

KIC 004263127

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})
004263127-01	OBS	No	0.705606	131.797833	426.1	0.780	13.0	20.2	1.83	7247	3.92	25412.31
004263127-02	OBS	No	0.674579	131.747853	245.3	1.563	9.4	10.1	1.83	7247	2.92	26982.59
004263127-03	OBS	No	1.159990	131.699494	385.3	2.203	10.4	10.9	1.83	7247	4.14	13097.49
004263127-05	OBS	No	0.662855	132.029744	336.9	1.500	8.1	-1.0	1.83	7247	3.42	27620.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004263127-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
004263127-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

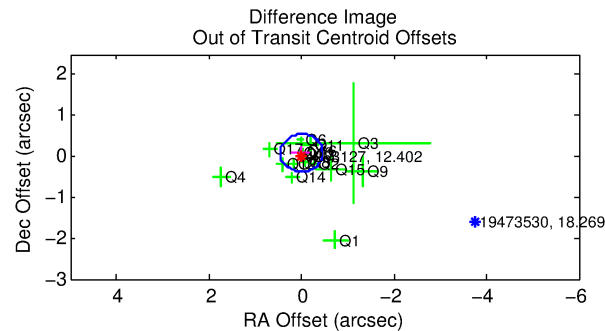
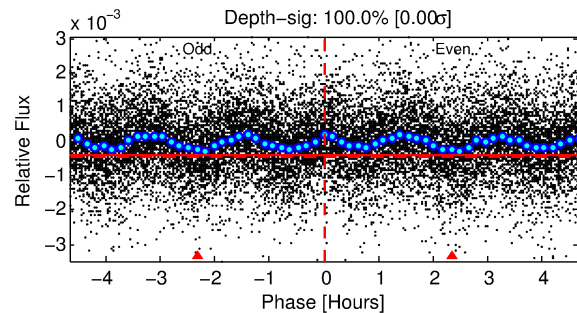
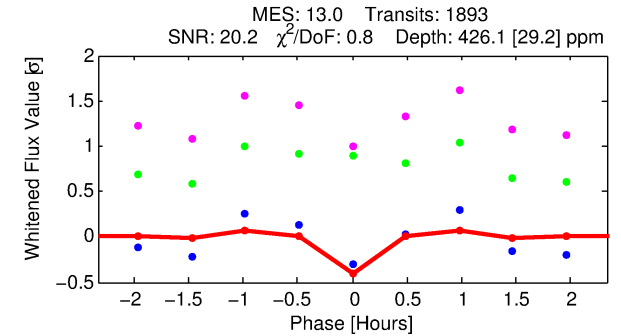
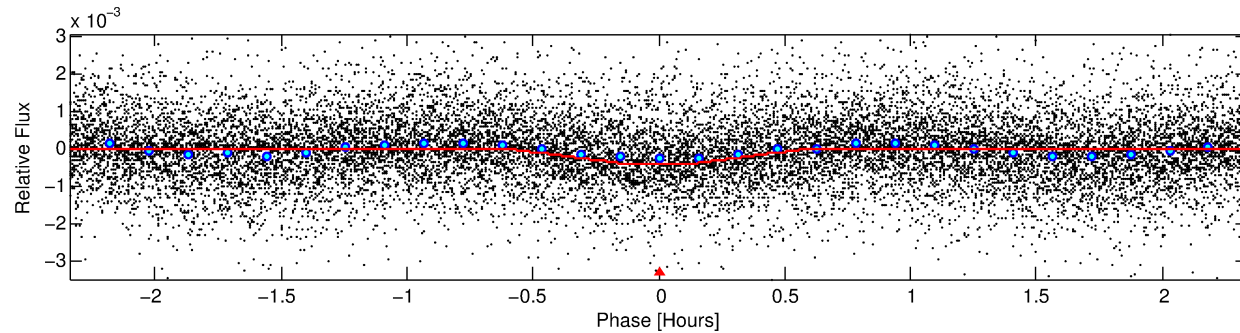
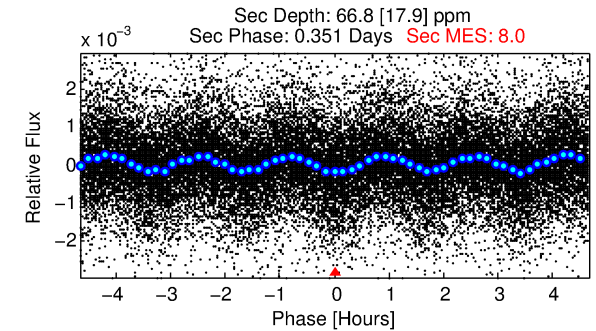
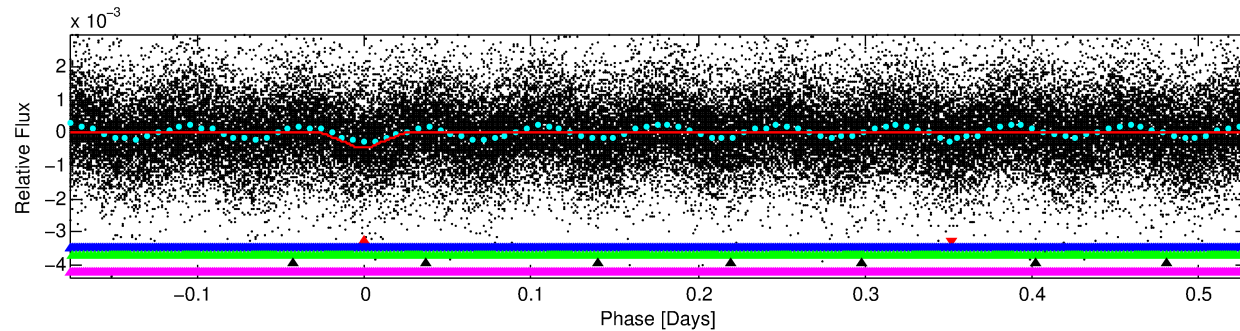
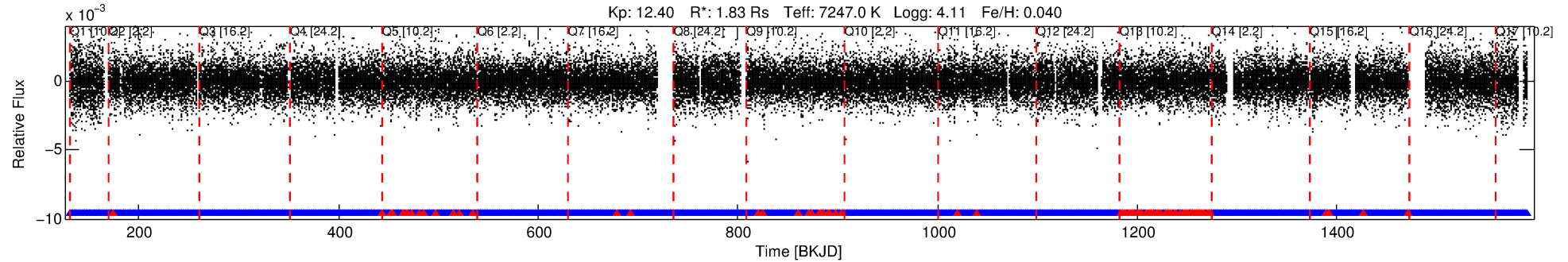
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263127-01

No Significant Match Found

DV One-Page Summary

KIC: 4263127 Candidate: 1 of 5 Period: 0.706 d



DV Fit Results:

Period = 0.70561 [0.00001] d
Epoch = 131.7978 [0.0005] BKJD
Rp/R* = 0.0196 [0.0053]
a/R* = 6.77 [10.47]
b = 0.30 [4.83]
Seff = 25412.31 [10319.06]
Teq = 3219 [327] K
Rp = 3.92 [1.61] Re
a = 0.0181 [0.0046] AU
Ag = 0.78 [0.55] [-0.39σ]
Teffp = 4684 [741] K [1.81σ]

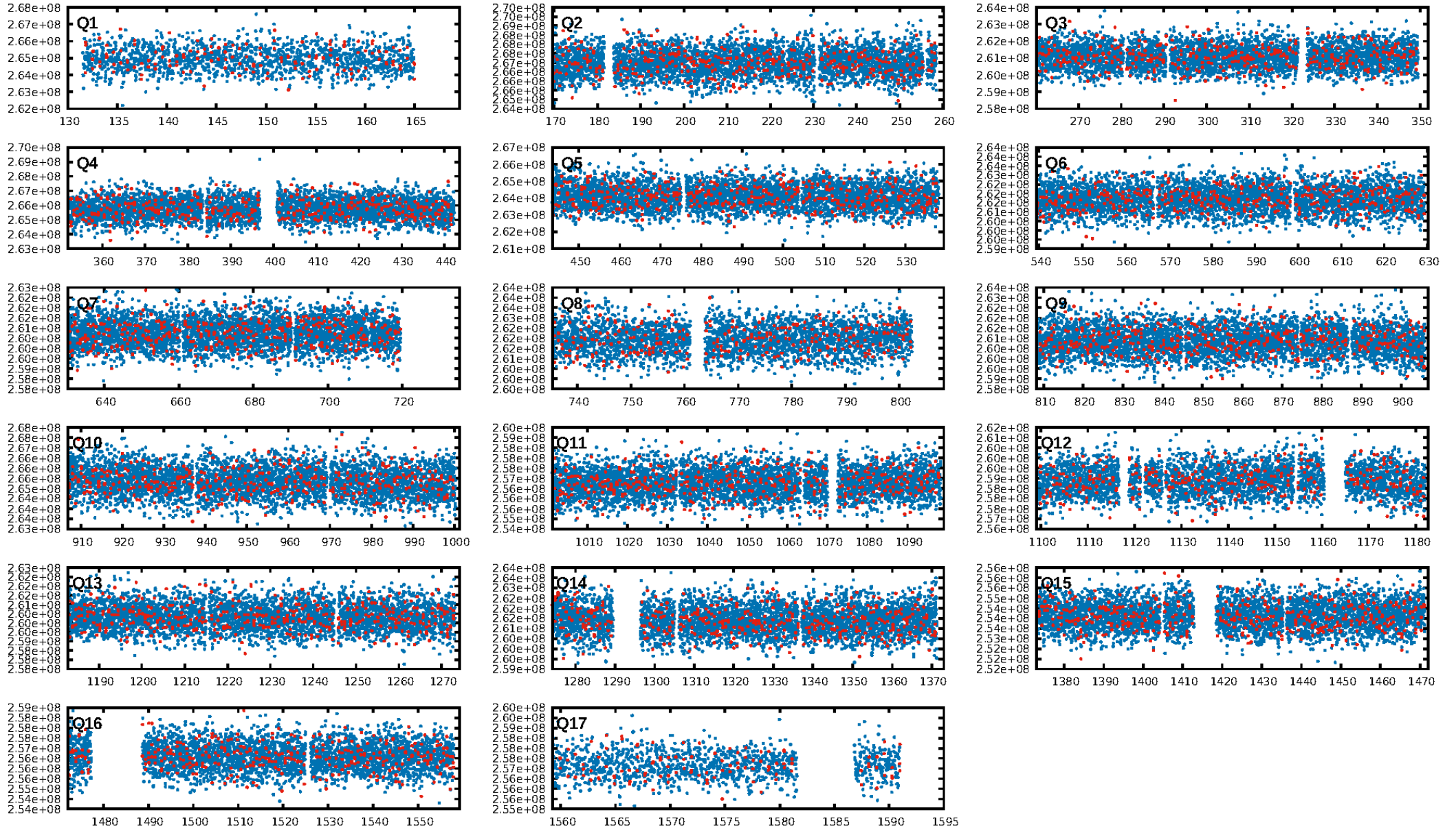
DV Diagnostic Results:

ShortPeriod-sig: 33.0% [0.43σ]
LongPeriod-sig: 100.0% [4.67σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [1703/1807]
GhostDiagnostic-chr: 2.719
Centroid-sig: 6.1%
Centroid-so: 0.163 arcsec [2.39σ]
OotOffset-rm: 0.085 arcsec [0.55σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.223 arcsec [1.39σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.44 [7/16]
DiffImageOverlap-fno: 1.00 [17/17]

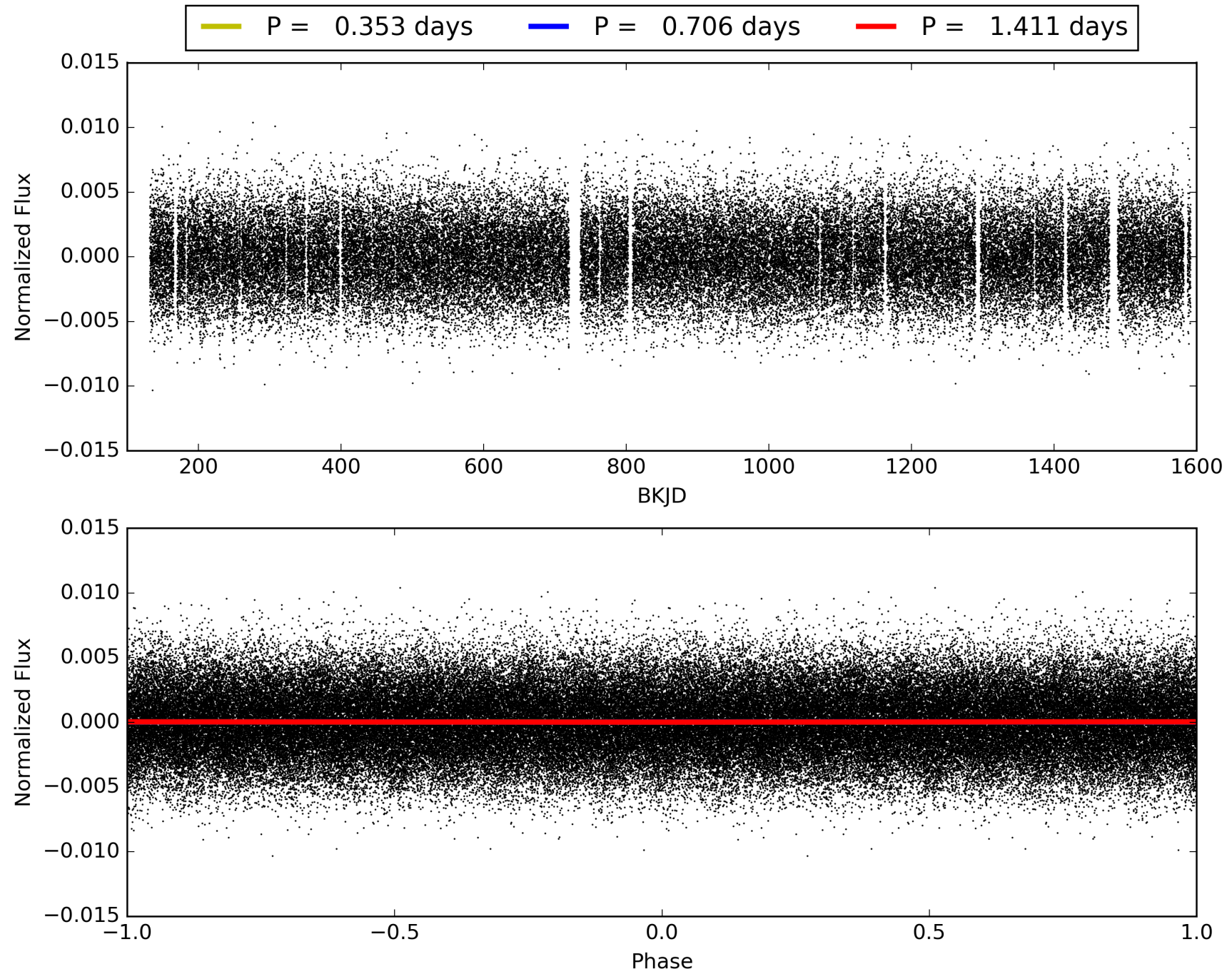
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:04:57 Z

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

TCE 004263127-01, PDC Light Curves

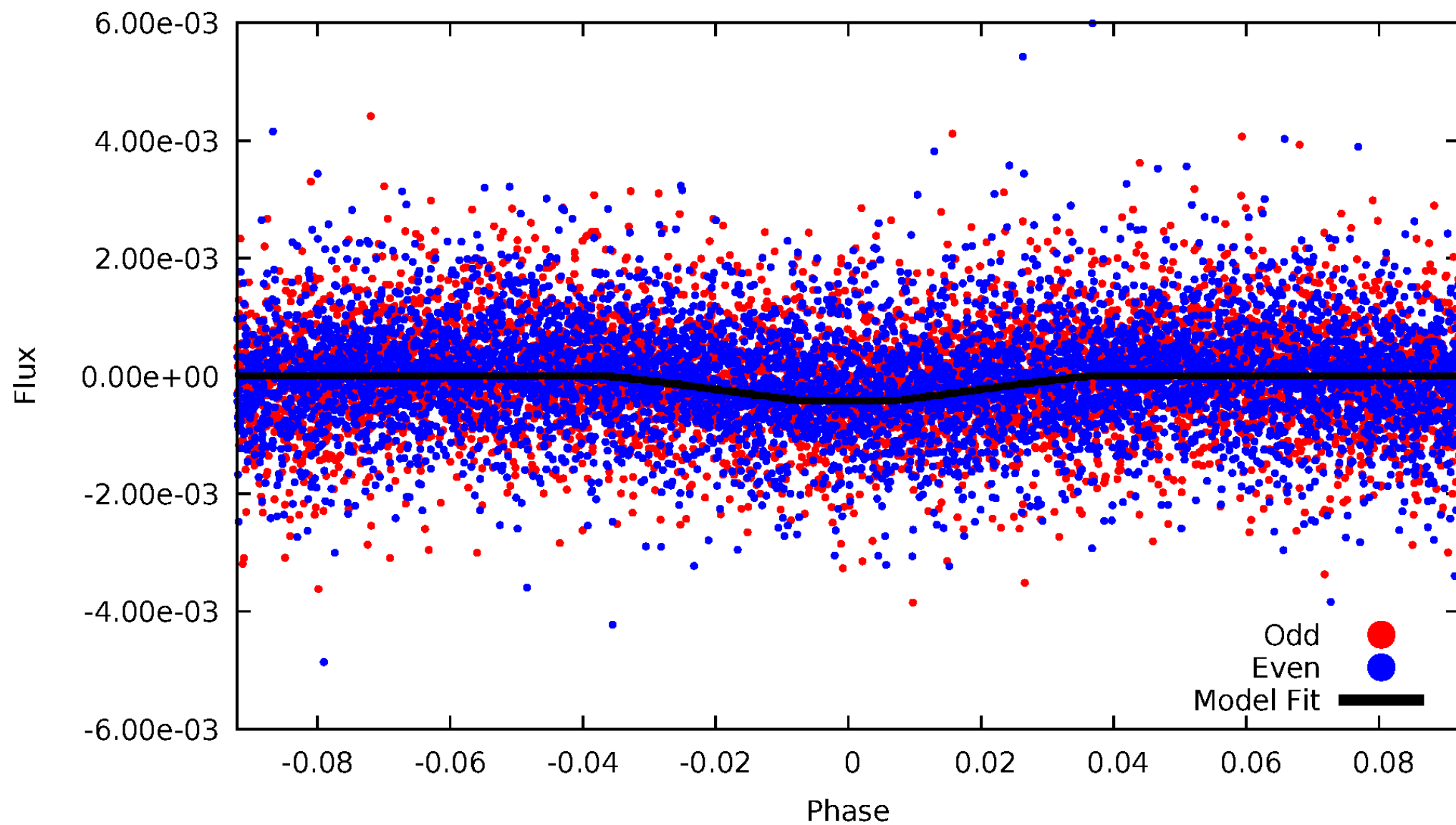


TCE 004263127-01



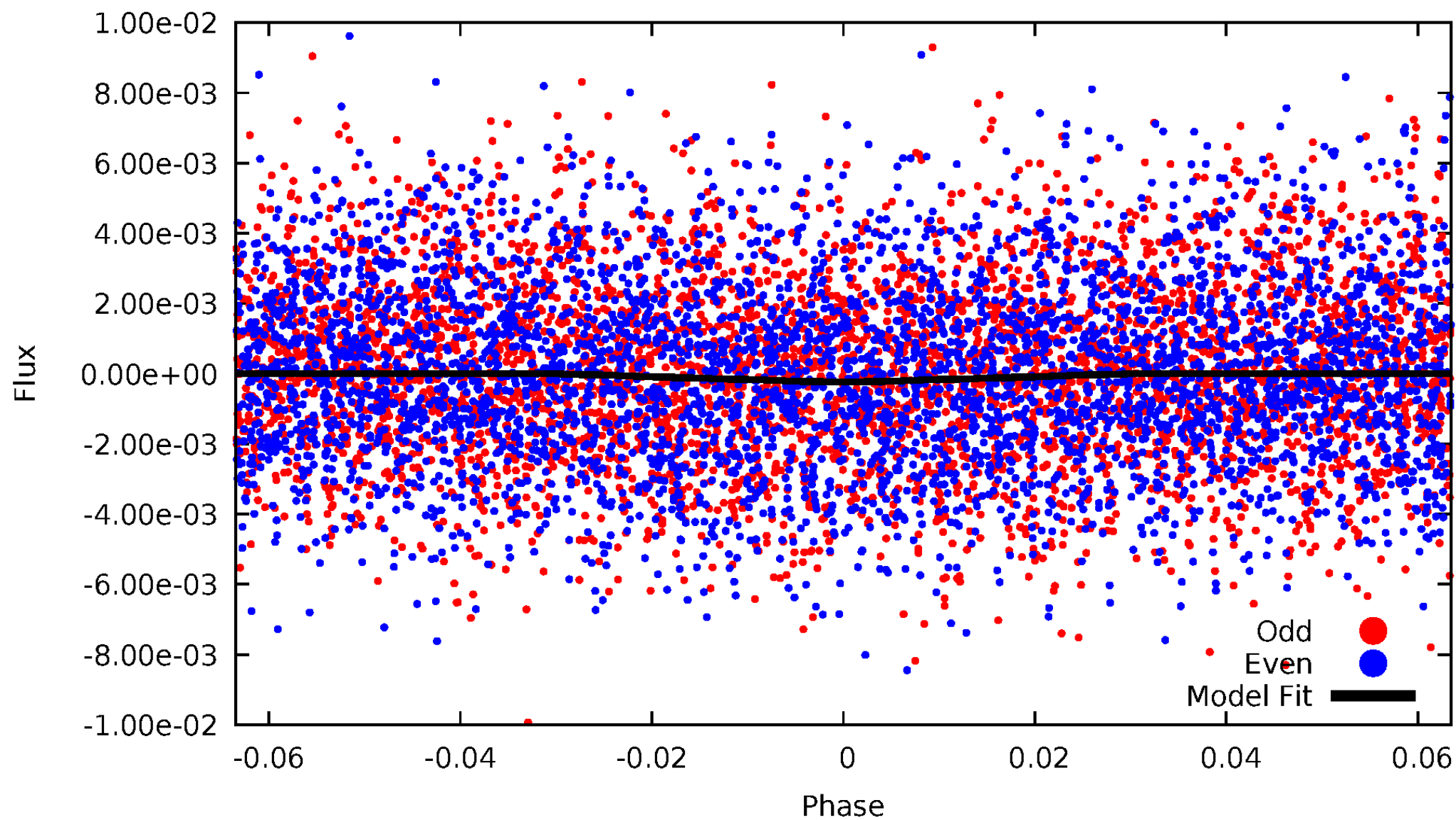
DV Odd/Even

TCE 004263127-01



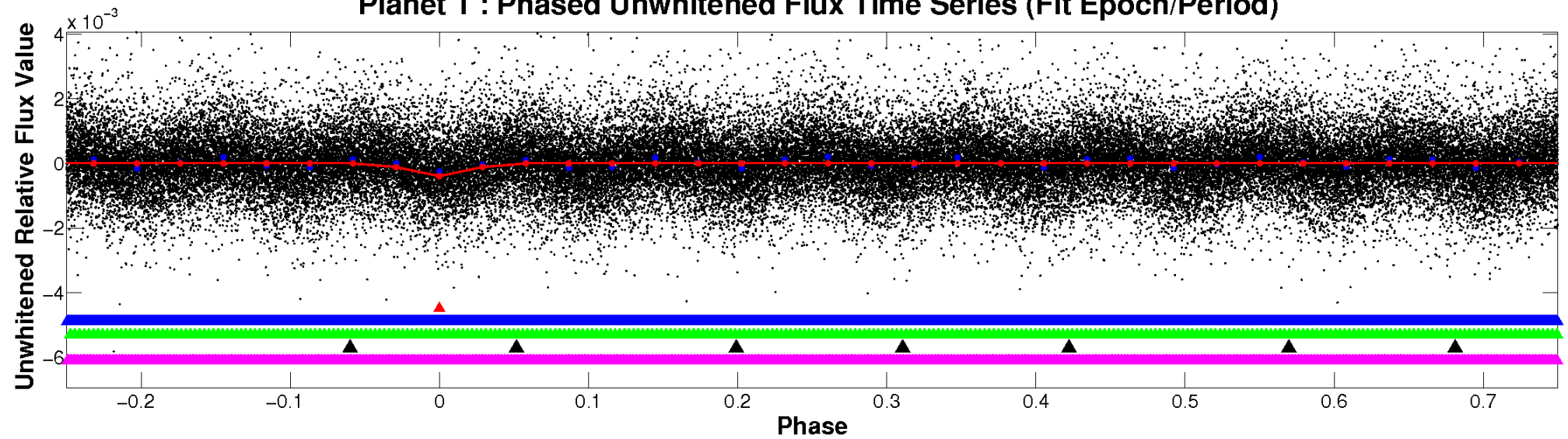
ALT Odd/Even

TCE 004263127-01

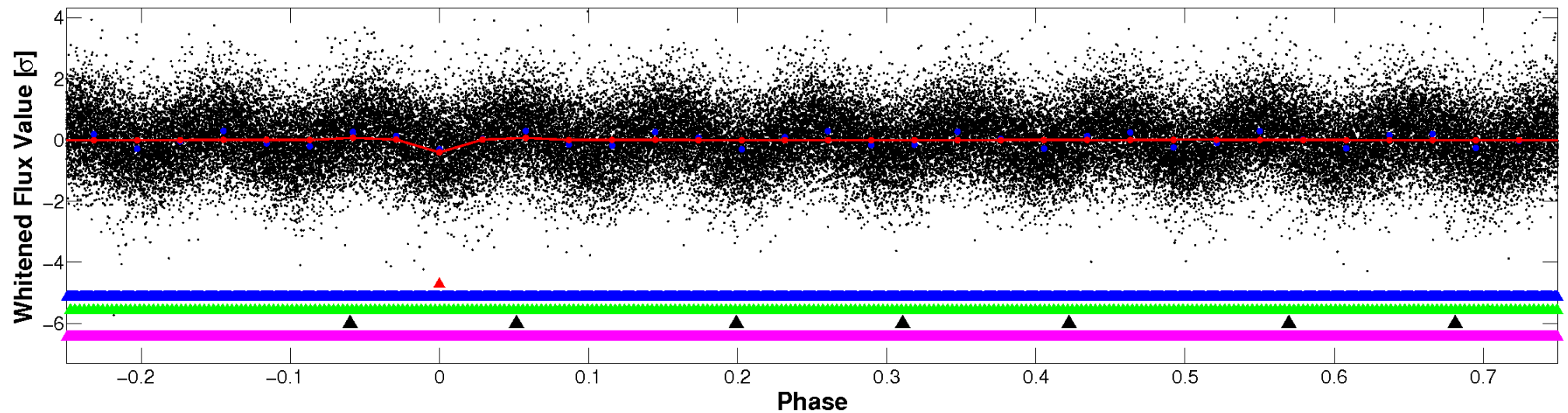


Non-Whitened Vs. Whitened Light Curve

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

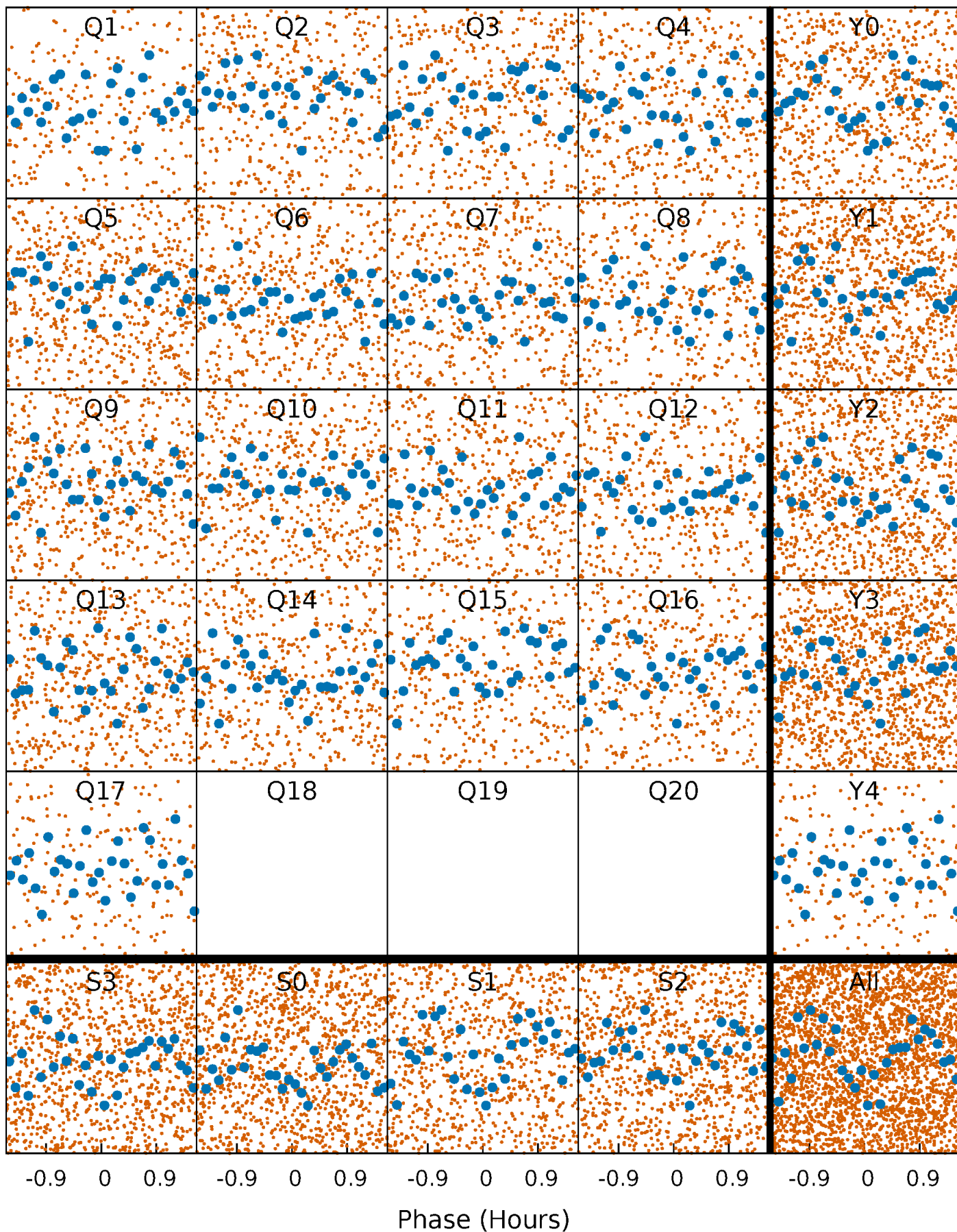


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



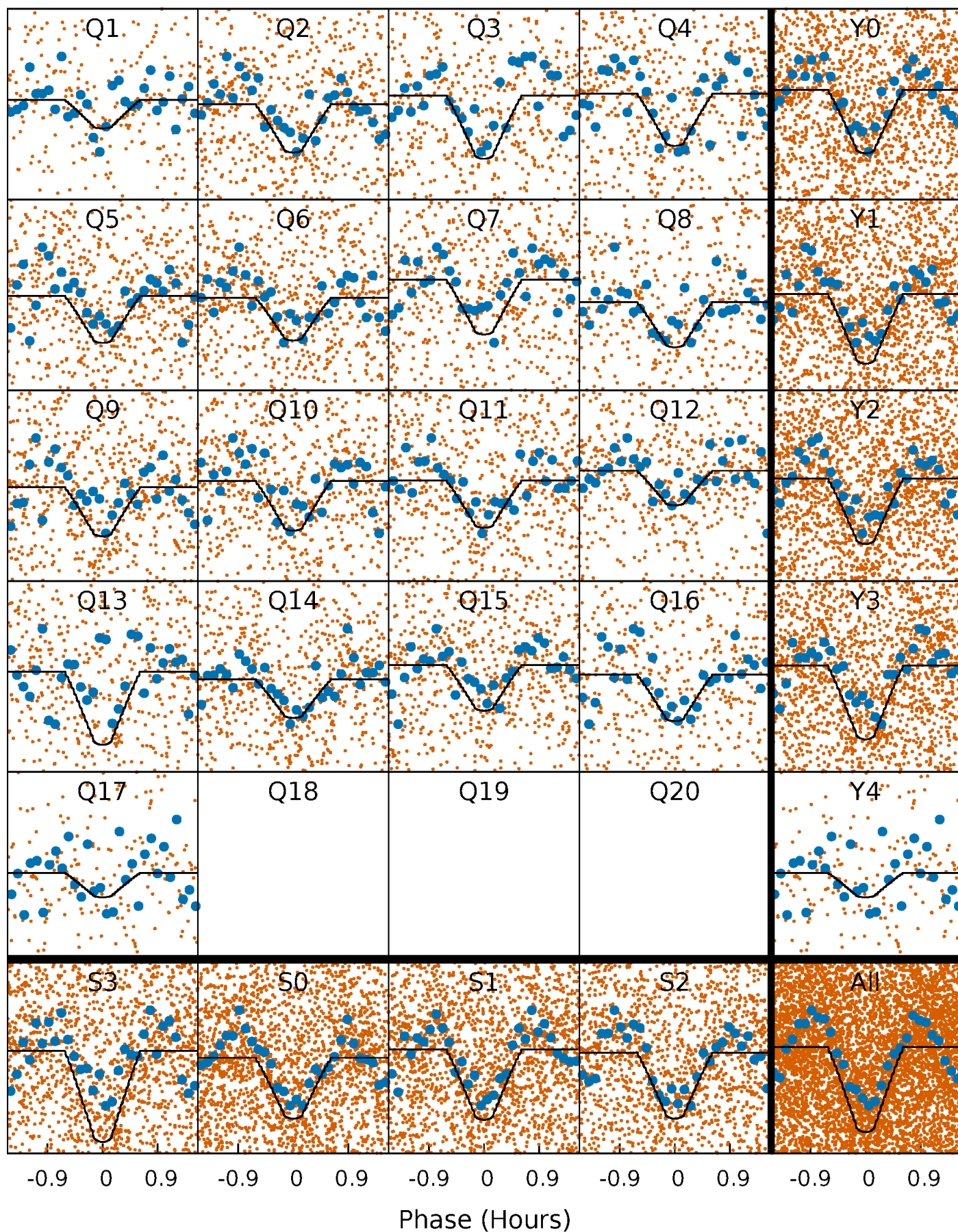
PDC Quarter-Phased Transit Curves

TCE 004263127-01 P= 0.705606 Days $T_0=131.797833$ (BKJD)



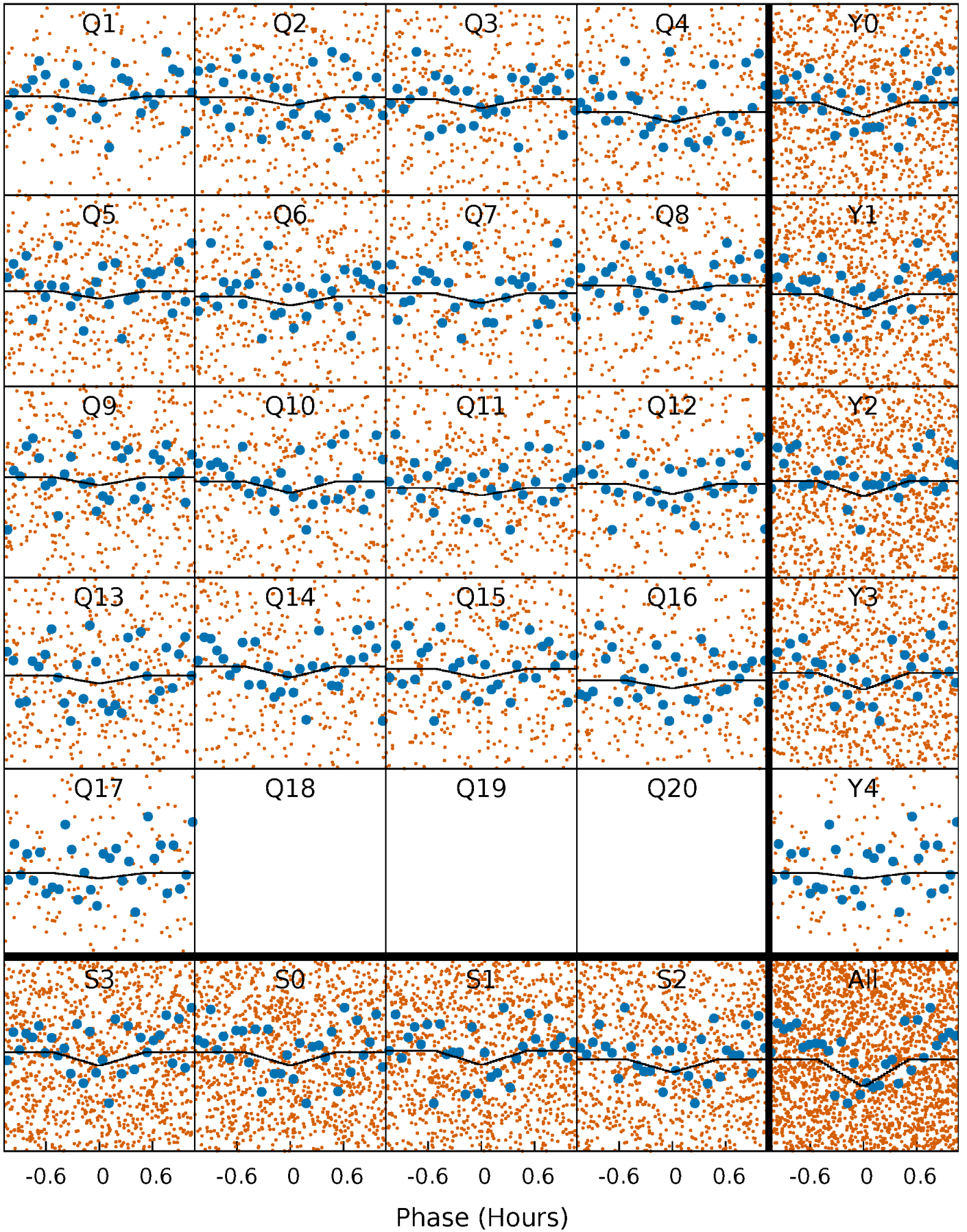
DV Quarter-Phased Transit Curves

TCE 004263127-01 P= 0.705606 Days $T_0=131.797833$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

