

KIC 011818800

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})
011818800-01	OBS	0777.01	40.419537	133.144587	6038.7	3.308	94.1	83.3	0.78	5446	7.42	11.31
011818800-02	OBS	No	410.382905	489.901287	1196.1	5.280	8.1	6.4	0.78	5446	2.81	0.52
011818800-03	OBS	No	499.019005	579.900649	1176.2	6.249	11.8	6.3	0.78	5446	2.71	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011818800-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
011818800-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011818800-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—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 011818800-01

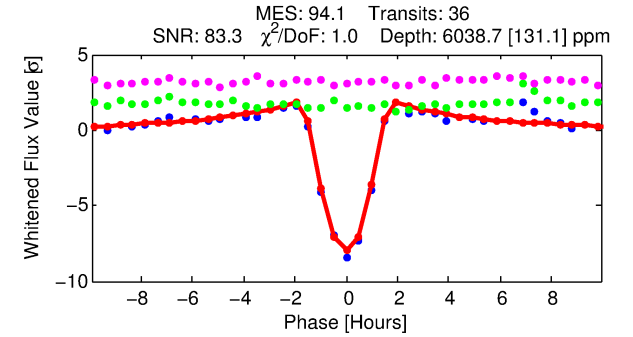
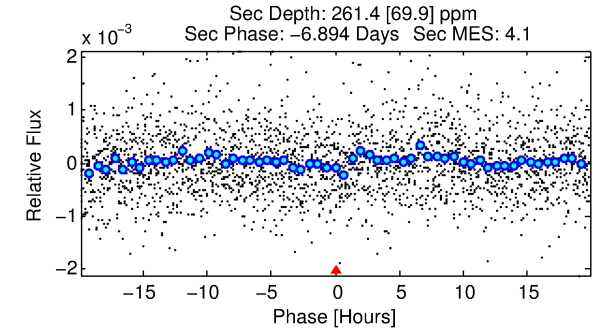
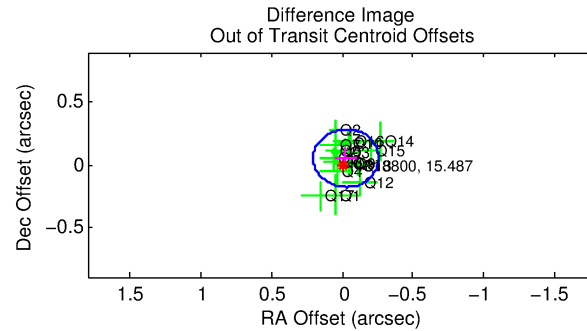
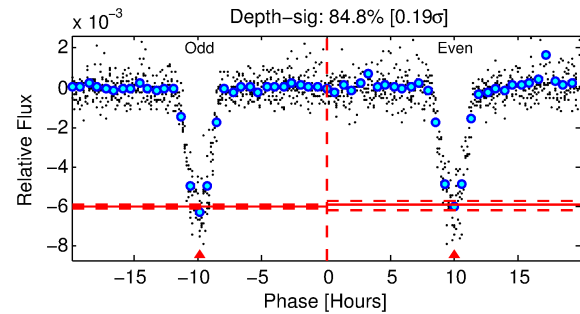
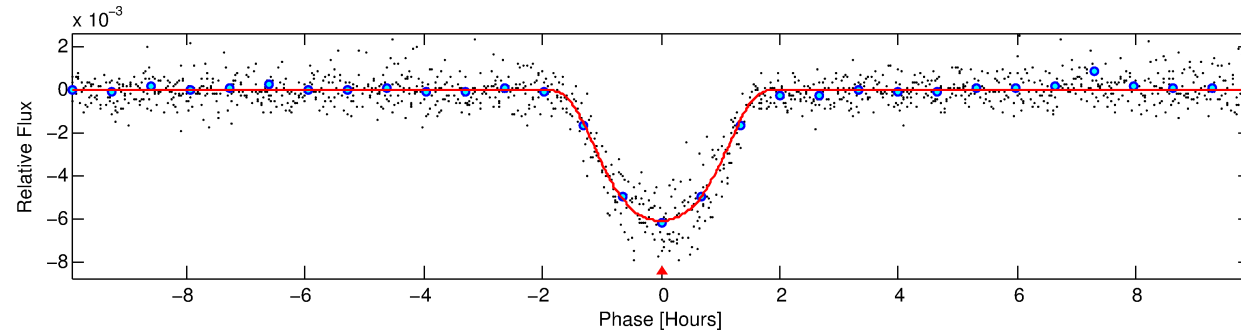
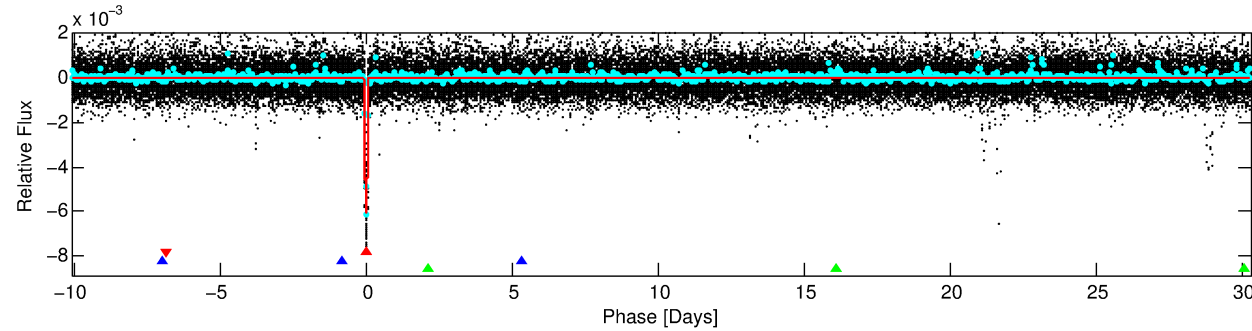
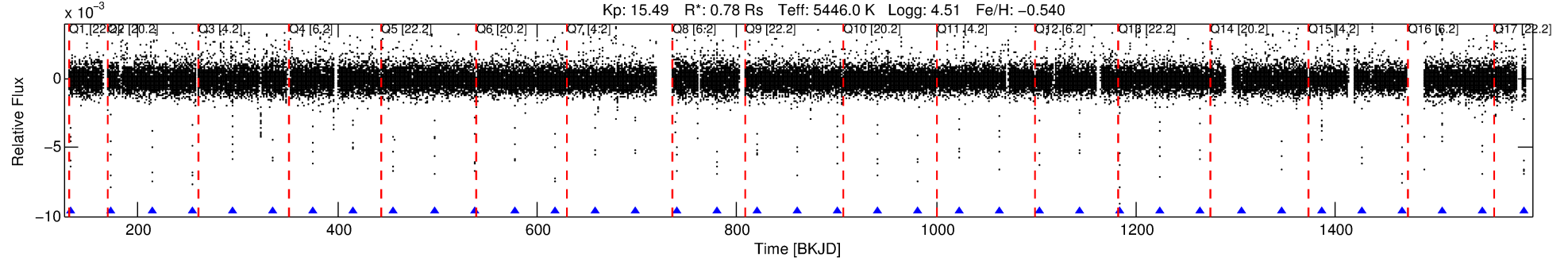
No Significant Match Found

DV One-Page Summary

KIC: 11818800 Candidate: 1 of 3 Period: 40.420 d

KOI: K00777.01 Corr: 0.991

Kp: 15.49 R*: 0.78 Rs Teff: 5446.0 K Logg: 4.51 Fe/H: -0.540



DV Fit Results:

Period = 40.41954 [0.00005] d
Epoch = 133.1446 [0.0009] BKJD
Rp/R* = 0.0871 [0.0018]
a/R* = 55.27 [1.48]
b = 0.91 [0.01]
Seff = 11.31 [2.74]
Teq = 468 [28] K
Rp = 7.42 [1.11] Re
a = 0.2062 [0.0275] AU
Ag = 111.04 [37.62] [2.92σ]
Teffp = 2347 [177] K [10.51σ]

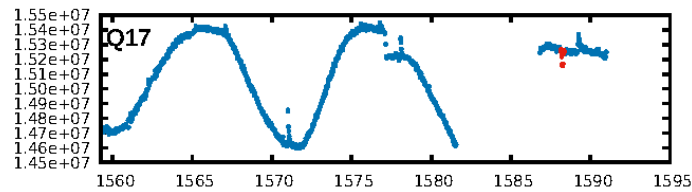
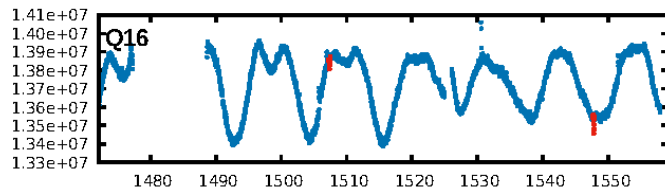
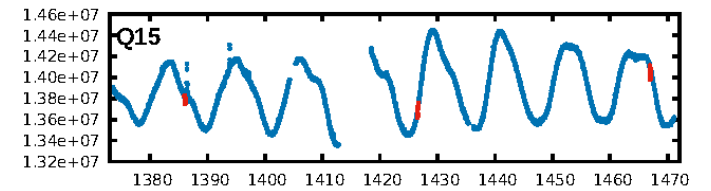
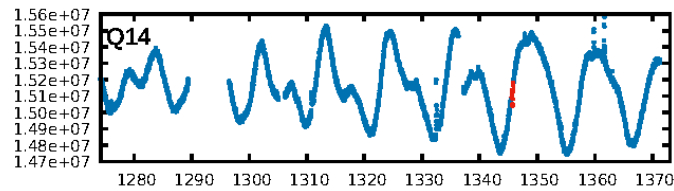
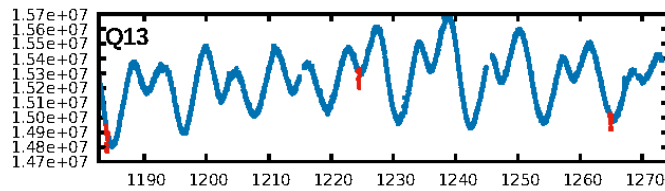
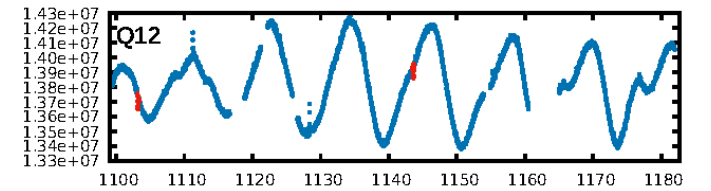
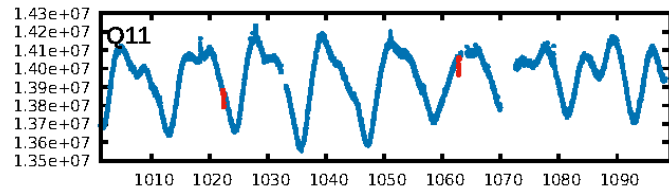
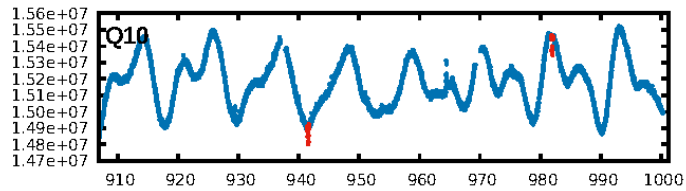
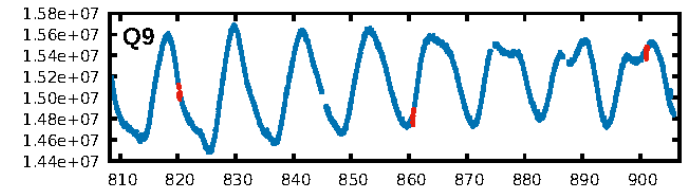
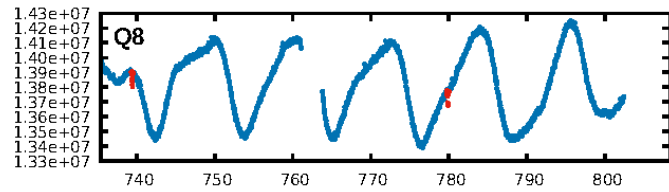
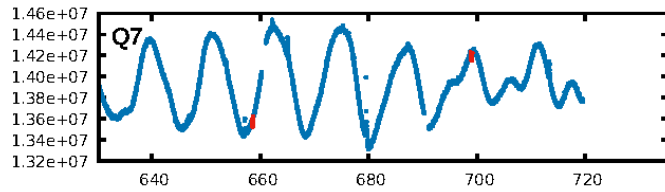
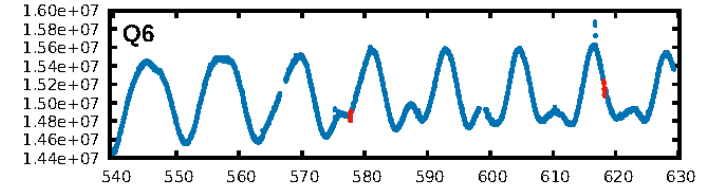
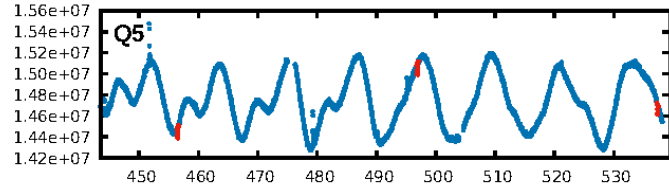
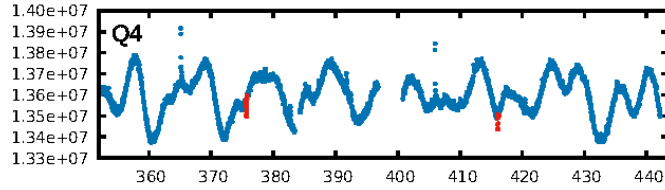
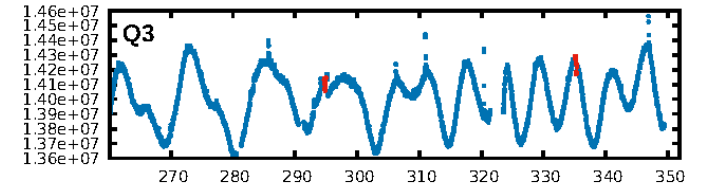
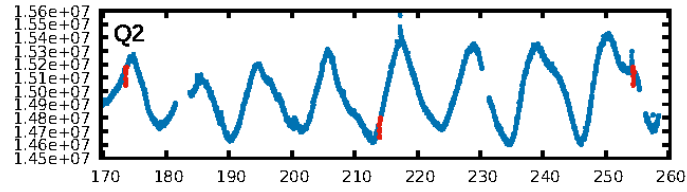
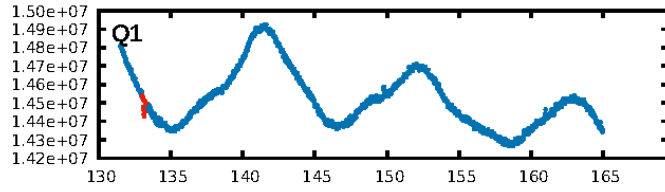
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1425.02σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 66.7%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [34/34]
GhostDiagnostic-chr: 2.481
Centroid-sig: 2.7%
Centroid-so: 0.324 arcsec [2.34σ]
OotOffset-rm: 0.057 arcsec [0.74σ]
KicOffset-rm: 0.053 arcsec [0.74σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

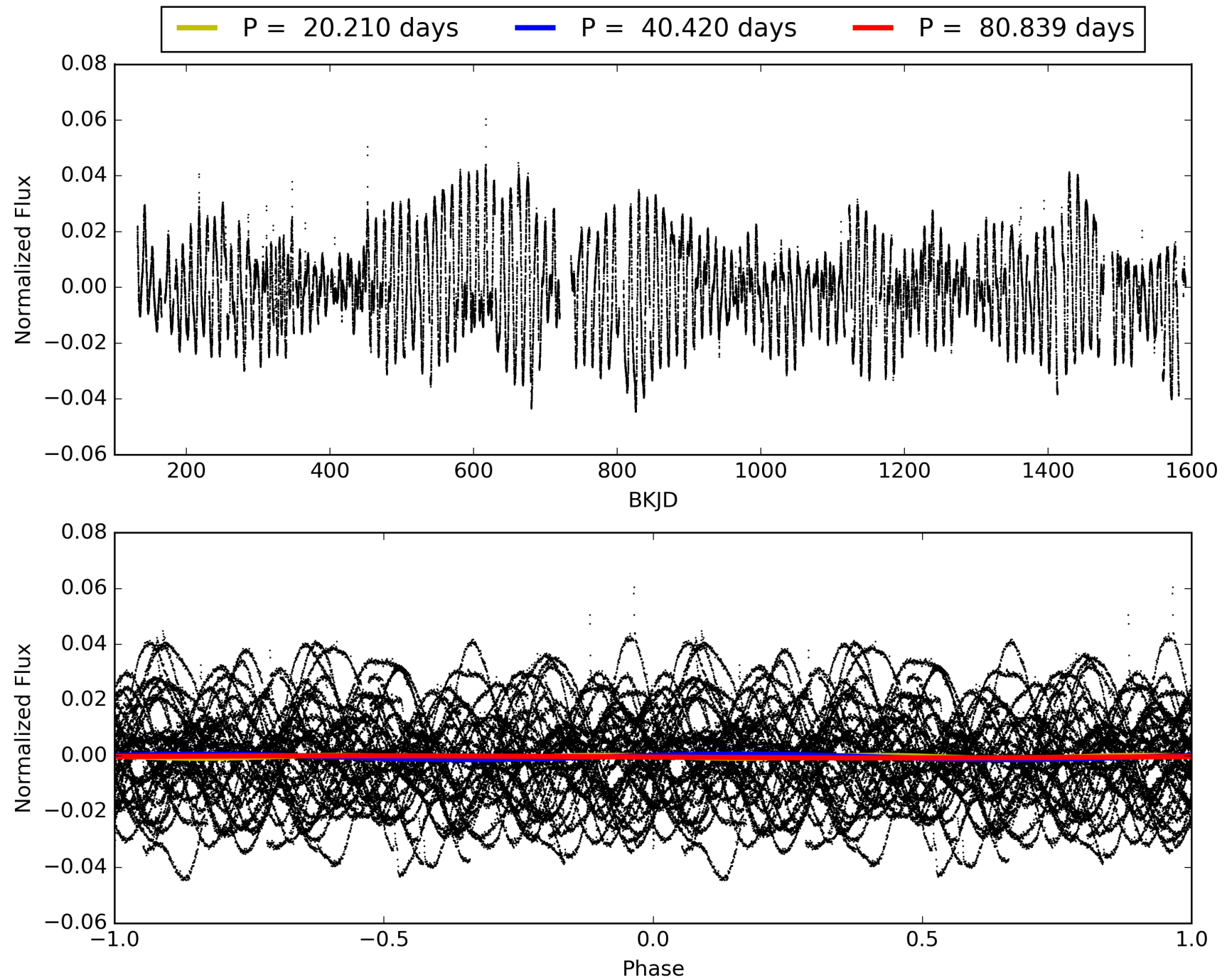
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011818800-01, PDC Light Curves

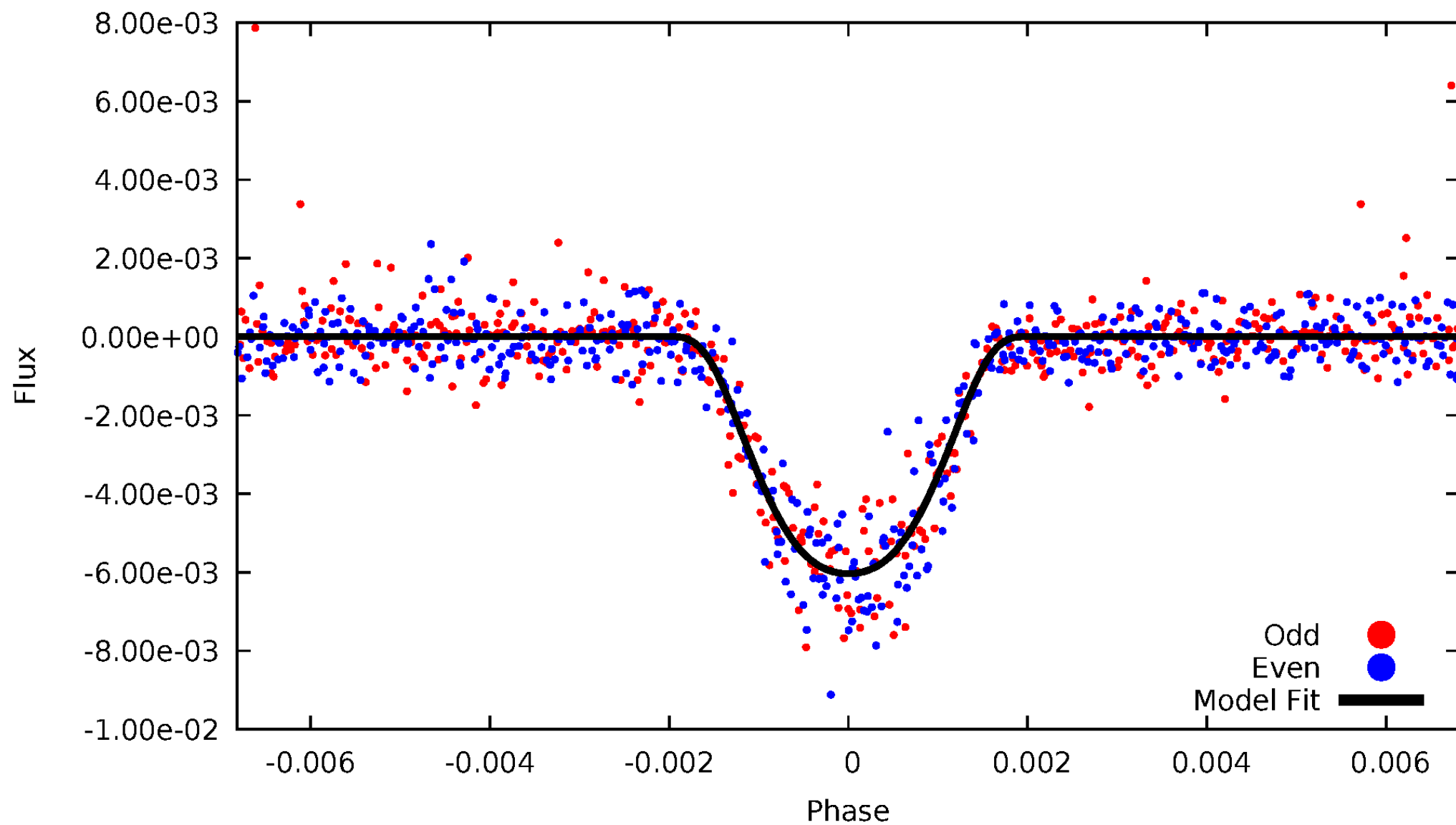


TCE 011818800-01



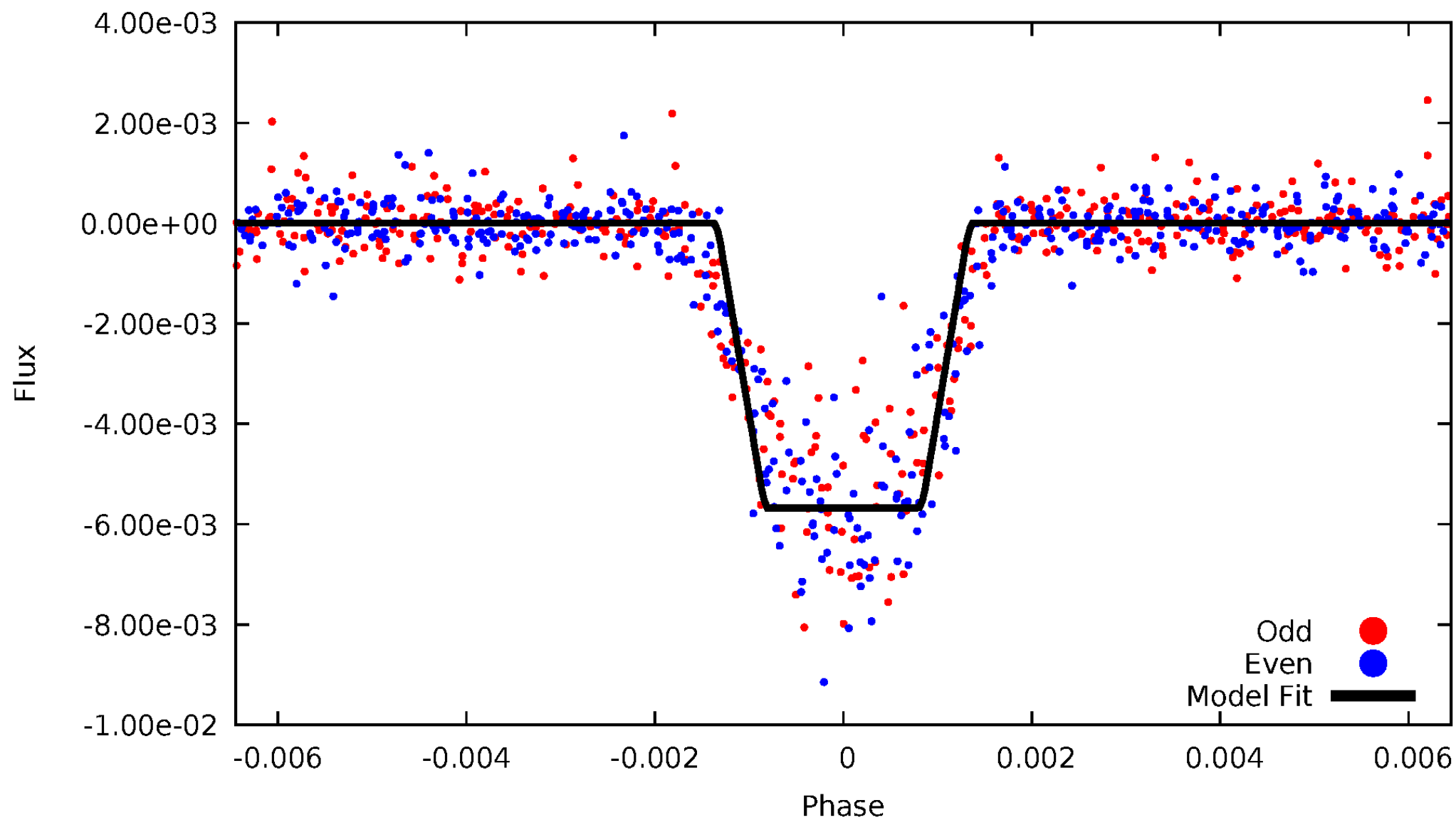
DV Odd/Even

TCE 011818800-01

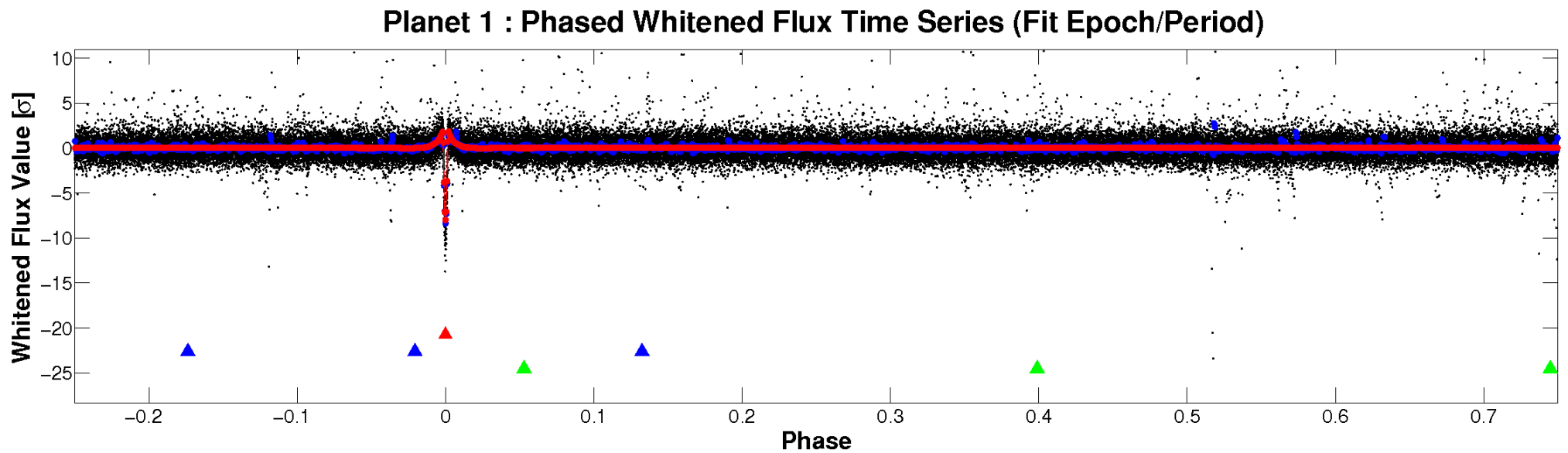
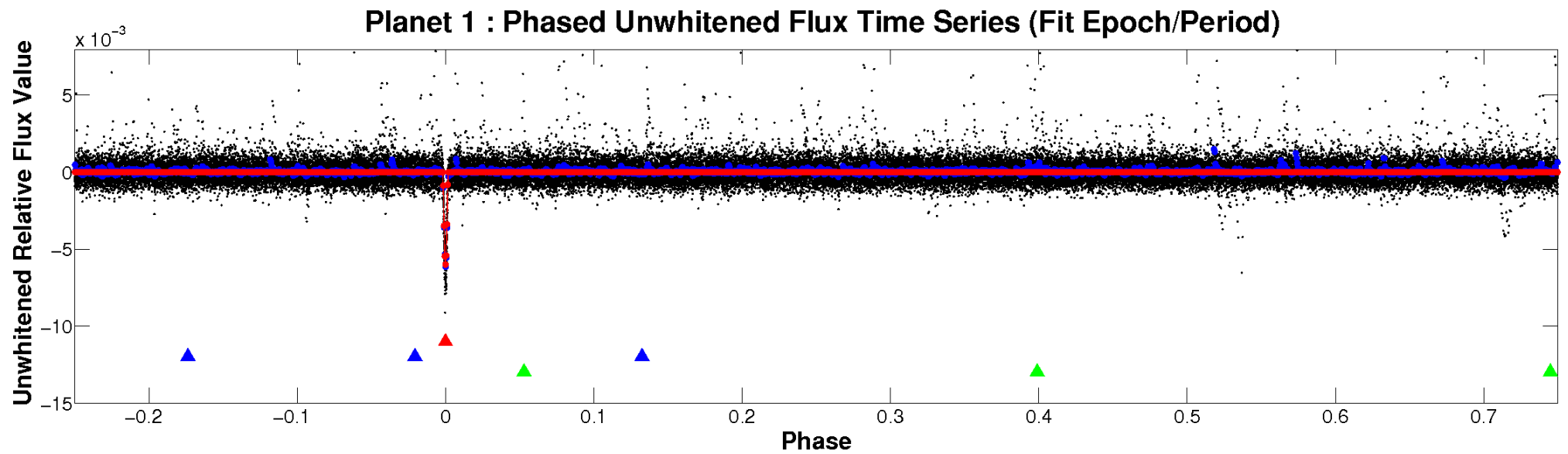


