

KIC 011187436

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})
011187436-01	OBS	1804.01	5.907422	133.933686	5077.0	1.201	128.1	117.8	0.69	4963	5.71	82.78
011187436-02	OBS	No	171.743146	209.595295	950.3	3.784	9.0	6.2	0.69	4963	2.32	0.93
011187436-03	OBS	No	373.490792	259.138260	1686.1	3.369	10.5	6.9	0.69	4963	2.97	0.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011187436-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
011187436-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT
011187436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—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.

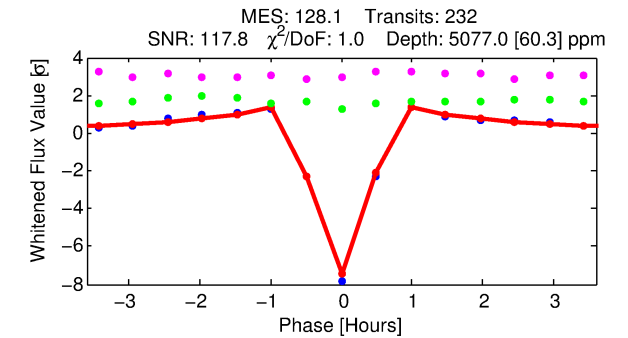
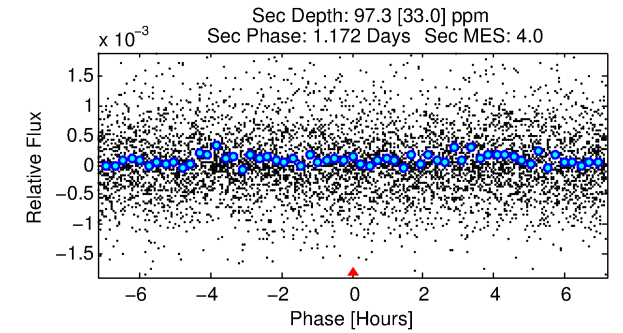
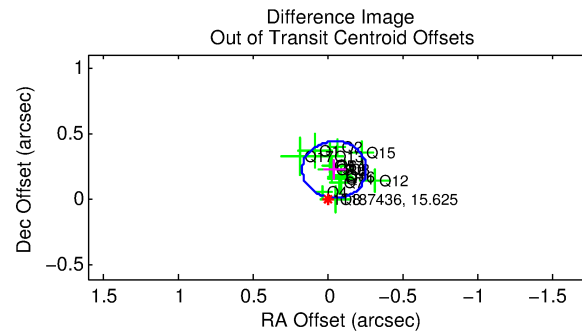
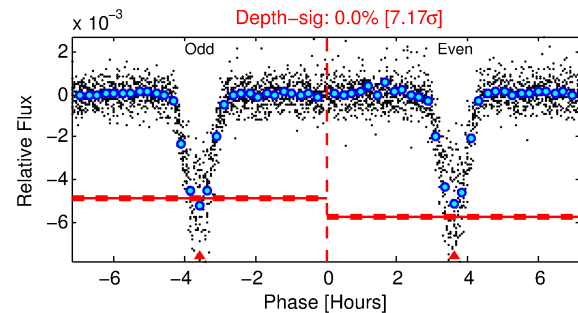
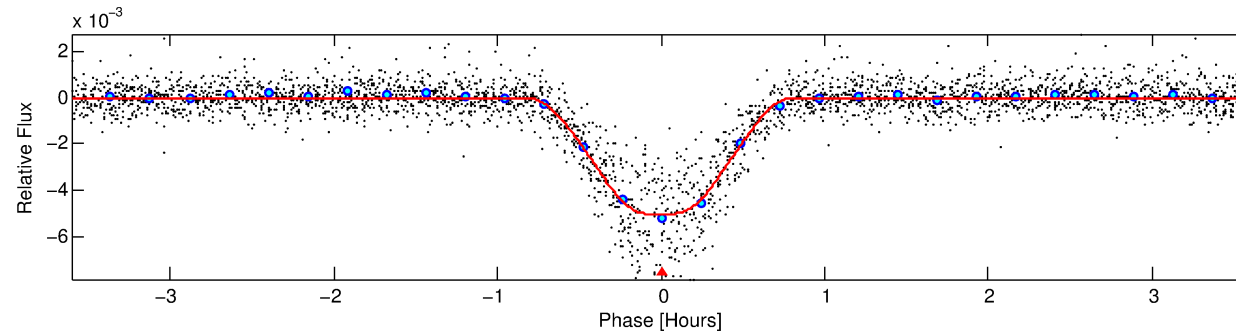
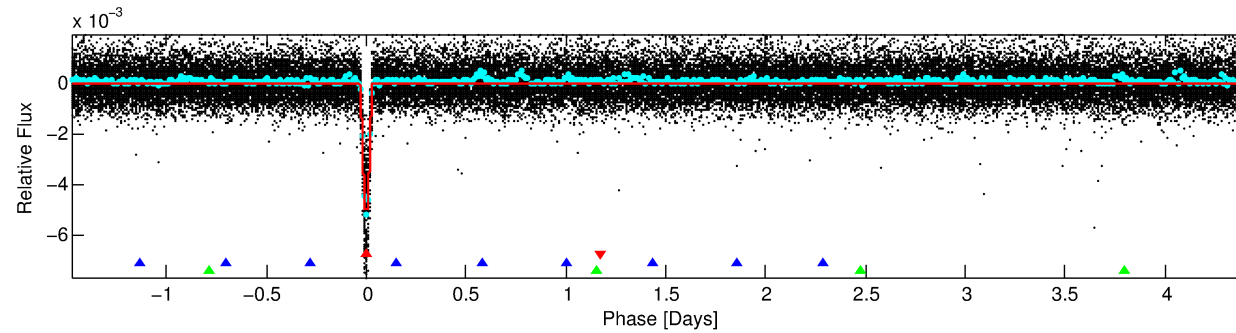
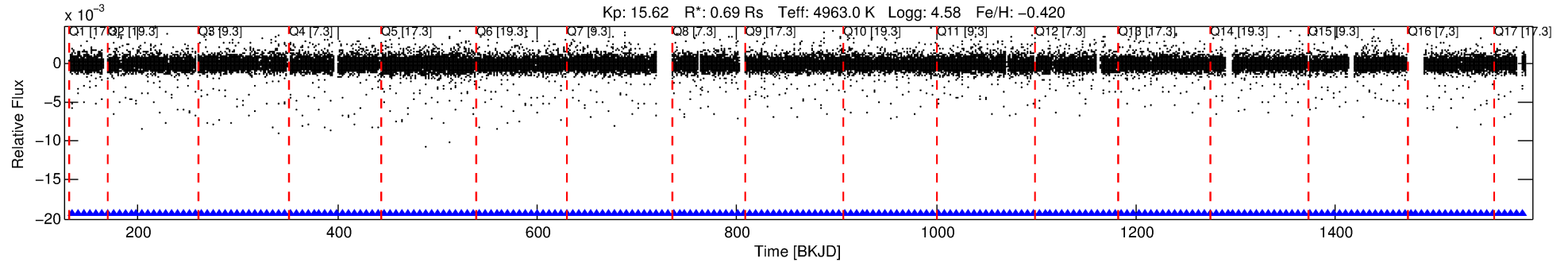
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011187436-01

No Significant Match Found

DV One-Page Summary

KIC: 11187436 Candidate: 1 of 3 Period: 5.907 d
KOI: K01804.01 Corr: 0.950



DV Fit Results:

Period = 5.90742 [0.00000] d
Epoch = 133.9337 [0.0002] BKJD
Rp/R* = 0.0758 [0.0026]
a/R* = 25.49 [2.76]
b = 0.84 [0.04]
Seff = 82.78 [14.10]
Teq = 769 [33] K
Rp = 5.71 [0.60] Re
a = 0.0559 [0.0046] AU
Ag = 5.14 [1.88] [2.20 σ]
Teffp = 1791 [164] K [6.12 σ]

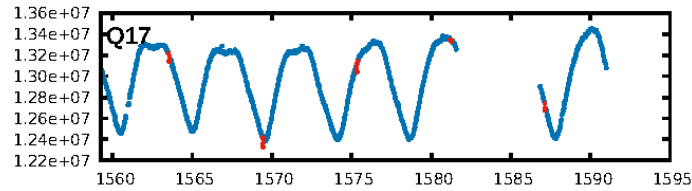
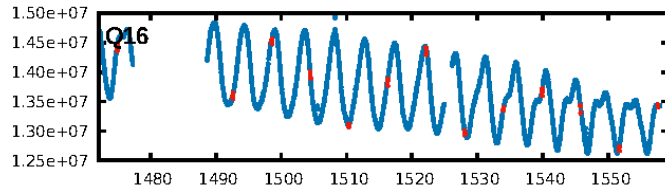
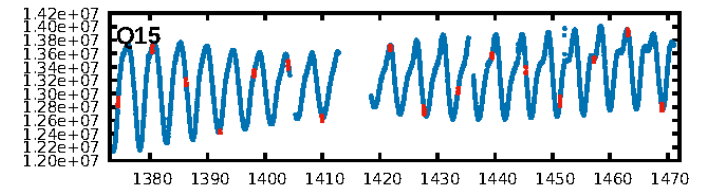
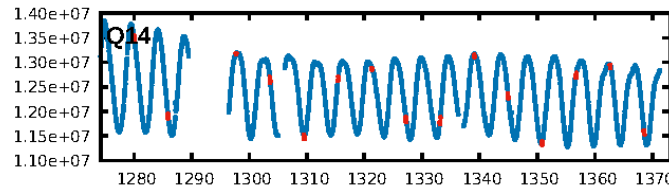
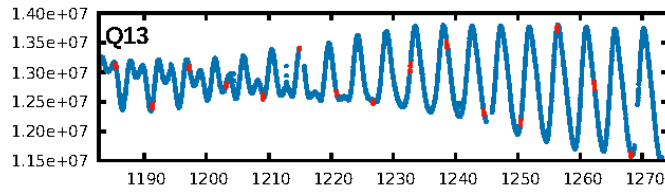
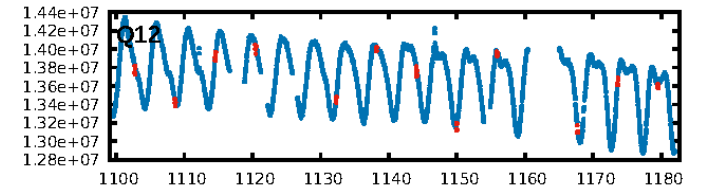
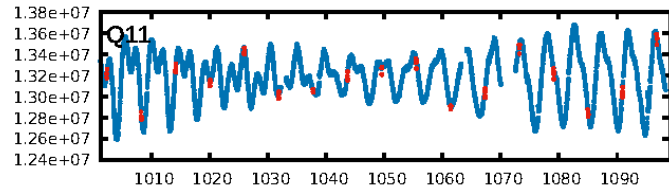
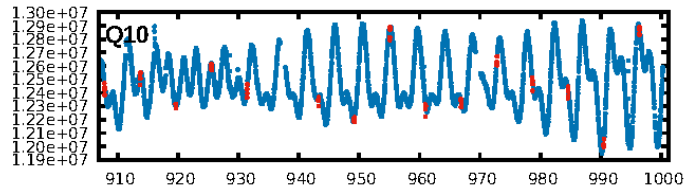
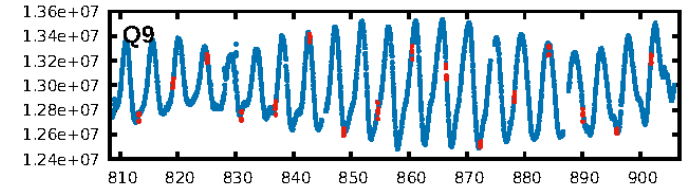
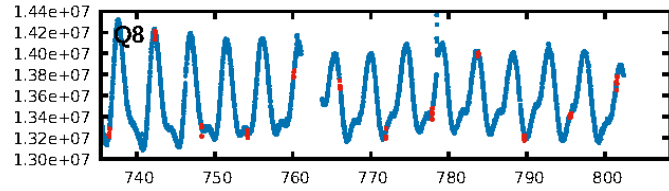
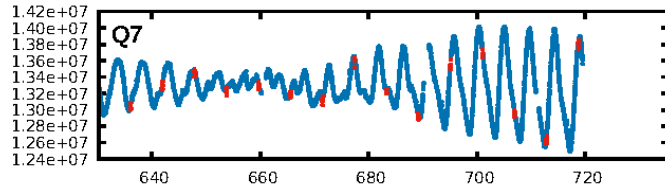
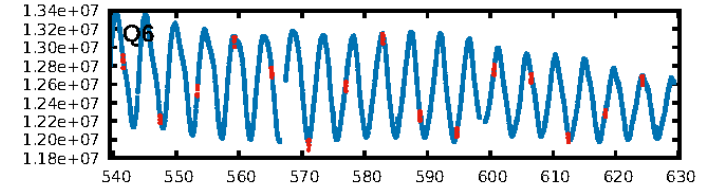
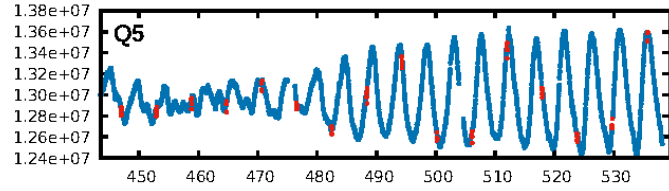
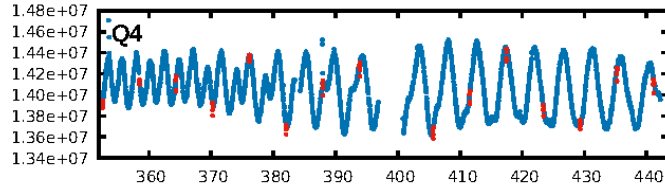
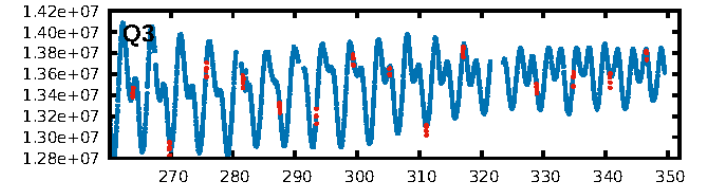
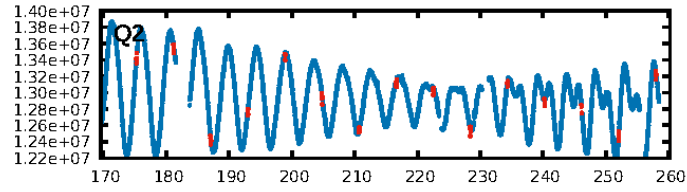
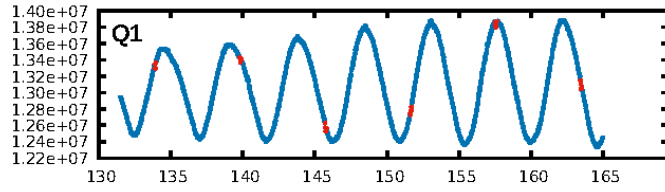
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1002.58 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [221/221]
GhostDiagnostic-chr: 1.692
Centroid-sig: 0.0%
Centroid-so: 0.107 arcsec [1.28 σ]
OotOffset-rm: 0.232 arcsec [3.24 σ]
KicOffset-rm: 0.102 arcsec [1.28 σ]
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]

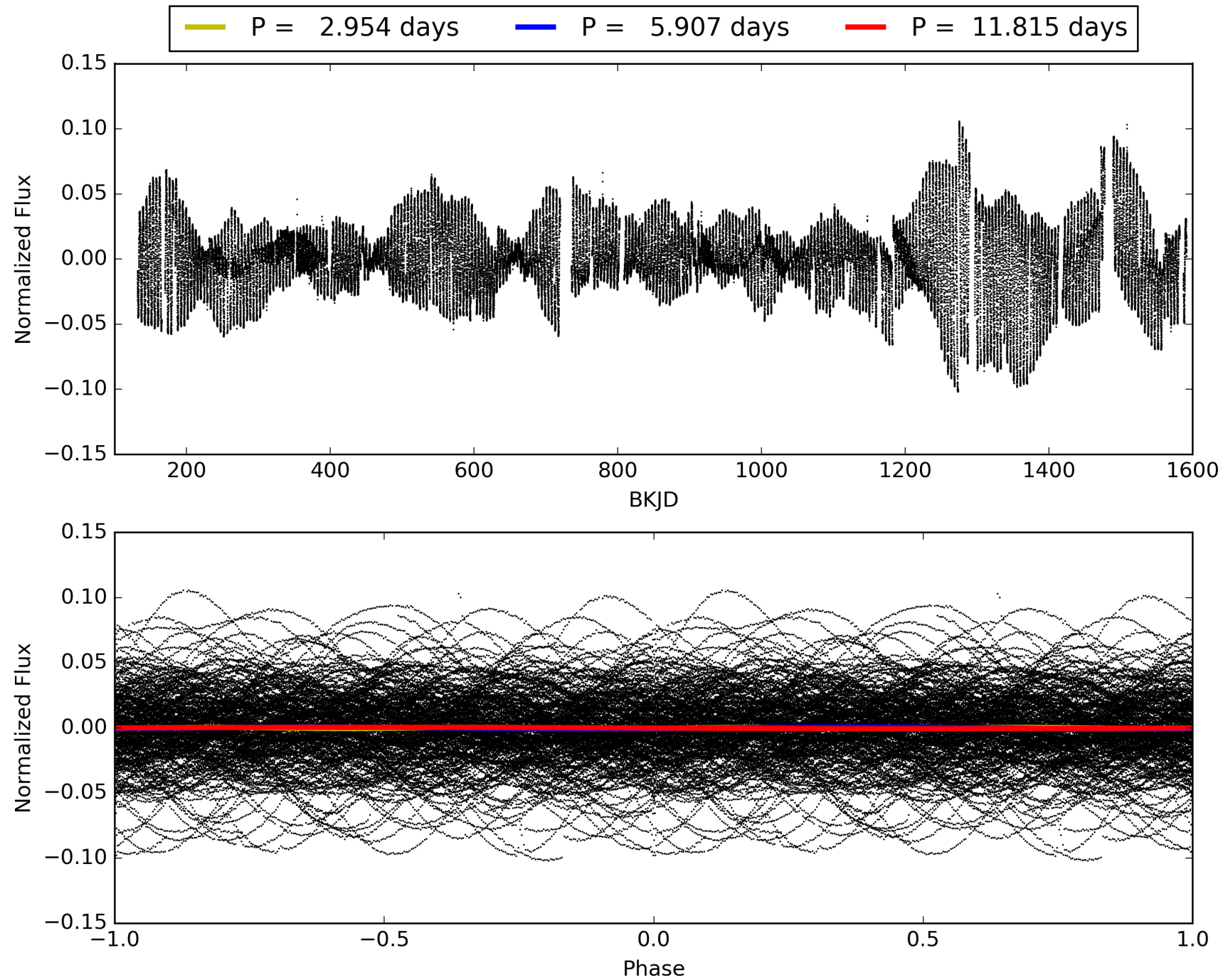
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:08:39 Z