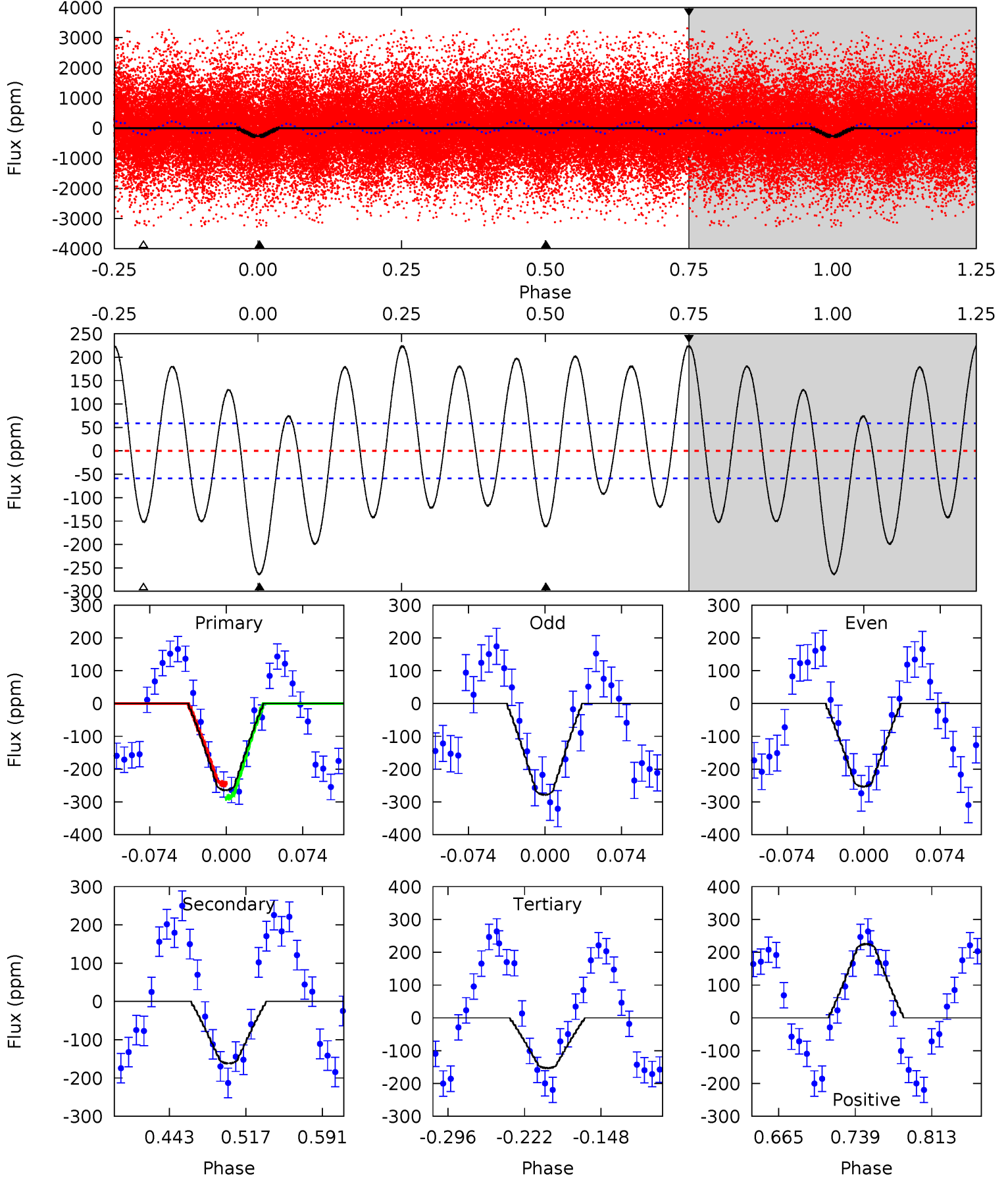
TCE 004263127-01 P= 0.705609 Days $T_0=131.796169$ (BKJD)



DV Model-Shift Uniqueness Test

004263127-01, P = 0.705606 Days, E = 131.092227 Days

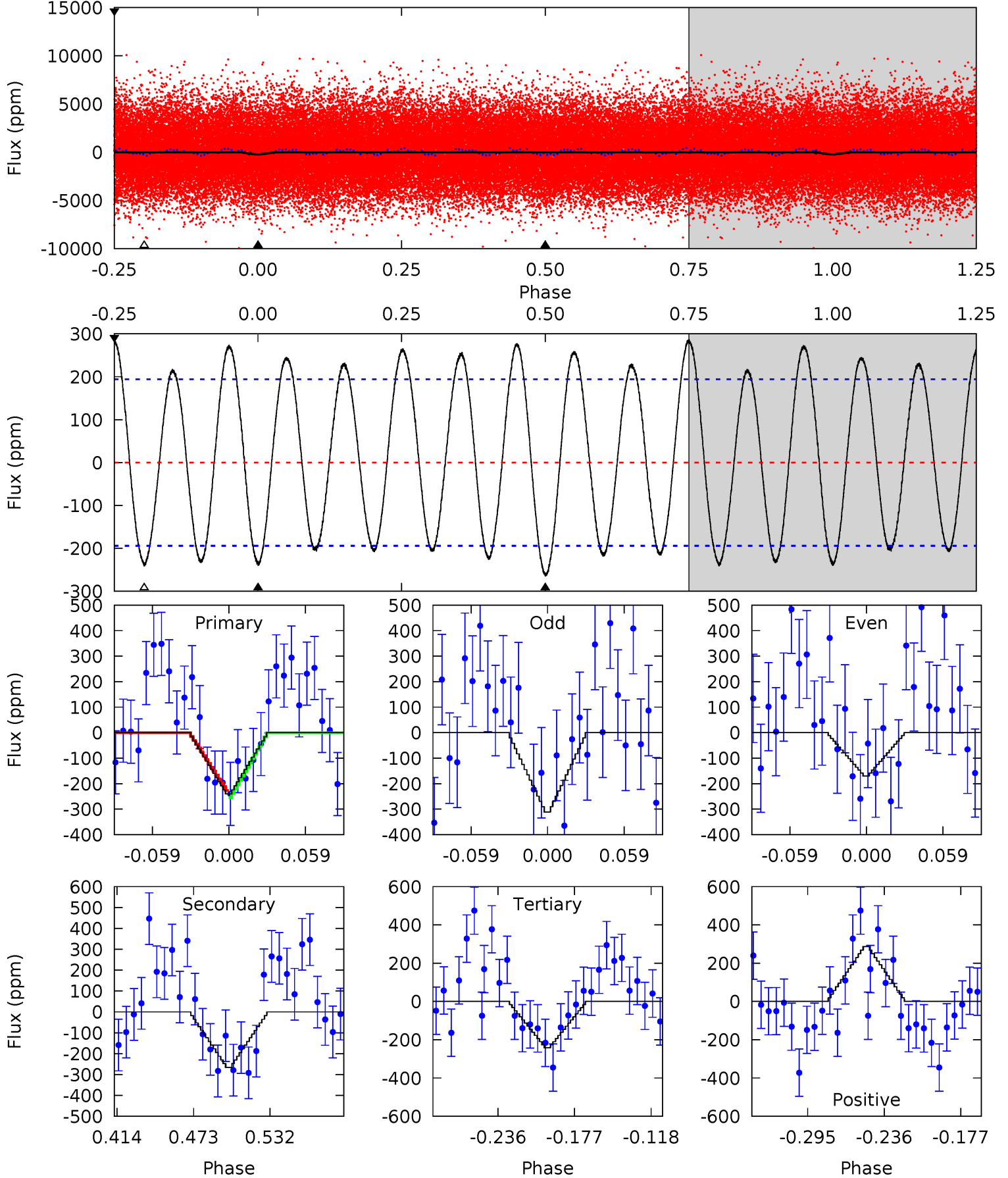
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	12.7	12.0	17.7	4.63	1.79	9.36	8.76	3.09	0.69	-4.98	1.00	0.84	0.46	1.64



Alt Model-Shift Uniqueness Test

004263127-01, P = 0.705609 Days, E = 131.090560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.79	6.40	5.83	6.92	4.67	1.89	3.86	-0.04	-1.13	0.56	-0.53	1.70	1.24	0.52	0.35



Stellar Parameters For KIC 004263127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7247^{+200}_{-343}	$4.111^{+0.128}_{-0.192}$	$0.040^{+0.200}_{-0.350}$	$1.834^{+0.565}_{-0.377}$	$1.584^{+0.204}_{-0.249}$	$0.361^{+0.239}_{-0.195}$
	+3%/-5%	+3%/-5%	+500%/-875%	+31%/-21%	+13%/-16%	+66%/-54%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004263127-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-162 ± 13	$3.93^{+1.44}_{-1.12}$	4508^{+364}_{-302}	5528^{+1106}_{-752}	$1.840^{+1.835}_{-0.829}$
Alt.	-265 ± 41	$3.17^{+1.17}_{-1.07}$	4507^{+342}_{-305}	7257^{+2245}_{-1253}	$4.639^{+5.871}_{-2.211}$

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 $A_{obs} \gg 1.0$

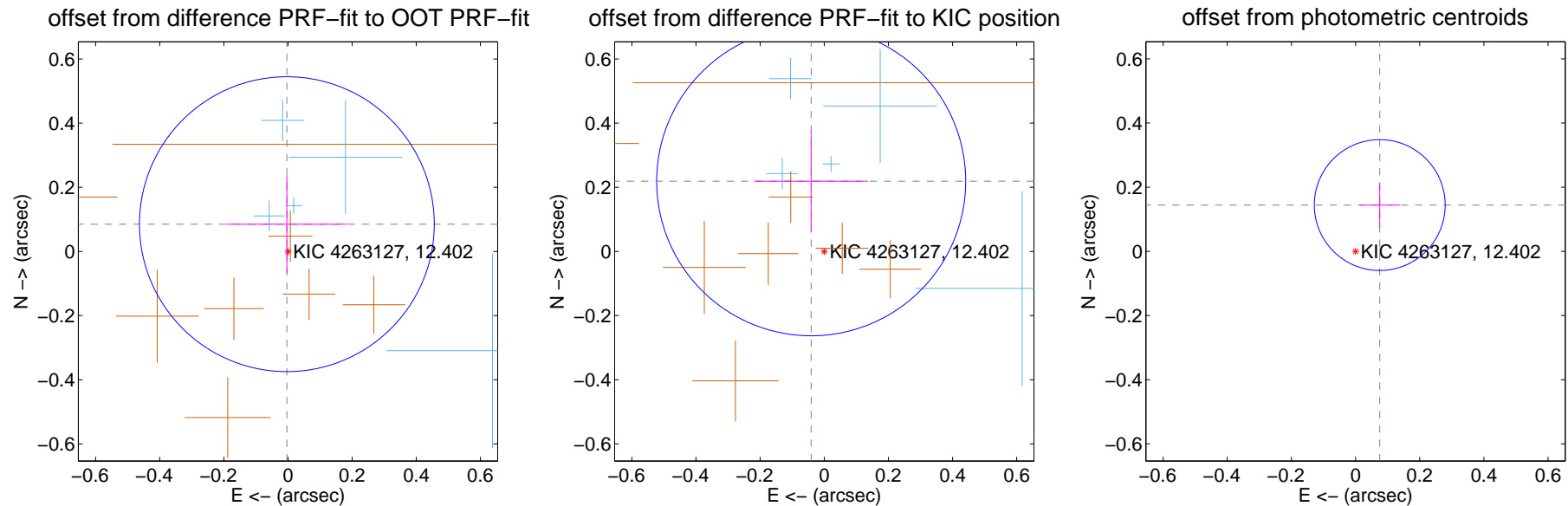
DV Centroid Data

Supplemental centroid analysis for 004263127-01. Kepler magnitude: 12.40. Transit SNR 20.17

There are 7 quarters with good PRF difference image offsets

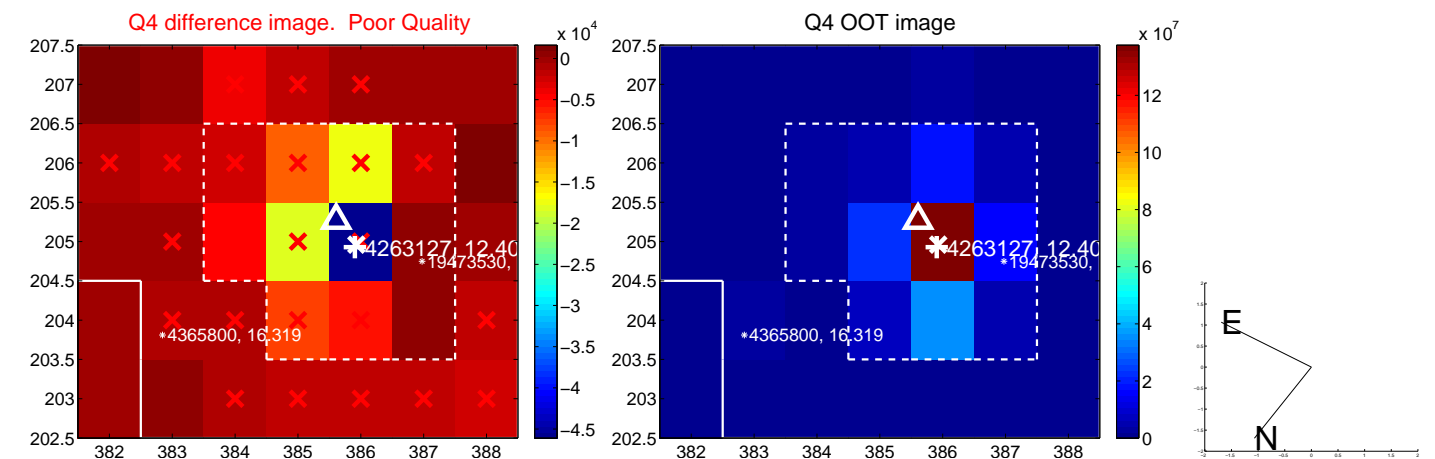
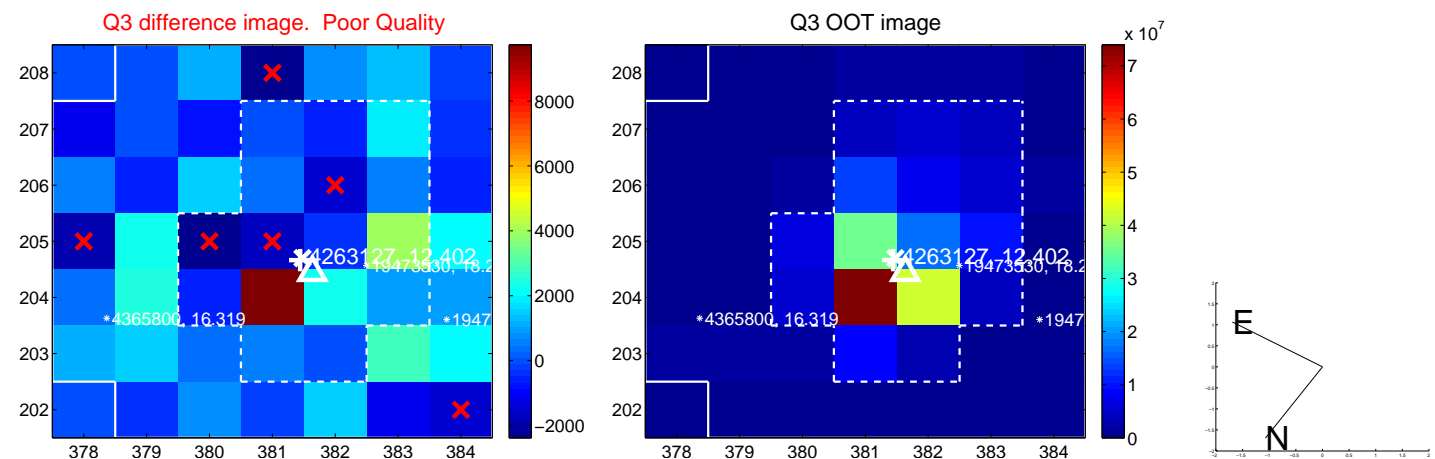
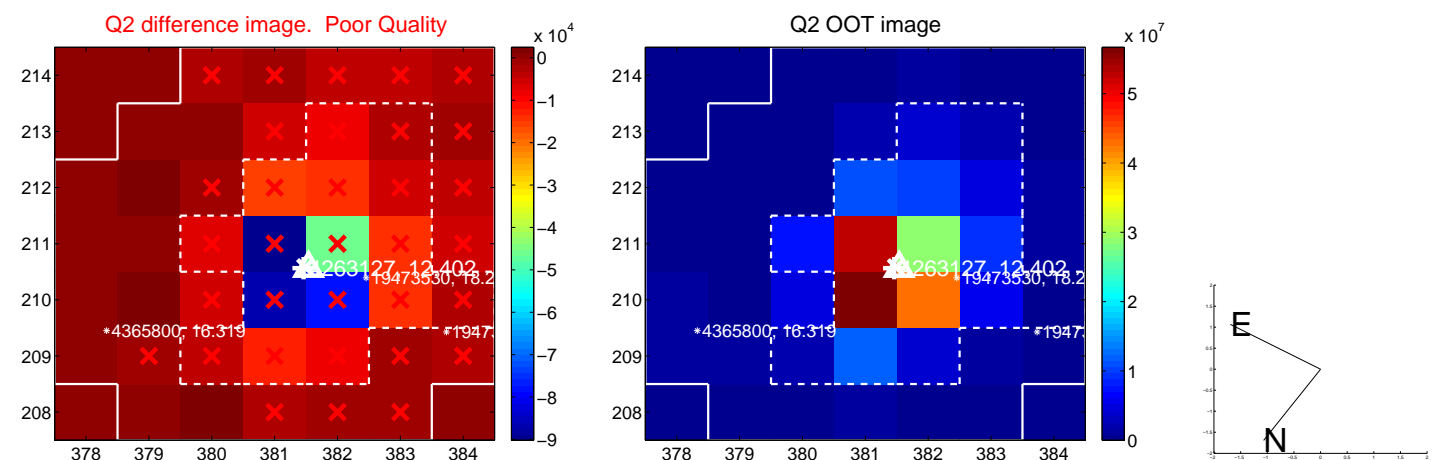
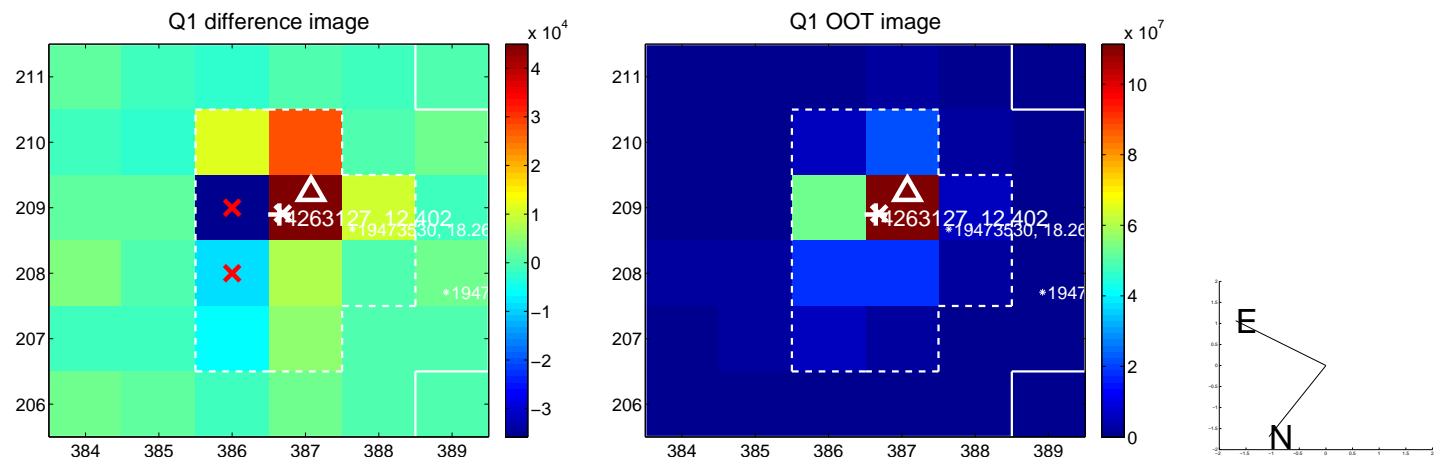
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.085 ± 0.153	0.55	0.004 ± 0.187	0.085 ± 0.152
PRF-fit source offset from KIC position	0.223 ± 0.161	1.39	0.041 ± 0.177	0.219 ± 0.158
photometric centroid source offset	0.16 ± 0.07	2.39	-0.08 ± 0.06	0.14 ± 0.07

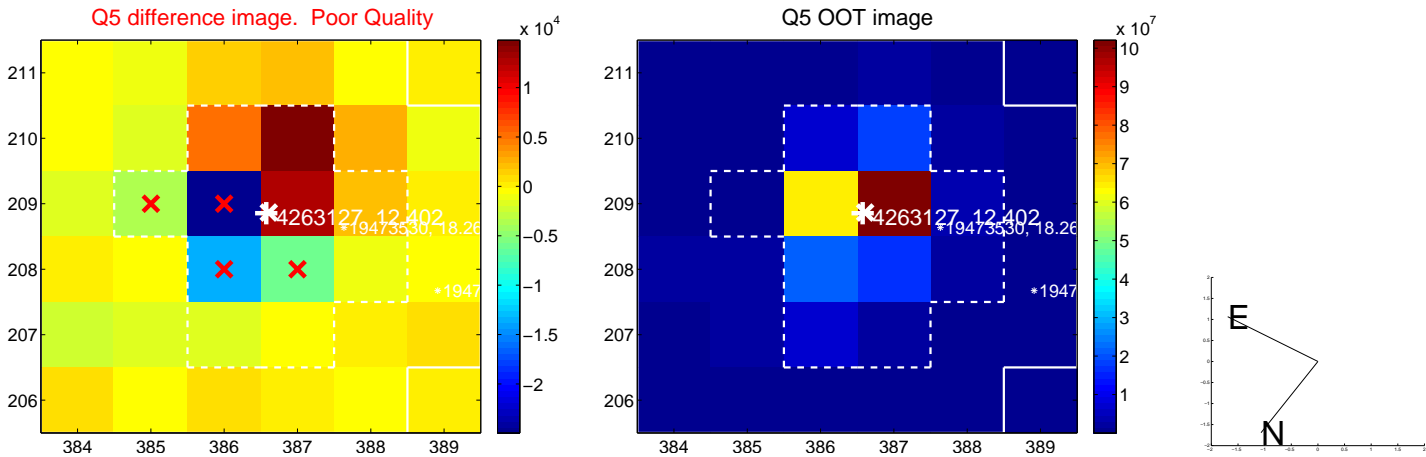


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

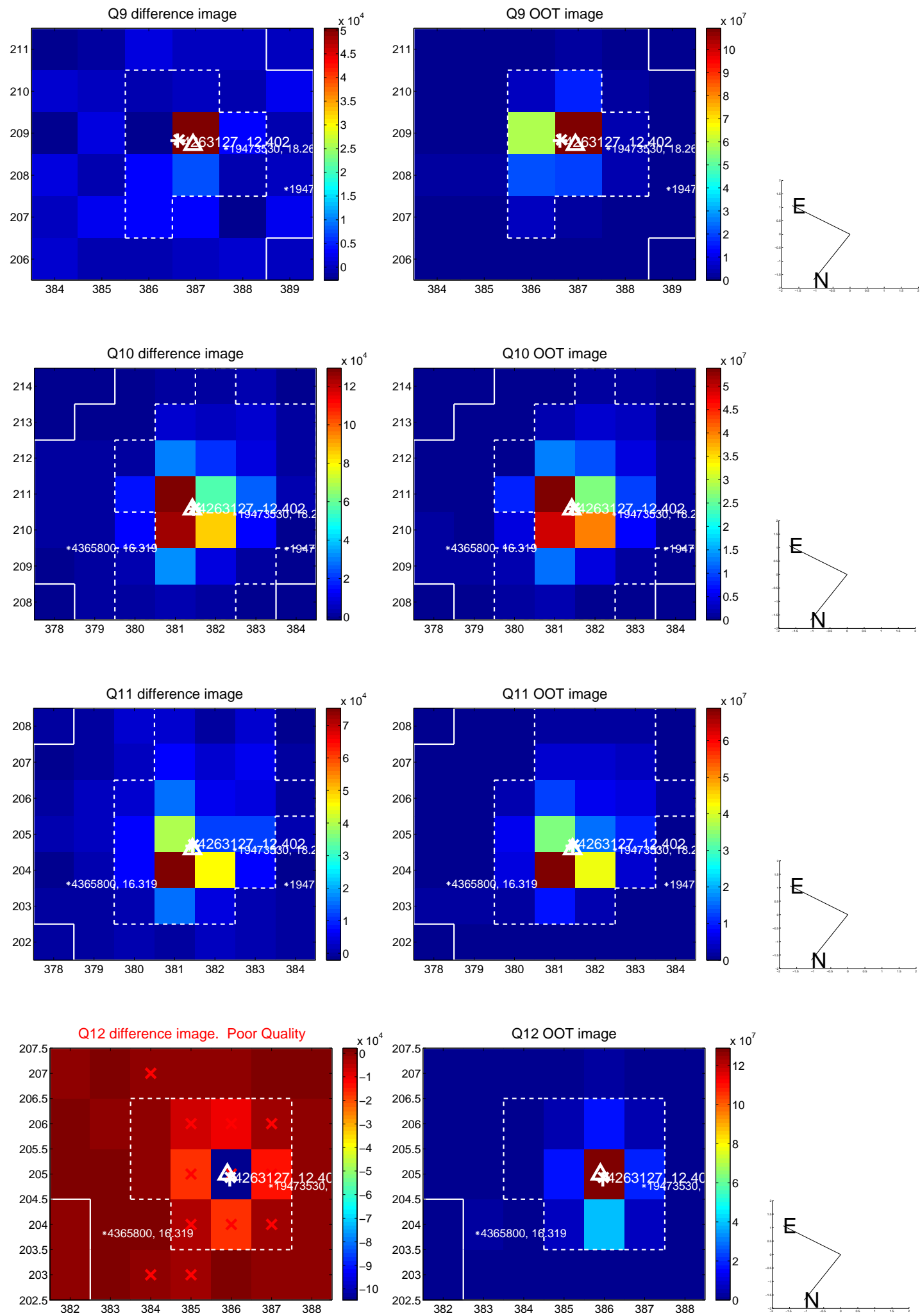
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



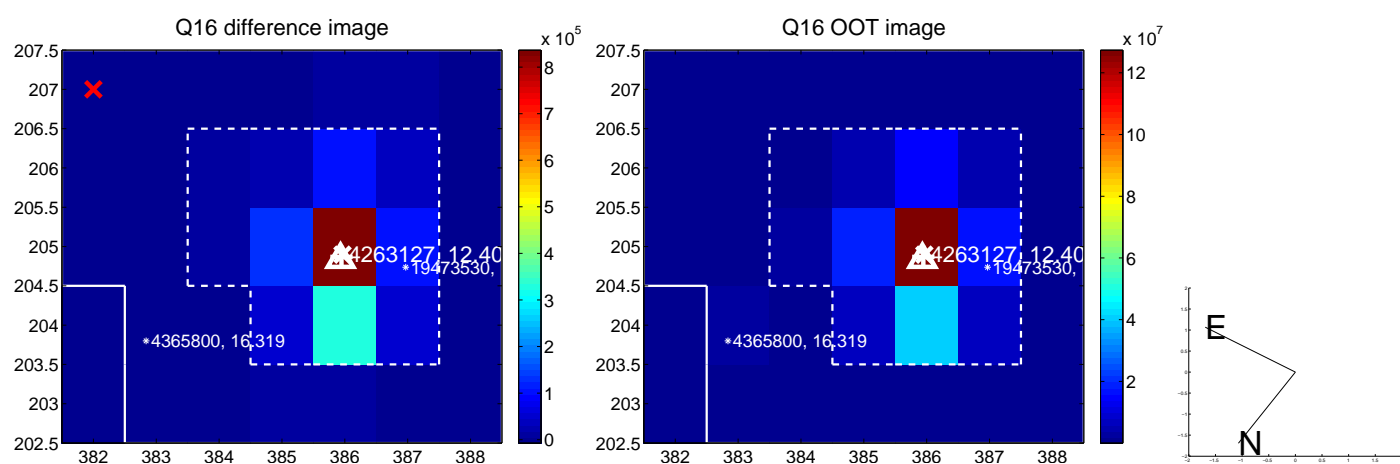
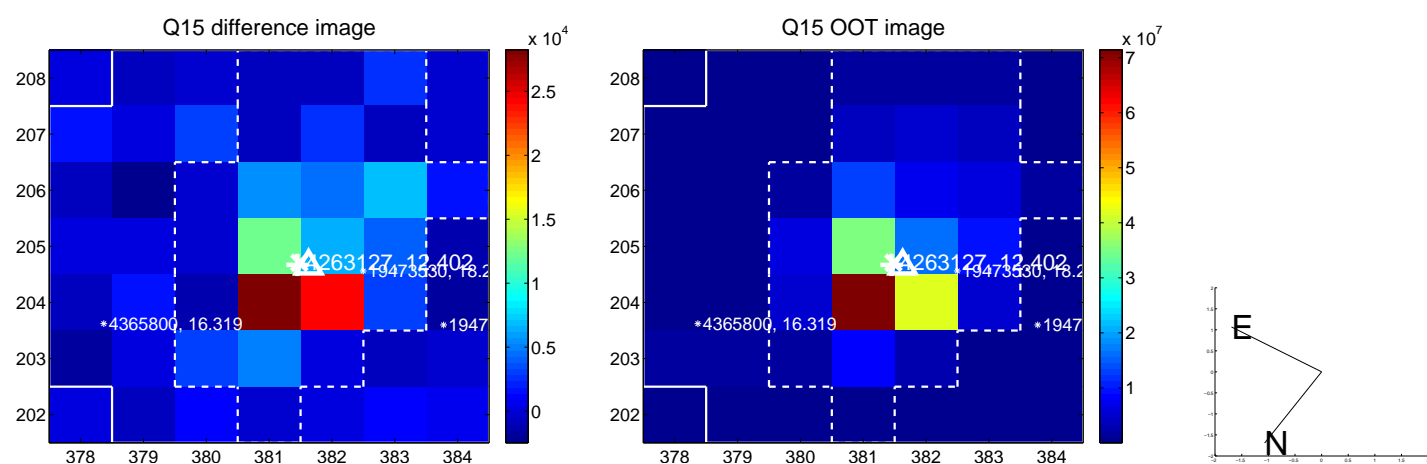
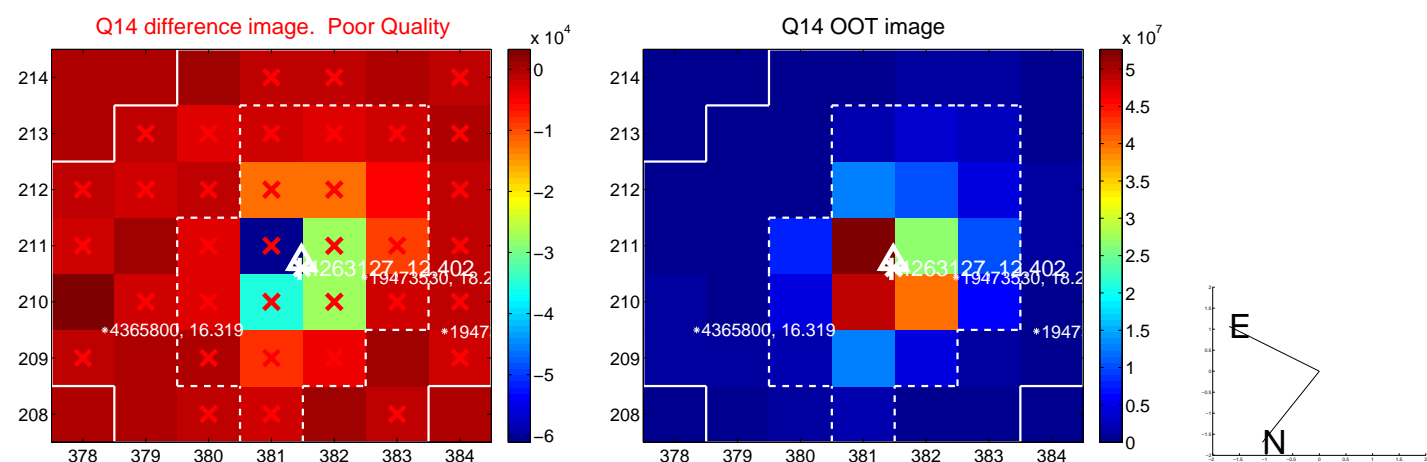
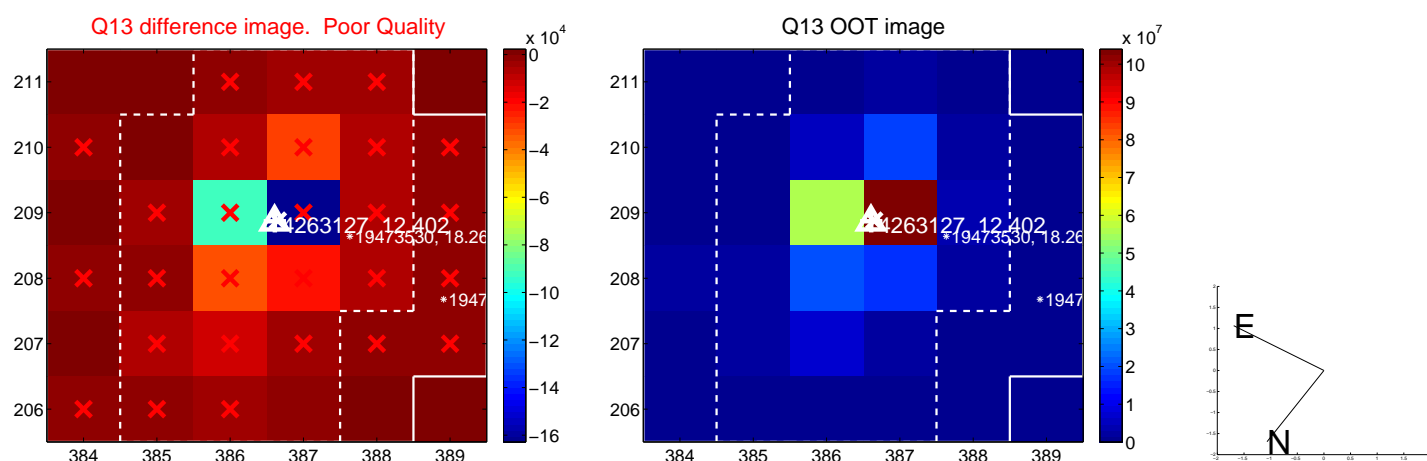
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



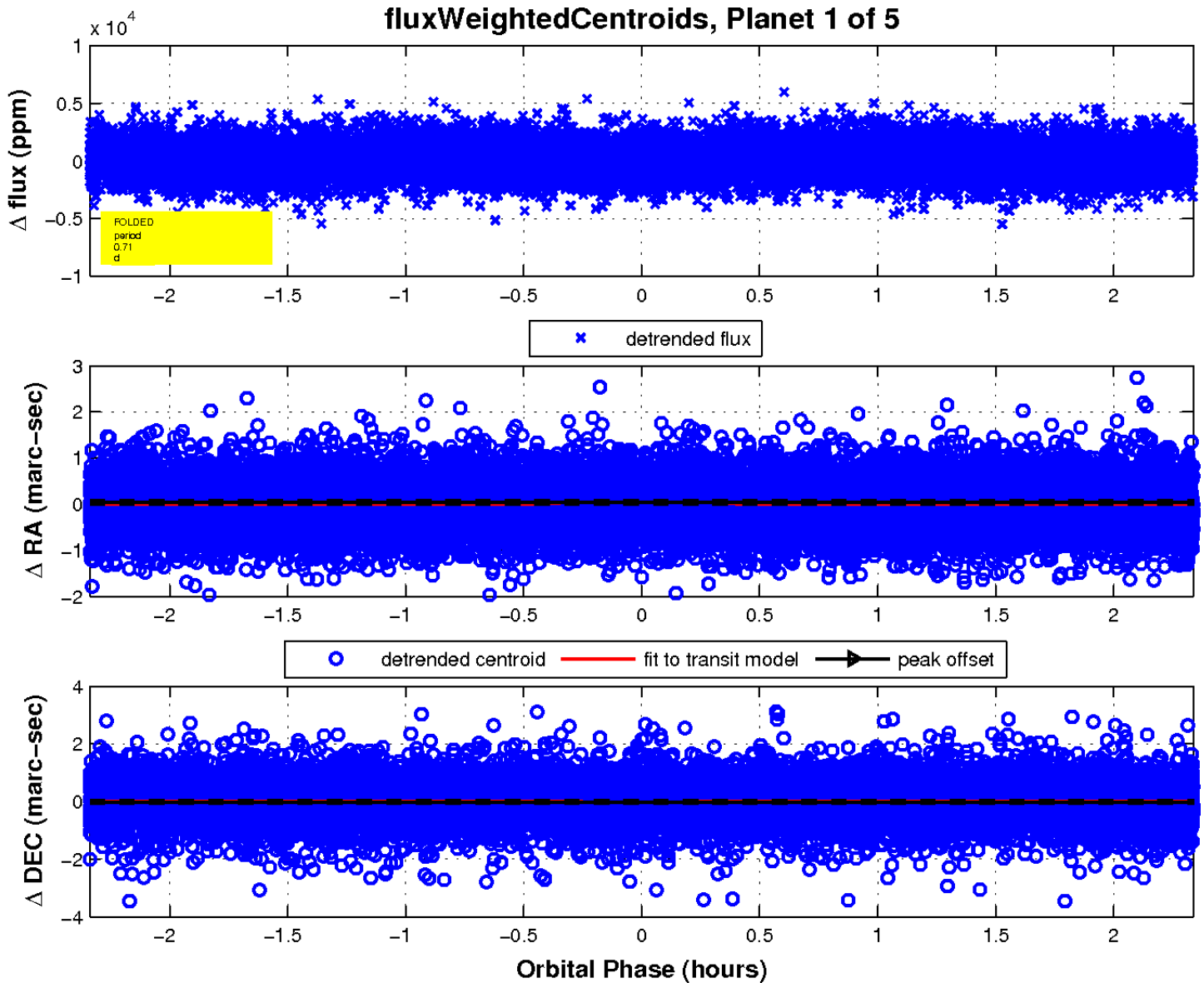
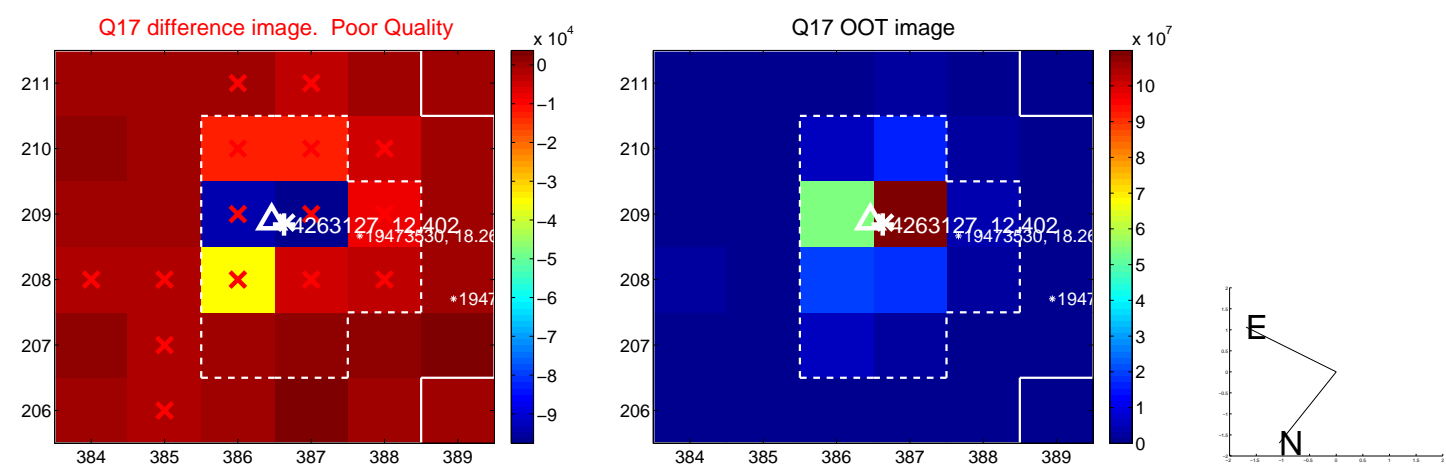
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

