

KIC 006428932

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})
006428932-01	OBS	No	0.611697	131.787537	21.0	3.346	8.5	3.5	4.76	7311	2.53	0.00
006428932-02	OBS	No	0.611722	132.072998	126.5	2.275	13.9	13.6	4.76	7311	5.42	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006428932-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006428932-02	OBS	FP	0.00	1	0	0	0	LPP_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.

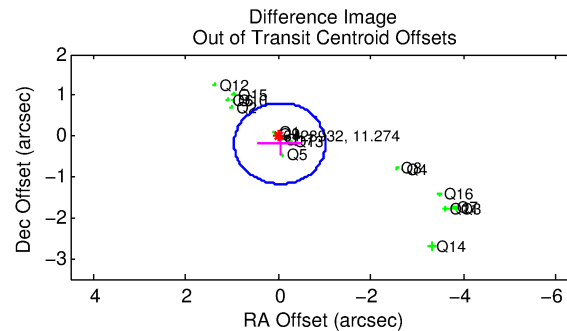
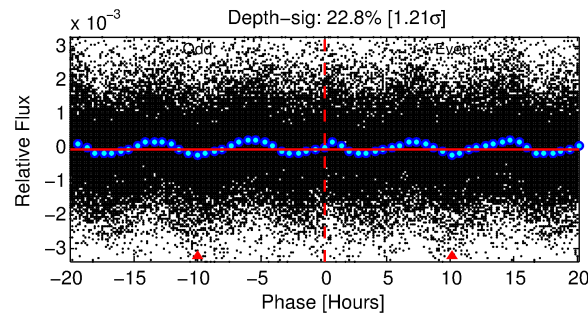
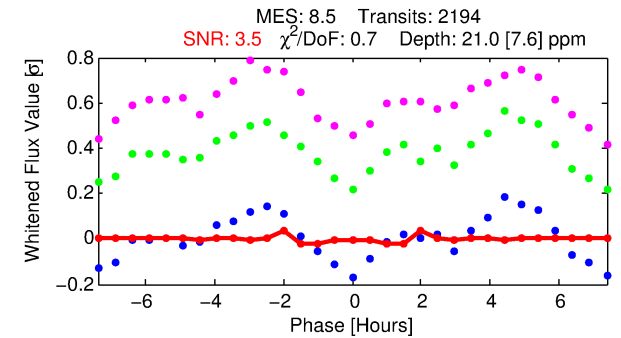
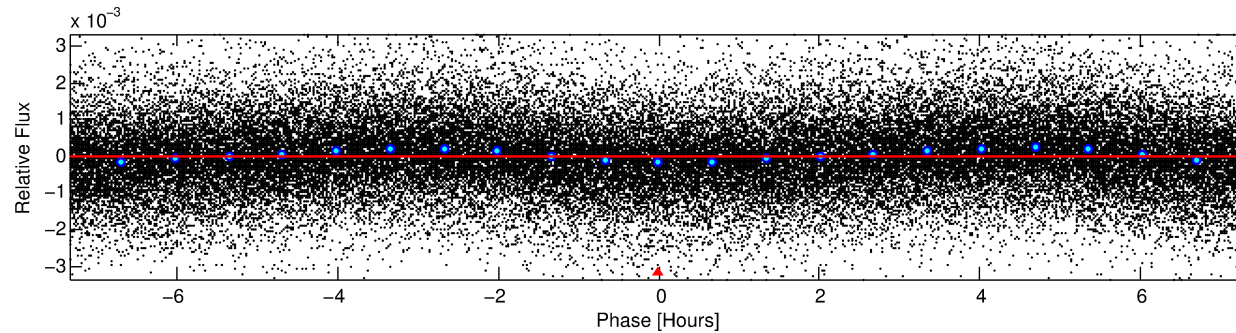
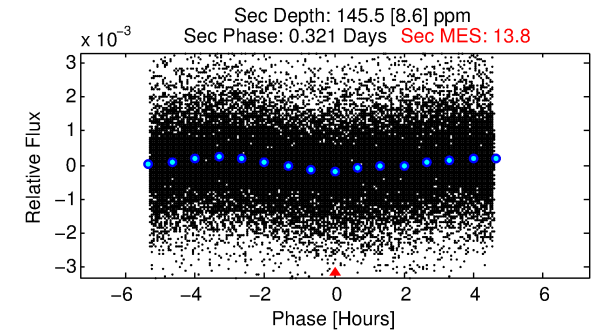
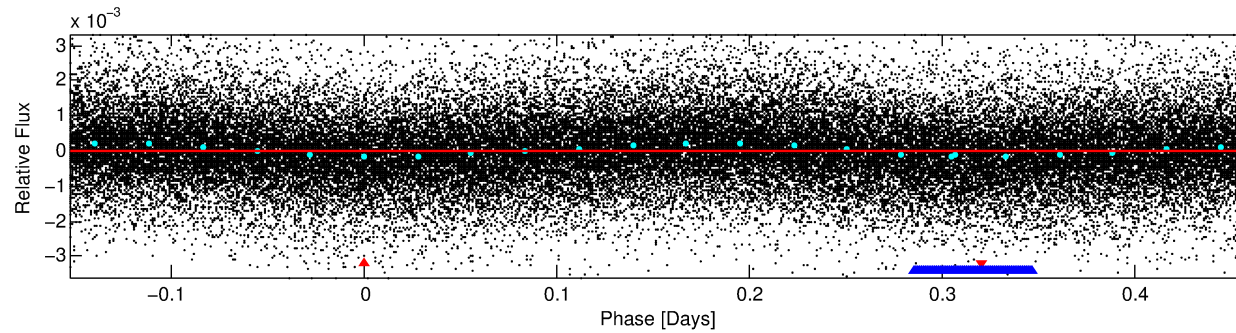
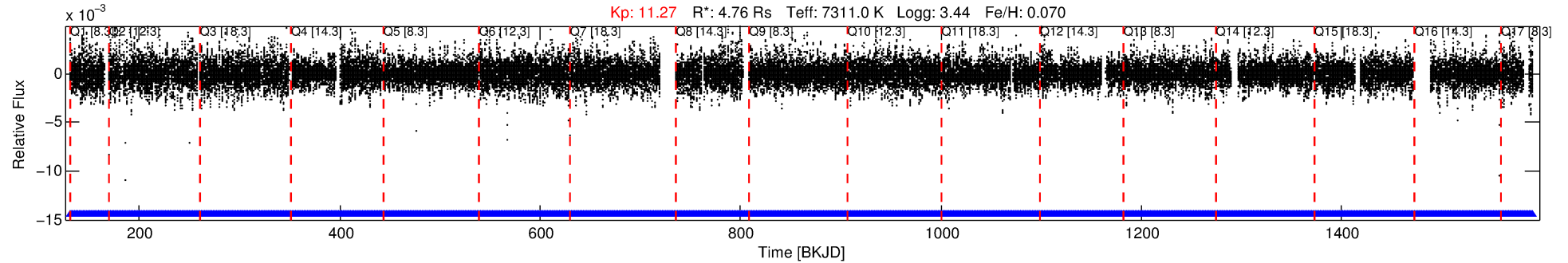
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006428932-01

No Significant Match Found

DV One-Page Summary

KIC: 6428932 Candidate: 1 of 2 Period: 0.612 d



DV Fit Results:

Period = 0.61170 [0.00003] d
 Epoch = 131.7875 [0.0027] BKJD
 $R_p/R^* = 0.0049$ [0.0019]
 $a/R^* = 1.13$ [0.52]
 $b = 0.90$ [0.46]
 $S_{\text{eff}} = \text{N/A}$
 $T_{\text{eq}} = \text{N/A}$
 $R_p = 2.53$ [1.85] R_e
 $a = \text{N/A}$
 $A_g = \text{N/A}$
 $T_{\text{eff}} = \text{N/A}$

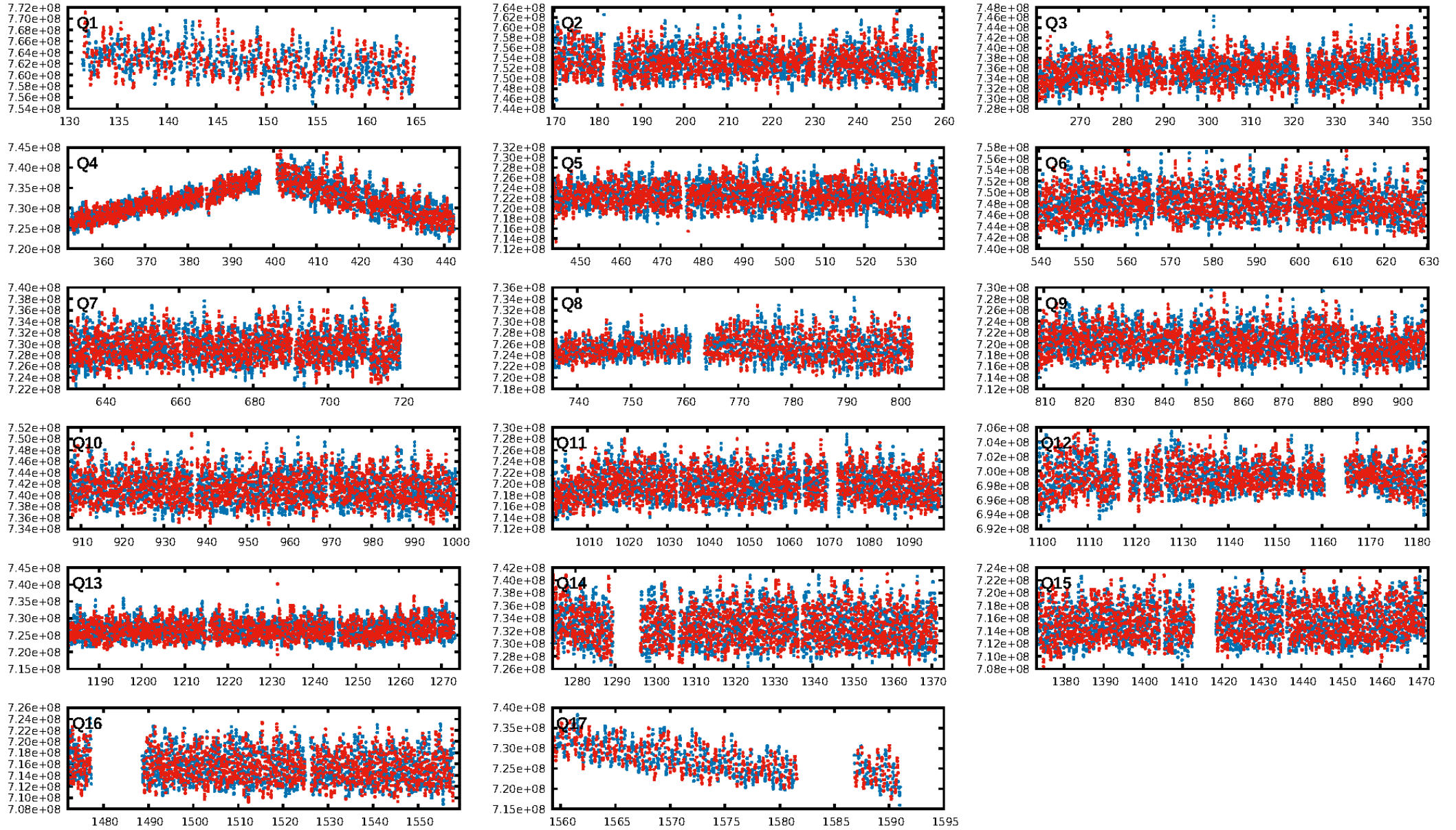
DV Diagnostic Results:

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 [2095/2095]
 GhostDiagnostic-chr: 1.249
 Centroid-sig: N/A
 Centroid-so: 0.855 arcsec [2.12σ]
 OotOffset-rm: 0.186 arcsec [0.56σ]
 KicOffset-rm: 0.271 arcsec [0.55σ]
 OotOffset-st: 4/4/4/5 [17]
 KicOffset-st: 4/4/4/5 [17]
 DiffImageQuality-fgm: 0.41 [7/17]
 DiffImageOverlap-fno: 0.00 [0/17]

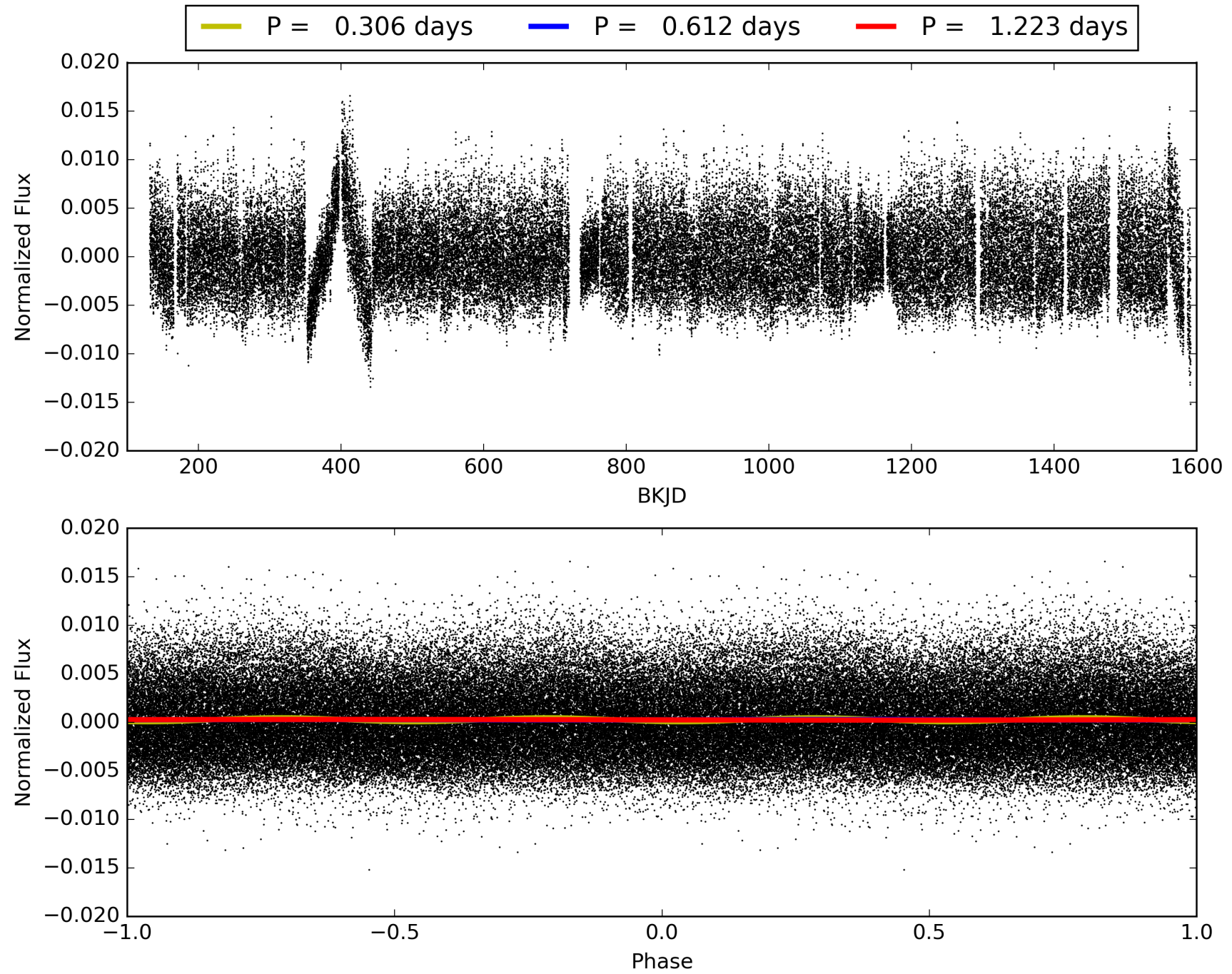
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:22:02 Z

