

KIC 008493159

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})
008493159-01	OBS	No	0.696916	132.012506	267.6	1.258	13.0	6.7	1.97	6765	3.27	25206.69
008493159-02	OBS	No	0.605031	132.016492	778.9	0.830	11.5	12.1	1.97	6765	5.66	30435.91
008493159-03	OBS	No	0.605042	131.933975	2242.8	2.728	14.0	18.7	1.97	6765	10.90	30435.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008493159-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008493159-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008493159-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

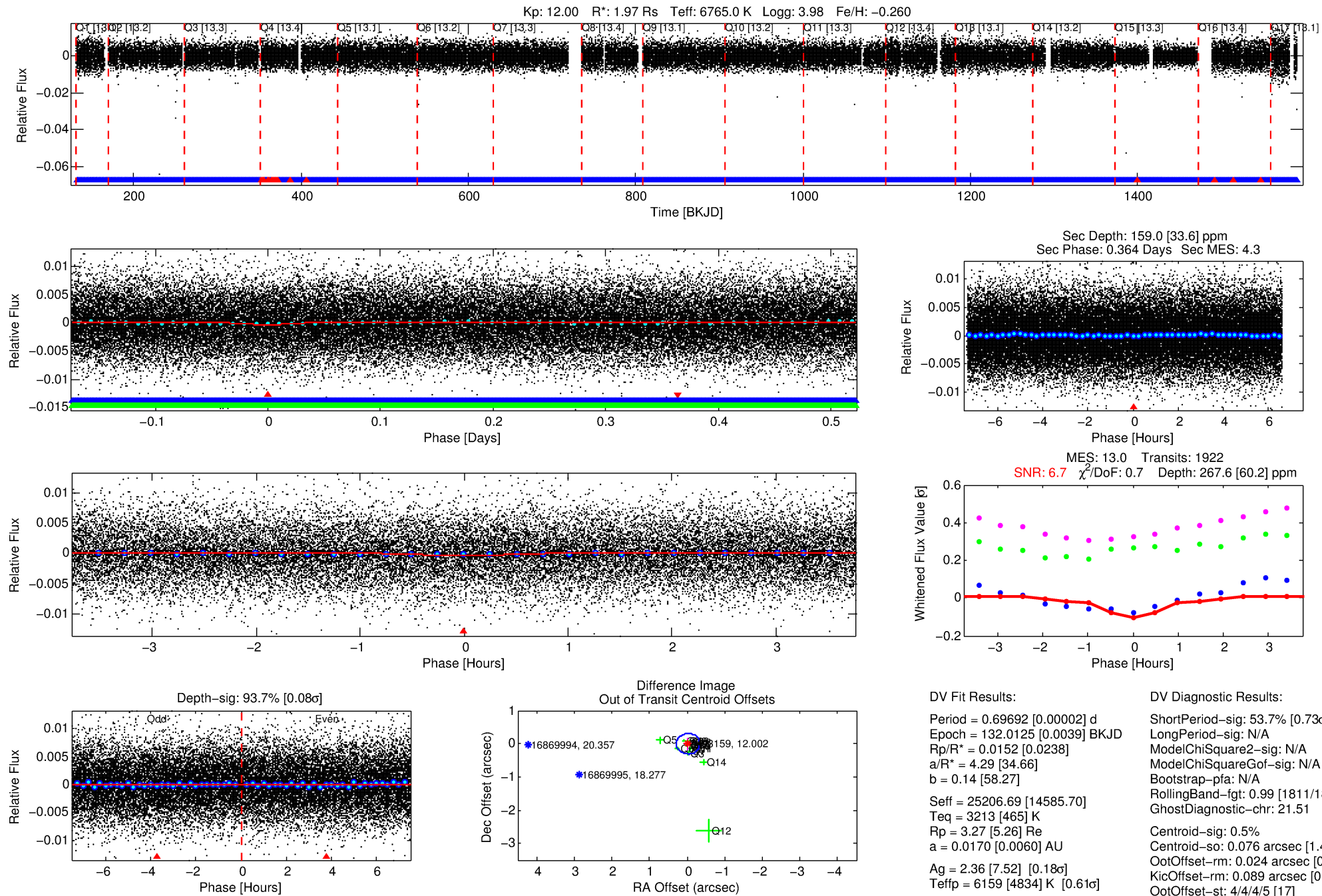
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008493159-01

No Significant Match Found

DV One-Page Summary

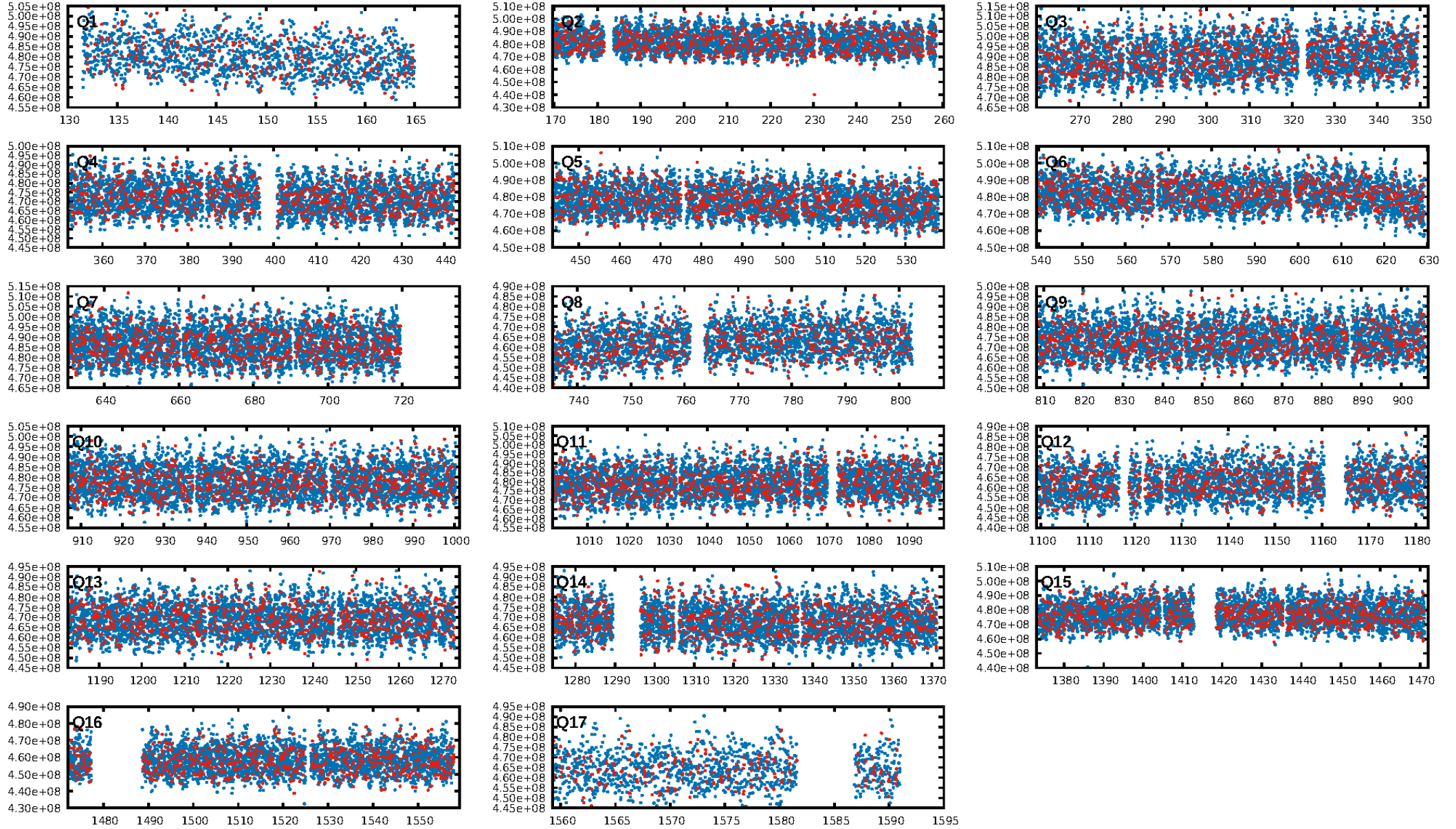
KIC: 8493159 Candidate: 1 of 3 Period: 0.697 d



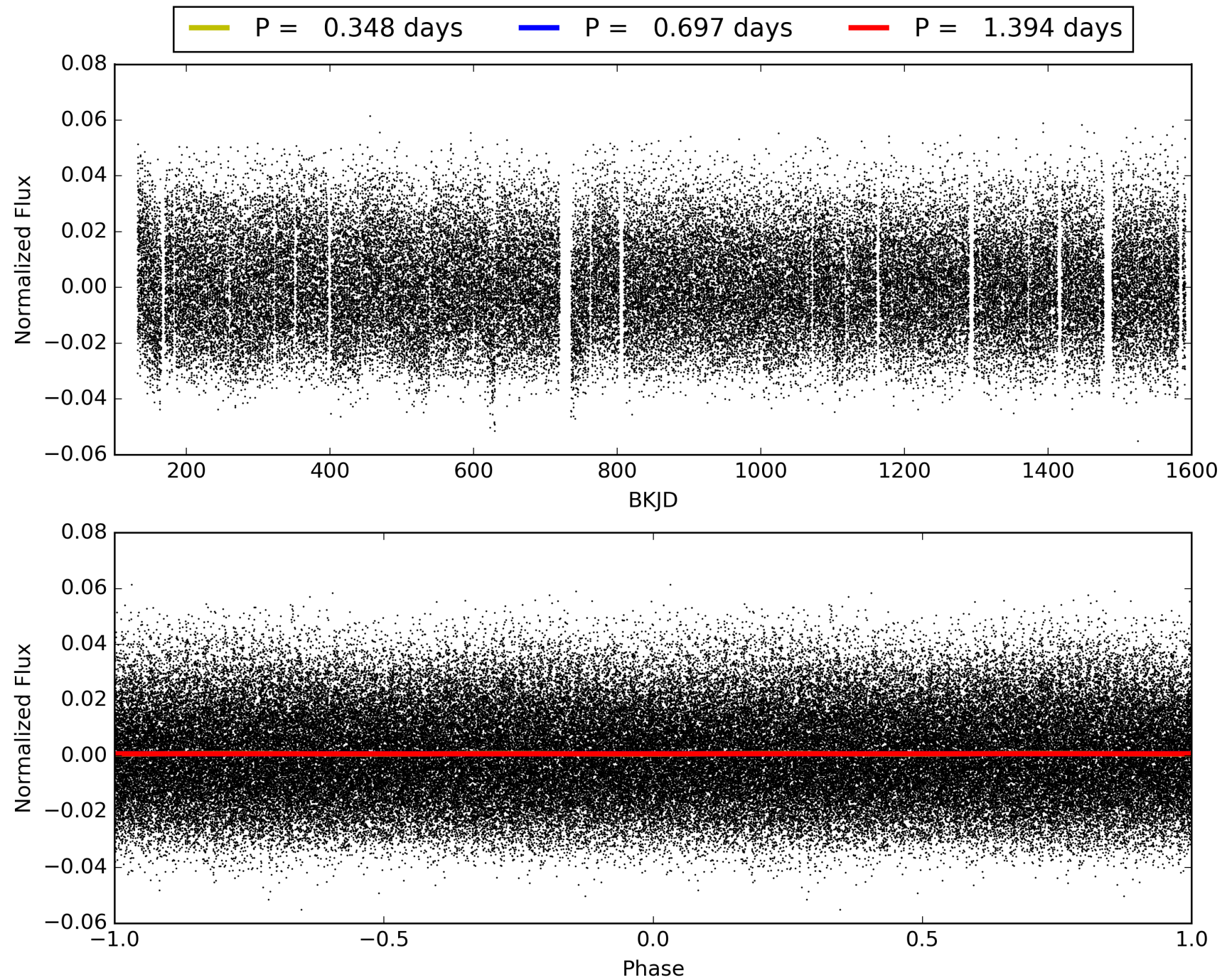
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:17:17 Z

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

TCE 008493159-01, PDC Light Curves

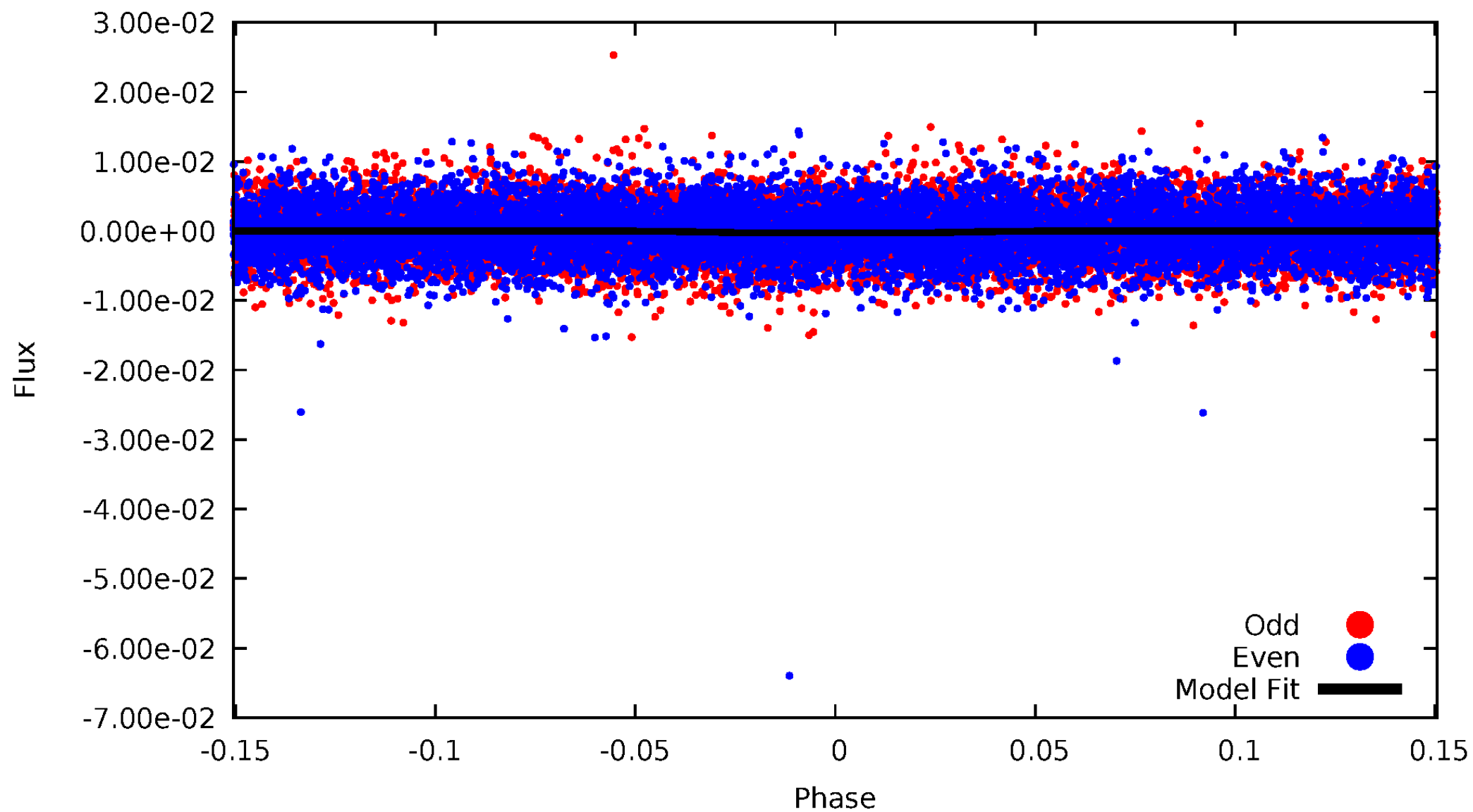


TCE 008493159-01



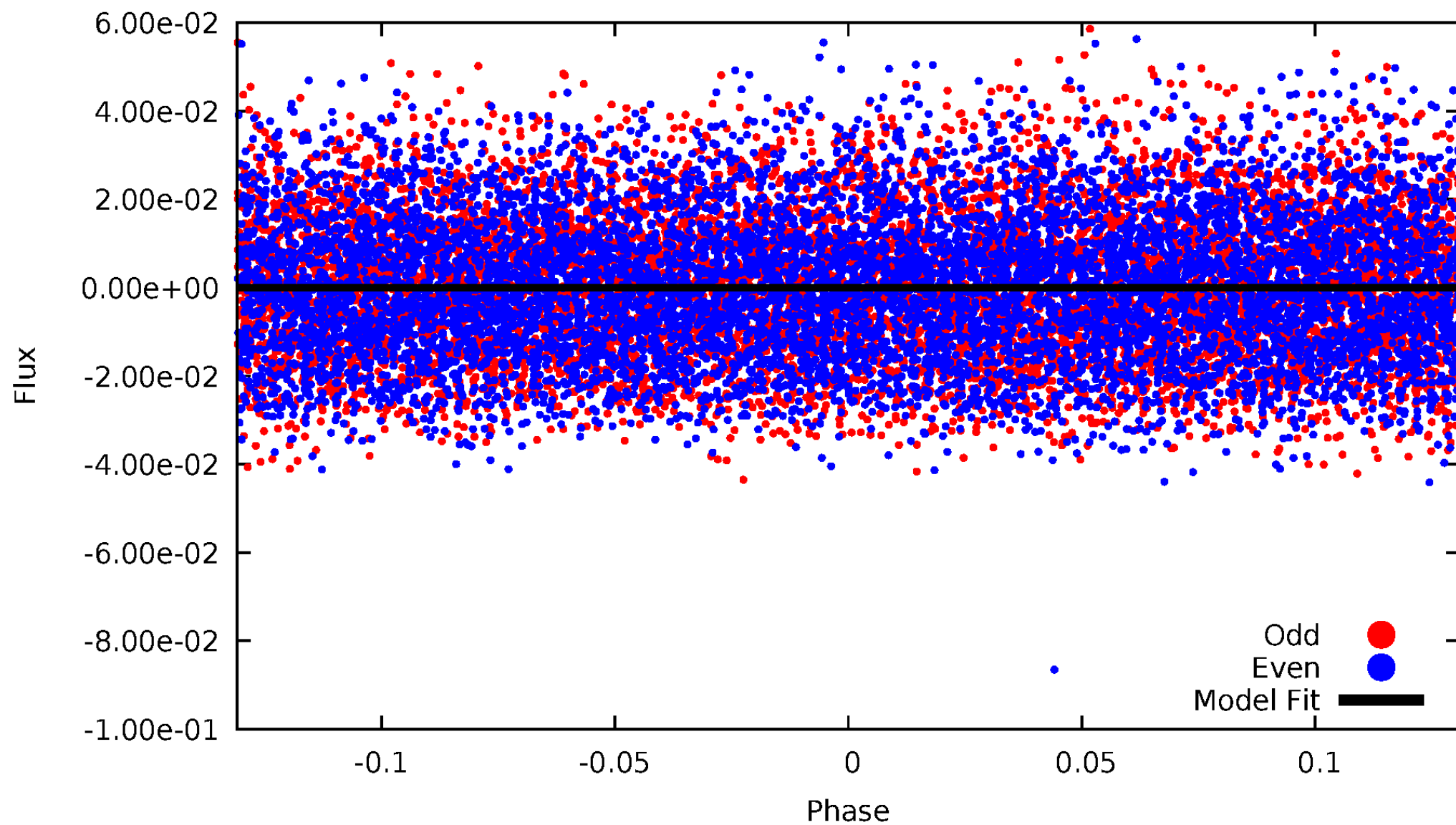
DV Odd/Even

TCE 008493159-01



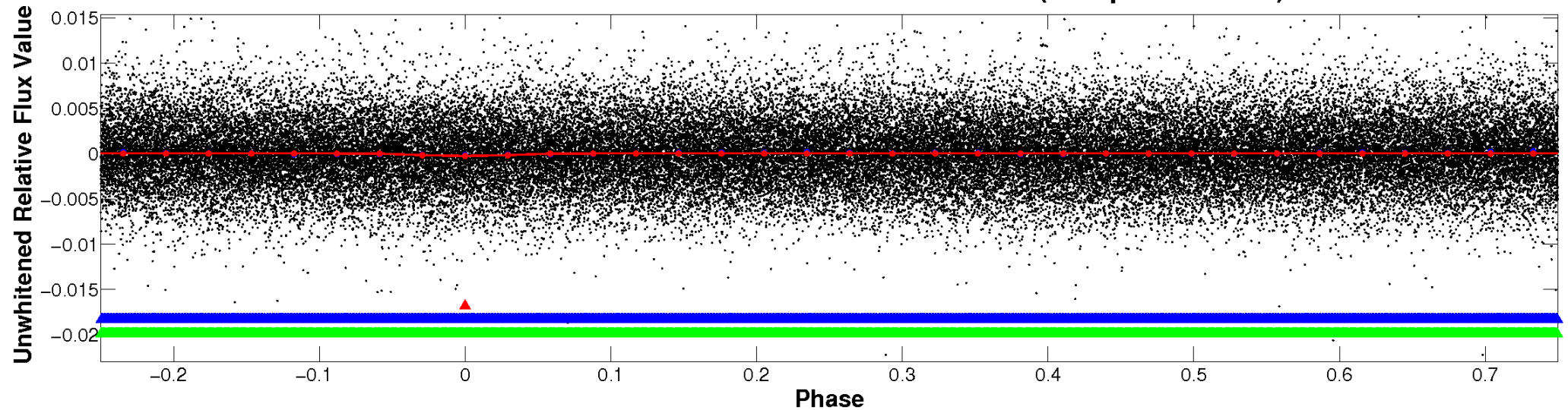
ALT Odd/Even

TCE 008493159-01

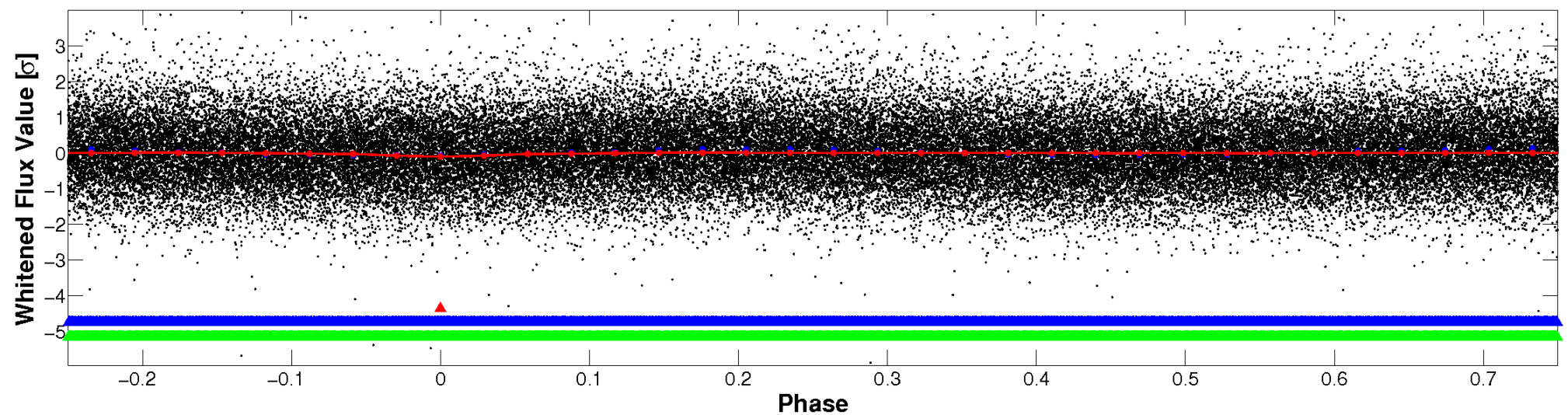


Non-Whitened Vs. Whitened Light Curve

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

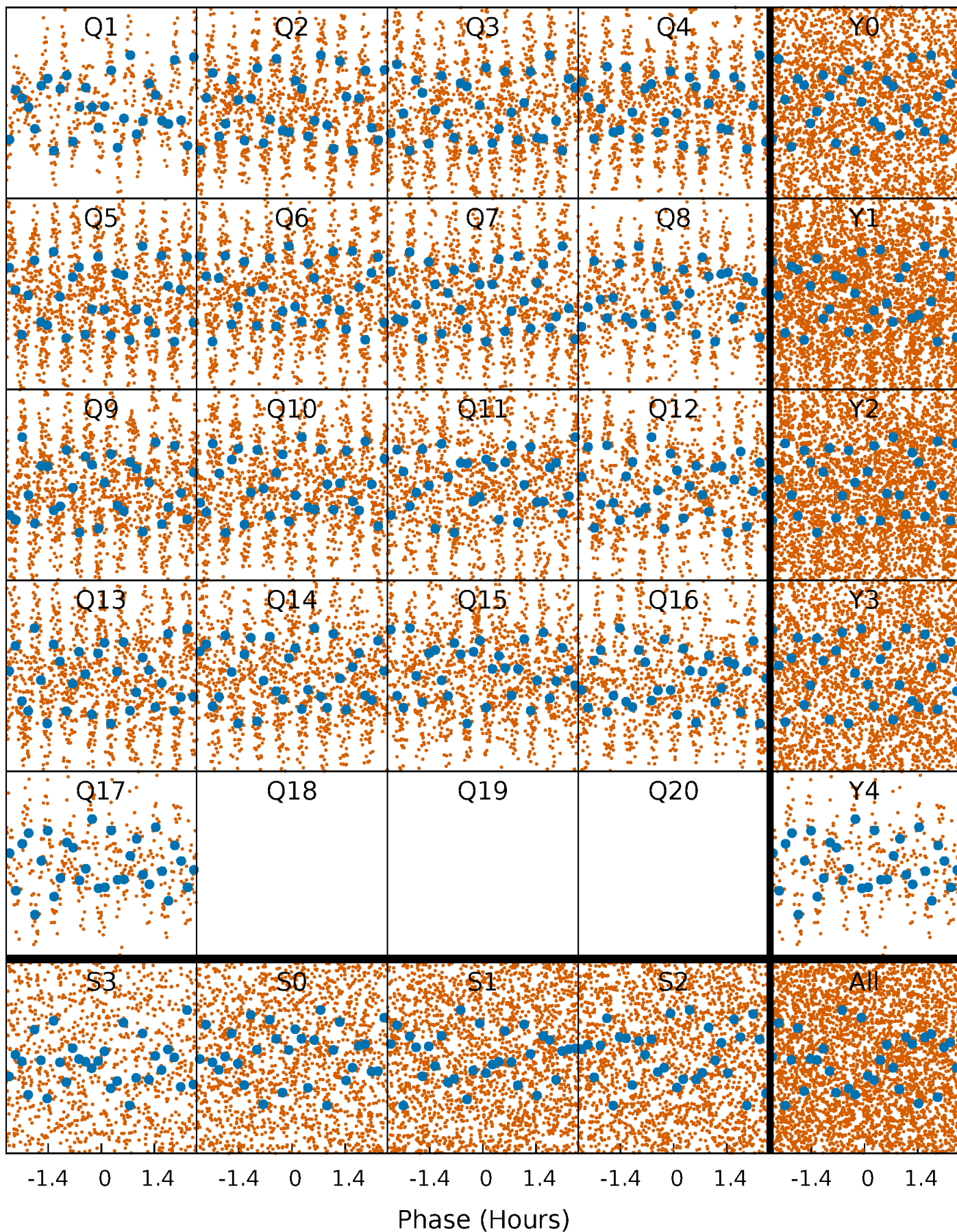


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



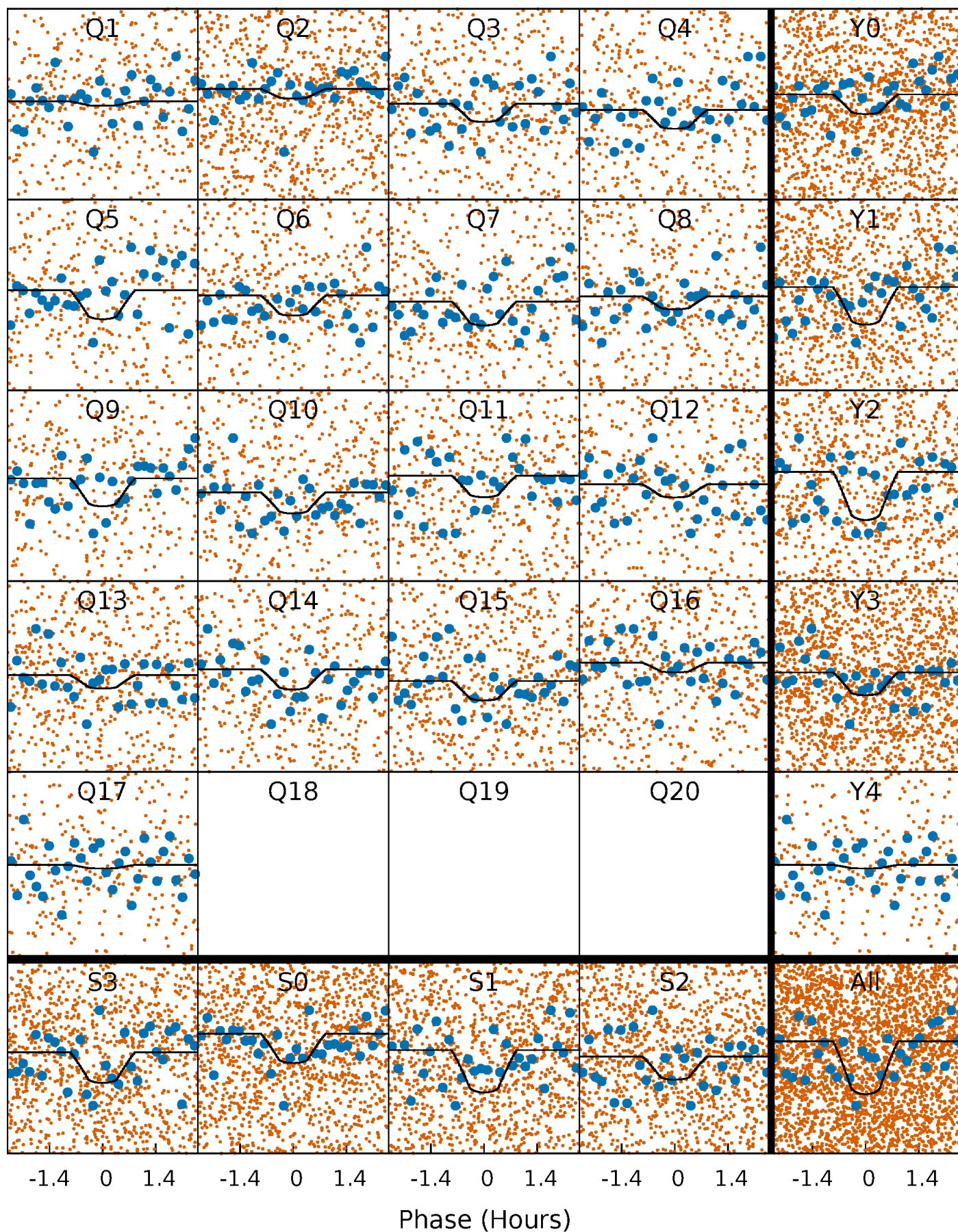
PDC Quarter-Phased Transit Curves

TCE 008493159-01 P= 0.696916 Days $T_0=132.012506$ (BKJD)