ALT Odd/Even

TCE 011818800-01

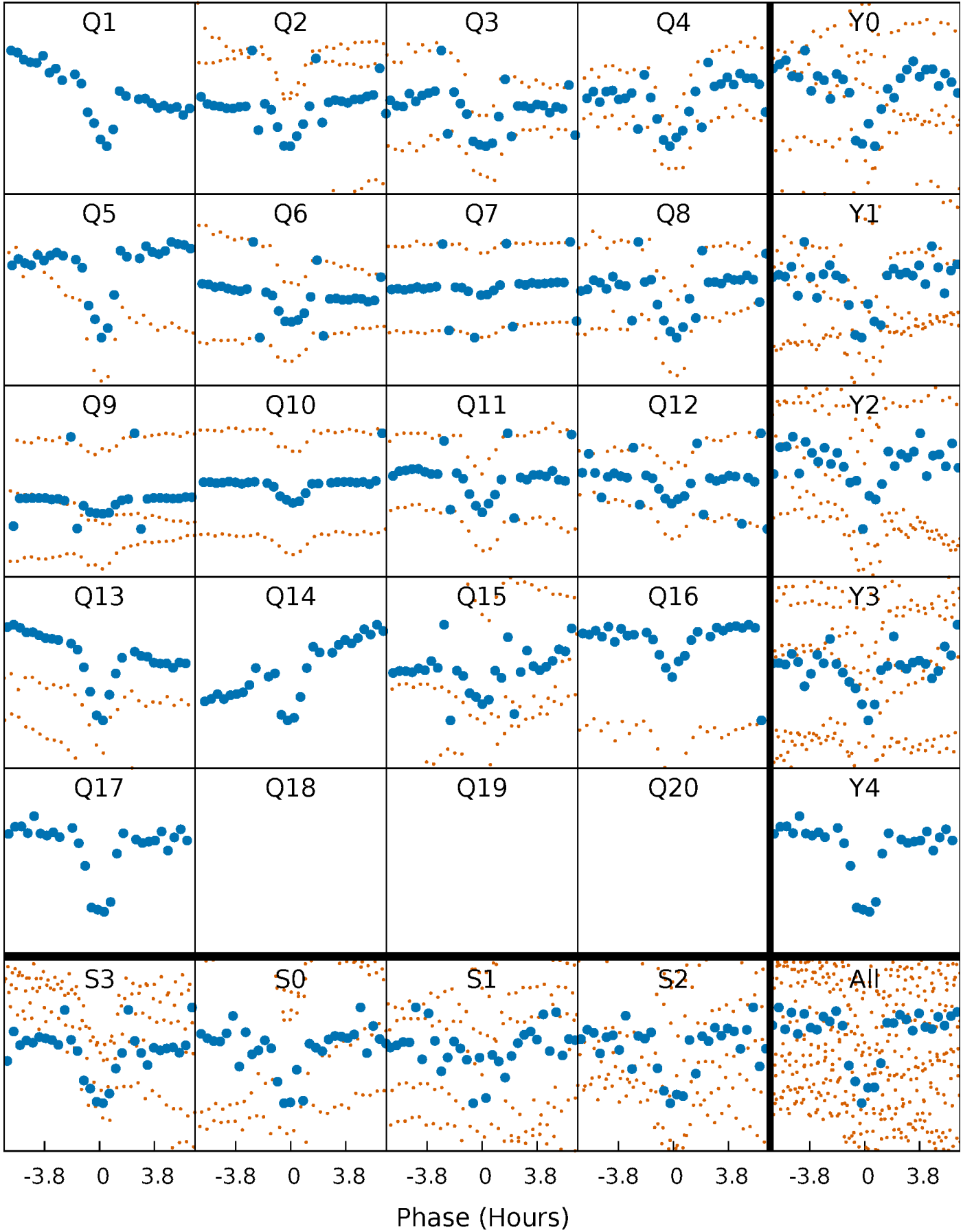


Non-Whitened Vs. Whitened Light Curve



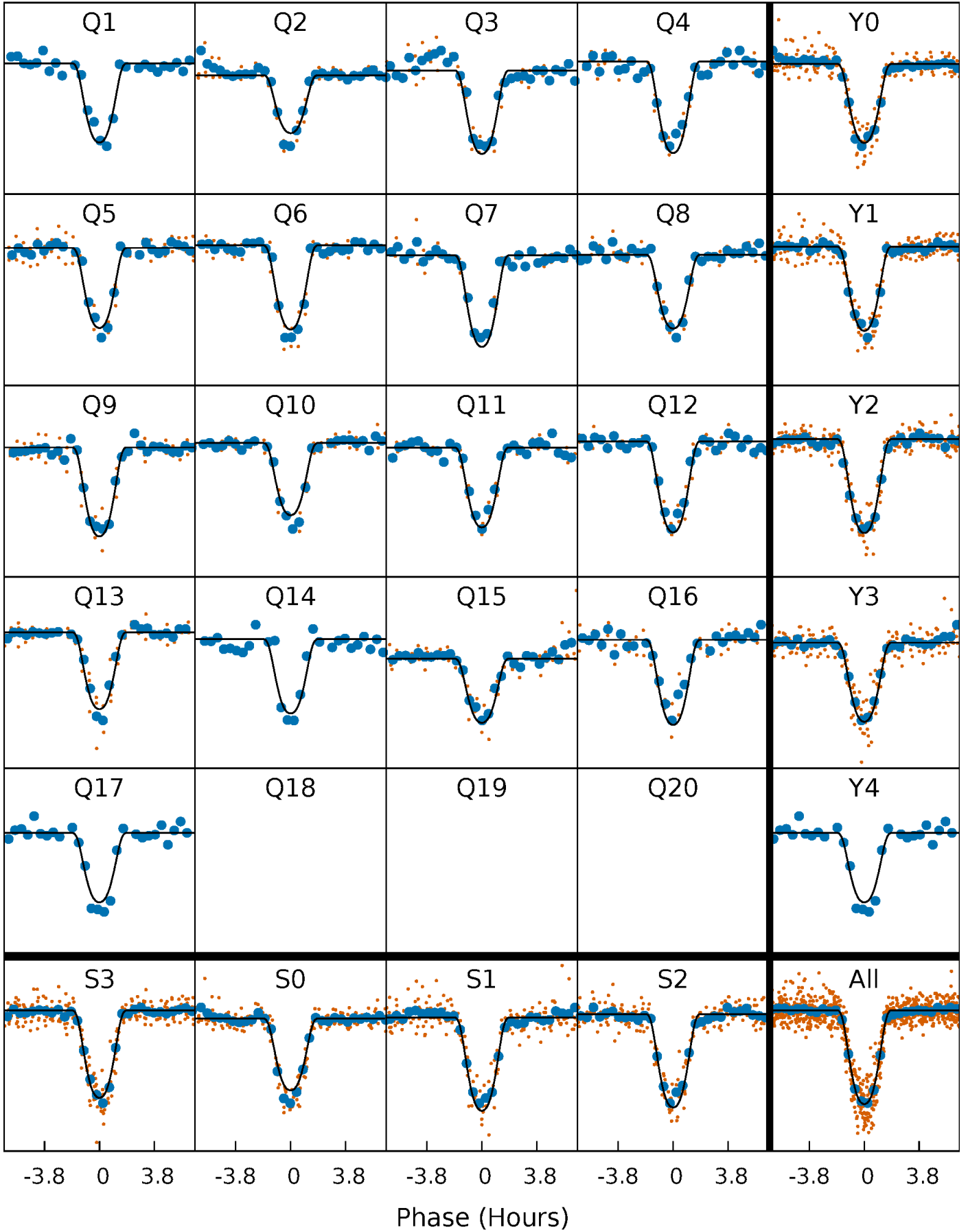
PDC Quarter-Phased Transit Curves

TCE 011818800-01 P= 40.419537 Days $T_0=133.144587$ (BKJD)



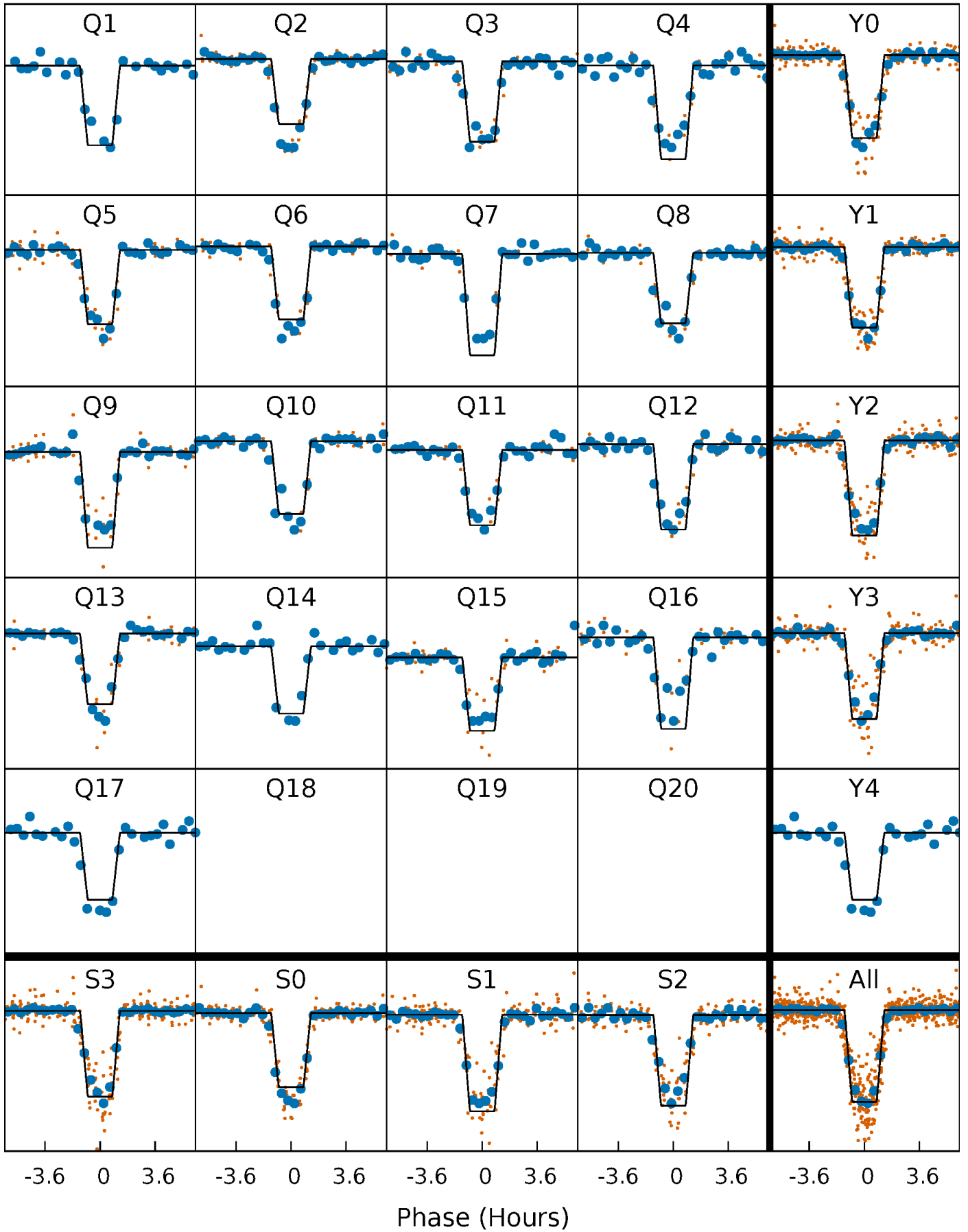
DV Quarter-Phased Transit Curves

TCE 011818800-01 P= 40.419537 Days $T_0=133.144587$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

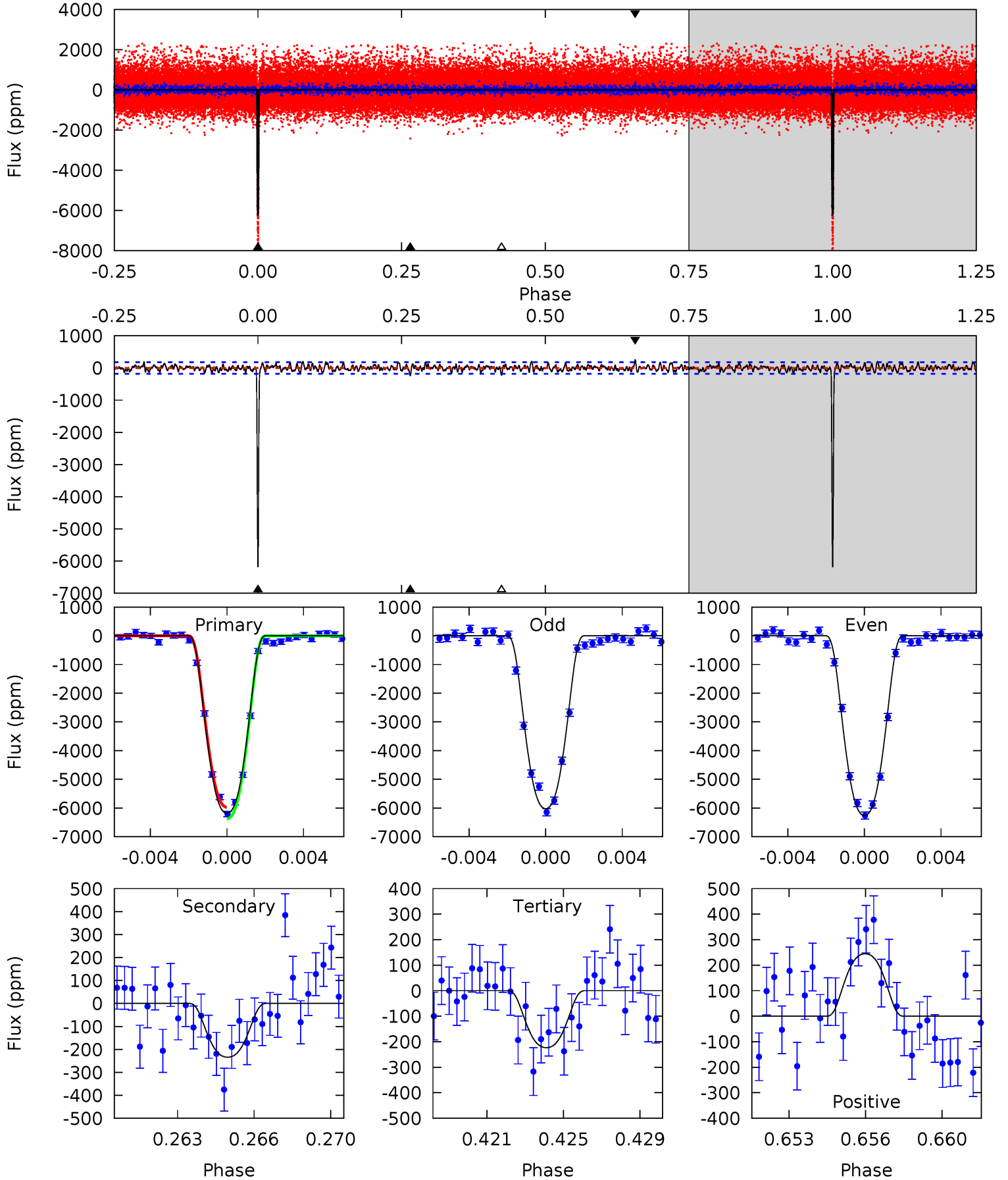
TCE 011818800-01 $P = 40.419646$ Days $T_0 = 133.142190$ (BKJD)



DV Model-Shift Uniqueness Test

011818800-01, P = 40.419537 Days, E = 92.725050 Days

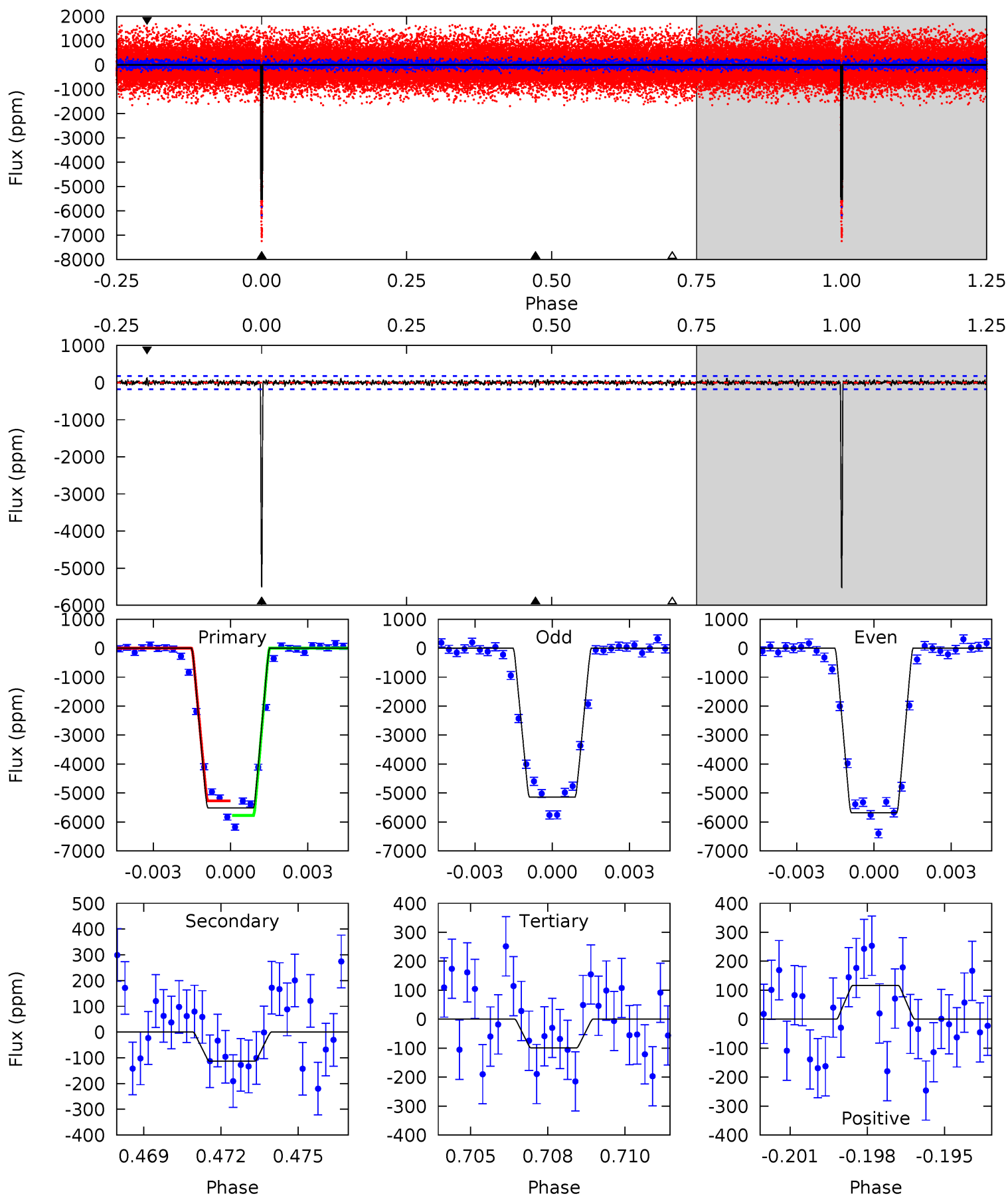
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
180.3	6.82	6.51	7.13	5.21	2.89	1.92	173.7	173.1	0.31	-0.31	3.48	1.02	0.04	5.91



Alt Model-Shift Uniqueness Test

011818800-01, P = 40.419646 Days, E = 92.722544 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
164.1	3.36	2.96	3.46	5.27	3.00	0.81	161.2	160.7	0.40	-0.10	7.80	1.00	0.02	7.32



Stellar Parameters For KIC 011818800

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5446^{+179}_{-163}	$4.507^{+0.116}_{-0.105}$	$-0.540^{+0.350}_{-0.300}$	$0.781^{+0.116}_{-0.095}$	$0.714^{+0.104}_{-0.037}$	$2.111^{+1.044}_{-0.644}$
	+3%/-3%	+3%/-2%	+65%/-56%	+15%/-12%	+15%/-5%	+49%/-31%
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 011818800-01 / KOI 0777.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-234 ± 34	$7.47^{+0.70}_{-0.58}$	655^{+30}_{-33}	2950^{+92}_{-86}	99^{+23}_{-20}
Alt.	-113 ± 34	$6.41^{+0.65}_{-0.49}$	652^{+33}_{-32}	2775^{+125}_{-137}	64^{+23}_{-21}

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

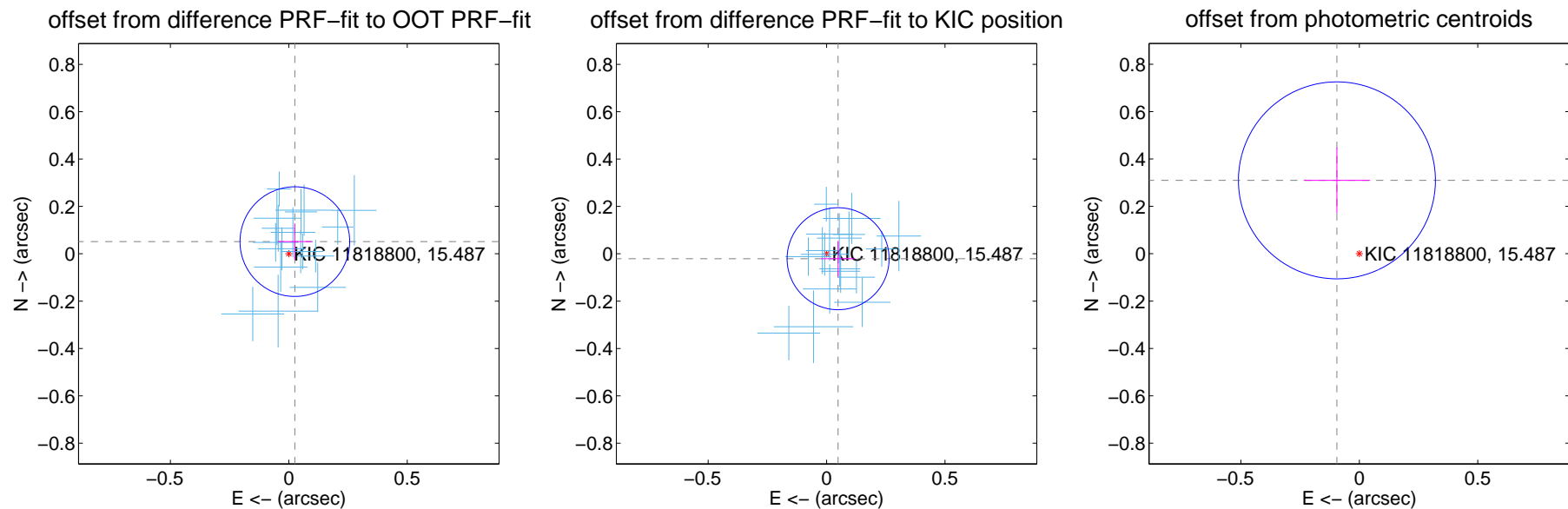
DV Centroid Data

Supplemental centroid analysis for 011818800-01. Kepler magnitude: 15.49. Transit SNR 83.30

