

KIC 007115390

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})
007115390-01	OBS	No	0.566788	131.819765	98.8	3.253	10.6	11.2	0.57	4631	0.69	1032.22
007115390-02	OBS	No	121.267532	136.302725	942.2	4.292	8.9	5.7	0.57	4631	1.91	0.81
007115390-03	OBS	No	81.384577	170.261556	1224.7	3.773	9.9	7.7	0.57	4631	2.10	1.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007115390-01	OBS	FP	0.00	1	0	0	1	LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS—EPHEM_MATCH
007115390-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007115390-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

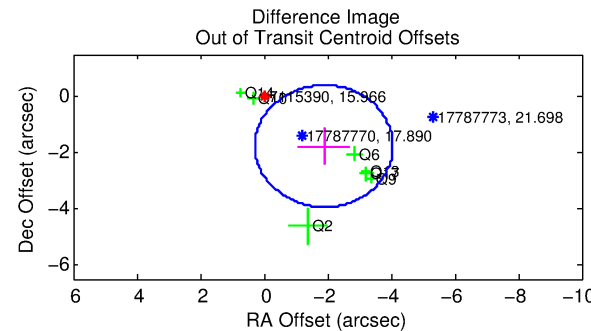
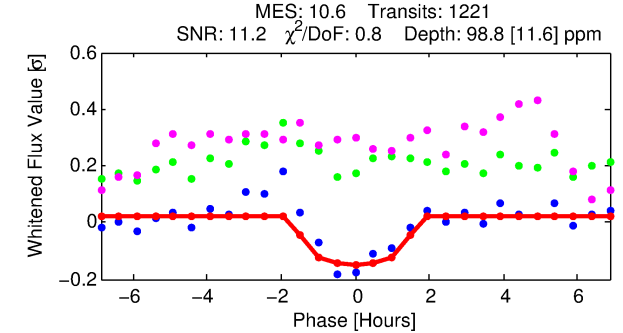
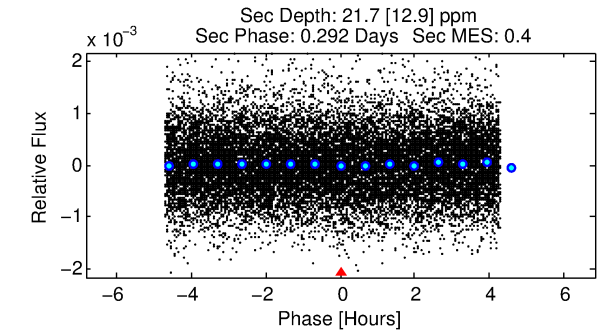
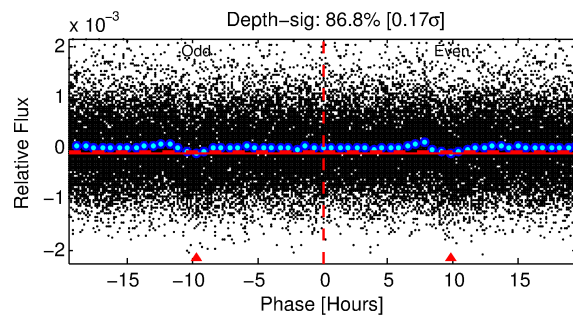
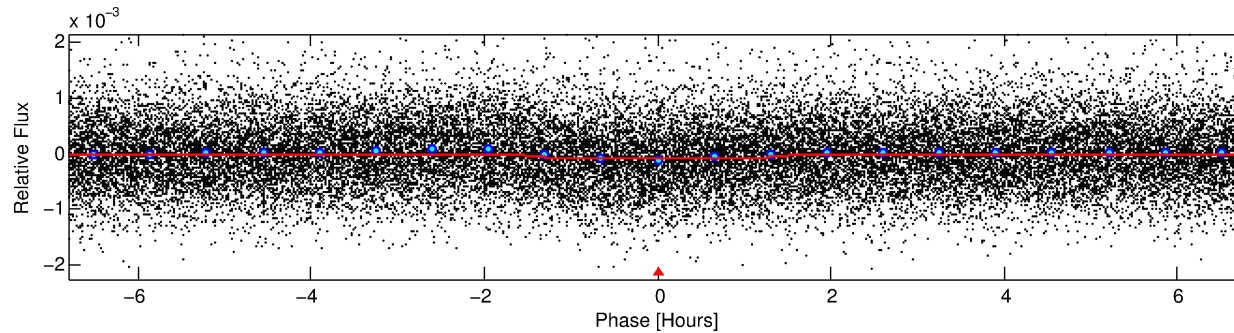
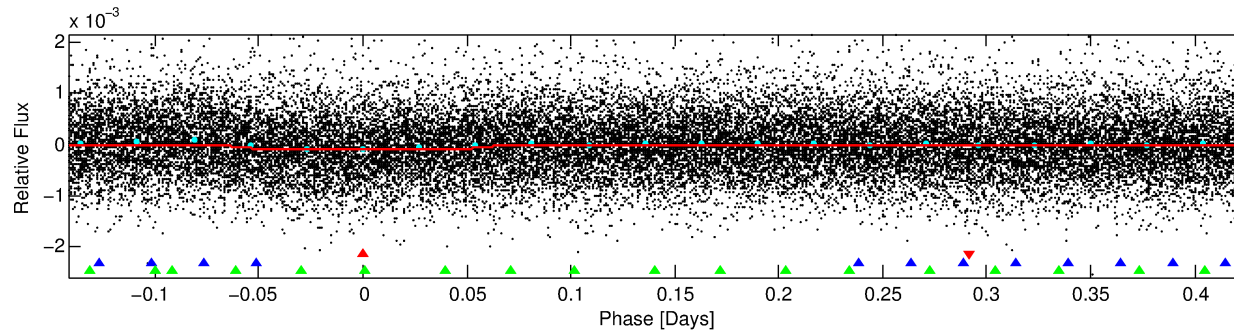
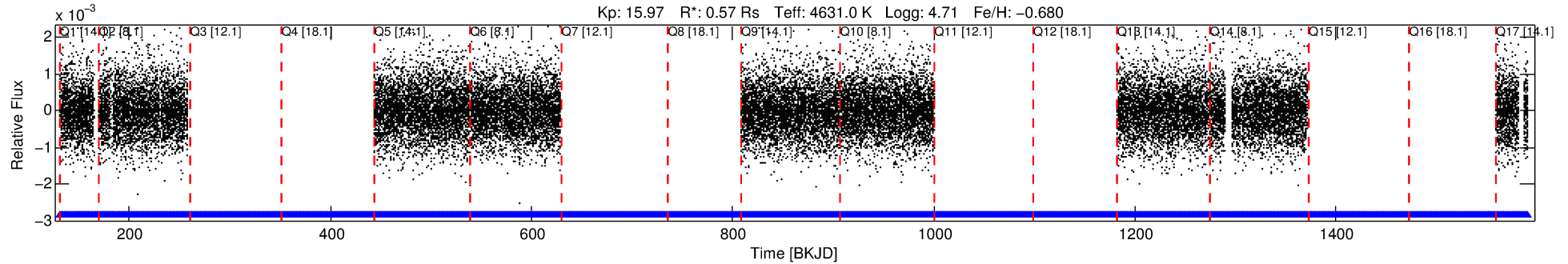
Ephemeris Match Information For 007115390-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007115390-01	7115390	RR-Lyr-pri	7198959	1:1	983.9	-26	-247	7.86	15.96	6295.90	Direct-PRF	0	1.92	19.50

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7115390 Candidate: 1 of 3 Period: 0.567 d



DV Fit Results:

Period = 0.56679 [0.00001] d
Epoch = 131.8198 [0.0033] BKJD
Rp/R* = 0.0112 [0.0070]
a/R* = 1.12 [0.56]
b = 0.90 [0.52]
Seff = 1032.22 [189.19]
Teq = 1445 [66] K
Rp = 0.69 [0.44] Re
a = 0.0114 [0.0010] AU
Ag = 3.20 [4.46] [0.49 σ]
Teffp = 2989 [1043] K [1.48 σ]

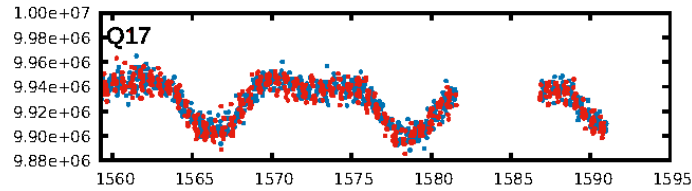
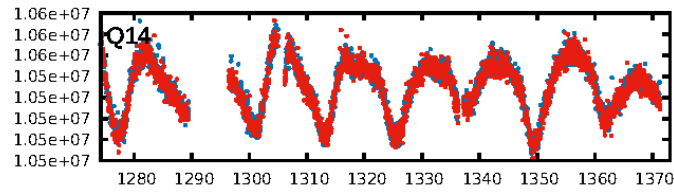
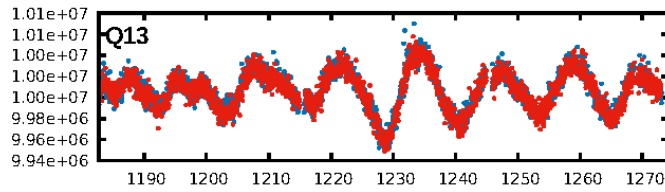
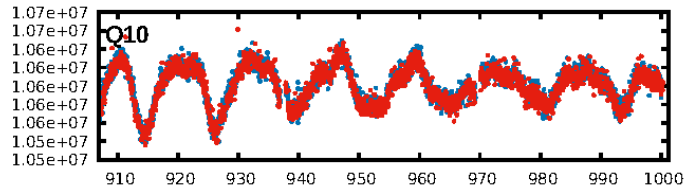
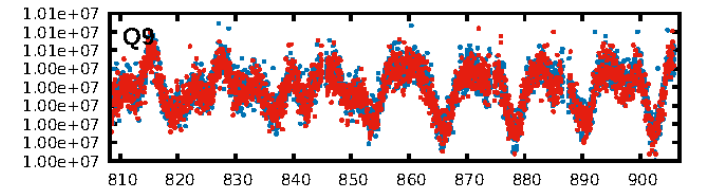
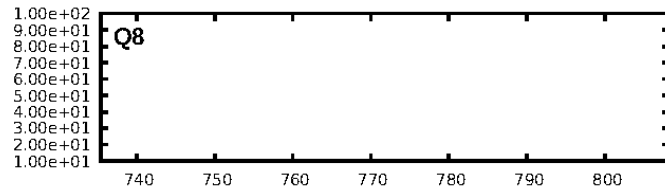
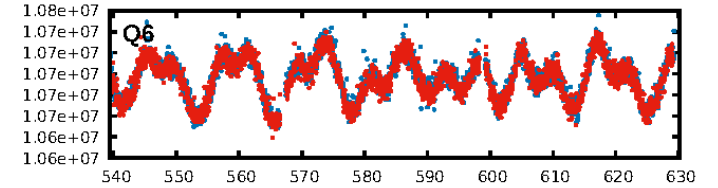
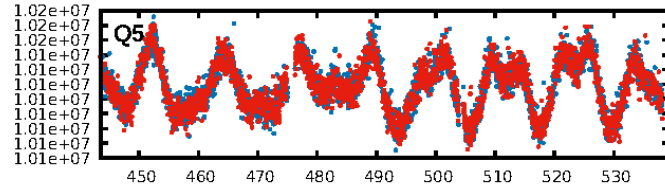
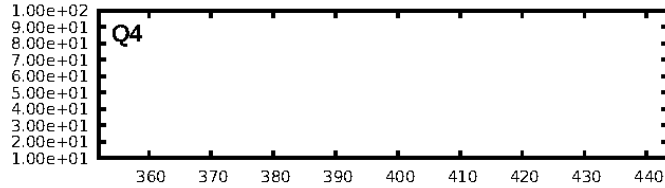
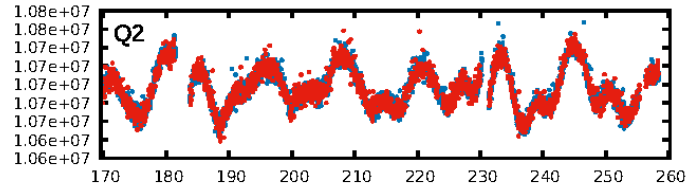
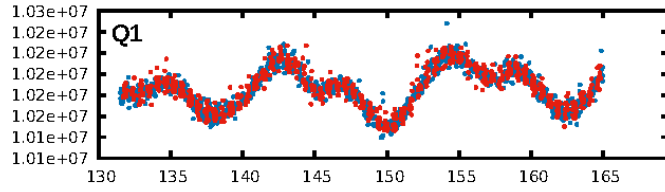
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [389.35 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.42e-22
RollingBand-fgt: 1.00 [1115/1115]
GhostDiagnostic-chr: -0.8054
Centroid-sig: 0.1%
Centroid-so: 3.665 arcsec [2.72 σ]
OotOffset-rm: 2.587 arcsec [3.58 σ]
KicOffset-rm: 2.690 arcsec [3.58 σ]
OotOffset-st: 4/0/0/3 [7]
KicOffset-st: 4/0/0/3 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [9/9]

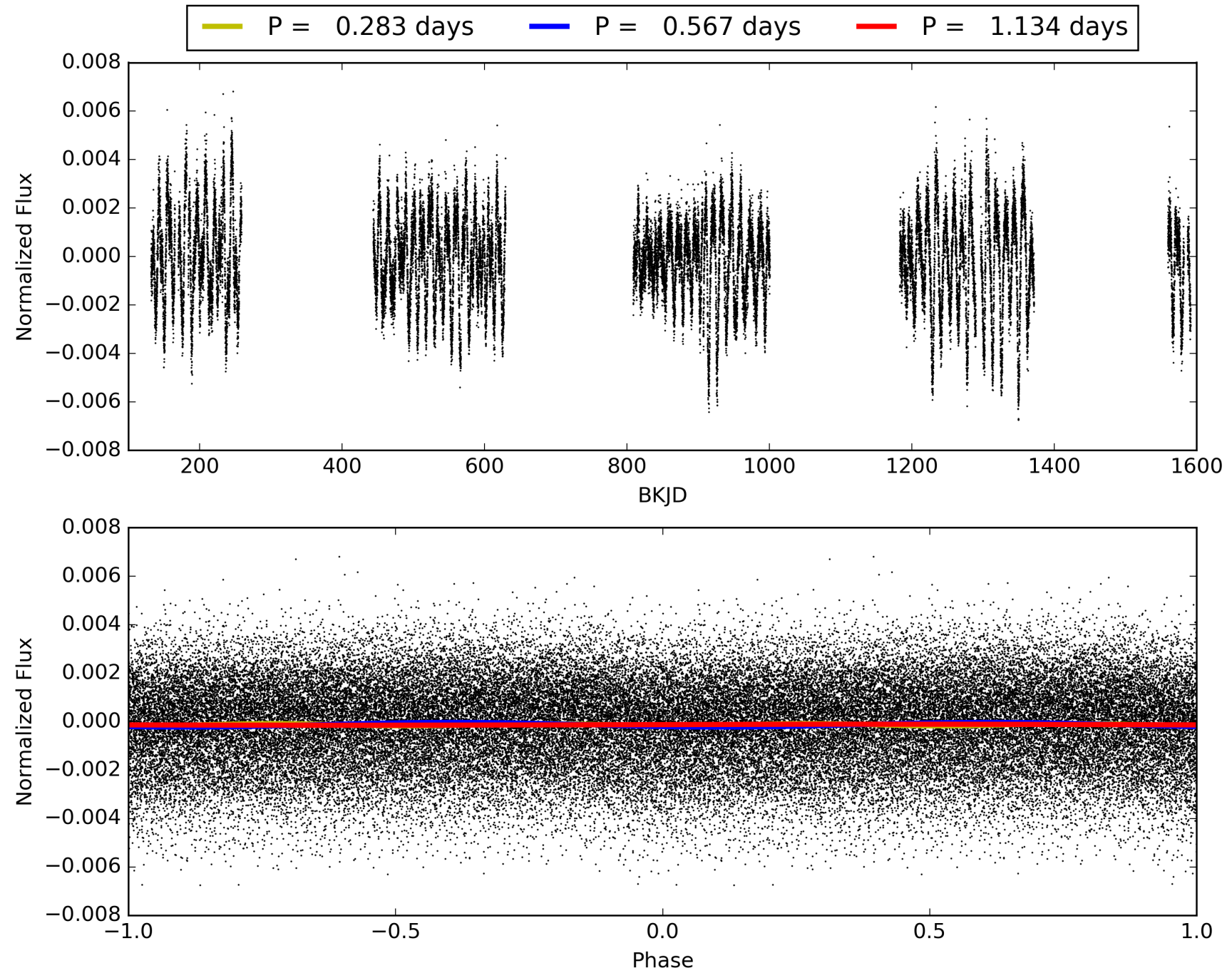
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007115390-01, PDC Light Curves

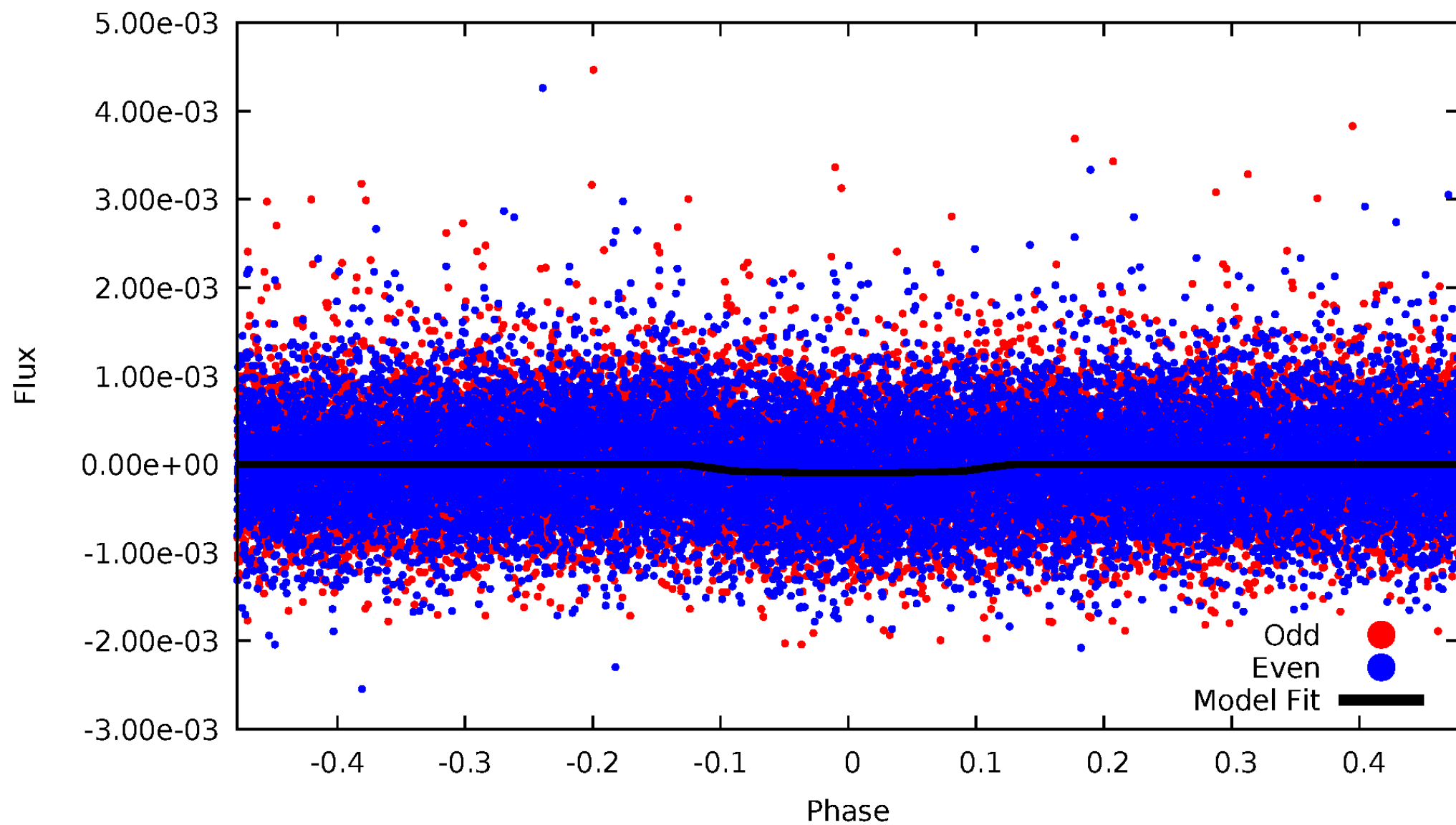


TCE 007115390-01



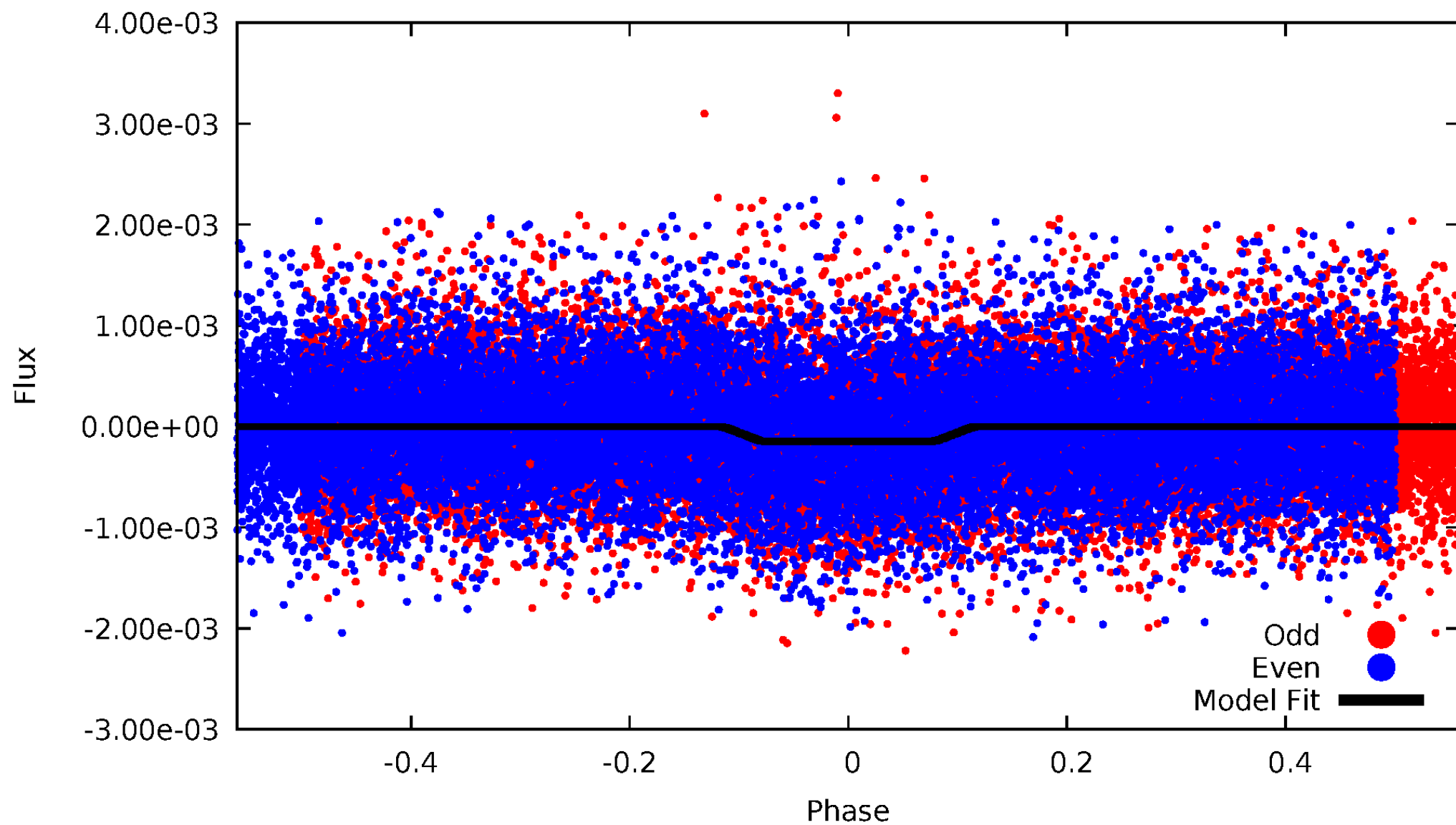
DV Odd/Even

TCE 007115390-01

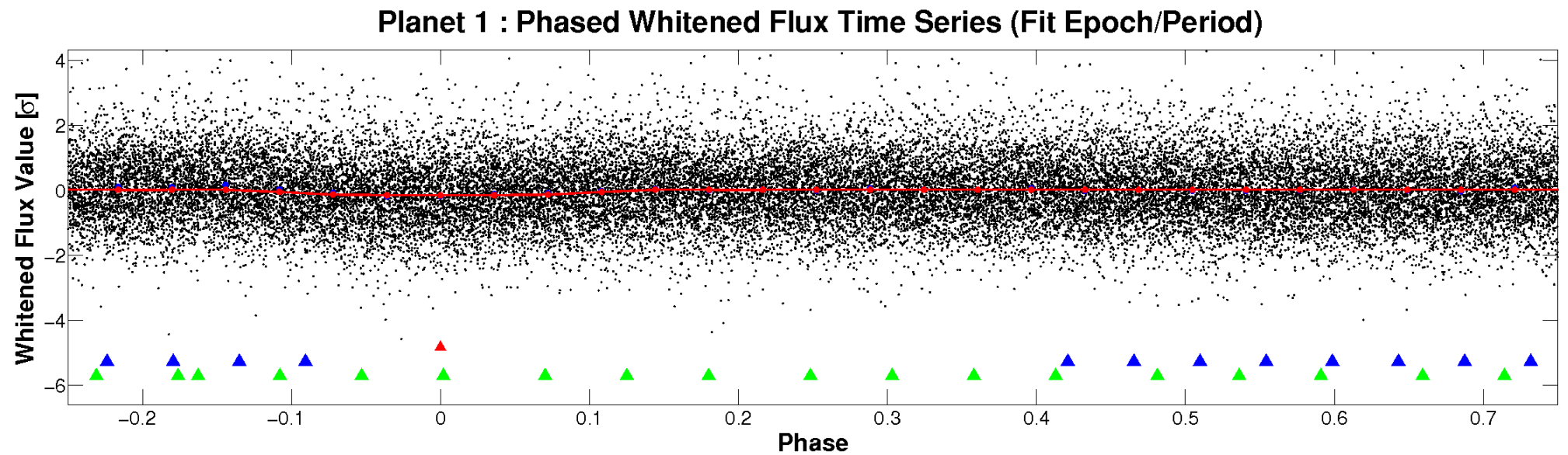
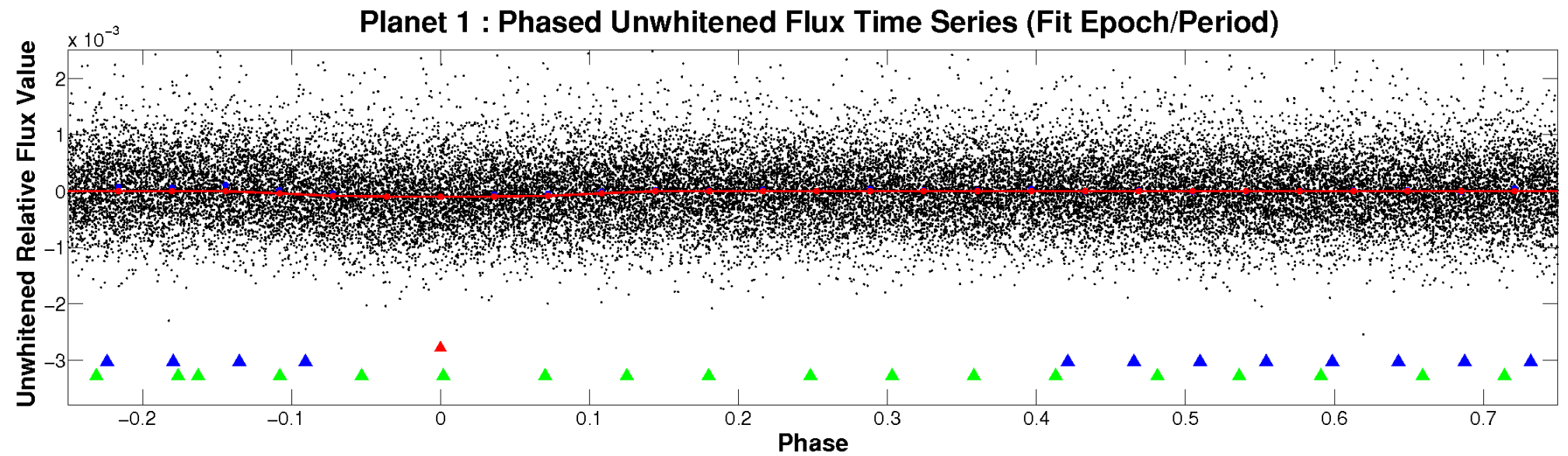