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

TCE 006428932-01, PDC Light Curves

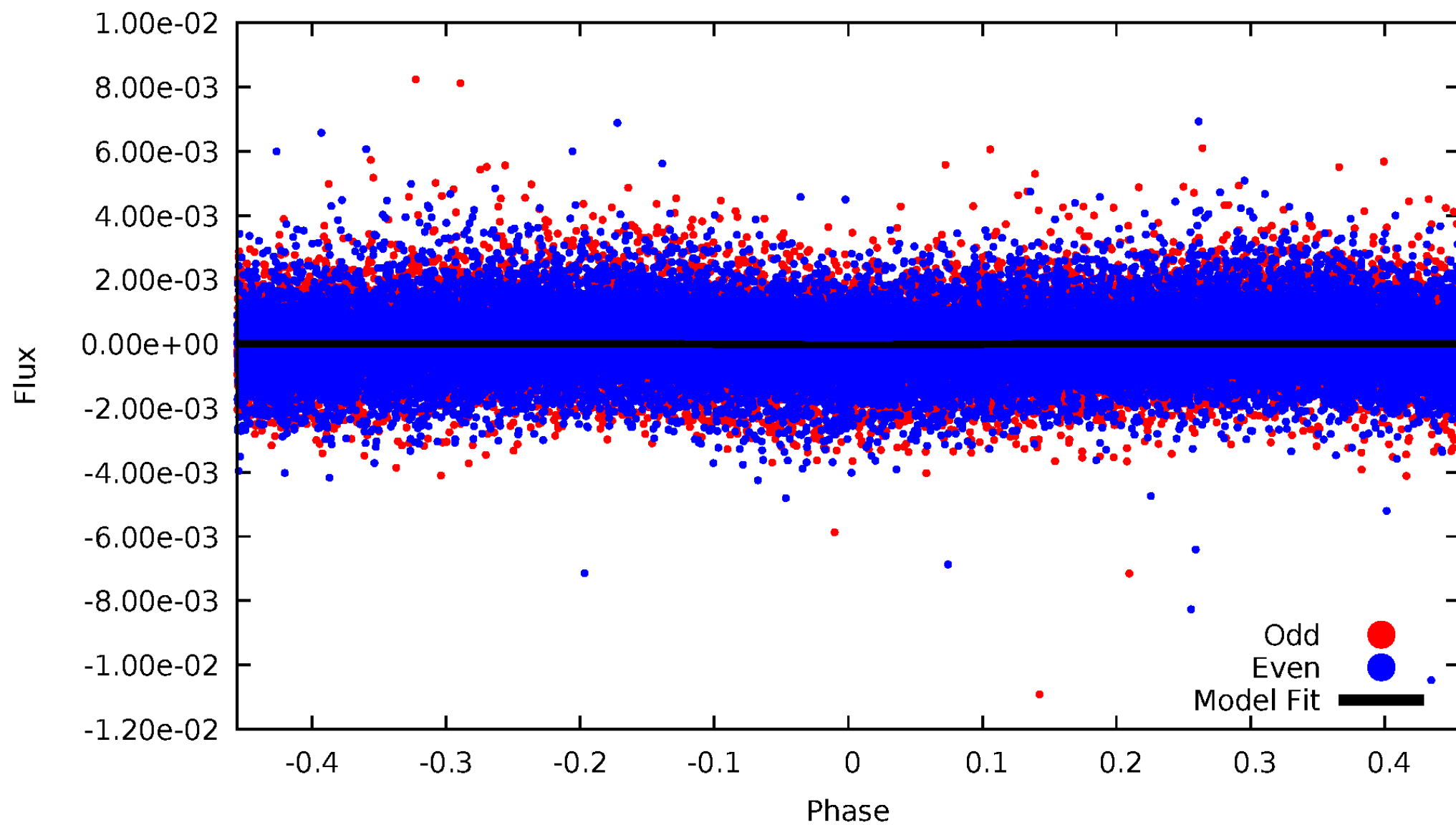


TCE 006428932-01



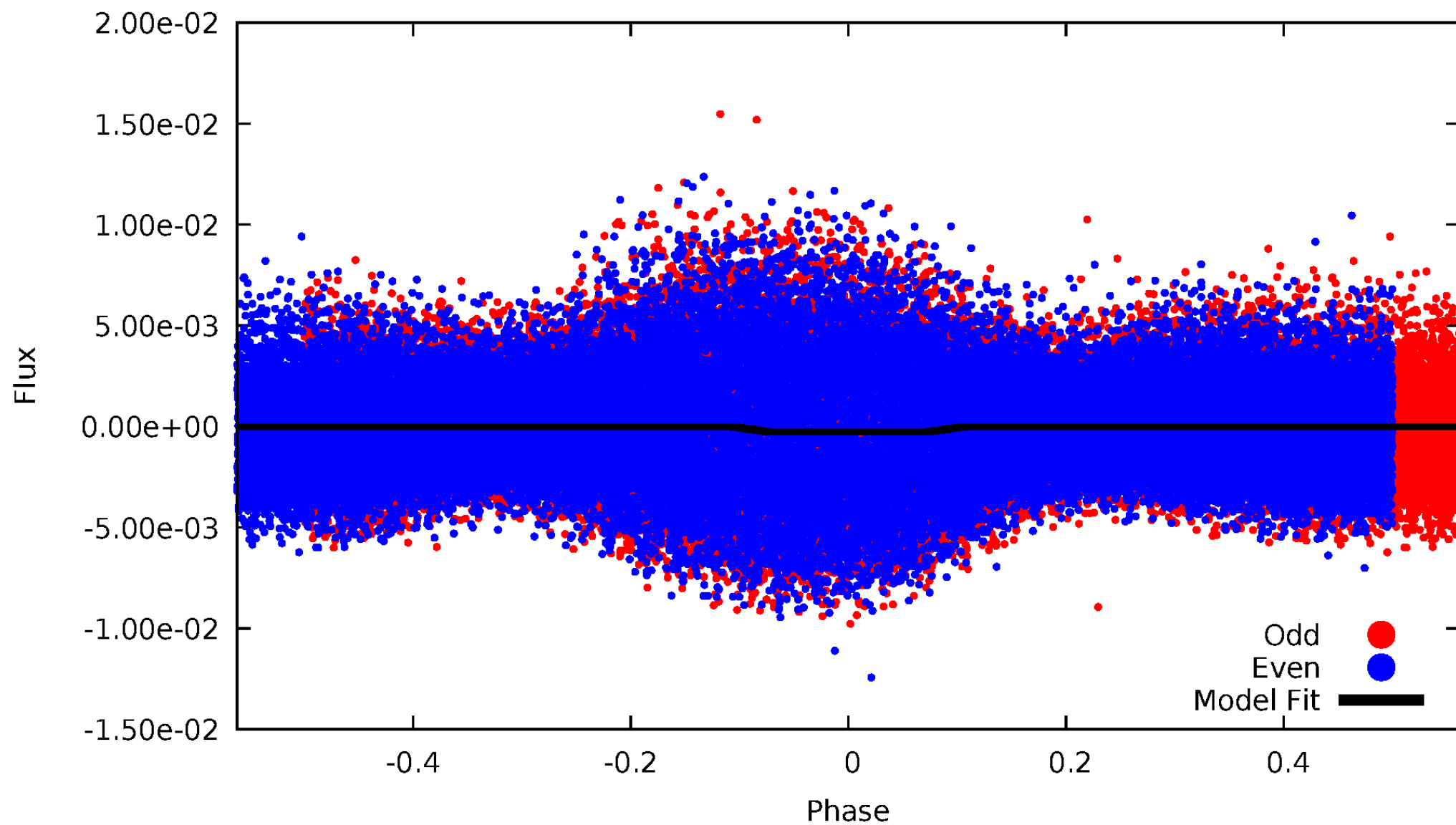
DV Odd/Even

TCE 006428932-01



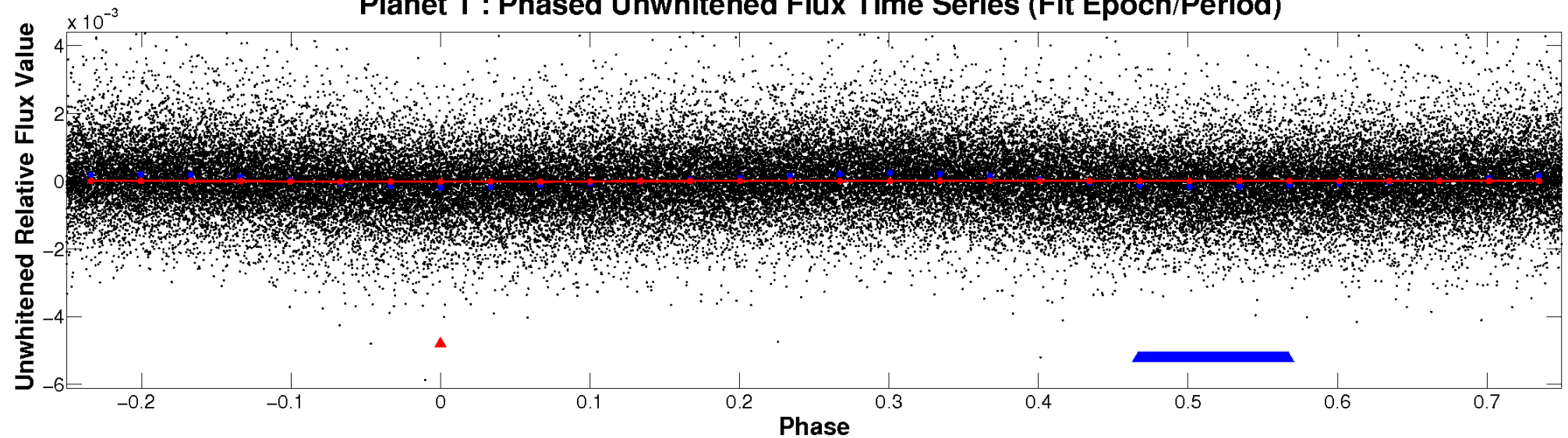
ALT Odd/Even

TCE 006428932-01

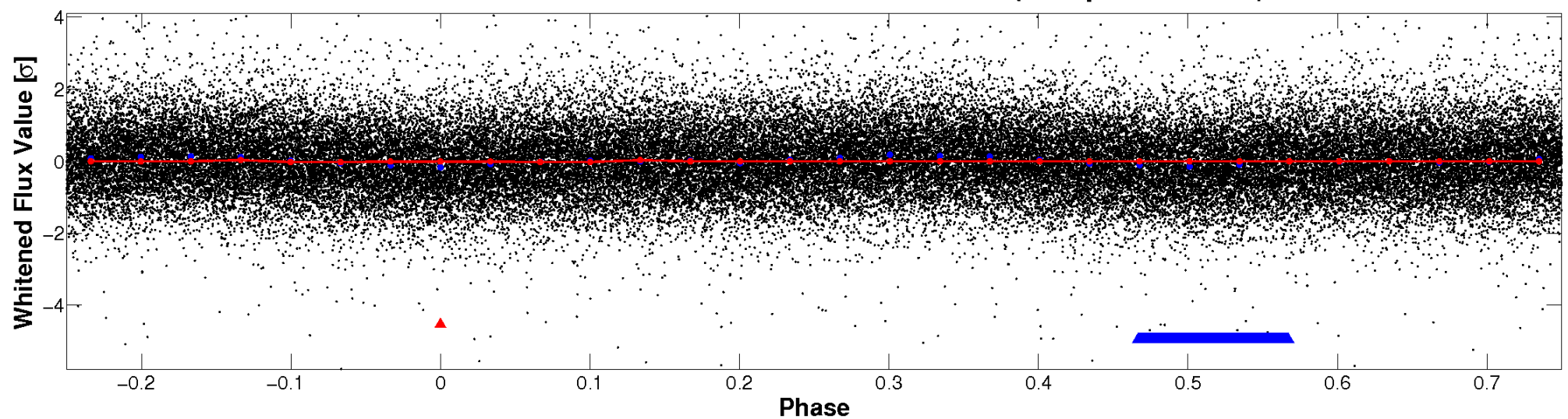


Non-Whitened Vs. Whitened Light Curve

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

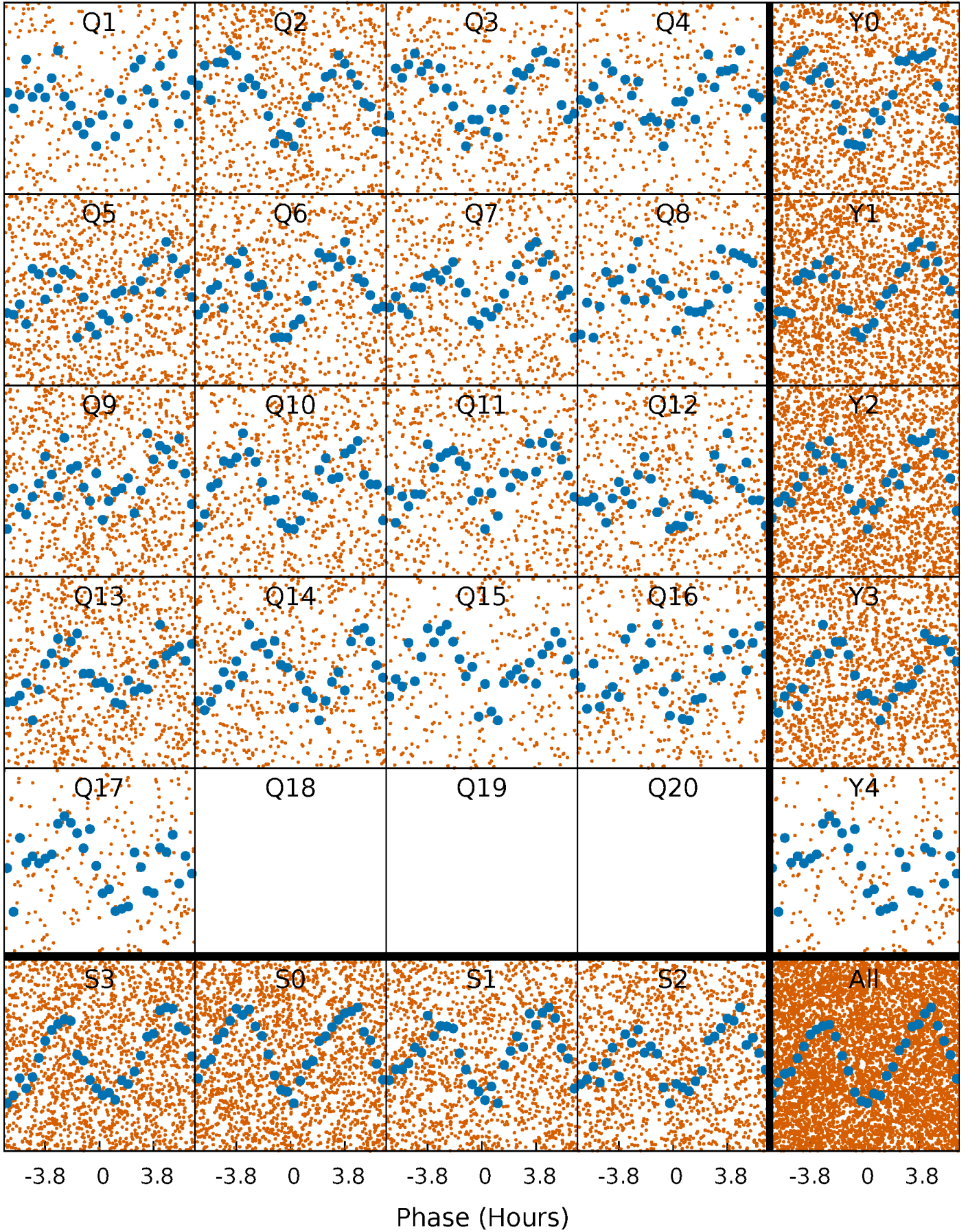


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



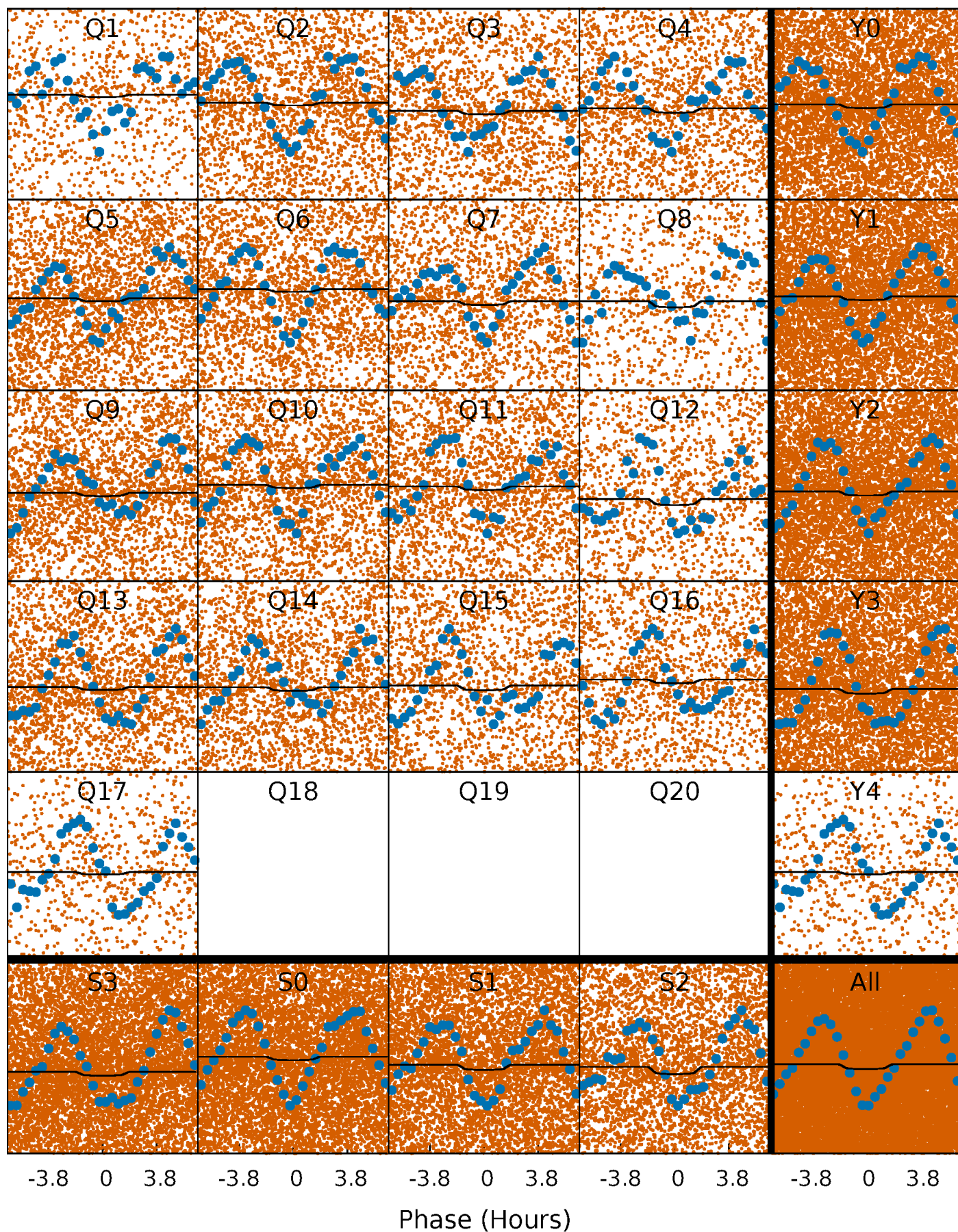
PDC Quarter-Phased Transit Curves

TCE 006428932-01 P= 0.611697 Days $T_0=131.787537$ (BKJD)



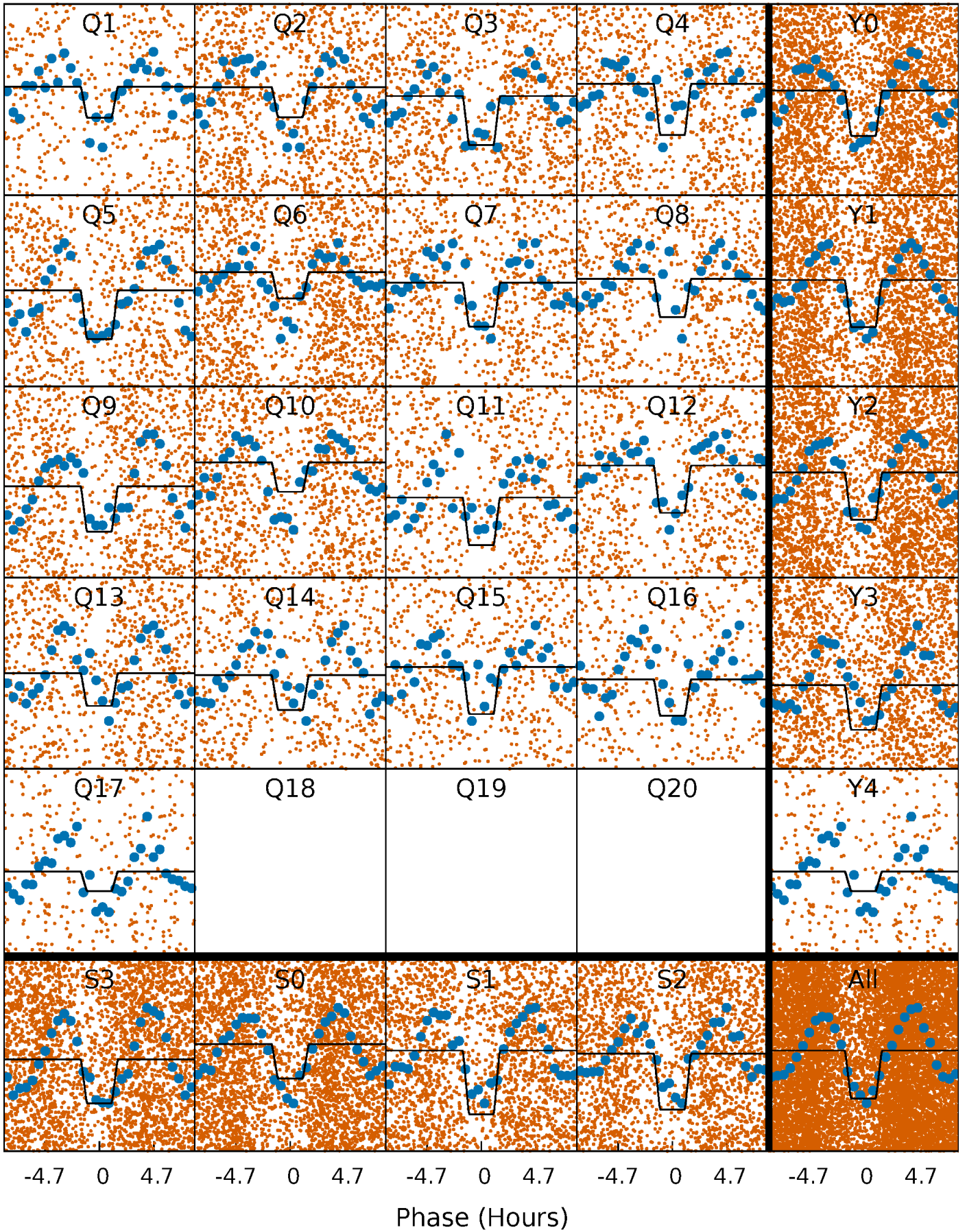
DV Quarter-Phased Transit Curves

TCE 006428932-01 P= 0.611697 Days $T_0=131.787537$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

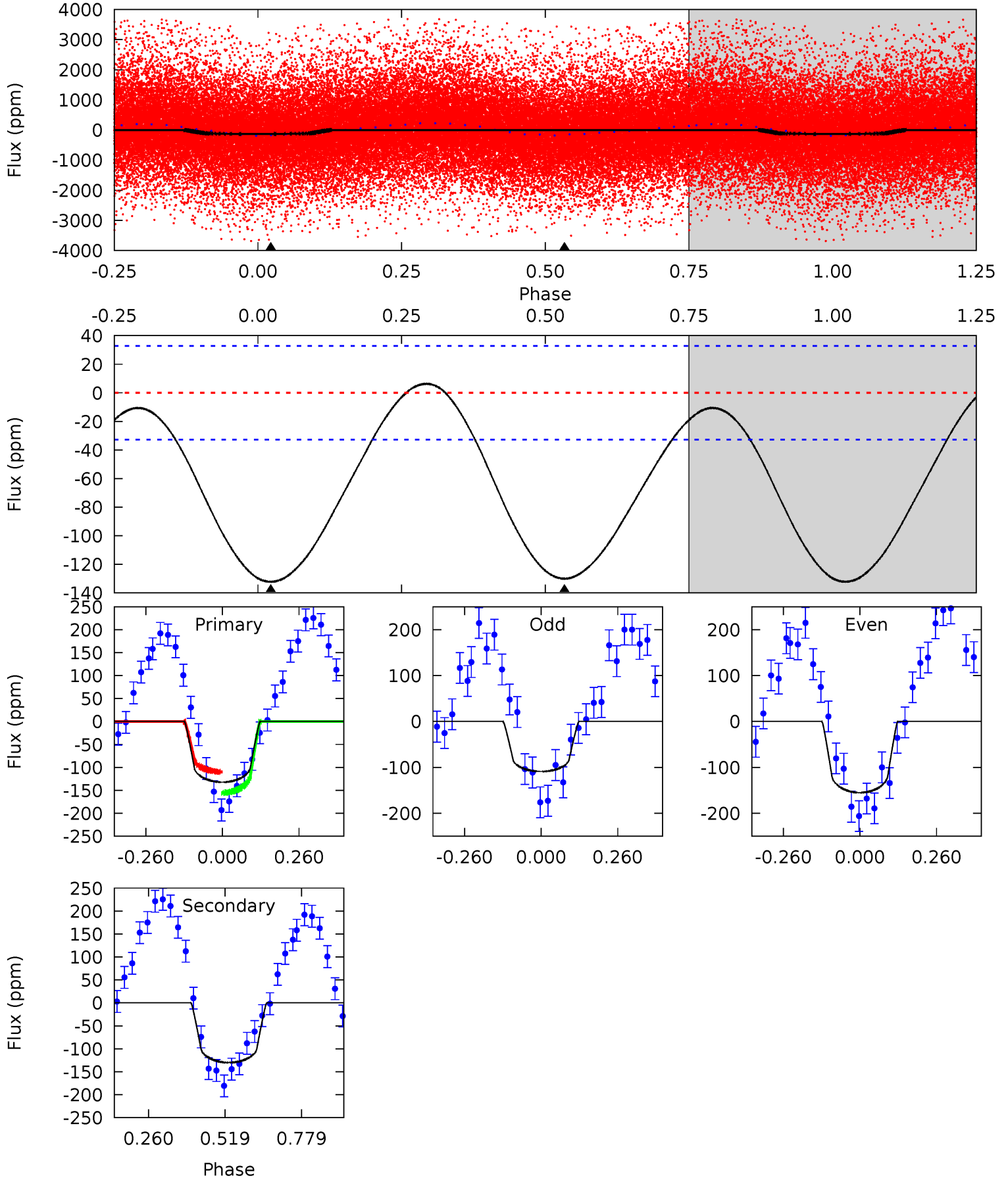
TCE 006428932-01 P= 0.611720 Days $T_0=131.773333$ (BKJD)



