

KIC 011390683

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})
011390683-01	OBS	No	2.259484	132.591900	81.2	10.250	8.2	8.5	0.53	3900	0.53	77.06
011390683-02	OBS	No	65.245674	193.726835	371.6	11.624	8.8	5.8	0.53	3900	1.13	0.87
011390683-03	OBS	No	171.330094	203.105650	888.8	4.097	7.7	6.3	0.53	3900	1.81	0.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390683-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_KIC_POS—HALO_GHOST
011390683-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011390683-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

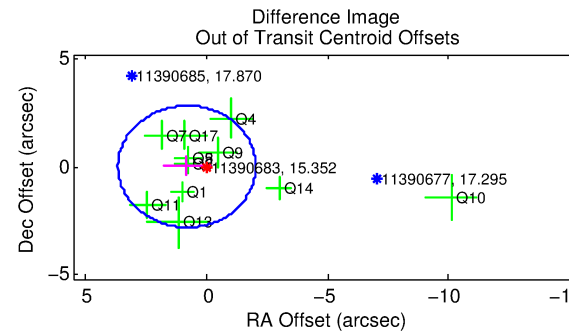
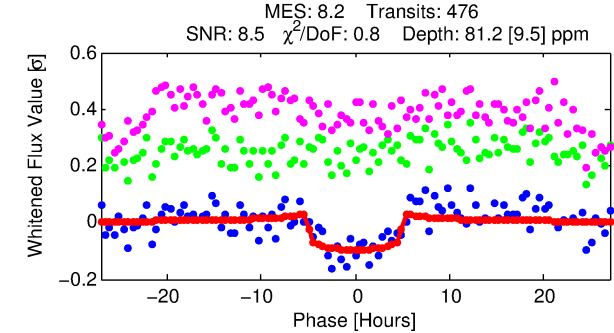
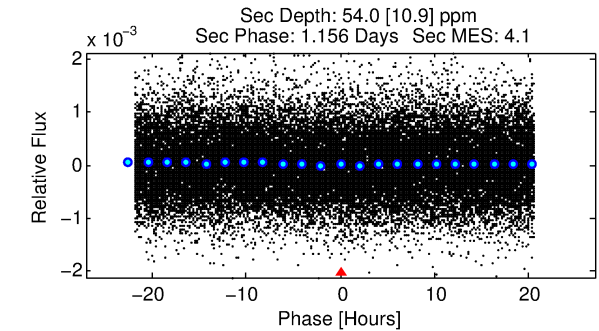
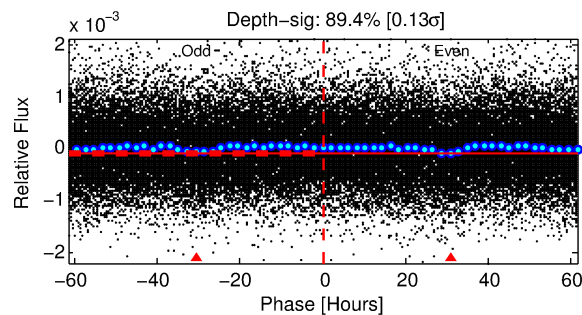
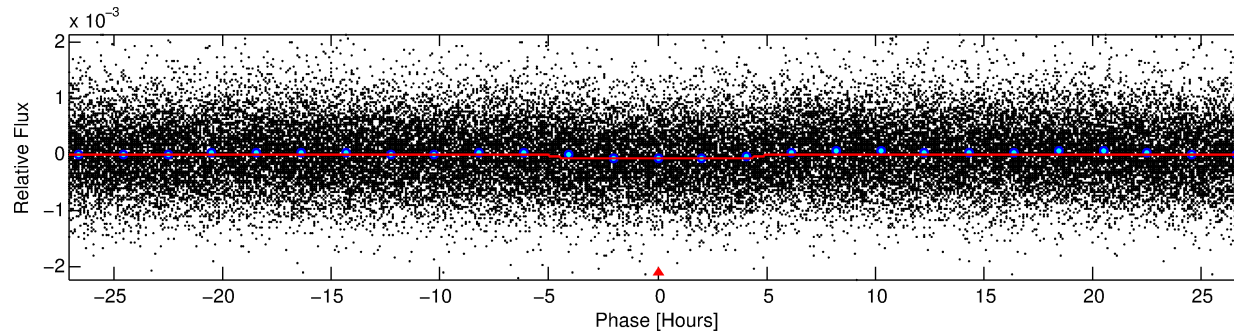
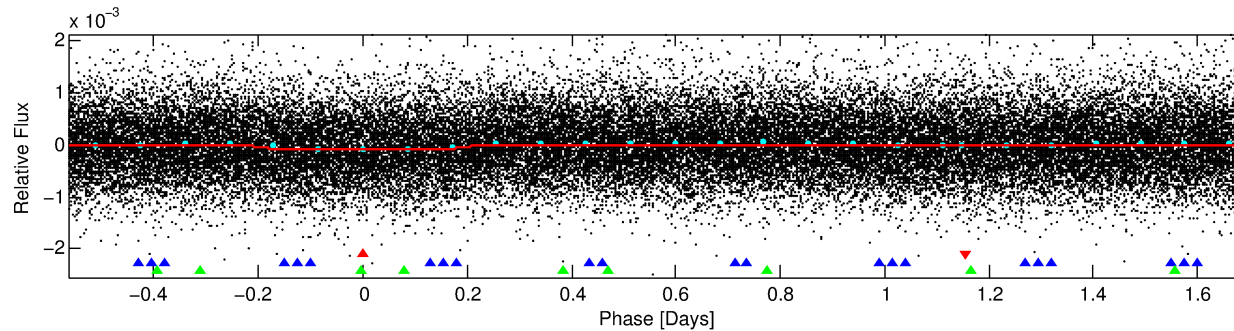
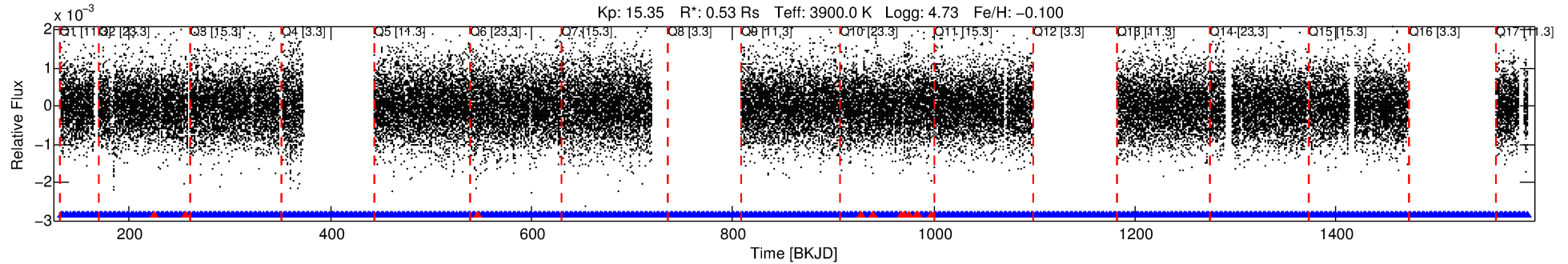
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390683-01

No Significant Match Found

DV One-Page Summary

KIC: 11390683 Candidate: 1 of 3 Period: 2.259 d



DV Fit Results:

Period = 2.25948 [0.00004] d
Epoch = 132.5919 [0.0092] BKJD
Rp/R* = 0.0091 [0.0051]
a/R* = 1.37 [1.60]
b = 0.79 [1.20]
Seff = 77.06 [27.18]
Teq = 756 [67] K
Rp = 0.53 [0.32] Re
a = 0.0277 [0.0049] AU
Ag = 80.78 [94.15] [0.85 σ]
Teffp = 3502 [1025] K [2.67 σ]

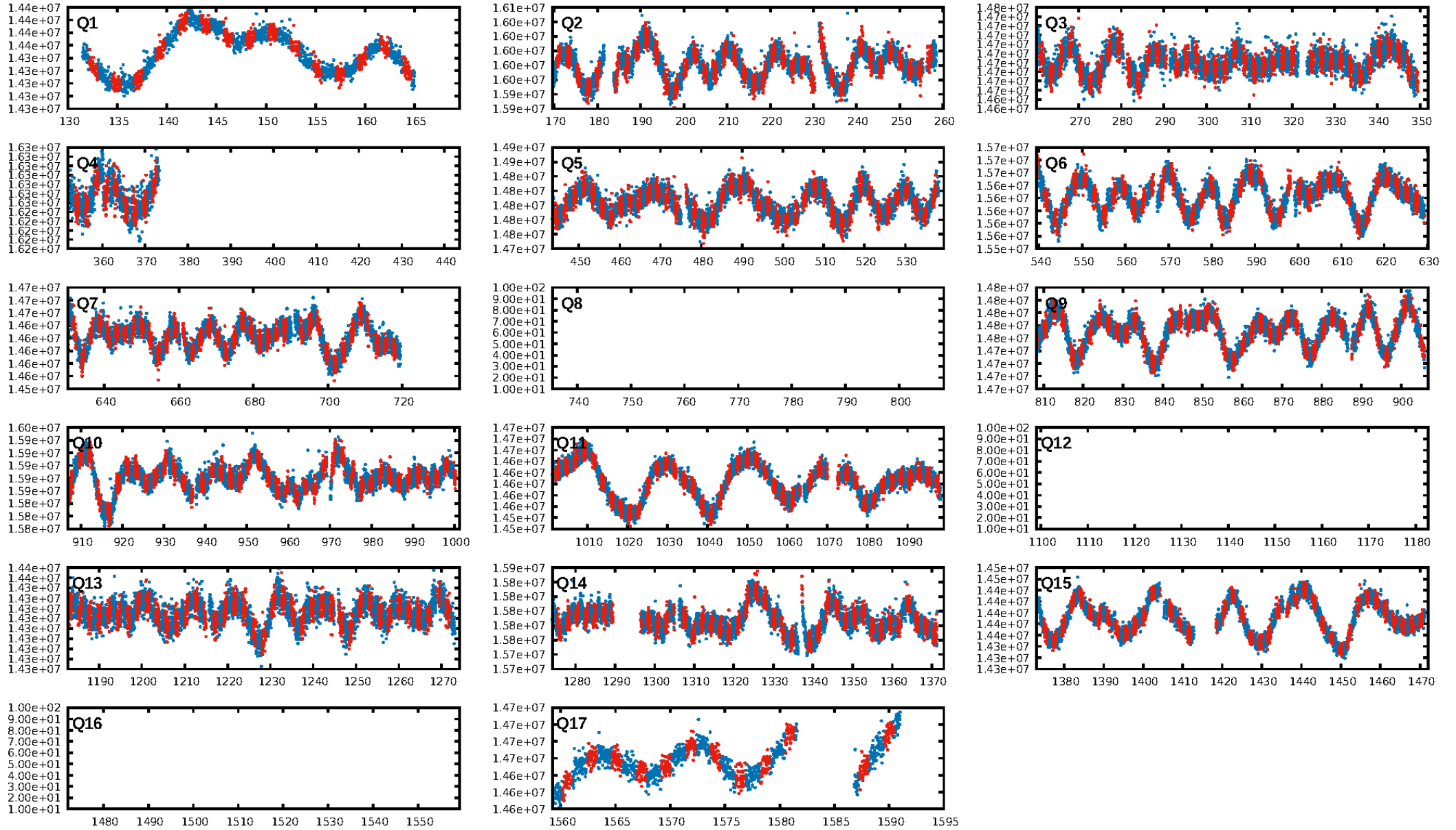
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [97.54 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.47e-11
RollingBand-fgt: 0.97 [429/440]
GhostDiagnostic-chr: 0.04898
Centroid-sig: 3.5 σ
Centroid-so: 1.284 arcsec [1.13 σ]
OotOffset-rm: 0.808 arcsec [0.85 σ]
OotOffset-st: 3/3/1/5 [12]
KicOffset-rm: 0.380 arcsec [0.55 σ]
KicOffset-st: 3/3/1/5 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [14/14]

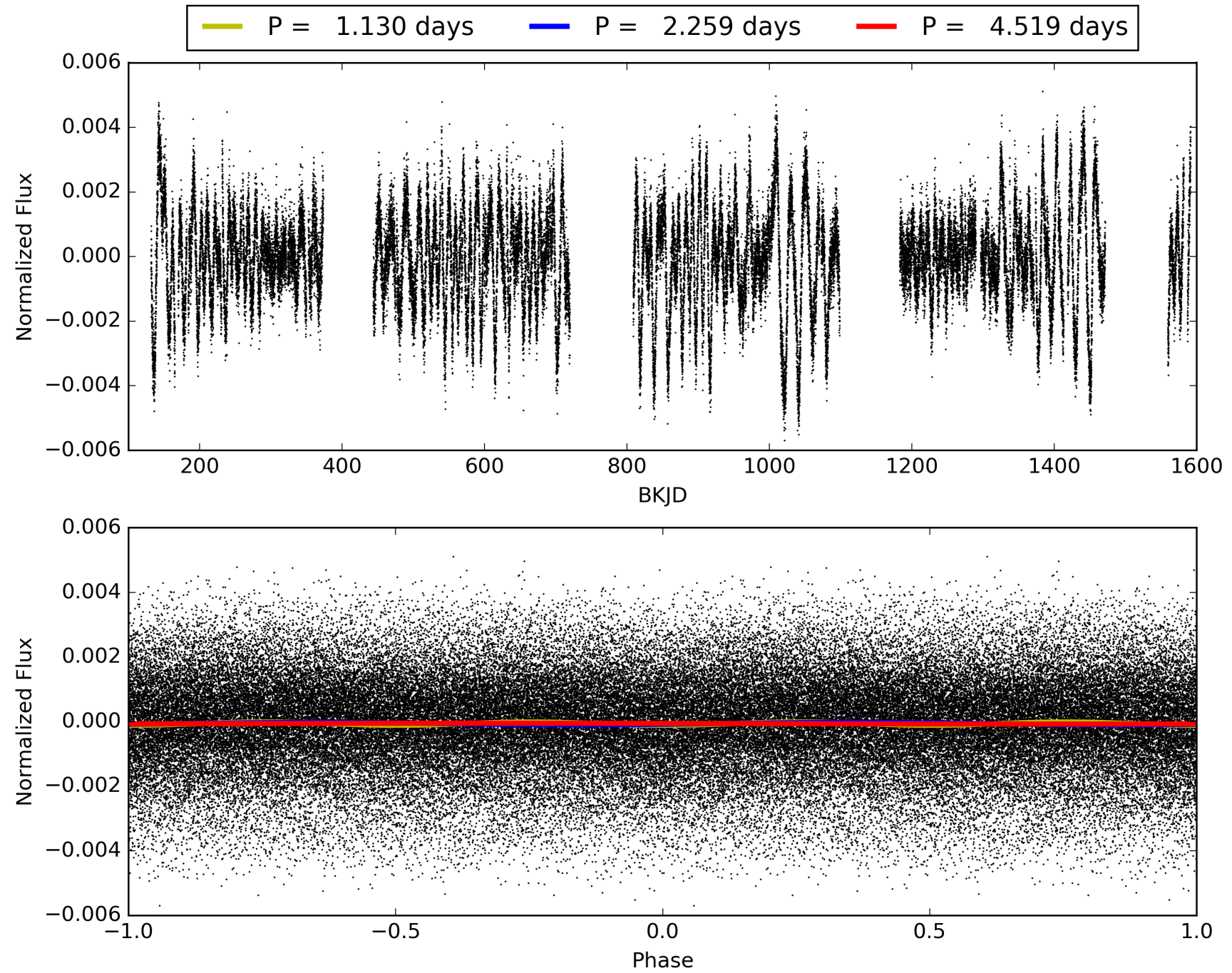
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:02:47 Z

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

TCE 011390683-01, PDC Light Curves

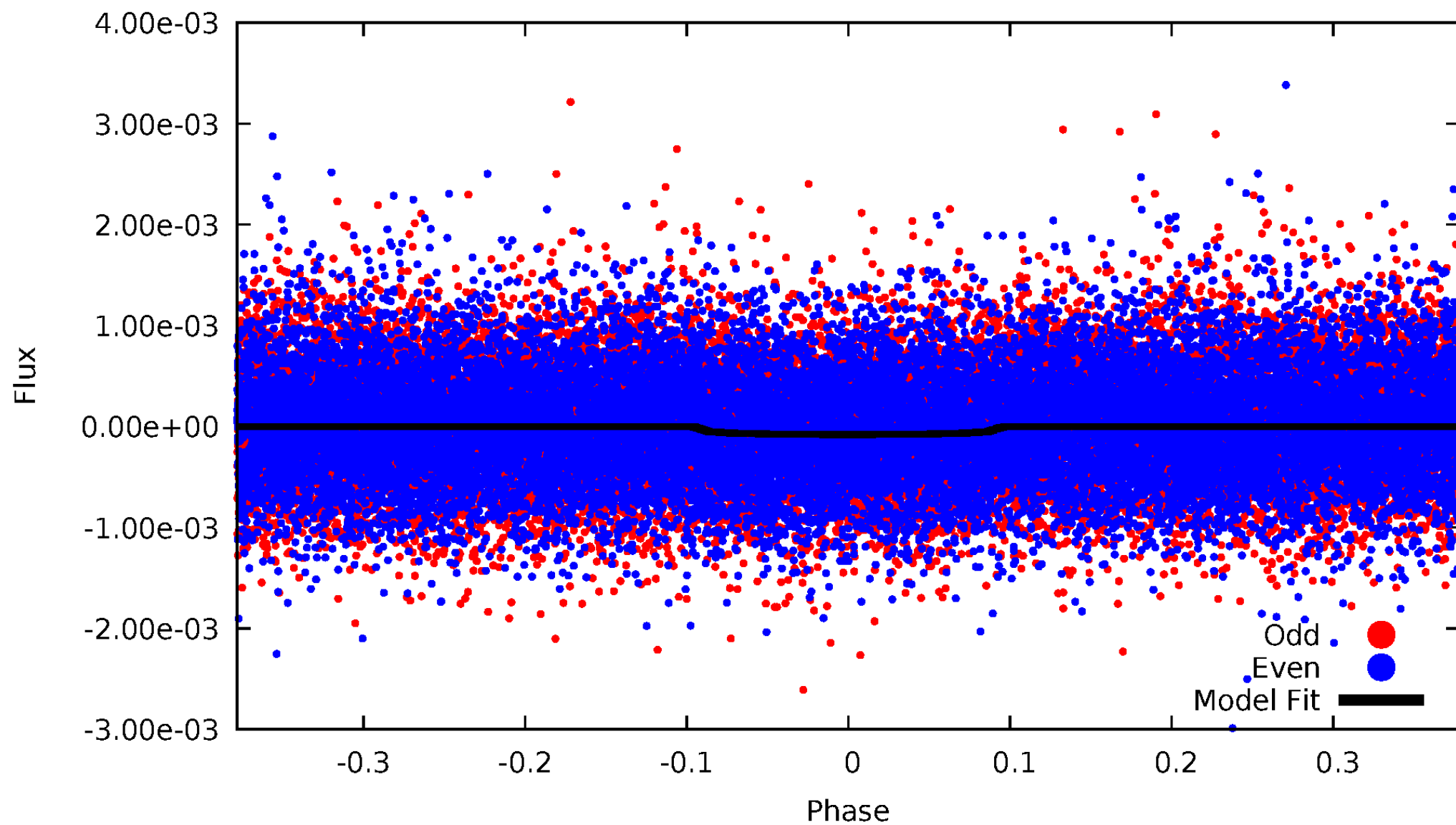


TCE 011390683-01



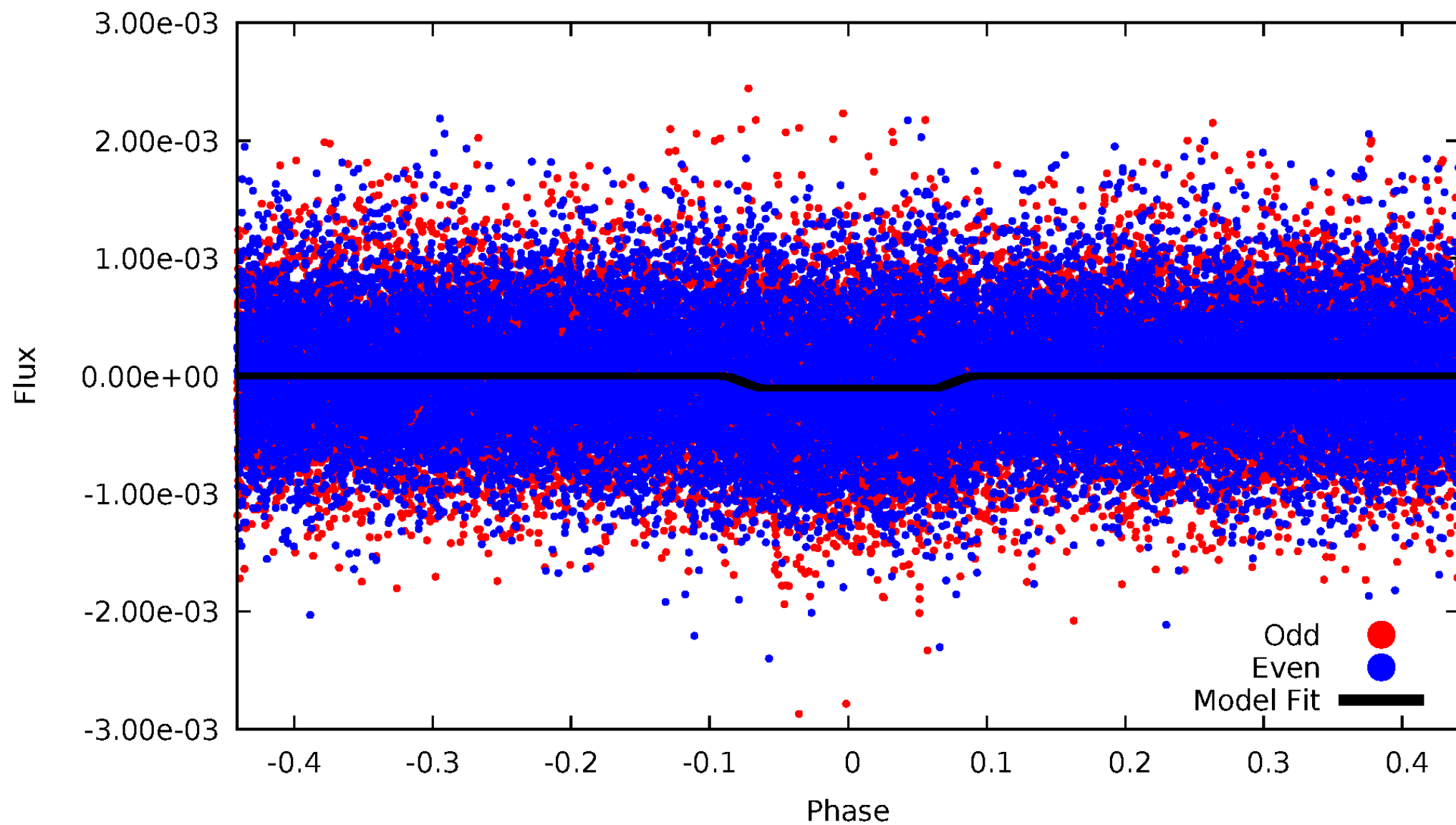
DV Odd/Even

TCE 011390683-01

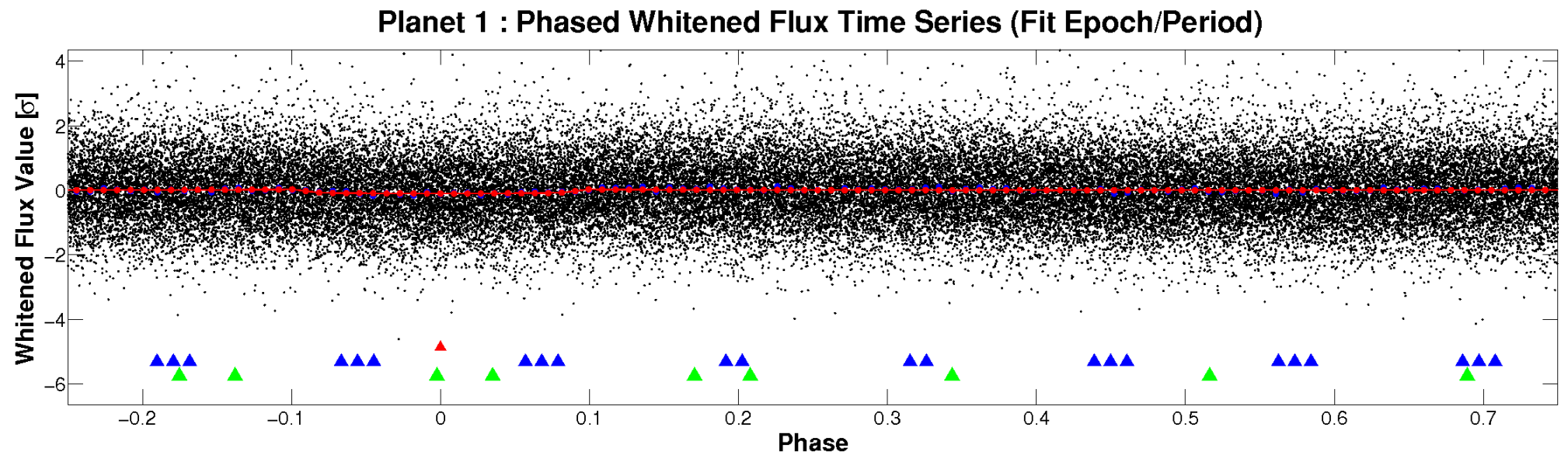
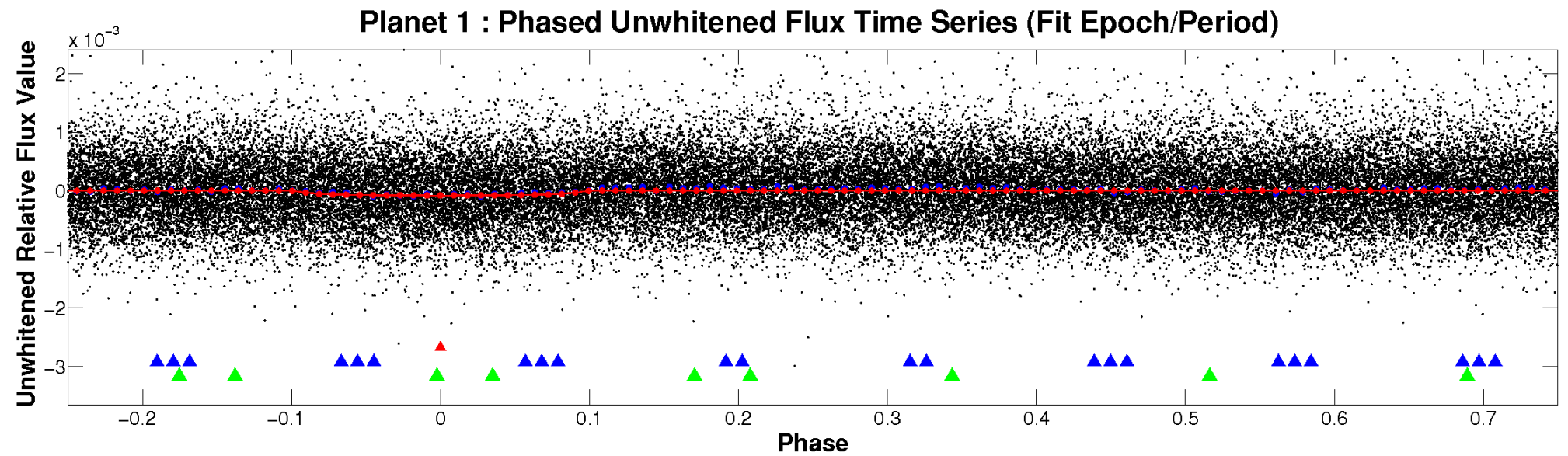