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

TCE 011187436-01, PDC Light Curves

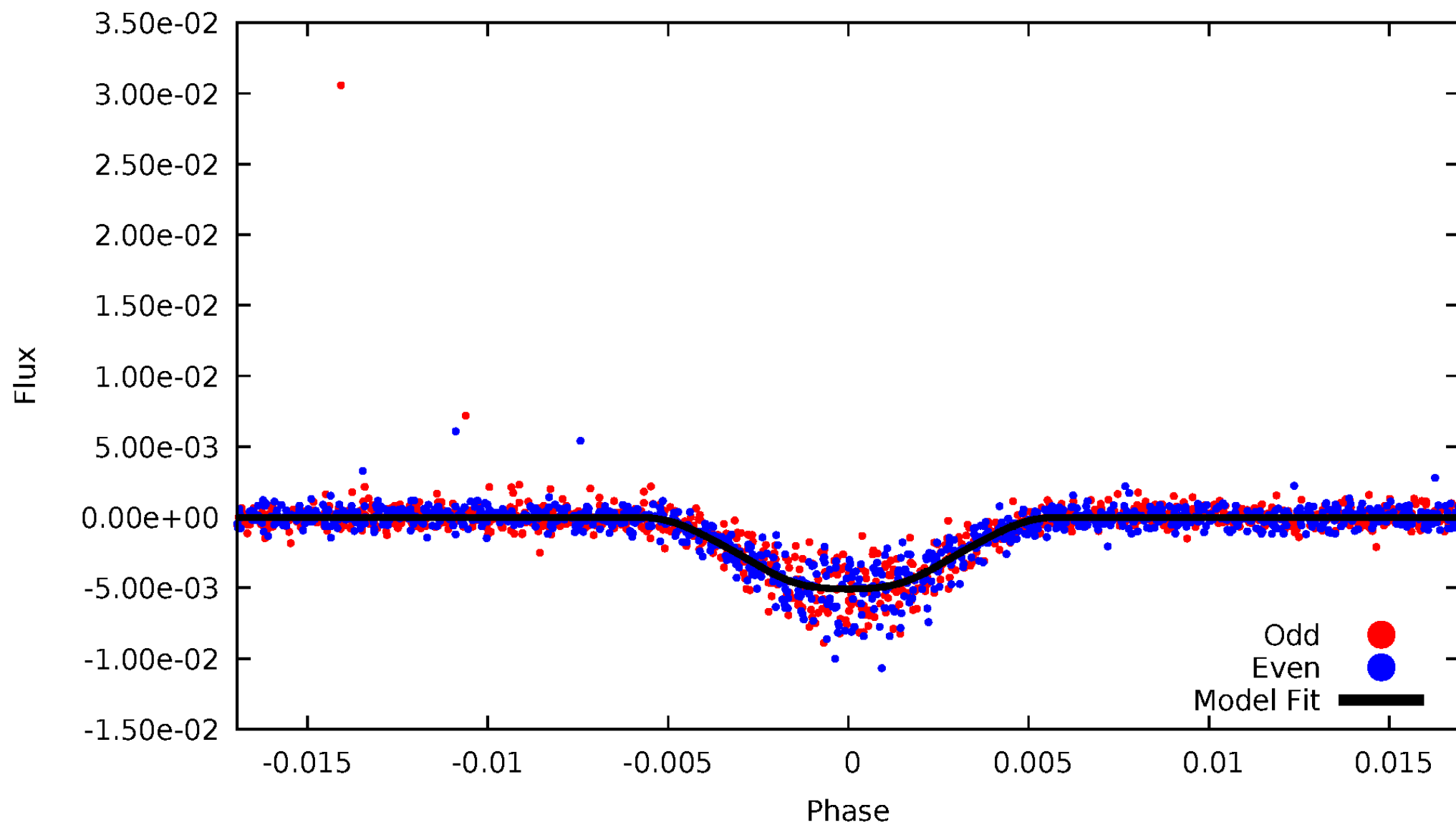


TCE 011187436-01



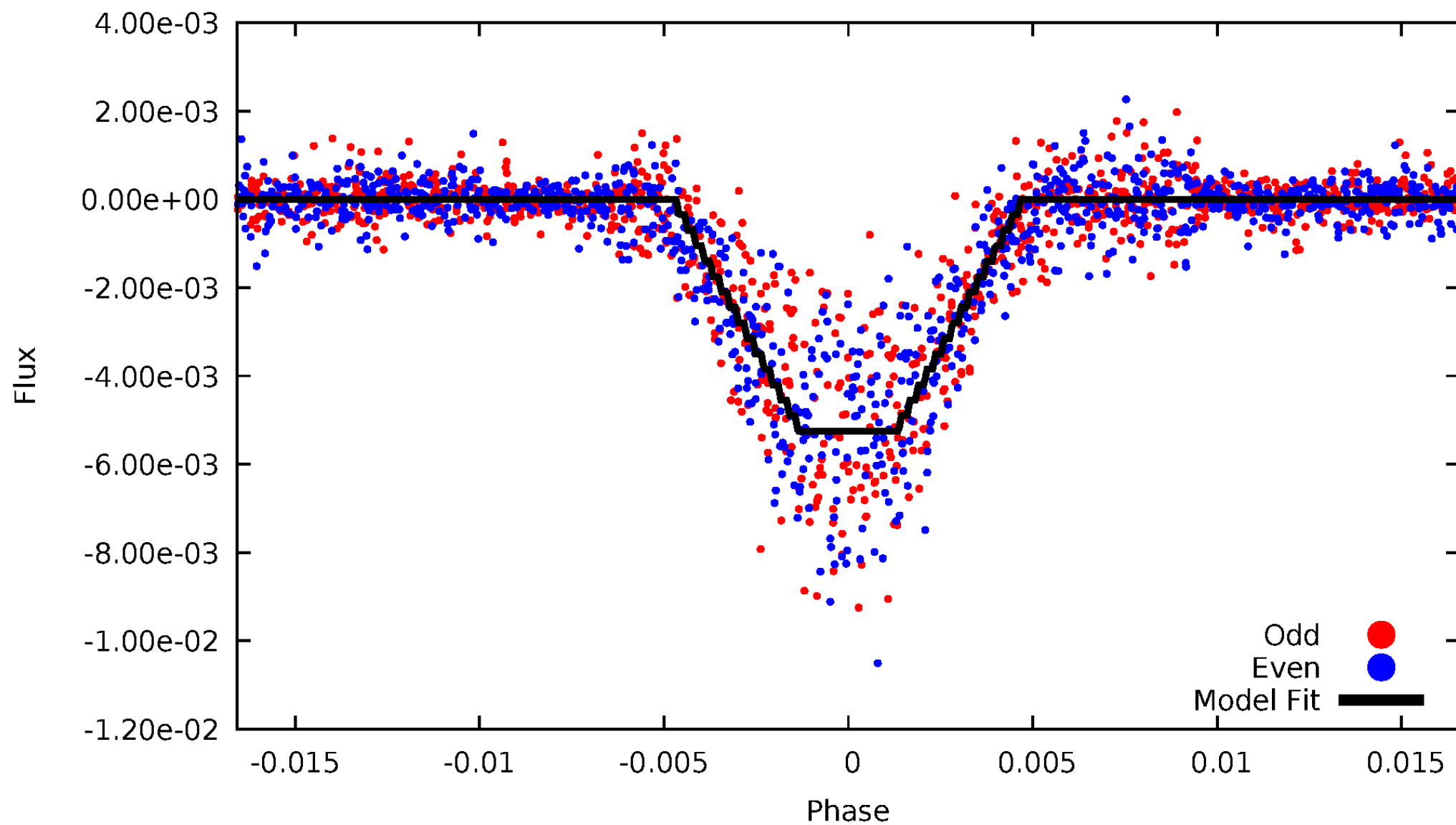
DV Odd/Even

TCE 011187436-01



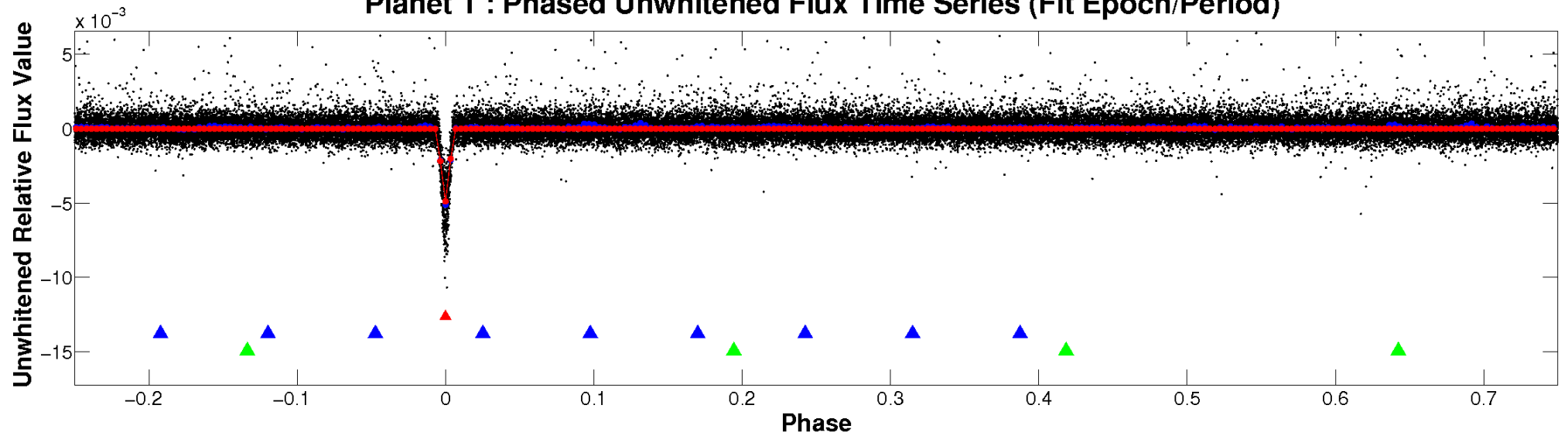
ALT Odd/Even

TCE 011187436-01

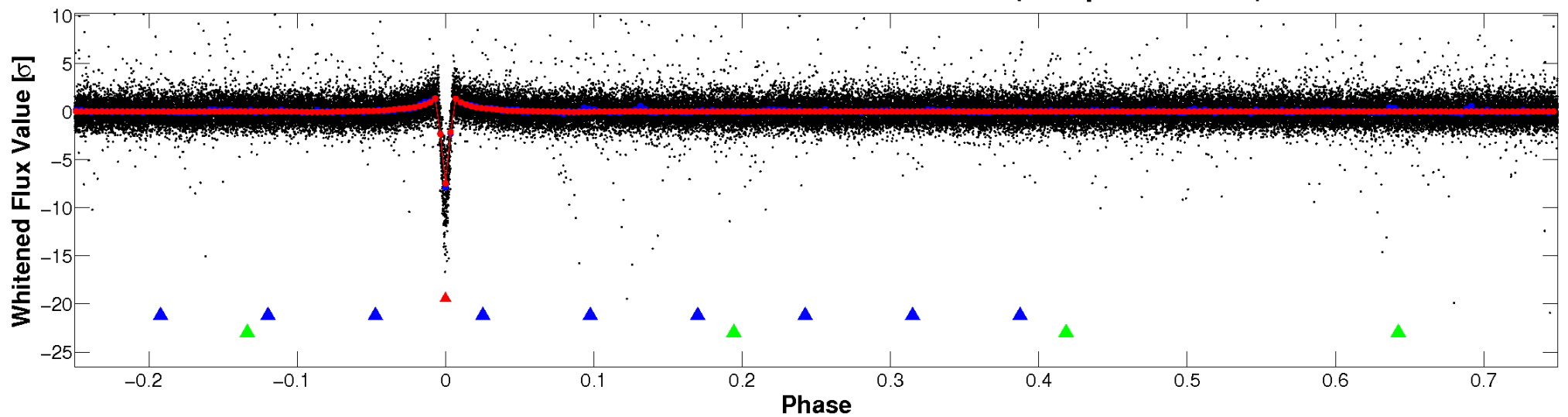


Non-Whitened Vs. Whitened Light Curve

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

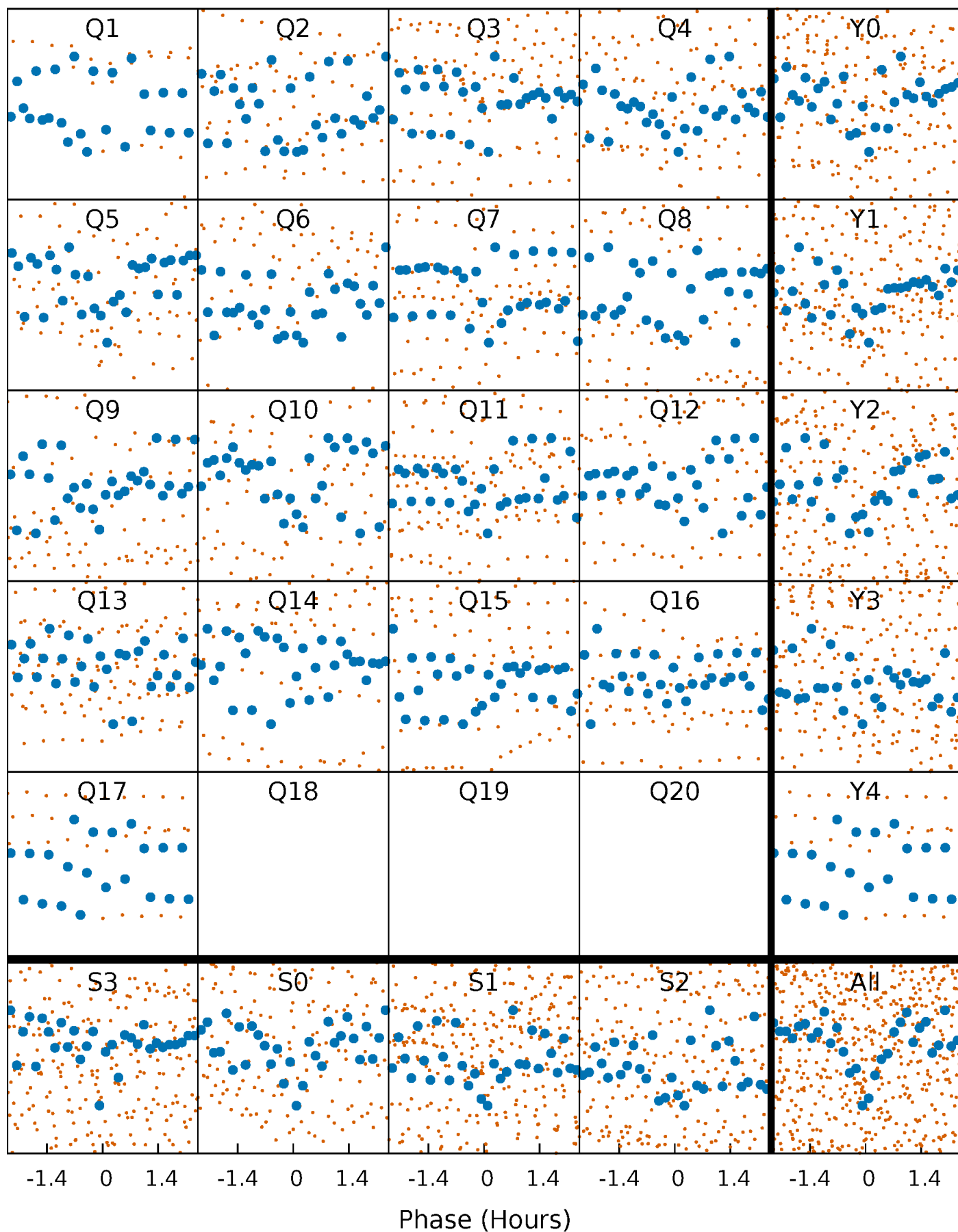


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



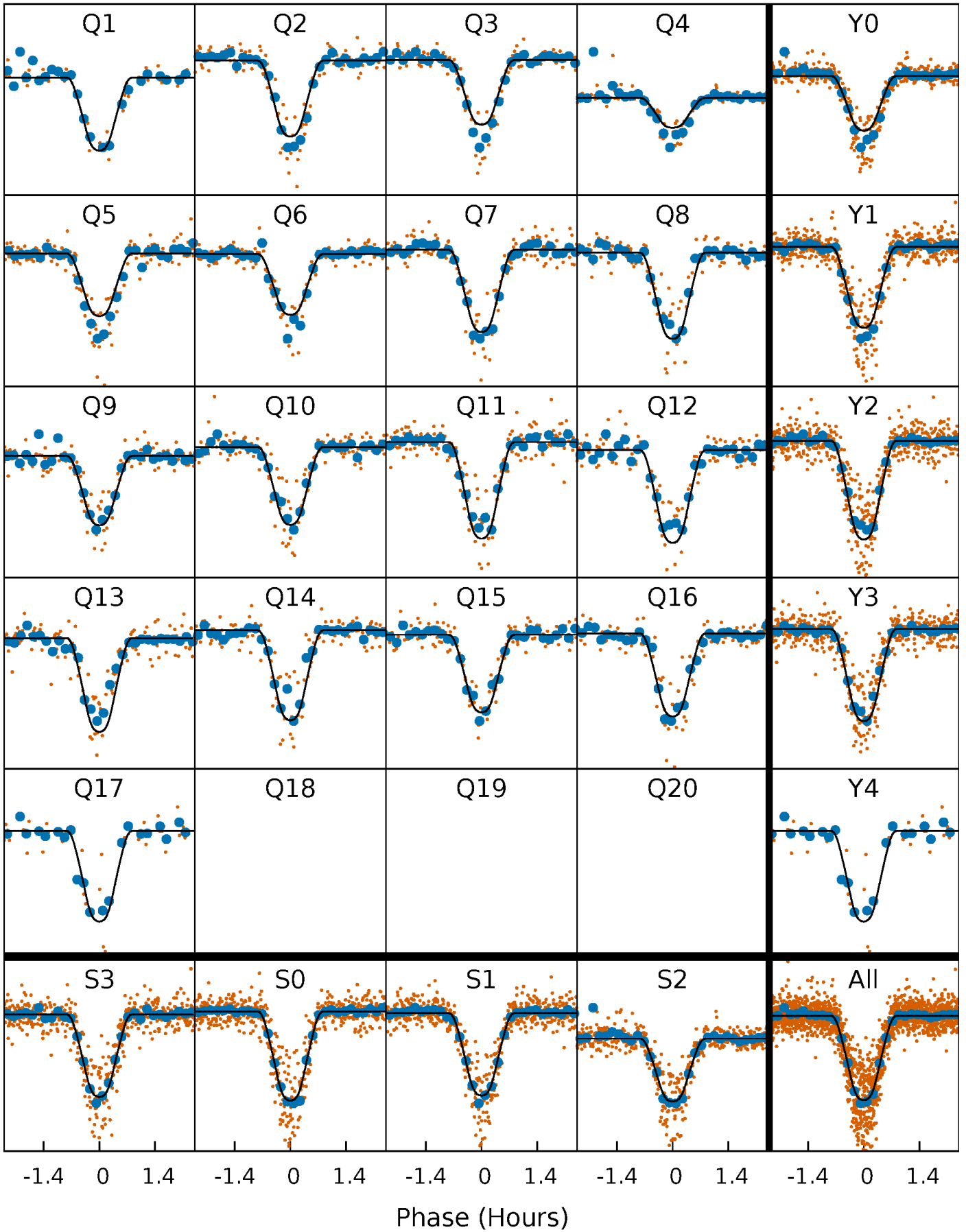
PDC Quarter-Phased Transit Curves

TCE 011187436-01 P= 5.907422 Days $T_0=133.933686$ (BKJD)



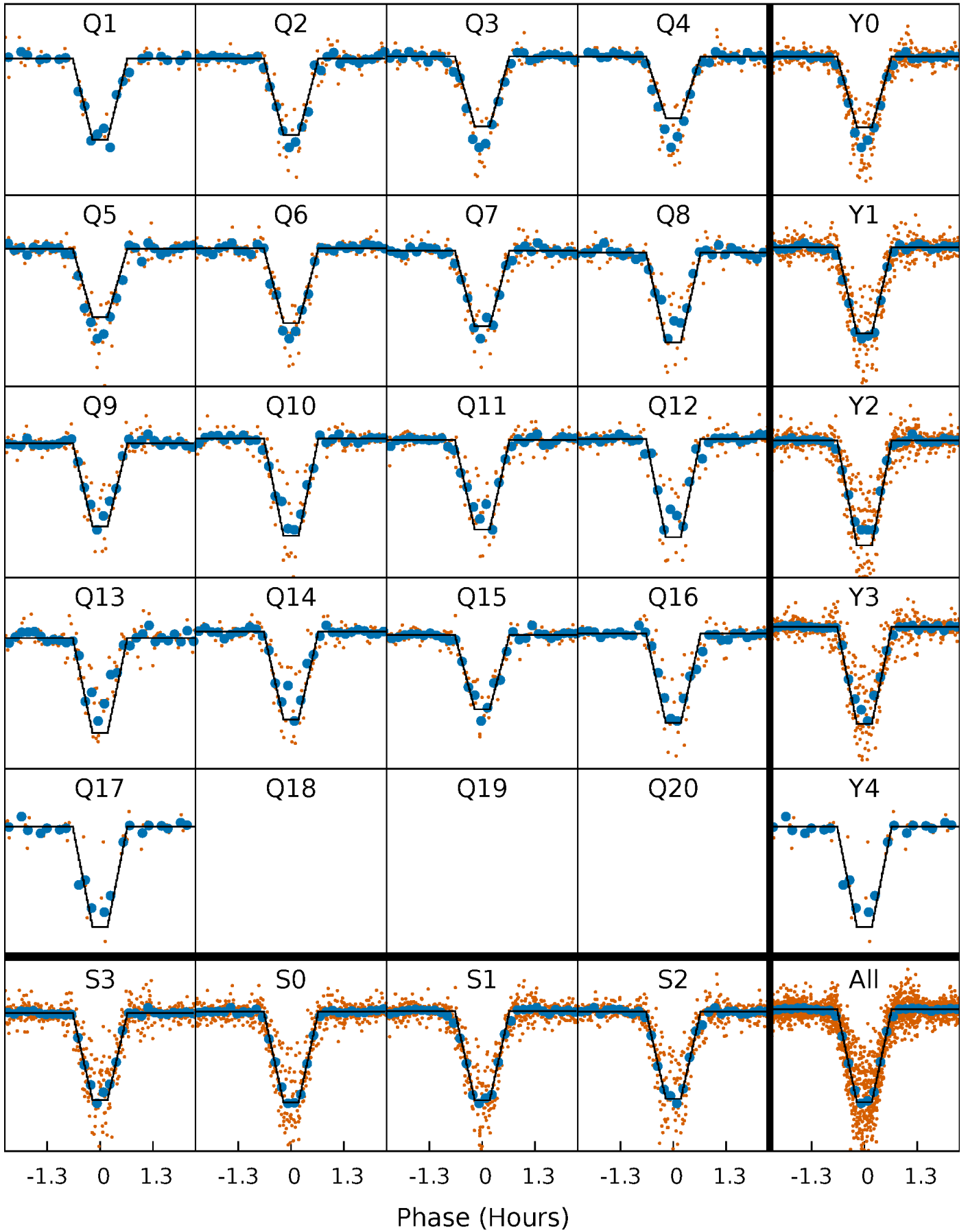
DV Quarter-Phased Transit Curves

TCE 011187436-01 P= 5.907422 Days $T_0=133.933686$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

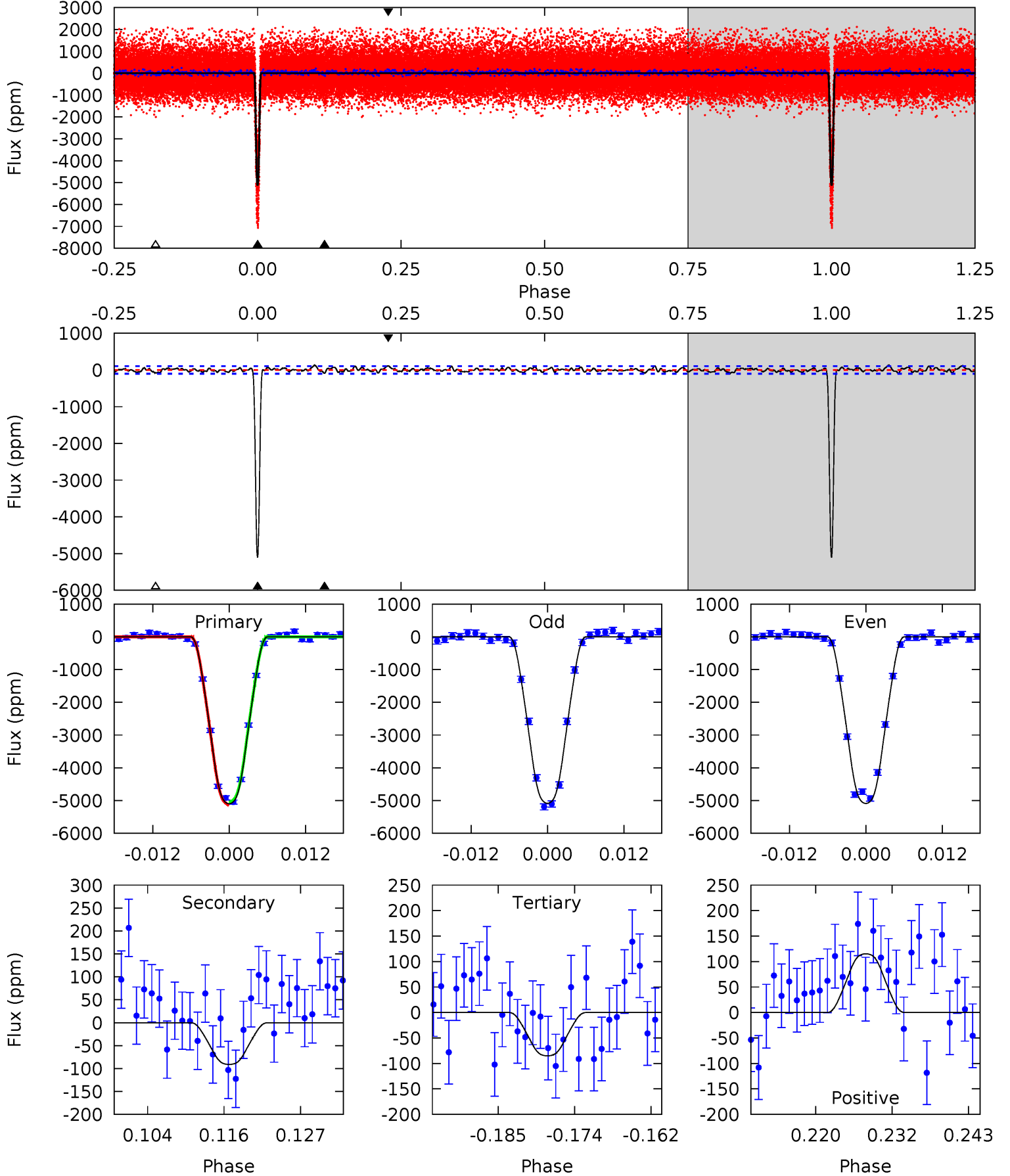
TCE 011187436-01 P= 5.907411 Days $T_0=133.935085$ (BKJD)



DV Model-Shift Uniqueness Test

011187436-01, P = 5.907422 Days, E = 128.026264 Days

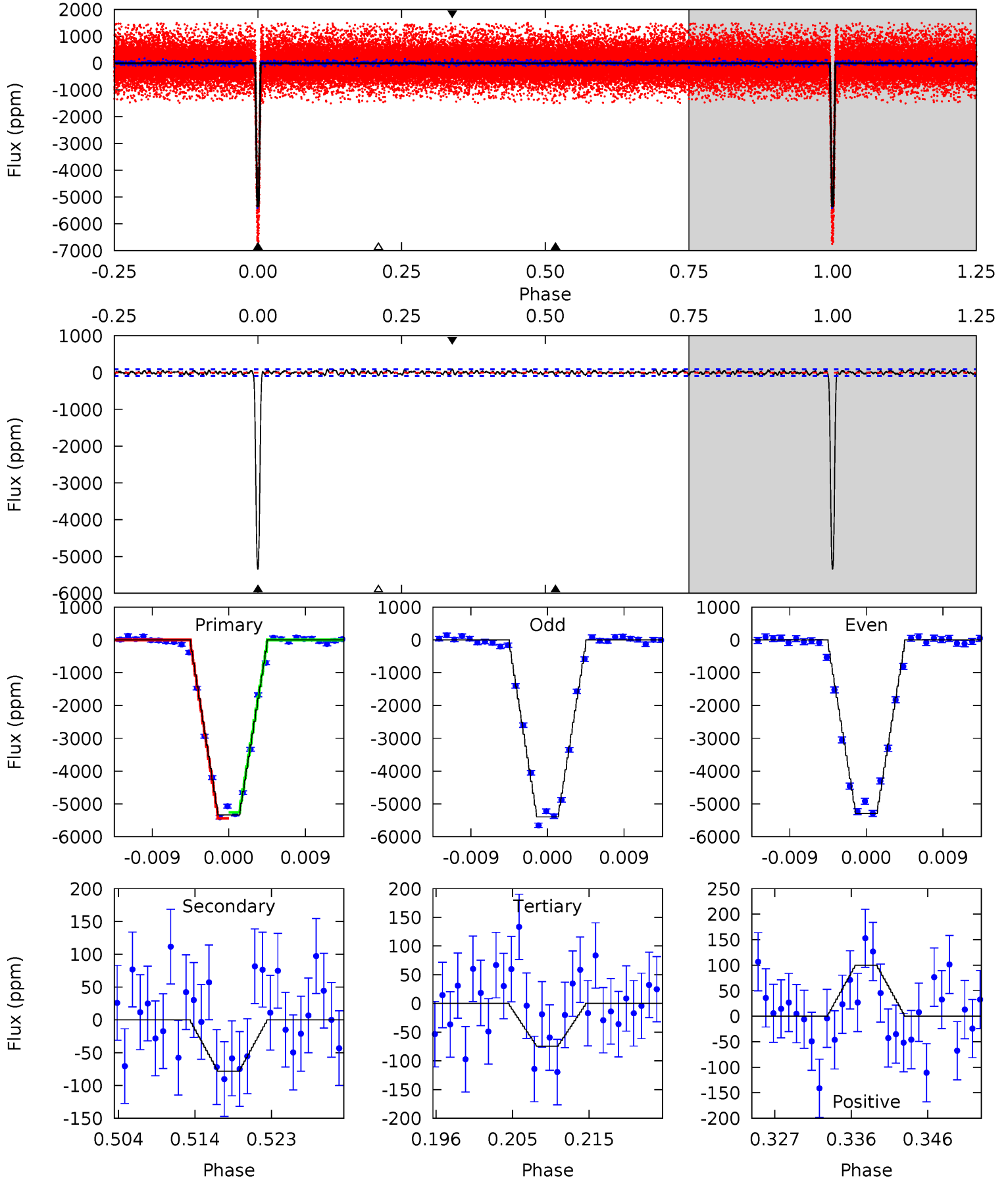
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
245.5	4.39	4.10	5.55	5.00	2.52	1.79	241.4	239.9	0.29	-1.16	0.13	1.00	0.02	1.95



Alt Model-Shift Uniqueness Test

011187436-01, P = 5.907411 Days, E = 128.027674 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
285.0	4.18	3.97	5.34	5.04	2.60	1.53	281.0	279.6	0.21	-1.16	2.79	0.99	0.02	0



Stellar Parameters For KIC 011187436

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4963^{+149}_{-149}	$4.585^{+0.066}_{-0.039}$	$-0.420^{+0.300}_{-0.300}$	$0.690^{+0.062}_{-0.068}$	$0.667^{+0.089}_{-0.045}$	$2.856^{+0.882}_{-0.436}$
	+3%/-3%	+1%/-1%	+71%/-71%	+9%/-10%	+13%/-7%	+31%/-15%
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 011187436-01 / KOI 1804.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-91 ± 21	$5.68^{+0.35}_{-0.37}$	1070^{+37}_{-40}	2533^{+97}_{-98}	$4.884^{+1.312}_{-1.260}$
Alt.	-78 ± 19	$5.43^{+0.35}_{-0.35}$	1069^{+37}_{-38}	2520^{+88}_{-102}	$4.617^{+1.344}_{-1.206}$

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 $A_{obs} \gg 1.0$

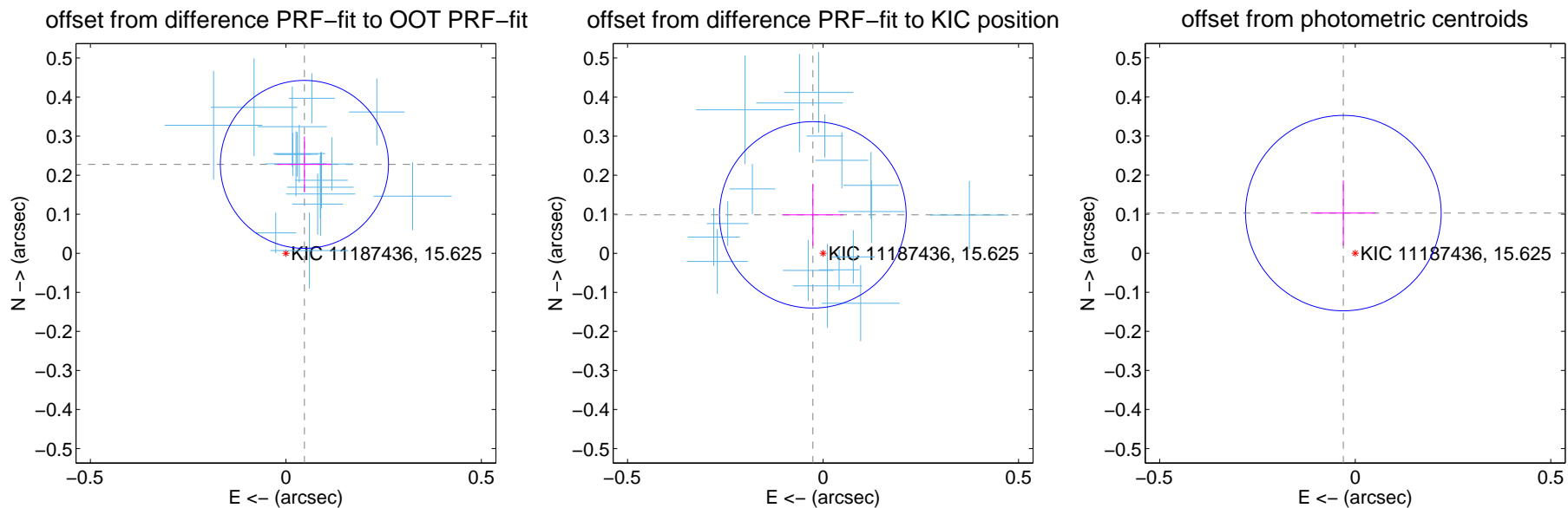
DV Centroid Data

Supplemental centroid analysis for 011187436-01. Kepler magnitude: 15.62. Transit SNR 117.83

There are 17 quarters with good PRF difference image offsets

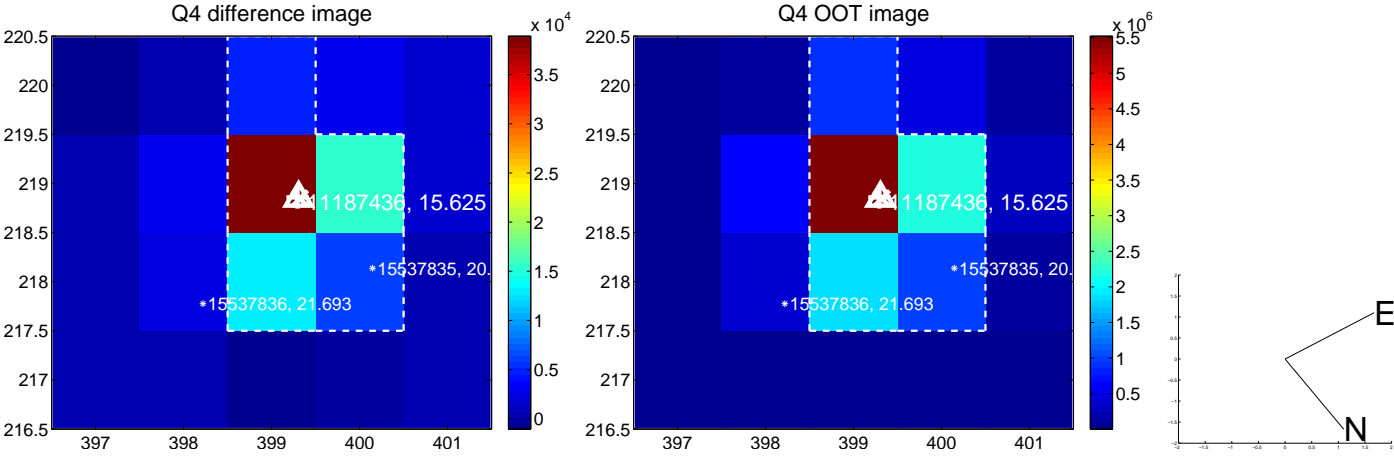
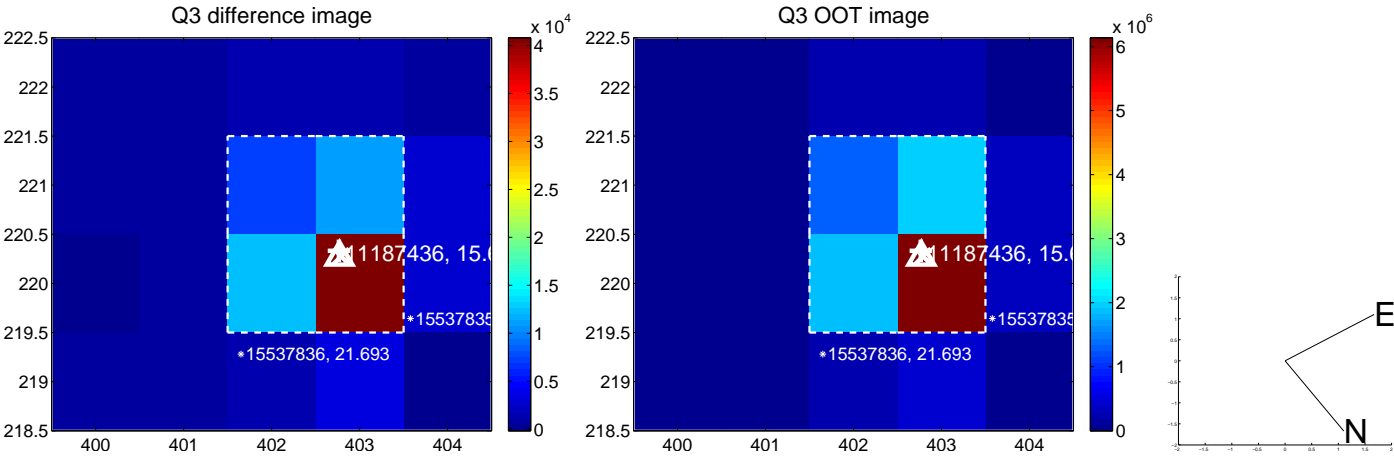
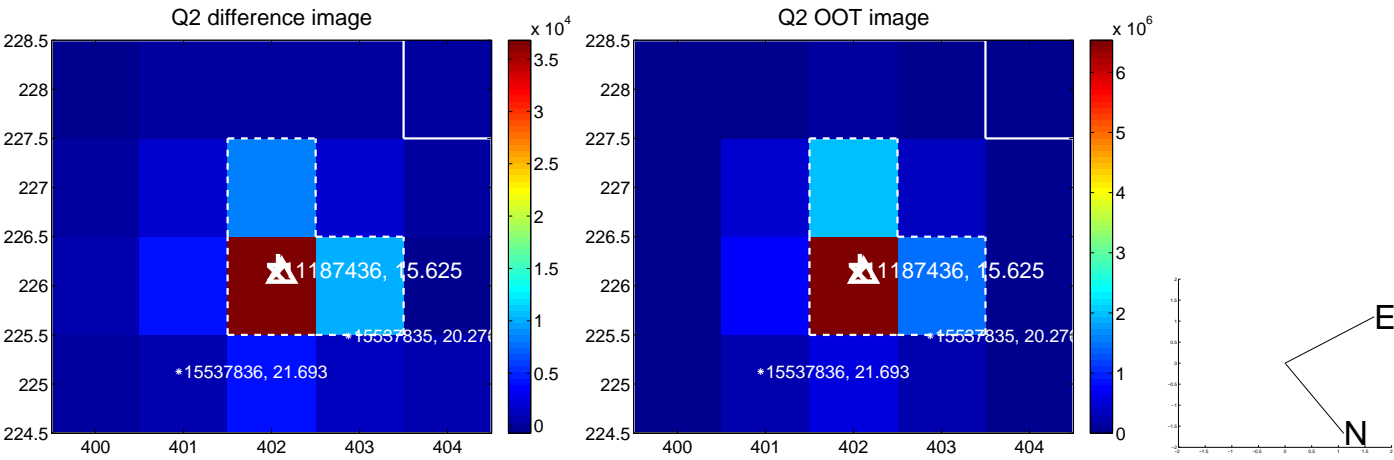
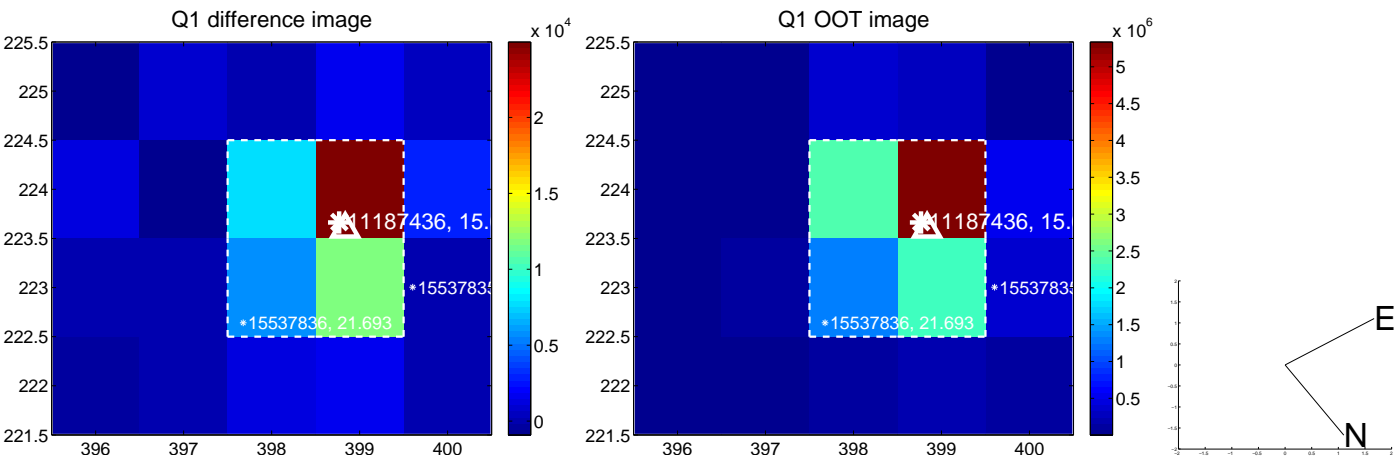
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.232 \pm 0.072	3.24	-0.047 \pm 0.070	0.228 \pm 0.072
PRF-fit source offset from KIC position	0.102 \pm 0.080	1.28	0.026 \pm 0.078	0.098 \pm 0.079
photometric centroid source offset	0.11 \pm 0.08	1.28	0.03 \pm 0.08	0.10 \pm 0.08

