

KIC 003942392

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})
003942392-01	OBS	No	3.562797	132.912165	9.5	1.916	7.3	1.5	11.11	7120	4.05	59356.00
003942392-02	OBS	No	3.562812	132.487186	33.2	15.728	7.4	7.4	11.11	7120	8.25	59355.66
003942392-03	OBS	No	299.188214	259.082874	170.1	10.887	28.0	3.3	11.11	7120	16.27	161.41
003942392-04	OBS	No	495.132227	365.270498	1217.8	6.964	9.0	9.0	11.11	7120	72.42	82.46
003942392-06	OBS	No	384.706766	372.839605	413.3	11.611	8.1	8.0	11.11	7120	28.61	115.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003942392-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
003942392-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
003942392-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

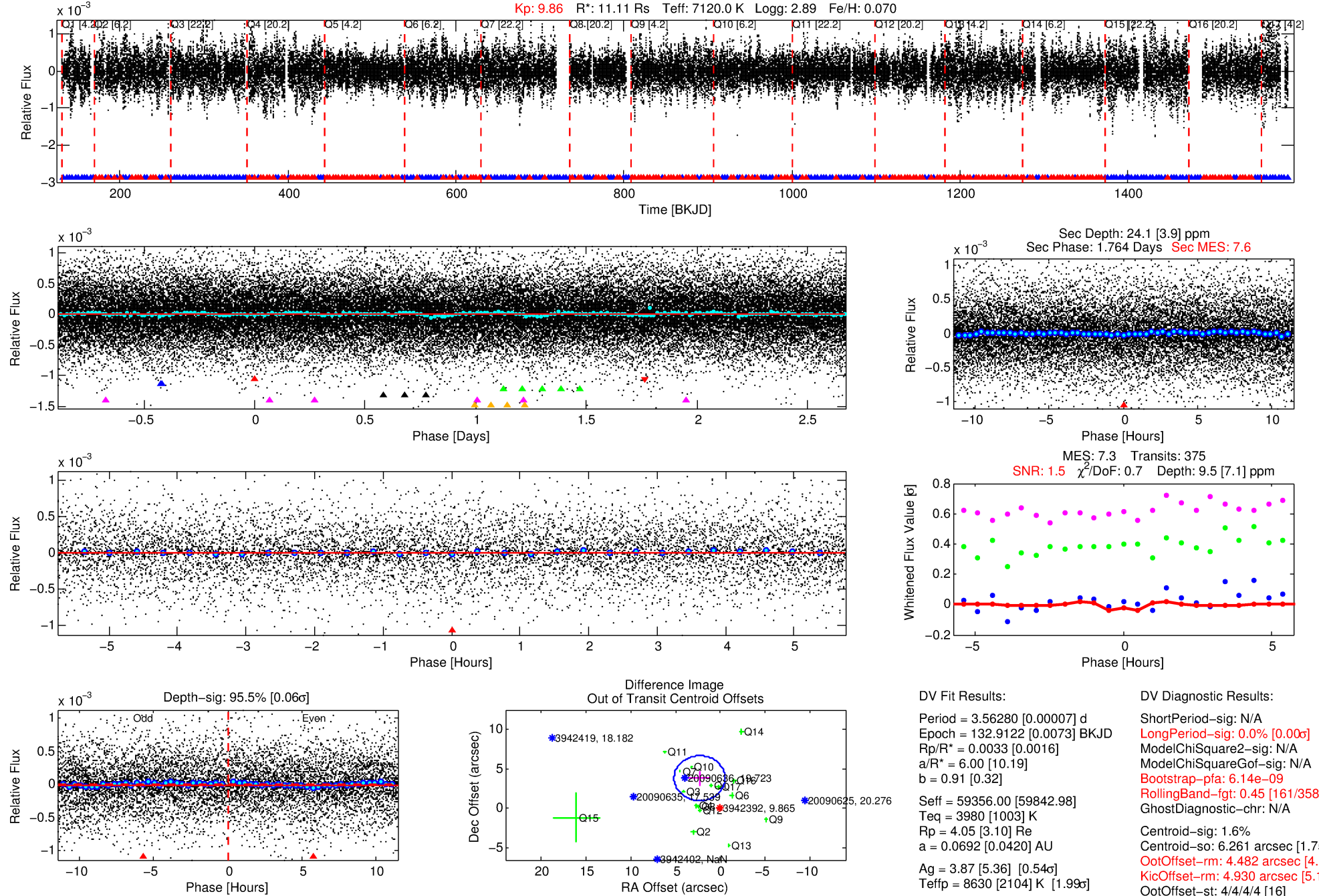
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003942392-01

No Significant Match Found

DV One-Page Summary

KIC: 3942392 Candidate: 1 of 6 Period: 3.563 d



DV Fit Results:

Period = 3.56280 [0.00007] d
Epoch = 132.9122 [0.0073] BKJD
Rp/R* = 0.0033 [0.0016]
a/R* = 6.00 [10.19]
b = 0.91 [0.32]
Seff = 59356.00 [59842.98]
Teff = 3980 [1003] K
Rp = 4.05 [3.10] Re
a = 0.0692 [0.0420] AU
Ag = 3.87 [5.36] [0.54σ]
Teffp = 8630 [2104] K [1.99σ]

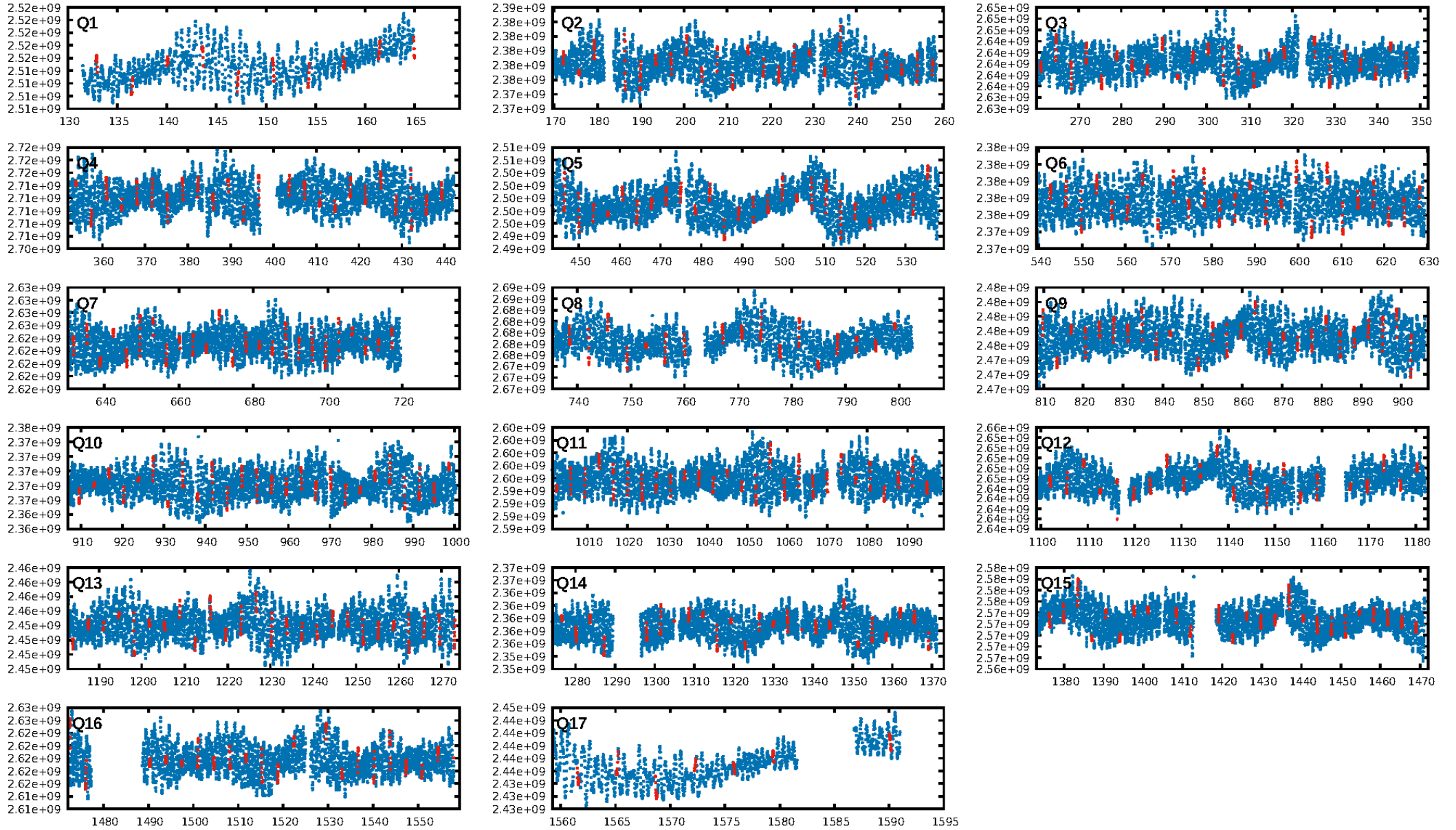
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.14e-09
RollingBand-fgt: 0.45 [161/358]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.6%
Centroid-so: 6.261 arcsec [1.75σ]
OotOffset-rm: 4.482 arcsec [4.72σ]
KicOffset-rm: 4.930 arcsec [5.12σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.06 [1/16]
DiffImageOverlap-fno: 0.00 [0/17]

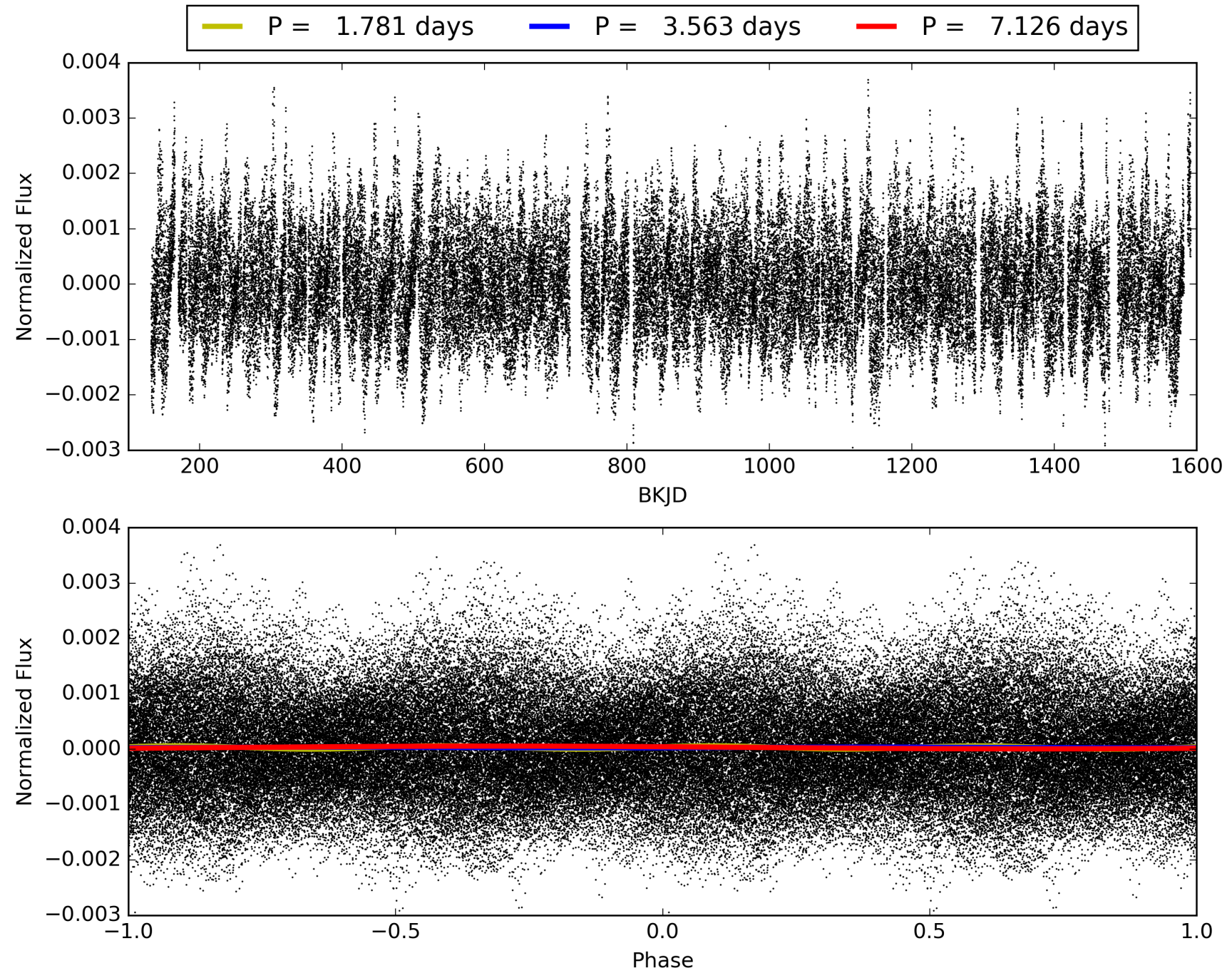
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:41:54 Z

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

TCE 003942392-01, PDC Light Curves

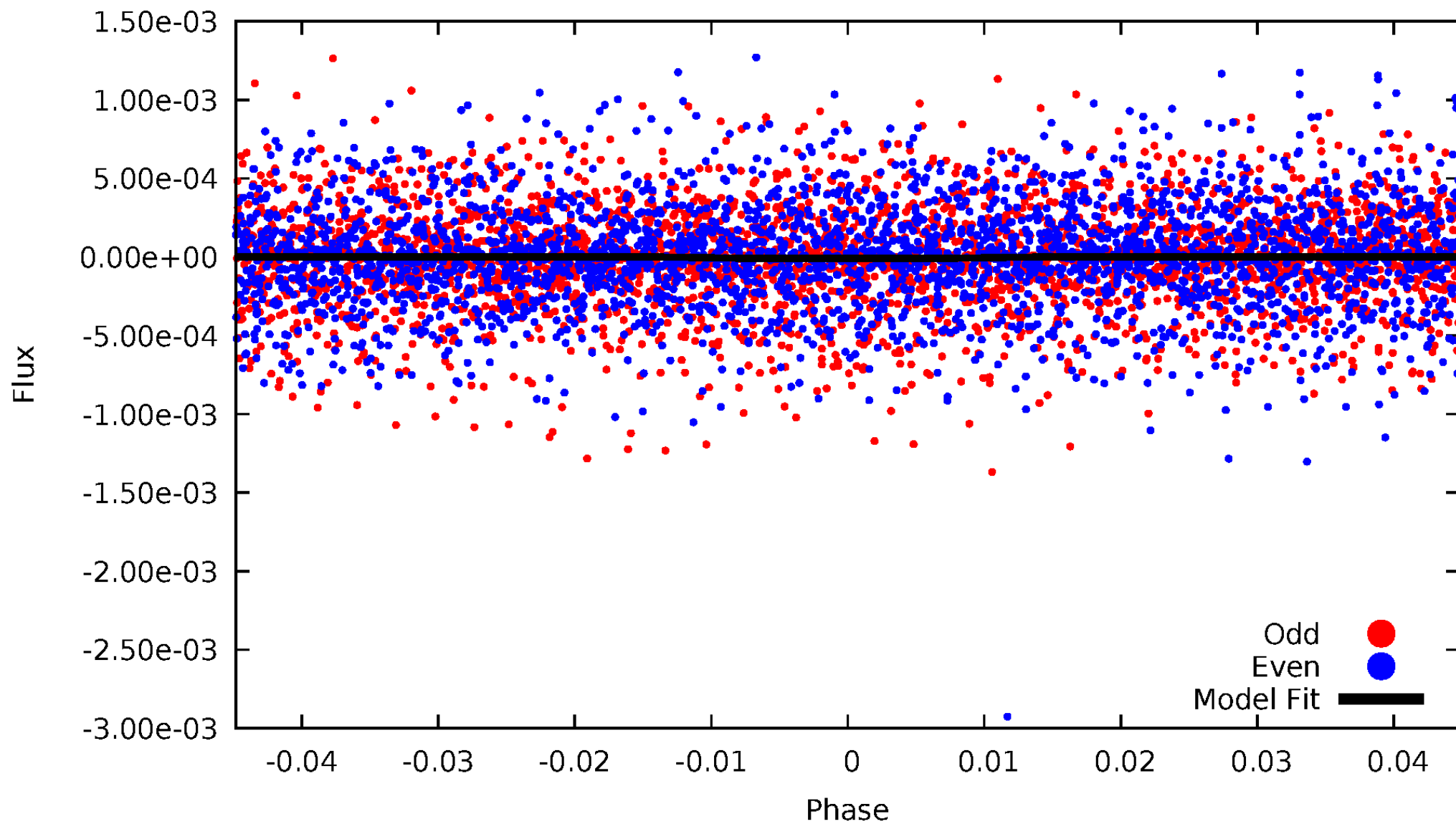


TCE 003942392-01



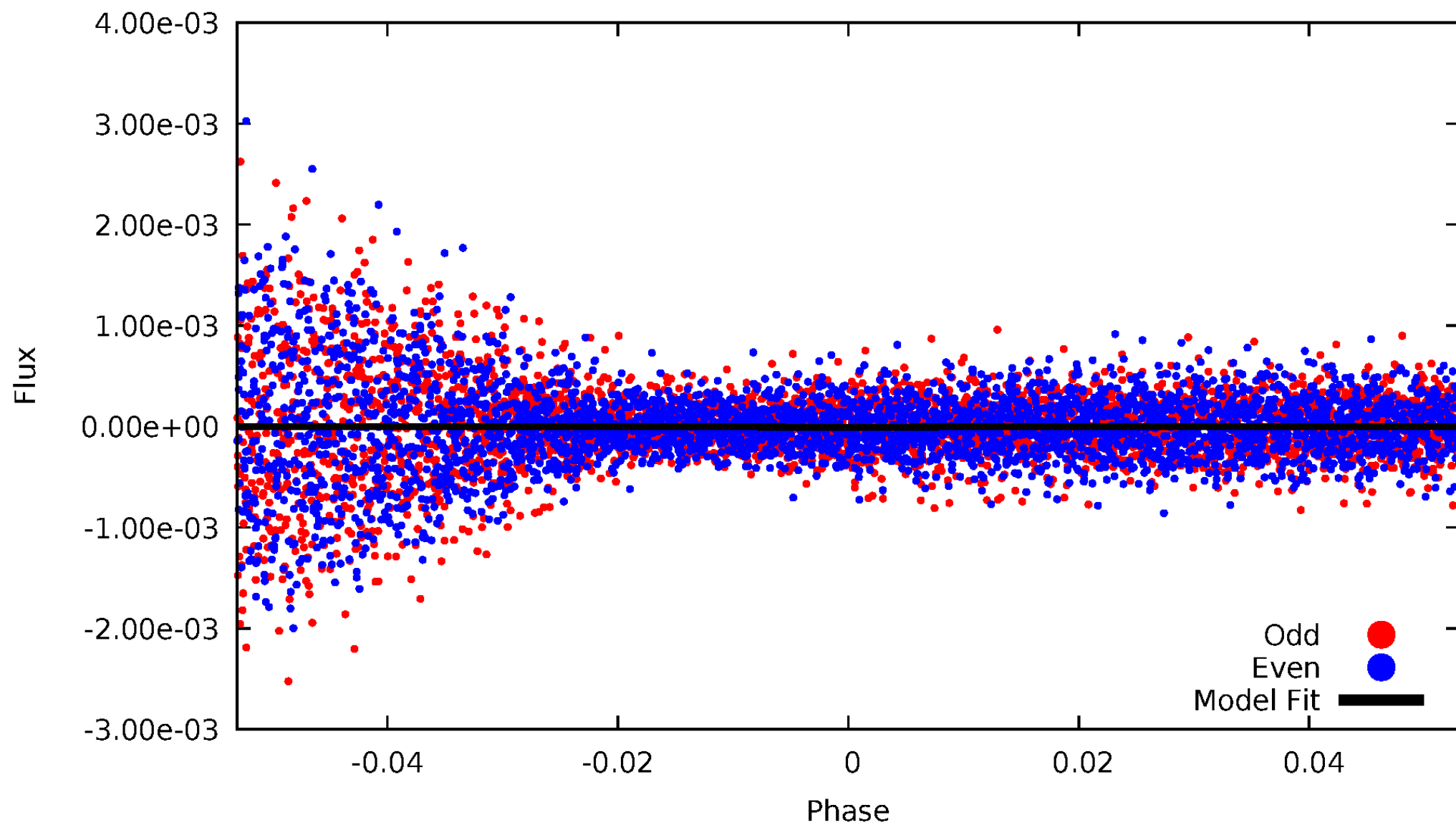
DV Odd/Even

TCE 003942392-01

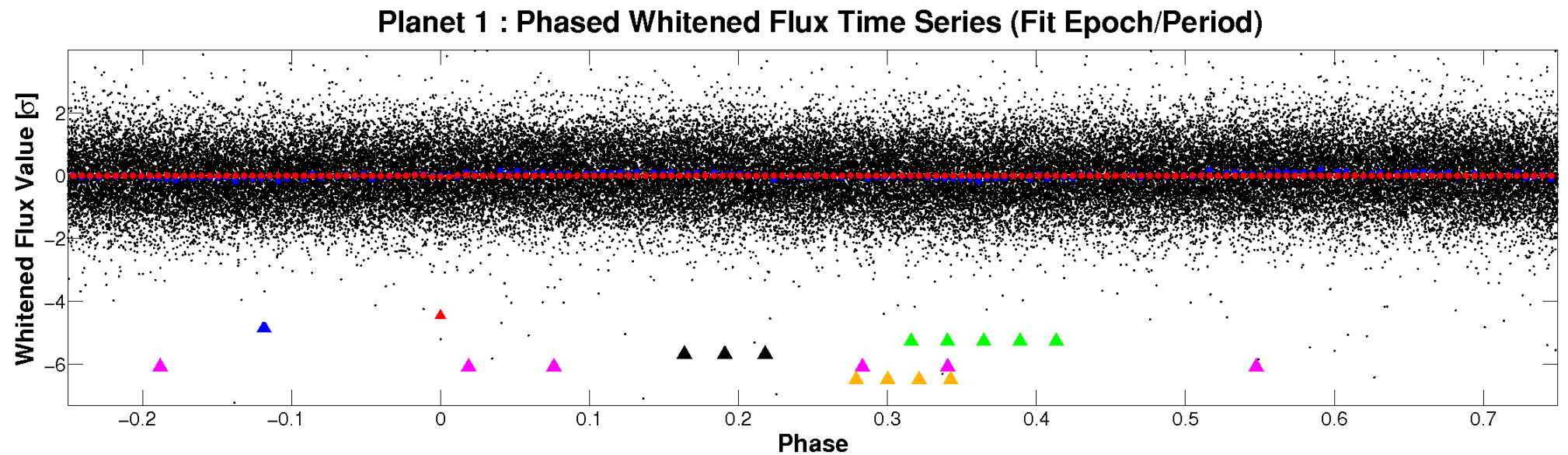
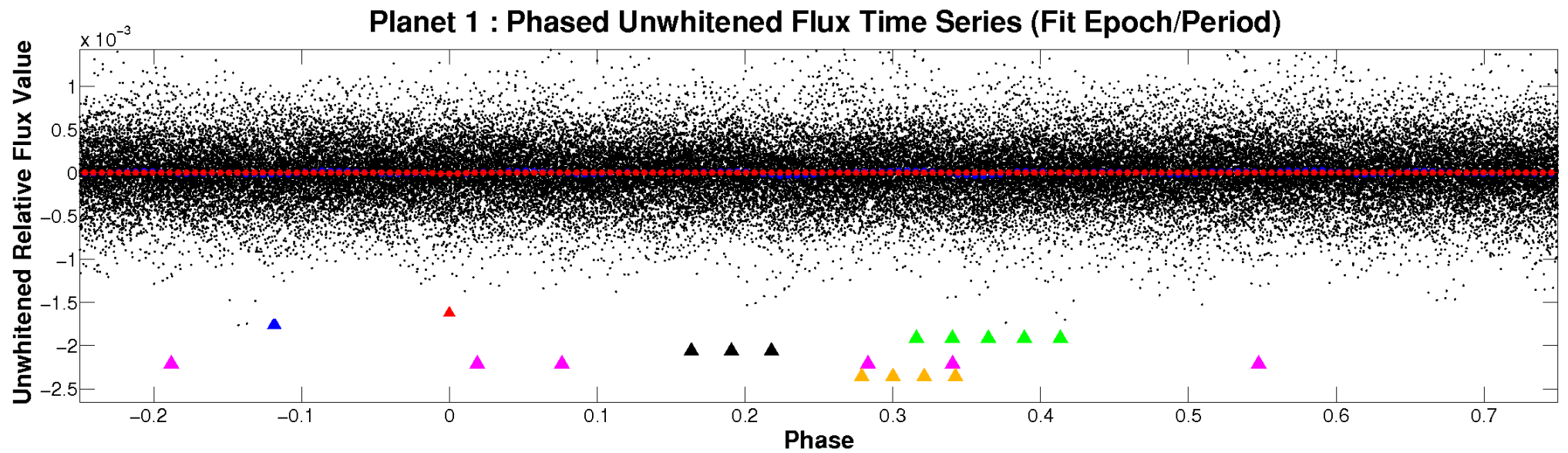


ALT Odd/Even

TCE 003942392-01

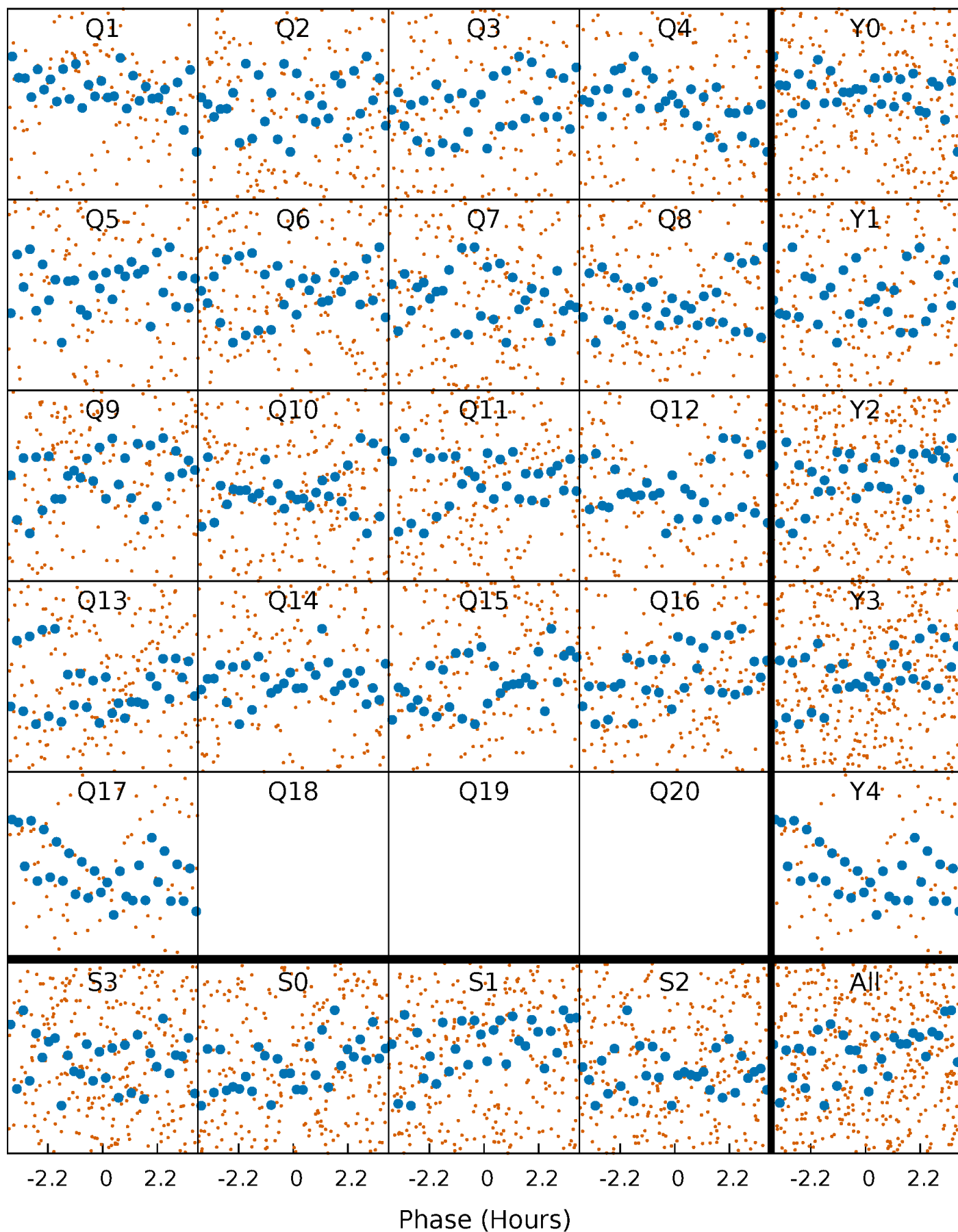


Non-Whitened Vs. Whitened Light Curve



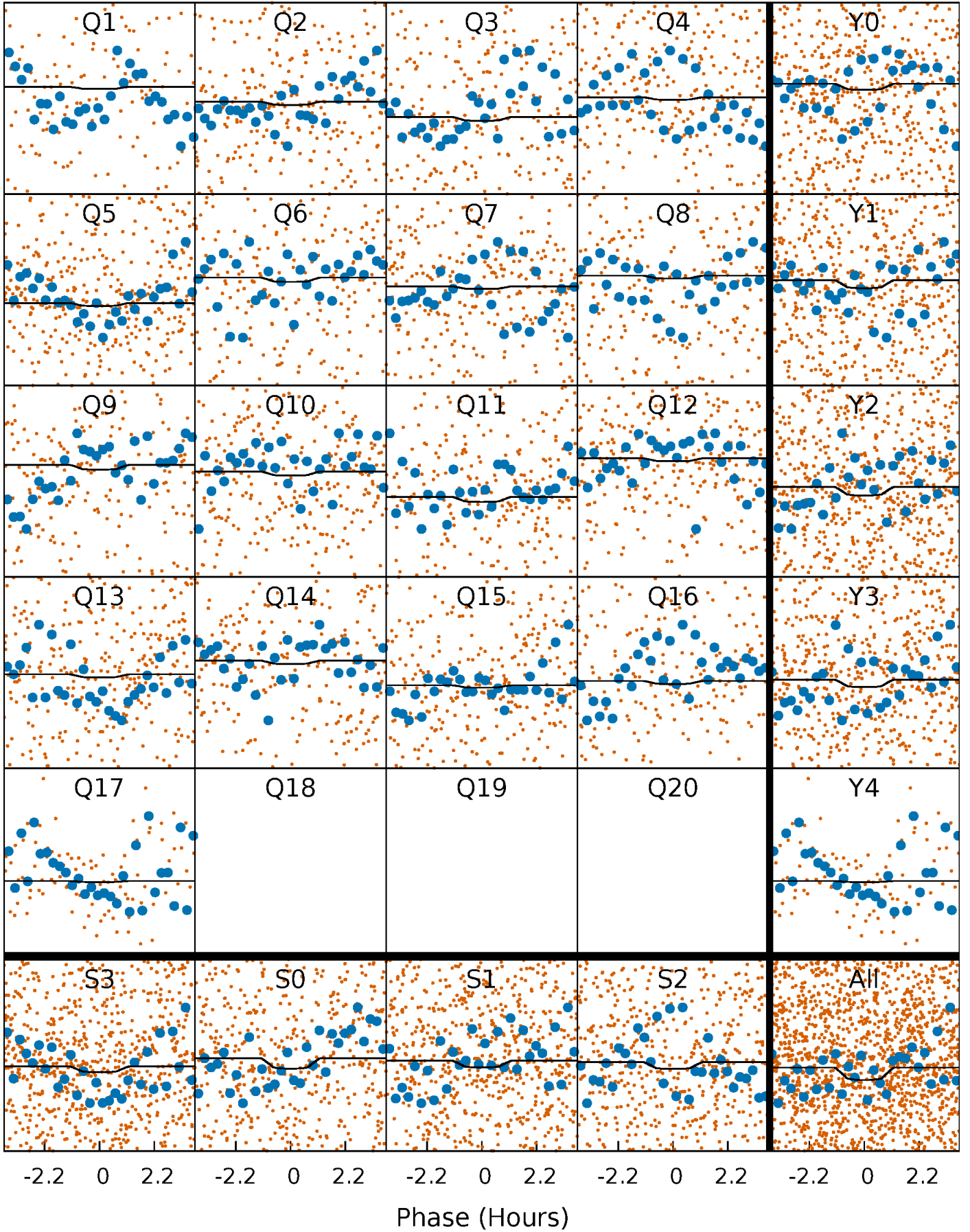
PDC Quarter-Phased Transit Curves

TCE 003942392-01 P= 3.562797 Days $T_0=132.912165$ (BKJD)



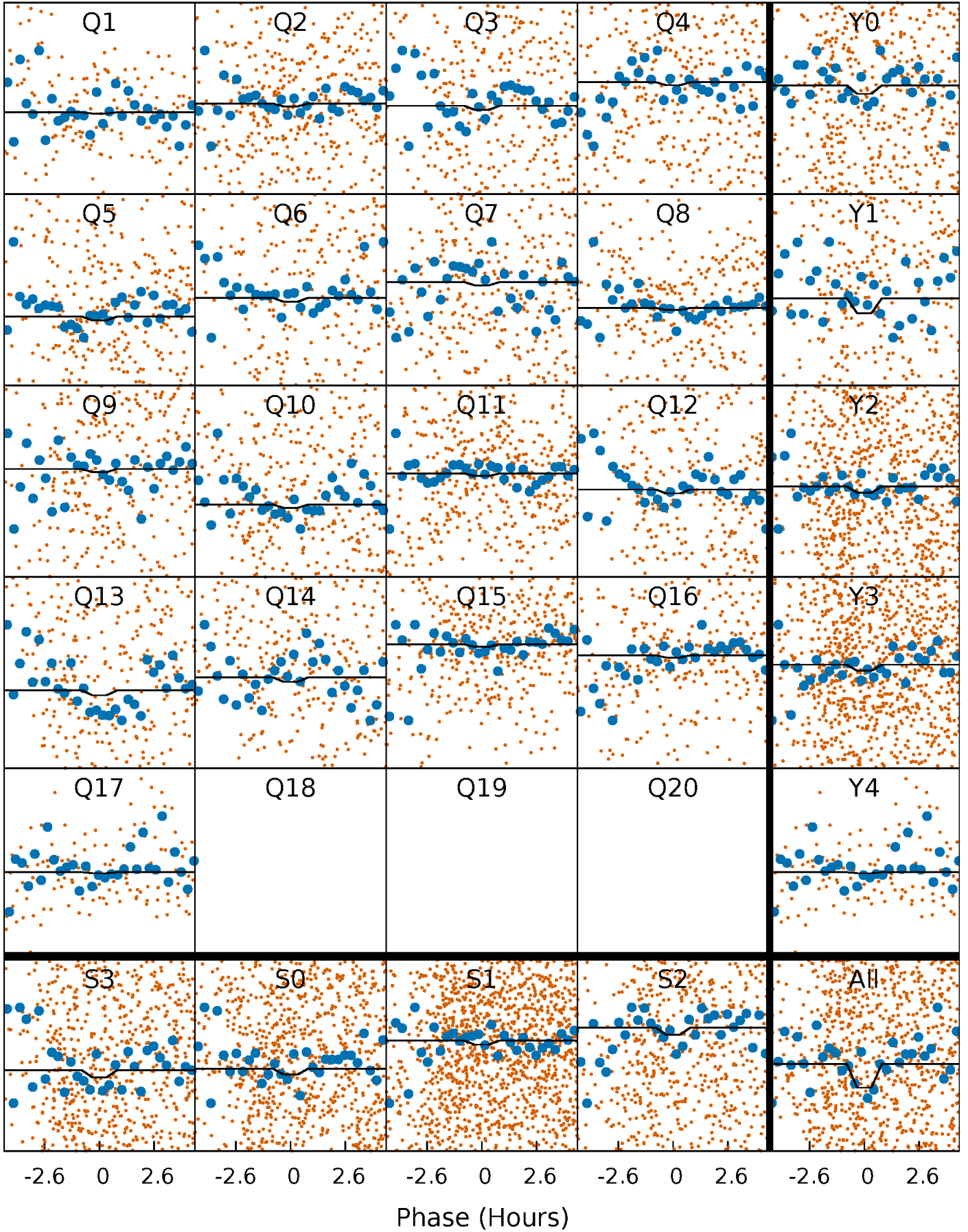
DV Quarter-Phased Transit Curves

TCE 003942392-01 P= 3.562797 Days $T_0=132.912165$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

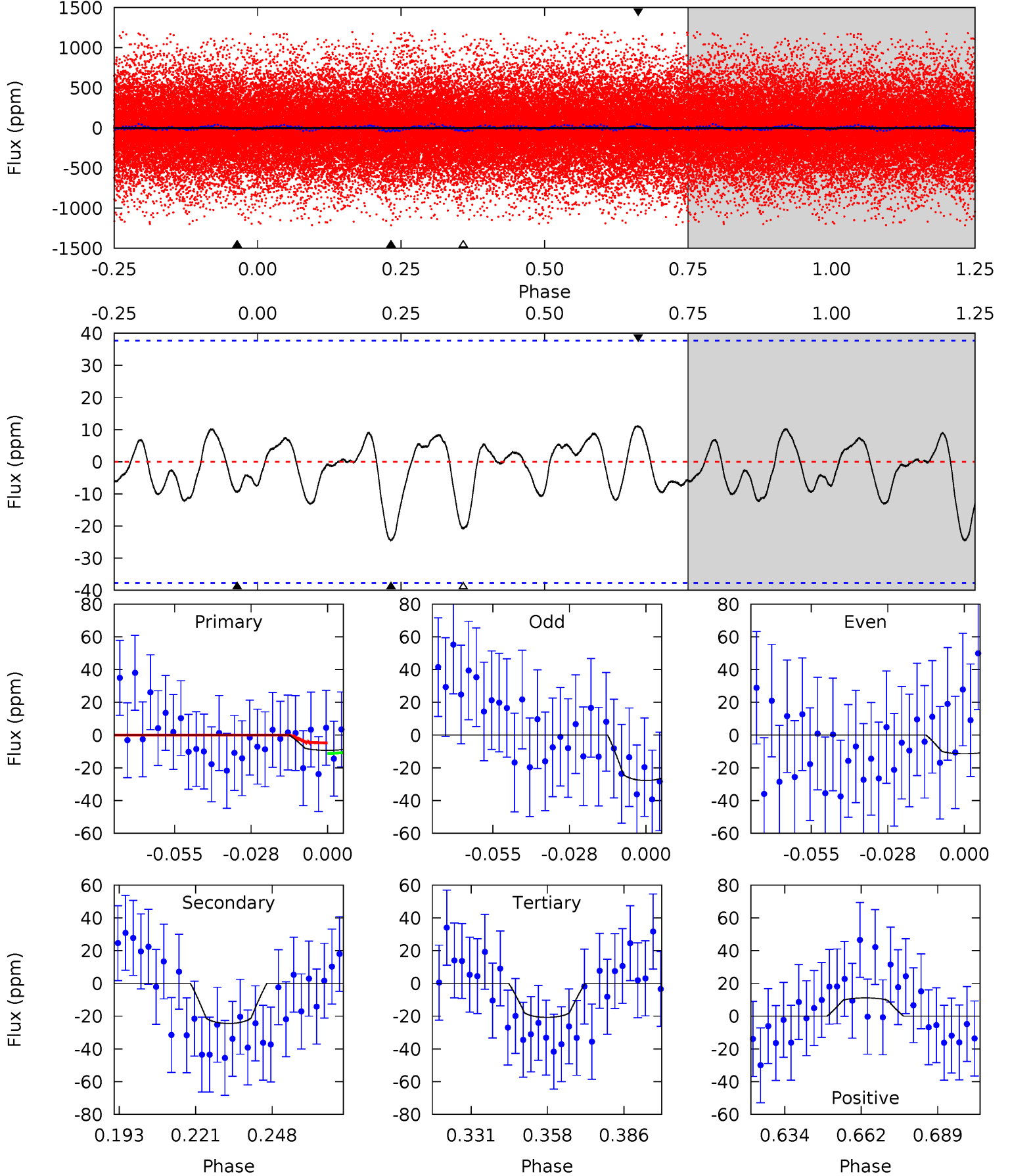
TCE 003942392-01 P= 3.562837 Days $T_0=132.911330$ (BKJD)



DV Model-Shift Uniqueness Test

003942392-01, P = 3.562797 Days, E = 129.349368 Days

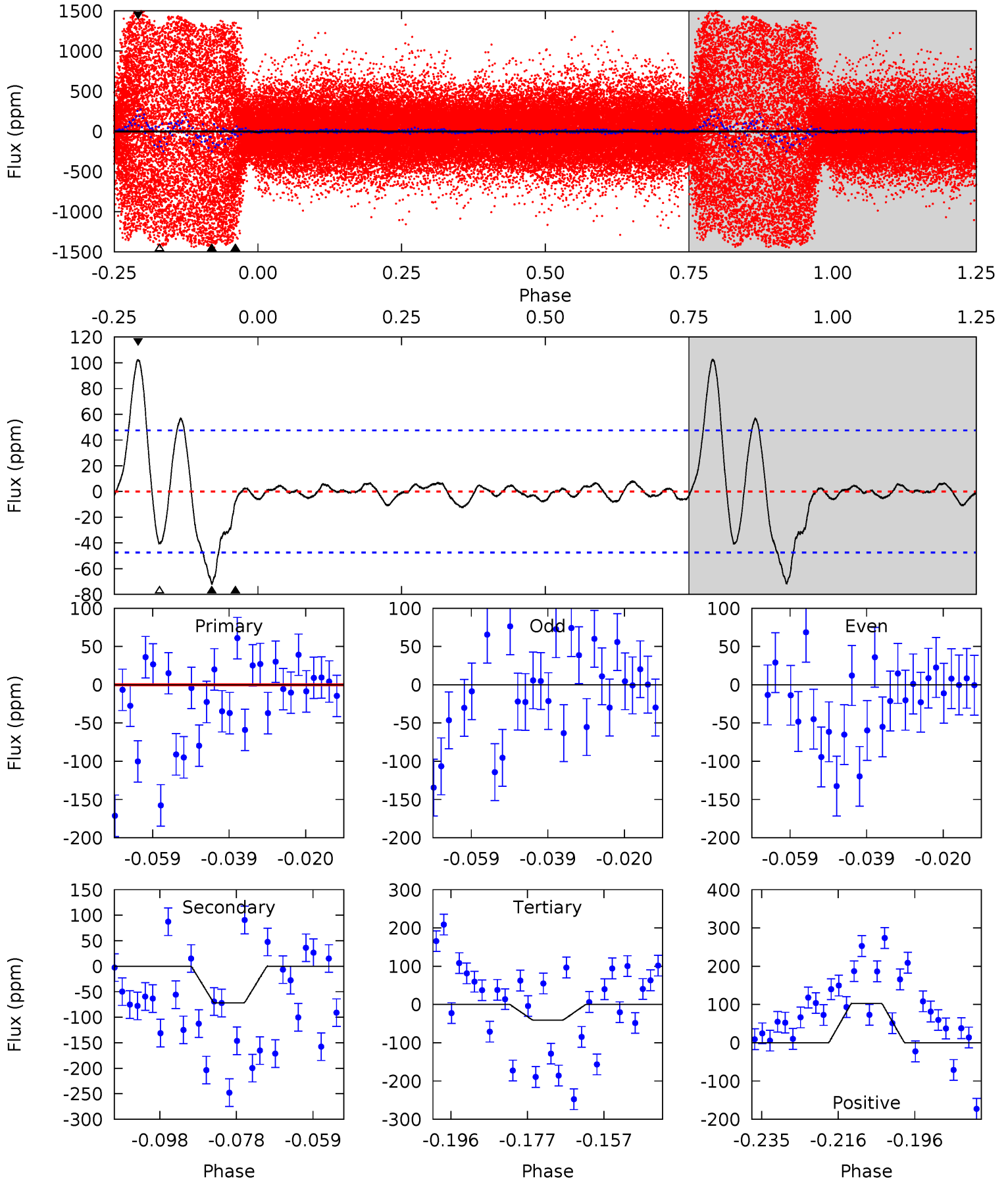
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.19	3.13	2.65	1.42	4.83	2.20	0.88	-1.46	-0.23	0.48	1.71	1.05	252.9	0.31	0.41



Alt Model-Shift Uniqueness Test

003942392-01, P = 3.562837 Days, E = 129.348493 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.81	7.40	4.18	10.6	4.90	2.33	1.71	-3.37	-9.76	3.21	-3.18	0.79	1.03	0.59	0.43



Stellar Parameters For KIC 003942392

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7120^{+128}_{-277}	$2.888^{+0.594}_{-0.033}$	$0.070^{+0.250}_{-0.500}$	$11.106^{+0.742}_{-6.681}$	$3.479^{+0.070}_{-1.383}$	$0.004^{+0.035}_{-0.000}$
	+2%/-4%	+21%/-1%	+357%/-714%	+7%/-60%	+2%/-40%	+974%/-12%
Source	PHO1	FLK73	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 003942392-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 8	$3.21^{+1.96}_{-1.56}$	5227^{+383}_{-774}	8857^{+6448}_{-2292}	$5.639^{+16.446}_{-3.479}$
Alt.	-72 ± 10	$3.31^{+1.97}_{-1.60}$	5264^{+382}_{-795}	13614^{+12144}_{-3743}	17^{+40}_{-10}

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

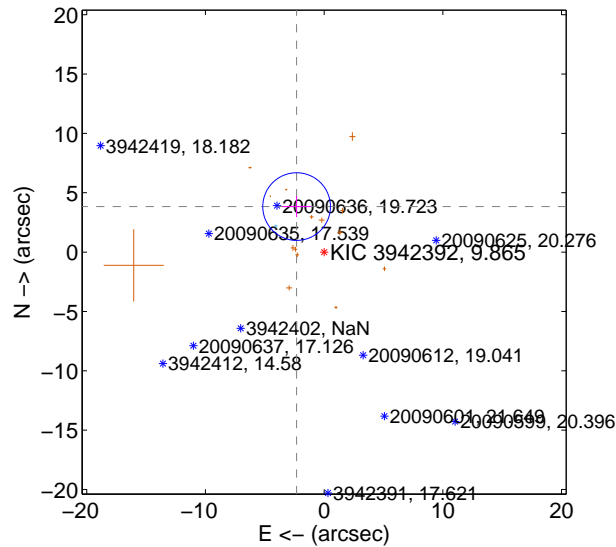
Supplemental centroid analysis for 003942392-01. **Kepler magnitude: 9.87.** Transit SNR 1.51

There are 1 quarters with good PRF difference image offsets

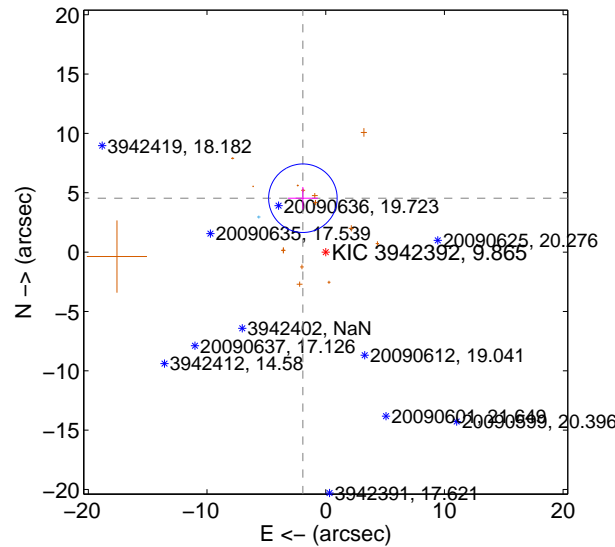
The OOT PRF centroid is offset from the target star catalog position by about 2.19 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.482 ± 0.950	4.72	2.319 ± 1.196	3.835 ± 0.880
PRF-fit source offset from KIC position	4.930 ± 0.962	5.12	1.922 ± 1.261	4.539 ± 0.943
photometric centroid source offset	6.26 ± 3.58	1.75	-6.26 ± 3.58	-0.24 ± 3.25

