

KIC 011496490

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})
011496490-01	OBS	No	0.621161	131.939858	80.8	0.532	9.5	14.7	1.21	6332	1.13	9759.87
011496490-02	OBS	No	0.621160	131.729787	60.3	0.845	9.6	14.7	1.21	6332	0.95	9759.89
011496490-03	OBS	No	0.621164	131.520119	83.1	0.540	9.0	16.5	1.21	6332	1.34	9759.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496490-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_UNRESOLVED_OFFSET
011496490-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET
011496490-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET

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.

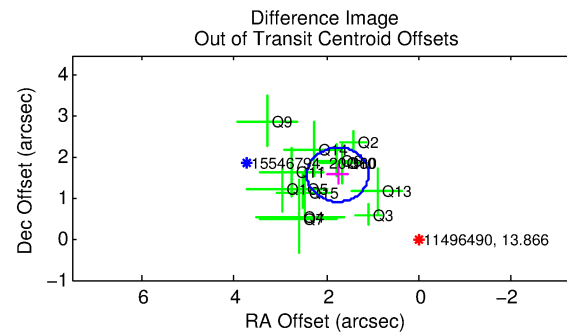
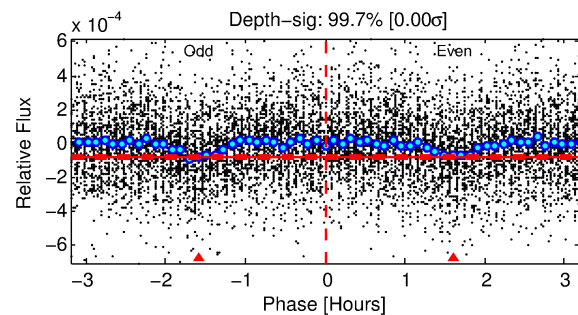
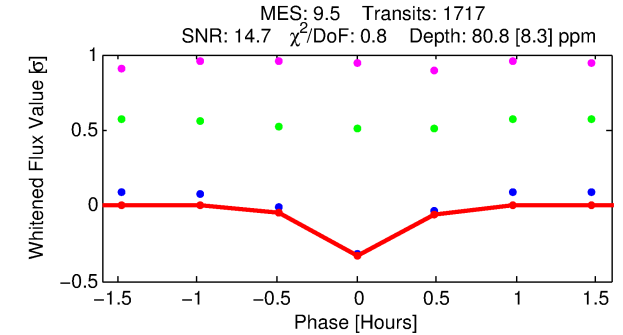
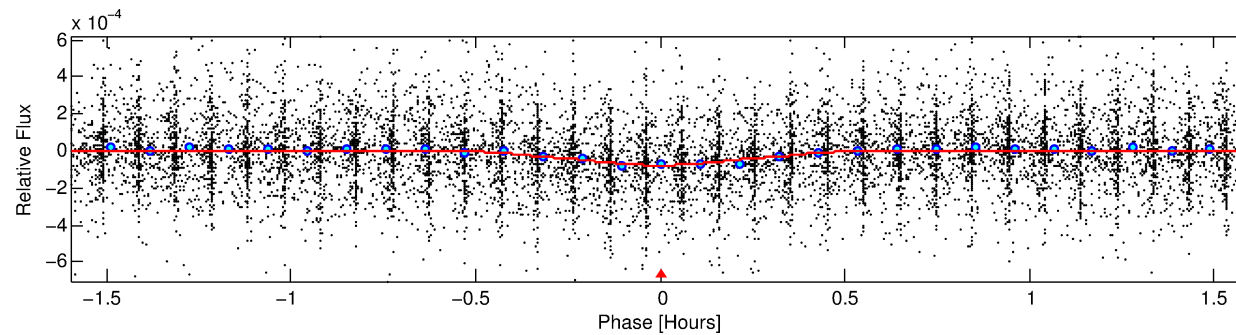
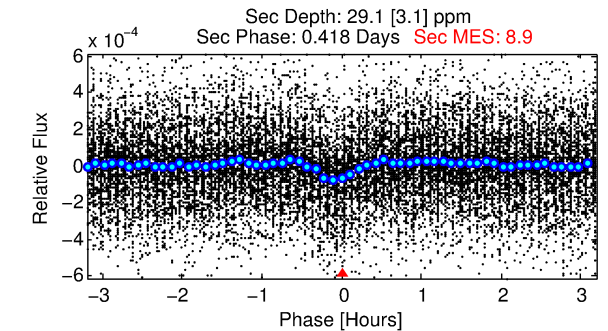
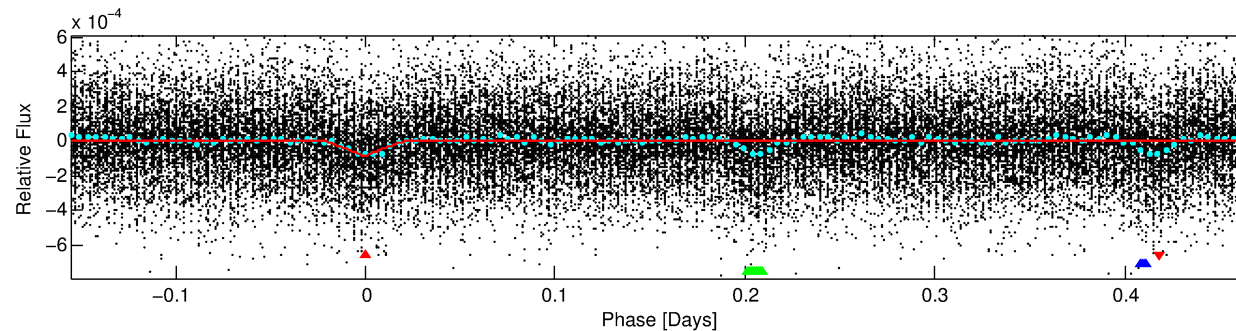
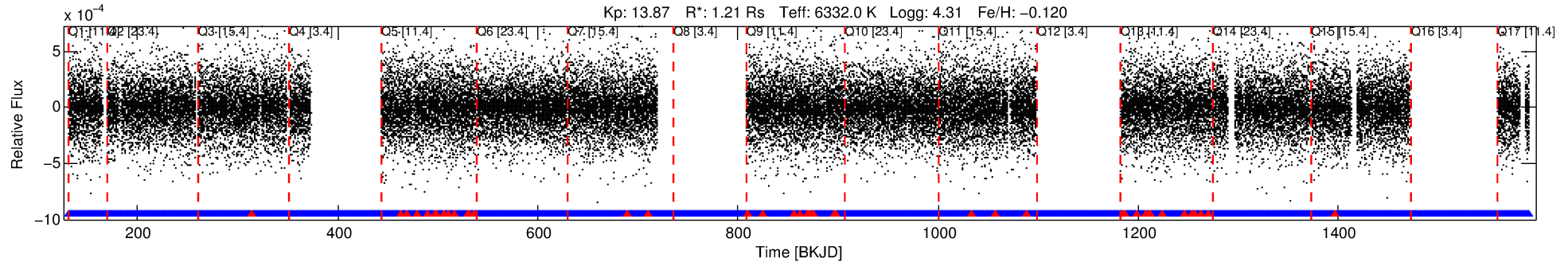
Ephemeris Match Information For 011496490-01

No Significant Match Found

DV One-Page Summary

KIC: 11496490 Candidate: 1 of 3 Period: 0.621 d
KOI: K04872 Corr: No Ephemeris Match

Kp: 13.87 R*: 1.21 Rs Teff: 6332.0 K Logg: 4.31 Fe/H: -0.120



DV Fit Results:

Period = 0.62116 [0.00001] d
Epoch = 131.9399 [0.0008] BKJD
Rp/R* = 0.0086 [0.0101]
a/R* = 8.99 [53.76]
b = 0.08 [78.52]
Seff = 9759.87 [3794.47]
Teq = 2534 [246] K
Rp = 1.13 [1.38] Re
a = 0.0146 [0.0039] AU
Ag = 2.69 [6.42] [0.26σ]
Teffp = 5020 [2961] K [0.84σ]

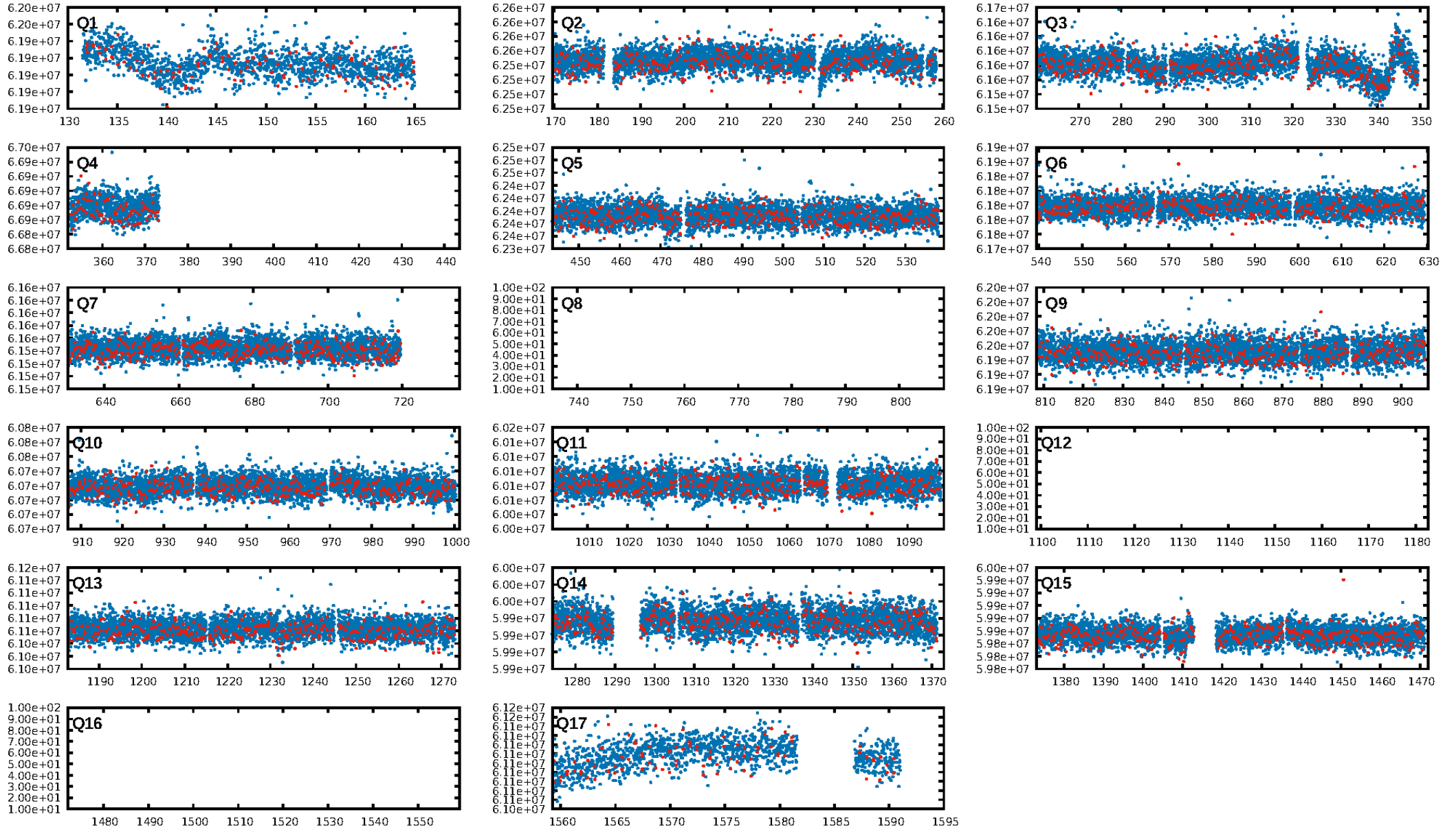
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.61e-31
RollingBand-fgt: 0.97 [1544/1587]
GhostDiagnostic-chr: 1.222
Centroid-sig: 0.0%
Centroid-so: 4.926 arcsec [5.35σ]
OotOffset-rm: 2.362 arcsec [10.67σ]
KicOffset-rm: 2.528 arcsec [11.25σ]
OotOffset-st: 4/4/1/4 [13]
KicOffset-st: 4/4/1/4 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 0.00 [0/14]

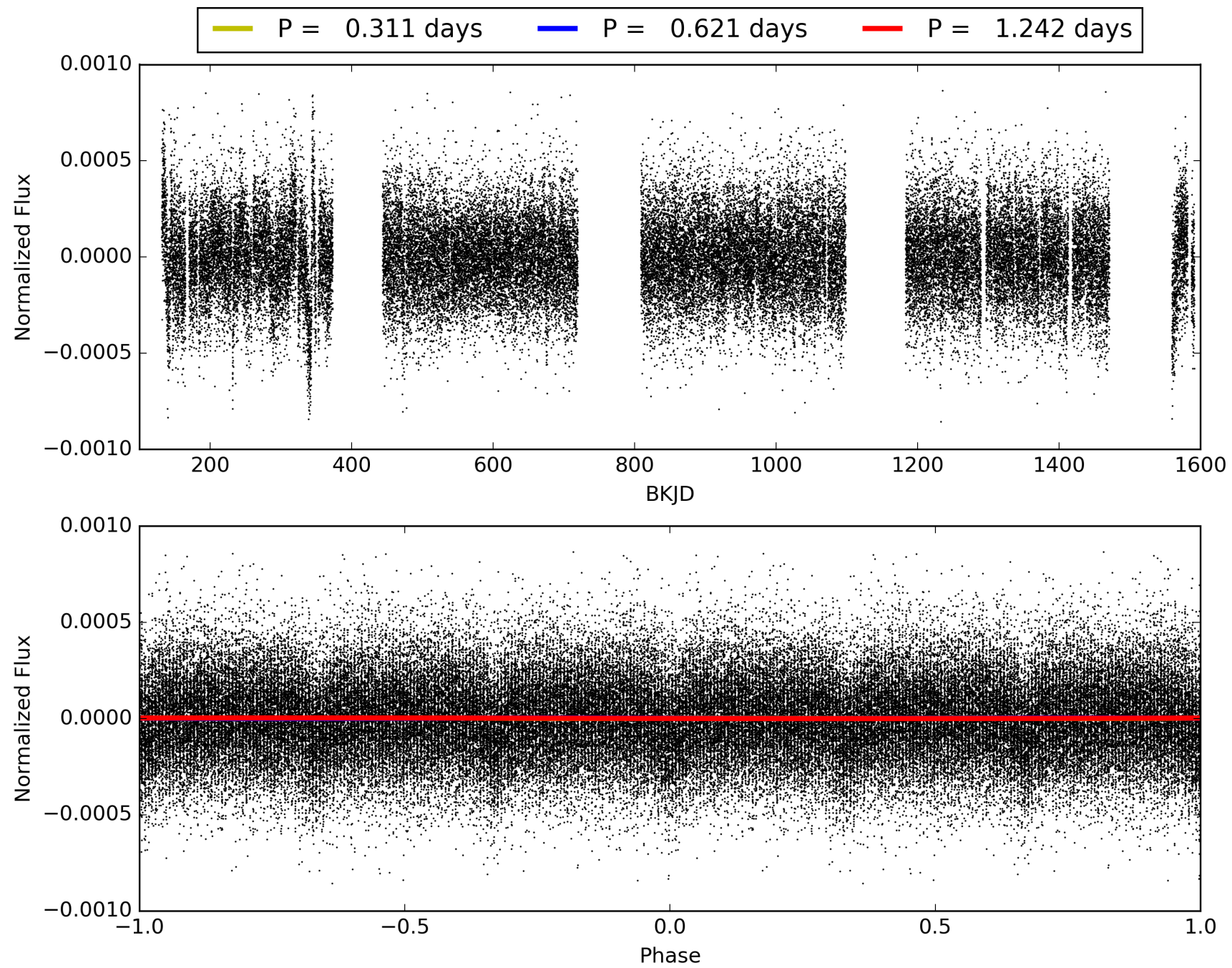
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011496490-01, PDC Light Curves

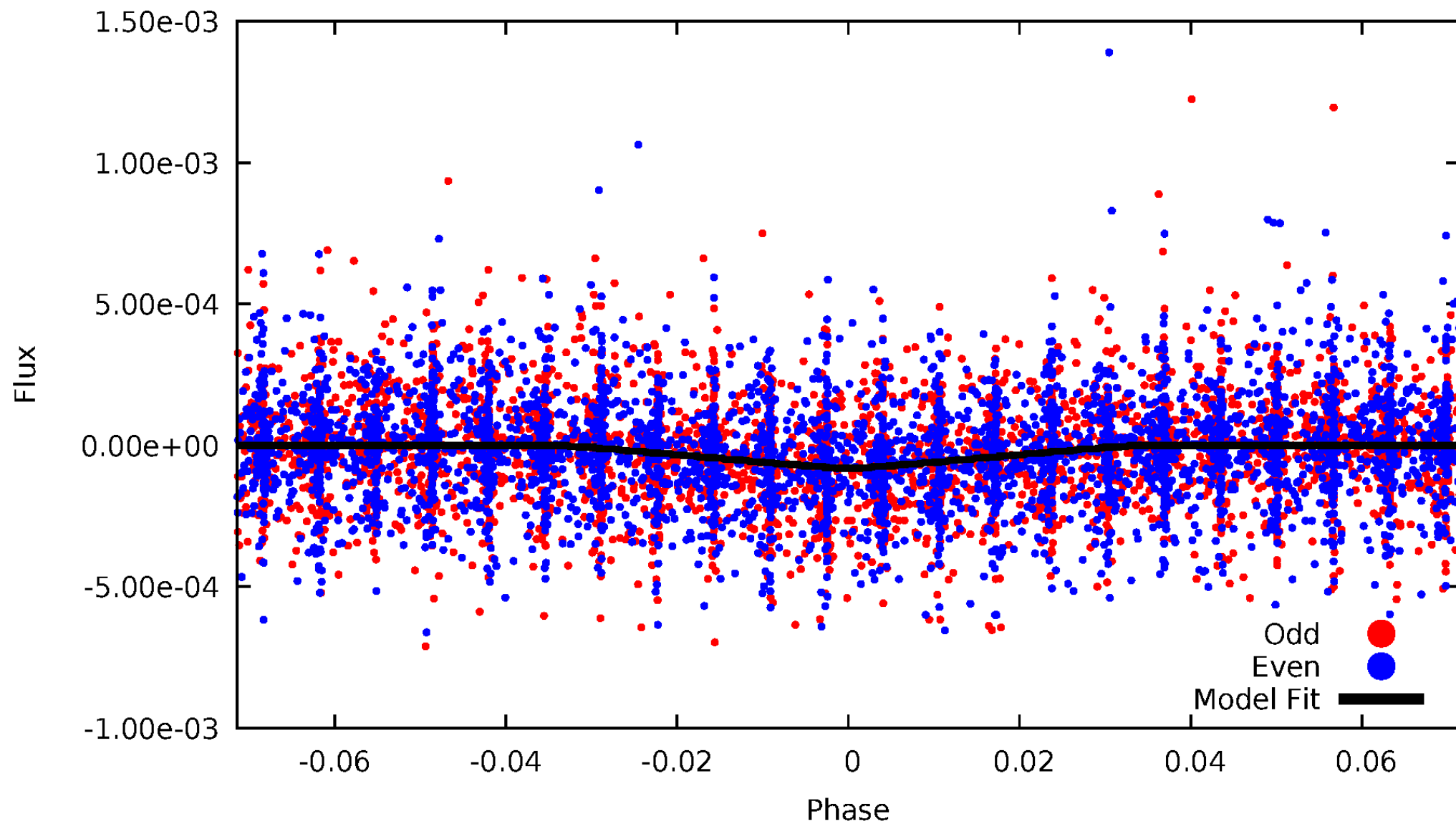


TCE 011496490-01



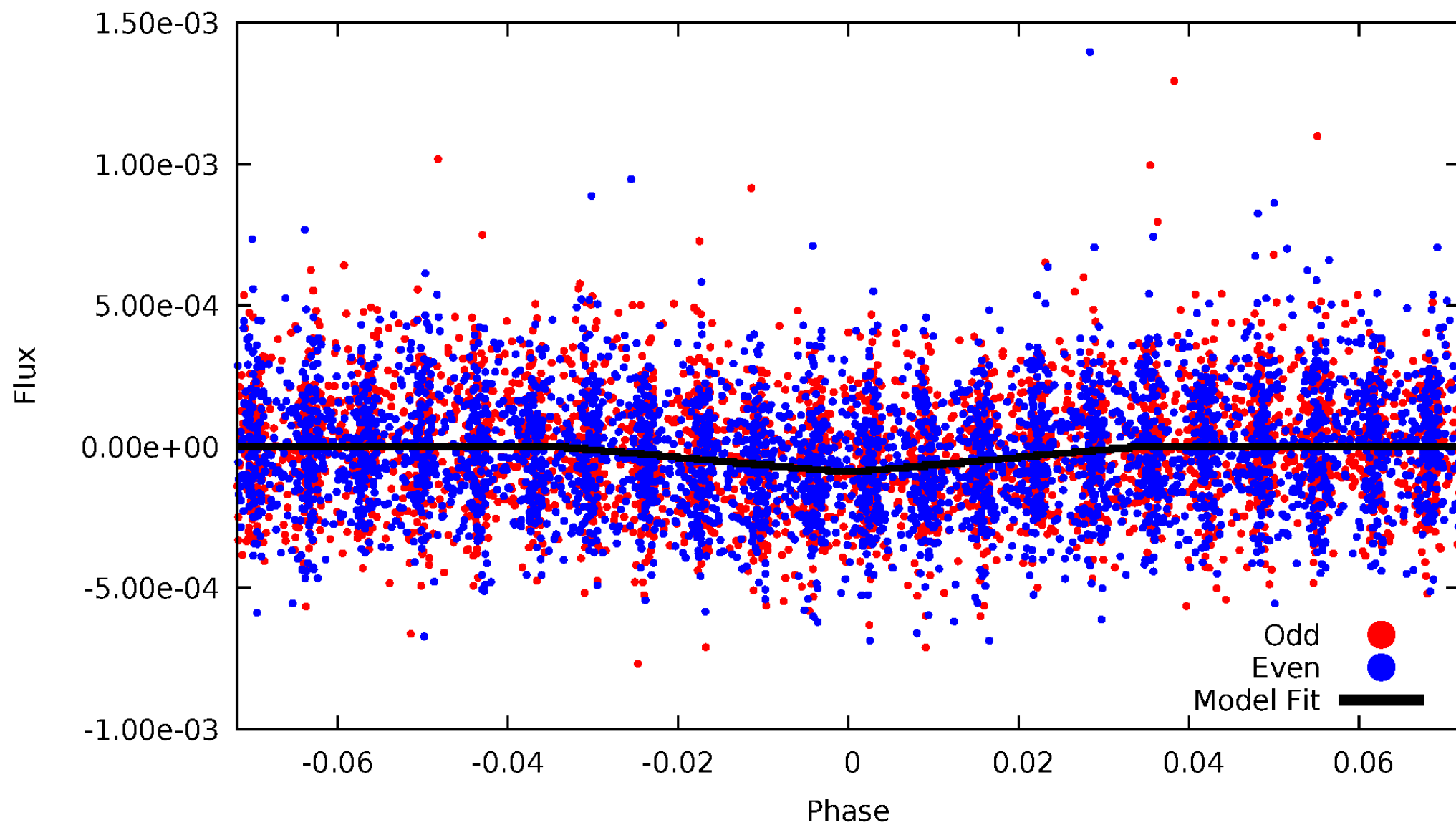
DV Odd/Even

TCE 011496490-01

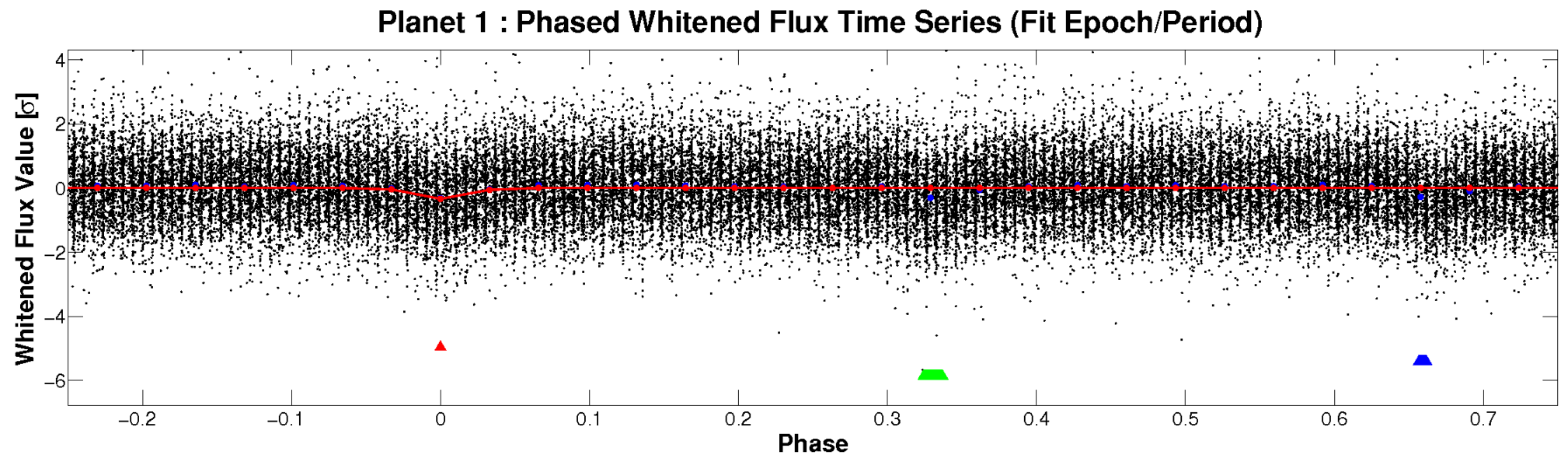
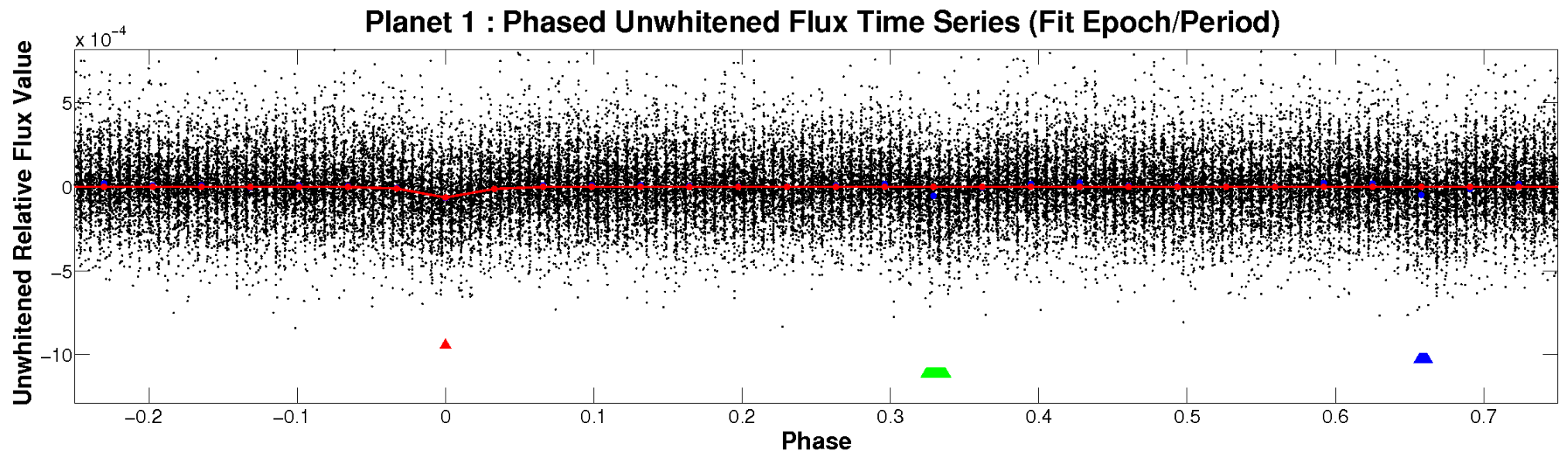


ALT Odd/Even

TCE 011496490-01

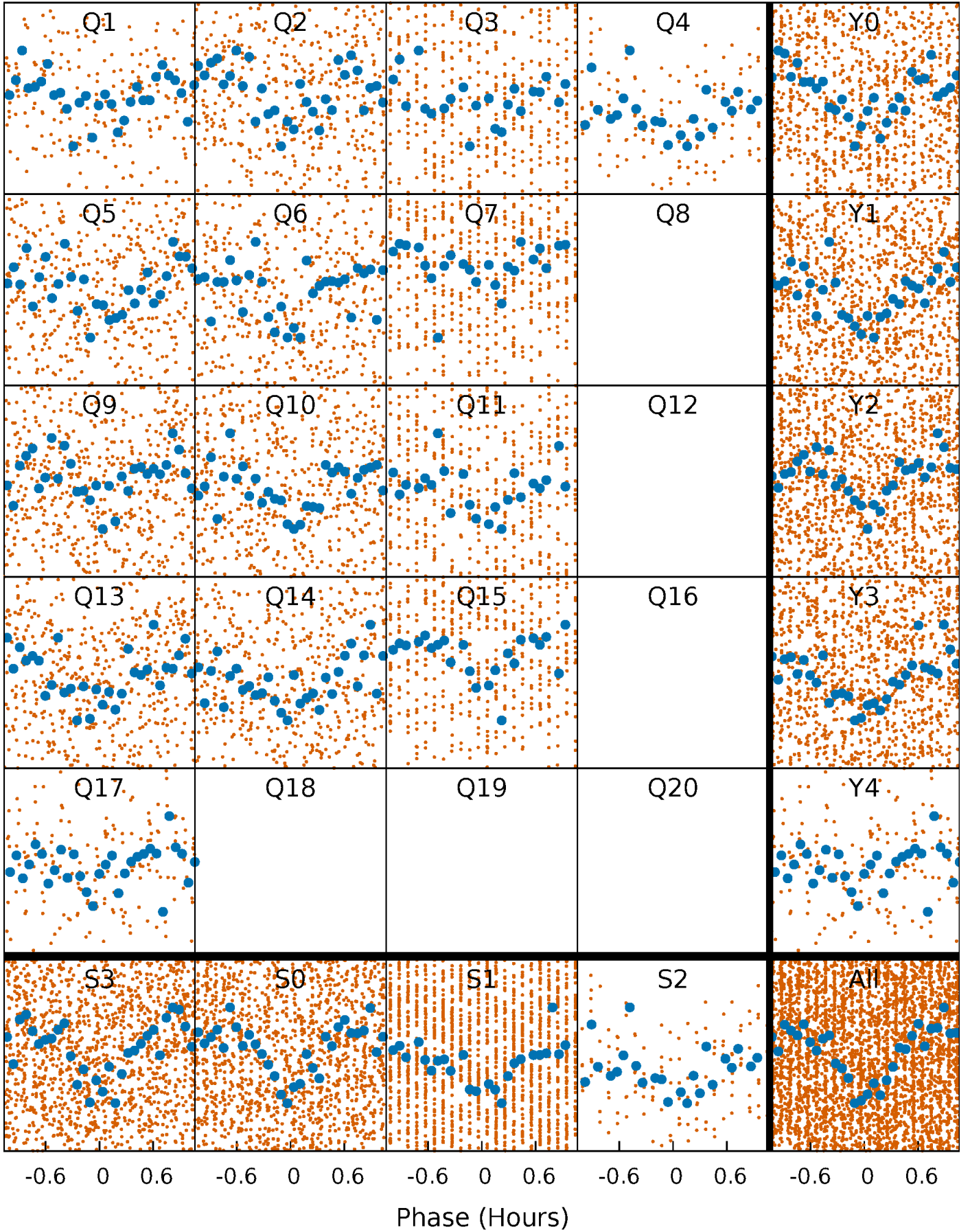


Non-Whitened Vs. Whitened Light Curve



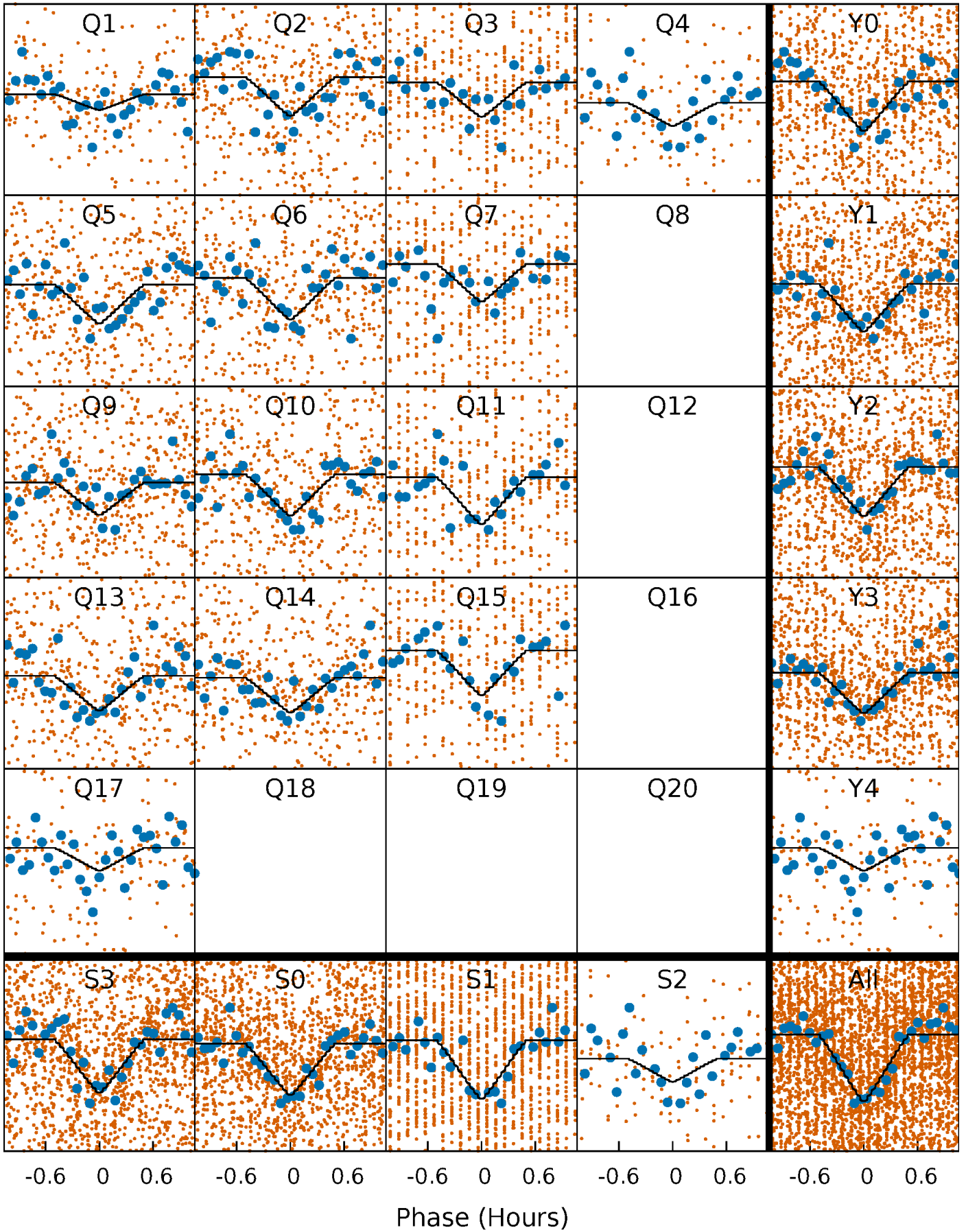
PDC Quarter-Phased Transit Curves

TCE 011496490-01 P= 0.621161 Days $T_0=131.939857$ (BKJD)



