

KIC 002694337

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})
002694337-01	OBS	No	0.812306	132.156254	128.6	3.517	20.7	28.1	2.29	7526	3.01	36013.12
002694337-02	OBS	No	0.812348	131.897305	147.7	5.406	22.5	25.2	2.29	7526	2.85	36010.67
002694337-03	OBS	No	0.812291	131.605554	114.5	4.615	18.0	15.8	2.29	7526	2.49	36014.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002694337-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
002694337-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
002694337-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—MOD_NONUNIQ_DV—MOD_TER_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

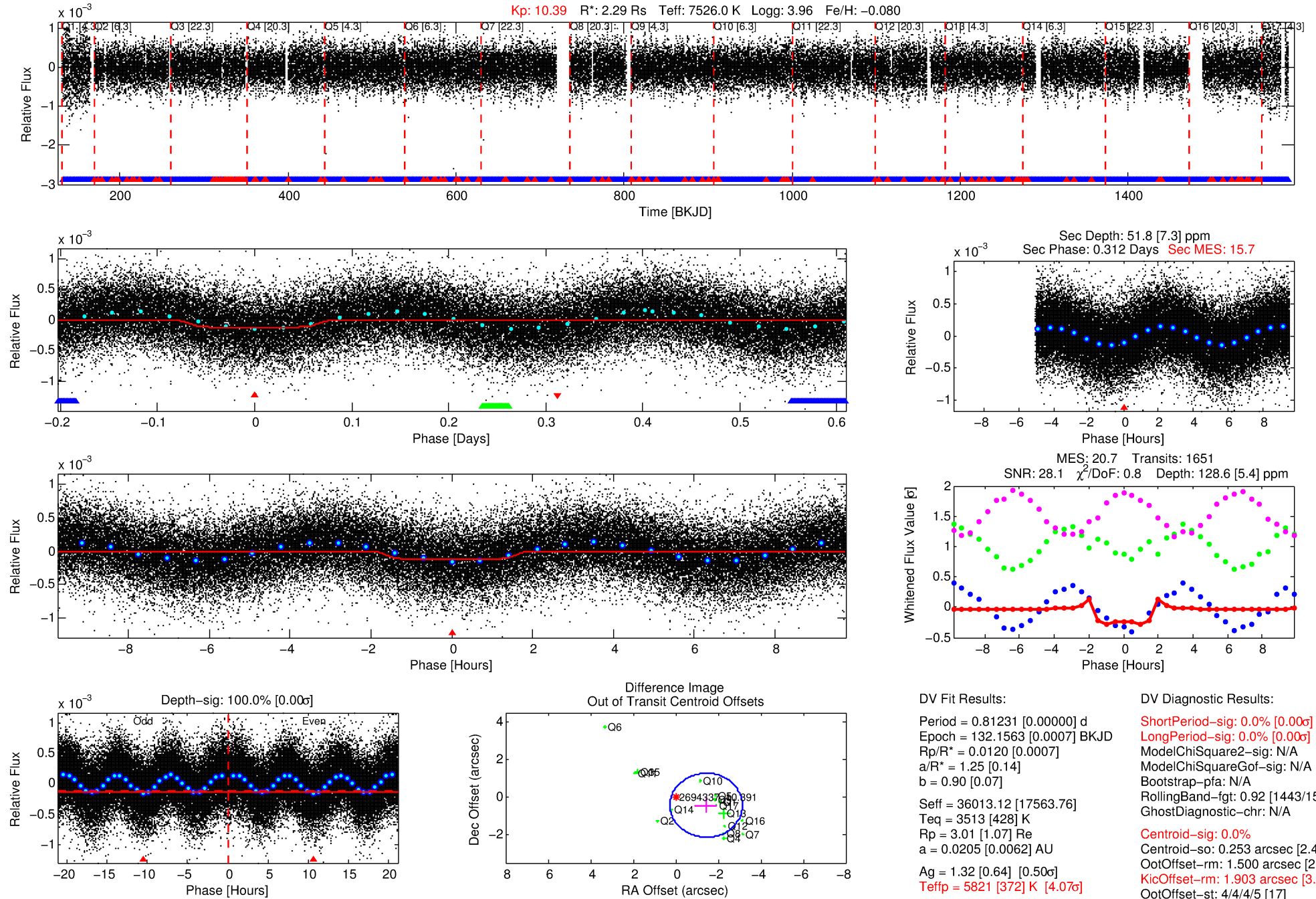
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002694337-01

No Significant Match Found

DV One-Page Summary

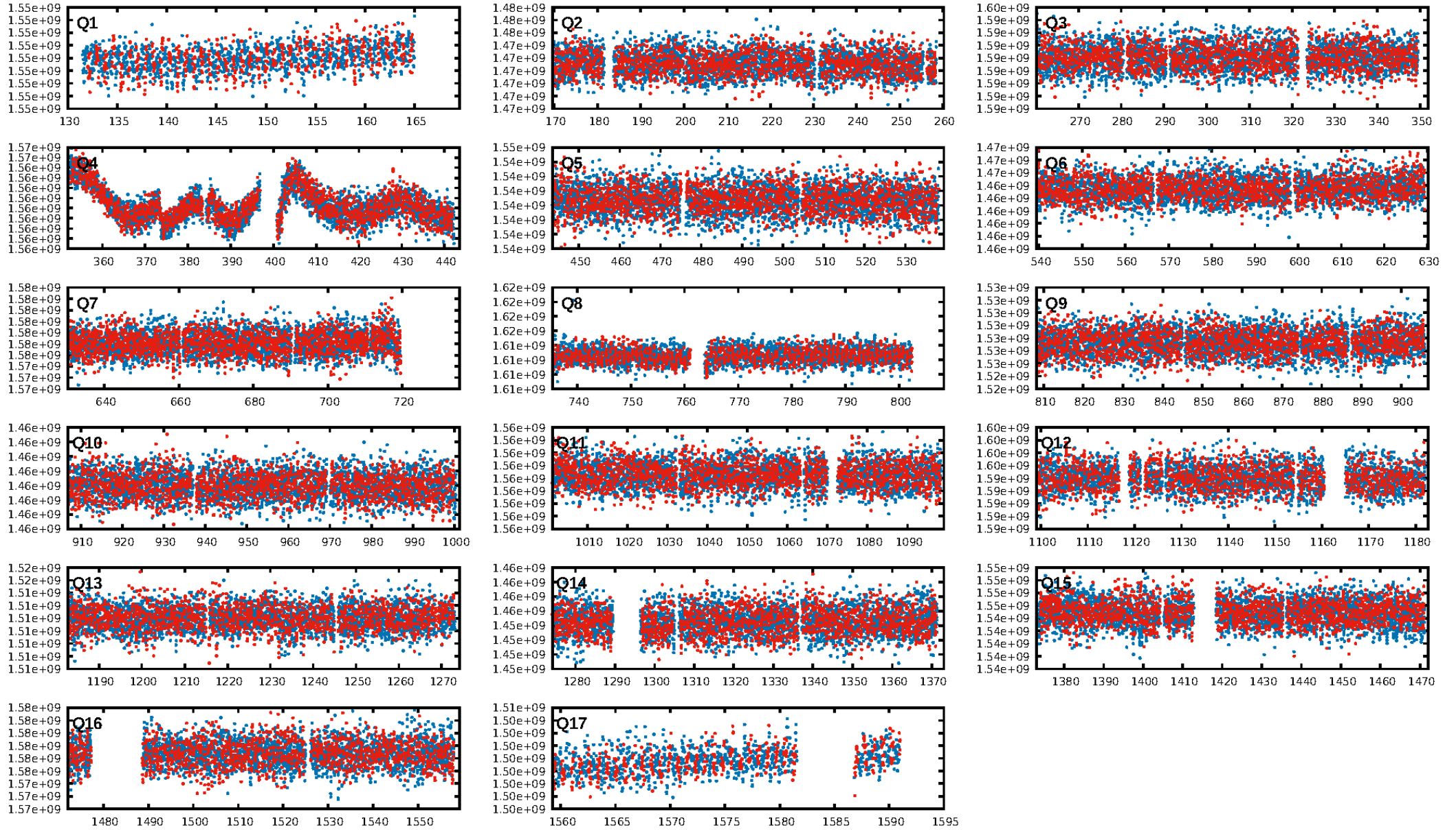
KIC: 2694337 Candidate: 1 of 3 Period: 0.812 d



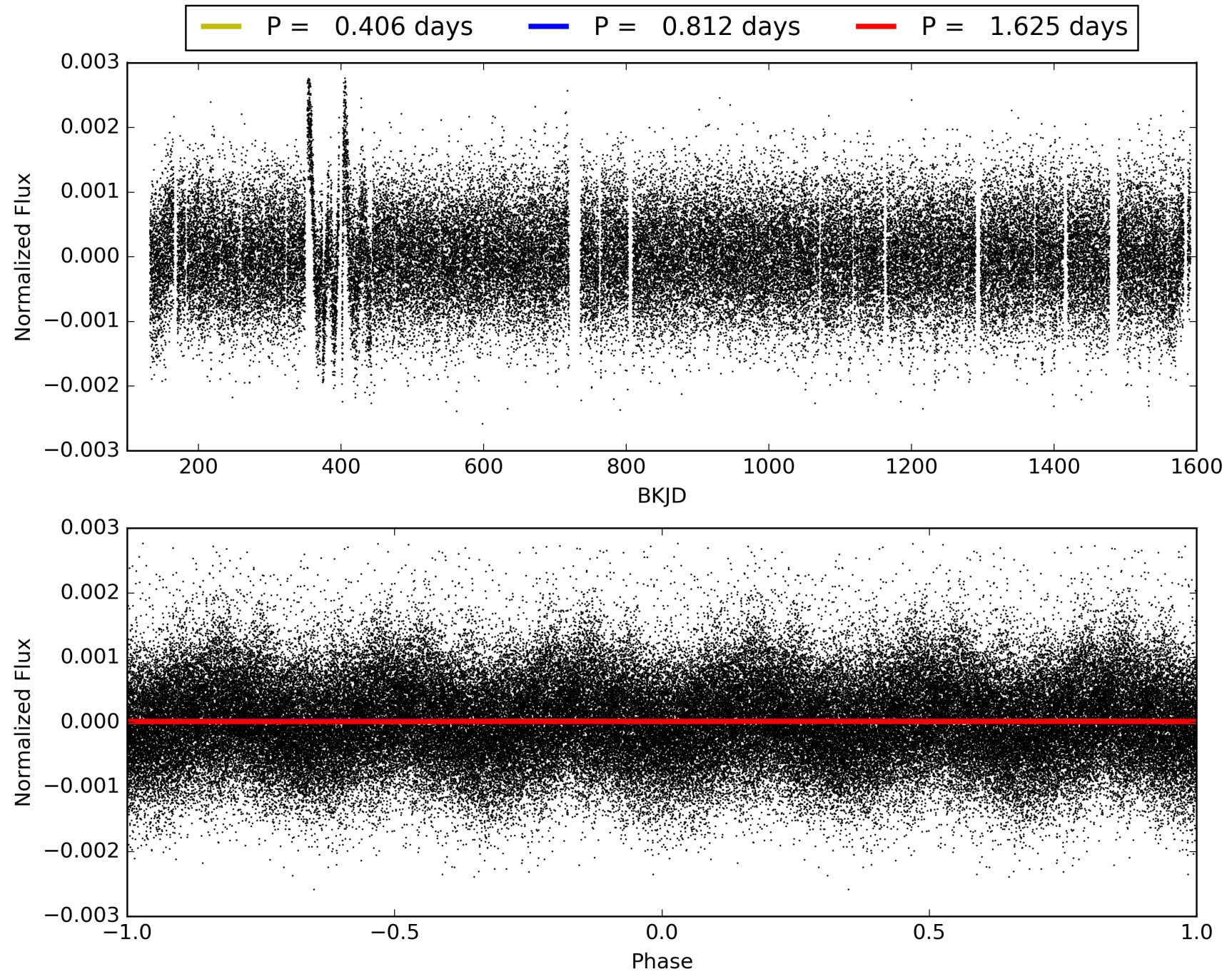
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:24:58 Z

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

TCE 002694337-01, PDC Light Curves

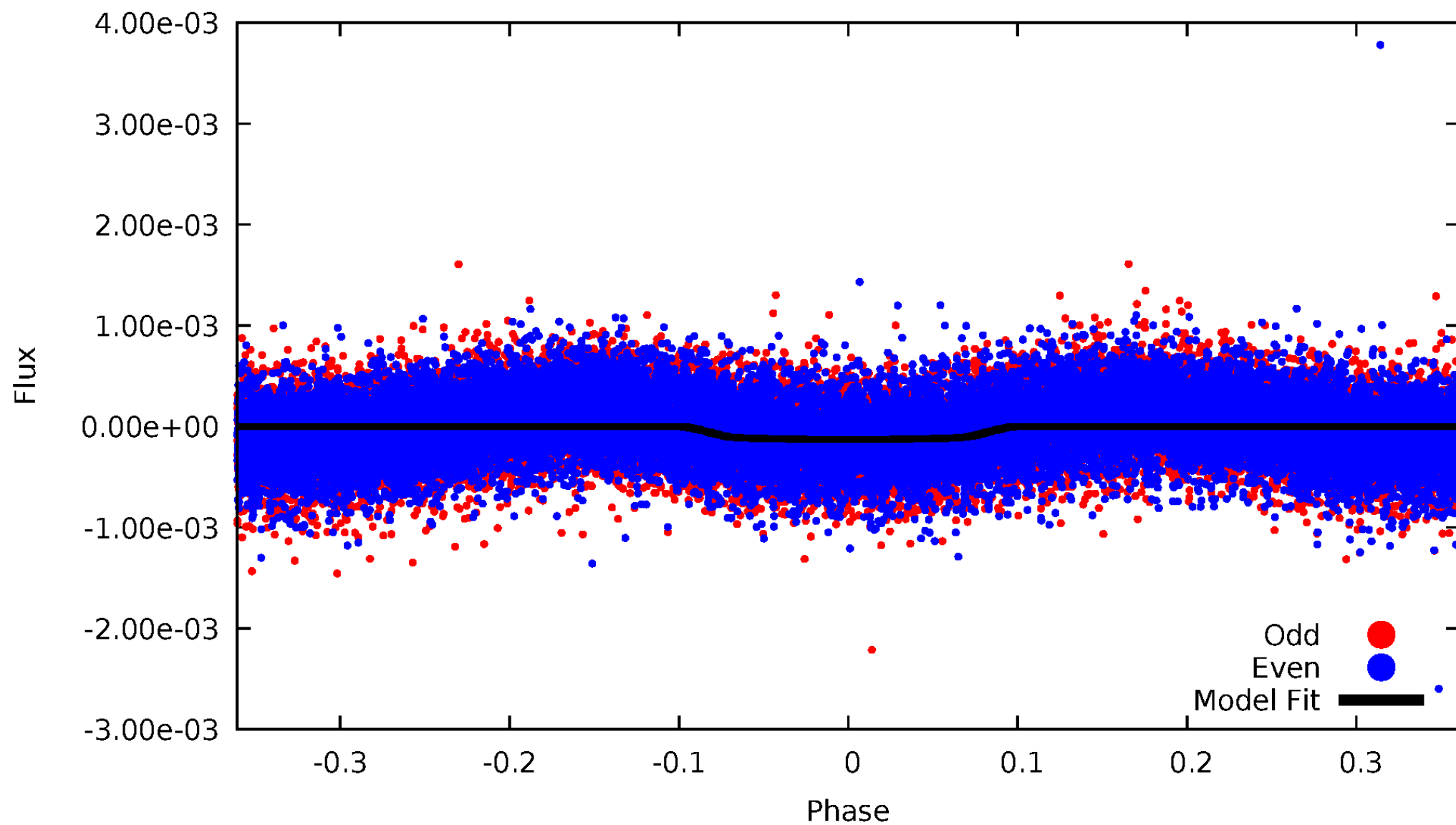


TCE 002694337-01



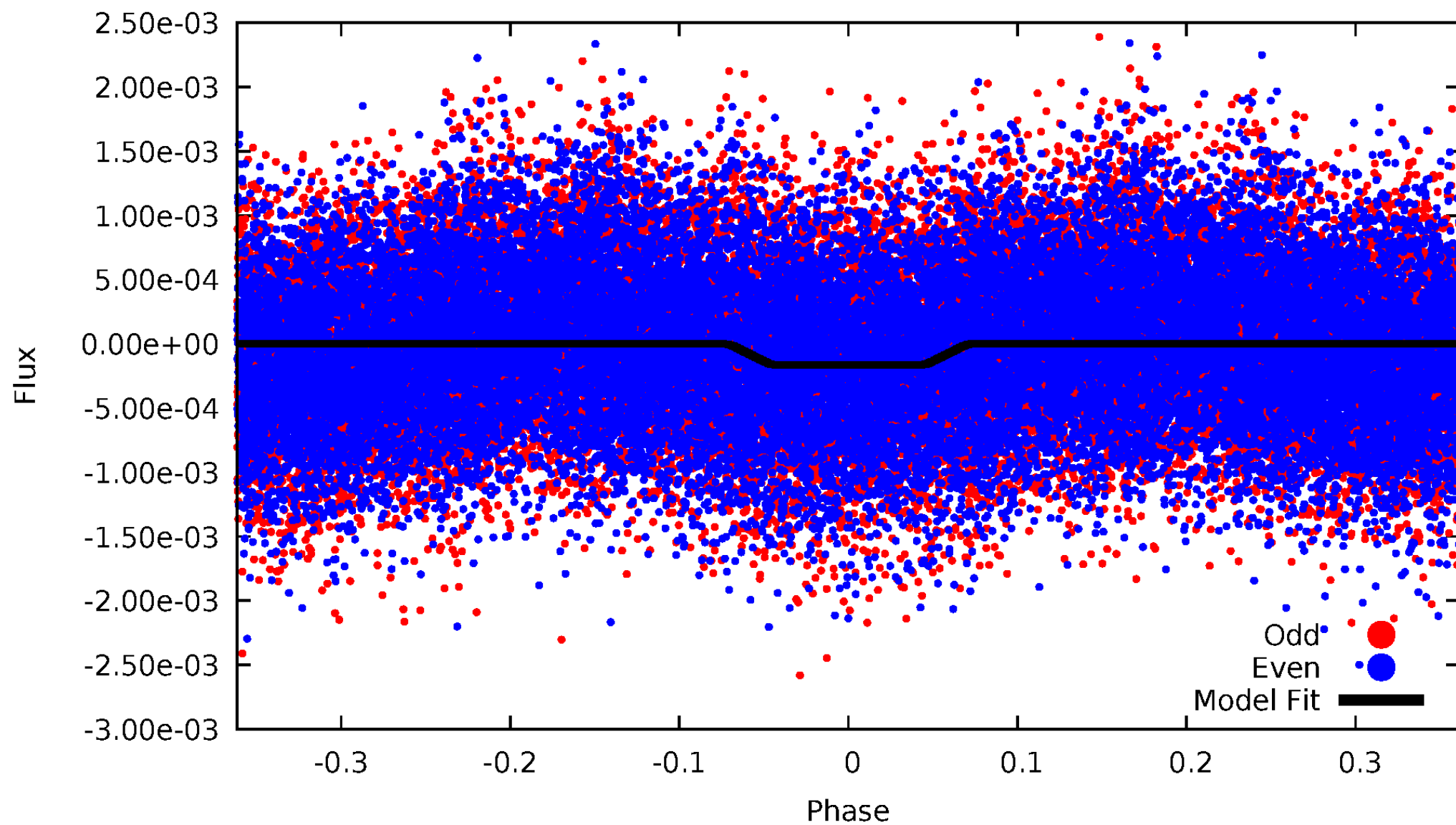
DV Odd/Even

TCE 002694337-01



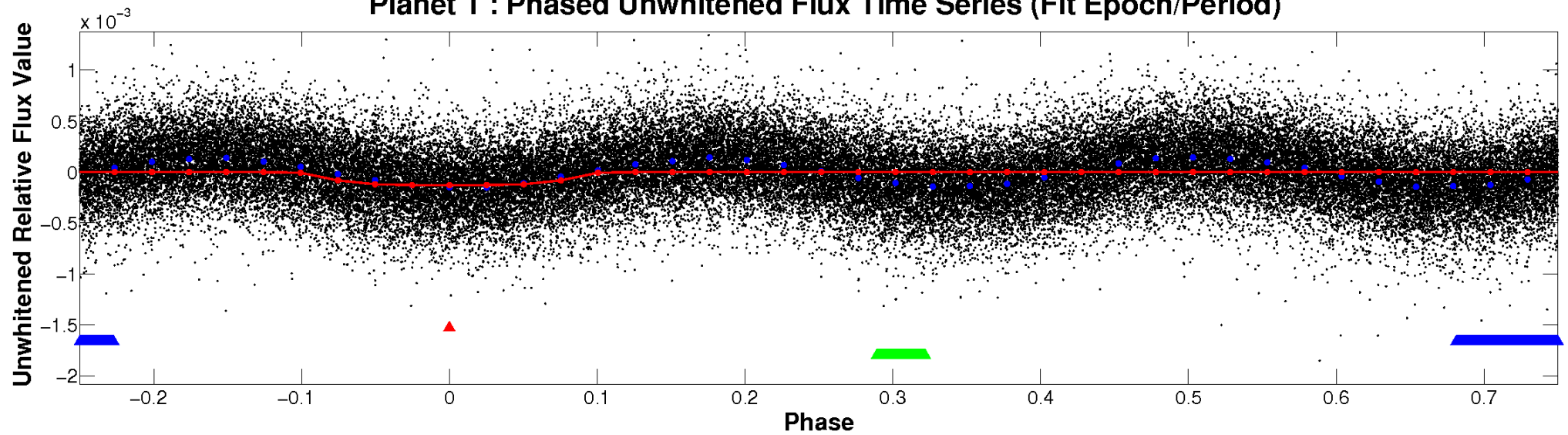
ALT Odd/Even

TCE 002694337-01

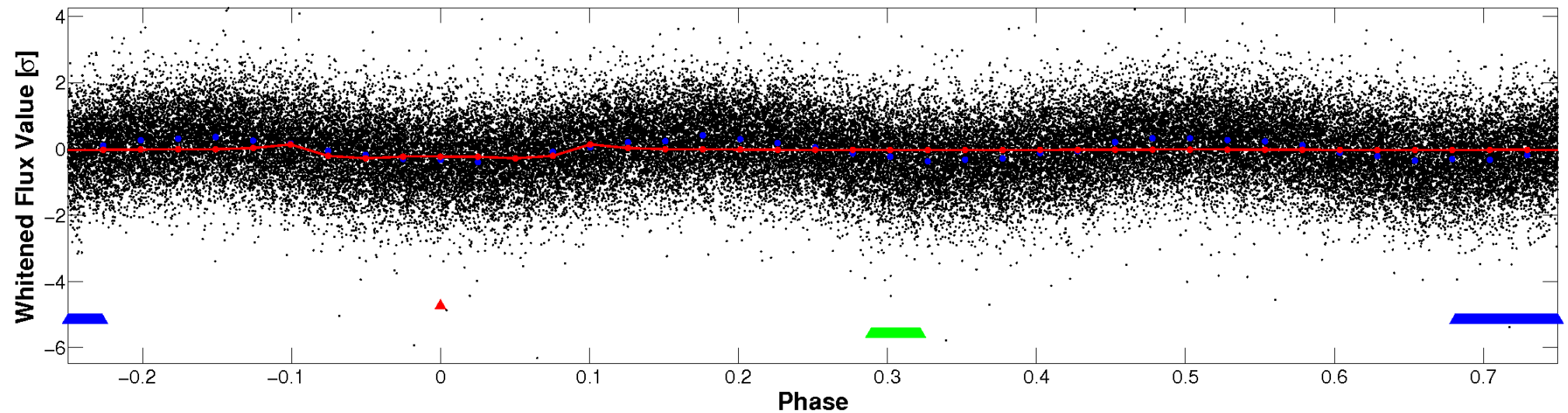


Non-Whitened Vs. Whitened Light Curve

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

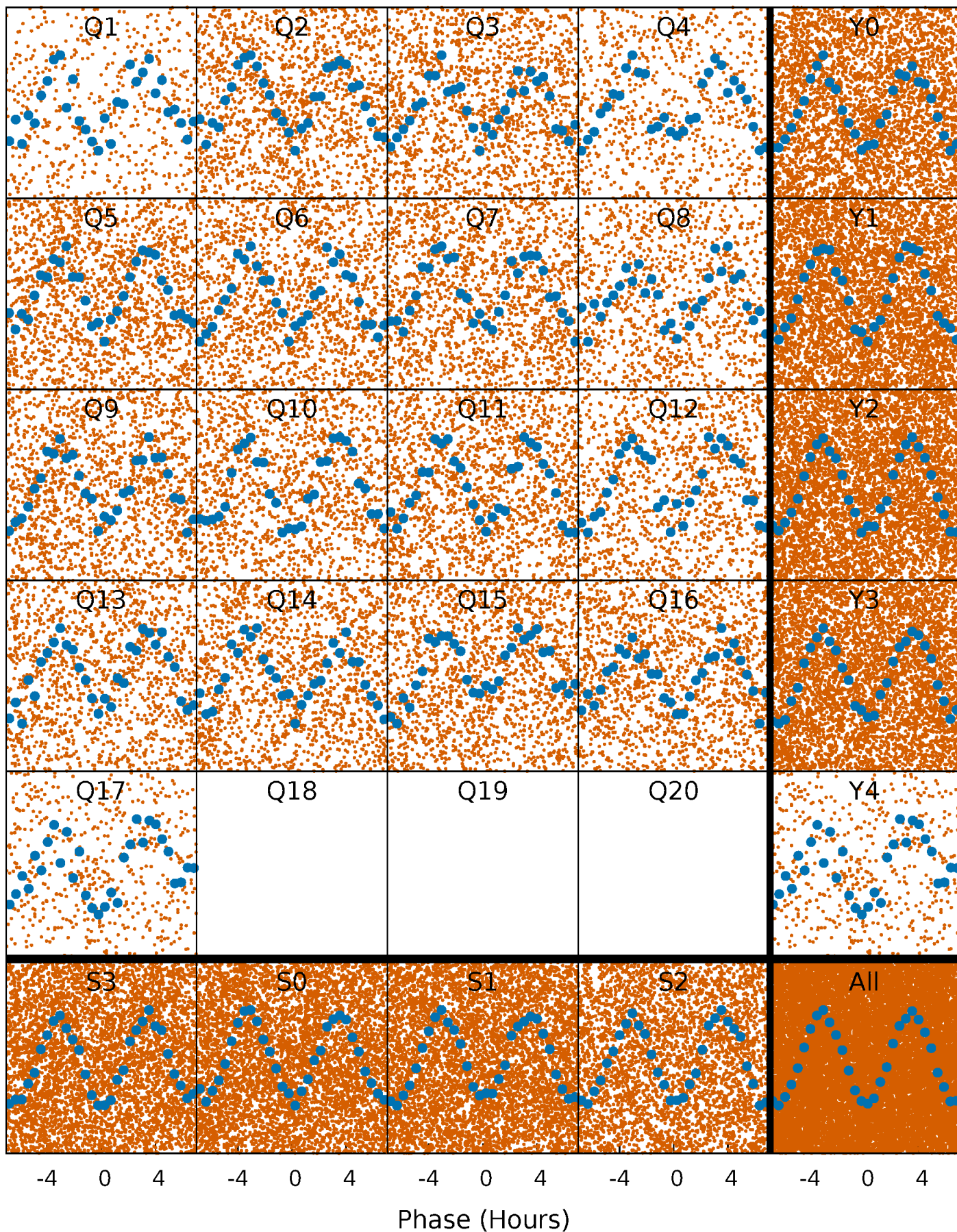


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



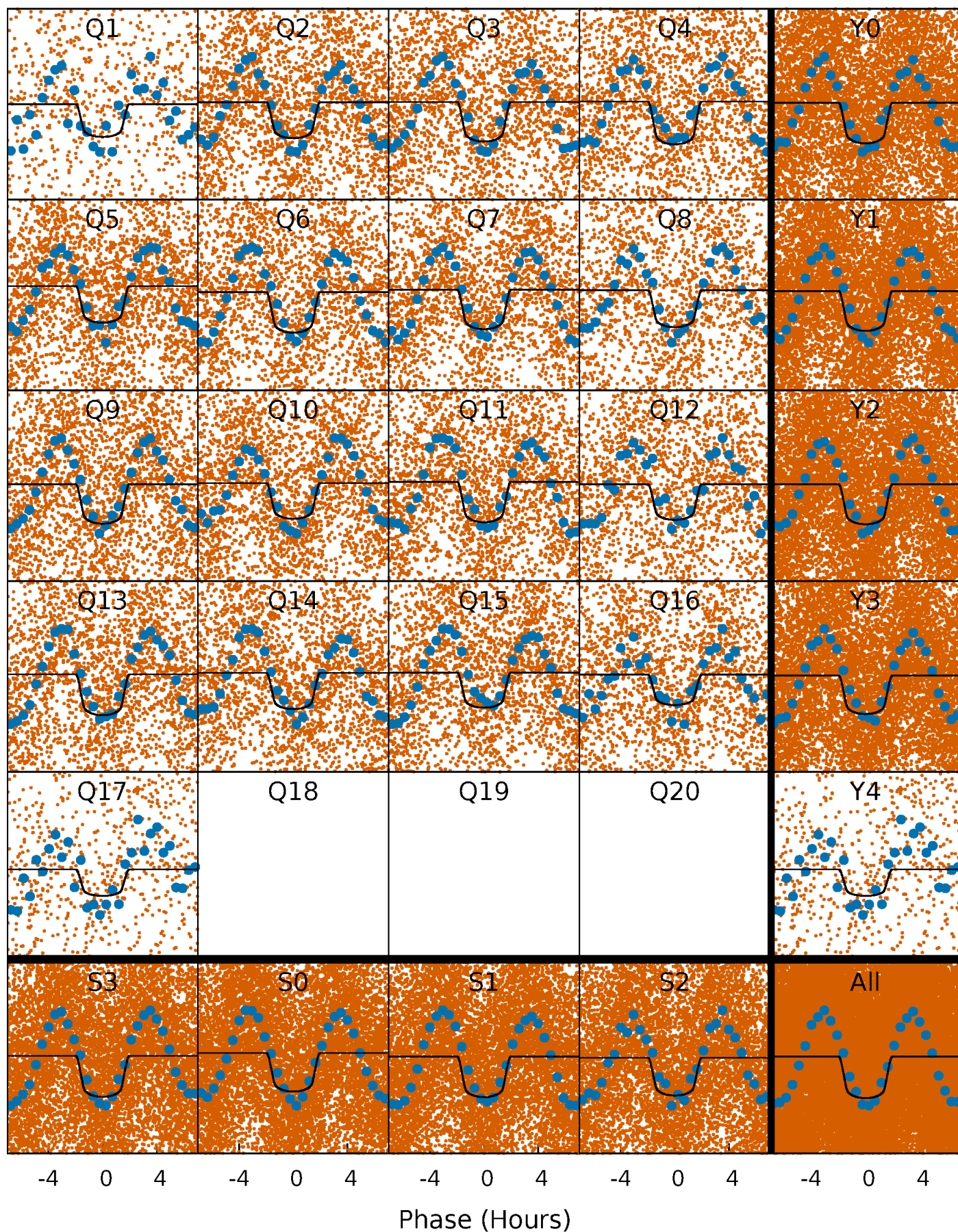
PDC Quarter-Phased Transit Curves

TCE 002694337-01 P= 0.812306 Days $T_0=132.156254$ (BKJD)



