

KIC 009491205

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})
009491205-01	OBS	No	0.955383	131.529714	63.1	3.835	13.8	16.6	1.19	6469	1.11	5310.07
009491205-02	OBS	No	0.955405	132.147127	53.8	3.304	13.4	14.8	1.19	6469	1.02	5309.90
009491205-03	OBS	No	0.955359	131.848693	43.1	2.851	13.7	13.2	1.19	6469	0.79	5310.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009491205-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009491205-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009491205-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD

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

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

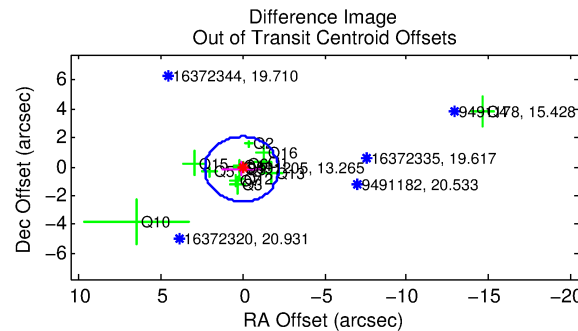
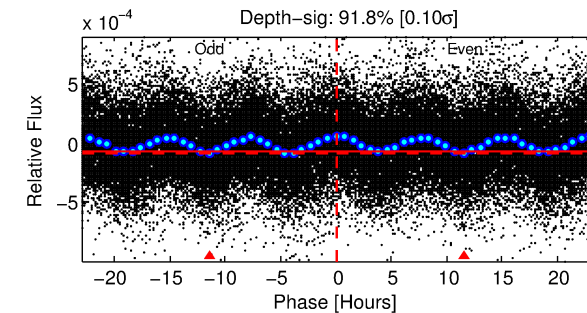
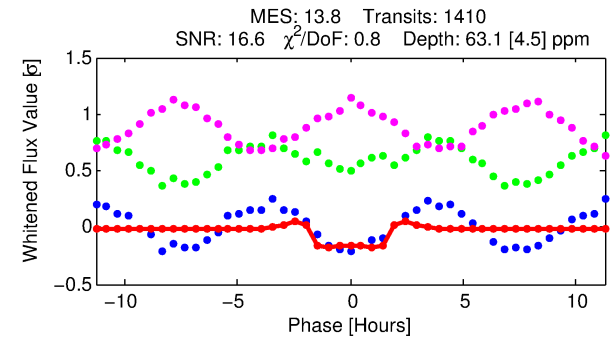
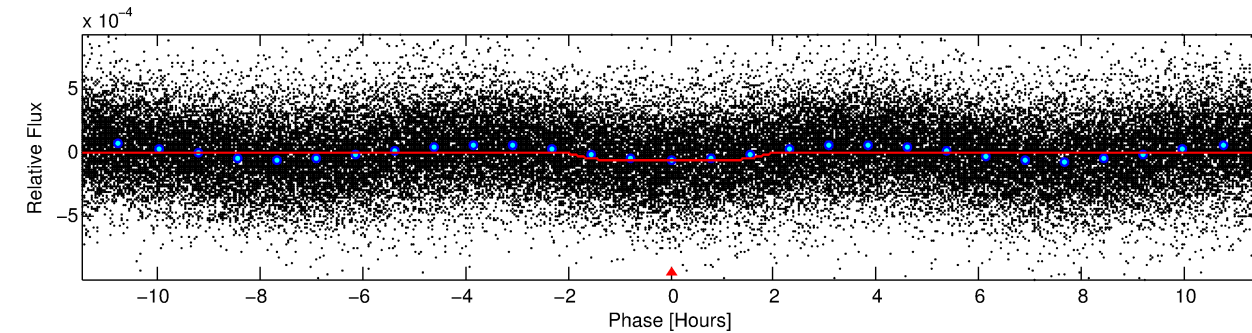
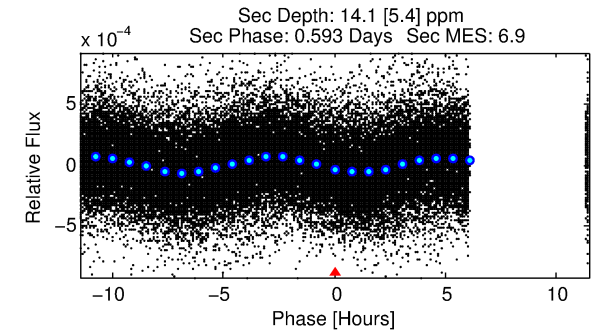
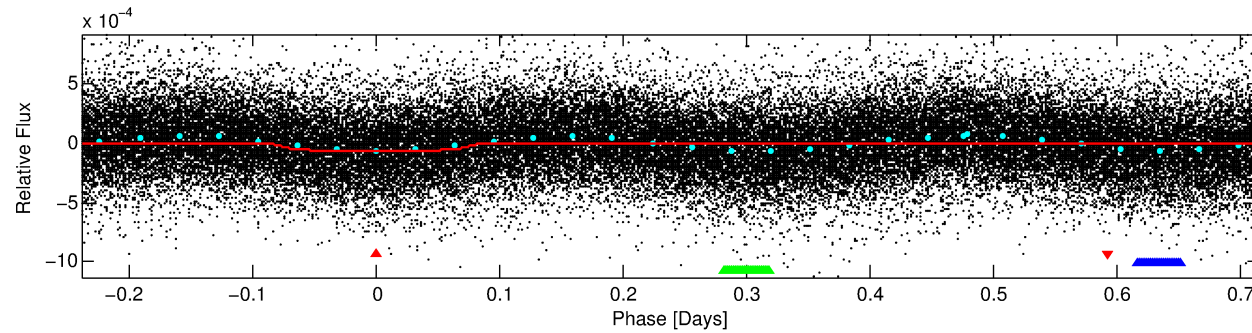
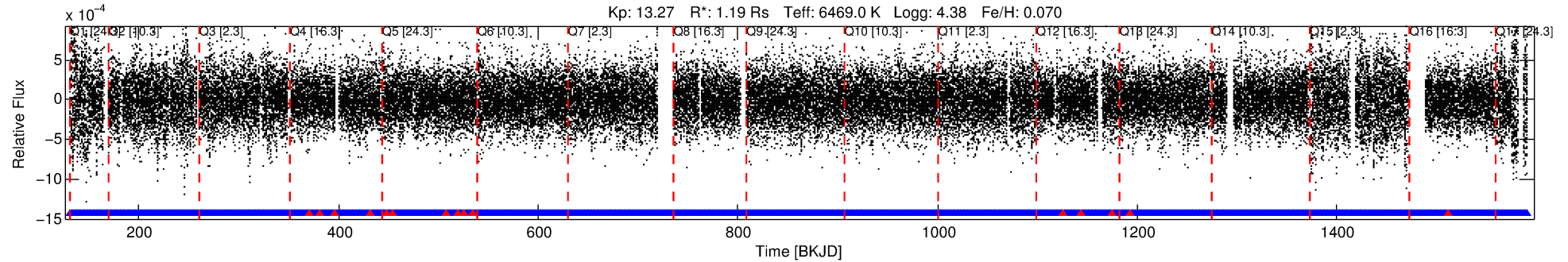
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009491205-01

No Significant Match Found

DV One-Page Summary

KIC: 9491205 Candidate: 1 of 3 Period: 0.955 d



DV Fit Results:

Period = 0.95538 [0.00001] d
Epoch = 131.5297 [0.0016] BKJD
Rp/R* = 0.0085 [0.0015]
a/R* = 1.28 [0.48]
b = 0.90 [0.21]
Seff = 5310.07 [2335.39]
Teff = 2177 [239] K
Rp = 1.11 [0.45] Re
a = 0.0205 [0.0061] AU
Ag = 2.65 [1.77] [0.93σ]
Teffp = 4294 [577] K [3.39σ]

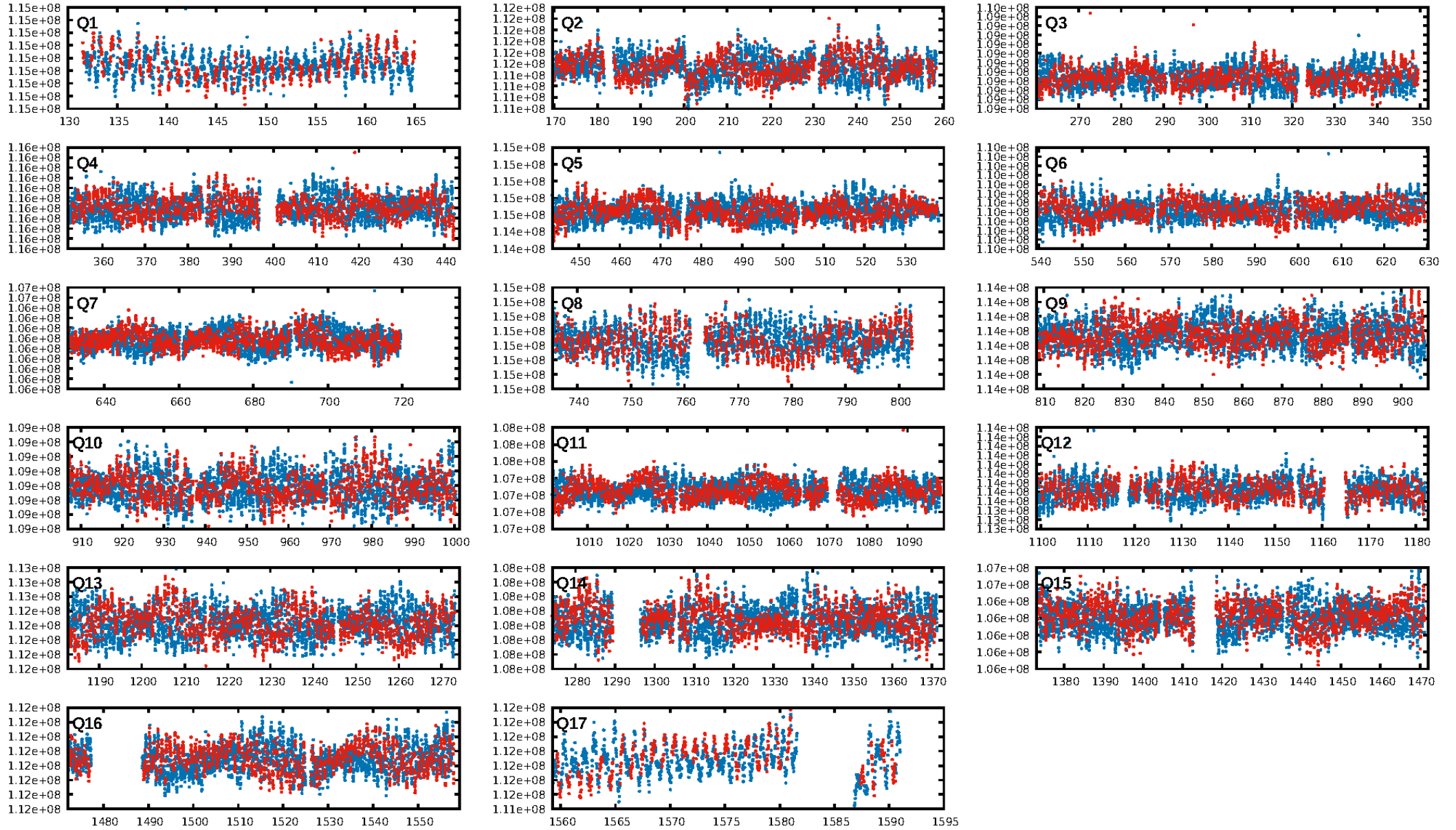
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1331/1347]
GhostDiagnostic-chr: 2.987
Centroid-sig: 2.5%
Centroid-so: 0.658 arcsec [1.14σ]
OotOffset-rm: 0.179 arcsec [0.24σ]
KicOffset-rm: 0.045 arcsec [0.14σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 0.00 [0/17]

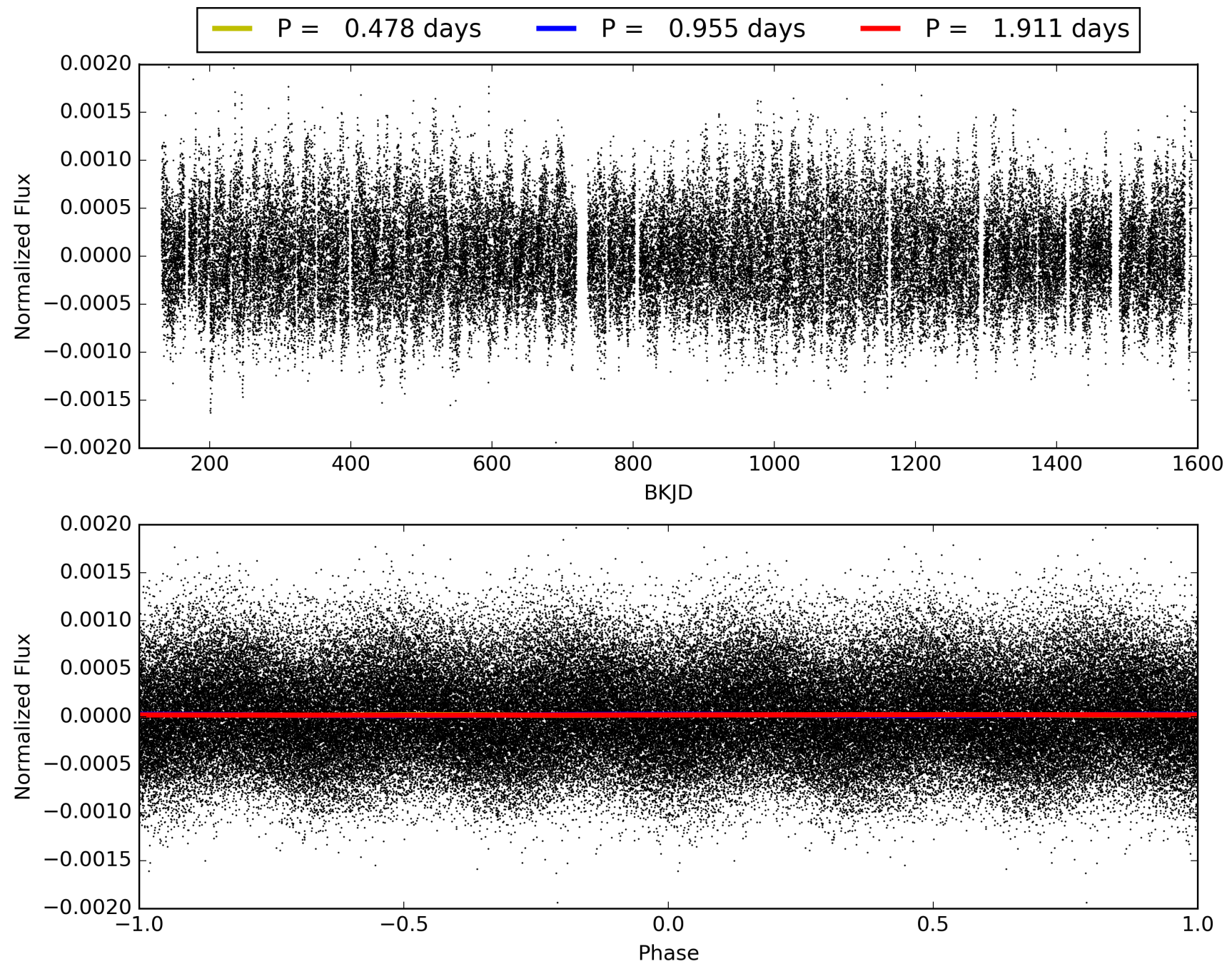
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009491205-01, PDC Light Curves

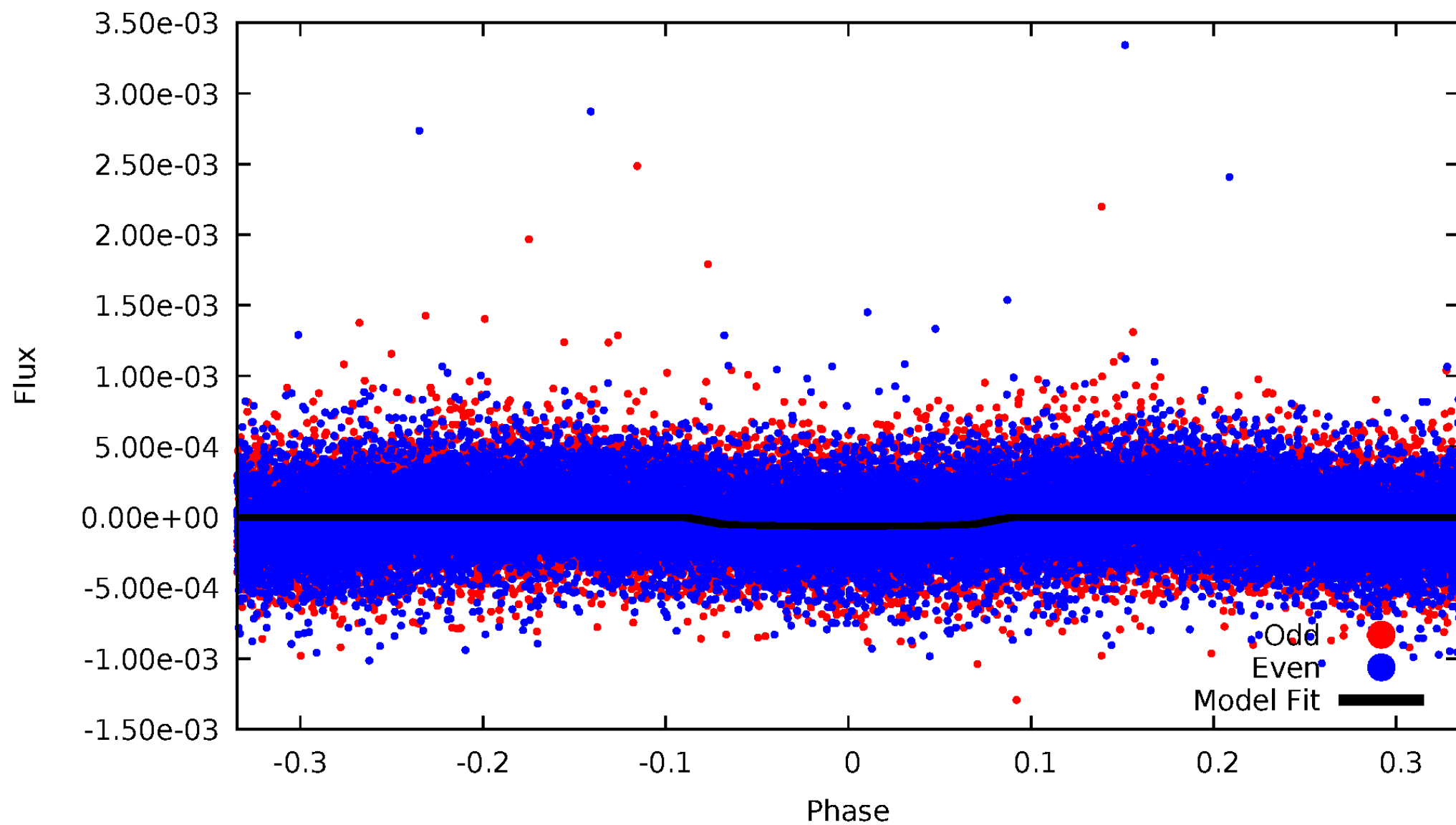


TCE 009491205-01



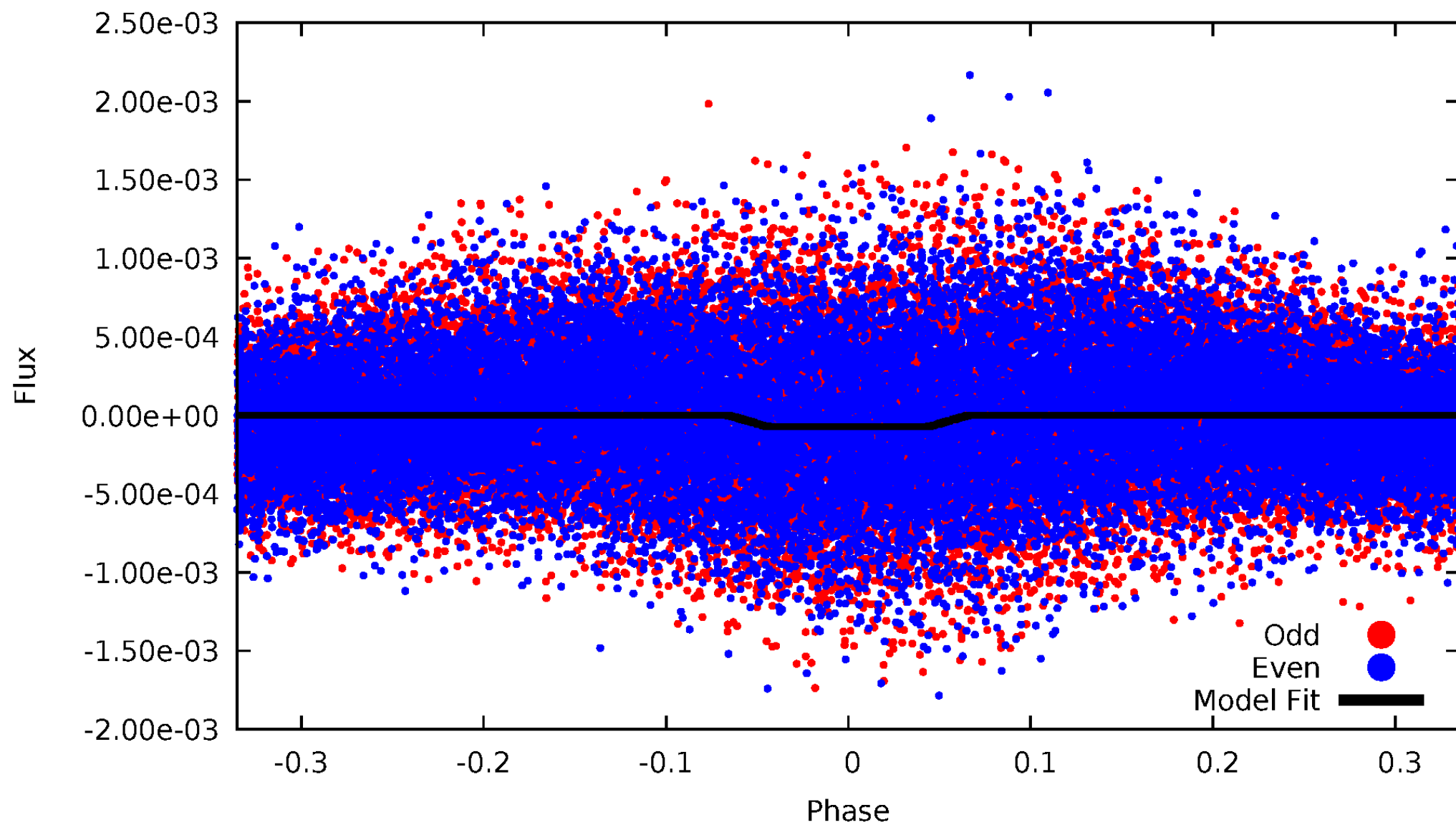
DV Odd/Even

TCE 009491205-01

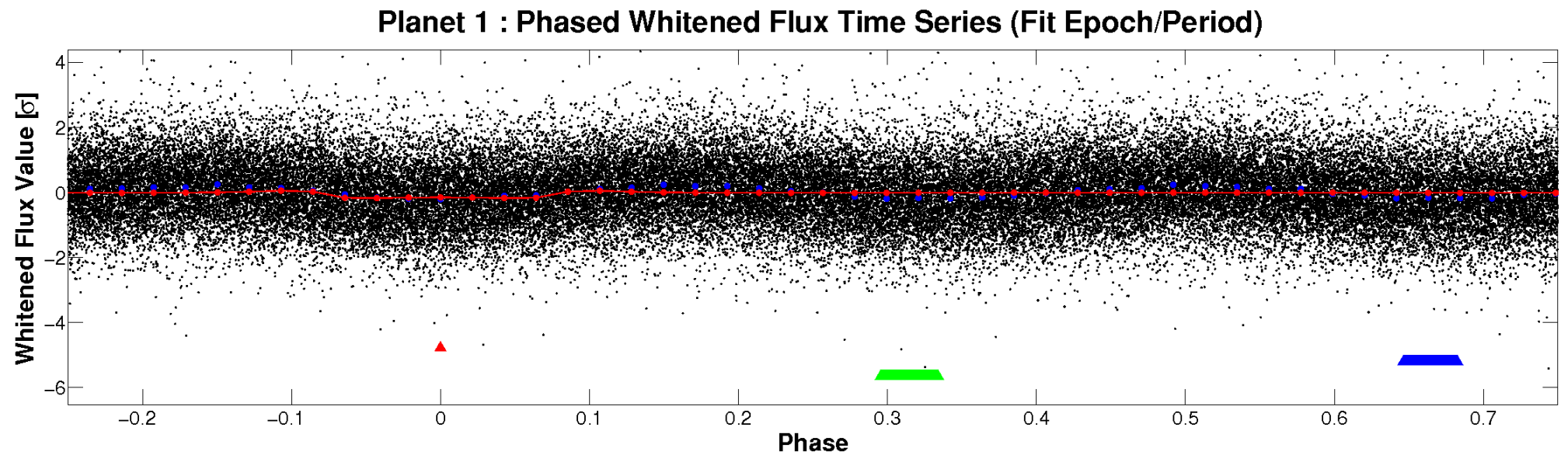
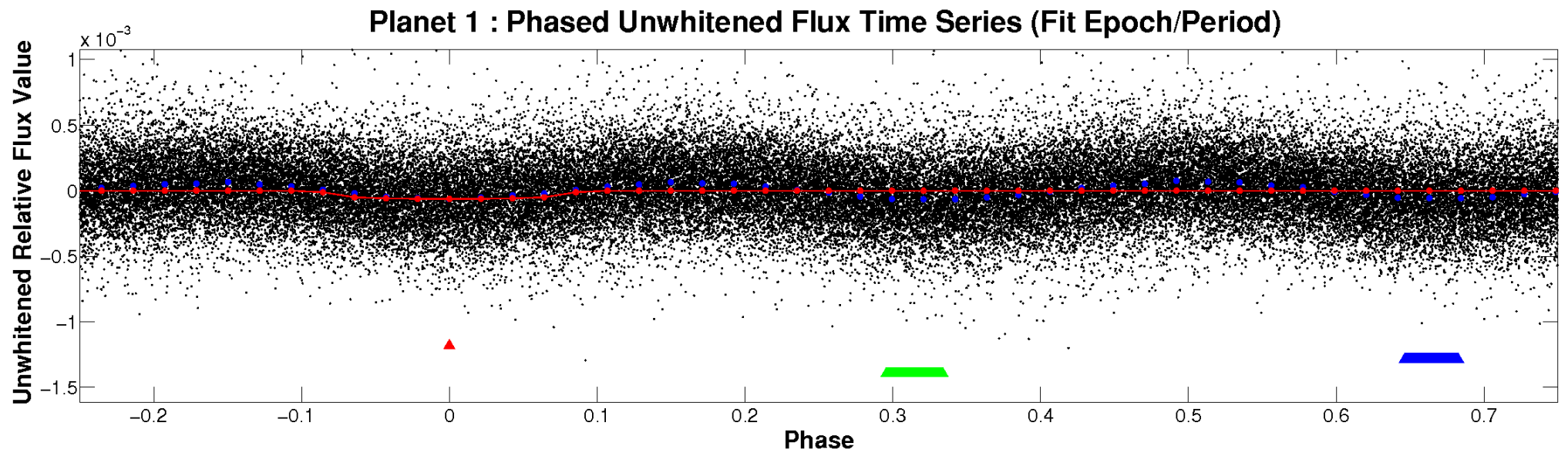