ALT Odd/Even

TCE 011390683-01

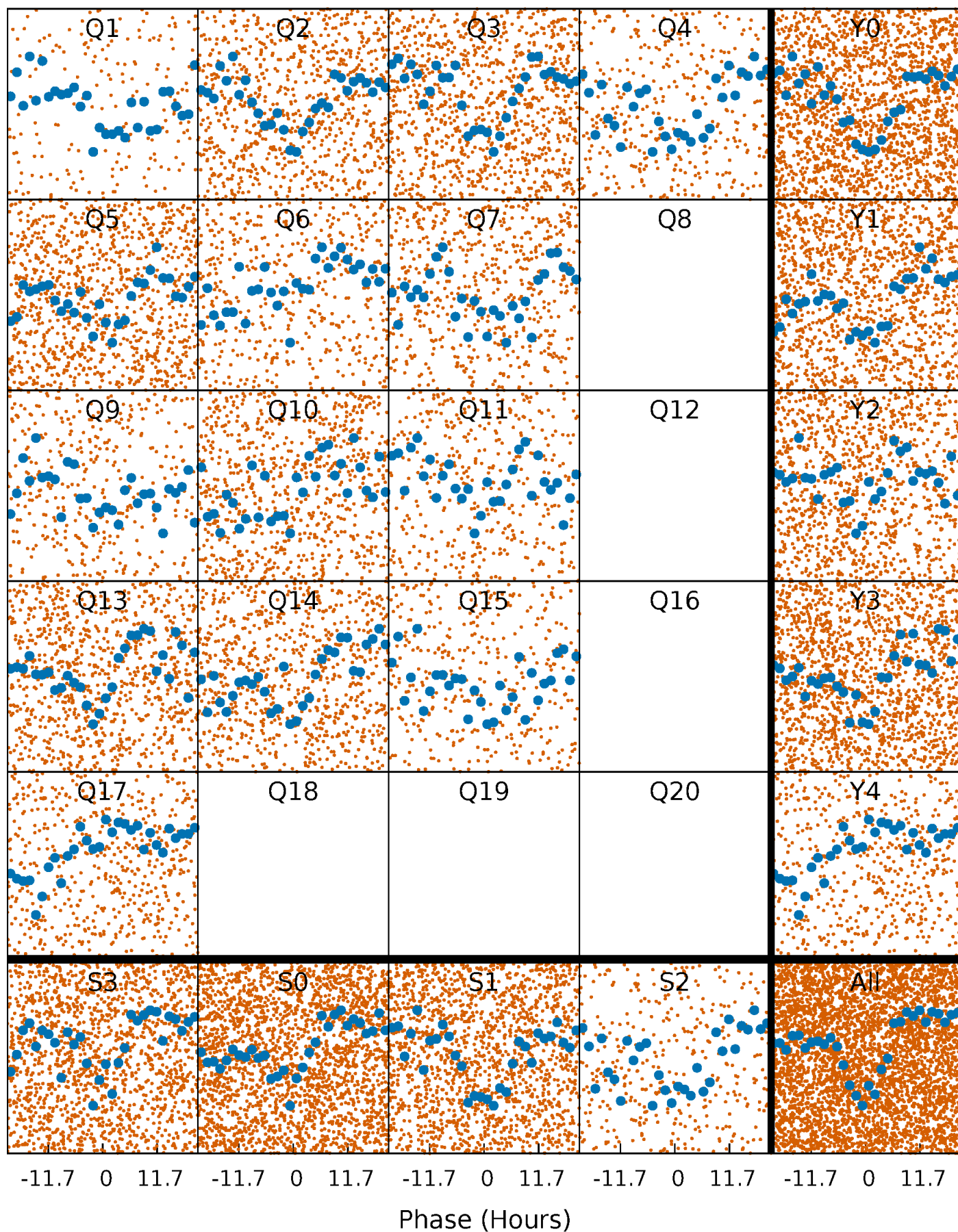


Non-Whitened Vs. Whitened Light Curve



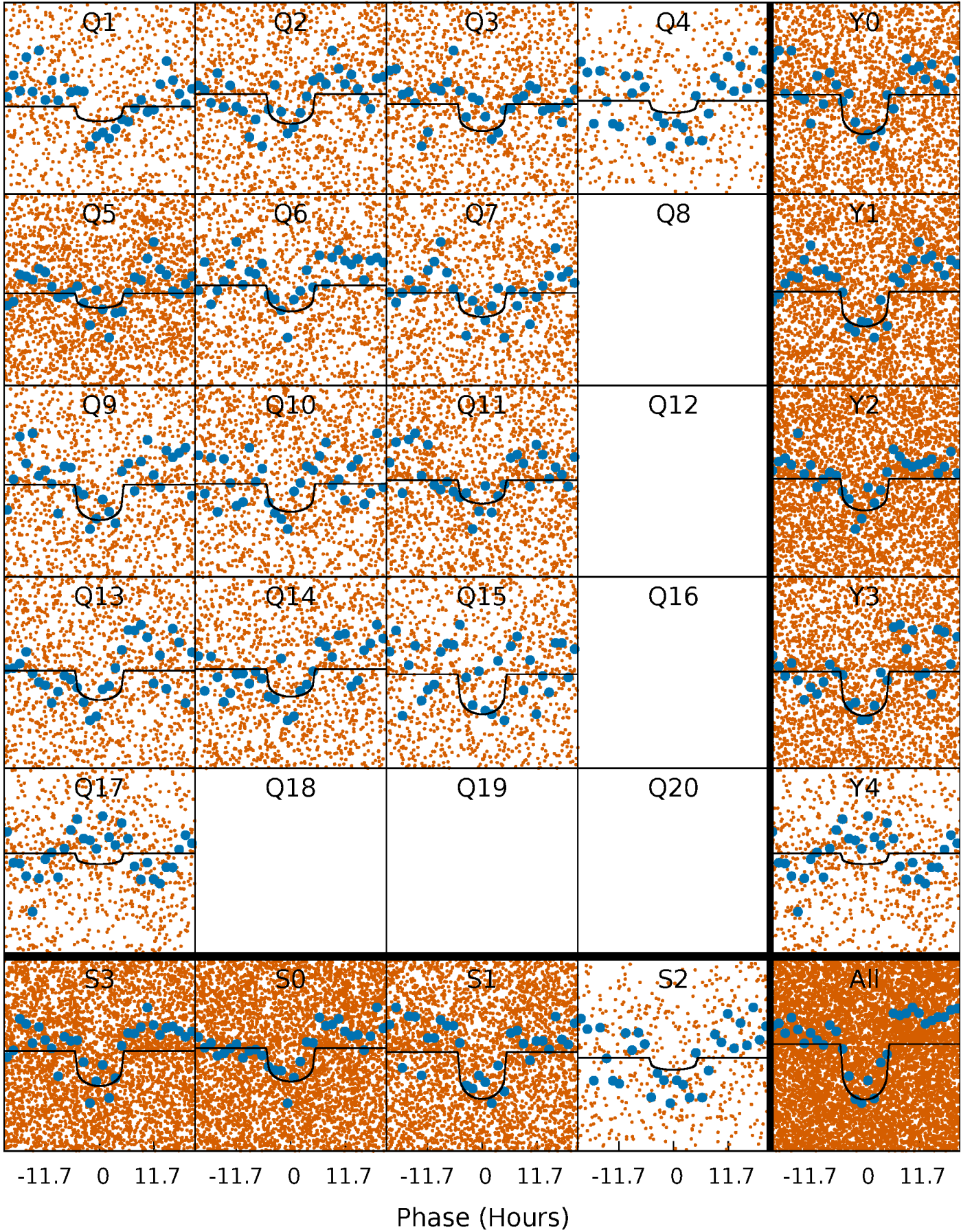
PDC Quarter-Phased Transit Curves

TCE 011390683-01 P= 2.259484 Days $T_0=132.591900$ (BKJD)



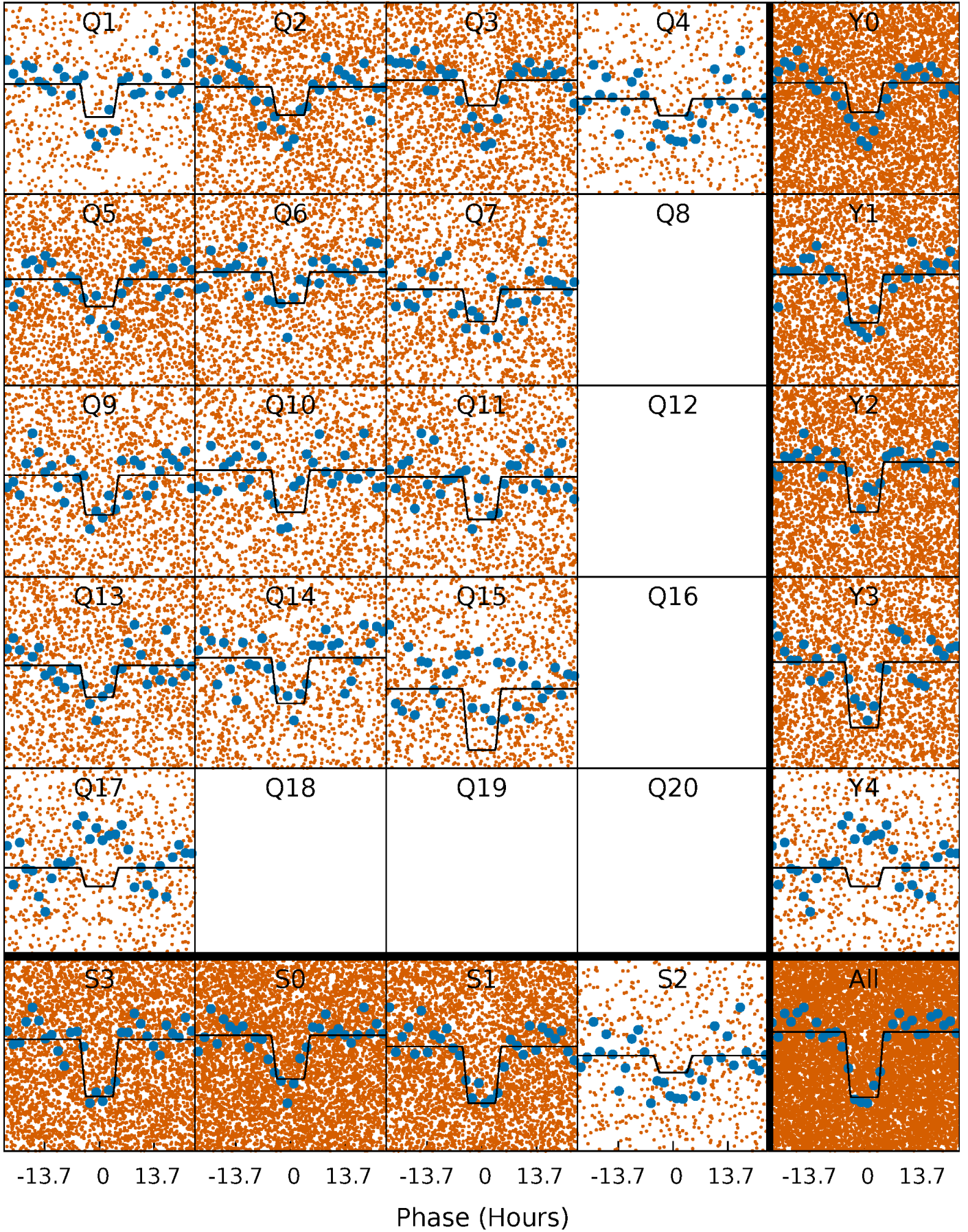
DV Quarter-Phased Transit Curves

TCE 011390683-01 P= 2.259484 Days $T_0=132.591900$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

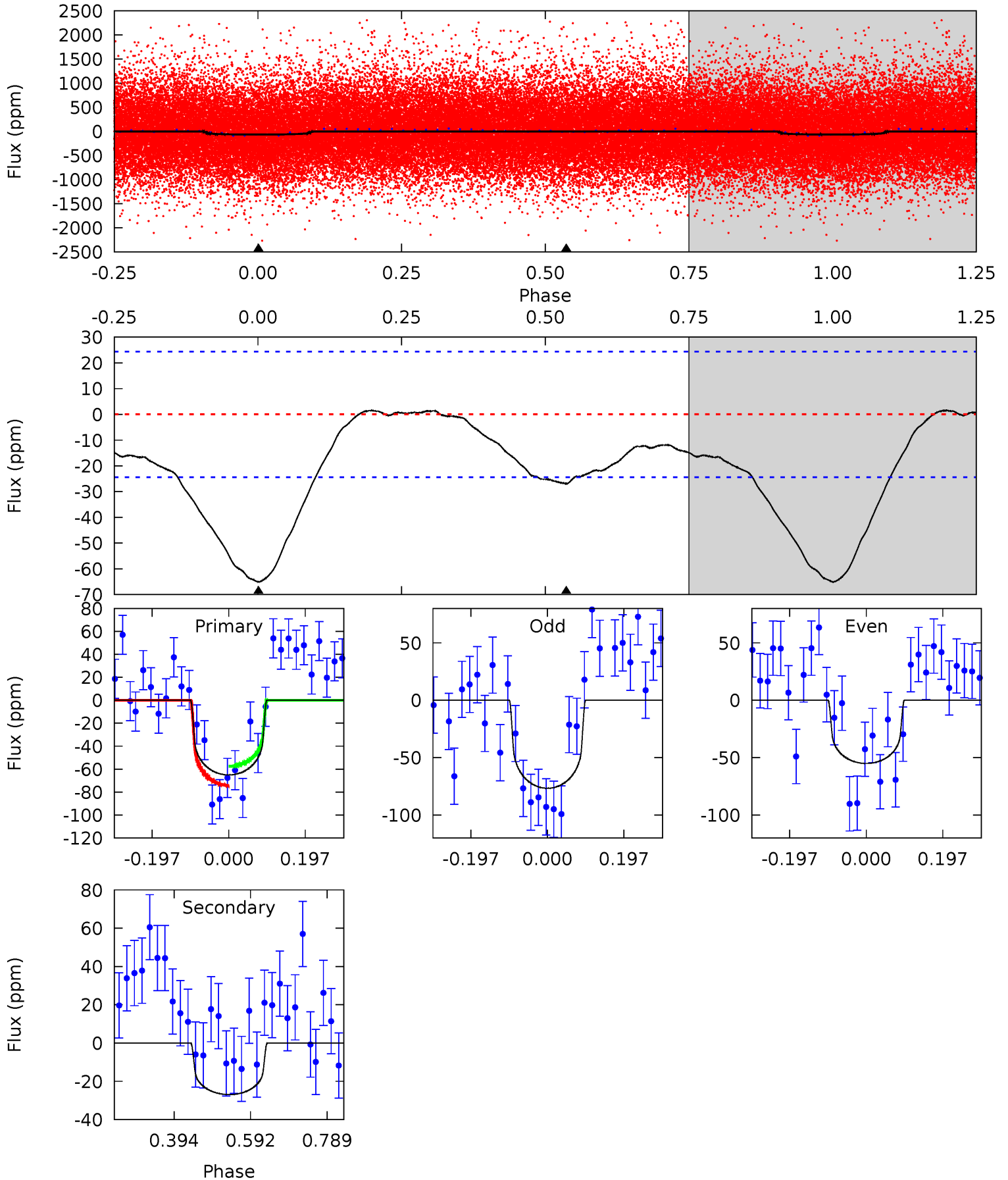
TCE 011390683-01 P= 2.259381 Days $T_0=132.633187$ (BKJD)



DV Model-Shift Uniqueness Test

011390683-01, P = 2.259484 Days, E = 130.332416 Days

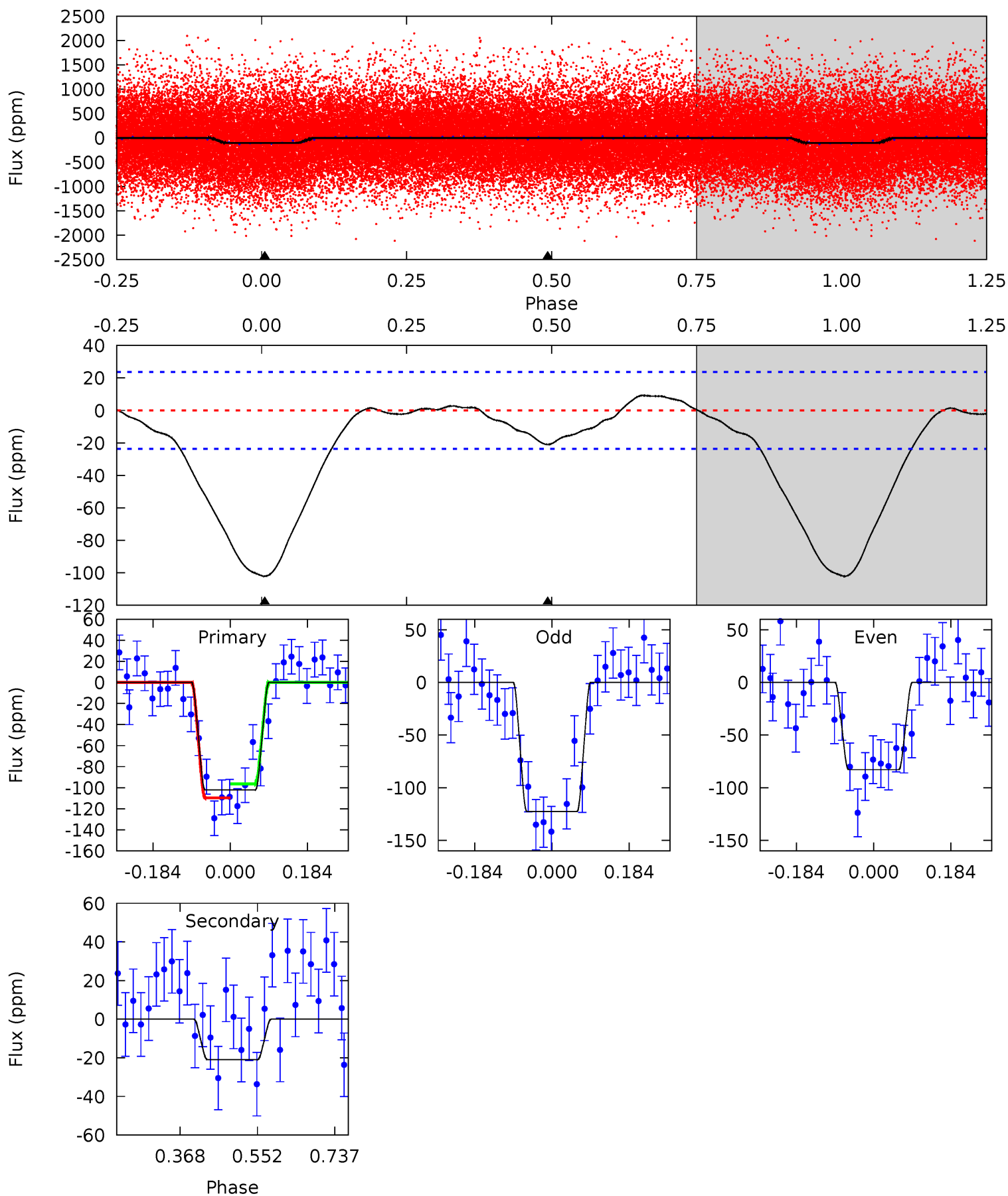
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	4.88	0	0	4.42	1.29	1.40	11.8	11.8	4.88	4.88	1.96	1.09	0.02	1.51



Alt Model-Shift Uniqueness Test

011390683-01, P = 2.259381 Days, E = 130.373806 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.91	0	0	4.43	1.33	0.99	19.1	19.1	3.91	3.91	3.72	0.96	0.08	1.23



Stellar Parameters For KIC 011390683

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3900^{+208}_{-254}	$4.727^{+0.119}_{-0.059}$	$-0.100^{+0.350}_{-0.400}$	$0.534^{+0.075}_{-0.122}$	$0.555^{+0.075}_{-0.121}$	$5.136^{+3.689}_{-1.058}$
	+5%/-7%	+3%/-1%	+350%/-400%	+14%/-23%	+14%/-22%	+72%/-21%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011390683-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-27 ± 6	$0.55^{+0.29}_{-0.25}$	1042^{+66}_{-79}	3188^{+761}_{-396}	37^{+94}_{-22}
Alt.	-21 ± 5	$0.58^{+0.32}_{-0.30}$	1041^{+72}_{-77}	2999^{+753}_{-360}	26^{+78}_{-15}

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 $A_{obs} \gg 1.0$

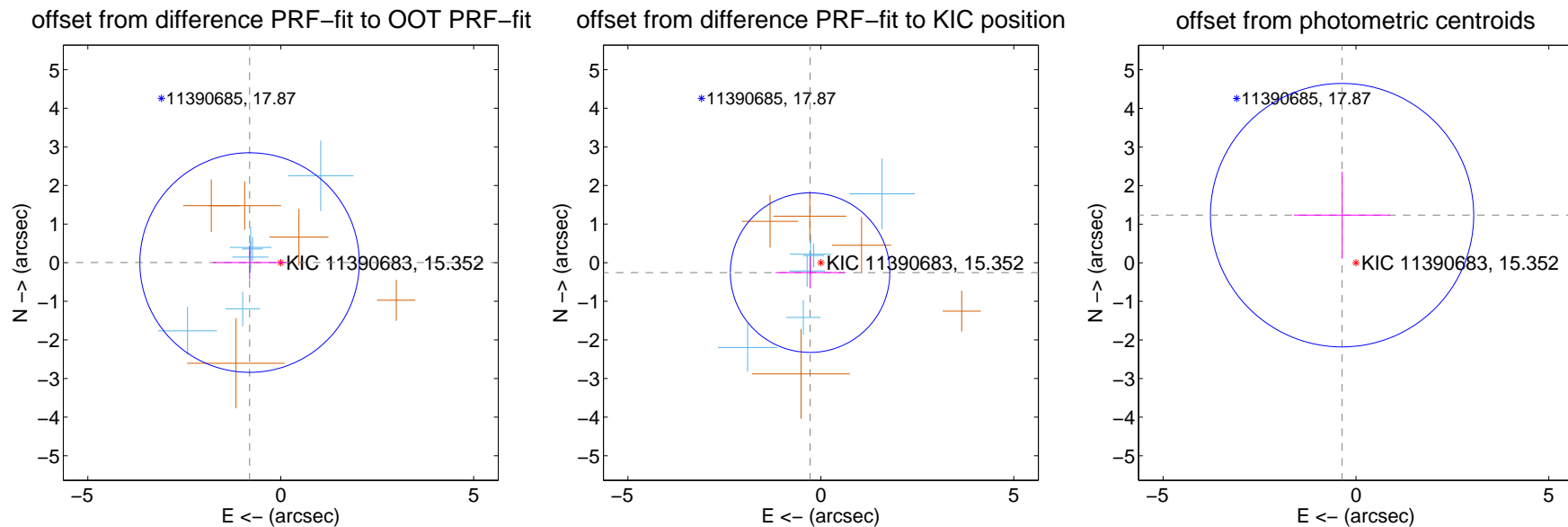
DV Centroid Data

Supplemental centroid analysis for 011390683-01. Kepler magnitude: 15.35. Transit SNR 8.52

There are 6 quarters with good PRF difference image offsets

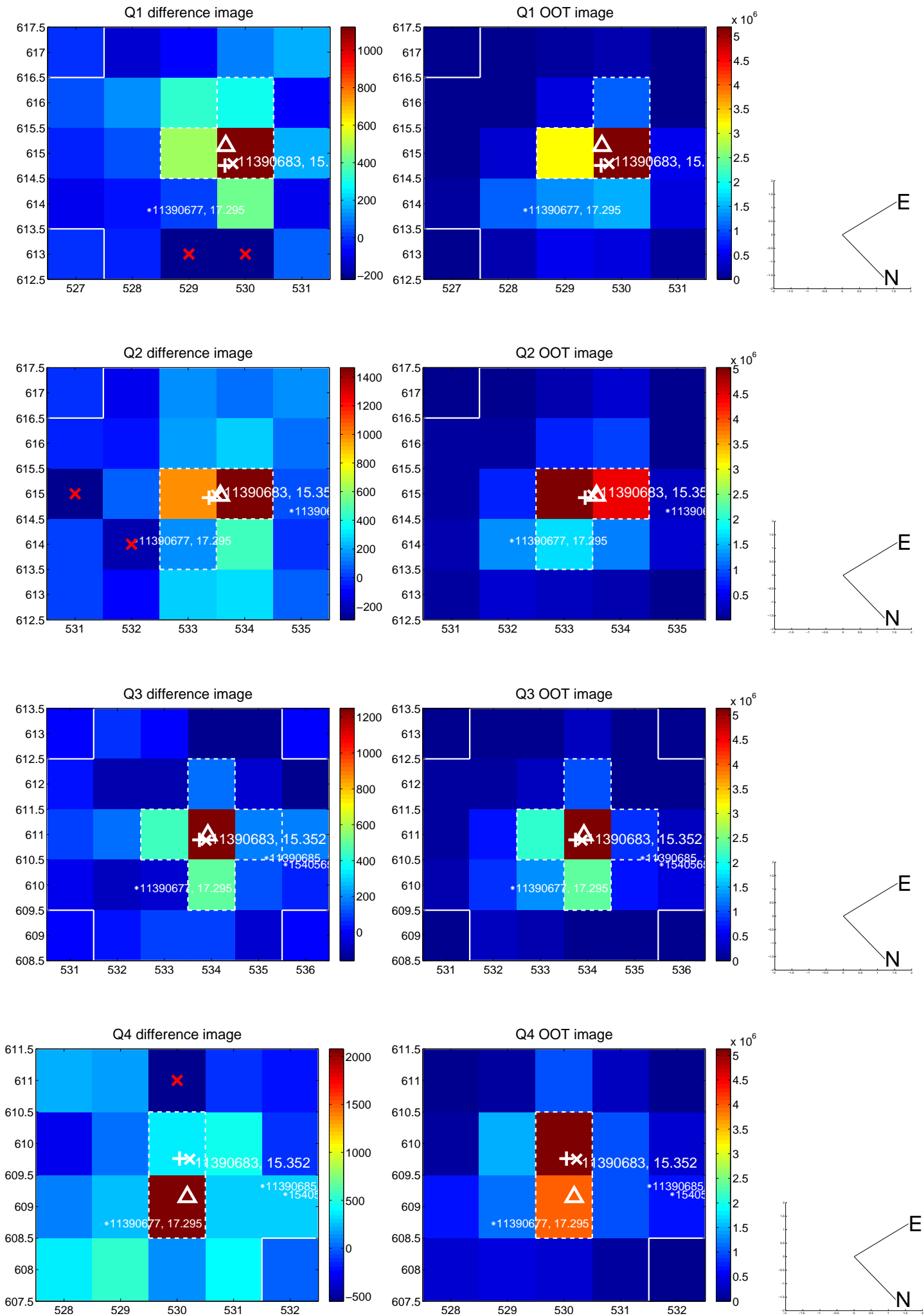
The direct PRF centroid is offset from the target star catalog position by about 0.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.808 ± 0.948	0.85	0.808 ± 0.948	0.003 ± 0.435
PRF-fit source offset from KIC position	0.380 ± 0.689	0.55	0.280 ± 0.898	-0.258 ± 0.402
photometric centroid source offset	1.28 ± 1.14	1.13	0.36 ± 1.25	1.23 ± 1.13

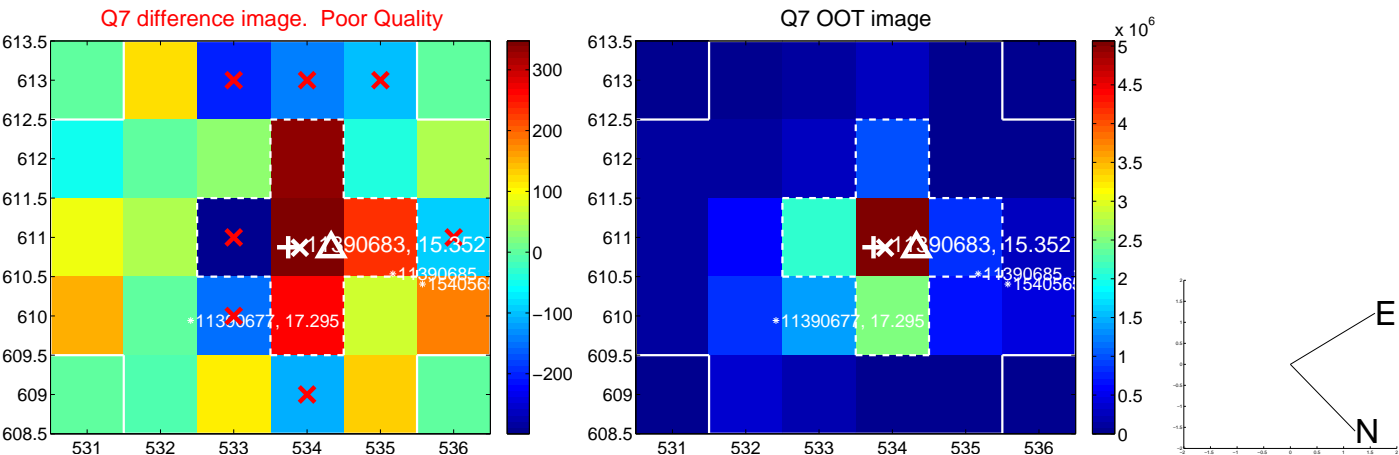
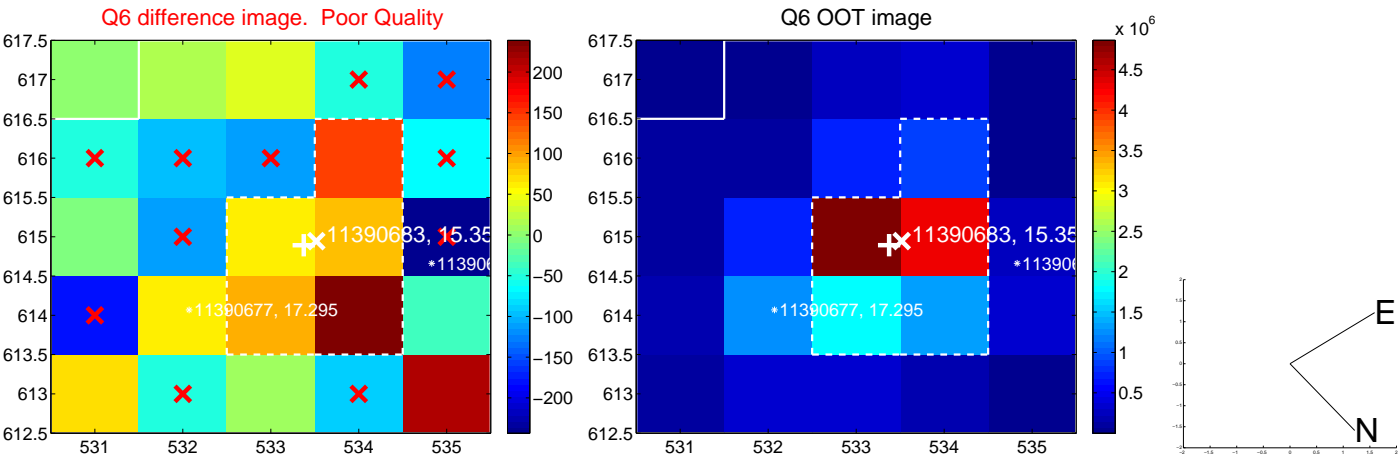
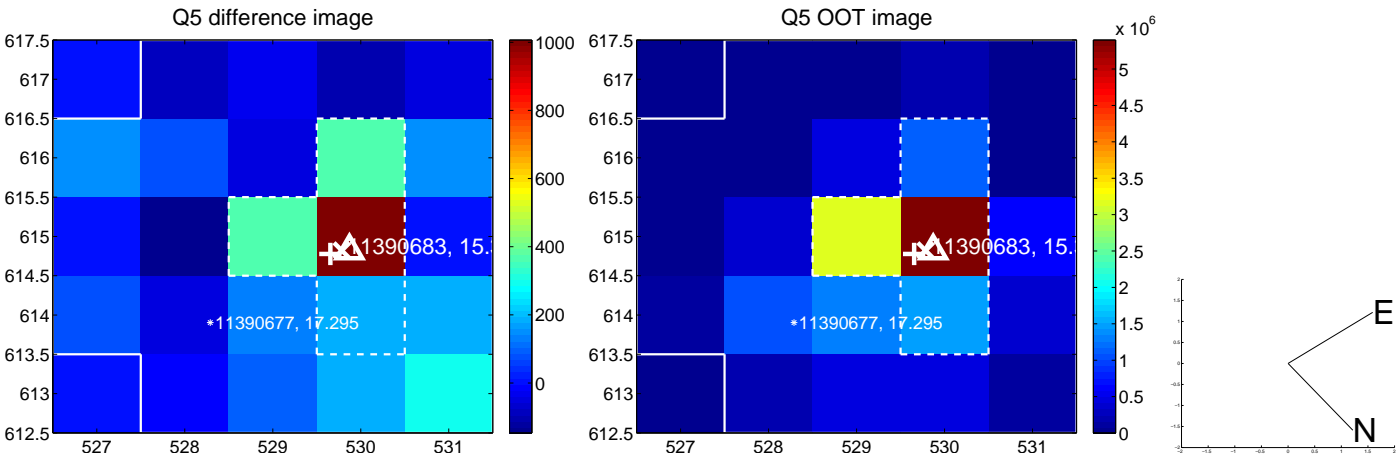