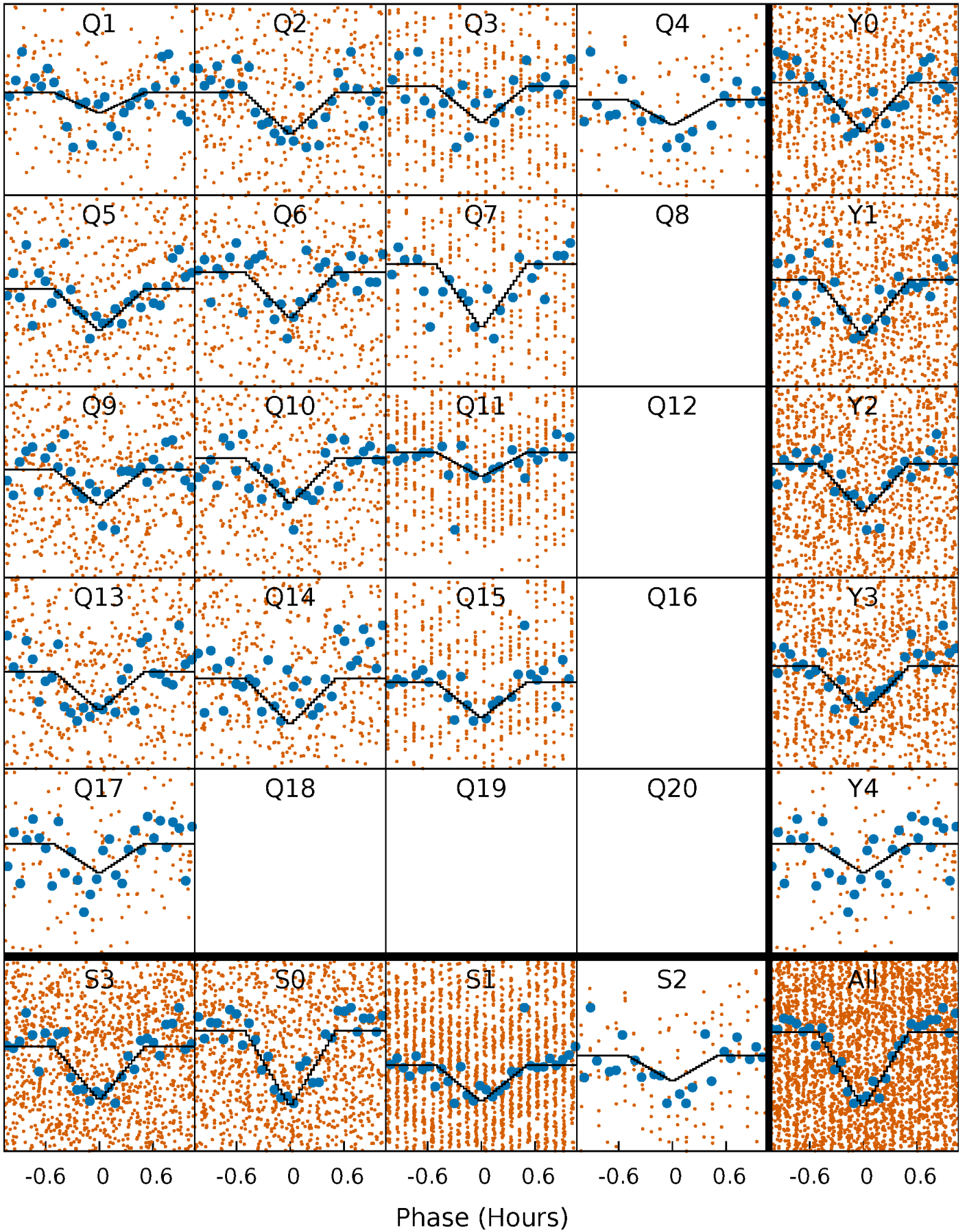
DV Quarter-Phased Transit Curves

TCE 011496490-01 P= 0.621161 Days $T_0=131.939857$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

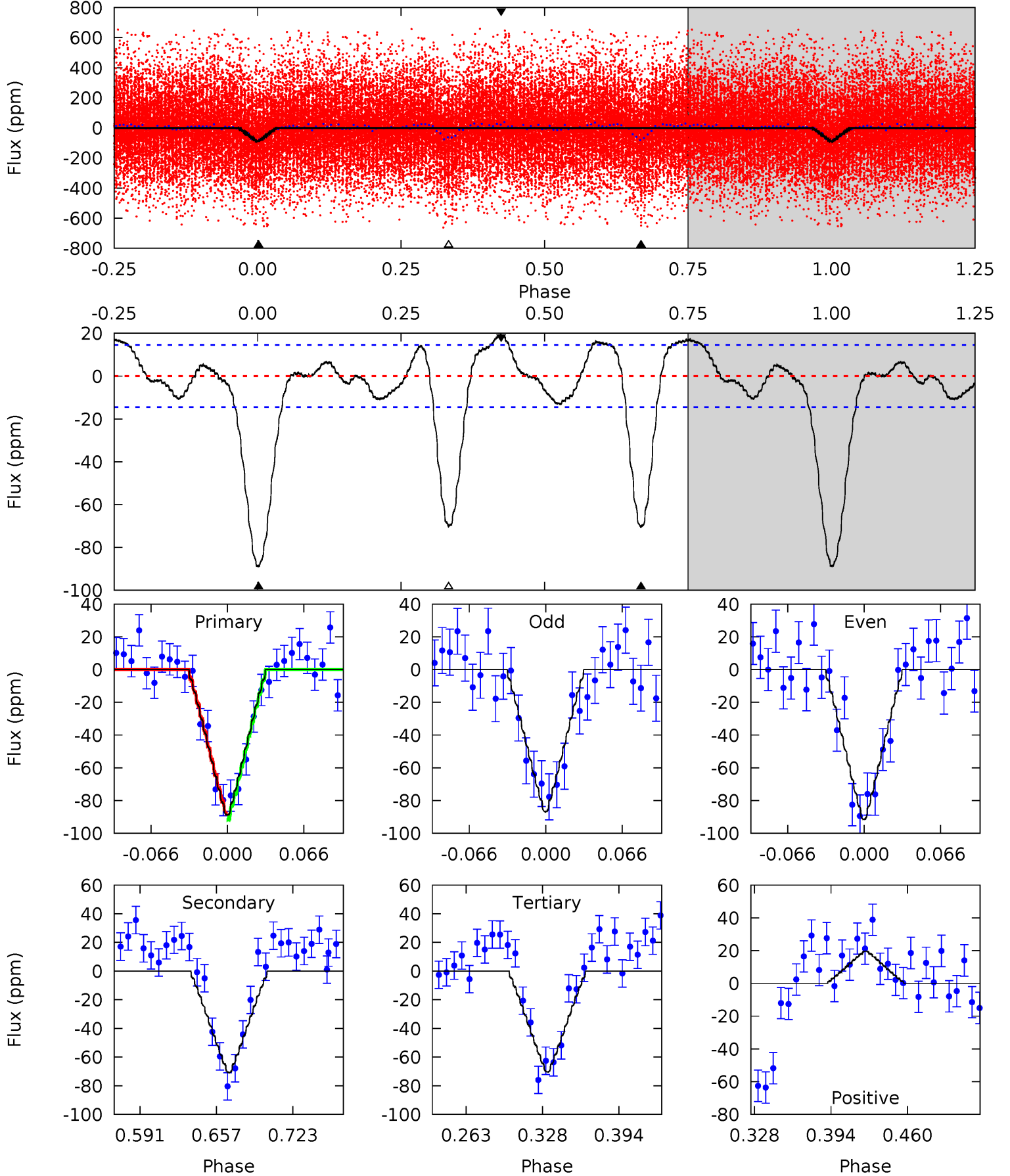
TCE 011496490-01 P= 0.621161 Days $T_0=131.940116$ (BKJD)



DV Model-Shift Uniqueness Test

011496490-01, P = 0.621161 Days, E = 131.318696 Days

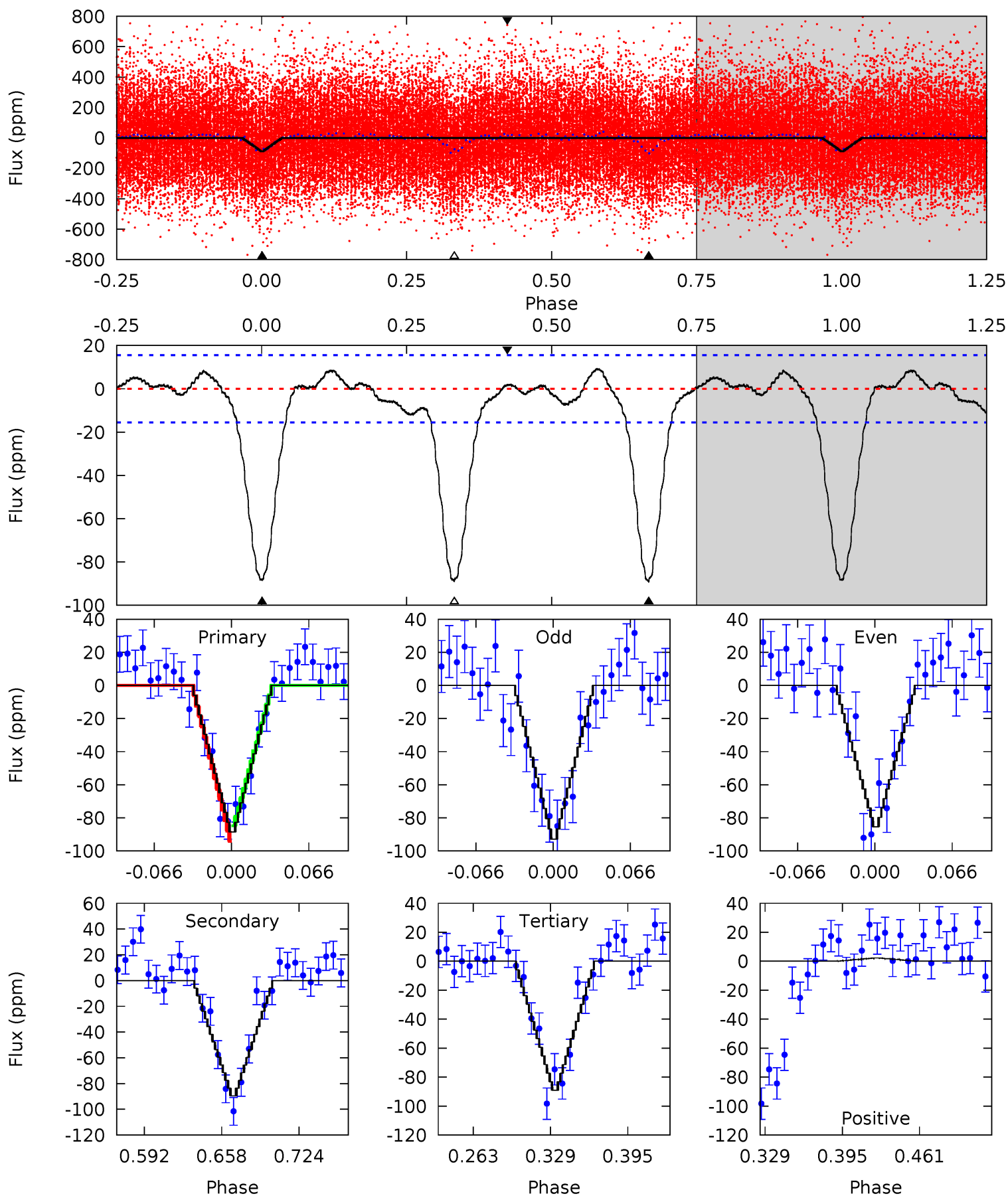
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	22.7	22.6	6.29	4.65	1.84	5.34	5.93	22.3	0.12	16.5	0.75	1.01	0.18	0.62



Alt Model-Shift Uniqueness Test

011496490-01, P = 0.621161 Days, E = 131.318955 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.6	26.8	26.7	0.68	4.65	1.84	5.93	-0.16	25.9	0.09	26.1	1.13	0.94	0.10	1.42



Stellar Parameters For KIC 011496490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6332^{+158}_{-205}	$4.311^{+0.112}_{-0.192}$	$-0.120^{+0.250}_{-0.300}$	$1.205^{+0.394}_{-0.197}$	$1.080^{+0.197}_{-0.115}$	$0.869^{+0.444}_{-0.467}$
	+2%/-3%	+3%/-4%	+208%/-250%	+33%/-16%	+18%/-11%	+51%/-54%
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 011496490-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-71 ± 3	$1.53^{+1.23}_{-0.95}$	3580^{+262}_{-208}	5396^{+3982}_{-1323}	$3.626^{+20.833}_{-2.522}$
Alt.	-89 ± 3	$1.57^{+1.27}_{-0.98}$	3571^{+271}_{-223}	5597^{+4539}_{-1329}	$4.293^{+24.903}_{-2.964}$

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

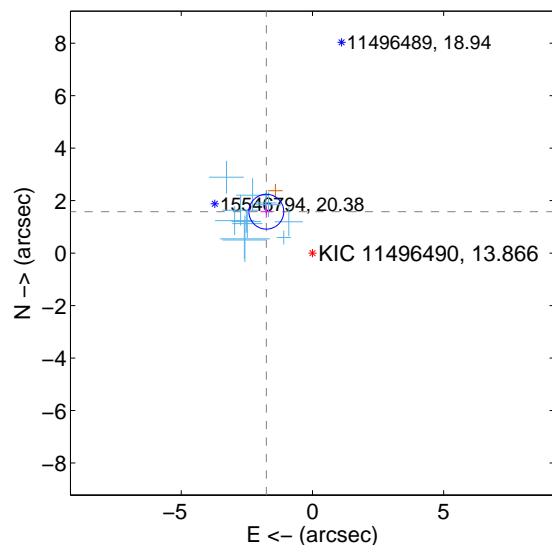
Supplemental centroid analysis for 011496490-01. Kepler magnitude: 13.87. Transit SNR 14.75

There are 12 quarters with good PRF difference image offsets

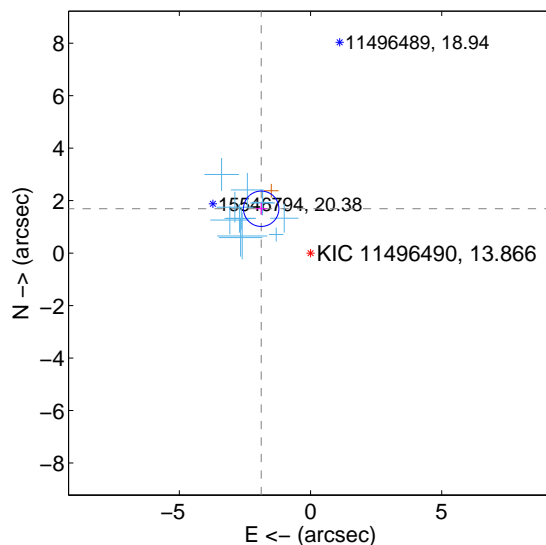
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.362 ± 0.221	10.67	1.757 ± 0.218	1.578 ± 0.225
PRF-fit source offset from KIC position	2.528 ± 0.225	11.25	1.880 ± 0.213	1.690 ± 0.218
photometric centroid source offset	4.93 ± 0.92	5.35	4.67 ± 0.91	1.58 ± 1.00

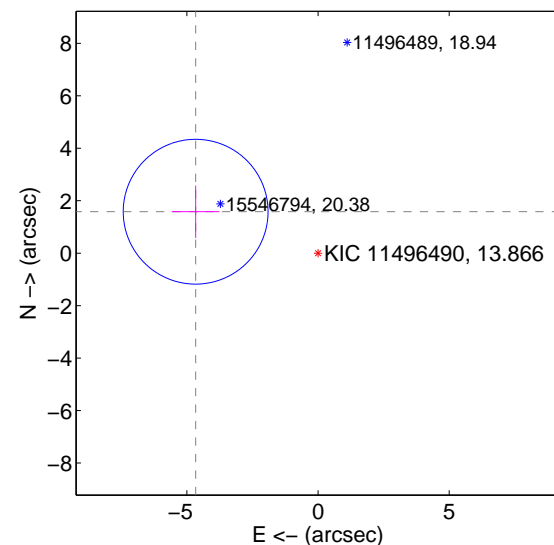
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

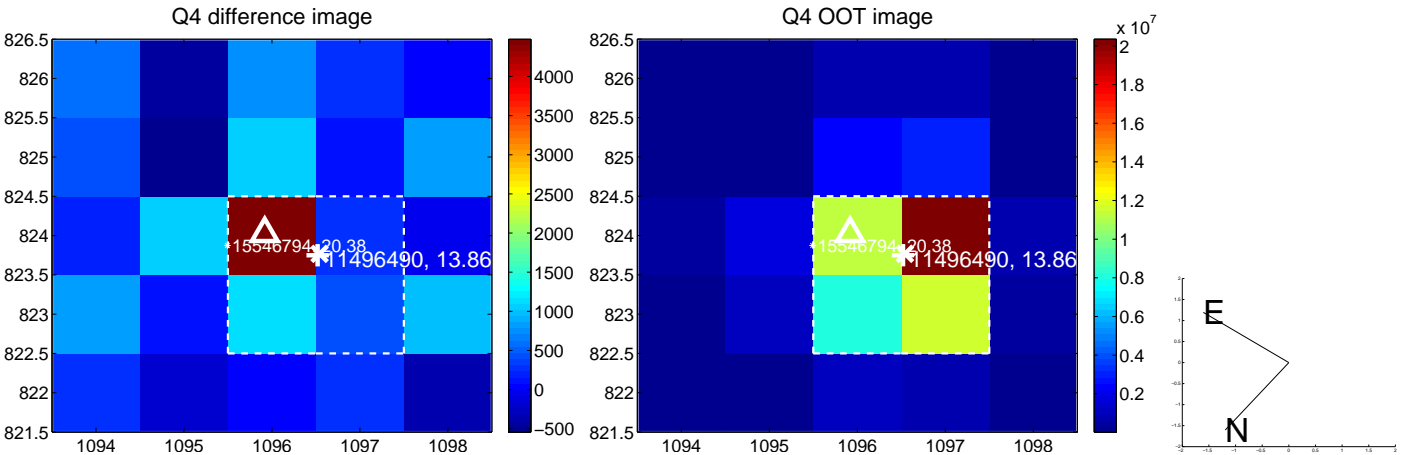
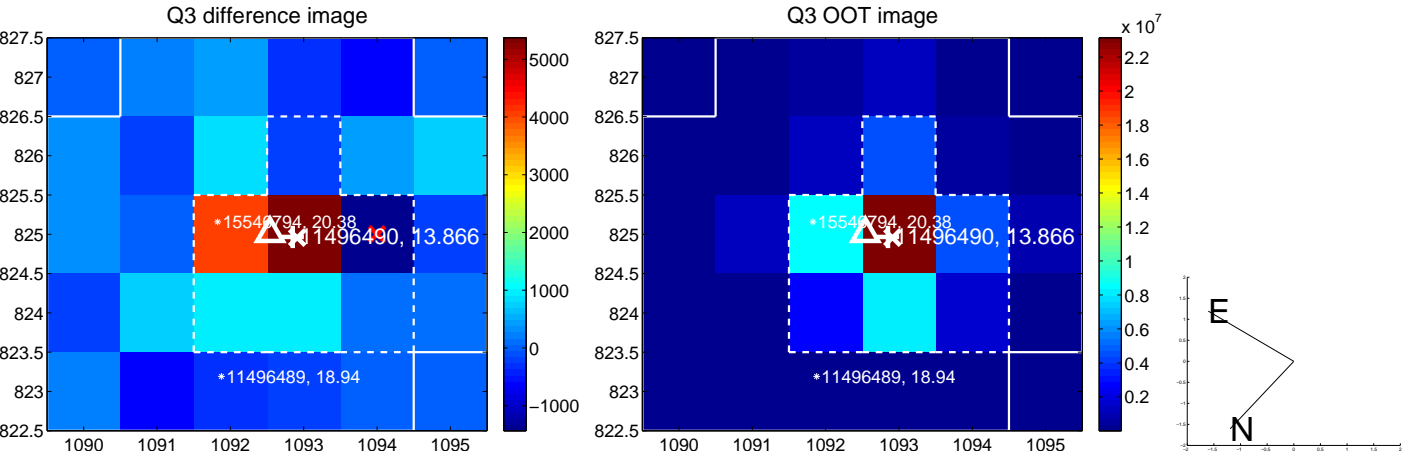
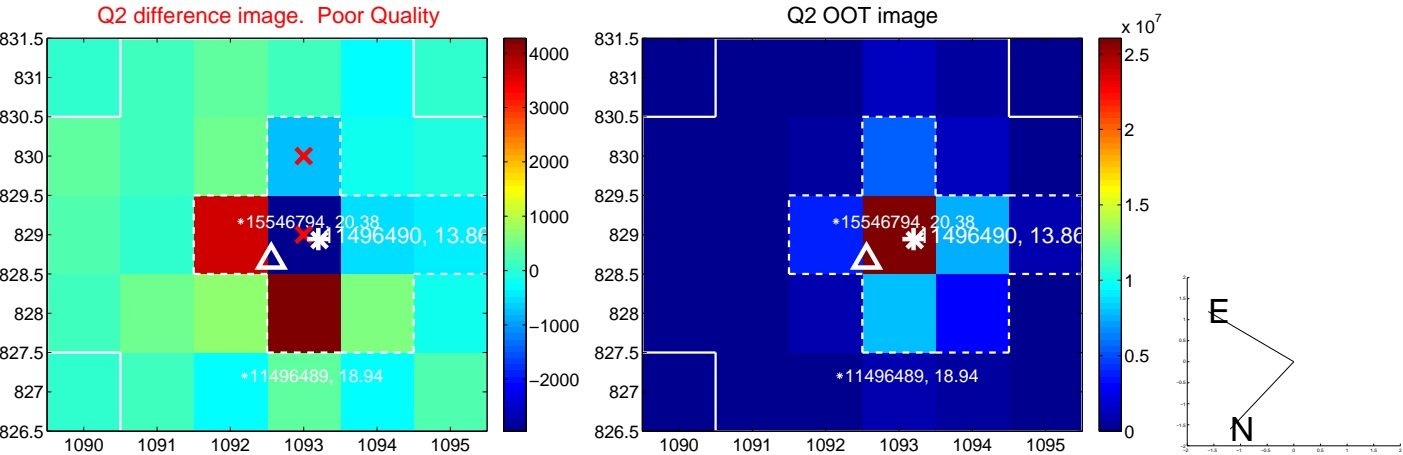
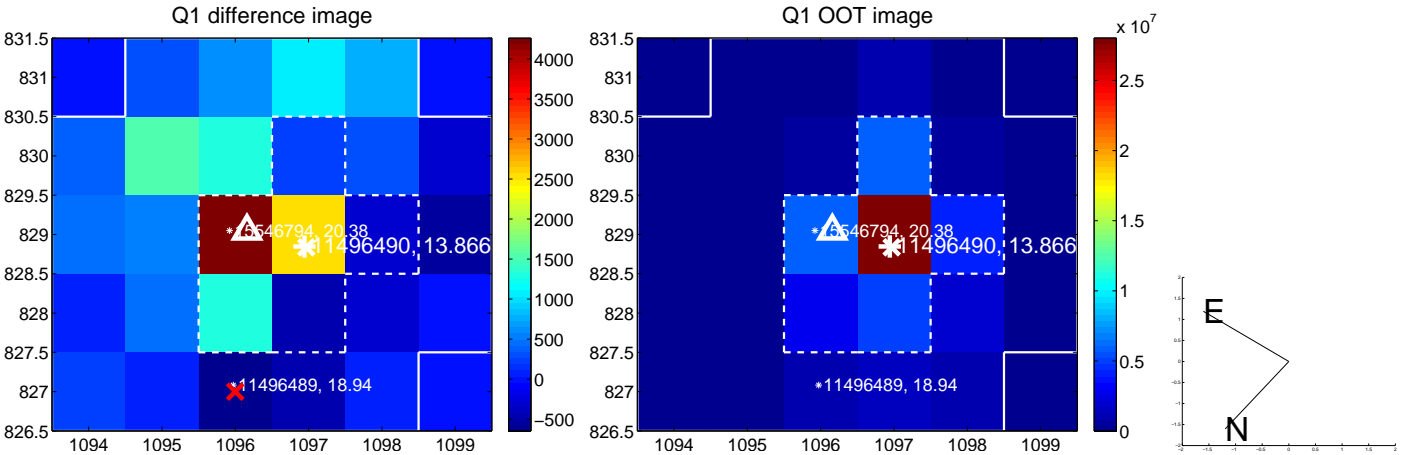


offset from photometric centroids

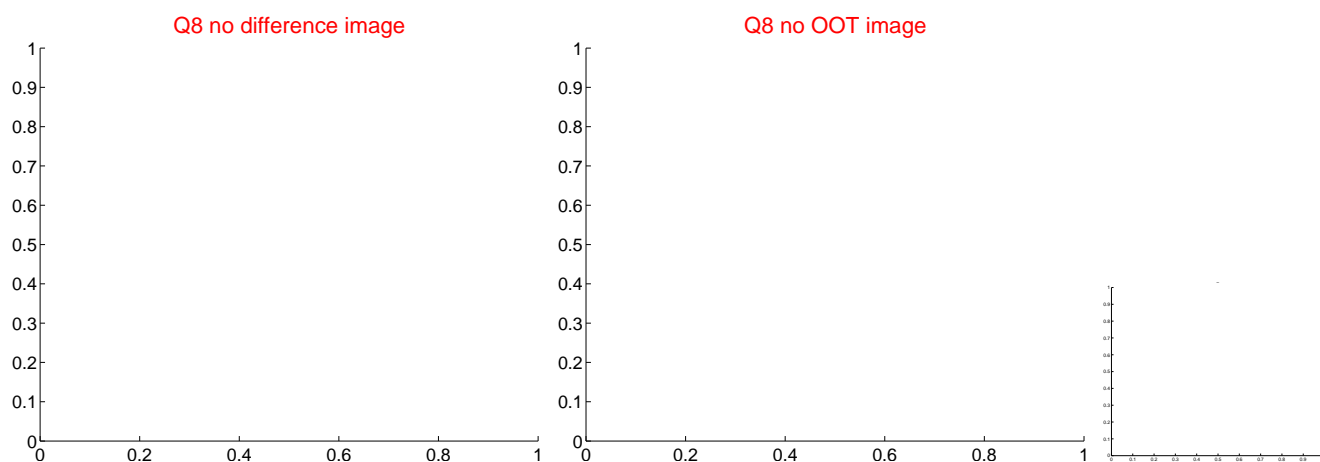
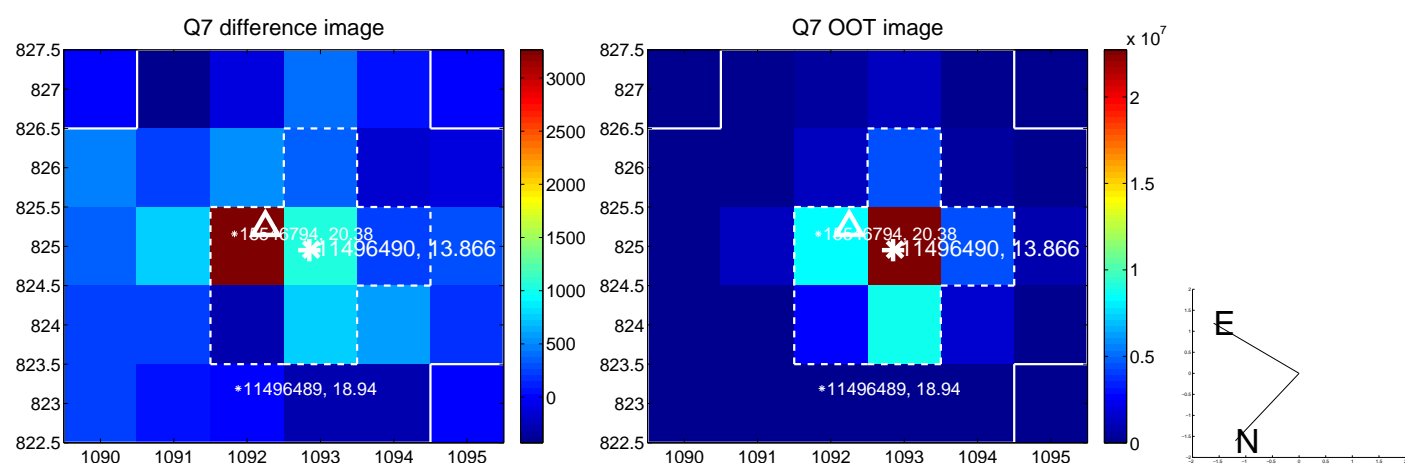
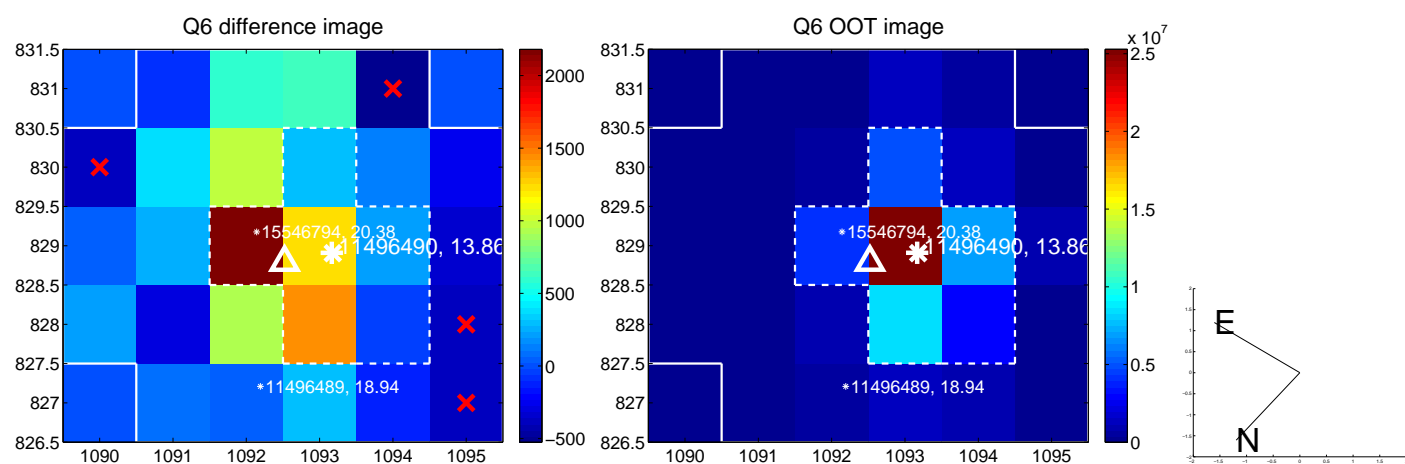
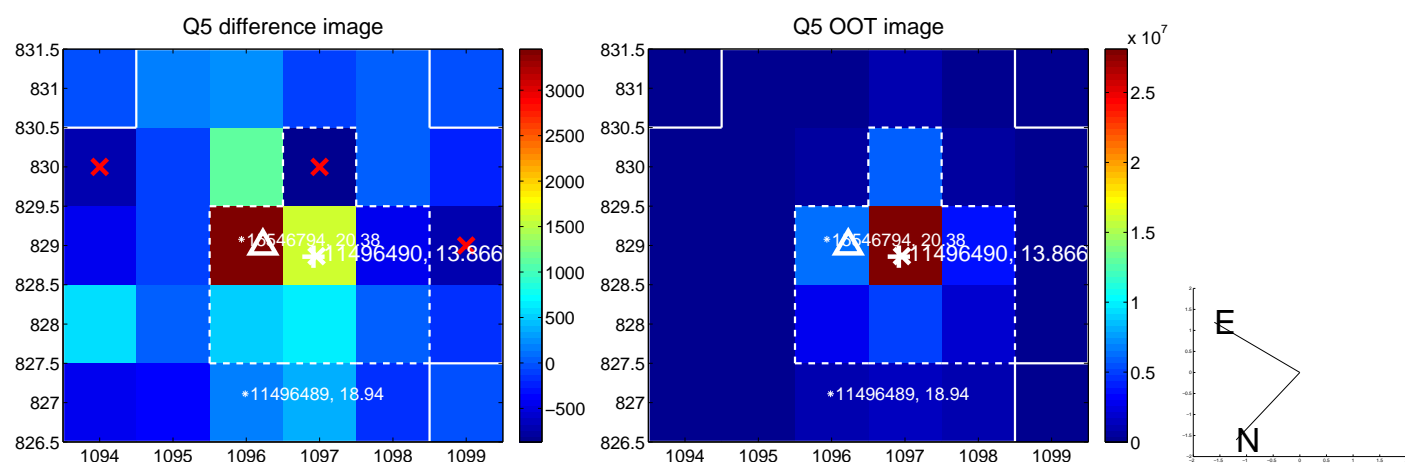