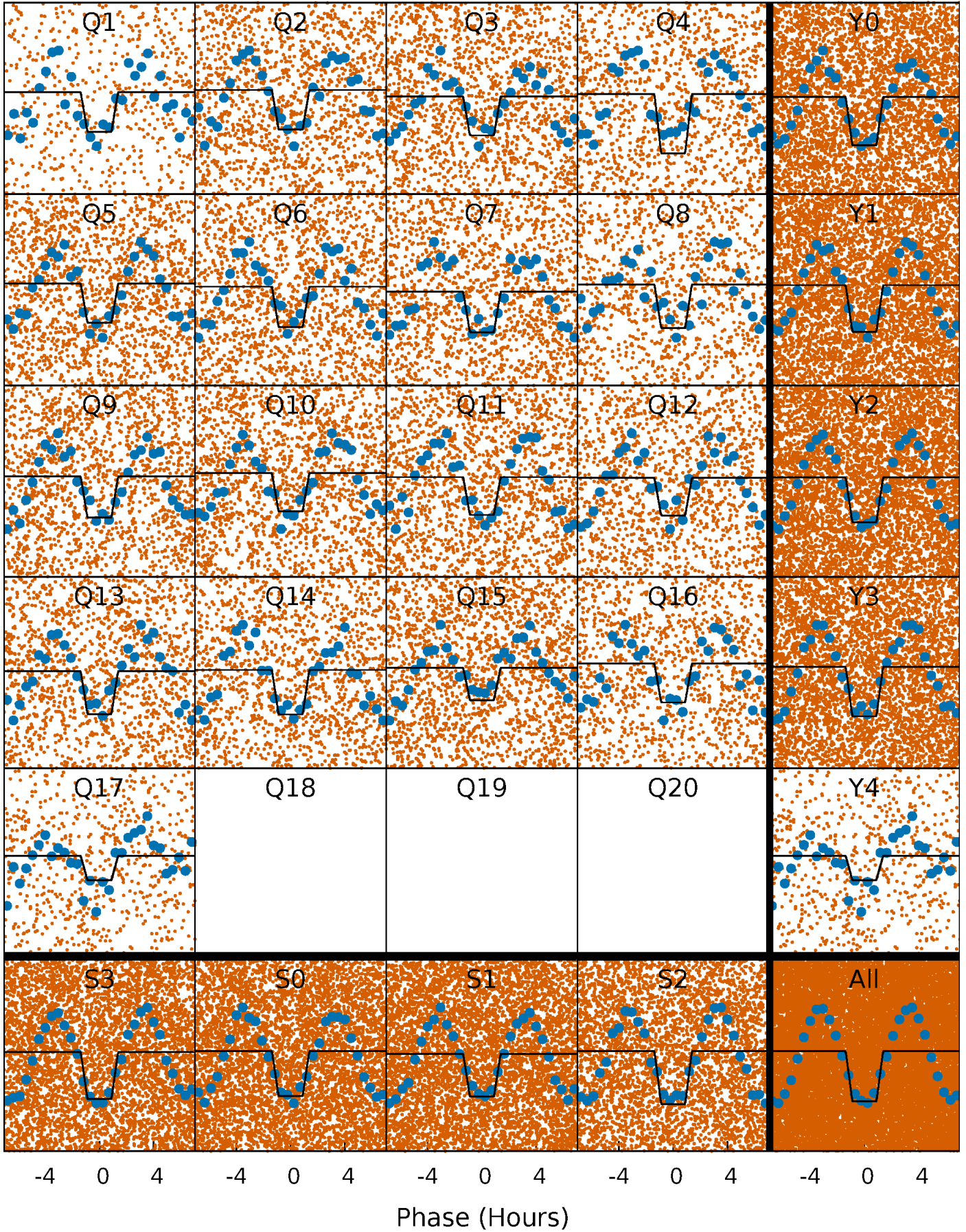
DV Quarter-Phased Transit Curves

TCE 002694337-01 P= 0.812306 Days $T_0=132.156254$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

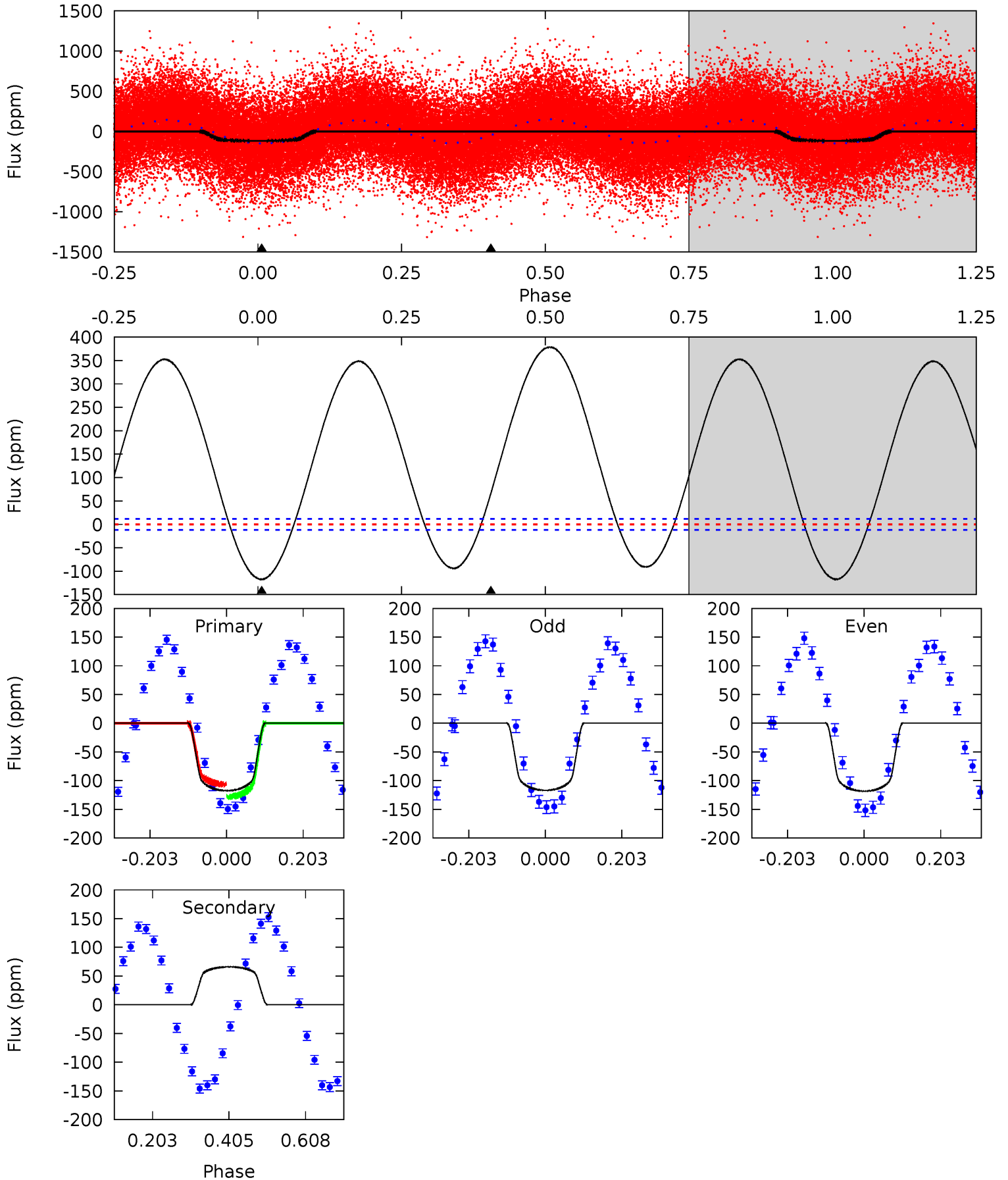
TCE 002694337-01 P= 0.812314 Days $T_0=132.155369$ (BKJD)



DV Model-Shift Uniqueness Test

002694337-01, P = 0.812306 Days, E = 131.343948 Days

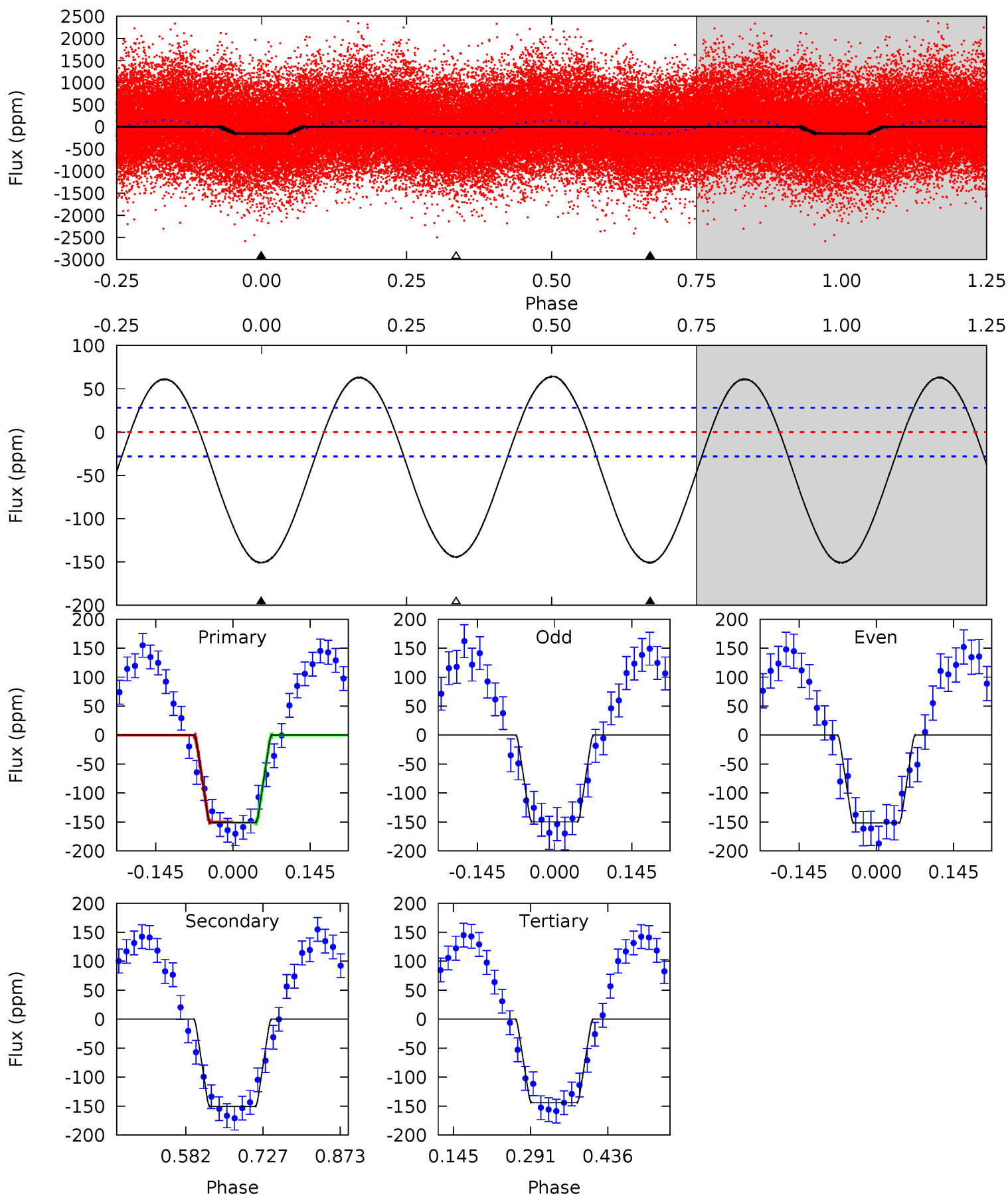
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.8	-24.6	0	0	4.41	1.27	45.5	43.8	43.8	-24.6	-24.6	0.28	1.09	0.76	4.25



Alt Model-Shift Uniqueness Test

002694337-01, P = 0.812314 Days, E = 131.343055 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	24.2	23.1	0	4.49	1.46	12.4	1.08	24.2	1.07	24.2	0.14	0.97	0.30	0.09



Stellar Parameters For KIC 002694337

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7526^{+209}_{-340}	$3.957^{+0.253}_{-0.136}$	$-0.080^{+0.200}_{-0.350}$	$2.293^{+0.493}_{-0.802}$	$1.738^{+0.185}_{-0.370}$	$0.203^{+0.322}_{-0.081}$
	+3%/-5%	+6%/-3%	+250%/-438%	+22%/-35%	+11%/-21%	+159%/-40%
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 002694337-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	66 ± 3	$2.96^{+0.41}_{-0.52}$	4835^{+375}_{-425}	-6323^{+285}_{-264}	$-1.724^{+0.382}_{-0.702}$
Alt.	-151 ± 6	$3.17^{+0.46}_{-0.54}$	4859^{+344}_{-420}	7121^{+347}_{-357}	$3.440^{+1.364}_{-0.776}$

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

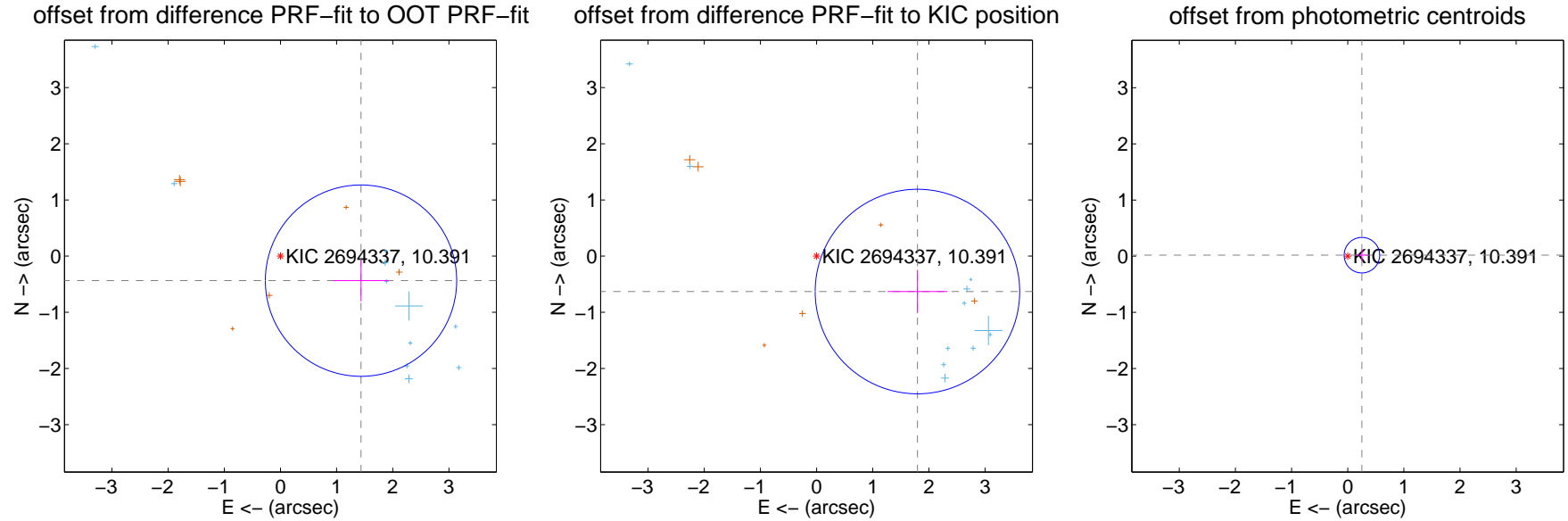
DV Centroid Data

Supplemental centroid analysis for 002694337-01. **Kepler magnitude: 10.39.** Transit SNR 28.13

There are 11 quarters with good PRF difference image offsets

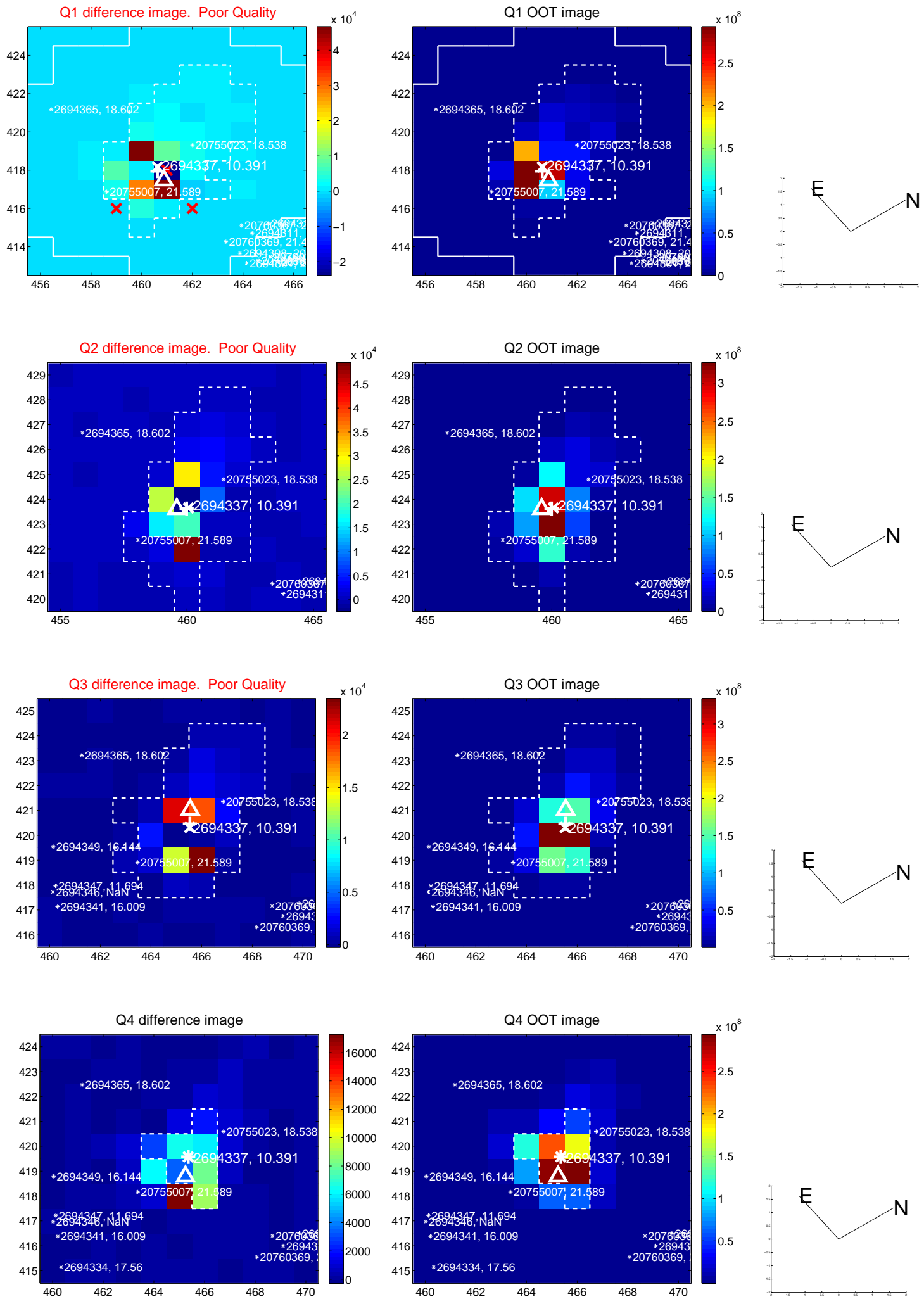
The direct PRF centroid is offset from the target star catalog position by about 0.84 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.500 ± 0.568	2.64	-1.435 ± 0.500	-0.437 ± 0.369
PRF-fit source offset from KIC position	1.903 ± 0.607	3.14	-1.796 ± 0.532	-0.631 ± 0.384
photometric centroid source offset	0.25 ± 0.11	2.40	-0.25 ± 0.11	0.02 ± 0.10

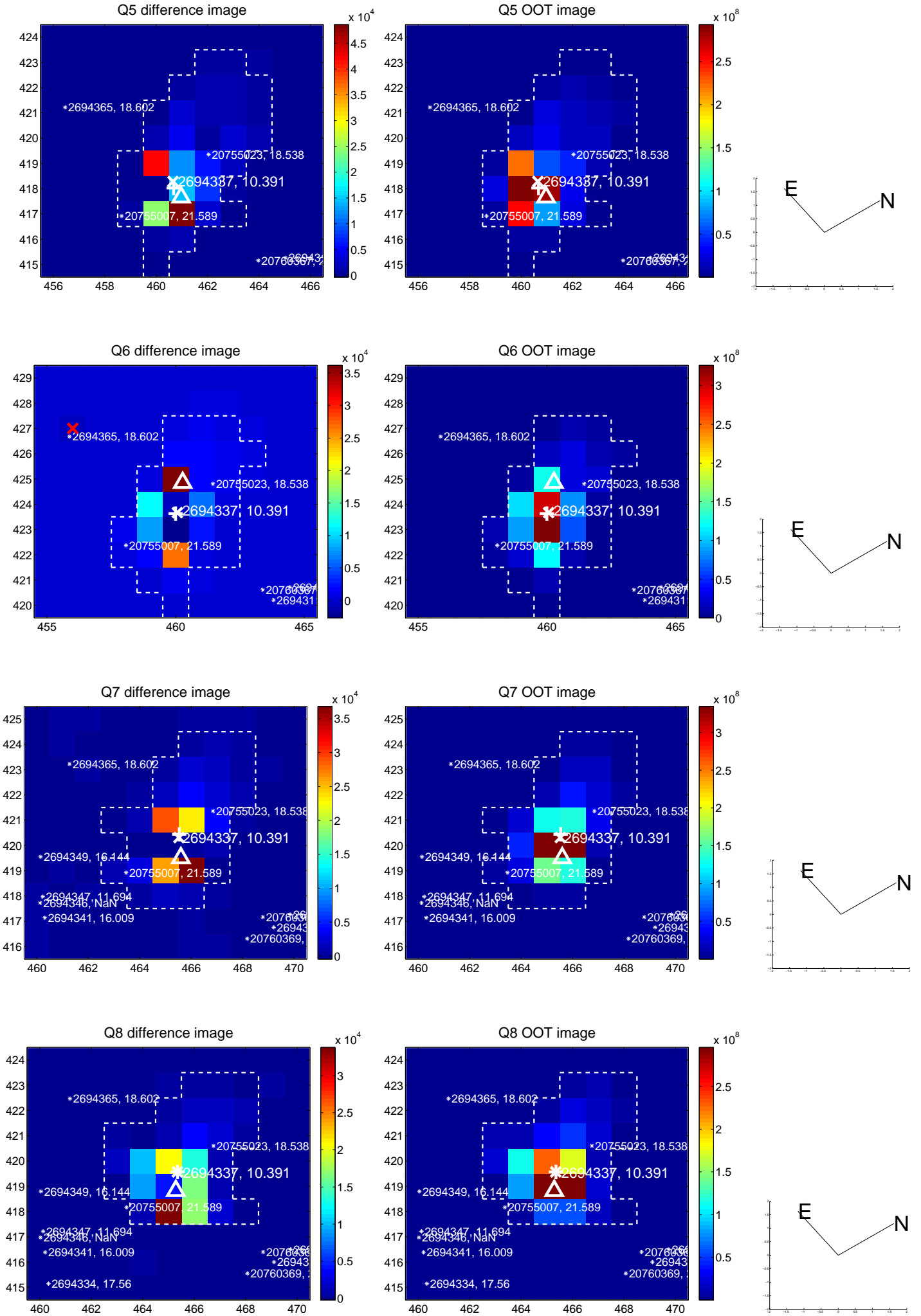


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

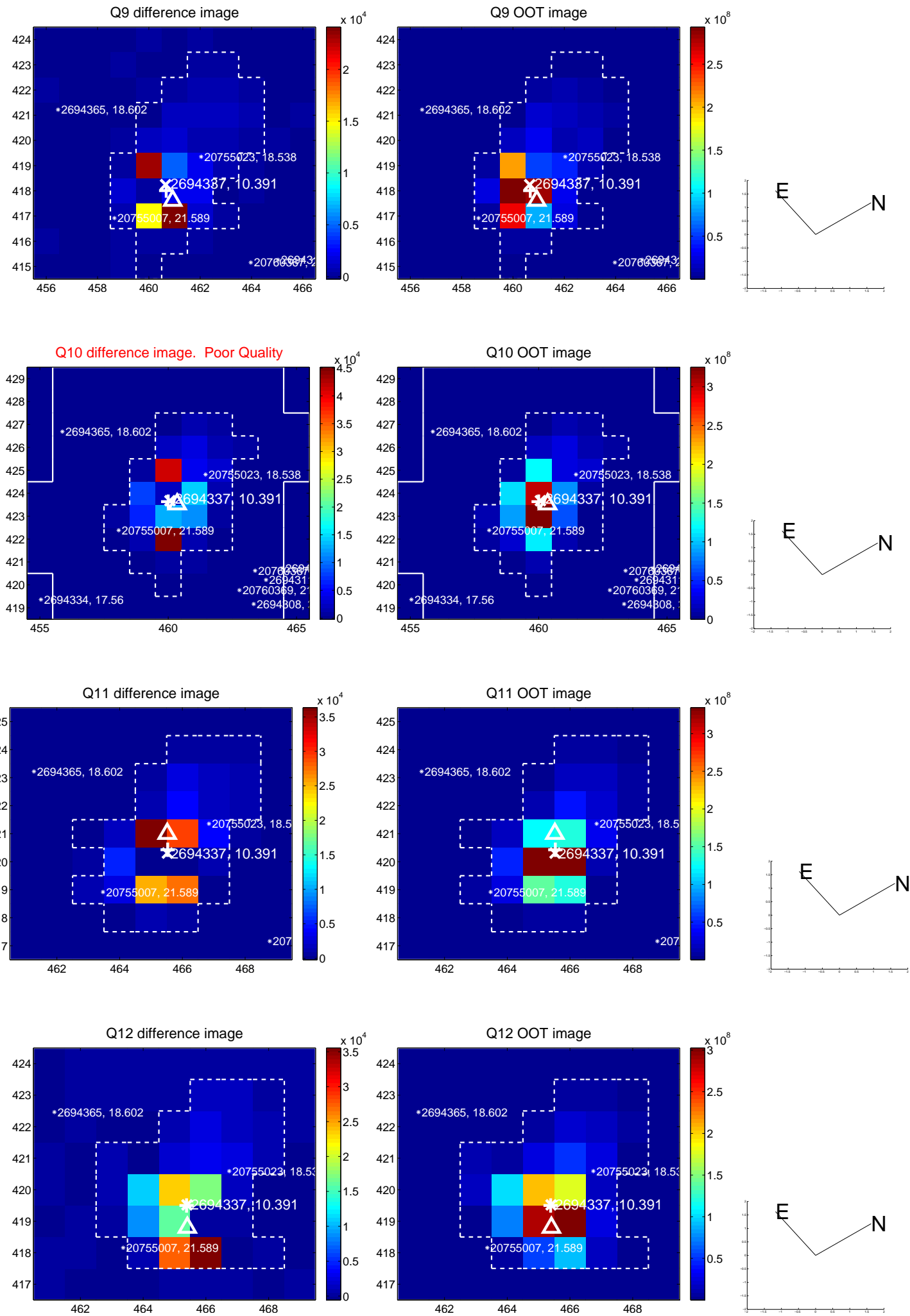
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