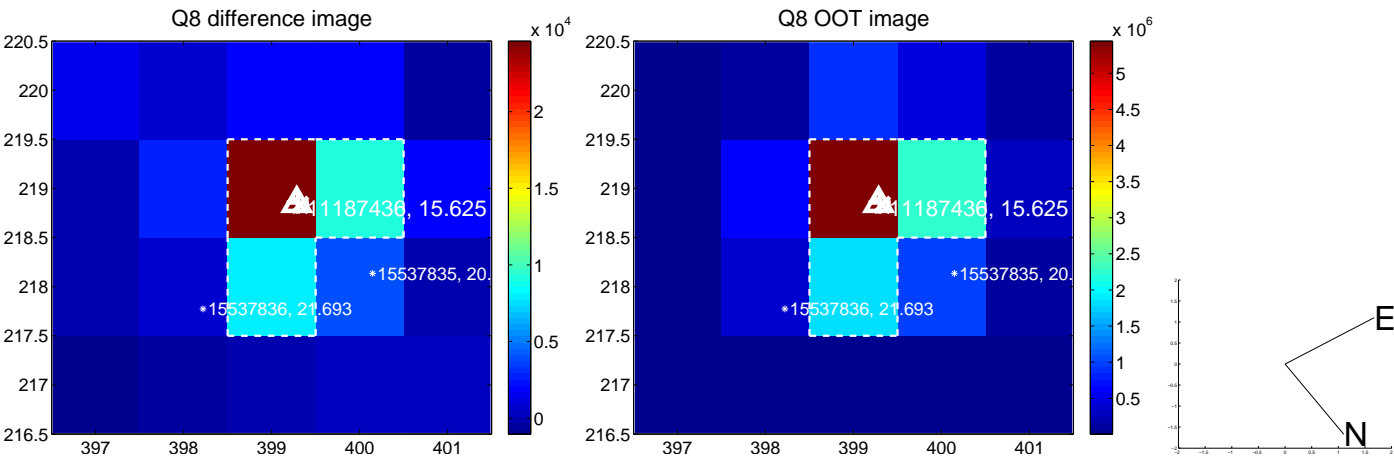
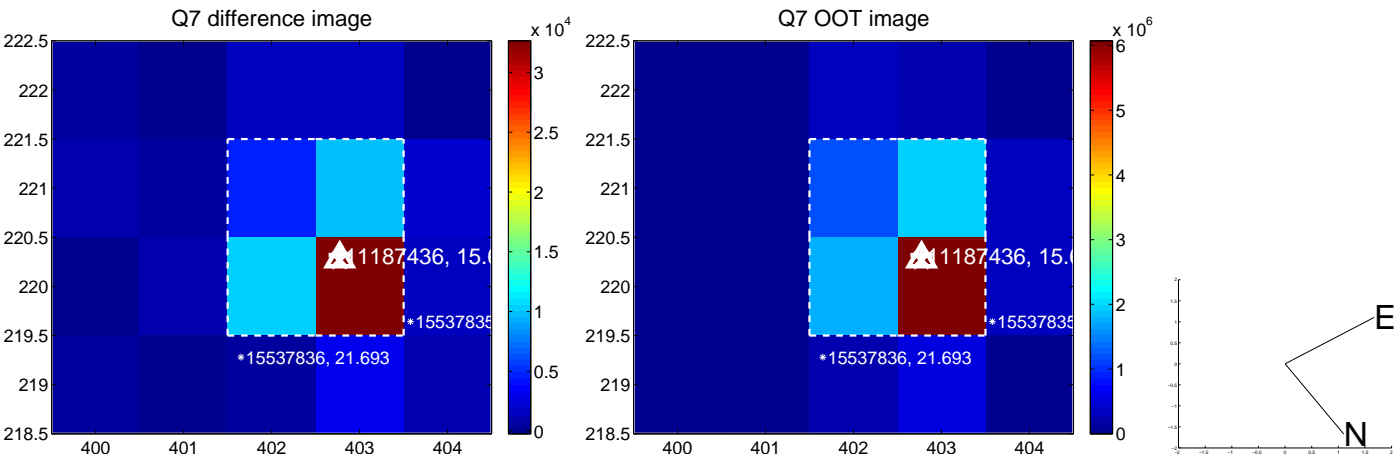
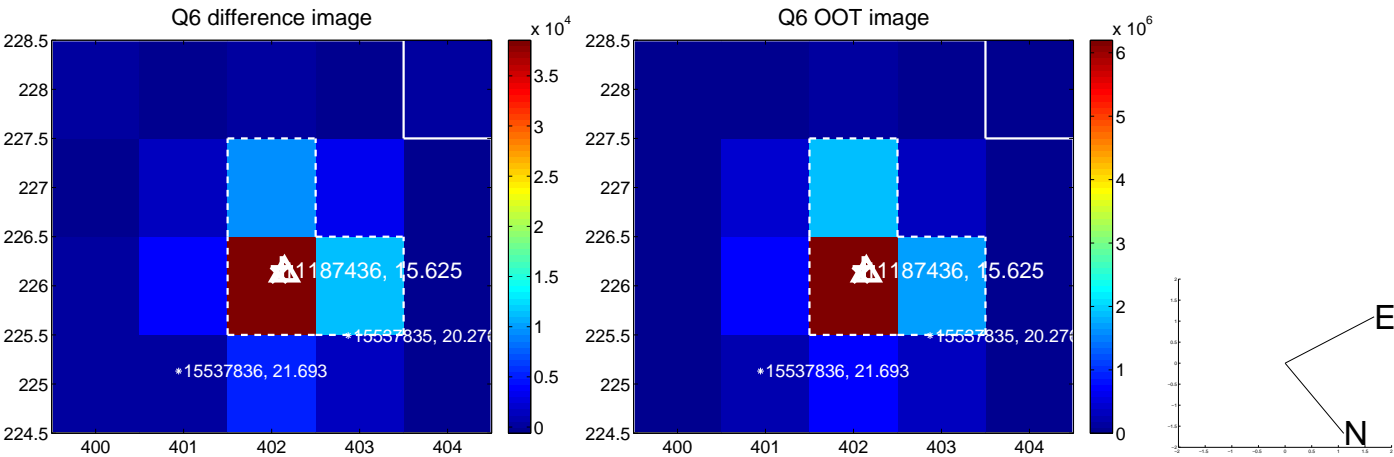
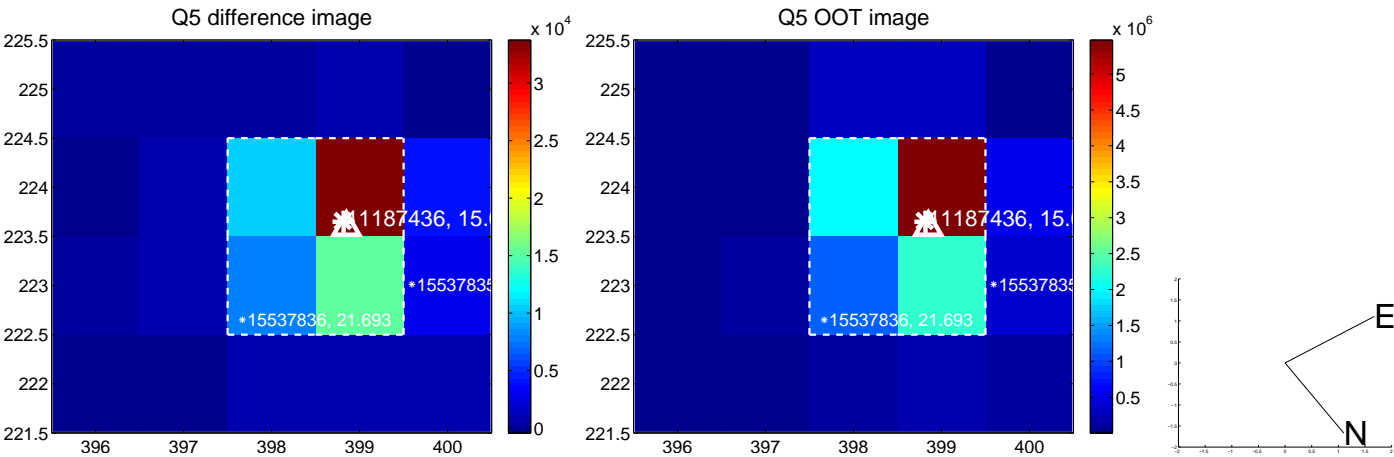


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

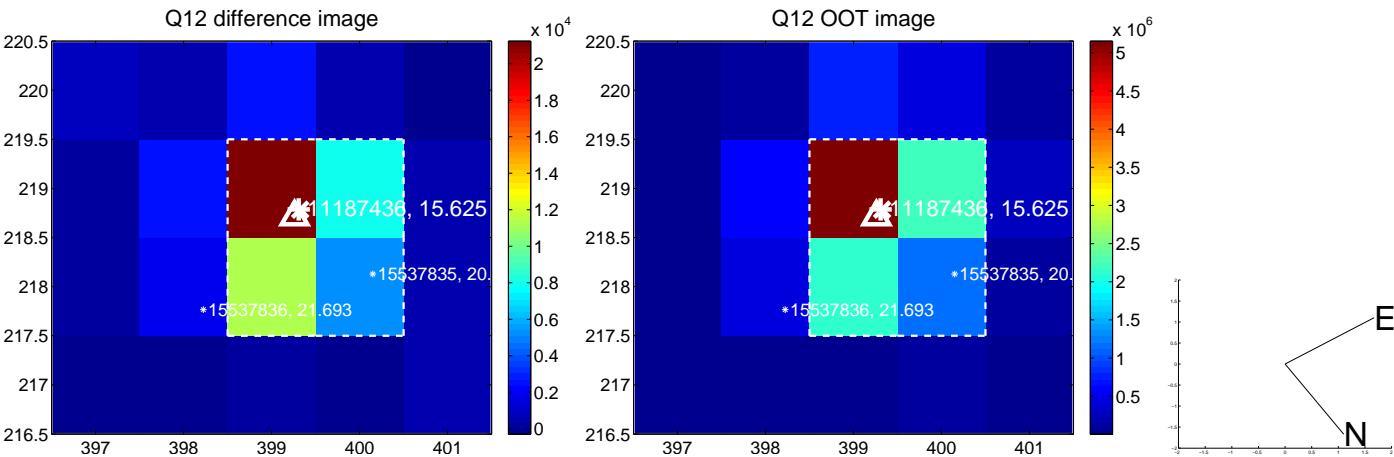
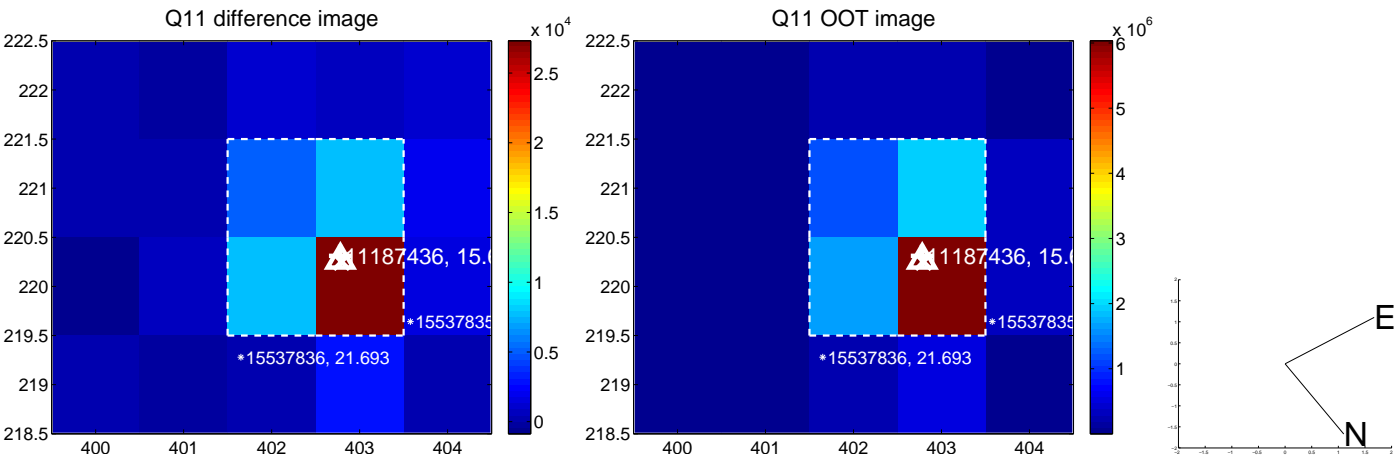
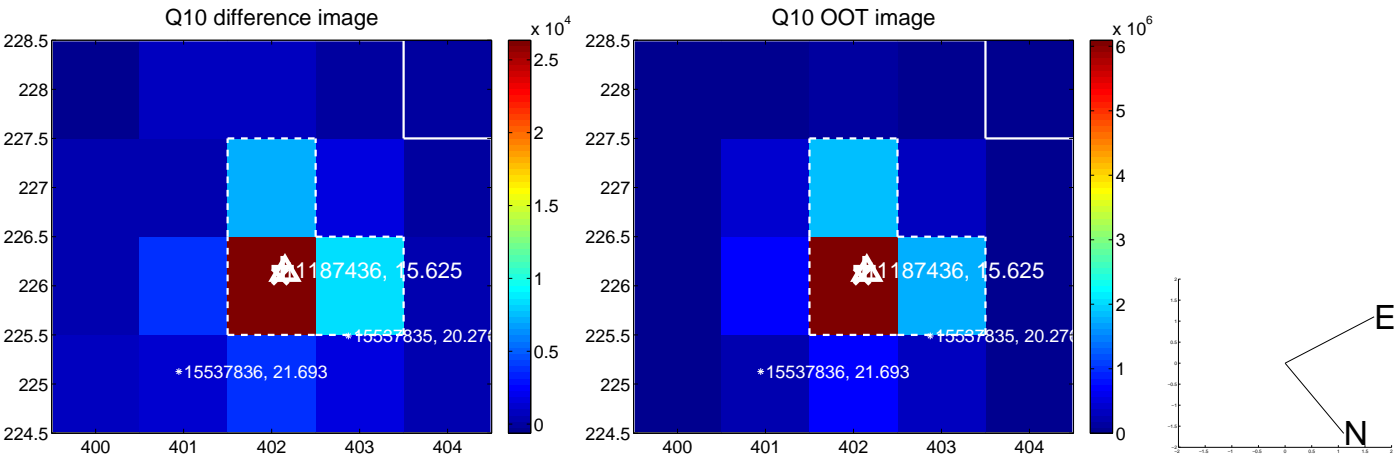
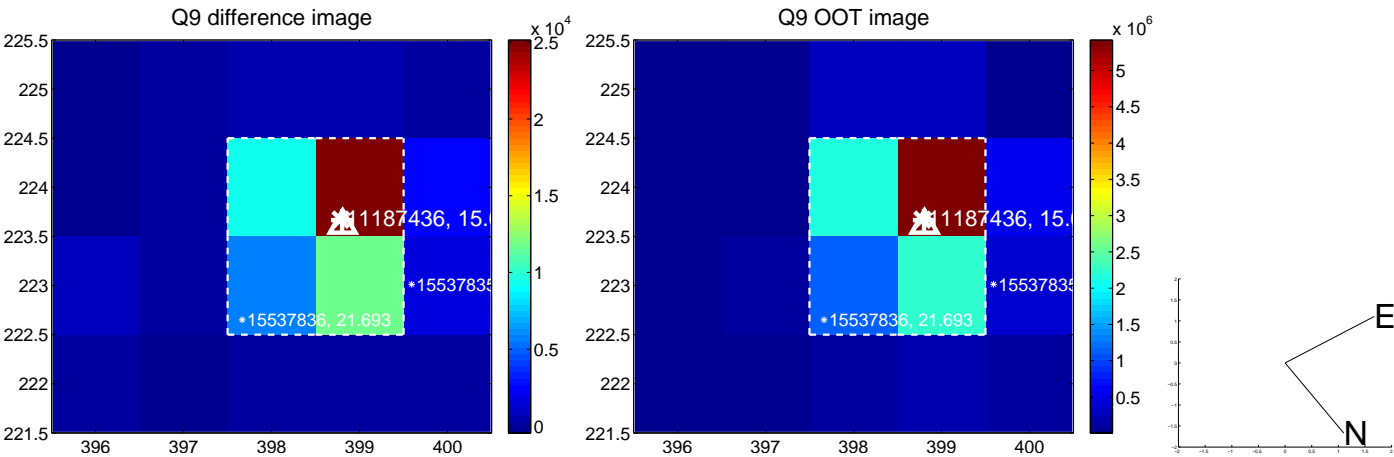
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



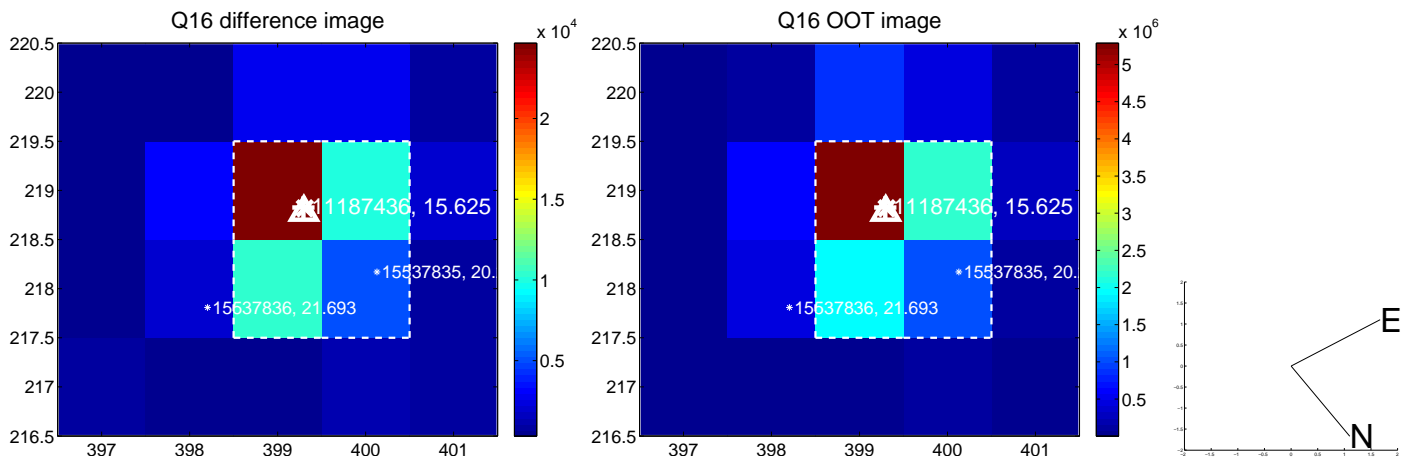
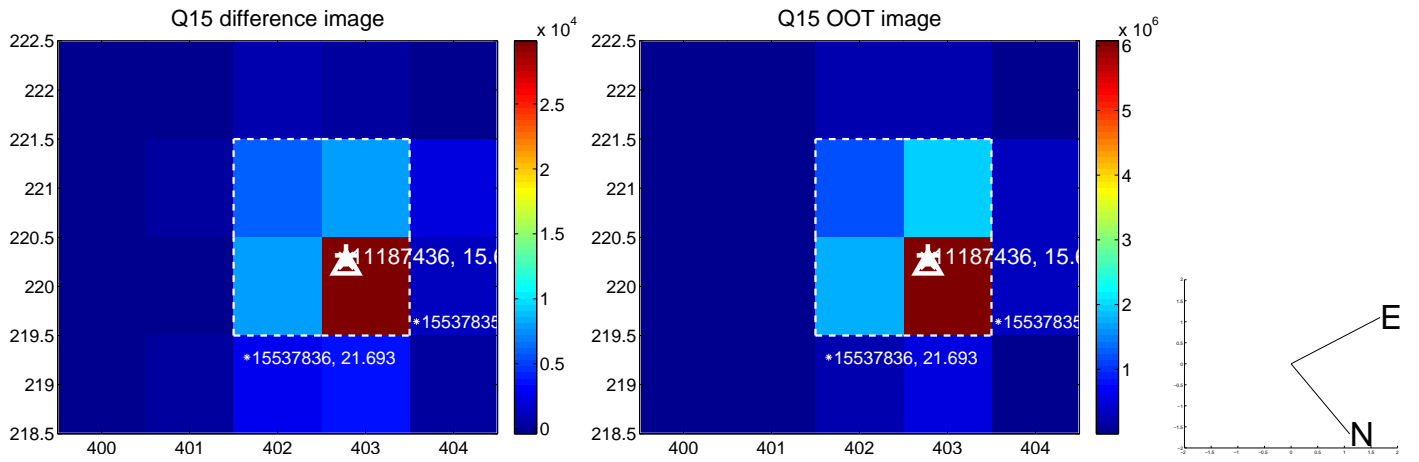
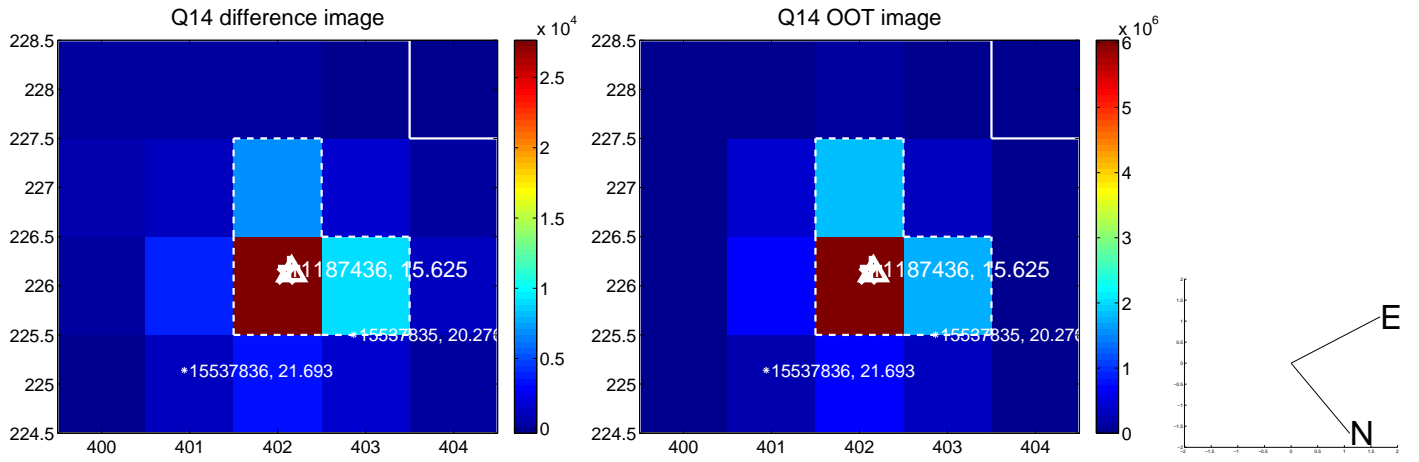
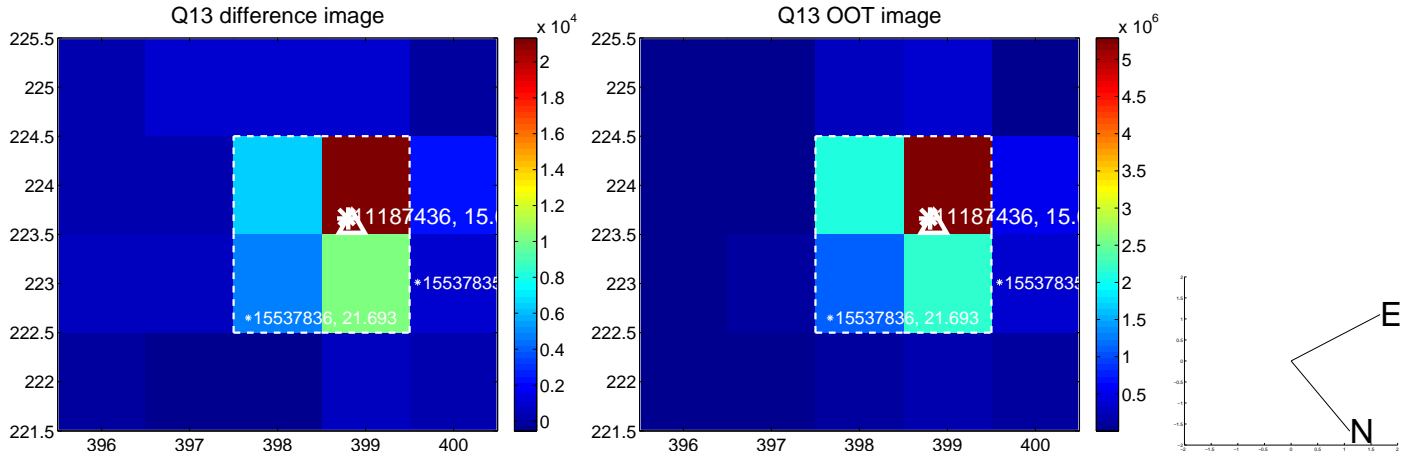
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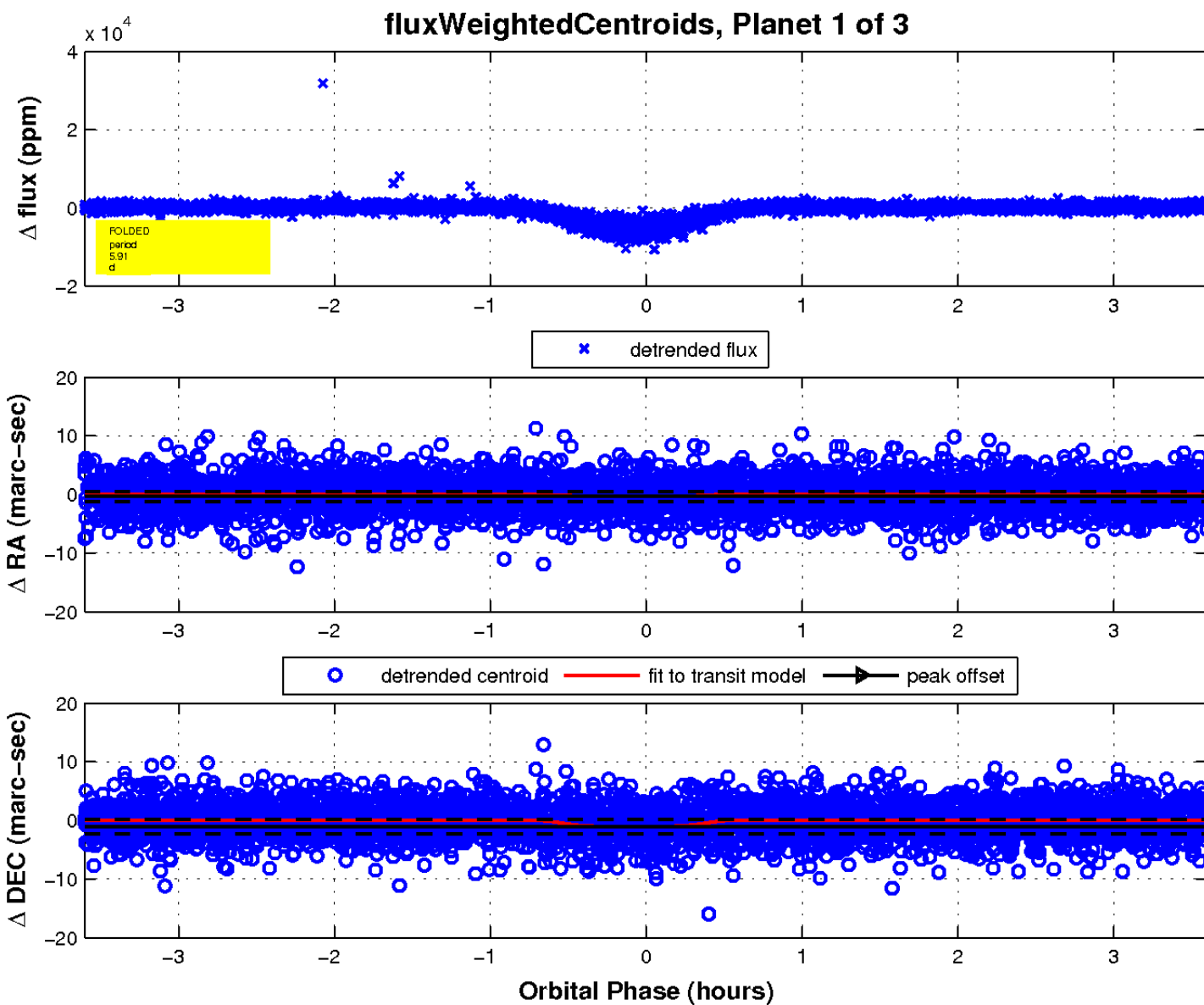
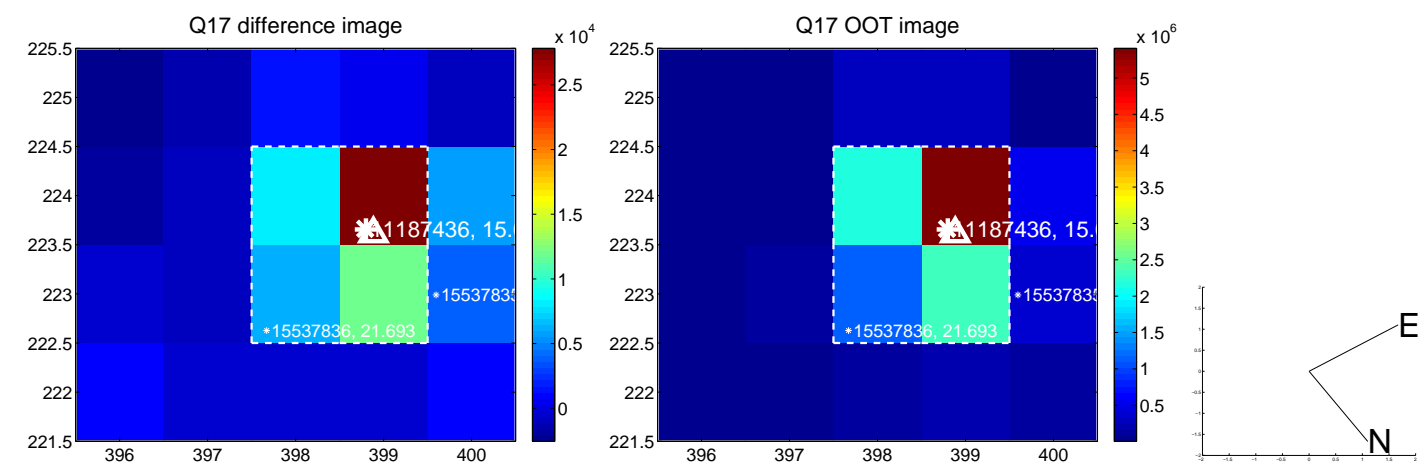
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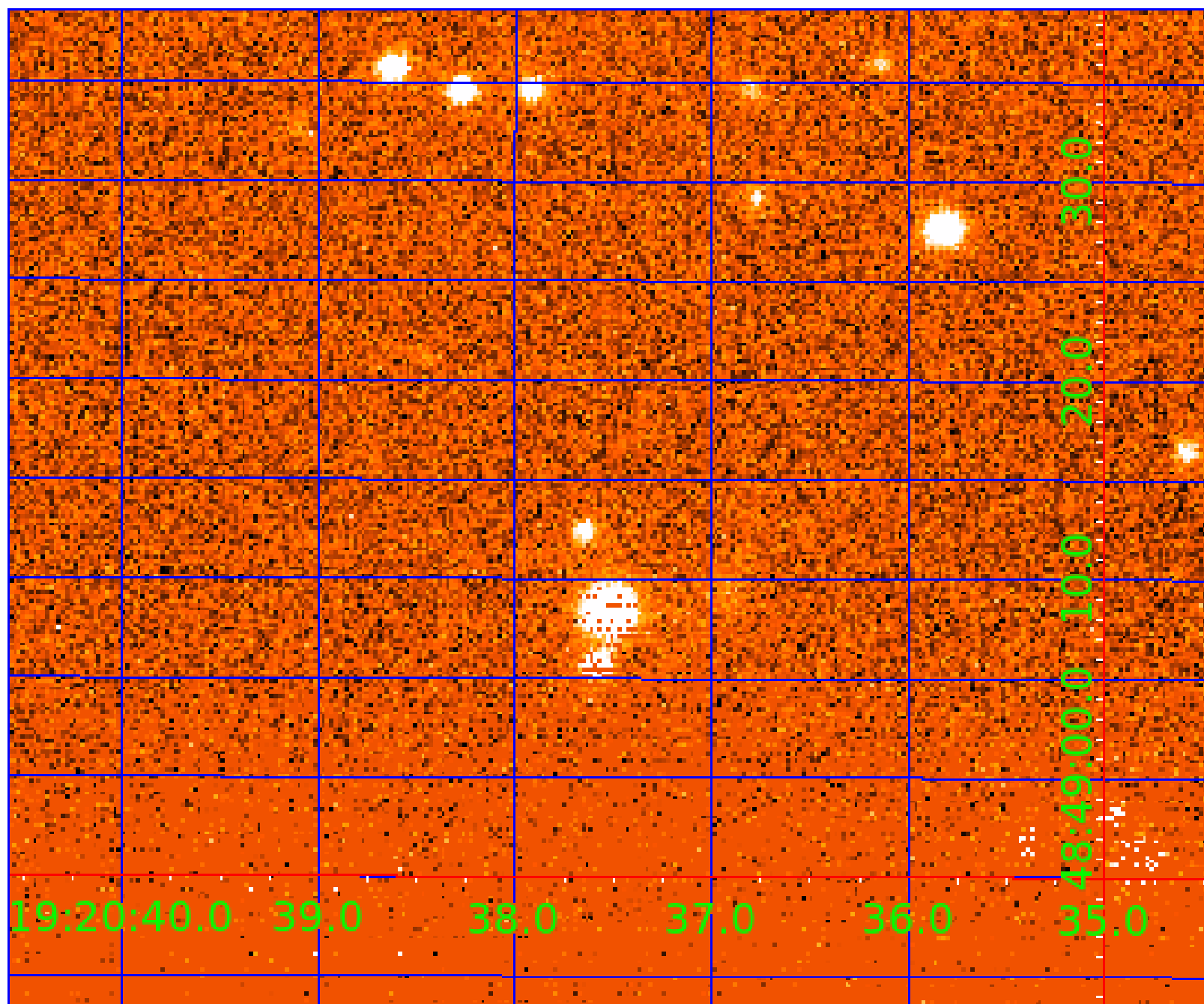


