

KIC 011093203

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})
011093203-01	OBS	No	0.689326	131.839119	66.0	2.500	9.0	-1.0	2.25	7471	1.86	42131.56
011093203-02	OBS	No	0.689300	132.227114	3.8	4.996	10.3	5.5	2.25	7471	0.46	42133.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011093203-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
011093203-02	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.

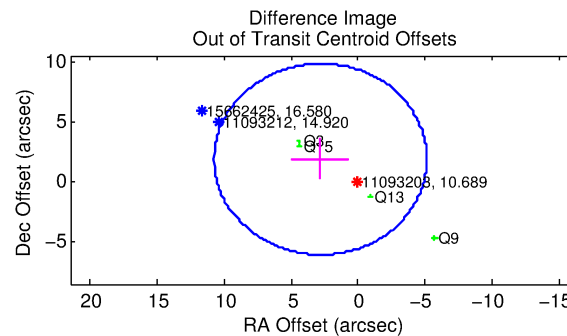
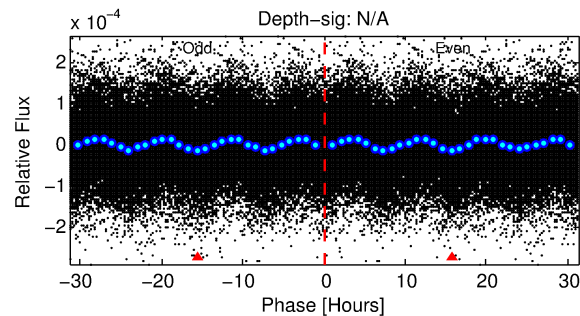
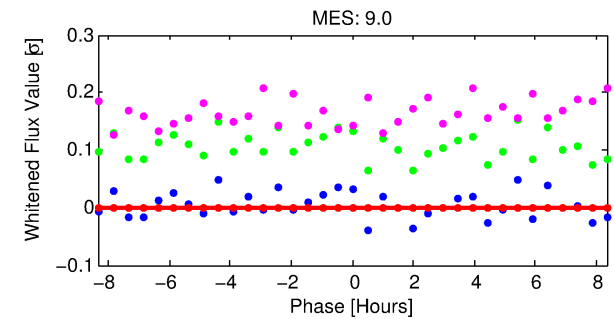
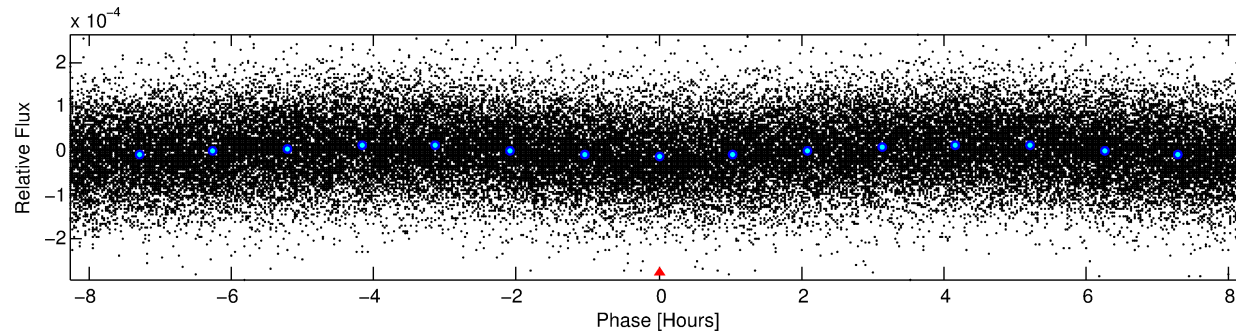
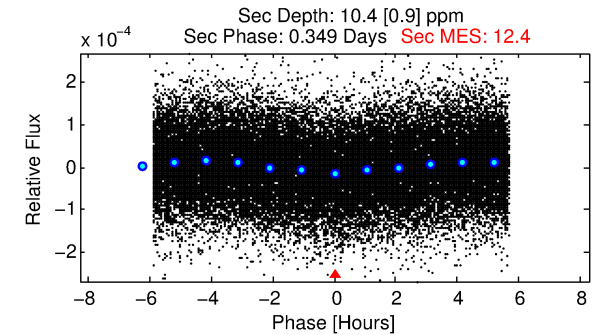
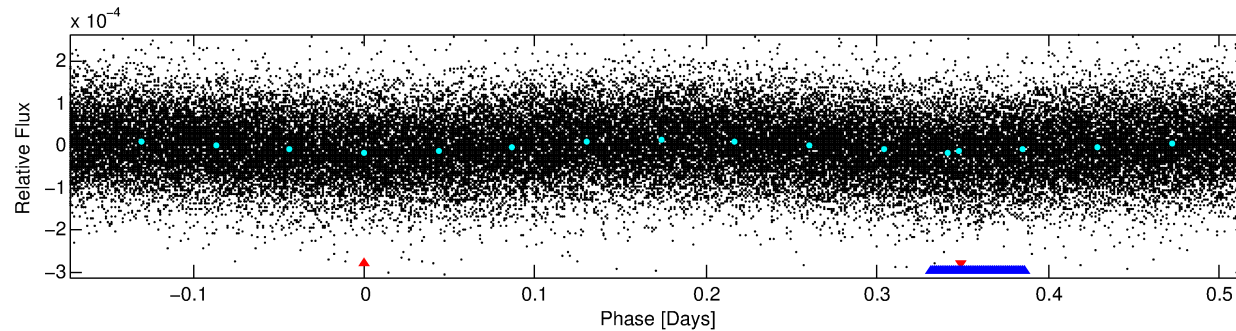
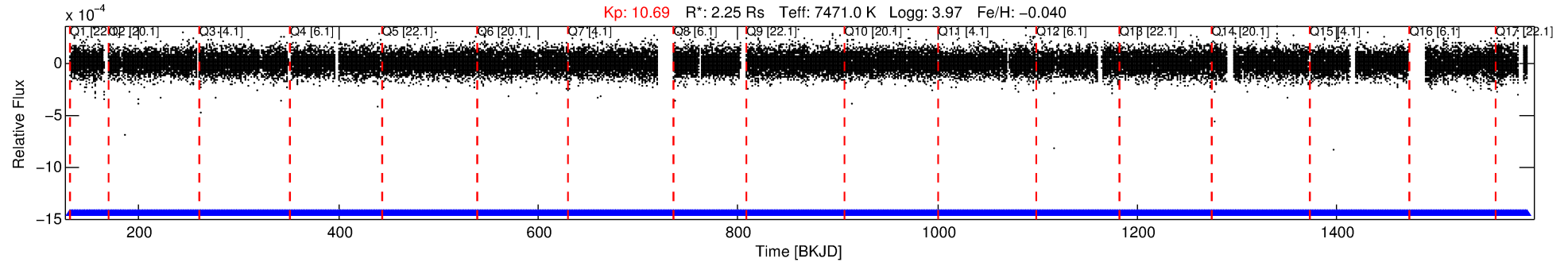
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011093203-01