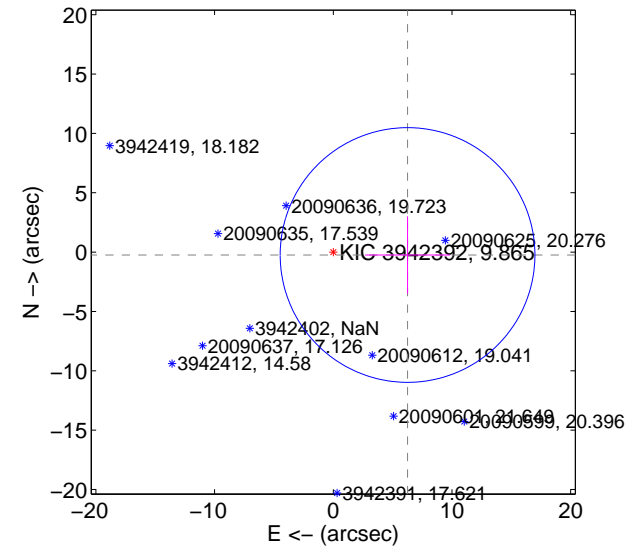
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

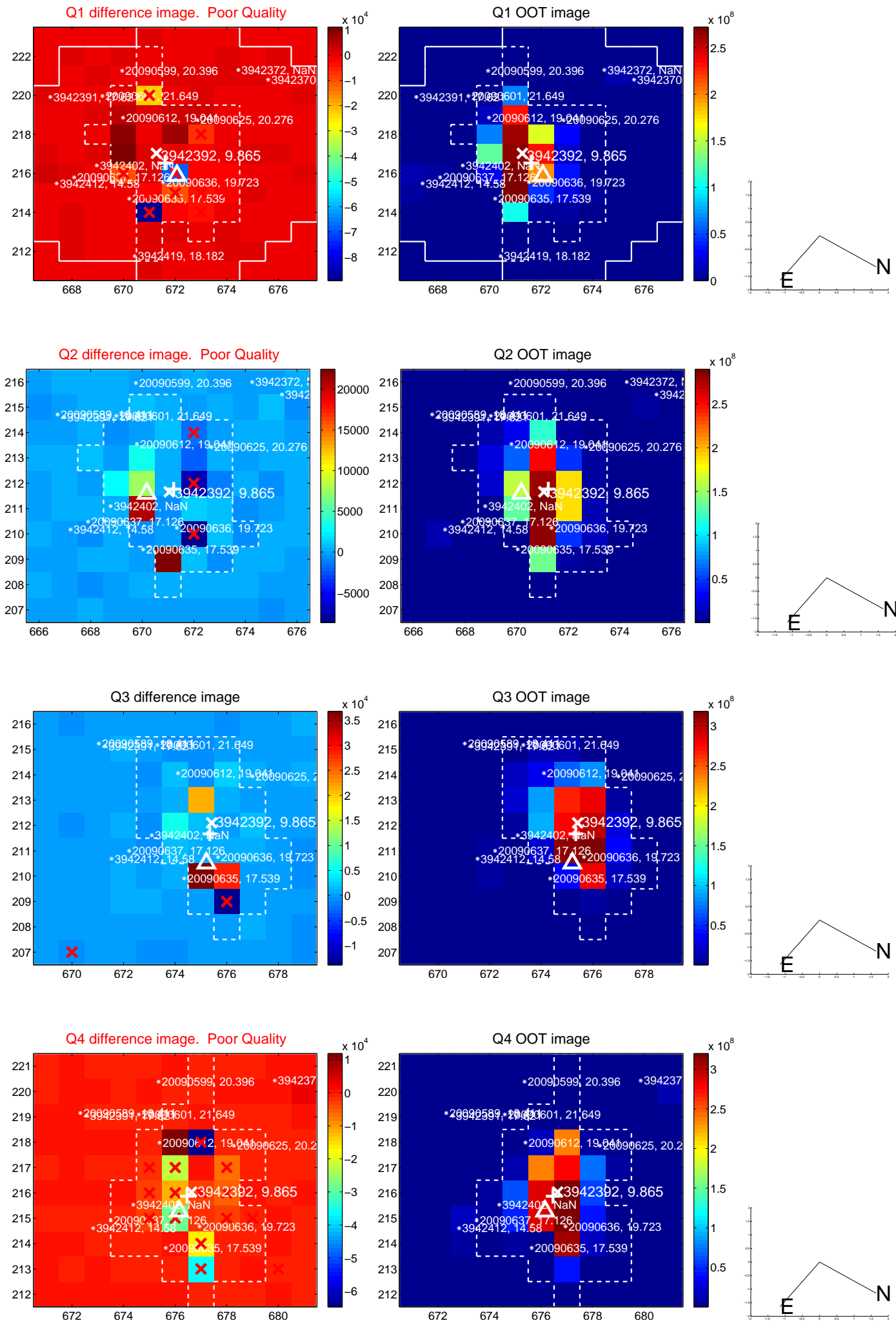


offset from photometric centroids

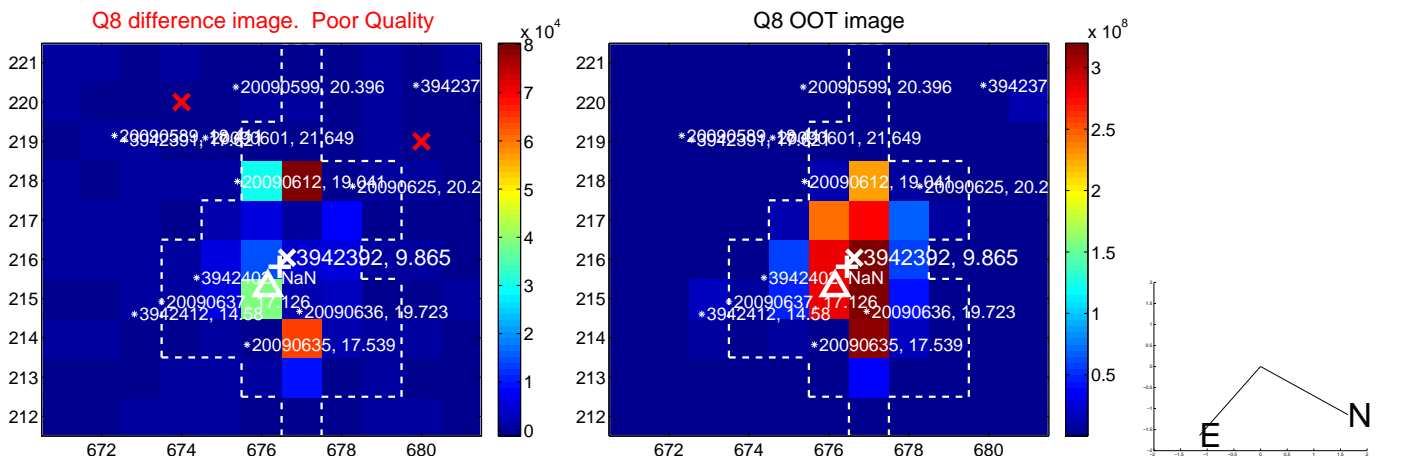
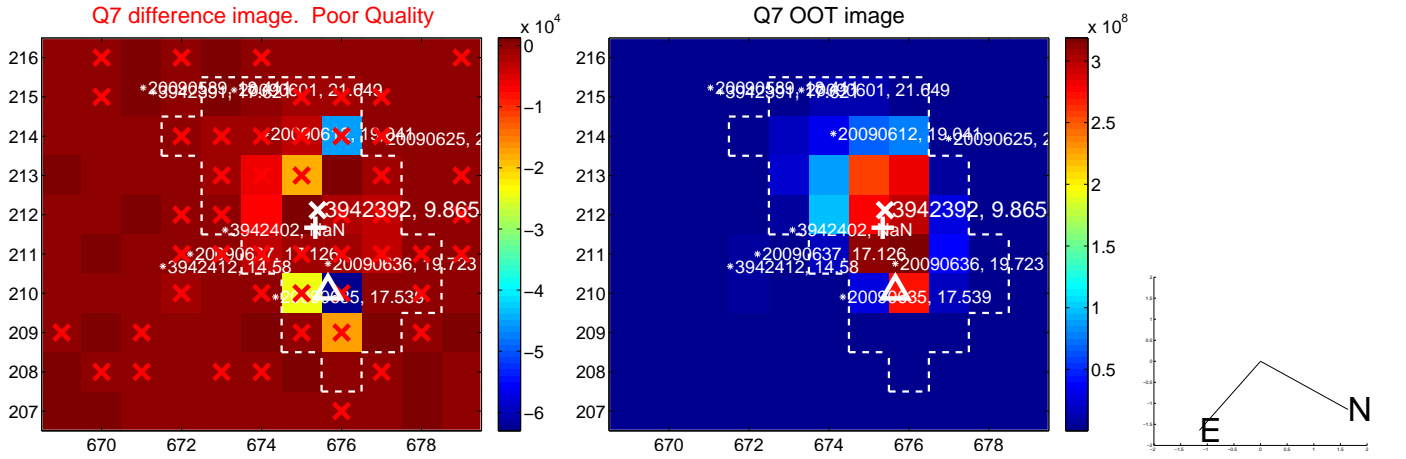
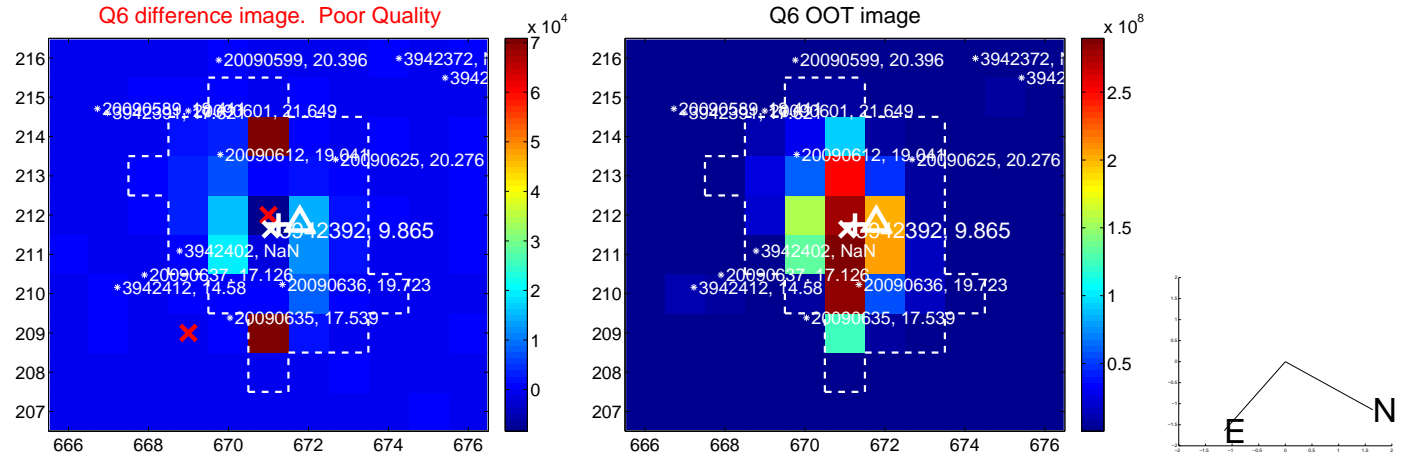
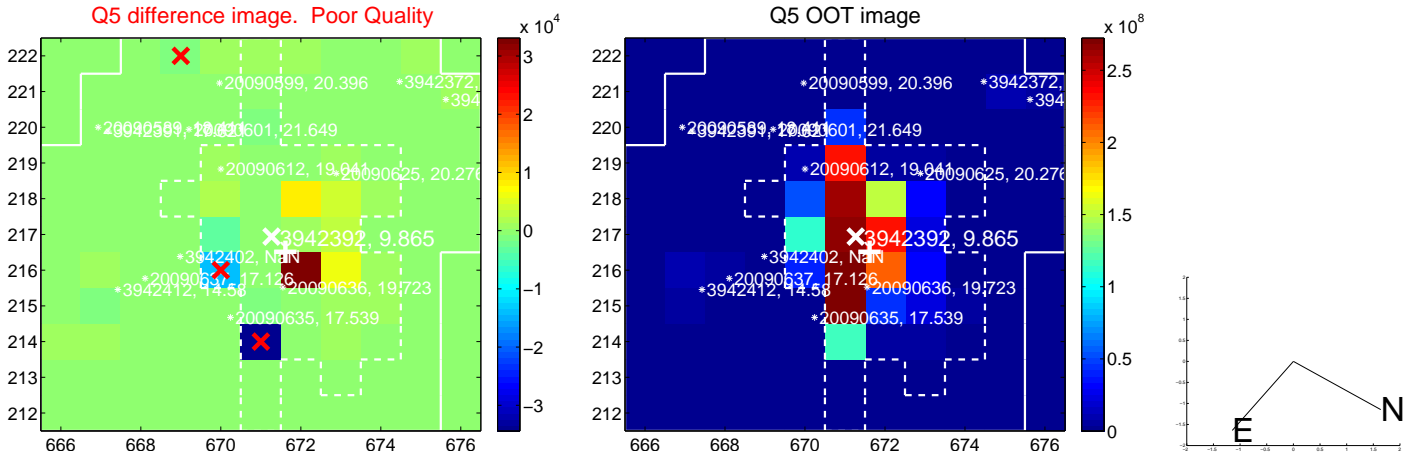


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

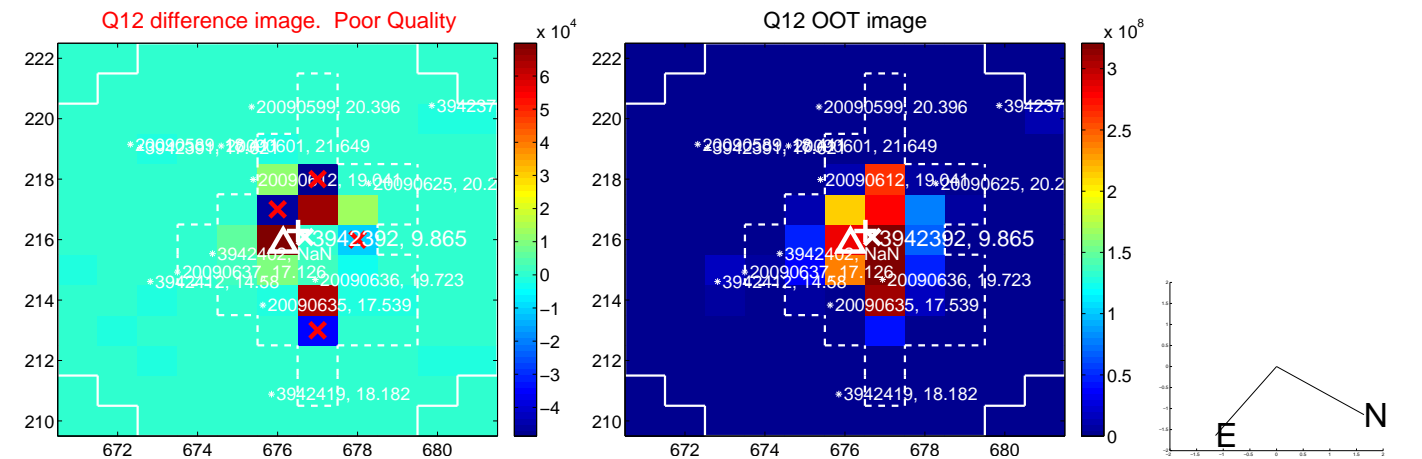
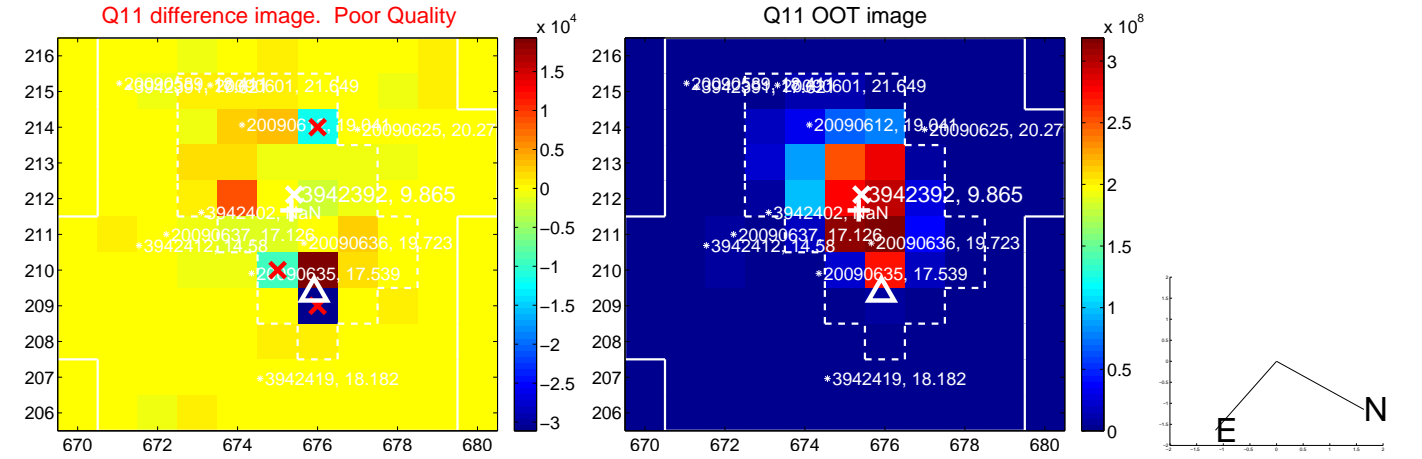
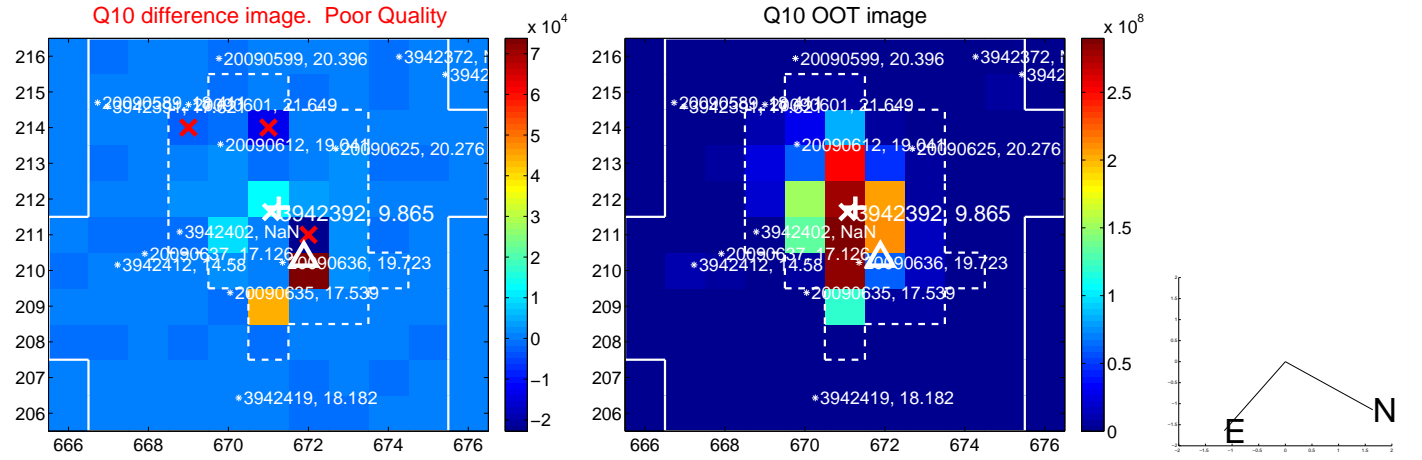
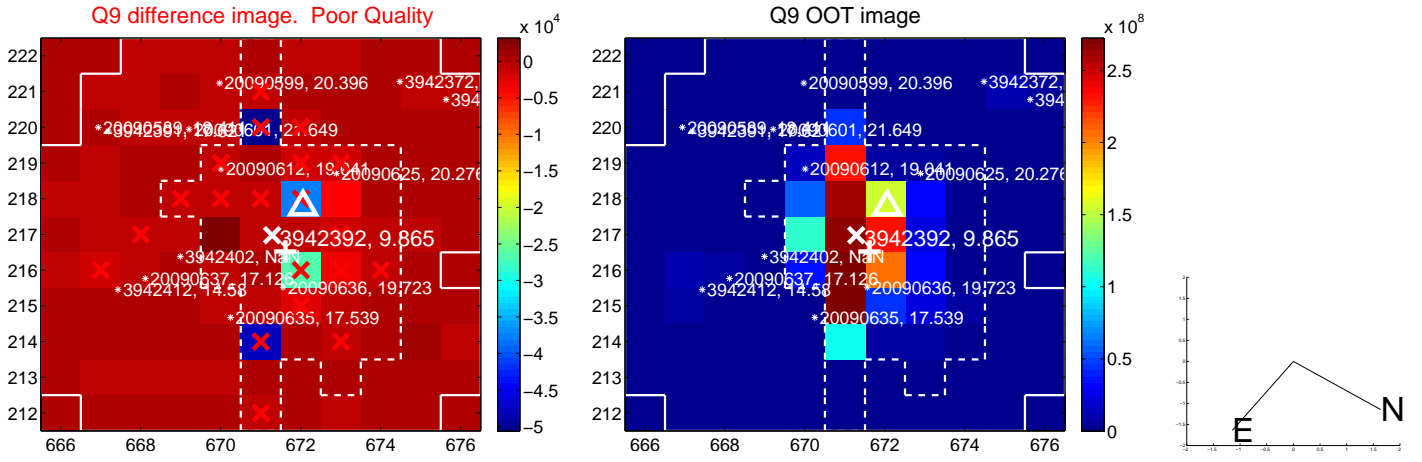
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



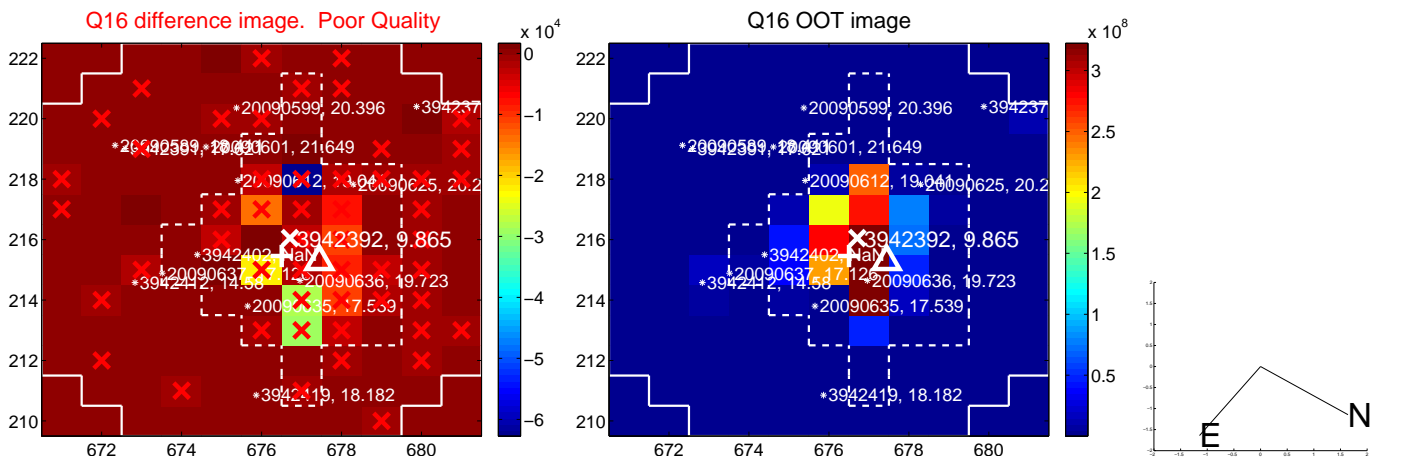
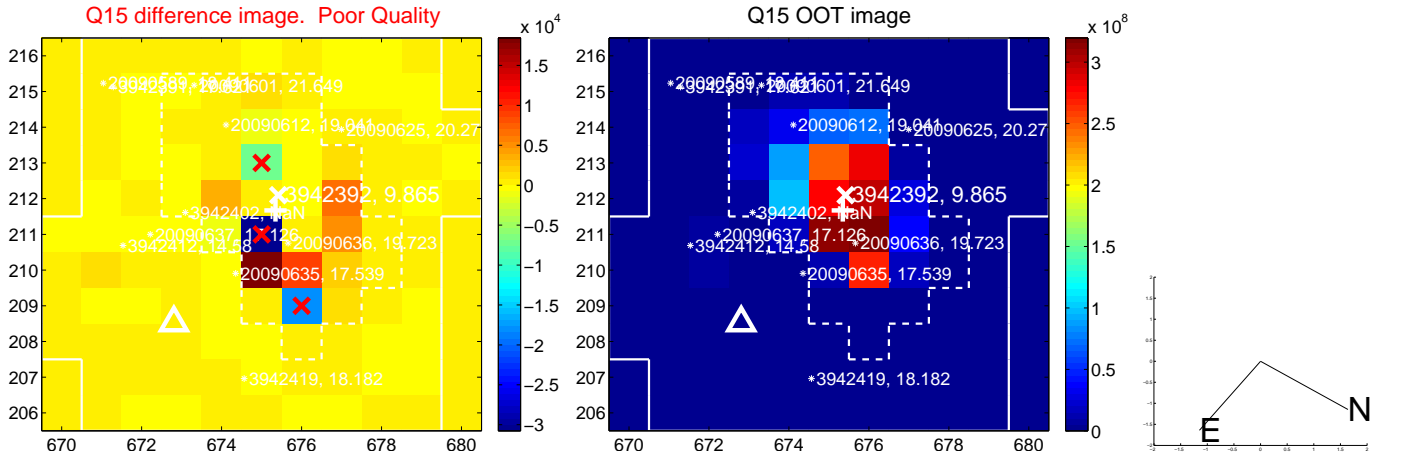
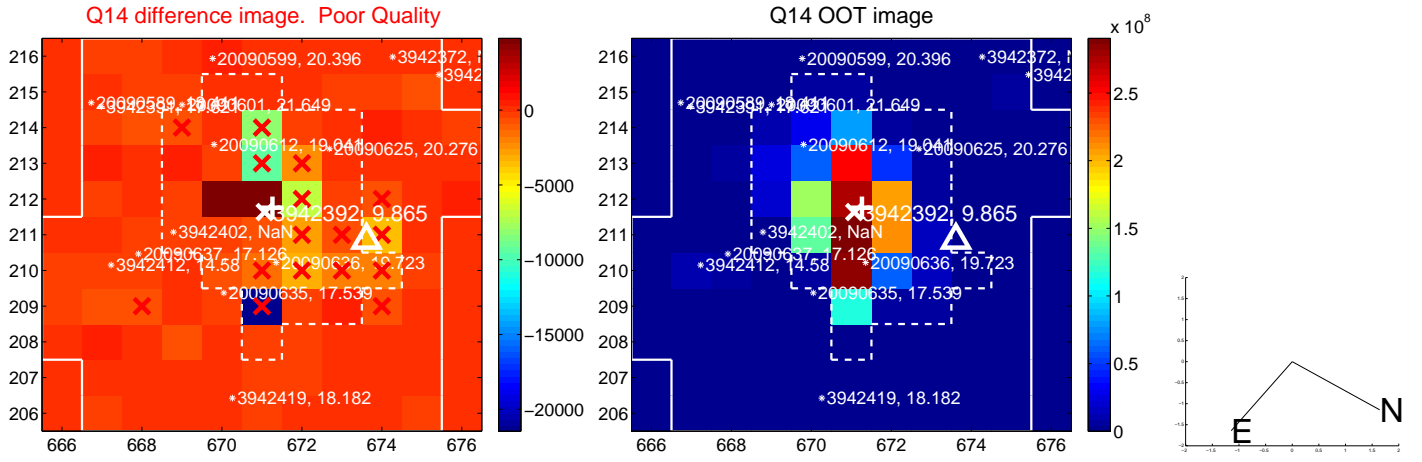
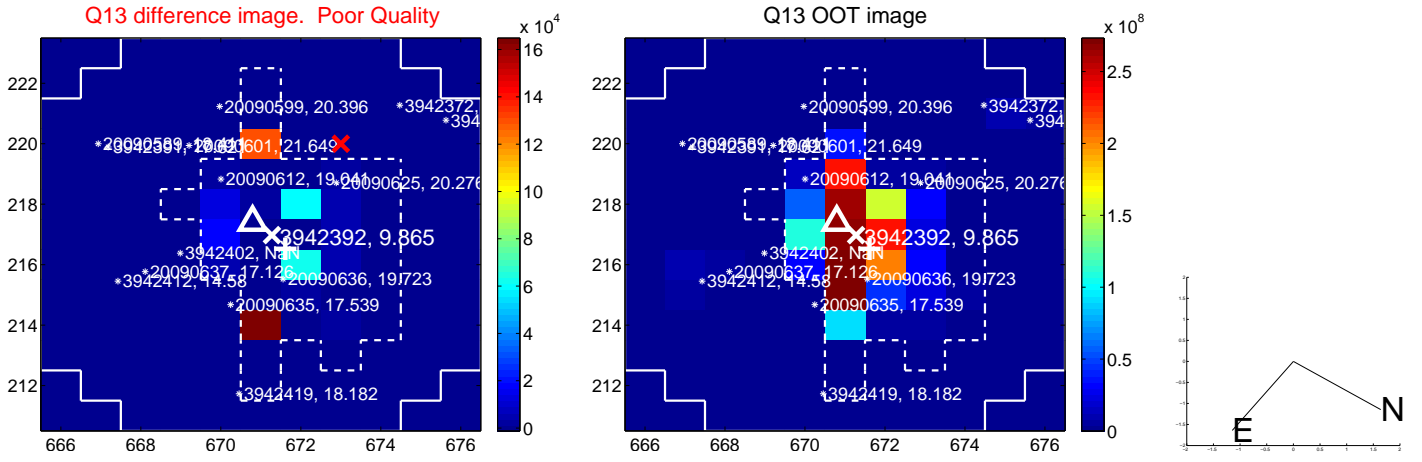
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



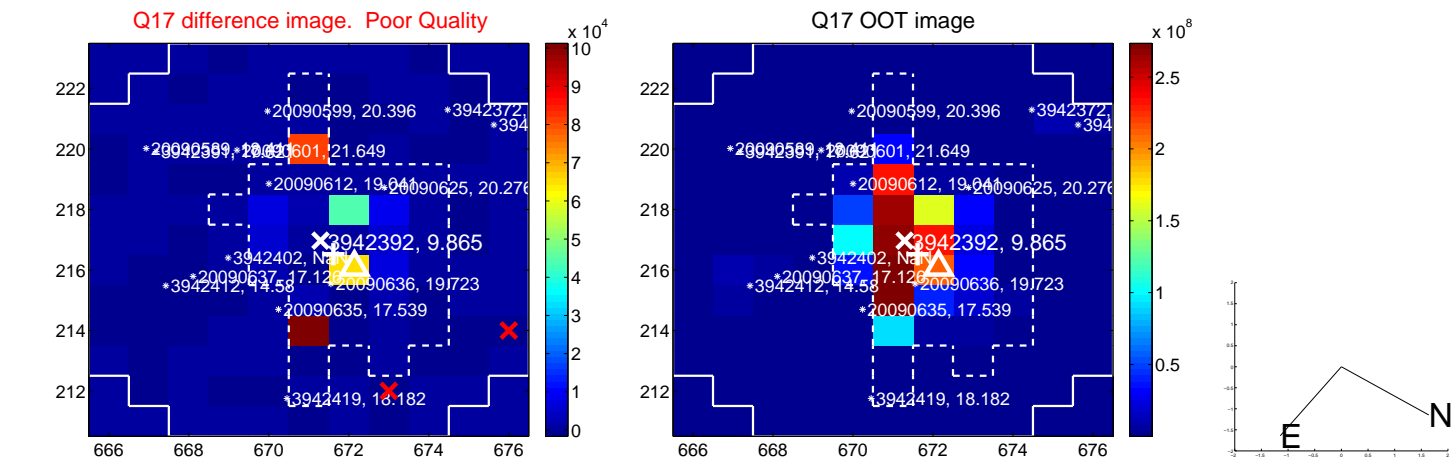
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



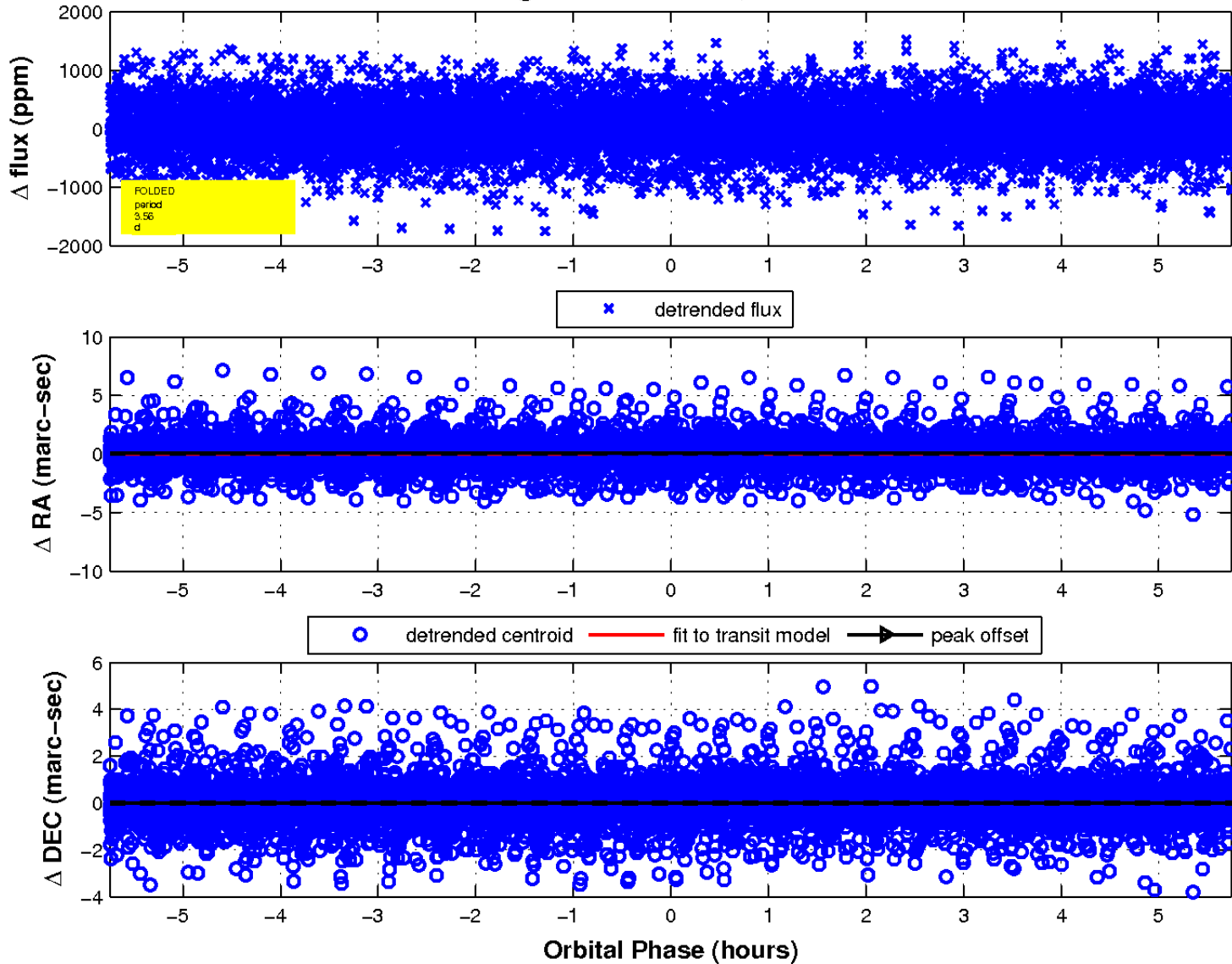
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



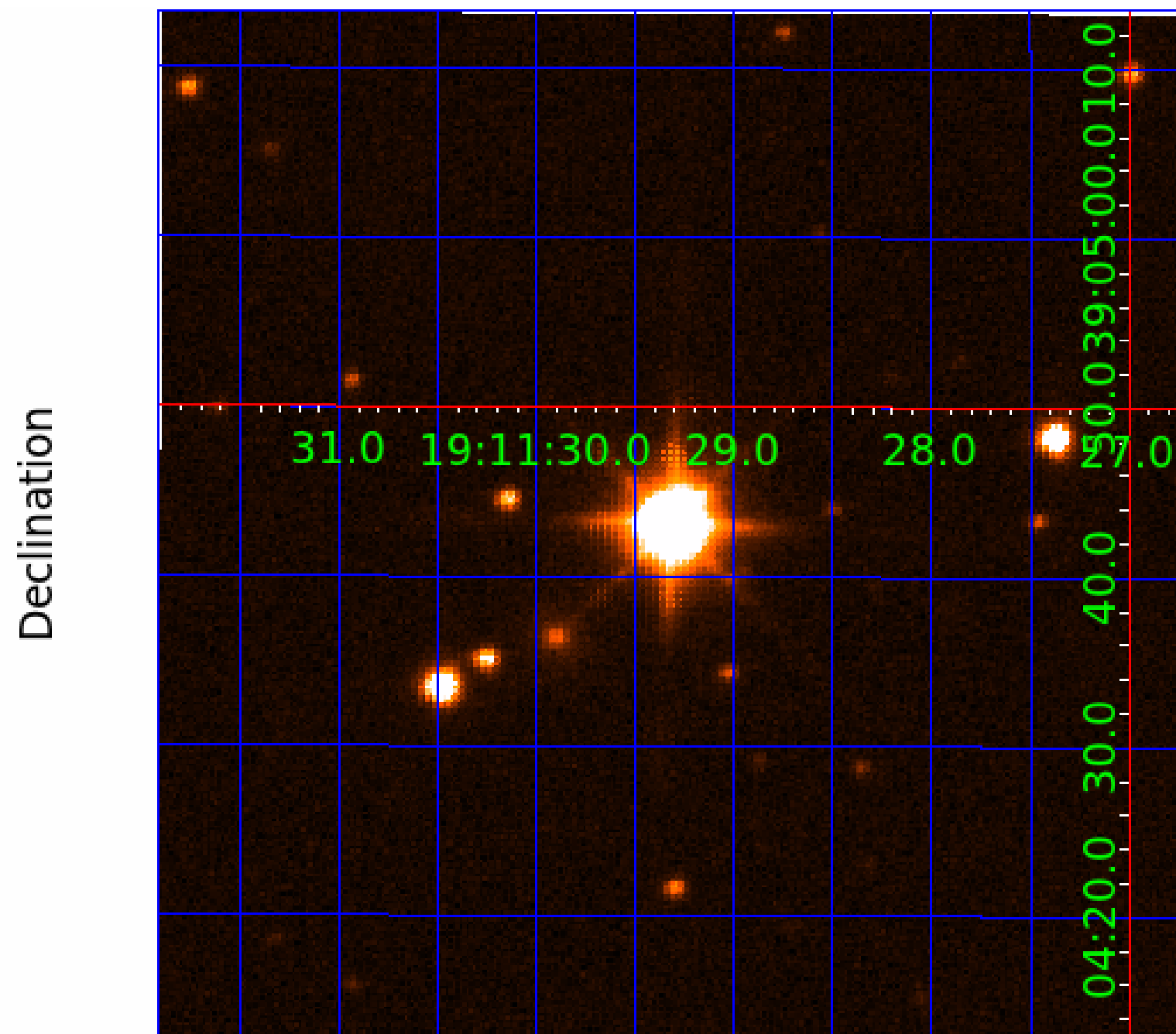
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 6



UKIRT Image



KIC 003942392

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})
003942392-01	OBS	No	3.562797	132.912165	9.5	1.916	7.3	1.5	11.11	7120	4.05	59356.00
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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003942392-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
003942392-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

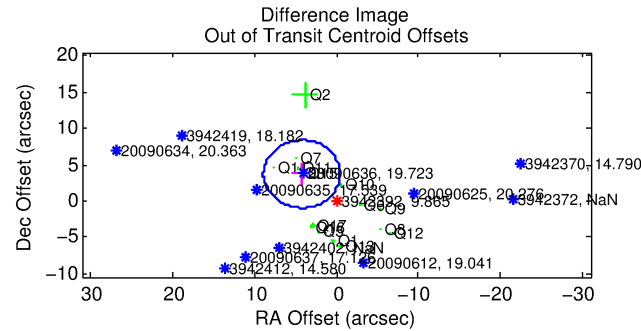
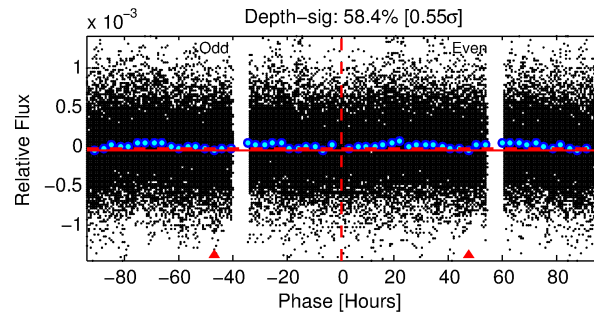
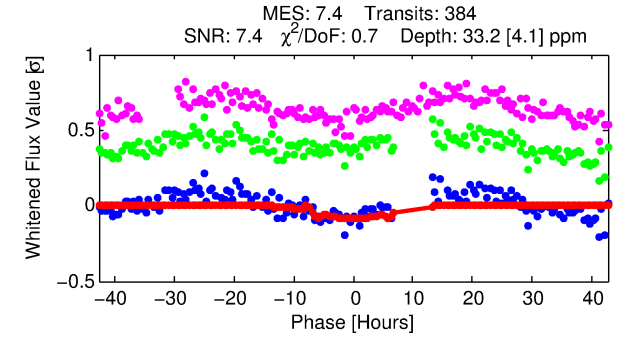
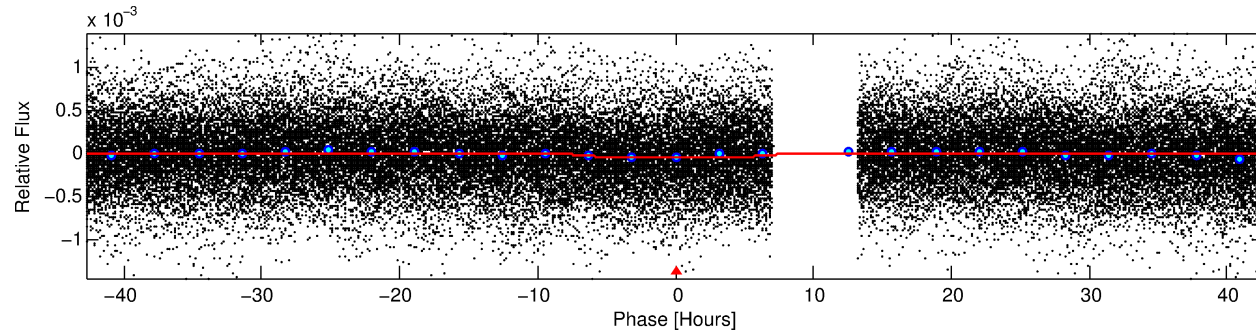
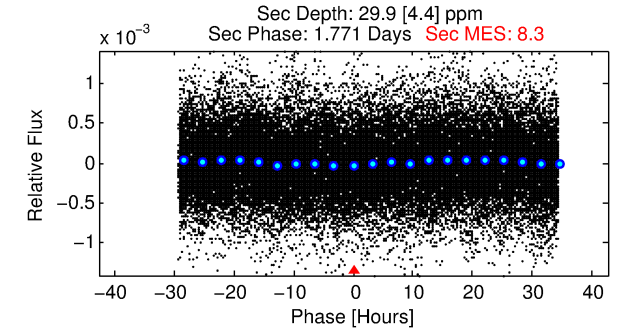
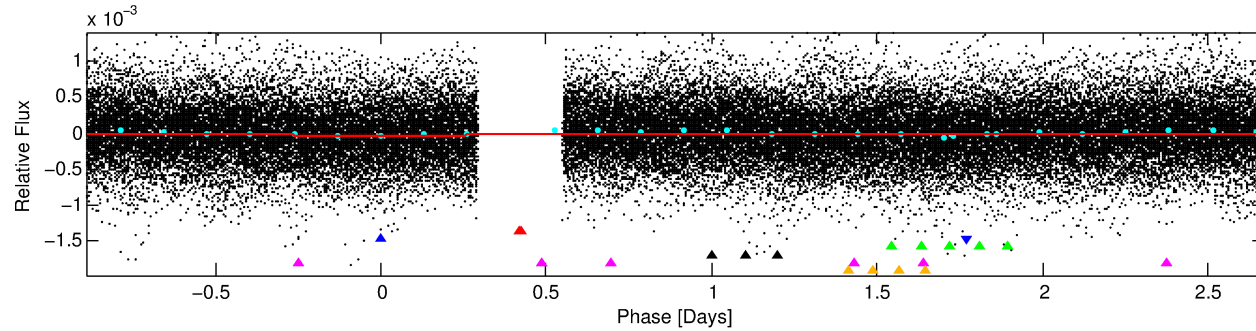
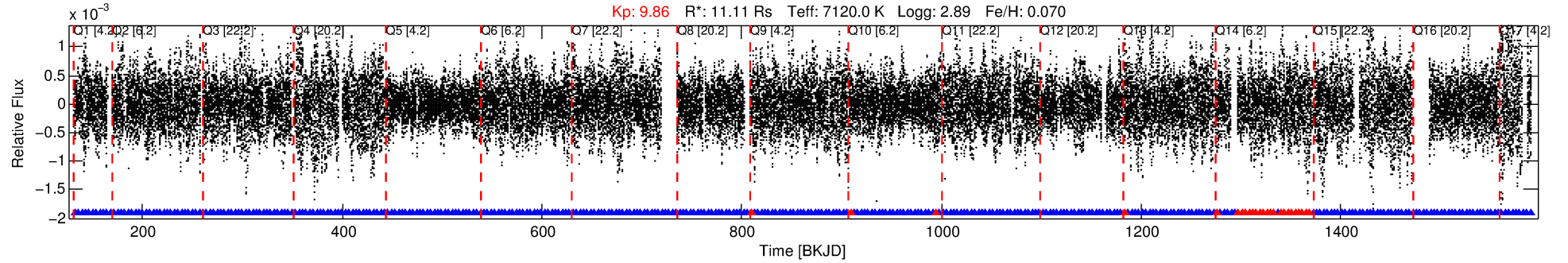
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003942392-02