DV Model-Shift Uniqueness Test

006428932-01, P = 0.611697 Days, E = 131.175840 Days

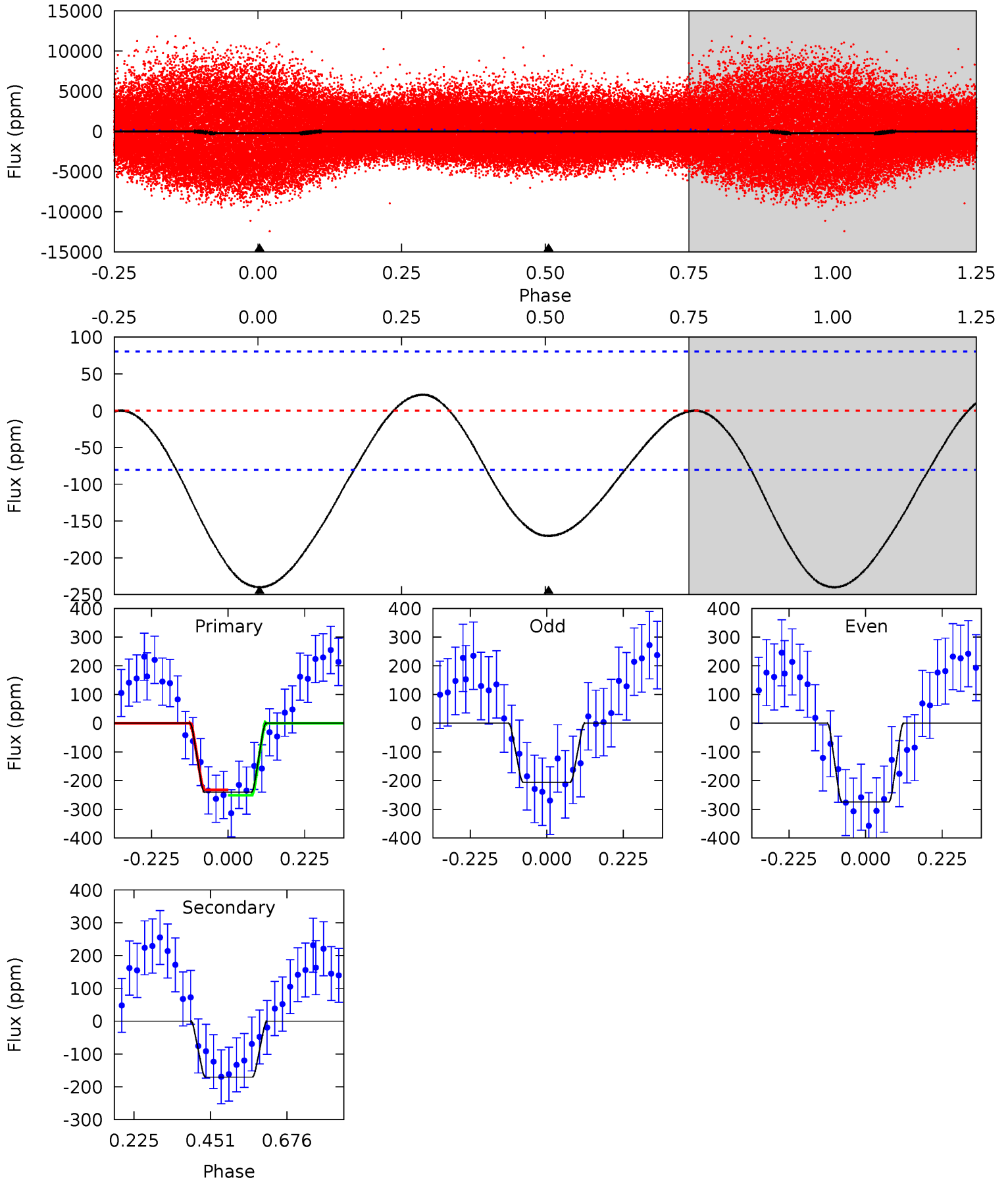
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	17.3	0	0	4.36	1.13	1.08	17.6	17.6	17.3	17.3	3.11	1.46	0.05	3.09



Alt Model-Shift Uniqueness Test

006428932-01, P = 0.611720 Days, E = 131.161613 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	9.29	0	0	4.39	1.21	0.49	13.1	13.1	9.29	9.29	1.88	0.55	0.08	0.52



Stellar Parameters For KIC 006428932

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7311^{+202}_{-304}	$3.439^{+0.654}_{-0.154}$	$0.070^{+0.200}_{-0.300}$	$4.764^{+1.294}_{-2.958}$	$2.275^{+0.178}_{-0.756}$	$0.030^{+0.269}_{-0.014}$
	+3%/-4%	+19%/-4%	+286%/-429%	+27%/-62%	+8%/-33%	+908%/-47%
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 006428932-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-130 ± 8	$2.20^{+1.20}_{-1.01}$	6936^{+702}_{-1130}	12763^{+8504}_{-3270}	$4.808^{+11.883}_{-2.759}$
Alt.	-170 ± 18	$7.48^{+2.29}_{-2.49}$	6888^{+757}_{-1147}	5381^{+819}_{-1463}	$0.551^{+0.637}_{-0.211}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

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

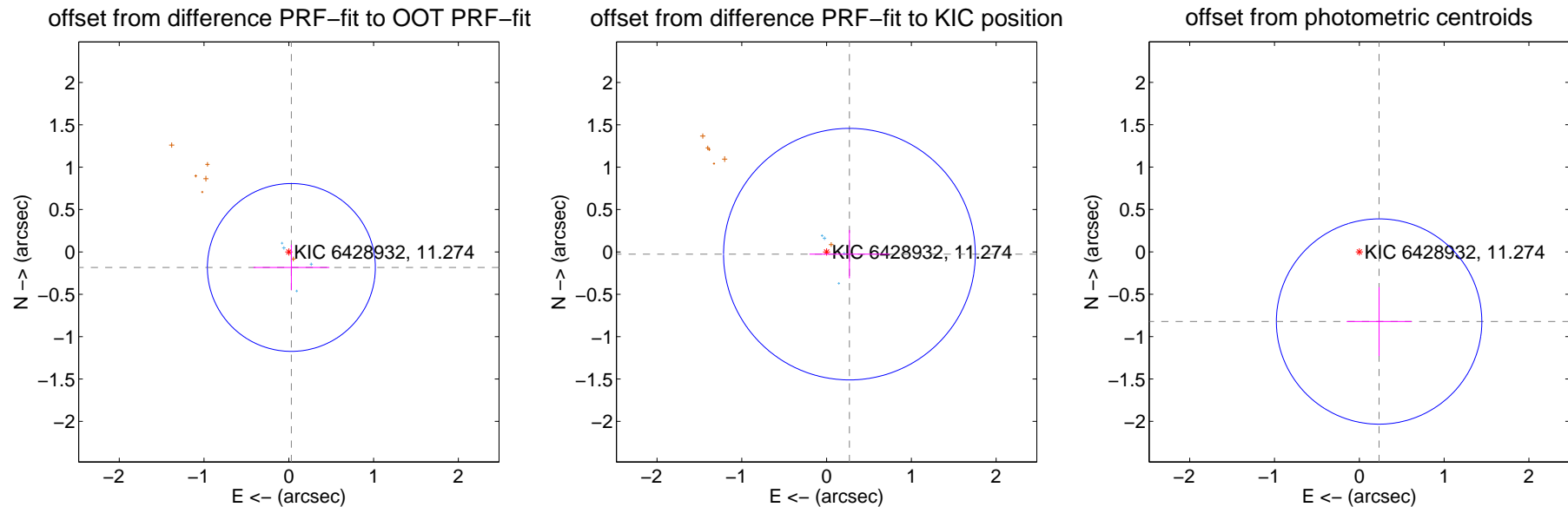
DV Centroid Data

Supplemental centroid analysis for 006428932-01. **Kepler magnitude: 11.27.** Transit SNR 3.49

There are 7 quarters with good PRF difference image offsets

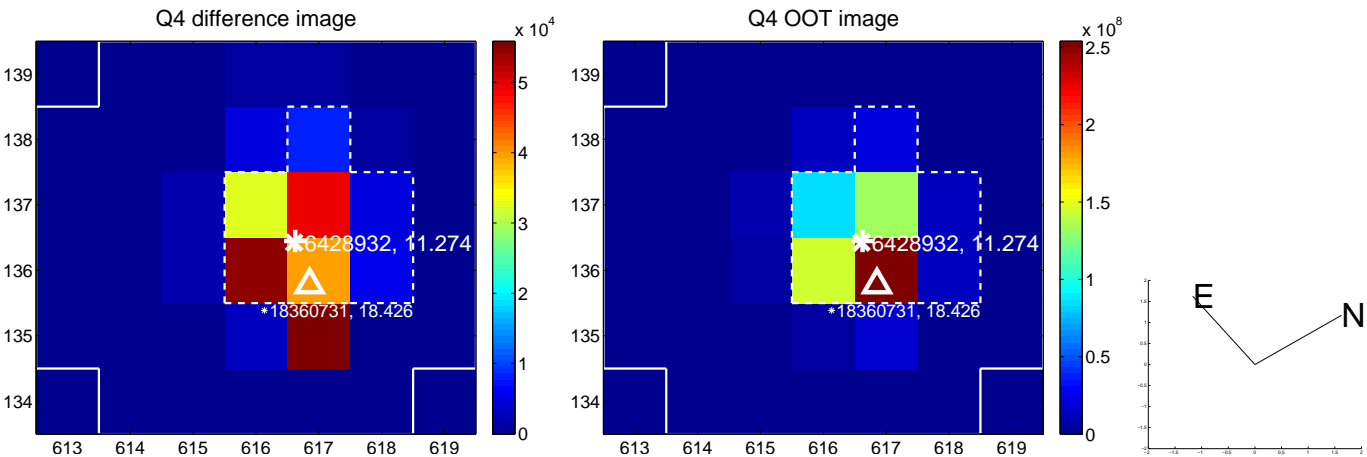
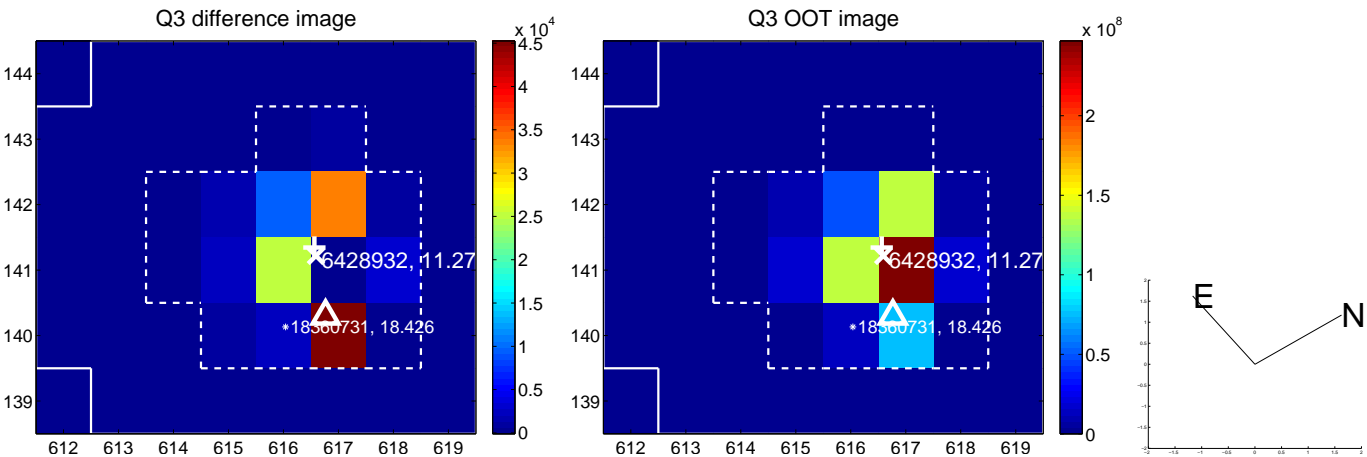
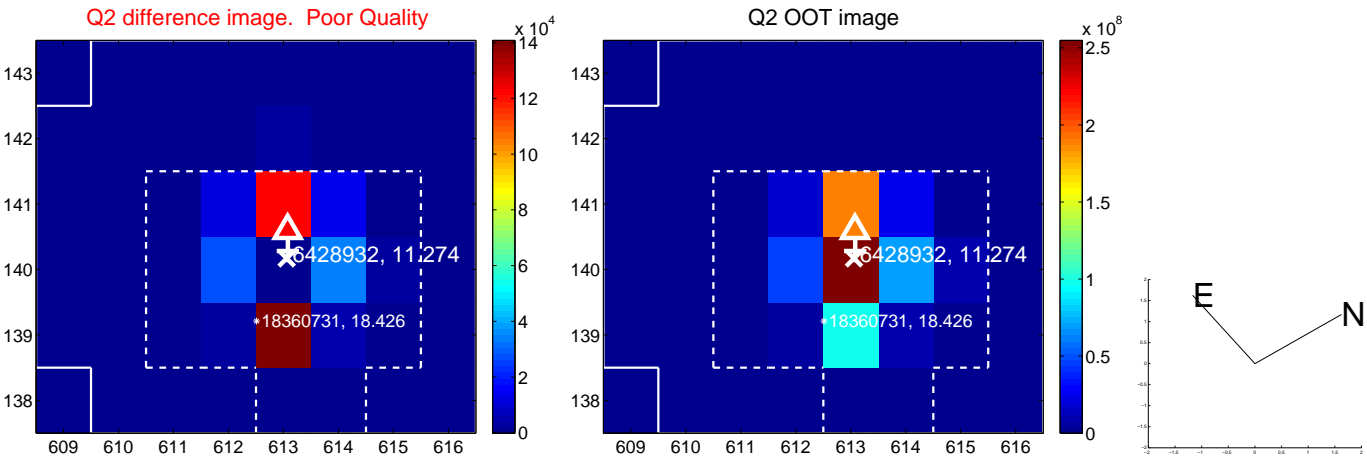
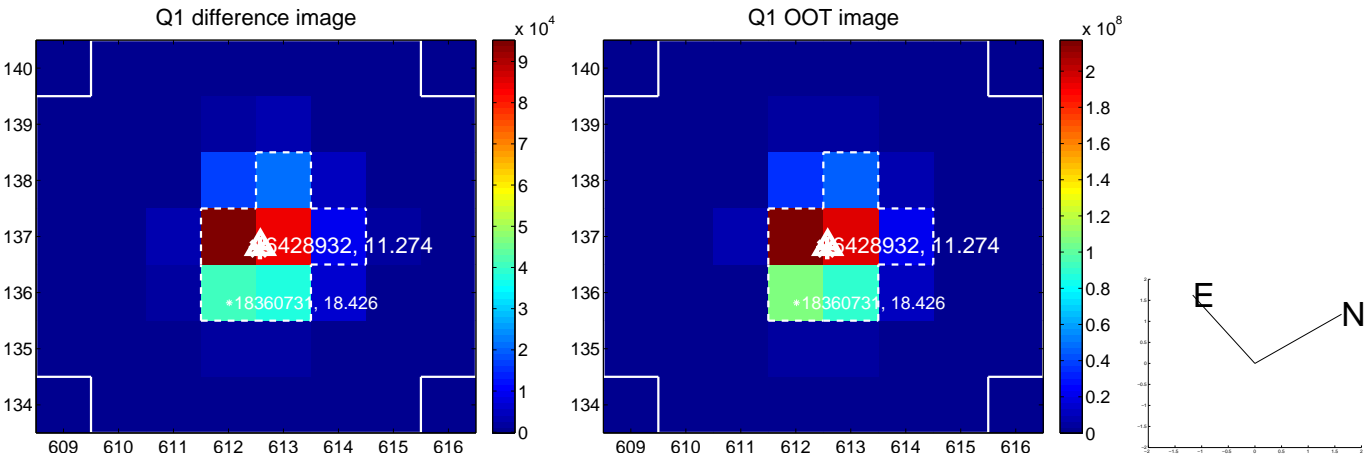
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.186 ± 0.330	0.56	-0.030 ± 0.448	-0.184 ± 0.267
PRF-fit source offset from KIC position	0.271 ± 0.495	0.55	-0.270 ± 0.472	-0.026 ± 0.285
photometric centroid source offset	0.85 ± 0.40	2.12	-0.23 ± 0.38	-0.82 ± 0.41