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UKIRT Image

Declination



KIC 011187436

Q1-17 DR25 TCE Parameters

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

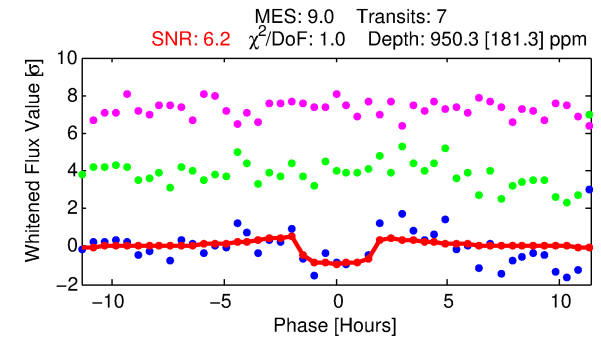
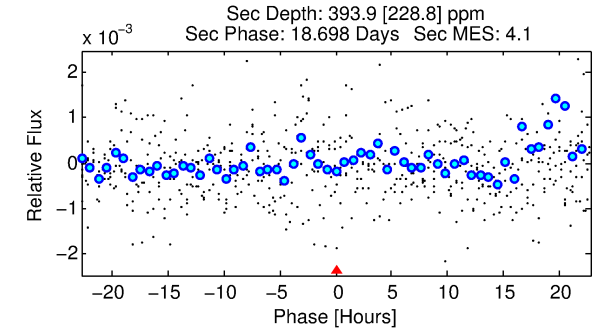
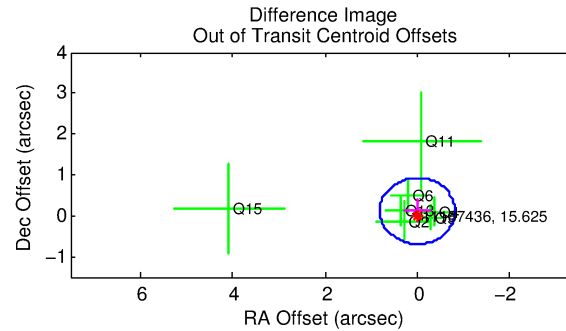
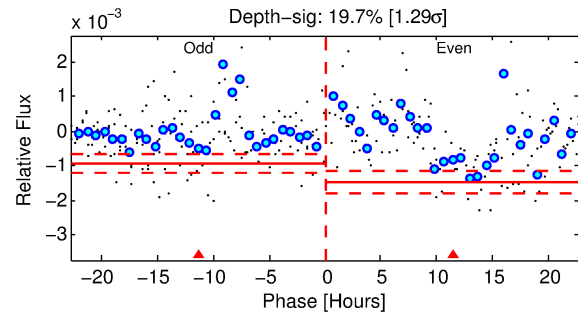
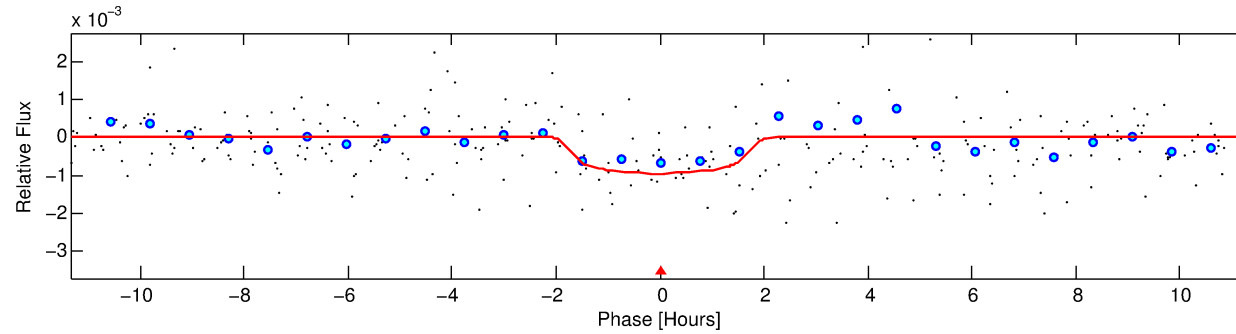
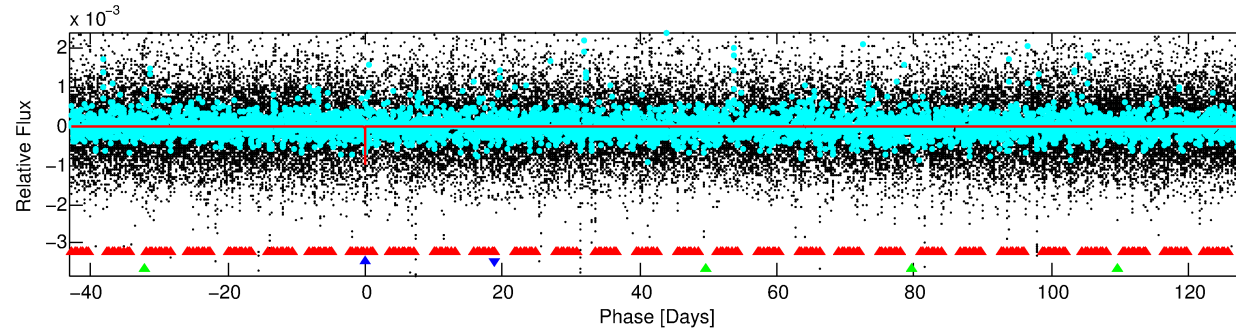
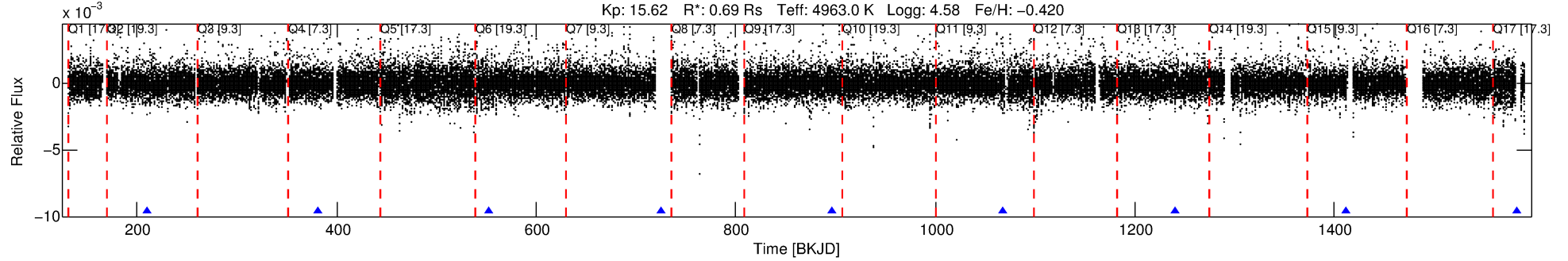
Ephemeris Match Information For 011187436-02

No Significant Match Found

DV One-Page Summary

KIC: 11187436 Candidate: 2 of 3 Period: 171.743 d
KOI: K01804 Corr: No Ephemeris Match

Kp: 15.62 R*: 0.69 Rs Teff: 4963.0 K Logg: 4.58 Fe/H: -0.420



DV Fit Results:

Period = 171.74315 [0.00230] d
Epoch = 209.5953 [0.0093] BKJD
Rp/R* = 0.0308 [0.0351]
a/R* = 244.05 [990.95]
b = 0.75 [2.39]
Seff = 0.93 [0.16]
Teq = 250 [11] K
Rp = 2.32 [2.66] Re
a = 0.5287 [0.0439] AU
Ag = 11247.37 [26496.50] [0.42σ]
Teffp = 3983 [2346] K [1.59σ]

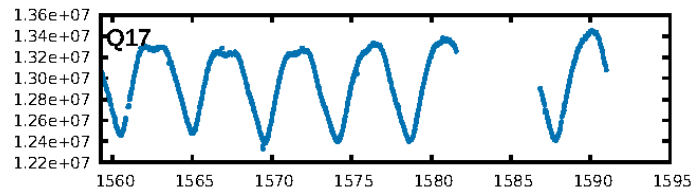
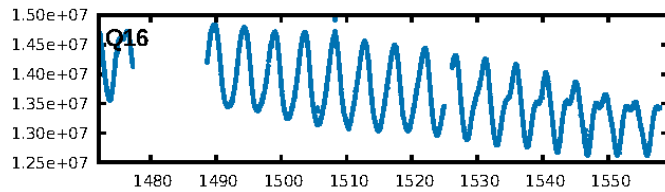
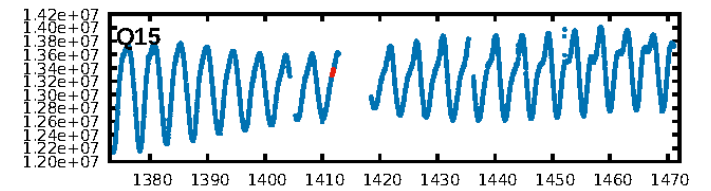
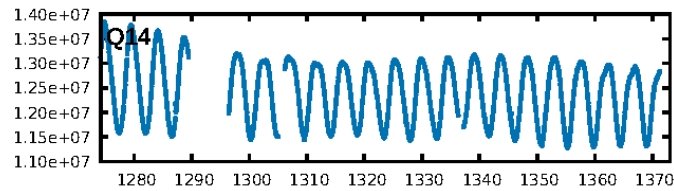
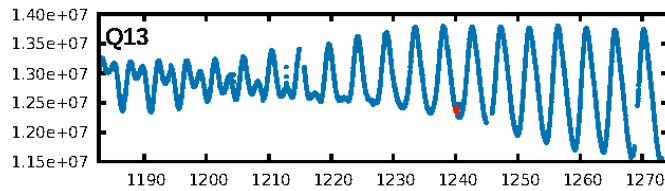
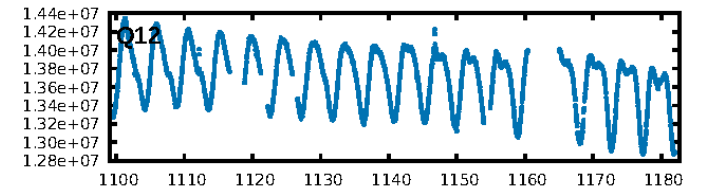
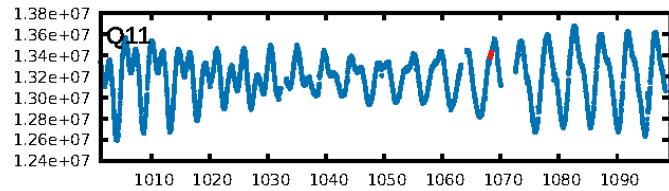
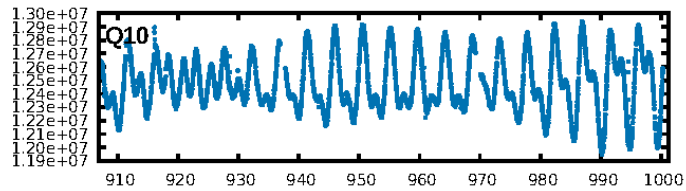
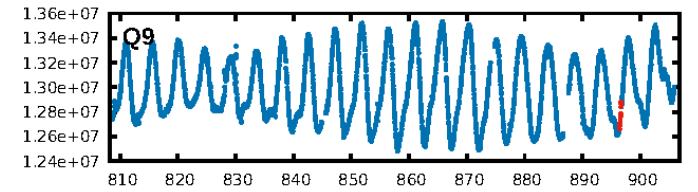
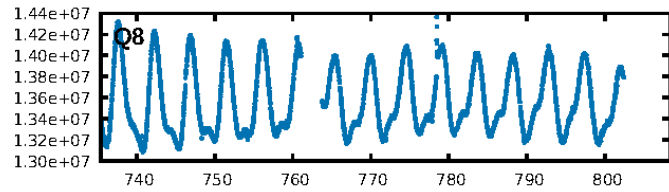
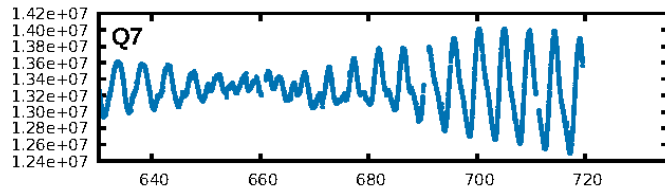
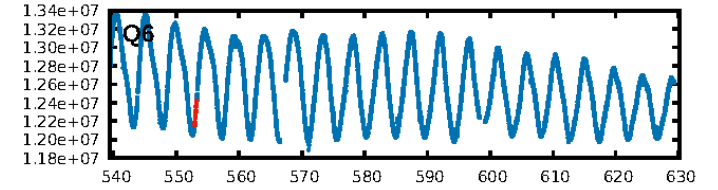
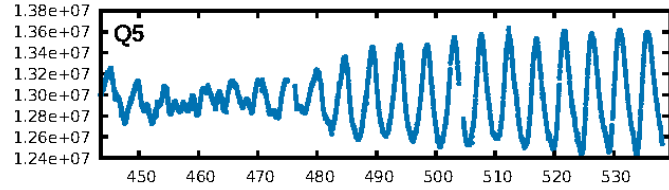
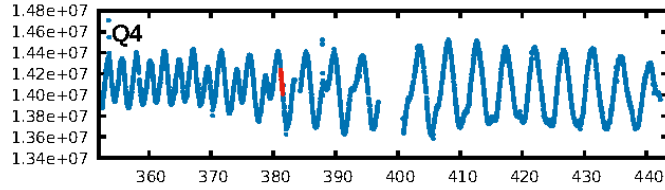
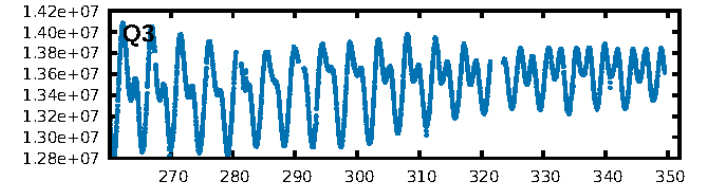
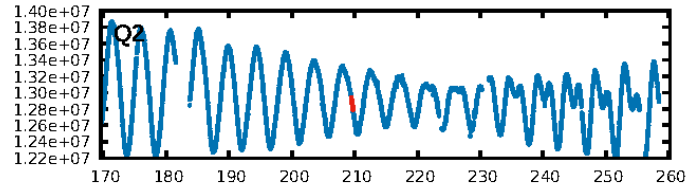
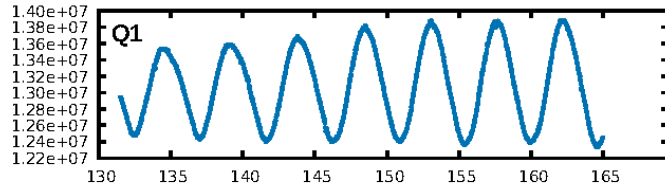
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1002.58σ]
LongPeriod-sig: 100.0% [955.73σ]
ModelChiSquare2-sig: 68.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.60e-11
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -0.8034
Centroid-sig: 14.1%
Centroid-so: 1.670 arcsec [1.13σ]
OotOffset-rm: 0.116 arcsec [0.43σ]
OotOffset-st: 2/2/1/2 [7]
KicOffset-rm: 0.108 arcsec [0.26σ]
KicOffset-st: 2/2/1/2 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.86 [6/7]

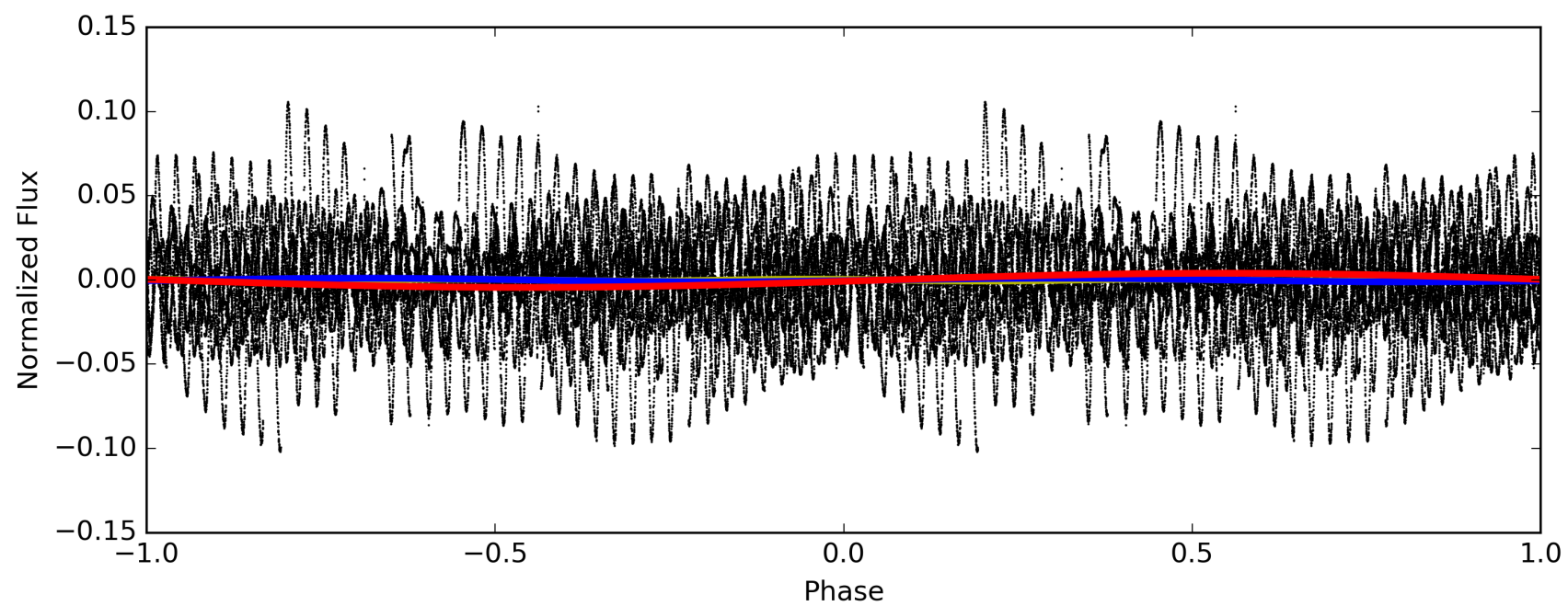
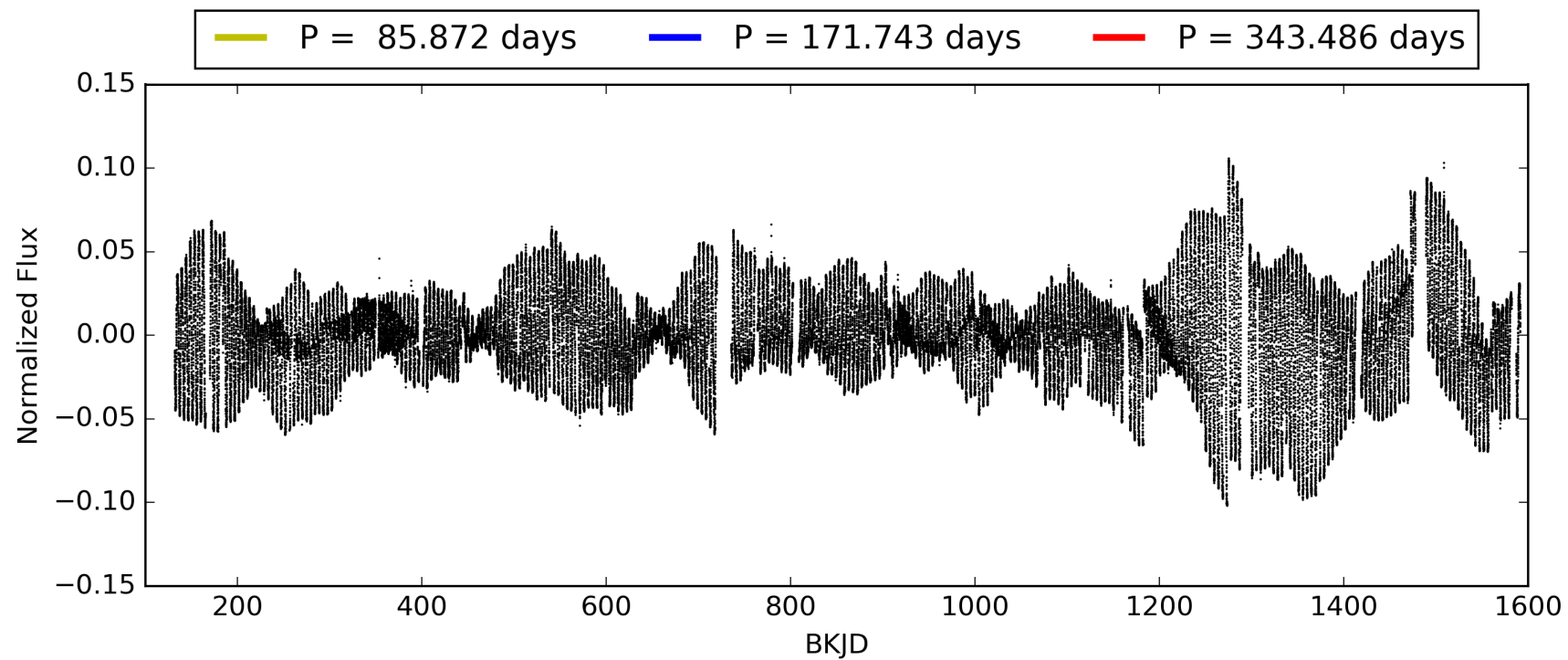
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:08:52 Z