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

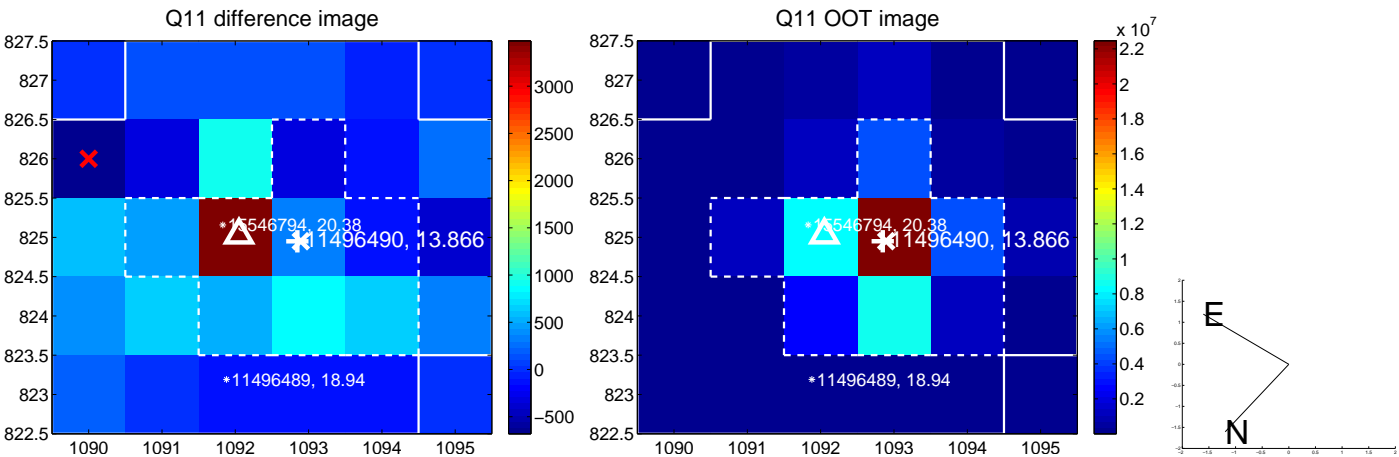
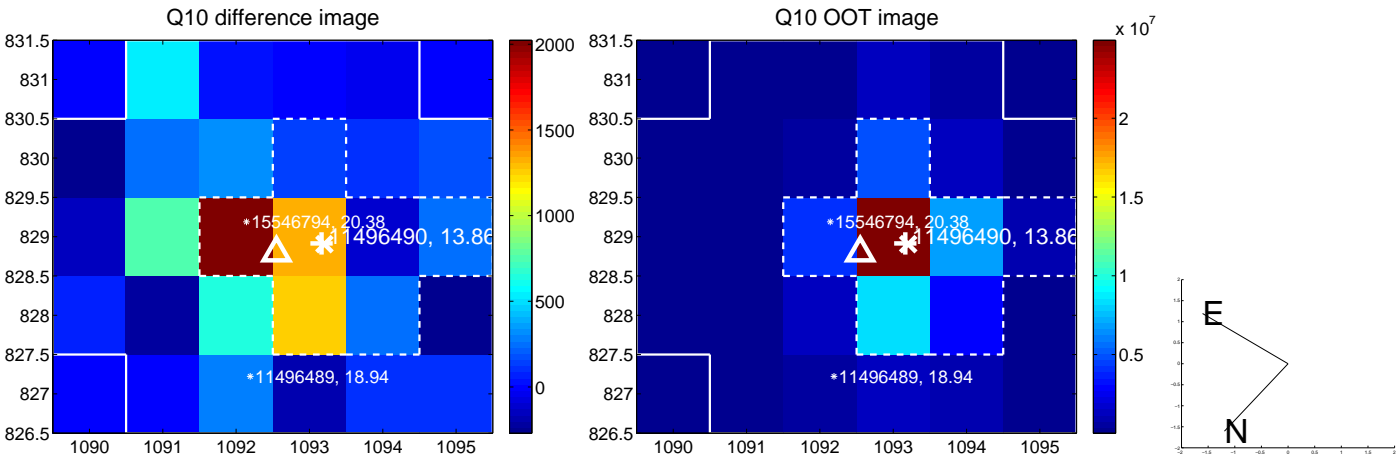
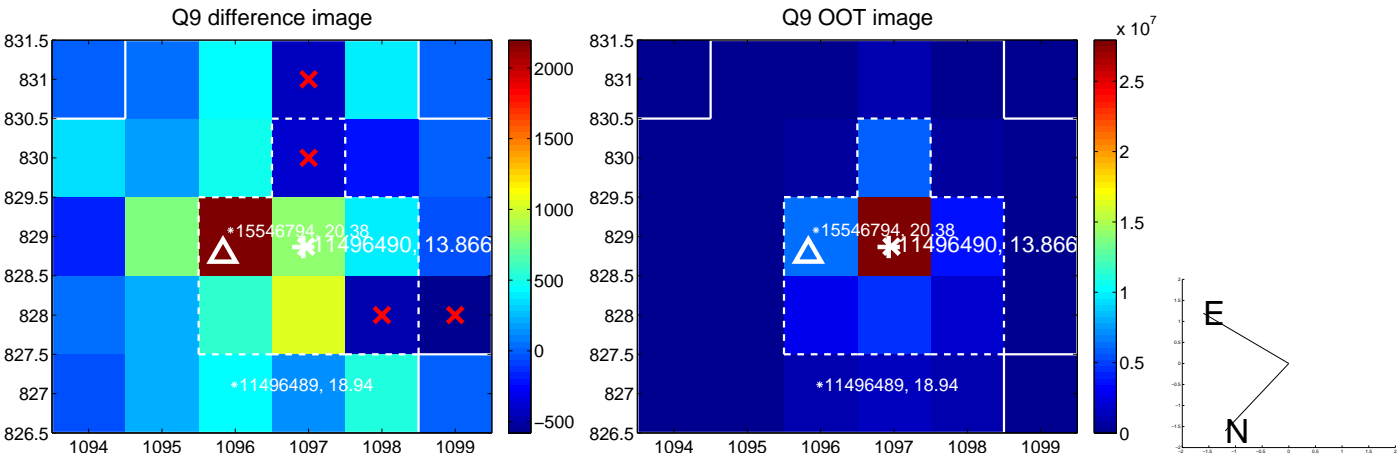
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



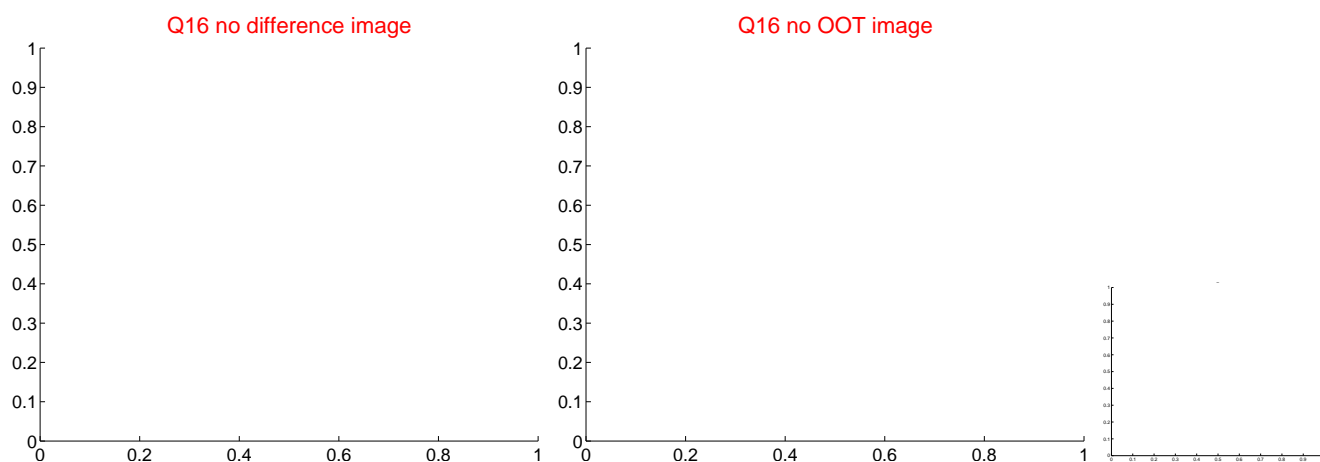
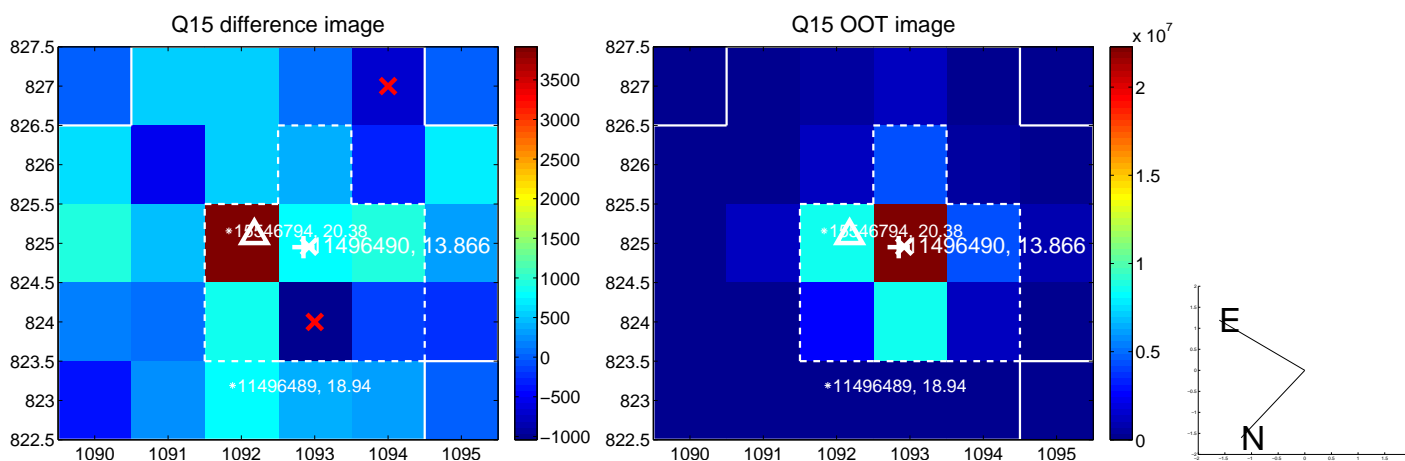
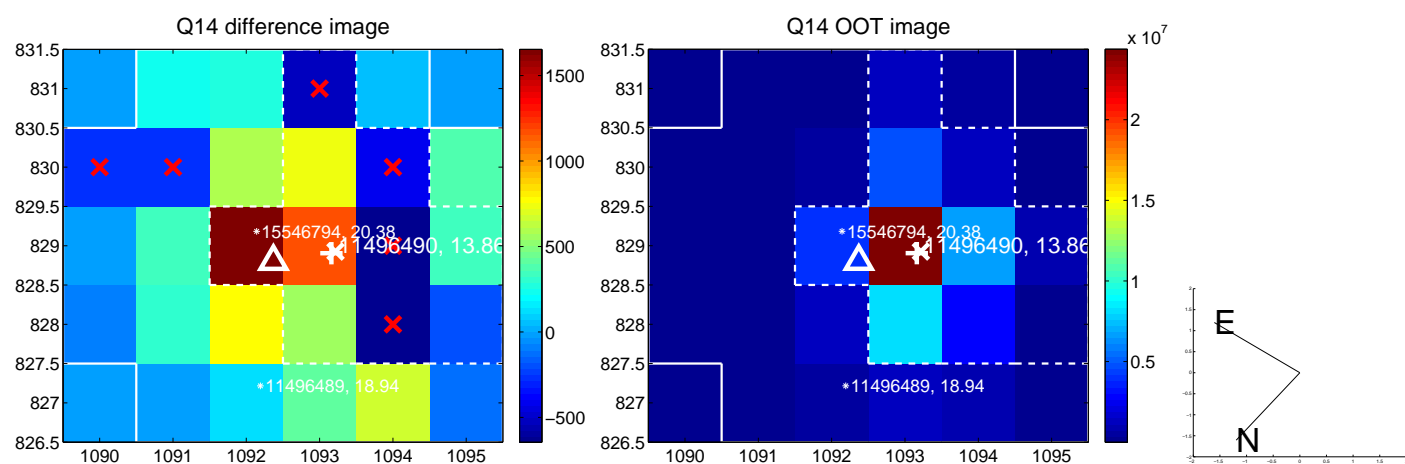
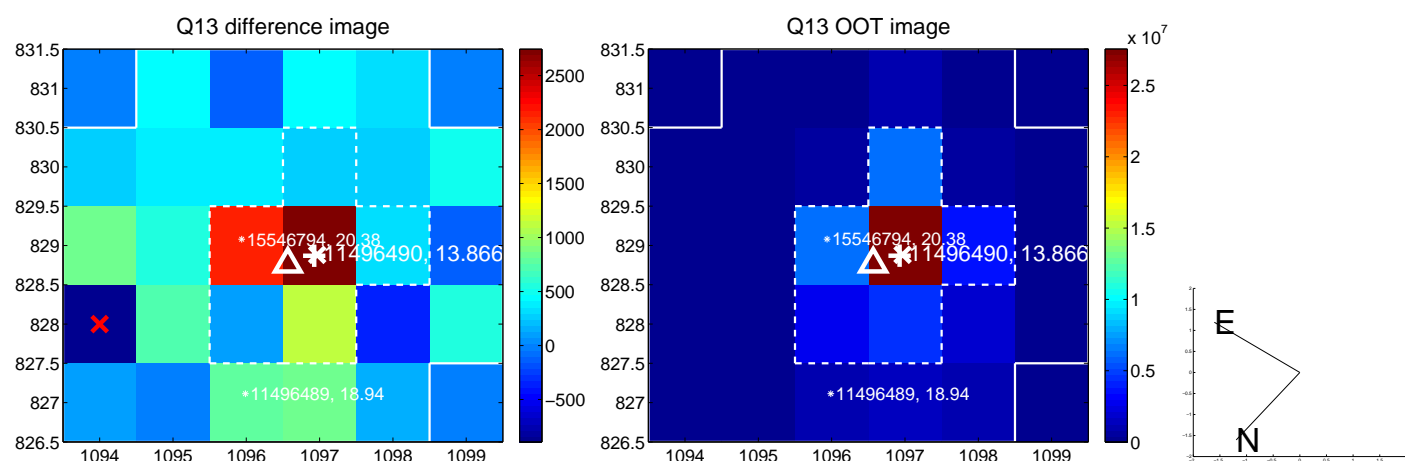
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



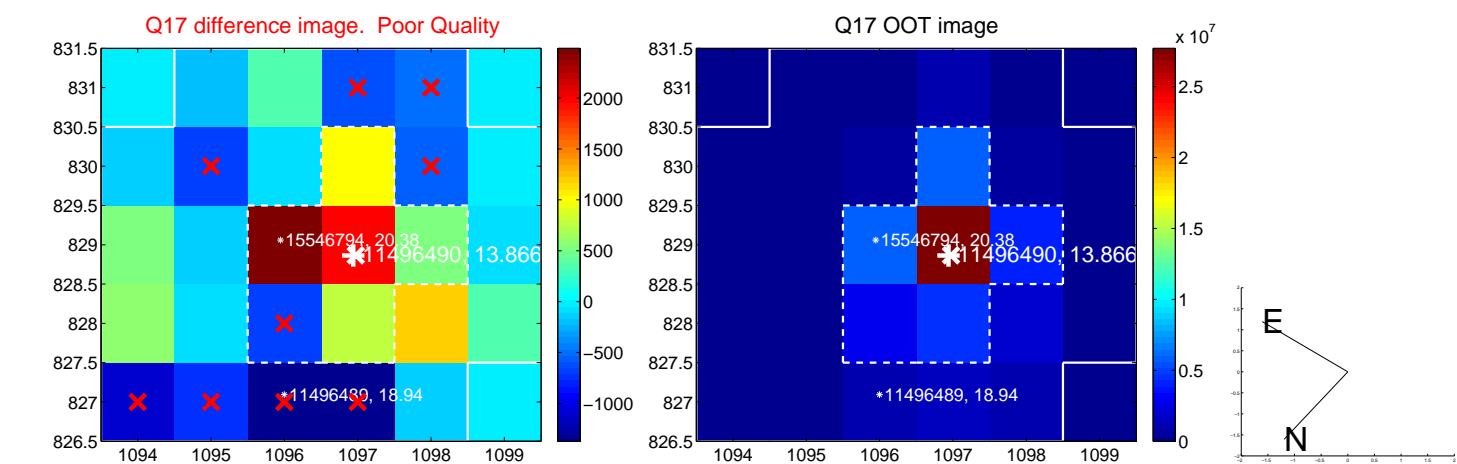
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



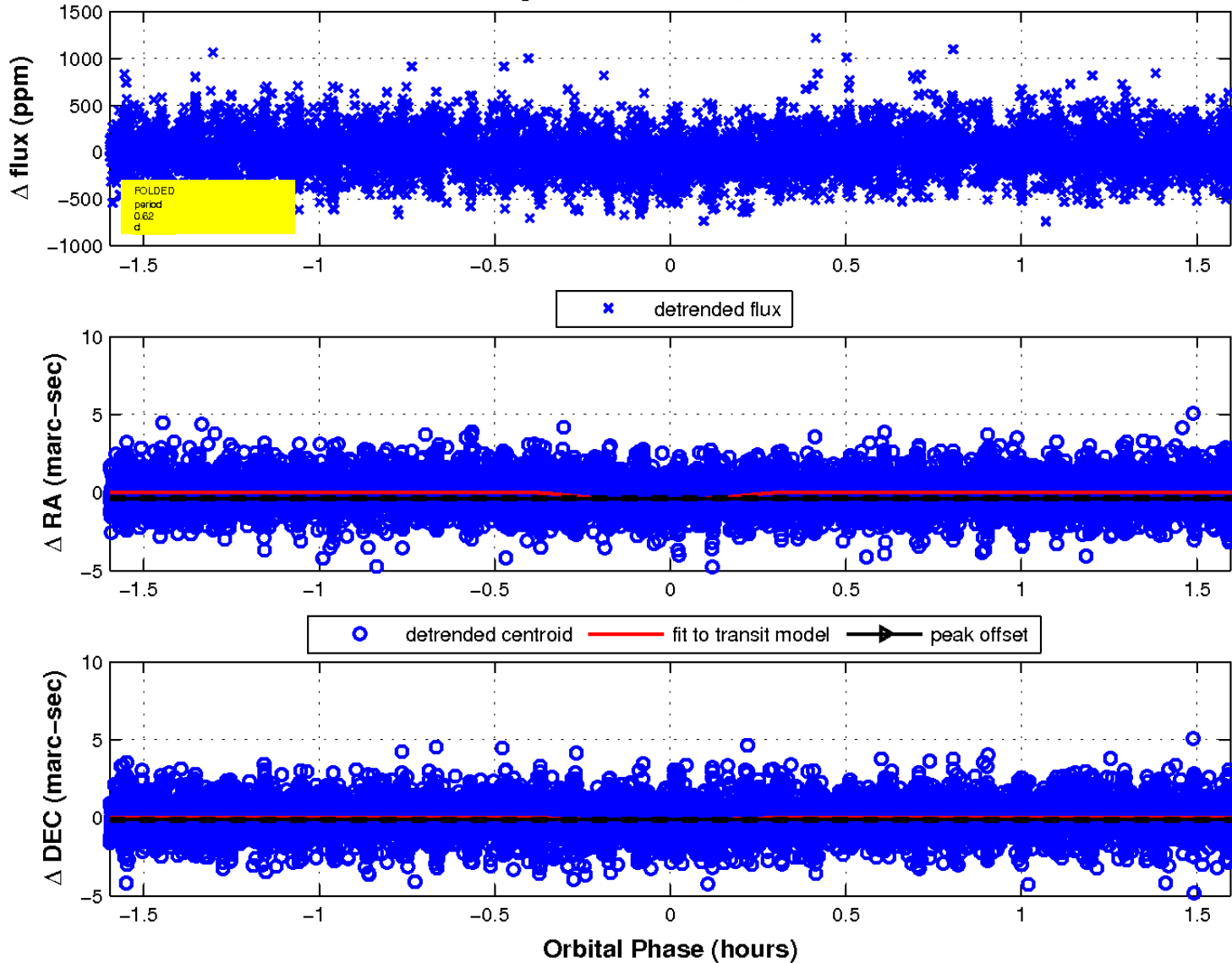
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



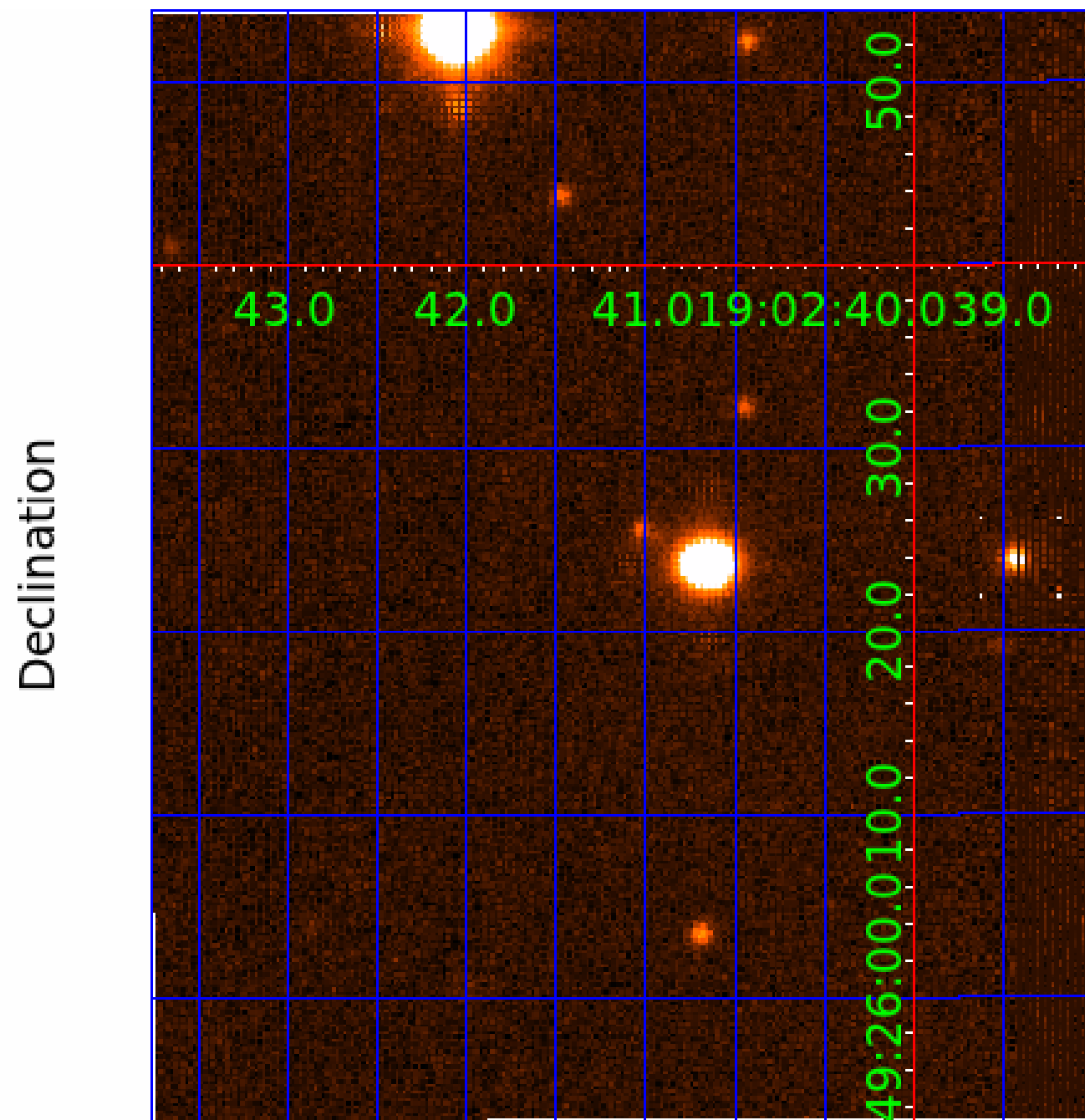
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 3



UKIRT Image



KIC 011496490

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})
011496490-01	OBS	No	0.621161	131.939858	80.8	0.532	9.5	14.7	1.21	6332	1.13	9759.87
011496490-02	OBS	No	0.621160	131.729787	60.3	0.845	9.6	14.7	1.21	6332	0.95	9759.89
011496490-03	OBS	No	0.621164	131.520119	83.1	0.540	9.0	16.5	1.21	6332	1.34	9759.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496490-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_UNRESOLVED_OFFSET
011496490-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET
011496490-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET

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 011496490-02

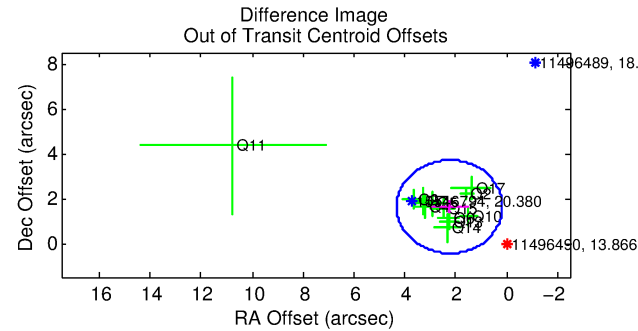
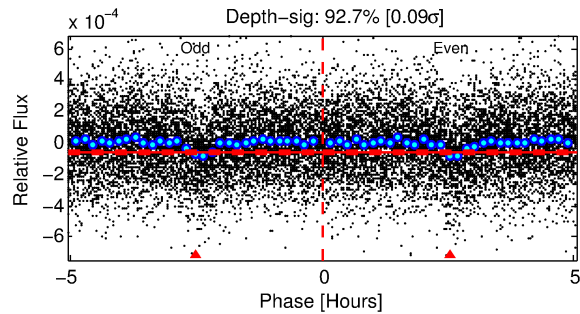
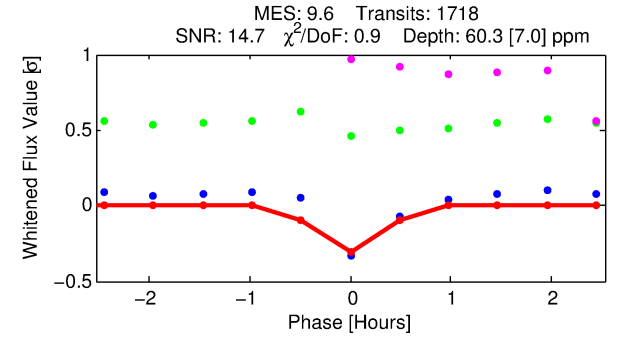
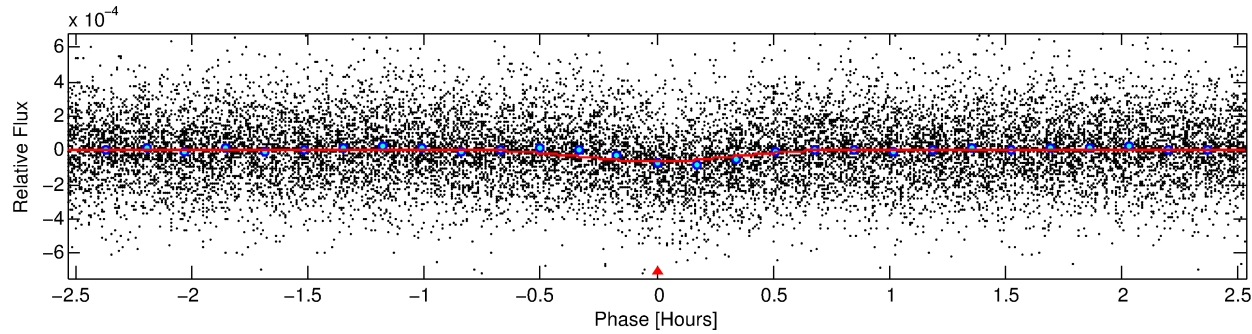
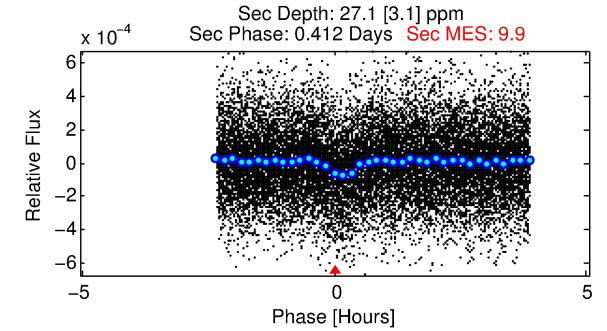
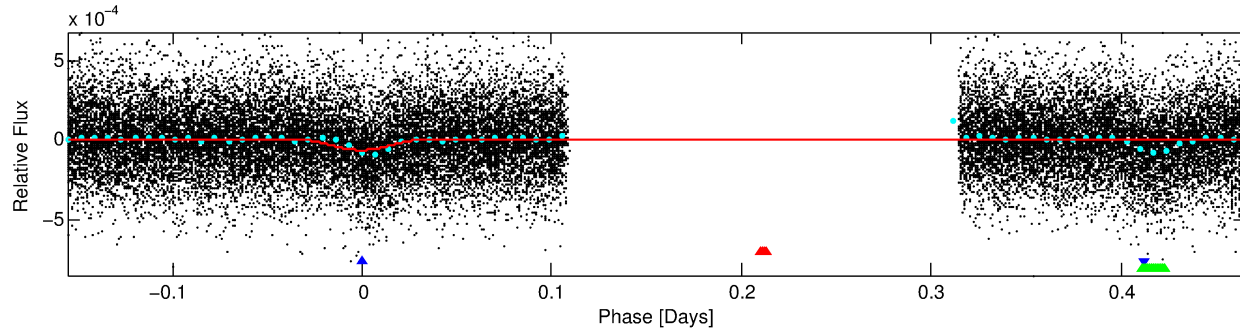
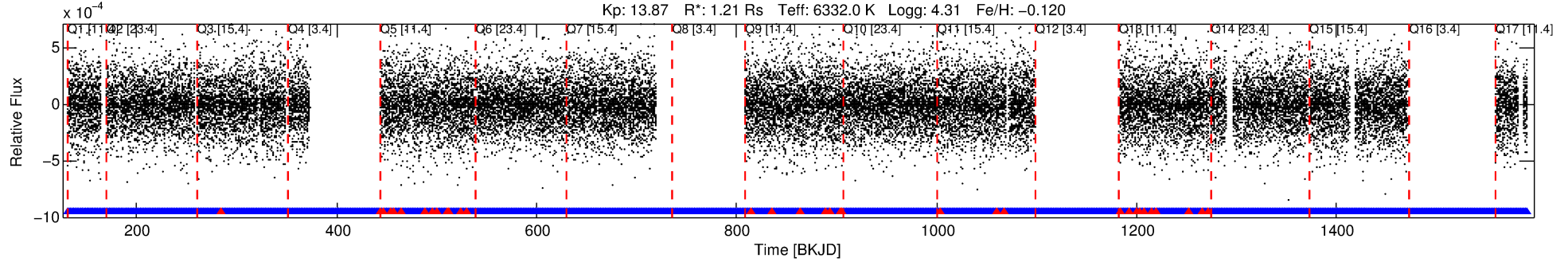
No Significant Match Found