There are 17 quarters with good PRF difference image offsets

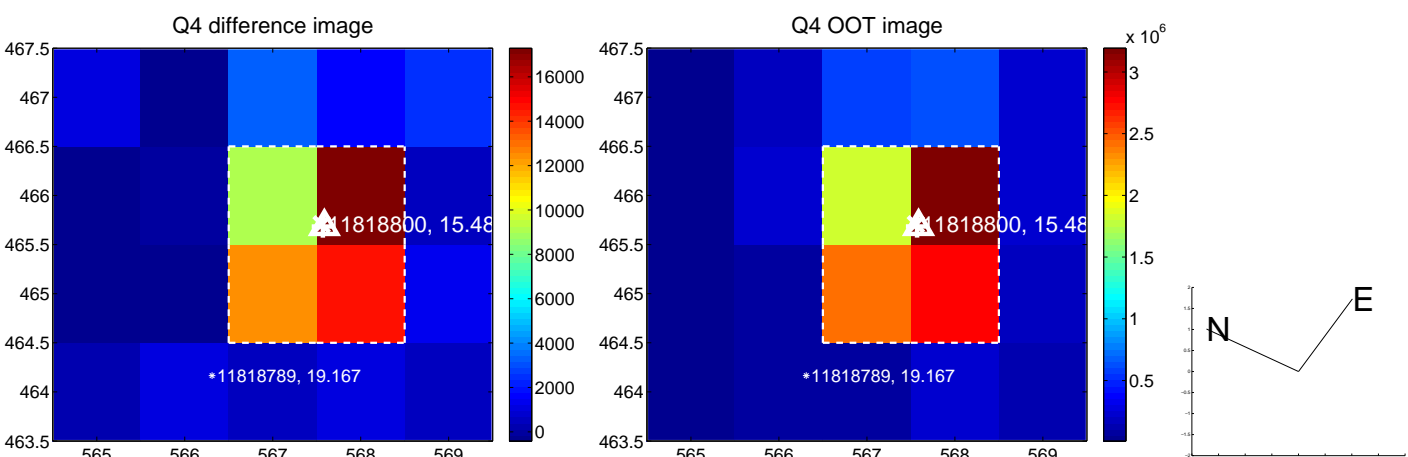
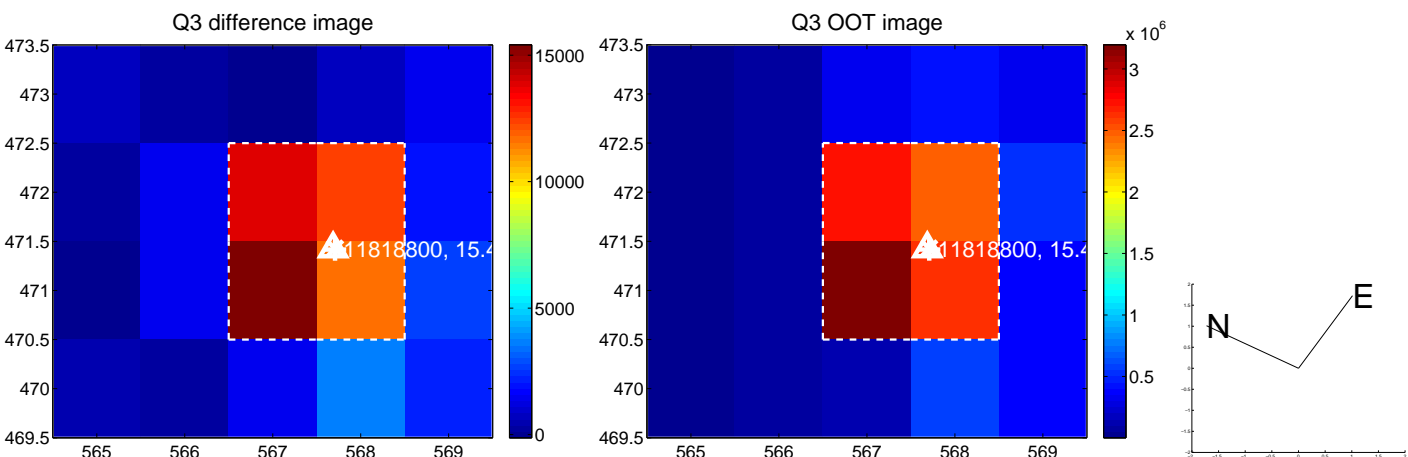
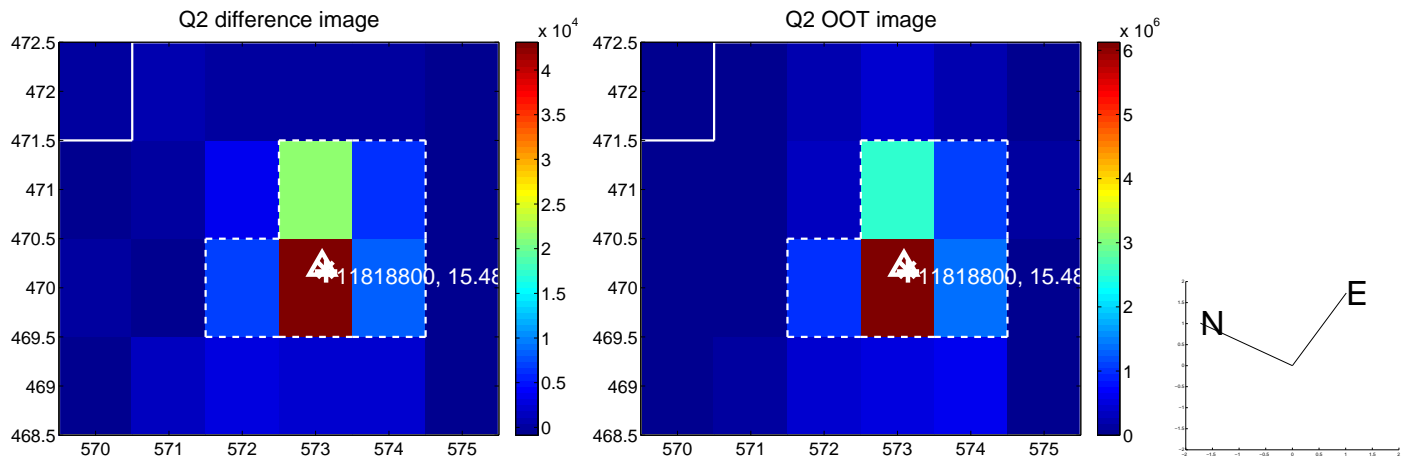
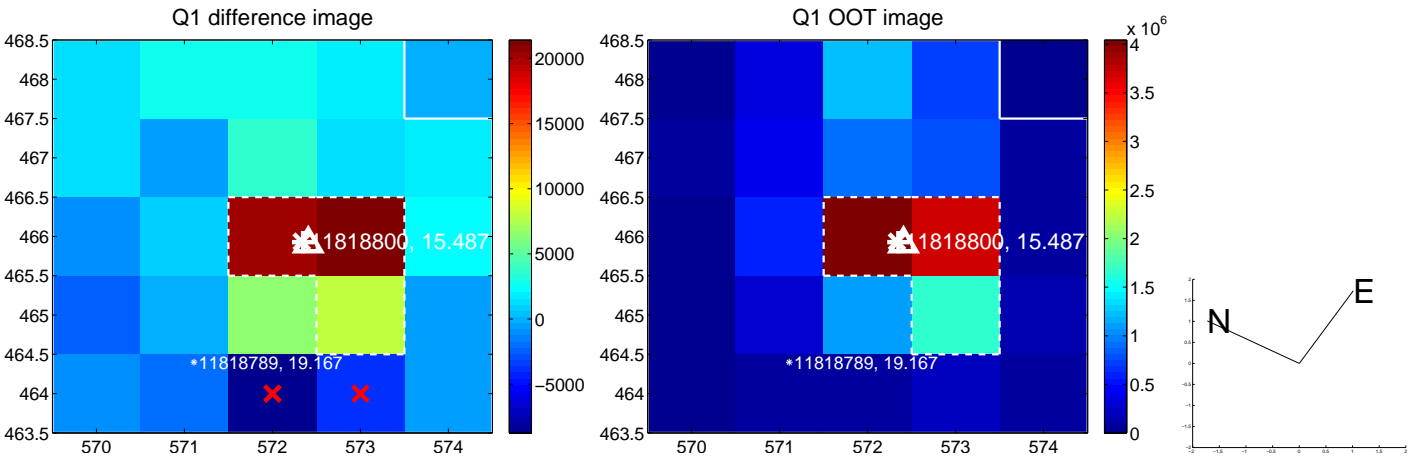
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.057 ± 0.077	0.74	-0.025 ± 0.072	0.051 ± 0.076
PRF-fit source offset from KIC position	0.053 ± 0.072	0.74	-0.049 ± 0.071	-0.021 ± 0.075
photometric centroid source offset	0.32 ± 0.14	2.34	0.09 ± 0.14	0.31 ± 0.14

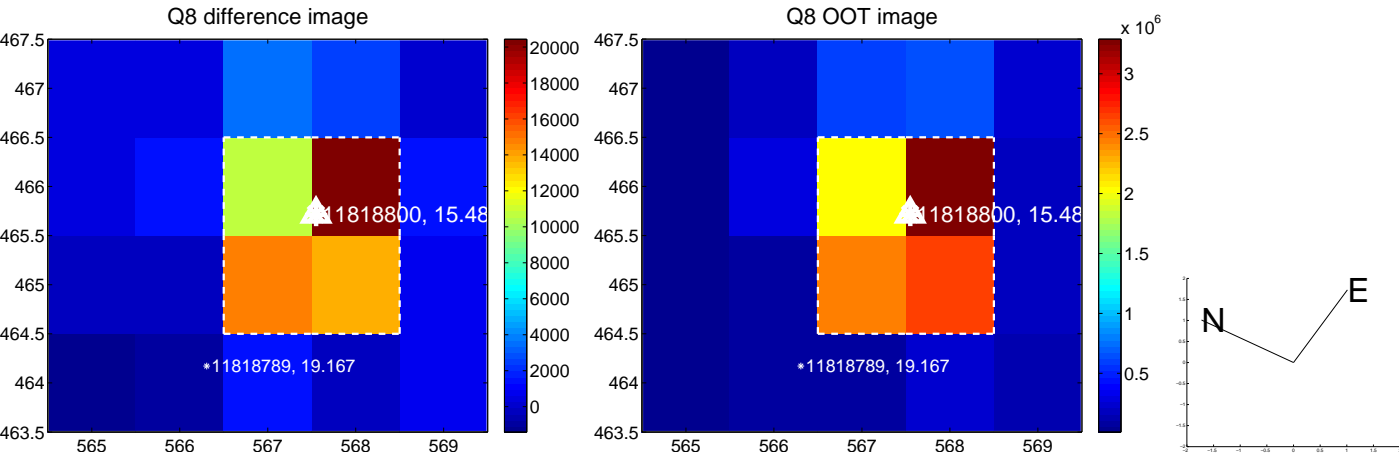
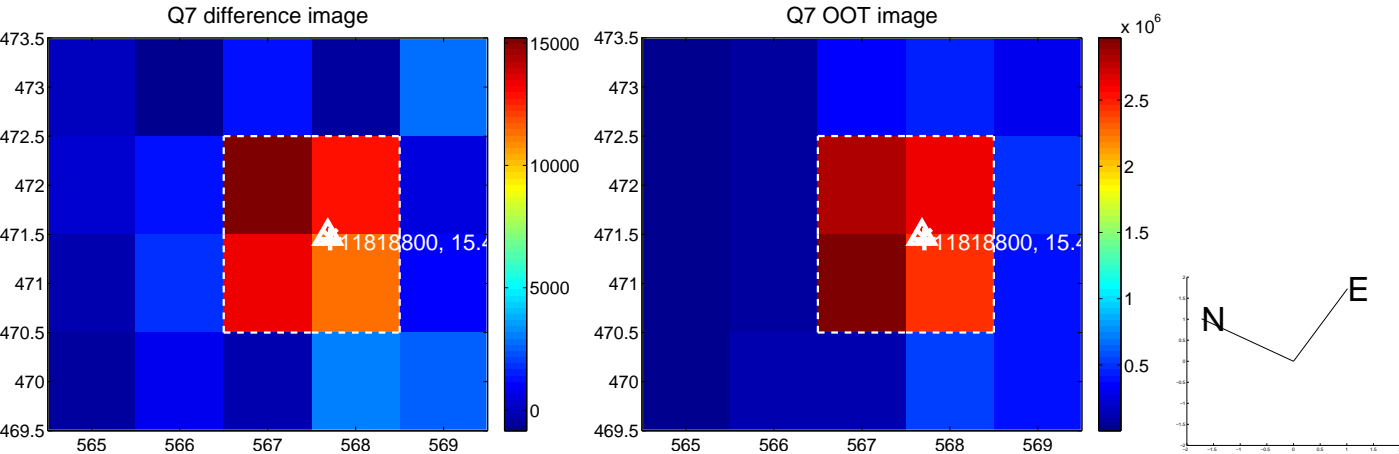
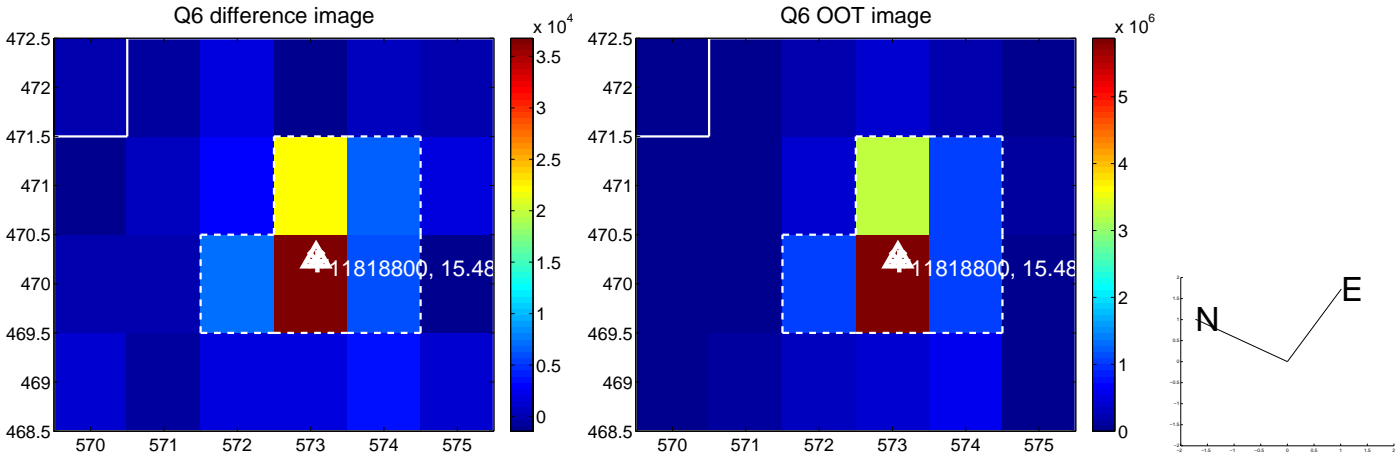
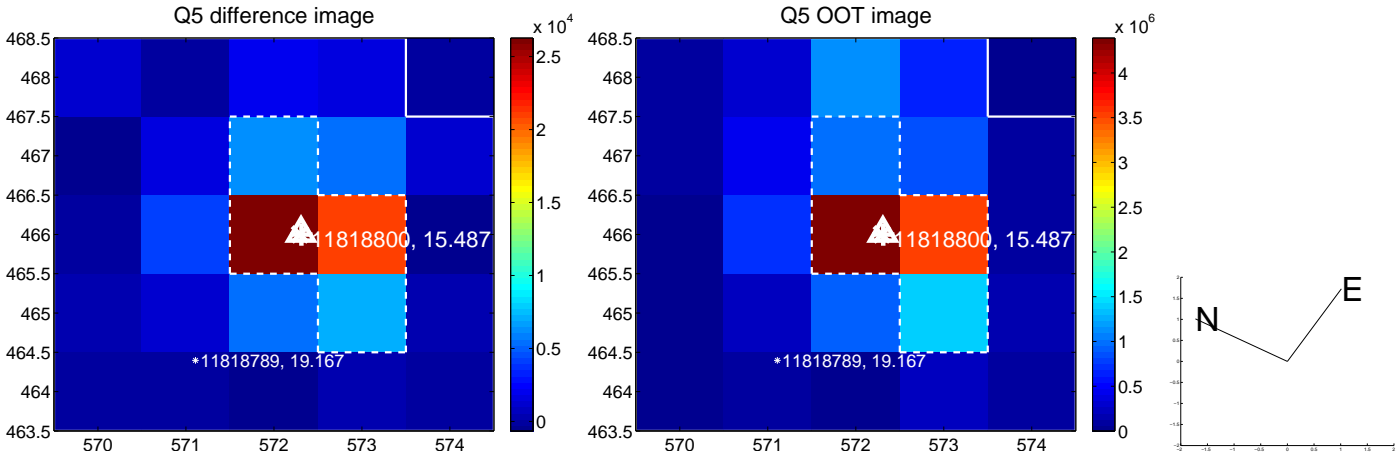


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

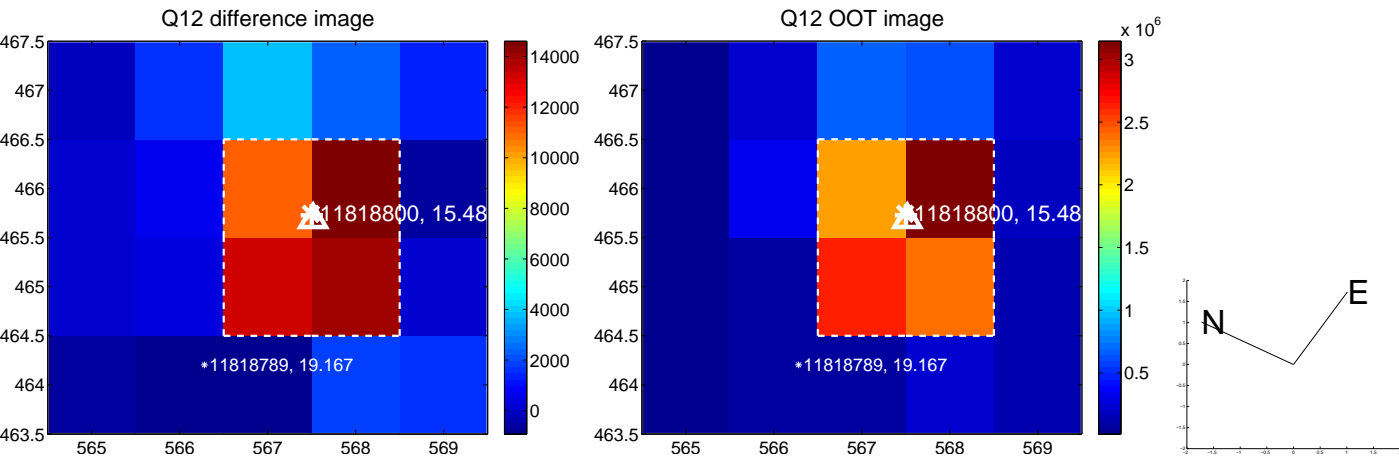
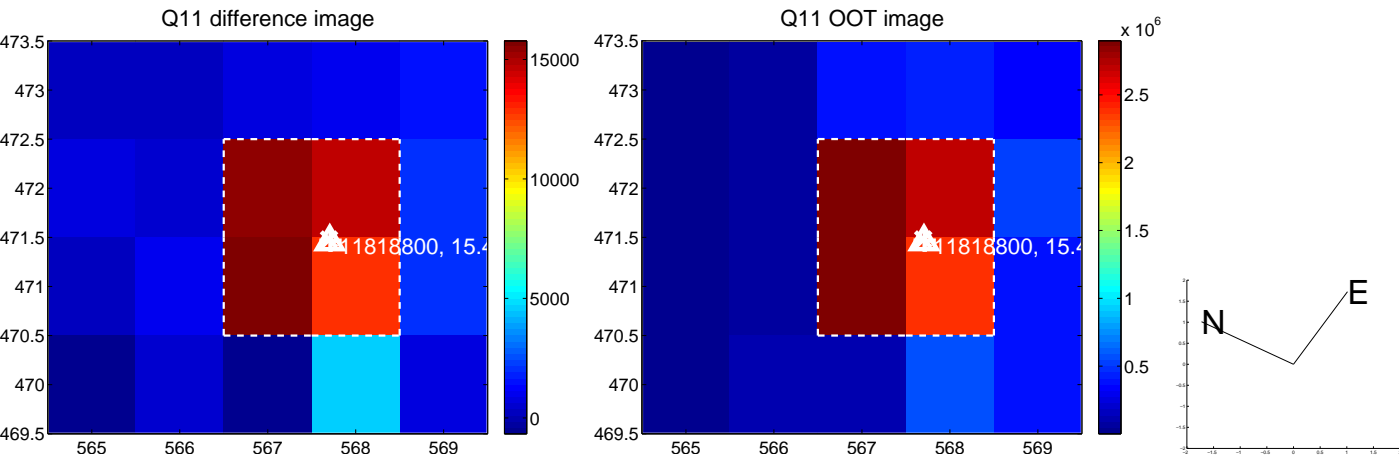
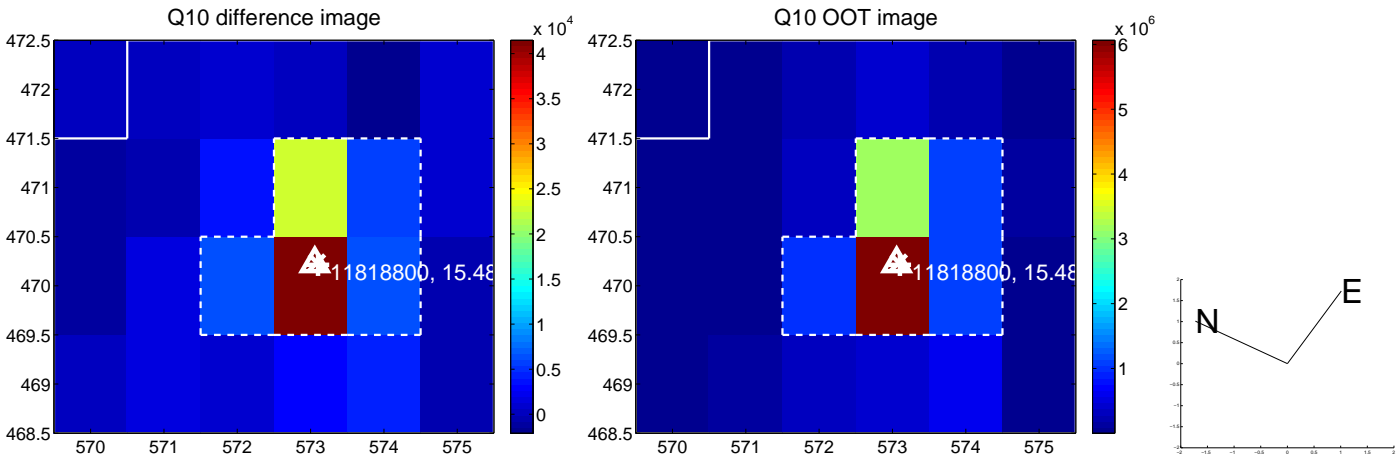
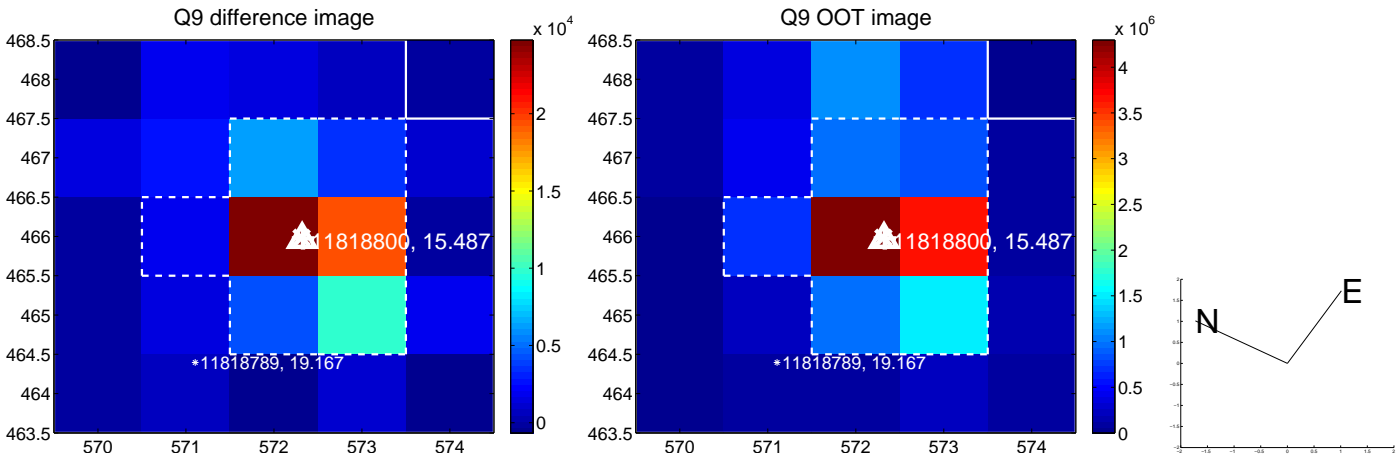
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