No Significant Match Found

DV One-Page Summary

KIC: 11093203 Candidate: 1 of 2 Period: 0.689 d



TPS TCE Results:

Period = 0.68933 d
Epoch = 131.8391 BKJD

DV fit results are unavailable

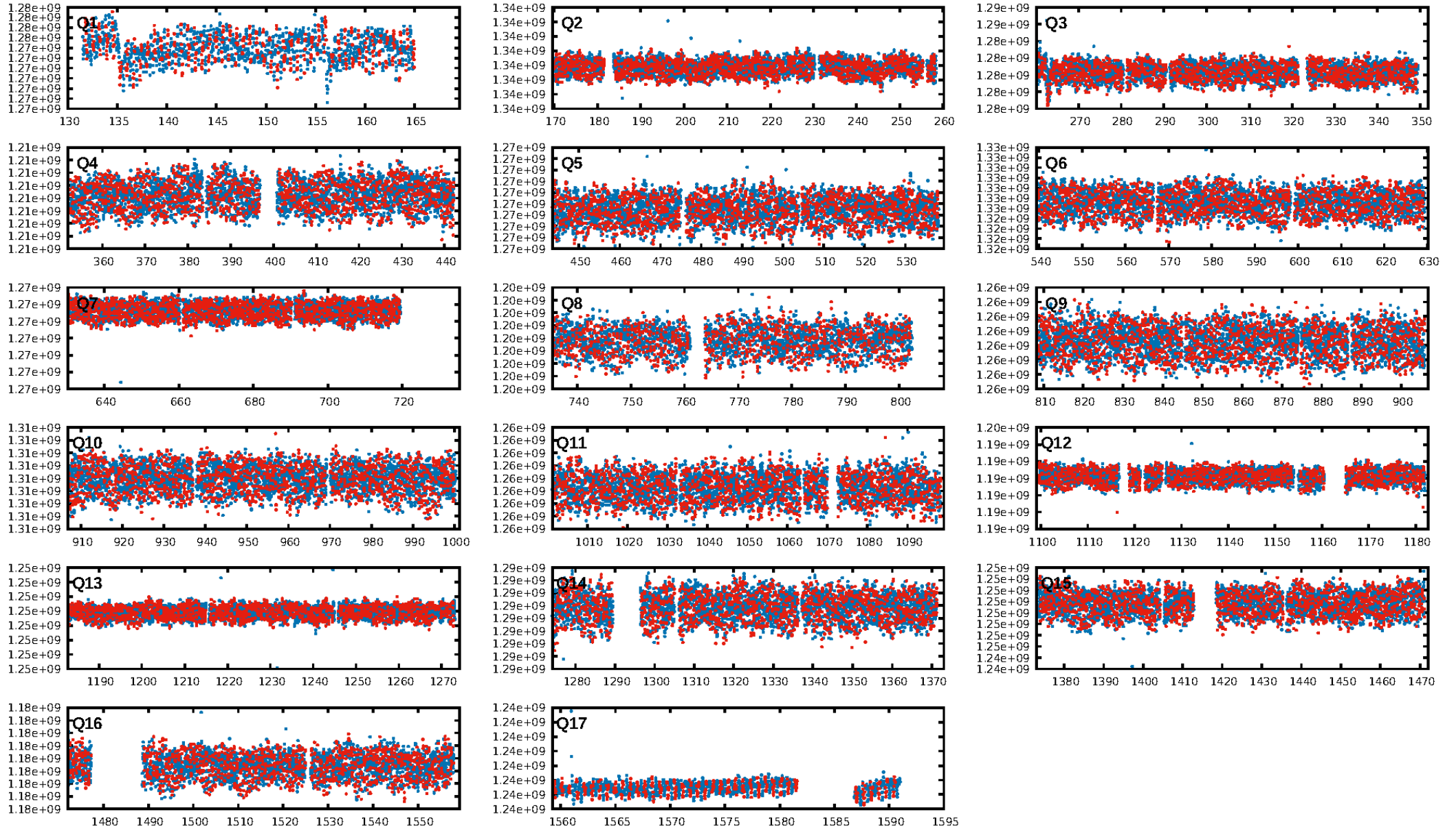
DV Diagnostic Results:

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 [1862/1862]
GhostDiagnostic-chr: 4.003
Centroid-sig: 14.6%
Centroid-so: 0.404 arcsec [1.52σ]
OotOffset-rm: 3.376 arcsec [1.27σ]
KicOffset-rm: 3.648 arcsec [1.49σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/17]