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

TCE 011187436-02, PDC Light Curves

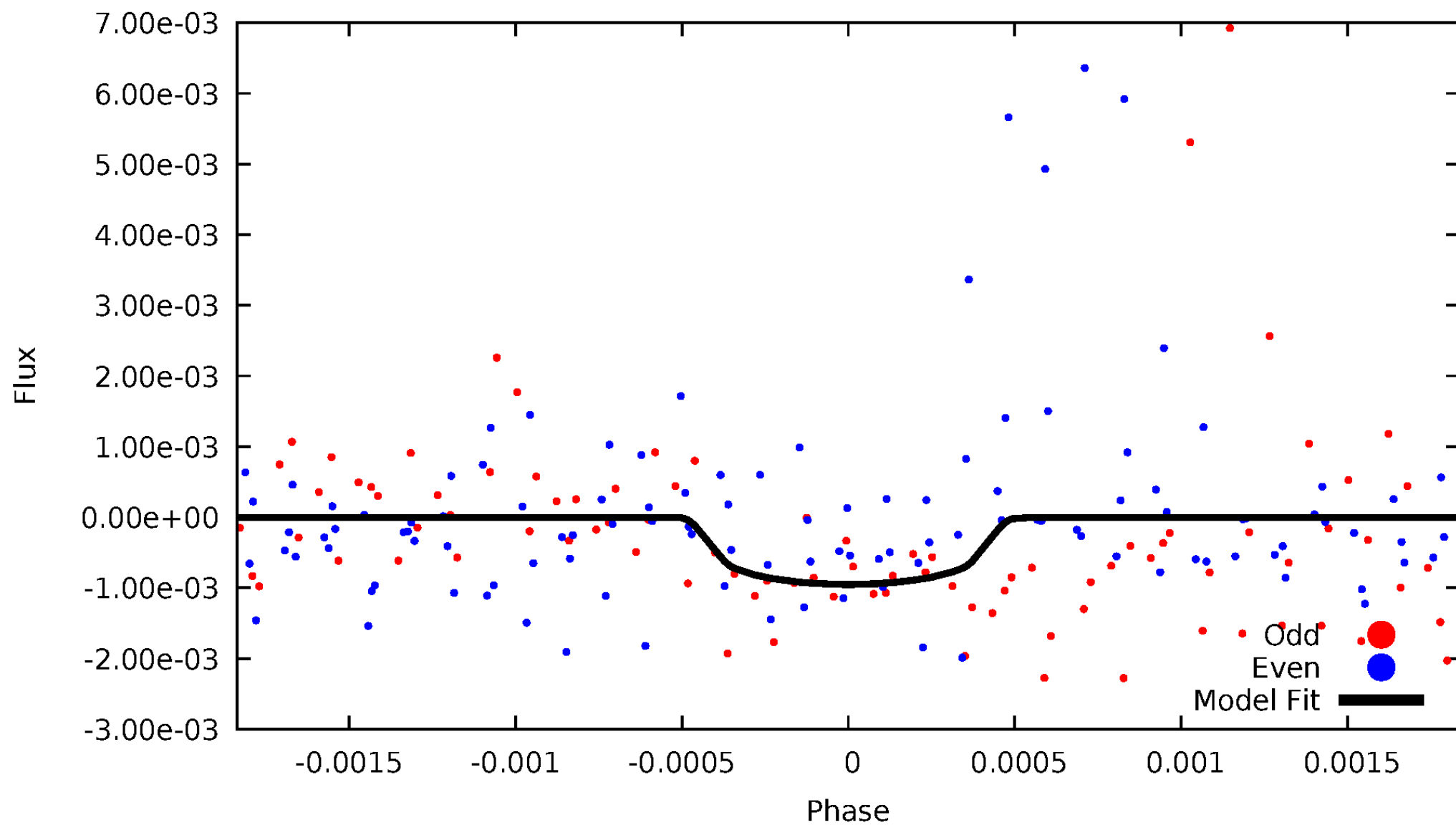


TCE 011187436-02



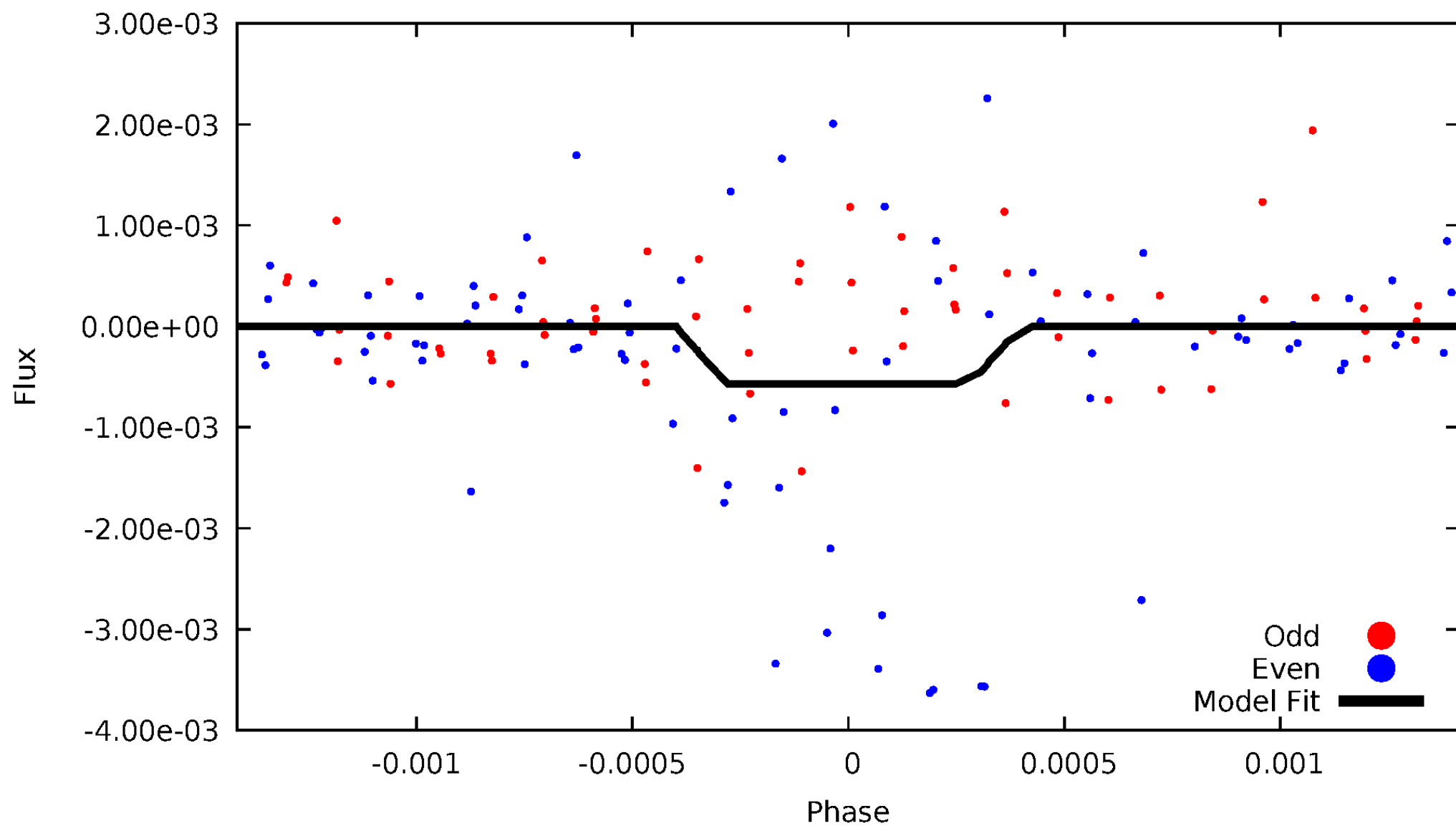
DV Odd/Even

TCE 011187436-02



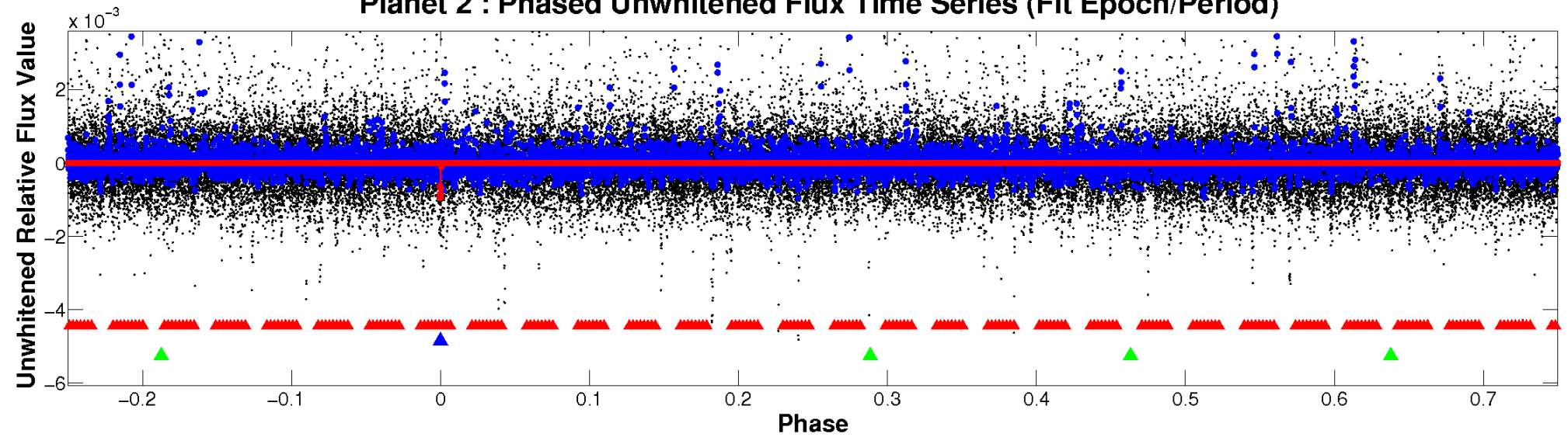
ALT Odd/Even

TCE 011187436-02

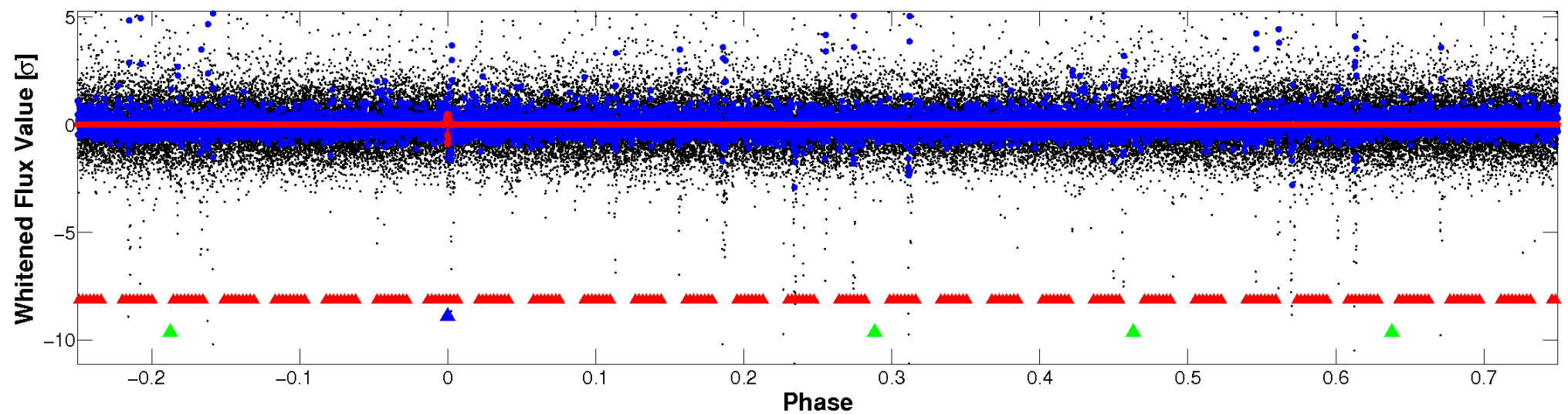


Non-Whitened Vs. Whitened Light Curve

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

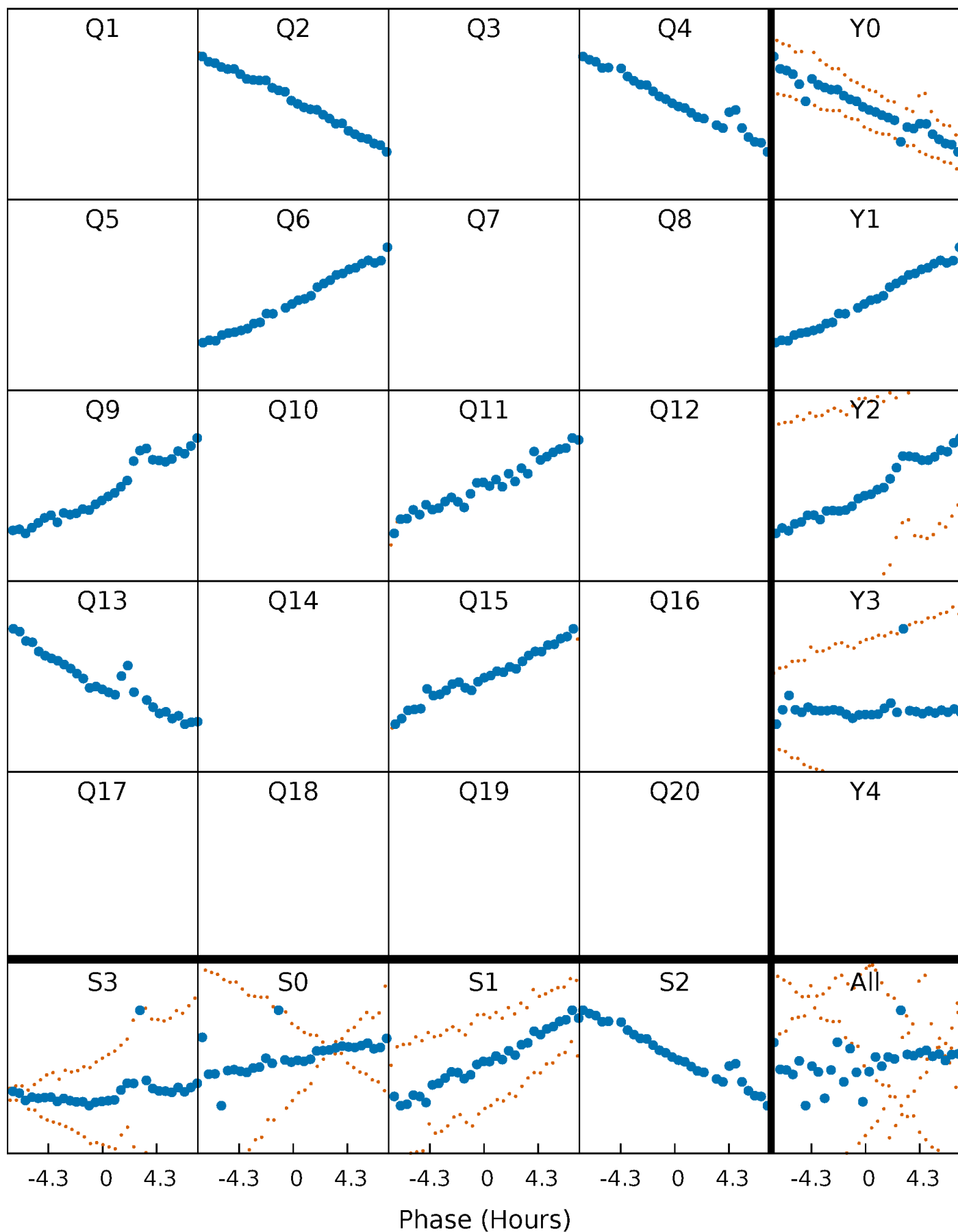


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



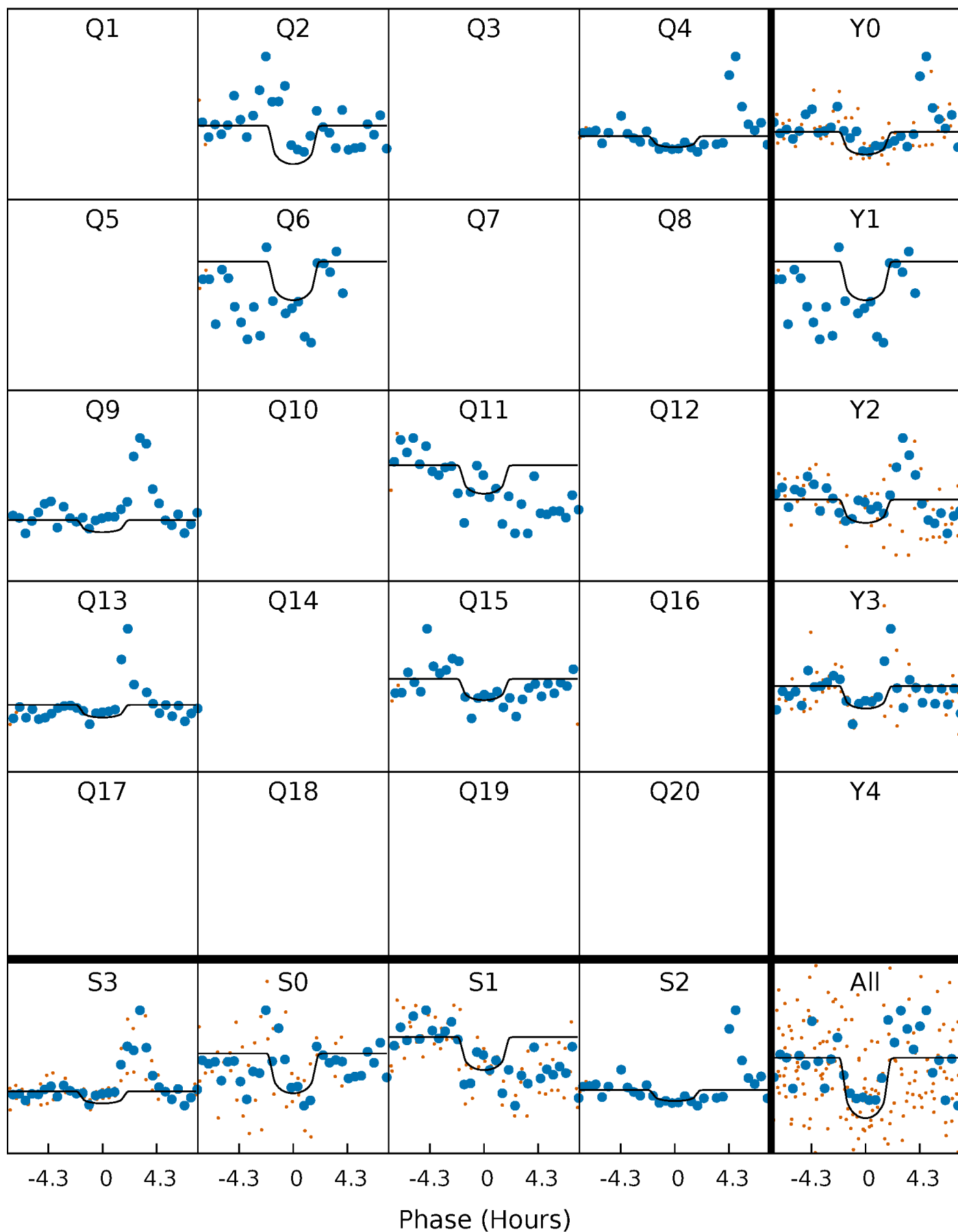
PDC Quarter-Phased Transit Curves

TCE 011187436-02 P=171.743146 Days $T_0=209.595295$ (BKJD)



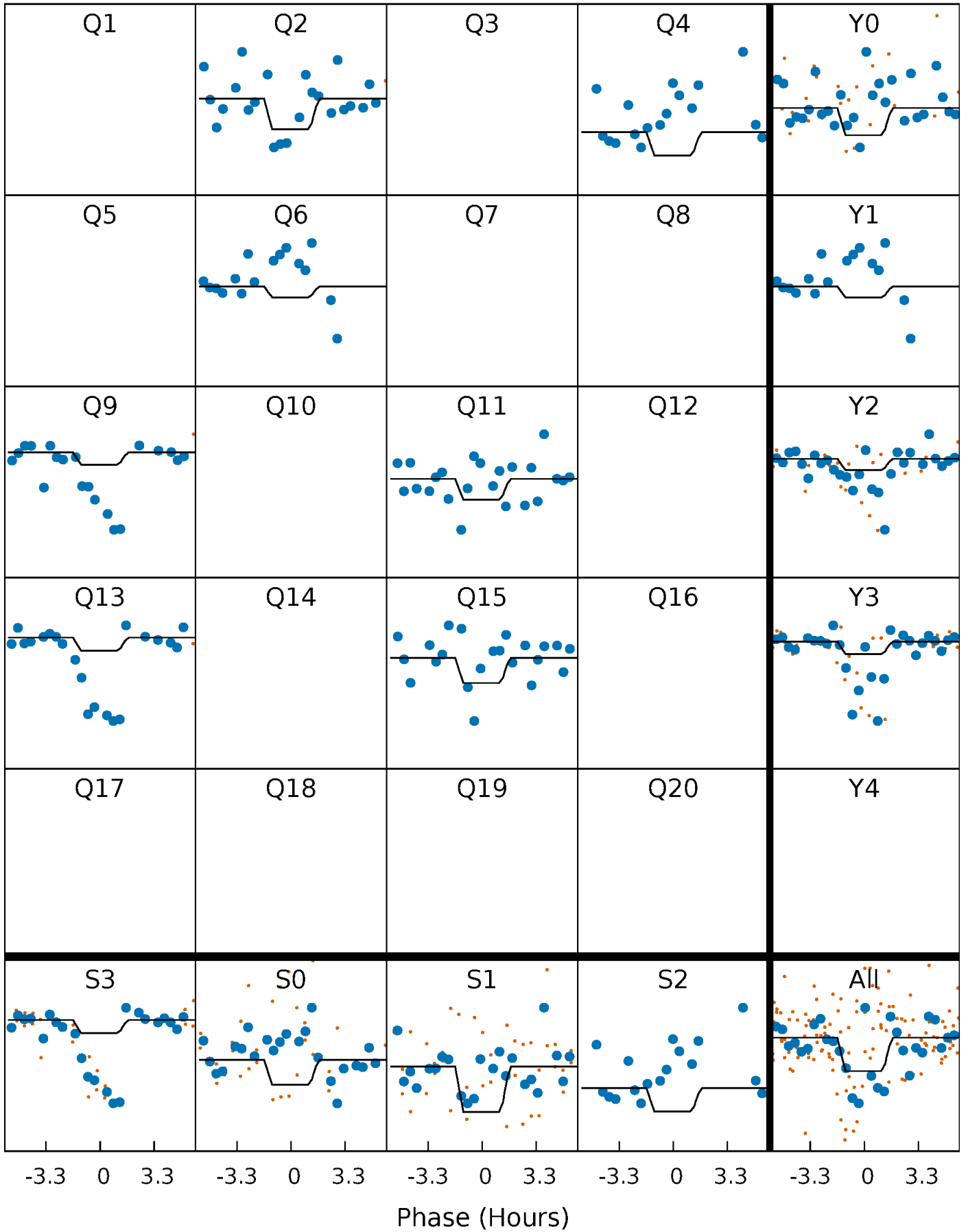
DV Quarter-Phased Transit Curves

TCE 011187436-02 P=171.743146 Days $T_0=209.595295$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

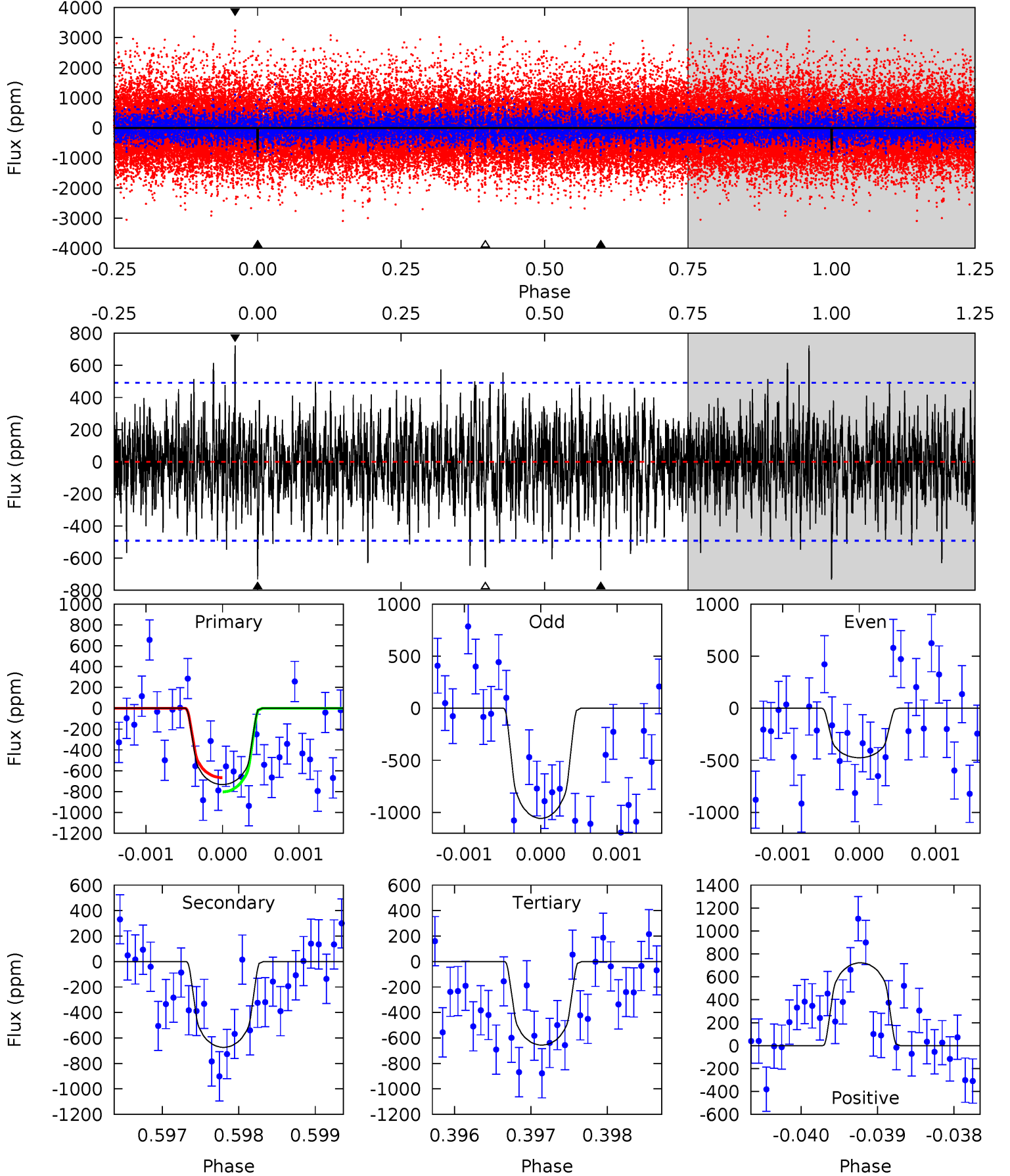
TCE 011187436-02 P=171.734404 Days $T_0=209.636694$ (BKJD)



DV Model-Shift Uniqueness Test

011187436-02, $P = 171.743146$ Days, $E = 37.852149$ Days

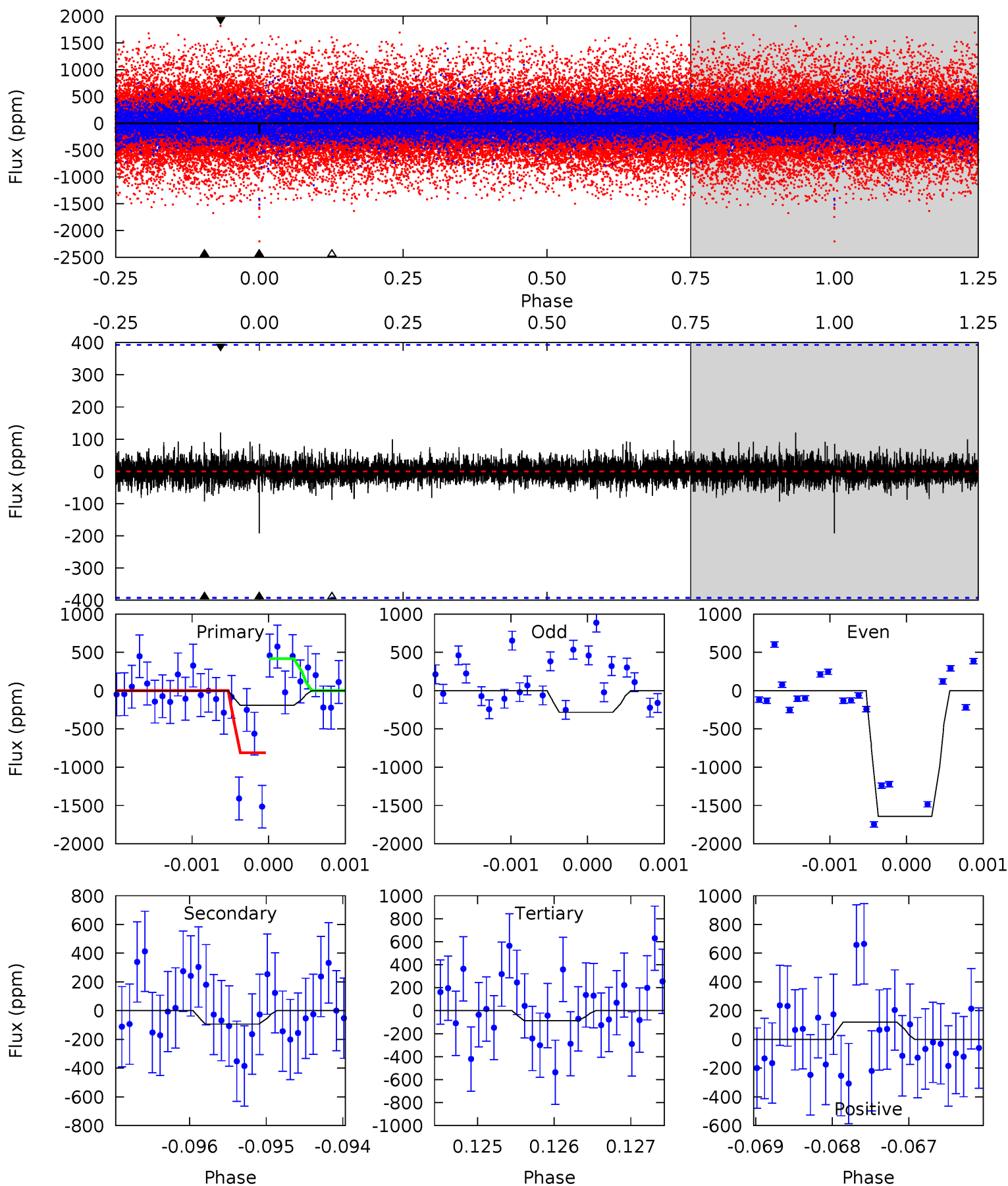
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.11	7.46	7.26	8.00	5.44	3.28	2.00	0.85	0.11	0.20	-0.54	3.19	0.65	0.50	0.76



Alt Model-Shift Uniqueness Test

011187436-02, $P = 171.734404$ Days, $E = 37.902290$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.69	1.31	1.23	1.69	5.50	3.37	0.31	1.46	1.00	0.08	-0.38	9.99	2.07	0.39	2.77



Stellar Parameters For KIC 011187436

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4963^{+149}_{-149}	$4.585^{+0.066}_{-0.039}$	$-0.420^{+0.300}_{-0.300}$	$0.690^{+0.062}_{-0.068}$	$0.667^{+0.089}_{-0.045}$	$2.856^{+0.882}_{-0.436}$
	+3%/-3%	+1%/-1%	+71%/-71%	+9%/-10%	+13%/-7%	+31%/-15%
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 011187436-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-674 ± 90	$2.81^{+2.43}_{-1.89}$	347^{+13}_{-14}	4324^{+2656}_{-873}	$14197^{+102811}_{-10391}$
Alt.	-94 ± 71	$2.74^{+2.40}_{-1.85}$	348^{+11}_{-13}	3093^{+1391}_{-636}	1731^{+14644}_{-1416}

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 $A_{obs} \gg 1.0$

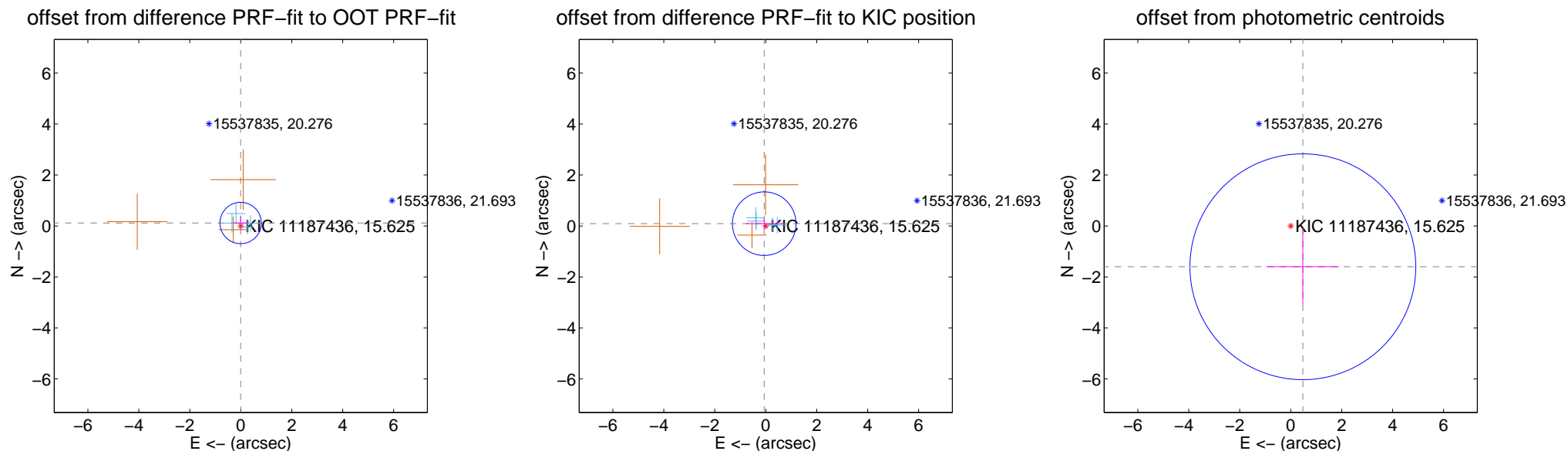
DV Centroid Data

Supplemental centroid analysis for 011187436-02. Kepler magnitude: 15.62. Transit SNR 6.17

There are 4 quarters with good PRF difference image offsets

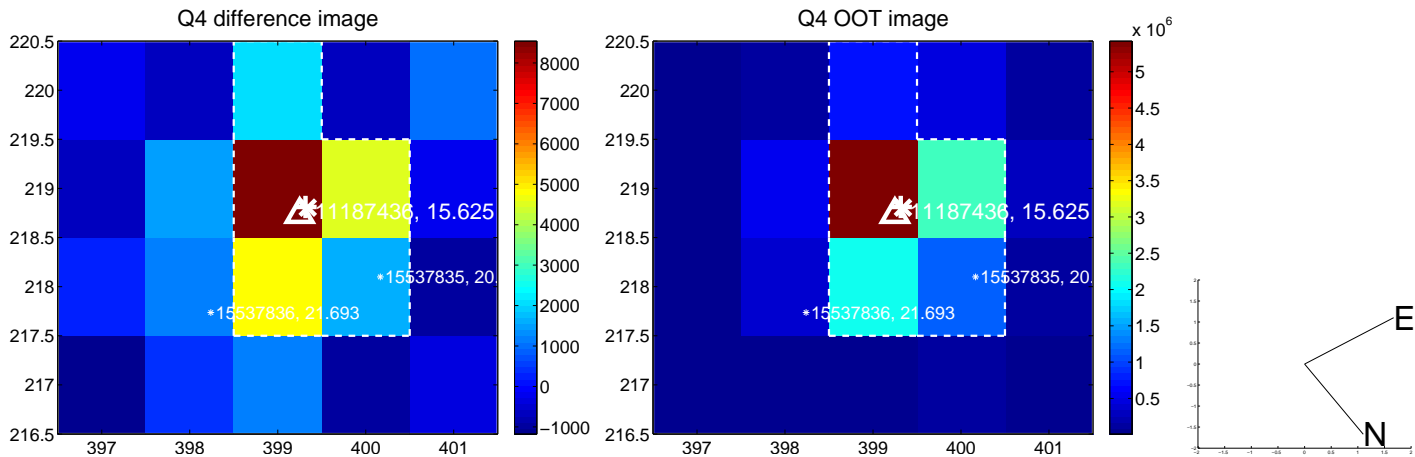
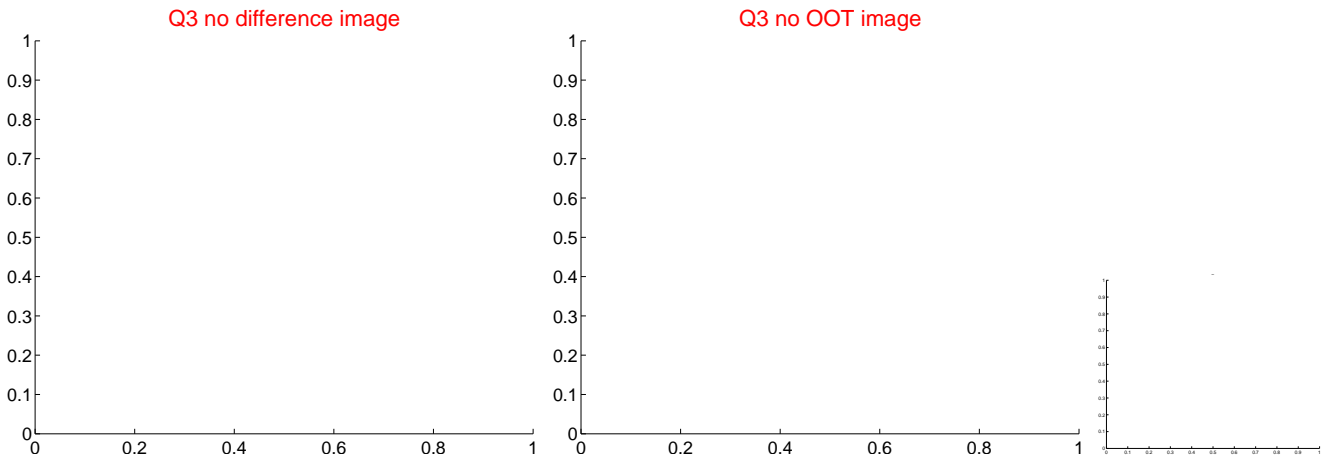
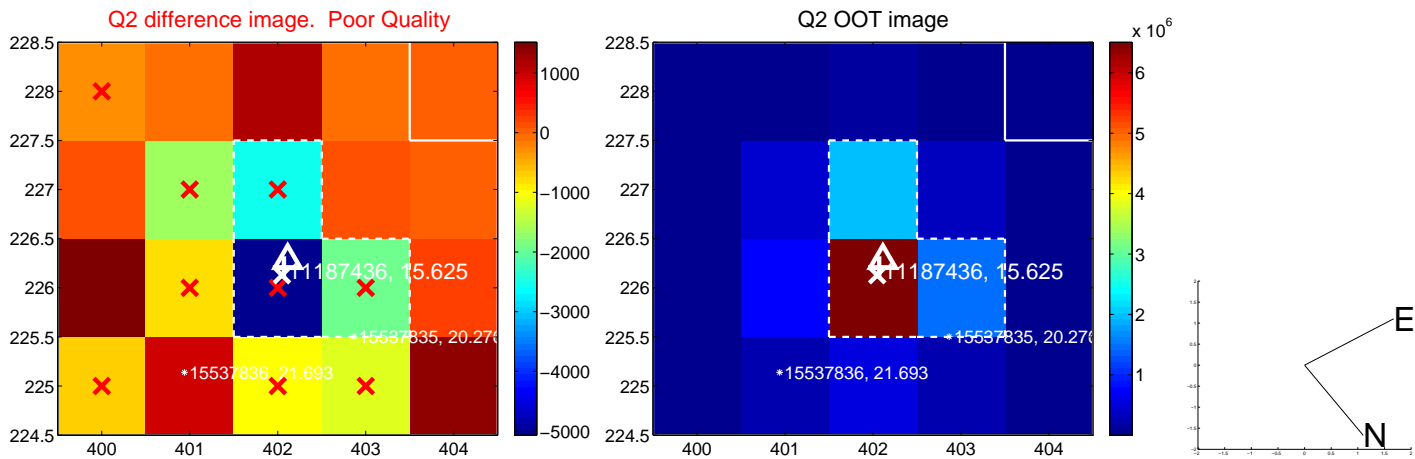
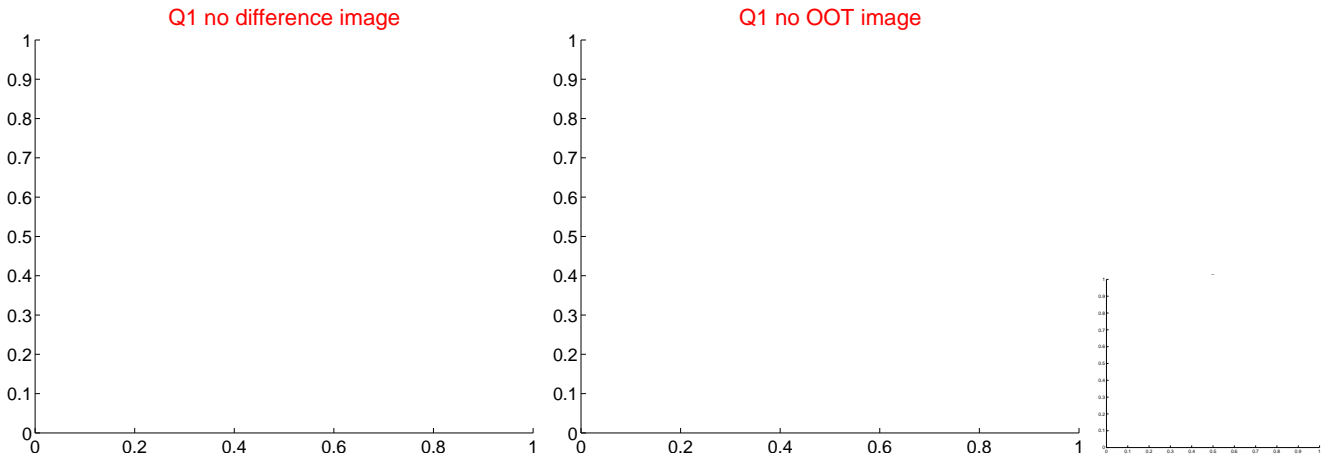
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 0.271	0.43	0.005 ± 0.286	0.116 ± 0.271
PRF-fit source offset from KIC position	0.108 ± 0.416	0.26	0.060 ± 0.709	0.090 ± 0.214
photometric centroid source offset	1.67 ± 1.48	1.13	-0.48 ± 1.42	-1.60 ± 1.48

