

KIC 011804076

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})
011804076-01	OBS	No	255.259351	288.807789	1019.1	3.640	12.4	6.4	0.64	5198	2.11	0.58
011804076-02	OBS	No	332.428321	223.633010	1523.8	5.244	11.0	8.1	0.64	5198	2.66	0.41
011804076-03	OBS	No	362.398571	361.561632	2019.6	8.472	13.1	9.4	0.64	5198	2.82	0.36
011804076-04	OBS	No	563.612668	316.044936	1323.6	7.463	11.2	7.8	0.64	5198	2.42	0.20
011804076-05	OBS	No	525.072071	315.109207	1121.8	6.911	16.5	5.1	0.64	5198	2.10	0.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011804076-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011804076-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011804076-03	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
011804076-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_FEW_DIFFS
011804076-05	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—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

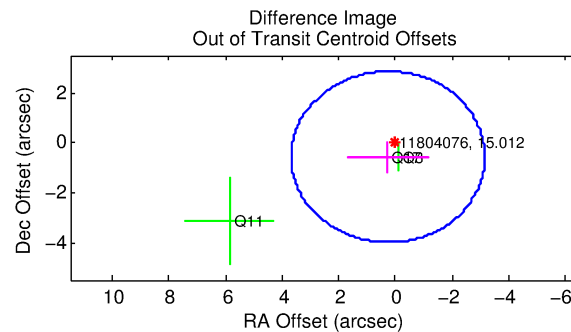
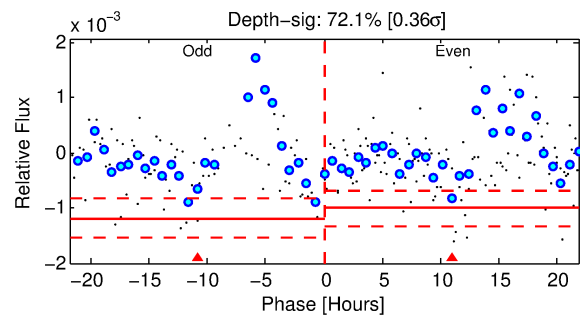
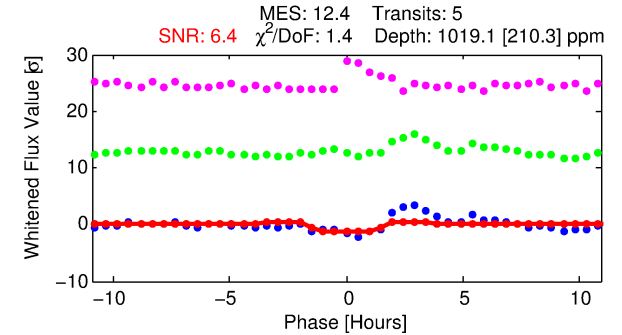
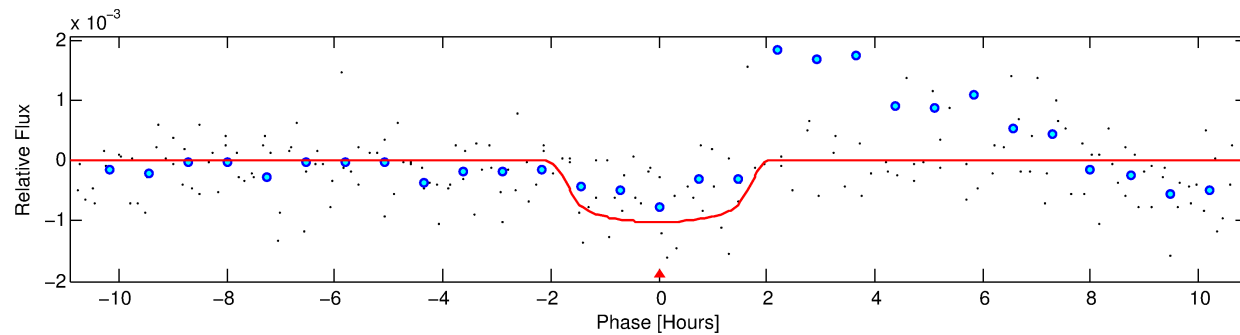
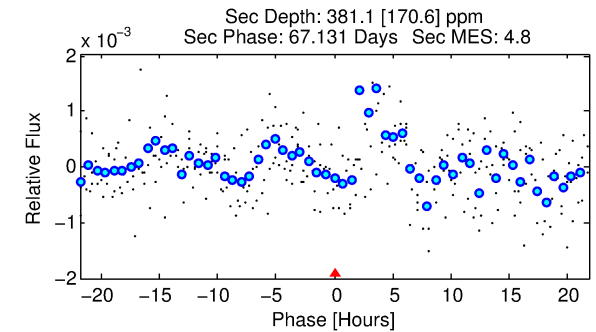
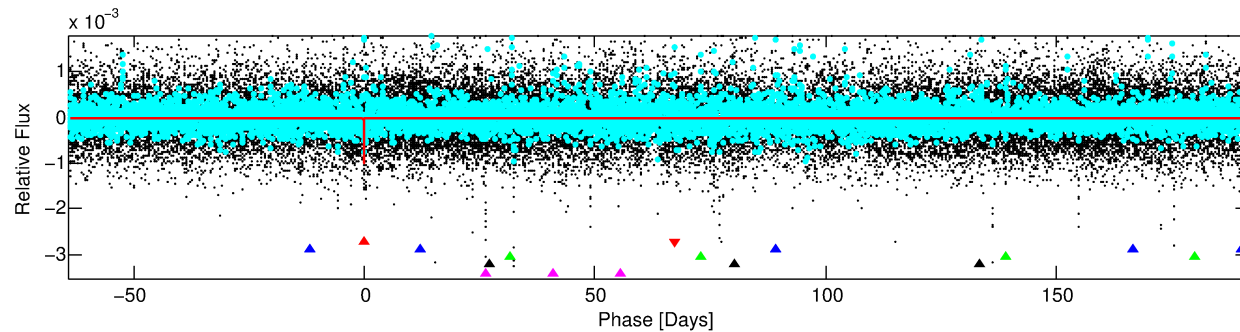
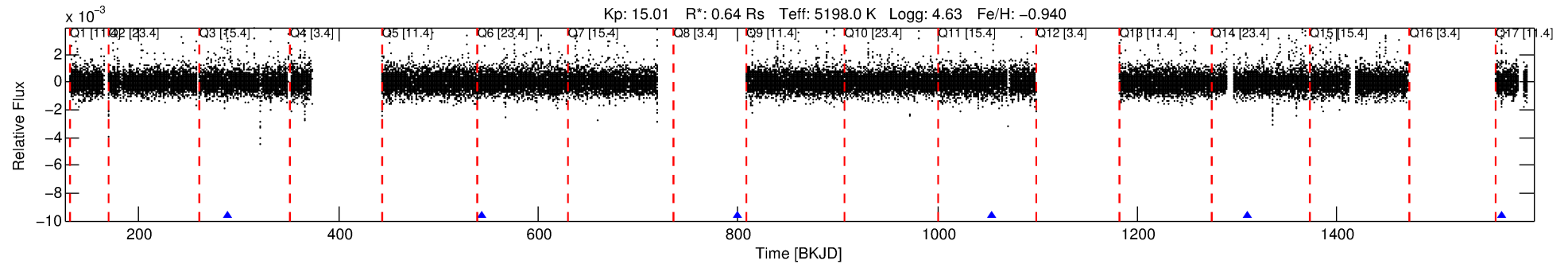
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011804076-01

No Significant Match Found

DV One-Page Summary

KIC: 11804076 Candidate: 1 of 5 Period: 255.259 d



DV Fit Results:

Period = 255.25935 [0.00333] d
Epoch = 288.8078 [0.0117] BKJD
Rp/R* = 0.0304 [0.0500]
a/R* = 448.69 [3110.87]
b = 0.60 [7.47]
Seff = 0.58 [0.10]
Teq = 223 [9] K
Rp = 2.11 [3.47] Re
a = 0.6733 [0.0517] AU
Ag = 21400.99 [71120.32] [0.30 σ]
Teffp = 4165 [3460] K [1.14 σ]

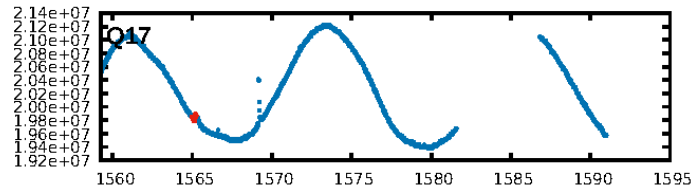
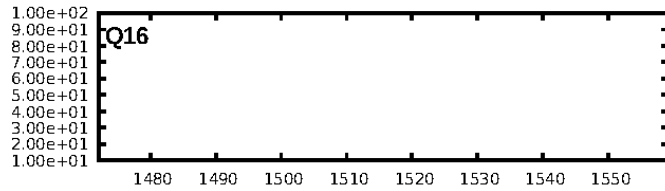
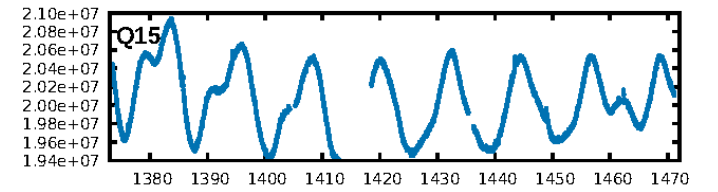
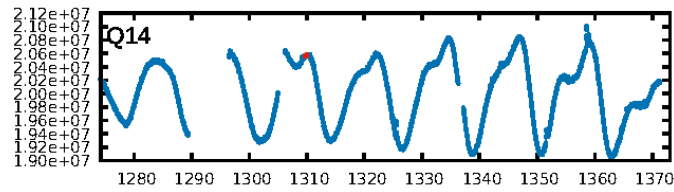
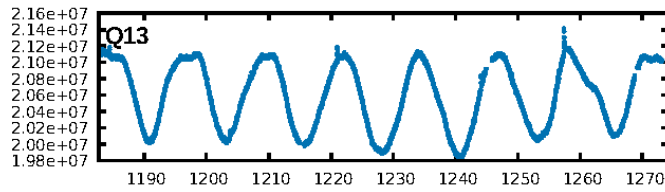
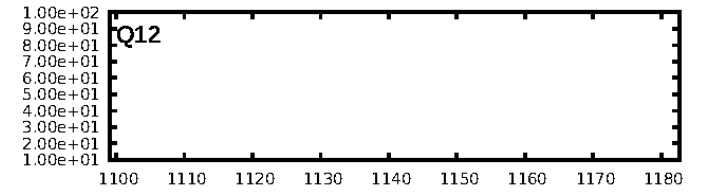
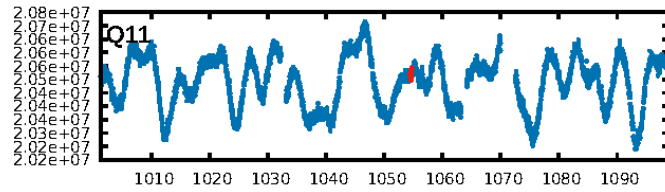
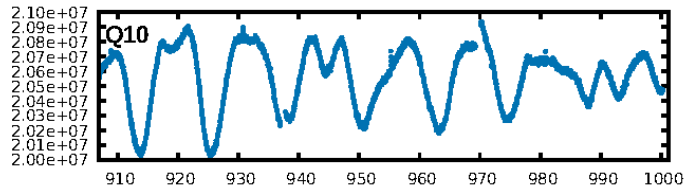
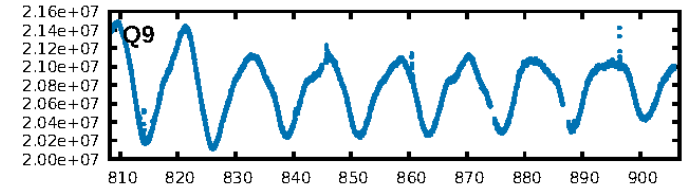
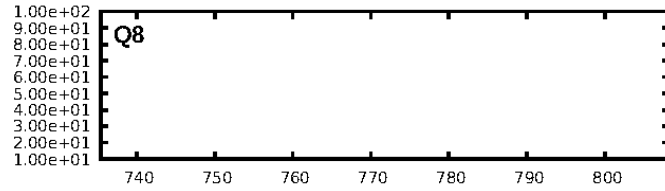
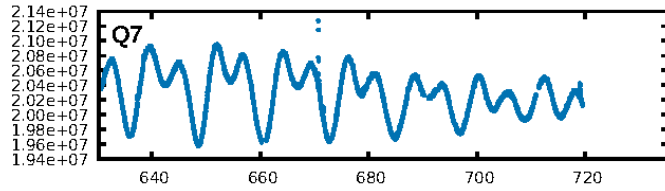
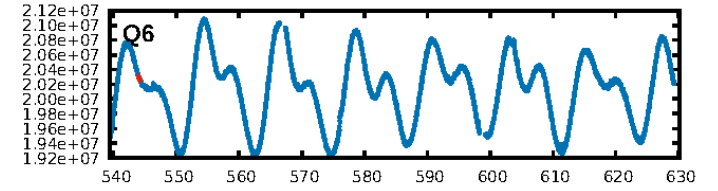
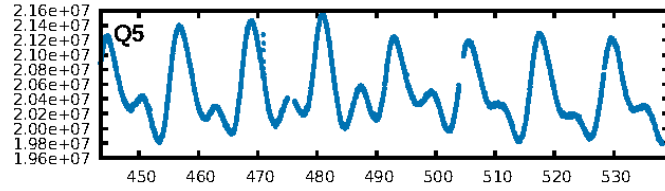
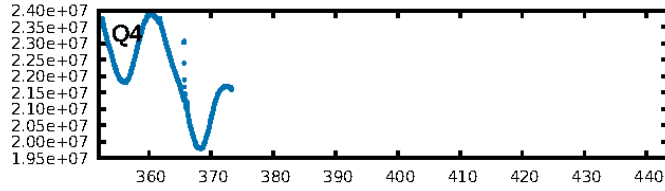
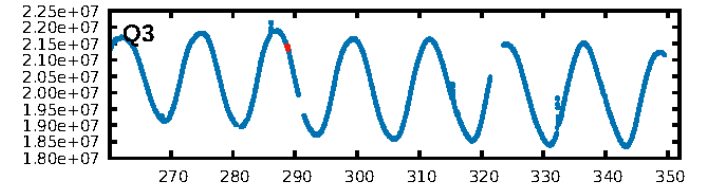
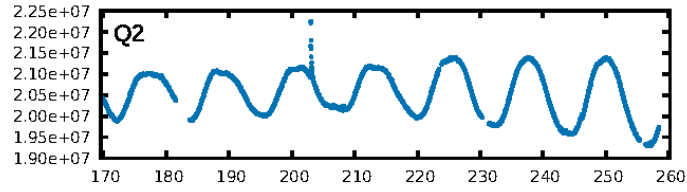
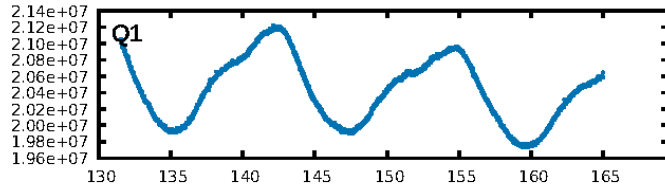
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [290.12 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 13.0%
Bootstrap-pfa: 3.51e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.02454
Centroid-sig: 64.0%
Centroid-so: 1.358 arcsec [0.85 σ]
OotOffset-rm: 0.626 arcsec [0.55 σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-rm: 0.671 arcsec [0.69 σ]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [5/5]

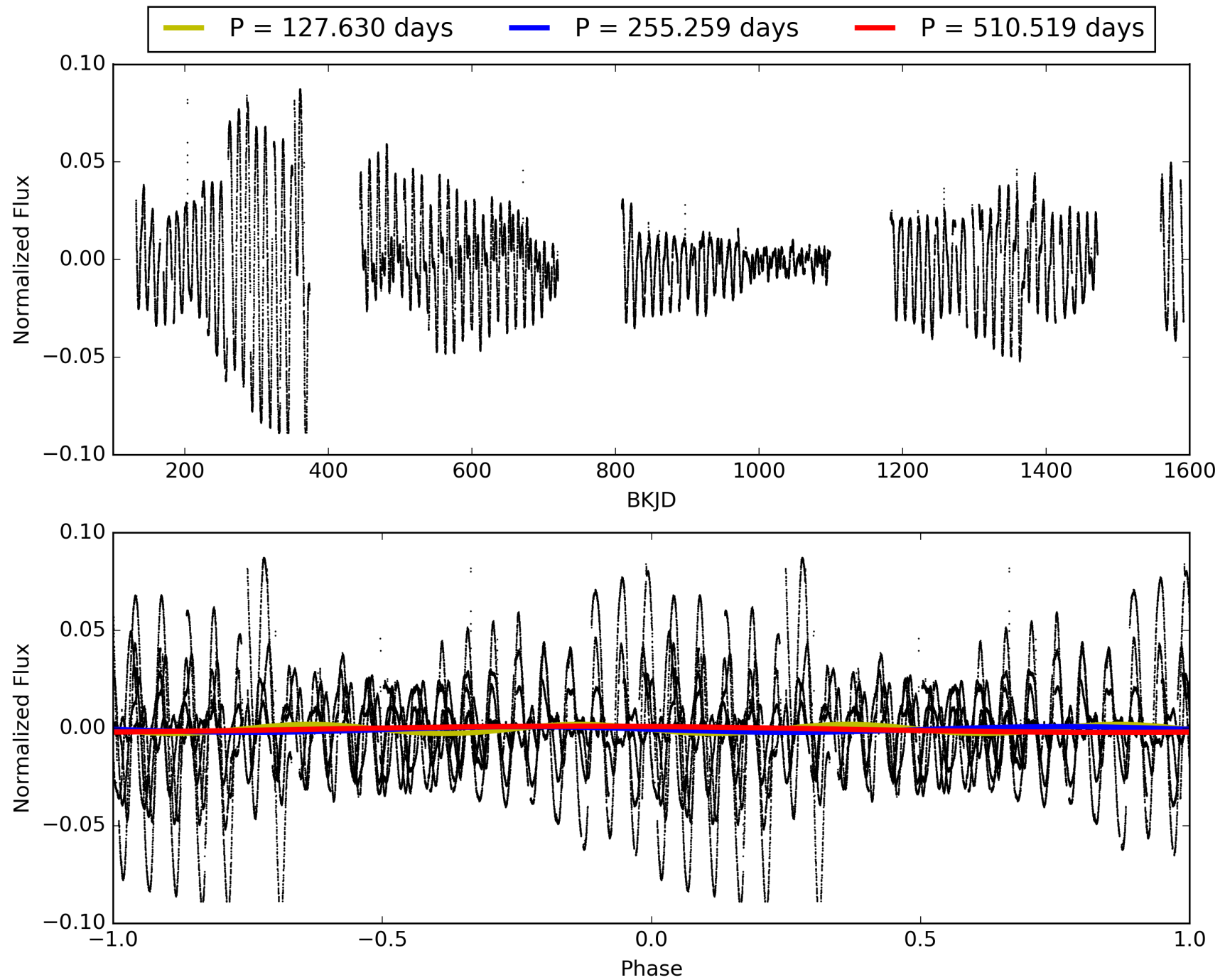
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011804076-01, PDC Light Curves

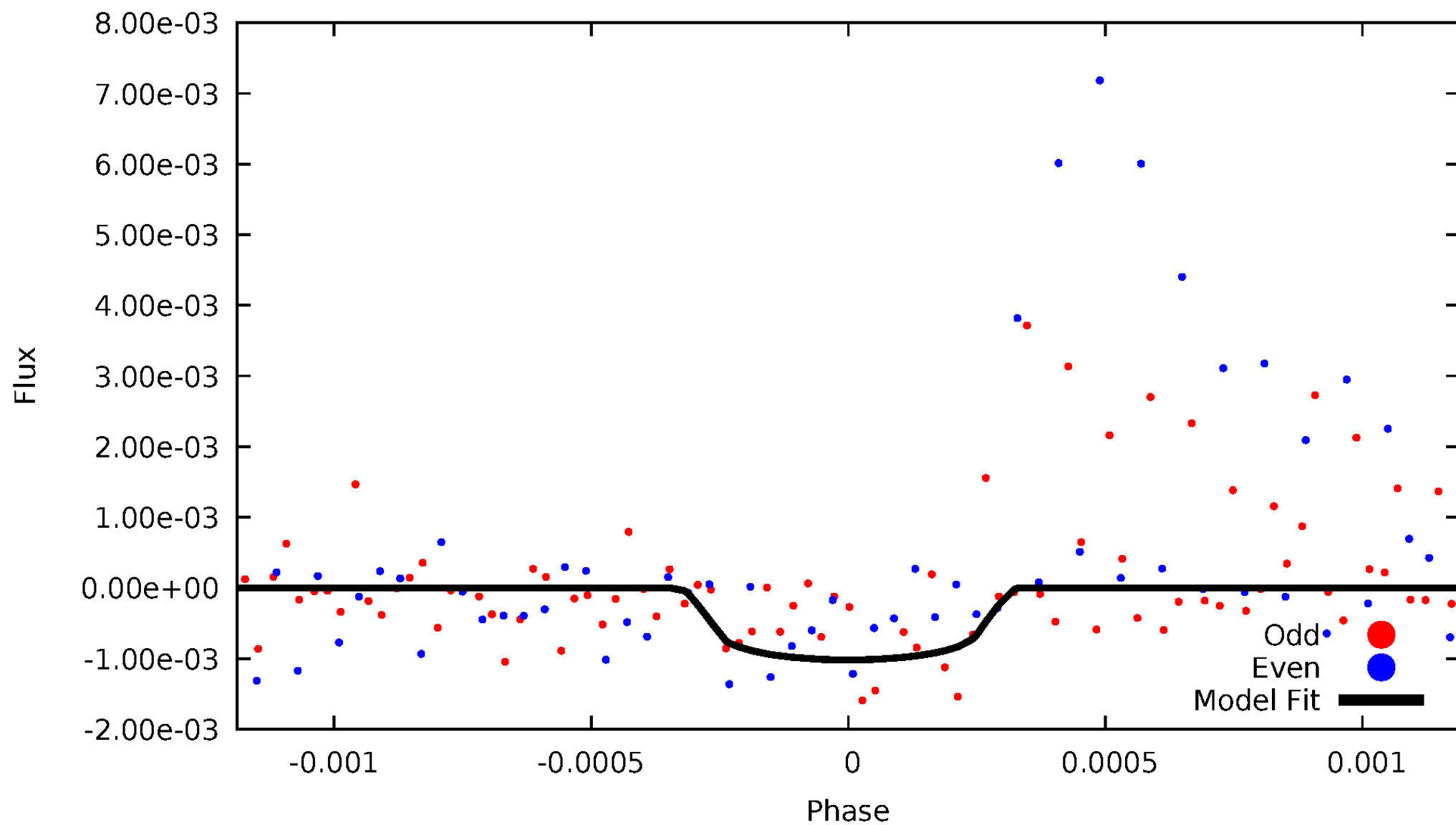


TCE 011804076-01



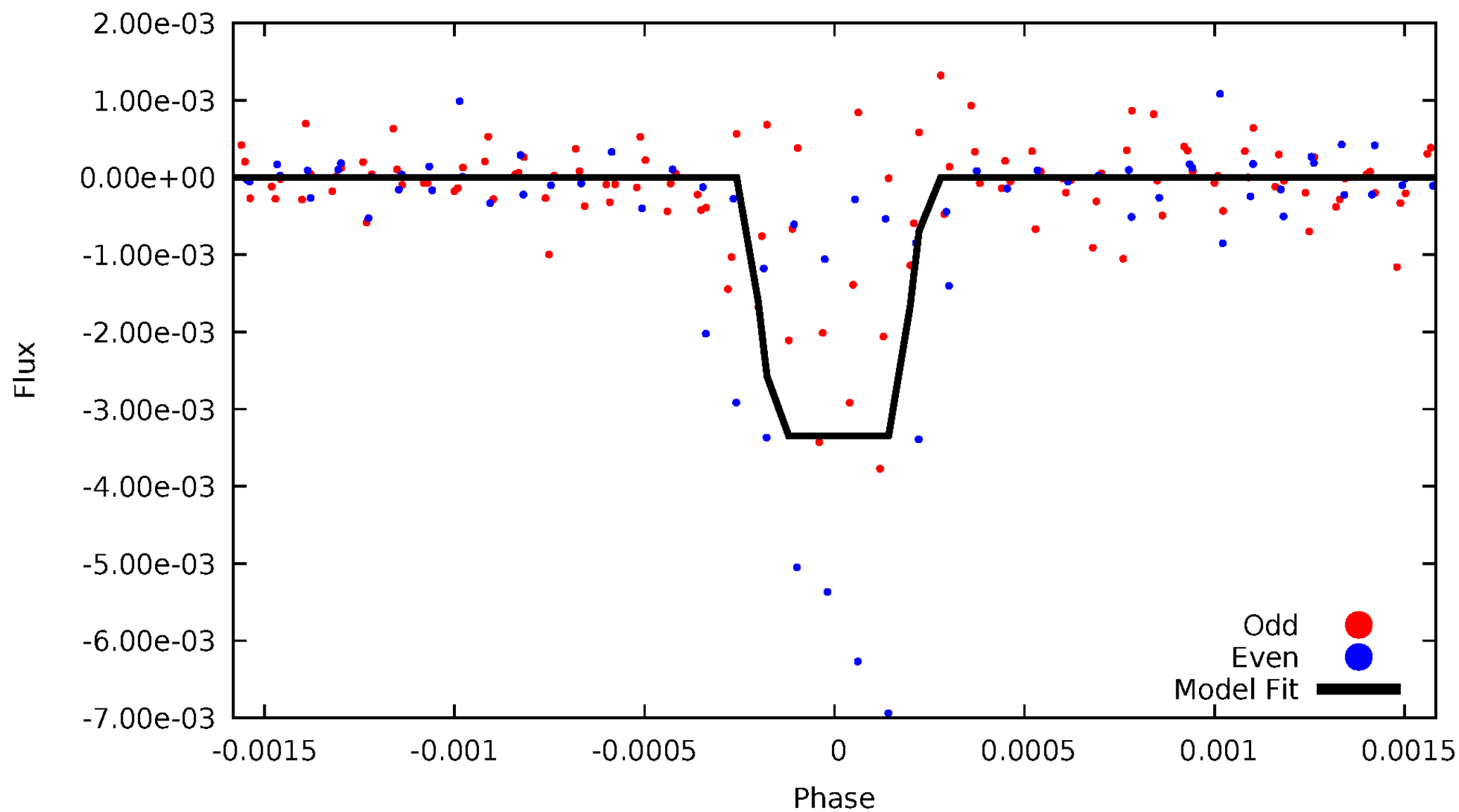
DV Odd/Even

TCE 011804076-01



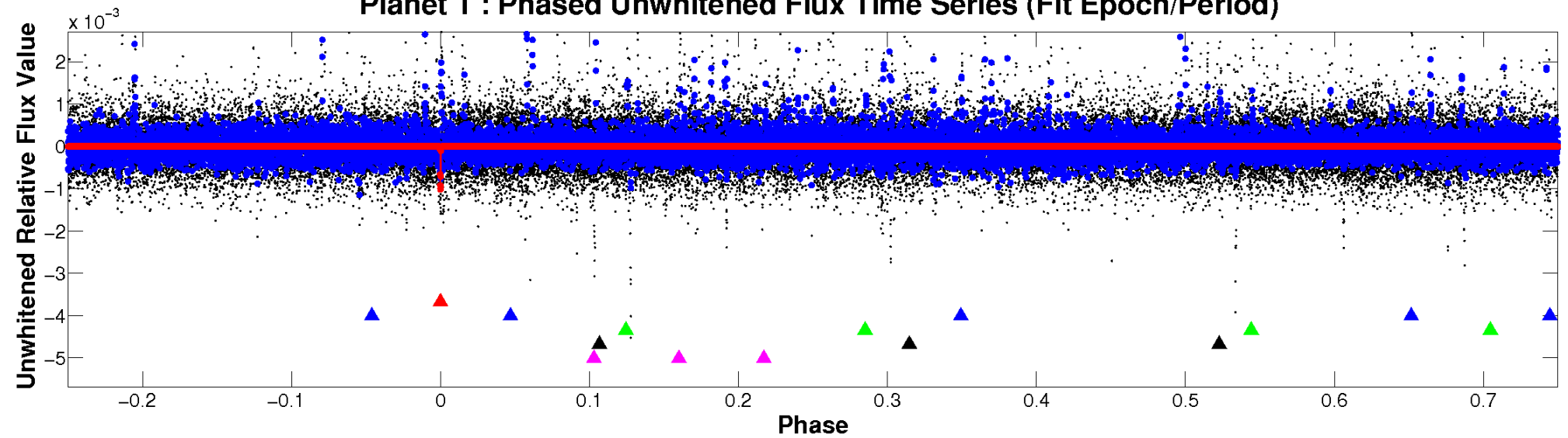
ALT Odd/Even

TCE 011804076-01

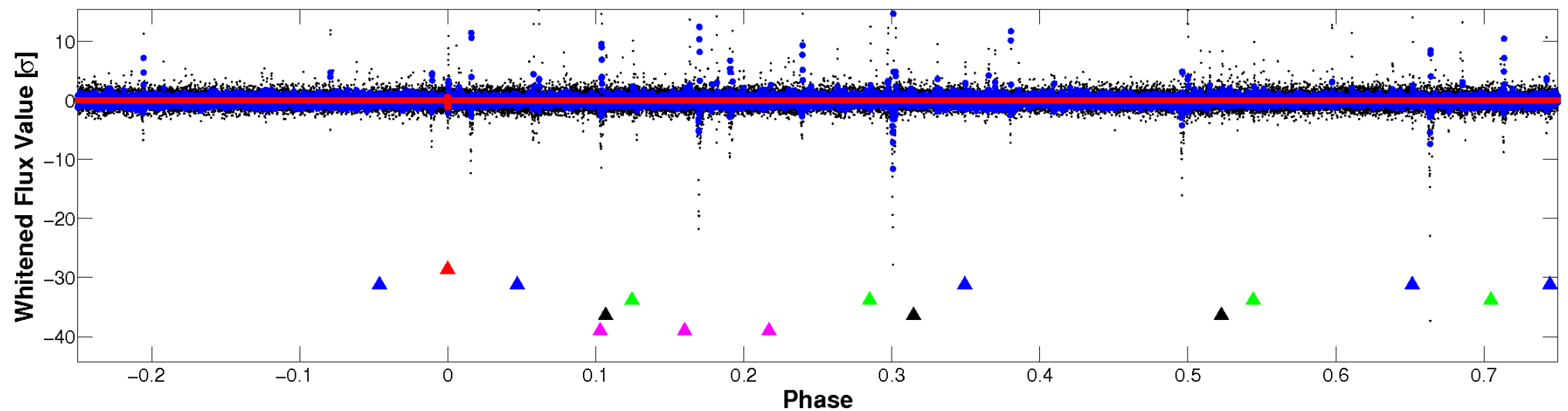


Non-Whitened Vs. Whitened Light Curve

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

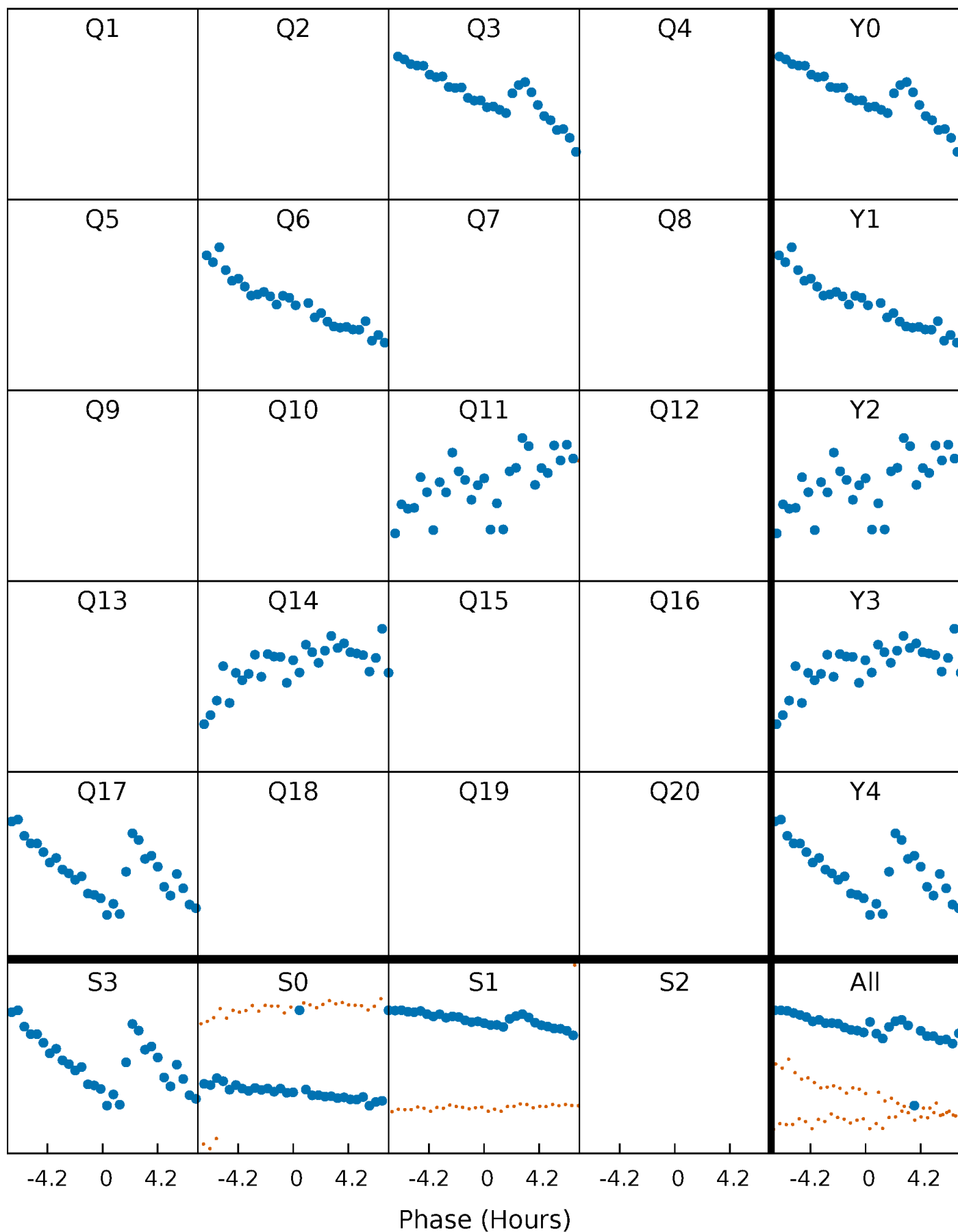


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



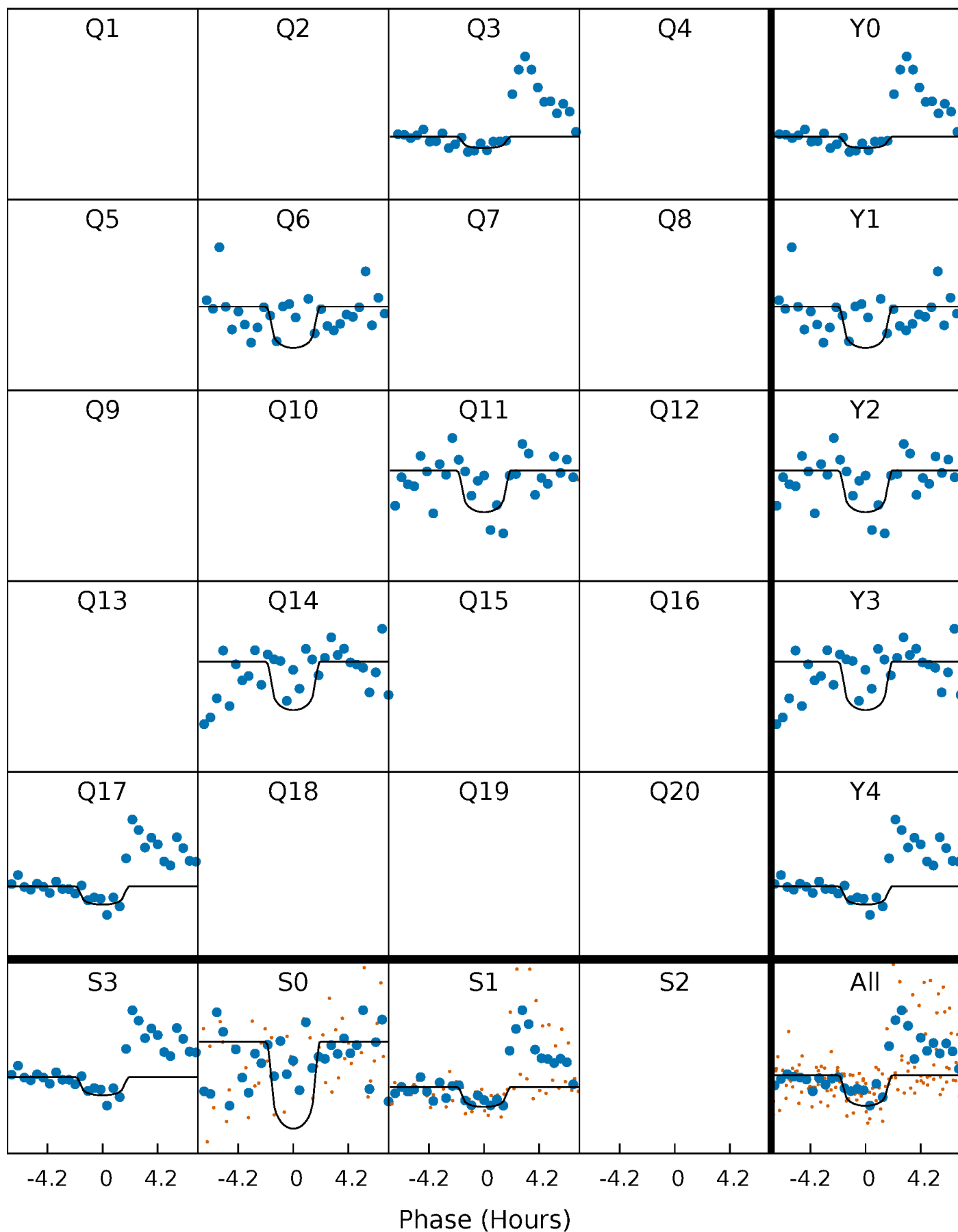
PDC Quarter-Phased Transit Curves

TCE 011804076-01 P=255.259351 Days $T_0=288.807789$ (BKJD)



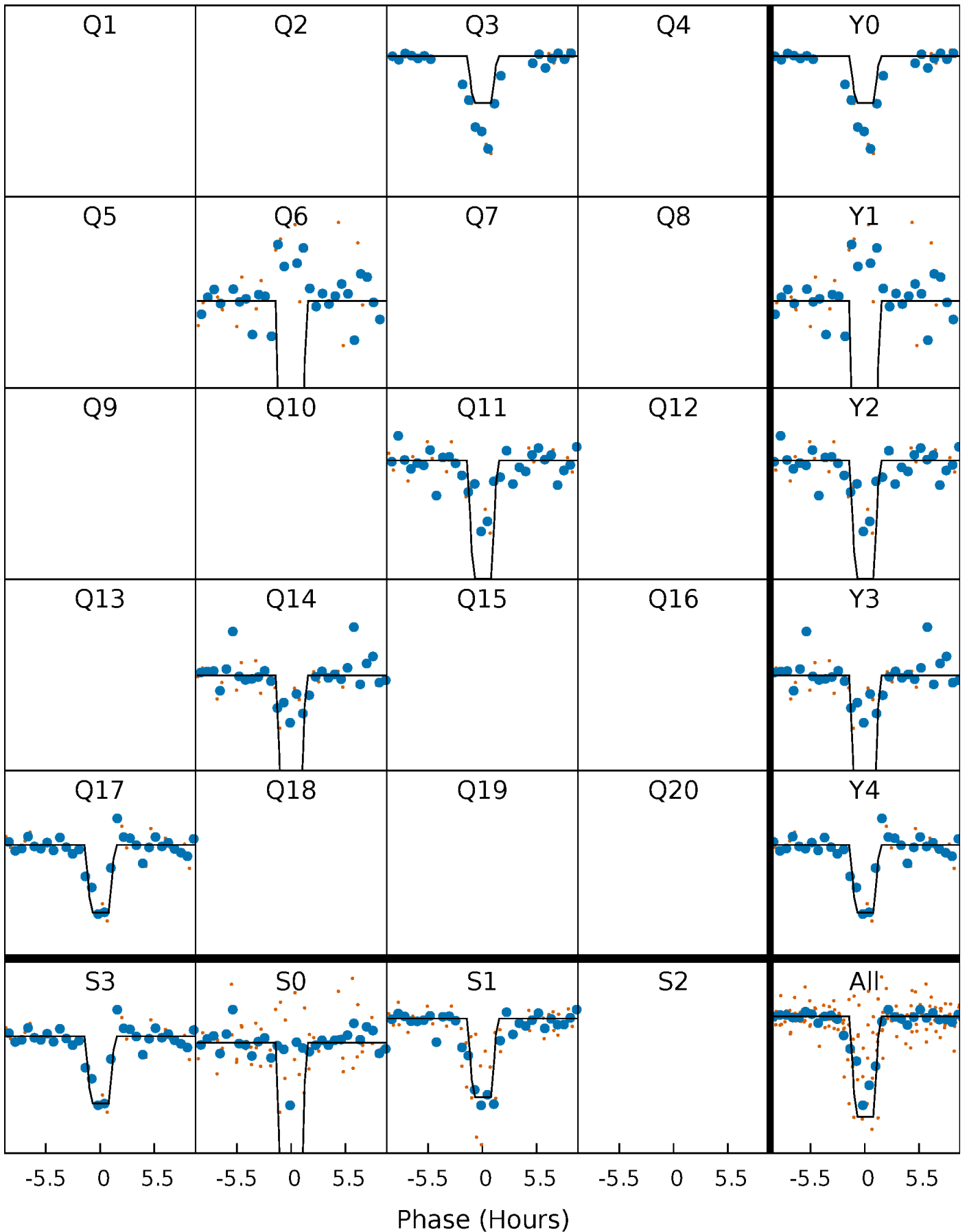
DV Quarter-Phased Transit Curves

TCE 011804076-01 P=255.259351 Days $T_0=288.807789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

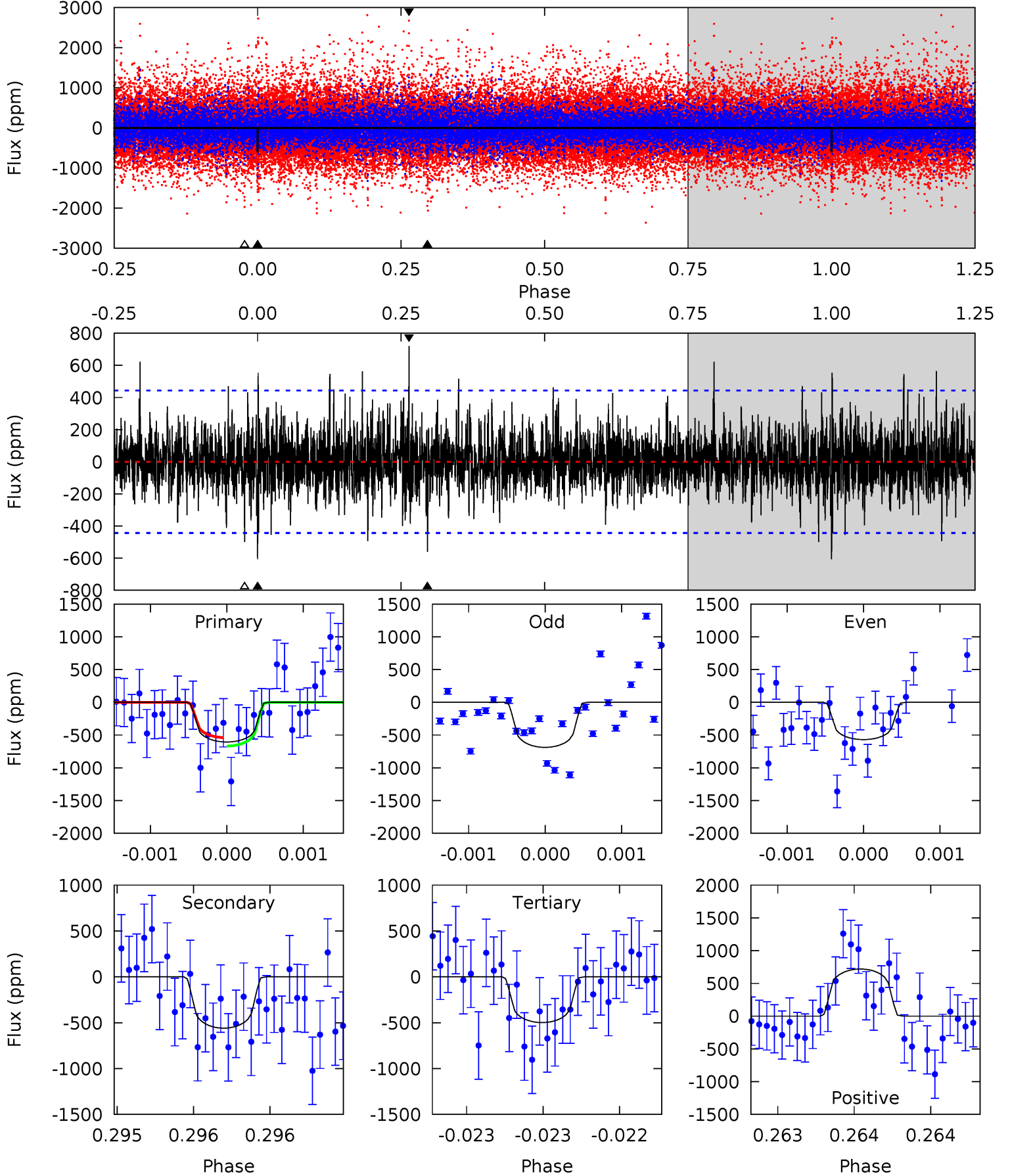
TCE 011804076-01 P=255.257327 Days $T_0=288.835224$ (BKJD)



DV Model-Shift Uniqueness Test

011804076-01, P = 255.259351 Days, E = 33.548438 Days

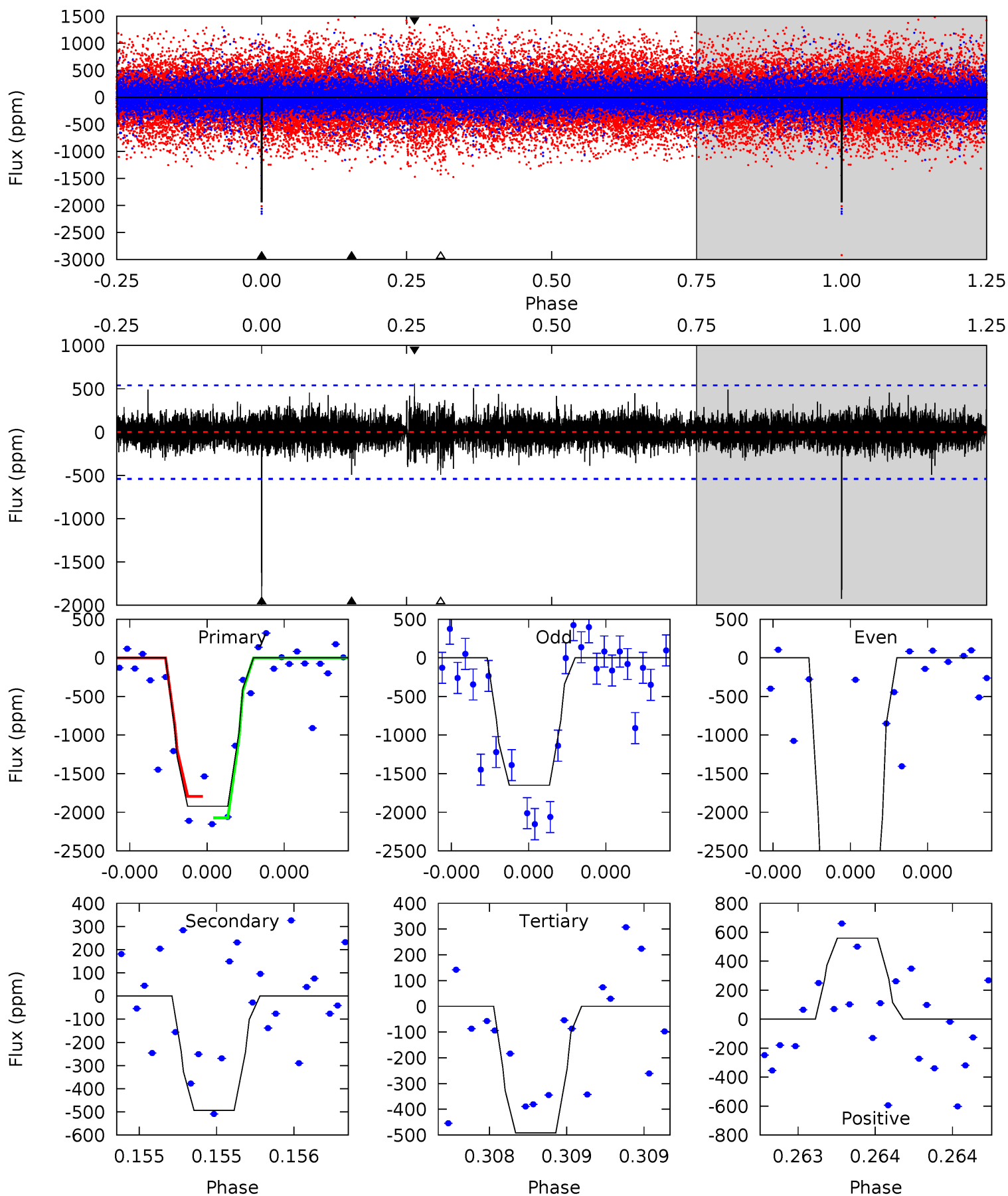
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.55	6.97	6.21	8.96	5.52	3.40	1.59	1.34	-1.41	0.76	-1.99	0.69	0.75	0.54	0.80



Alt Model-Shift Uniqueness Test

011804076-01, P = 255.257327 Days, E = 33.577897 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	5.10	5.09	5.79	5.58	3.49	1.02	14.8	14.1	0.01	-0.69	16.3	1.41	0.23	0



Stellar Parameters For KIC 011804076

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5198^{+157}_{-157}	$4.628^{+0.066}_{-0.044}$	$-0.940^{+0.300}_{-0.300}$	$0.635^{+0.055}_{-0.050}$	$0.625^{+0.060}_{-0.023}$	$3.433^{+0.878}_{-0.584}$
	+3%/-3%	+1%/-1%	+32%/-32%	+9%/-8%	+10%/-4%	+26%/-17%
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 011804076-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-560 ± 80	$3.32^{+2.75}_{-2.29}$	310^{+11}_{-11}	3935^{+2636}_{-702}	$12497^{+122728}_{-8684}$
Alt.	-493 ± 97	$4.46^{+3.24}_{-2.58}$	310^{+12}_{-11}	3474^{+1328}_{-510}	6003^{+30381}_{-3983}