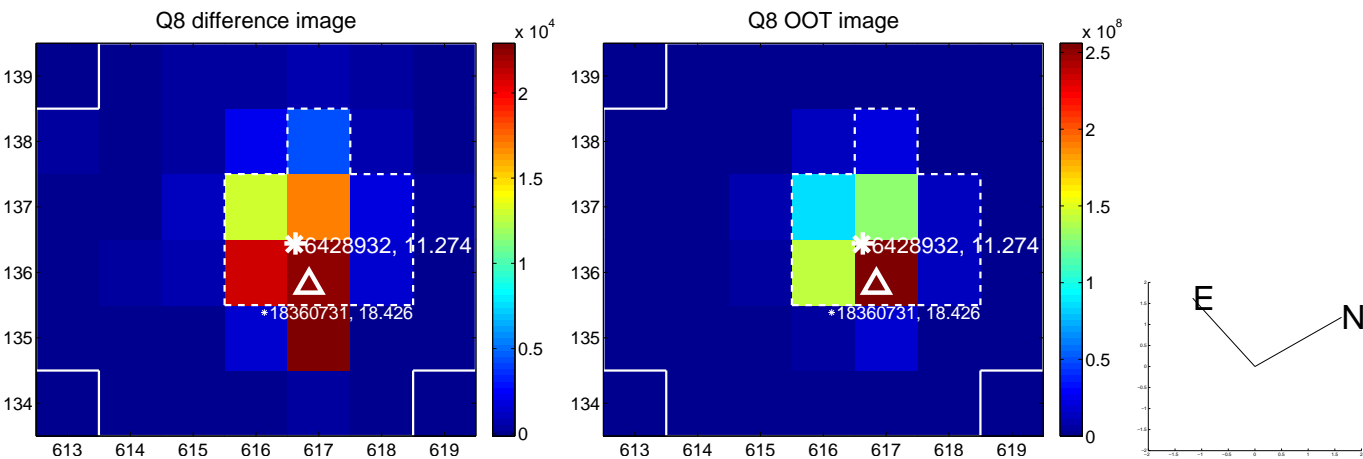
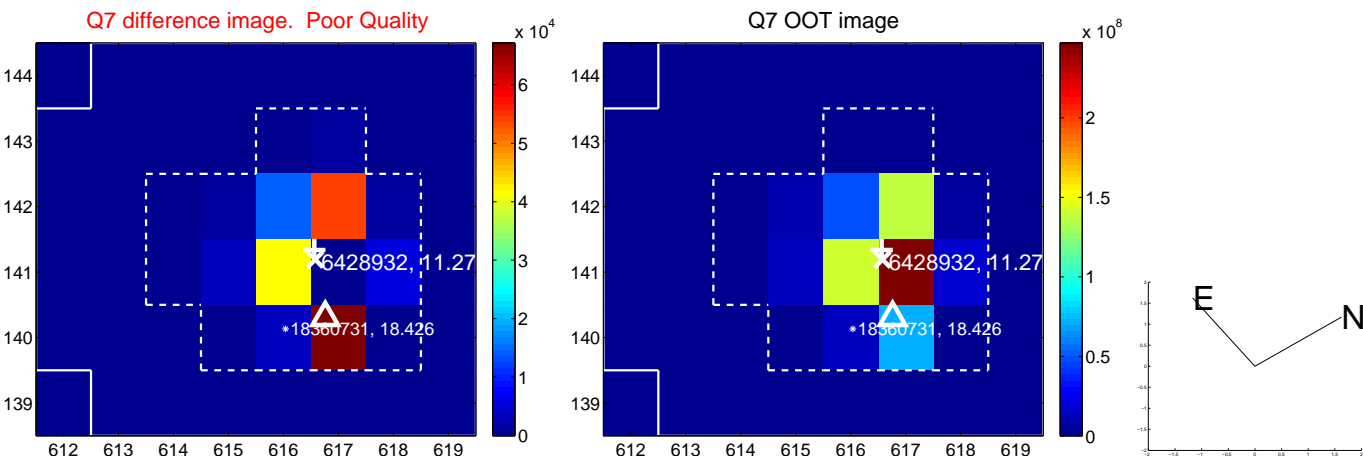
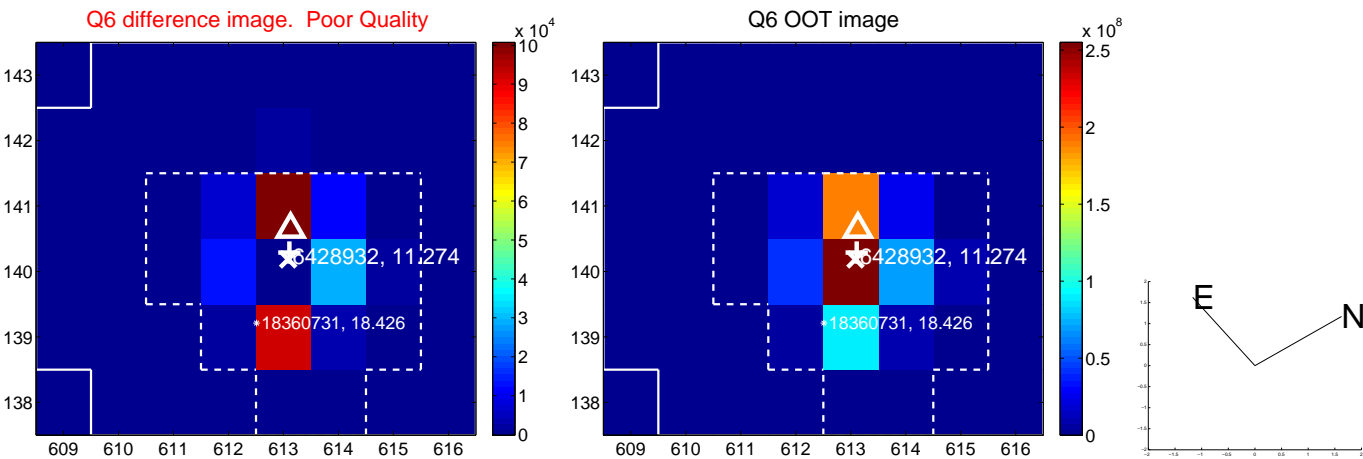
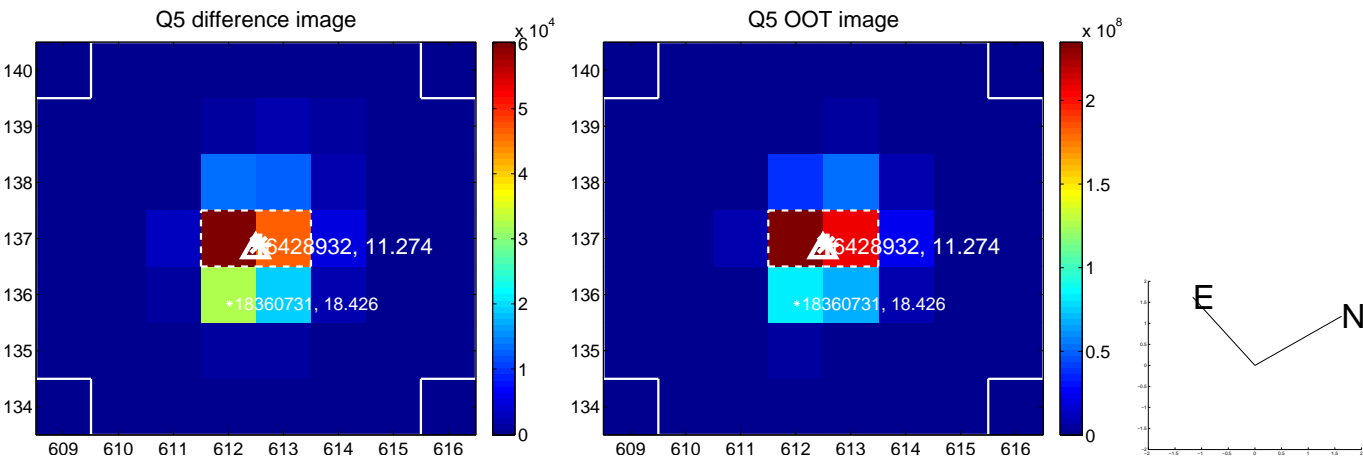


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

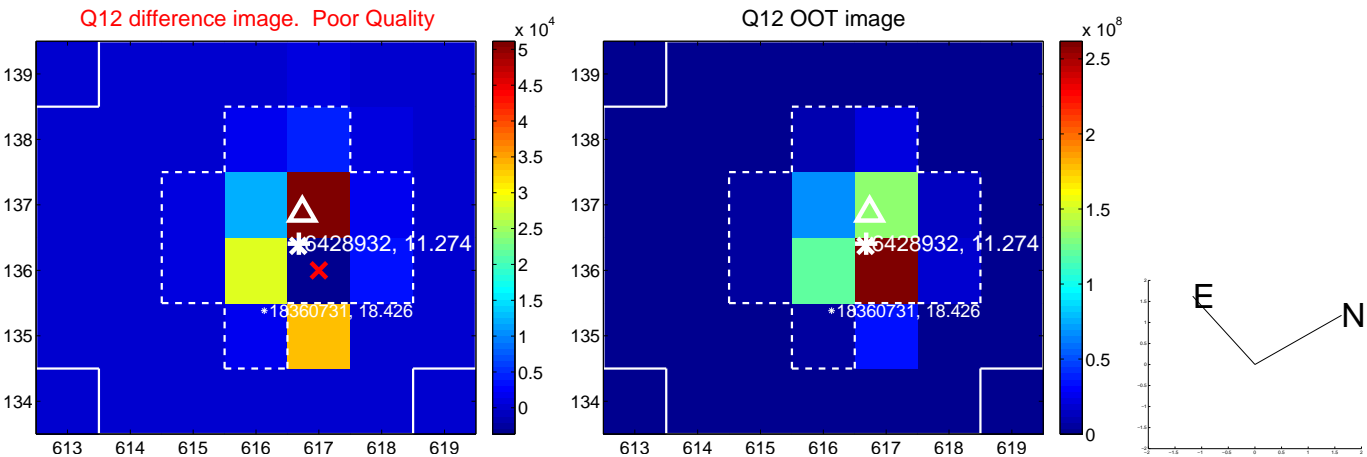
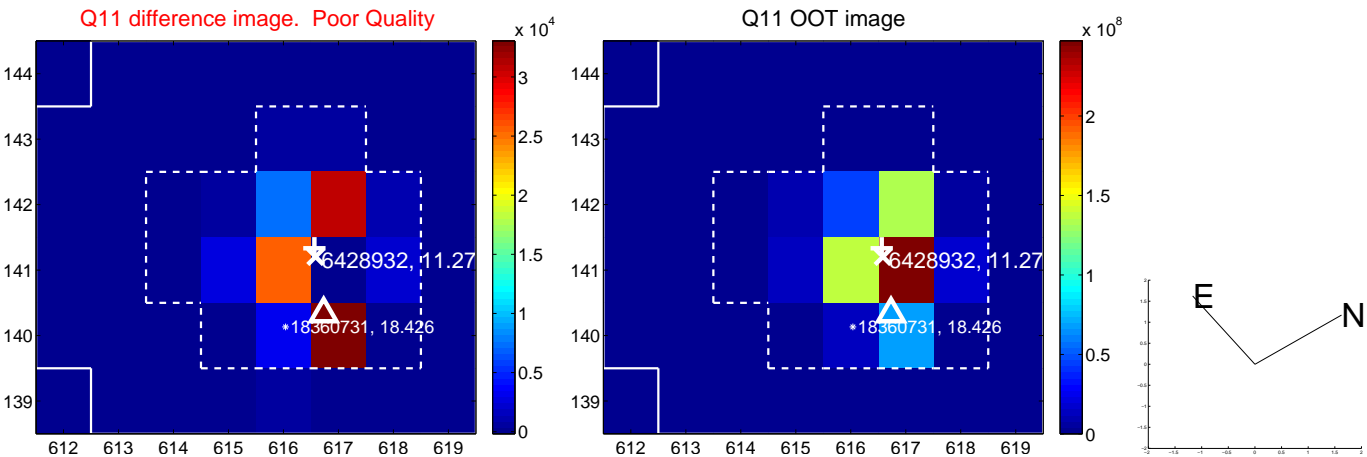
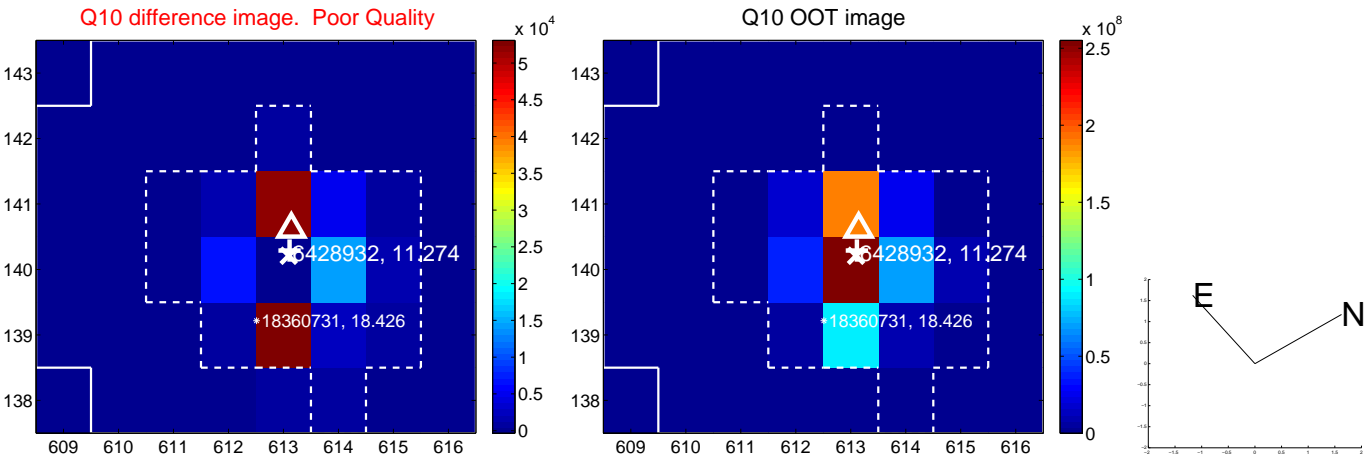
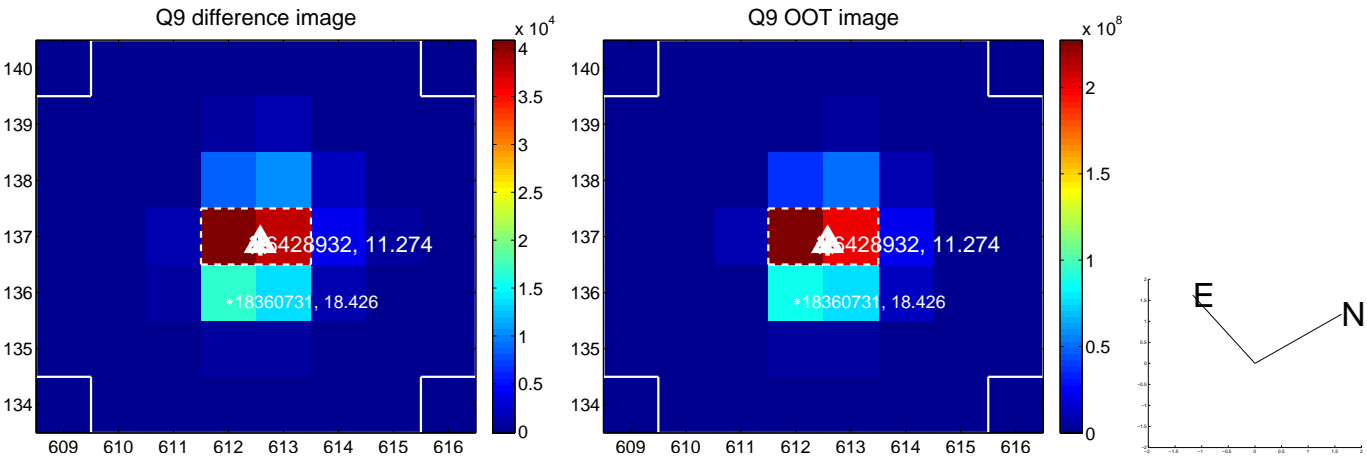
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



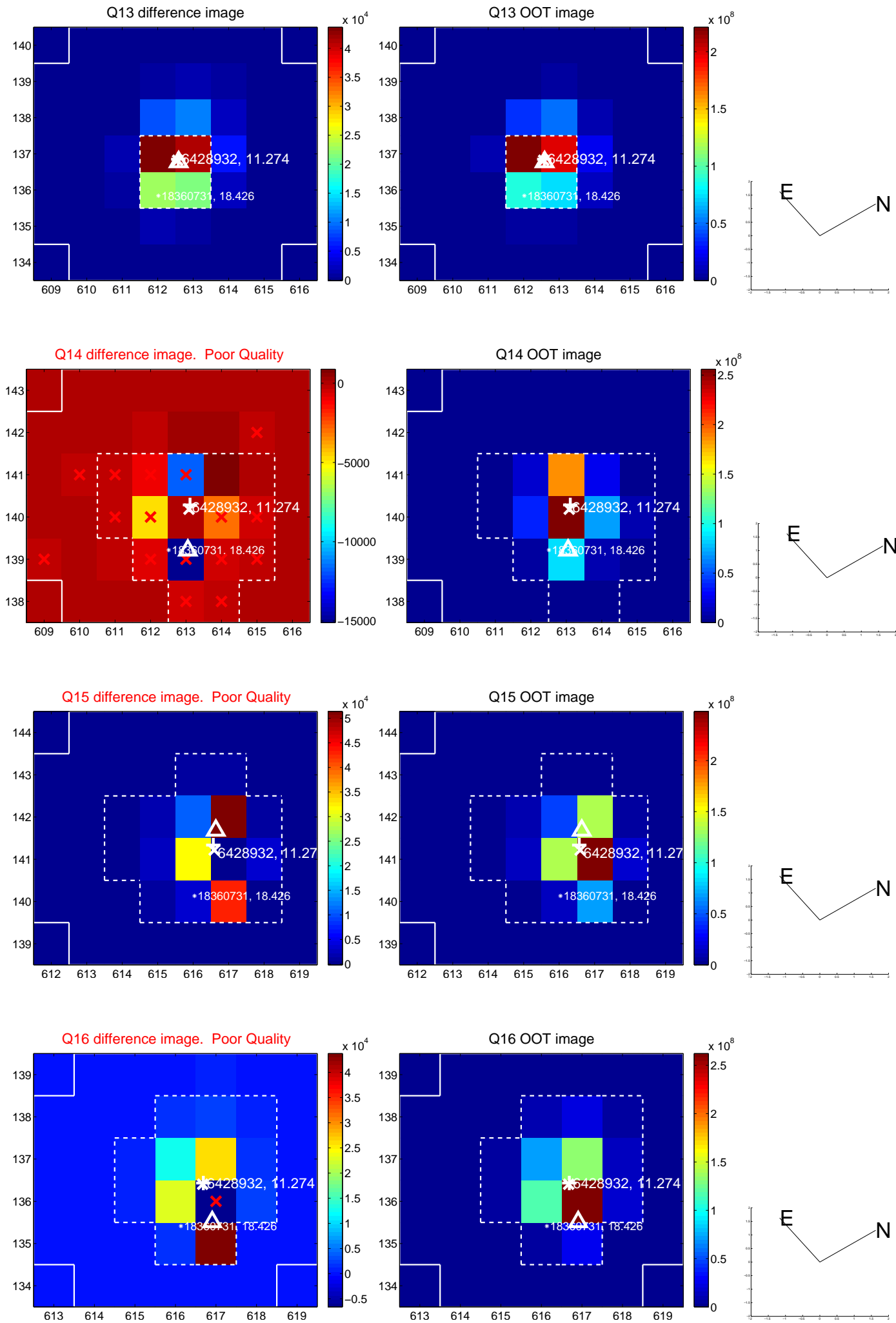
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



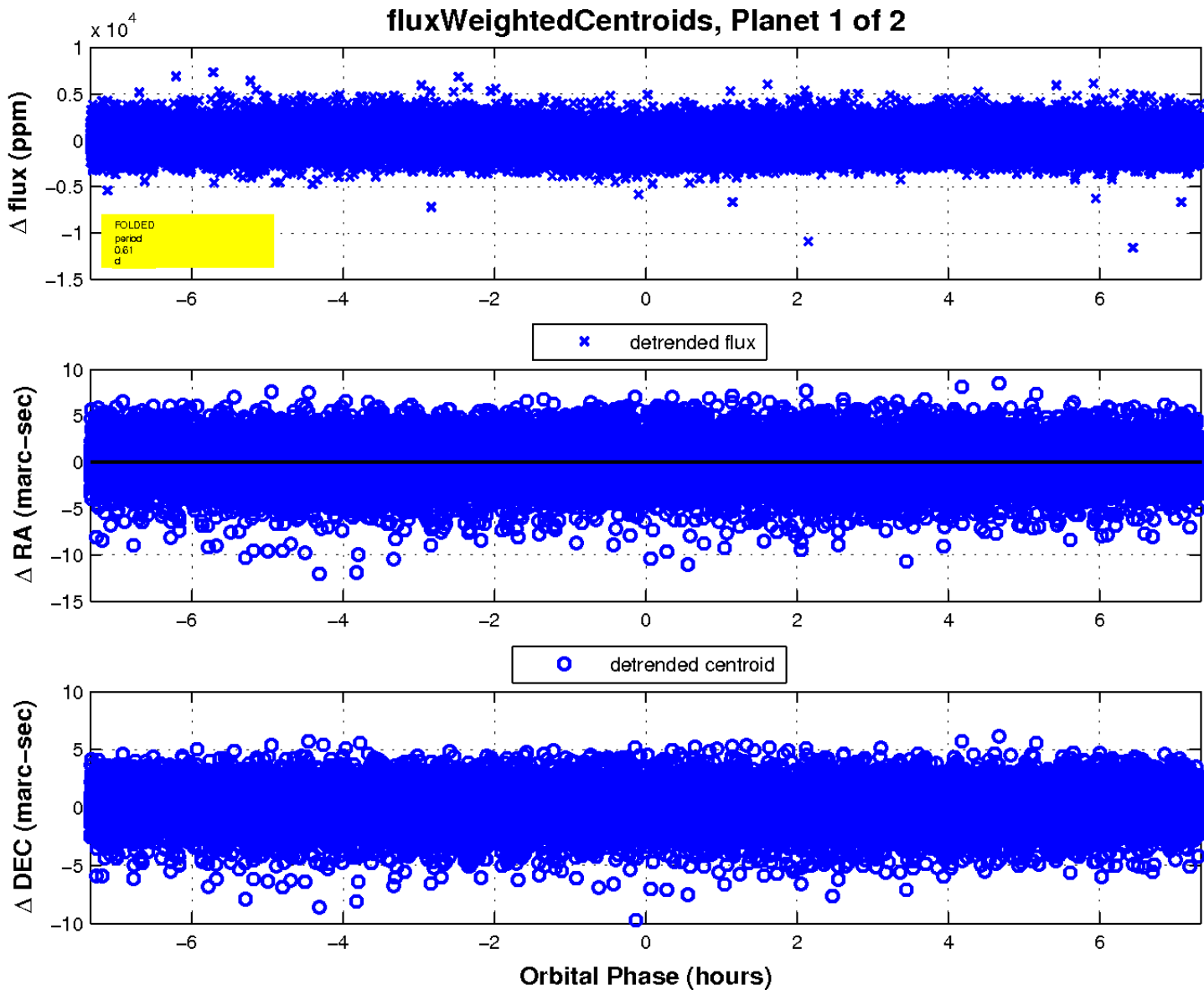
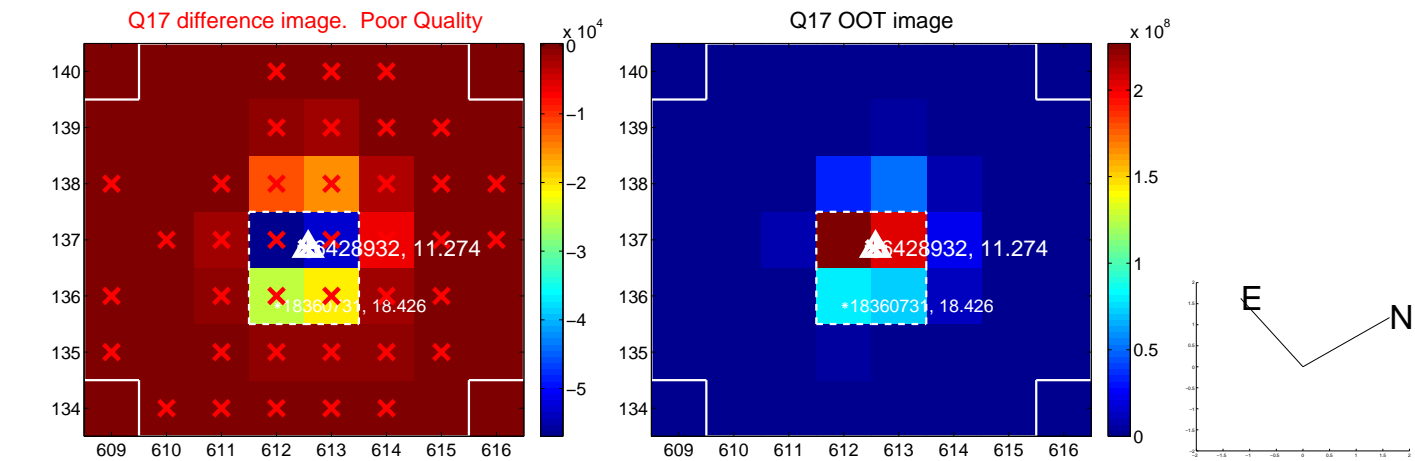
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