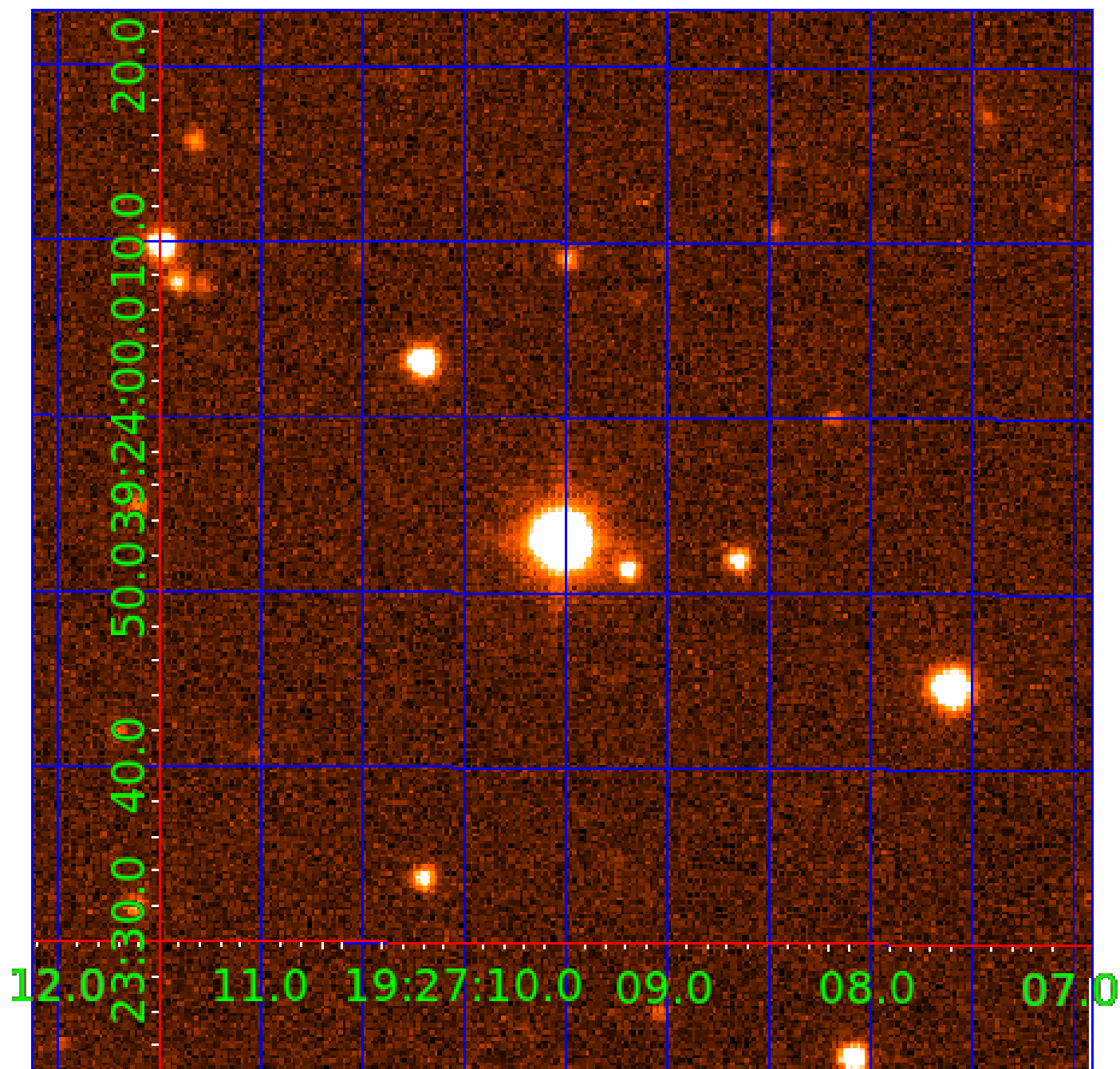


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004263127

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})
004263127-01	OBS	No	0.705606	131.797833	426.1	0.780	13.0	20.2	1.83	7247	3.92	25412.31
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Robovetter Results

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004263127-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

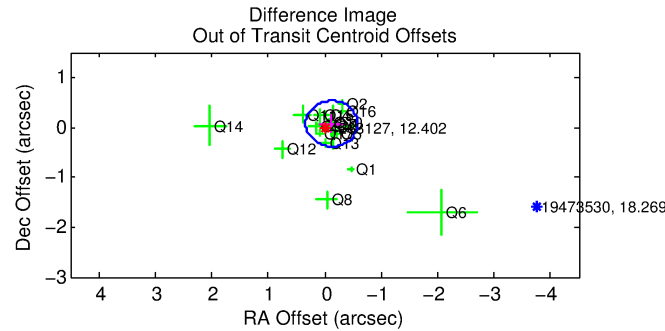
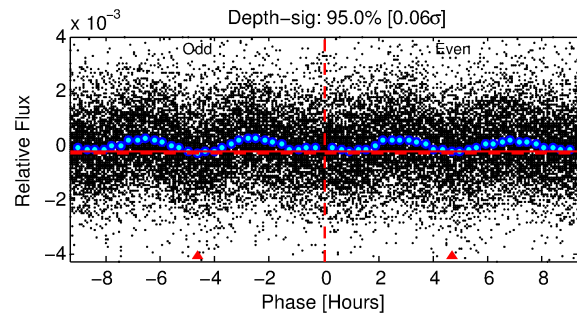
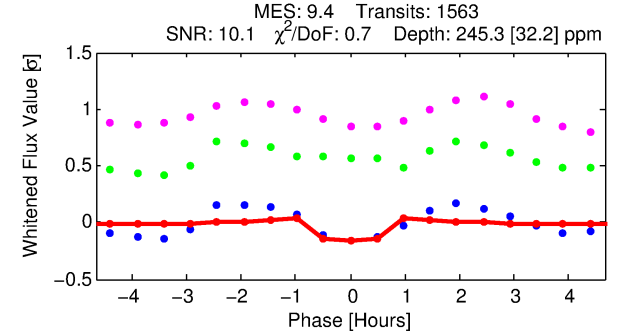
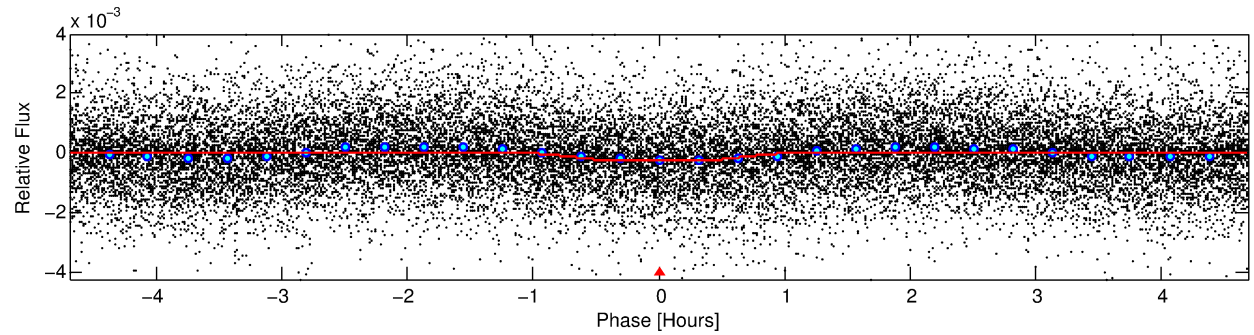
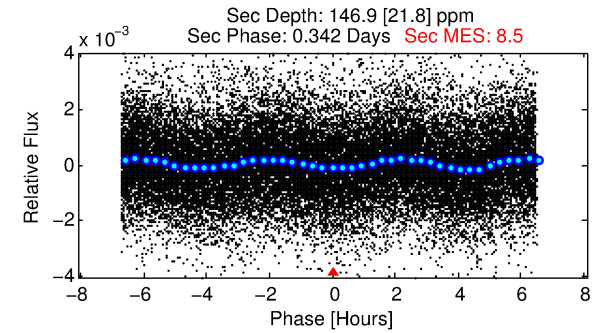
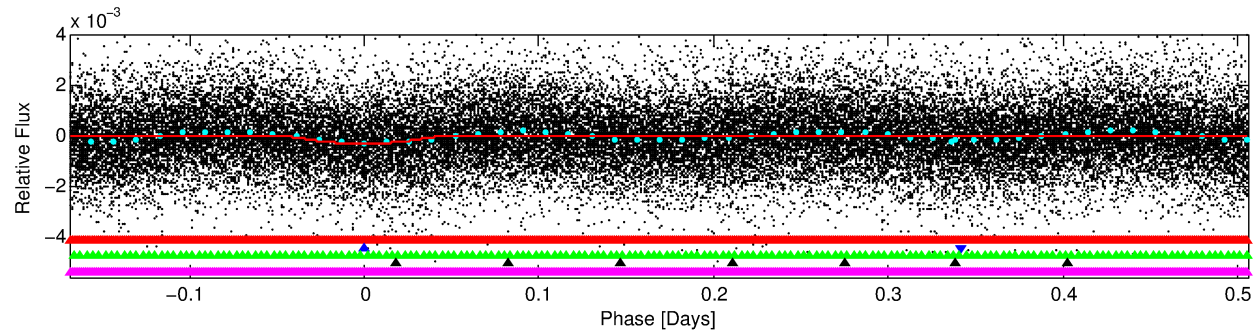
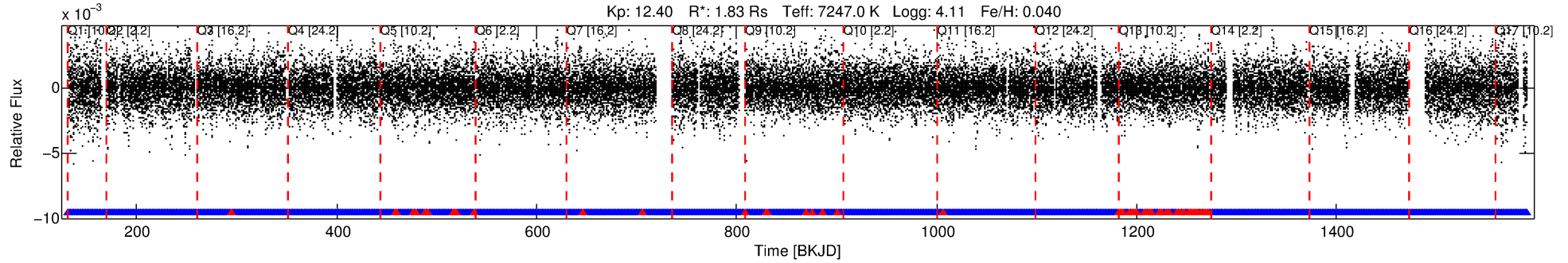
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263127-02

No Significant Match Found

DV One-Page Summary

KIC: 4263127 Candidate: 2 of 5 Period: 0.675 d



DV Fit Results:

Period = 0.67458 [0.00001] d
Epoch = 131.7479 [0.0015] BKJD
Rp/R* = 0.0146 [0.0078]
a/R* = 3.40 [9.67]
b = 0.01 [287.83]
Seff = 26982.59 [10956.70]
Teq = 3268 [332] K
Rp = 2.92 [1.80] Re
a = 0.0176 [0.0044] AU
Ag = 2.93 [3.33] [0.58σ]
Teffp = 6608 [1813] K [1.81σ]

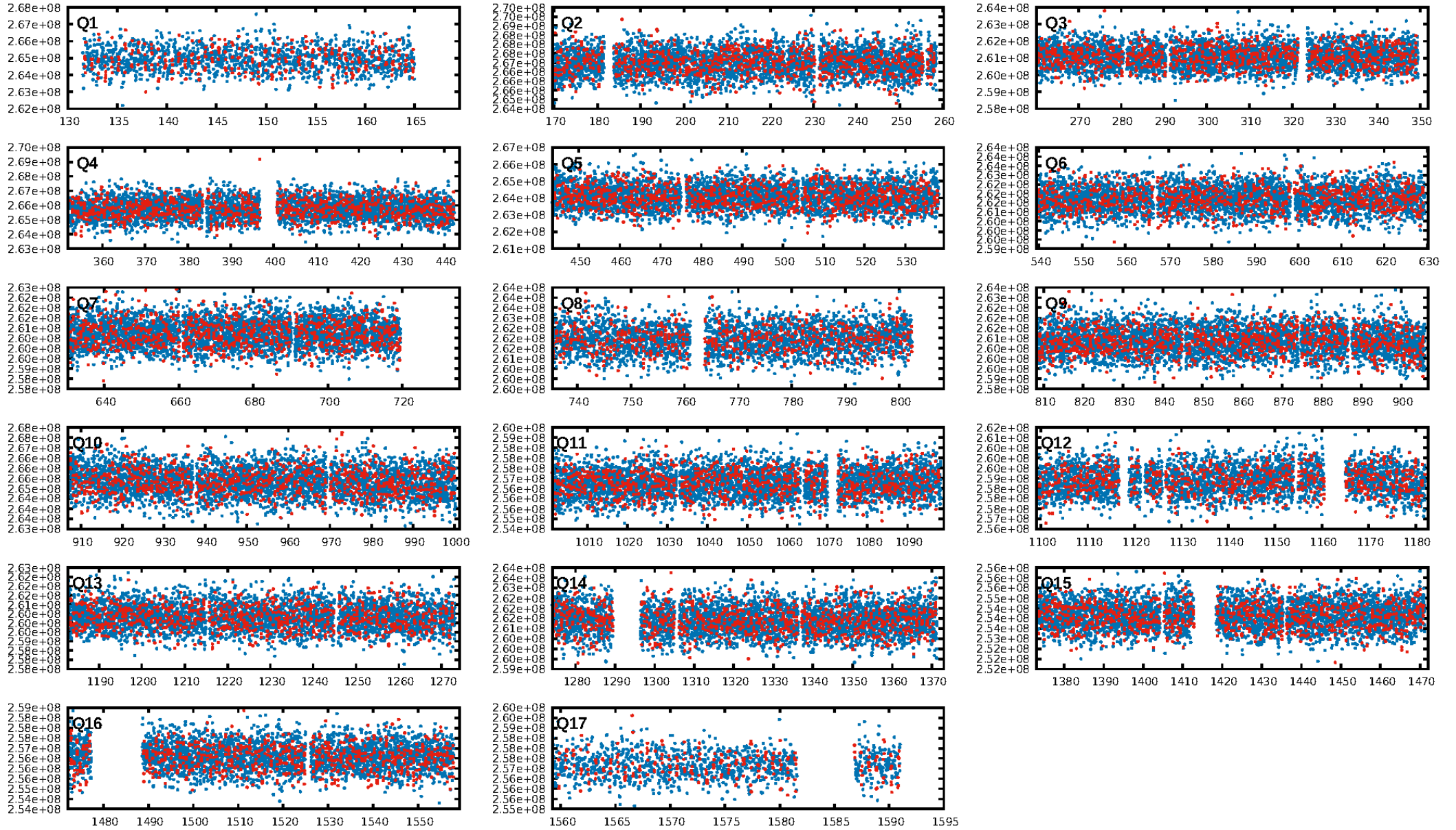
DV Diagnostic Results:

ShortPeriod-sig: 10.3% [0.13σ]
LongPeriod-sig: 33.0% [0.43σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1426/1493]
GhostDiagnostic-chr: 0.3801
Centroid-sig: 2.7%
Centroid-so: 0.010 arcsec [0.12σ]
OotOffset-rm: 0.139 arcsec [0.91σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.214 arcsec [1.60σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.94 [16/17]

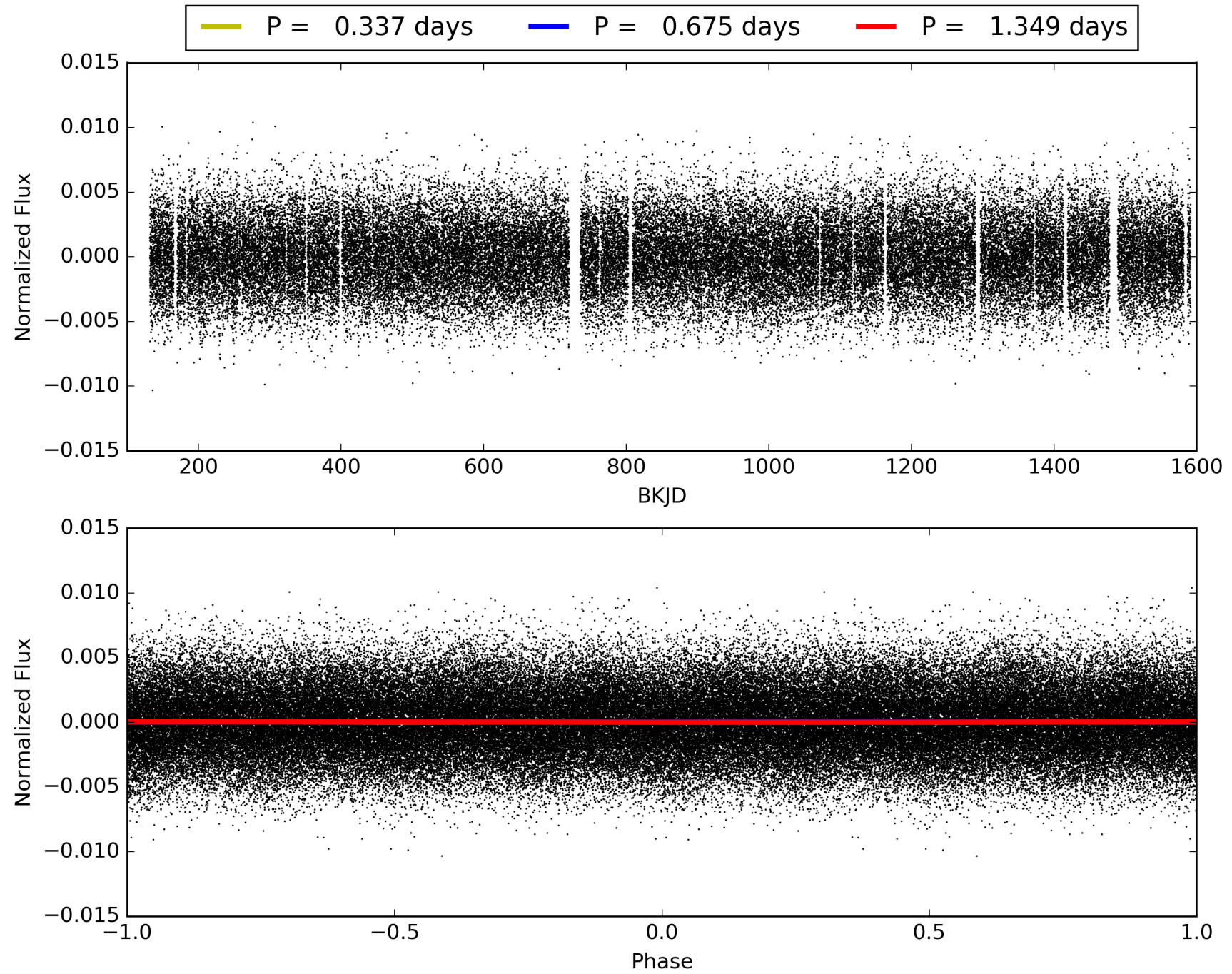
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:07 Z

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

TCE 004263127-02, PDC Light Curves

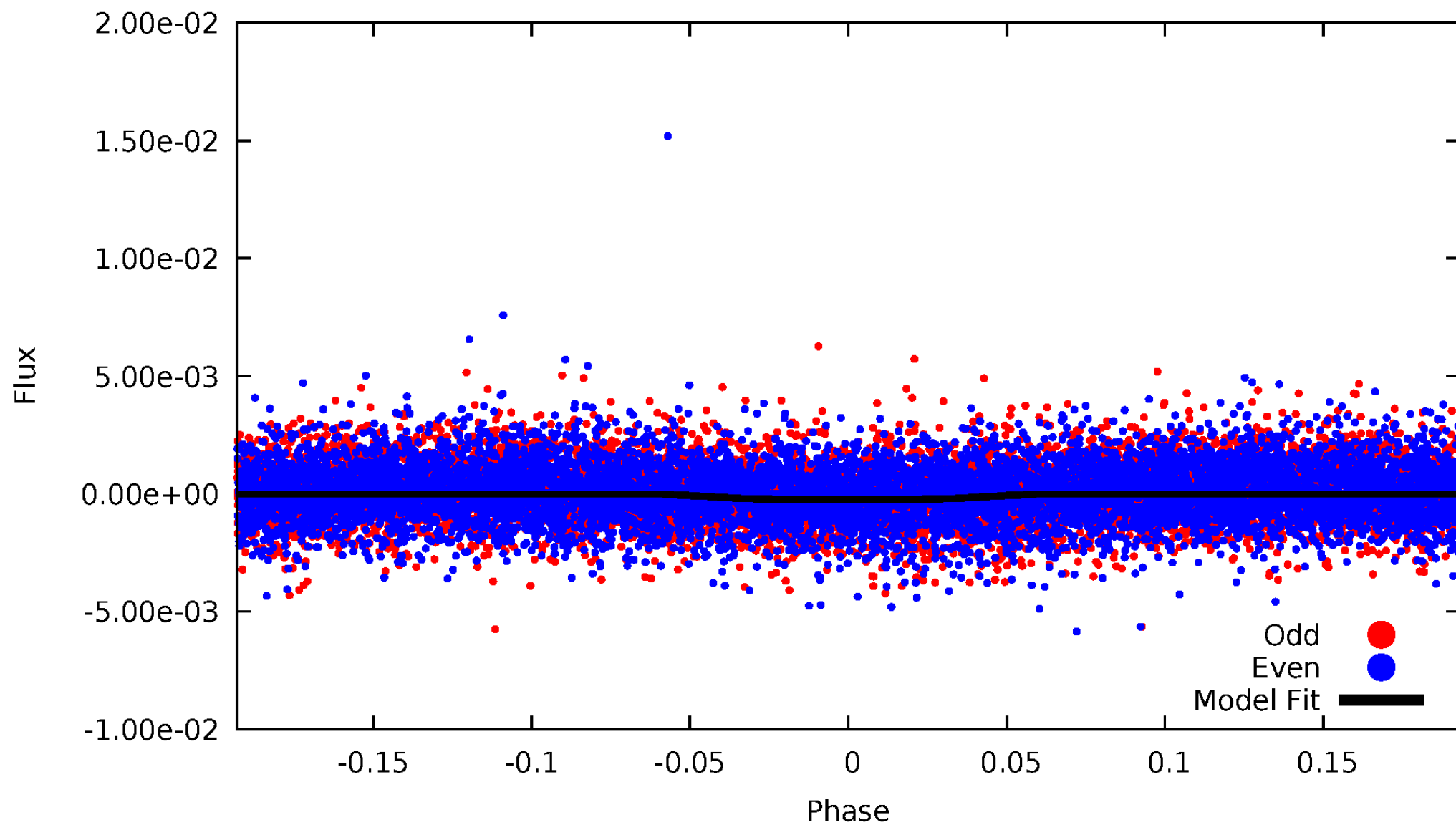


TCE 004263127-02



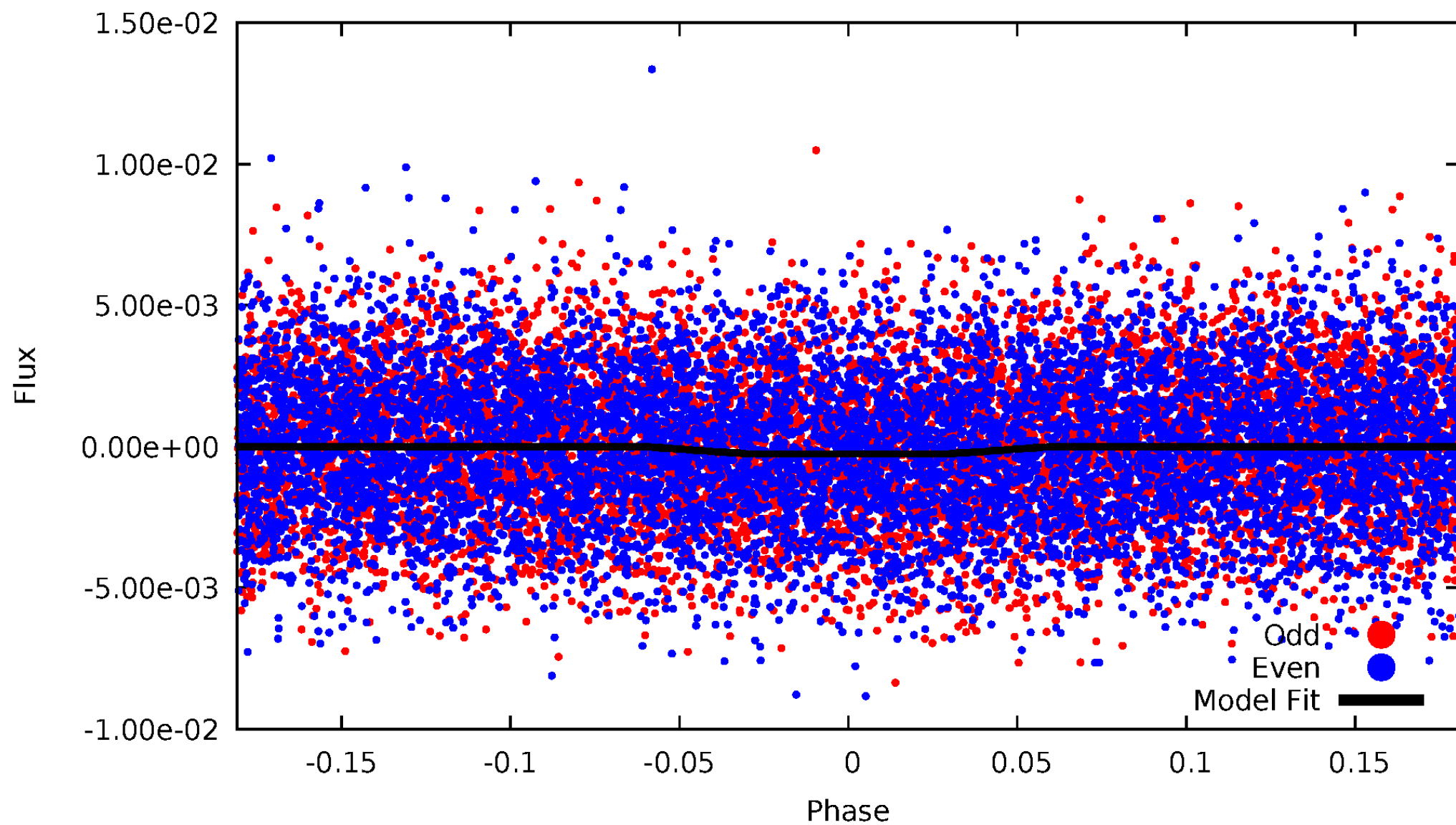
DV Odd/Even

TCE 004263127-02



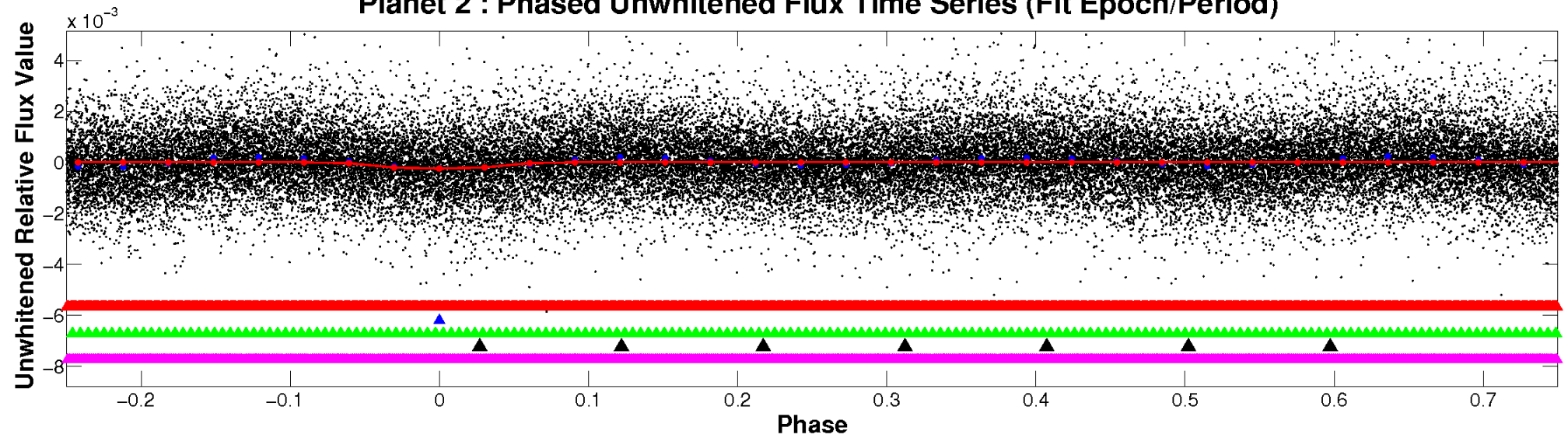
ALT Odd/Even

TCE 004263127-02

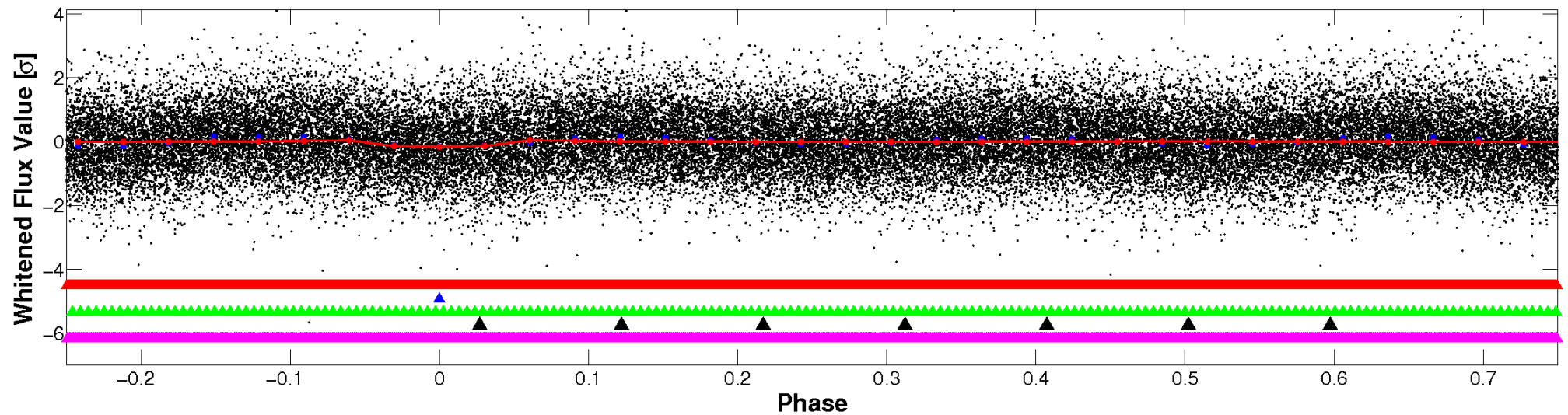


Non-Whitened Vs. Whitened Light Curve

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

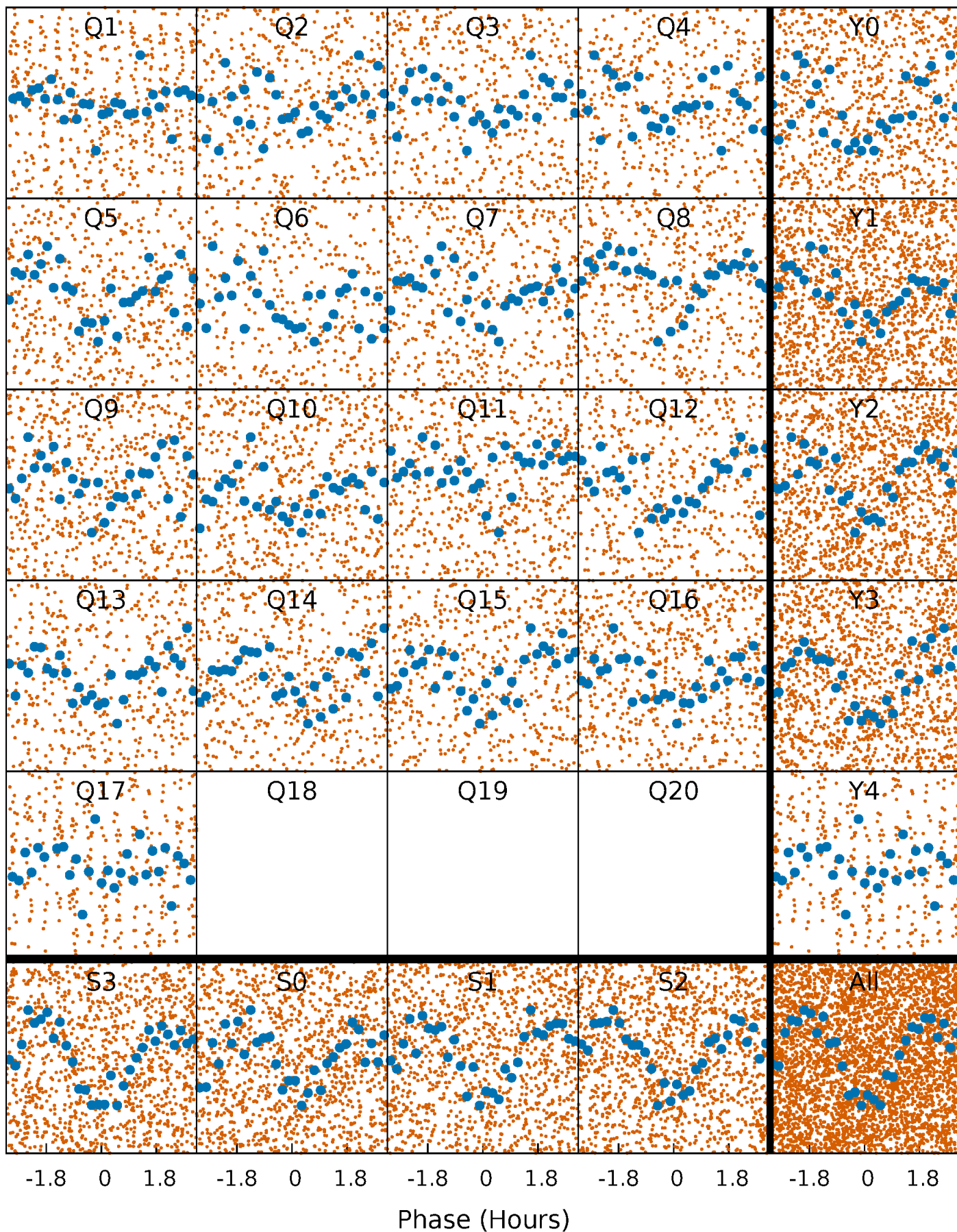


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



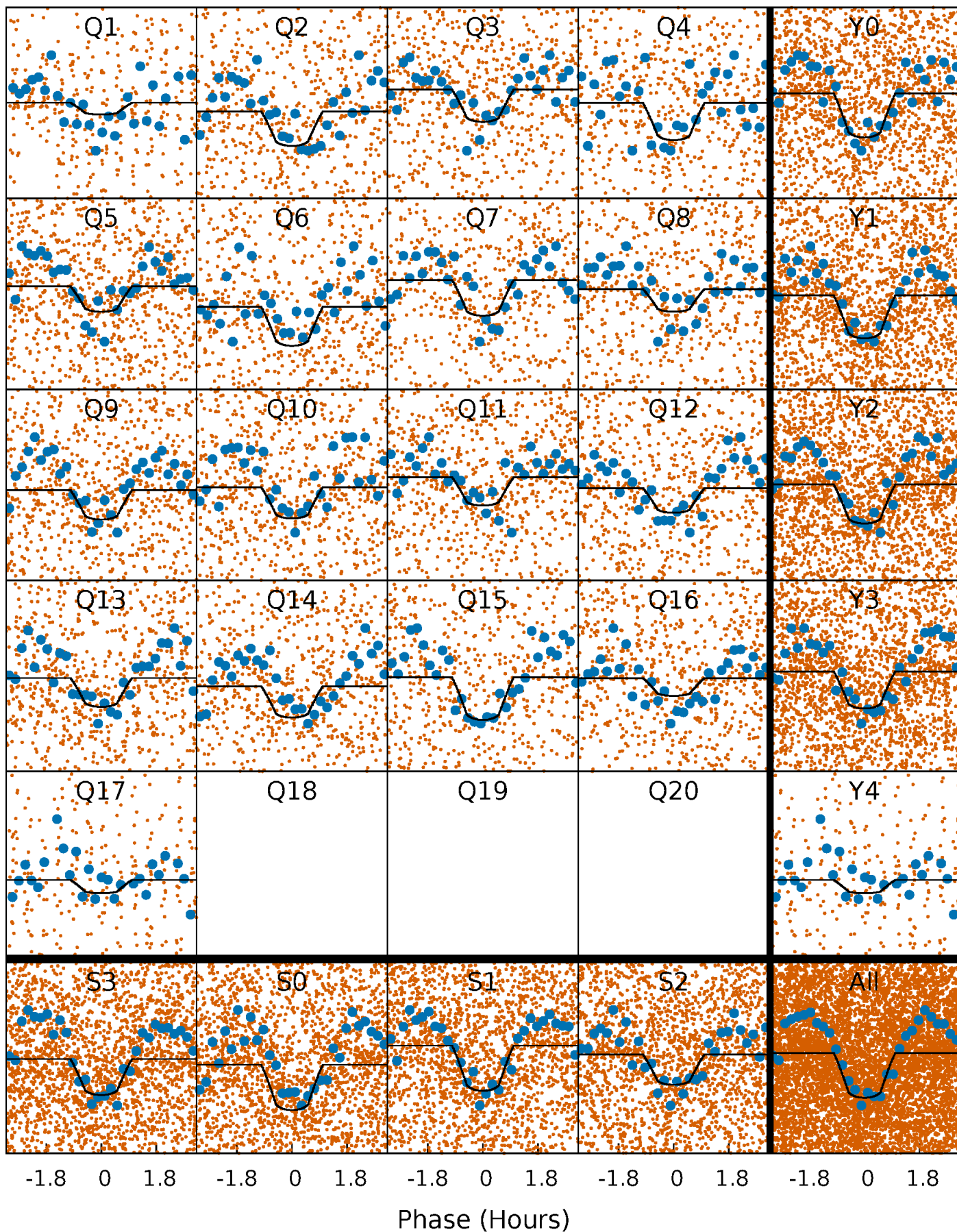
PDC Quarter-Phased Transit Curves

TCE 004263127-02 P= 0.674579 Days $T_0=131.747853$ (BKJD)