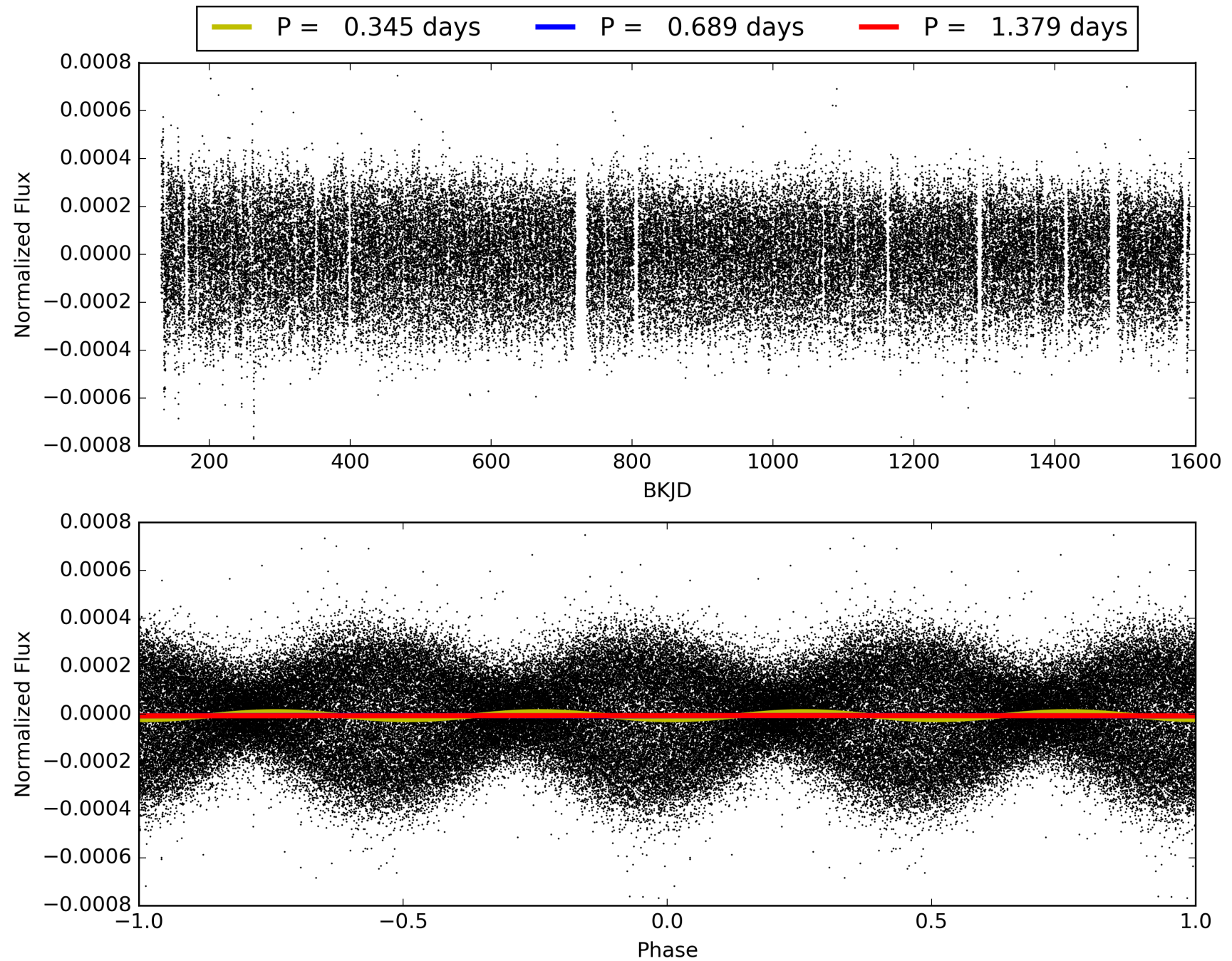
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:48:36 Z