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

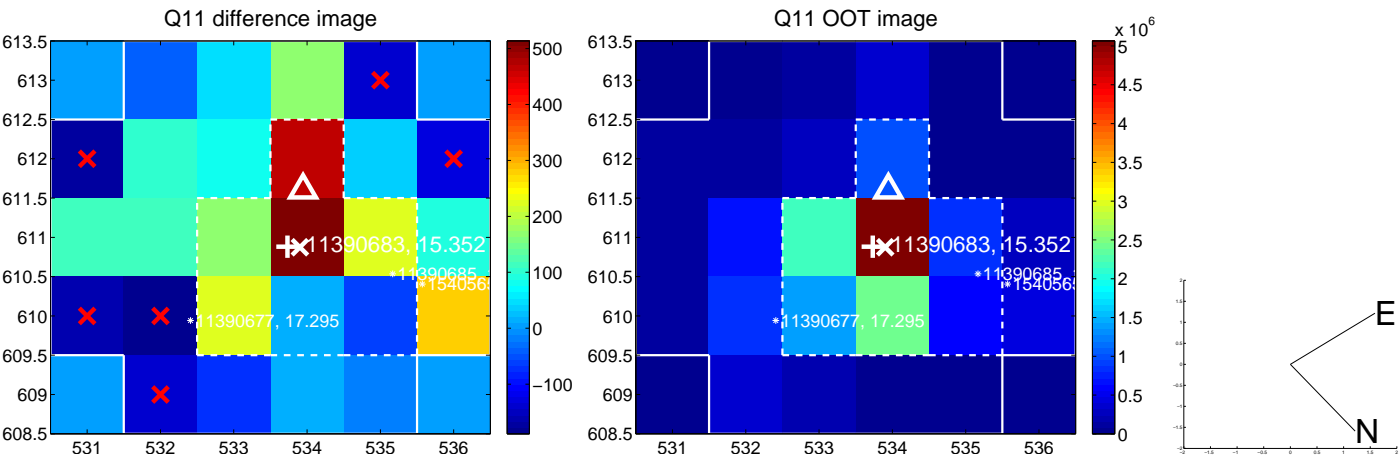
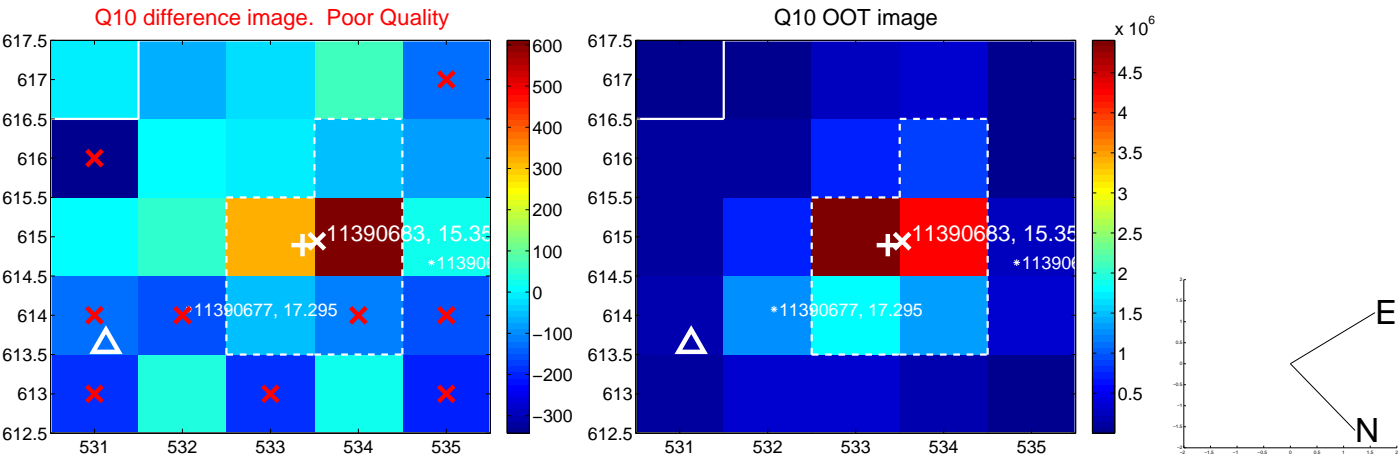
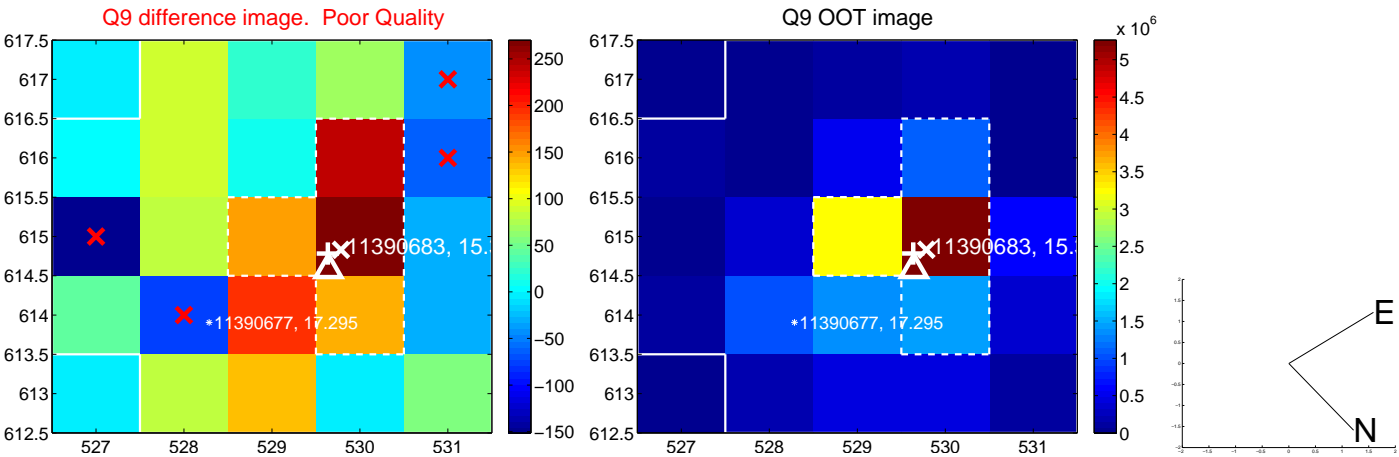
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



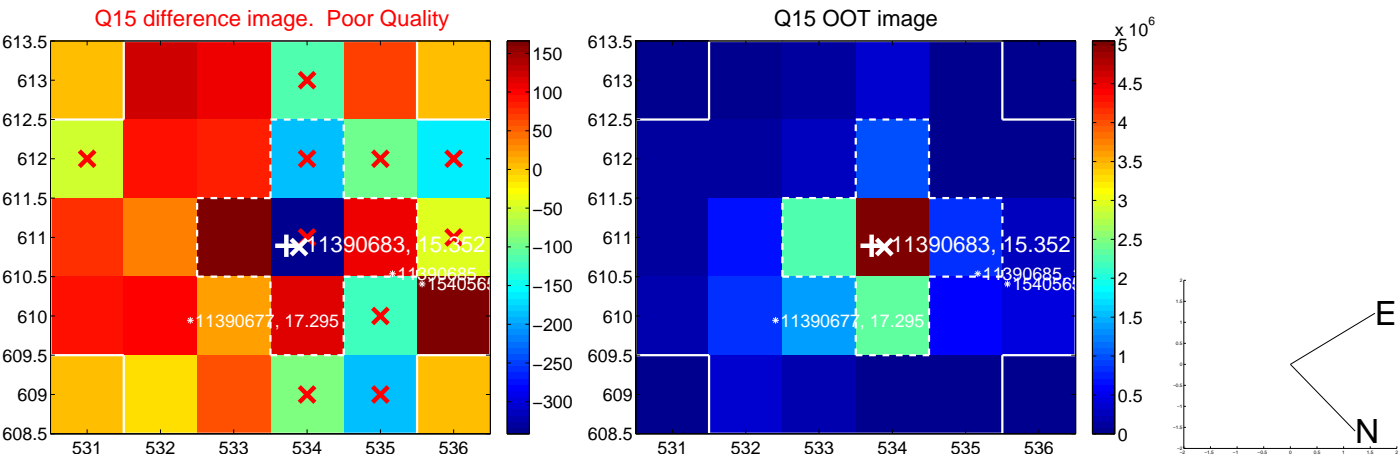
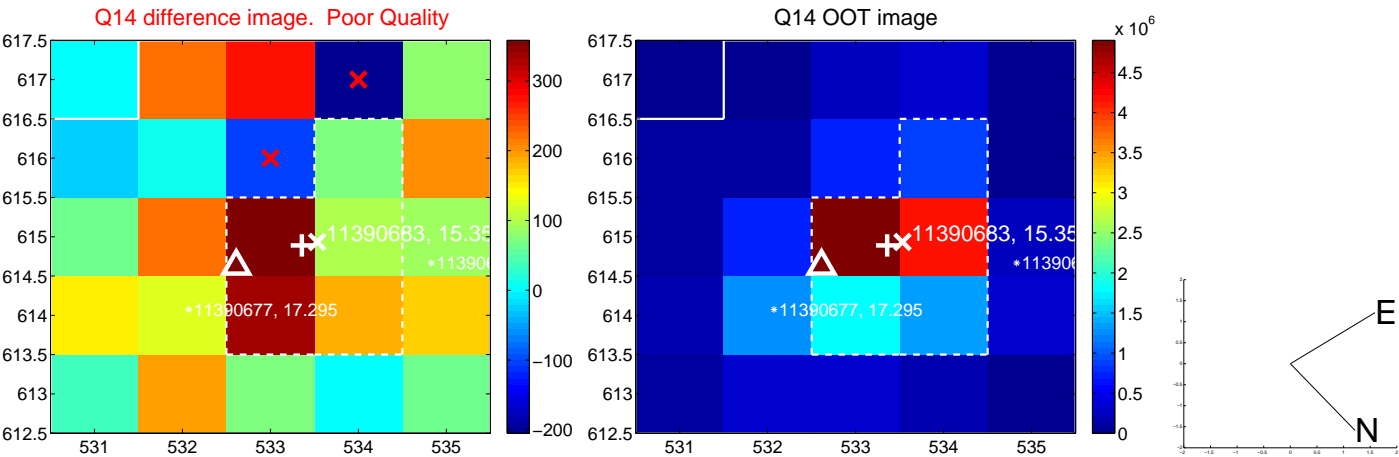
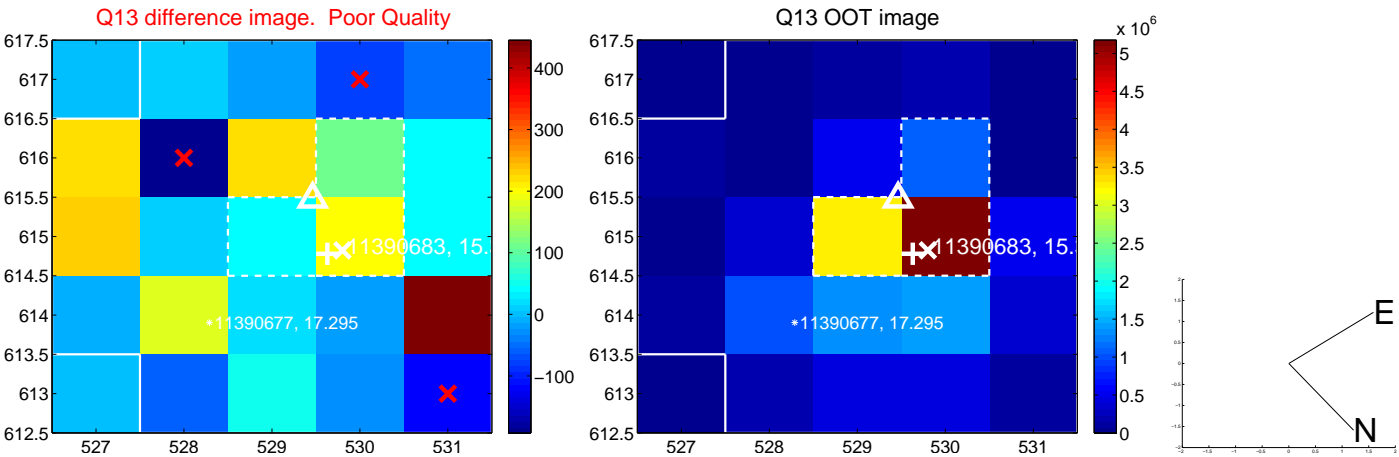
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



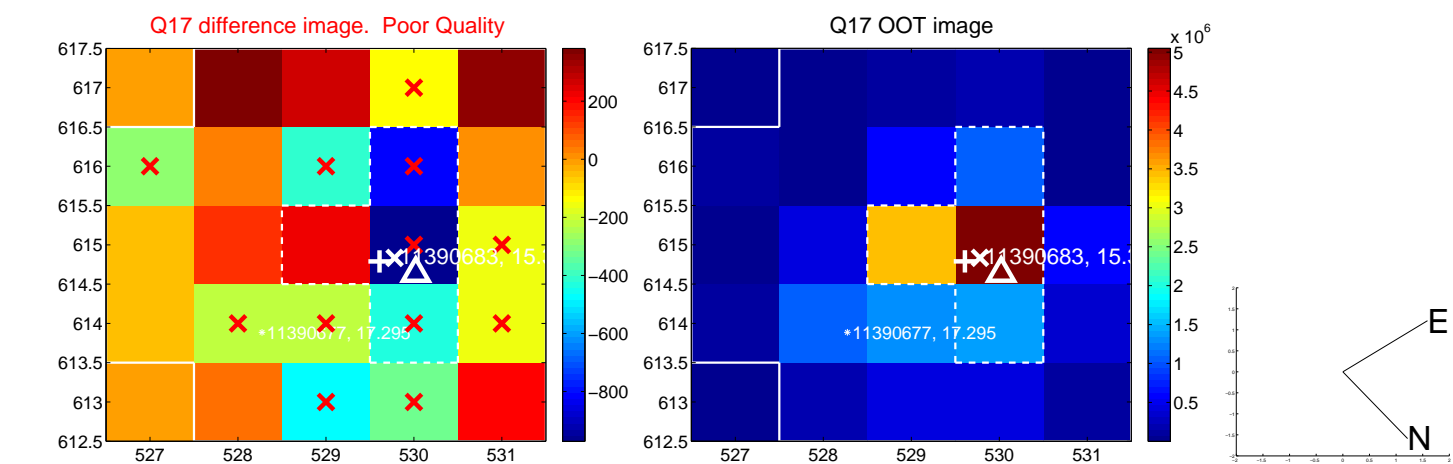
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



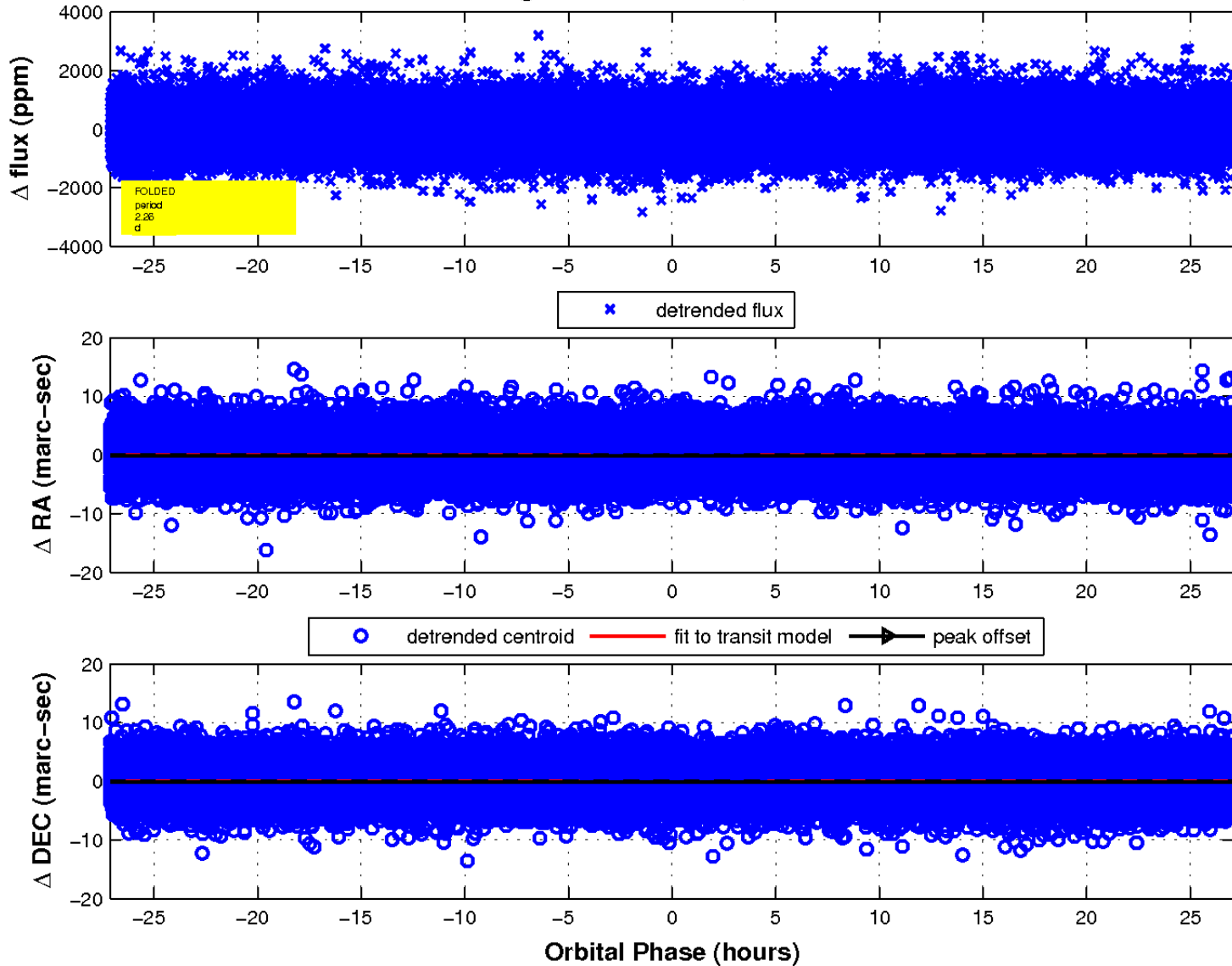
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

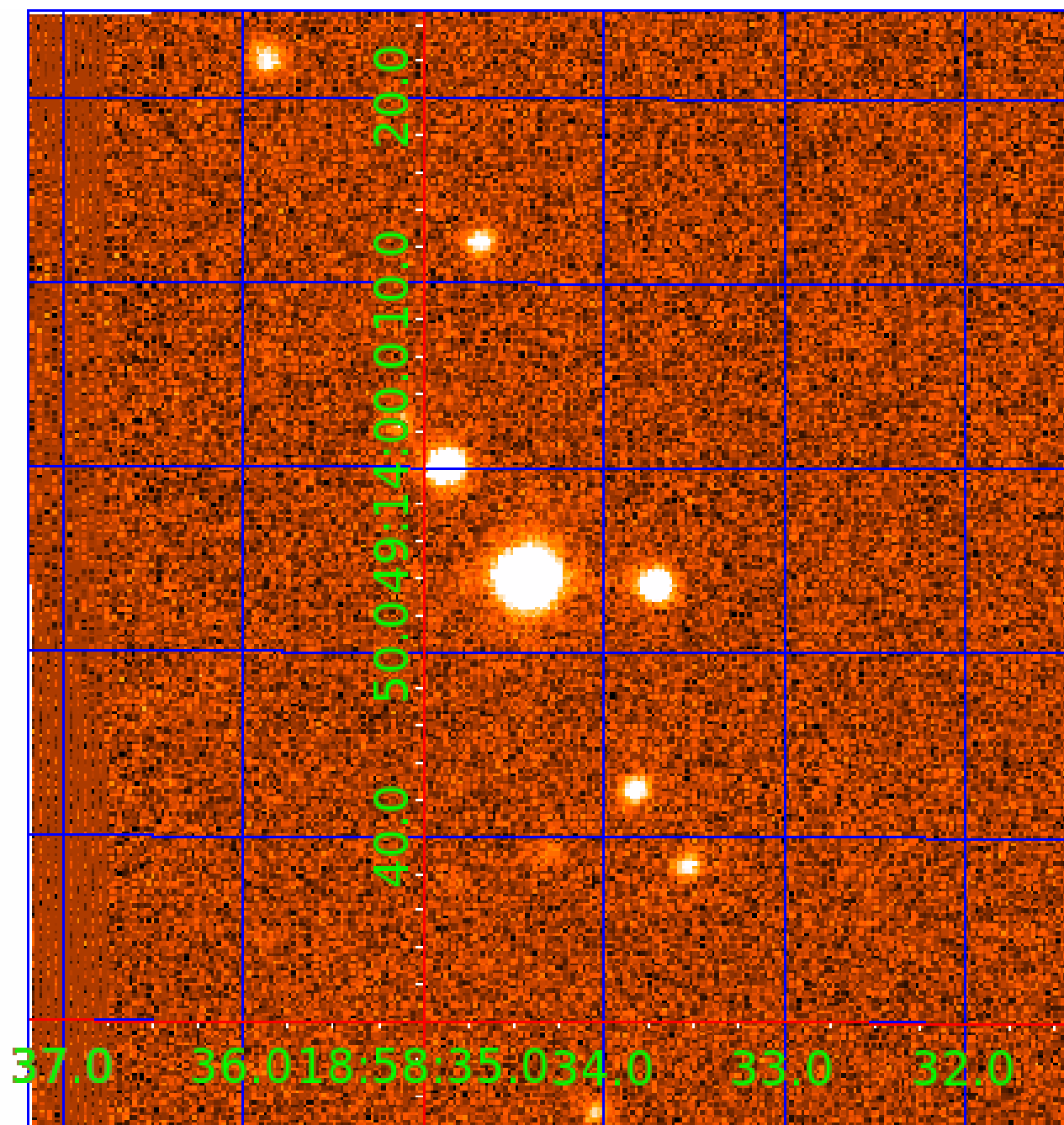


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 011390683

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})
011390683-01	OBS	No	2.259484	132.591900	81.2	10.250	8.2	8.5	0.53	3900	0.53	77.06
011390683-02	OBS	No	65.245674	193.726835	371.6	11.624	8.8	5.8	0.53	3900	1.13	0.87
011390683-03	OBS	No	171.330094	203.105650	888.8	4.097	7.7	6.3	0.53	3900	1.81	0.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390683-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_KIC_POS—HALO_GHOST
011390683-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011390683-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

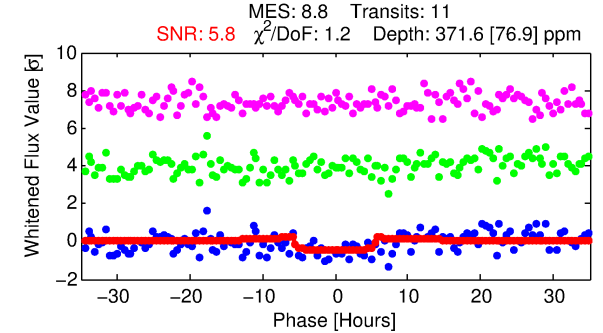
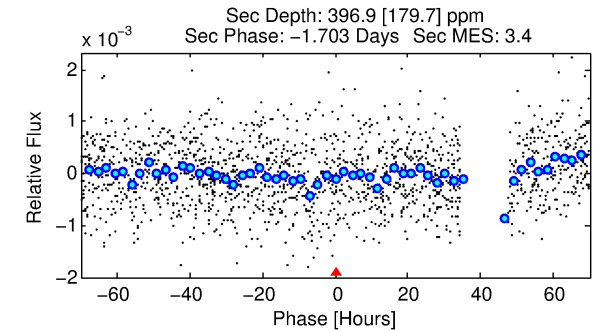
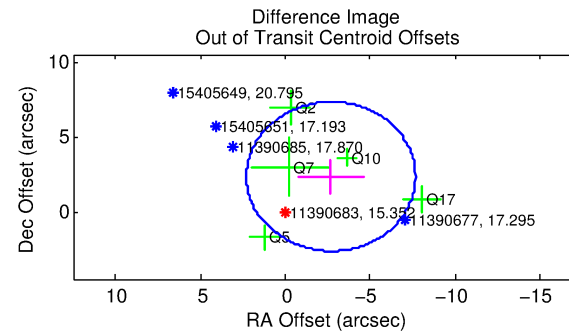
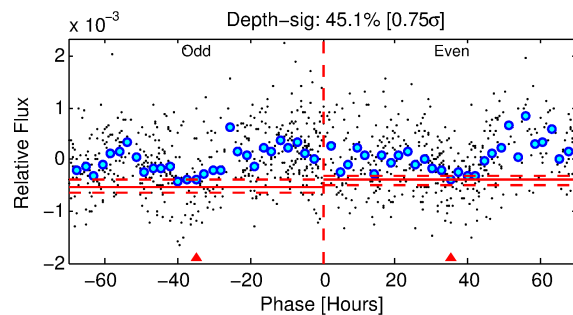
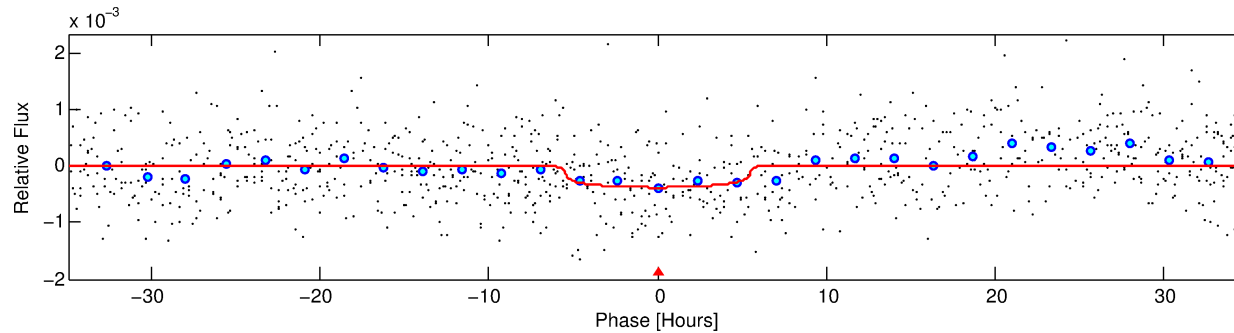
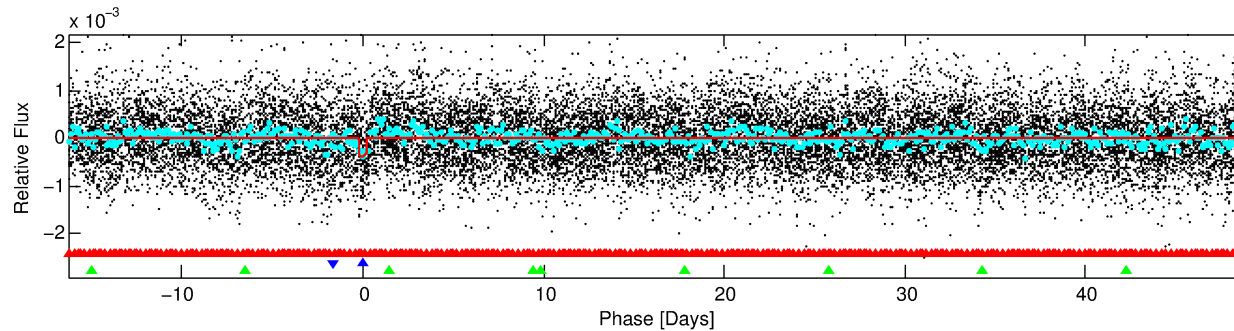
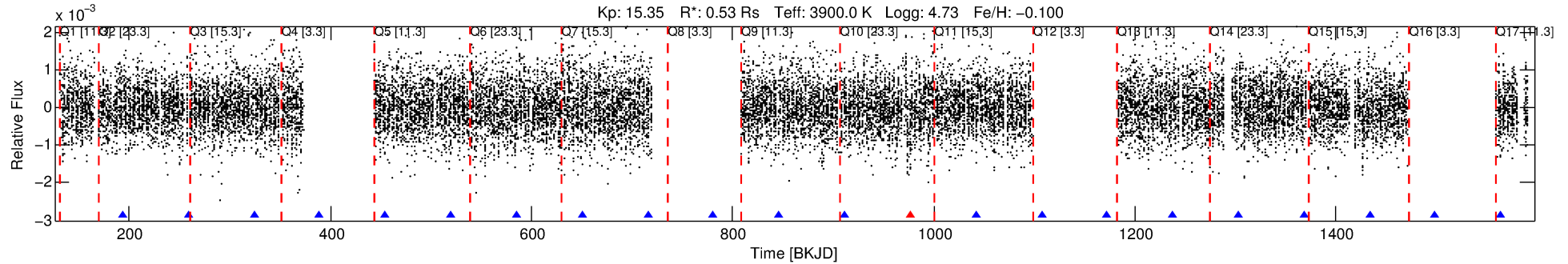
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390683-02

No Significant Match Found

DV One-Page Summary

KIC: 11390683 Candidate: 2 of 3 Period: 65.246 d



DV Fit Results:

Period = 65.24567 [0.00246] d
Epoch = 193.7268 [0.0308] BKJD
Rp/R* = 0.0194 [0.0099]
a/R* = 27.96 [60.35]
b = 0.78 [1.06]
Seff = 0.87 [0.31]
Teq = 246 [22] K
Rp = 1.13 [0.63] Re
a = 0.2607 [0.0463] AU
Ag = 11551.37 [13141.02] [0.88σ]
Teffp = 3947 [1127] K [3.28σ]

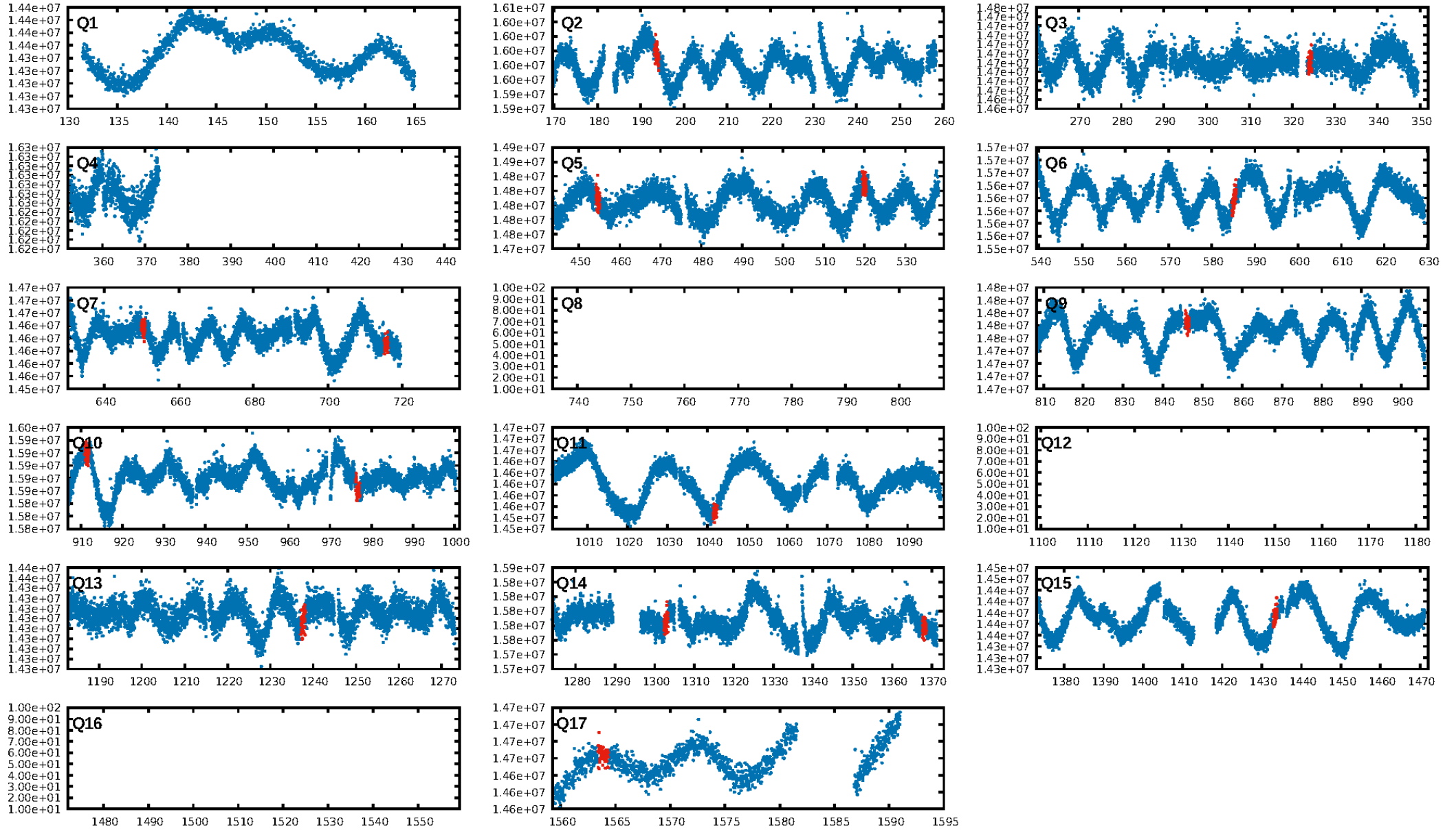
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [97.54σ]
LongPeriod-sig: 100.0% [206.57σ]
ModelChiSquare2-sig: 1.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.22e-10
RollingBand-fgt: 0.90 [9/10]
GhostDiagnostic-chr: -0.8361
Centroid-sig: 60.6%
Centroid-so: 0.662 arcsec [0.49σ]
OotOffset-rm: 3.579 arcsec [2.15σ]
OotOffset-st: 2/1/0/2 [5]
KicOffset-rm: 3.939 arcsec [2.34σ]
KicOffset-st: 2/1/0/2 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.00 [0/9]

