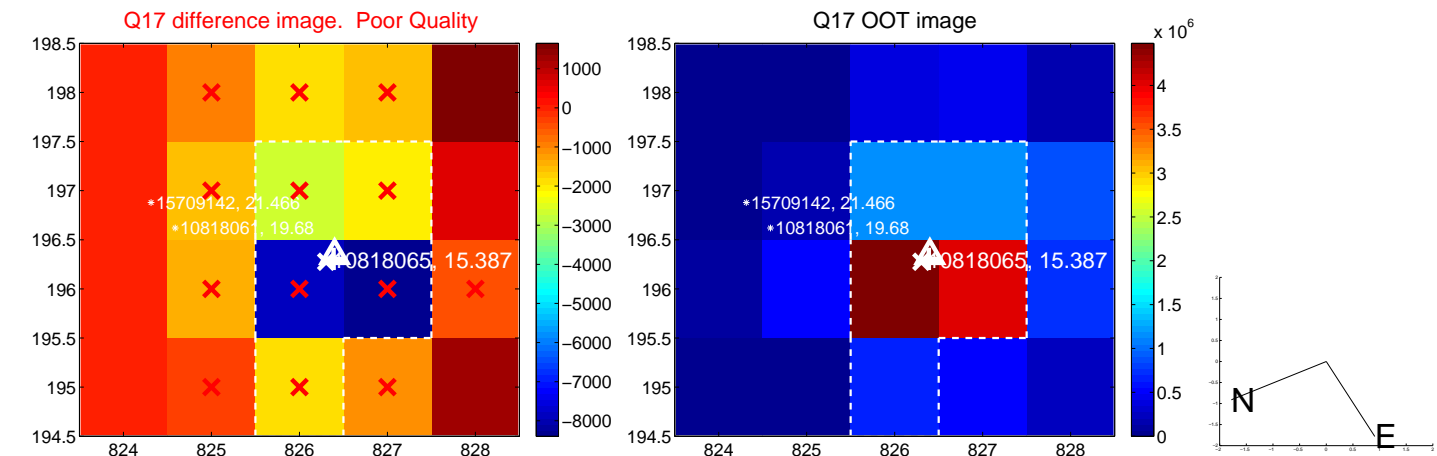
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

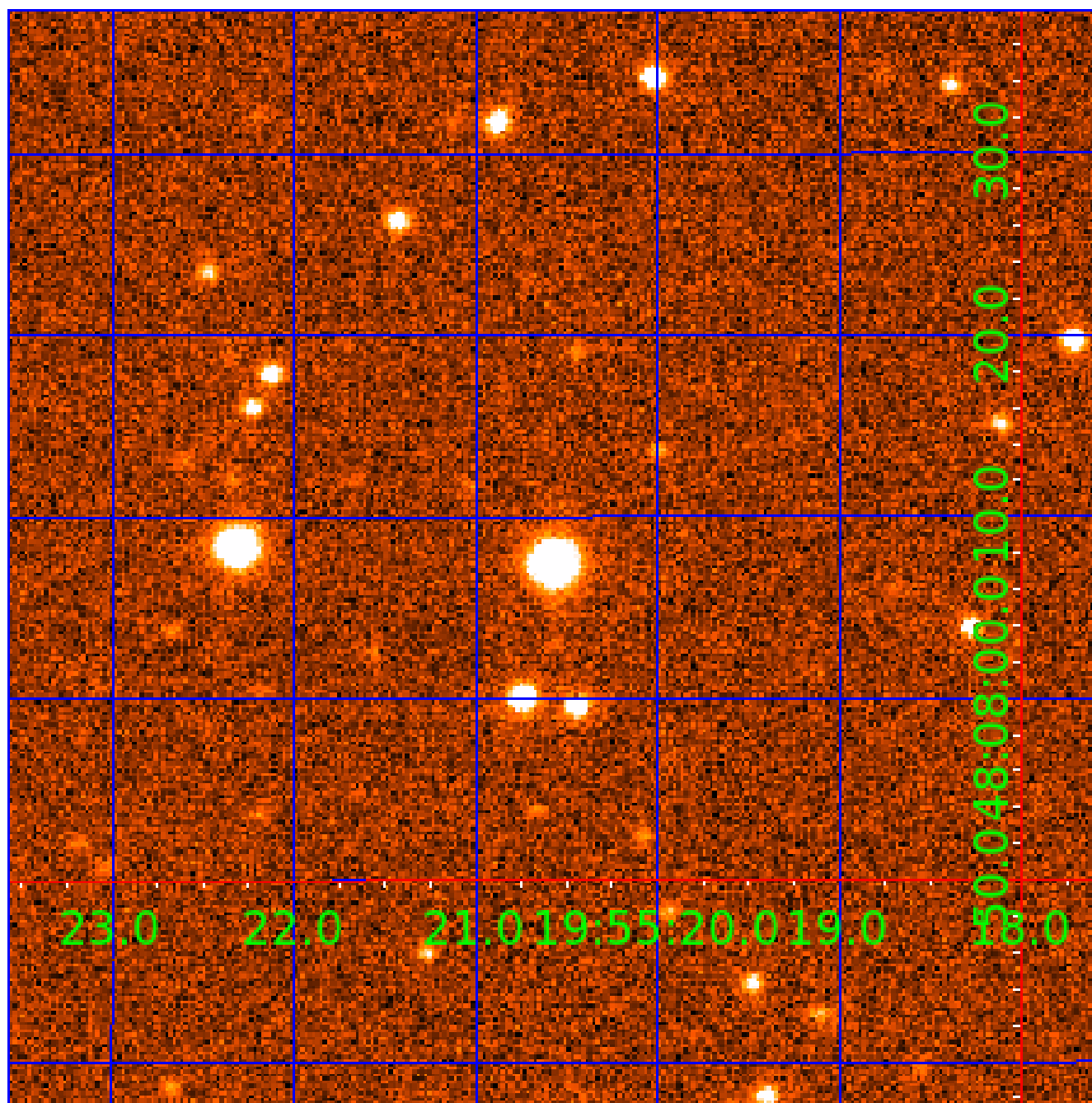


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010818065

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})
010818065-01	OBS	No	492.212898	246.914445	3169.9	5.105	14.9	7.2	0.67	4701	4.46	0.18
010818065-02	OBS	No	684.584475	198.328251	3154.4	6.030	15.1	7.3	0.67	4701	3.63	0.11
010818065-03	OBS	No	332.574394	330.881920	2112.9	5.002	11.8	5.7	0.67	4701	3.08	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010818065-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010818065-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—CENT_FEW_DIFFS
010818065-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