ALT Odd/Even

TCE 007115390-01

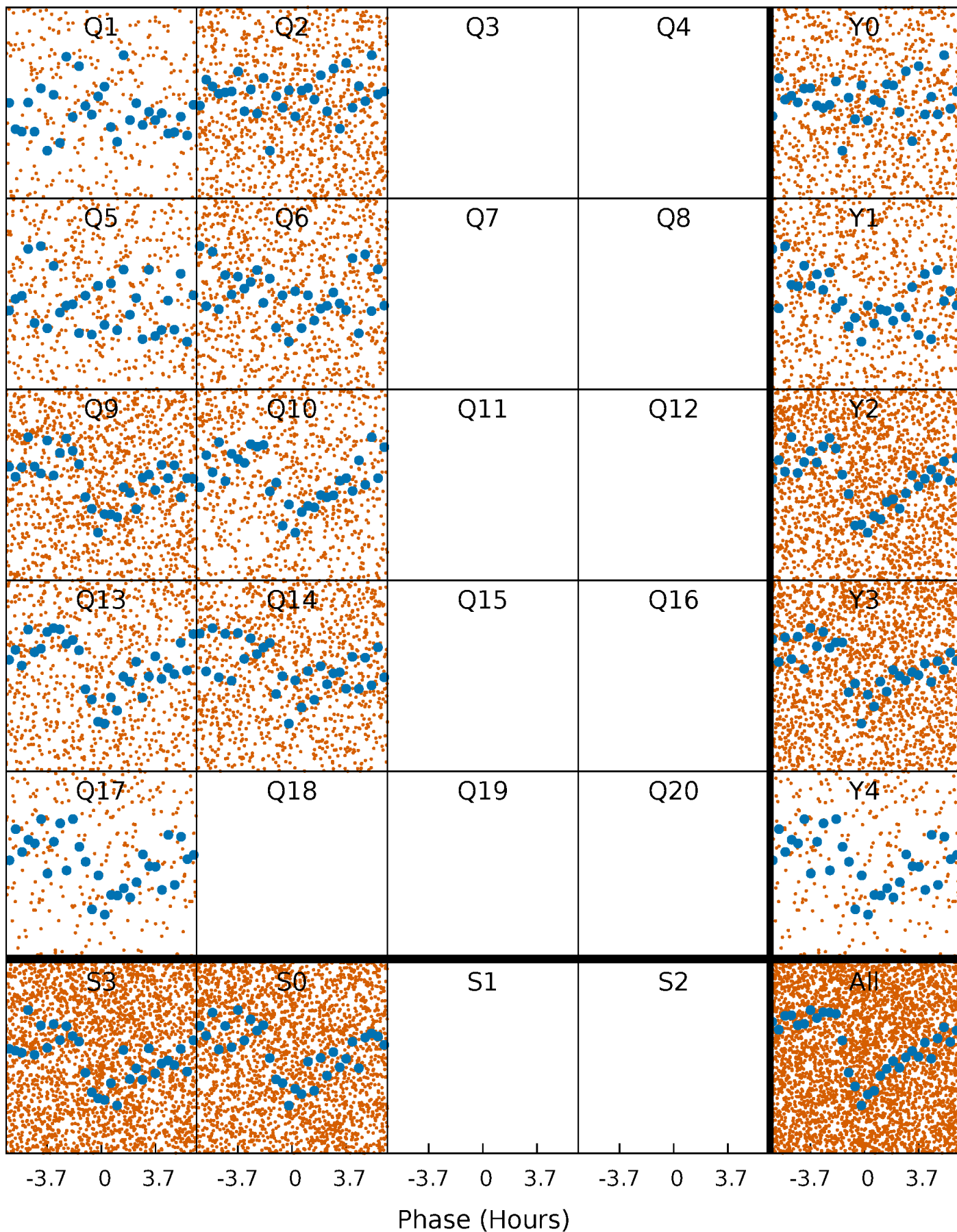


Non-Whitened Vs. Whitened Light Curve



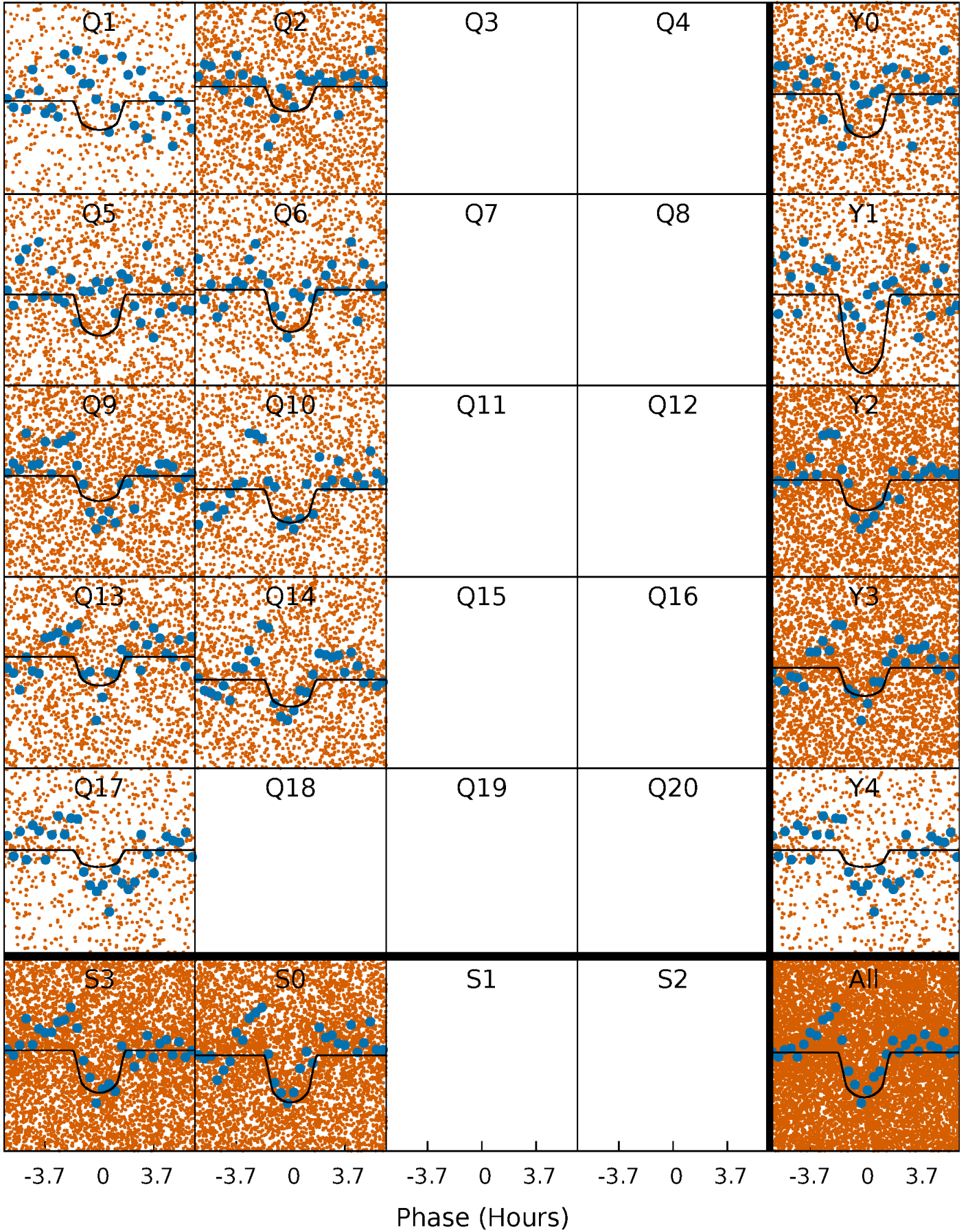
PDC Quarter-Phased Transit Curves

TCE 007115390-01 P= 0.566788 Days $T_0=131.819765$ (BKJD)



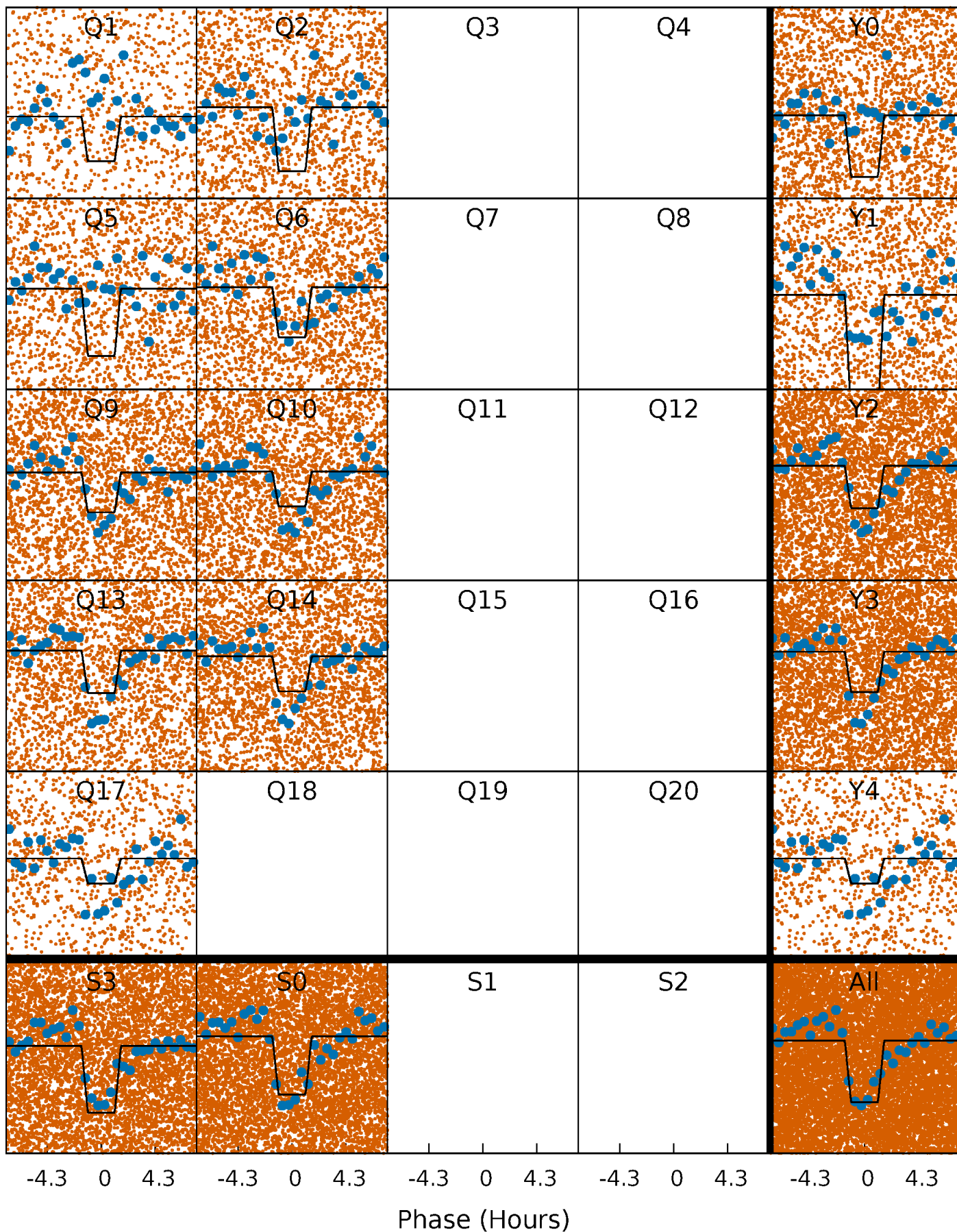
DV Quarter-Phased Transit Curves

TCE 007115390-01 P= 0.566788 Days $T_0=131.819765$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

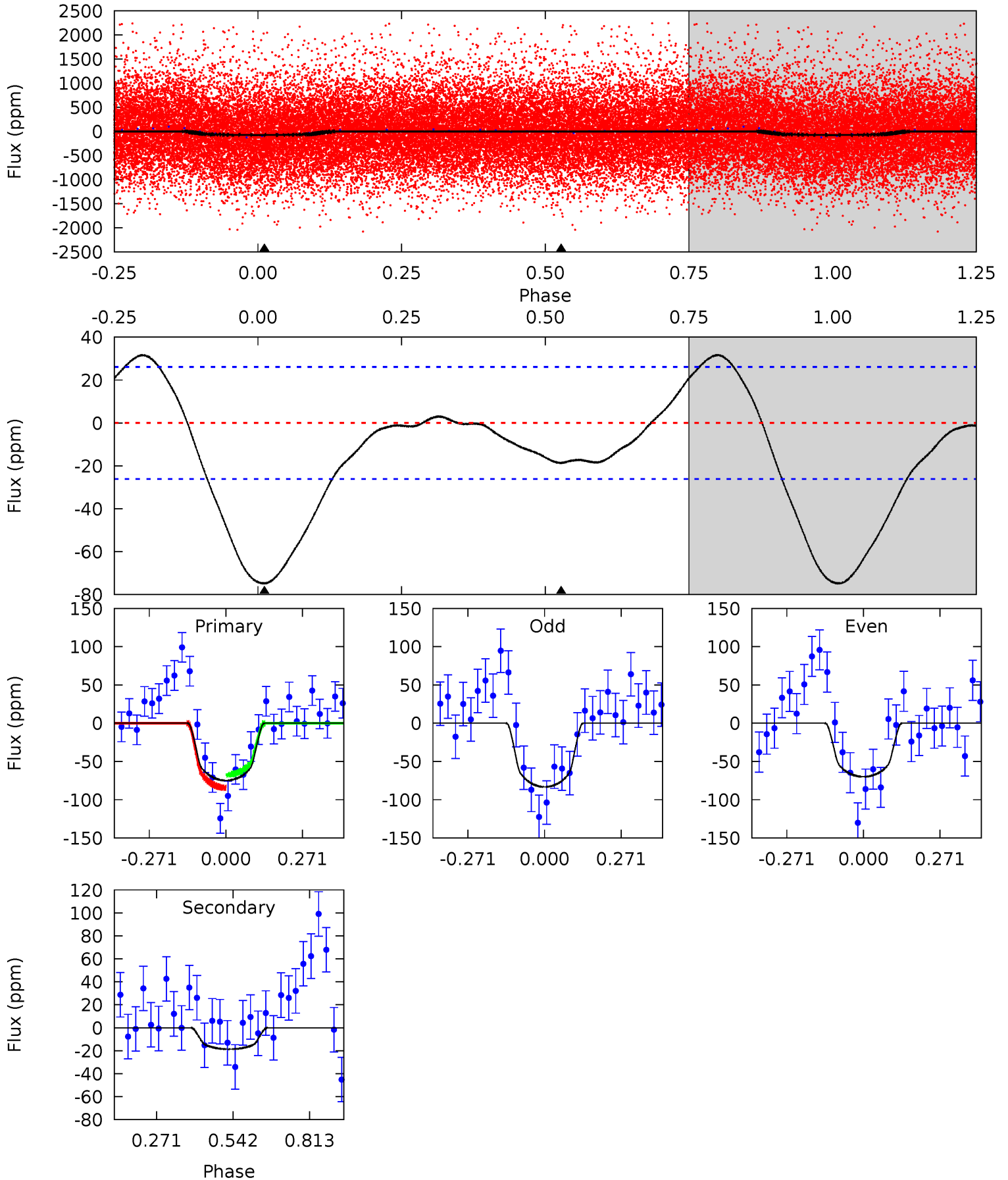
TCE 007115390-01 P= 0.566795 Days $T_0=131.818729$ (BKJD)



DV Model-Shift Uniqueness Test

007115390-01, P = 0.566788 Days, E = 131.252977 Days

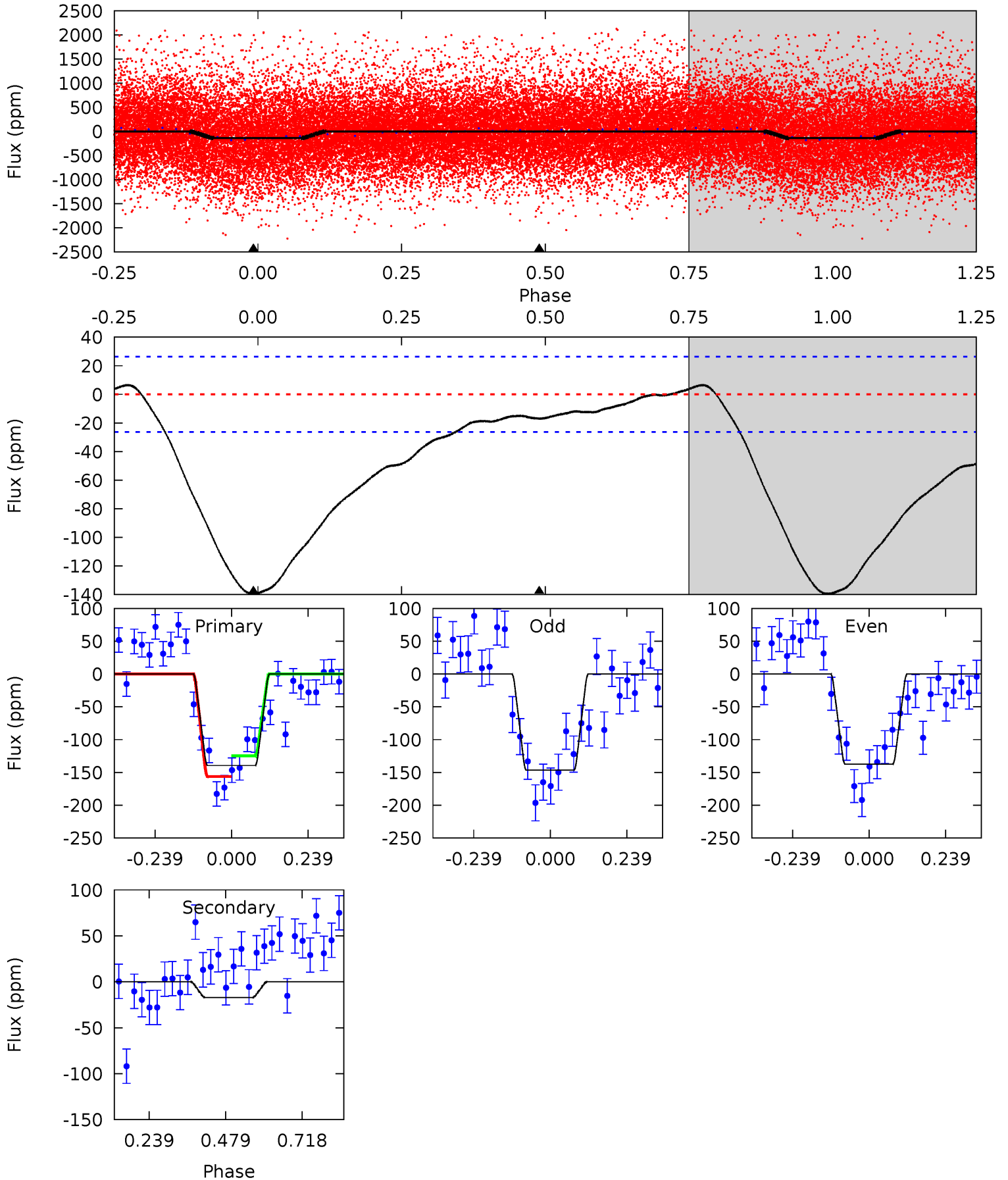
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	3.11	0	0	4.35	1.10	2.14	12.5	12.5	3.11	3.11	1.12	0.89	0.30	1.41



Alt Model-Shift Uniqueness Test

007115390-01, P = 0.566795 Days, E = 131.251934 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	2.83	0	0	4.38	1.18	4.32	23.2	23.2	2.83	2.83	0.77	0.96	0.04	2.57



Stellar Parameters For KIC 007115390

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4631^{+166}_{-166}	$4.713^{+0.027}_{-0.058}$	$-0.680^{+0.300}_{-0.300}$	$0.569^{+0.061}_{-0.038}$	$0.607^{+0.053}_{-0.048}$	$4.650^{+0.597}_{-0.933}$
	+4%/-4%	+1%/-1%	+44%/-44%	+11%/-7%	+9%/-8%	+13%/-20%
Source	KIC0	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 007115390-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 6	$0.74^{+0.42}_{-0.42}$	2034^{+88}_{-82}	3228^{+1086}_{-540}	$2.435^{+10.326}_{-1.566}$
Alt.	-17 ± 6	$0.74^{+0.47}_{-0.37}$	2030^{+80}_{-75}	3143^{+824}_{-568}	$2.168^{+6.068}_{-1.452}$

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

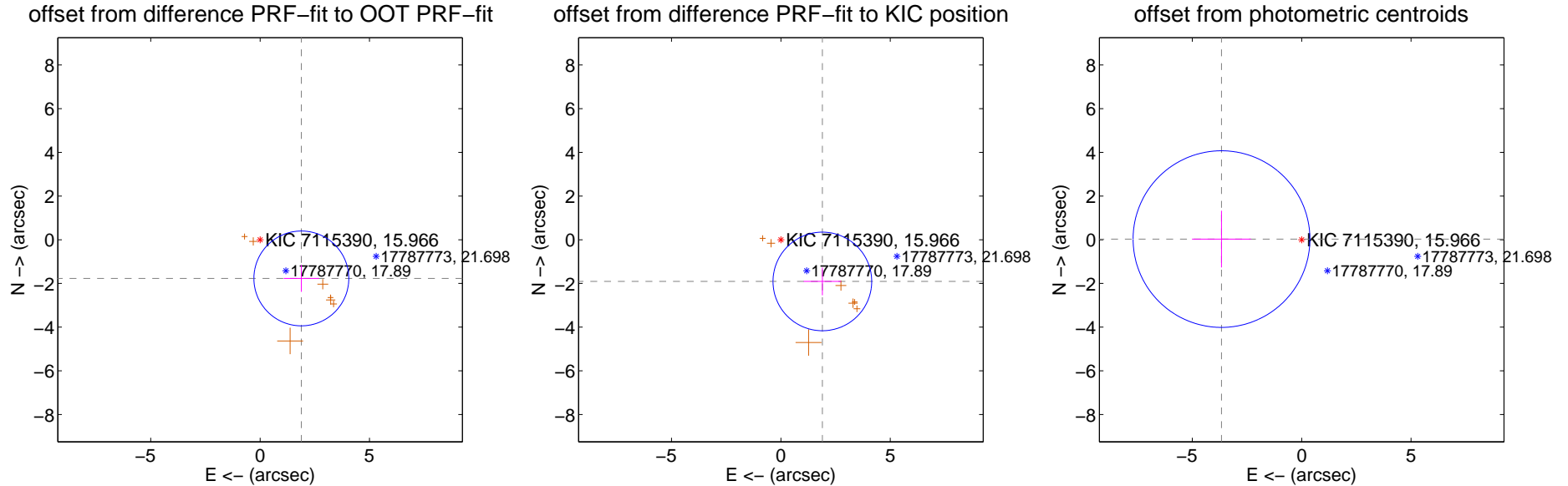
DV Centroid Data

Supplemental centroid analysis for 007115390-01. Kepler magnitude: 15.97. Transit SNR 11.16

There are 0 quarters with good PRF difference image offsets

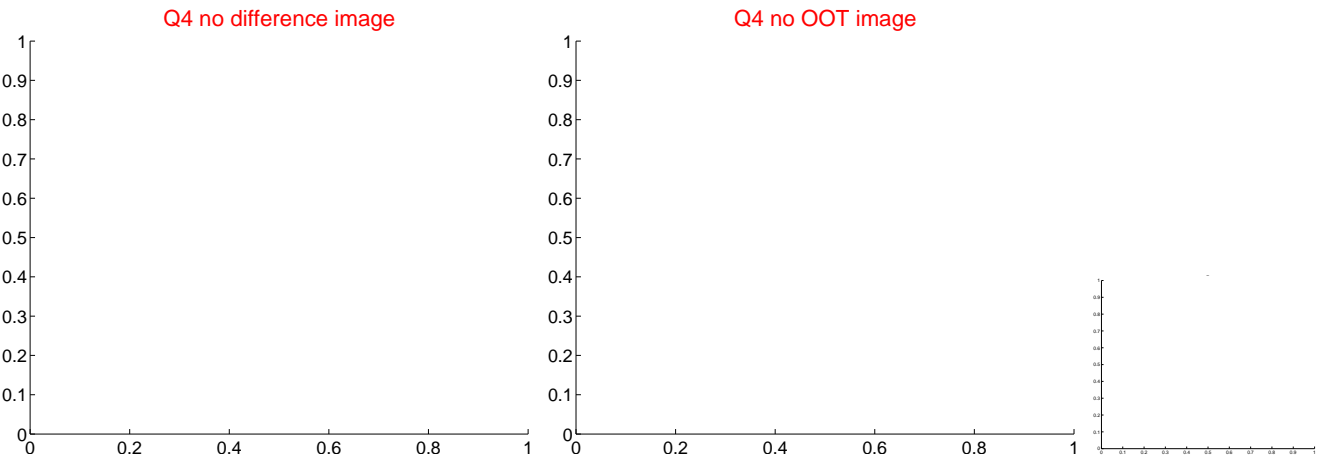
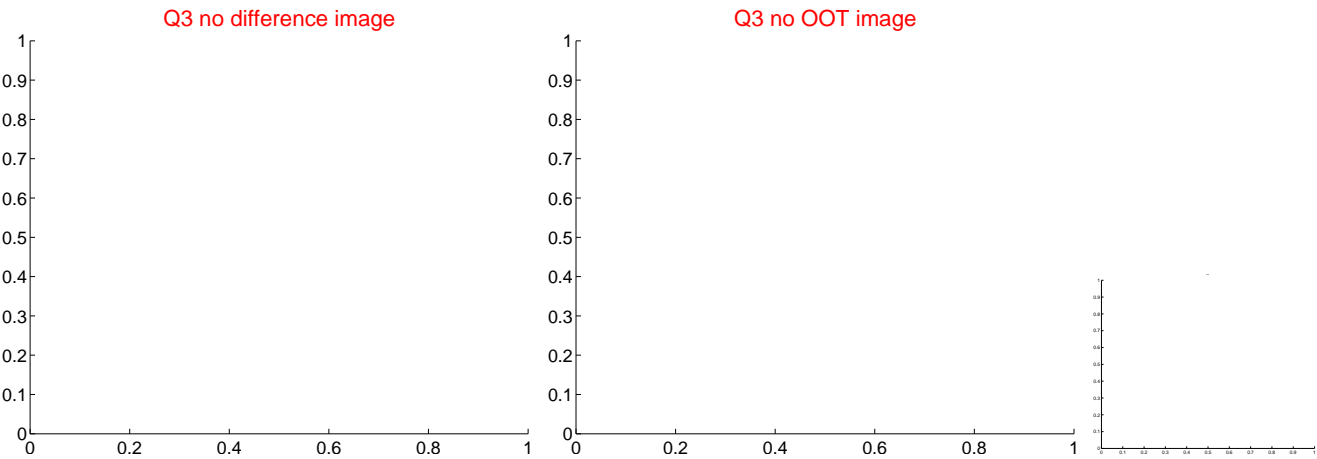
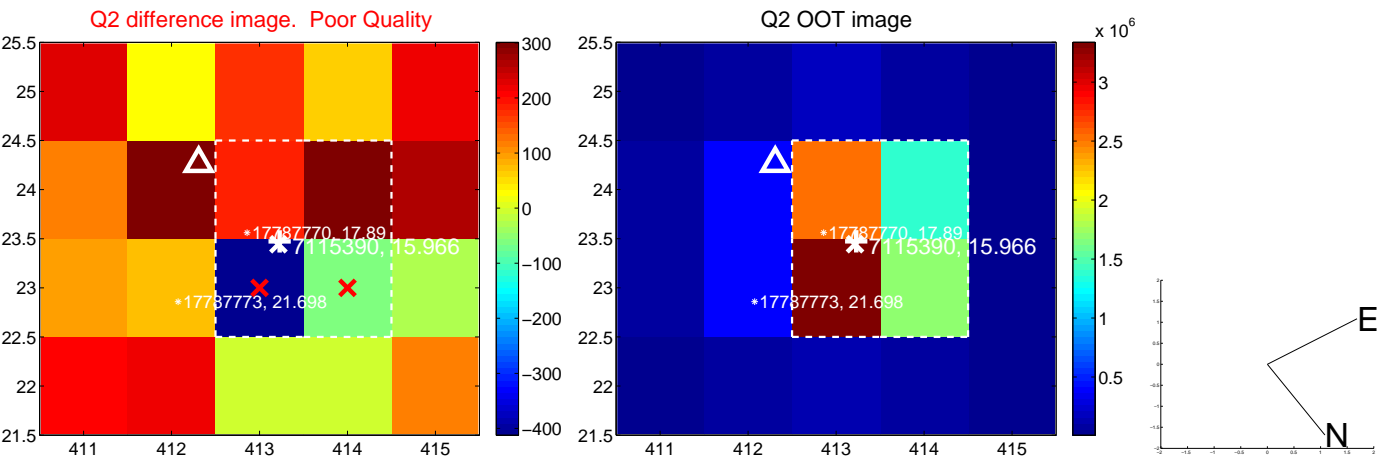
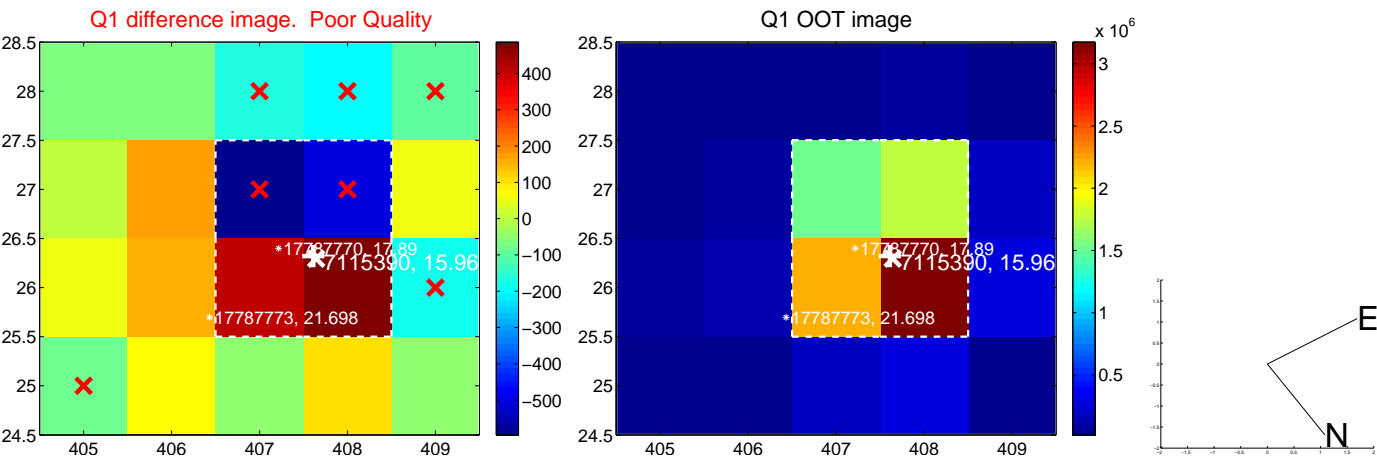
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.587 ± 0.723	3.58	-1.886 ± 0.807	-1.771 ± 0.614
PRF-fit source offset from KIC position	2.690 ± 0.752	3.58	-1.896 ± 0.856	-1.908 ± 0.633
photometric centroid source offset	3.67 ± 1.35	2.72	3.67 ± 1.35	0.03 ± 1.30