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

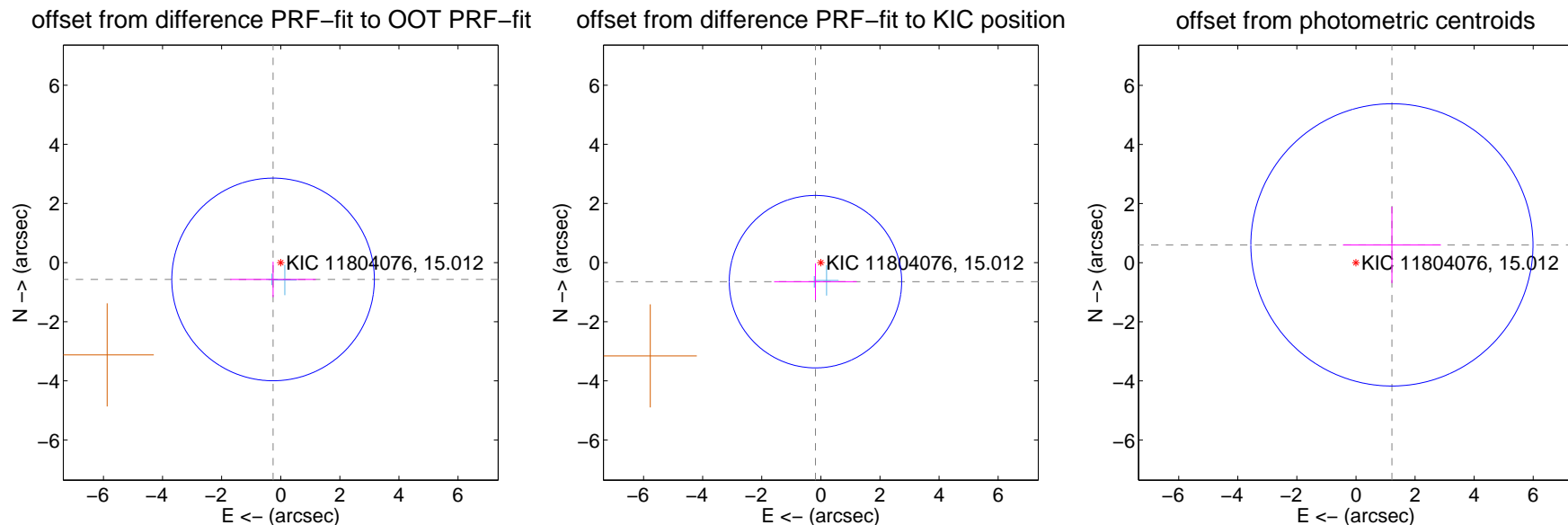
DV Centroid Data

Supplemental centroid analysis for 011804076-01. Kepler magnitude: 15.01. Transit SNR 6.36

There are 2 quarters with good PRF difference image offsets

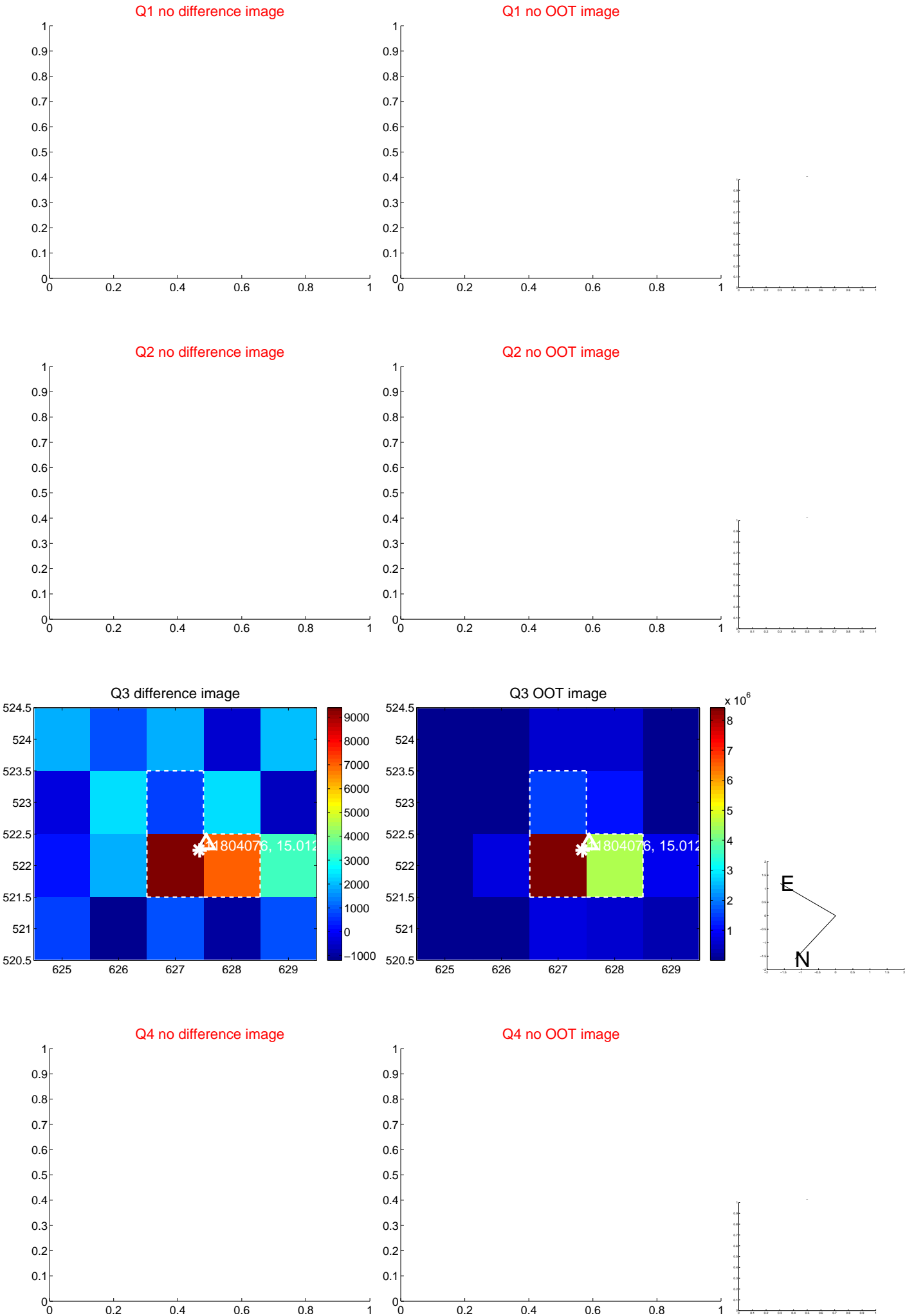
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.626 ± 1.143	0.55	0.260 ± 1.446	-0.570 ± 0.600
PRF-fit source offset from KIC position	0.671 ± 0.973	0.69	0.183 ± 1.399	-0.645 ± 0.616
photometric centroid source offset	1.36 ± 1.59	0.85	-1.22 ± 1.66	0.60 ± 1.29

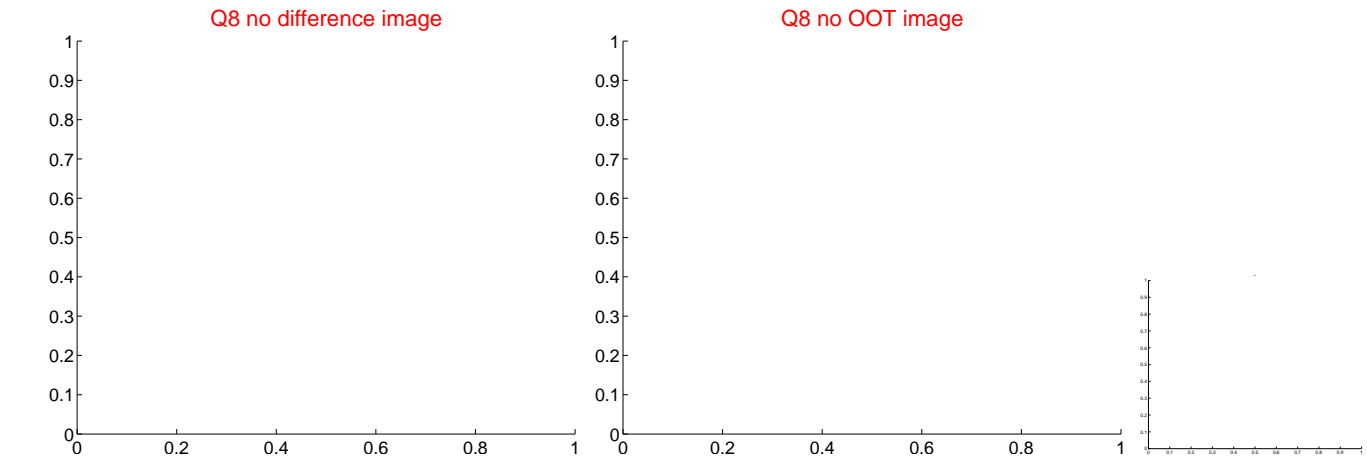
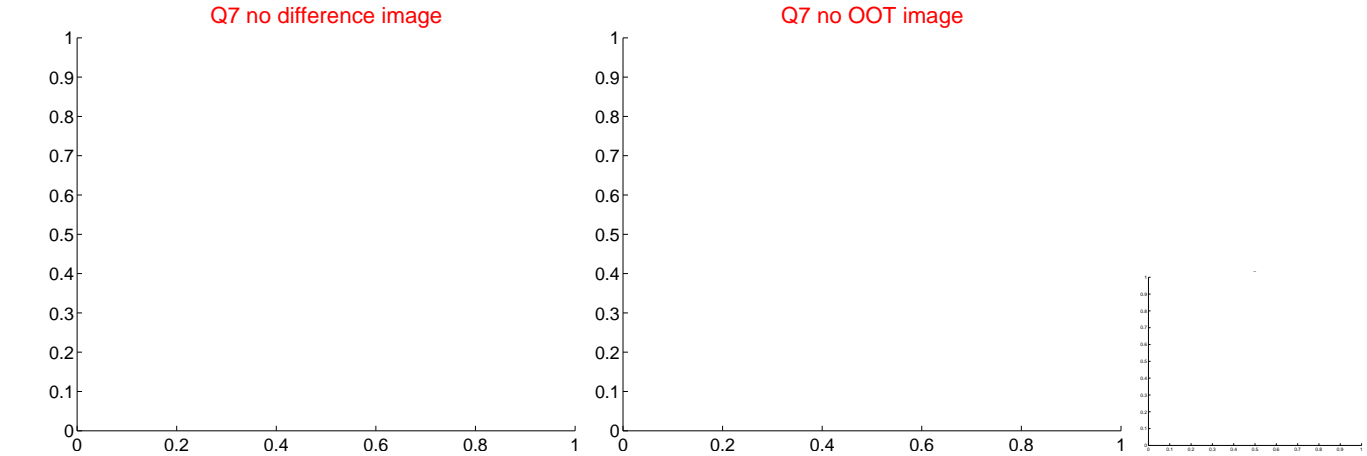
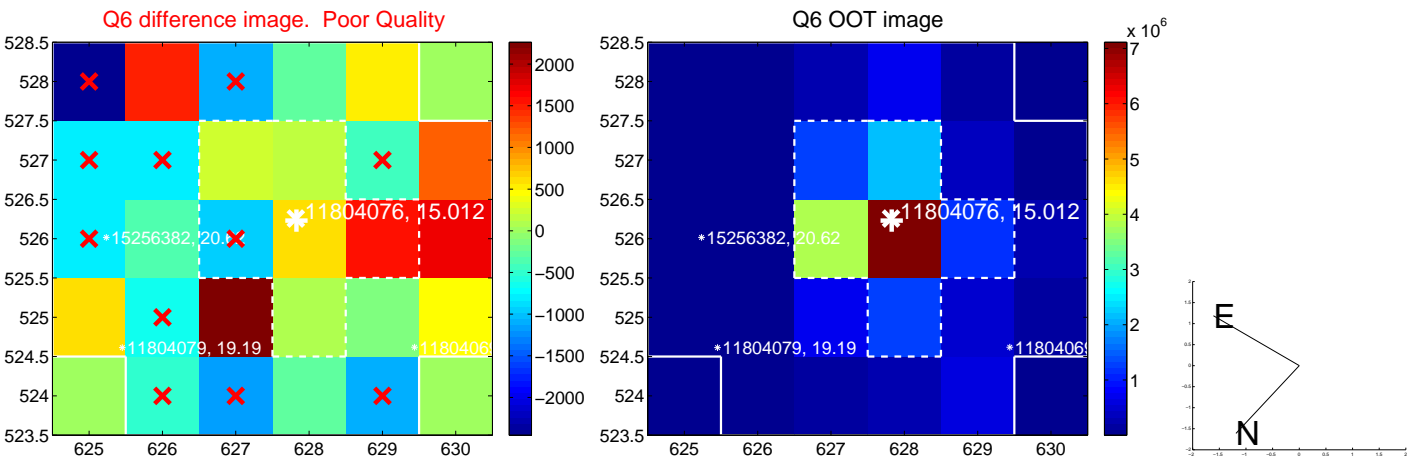
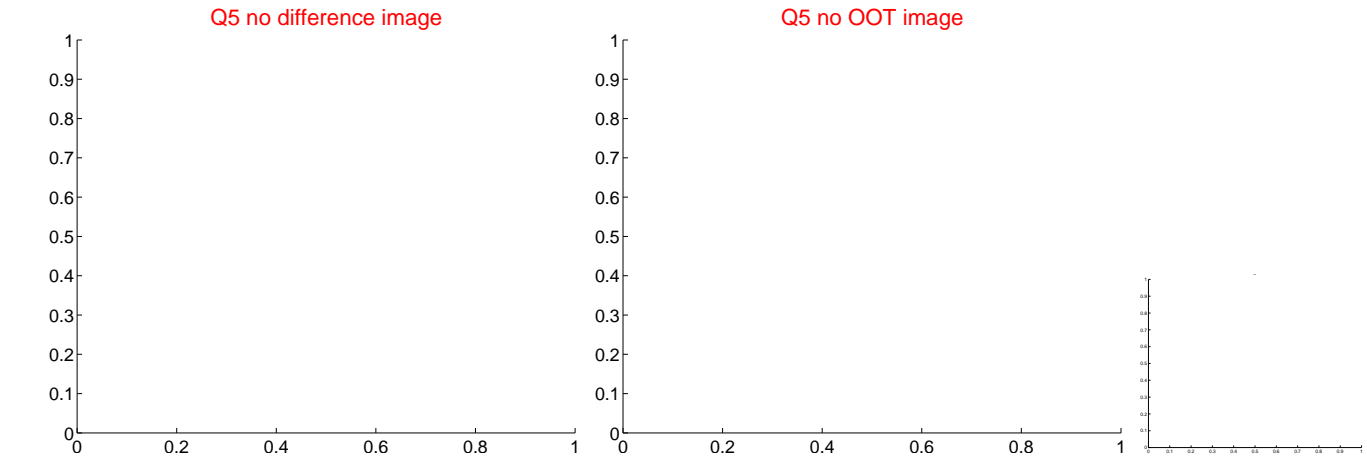


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

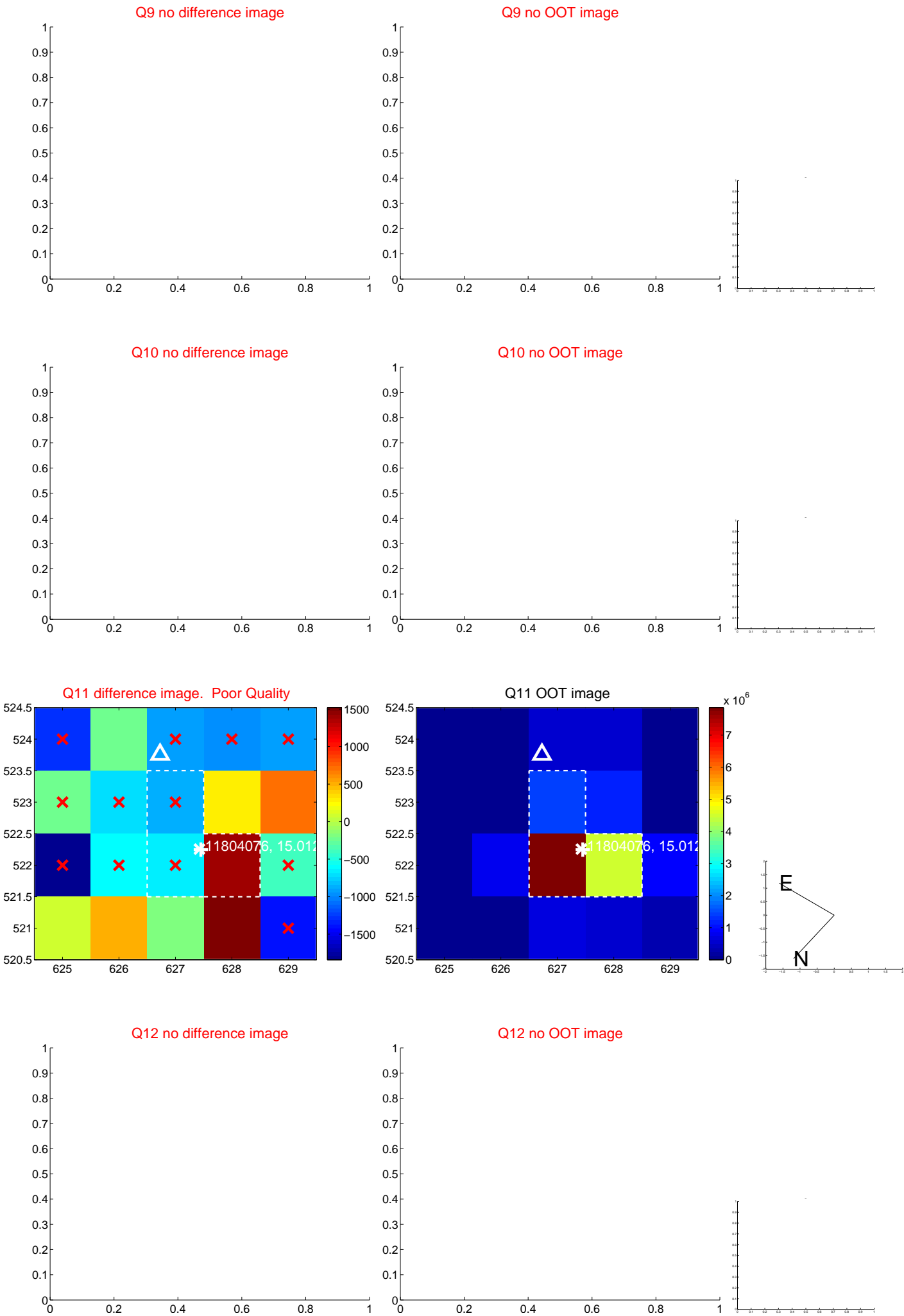
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



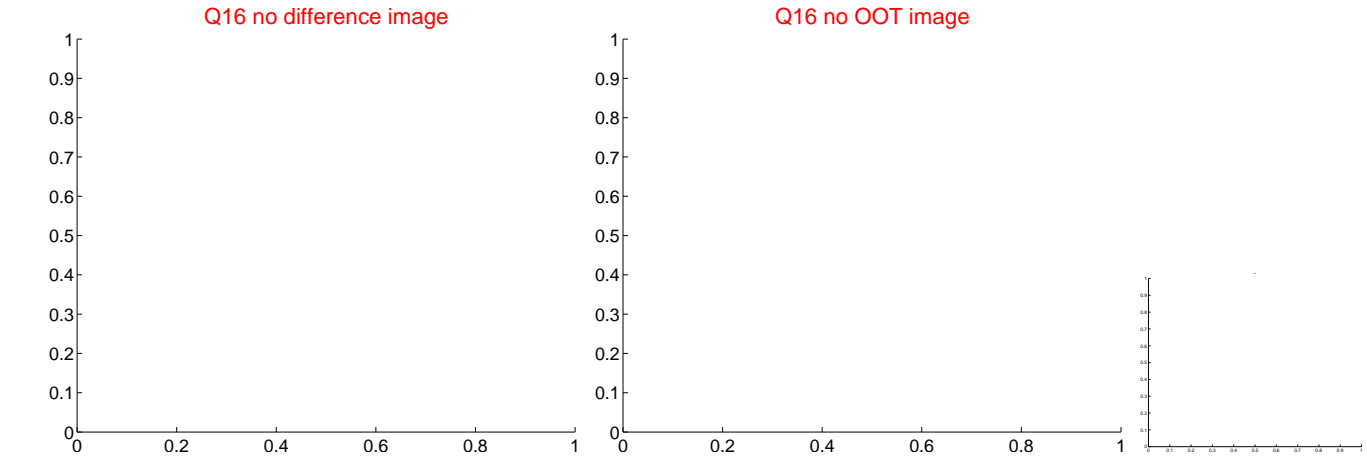
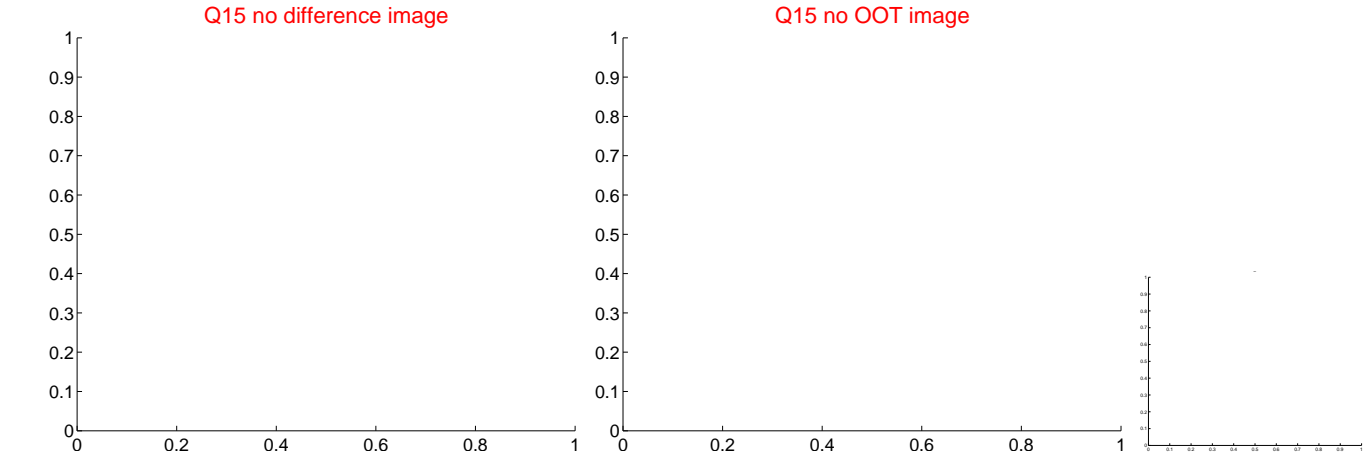
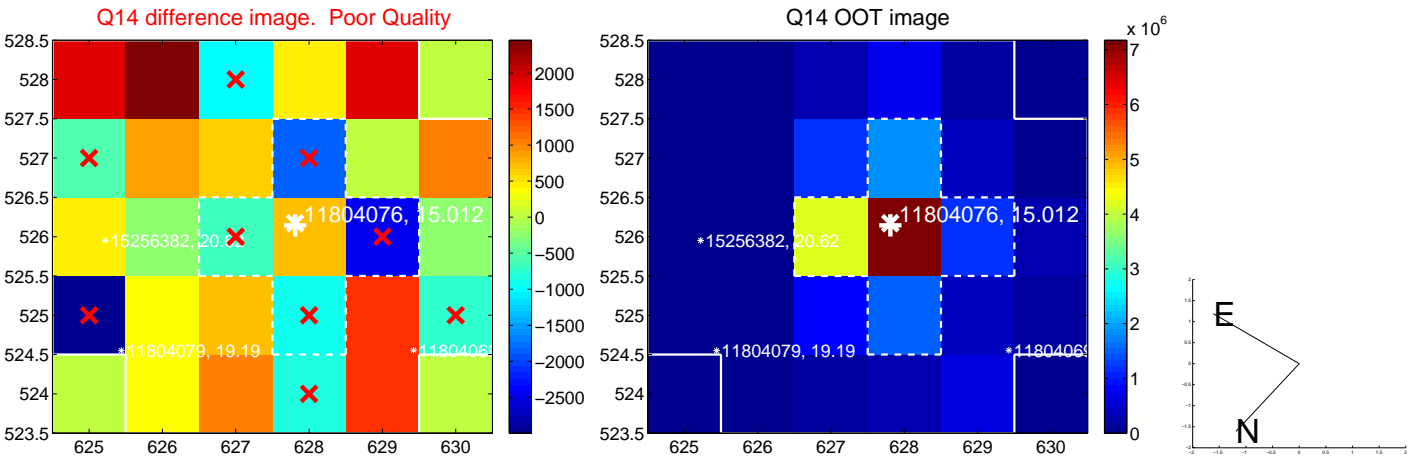
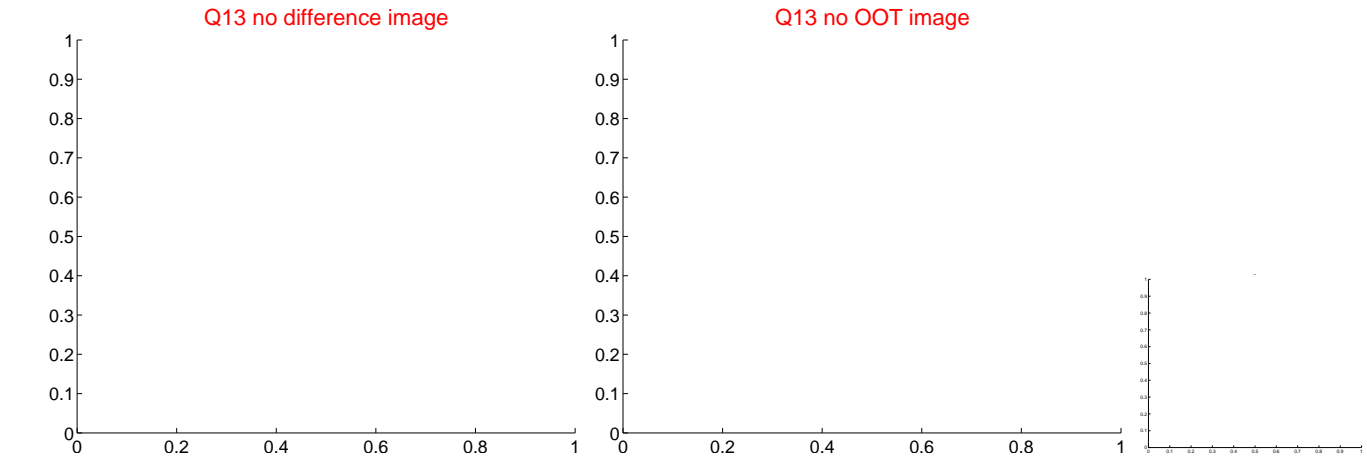
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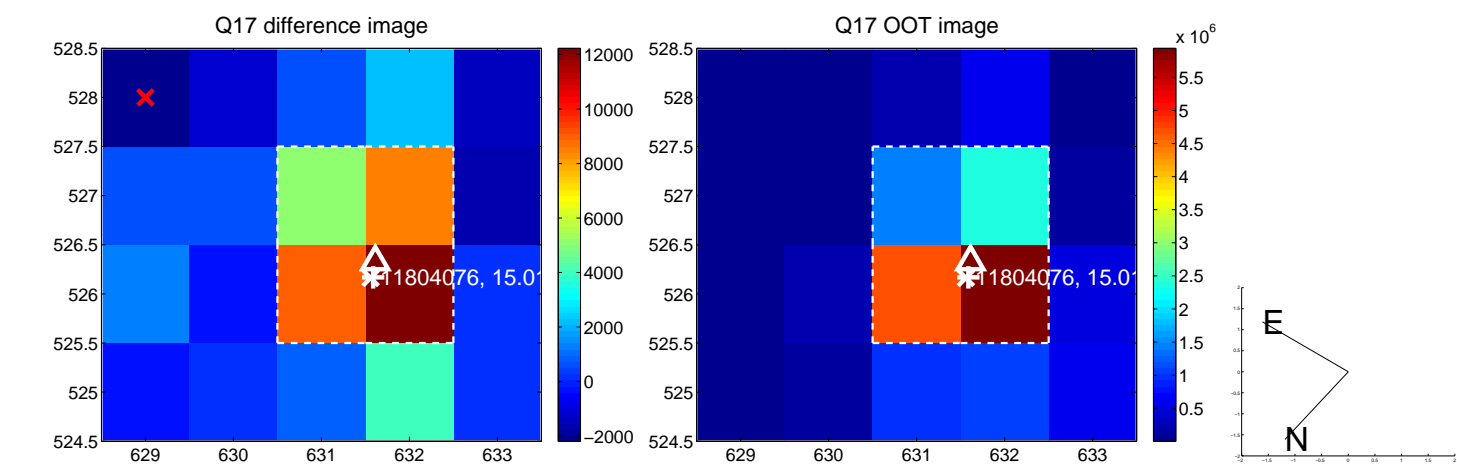
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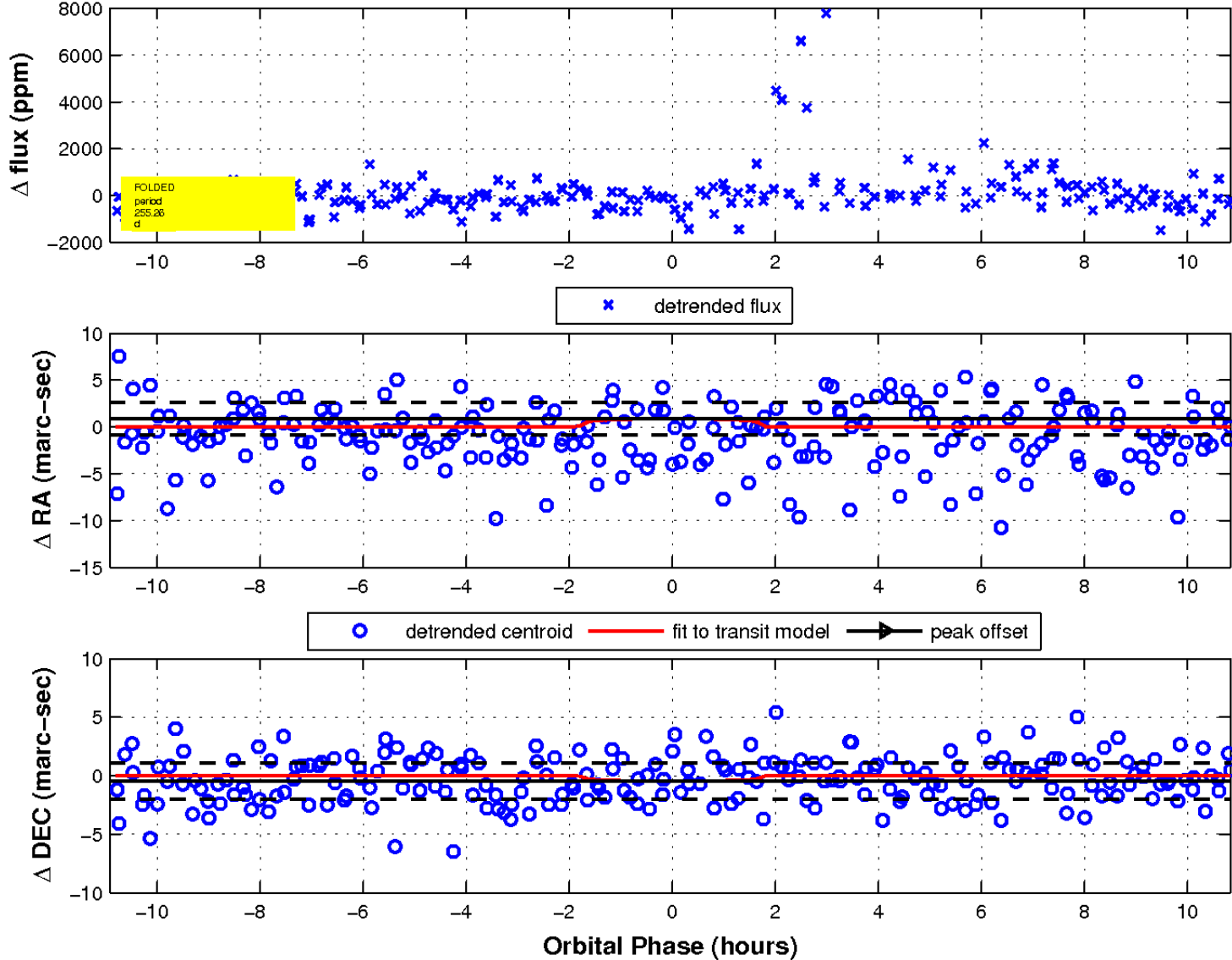
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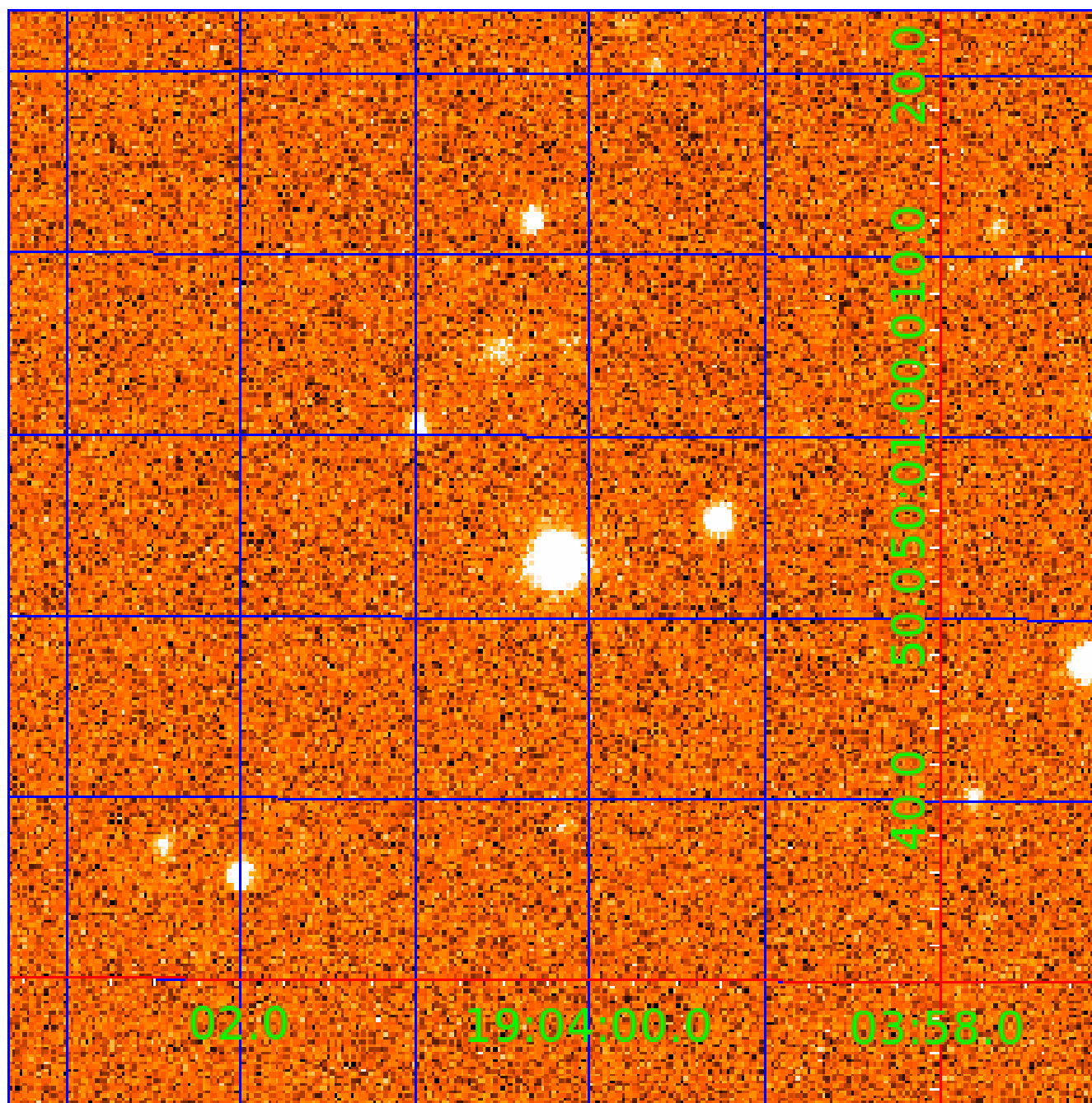


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 011804076

Q1-17 DR25 TCE Parameters

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011804076-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
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011804076-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_FEW_DIFFS
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

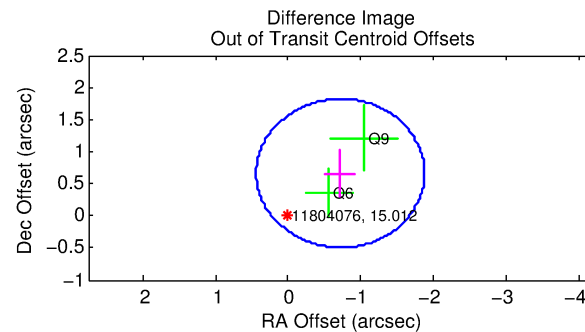
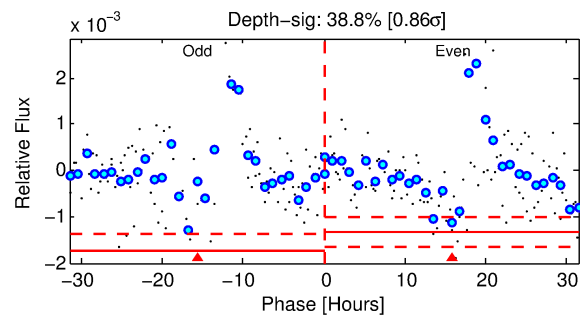
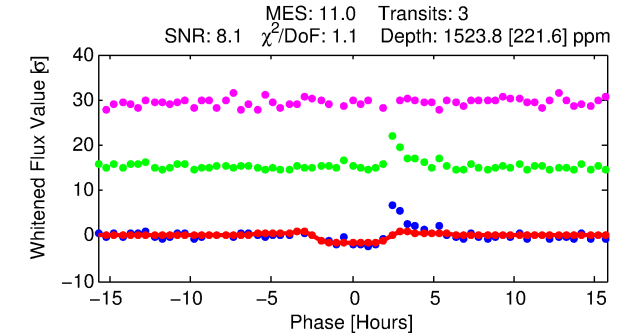
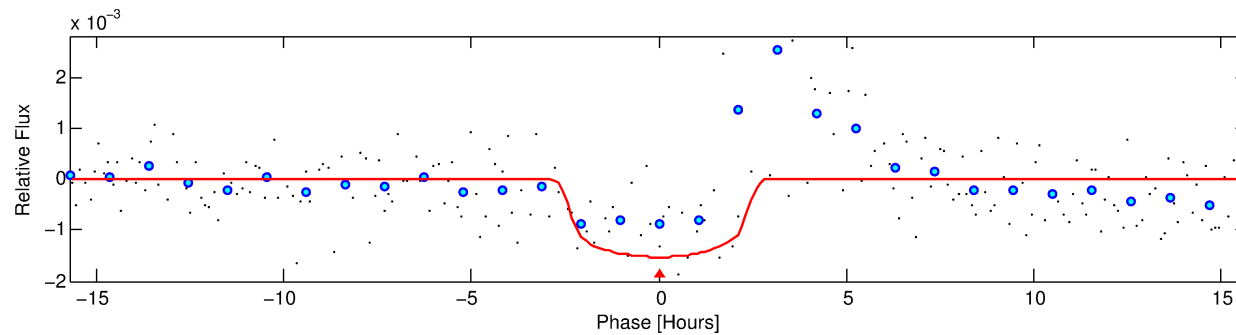
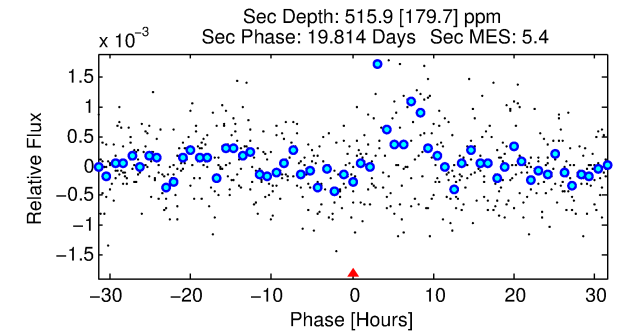
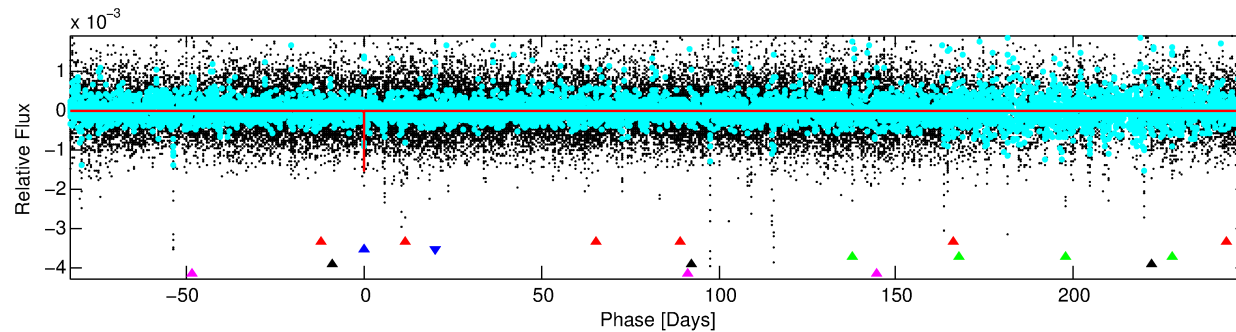
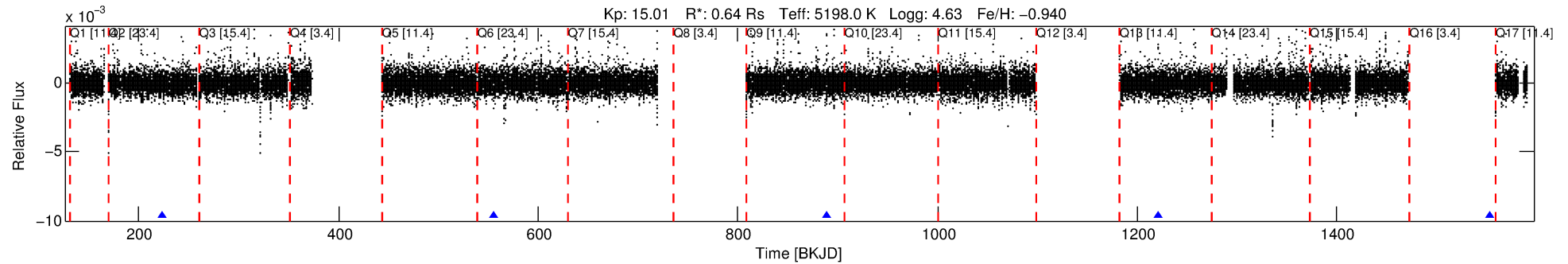
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011804076-02

No Significant Match Found

DV One-Page Summary

KIC: 11804076 Candidate: 2 of 5 Period: 332.428 d



DV Fit Results:

Period = 332.42832 [0.00621] d
Epoch = 223.6330 [0.0127] BKJD
Rp/R* = 0.0384 [0.0158]
a/R* = 364.82 [613.79]
b = 0.71 [1.16]
Seff = 0.41 [0.07]
Teq = 204 [9] K
Rp = 2.66 [1.12] Re
a = 0.8029 [0.0617] AU
Ag = 25910.50 [23345.12] [1.11 σ]
Teffp = 4000 [902] K [4.21 σ]

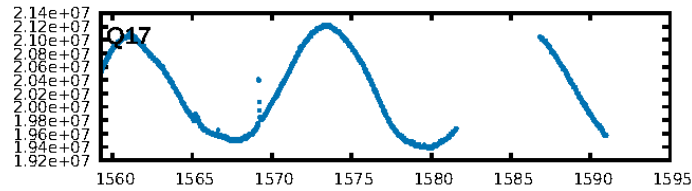
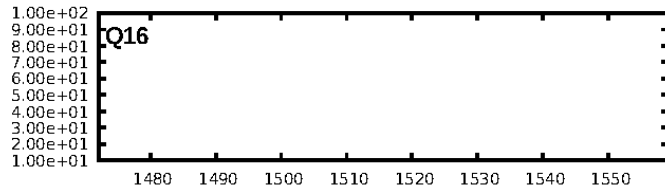
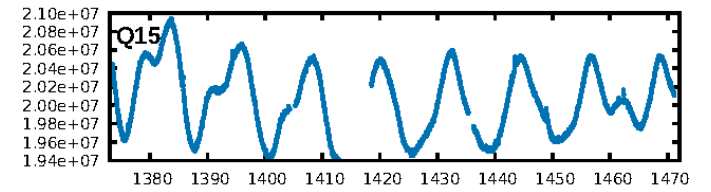
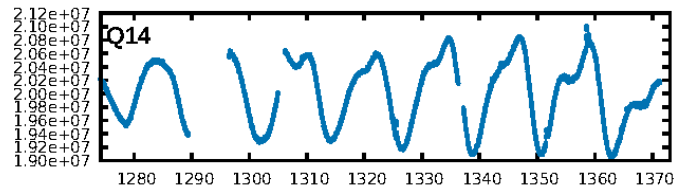
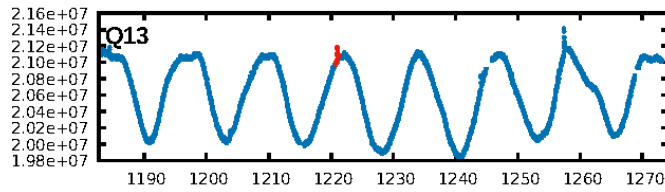
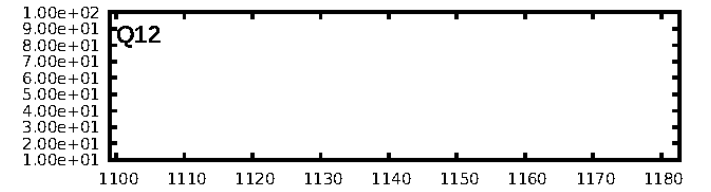
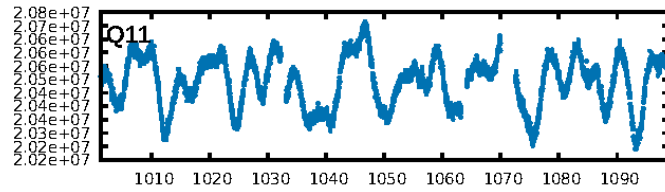
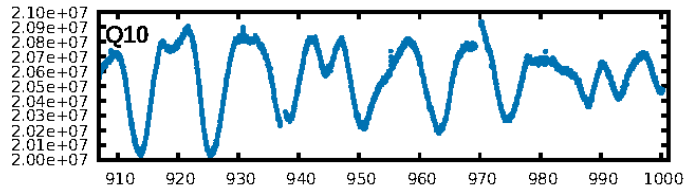
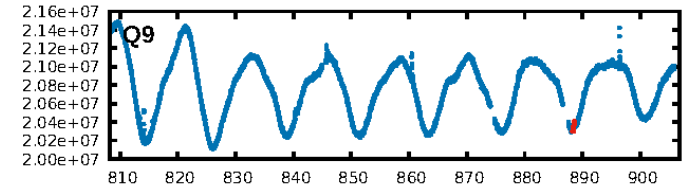
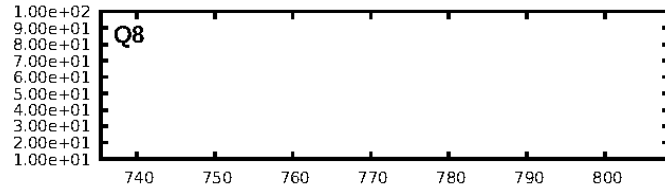
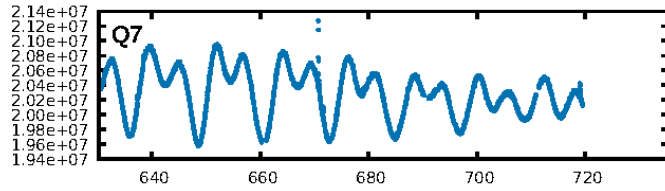
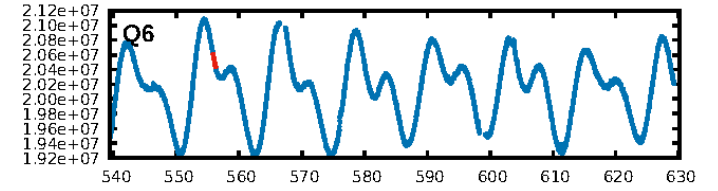
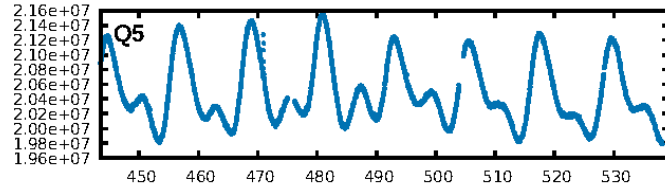
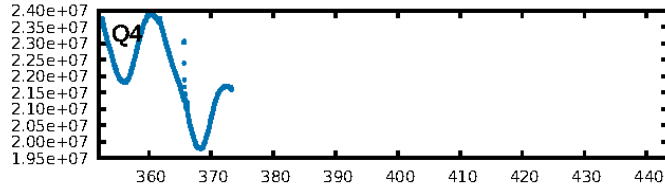
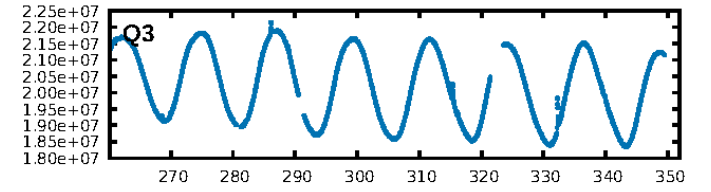
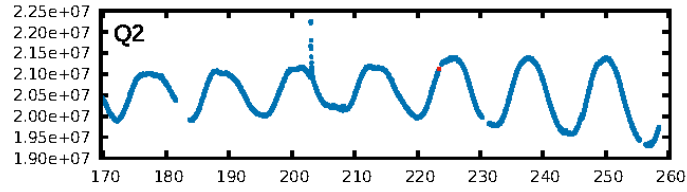
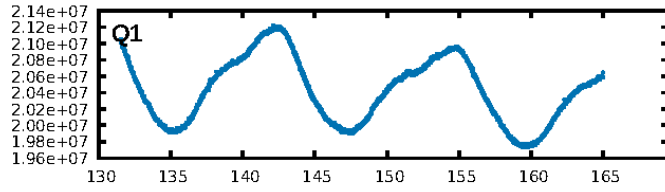
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [290.12 σ]
LongPeriod-sig: 100.0% [72.19 σ]
ModelChiSquare2-sig: 17.3%
ModelChiSquareGof-sig: 77.1%
Bootstrap-pfa: 4.31e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.405
Centroid-sig: 66.0%
Centroid-so: 0.870 arcsec [0.73 σ]
OotOffset-rm: 0.978 arcsec [2.54 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 1.061 arcsec [3.20 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