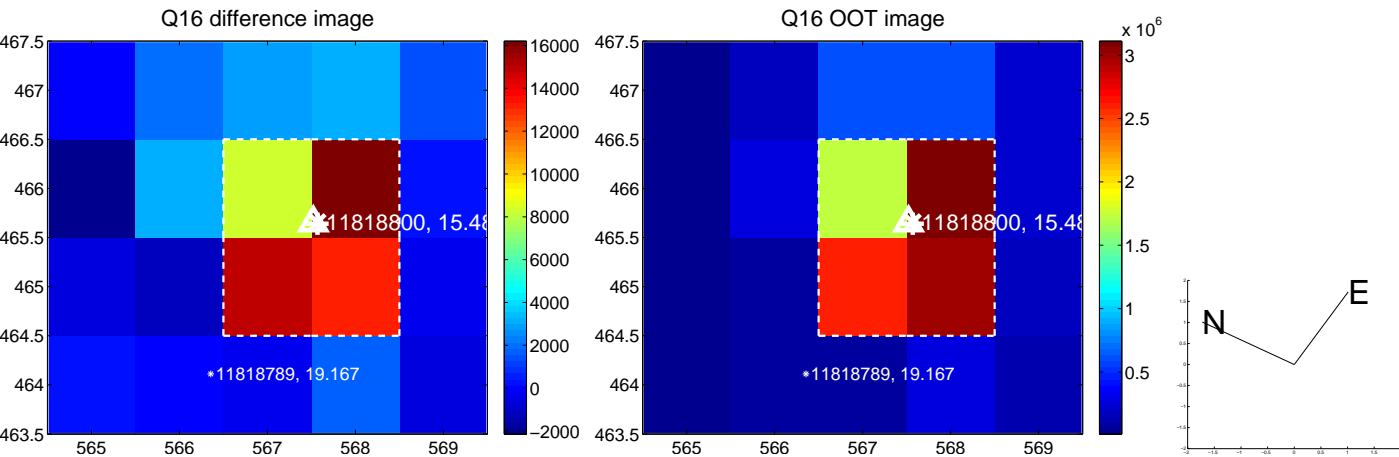
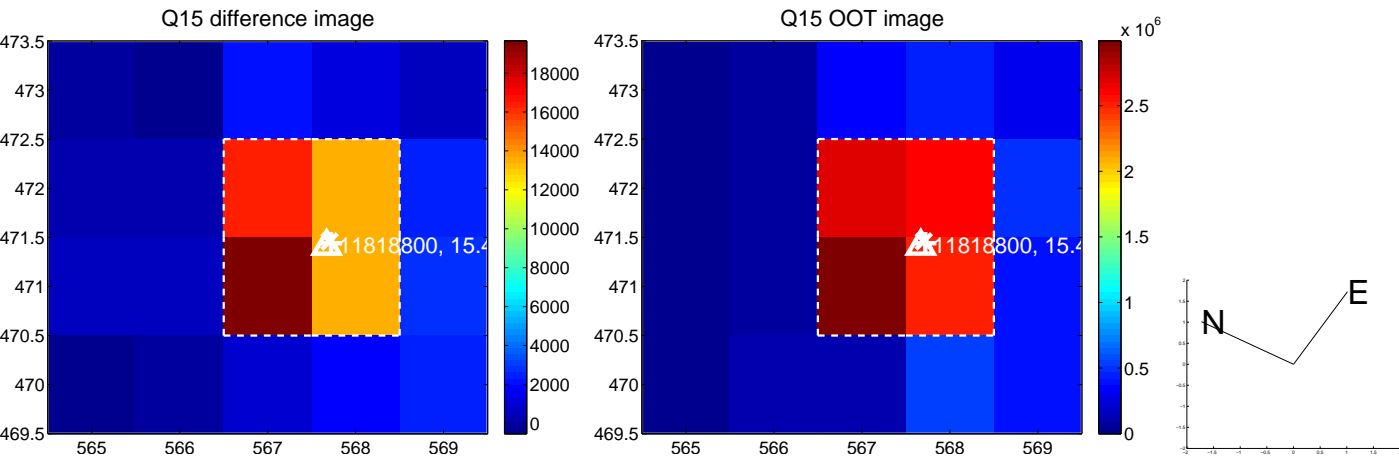
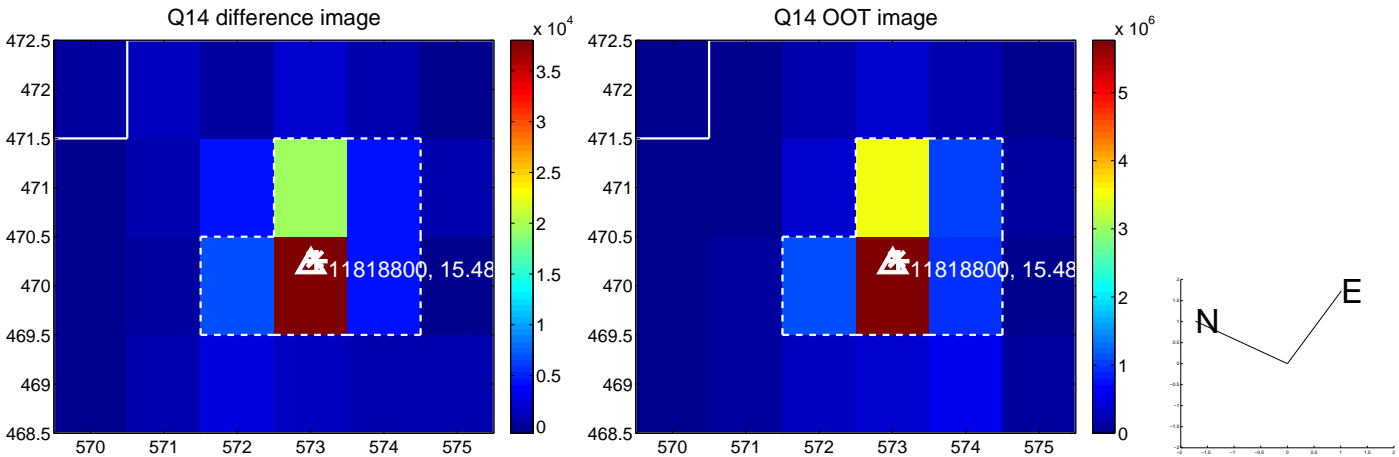
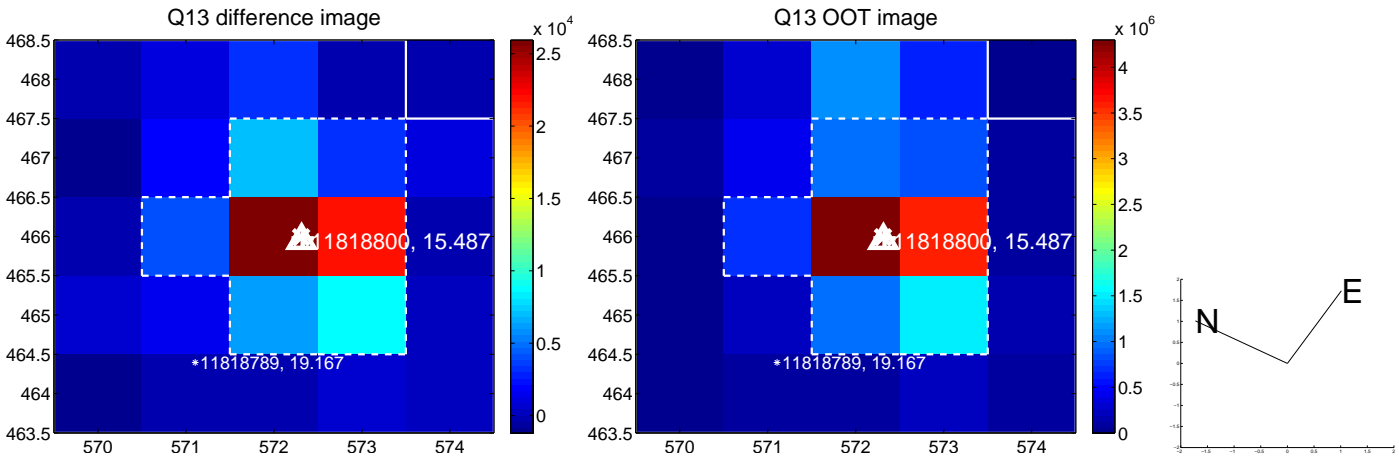
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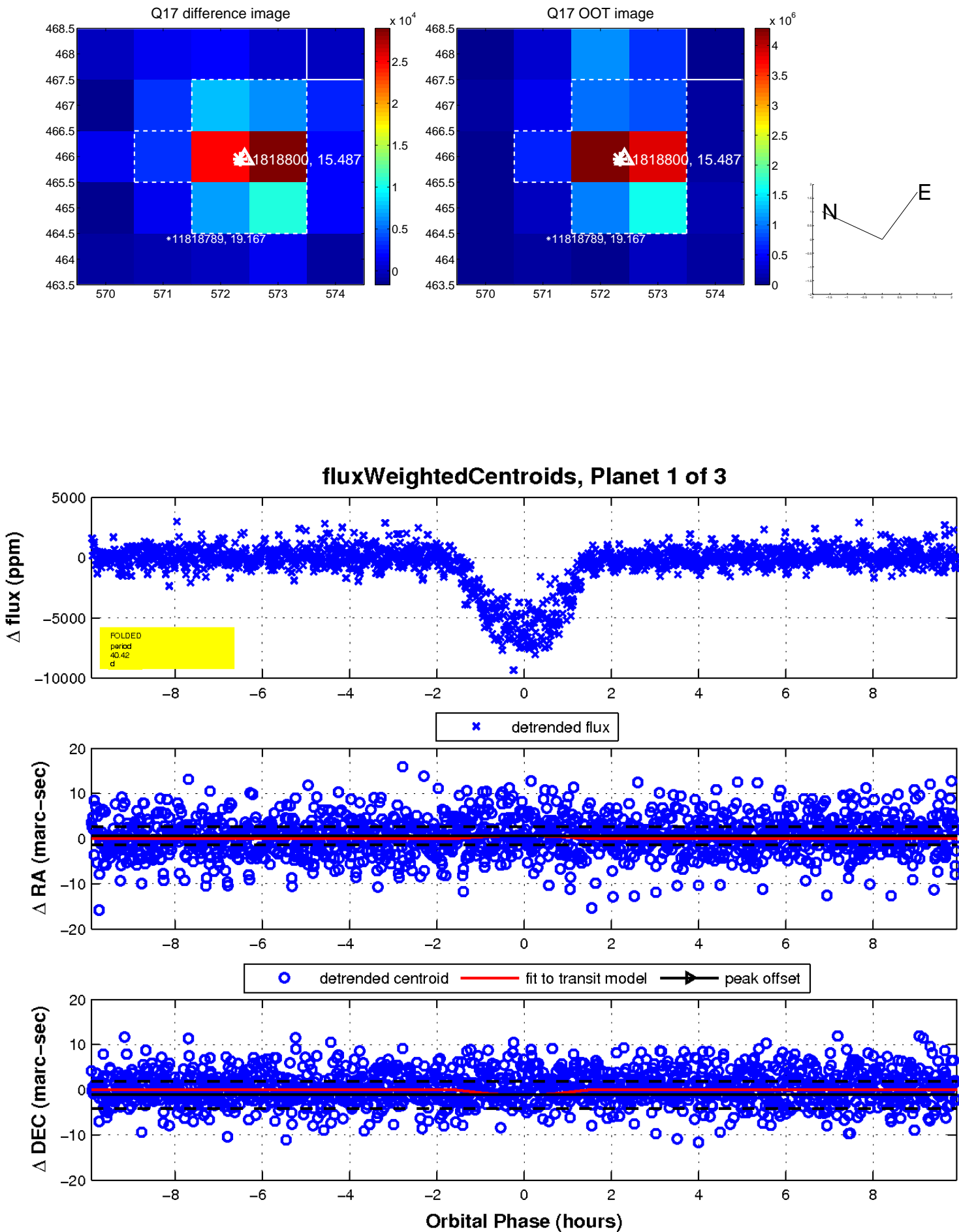
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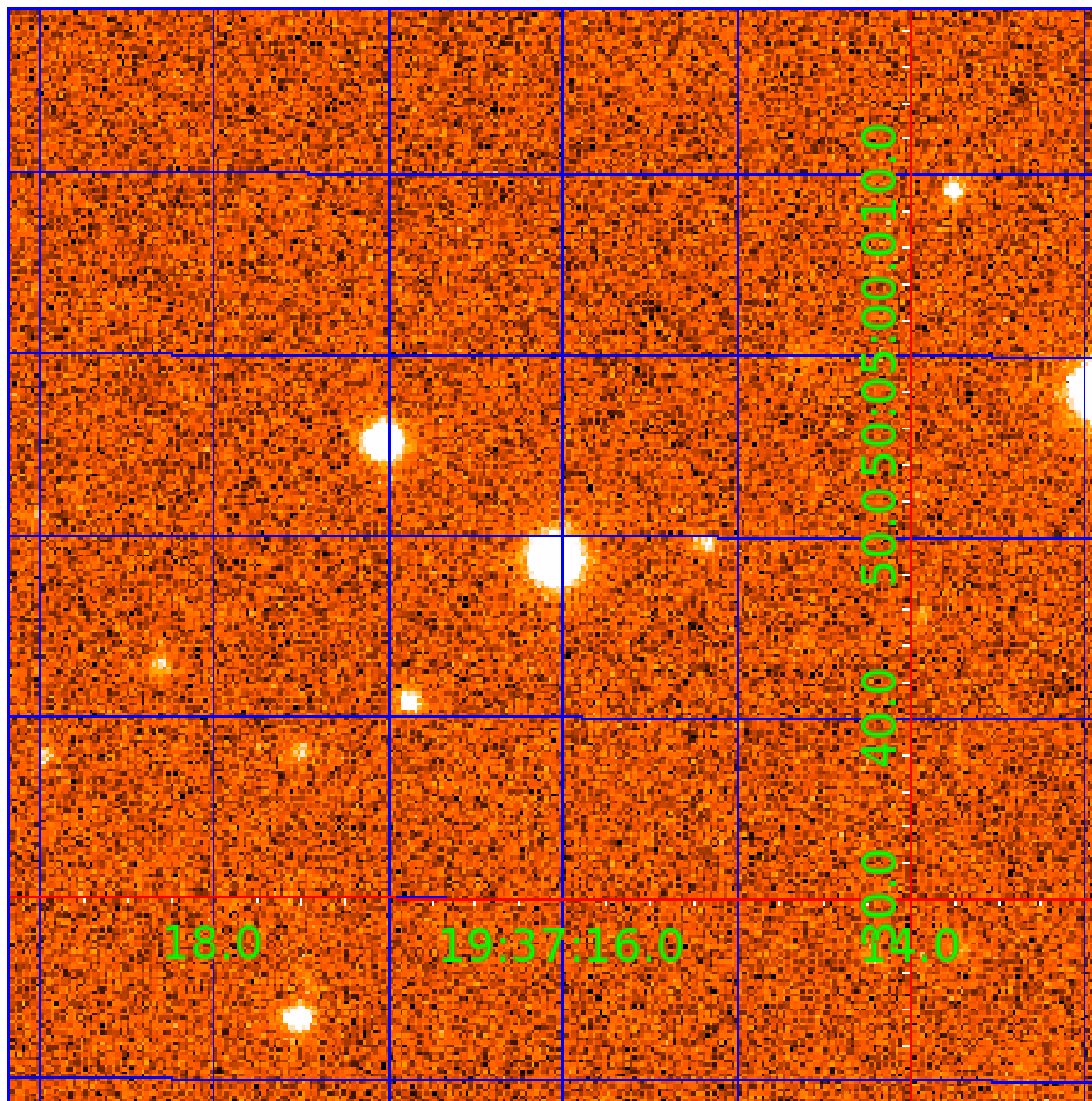


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011818800

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011818800-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
011818800-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011818800-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—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.

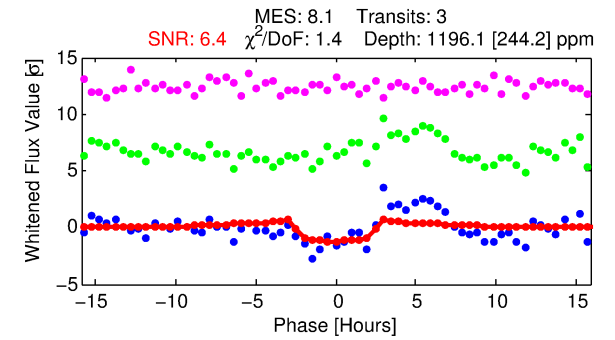
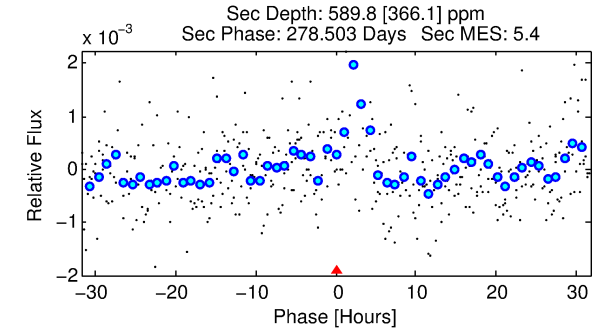
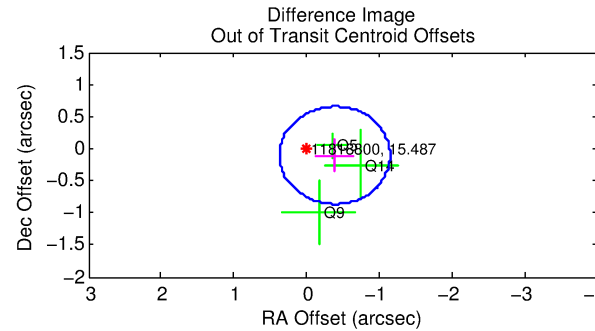
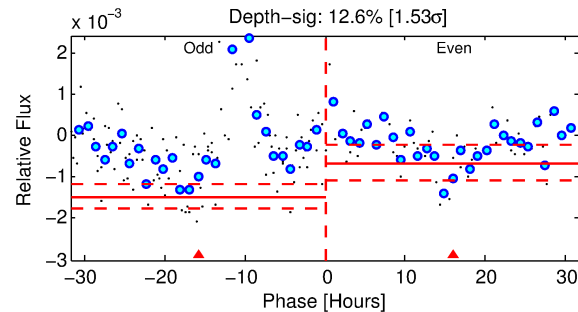
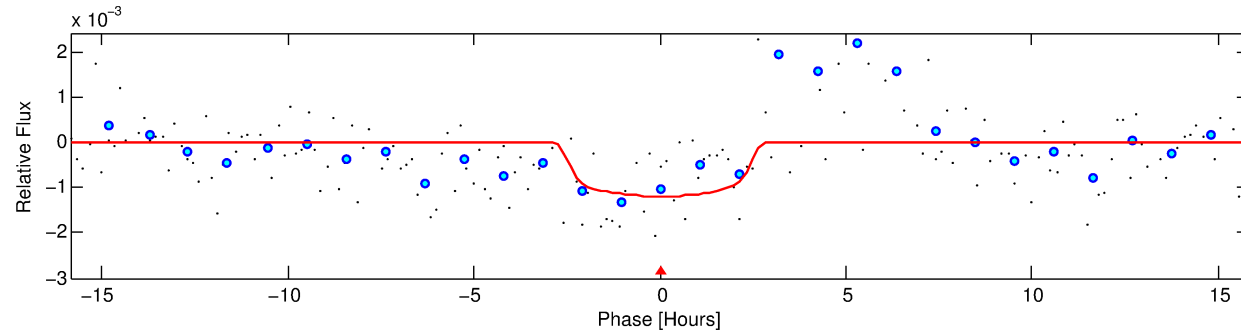
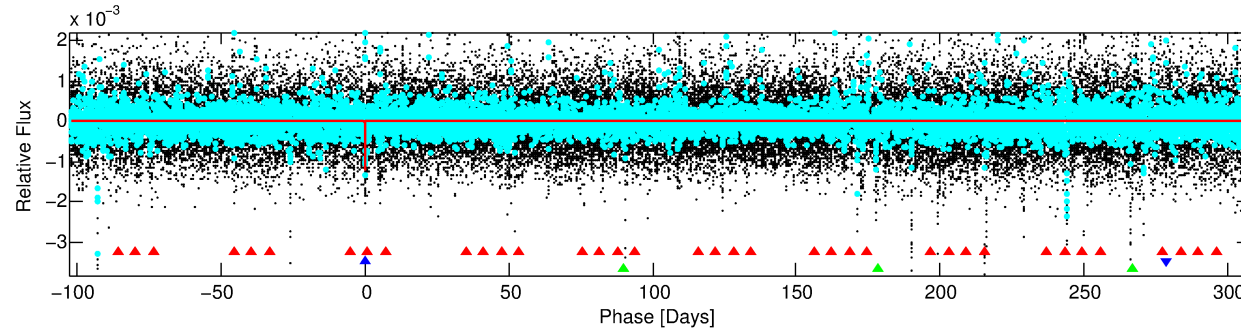
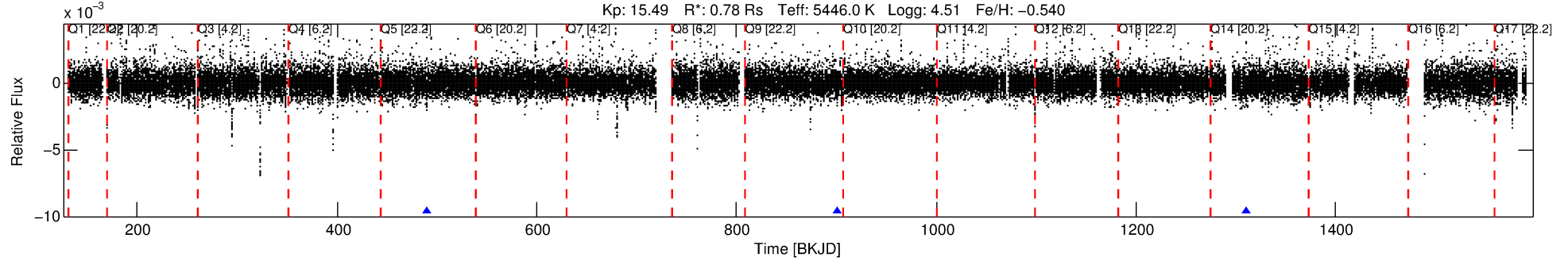
Ephemeris Match Information For 011818800-02

No Significant Match Found

DV One-Page Summary

KIC: 11818800 Candidate: 2 of 3 Period: 410.383 d
KOI: K00777 Corr: No Ephemeris Match

Kp: 15.49 R*: 0.78 Rs Teff: 5446.0 K Logg: 4.51 Fe/H: -0.540



DV Fit Results:

Period = 410.38291 [0.01087] d
Epoch = 489.9013 [0.0120] BKJD
Rp/R* = 0.0330 [0.0459]
a/R* = 497.37 [2951.40]
b = 0.60 [6.30]
Seff = 0.51 [0.12]
Teq = 216 [13] K
Rp = 2.81 [3.94] Re
a = 0.9666 [0.1287] AU
Ag = 38348.99 [109723.55] [0.35σ]
Teffp = 4673 [3337] K [1.34σ]

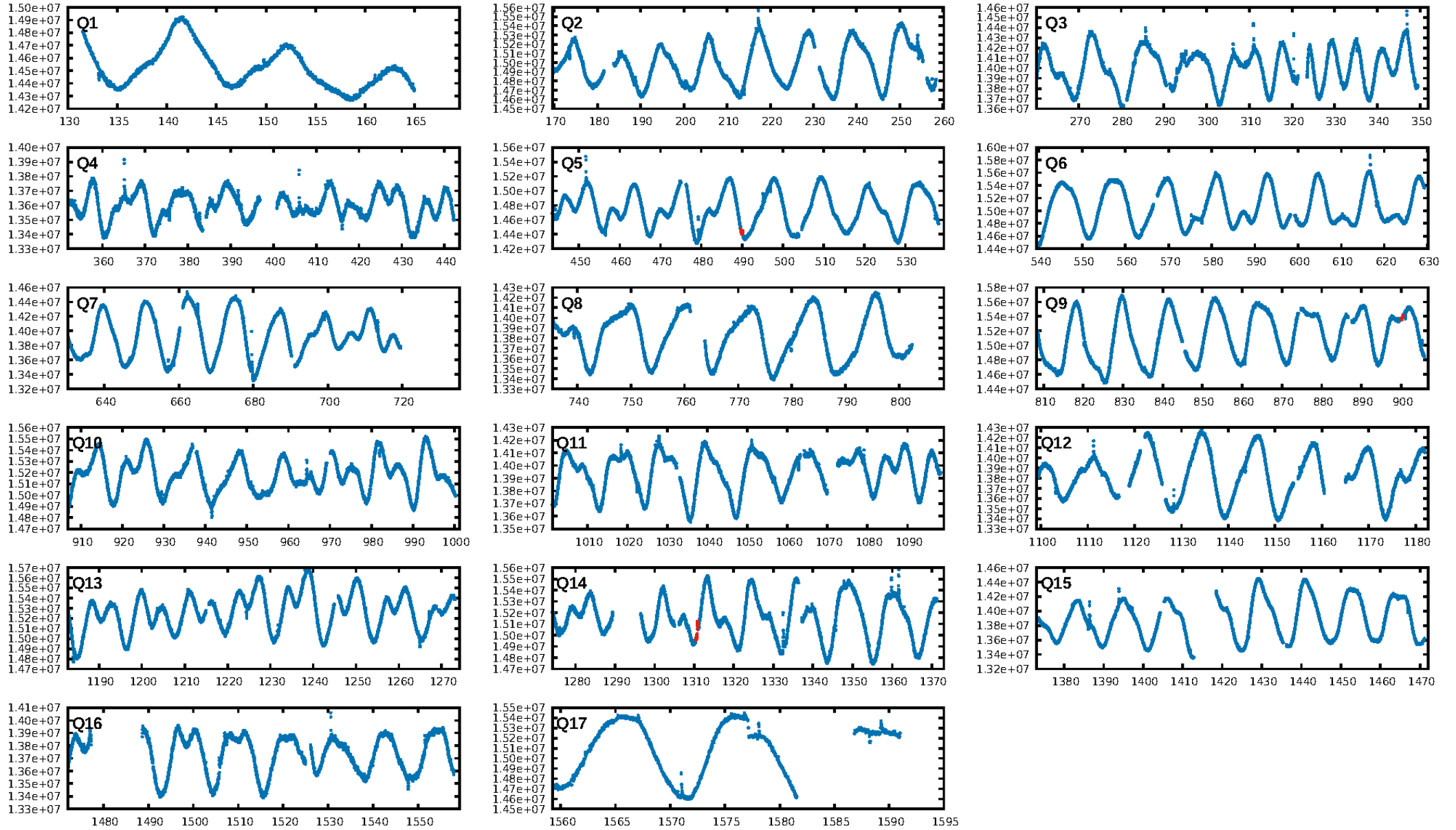
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1425.02σ]
LongPeriod-sig: 100.0% [260.02σ]
ModelChiSquare2-sig: 10.0%
ModelChiSquareGof-sig: 35.8%
Bootstrap-pfa: 2.23e-07
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.222
Centroid-sig: 32.8%
Centroid-so: 2.211 arcsec [1.01σ]
OotOffset-rm: 0.401 arcsec [1.58σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-rm: 0.403 arcsec [1.58σ]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

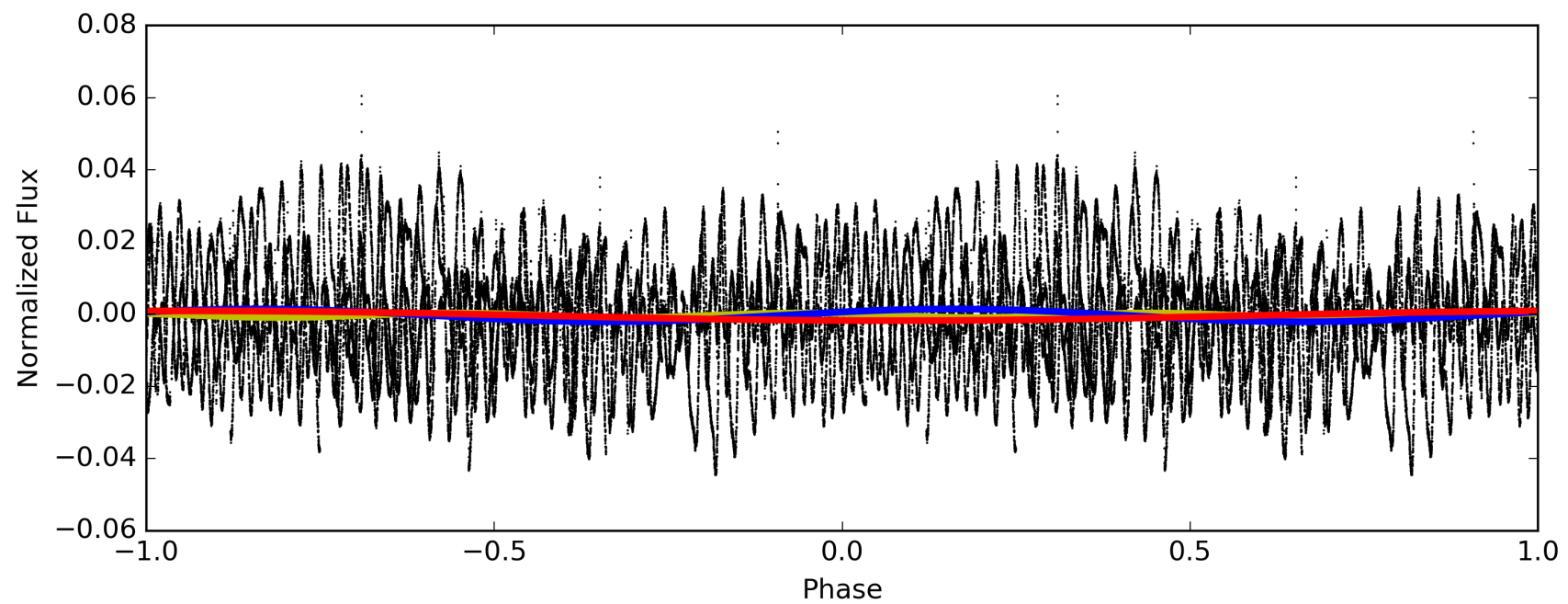
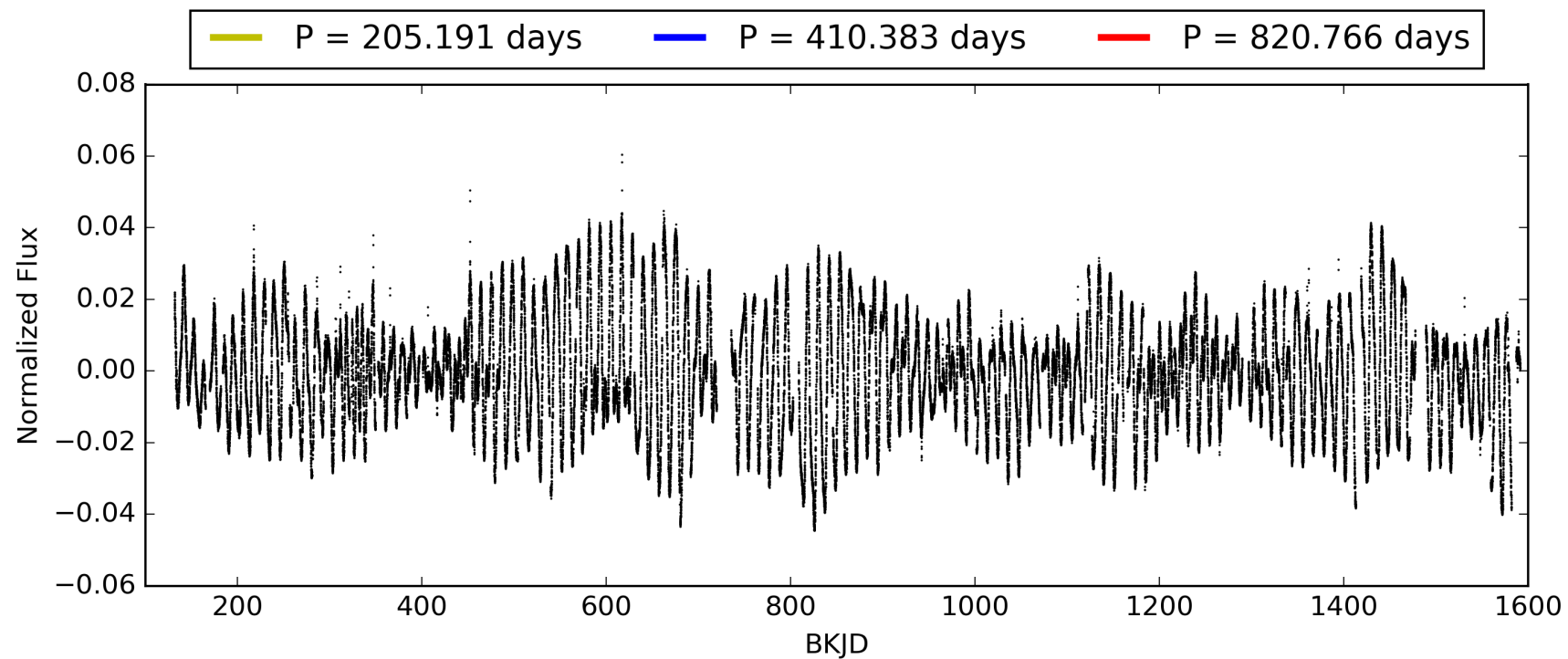
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:37:50 Z