ALT Odd/Even

TCE 009491205-01

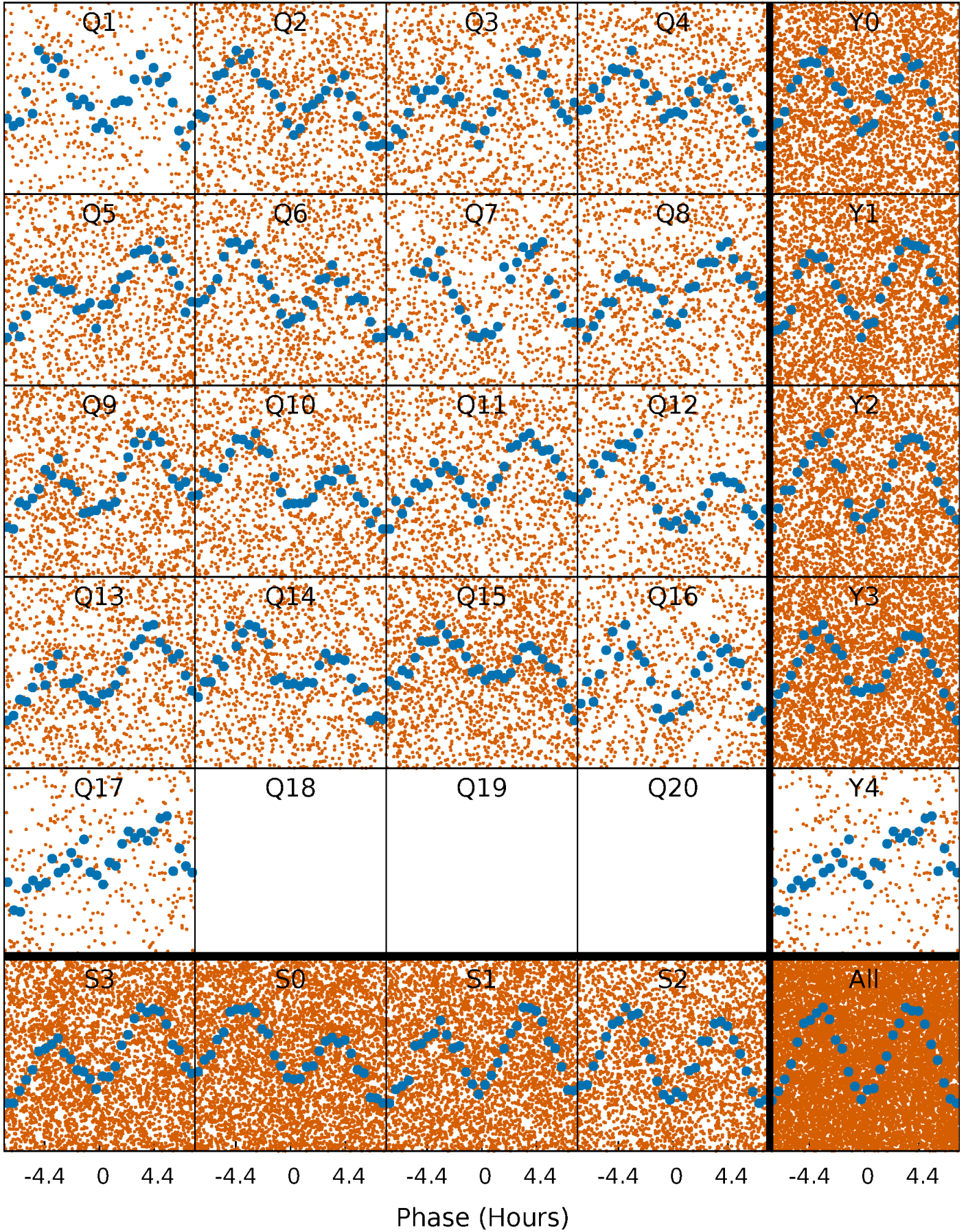


Non-Whitened Vs. Whitened Light Curve



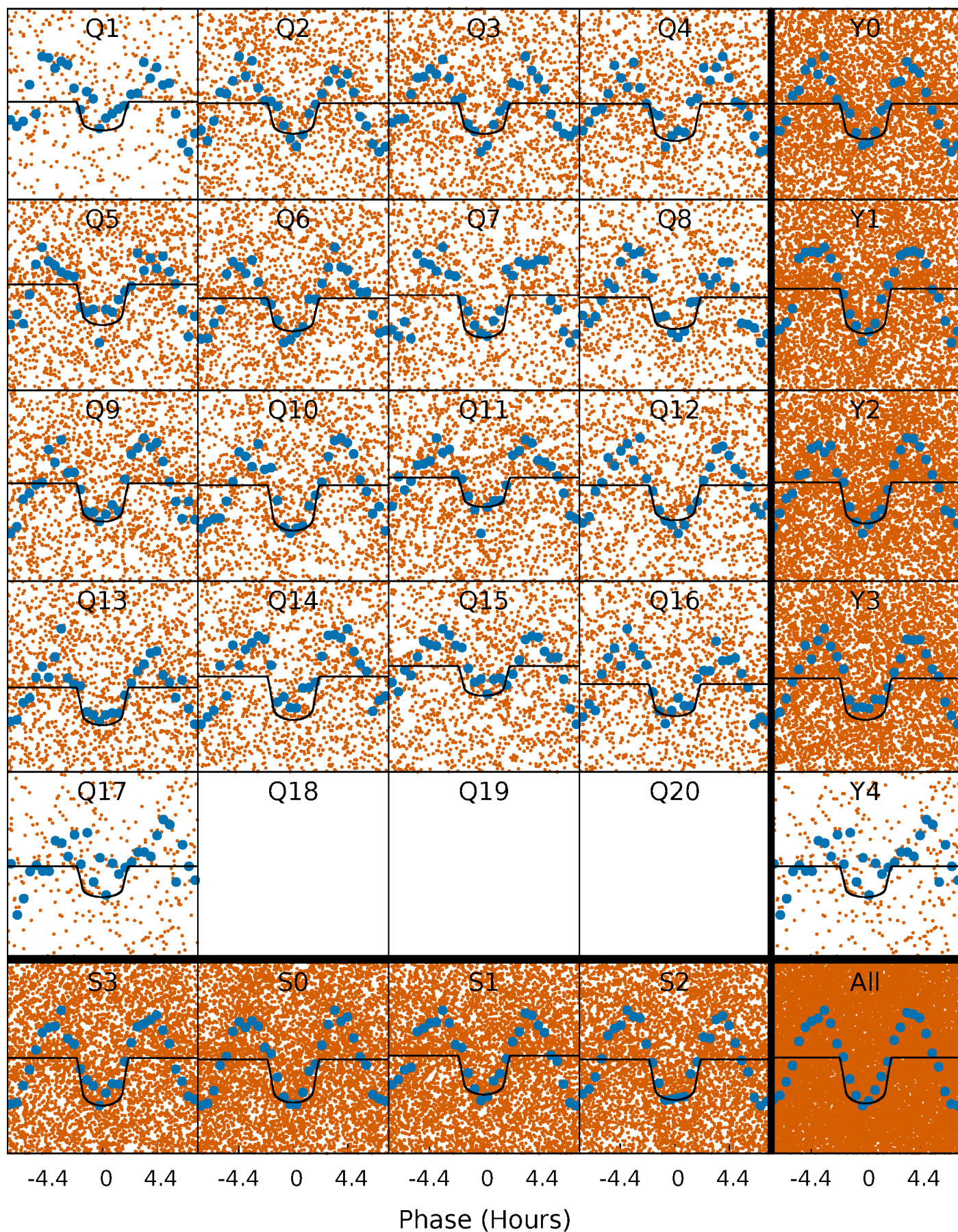
PDC Quarter-Phased Transit Curves

TCE 009491205-01 P= 0.955383 Days $T_0=131.529714$ (BKJD)



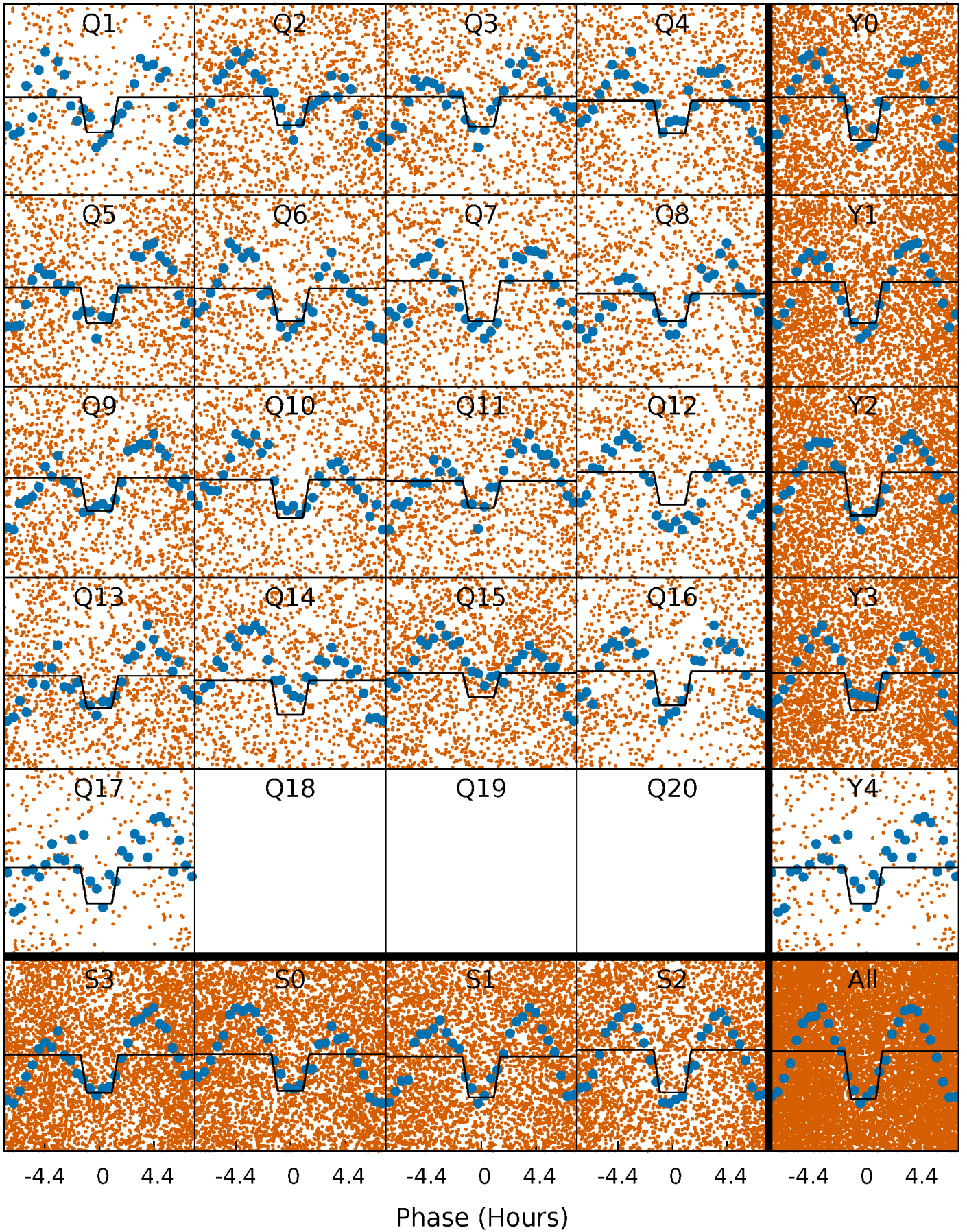
DV Quarter-Phased Transit Curves

TCE 009491205-01 P= 0.955383 Days $T_0=131.529714$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

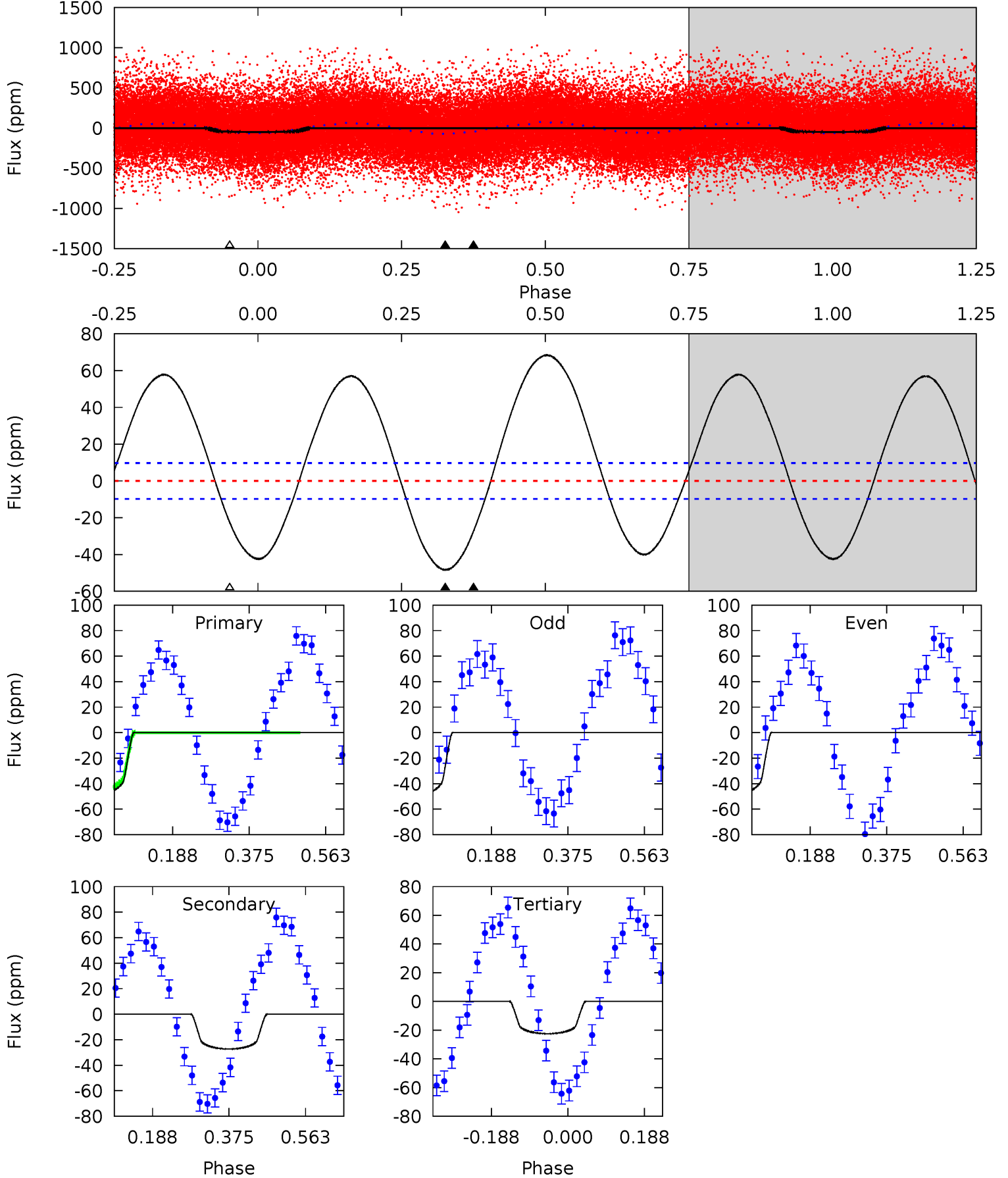
TCE 009491205-01 P= 0.955383 Days $T_0=131.529575$ (BKJD)



DV Model-Shift Uniqueness Test

009491205-01, P = 0.955383 Days, E = 130.574331 Days

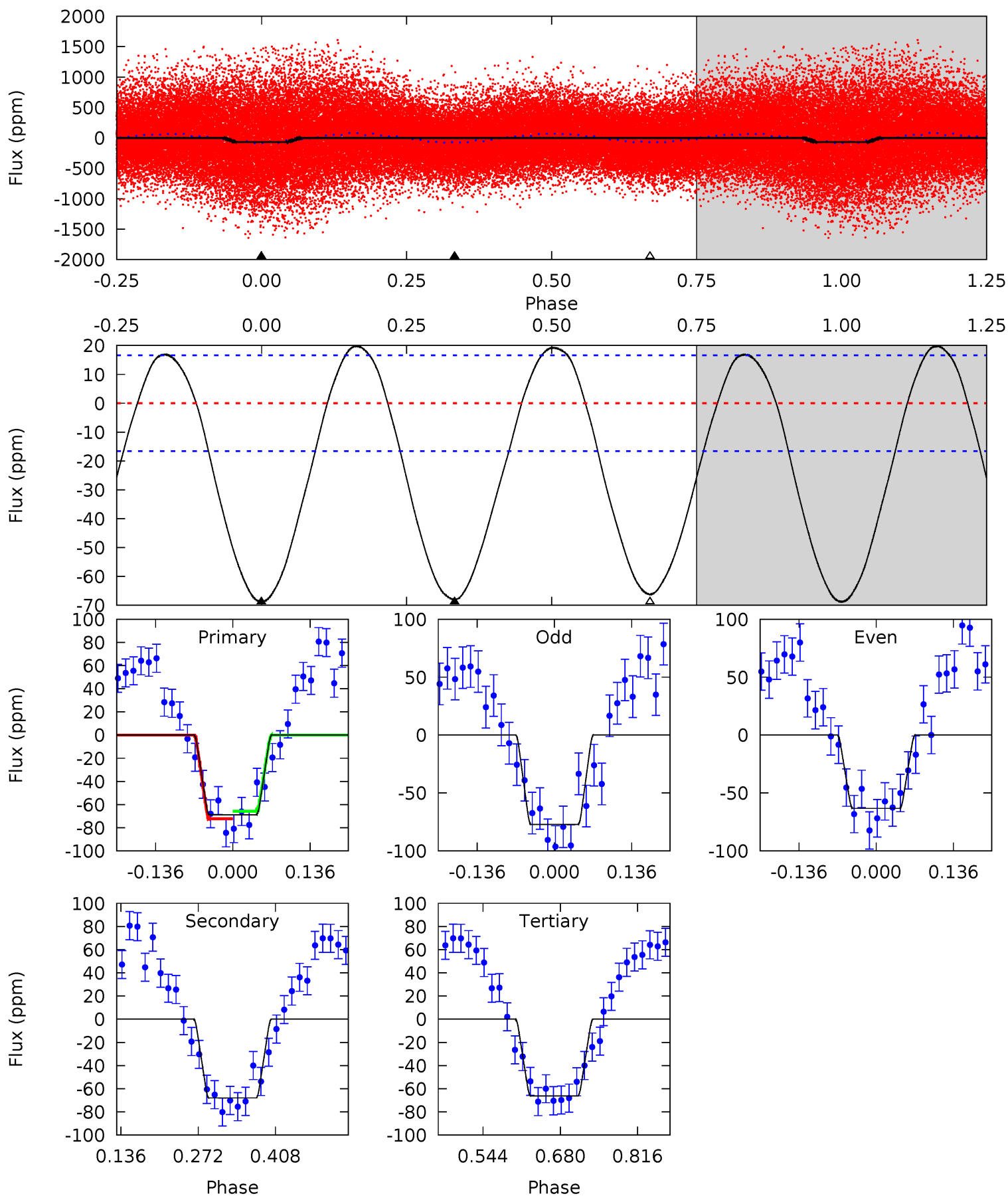
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	12.4	10.2	0	4.43	1.32	15.0	11.7	21.9	2.19	12.4	0.17	1.00	0.59	1.41



Alt Model-Shift Uniqueness Test

009491205-01, P = 0.955383 Days, E = 130.574192 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	18.4	18.0	0	4.50	1.49	8.44	0.70	18.7	0.49	18.4	1.88	1.09	0.22	0.85



Stellar Parameters For KIC 009491205

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6469^{+174}_{-212}	$4.385^{+0.056}_{-0.224}$	$0.070^{+0.250}_{-0.350}$	$1.193^{+0.431}_{-0.144}$	$1.260^{+0.165}_{-0.184}$	$1.047^{+0.314}_{-0.568}$
	+3%/-3%	+1%/-5%	+357%/-500%	+36%/-12%	+13%/-15%	+30%/-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 009491205-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-27 ± 2	$1.18^{+0.27}_{-0.25}$	3120^{+260}_{-161}	5053^{+493}_{-393}	$4.416^{+2.390}_{-1.501}$
Alt.	-68 ± 4	$1.17^{+0.28}_{-0.23}$	3106^{+233}_{-147}	6254^{+722}_{-506}	11^{+6}_{-4}

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 $A_{obs} \gg 1.0$

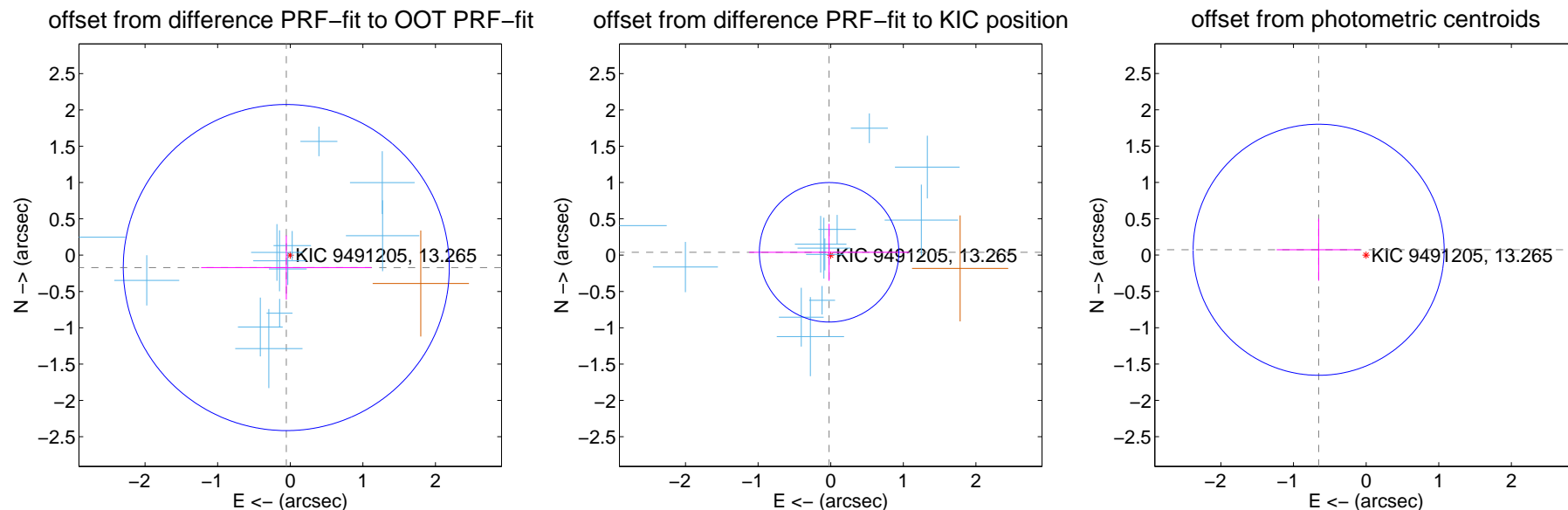
DV Centroid Data

Supplemental centroid analysis for 009491205-01. Kepler magnitude: 13.27. Transit SNR 16.64

There are 12 quarters with good PRF difference image offsets

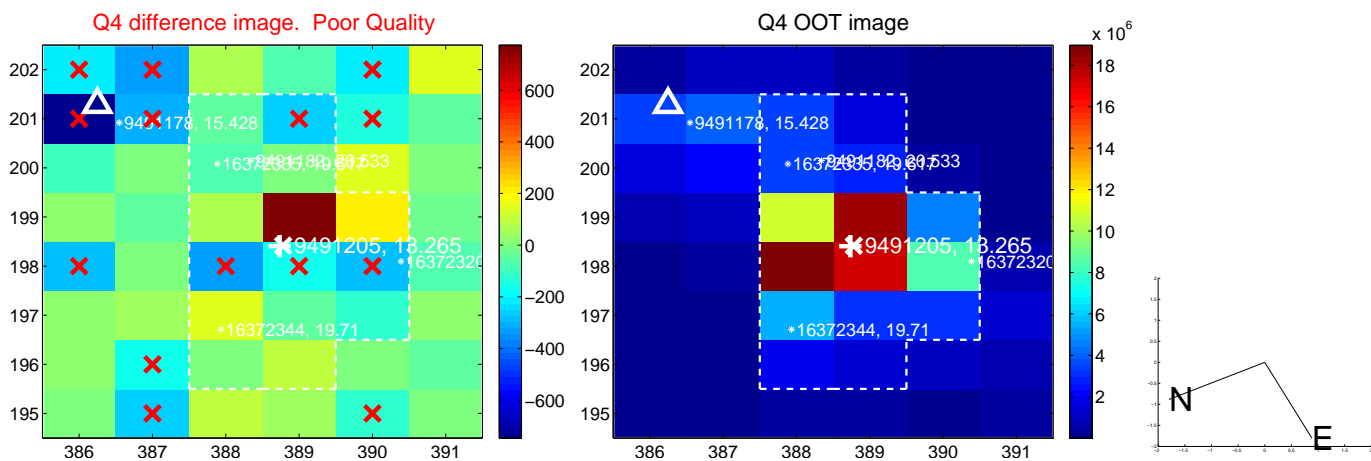
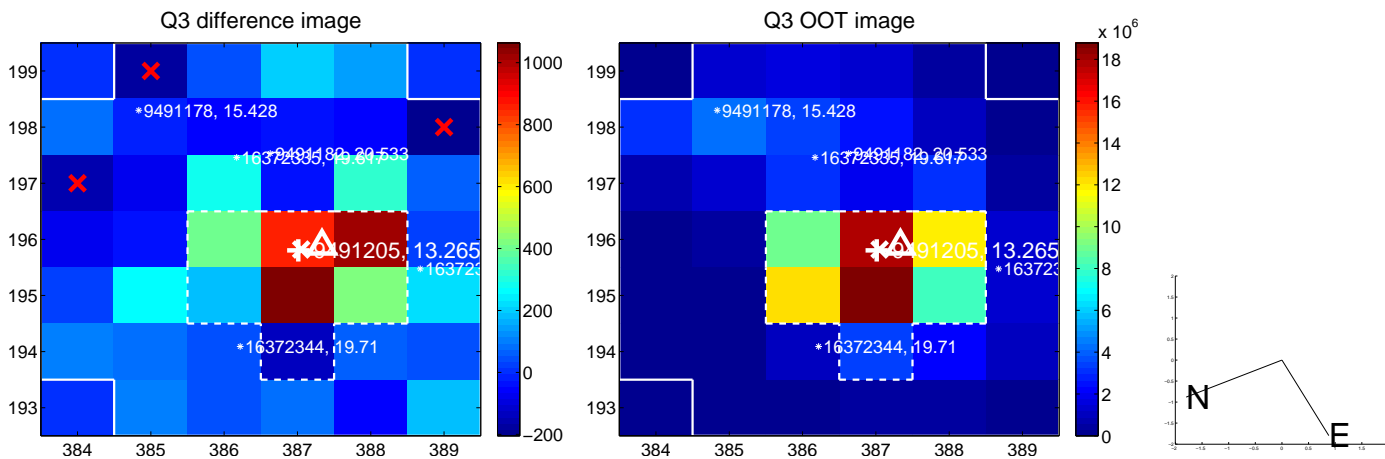
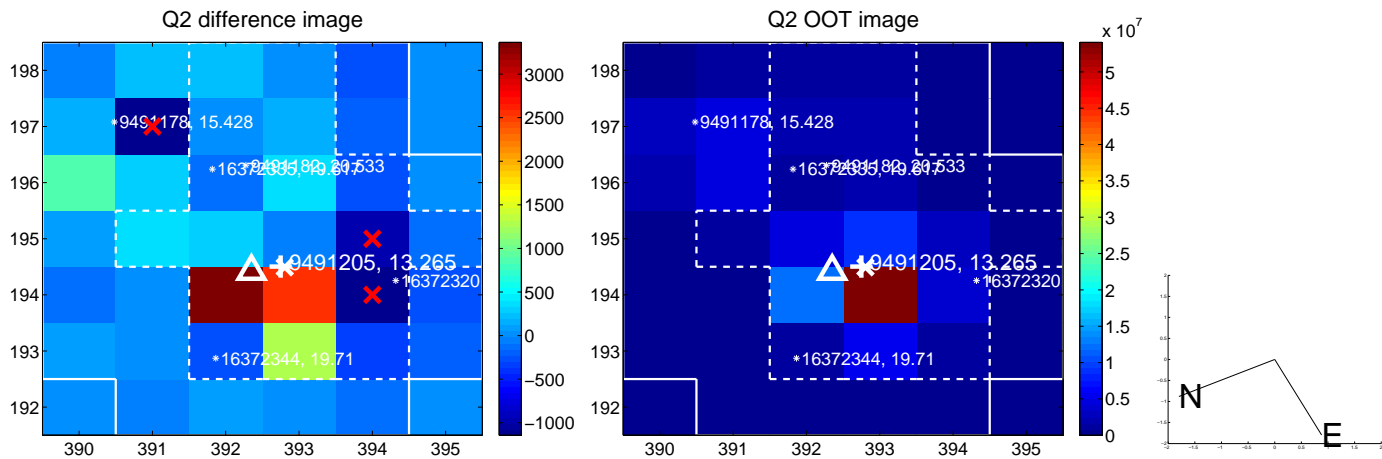
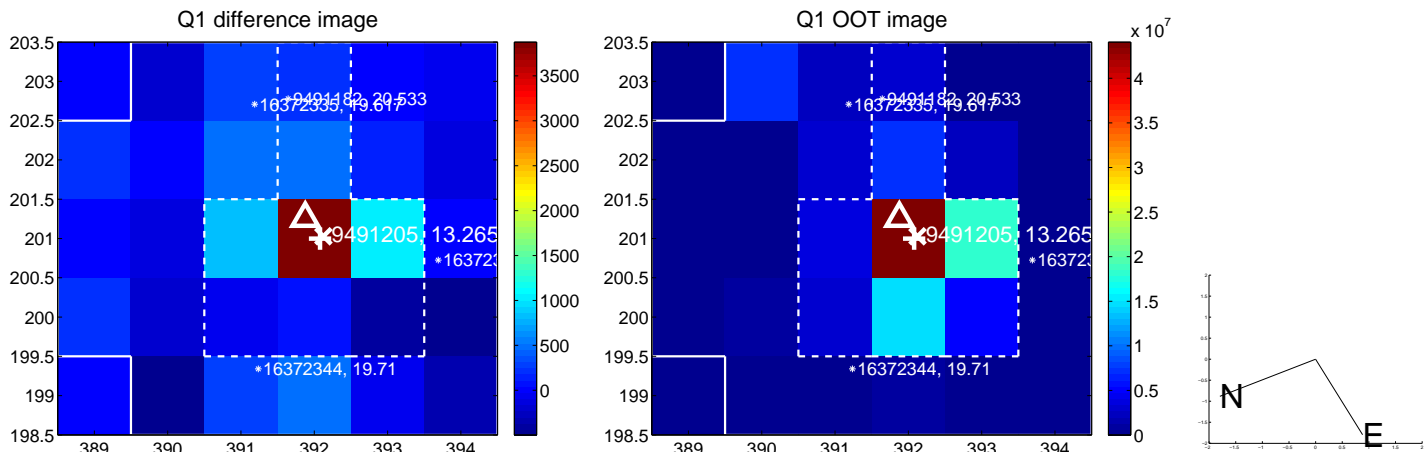
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.748	0.24	0.055 ± 1.172	-0.171 ± 0.441
PRF-fit source offset from KIC position	0.045 ± 0.320	0.14	0.022 ± 1.100	0.039 ± 0.392
photometric centroid source offset	0.66 ± 0.58	1.14	0.65 ± 0.58	0.07 ± 0.43