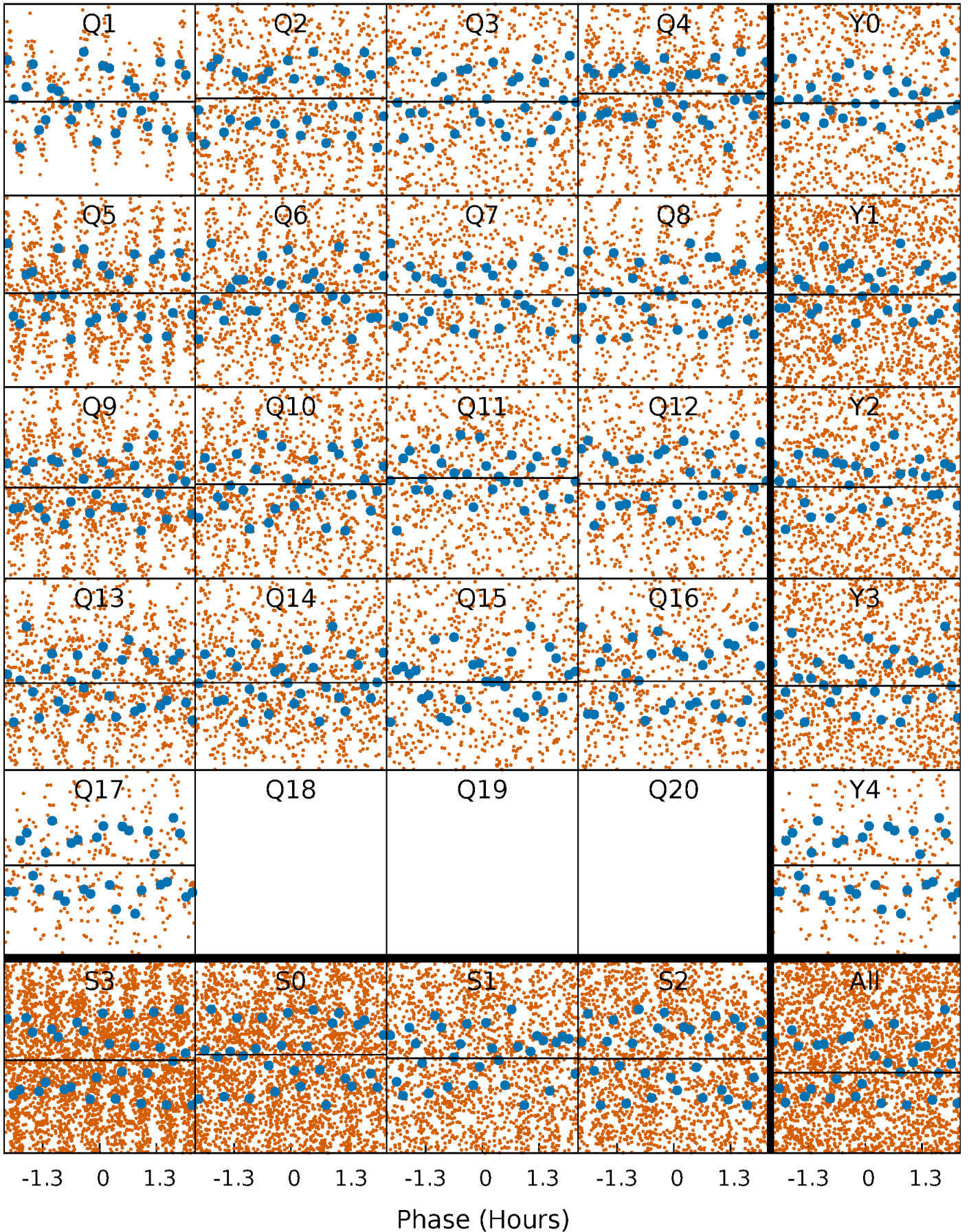
DV Quarter-Phased Transit Curves

TCE 008493159-01 P= 0.696916 Days $T_0=132.012506$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

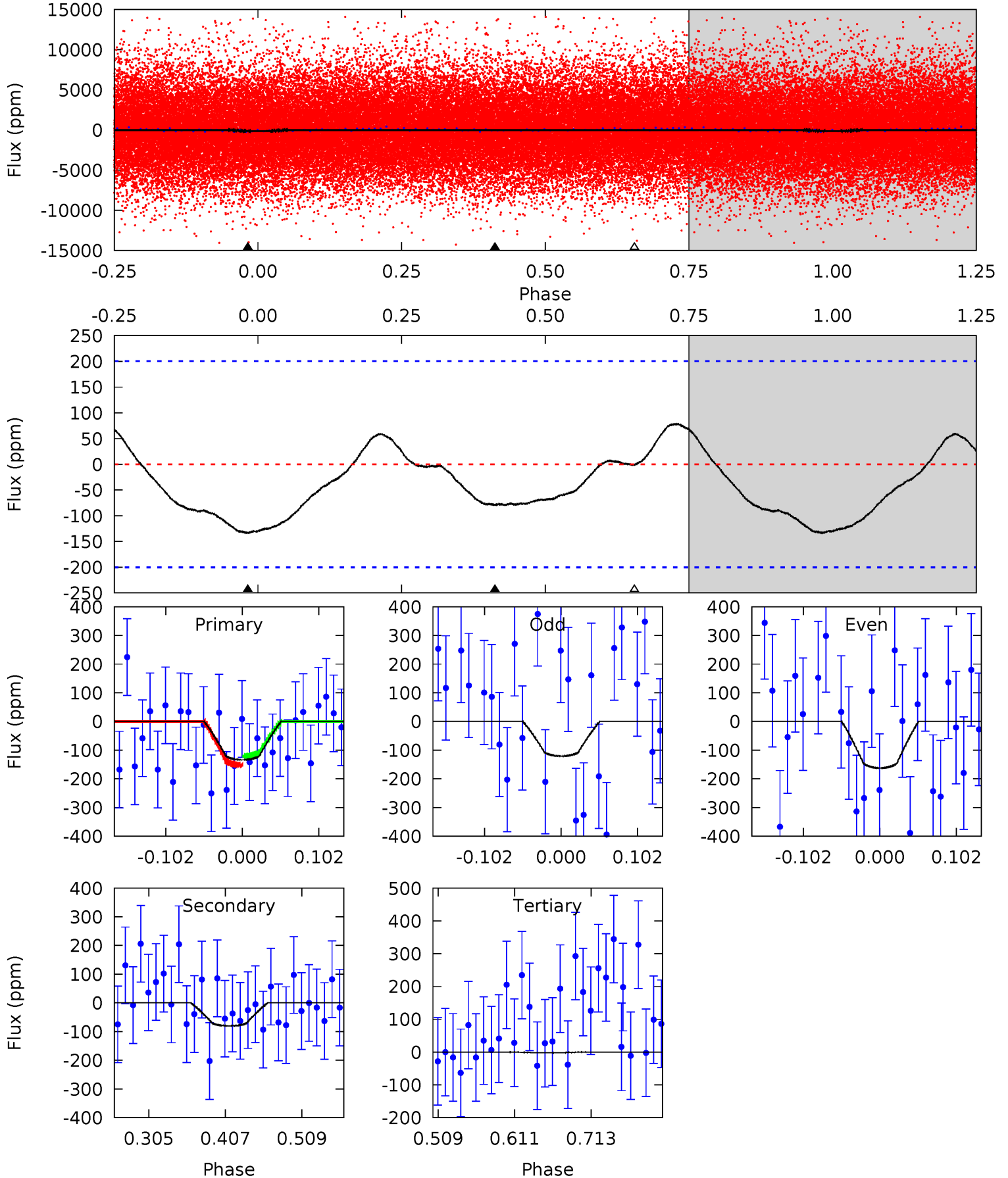
TCE 008493159-01 P= 0.696992 Days $T_0=131.963090$ (BKJD)



DV Model-Shift Uniqueness Test

008493159-01, P = 0.696916 Days, E = 131.315590 Days

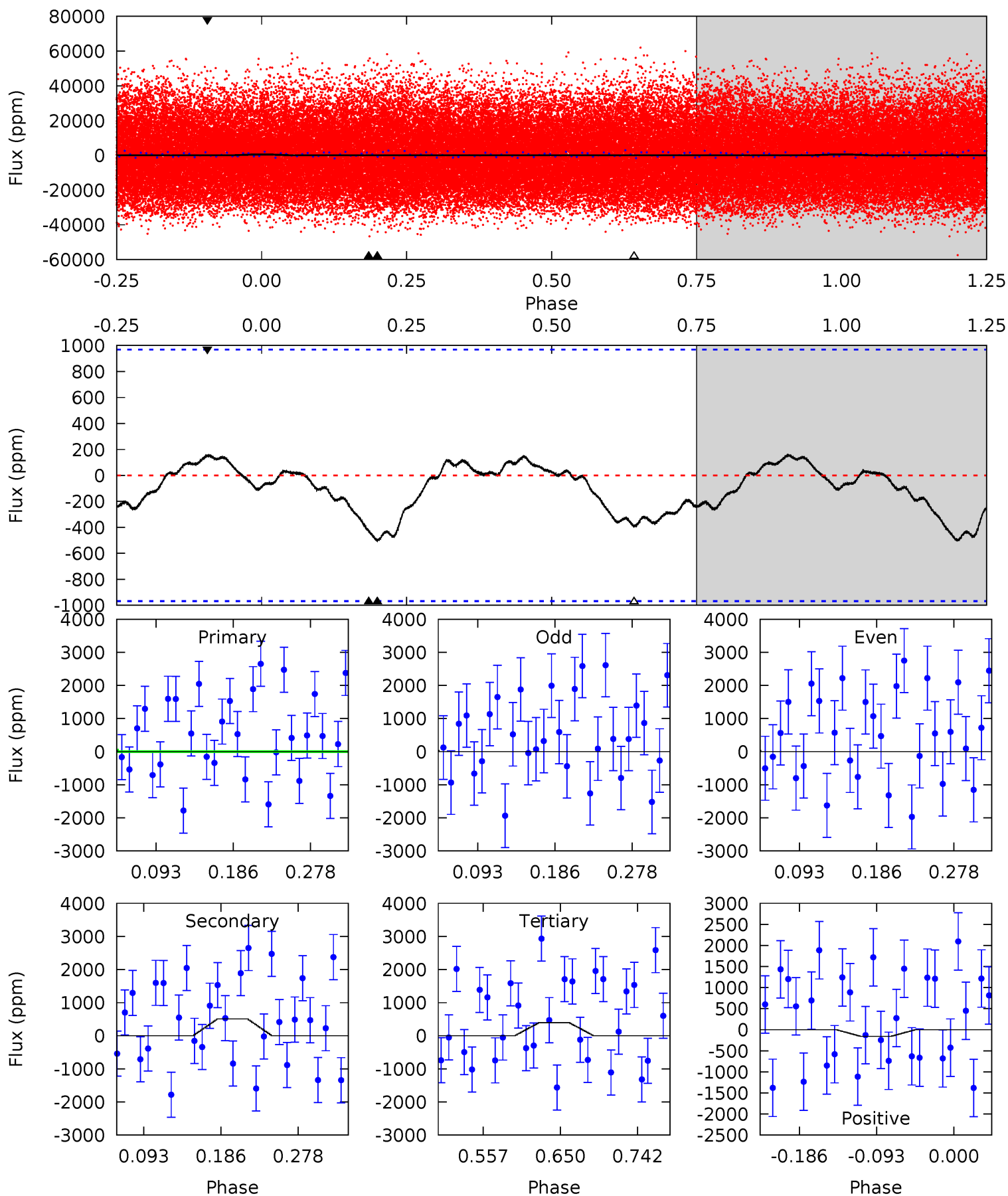
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.05	1.82	0.04	0	4.56	1.64	0.99	3.00	3.05	1.78	1.82	0.48	1.03	0.37	0.35



Alt Model-Shift Uniqueness Test

008493159-01, P = 0.696992 Days, E = 131.266098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.08	2.40	1.87	0.75	4.58	1.68	0.73	0.20	1.33	0.52	1.65	0.02	3.48	0.24	1.26



Stellar Parameters For KIC 008493159

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6765^{+189}_{-284}	$3.979^{+0.322}_{-0.138}$	$-0.260^{+0.250}_{-0.300}$	$1.971^{+0.554}_{-0.738}$	$1.355^{+0.206}_{-0.275}$	$0.249^{+0.542}_{-0.117}$
	+3%/-4%	+8%/-3%	+96%/-115%	+28%/-37%	+15%/-20%	+218%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008493159-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-80 ± 44	$4.71^{+4.51}_{-3.34}$	4402^{+352}_{-405}	3469^{+3767}_{-7171}	$0.473^{+5.267}_{-0.368}$
Alt.	-507 ± 211	$3.36^{+4.06}_{-2.27}$	4377^{+340}_{-409}	7695^{+13220}_{-2857}	$6.686^{+62.386}_{-5.440}$

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 $A_{obs} \gg 1.0$

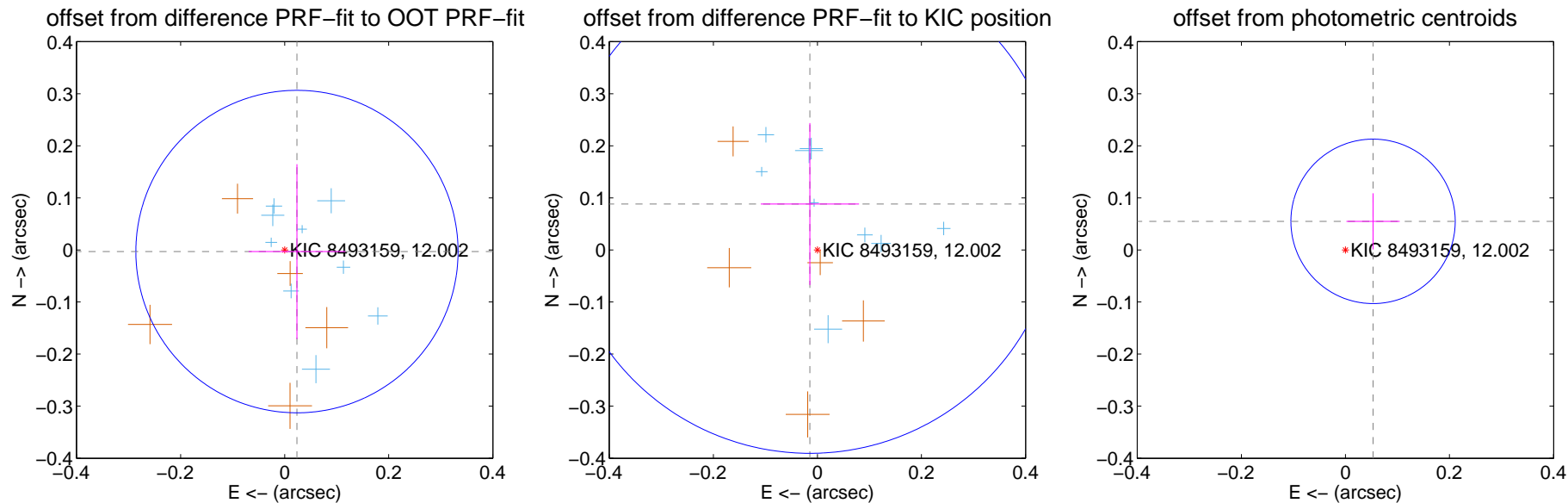
DV Centroid Data

Supplemental centroid analysis for 008493159-01. Kepler magnitude: 12.00. Transit SNR 6.71

There are 11 quarters with good PRF difference image offsets

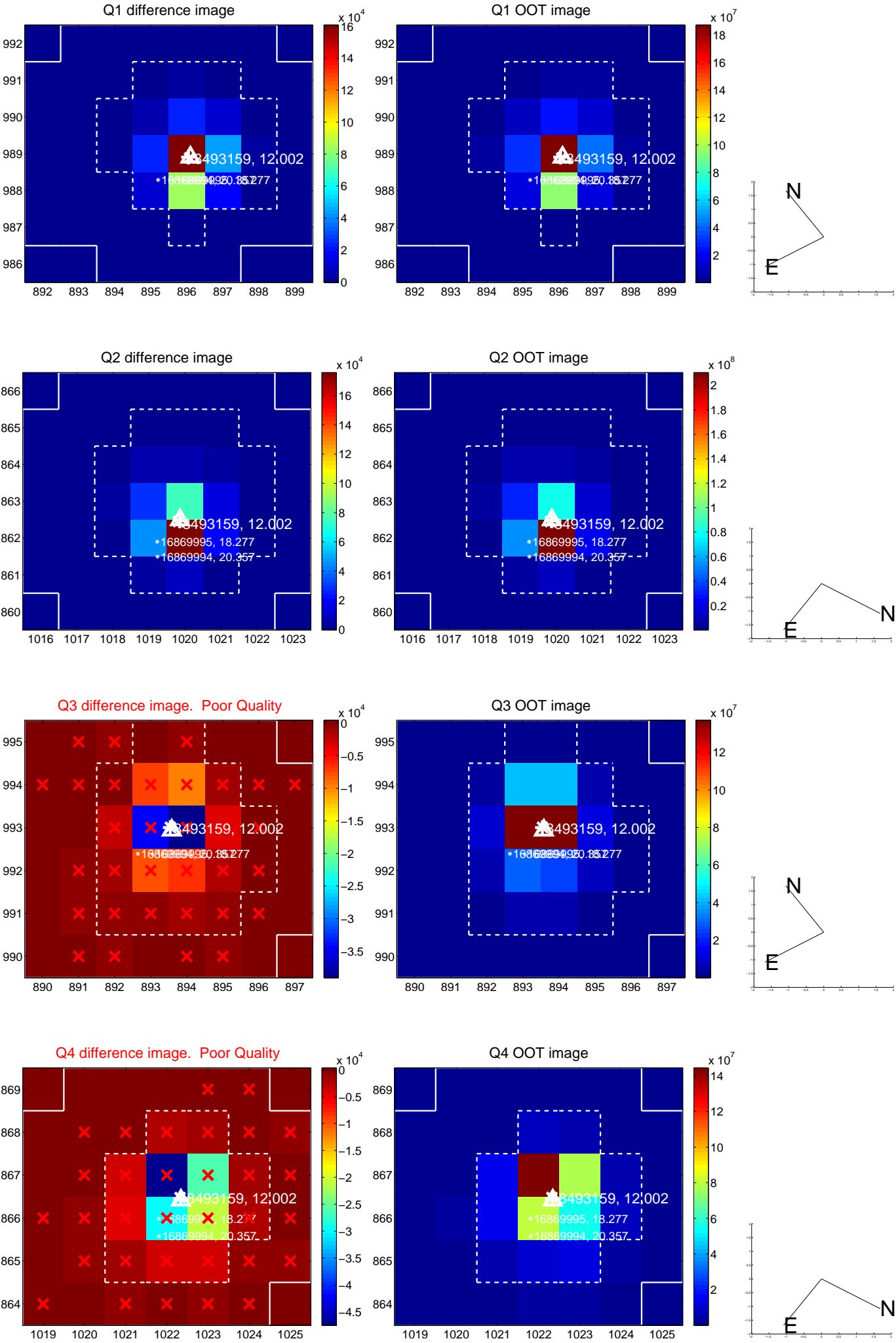
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.103	0.23	-0.024 ± 0.093	-0.003 ± 0.168
PRF-fit source offset from KIC position	0.089 ± 0.160	0.56	0.014 ± 0.095	0.088 ± 0.156
photometric centroid source offset	0.08 ± 0.05	1.45	-0.05 ± 0.05	0.05 ± 0.05

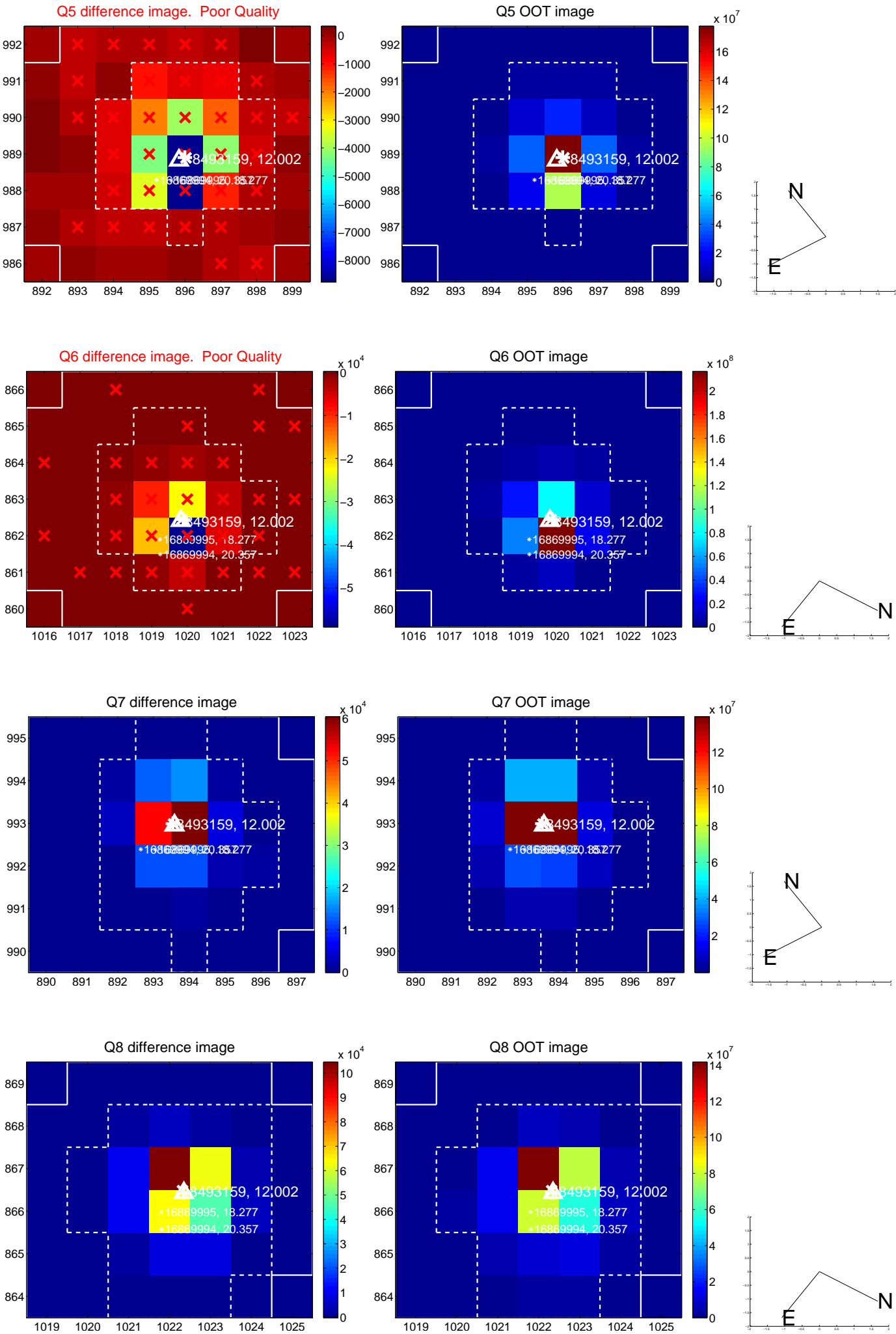


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

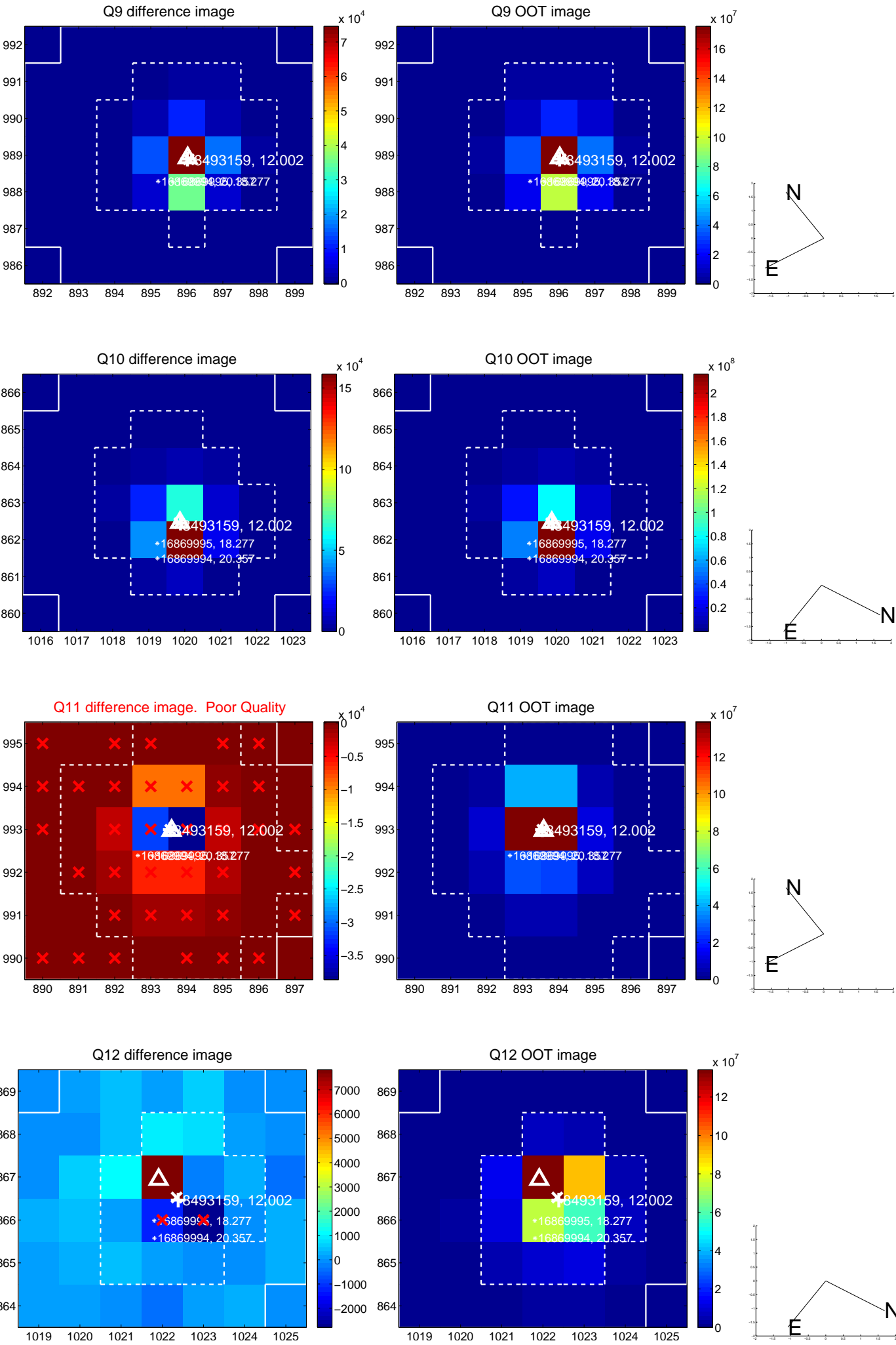
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