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

TCE 011818800-02, PDC Light Curves

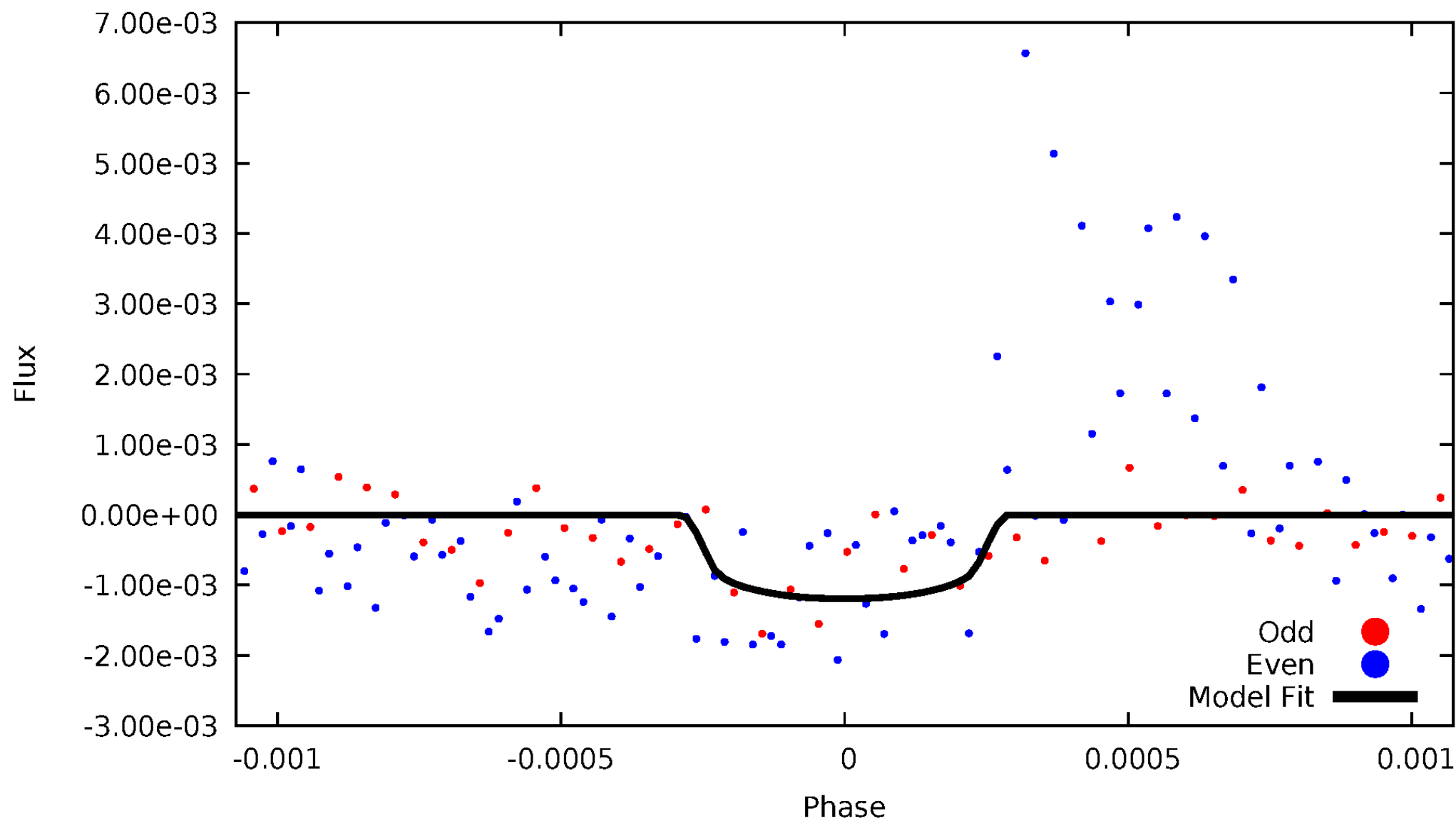


TCE 011818800-02



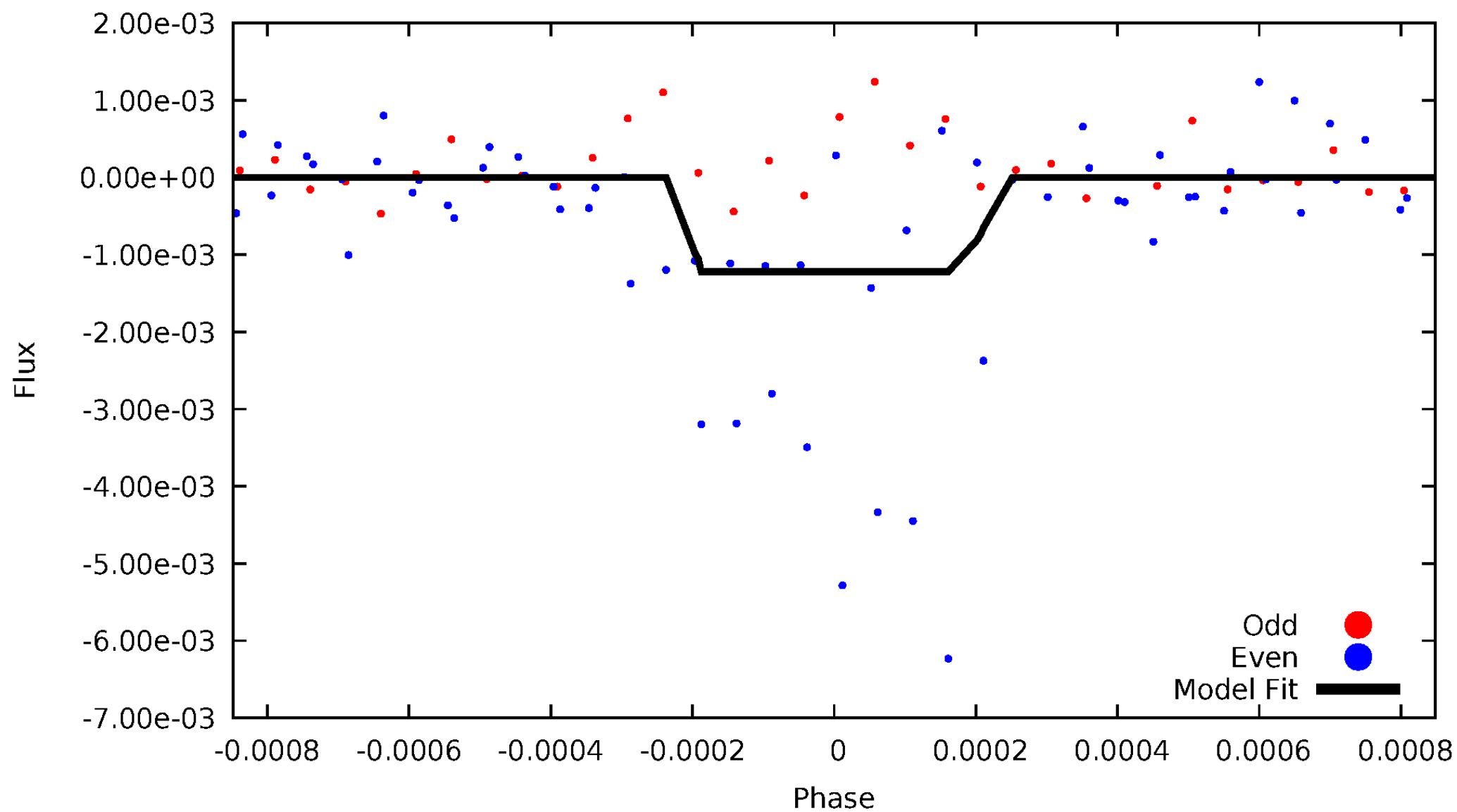
DV Odd/Even

TCE 011818800-02



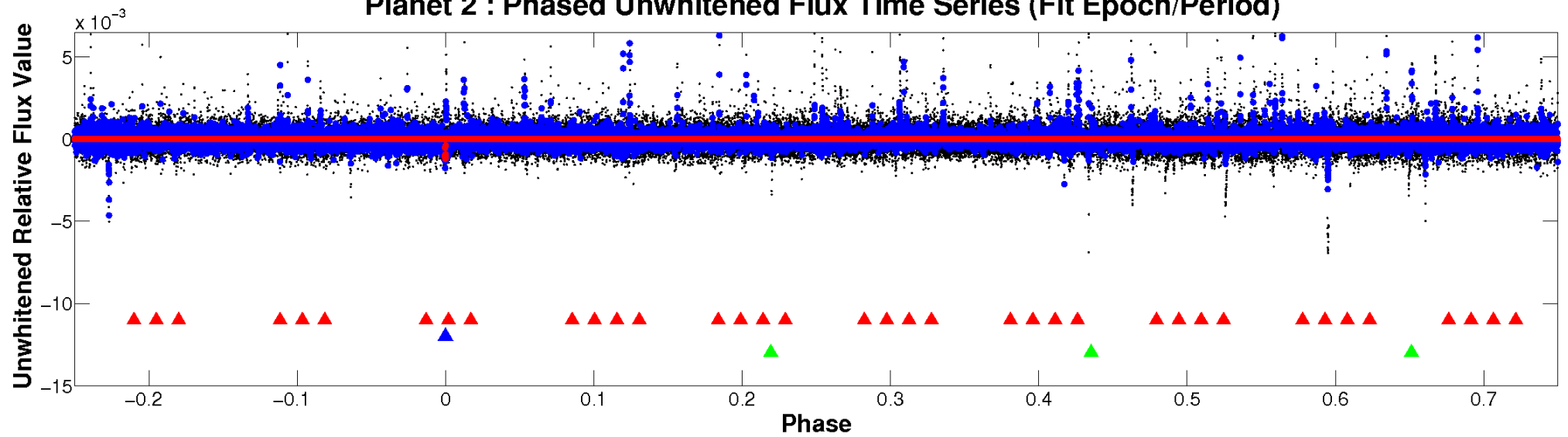
ALT Odd/Even

TCE 011818800-02

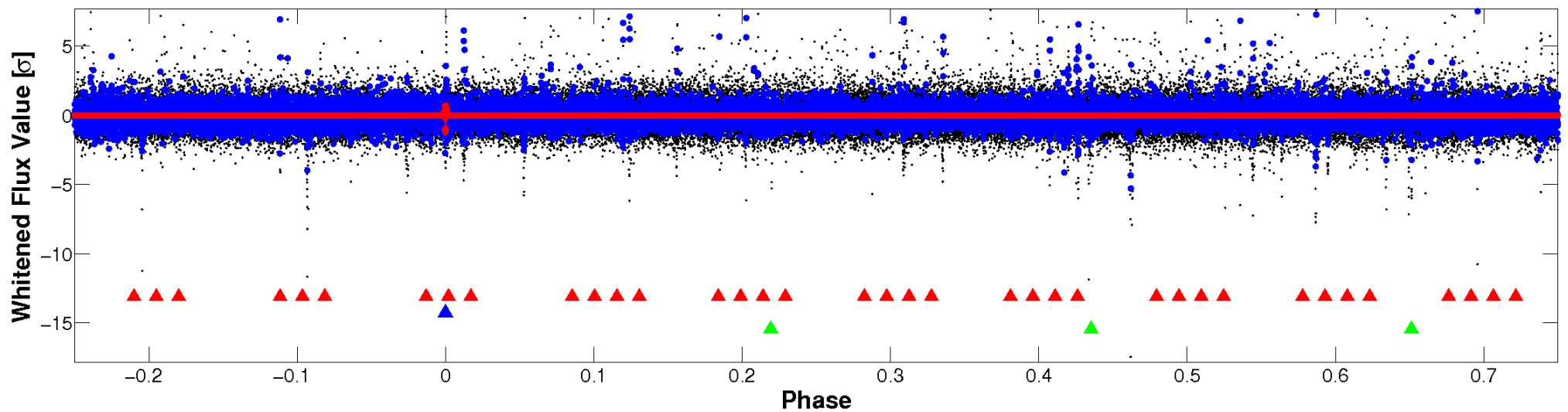


Non-Whitened Vs. Whitened Light Curve

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

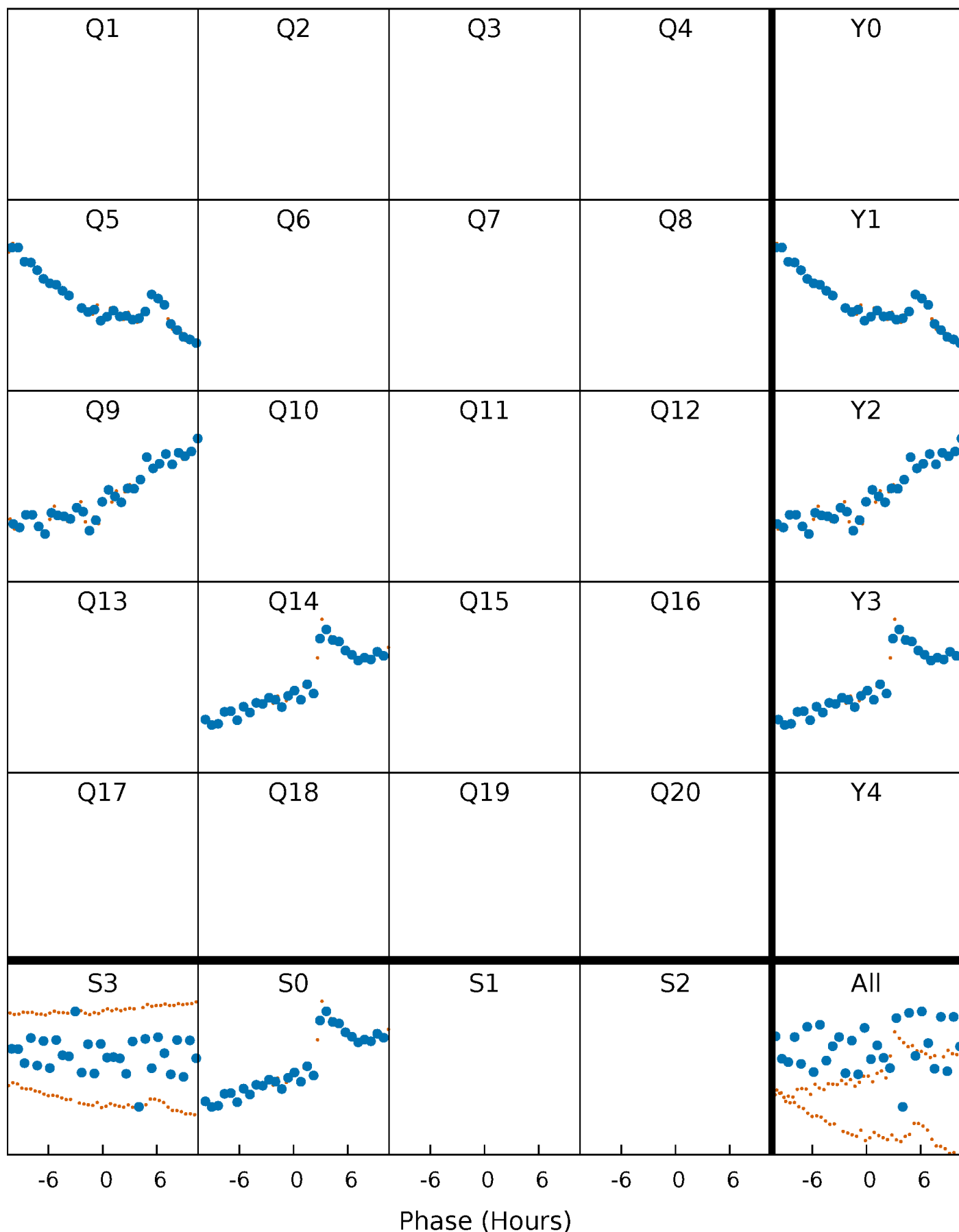


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



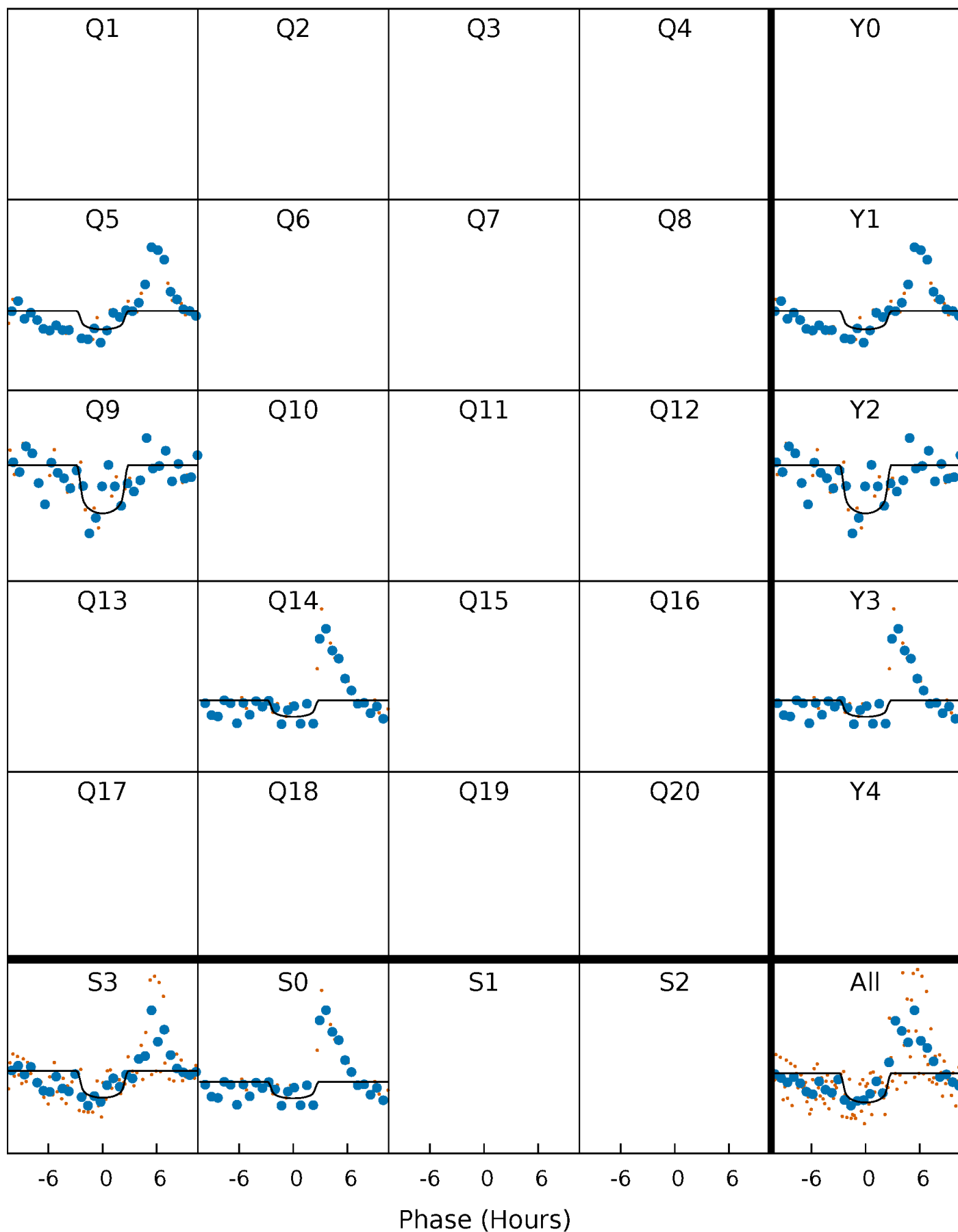
PDC Quarter-Phased Transit Curves

TCE 011818800-02 $P=410.382905$ Days $T_0=489.901287$ (BKJD)



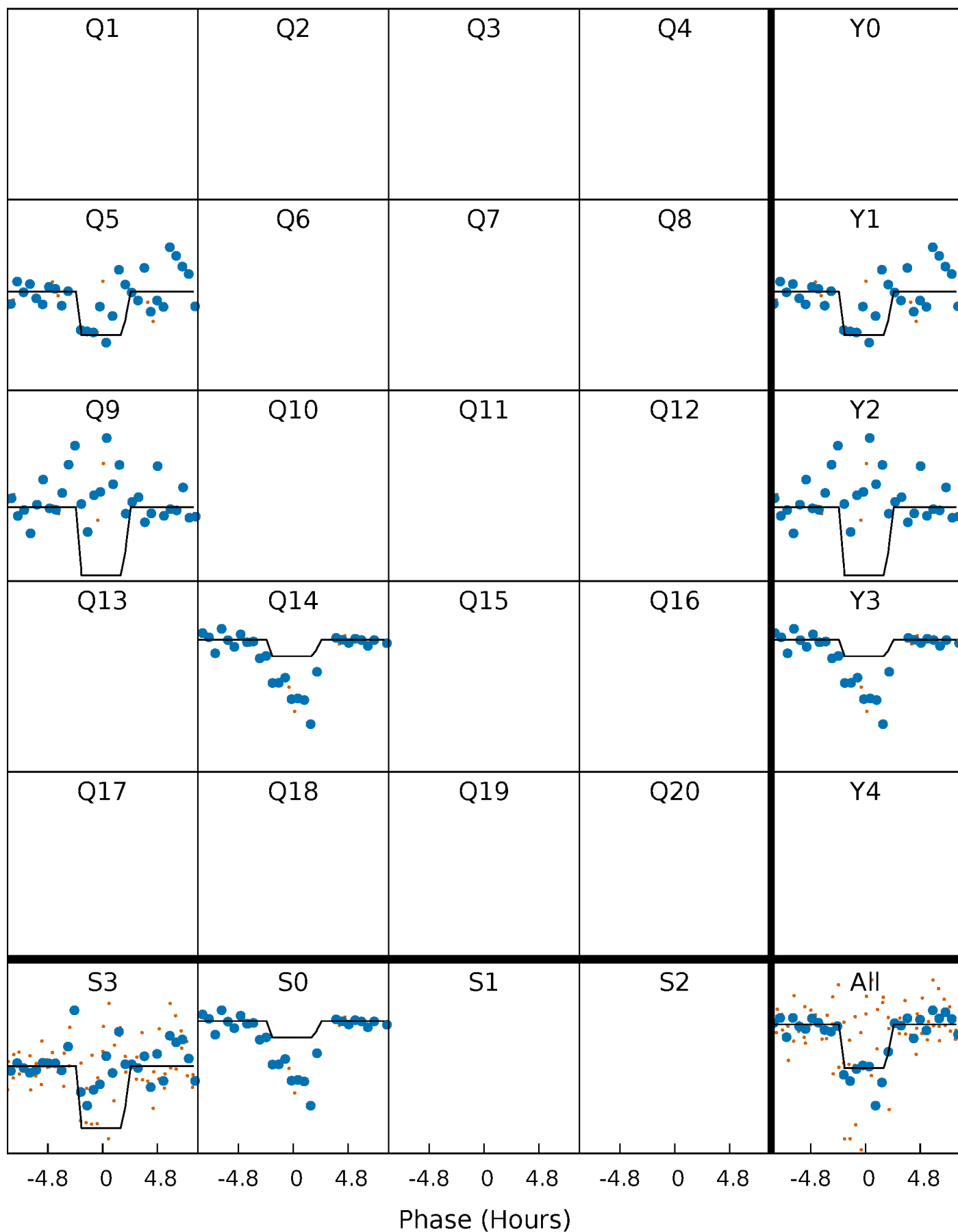
DV Quarter-Phased Transit Curves

TCE 011818800-02 $P=410.382905$ Days $T_0=489.901287$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

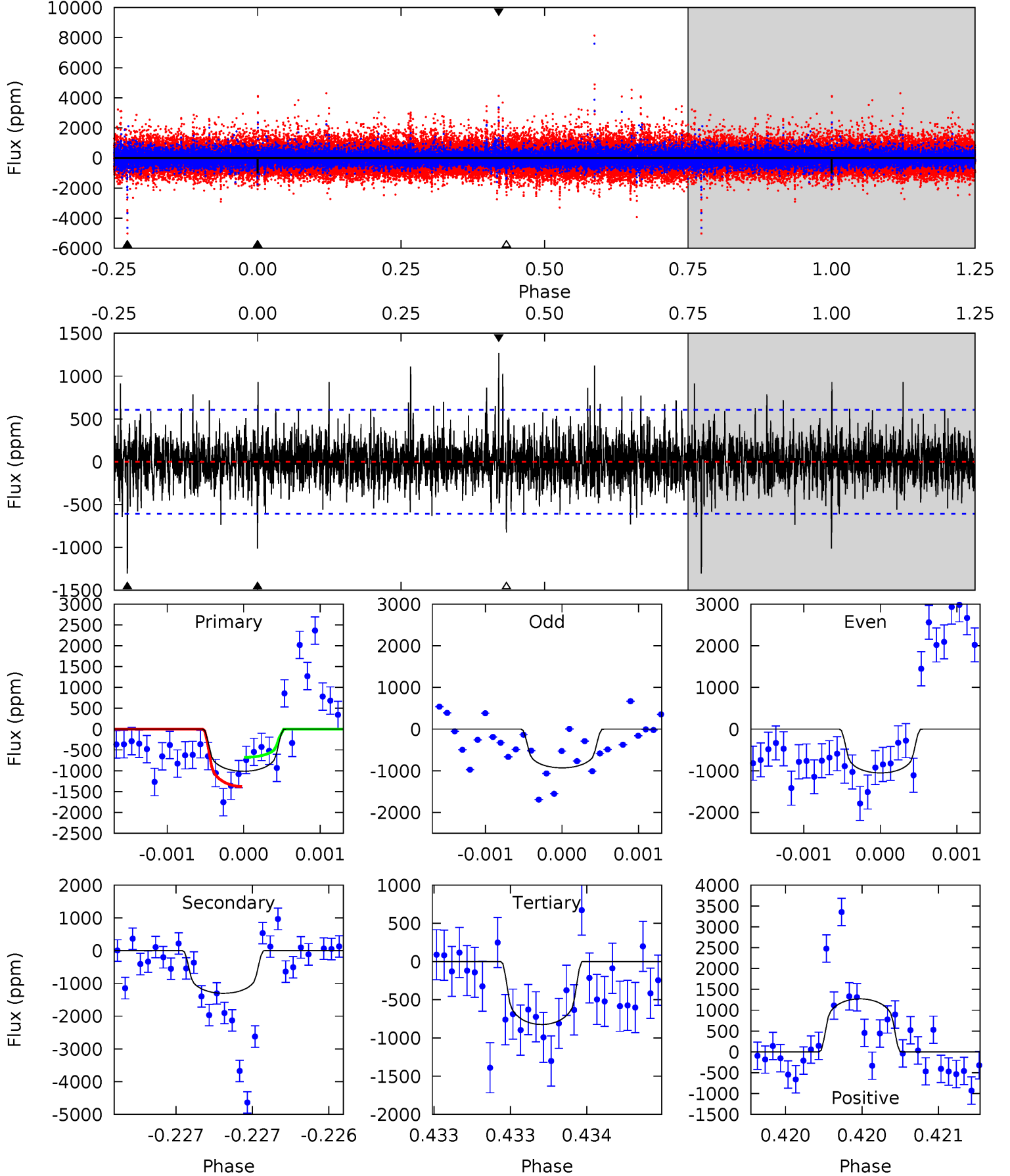
TCE 011818800-02 P=410.408053 Days $T_0=489.874824$ (BKJD)