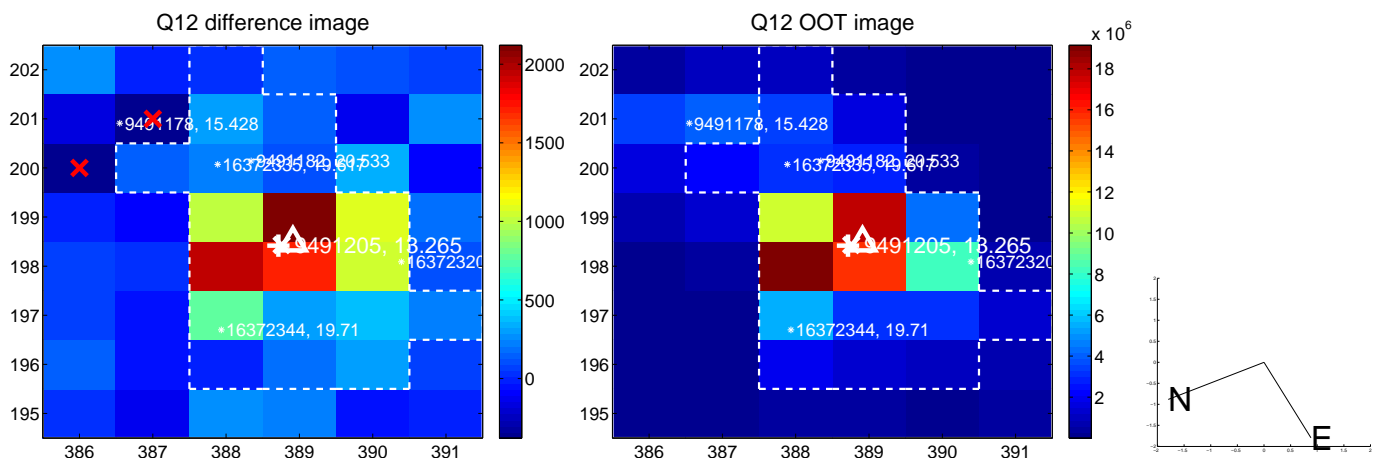
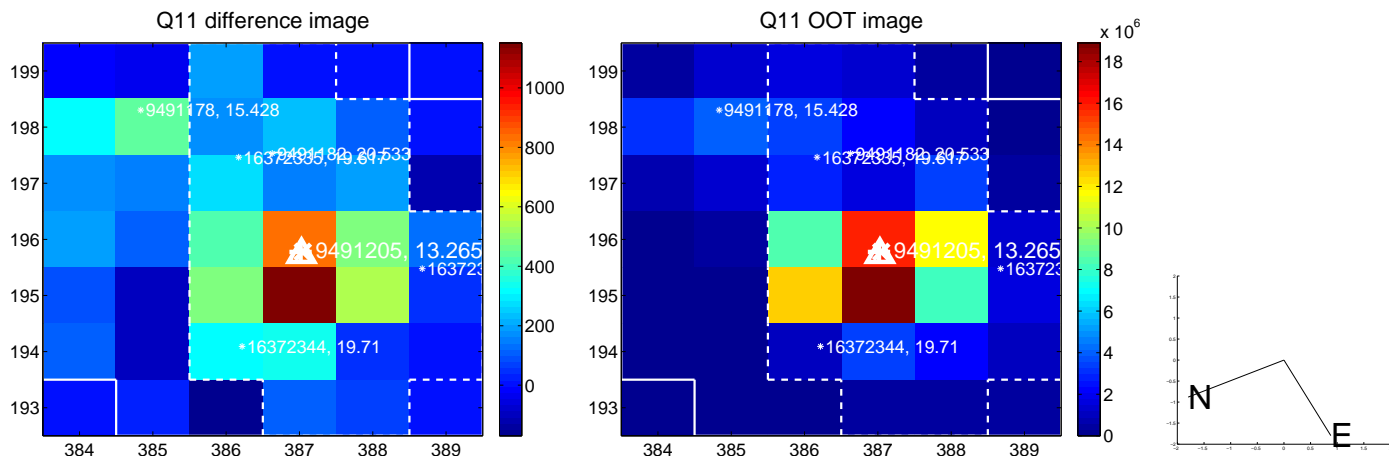
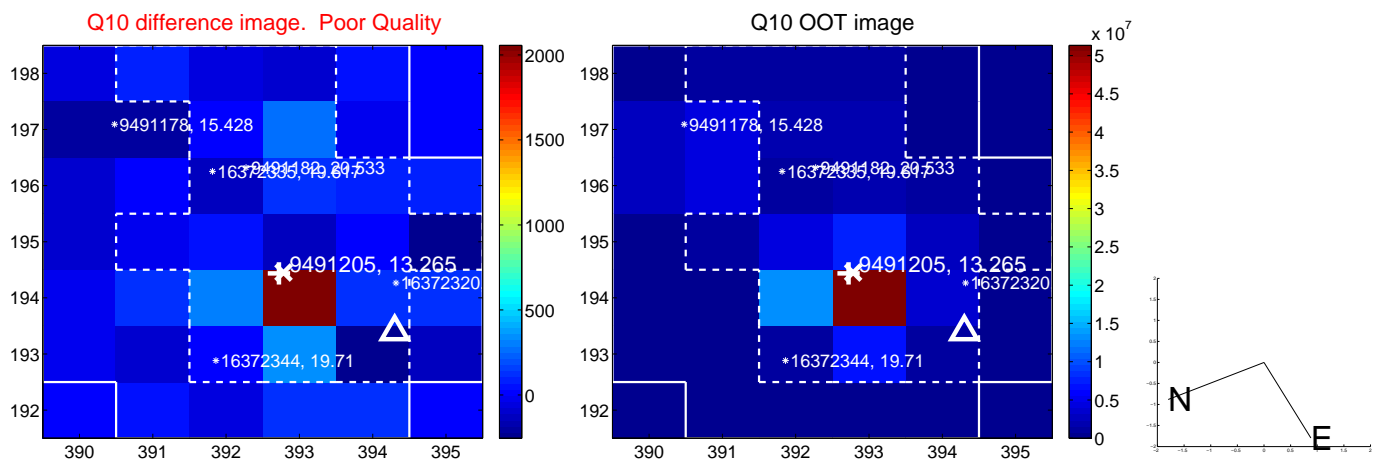
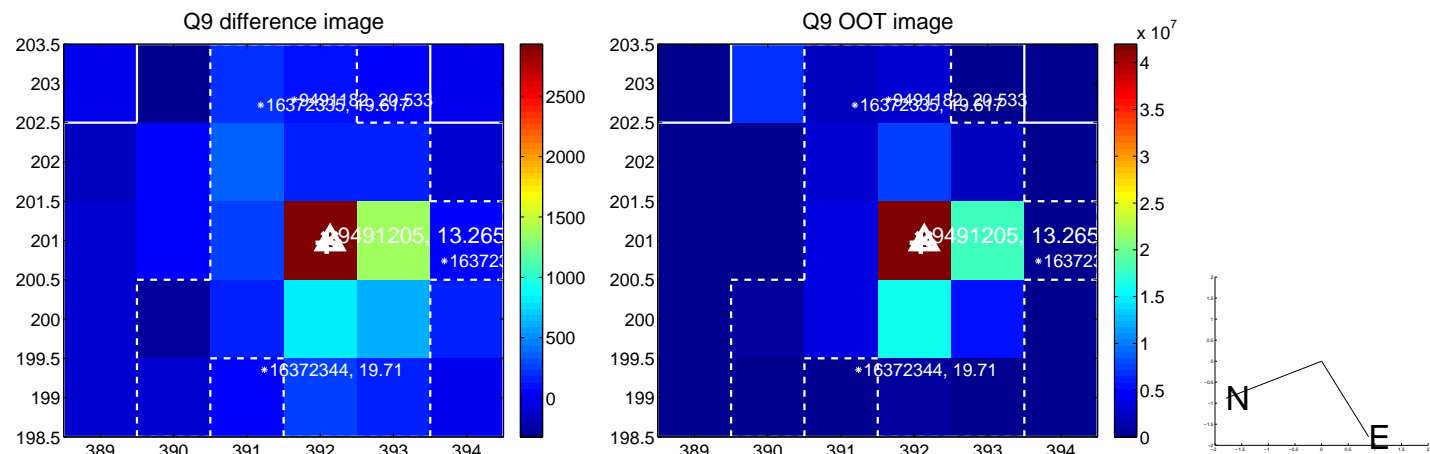


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

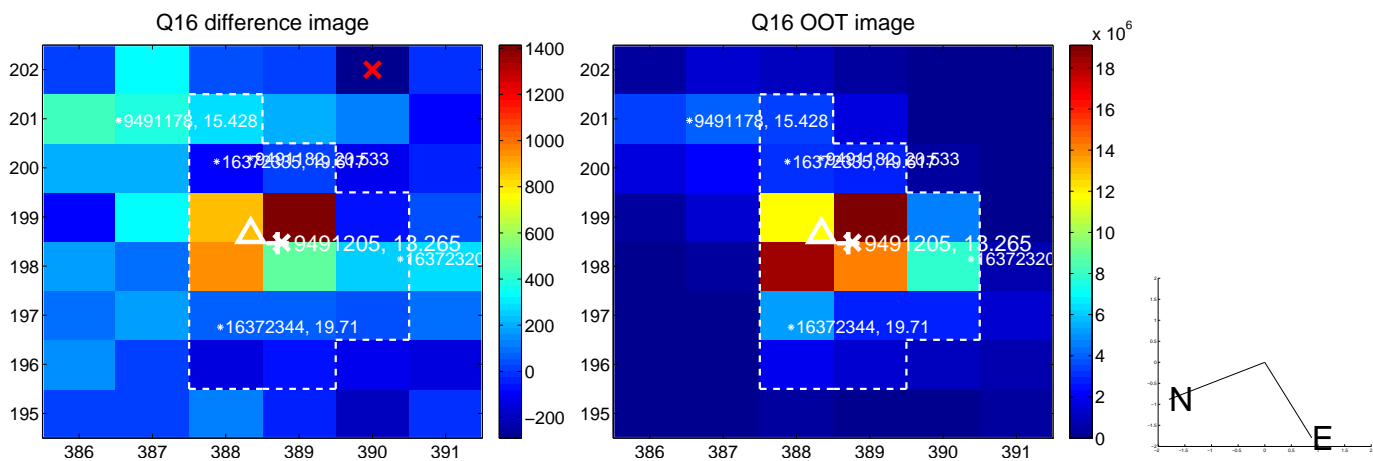
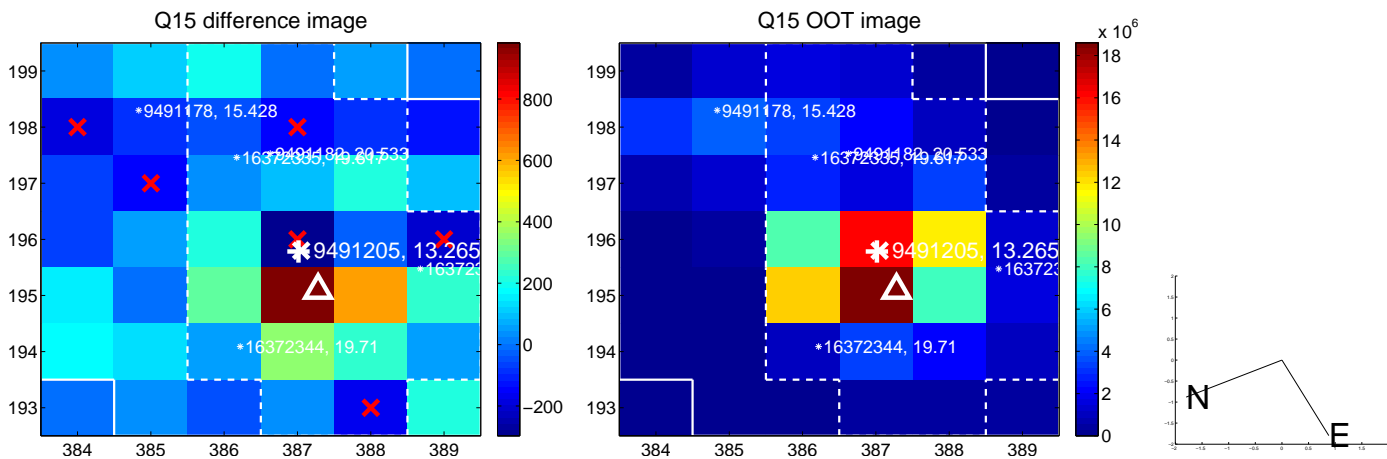
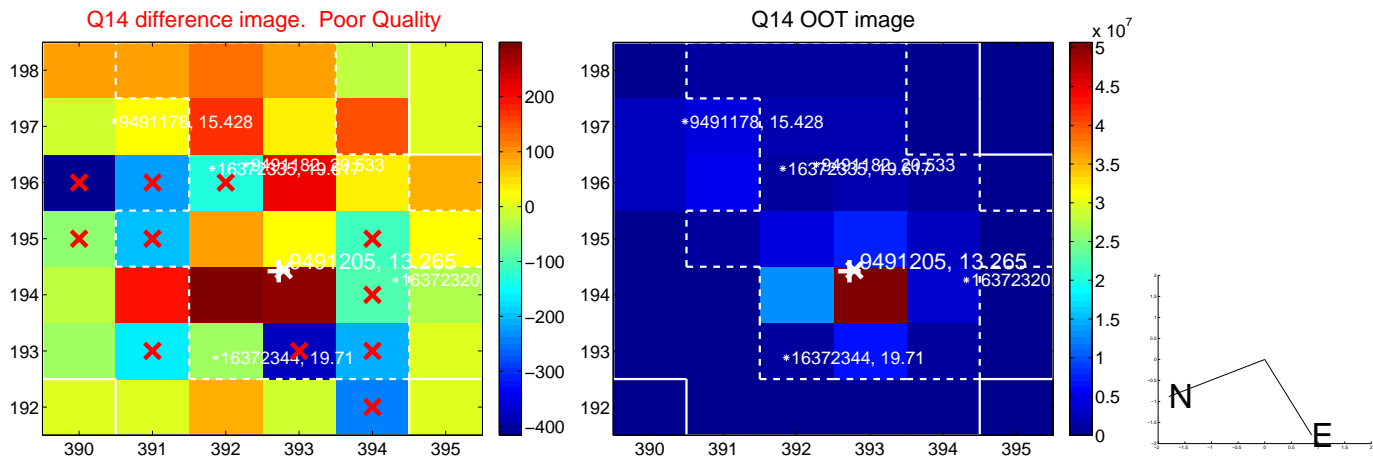
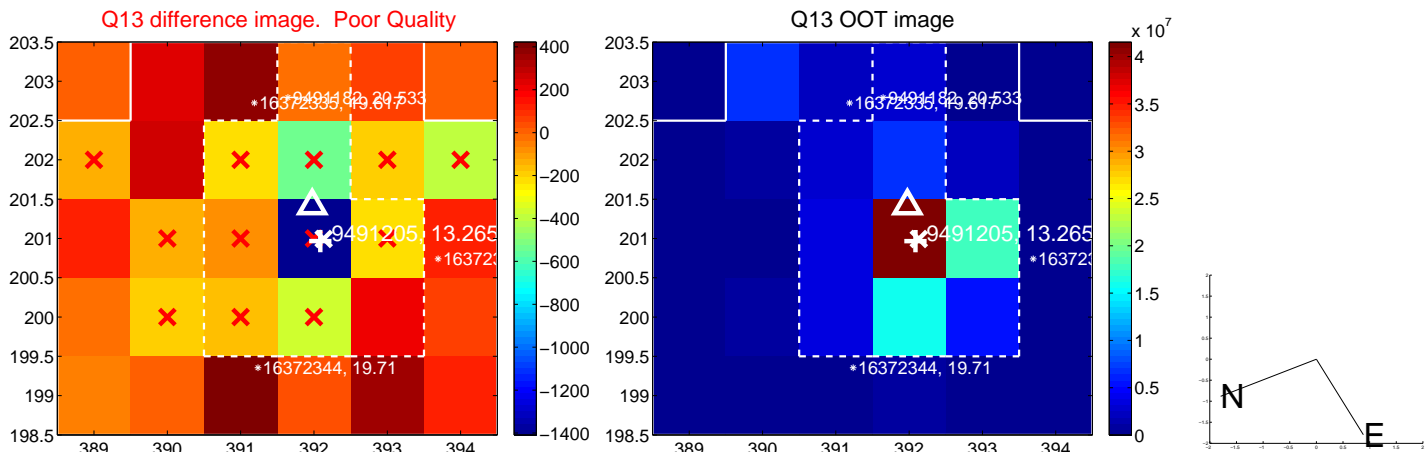
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



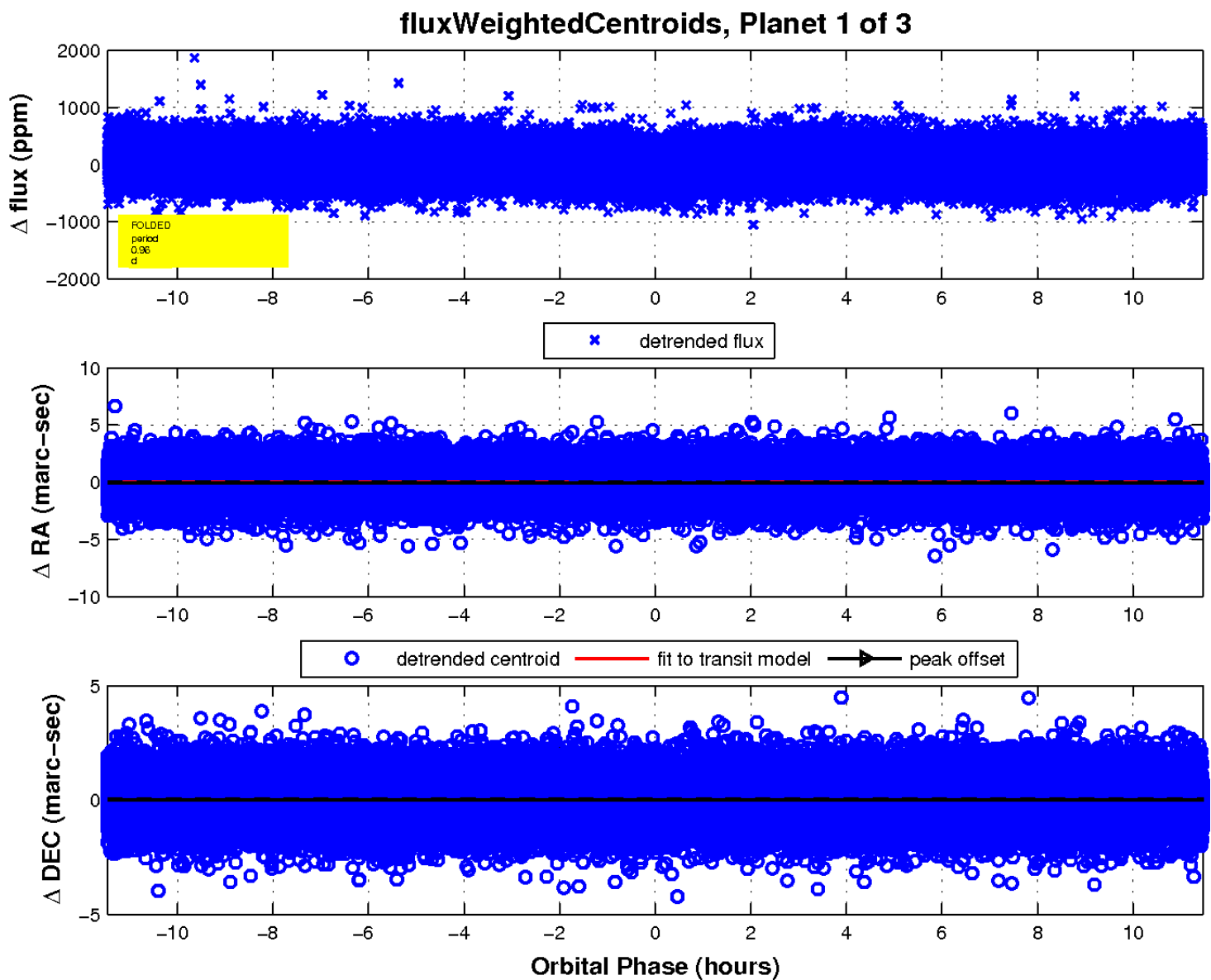
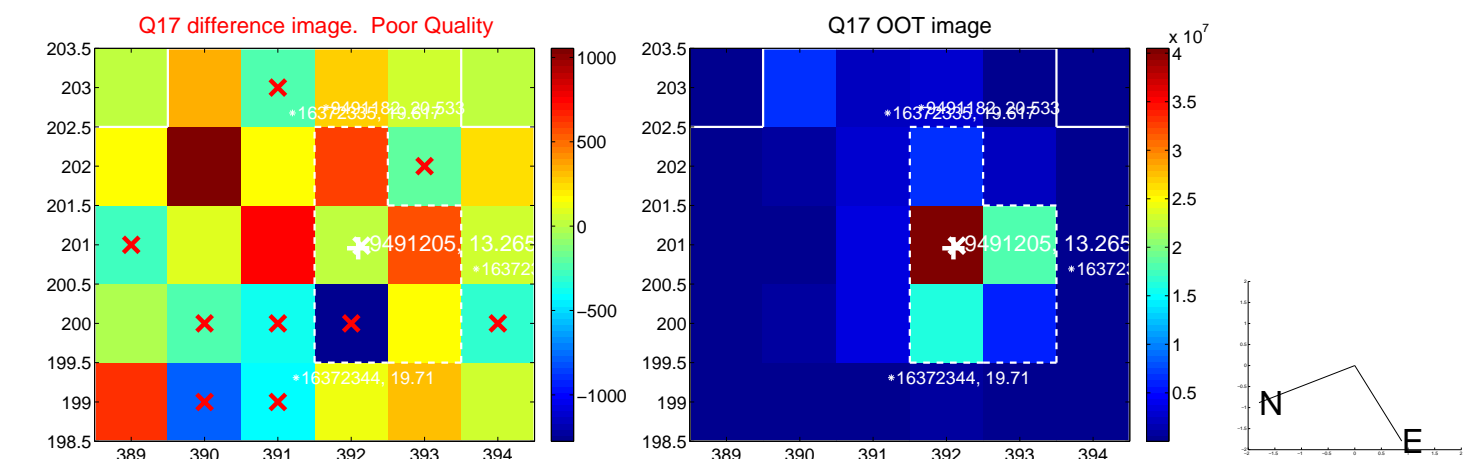
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

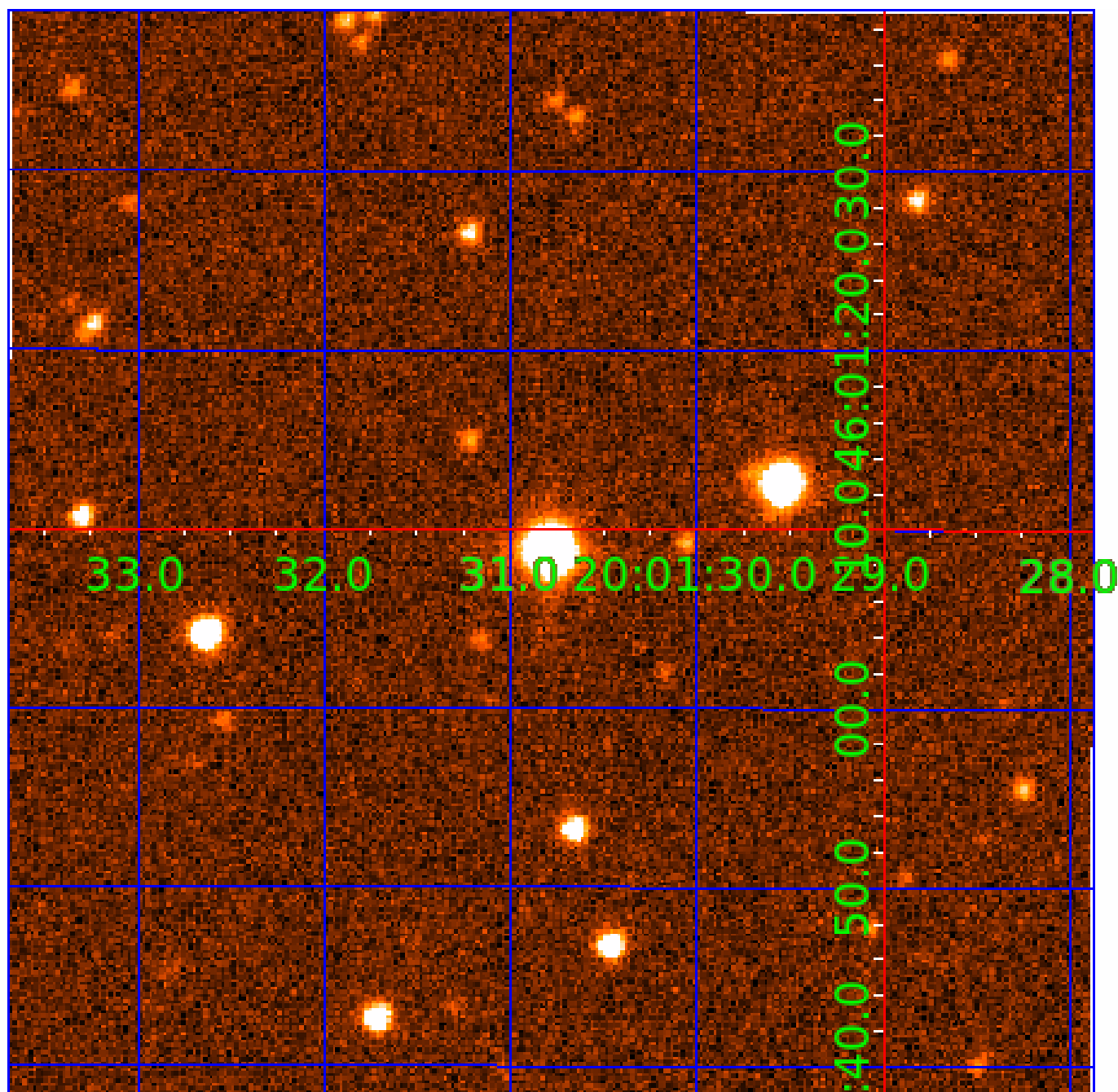


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009491205

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})
009491205-01	OBS	No	0.955383	131.529714	63.1	3.835	13.8	16.6	1.19	6469	1.11	5310.07
009491205-02	OBS	No	0.955405	132.147127	53.8	3.304	13.4	14.8	1.19	6469	1.02	5309.90
009491205-03	OBS	No	0.955359	131.848693	43.1	2.851	13.7	13.2	1.19	6469	0.79	5310.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009491205-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009491205-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009491205-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD