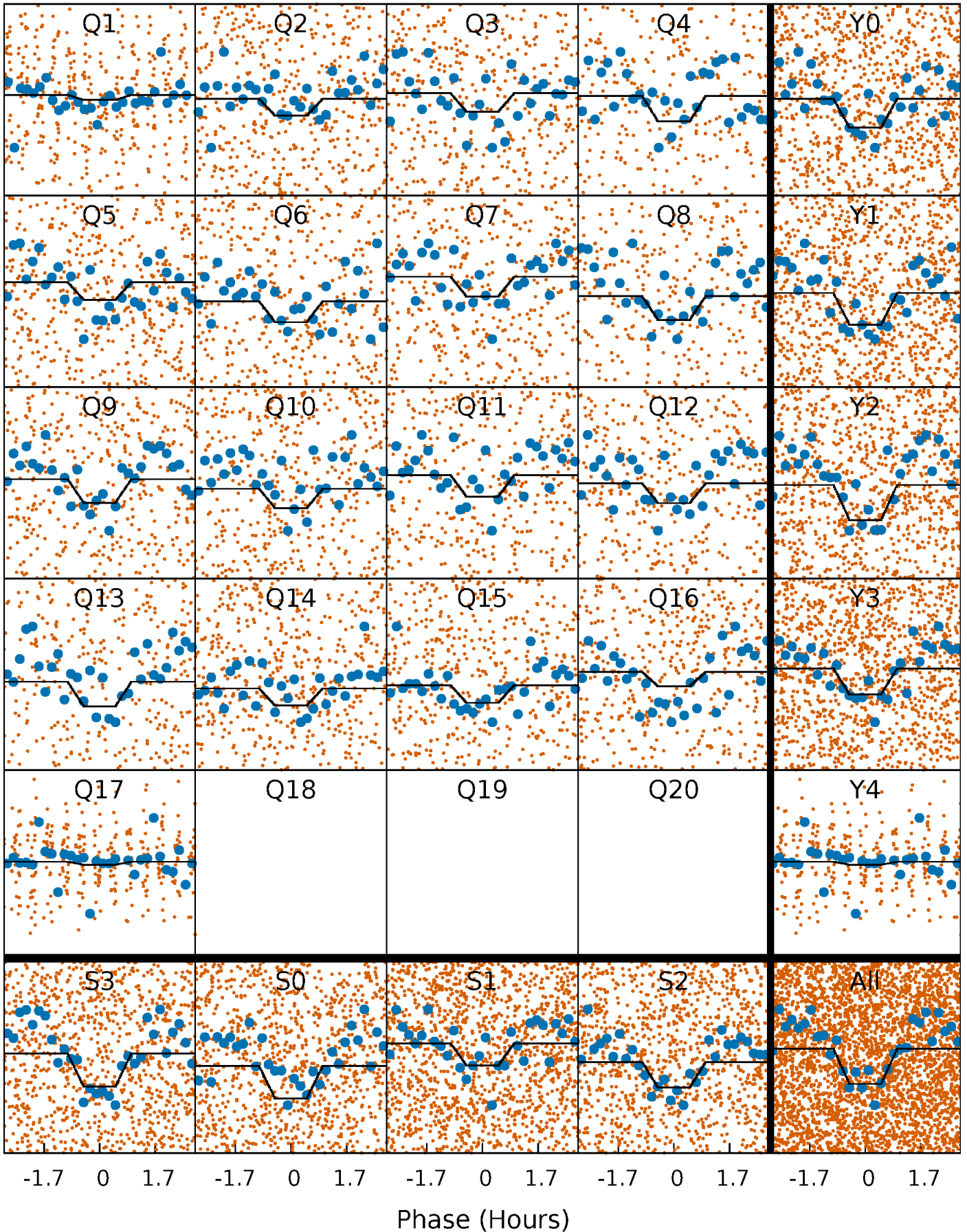
DV Quarter-Phased Transit Curves

TCE 004263127-02 P= 0.674579 Days $T_0=131.747853$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

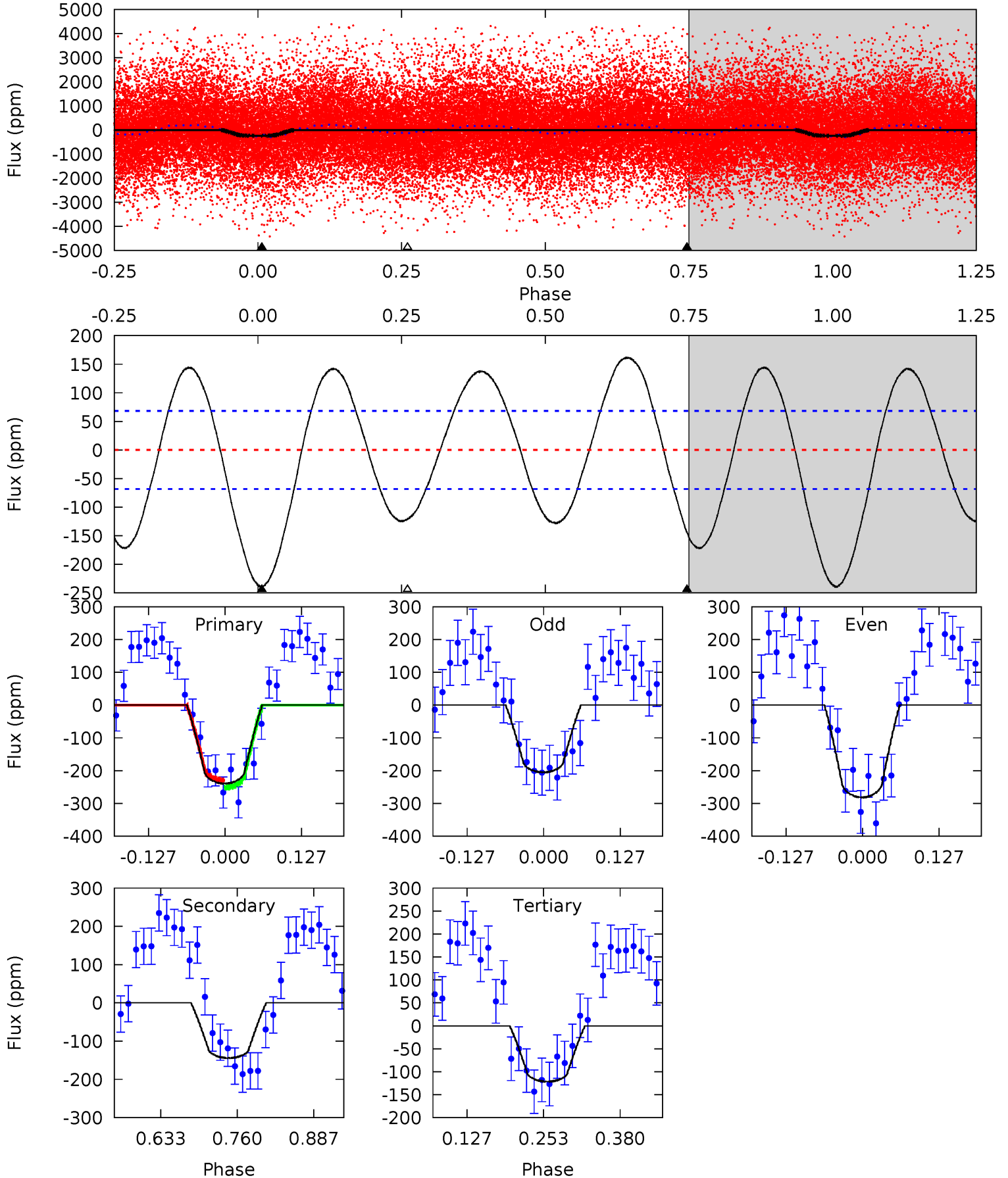
TCE 004263127-02 $P = 0.674582$ Days $T_0 = 131.747164$ (BKJD)



DV Model-Shift Uniqueness Test

004263127-02, P = 0.674579 Days, E = 131.073274 Days

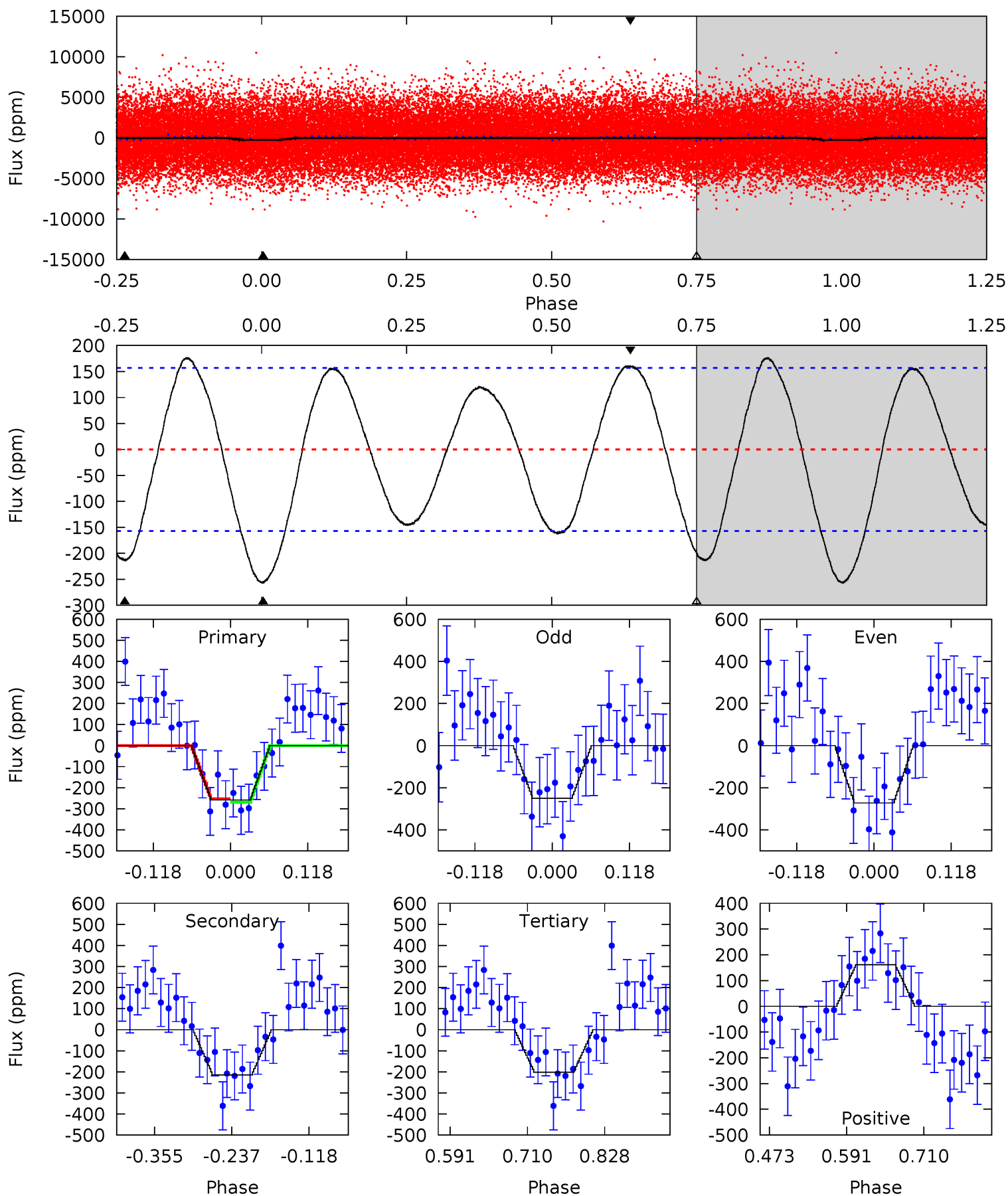
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	9.54	8.04	0	4.51	1.53	6.16	7.81	15.9	1.50	9.54	2.54	1.03	0.40	0.73



Alt Model-Shift Uniqueness Test

004263127-02, P = 0.674582 Days, E = 131.072582 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.44	6.17	5.81	4.66	4.53	1.56	3.11	1.63	2.79	0.36	1.52	0.32	0.90	0.41	0.23



Stellar Parameters For KIC 004263127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7247^{+200}_{-343}	$4.111^{+0.128}_{-0.192}$	$0.040^{+0.200}_{-0.350}$	$1.834^{+0.565}_{-0.377}$	$1.584^{+0.204}_{-0.249}$	$0.361^{+0.239}_{-0.195}$
	+3%/-5%	+3%/-5%	+500%/-875%	+31%/-21%	+13%/-16%	+66%/-54%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004263127-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-144 ± 15	$2.95^{+1.85}_{-1.51}$	4589^{+329}_{-307}	6235^{+3911}_{-1401}	$2.782^{+8.876}_{-1.775}$
Alt.	-214 ± 35	$3.31^{+1.70}_{-1.71}$	4568^{+368}_{-289}	6543^{+3896}_{-1373}	$3.184^{+10.205}_{-1.811}$

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 $A_{obs} \gg 1.0$

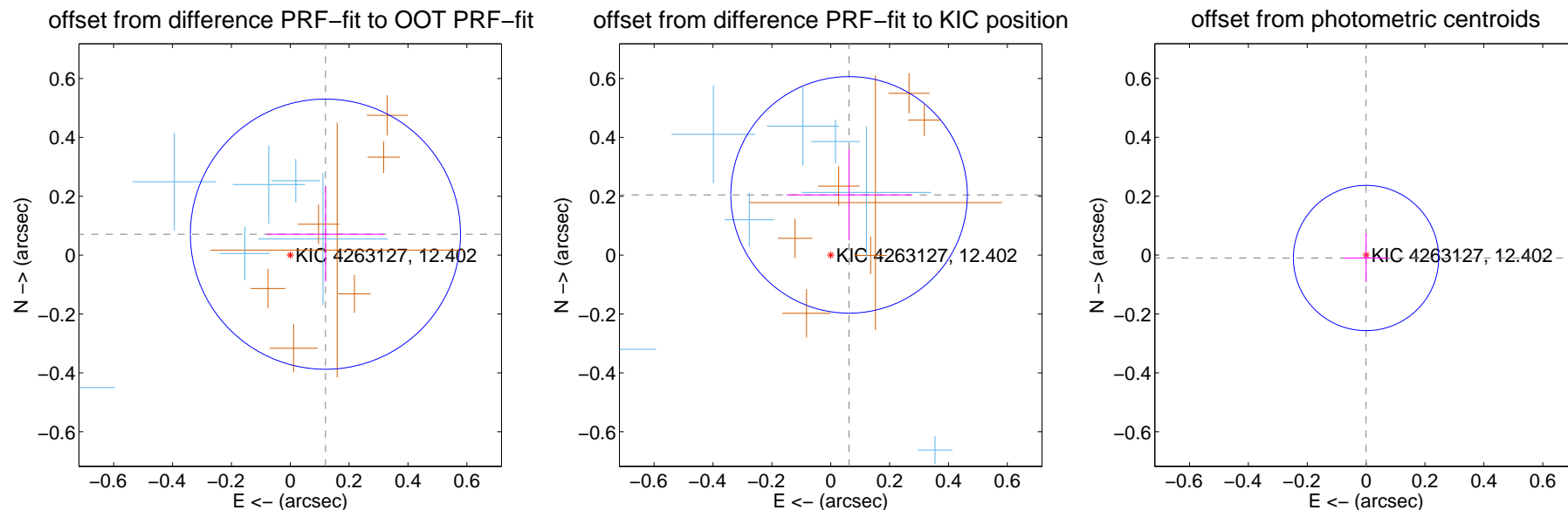
DV Centroid Data

Supplemental centroid analysis for 004263127-02. Kepler magnitude: 12.40. Transit SNR 10.13

There are 9 quarters with good PRF difference image offsets

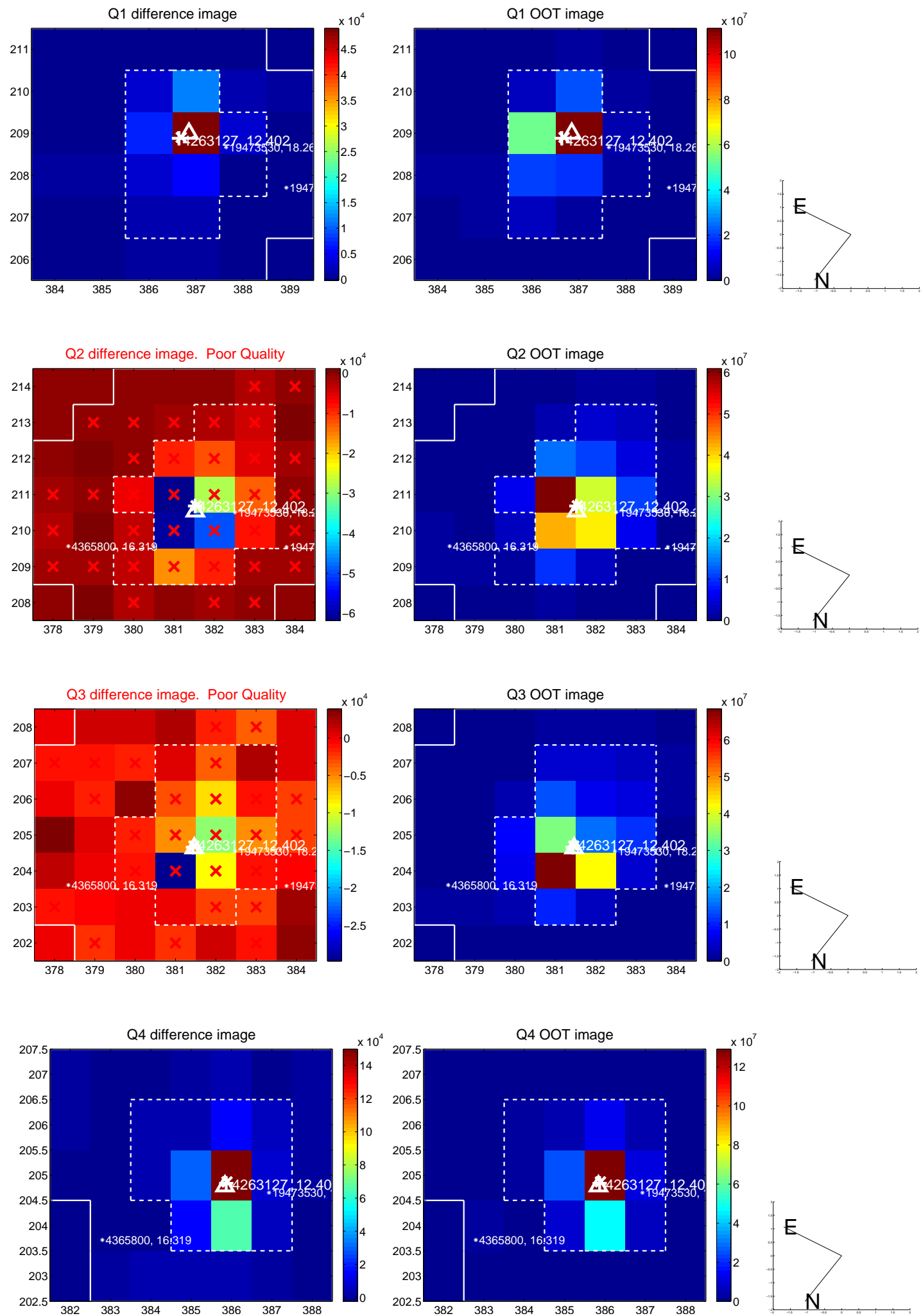
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.139 ± 0.153	0.91	-0.120 ± 0.199	0.071 ± 0.162
PRF-fit source offset from KIC position	0.214 ± 0.134	1.60	-0.062 ± 0.213	0.205 ± 0.154
photometric centroid source offset	0.01 ± 0.08	0.12	0.00 ± 0.08	-0.01 ± 0.08

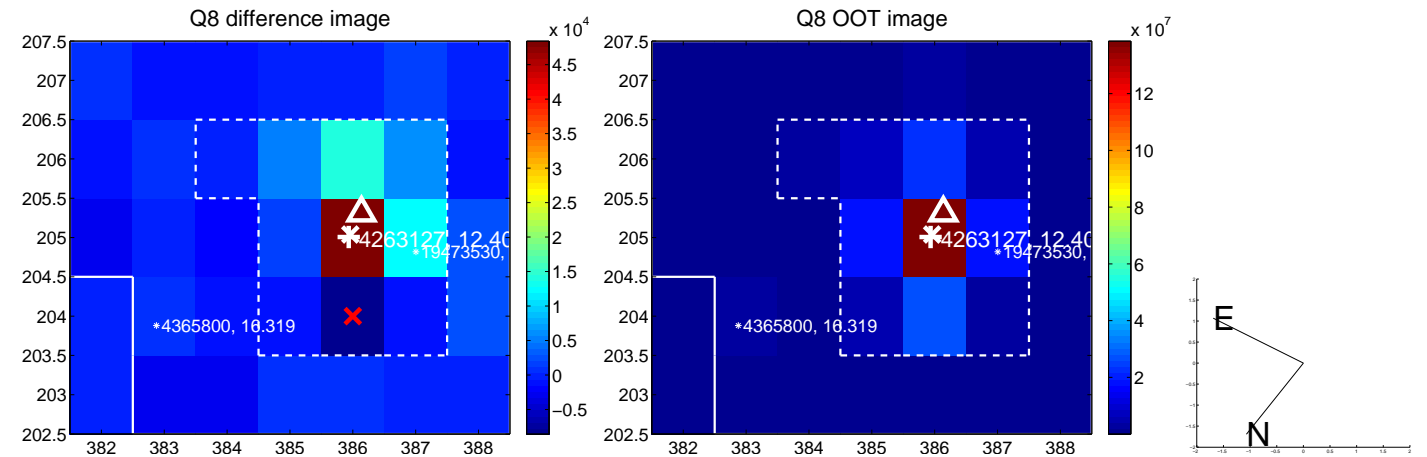
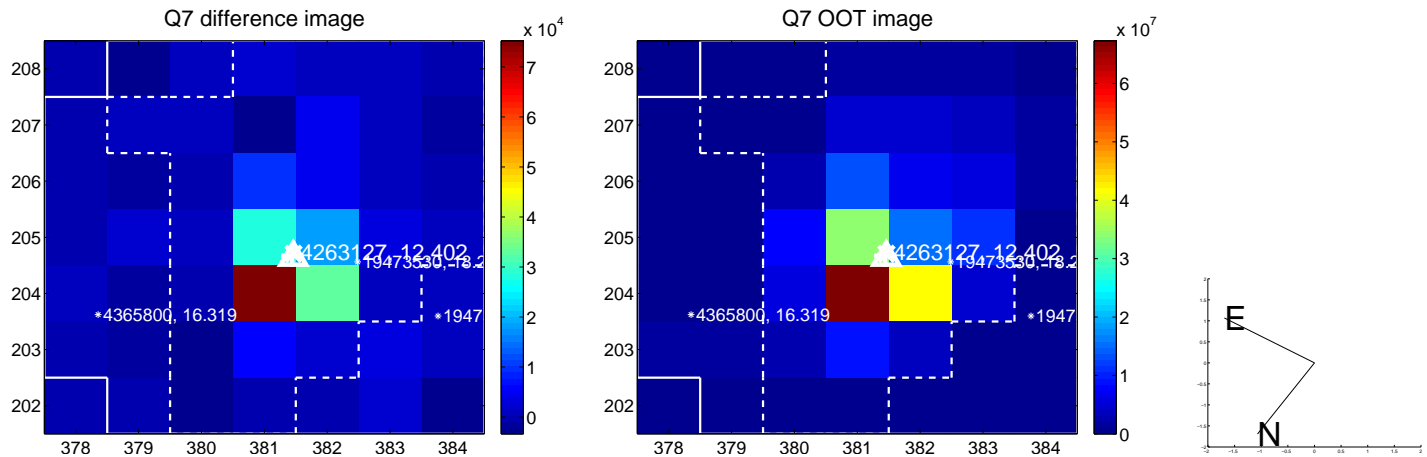
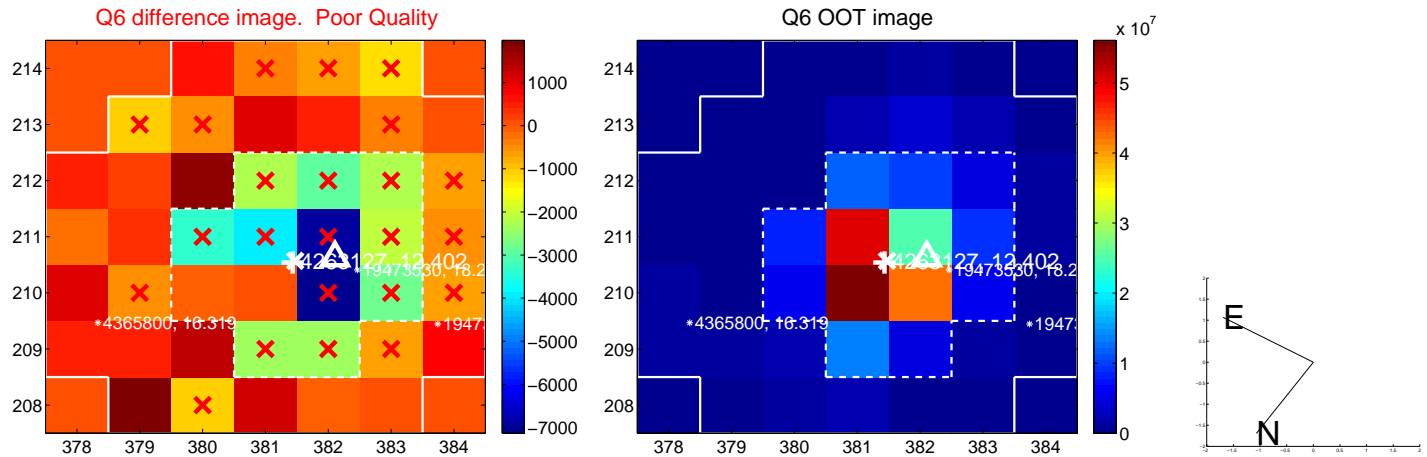
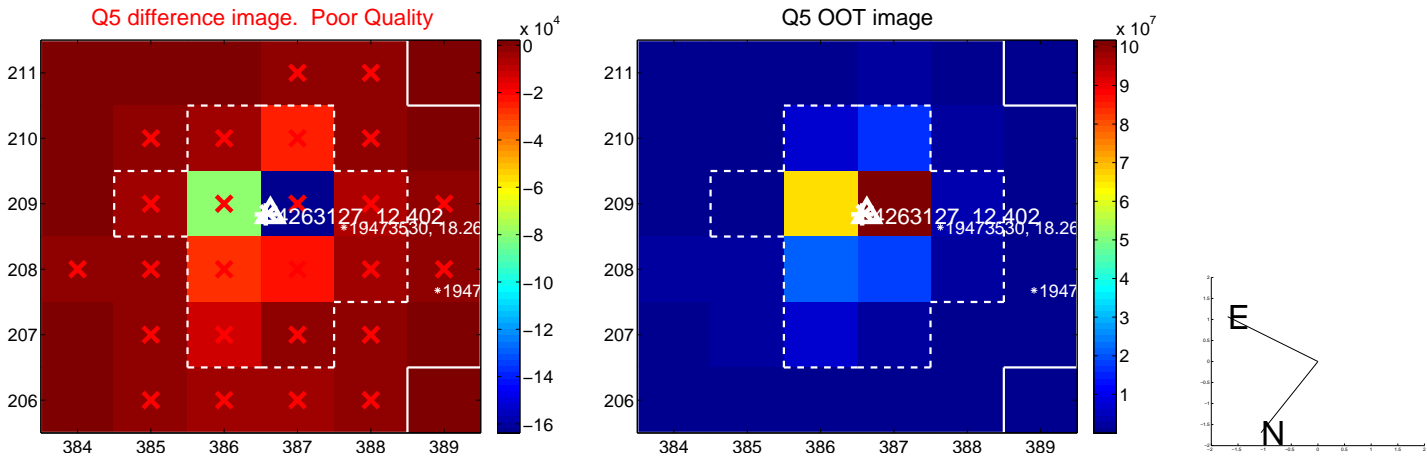


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

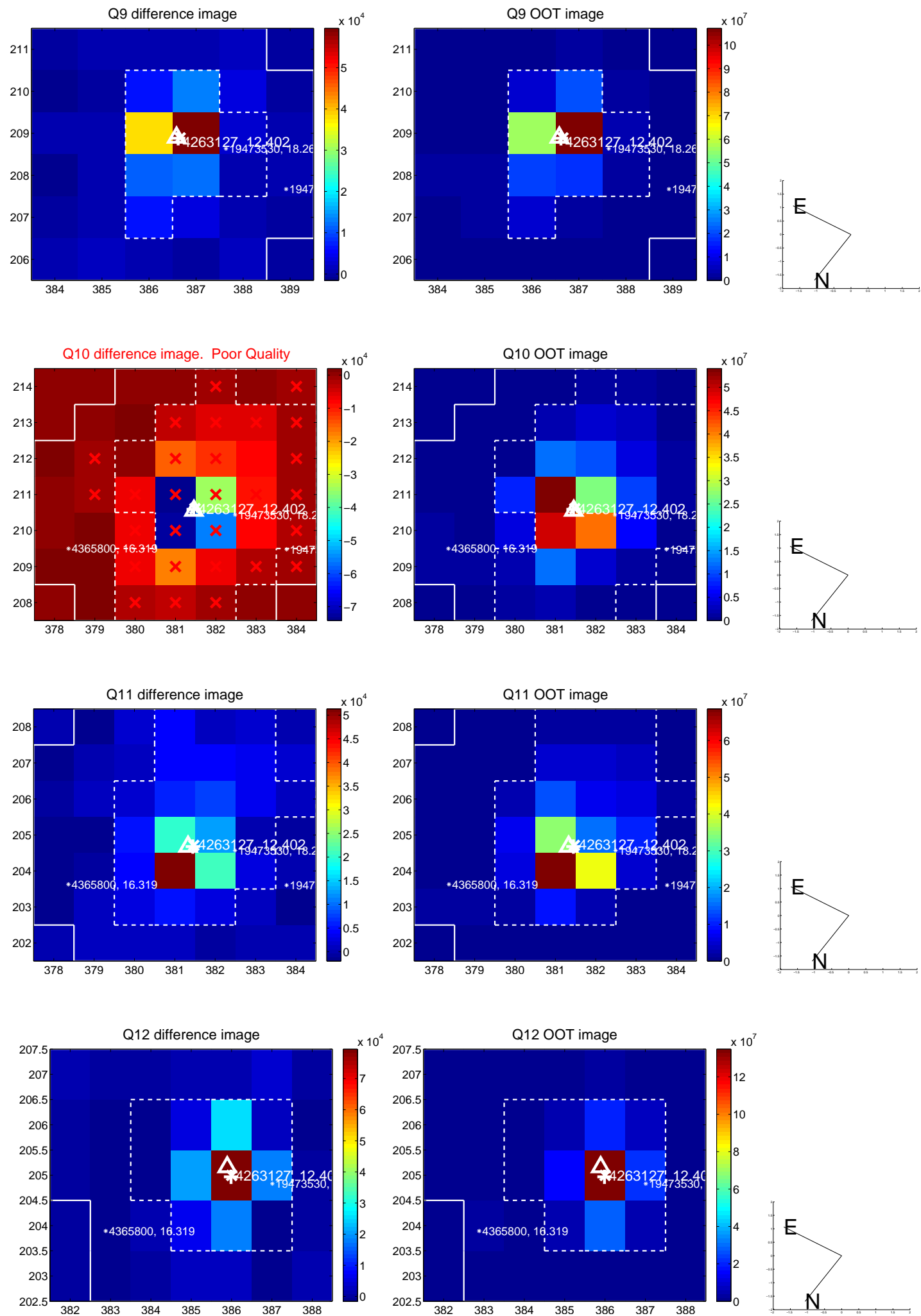
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



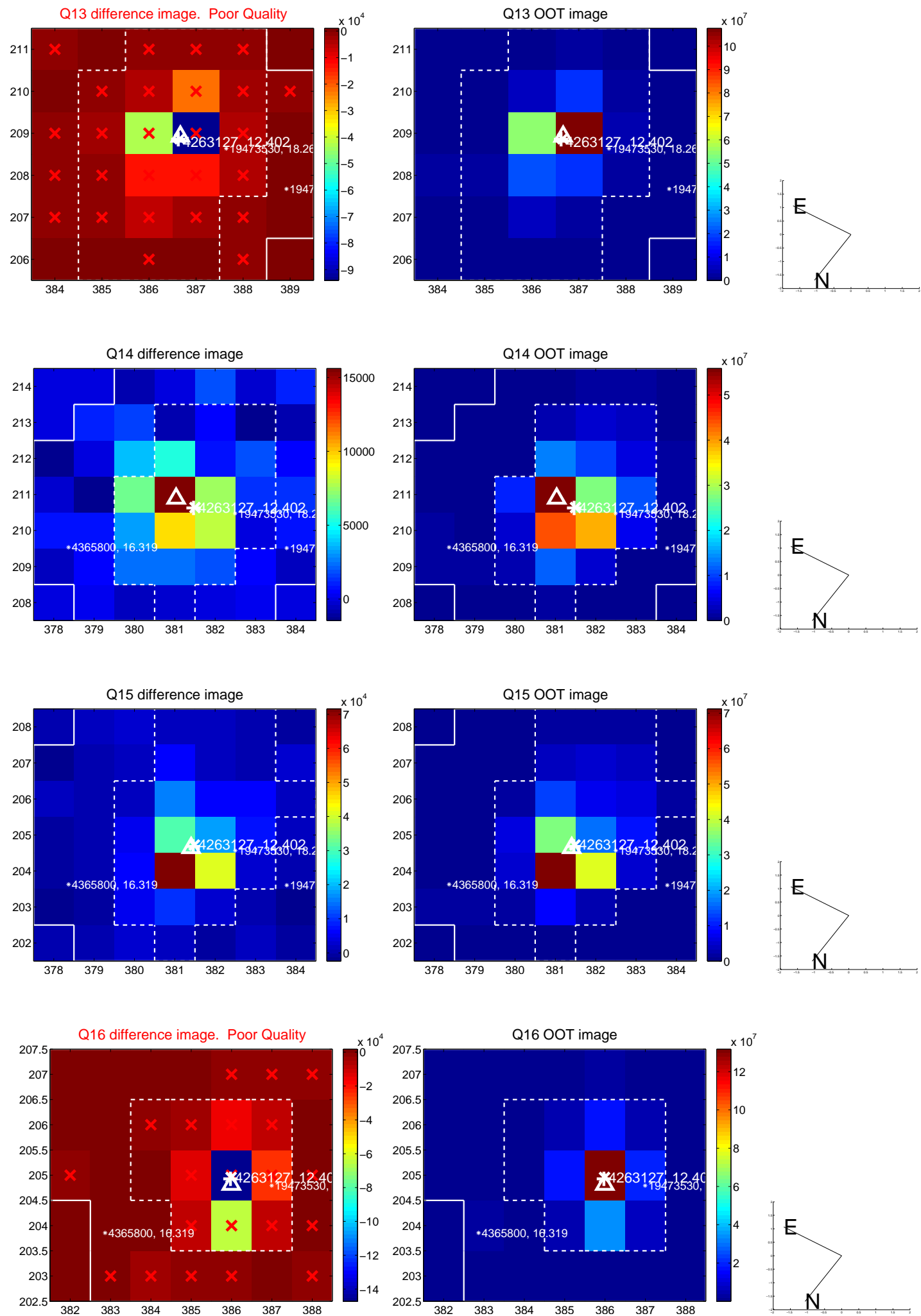
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



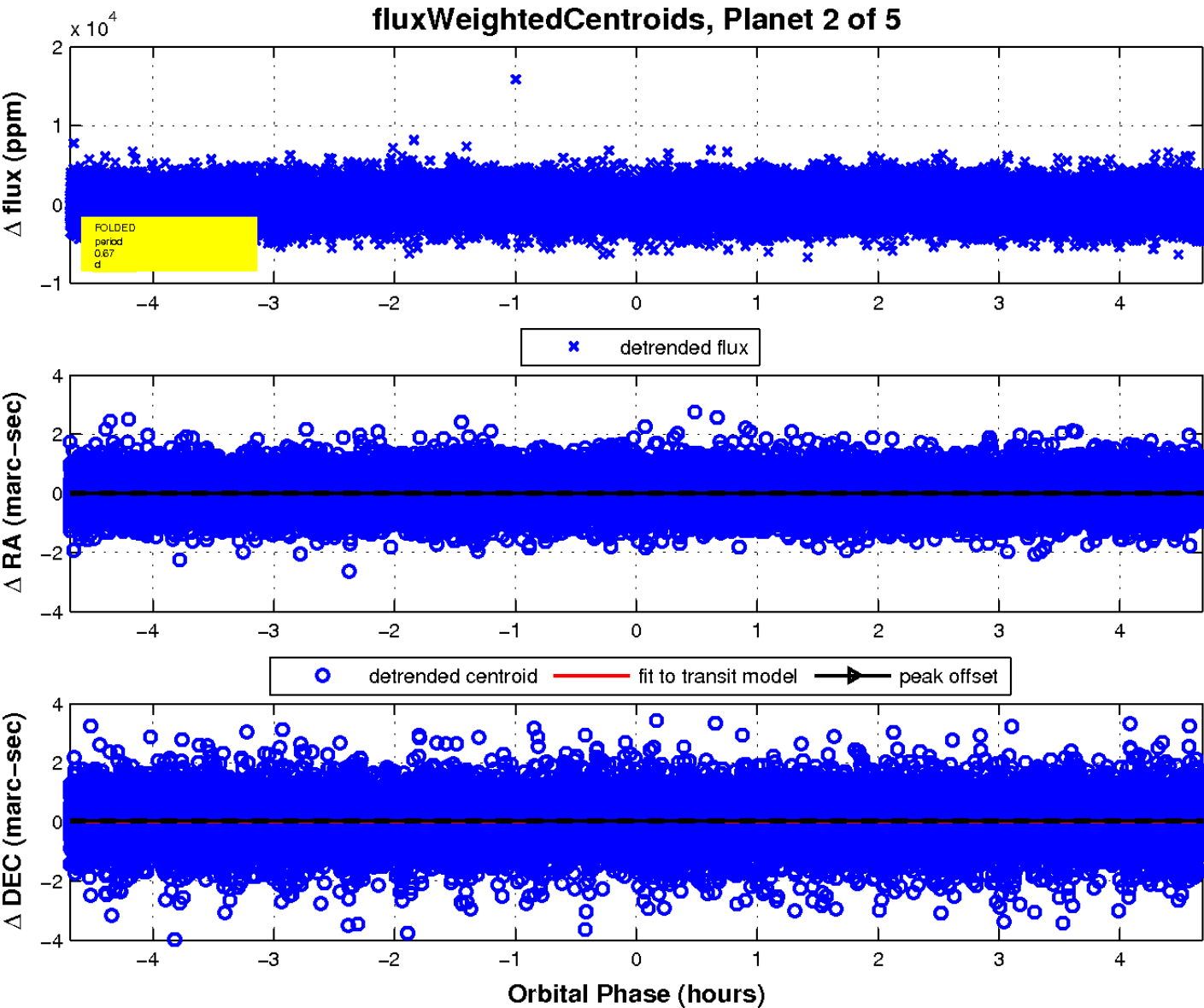
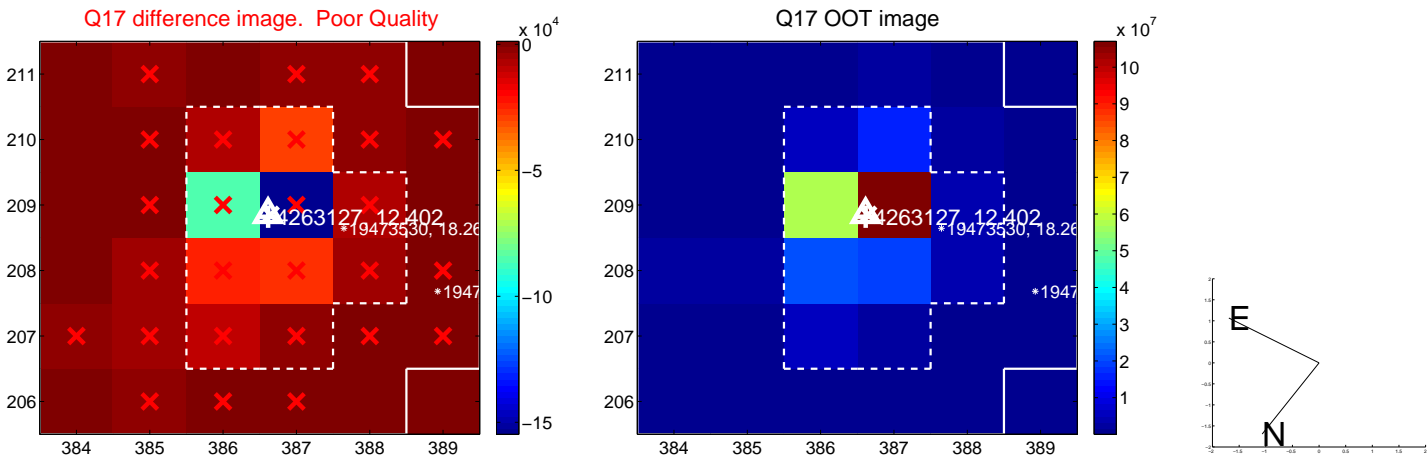
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