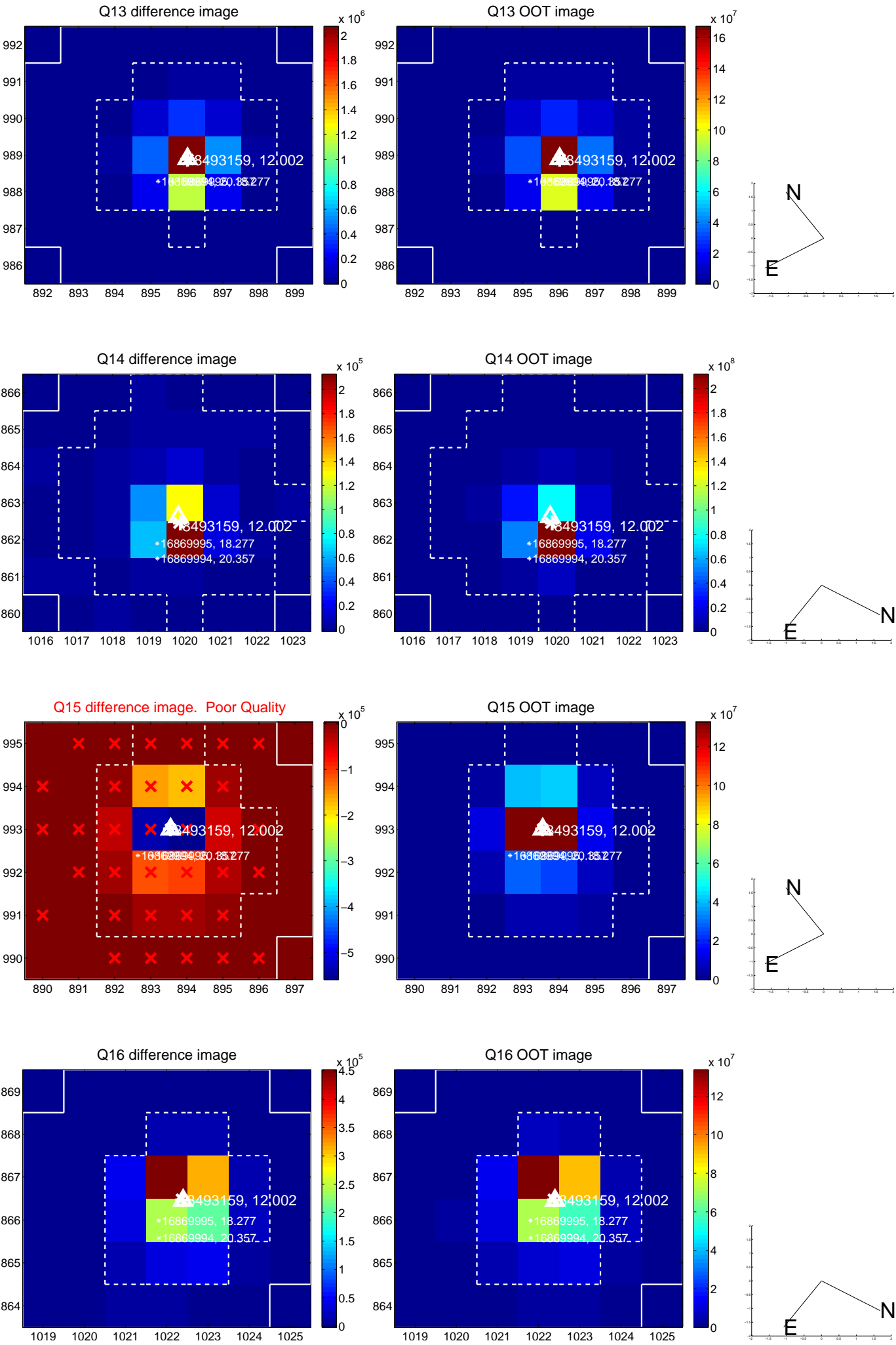
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



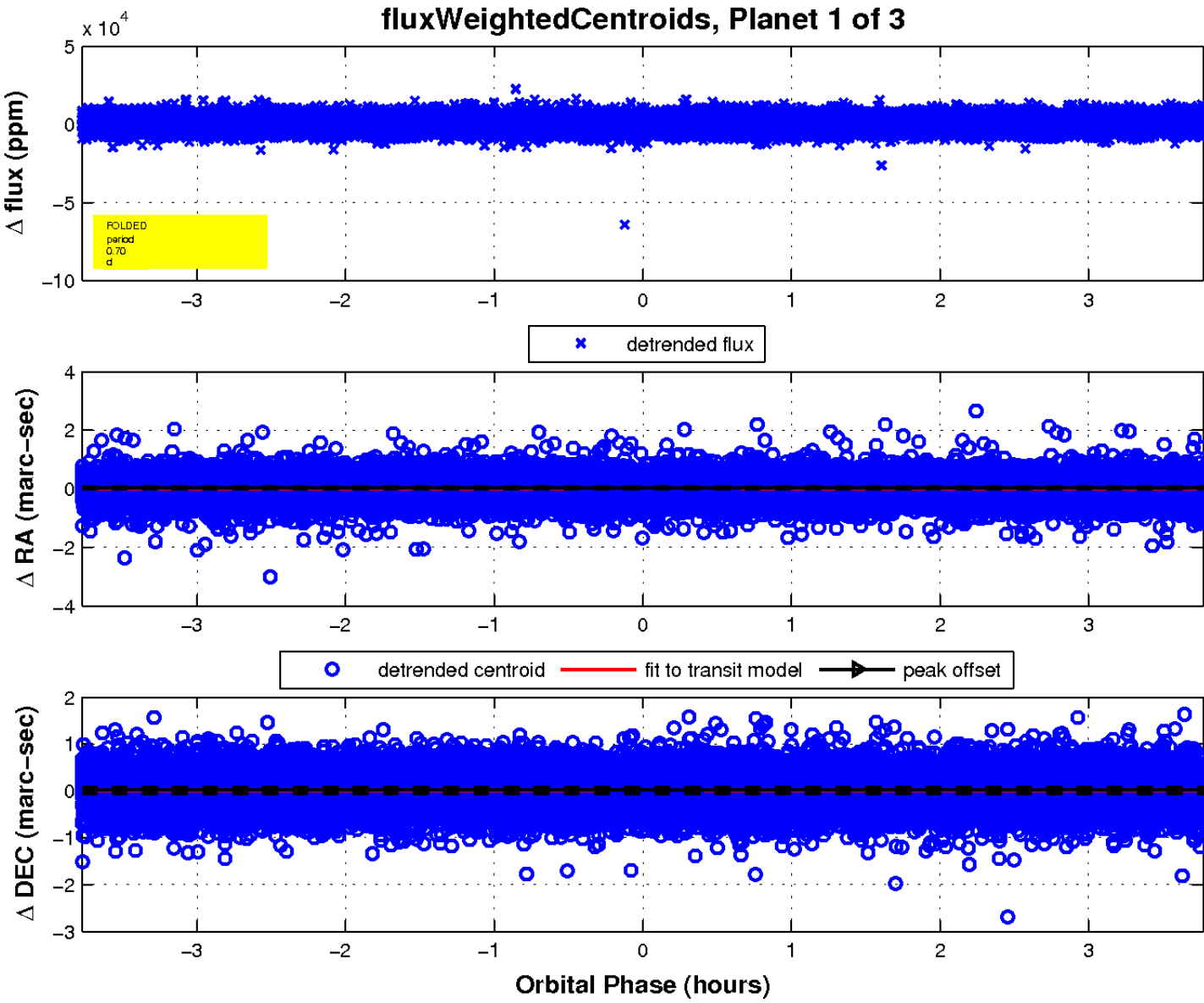
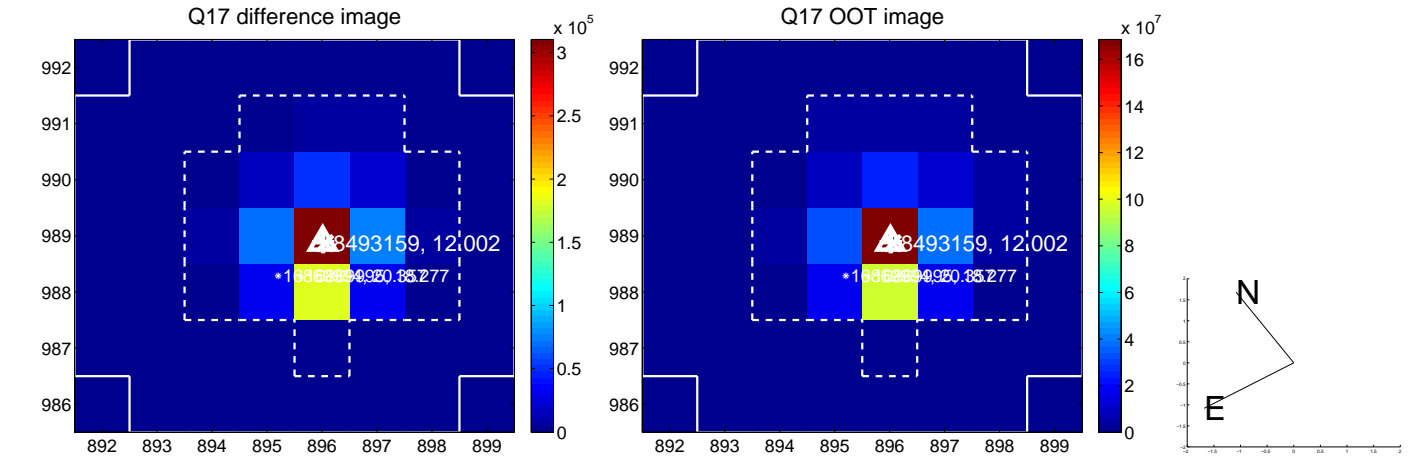
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

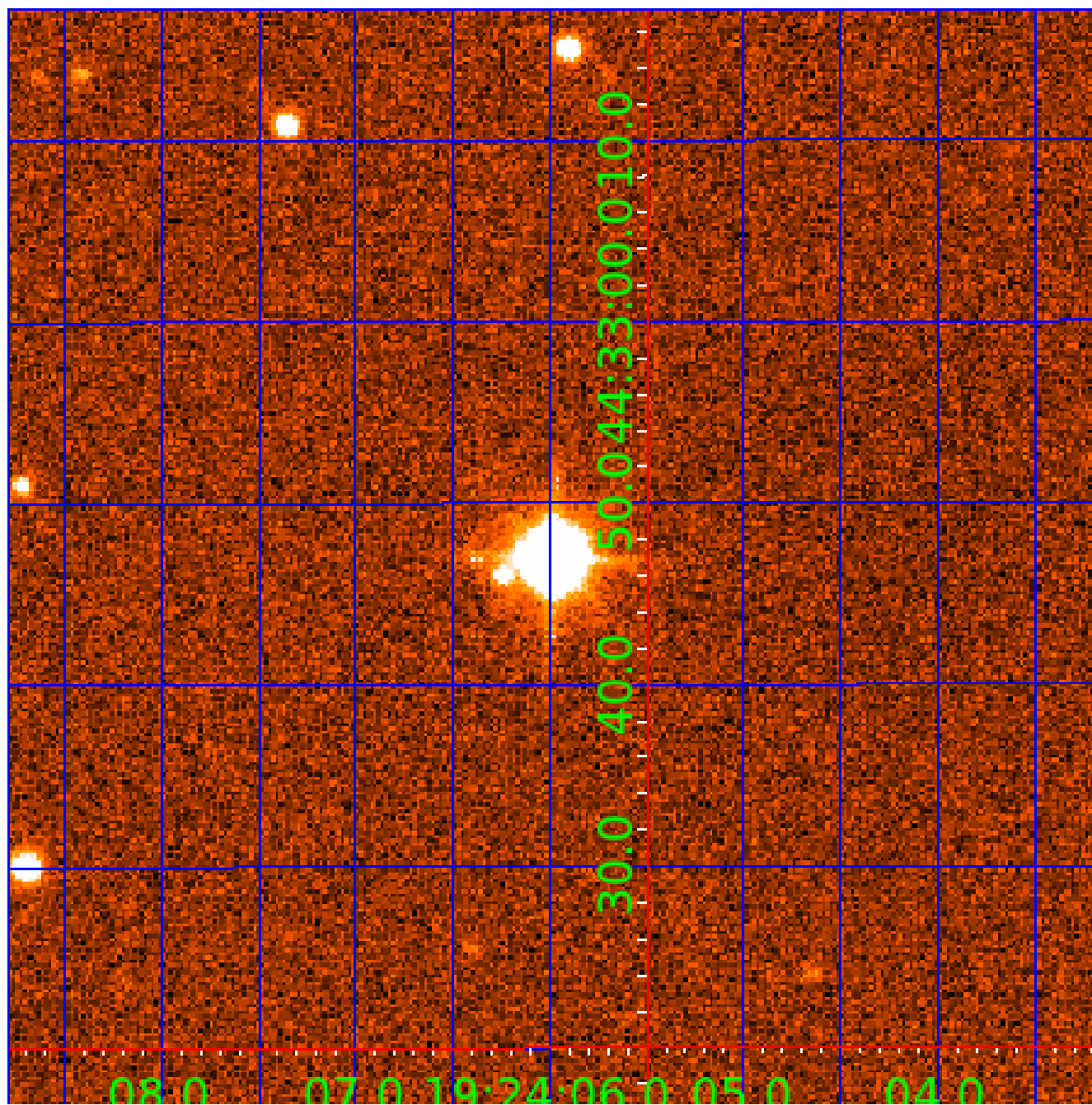


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008493159

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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008493159-03	OBS	No	0.605042	131.933975	2242.8	2.728	14.0	18.7	1.97	6765	10.90	30435.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008493159-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008493159-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

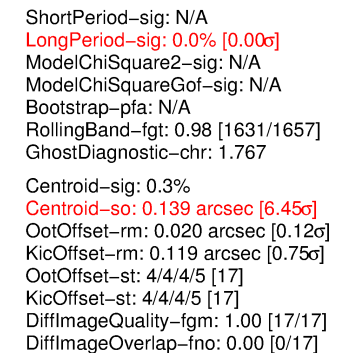
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

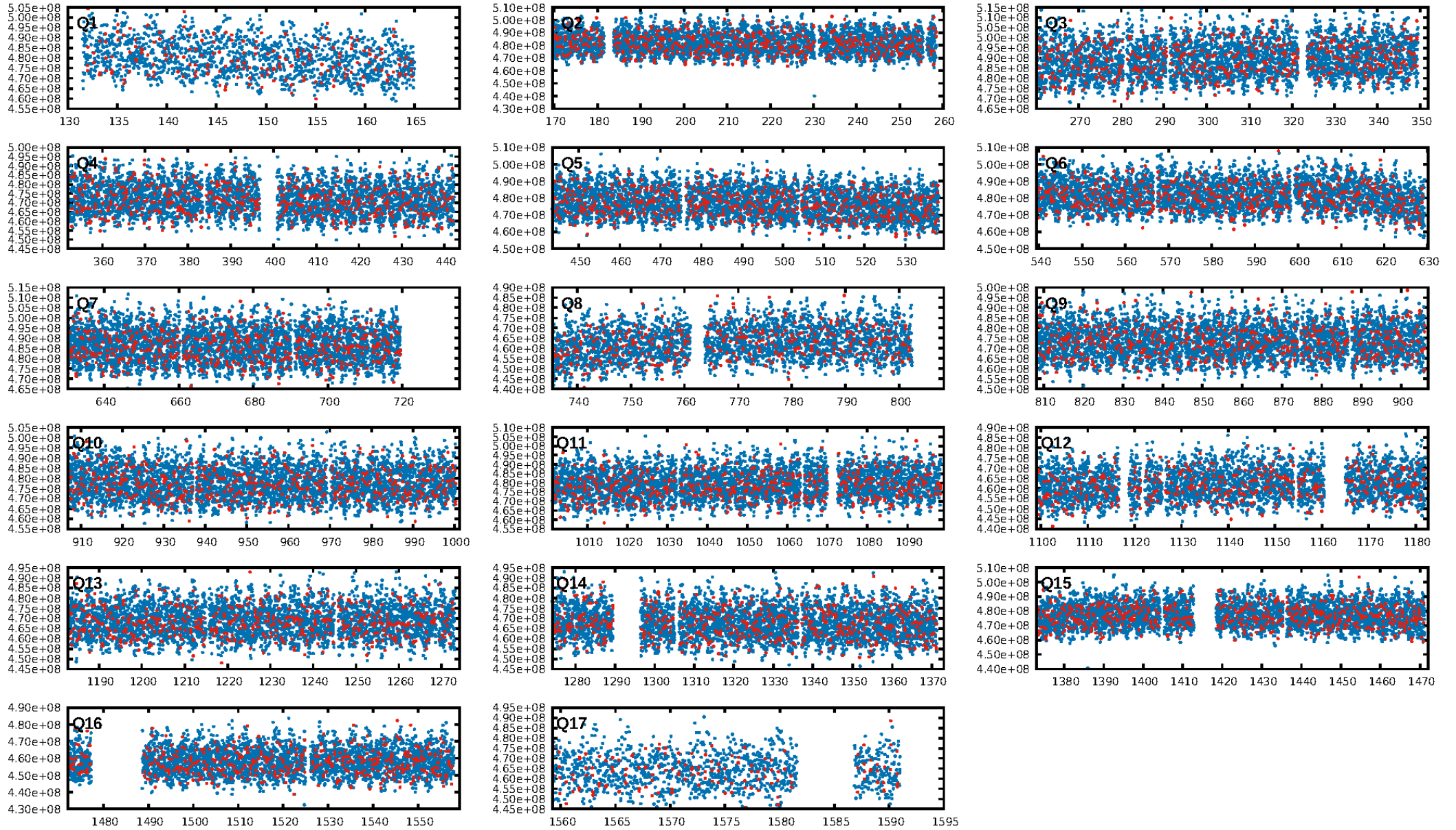
Ephemeris Match Information For 008493159-02

No Significant Match Found

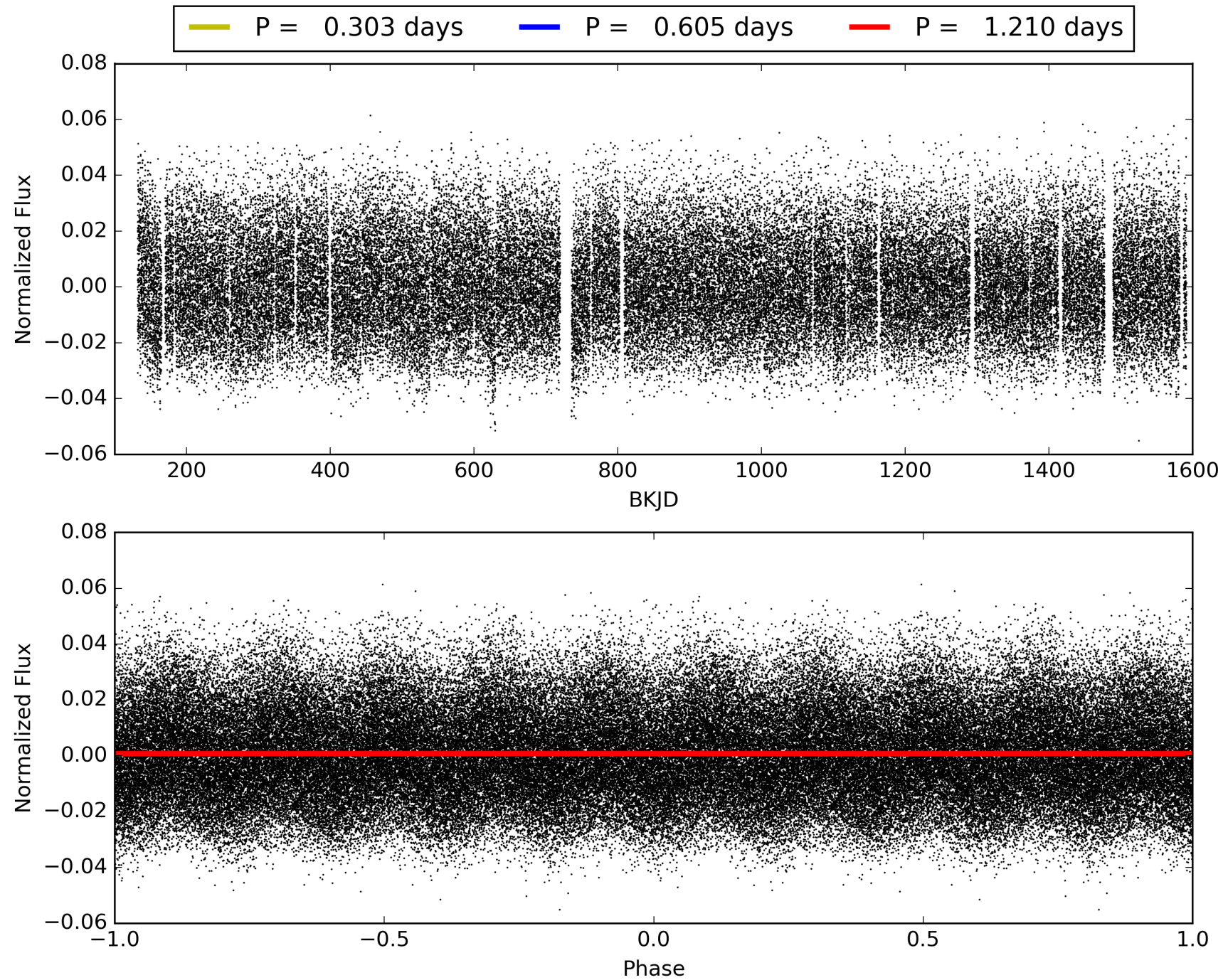
KIC: 8493159 Candidate: 2 of 3 Period: 0.605 d