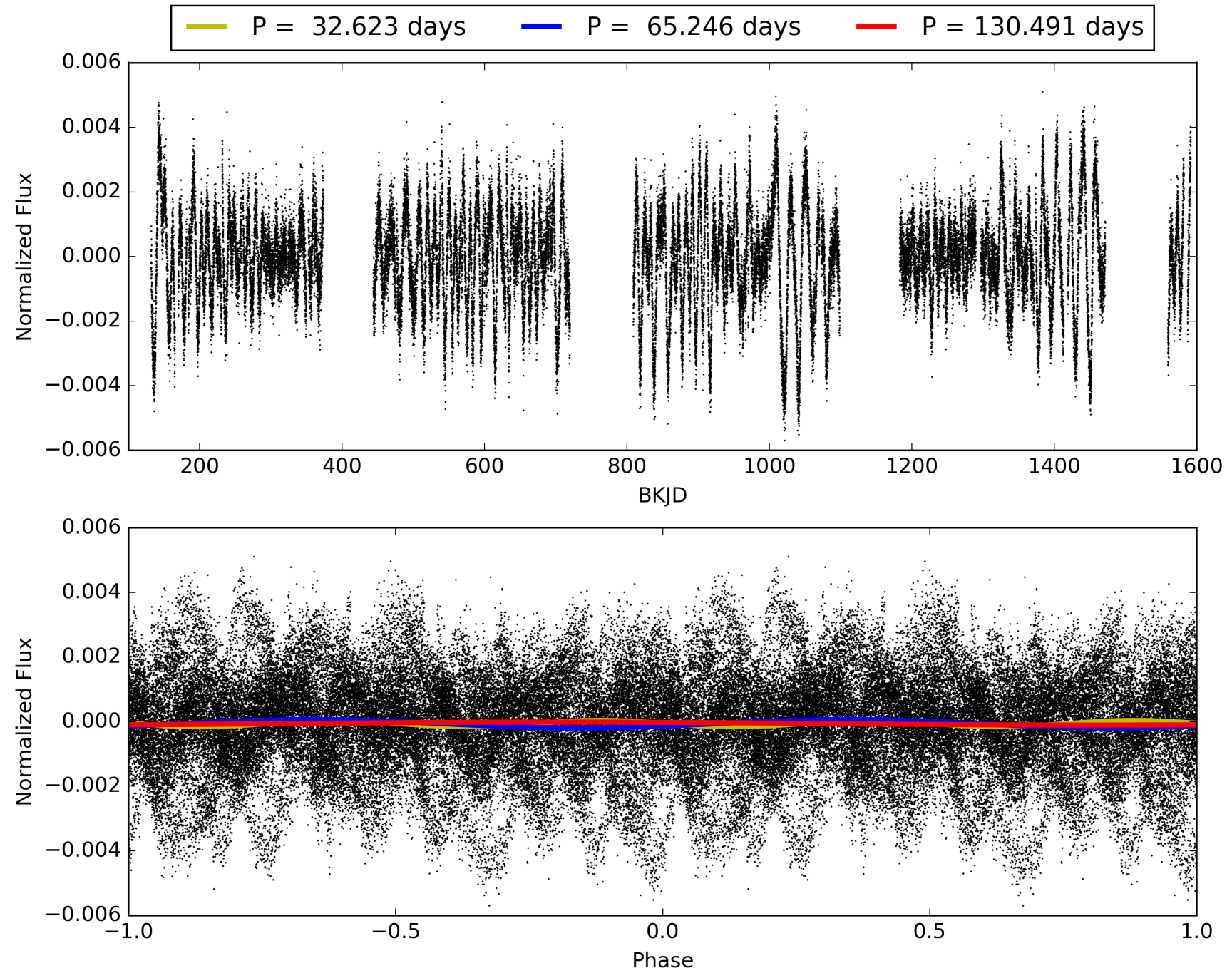
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:02:56 Z

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

TCE 011390683-02, PDC Light Curves

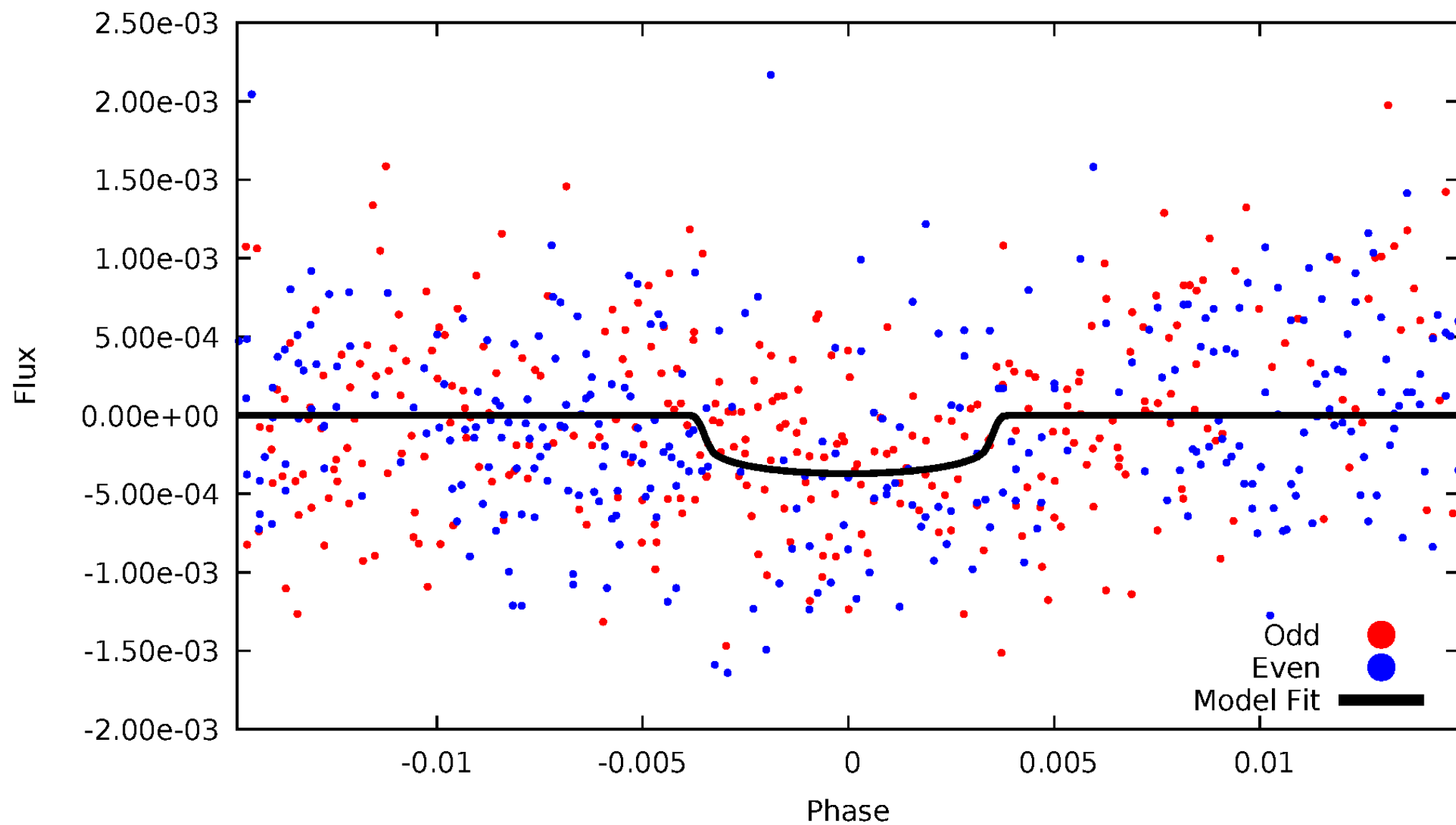


TCE 011390683-02



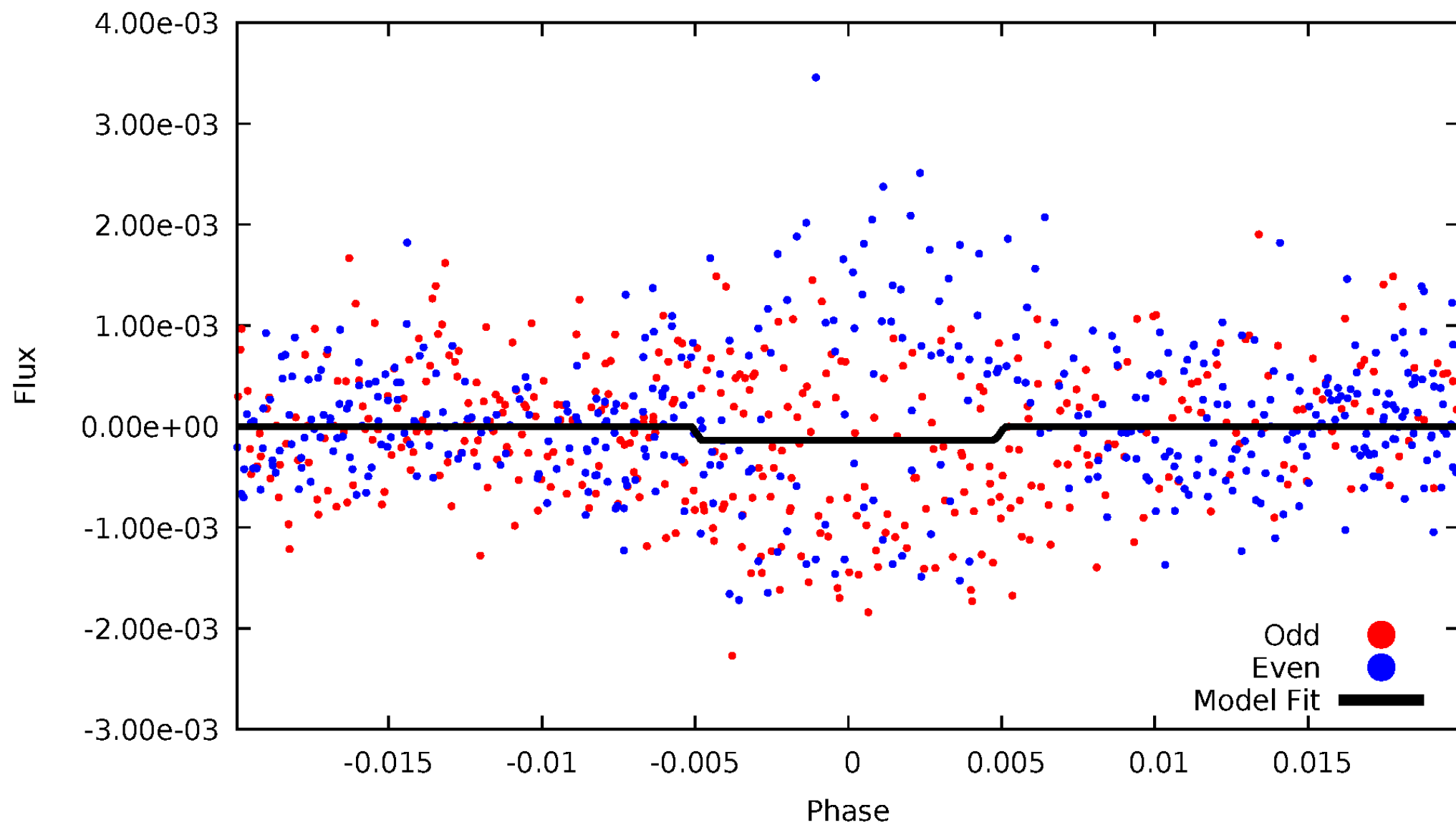
DV Odd/Even

TCE 011390683-02



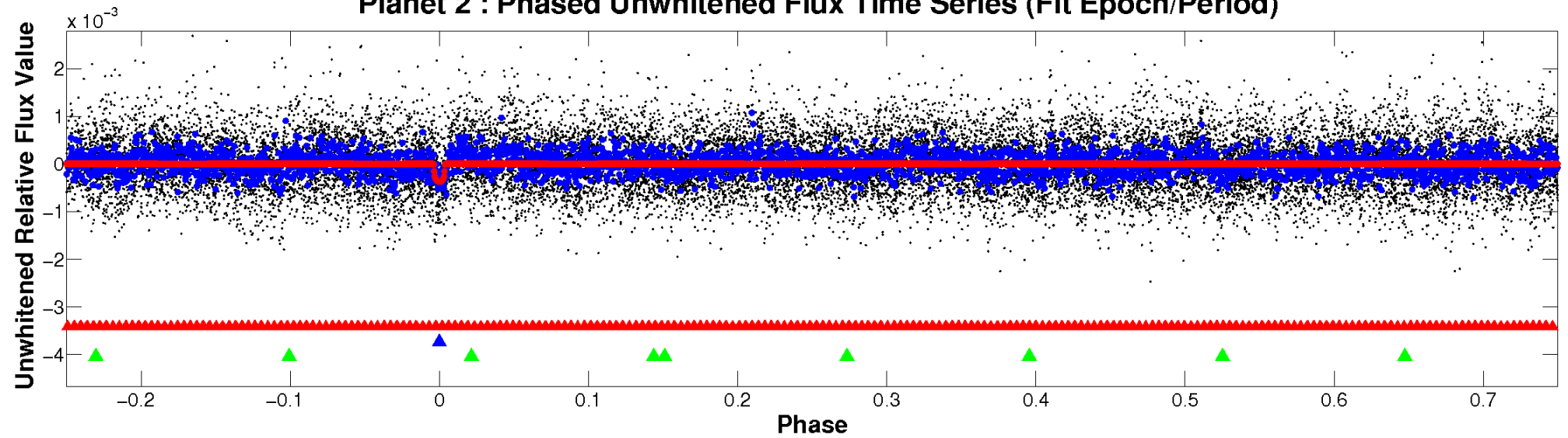
ALT Odd/Even

TCE 011390683-02

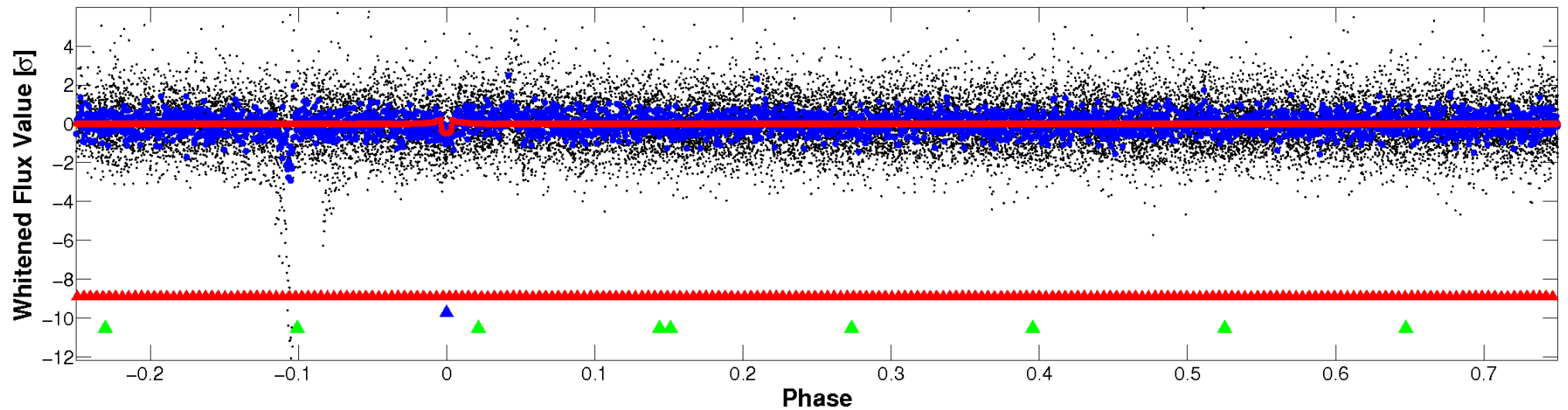


Non-Whitened Vs. Whitened Light Curve

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



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



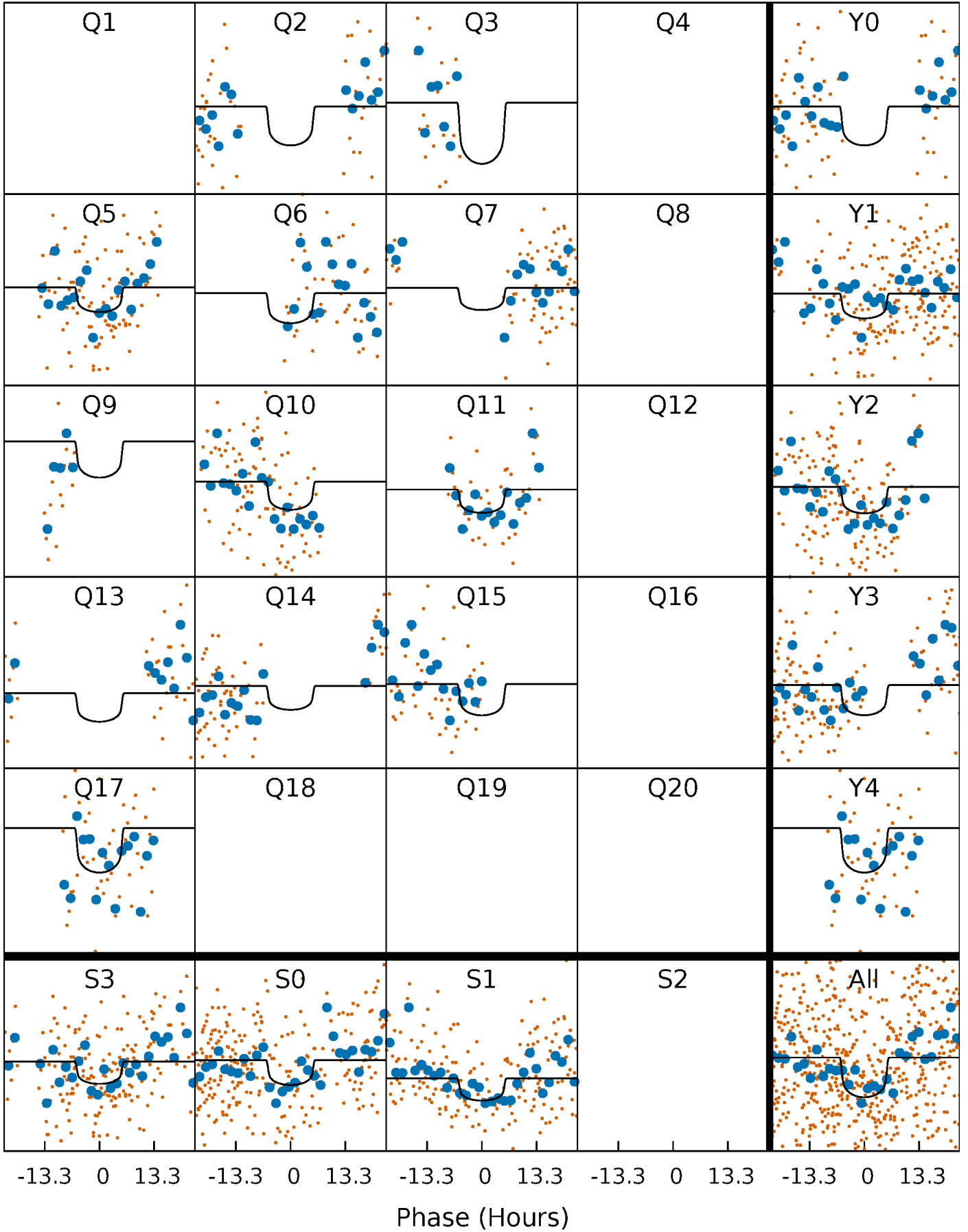
PDC Quarter-Phased Transit Curves

TCE 011390683-02 P= 65.245674 Days $T_0=193.726835$ (BKJD)



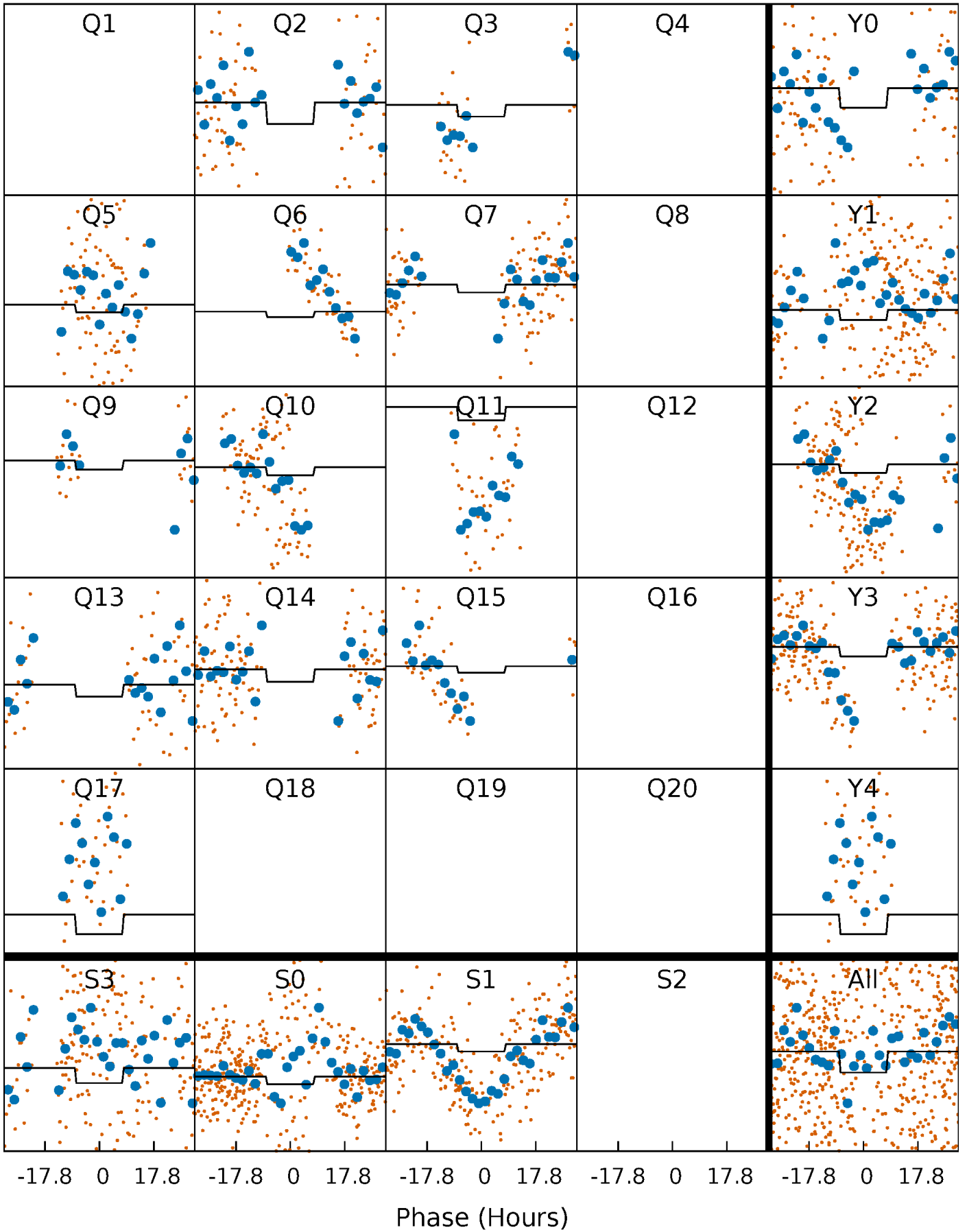
DV Quarter-Phased Transit Curves

TCE 011390683-02 P= 65.245674 Days $T_0=193.726835$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

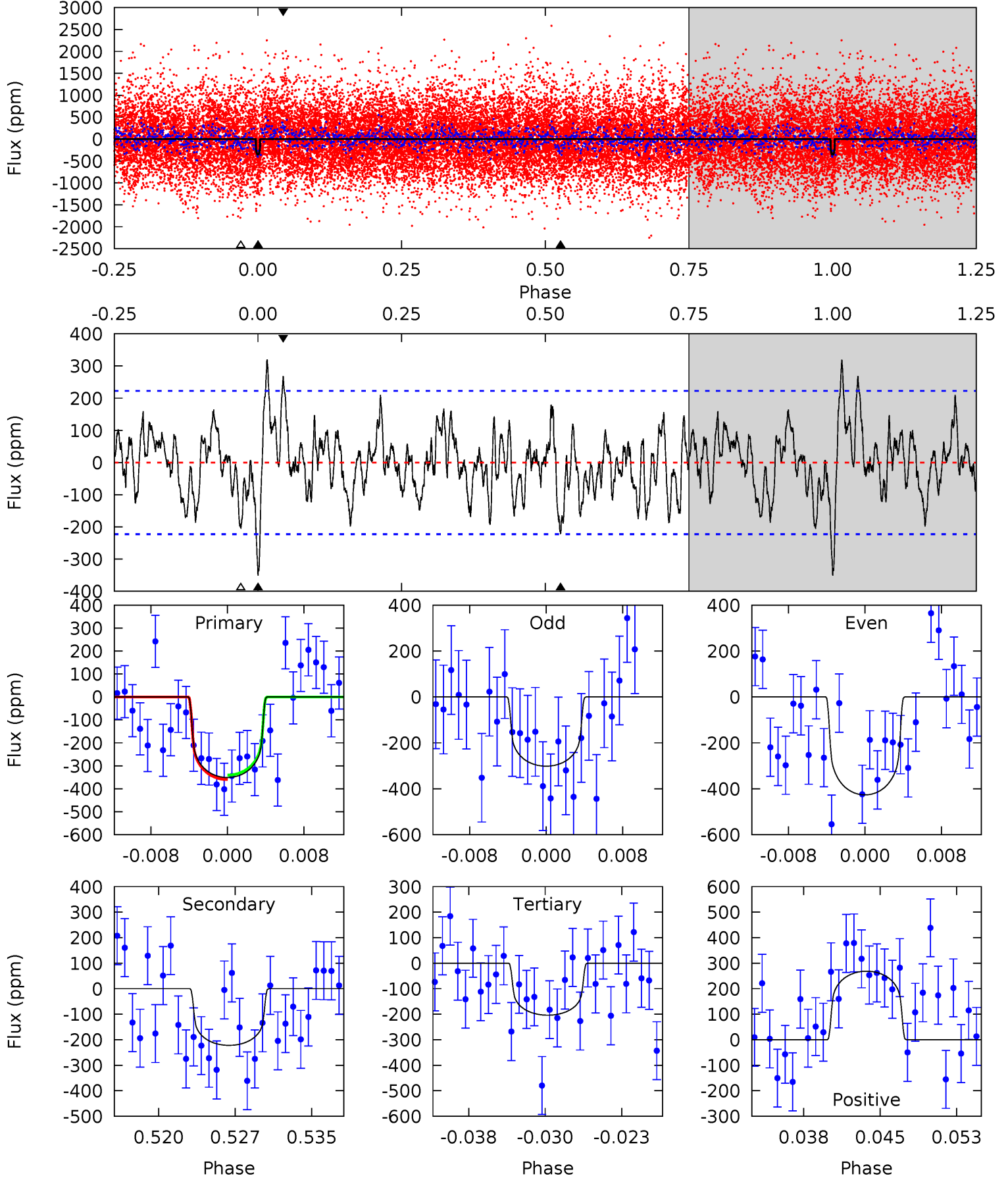
TCE 011390683-02 P= 65.257611 Days $T_0=193.625044$ (BKJD)



DV Model-Shift Uniqueness Test

011390683-02, $P = 65.245674$ Days, $E = 128.481161$ Days

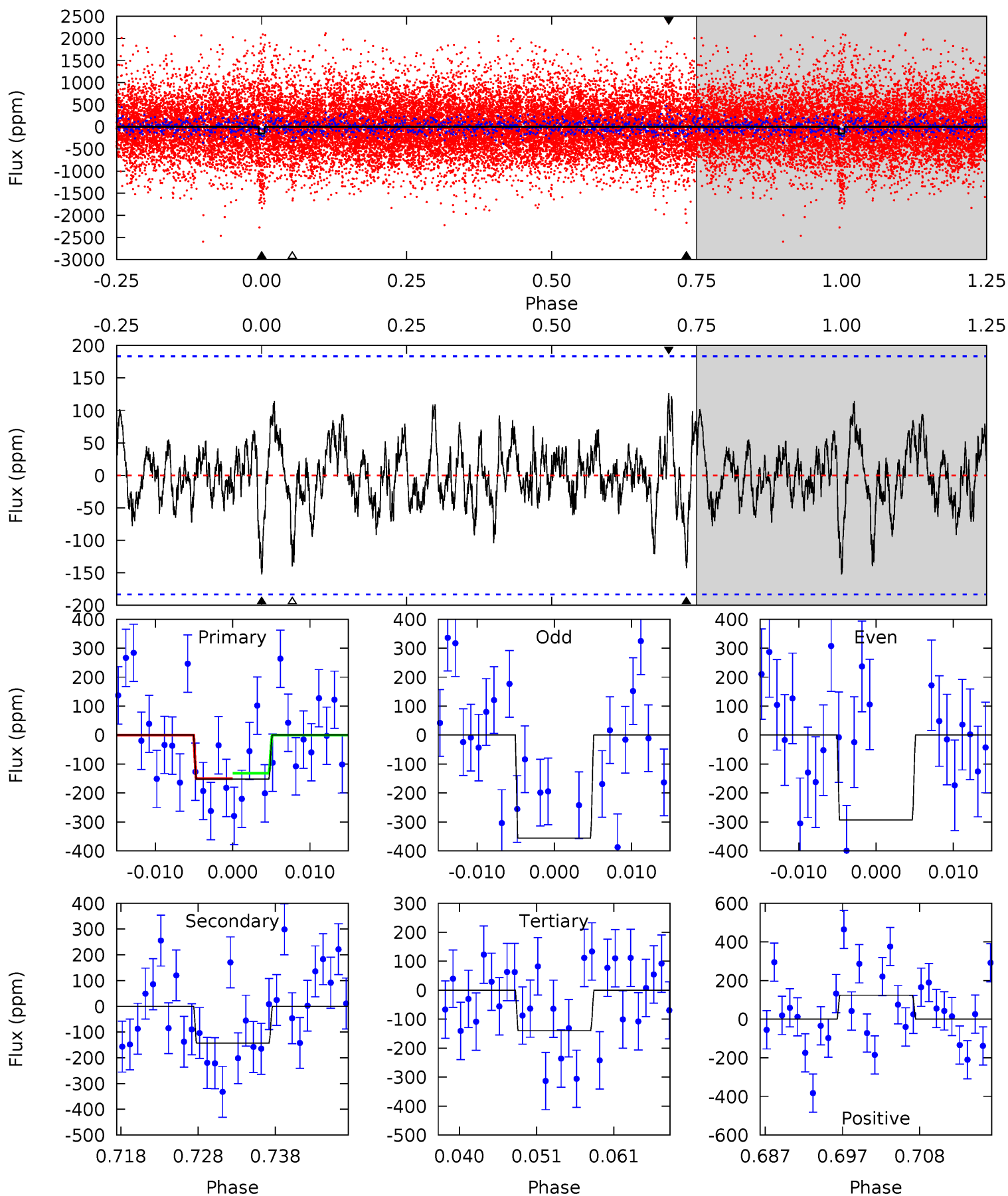
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.00	5.06	4.65	6.13	5.08	2.67	1.91	3.35	1.88	0.42	-1.06	1.40	0.89	0.48	0.22



Alt Model-Shift Uniqueness Test

011390683-02, P = 65.257611 Days, E = 128.367433 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.18	3.91	3.82	3.41	5.02	2.57	1.14	0.35	0.77	0.09	0.50	0.84	0.36	0.45	0.26