DV Model-Shift Uniqueness Test

011818800-02, P = 410.382905 Days, E = 79.518382 Days

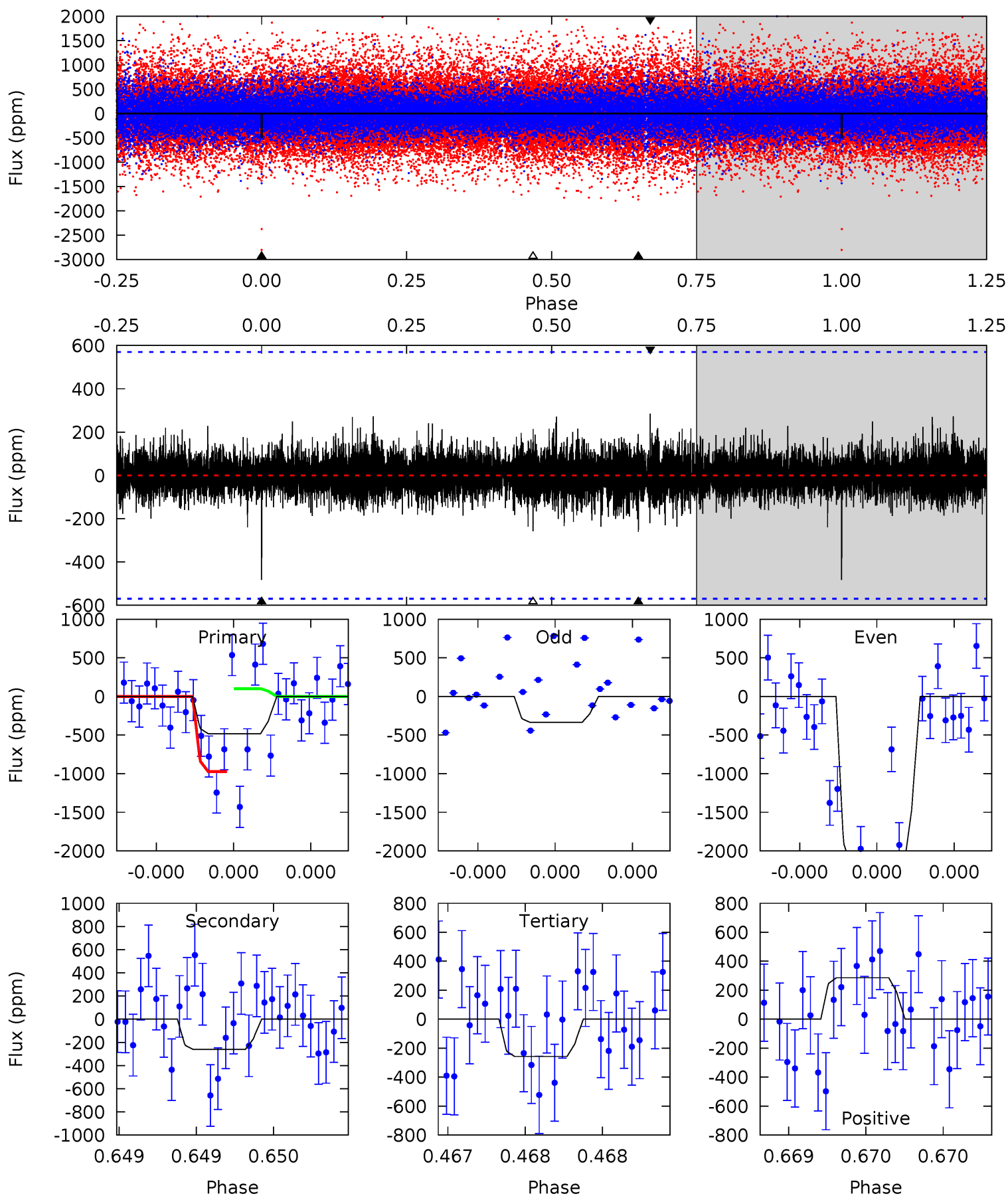
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.27	11.9	7.55	11.6	5.56	3.46	1.78	1.73	-2.37	4.39	0.29	0.49	1.09	0.49	3.17



Alt Model-Shift Uniqueness Test

011818800-02, $P = 410.408053$ Days, $E = 79.466771$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.73	2.56	2.52	2.80	5.59	3.51	0.55	2.21	1.93	0.03	-0.24	10.0	2.25	0.37	4.15



Stellar Parameters For KIC 011818800

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5446^{+179}_{-163}	$4.507^{+0.116}_{-0.105}$	$-0.540^{+0.350}_{-0.300}$	$0.781^{+0.116}_{-0.095}$	$0.714^{+0.104}_{-0.037}$	$2.111^{+1.044}_{-0.644}$
	+3%/-3%	+3%/-2%	+65%/-56%	+15%/-12%	+15%/-5%	+49%/-31%
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 011818800-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1303 ± 109	$4.08^{+3.41}_{-2.76}$	302^{+15}_{-14}	4831^{+3924}_{-960}	$41155^{+333137}_{-28937}$
Alt.	-261 ± 102	$4.19^{+3.28}_{-2.75}$	302^{+14}_{-16}	3554^{+1712}_{-632}	7336^{+53131}_{-5331}

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 $A_{obs} \gg 1.0$

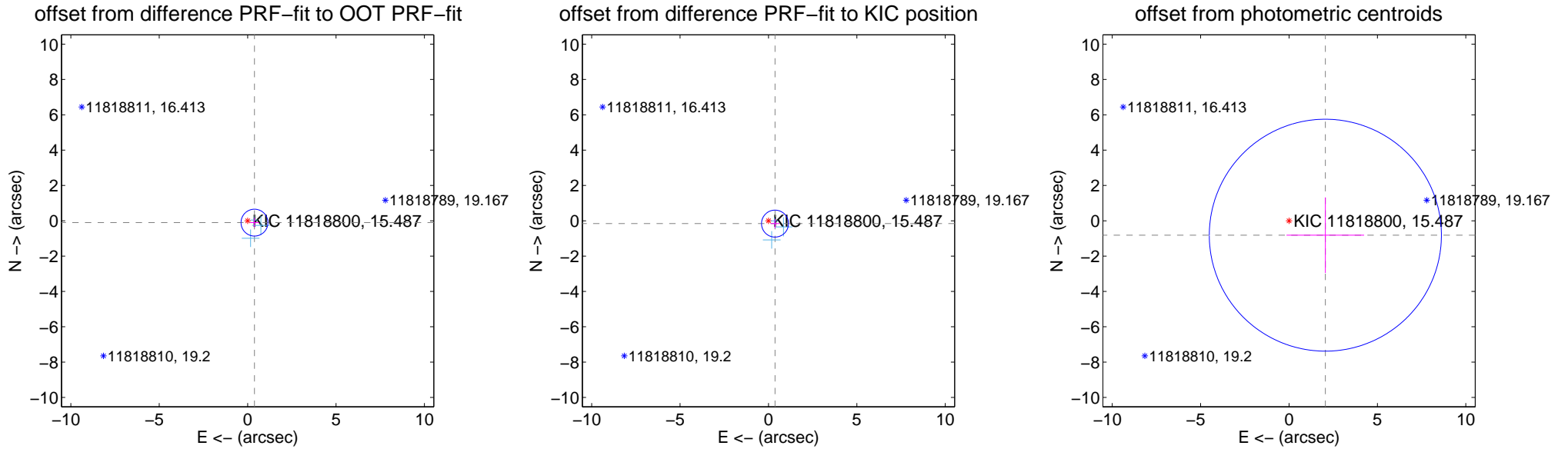
DV Centroid Data

Supplemental centroid analysis for 011818800-02. Kepler magnitude: 15.49. Transit SNR 6.37

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.401 ± 0.254	1.58	-0.387 ± 0.253	-0.104 ± 0.261
PRF-fit source offset from KIC position	0.403 ± 0.254	1.58	-0.370 ± 0.253	-0.159 ± 0.261
photometric centroid source offset	2.21 ± 2.19	1.01	-2.05 ± 2.20	-0.82 ± 2.14

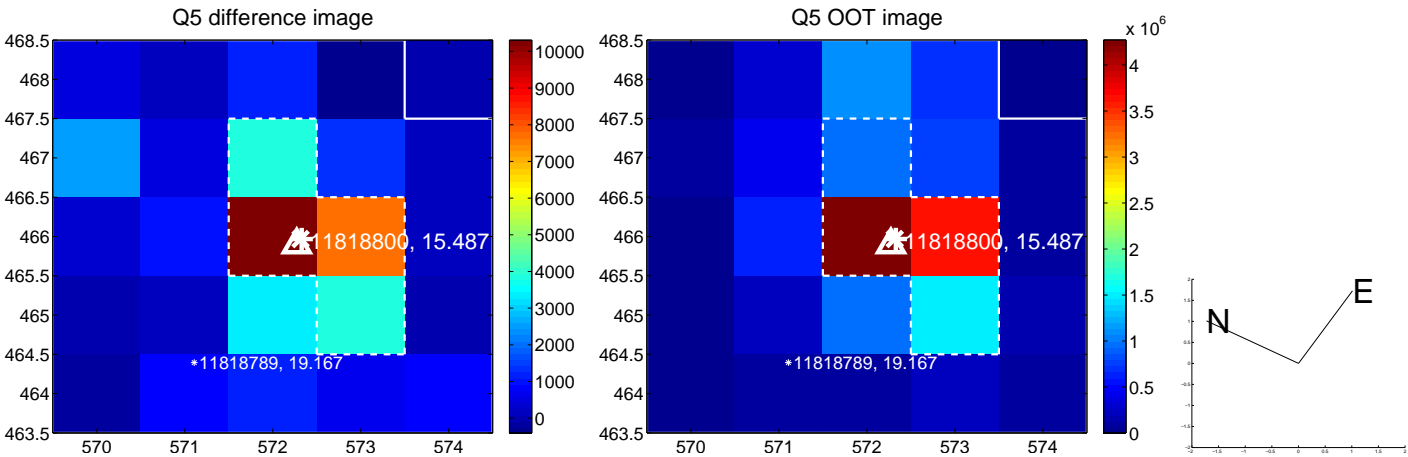


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

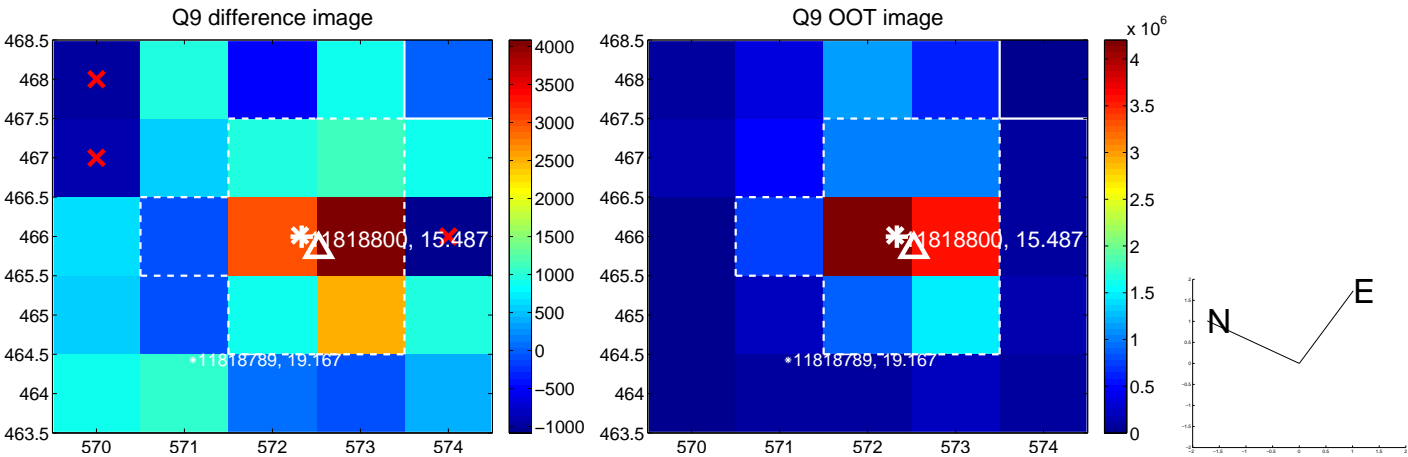
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



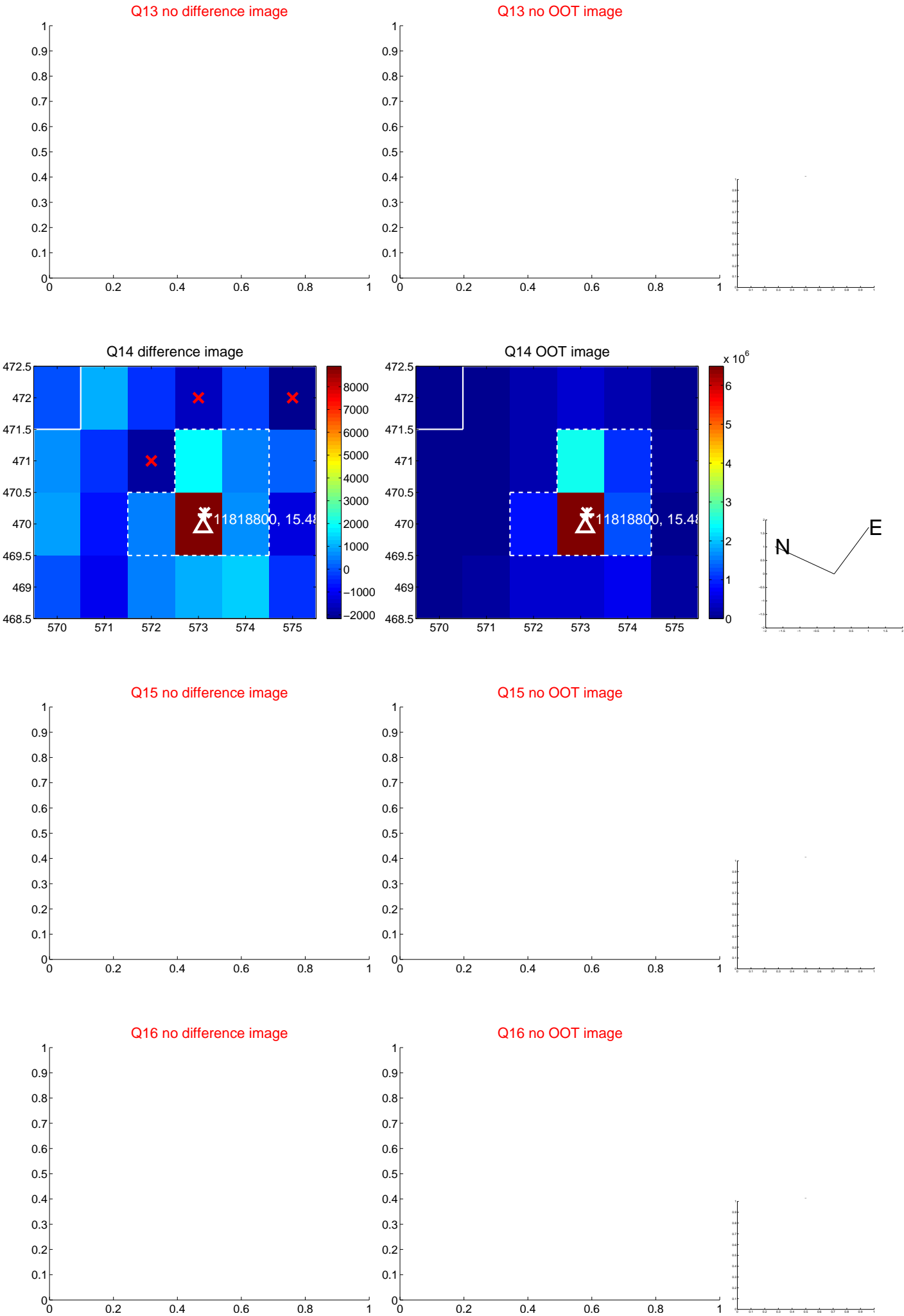
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



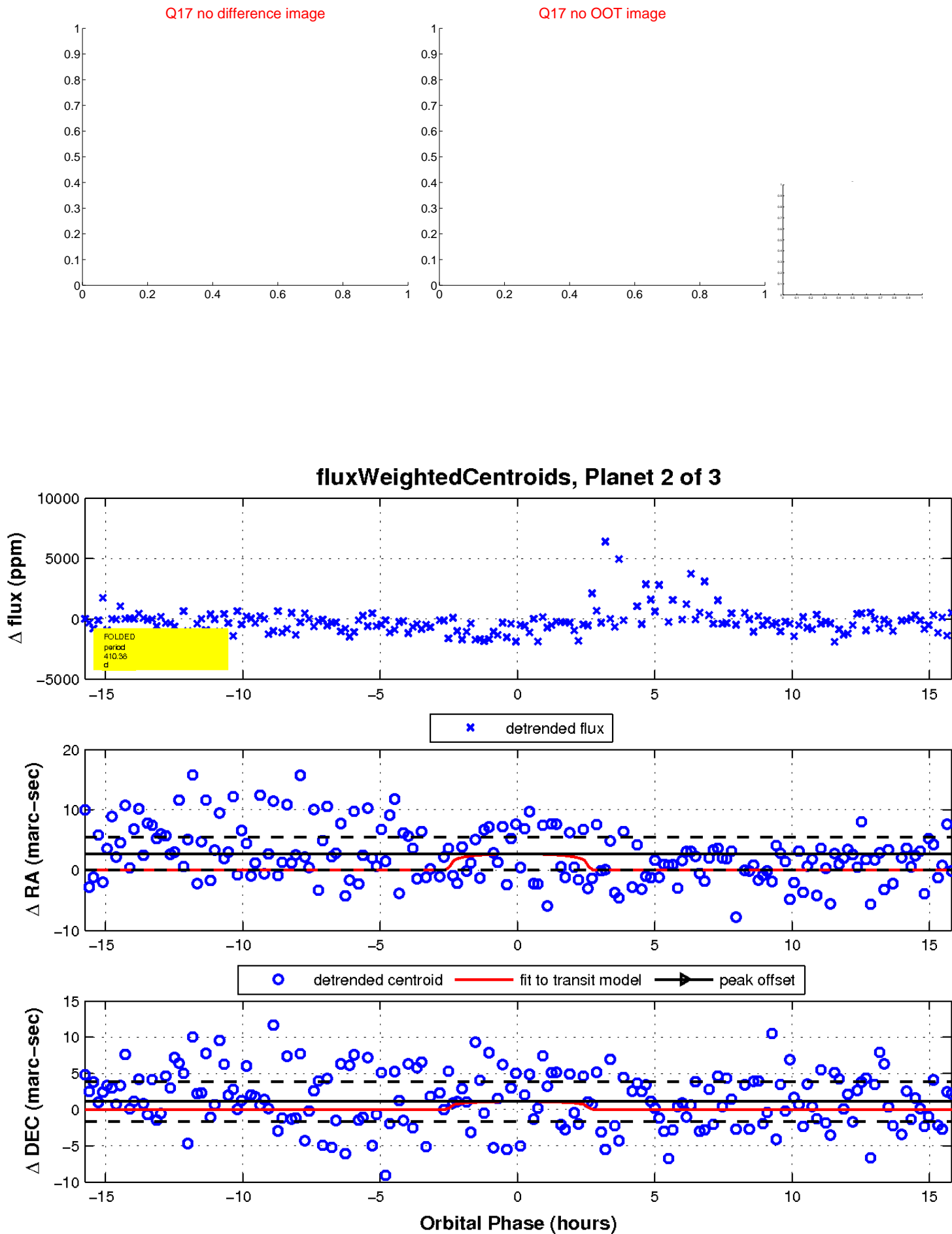
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

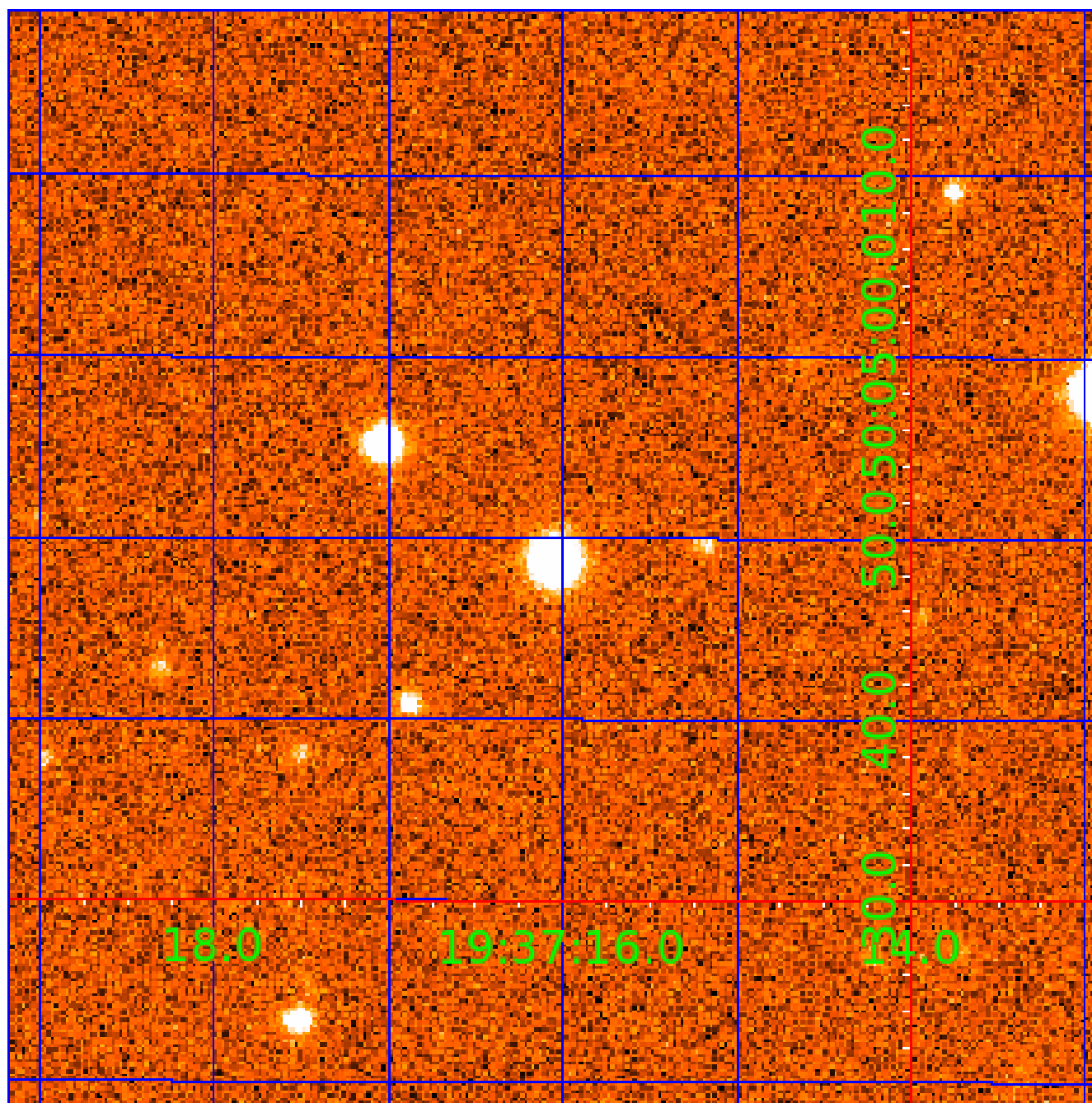


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011818800

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})
011818800-01	OBS	0777.01	40.419537	133.144587	6038.7	3.308	94.1	83.3	0.78	5446	7.42	11.31
011818800-02	OBS	No	410.382905	489.901287	1196.1	5.280	8.1	6.4	0.78	5446	2.81	0.52
011818800-03	OBS	No	499.019005	579.900649	1176.2	6.249	11.8	6.3	0.78	5446	2.71	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011818800-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
011818800-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011818800-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—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 011818800-03

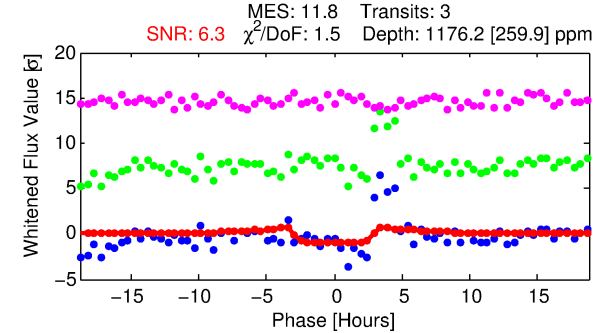
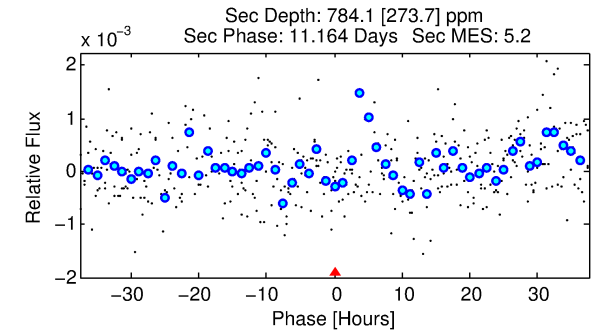
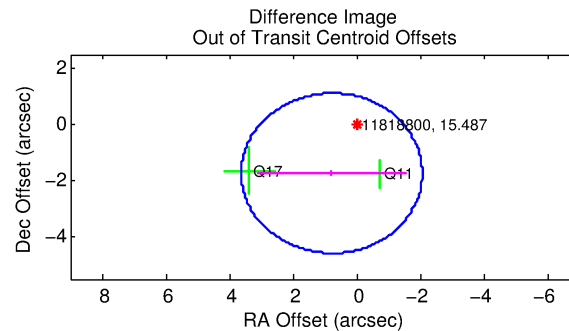
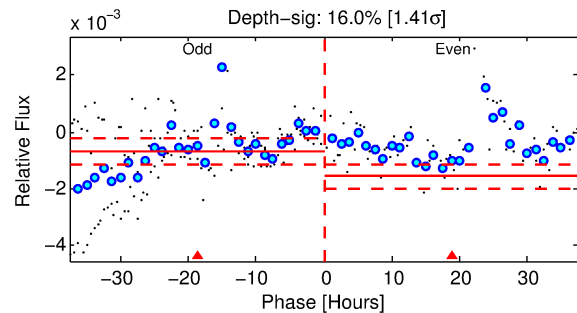
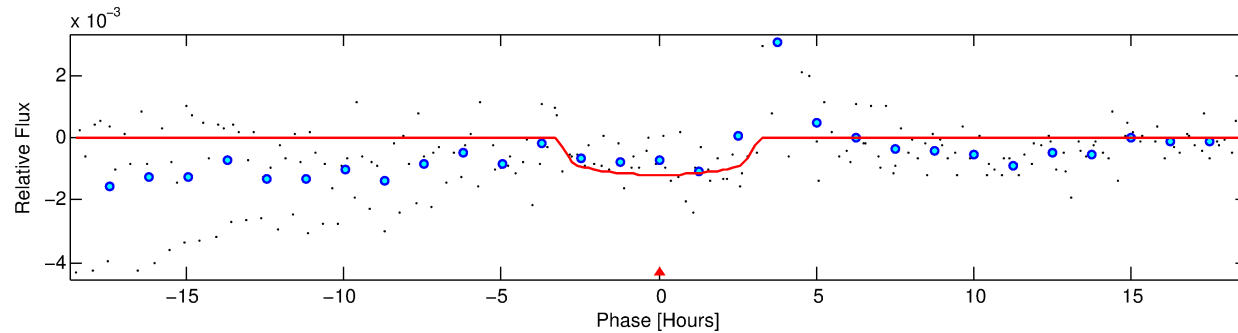
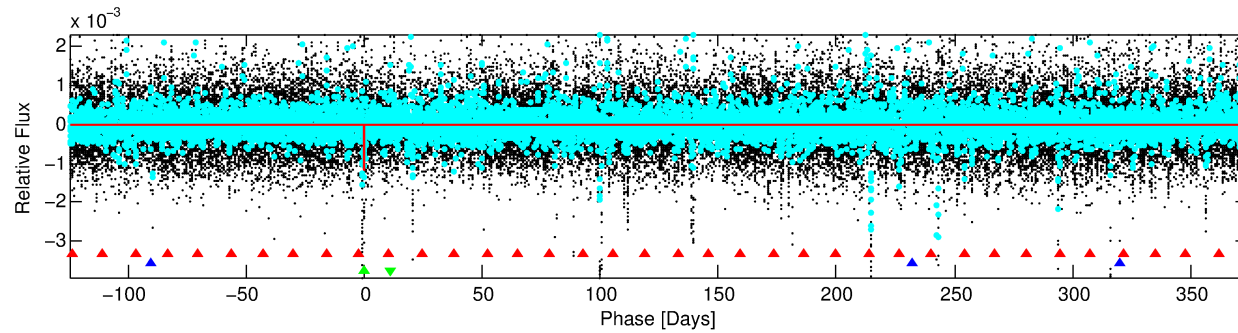
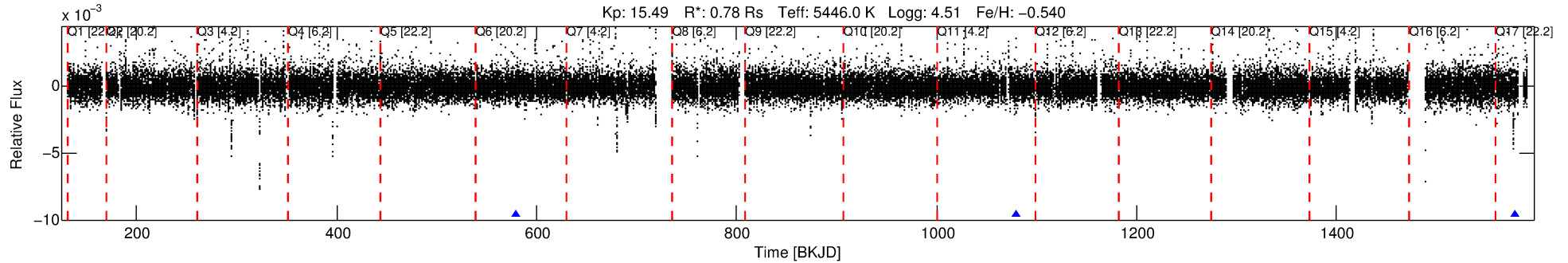
No Significant Match Found