DV One-Page Summary

KIC: 11496490 Candidate: 2 of 3 Period: 0.621 d

KOI: K04872 Corr: No Ephemeris Match

Kp: 13.87 R*: 1.21 Rs Teff: 6332.0 K Logg: 4.31 Fe/H: -0.120



DV Fit Results:

Period = 0.62116 [0.00001] d
Epoch = 131.7298 [0.0011] BKJD
Rp/R* = 0.0073 [0.0057]
a/R* = 5.52 [21.62]
b = 0.24 [15.75]
Seff = 9759.89 [3794.48]
Teq = 2534 [246] K
Rp = 0.95 [0.81] Re
a = 0.0146 [0.0039] AU
Ag = 3.50 [5.68] [0.44σ]
Teffp = 5361 [2124] K [1.32σ]

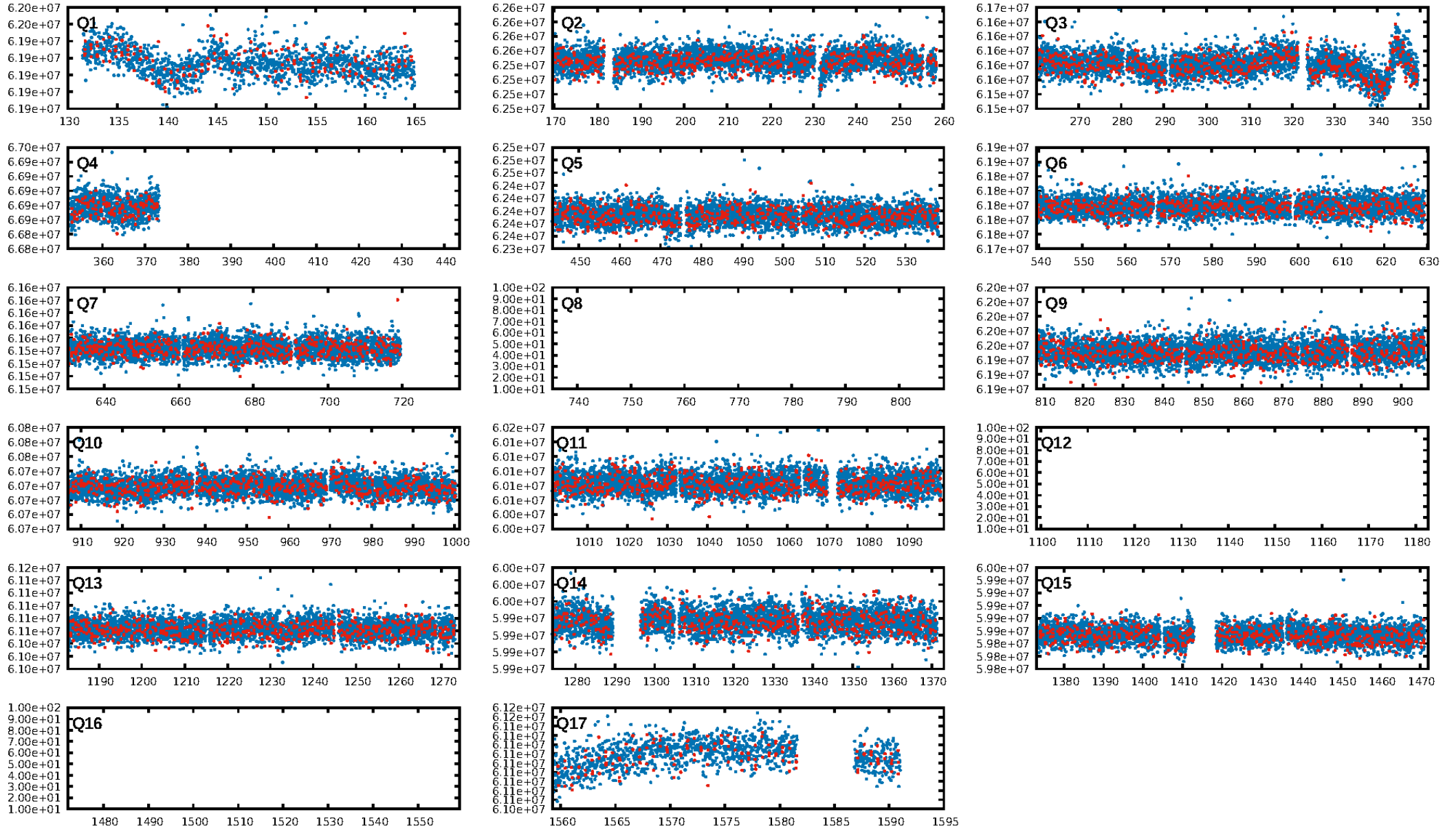
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.70e-31
RollingBand-fgt: 0.98 [1555/1588]
GhostDiagnostic-chr: 1.866
Centroid-sig: 0.0%
Centroid-so: 6.329 arcsec [6.35σ]
OotOffset-rm: 2.765 arcsec [3.99σ]
KicOffset-rm: 2.909 arcsec [4.47σ]
OotOffset-st: 4/3/1/4 [12]
KicOffset-st: 4/3/1/4 [12]
DiffImageQuality-fgm: 0.92 [11/12]
DiffImageOverlap-fno: 0.00 [0/14]

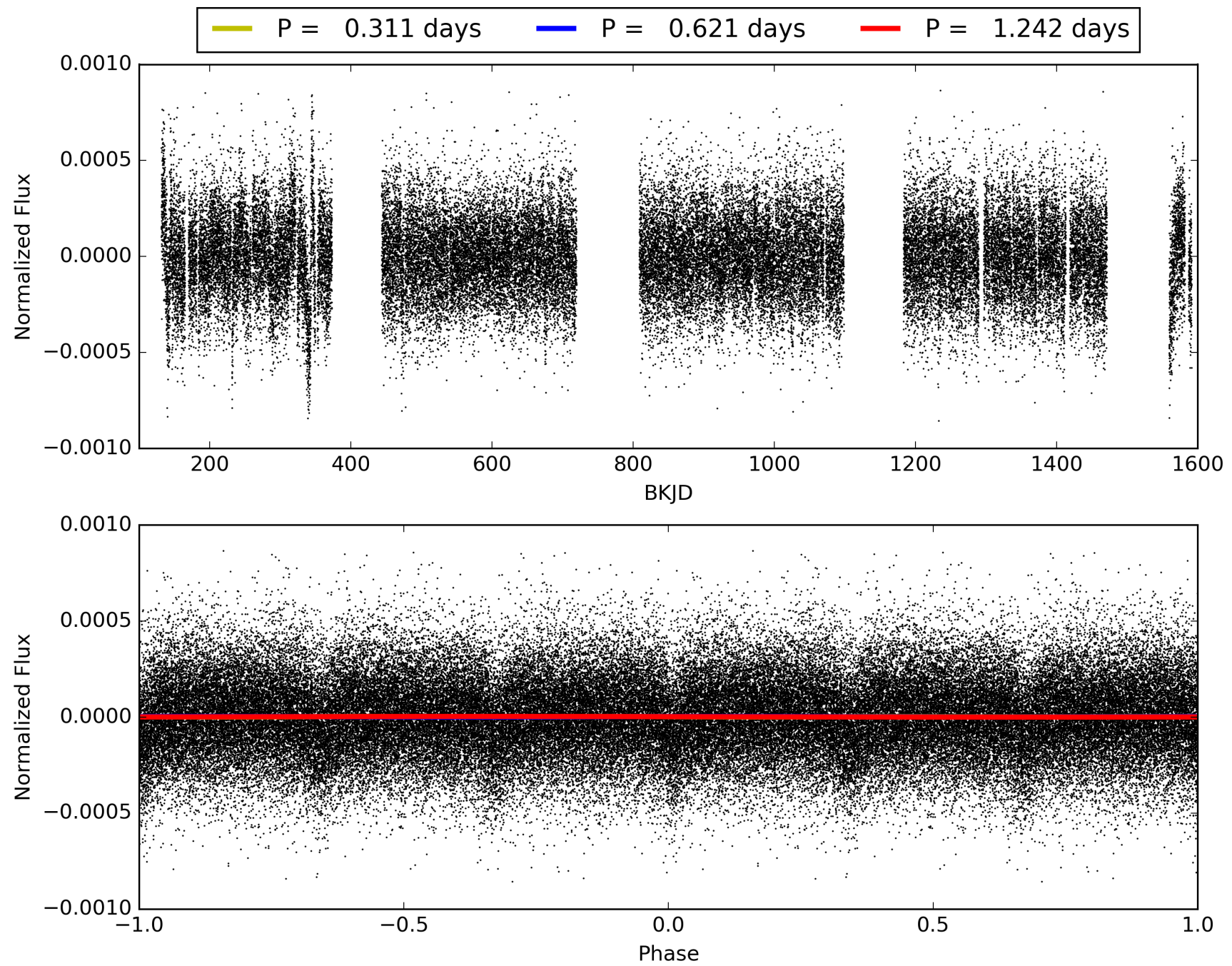
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 22:19:15 Z

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

TCE 011496490-02, PDC Light Curves

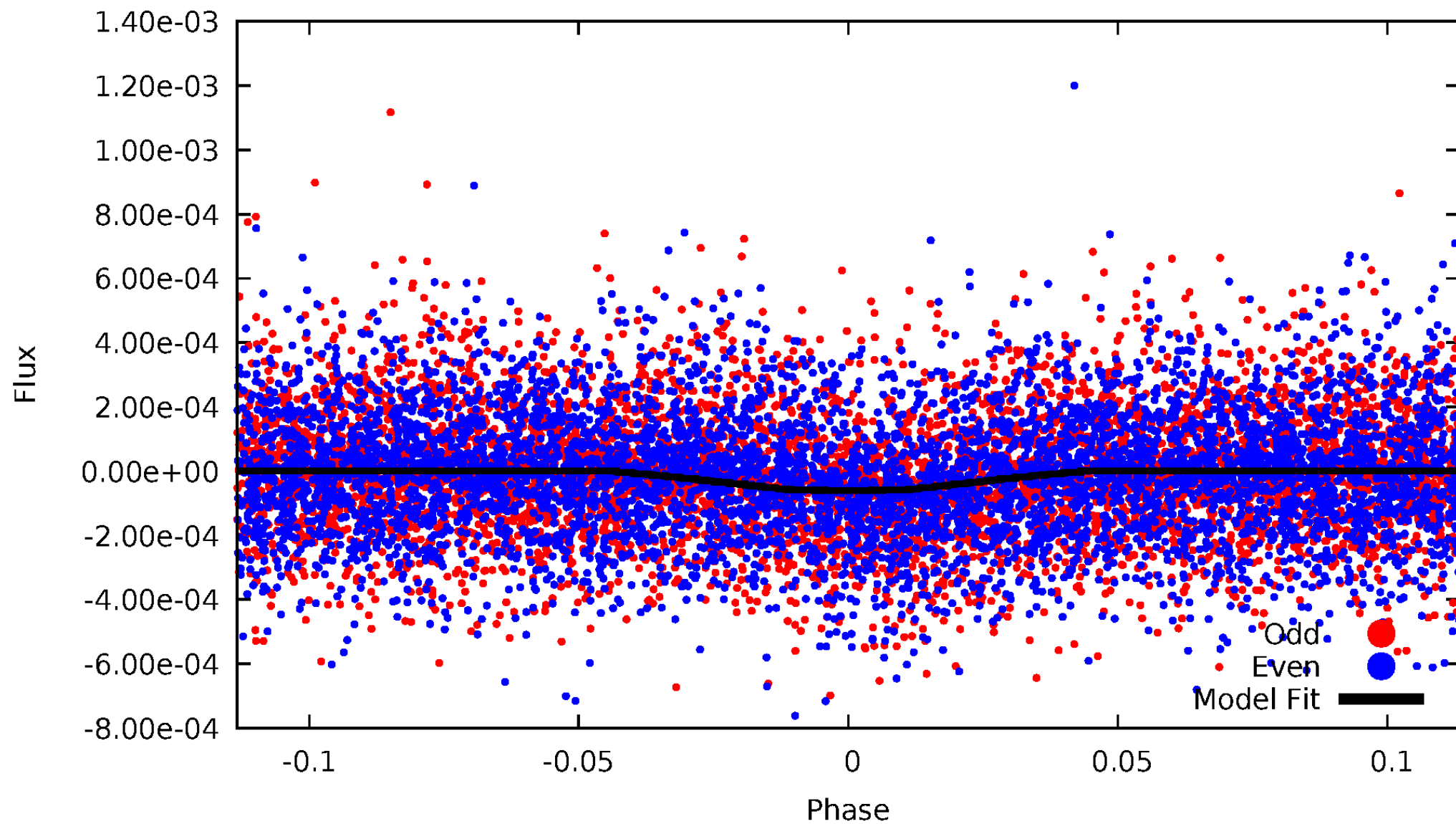


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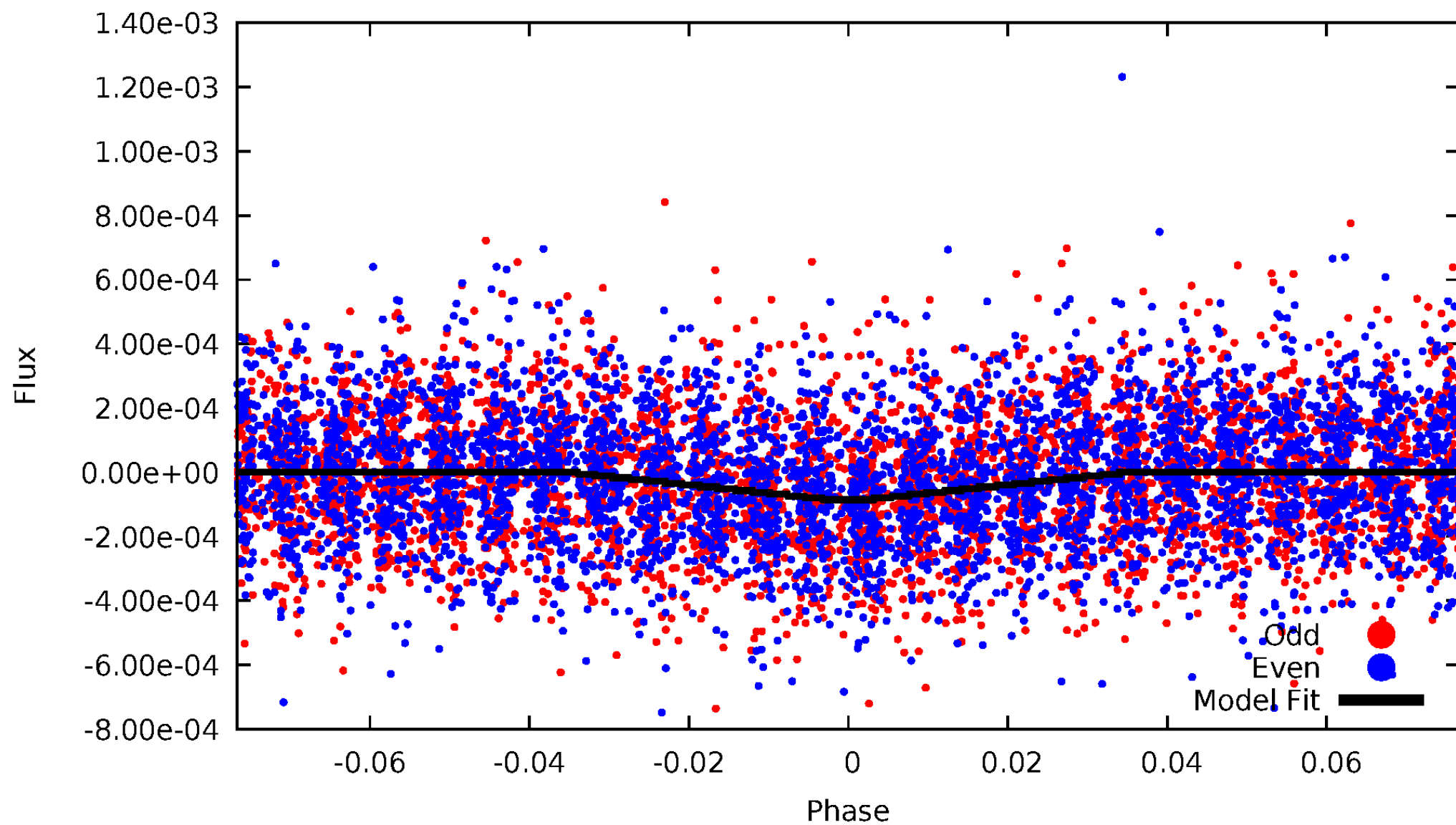
DV Odd/Even

TCE 011496490-02



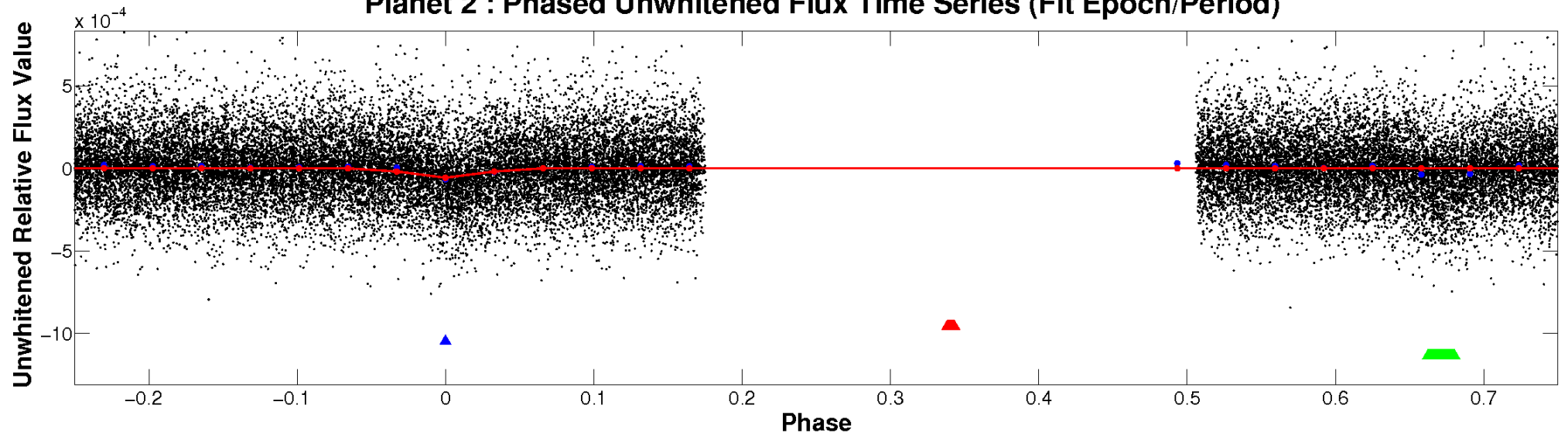
ALT Odd/Even

TCE 011496490-02

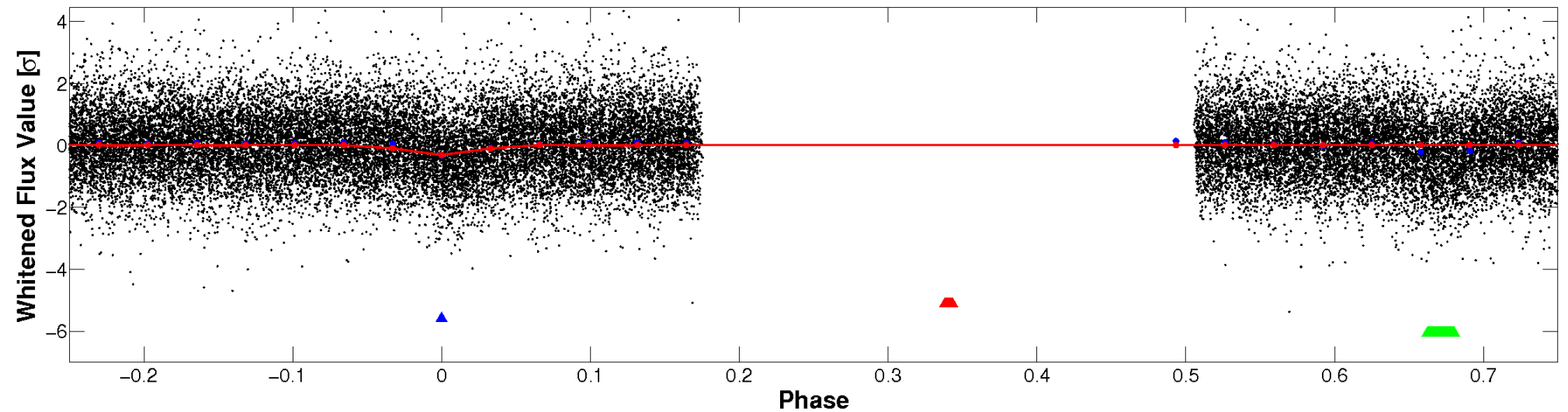


Non-Whitened Vs. Whitened Light Curve

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

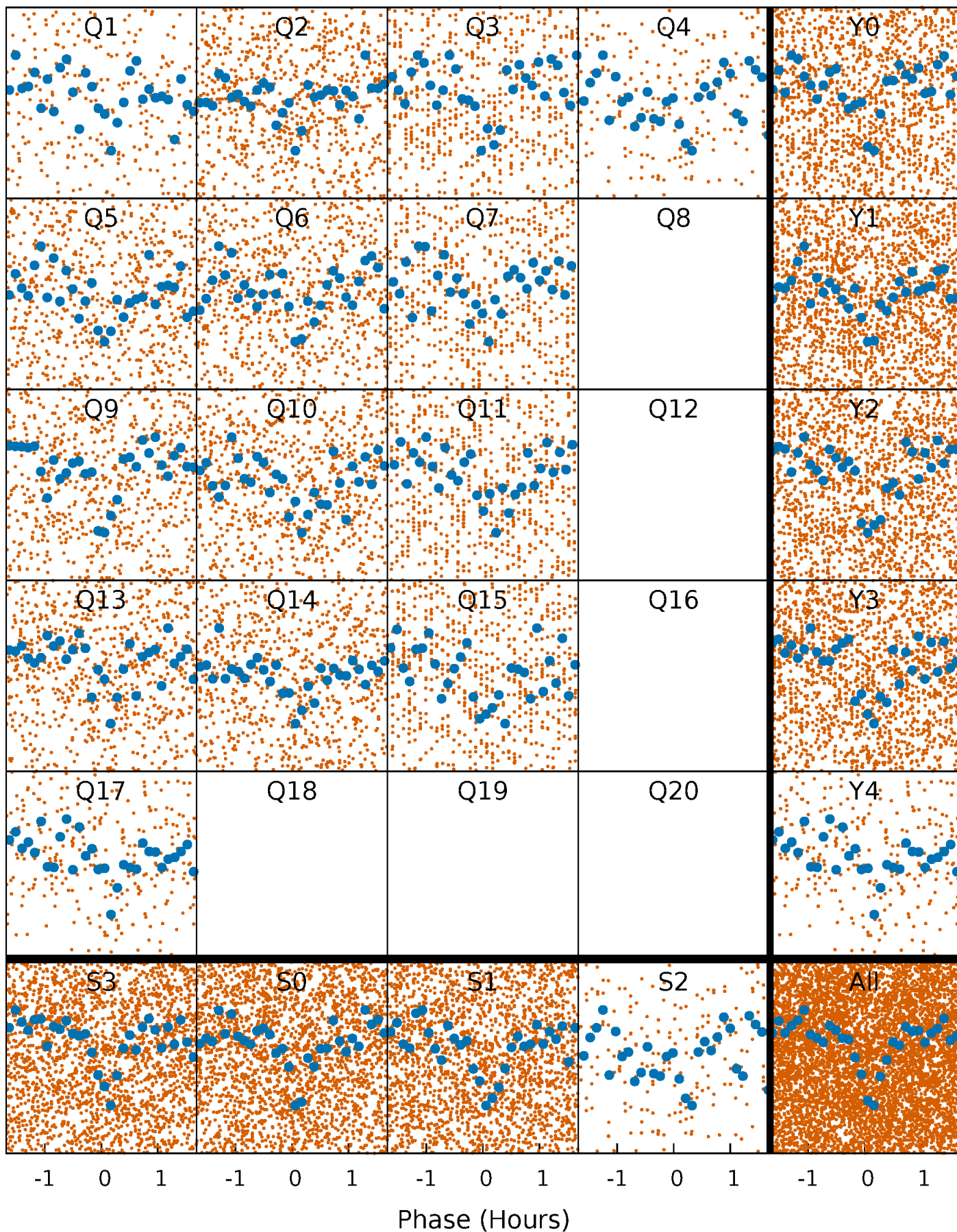


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



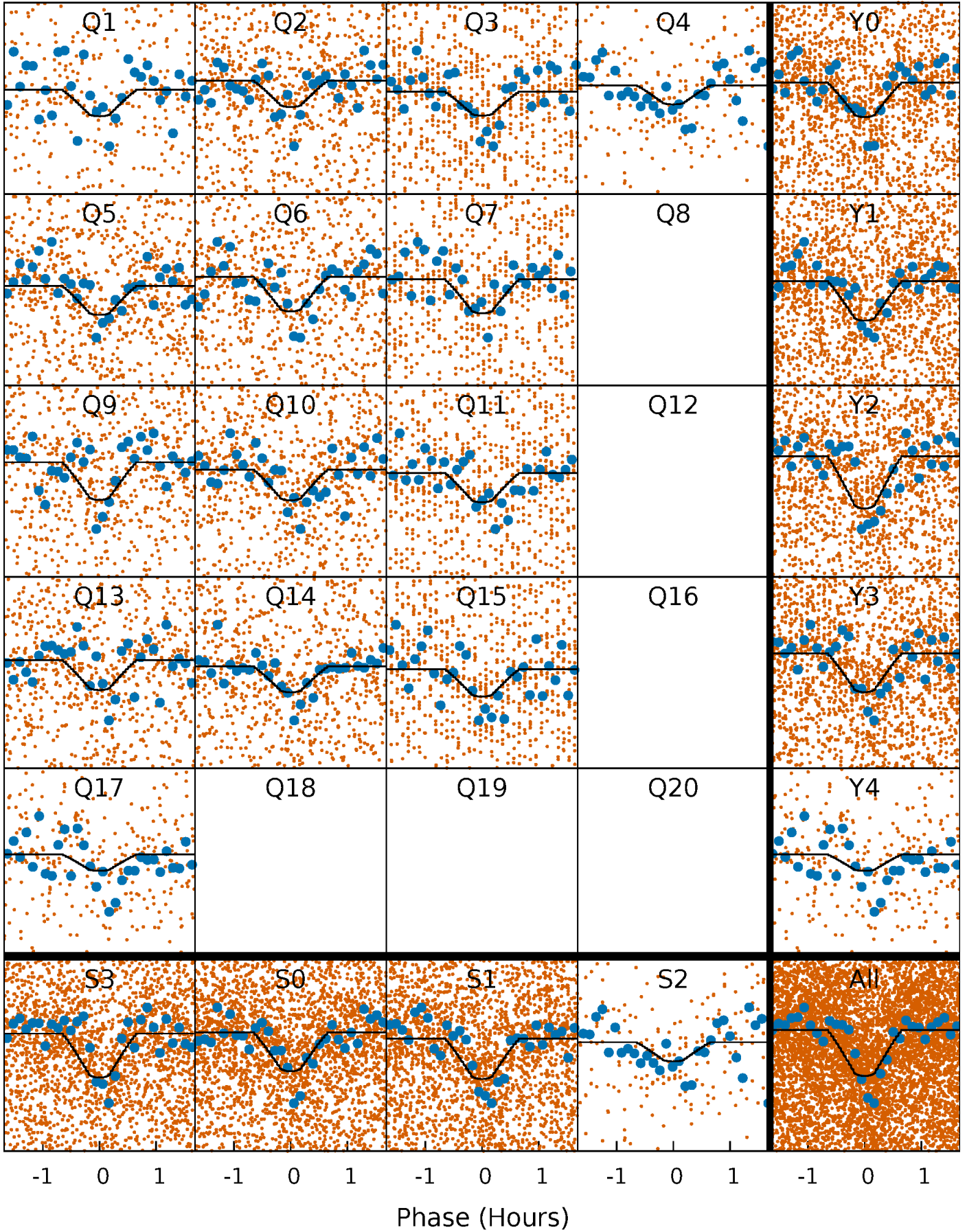
PDC Quarter-Phased Transit Curves

TCE 011496490-02 P= 0.621160 Days $T_0=131.729787$ (BKJD)



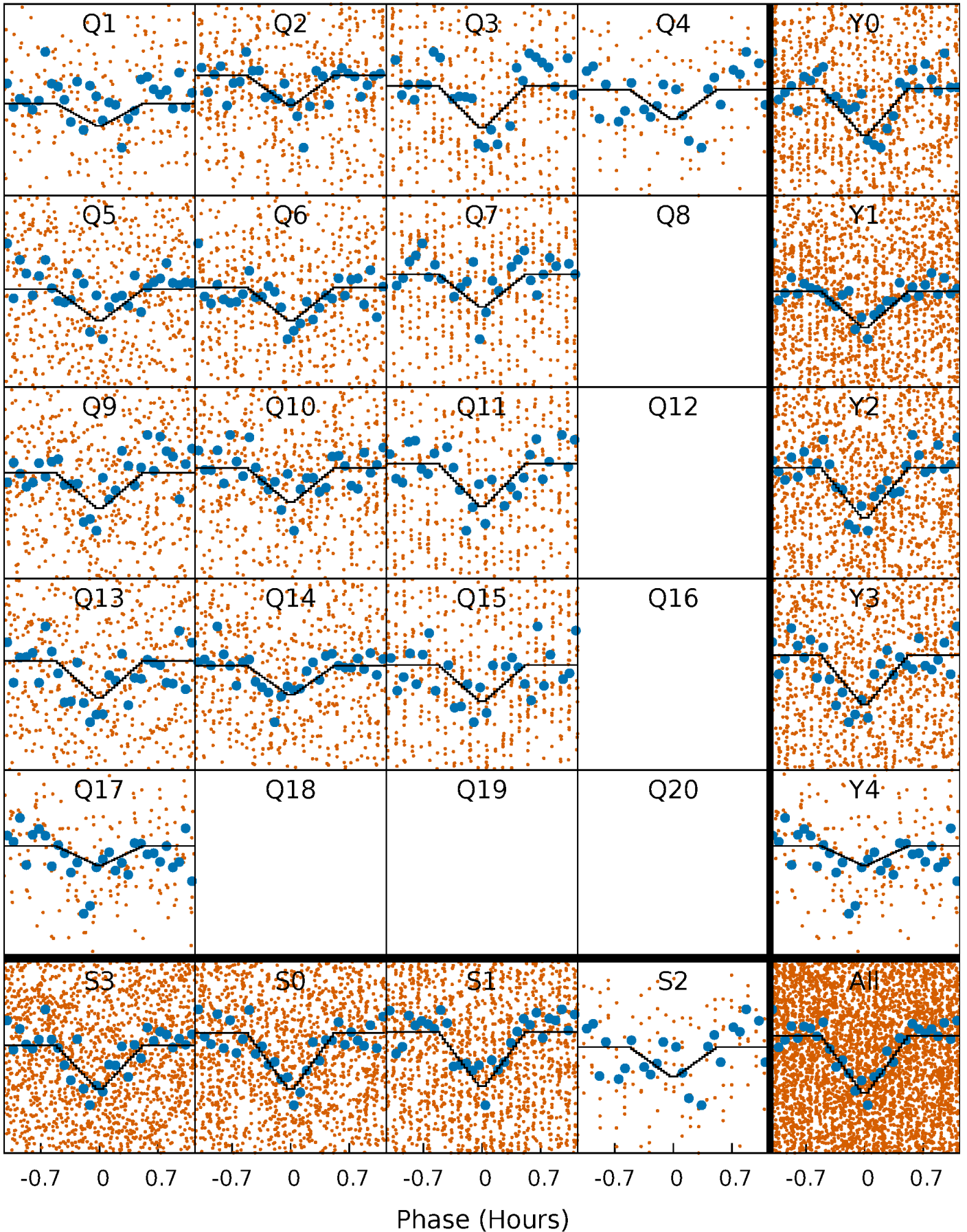
DV Quarter-Phased Transit Curves

TCE 011496490-02 P= 0.621160 Days $T_0=131.729787$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