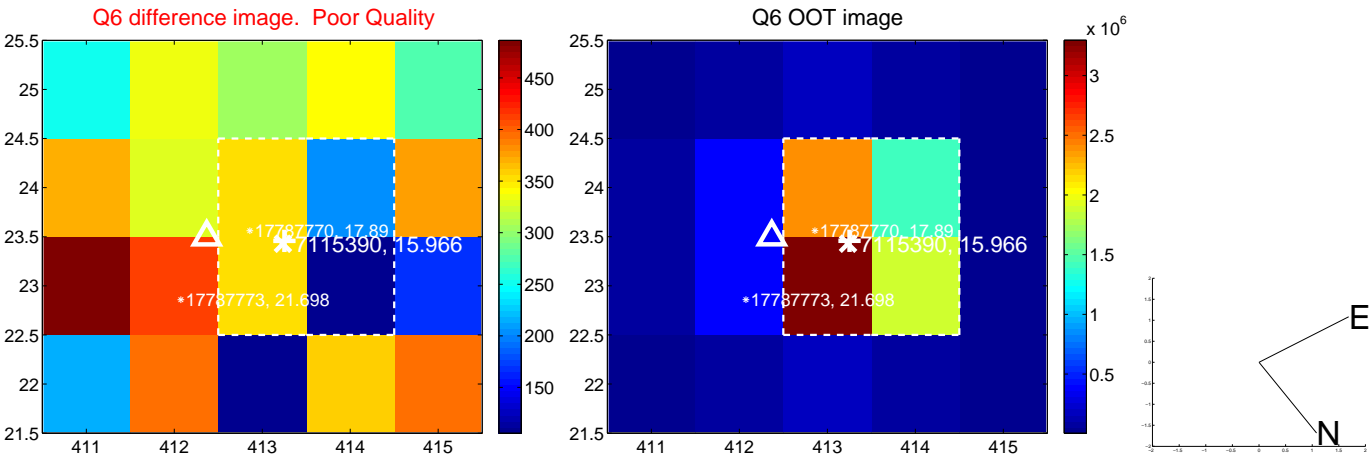
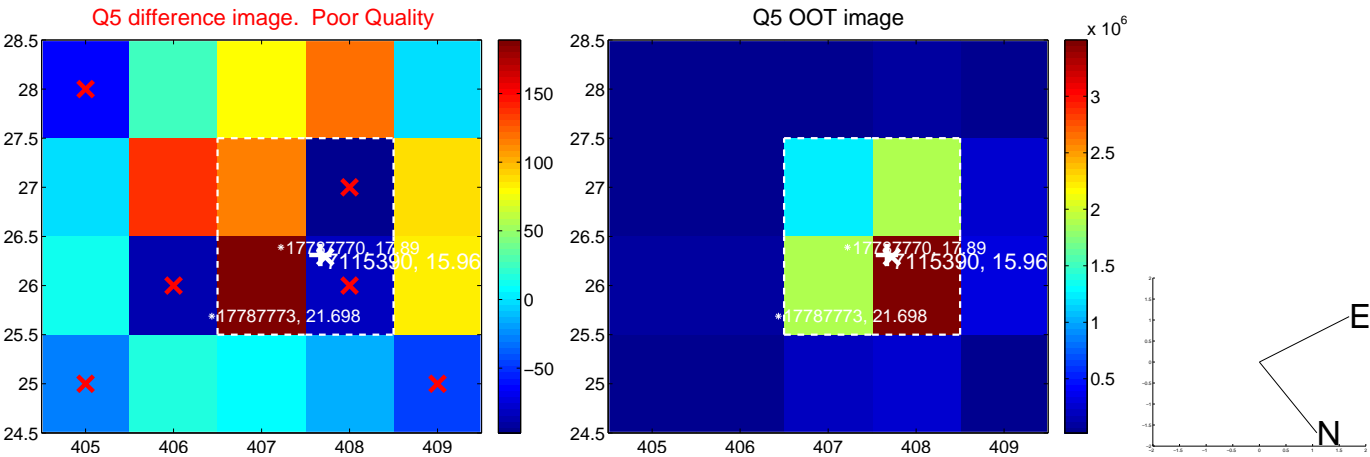


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

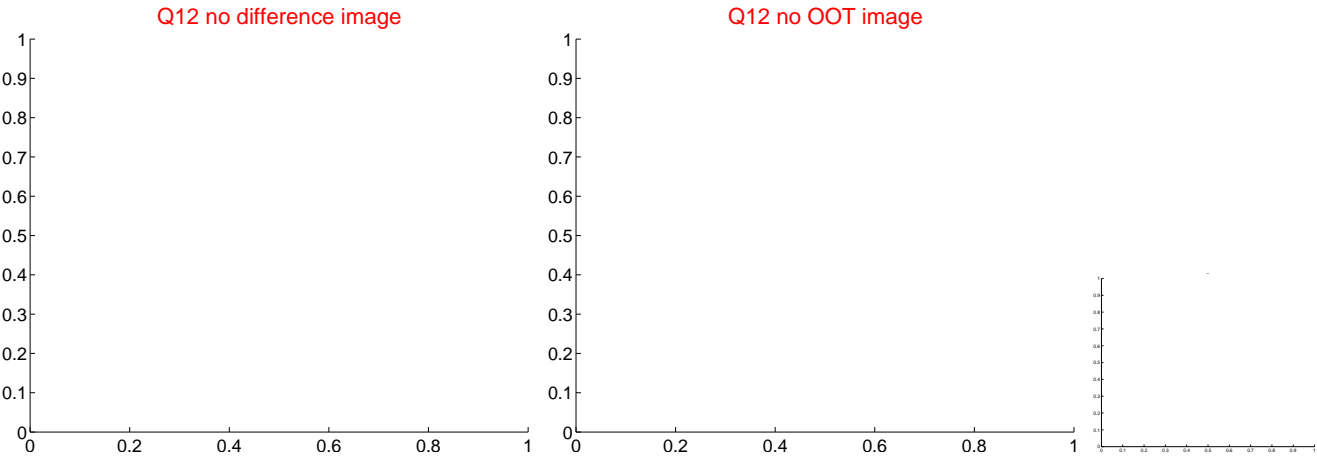
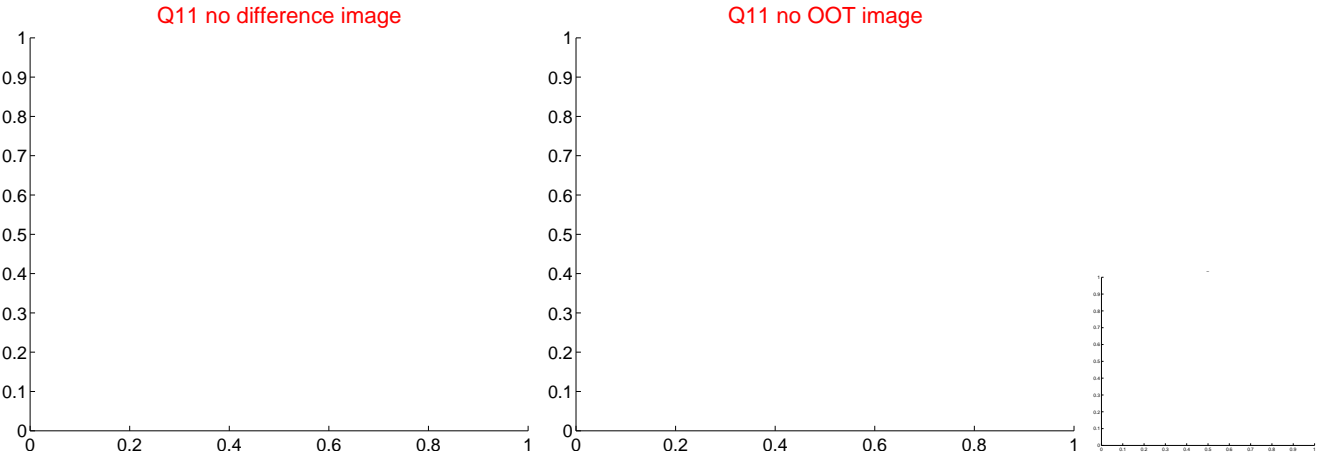
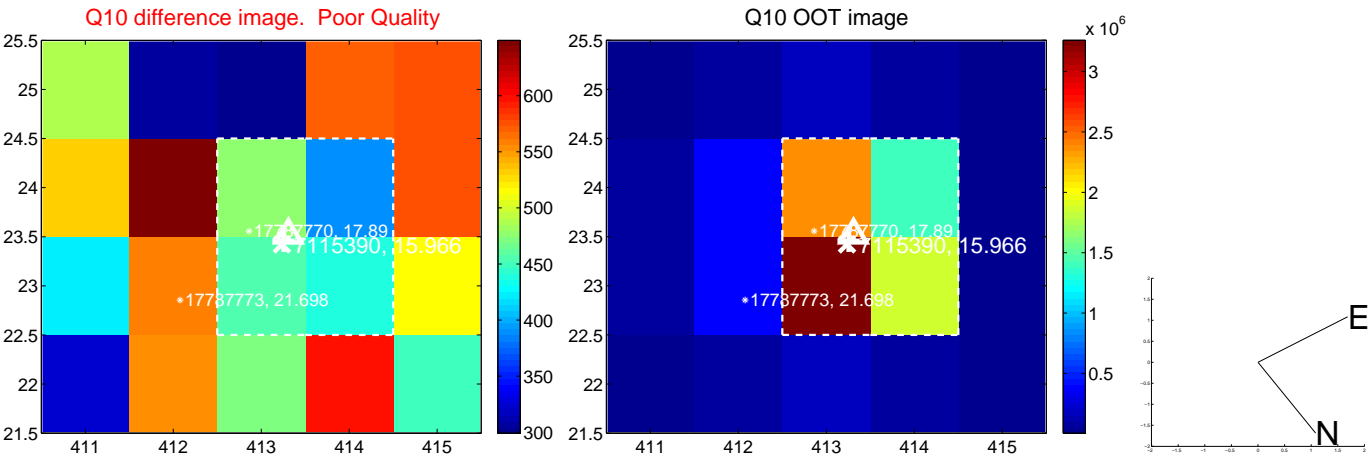
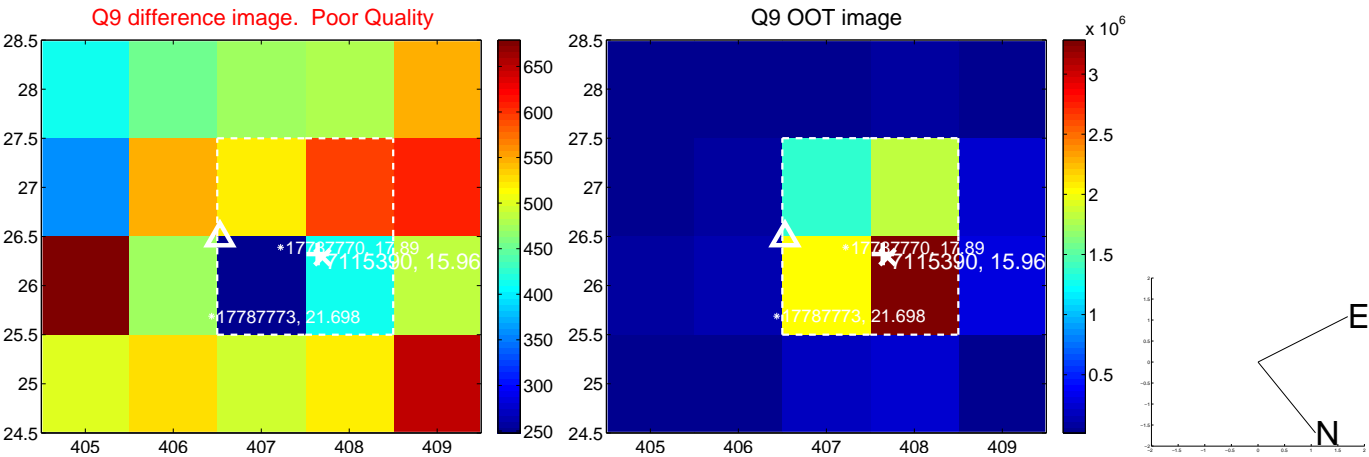
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



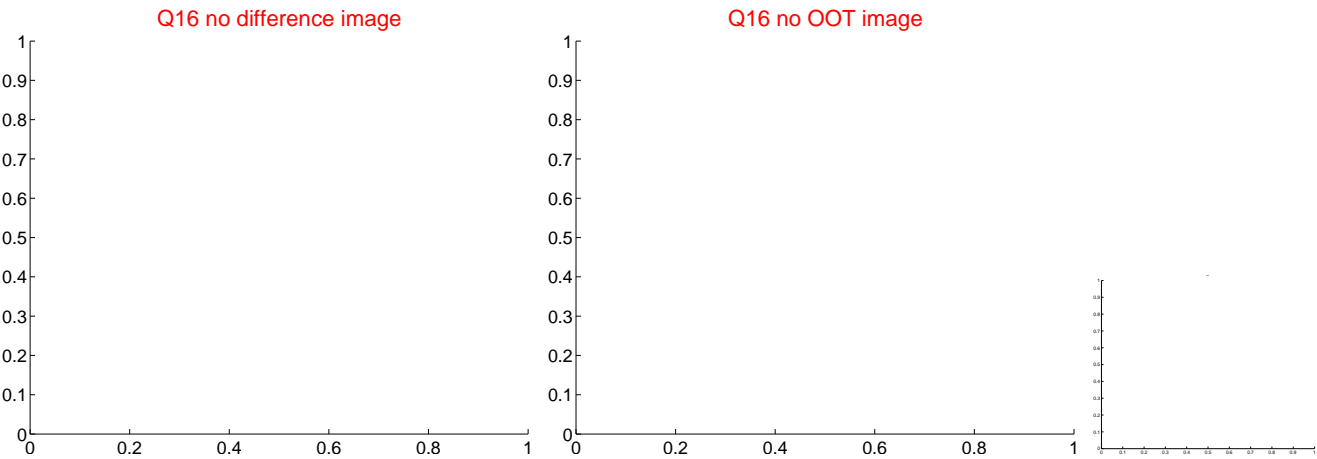
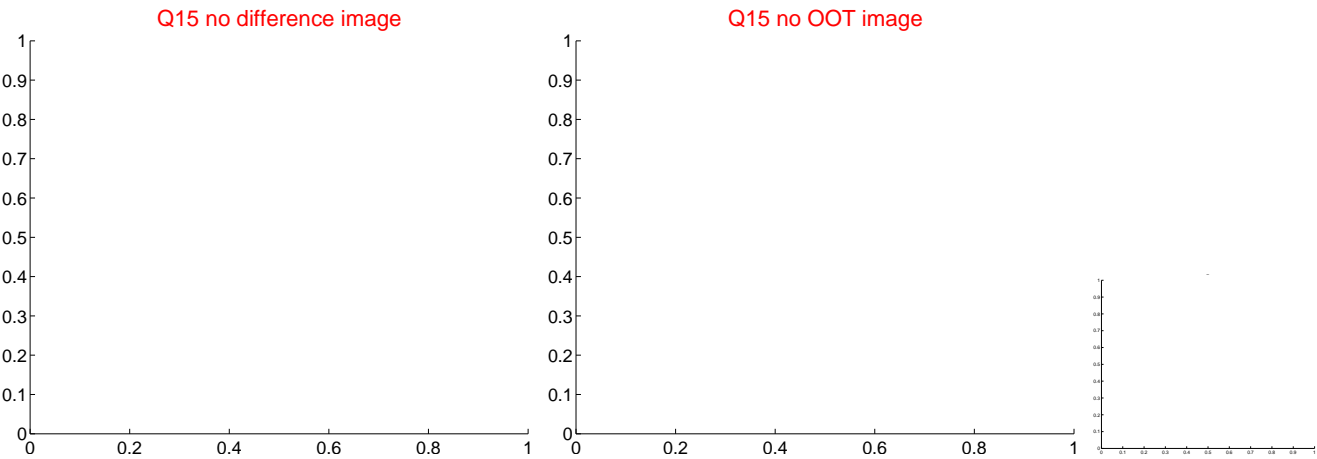
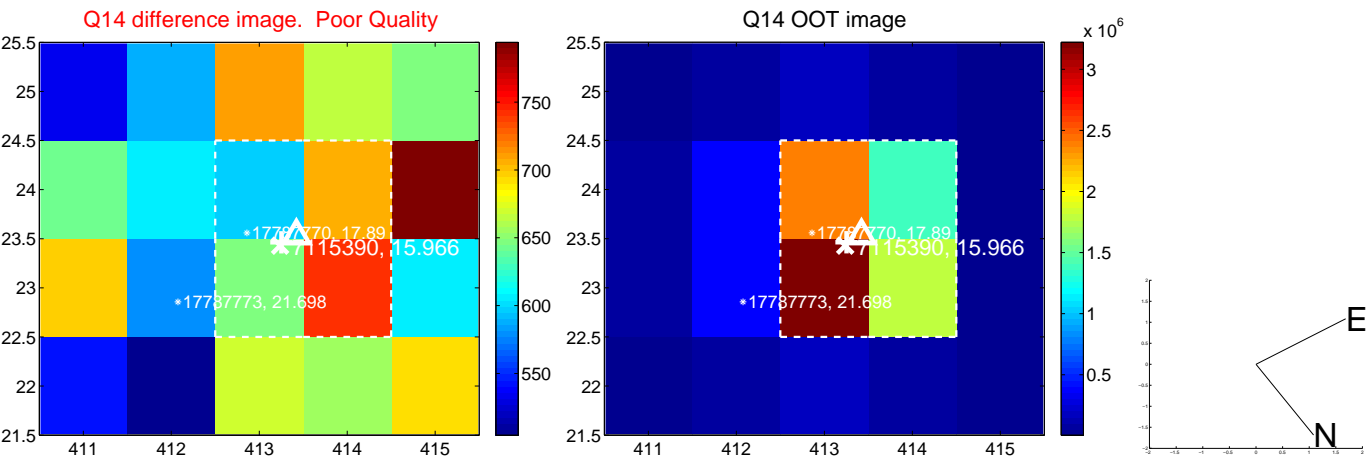
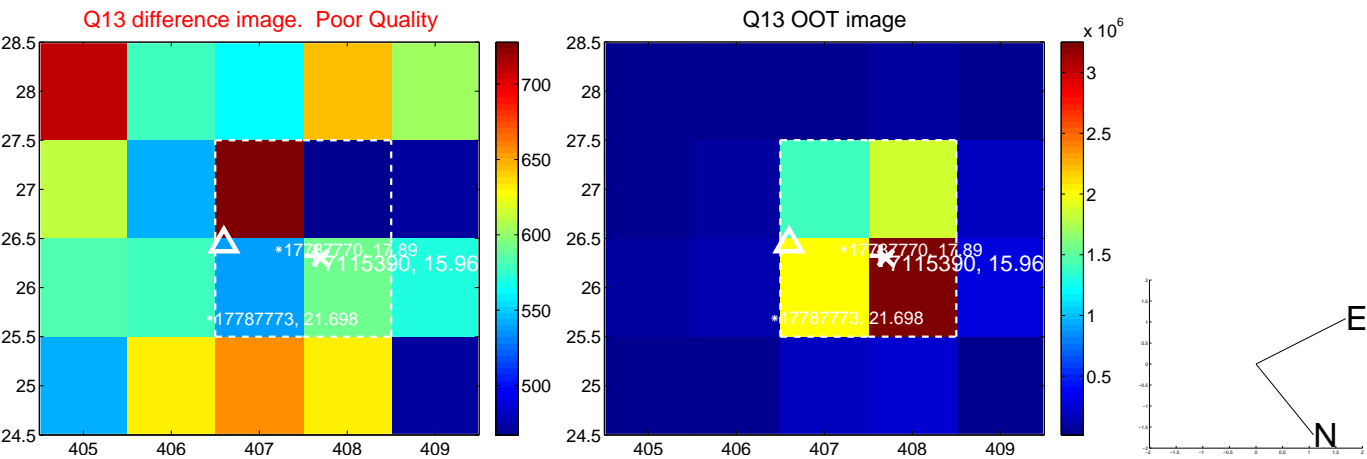
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



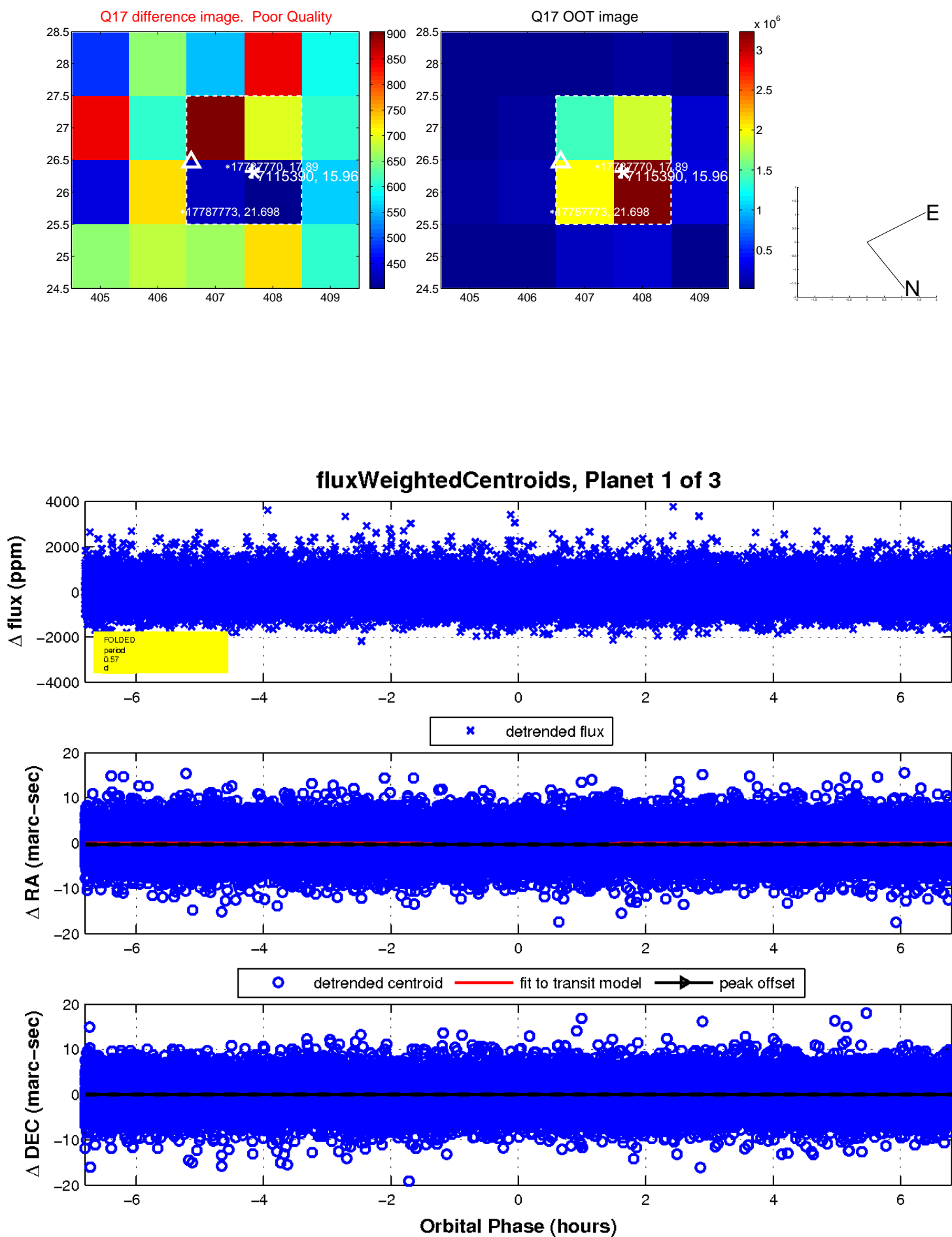
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

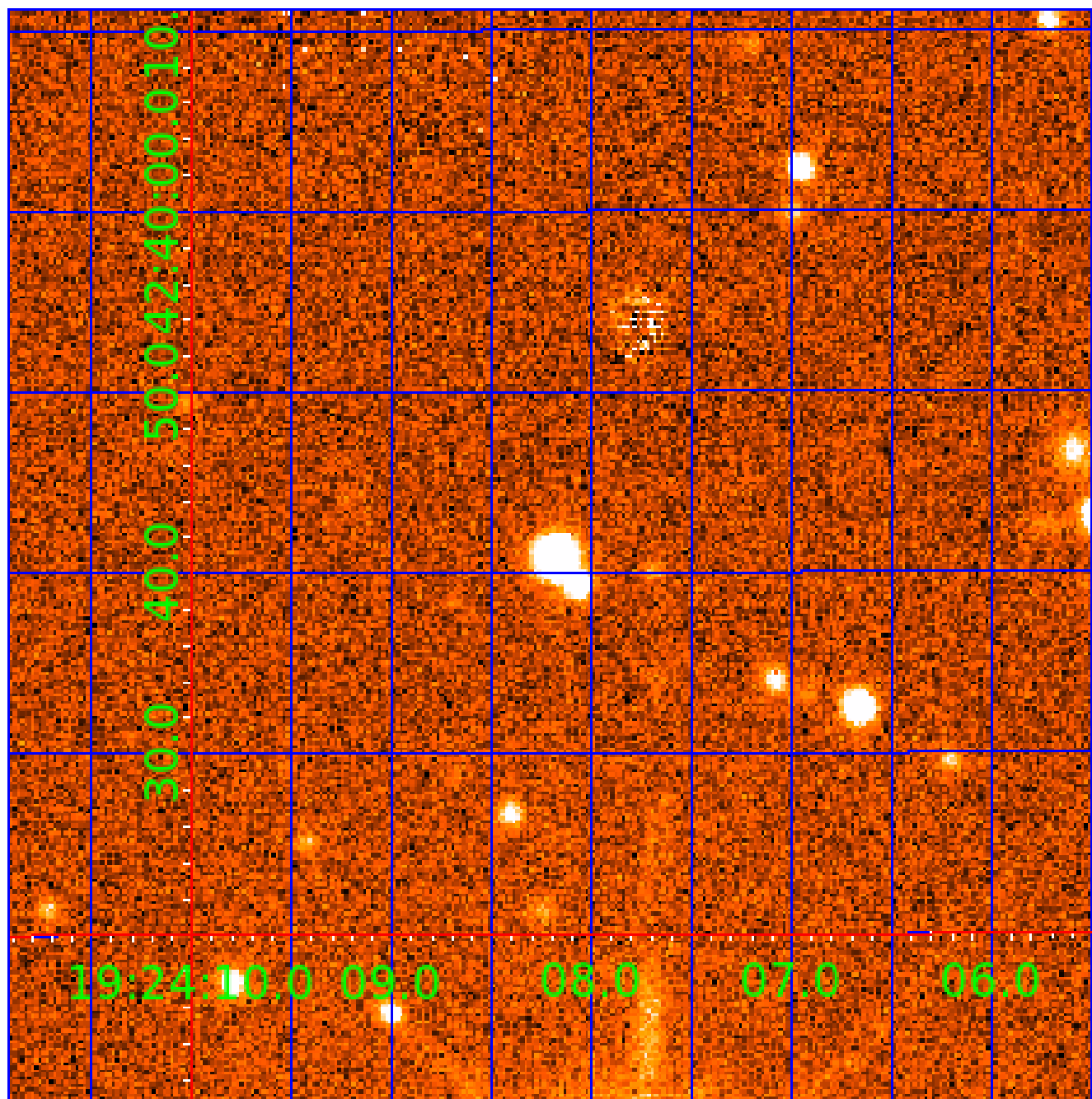


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007115390

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
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007115390-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007115390-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