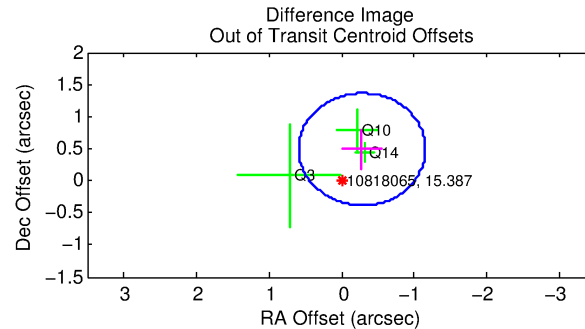
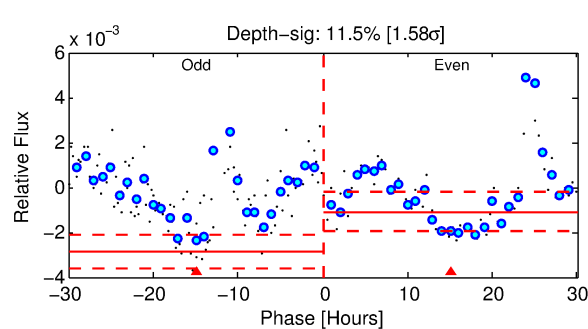
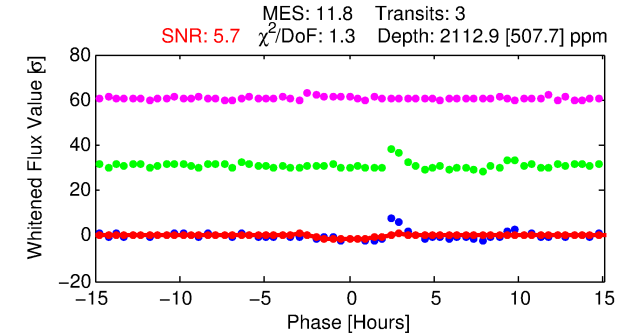
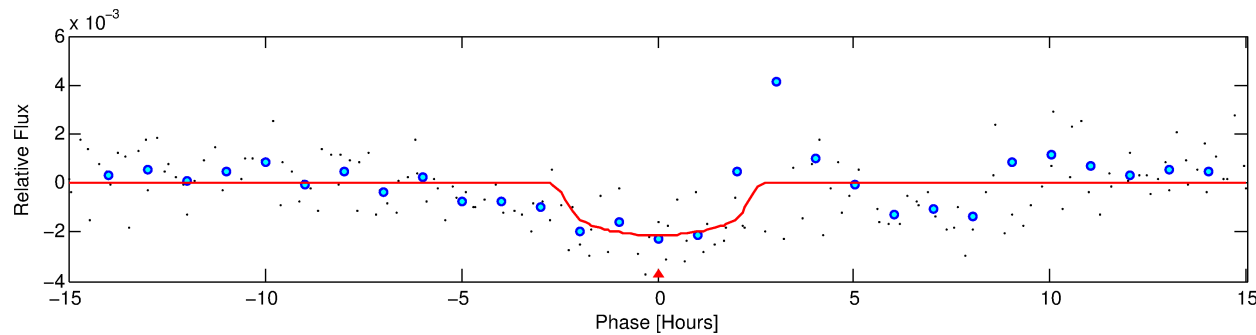
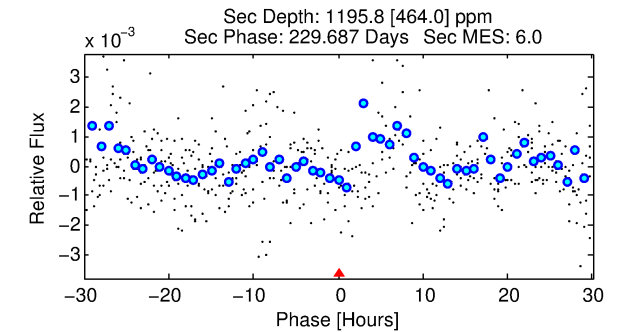
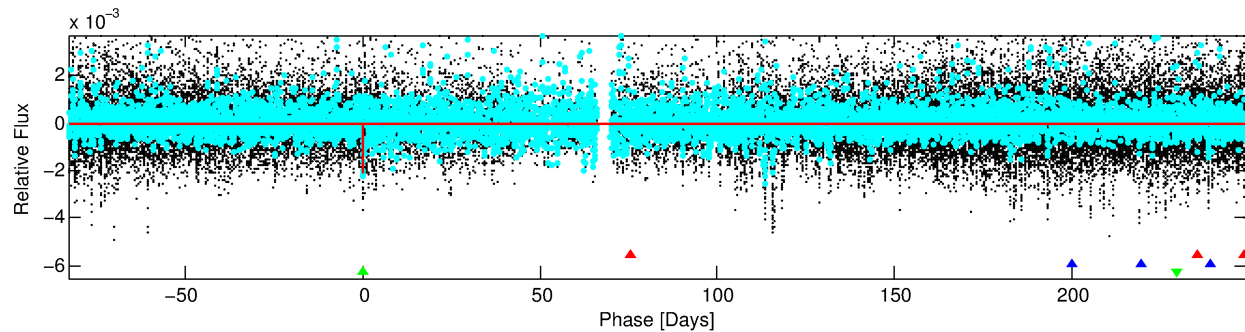
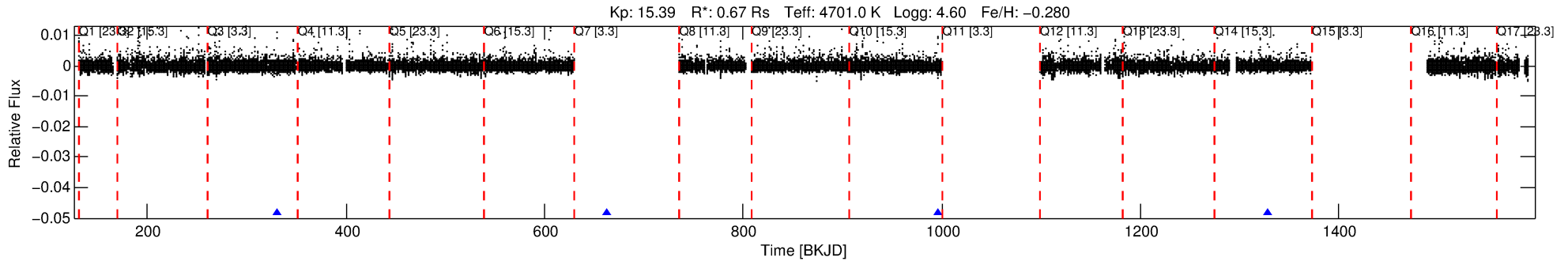
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010818065-03

No Significant Match Found

DV One-Page Summary

KIC: 10818065 Candidate: 3 of 3 Period: 332.574 d



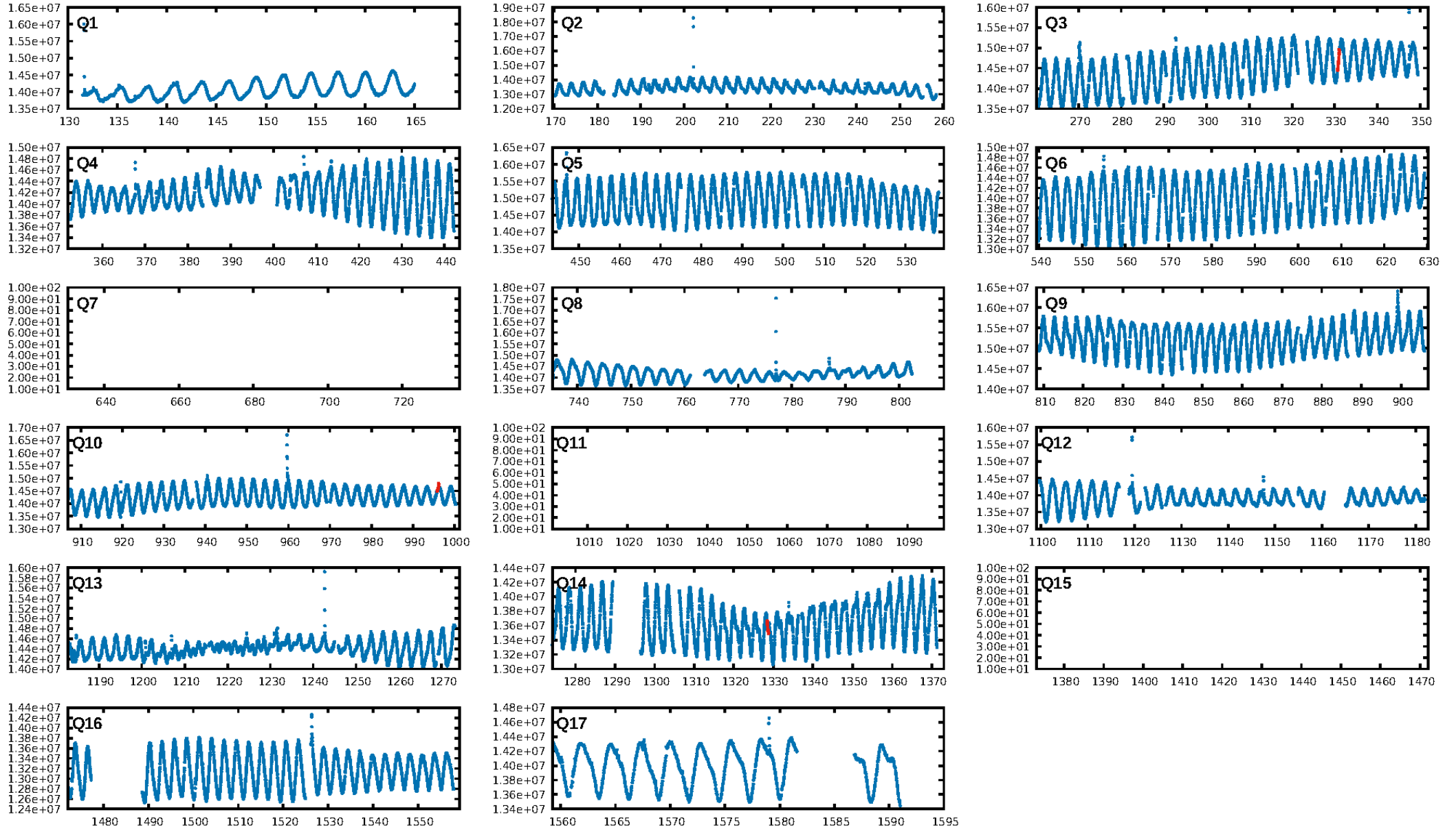
DV Fit Results:

Period = 332.57439 [0.00596] d
Epoch = 330.8819 [0.0150] BKJD
Rp/R* = 0.0420 [0.0730]
a/R* = 474.65 [2595.25]
b = 0.46 [9.50]
Seff = 0.30 [0.05]
Teq = 188 [8] K
Rp = 3.08 [5.36] Re
a = 0.8170 [0.0593] AU
Ag = 46219.14 [161714.38] [0.29σ]
Teffp = 4264 [3731] K [1.09σ]