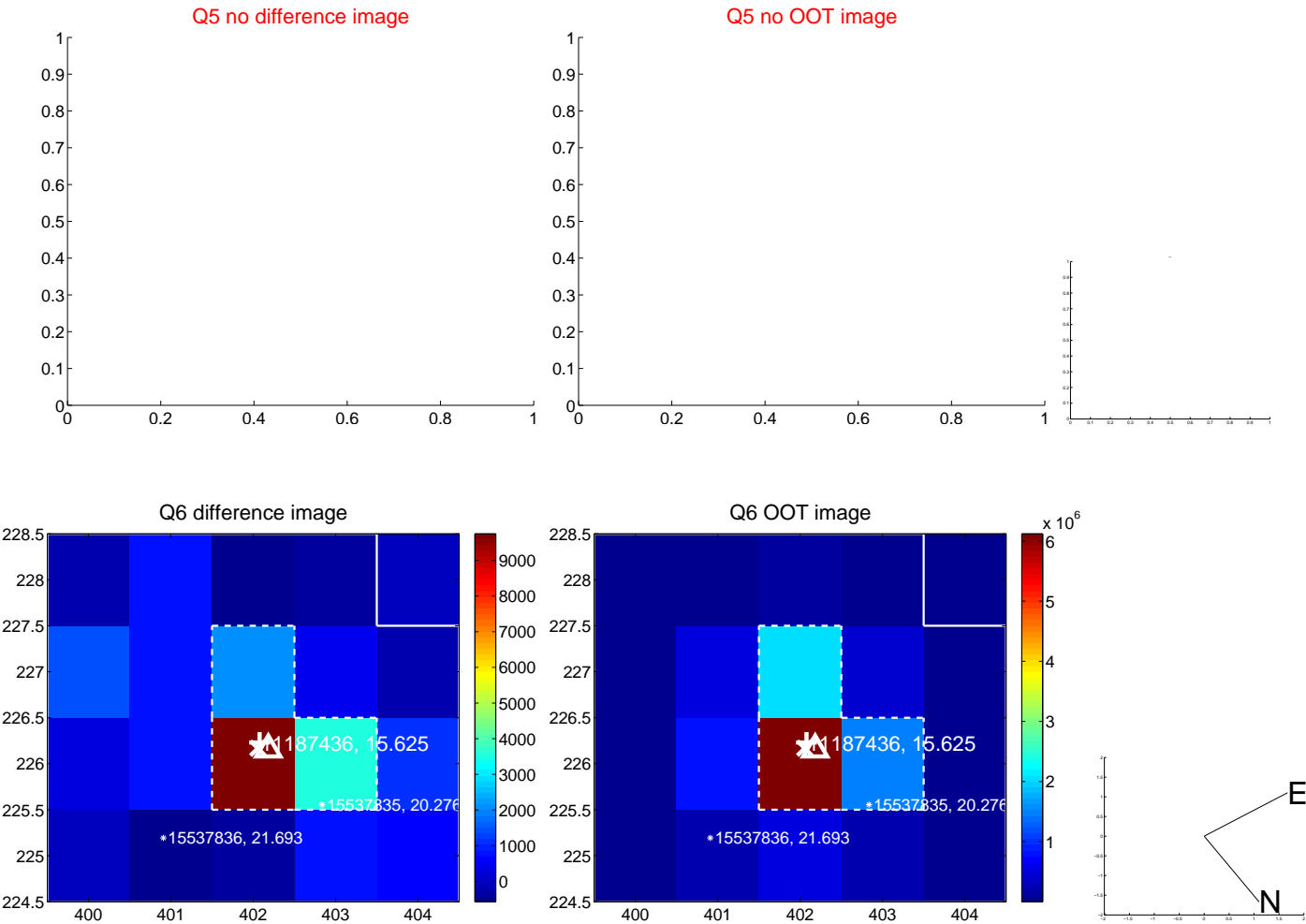


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

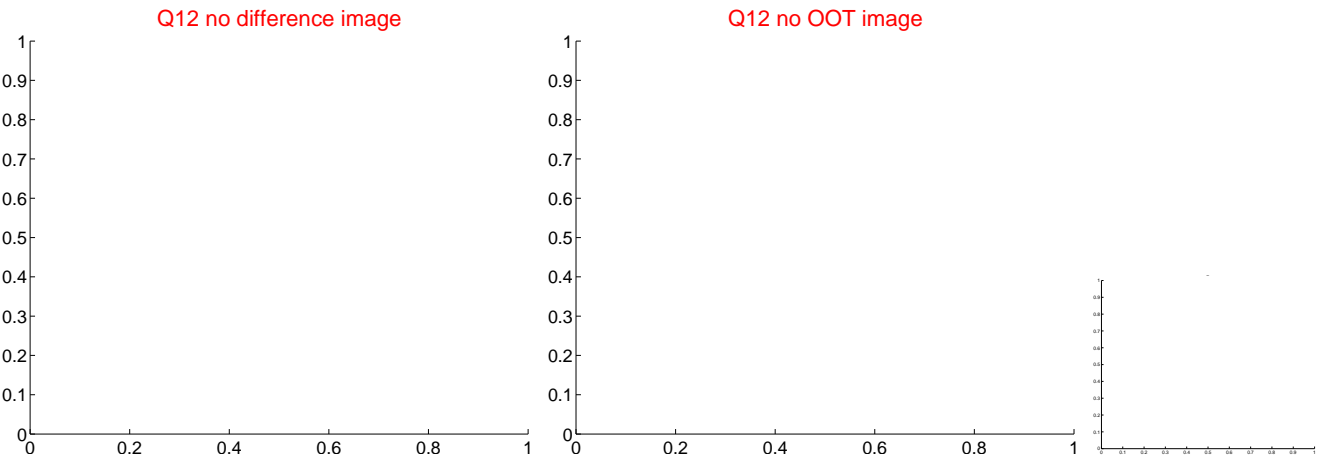
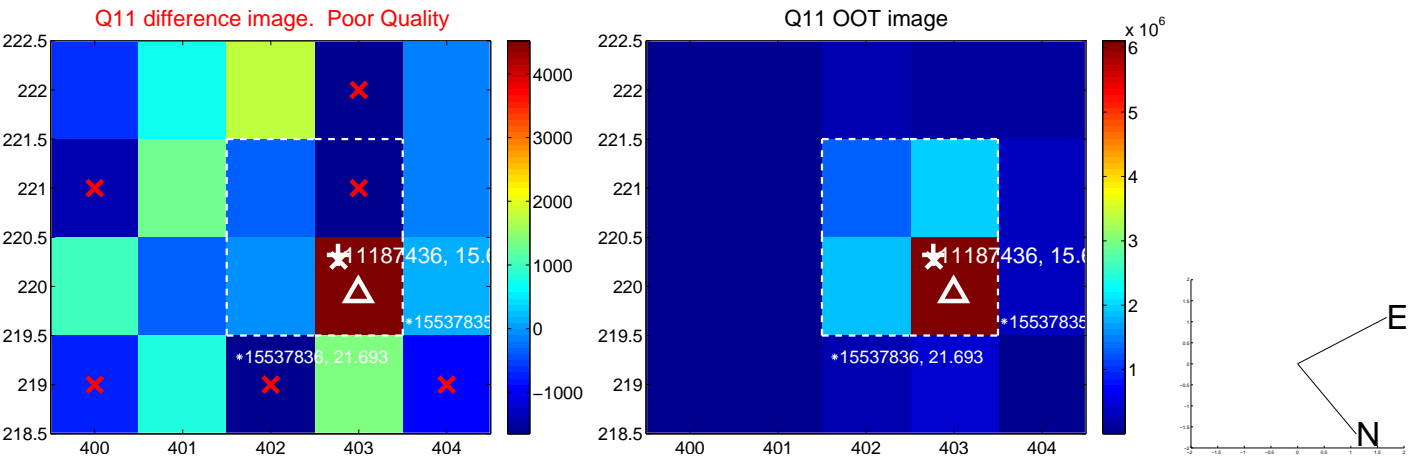
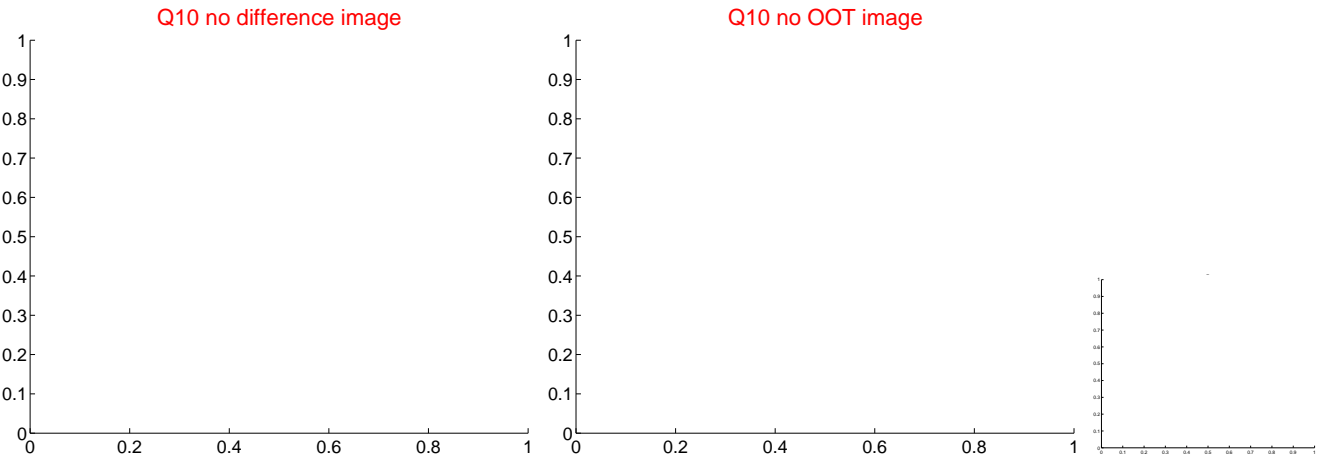
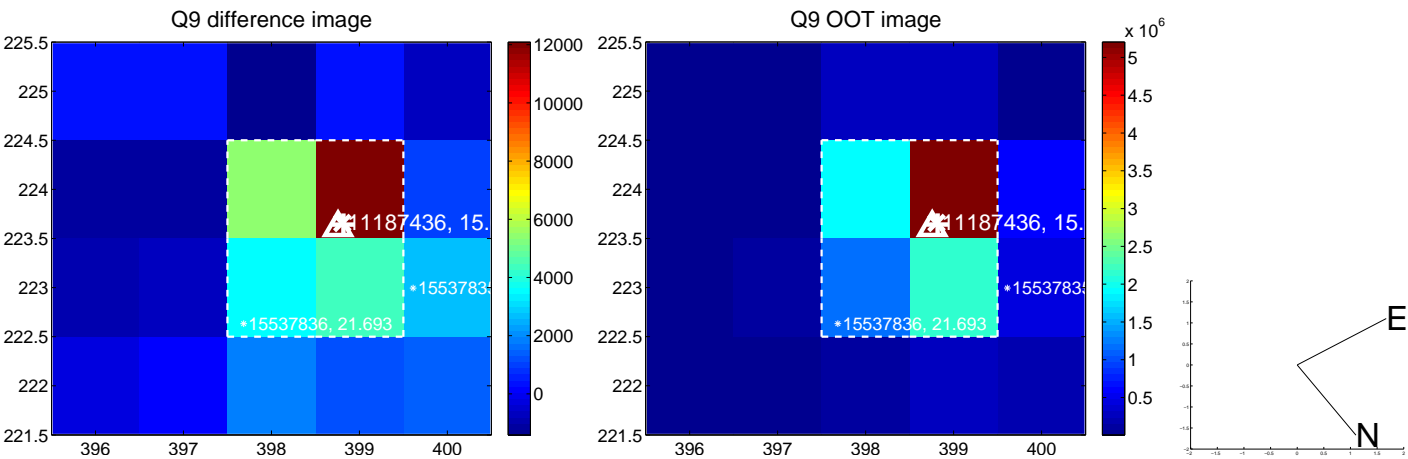
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



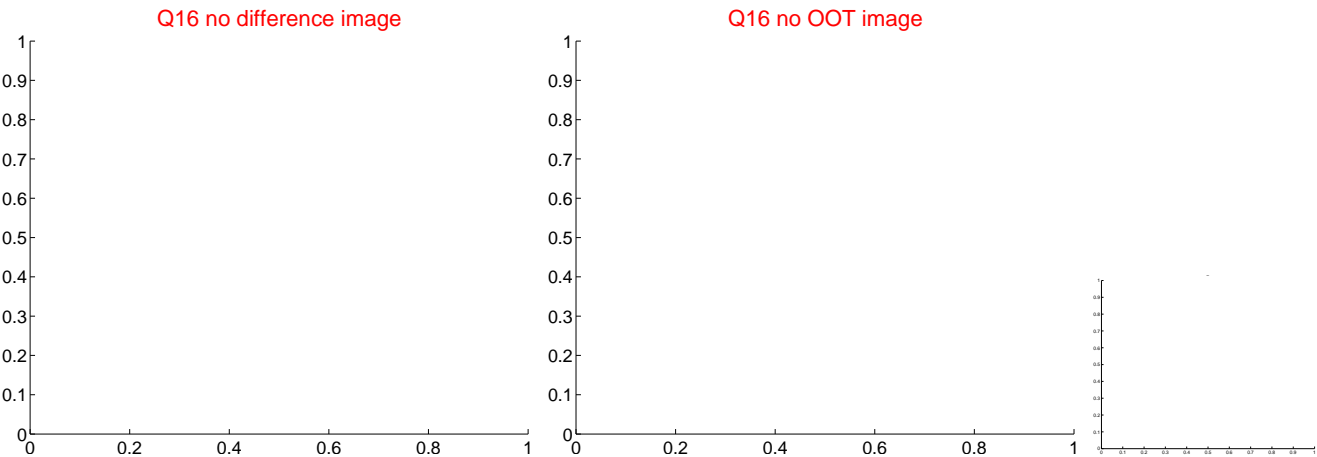
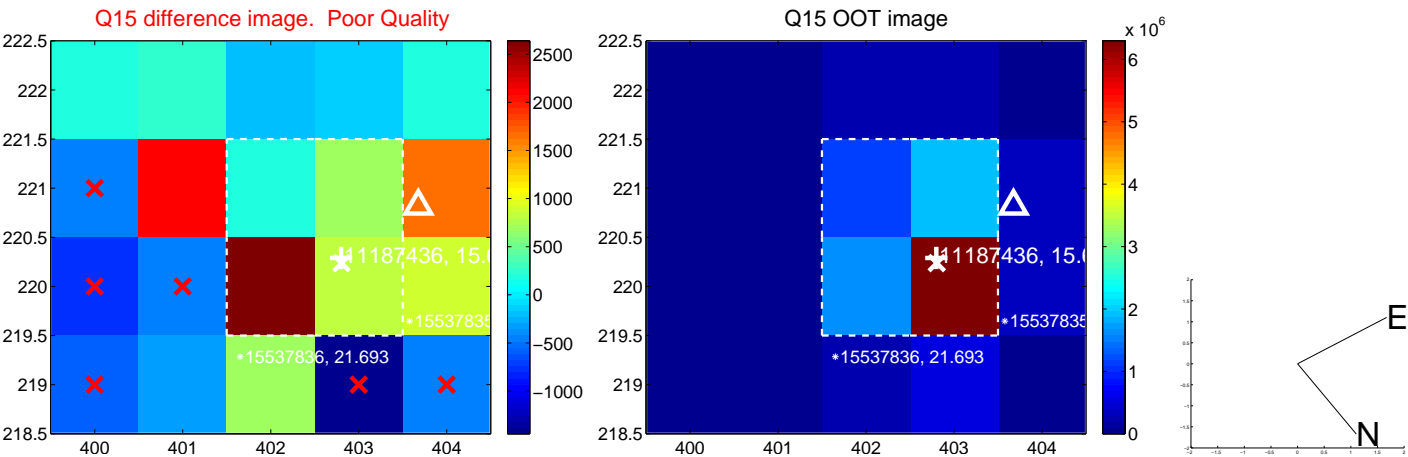
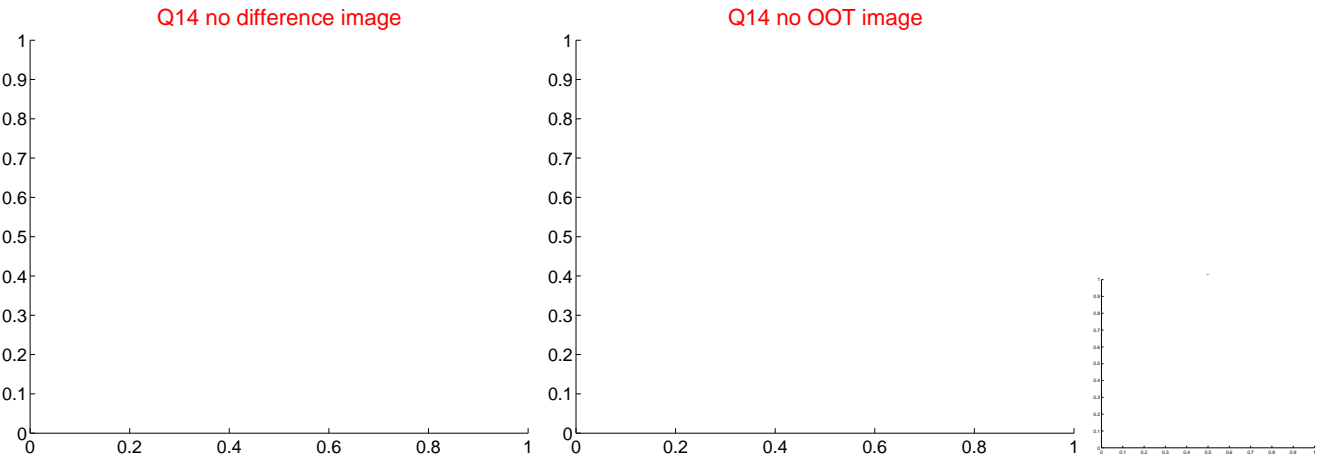
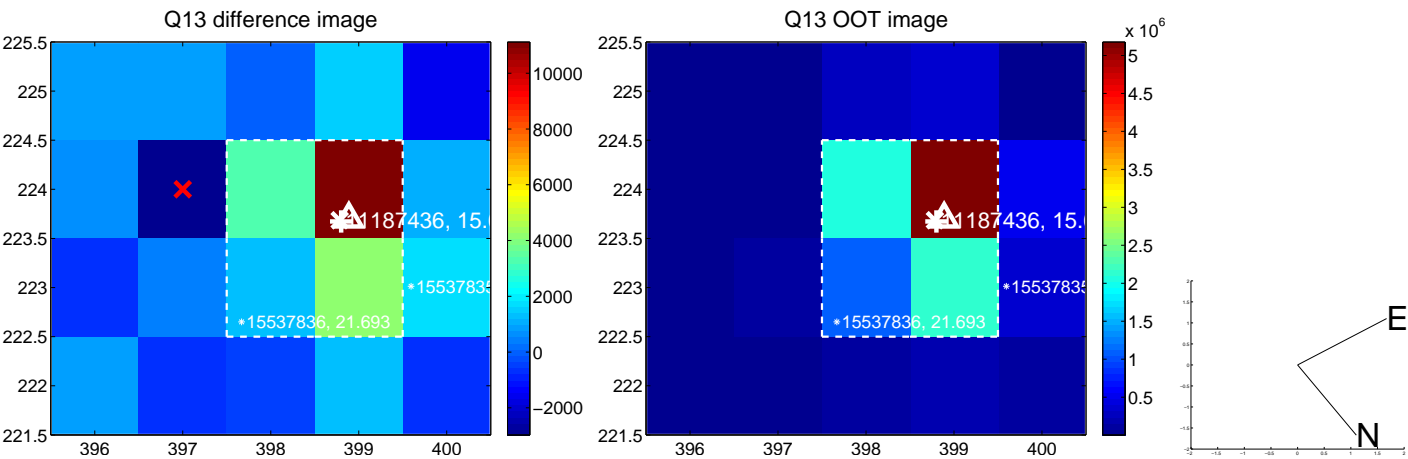
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



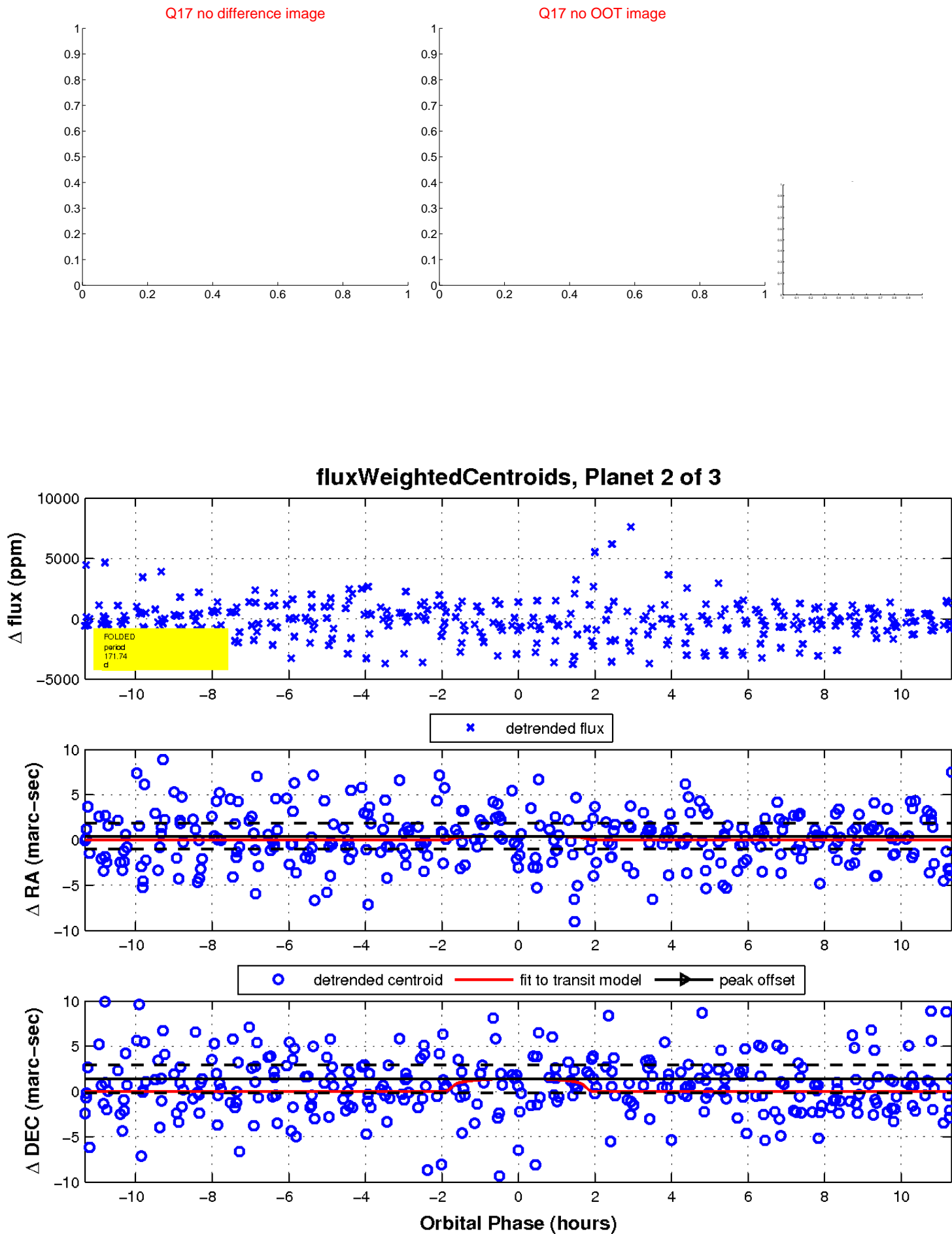
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

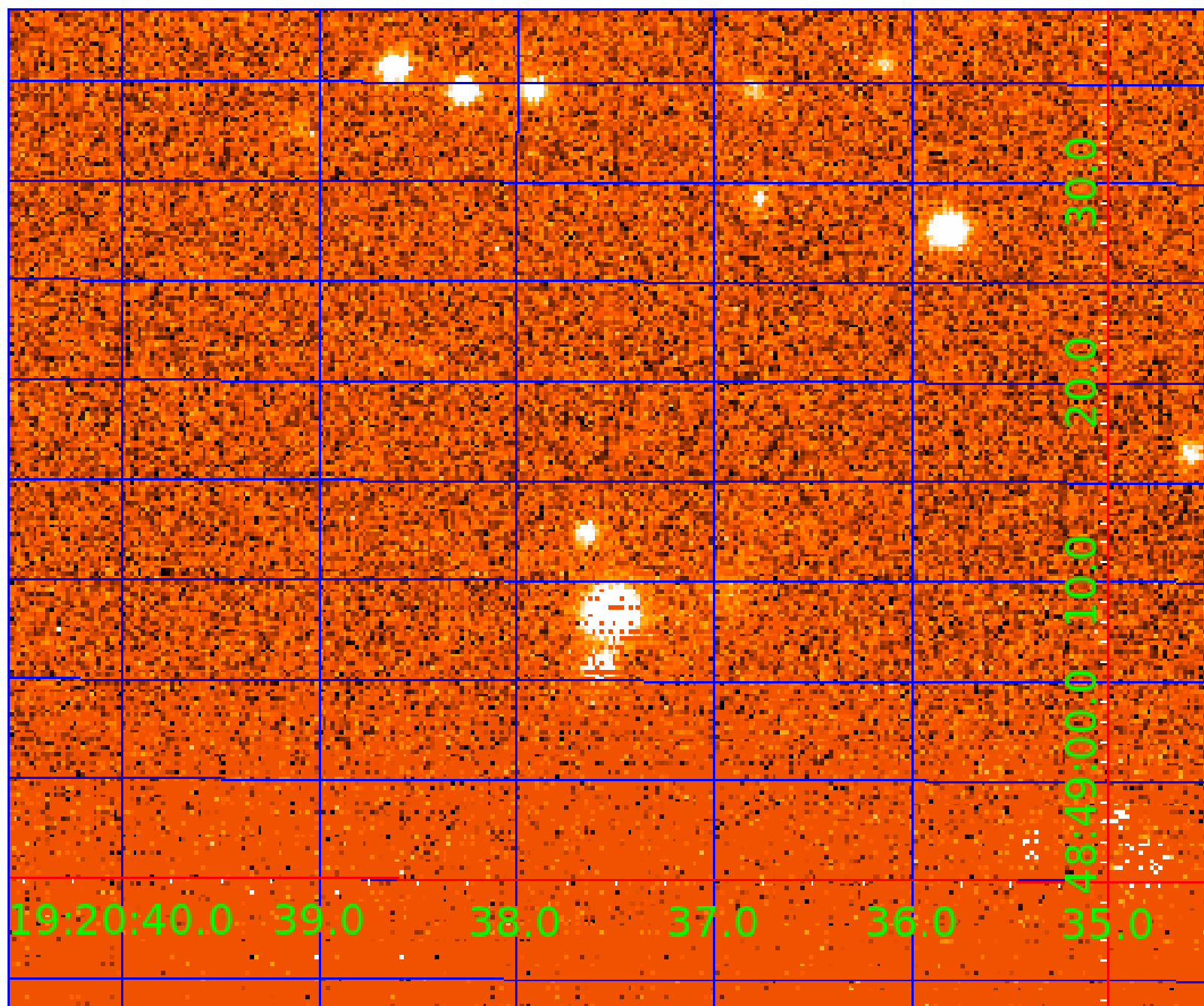


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011187436

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})
011187436-01	OBS	1804.01	5.907422	133.933686	5077.0	1.201	128.1	117.8	0.69	4963	5.71	82.78
011187436-02	OBS	No	171.743146	209.595295	950.3	3.784	9.0	6.2	0.69	4963	2.32	0.93
011187436-03	OBS	No	373.490792	259.138260	1686.1	3.369	10.5	6.9	0.69	4963	2.97	0.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011187436-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
011187436-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT
011187436-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—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.