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

TCE 011093203-01, PDC Light Curves

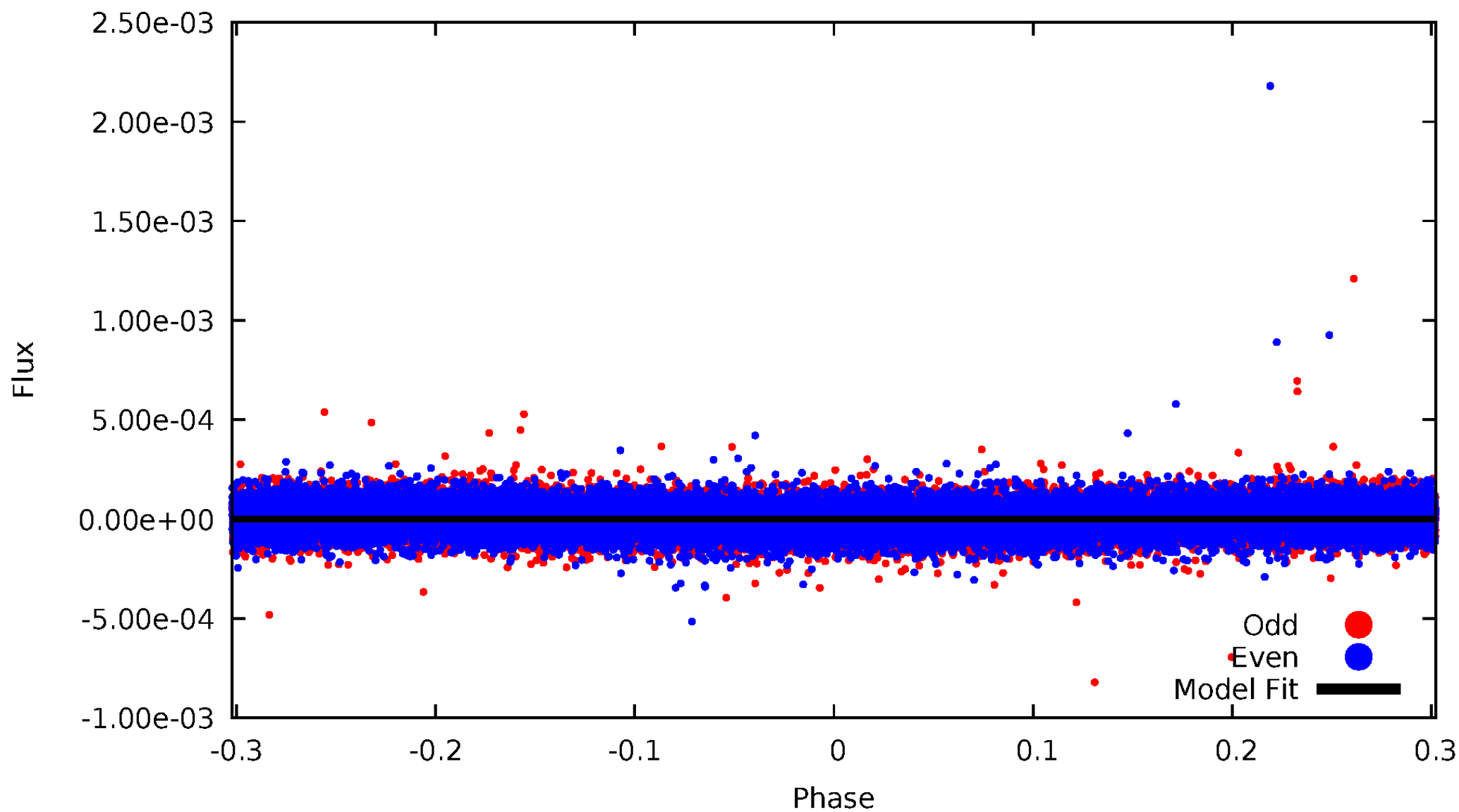


TCE 011093203-01



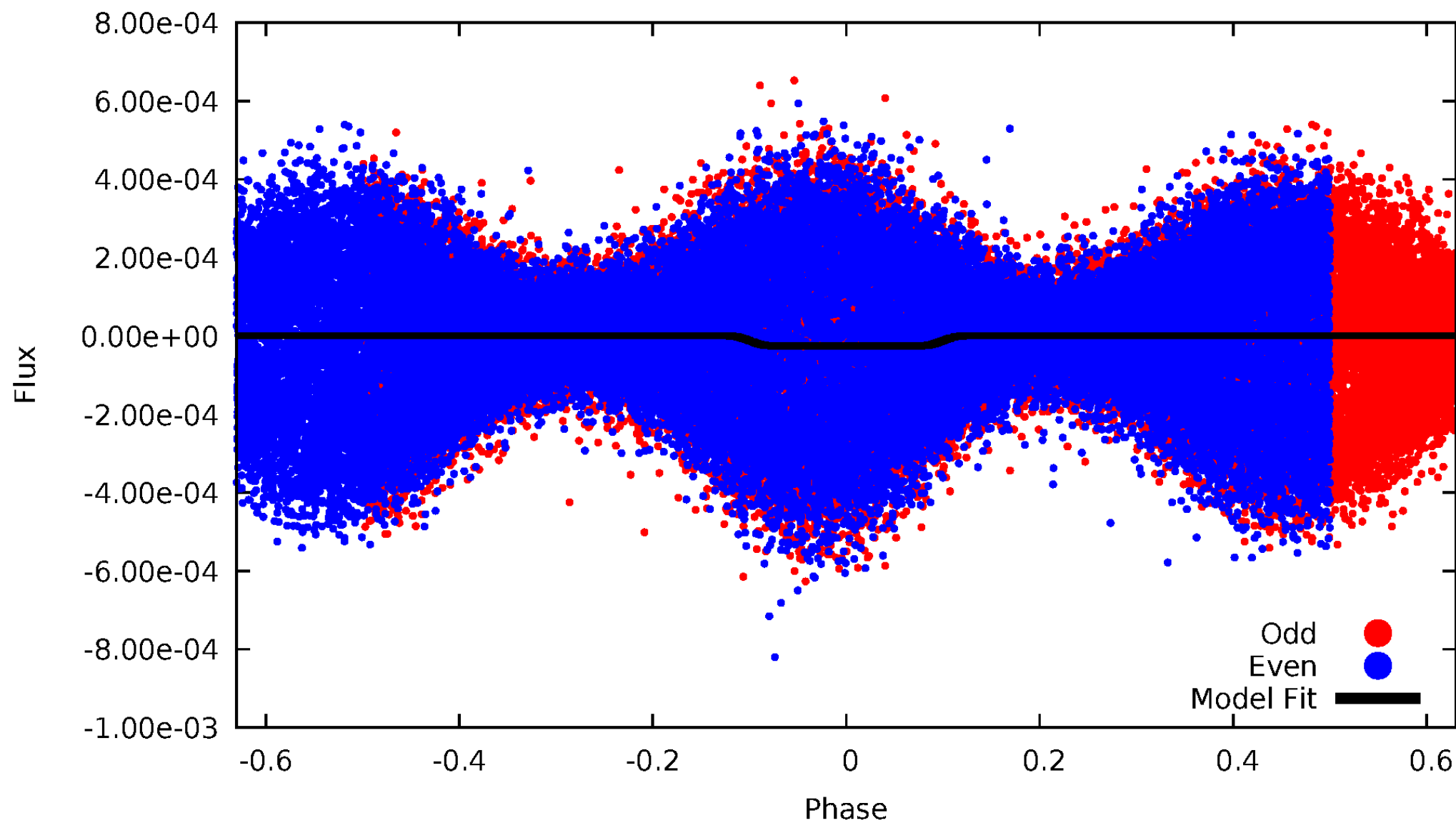
DV Odd/Even

TCE 011093203-01