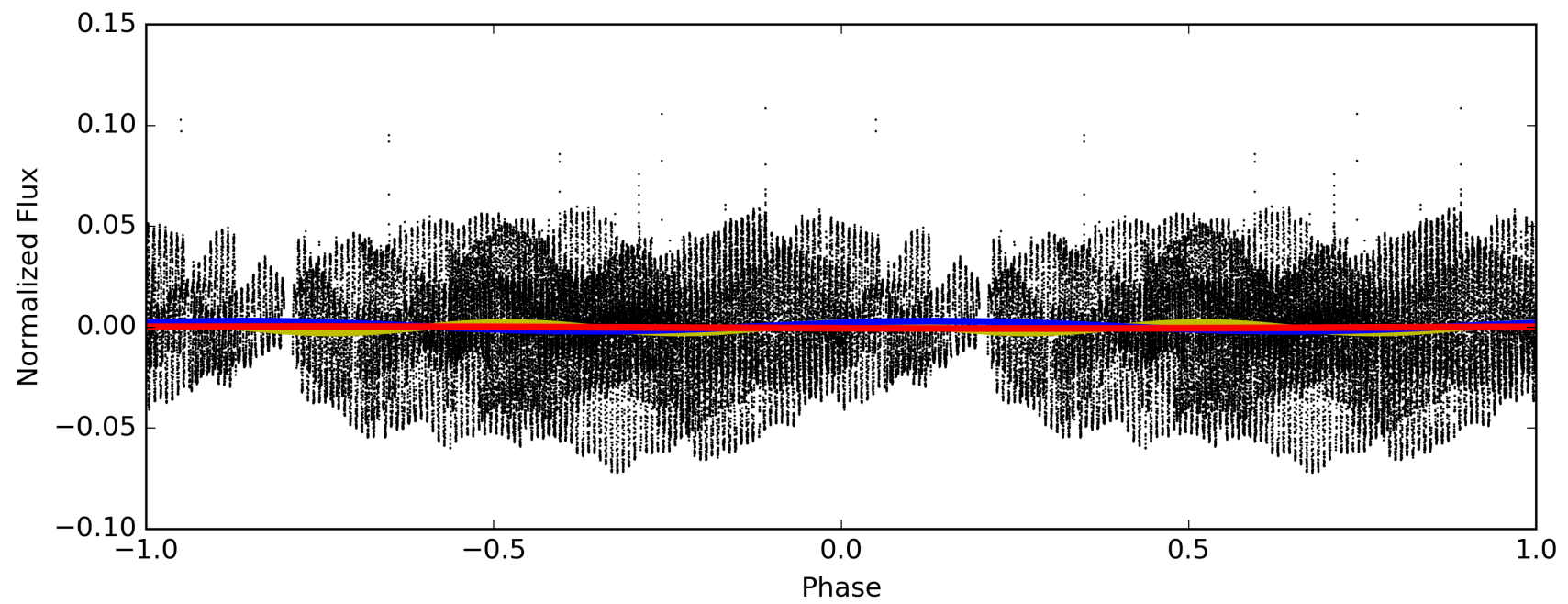
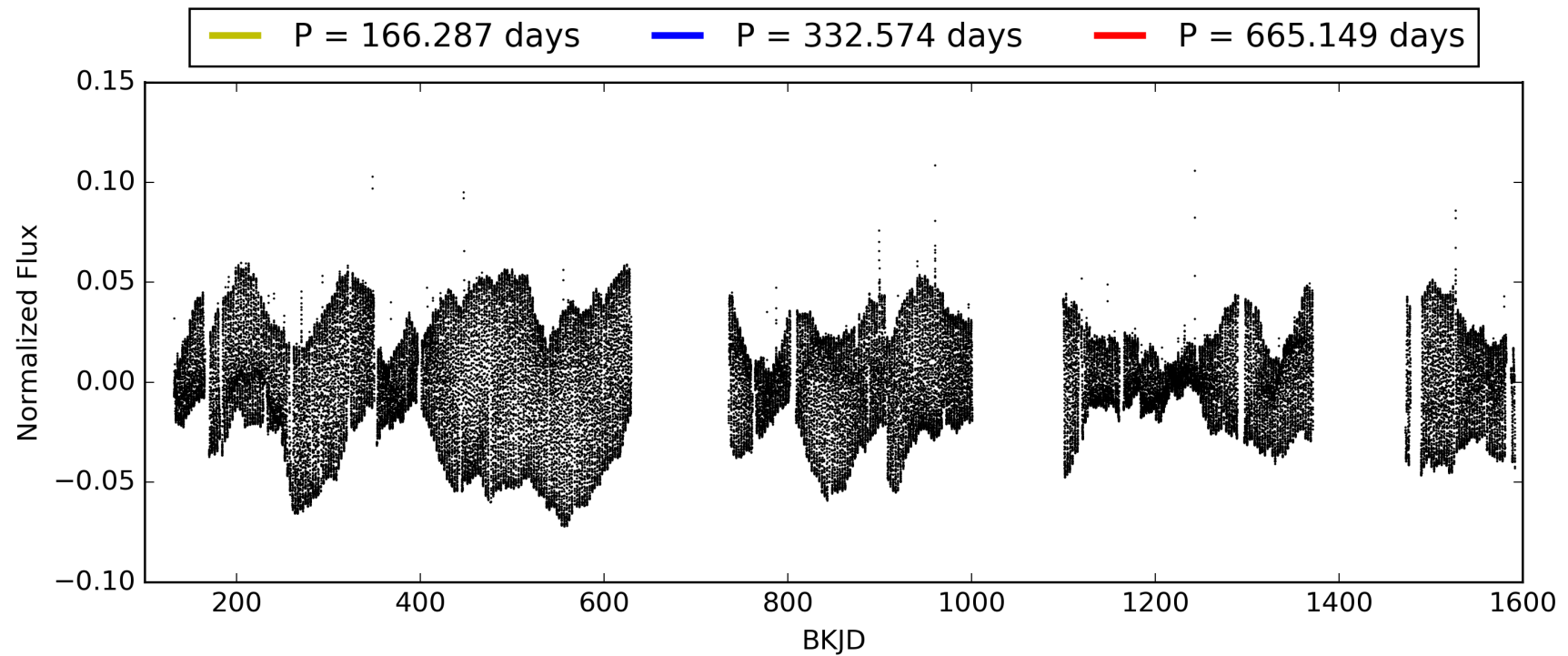
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [536.07σ]
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 65.7%
Bootstrap-pfa: 1.89e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.9062
Centroid-sig: 7.8%
Centroid-so: 2.235 arcsec [1.60σ]
OotOffset-rm: 0.564 arcsec [1.94σ]
KicOffset-rm: 0.312 arcsec [1.07σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 010818065-03, PDC Light Curves