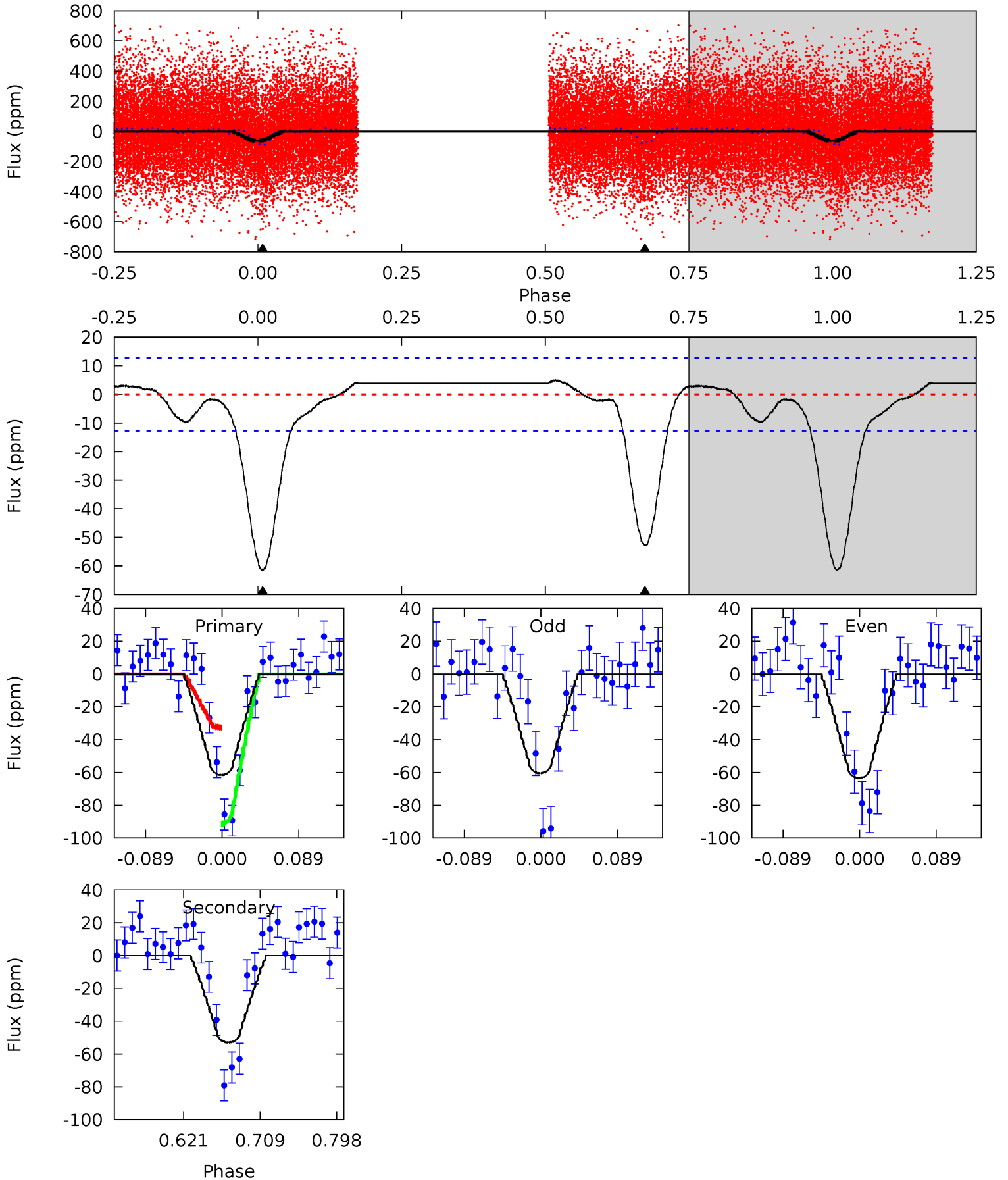
TCE 011496490-02 P= 0.621167 Days $T_0=131.727720$ (BKJD)



DV Model-Shift Uniqueness Test

011496490-02, P = 0.621160 Days, E = 131.108627 Days

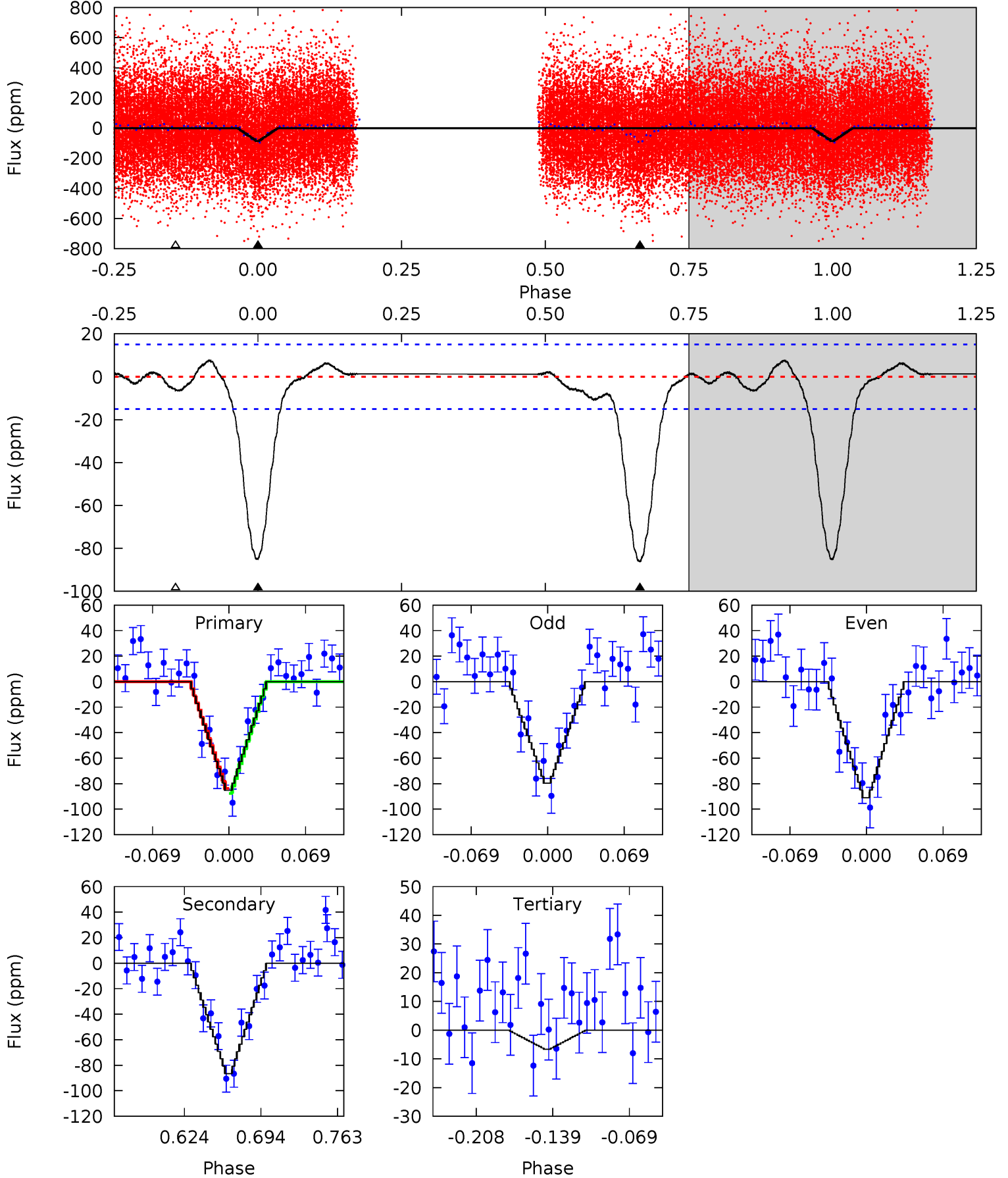
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	19.1	0	0	4.59	1.70	1.44	22.2	22.2	19.1	19.1	0.53	0.98	0.08	10.7



Alt Model-Shift Uniqueness Test

011496490-02, P = 0.621167 Days, E = 131.106553 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.3	26.7	2.05	0	4.64	1.82	1.36	24.3	26.3	24.6	26.7	1.78	0.91	0.08	0.61



Stellar Parameters For KIC 011496490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6332^{+158}_{-205}	$4.311^{+0.112}_{-0.192}$	$-0.120^{+0.250}_{-0.300}$	$1.205^{+0.394}_{-0.197}$	$1.080^{+0.197}_{-0.115}$	$0.869^{+0.444}_{-0.467}$
	+2%/-3%	+3%/-4%	+208%/-250%	+33%/-16%	+18%/-11%	+51%/-54%
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 011496490-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-53 ± 3	$1.07^{+0.81}_{-0.64}$	3549^{+271}_{-184}	5907^{+4163}_{-1391}	$5.440^{+27.323}_{-3.691}$
Alt.	-86 ± 3	$1.31^{+0.78}_{-0.72}$	3569^{+281}_{-188}	6119^{+3720}_{-1207}	$5.990^{+21.506}_{-3.619}$

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

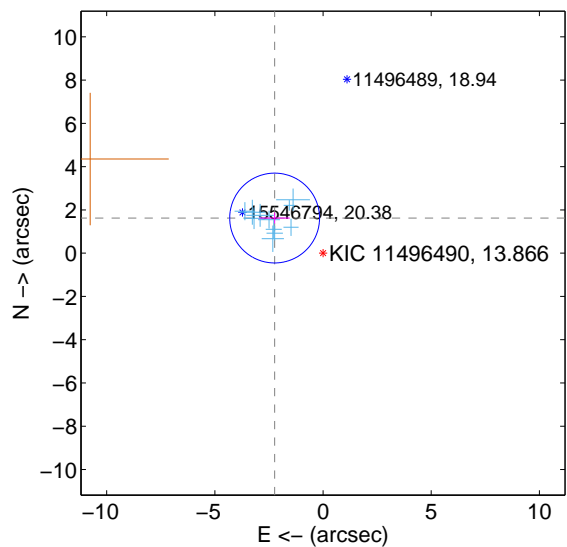
Supplemental centroid analysis for 011496490-02. Kepler magnitude: 13.87. Transit SNR 14.67

There are 11 quarters with good PRF difference image offsets

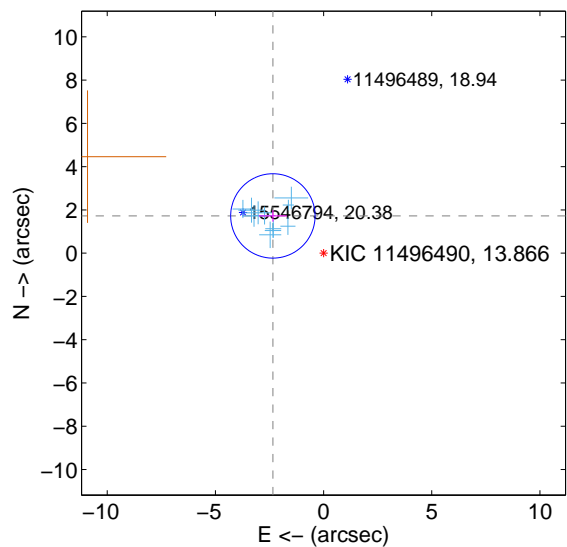
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.765 ± 0.692	3.99	2.238 ± 0.702	1.624 ± 0.251
PRF-fit source offset from KIC position	2.909 ± 0.650	4.47	2.344 ± 0.649	1.722 ± 0.266
photometric centroid source offset	6.33 ± 1.00	6.35	4.58 ± 0.95	4.37 ± 1.05

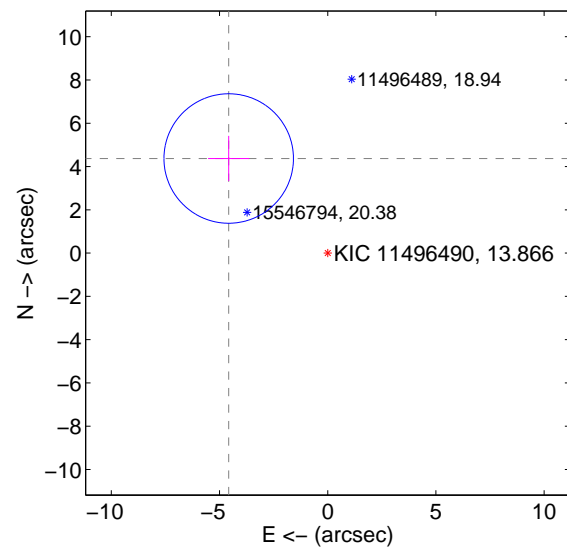
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

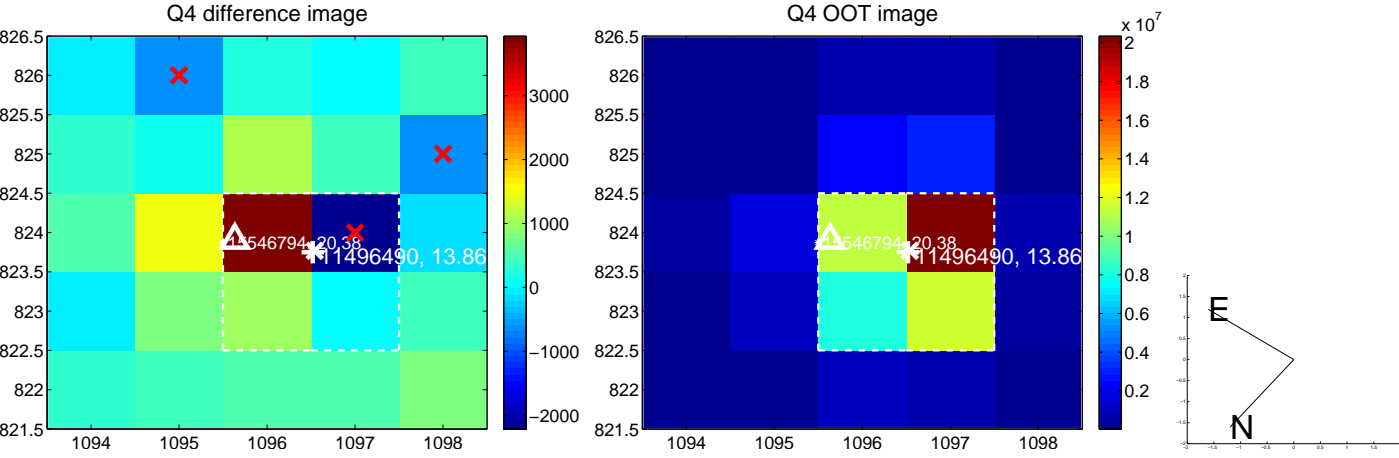
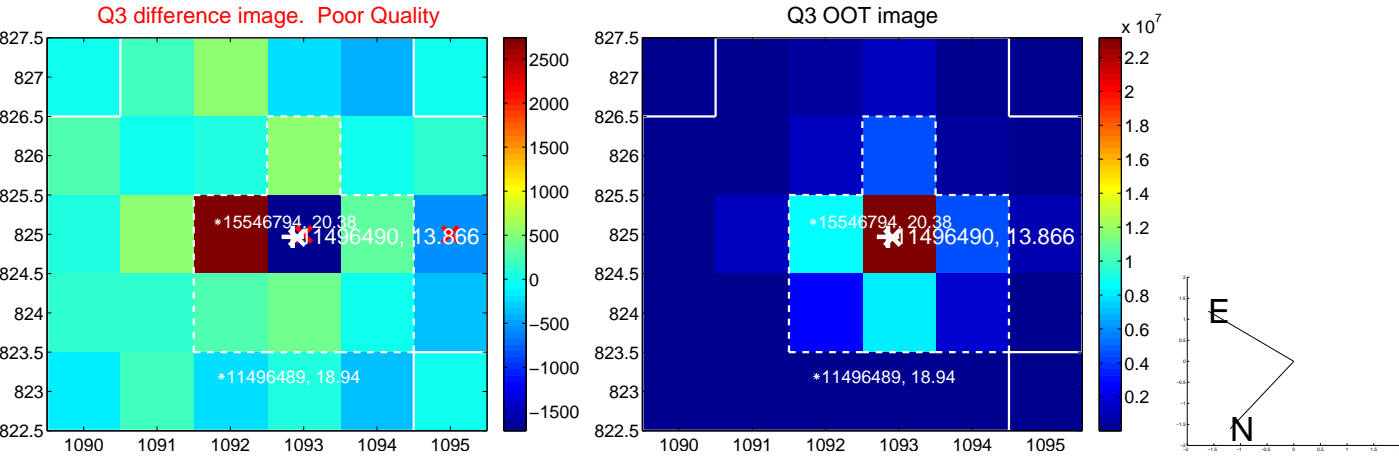
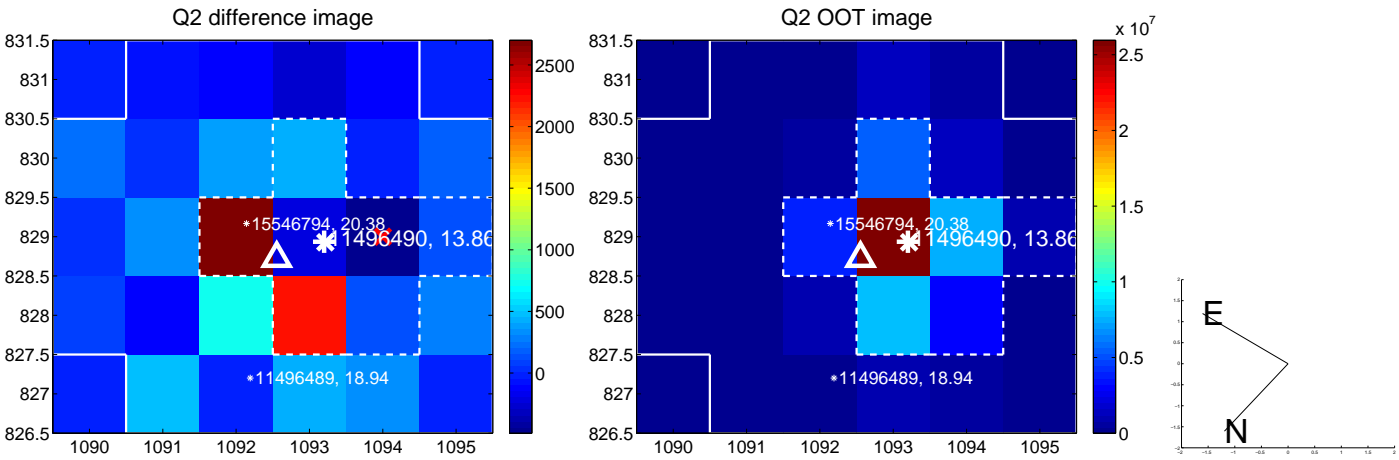
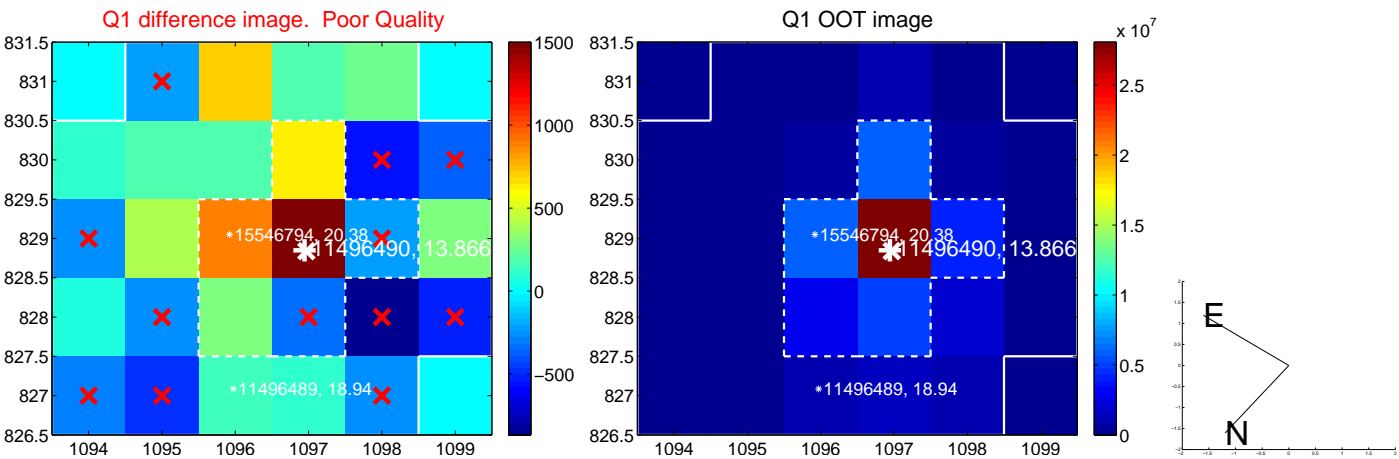


offset from photometric centroids

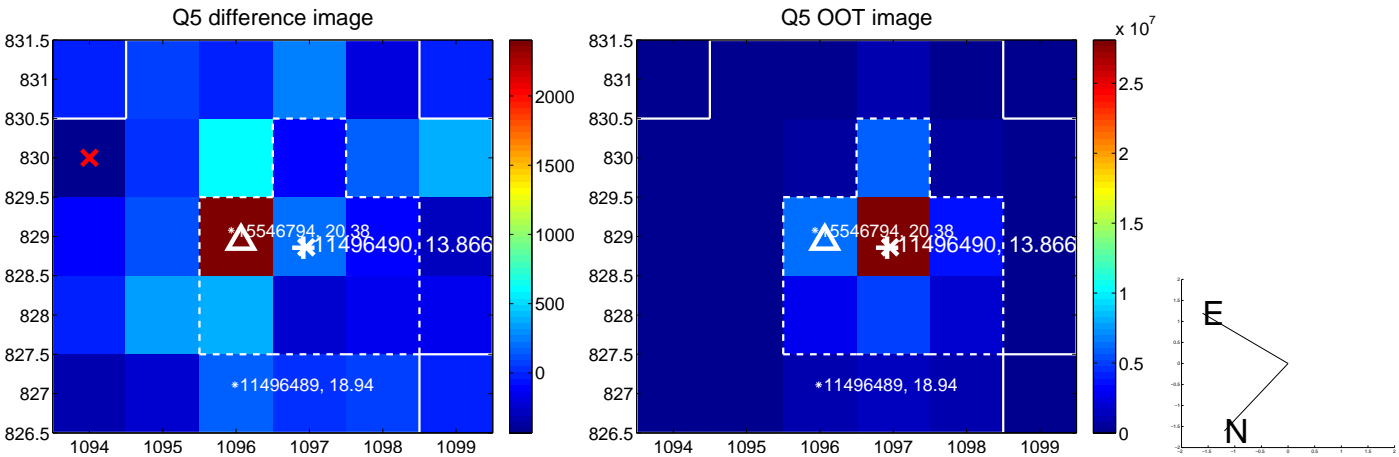


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

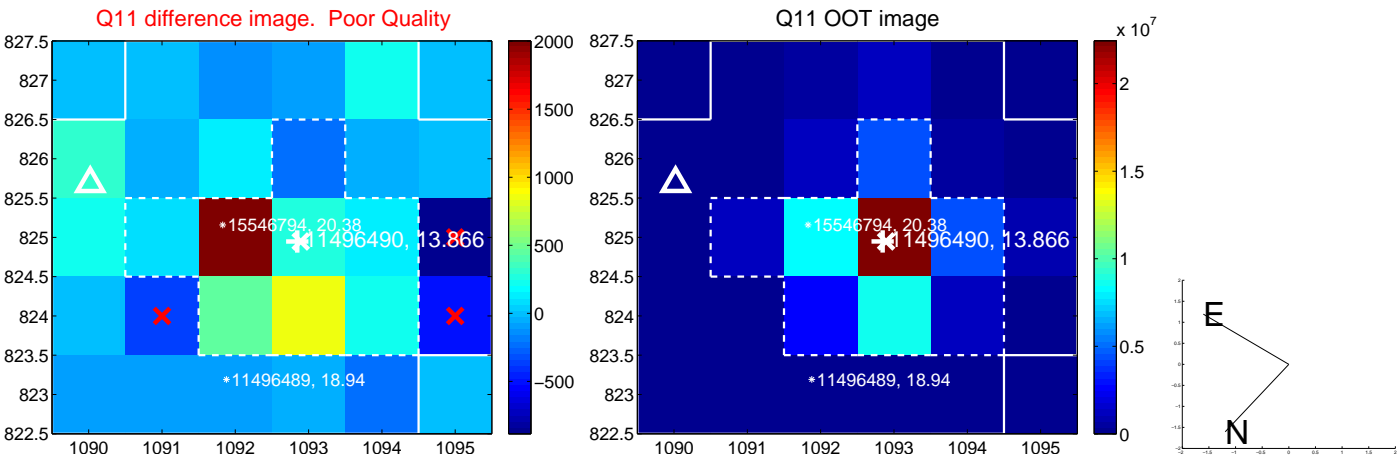
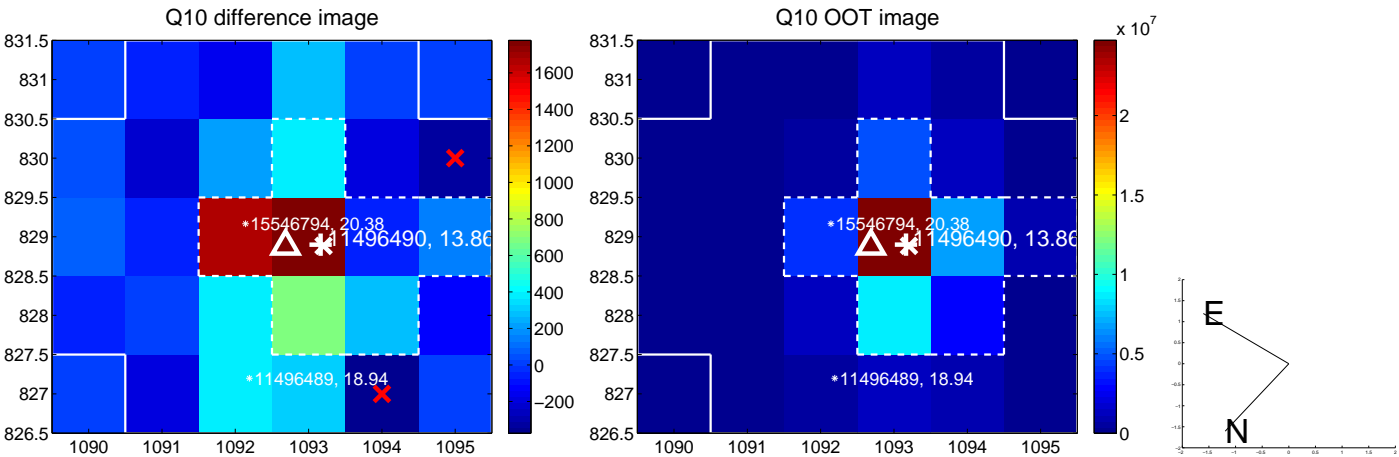
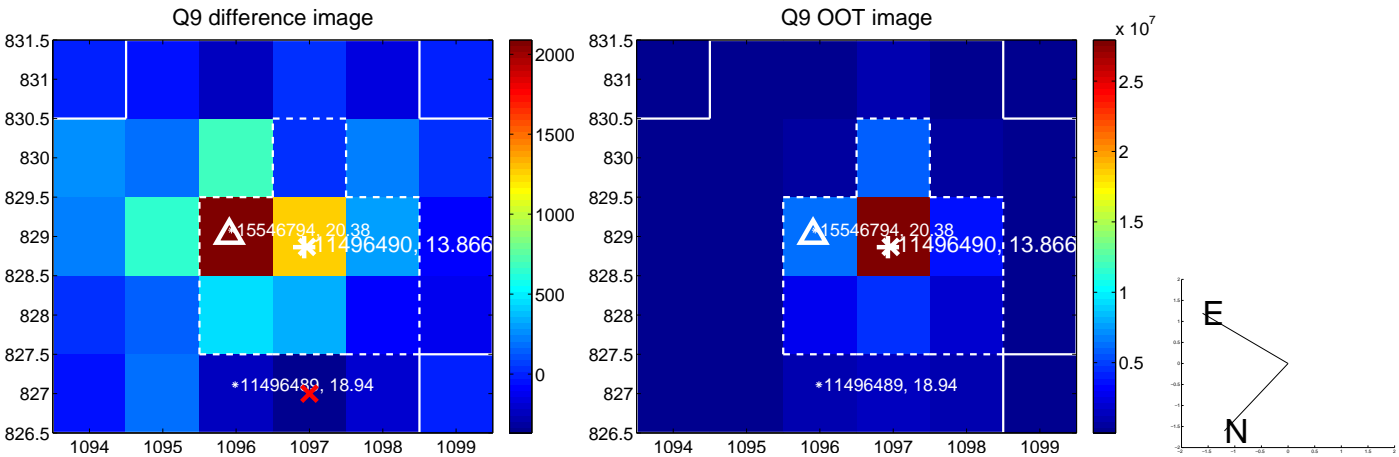
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



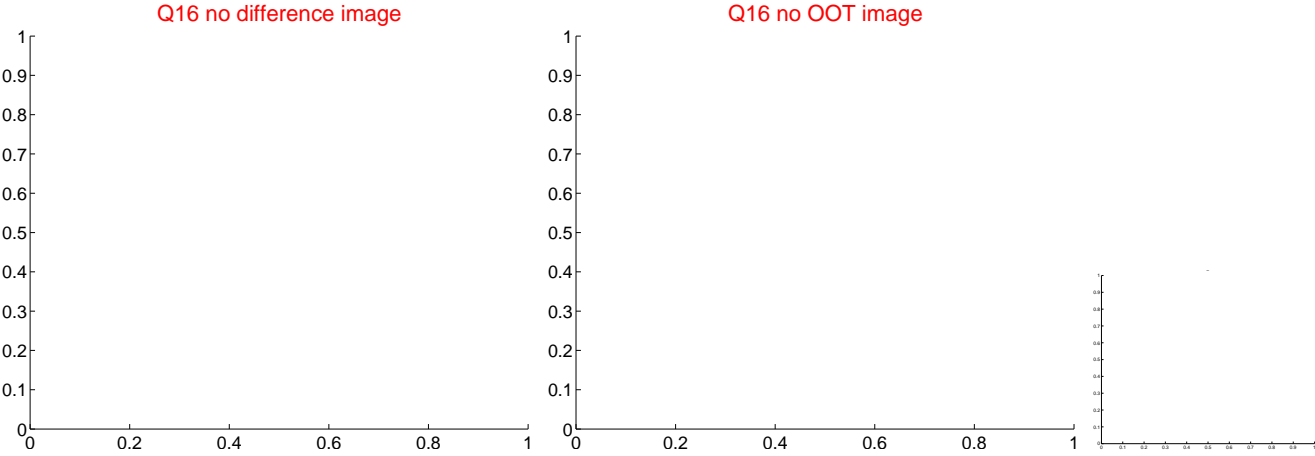
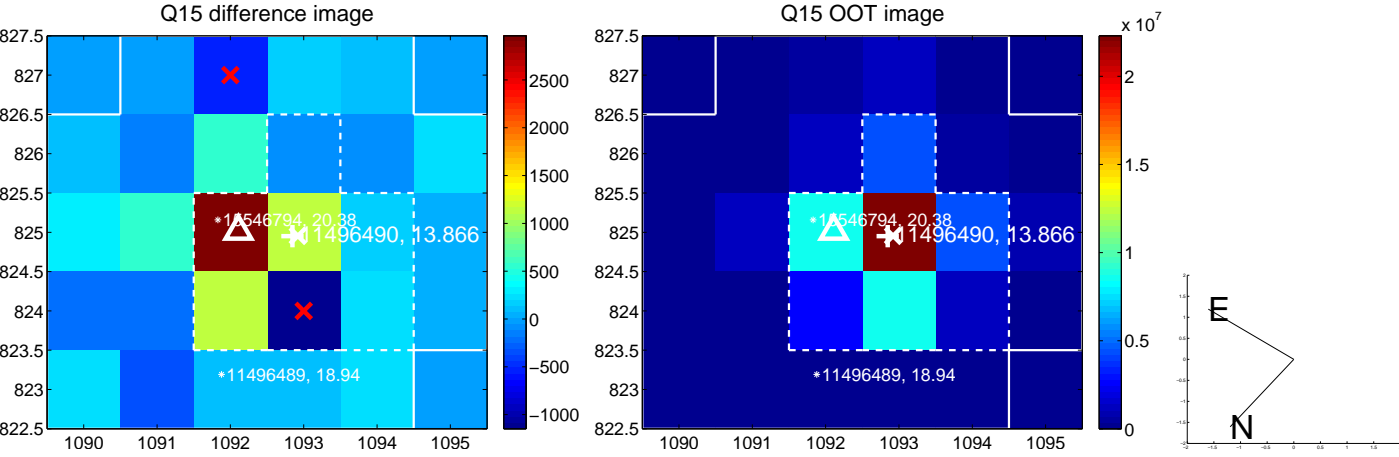
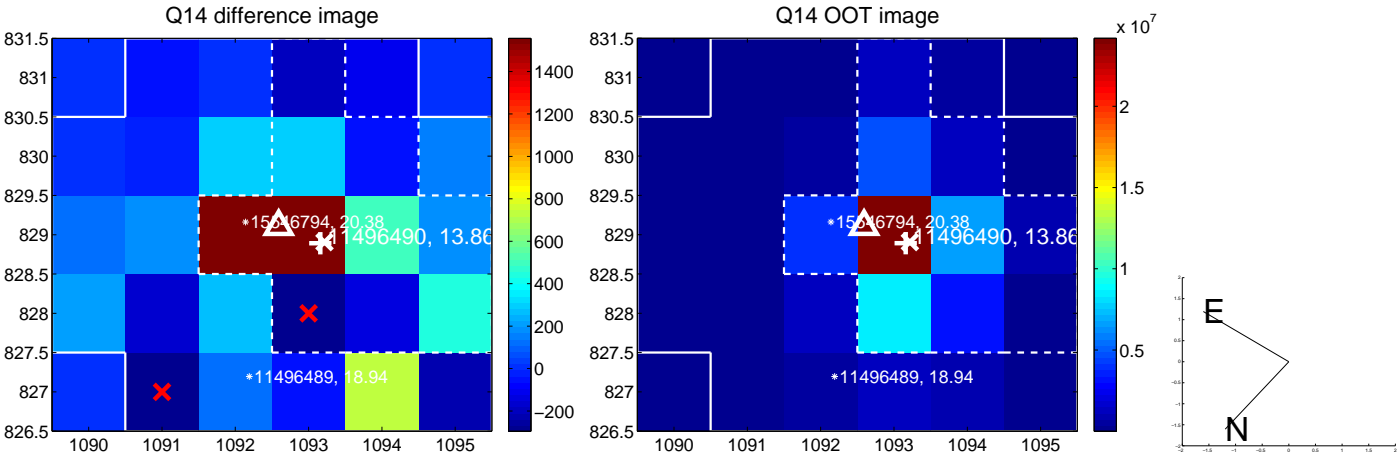
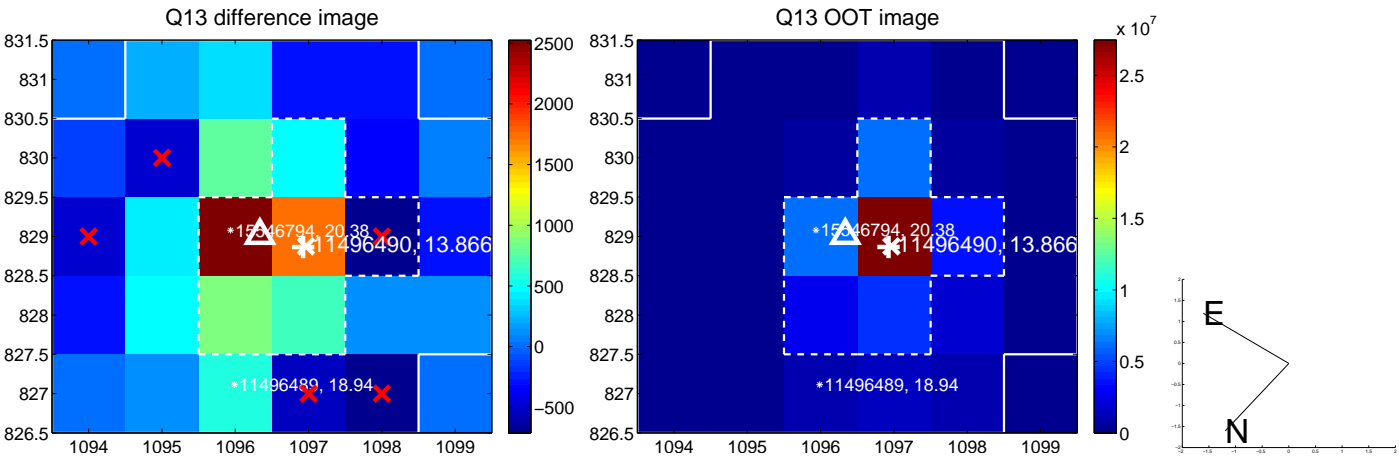
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