TCE 008493159-02, PDC Light Curves

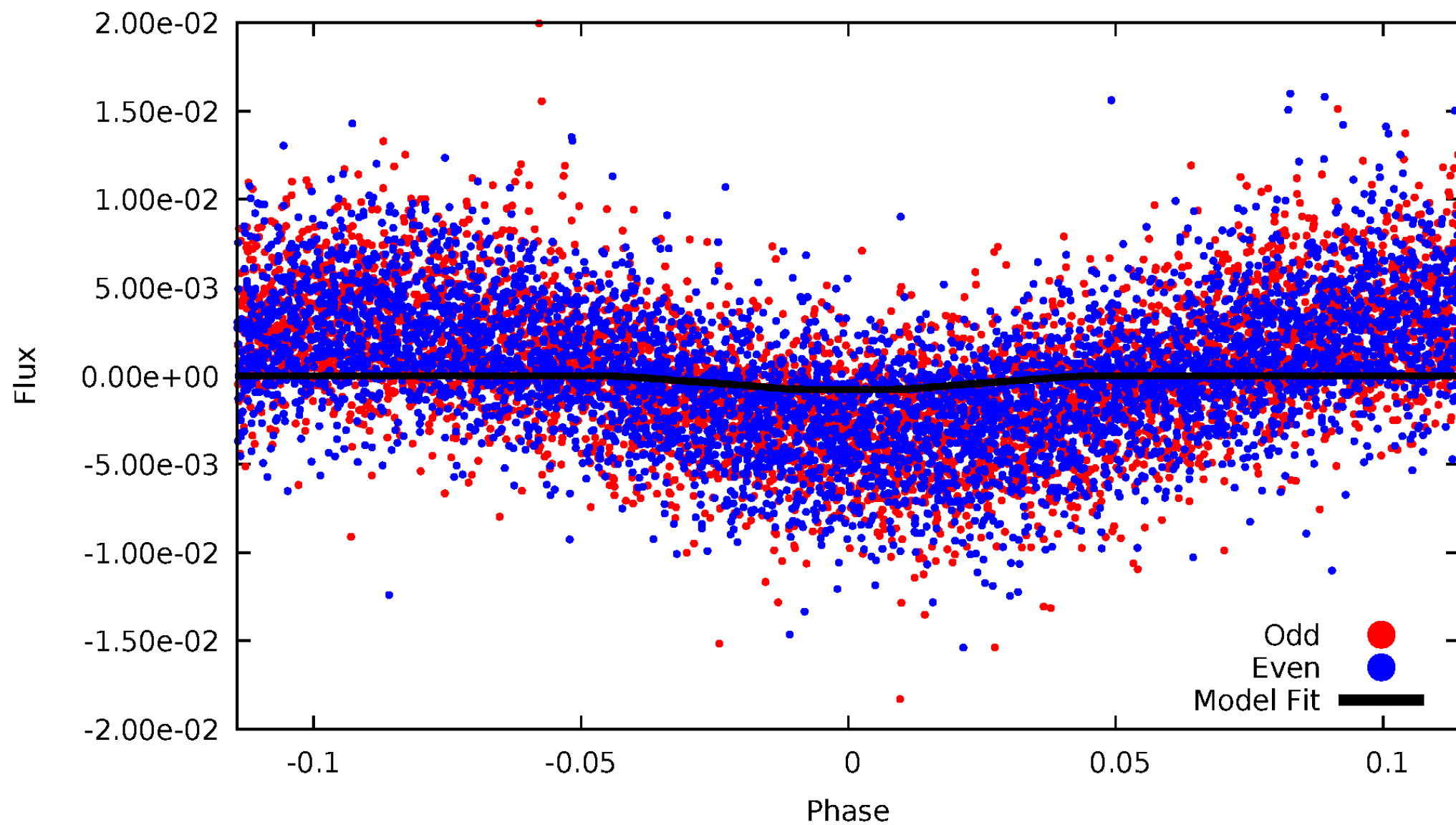


TCE 008493159-02



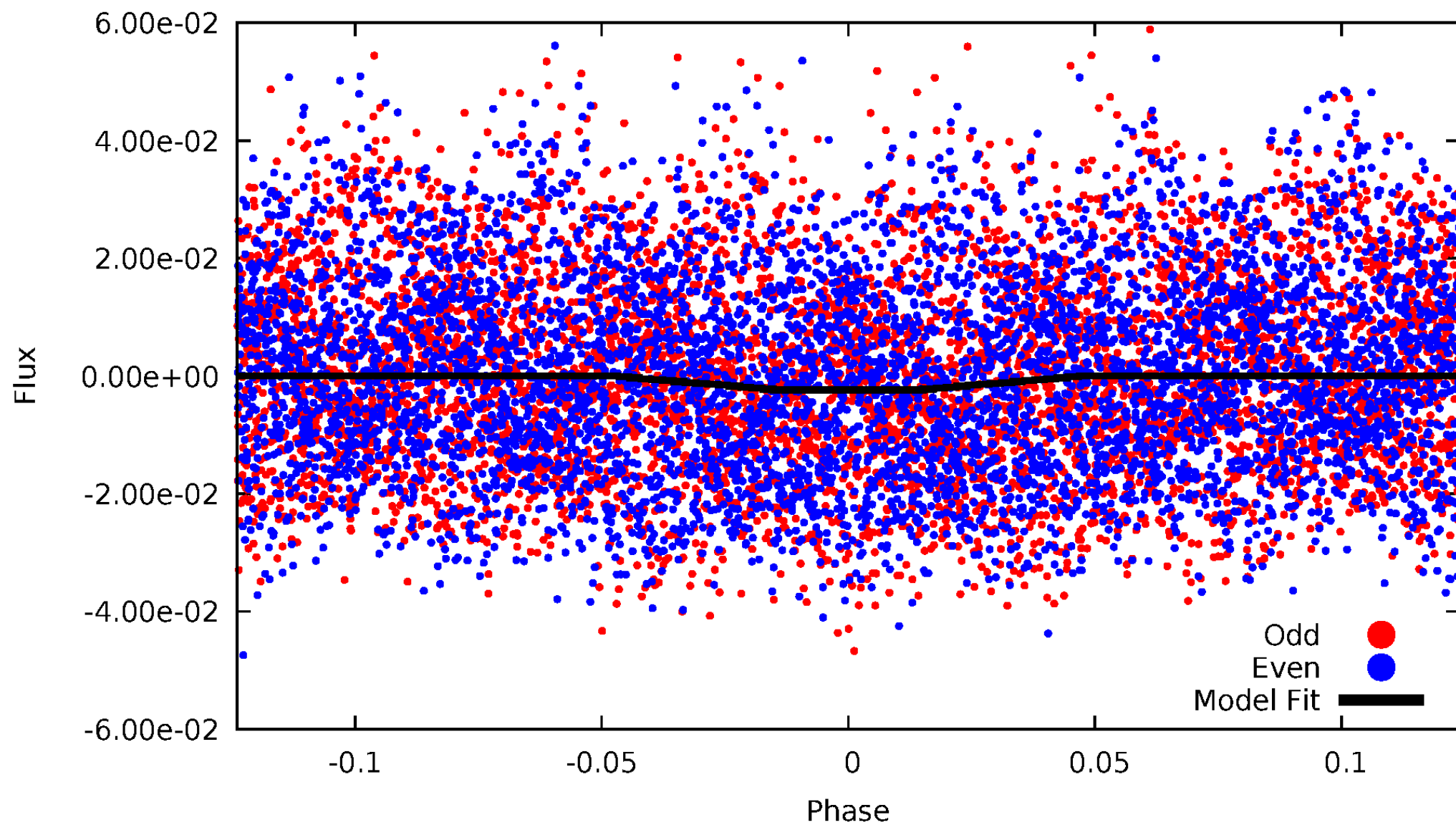
DV Odd/Even

TCE 008493159-02



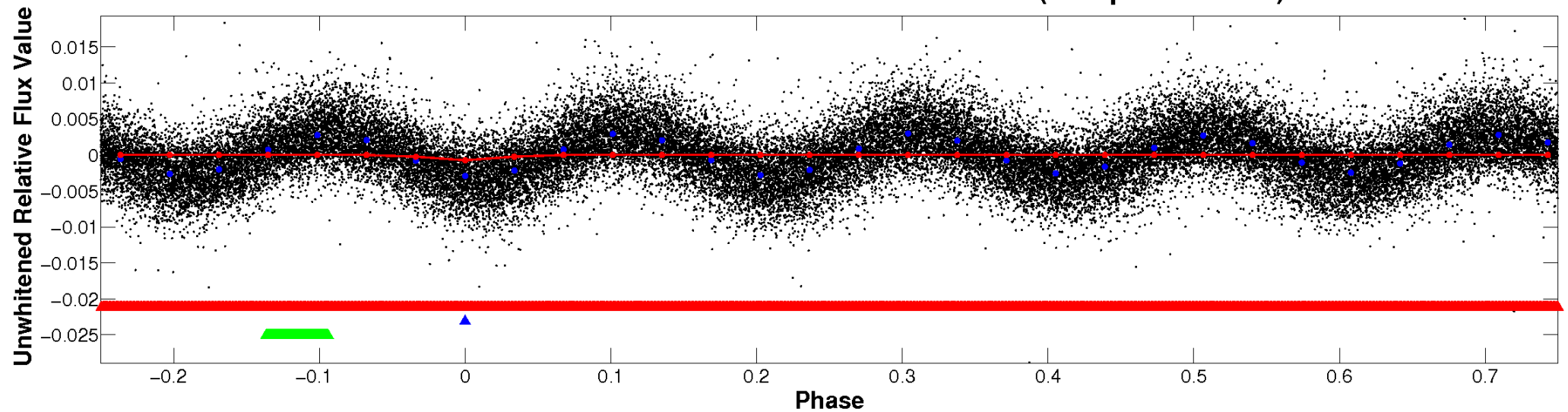
ALT Odd/Even

TCE 008493159-02

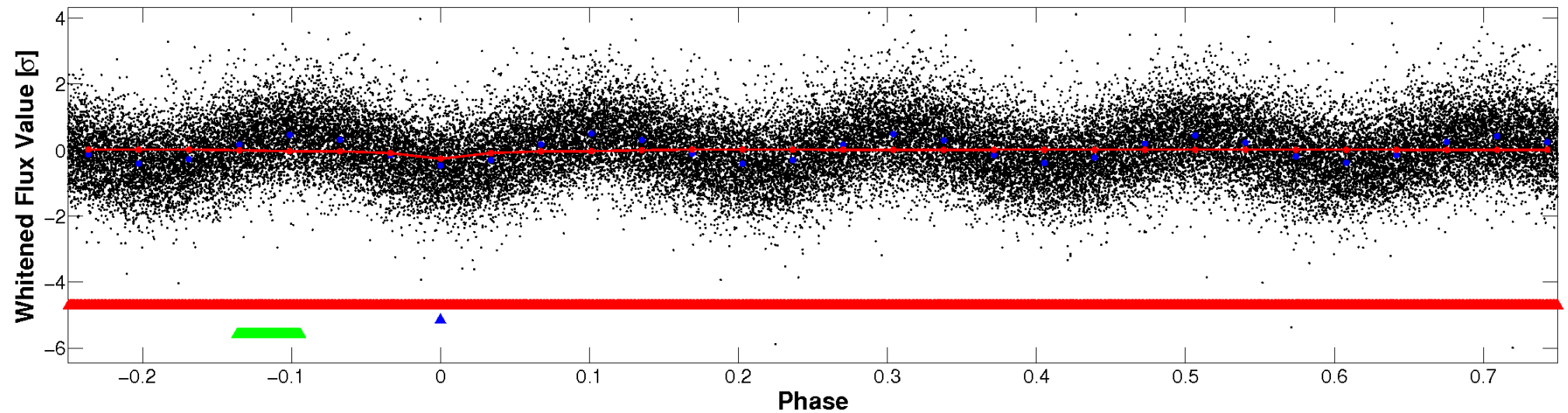


Non-Whitened Vs. Whitened Light Curve

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

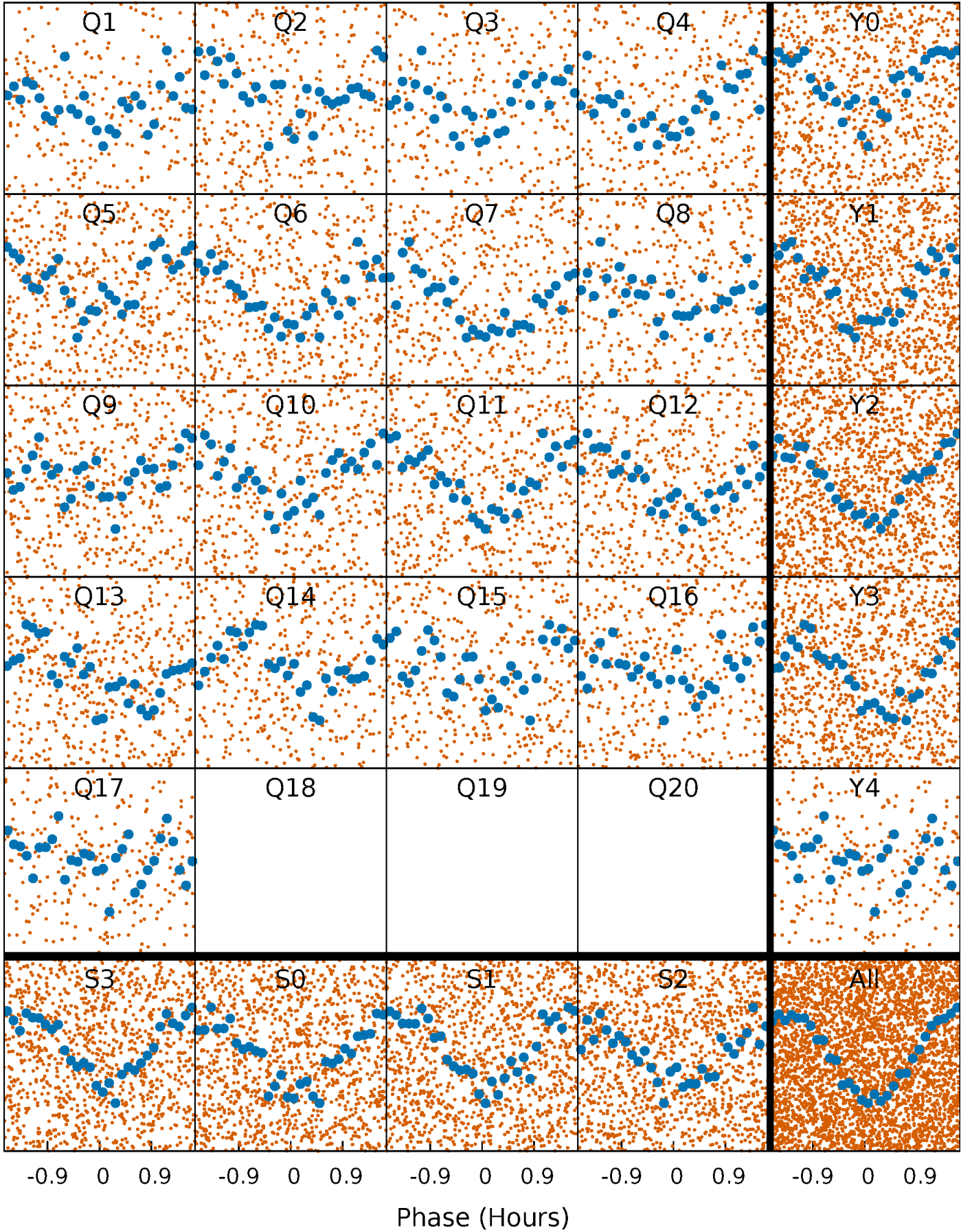


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



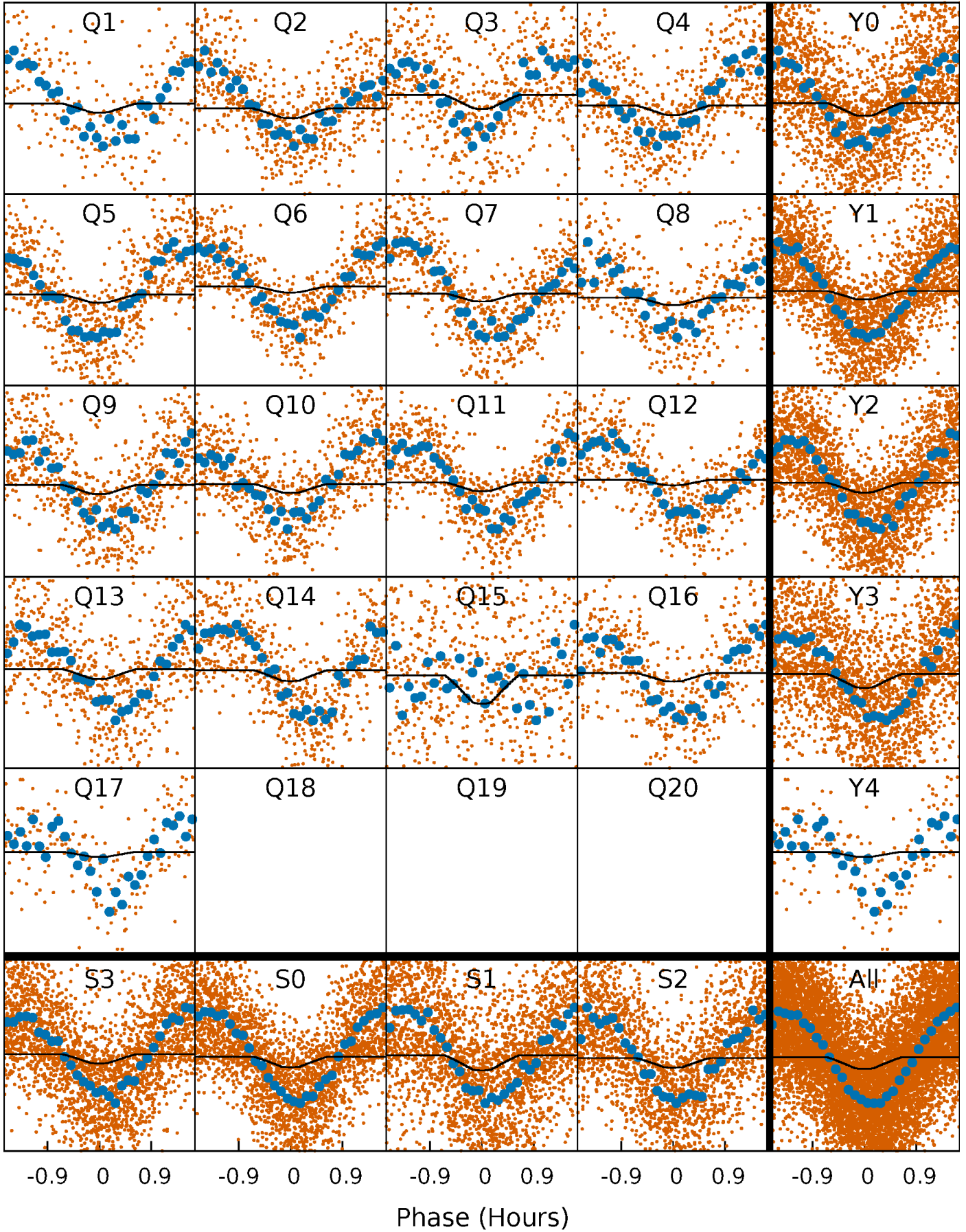
PDC Quarter-Phased Transit Curves

TCE 008493159-02 P= 0.605031 Days $T_0=132.016492$ (BKJD)



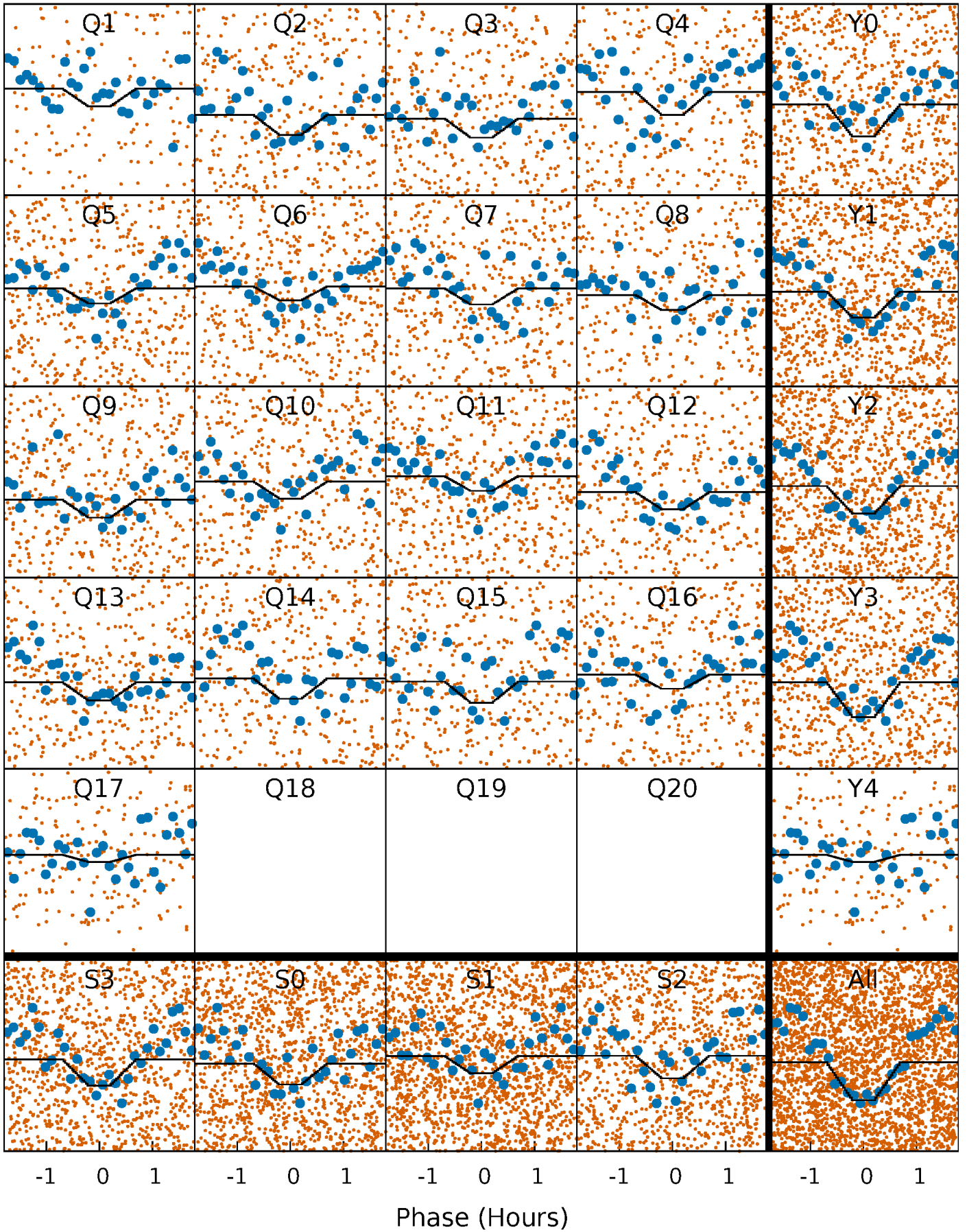
DV Quarter-Phased Transit Curves

TCE 008493159-02 P= 0.605031 Days $T_0=132.016492$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

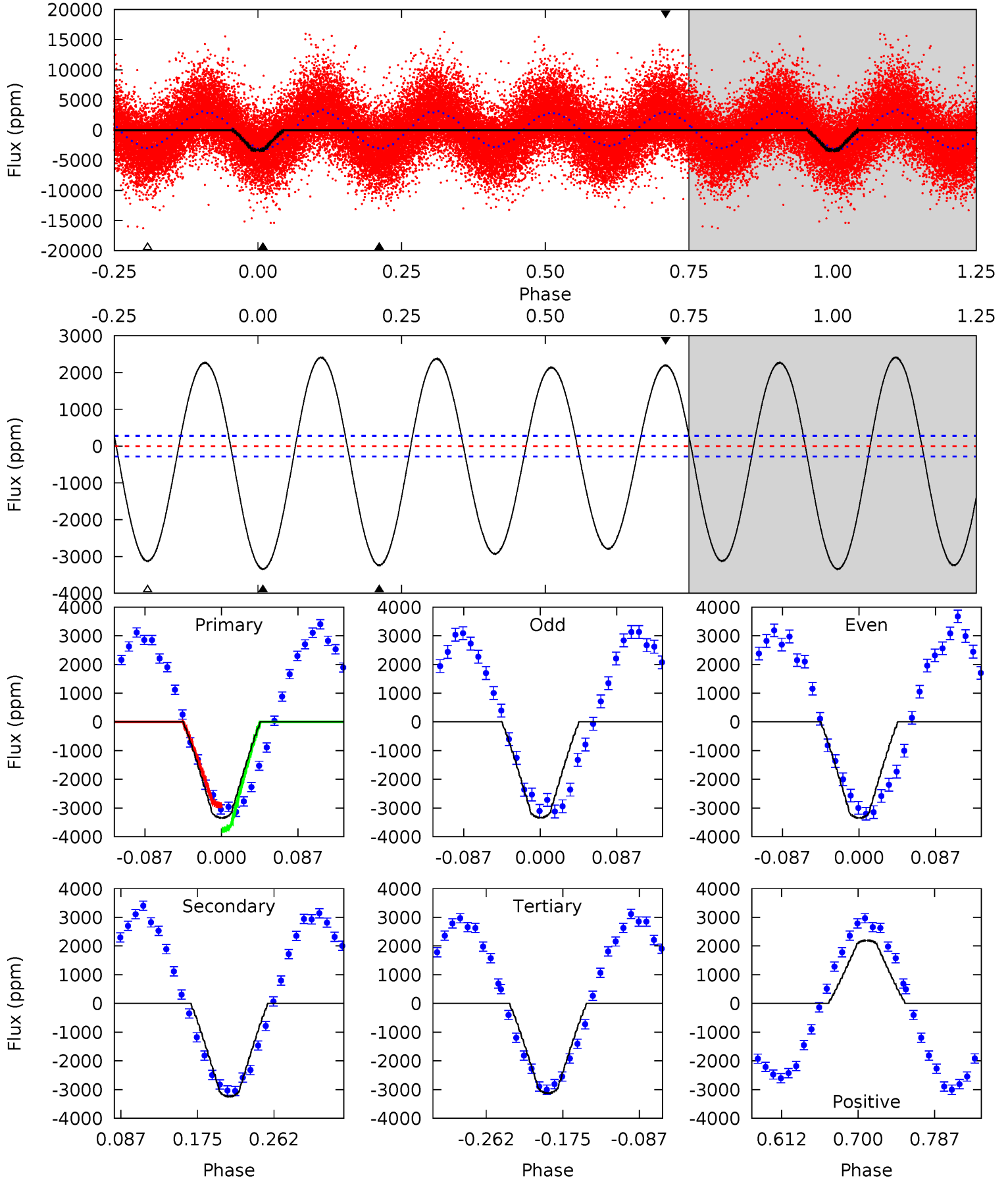
TCE 008493159-02 P= 0.605040 Days $T_0=132.009482$ (BKJD)



DV Model-Shift Uniqueness Test

008493159-02, P = 0.605031 Days, E = 131.411461 Days

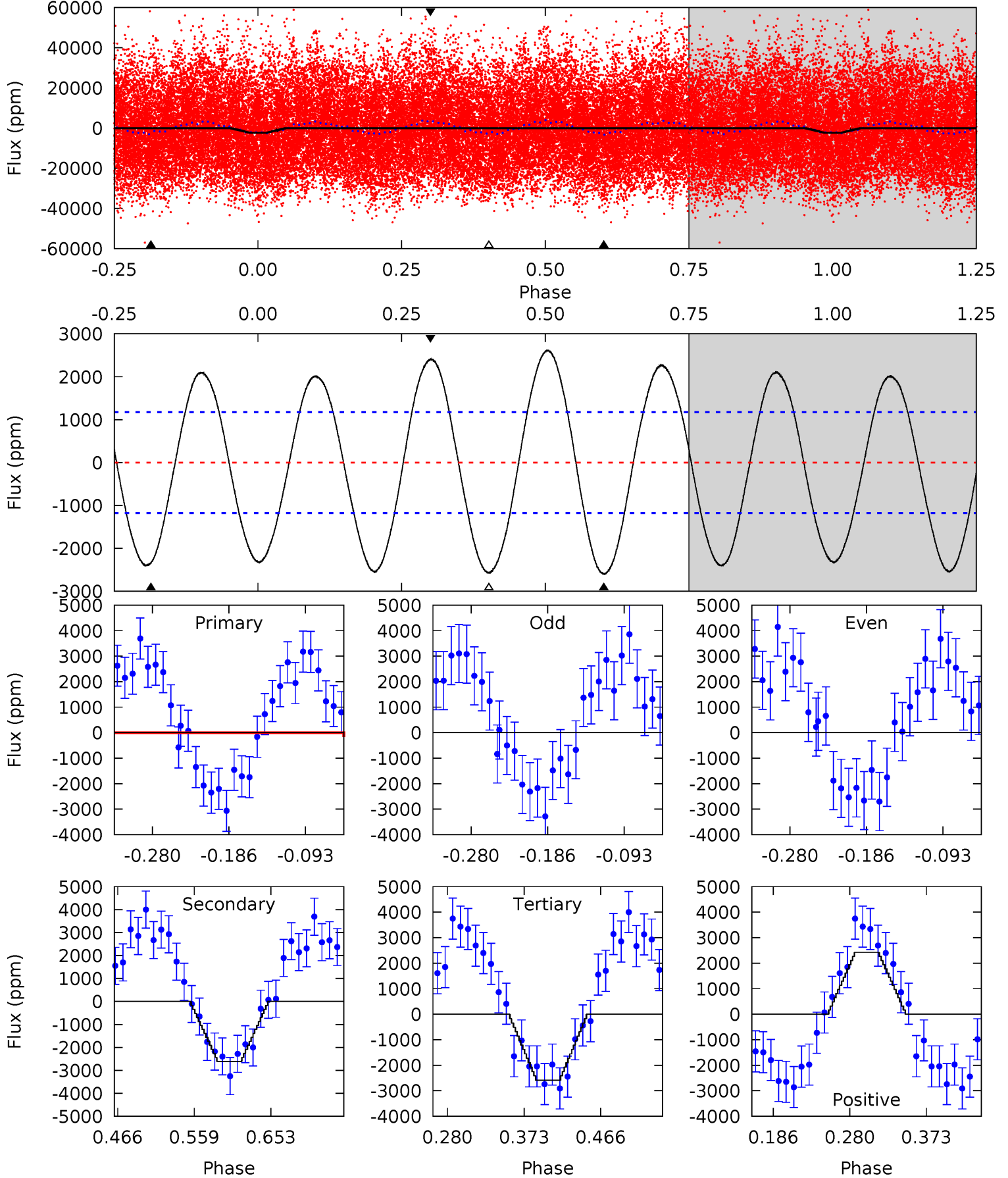
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.6	53.0	51.1	35.9	4.59	1.71	31.0	3.58	18.7	1.93	17.1	0.07	1.08	0.42	7.02



Alt Model-Shift Uniqueness Test

008493159-02, P = 0.605040 Days, E = 131.404442 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.15	10.2	10.1	9.45	4.58	1.68	6.67	-0.94	-0.30	0.09	0.73	0.31	0.78	0.50	0.42



Stellar Parameters For KIC 008493159

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6765^{+189}_{-284}	$3.979^{+0.322}_{-0.138}$	$-0.260^{+0.250}_{-0.300}$	$1.971^{+0.554}_{-0.738}$	$1.355^{+0.206}_{-0.275}$	$0.249^{+0.542}_{-0.117}$
	+3%/-4%	+8%/-3%	+96%/-115%	+28%/-37%	+15%/-20%	+218%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008493159-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3242 ± 61	$5.54^{+3.05}_{-2.69}$	4596^{+388}_{-454}	10627^{+9082}_{-2659}	14^{+39}_{-8}
Alt.	-2610 ± 257	$9.97^{+3.90}_{-3.43}$	4582^{+388}_{-439}	6696^{+1768}_{-1015}	$3.515^{+4.436}_{-1.657}$

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 $A_{obs} \gg 1.0$

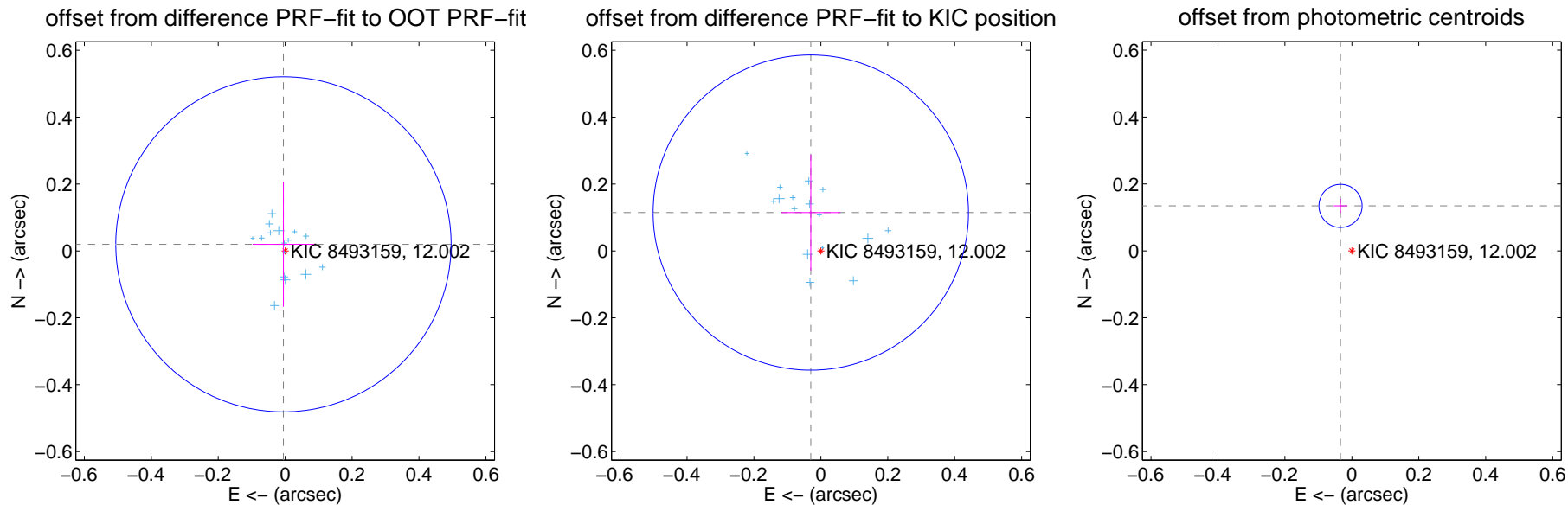
DV Centroid Data

Supplemental centroid analysis for 008493159-02. Kepler magnitude: 12.00. Transit SNR 12.14