No Significant Match Found

DV One-Page Summary

KIC: 3942392 Candidate: 2 of 6 Period: 3.563 d



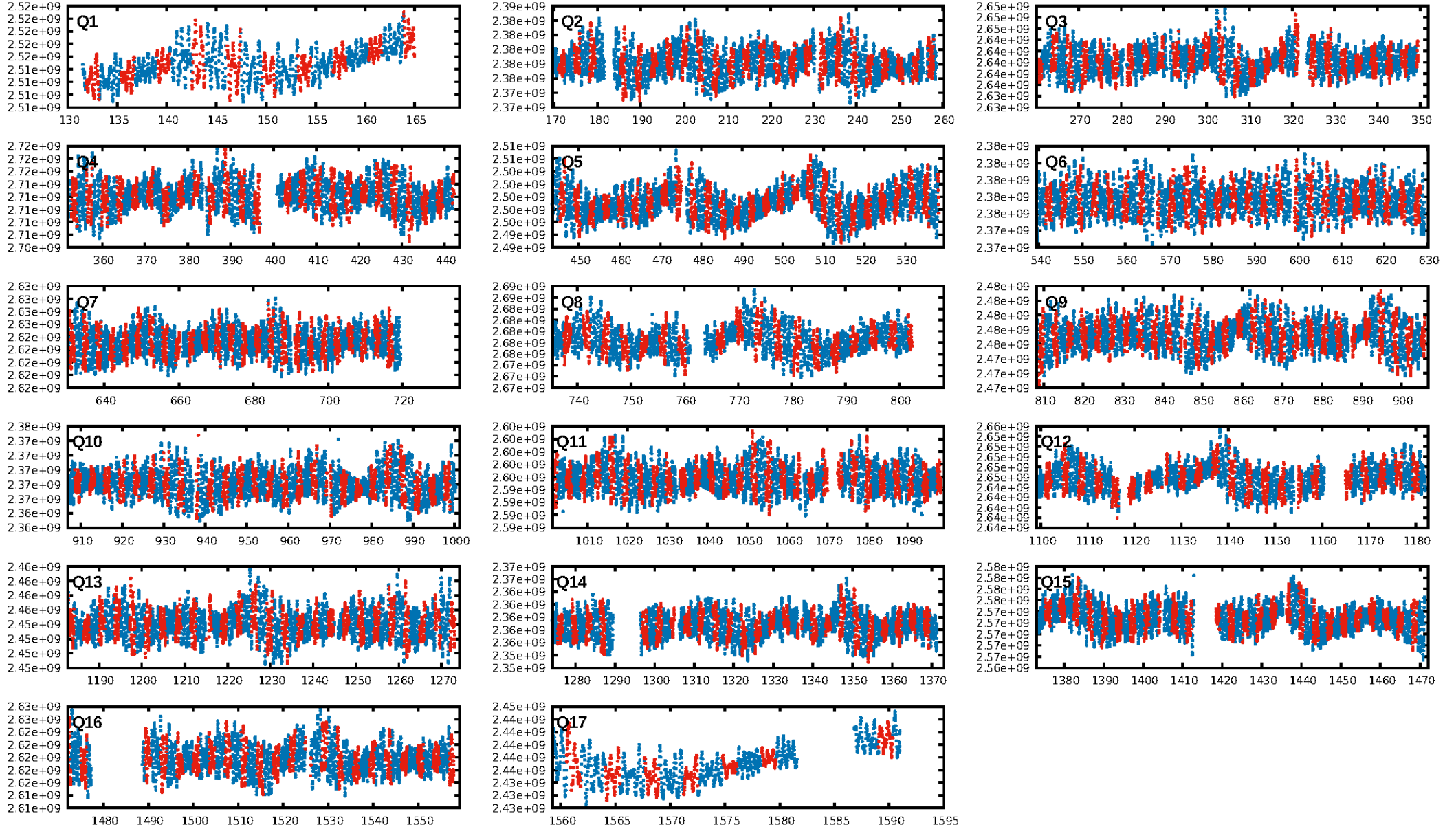
DV Fit Results:

Period = 3.56281 [0.00013] d
Epoch = 132.4872 [0.0256] BKJD
Rp/R* = 0.0068 [0.0005]
a/R* = 1.08 [0.03]
b = 0.97 [0.01]
Seff = 59355.66 [59842.64]
Teff = 3980 [1003] K
Rp = 8.25 [5.00] Re
a = 0.0692 [0.0420] AU
Ag = 1.16 [1.17] [0.13σ]
Teffp = 6380 [404] K [2.22σ]

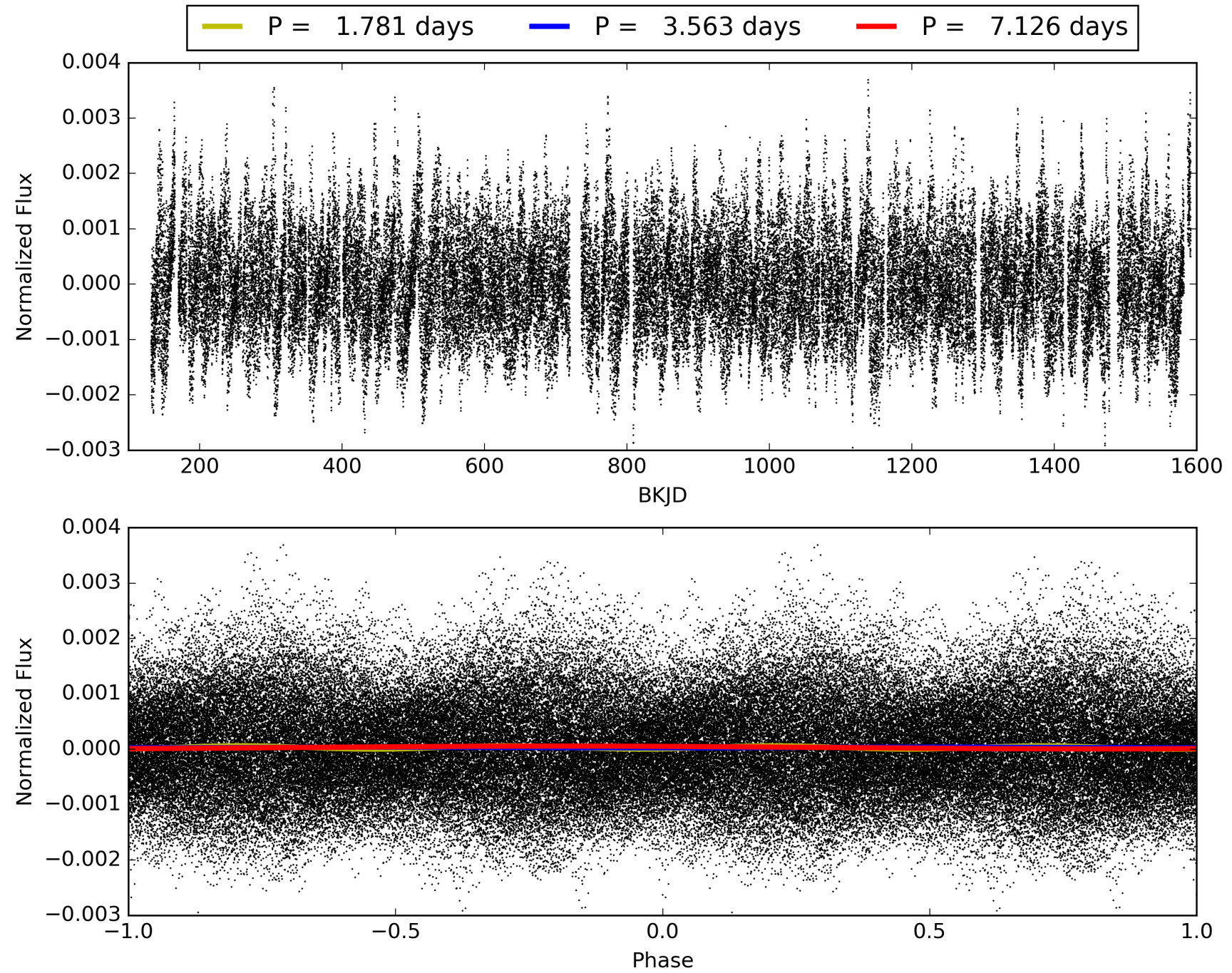
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [303.30σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.23e-09
RollingBand-fgt: 0.93 [342/367]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 1.757 arcsec [2.33σ]
OotOffset-rm: 5.626 arcsec [3.61σ]
KicOffset-rm: 6.595 arcsec [4.67σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
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DiffImageOverlap-fno: 0.00 [0/17]

TCE 003942392-02, PDC Light Curves

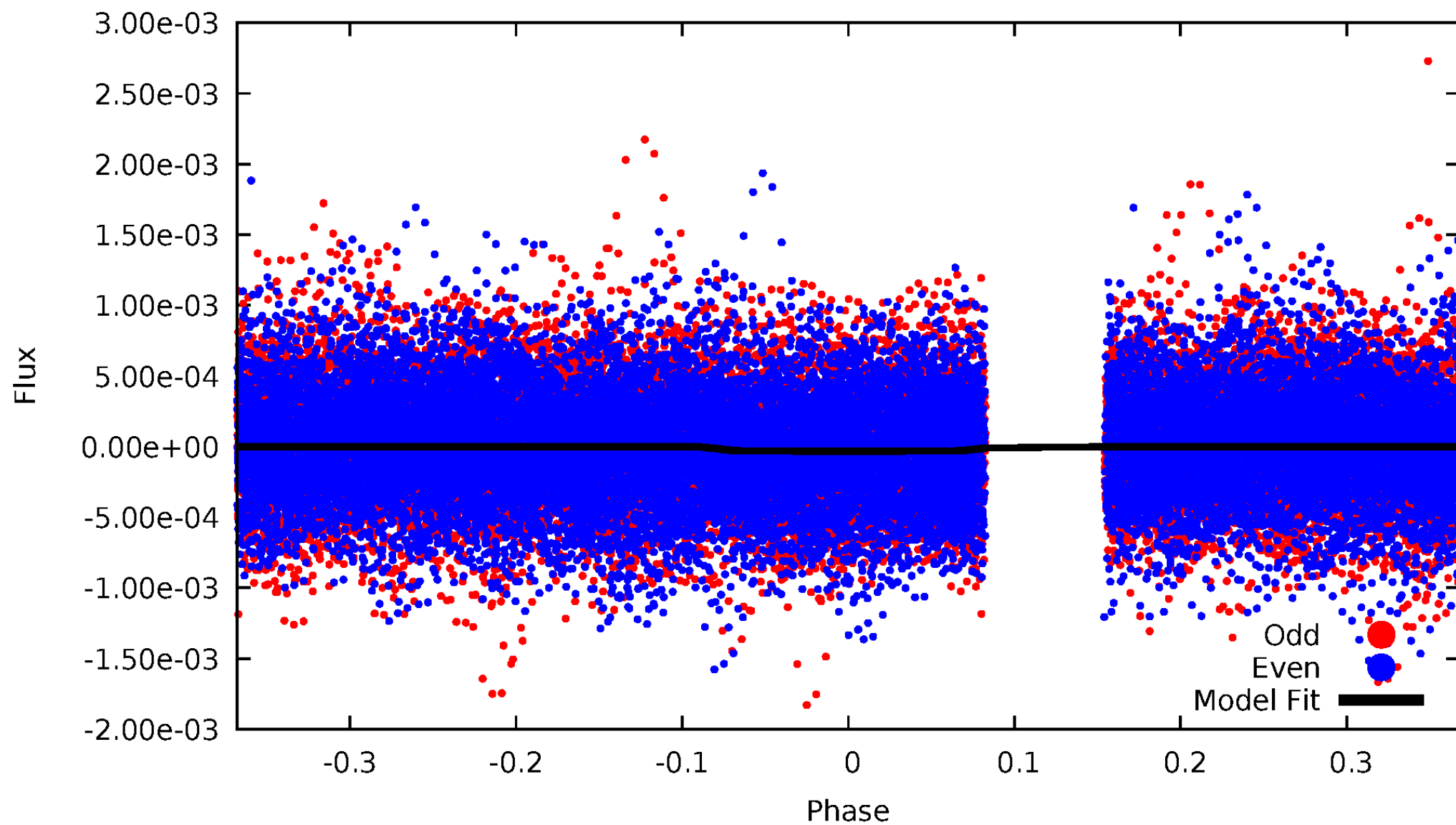


TCE 003942392-02



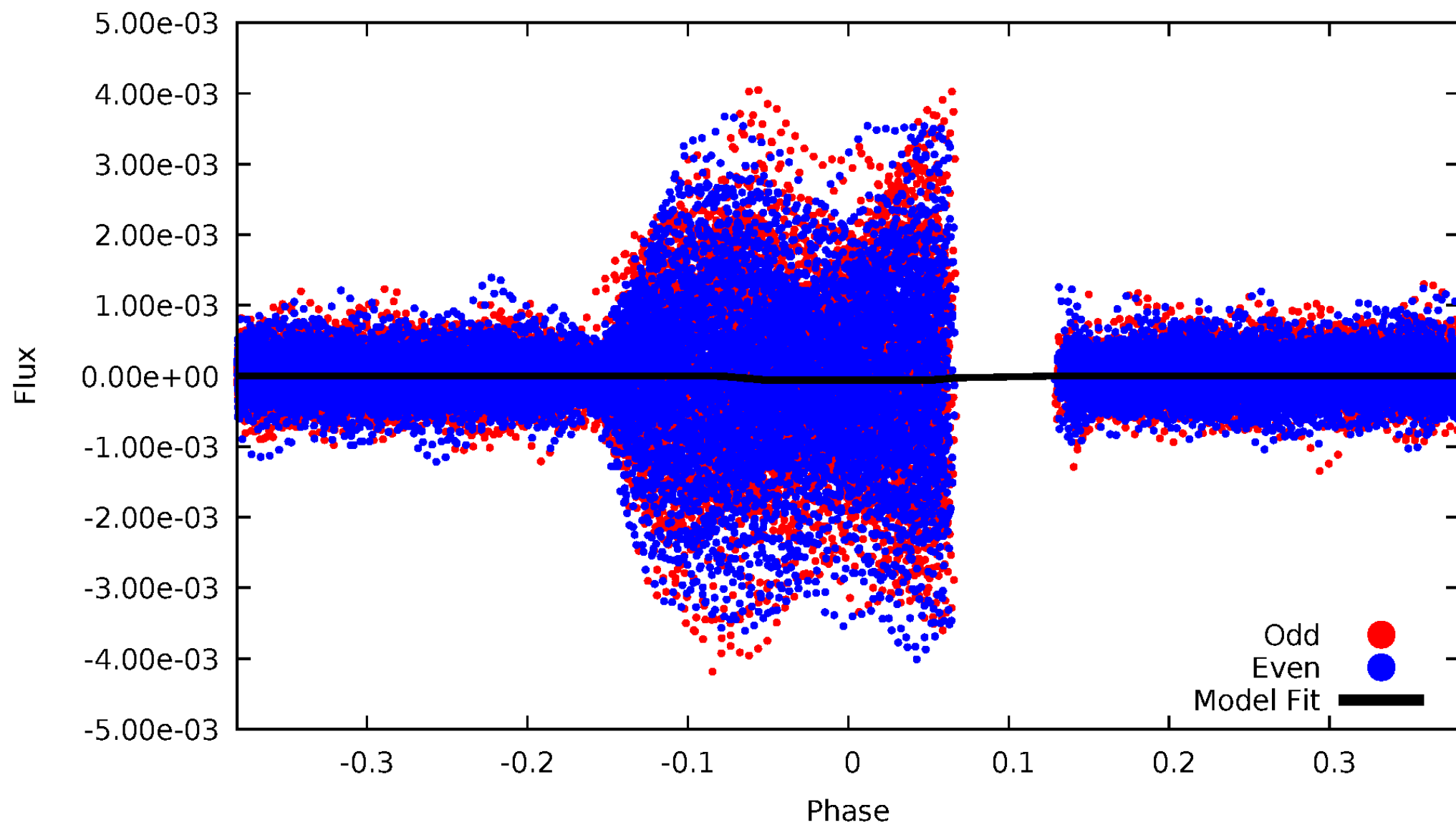
DV Odd/Even

TCE 003942392-02



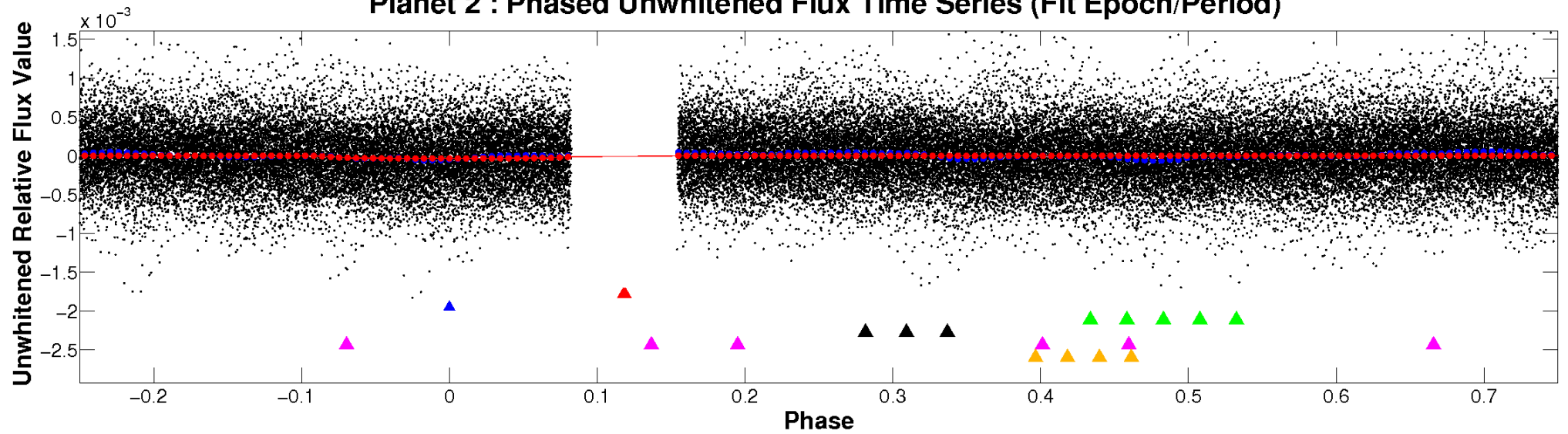
ALT Odd/Even

TCE 003942392-02

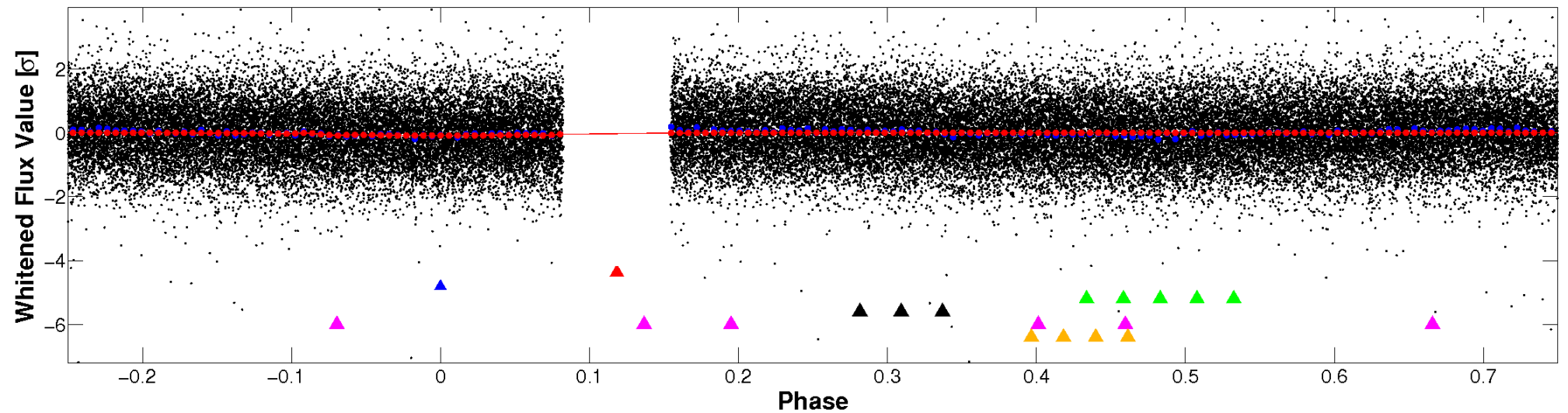


Non-Whitened Vs. Whitened Light Curve

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

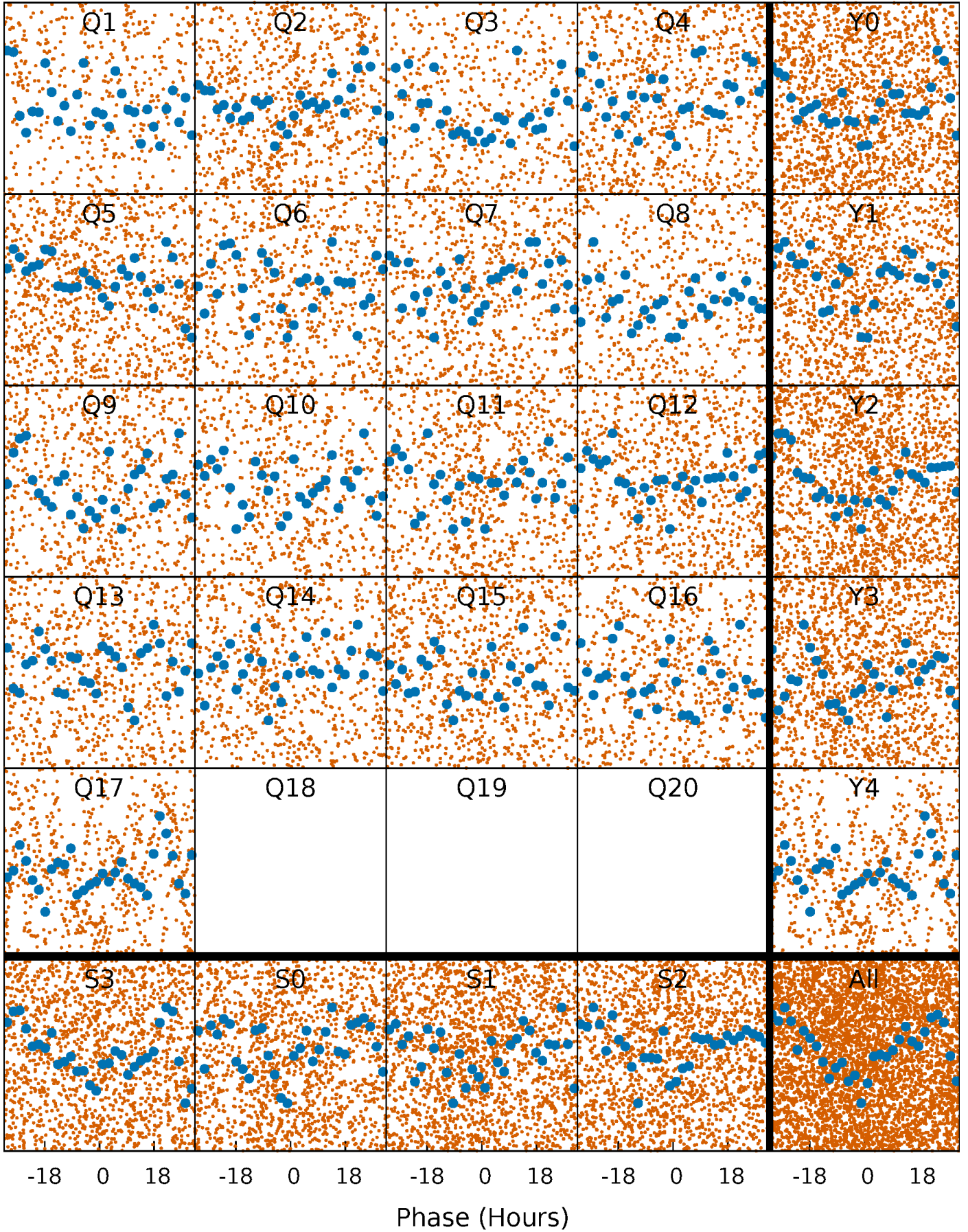


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



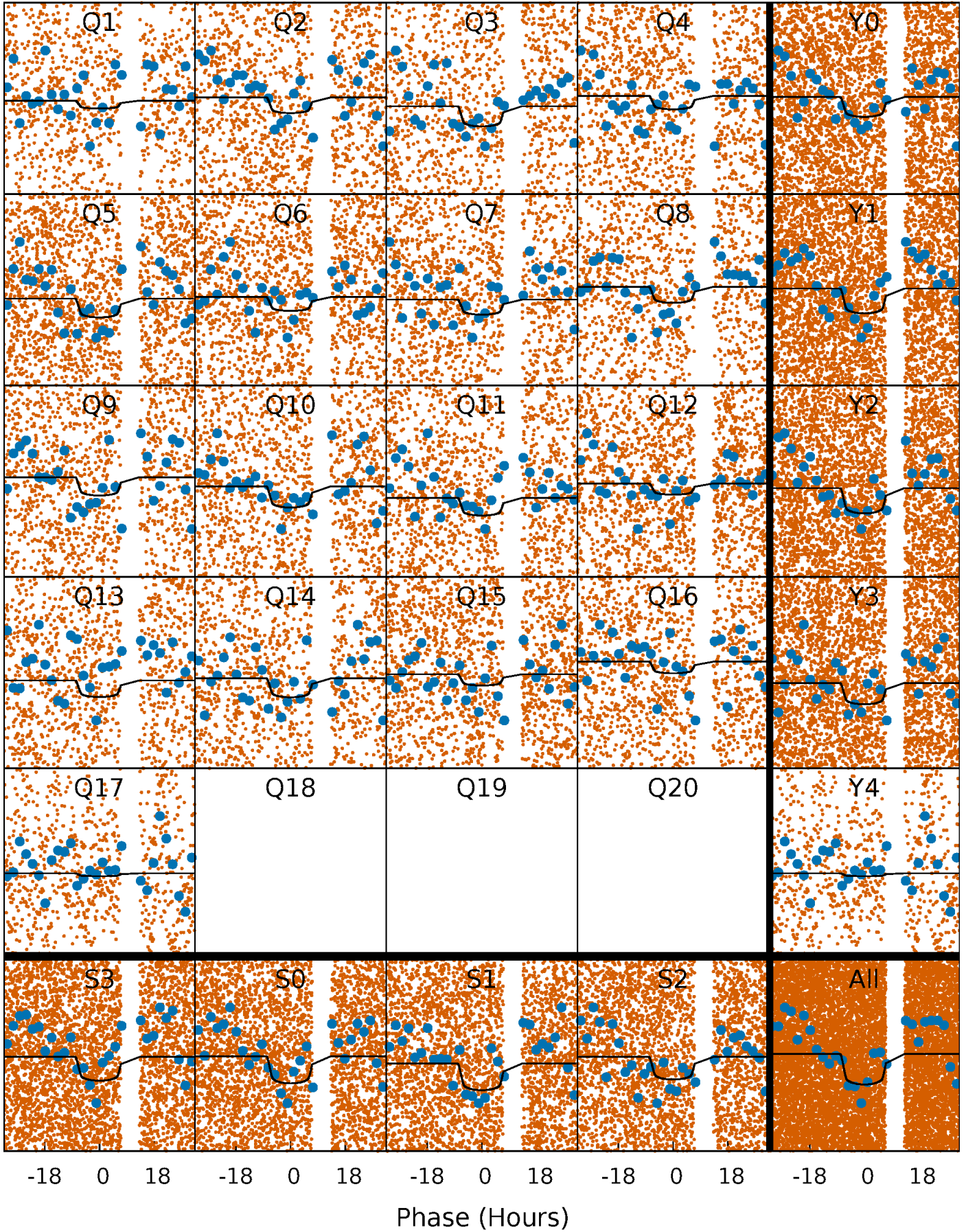
PDC Quarter-Phased Transit Curves

TCE 003942392-02 P= 3.562812 Days $T_0=132.487186$ (BKJD)



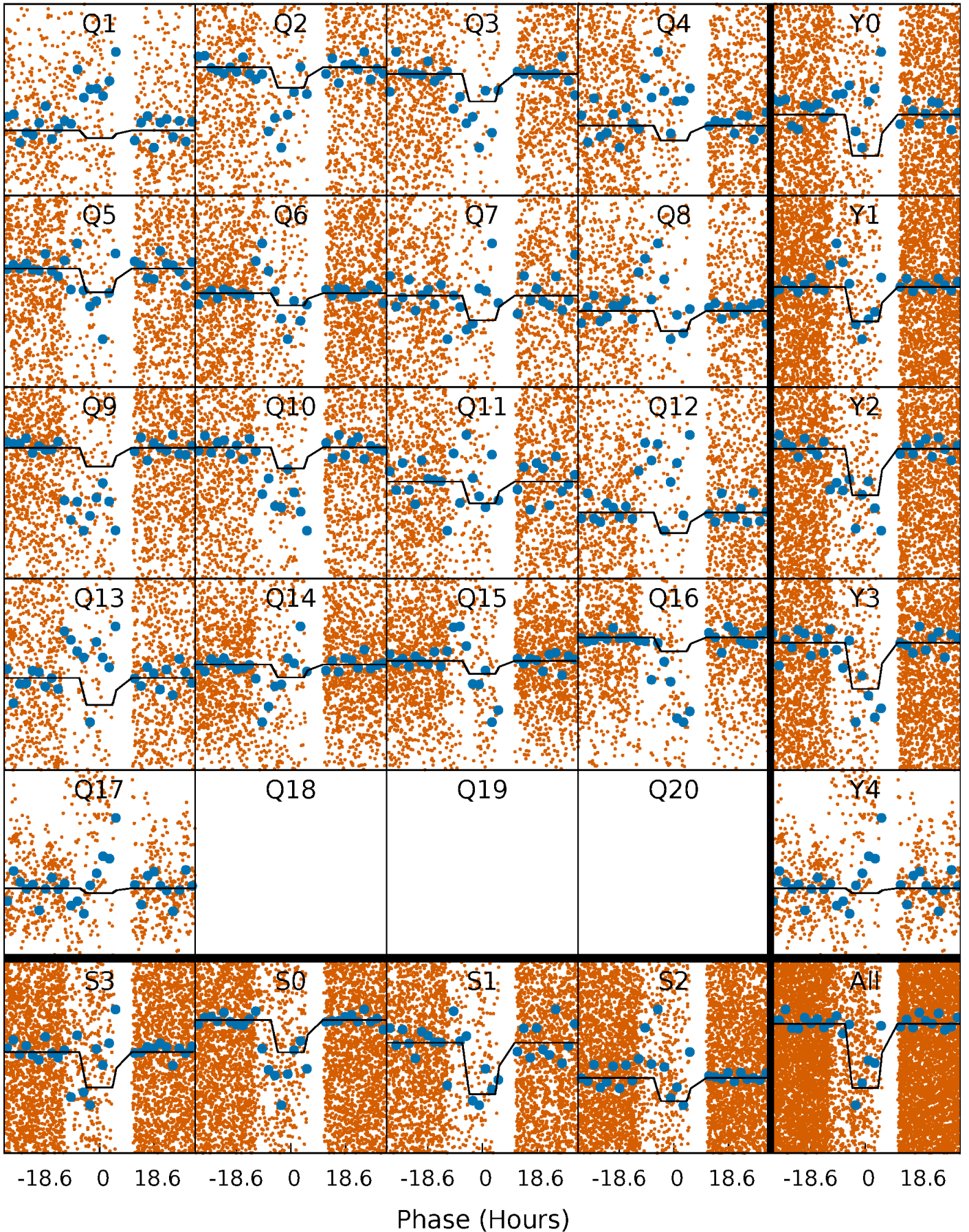
DV Quarter-Phased Transit Curves

TCE 003942392-02 P= 3.562812 Days $T_0=132.487186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

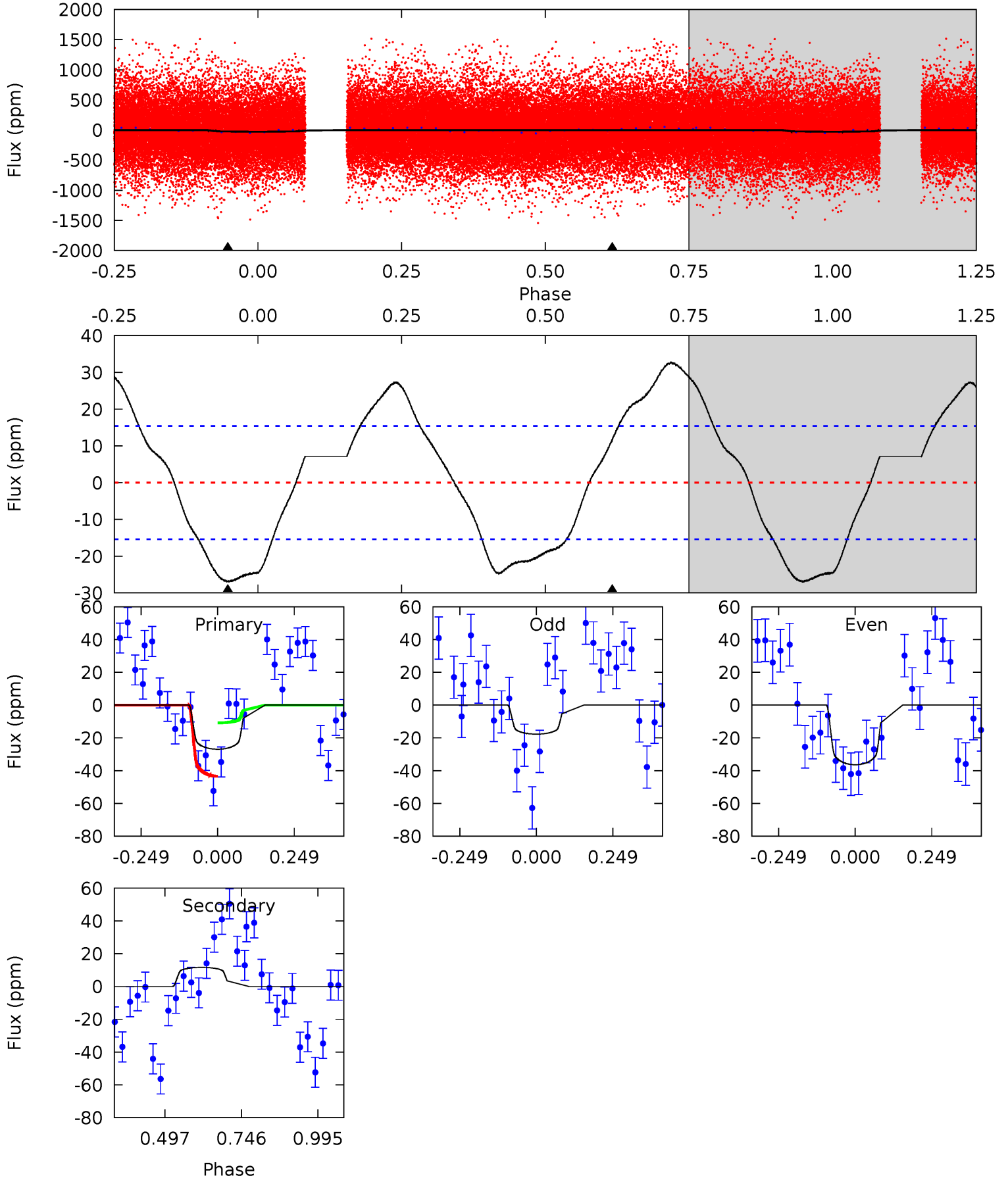
TCE 003942392-02 P= 3.562900 Days $T_0=132.541700$ (BKJD)



DV Model-Shift Uniqueness Test

003942392-02, P = 3.562812 Days, E = 128.924374 Days

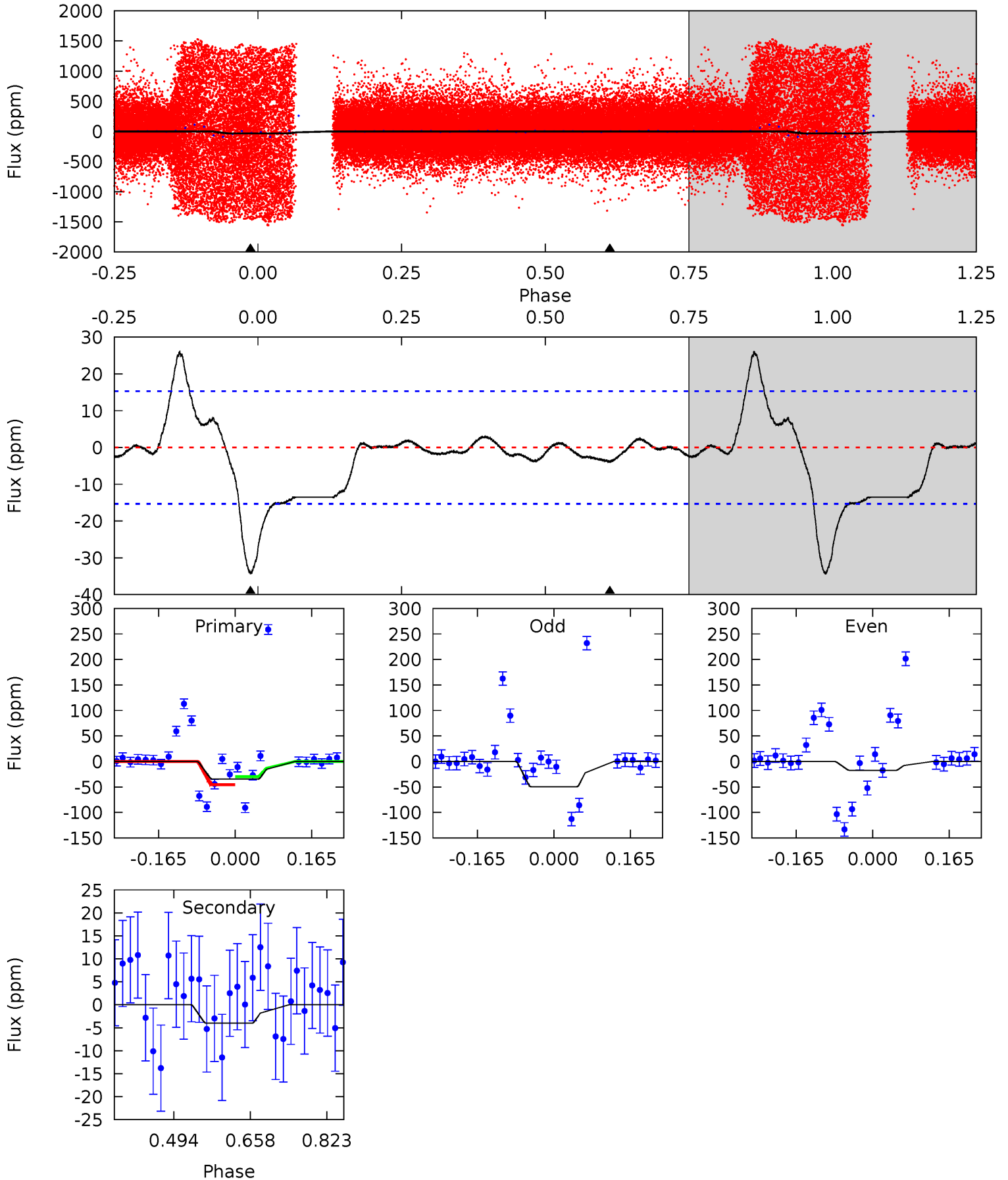
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.64	-3.30	0	0	4.37	1.15	4.15	7.64	7.64	-3.30	-3.30	2.71	0.91	0.55	4.73



Alt Model-Shift Uniqueness Test

003942392-02, P = 3.562900 Days, E = 128.978800 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	1.17	0	0	4.46	1.39	0.63	10.0	10.0	1.17	1.17	4.53	0.52	0.43	0



Stellar Parameters For KIC 003942392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7120^{+128}_{-277}	$2.888^{+0.594}_{-0.033}$	$0.070^{+0.250}_{-0.500}$	$11.106^{+0.742}_{-6.681}$	$3.479^{+0.070}_{-1.383}$	$0.004^{+0.035}_{-0.000}$
	+2%/-4%	+21%/-1%	+357%/-714%	+7%/-60%	+2%/-40%	+974%/-12%
Source	PHO1	FLK73	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 003942392-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	12 ± 4	$7.24^{+1.30}_{-2.29}$	5194^{+419}_{-754}	-5514^{+383}_{-359}	$-0.594^{+0.240}_{-0.513}$
Alt.	-4 ± 3	$8.05^{+1.35}_{-2.49}$	5229^{+398}_{-768}	-3783^{+7091}_{-629}	$0.174^{+0.211}_{-0.144}$

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

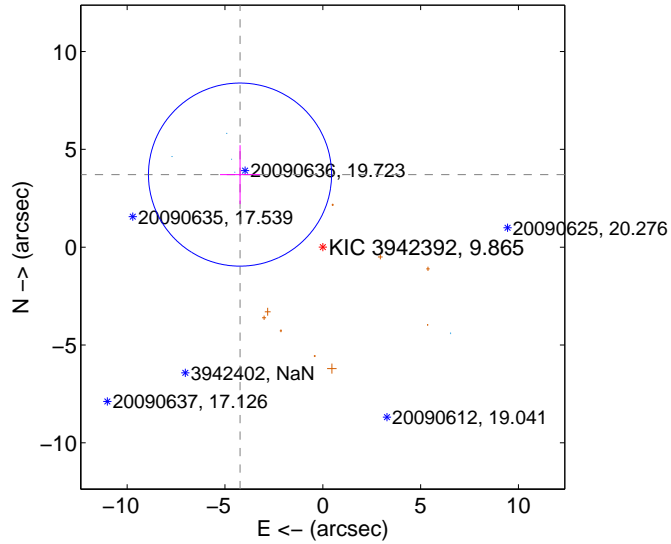
Supplemental centroid analysis for 003942392-02. **Kepler magnitude: 9.87.** Transit SNR 7.44

There are 6 quarters with good PRF difference image offsets

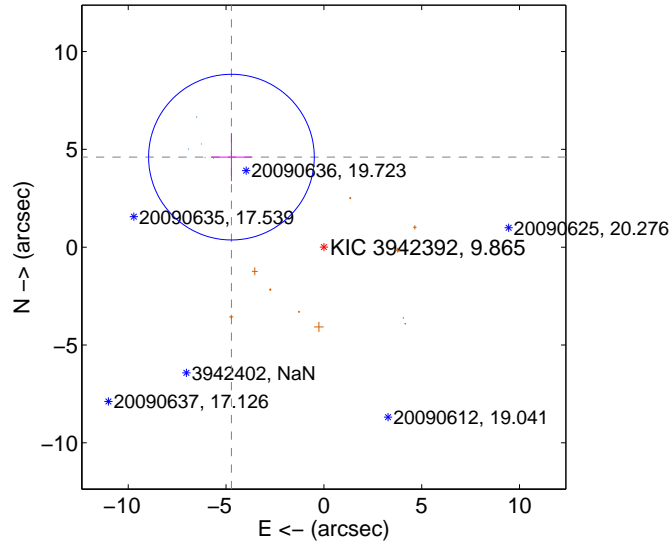
The OOT PRF centroid is offset from the target star catalog position by about 2.19 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.626 ± 1.559	3.61	4.230 ± 1.022	3.709 ± 1.503
PRF-fit source offset from KIC position	6.595 ± 1.411	4.67	4.724 ± 1.043	4.602 ± 1.231
photometric centroid source offset	1.76 ± 0.75	2.33	0.18 ± 0.94	-1.75 ± 0.75

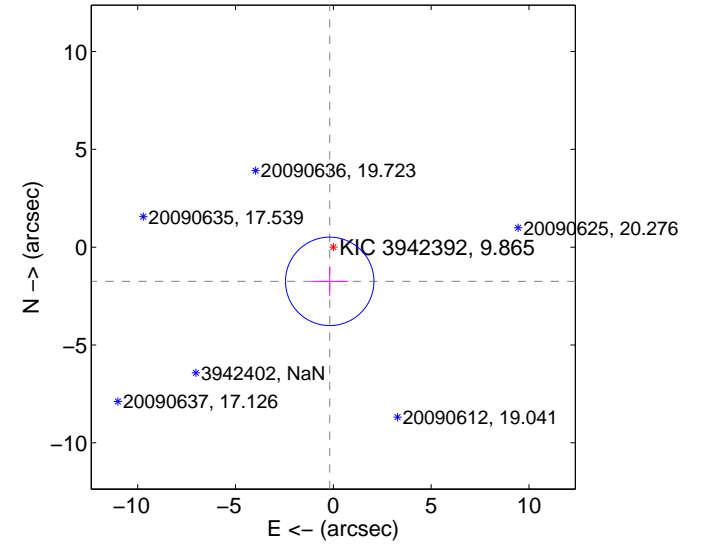
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