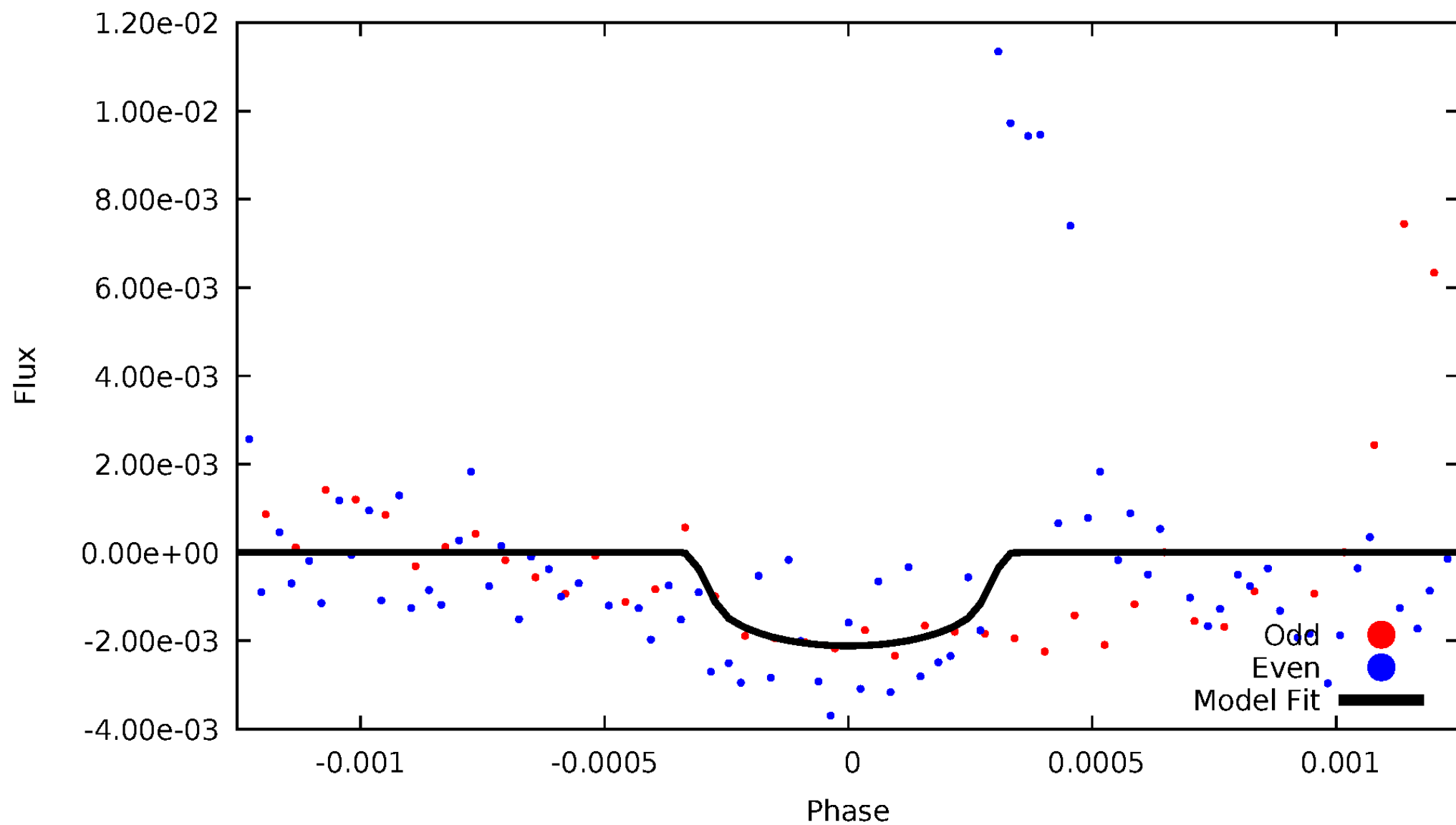


TCE 010818065-03



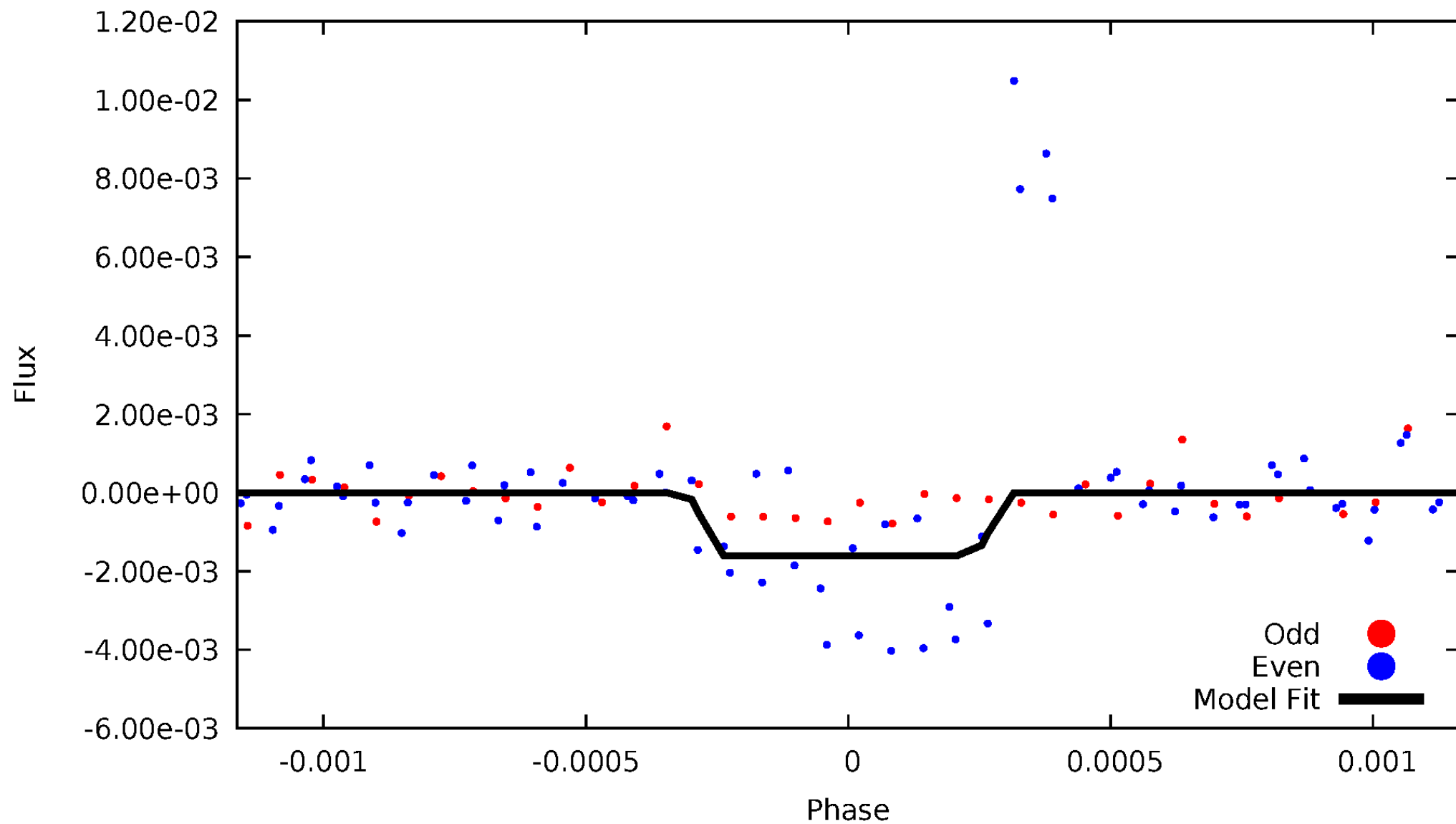
DV Odd/Even

TCE 010818065-03

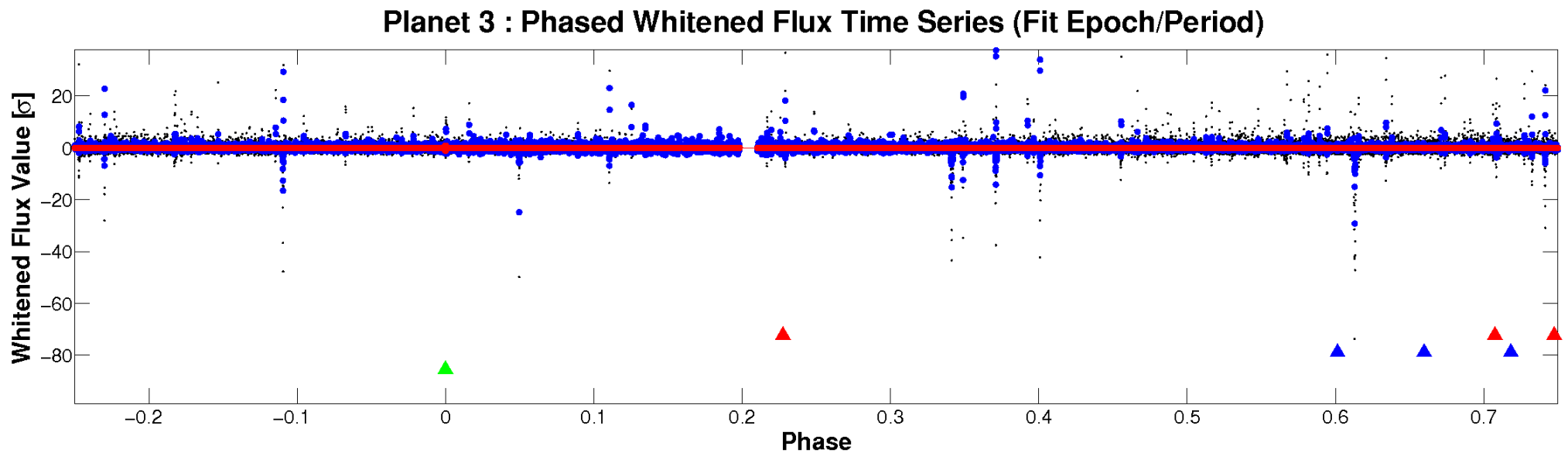
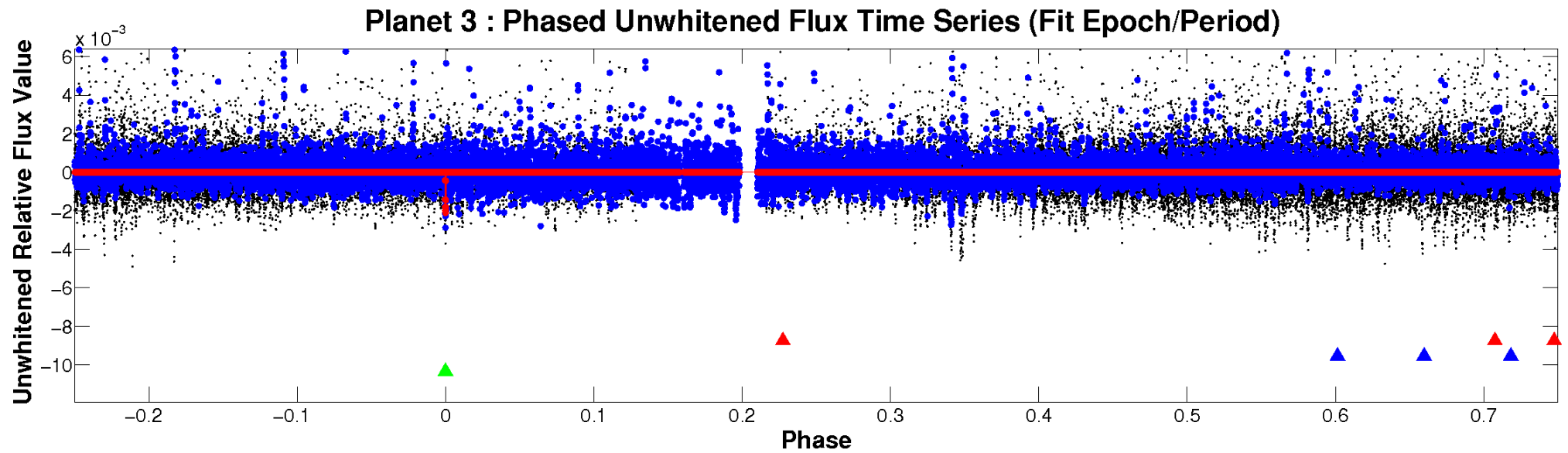