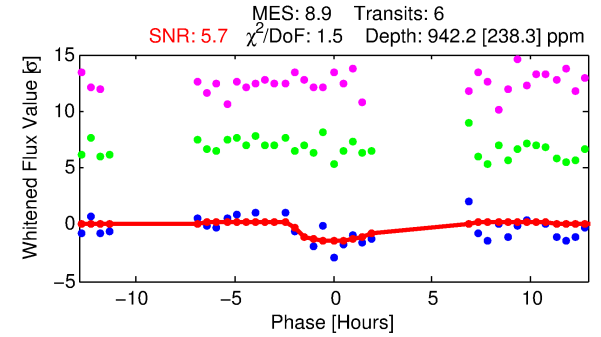
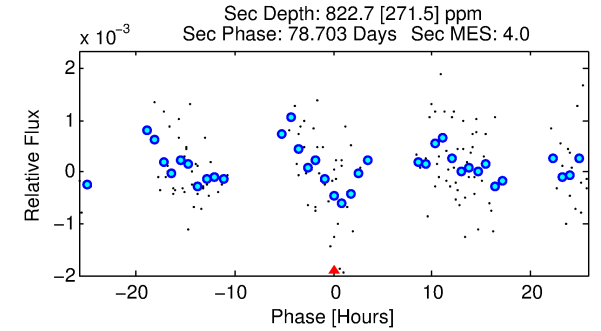
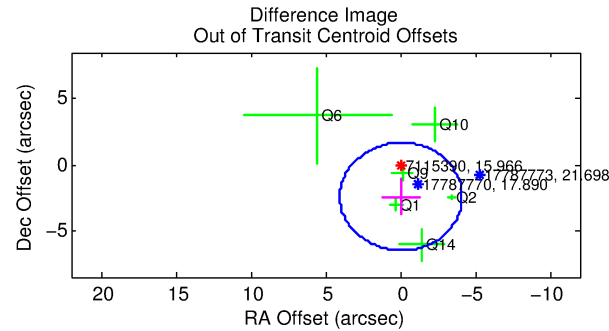
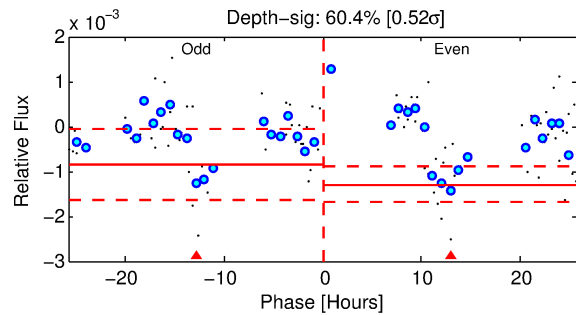
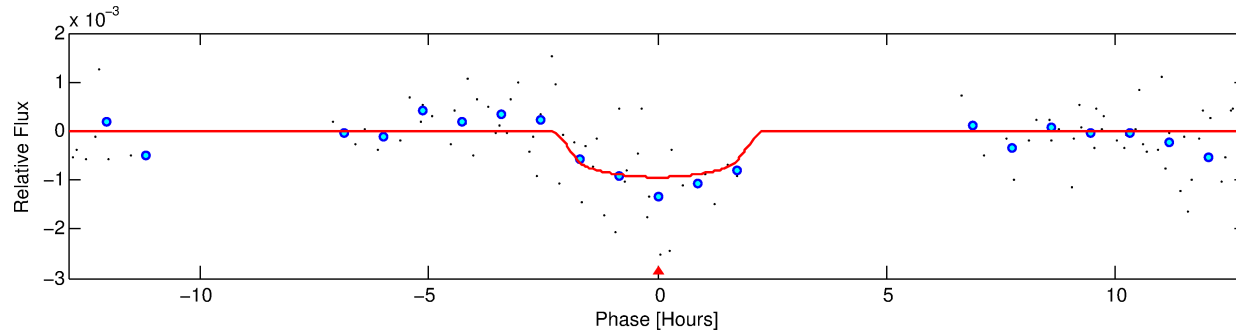
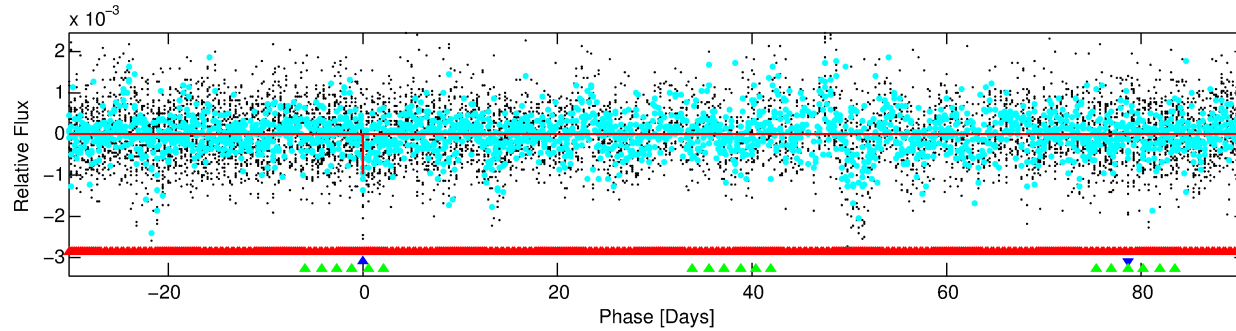
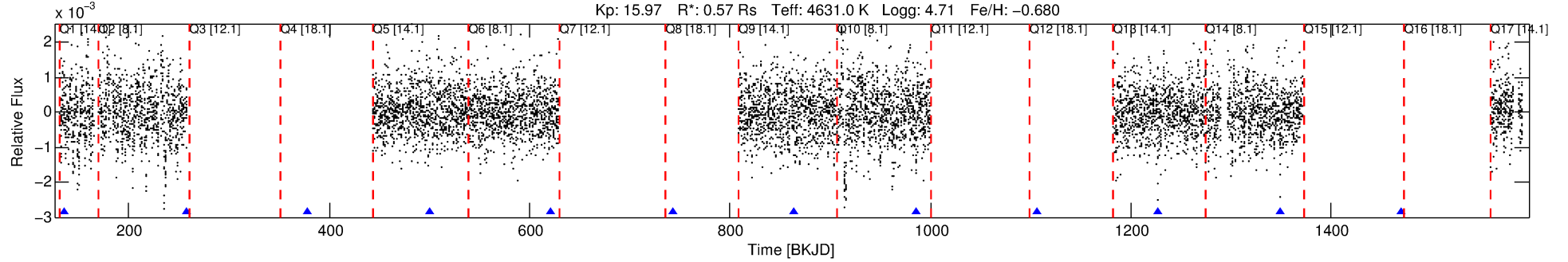
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007115390-02

No Significant Match Found

DV One-Page Summary

KIC: 7115390 Candidate: 2 of 3 Period: 121.268 d



DV Fit Results:

Period = 121.26753 [0.00790] d
Epoch = 136.3027 [0.0658] BKJD
Rp/R* = 0.0308 [0.0560]
a/R* = 150.90 [937.36]
b = 0.76 [3.60]
Seff = 0.81 [0.15]
Teq = 242 [11] K
Rp = 1.91 [3.48] Re
a = 0.4067 [0.0342] AU
Ag = 20490.75 [74831.05] [0.27 σ]
Teffp = 4470 [4082] K [1.04 σ]

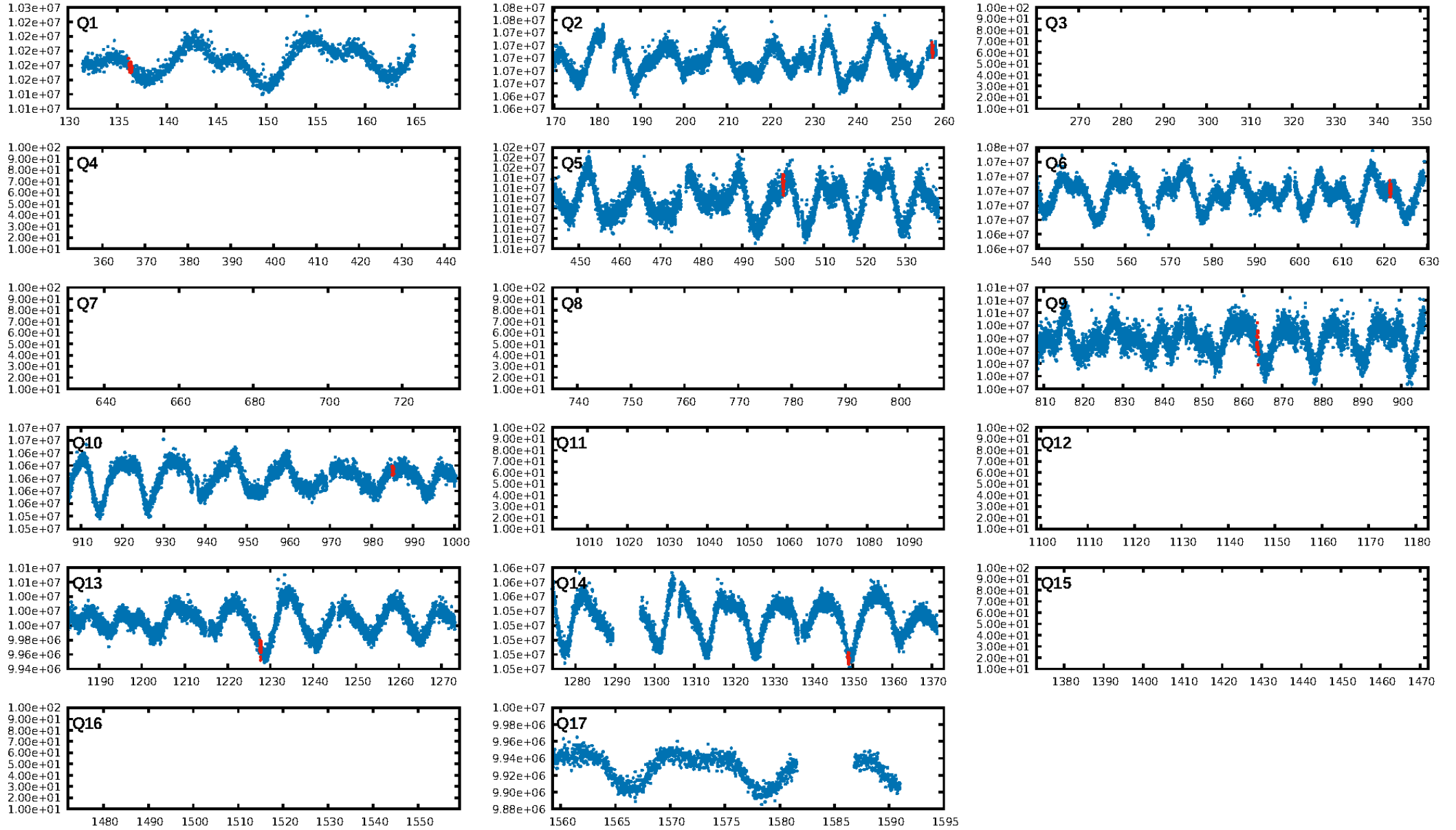
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [167.50 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.45e-14
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.9151
Centroid-sig: 0.2%
Centroid-so: 3.118 arcsec [2.18 σ]
OotOffset-rm: 2.417 arcsec [1.78 σ]
OotOffset-st: 4/0/0/2 [6]
KicOffset-rm: 2.500 arcsec [1.63 σ]
KicOffset-st: 4/0/0/2 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.00 [0/8]

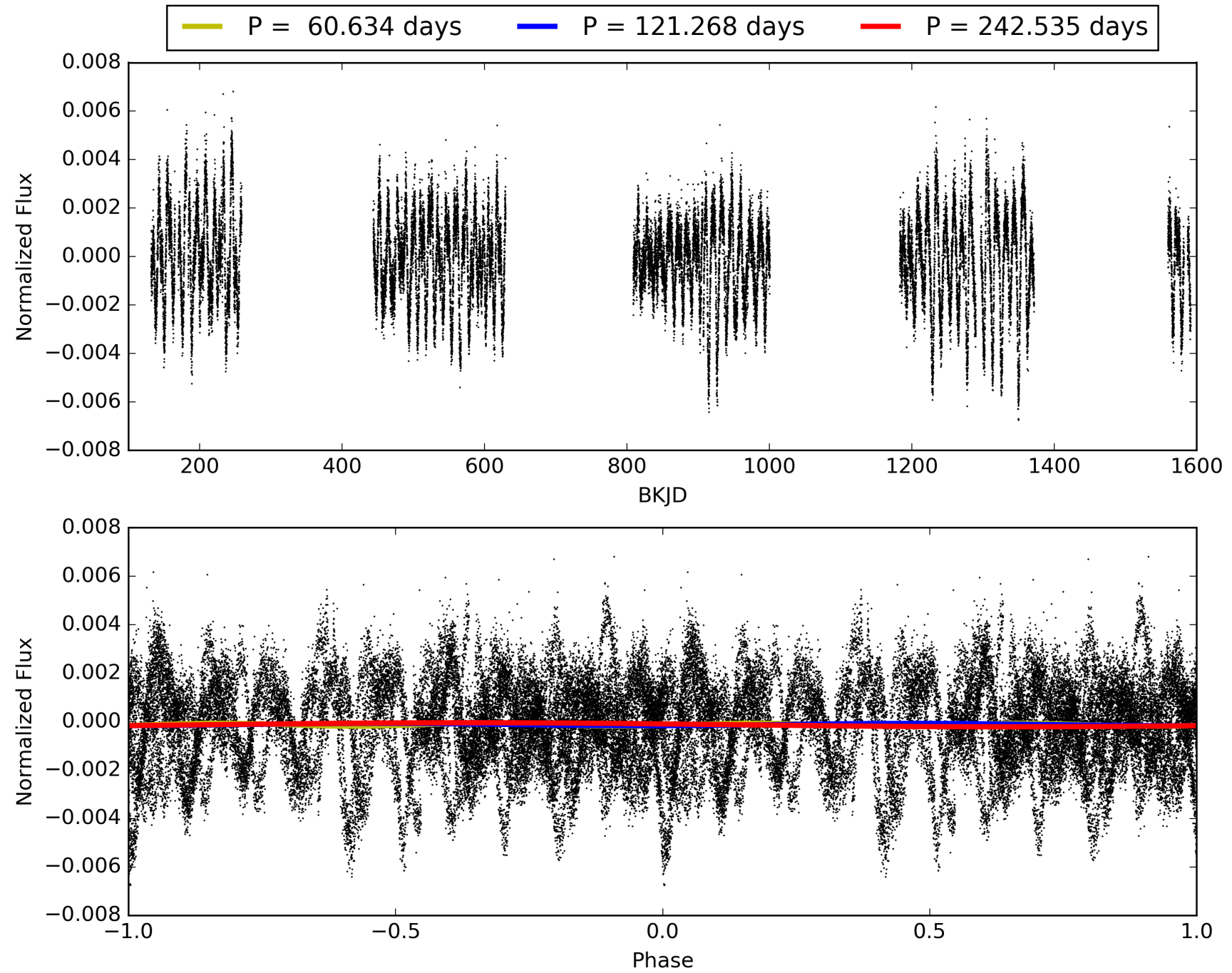
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:25:29 Z

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

TCE 007115390-02, PDC Light Curves

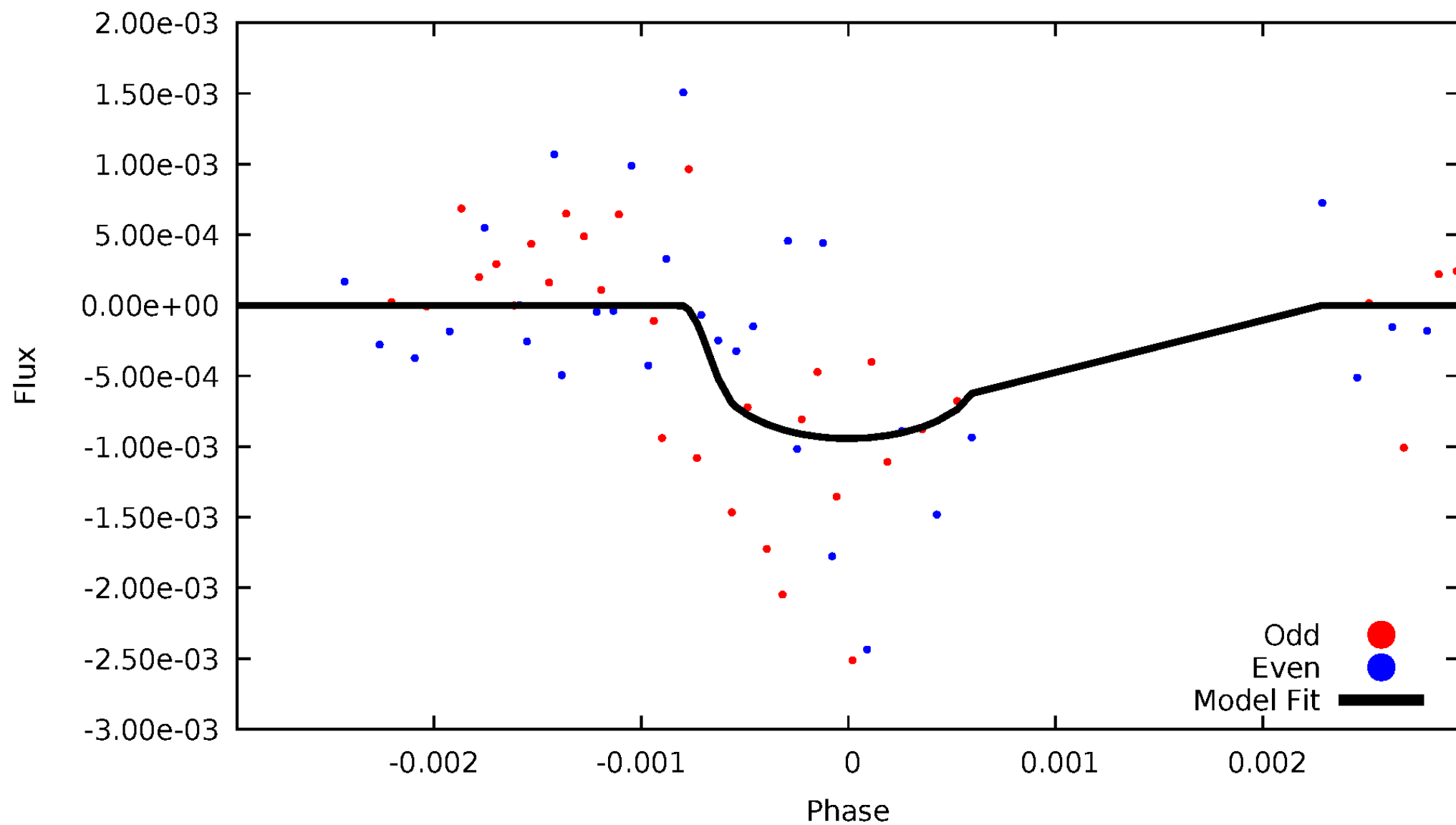


TCE 007115390-02



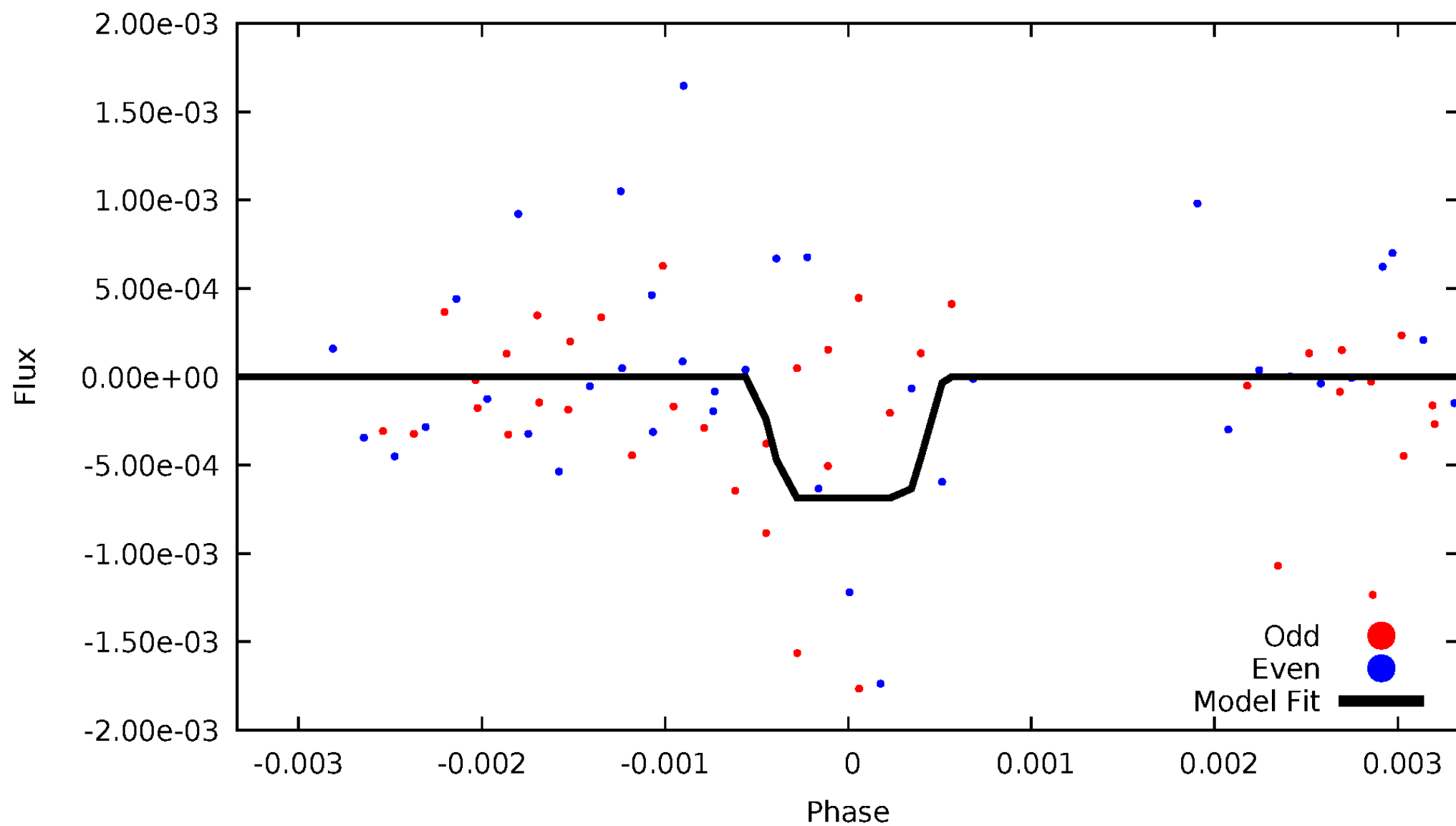
DV Odd/Even

TCE 007115390-02



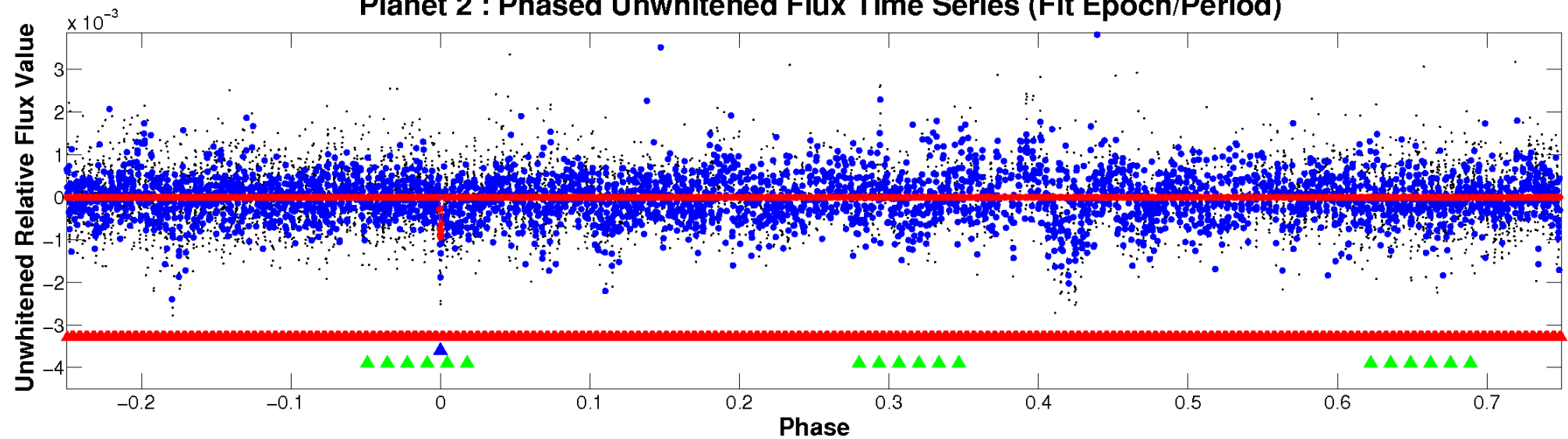
ALT Odd/Even

TCE 007115390-02

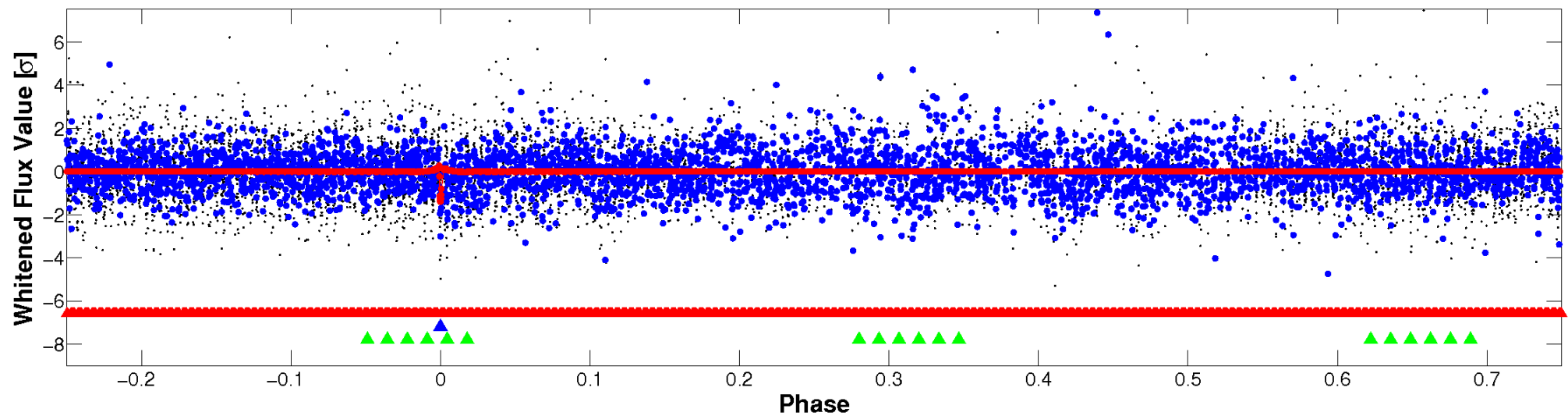


Non-Whitened Vs. Whitened Light Curve

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

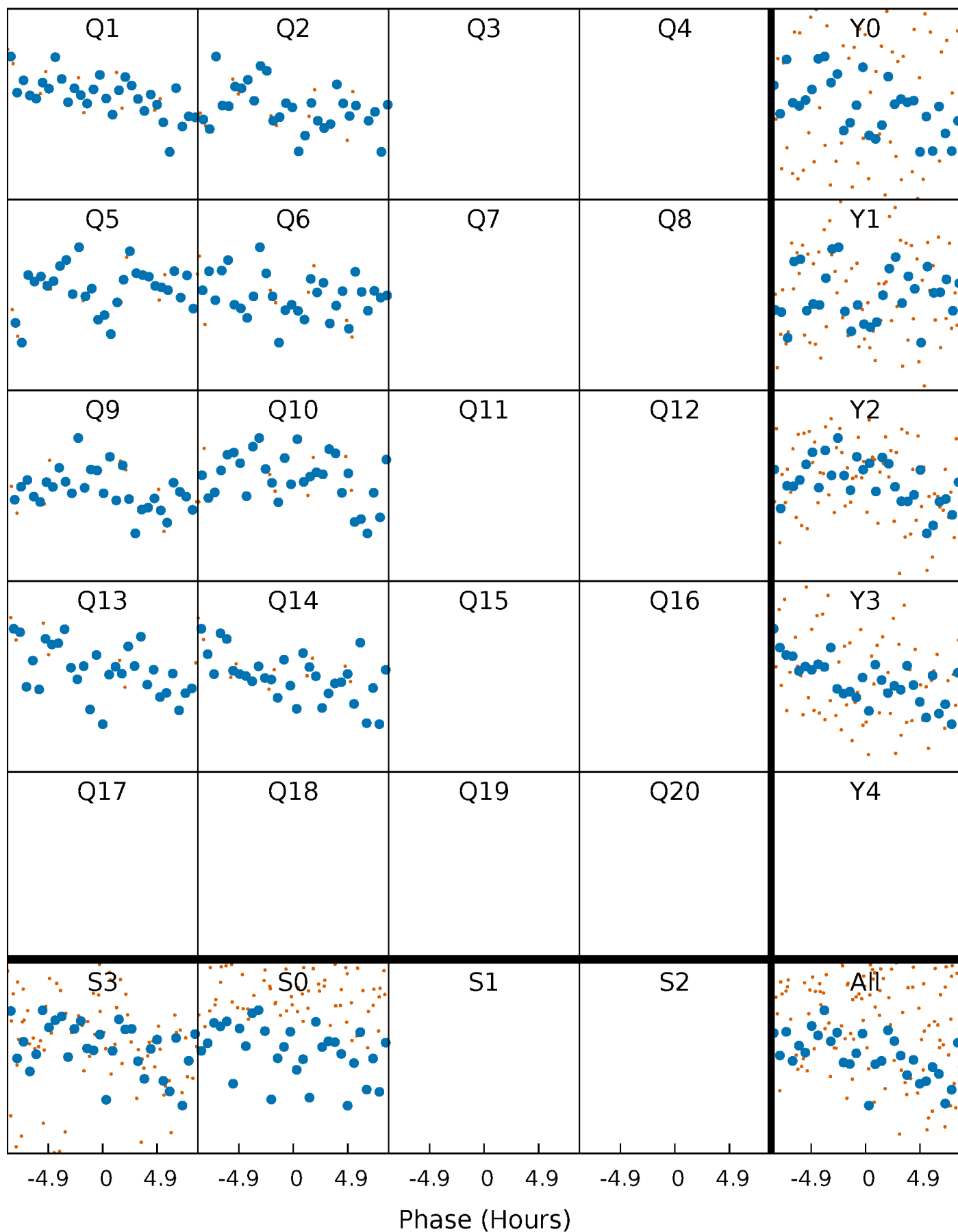


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



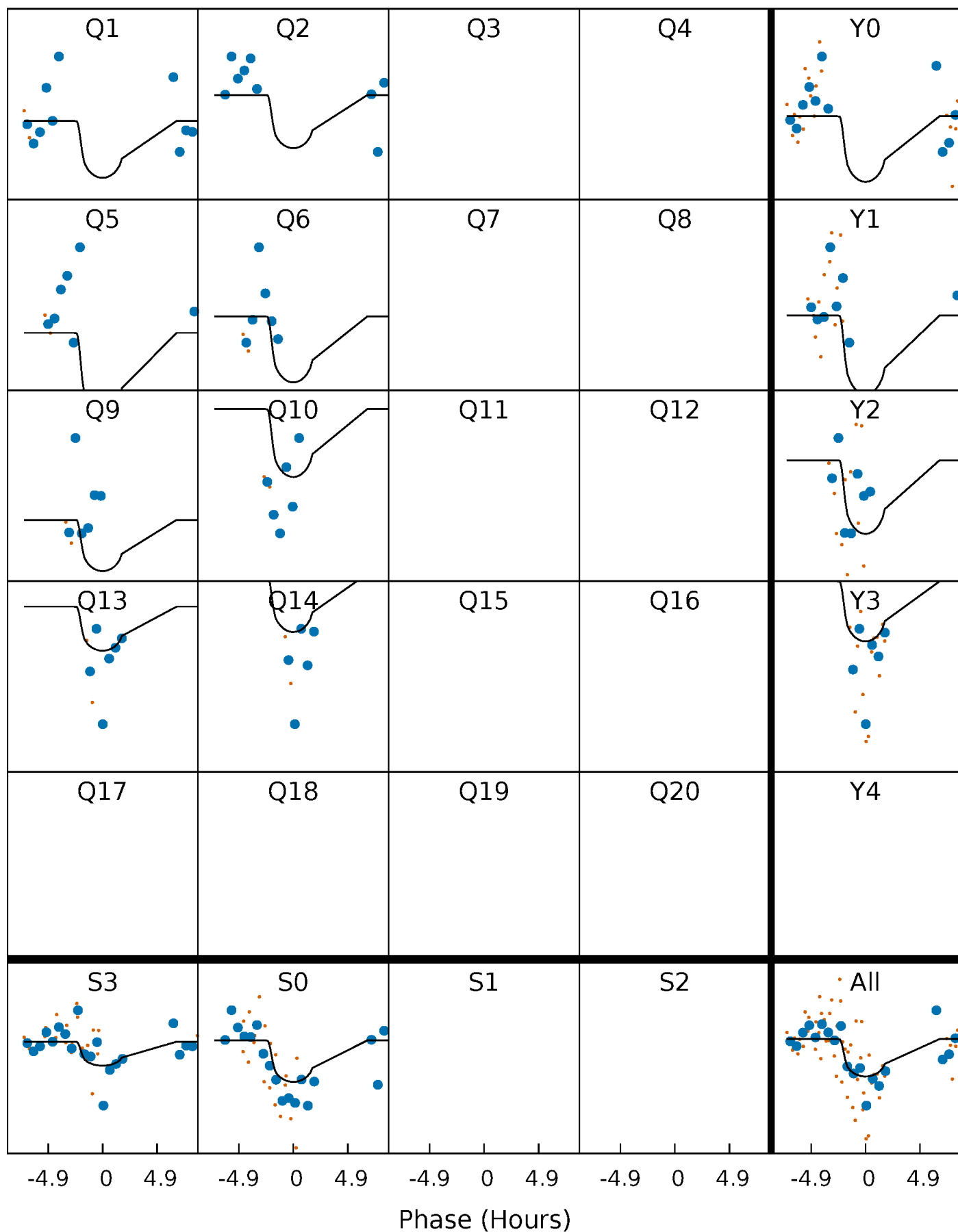
PDC Quarter-Phased Transit Curves

TCE 007115390-02 P=121.267532 Days $T_0=136.302726$ (BKJD)