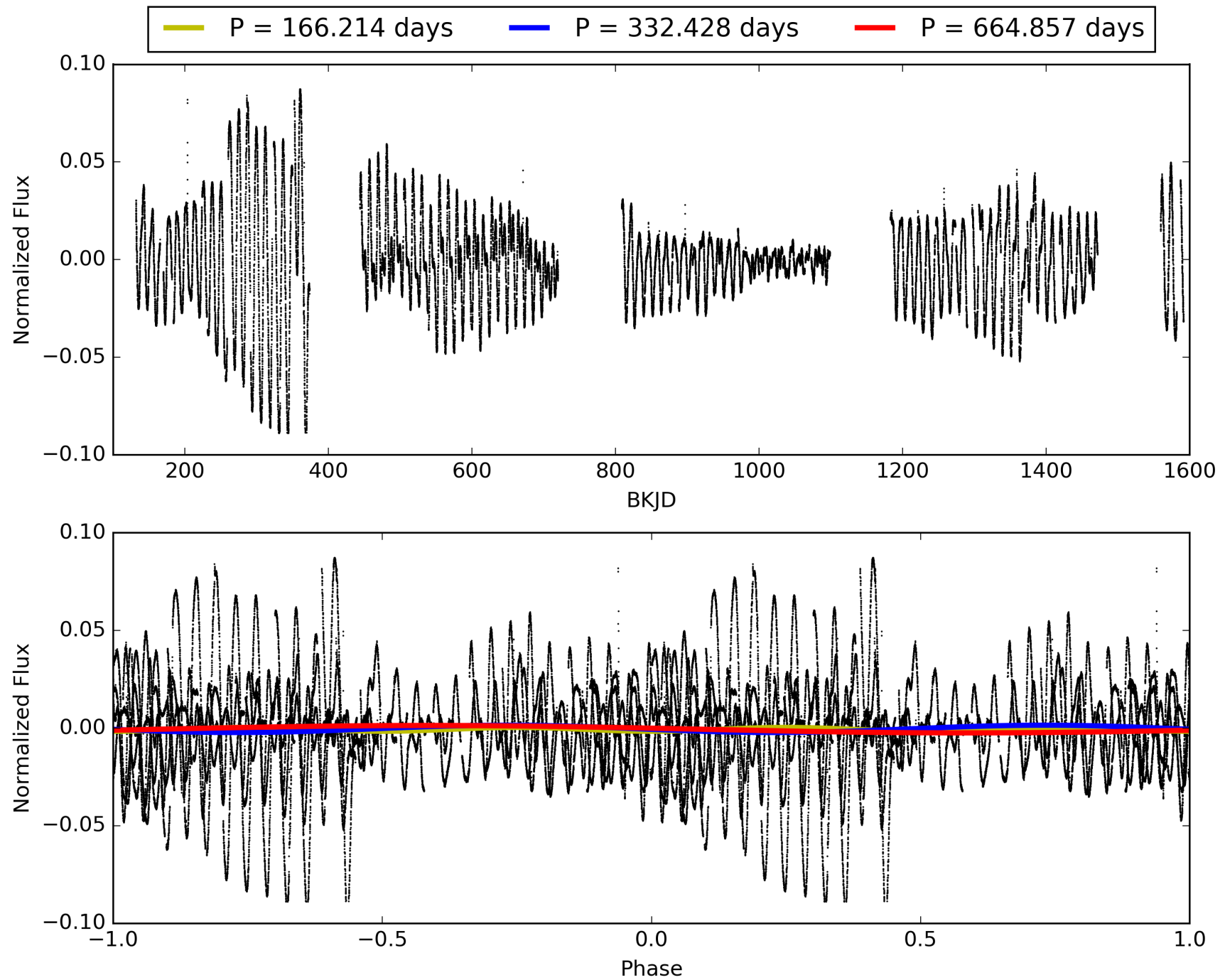
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 03:38:12 Z

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

TCE 011804076-02, PDC Light Curves

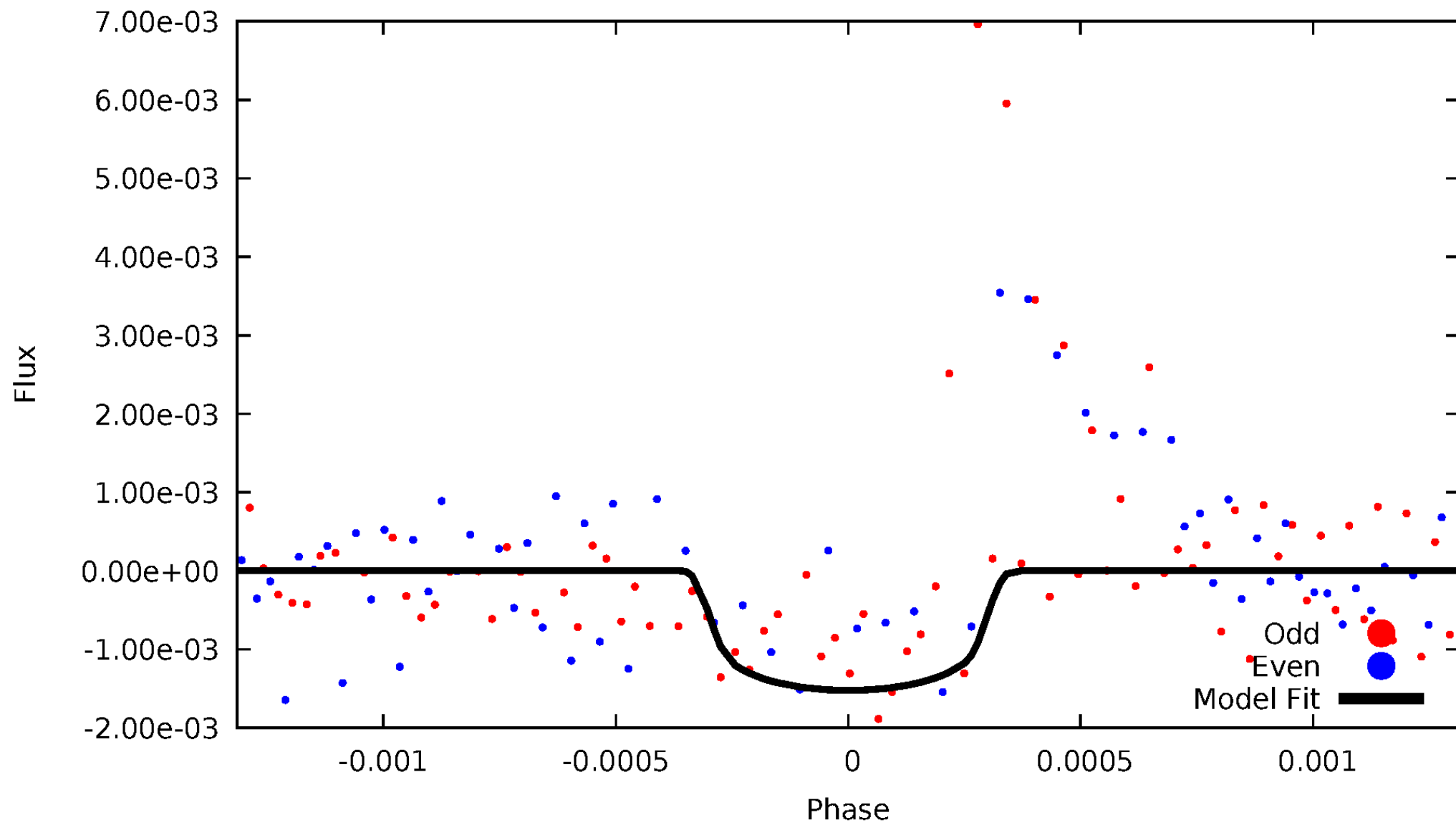


TCE 011804076-02



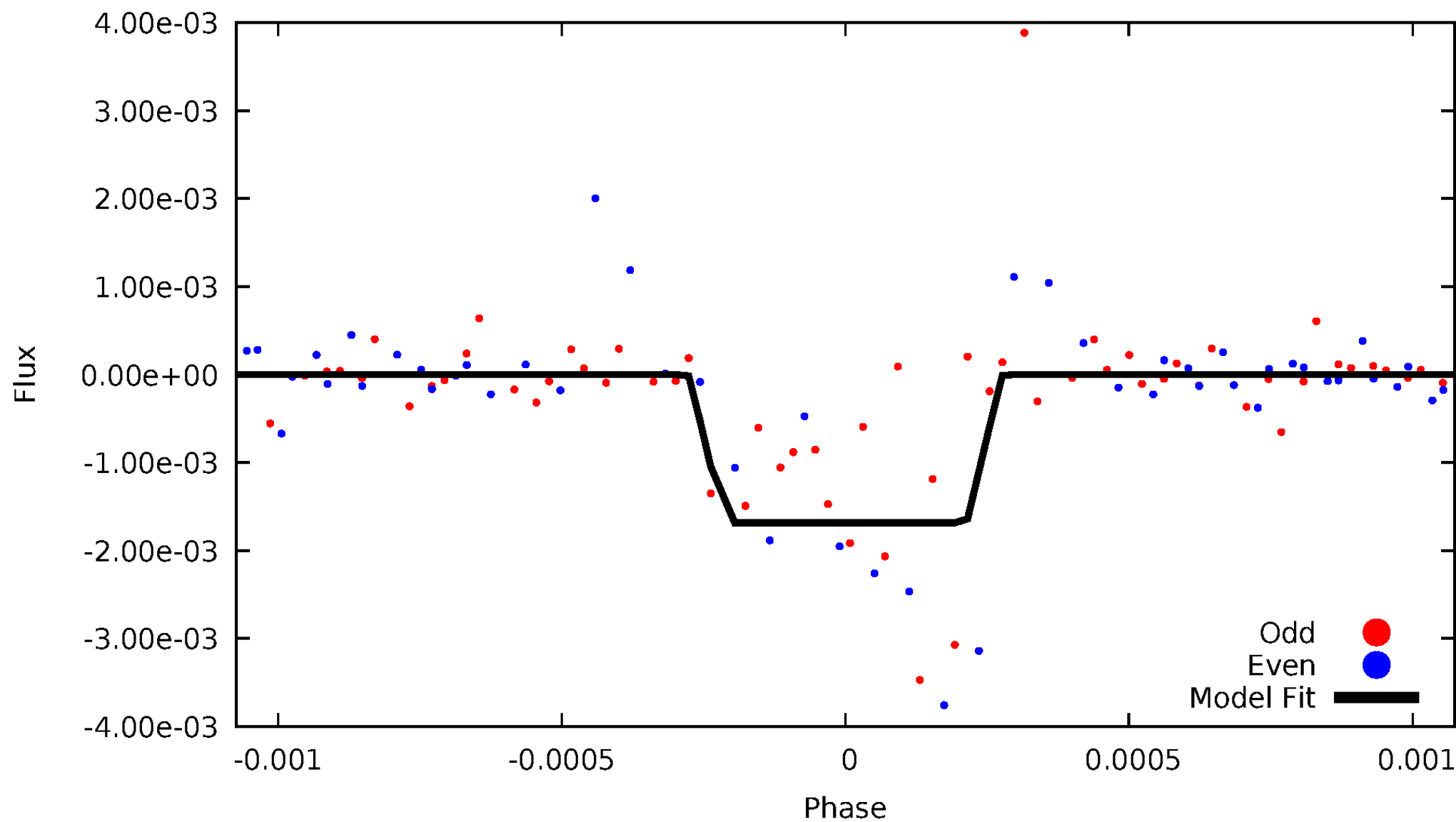
DV Odd/Even

TCE 011804076-02



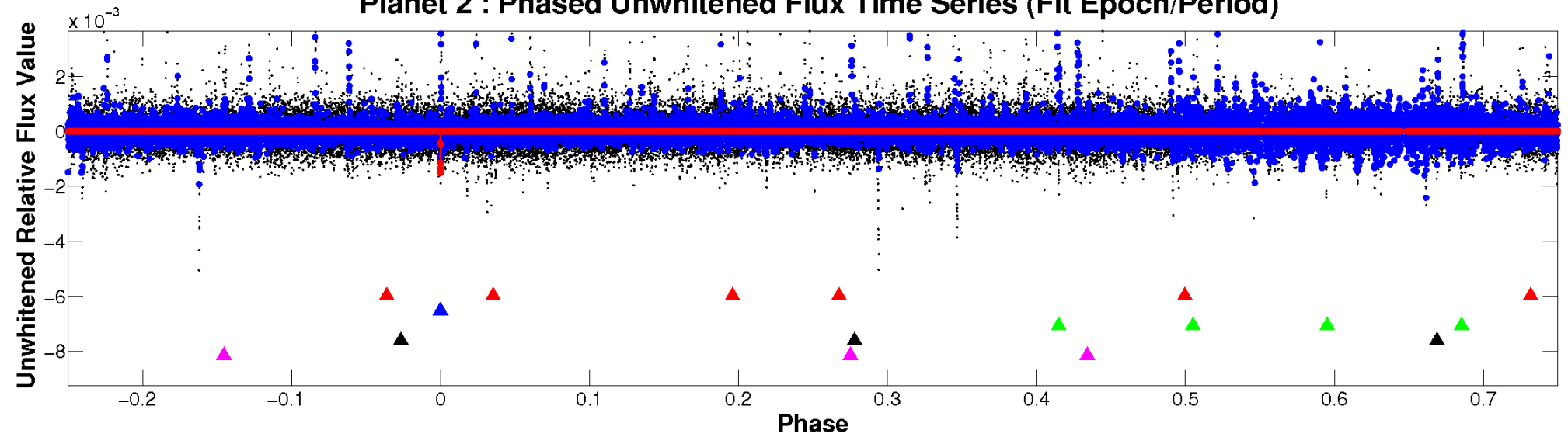
ALT Odd/Even

TCE 011804076-02

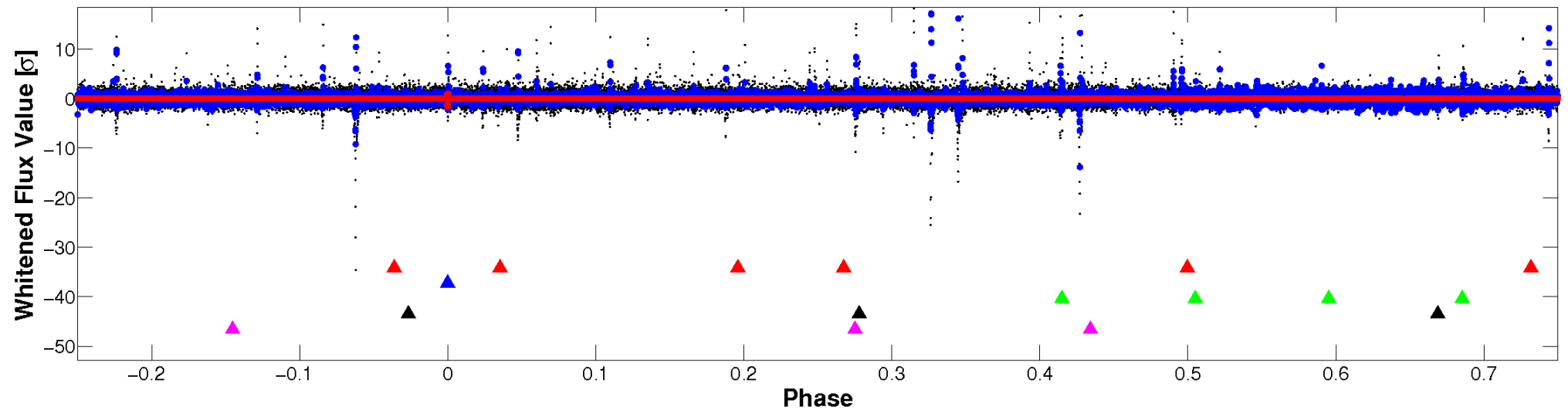


Non-Whitened Vs. Whitened Light Curve

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

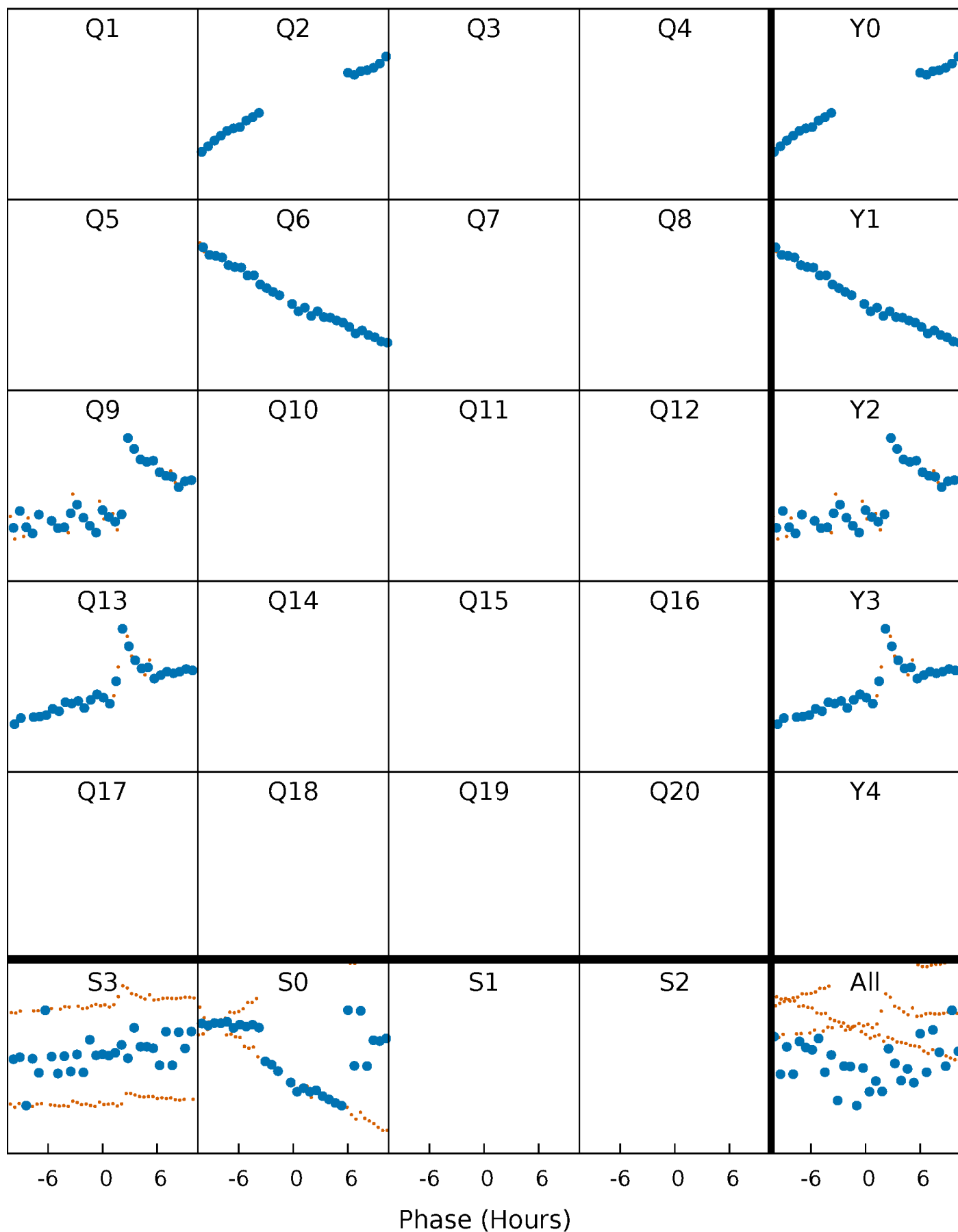


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



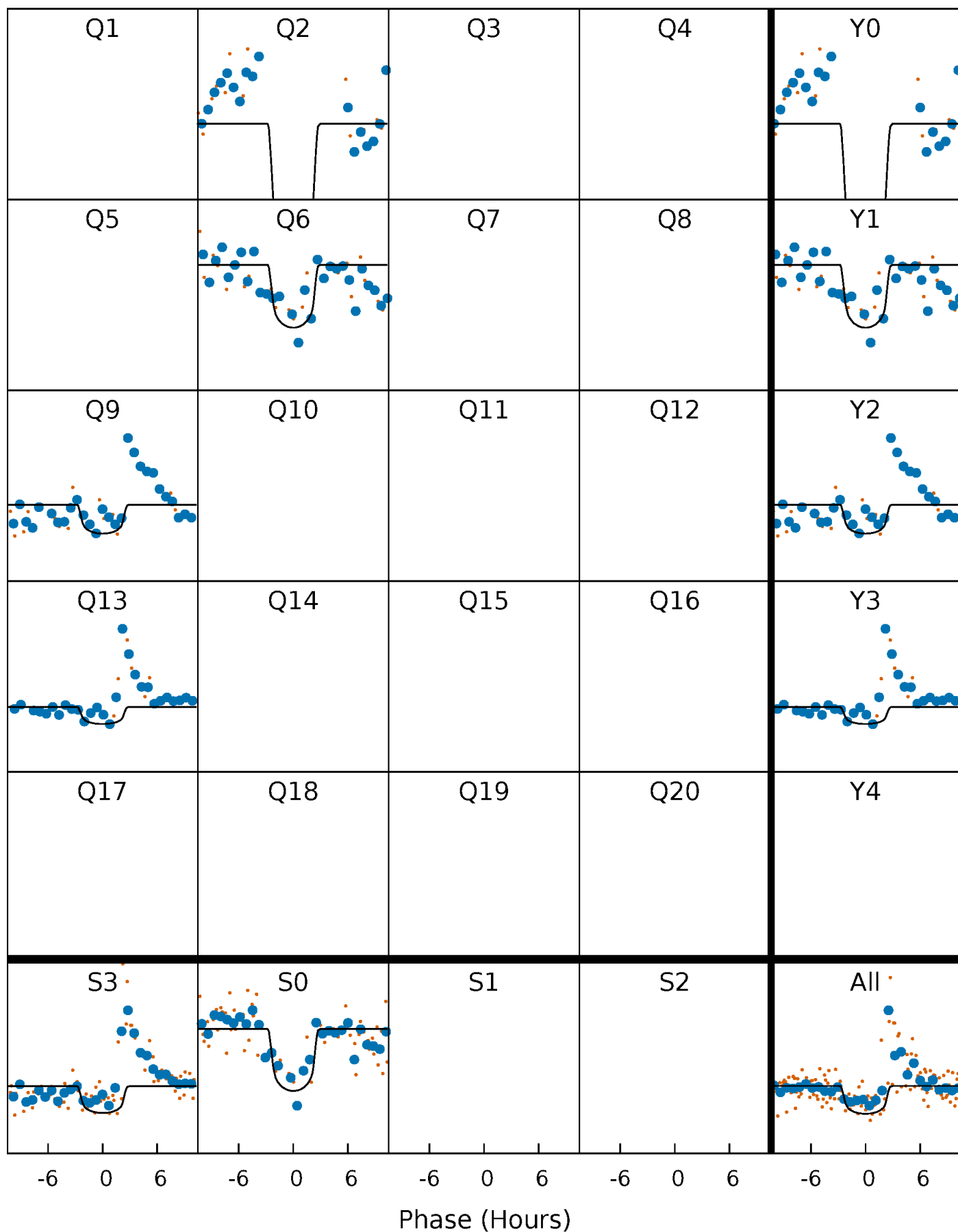
PDC Quarter-Phased Transit Curves

TCE 011804076-02 P=332.428321 Days $T_0=223.633009$ (BKJD)



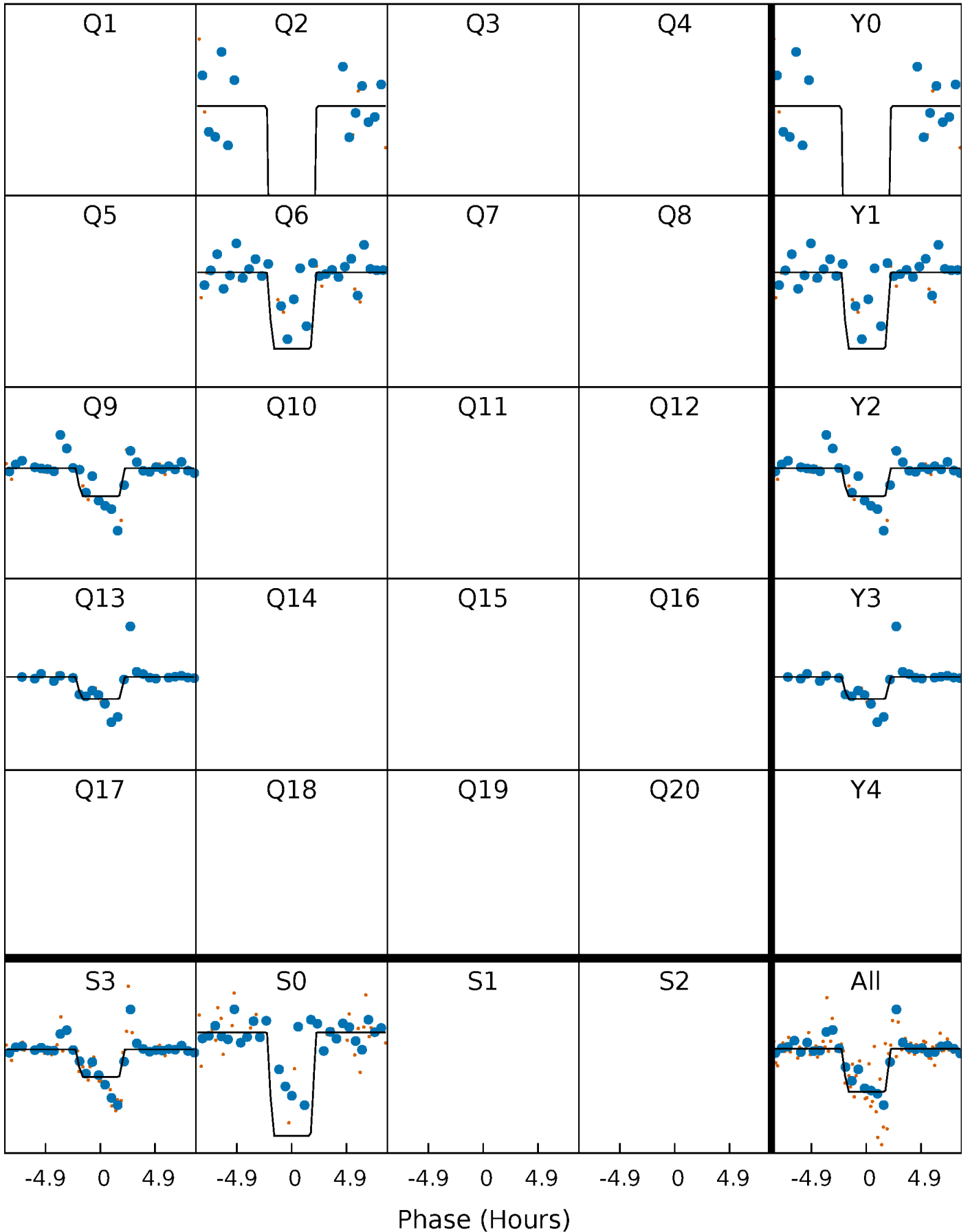
DV Quarter-Phased Transit Curves

TCE 011804076-02 P=332.428321 Days $T_0=223.633009$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

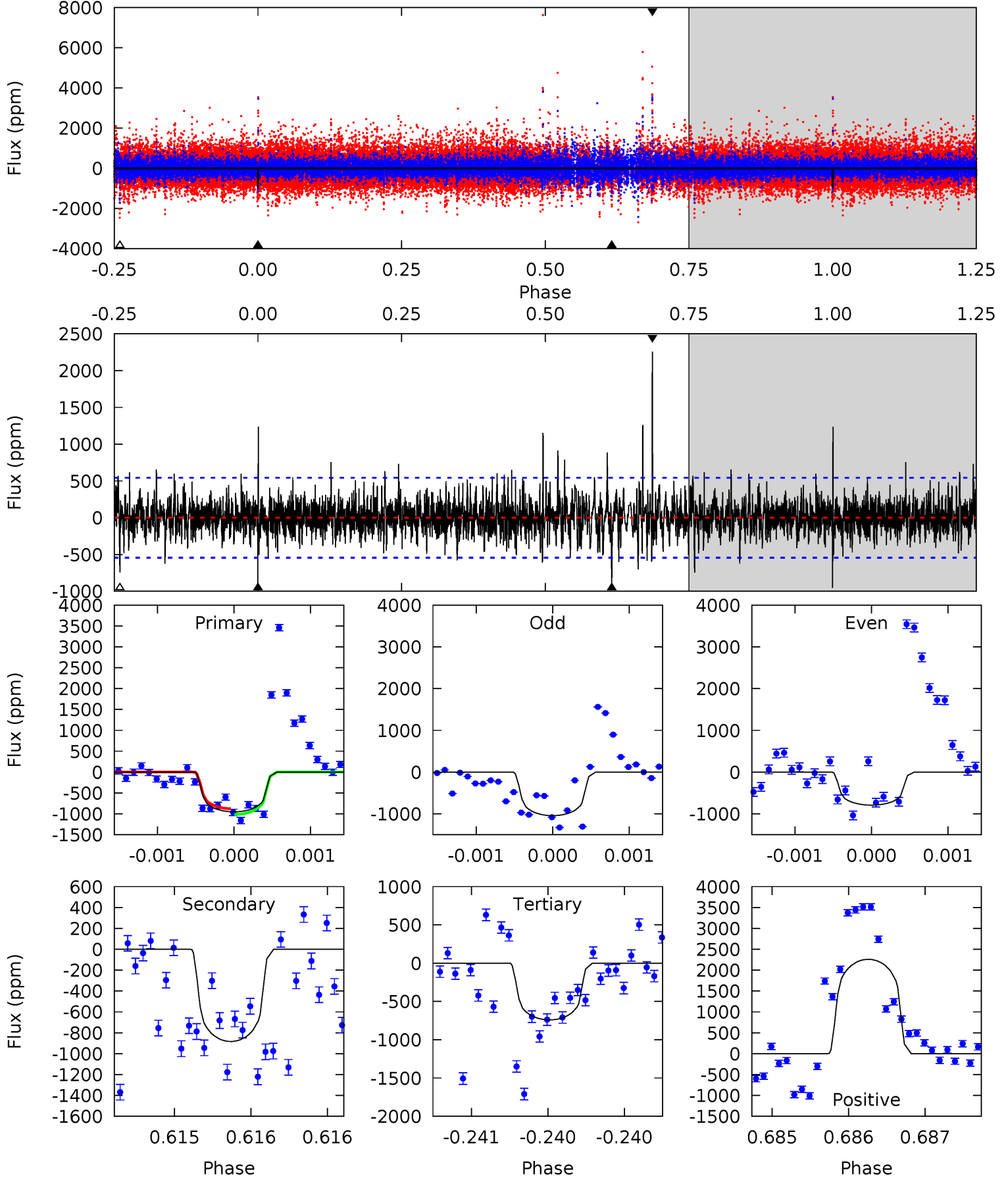
TCE 011804076-02 P=332.406343 Days $T_0=223.686633$ (BKJD)



DV Model-Shift Uniqueness Test

011804076-02, P = 332.428321 Days, E = 223.633009 Days

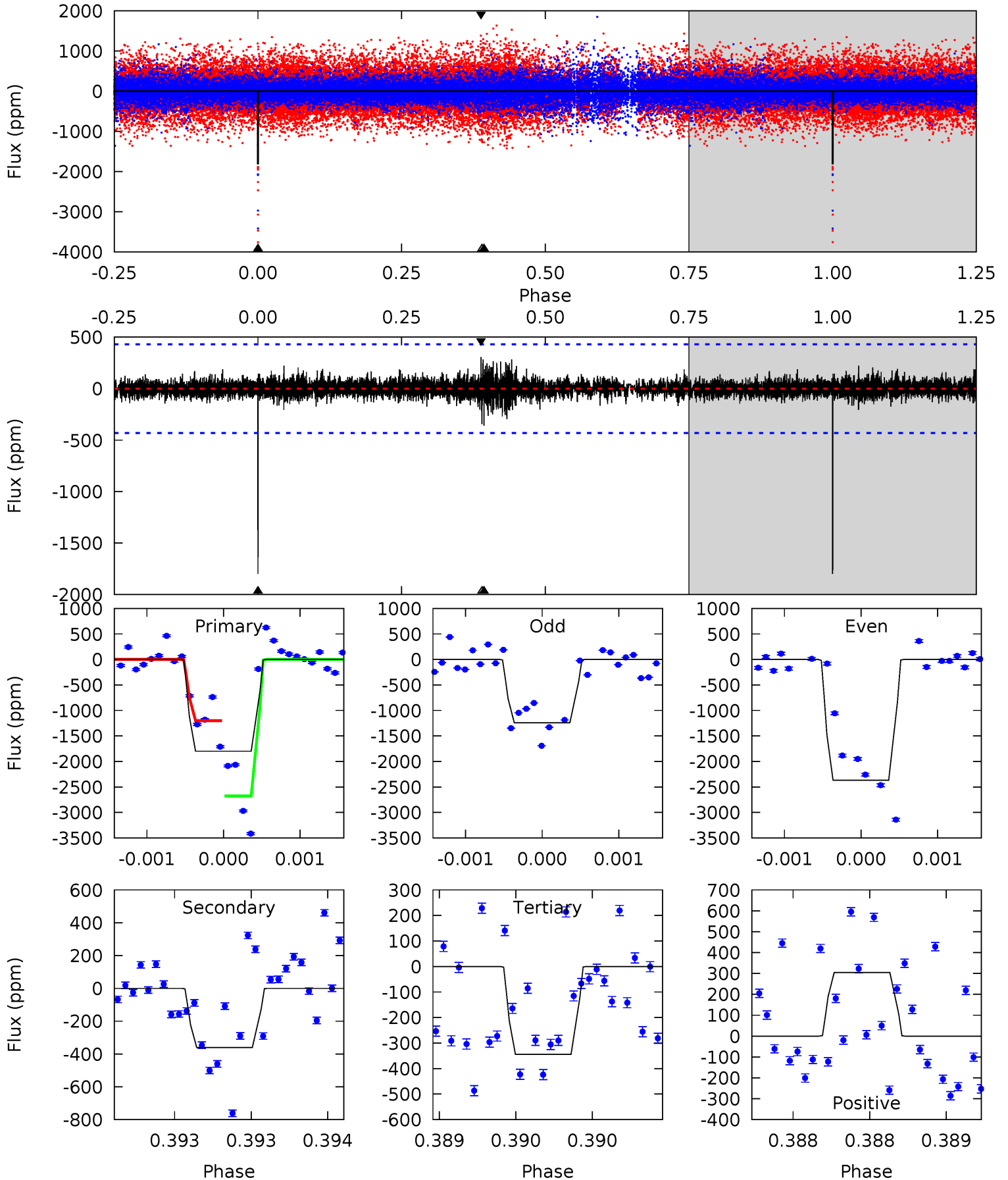
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.66	8.96	7.52	22.9	5.52	3.39	1.85	2.15	-13.3	1.45	-14.0	1.11	0.81	0.70	0.68



Alt Model-Shift Uniqueness Test

011804076-02, P = 332.406343 Days, E = 223.686633 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	4.65	4.45	3.94	5.56	3.46	0.67	18.8	19.3	0.20	0.71	6.92	0.80	0.14	9.49



Stellar Parameters For KIC 011804076

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5198^{+157}_{-157}	$4.628^{+0.066}_{-0.044}$	$-0.940^{+0.300}_{-0.300}$	$0.635^{+0.055}_{-0.050}$	$0.625^{+0.060}_{-0.023}$	$3.433^{+0.878}_{-0.584}$
	+3%/-3%	+1%/-1%	+32%/-32%	+9%/-8%	+10%/-4%	+26%/-17%
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 011804076-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-883 ± 99	$2.60^{+1.12}_{-1.07}$	284^{+10}_{-11}	4709^{+1289}_{-609}	46344^{+90634}_{-23345}
Alt.	-360 ± 77	$2.87^{+1.15}_{-1.15}$	283^{+10}_{-10}	3842^{+795}_{-433}	16142^{+26907}_{-8510}

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 $A_{obs} \gg 1.0$

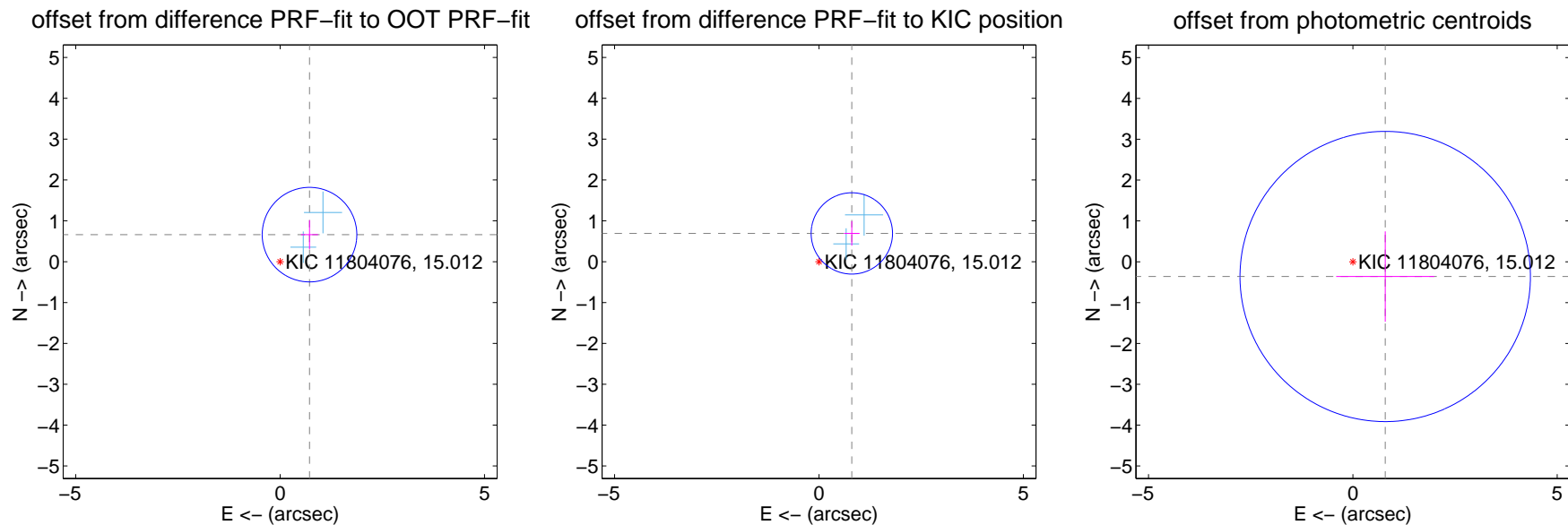
DV Centroid Data

Supplemental centroid analysis for 011804076-02. Kepler magnitude: 15.01. Transit SNR 8.13

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.978 ± 0.386	2.54	-0.720 ± 0.208	0.662 ± 0.354
PRF-fit source offset from KIC position	1.061 ± 0.332	3.20	-0.803 ± 0.191	0.692 ± 0.298
photometric centroid source offset	0.87 ± 1.18	0.73	-0.79 ± 1.20	-0.36 ± 1.11



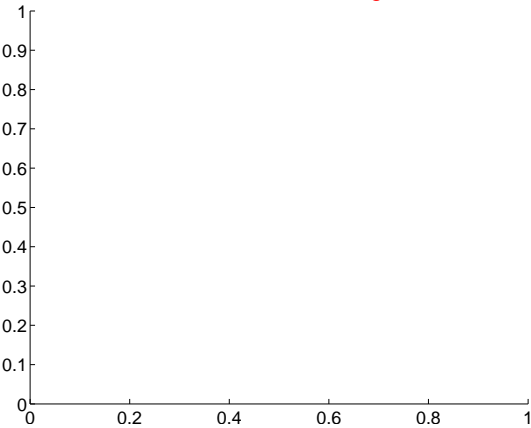
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

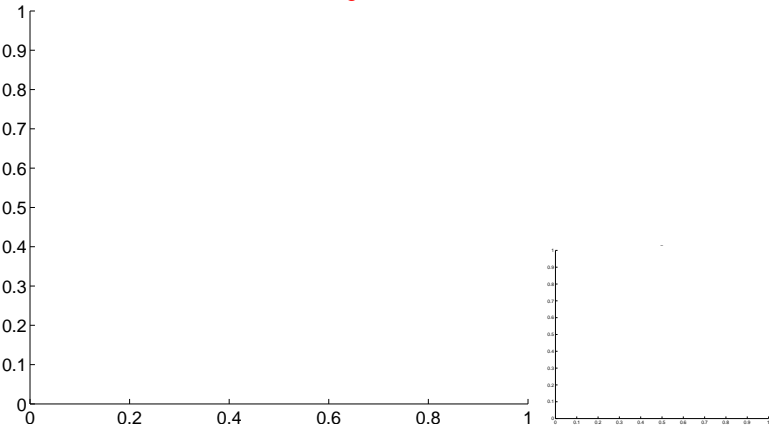


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

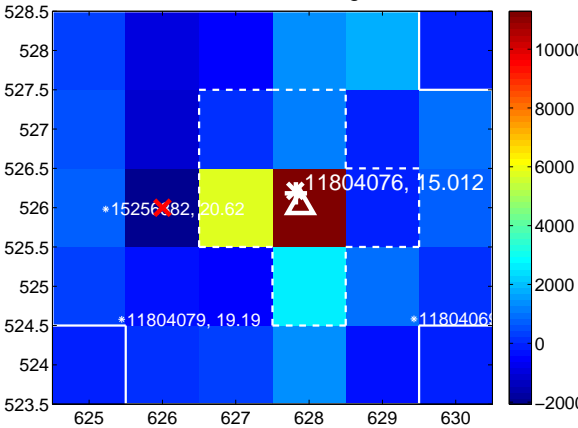
Q5 no difference image



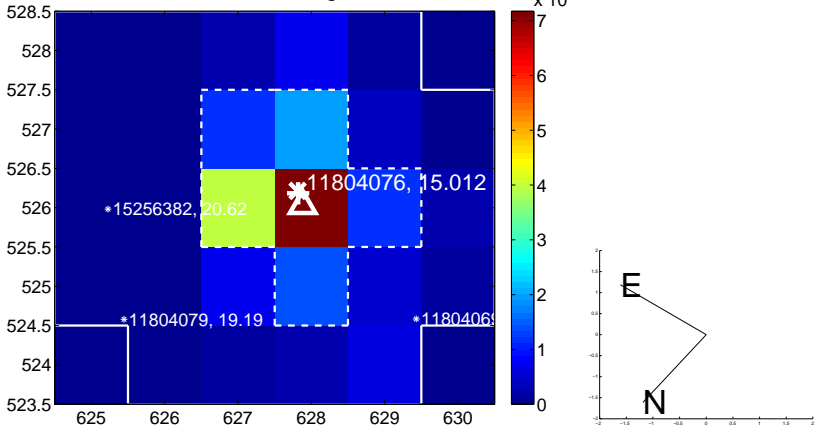
Q5 no OOT image



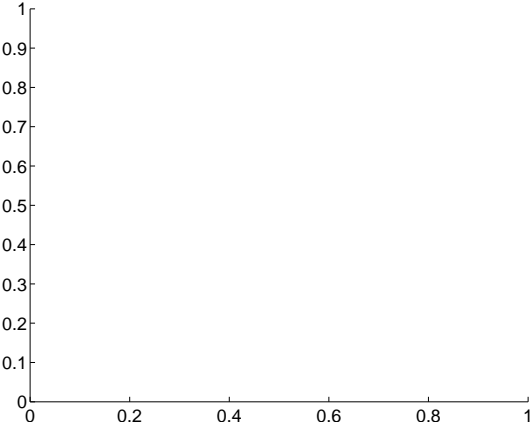
Q6 difference image



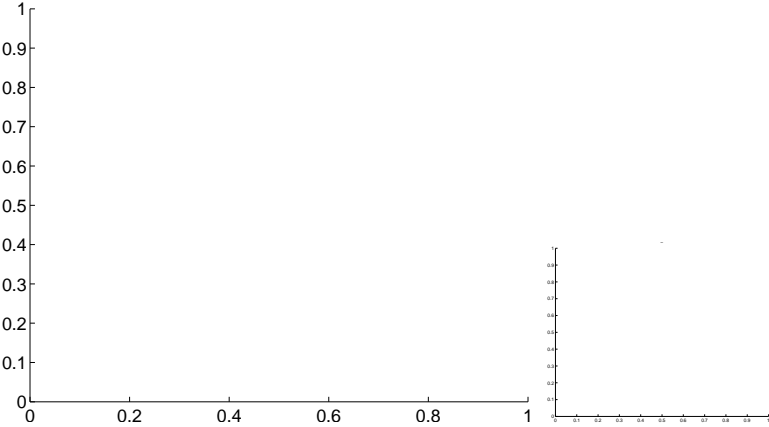
Q6 OOT image



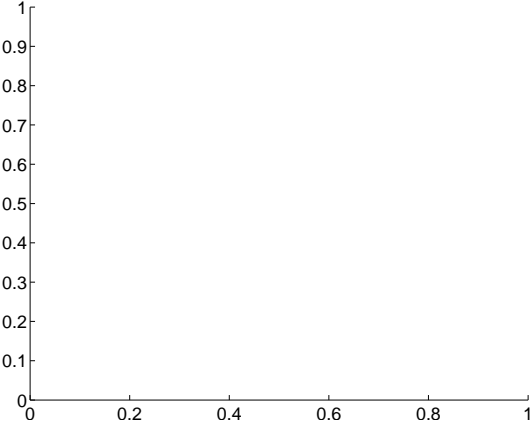
Q7 no difference image



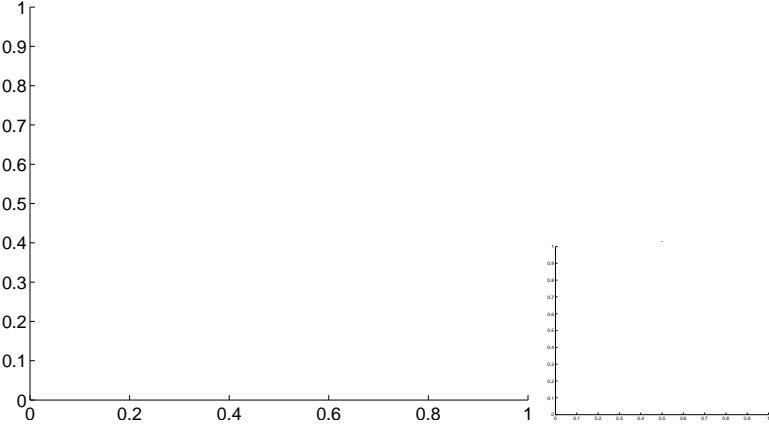
Q7 no OOT image



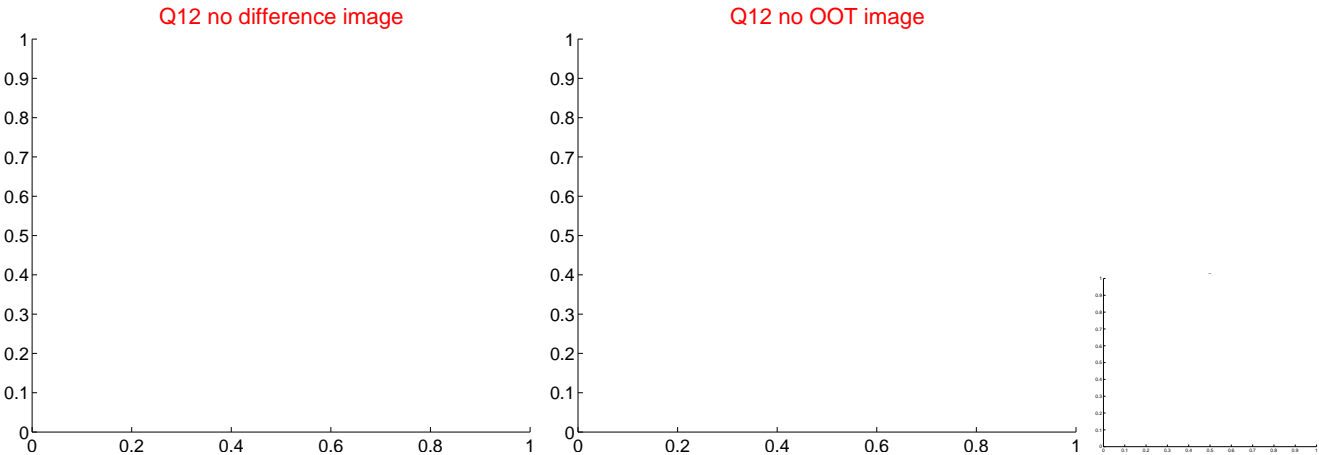
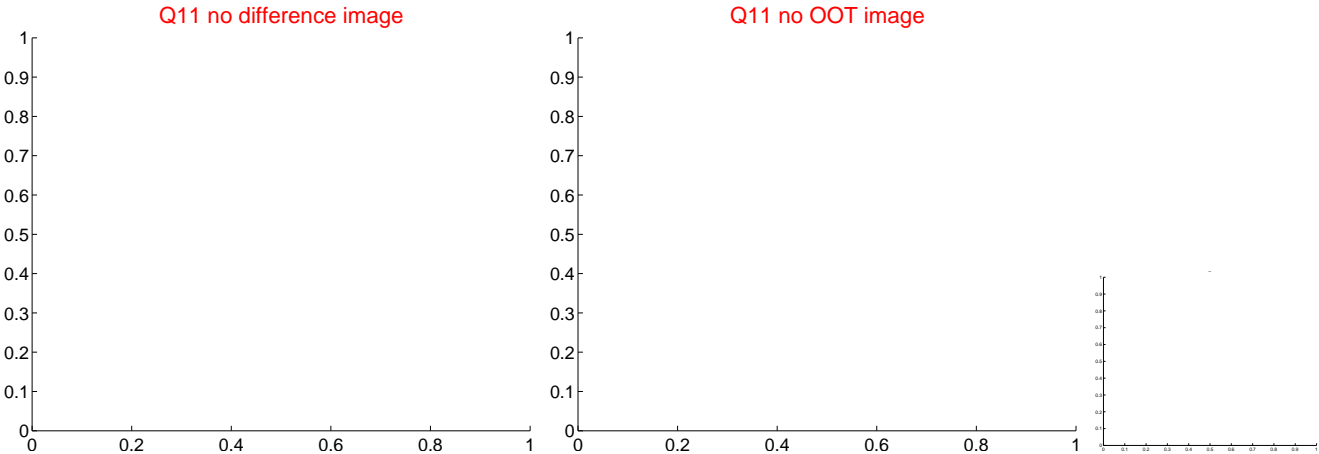
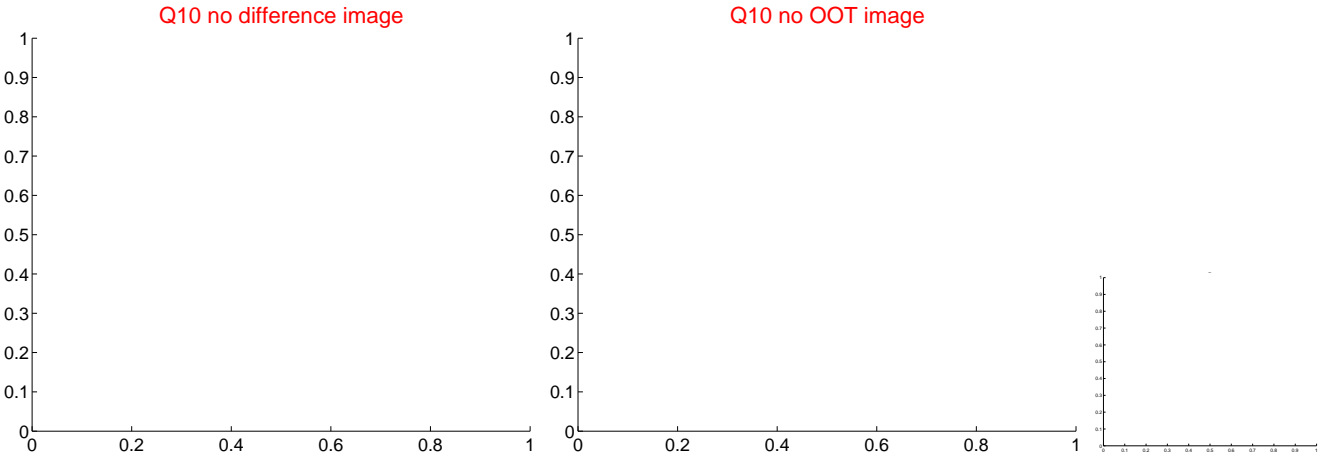
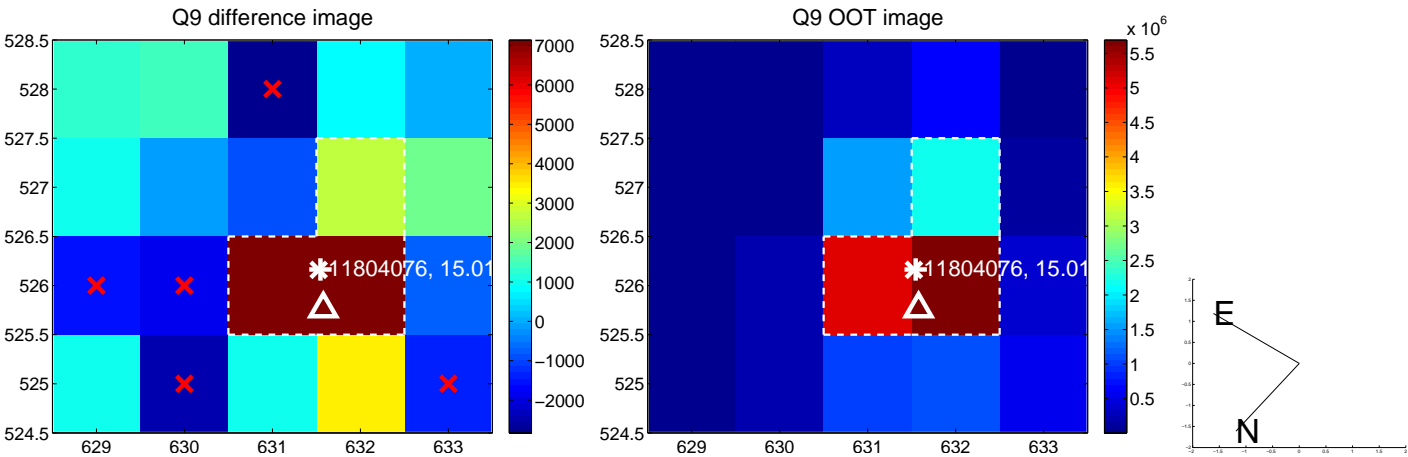
Q8 no difference image