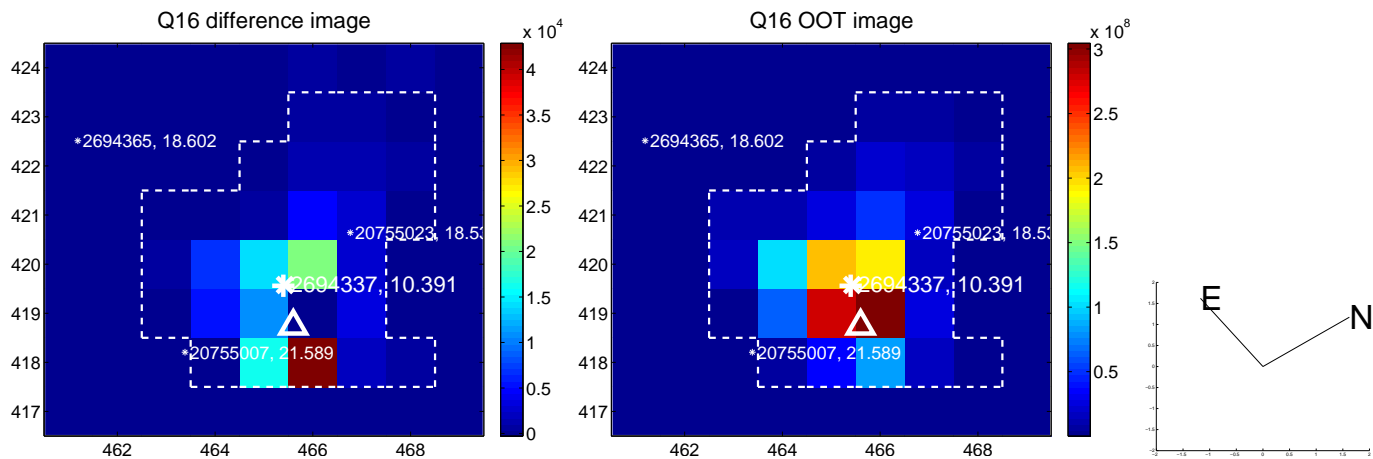
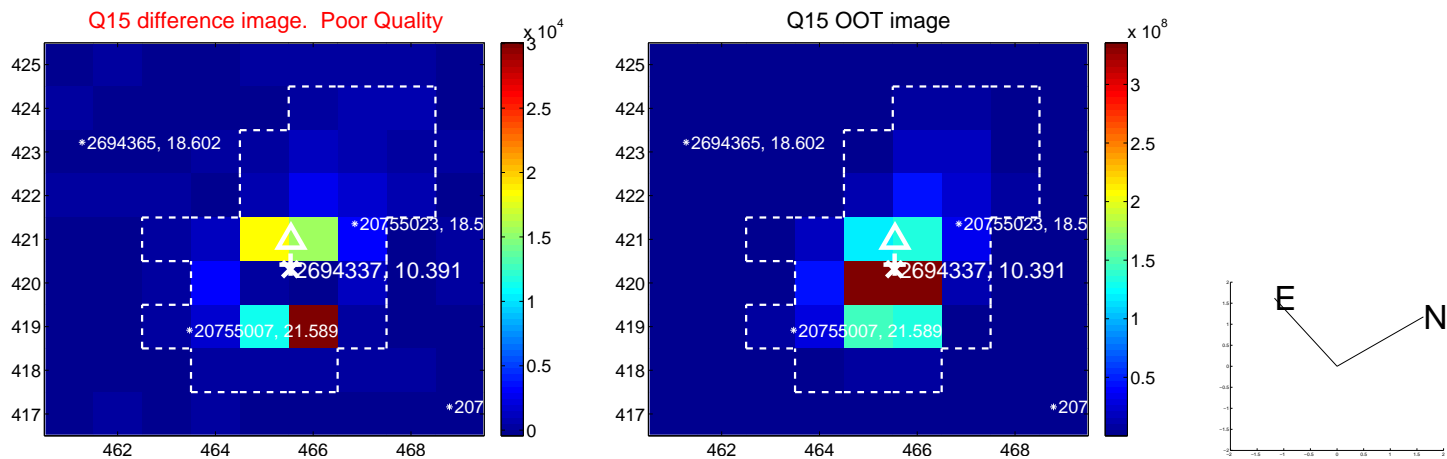
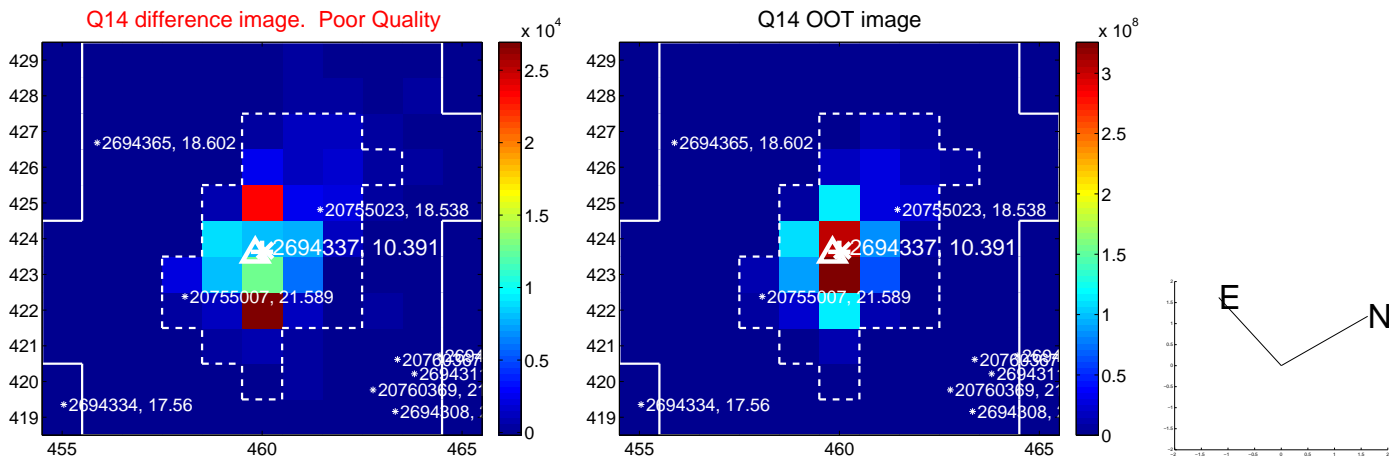
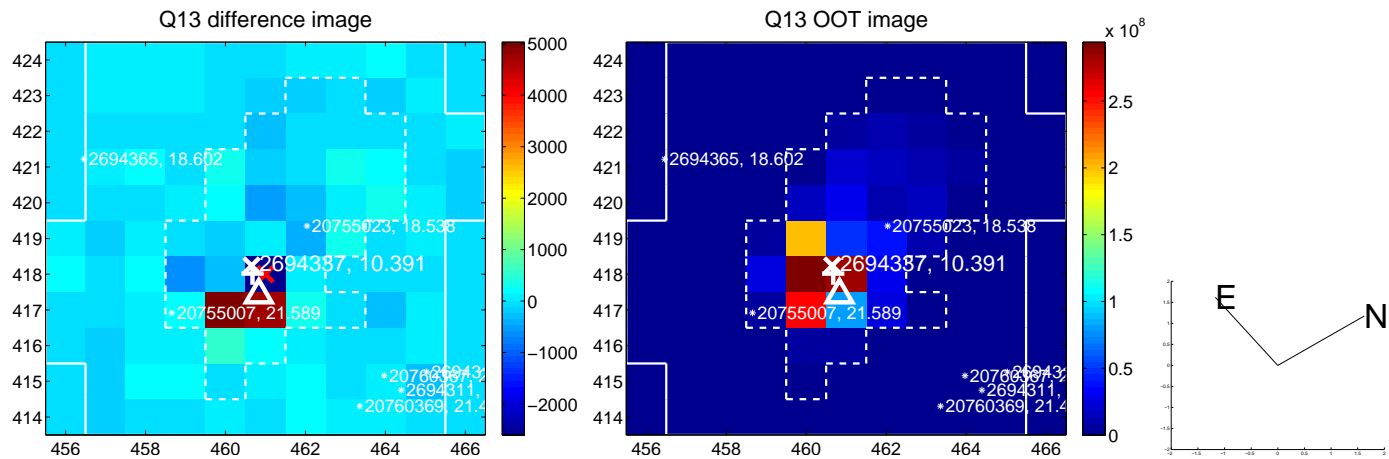
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



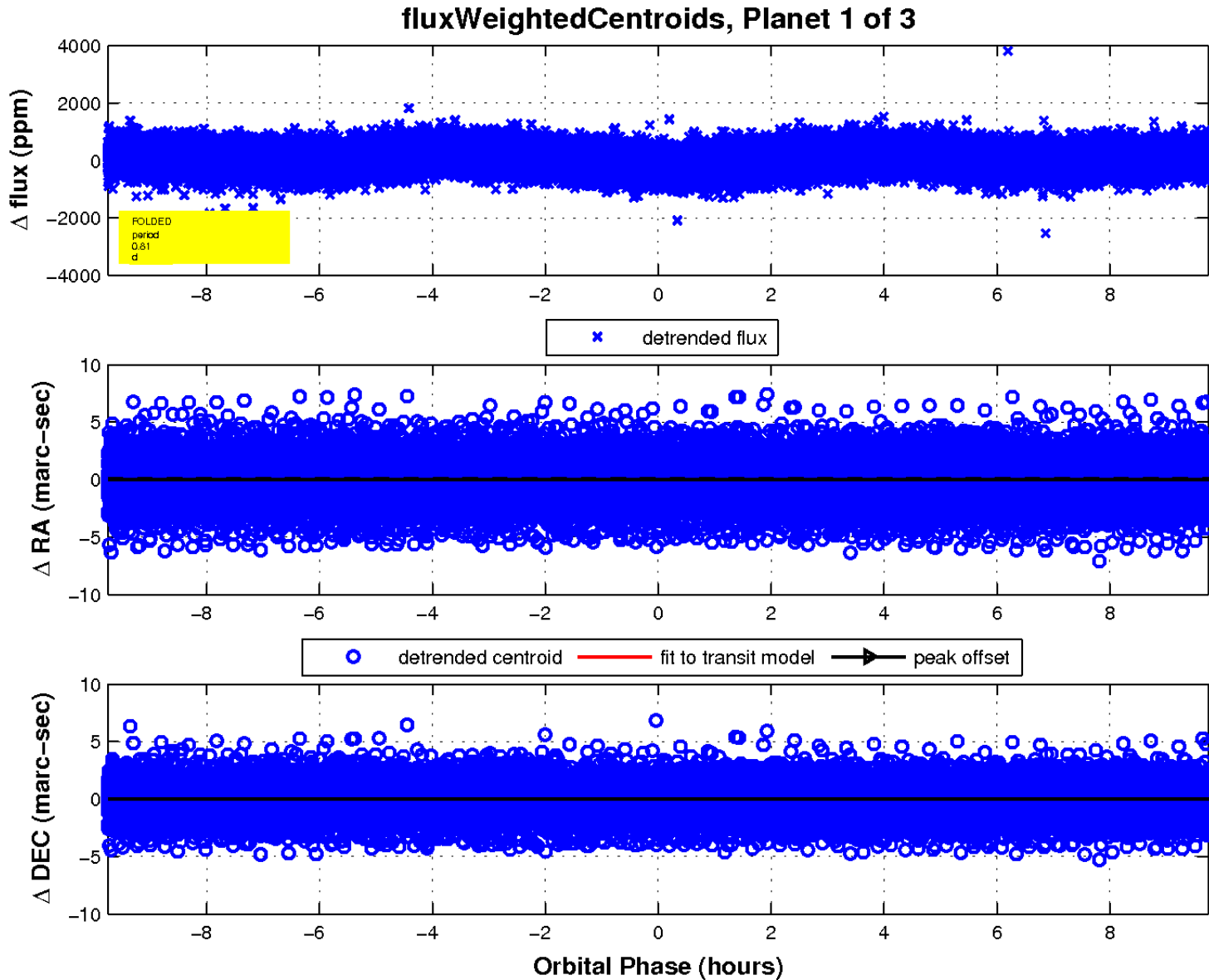
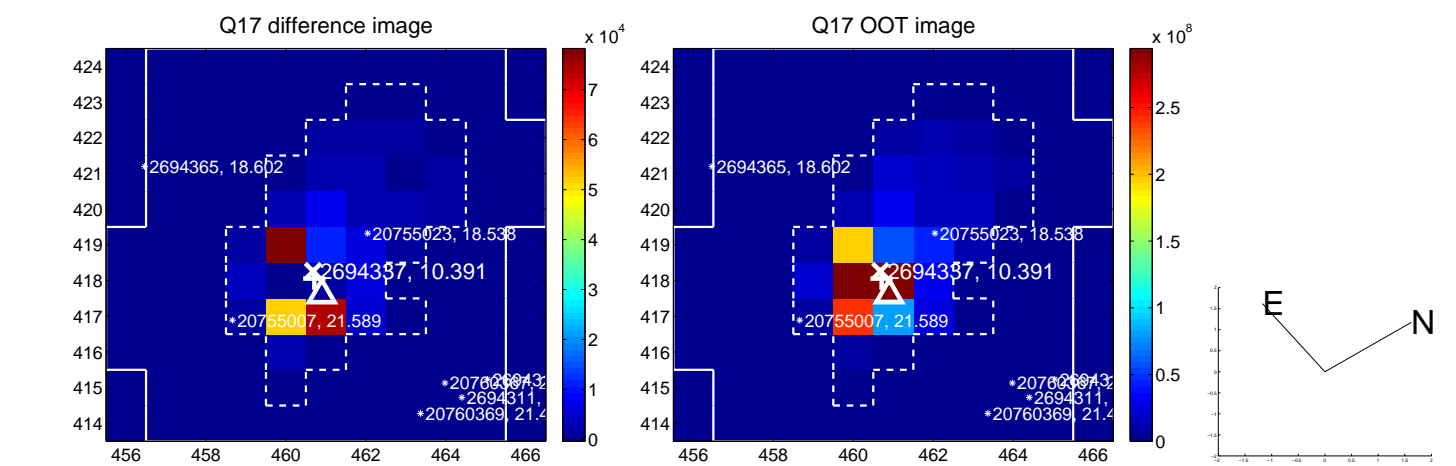
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

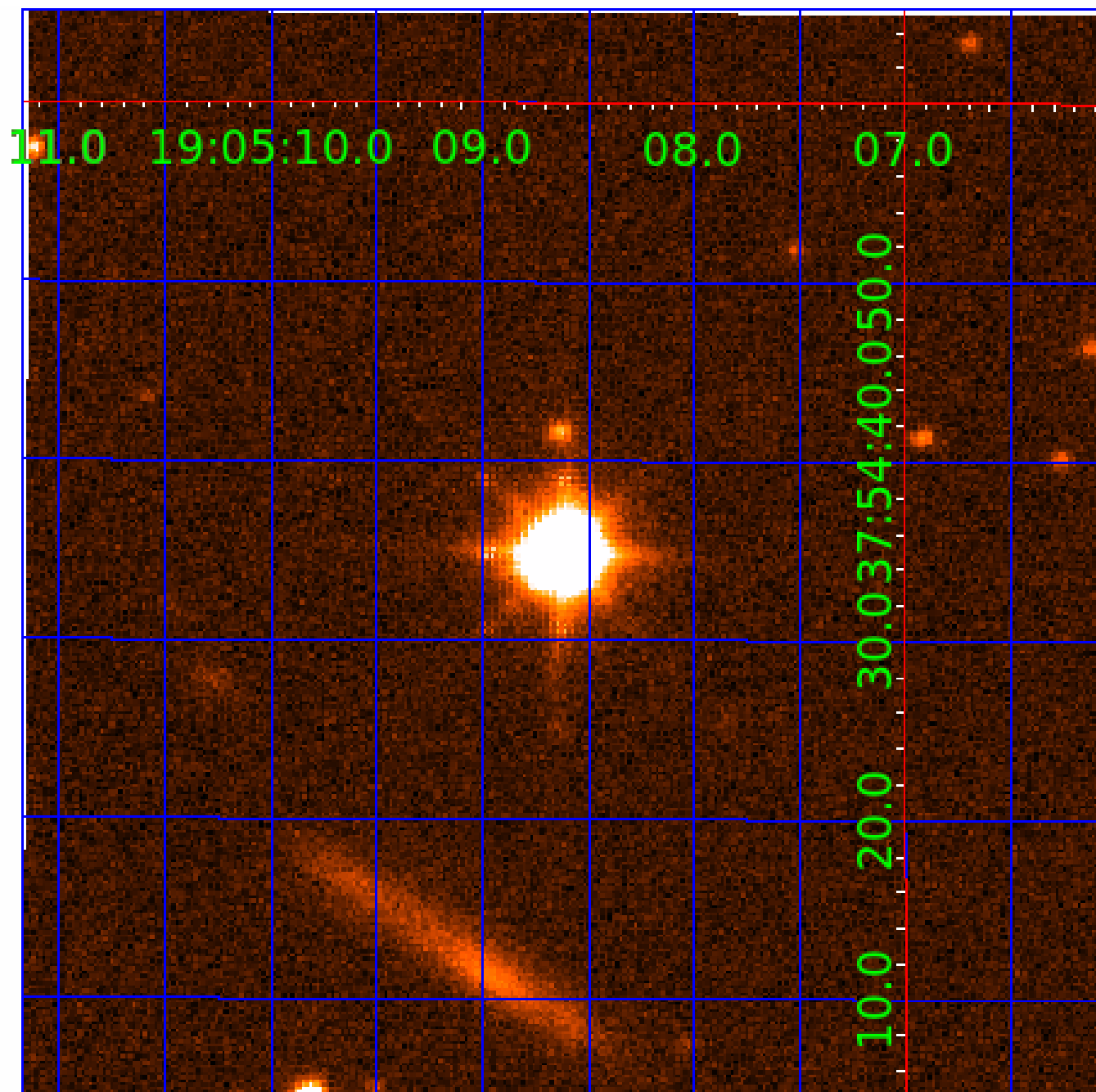


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002694337

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})
002694337-01	OBS	No	0.812306	132.156254	128.6	3.517	20.7	28.1	2.29	7526	3.01	36013.12
002694337-02	OBS	No	0.812348	131.897305	147.7	5.406	22.5	25.2	2.29	7526	2.85	36010.67
002694337-03	OBS	No	0.812291	131.605554	114.5	4.615	18.0	15.8	2.29	7526	2.49	36014.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002694337-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
002694337-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
002694337-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—MOD_NONUNIQ_DV—MOD_TER_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

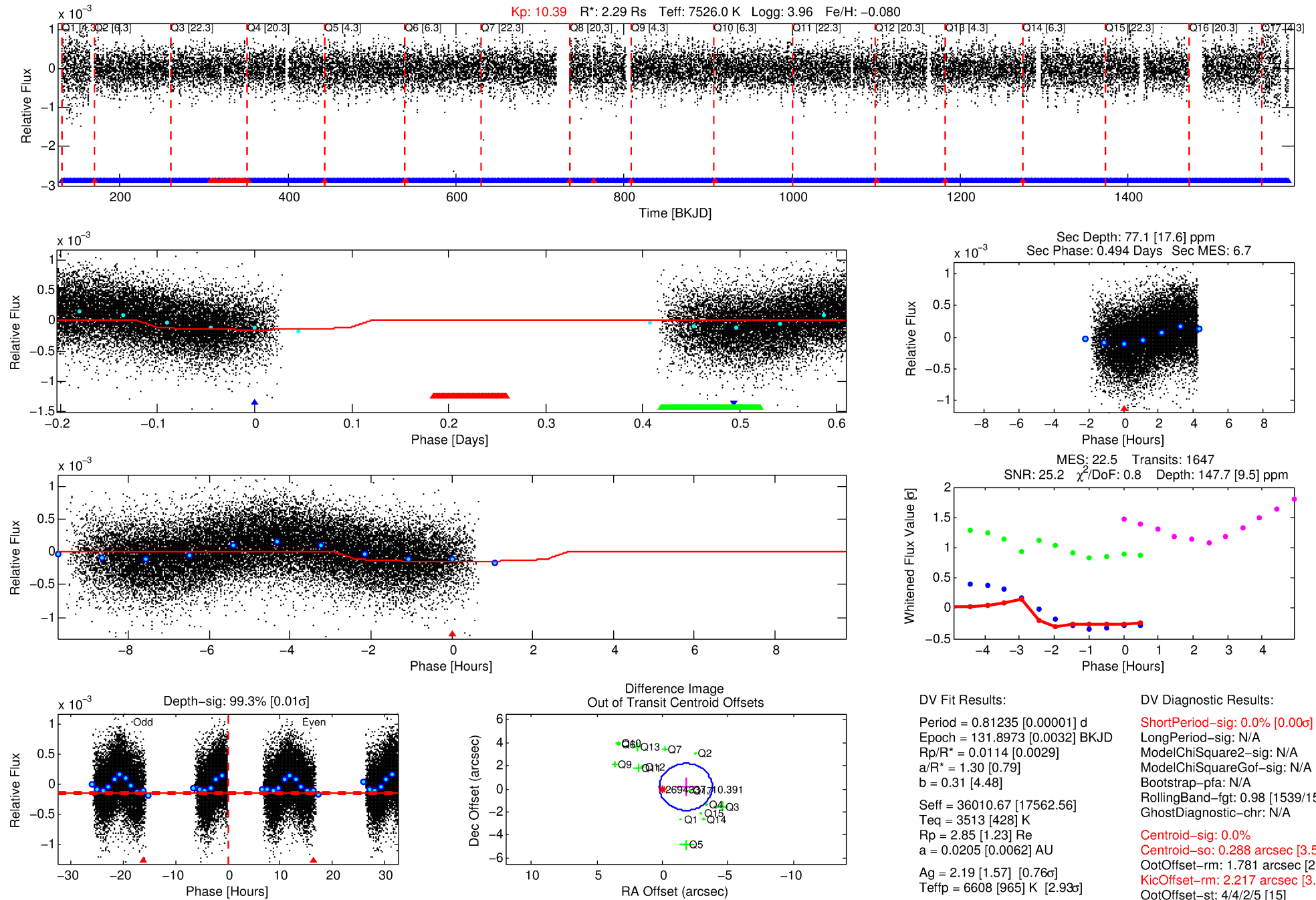
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002694337-02

No Significant Match Found

DV One-Page Summary

KIC: 2694337 Candidate: 2 of 3 Period: 0.812 d



DV Fit Results:

Period = 0.81235 [0.00001] d
Epoch = 131.8973 [0.0032] BKJD
Rp/R* = 0.0114 [0.0029]
a/R* = 1.30 [0.79]
b = 0.31 [4.48]
Seff = 36010.67 [17562.56]
Teq = 3513 [428] K
Rp = 2.85 [1.23] Re
a = 0.0205 [0.0062] AU
Ag = 2.19 [1.57] [0.76σ]
Teffp = 6608 [965] K [2.93σ]

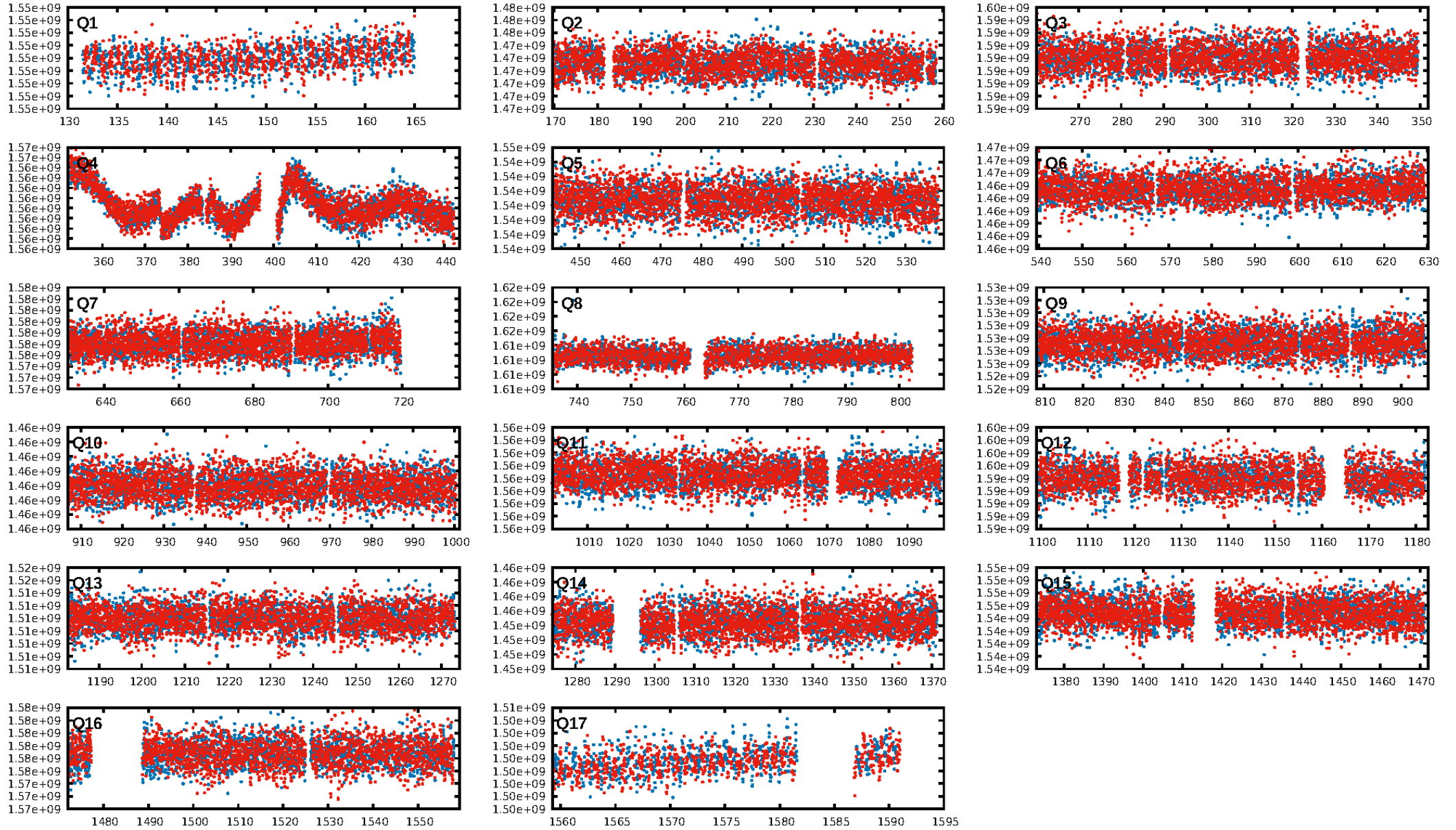
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1539/1574]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.288 arcsec [3.50σ]
OotOffset-rm: 1.781 arcsec [2.64σ]
KicOffset-rm: 2.217 arcsec [3.50σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 0.00 [0/17]