ALT Odd/Even

TCE 010818065-03

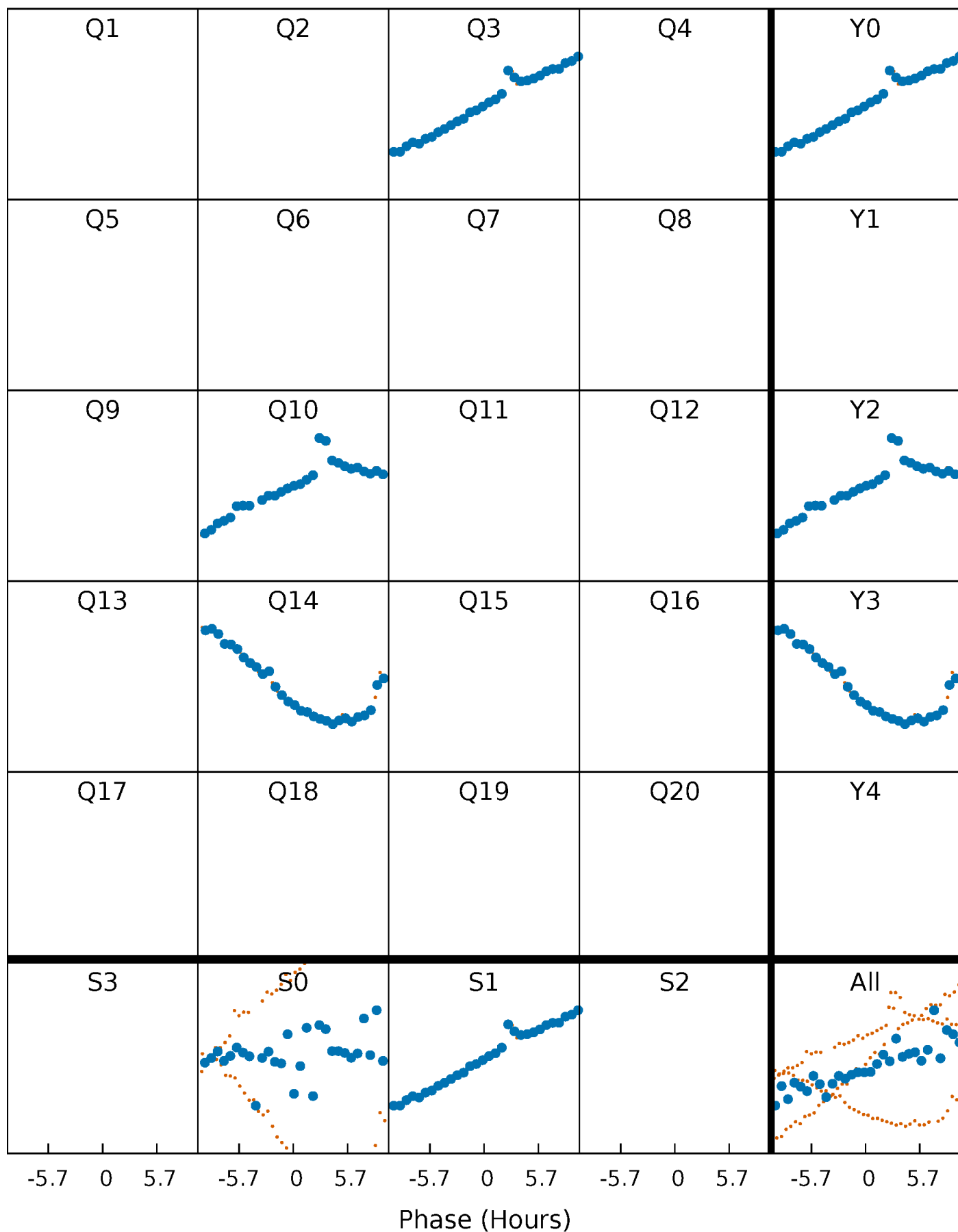


Non-Whitened Vs. Whitened Light Curve



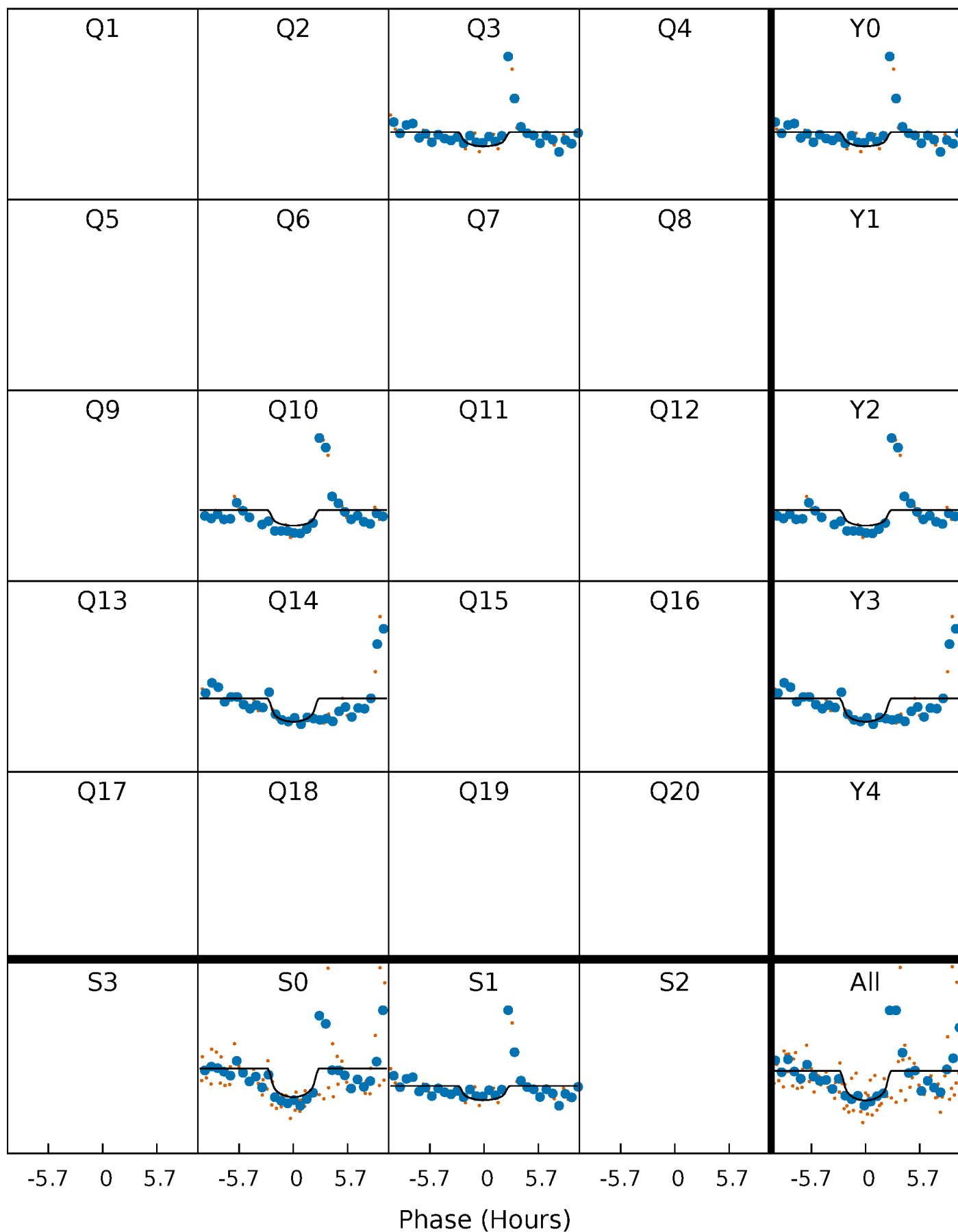
PDC Quarter-Phased Transit Curves

TCE 010818065-03 P=332.574394 Days $T_0=330.881920$ (BKJD)