Q8 no OOT image



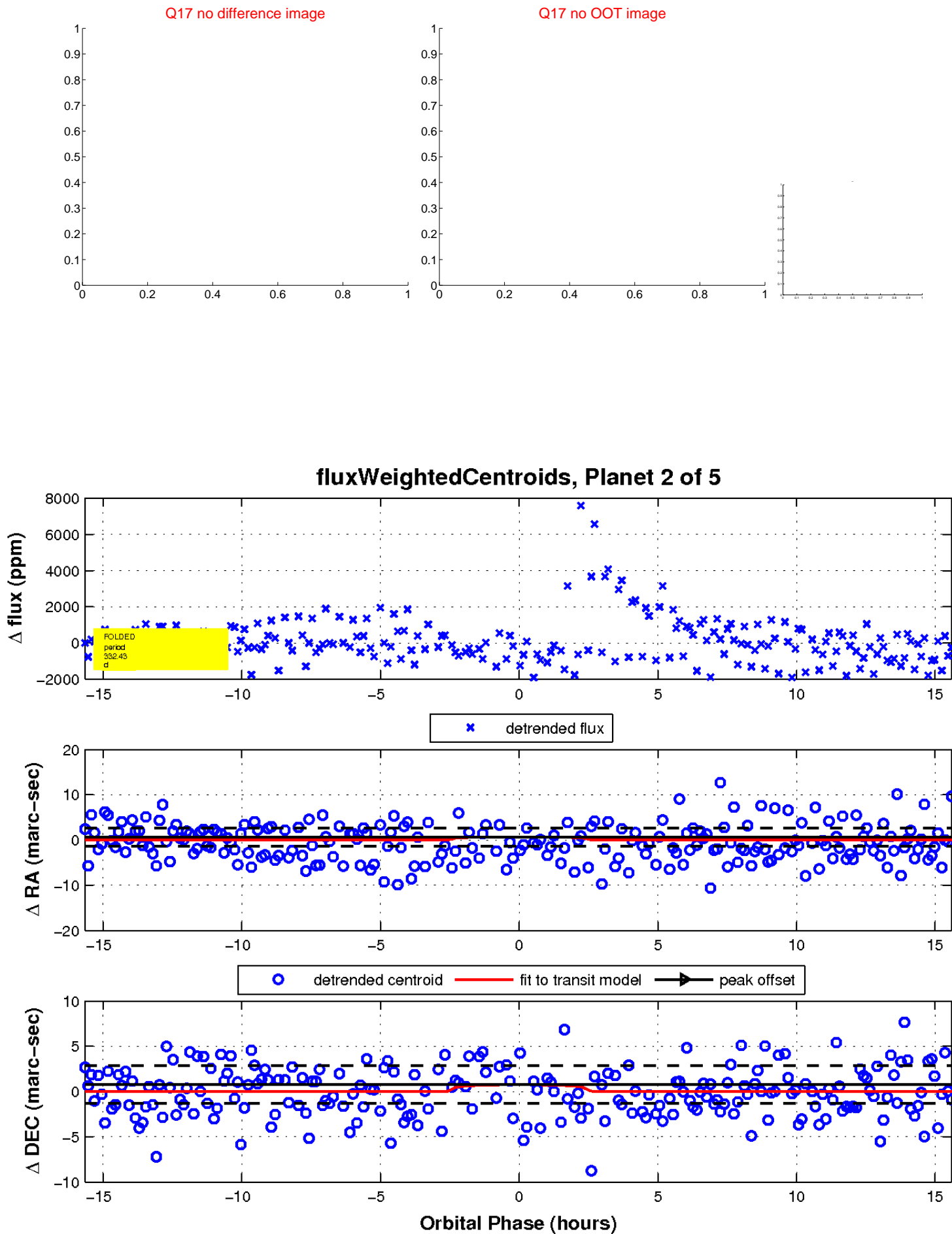
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

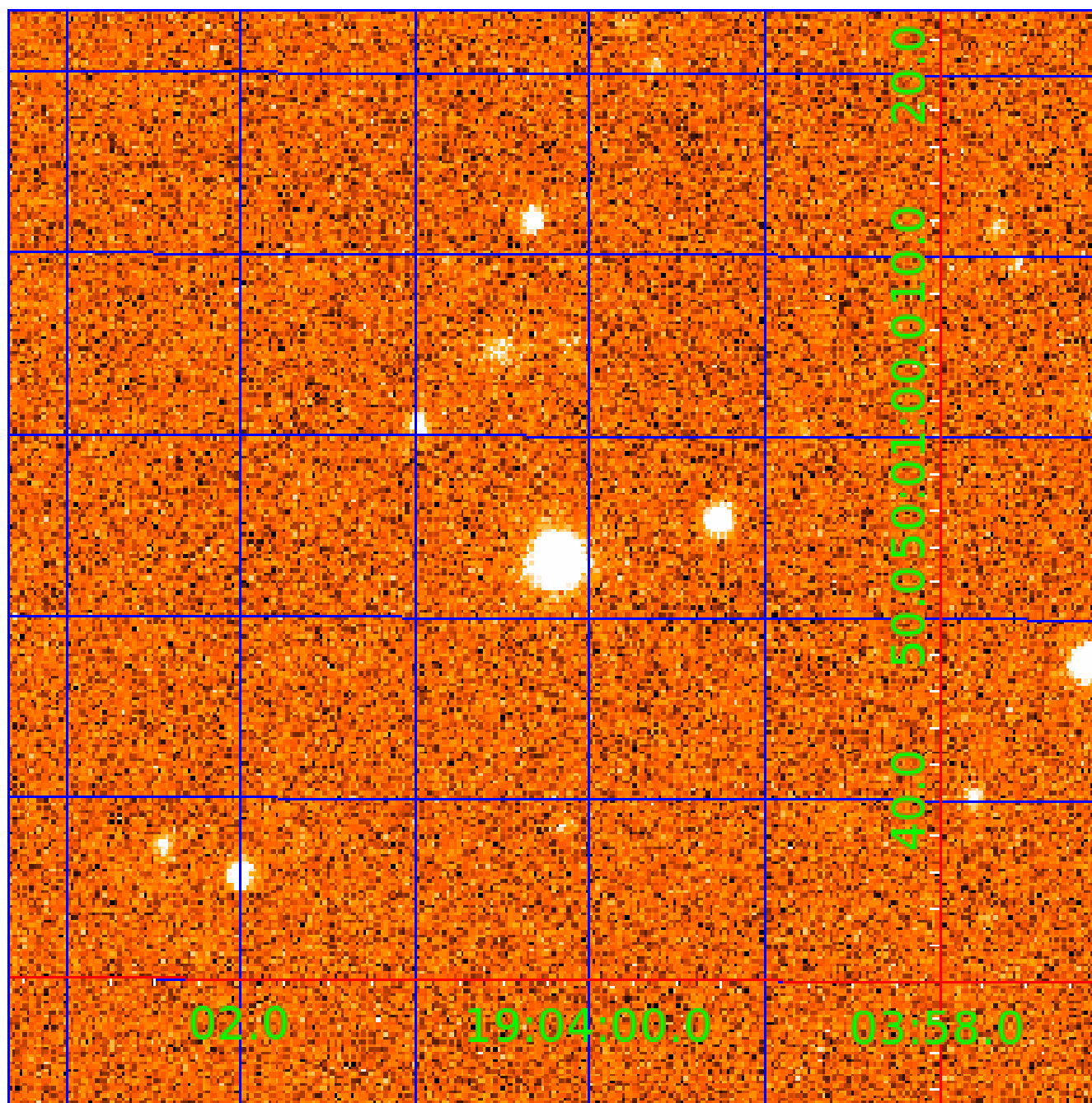


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011804076

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})
011804076-01	OBS	No	255.259351	288.807789	1019.1	3.640	12.4	6.4	0.64	5198	2.11	0.58
011804076-02	OBS	No	332.428321	223.633010	1523.8	5.244	11.0	8.1	0.64	5198	2.66	0.41
011804076-03	OBS	No	362.398571	361.561632	2019.6	8.472	13.1	9.4	0.64	5198	2.82	0.36
011804076-04	OBS	No	563.612668	316.044936	1323.6	7.463	11.2	7.8	0.64	5198	2.42	0.20
011804076-05	OBS	No	525.072071	315.109207	1121.8	6.911	16.5	5.1	0.64	5198	2.10	0.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011804076-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011804076-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011804076-03	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
011804076-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_FEW_DIFFS
011804076-05	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—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

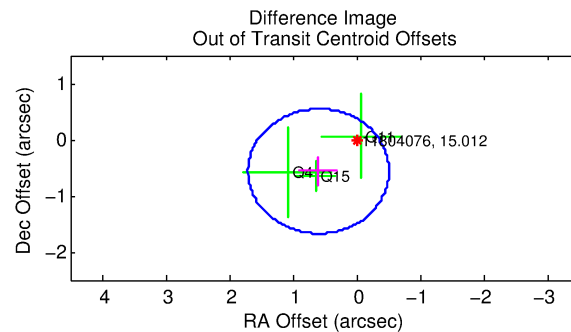
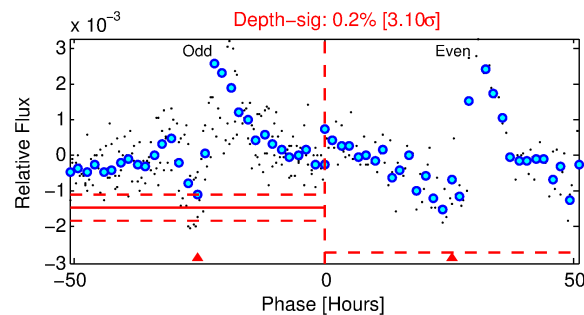
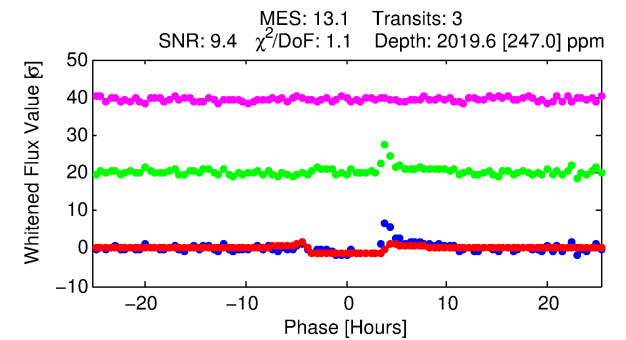
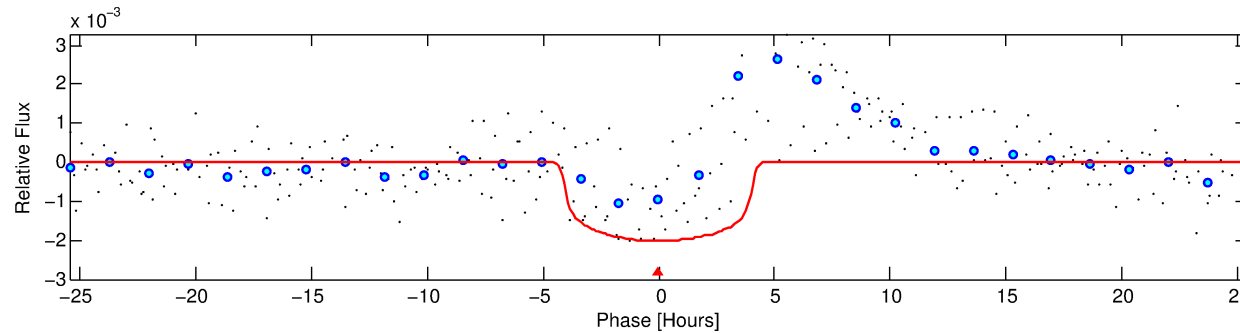
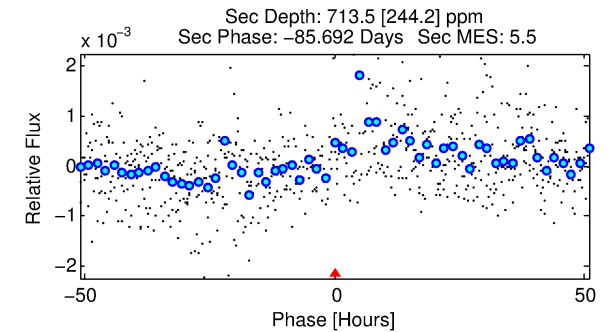
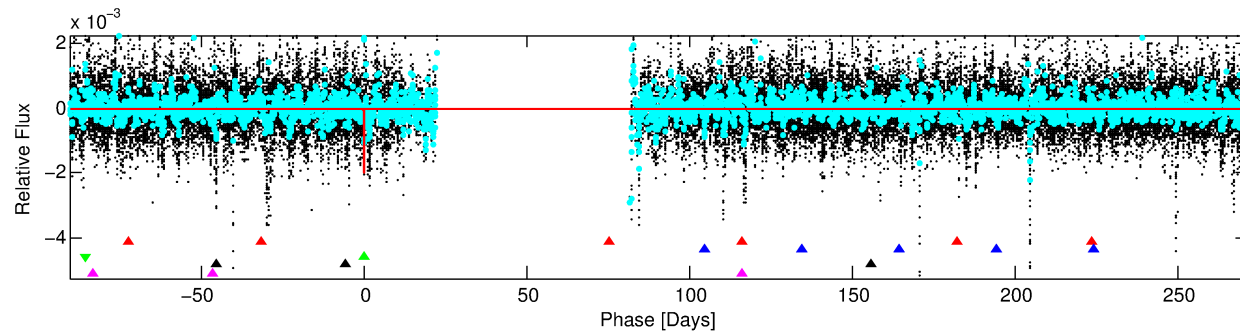
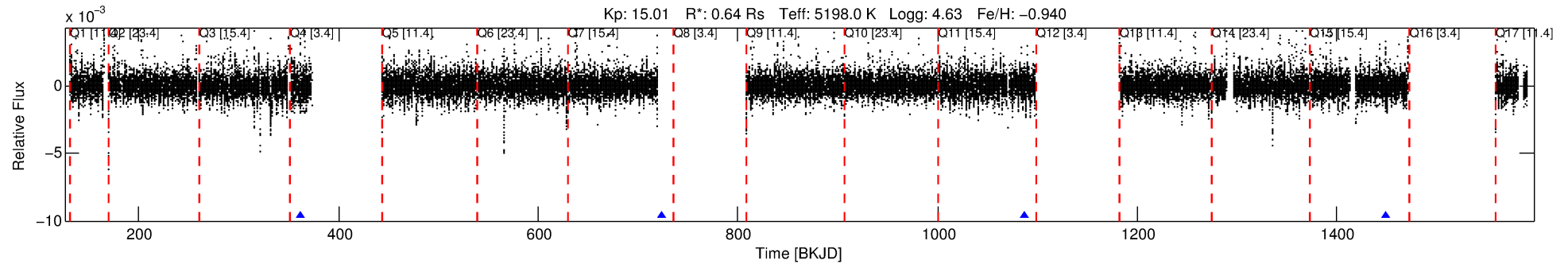
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011804076-03

No Significant Match Found

DV One-Page Summary

KIC: 11804076 Candidate: 3 of 5 Period: 362.399 d



DV Fit Results:

Period = 362.39857 [0.00352] d
Epoch = 361.5616 [0.0075] BKJD
Rp/R* = 0.0406 [0.0192]
a/R* = 340.08 [668.50]
b = 0.00 [473.48]
Seff = 0.36 [0.06]
Teq = 198 [8] K
Rp = 2.82 [1.35] Re
a = 0.8505 [0.0653] AU
Ag = 35792.14 [36241.30] [0.99 σ]
Teffp = 4214 [1067] K [3.76 σ]

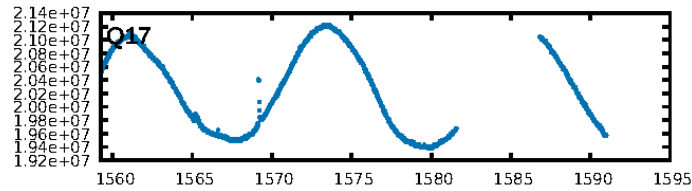
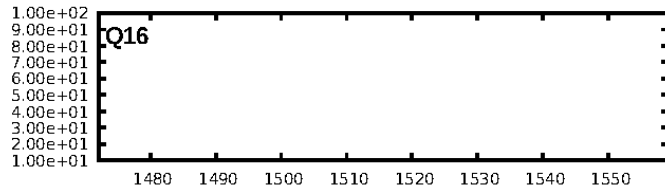
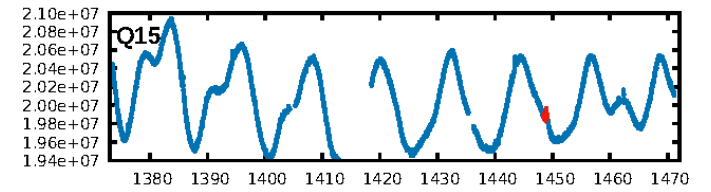
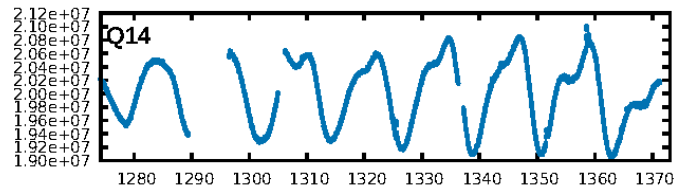
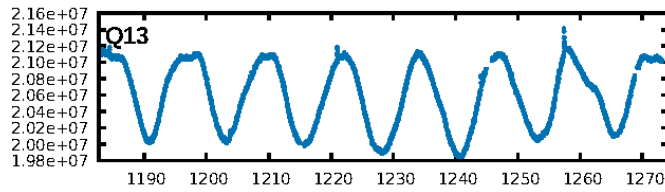
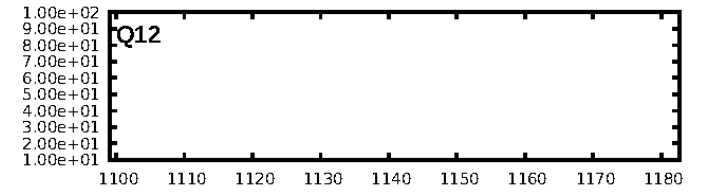
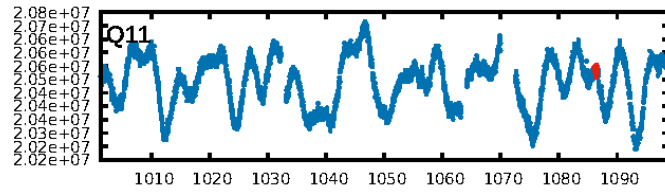
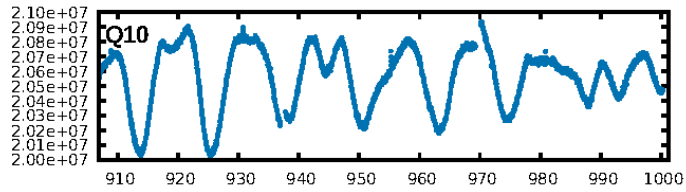
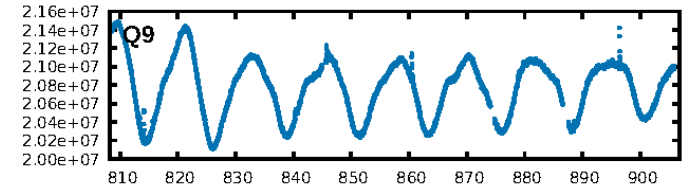
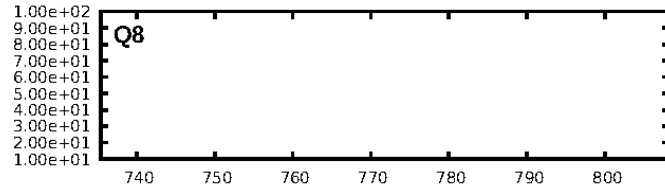
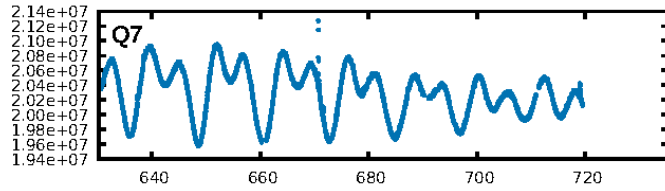
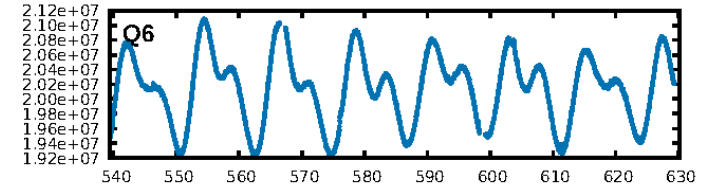
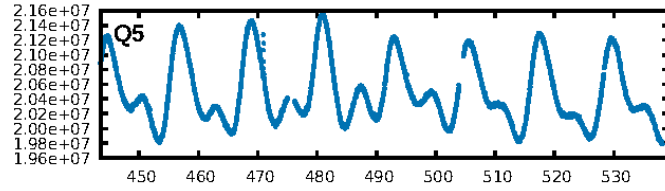
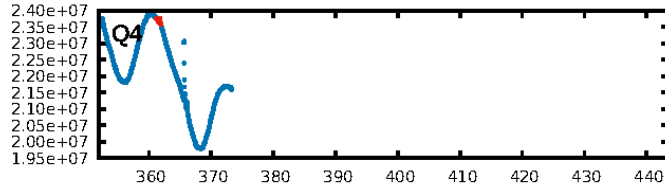
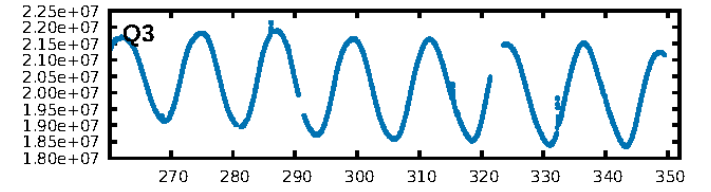
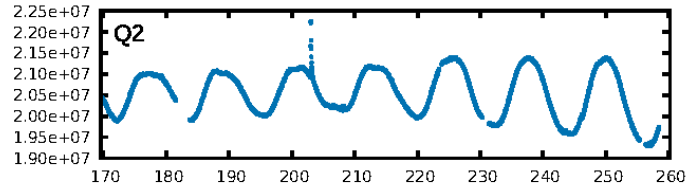
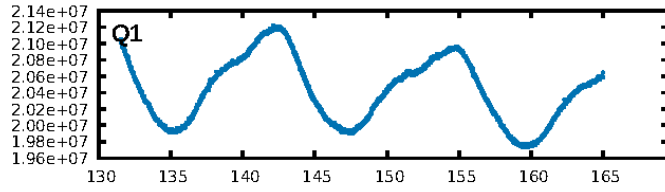
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [72.19 σ]
LongPeriod-sig: 100.0% [357.09 σ]
ModelChiSquare2-sig: 0.6%
ModelChiSquareGof-sig: 92.6%
Bootstrap-pfa: 4.32e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.632
Centroid-sig: 42.9%
Centroid-so: 0.158 arcsec [0.29 σ]
OotOffset-rm: 0.821 arcsec [2.22 σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-rm: 0.777 arcsec [2.14 σ]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

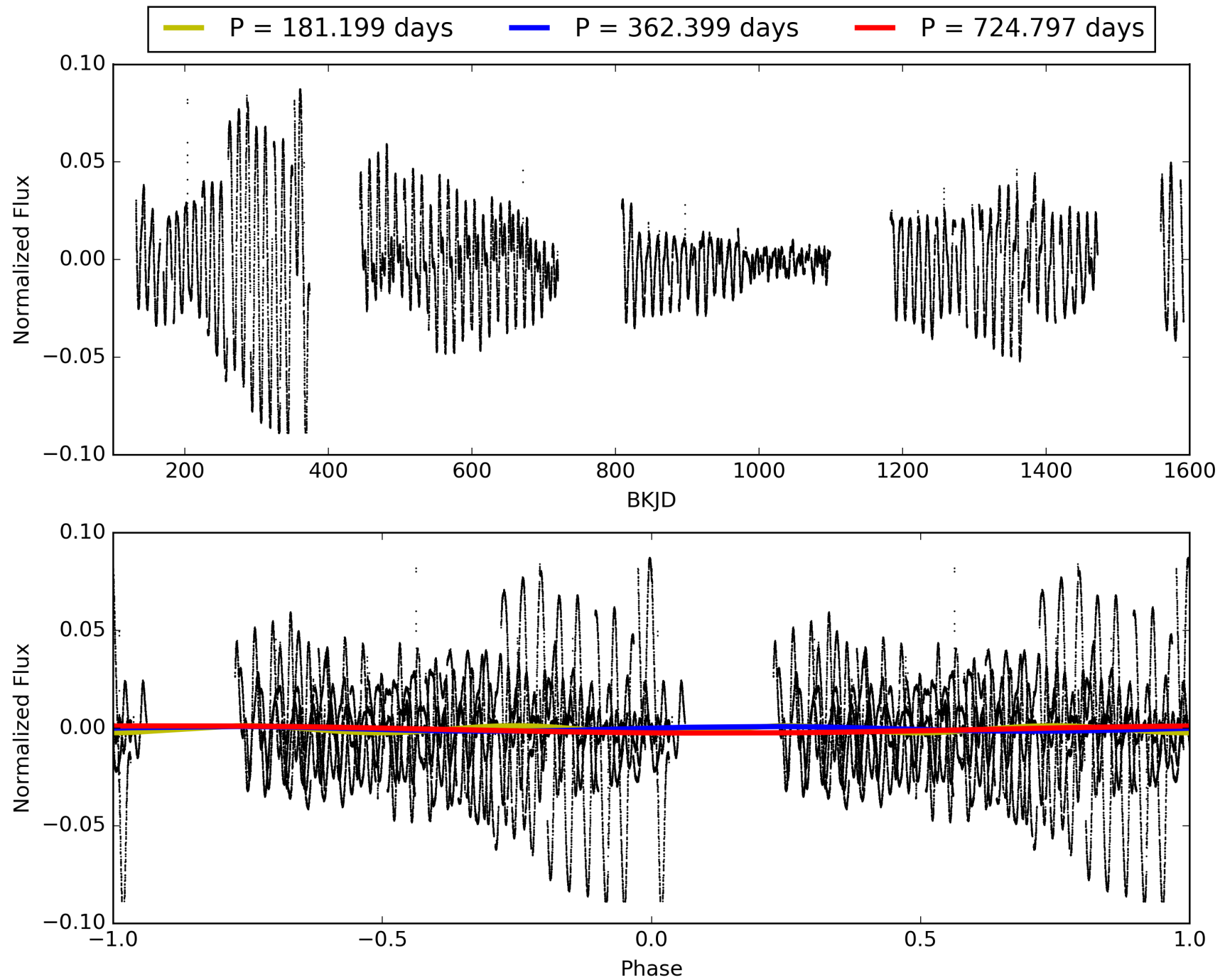
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 03:38:21 Z

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

TCE 011804076-03, PDC Light Curves

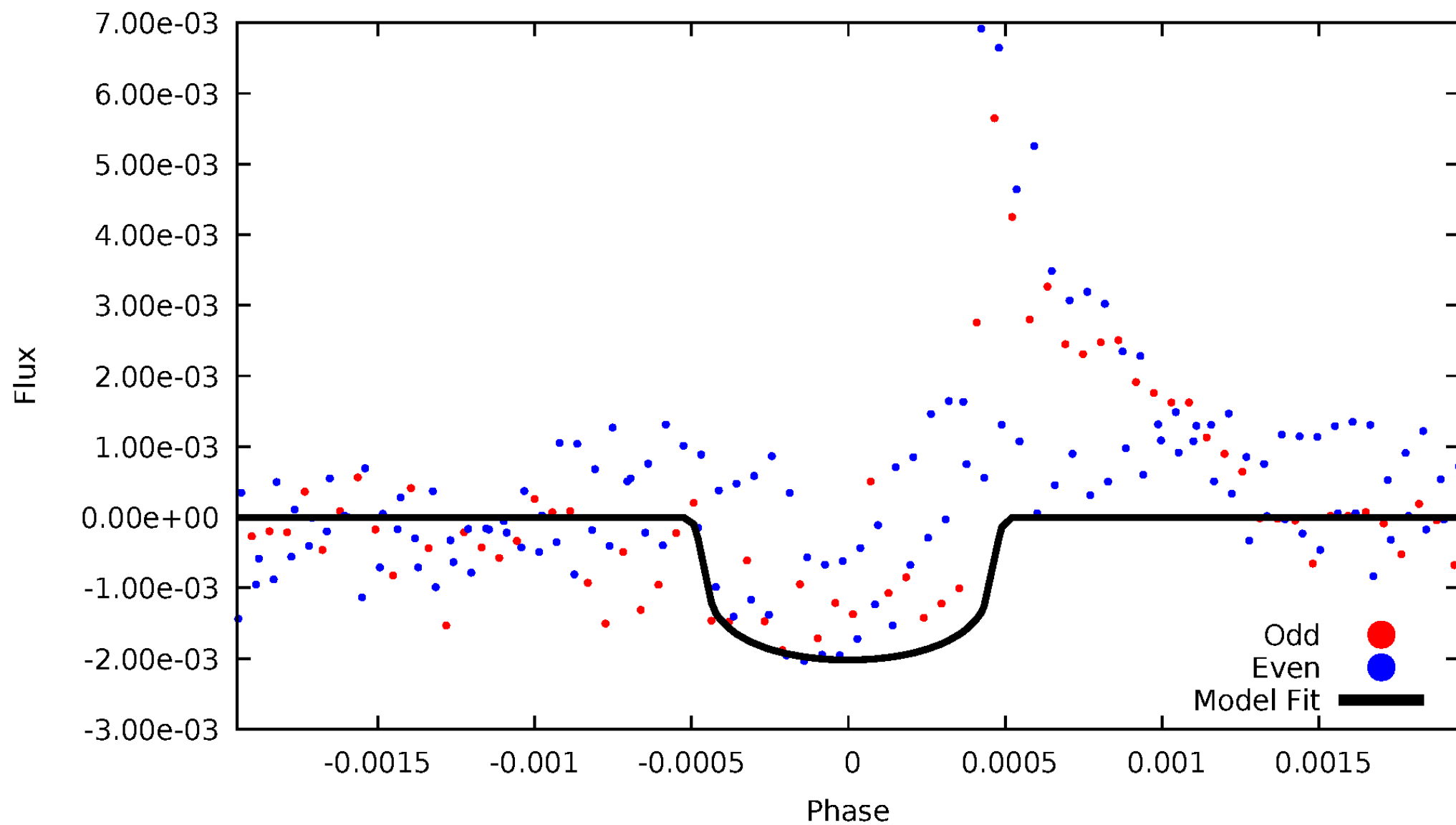


TCE 011804076-03



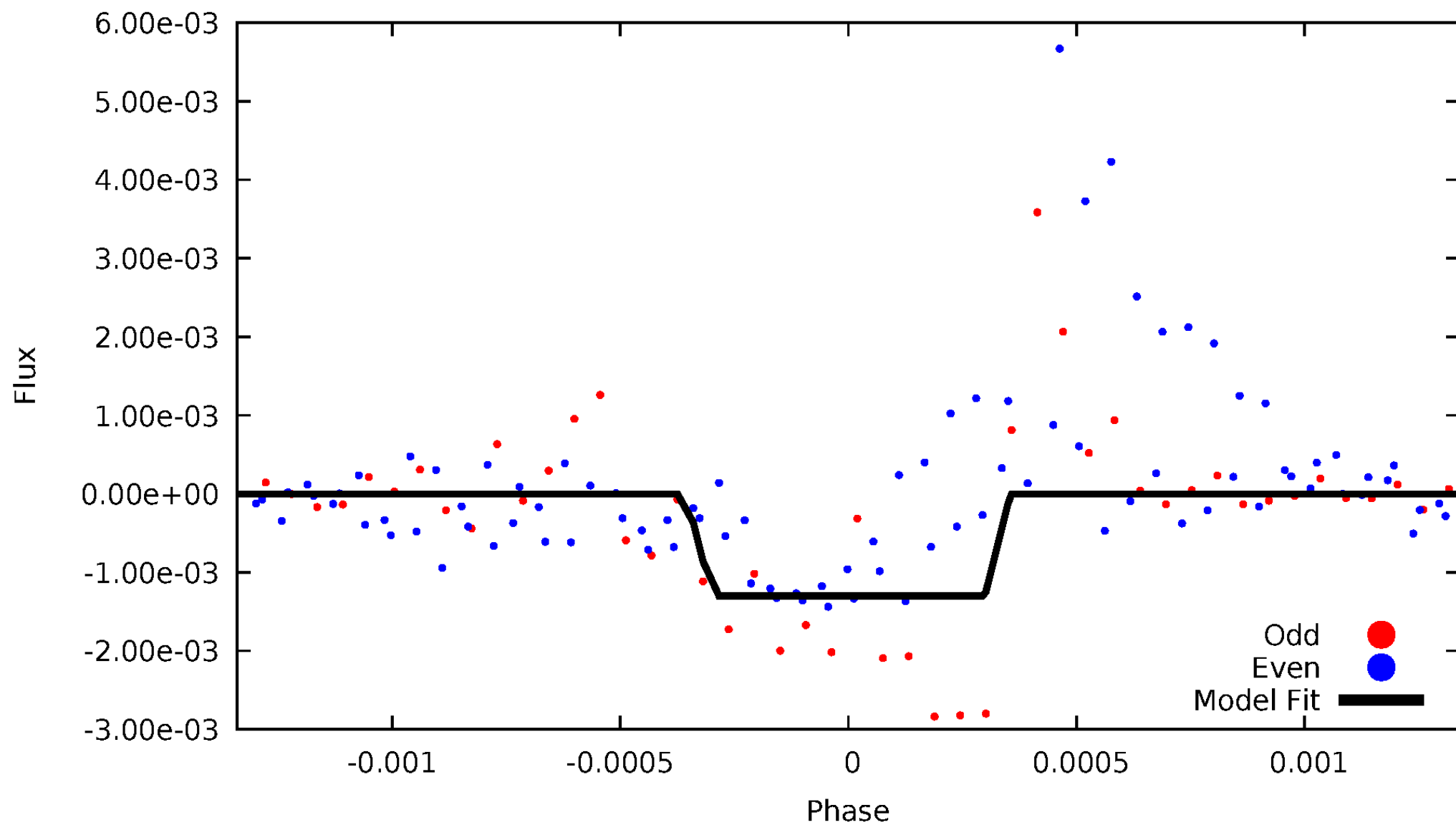
DV Odd/Even

TCE 011804076-03



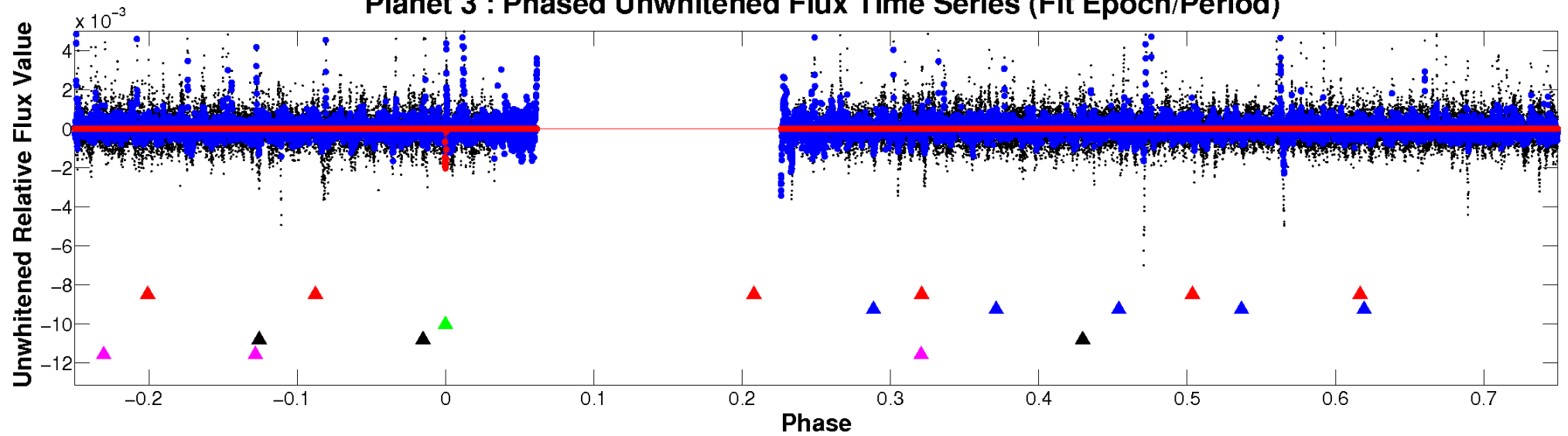
ALT Odd/Even

TCE 011804076-03

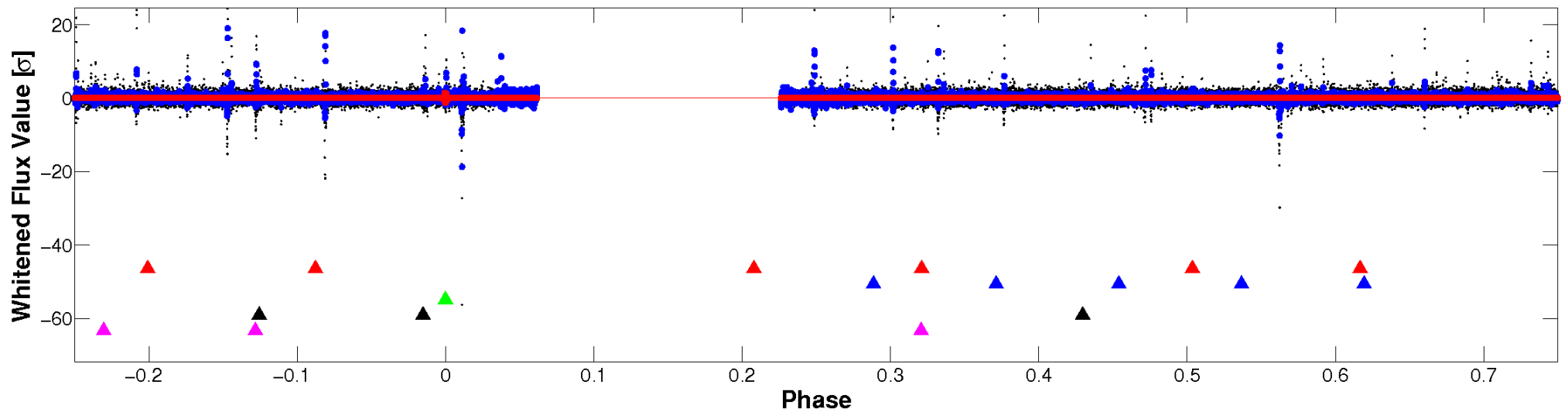


Non-Whitened Vs. Whitened Light Curve

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

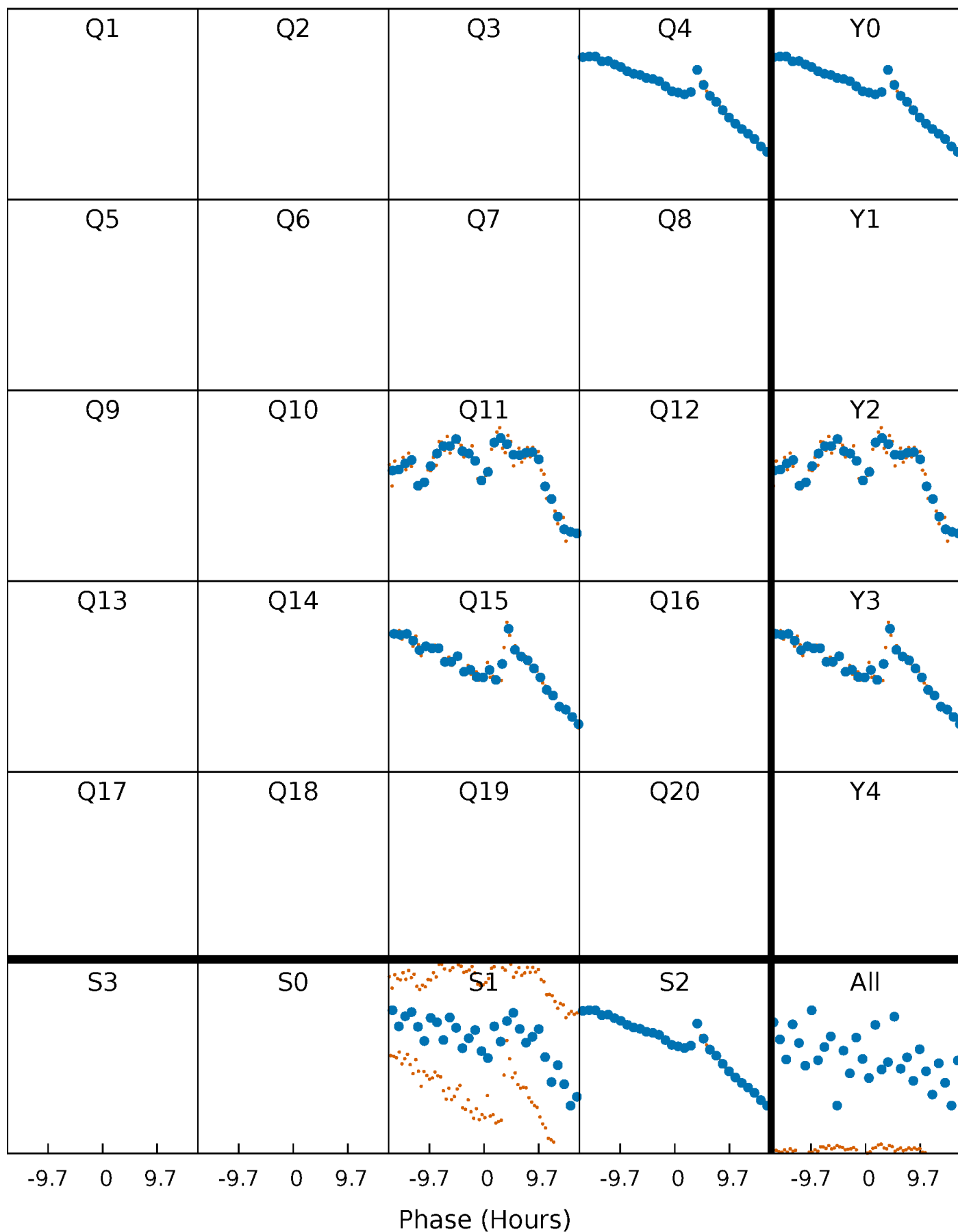


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



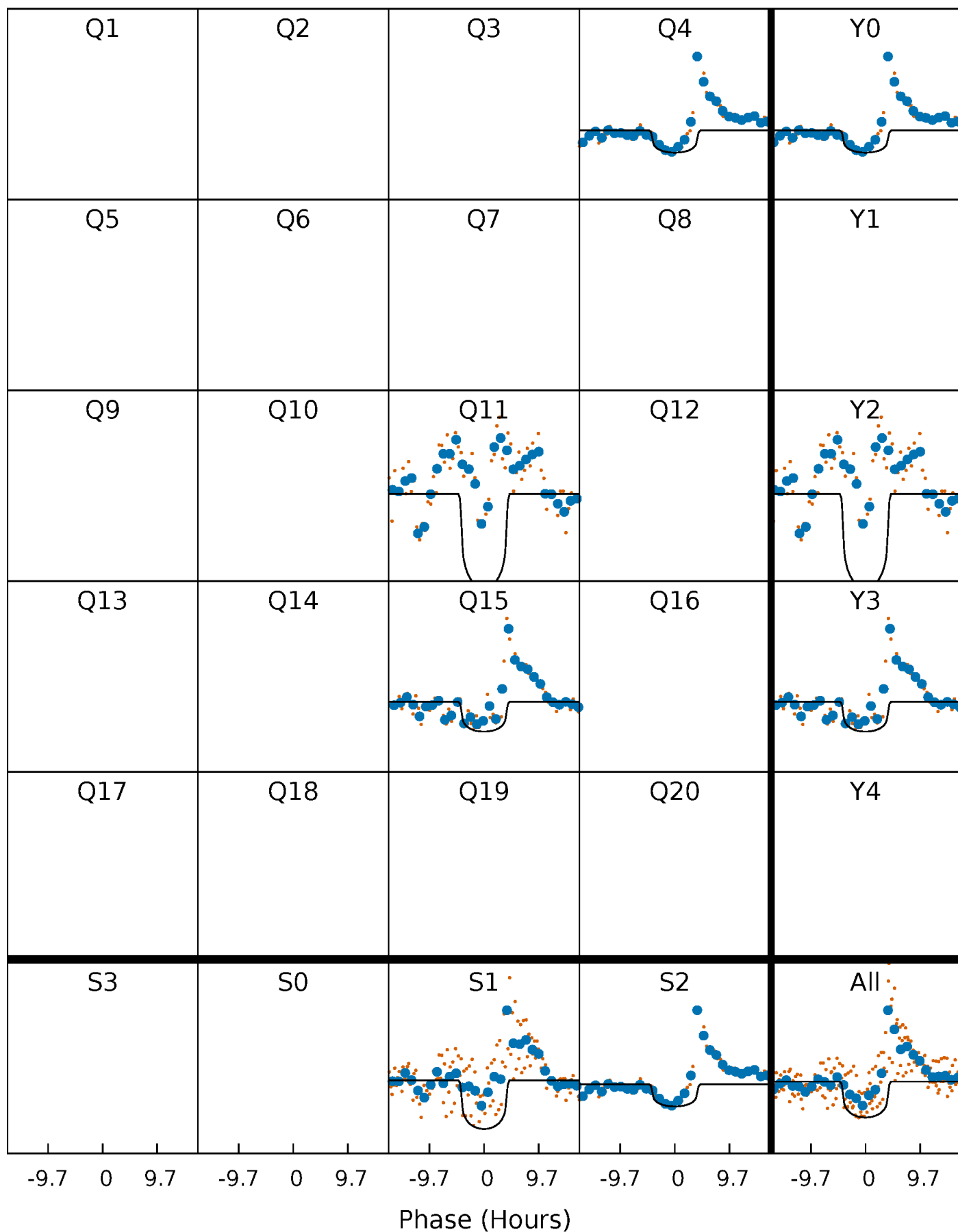
PDC Quarter-Phased Transit Curves

TCE 011804076-03 $P=362.398571$ Days $T_0=361.561632$ (BKJD)



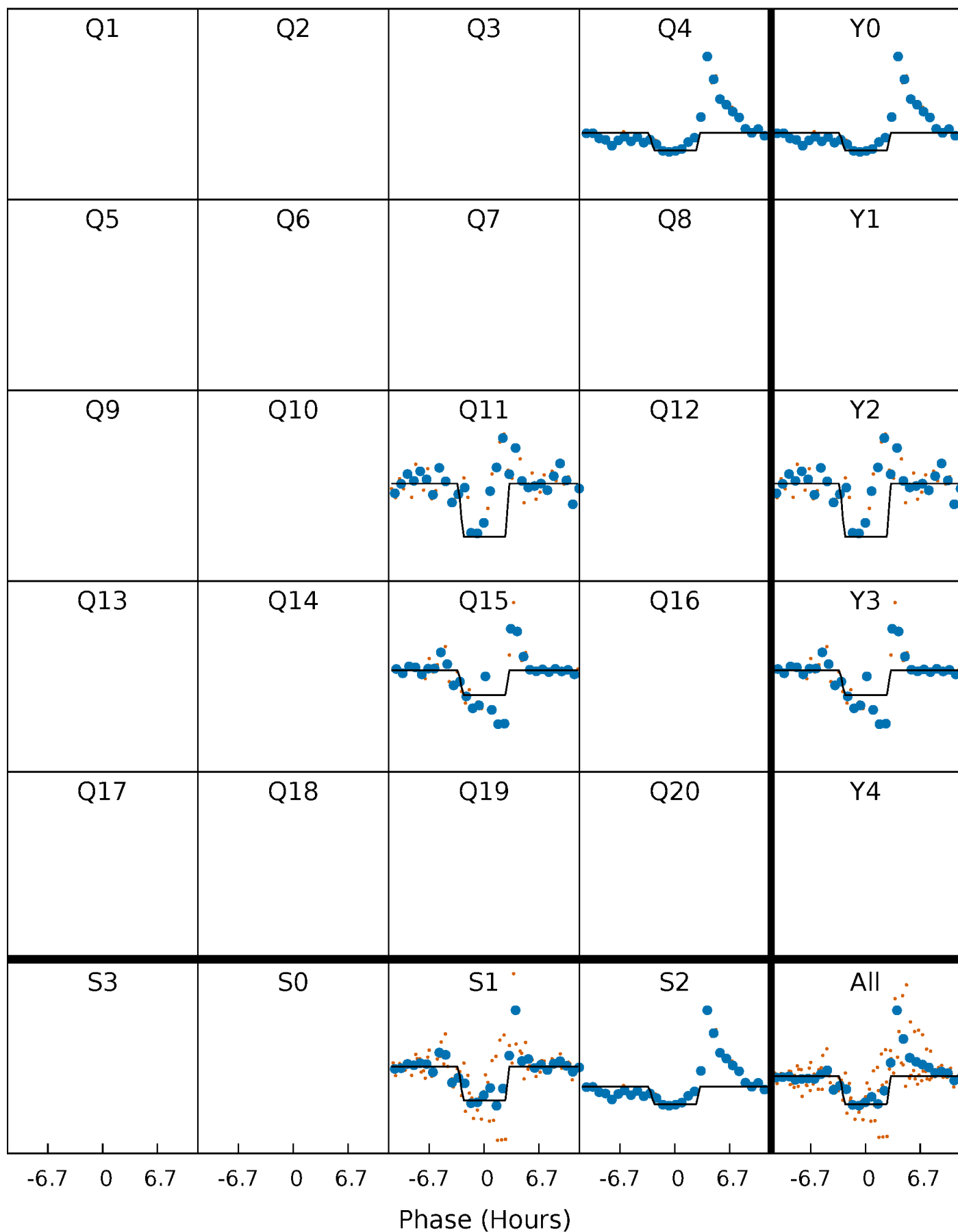
DV Quarter-Phased Transit Curves

TCE 011804076-03 $P=362.398571$ Days $T_0=361.561632$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