There are 17 quarters with good PRF difference image offsets

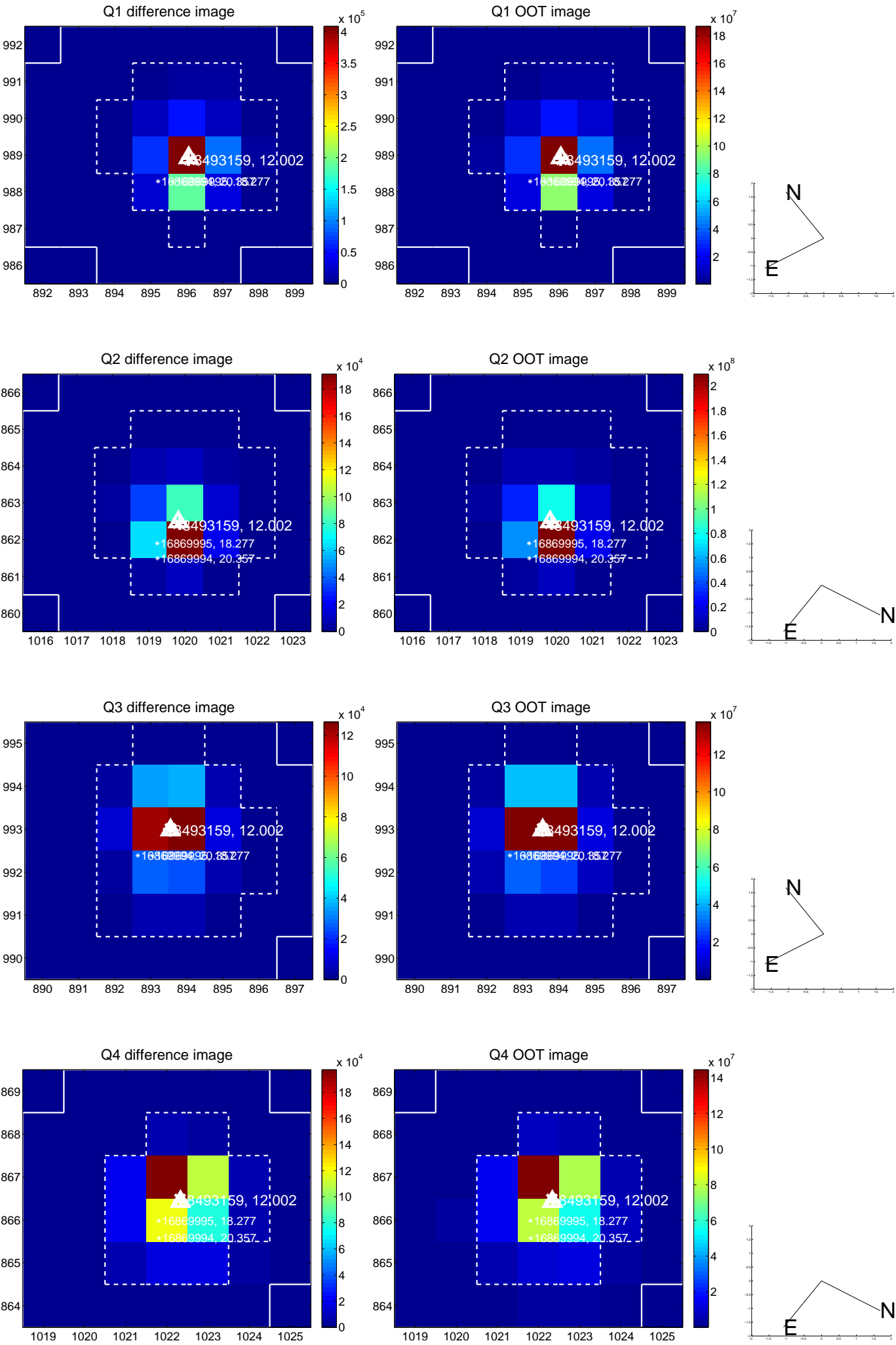
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.167	0.12	0.005 ± 0.092	0.020 ± 0.187
PRF-fit source offset from KIC position	0.119 ± 0.157	0.75	0.030 ± 0.088	0.115 ± 0.173
photometric centroid source offset	0.14 ± 0.02	6.45	0.03 ± 0.02	0.13 ± 0.02

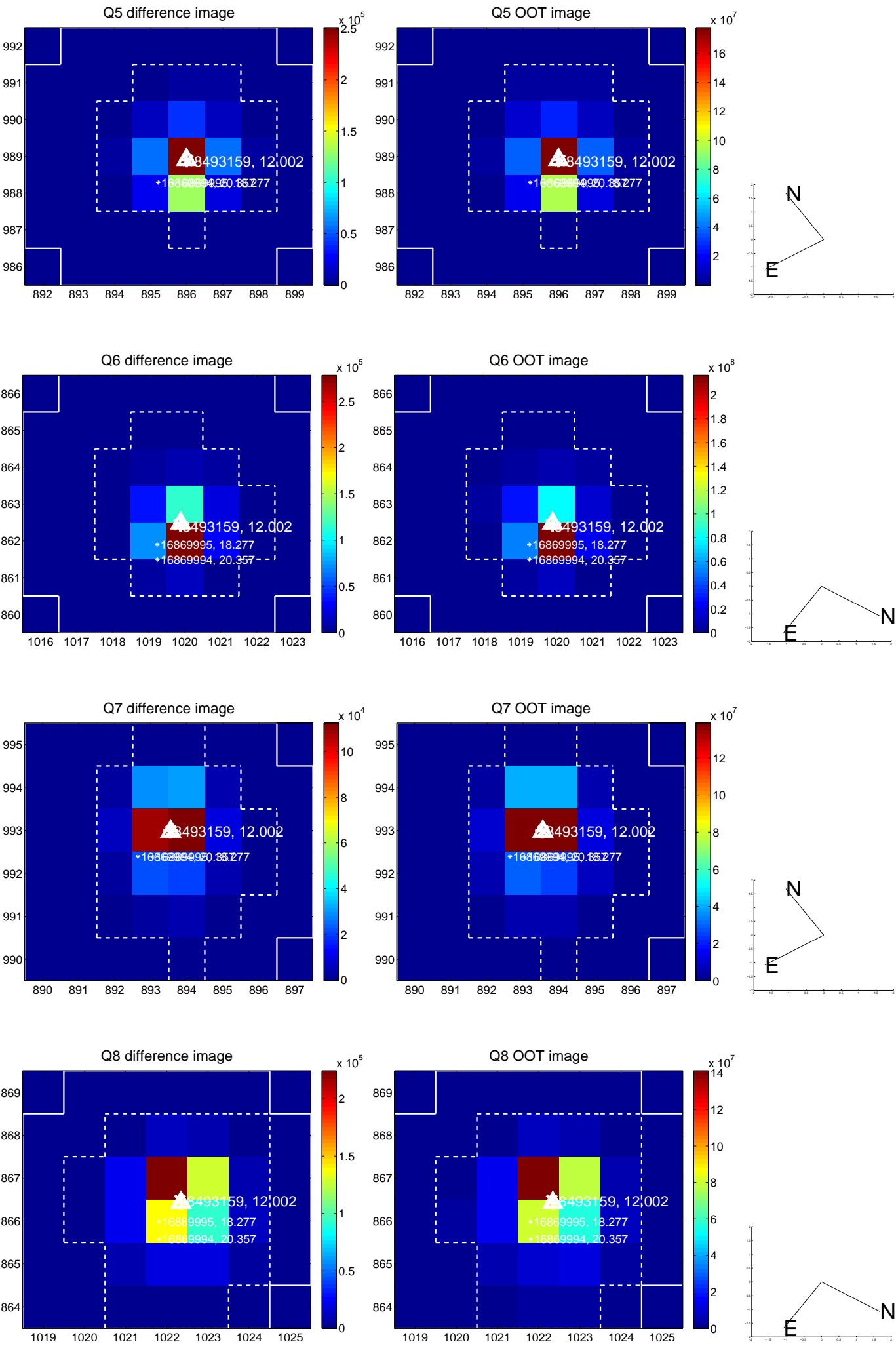


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

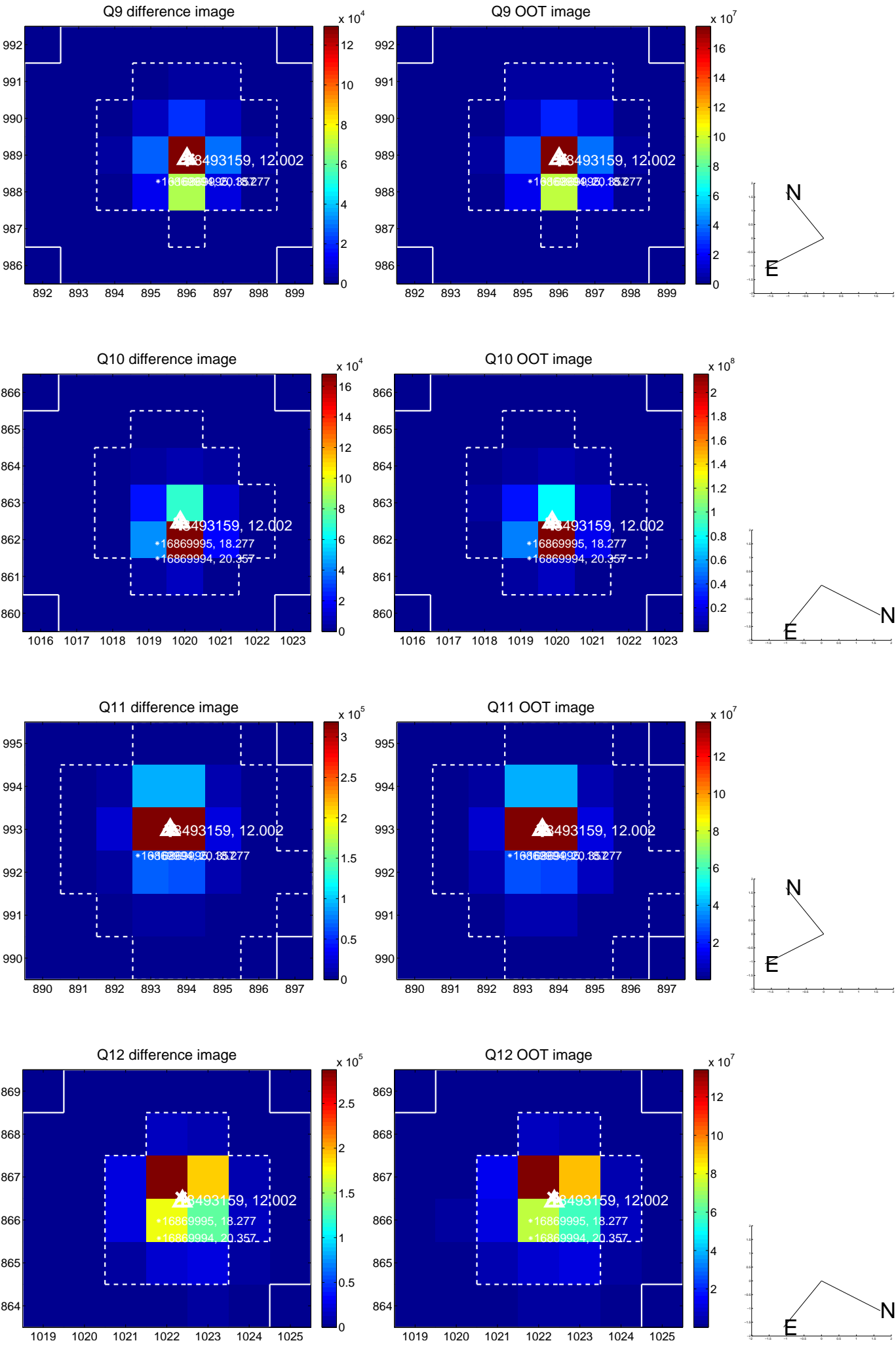
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



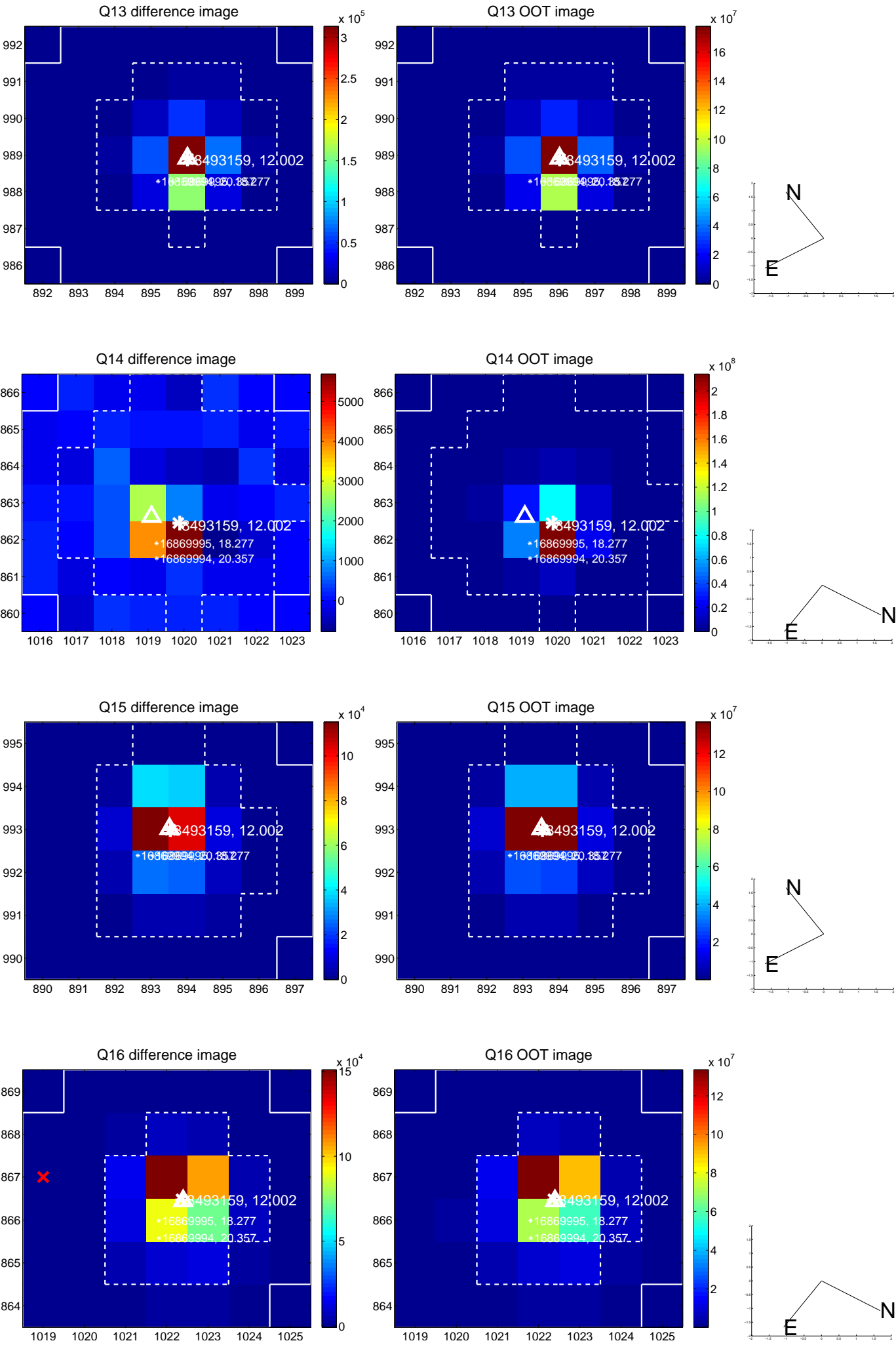
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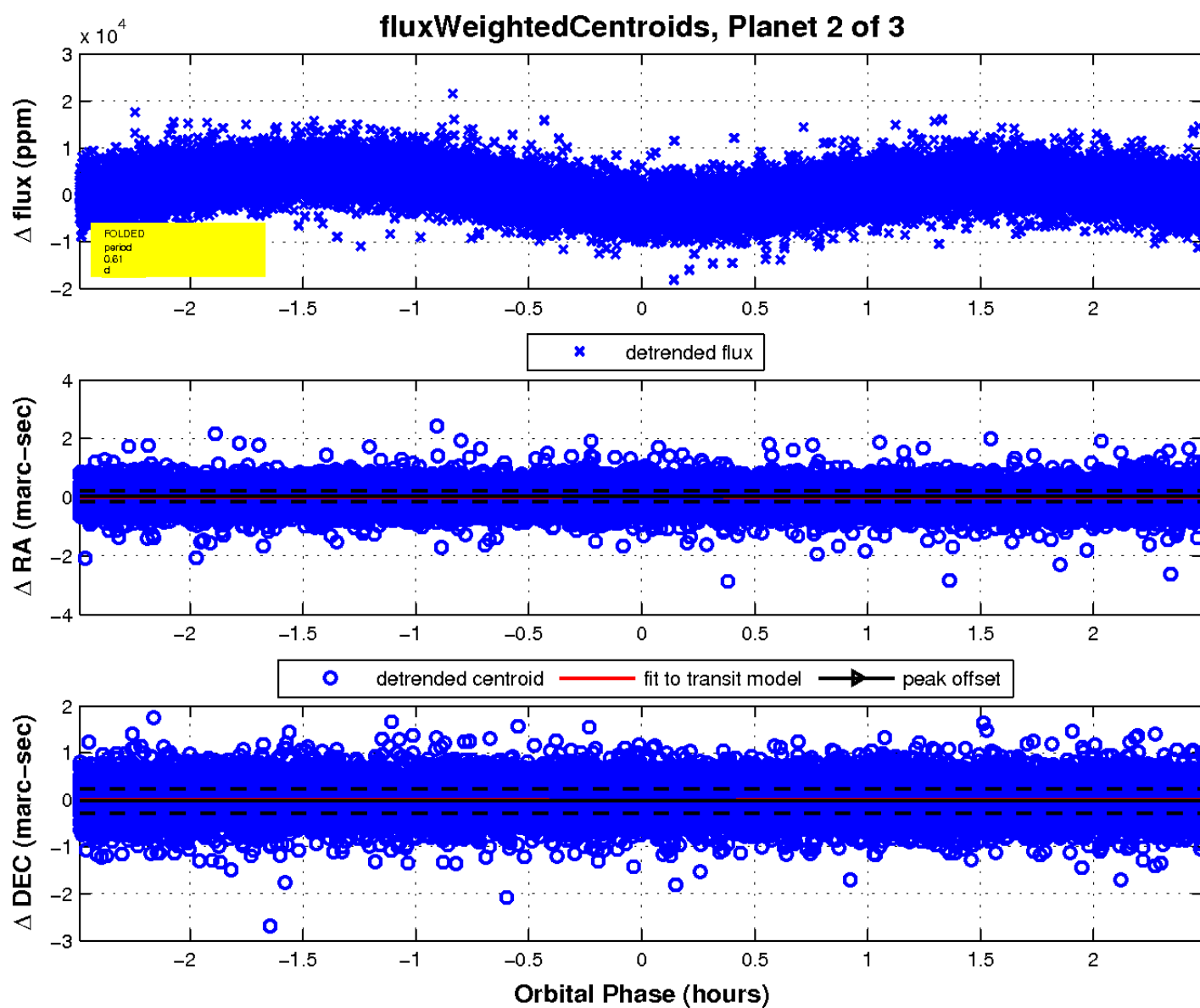
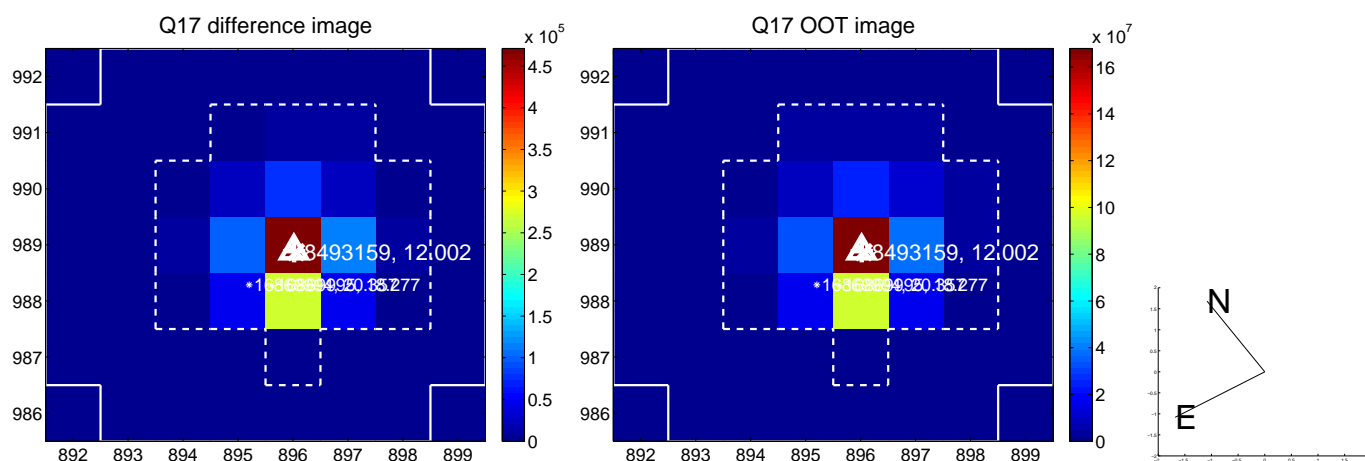
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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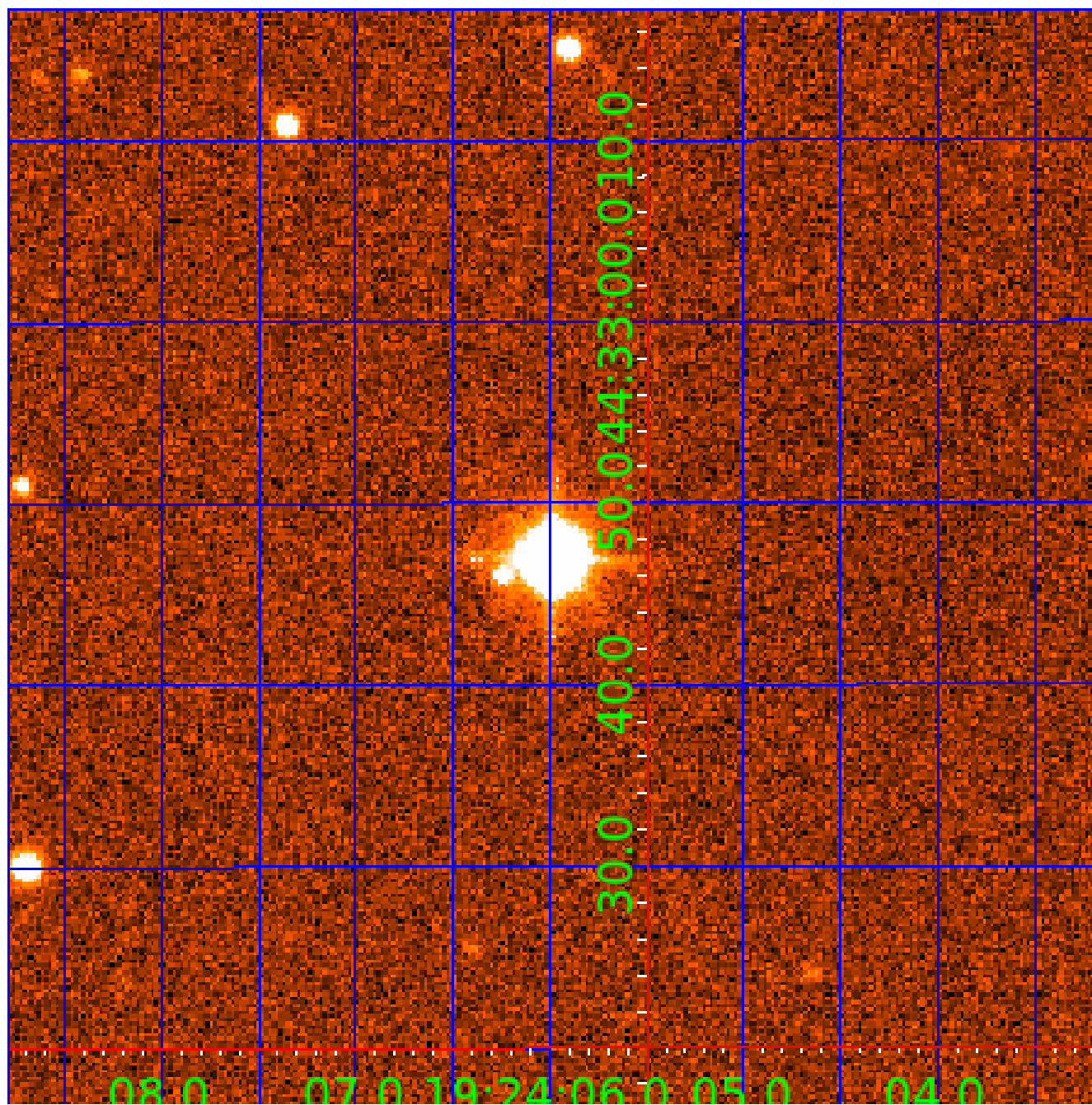


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UKIRT Image

Declination



KIC 008493159

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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008493159-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008493159-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008493159-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