Stellar Parameters For KIC 011390683

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3900^{+208}_{-254}	$4.727^{+0.119}_{-0.059}$	$-0.100^{+0.350}_{-0.400}$	$0.534^{+0.075}_{-0.122}$	$0.555^{+0.075}_{-0.121}$	$5.136^{+3.689}_{-1.058}$
	+5%/-7%	+3%/-1%	+350%/-400%	+14%/-23%	+14%/-22%	+72%/-21%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011390683-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-222 ± 44	$1.17^{+0.58}_{-0.55}$	341^{+23}_{-27}	3493^{+832}_{-457}	5978^{+15575}_{-3341}
Alt.	-143 ± 36	$0.76^{+0.51}_{-0.44}$	338^{+25}_{-24}	3736^{+1513}_{-621}	8769^{+41525}_{-5578}

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 $A_{obs} \gg 1.0$

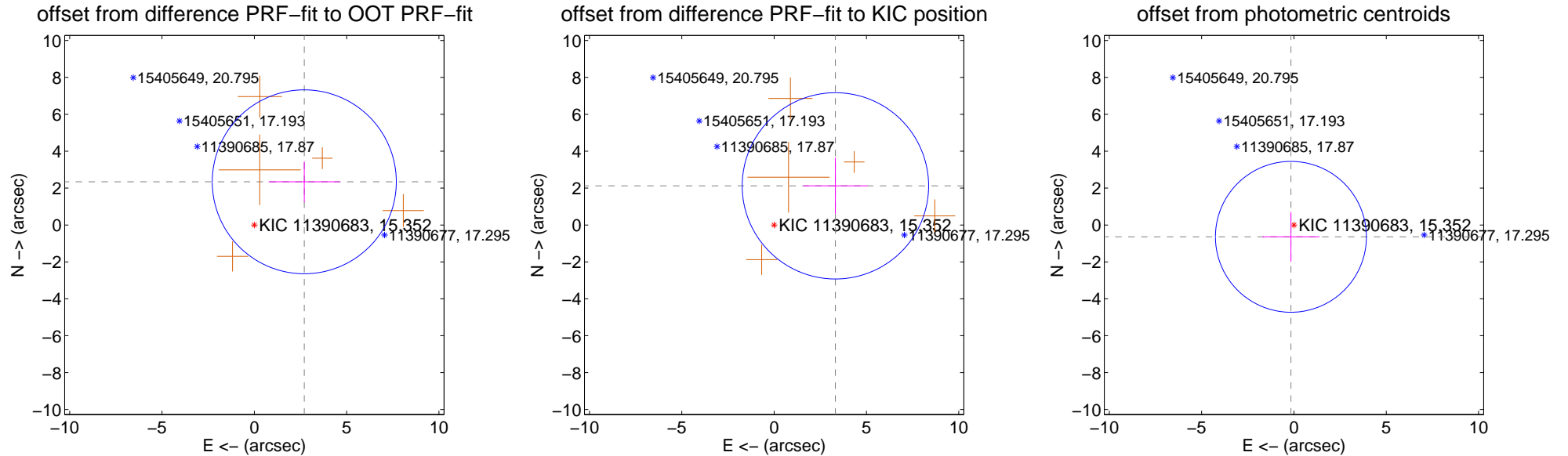
DV Centroid Data

Supplemental centroid analysis for 011390683-02. Kepler magnitude: 15.35. Transit SNR 5.81

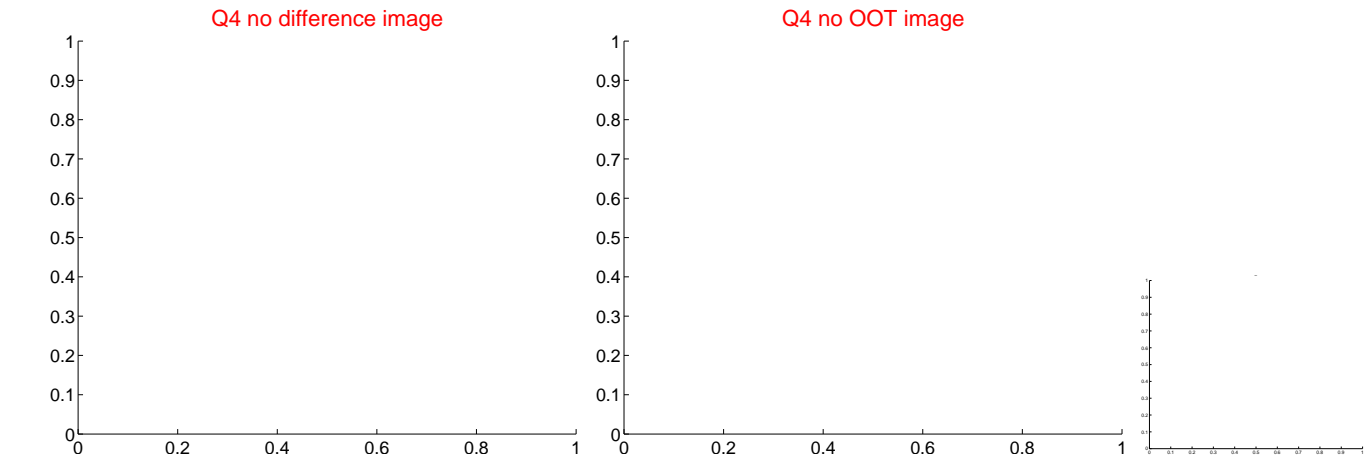
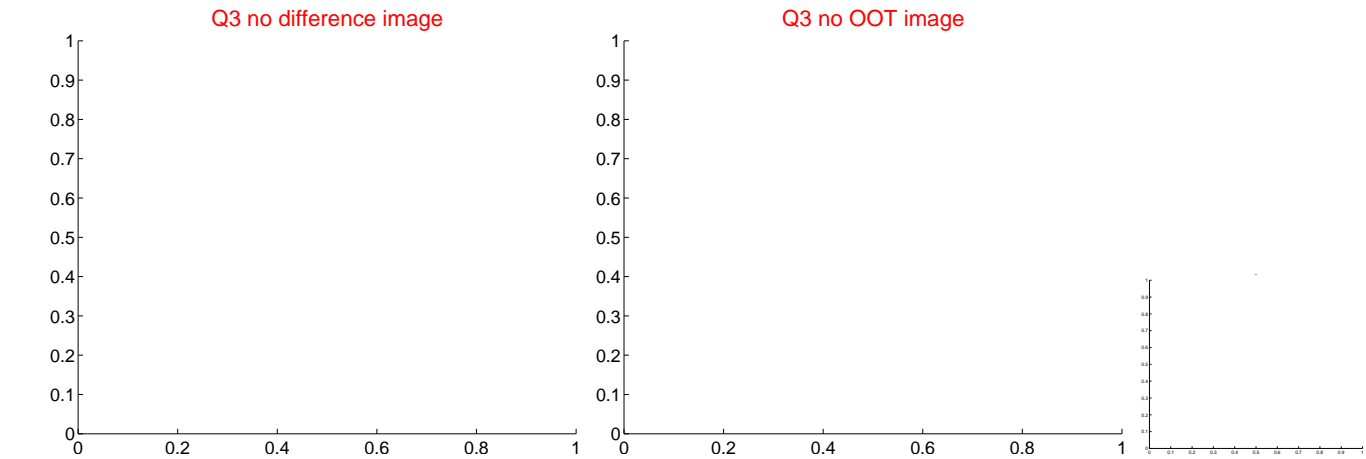
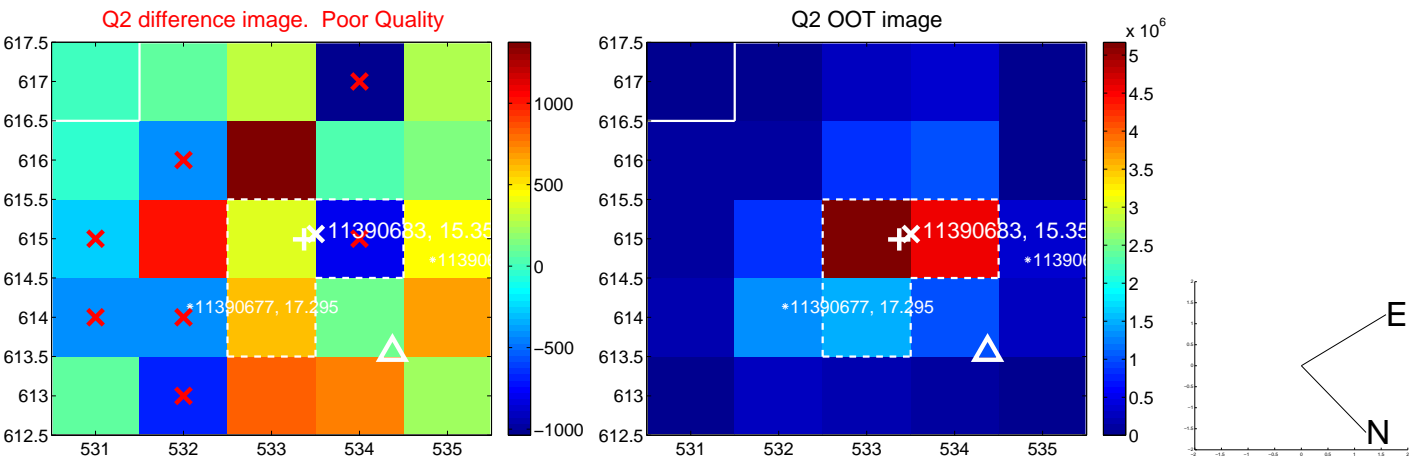
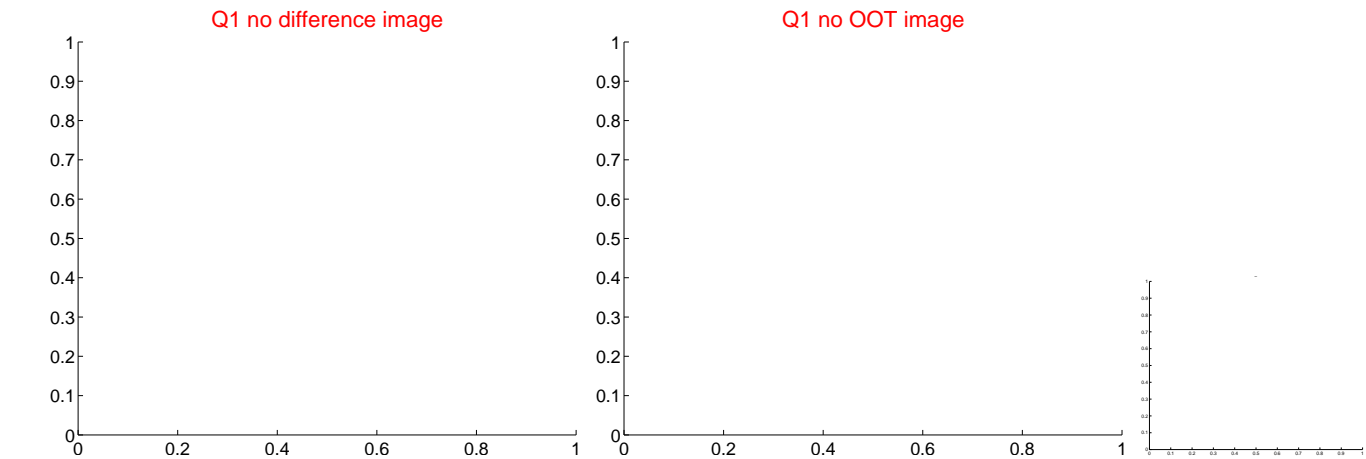
There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.70 arcsec

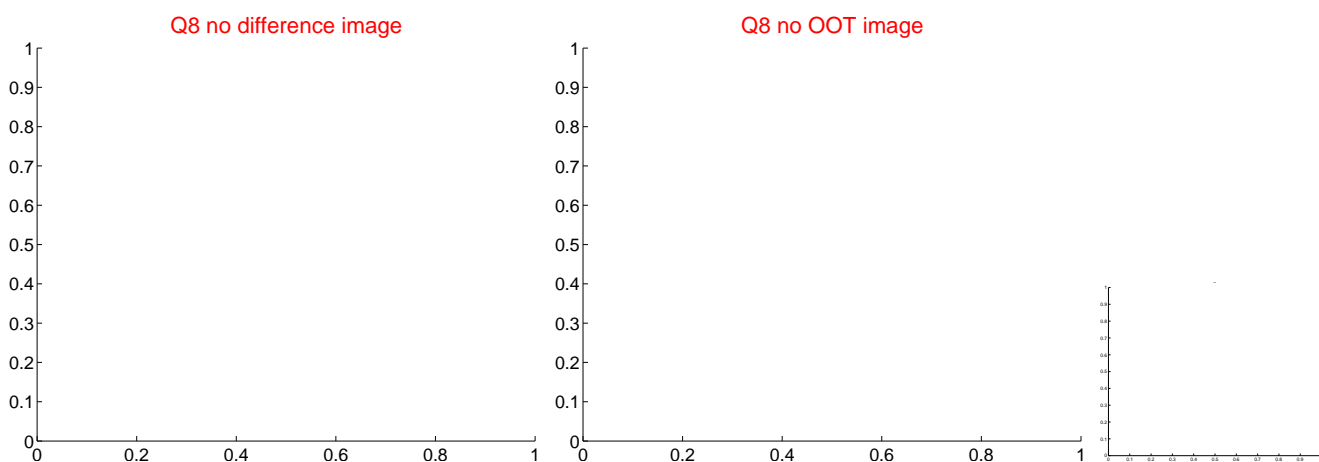
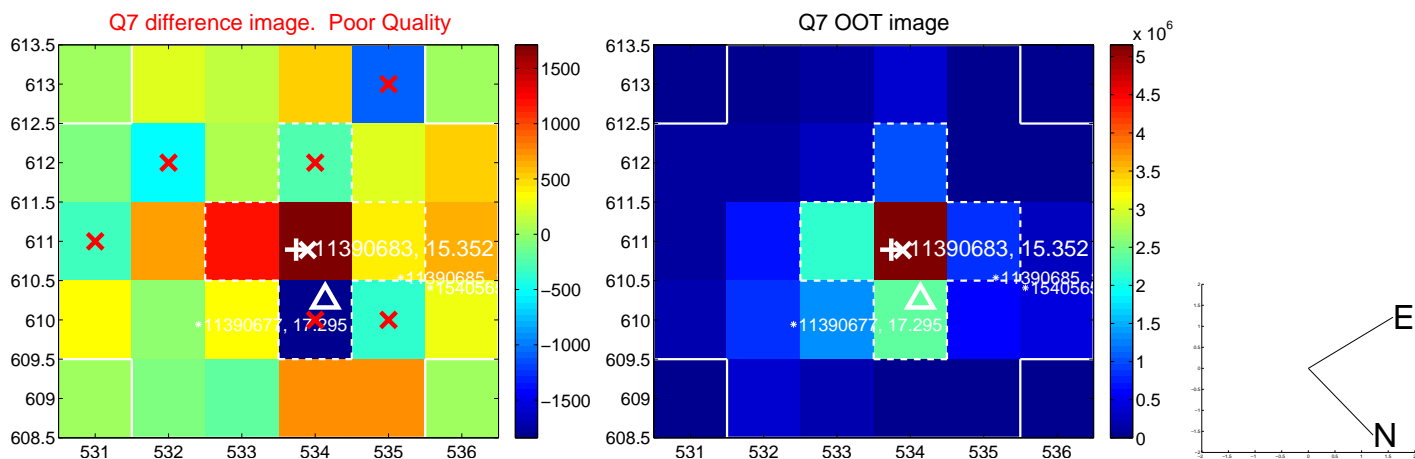
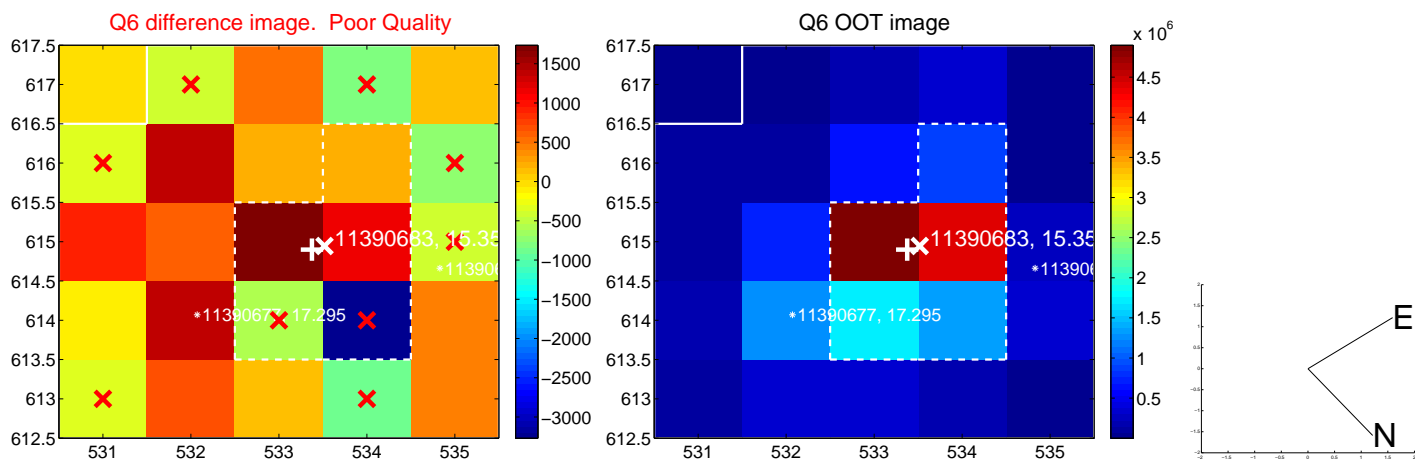
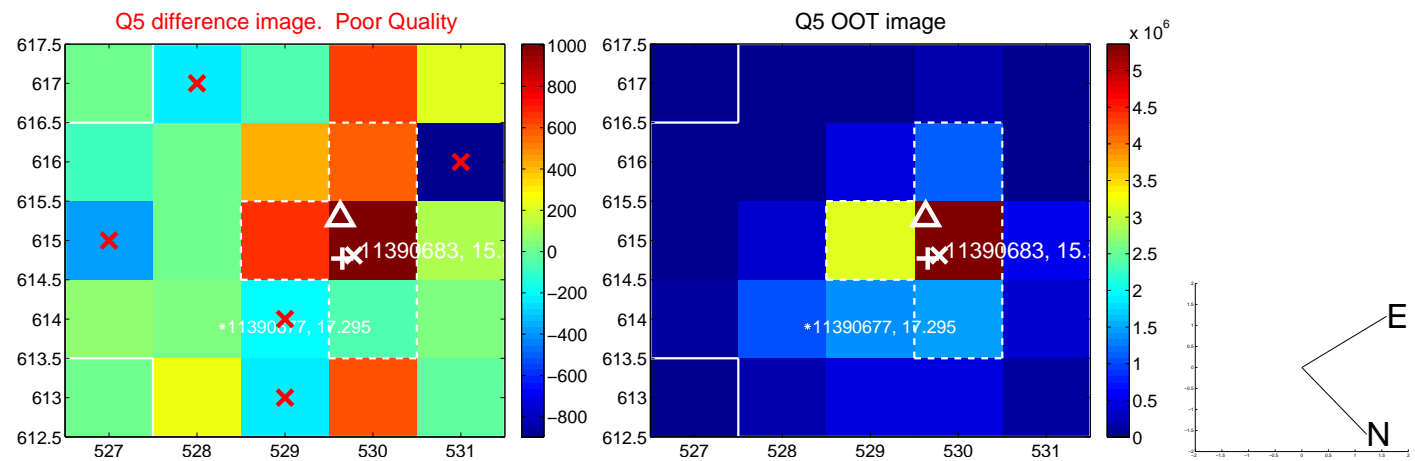
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.579 ± 1.661	2.15	-2.707 ± 1.930	2.342 ± 1.102
PRF-fit source offset from KIC position	3.939 ± 1.683	2.34	-3.319 ± 1.740	2.122 ± 1.534
photometric centroid source offset	0.66 ± 1.36	0.49	0.16 ± 1.54	-0.64 ± 1.35



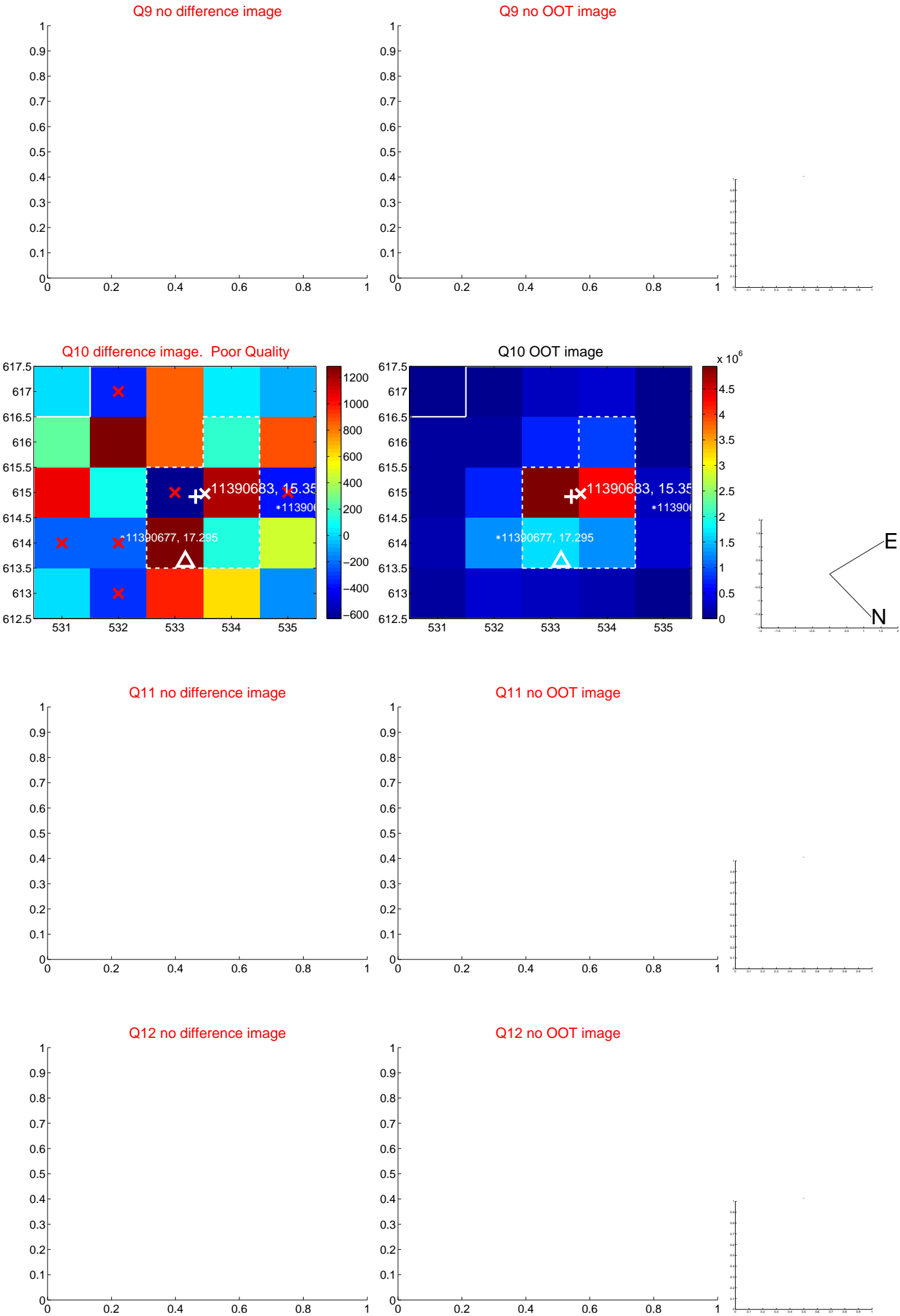
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



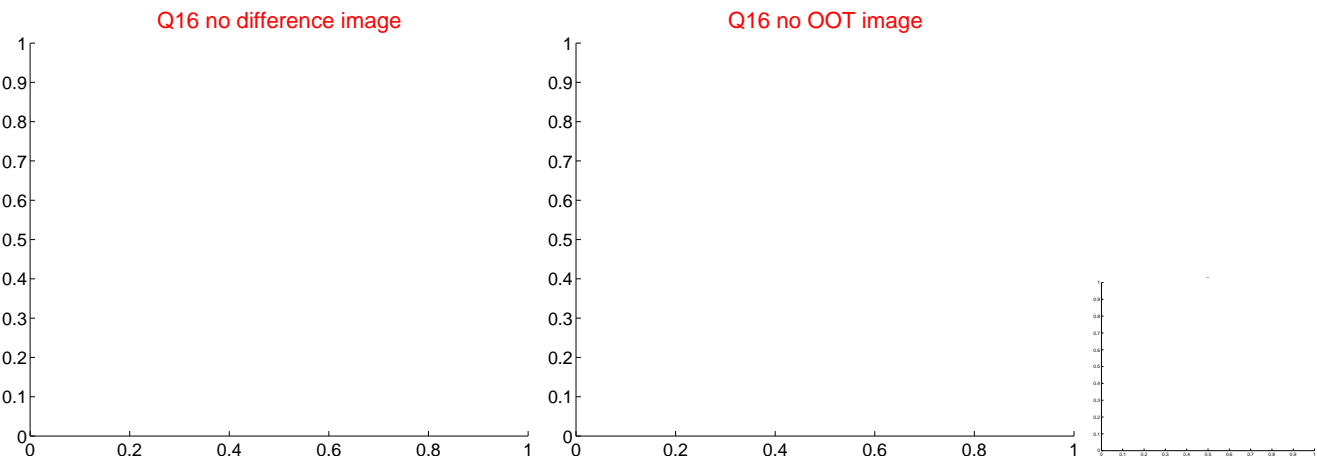
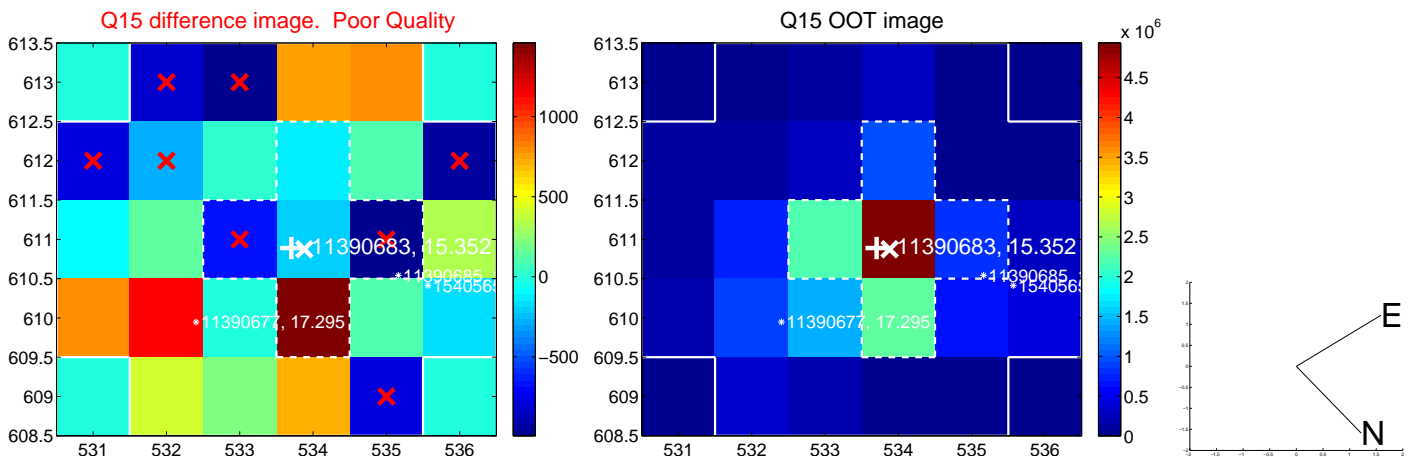
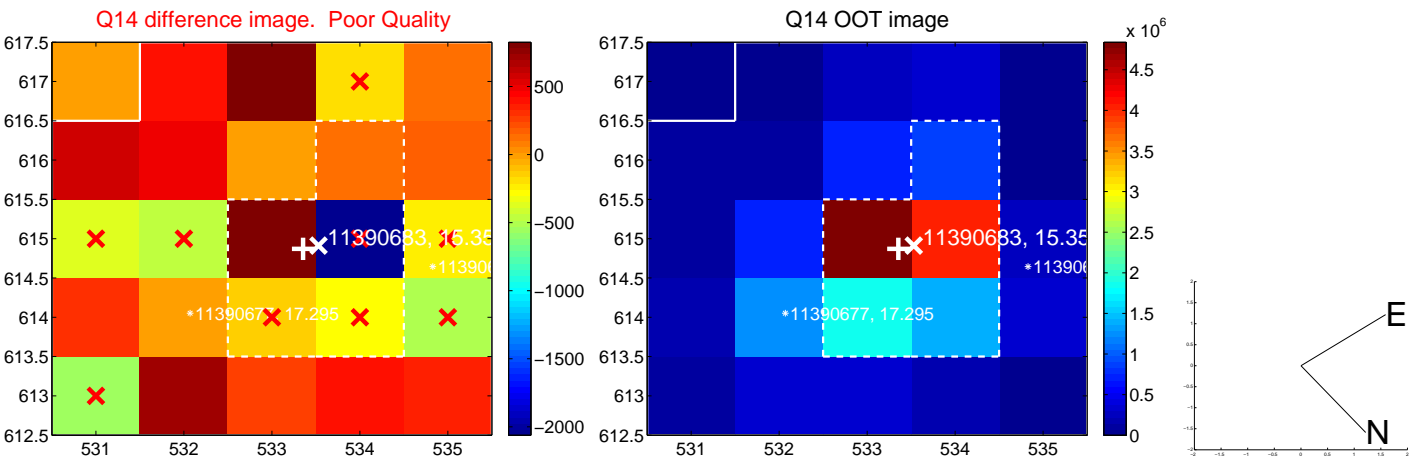
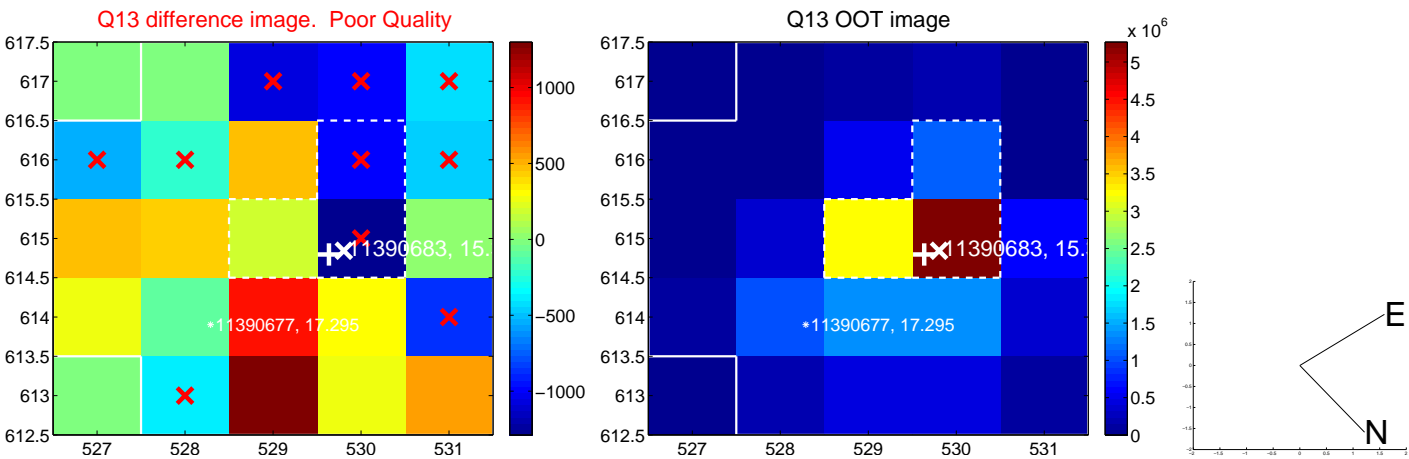
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