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

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

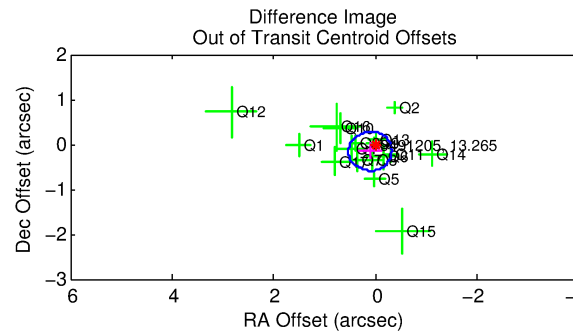
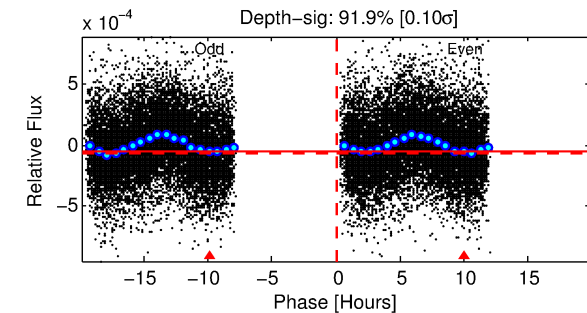
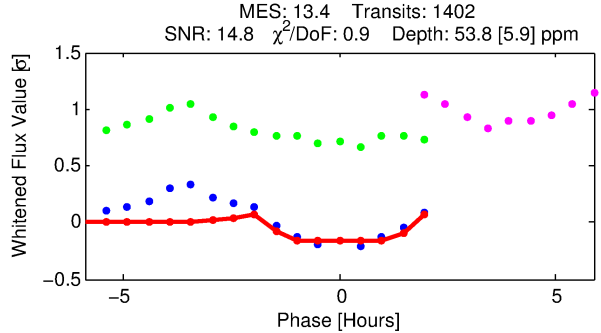
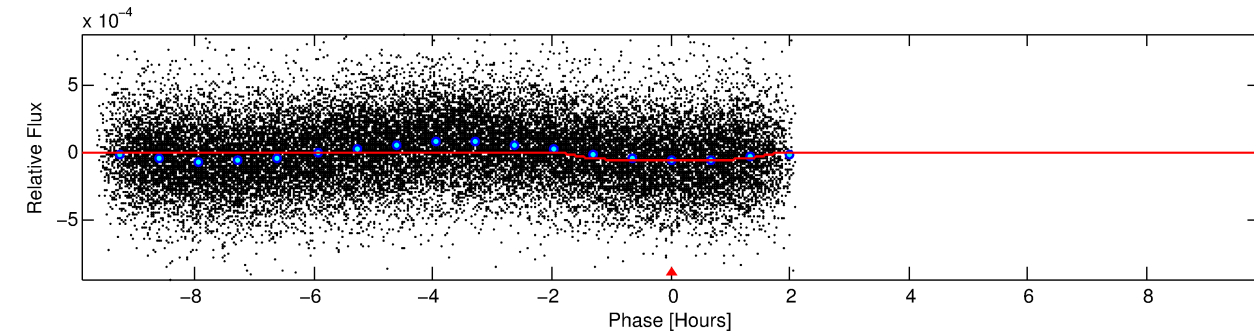
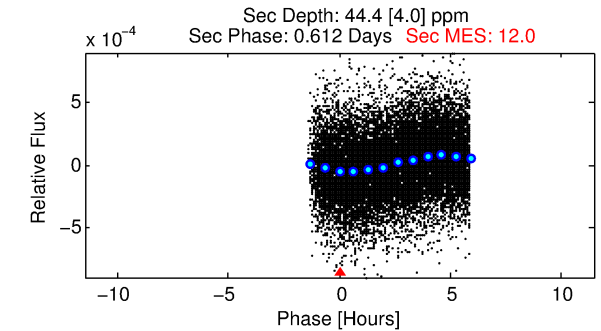
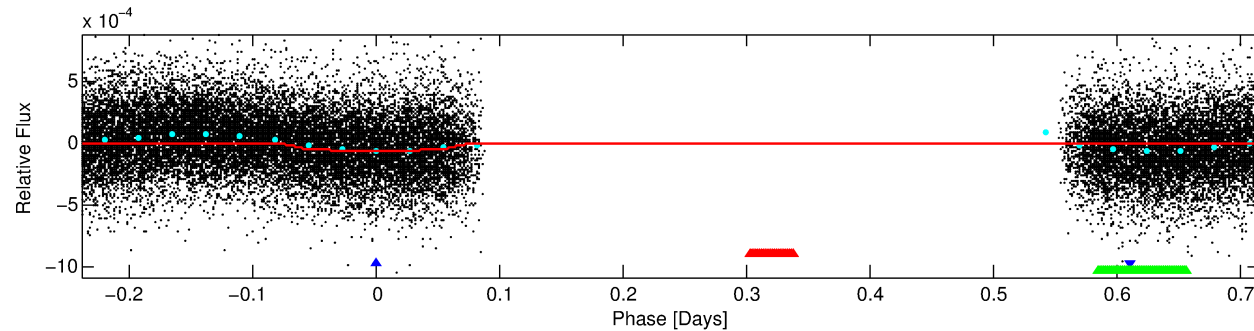
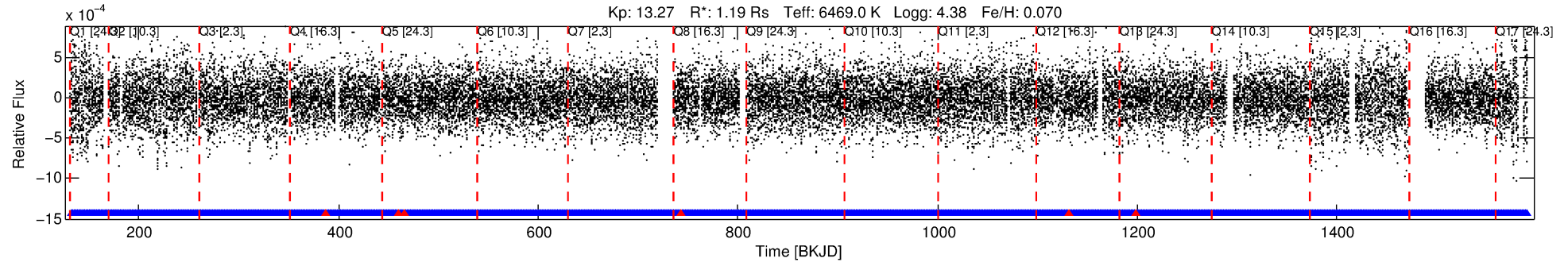
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009491205-02

No Significant Match Found

DV One-Page Summary

KIC: 9491205 Candidate: 2 of 3 Period: 0.955 d



DV Fit Results:

Period = 0.95541 [0.00001] d
Epoch = 132.1471 [0.0023] BKJD
Rp/R* = 0.0079 [0.0022]
a/R* = 1.38 [1.00]
b = 0.90 [0.33]
Seff = 5309.90 [2335.31]
Teq = 2177 [239] K
Rp = 1.02 [0.47] Re
a = 0.0205 [0.0061] AU
Ag = 9.81 [6.91] [1.27σ]
Teffp = 5956 [864] K [4.21σ]

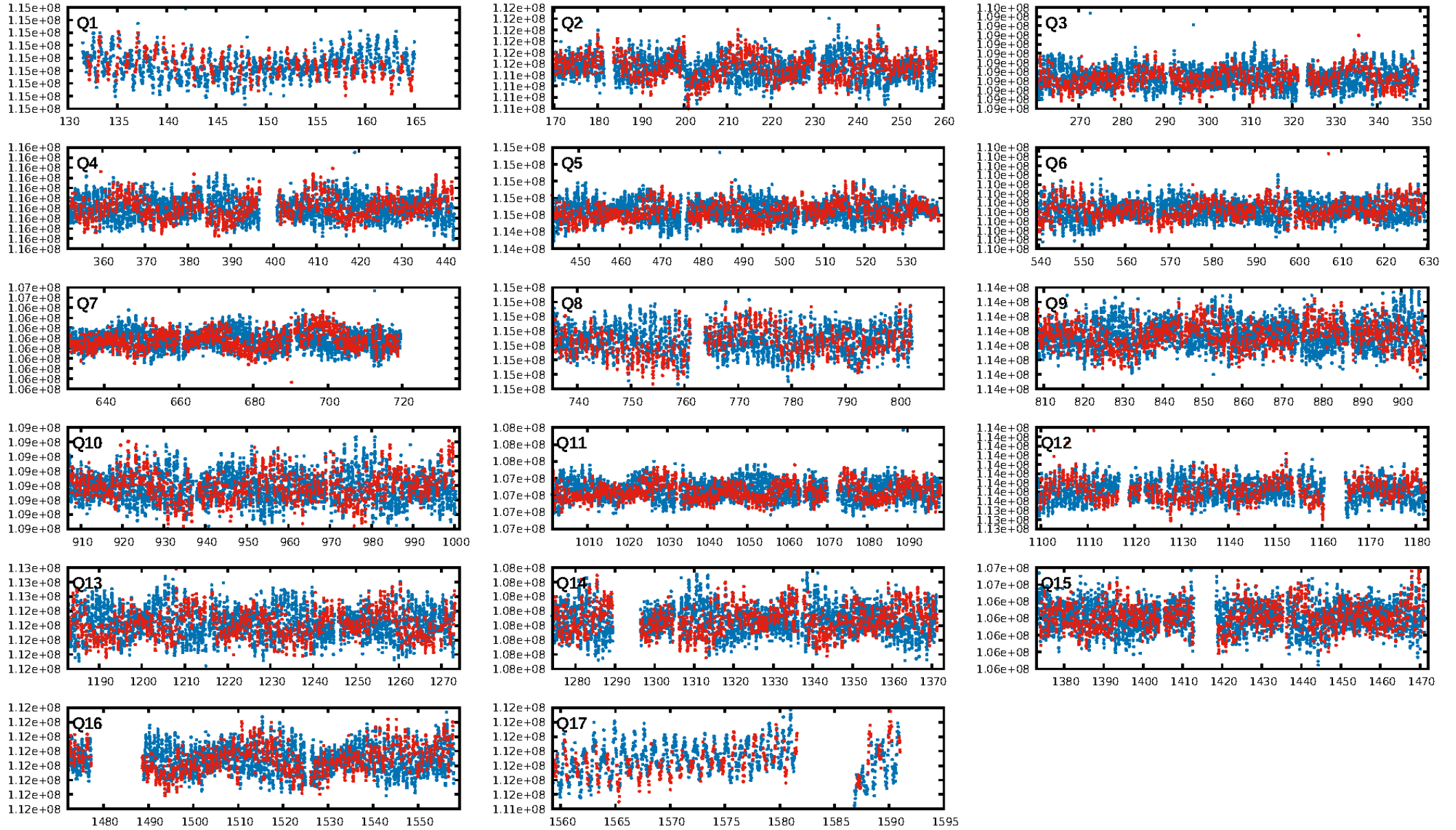
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1332/1338]
GhostDiagnostic-chr: 3.668
Centroid-sig: 0.0%
Centroid-so: 2.058 arcsec [2.86σ]
OotOffset-rm: 0.189 arcsec [1.32σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.097 arcsec [0.42σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

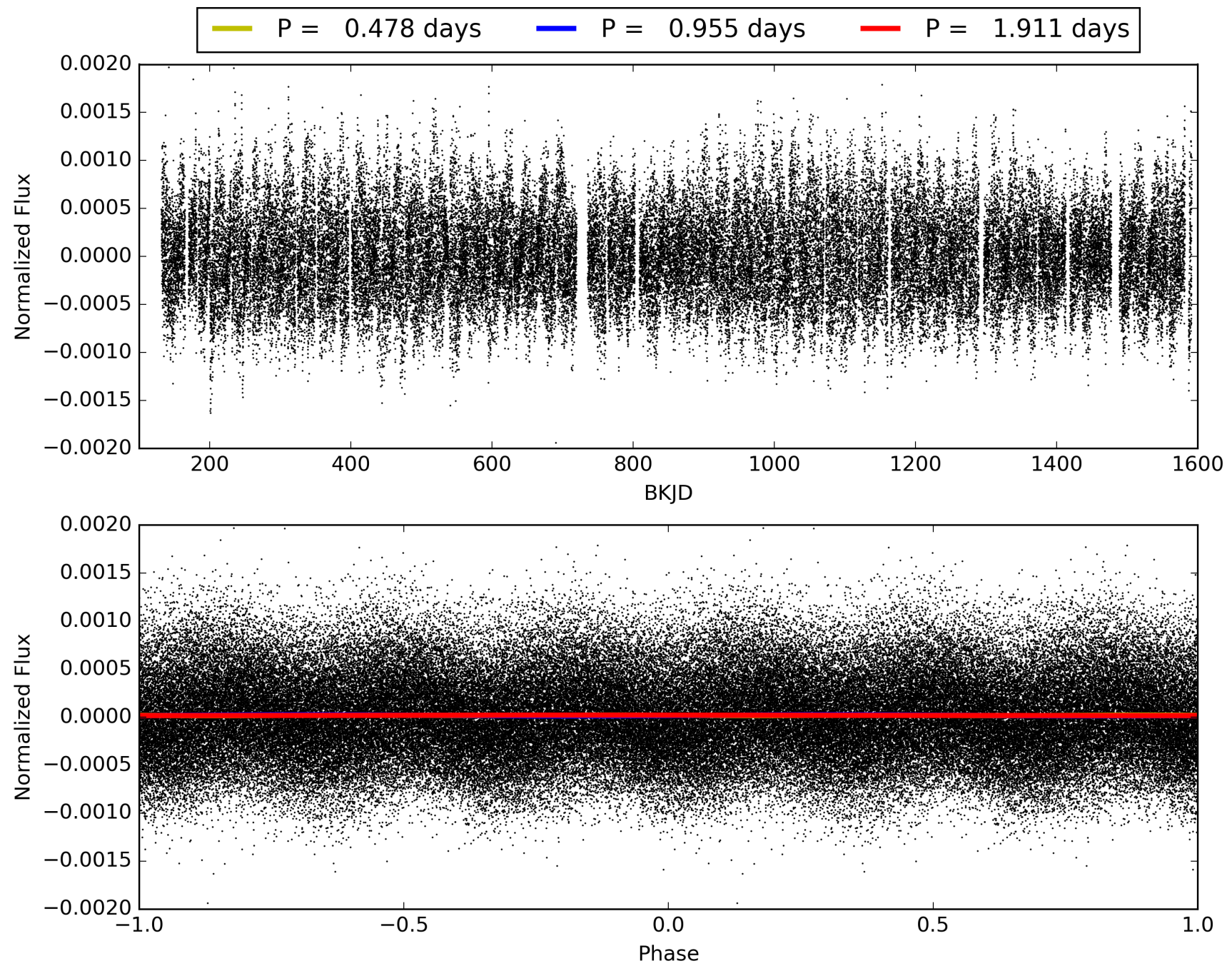
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:22:31 Z

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

TCE 009491205-02, PDC Light Curves

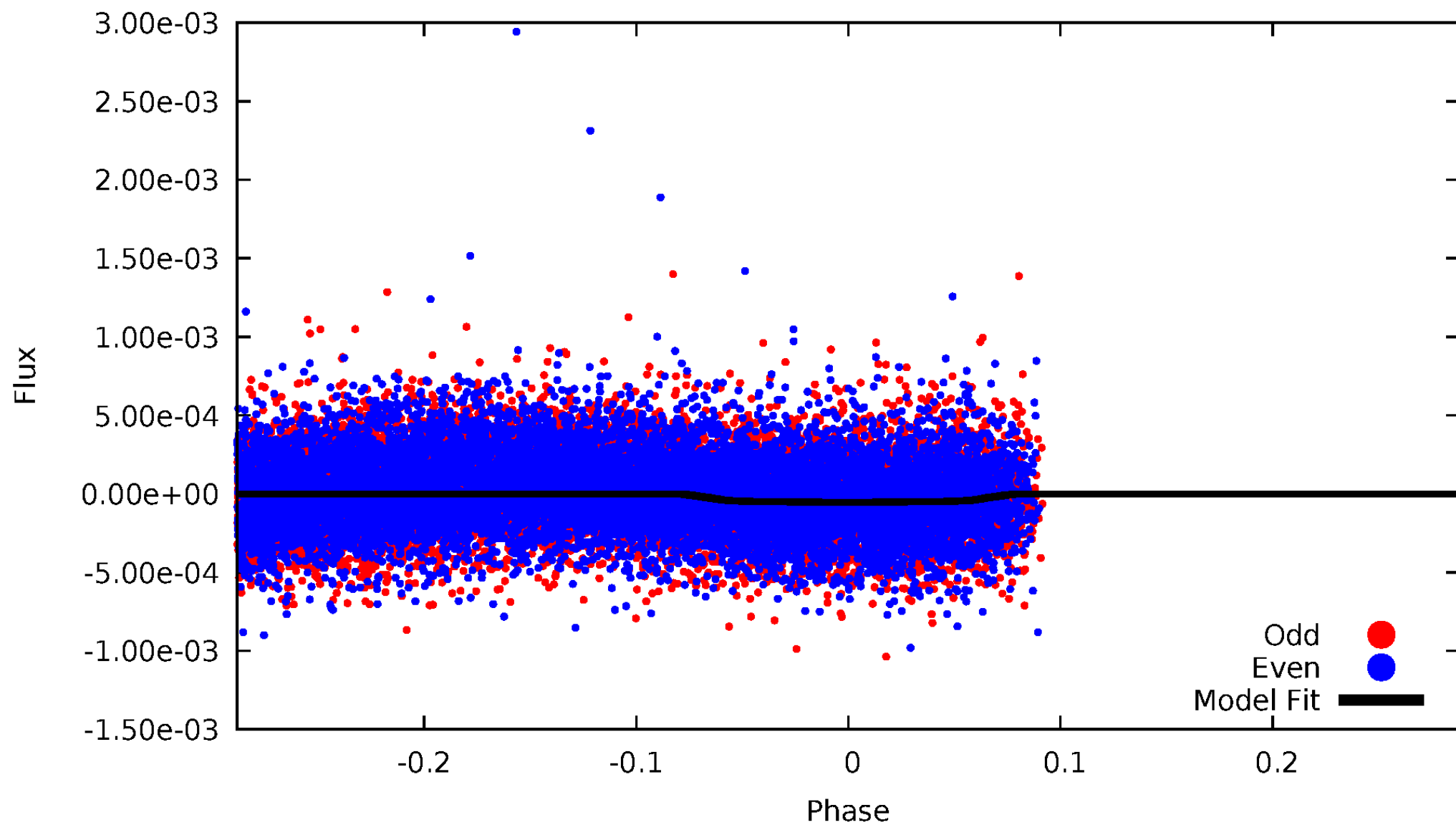


TCE 009491205-02



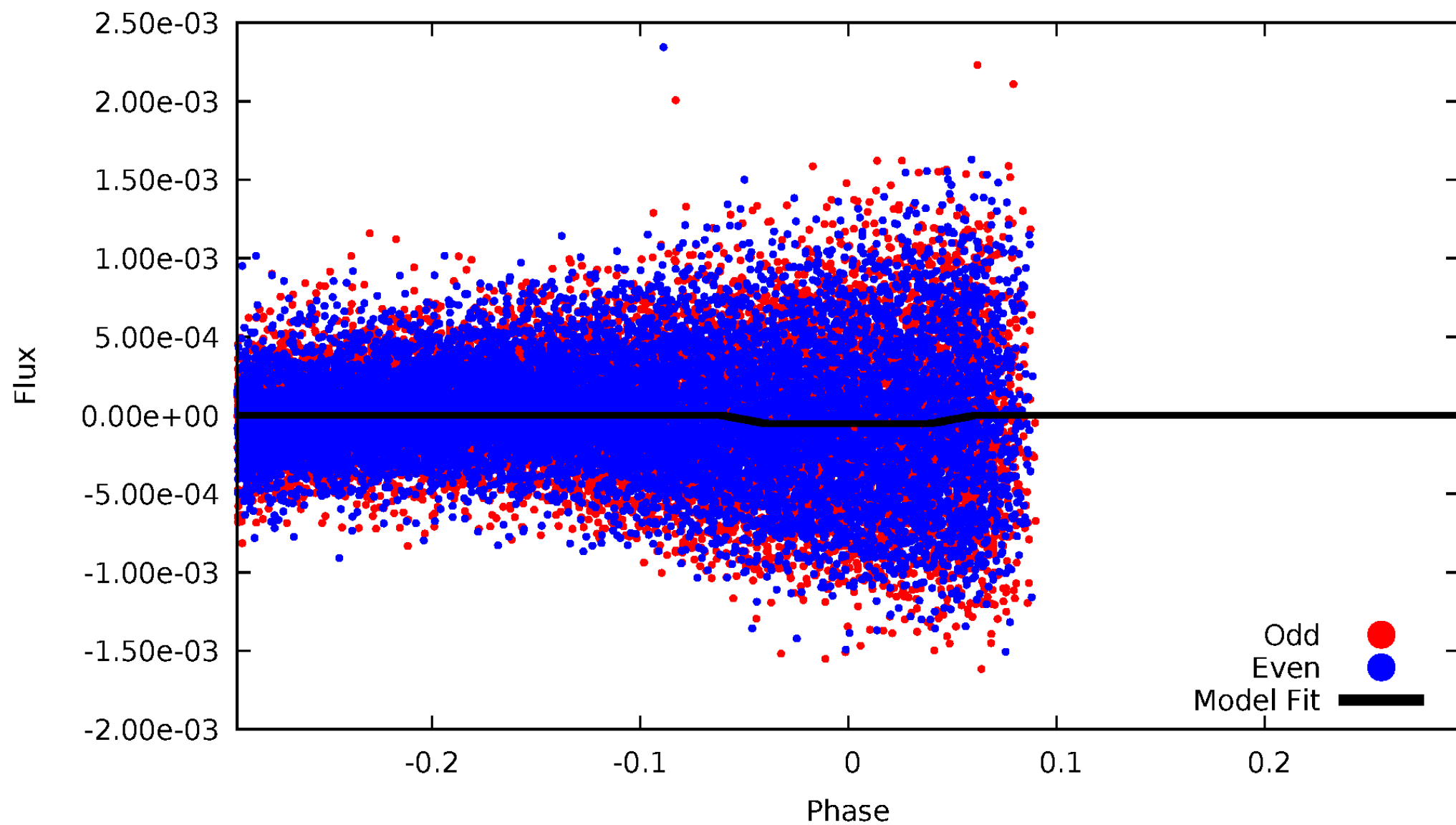
DV Odd/Even

TCE 009491205-02



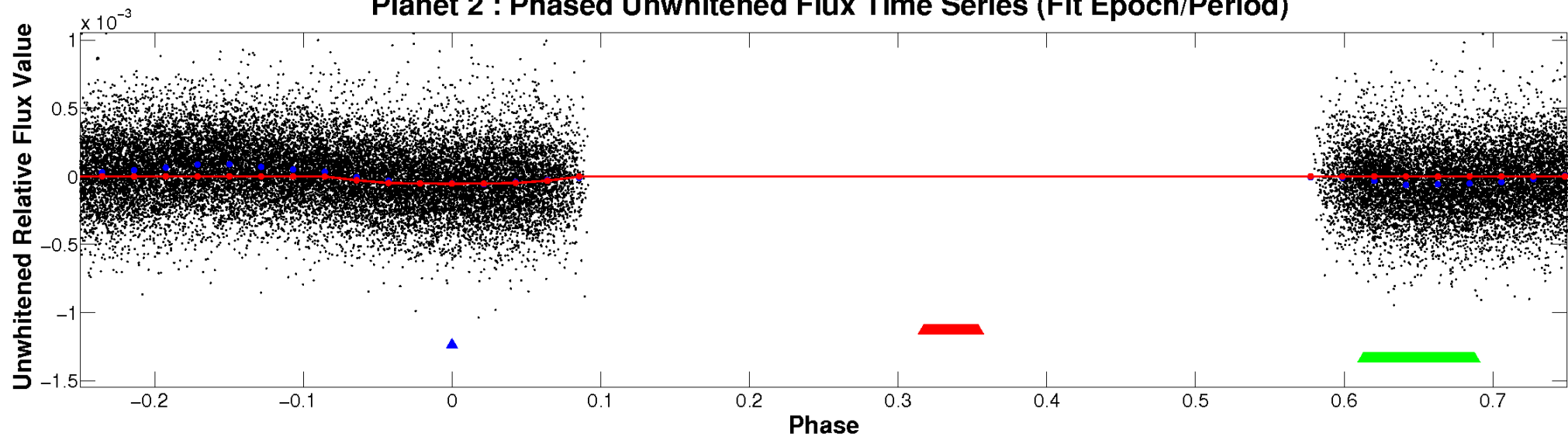
ALT Odd/Even

TCE 009491205-02

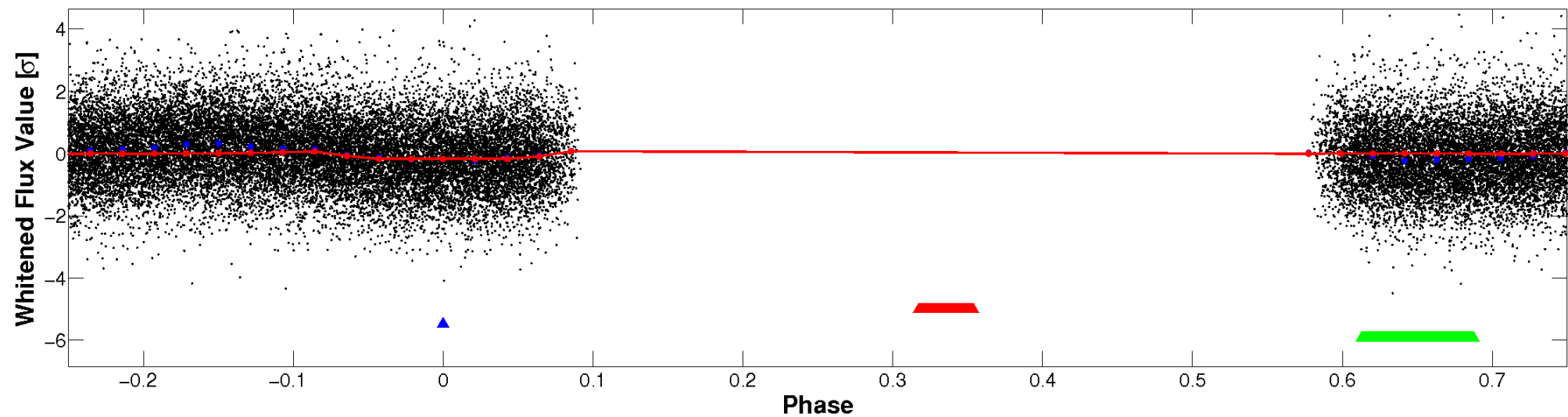


Non-Whitened Vs. Whitened Light Curve

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

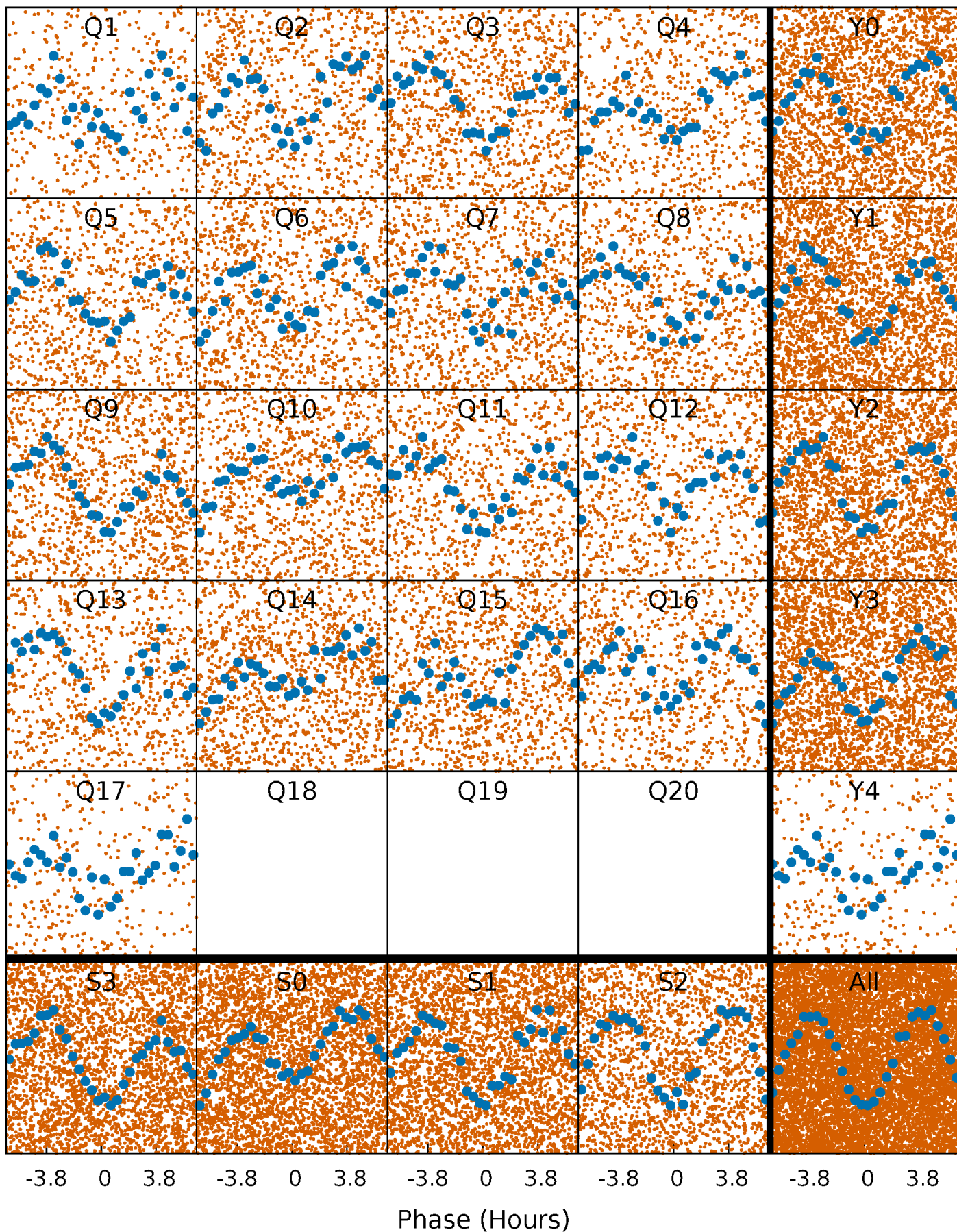


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



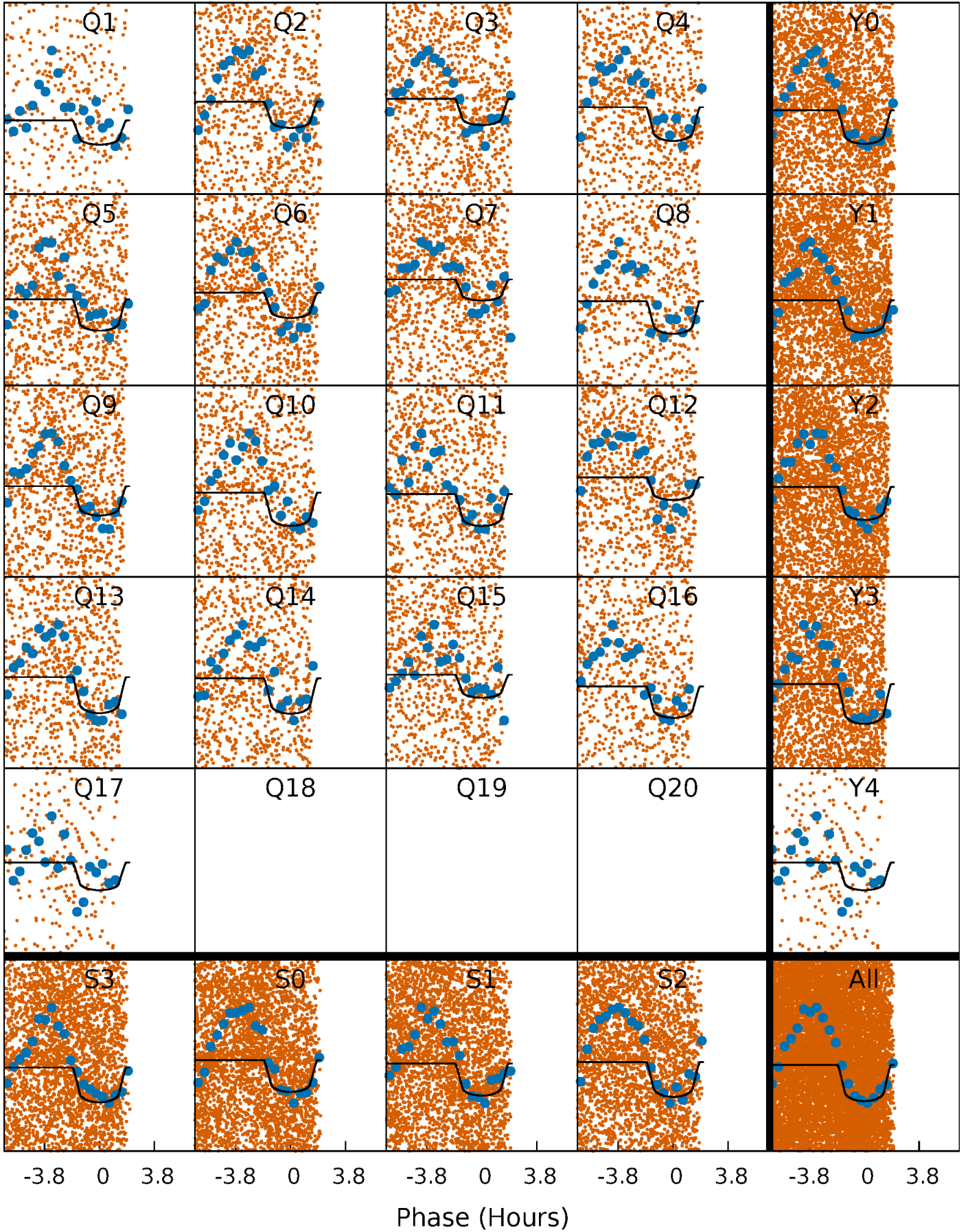
PDC Quarter-Phased Transit Curves

TCE 009491205-02 P= 0.955405 Days $T_0=132.147127$ (BKJD)