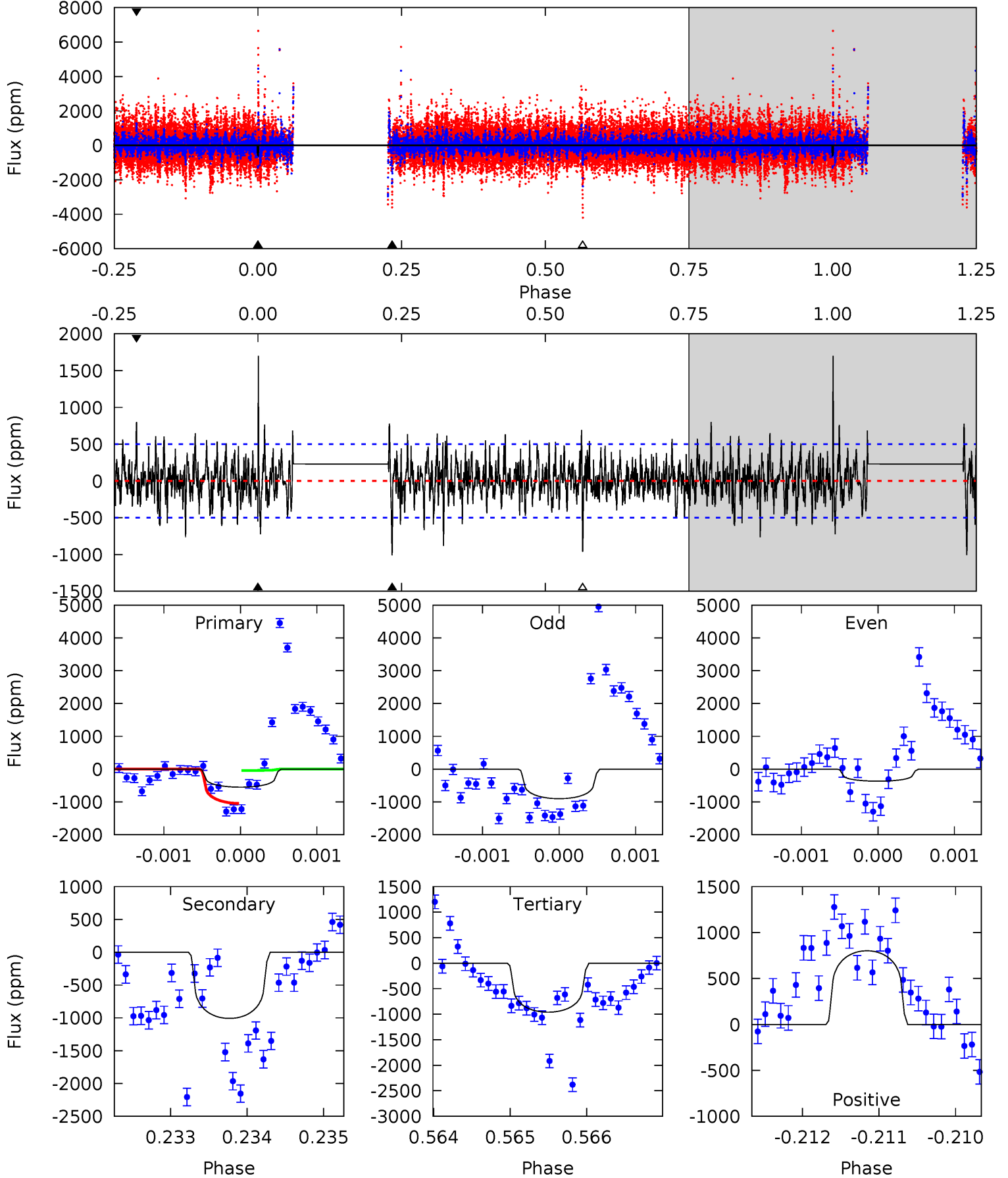
TCE 011804076-03 P=362.402809 Days $T_0=361.567616$ (BKJD)



DV Model-Shift Uniqueness Test

011804076-03, P = 362.398571 Days, E = 361.561632 Days

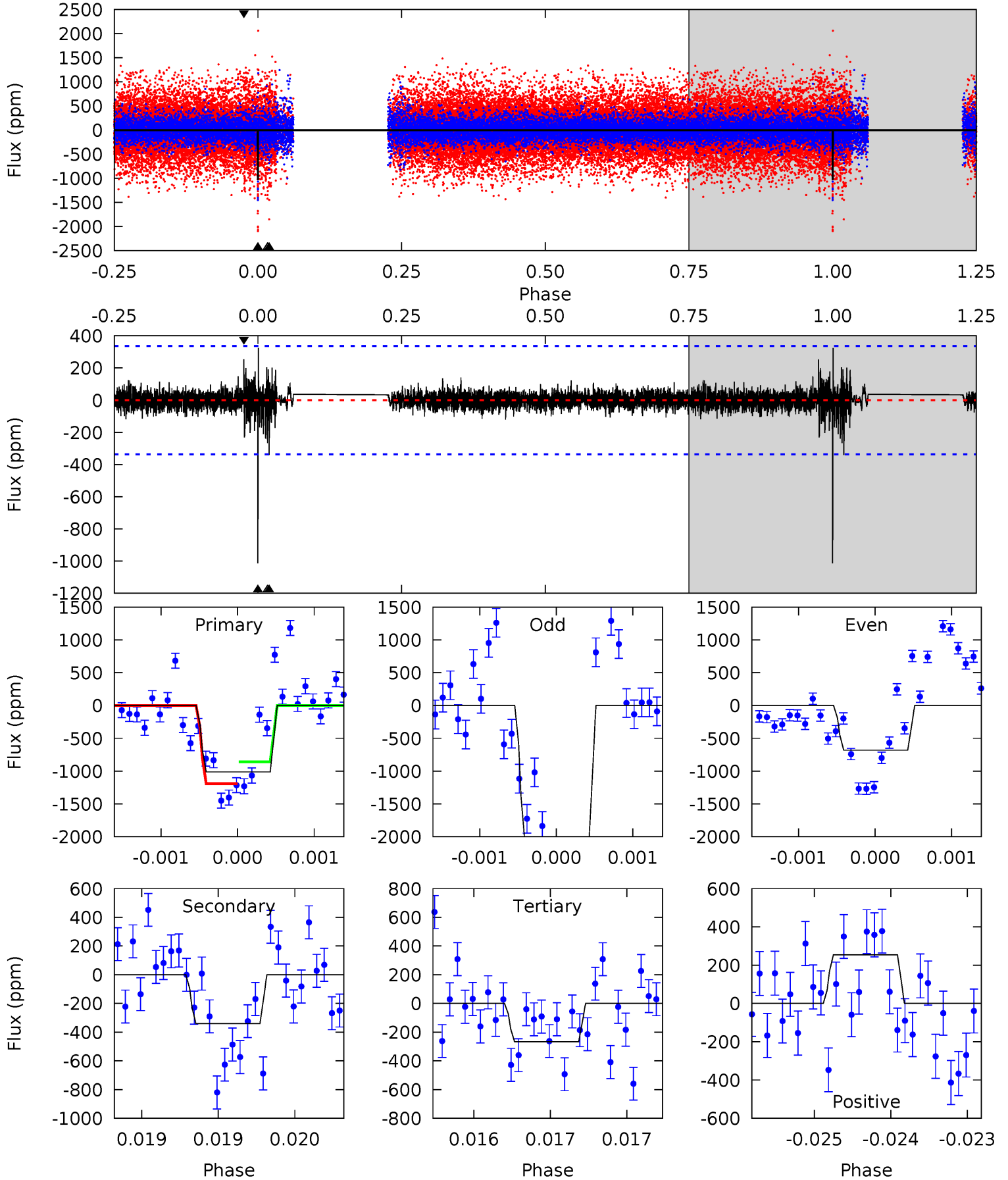
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.01	11.0	10.5	8.76	5.45	3.30	2.32	-4.48	-2.75	0.53	2.26	2.46	0.54	0.63	5.45



Alt Model-Shift Uniqueness Test

011804076-03, P = 362.402809 Days, E = 361.567616 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	5.58	4.38	4.17	5.52	3.39	0.59	12.3	12.5	1.20	1.41	11.2	1.08	0.24	2.62



Stellar Parameters For KIC 011804076

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5198^{+157}_{-157}	$4.628^{+0.066}_{-0.044}$	$-0.940^{+0.300}_{-0.300}$	$0.635^{+0.055}_{-0.050}$	$0.625^{+0.060}_{-0.023}$	$3.433^{+0.878}_{-0.584}$
	+3%/-3%	+1%/-1%	+32%/-32%	+9%/-8%	+10%/-4%	+26%/-17%
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 011804076-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1009 ± 92	$2.80^{+1.38}_{-1.21}$	276^{+10}_{-10}	4704^{+1347}_{-683}	$52683^{+108461}_{-29583}$
Alt.	-340 ± 61	$2.55^{+1.38}_{-1.31}$	277^{+10}_{-10}	3982^{+1266}_{-551}	21430^{+64744}_{-12699}

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

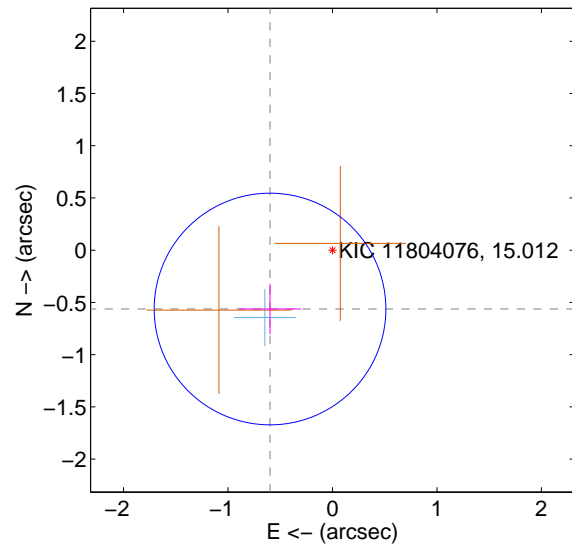
Supplemental centroid analysis for 011804076-03. Kepler magnitude: 15.01. Transit SNR 9.39

There are 1 quarters with good PRF difference image offsets

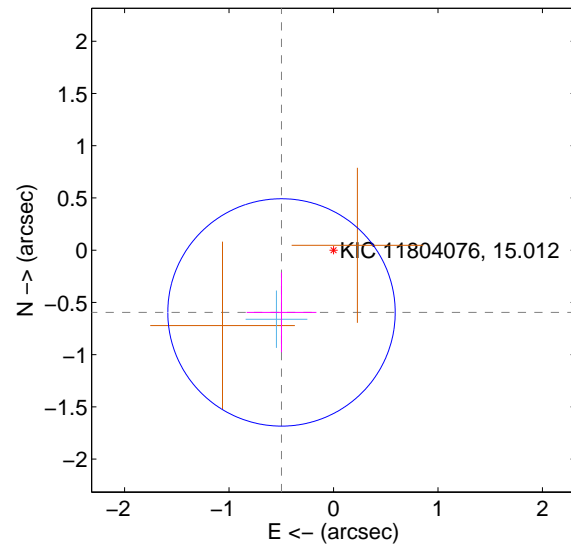
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.821 ± 0.370	2.22	0.598 ± 0.296	-0.563 ± 0.241
PRF-fit source offset from KIC position	0.777 ± 0.363	2.14	0.498 ± 0.334	-0.596 ± 0.382
photometric centroid source offset	0.16 ± 0.54	0.29	0.07 ± 0.68	-0.14 ± 0.49

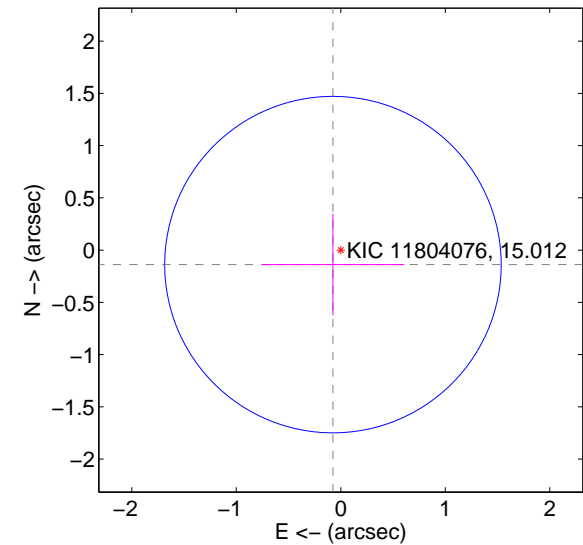
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

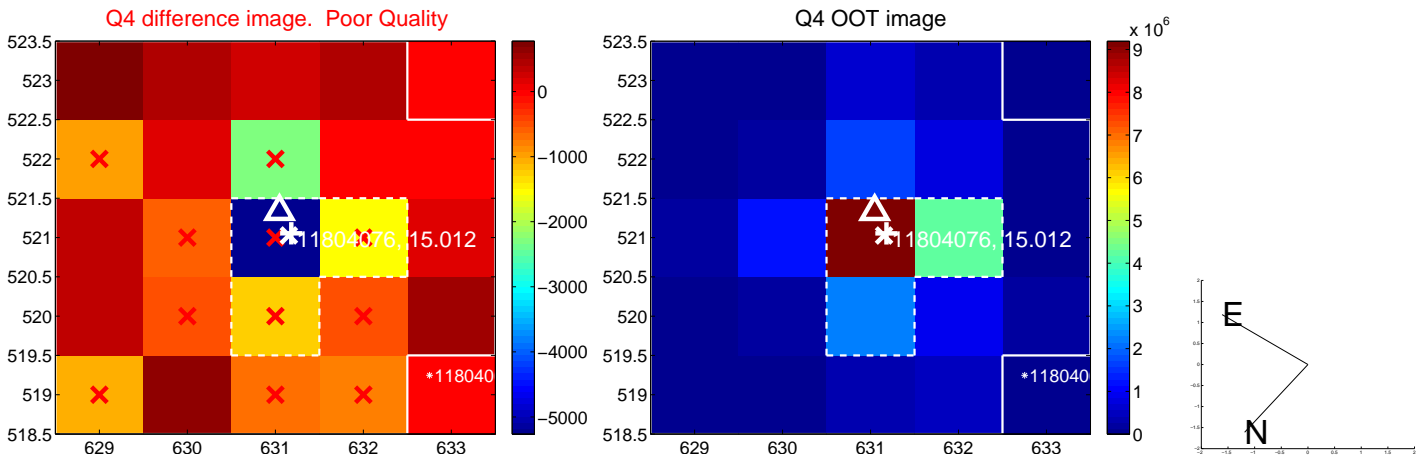
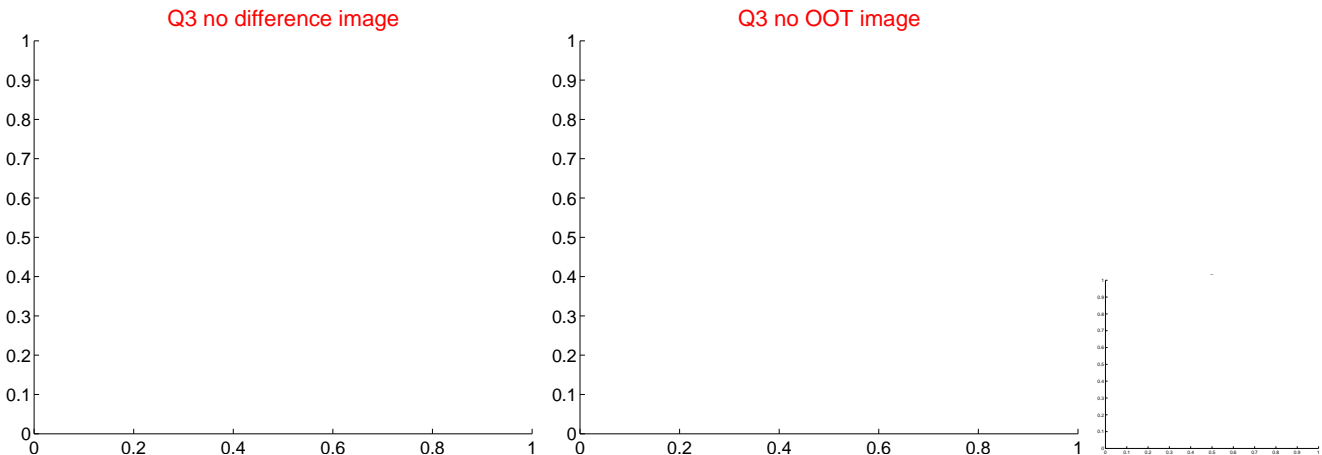
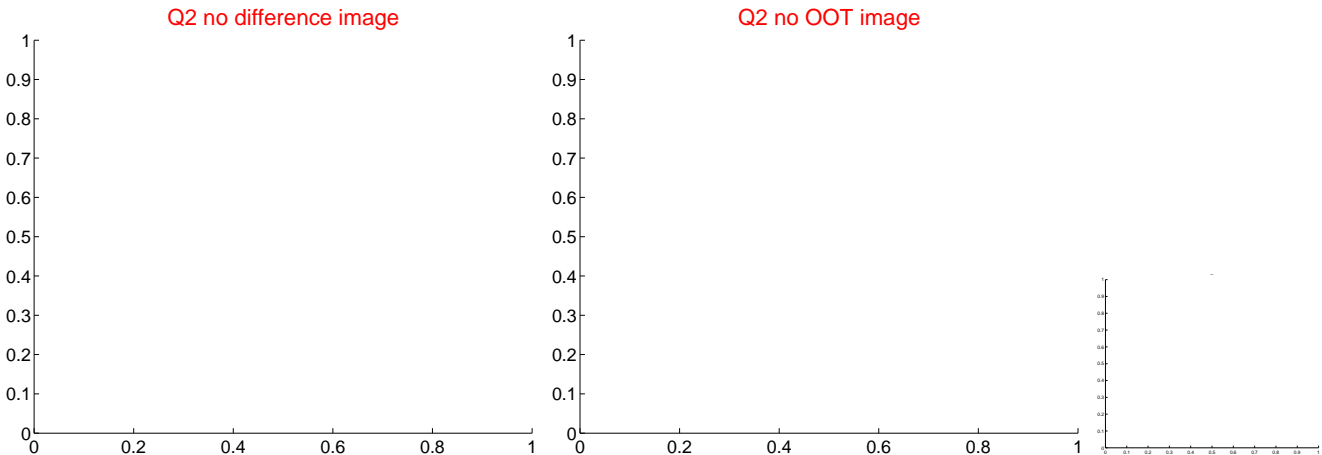
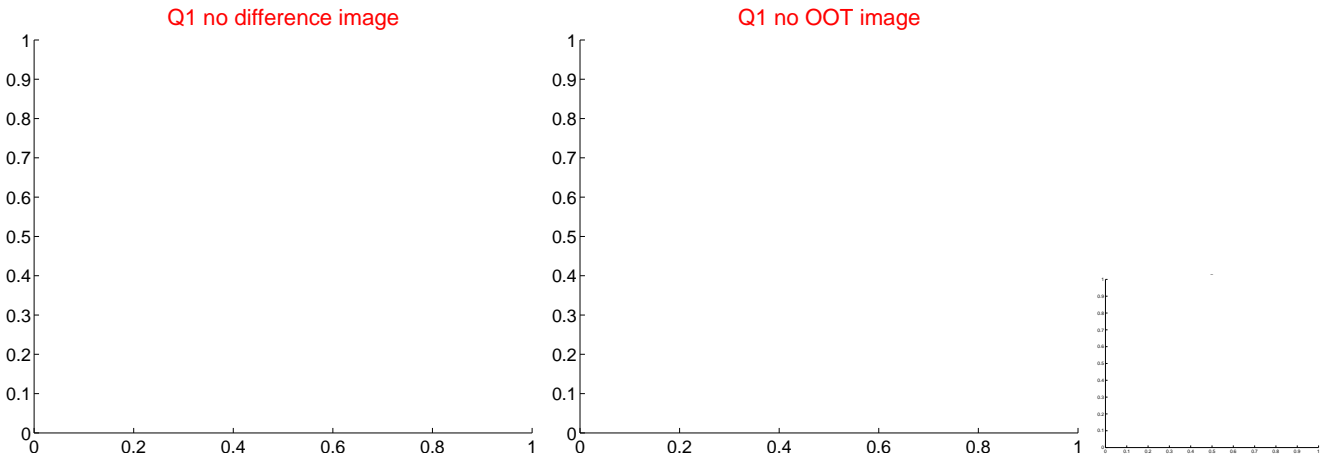


offset from photometric centroids

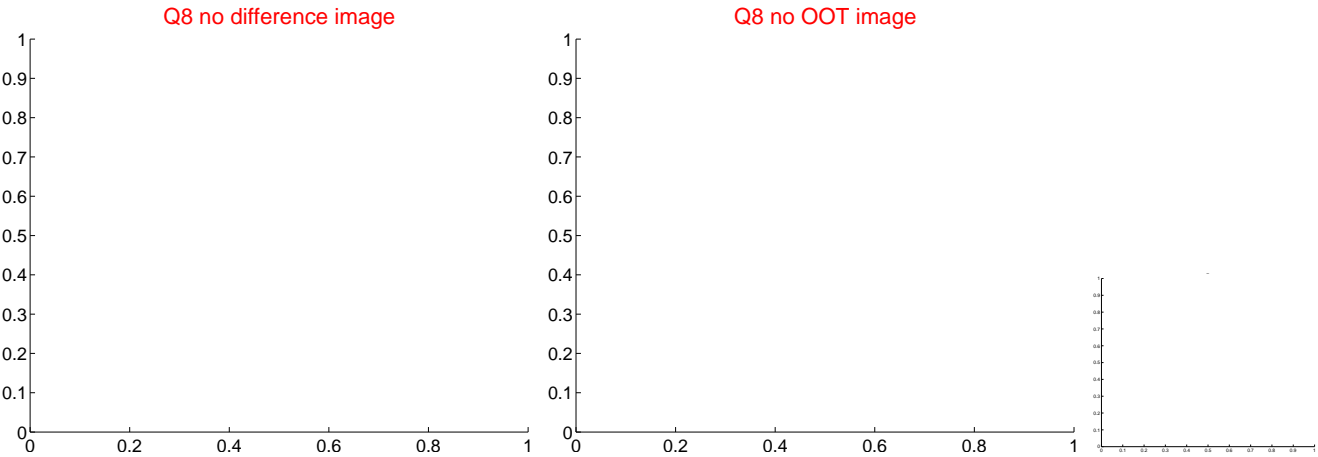
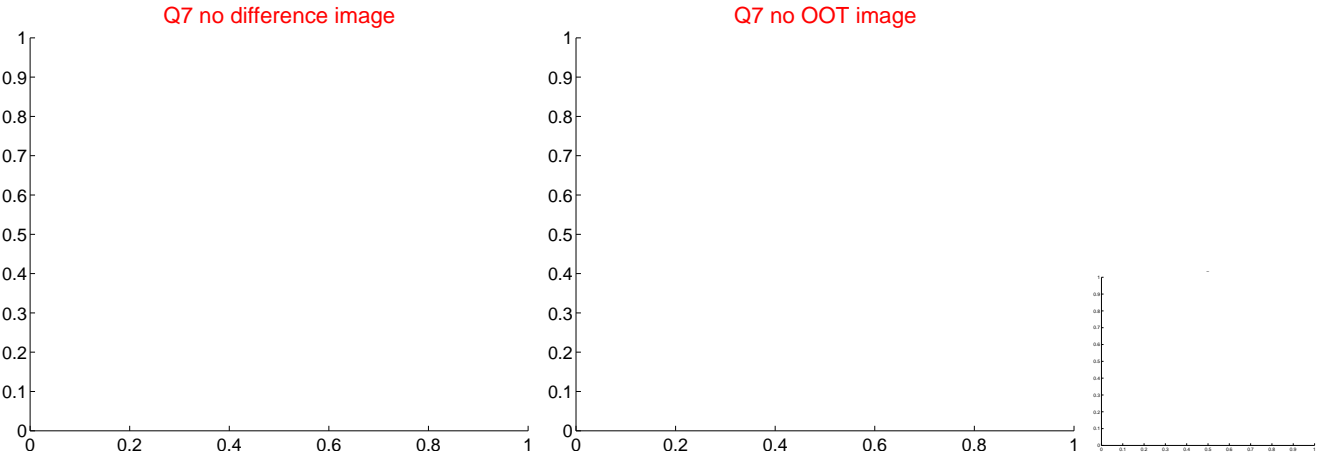
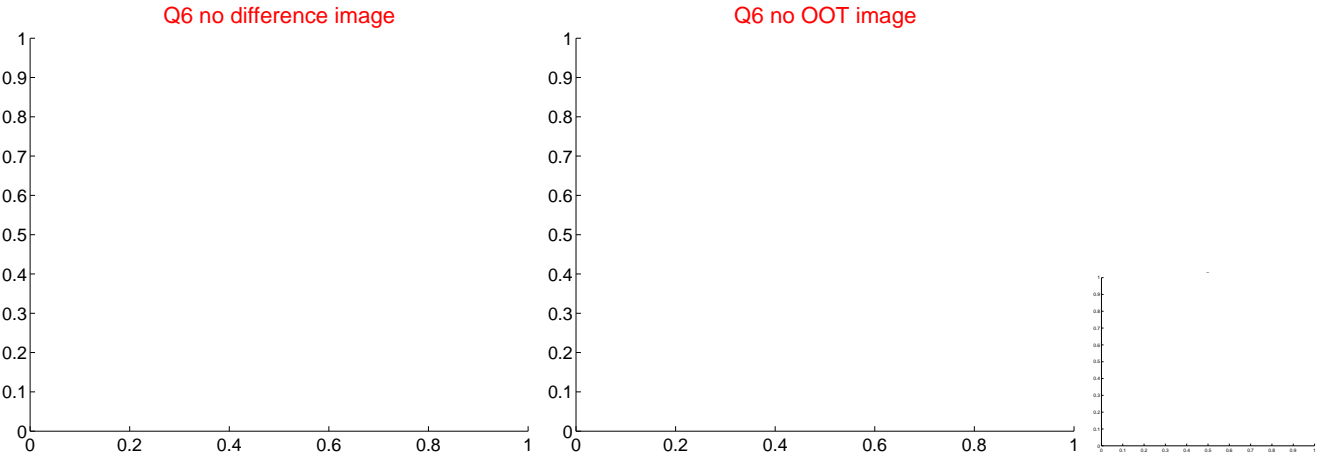
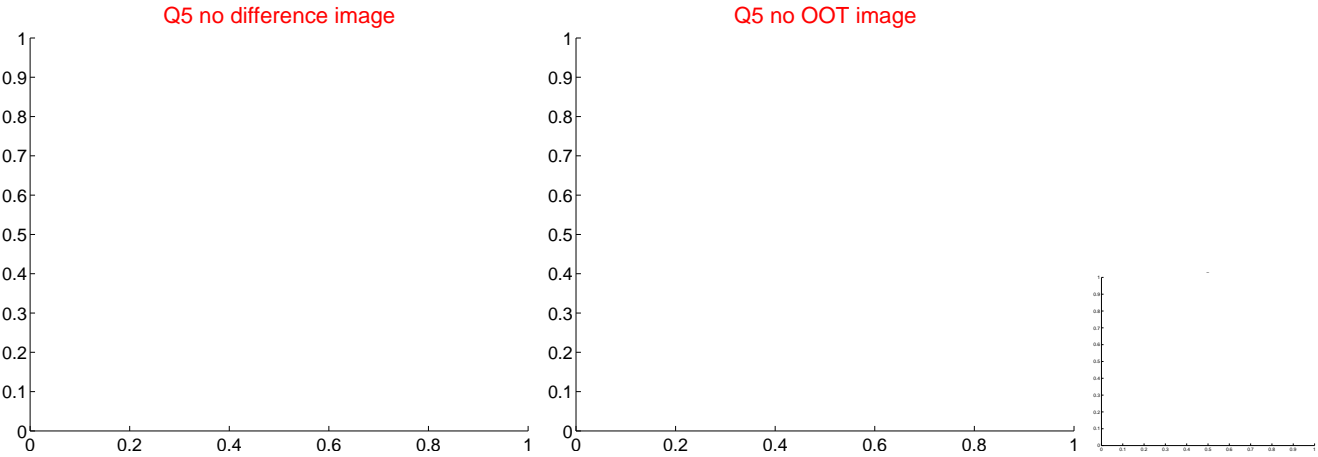


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

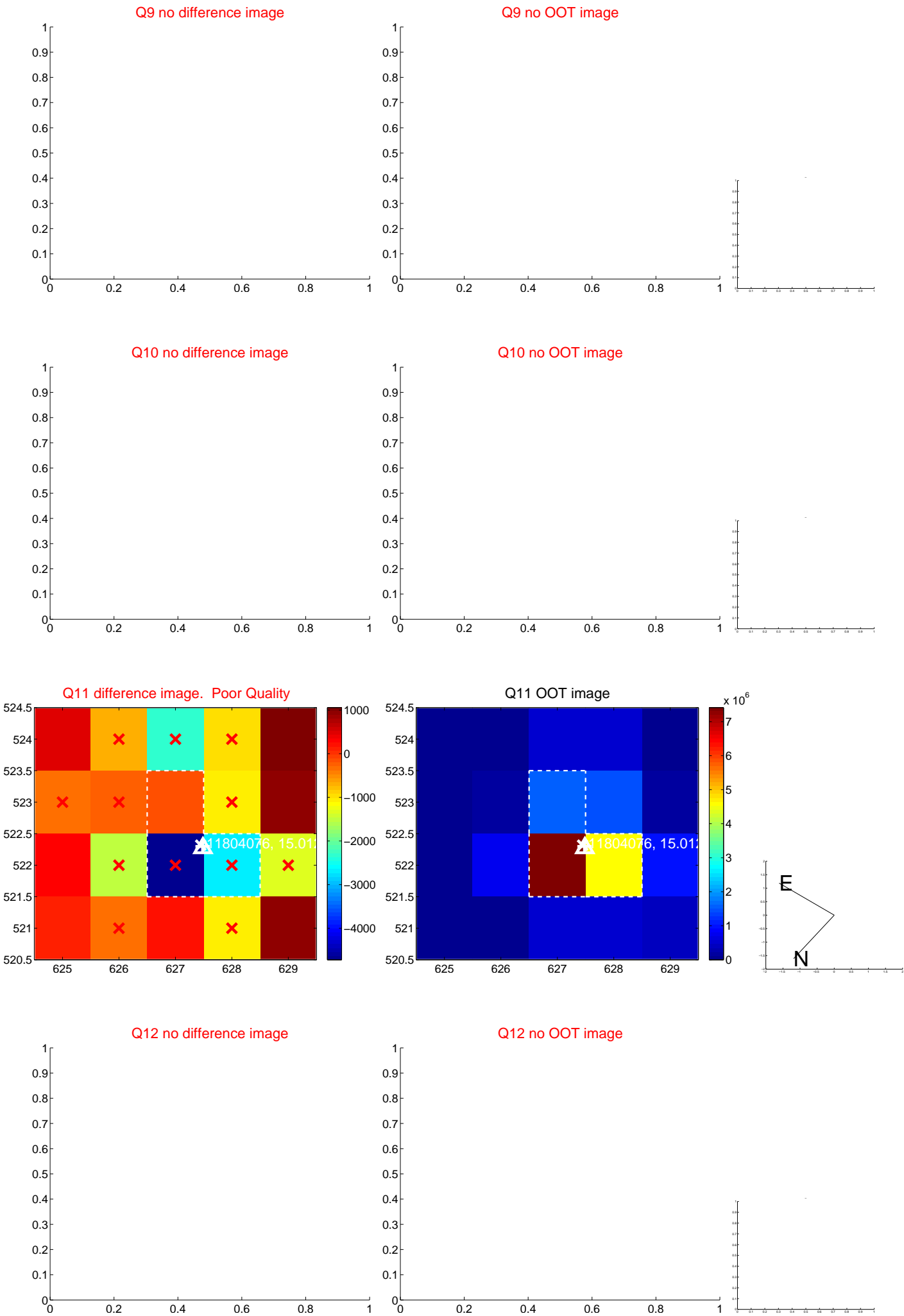
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



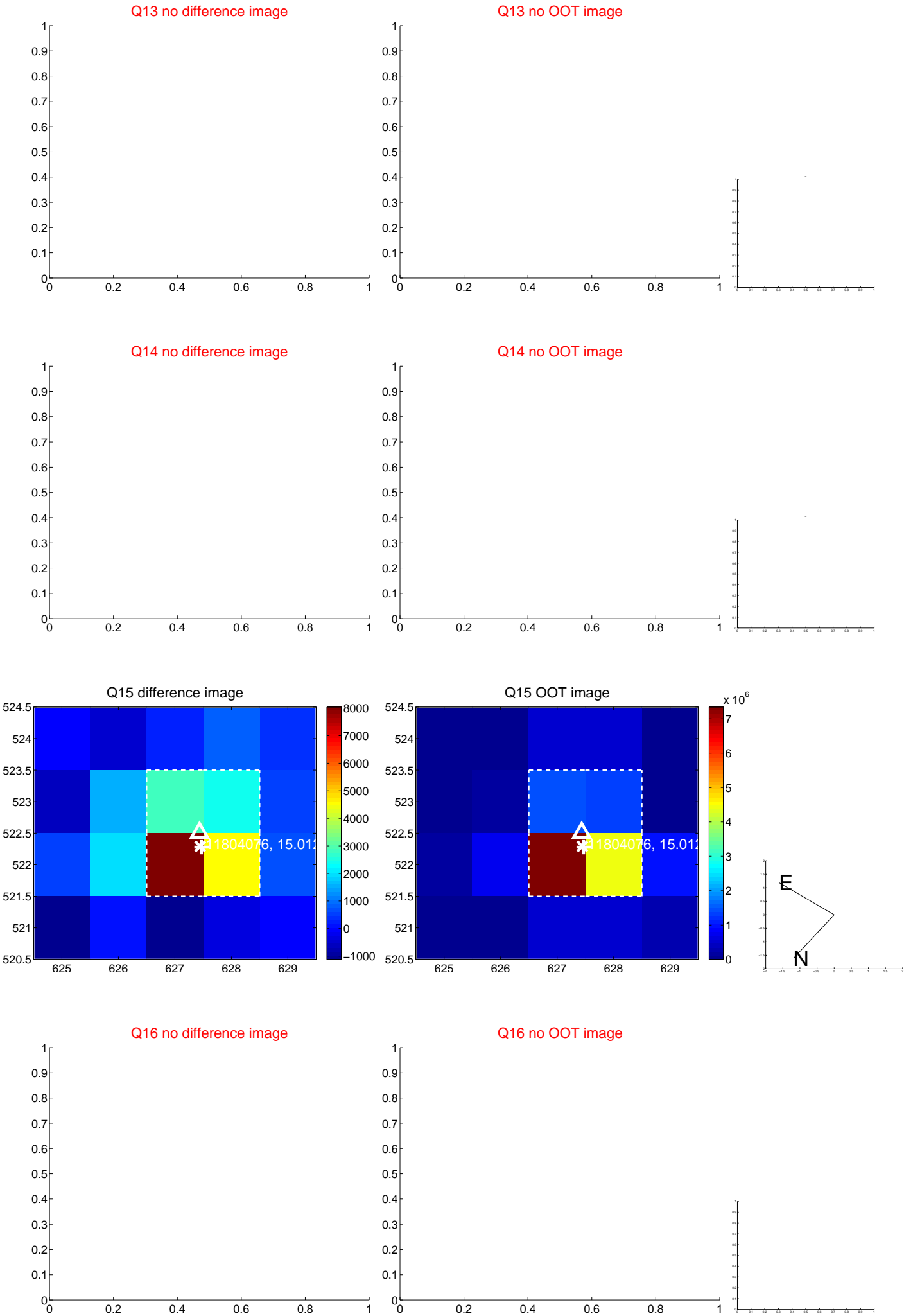
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



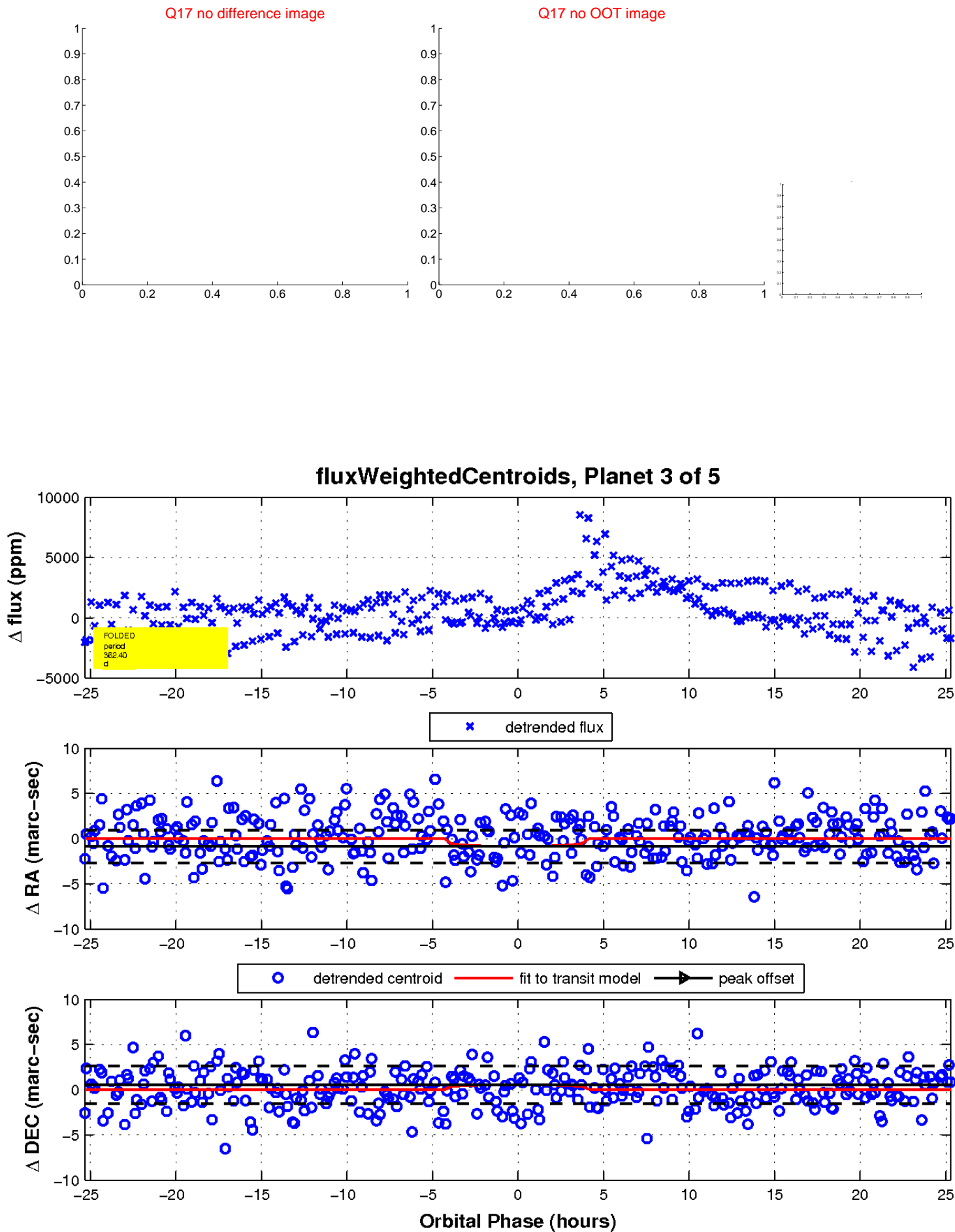
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

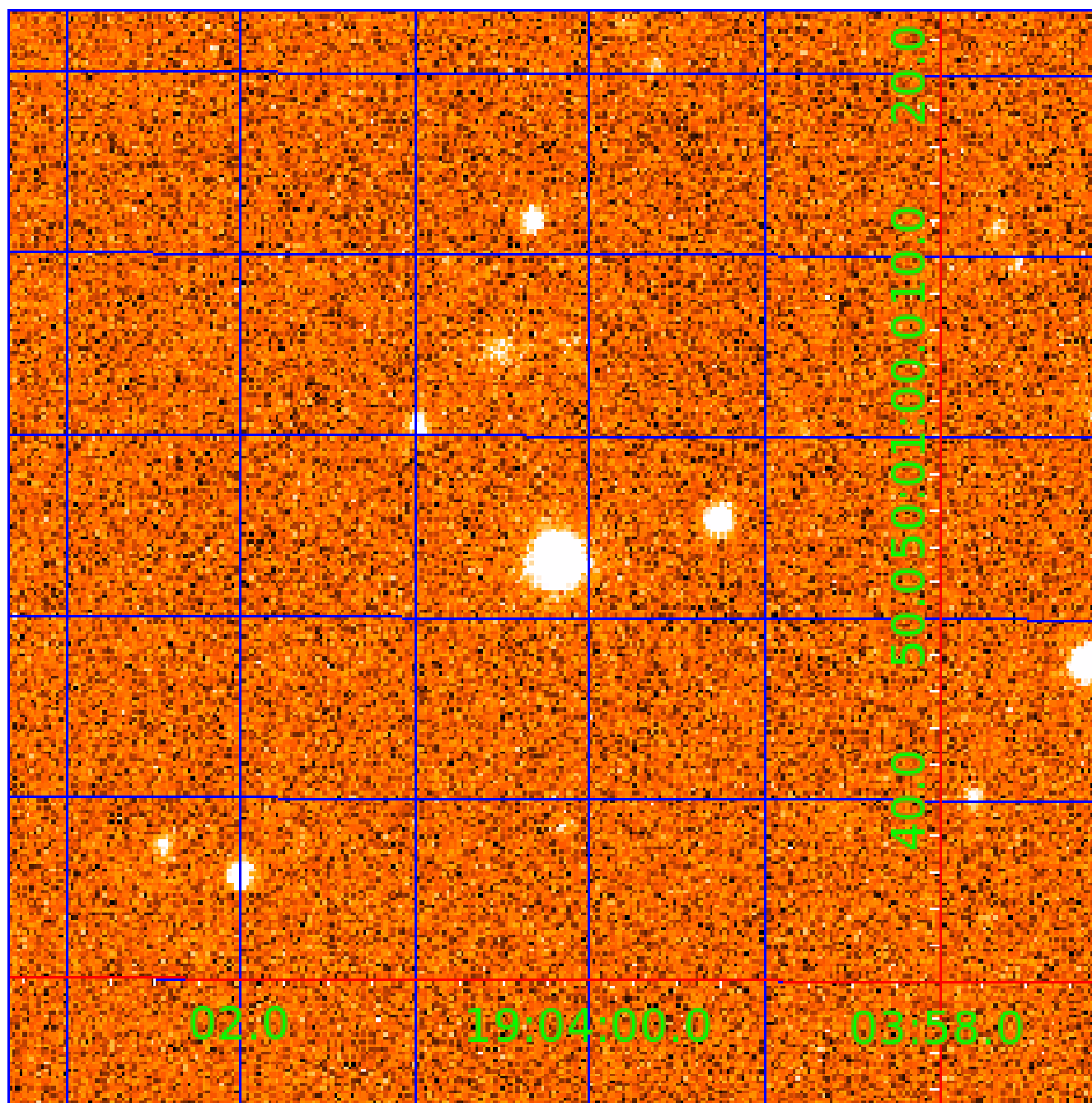


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011804076

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})
011804076-01	OBS	No	255.259351	288.807789	1019.1	3.640	12.4	6.4	0.64	5198	2.11	0.58
011804076-02	OBS	No	332.428321	223.633010	1523.8	5.244	11.0	8.1	0.64	5198	2.66	0.41
011804076-03	OBS	No	362.398571	361.561632	2019.6	8.472	13.1	9.4	0.64	5198	2.82	0.36
011804076-04	OBS	No	563.612668	316.044936	1323.6	7.463	11.2	7.8	0.64	5198	2.42	0.20
011804076-05	OBS	No	525.072071	315.109207	1121.8	6.911	16.5	5.1	0.64	5198	2.10	0.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011804076-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011804076-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011804076-03	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
011804076-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_FEW_DIFFS
011804076-05	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—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

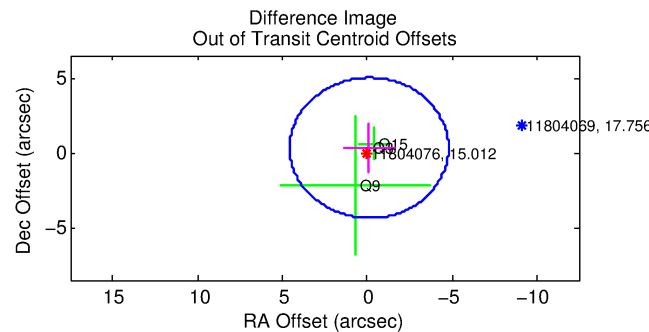
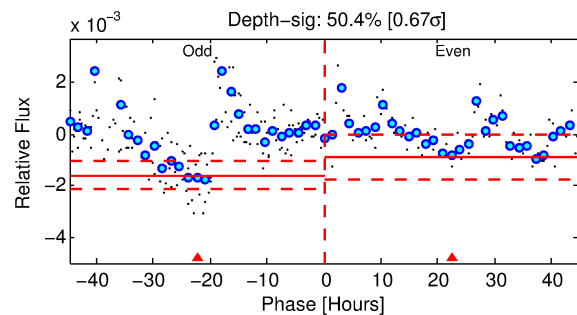
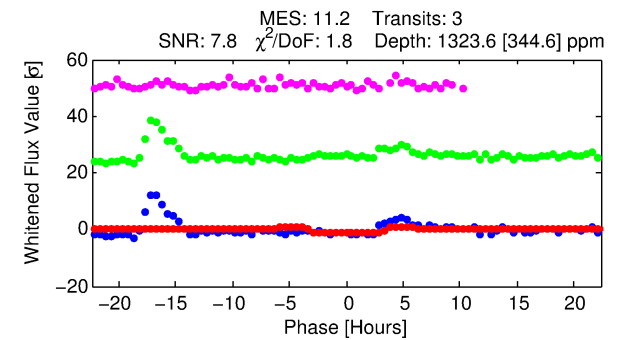
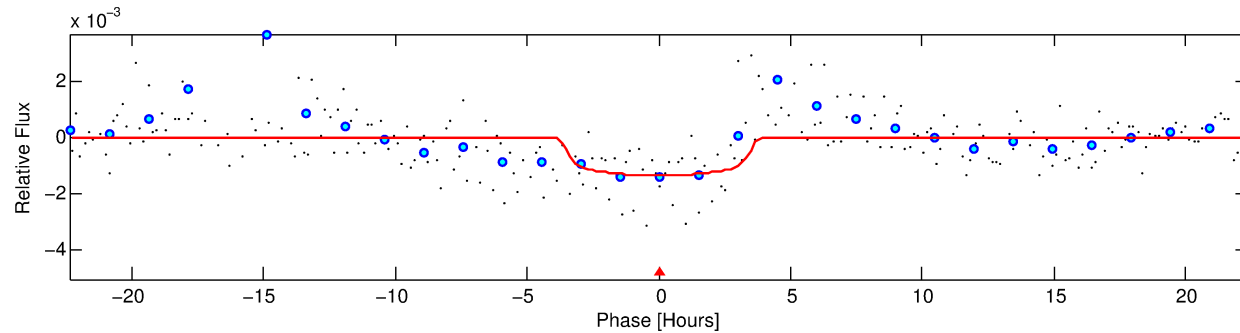
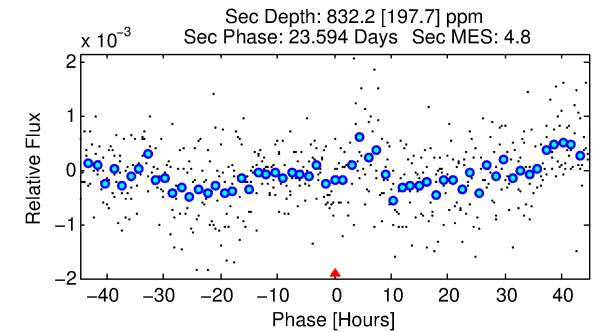
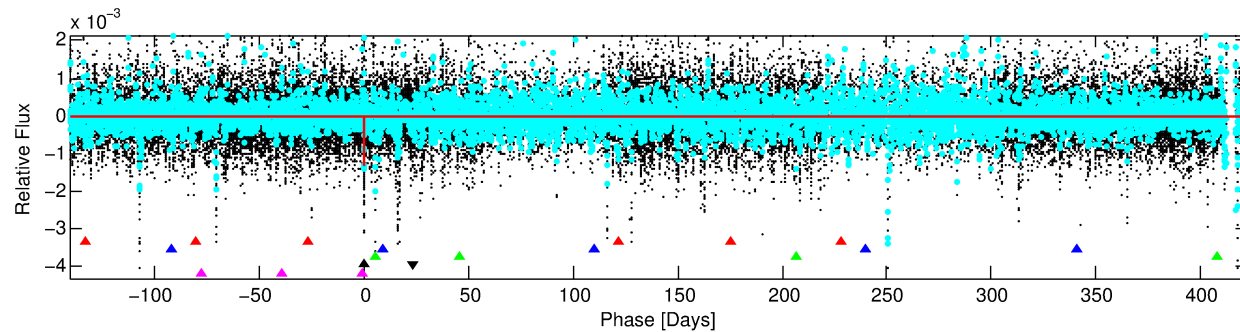
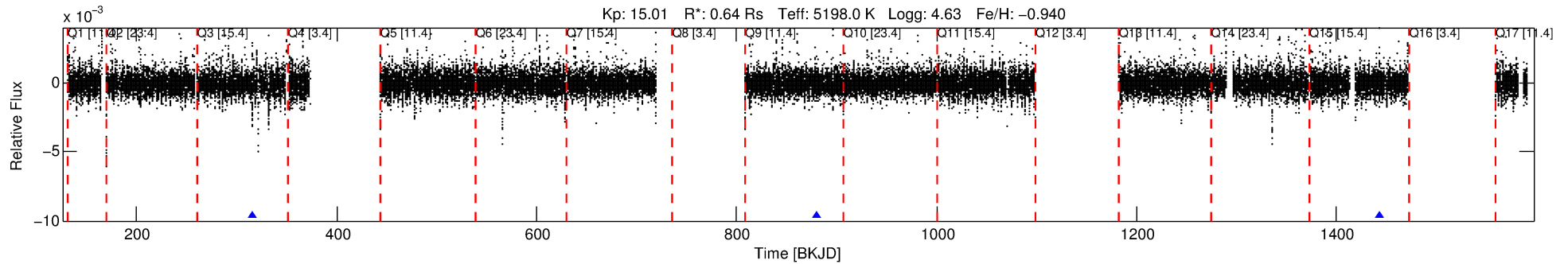
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011804076-04

No Significant Match Found

DV One-Page Summary

KIC: 11804076 Candidate: 4 of 5 Period: 563.613 d



DV Fit Results:

Period = 563.61267 [0.01435] d
Epoch = 316.0449 [0.0184] BKJD
Rp/R* = 0.0349 [0.0358]
a/R* = 472.63 [2014.39]
b = 0.63 [4.08]
Seff = 0.20 [0.03]
Teq = 171 [7] K
Rp = 2.42 [2.49] Re
a = 1.1417 [0.0877] AU
Ag = 102032.01 [210818.45] [0.48 σ]
Teffp = 4726 [2441] K [1.87 σ]