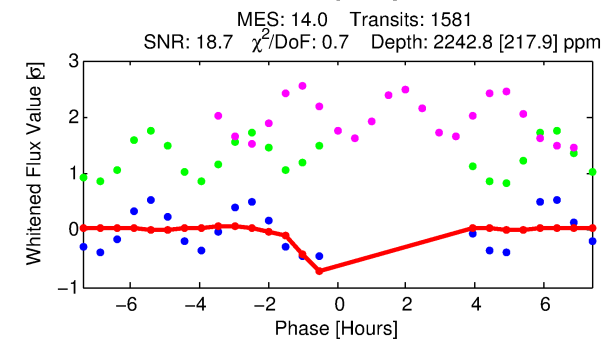
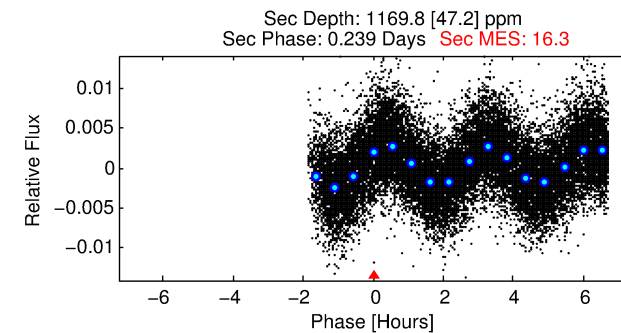
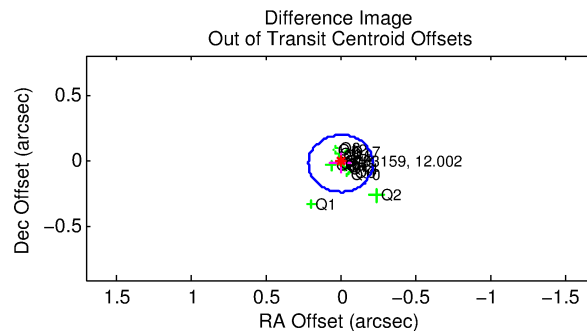
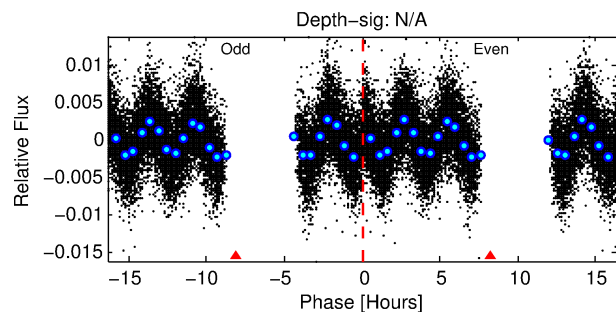
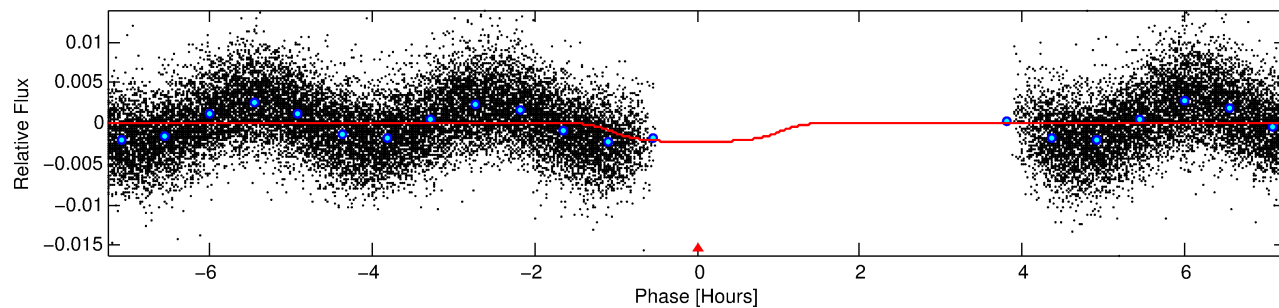
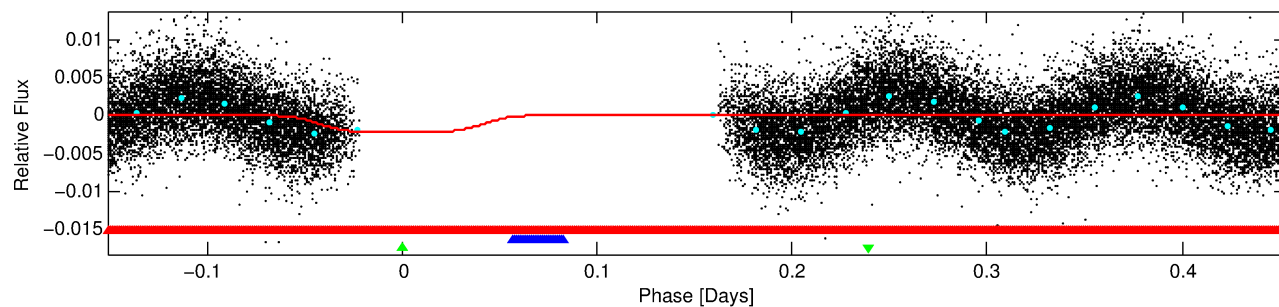
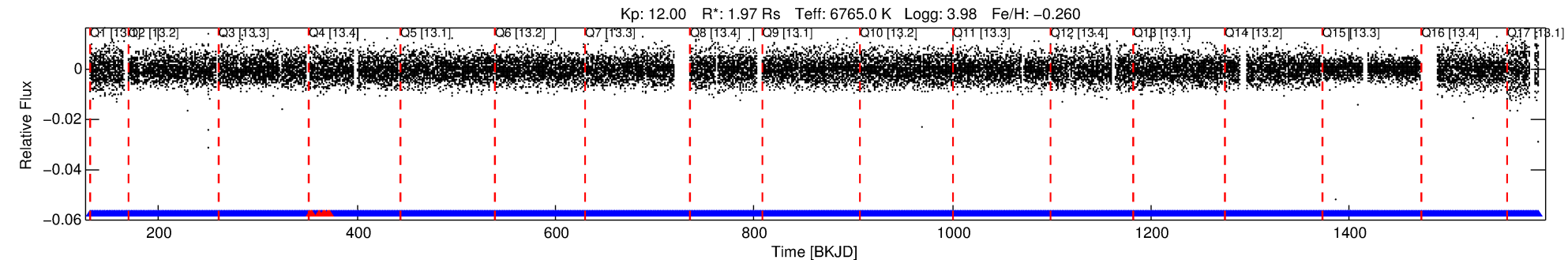
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008493159-03

No Significant Match Found

DV One-Page Summary

KIC: 8493159 Candidate: 3 of 3 Period: 0.605 d



DV Fit Results:

Period = 0.60504 [0.00000] d
Epoch = 131.9340 [0.0036] BKJD
Rp/R* = 0.0507 [0.0038]
a/R* = 1.33 [0.08]
b = 0.90 [0.04]
Seff = 30435.20 [17611.15]
Teq = 3368 [487] K
Rp = 10.90 [4.16] Re
a = 0.0155 [0.0054] AU
Ag = 1.30 [0.75] [0.40σ]
Teff = 5557 [318] K [3.76σ]

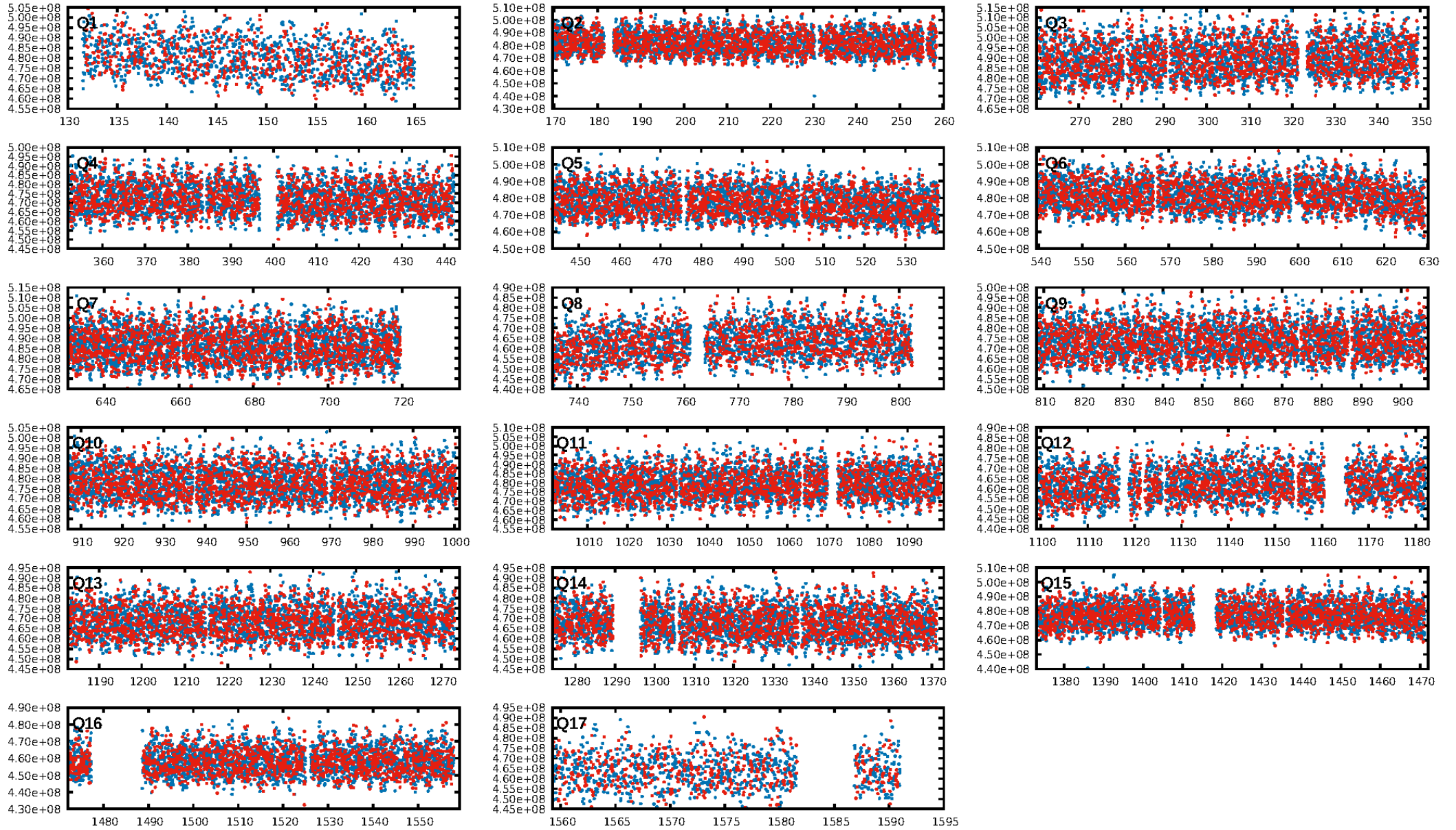
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 53.7% [0.73σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1496/1509]
GhostDiagnostic-chr: 1.53
Centroid-sig: 20.6%
Centroid-so: 0.124 arcsec [27.86σ]
OotOffset-rm: 0.019 arcsec [0.26σ]
KicOffset-rm: 0.059 arcsec [0.77σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 0.00 [0/17]

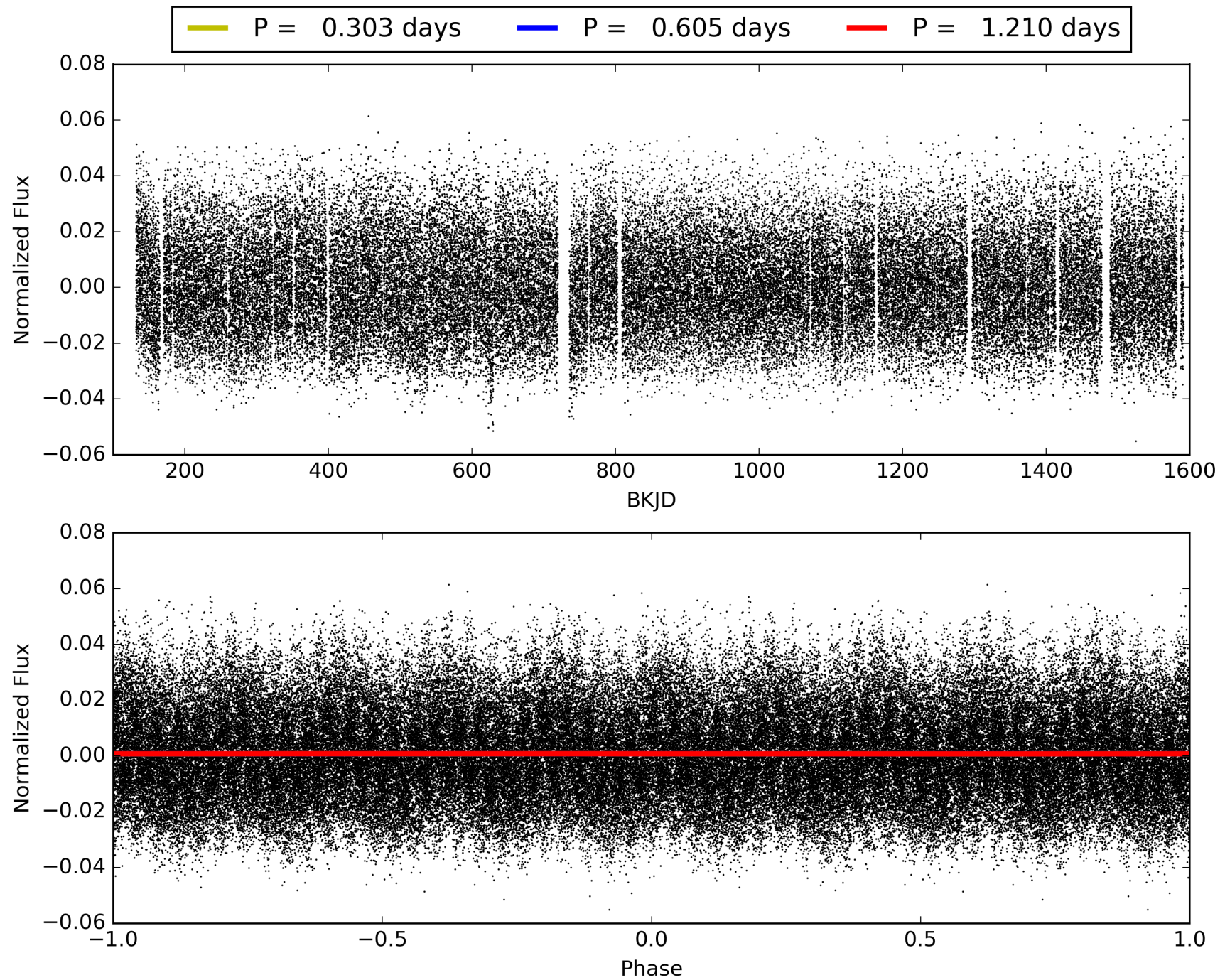
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:17:36 Z

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

TCE 008493159-03, PDC Light Curves

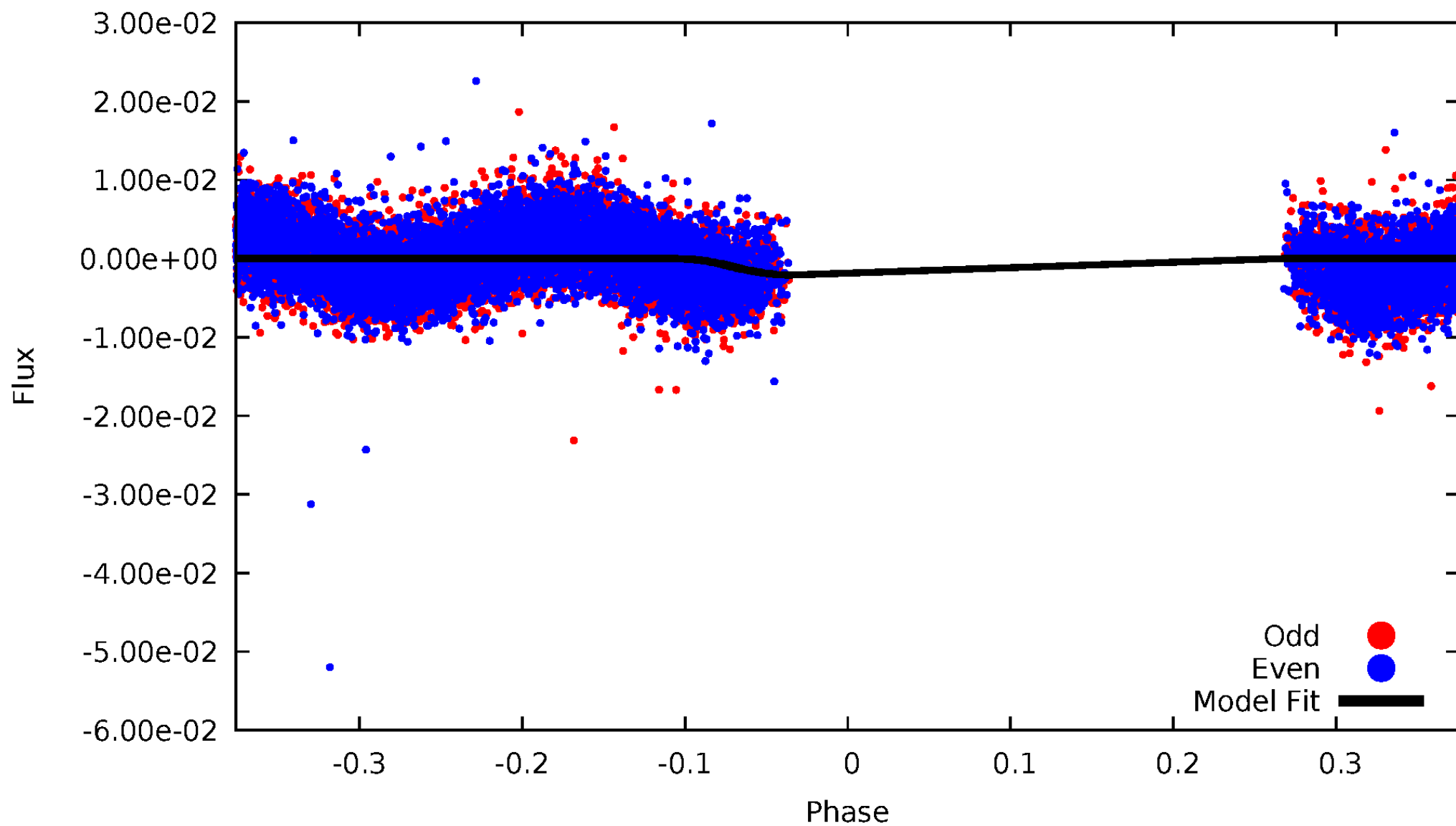


TCE 008493159-03



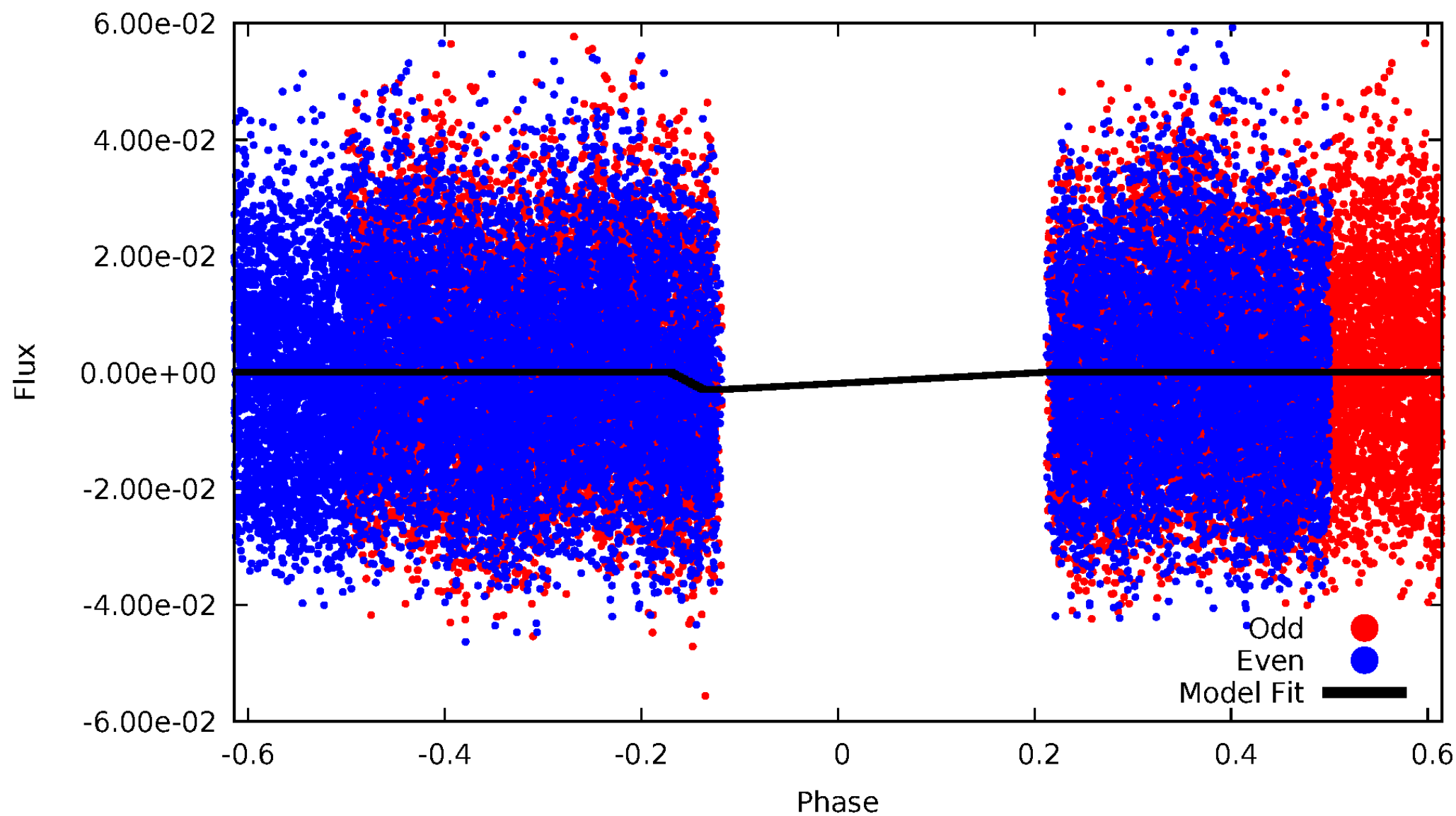
DV Odd/Even

TCE 008493159-03



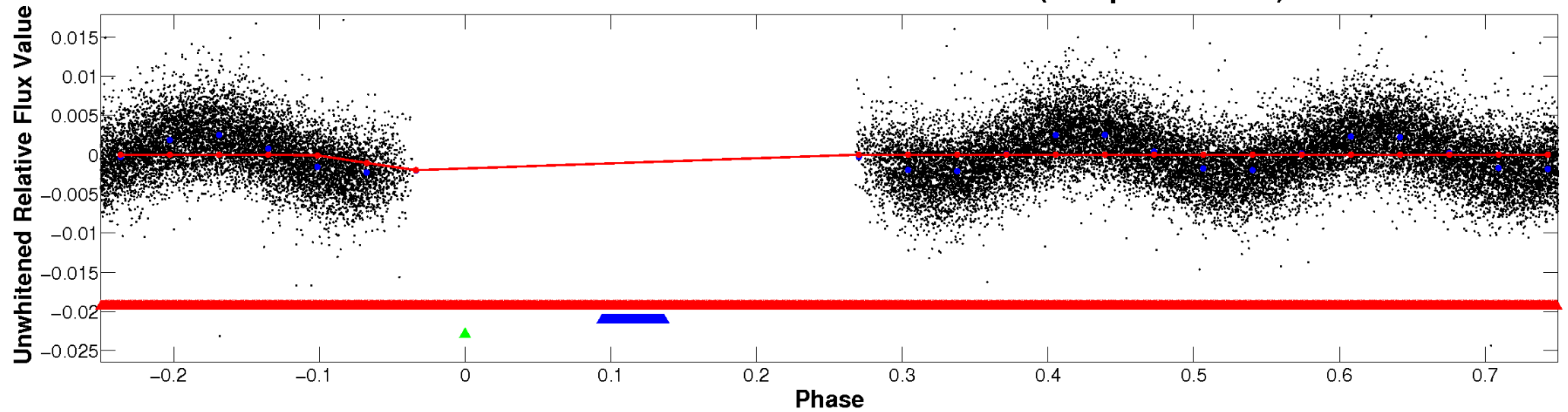
ALT Odd/Even

TCE 008493159-03

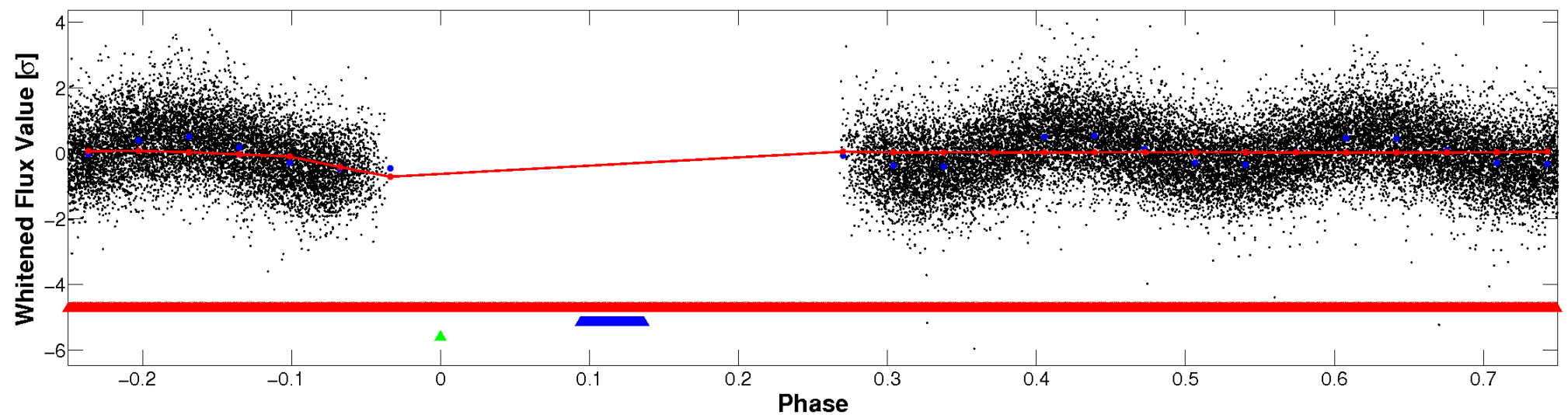


Non-Whitened Vs. Whitened Light Curve

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

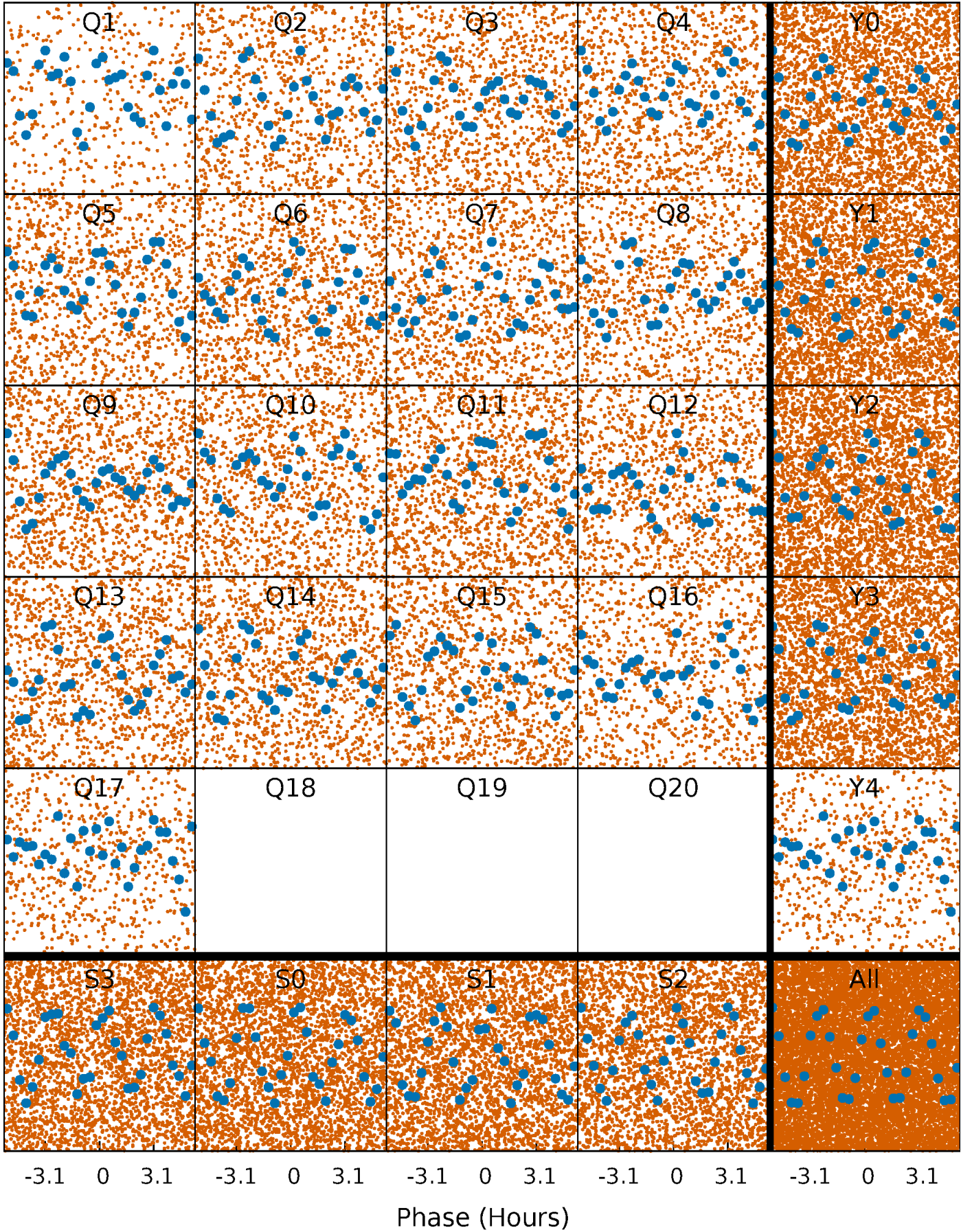


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



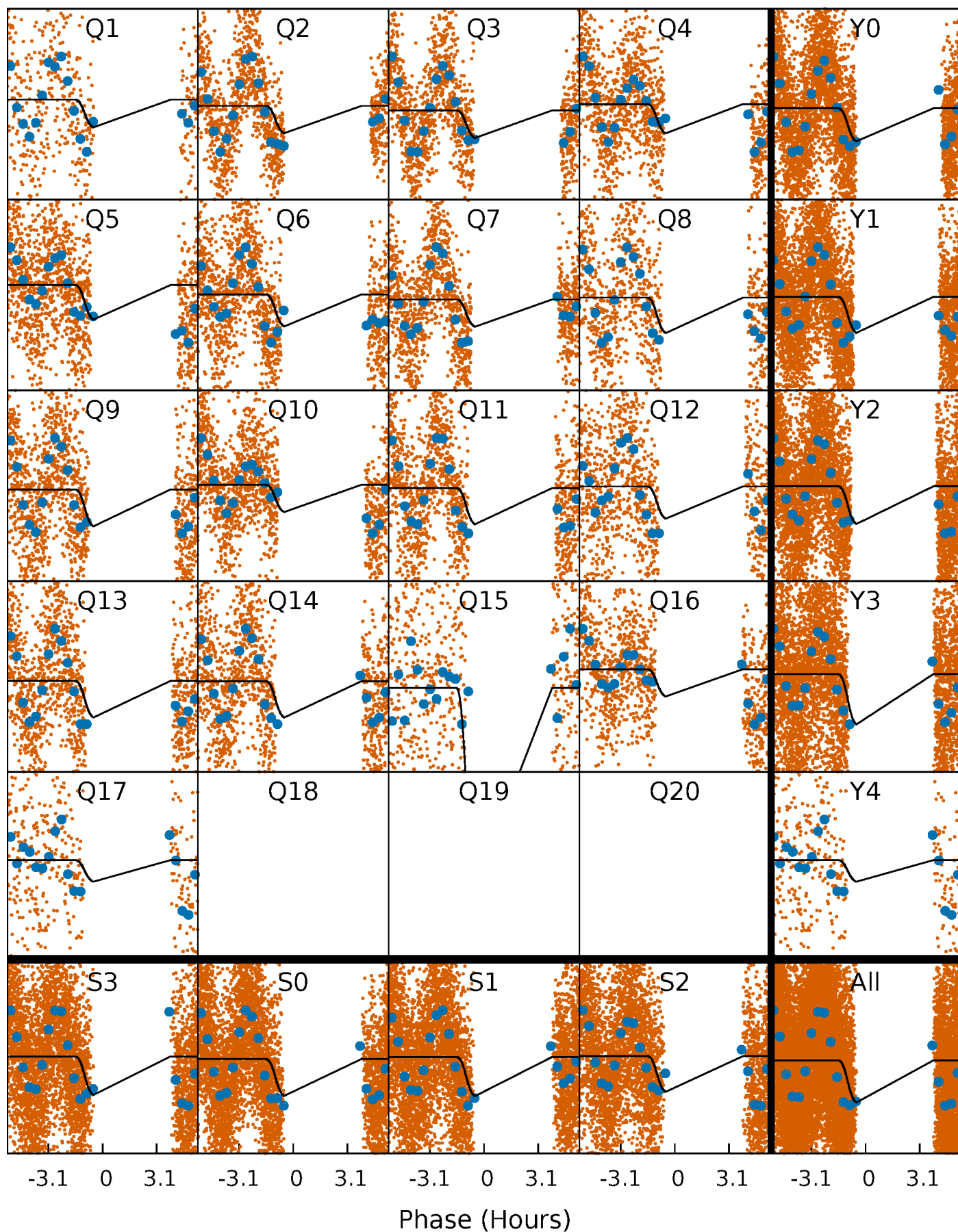
PDC Quarter-Phased Transit Curves

TCE 008493159-03 P= 0.605042 Days $T_0=131.933975$ (BKJD)