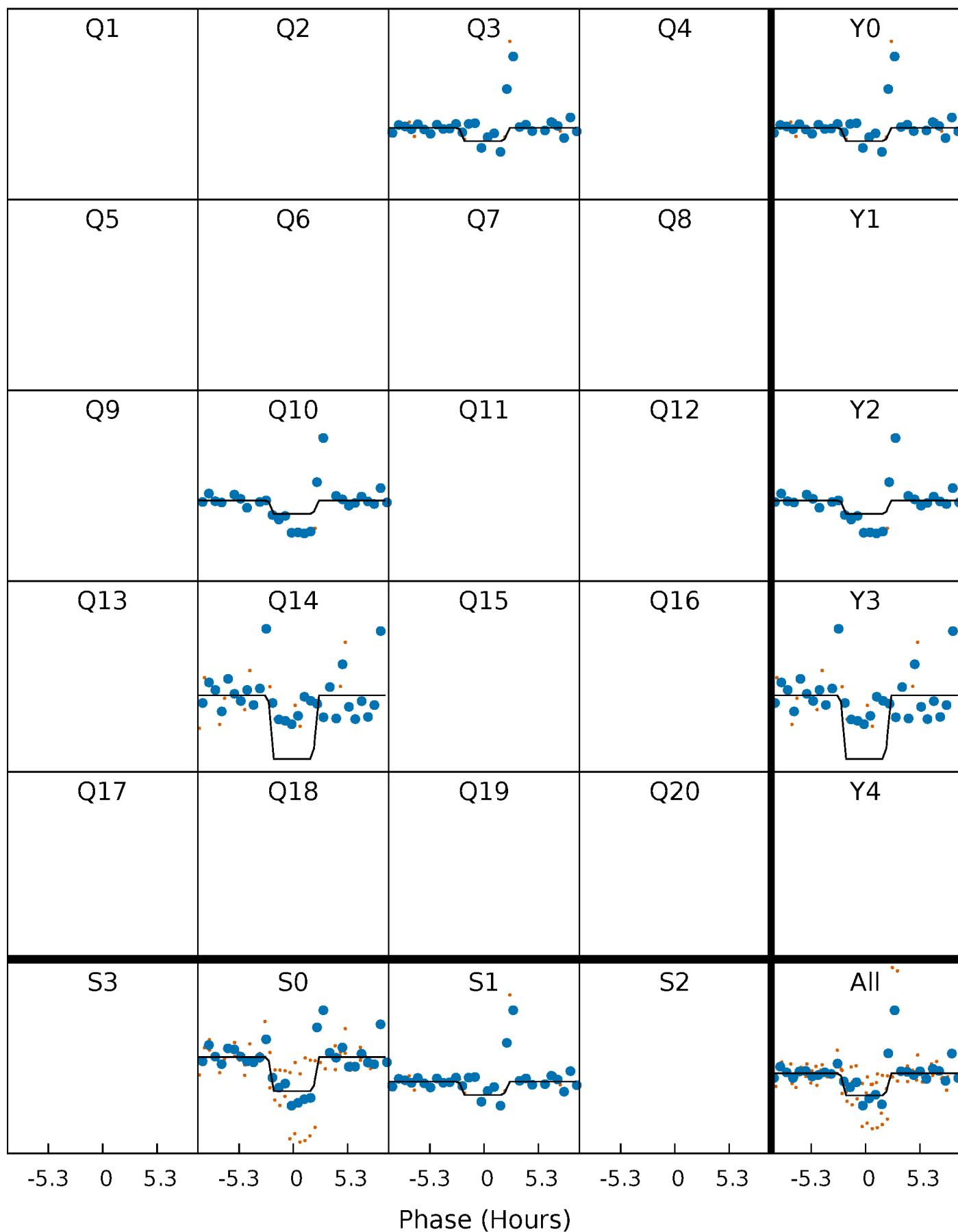
DV Quarter-Phased Transit Curves

TCE 010818065-03 $P=332.574394$ Days $T_0=330.881920$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

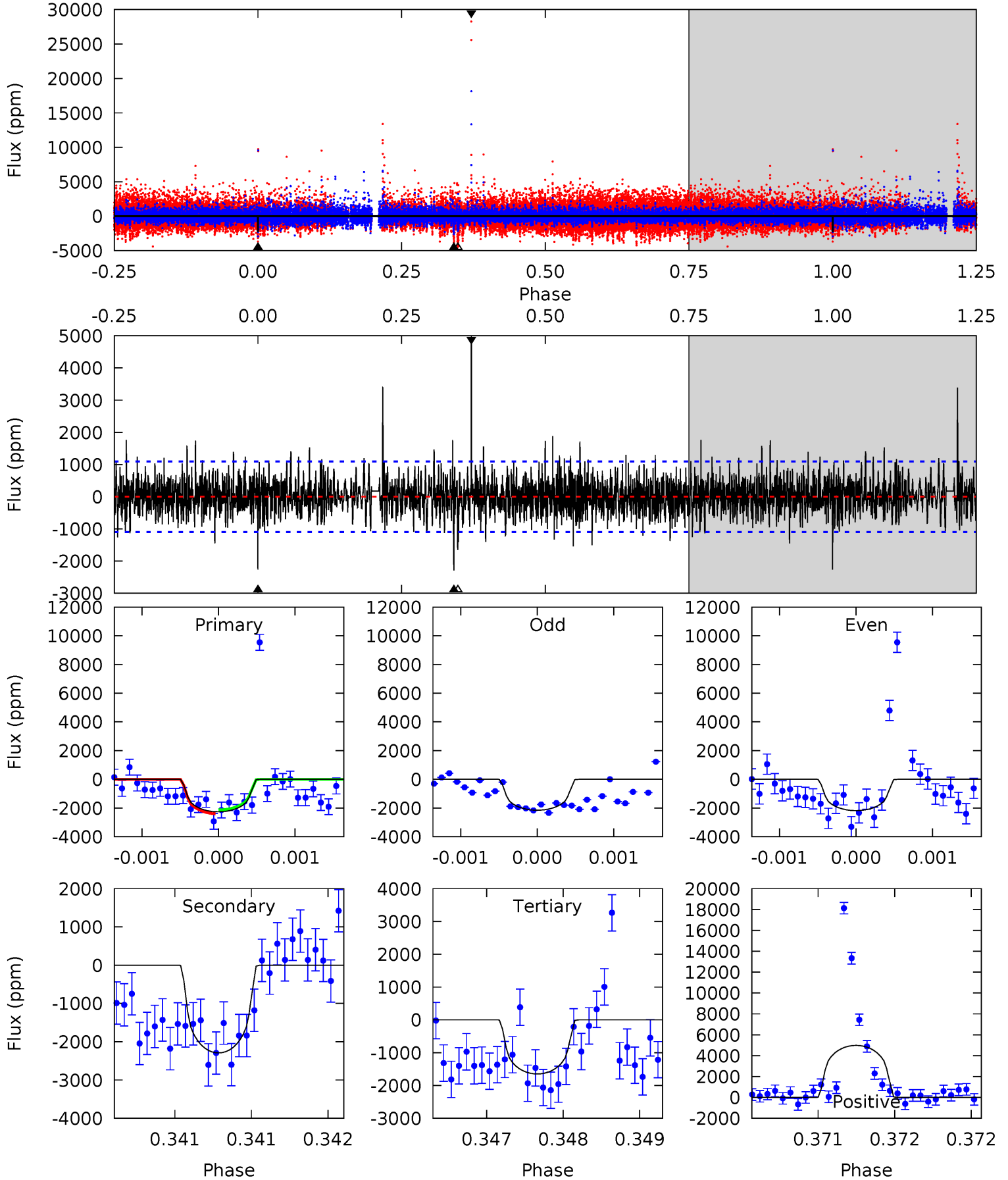
TCE 010818065-03 $P=332.576622$ Days $T_0=330.879142$ (BKJD)



DV Model-Shift Uniqueness Test

010818065-03, P = 332.574394 Days, E = 330.881920 Days

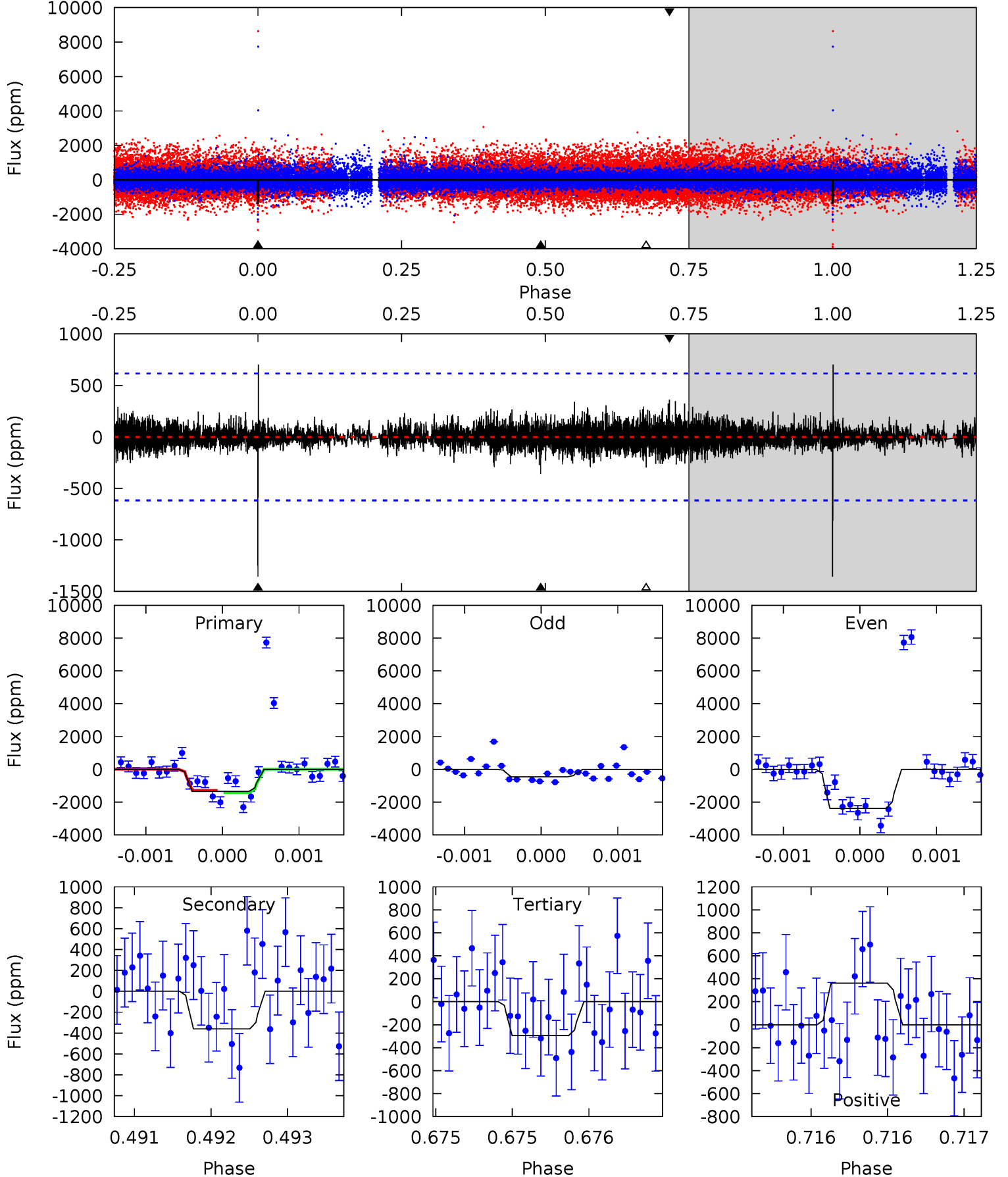
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	11.5	8.30	25.1	5.52	3.40	2.28	3.10	-13.7	3.24	-13.5	0.06	1.01	0.68	0.69