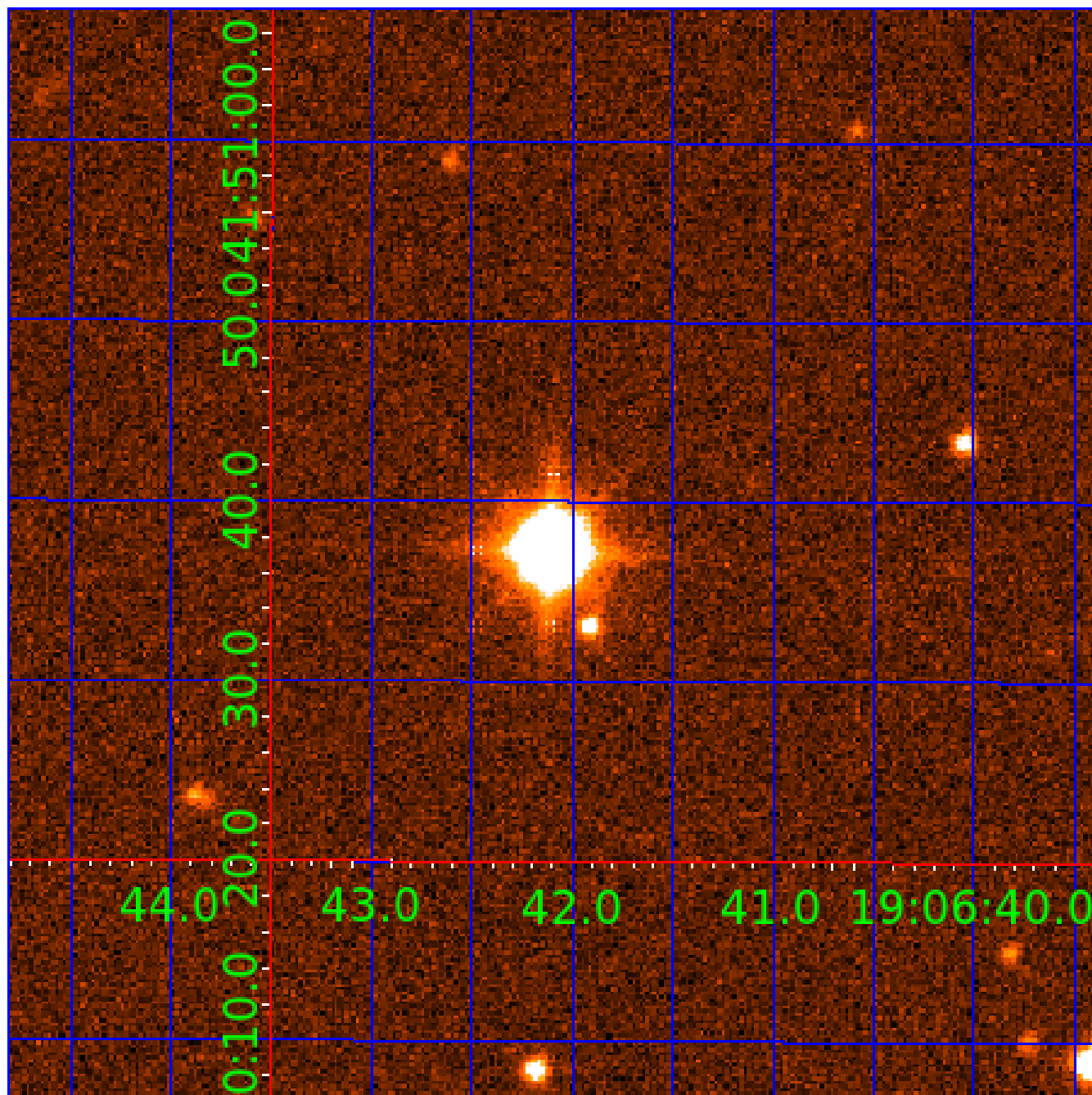


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006428932

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})
006428932-01	OBS	No	0.611697	131.787537	21.0	3.346	8.5	3.5	4.76	7311	2.53	0.00
006428932-02	OBS	No	0.611722	132.072998	126.5	2.275	13.9	13.6	4.76	7311	5.42	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006428932-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006428932-02	OBS	FP	0.00	1	0	0	0	LPP_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.

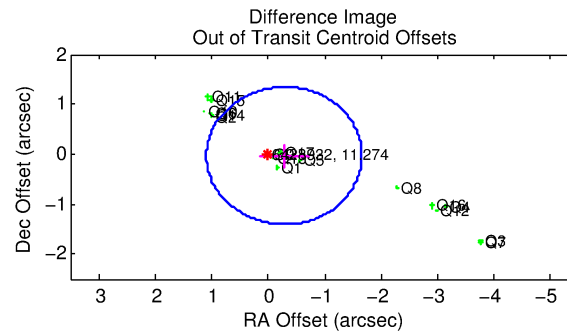
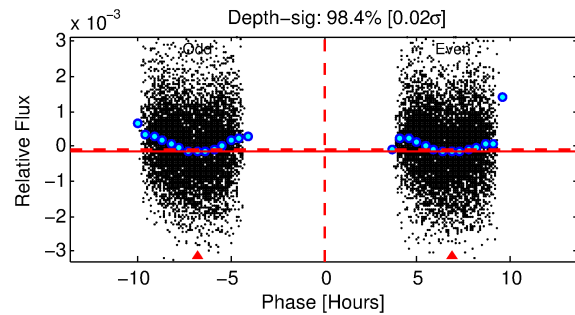
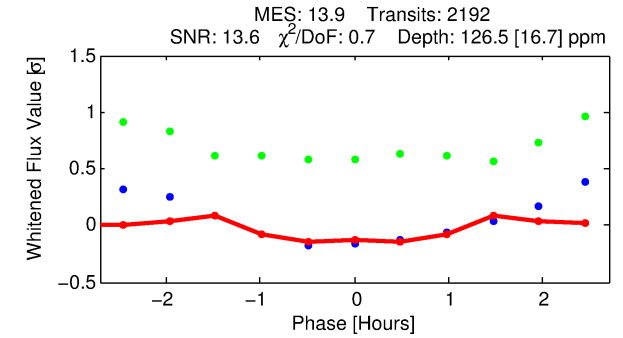
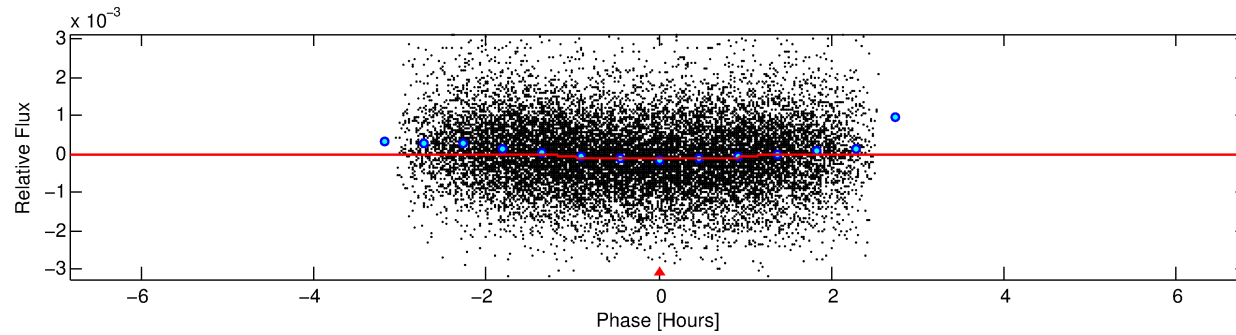
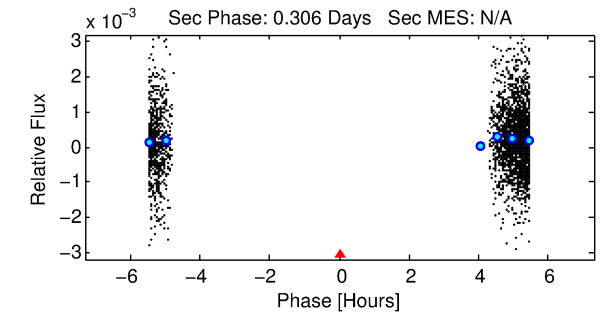
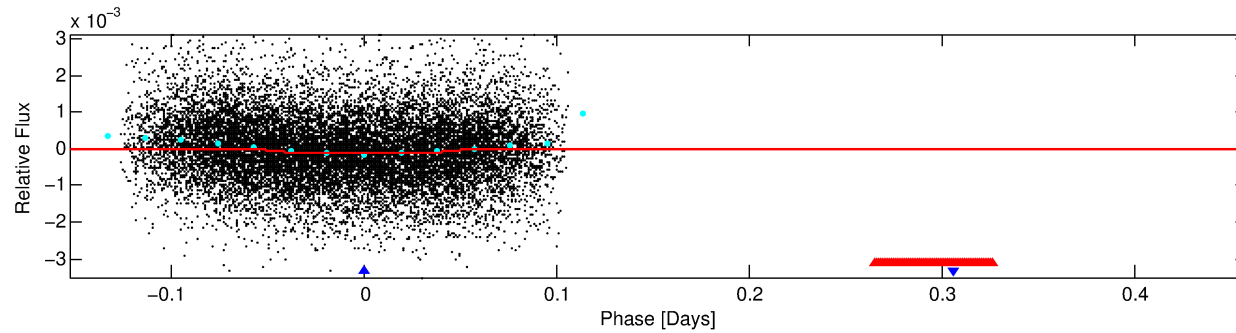
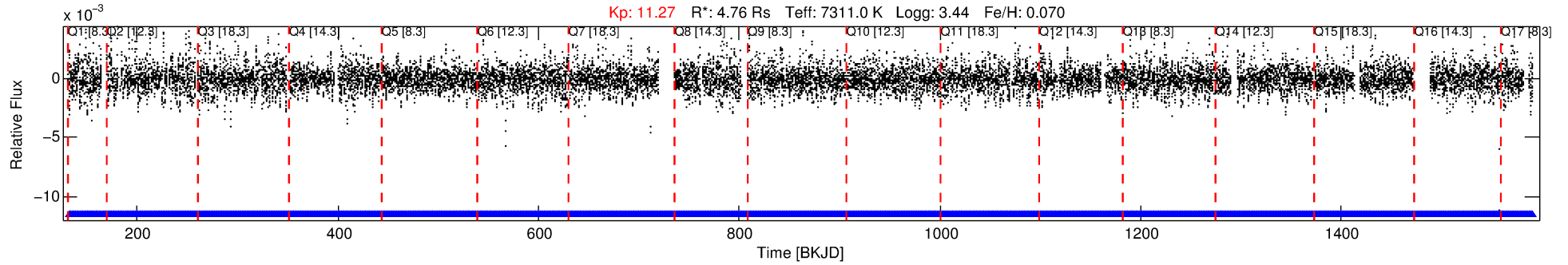
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006428932-02

No Significant Match Found

DV One-Page Summary

KIC: 6428932 Candidate: 2 of 2 Period: 0.612 d



DV Fit Results:

Period = 0.61172 [0.00001] d
Epoch = 132.0730 [0.0012] BKJD
Rp/R* = 0.0104 [0.0012]
a/R* = 2.16 [0.87]
b = 0.00 [3097.18]
Seff = N/A
Teq = N/A
Rp = 5.42 [3.42] Re
a = N/A

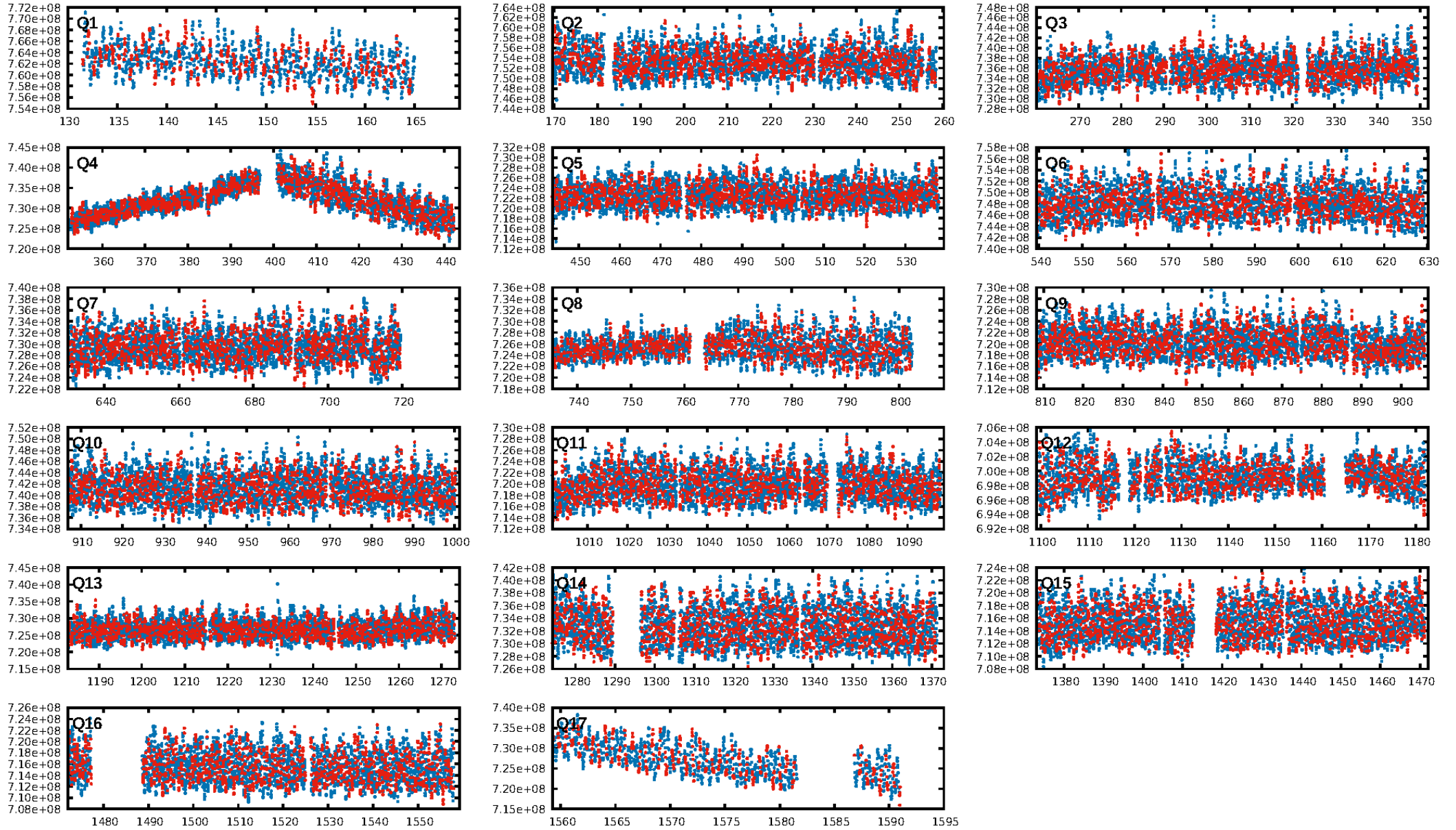
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2093/2093]
GhostDiagnostic-chr: 0.9086
Centroid-sig: N/A
Centroid-so: 0.205 arcsec [2.82σ]
OotOffset-rm: 0.286 arcsec [0.62σ]
KicOffset-rm: 0.280 arcsec [0.70σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 0.00 [0/17]

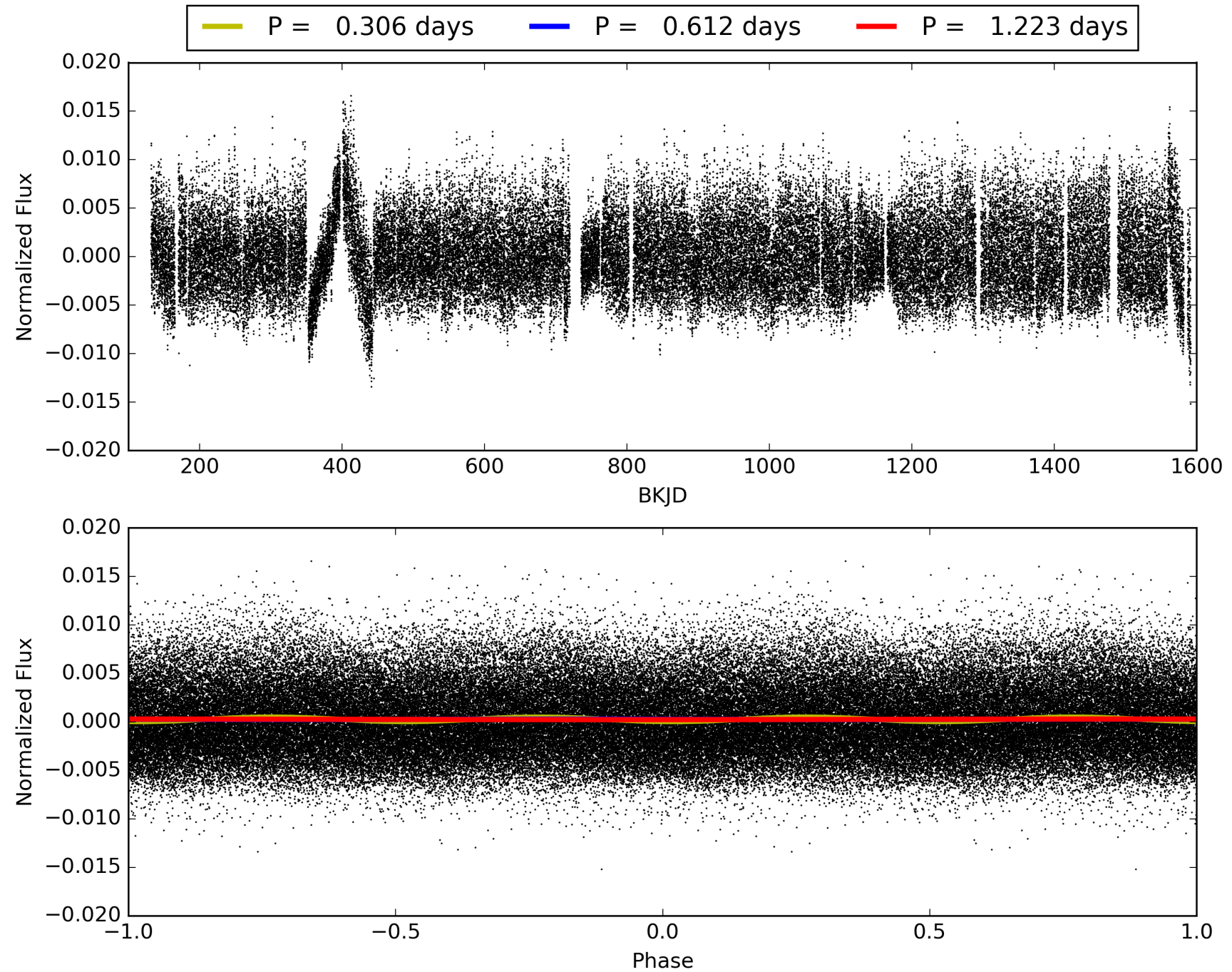
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:22:15 Z