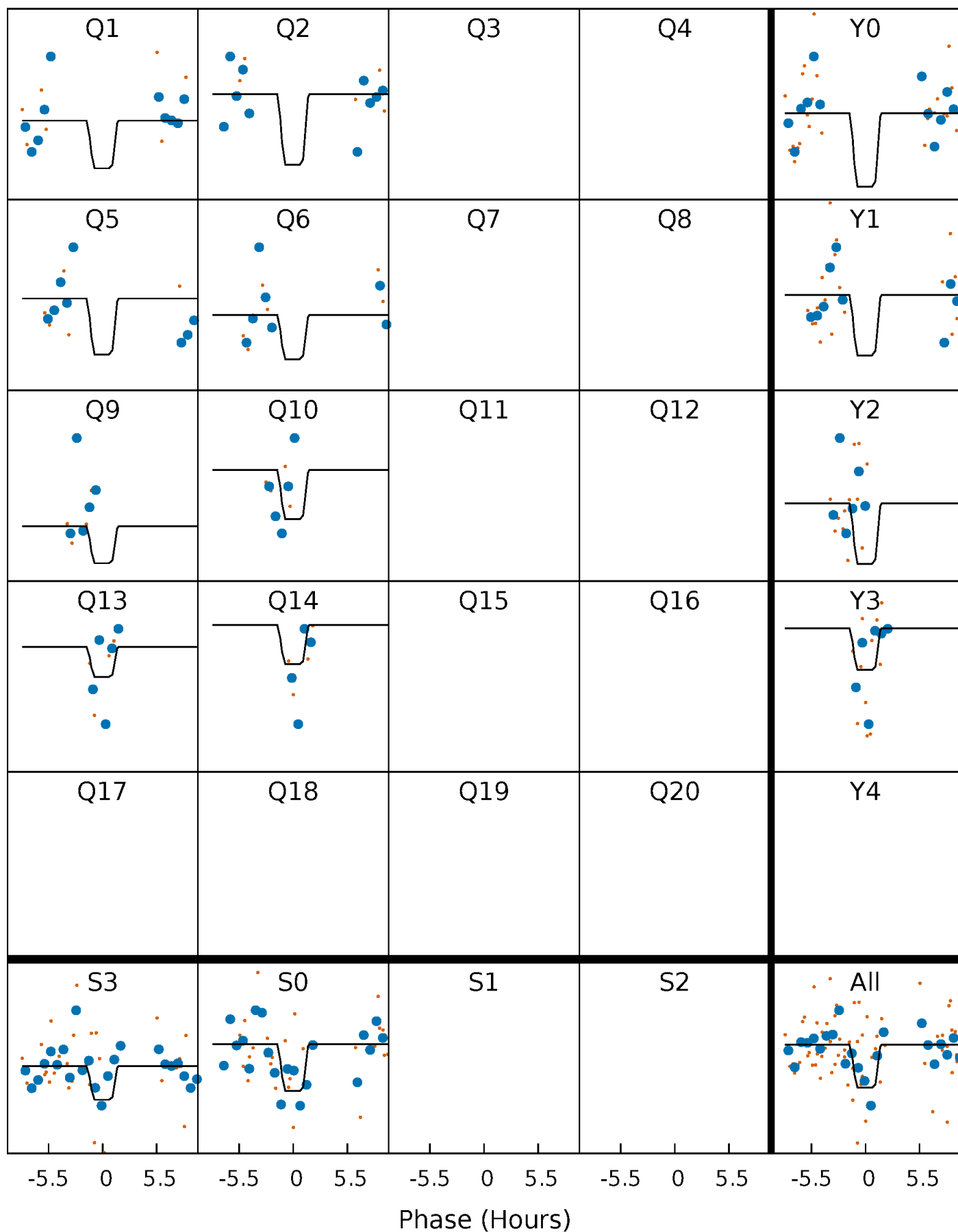
DV Quarter-Phased Transit Curves

TCE 007115390-02 $P=121.267532$ Days $T_0=136.302726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

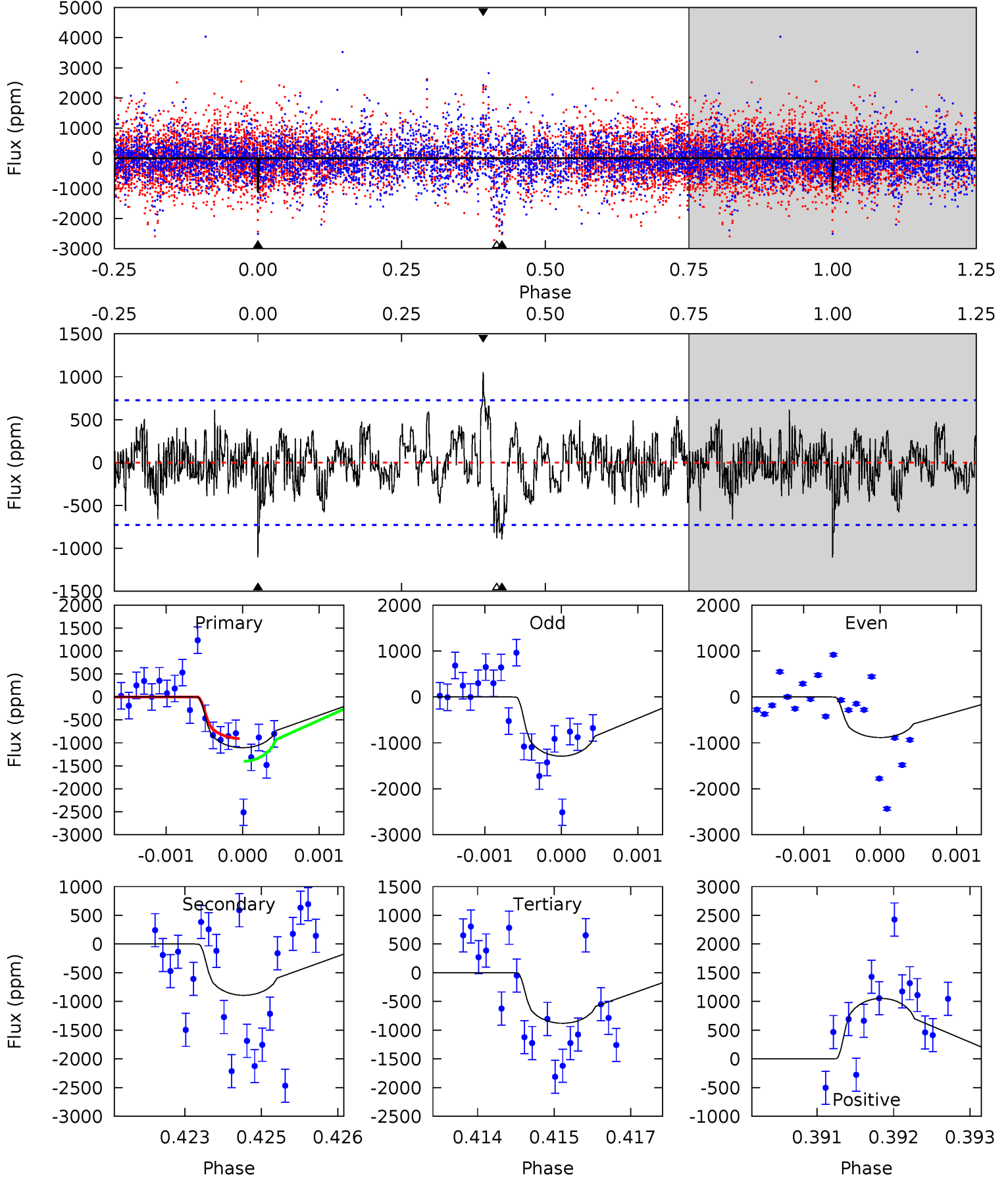
TCE 007115390-02 P=121.261856 Days $T_0=136.349119$ (BKJD)



DV Model-Shift Uniqueness Test

007115390-02, P = 121.267532 Days, E = 15.035194 Days

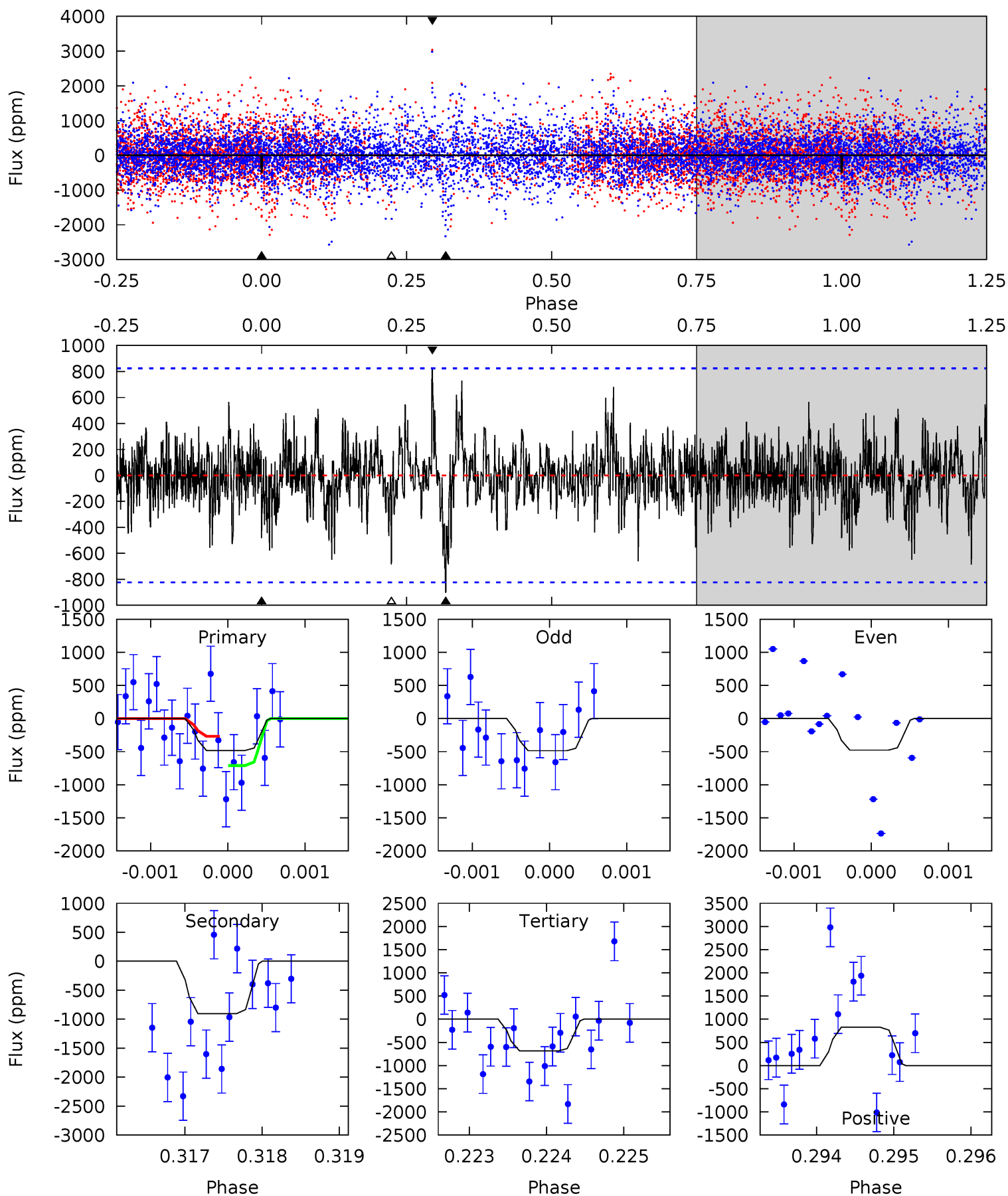
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.22	6.64	6.54	7.83	5.40	3.20	1.65	1.68	0.40	0.10	-1.19	1.50	0.70	0.49	1.72



Alt Model-Shift Uniqueness Test

007115390-02, $P = 121.261856$ Days, $E = 15.087263$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.20	5.97	4.54	5.48	5.45	3.29	1.22	-1.35	-2.28	1.43	0.49	0.03	0.61	0.48	1.45



Stellar Parameters For KIC 007115390

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4631^{+166}_{-166}	$4.713^{+0.027}_{-0.058}$	$-0.680^{+0.300}_{-0.300}$	$0.569^{+0.061}_{-0.038}$	$0.607^{+0.053}_{-0.048}$	$4.650^{+0.597}_{-0.933}$
	+4%/-4%	+1%/-1%	+44%/-44%	+11%/-7%	+9%/-8%	+13%/-20%
Source	KIC0	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 007115390-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-894 ± 135	$3.37^{+2.94}_{-2.35}$	340^{+14}_{-15}	3725^{+2256}_{-650}	7086^{+68213}_{-5085}
Alt.	-903 ± 151	$3.13^{+3.00}_{-2.13}$	340^{+14}_{-14}	3805^{+2291}_{-724}	7795^{+70088}_{-5656}

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 $A_{obs} \gg 1.0$

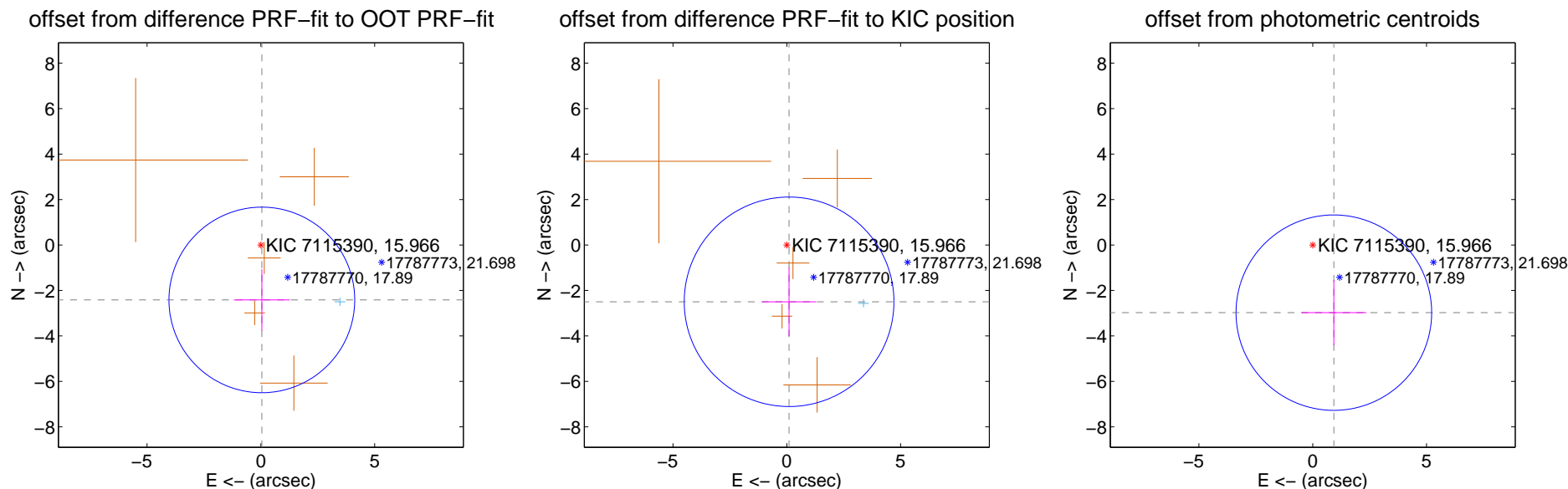
DV Centroid Data

Supplemental centroid analysis for 007115390-02. Kepler magnitude: 15.97. Transit SNR 5.73

There are 1 quarters with good PRF difference image offsets

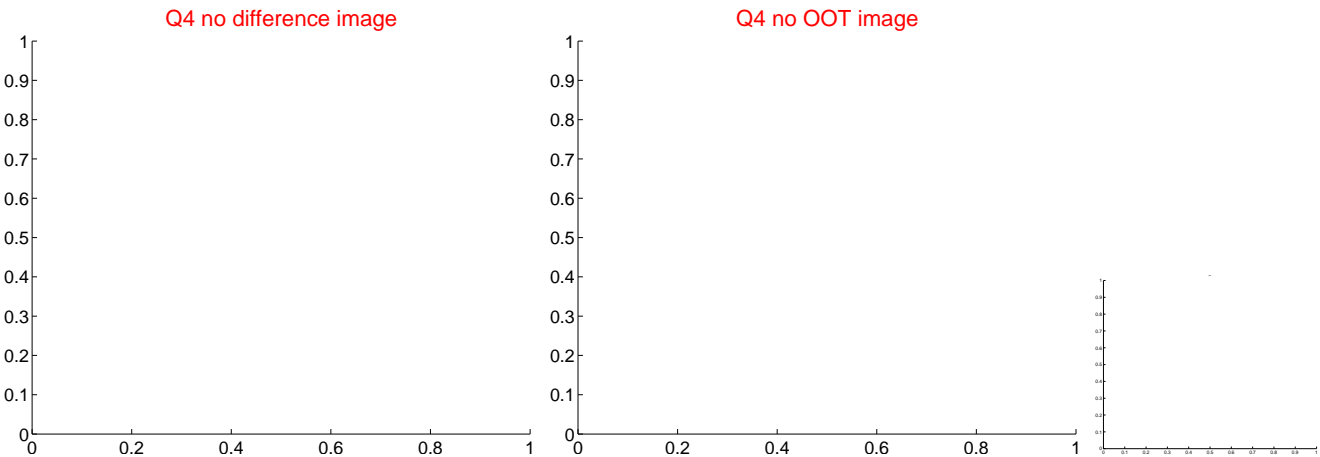
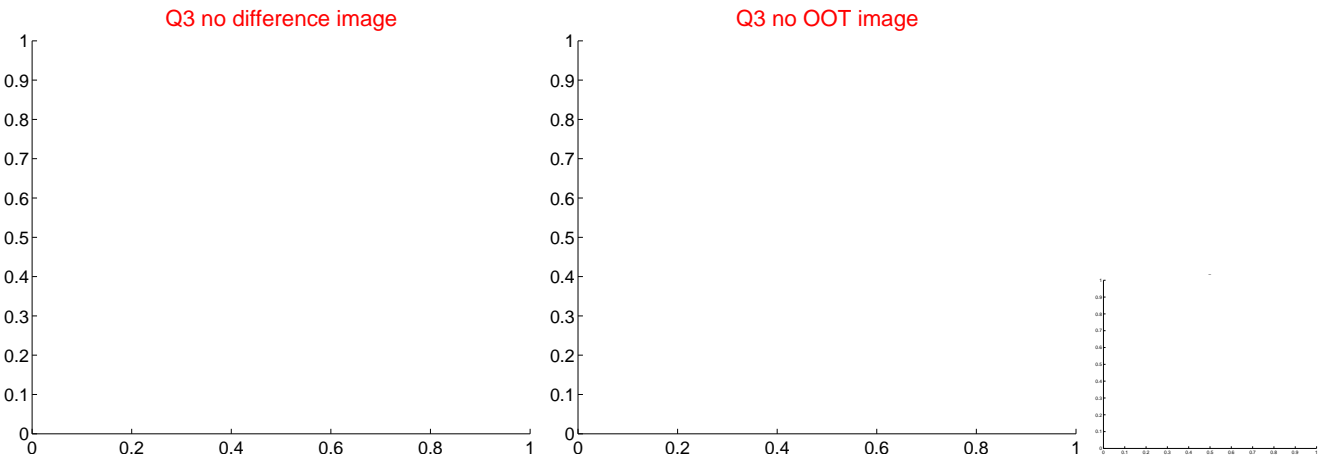
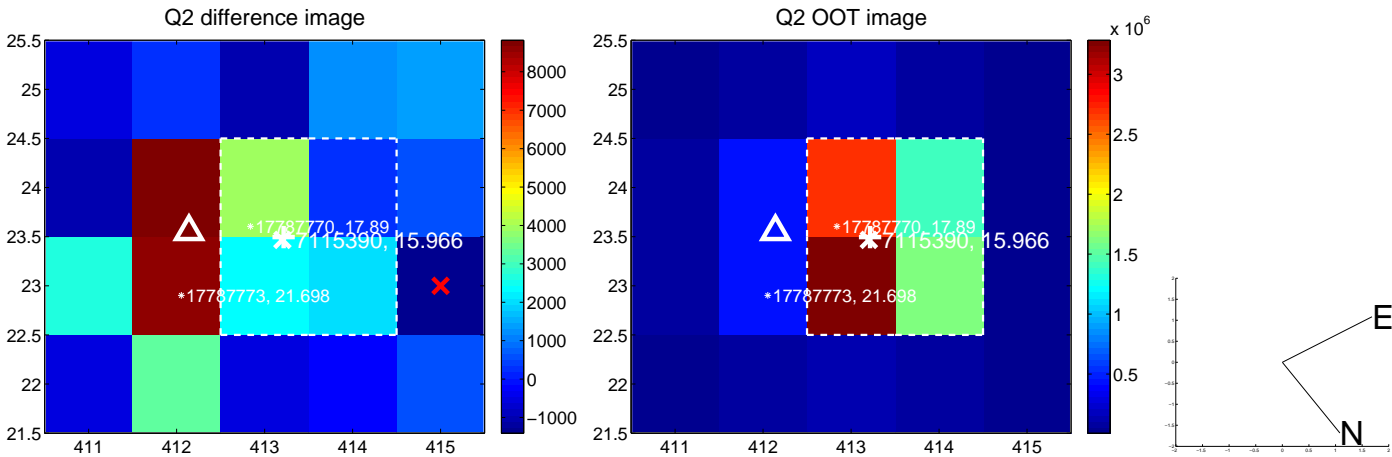
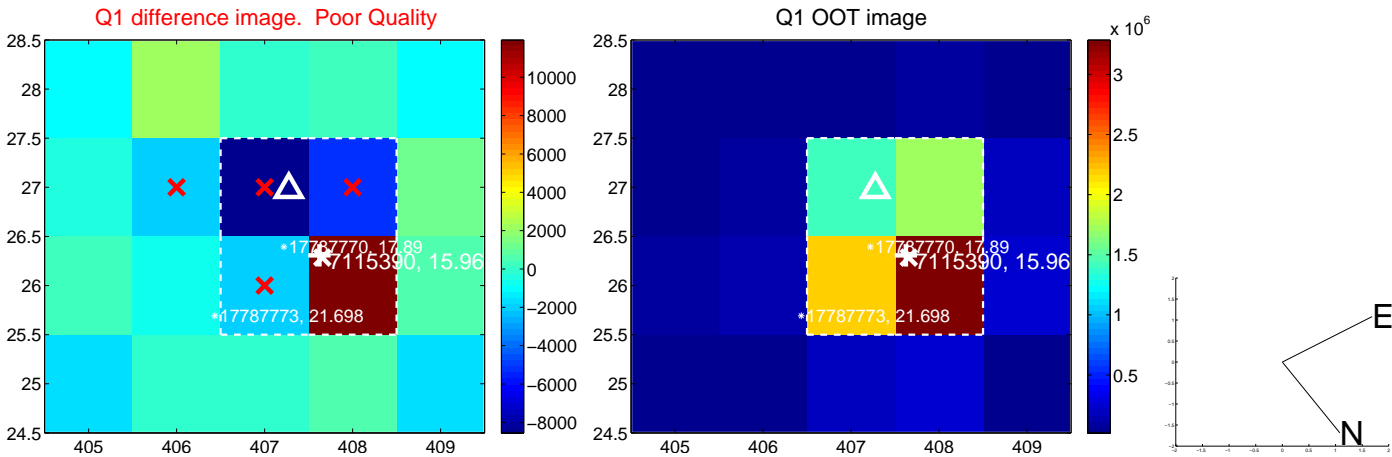
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.417 ± 1.361	1.78	-0.043 ± 1.233	-2.417 ± 1.349
PRF-fit source offset from KIC position	2.500 ± 1.536	1.63	-0.101 ± 1.190	-2.498 ± 1.513
photometric centroid source offset	3.12 ± 1.43	2.18	-0.93 ± 1.43	-2.98 ± 1.43

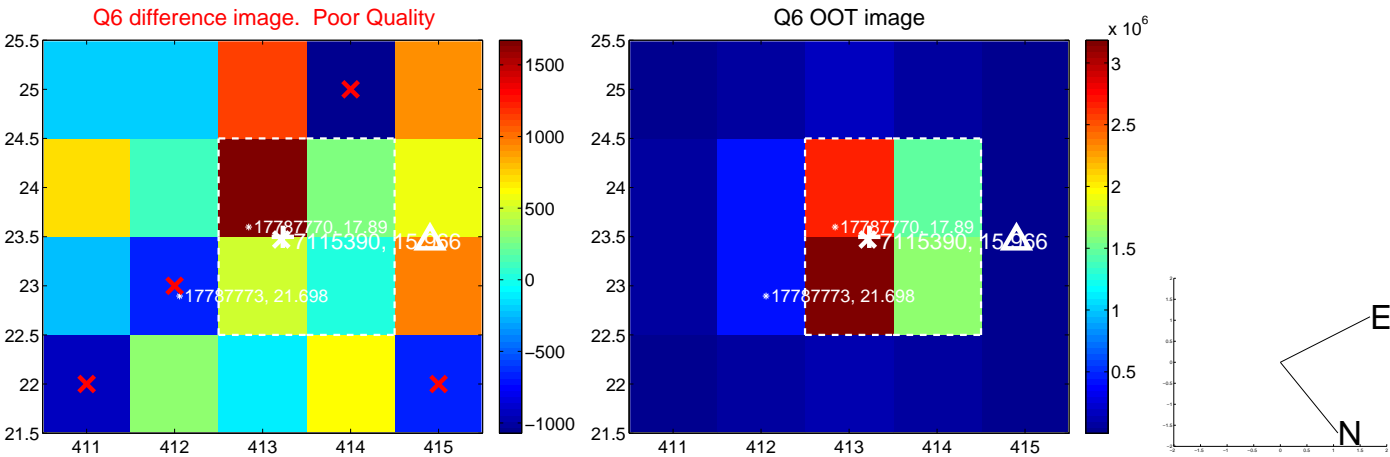
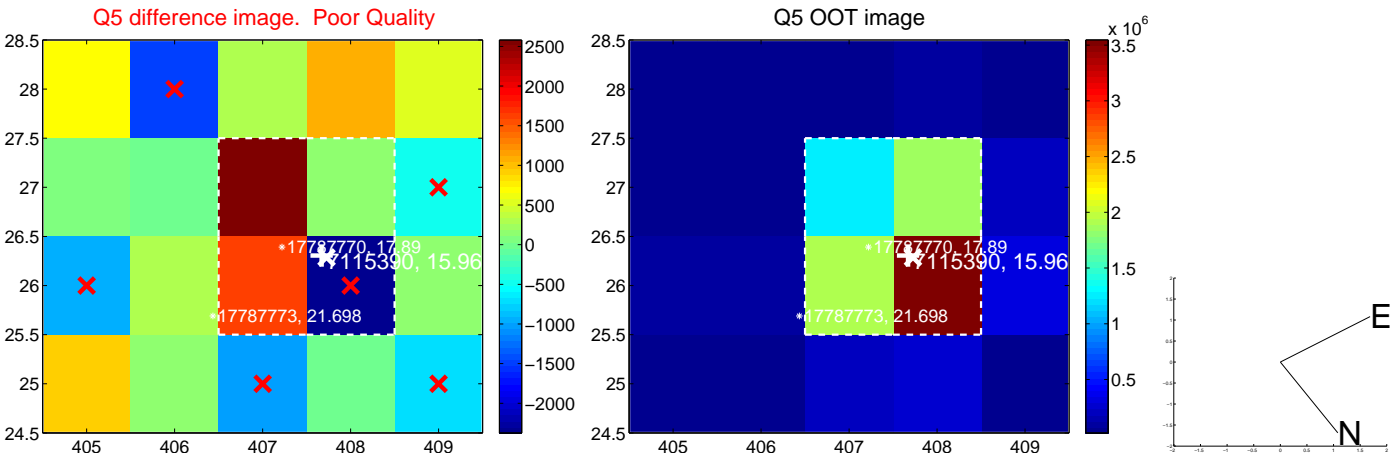