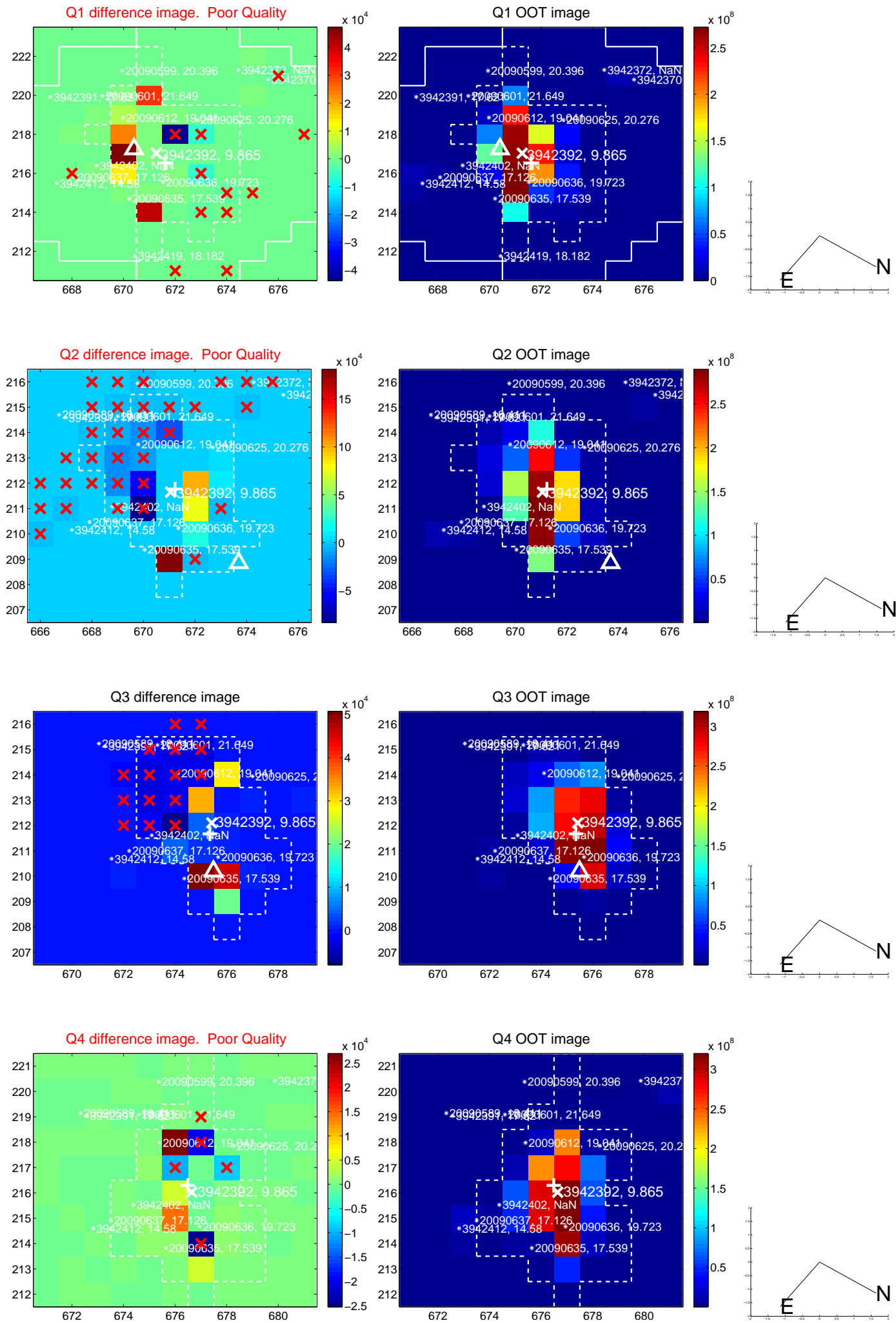


offset from photometric centroids

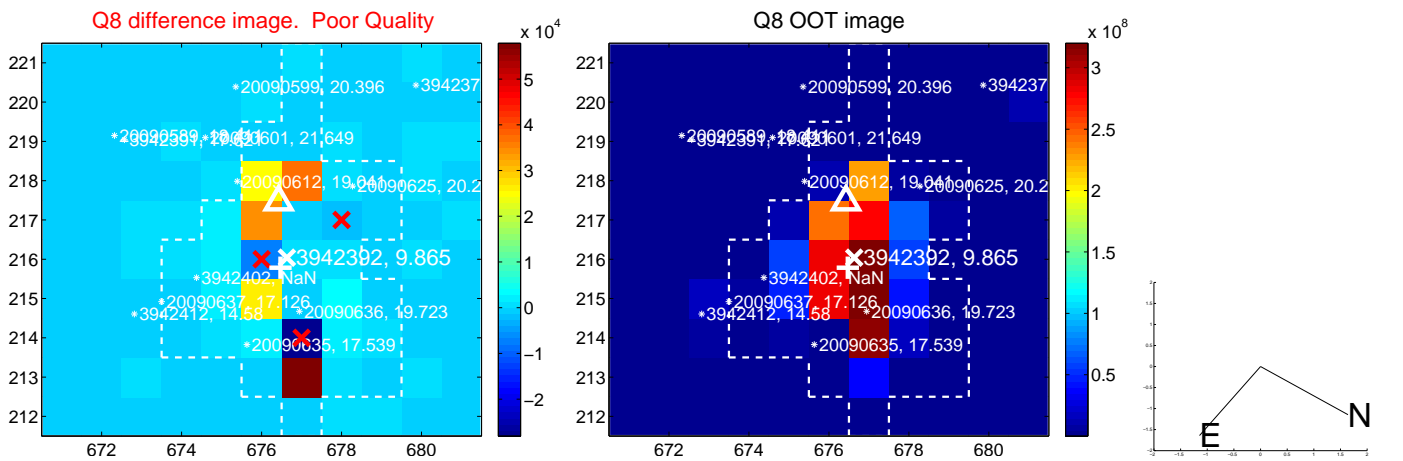
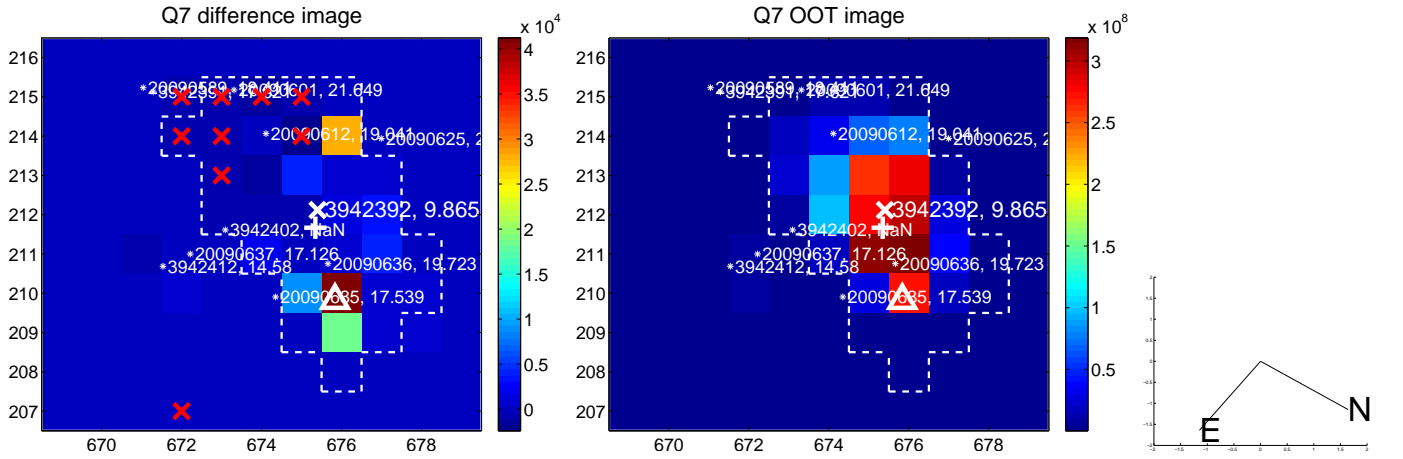
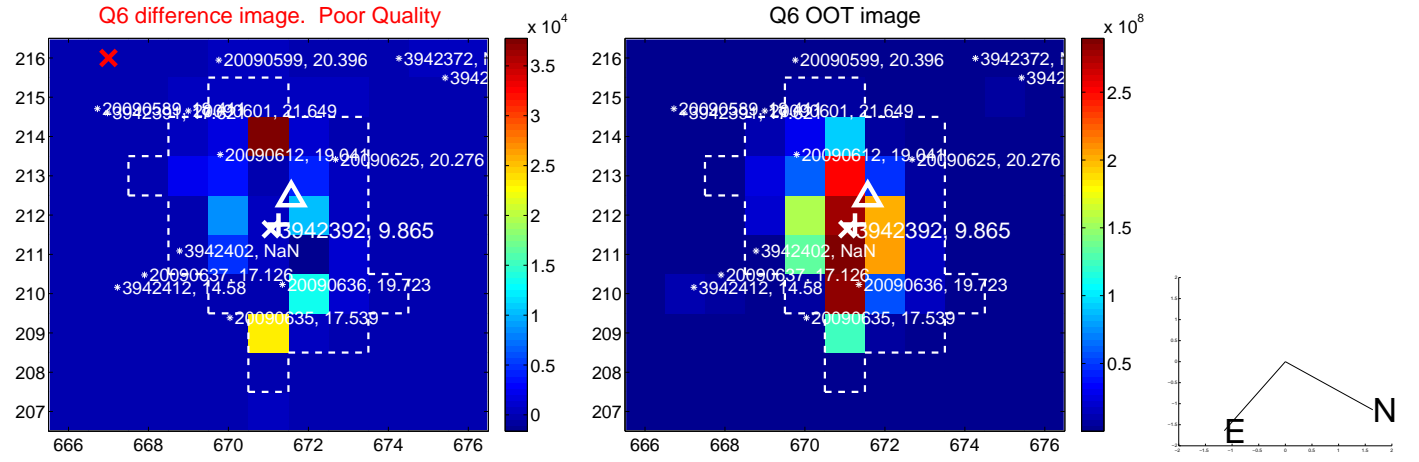
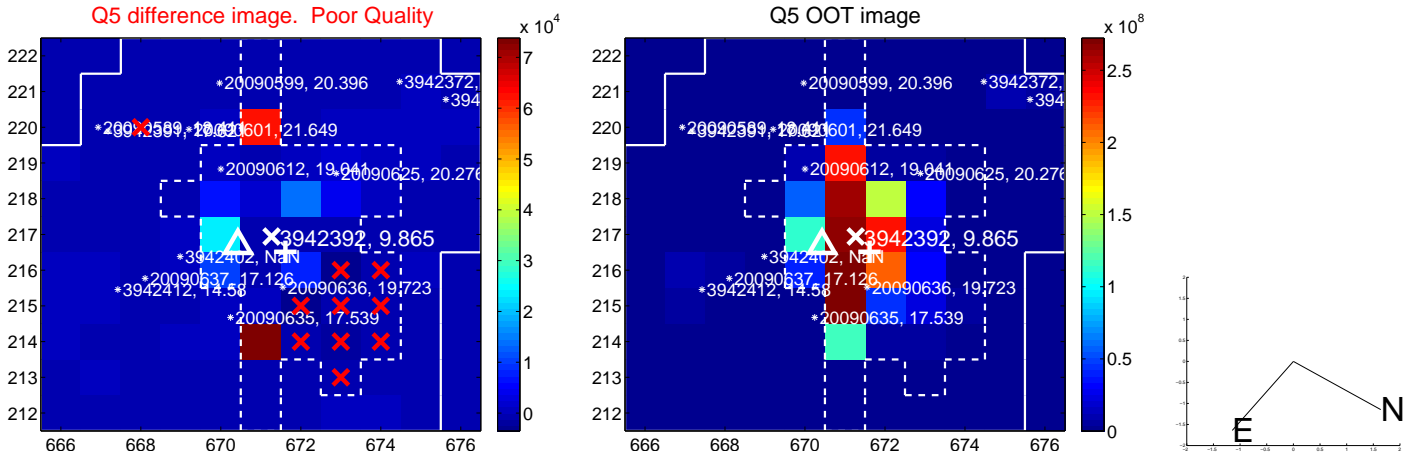


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

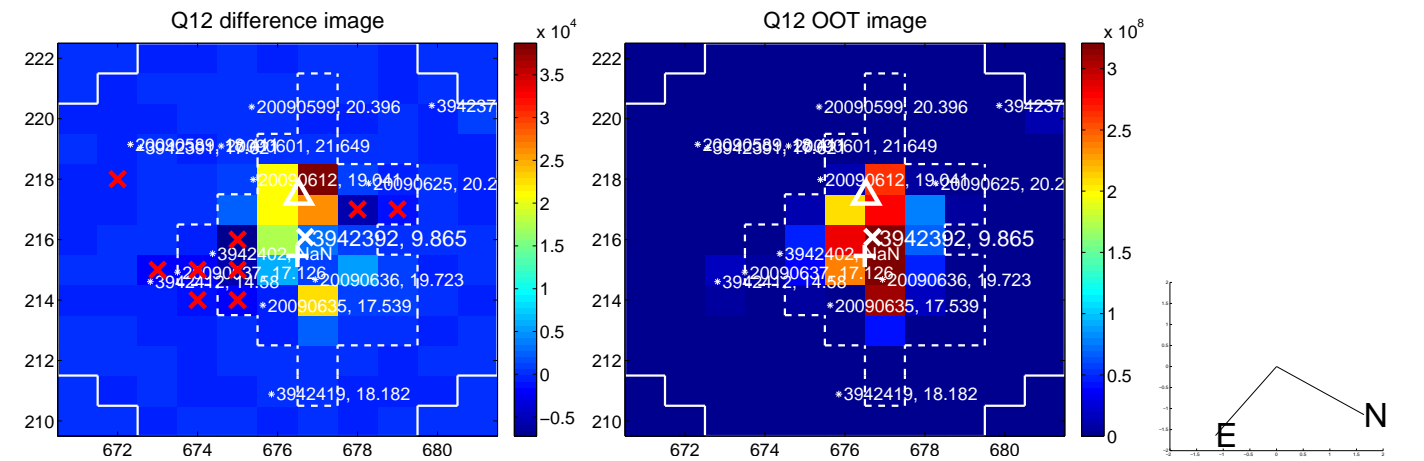
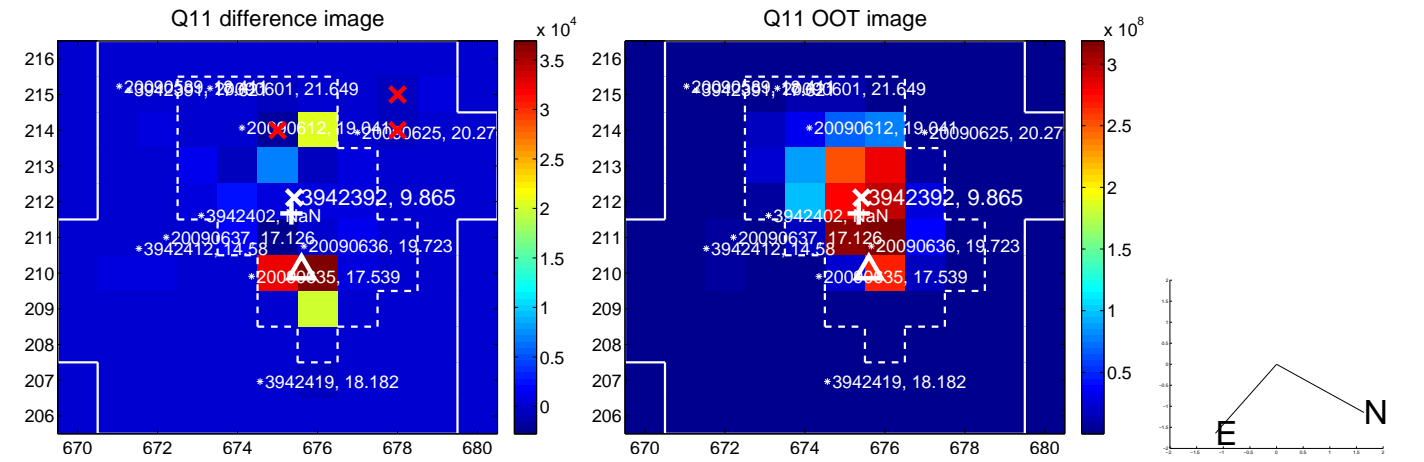
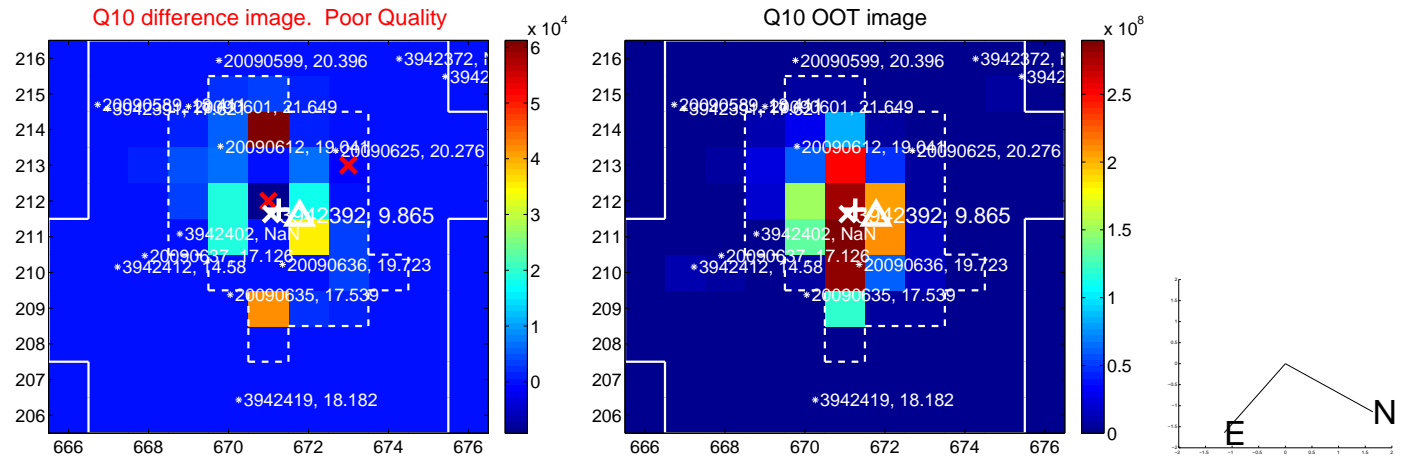
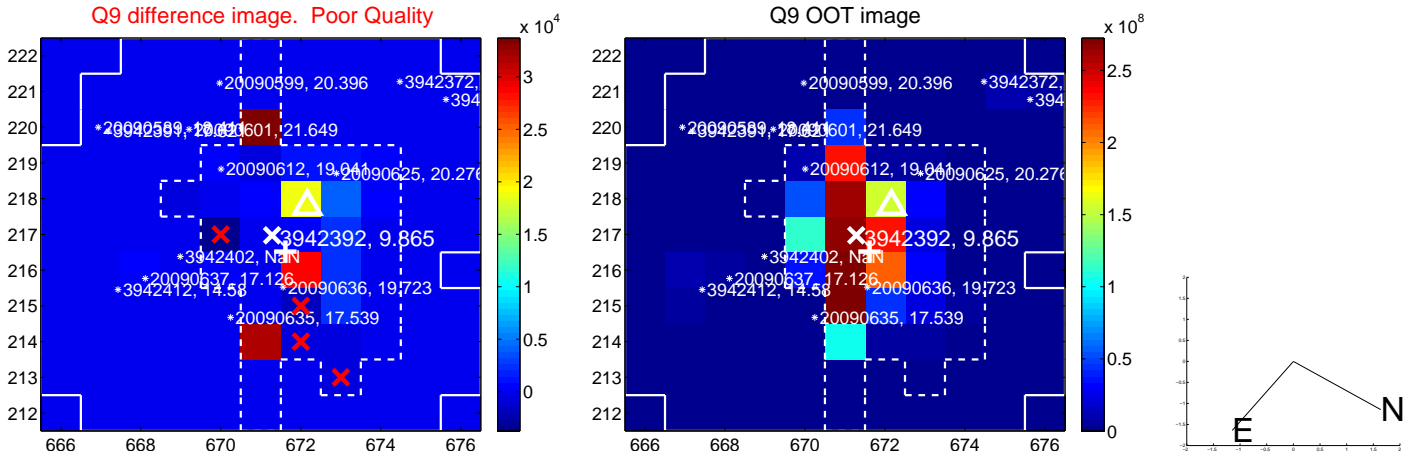
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



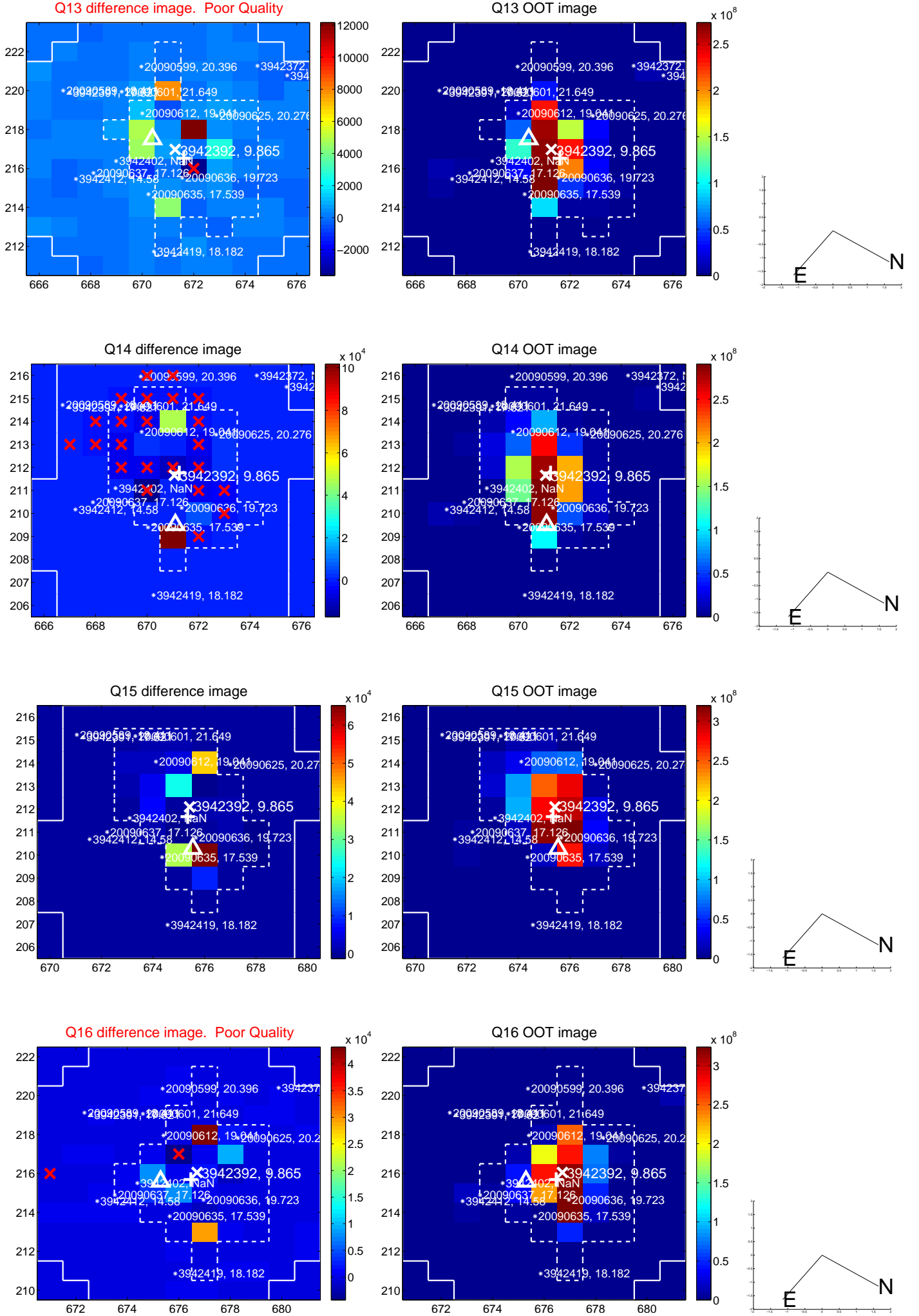
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



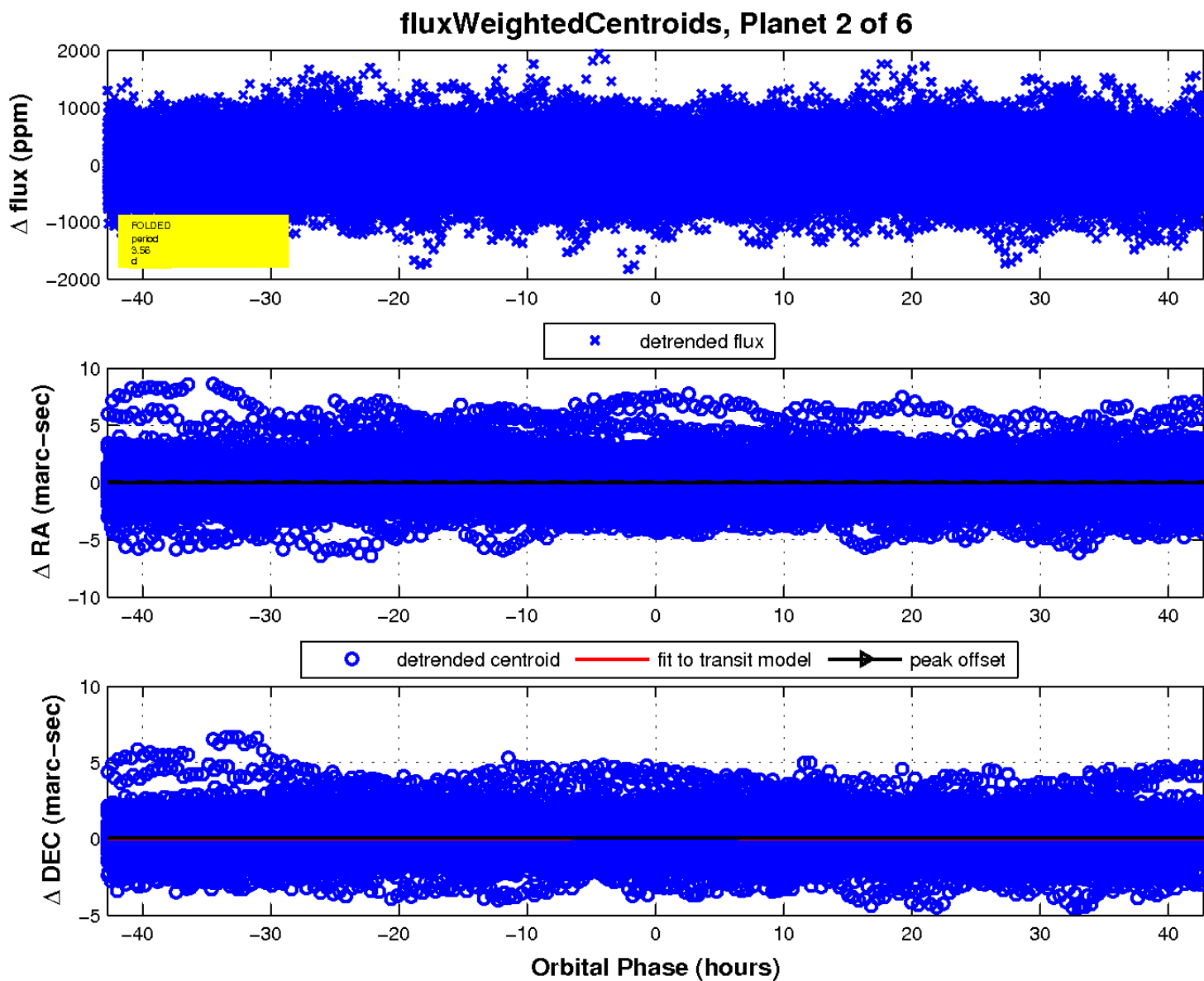
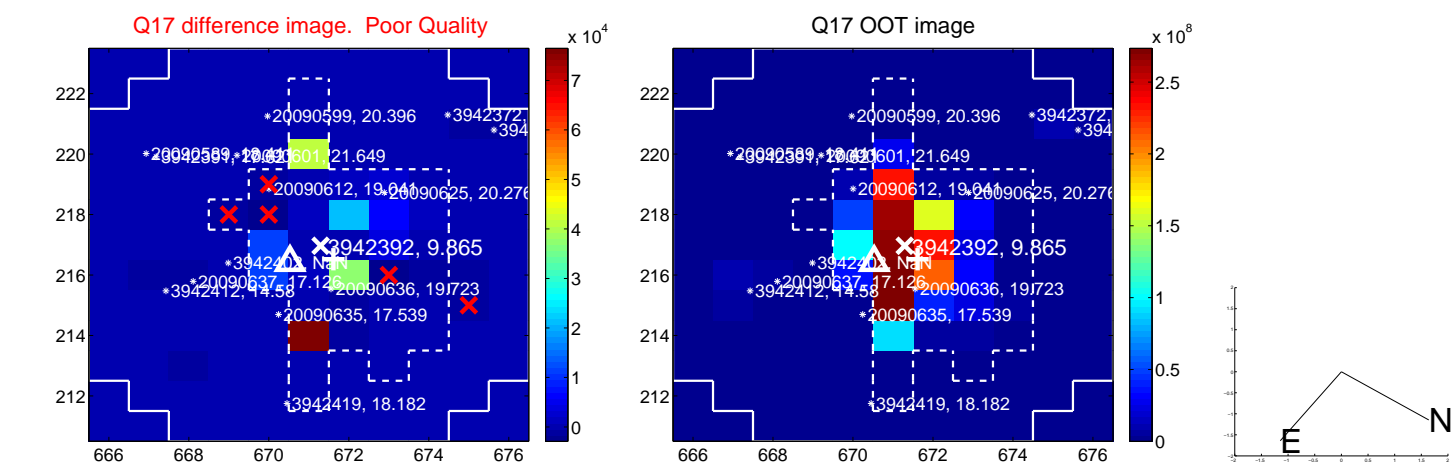
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



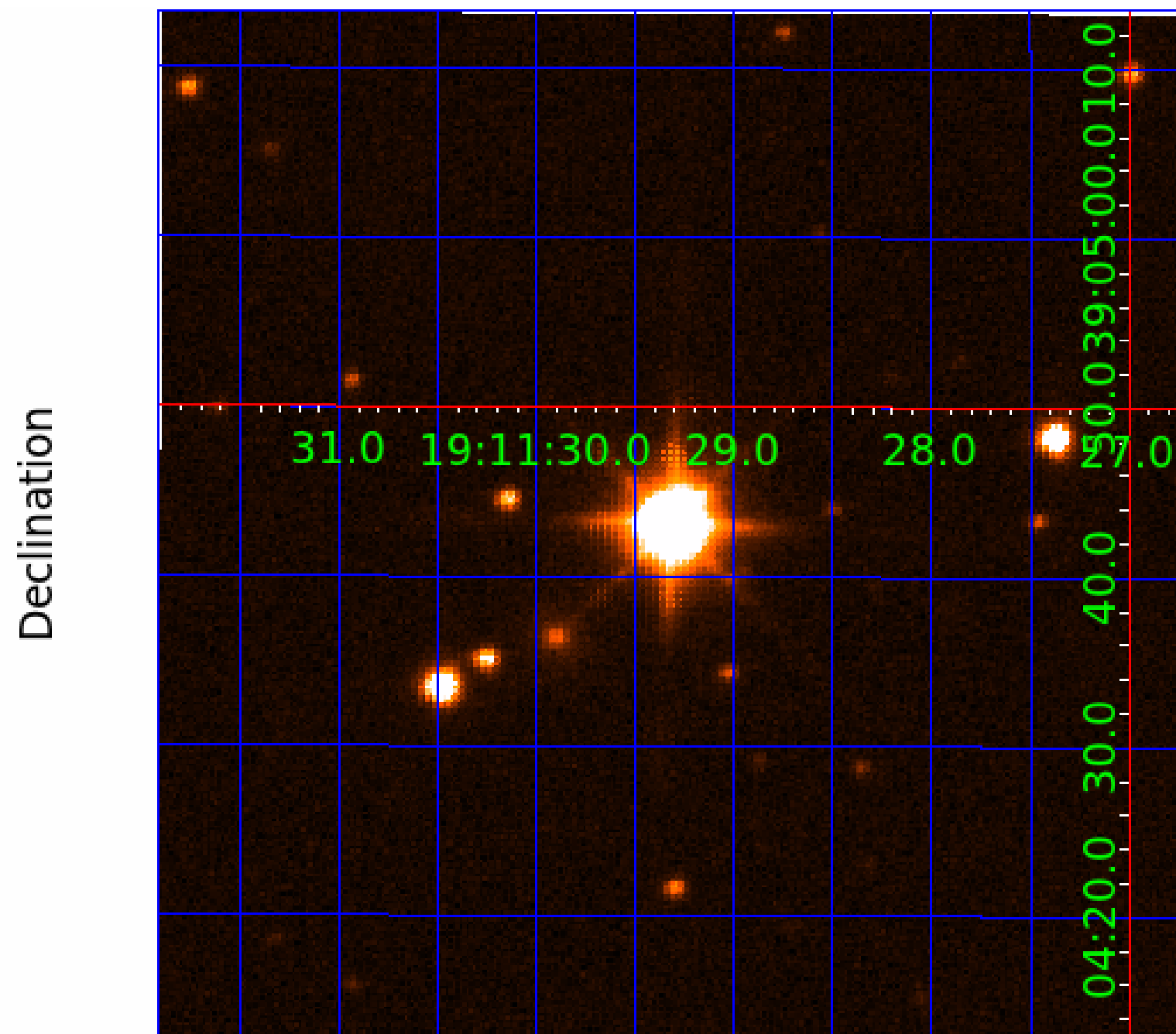
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003942392

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})
003942392-01	OBS	No	3.562797	132.912165	9.5	1.916	7.3	1.5	11.11	7120	4.05	59356.00
003942392-02	OBS	No	3.562812	132.487186	33.2	15.728	7.4	7.4	11.11	7120	8.25	59355.66
003942392-03	OBS	No	299.188214	259.082874	170.1	10.887	28.0	3.3	11.11	7120	16.27	161.41
003942392-04	OBS	No	495.132227	365.270498	1217.8	6.964	9.0	9.0	11.11	7120	72.42	82.46
003942392-06	OBS	No	384.706766	372.839605	413.3	11.611	8.1	8.0	11.11	7120	28.61	115.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003942392-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
003942392-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
003942392-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

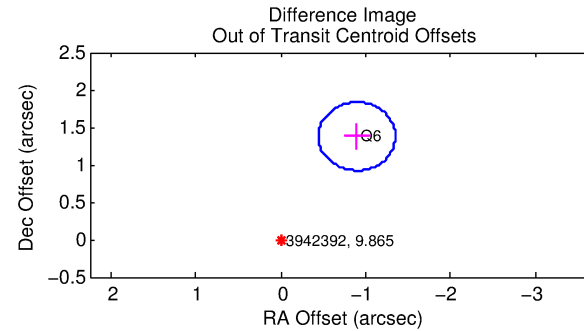
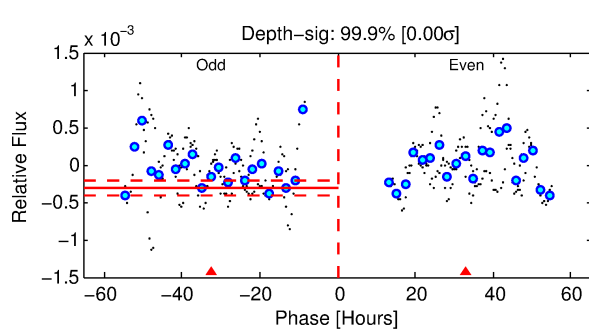
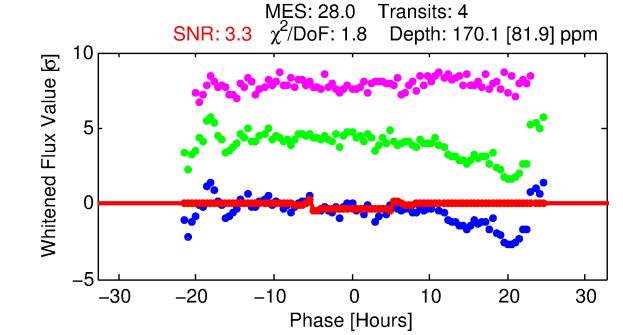
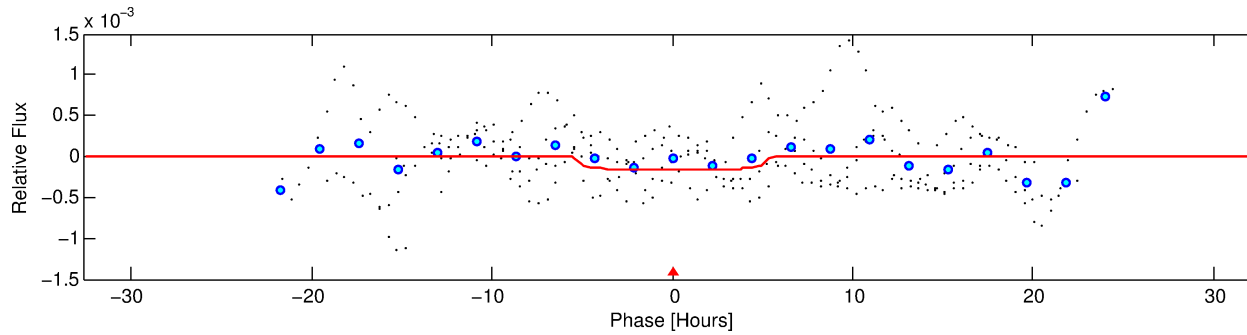
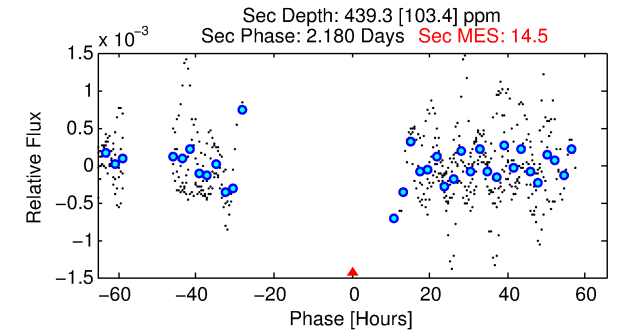
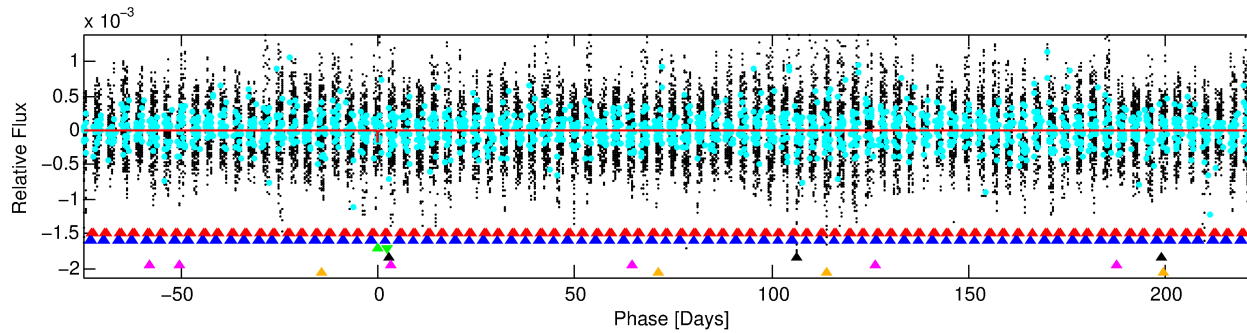
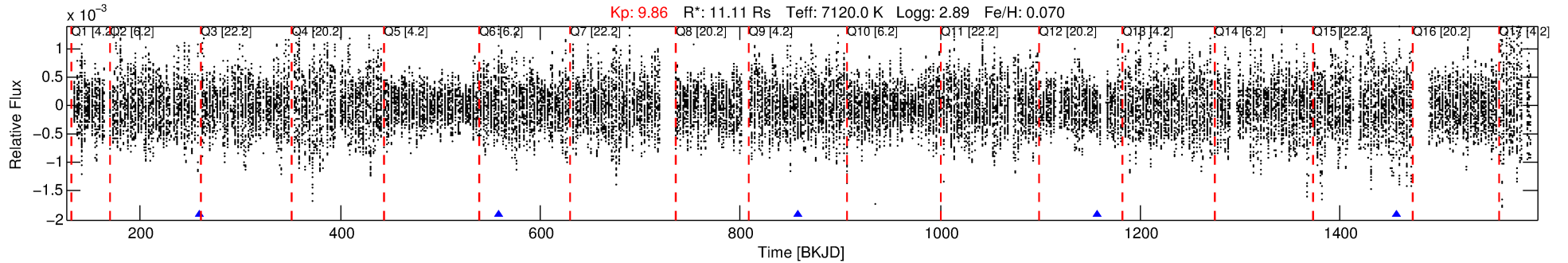
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003942392-03

No Significant Match Found

DV One-Page Summary

KIC: 3942392 Candidate: 3 of 6 Period: 299.188 d



DV Fit Results:

Period = 299.18821 [0.01554] d
Epoch = 259.0829 [0.0412] BKJD
Rp/R* = 0.0134 [0.0055]
a/R* = 119.98 [198.94]
b = 0.84 [0.60]
Seff = 161.41 [162.73]
Teq = 909 [229] K
Rp = 16.27 [11.83] Re
a = 1.3265 [0.8054] AU
Ag = 1605.65 [2103.11] [0.76σ]
Teffp = 8895 [1923] K [4.12σ]

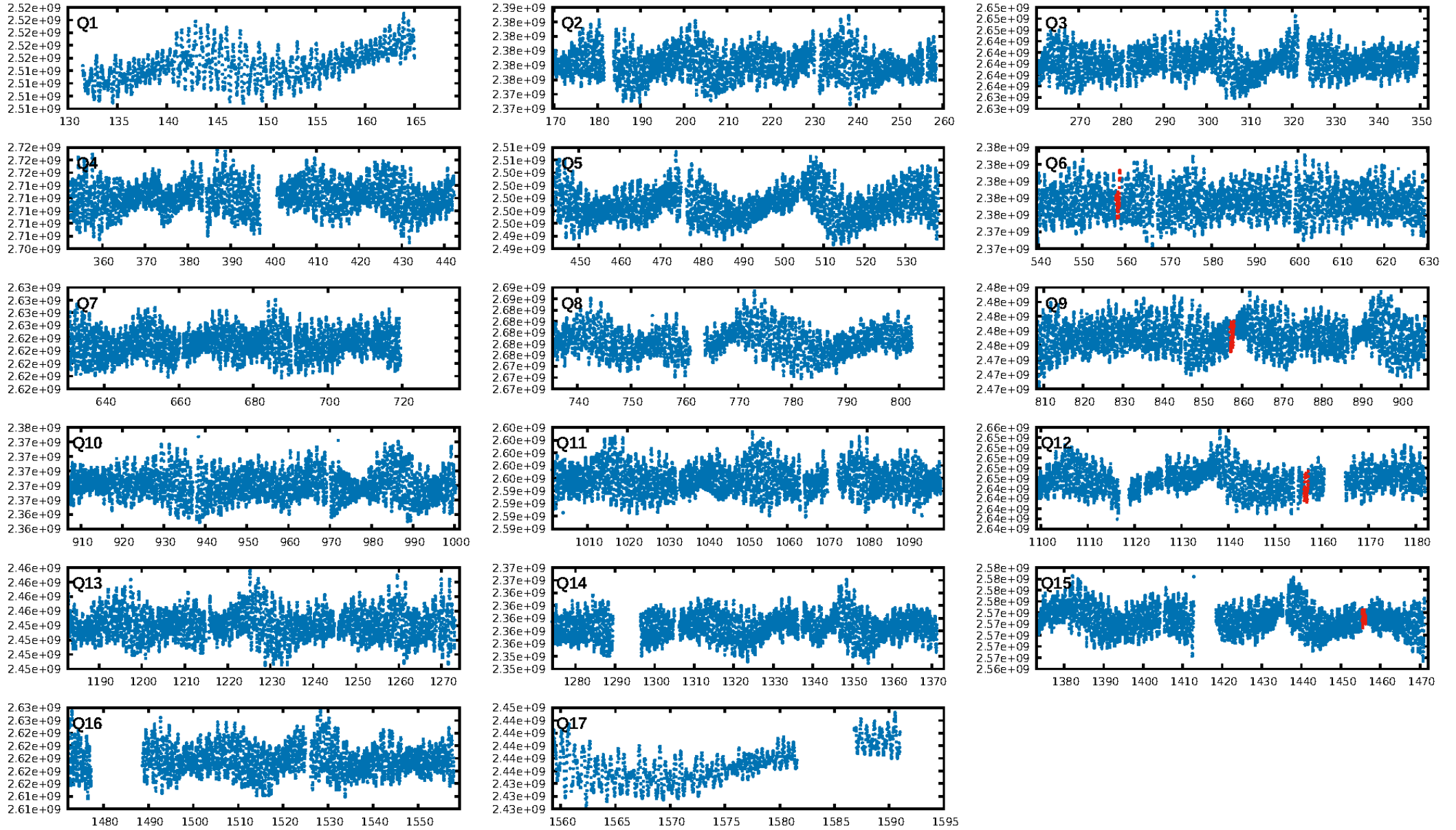
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [100.63σ]
LongPeriod-sig: 100.0% [128.95σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 4.77e-68
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 17.1%
Centroid-so: 2.666 arcsec [1.60σ]
OotOffset-rm: 1.644 arcsec [10.82σ]
KicOffset-rm: 2.504 arcsec [16.77σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

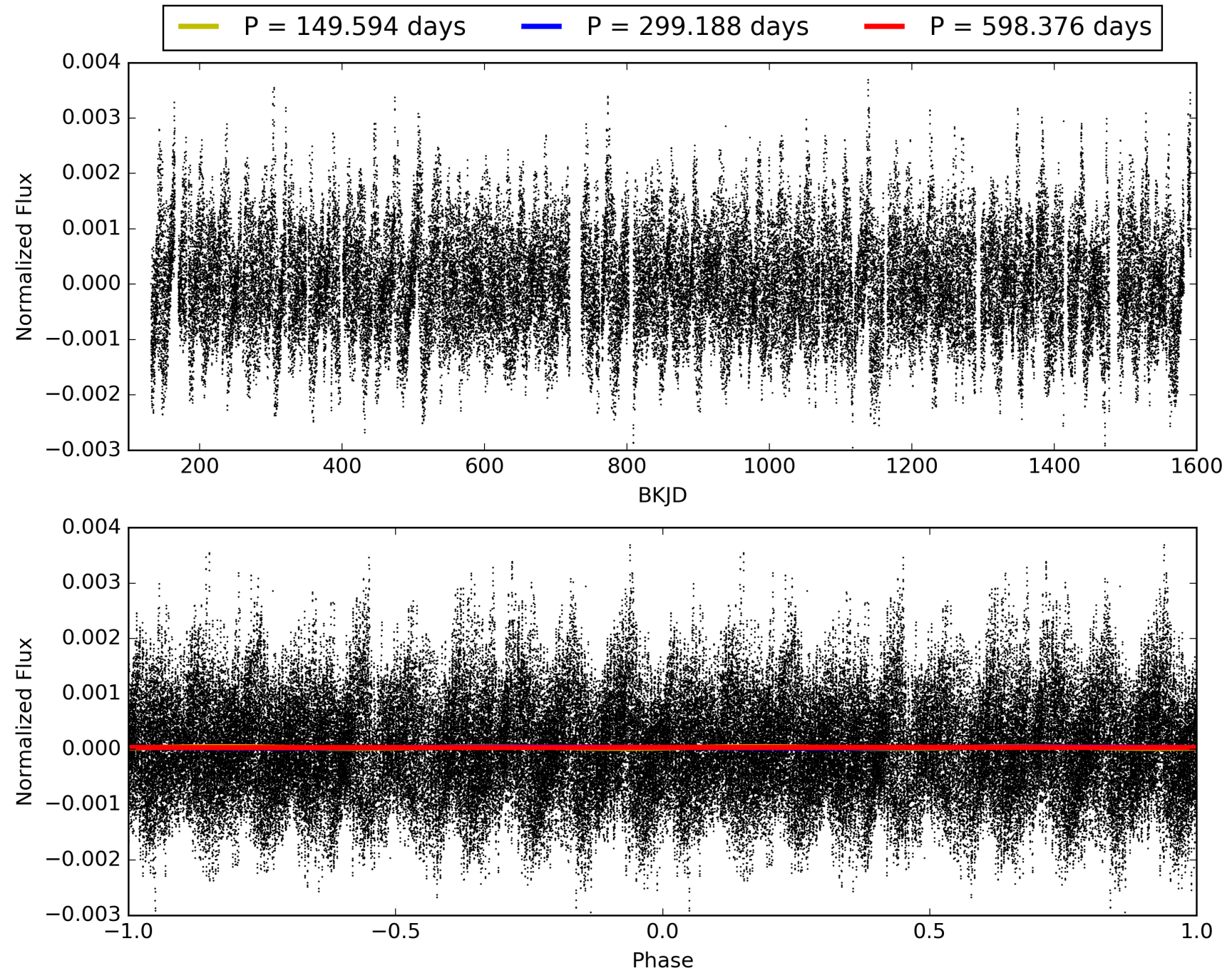
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:42:15 Z