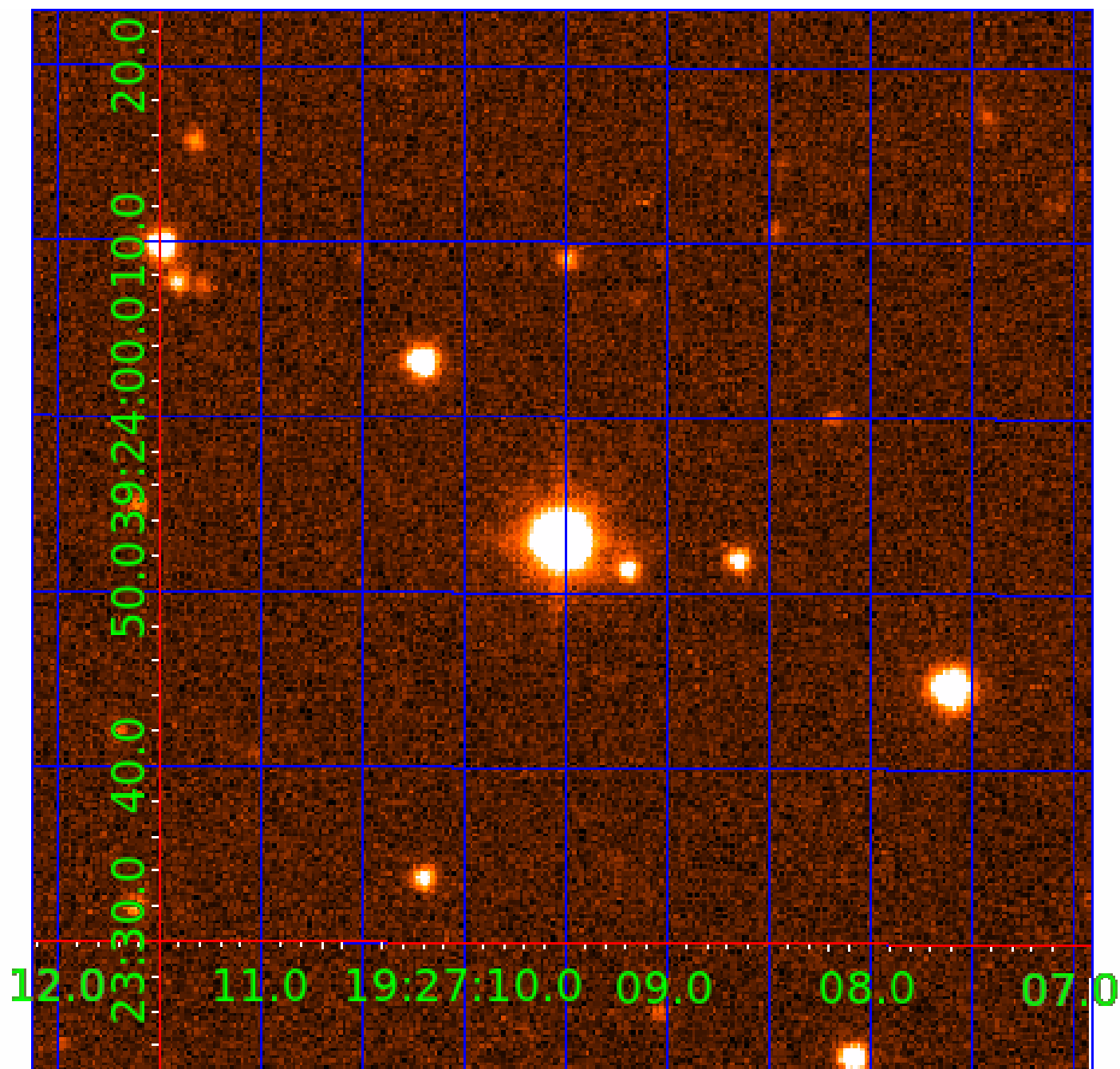


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004263127

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})
004263127-01	OBS	No	0.705606	131.797833	426.1	0.780	13.0	20.2	1.83	7247	3.92	25412.31
004263127-02	OBS	No	0.674579	131.747853	245.3	1.563	9.4	10.1	1.83	7247	2.92	26982.59
004263127-03	OBS	No	1.159990	131.699494	385.3	2.203	10.4	10.9	1.83	7247	4.14	13097.49
004263127-05	OBS	No	0.662855	132.029744	336.9	1.500	8.1	-1.0	1.83	7247	3.42	27620.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004263127-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
004263127-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

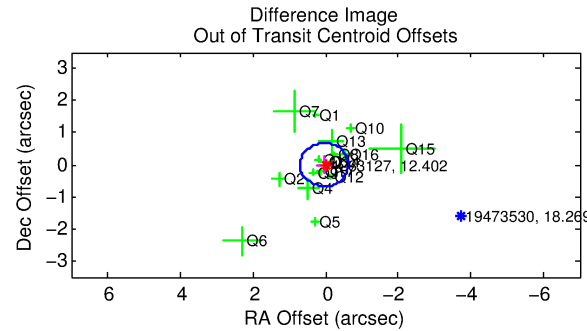
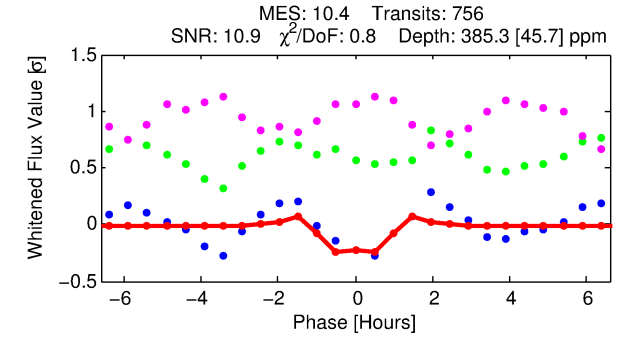
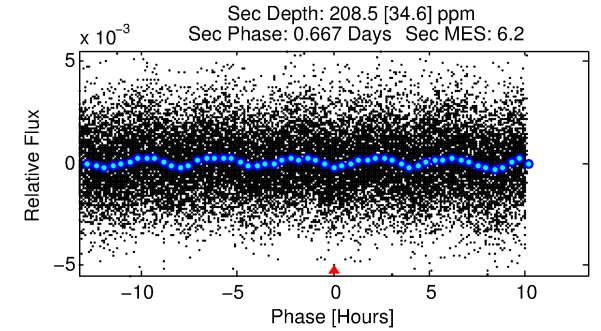
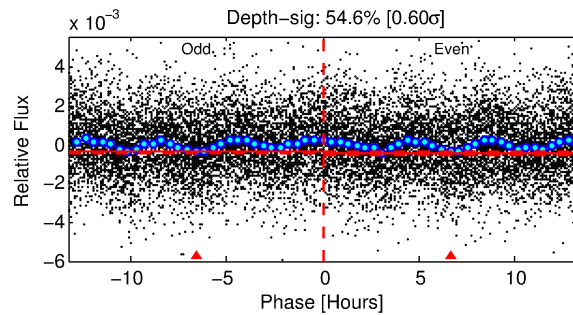
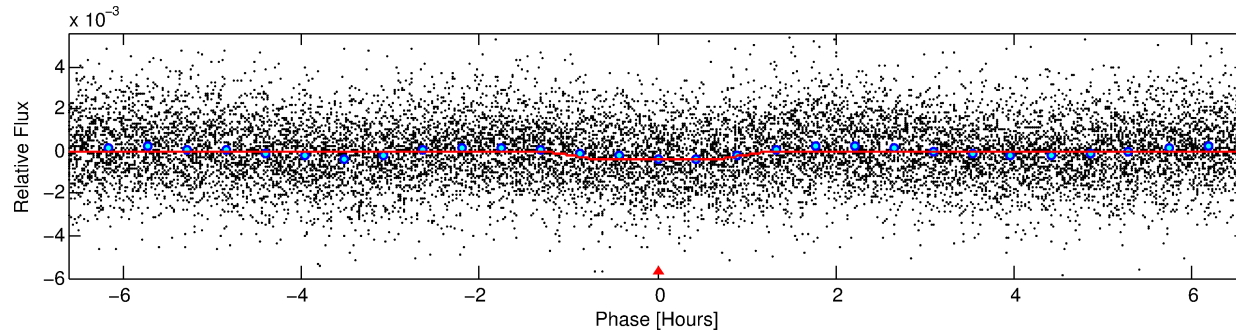
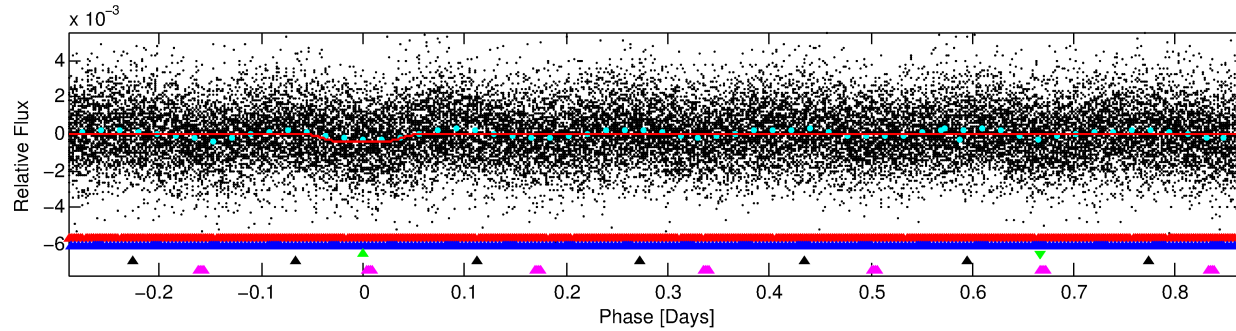
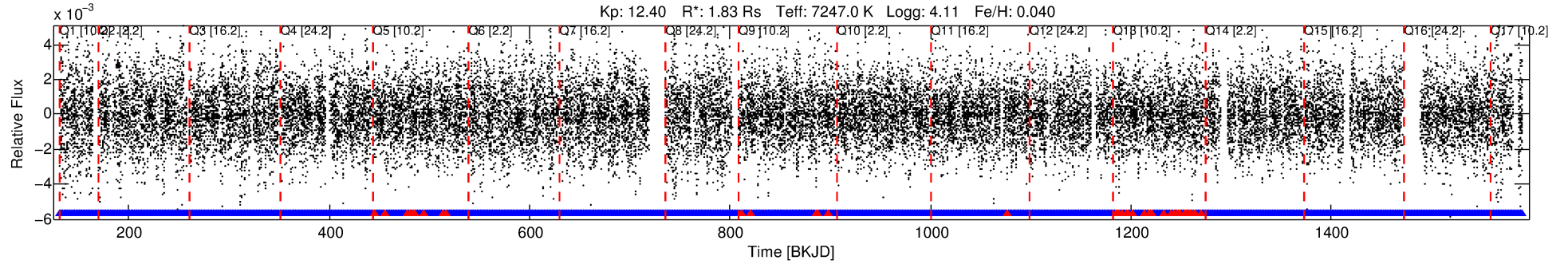
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263127-03

No Significant Match Found

DV One-Page Summary

KIC: 4263127 Candidate: 3 of 5 Period: 1.160 d



DV Fit Results:

Period = 1.15999 [0.00001] d
Epoch = 131.6995 [0.0017] BKJD
Rp/R* = 0.0207 [0.0043]
a/R* = 2.23 [2.13]
b = 0.89 [0.29]
Seff = 13097.49 [5318.44]
Teq = 2728 [277] K
Rp = 4.14 [1.54] Re
a = 0.0252 [0.0064] AU
Ag = 4.24 [2.43] [1.33 σ]
Teffp = 6052 [735] K [4.23 σ]

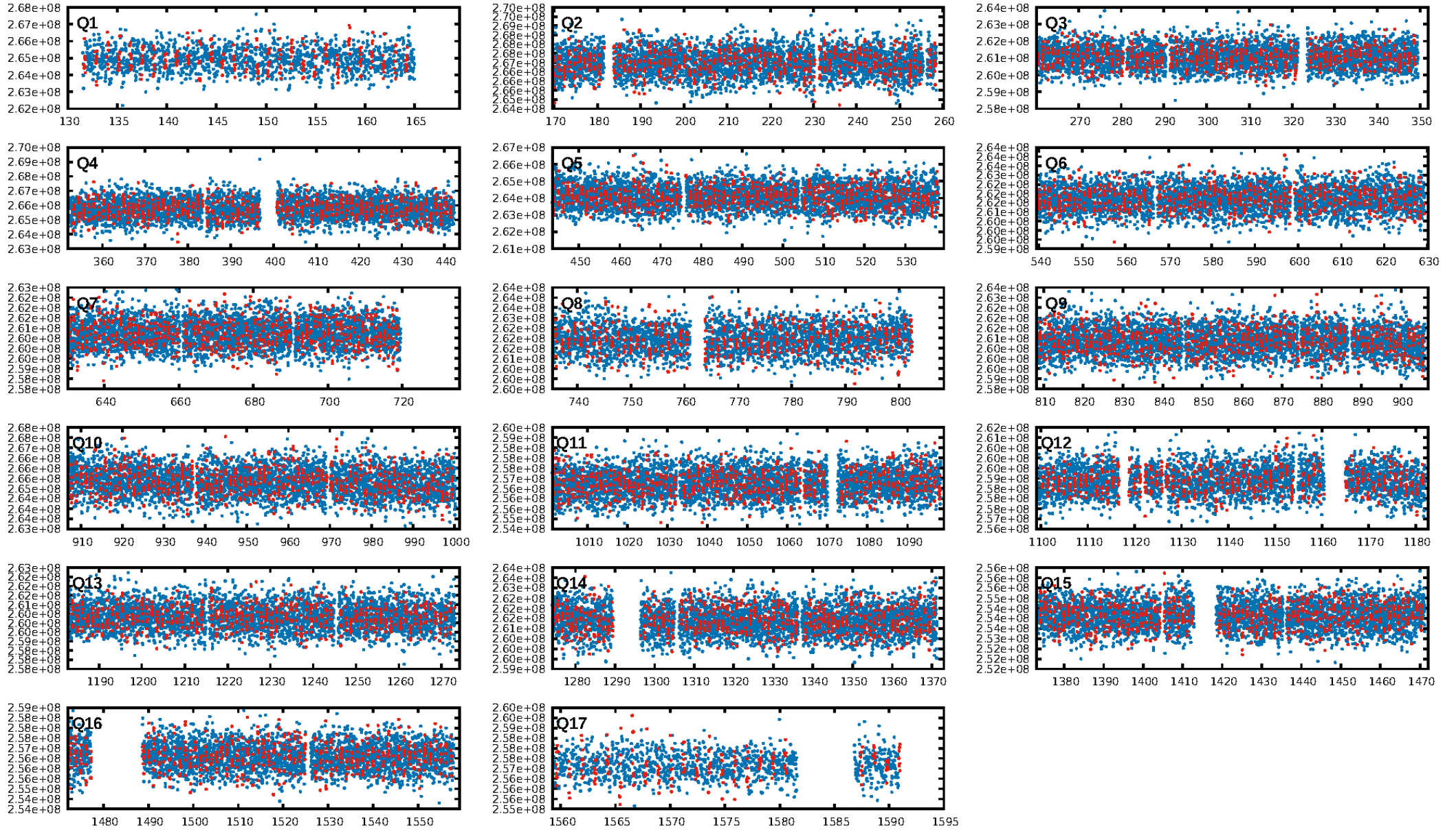
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.67 σ]
LongPeriod-sig: 100.0% [668.81 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [682/723]
GhostDiagnostic-chr: 0.6519
Centroid-sig: 2.5%
Centroid-so: 0.104 arcsec [1.78 σ]
OotOffset-rm: 0.041 arcsec [0.18 σ]
KicOffset-rm: 0.162 arcsec [0.81 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.06 [1/17]

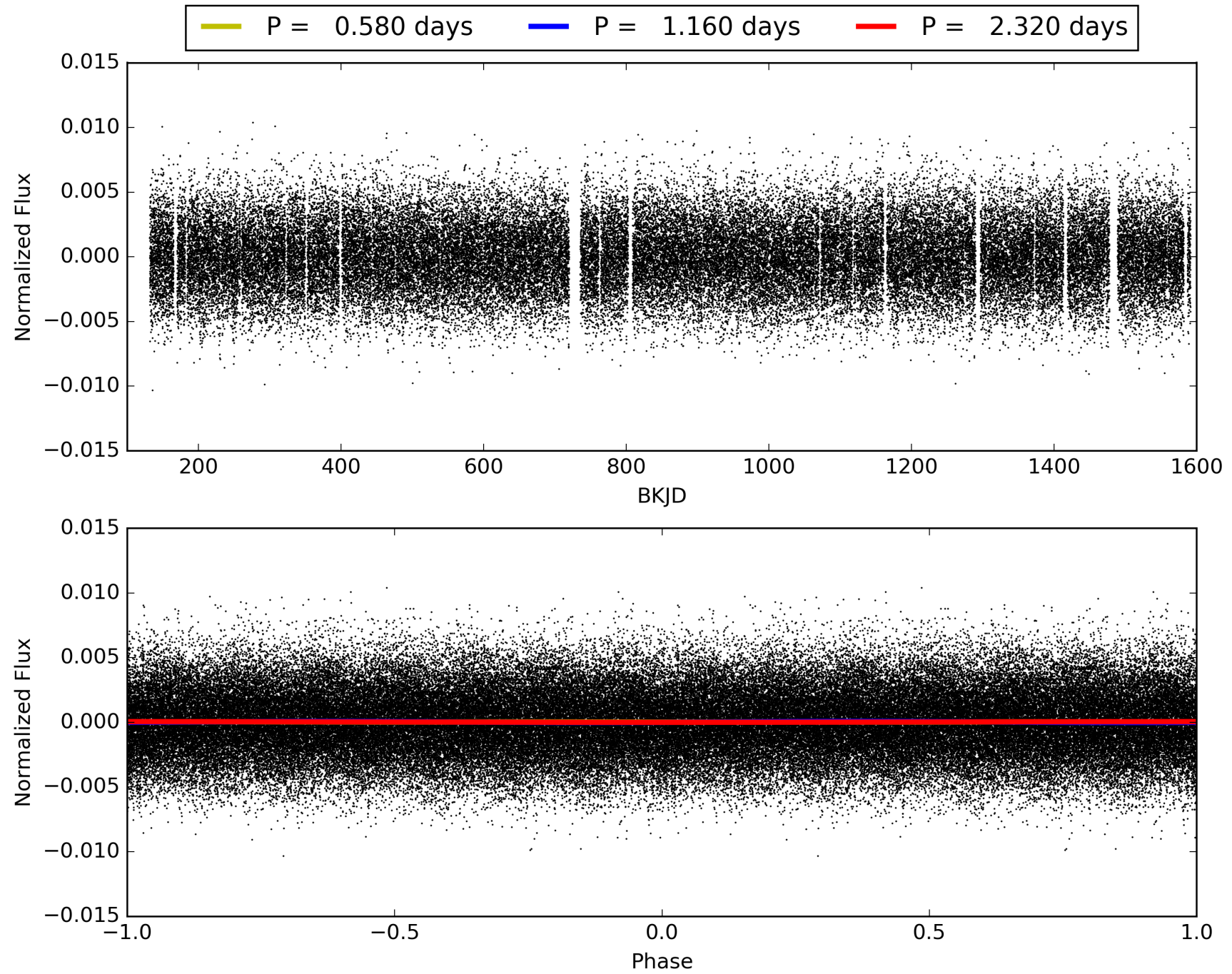
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:16 Z

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

TCE 004263127-03, PDC Light Curves

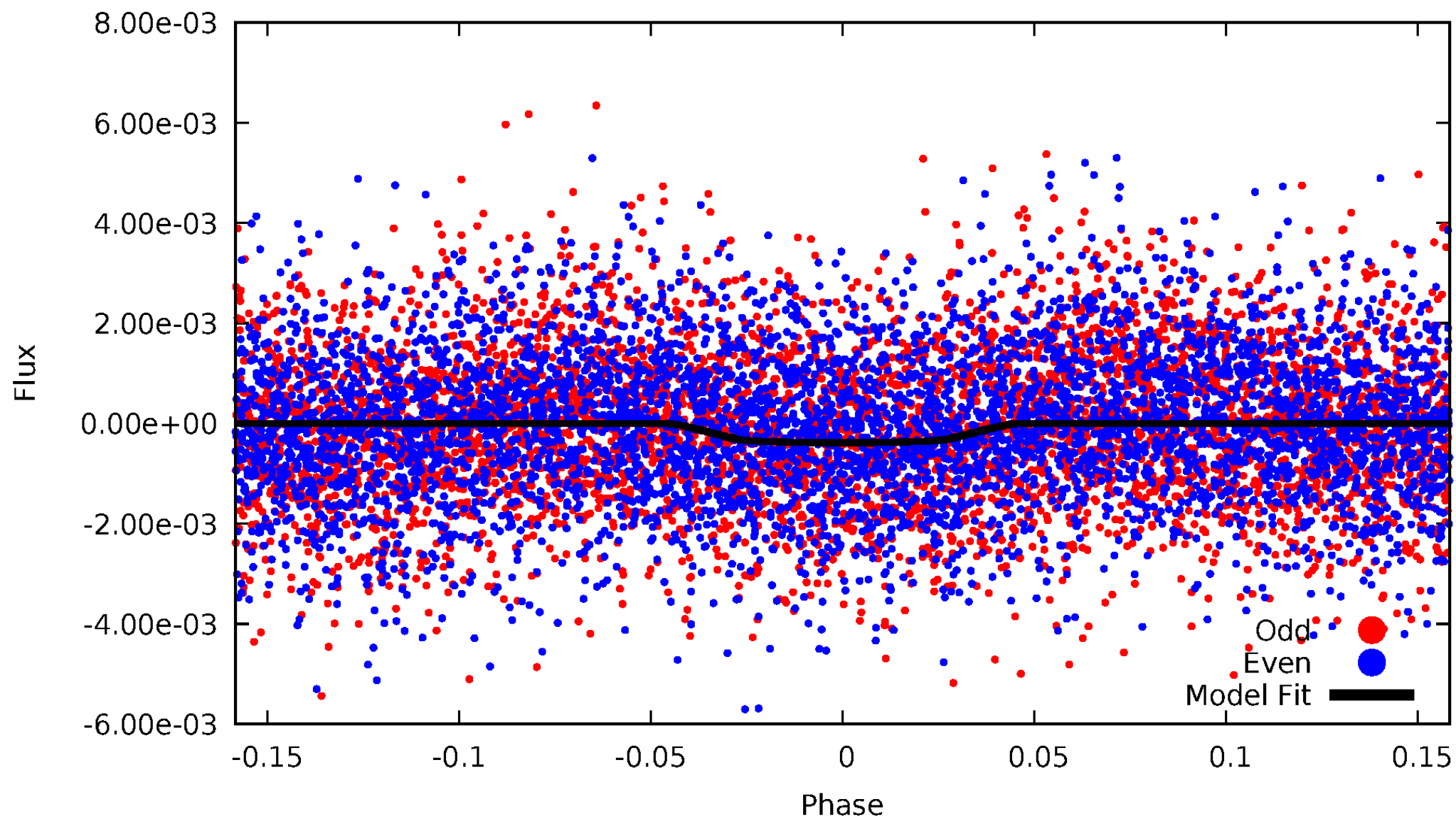


TCE 004263127-03



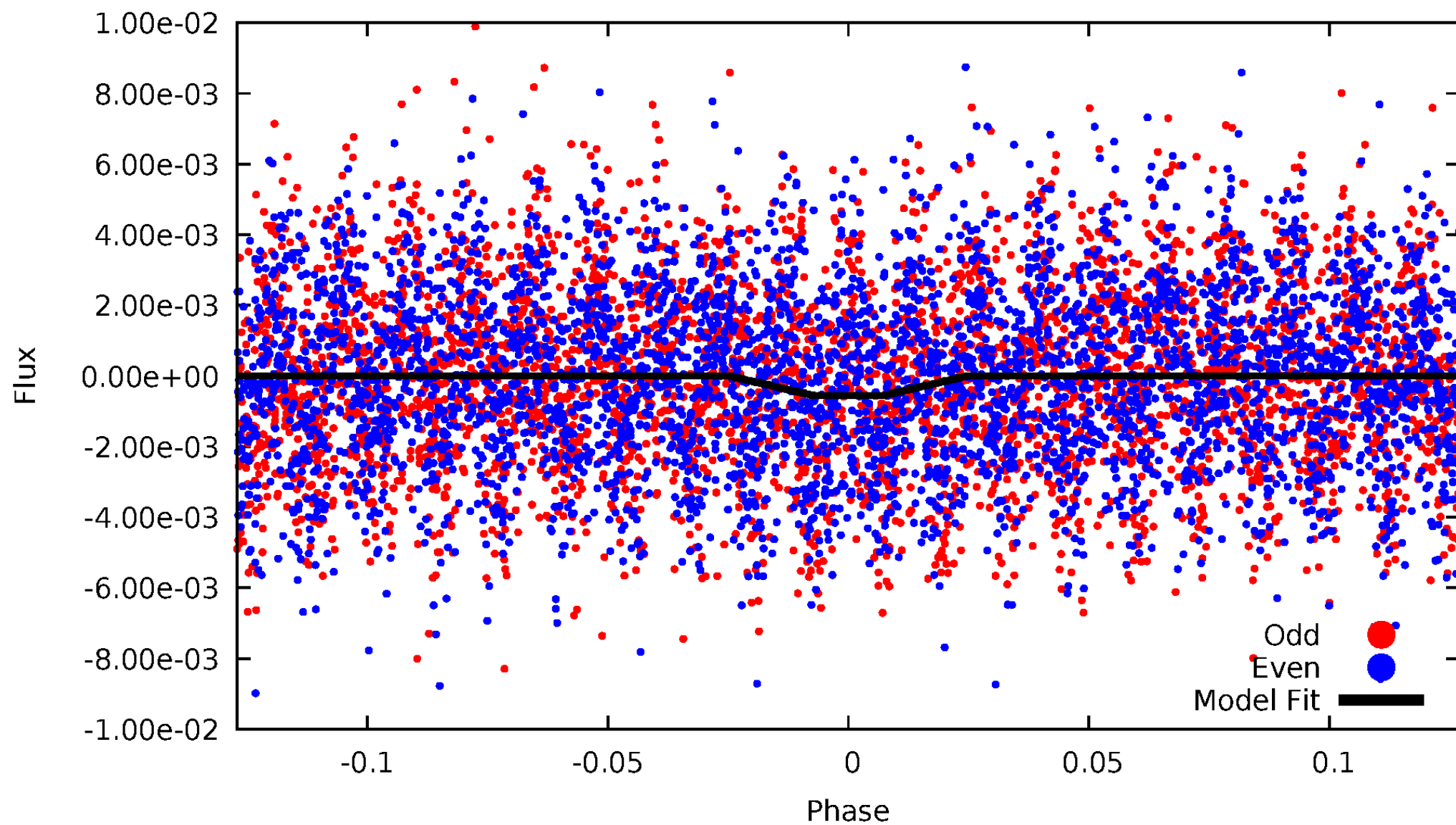
DV Odd/Even

TCE 004263127-03

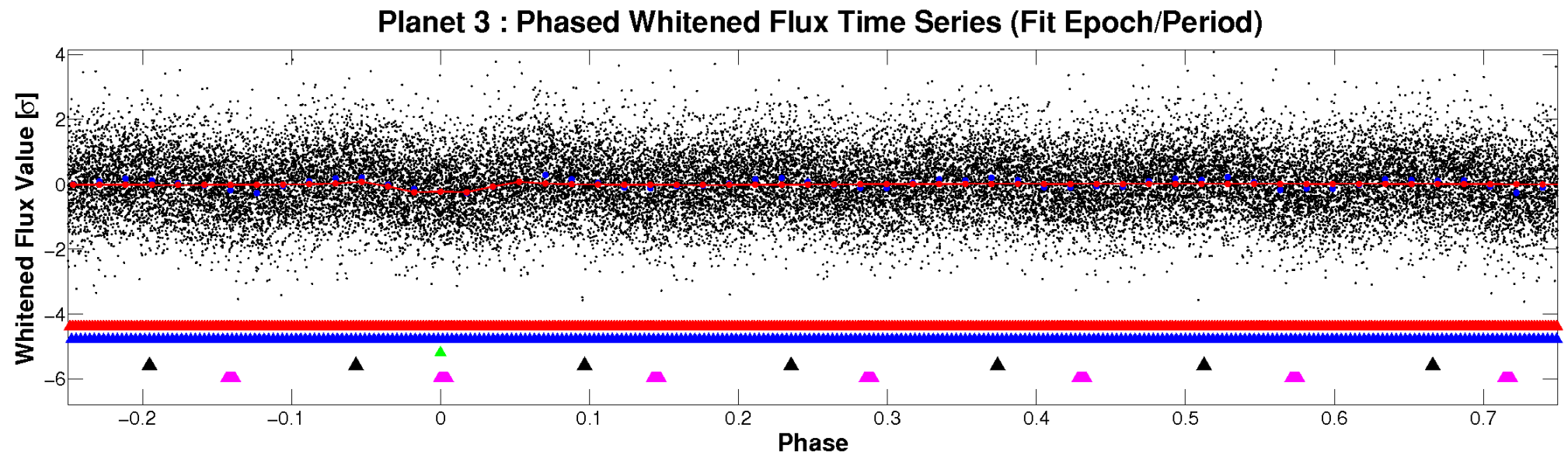
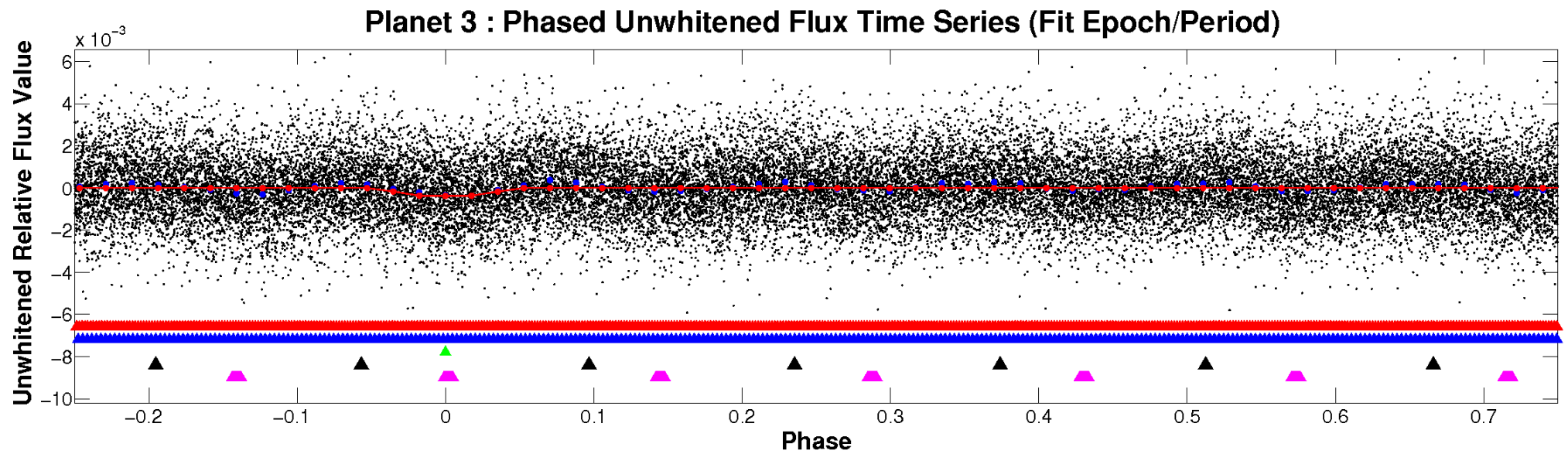


ALT Odd/Even

TCE 004263127-03

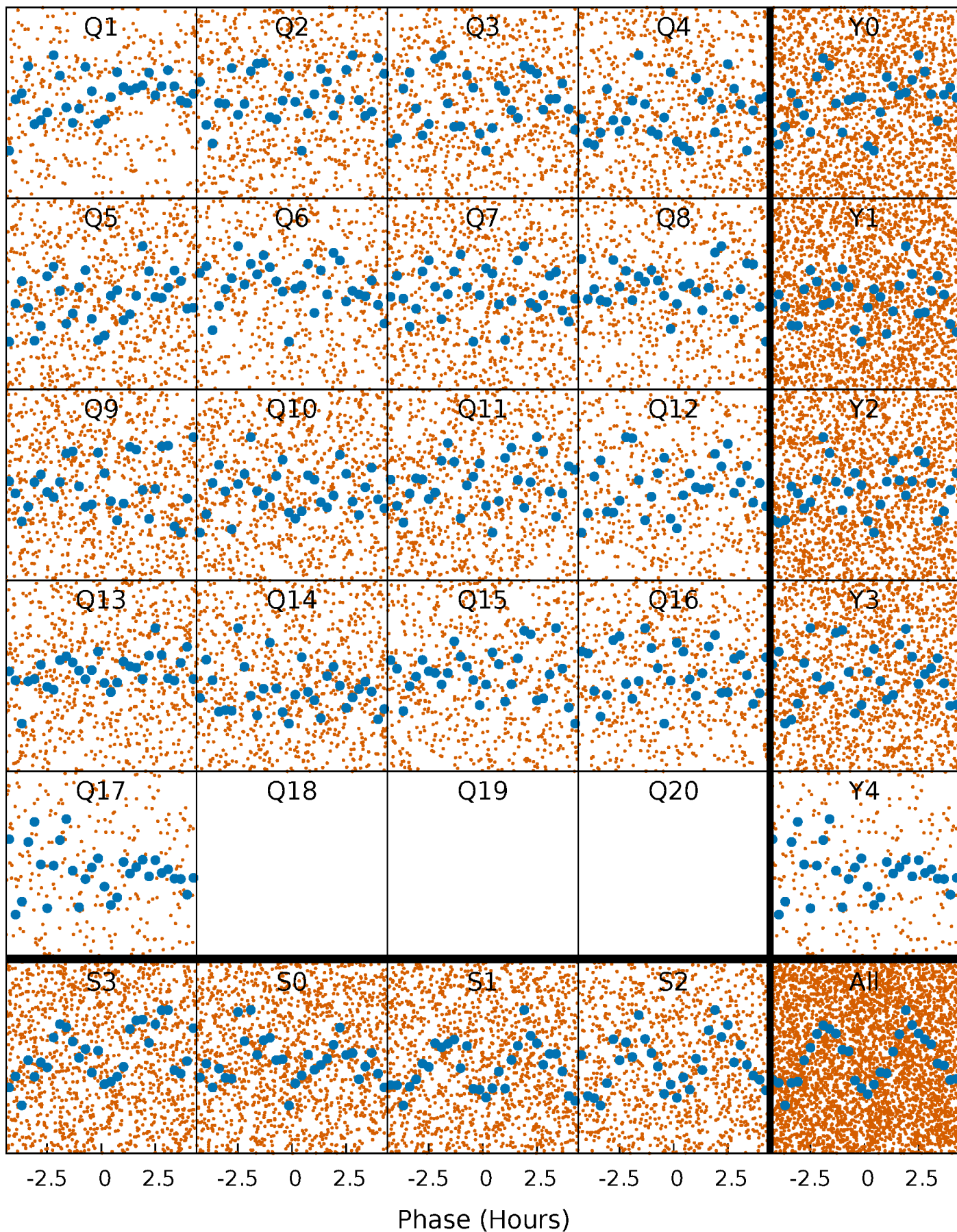


Non-Whitened Vs. Whitened Light Curve



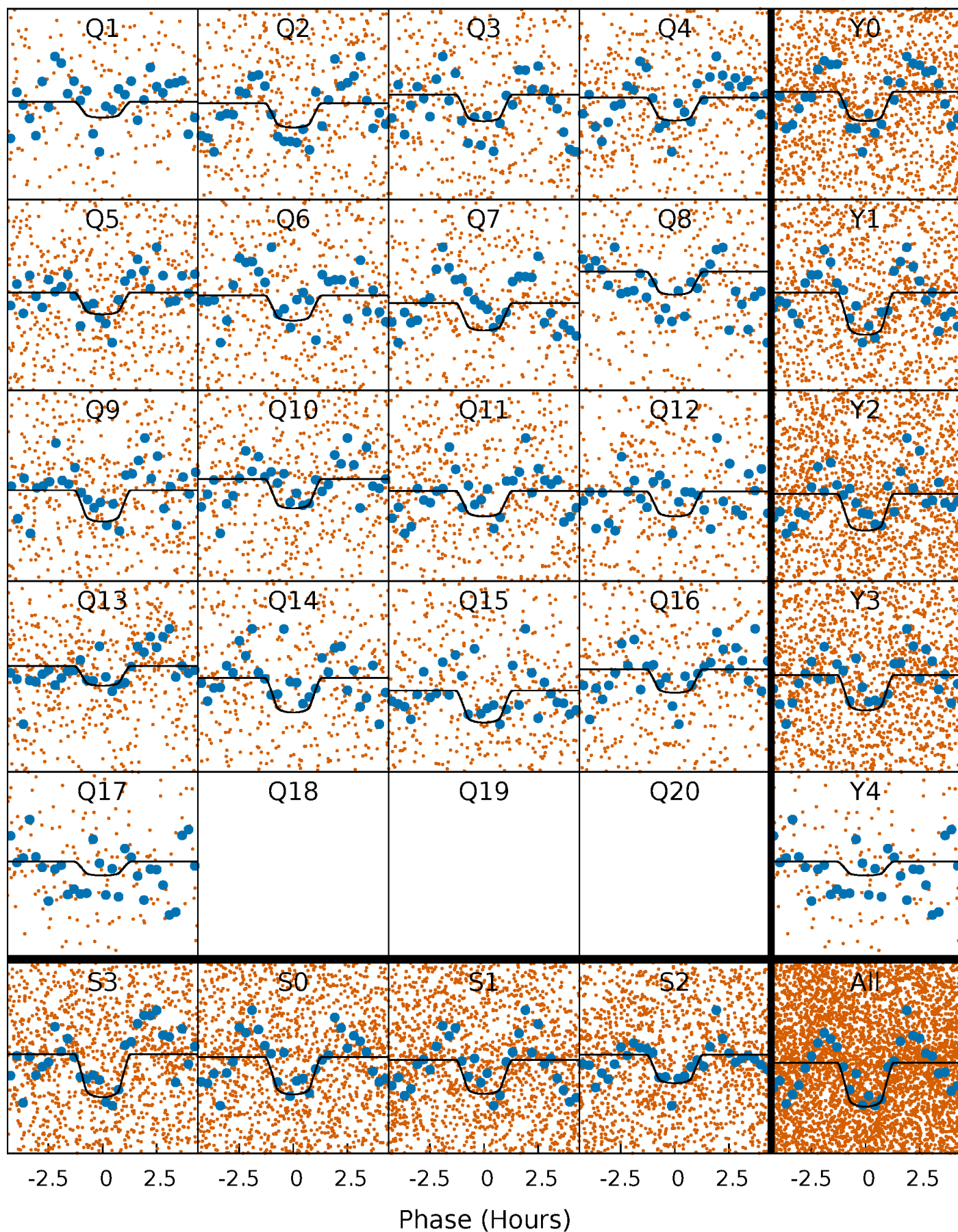
PDC Quarter-Phased Transit Curves

TCE 004263127-03 P= 1.159990 Days $T_0=131.699494$ (BKJD)