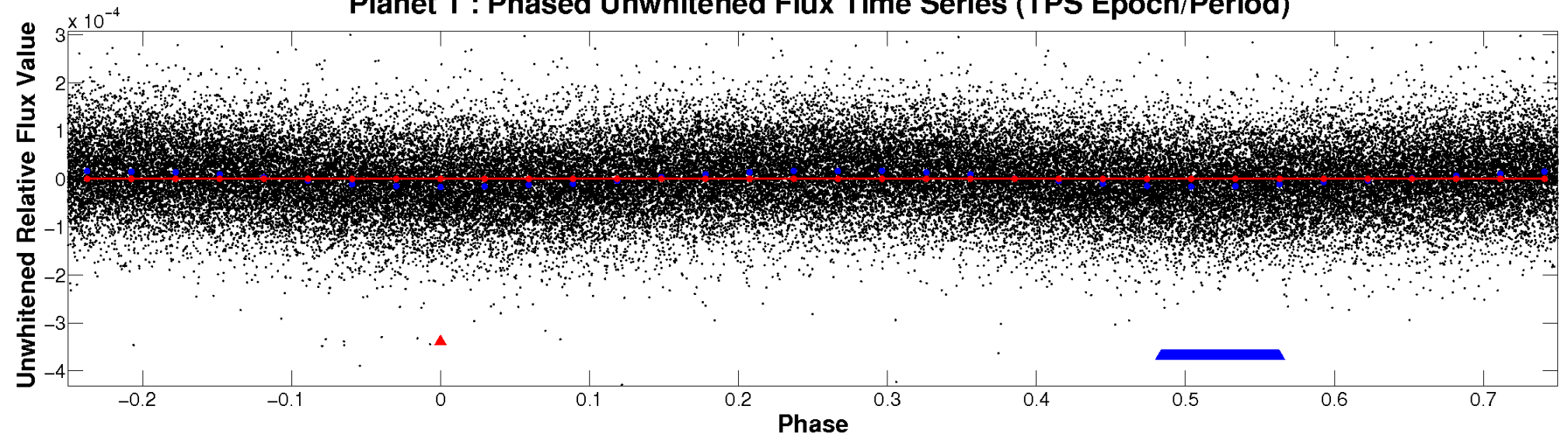
ALT Odd/Even

TCE 011093203-01

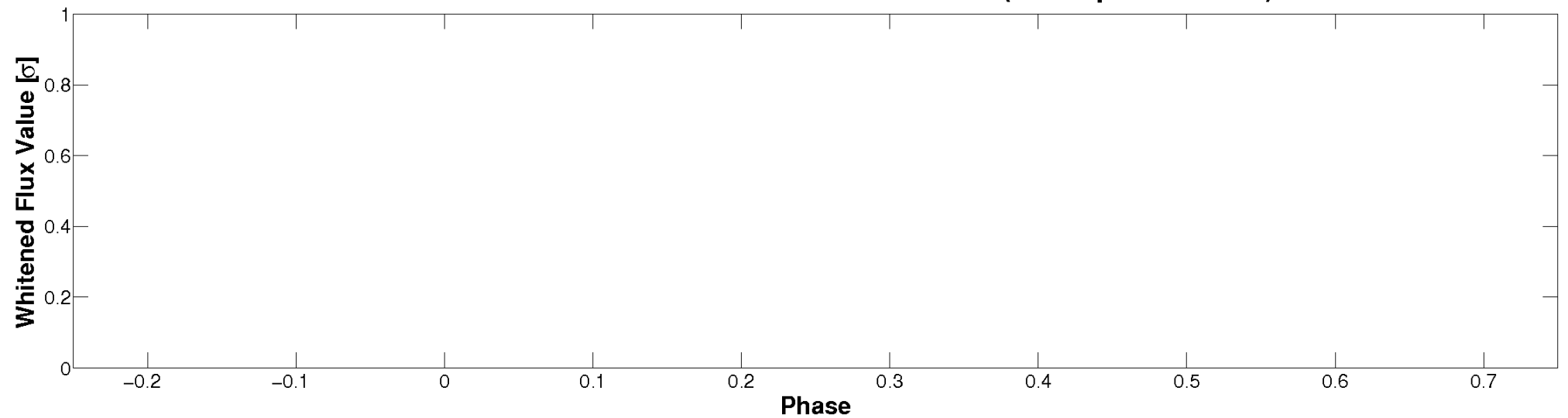


Non-Whitened Vs. Whitened Light Curve

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