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

TCE 006428932-02, PDC Light Curves

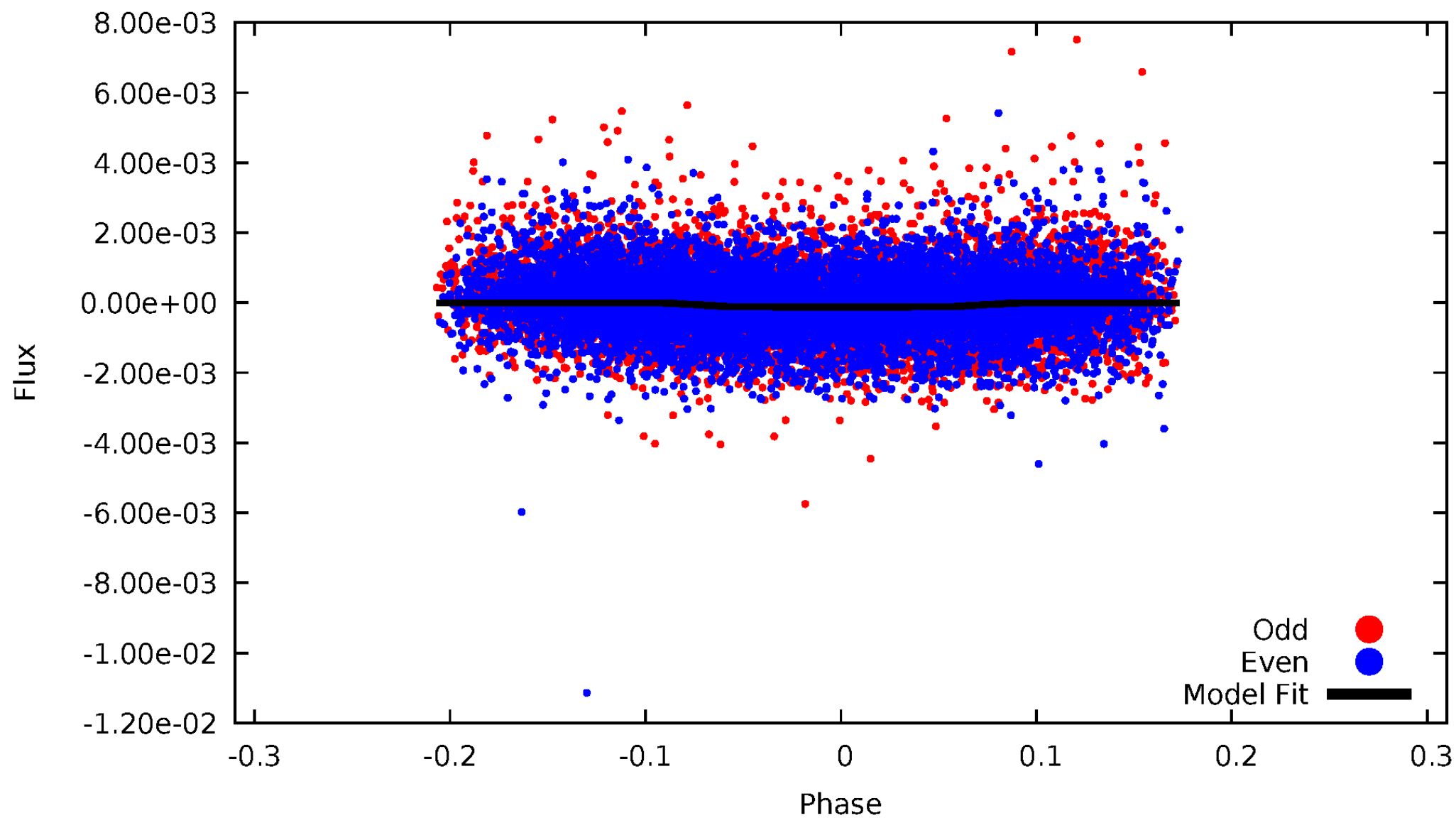


TCE 006428932-02



DV Odd/Even

TCE 006428932-02

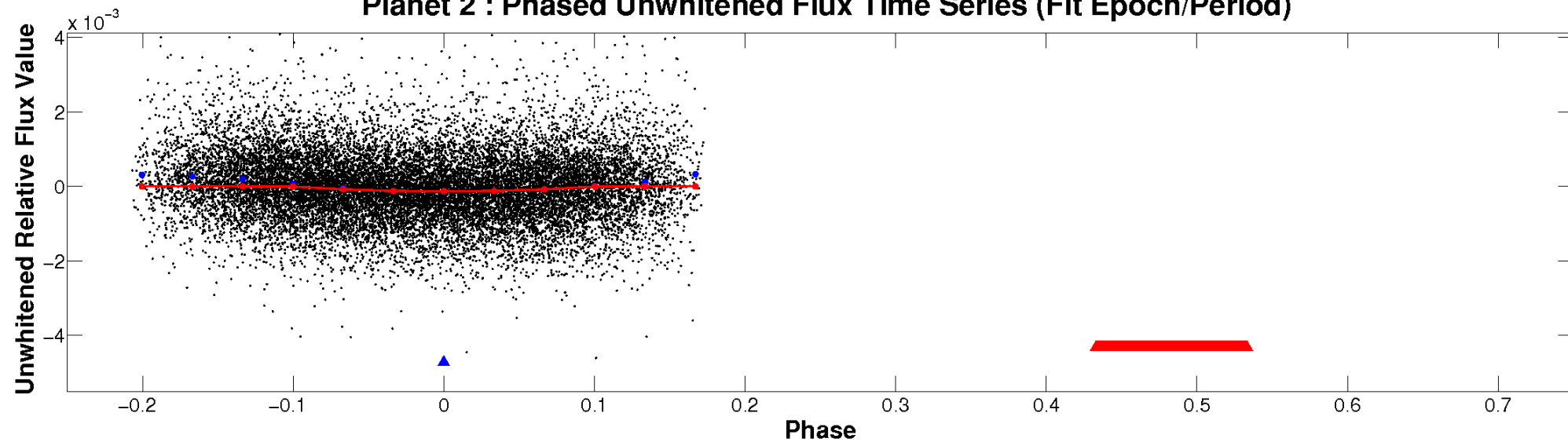


ALT Odd/Even

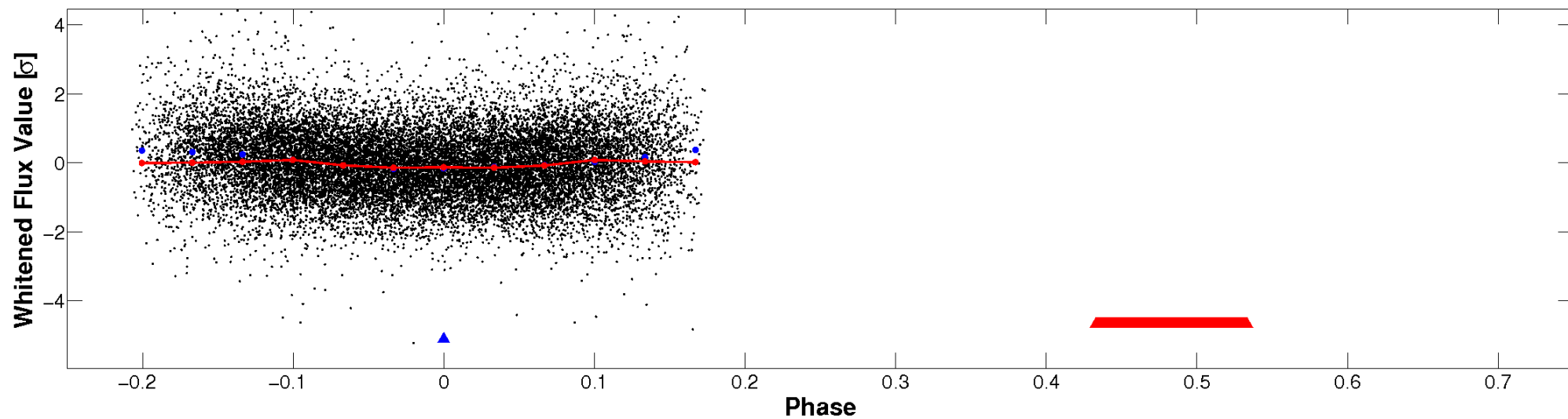
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

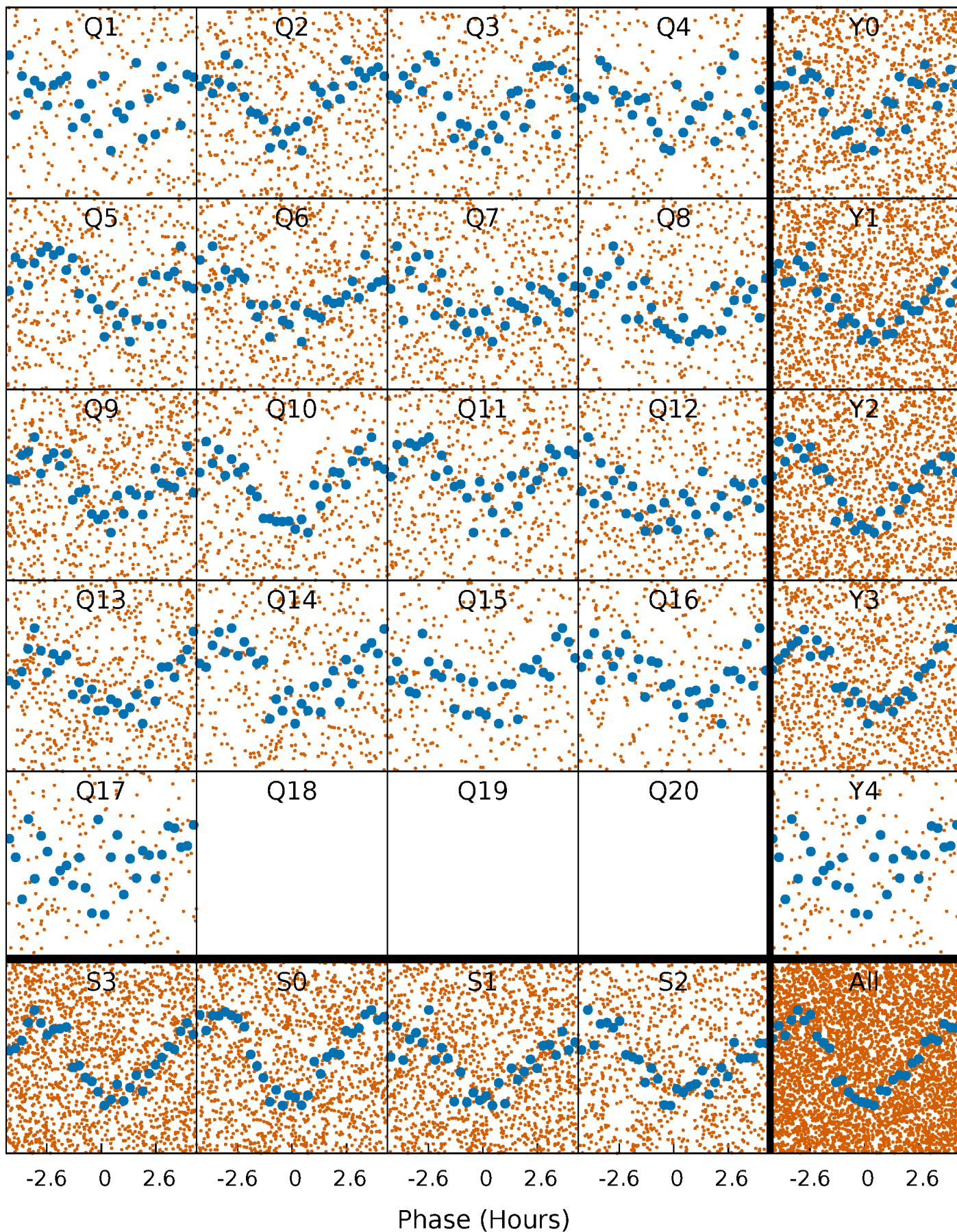


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



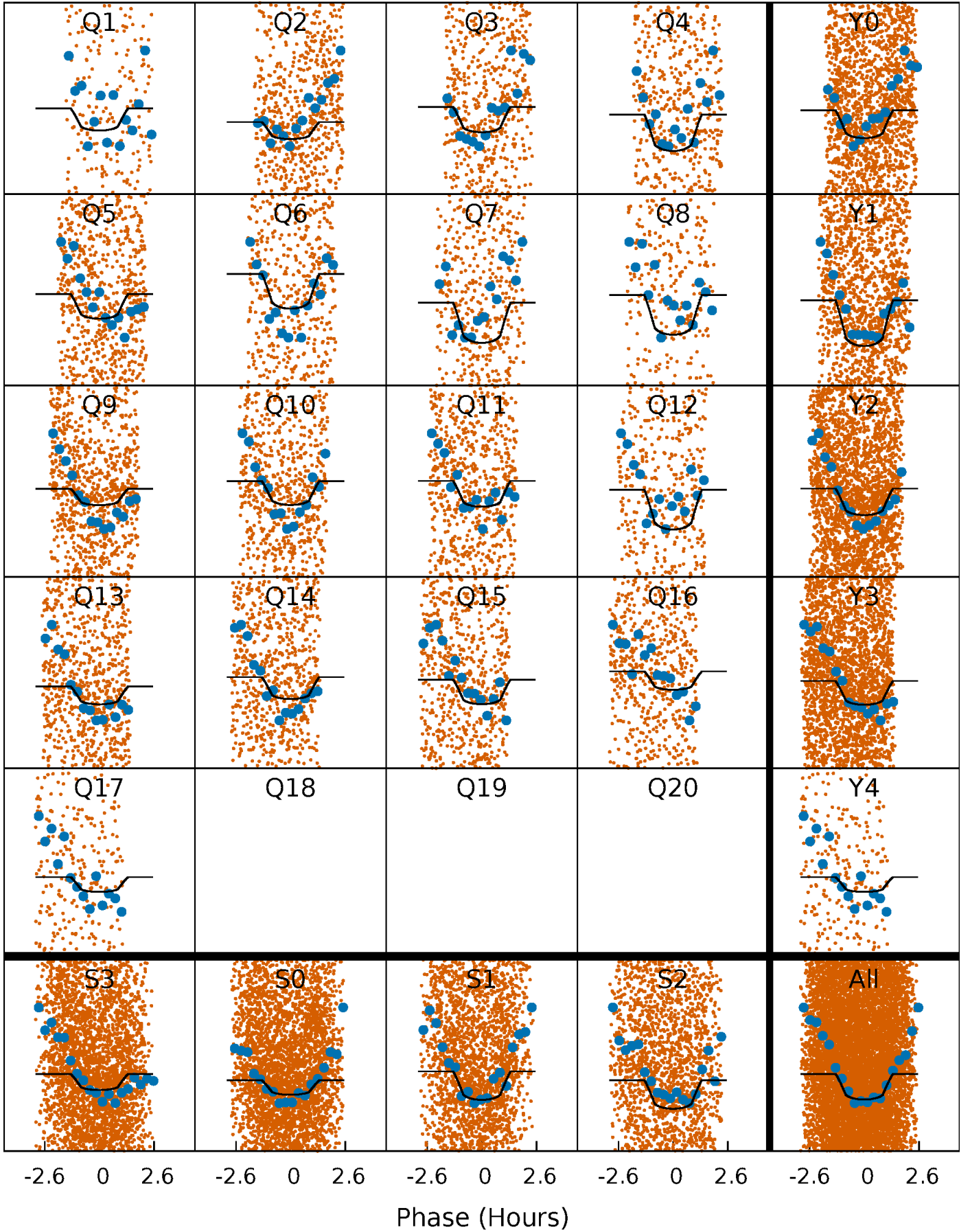
PDC Quarter-Phased Transit Curves

TCE 006428932-02 P= 0.611722 Days $T_0=132.072998$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006428932-02 P= 0.611722 Days $T_0=132.072998$ (BKJD)

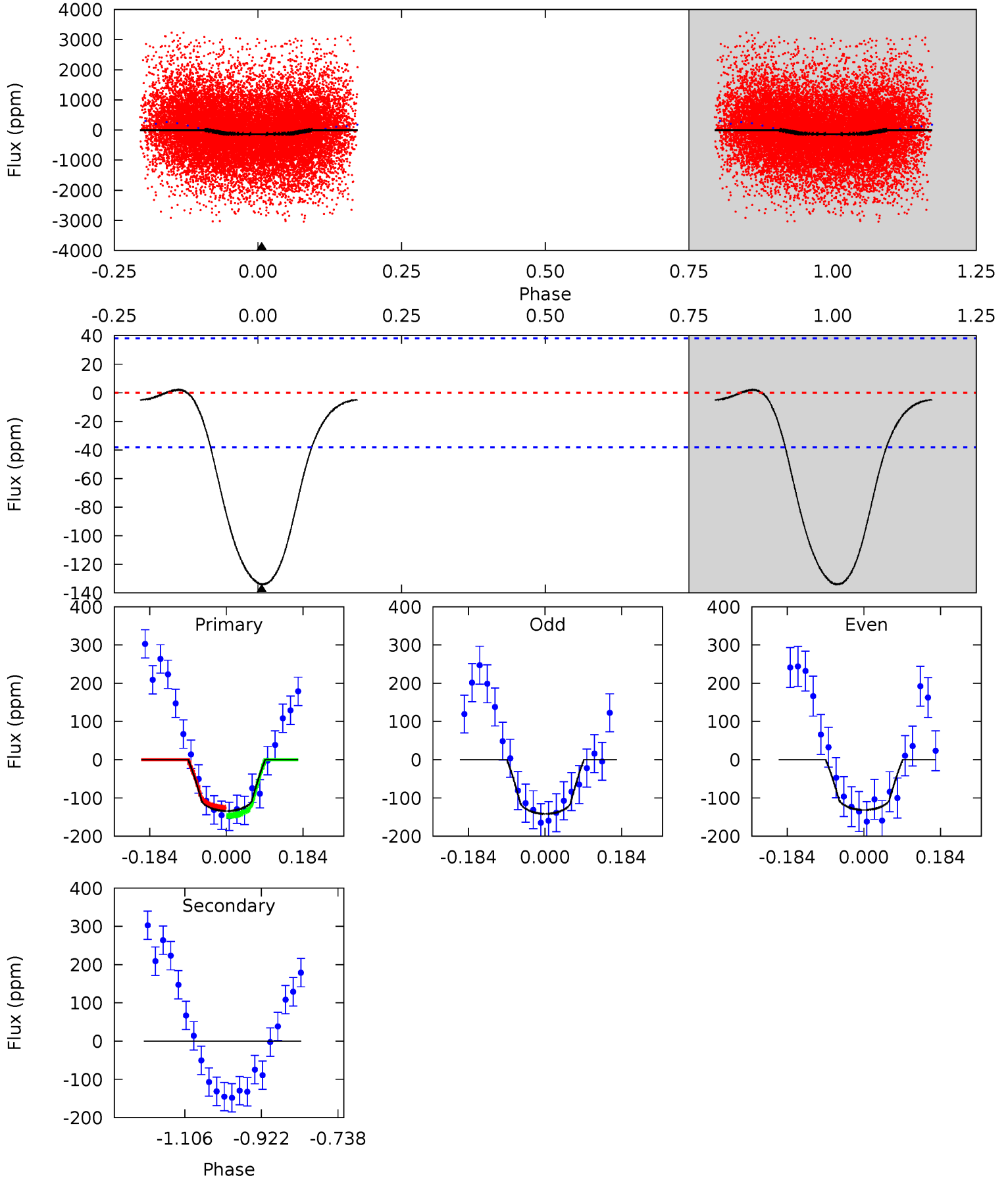


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

006428932-02, P = 0.611722 Days, E = 131.461276 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	0	0	0	4.43	1.33	0.33	15.6	15.6	0	0	0.61	0.90	0.02	1.21



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 006428932

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7311^{+202}_{-304}	$3.439^{+0.654}_{-0.154}$	$0.070^{+0.200}_{-0.300}$	$4.764^{+1.294}_{-2.958}$	$2.275^{+0.178}_{-0.756}$	$0.030^{+0.269}_{-0.014}$
	+3%/-4%	+19%/-4%	+286%/-429%	+27%/-62%	+8%/-33%	+908%/-47%
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 006428932-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 9	$5.03^{+1.27}_{-1.58}$	6995^{+672}_{-1141}	-5643^{+919}_{-599}	$0.004^{+0.077}_{-0.063}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