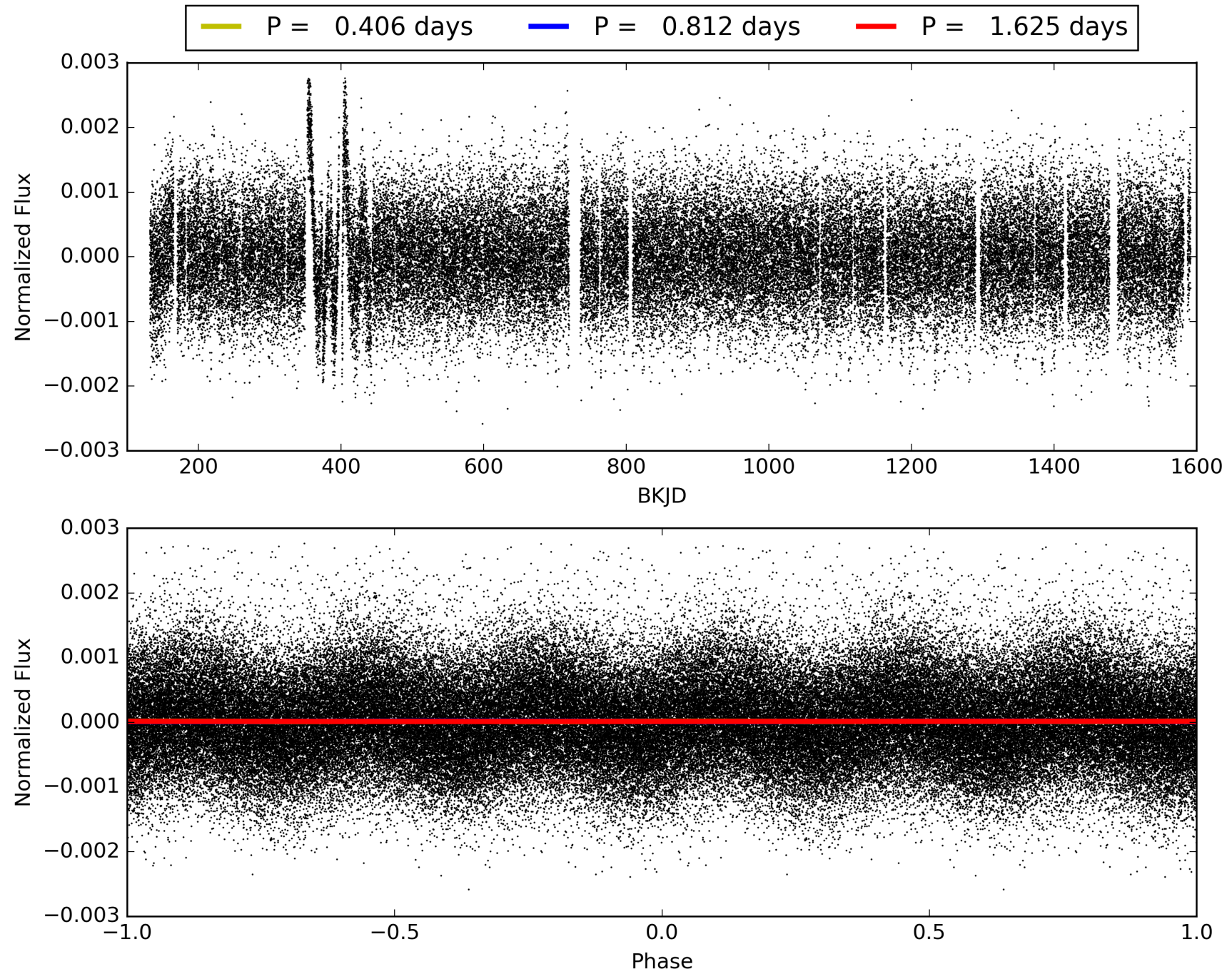
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:25:12 Z

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

TCE 002694337-02, PDC Light Curves

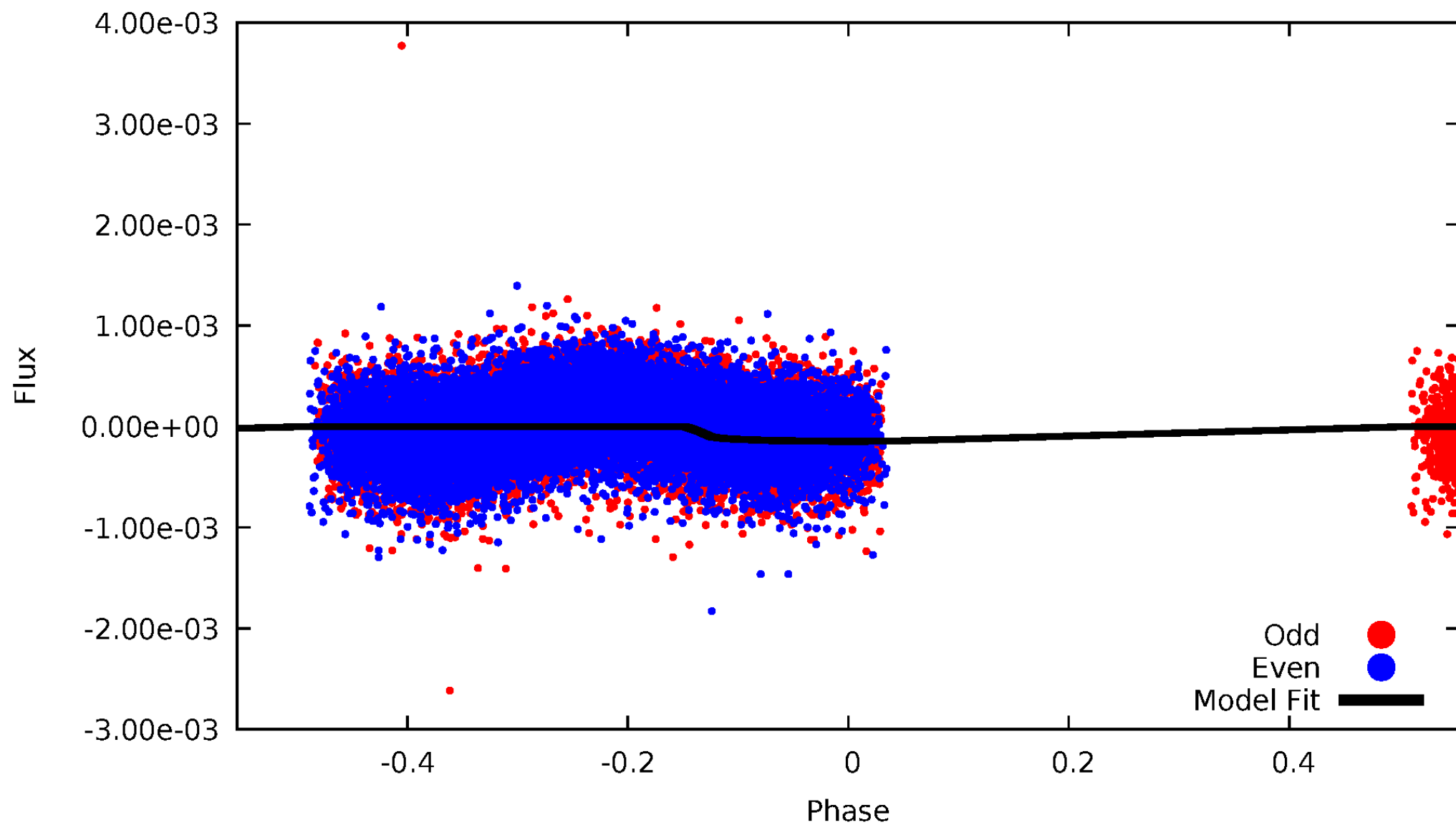


TCE 002694337-02



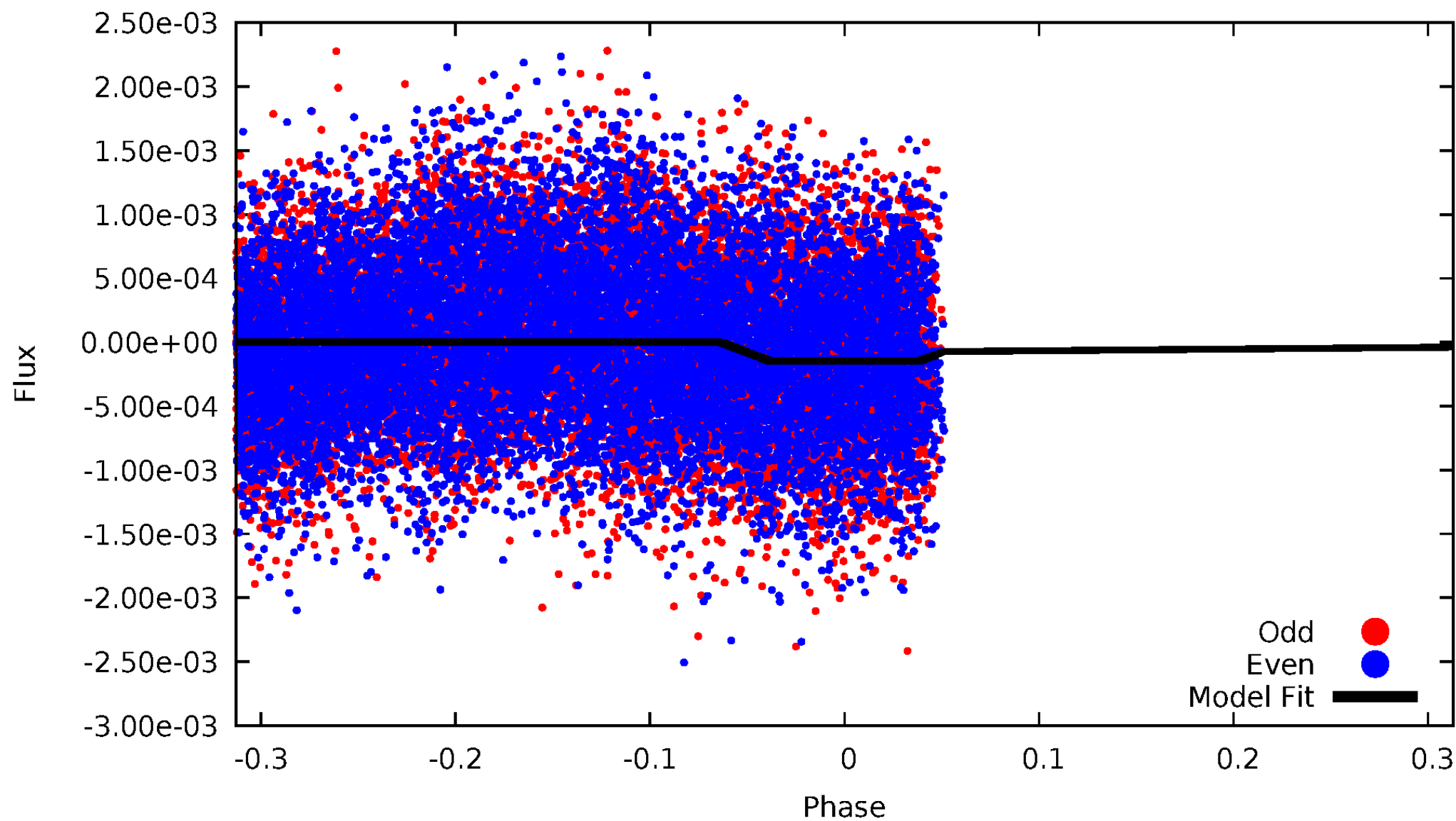
DV Odd/Even

TCE 002694337-02



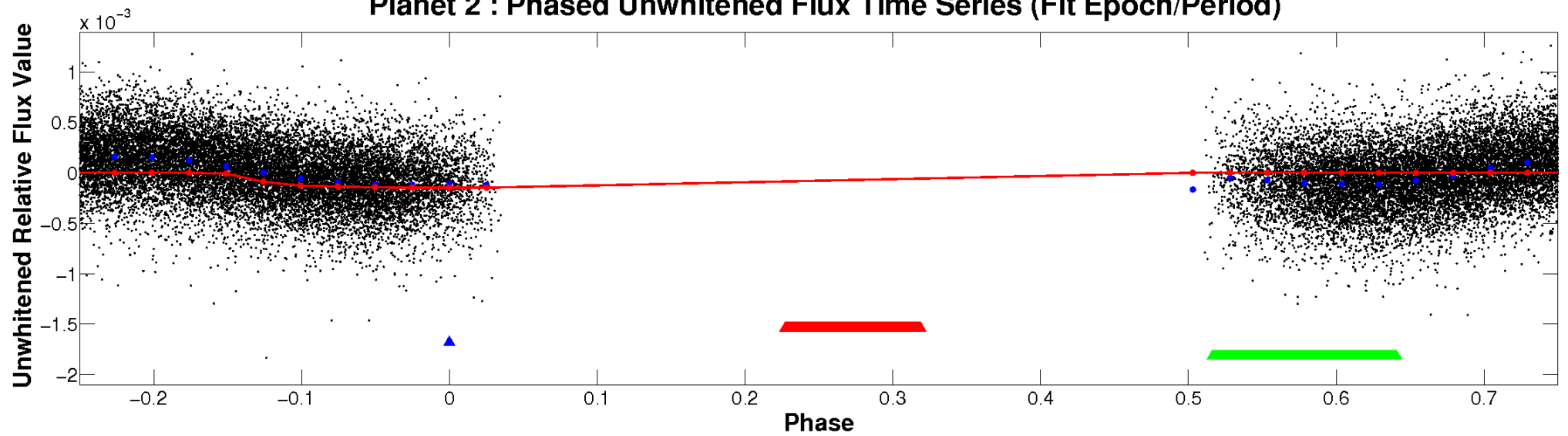
ALT Odd/Even

TCE 002694337-02

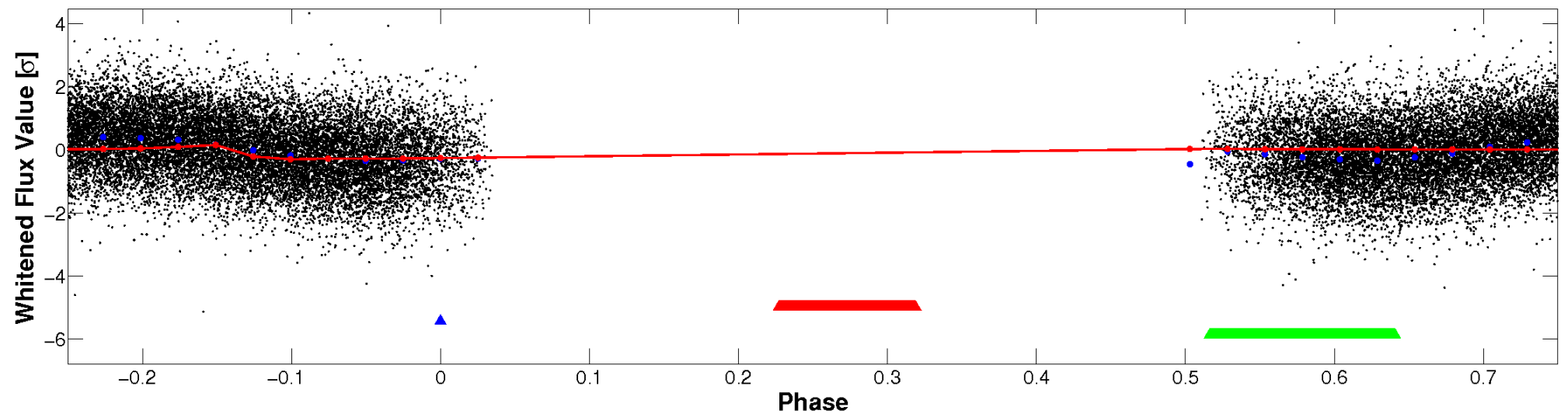


Non-Whitened Vs. Whitened Light Curve

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

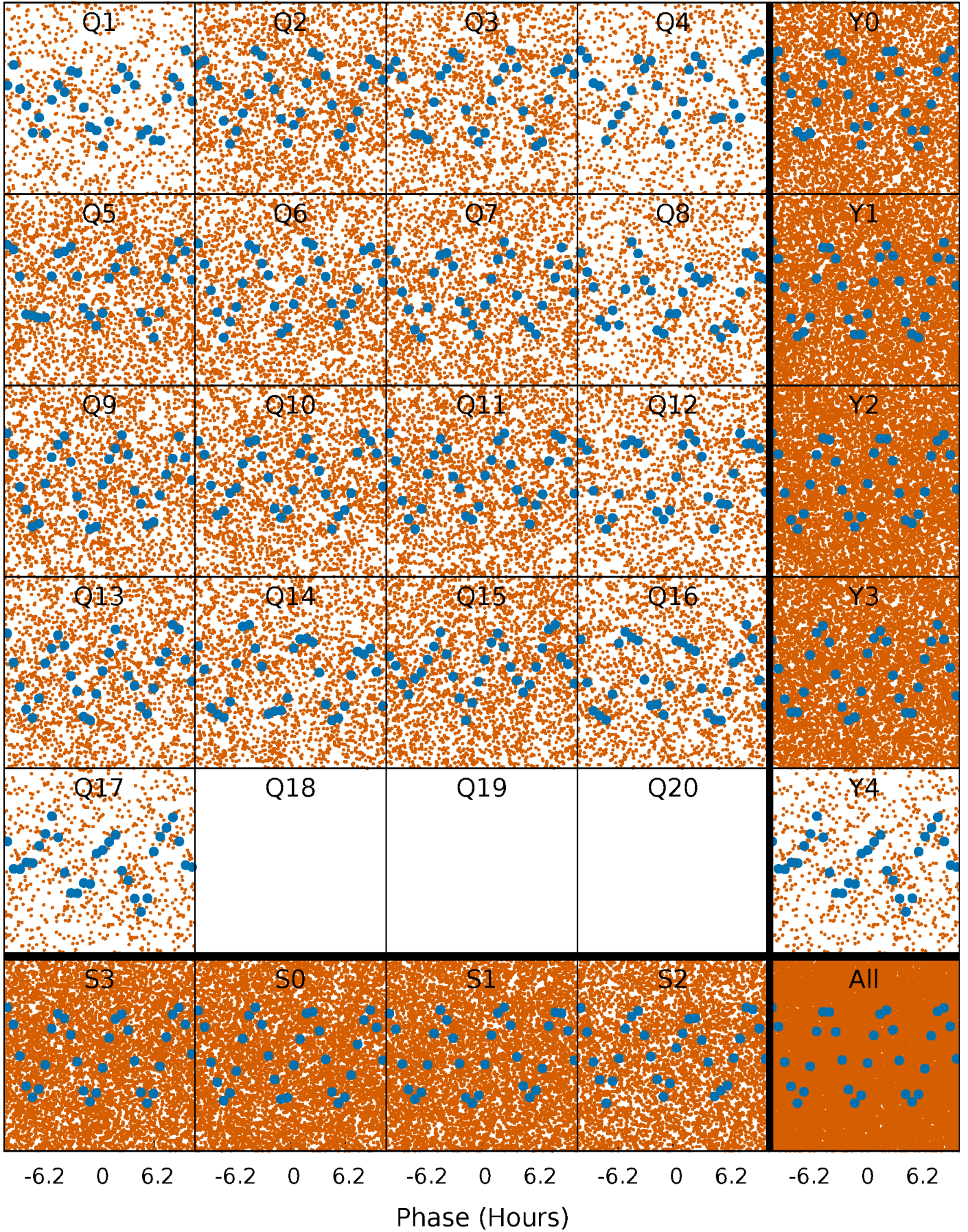


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



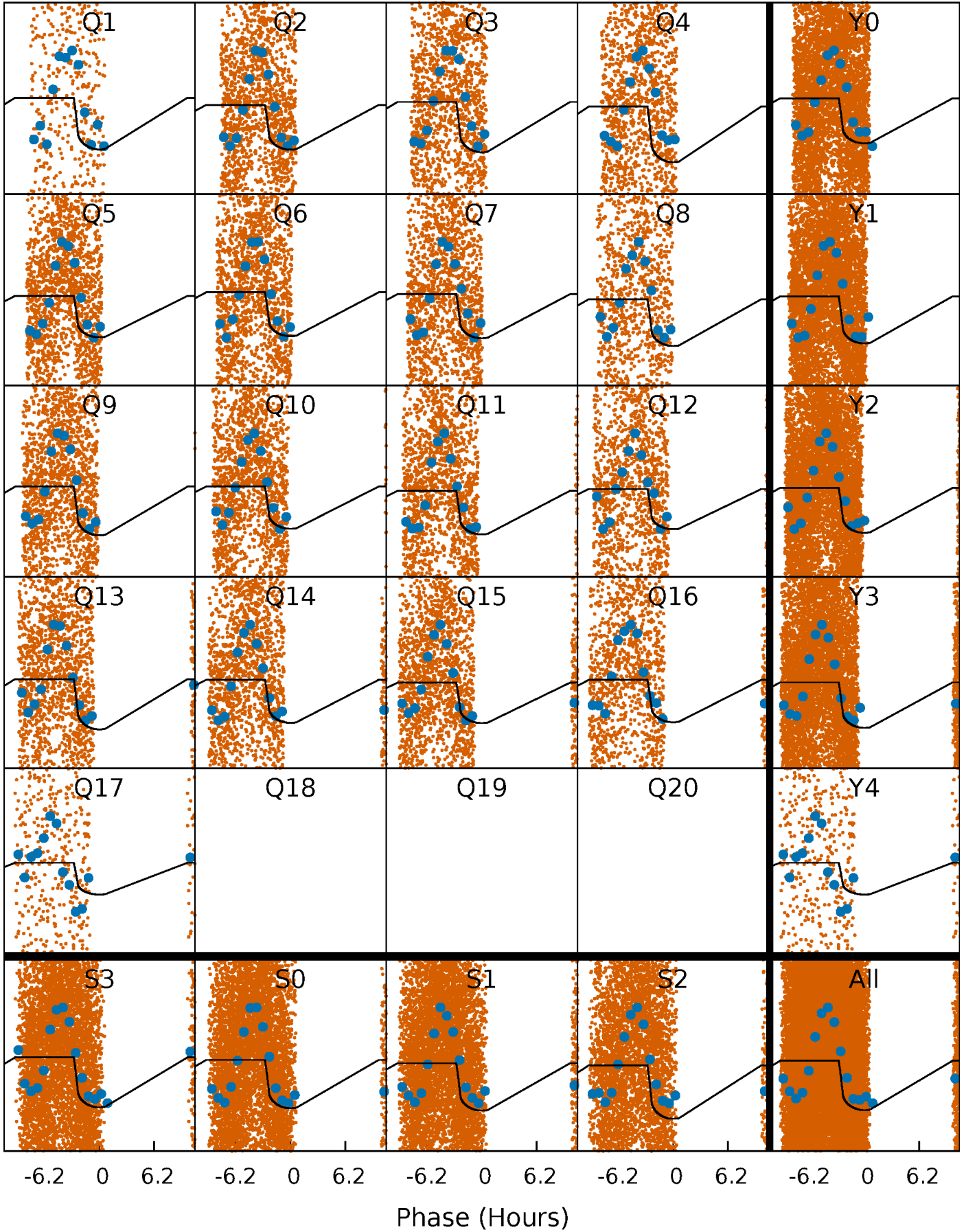
PDC Quarter-Phased Transit Curves

TCE 002694337-02 P= 0.812348 Days $T_0=131.897305$ (BKJD)



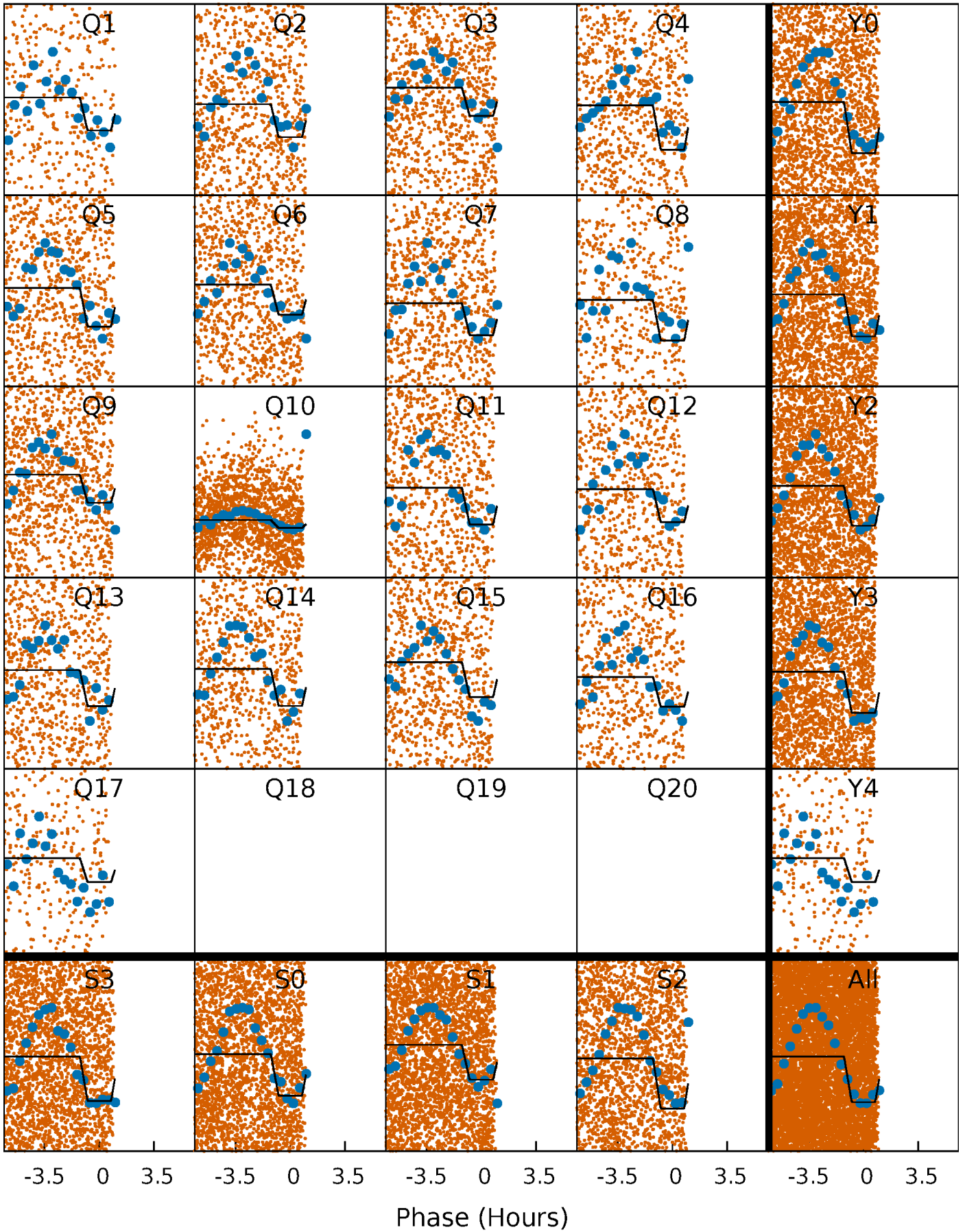
DV Quarter-Phased Transit Curves

TCE 002694337-02 P= 0.812348 Days $T_0=131.897305$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