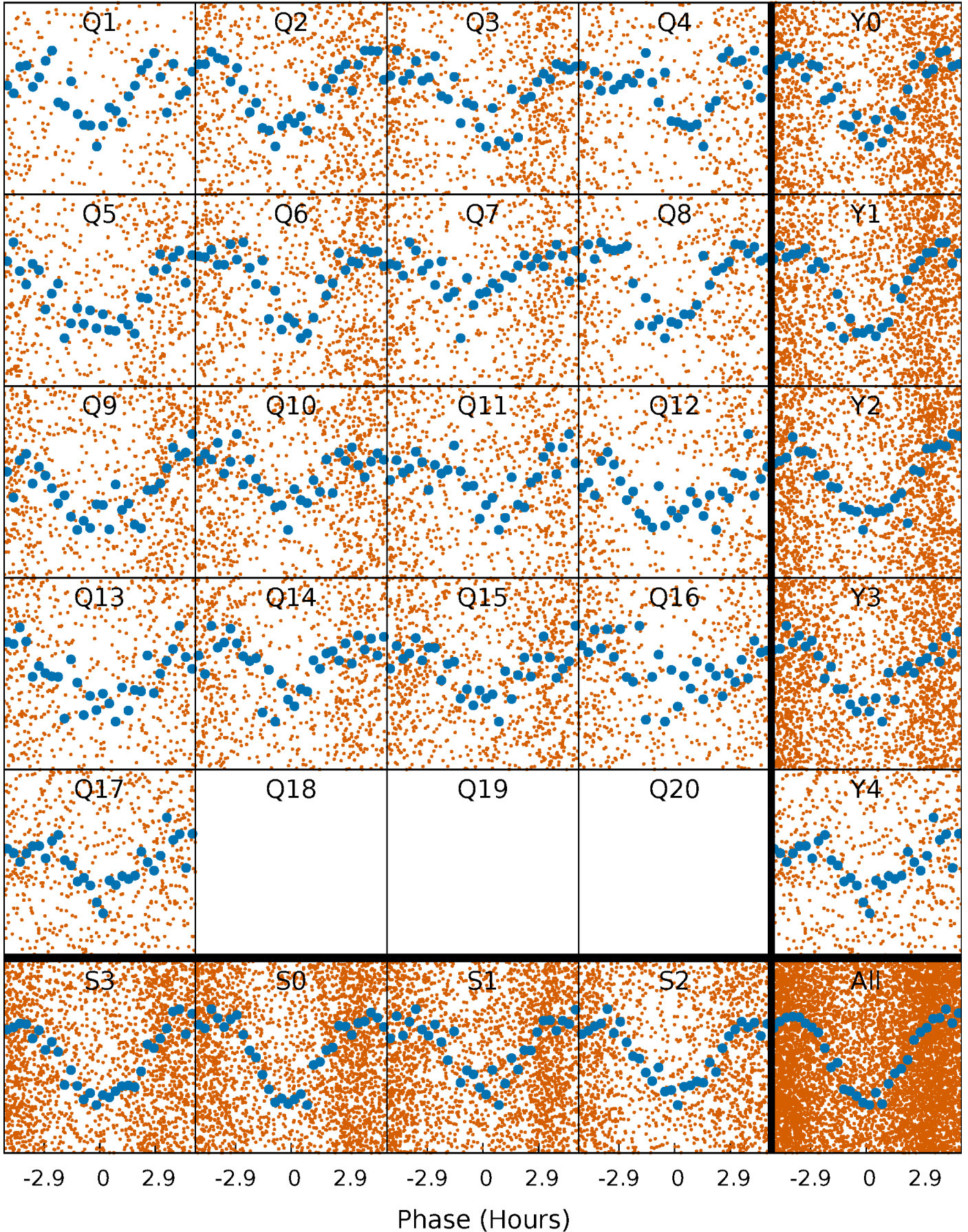


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



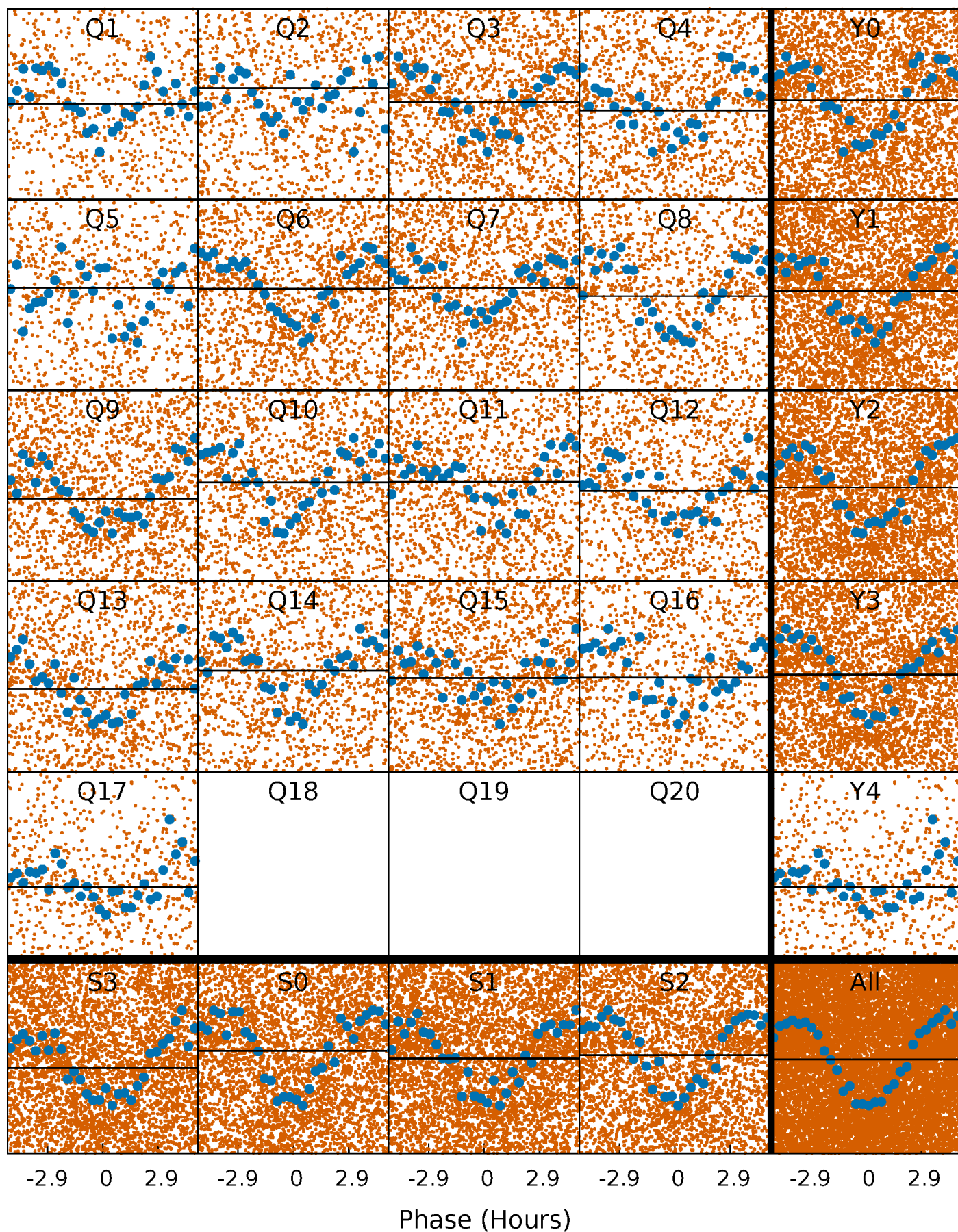
PDC Quarter-Phased Transit Curves

TCE 011093203-01 P= 0.689326 Days $T_0=131.839119$ (BKJD)