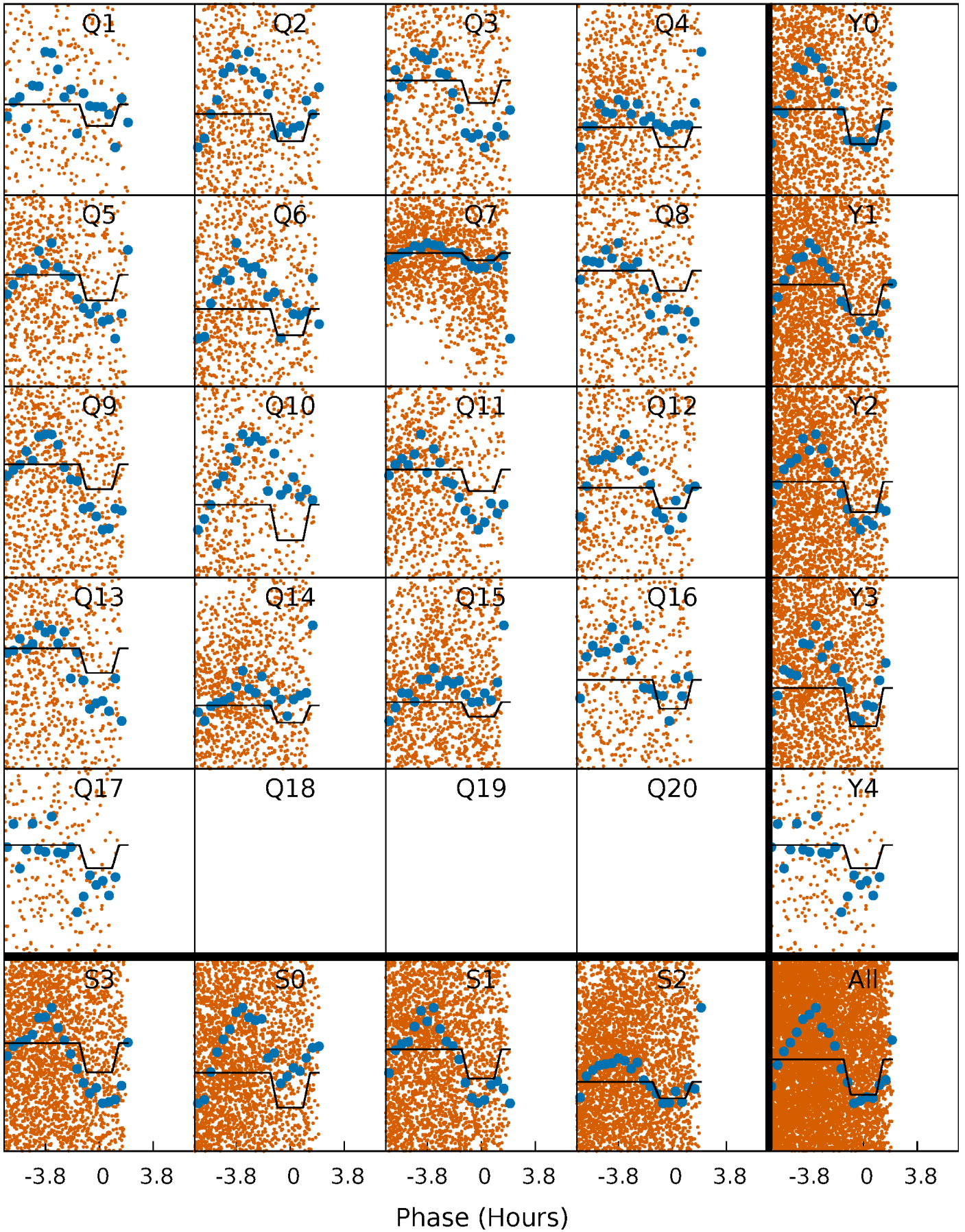
DV Quarter-Phased Transit Curves

TCE 009491205-02 P= 0.955405 Days $T_0=132.147127$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

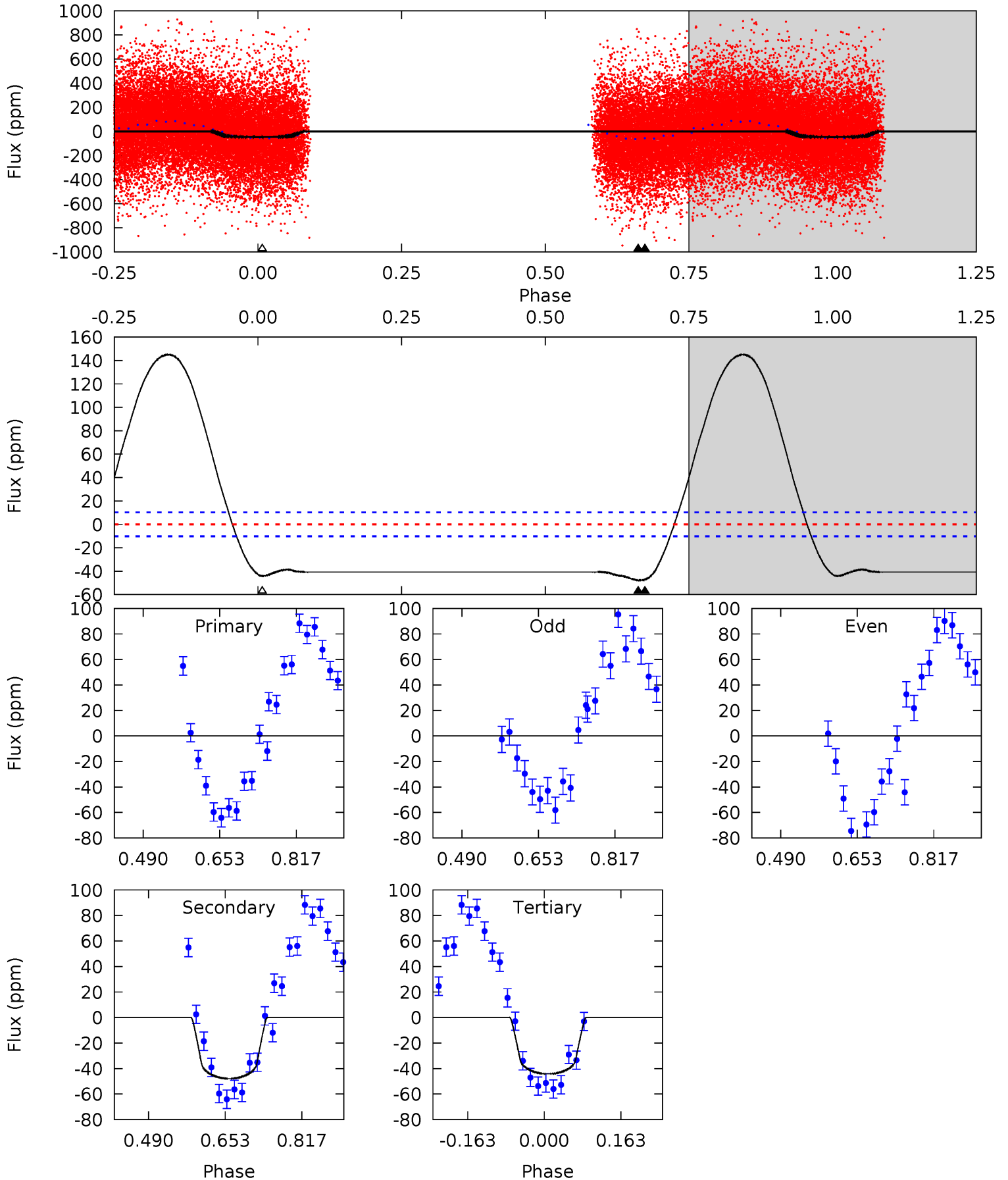
TCE 009491205-02 P= 0.955404 Days $T_0=132.148497$ (BKJD)



DV Model-Shift Uniqueness Test

009491205-02, P = 0.955405 Days, E = 131.191722 Days

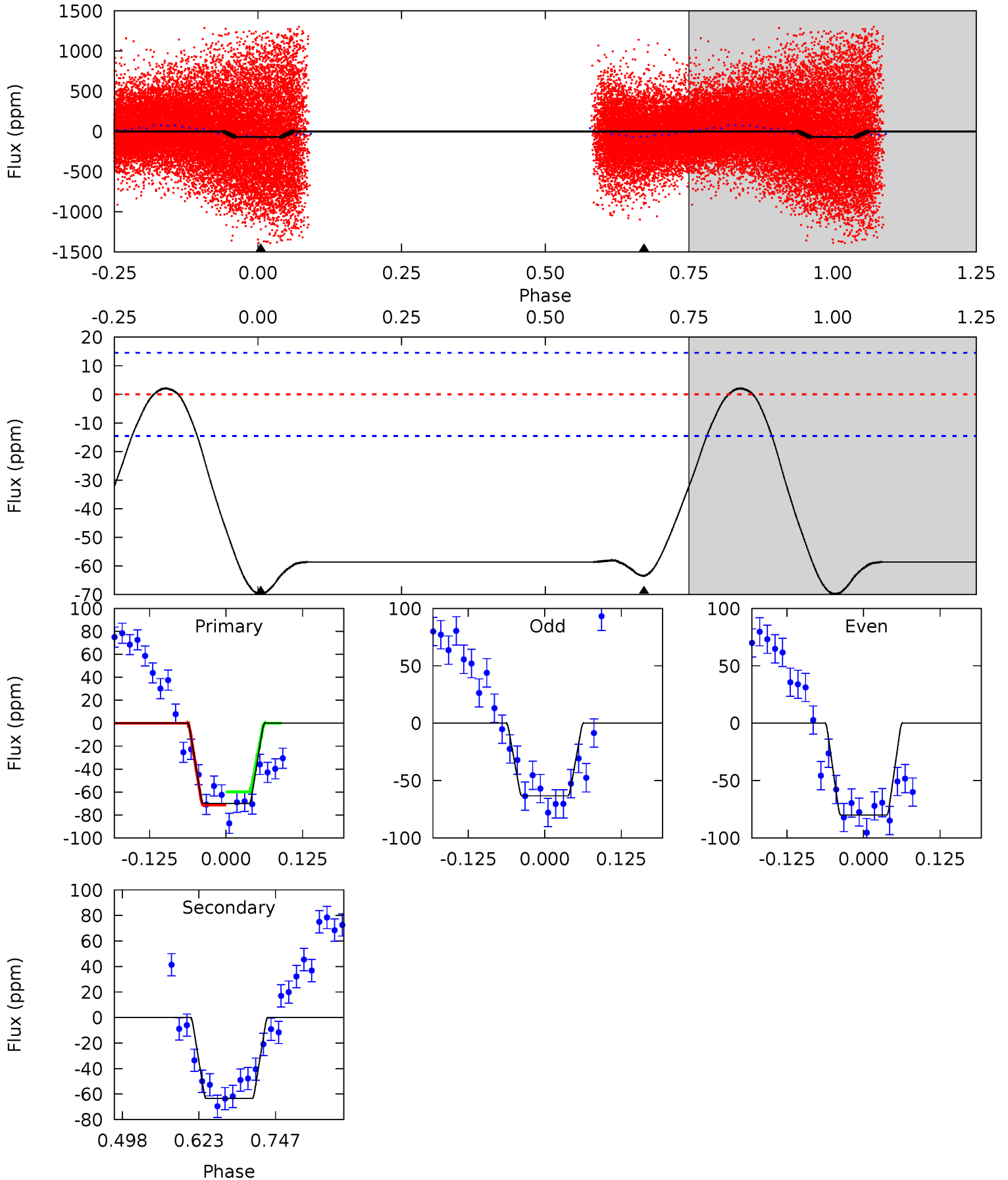
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	20.8	19.2	0	4.46	1.39	31.2	1.26	20.4	1.59	20.8	0.46	0.92	0.75	2.04



Alt Model-Shift Uniqueness Test

009491205-02, P = 0.955404 Days, E = 131.193093 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	19.7	0	0	4.52	1.54	0.86	21.7	21.7	19.7	19.7	2.59	0.72	0.03	1.08



Stellar Parameters For KIC 009491205

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6469^{+174}_{-212}	$4.385^{+0.056}_{-0.224}$	$0.070^{+0.250}_{-0.350}$	$1.193^{+0.431}_{-0.144}$	$1.260^{+0.165}_{-0.184}$	$1.047^{+0.314}_{-0.568}$
	+3%/-3%	+1%/-5%	+357%/-500%	+36%/-12%	+13%/-15%	+30%/-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 009491205-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-48 ± 2	$1.07^{+0.35}_{-0.32}$	3109^{+237}_{-145}	6001^{+1187}_{-703}	$9.386^{+9.632}_{-4.043}$
Alt.	-63 ± 3	$1.00^{+0.35}_{-0.31}$	3127^{+233}_{-165}	6765^{+1624}_{-902}	14^{+16}_{-6}

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 $A_{obs} \gg 1.0$

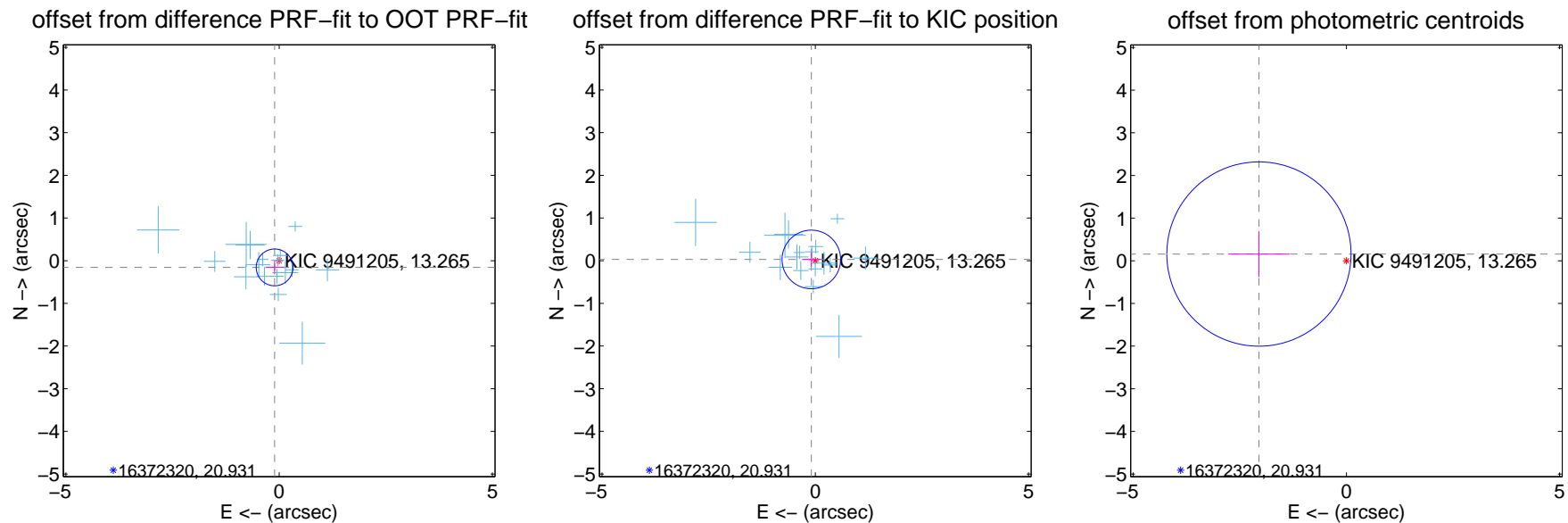
DV Centroid Data

Supplemental centroid analysis for 009491205-02. Kepler magnitude: 13.27. Transit SNR 14.80

There are 17 quarters with good PRF difference image offsets

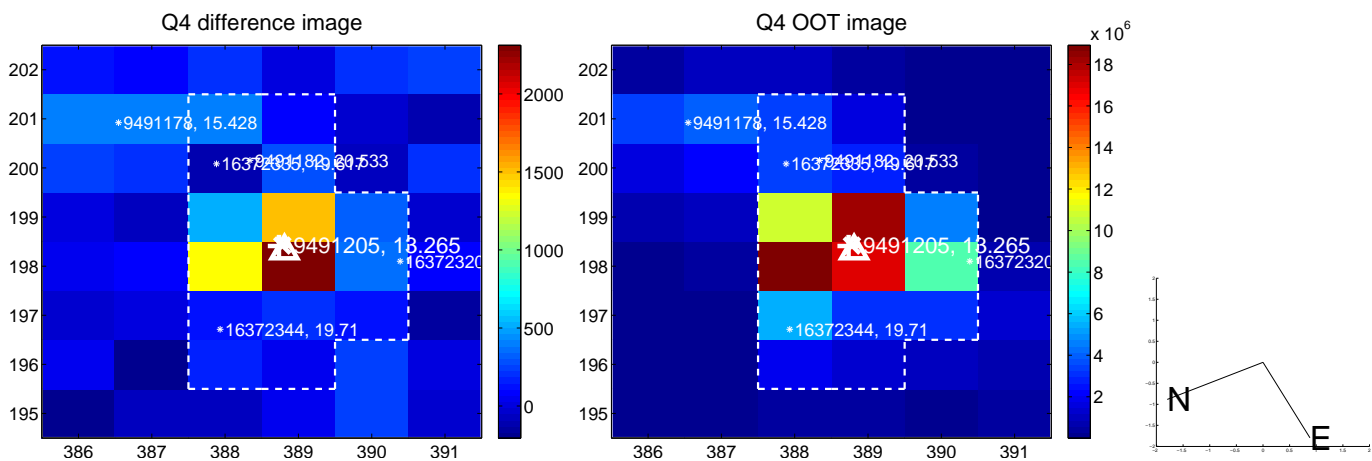
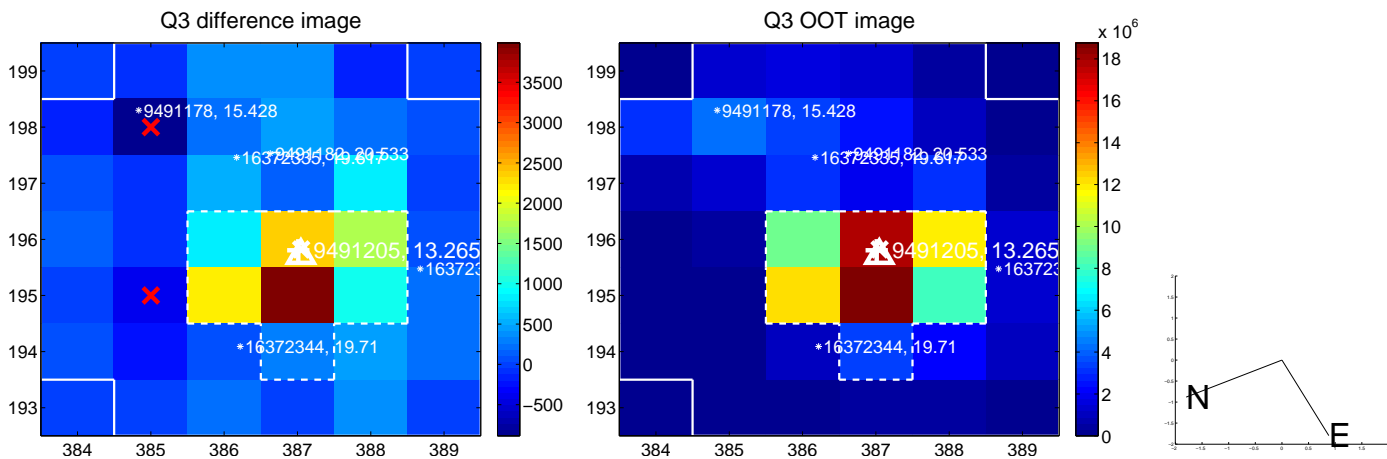
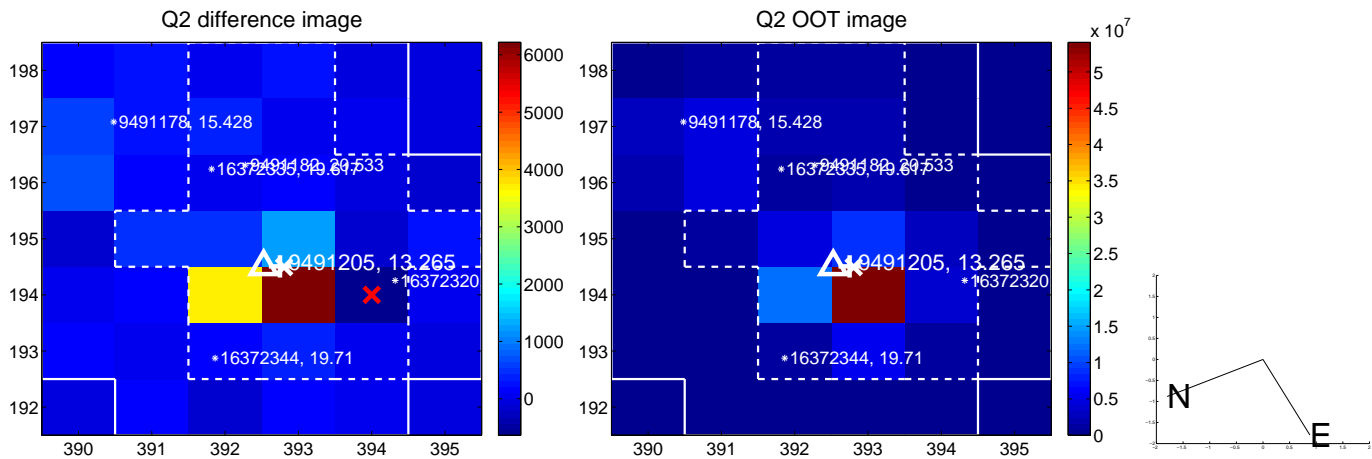
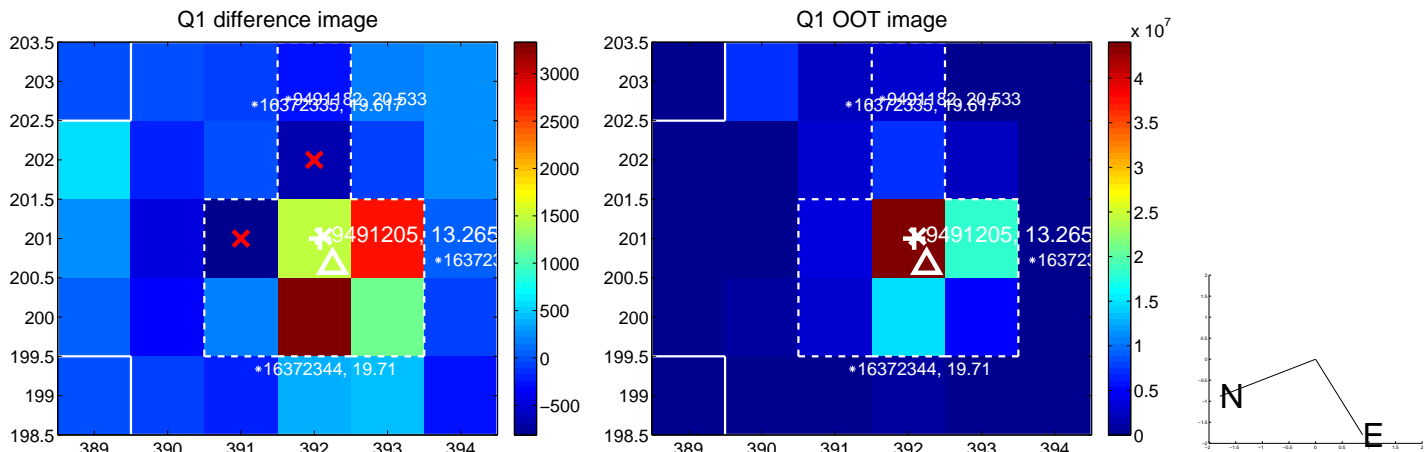
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.189 ± 0.144	1.32	0.106 ± 0.219	-0.157 ± 0.165
PRF-fit source offset from KIC position	0.097 ± 0.229	0.42	0.092 ± 0.219	0.030 ± 0.161
photometric centroid source offset	2.06 ± 0.72	2.86	2.05 ± 0.72	0.16 ± 0.54