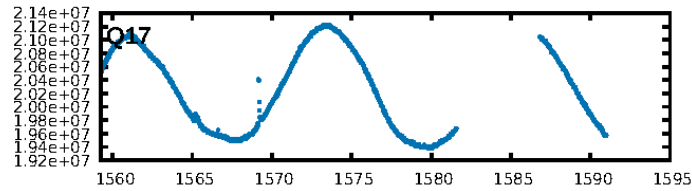
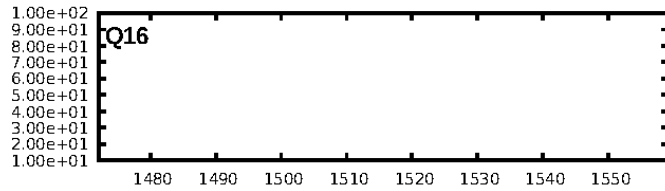
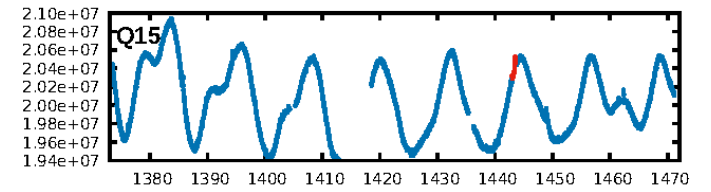
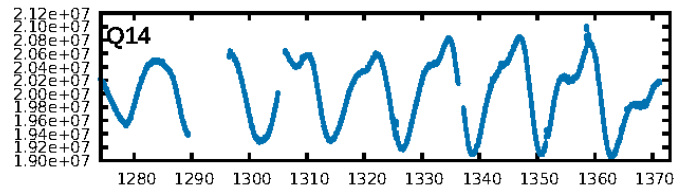
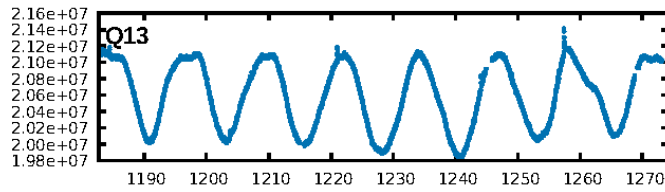
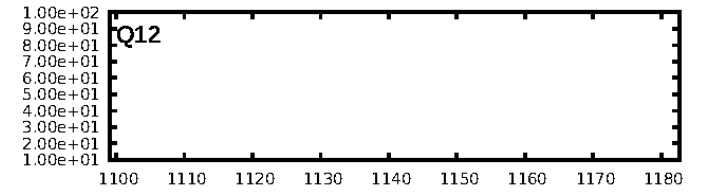
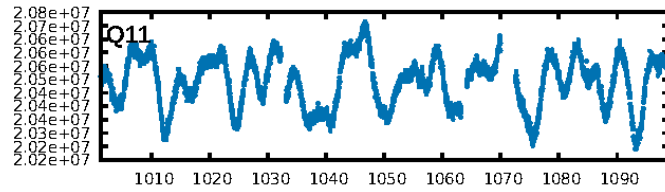
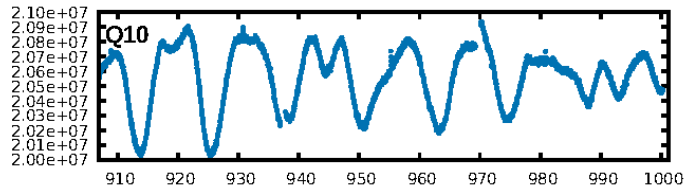
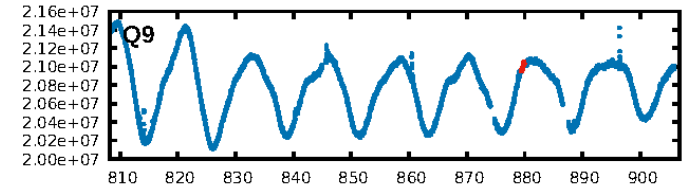
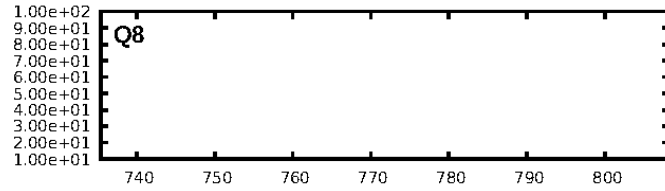
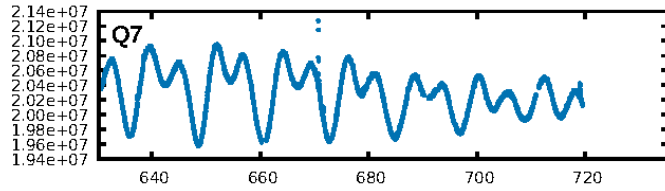
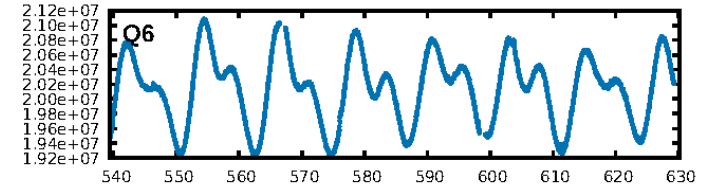
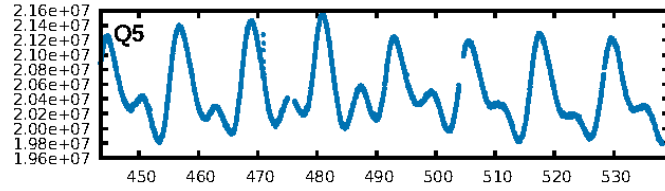
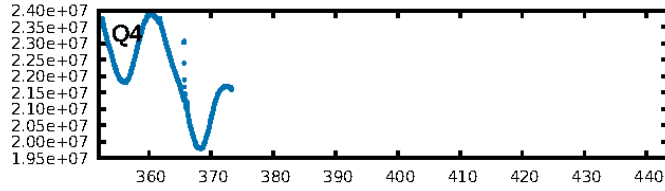
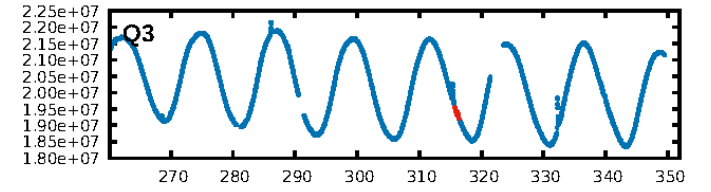
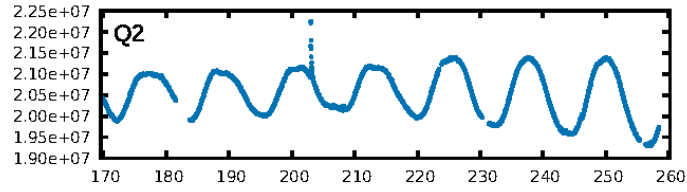
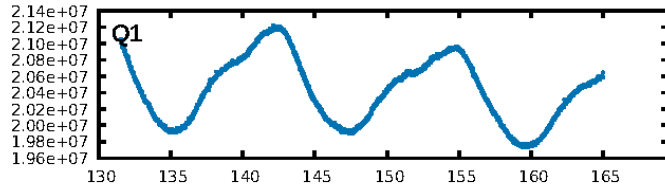
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [90.93 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 91.1%
Bootstrap-pfa: 8.38e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4697
Centroid-sig: 62.1%
Centroid-so: 0.419 arcsec [0.34 σ]
OotOffset-rm: 0.342 arcsec [0.22 σ]
OotOffset-st: 0.2/0/1 [3]
KicOffset-rm: 0.350 arcsec [0.23 σ]
KicOffset-st: 0.2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

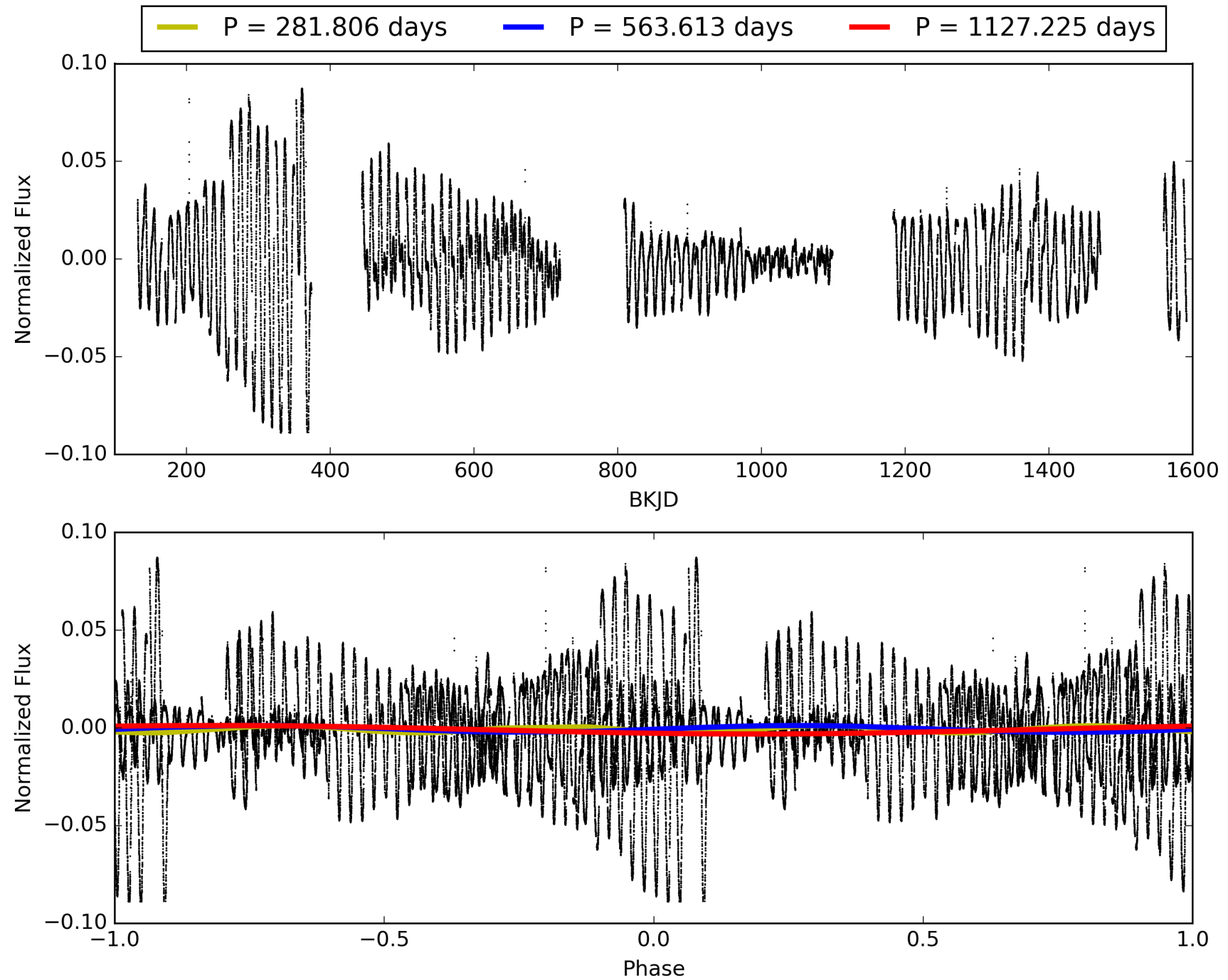
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 03:38:32 Z

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

TCE 011804076-04, PDC Light Curves

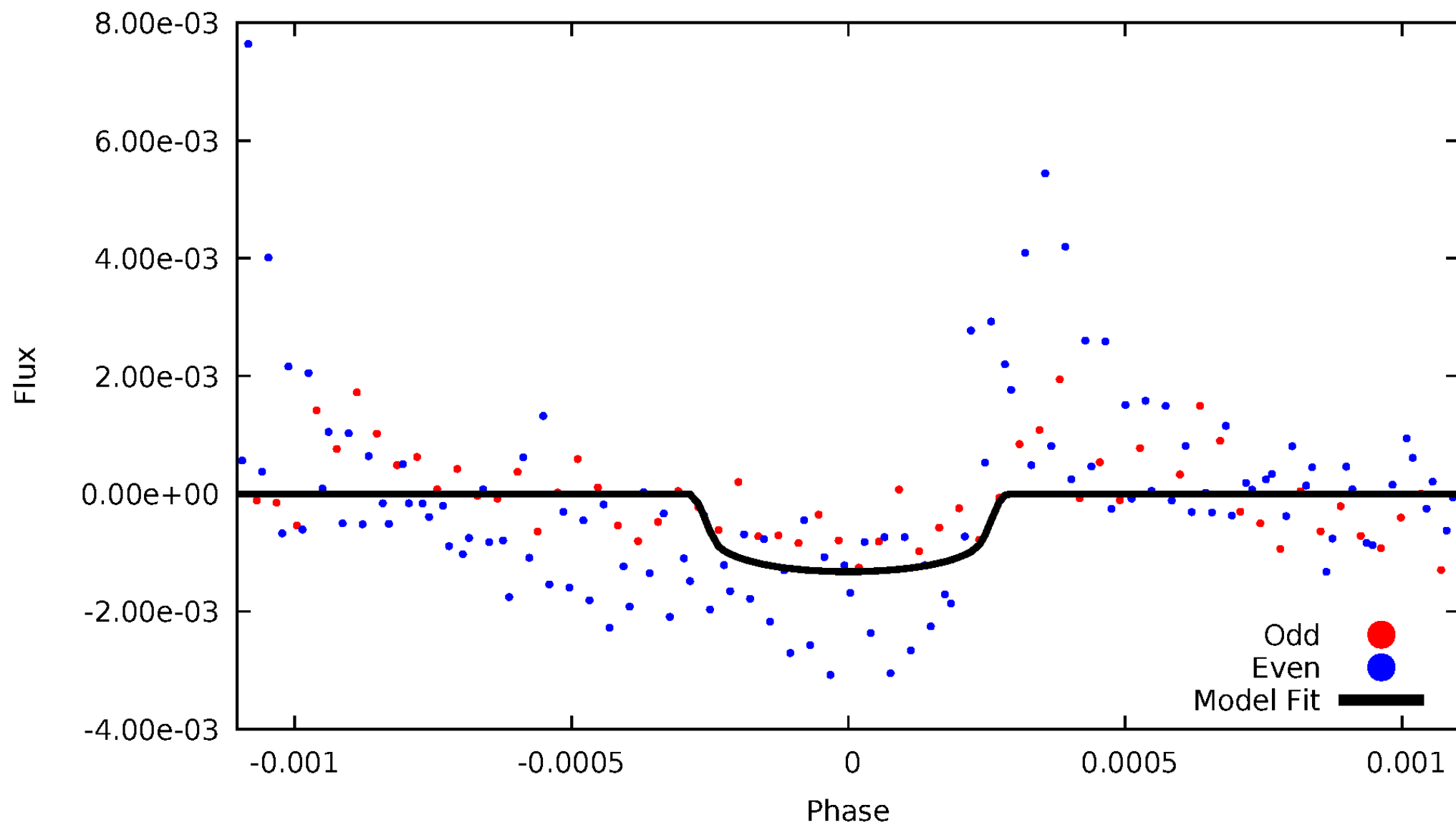


TCE 011804076-04



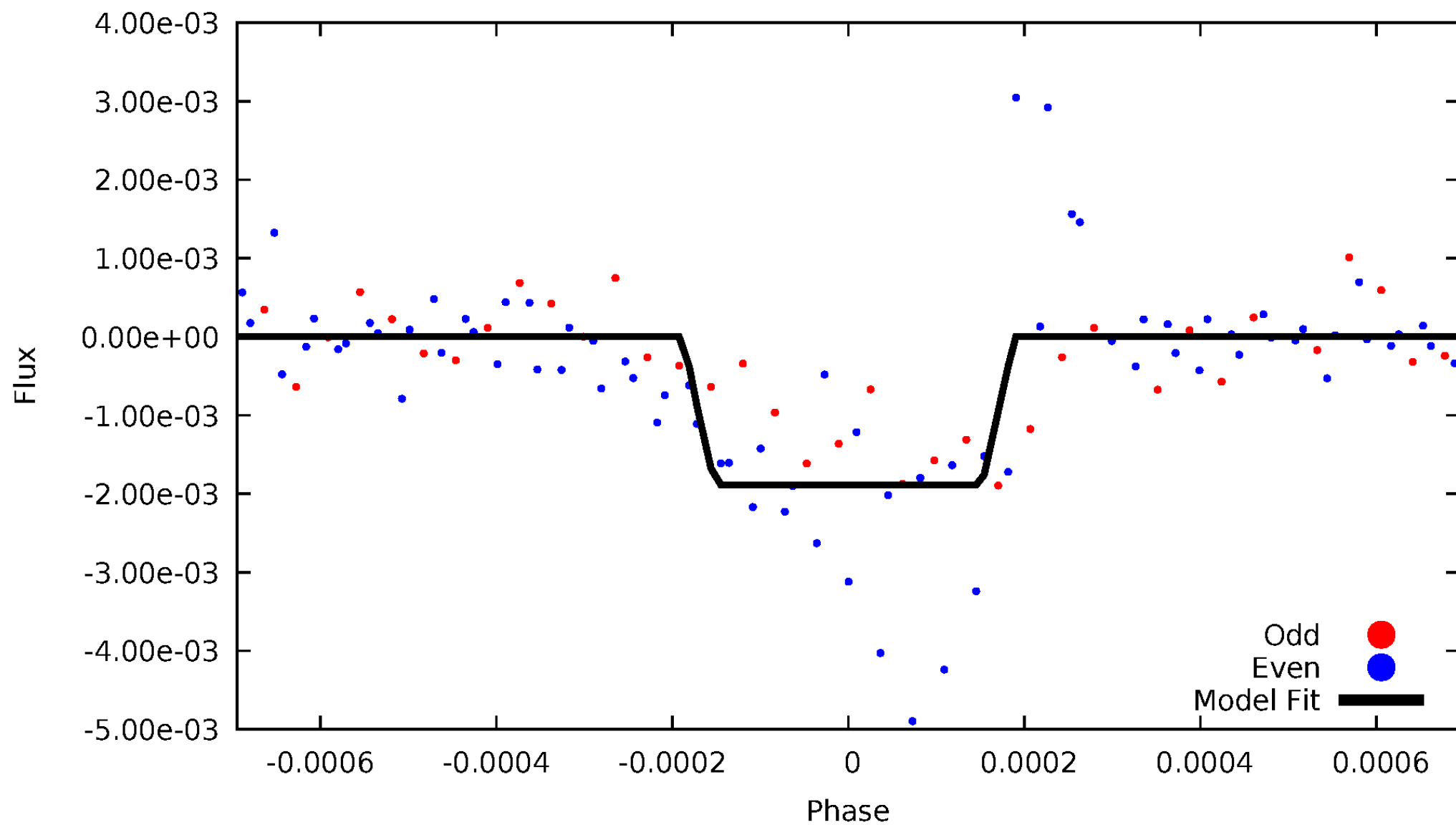
DV Odd/Even

TCE 011804076-04



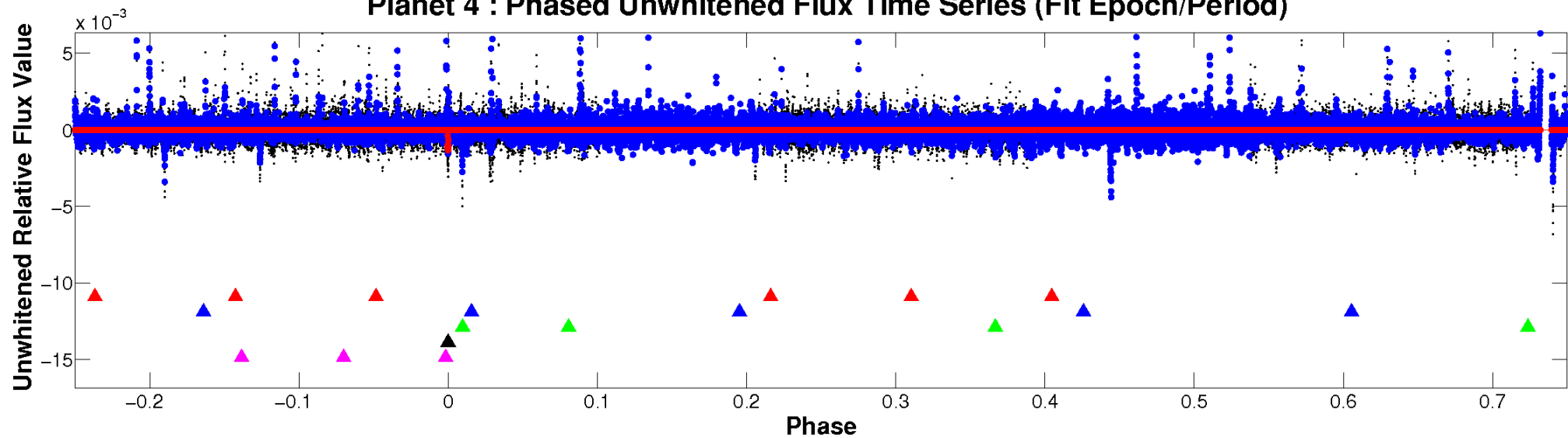
ALT Odd/Even

TCE 011804076-04

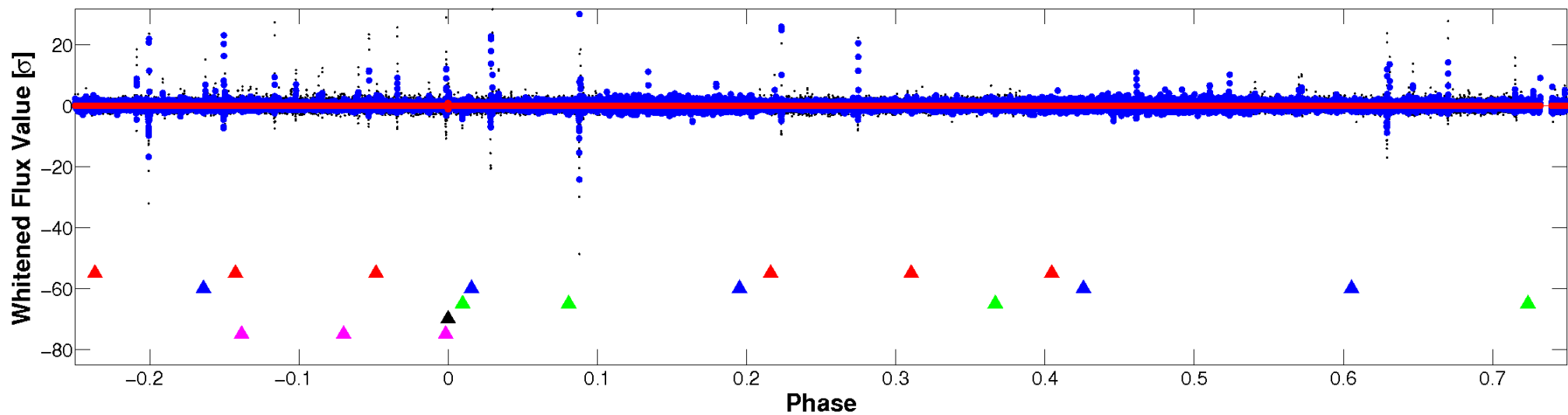


Non-Whitened Vs. Whitened Light Curve

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

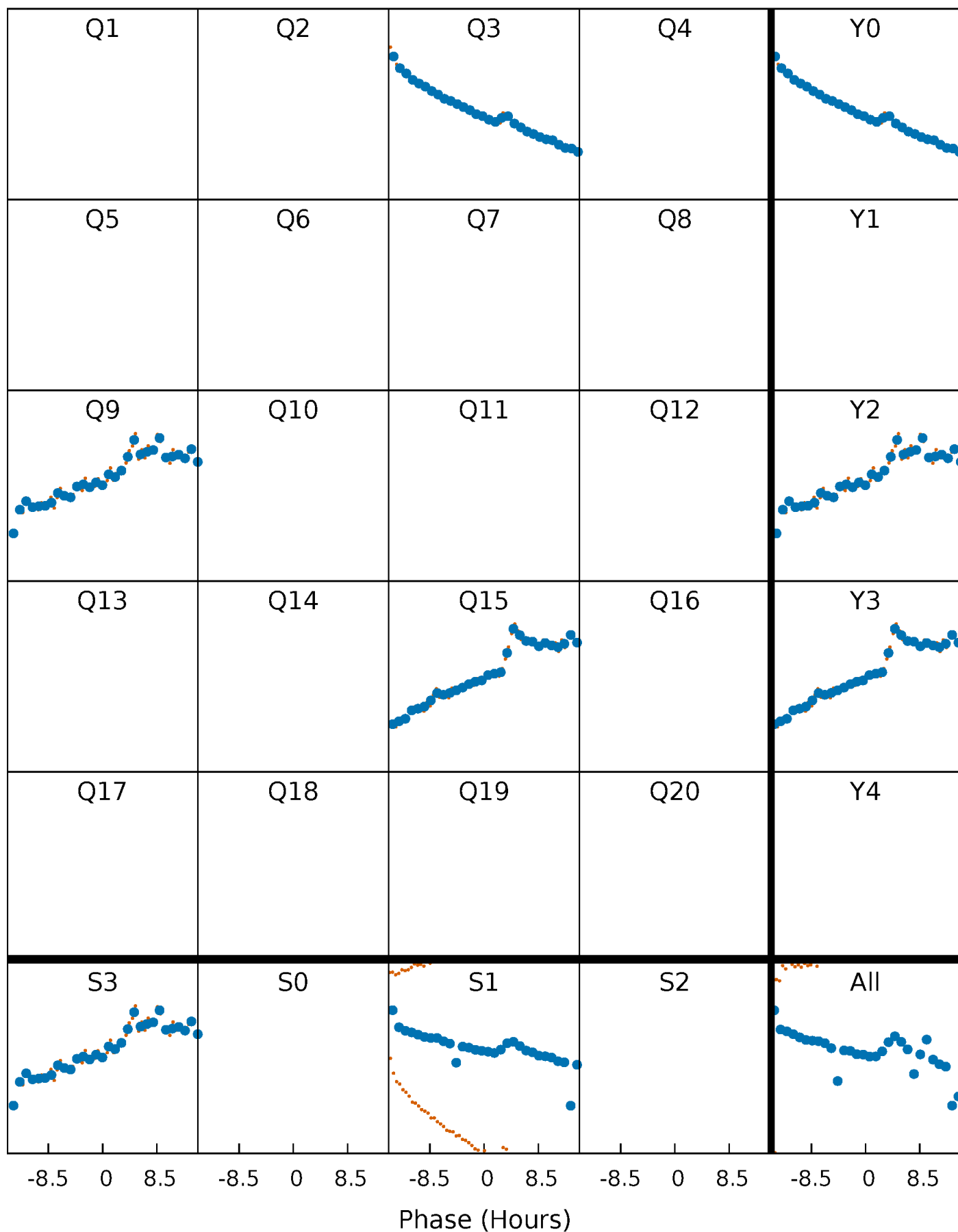


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



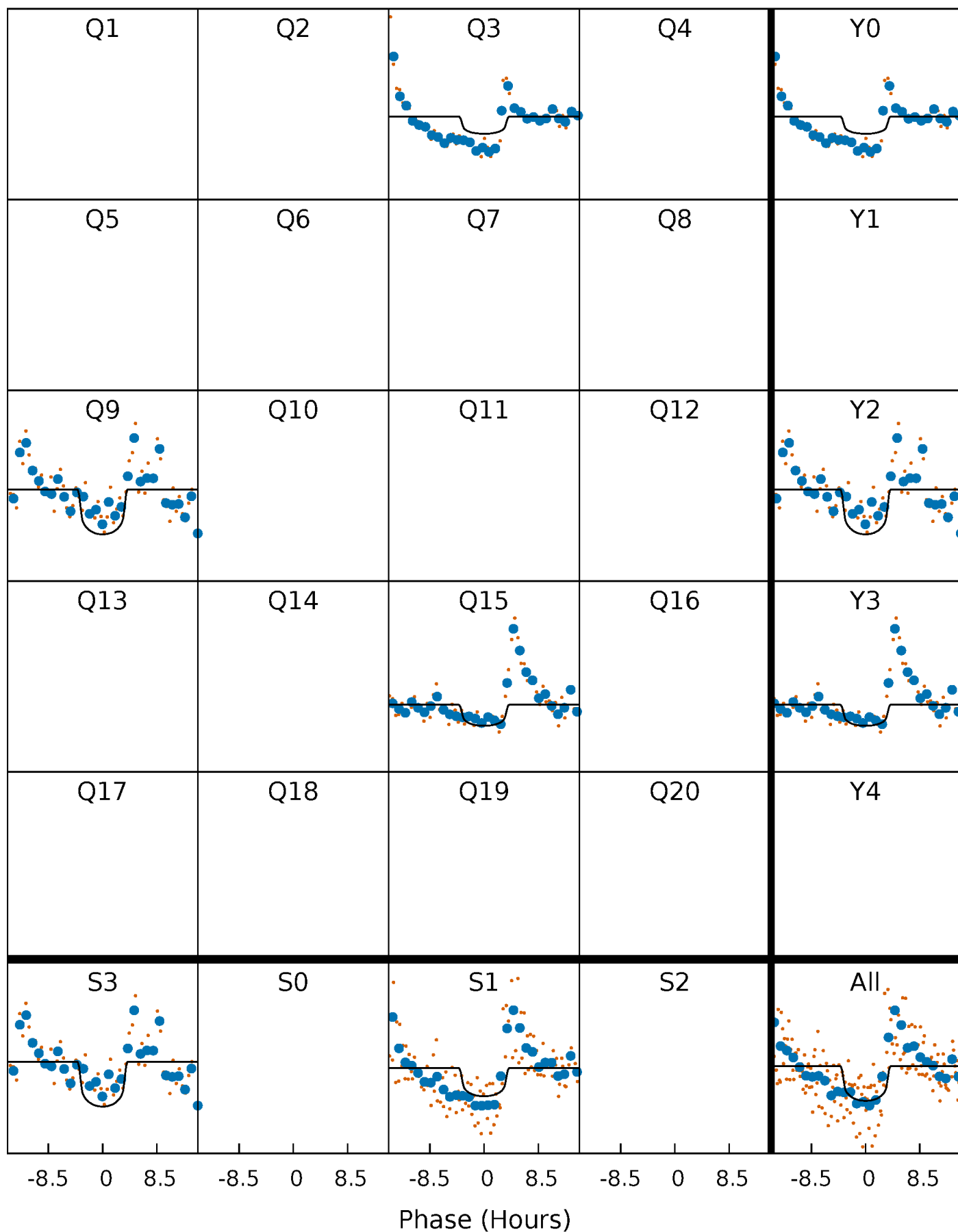
PDC Quarter-Phased Transit Curves

TCE 011804076-04 P=563.612668 Days $T_0=316.044936$ (BKJD)



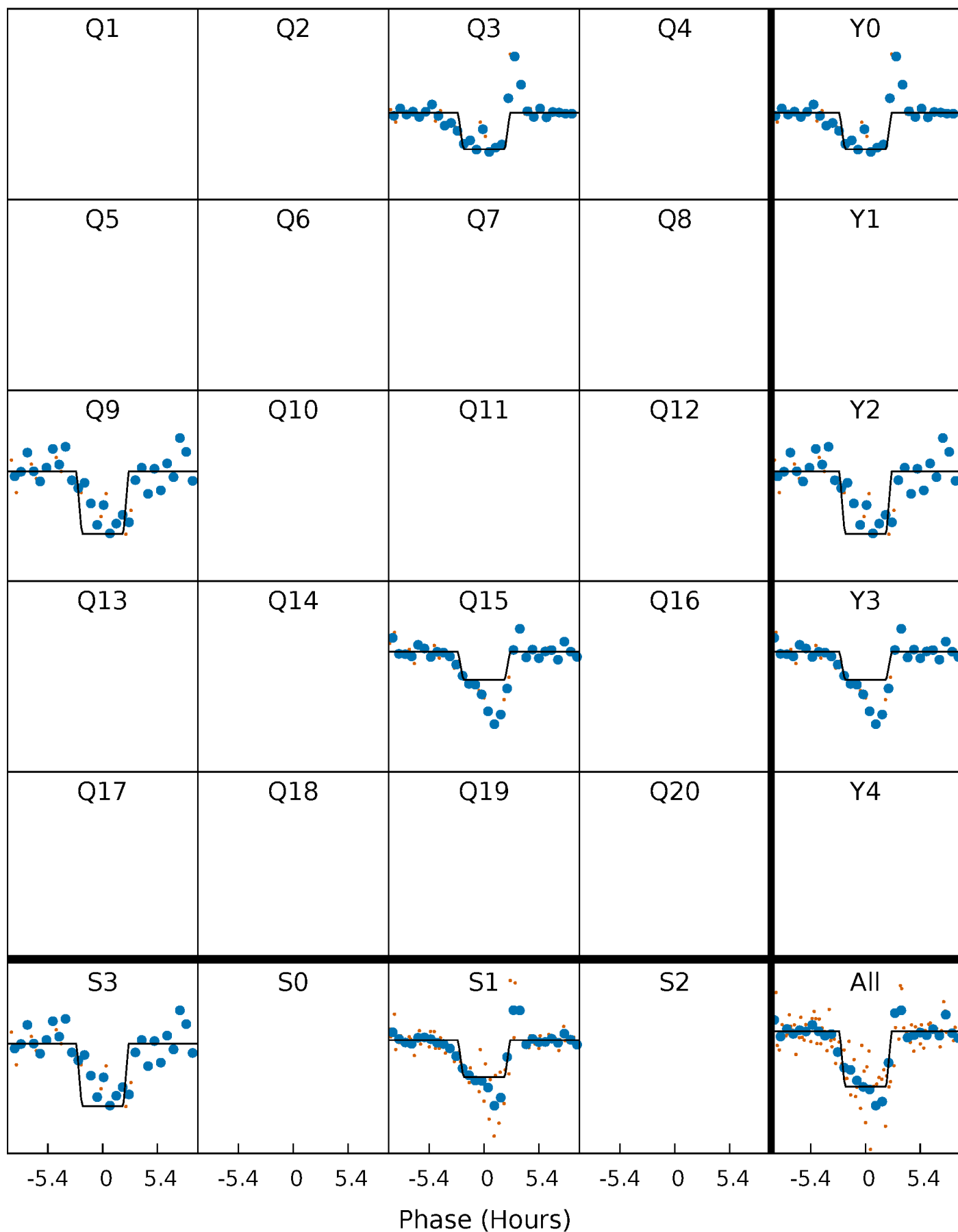
DV Quarter-Phased Transit Curves

TCE 011804076-04 P=563.612668 Days $T_0=316.044936$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

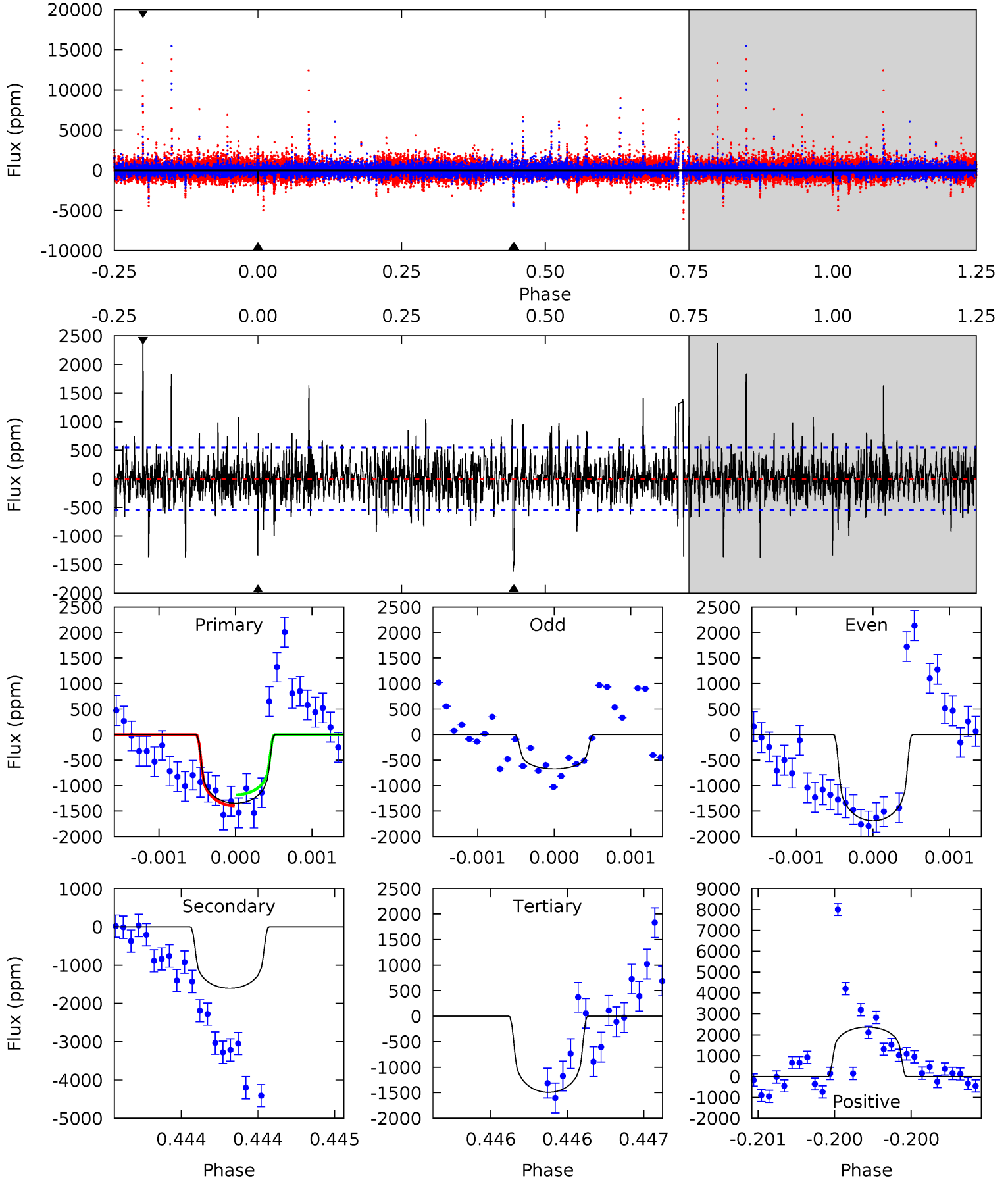
TCE 011804076-04 P=563.632508 Days $T_0=316.062387$ (BKJD)



DV Model-Shift Uniqueness Test

011804076-04, P = 563.612668 Days, E = 316.044936 Days

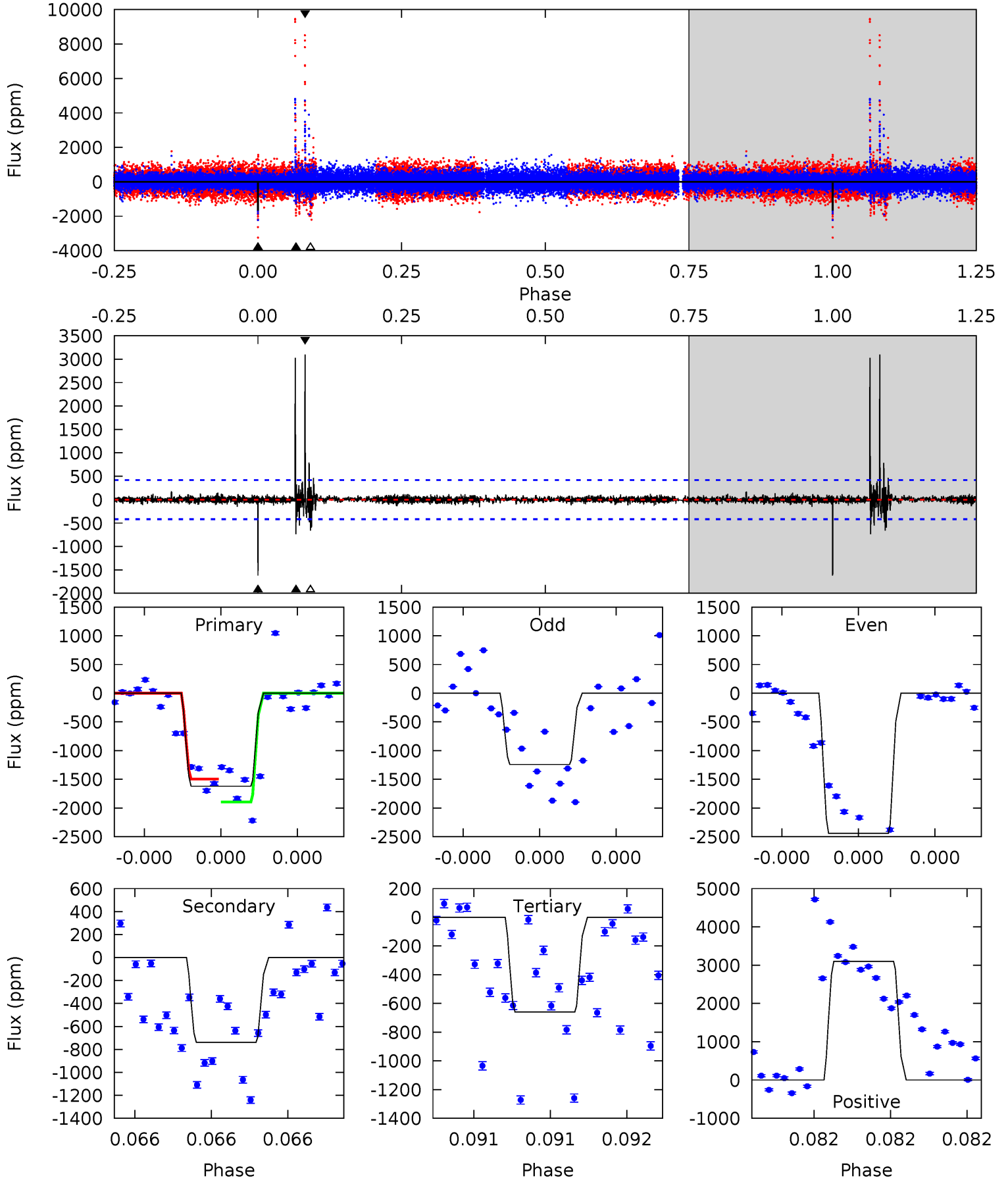
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	16.2	15.1	23.9	5.55	3.45	2.78	-1.50	-10.4	1.14	-7.74	3.83	1.27	0.60	1.08



Alt Model-Shift Uniqueness Test

011804076-04, P = 563.632508 Days, E = 316.062387 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	9.94	8.90	41.7	5.62	3.56	1.38	12.9	-19.9	1.05	-31.8	7.75	1.28	0.66	2.68



Stellar Parameters For KIC 011804076

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5198^{+157}_{-157}	$4.628^{+0.066}_{-0.044}$	$-0.940^{+0.300}_{-0.300}$	$0.635^{+0.055}_{-0.050}$	$0.625^{+0.060}_{-0.023}$	$3.433^{+0.878}_{-0.584}$
	+3%/-3%	+1%/-1%	+32%/-32%	+9%/-8%	+10%/-4%	+26%/-17%
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 011804076-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1604 ± 99	$2.84^{+2.52}_{-1.76}$	239^{+8}_{-10}	5220^{+3273}_{-1198}	$144847^{+822532}_{-103828}$
Alt.	-738 ± 74	$3.35^{+2.30}_{-2.06}$	238^{+9}_{-9}	4129^{+2024}_{-670}	$47896^{+276175}_{-30859}$

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

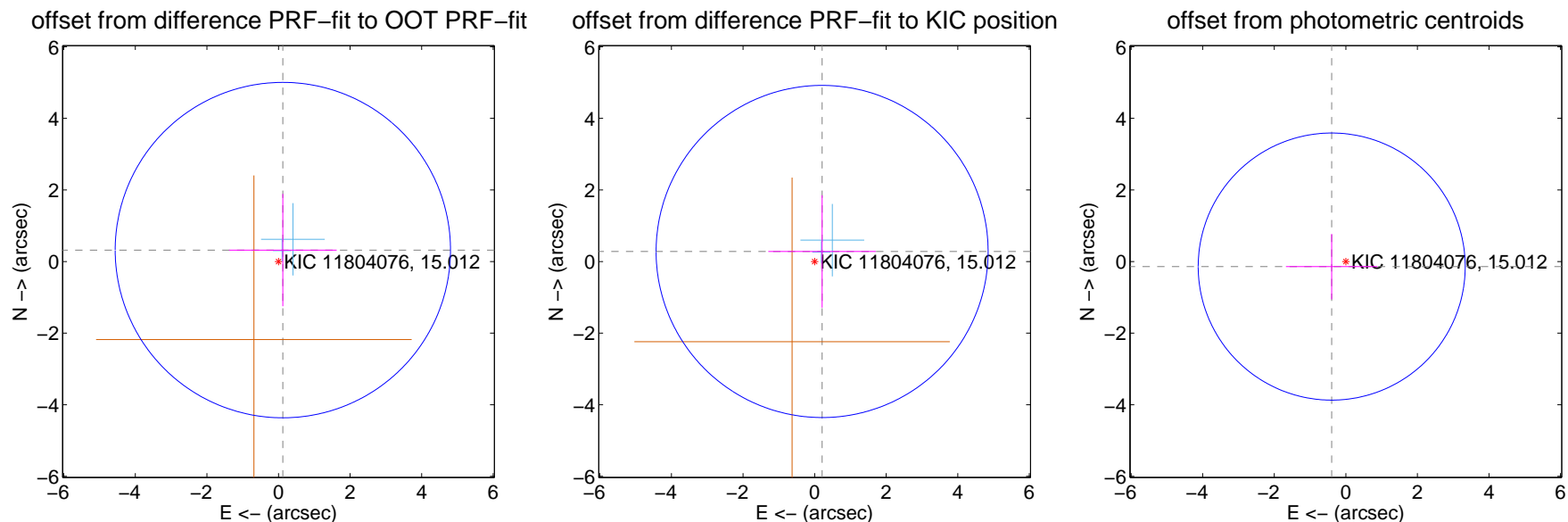
DV Centroid Data

Supplemental centroid analysis for 011804076-04. Kepler magnitude: 15.01. Transit SNR 7.78

There are 2 quarters with good PRF difference image offsets

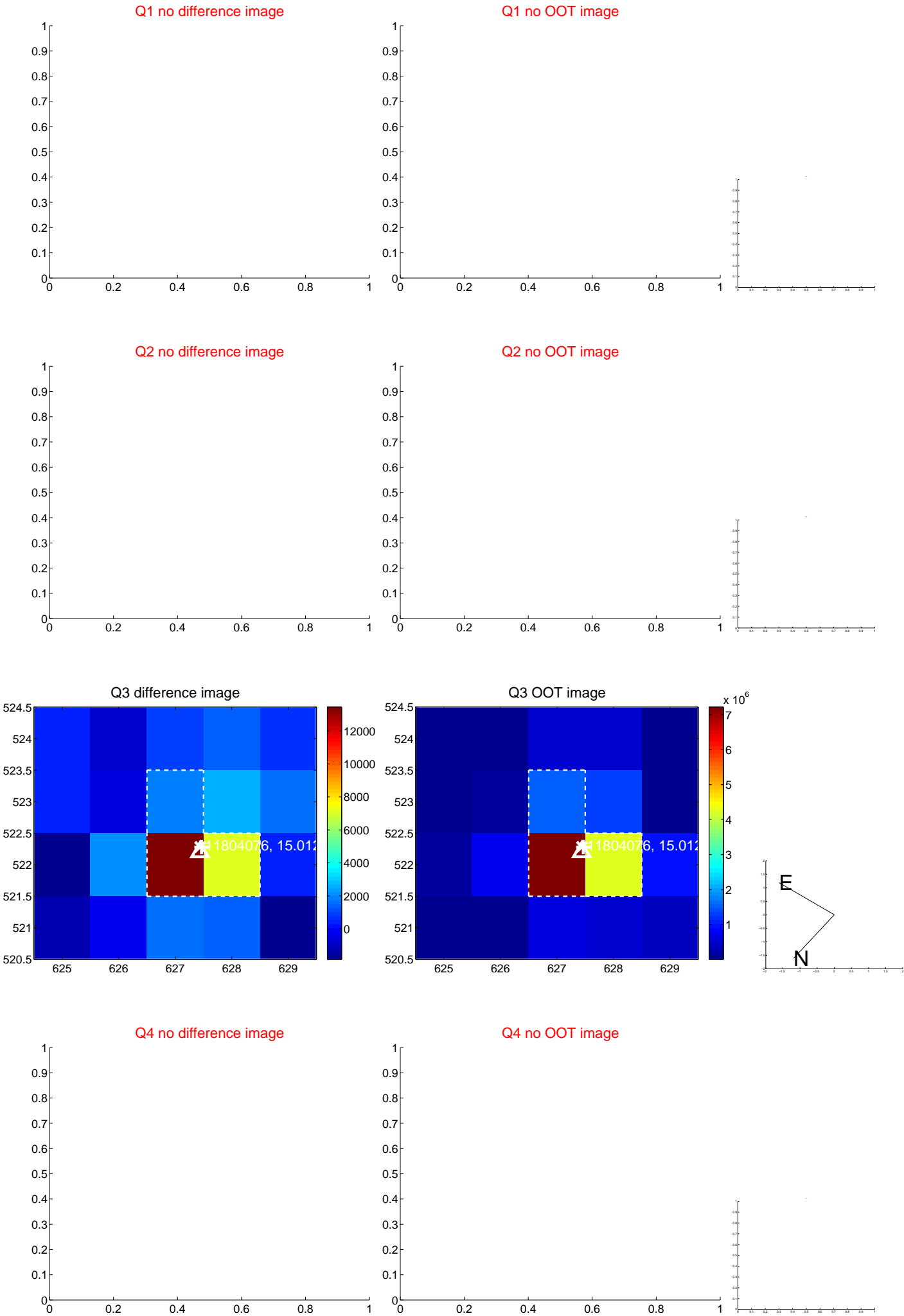
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.342 ± 1.562	0.22	-0.121 ± 1.503	0.320 ± 1.570
PRF-fit source offset from KIC position	0.350 ± 1.546	0.23	-0.209 ± 1.503	0.281 ± 1.570
photometric centroid source offset	0.42 ± 1.24	0.34	0.40 ± 1.28	-0.14 ± 0.91