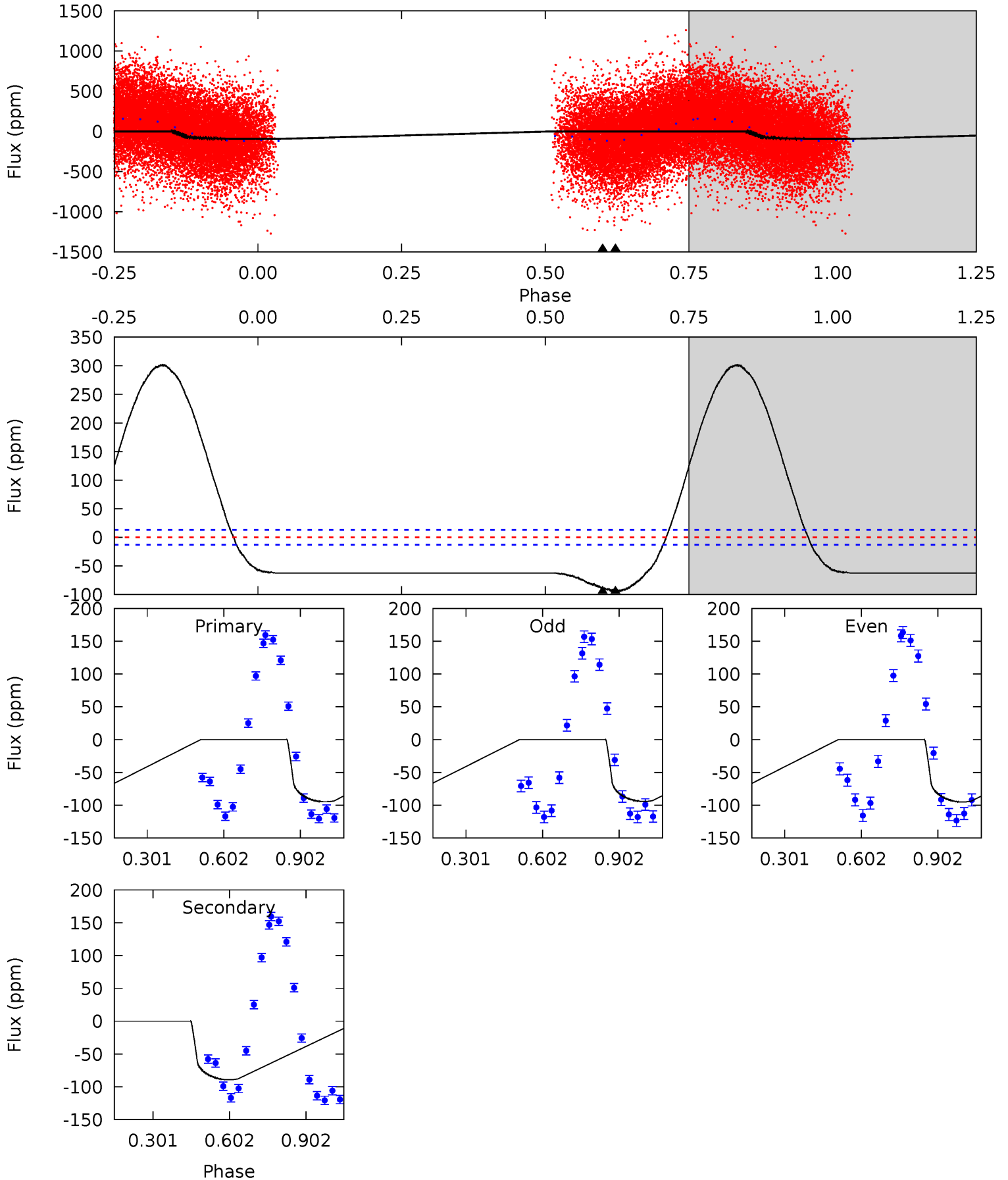
TCE 002694337-02 P= 0.812314 Days $T_0=131.884467$ (BKJD)



DV Model-Shift Uniqueness Test

002694337-02, P = 0.812348 Days, E = 131.084957 Days

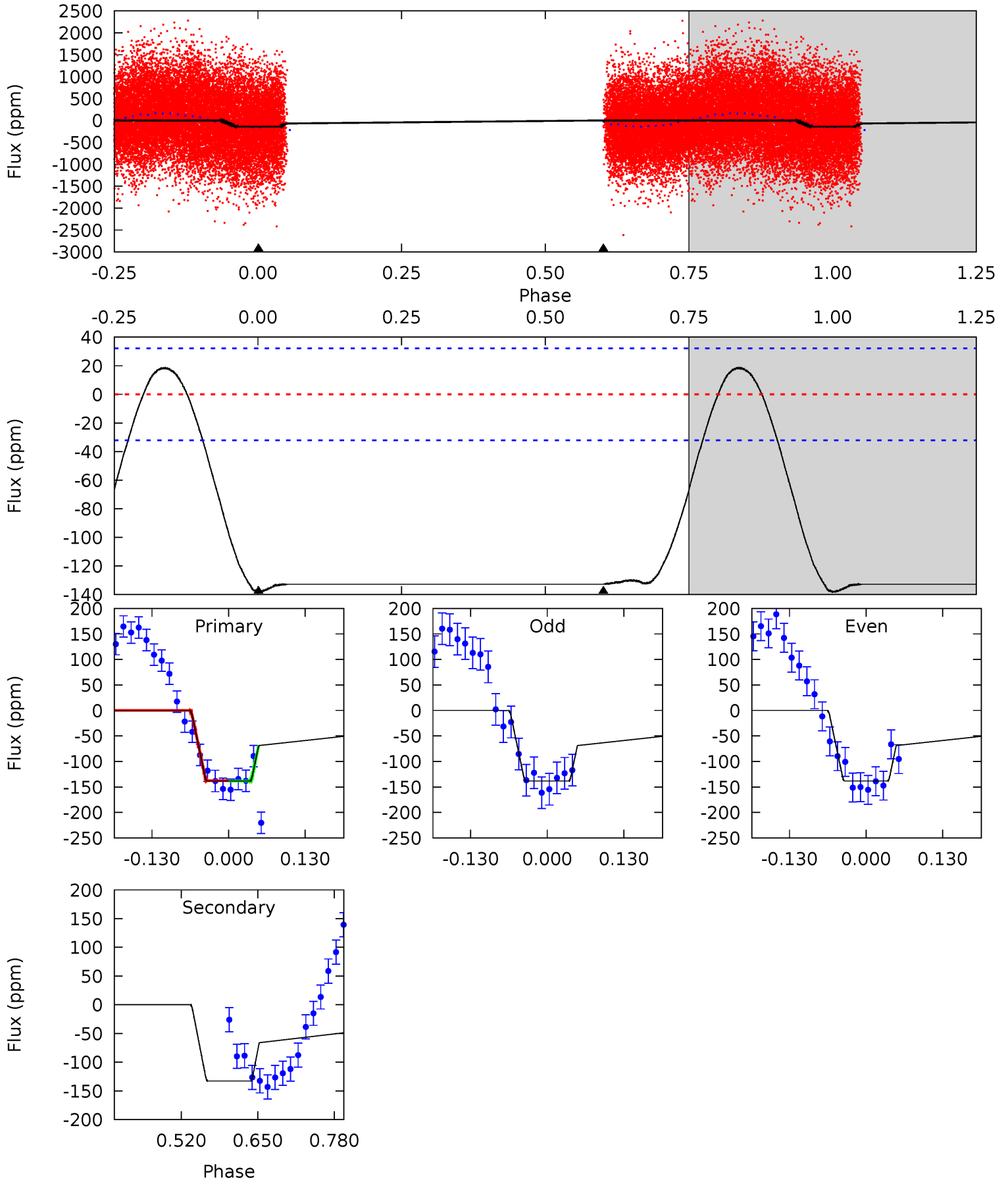
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.7	29.8	0	0	4.33	1.03	16.9	31.7	31.7	29.8	29.8	0.14	1.10	0.76	0.16



Alt Model-Shift Uniqueness Test

002694337-02, P = 0.812314 Days, E = 131.072153 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	18.6	0	0	4.51	1.51	4.91	19.4	19.4	18.6	18.6	0.00	0.93	0.12	0.03



Stellar Parameters For KIC 002694337

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7526^{+209}_{-340}	$3.957^{+0.253}_{-0.136}$	$-0.080^{+0.200}_{-0.350}$	$2.293^{+0.493}_{-0.802}$	$1.738^{+0.185}_{-0.370}$	$0.203^{+0.322}_{-0.081}$
	+3%/-5%	+6%/-3%	+250%/-438%	+22%/-35%	+11%/-21%	+159%/-40%
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 002694337-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-89 ± 3	$2.81^{+0.86}_{-0.87}$	4856^{+353}_{-422}	6444^{+1344}_{-799}	$2.599^{+2.871}_{-1.066}$
Alt.	-133 ± 7	$2.90^{+0.90}_{-0.80}$	4841^{+325}_{-418}	7094^{+1359}_{-929}	$3.621^{+3.189}_{-1.520}$

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

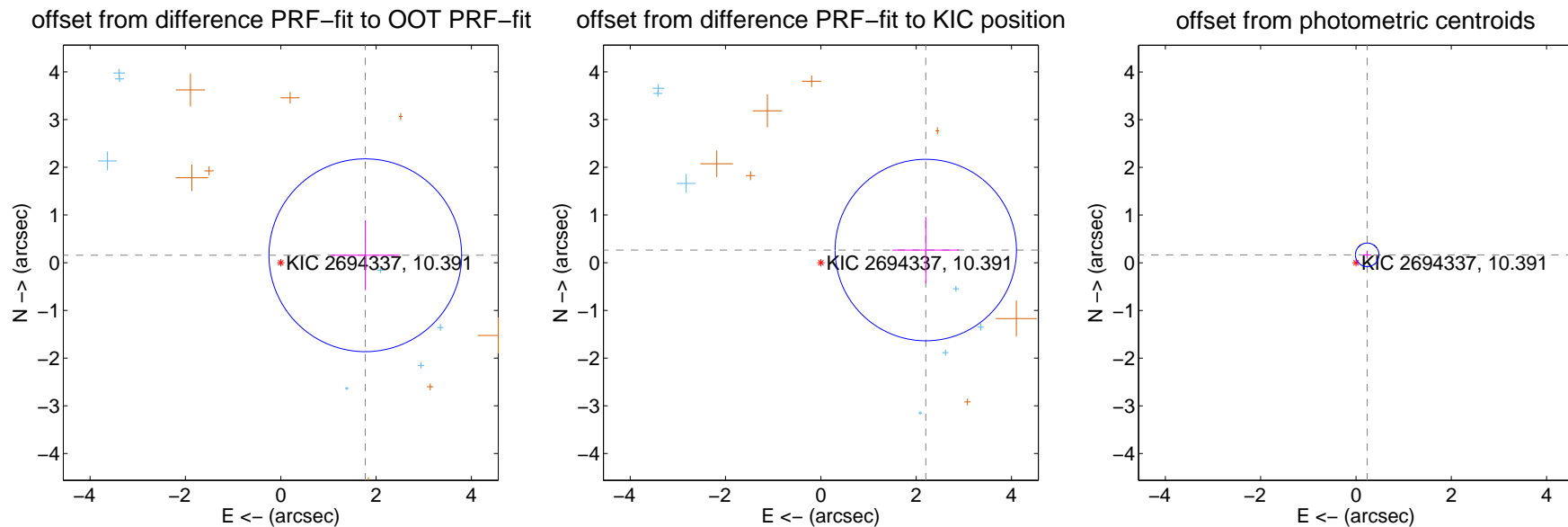
DV Centroid Data

Supplemental centroid analysis for 002694337-02. **Kepler magnitude: 10.39**. Transit SNR 25.16

There are 7 quarters with good PRF difference image offsets

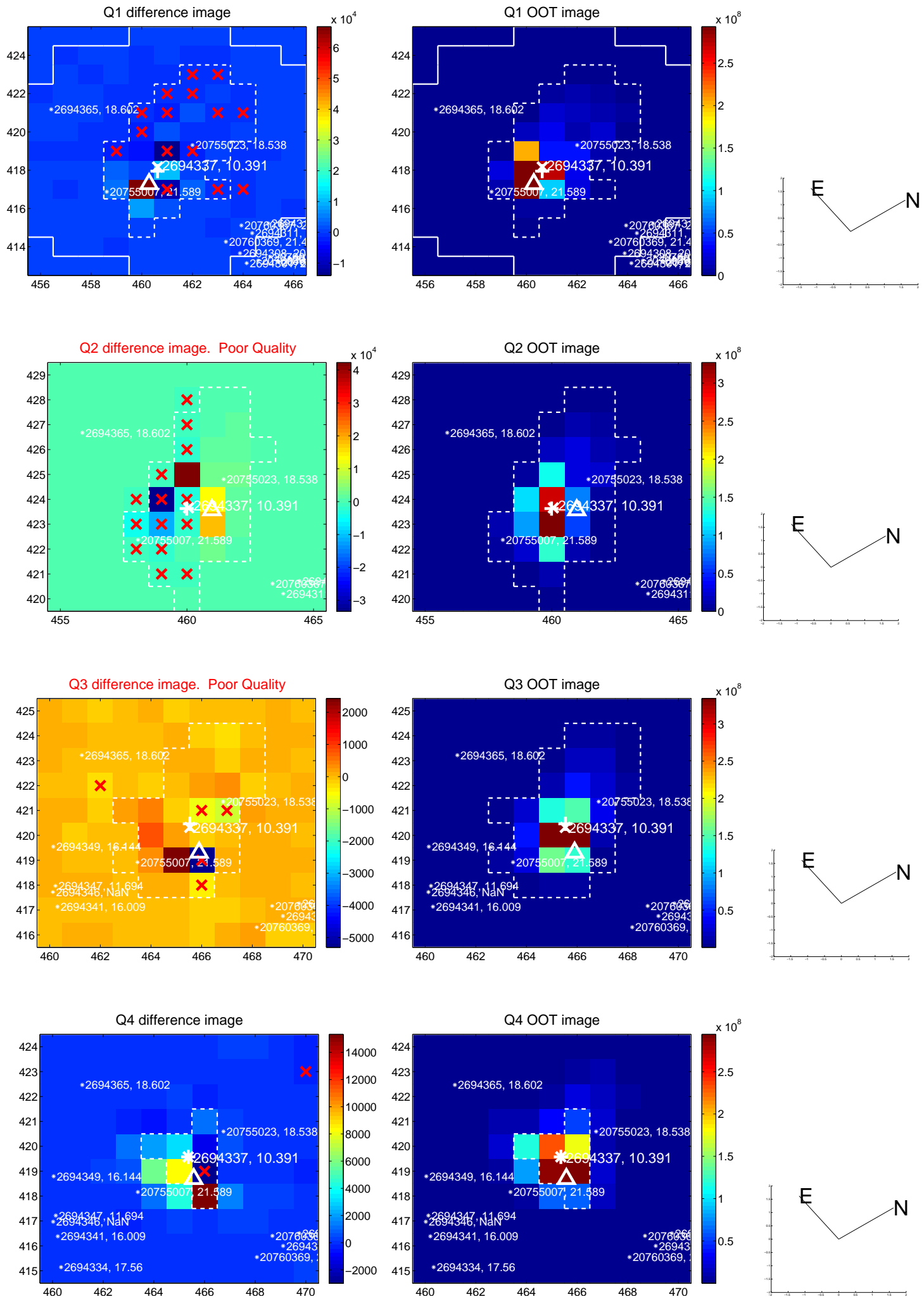
The direct PRF centroid is offset from the target star catalog position by about 0.84 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.781 ± 0.674	2.64	-1.774 ± 0.720	0.156 ± 0.732
PRF-fit source offset from KIC position	2.217 ± 0.634	3.50	-2.201 ± 0.702	0.265 ± 0.695
photometric centroid source offset	0.29 ± 0.08	3.50	-0.24 ± 0.08	0.17 ± 0.08

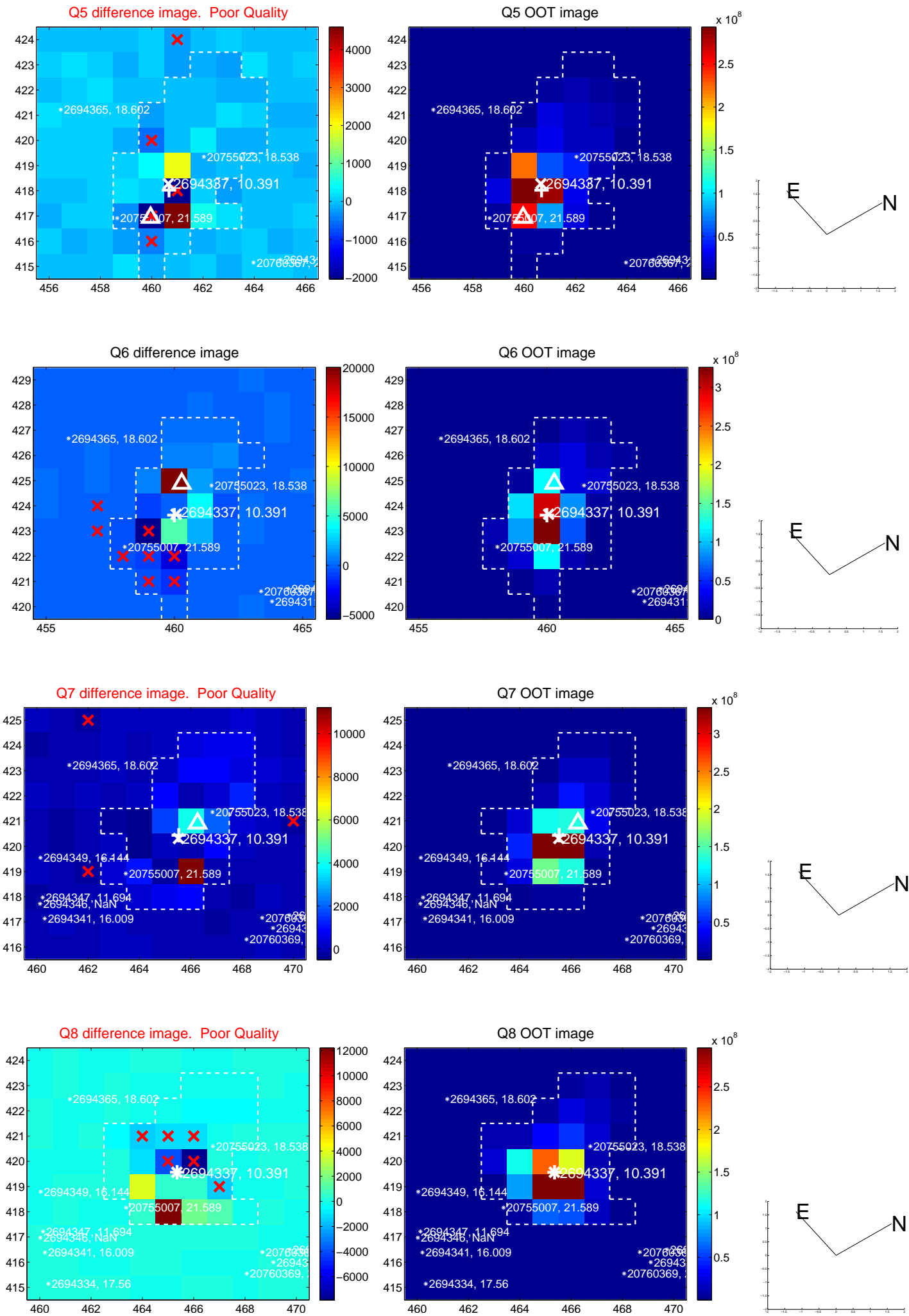


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

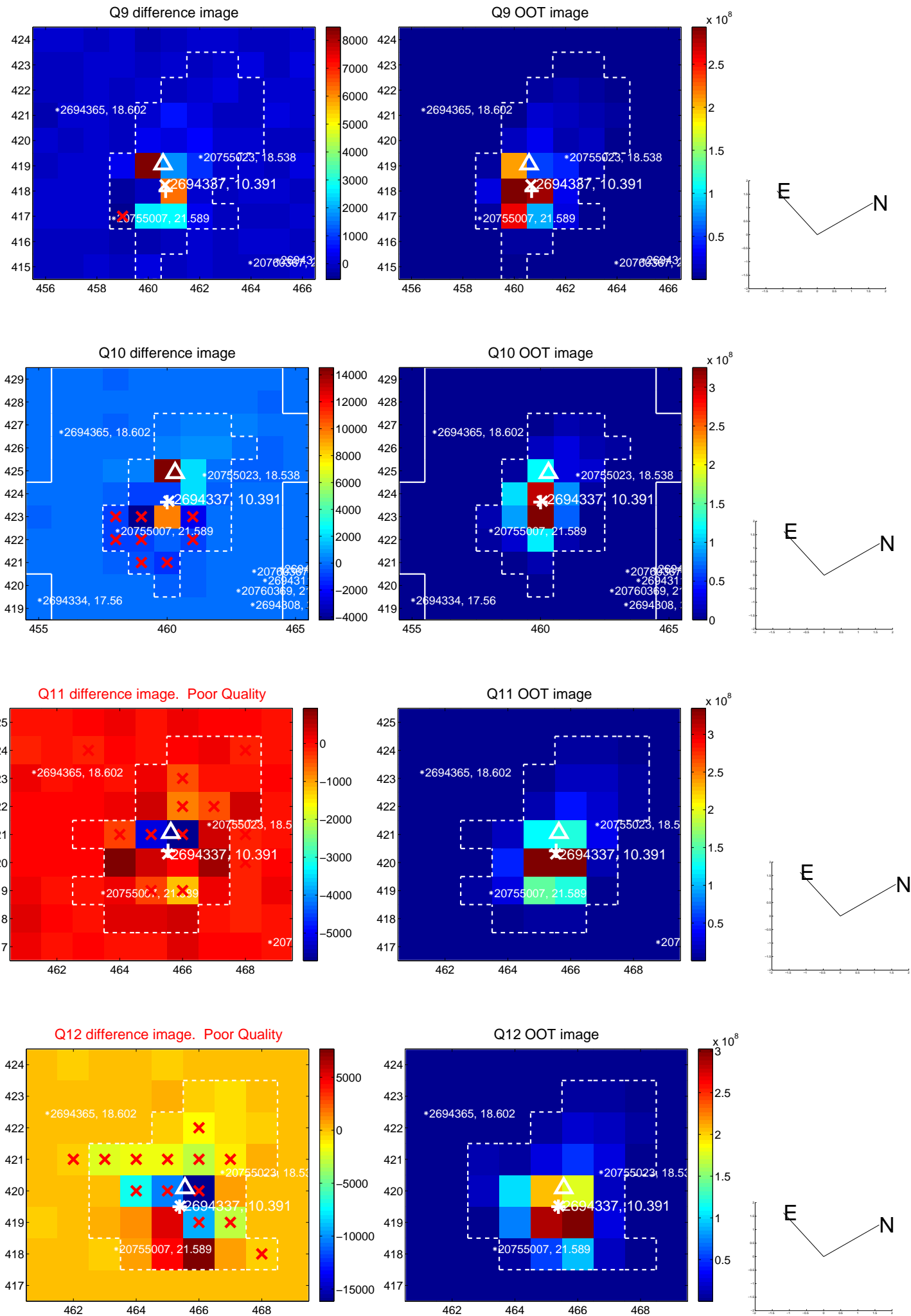
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



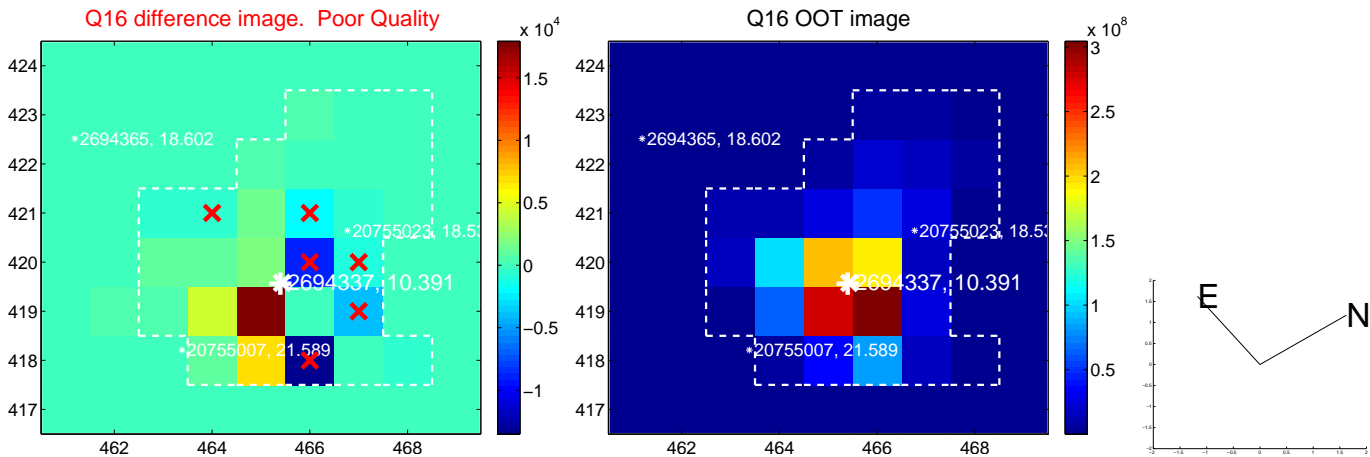
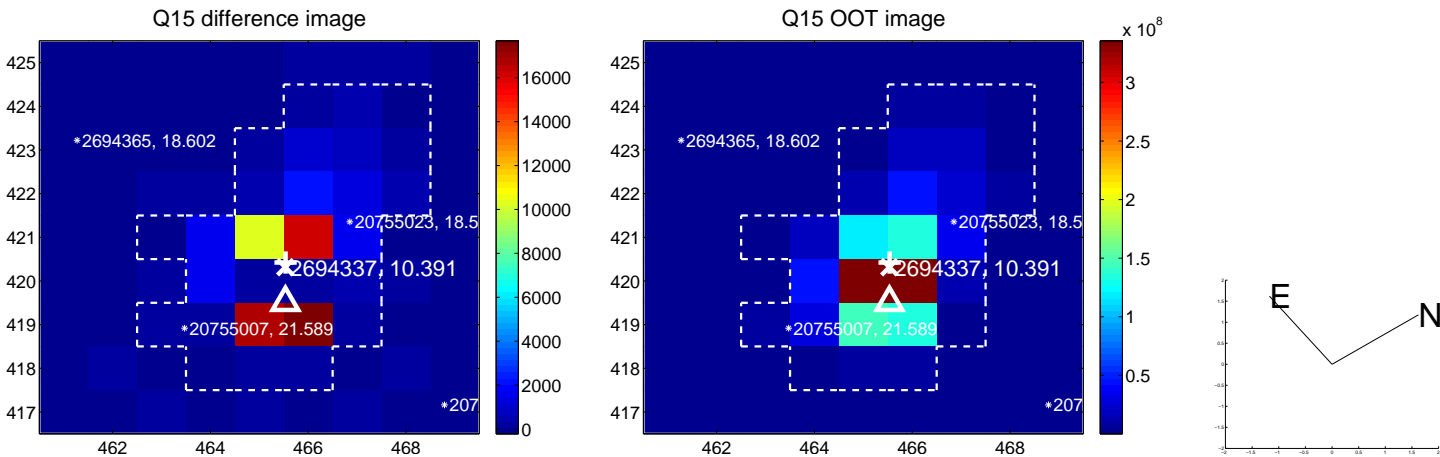
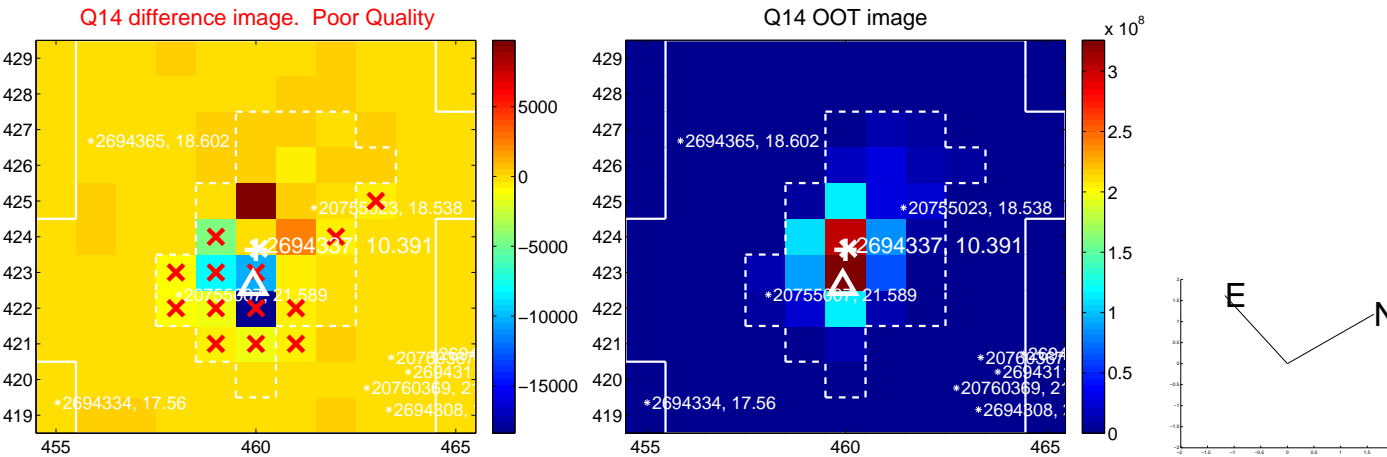
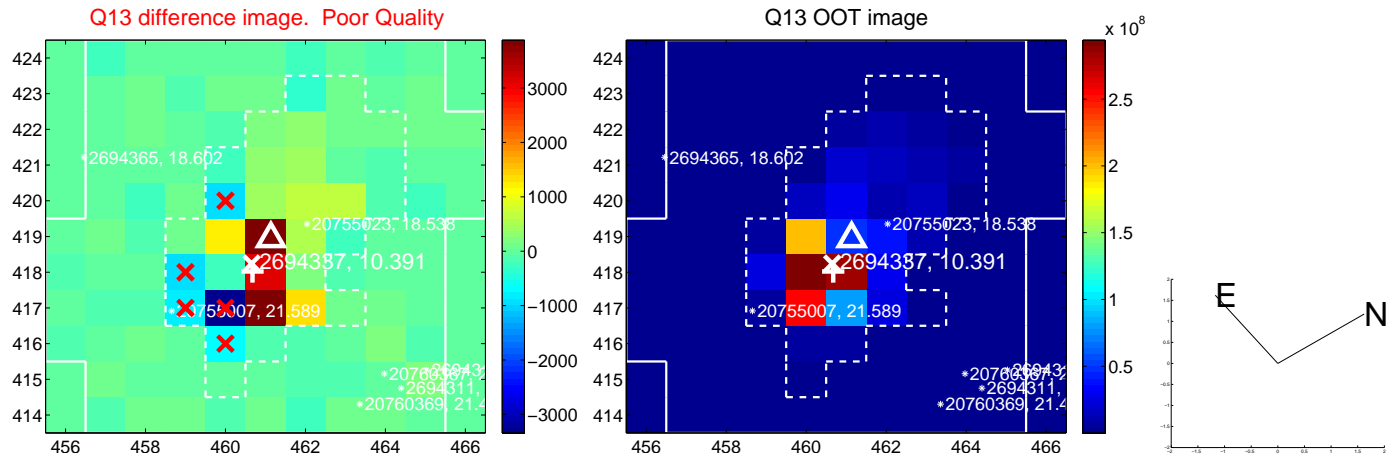
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