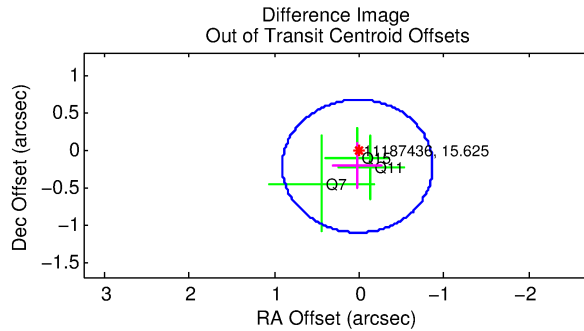
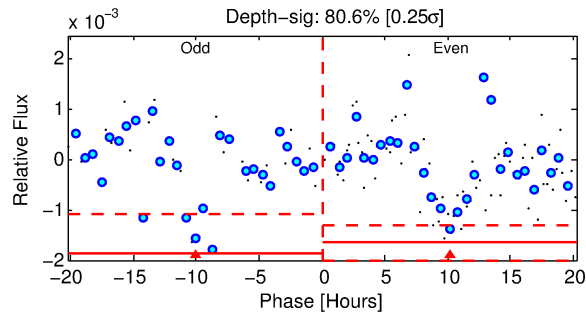
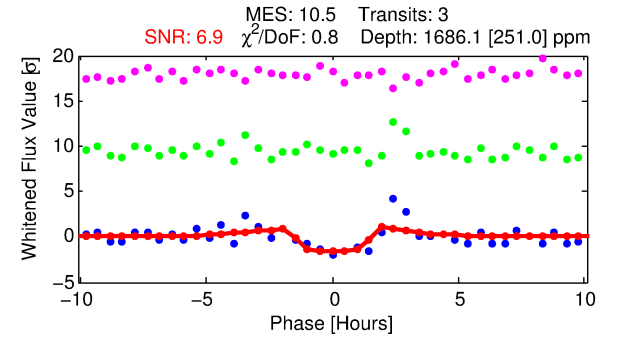
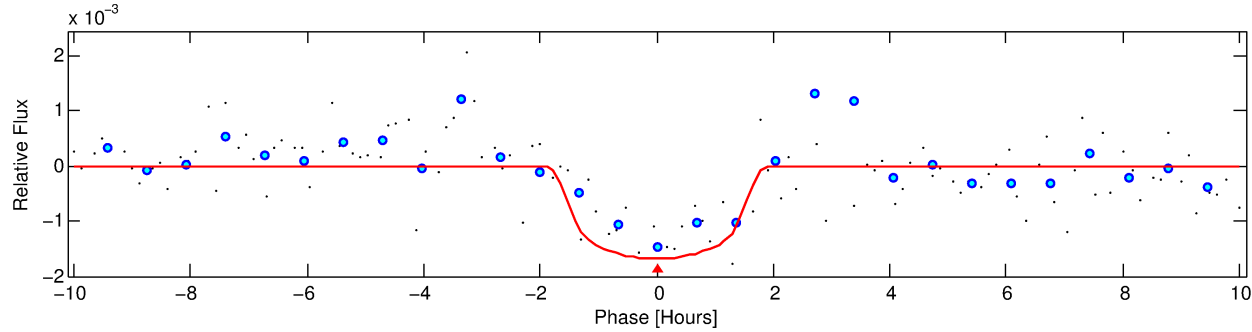
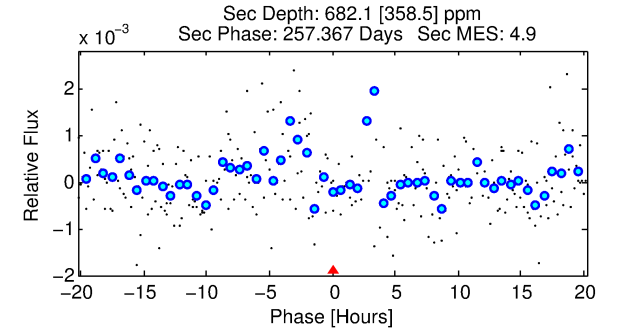
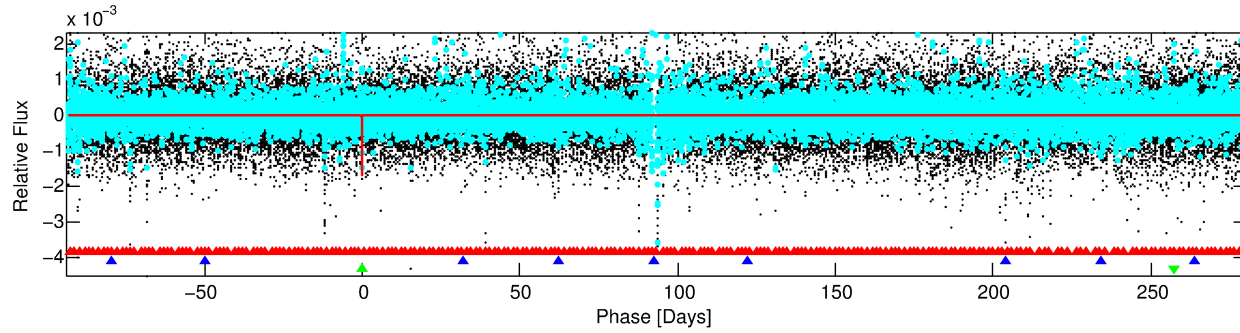
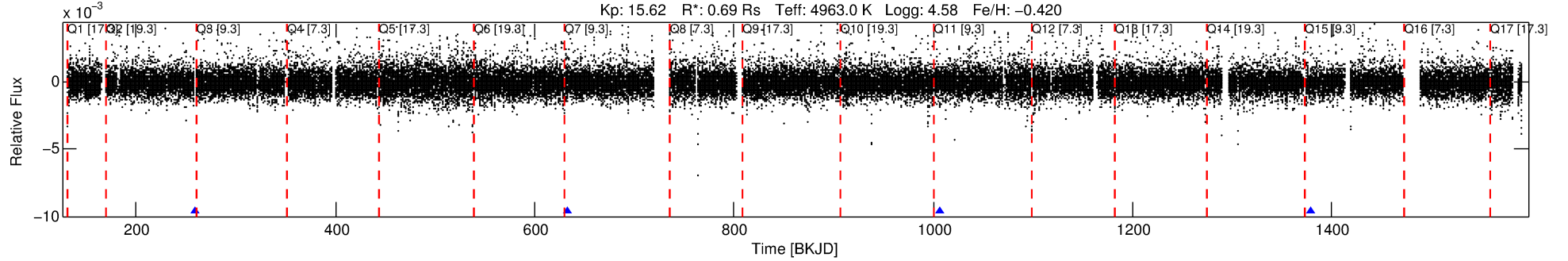
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011187436-03

No Significant Match Found

DV One-Page Summary

KIC: 11187436 Candidate: 3 of 3 Period: 373.491 d
KOI: K01804 Corr: No Ephemeris Match



DV Fit Results:

Period = 373.49079 [0.00542] d
Epoch = 259.1383 [0.0116] BKJD
Rp/R* = 0.0395 [0.0558]
a/R* = 686.23 [3401.96]
b = 0.65 [4.49]
Seff = 0.33 [0.06]
Teq = 193 [8] K
Rp = 2.97 [4.21] Re
a = 0.8874 [0.0736] AU
Ag = 33427.93 [96224.69] [0.35 σ]
Teffp = 4036 [2905] K [1.32 σ]

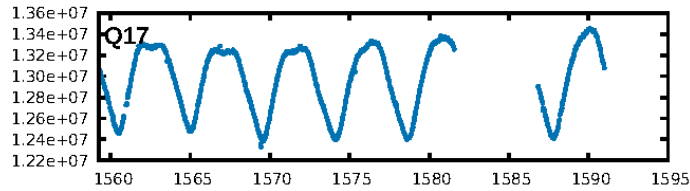
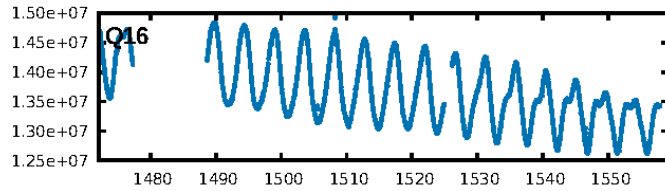
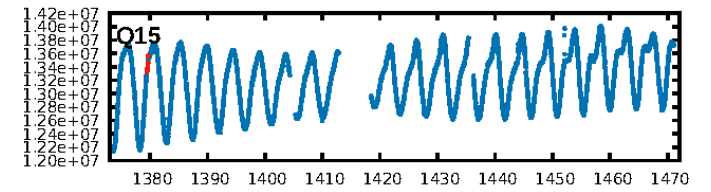
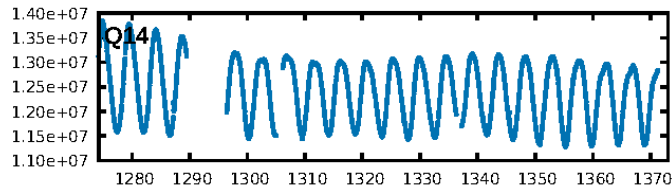
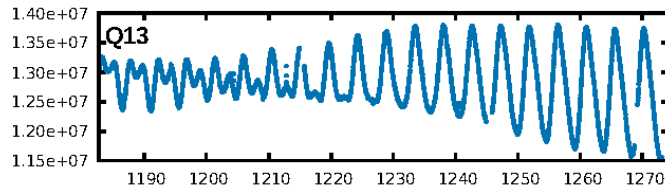
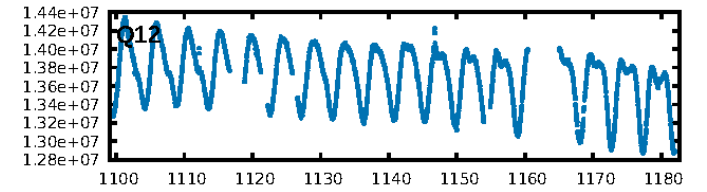
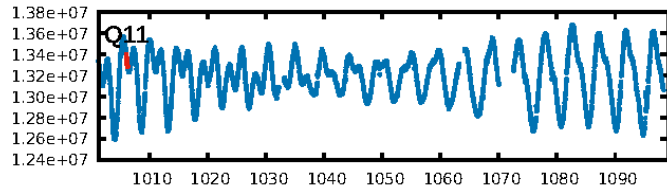
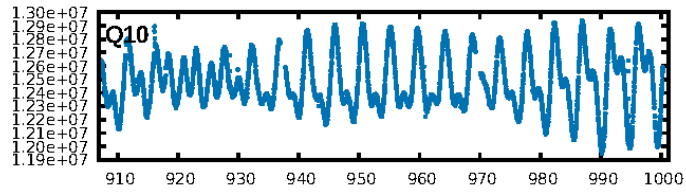
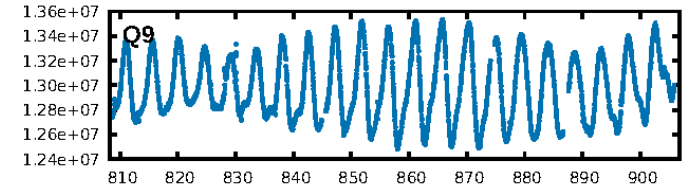
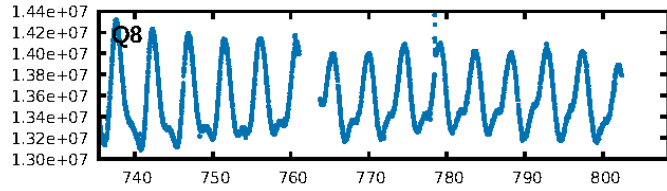
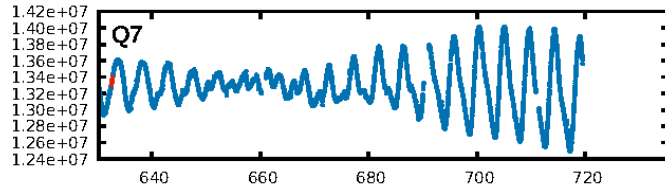
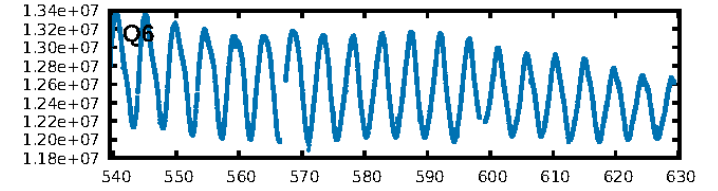
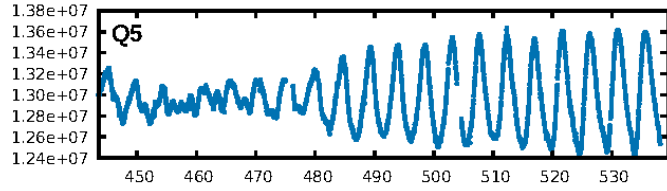
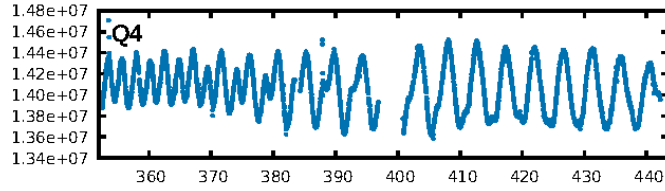
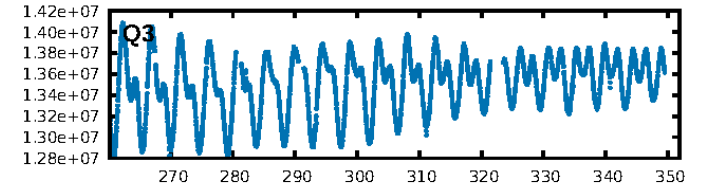
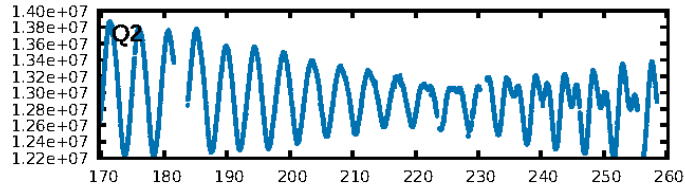
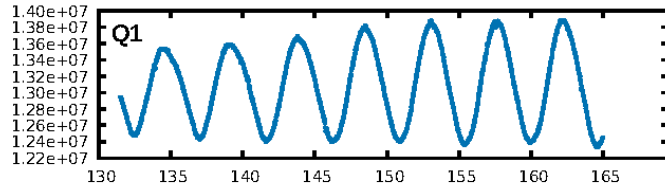
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [955.73 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.4%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: 5.13e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.292
Centroid-sig: 31.3%
Centroid-so: 1.292 arcsec [0.92 σ]
OotOffset-rm: 0.221 arcsec [0.75 σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-rm: 0.458 arcsec [1.55 σ]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

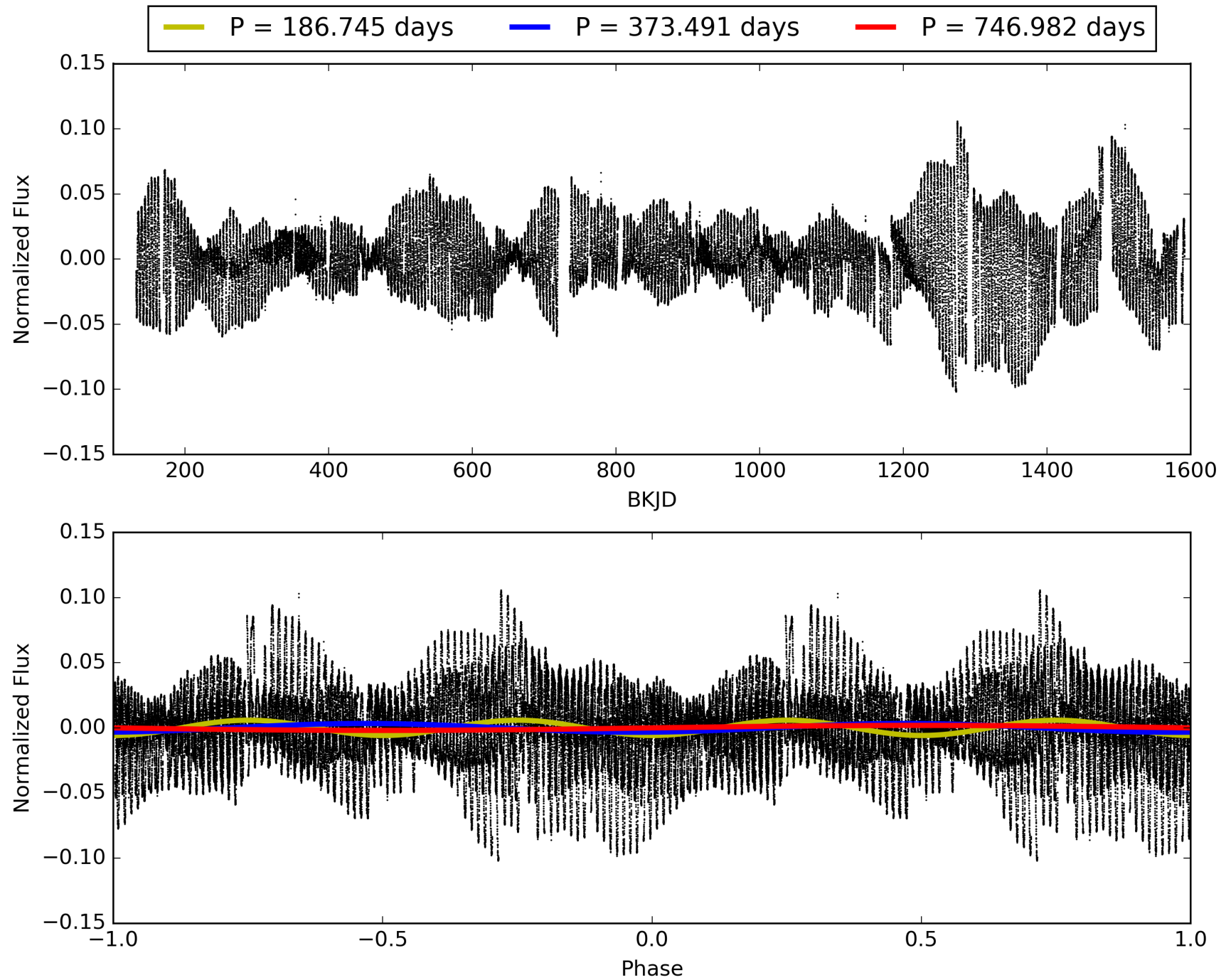
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:09:15 Z

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

TCE 011187436-03, PDC Light Curves

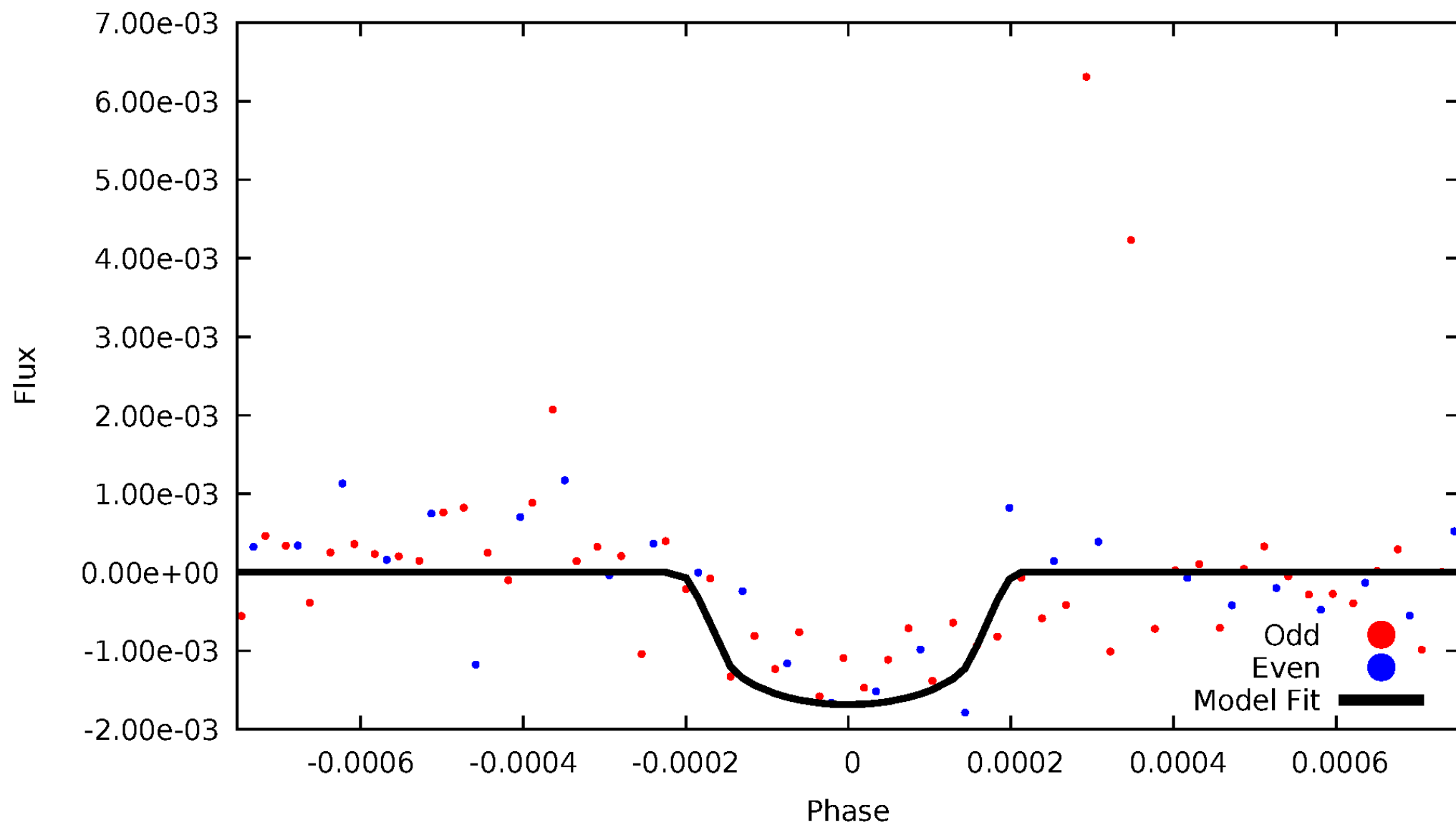


TCE 011187436-03



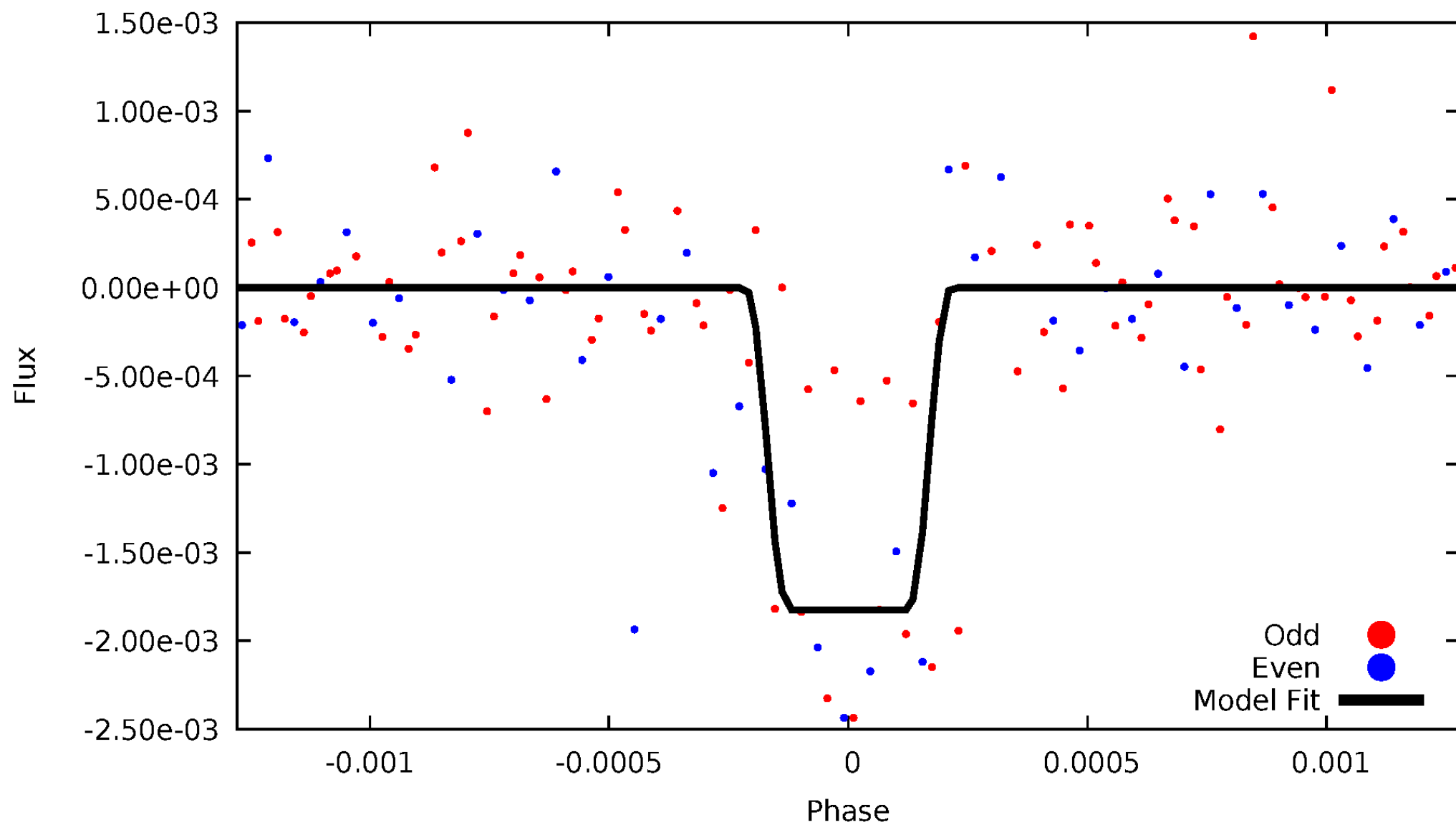
DV Odd/Even

TCE 011187436-03

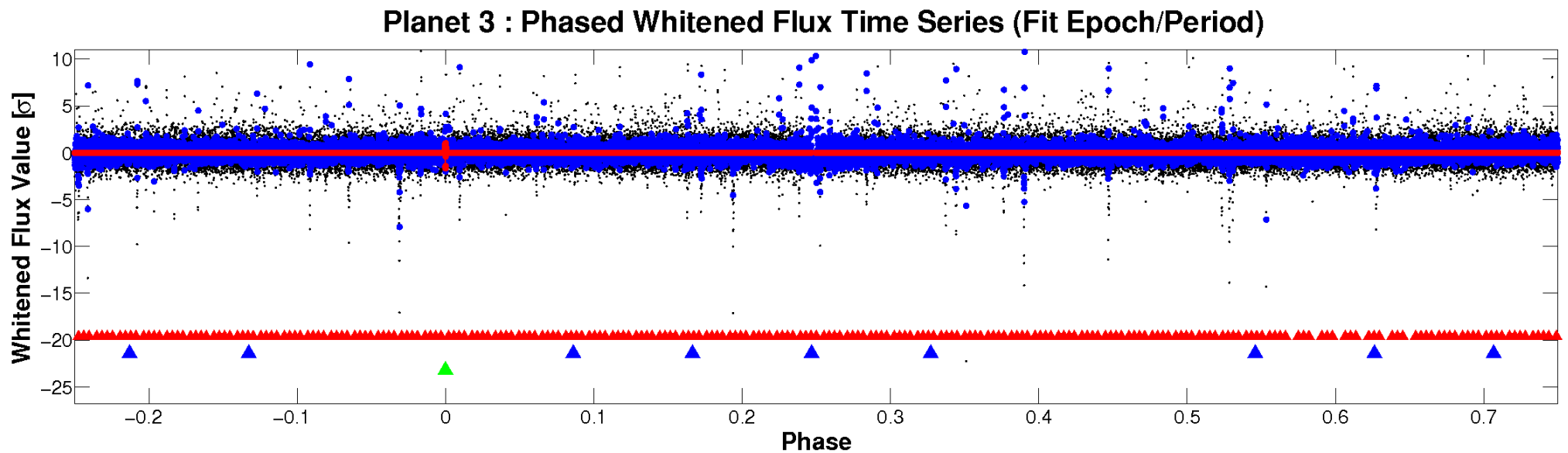
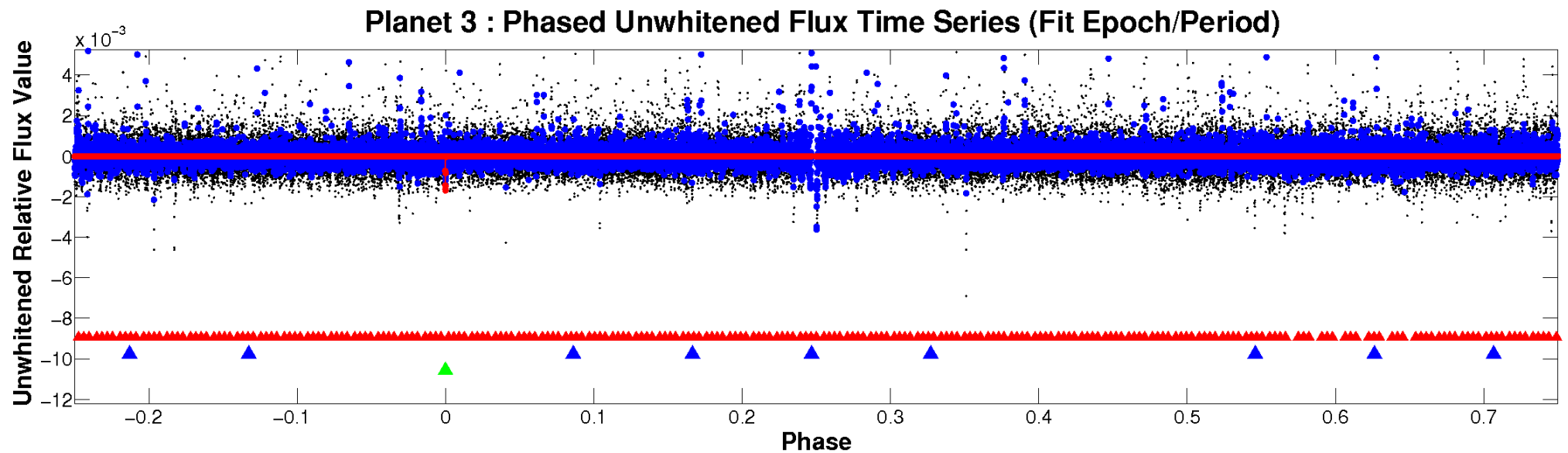


ALT Odd/Even

TCE 011187436-03

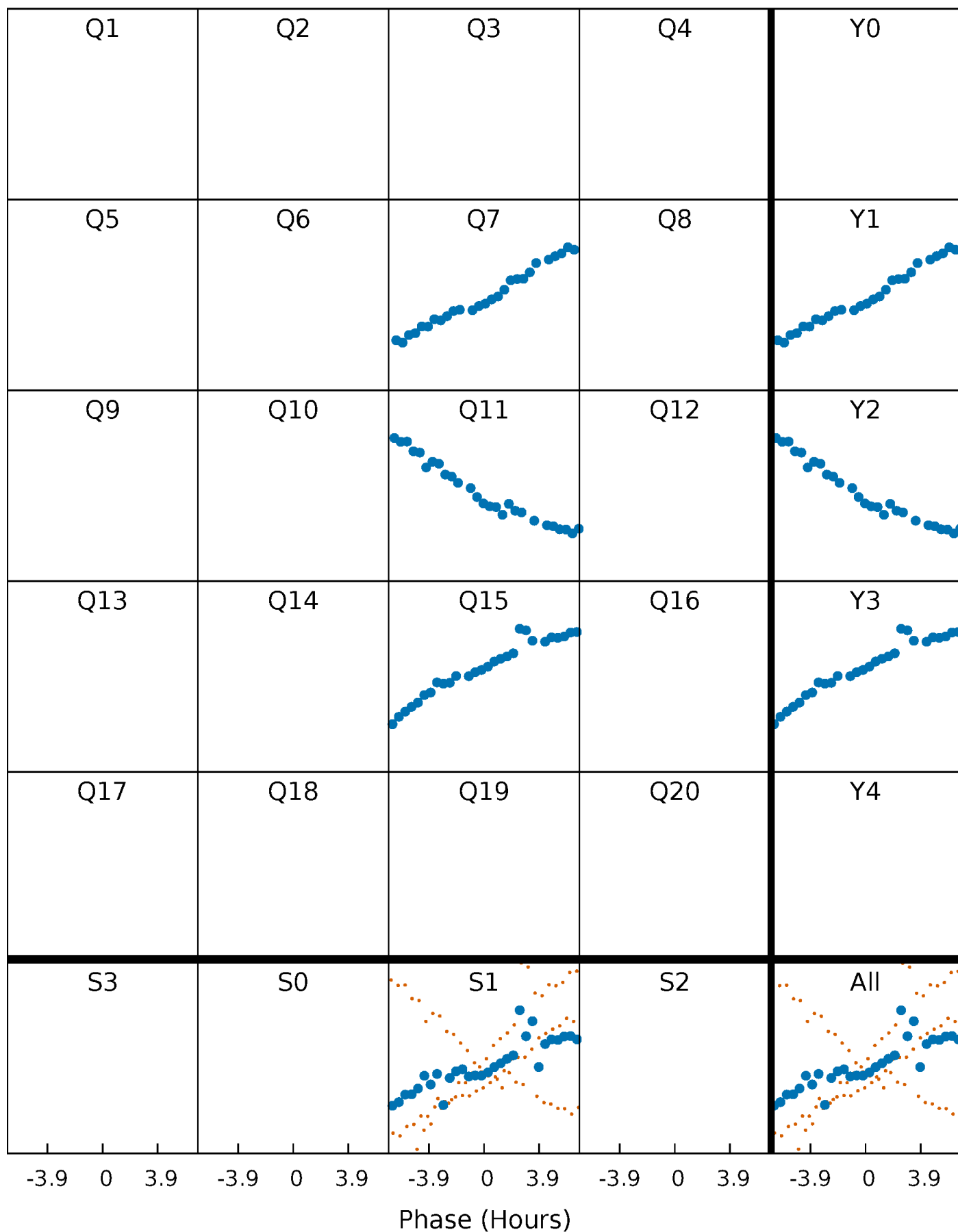


Non-Whitened Vs. Whitened Light Curve



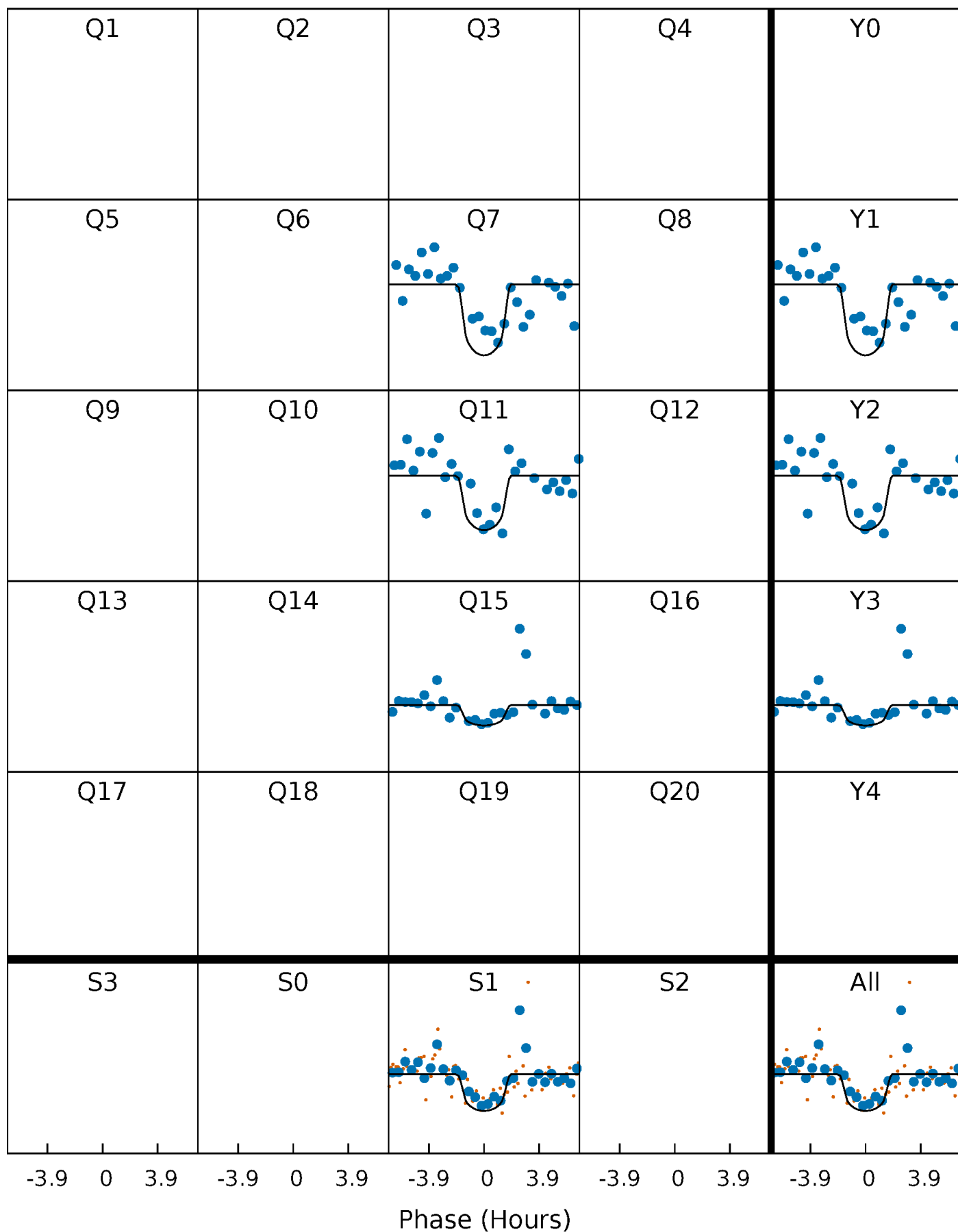
PDC Quarter-Phased Transit Curves

TCE 011187436-03 P=373.490792 Days $T_0=259.138260$ (BKJD)