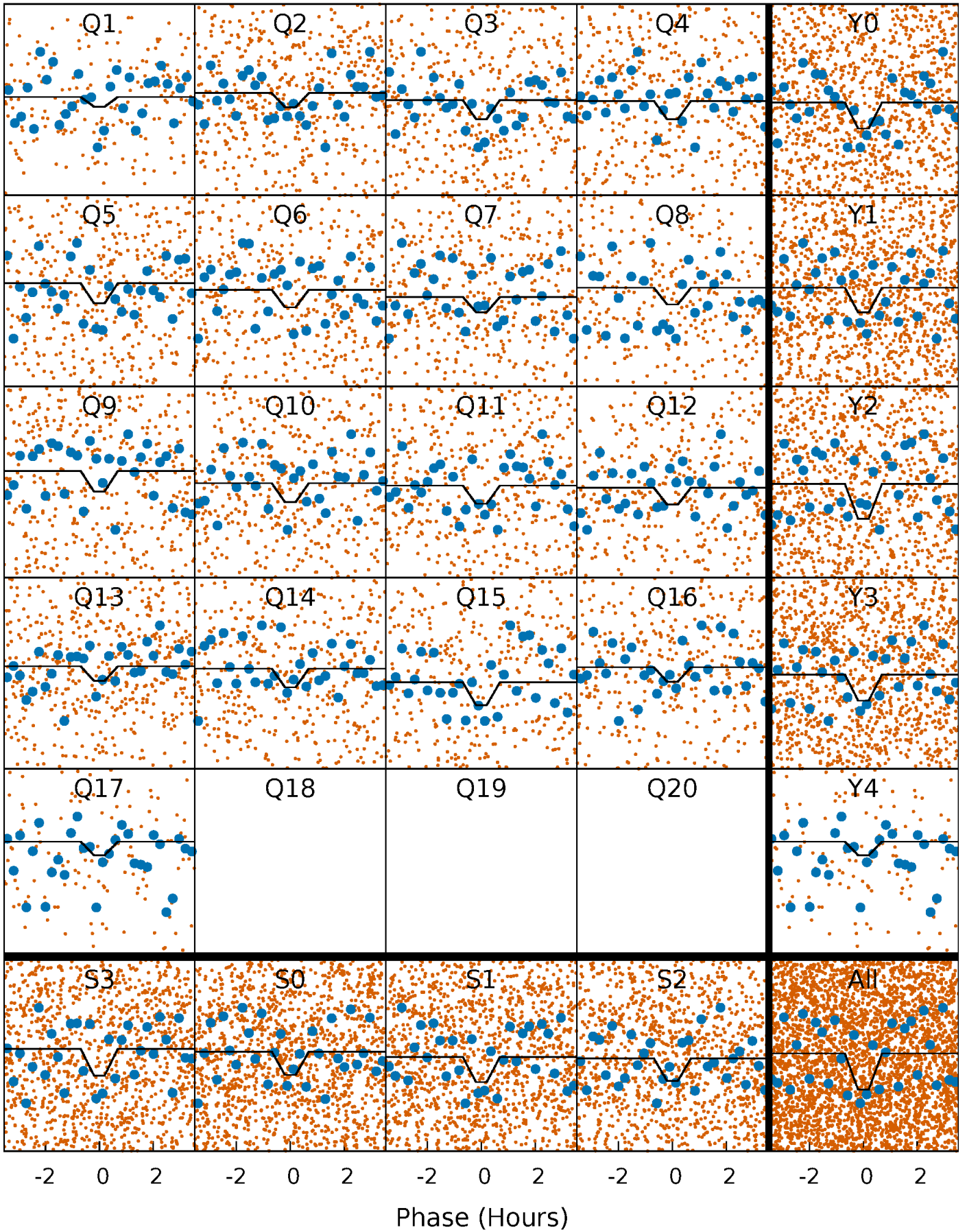
DV Quarter-Phased Transit Curves

TCE 004263127-03 P= 1.159990 Days $T_0=131.699494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

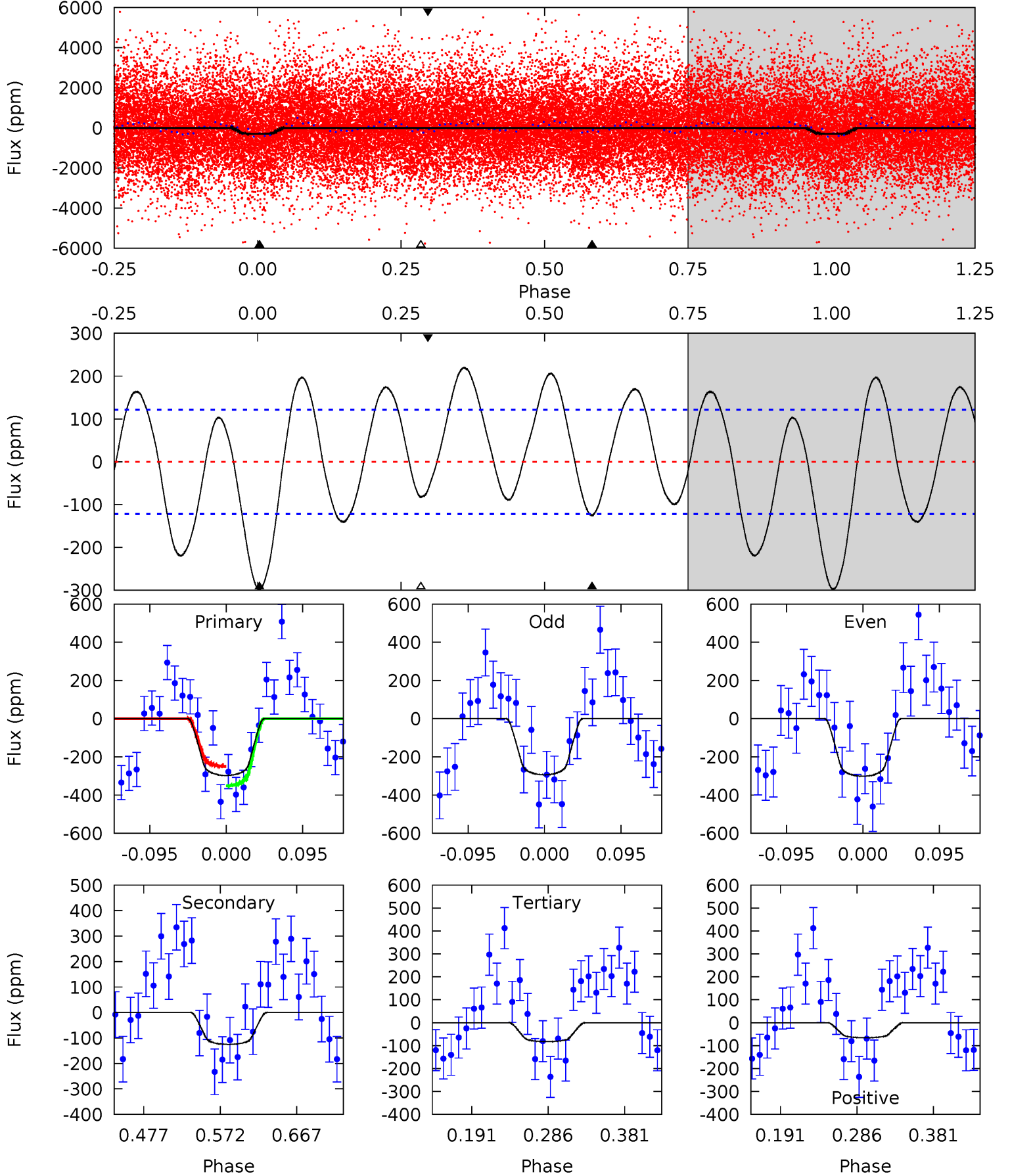
TCE 004263127-03 P= 1.160011 Days $T_0=131.694270$ (BKJD)



DV Model-Shift Uniqueness Test

004263127-03, P = 1.159990 Days, E = 130.539504 Days

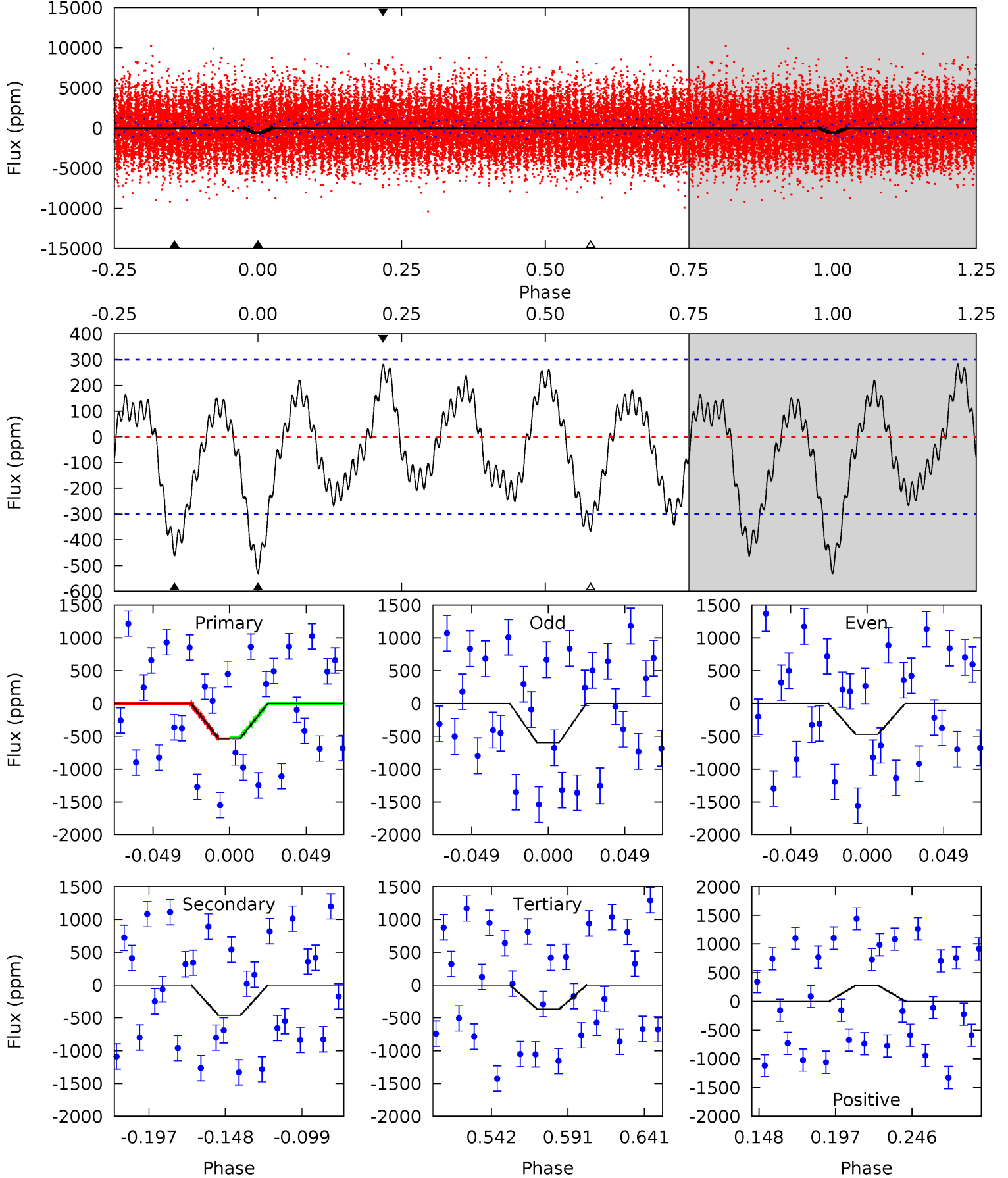
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	4.70	3.10	-2.47	4.57	1.67	4.24	8.08	13.6	1.60	7.17	0.14	0.88	0.42	1.91



Alt Model-Shift Uniqueness Test

004263127-03, P = 1.160011 Days, E = 130.534259 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.31	7.22	5.75	4.42	4.71	1.97	2.44	2.56	3.89	1.47	2.80	0.98	0.78	0.35	0.19



Stellar Parameters For KIC 004263127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7247^{+200}_{-343}	$4.111^{+0.128}_{-0.192}$	$0.040^{+0.200}_{-0.350}$	$1.834^{+0.565}_{-0.377}$	$1.584^{+0.204}_{-0.249}$	$0.361^{+0.239}_{-0.195}$
	+3%/-5%	+3%/-5%	+500%/-875%	+31%/-21%	+13%/-16%	+66%/-54%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004263127-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-125 ± 27	$4.28^{+1.14}_{-1.01}$	3841^{+295}_{-272}	5081^{+723}_{-554}	$2.309^{+1.633}_{-0.919}$
Alt.	-461 ± 64	$4.70^{+1.20}_{-0.93}$	3831^{+290}_{-278}	6780^{+877}_{-683}	$7.117^{+4.054}_{-2.617}$

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

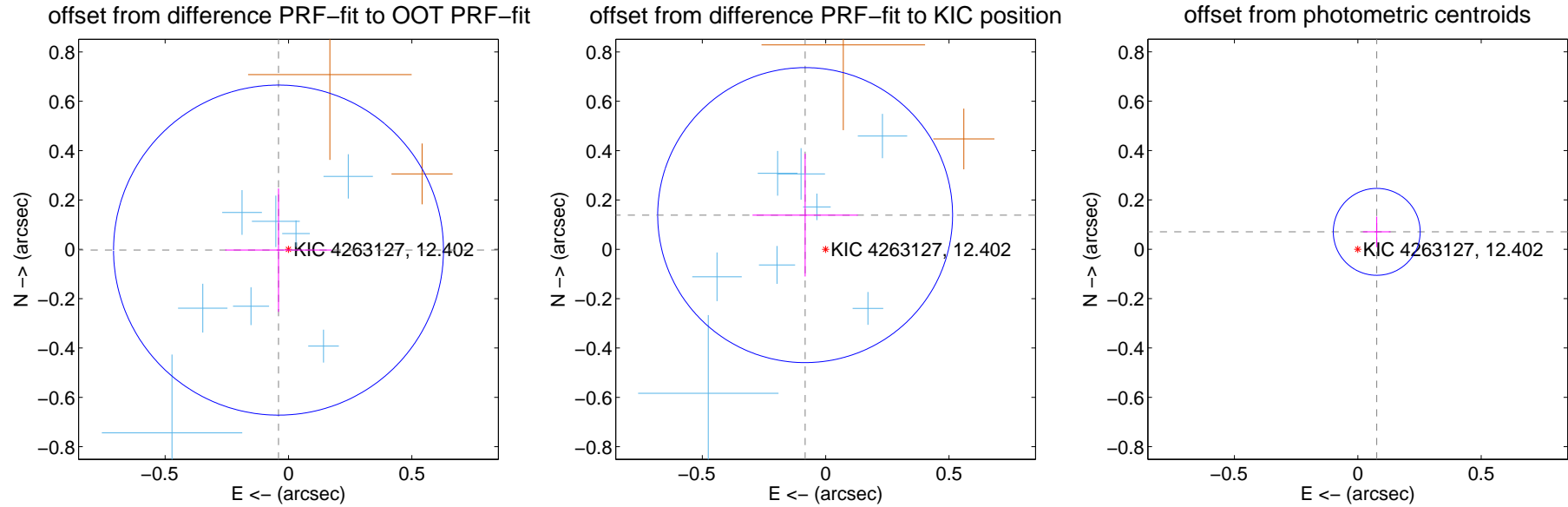
DV Centroid Data

Supplemental centroid analysis for 004263127-03. Kepler magnitude: 12.40. Transit SNR 10.87

There are 12 quarters with good PRF difference image offsets

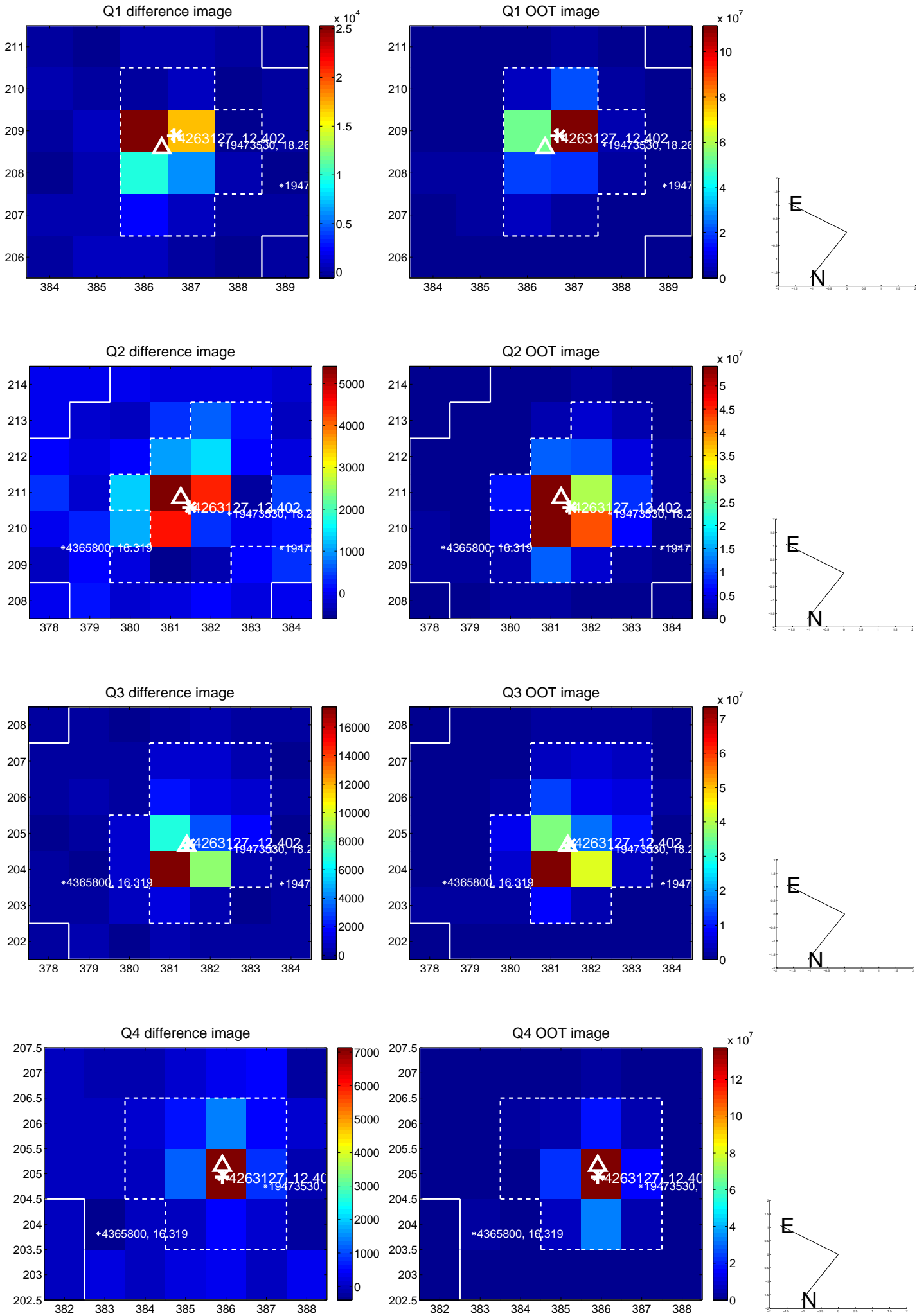
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.041 ± 0.223	0.18	0.040 ± 0.216	-0.003 ± 0.250
PRF-fit source offset from KIC position	0.162 ± 0.199	0.81	0.083 ± 0.213	0.139 ± 0.249
photometric centroid source offset	0.10 ± 0.06	1.78	-0.08 ± 0.06	0.07 ± 0.06

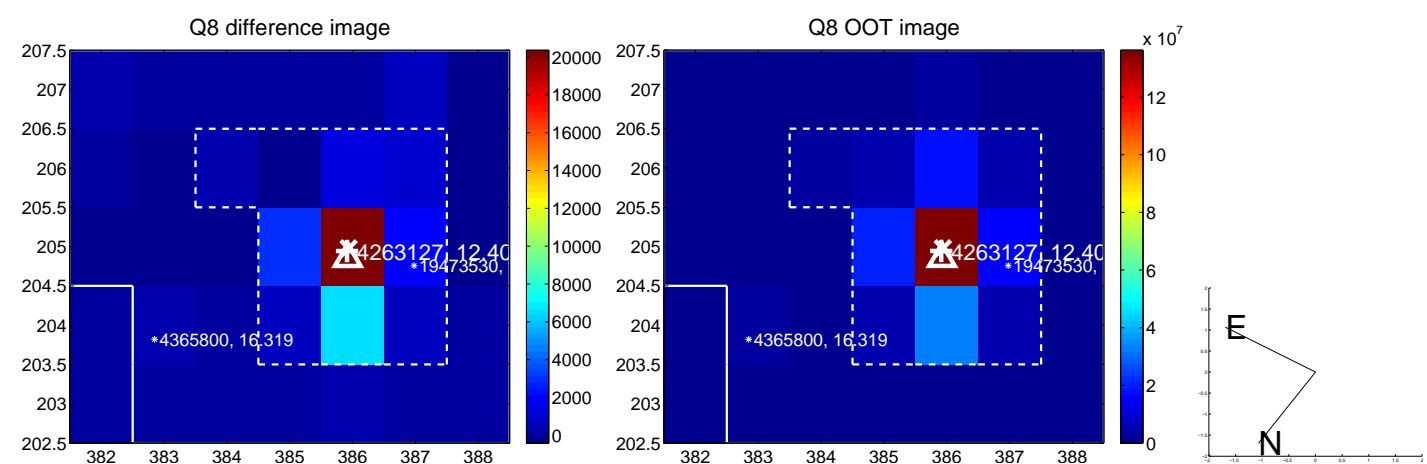
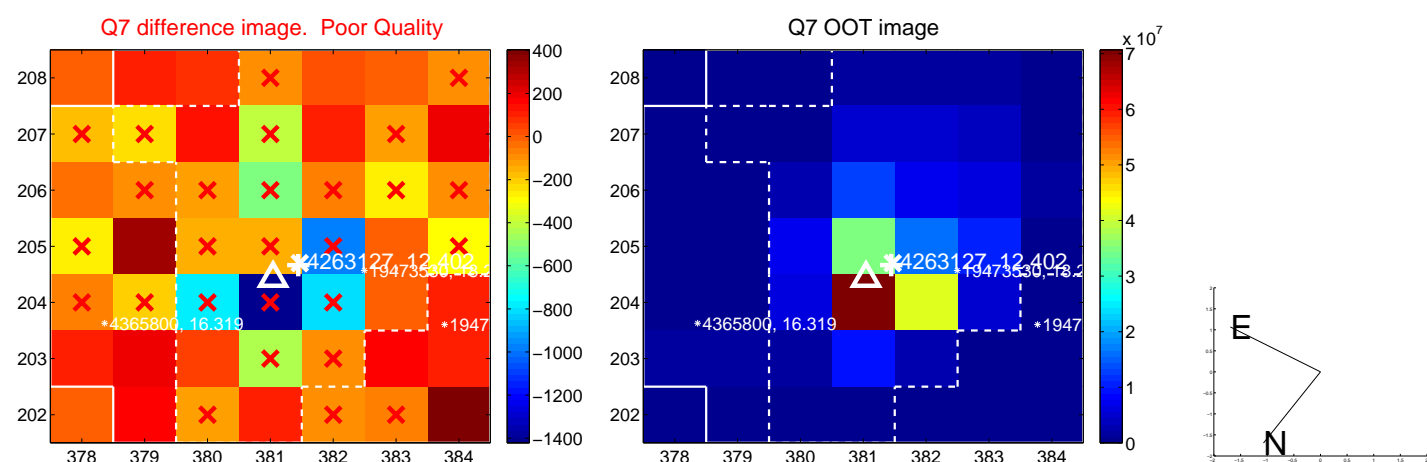
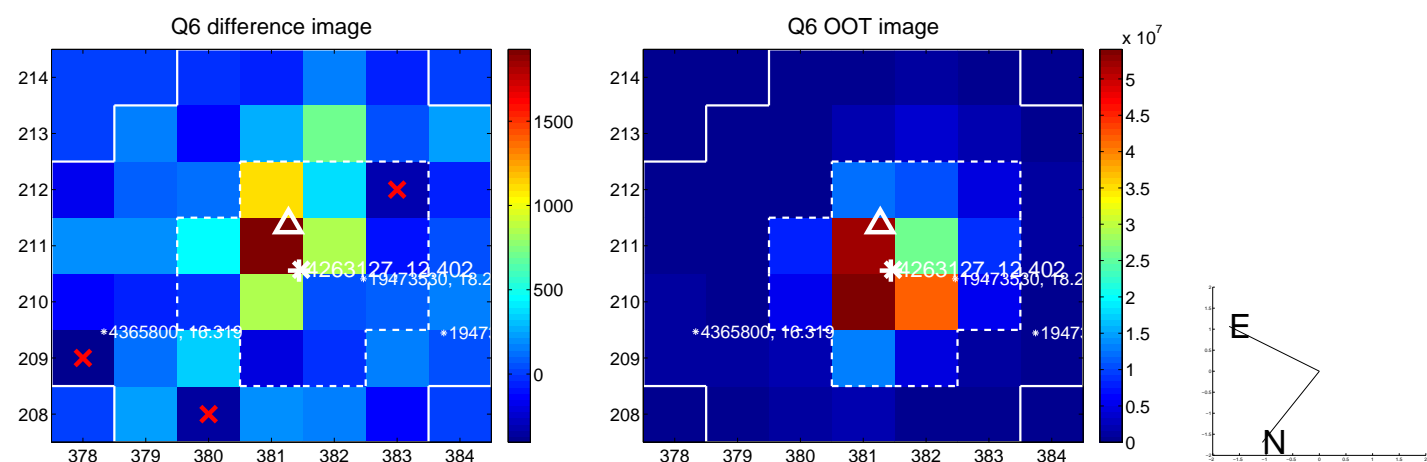
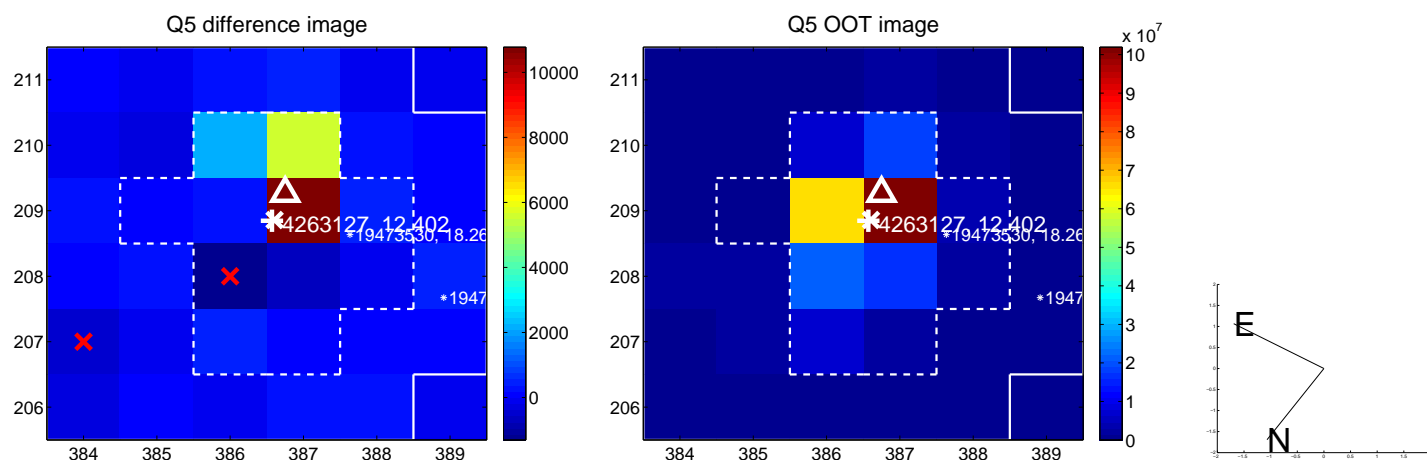


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

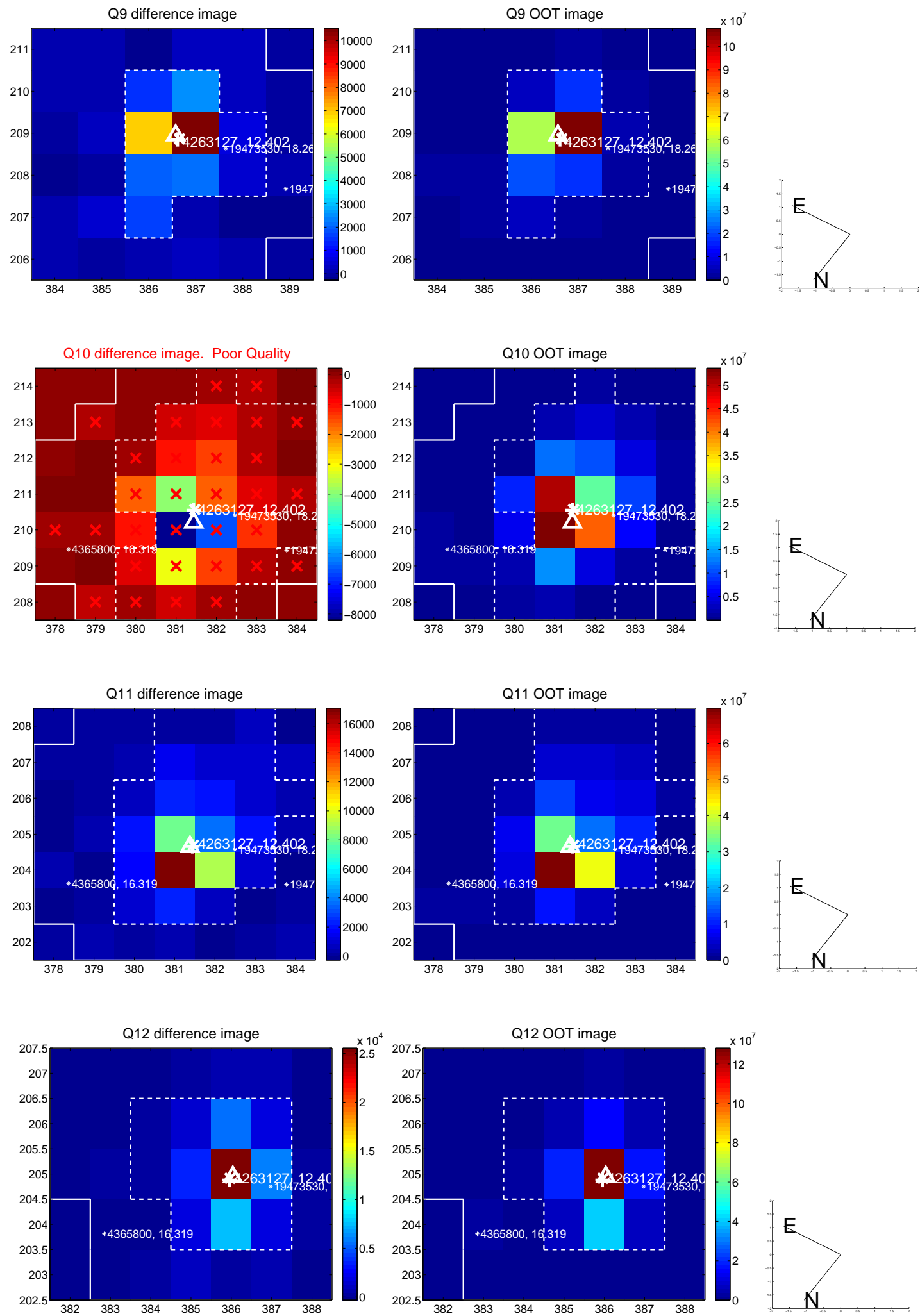
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



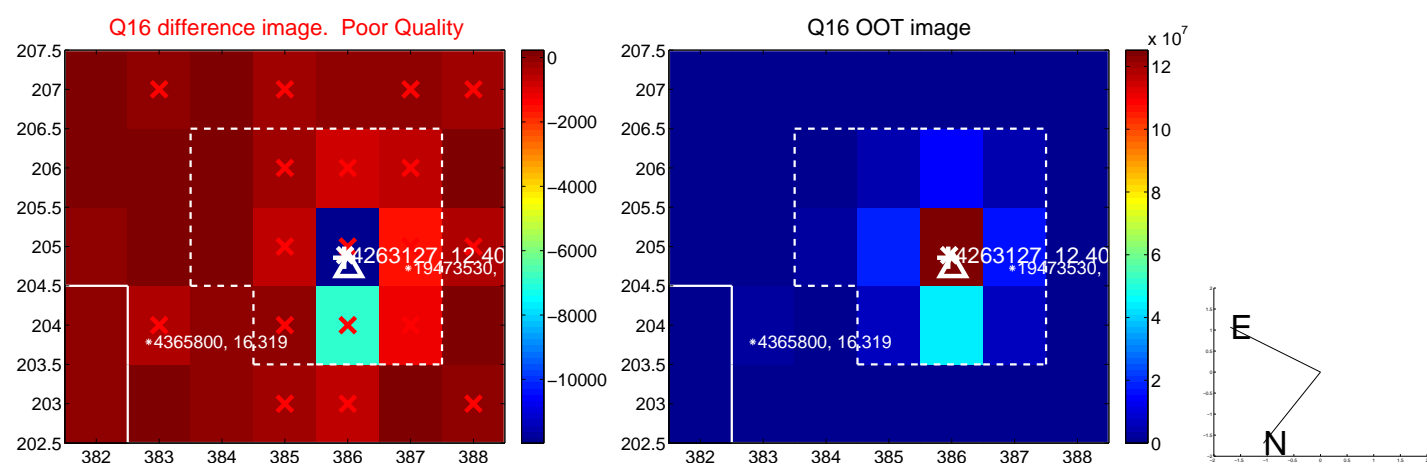
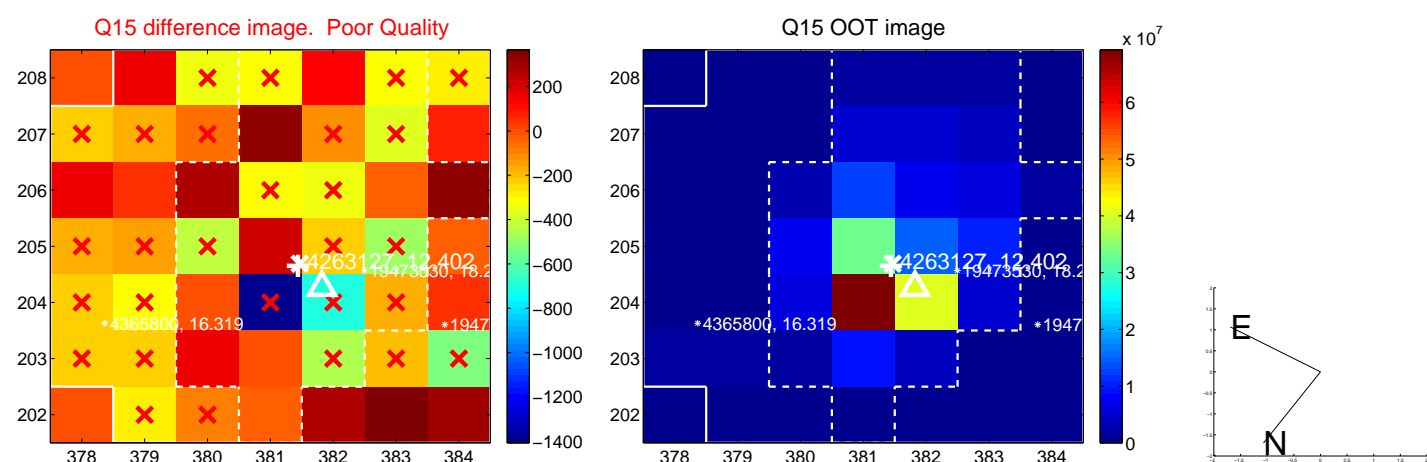
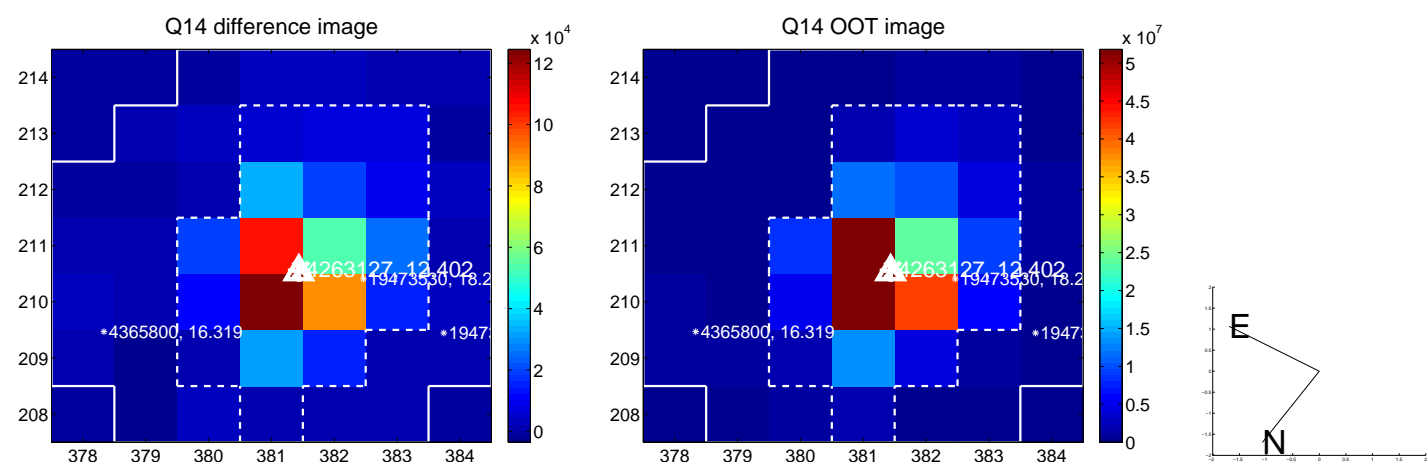
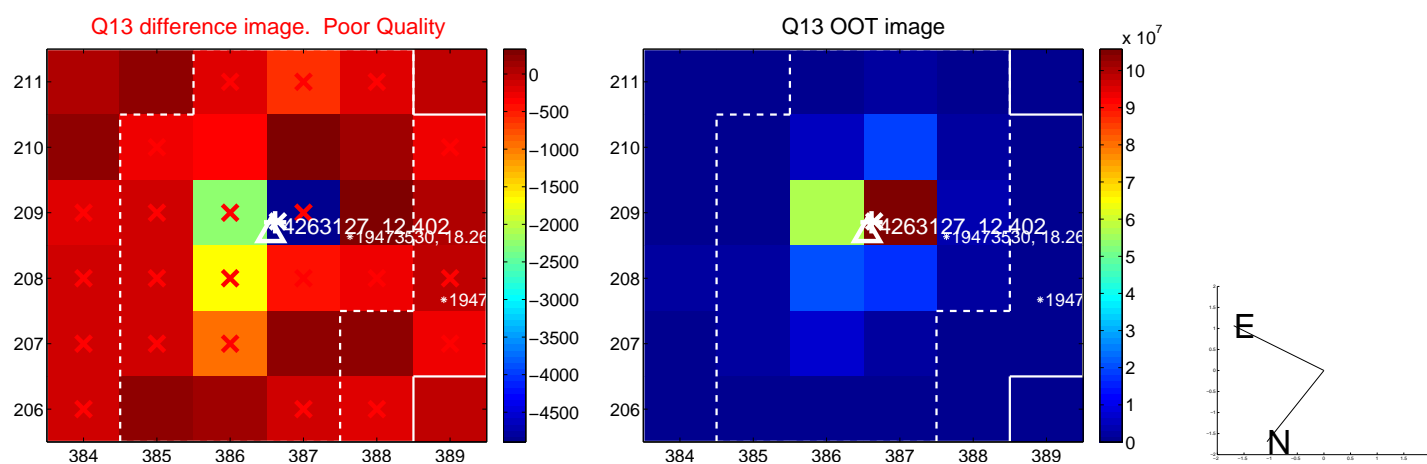
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