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

TCE 003942392-03, PDC Light Curves

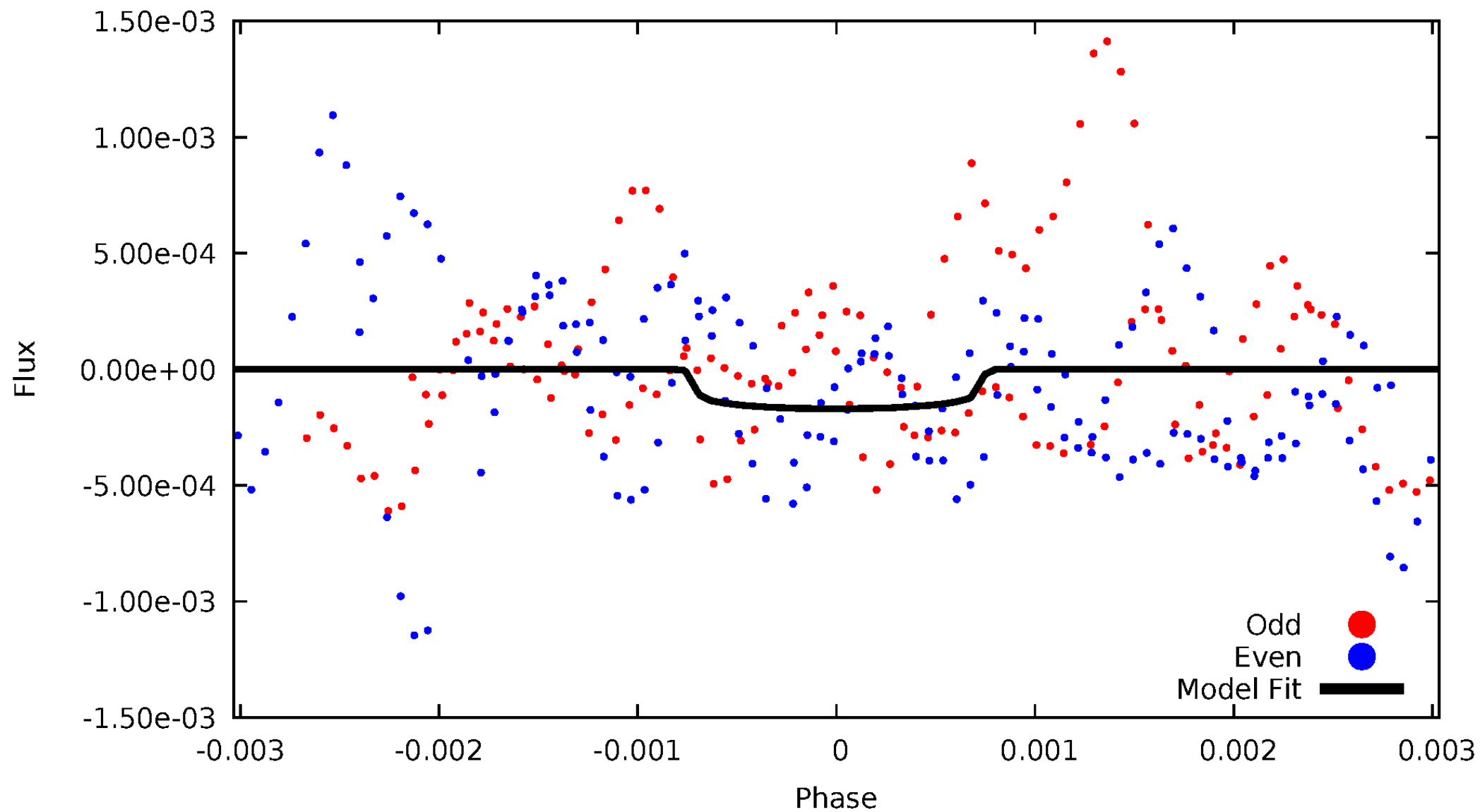


TCE 003942392-03



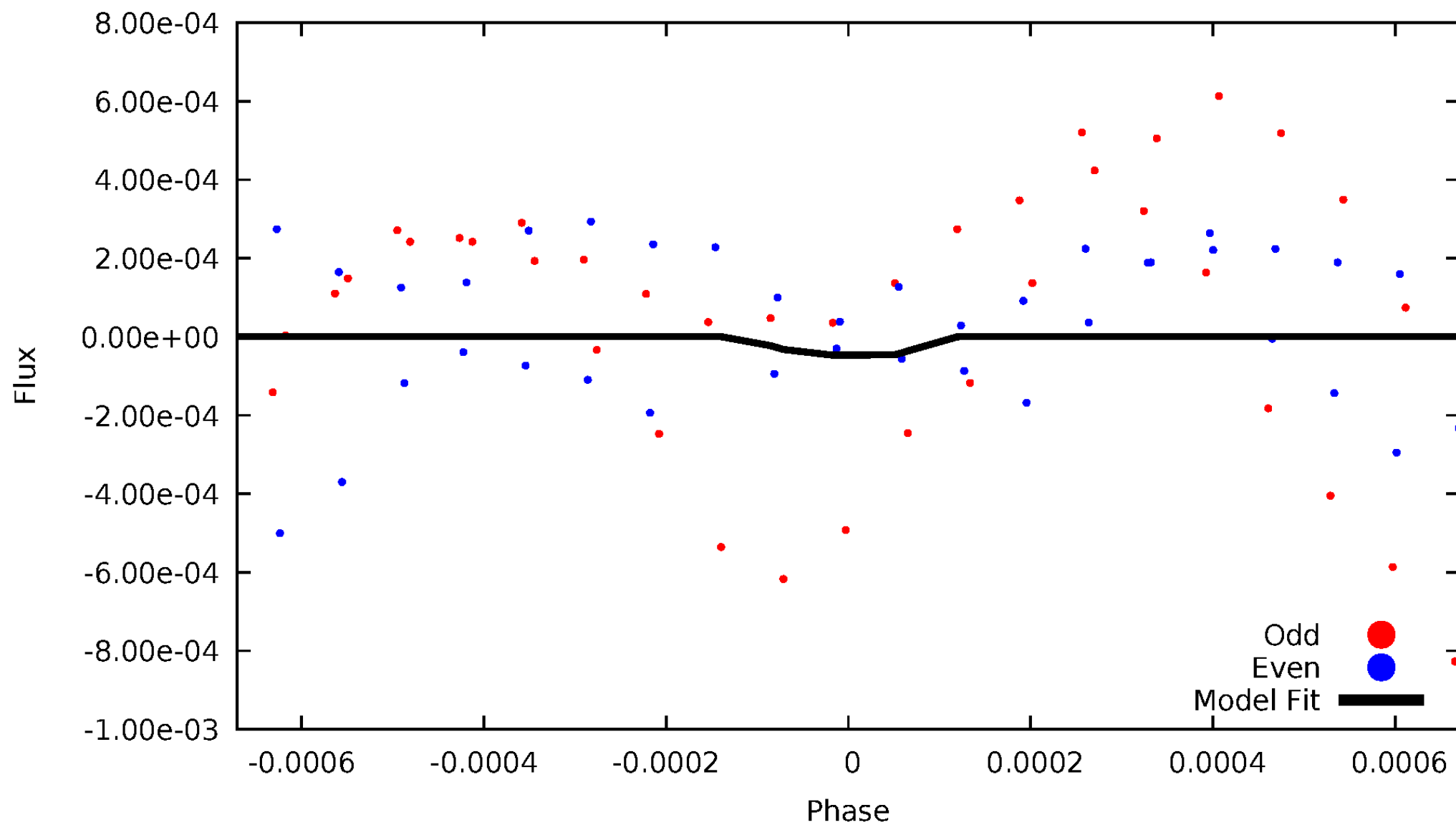
DV Odd/Even

TCE 003942392-03



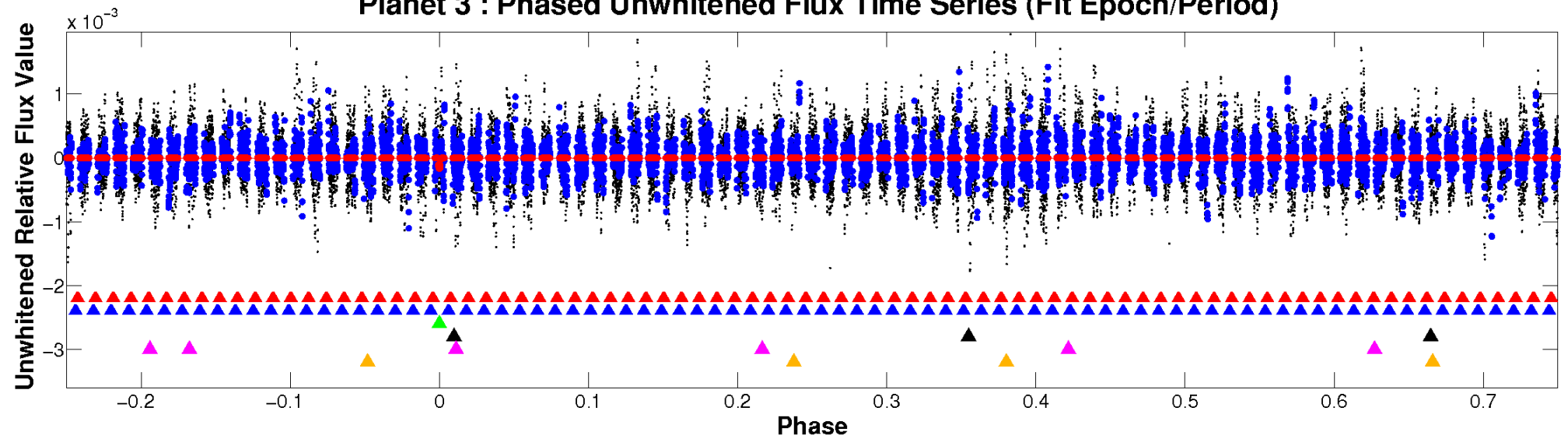
ALT Odd/Even

TCE 003942392-03

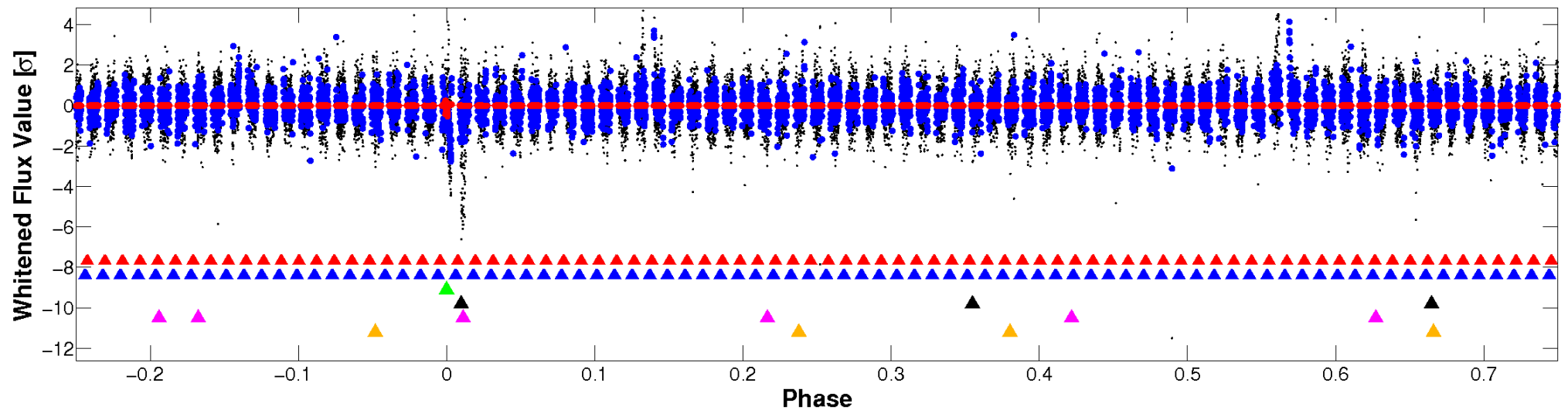


Non-Whitened Vs. Whitened Light Curve

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

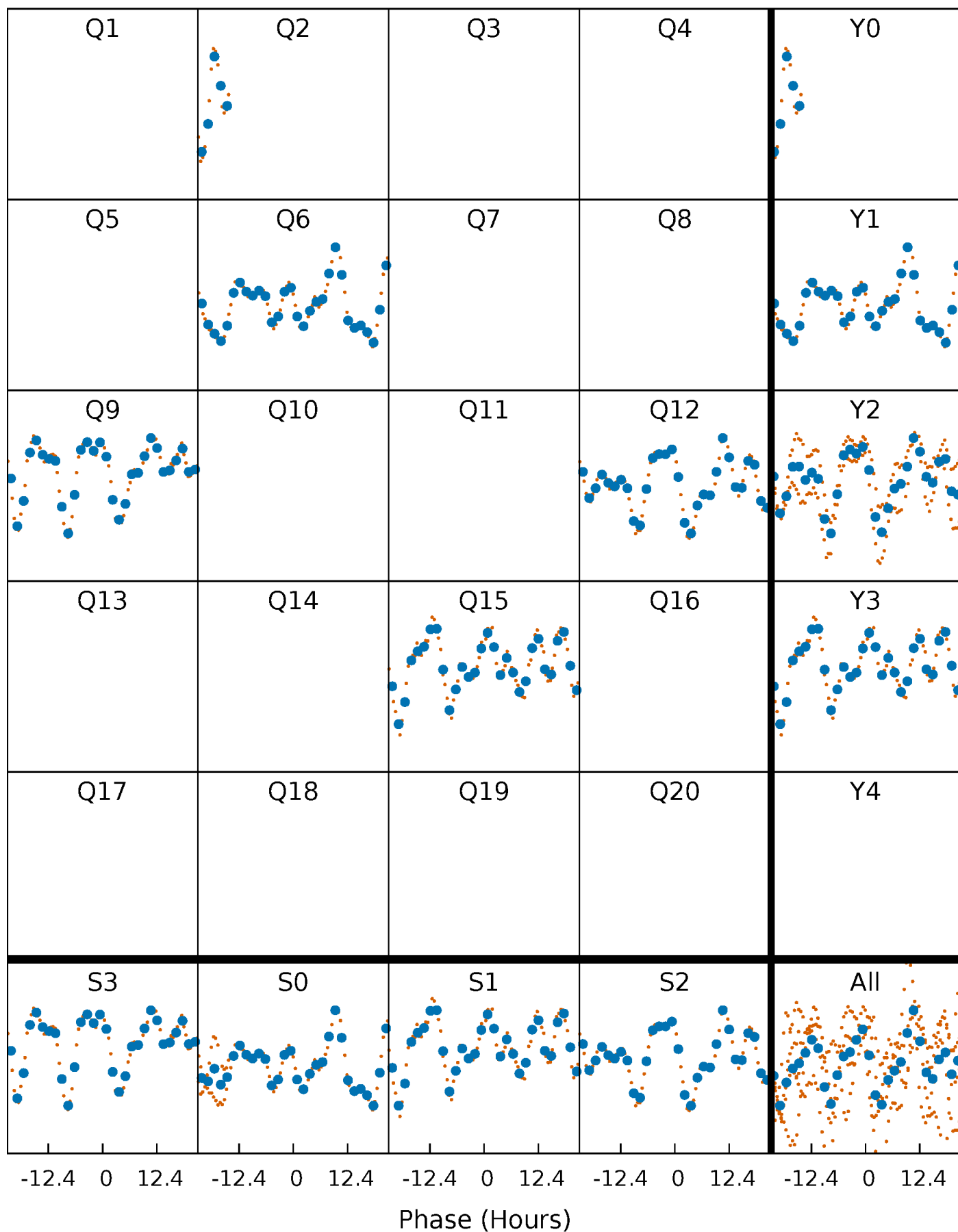


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



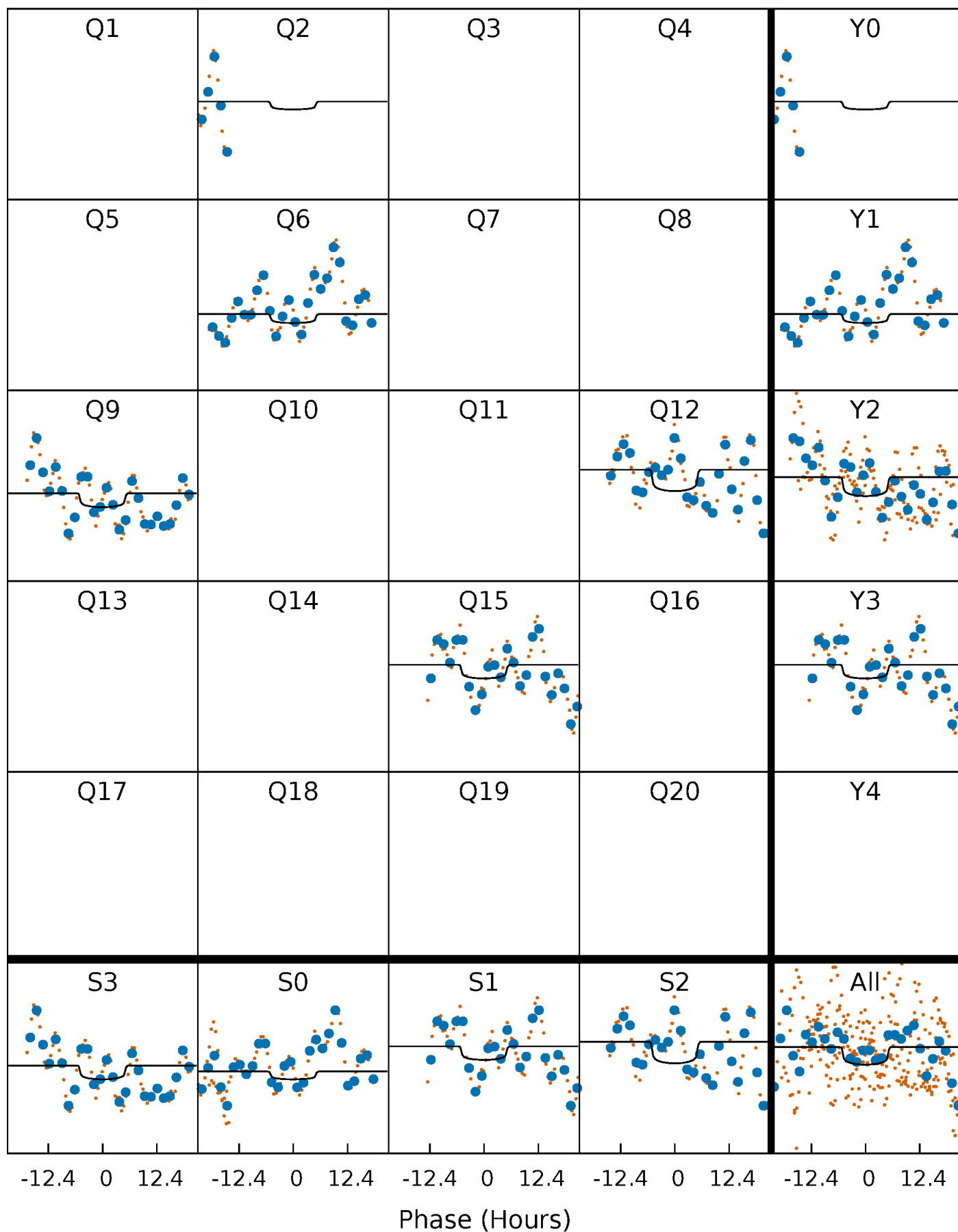
PDC Quarter-Phased Transit Curves

TCE 003942392-03 $P=299.188214$ Days $T_0=259.082874$ (BKJD)



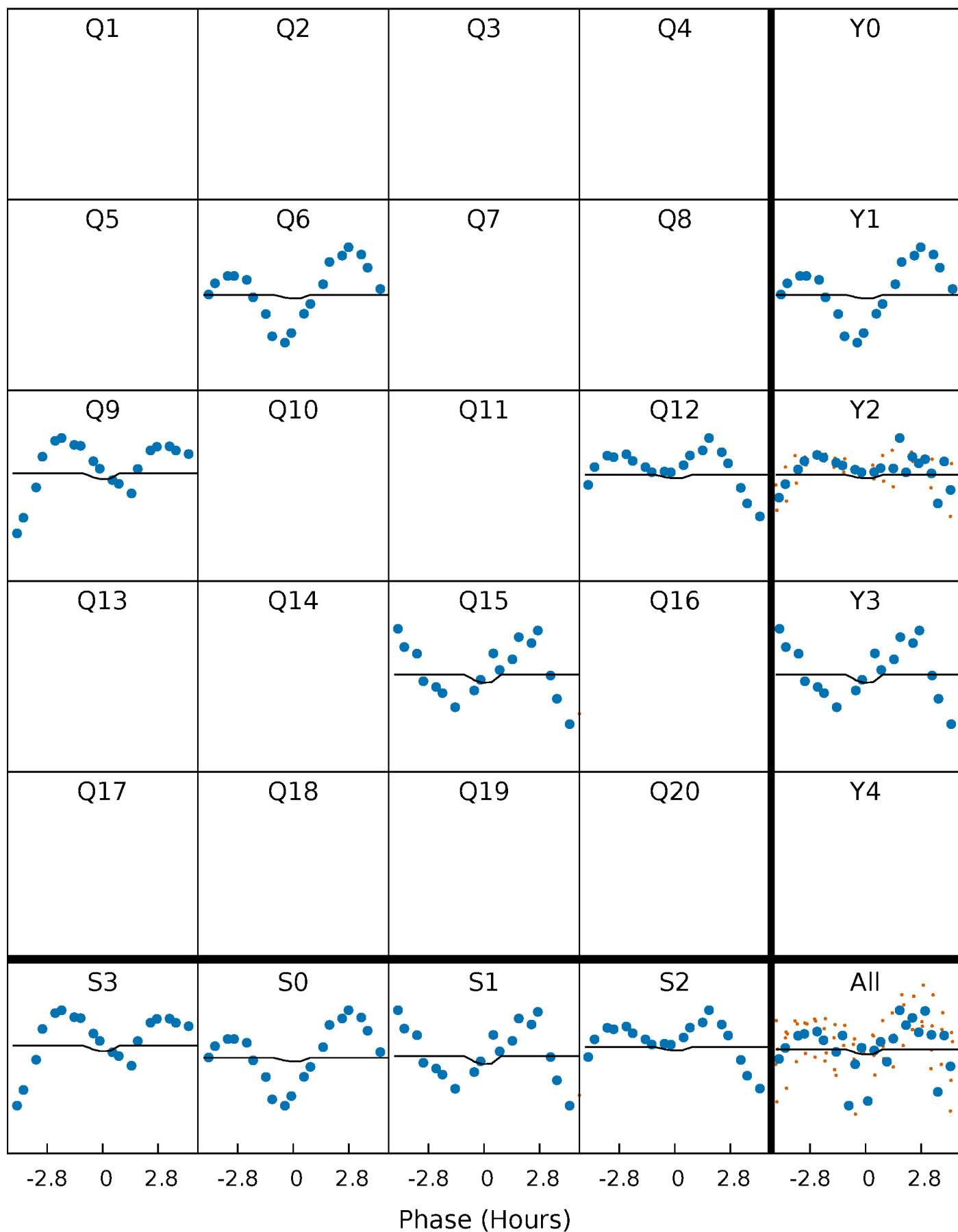
DV Quarter-Phased Transit Curves

TCE 003942392-03 $P=299.188214$ Days $T_0=259.082874$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

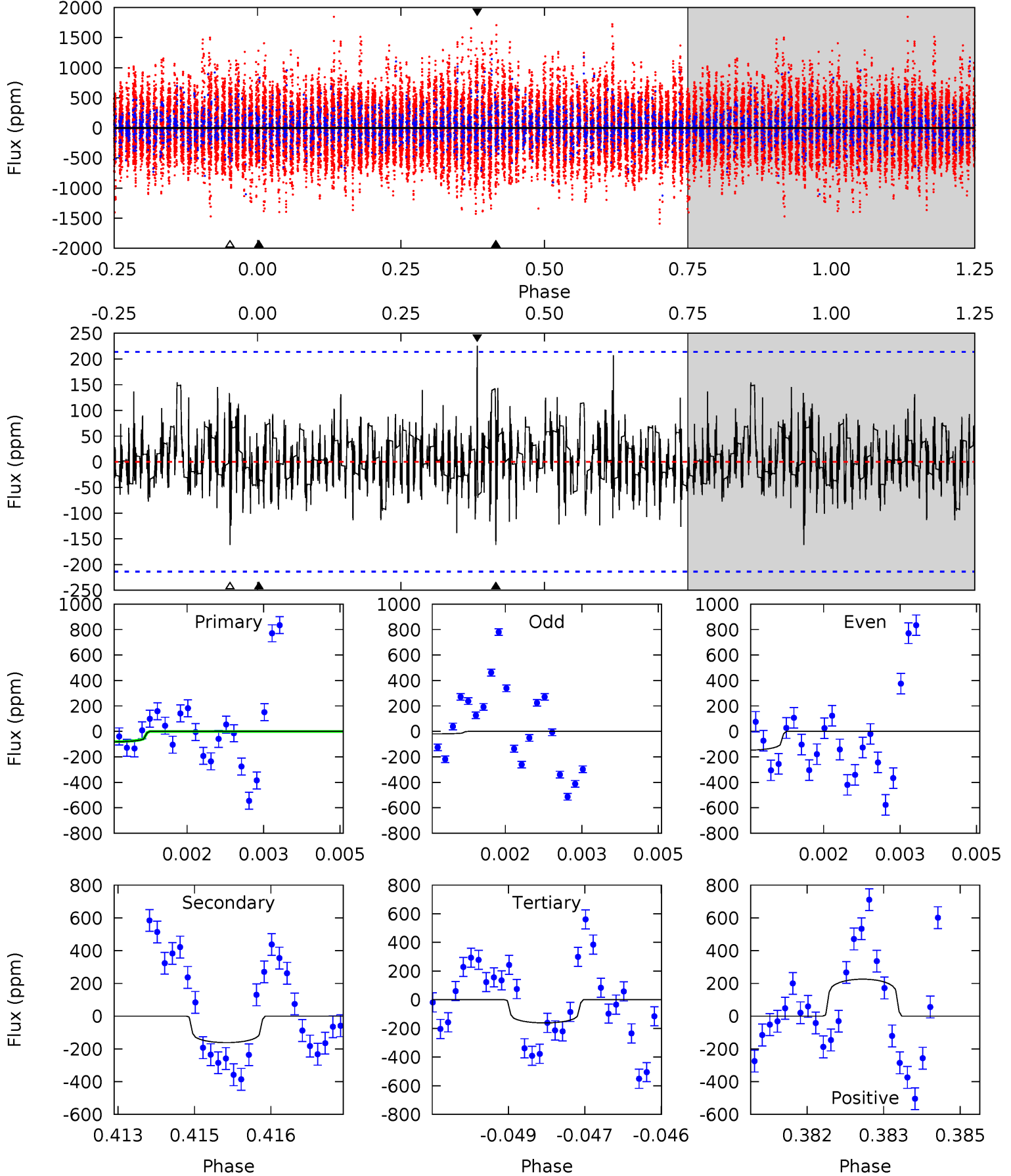
TCE 003942392-03 P=299.229053 Days $T_0=258.878622$ (BKJD)



DV Model-Shift Uniqueness Test

003942392-03, P = 299.188214 Days, E = 259.082874 Days

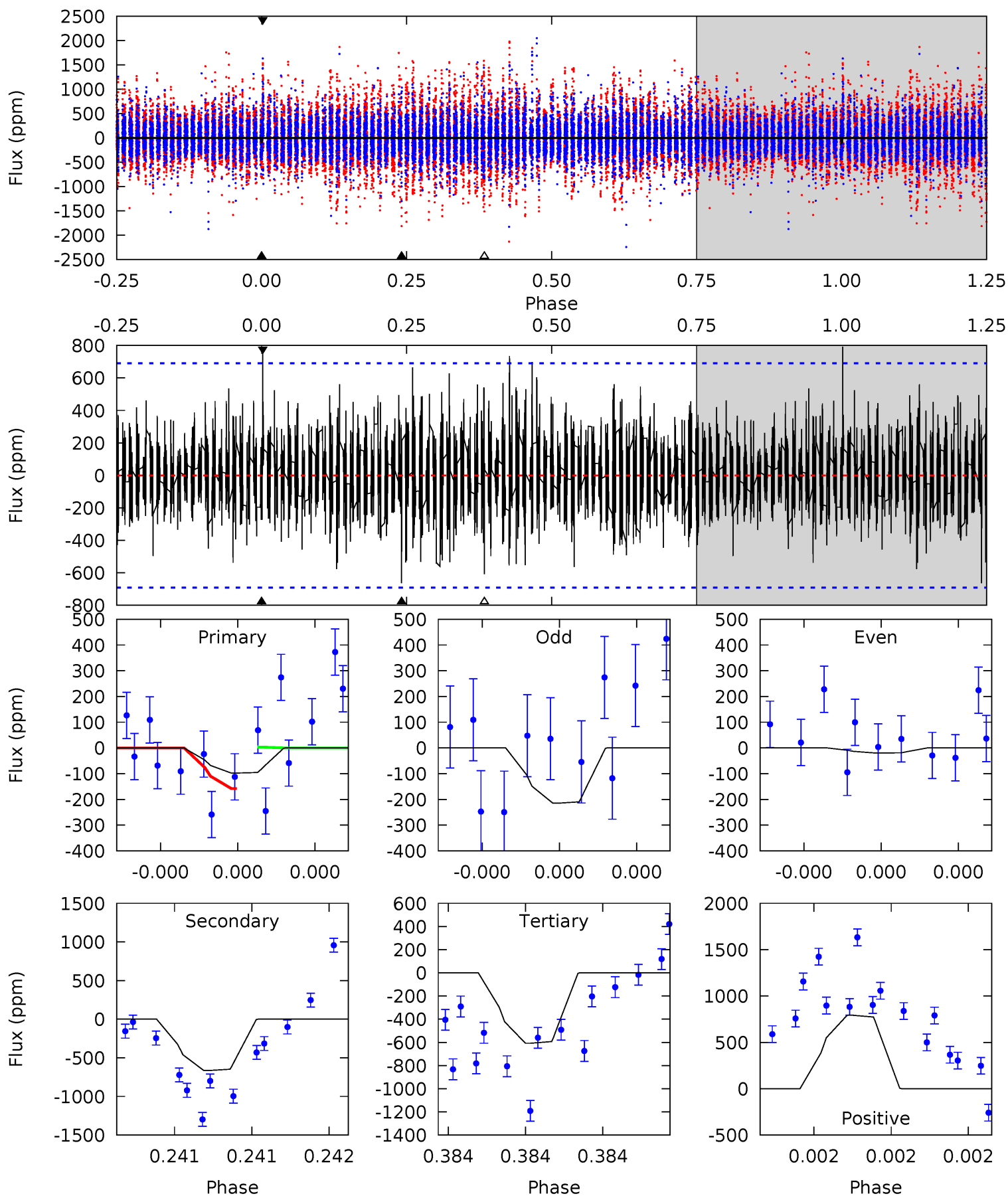
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.07	4.06	4.06	5.68	5.37	3.16	1.18	-1.99	-3.61	0.00	-1.61	1.62	1.21	0.58	0.04



Alt Model-Shift Uniqueness Test

003942392-03, P = 299.229053 Days, E = 258.878622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.81	5.50	5.04	6.57	5.73	3.72	1.50	-4.23	-5.76	0.47	-1.06	0.81	-5.22	0.54	0.61



Stellar Parameters For KIC 003942392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7120^{+128}_{-277}	$2.888^{+0.594}_{-0.033}$	$0.070^{+0.250}_{-0.500}$	$11.106^{+0.742}_{-6.681}$	$3.479^{+0.070}_{-1.383}$	$0.004^{+0.035}_{-0.000}$
	+2%/-4%	+21%/-1%	+357%/-714%	+7%/-60%	+2%/-40%	+974%/-12%
Source	PHO1	FLK73	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 003942392-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-162 \pm 40	$13.25^{+7.48}_{-6.28}$	1201^{+84}_{-193}	6864^{+2703}_{-1126}	849^{+2009}_{-489}
Alt.	-664 \pm 121	$7.42^{+5.45}_{-4.63}$	1197^{+87}_{-182}	18205^{+42150}_{-6894}	11167^{+65801}_{-7549}

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

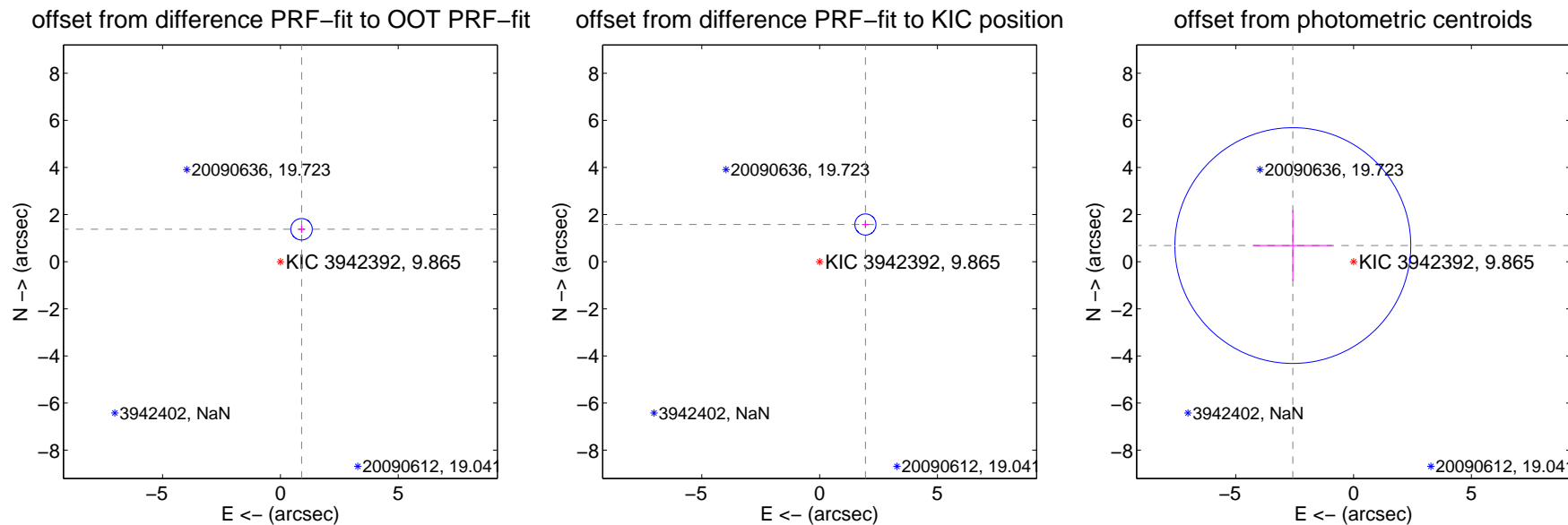
DV Centroid Data

Supplemental centroid analysis for 003942392-03. **Kepler magnitude: 9.87.** Transit SNR 3.32

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.644 ± 0.152	10.82	-0.897 ± 0.146	1.377 ± 0.154
PRF-fit source offset from KIC position	2.504 ± 0.149	16.77	-1.944 ± 0.146	1.579 ± 0.154
photometric centroid source offset	2.67 ± 1.67	1.60	2.58 ± 1.68	0.68 ± 1.50

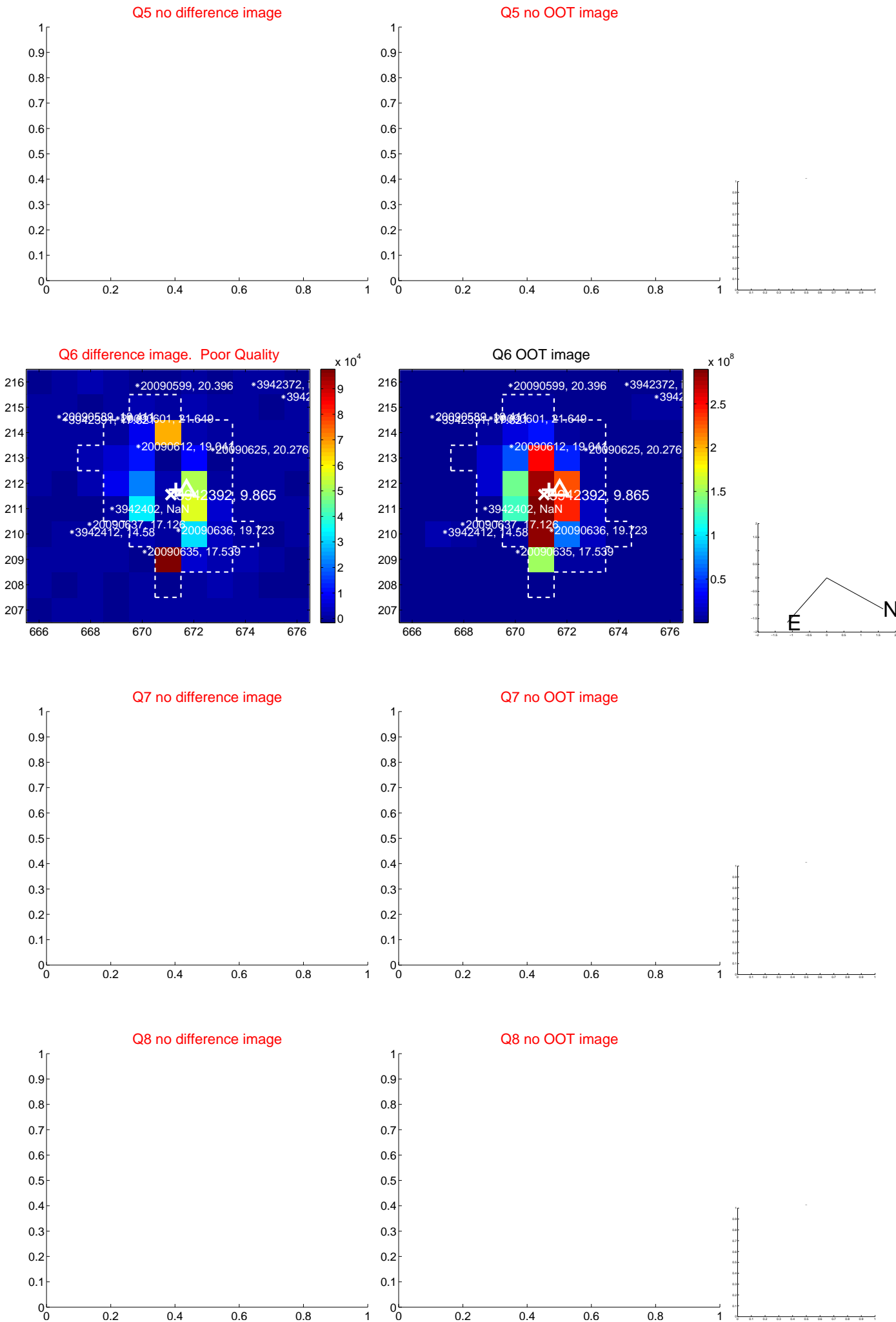


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

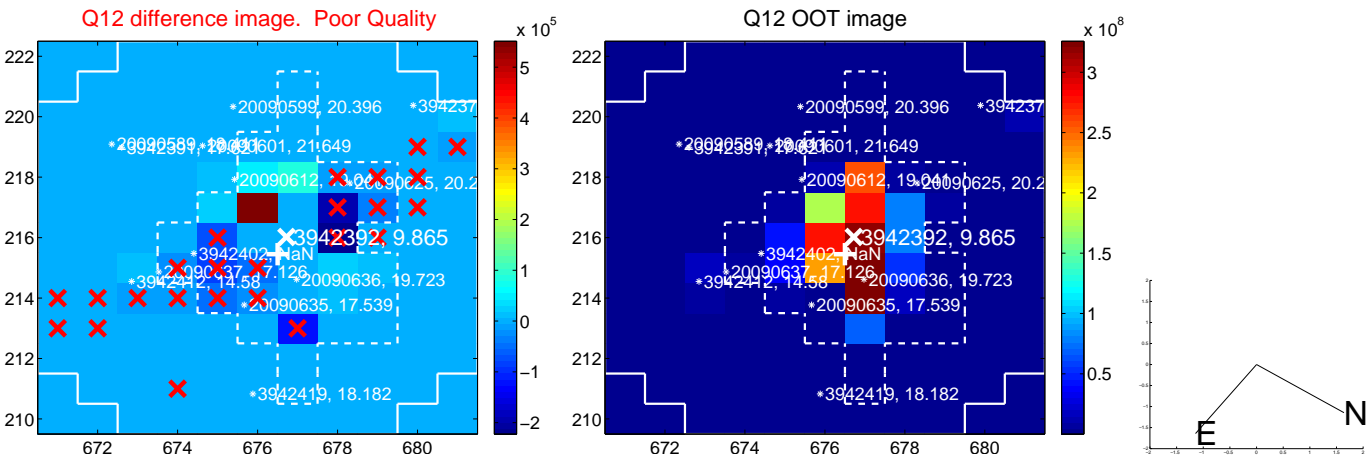
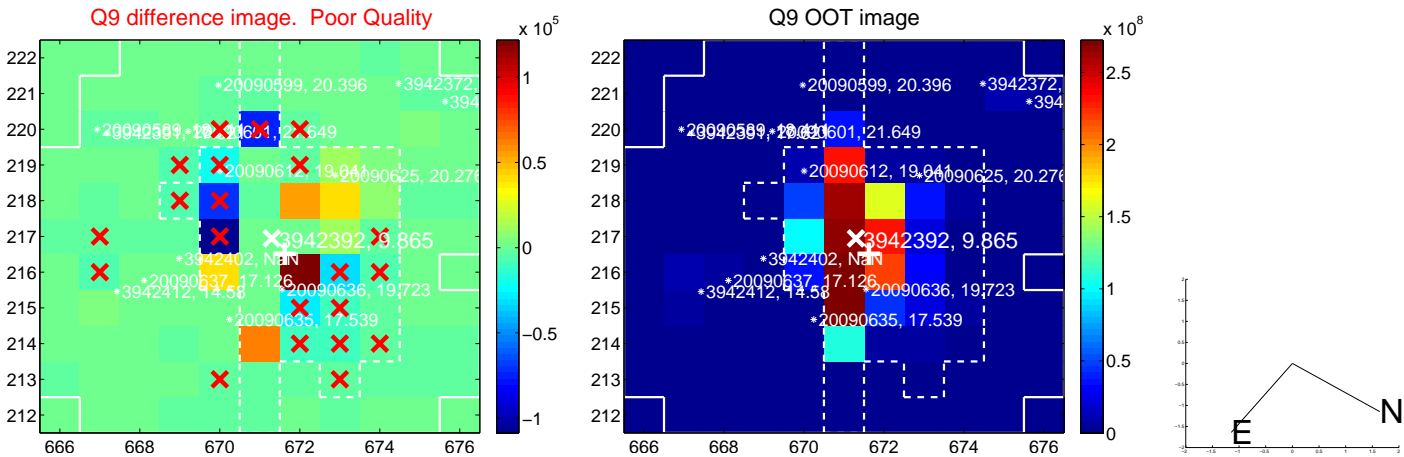
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



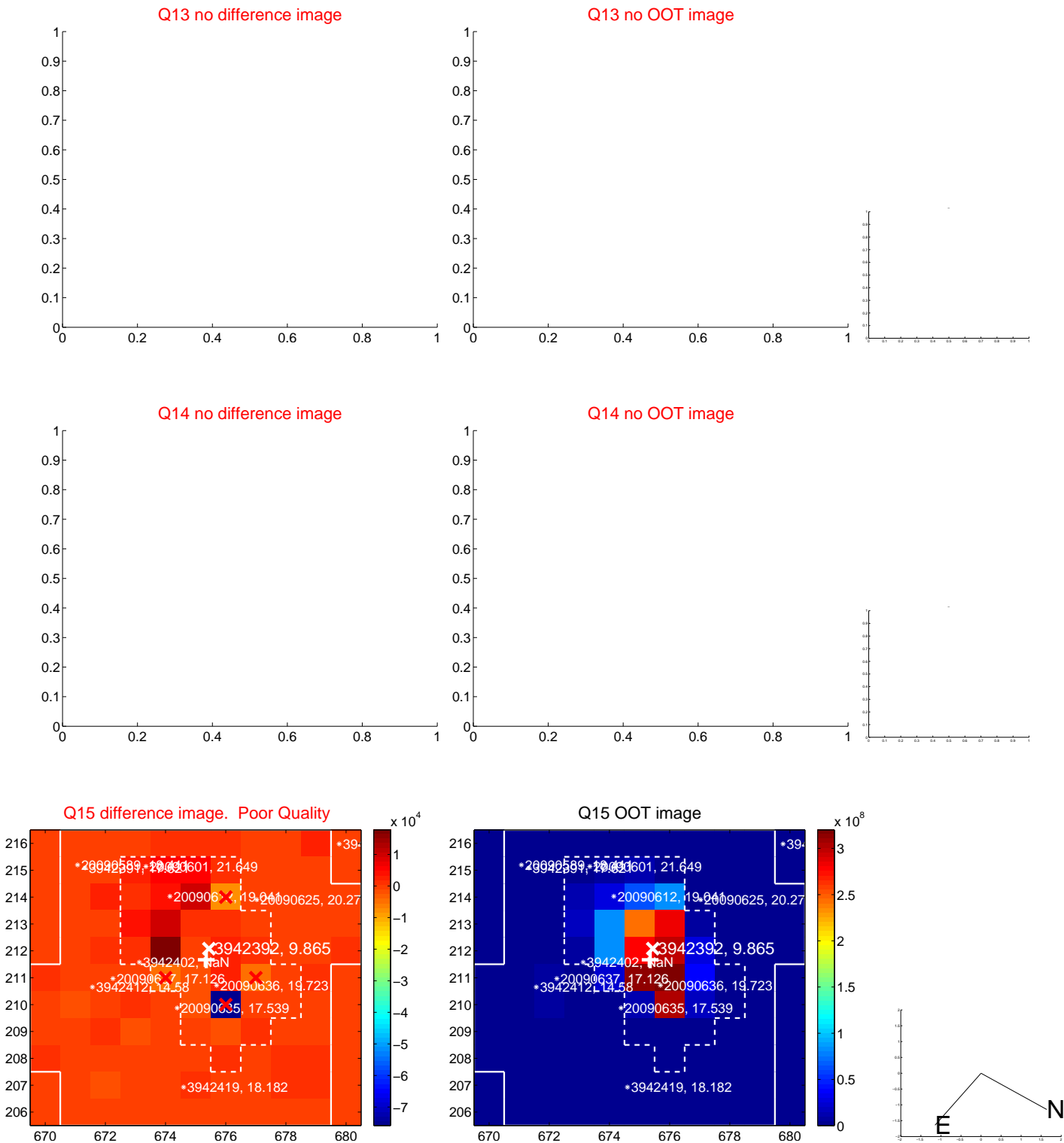
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



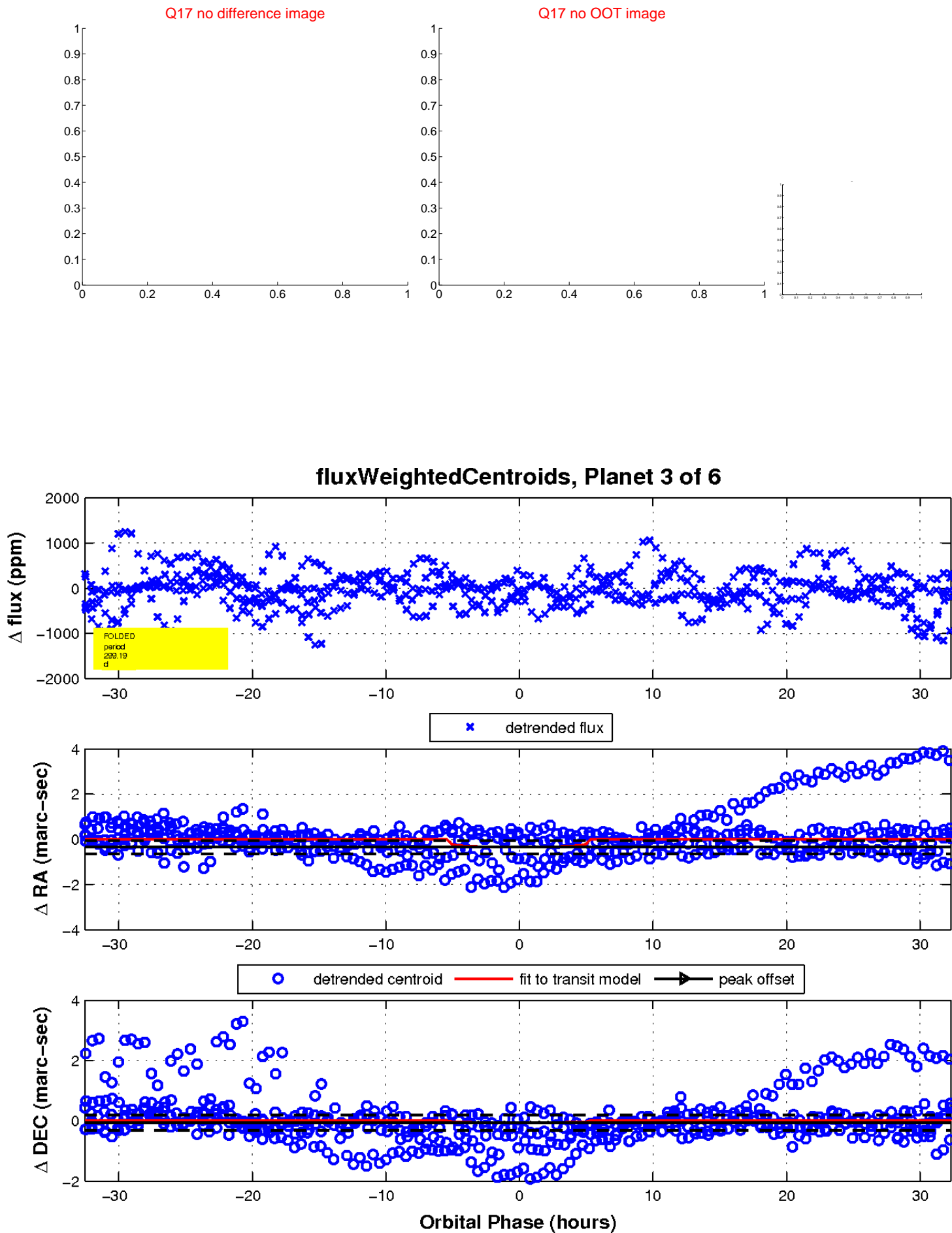
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