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

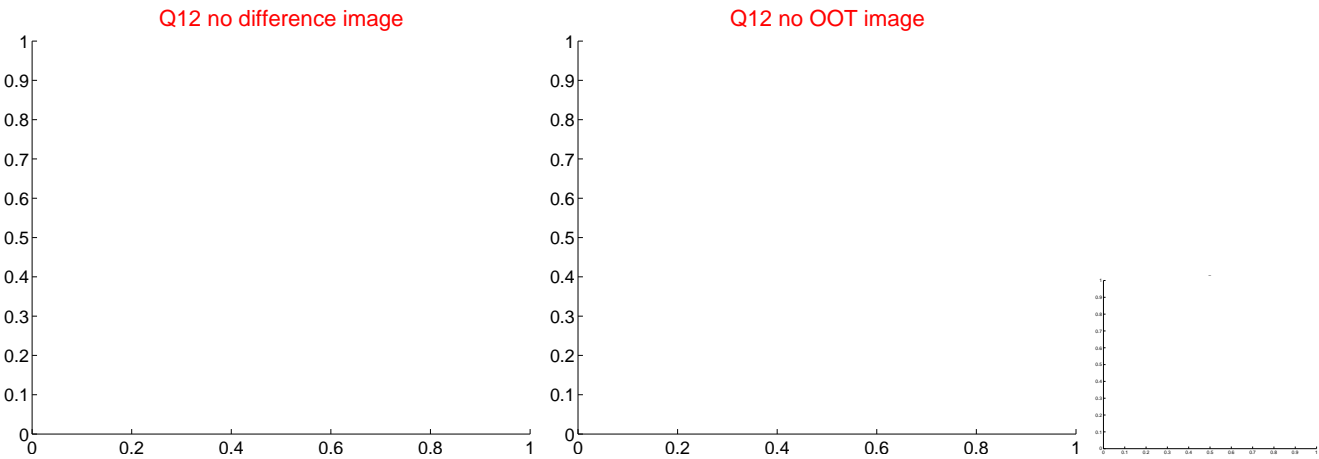
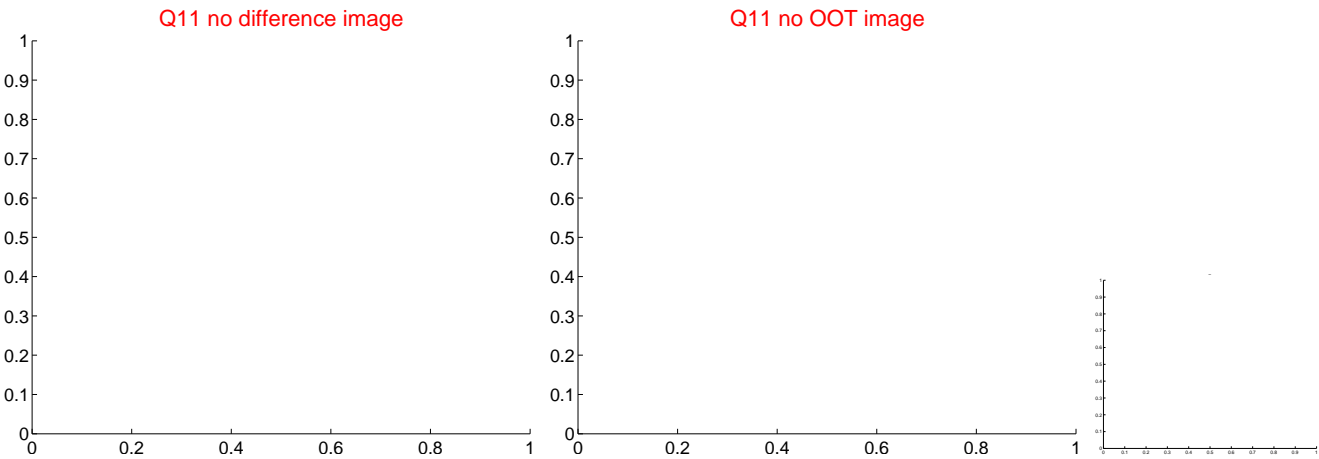
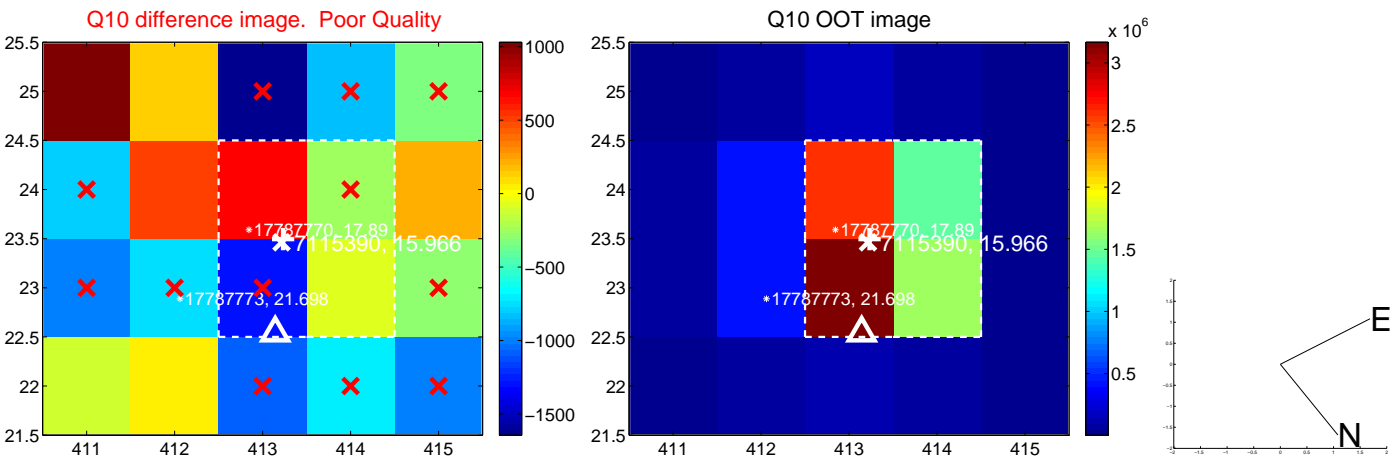
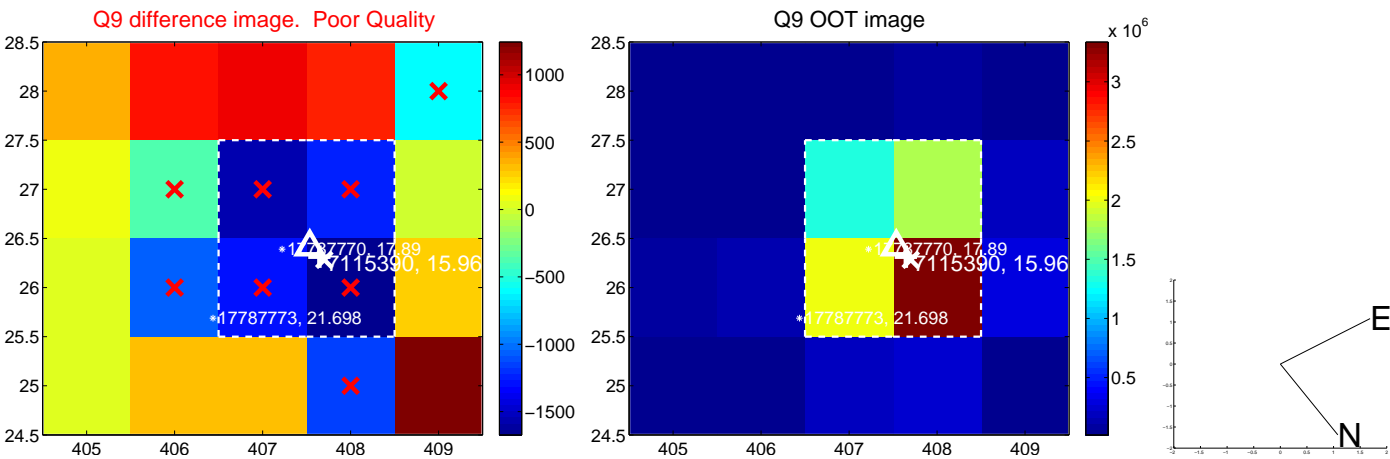
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



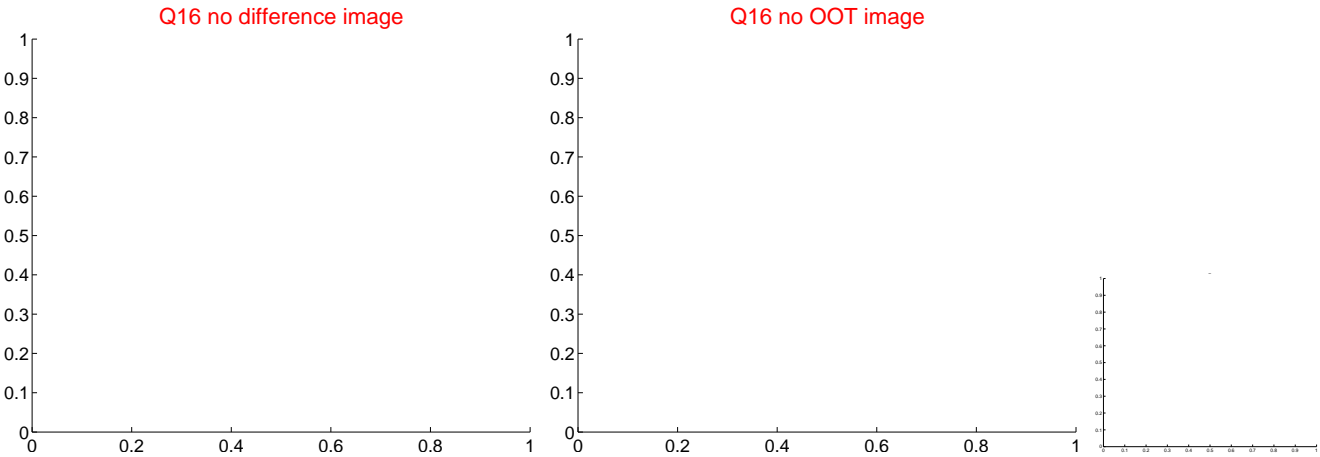
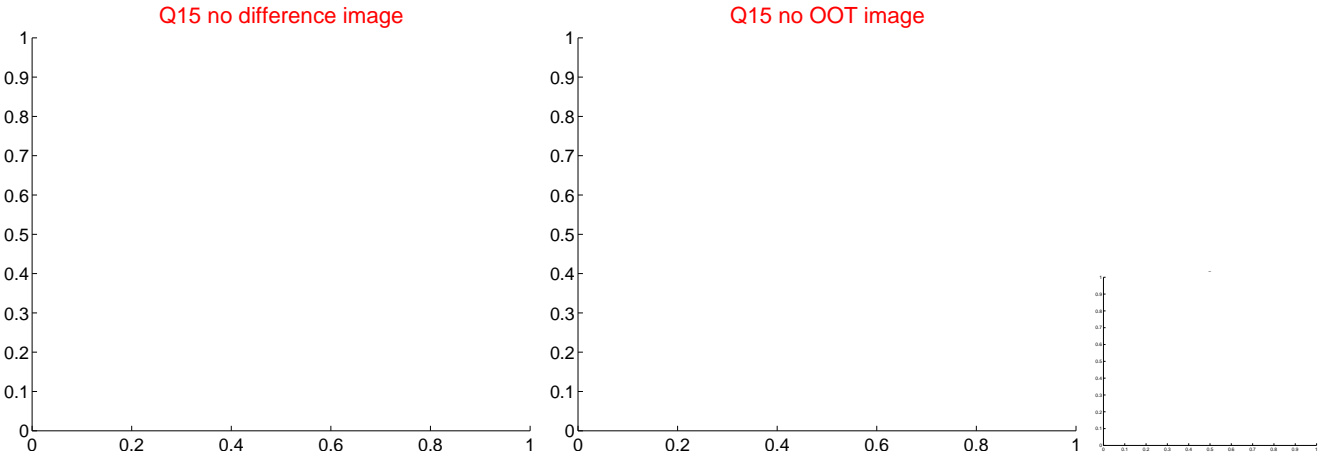
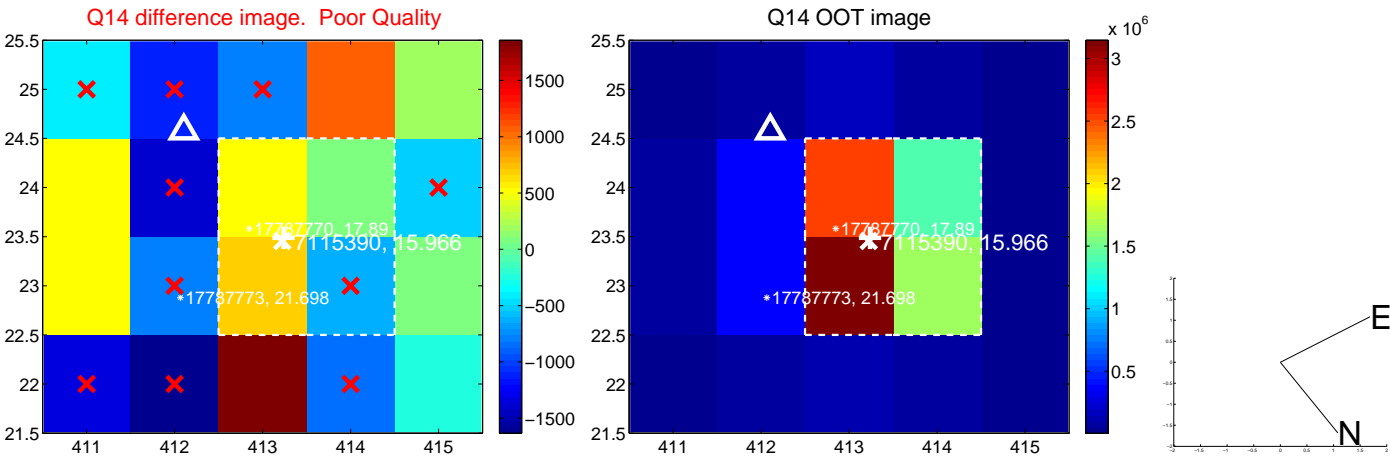
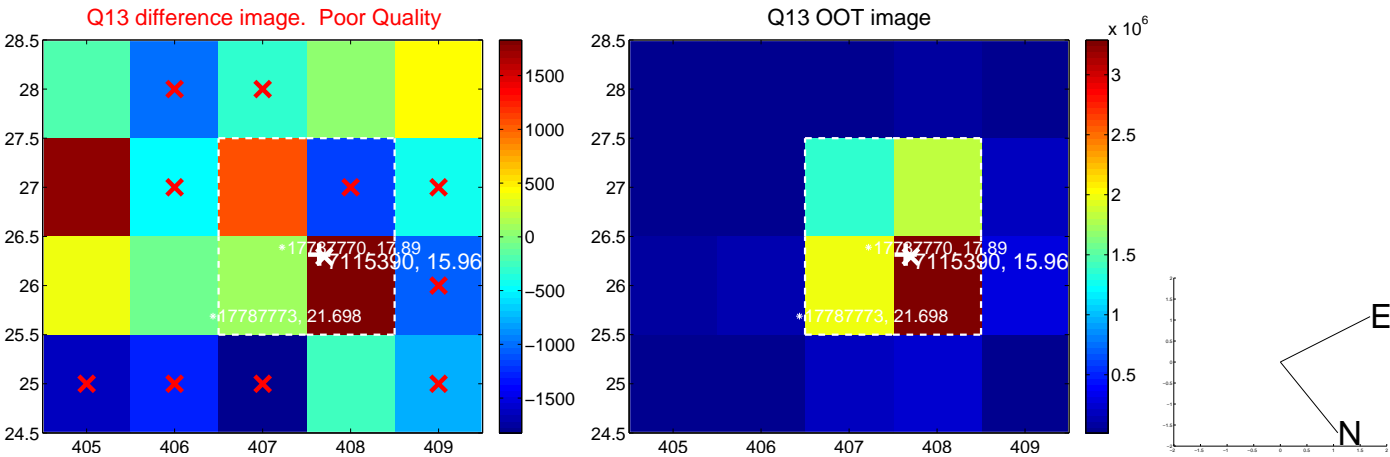
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



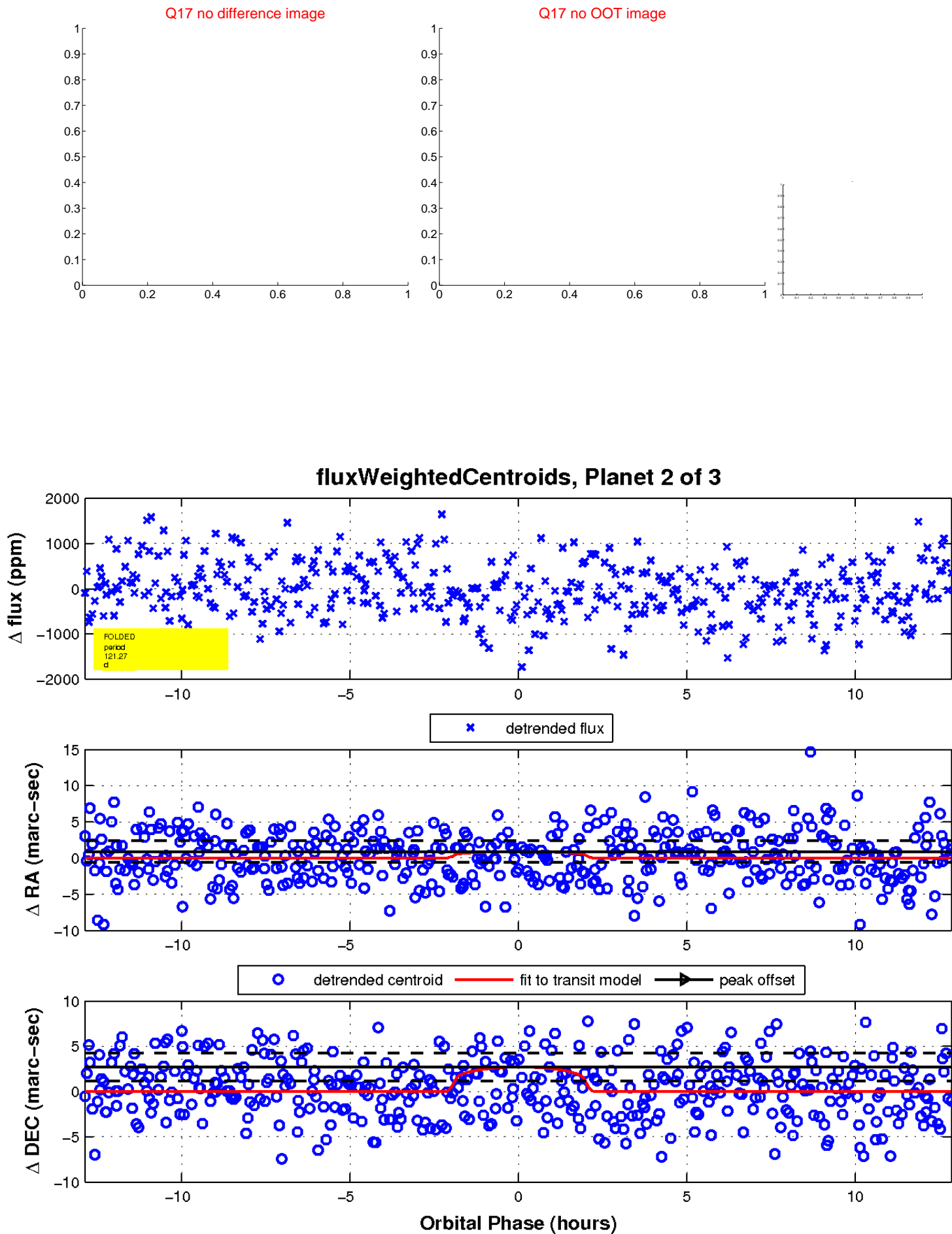
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

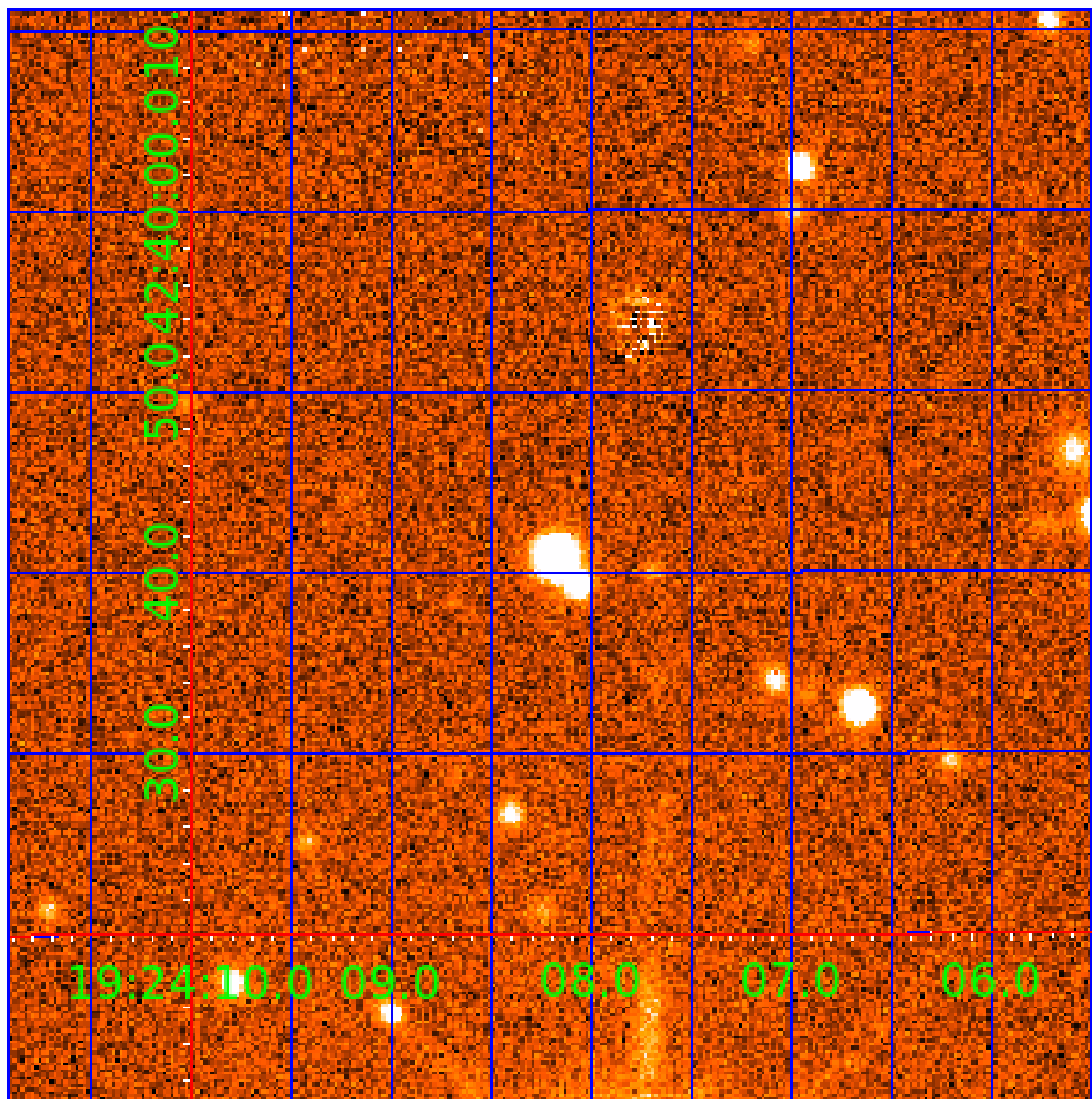


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007115390

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})
007115390-01	OBS	No	0.566788	131.819765	98.8	3.253	10.6	11.2	0.57	4631	0.69	1032.22
007115390-02	OBS	No	121.267532	136.302725	942.2	4.292	8.9	5.7	0.57	4631	1.91	0.81
007115390-03	OBS	No	81.384577	170.261556	1224.7	3.773	9.9	7.7	0.57	4631	2.10	1.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007115390-01	OBS	FP	0.00	1	0	0	1	LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS—EPHEM_MATCH
007115390-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007115390-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

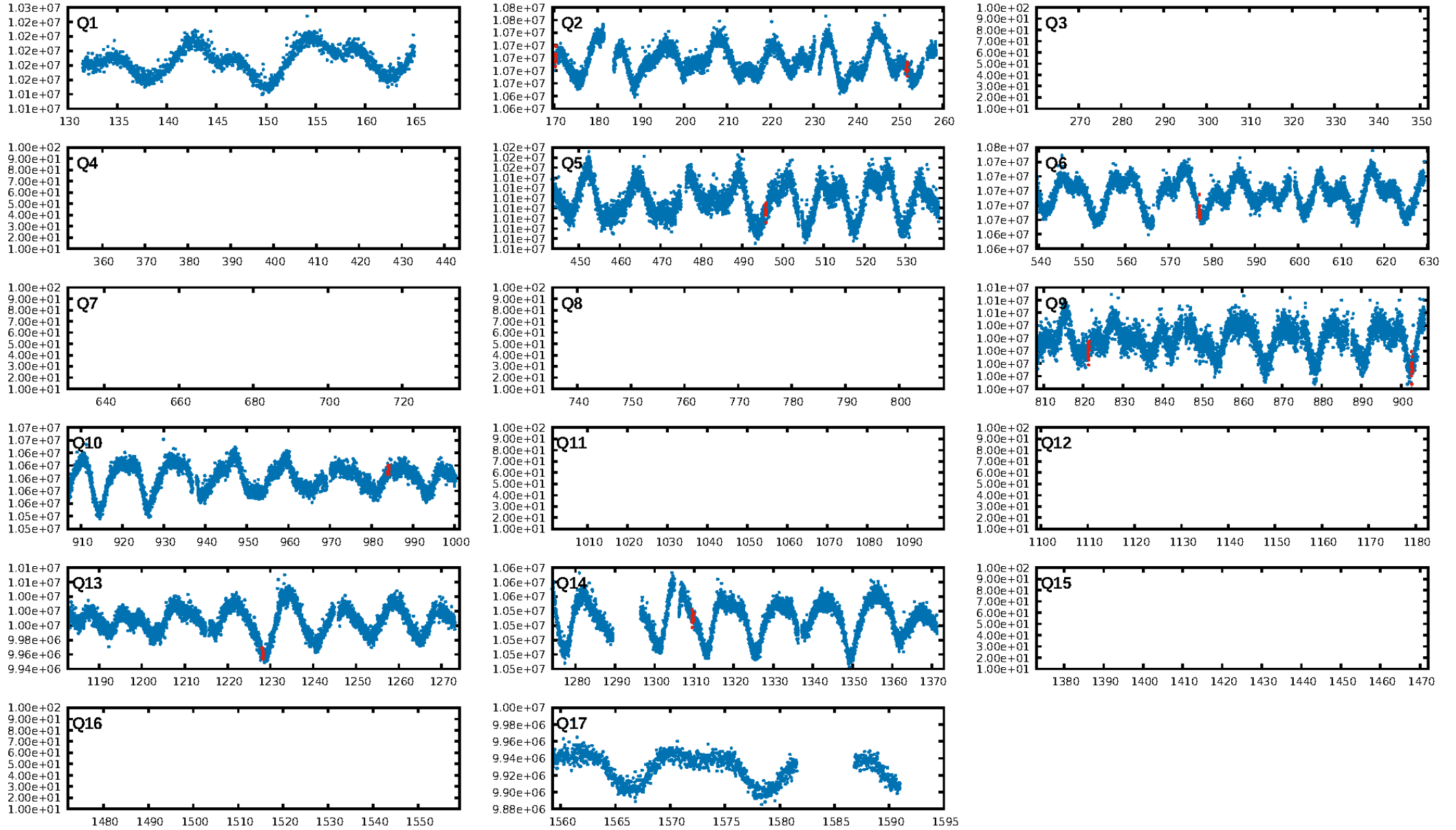
Ephemeris Match Information For 007115390-03

No Significant Match Found

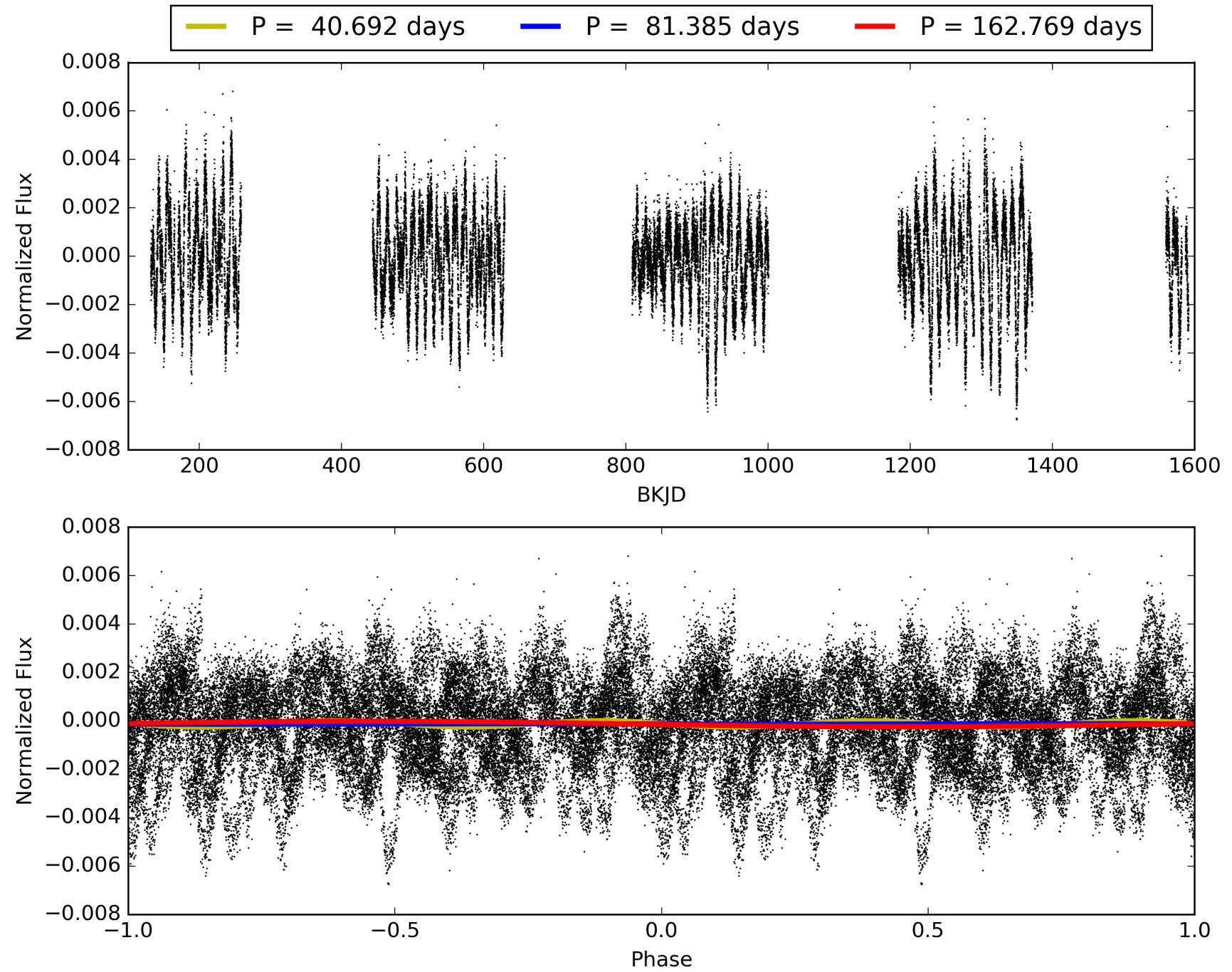
KIC: 7115390 Candidate: 3 of 3 Period: 81.385 d