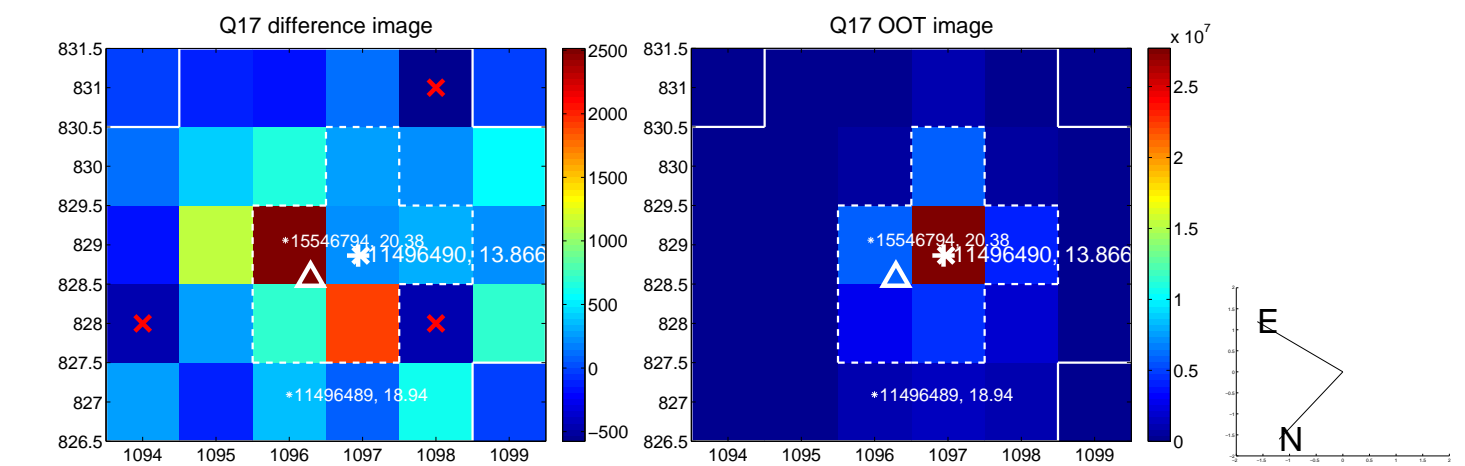
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



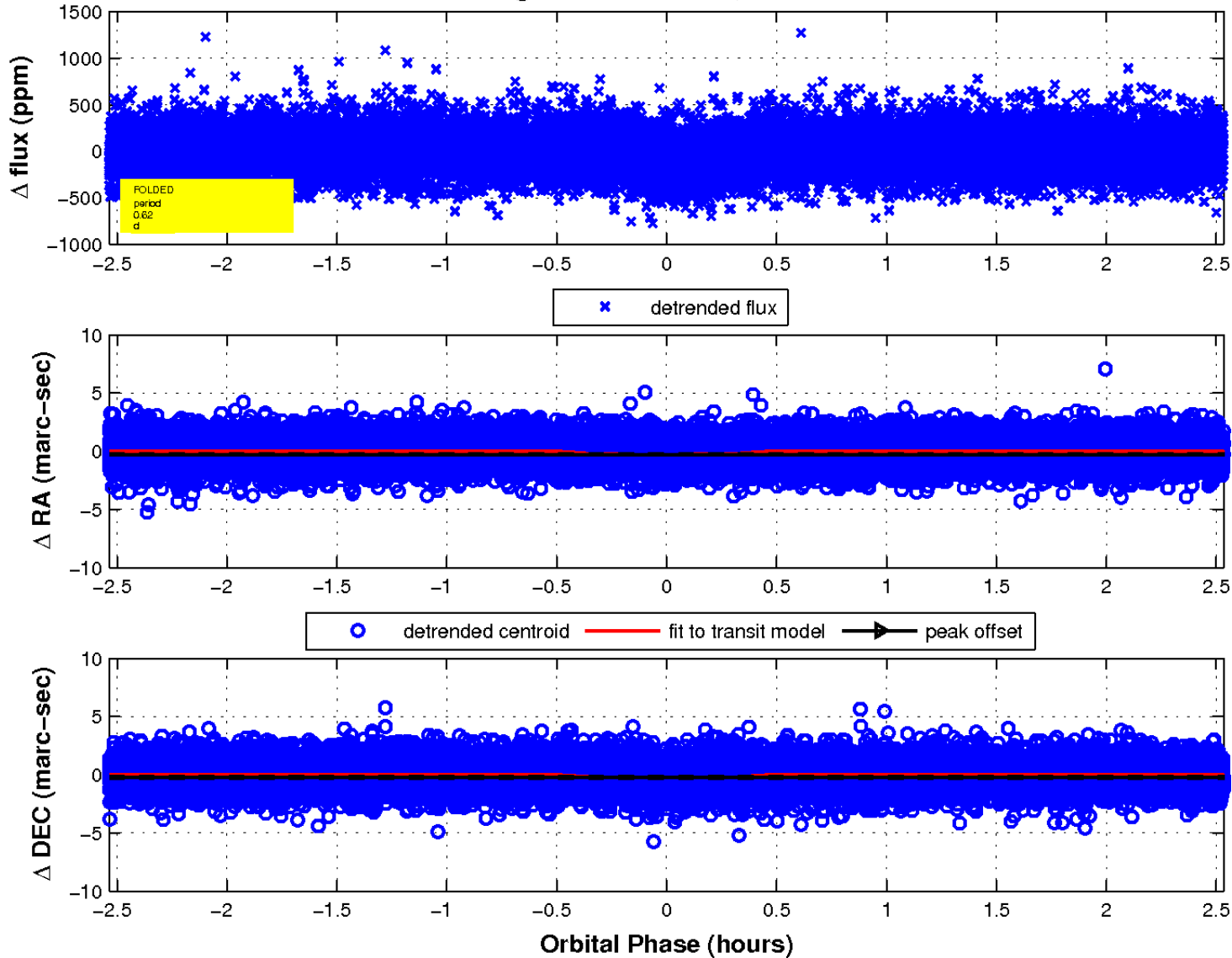
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



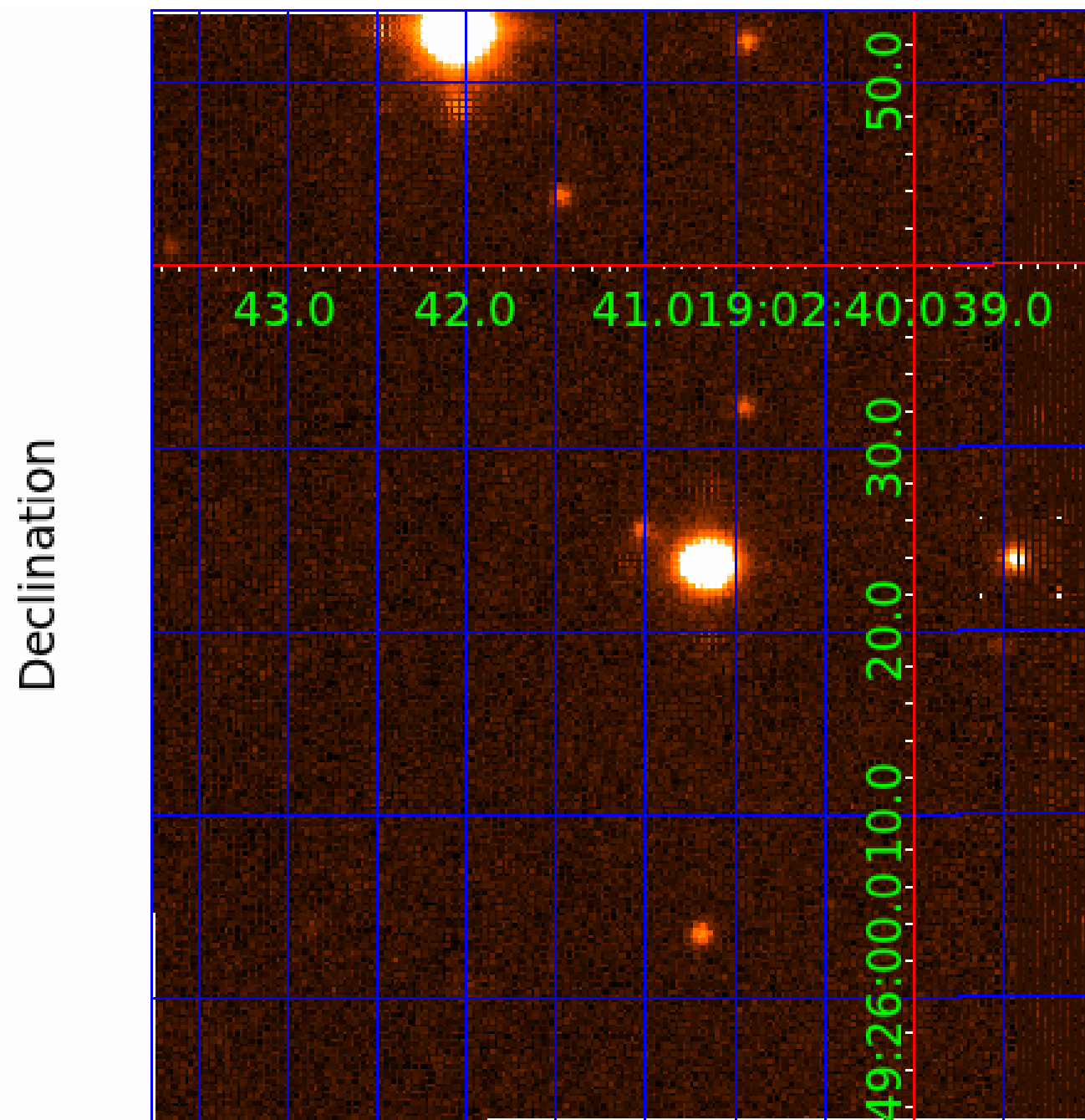
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 011496490

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})
011496490-01	OBS	No	0.621161	131.939858	80.8	0.532	9.5	14.7	1.21	6332	1.13	9759.87
011496490-02	OBS	No	0.621160	131.729787	60.3	0.845	9.6	14.7	1.21	6332	0.95	9759.89
011496490-03	OBS	No	0.621164	131.520119	83.1	0.540	9.0	16.5	1.21	6332	1.34	9759.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496490-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_UNRESOLVED_OFFSET
011496490-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET
011496490-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_UNRESOLVED_OFFSET

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 011496490-03

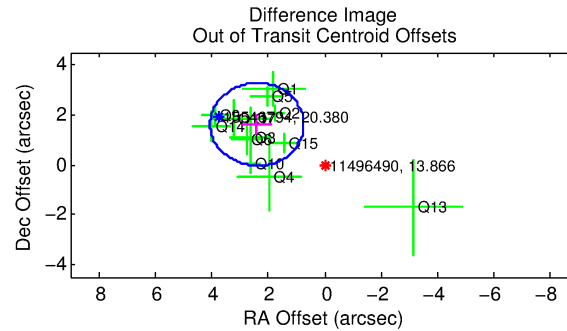
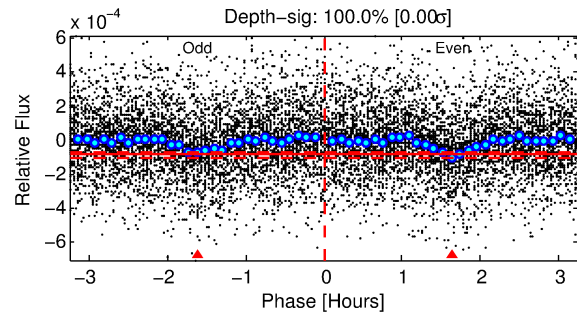
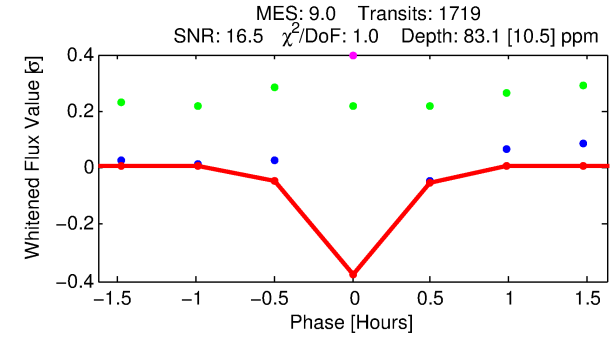
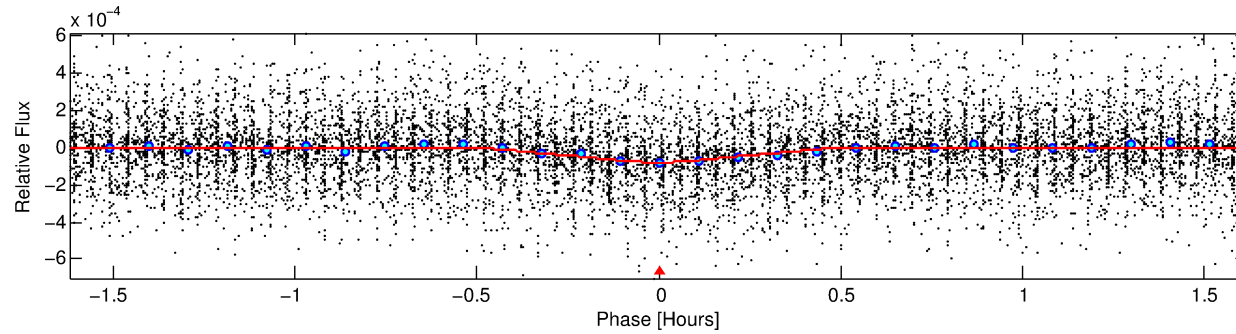
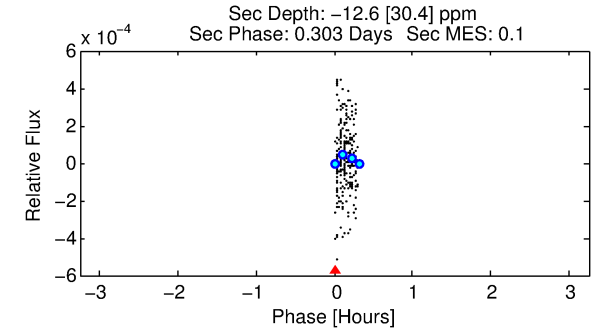
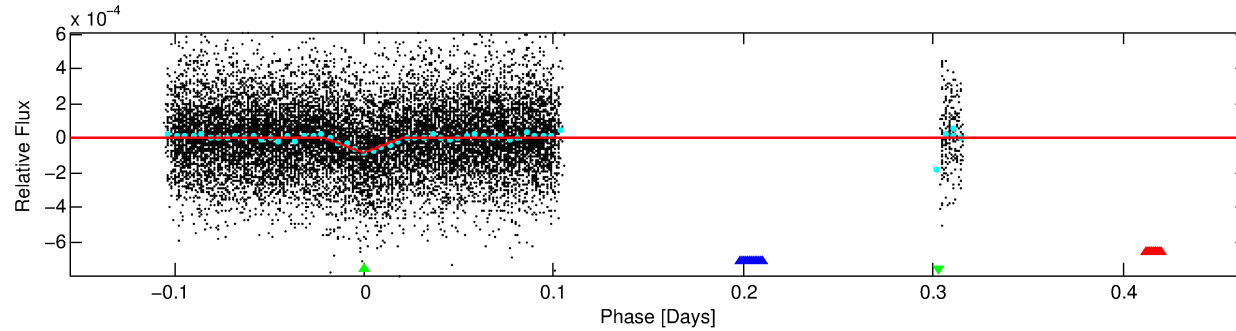
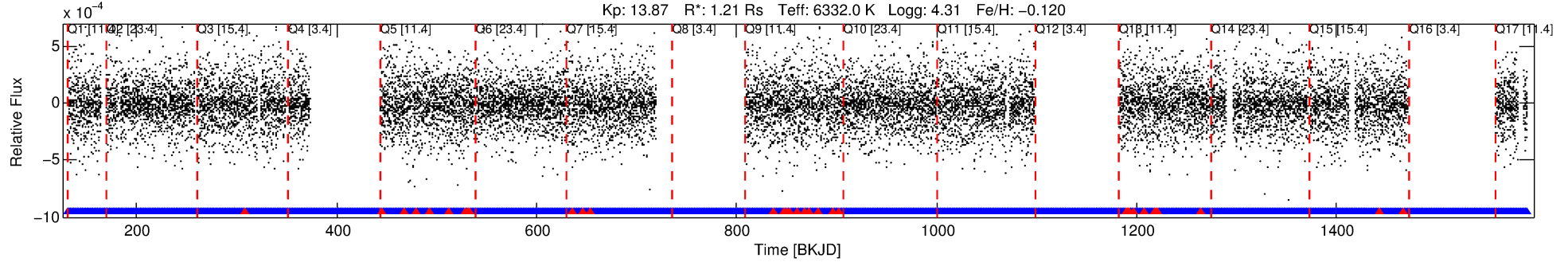
No Significant Match Found

DV One-Page Summary

KIC: 11496490 Candidate: 3 of 3 Period: 0.621 d

KOI: K04872 Corr: No Ephemeris Match

Kp: 13.87 R*: 1.21 Rs Teff: 6332.0 K Logg: 4.31 Fe/H: -0.120



DV Fit Results:

Period = 0.62116 [0.00001] d
Epoch = 131.5201 [0.0008] BKJD
Rp/R* = 0.0102 [0.0020]
a/R* = 4.13 [4.12]
b = 0.90 [0.23]
Seff = 9759.80 [3794.44]
Teq = 2534 [246] K
Rp = 1.34 [0.51] Re
a = 0.0146 [0.0039] AU
Ag = N/A
Teffp = N/A

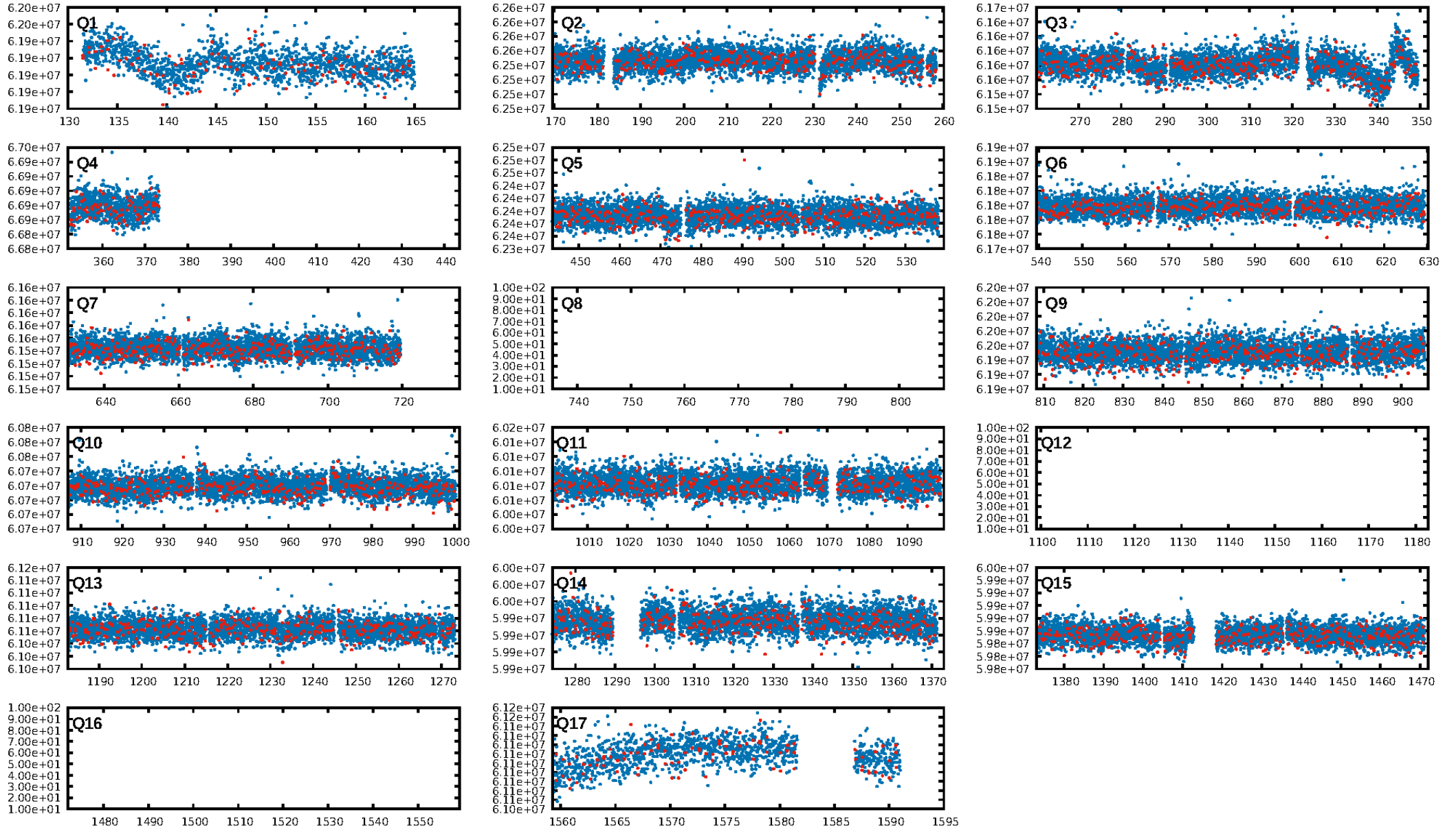
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.05e-28
RollingBand-fgt: 0.98 [1555/1588]
GhostDiagnostic-chr: 18.52
Centroid-sig: 0.0%
Centroid-so: 4.389 arcsec [4.77σ]
OotOffset-rm: 2.889 arcsec [5.22σ]
KicOffset-rm: 3.060 arcsec [5.77σ]
OotOffset-st: 4/4/1/4 [13]
KicOffset-st: 4/4/1/4 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 0.00 [0/14]

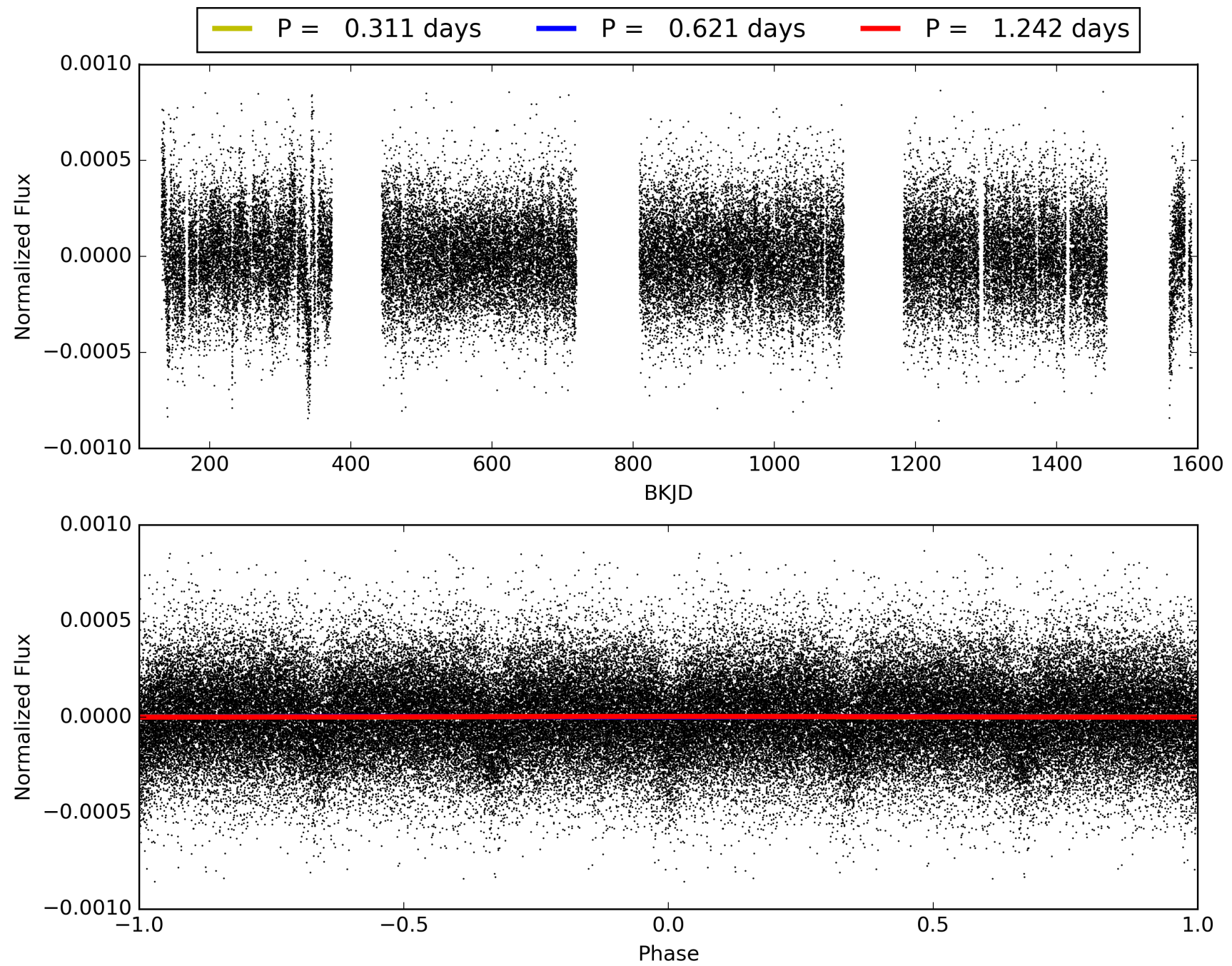
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 22:19:22 Z