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

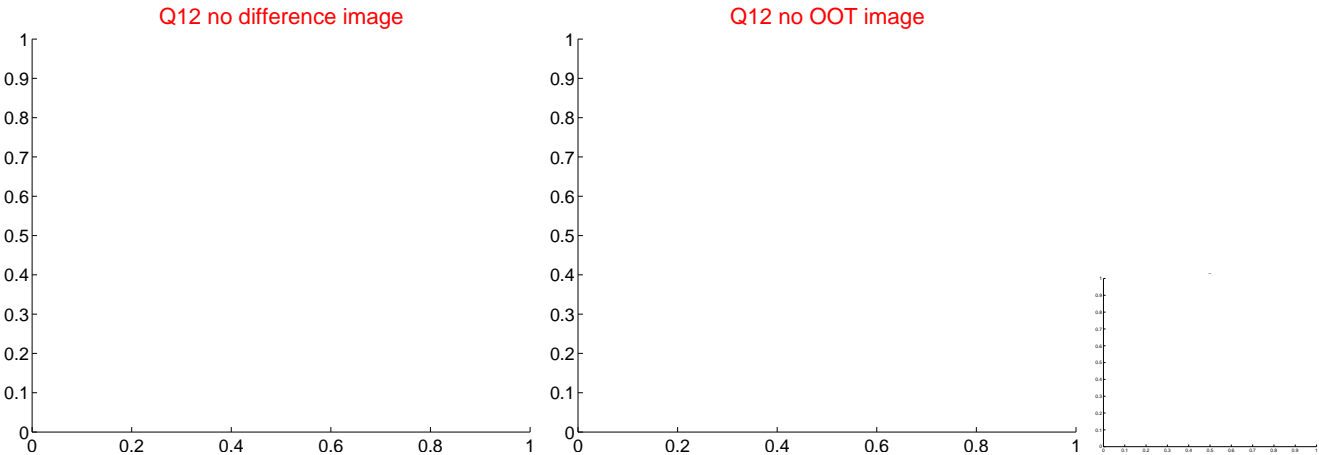
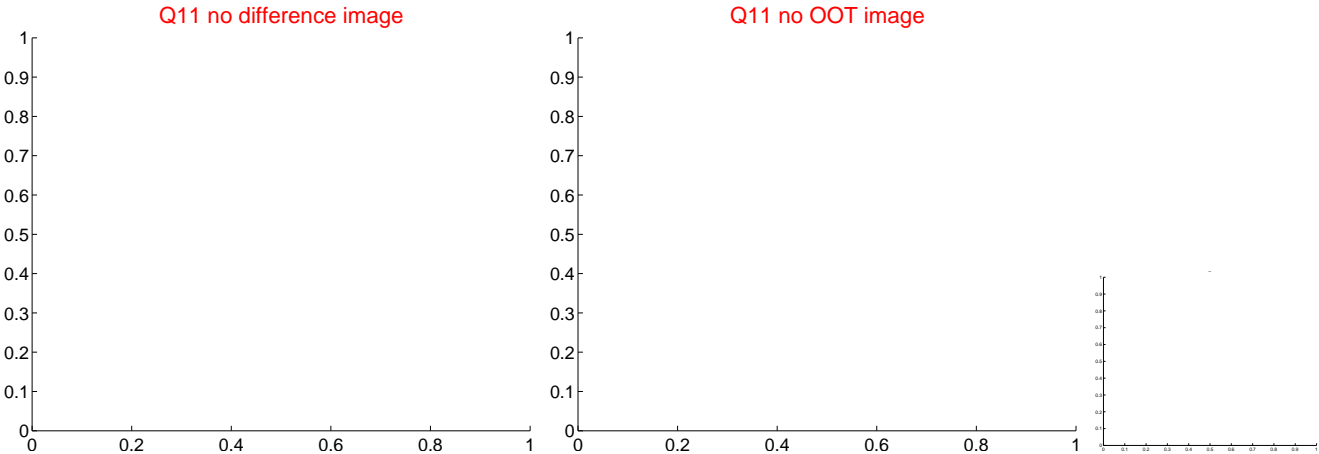
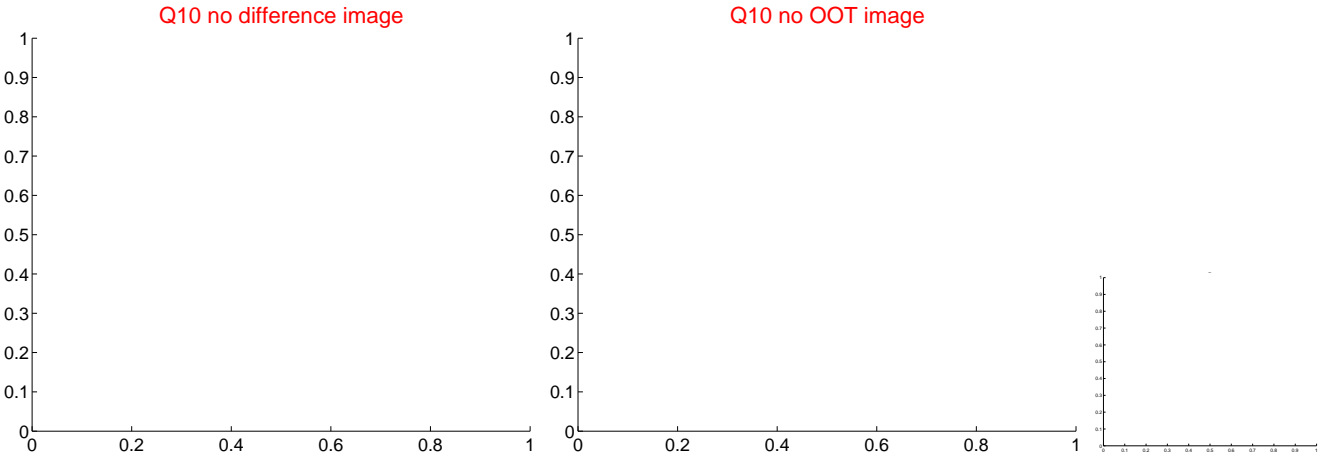
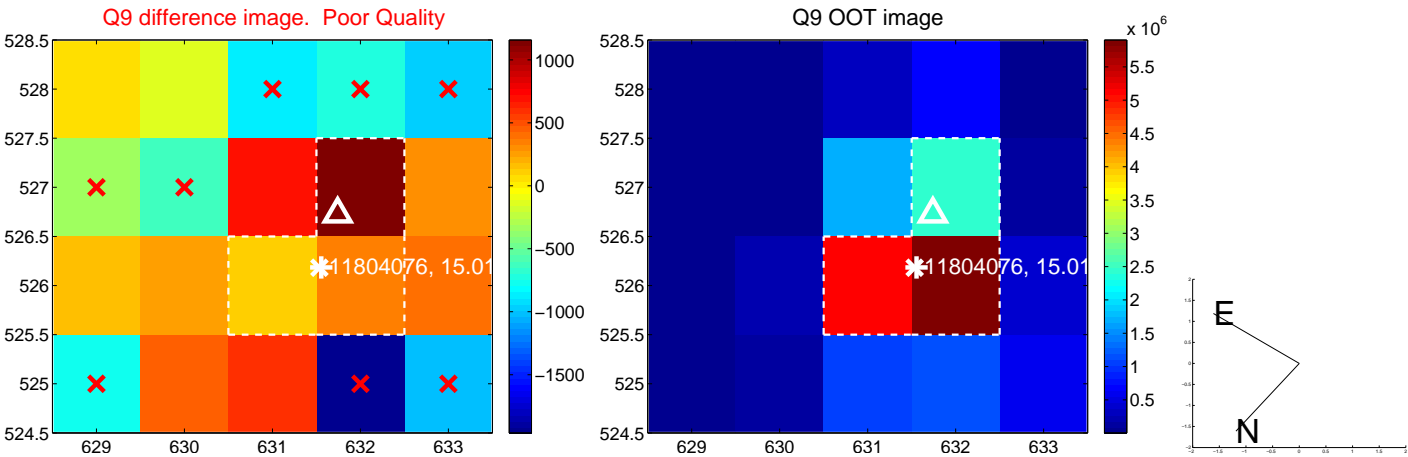
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



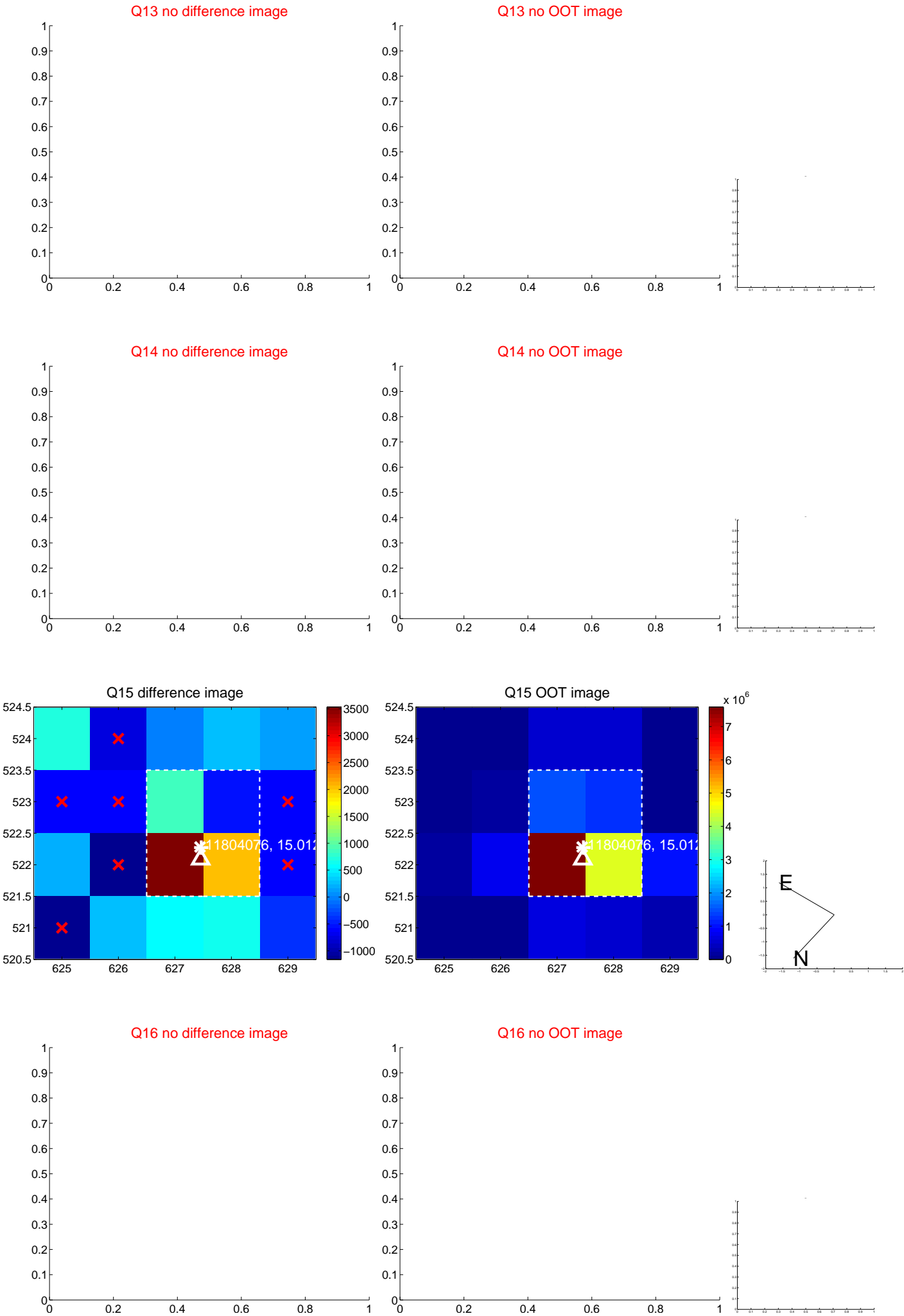
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



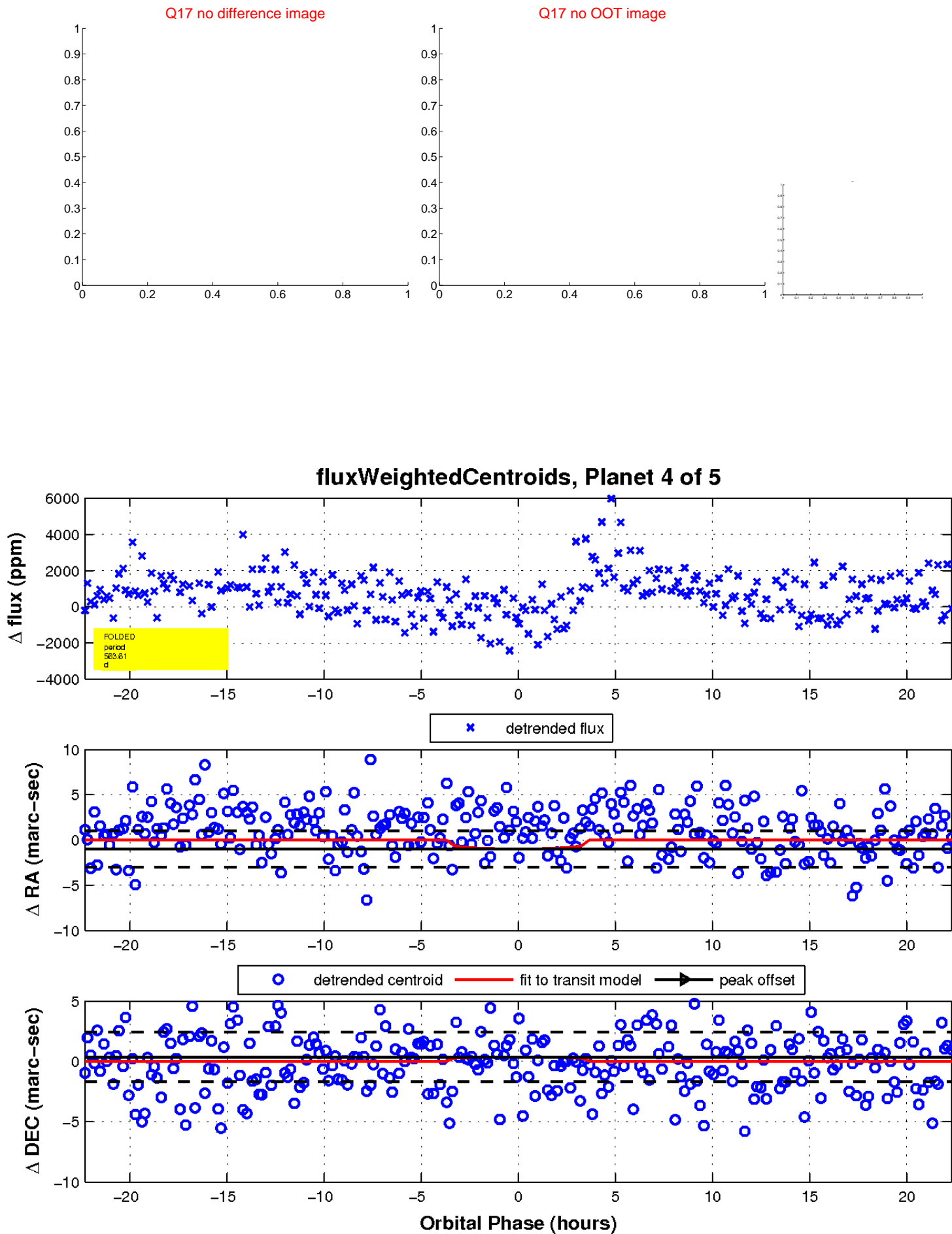
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

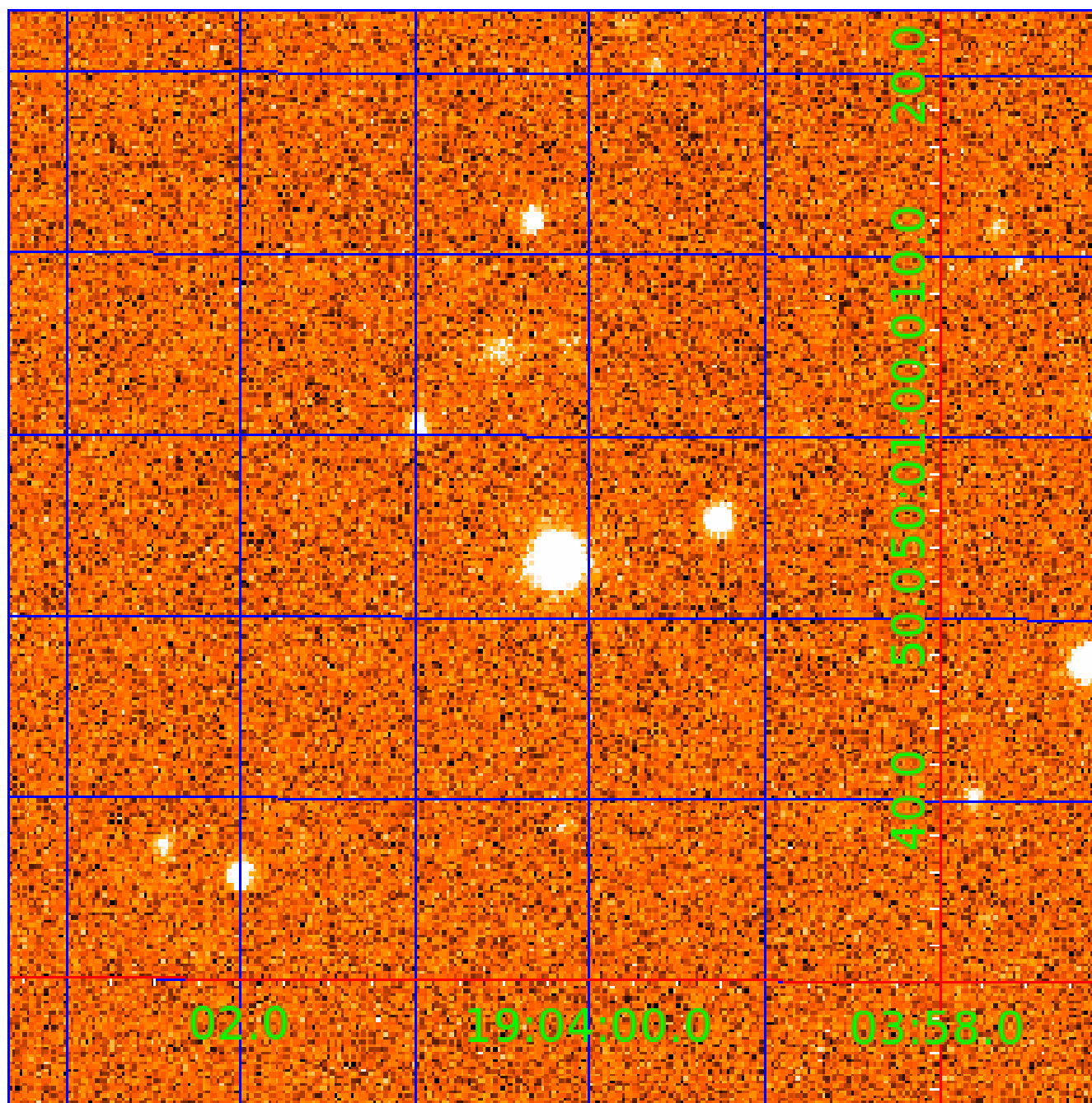


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011804076

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})
011804076-01	OBS	No	255.259351	288.807789	1019.1	3.640	12.4	6.4	0.64	5198	2.11	0.58
011804076-02	OBS	No	332.428321	223.633010	1523.8	5.244	11.0	8.1	0.64	5198	2.66	0.41
011804076-03	OBS	No	362.398571	361.561632	2019.6	8.472	13.1	9.4	0.64	5198	2.82	0.36
011804076-04	OBS	No	563.612668	316.044936	1323.6	7.463	11.2	7.8	0.64	5198	2.42	0.20
011804076-05	OBS	No	525.072071	315.109207	1121.8	6.911	16.5	5.1	0.64	5198	2.10	0.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011804076-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011804076-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011804076-03	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
011804076-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_FEW_DIFFS
011804076-05	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—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

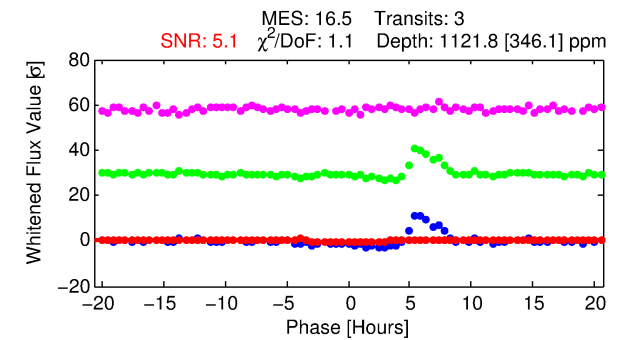
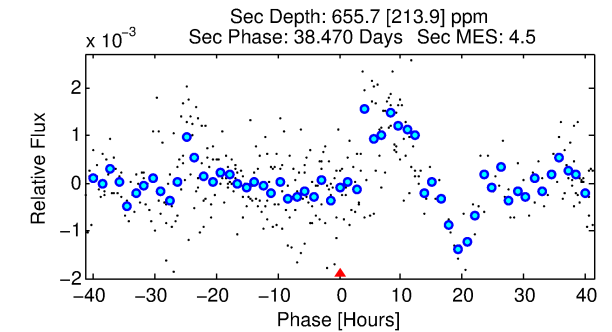
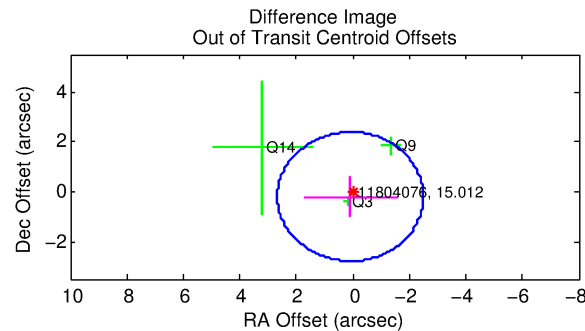
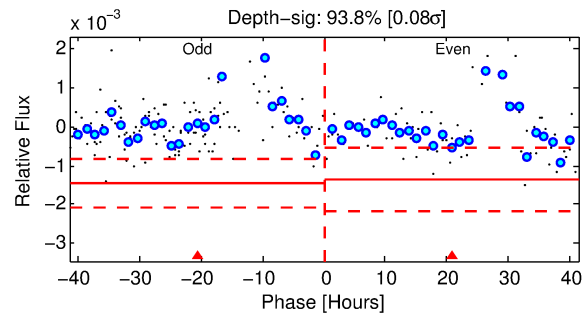
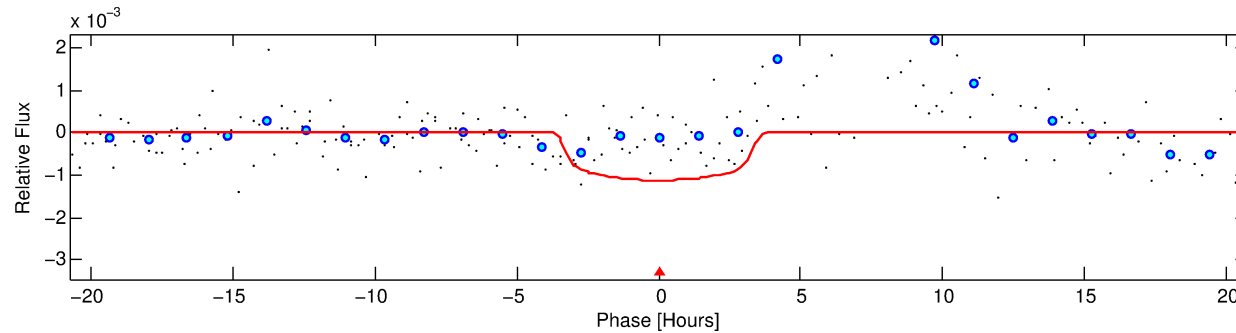
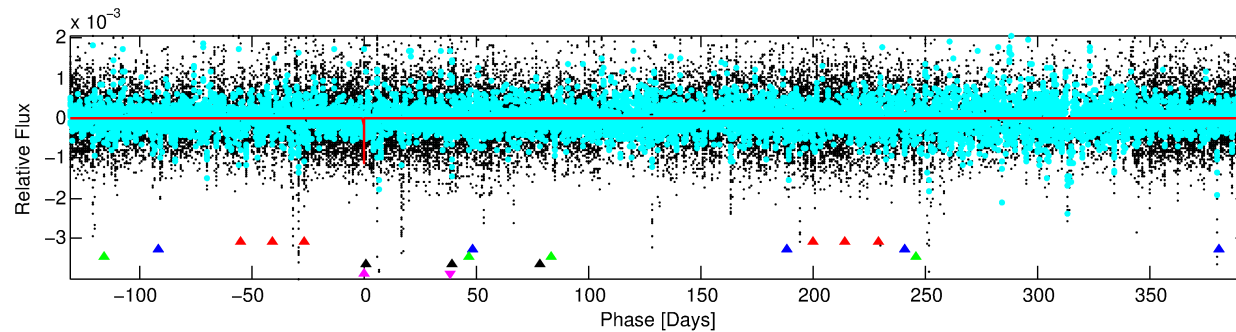
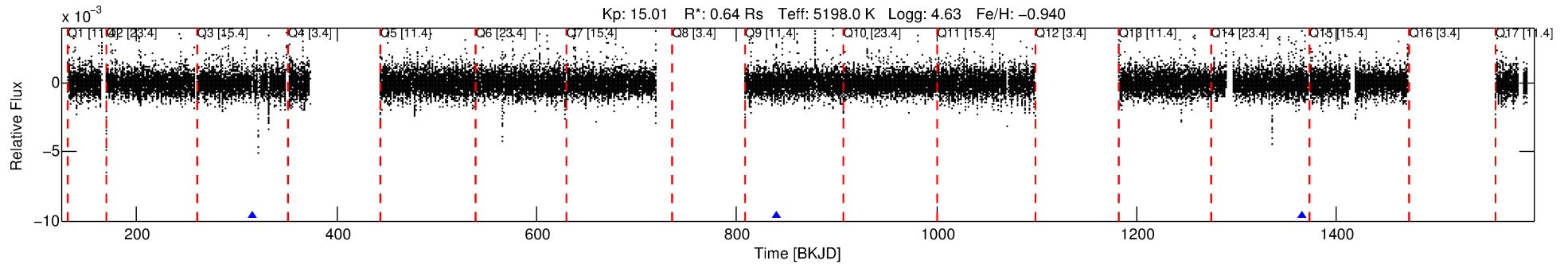
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011804076-05

No Significant Match Found

DV One-Page Summary

KIC: 11804076 Candidate: 5 of 5 Period: 525.072 d



DV Fit Results:

Period = 525.07207 [0.01380] d
Epoch = 315.1092 [0.0176] BKJD
Rp/R* = 0.0304 [0.0974]
a/R* = 592.67 [8166.48]
b = 0.14 [98.91]
Seff = 0.22 [0.04]
Teq = 175 [7] K
Rp = 2.10 [6.75] Re
a = 1.0890 [0.0836] AU
Ag = 96657.05 [620965.08] [0.16 σ]
Teffp = 4774 [7667] K [0.60 σ]

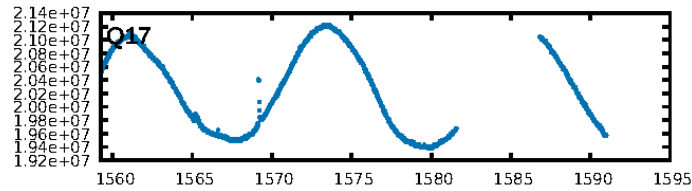
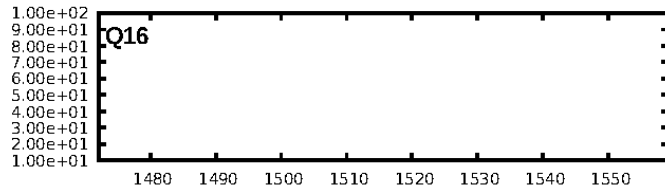
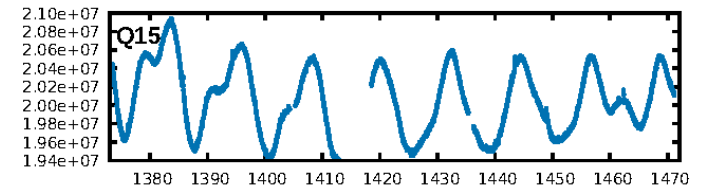
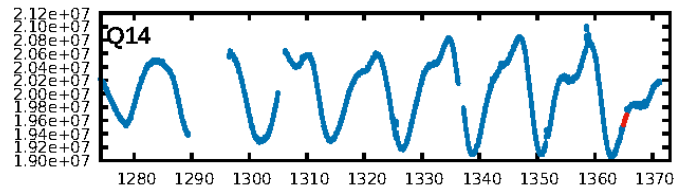
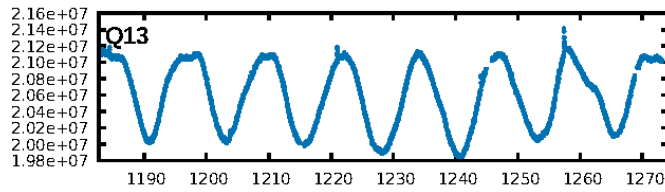
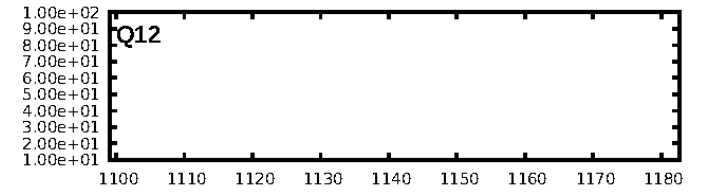
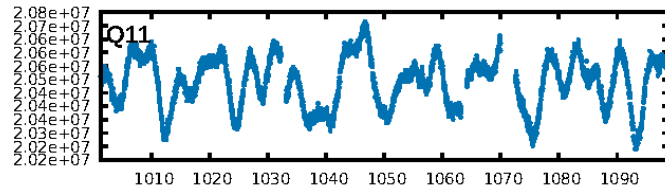
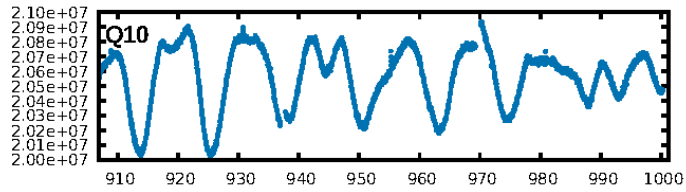
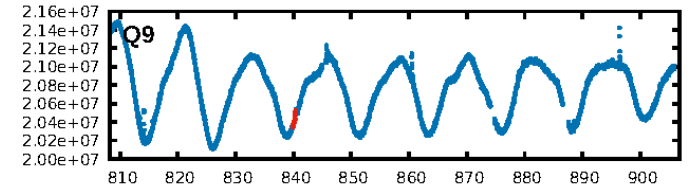
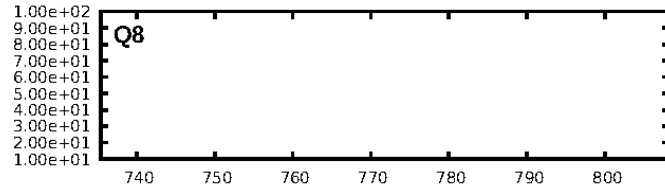
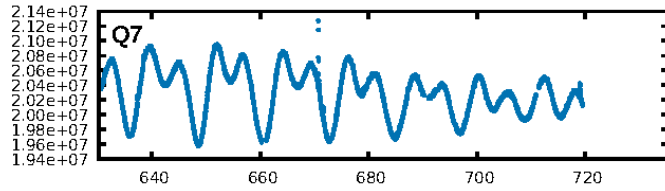
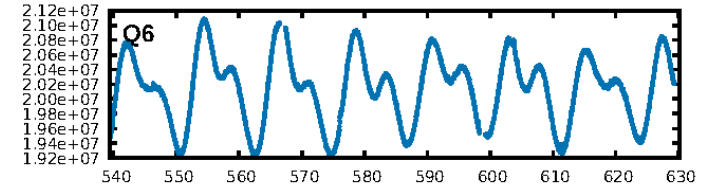
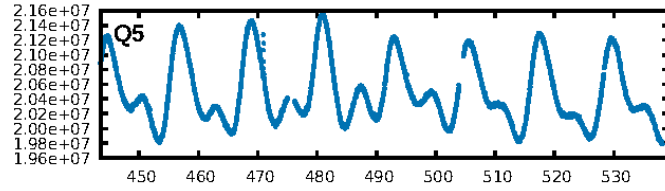
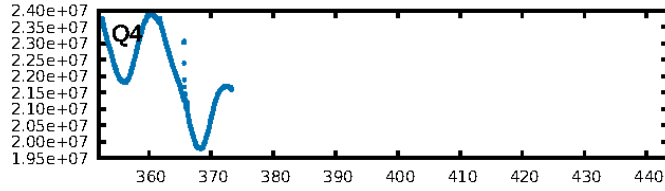
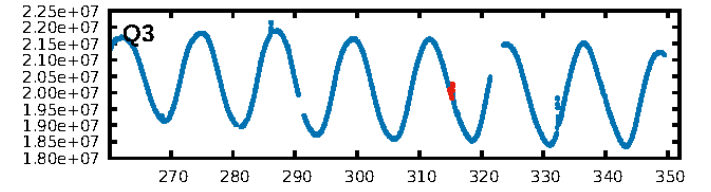
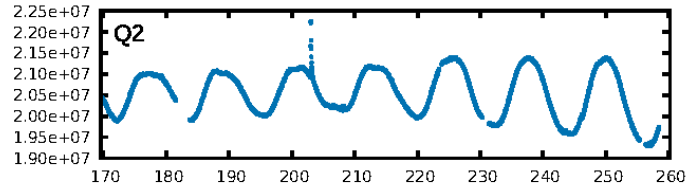
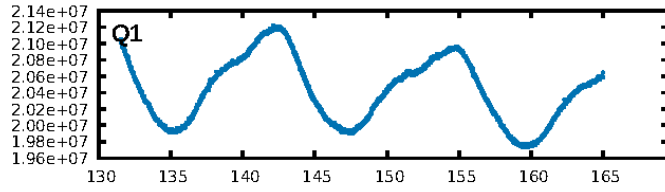
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [357.09 σ]
LongPeriod-sig: 100.0% [90.93 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 96.1%
Bootstrap-pfa: 9.11e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.041
Centroid-sig: 65.1%
Centroid-so: 1.516 arcsec [0.98 σ]
OotOffset-rm: 0.220 arcsec [0.25 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.243 arcsec [0.27 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

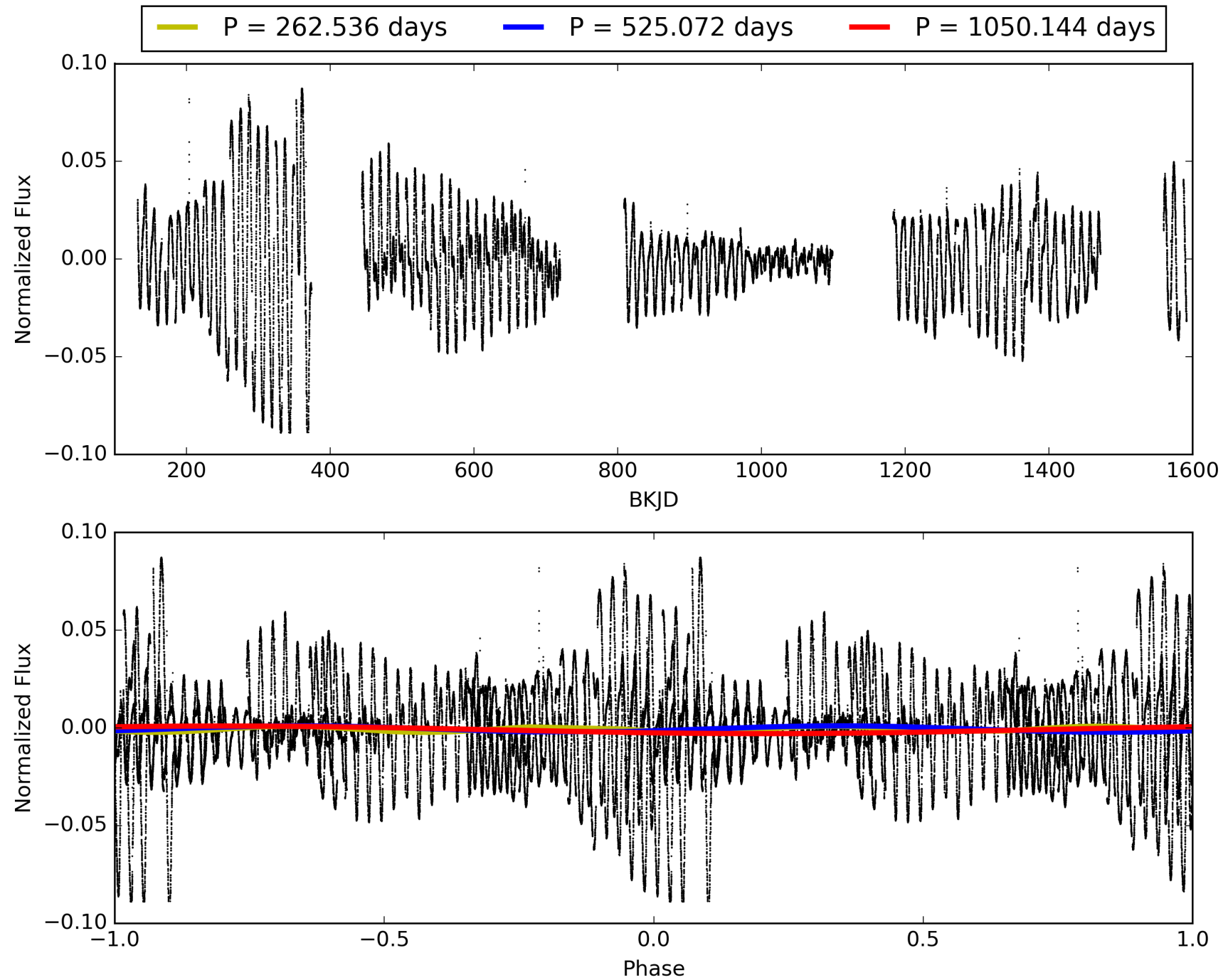
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 03:38:44 Z

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

TCE 011804076-05, PDC Light Curves

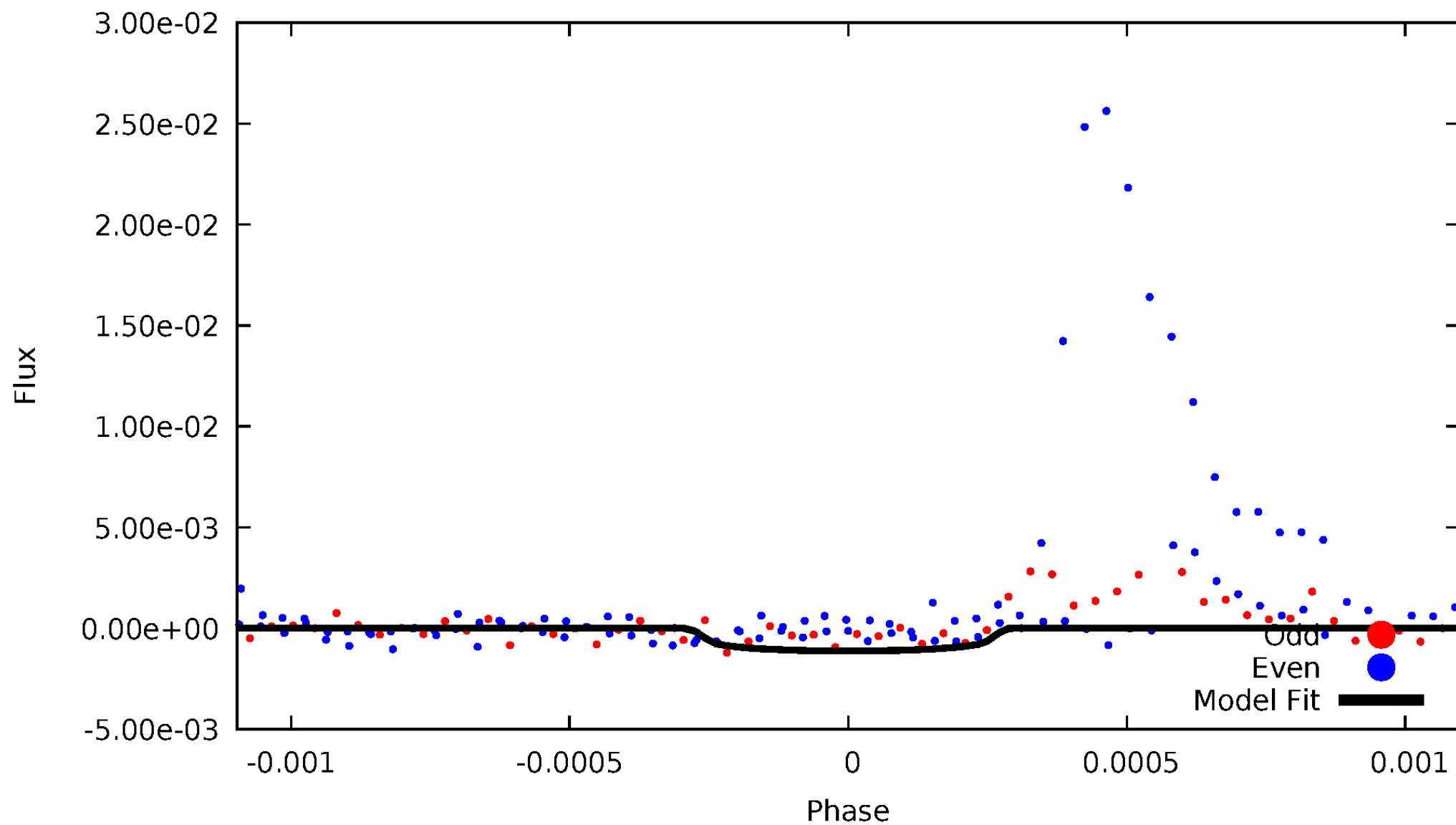


TCE 011804076-05



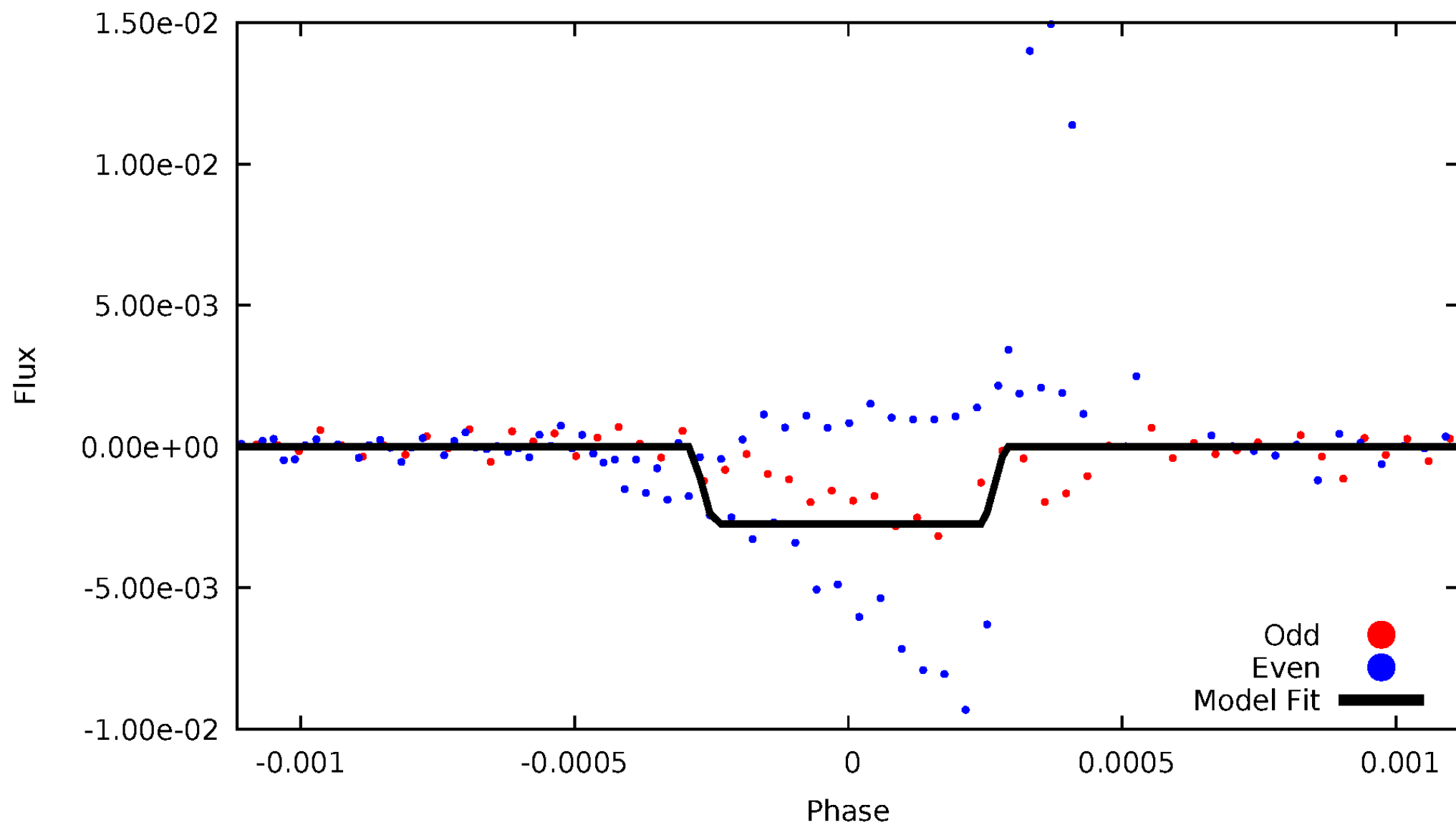
DV Odd/Even

TCE 011804076-05



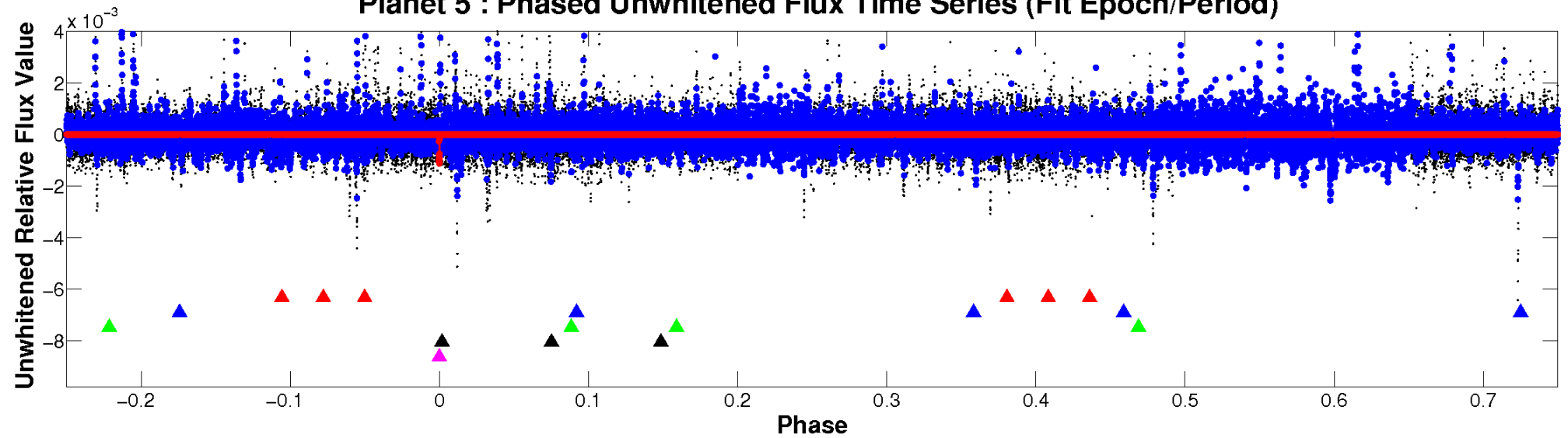
ALT Odd/Even

TCE 011804076-05

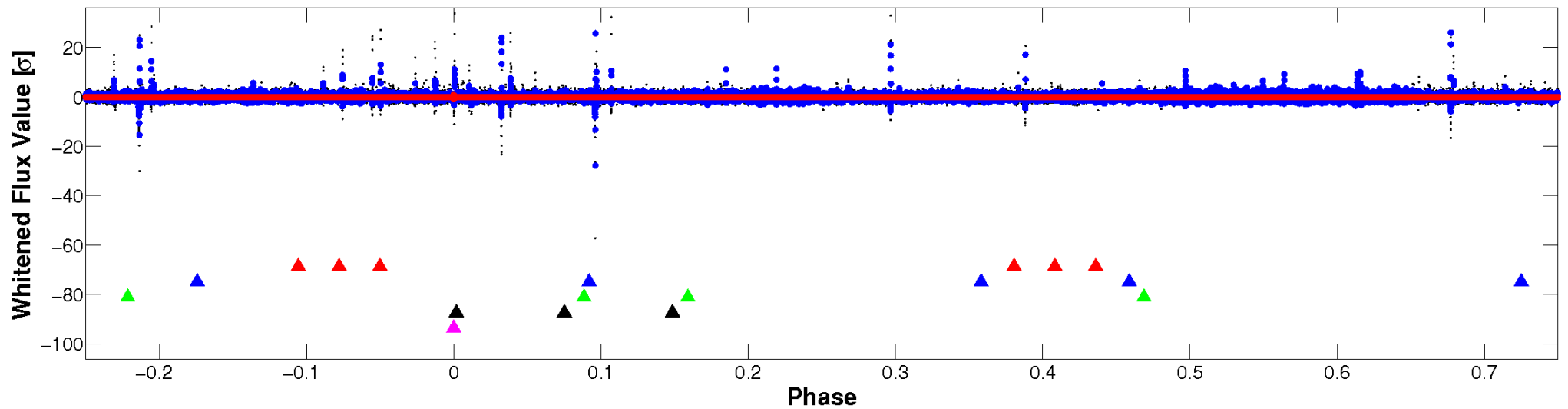


Non-Whitened Vs. Whitened Light Curve

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

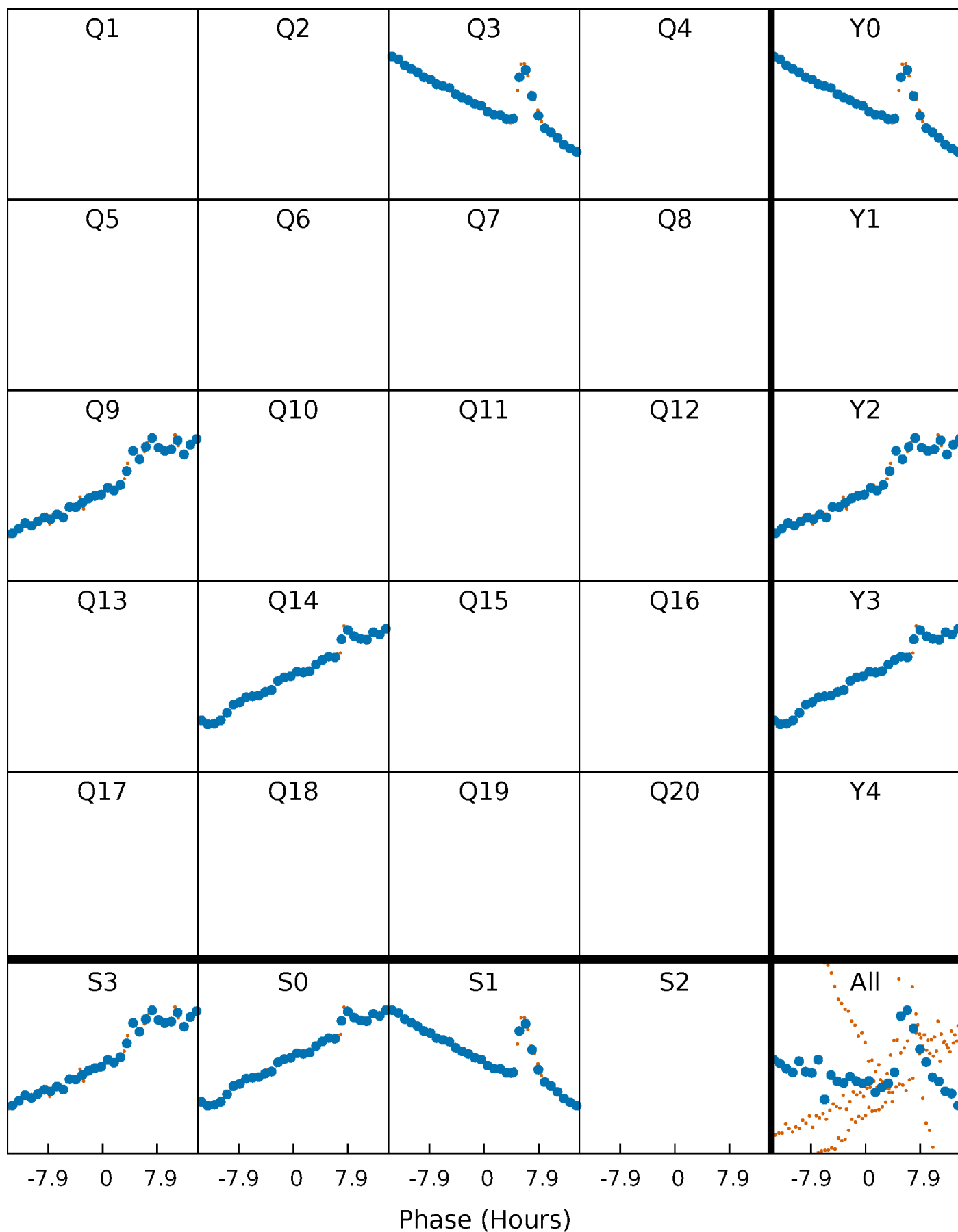


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



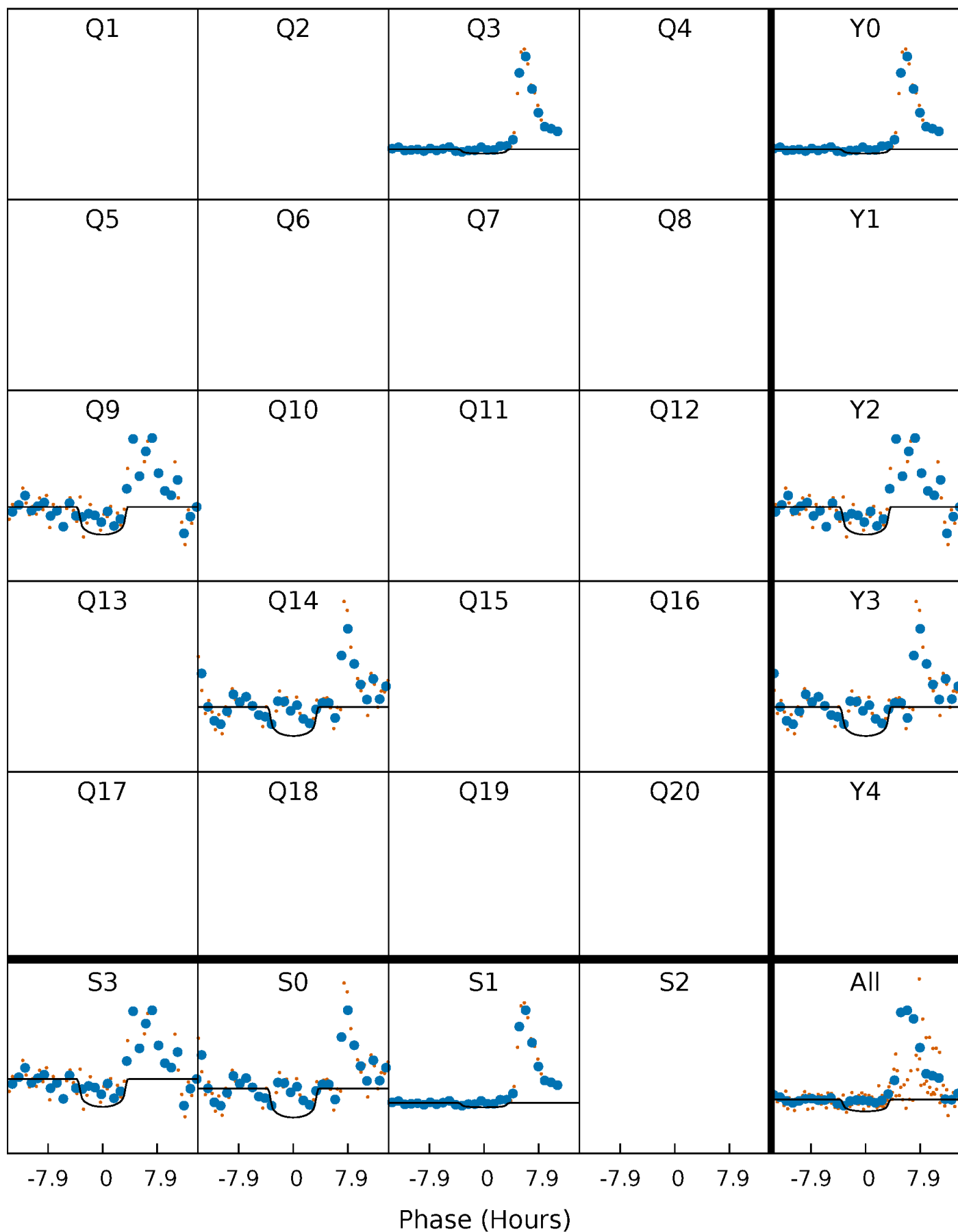
PDC Quarter-Phased Transit Curves

TCE 011804076-05 $P=525.072071$ Days $T_0=315.109207$ (BKJD)