TCE 007115390-03, PDC Light Curves

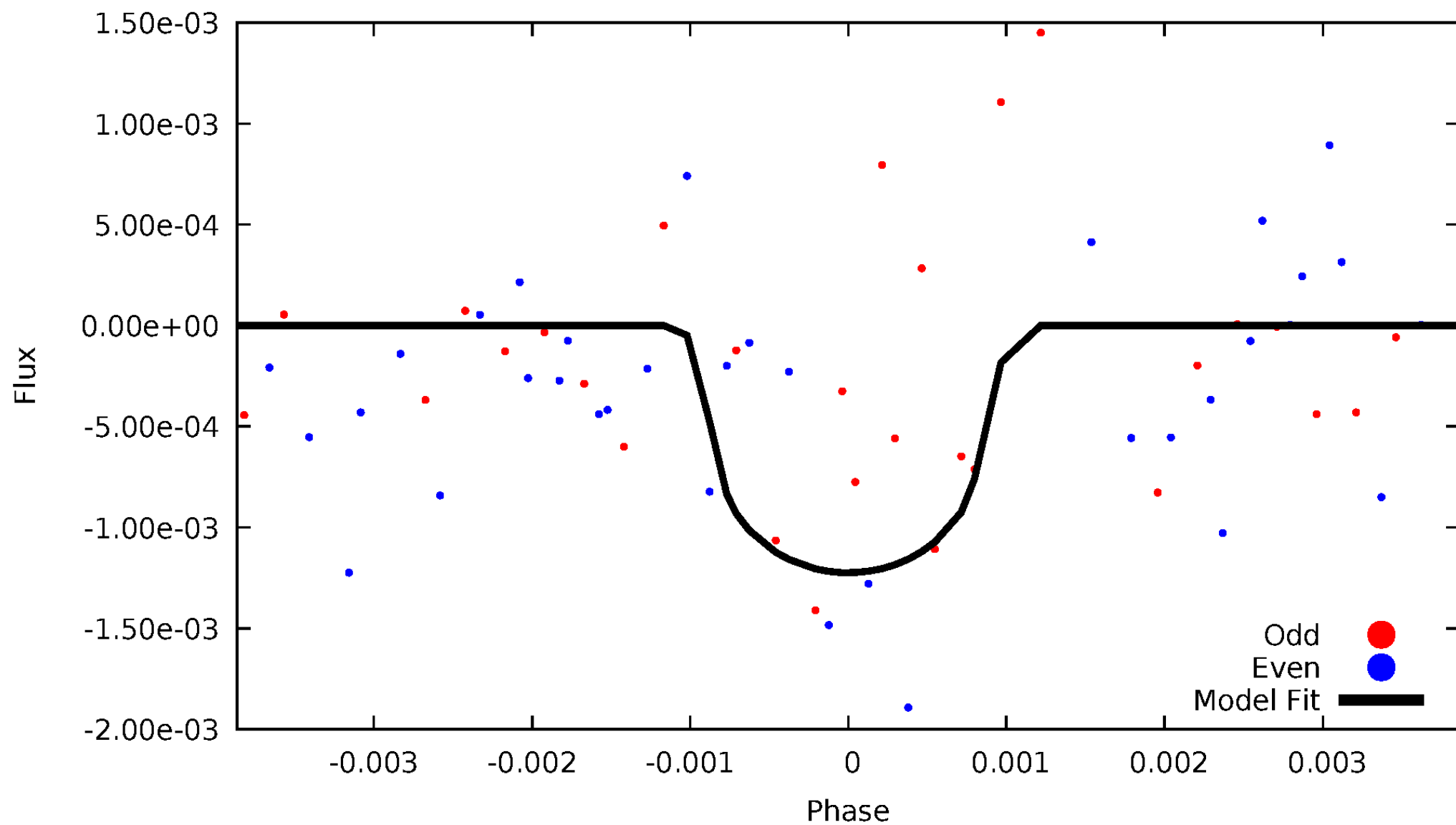


TCE 007115390-03



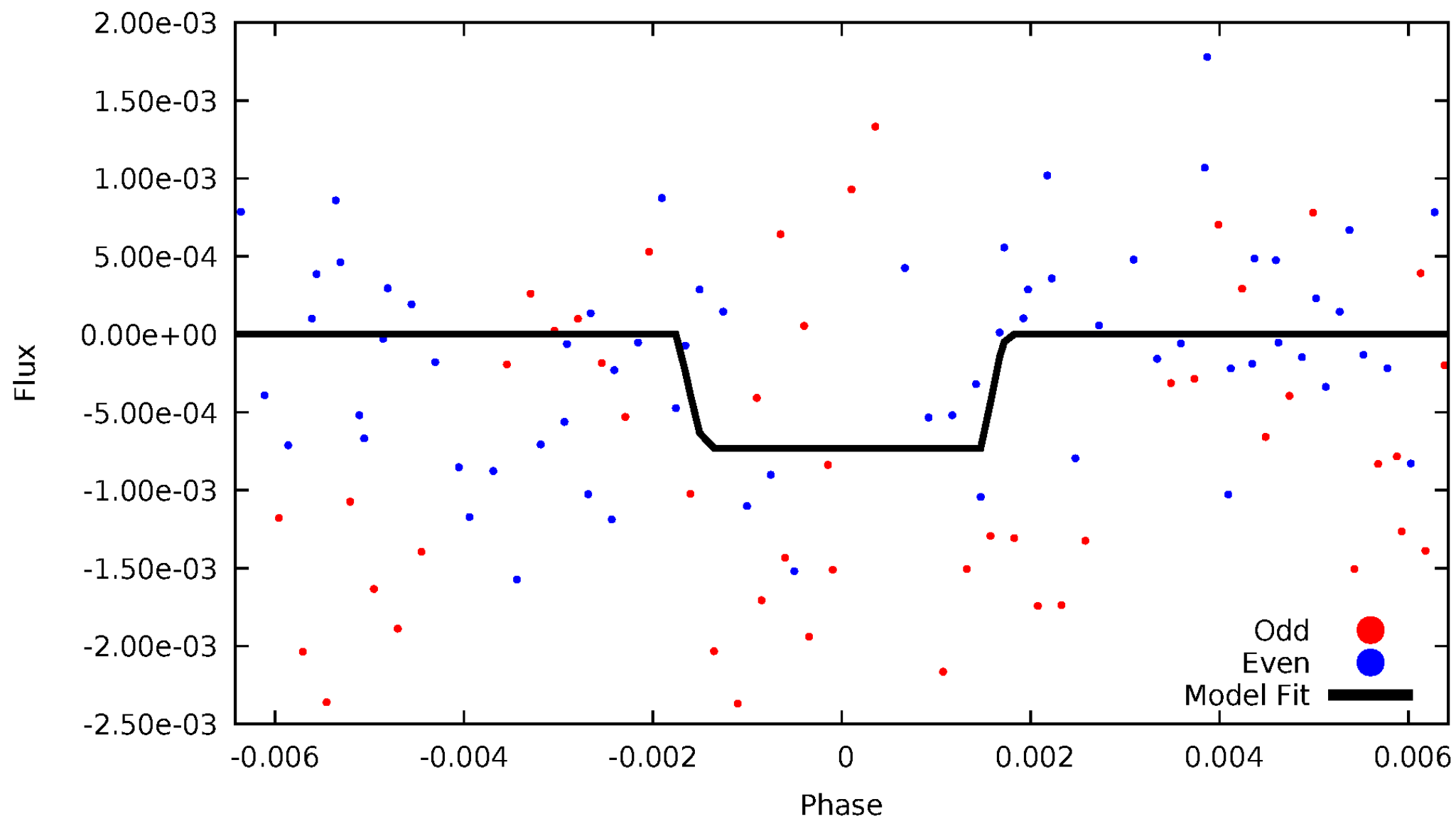
DV Odd/Even

TCE 007115390-03



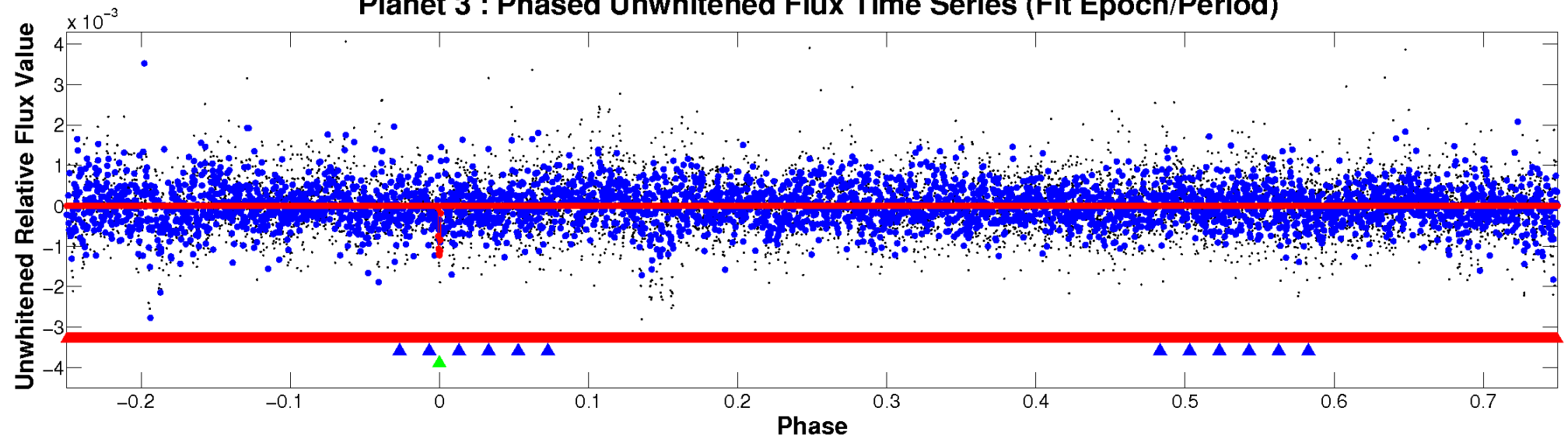
ALT Odd/Even

TCE 007115390-03

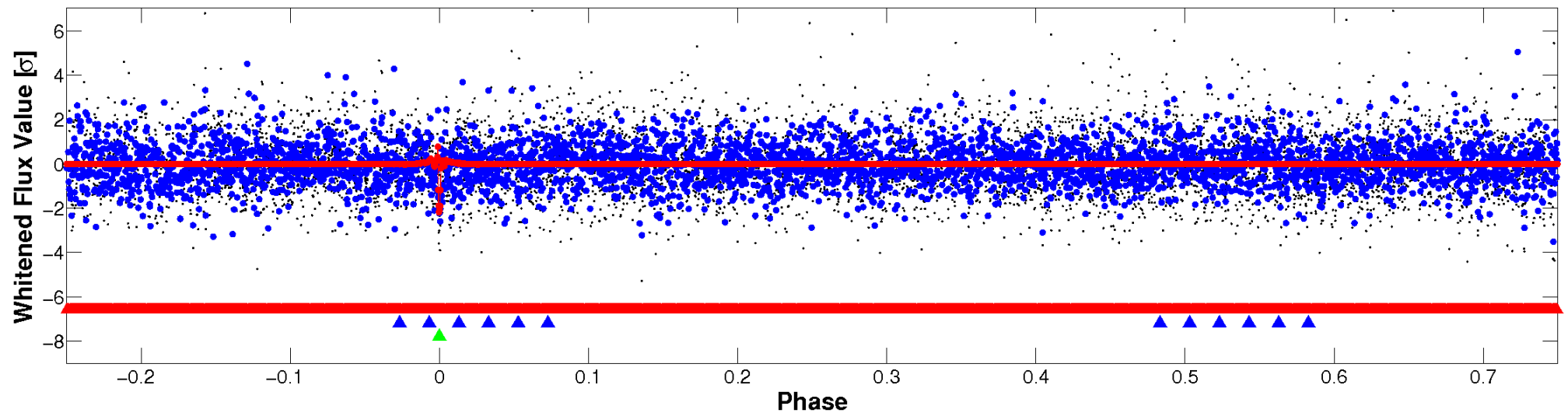


Non-Whitened Vs. Whitened Light Curve

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



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



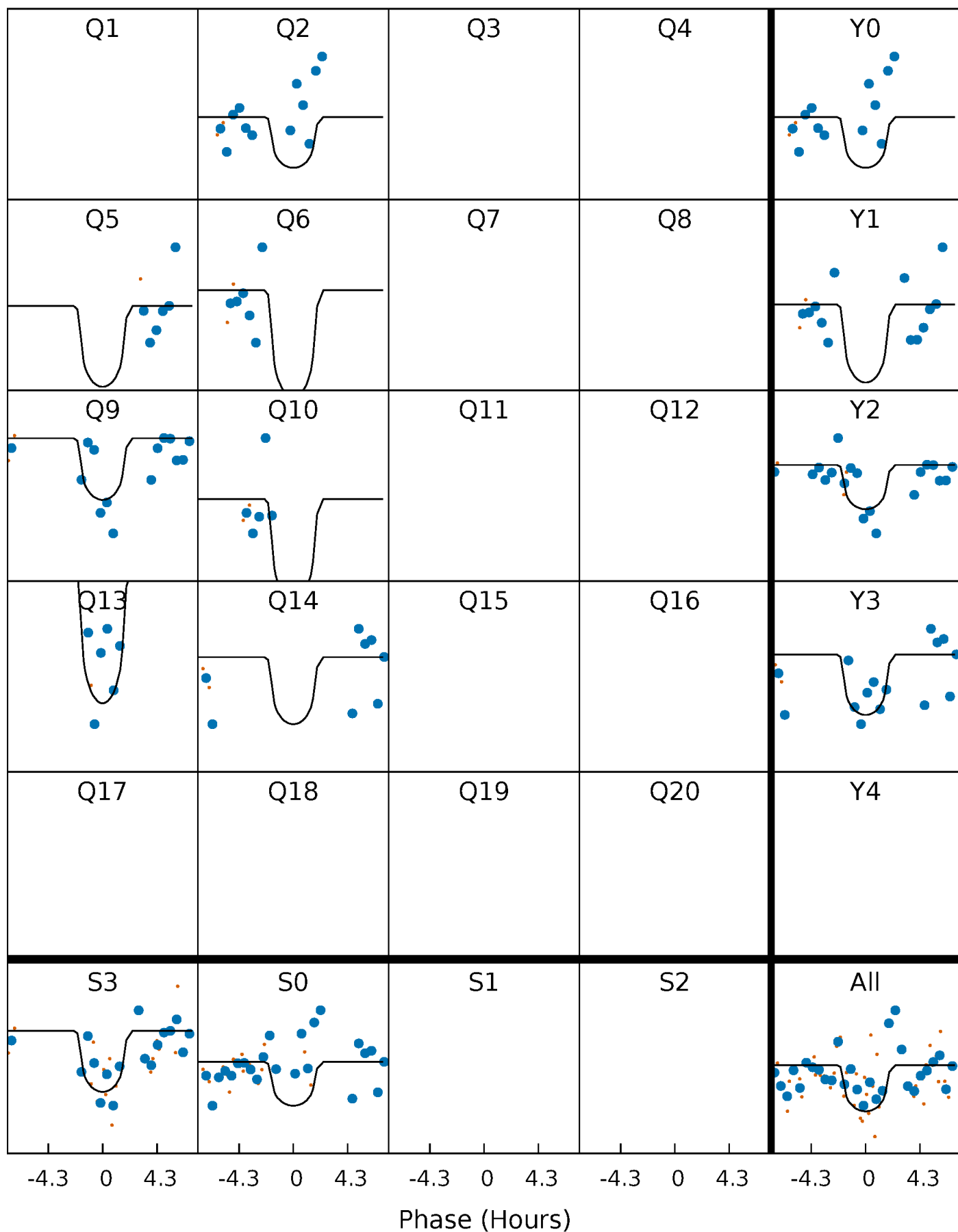
PDC Quarter-Phased Transit Curves

TCE 007115390-03 P= 81.384577 Days $T_0=170.261556$ (BKJD)



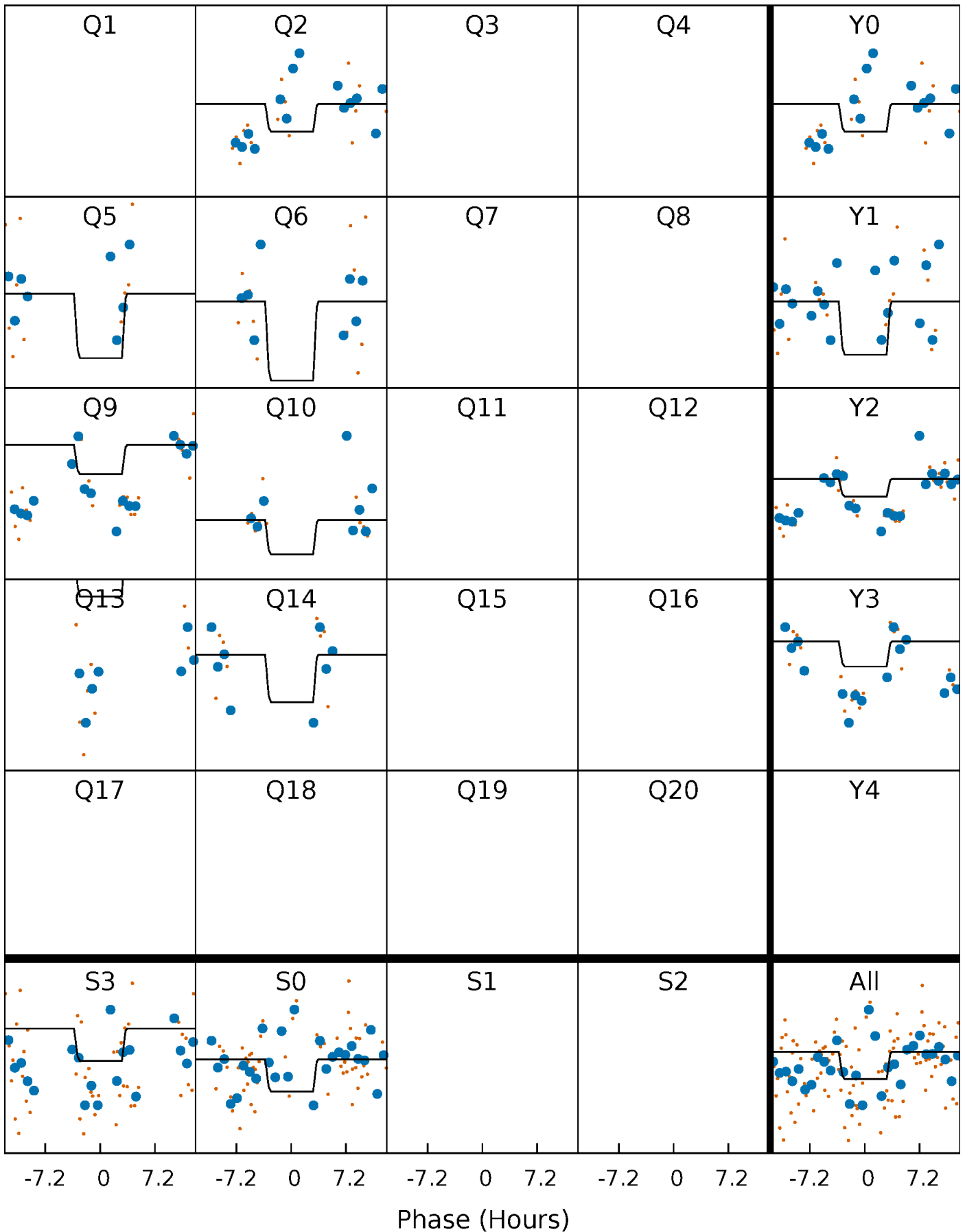
DV Quarter-Phased Transit Curves

TCE 007115390-03 P= 81.384577 Days $T_0=170.261556$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

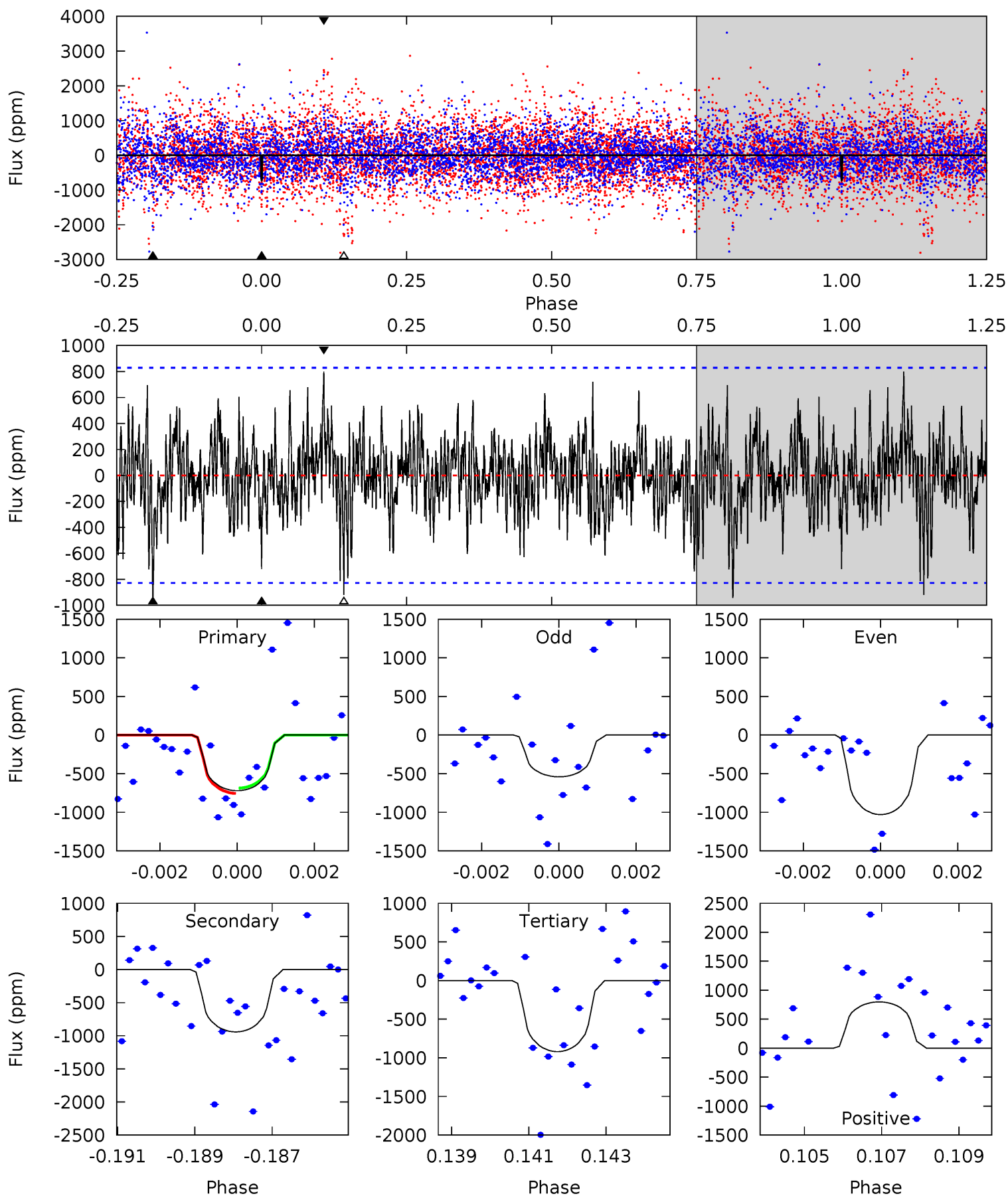
TCE 007115390-03 P= 81.384796 Days $T_0=170.331385$ (BKJD)



DV Model-Shift Uniqueness Test

007115390-03, P = 81.384577 Days, E = 88.876979 Days

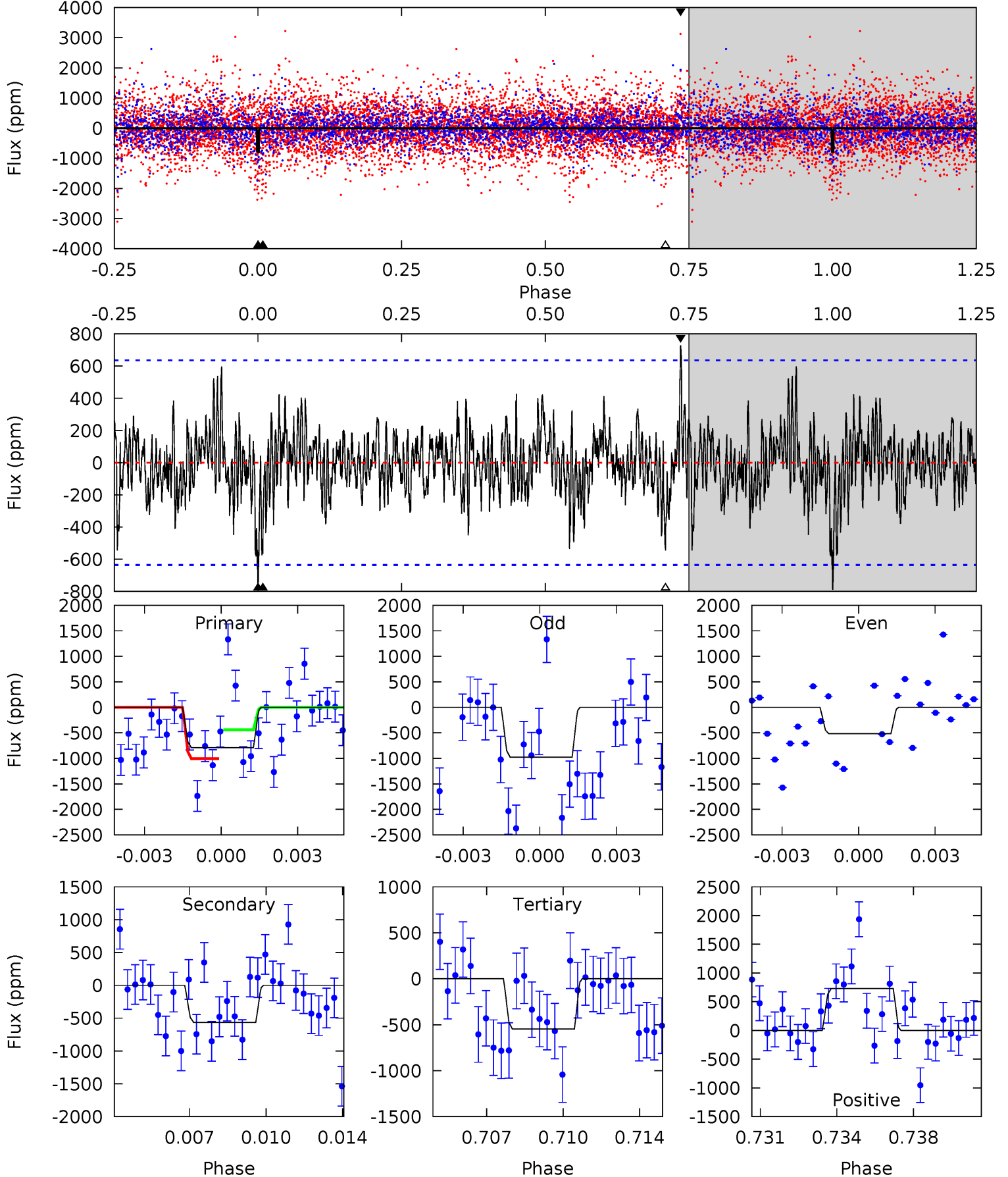
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.63	6.05	5.91	5.13	5.33	3.09	1.51	-1.28	-0.50	0.14	0.92	1.54	0.93	0.46	0.22



Alt Model-Shift Uniqueness Test

007115390-03, P = 81.384796 Days, E = 88.946589 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.49	4.65	4.49	5.99	5.23	2.92	1.36	2.00	0.50	0.16	-1.35	1.88	1.07	0.48	2.32



Stellar Parameters For KIC 007115390

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4631^{+166}_{-166}	$4.713^{+0.027}_{-0.058}$	$-0.680^{+0.300}_{-0.300}$	$0.569^{+0.061}_{-0.038}$	$0.607^{+0.053}_{-0.048}$	$4.650^{+0.597}_{-0.933}$
	+4%/-4%	+1%/-1%	+44%/-44%	+11%/-7%	+9%/-8%	+13%/-20%
Source	KIC0	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 007115390-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-942 ± 156	$3.52^{+3.15}_{-2.44}$	388^{+16}_{-14}	3726^{+2210}_{-682}	3943^{+37373}_{-2835}
Alt.	-565 ± 122	$3.36^{+3.04}_{-2.28}$	389^{+15}_{-16}	3461^{+1865}_{-591}	2699^{+23424}_{-1981}

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

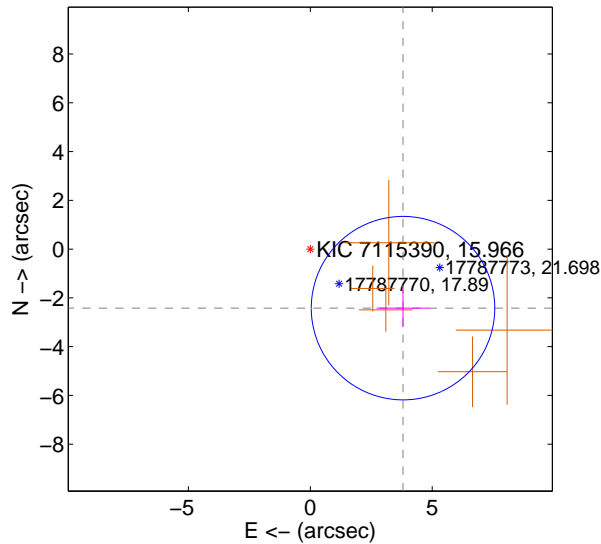
Supplemental centroid analysis for 007115390-03. Kepler magnitude: 15.97. Transit SNR 7.70