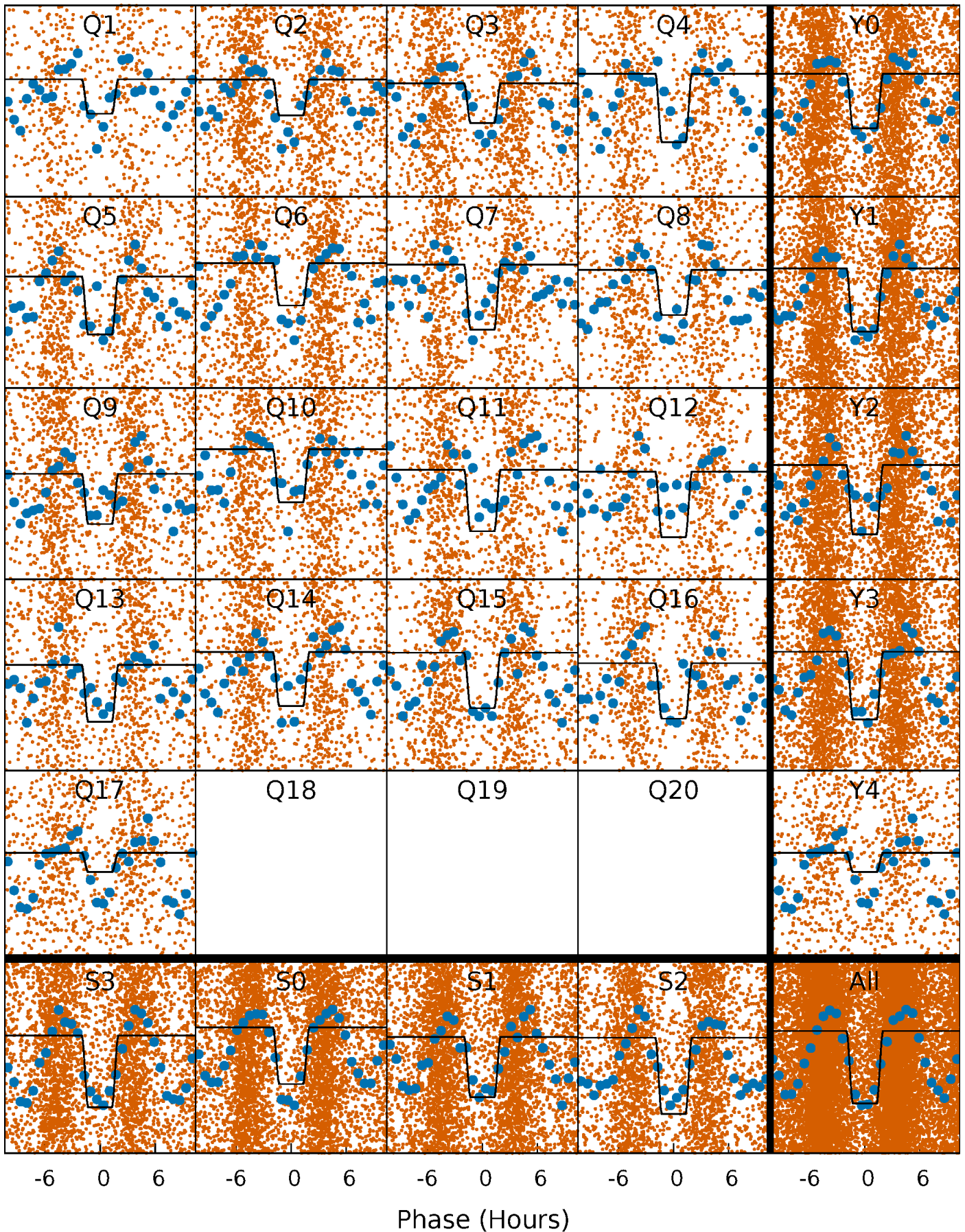
DV Quarter-Phased Transit Curves

TCE 011093203-01 P= 0.689326 Days $T_0=131.839119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

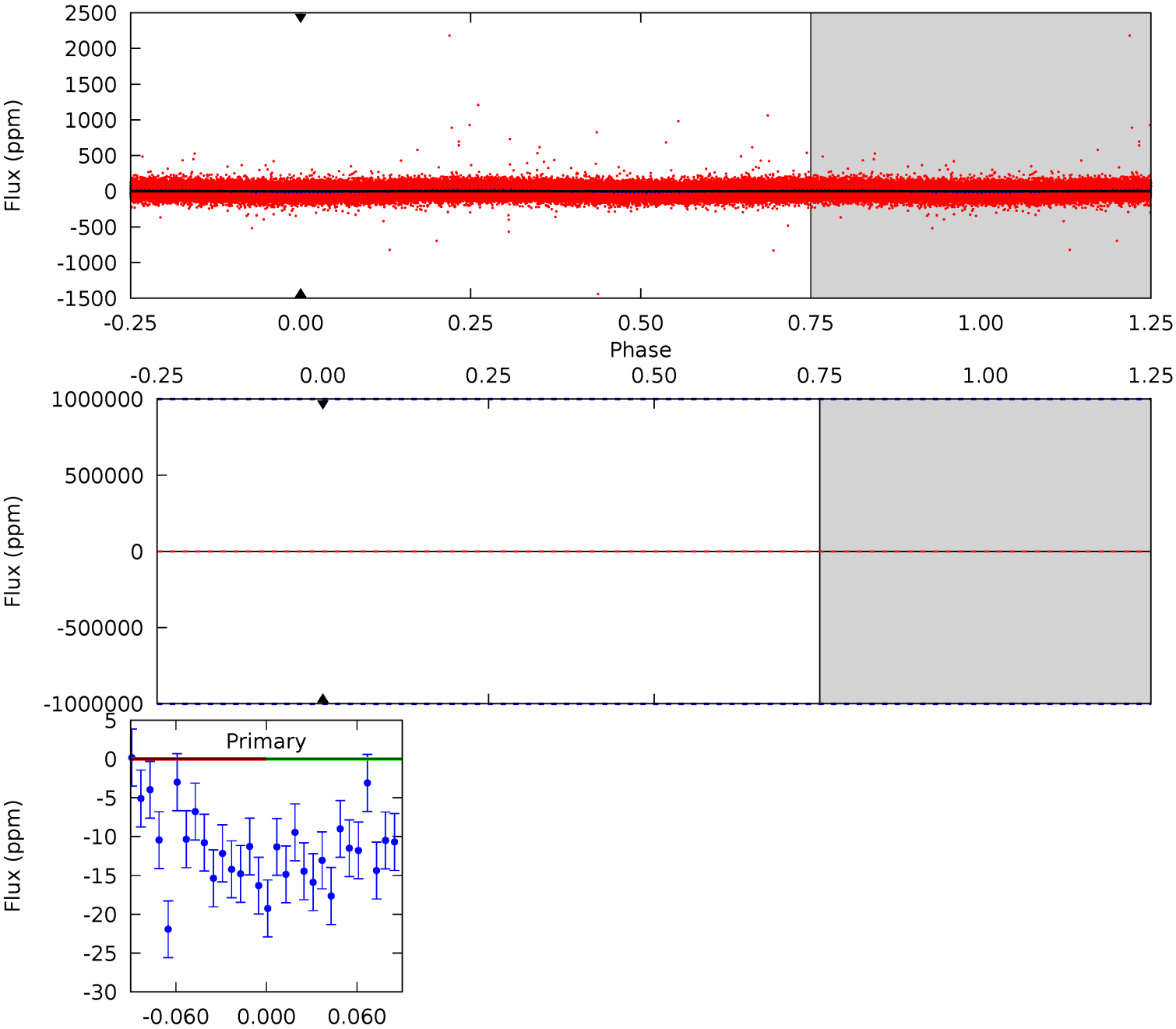
TCE 011093203-01 P= 0.689326 Days $T_0=131.840922$ (BKJD)