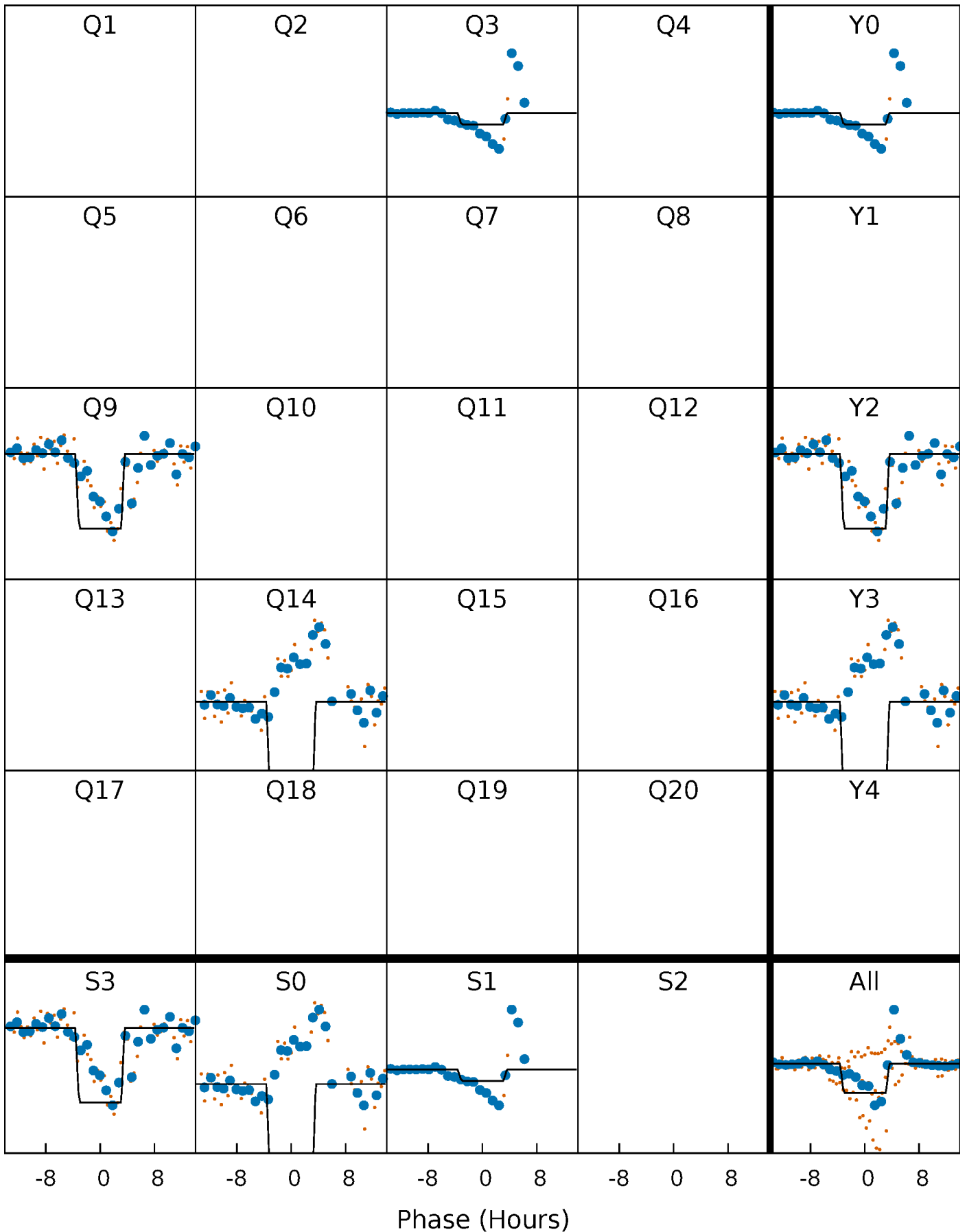
DV Quarter-Phased Transit Curves

TCE 011804076-05 $P=525.072071$ Days $T_0=315.109207$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

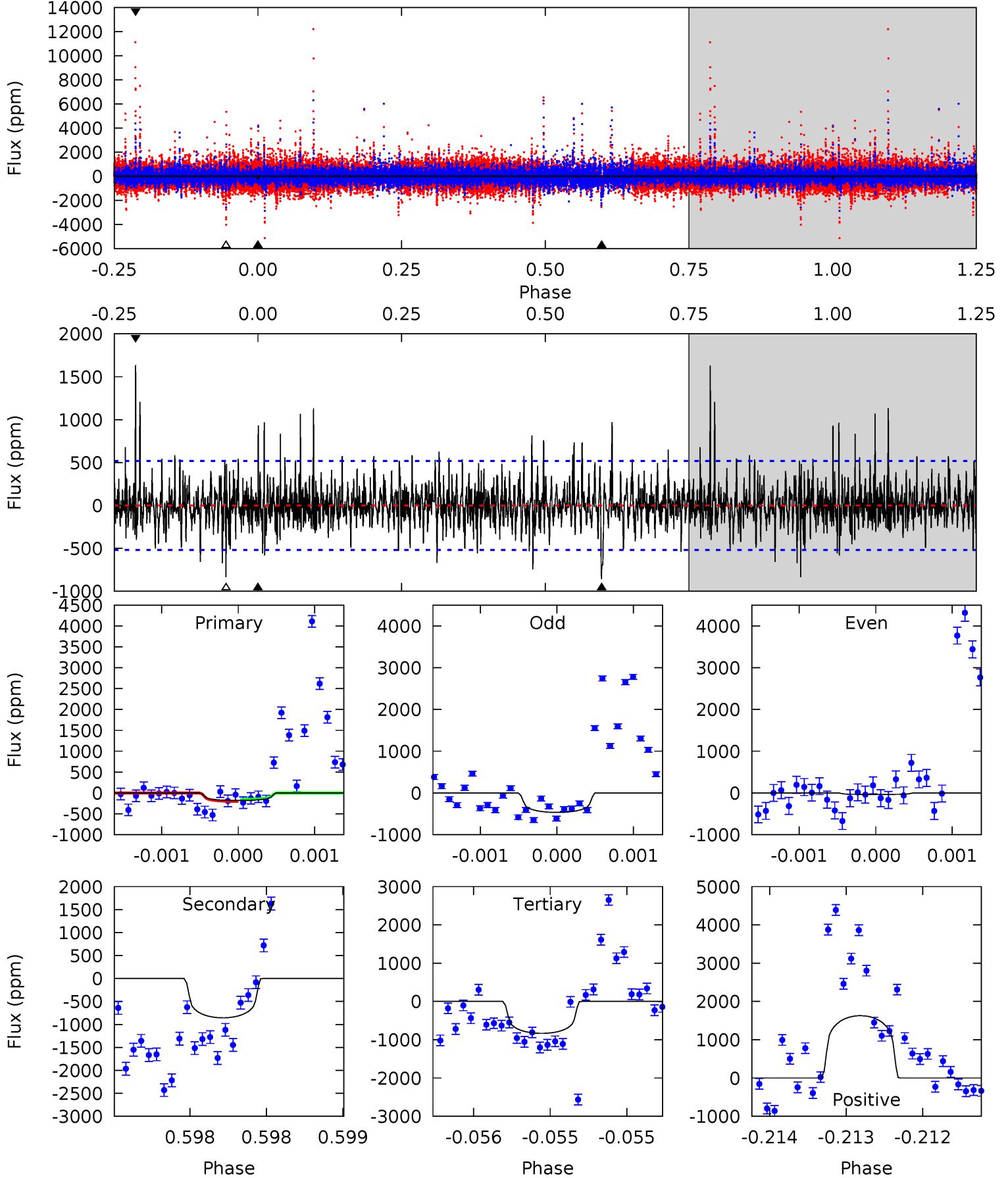
TCE 011804076-05 $P=525.047135$ Days $T_0=315.158112$ (BKJD)



DV Model-Shift Uniqueness Test

011804076-05, P = 525.072071 Days, E = 315.109207 Days

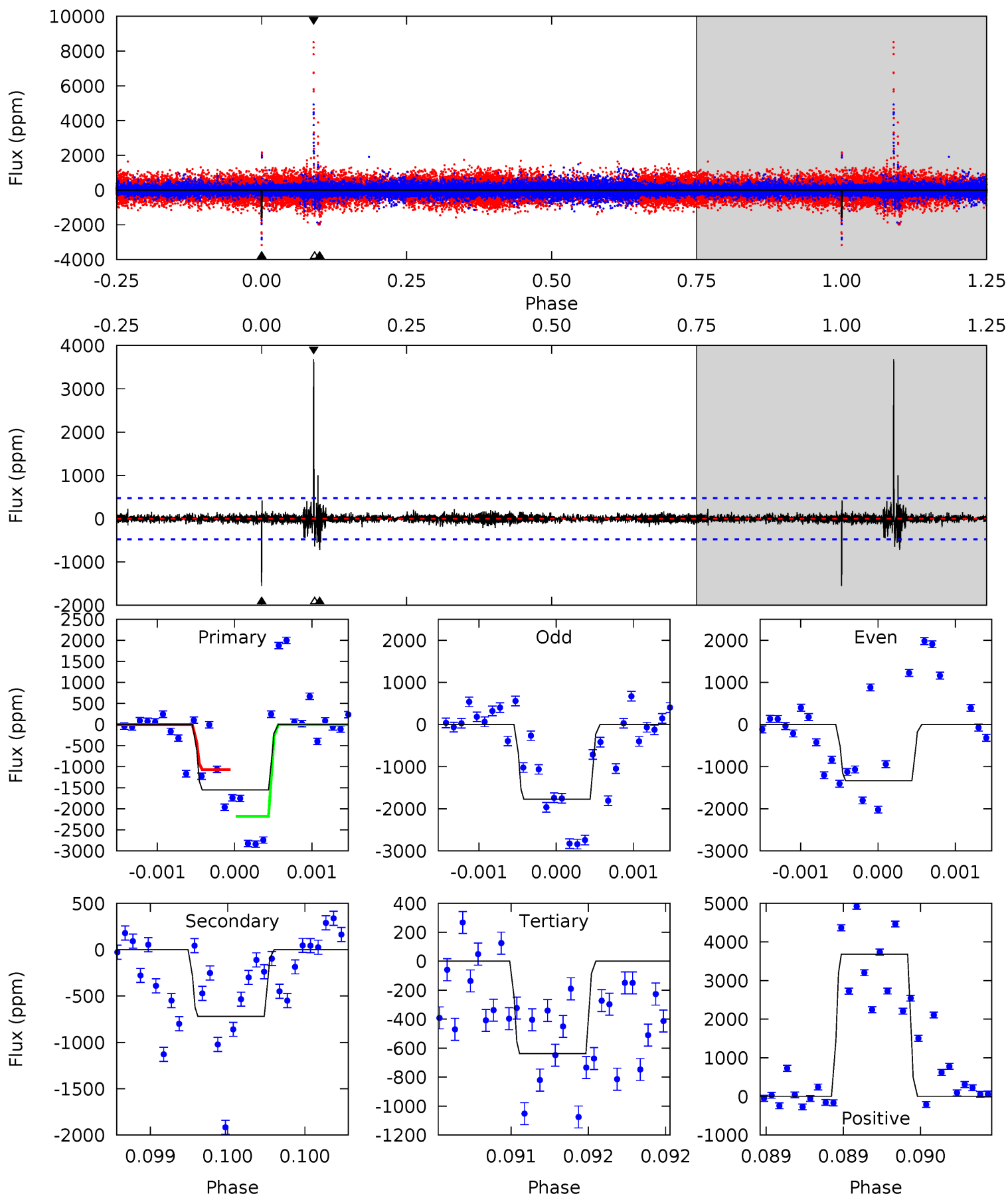
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.94	9.17	8.92	17.4	5.55	3.44	2.05	-6.99	-15.5	0.24	-8.26	1.68	1.16	0.66	0.28



Alt Model-Shift Uniqueness Test

011804076-05, P = 525.047135 Days, E = 315.158112 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	8.46	7.49	43.2	5.56	3.45	1.08	10.7	-25.0	0.96	-34.7	3.40	1.19	0.70	0



Stellar Parameters For KIC 011804076

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5198^{+157}_{-157}	$4.628^{+0.066}_{-0.044}$	$-0.940^{+0.300}_{-0.300}$	$0.635^{+0.055}_{-0.050}$	$0.625^{+0.060}_{-0.023}$	$3.433^{+0.878}_{-0.584}$
	+3%/-3%	+1%/-1%	+32%/-32%	+9%/-8%	+10%/-4%	+26%/-17%
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 011804076-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-856 ± 93	$5.26^{+5.63}_{-3.75}$	243^{+10}_{-9}	3626^{+2297}_{-719}	$20609^{+238570}_{-15948}$
Alt.	-720 ± 85	$6.37^{+5.18}_{-4.40}$	244^{+9}_{-8}	3331^{+1788}_{-528}	$11794^{+113845}_{-8179}$

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

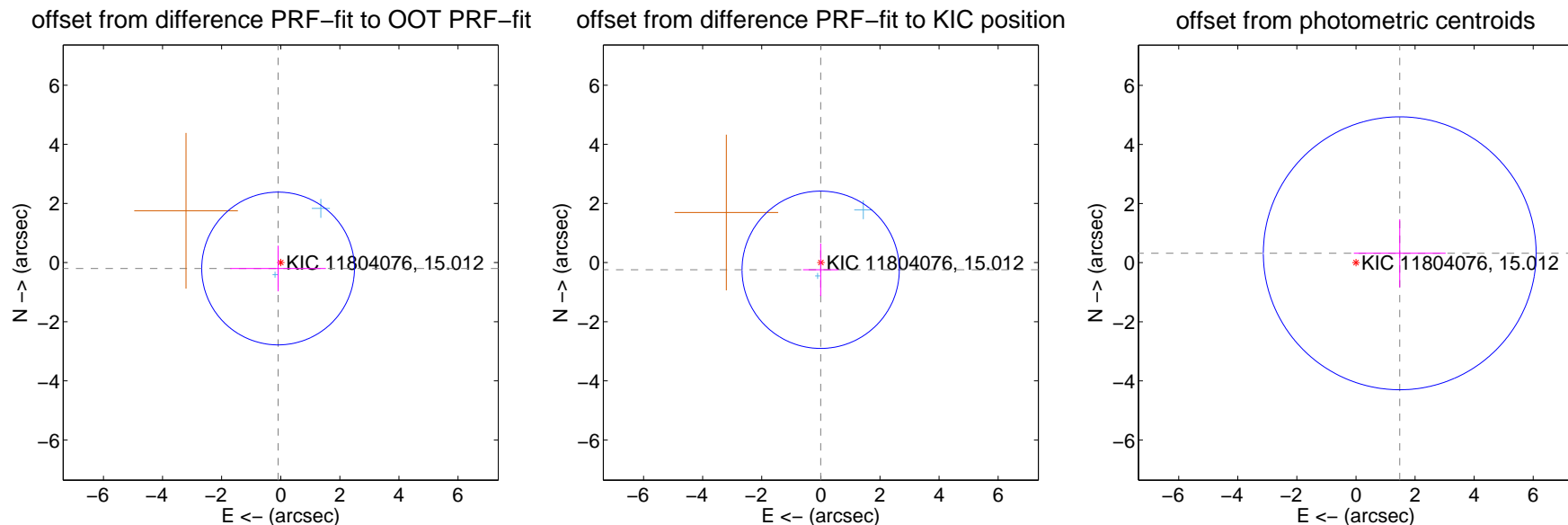
DV Centroid Data

Supplemental centroid analysis for 011804076-05. Kepler magnitude: 15.01. Transit SNR 5.08

There are 2 quarters with good PRF difference image offsets

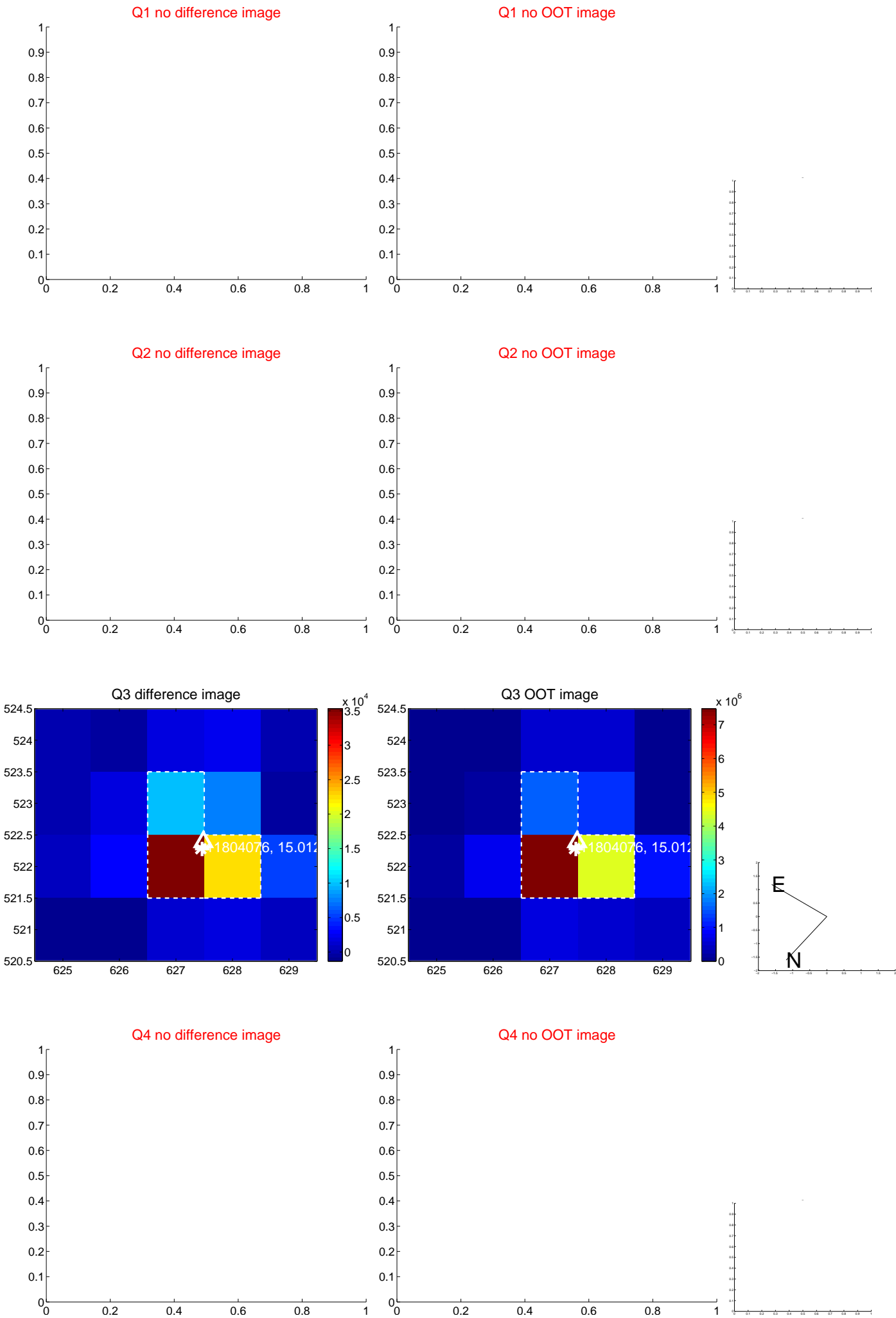
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.220 ± 0.862	0.25	0.090 ± 1.617	-0.200 ± 0.774
PRF-fit source offset from KIC position	0.243 ± 0.887	0.27	0.007 ± 0.598	-0.243 ± 0.887
photometric centroid source offset	1.52 ± 1.54	0.98	-1.48 ± 1.56	0.32 ± 1.15

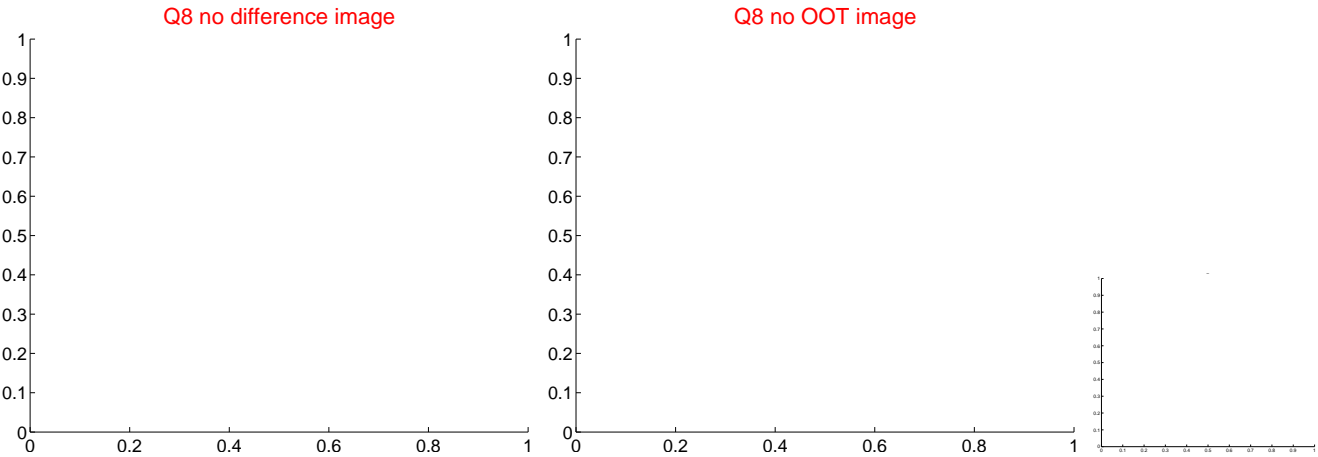
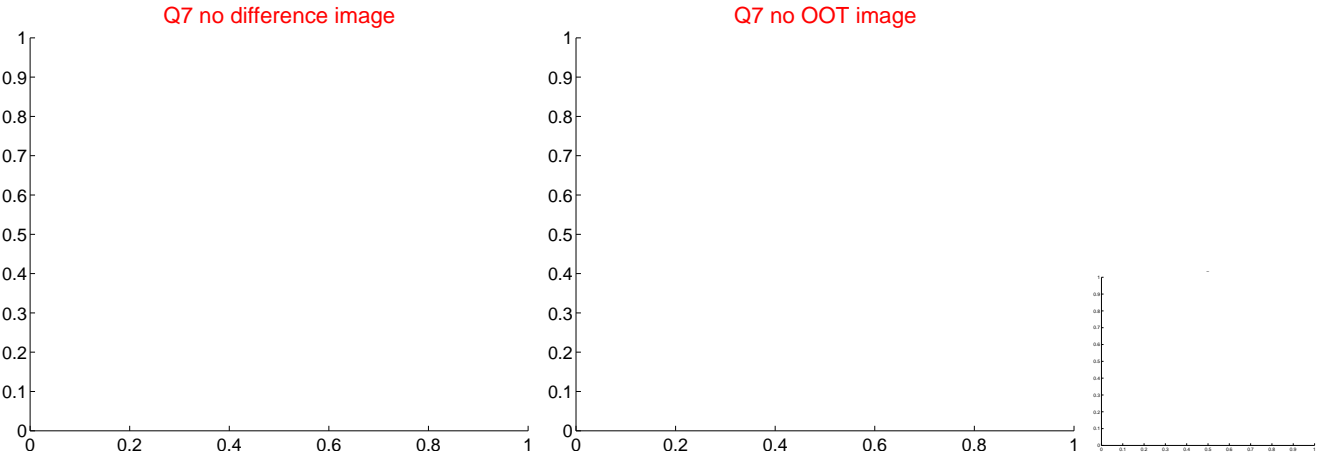
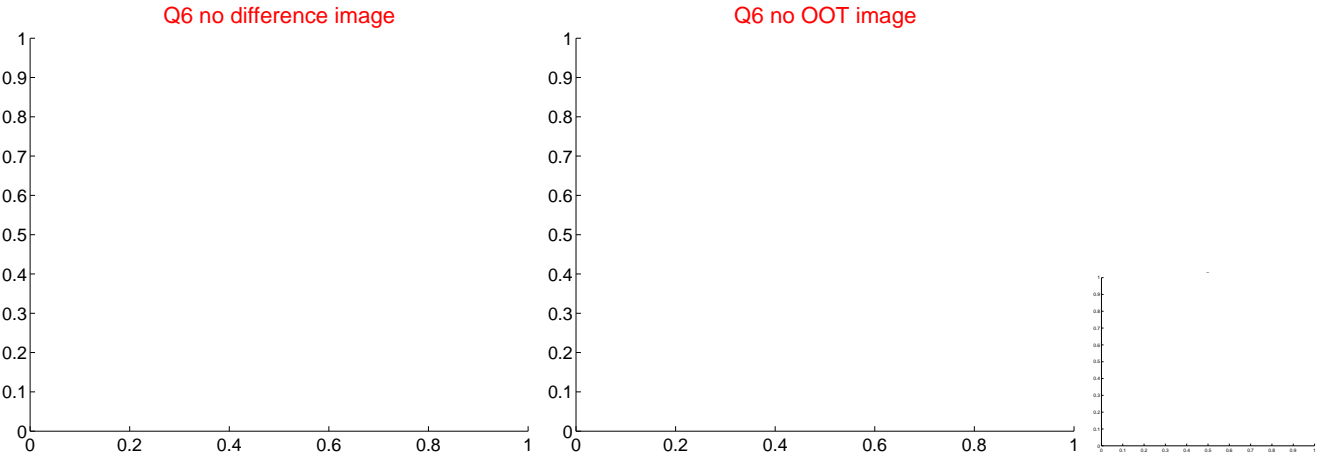
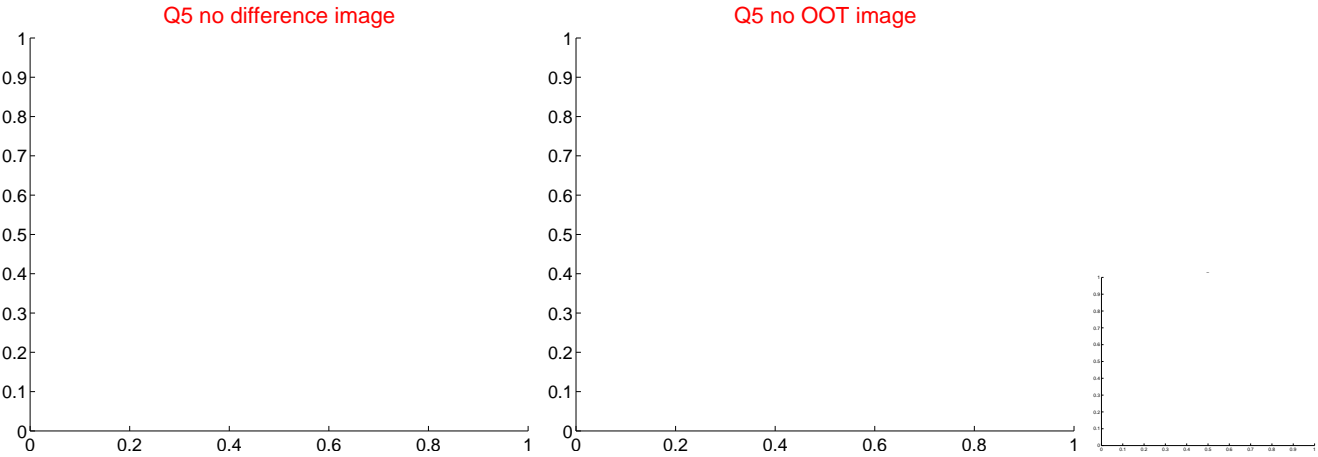


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

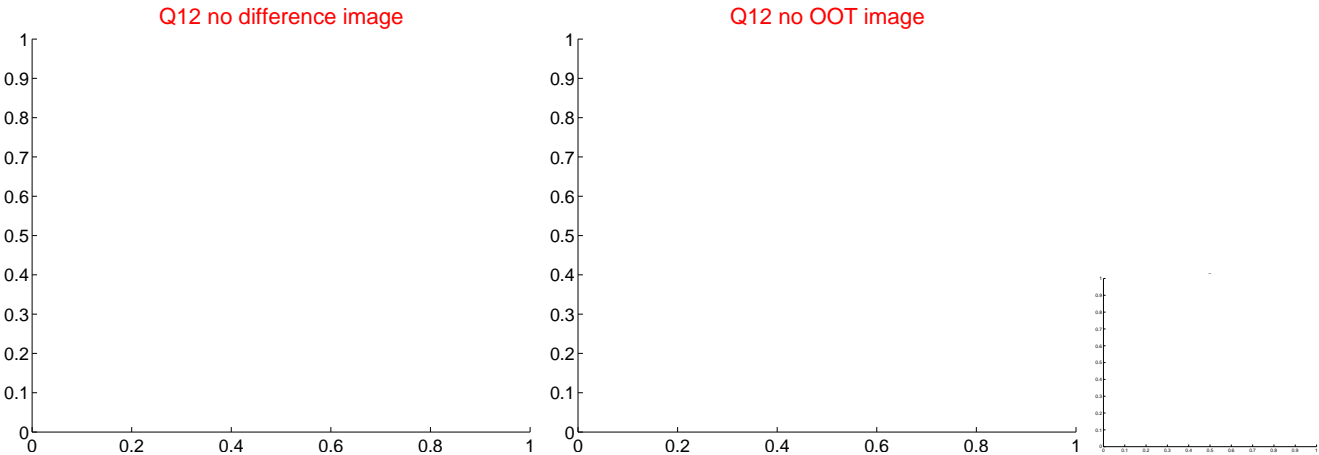
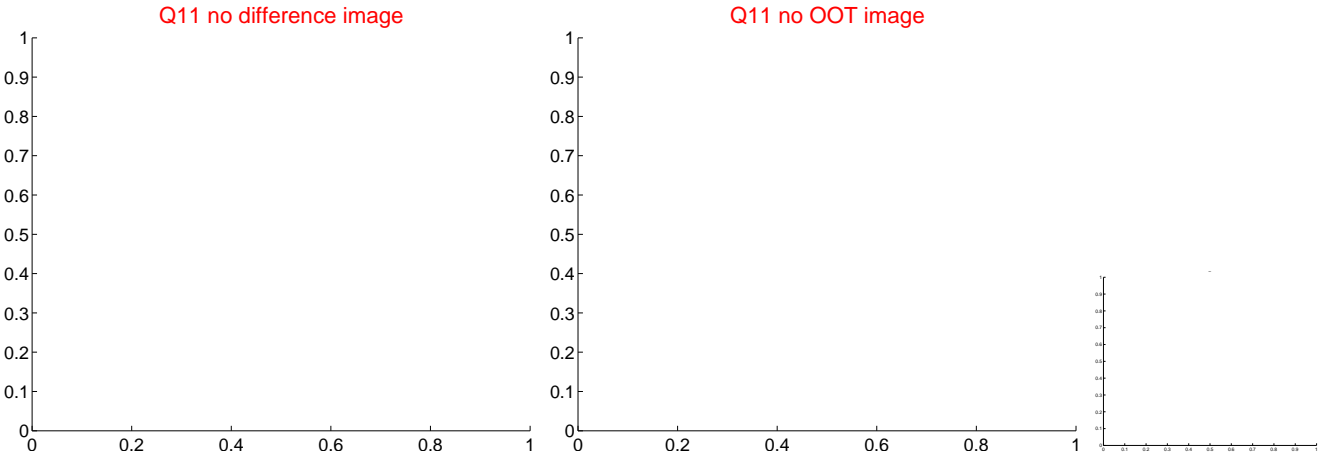
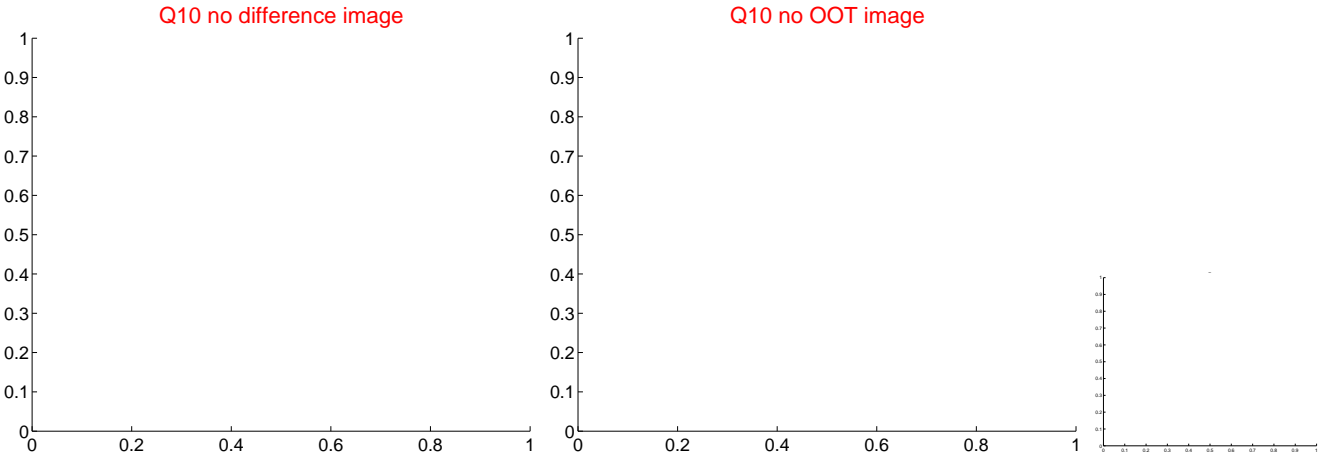
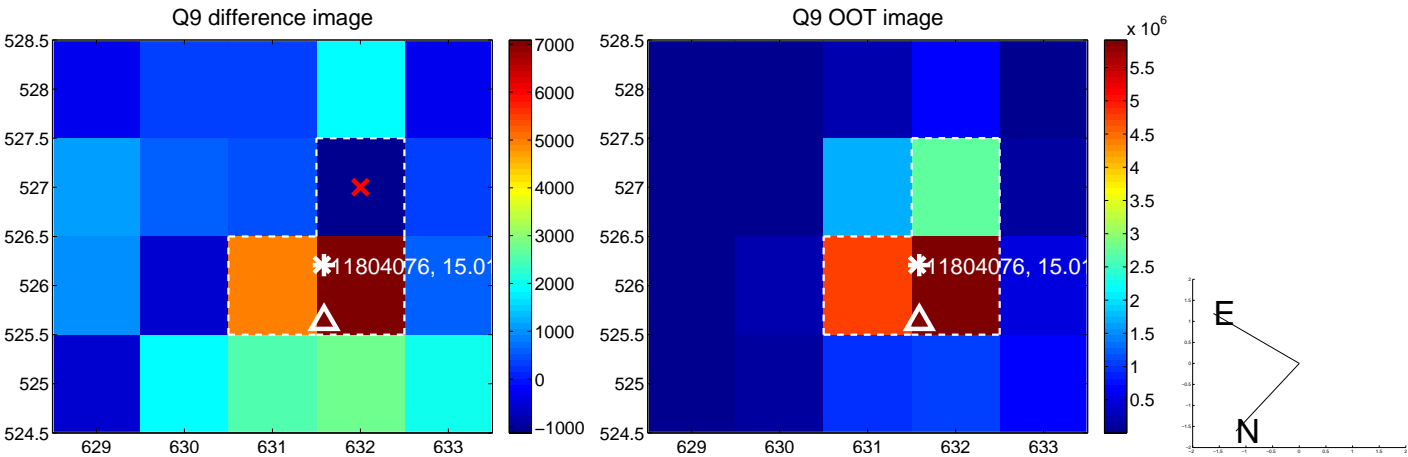
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



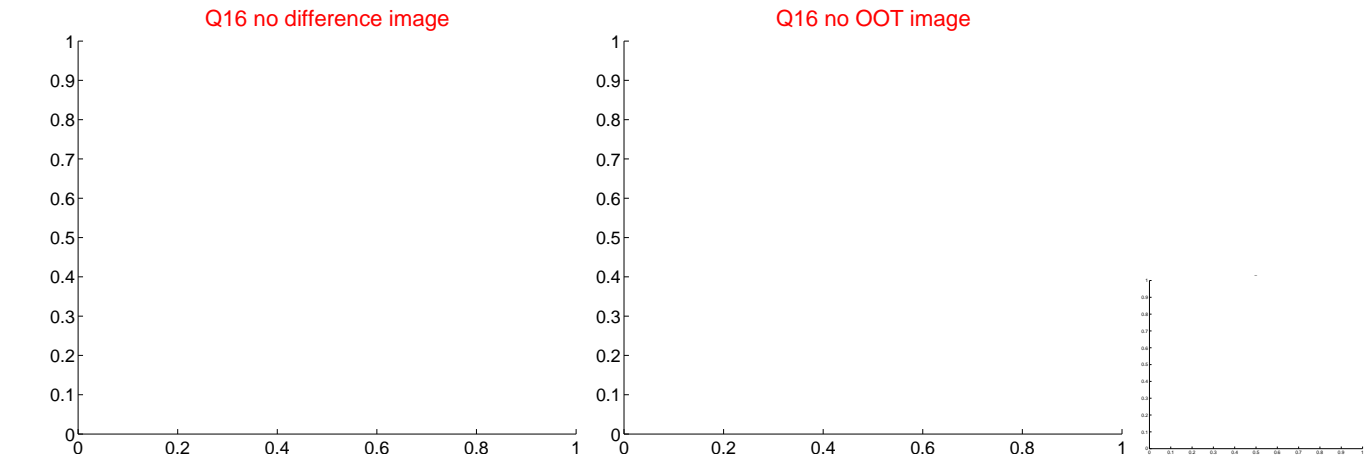
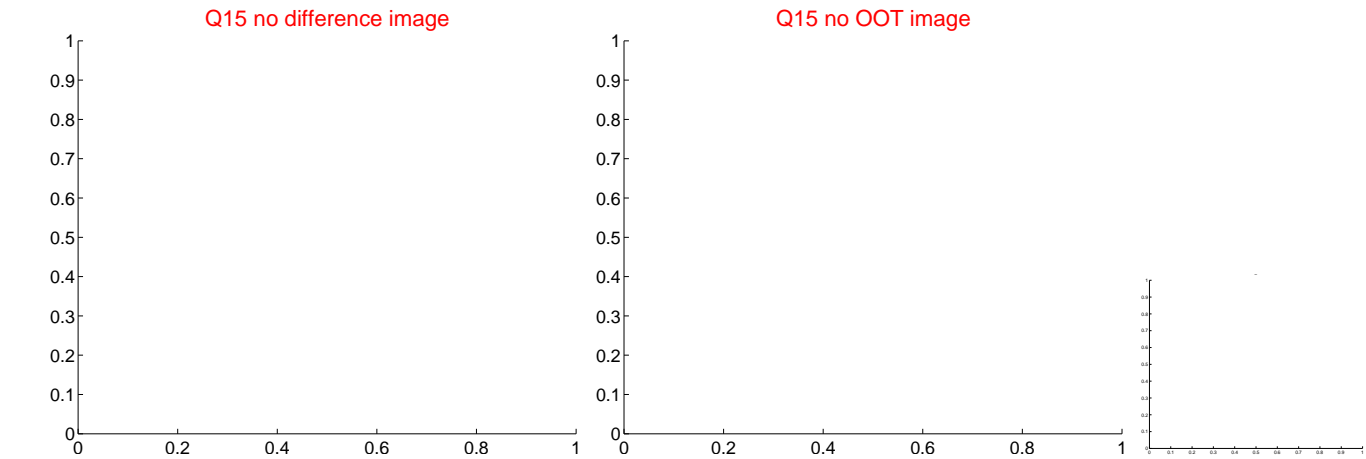
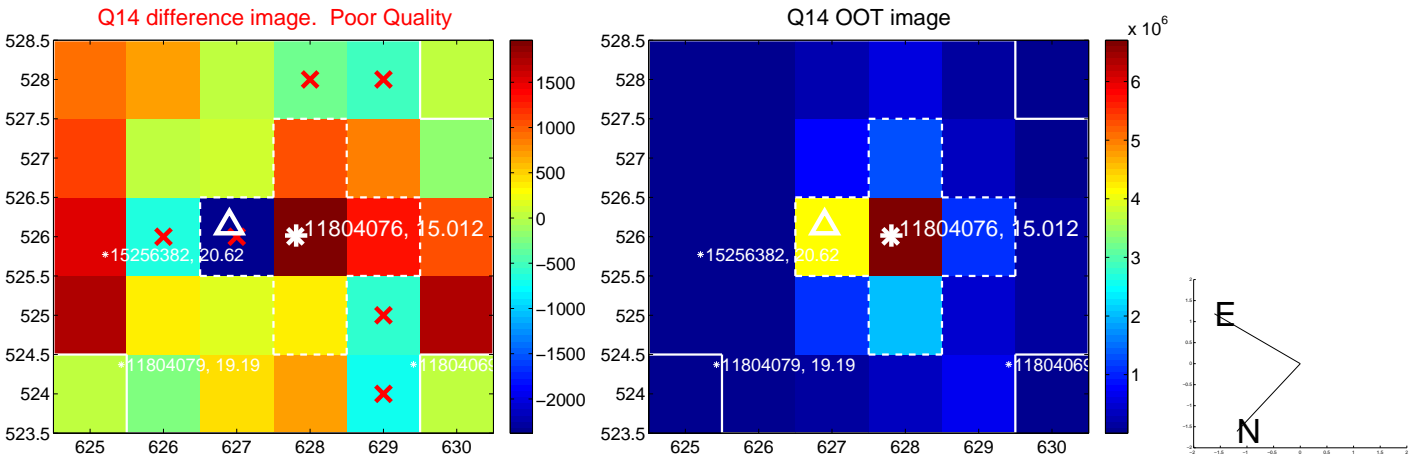
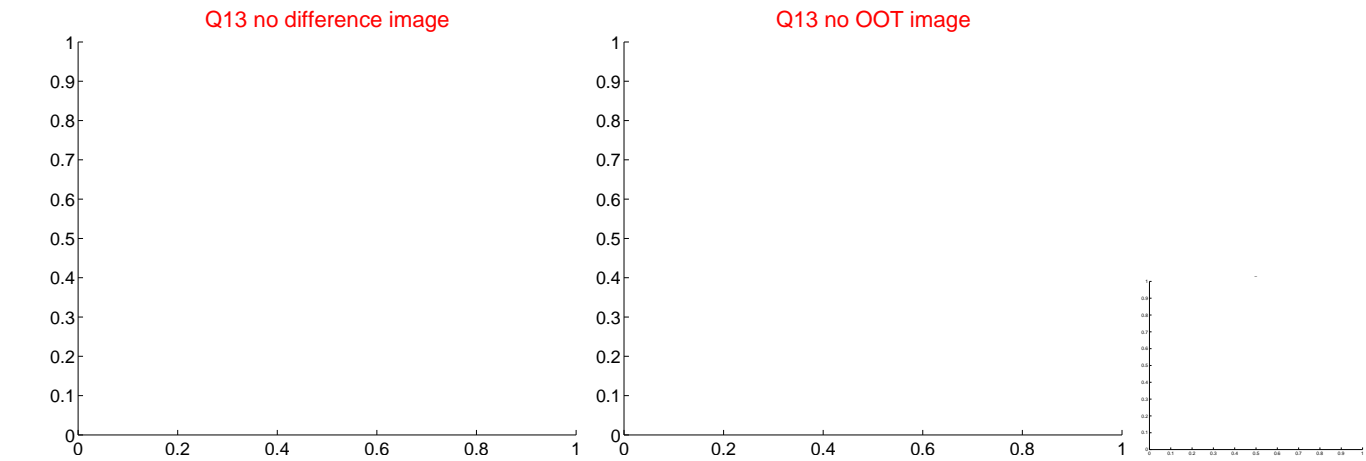
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



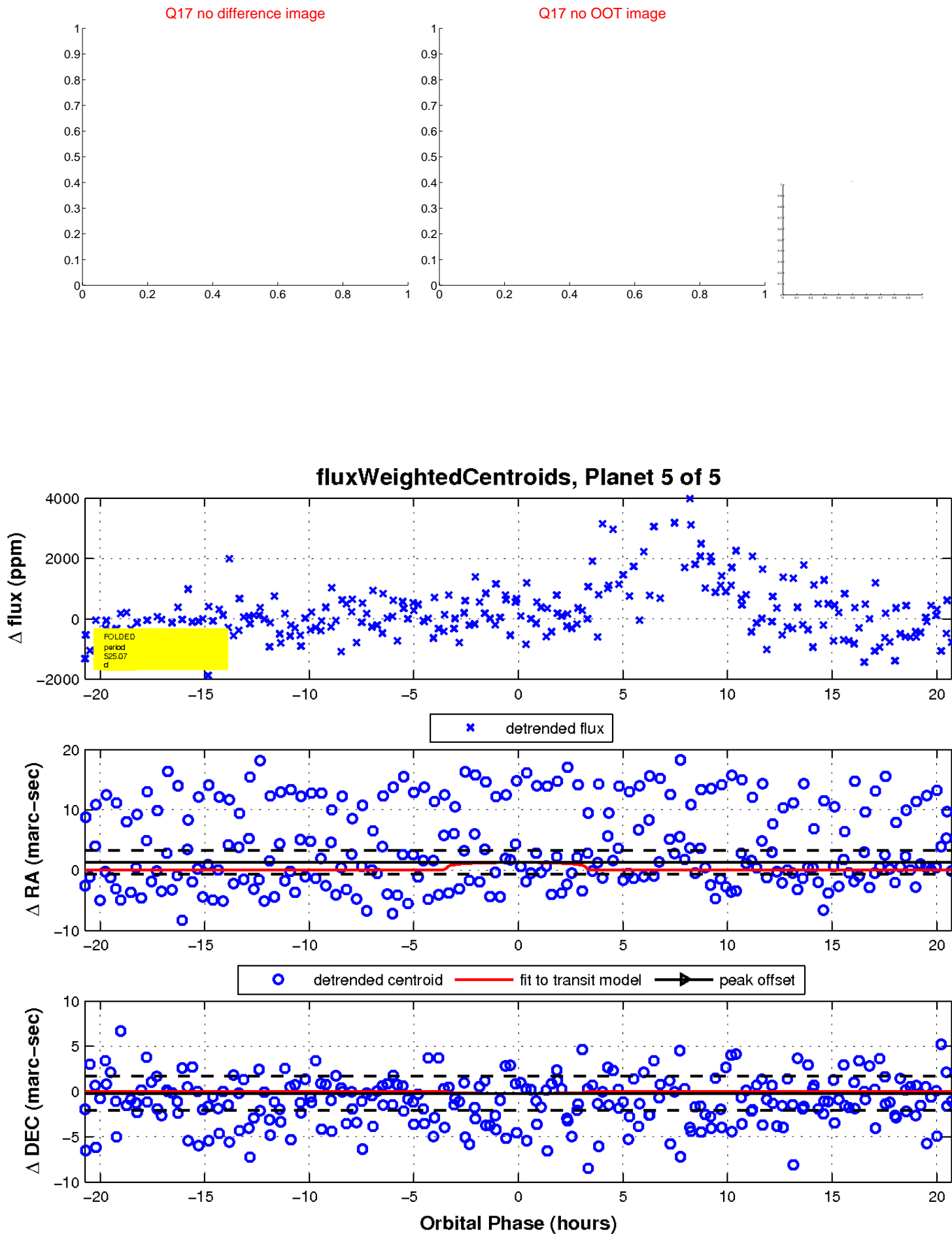
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

Declination