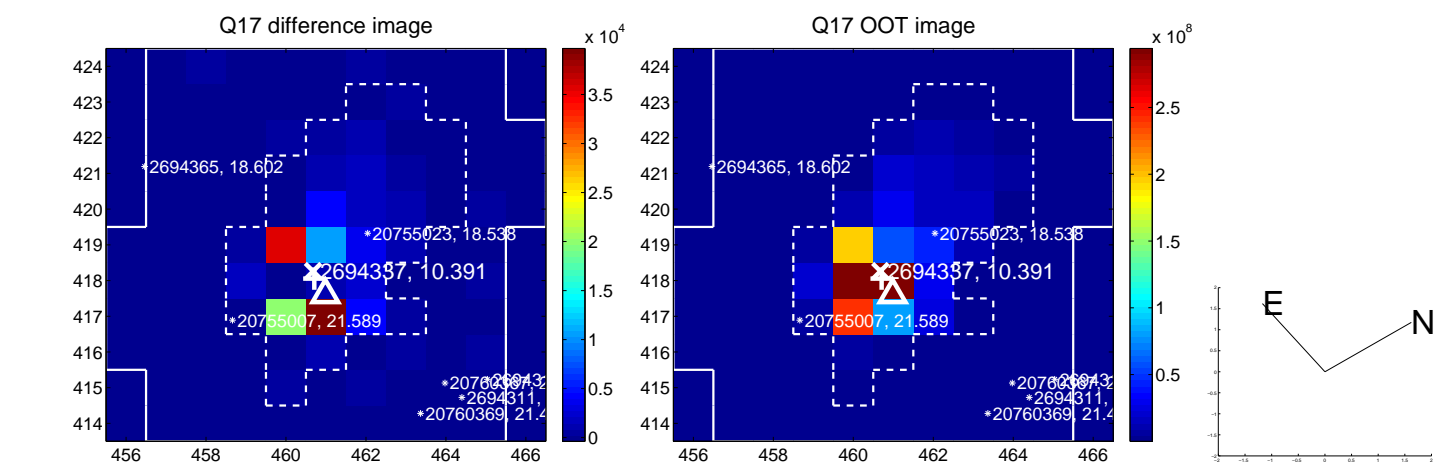
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



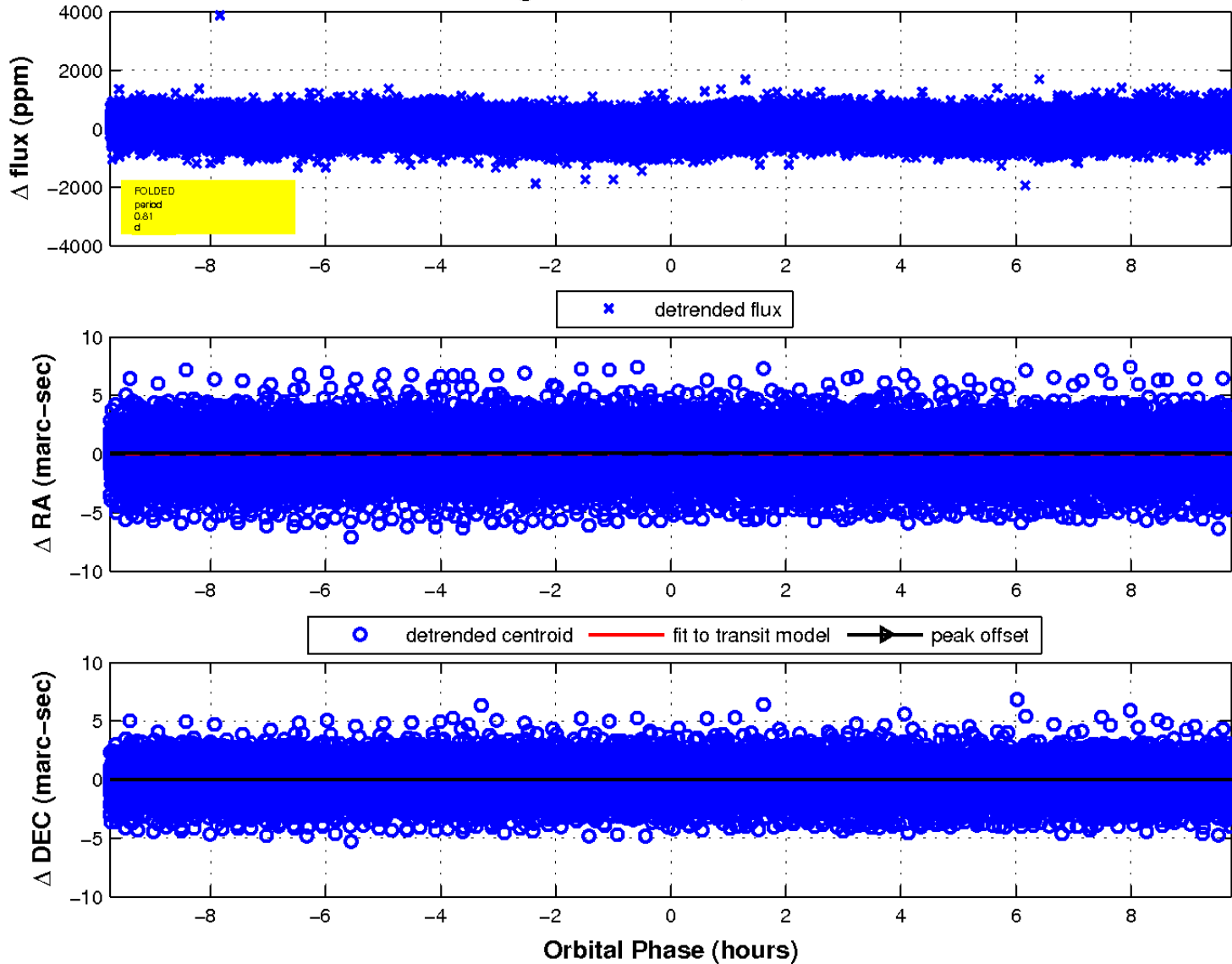
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

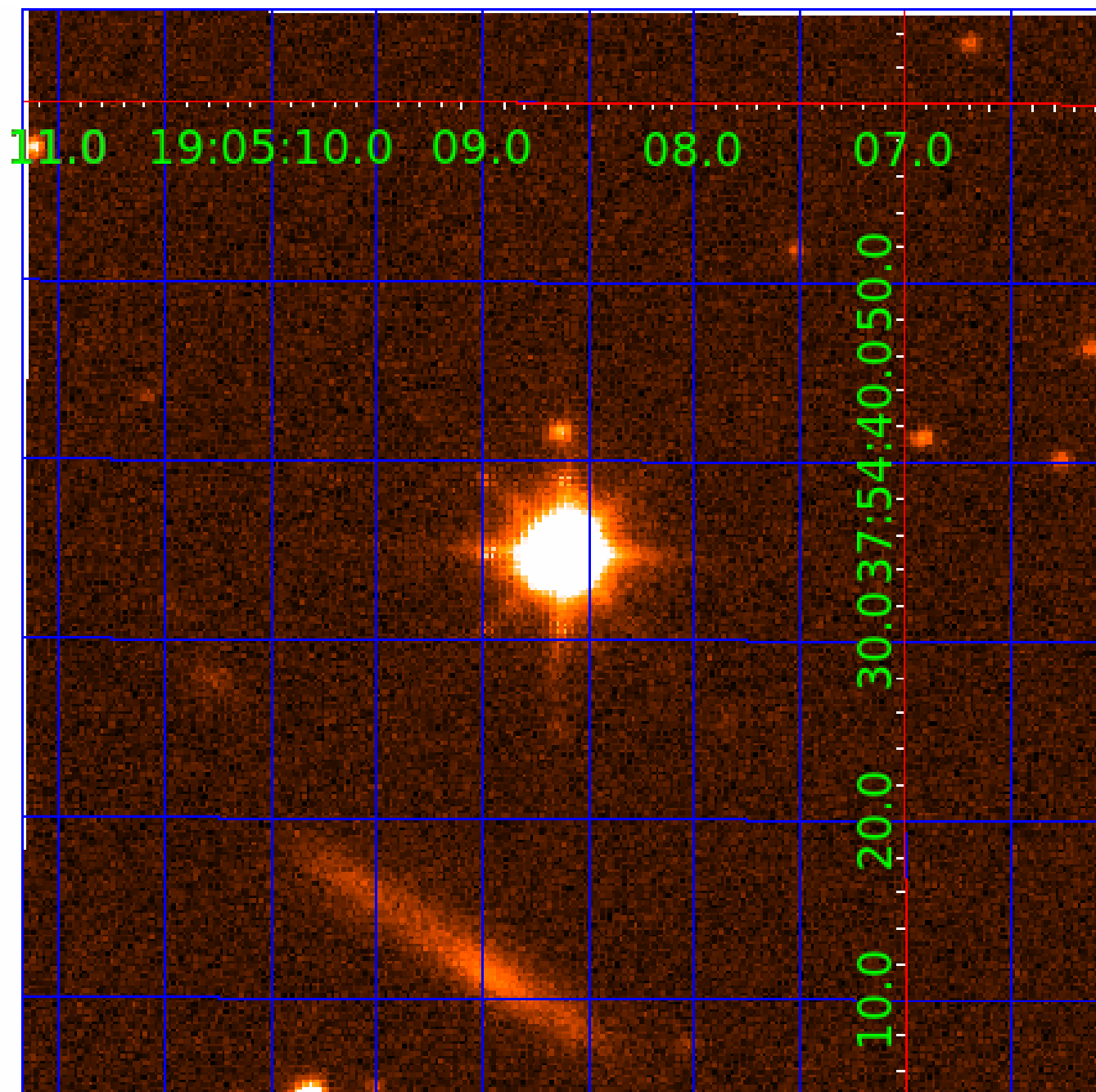


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 002694337

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})
002694337-01	OBS	No	0.812306	132.156254	128.6	3.517	20.7	28.1	2.29	7526	3.01	36013.12
002694337-02	OBS	No	0.812348	131.897305	147.7	5.406	22.5	25.2	2.29	7526	2.85	36010.67
002694337-03	OBS	No	0.812291	131.605554	114.5	4.615	18.0	15.8	2.29	7526	2.49	36014.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002694337-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
002694337-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
002694337-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—MOD_NONUNIQ_DV—MOD_TER_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

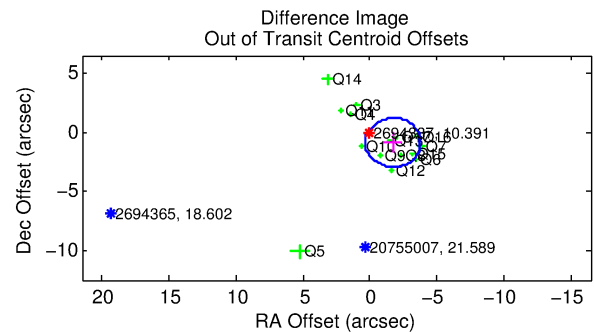
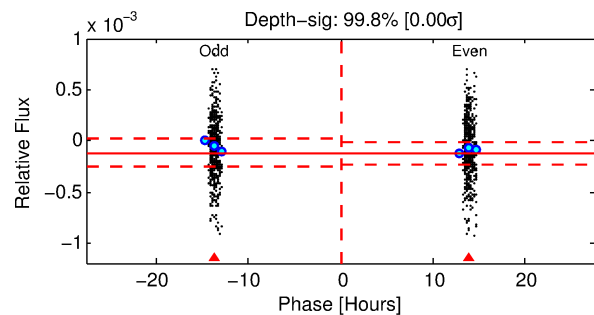
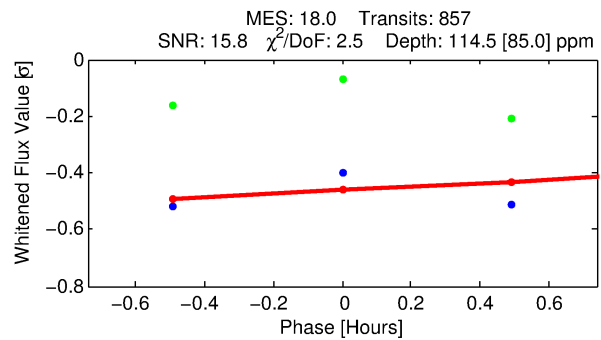
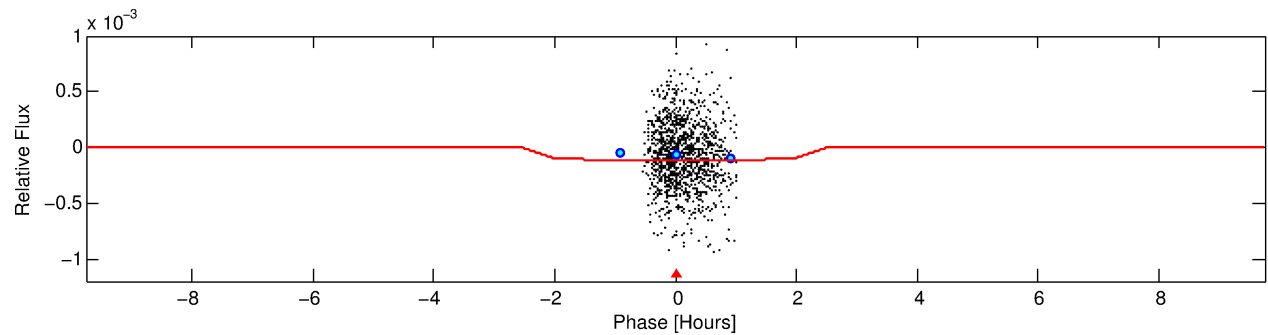
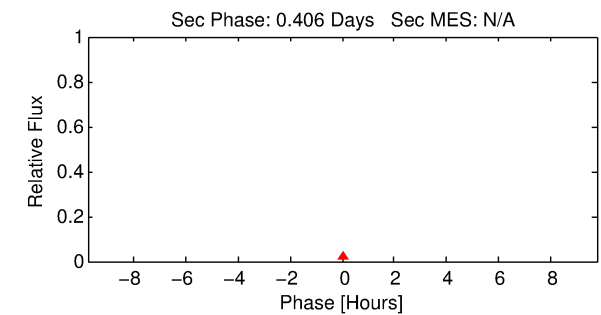
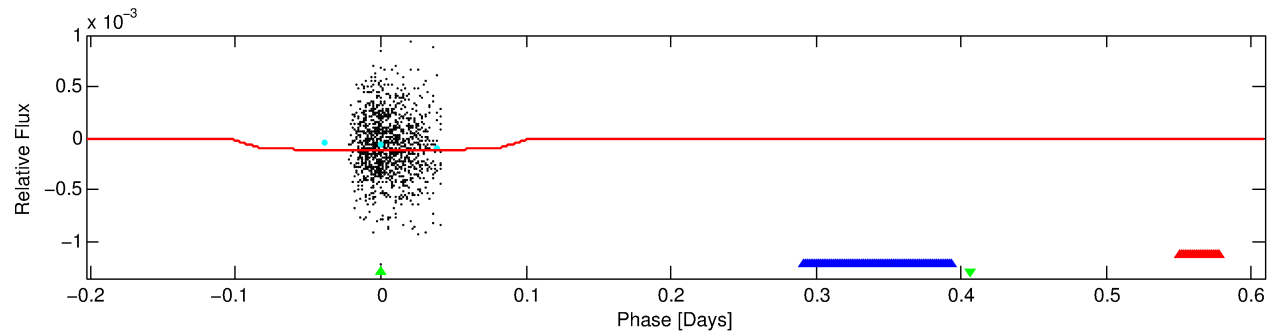
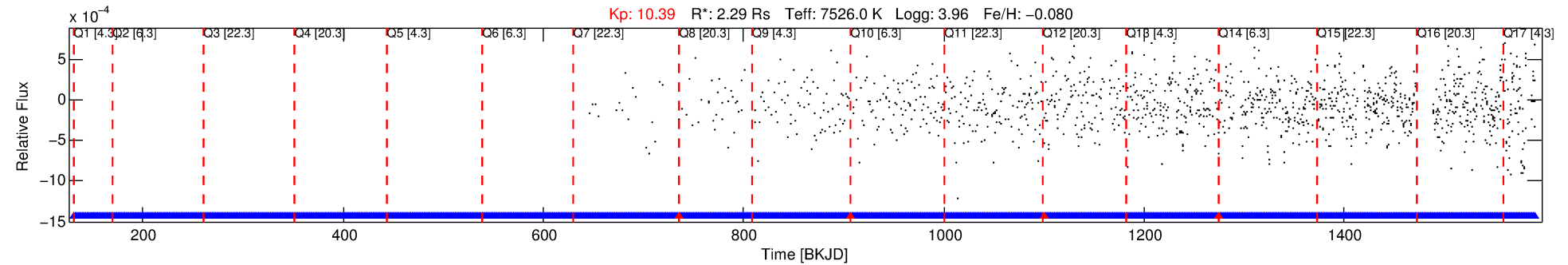
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002694337-03

No Significant Match Found

DV One-Page Summary

KIC: 2694337 Candidate: 3 of 3 Period: 0.812 d



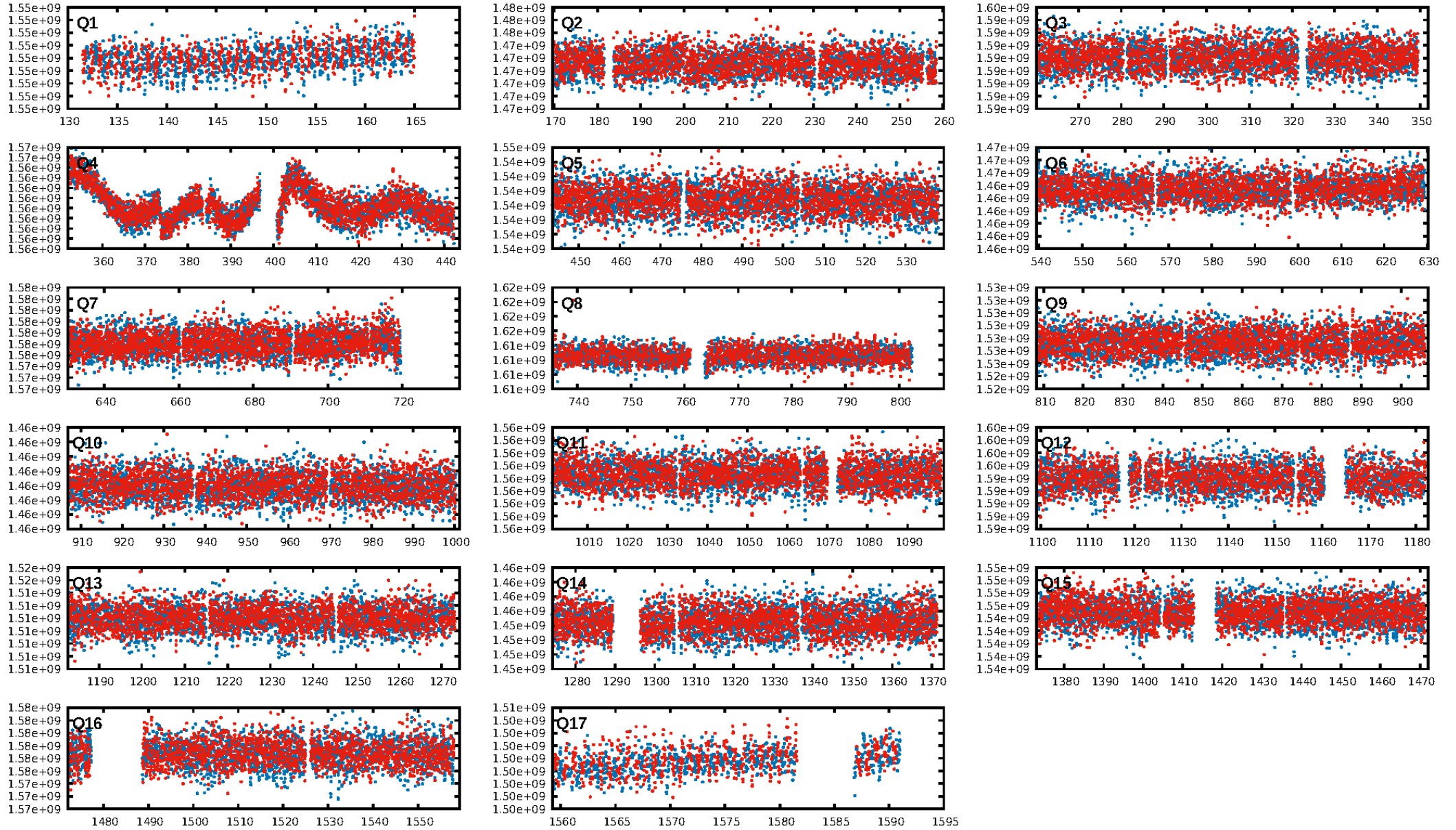
DV Fit Results:

Period = 0.81229 [0.00006] d
Epoch = 131.6056 [0.0727] BKJD
Rp/R* = 0.0100 [0.0364]
a/R* = 1.49 [17.17]
b = 0.13 [166.66]
Seff = 36014.01 [17564.19]
Teq = 3513 [428] K
Rp = 2.49 [9.14] Re
a = 0.0205 [0.0062] AU

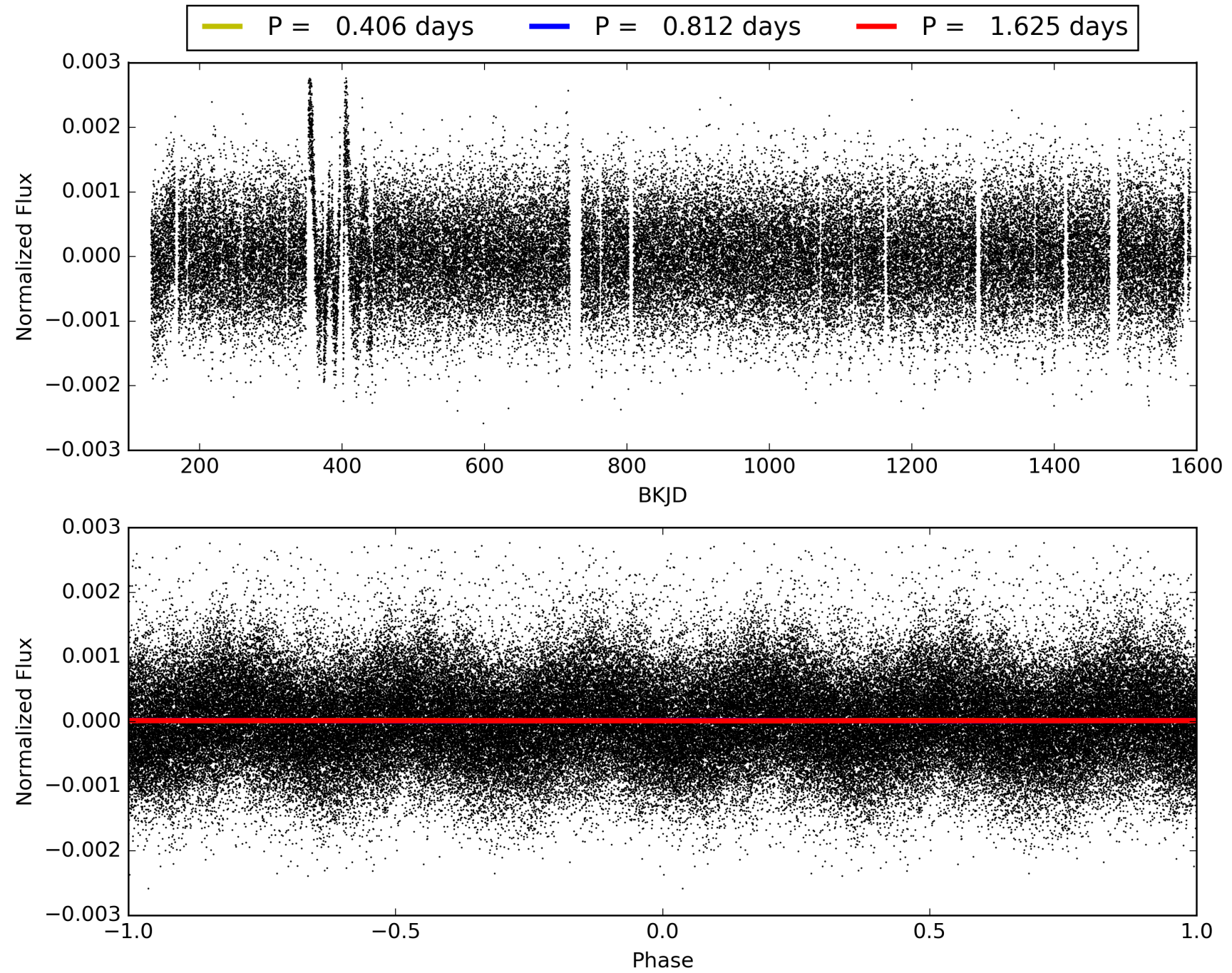
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [820/824]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.2%
Centroid-so: 0.205 arcsec [1.86σ]
OotOffset-rm: 1.928 arcsec [2.80σ]
KicOffset-rm: 2.298 arcsec [3.11σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 002694337-03, PDC Light Curves