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

TCE 011496490-03, PDC Light Curves

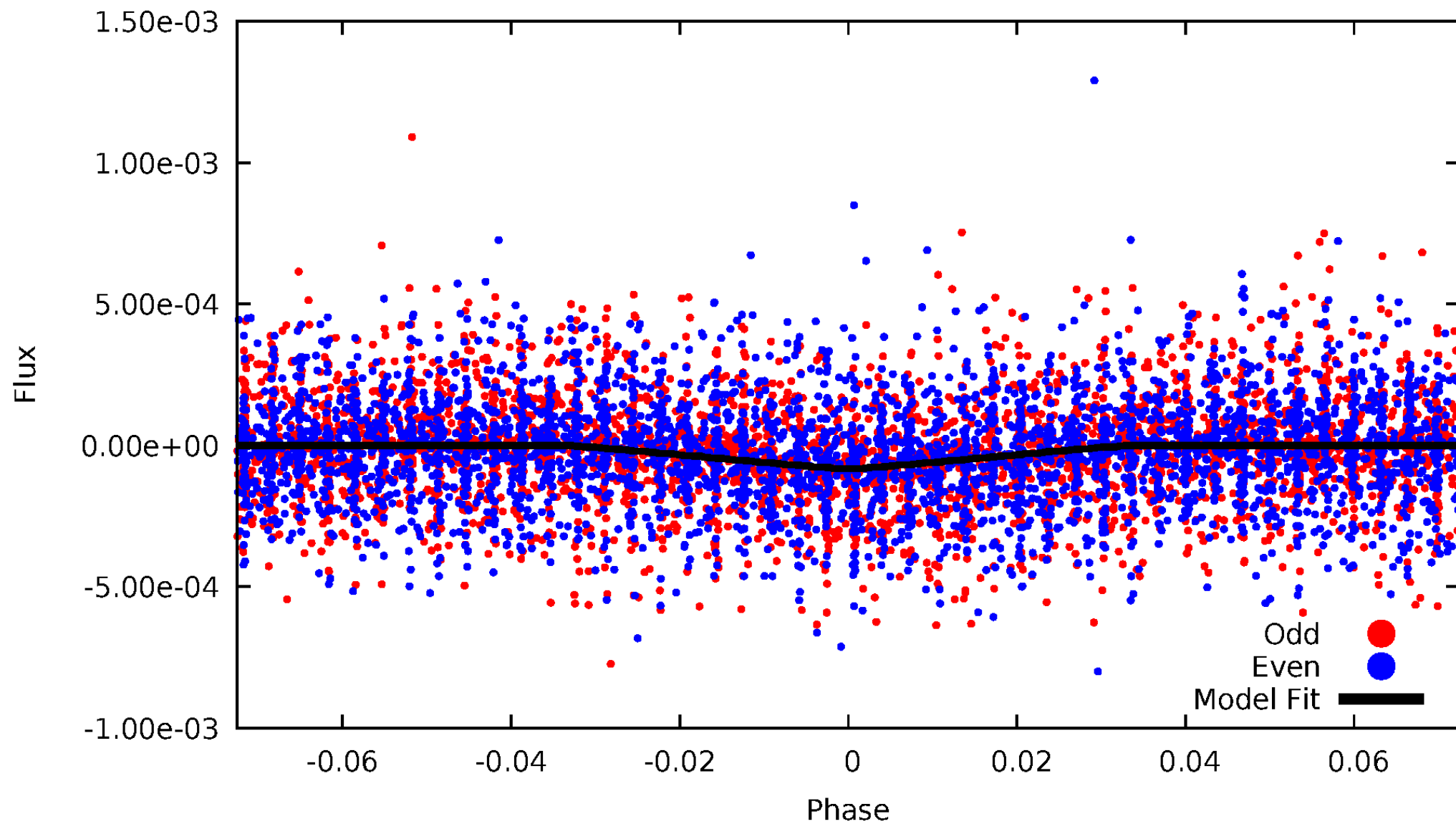


TCE 011496490-03



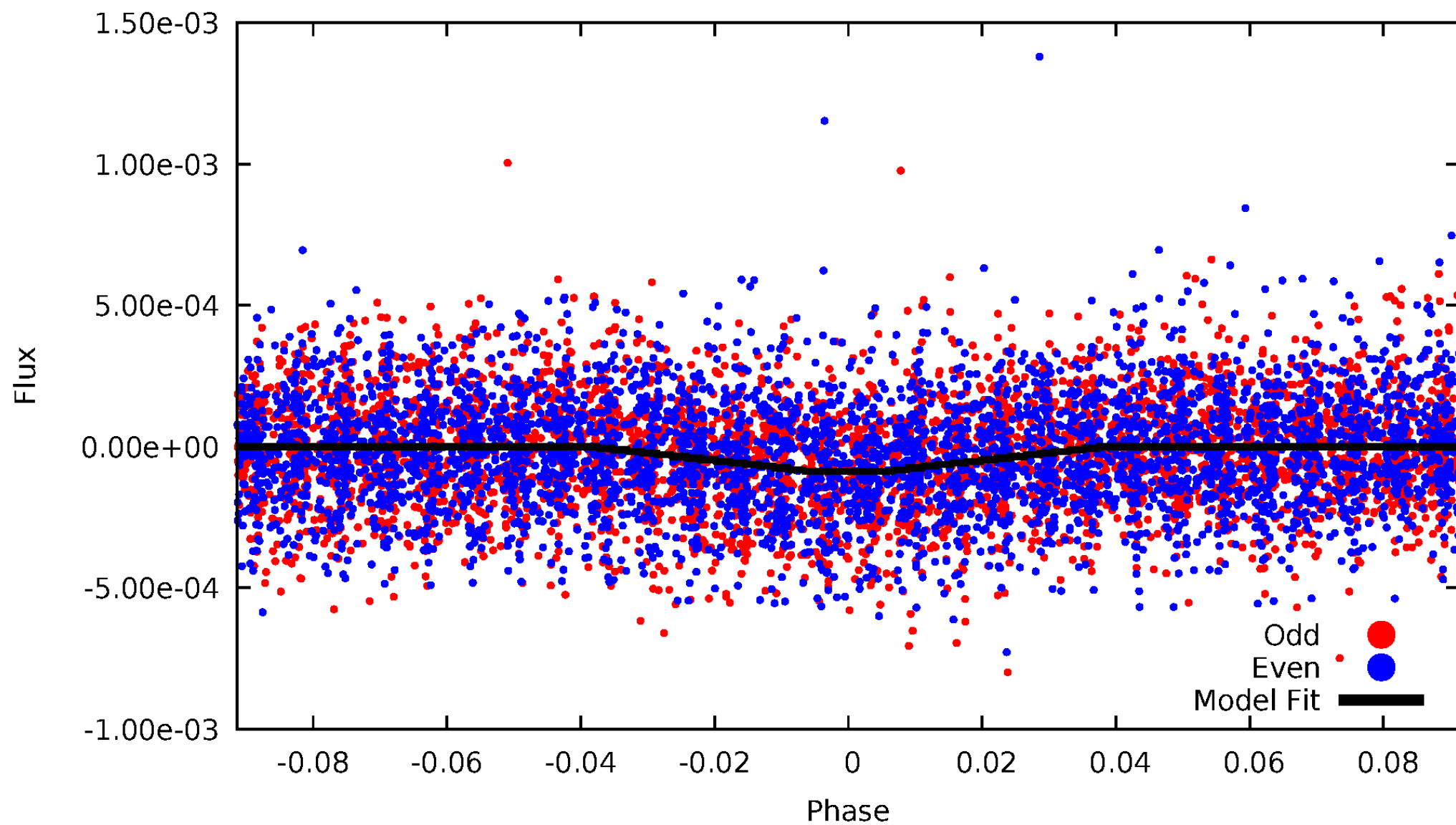
DV Odd/Even

TCE 011496490-03

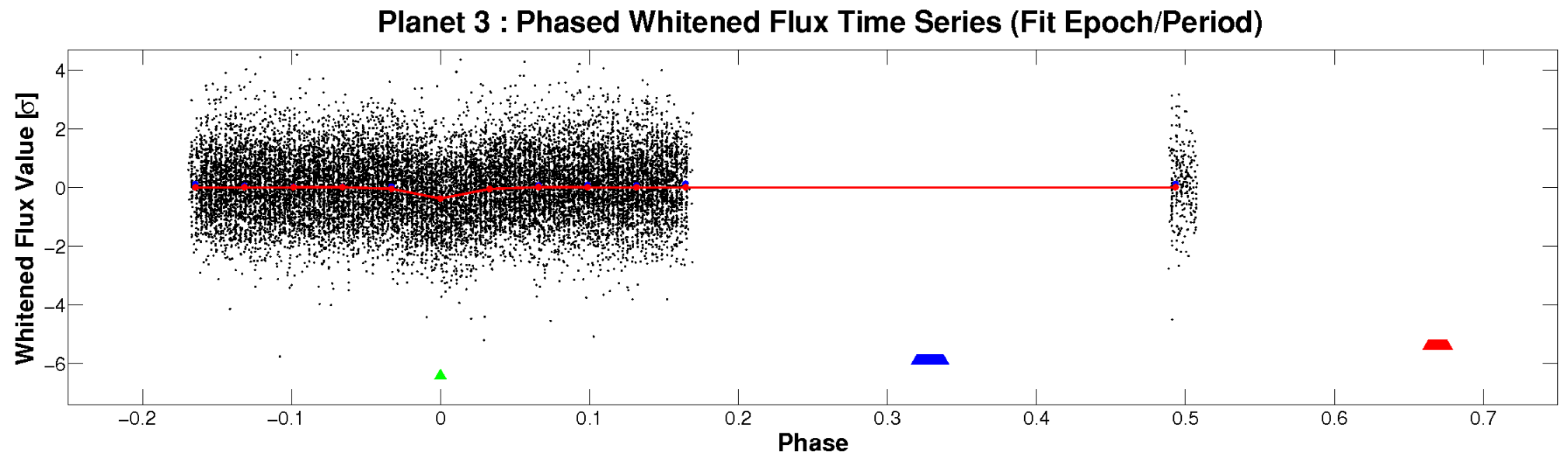
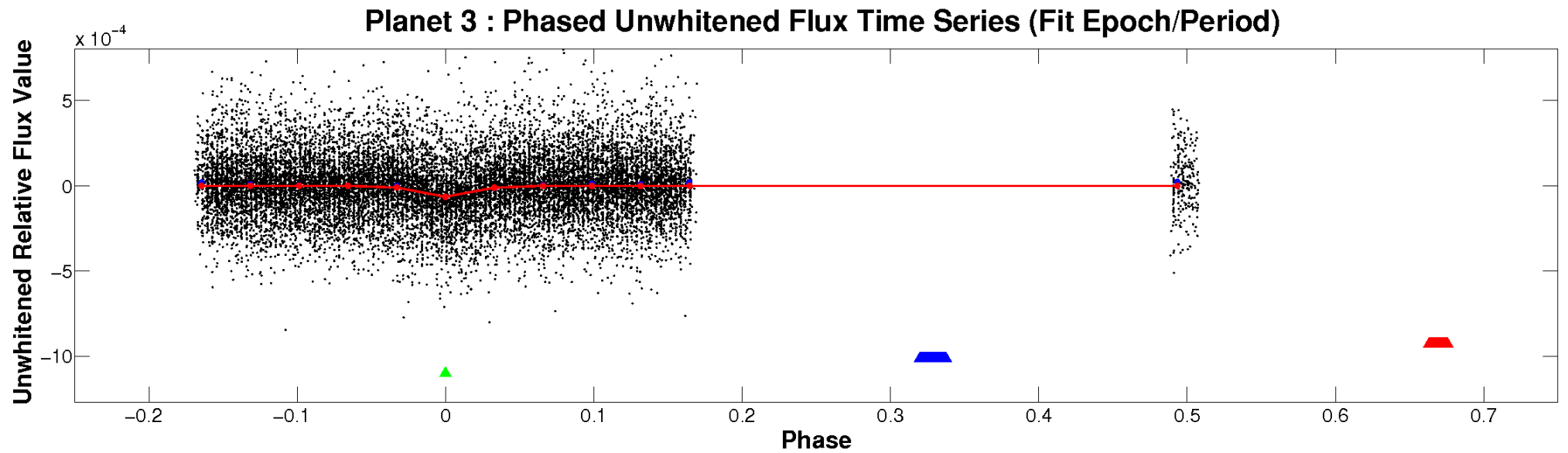


ALT Odd/Even

TCE 011496490-03

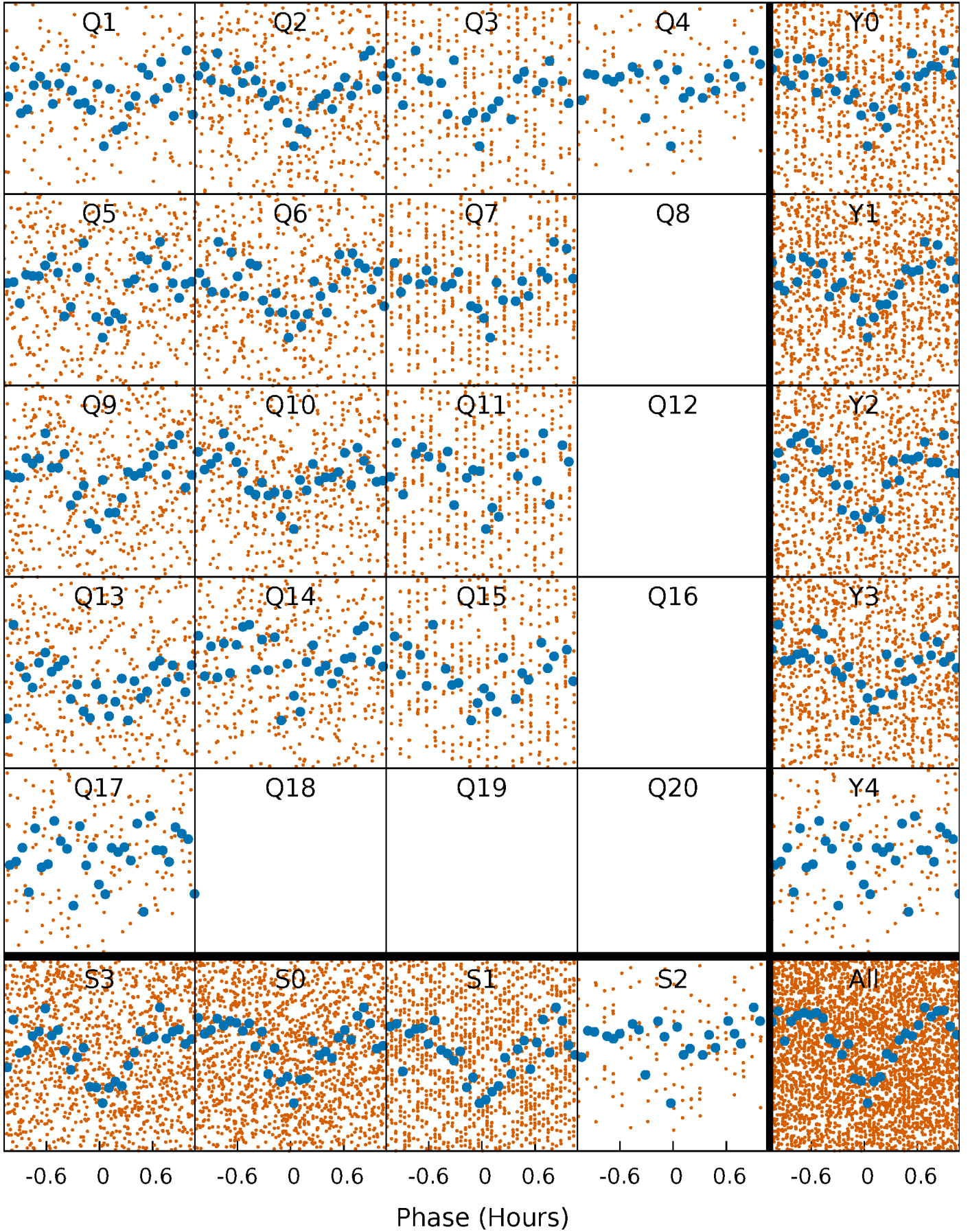


Non-Whitened Vs. Whitened Light Curve



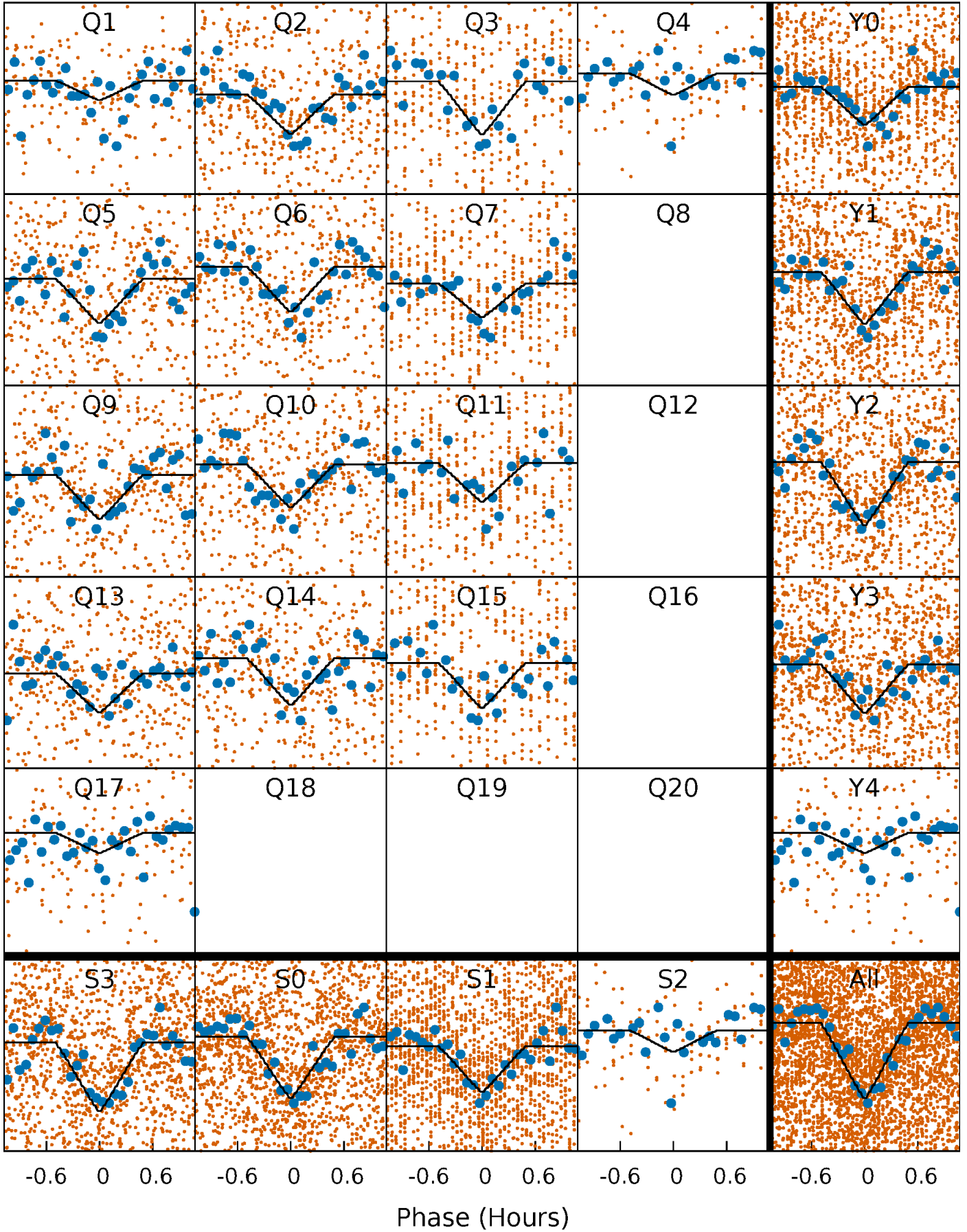
PDC Quarter-Phased Transit Curves

TCE 011496490-03 P= 0.621164 Days $T_0=131.520119$ (BKJD)



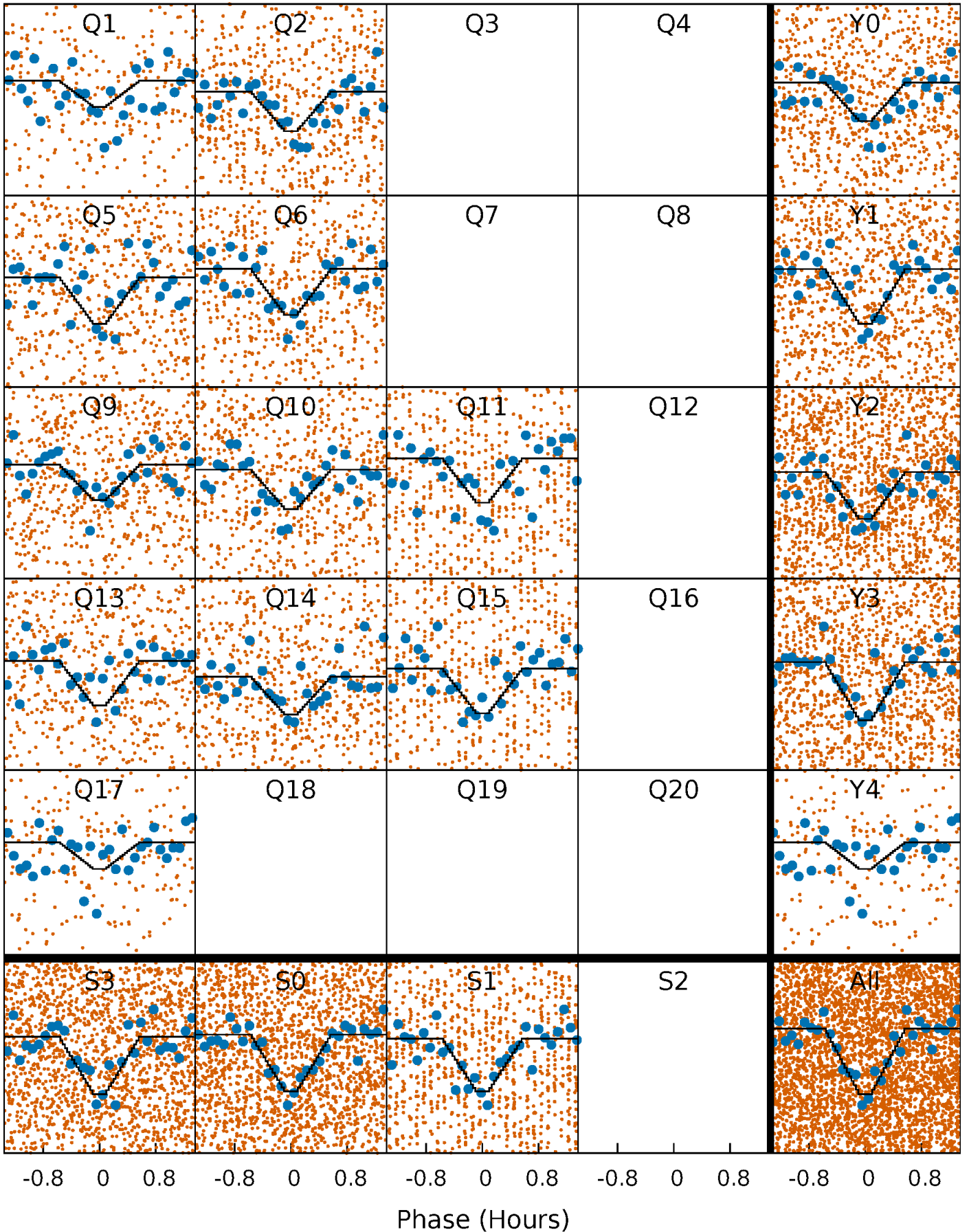
DV Quarter-Phased Transit Curves

TCE 011496490-03 P= 0.621164 Days $T_0=131.520119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

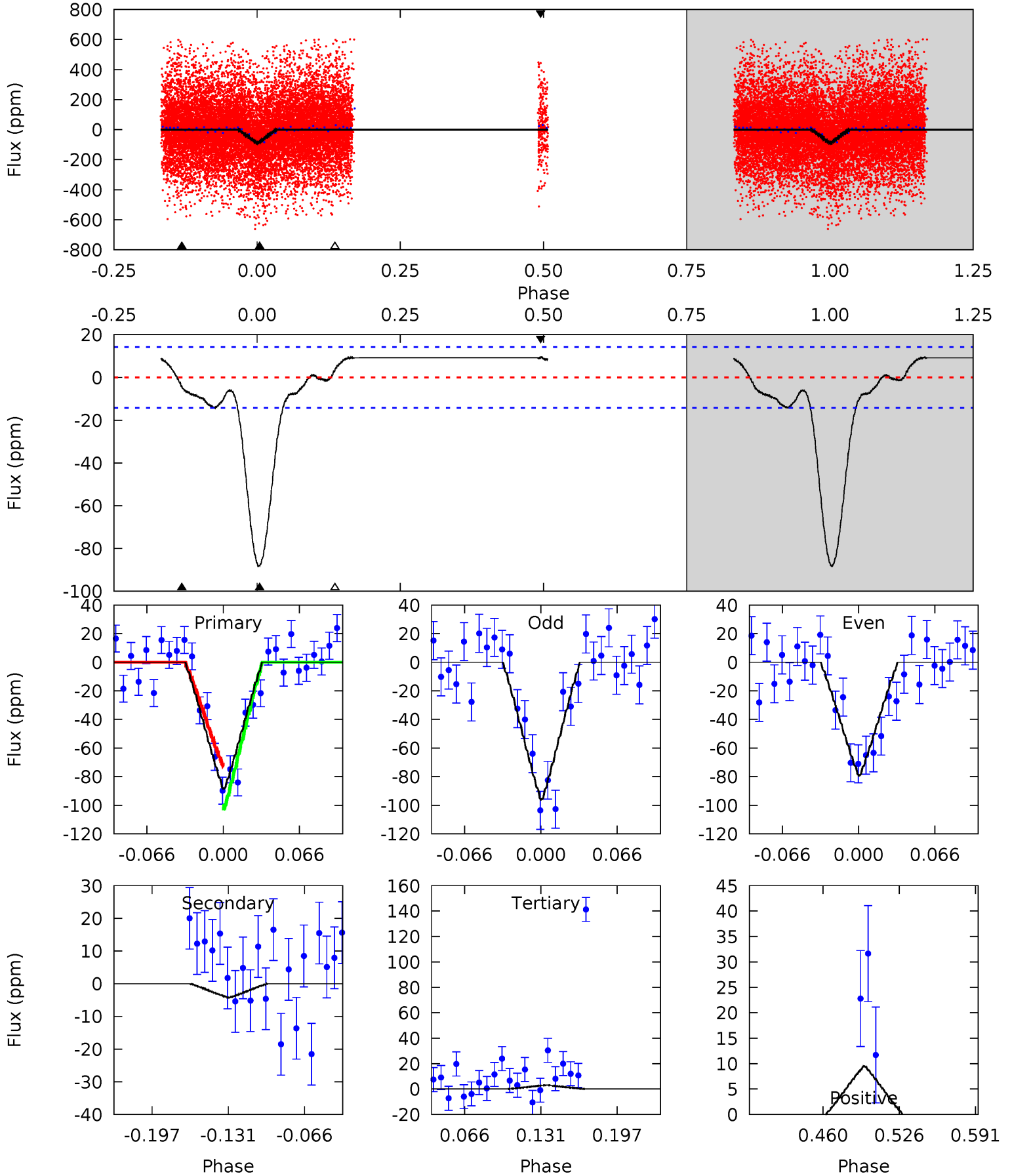
TCE 011496490-03 P= 0.621167 Days $T_0=131.519091$ (BKJD)



DV Model-Shift Uniqueness Test

011496490-03, P = 0.621164 Days, E = 130.898955 Days

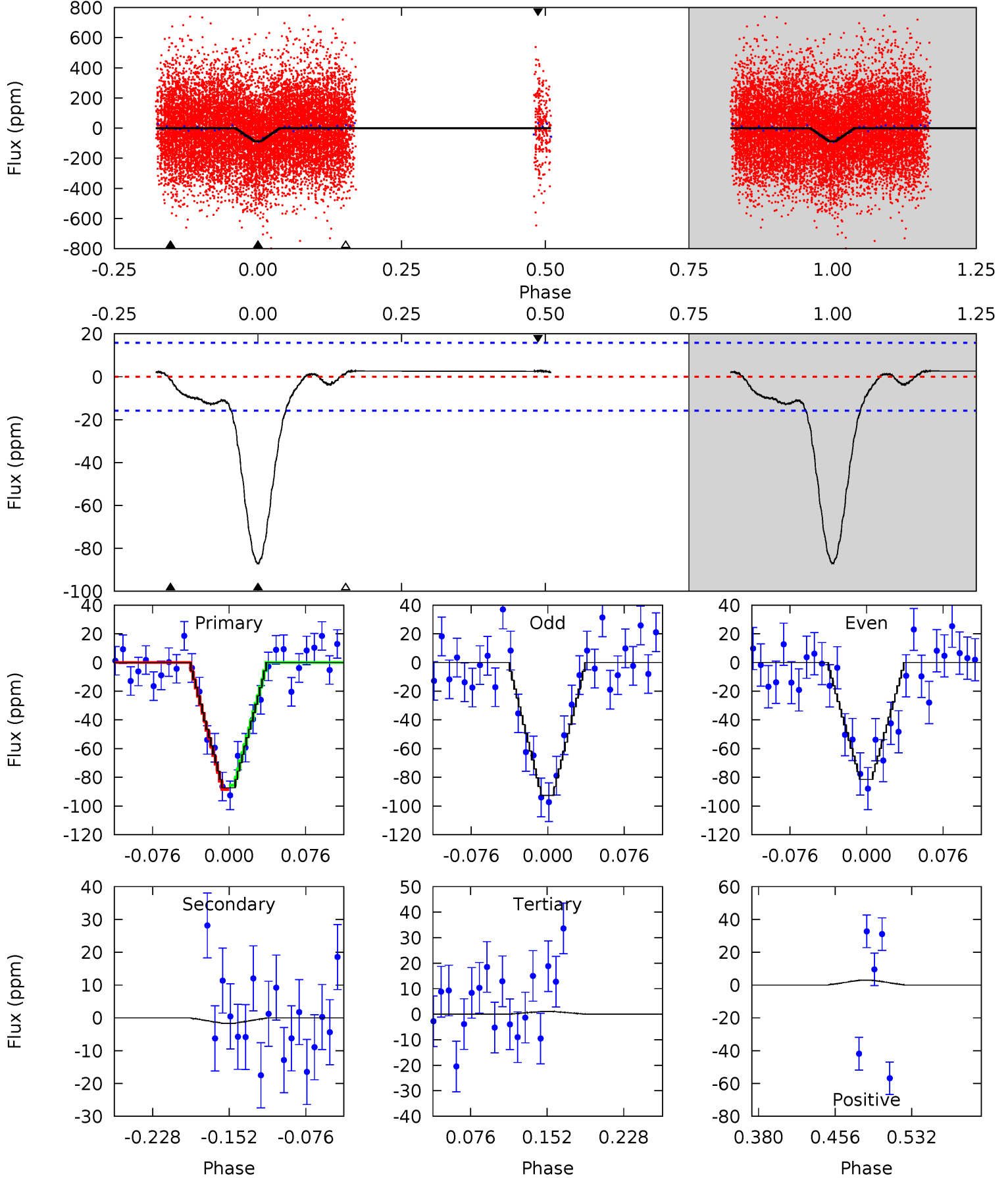
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.9	1.39	-1.00	3.09	4.65	1.84	1.73	29.9	25.8	2.38	-1.70	2.80	1.01	0.10	4.81



Alt Model-Shift Uniqueness Test

011496490-03, P = 0.621167 Days, E = 130.897924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	0.48	-0.31	0.88	4.62	1.77	0.63	25.8	24.6	0.80	-0.40	1.63	0.94	0.03	0.44



Stellar Parameters For KIC 011496490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6332^{+158}_{-205}	$4.311^{+0.112}_{-0.192}$	$-0.120^{+0.250}_{-0.300}$	$1.205^{+0.394}_{-0.197}$	$1.080^{+0.197}_{-0.115}$	$0.869^{+0.444}_{-0.467}$
	+2%/-3%	+3%/-4%	+208%/-250%	+33%/-16%	+18%/-11%	+51%/-54%
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 011496490-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4 ± 3	$1.38^{+0.38}_{-0.30}$	3565^{+275}_{-186}	-2711^{+5991}_{-656}	$0.245^{+0.279}_{-0.177}$
Alt.	-2 ± 3	$1.28^{+0.30}_{-0.31}$	3567^{+281}_{-191}	-3227^{+6233}_{-466}	$0.104^{+0.332}_{-0.250}$

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

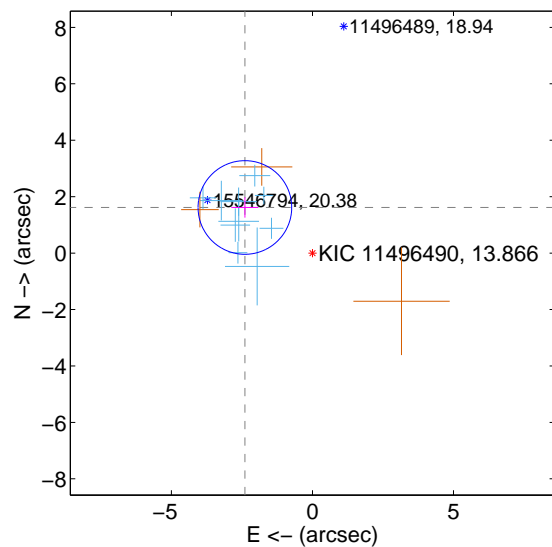
Supplemental centroid analysis for 011496490-03. Kepler magnitude: 13.87. Transit SNR 16.46

There are 10 quarters with good PRF difference image offsets

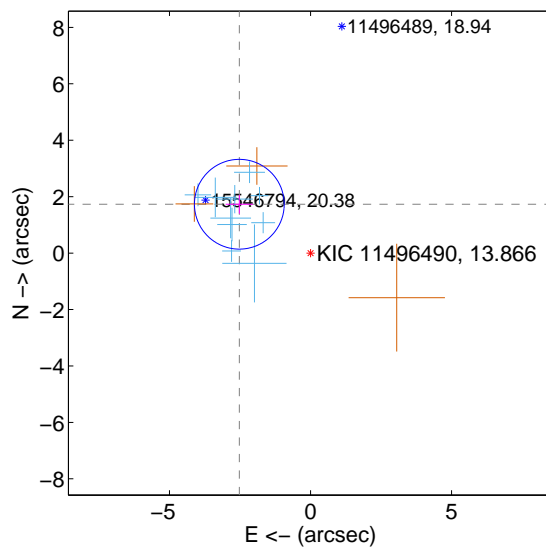
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.889 ± 0.553	5.22	2.394 ± 0.482	1.616 ± 0.361
PRF-fit source offset from KIC position	3.060 ± 0.530	5.77	2.523 ± 0.484	1.732 ± 0.332
photometric centroid source offset	4.39 ± 0.92	4.77	3.76 ± 0.90	2.26 ± 0.98

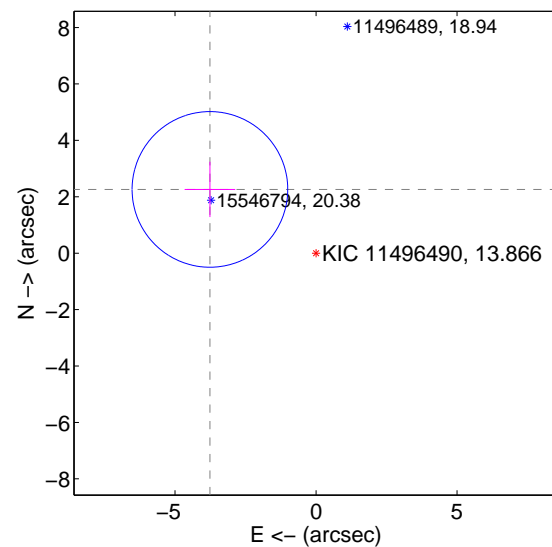
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