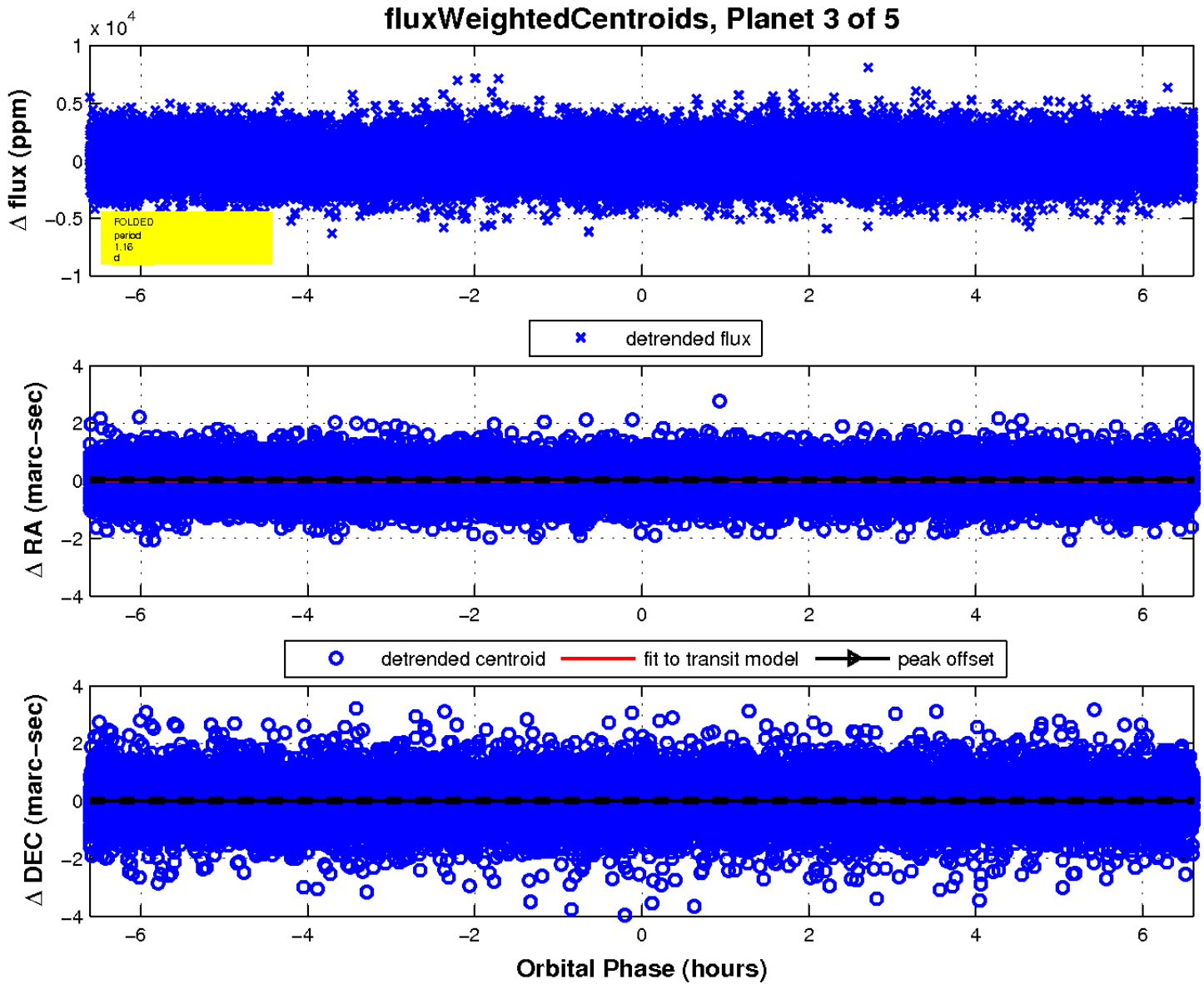
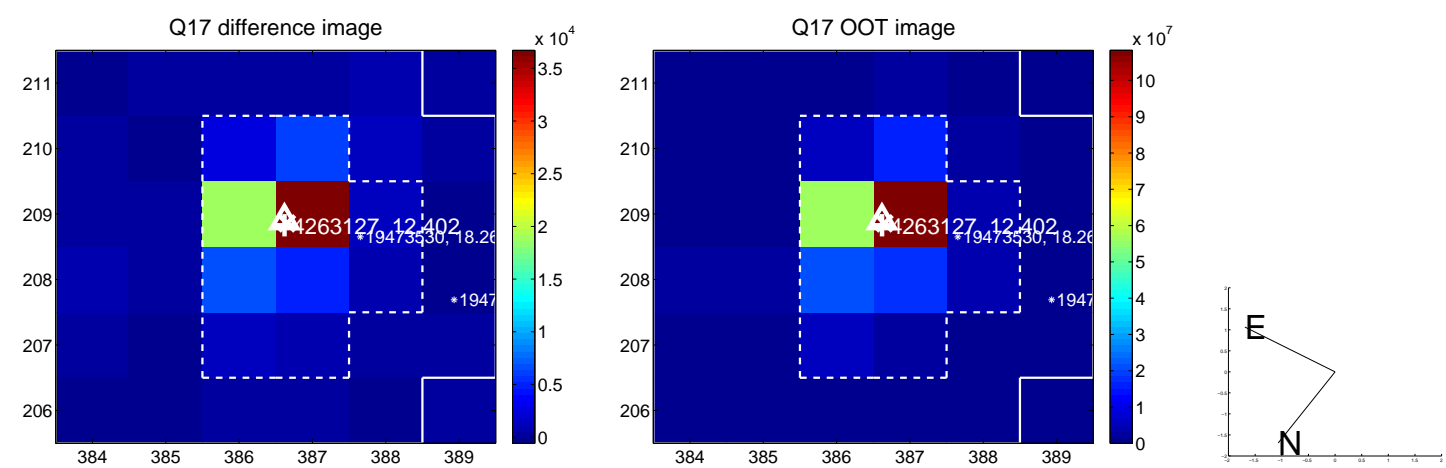
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

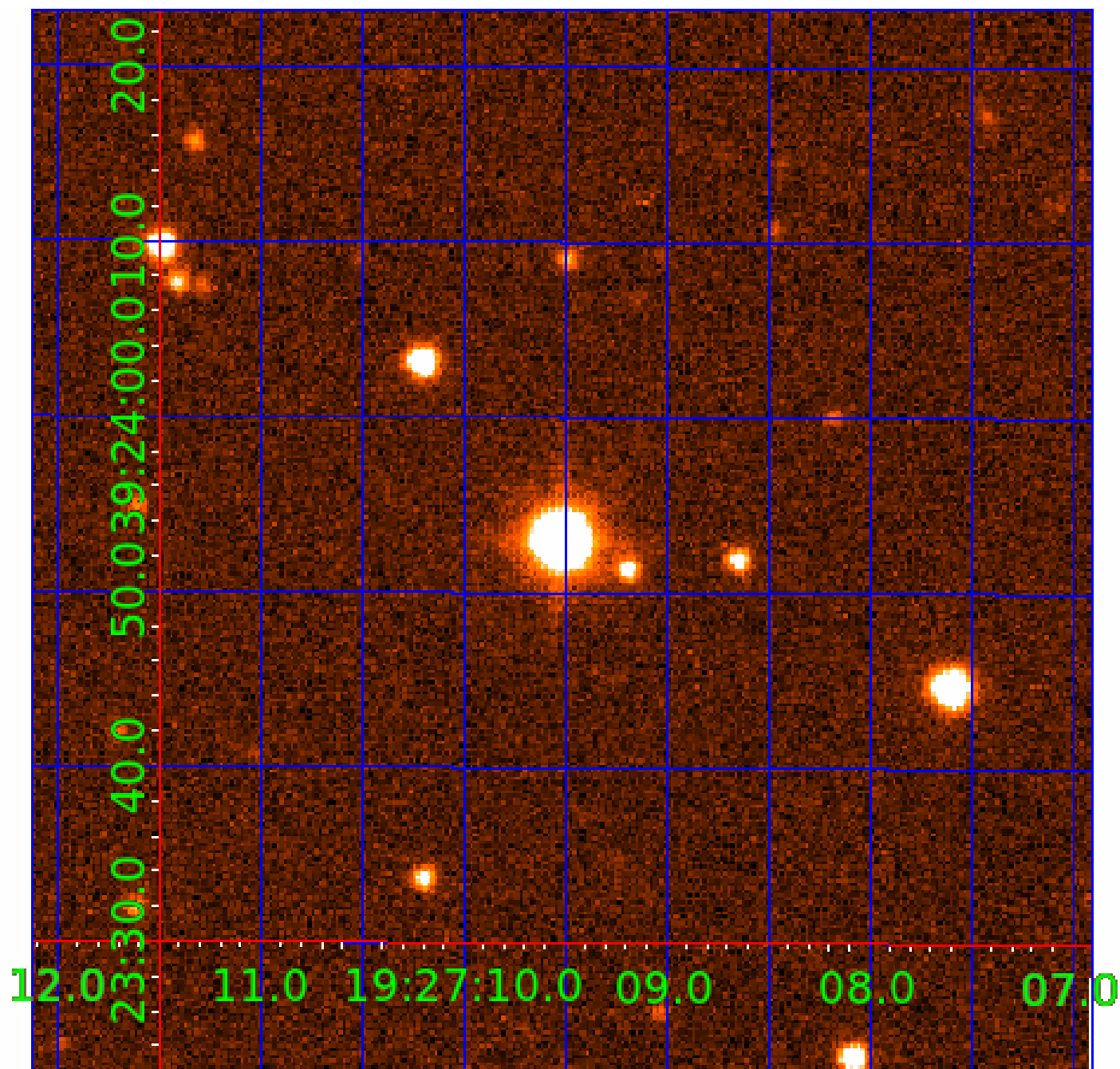


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004263127

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})
004263127-01	OBS	No	0.705606	131.797833	426.1	0.780	13.0	20.2	1.83	7247	3.92	25412.31
004263127-02	OBS	No	0.674579	131.747853	245.3	1.563	9.4	10.1	1.83	7247	2.92	26982.59
004263127-03	OBS	No	1.159990	131.699494	385.3	2.203	10.4	10.9	1.83	7247	4.14	13097.49
004263127-05	OBS	No	0.662855	132.029744	336.9	1.500	8.1	-1.0	1.83	7247	3.42	27620.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004263127-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
004263127-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
004263127-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

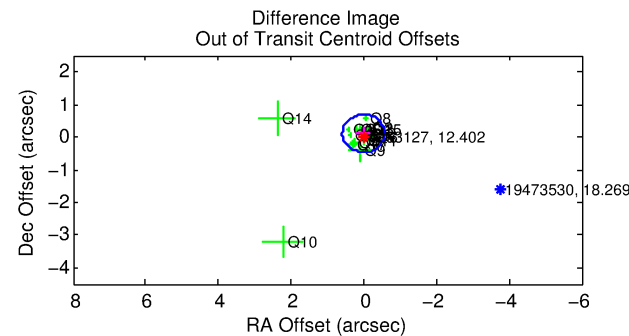
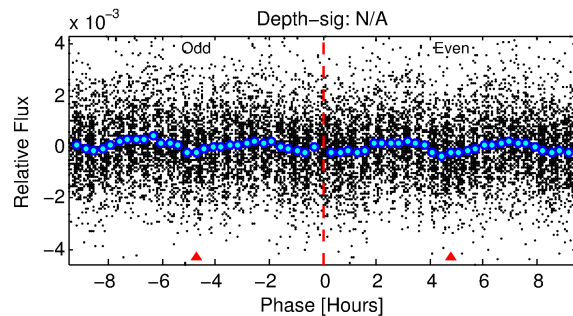
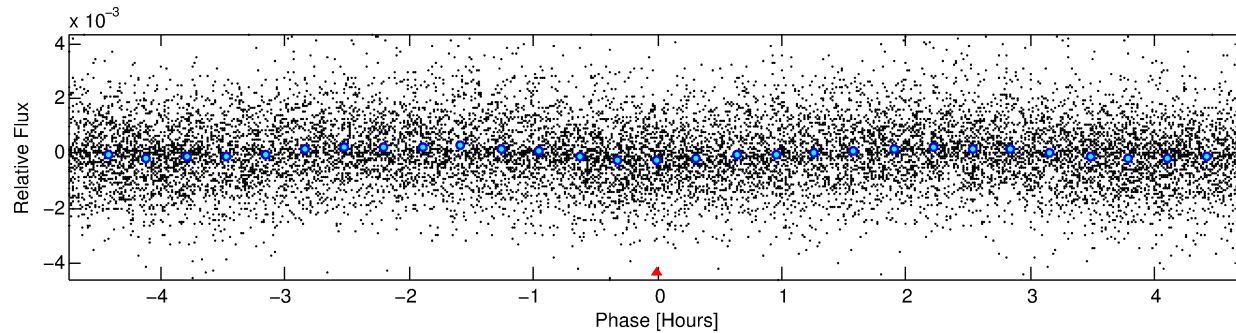
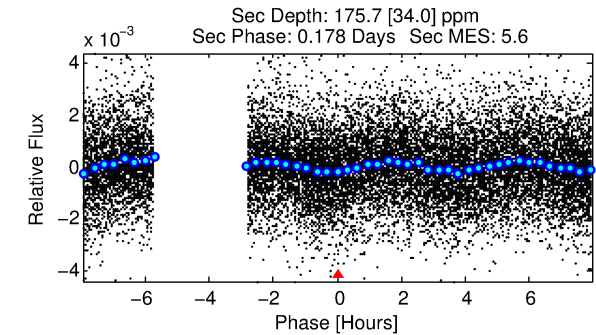
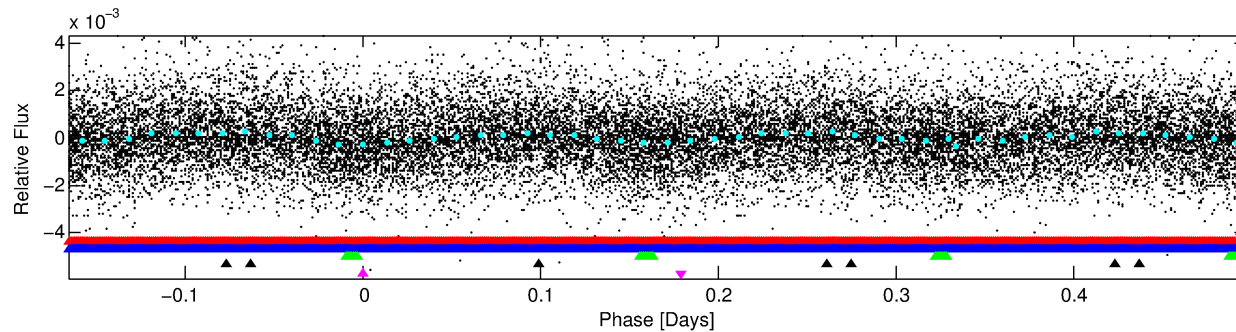
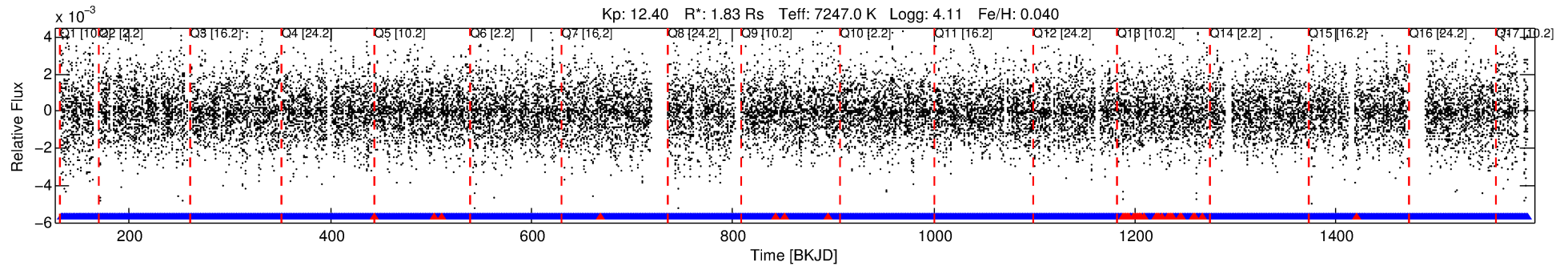
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263127-05

No Significant Match Found

DV One-Page Summary

KIC: 4263127 Candidate: 5 of 5 Period: 0.663 d



TPS TCE Results:

Period = 0.66285 d
Epoch = 132.0297 BKJD

DV fit results are unavailable

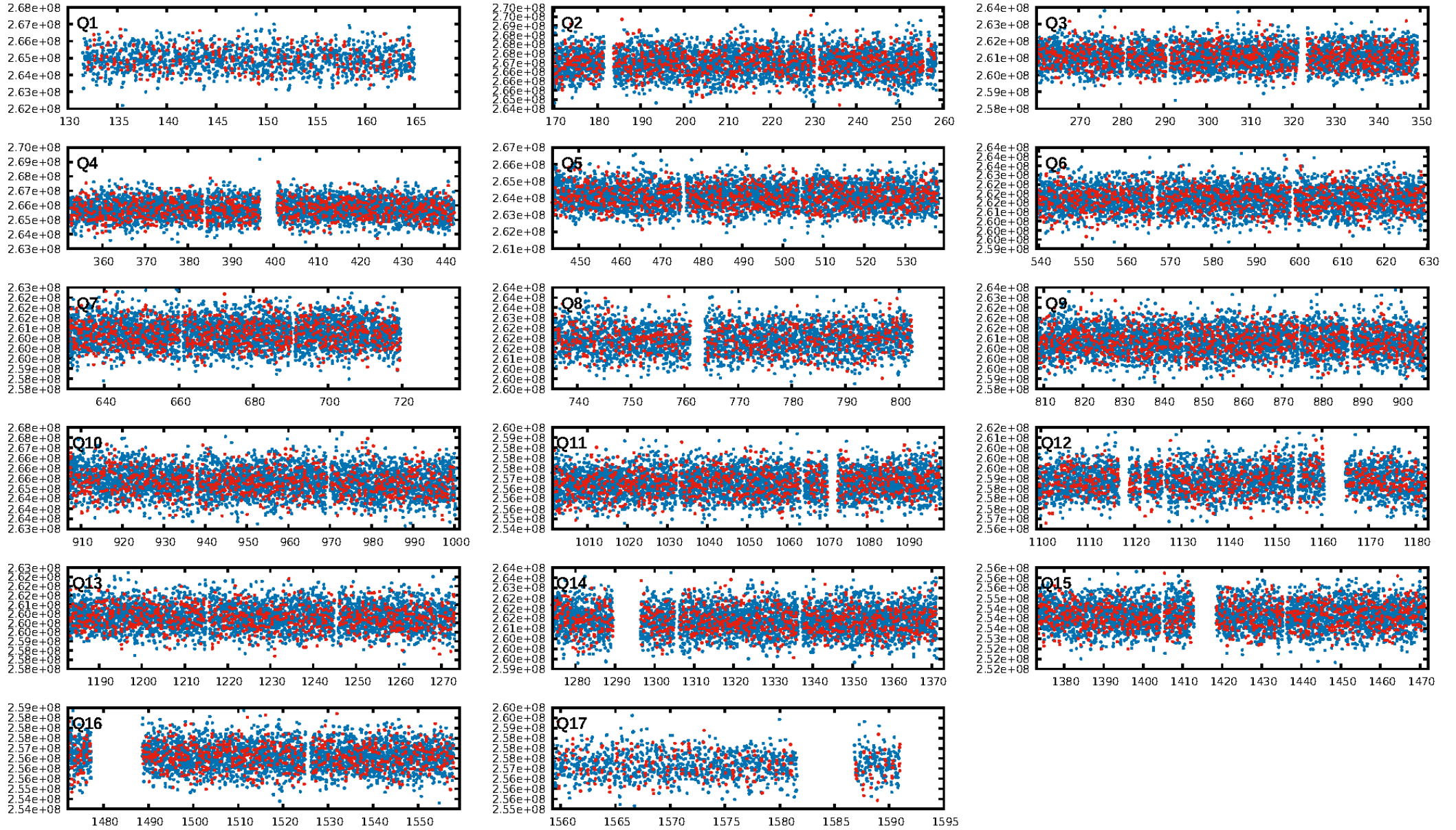
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 10.3% [0.13σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [936/974]
GhostDiagnostic-chr: 0.6536
Centroid-sig: 14.1%
Centroid-so: 0.190 arcsec [2.37σ]
OotOffset-rm: 0.115 arcsec [0.59σ]
KicOffset-rm: 0.263 arcsec [1.32σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 1.00 [17/17]

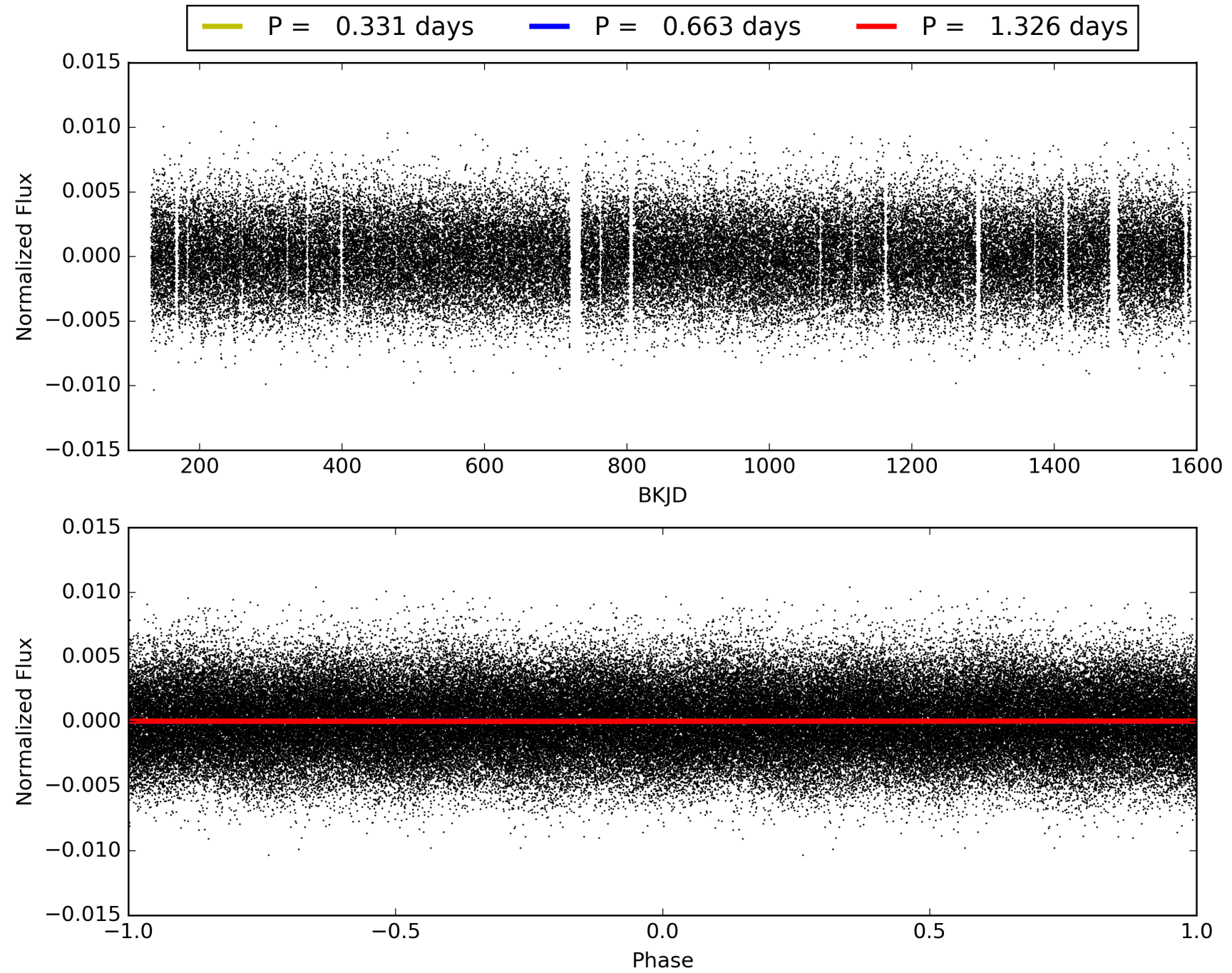
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:29 Z

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

TCE 004263127-05, PDC Light Curves

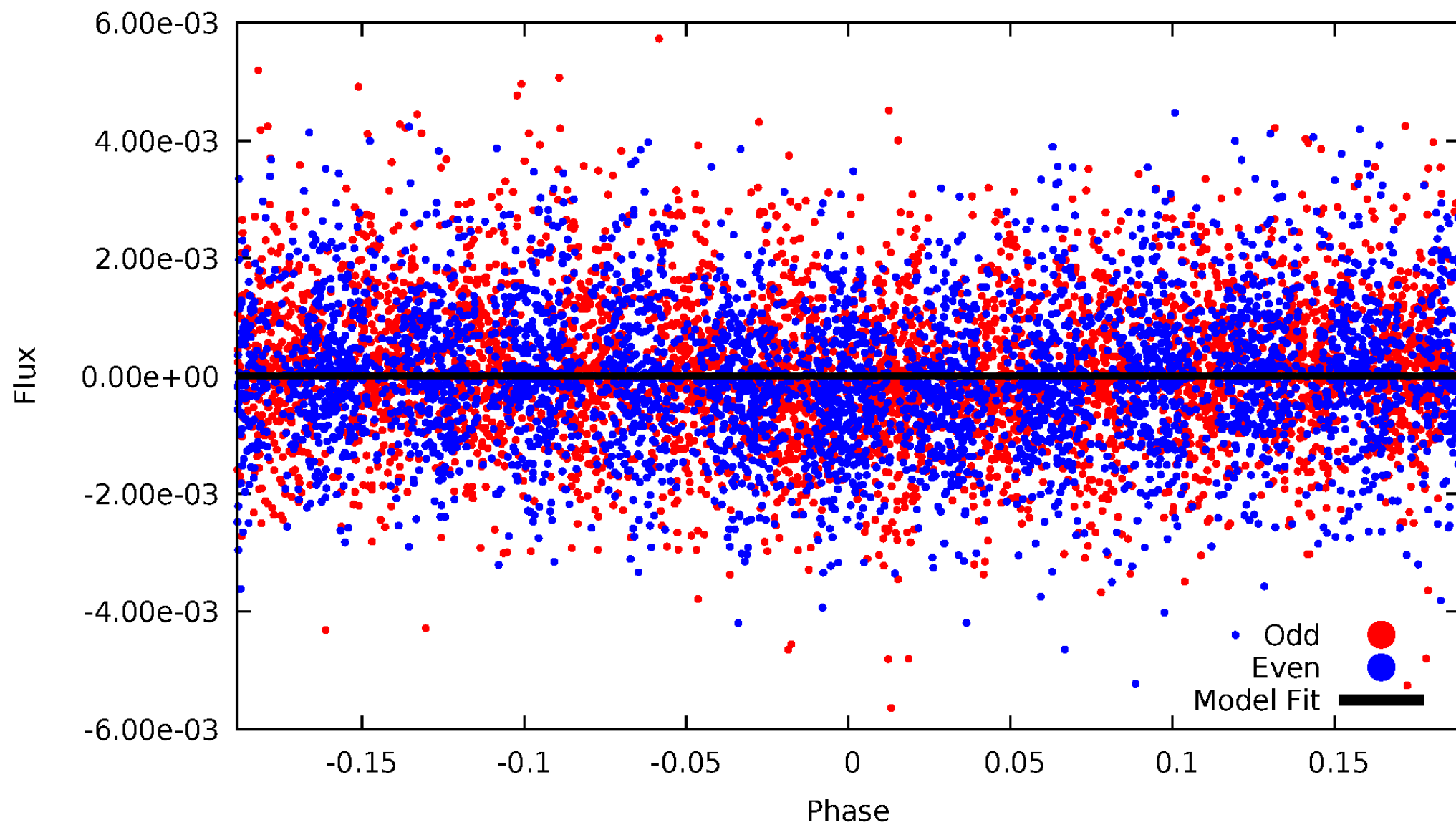


TCE 004263127-05



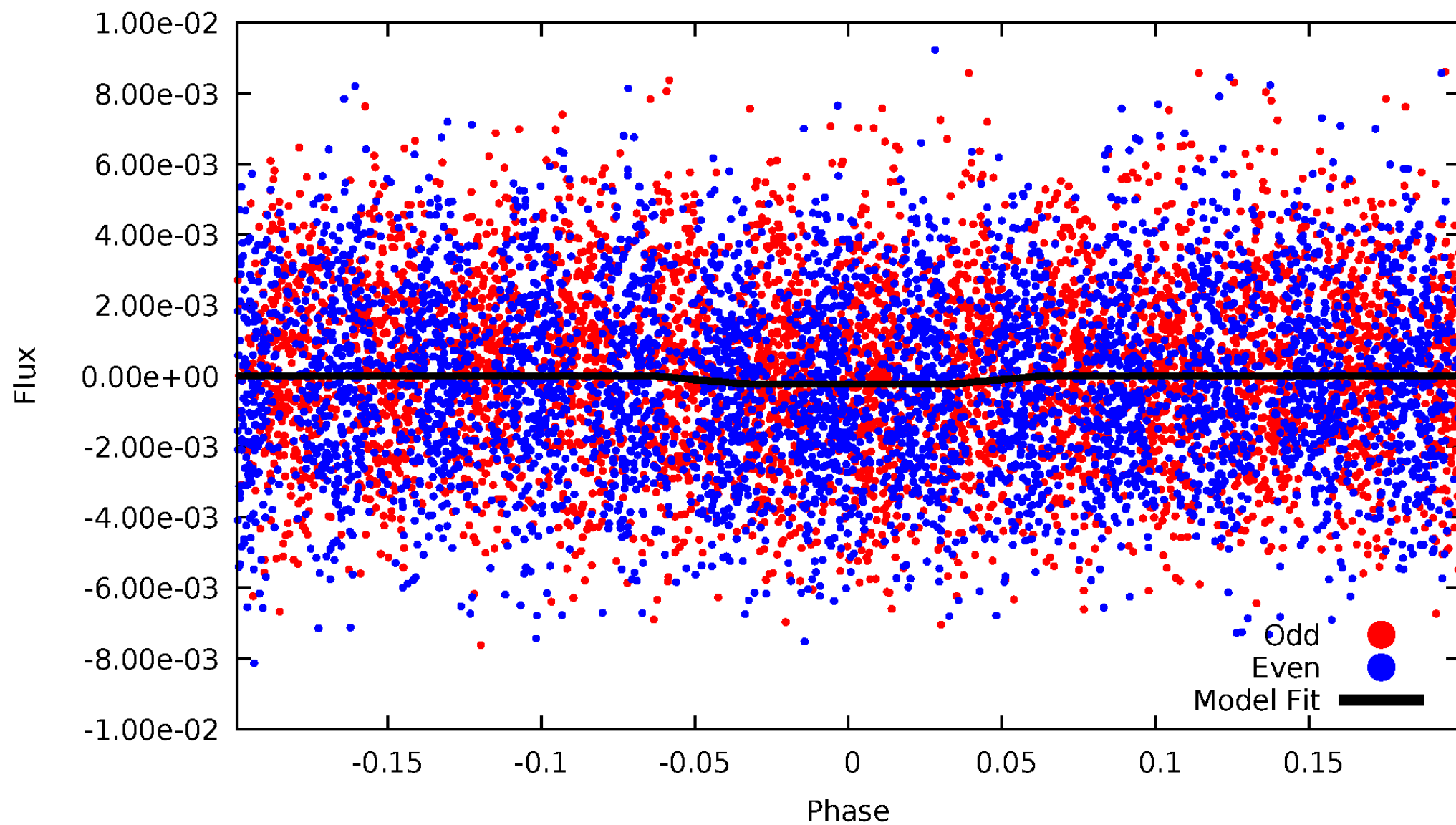
DV Odd/Even

TCE 004263127-05

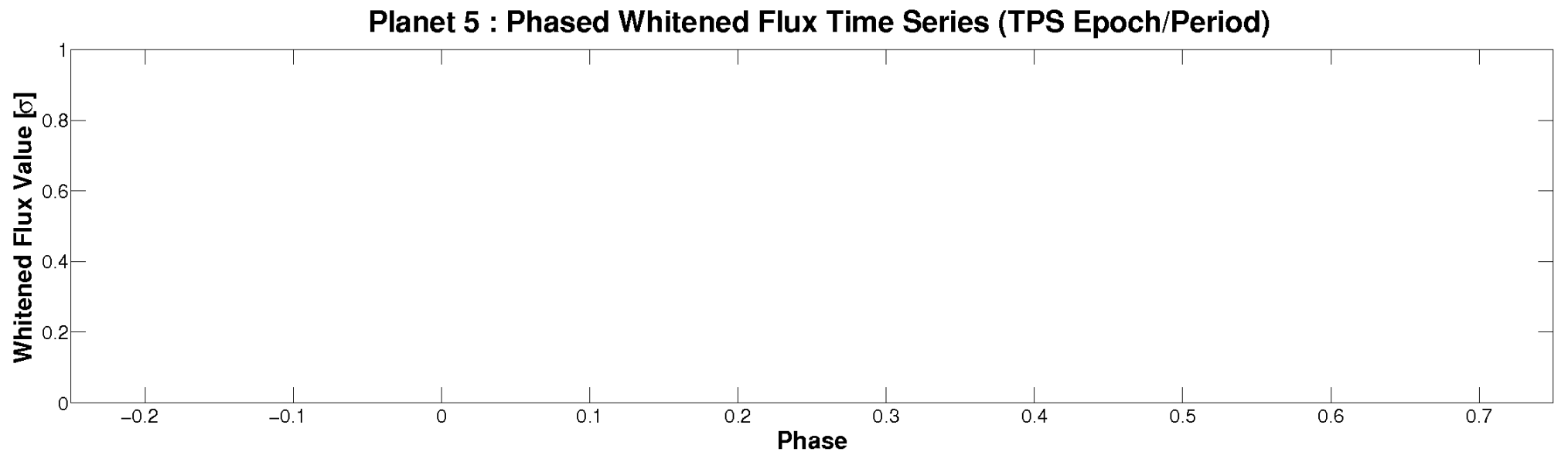
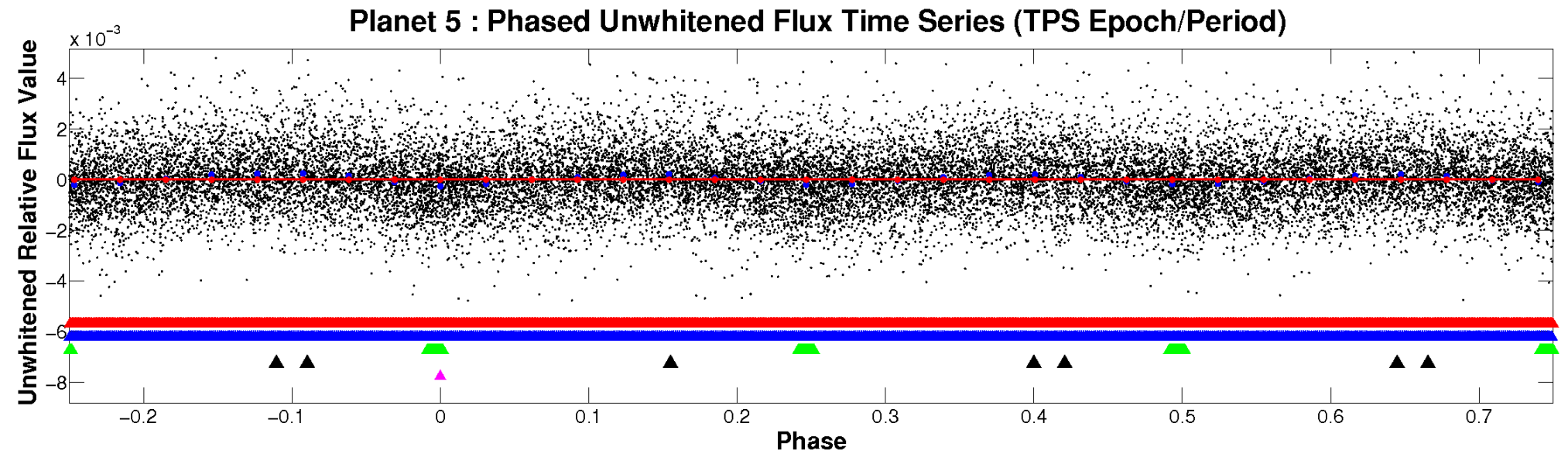