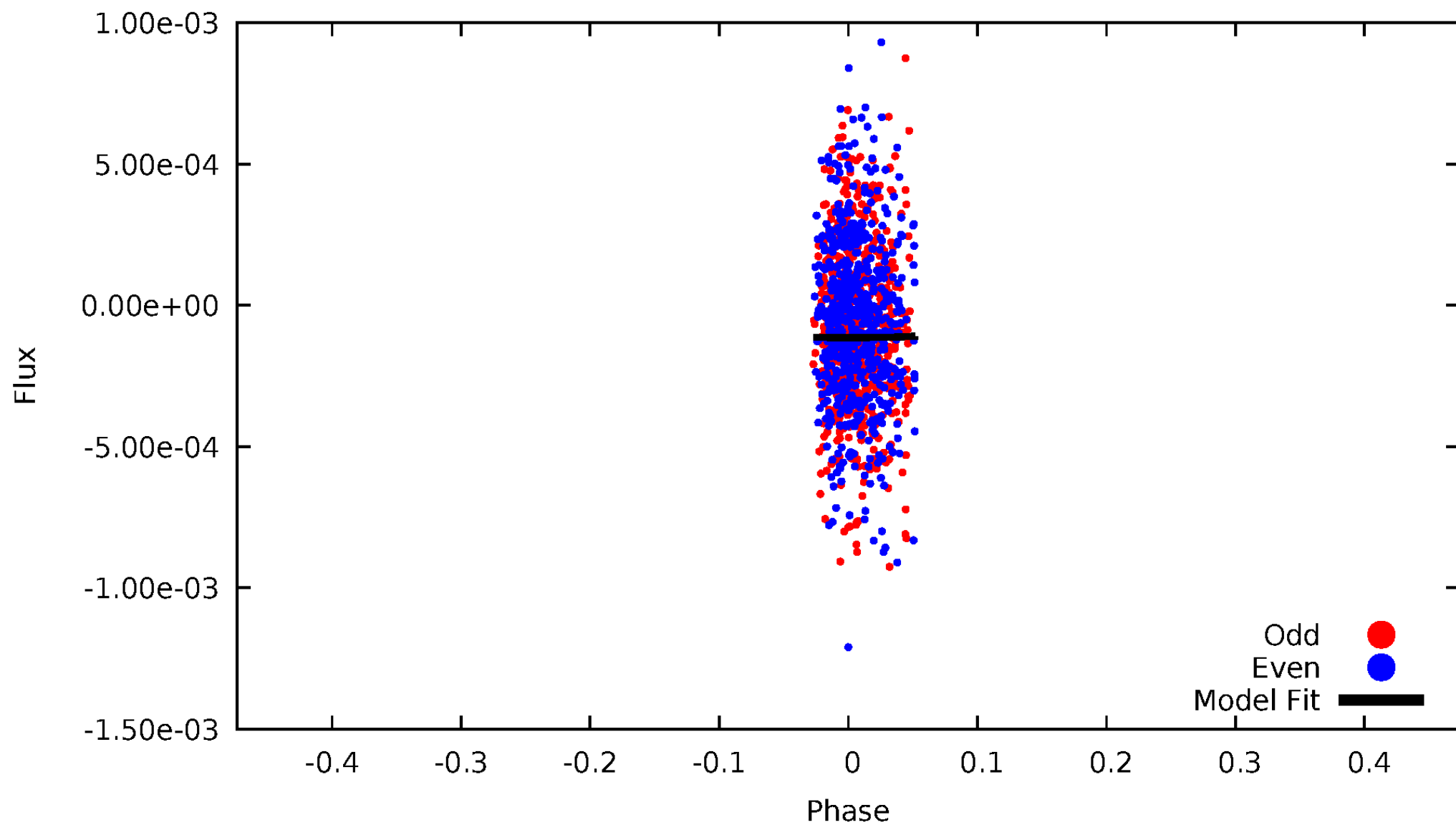


TCE 002694337-03



DV Odd/Even

TCE 002694337-03

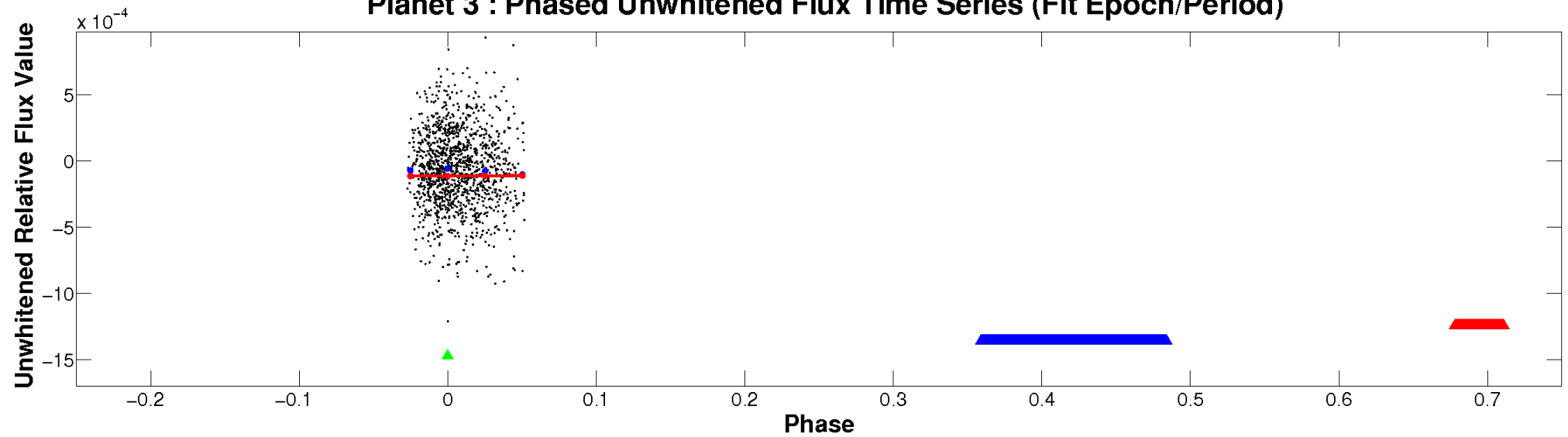


ALT Odd/Even

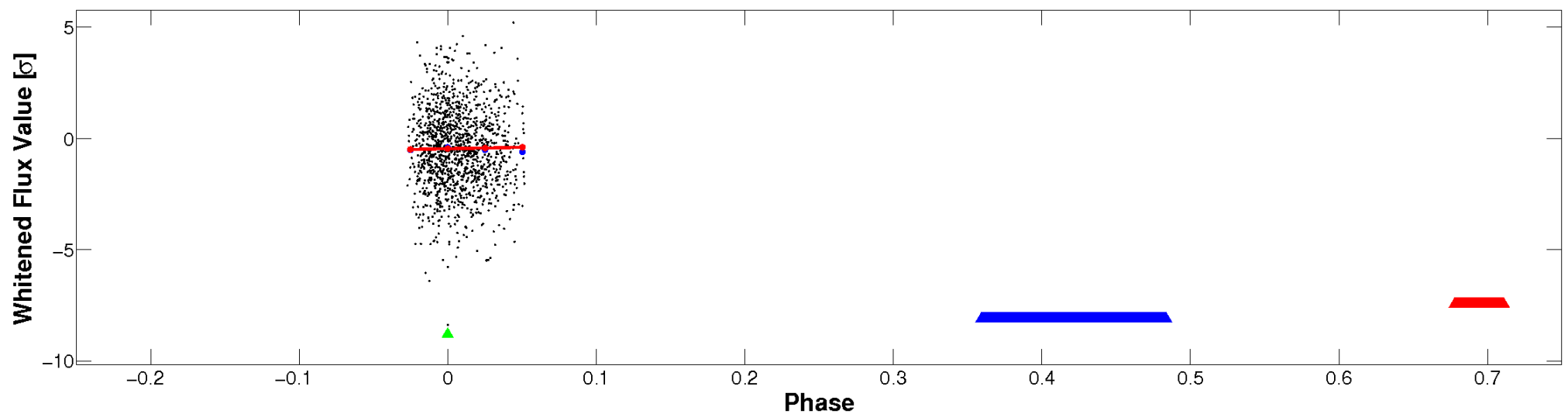
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

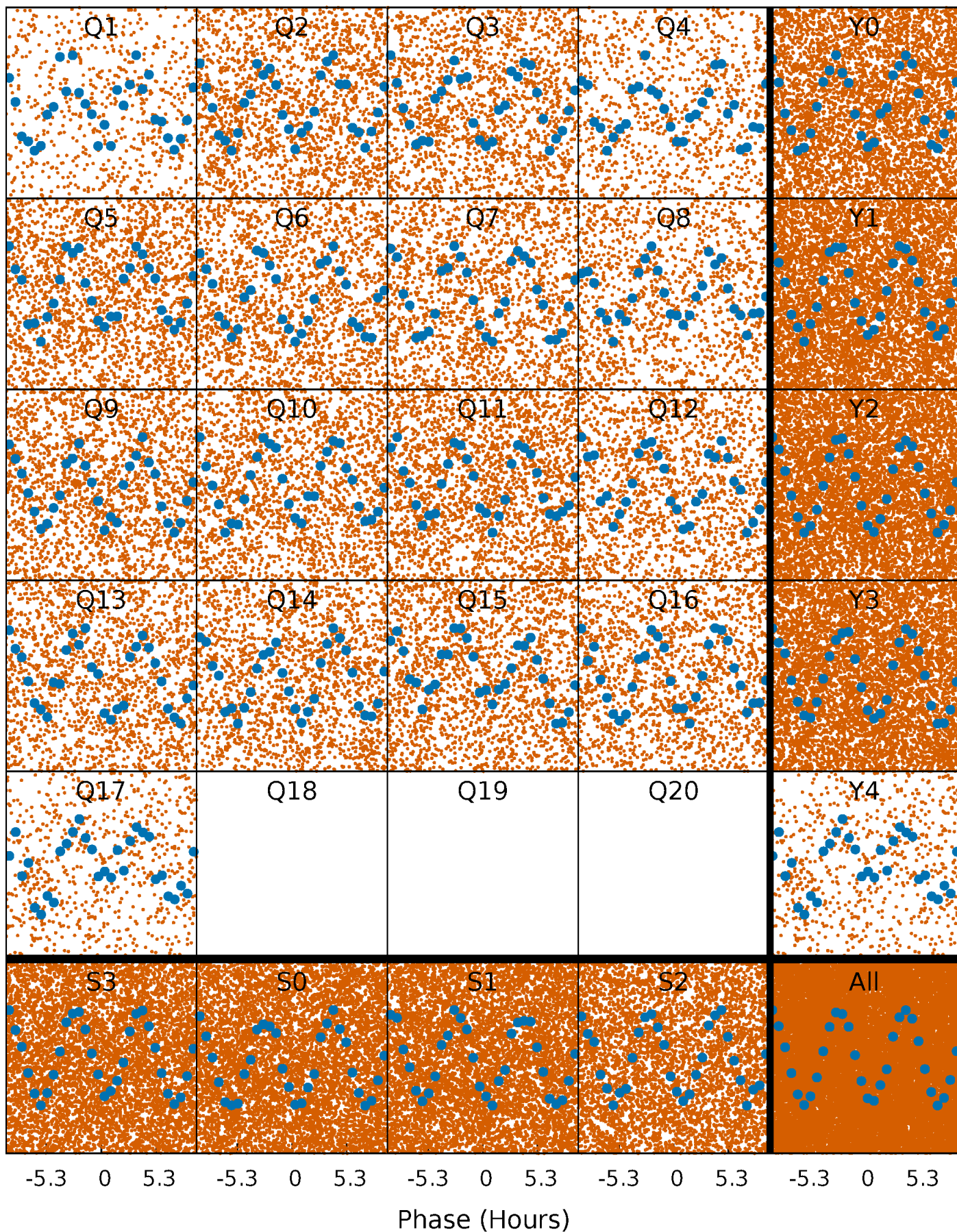


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



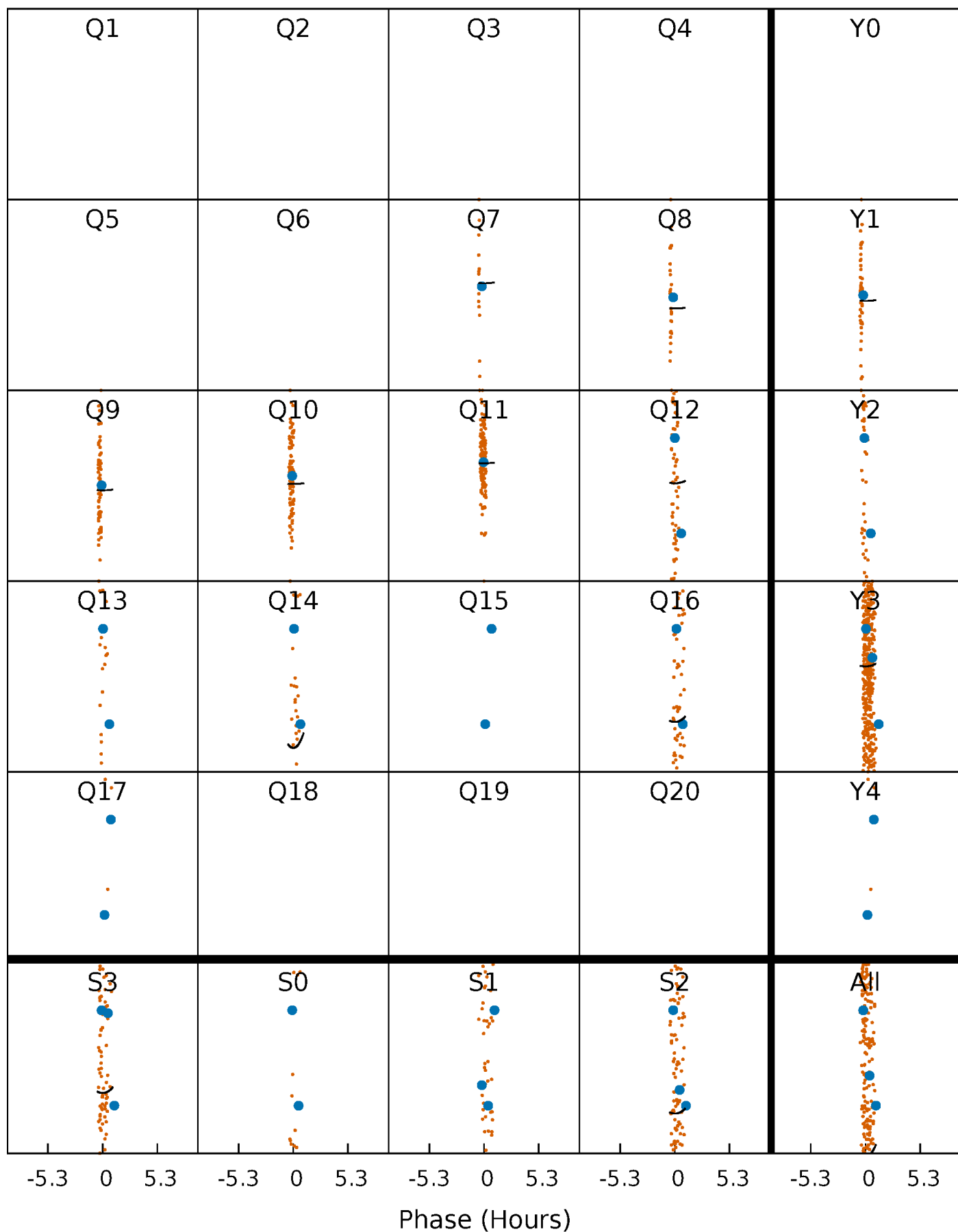
PDC Quarter-Phased Transit Curves

TCE 002694337-03 P= 0.812291 Days $T_0=131.605554$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 002694337-03 $P = 0.812291$ Days $T_0 = 131.605554$ (BKJD)

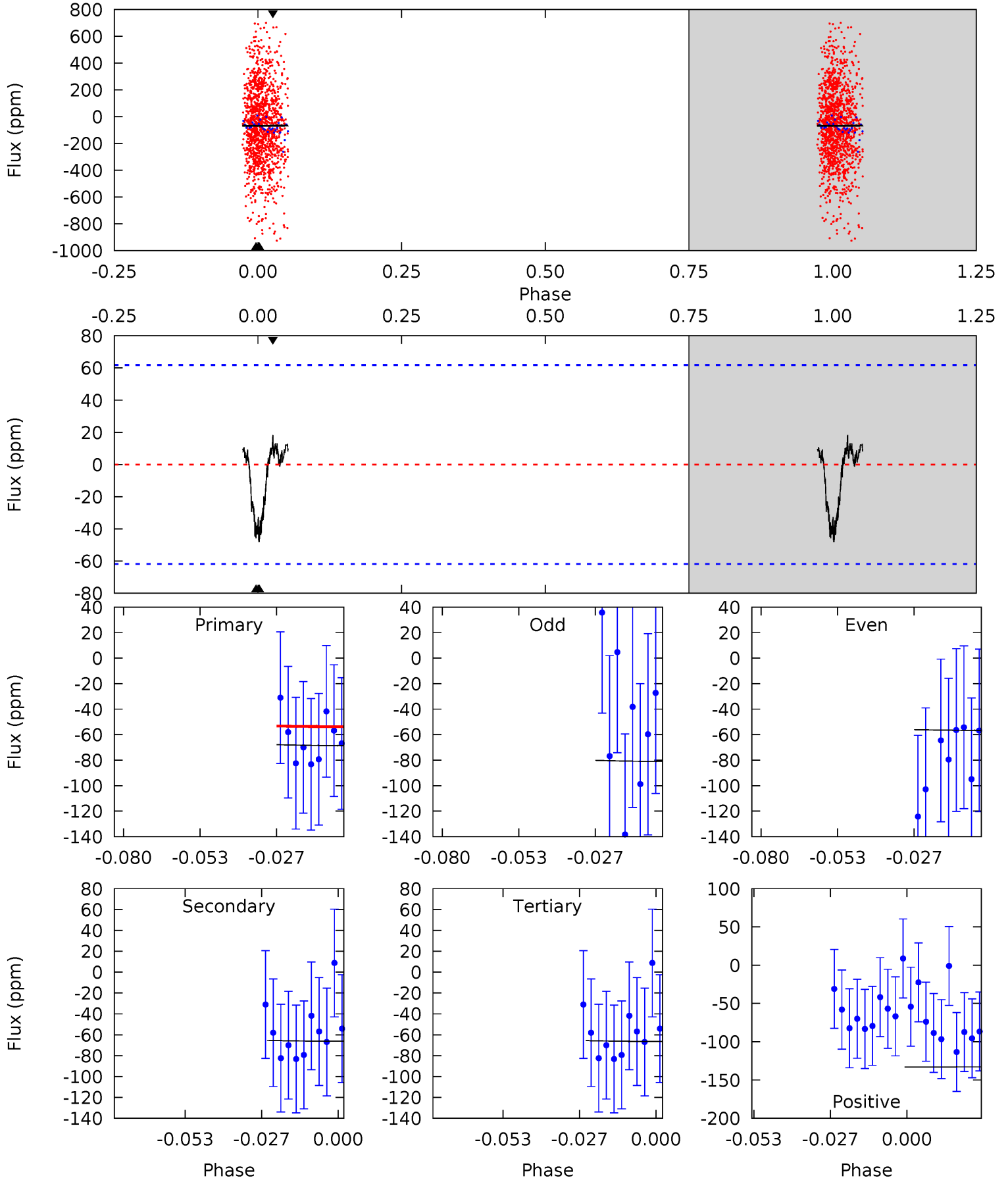


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

002694337-03, P = 0.812291 Days, E = 131.605554 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.58	3.78	3.76	1.44	4.83	2.22	1.51	-0.18	2.15	0.02	2.34	0.63	0.95	0.28	1.38



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 002694337

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7526^{+209}_{-340}	$3.957^{+0.253}_{-0.136}$	$-0.080^{+0.200}_{-0.350}$	$2.293^{+0.493}_{-0.802}$	$1.738^{+0.185}_{-0.370}$	$0.203^{+0.322}_{-0.081}$
	+3%/-5%	+6%/-3%	+250%/-438%	+22%/-35%	+11%/-21%	+159%/-40%
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 002694337-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-48 ± 13	$6.47^{+7.80}_{-4.18}$	4845^{+335}_{-438}	-2970^{+8984}_{-1093}	$0.267^{+1.905}_{-0.216}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

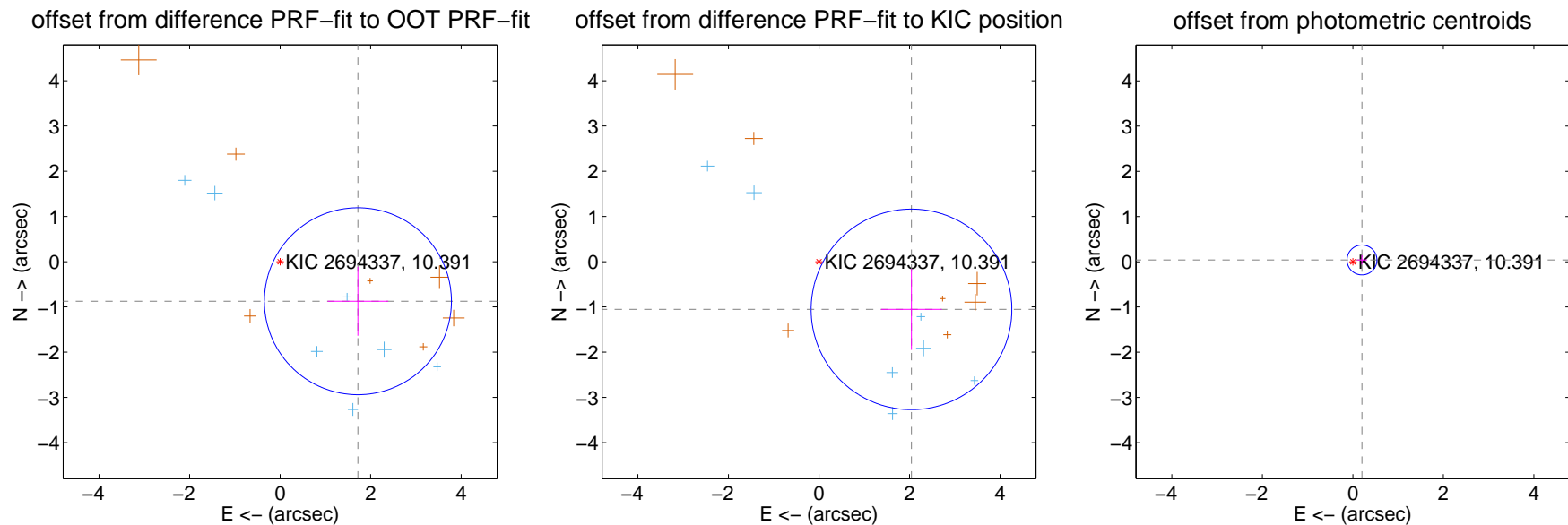
DV Centroid Data

Supplemental centroid analysis for 002694337-03. **Kepler magnitude: 10.39**. Transit SNR 15.79

There are 7 quarters with good PRF difference image offsets

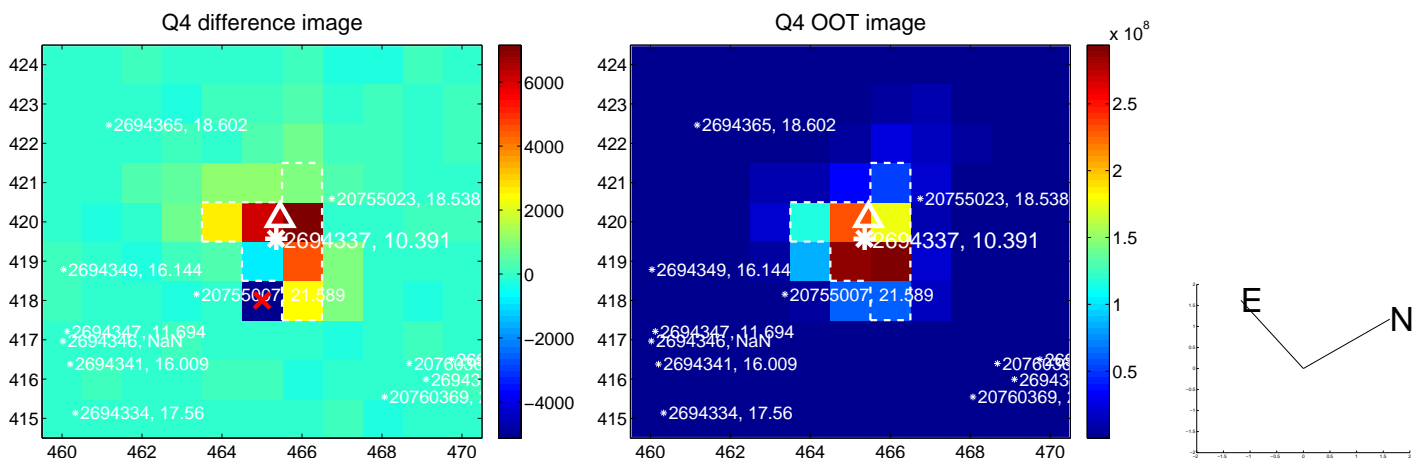
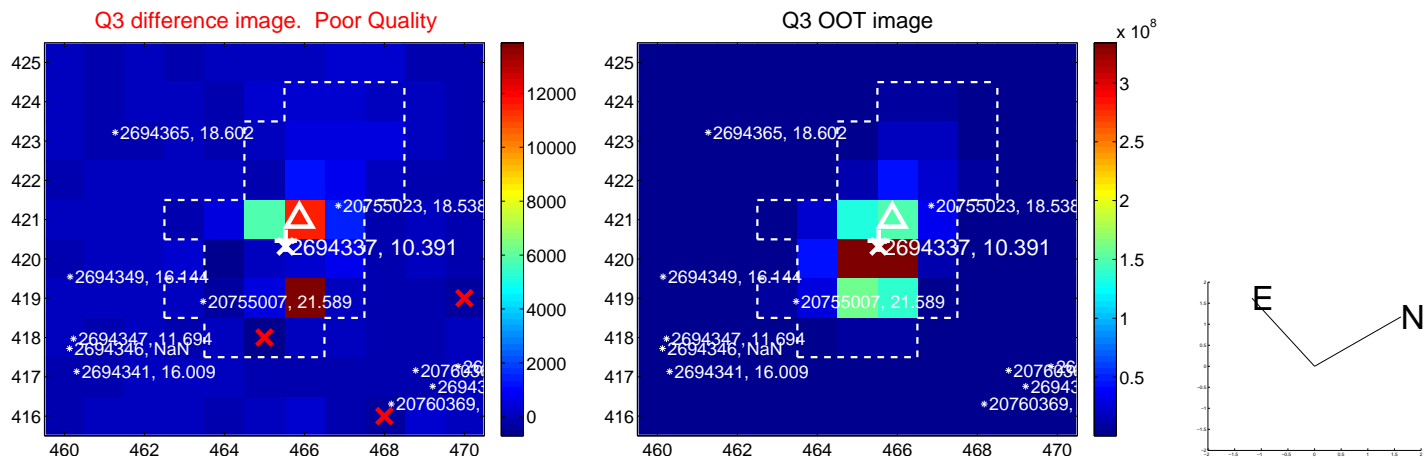
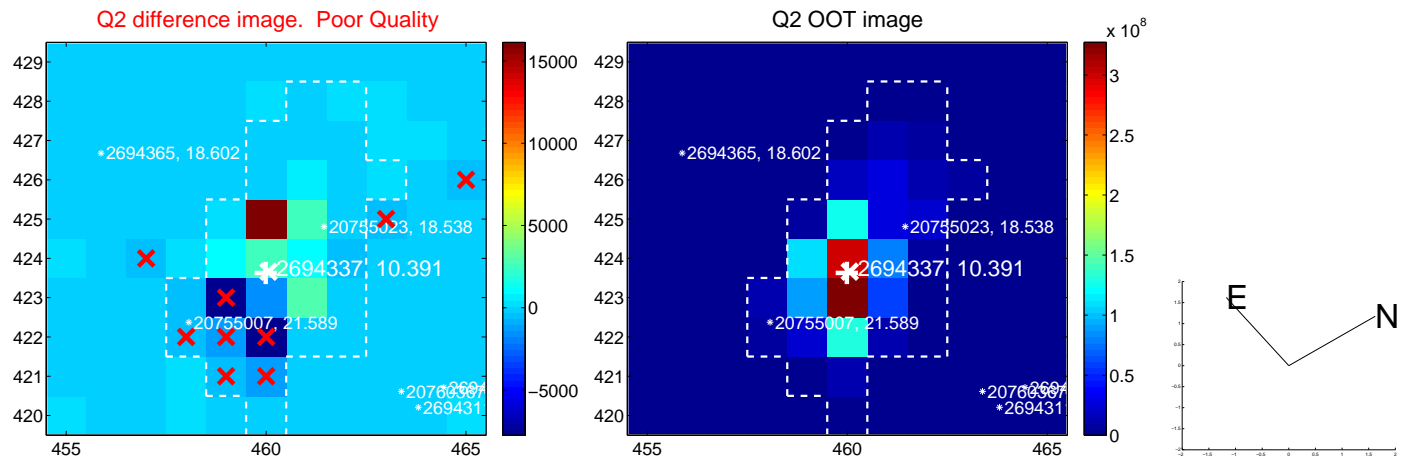
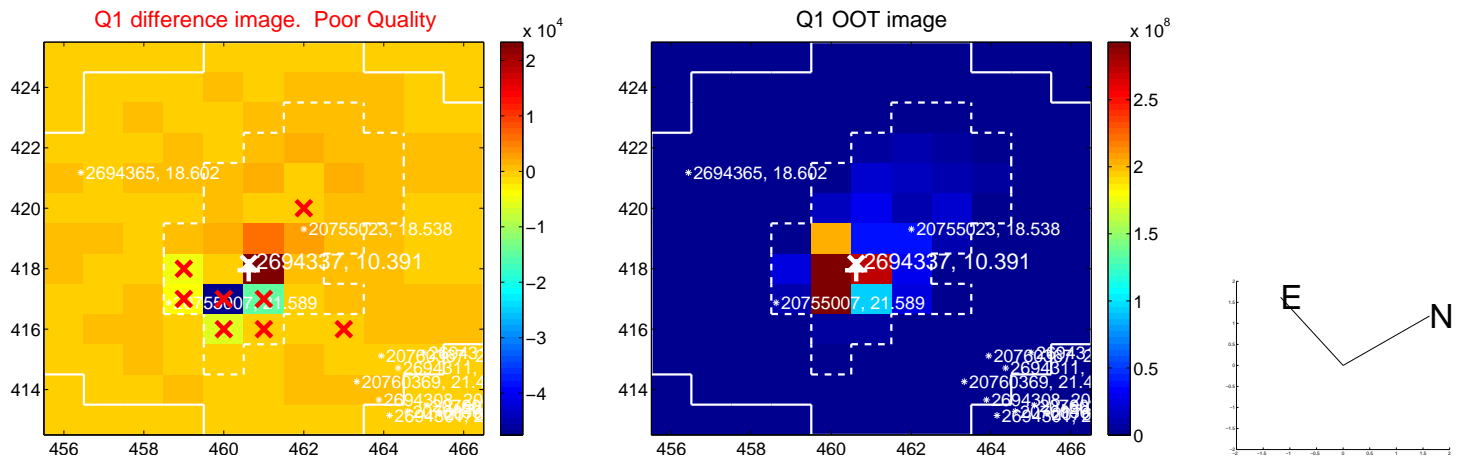
The direct PRF centroid is offset from the target star catalog position by about 0.84 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.928 ± 0.688	2.80	-1.718 ± 0.670	-0.874 ± 0.763
PRF-fit source offset from KIC position	2.298 ± 0.739	3.11	-2.042 ± 0.671	-1.054 ± 0.894
photometric centroid source offset	0.21 ± 0.11	1.86	-0.20 ± 0.11	0.04 ± 0.10