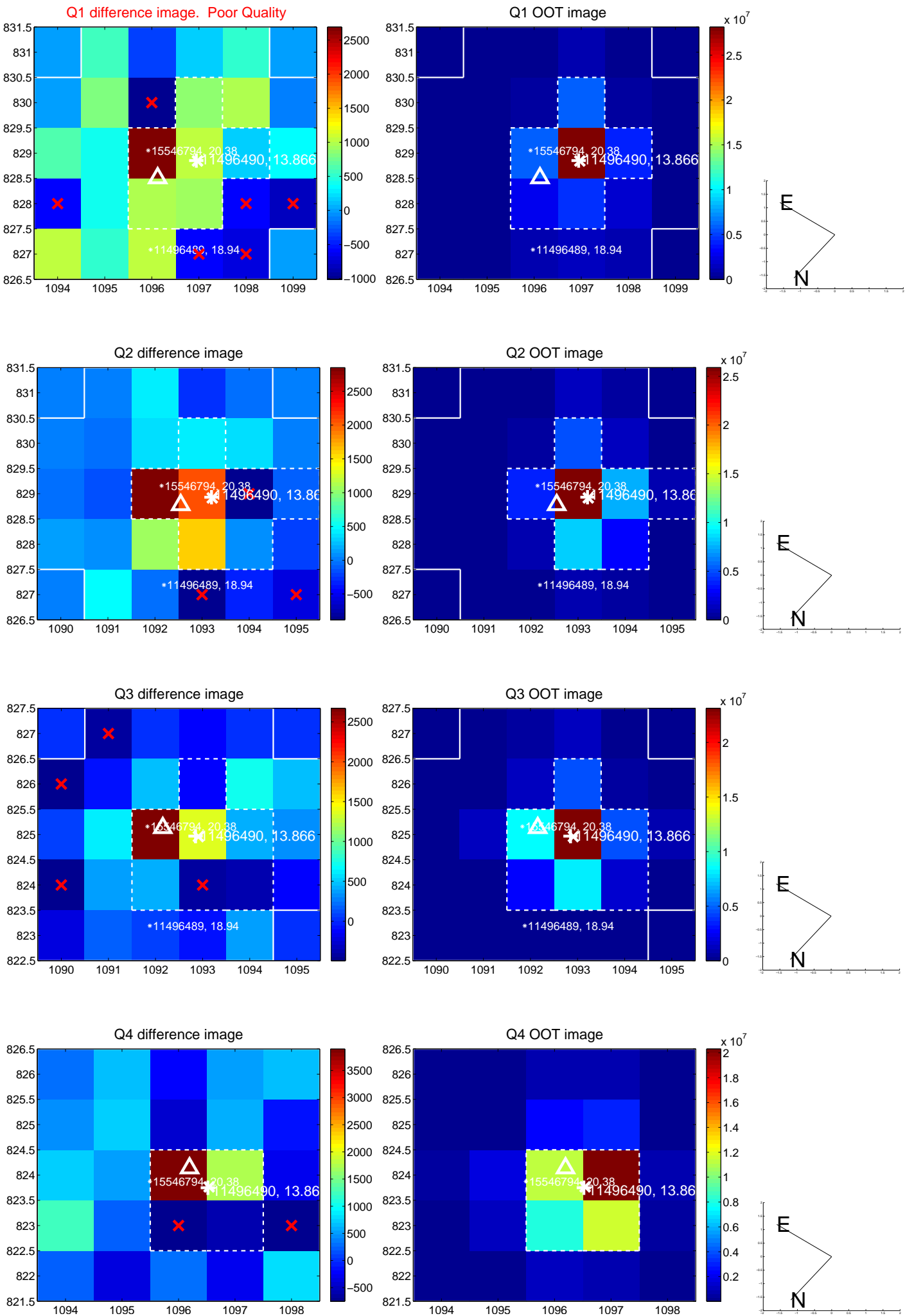


offset from photometric centroids

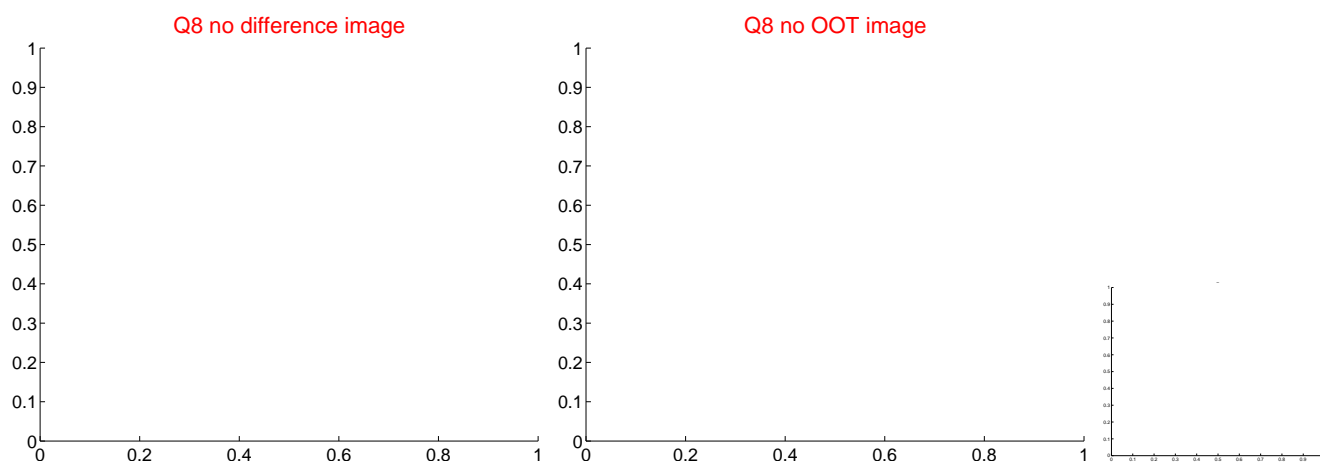
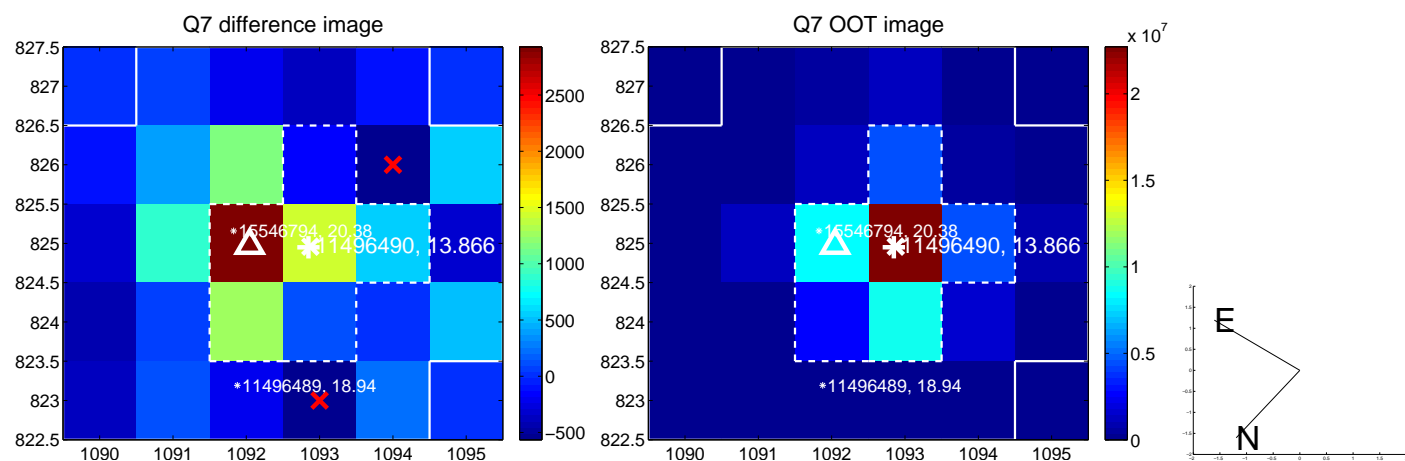
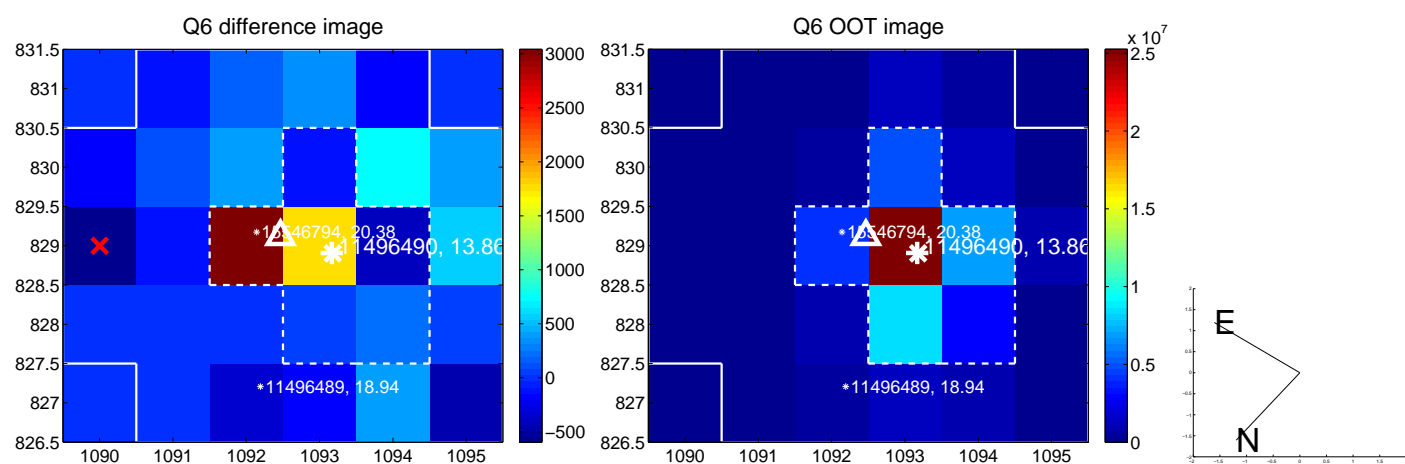
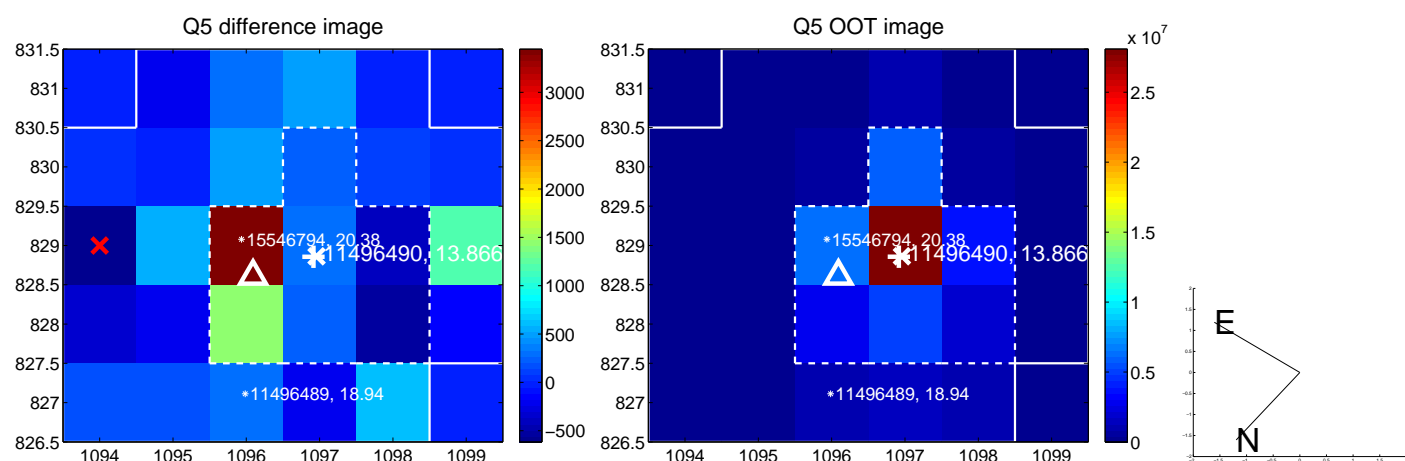


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

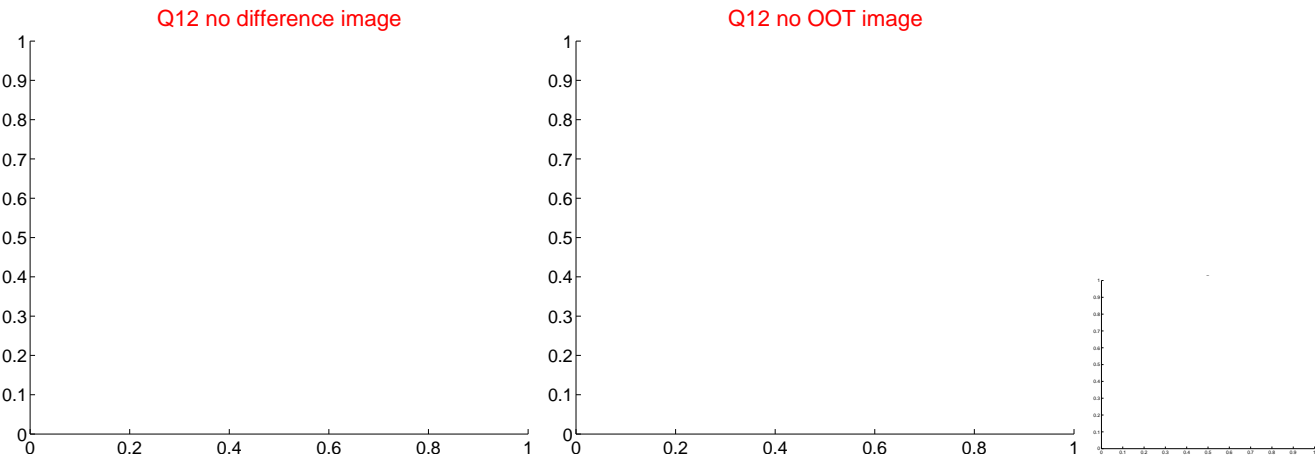
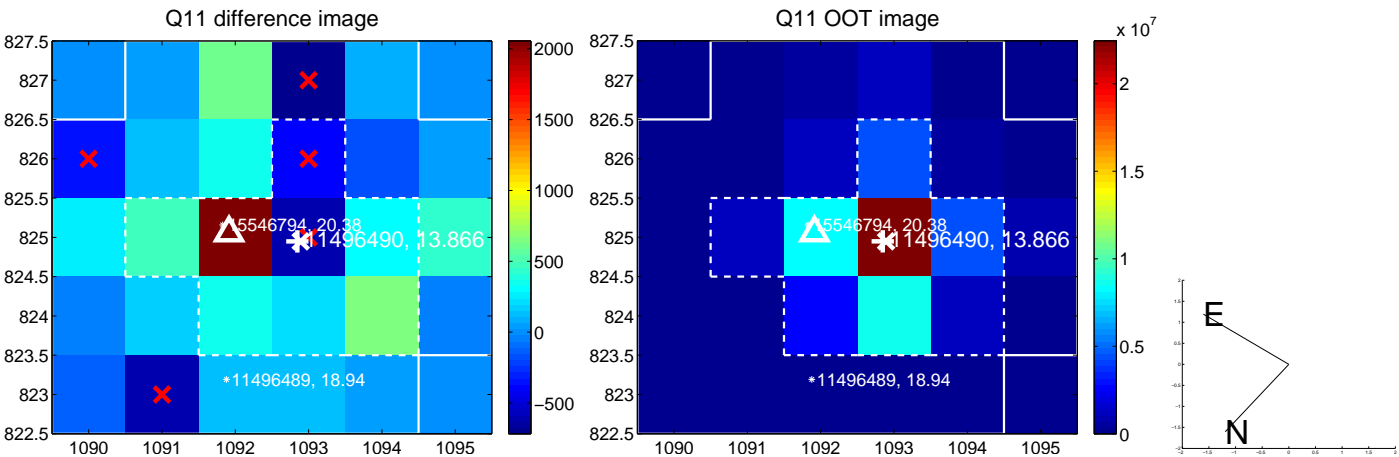
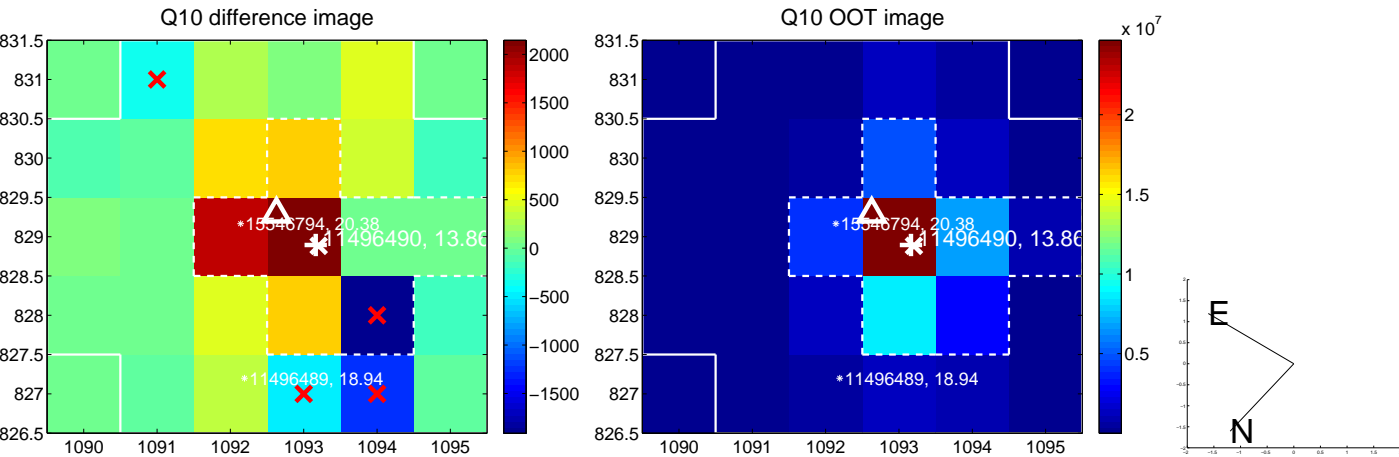
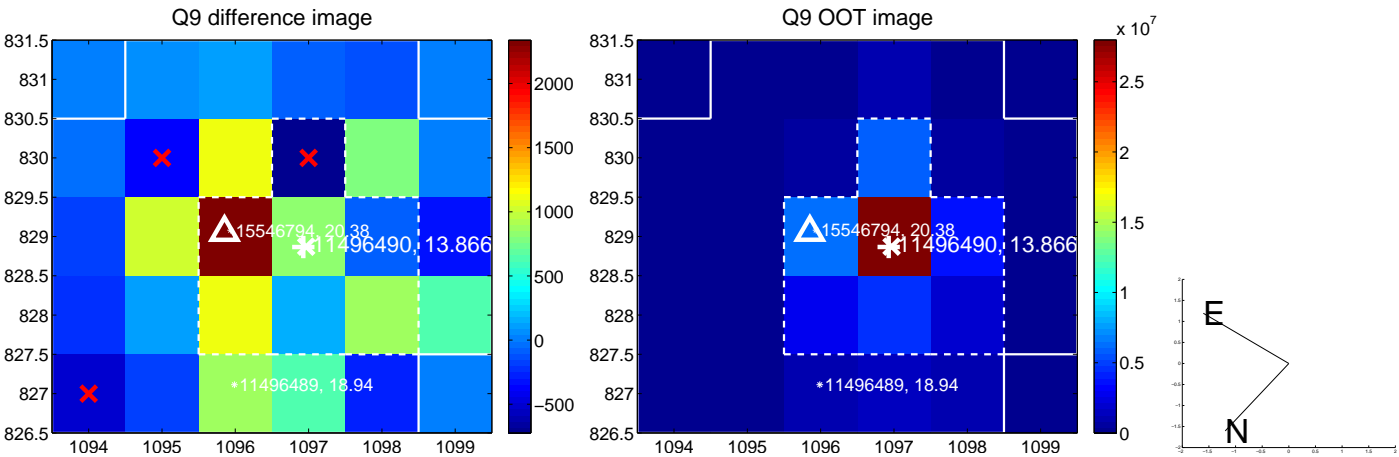
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



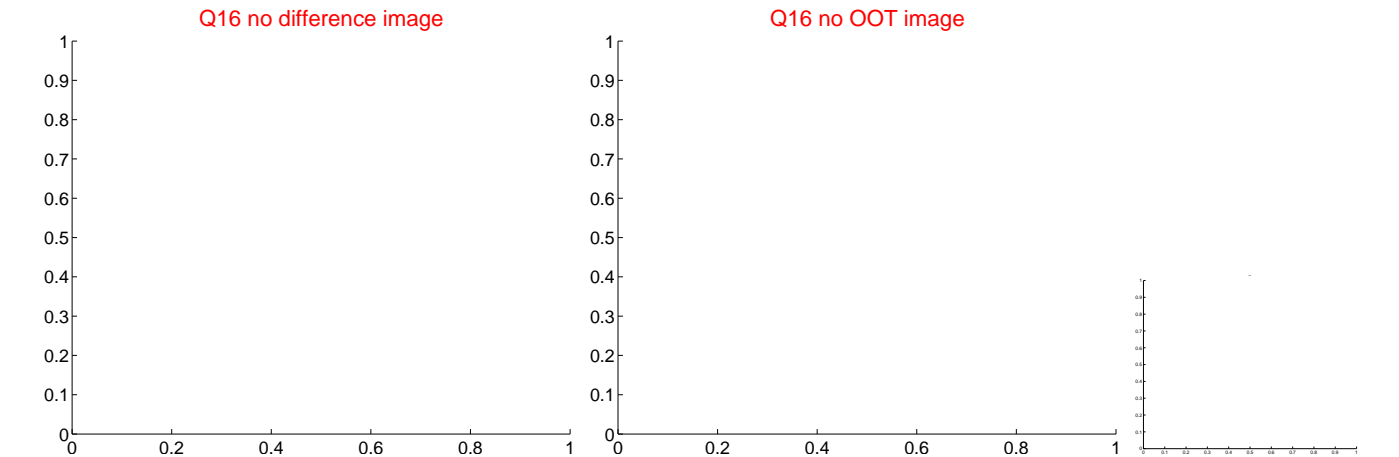
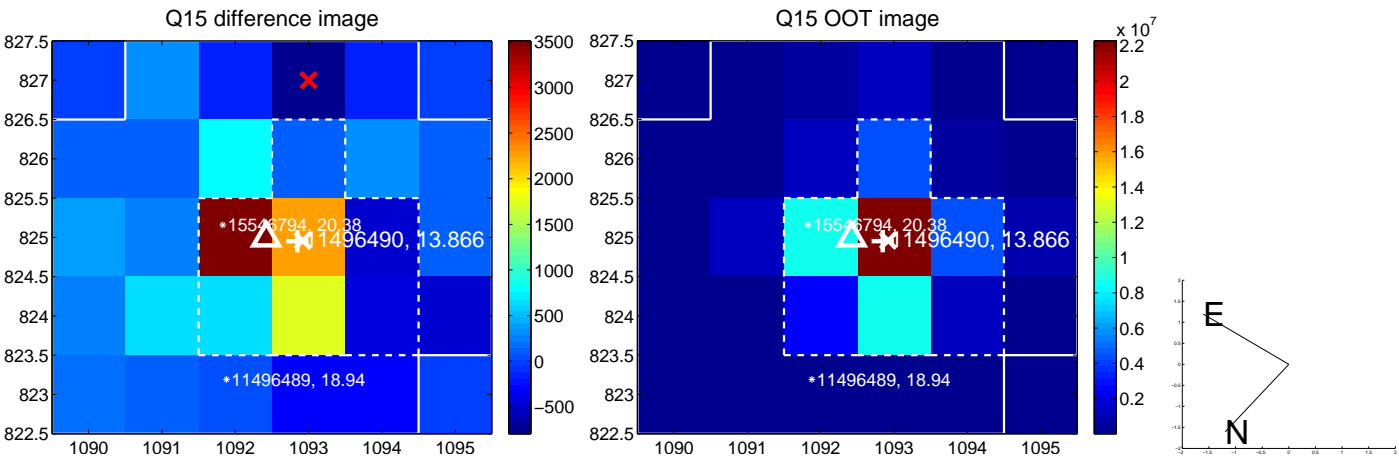
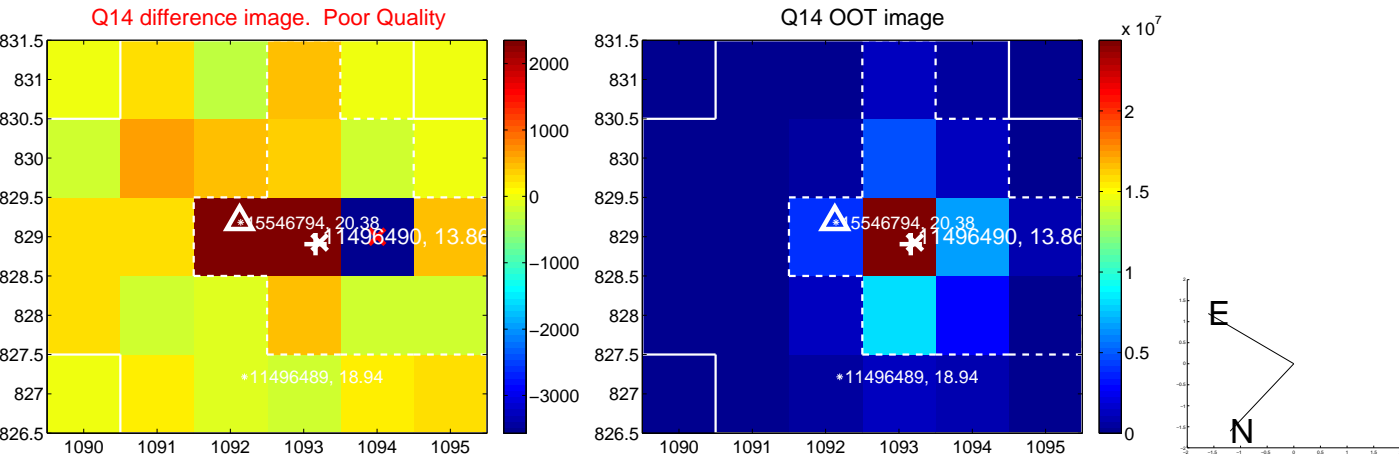
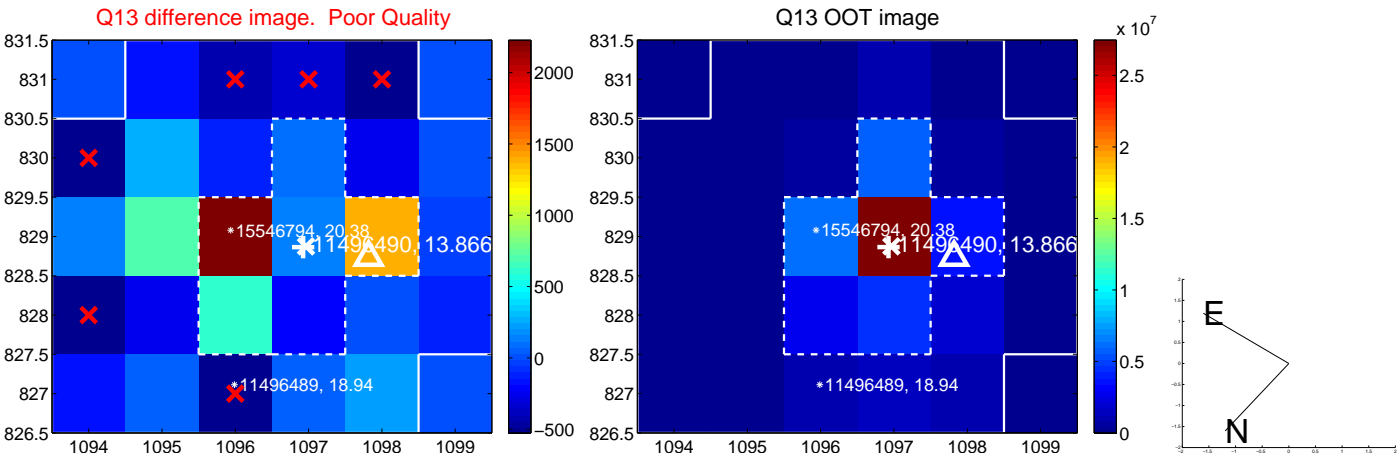
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



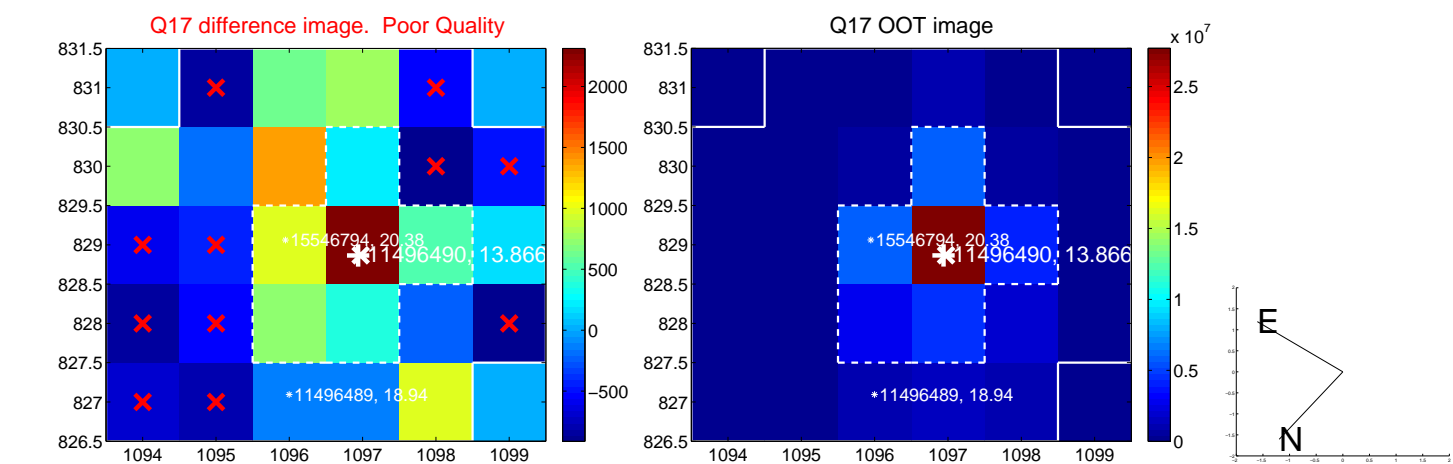
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



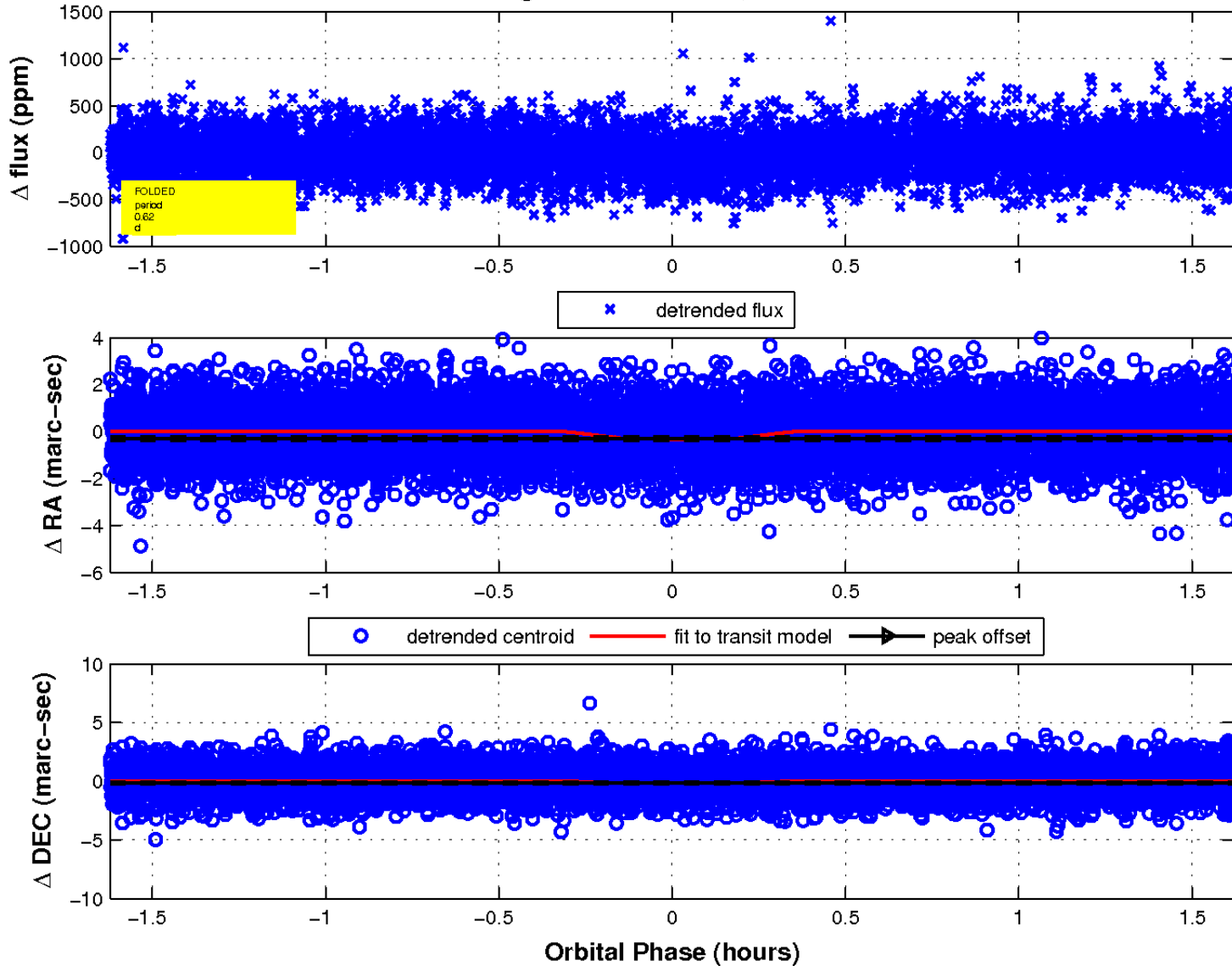
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