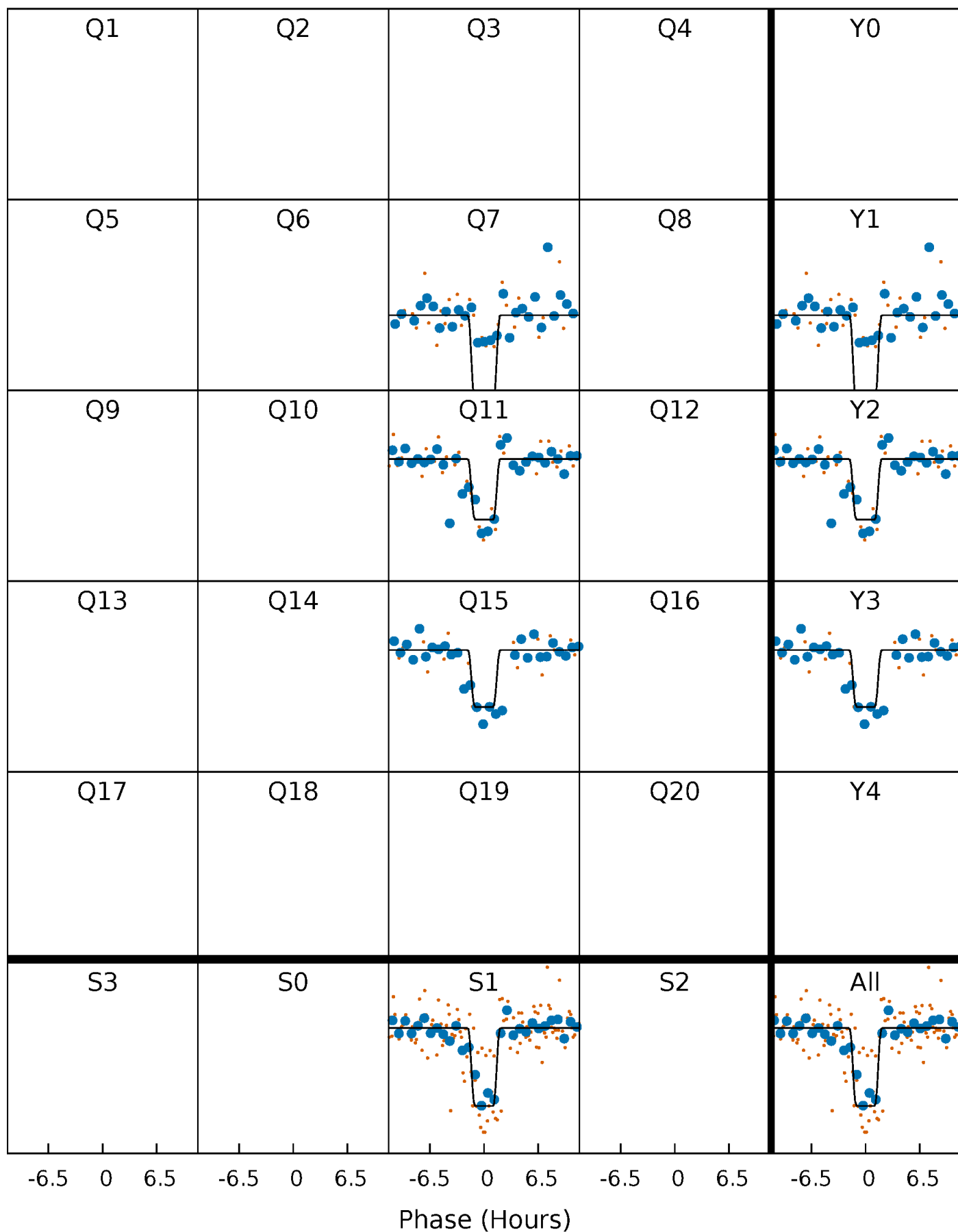
DV Quarter-Phased Transit Curves

TCE 011187436-03 $P=373.490792$ Days $T_0=259.138260$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

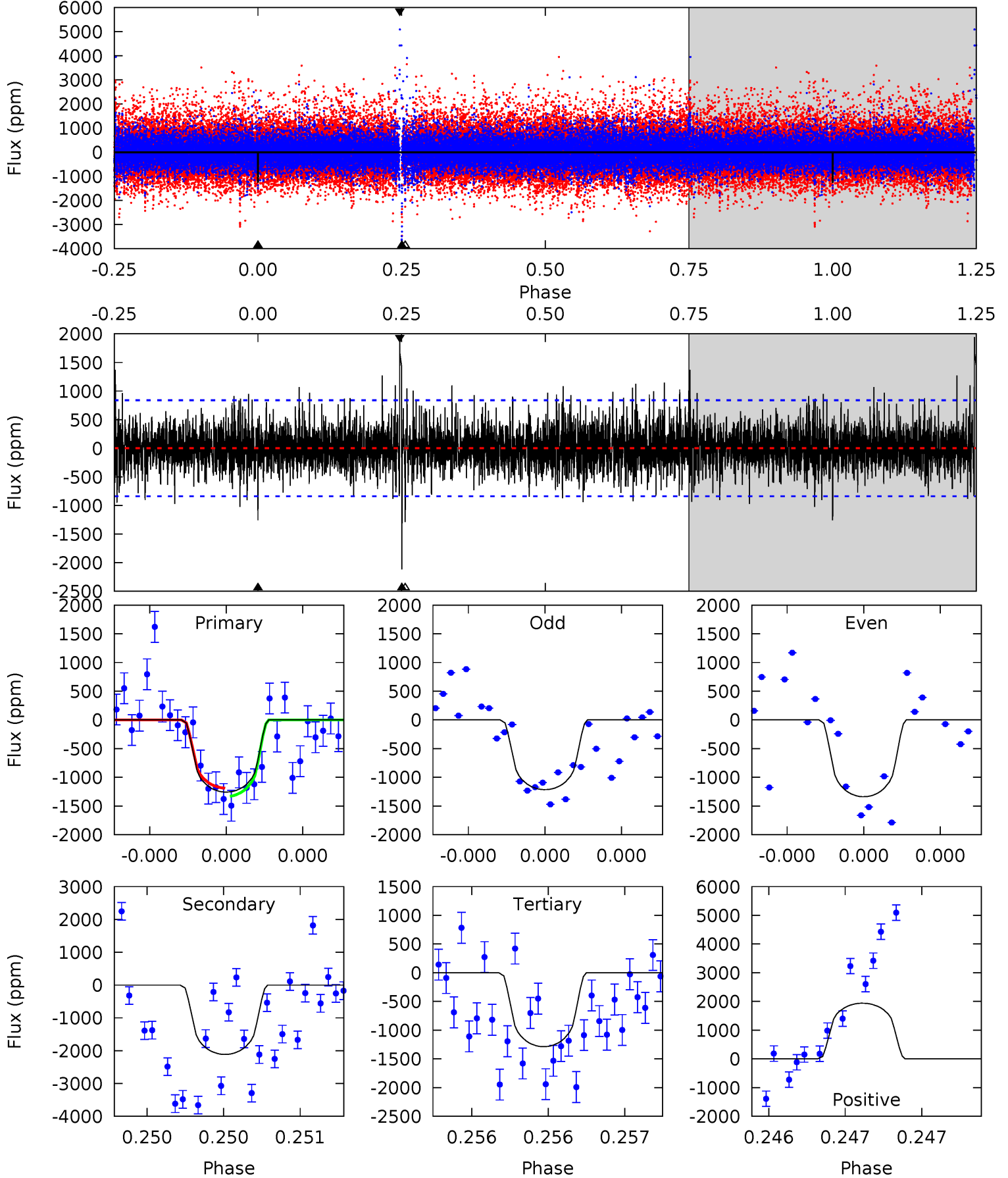
TCE 011187436-03 P=373.498232 Days $T_0=259.119077$ (BKJD)



DV Model-Shift Uniqueness Test

011187436-03, P = 373.490792 Days, E = 259.138260 Days

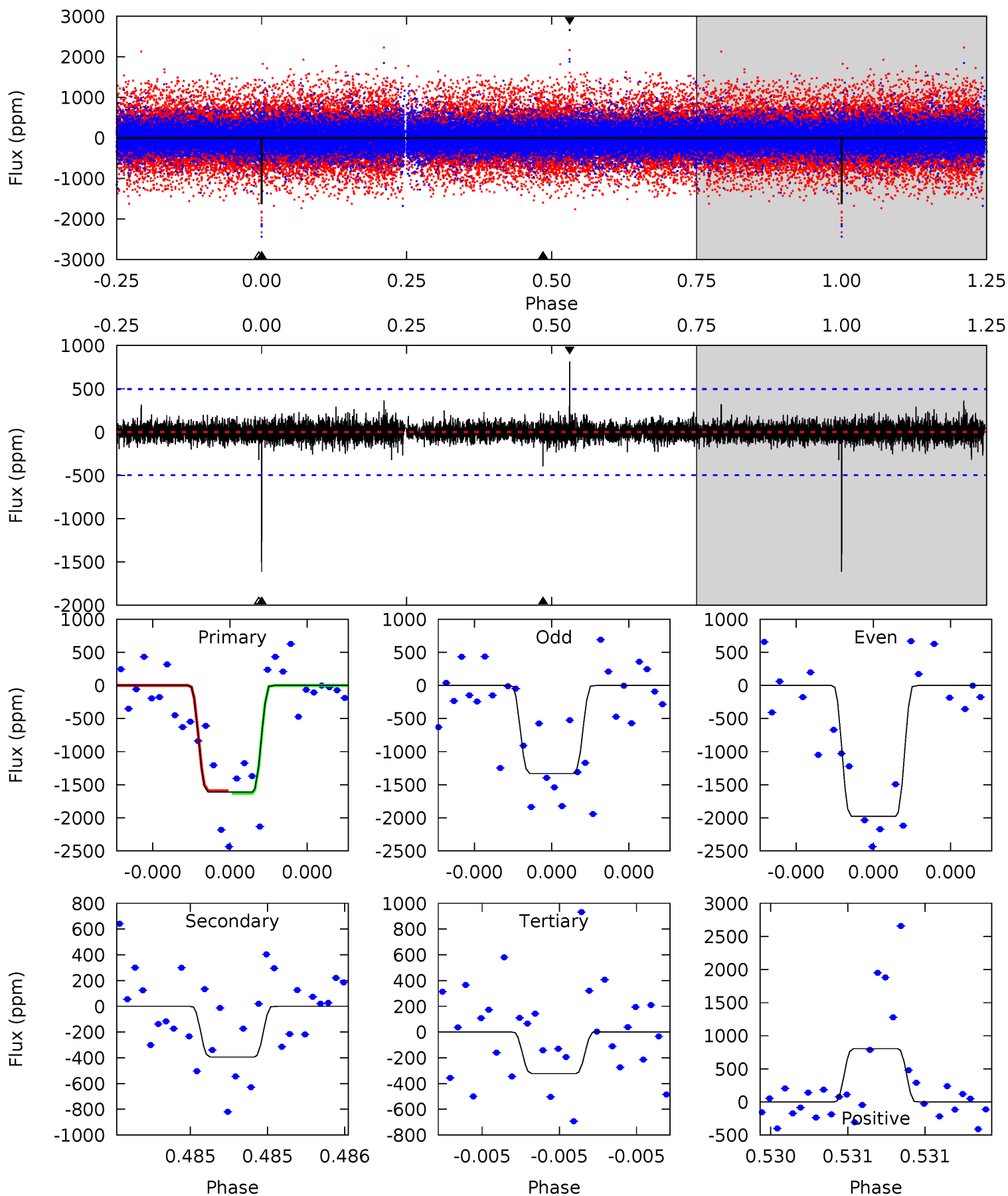
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.44	14.2	8.64	13.0	5.62	3.55	1.81	-0.20	-4.58	5.54	1.16	0.35	0.95	0.48	0.48



Alt Model-Shift Uniqueness Test

011187436-03, P = 373.498232 Days, E = 259.119077 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	4.44	3.64	9.08	5.60	3.53	0.70	14.5	9.08	0.81	-4.63	3.40	0.78	0.33	0.22



Stellar Parameters For KIC 011187436

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4963^{+149}_{-149}	$4.585^{+0.066}_{-0.039}$	$-0.420^{+0.300}_{-0.300}$	$0.690^{+0.062}_{-0.068}$	$0.667^{+0.089}_{-0.045}$	$2.856^{+0.882}_{-0.436}$
	+3%/-3%	+1%/-1%	+71%/-71%	+9%/-10%	+13%/-7%	+31%/-15%
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 011187436-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2114 ± 149	$4.17^{+3.80}_{-2.69}$	269^{+10}_{-11}	4570^{+2914}_{-946}	$52778^{+369090}_{-38367}$
Alt.	-394 ± 89	$4.45^{+3.93}_{-2.84}$	269^{+9}_{-11}	3353^{+1446}_{-578}	8407^{+55732}_{-6030}

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 $A_{obs} \gg 1.0$

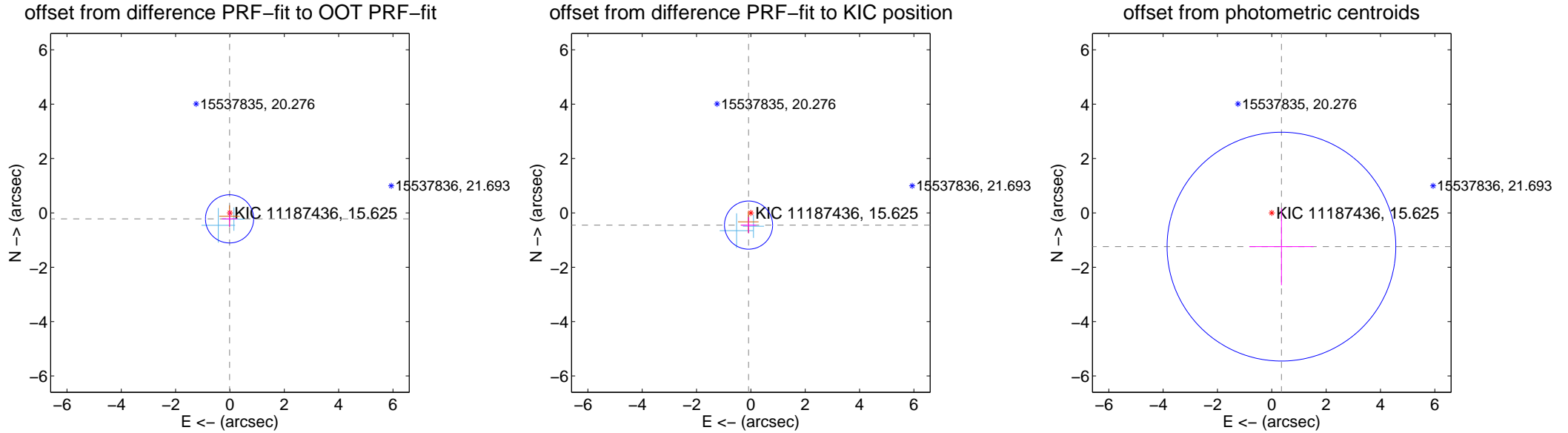
DV Centroid Data

Supplemental centroid analysis for 011187436-03. Kepler magnitude: 15.62. Transit SNR 6.94

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.221 ± 0.296	0.75	0.015 ± 0.282	-0.220 ± 0.296
PRF-fit source offset from KIC position	0.458 ± 0.295	1.55	0.086 ± 0.282	-0.450 ± 0.296
photometric centroid source offset	1.29 ± 1.40	0.92	-0.35 ± 1.18	-1.24 ± 1.42

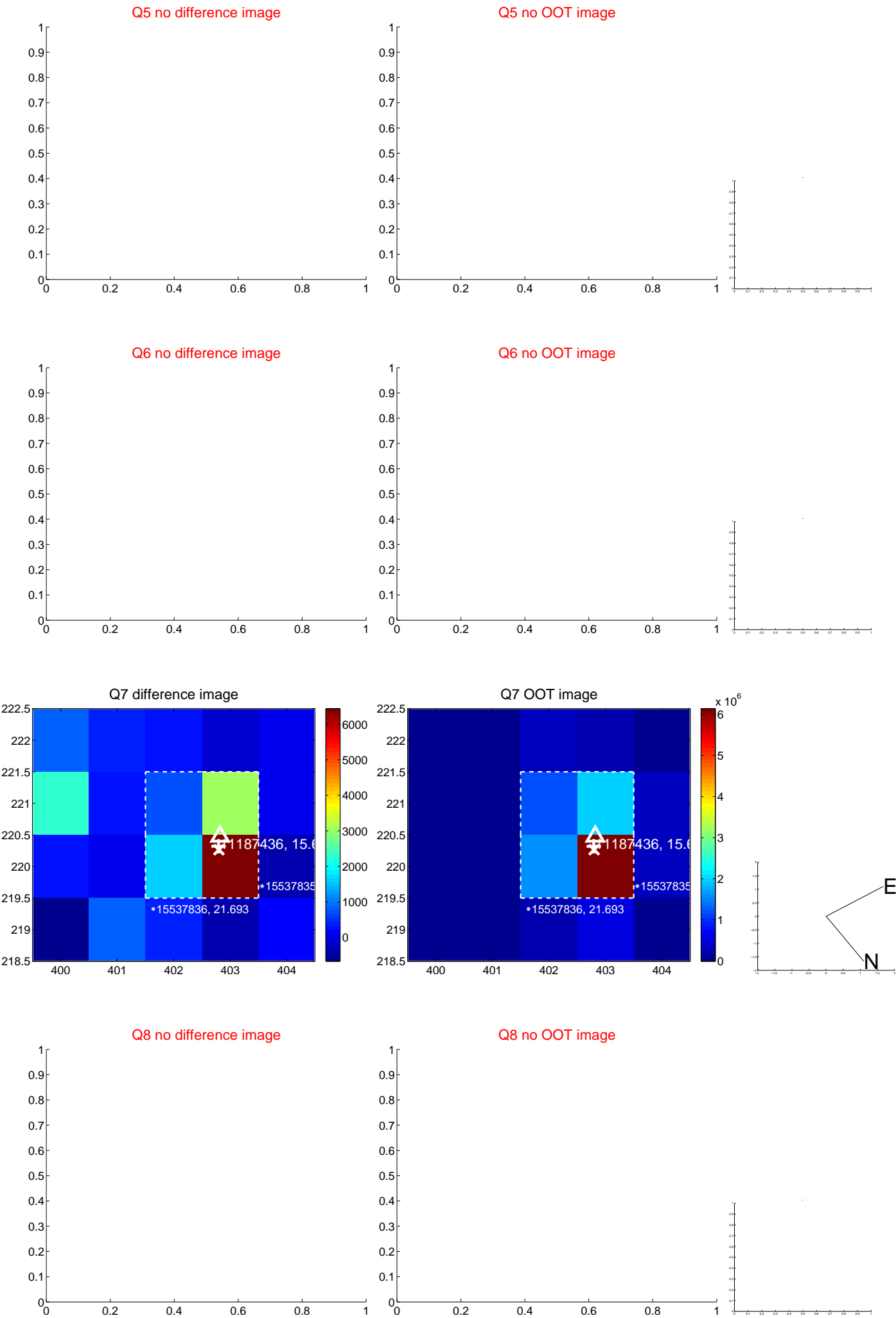


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

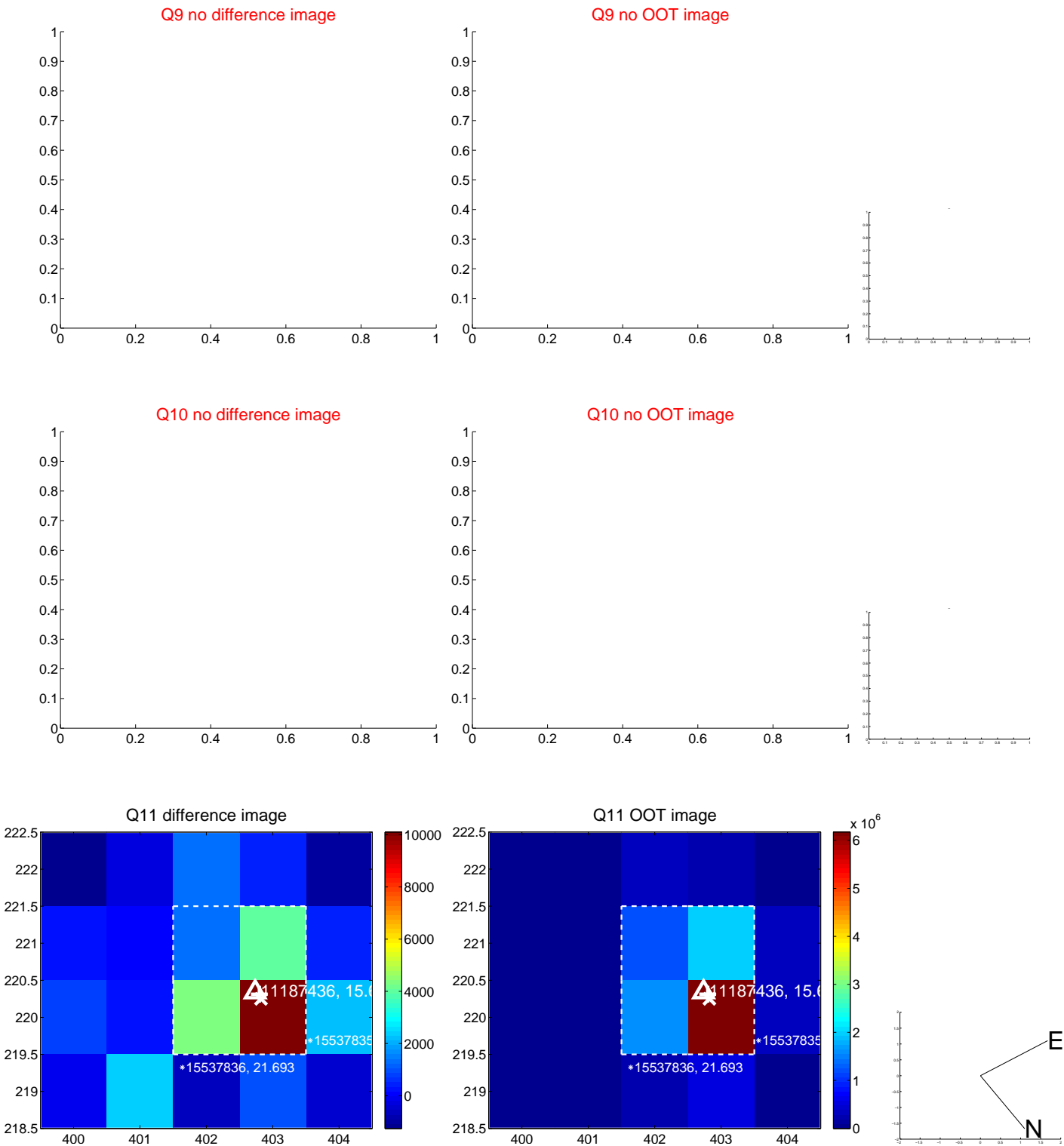
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

Q13 no difference image



Q13 no OOT image



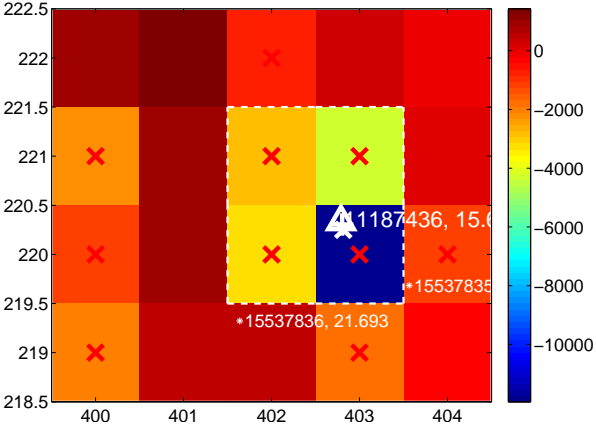
Q14 no difference image



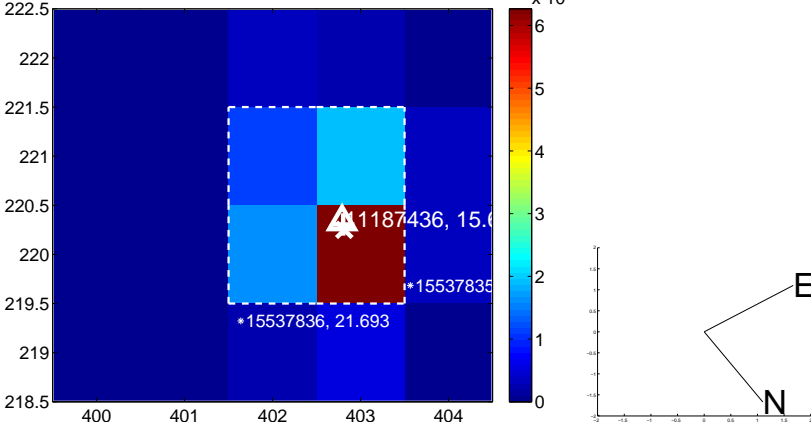
Q14 no OOT image



Q15 difference image. Poor Quality



Q15 OOT image



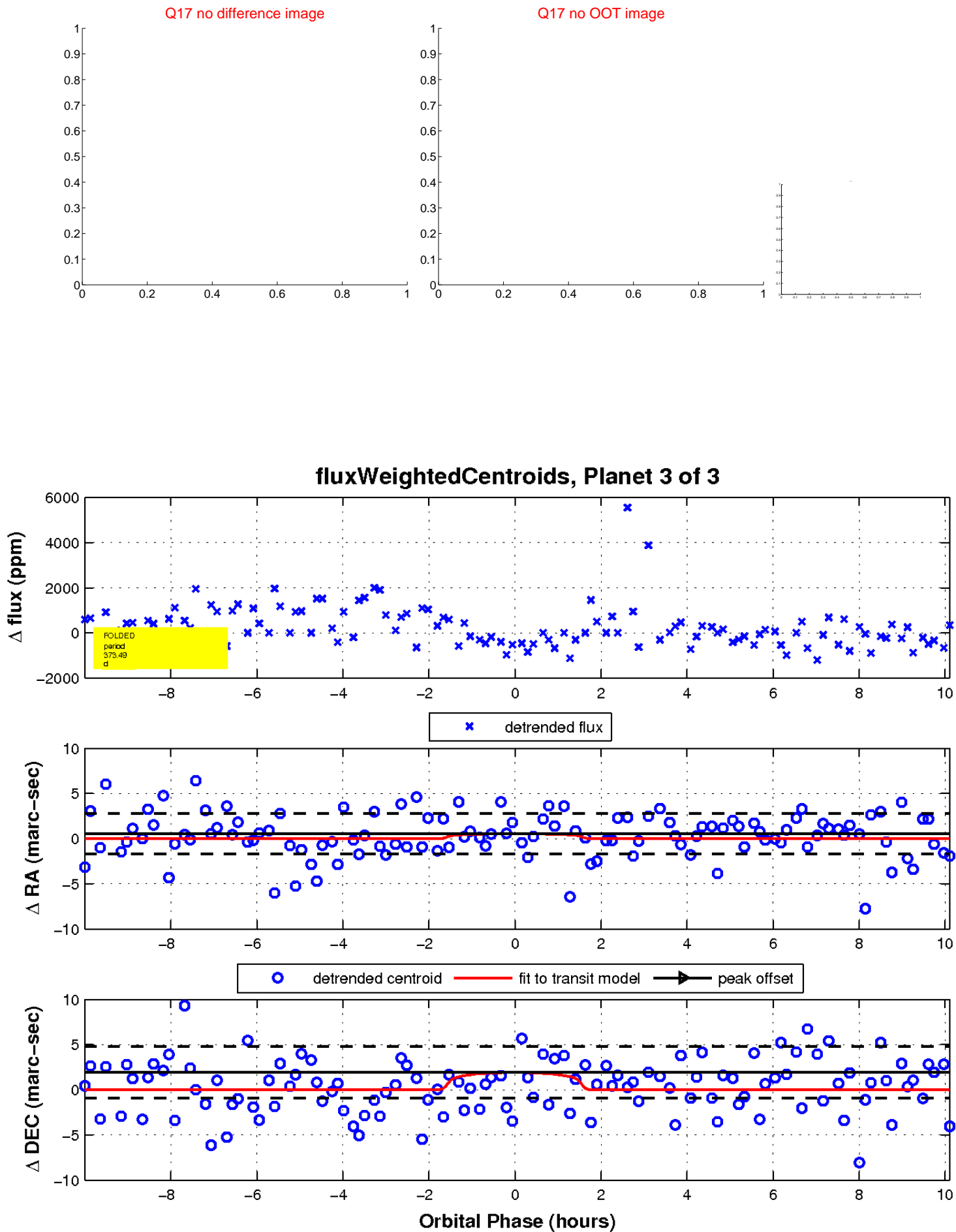
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