ALT Odd/Even

TCE 004263127-05

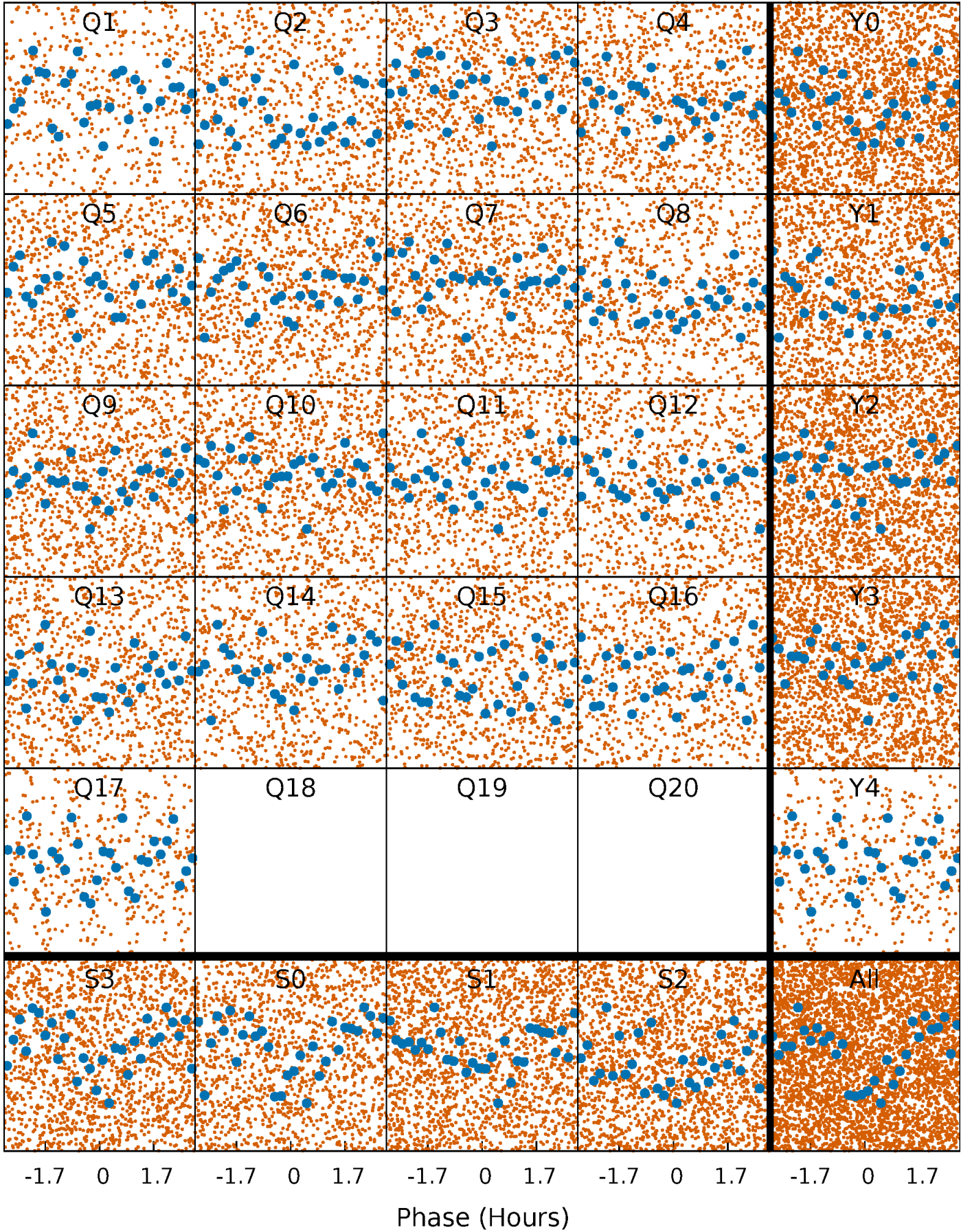


Non-Whitened Vs. Whitened Light Curve



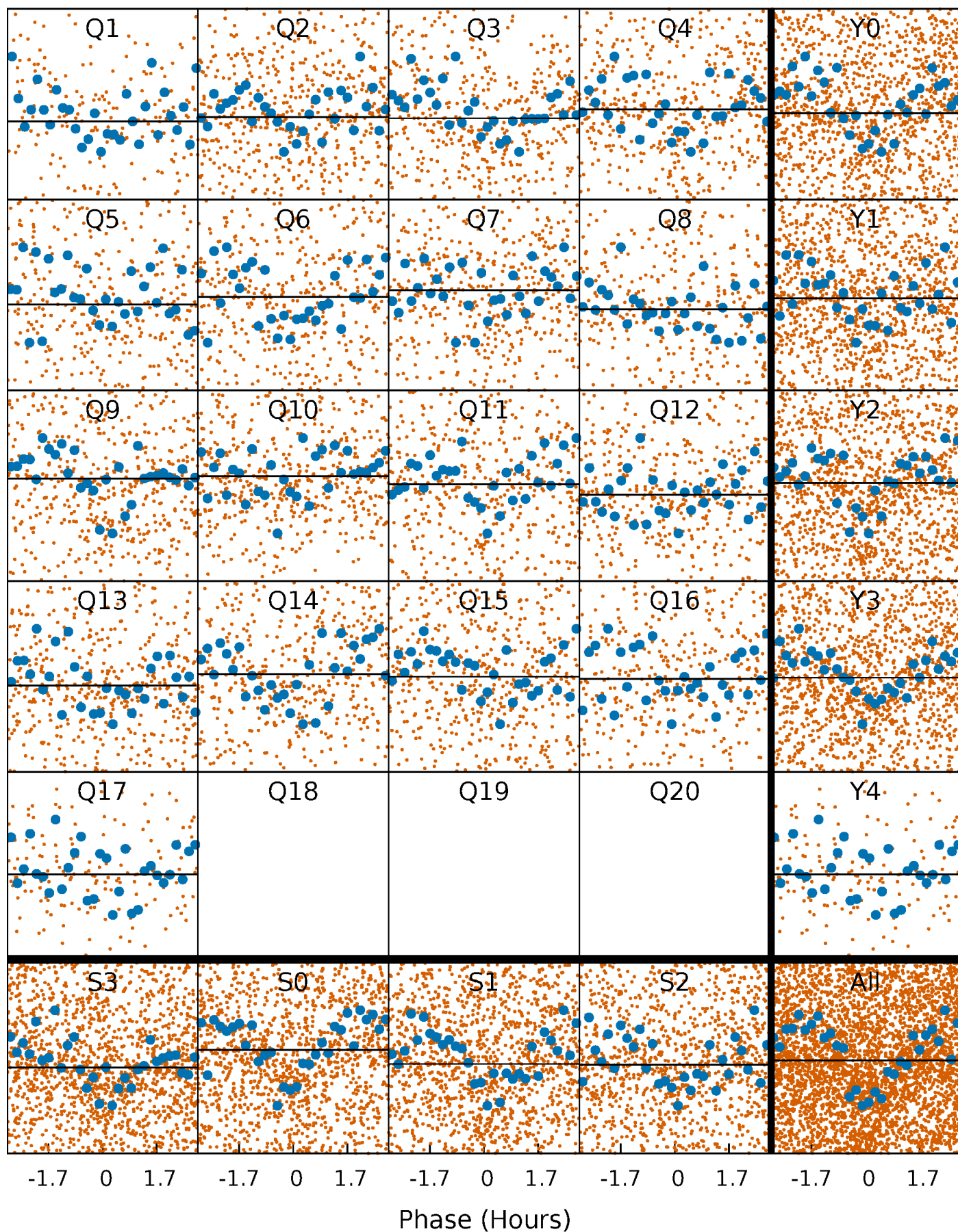
PDC Quarter-Phased Transit Curves

TCE 004263127-05 P= 0.662854 Days $T_0=132.029744$ (BKJD)



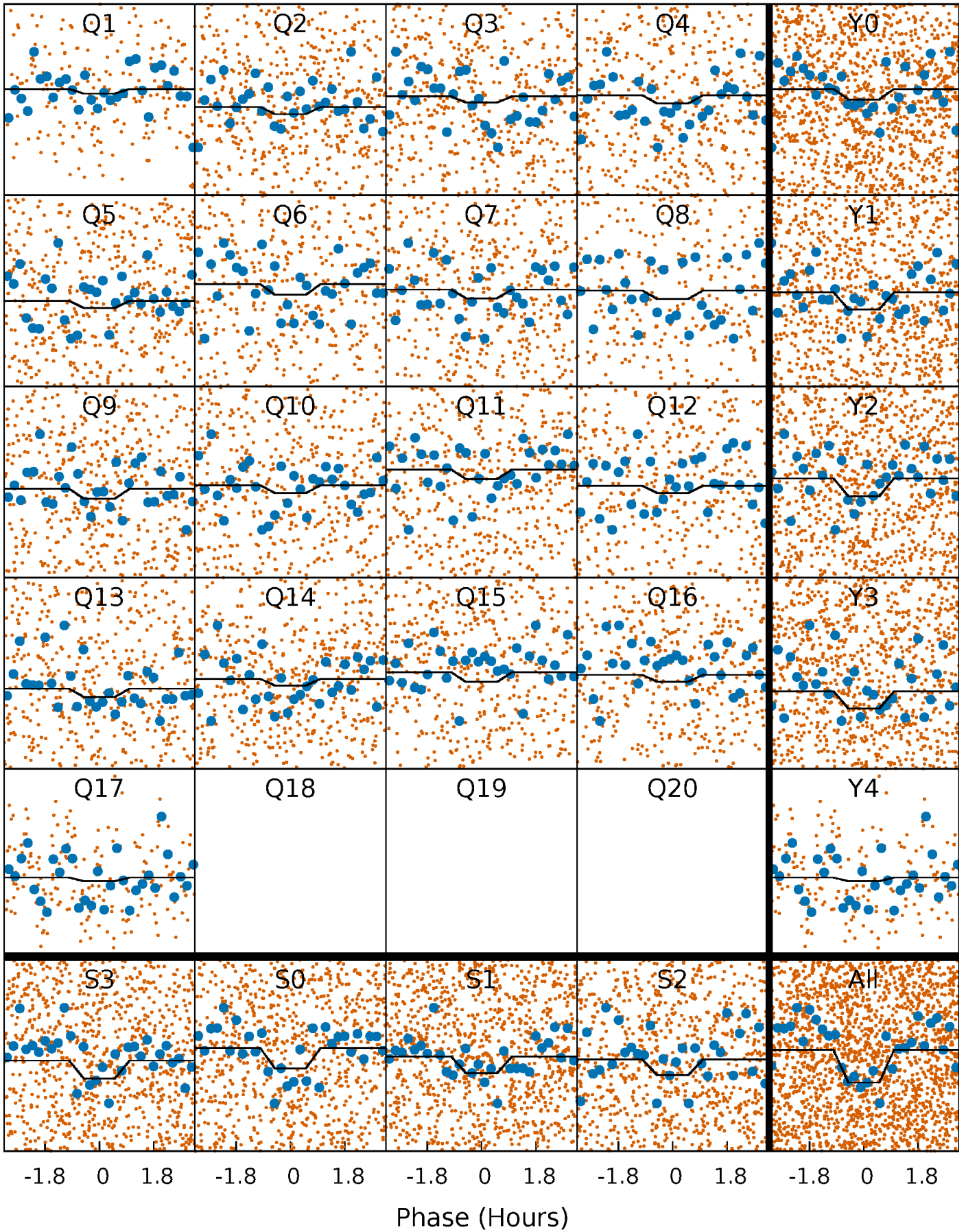
DV Quarter-Phased Transit Curves

TCE 004263127-05 P= 0.662854 Days $T_0=132.029744$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

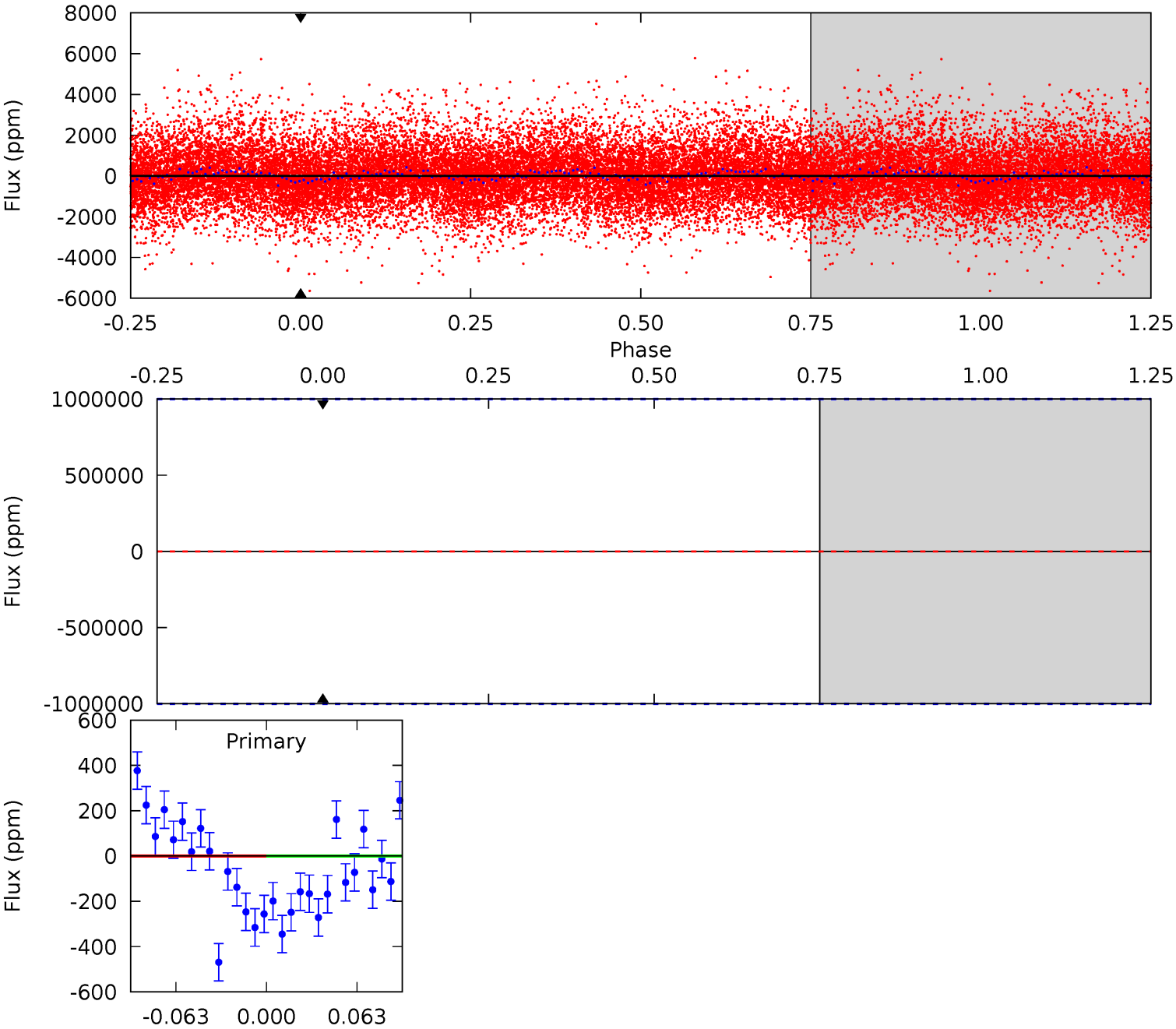
TCE 004263127-05 P= 0.662854 Days $T_0=132.033766$ (BKJD)



DV Model-Shift Uniqueness Test

004263127-05, P = 0.662854 Days, E = 131.366890 Days

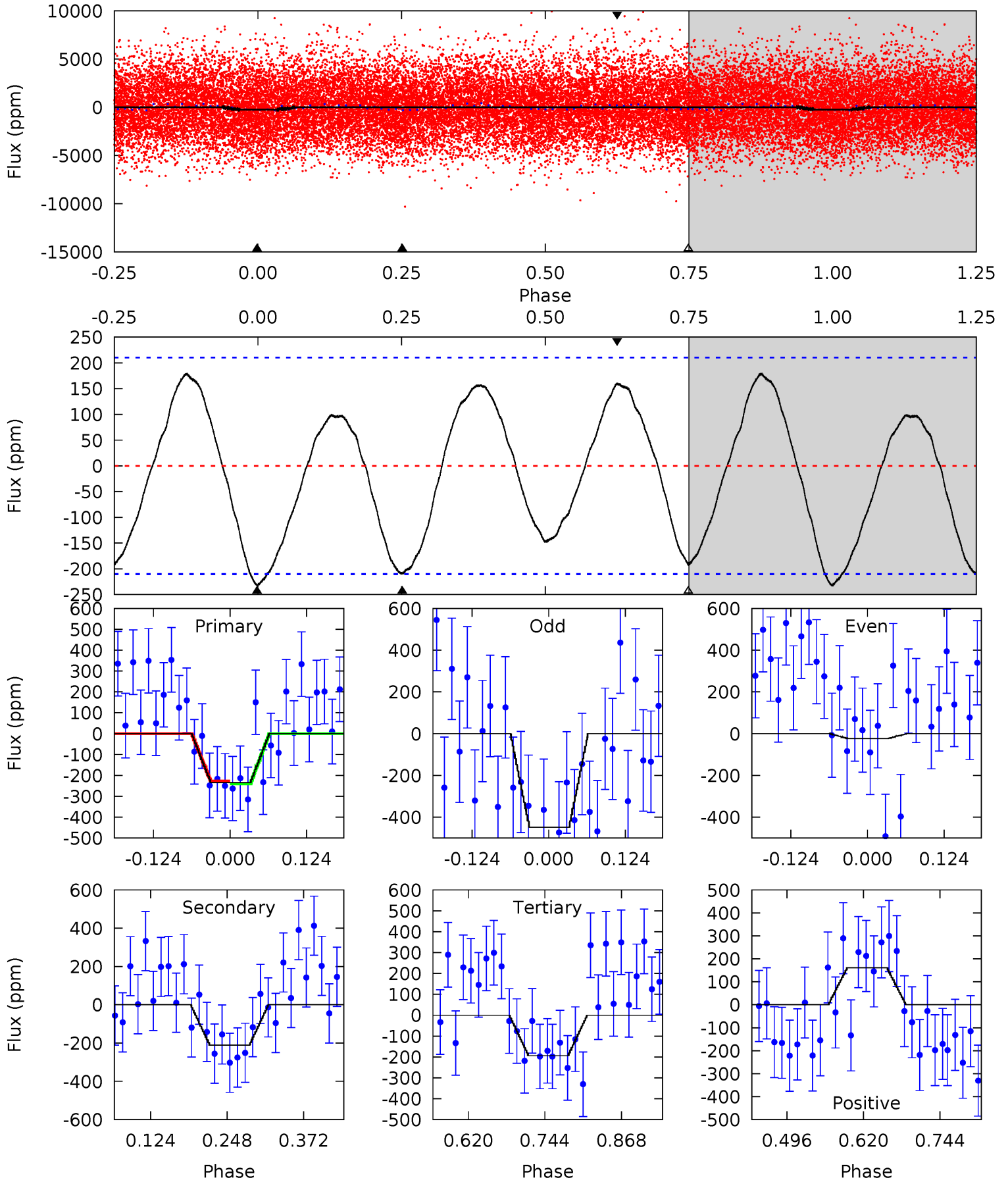
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004263127-05, P = 0.662854 Days, E = 131.370912 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.03	4.53	4.16	3.47	4.52	1.54	2.44	0.87	1.56	0.37	1.06	4.55	0.85	0.44	0.14



Stellar Parameters For KIC 004263127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7247^{+200}_{-343}	$4.111^{+0.128}_{-0.192}$	$0.040^{+0.200}_{-0.350}$	$1.834^{+0.565}_{-0.377}$	$1.584^{+0.204}_{-0.249}$	$0.361^{+0.239}_{-0.195}$
	+3%/-5%	+3%/-5%	+500%/-875%	+31%/-21%	+13%/-16%	+66%/-54%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004263127-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$15.96^{+16.35}_{-11.38}$	4596^{+352}_{-293}	6161^{+29795}_{-34724}	$2.716^{+135.885}_{-100.289}$
Alt.	-211 ± 47	$14.98^{+15.84}_{-10.53}$	4607^{+339}_{-311}	-3528^{+8974}_{-506}	$0.150^{+1.509}_{-0.112}$

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

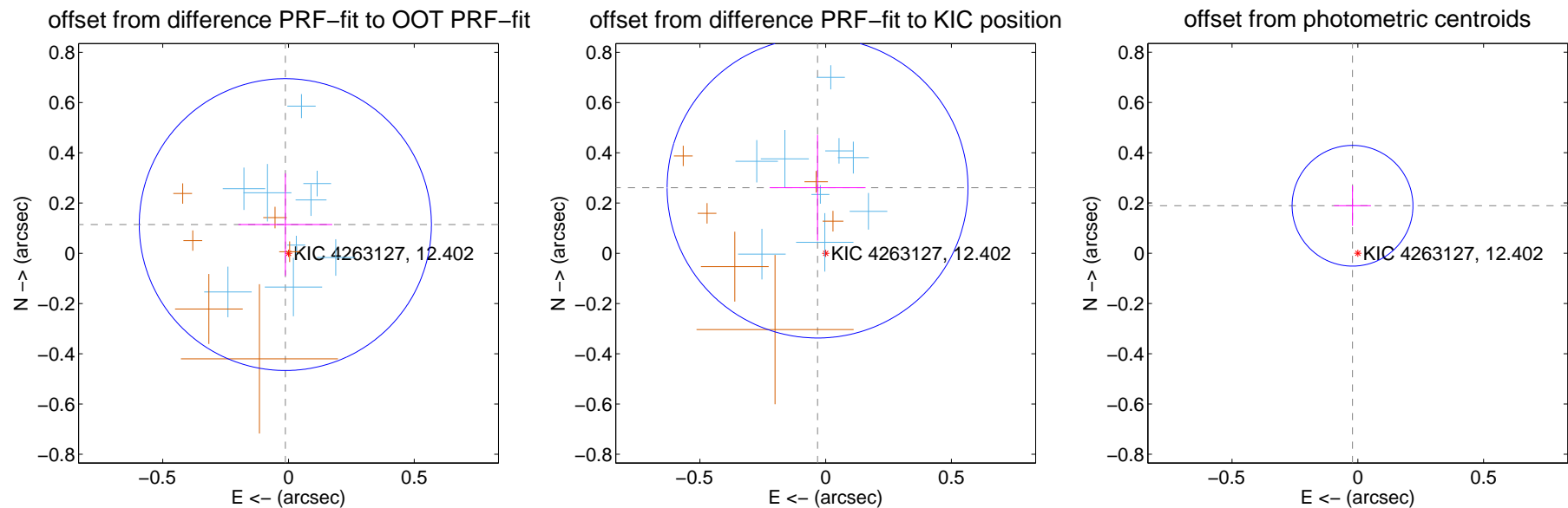
DV Centroid Data

Supplemental centroid analysis for 004263127-05. Kepler magnitude: 12.40. Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

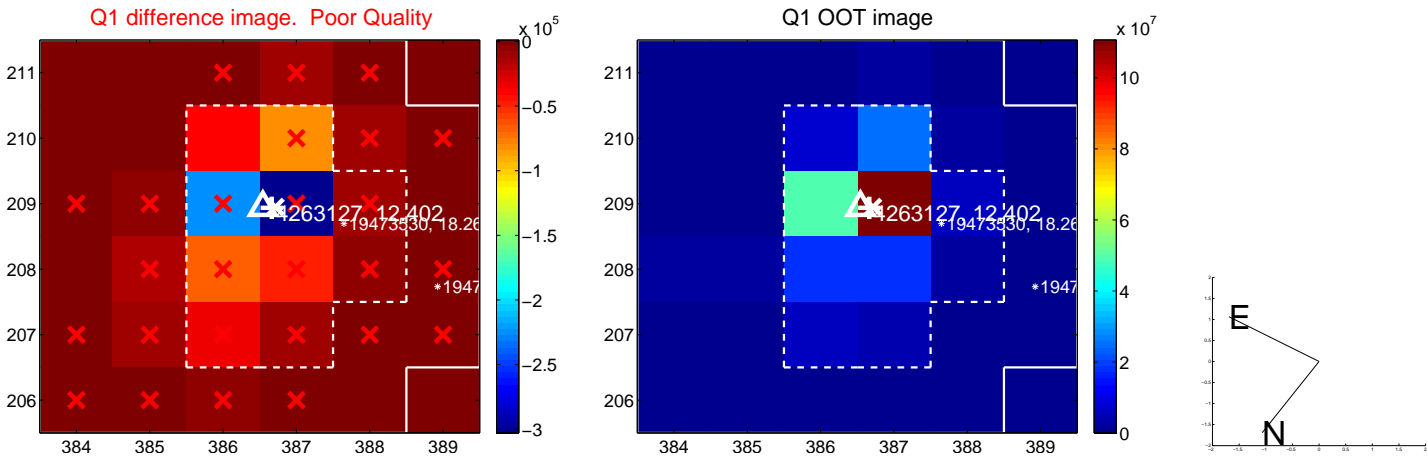
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.115 ± 0.194	0.59	0.013 ± 0.187	0.114 ± 0.204
PRF-fit source offset from KIC position	0.263 ± 0.199	1.32	0.032 ± 0.191	0.261 ± 0.211
photometric centroid source offset	0.19 ± 0.08	2.37	0.02 ± 0.07	0.19 ± 0.08

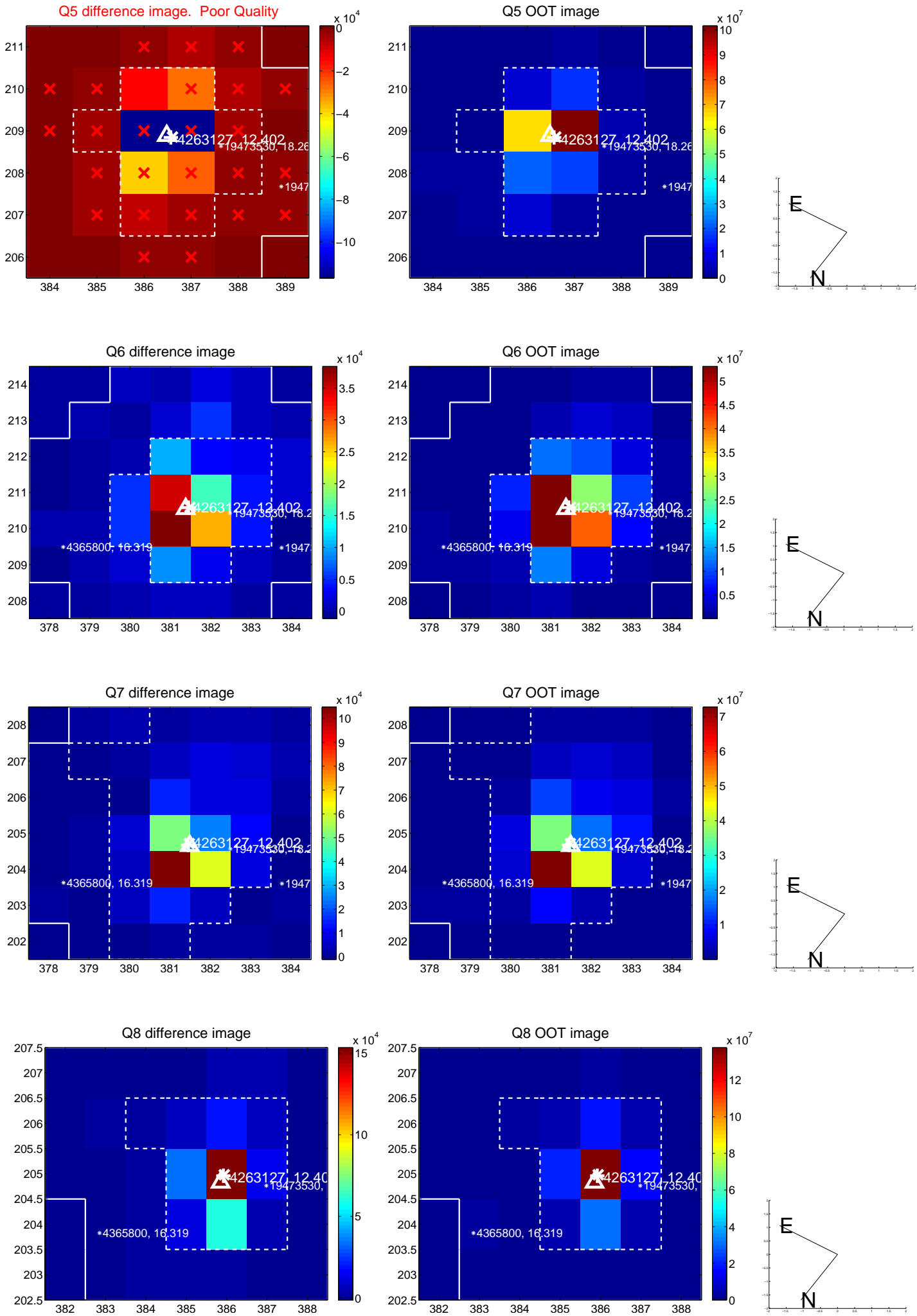


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

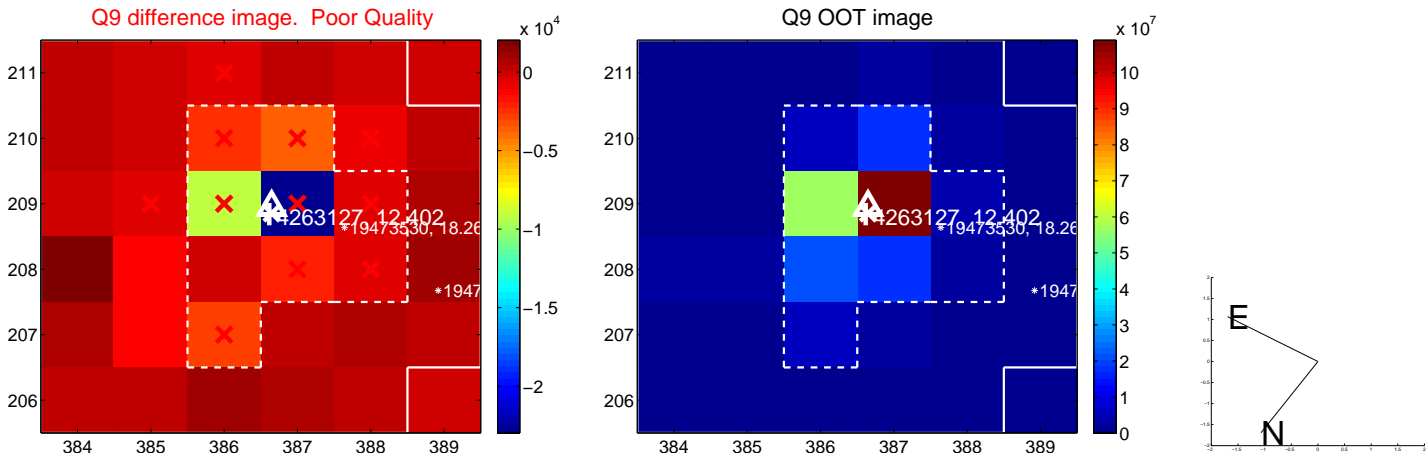
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



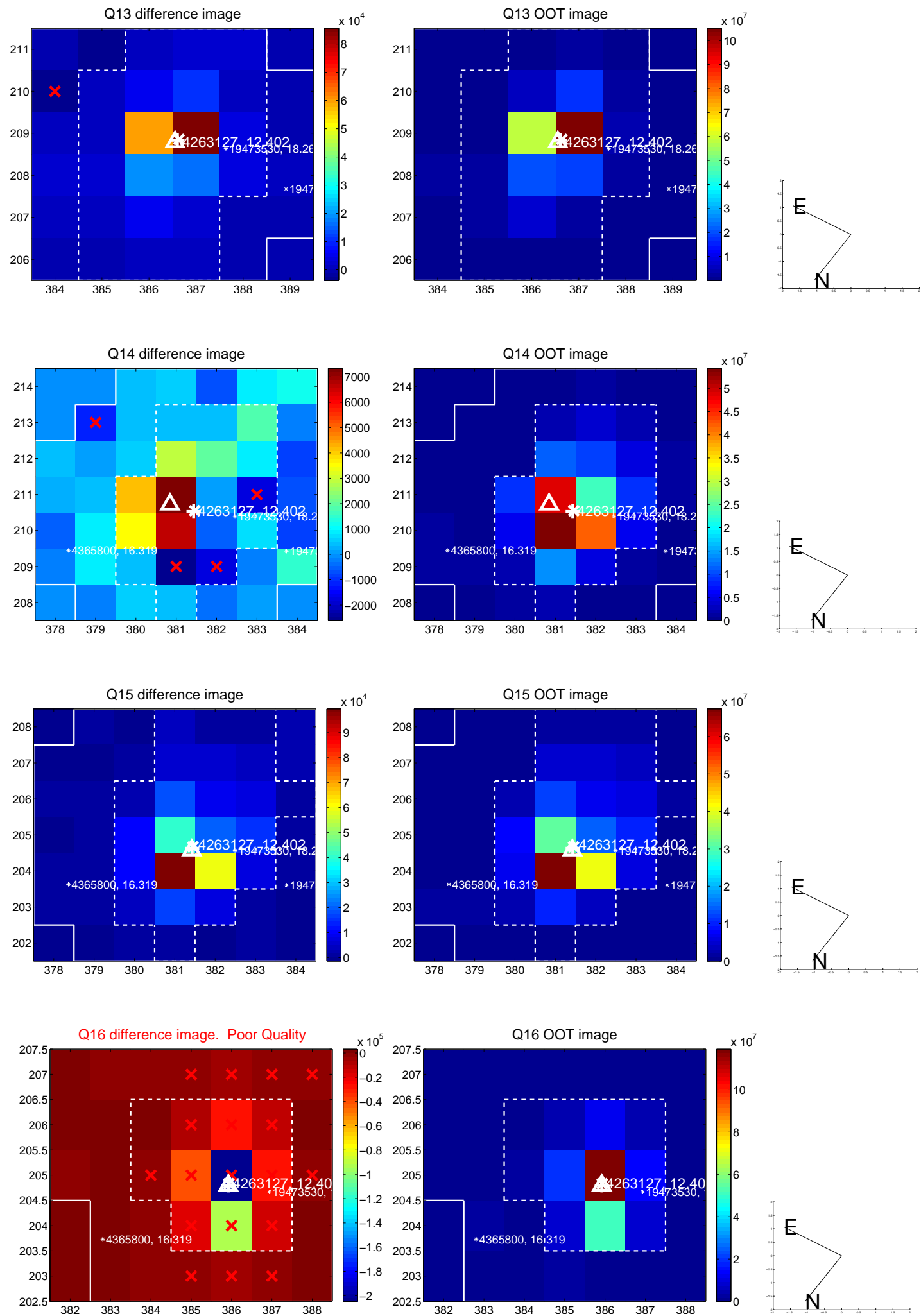
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



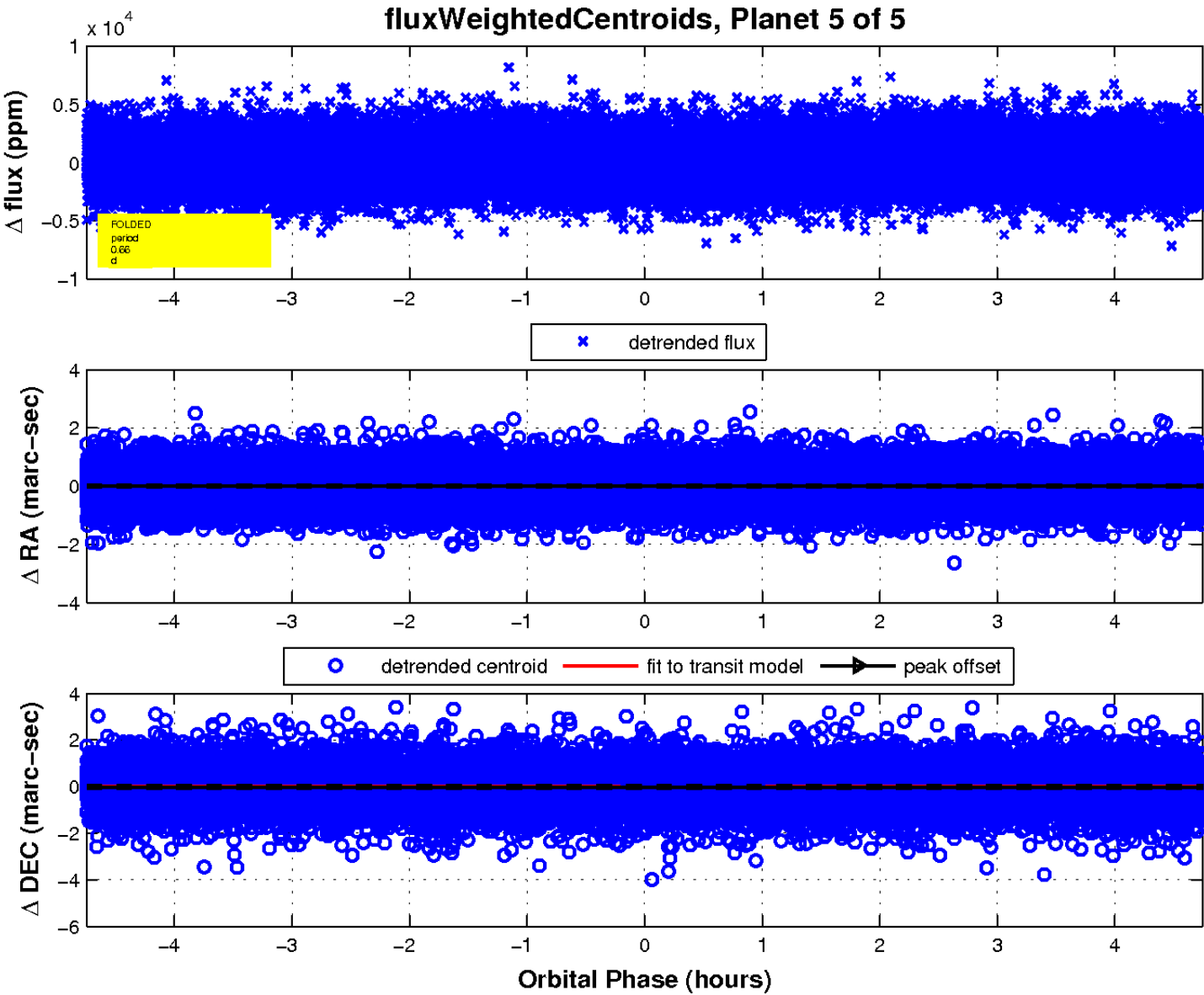
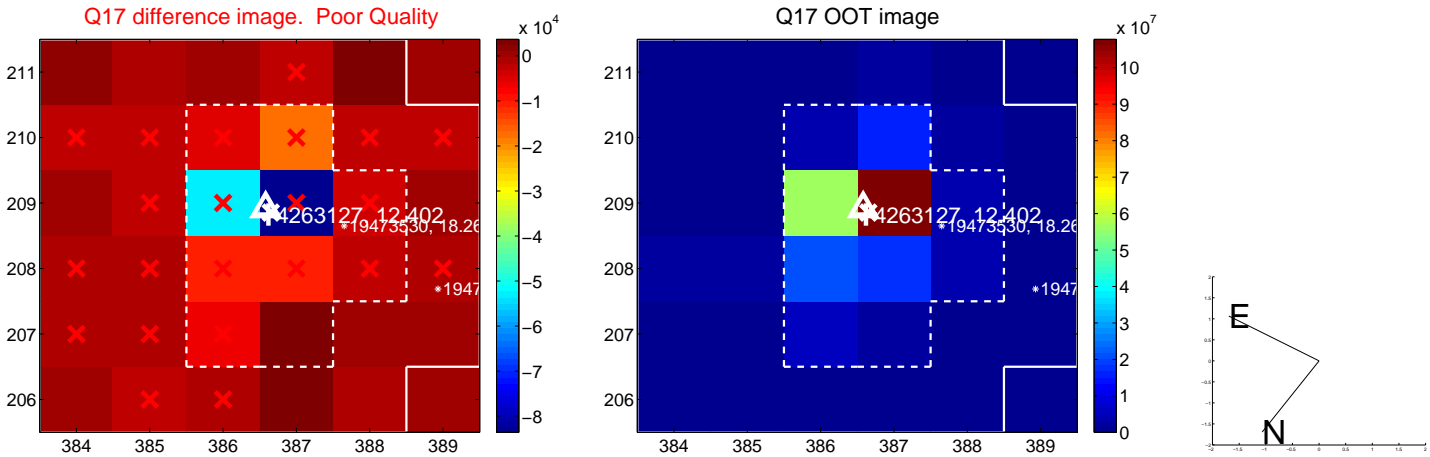
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