Alt Model-Shift Uniqueness Test

010818065-03, P = 332.576622 Days, E = 330.879142 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	3.23	2.65	3.25	5.54	3.43	0.67	9.52	8.93	0.57	-0.02	7.67	1.48	0.34	0.60



Stellar Parameters For KIC 010818065

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4701^{+166}_{-166}	$4.601^{+0.054}_{-0.031}$	$-0.280^{+0.300}_{-0.300}$	$0.672^{+0.060}_{-0.060}$	$0.659^{+0.081}_{-0.050}$	$3.055^{+0.755}_{-0.418}$
	+4%/-4%	+1%/-1%	+107%/-107%	+9%/-9%	+12%/-8%	+25%/-14%
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 010818065-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2292±199	$4.87^{+4.64}_{-3.21}$	261^{+11}_{-10}	4126^{+2438}_{-832}	$36541^{+259676}_{-26931}$
Alt.	-359±111	$4.90^{+4.40}_{-3.48}$	262^{+9}_{-10}	3059^{+1561}_{-534}	5390^{+55749}_{-4078}

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 $A_{obs} \gg 1.0$

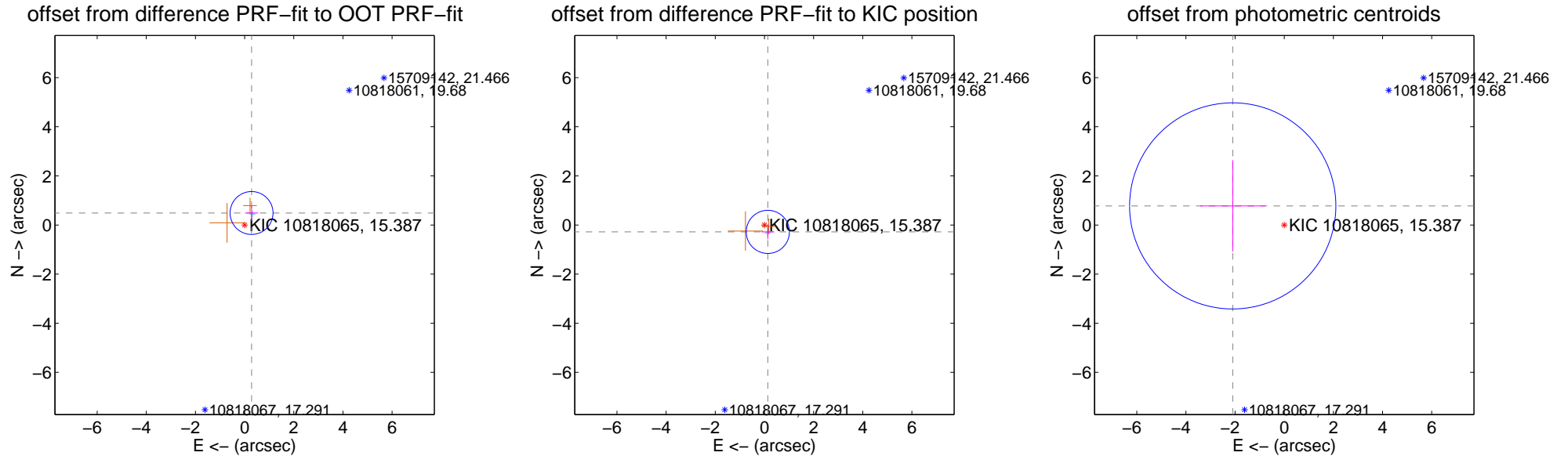
DV Centroid Data

Supplemental centroid analysis for 010818065-03. Kepler magnitude: 15.39. Transit SNR 5.71

There are 1 quarters with good PRF difference image offsets

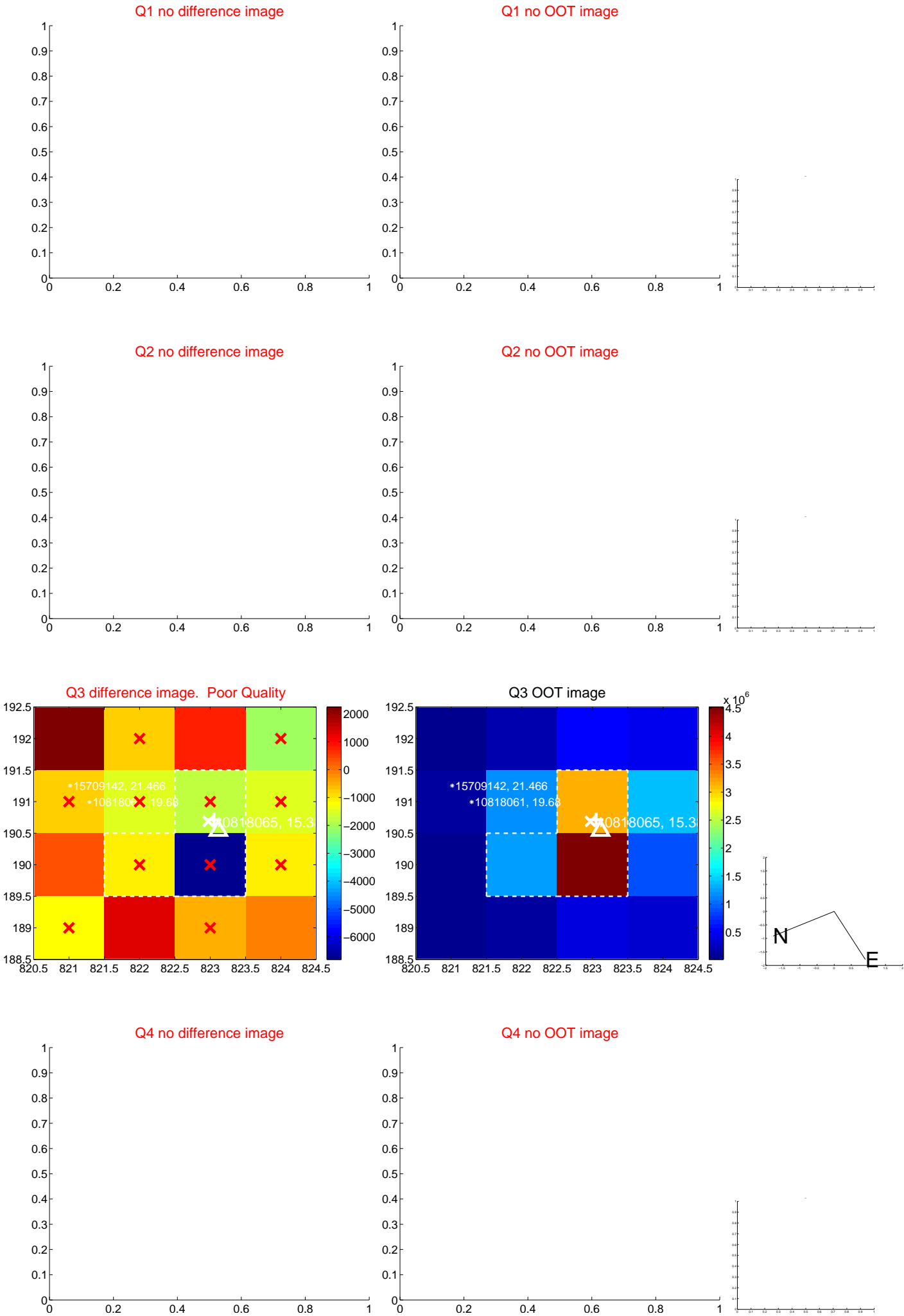
The direct PRF centroid is offset from the target star catalog position by about 0.79 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.564 ± 0.291	1.94	-0.282 ± 0.267	0.489 ± 0.299
PRF-fit source offset from KIC position	0.312 ± 0.293	1.07	-0.138 ± 0.267	-0.280 ± 0.299
photometric centroid source offset	2.24 ± 1.40	1.60	2.10 ± 1.32	0.78 ± 1.86



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.