There are 0 quarters with good PRF difference image offsets

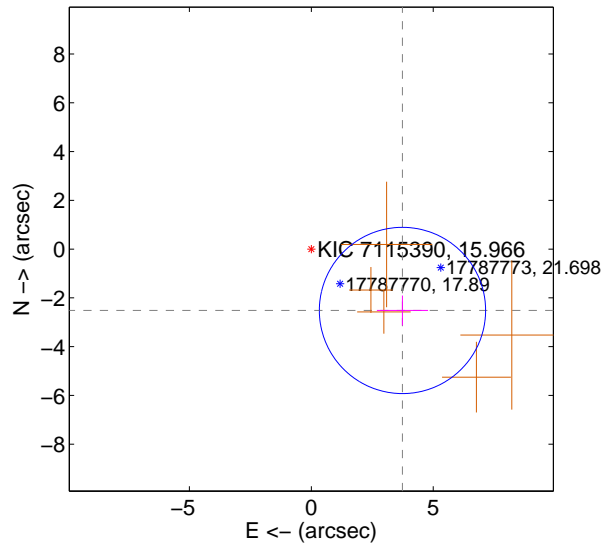
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.506 ± 1.253	3.60	-3.801 ± 1.081	-2.420 ± 0.774
PRF-fit source offset from KIC position	4.505 ± 1.136	3.97	-3.737 ± 1.048	-2.515 ± 0.613
photometric centroid source offset	1.78 ± 1.12	1.59	1.09 ± 1.16	-1.41 ± 1.11

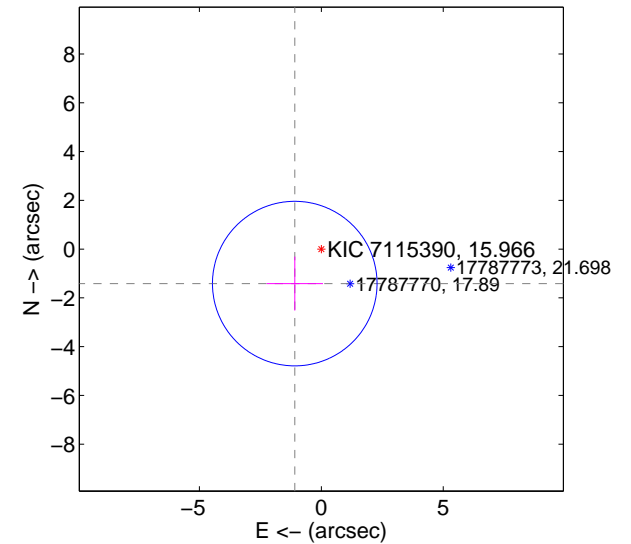
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

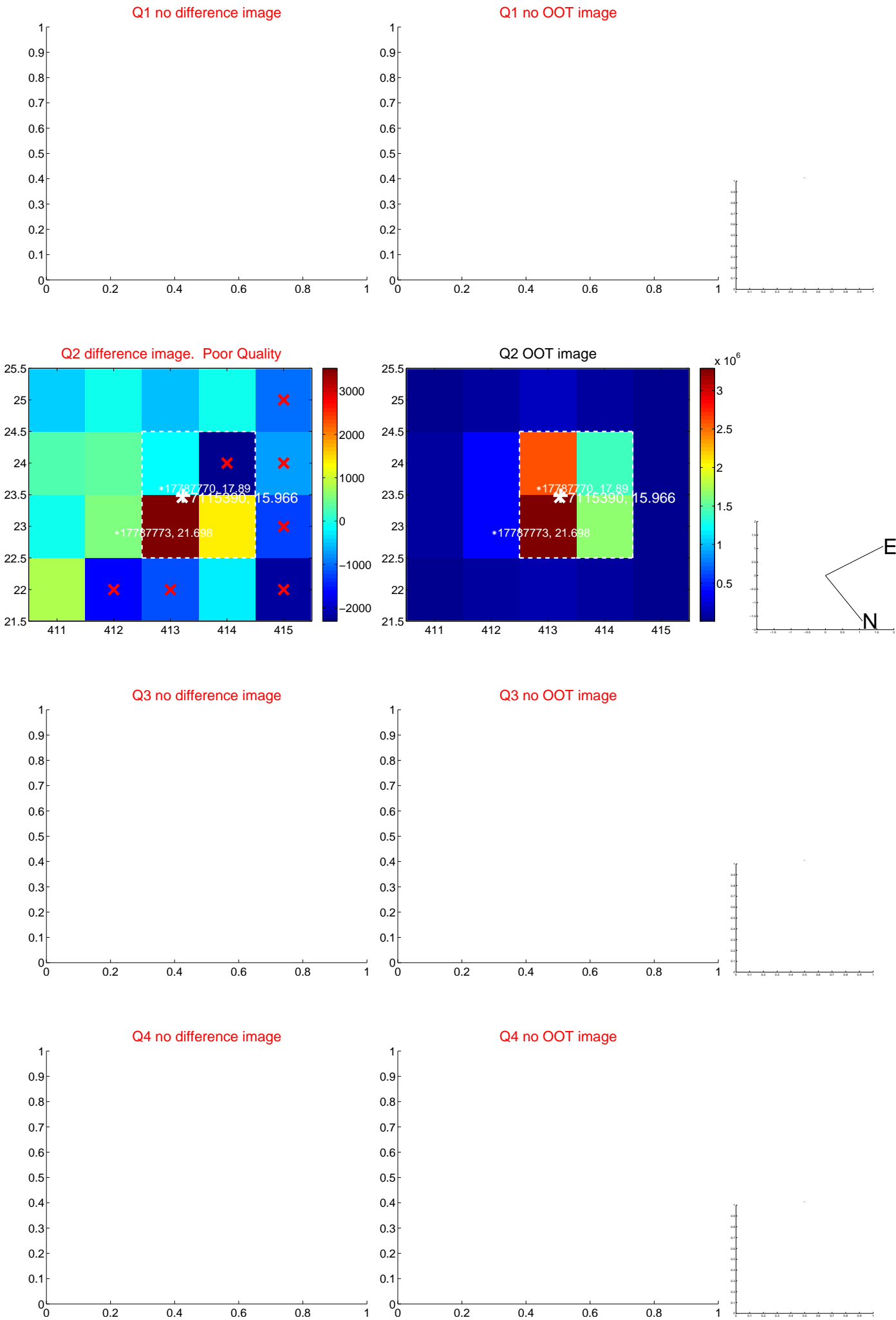


offset from photometric centroids

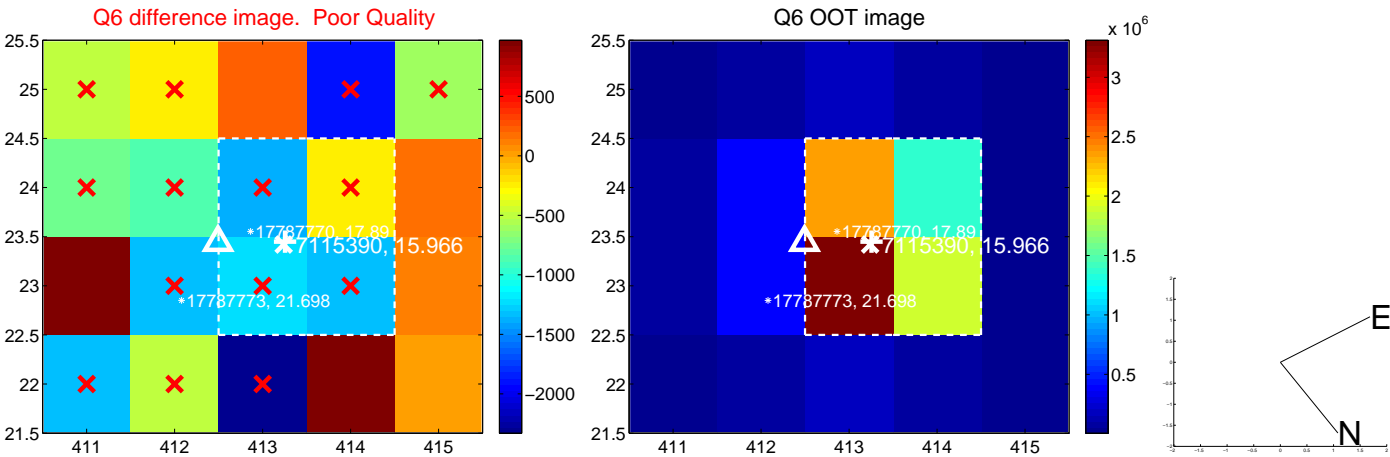
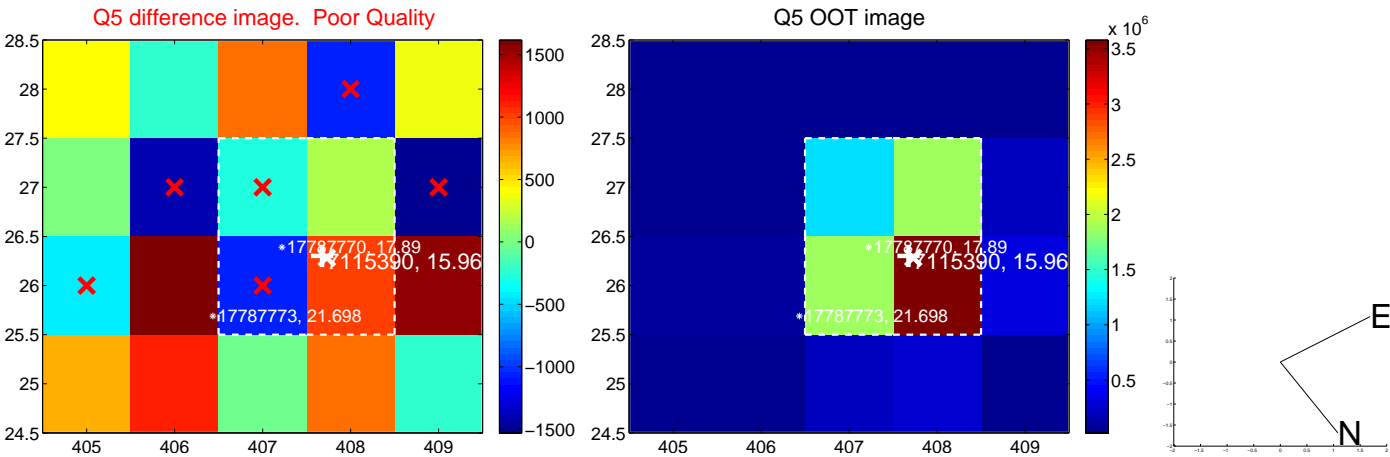


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

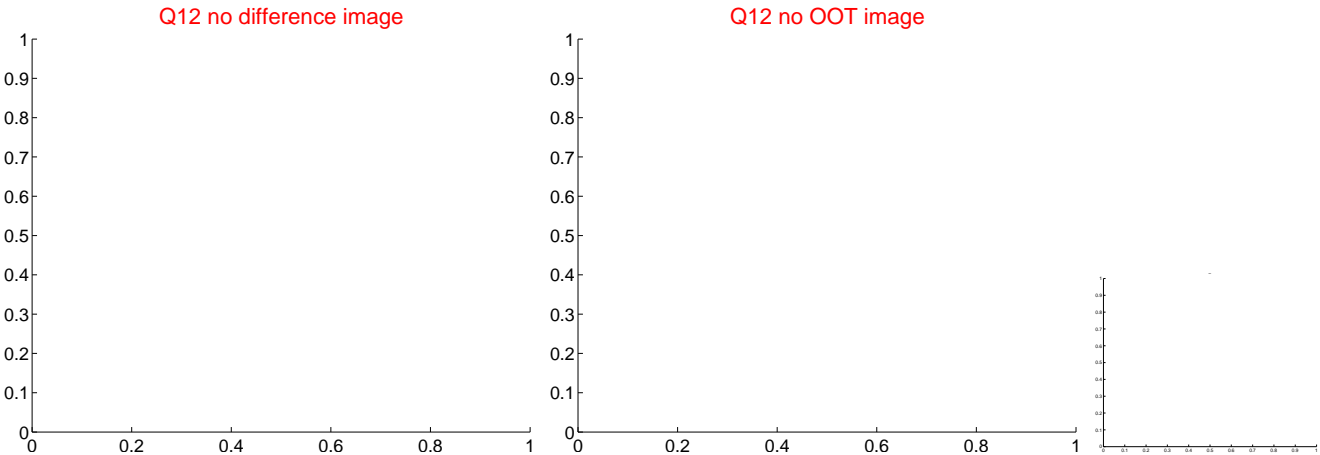
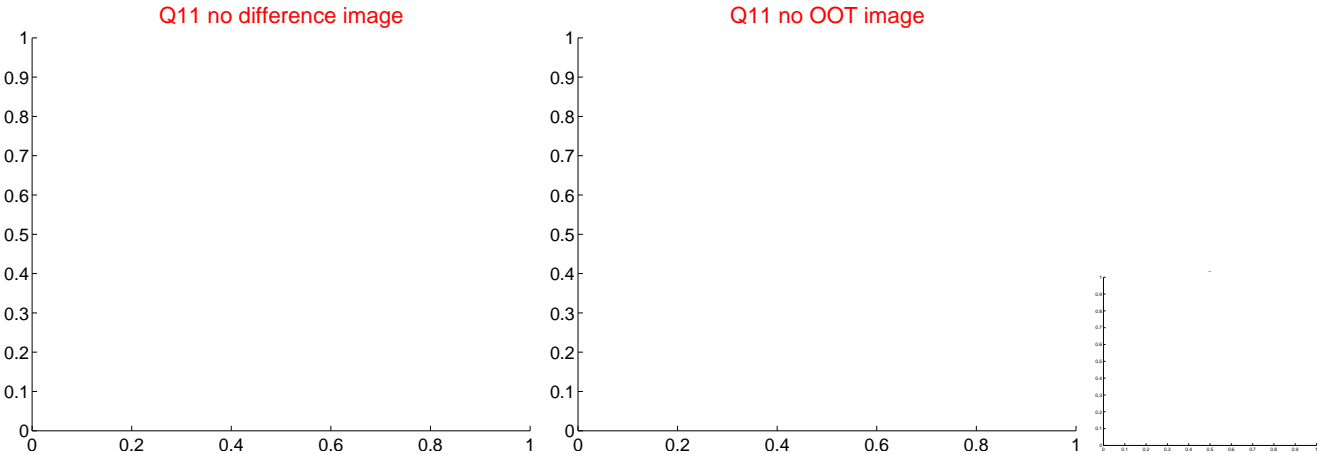
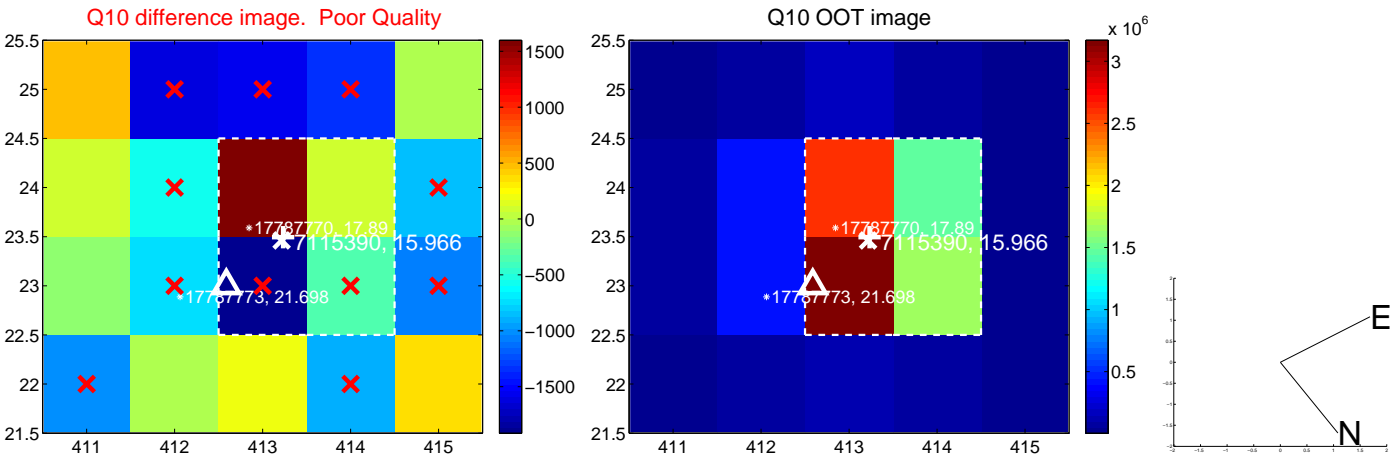
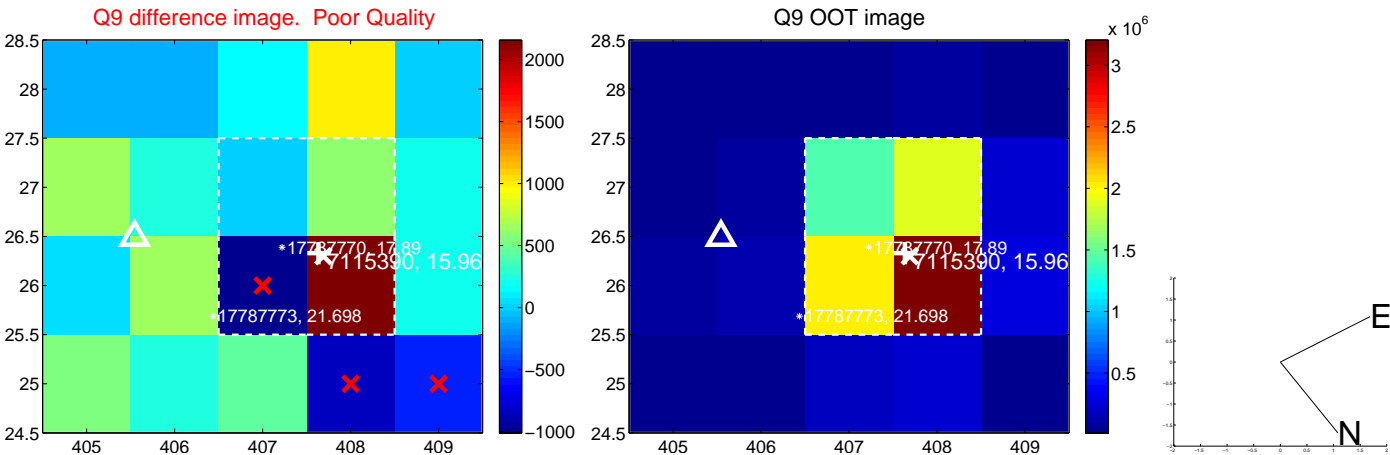
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



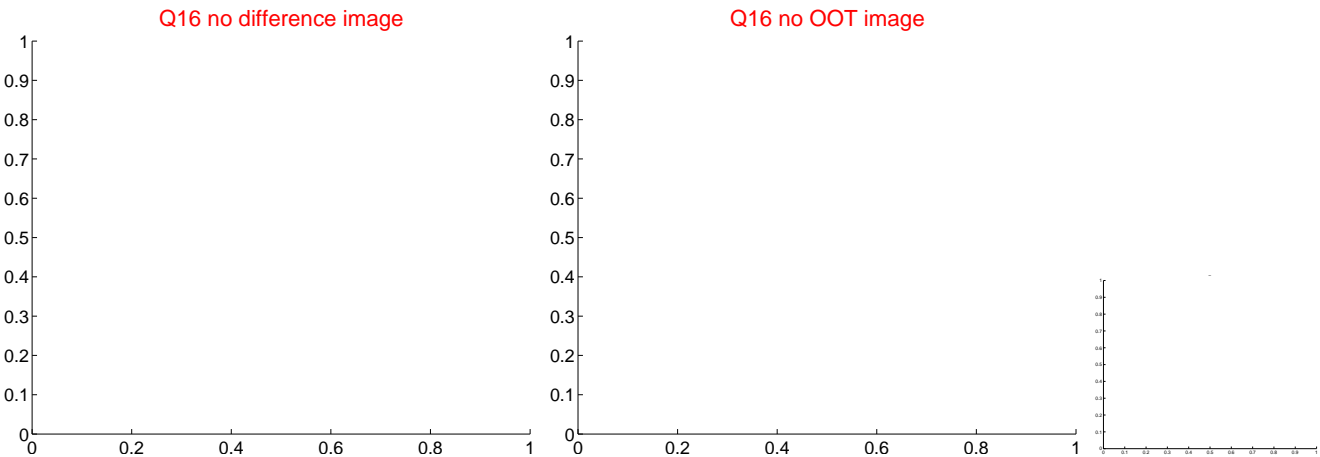
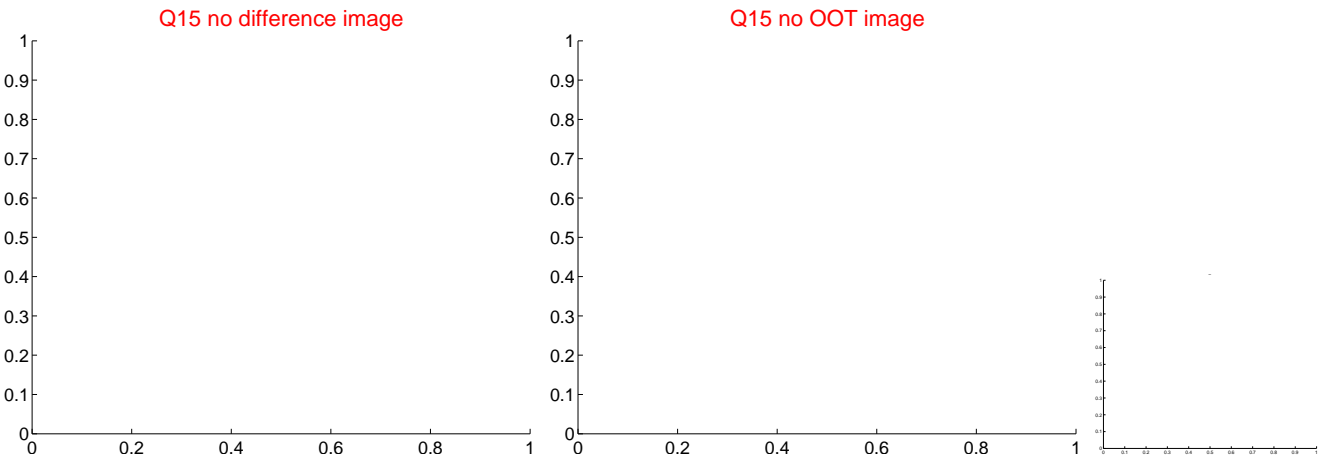
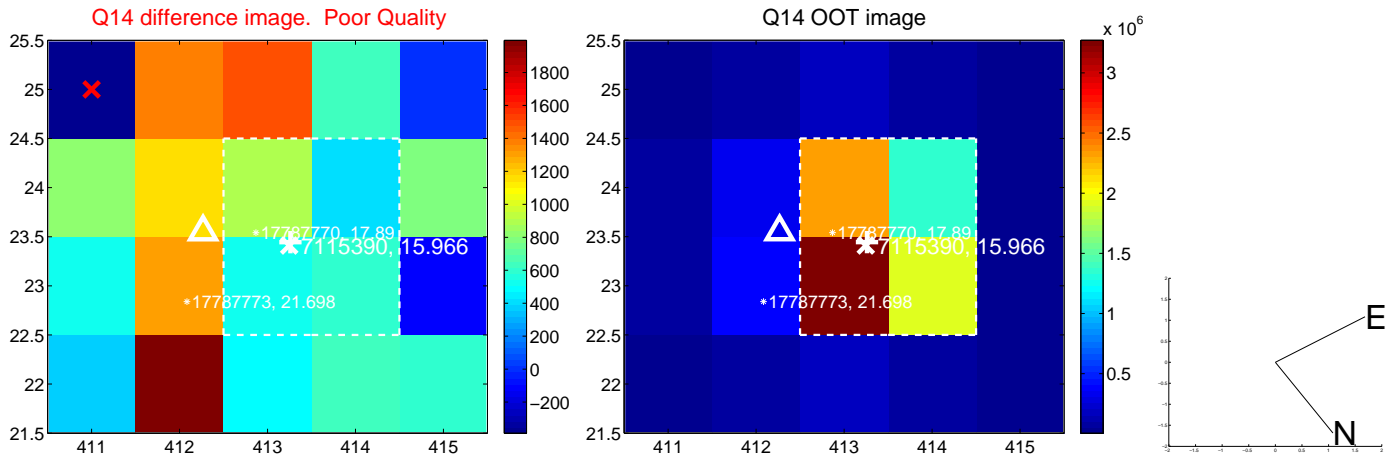
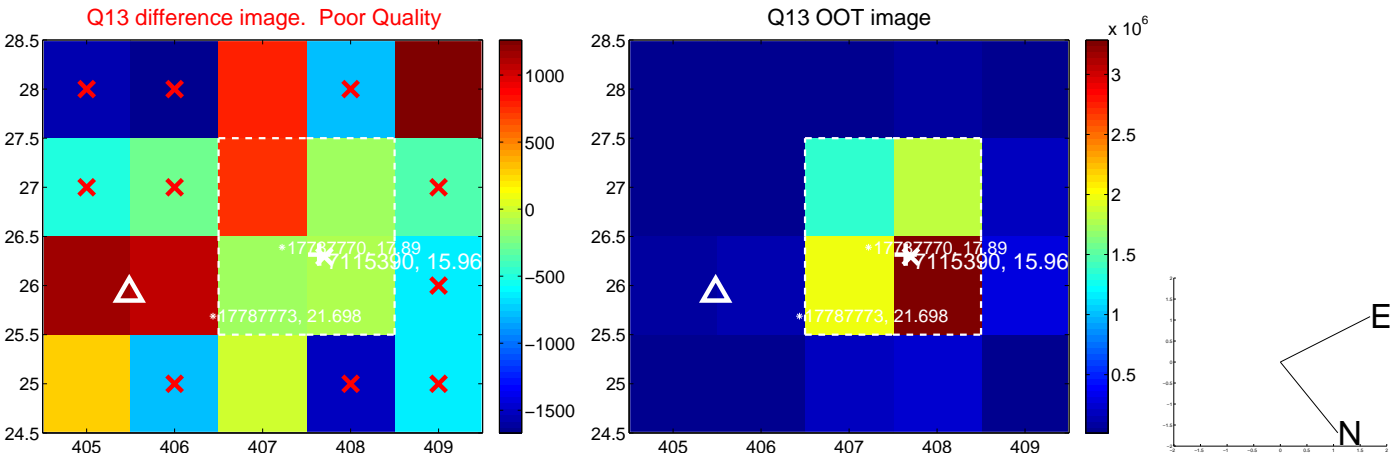
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



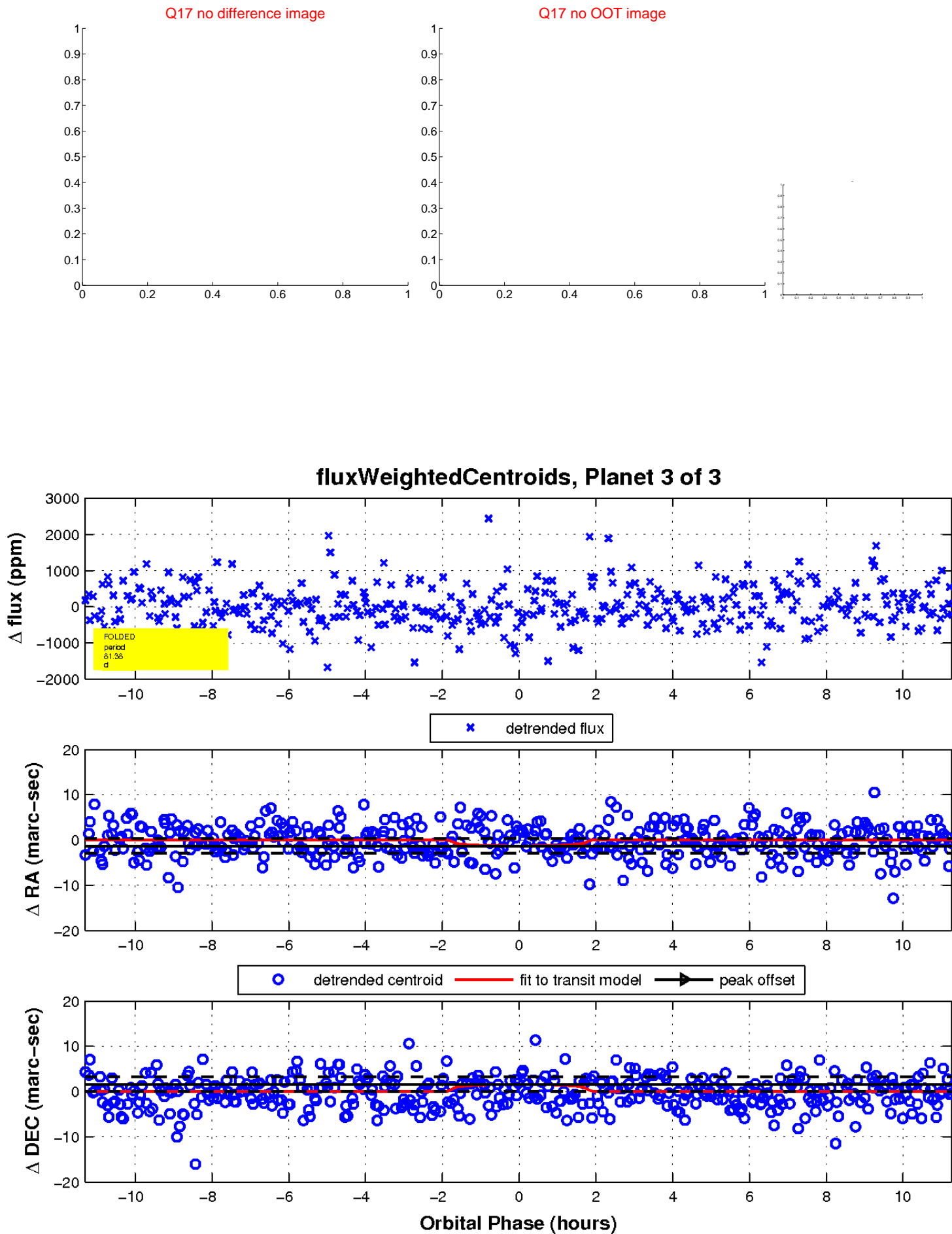
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