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

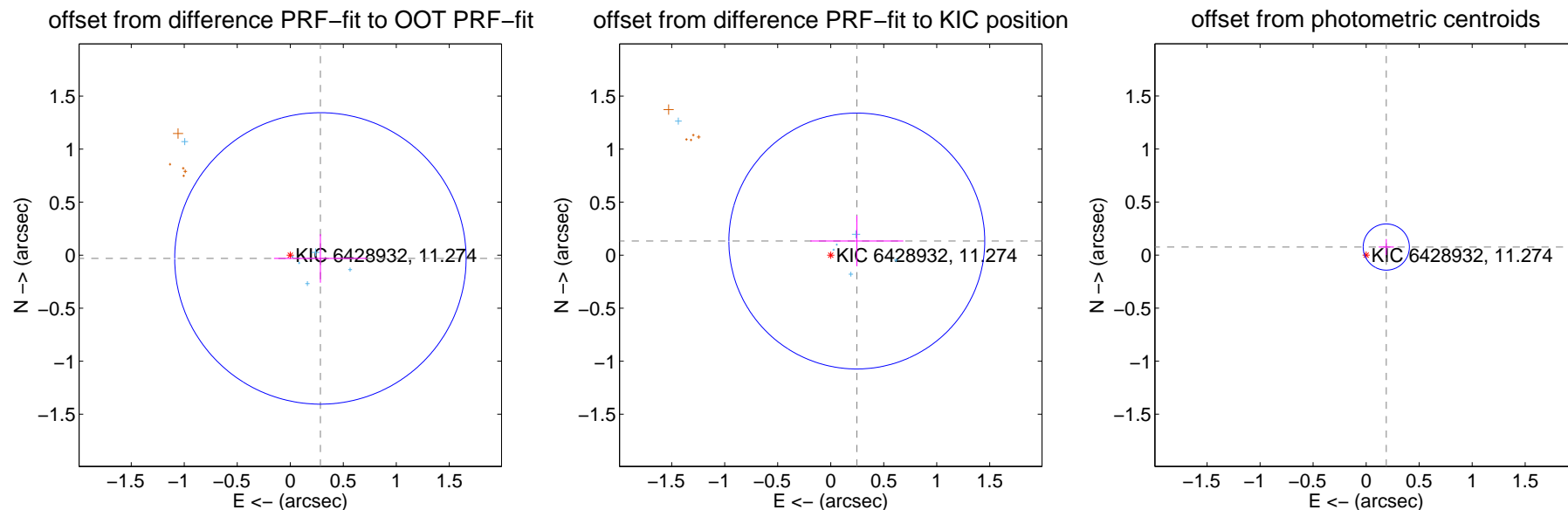
DV Centroid Data

Supplemental centroid analysis for 006428932-02. **Kepler magnitude: 11.27.** Transit SNR 13.61

There are 8 quarters with good PRF difference image offsets

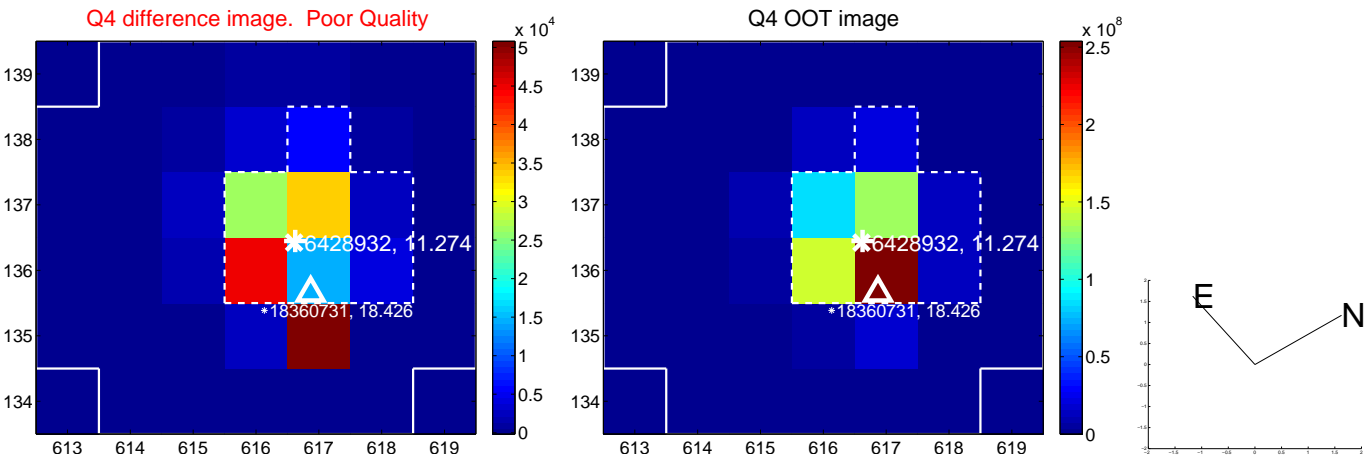
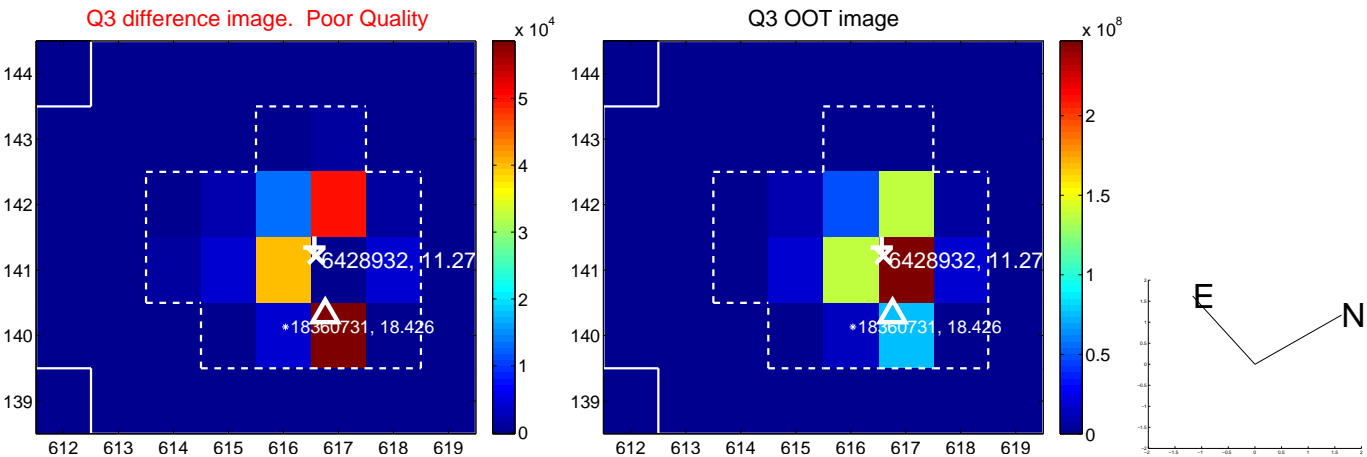
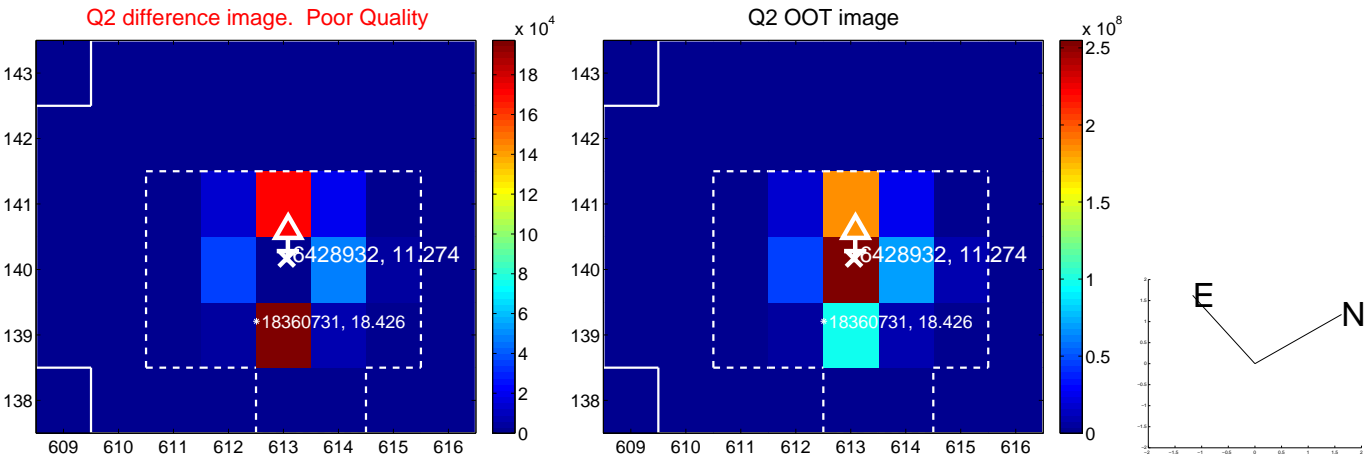
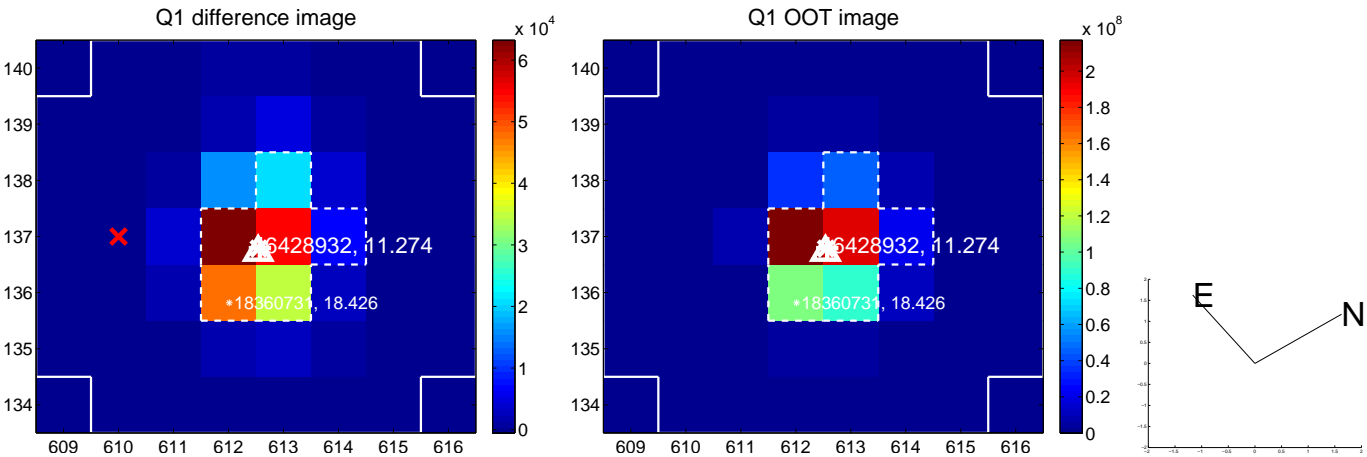
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.286 ± 0.458	0.62	-0.285 ± 0.438	-0.031 ± 0.229
PRF-fit source offset from KIC position	0.280 ± 0.402	0.70	-0.246 ± 0.439	0.133 ± 0.238
photometric centroid source offset	0.20 ± 0.07	2.82	-0.19 ± 0.07	0.08 ± 0.08

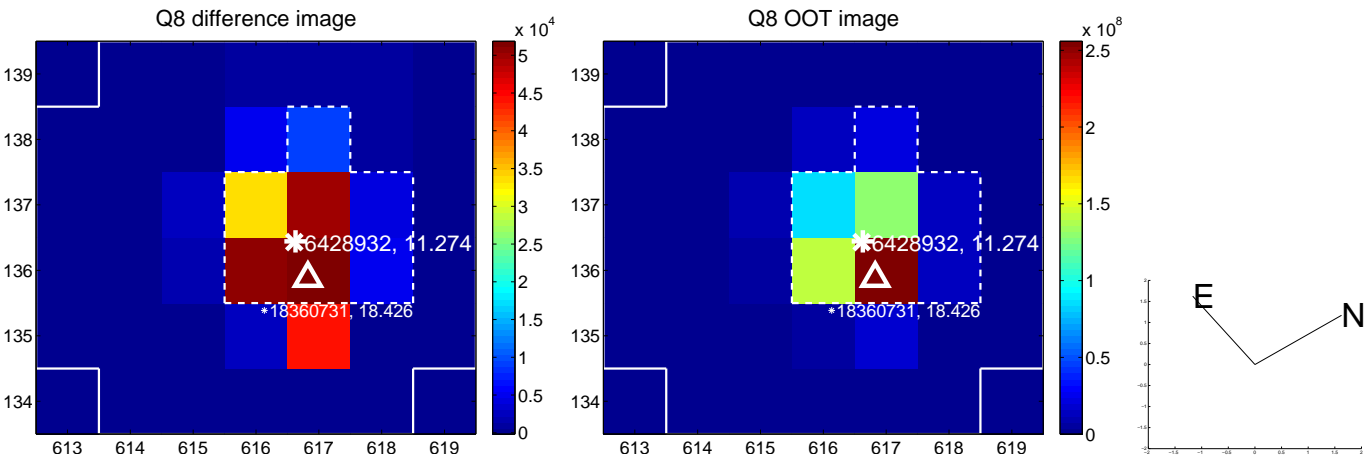
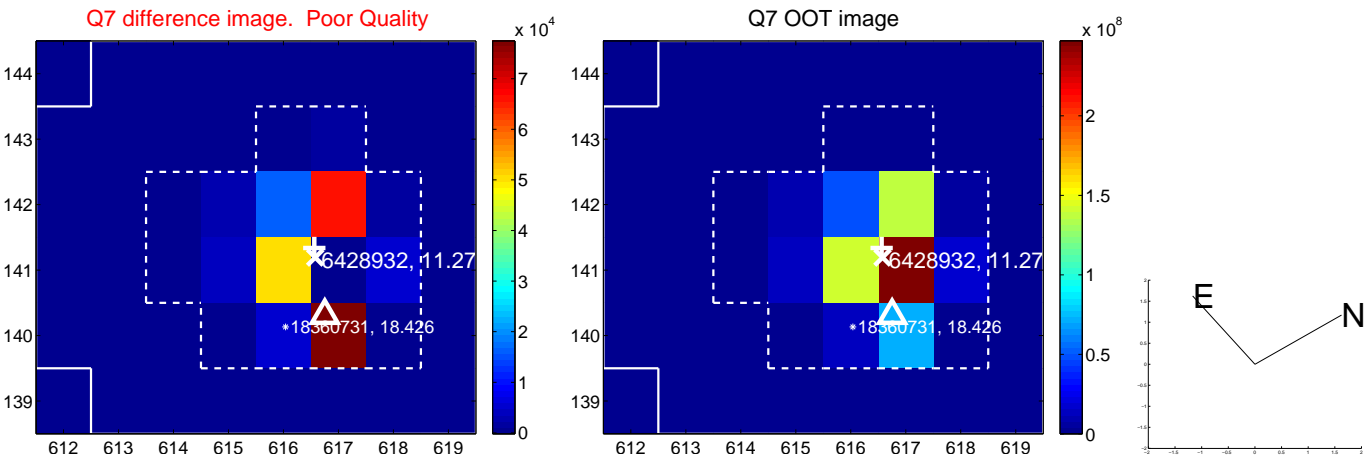
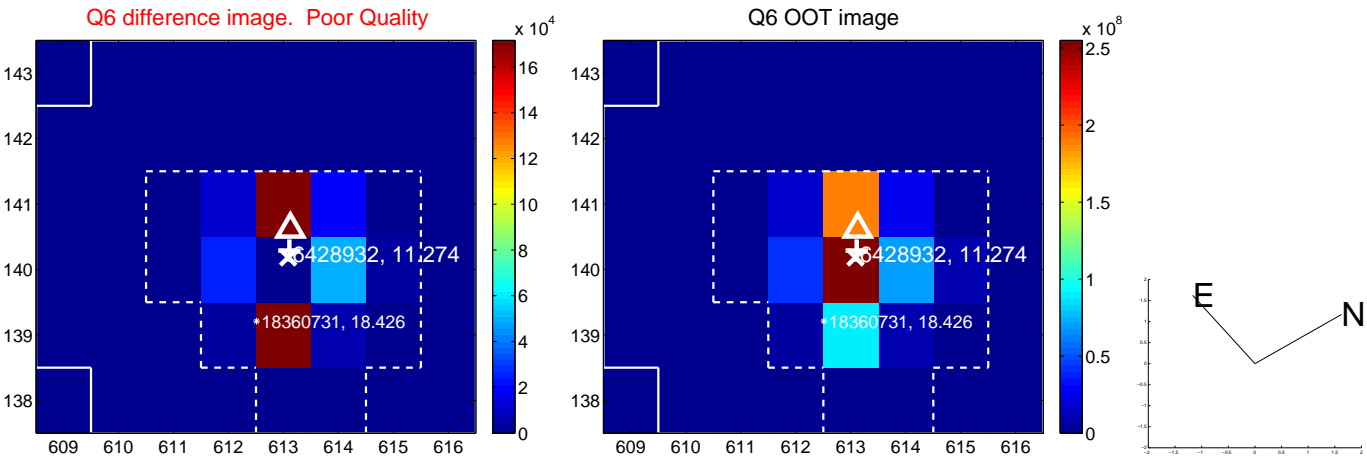
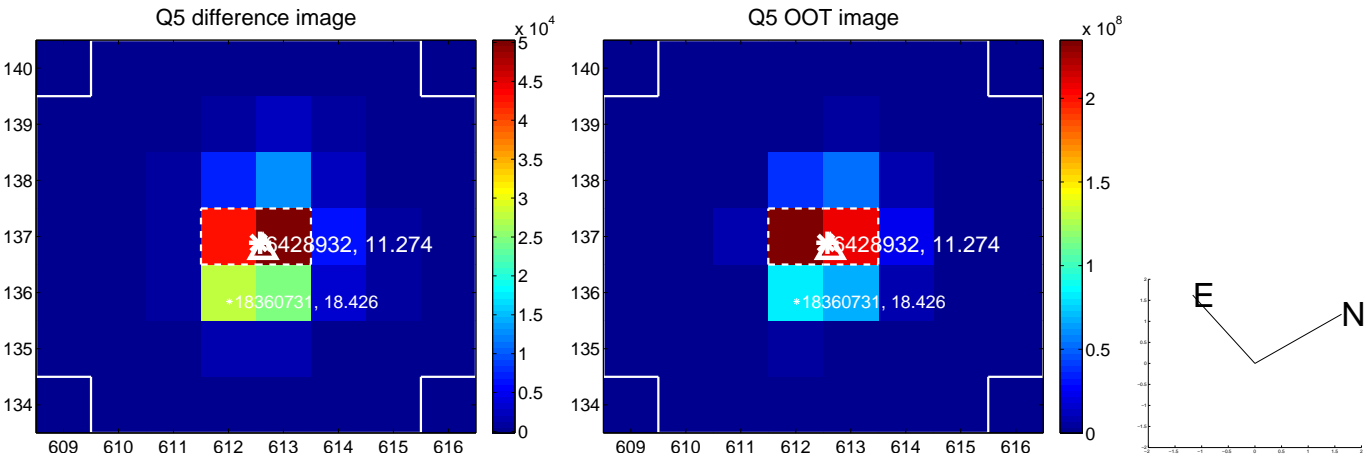