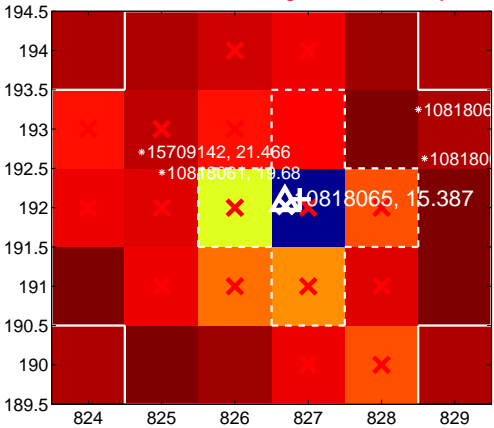
Q9 no difference image



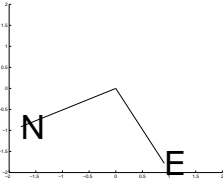
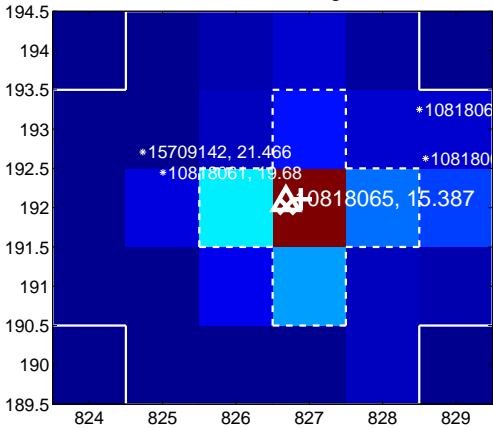
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



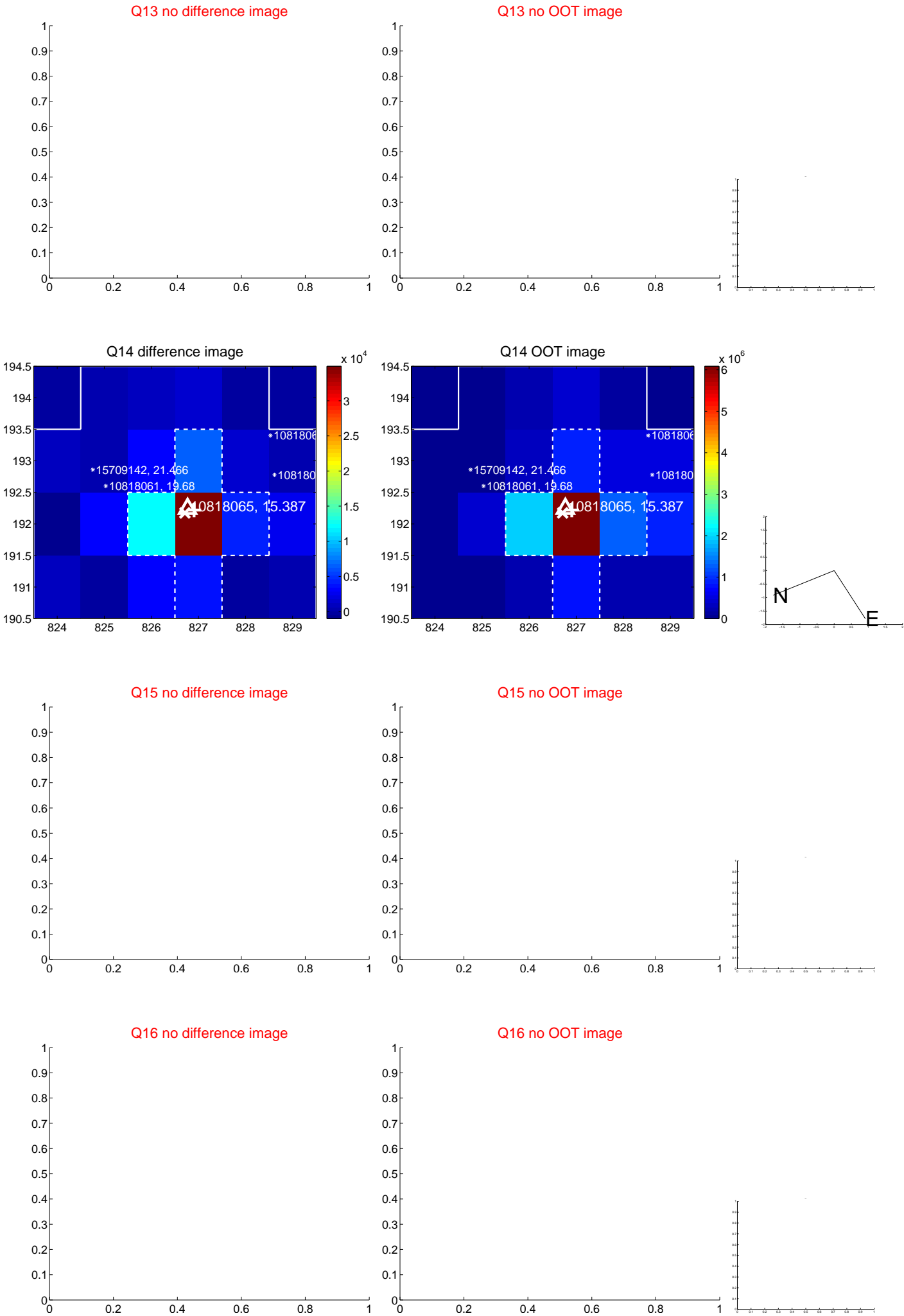
Q12 no difference image



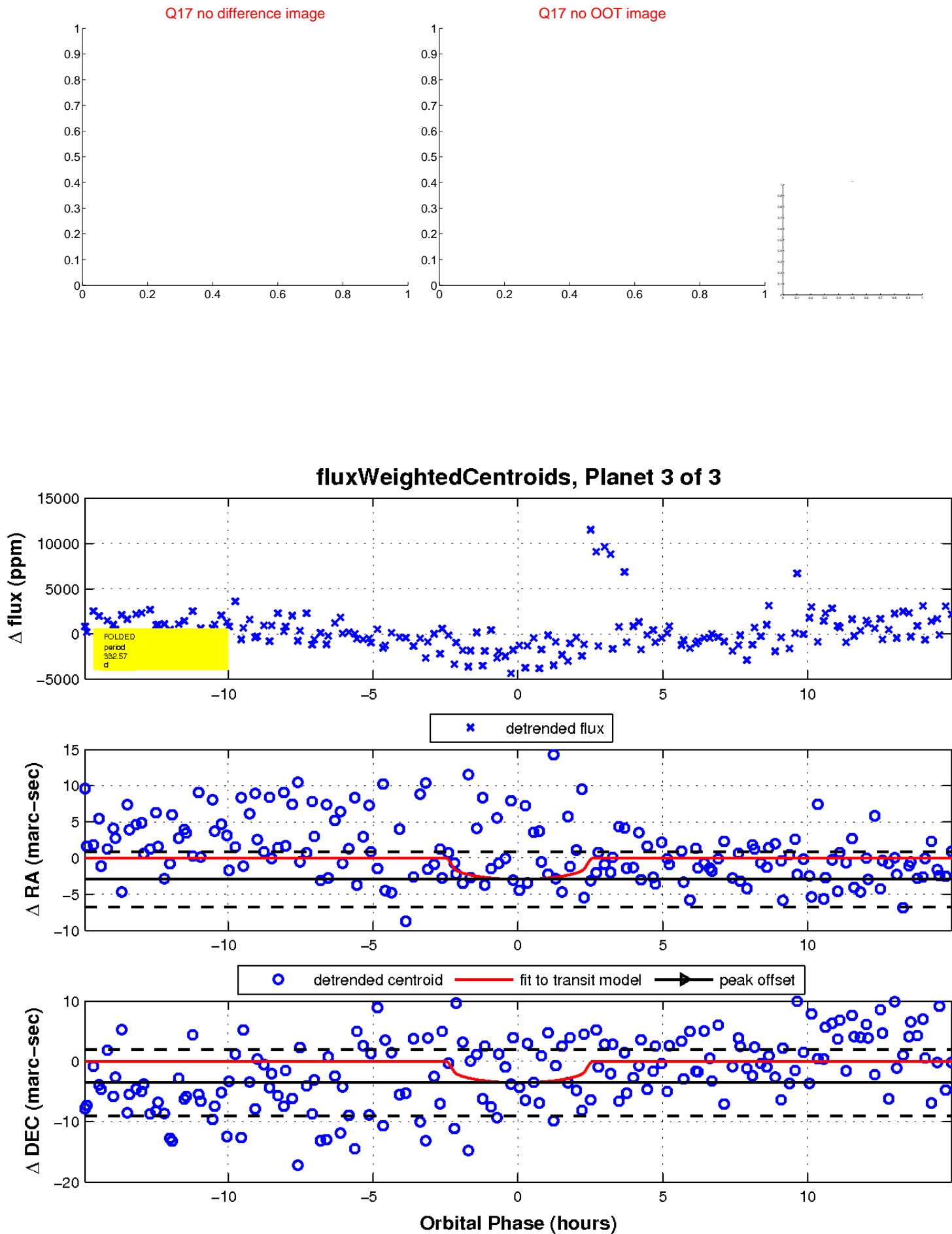
Q12 no OOT image



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



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



UKIRT Image

Declination