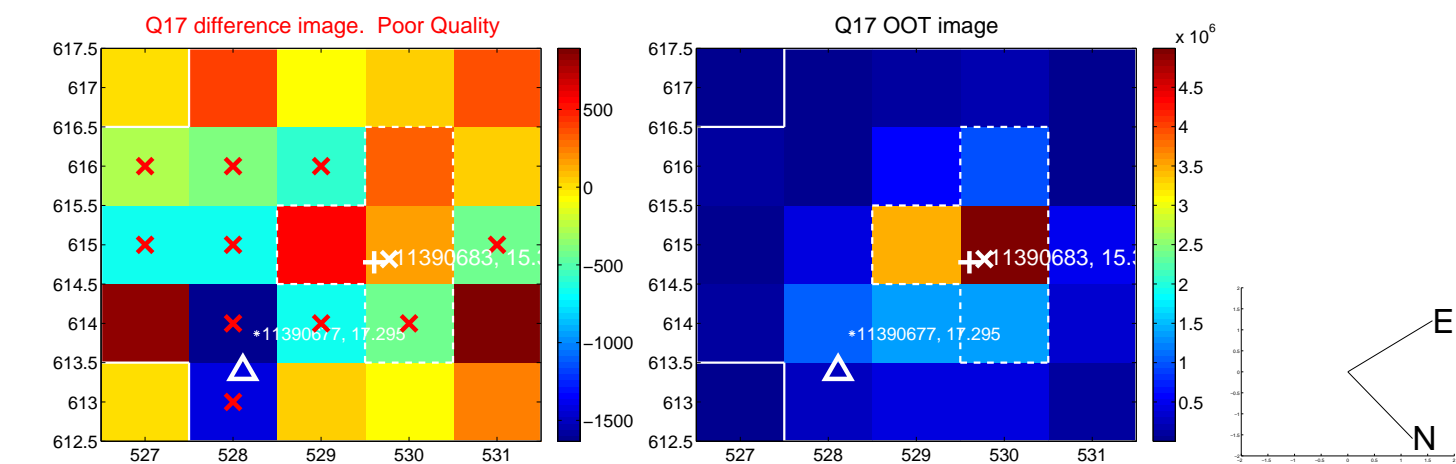
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



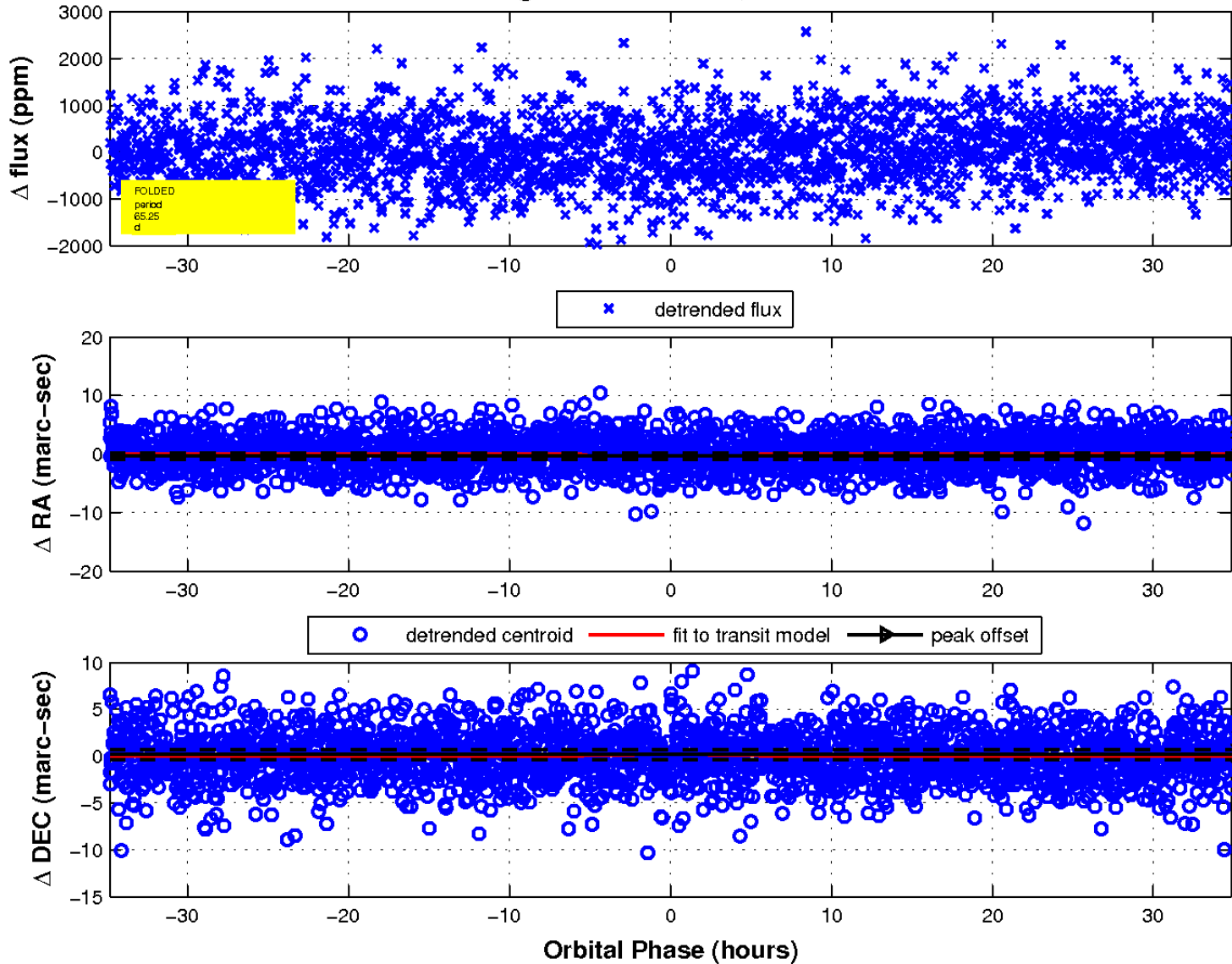
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

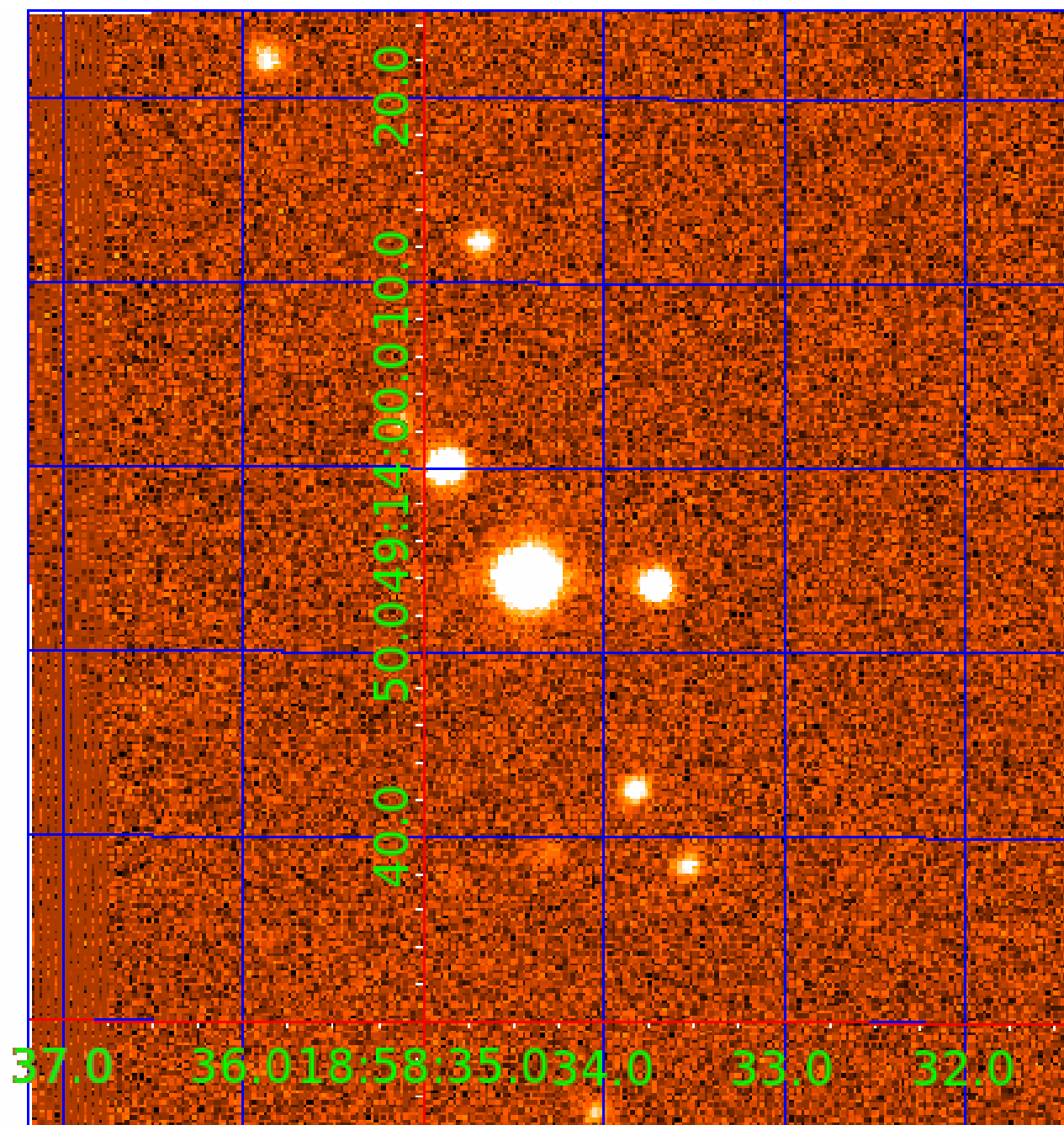


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 011390683

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})
011390683-01	OBS	No	2.259484	132.591900	81.2	10.250	8.2	8.5	0.53	3900	0.53	77.06
011390683-02	OBS	No	65.245674	193.726835	371.6	11.624	8.8	5.8	0.53	3900	1.13	0.87
011390683-03	OBS	No	171.330094	203.105650	888.8	4.097	7.7	6.3	0.53	3900	1.81	0.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390683-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_KIC_POS—HALO_GHOST
011390683-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011390683-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

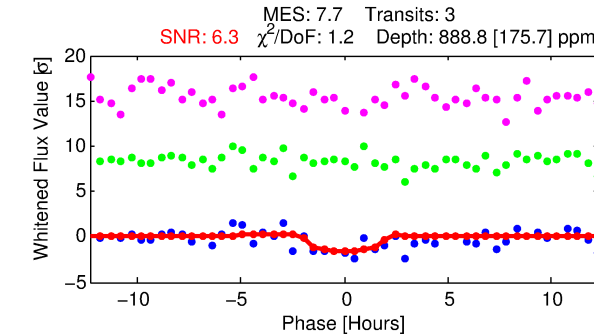
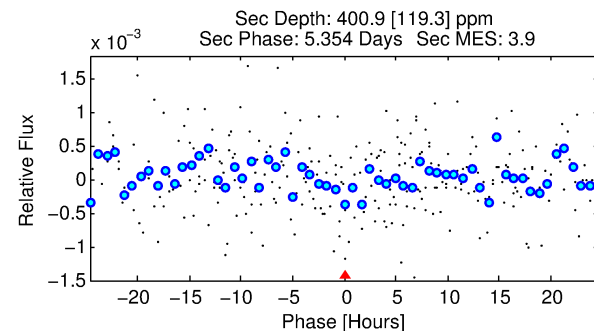
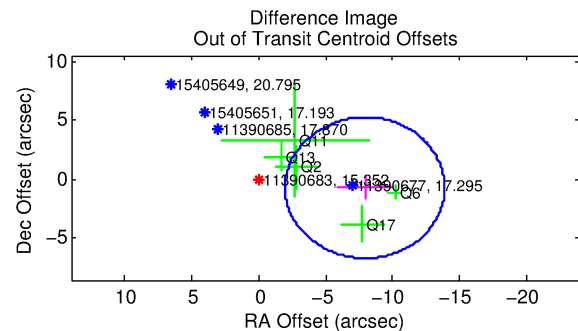
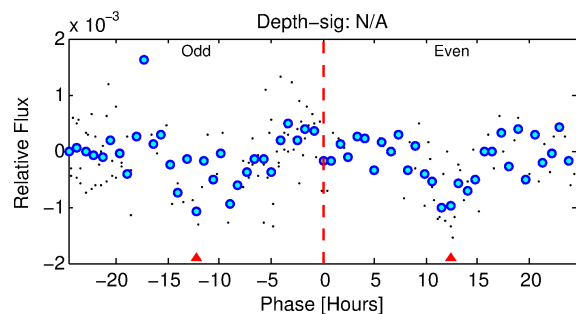
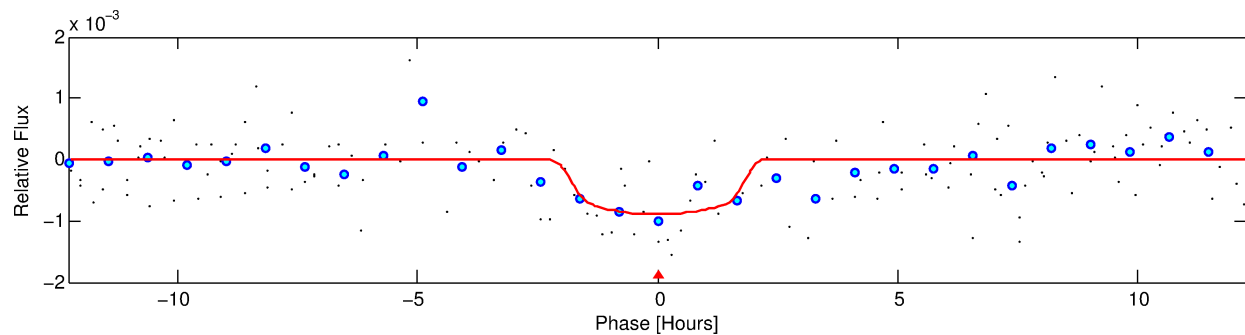
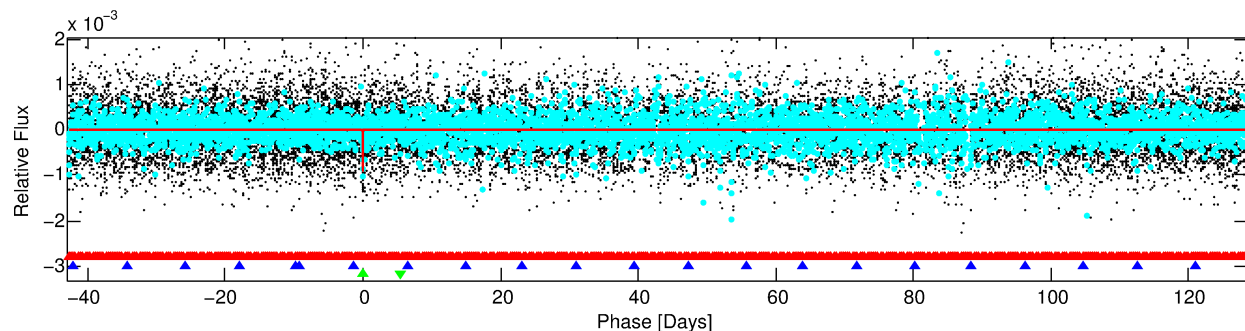
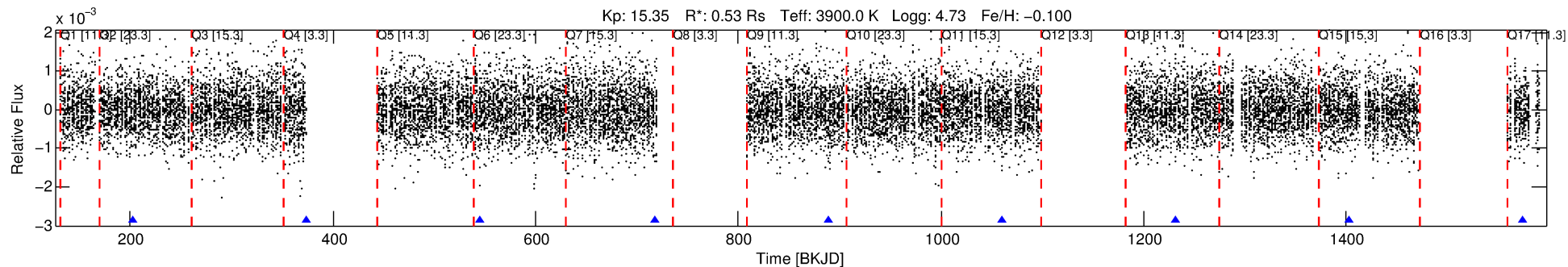
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390683-03

No Significant Match Found

DV One-Page Summary

KIC: 11390683 Candidate: 3 of 3 Period: 171.330 d



DV Fit Results:

Period = 171.33009 [0.01138] d
Epoch = 203.1057 [0.0503] BKJD
Rp/R* = 0.0311 [0.0226]
a/R* = 189.31 [590.17]
b = 0.84 [1.08]
Seff = 0.24 [0.08]
Teq = 178 [16] K
Rp = 1.81 [1.38] Re
a = 0.4962 [0.0881] AU
Ag = 16527.07 [24857.31] [0.66σ]
Teffp = 3129 [1180] K [2.50σ]

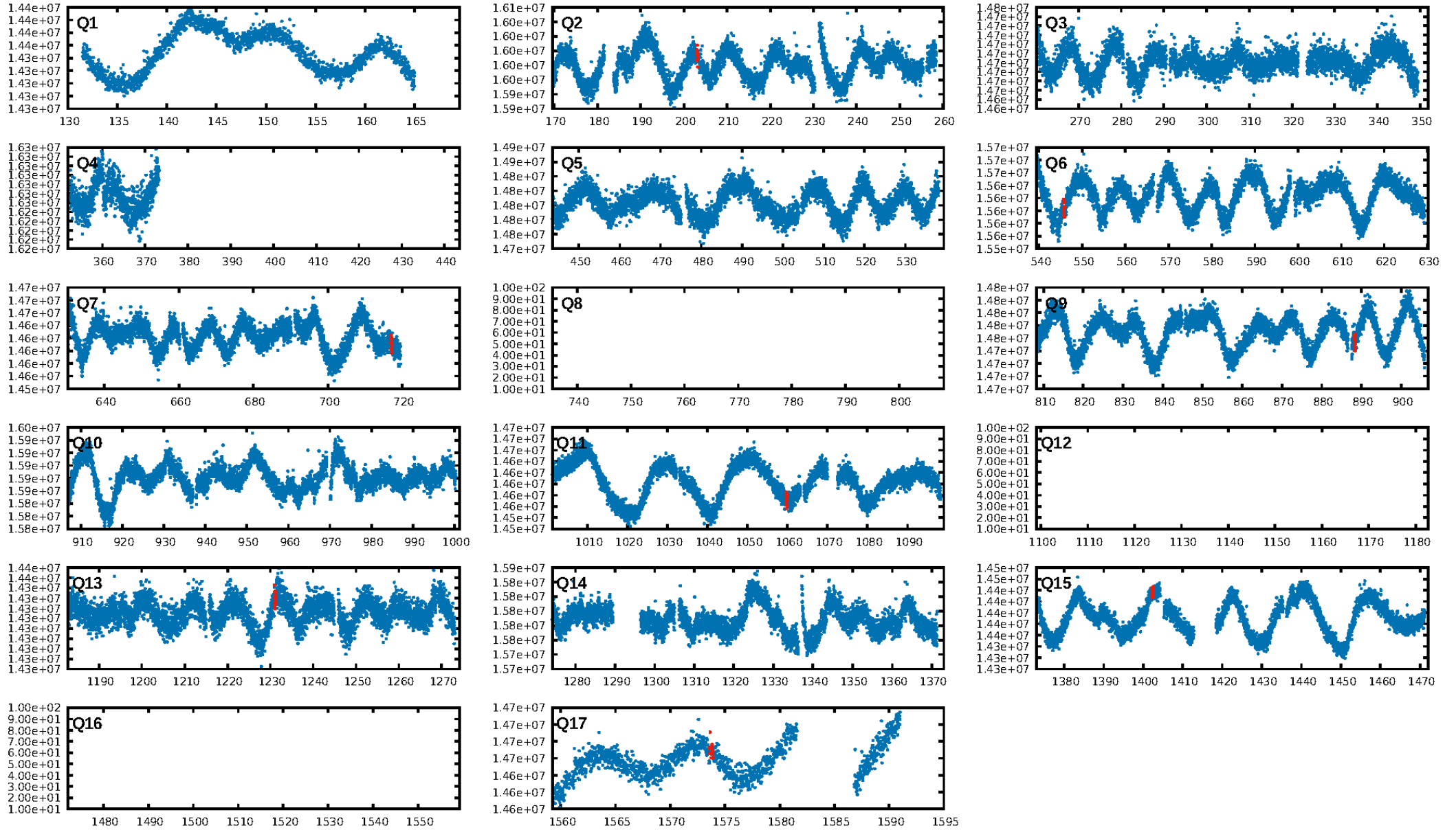
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [206.57σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 67.4%
ModelChiSquareGof-sig: 89.2%
Bootstrap-pfa: 2.55e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.603
Centroid-sig: 40.5%
Centroid-so: 2.255 arcsec [1.67σ]
OotOffset-rm: 7.966 arcsec [4.01σ]
KicOffset-rm: 8.621 arcsec [4.34σ]
OotOffset-st: 2/1/0/2 [5]
KicOffset-st: 2/1/0/2 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.38 [3/8]

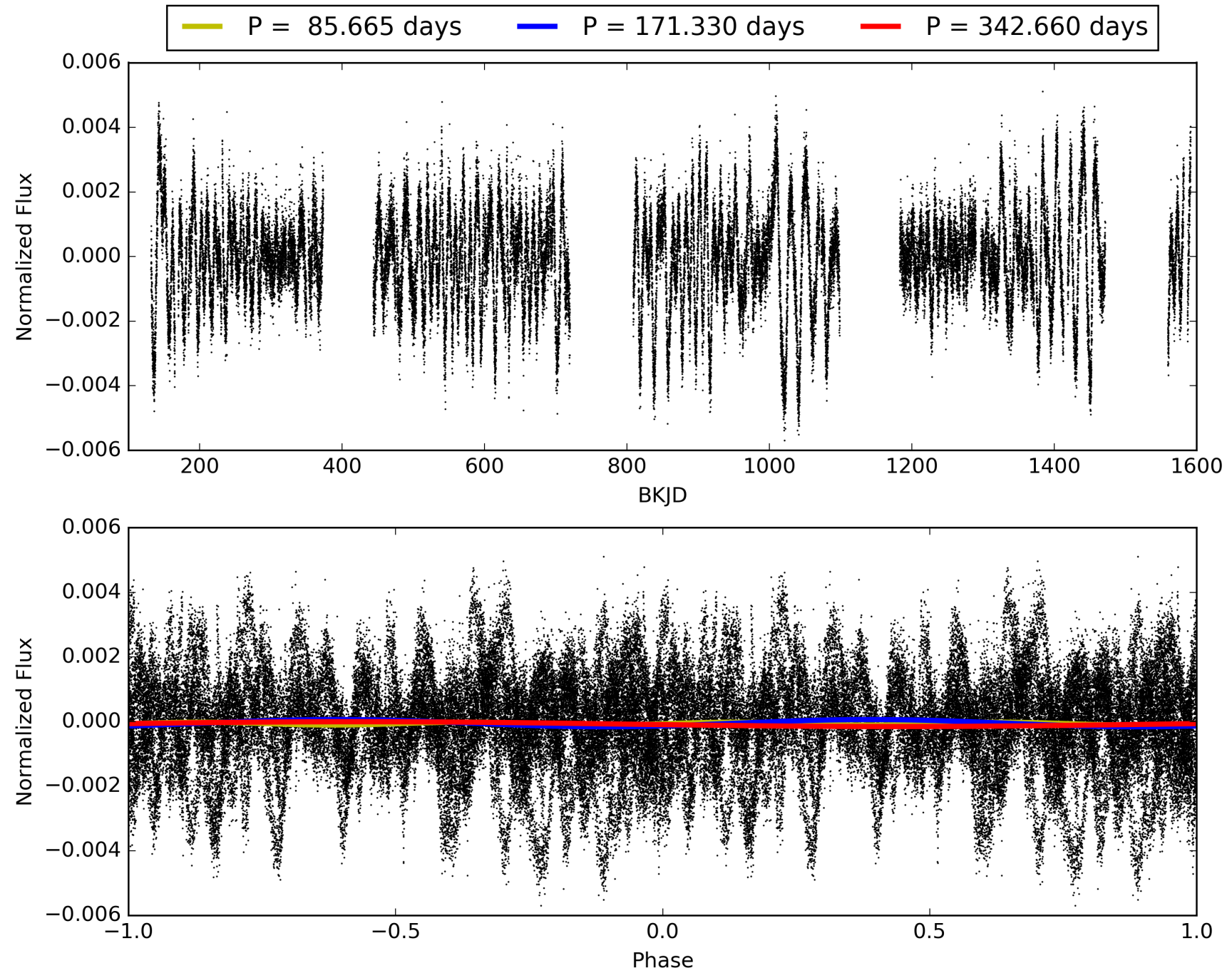
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:03:01 Z