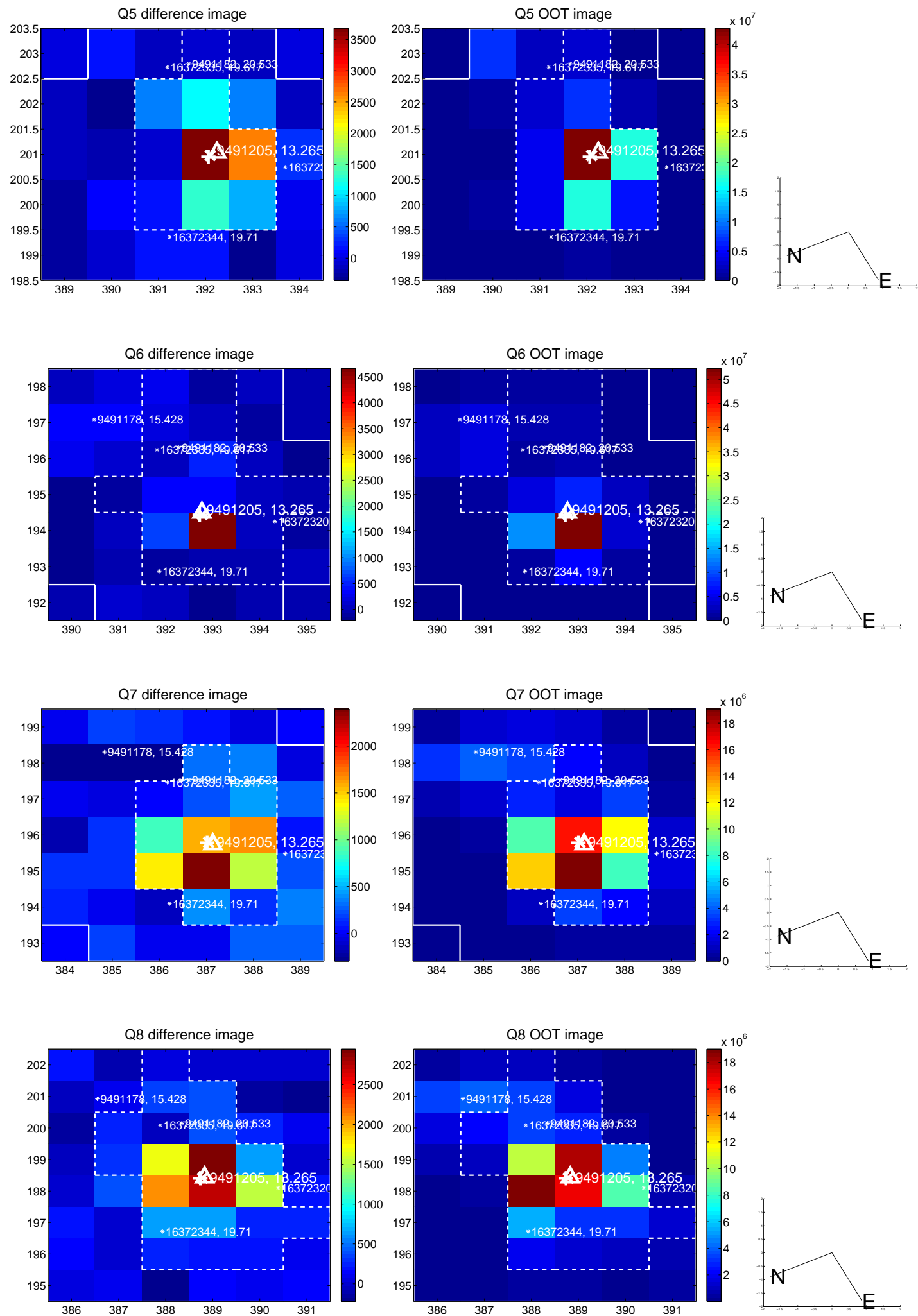


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

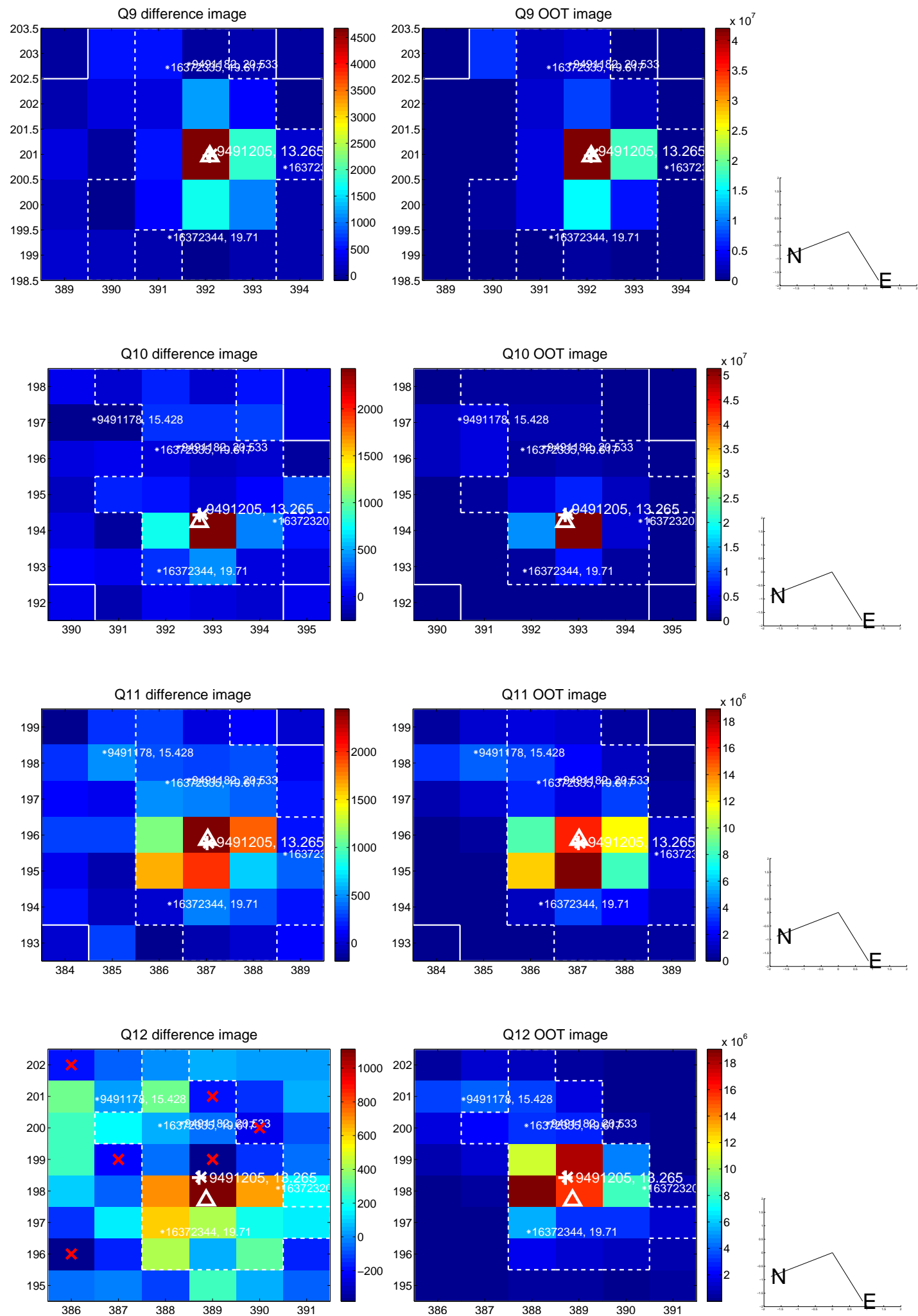
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



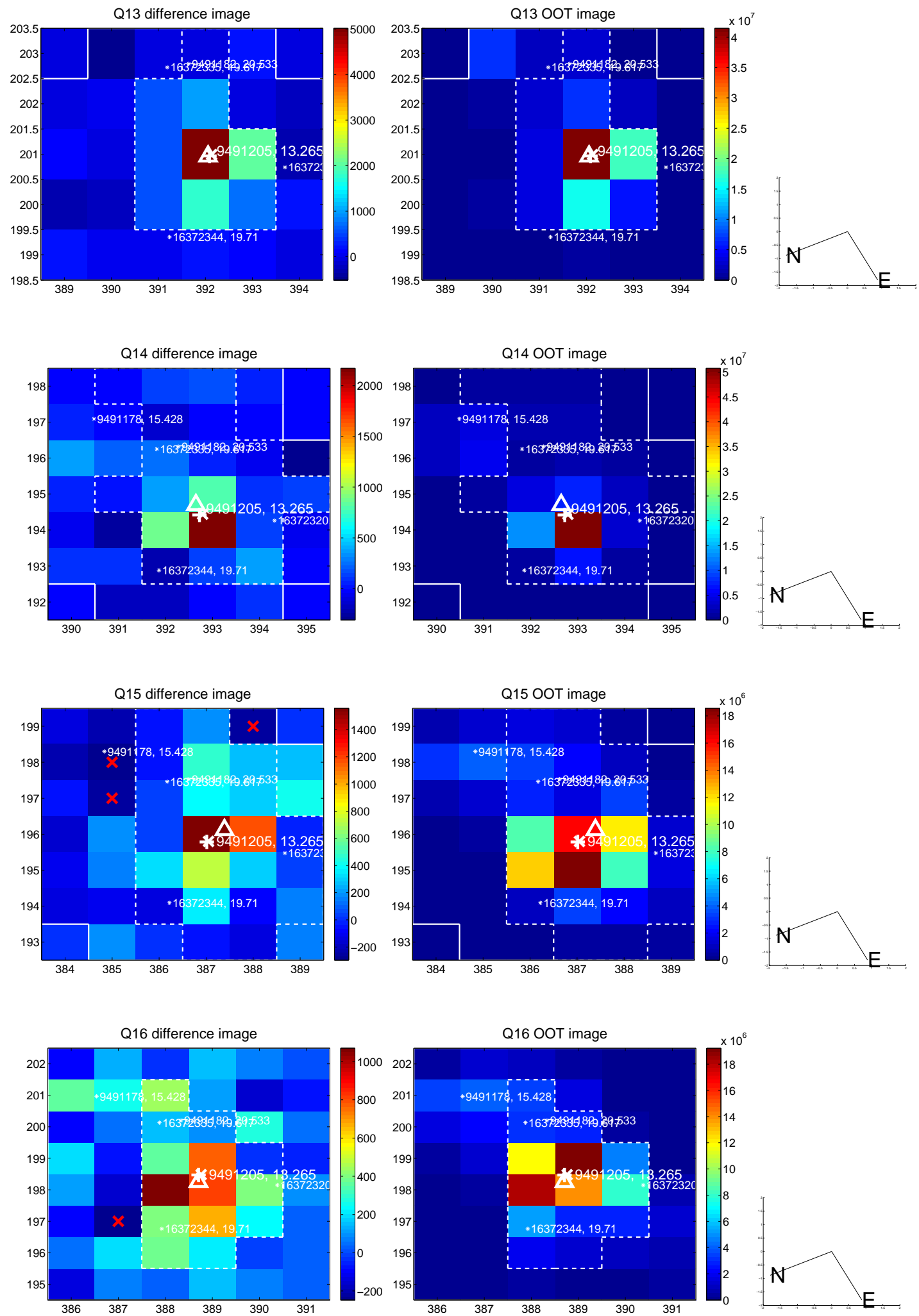
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



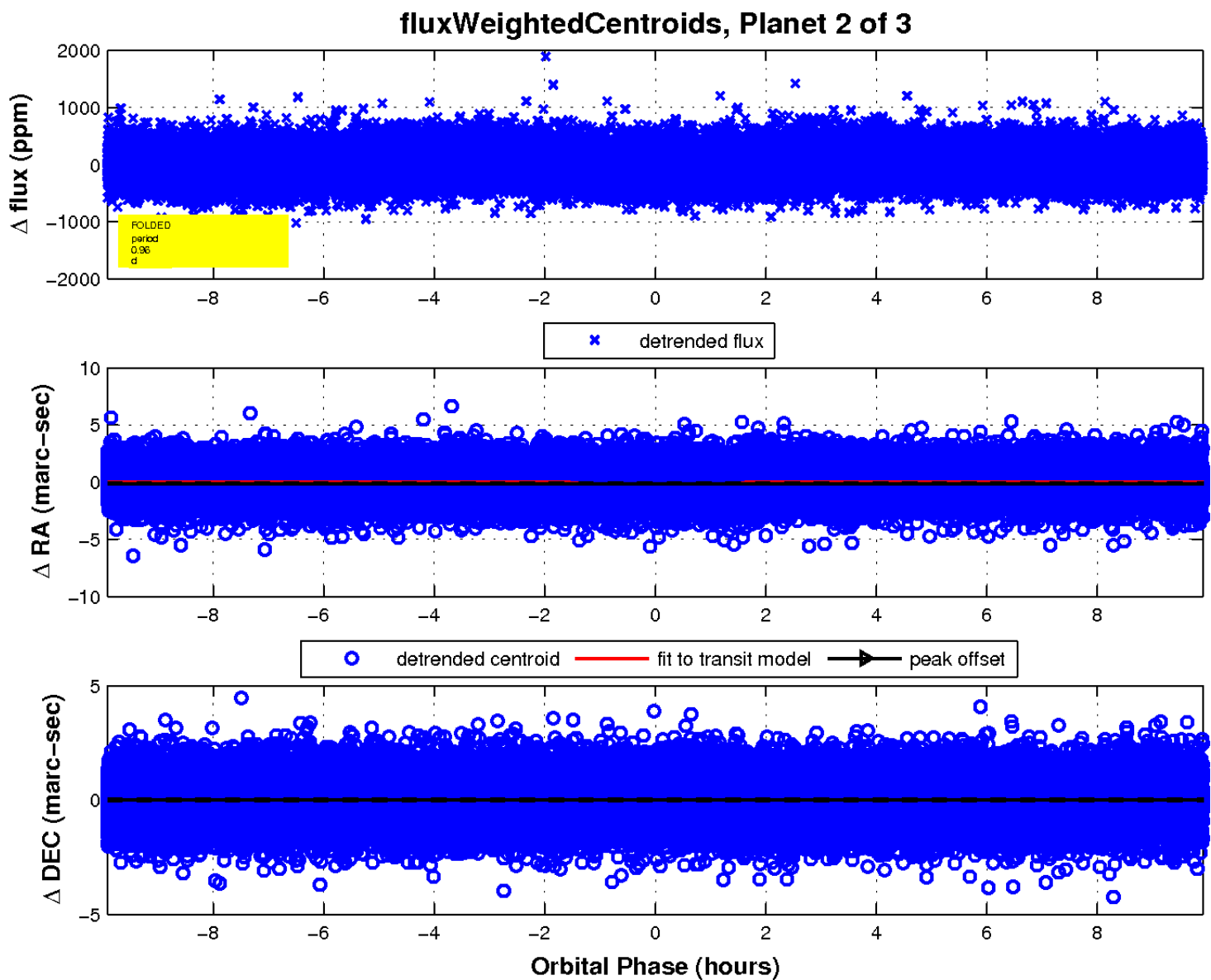
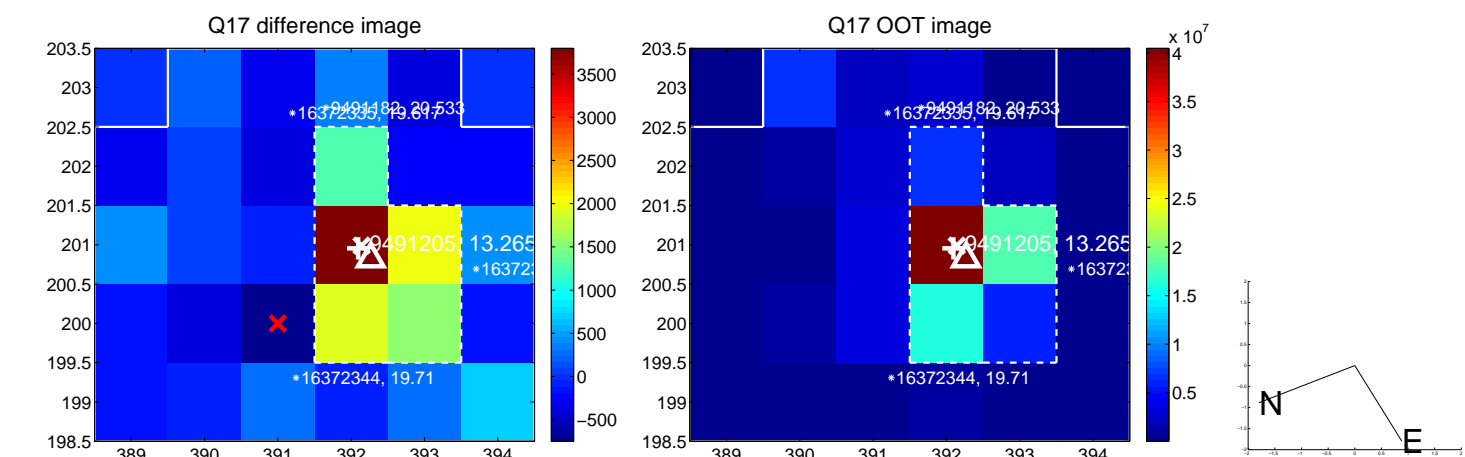
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

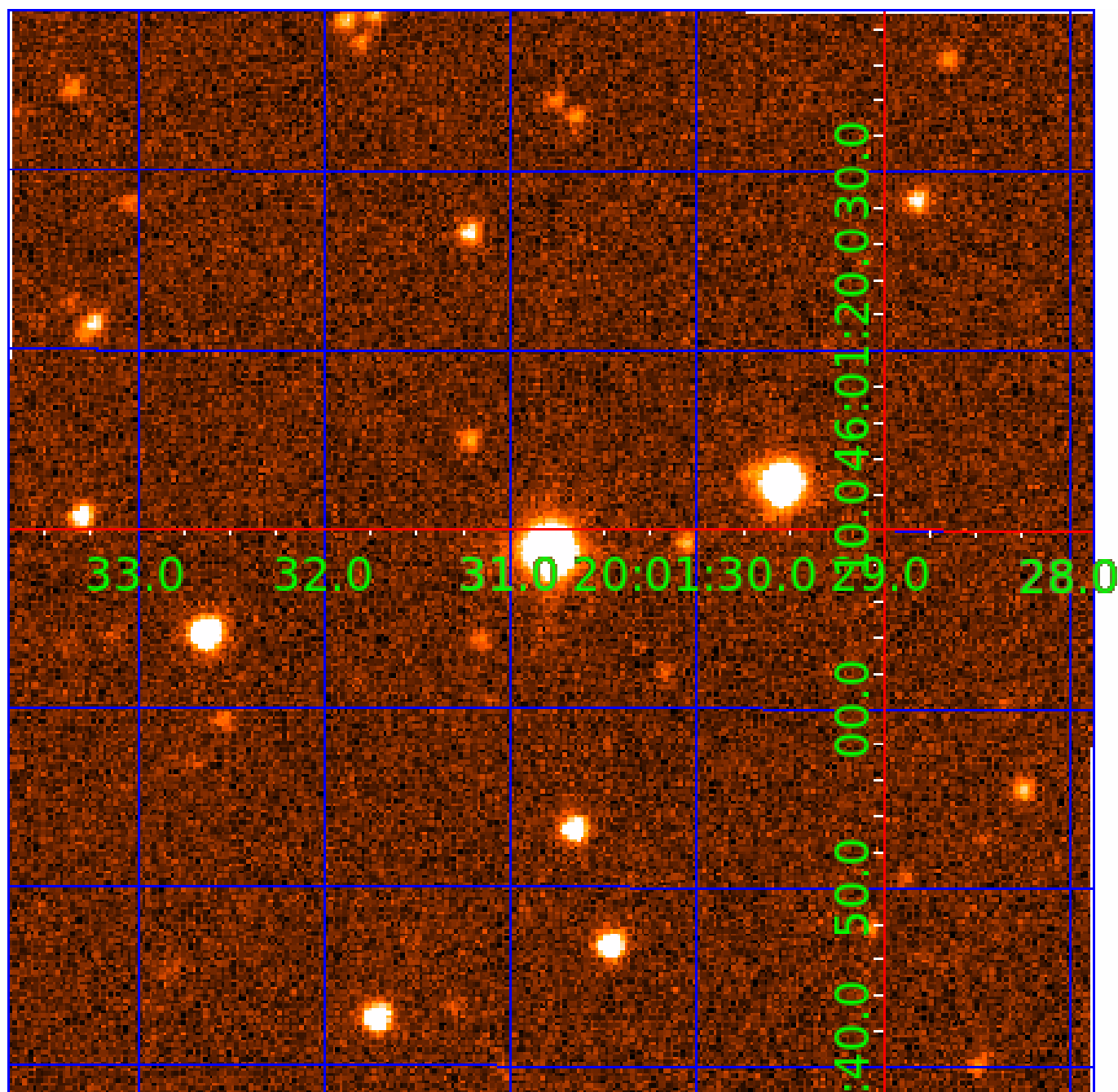


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009491205

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})
009491205-01	OBS	No	0.955383	131.529714	63.1	3.835	13.8	16.6	1.19	6469	1.11	5310.07
009491205-02	OBS	No	0.955405	132.147127	53.8	3.304	13.4	14.8	1.19	6469	1.02	5309.90
009491205-03	OBS	No	0.955359	131.848693	43.1	2.851	13.7	13.2	1.19	6469	0.79	5310.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009491205-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009491205-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009491205-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD

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

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

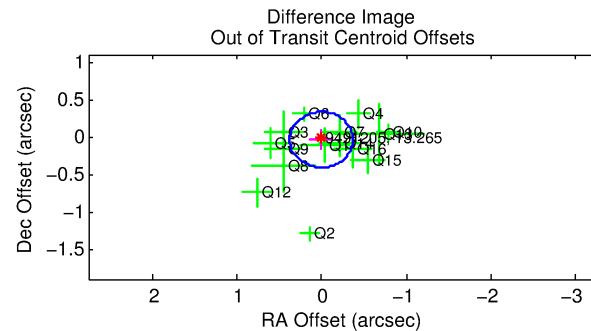
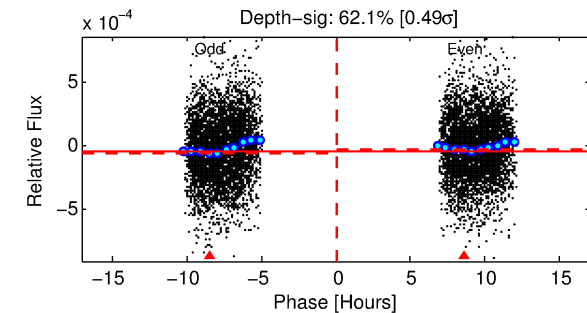
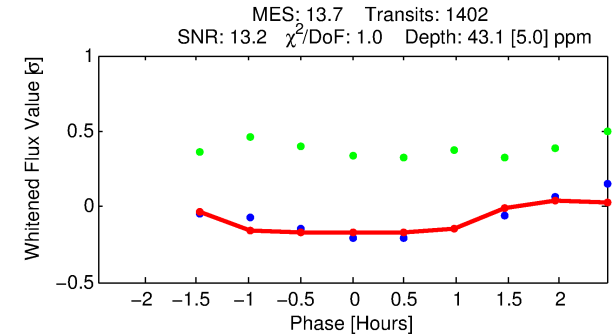
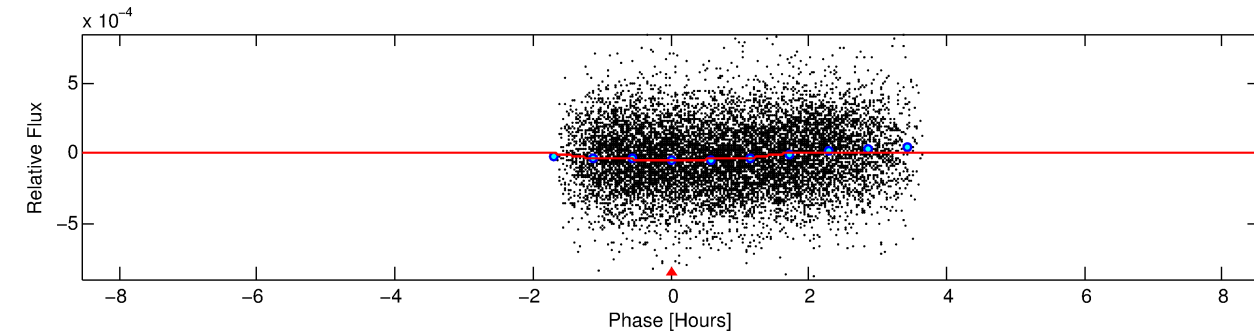
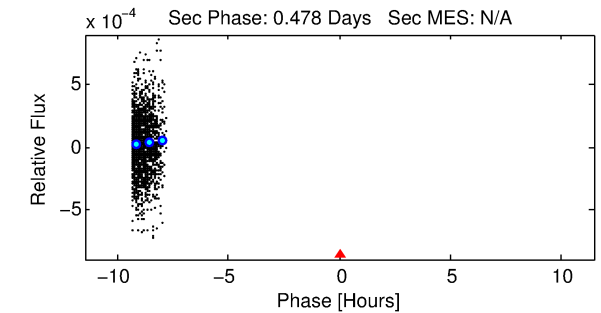
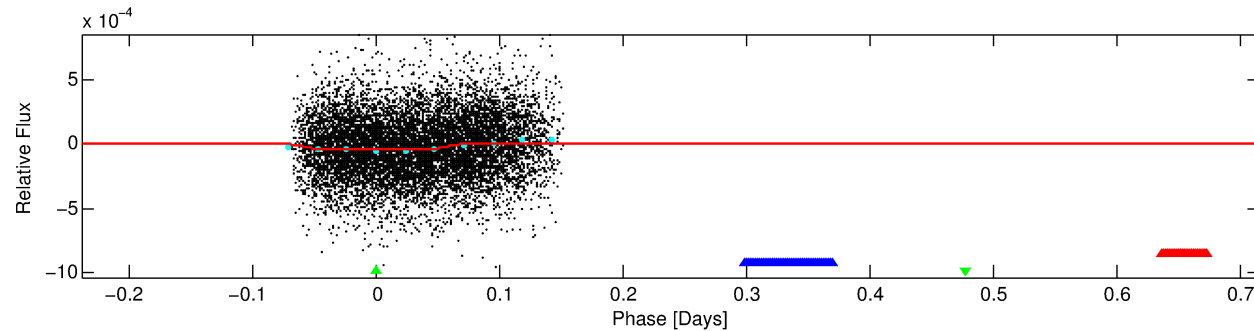
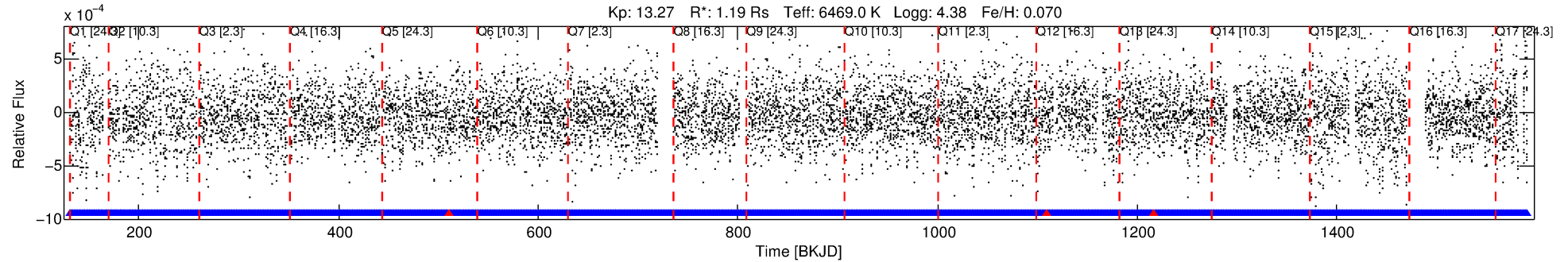
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009491205-03

No Significant Match Found

DV One-Page Summary

KIC: 9491205 Candidate: 3 of 3 Period: 0.955 d



DV Fit Results:

Period = 0.95536 [0.00001] d
Epoch = 131.8487 [0.0030] BKJD
Rp/R* = 0.0060 [0.0068]
a/R* = 2.63 [13.19]
b = 0.09 [64.35]
Seff = 5310.25 [2335.46]
Teff = 2177 [239] K
Rp = 0.79 [0.94] Re
a = 0.0205 [0.0061] AU

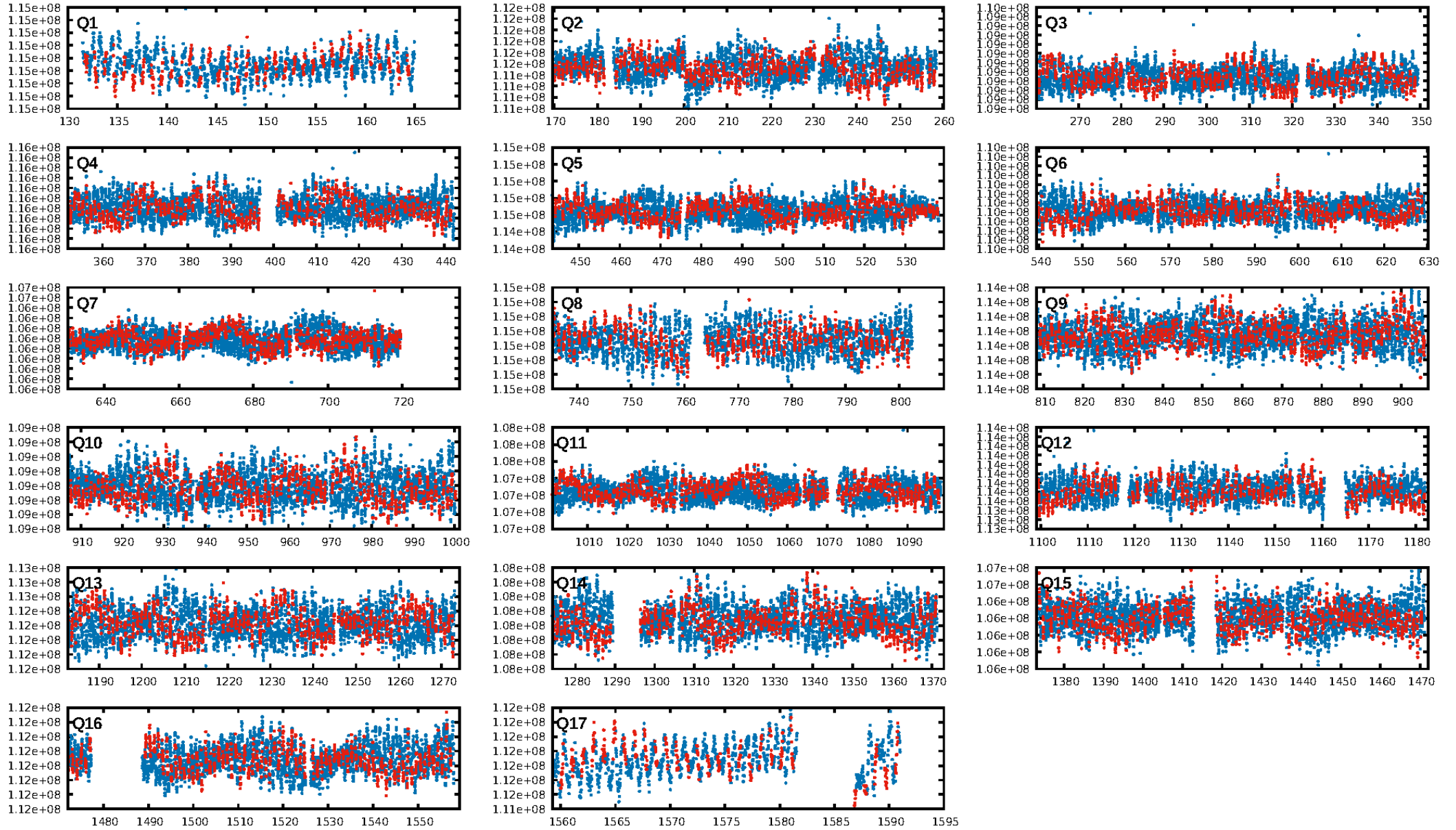
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1336/1339]
GhostDiagnostic-chr: 4.85
Centroid-sig: 14.0%
Centroid-so: 1.101 arcsec [1.23σ]
OotOffset-rm: 0.042 arcsec [0.34σ]
KicOffset-rm: 0.179 arcsec [1.33σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 0.00 [0/17]