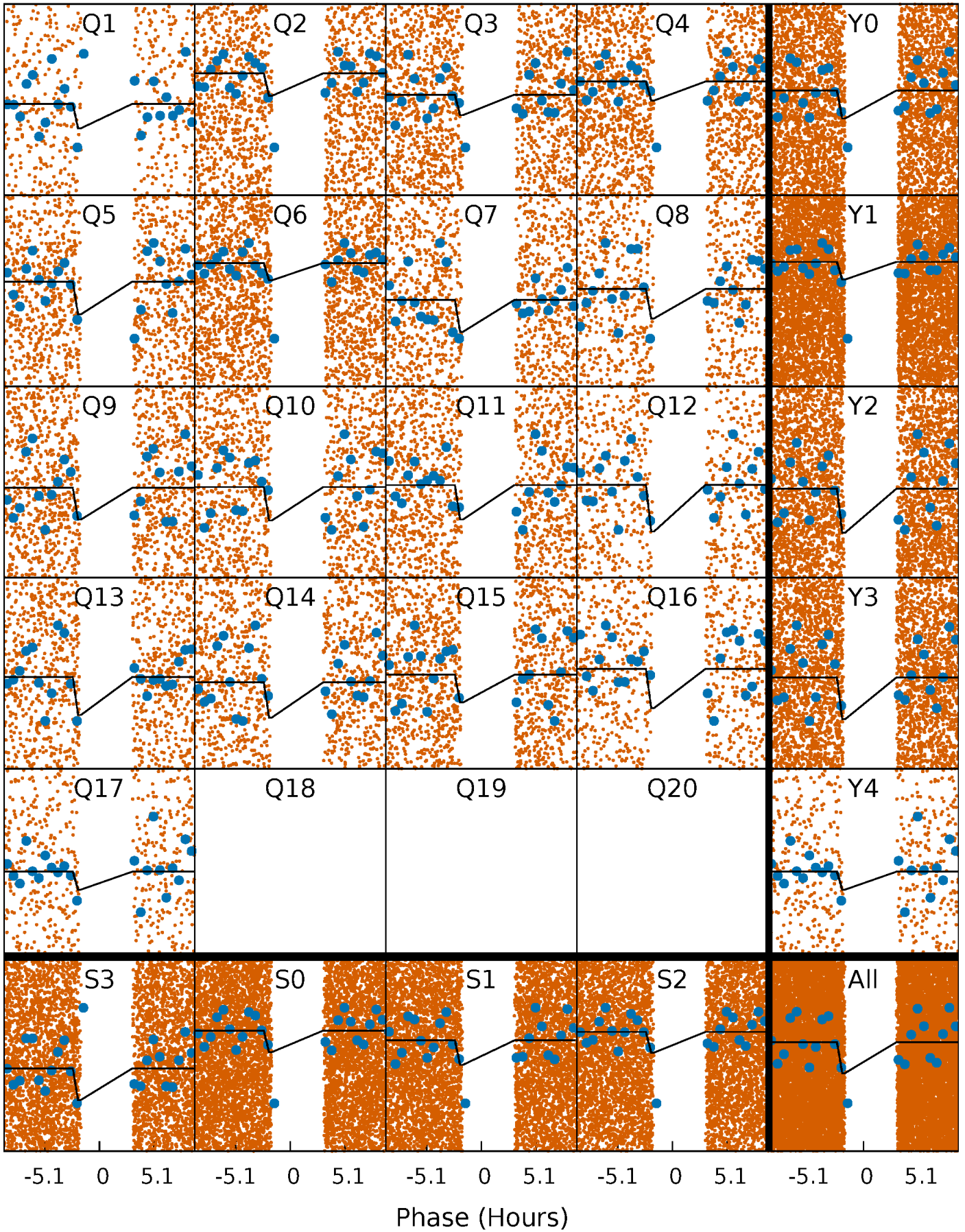
DV Quarter-Phased Transit Curves

TCE 008493159-03 P= 0.605042 Days $T_0=131.933975$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

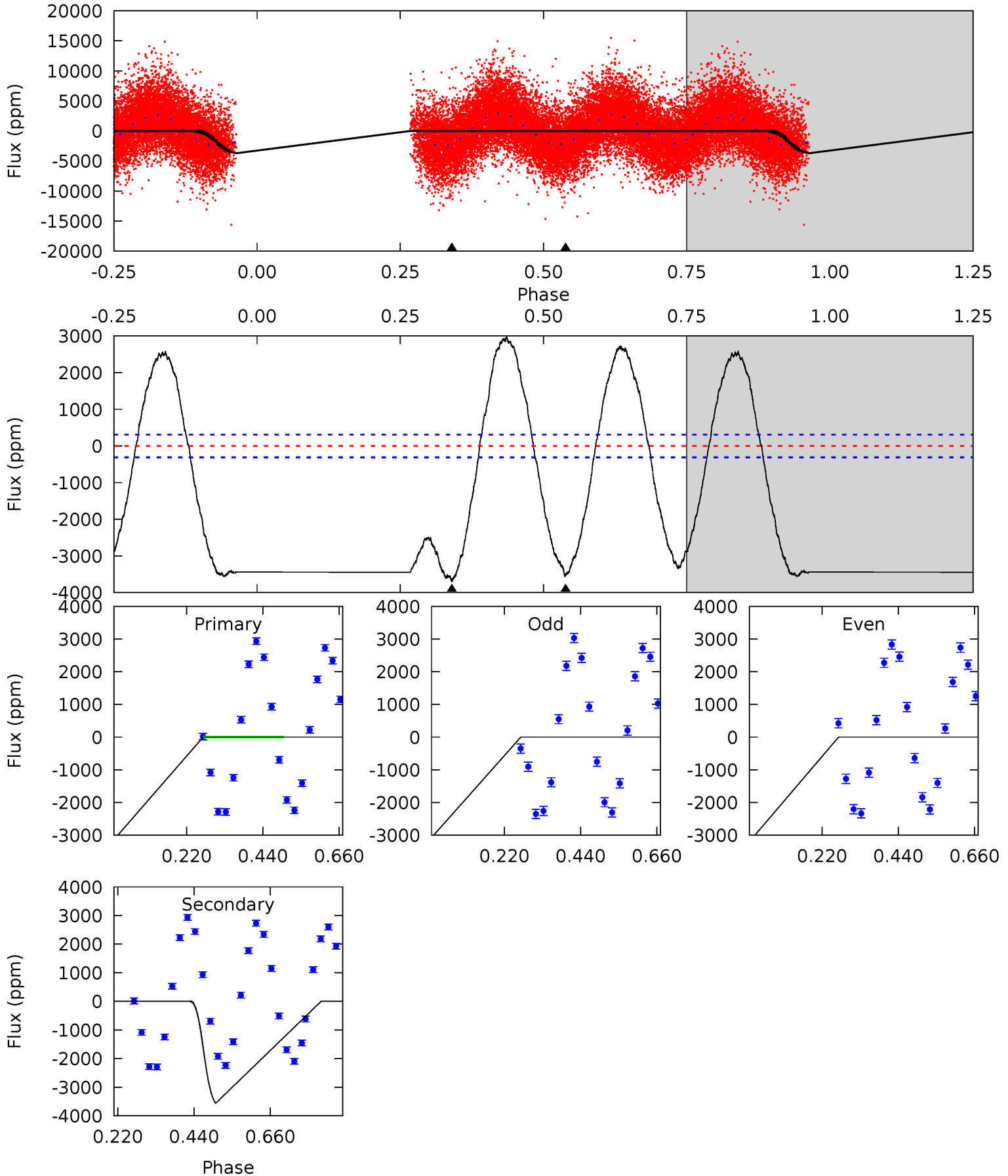
TCE 008493159-03 P= 0.605035 Days $T_0=131.983643$ (BKJD)



DV Model-Shift Uniqueness Test

008493159-03, P = 0.605042 Days, E = 131.328933 Days

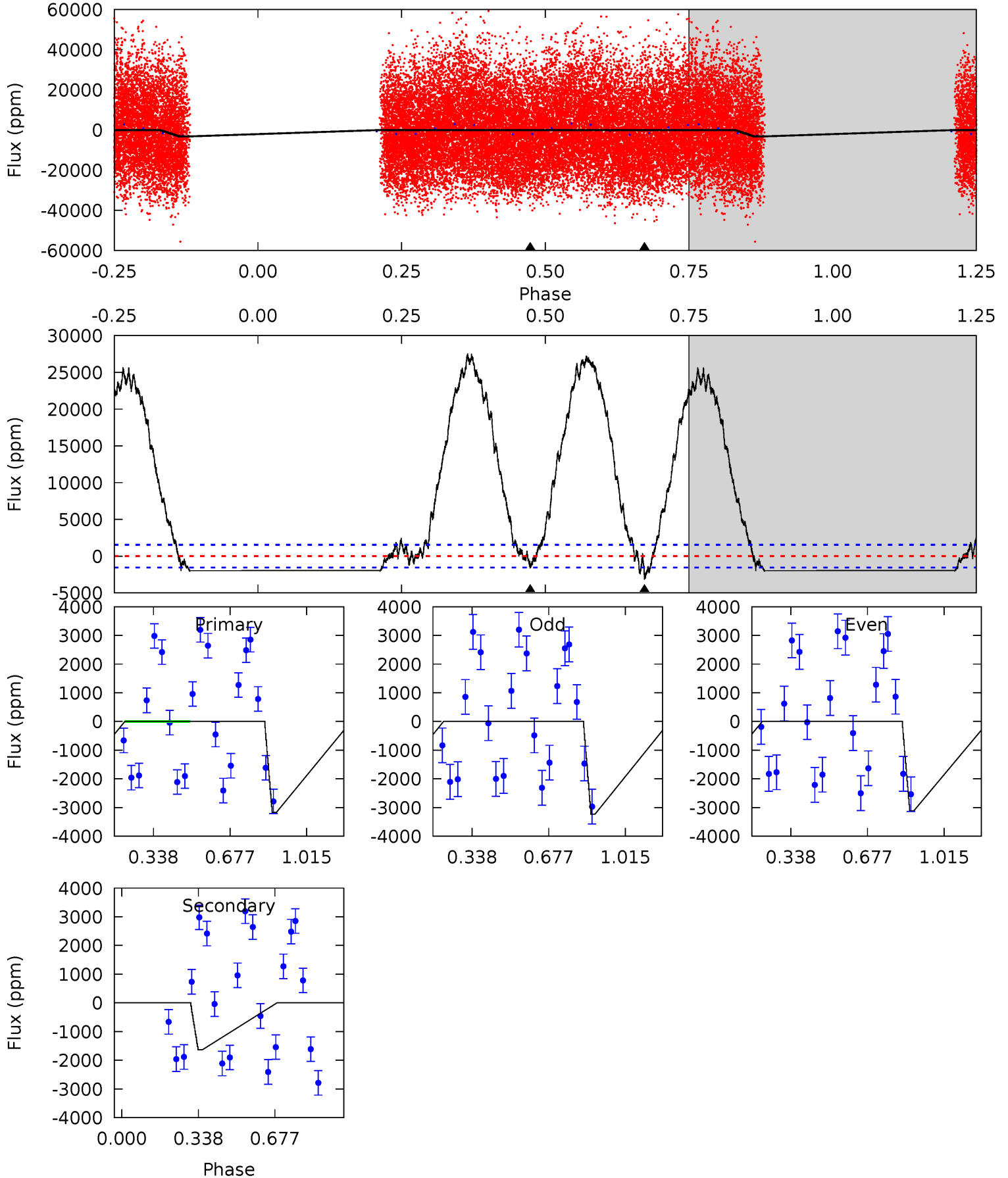
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.5	50.4	0	0	4.40	1.23	29.0	52.5	52.5	50.4	50.4	1.07	0	0.45	0



Alt Model-Shift Uniqueness Test

008493159-03, P = 0.605035 Days, E = 131.378608 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.85	4.57	0	0	4.30	0.96	2.57	8.85	8.85	4.57	4.57	0.16	0	0.90	0



Stellar Parameters For KIC 008493159

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6765^{+189}_{-284}	$3.979^{+0.322}_{-0.138}$	$-0.260^{+0.250}_{-0.300}$	$1.971^{+0.554}_{-0.738}$	$1.355^{+0.206}_{-0.275}$	$0.249^{+0.542}_{-0.117}$
	+3%/-4%	+8%/-3%	+96%/-115%	+28%/-37%	+15%/-20%	+218%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008493159-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3559 ± 71	$10.47^{+1.93}_{-1.97}$	4587^{+364}_{-432}	7213^{+440}_{-385}	$4.300^{+1.958}_{-1.154}$
Alt.	-1636 ± 358	$11.30^{+2.01}_{-2.05}$	4597^{+349}_{-423}	5505^{+467}_{-466}	$1.681^{+0.932}_{-0.523}$

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 $A_{obs} \gg 1.0$

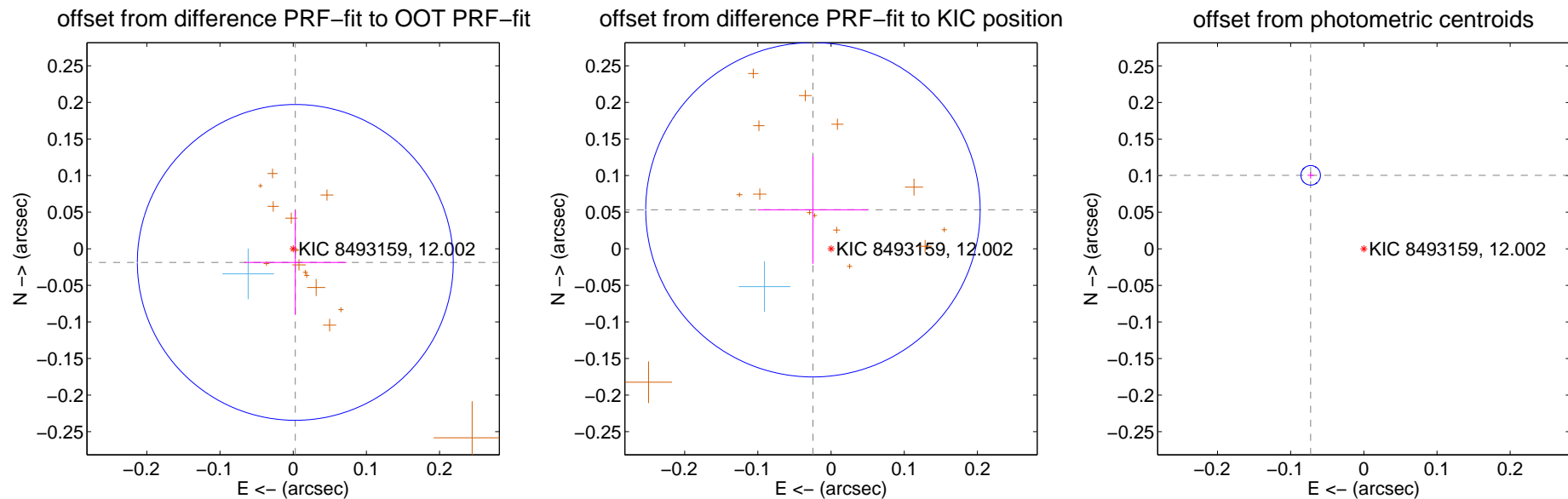
DV Centroid Data

Supplemental centroid analysis for 008493159-03. Kepler magnitude: 12.00. Transit SNR 18.65

There are 1 quarters with good PRF difference image offsets

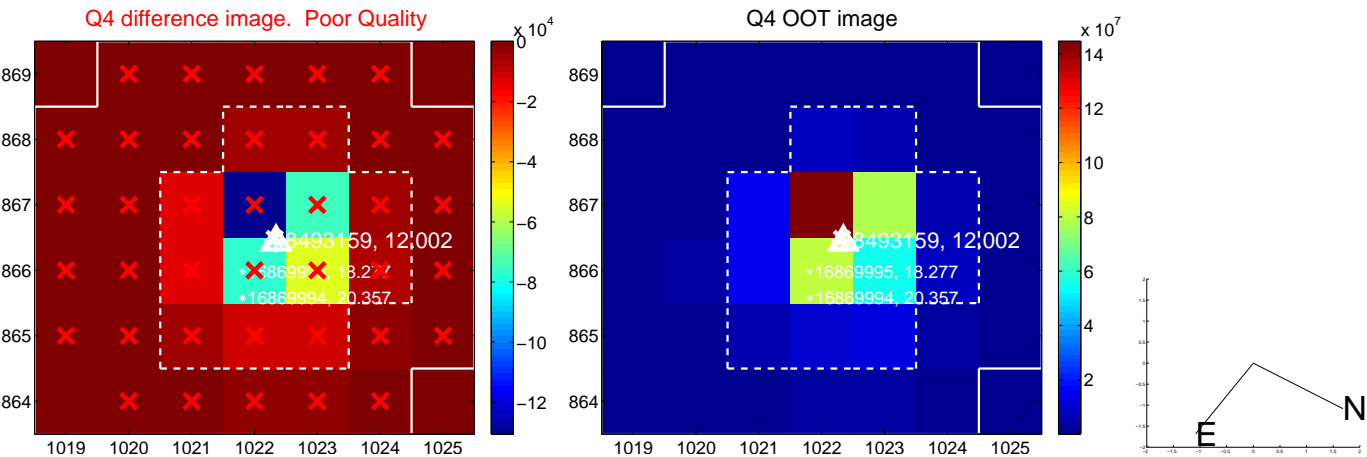
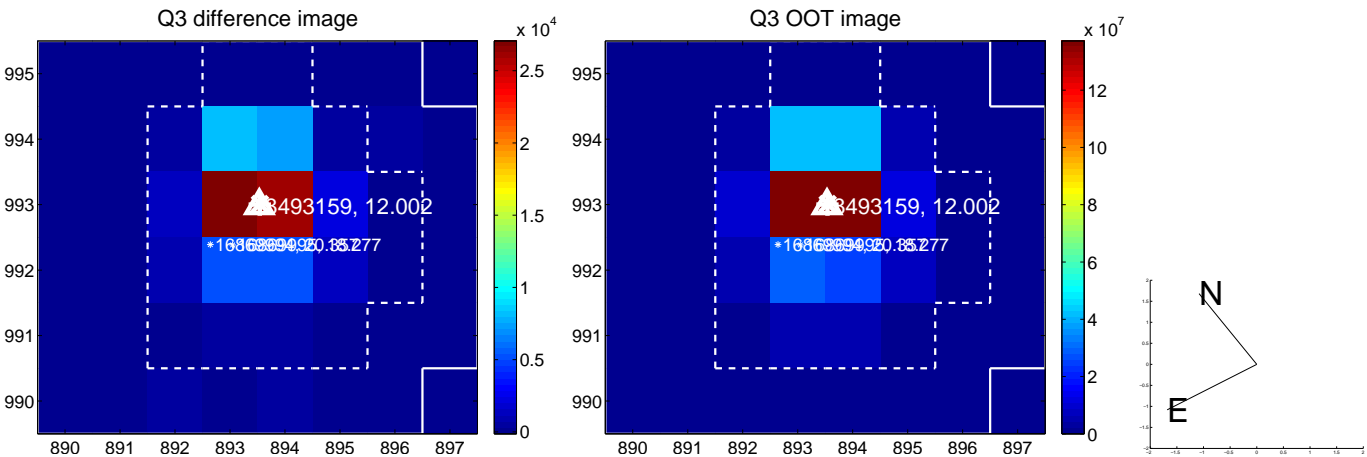
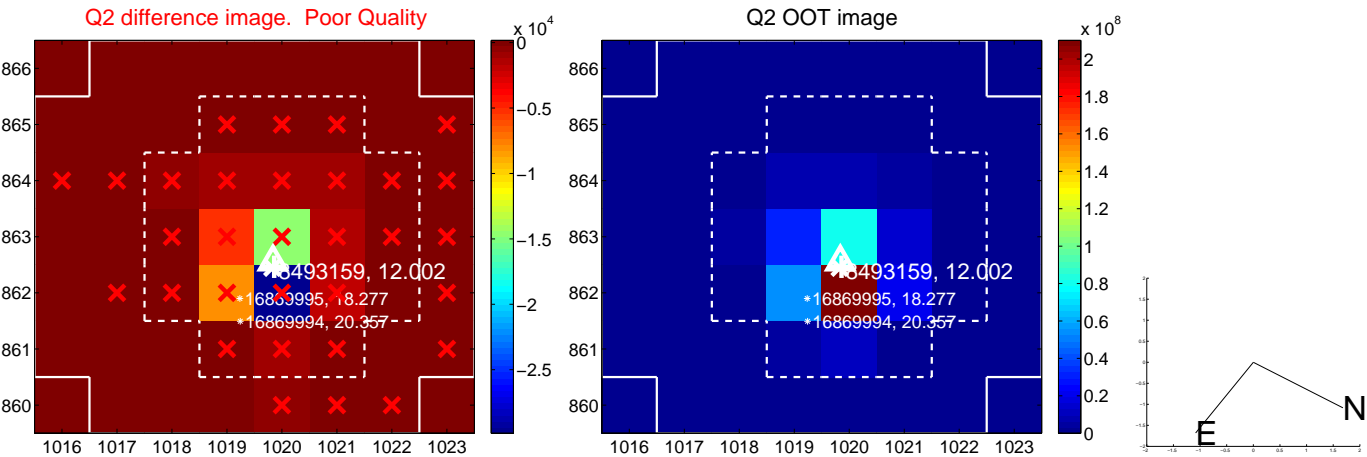
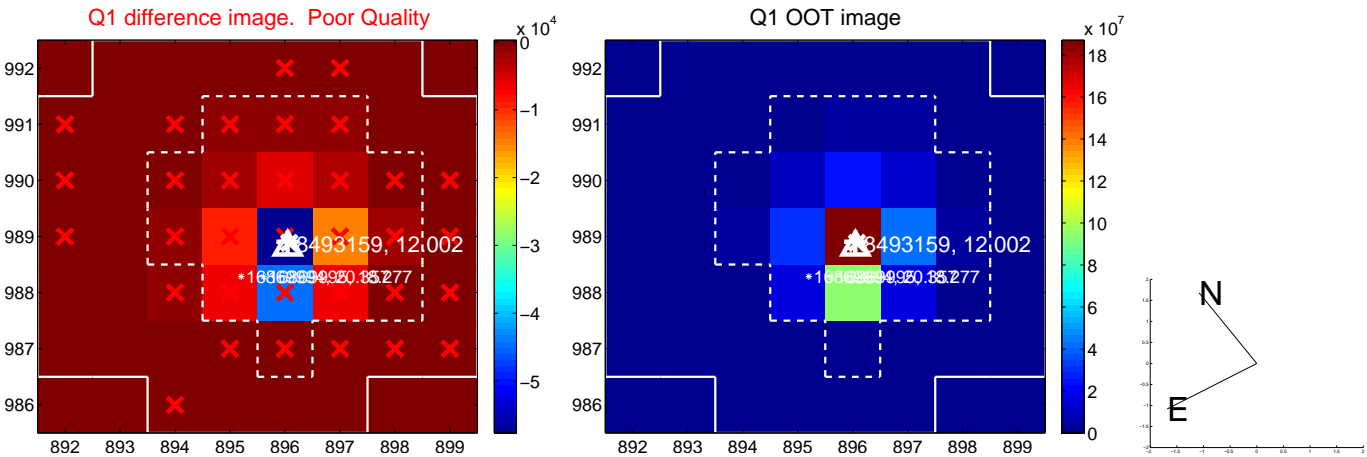
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.019 ± 0.072	0.26	-0.003 ± 0.070	-0.019 ± 0.072
PRF-fit source offset from KIC position	0.059 ± 0.076	0.77	0.025 ± 0.075	0.053 ± 0.074
photometric centroid source offset	0.12 ± 0.00	27.86	0.07 ± 0.00	0.10 ± 0.00