DV One-Page Summary

KIC: 11818800 Candidate: 3 of 3 Period: 499.019 d

KOI: K00777 Corr: No Ephemeris Match

Kp: 15.49 R*: 0.78 Rs Teff: 5446.0 K Logg: 4.51 Fe/H: -0.540



DV Fit Results:

Period = 499.01900 [0.01250] d
Epoch = 579.9006 [0.0181] BKJD
Rp/R* = 0.0318 [0.0635]
a/R* = 570.90 [4879.33]
b = 0.43 [16.06]
Seff = 0.40 [0.10]
Teq = 202 [12] K
Rp = 2.71 [5.43] Re
a = 1.1012 [0.1466] AU
Ag = 71184.09 [285817.06] [0.25σ]
Teffp = 5110 [5125] K [0.96σ]

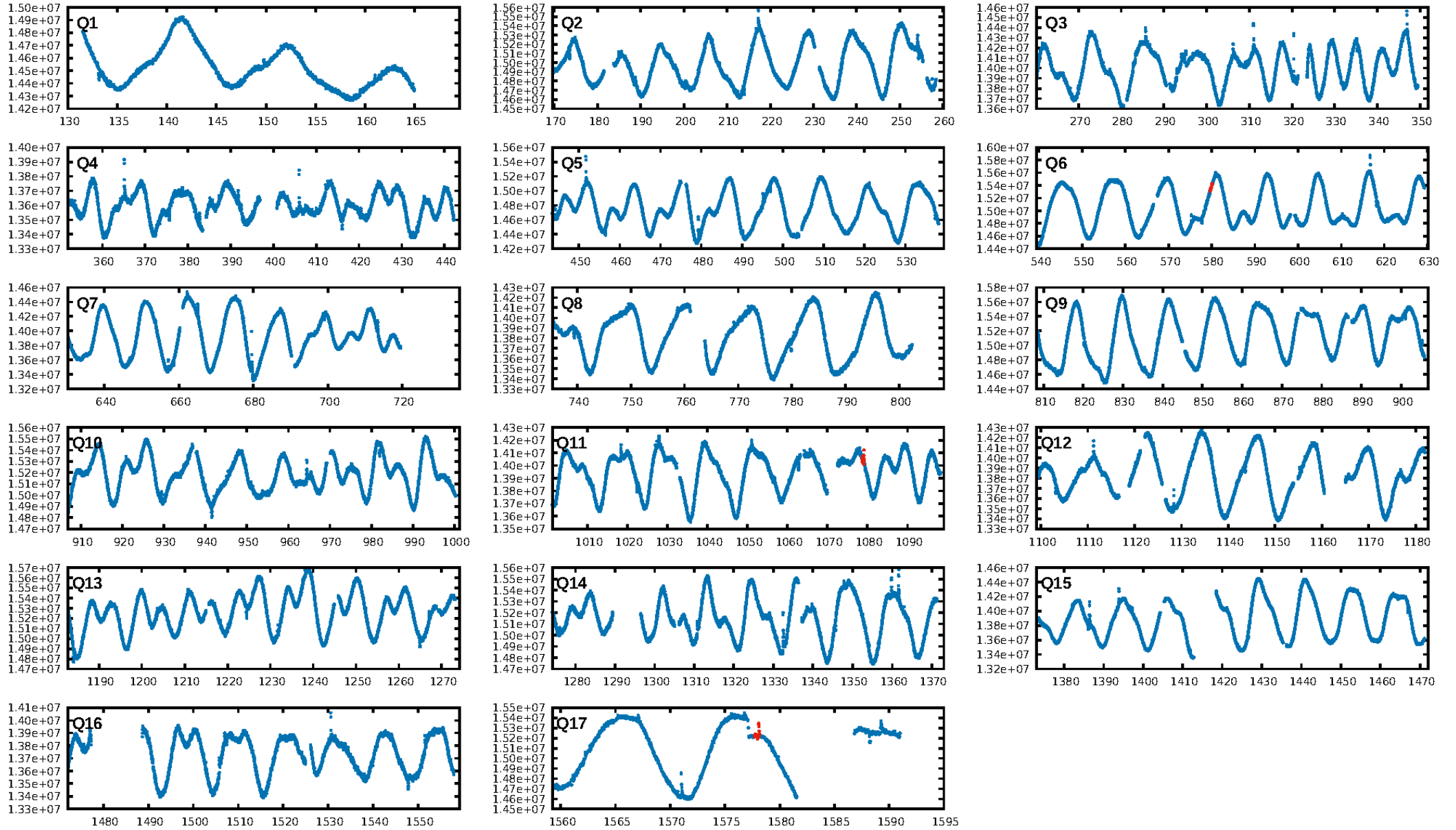
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [260.02σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.7%
ModelChiSquareGof-sig: 84.5%
Bootstrap-pfa: 3.15e-11
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.482
Centroid-sig: 43.7%
Centroid-so: 1.413 arcsec [0.84σ]
OotOffset-rm: 1.900 arcsec [2.00σ]
KicOffset-rm: 1.948 arcsec [2.14σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

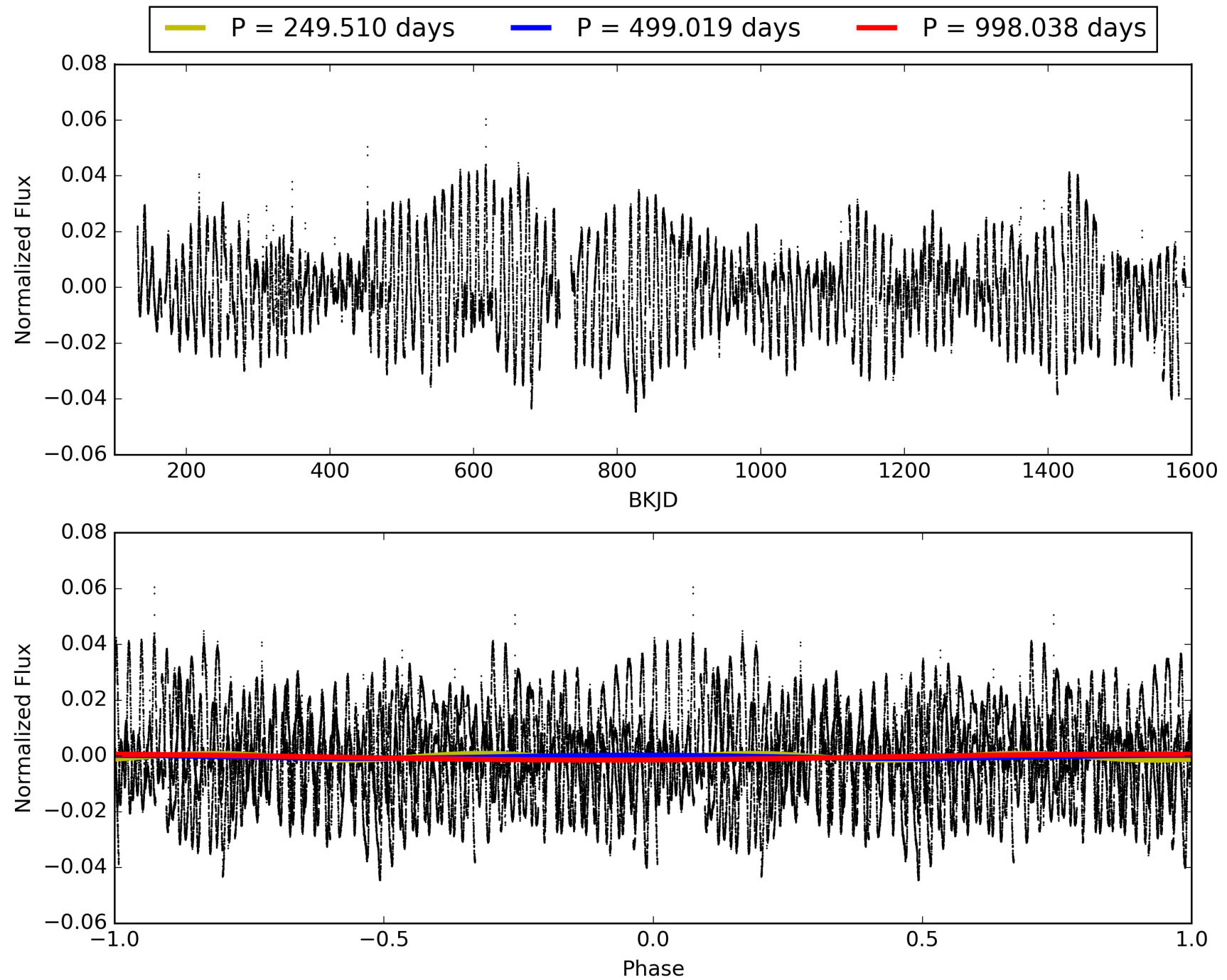
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:38:04 Z

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

TCE 011818800-03, PDC Light Curves

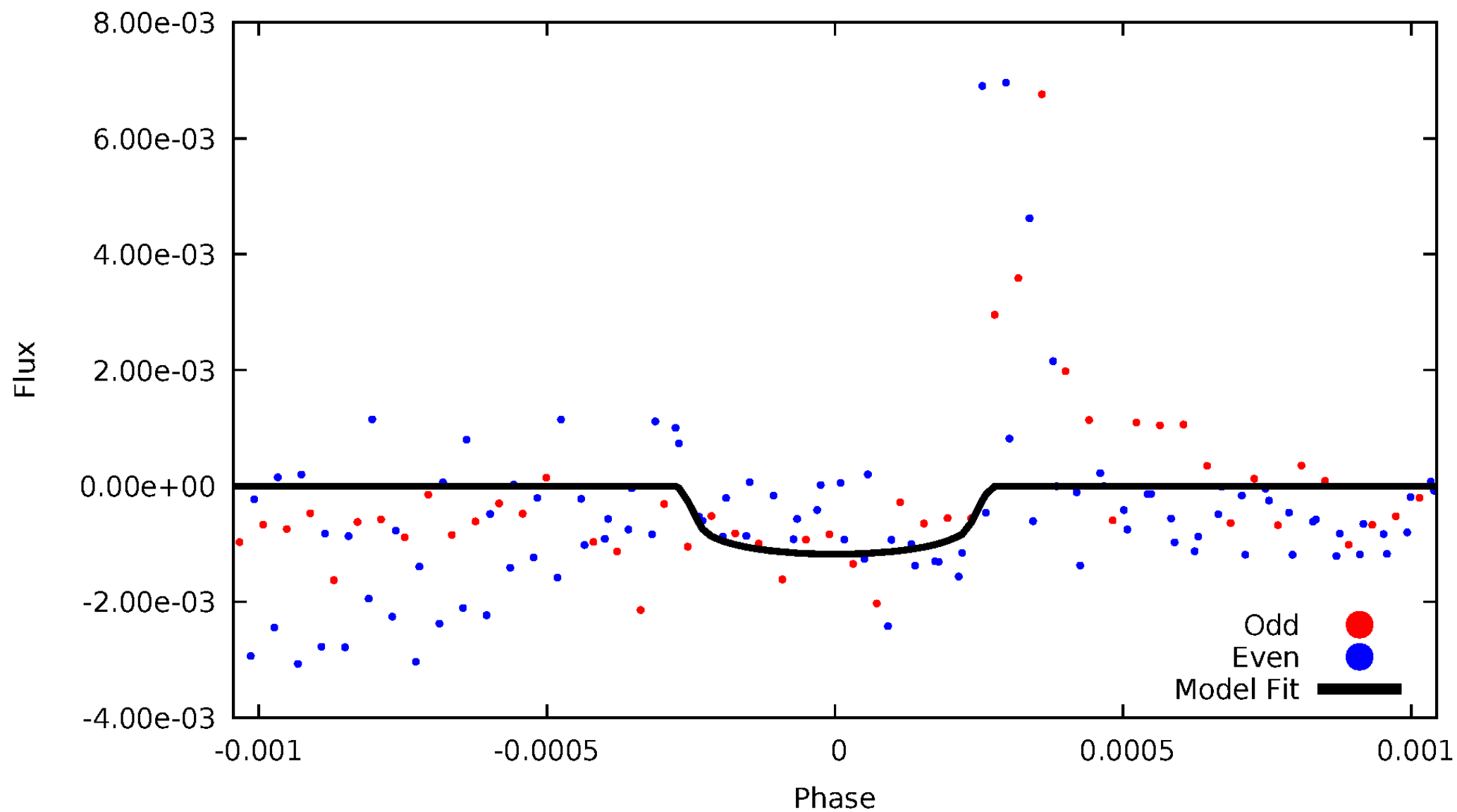


TCE 011818800-03



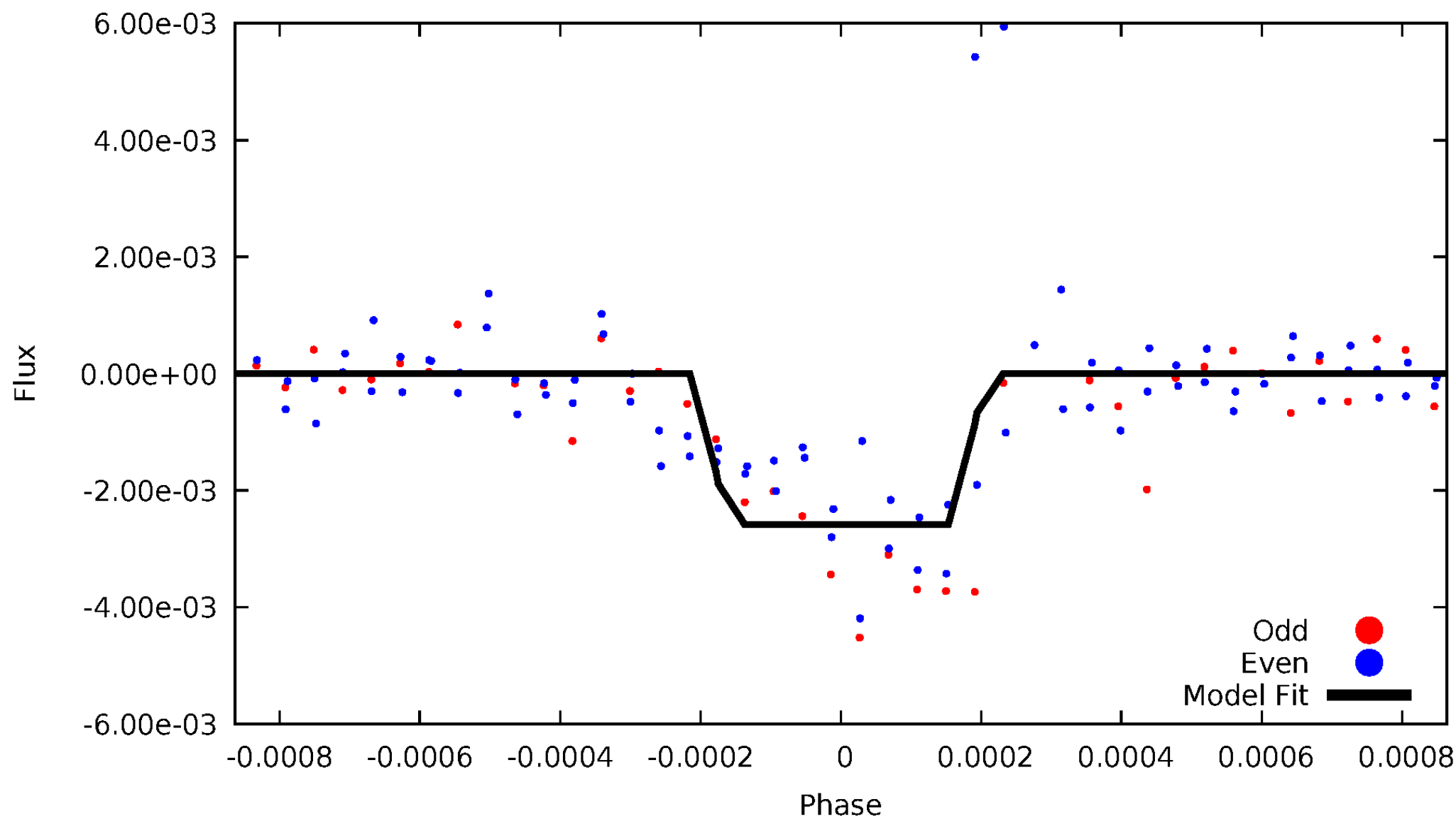
DV Odd/Even

TCE 011818800-03



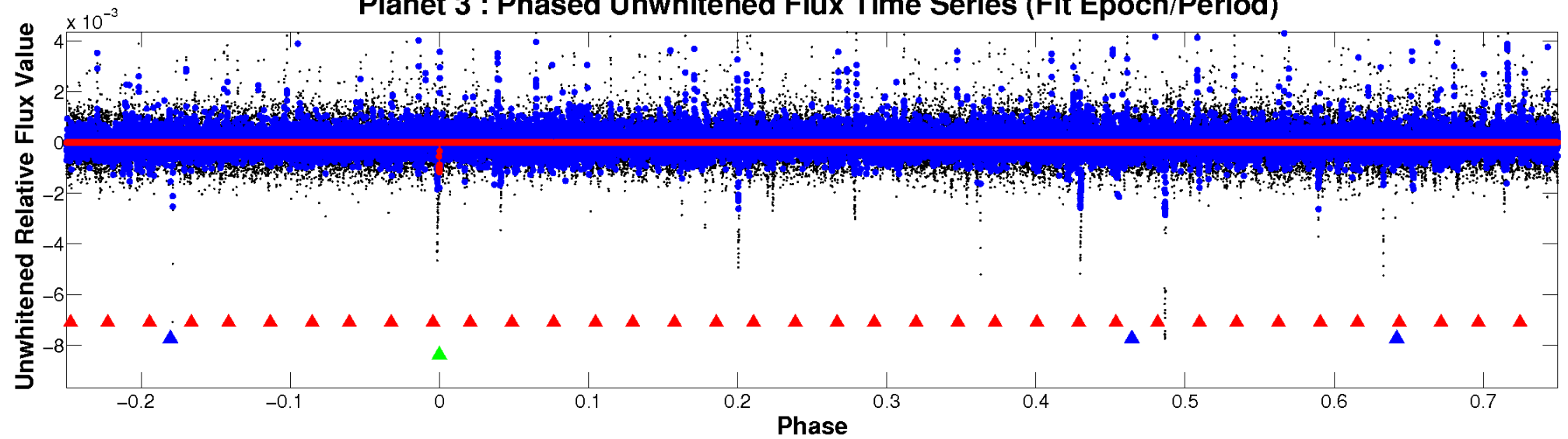
ALT Odd/Even

TCE 011818800-03

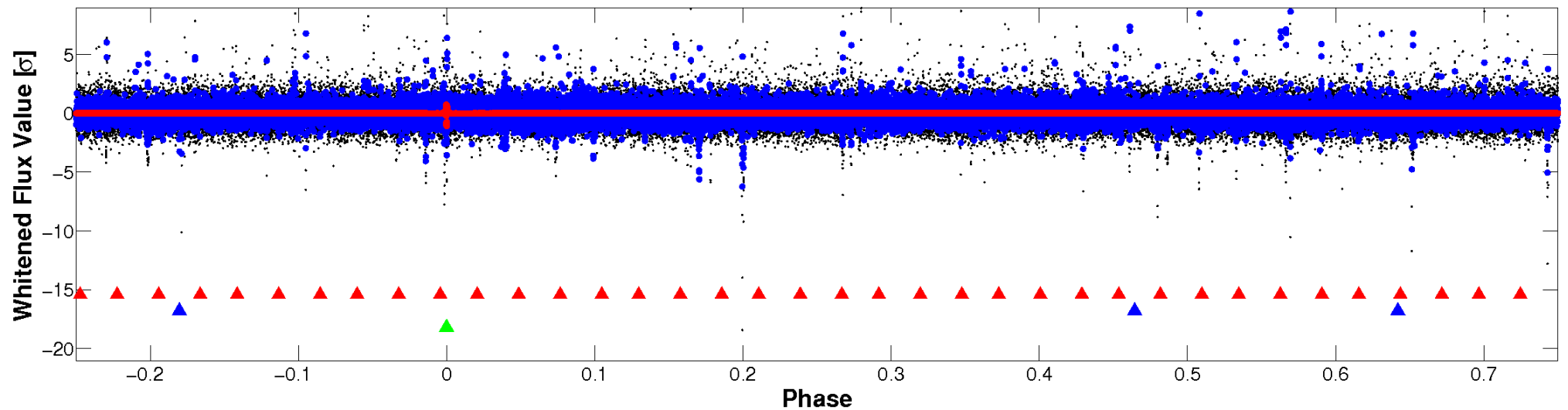


Non-Whitened Vs. Whitened Light Curve

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

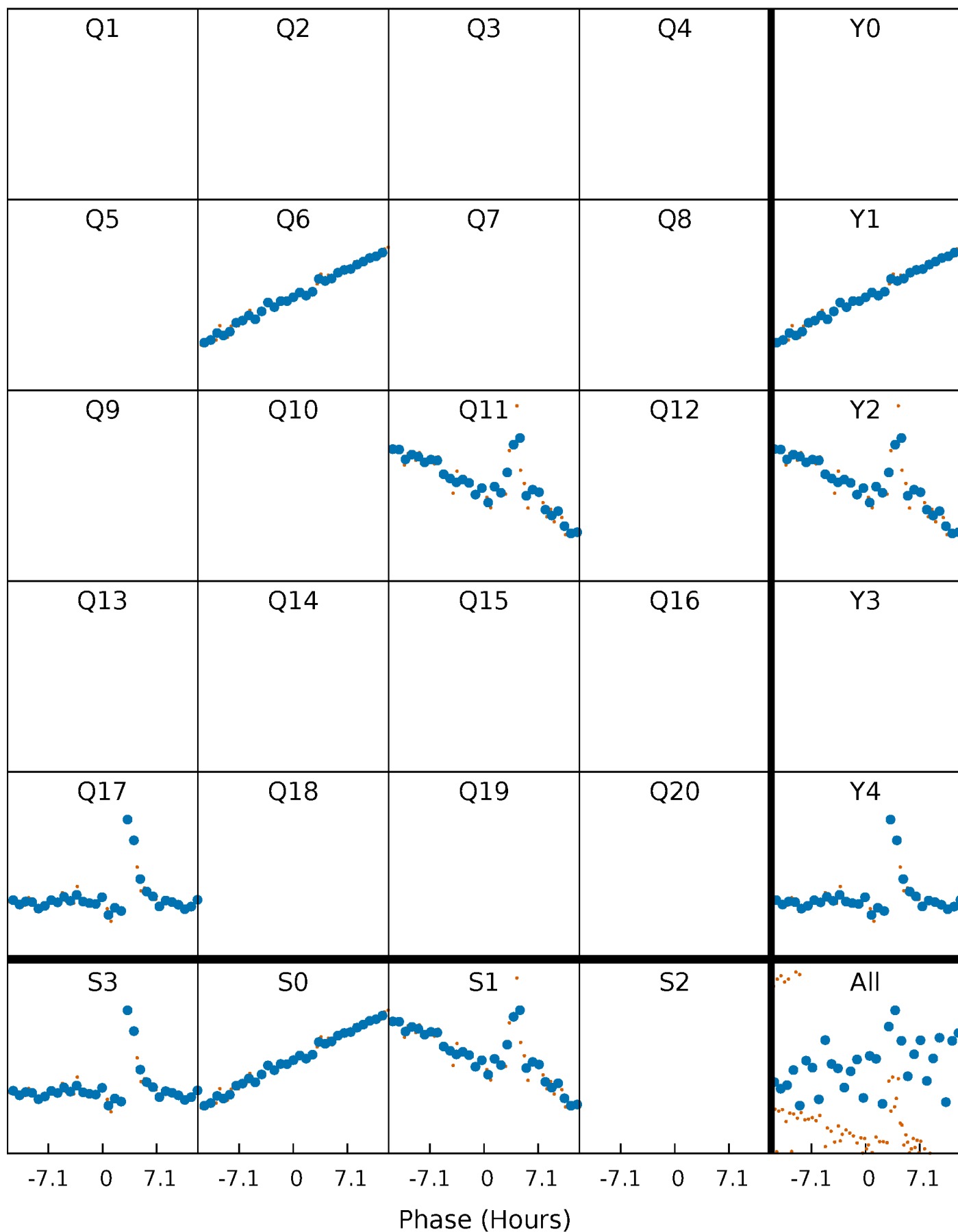


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



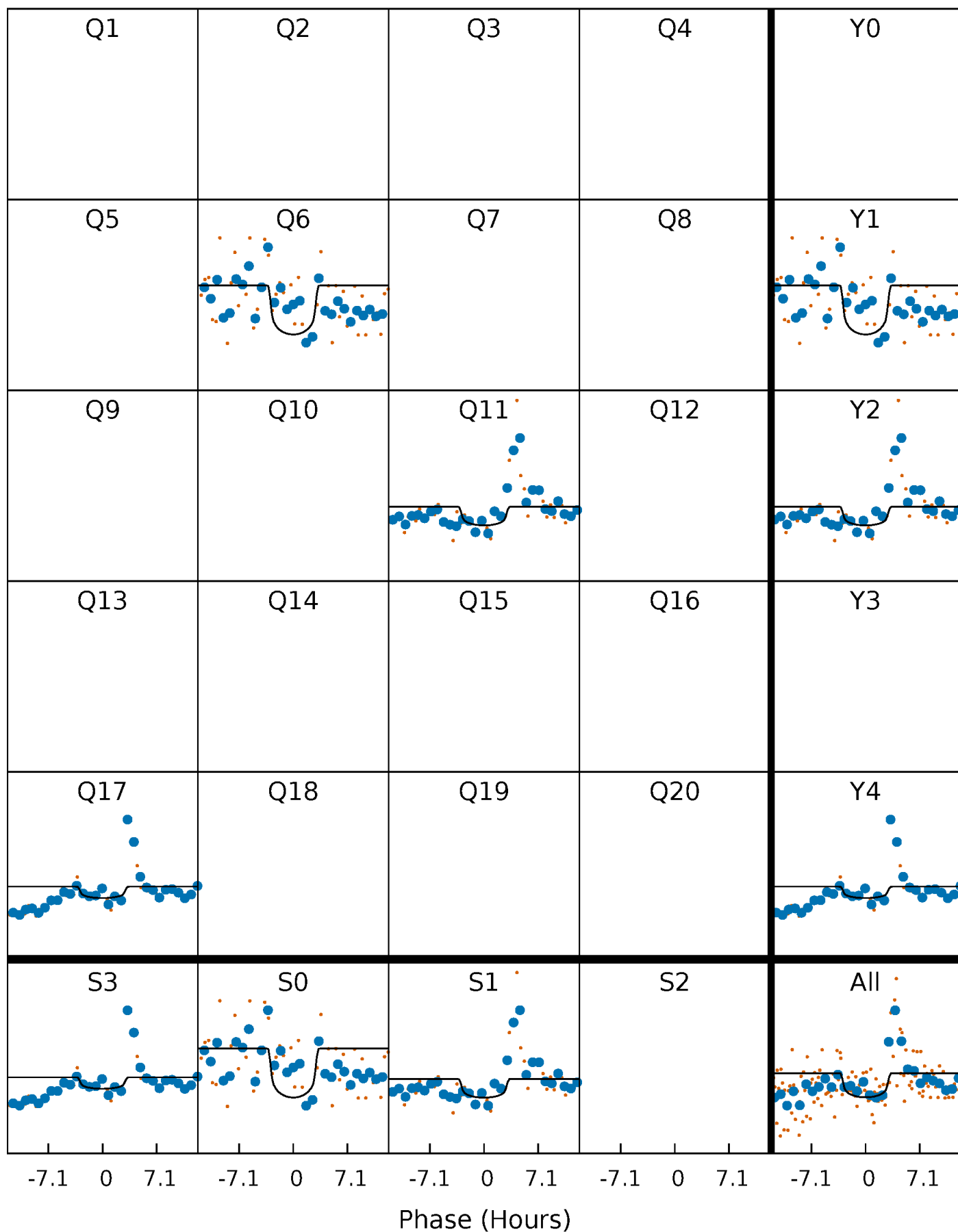
PDC Quarter-Phased Transit Curves

TCE 011818800-03 P=499.019005 Days $T_0=579.900649$ (BKJD)