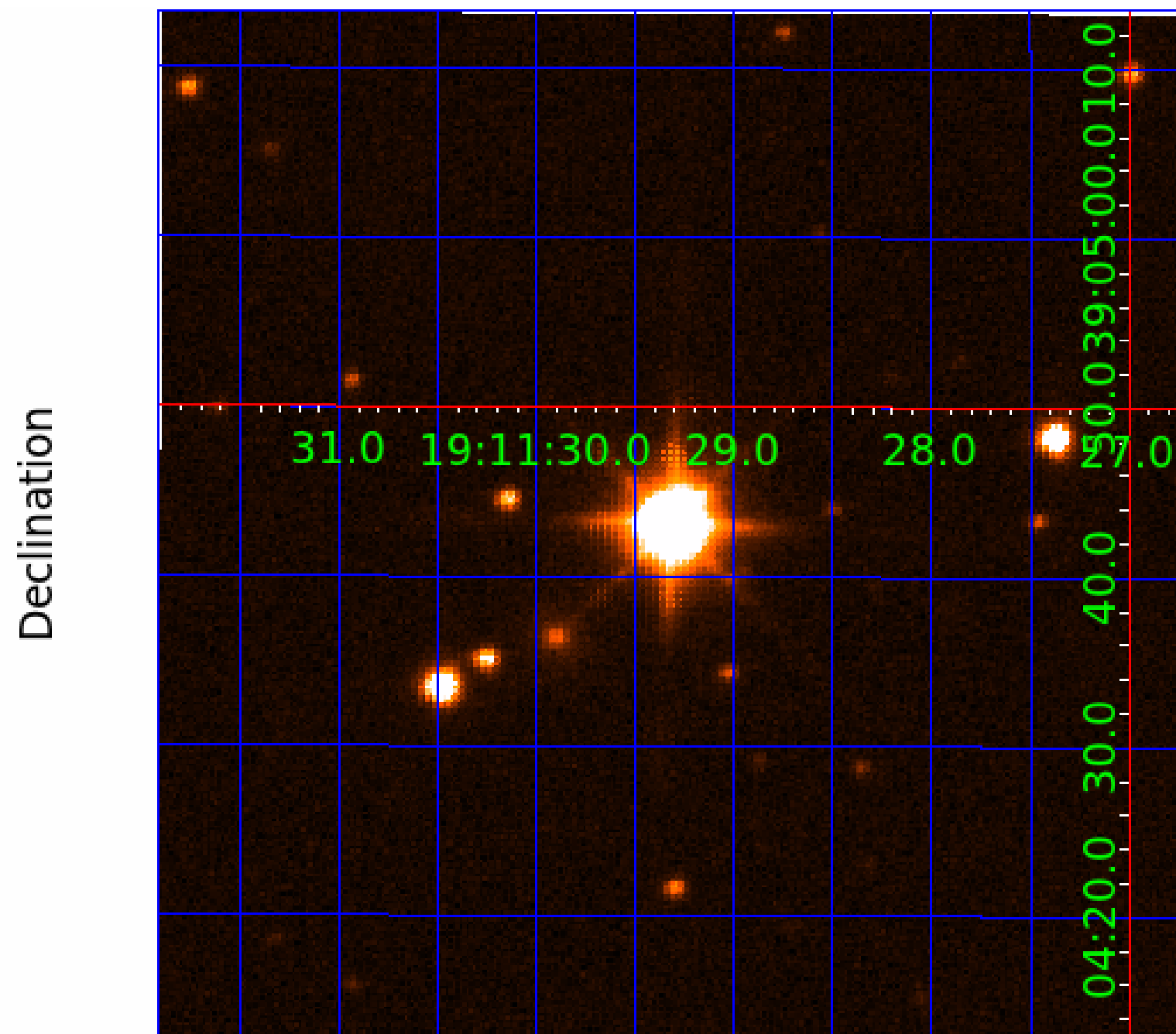
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003942392

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})
003942392-01	OBS	No	3.562797	132.912165	9.5	1.916	7.3	1.5	11.11	7120	4.05	59356.00
003942392-02	OBS	No	3.562812	132.487186	33.2	15.728	7.4	7.4	11.11	7120	8.25	59355.66
003942392-03	OBS	No	299.188214	259.082874	170.1	10.887	28.0	3.3	11.11	7120	16.27	161.41
003942392-04	OBS	No	495.132227	365.270498	1217.8	6.964	9.0	9.0	11.11	7120	72.42	82.46
003942392-06	OBS	No	384.706766	372.839605	413.3	11.611	8.1	8.0	11.11	7120	28.61	115.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003942392-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
003942392-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
003942392-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

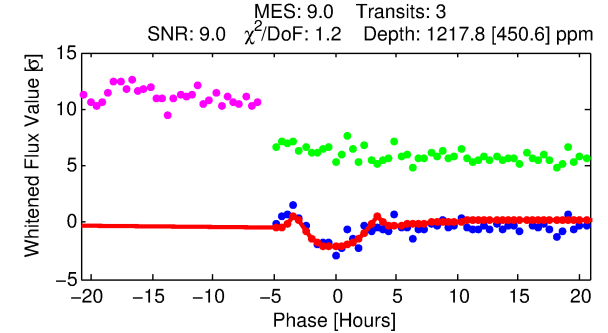
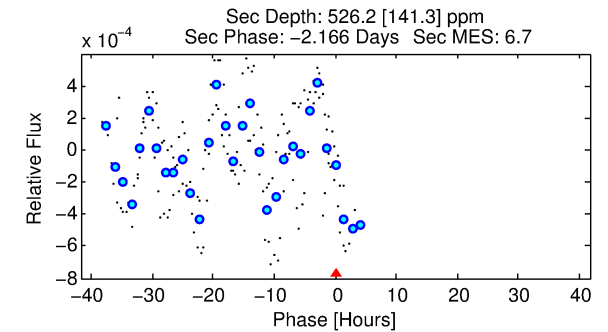
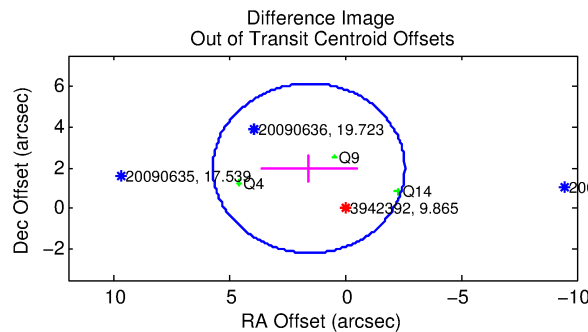
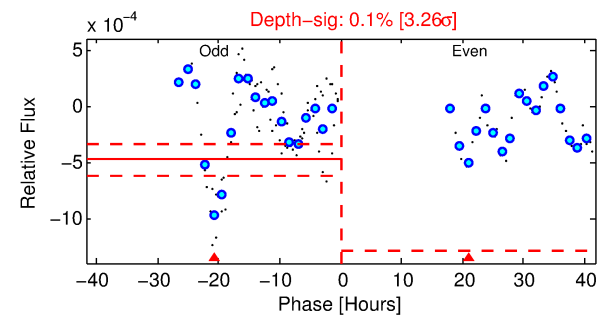
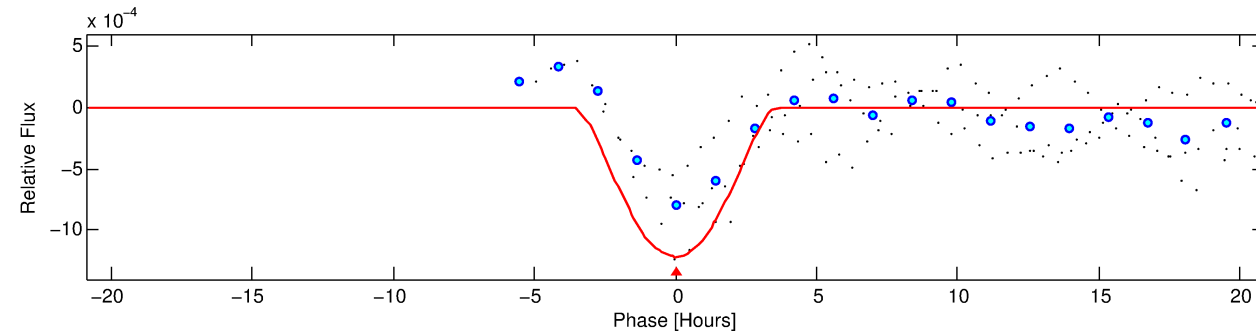
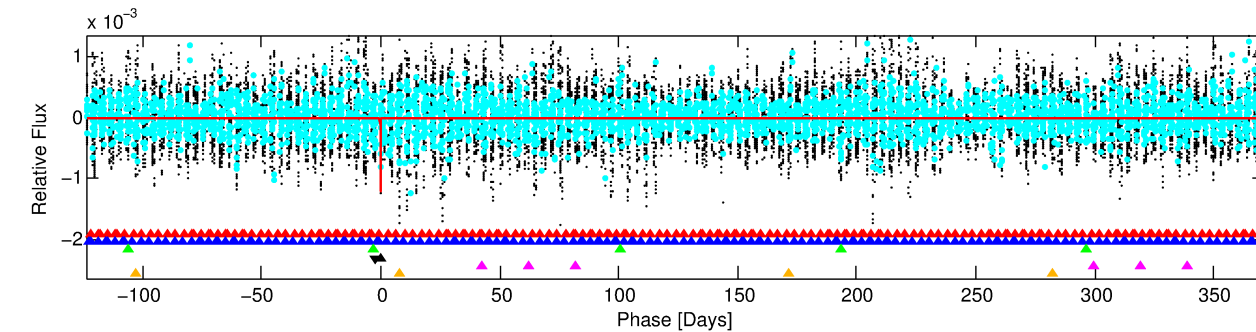
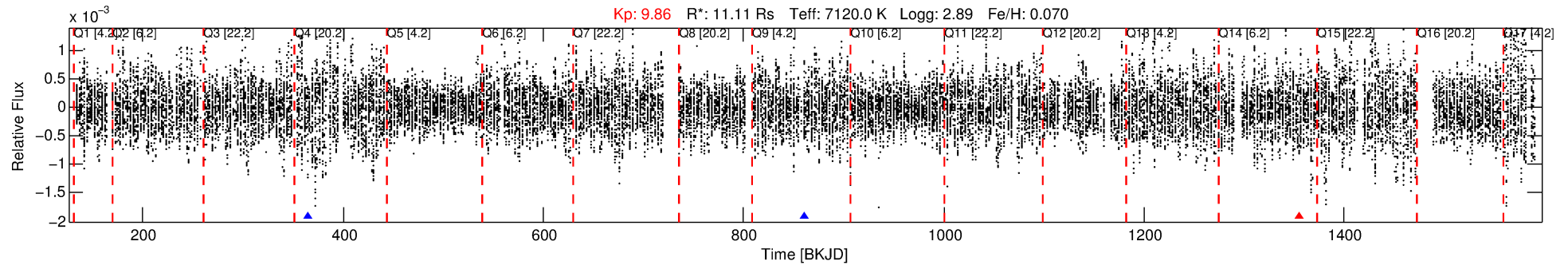
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003942392-04

No Significant Match Found

DV One-Page Summary

KIC: 3942392 Candidate: 4 of 6 Period: 495.132 d



DV Fit Results:

Period = 495.13223 [0.01107] d
Epoch = 365.2705 [0.0106] BKJD
Rp/R* = 0.0598 [0.0872]
a/R* = 190.60 [62.89]
b = 1.00 [0.14]
Seff = 82.46 [83.13]
Teff = 768 [194] K
Rp = 72.42 [114.31] Re
a = 1.8559 [1.1269] AU
Ag = 190.14 [588.64] [0.32 σ]
Teffp = 4412 [3237] K [1.12 σ]

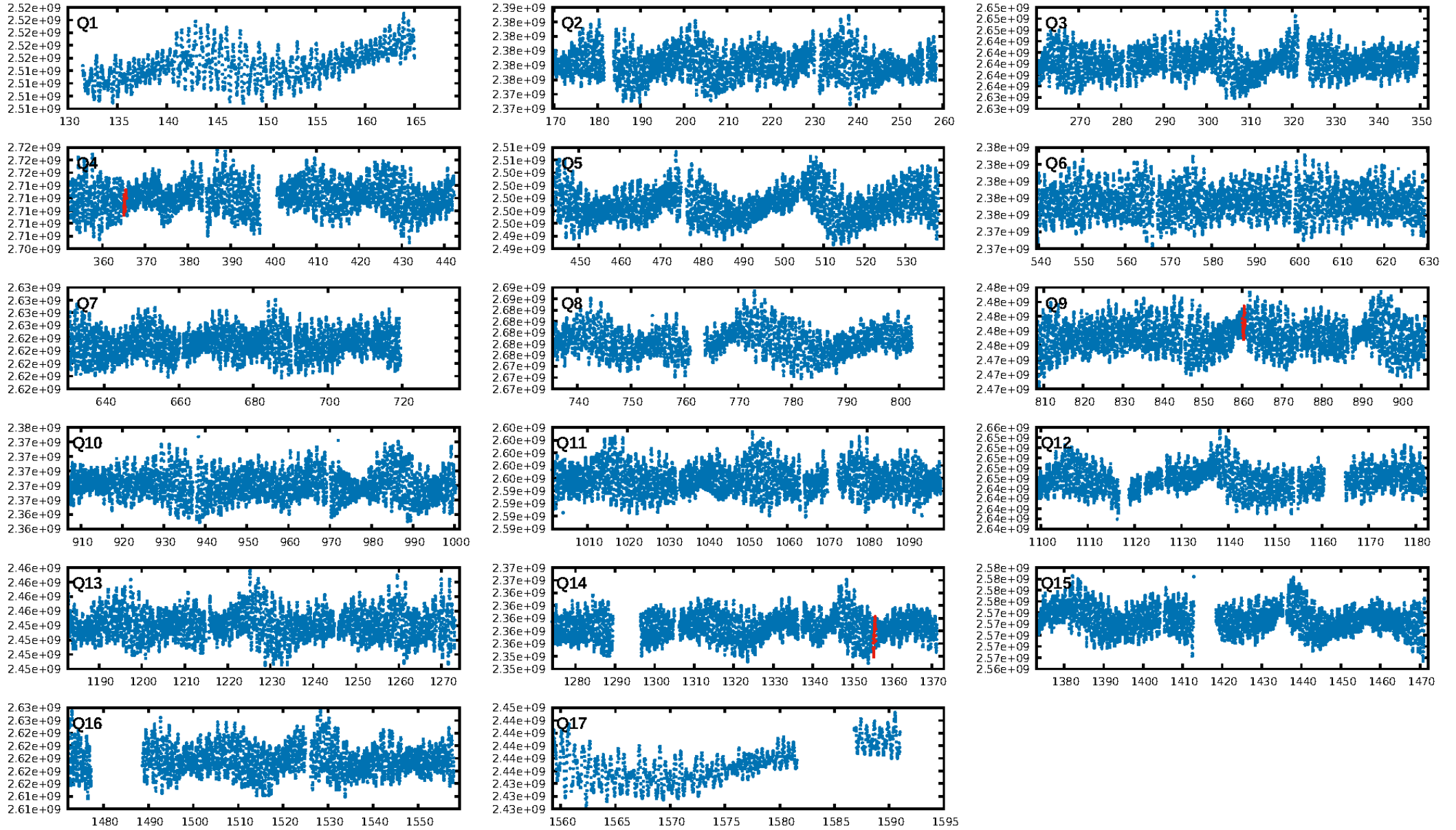
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [195.74 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.9%
ModelChiSquareGof-sig: 98.2%
Bootstrap-pfa: 2.72e-08
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.8%
Centroid-so: 0.849 arcsec [2.25 σ]
OotOffset-rm: 2.526 arcsec [1.83 σ]
KicOffset-rm: 3.543 arcsec [2.22 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 0.67 [2/3]

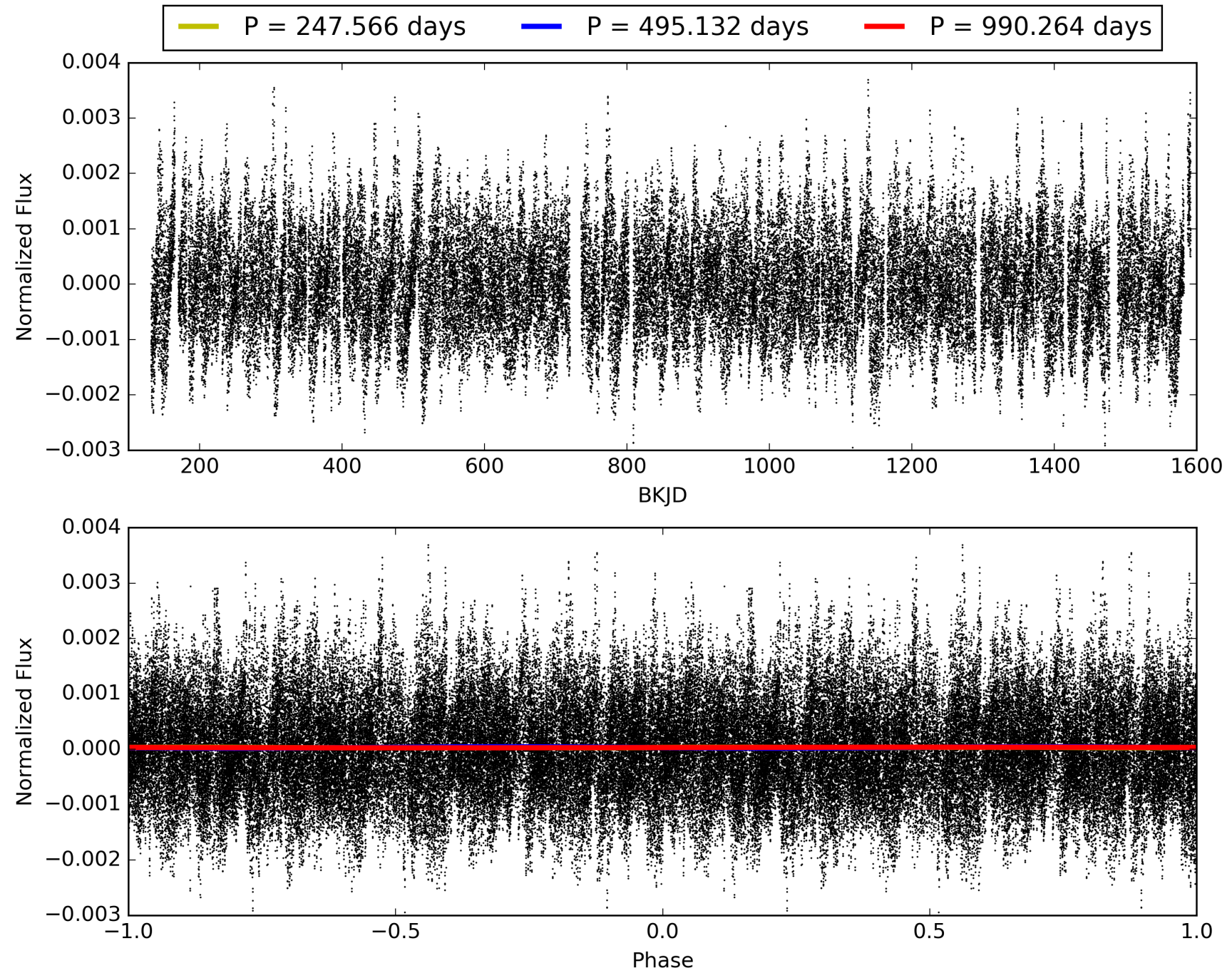
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:42:22 Z

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

TCE 003942392-04, PDC Light Curves

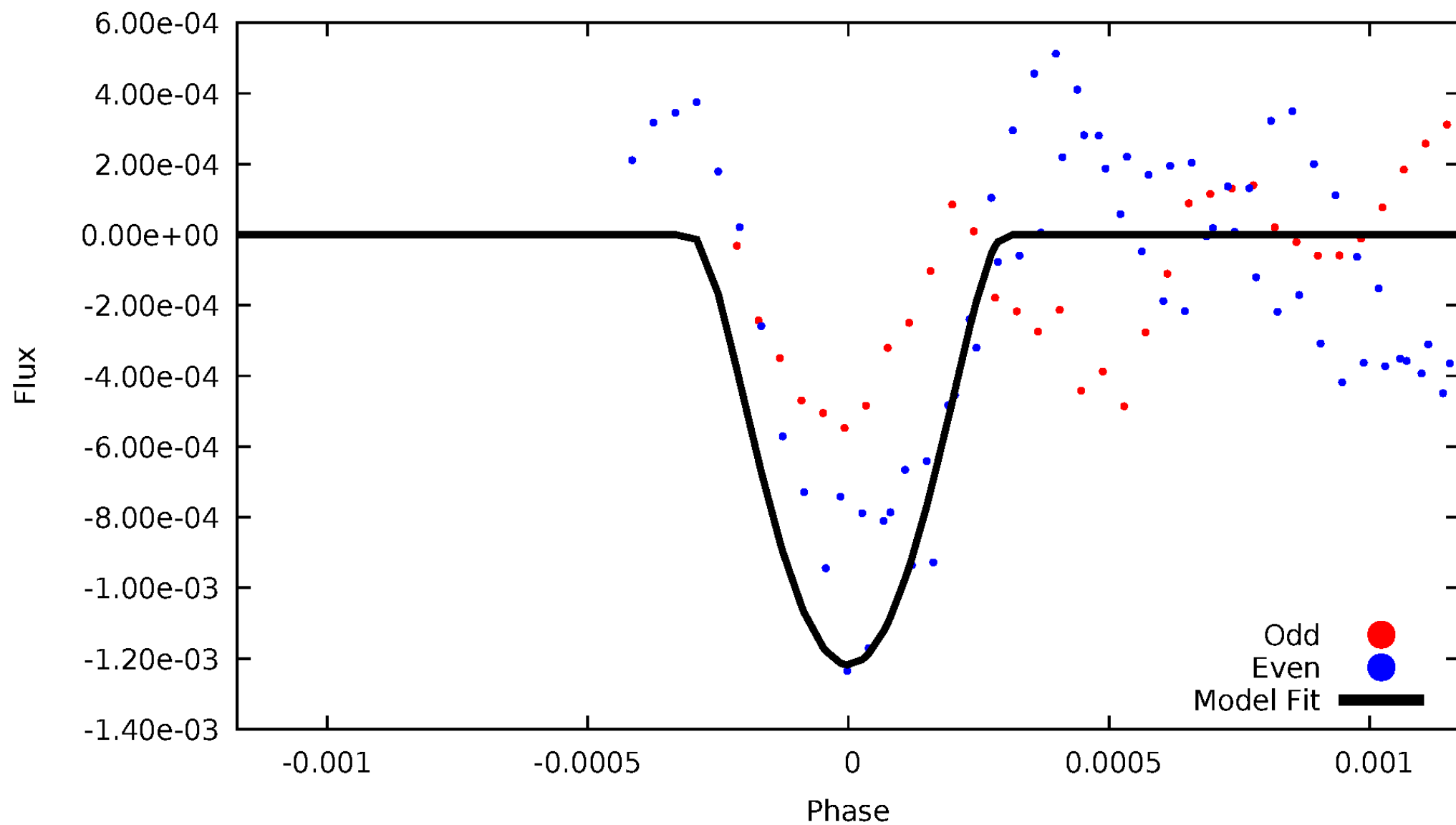


TCE 003942392-04



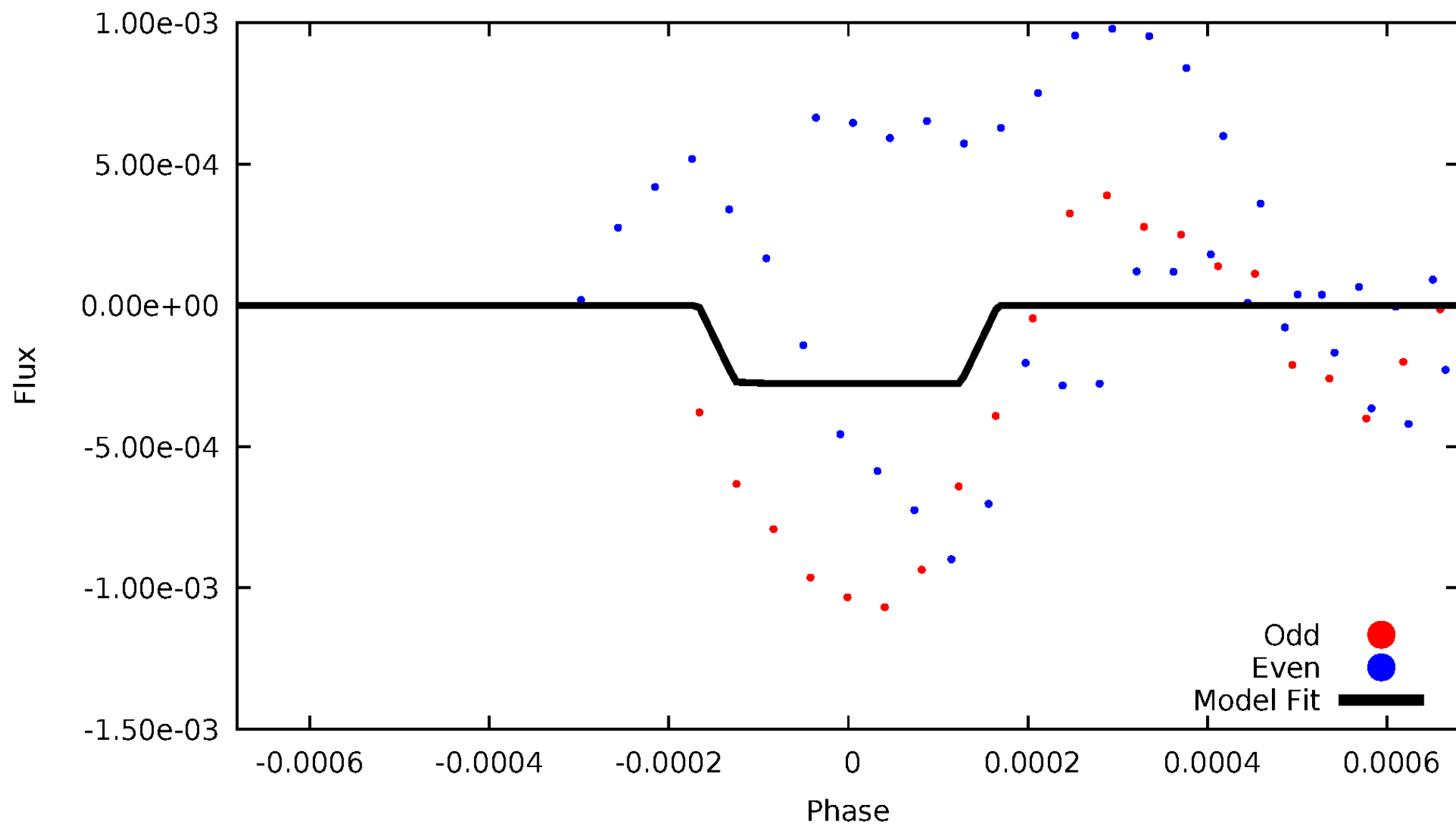
DV Odd/Even

TCE 003942392-04



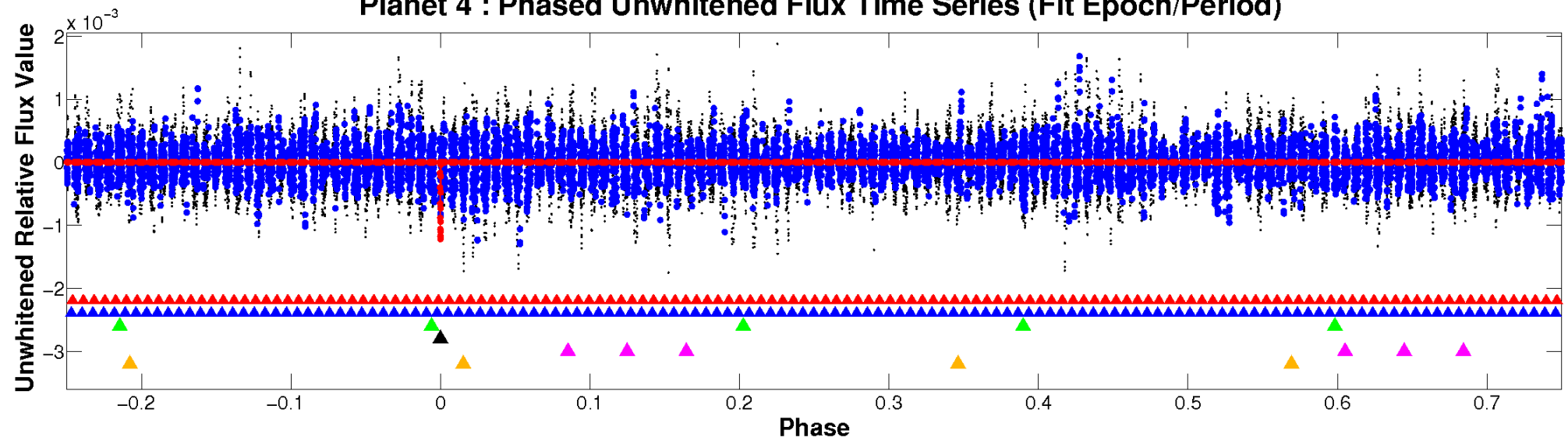
ALT Odd/Even

TCE 003942392-04

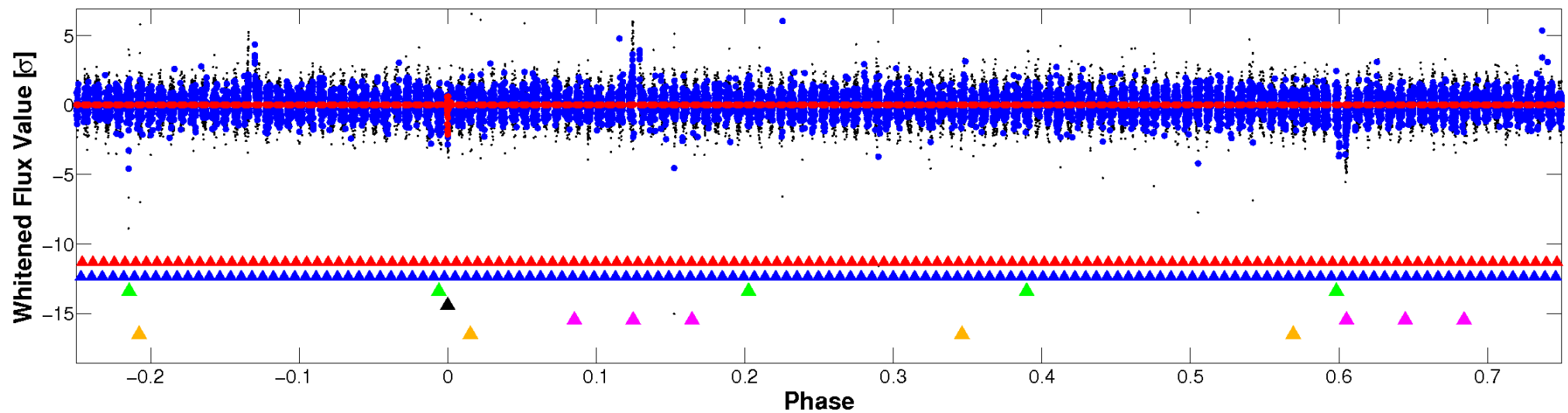


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

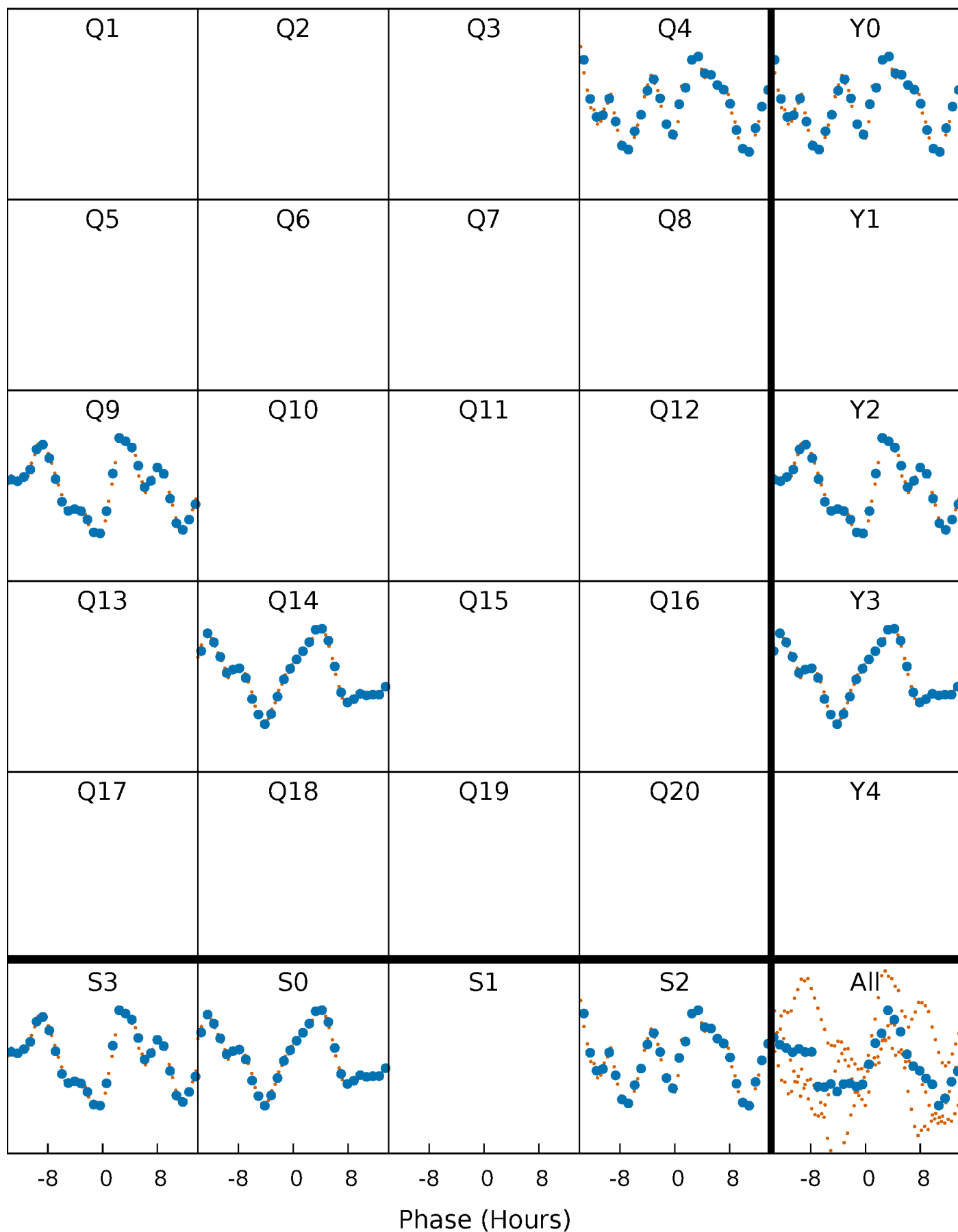


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



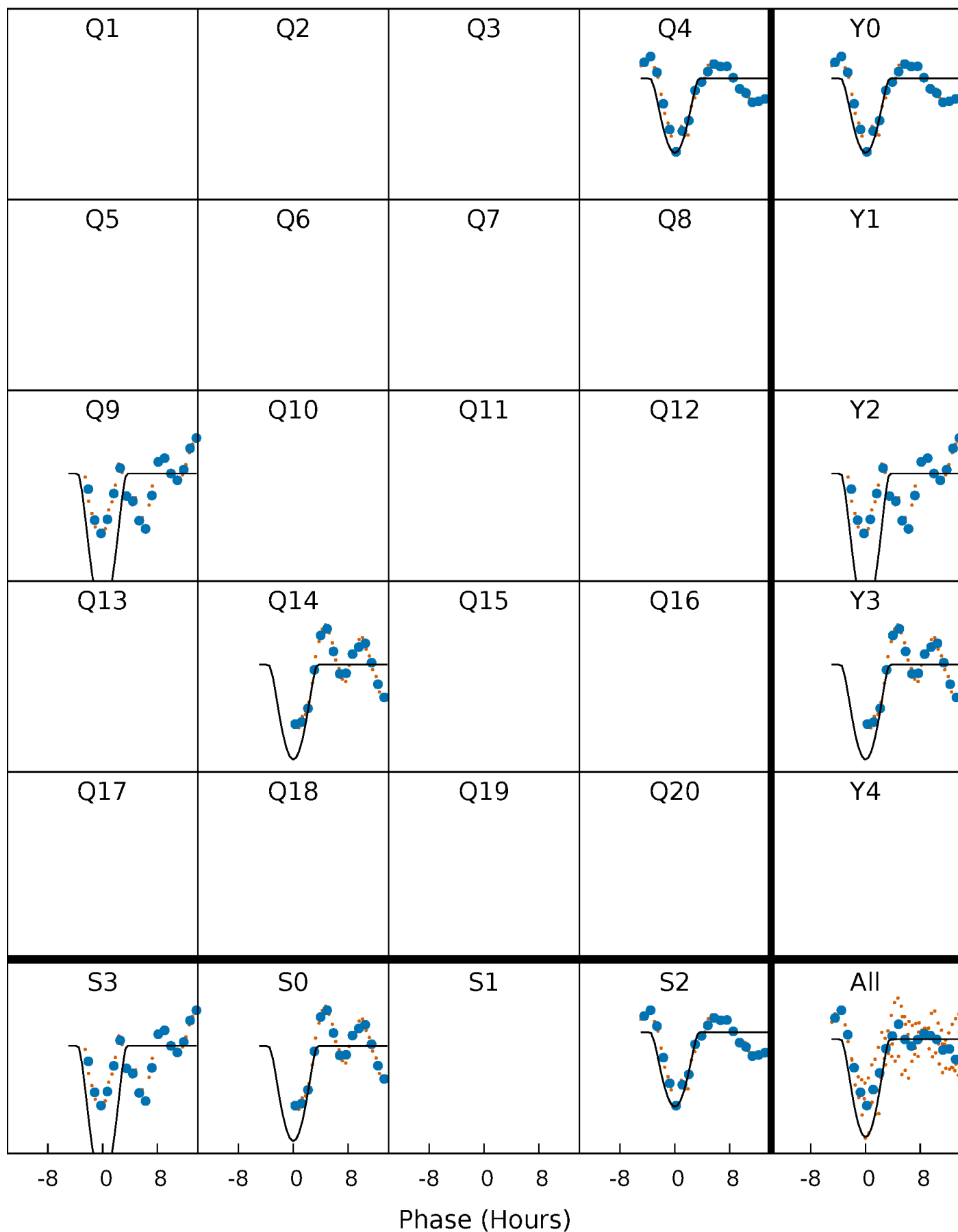
PDC Quarter-Phased Transit Curves

TCE 003942392-04 $P=495.132227$ Days $T_0=365.270498$ (BKJD)



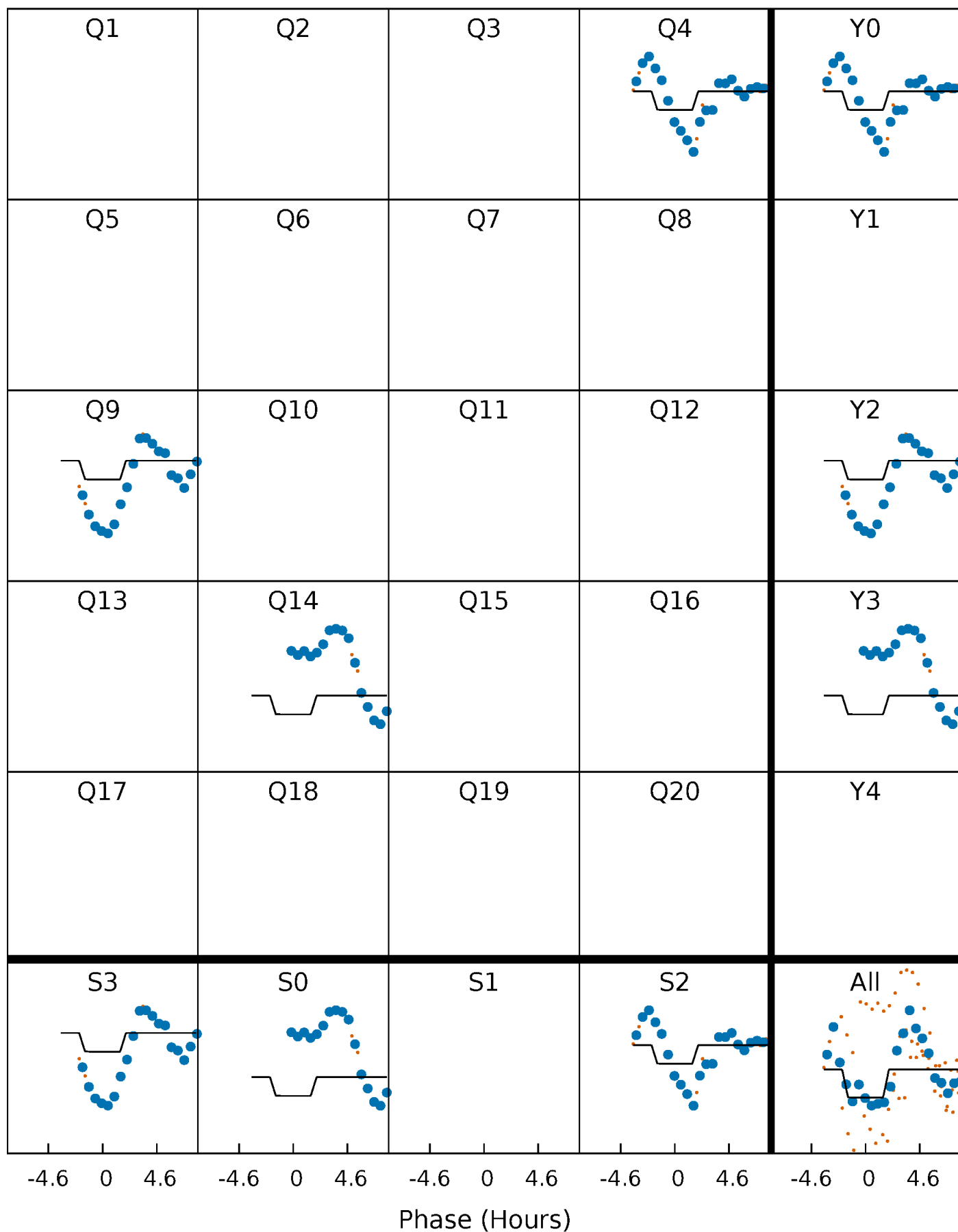
DV Quarter-Phased Transit Curves

TCE 003942392-04 $P=495.132227$ Days $T_0=365.270498$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

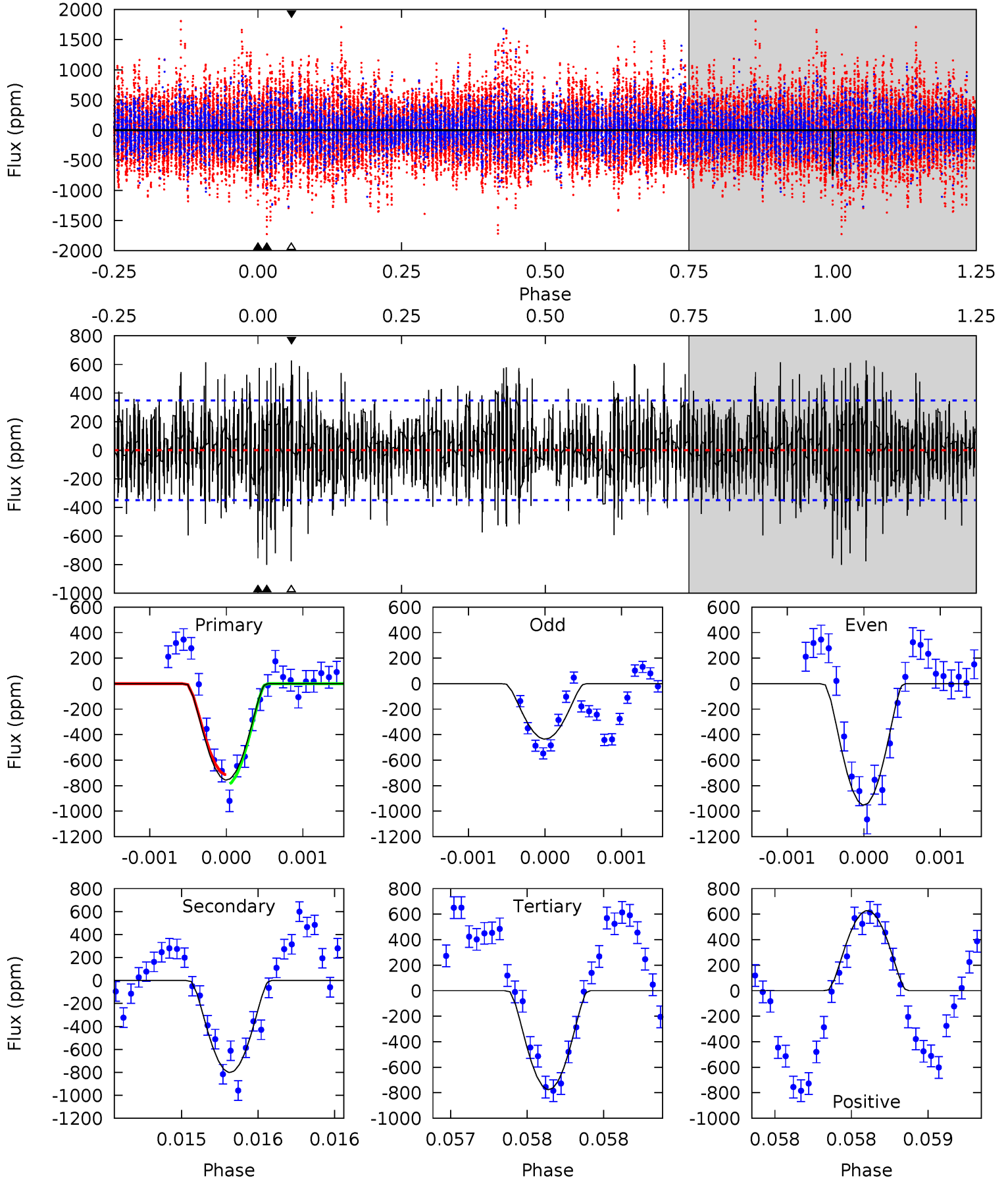
TCE 003942392-04 P=495.166459 Days $T_0=365.212631$ (BKJD)