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

TCE 011390683-03, PDC Light Curves

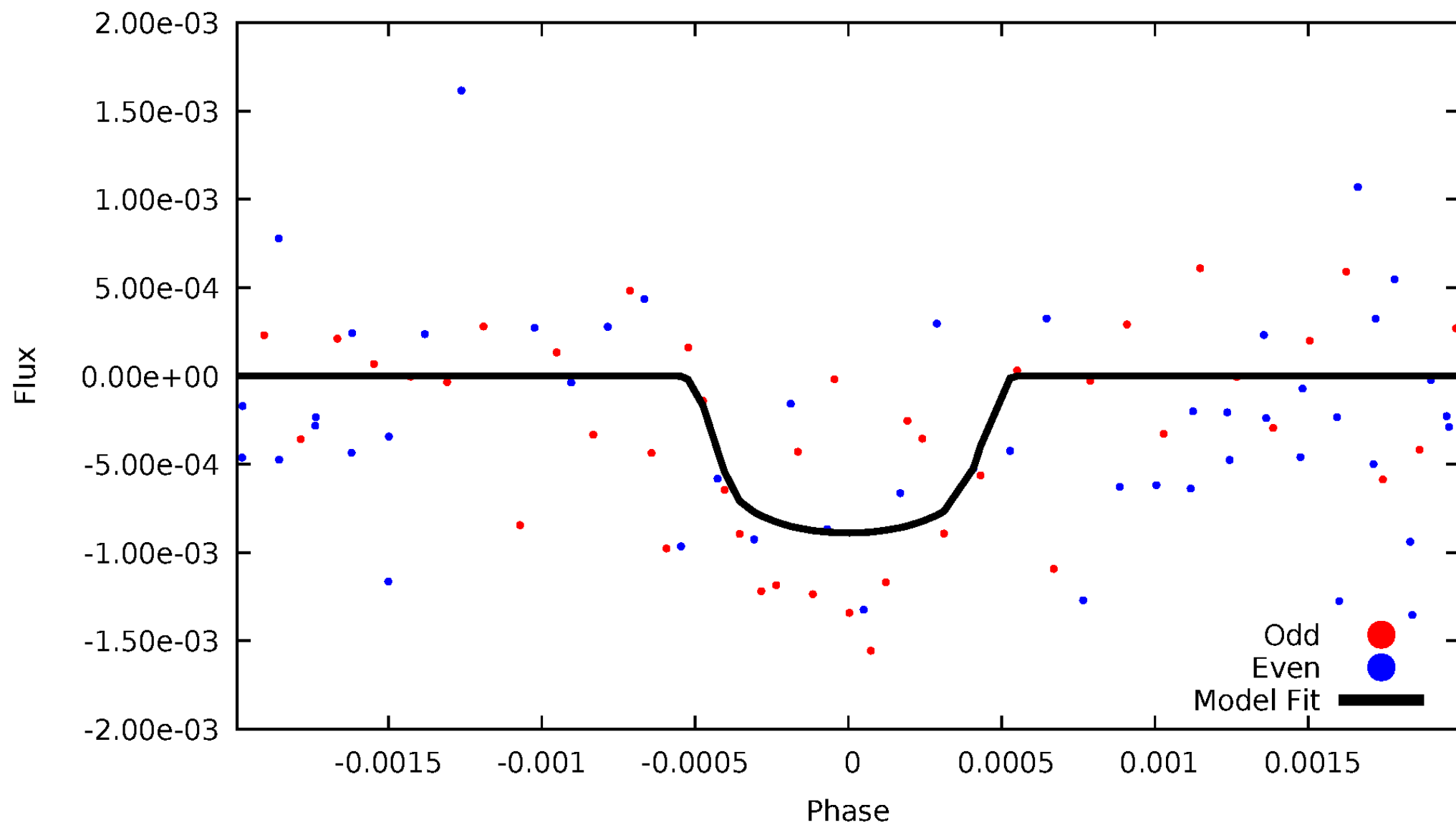


TCE 011390683-03



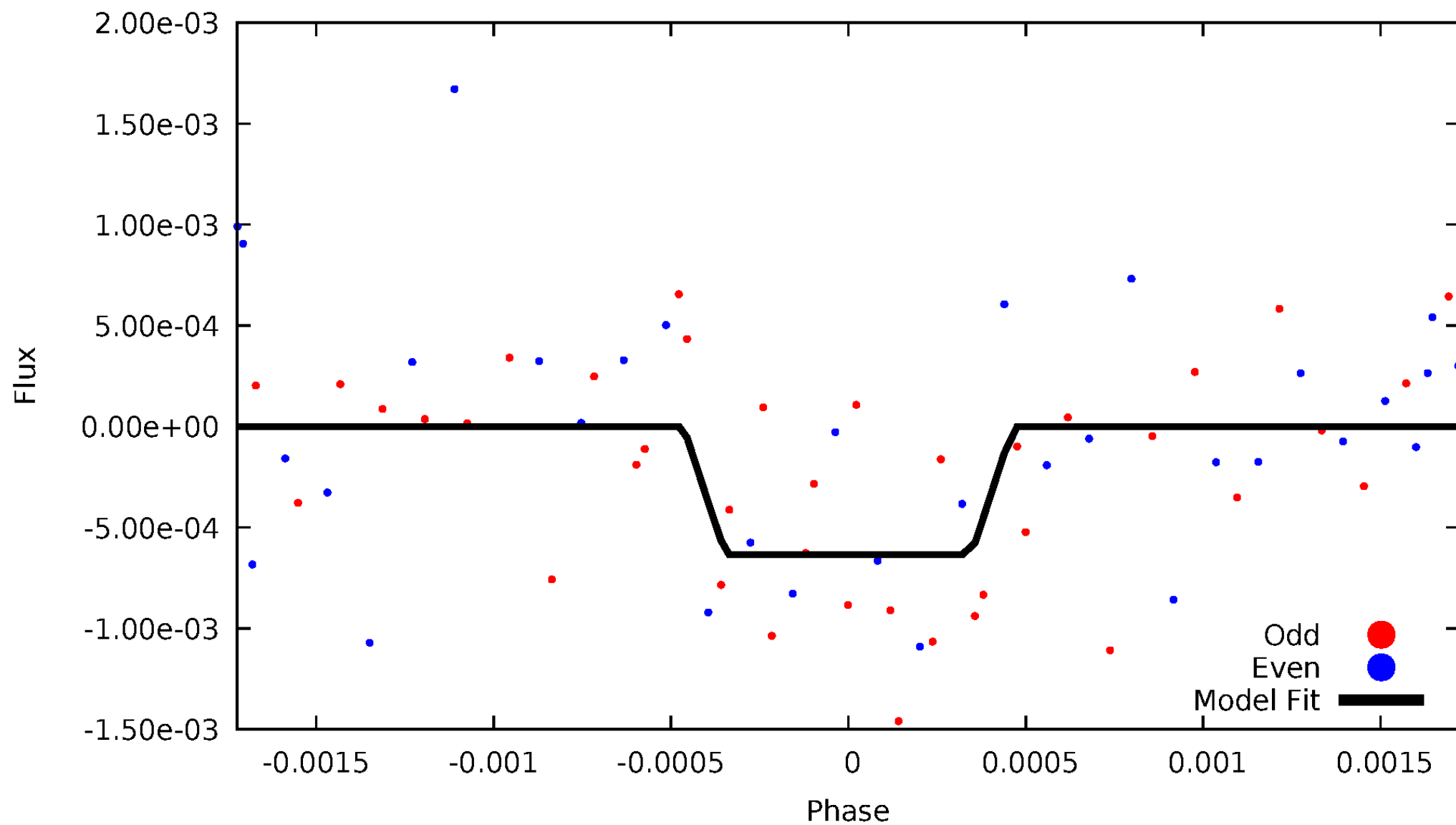
DV Odd/Even

TCE 011390683-03



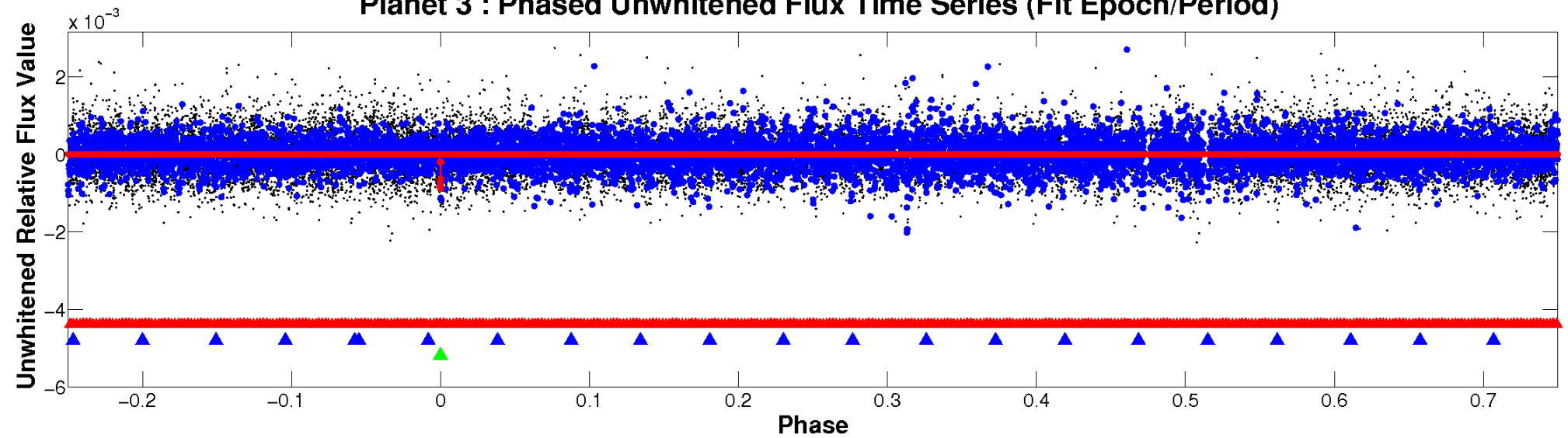
ALT Odd/Even

TCE 011390683-03

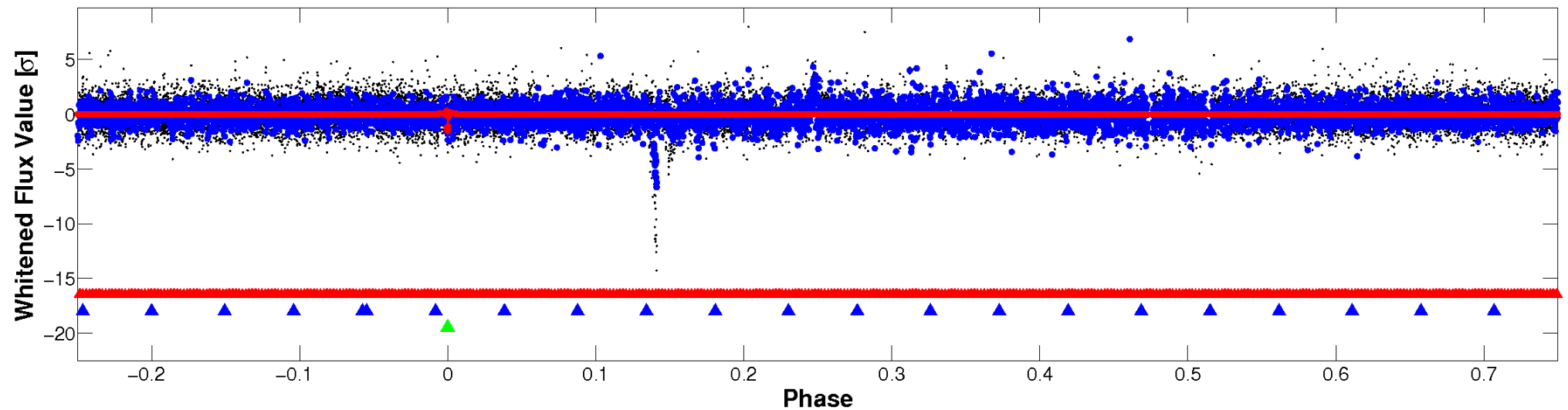


Non-Whitened Vs. Whitened Light Curve

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

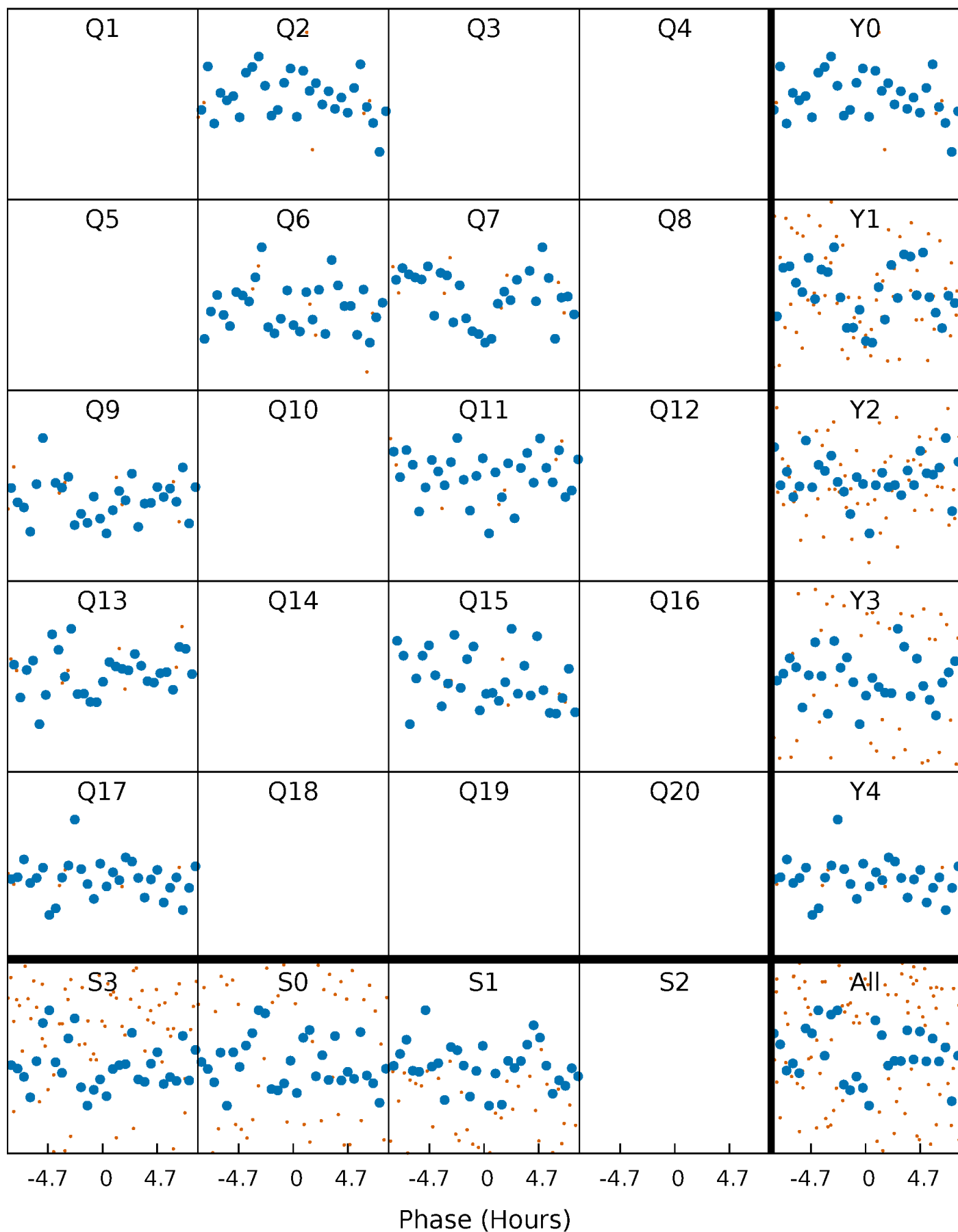


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



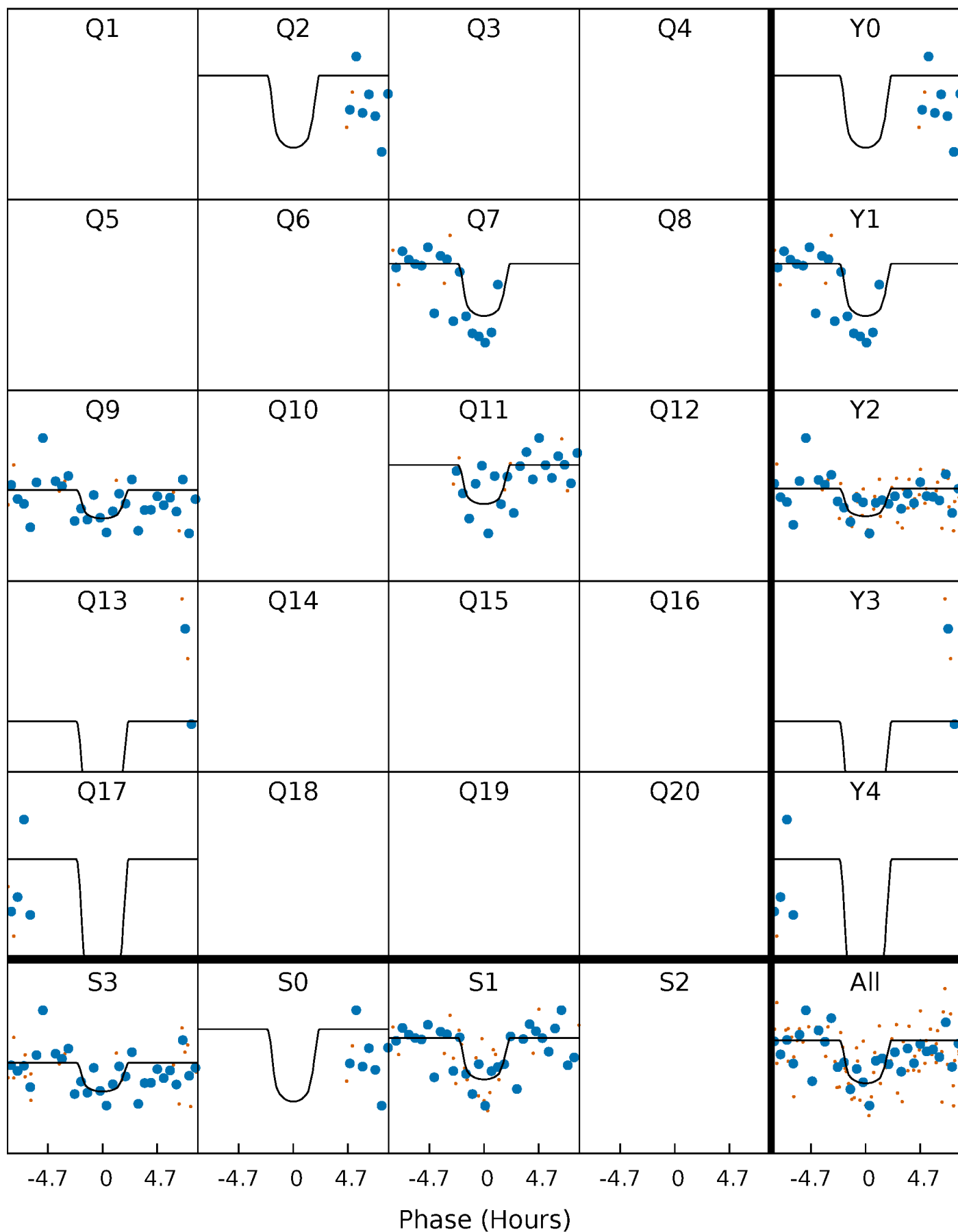
PDC Quarter-Phased Transit Curves

TCE 011390683-03 $P=171.330095$ Days $T_0=203.105650$ (BKJD)



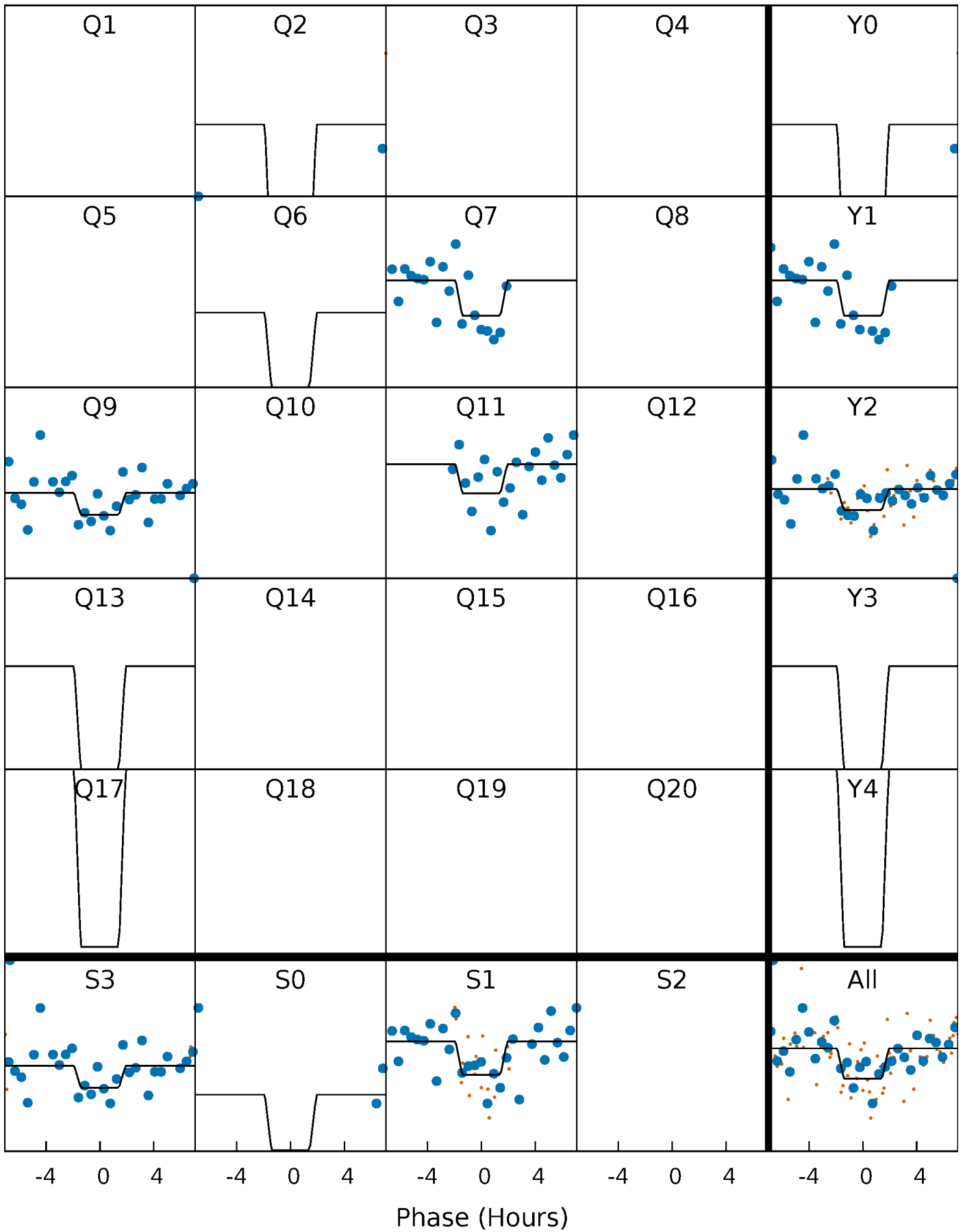
DV Quarter-Phased Transit Curves

TCE 011390683-03 P=171.330095 Days $T_0=203.105650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

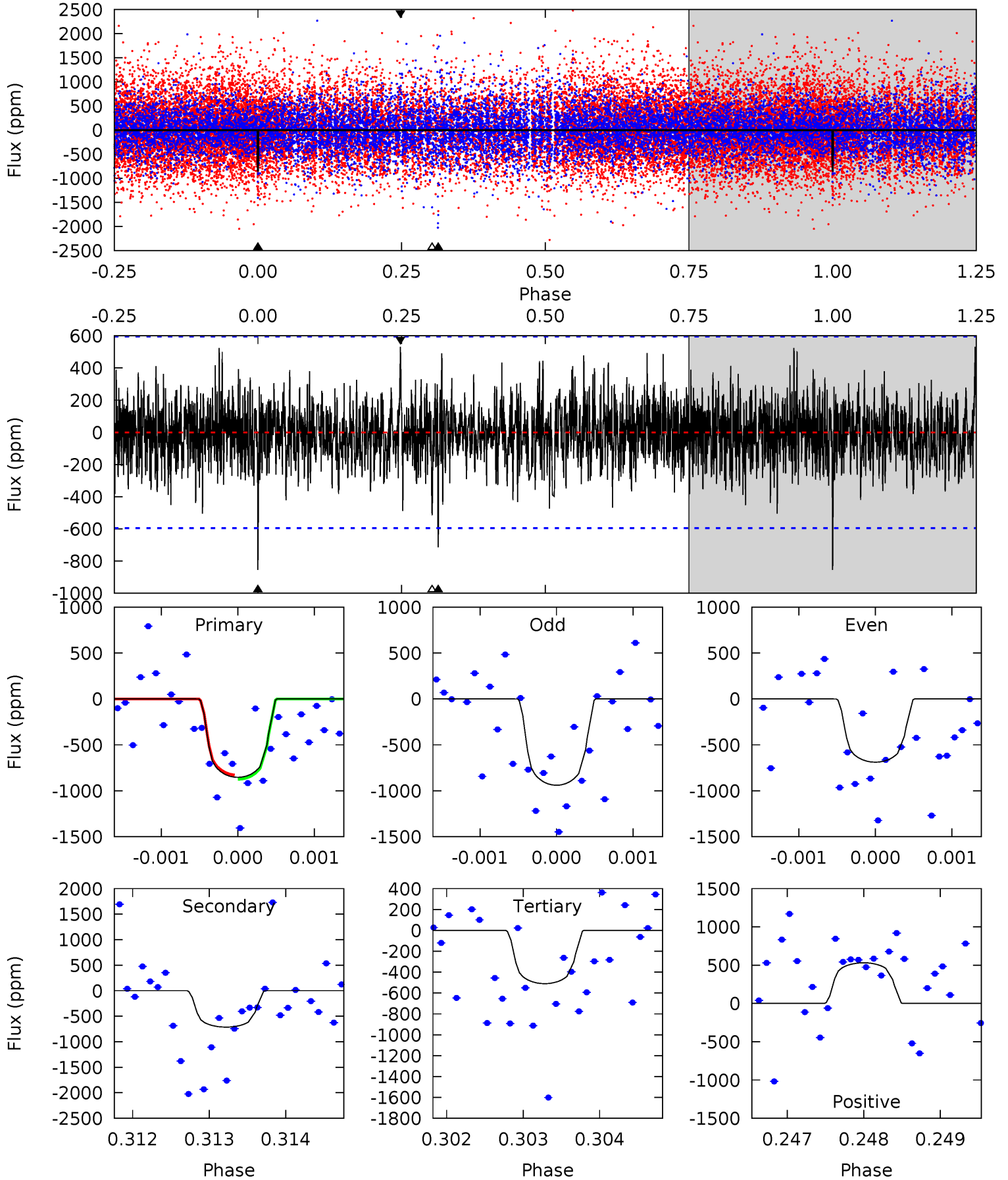
TCE 011390683-03 P=171.344340 Days $T_0=203.022751$ (BKJD)



DV Model-Shift Uniqueness Test

011390683-03, P = 171.330095 Days, E = 31.775555 Days

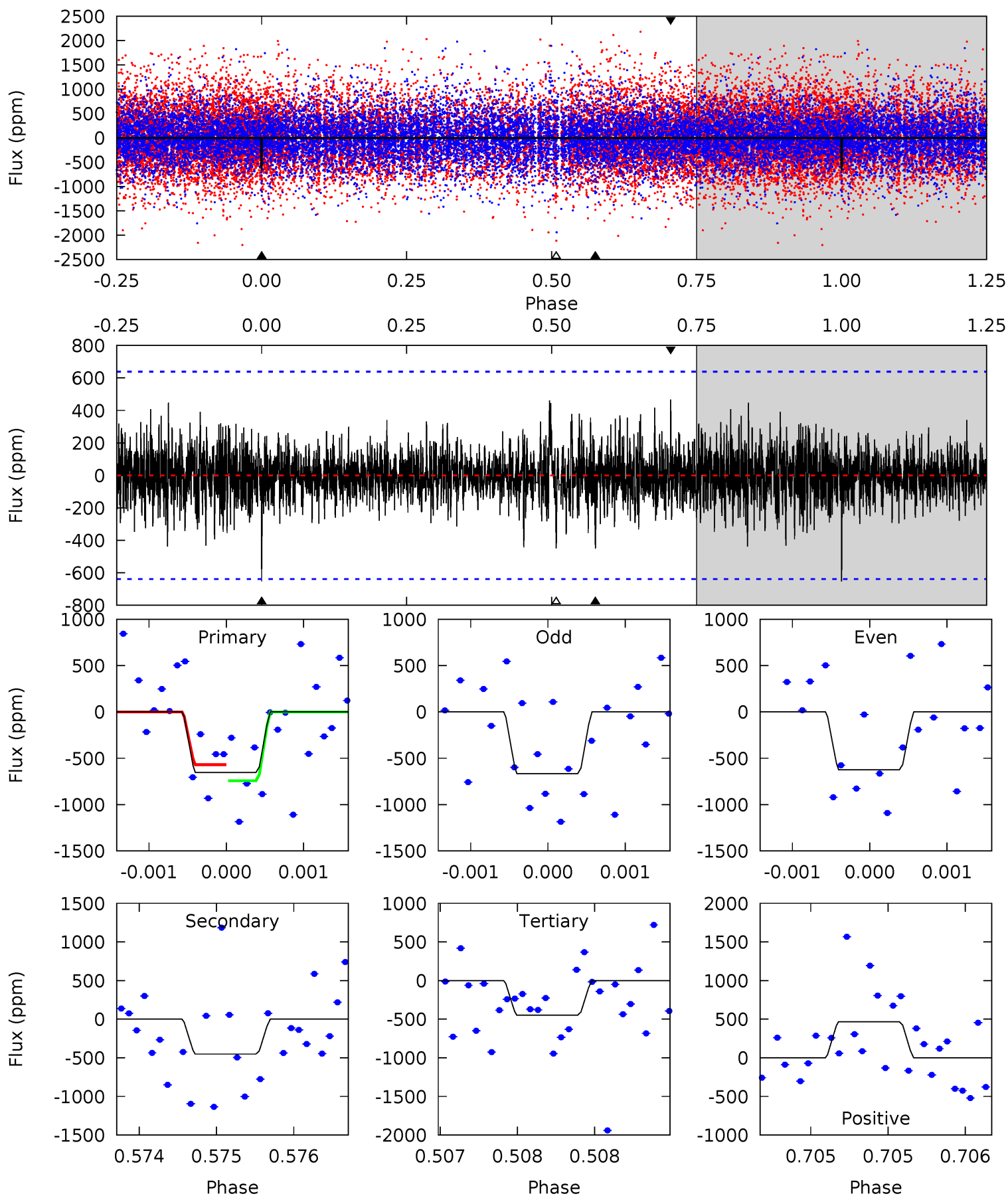
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.80	6.52	4.67	4.86	5.44	3.27	1.34	3.14	2.95	1.86	1.67	1.11	1.09	0.38	0.21



Alt Model-Shift Uniqueness Test

011390683-03, P = 171.344340 Days, E = 31.678411 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.60	3.87	3.85	4.01	5.48	3.34	1.03	1.75	1.59	0.02	-0.14	0.17	1.04	0.42	0.74



Stellar Parameters For KIC 011390683

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3900^{+208}_{-254}	$4.727^{+0.119}_{-0.059}$	$-0.100^{+0.350}_{-0.400}$	$0.534^{+0.075}_{-0.122}$	$0.555^{+0.075}_{-0.121}$	$5.136^{+3.689}_{-1.058}$
	+5%/-7%	+3%/-1%	+350%/-400%	+14%/-23%	+14%/-22%	+72%/-21%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011390683-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-714 ± 109	$1.88^{+1.31}_{-1.01}$	246^{+18}_{-19}	3611^{+1198}_{-565}	26975^{+97905}_{-17847}
Alt.	-451 ± 116	$1.66^{+1.18}_{-1.01}$	245^{+17}_{-19}	3482^{+1438}_{-541}	$22744^{+114166}_{-15539}$

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 $A_{obs} \gg 1.0$

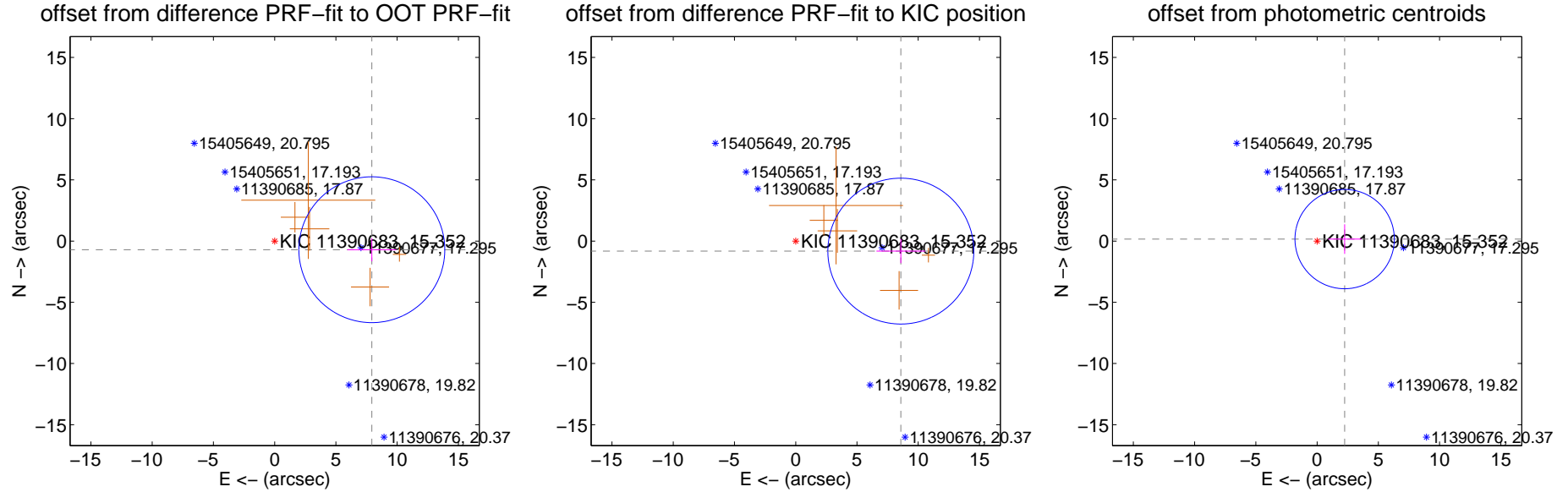
DV Centroid Data

Supplemental centroid analysis for 011390683-03. Kepler magnitude: 15.35. Transit SNR 6.28

There are 0 quarters with good PRF difference image offsets

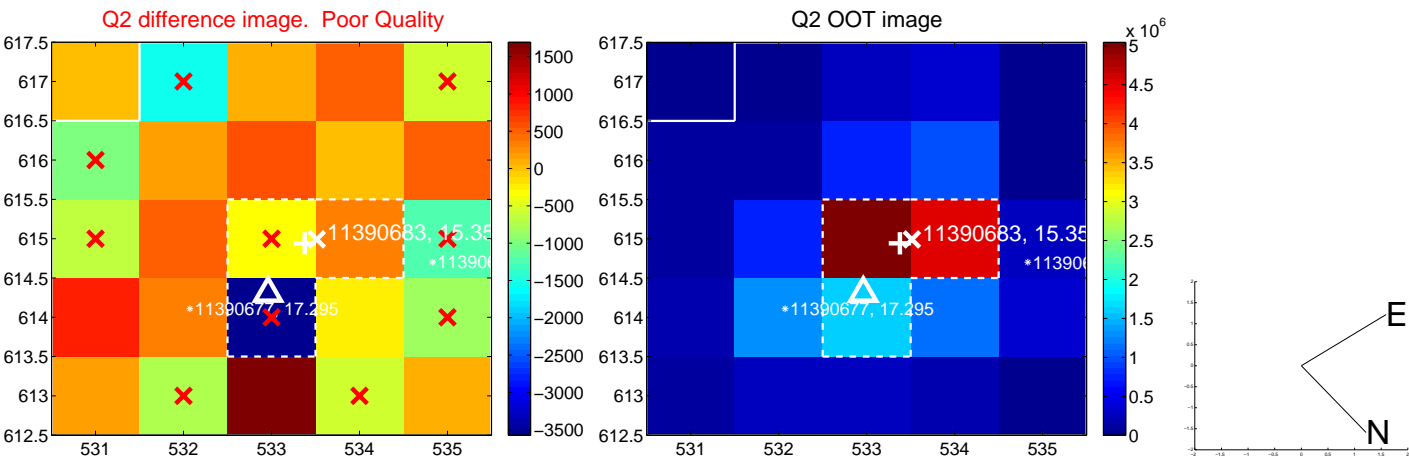
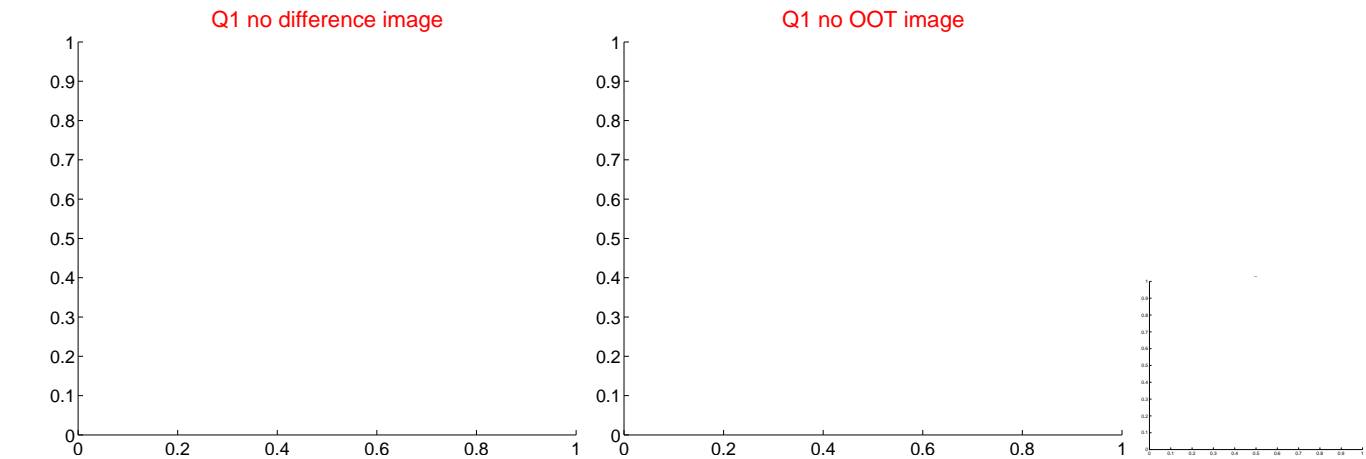
The direct PRF centroid is offset from the target star catalog position by about 0.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.966 ± 1.986	4.01	-7.935 ± 1.992	-0.705 ± 0.948
PRF-fit source offset from KIC position	8.621 ± 1.986	4.34	-8.582 ± 1.993	-0.820 ± 0.983
photometric centroid source offset	2.26 ± 1.35	1.67	-2.25 ± 1.35	0.16 ± 1.21