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

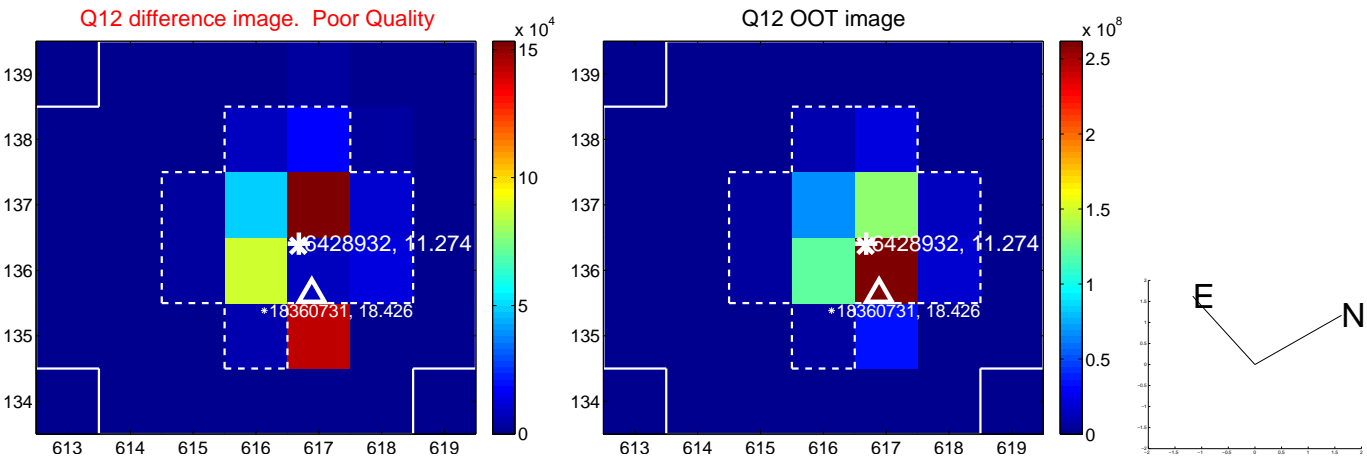
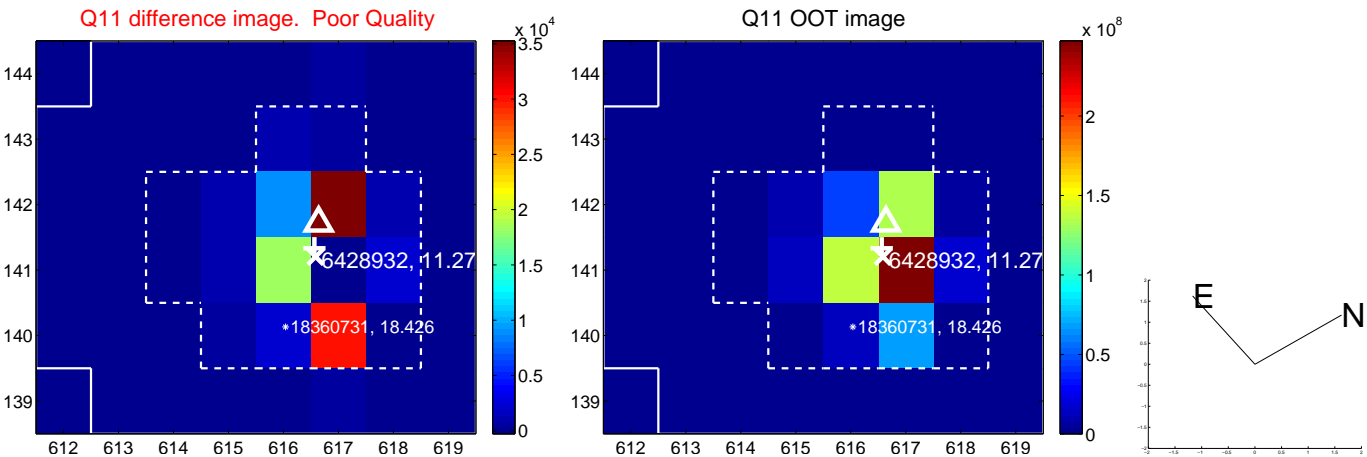
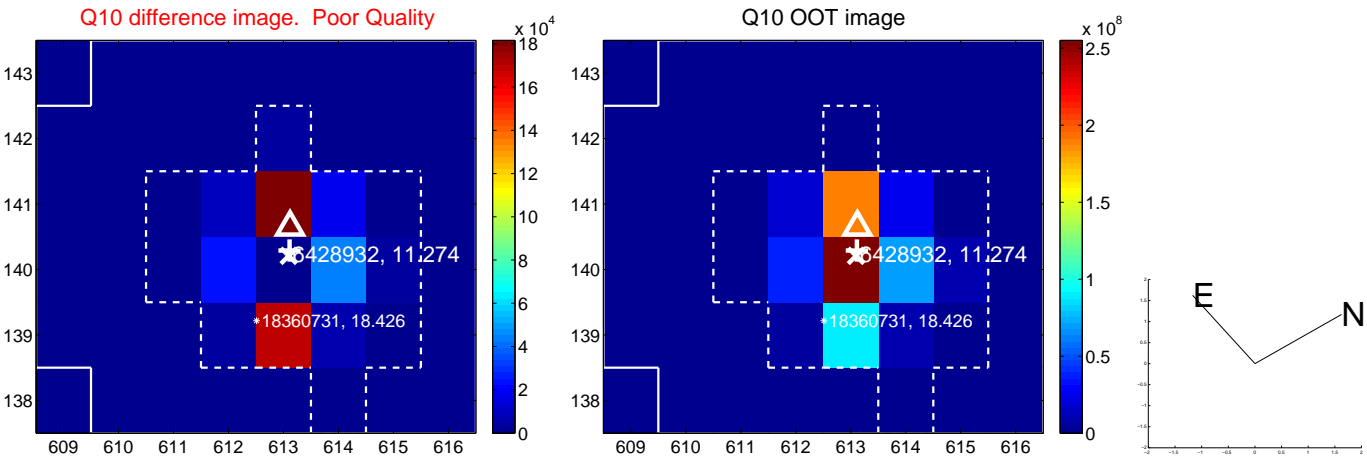
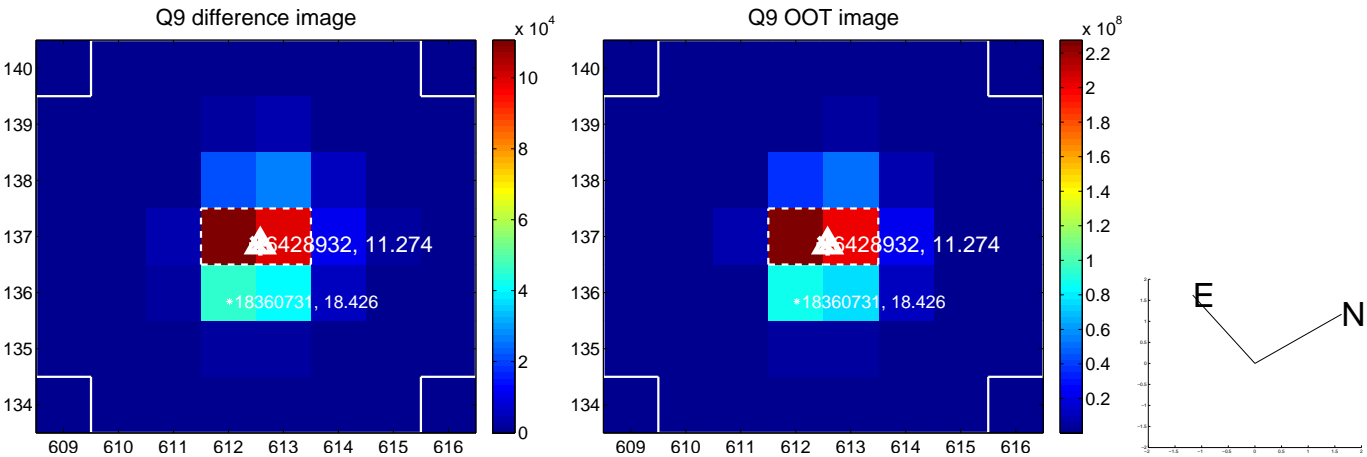
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



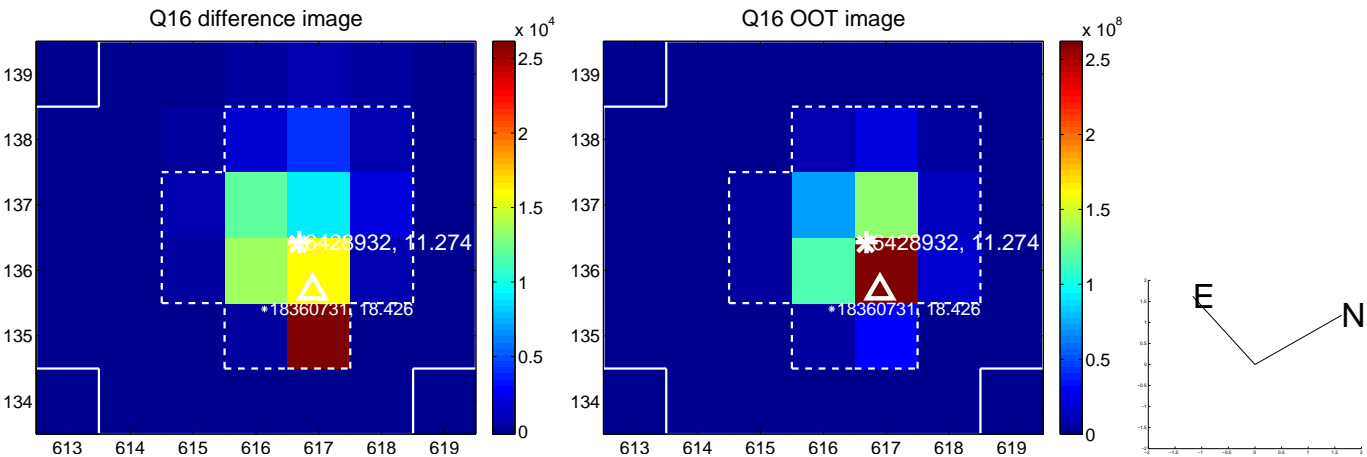
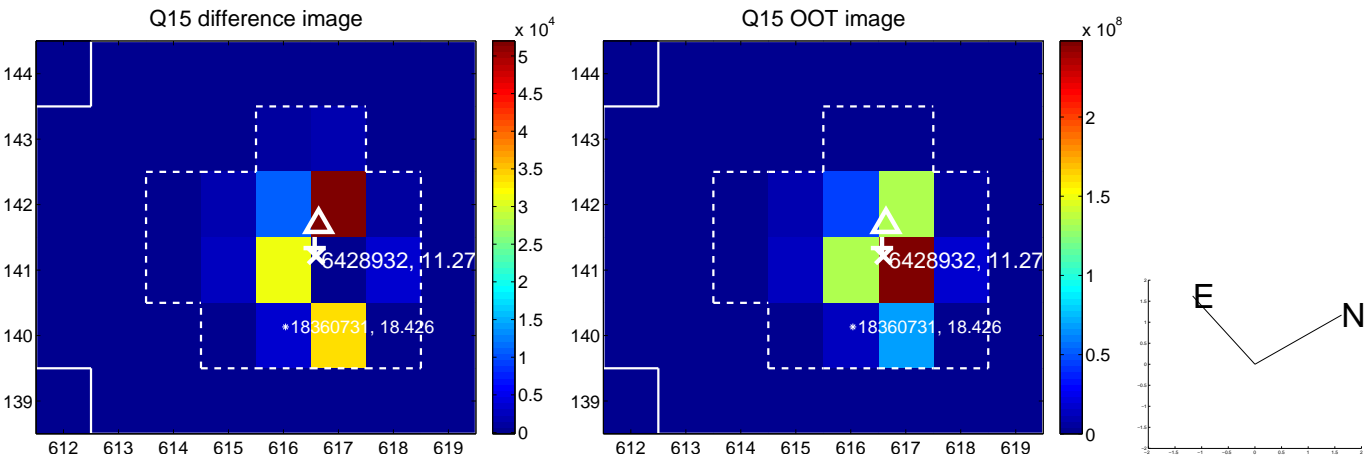
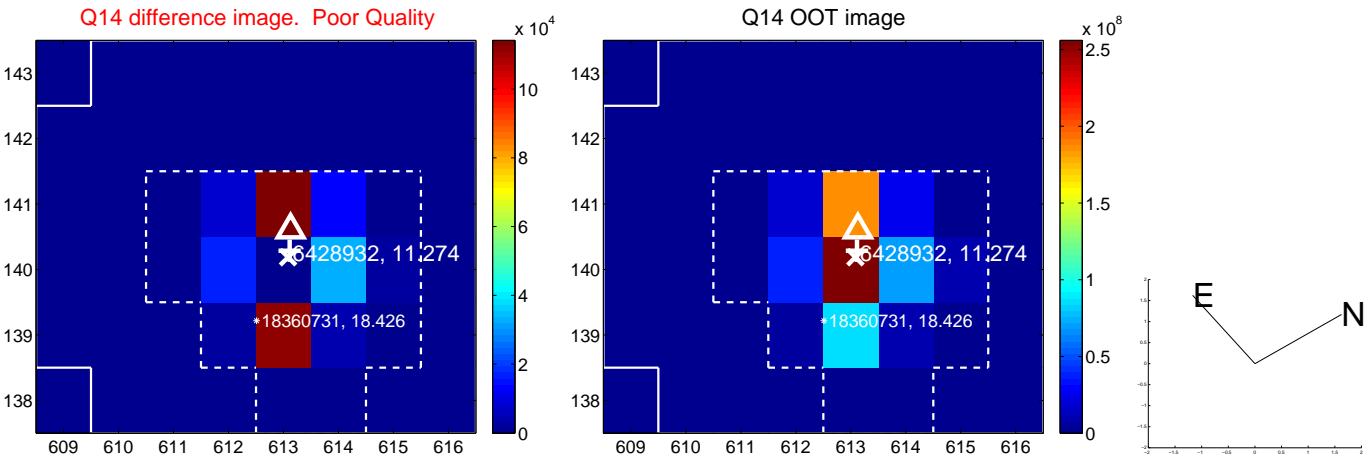
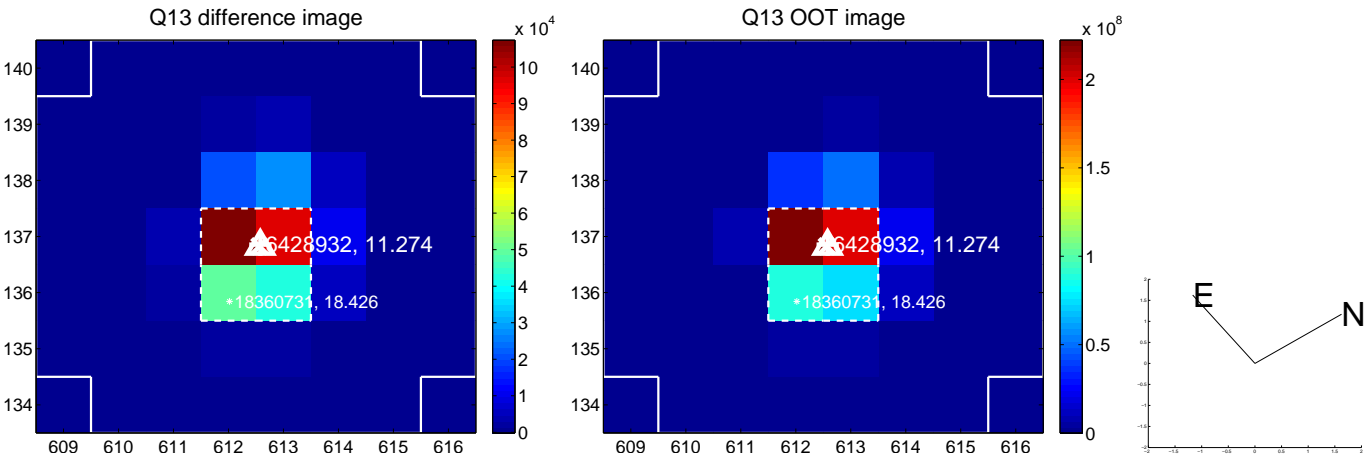
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



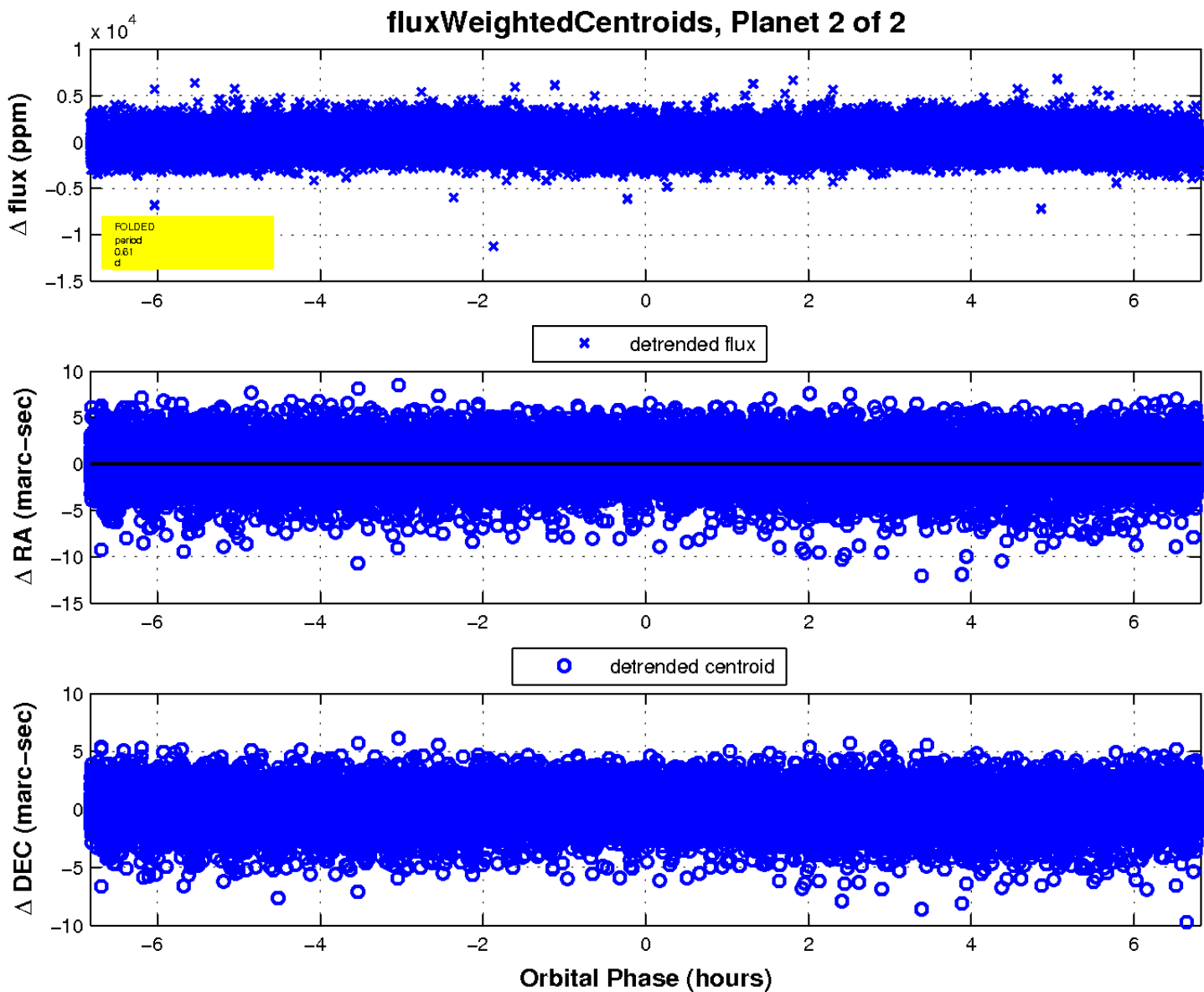
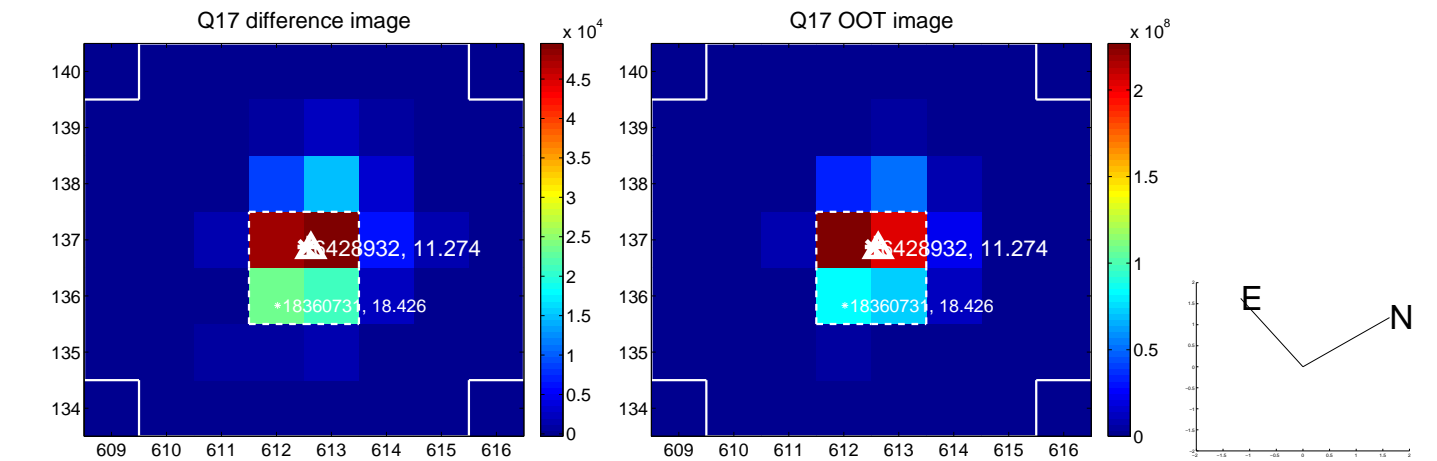
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