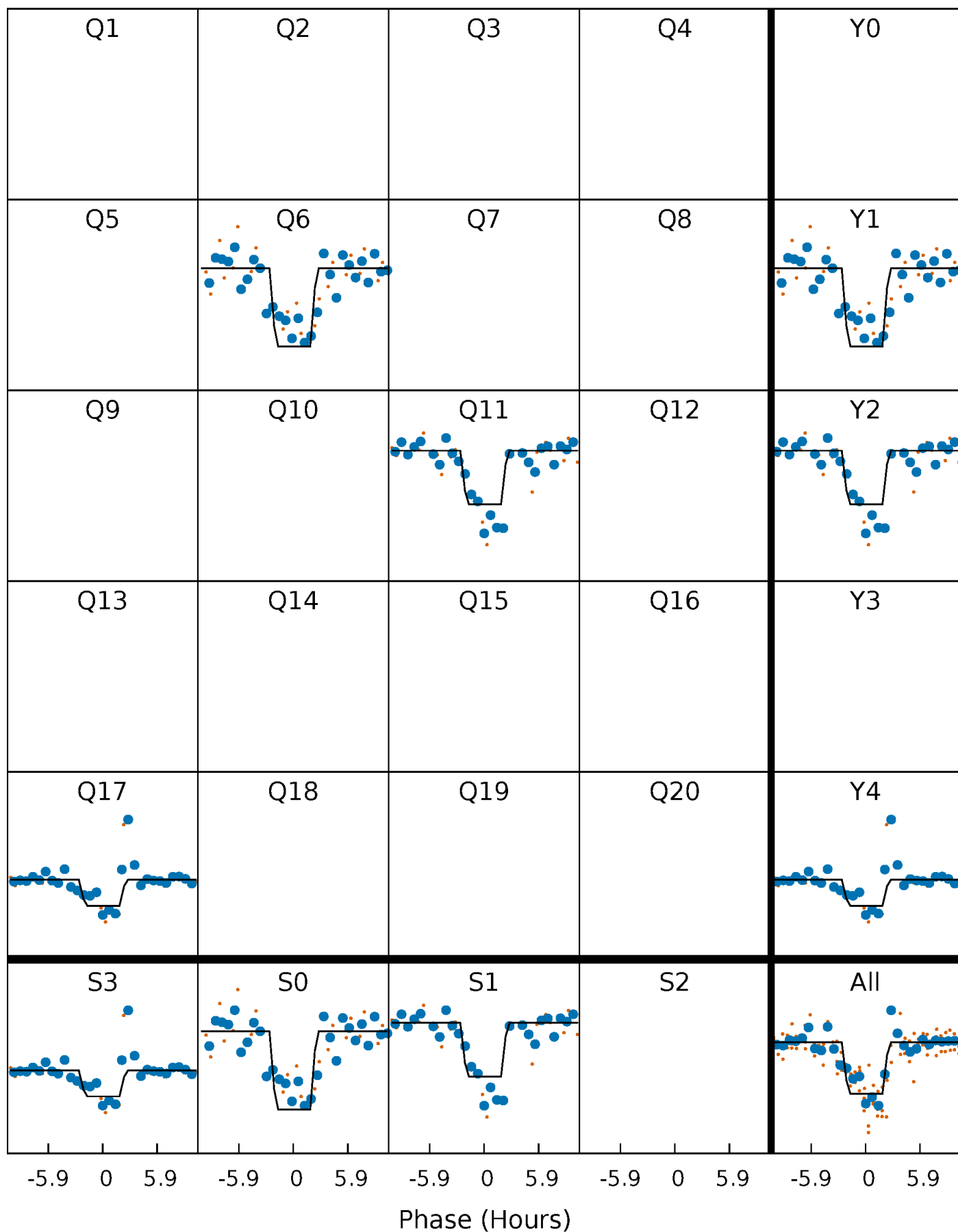
DV Quarter-Phased Transit Curves

TCE 011818800-03 P=499.019005 Days $T_0=579.900649$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

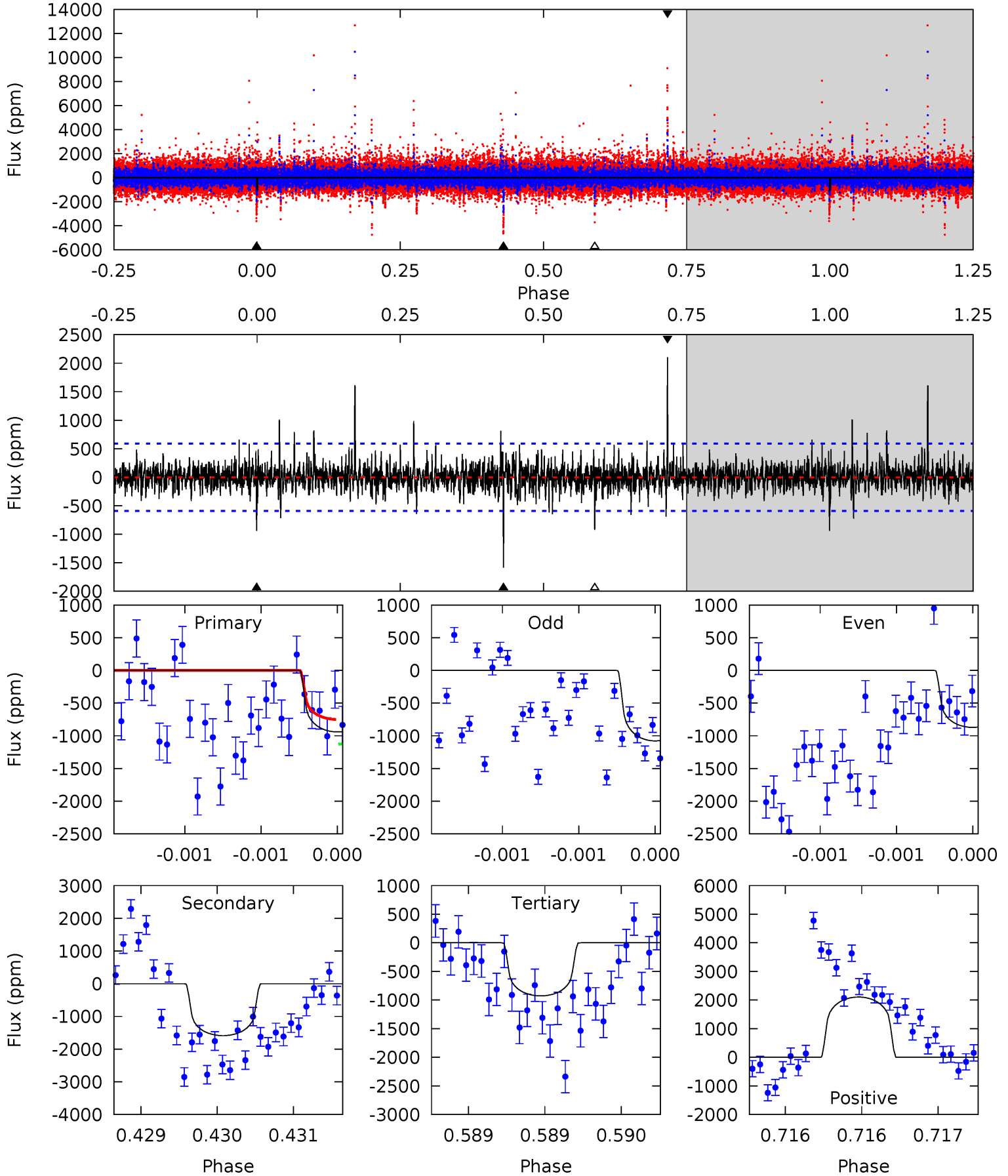
TCE 011818800-03 $P=499.028402$ Days $T_0=579.914014$ (BKJD)



DV Model-Shift Uniqueness Test

011818800-03, P = 499.019005 Days, E = 80.881644 Days

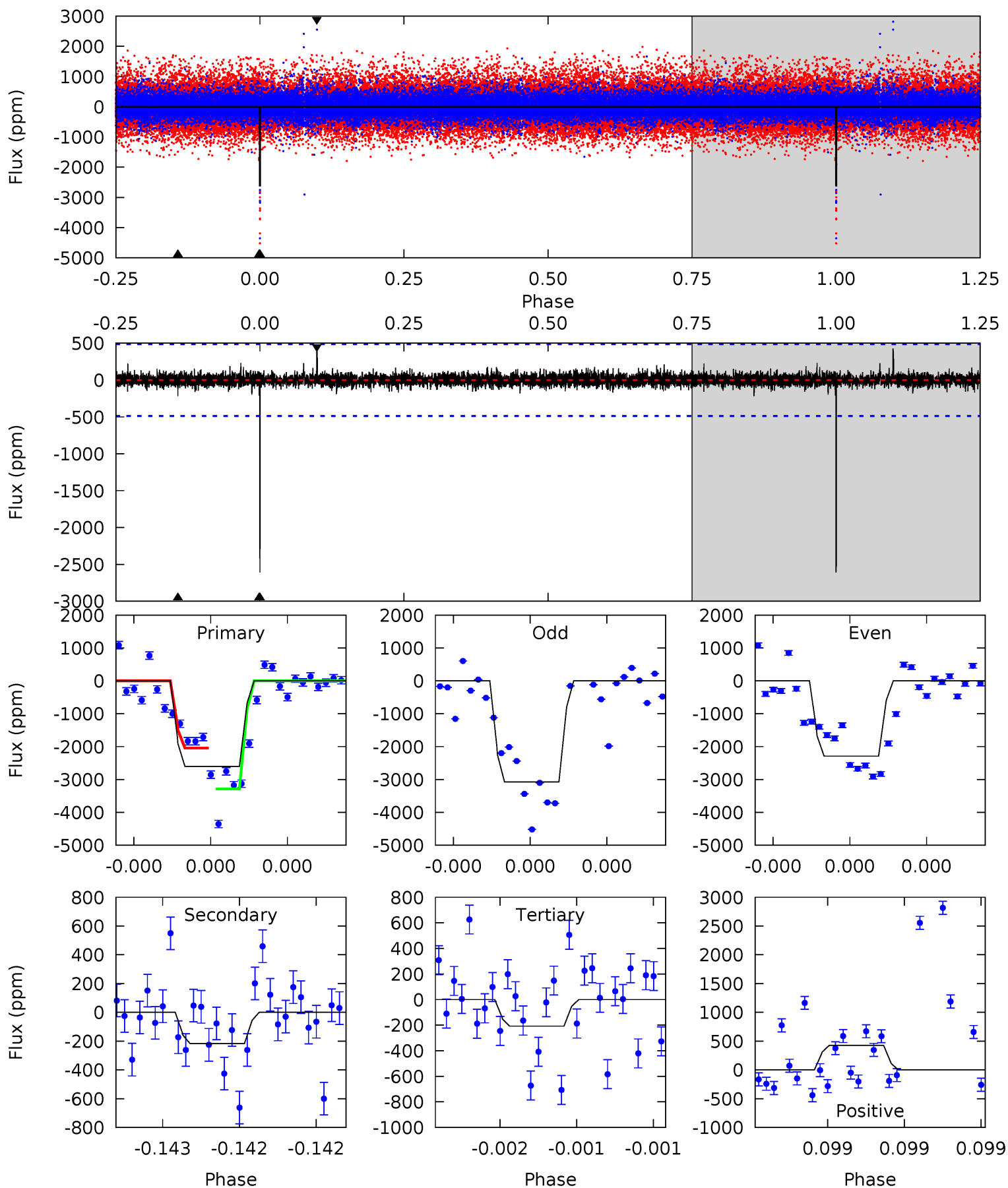
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.83	14.9	8.70	19.8	5.55	3.45	1.61	0.13	-10.9	6.21	-4.86	0.82	0.92	0.57	1.79



Alt Model-Shift Uniqueness Test

011818800-03, P = 499.028402 Days, E = 80.885612 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	2.49	2.39	4.89	5.61	3.53	0.51	27.6	25.1	0.10	-2.40	4.25	1.05	0.14	7.19



Stellar Parameters For KIC 011818800

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5446^{+179}_{-163}	$4.507^{+0.116}_{-0.105}$	$-0.540^{+0.350}_{-0.300}$	$0.781^{+0.116}_{-0.095}$	$0.714^{+0.104}_{-0.037}$	$2.111^{+1.044}_{-0.644}$
	+3%/-3%	+3%/-2%	+65%/-56%	+15%/-12%	+15%/-5%	+49%/-31%
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 011818800-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1587 ± 106	$4.76^{+4.31}_{-3.14}$	284^{+15}_{-14}	4726^{+3409}_{-1011}	$47223^{+362651}_{-34139}$
Alt.	-217 ± 87	$5.94^{+4.90}_{-3.70}$	283^{+14}_{-14}	3100^{+1251}_{-495}	3897^{+28662}_{-2840}

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

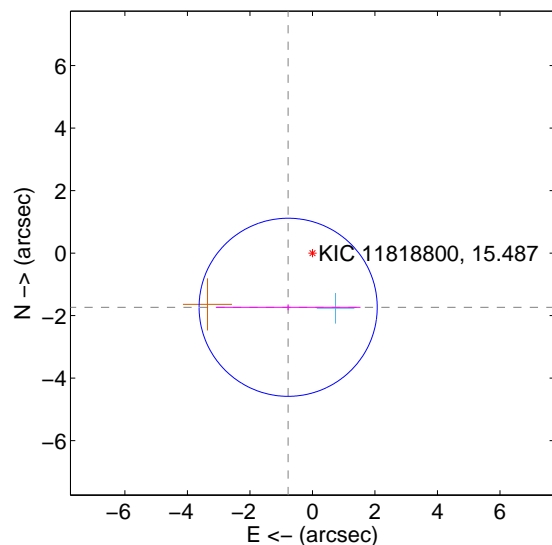
Supplemental centroid analysis for 011818800-03. Kepler magnitude: 15.49. Transit SNR 6.34

There are 1 quarters with good PRF difference image offsets

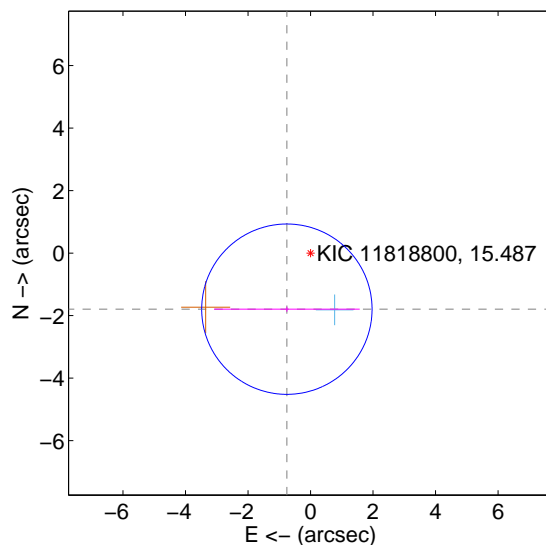
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.900 ± 0.950	2.00	0.777 ± 2.313	-1.734 ± 0.092
PRF-fit source offset from KIC position	1.948 ± 0.909	2.14	0.757 ± 2.331	-1.795 ± 0.079
photometric centroid source offset	1.41 ± 1.68	0.84	-1.24 ± 1.71	0.68 ± 1.57

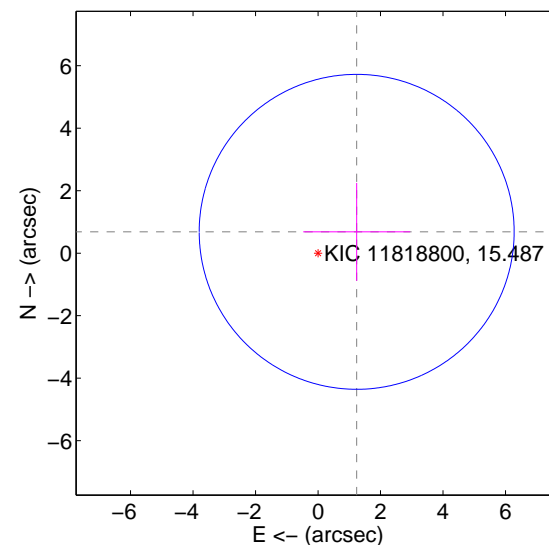
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

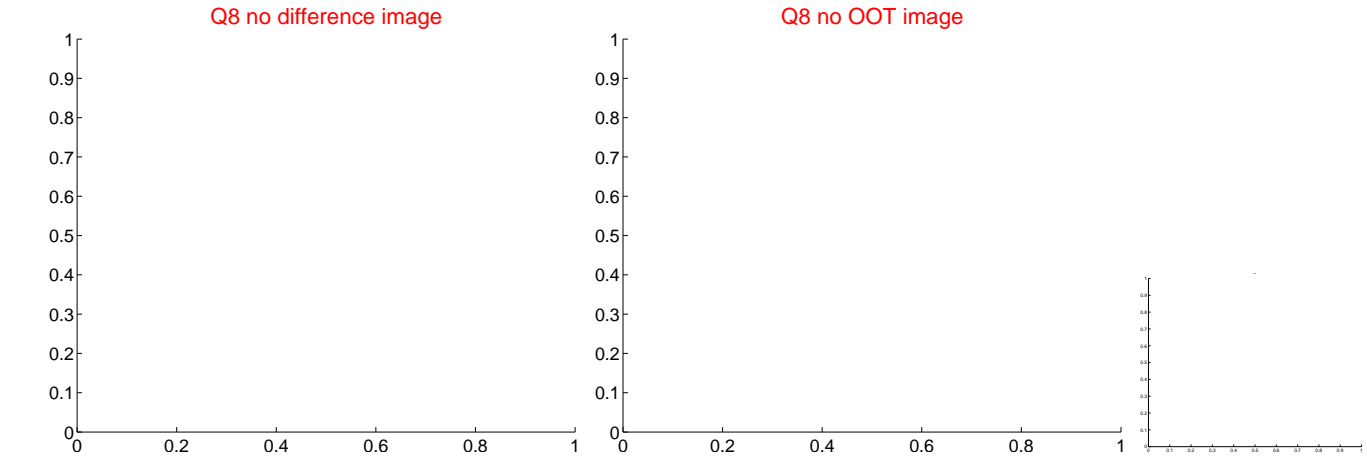
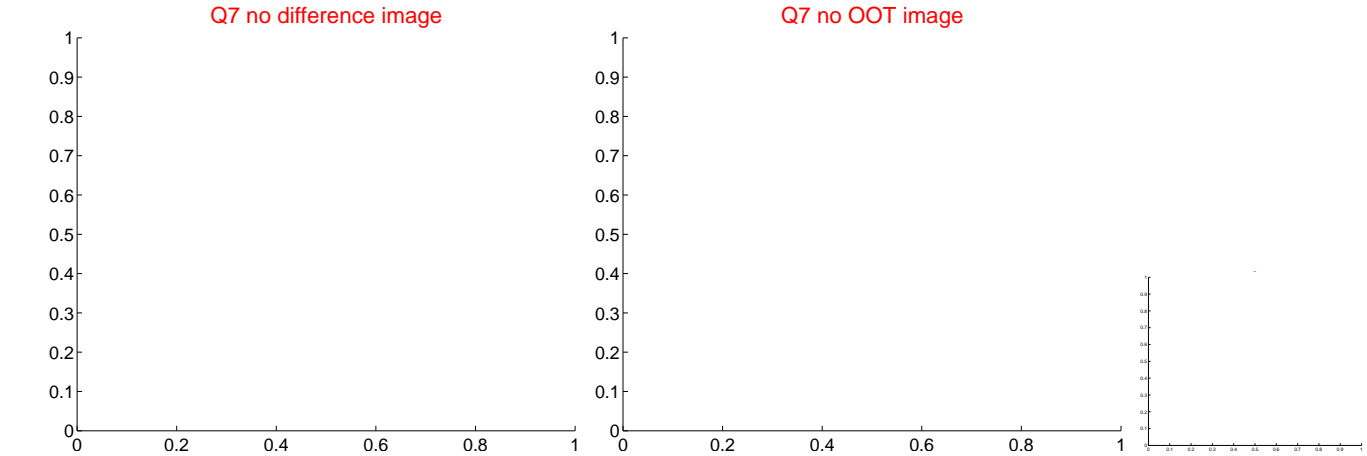
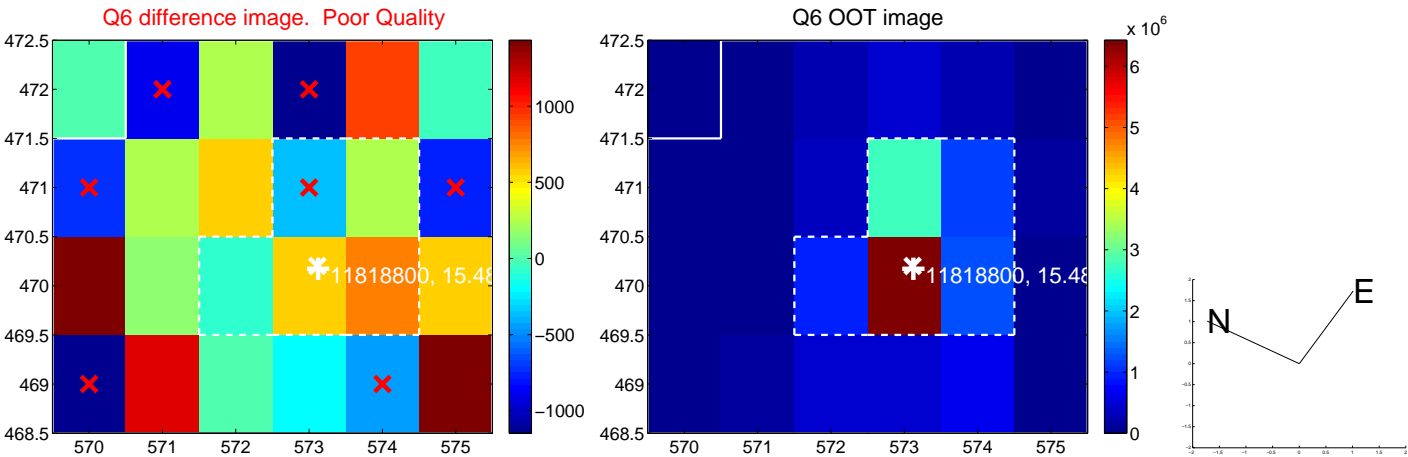
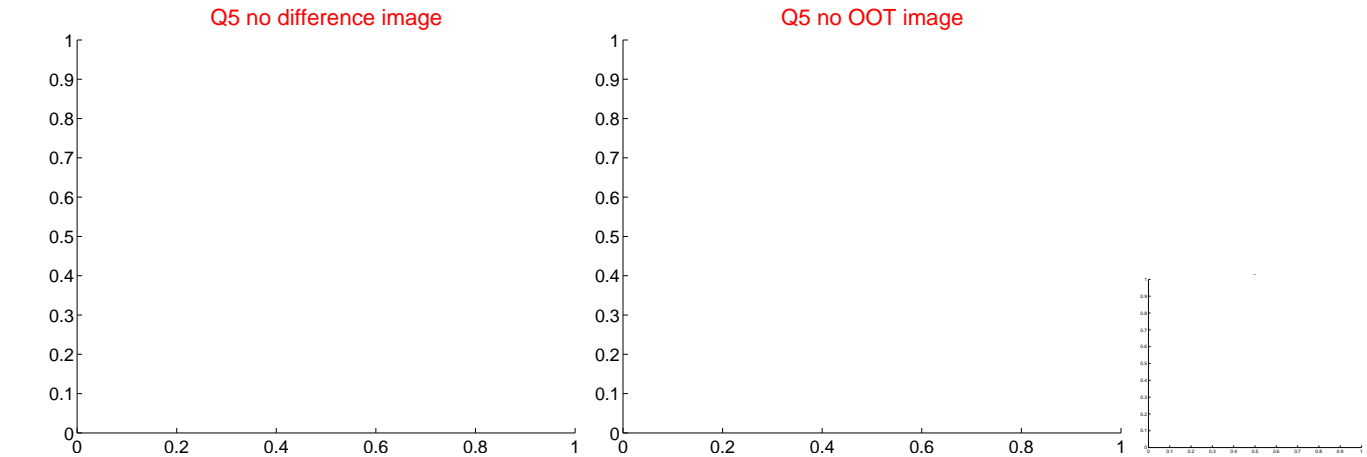


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

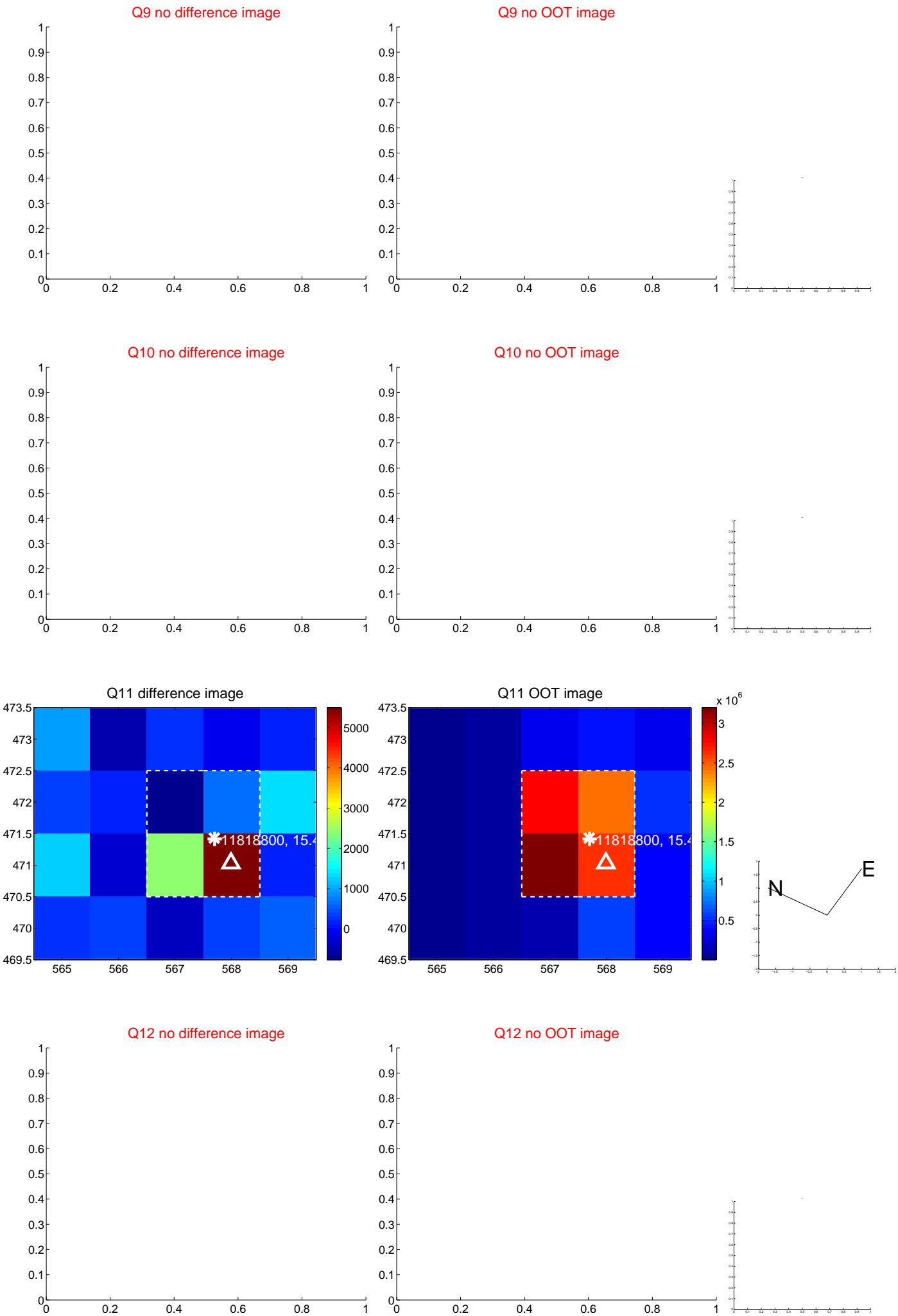
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: 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