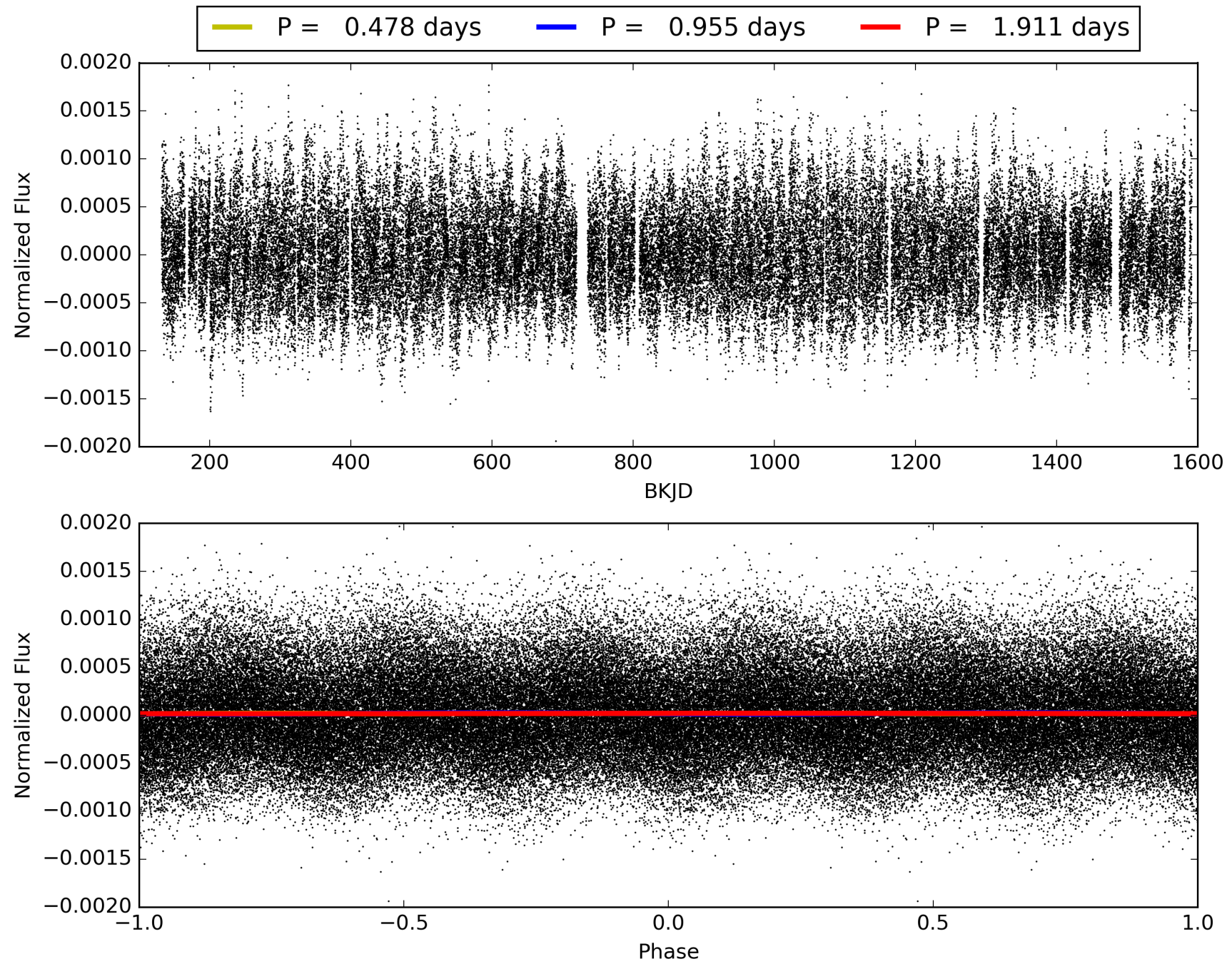
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:22:39 Z

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

TCE 009491205-03, PDC Light Curves

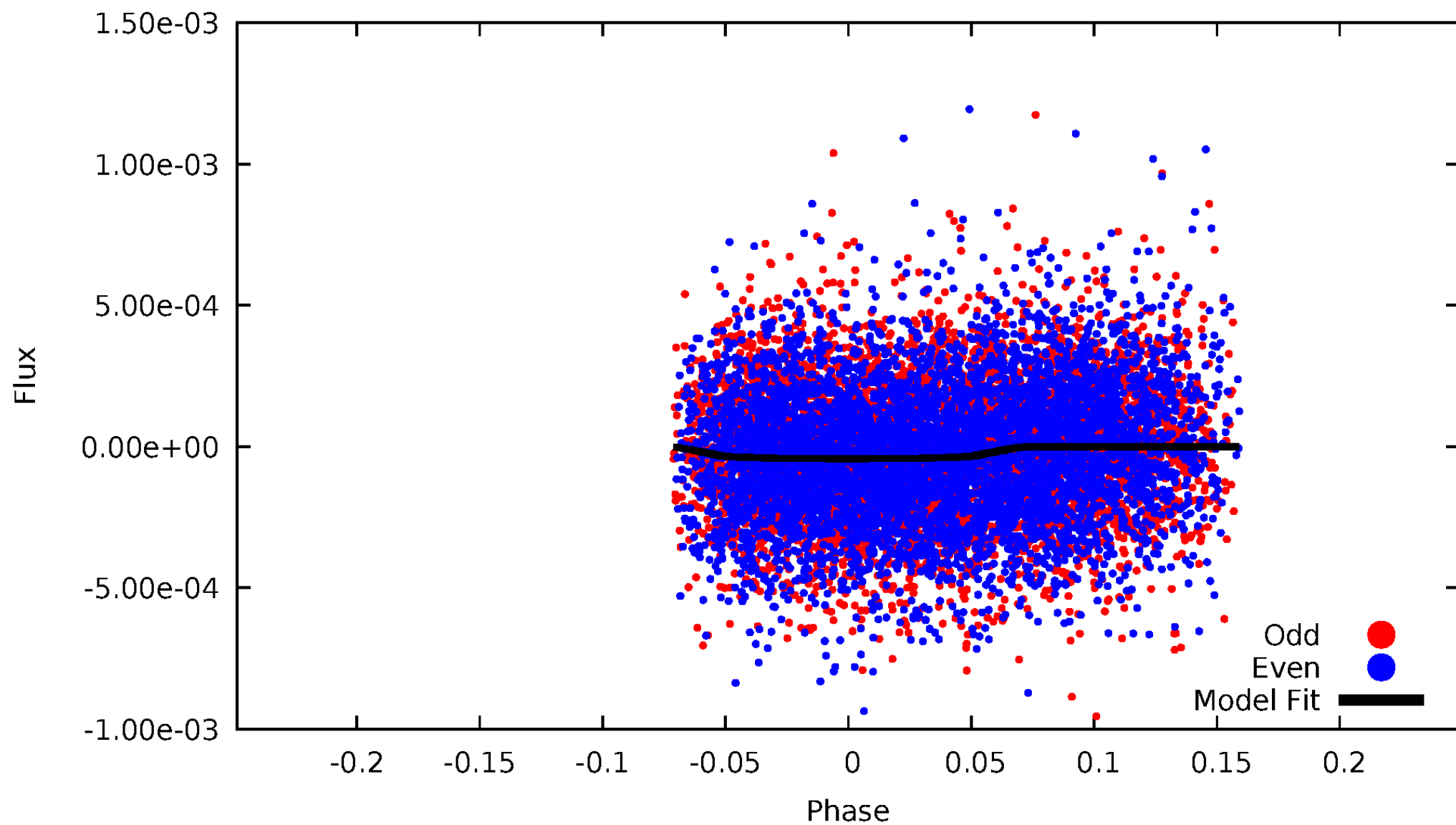


TCE 009491205-03



DV Odd/Even

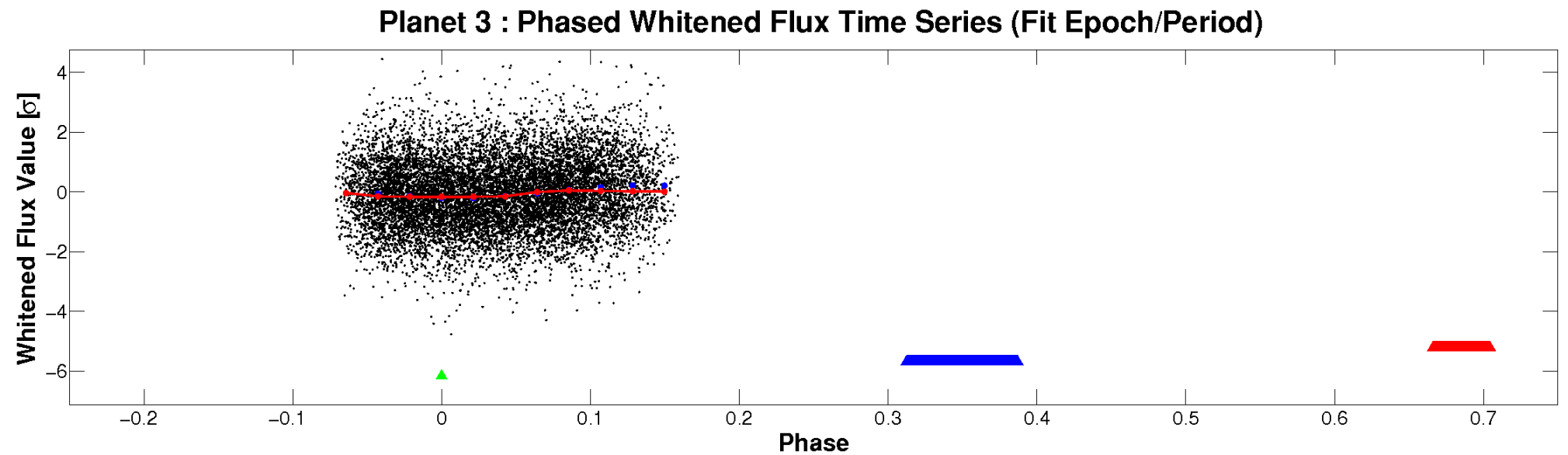
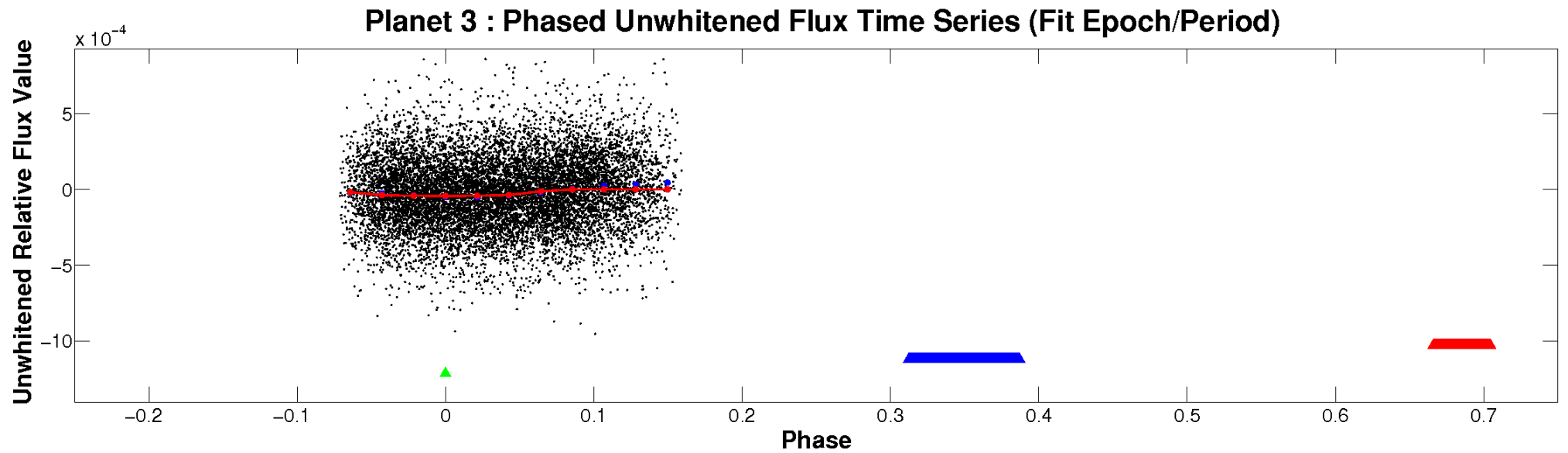
TCE 009491205-03



ALT Odd/Even

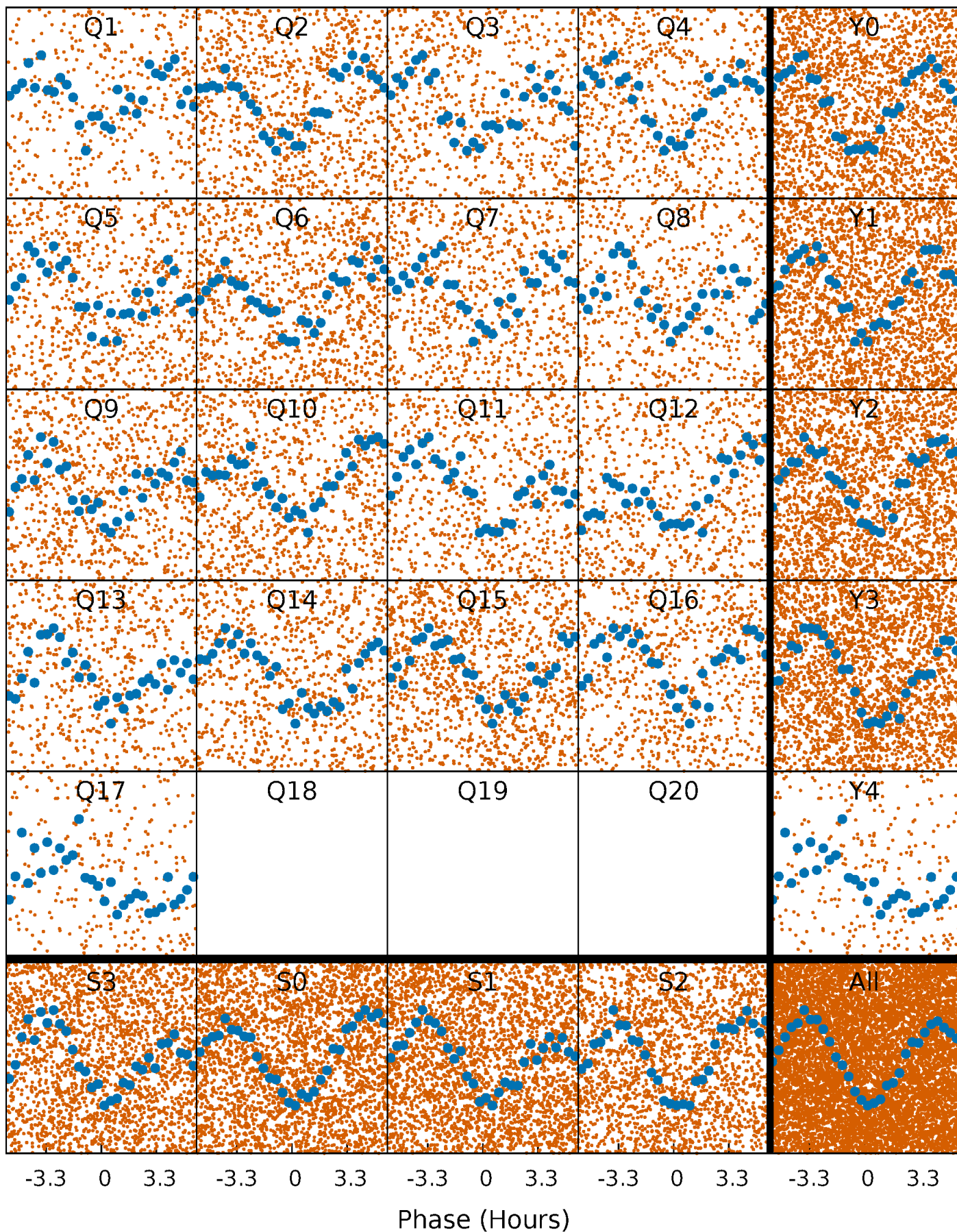
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve



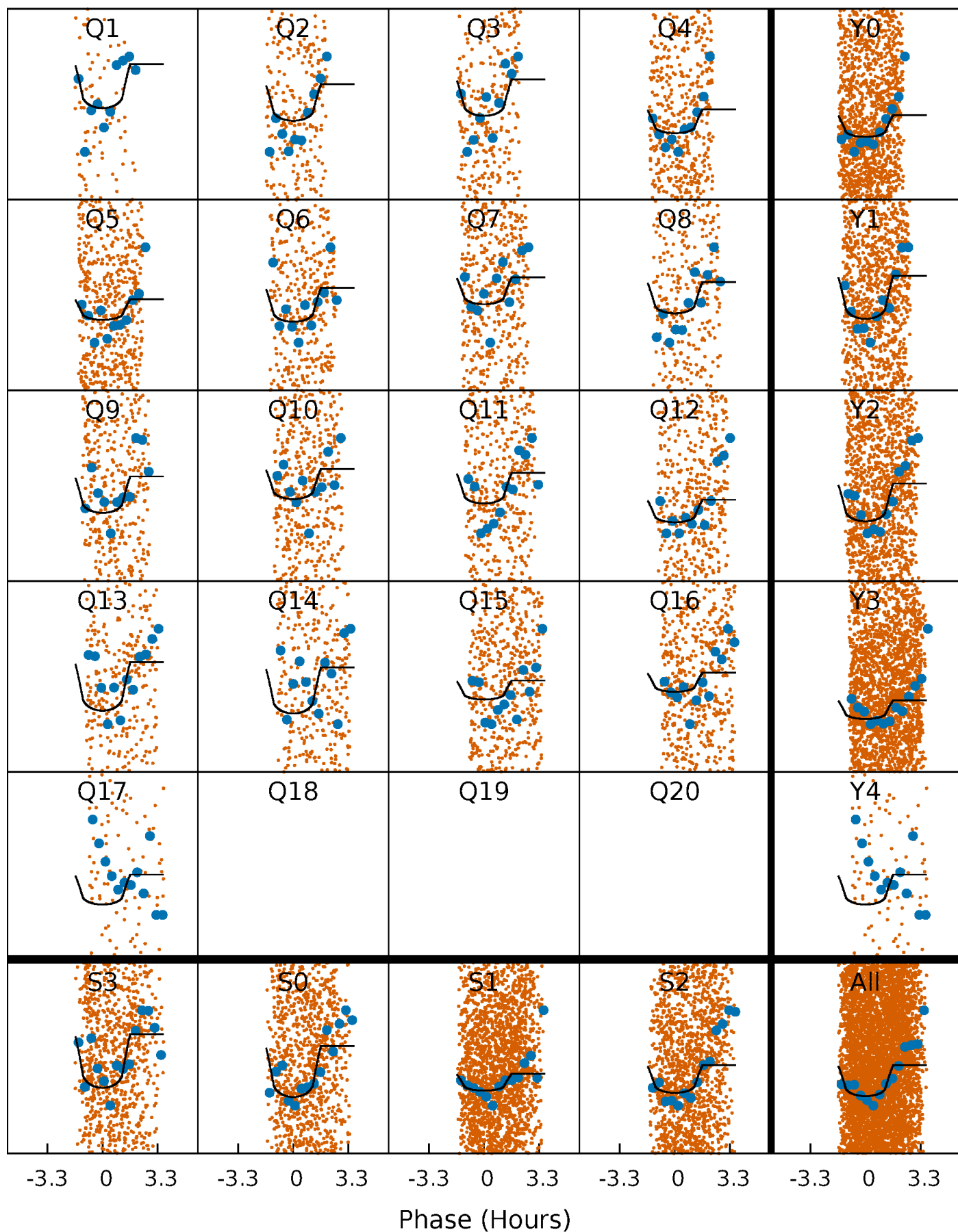
PDC Quarter-Phased Transit Curves

TCE 009491205-03 P= 0.955359 Days $T_0=131.848693$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 009491205-03 $P = 0.955359$ Days $T_0 = 131.848693$ (BKJD)

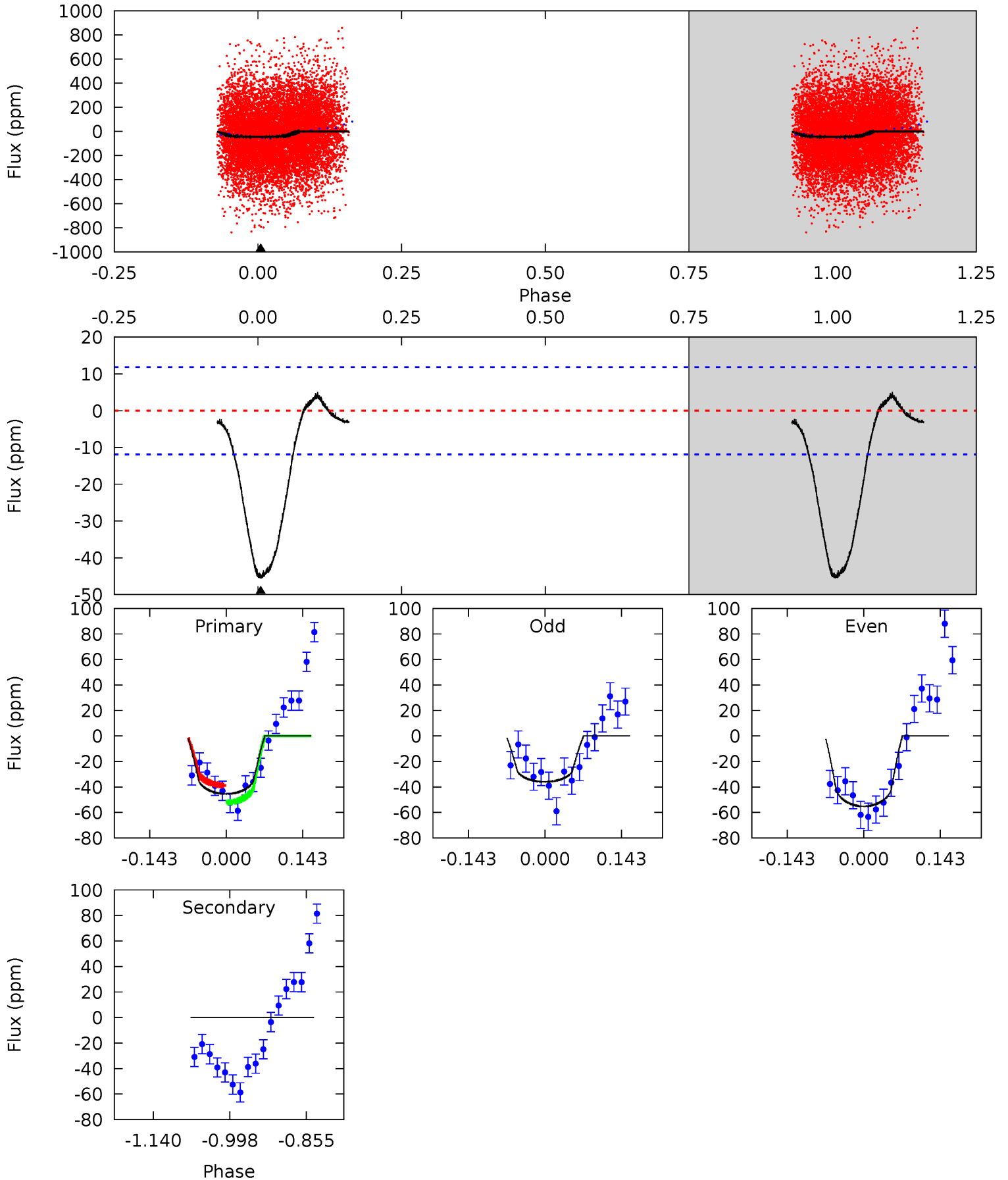


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

009491205-03, P = 0.955359 Days, E = 130.893334 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	0	0	0	4.49	1.47	0.69	17.2	17.2	0	0	3.64	0.99	0.10	2.61



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 009491205

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6469^{+174}_{-212}	$4.385^{+0.056}_{-0.224}$	$0.070^{+0.250}_{-0.350}$	$1.193^{+0.431}_{-0.144}$	$1.260^{+0.165}_{-0.184}$	$1.047^{+0.314}_{-0.568}$
	+3%/-3%	+1%/-5%	+357%/-500%	+36%/-12%	+13%/-15%	+30%/-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 009491205-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 3	$1.05^{+0.84}_{-0.64}$	3112^{+243}_{-161}	-3165^{+6662}_{-741}	$0.005^{+0.842}_{-0.860}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

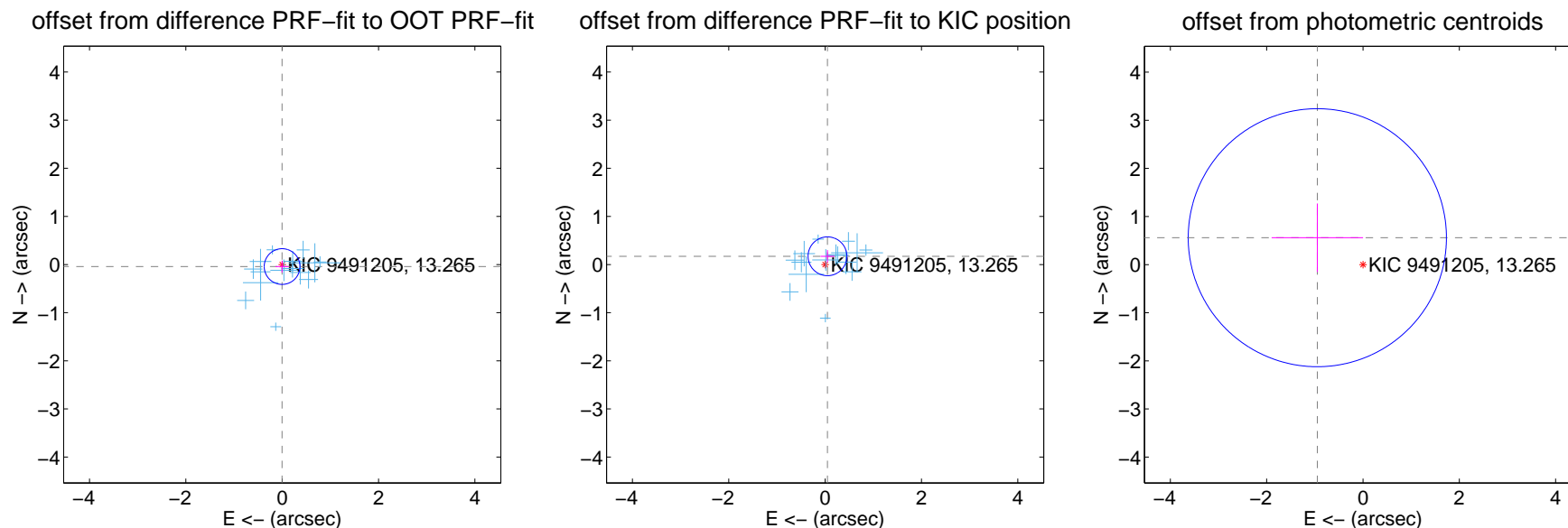
DV Centroid Data

Supplemental centroid analysis for 009491205-03. Kepler magnitude: 13.27. Transit SNR 13.21