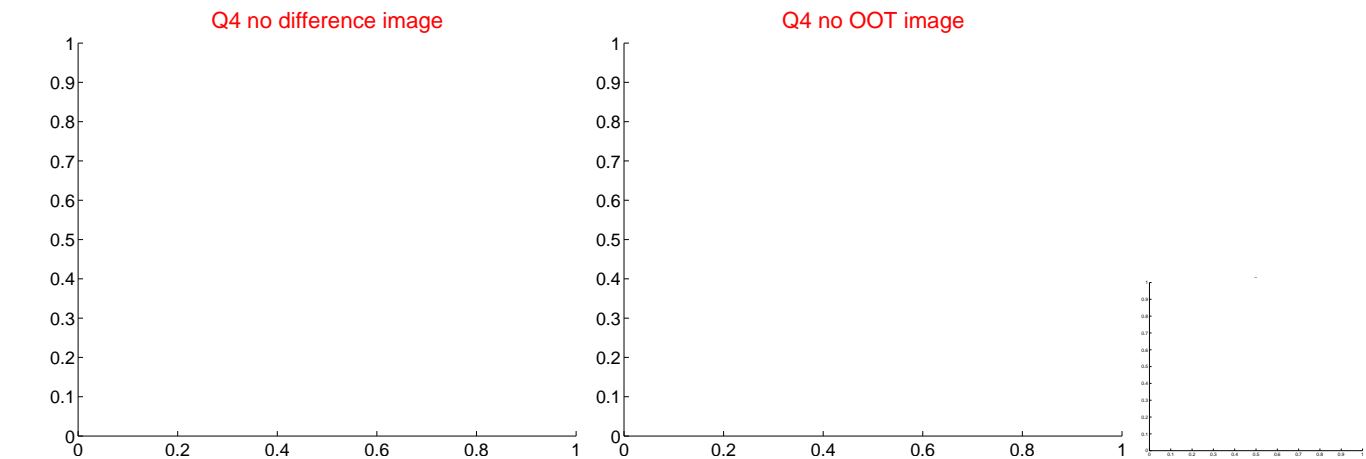
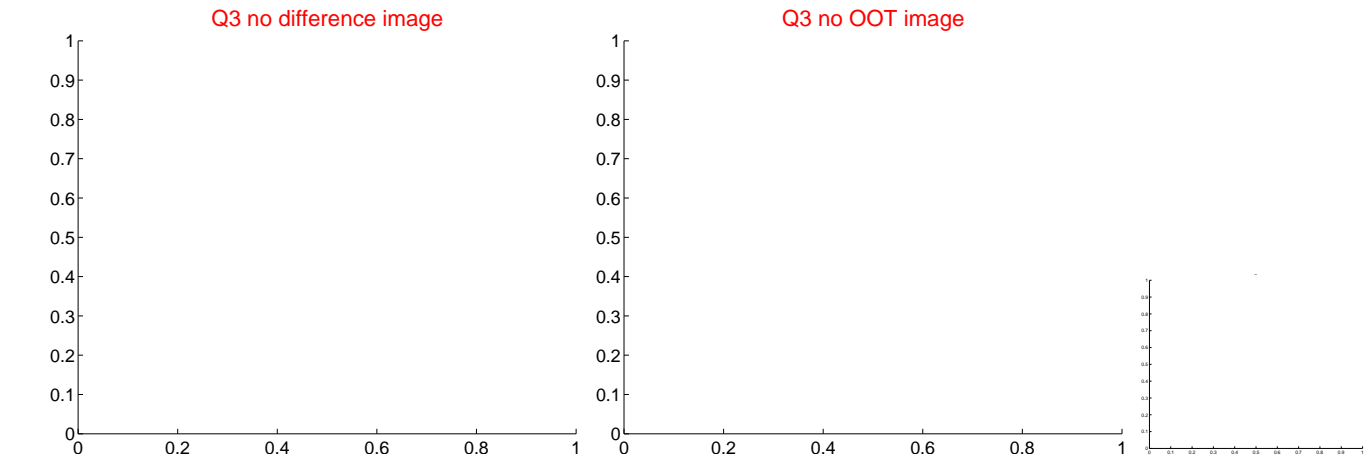
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

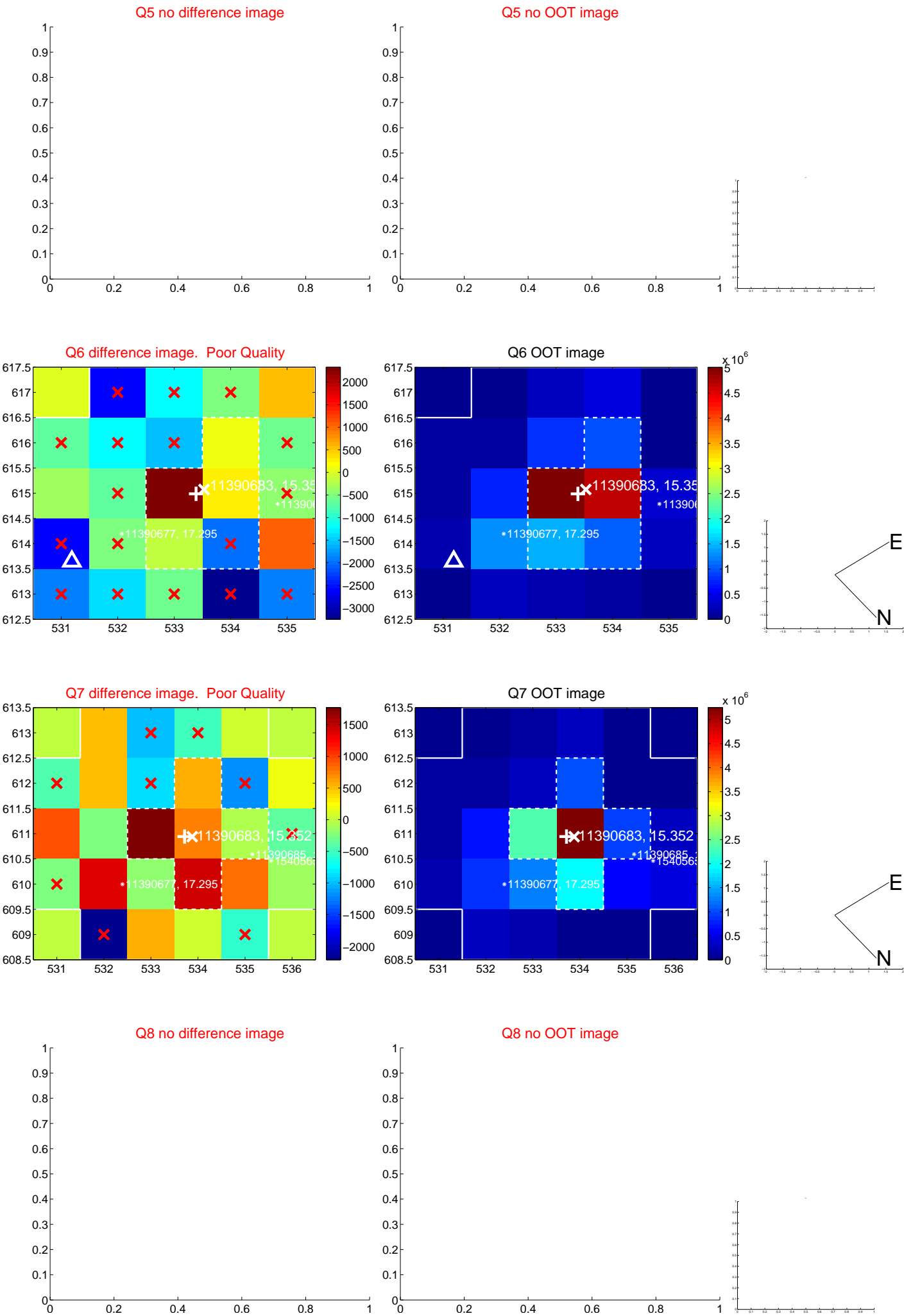


E

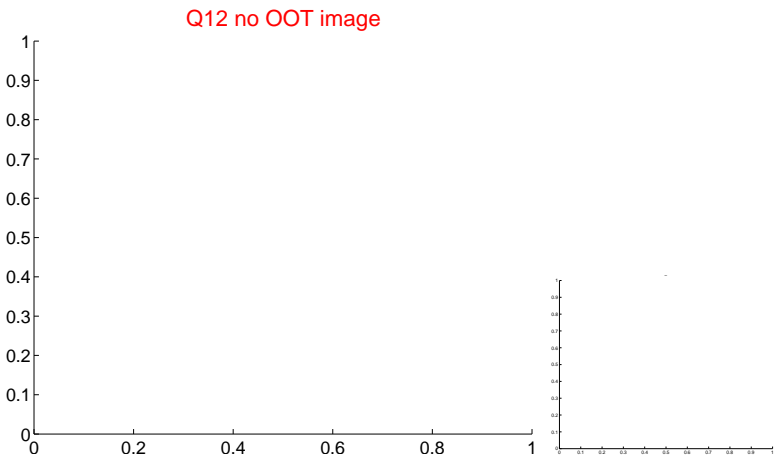
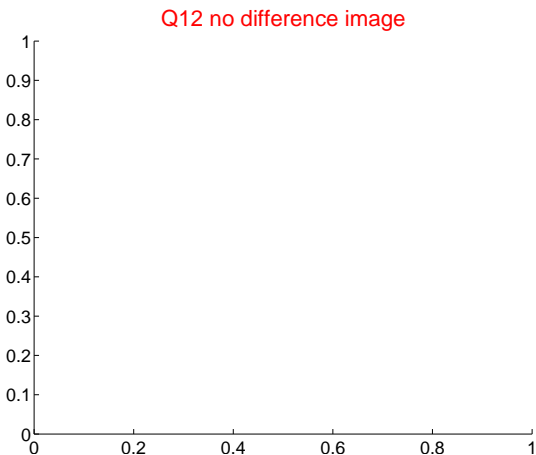
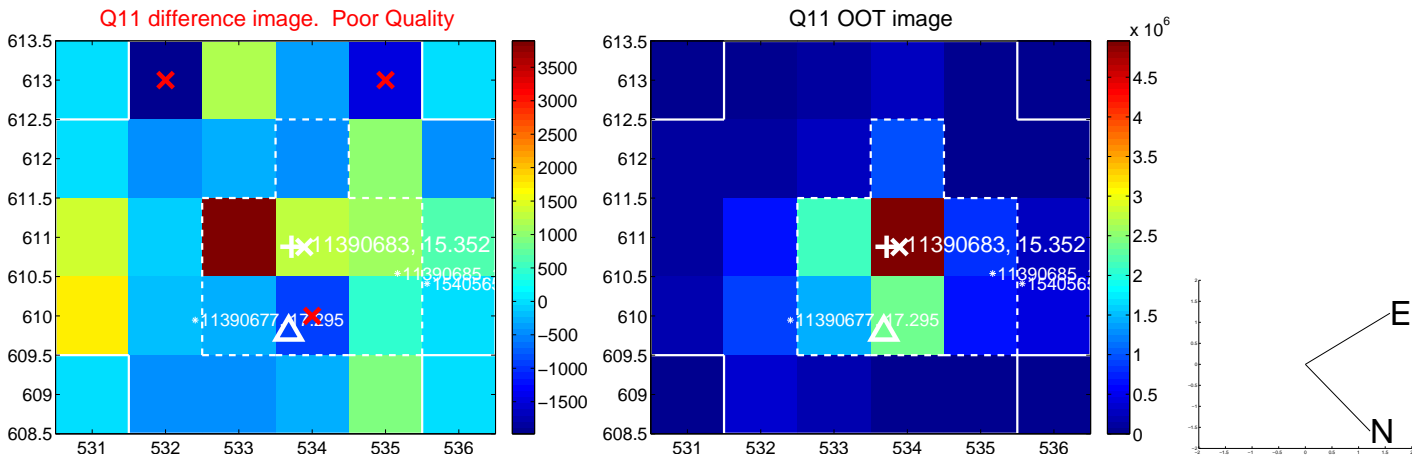
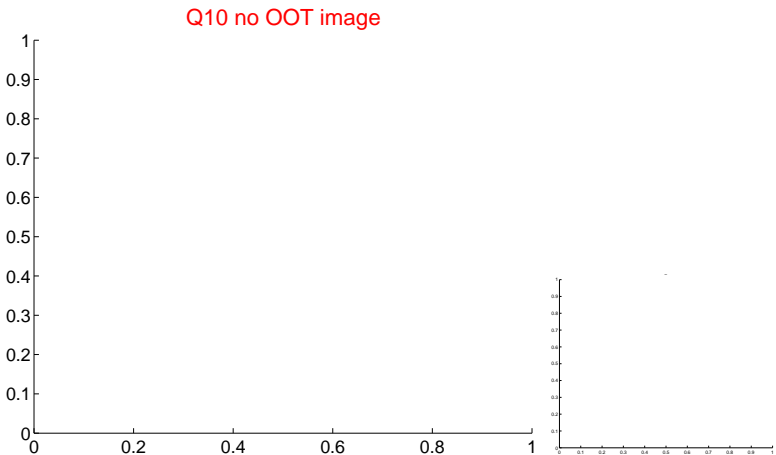
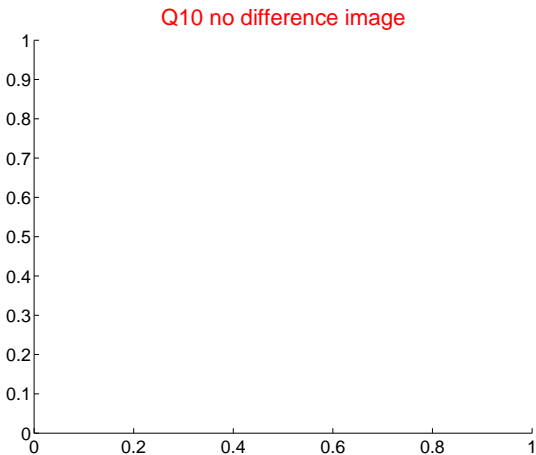
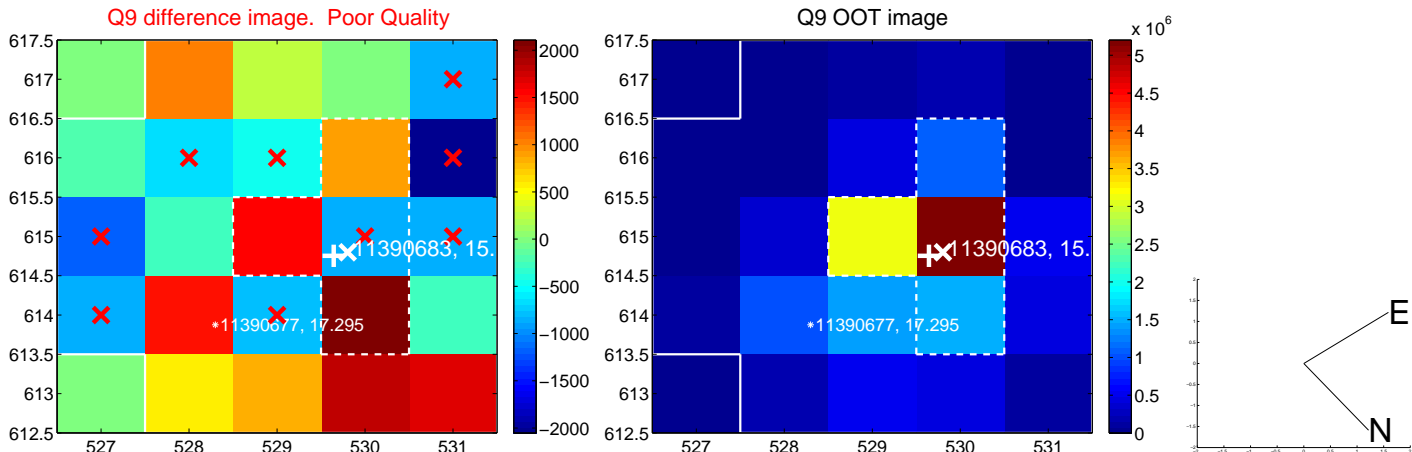
N



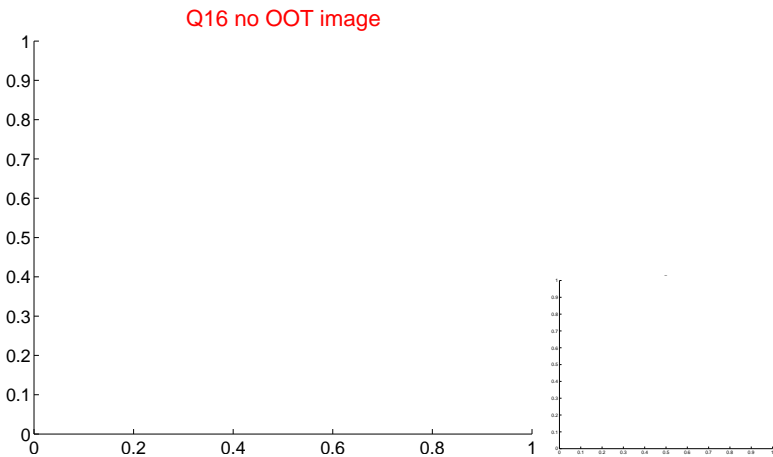
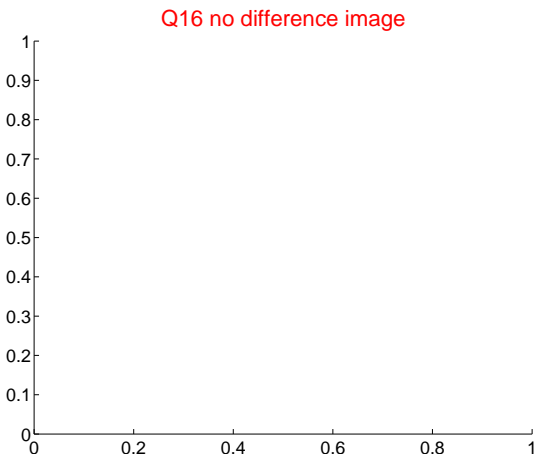
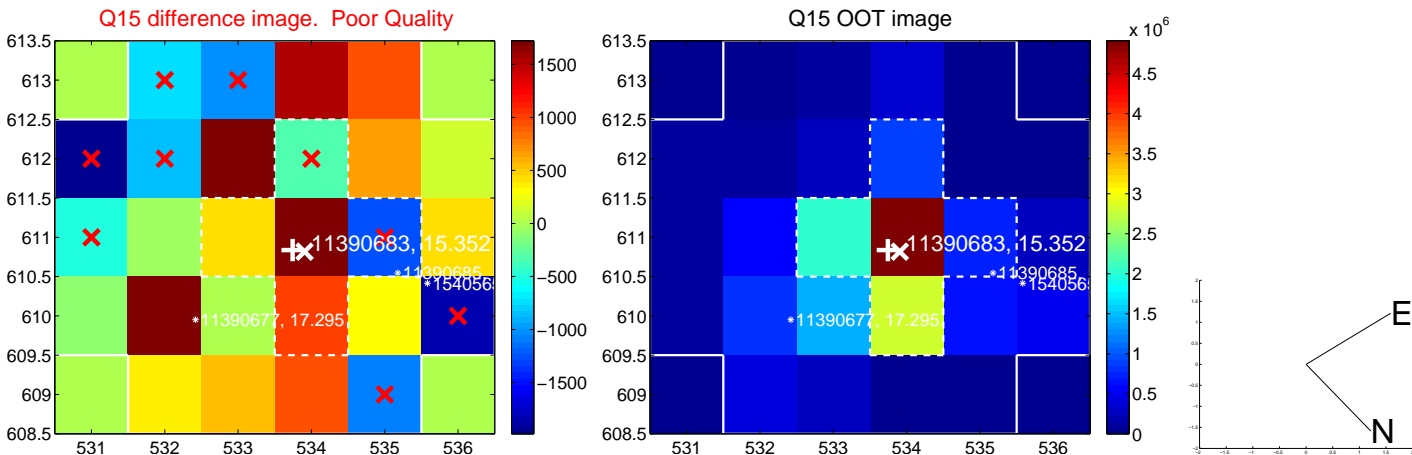
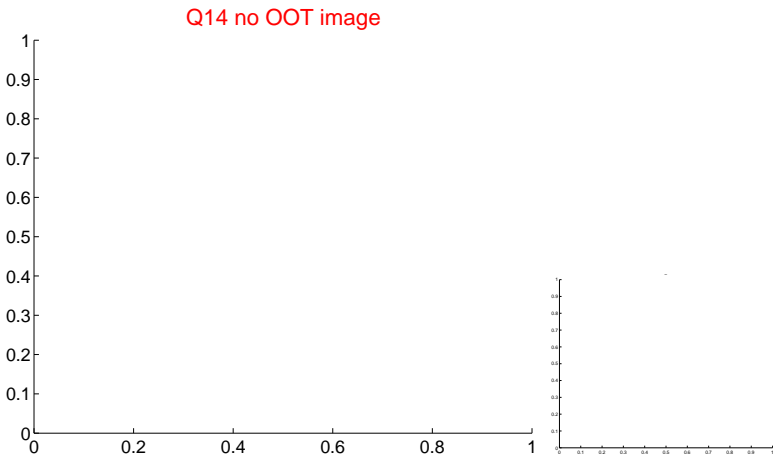
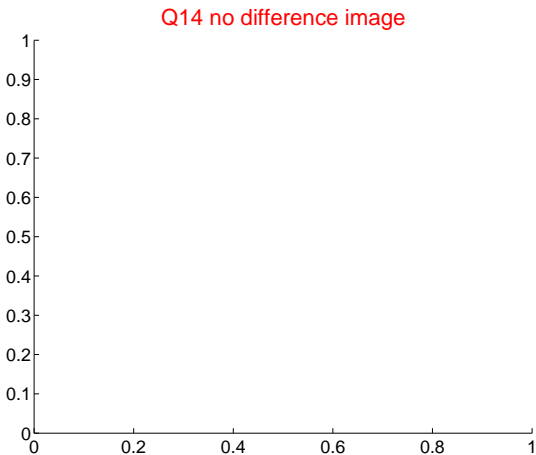
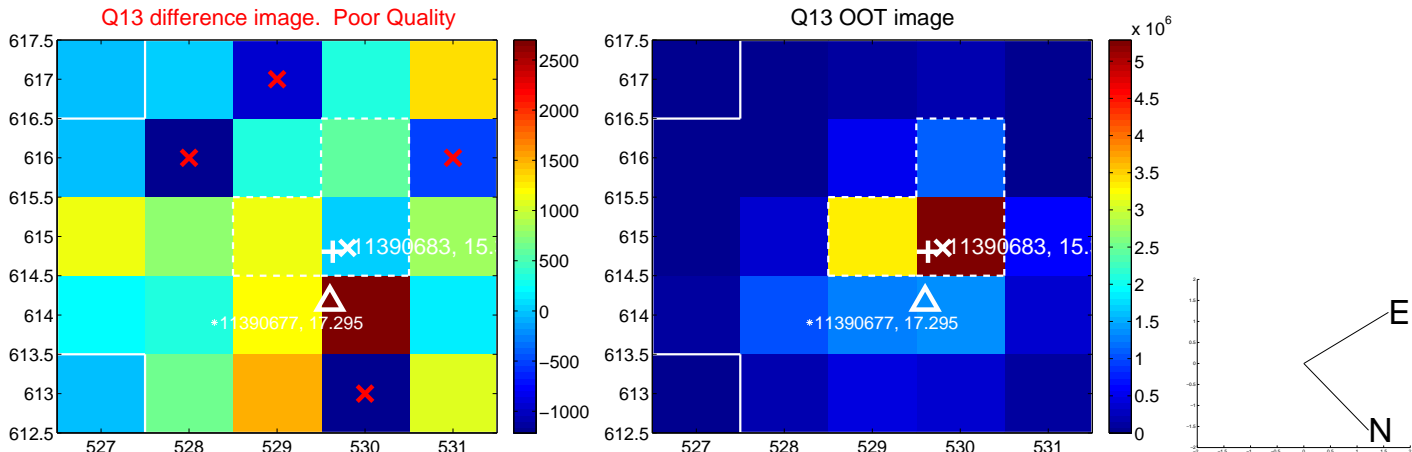
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



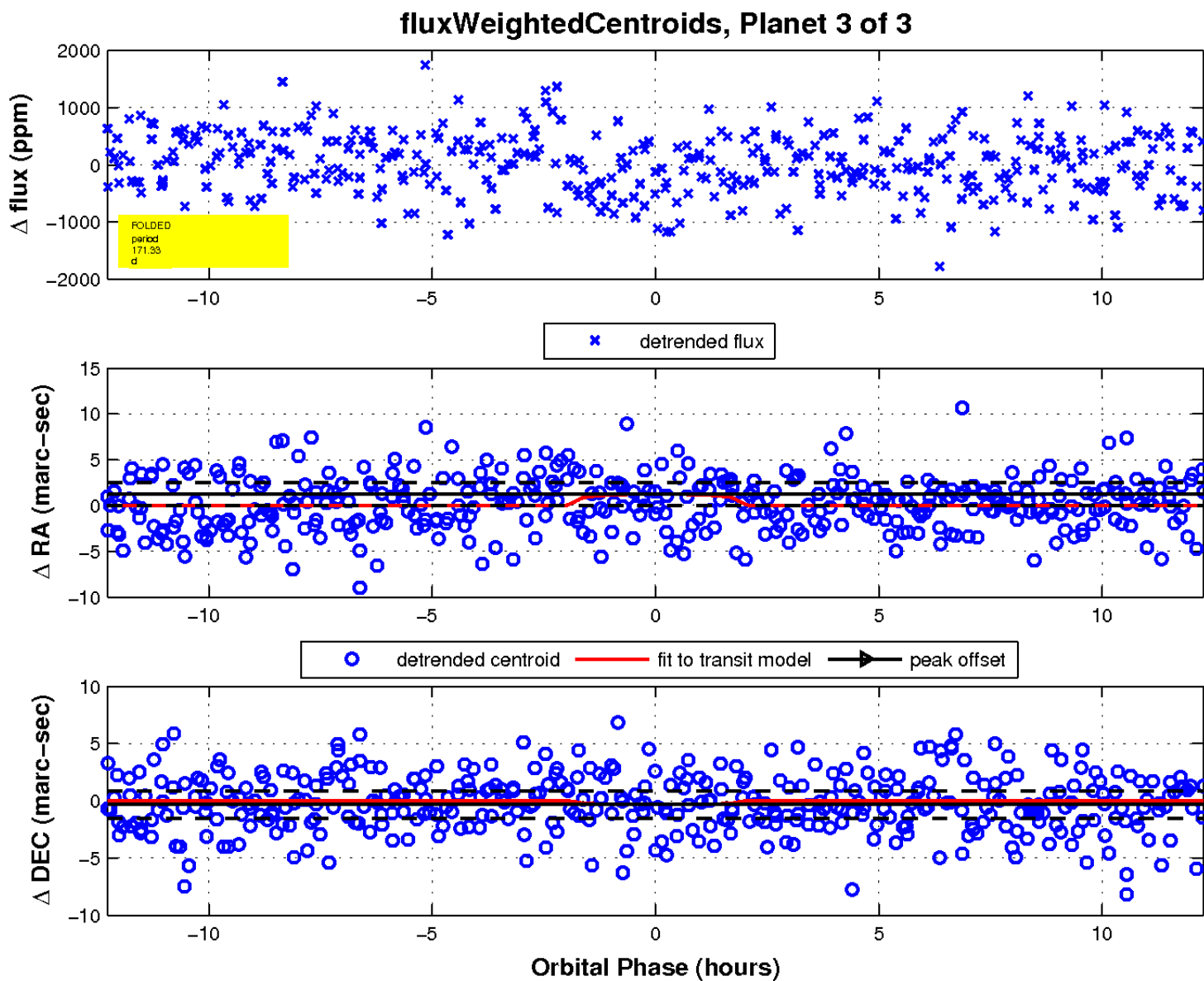
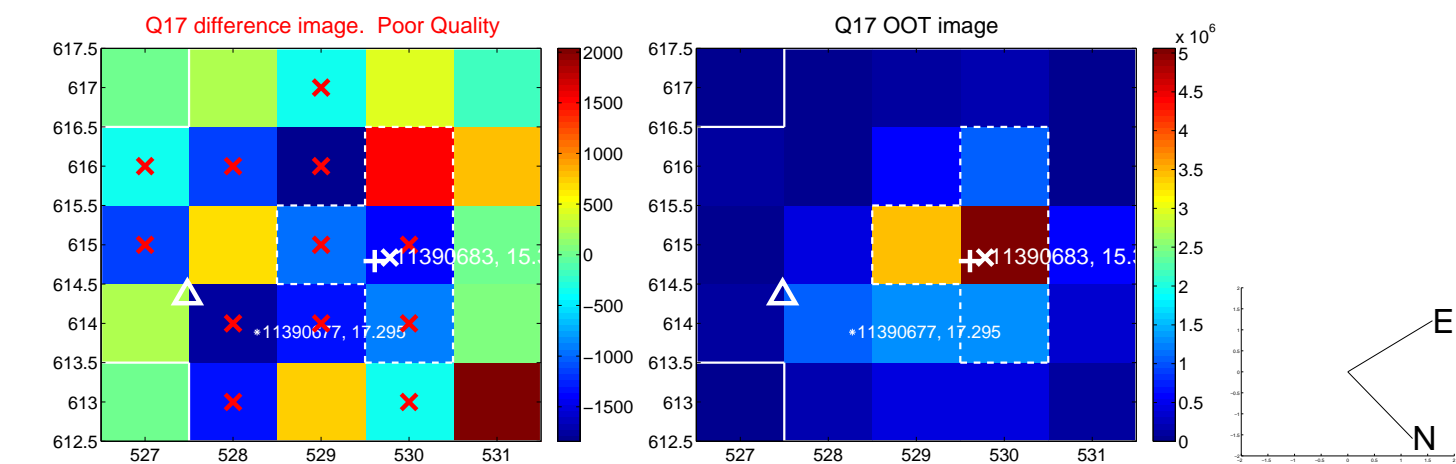
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