DV Model-Shift Uniqueness Test

003942392-04, P = 495.132227 Days, E = 365.270498 Days

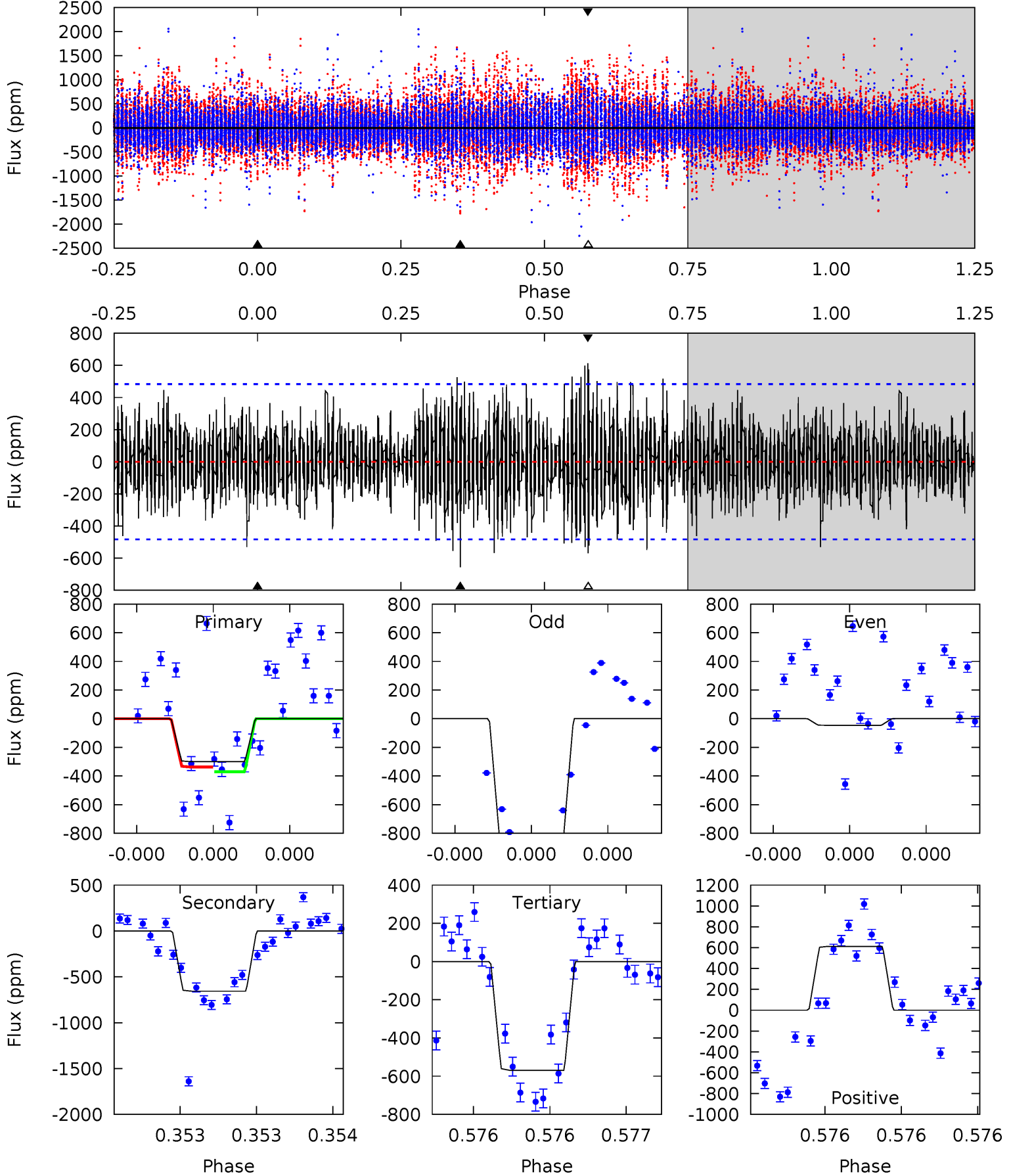
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	12.7	12.3	9.98	5.55	3.44	2.93	-0.31	2.04	0.41	2.76	4.16	0.91	0.44	0.56



Alt Model-Shift Uniqueness Test

003942392-04, P = 495.166459 Days, E = 365.212631 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.51	7.70	6.68	7.18	5.66	3.61	1.82	-3.16	-3.67	1.02	0.52	4.54	0.54	0.48	0.19



Stellar Parameters For KIC 003942392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7120^{+128}_{-277}	$2.888^{+0.594}_{-0.033}$	$0.070^{+0.250}_{-0.500}$	$11.106^{+0.742}_{-6.681}$	$3.479^{+0.070}_{-1.383}$	$0.004^{+0.035}_{-0.000}$
	+2%/-4%	+21%/-1%	+357%/-714%	+7%/-60%	+2%/-40%	+974%/-12%
Source	PHO1	FLK73	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 003942392-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-801 ± 63	$82.48^{+84.63}_{-52.76}$	1008^{+79}_{-152}	4229^{+2467}_{-775}	211^{+1336}_{-159}
Alt.	-657 ± 85	$62.51^{+75.25}_{-45.73}$	1013^{+74}_{-145}	4562^{+4759}_{-1032}	304^{+3829}_{-242}

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

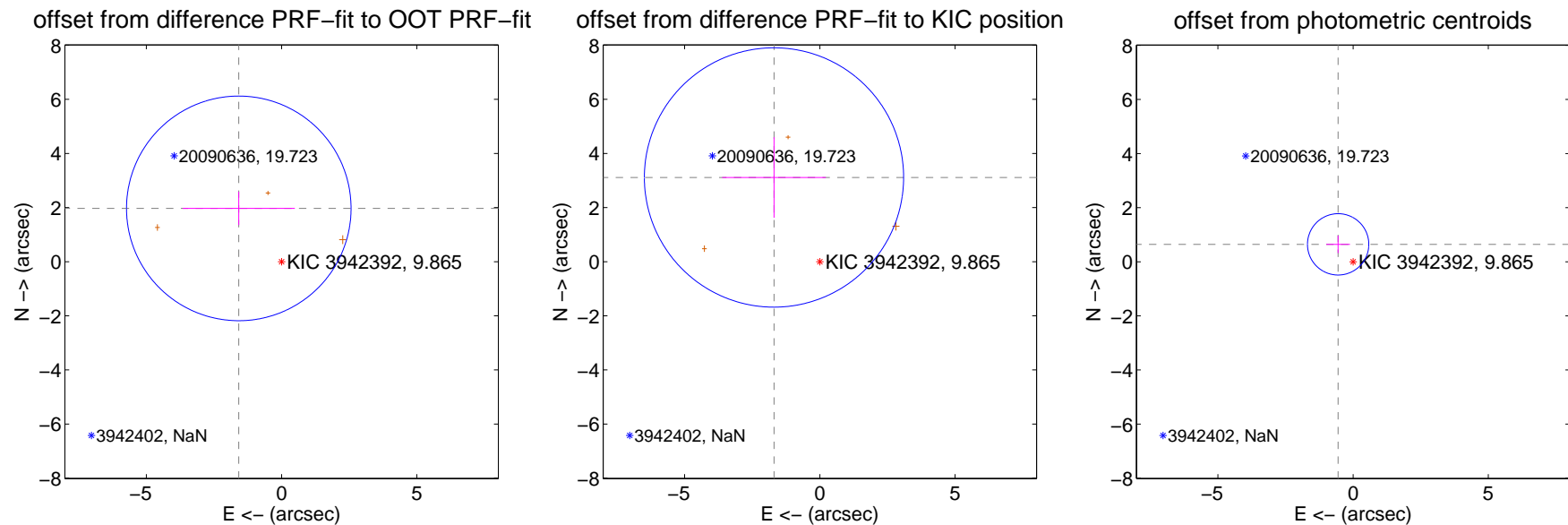
DV Centroid Data

Supplemental centroid analysis for 003942392-04. **Kepler magnitude: 9.87.** Transit SNR 9.01

There are 0 quarters with good PRF difference image offsets

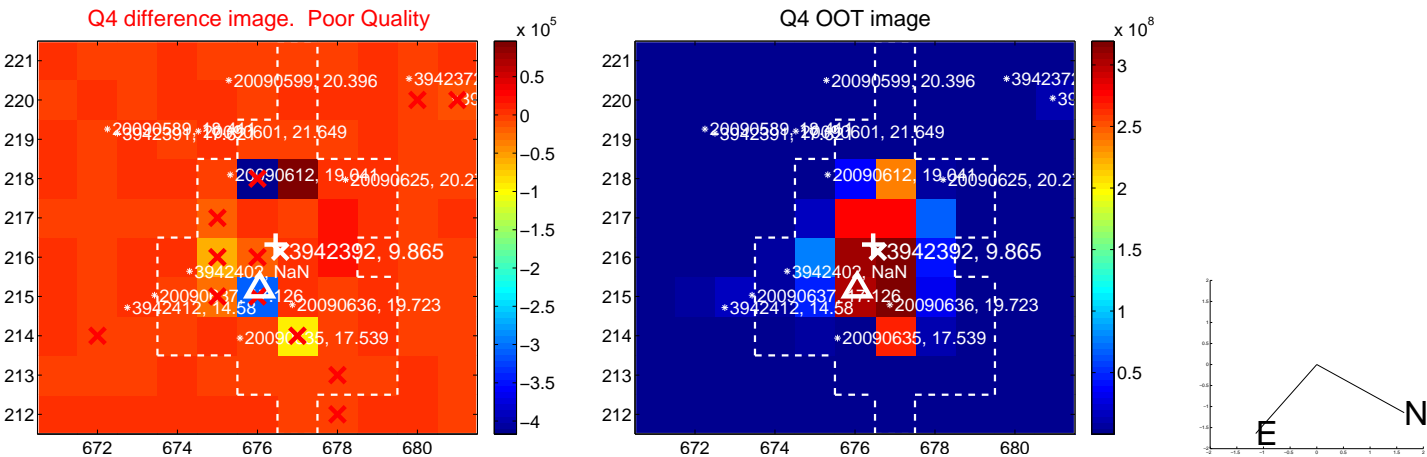
The direct PRF centroid is offset from the target star catalog position by about 0.74 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.526 ± 1.383	1.83	1.582 ± 2.073	1.969 ± 0.613
PRF-fit source offset from KIC position	3.543 ± 1.597	2.22	1.695 ± 1.917	3.112 ± 1.489
photometric centroid source offset	0.85 ± 0.38	2.25	0.55 ± 0.44	0.64 ± 0.32



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.

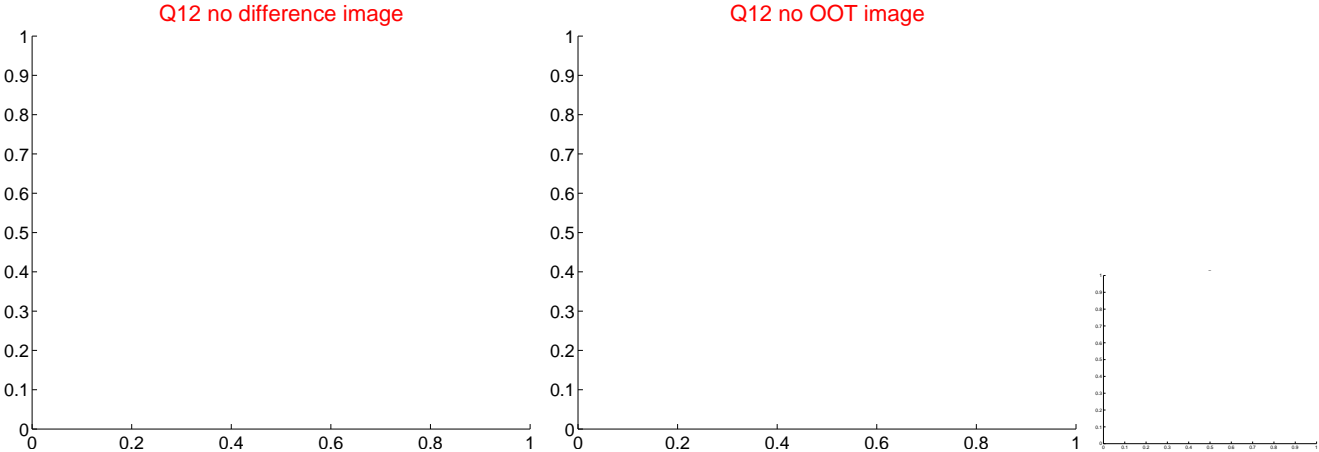
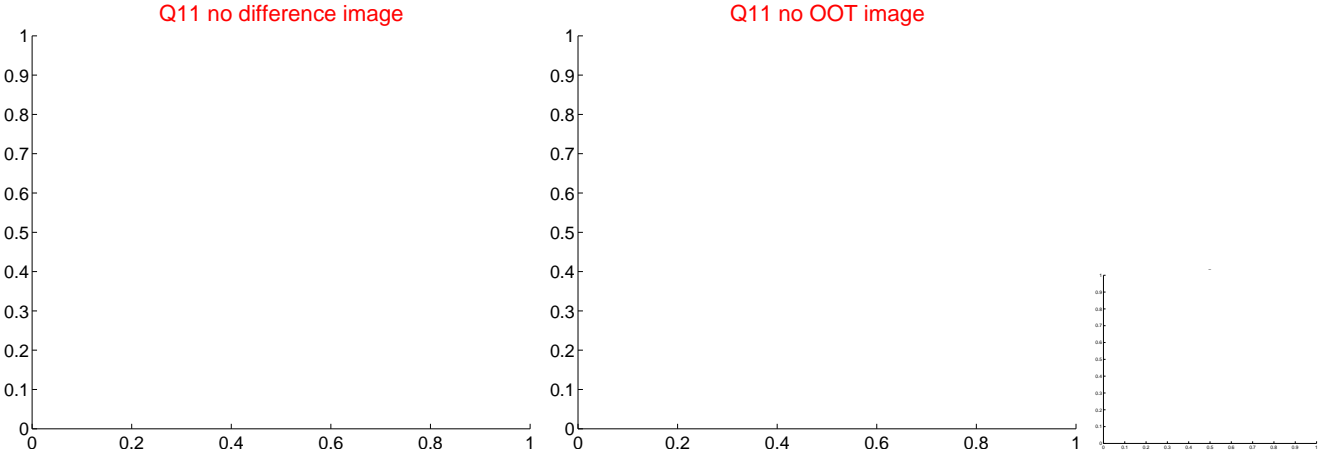
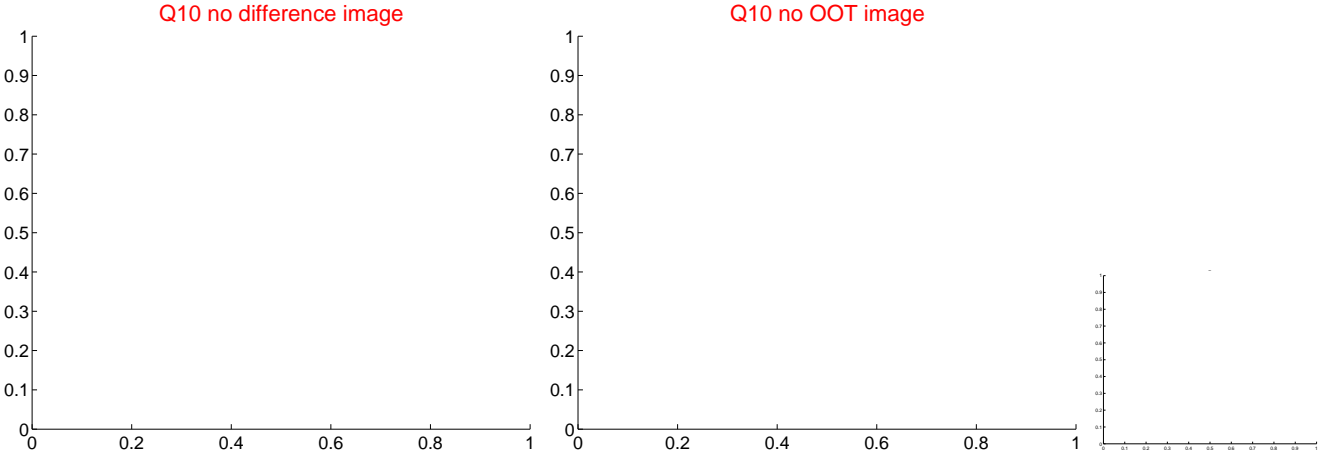
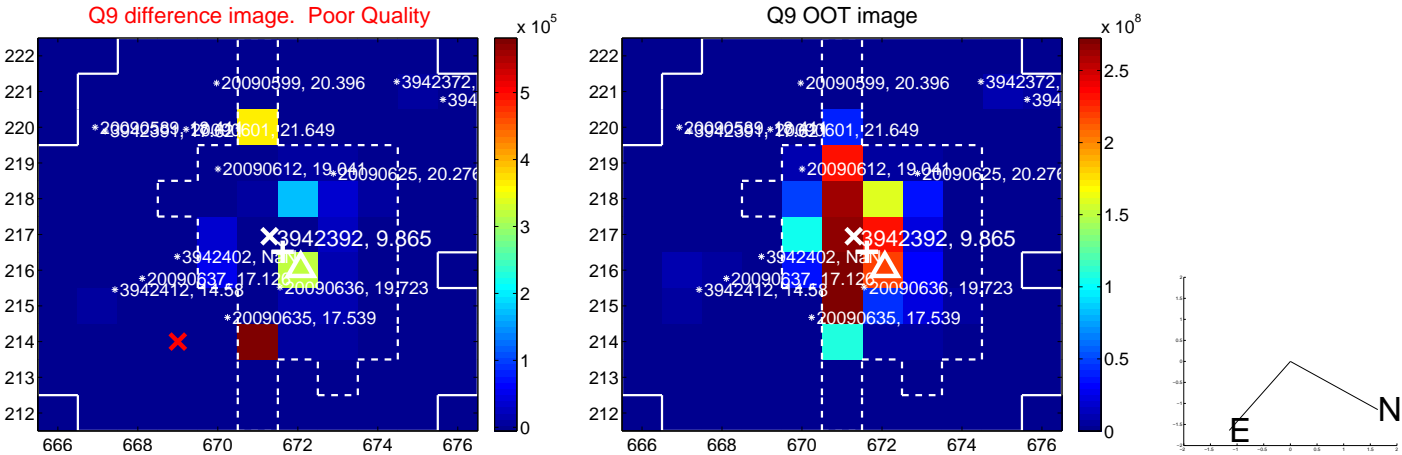
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



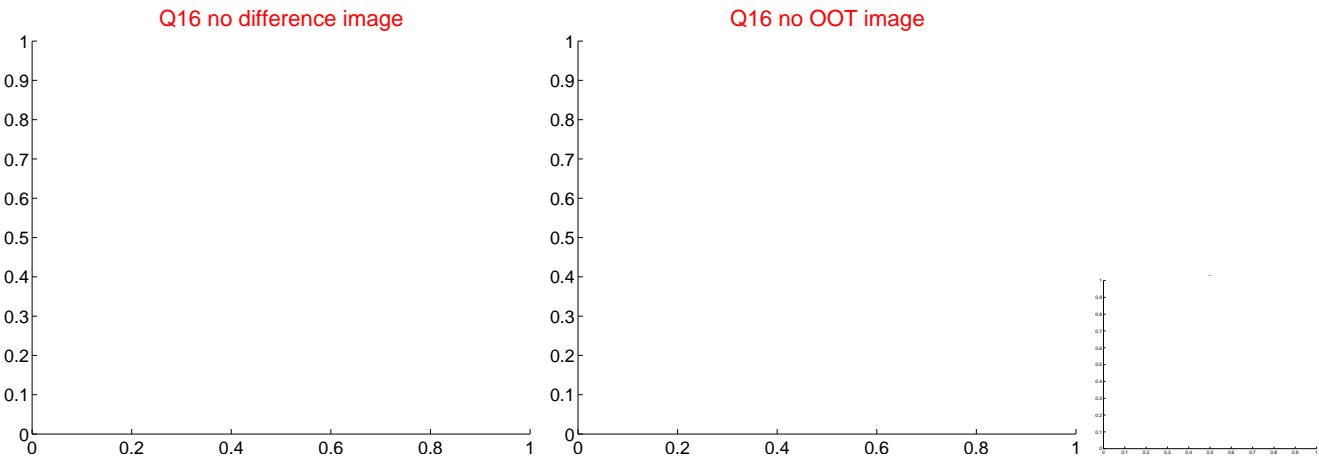
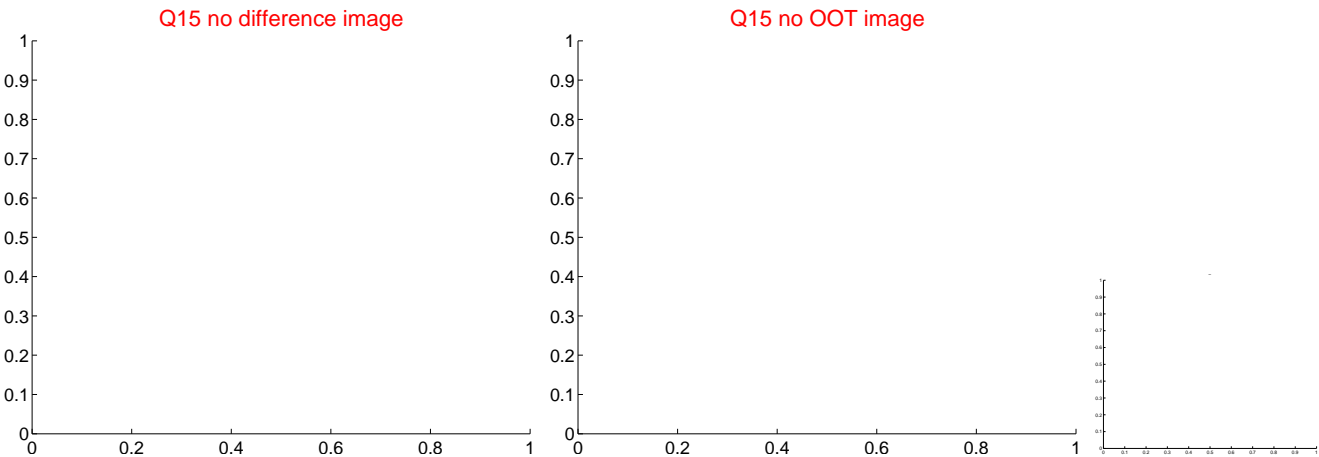
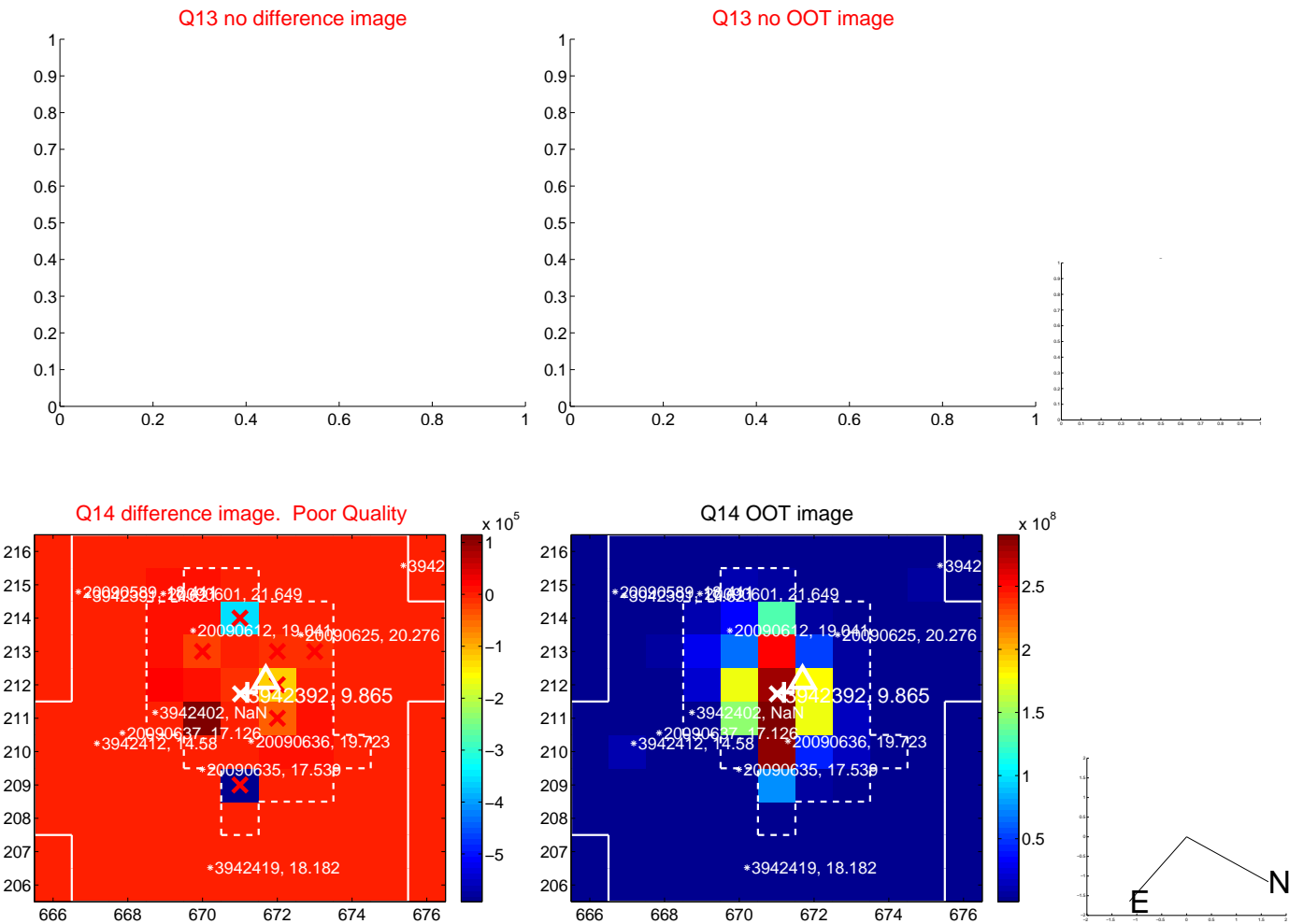
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



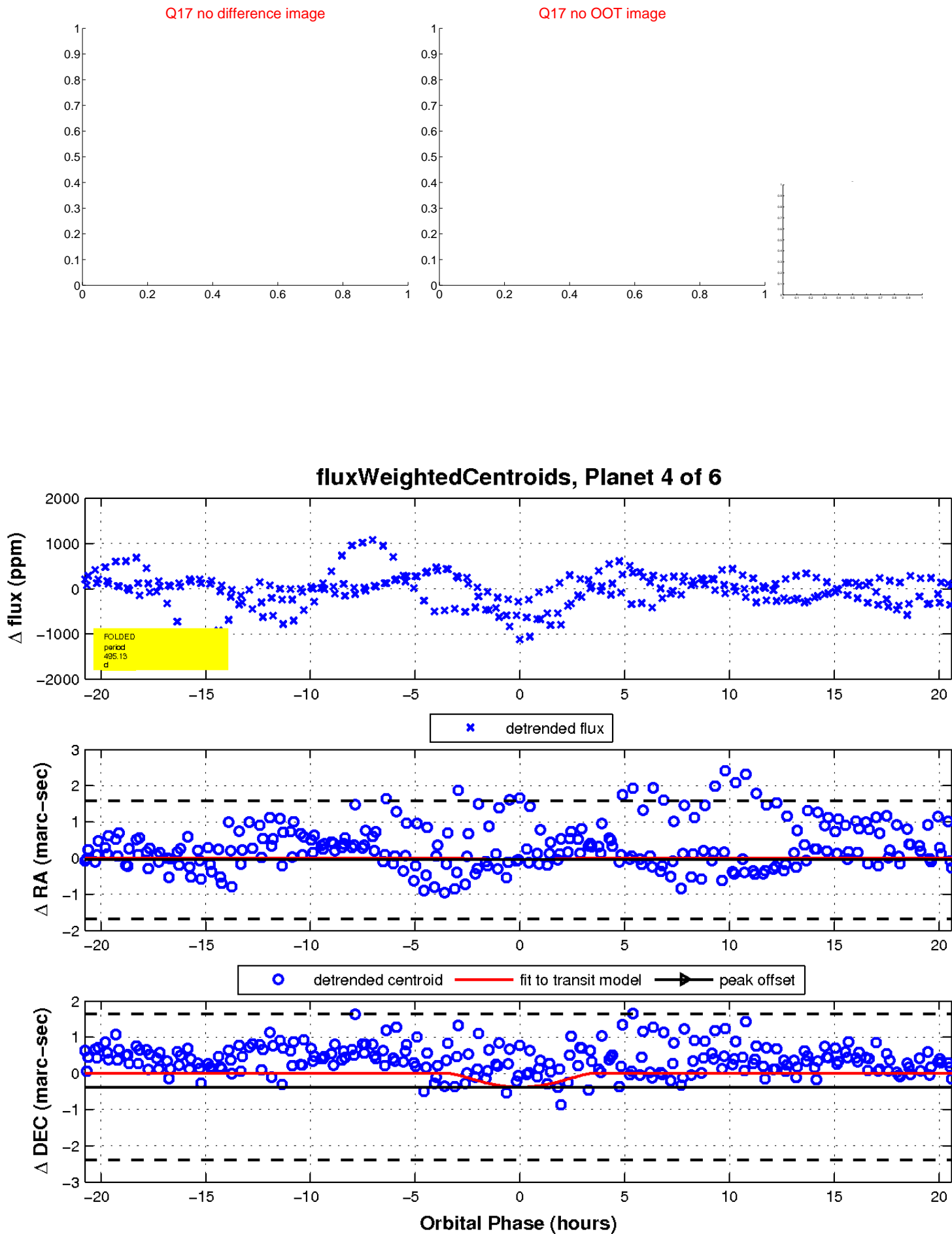
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



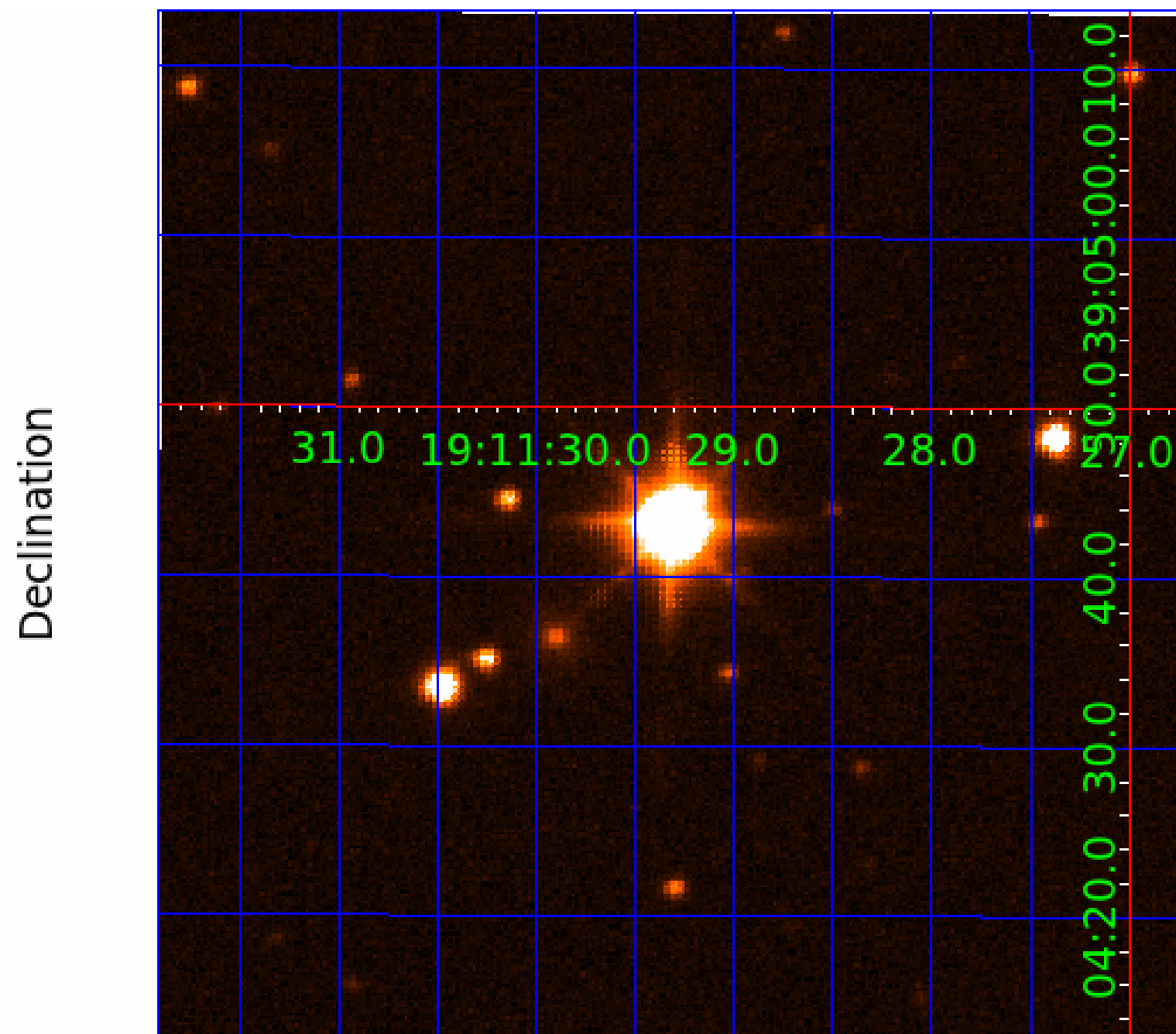
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003942392

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})
003942392-01	OBS	No	3.562797	132.912165	9.5	1.916	7.3	1.5	11.11	7120	4.05	59356.00
003942392-02	OBS	No	3.562812	132.487186	33.2	15.728	7.4	7.4	11.11	7120	8.25	59355.66
003942392-03	OBS	No	299.188214	259.082874	170.1	10.887	28.0	3.3	11.11	7120	16.27	161.41
003942392-04	OBS	No	495.132227	365.270498	1217.8	6.964	9.0	9.0	11.11	7120	72.42	82.46
003942392-06	OBS	No	384.706766	372.839605	413.3	11.611	8.1	8.0	11.11	7120	28.61	115.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003942392-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
003942392-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
003942392-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
003942392-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

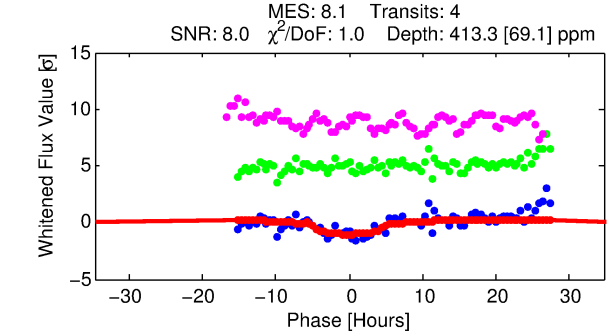
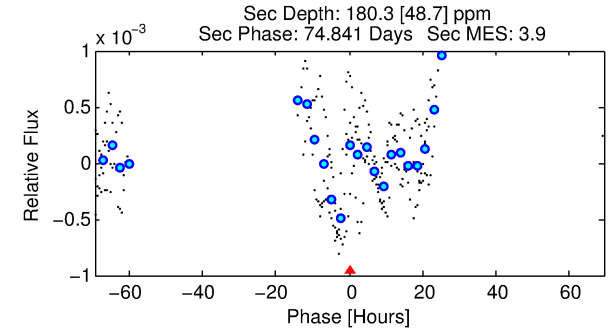
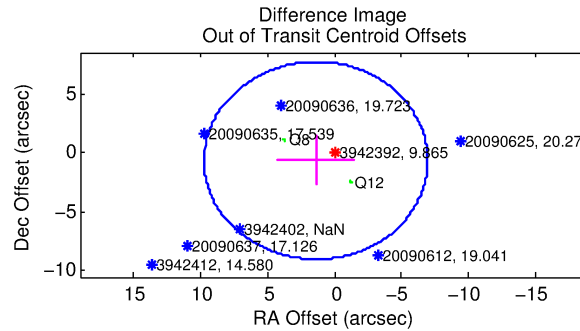
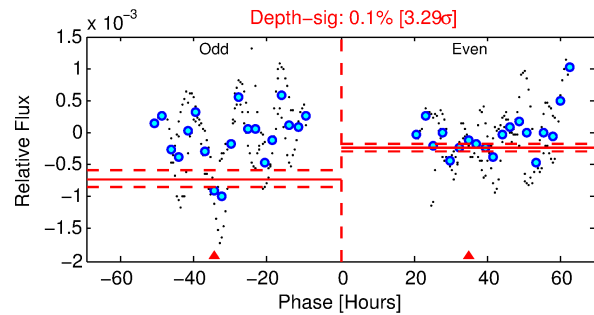
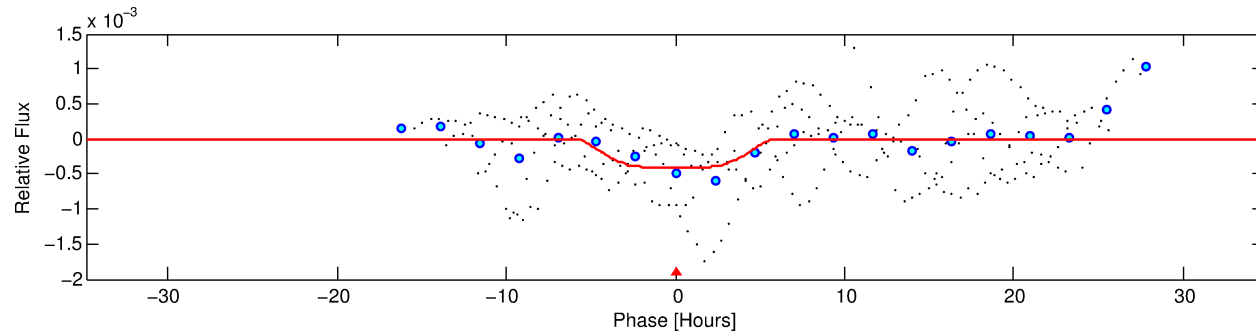
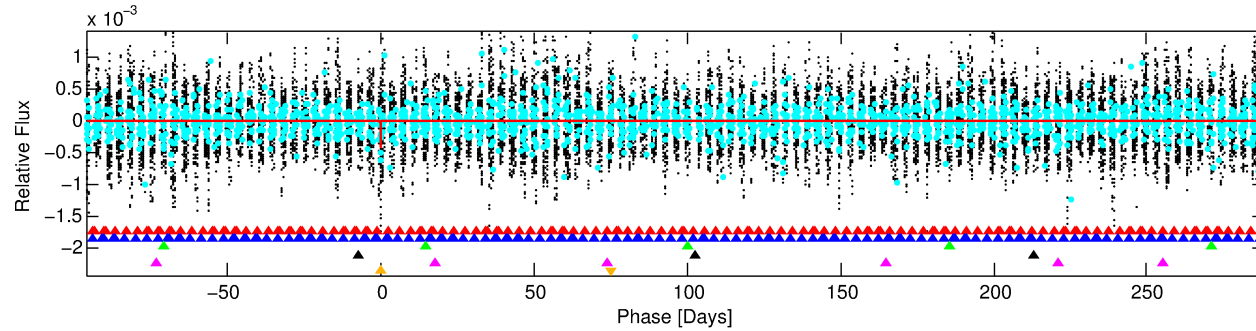
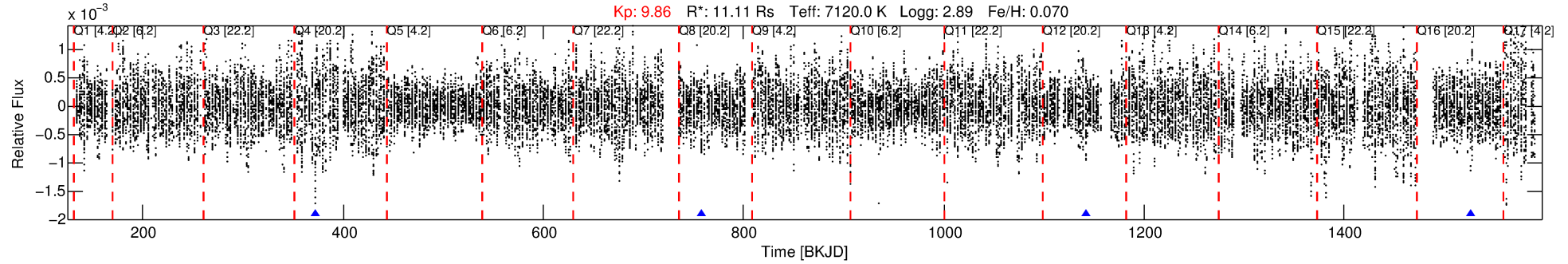
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003942392-06

No Significant Match Found

DV One-Page Summary

KIC: 3942392 Candidate: 6 of 6 Period: 384.707 d



DV Fit Results:

Period = 384.70677 [0.01650] d
Epoch = 372.8396 [0.0298] BKJD
Rp/R* = 0.0236 [0.0024]
a/R* = 86.70 [16.30]
b = 0.96 [0.02]
Seff = 115.44 [116.38]
Teq = 836 [211] K
Rp = 28.61 [17.46] Re
a = 1.5685 [0.9524] AU
Ag = 298.26 [313.79] [0.95σ]
Teffp = 5370 [500] K [8.35σ]

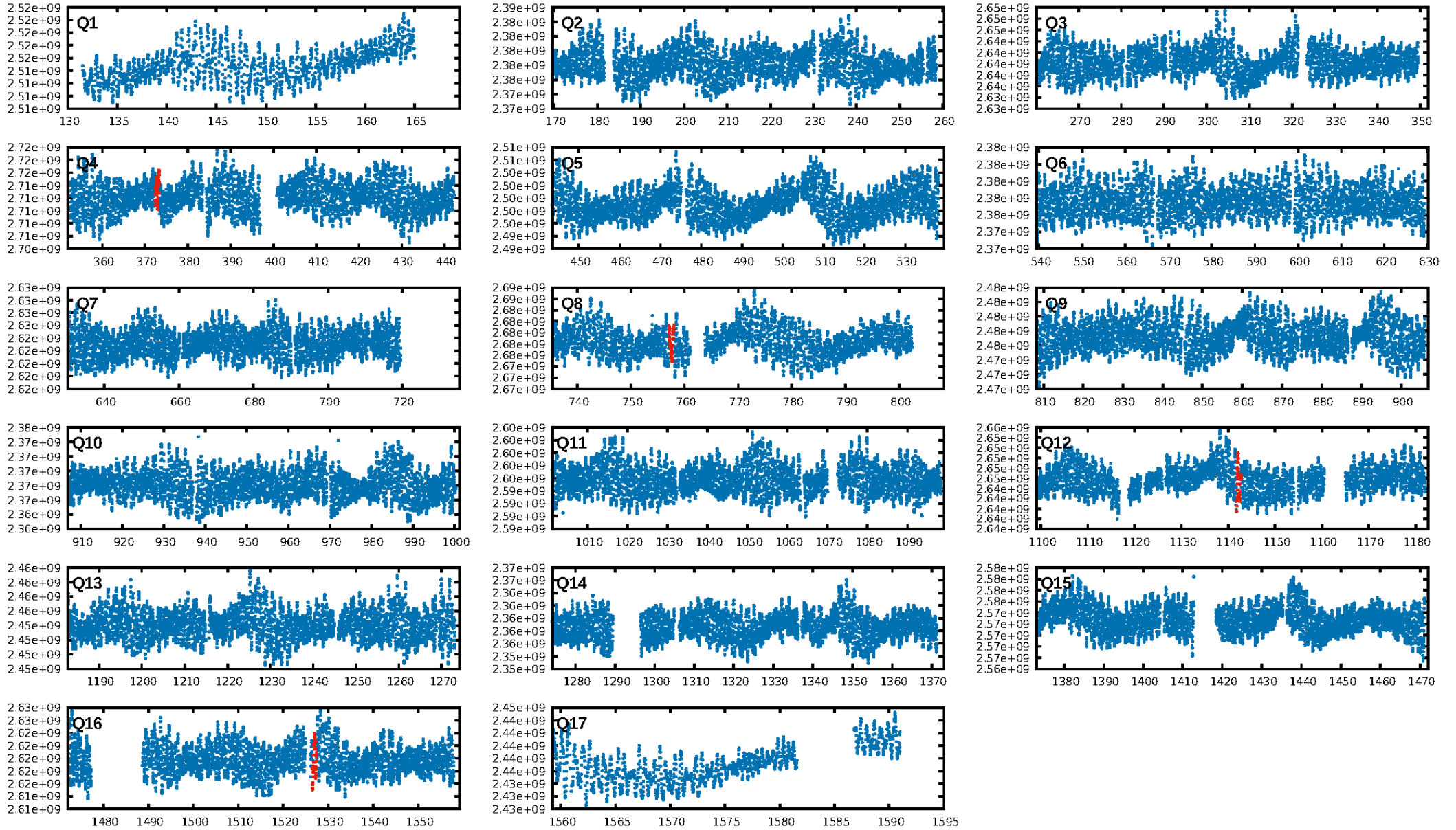
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [128.95σ]
LongPeriod-sig: 100.0% [195.74σ]
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.63e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 35.2%
Centroid-so: 0.447 arcsec [0.43σ]
OotOffset-rm: 1.532 arcsec [0.55σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 1.952 arcsec [0.85σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