There are 15 quarters with good PRF difference image offsets

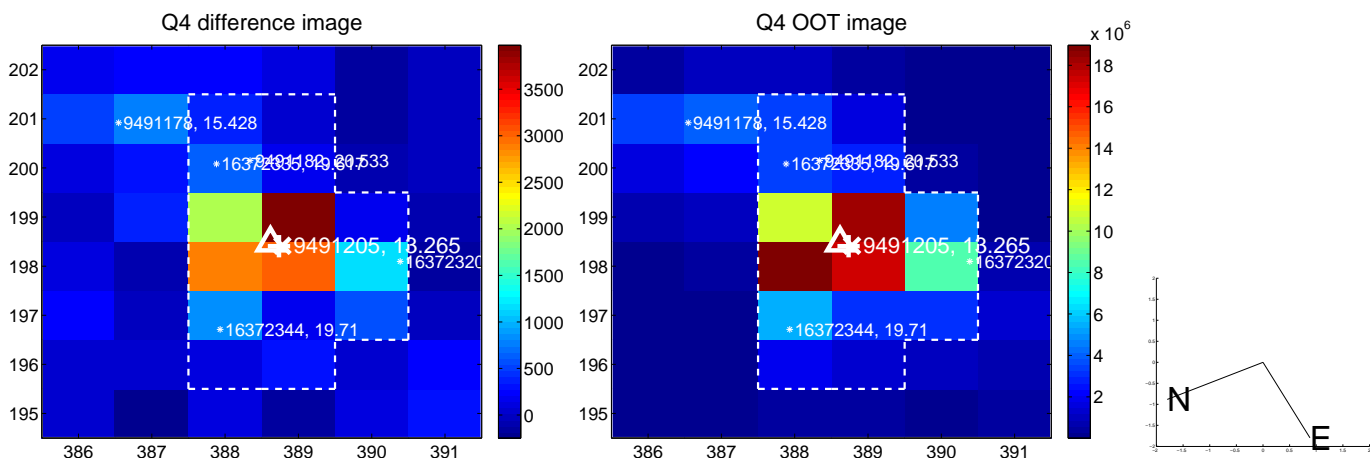
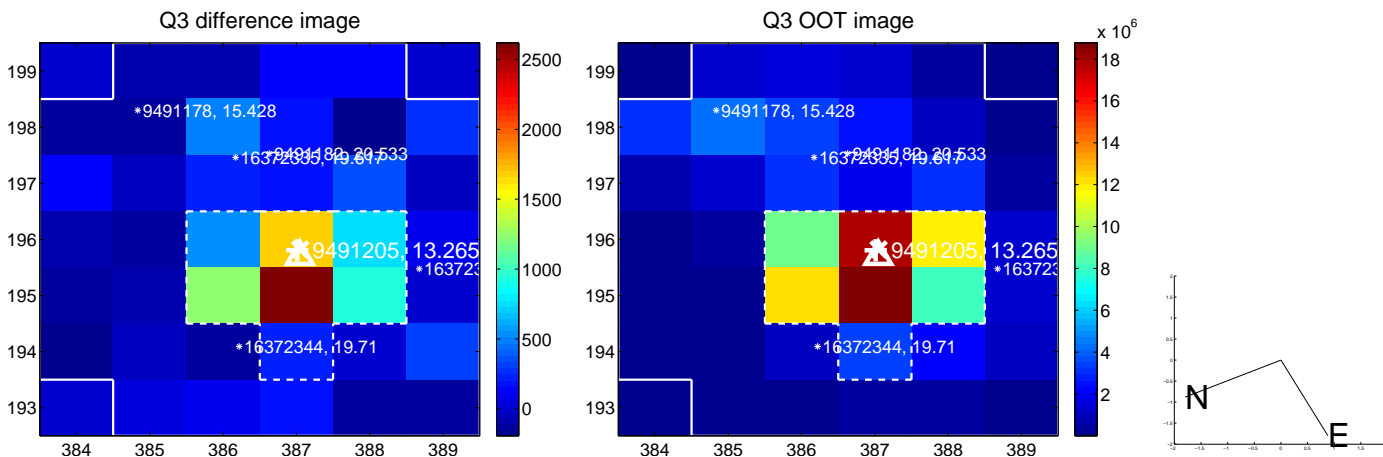
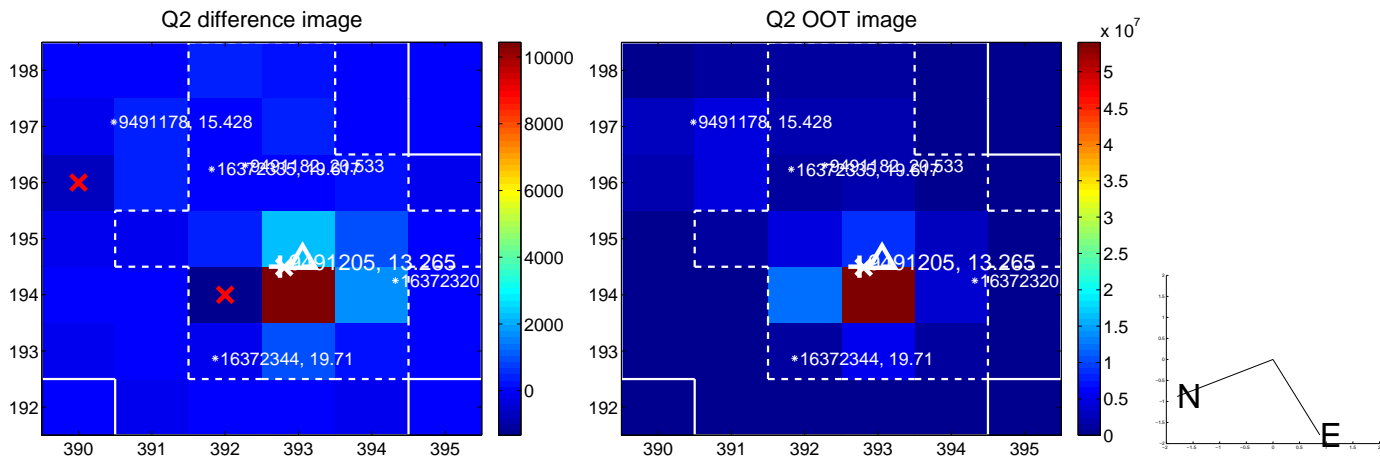
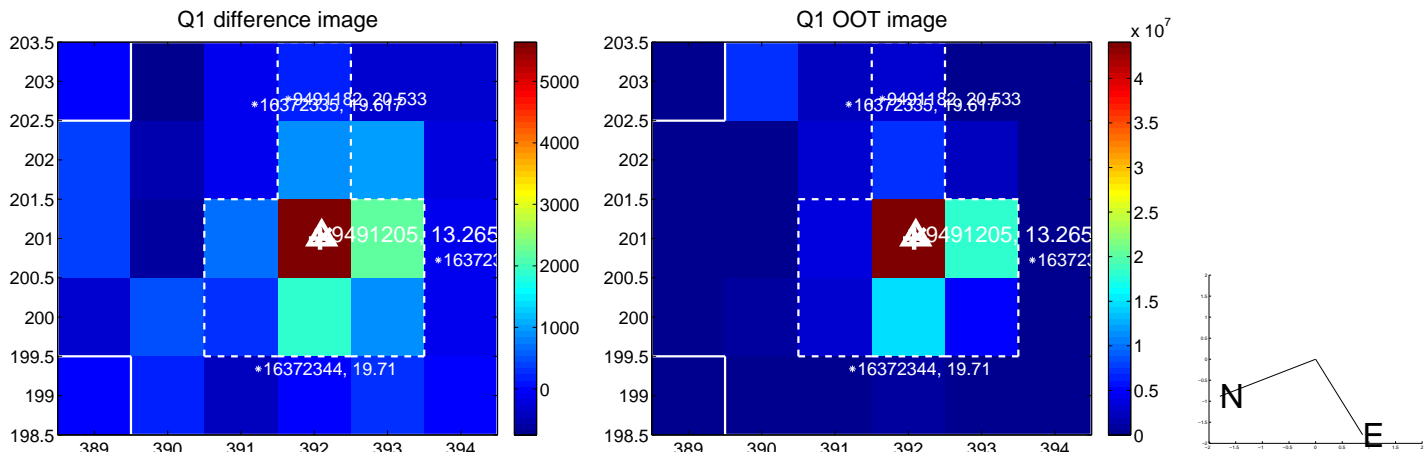
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.042 ± 0.124	0.34	0.002 ± 0.137	-0.042 ± 0.122
PRF-fit source offset from KIC position	0.179 ± 0.134	1.33	-0.049 ± 0.144	0.172 ± 0.127
photometric centroid source offset	1.10 ± 0.89	1.23	0.95 ± 0.95	0.56 ± 0.71

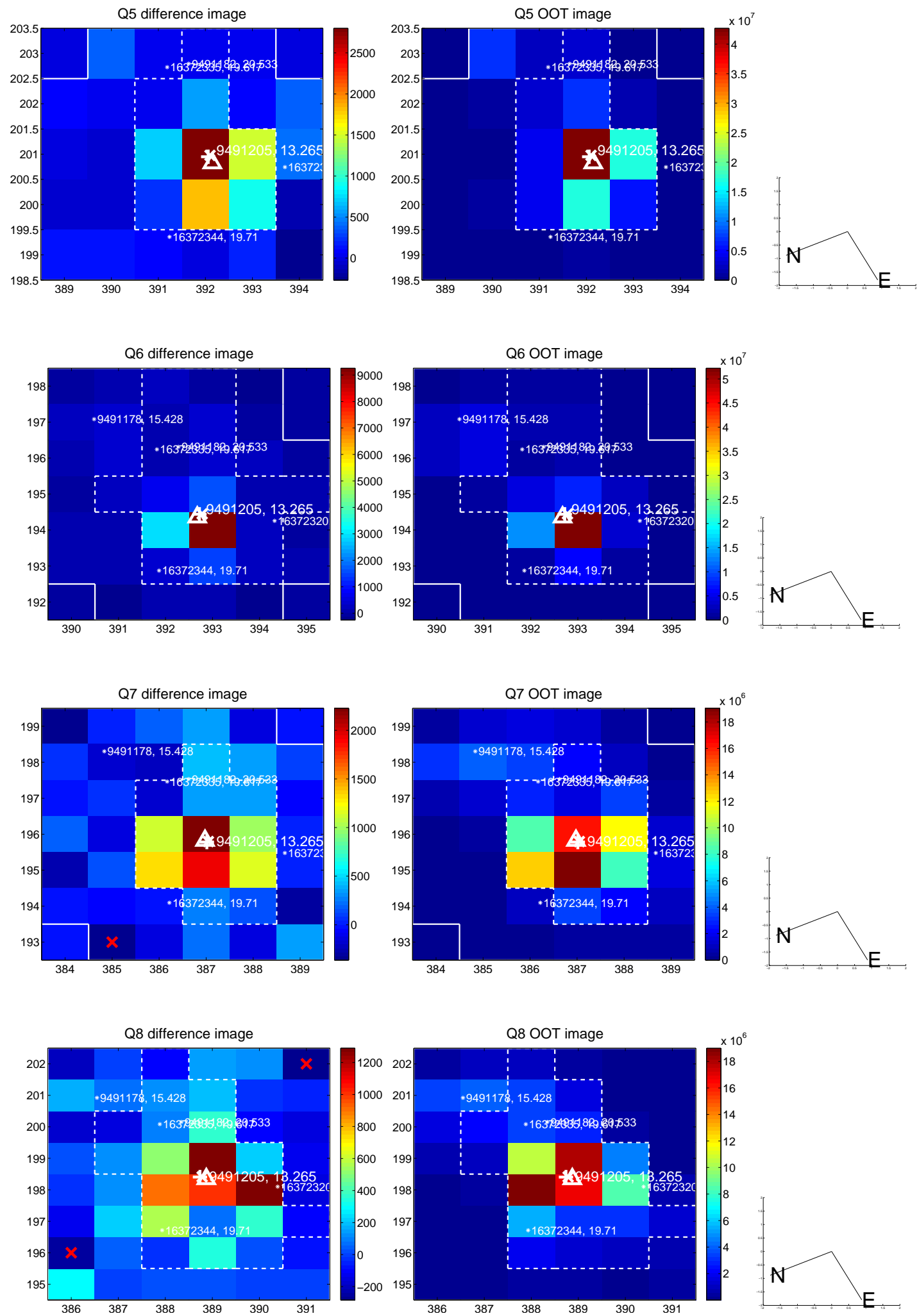


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

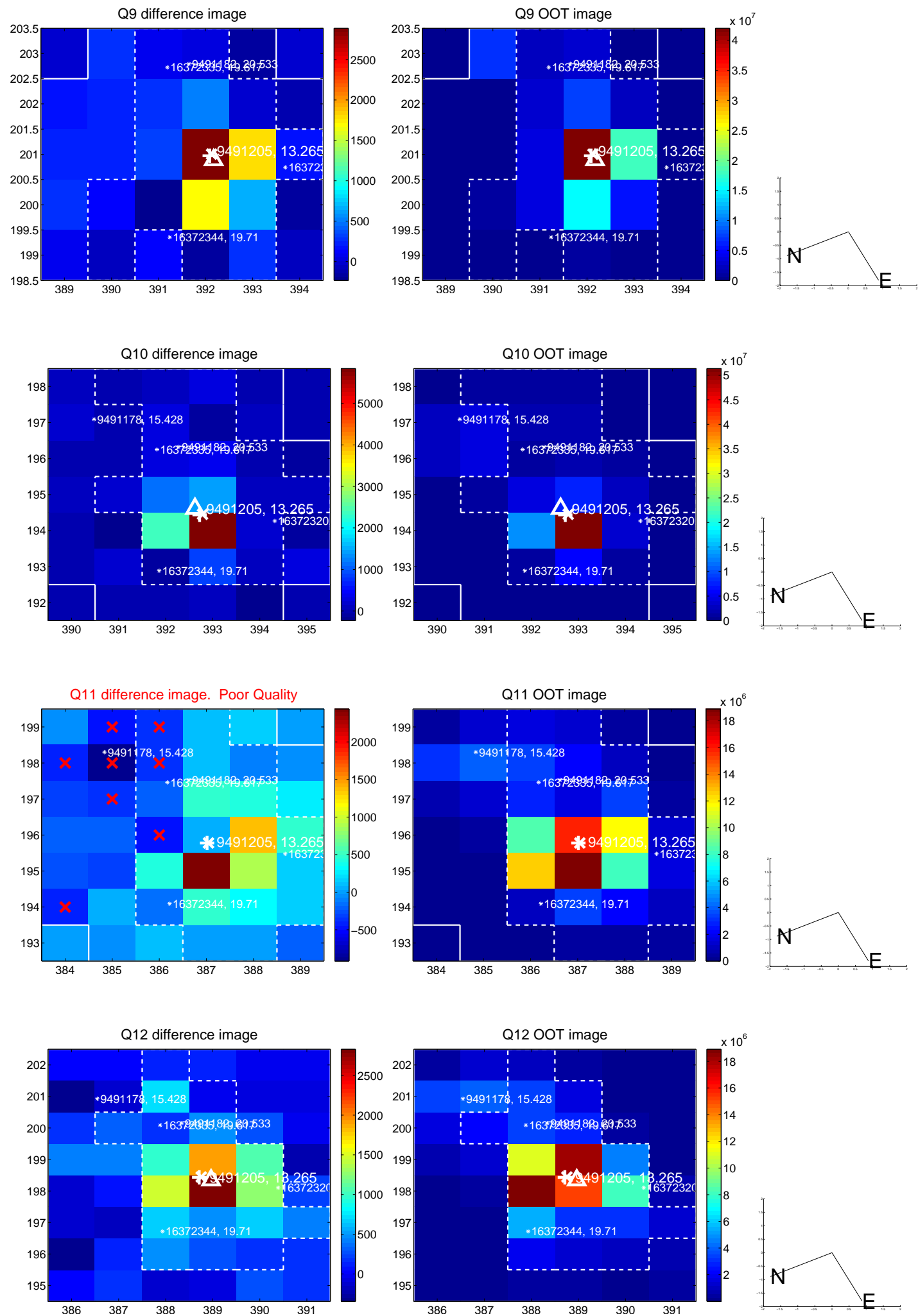
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



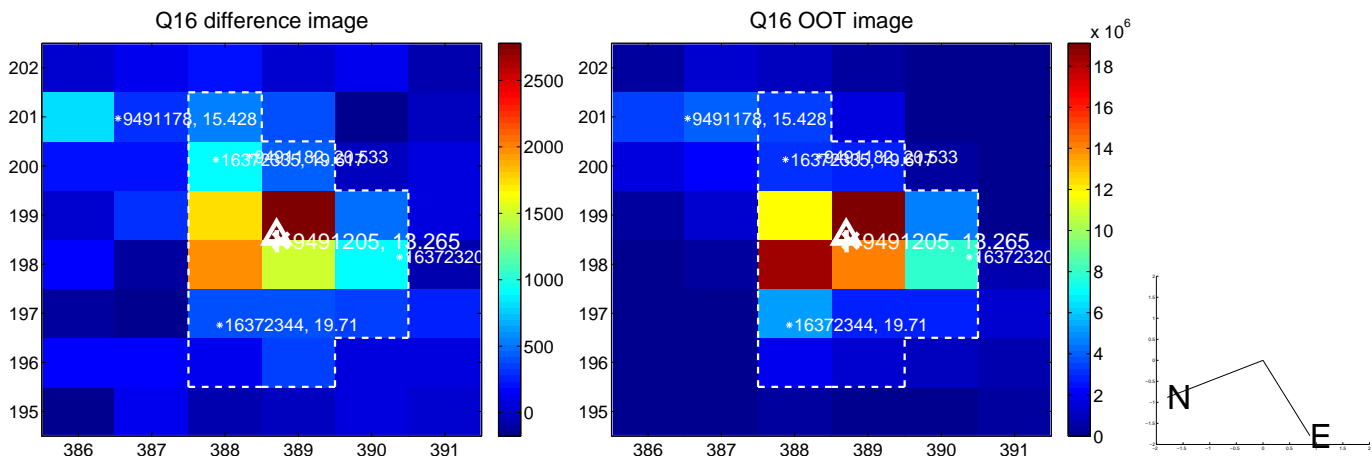
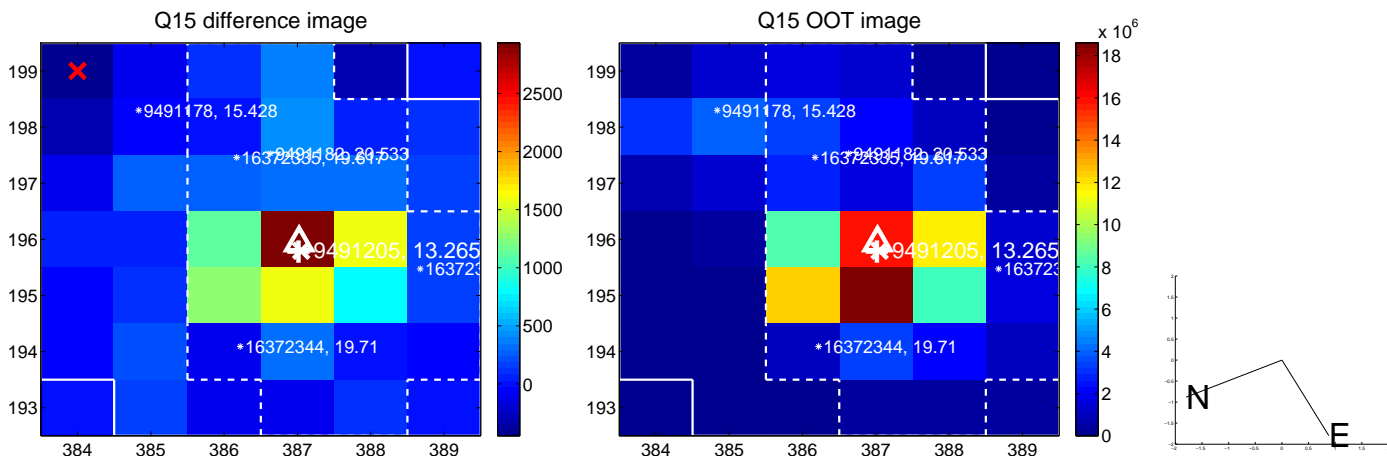
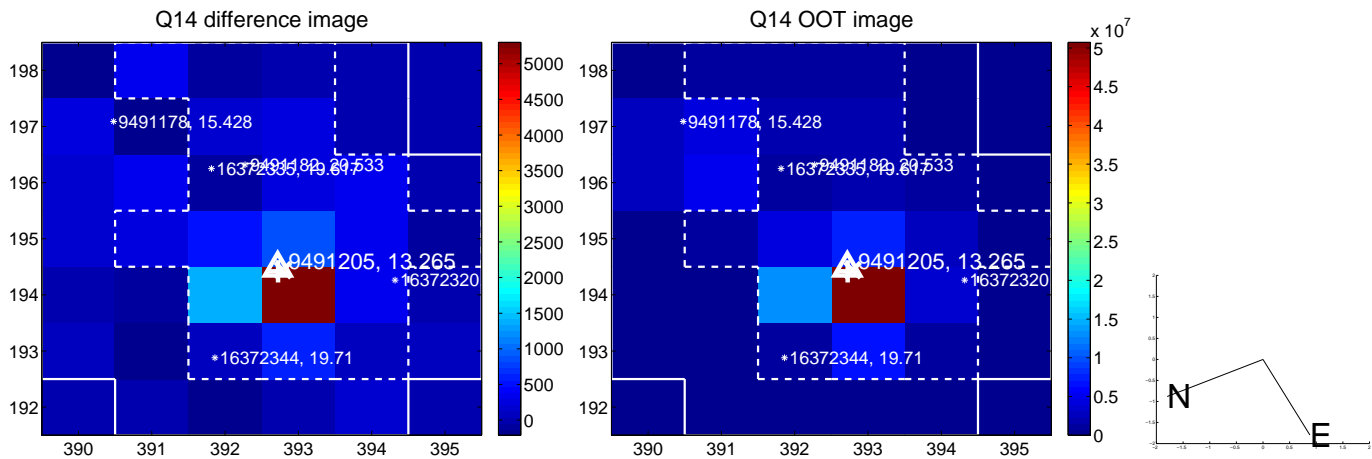
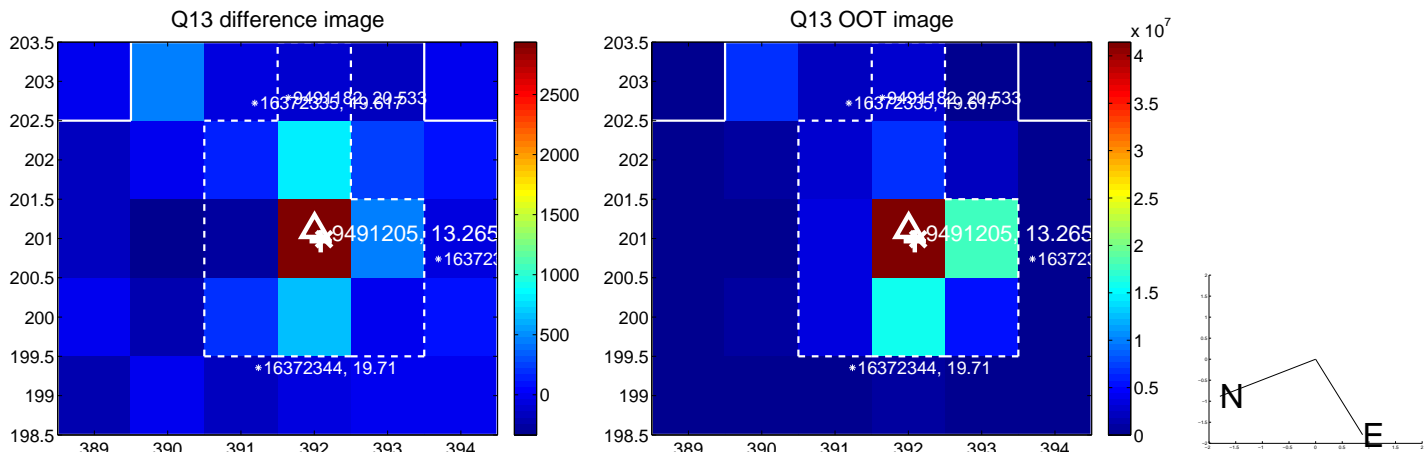
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



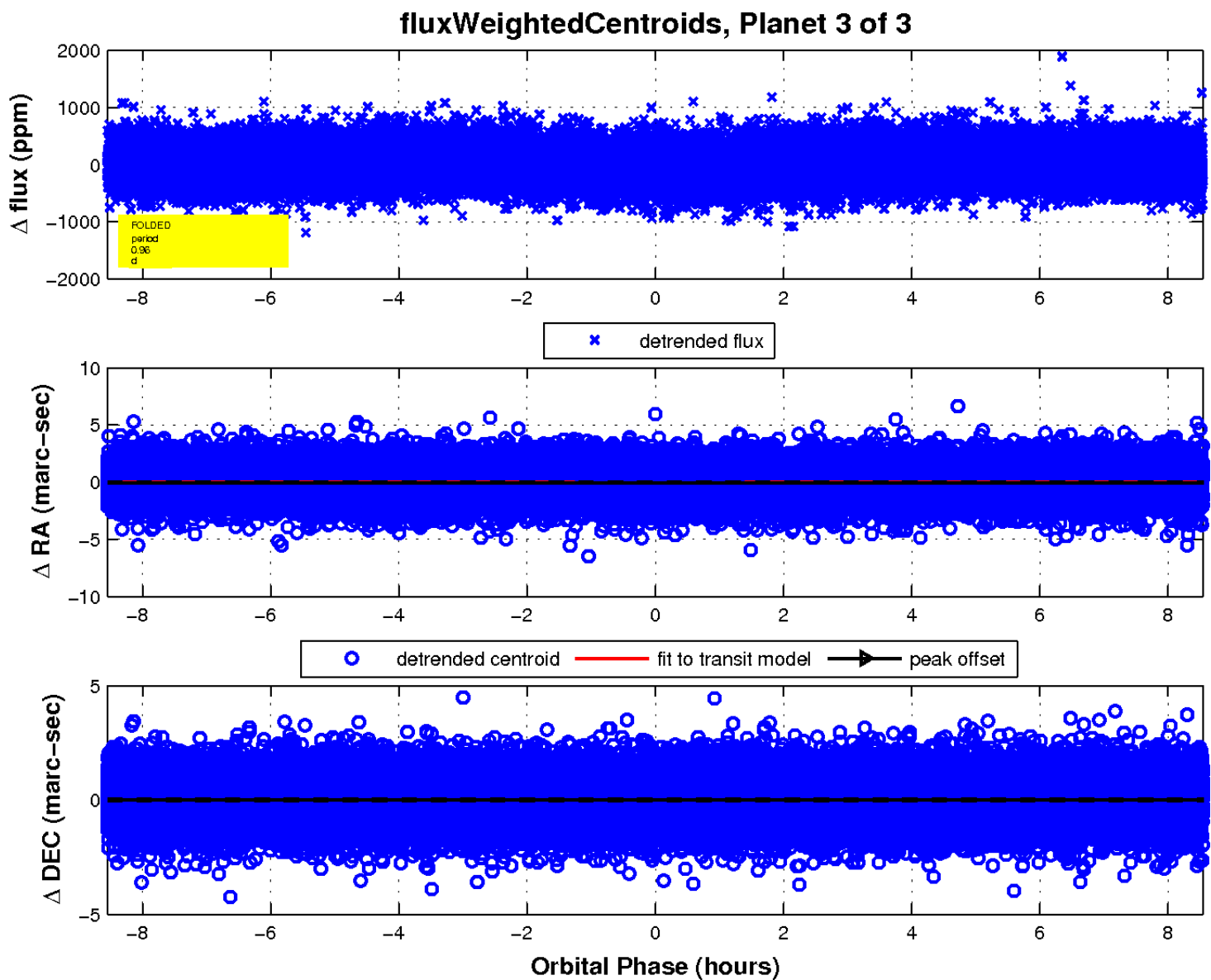
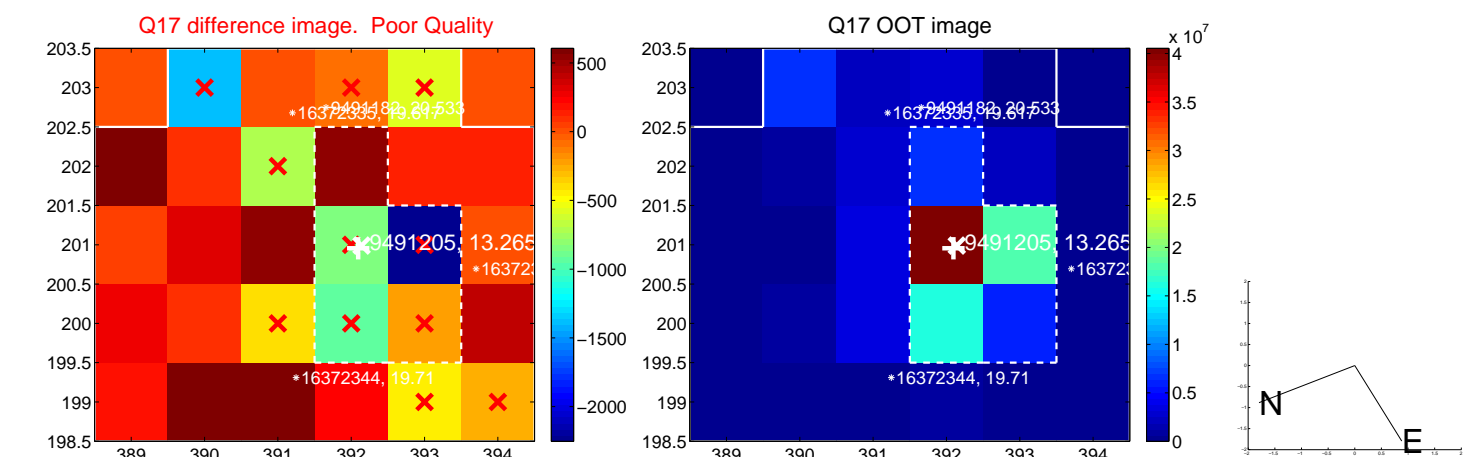
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