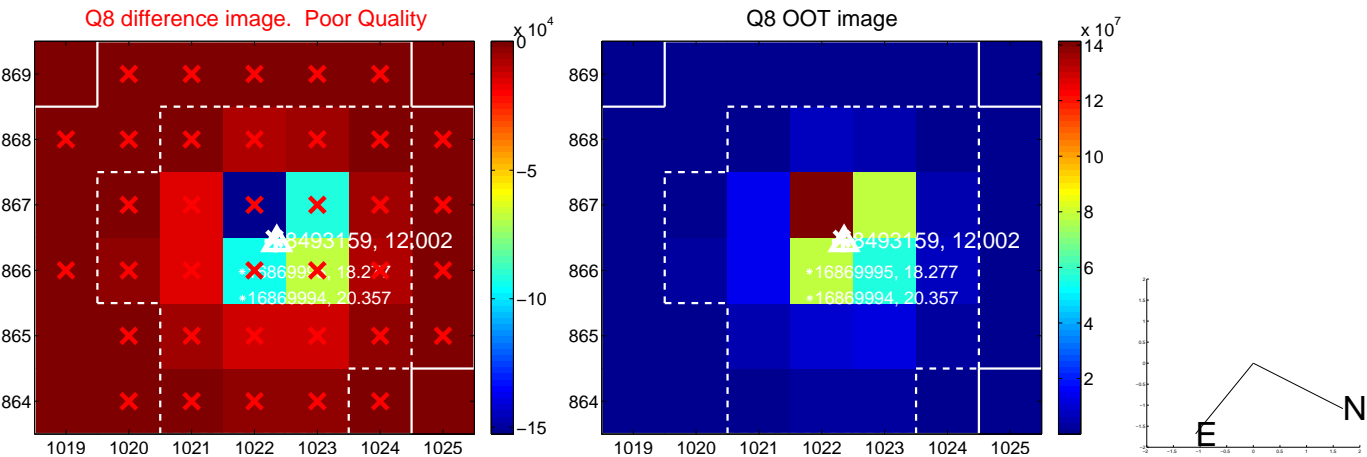
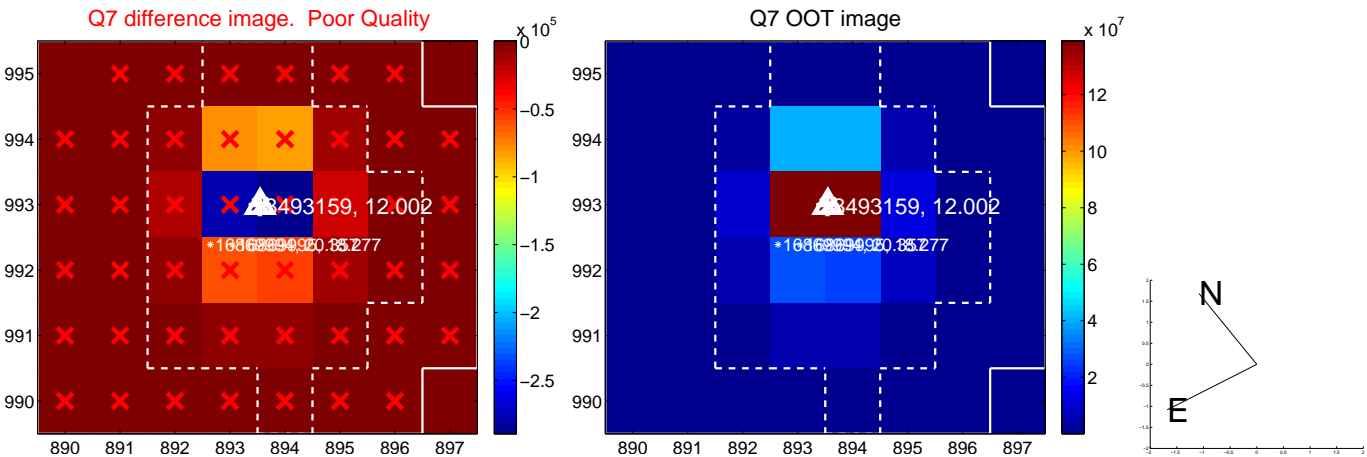
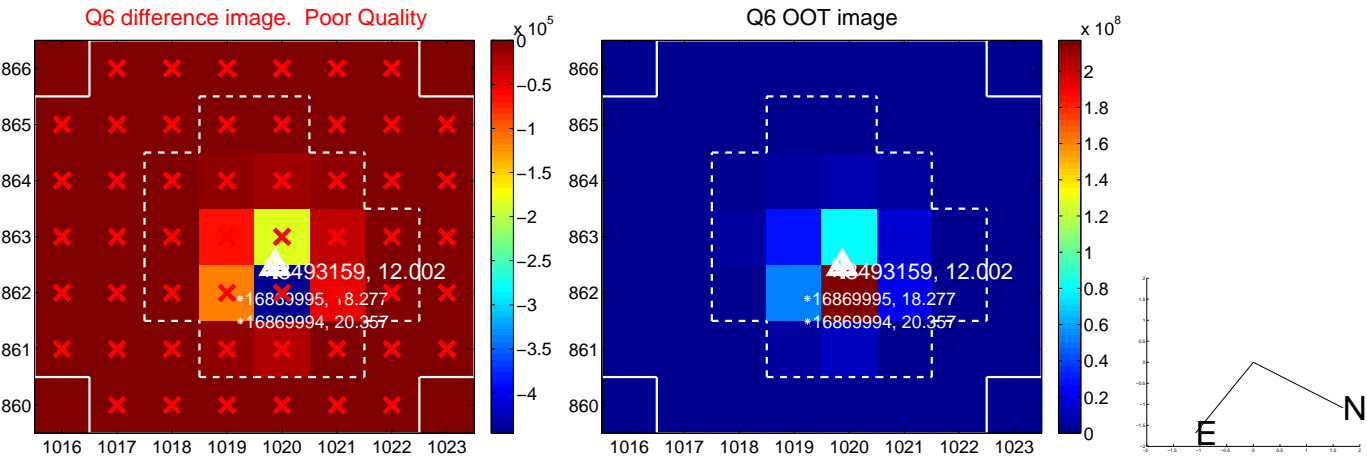
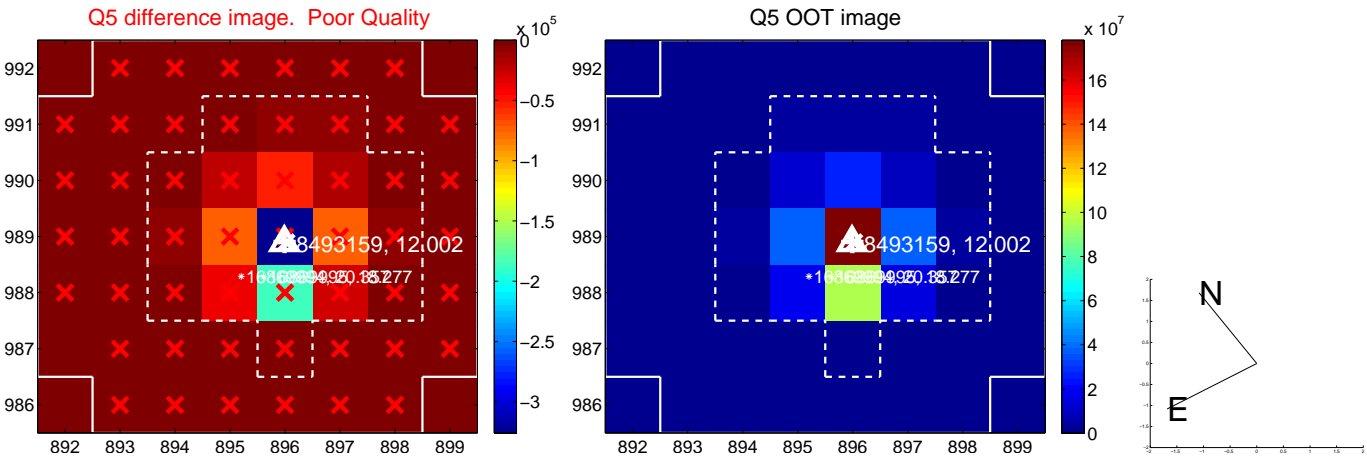


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

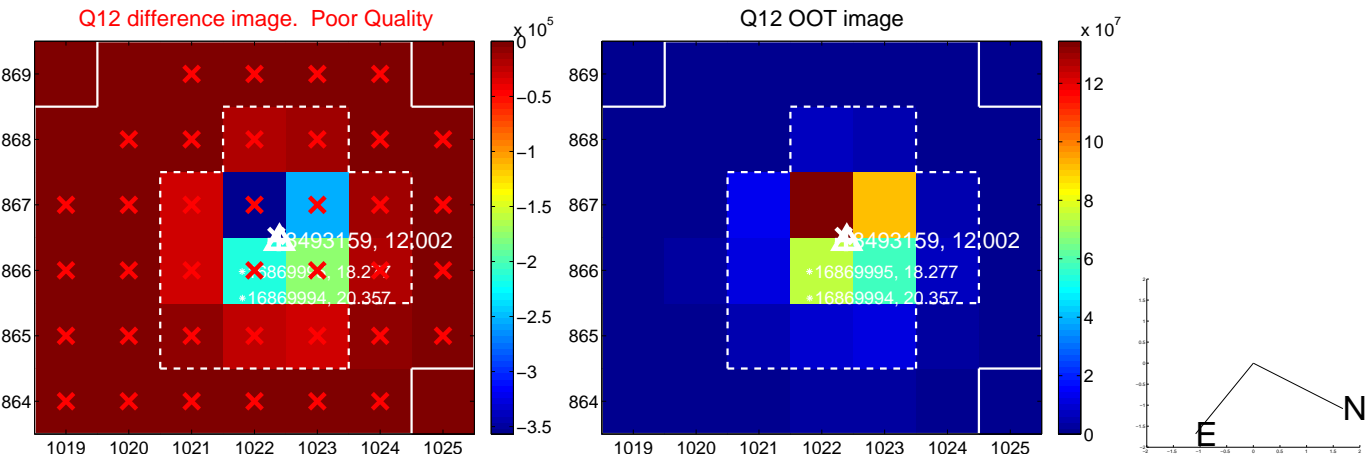
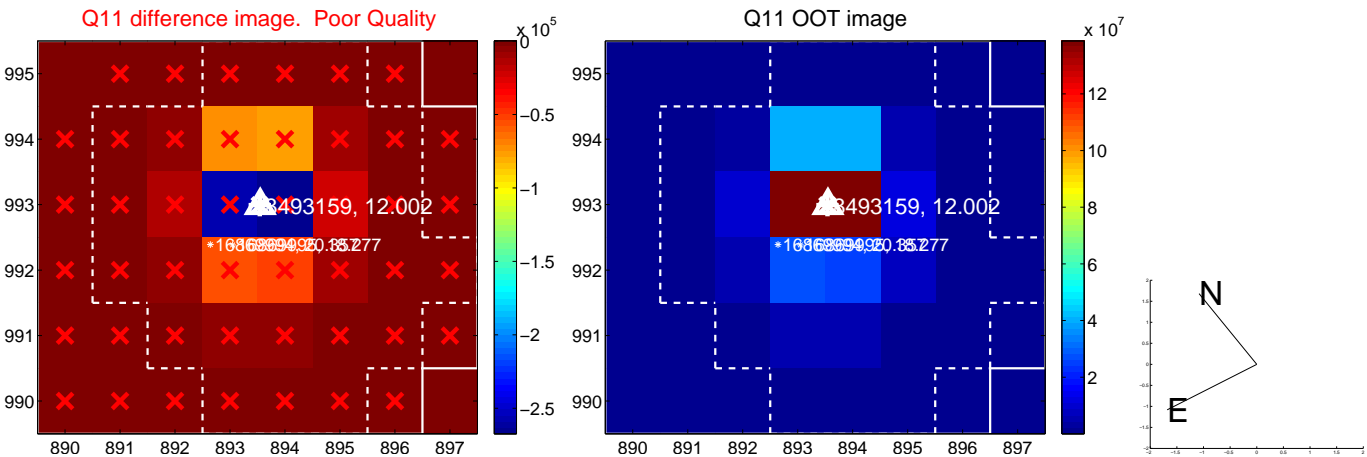
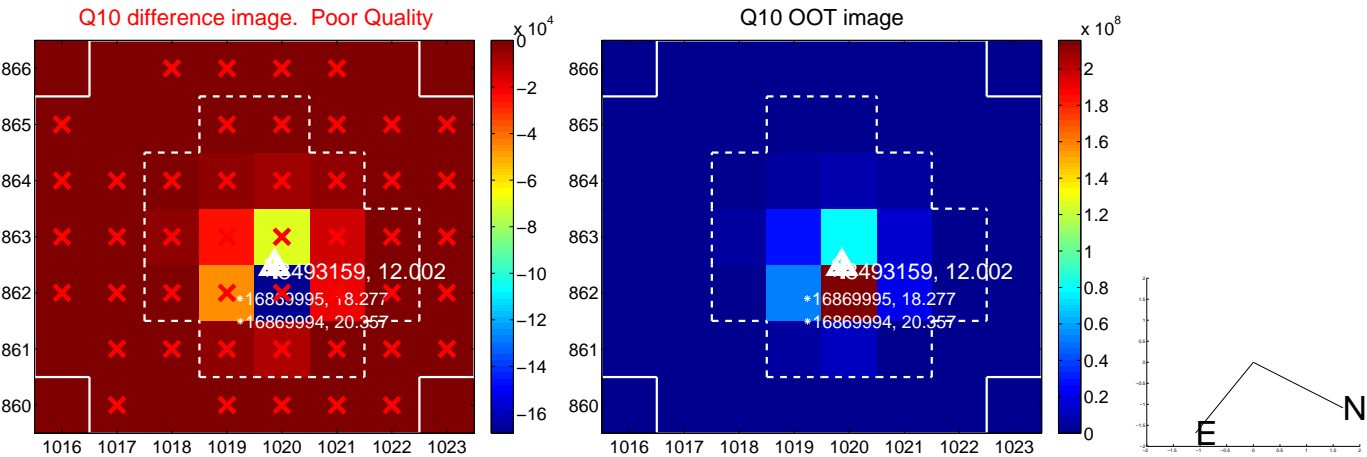
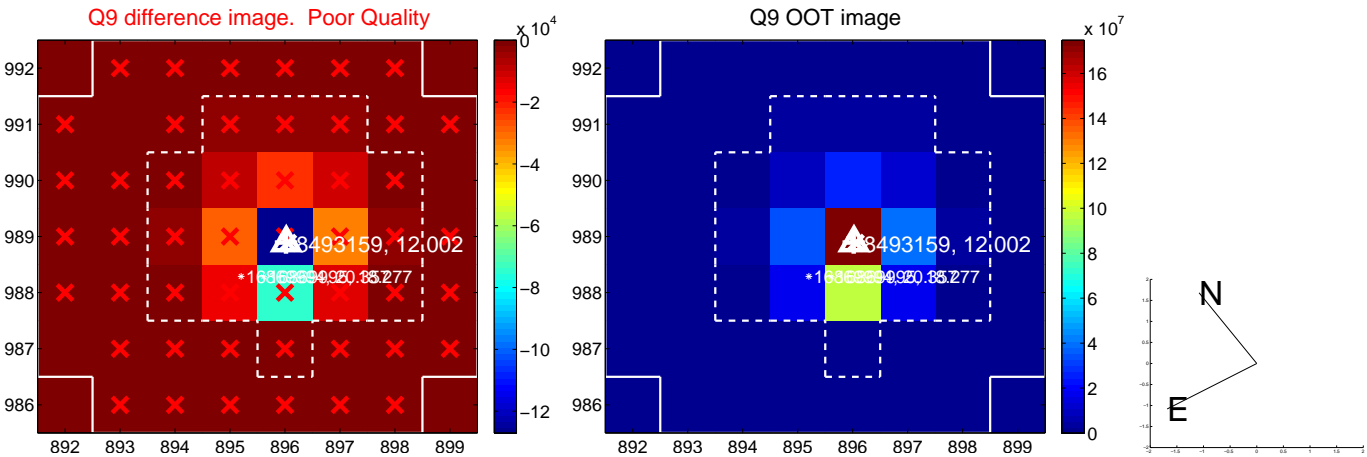
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



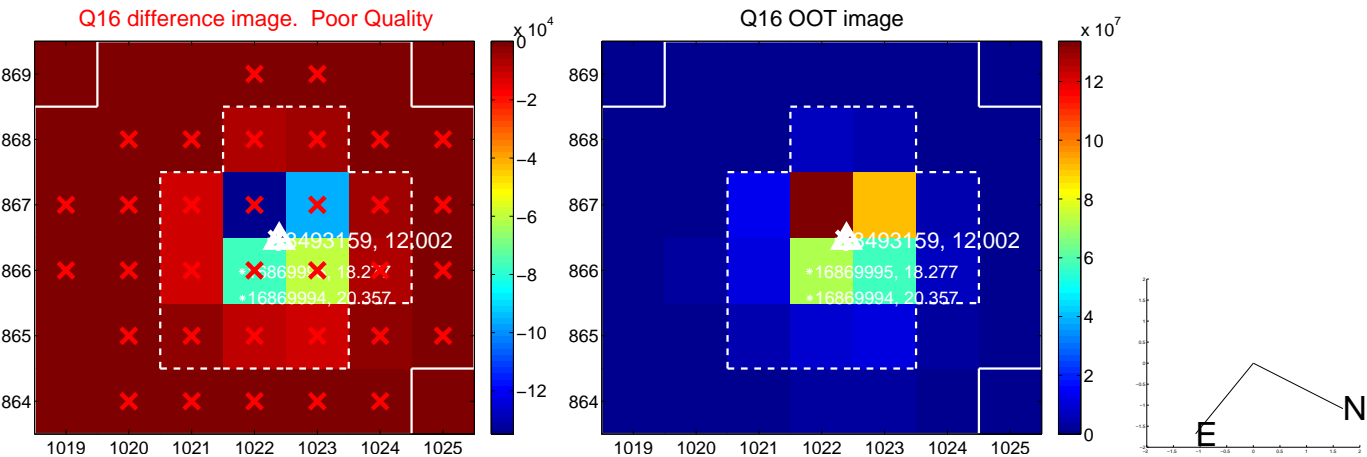
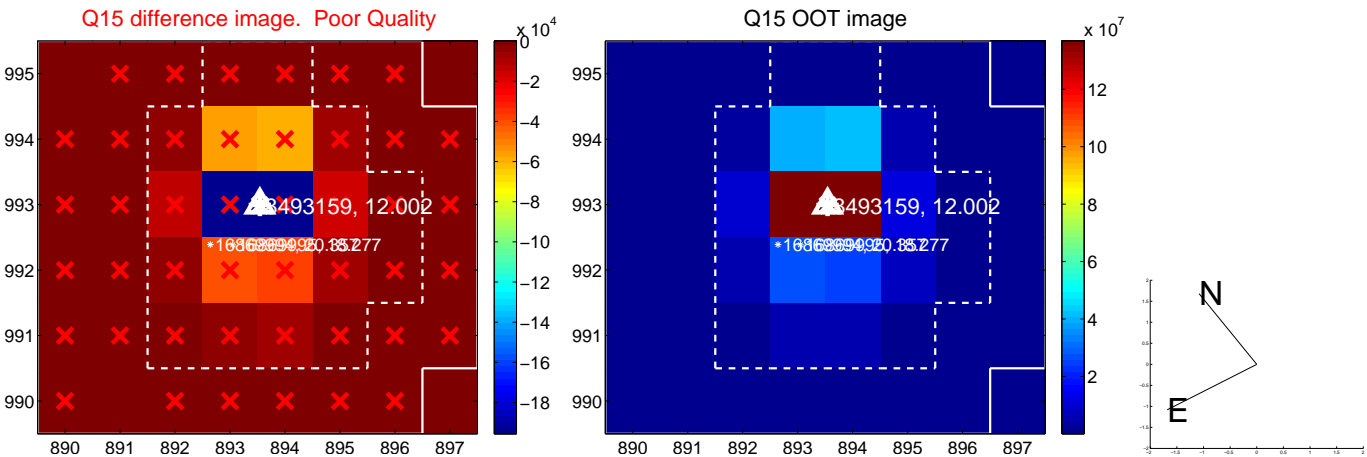
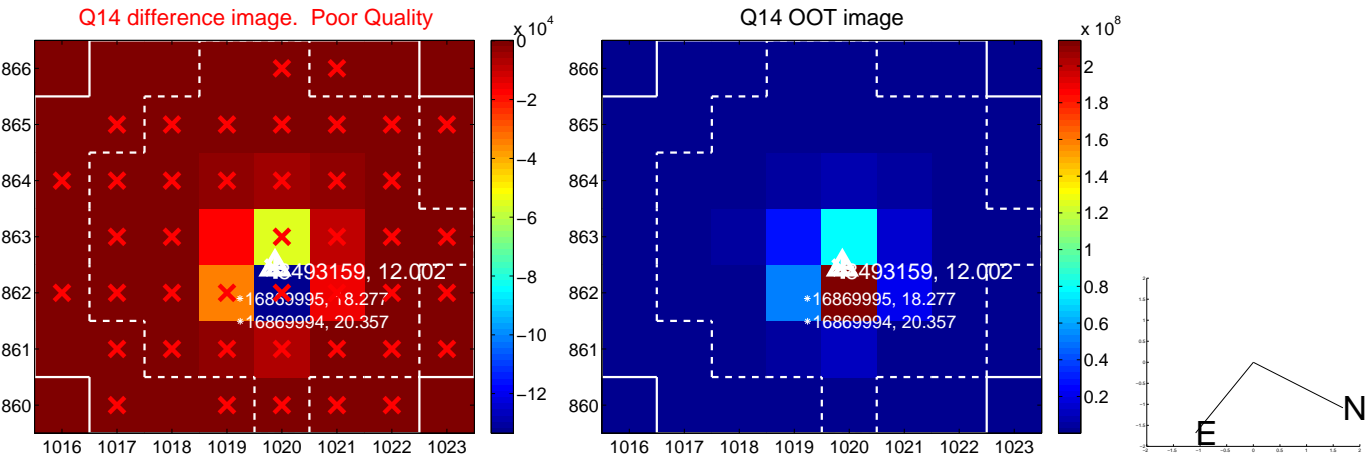
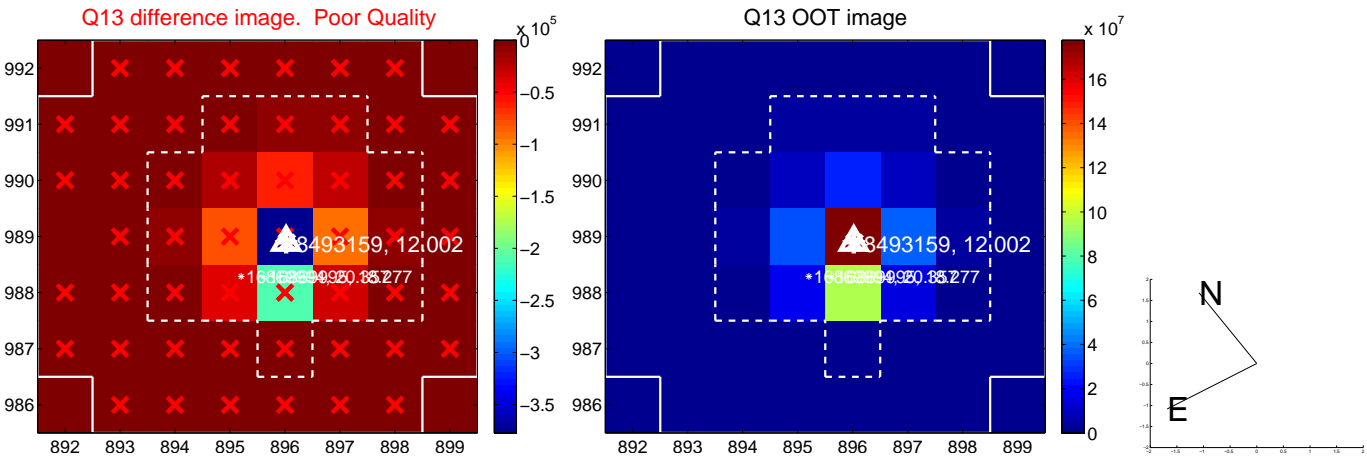
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



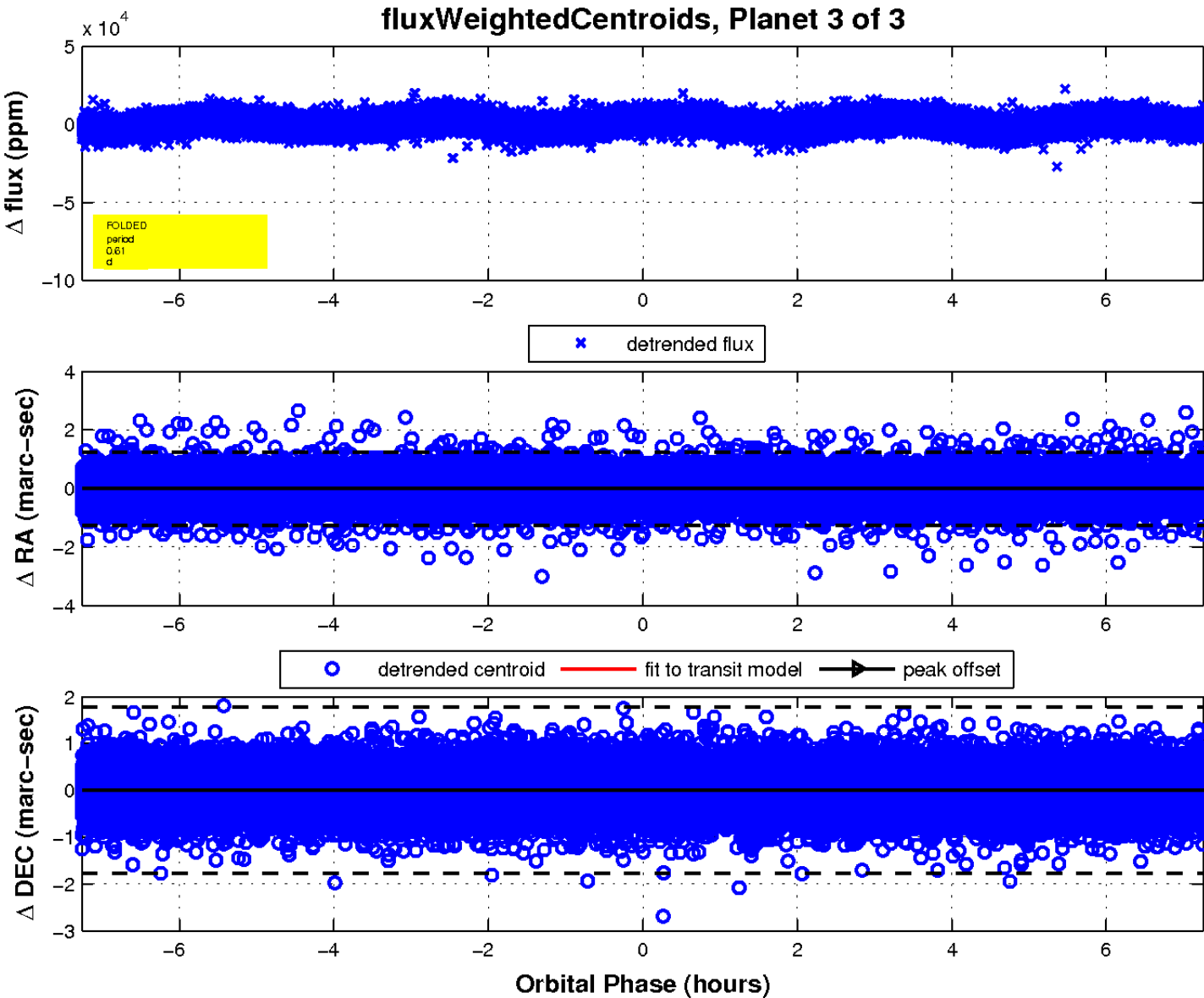
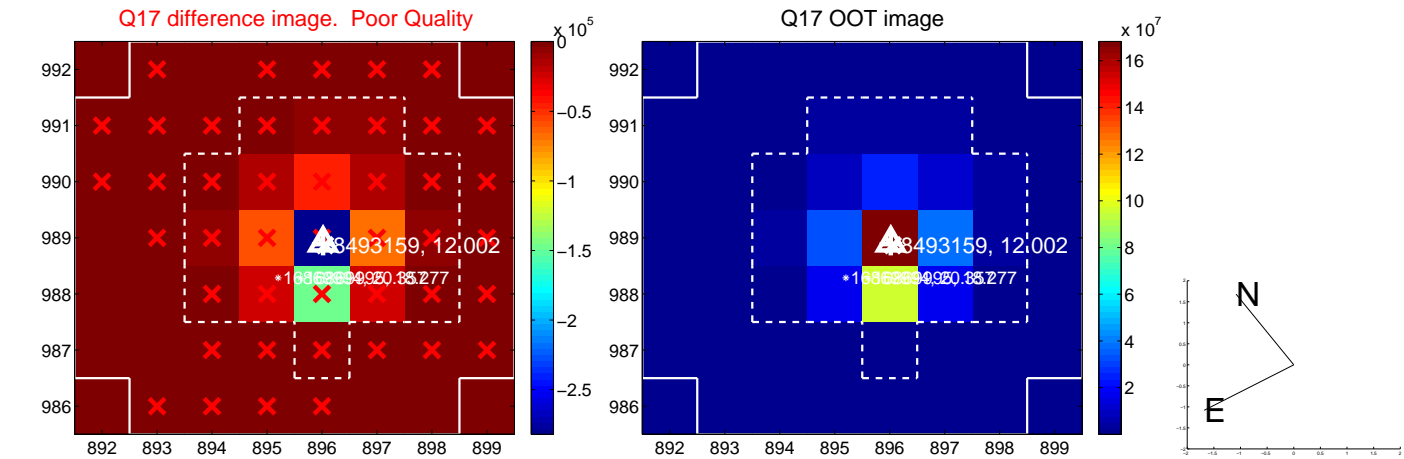
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