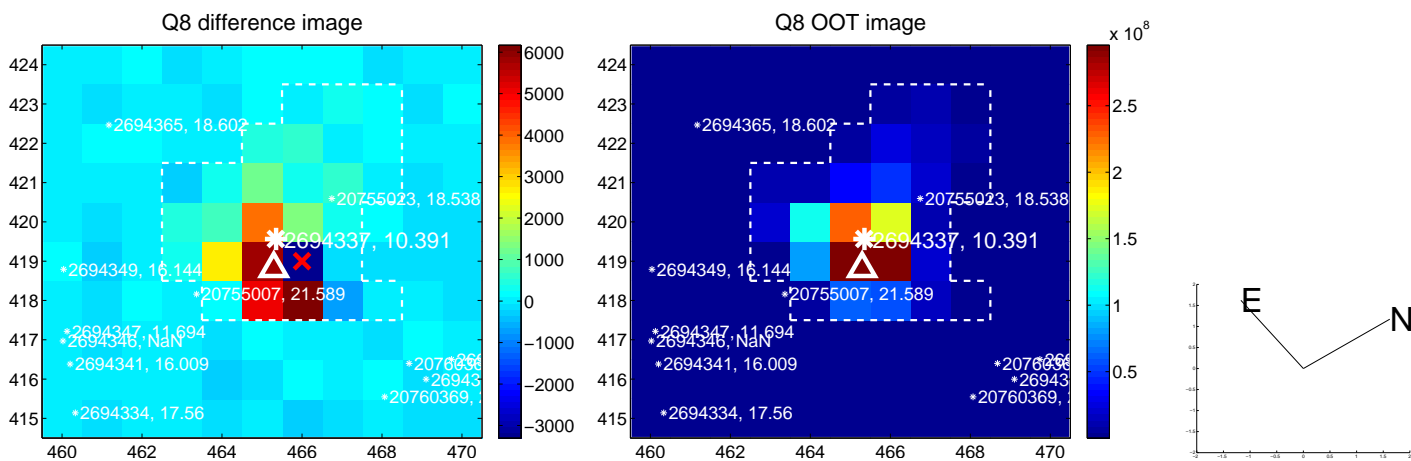
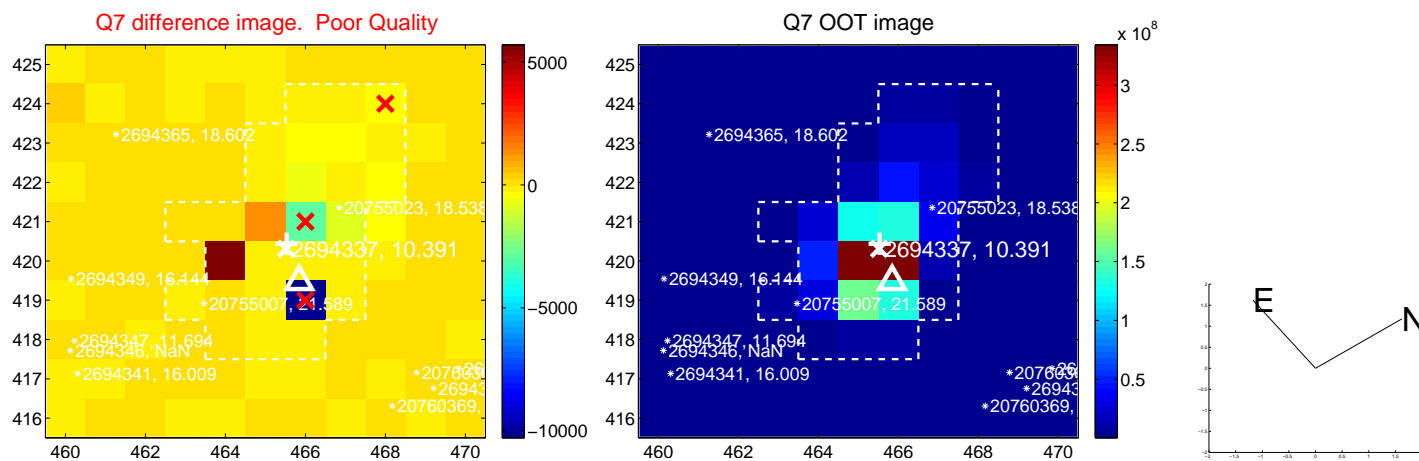
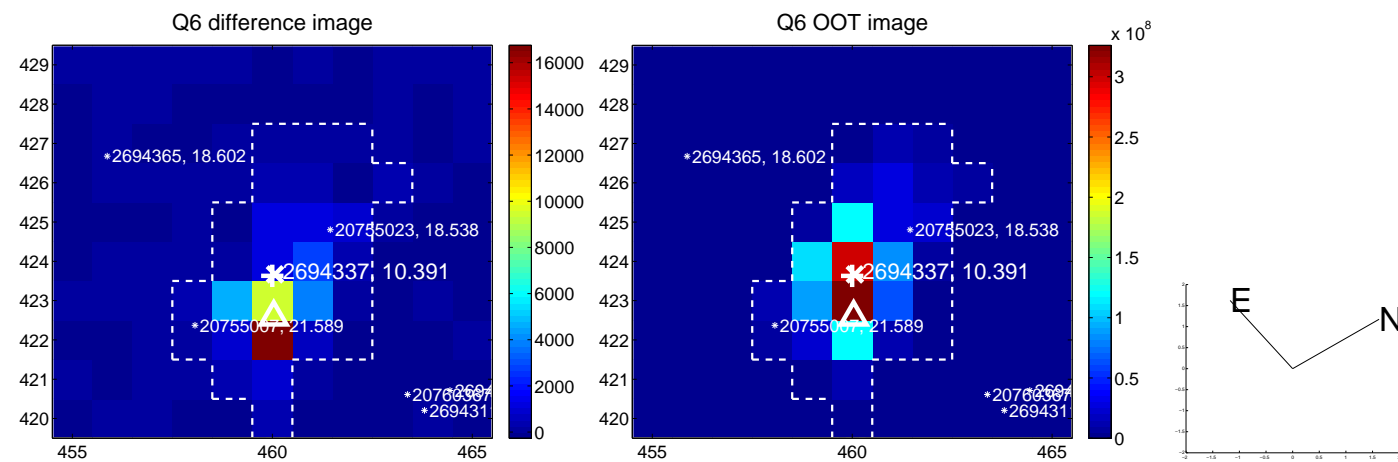
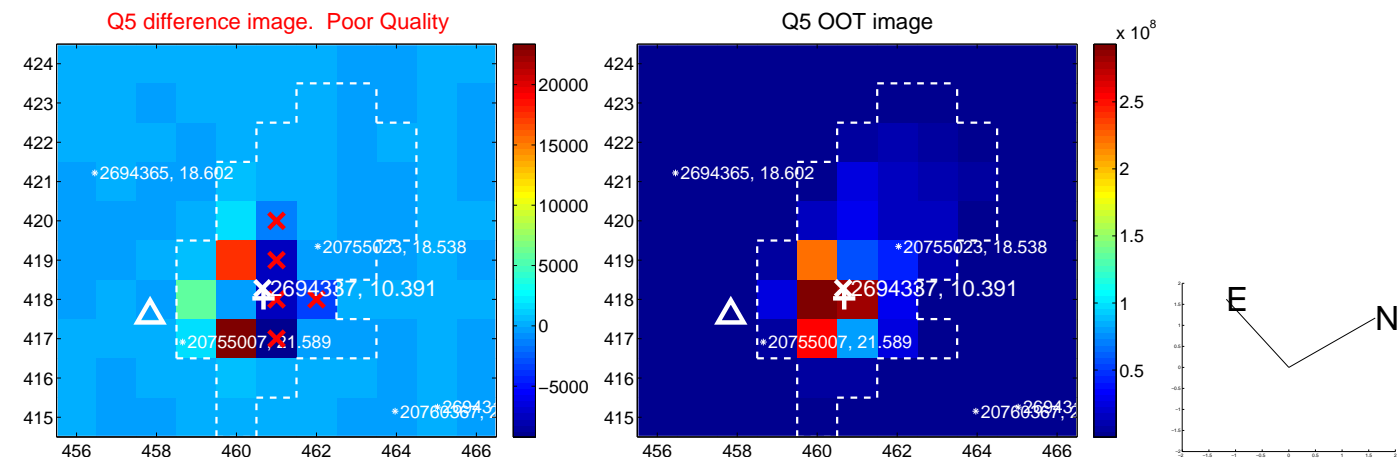


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

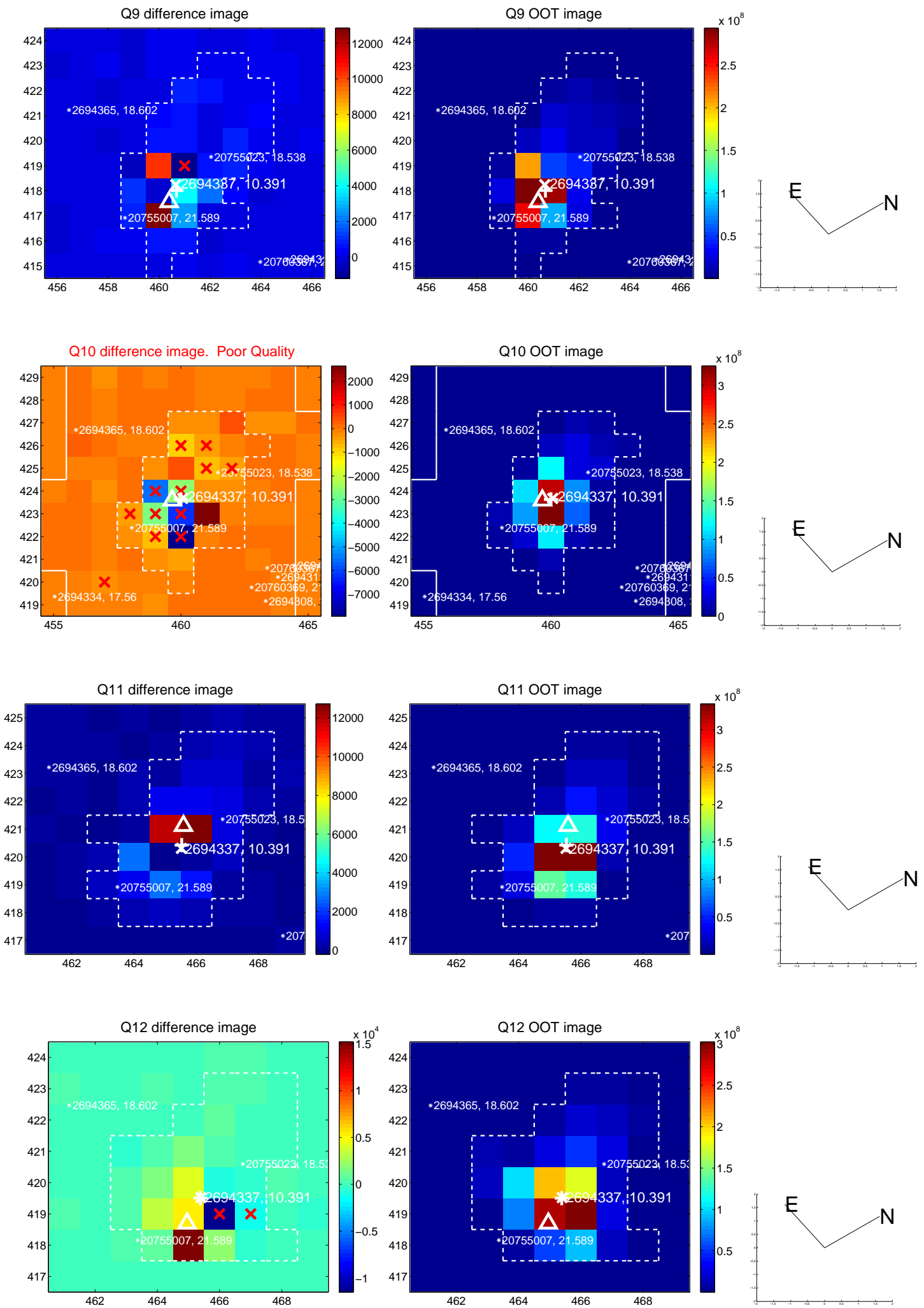
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



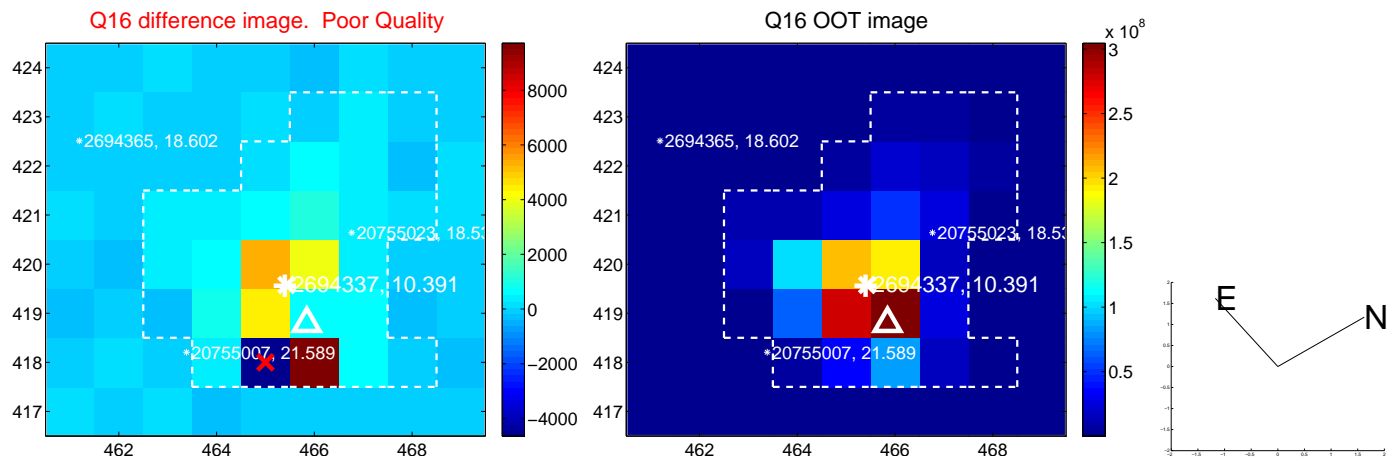
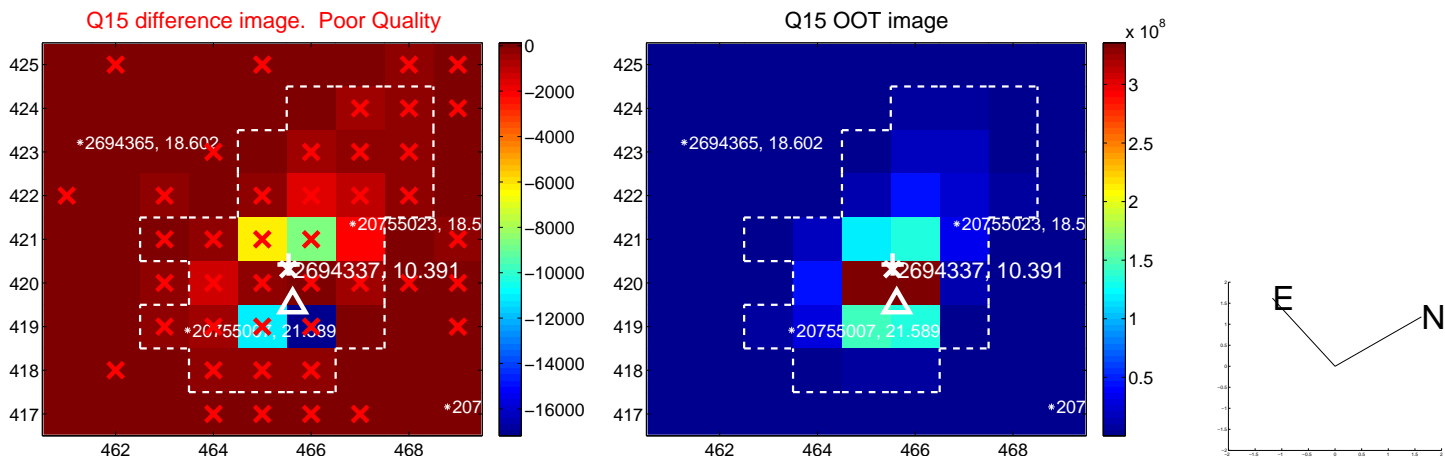
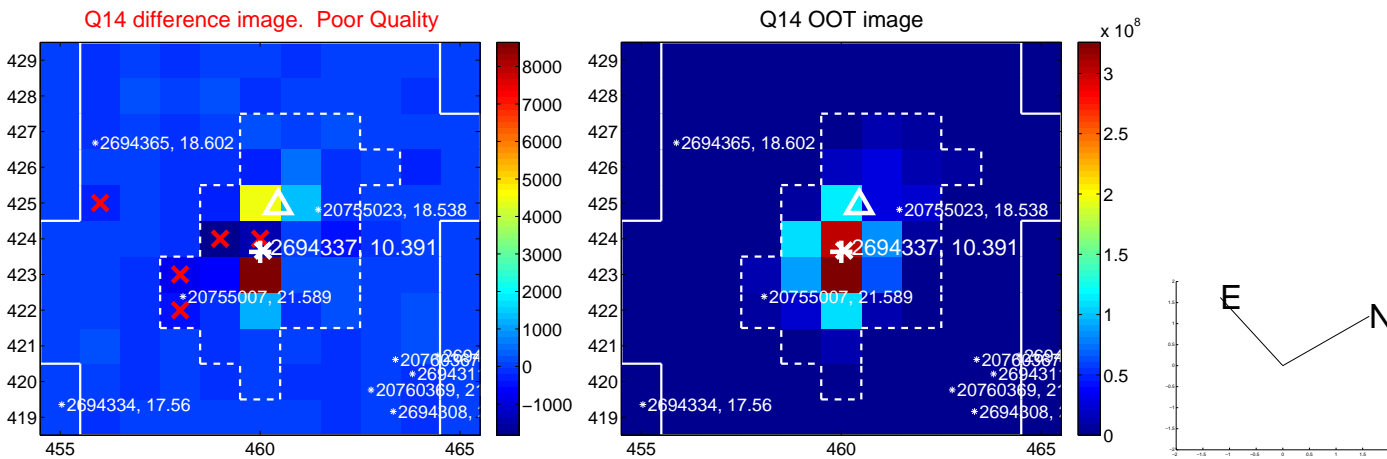
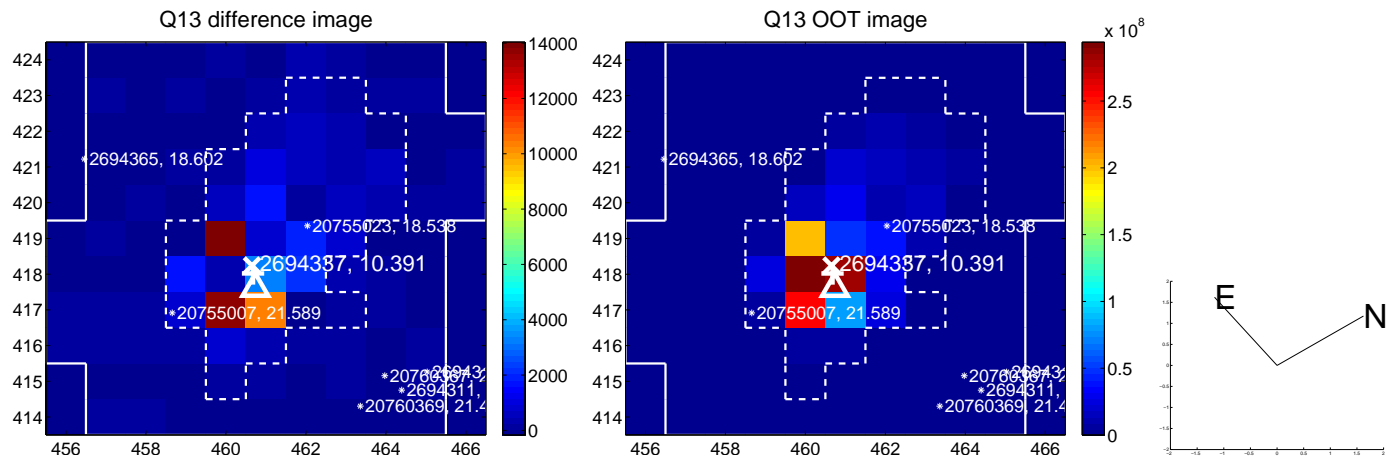
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



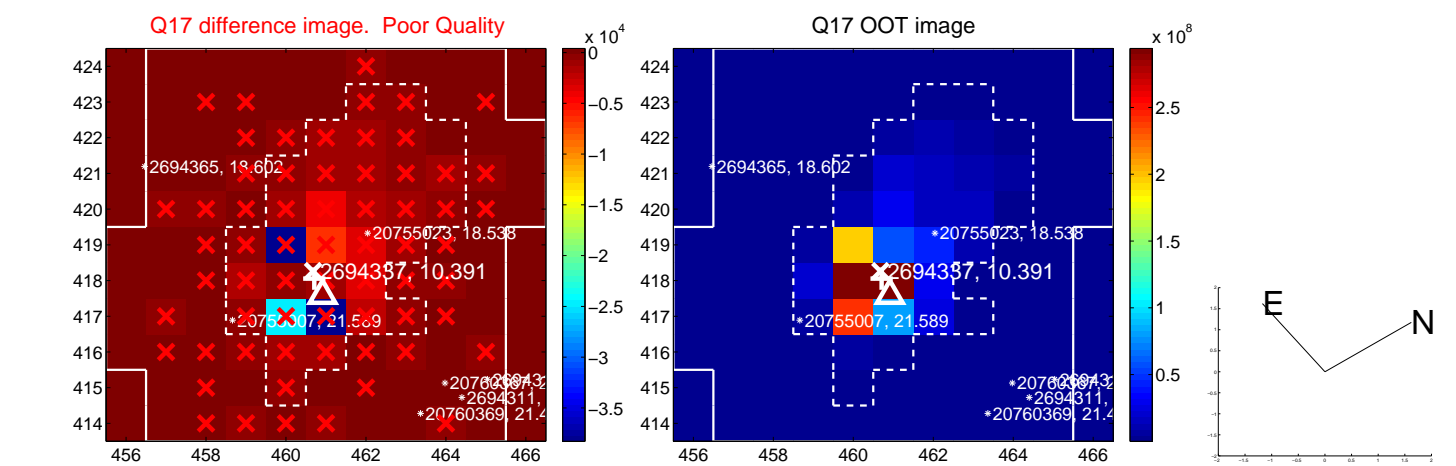
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



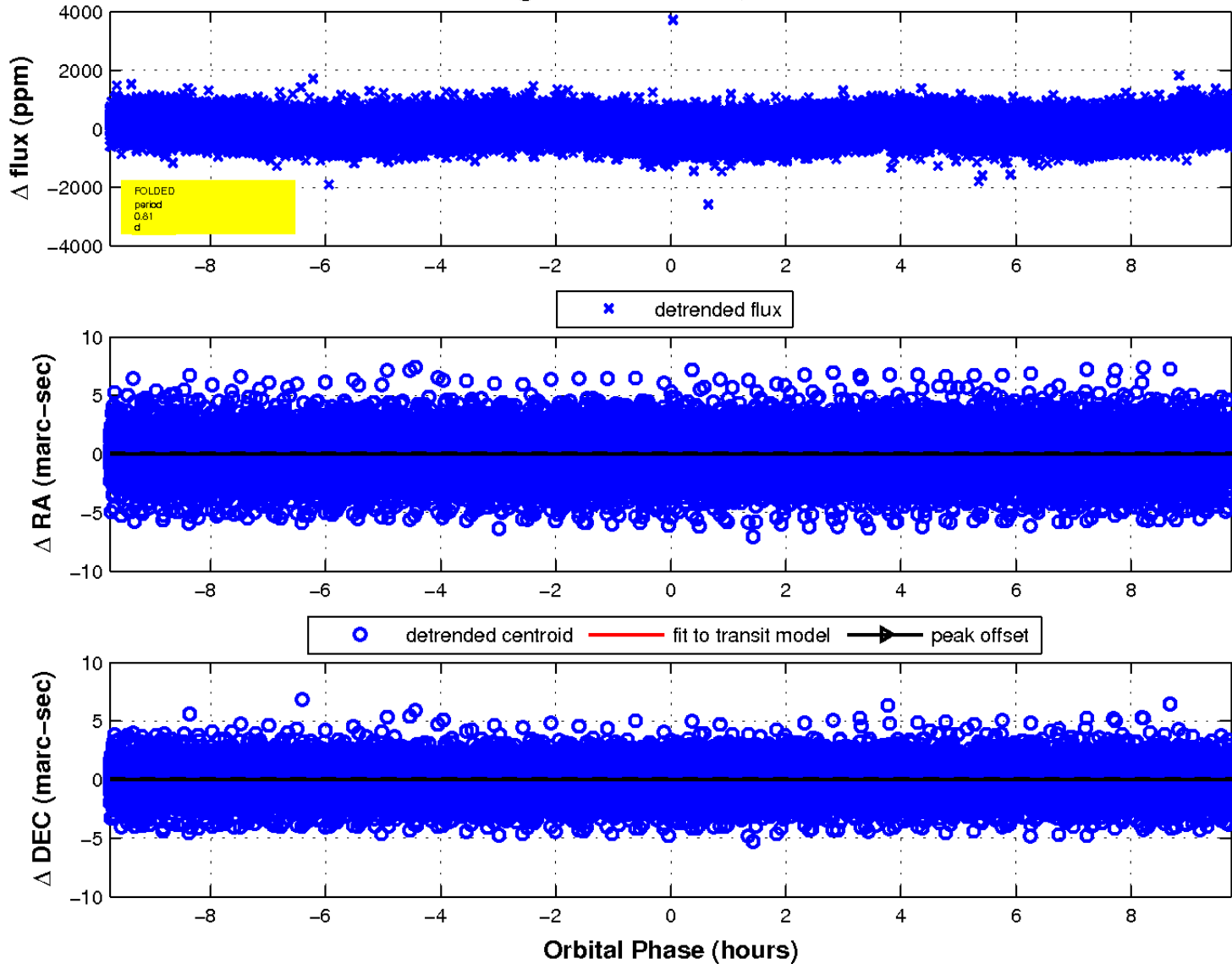
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