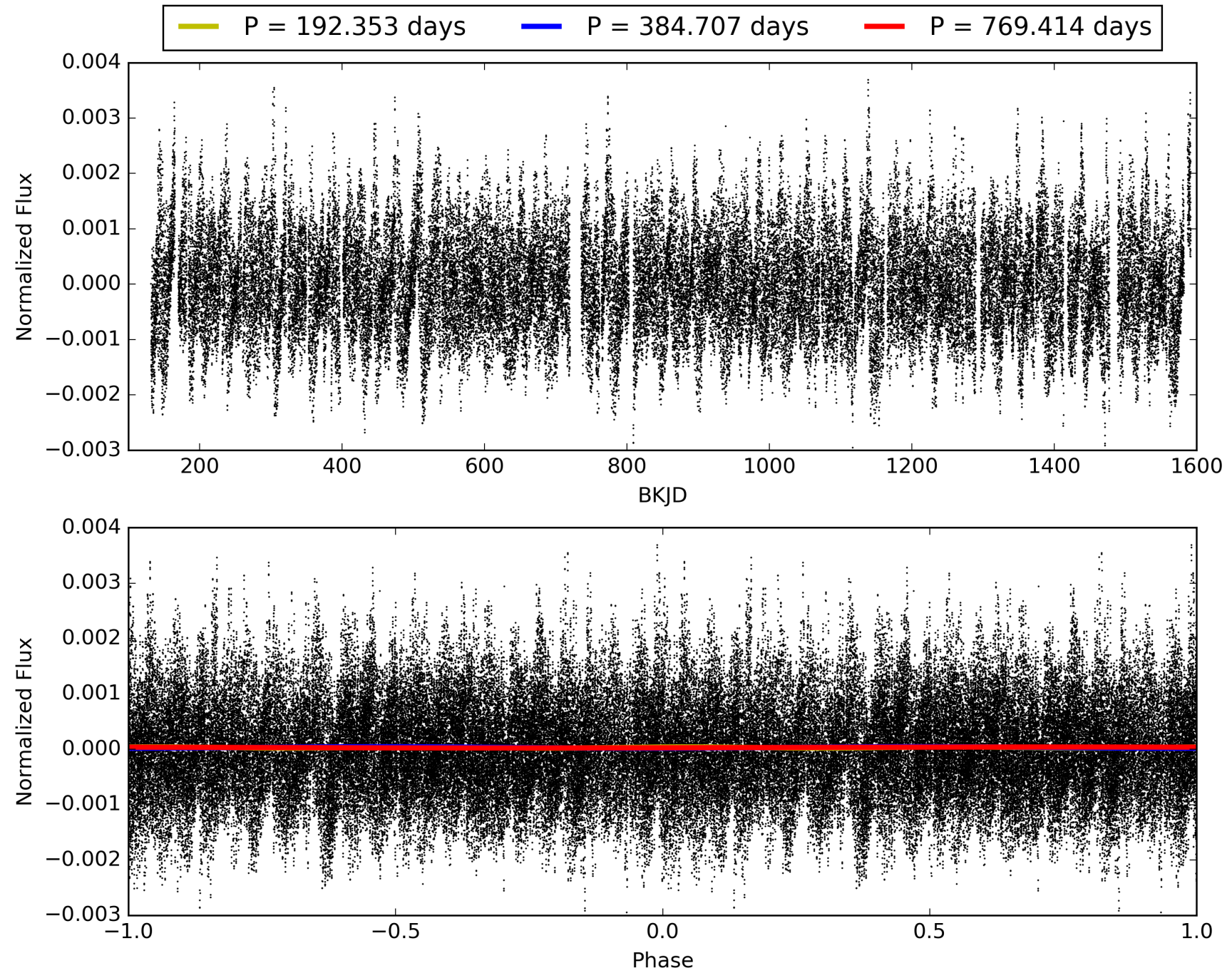
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 19:42:33 Z

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

TCE 003942392-06, PDC Light Curves

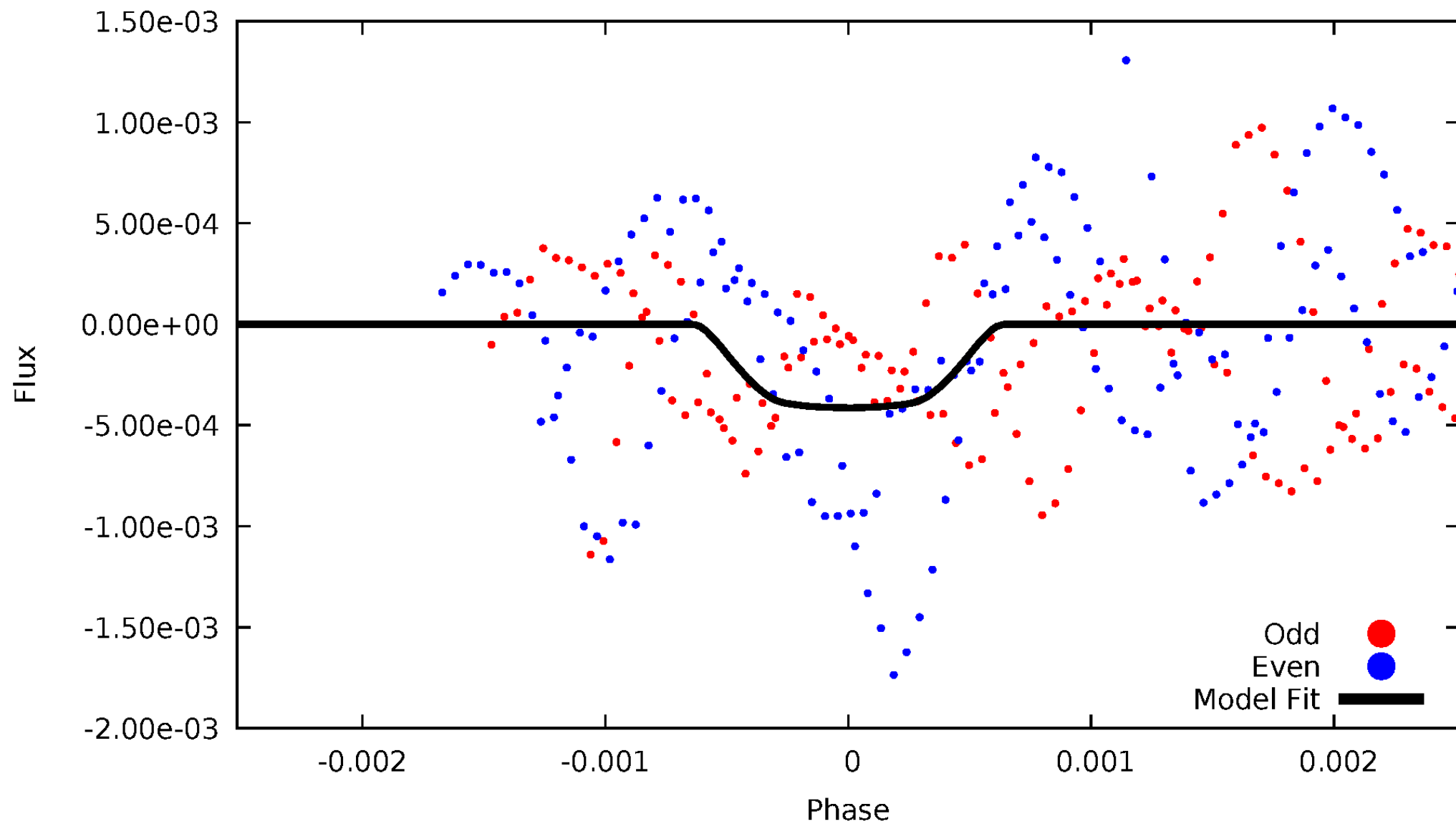


TCE 003942392-06



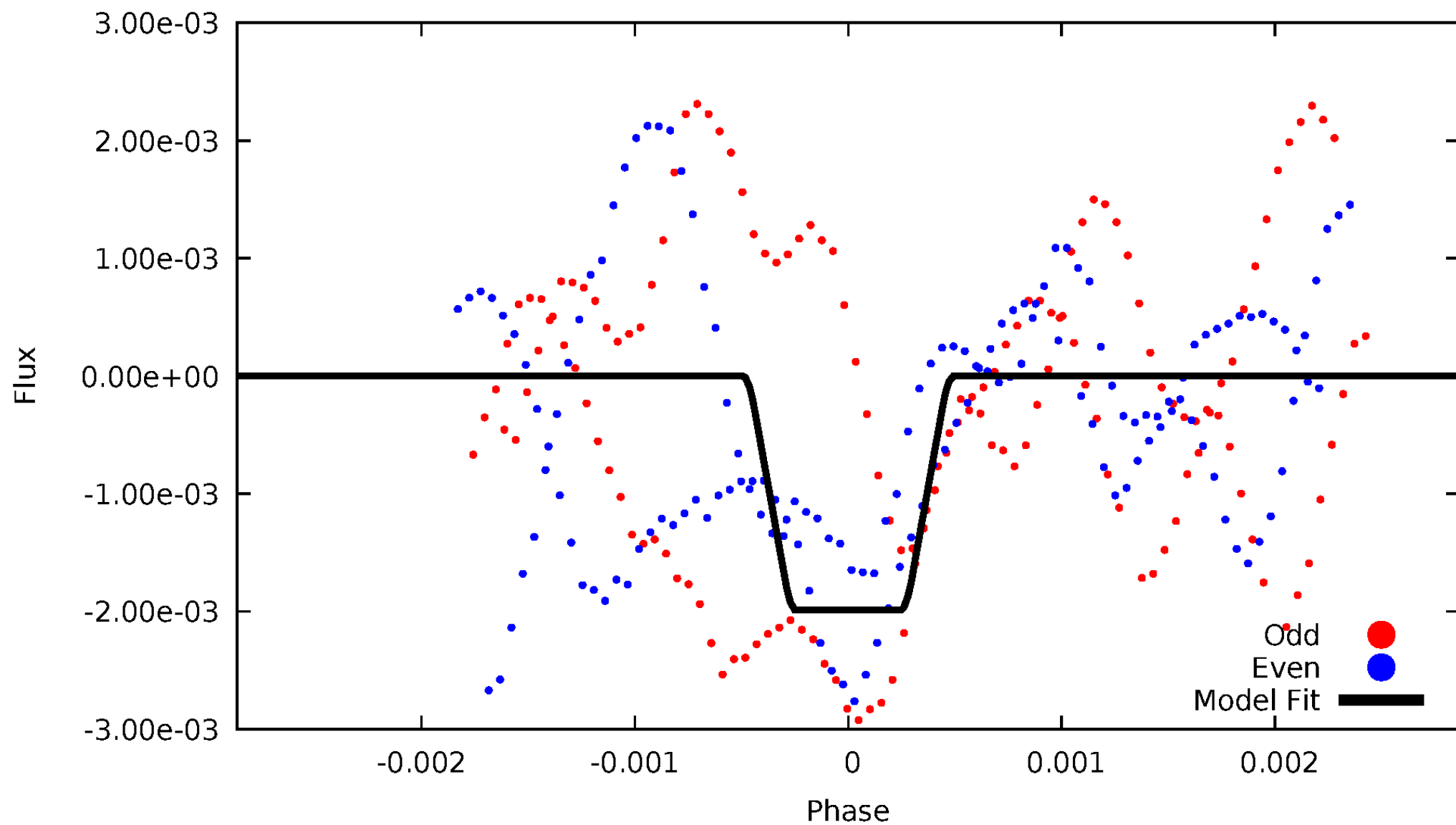
DV Odd/Even

TCE 003942392-06



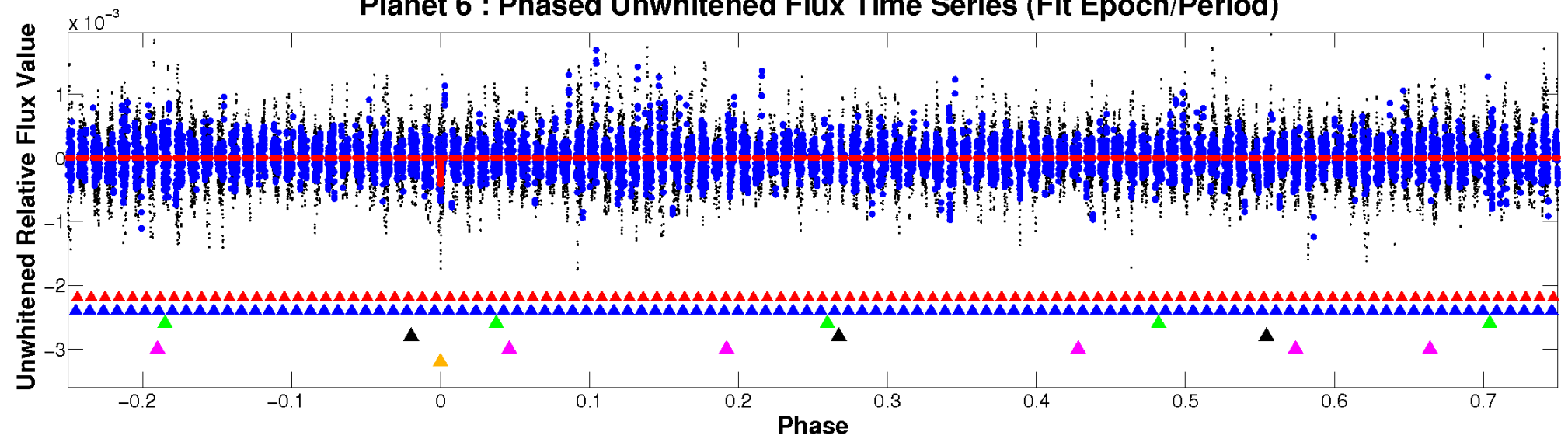
ALT Odd/Even

TCE 003942392-06

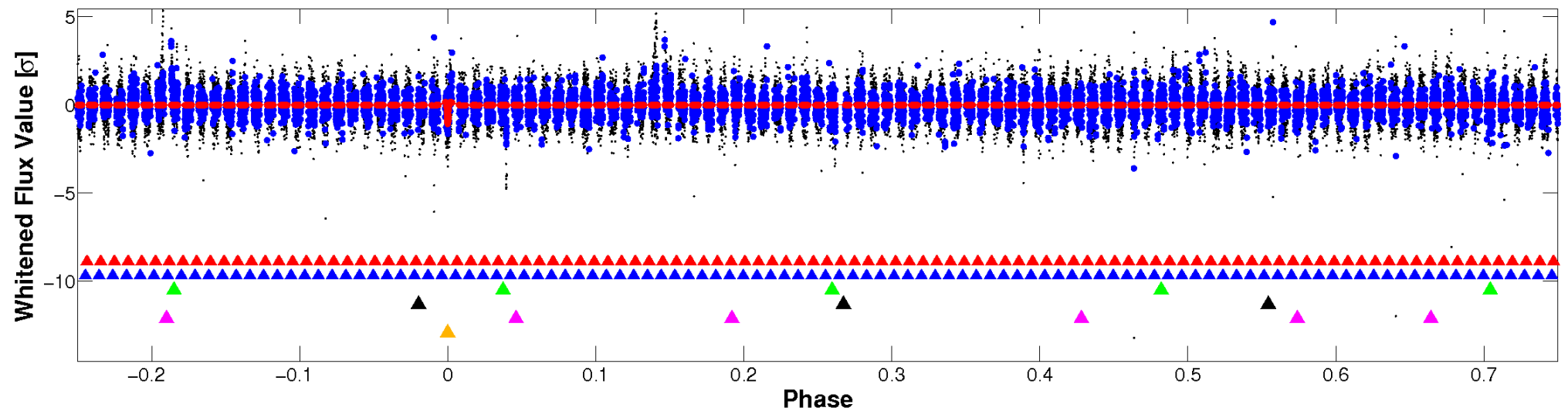


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

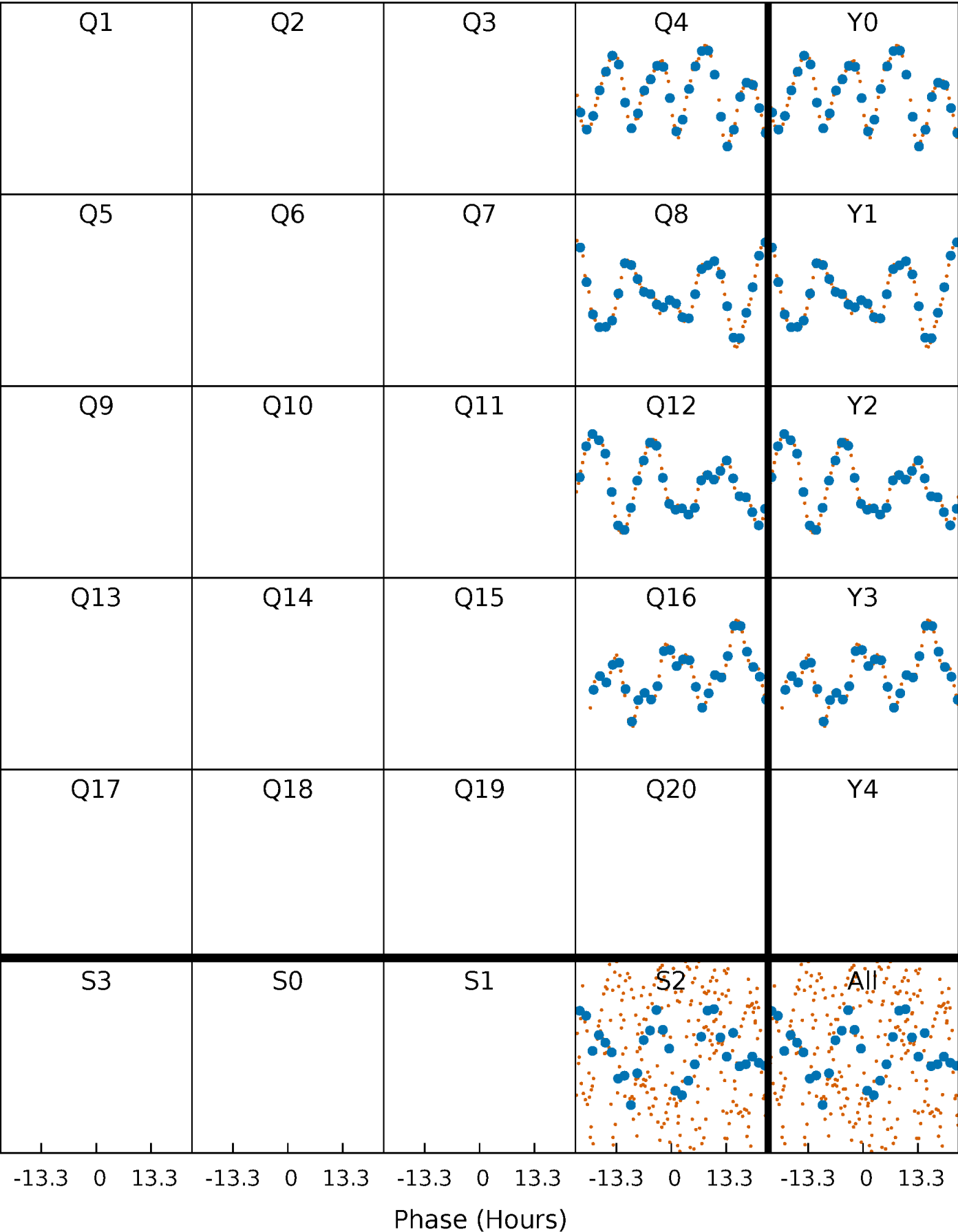


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



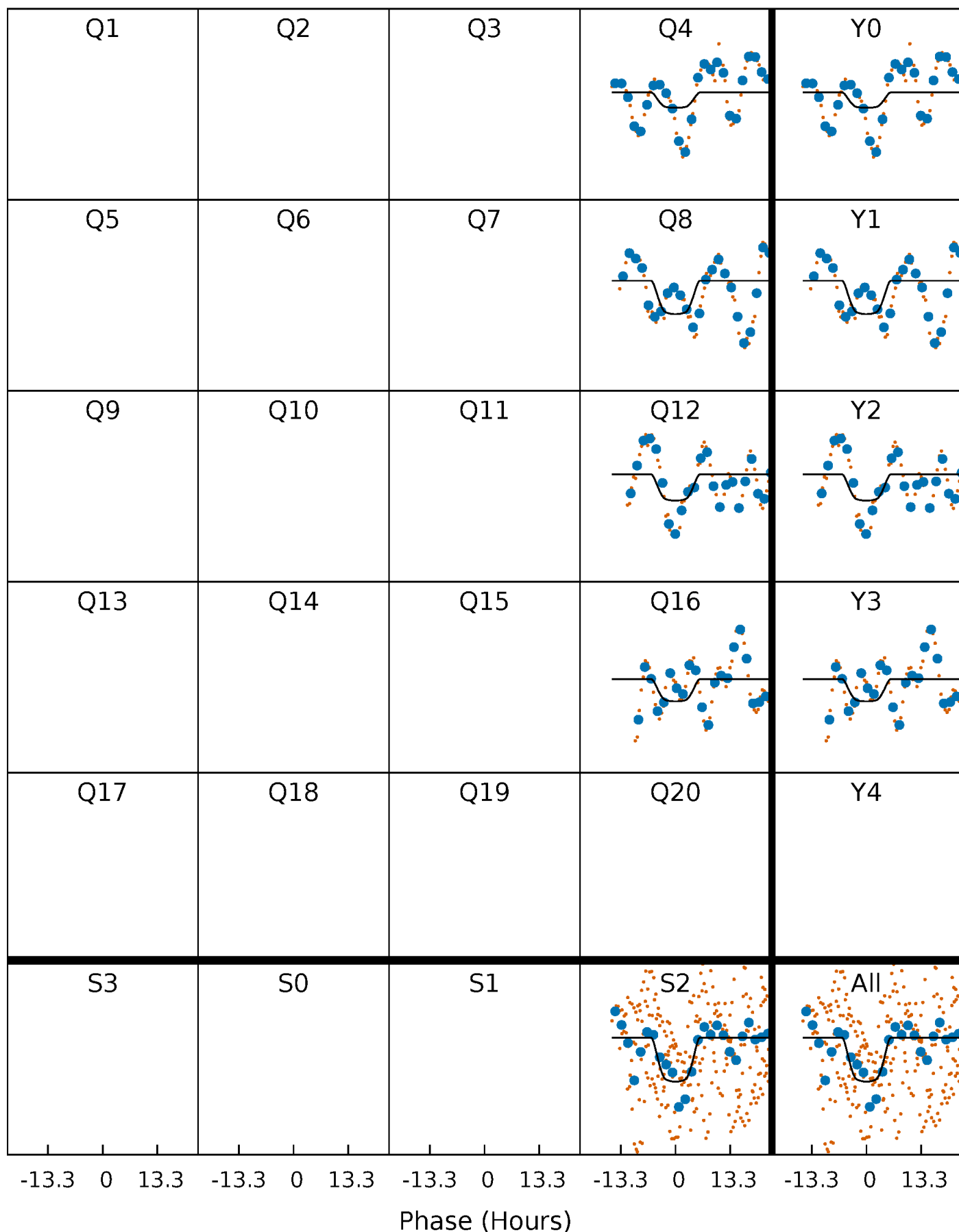
PDC Quarter-Phased Transit Curves

TCE 003942392-06 P=384.706766 Days $T_0=372.839605$ (BKJD)



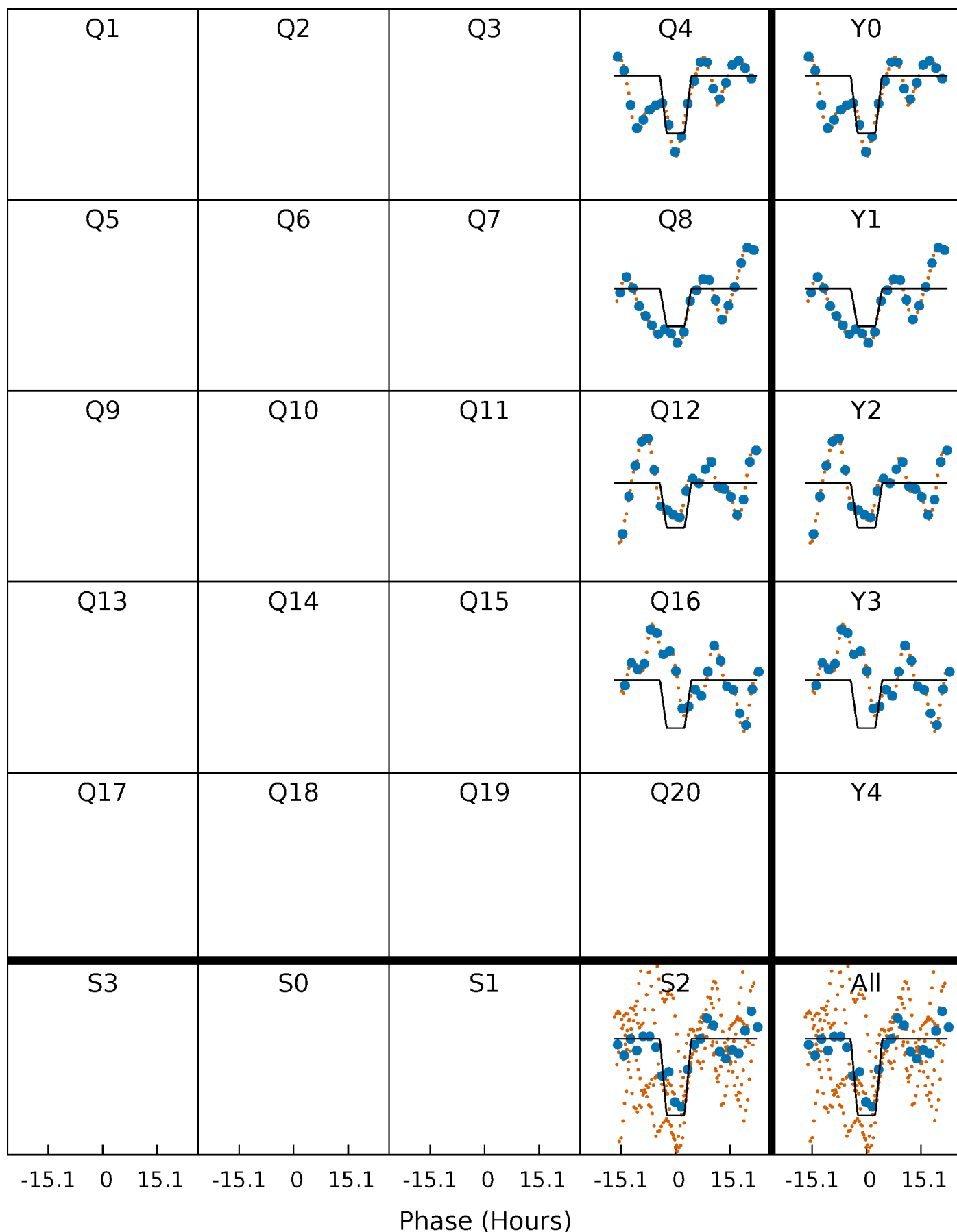
DV Quarter-Phased Transit Curves

TCE 003942392-06 P=384.706766 Days $T_0=372.839605$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

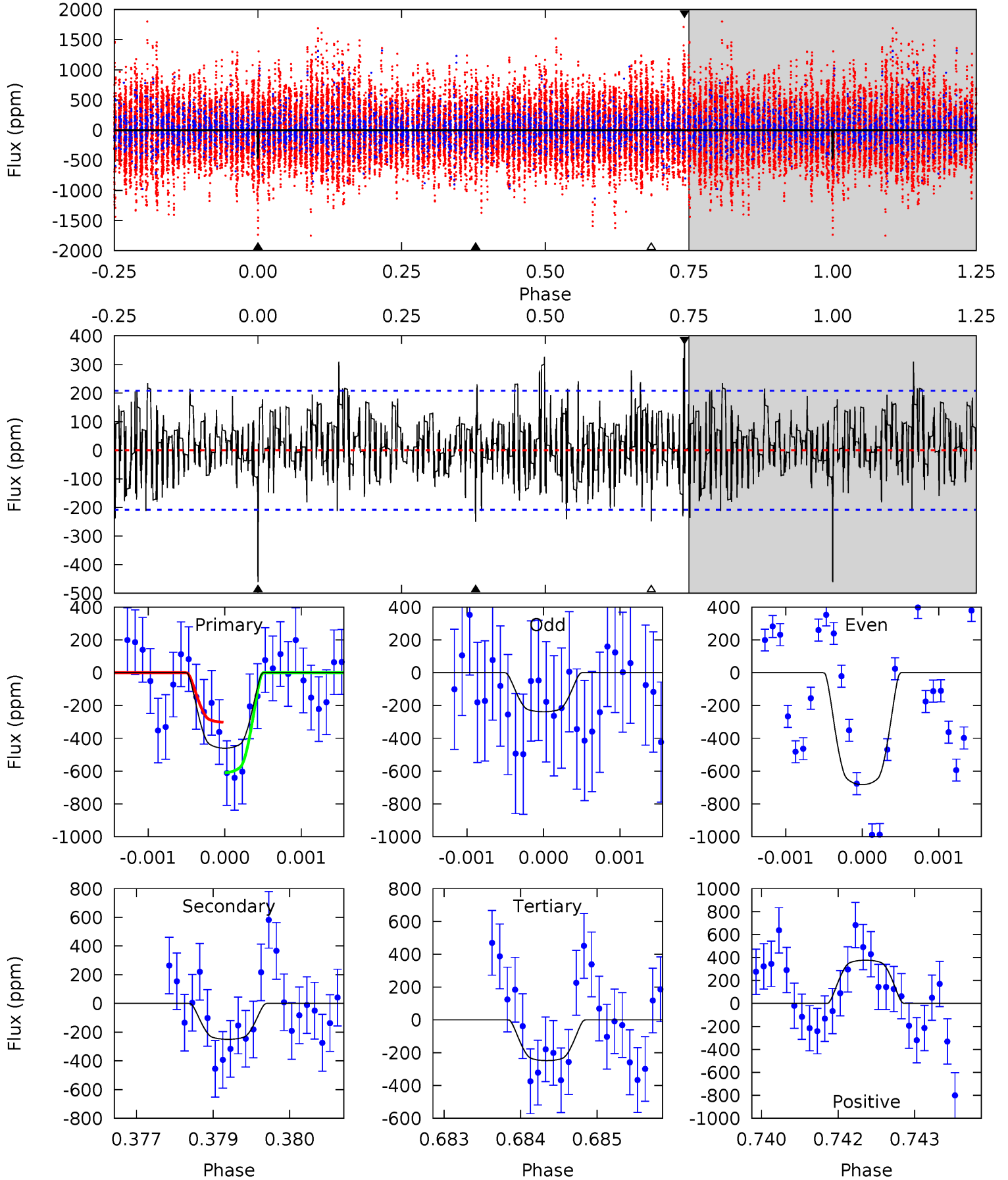
TCE 003942392-06 P=384.757124 Days $T_0=372.900512$ (BKJD)



DV Model-Shift Uniqueness Test

003942392-06, P = 384.706766 Days, E = 372.839605 Days

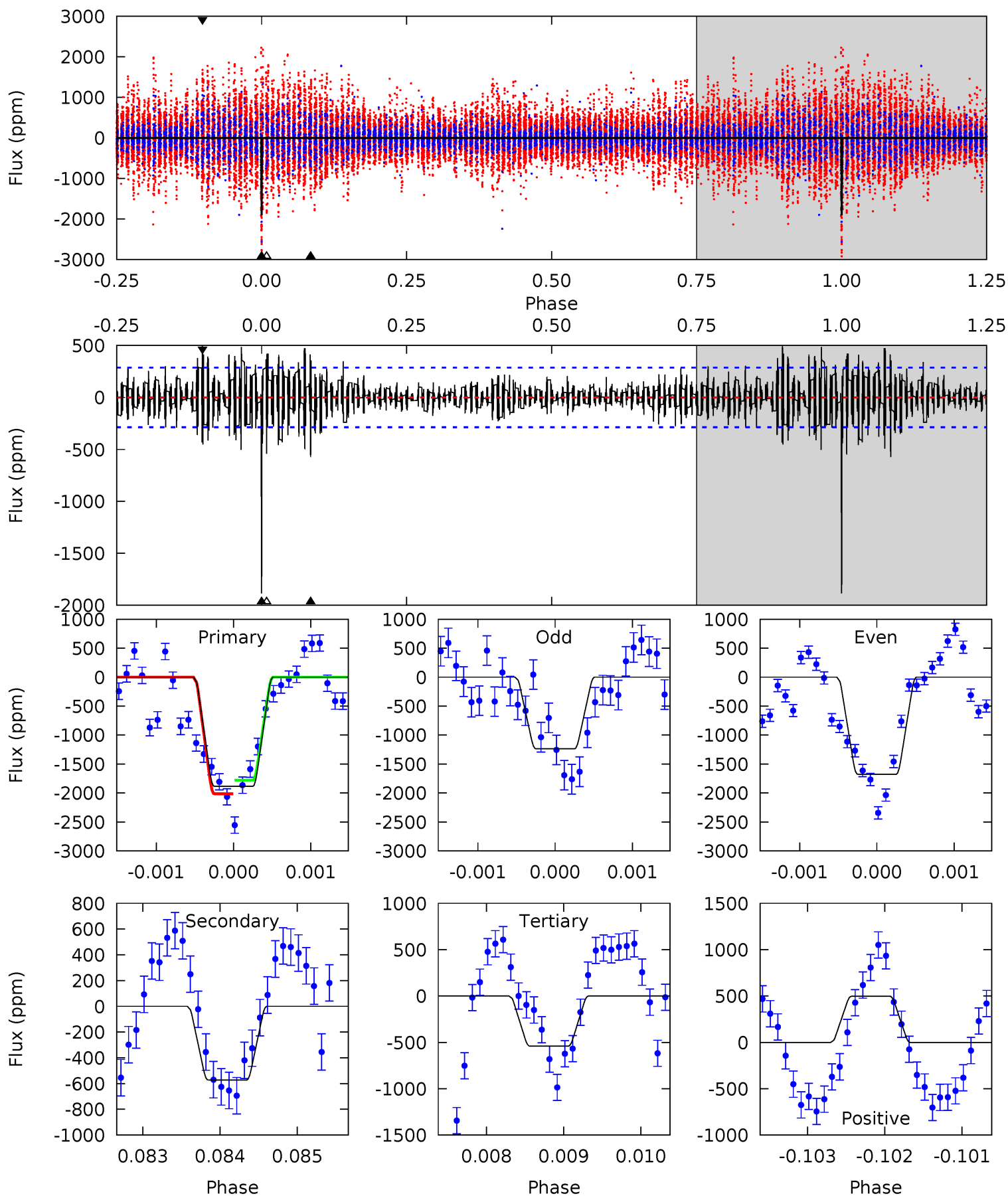
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	6.50	6.47	9.81	5.41	3.22	2.17	5.52	2.18	0.03	-3.31	5.77	1.02	0.45	4.01



Alt Model-Shift Uniqueness Test

003942392-06, P = 384.757124 Days, E = 372.900512 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.8	10.9	10.3	9.45	5.46	3.30	2.26	25.6	26.4	0.61	1.43	4.31	0.87	0.21	2.19



Stellar Parameters For KIC 003942392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7120^{+128}_{-277}	$2.888^{+0.594}_{-0.033}$	$0.070^{+0.250}_{-0.500}$	$11.106^{+0.742}_{-6.681}$	$3.479^{+0.070}_{-1.383}$	$0.004^{+0.035}_{-0.000}$
	+2%/-4%	+21%/-1%	+357%/-714%	+7%/-60%	+2%/-40%	+974%/-12%
Source	PHO1	FLK73	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 003942392-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-250 ± 38	$25.18^{+5.09}_{-7.90}$	1104^{+77}_{-169}	5760^{+399}_{-380}	525^{+501}_{-165}
Alt.	-572 ± 53	$47.99^{+7.96}_{-15.37}$	1098^{+86}_{-168}	5190^{+203}_{-219}	325^{+311}_{-80}

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 $A_{obs} \gg 1.0$

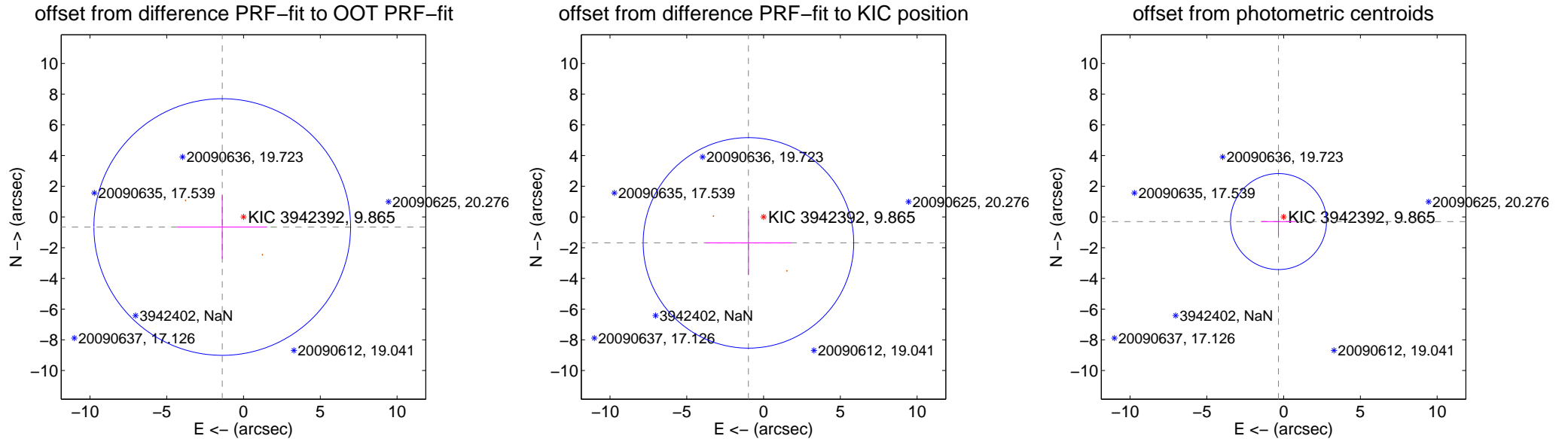
DV Centroid Data

Supplemental centroid analysis for 003942392-06. **Kepler magnitude: 9.87.** Transit SNR 8.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.532 ± 2.785	0.55	1.385 ± 2.922	-0.653 ± 2.065
PRF-fit source offset from KIC position	1.952 ± 2.285	0.85	0.984 ± 2.792	-1.686 ± 2.084
photometric centroid source offset	0.45 ± 1.04	0.43	0.33 ± 1.12	-0.30 ± 0.94



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.

Q5 no difference image



Q5 no OOT image



Q6 no difference image



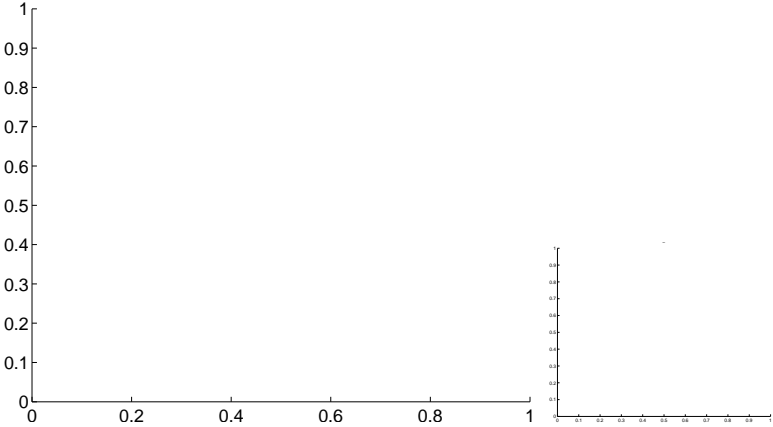
Q6 no OOT image



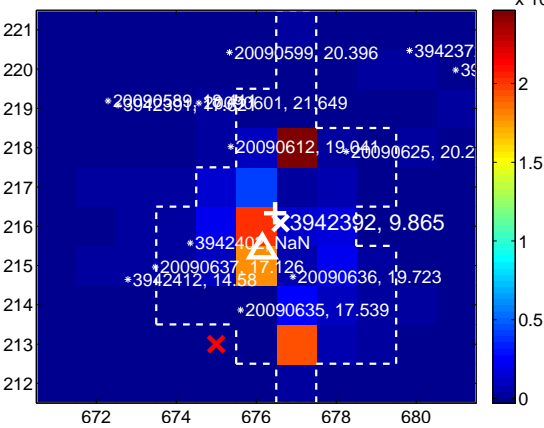
Q7 no difference image



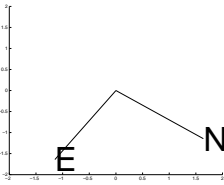
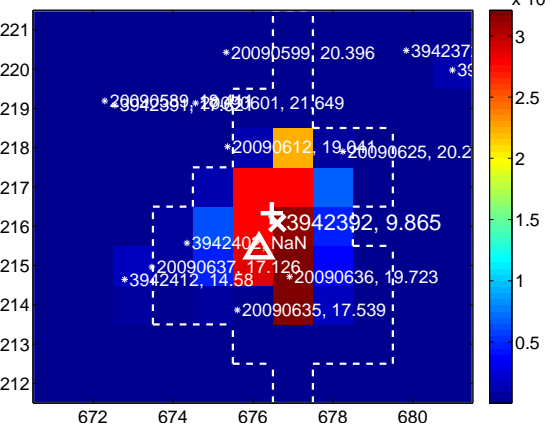
Q7 no OOT image



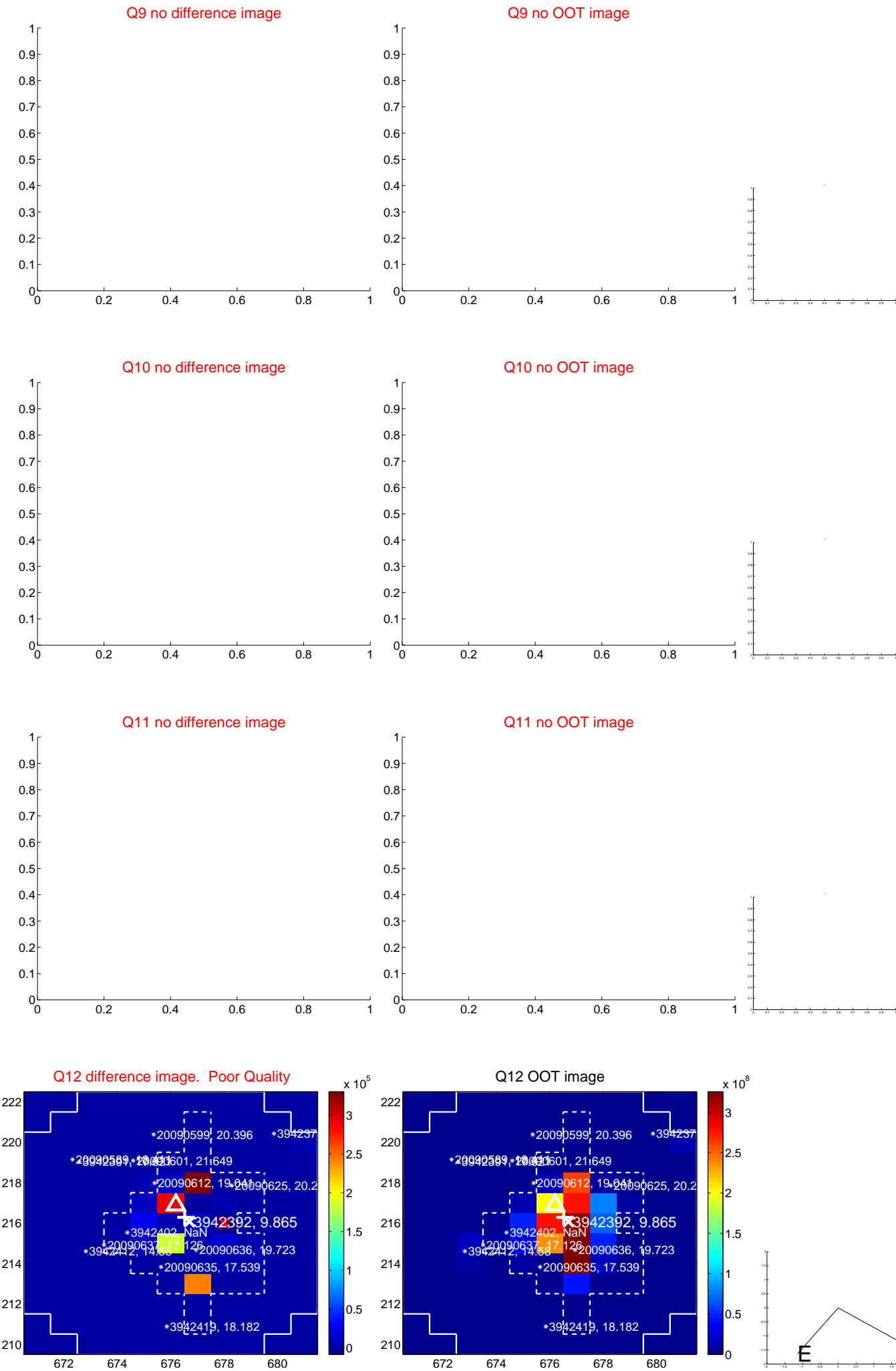
Q8 difference image. Poor Quality



Q8 OOT image



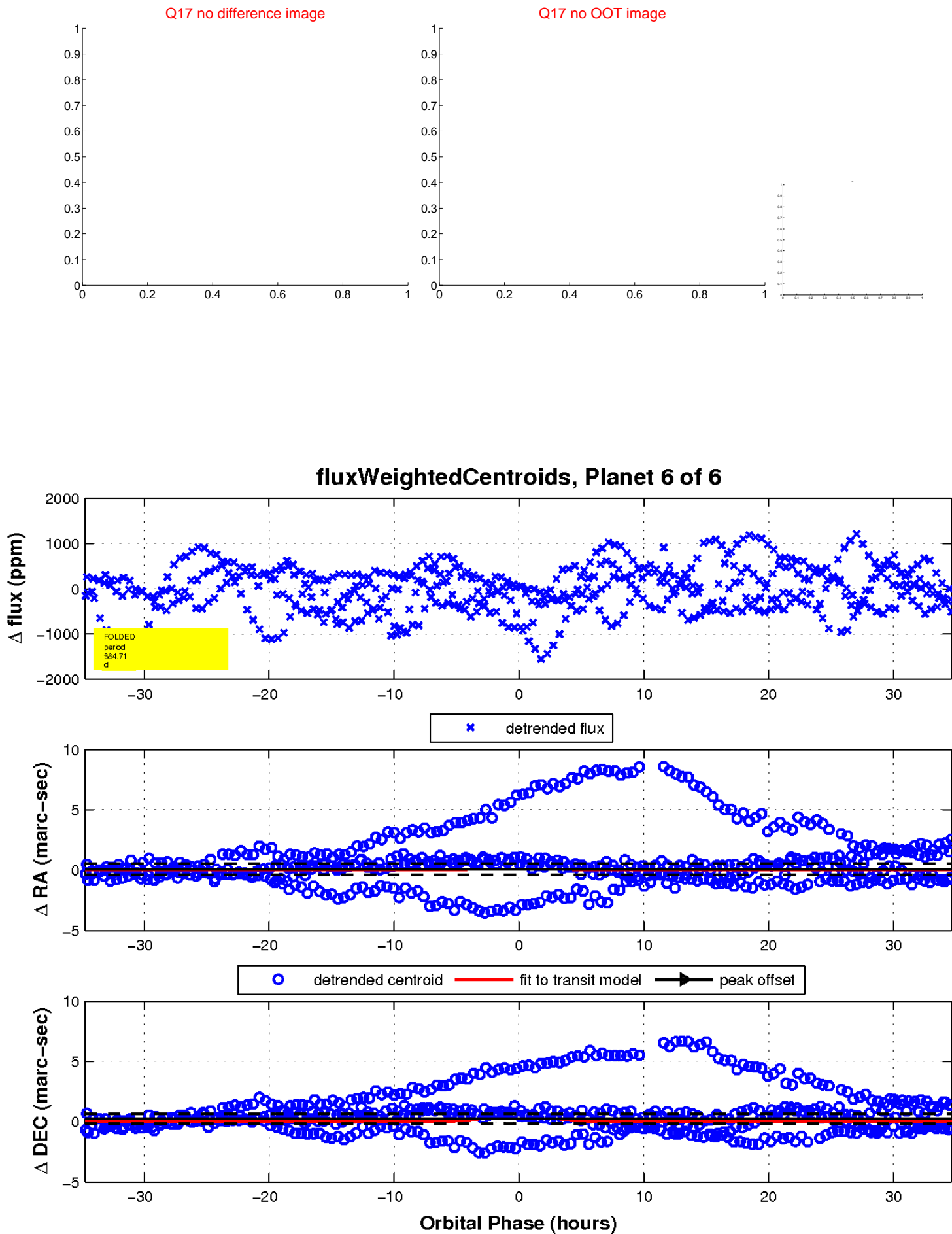
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