DV Model-Shift Uniqueness Test

011093203-01, P = 0.689326 Days, E = 131.149793 Days

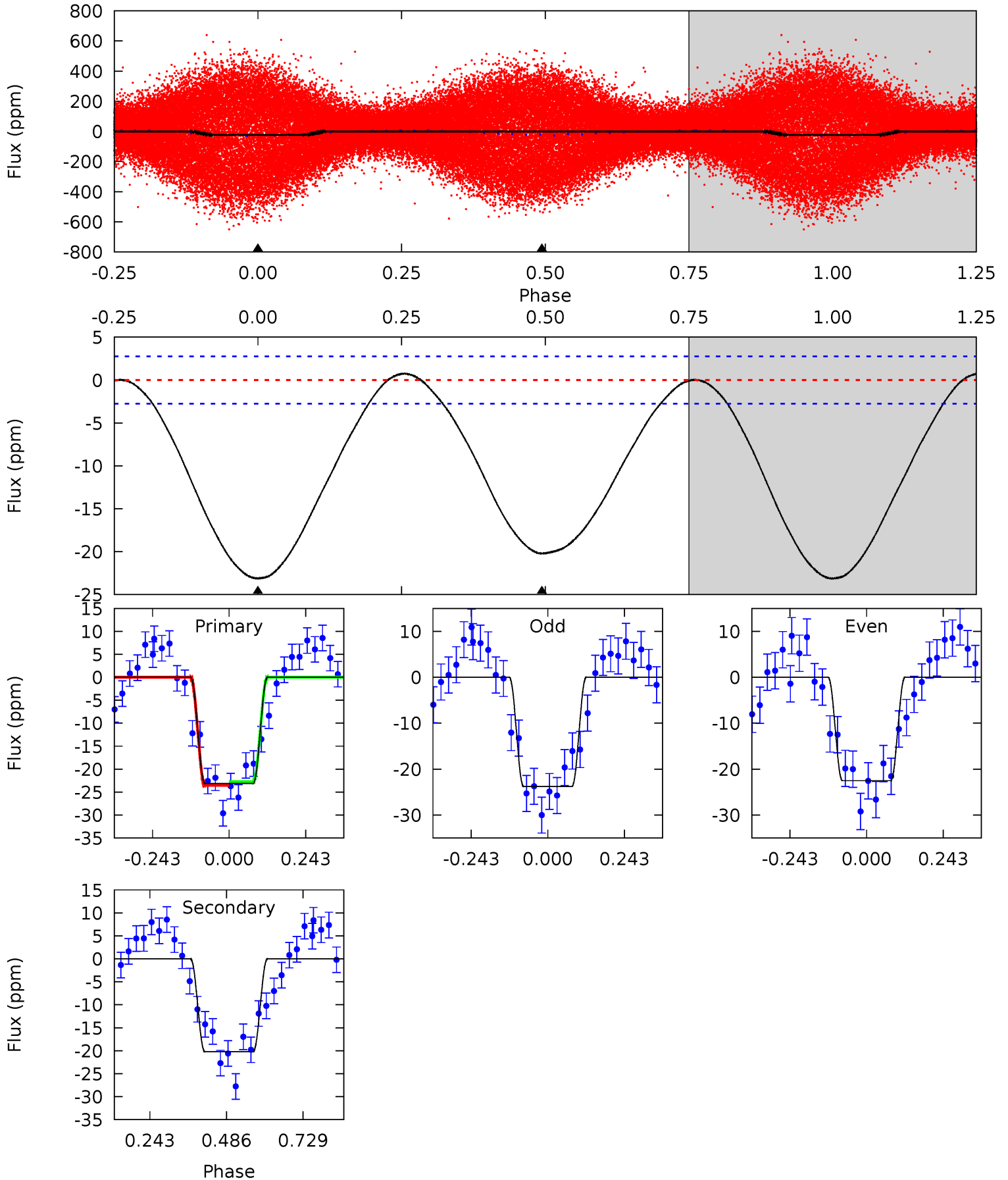
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011093203-01, P = 0.689326 Days, E = 131.151596 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.7	32.0	0	0	4.37	1.17	0.88	36.7	36.7	32.0	32.0	1.00	0.87	0.03	0.28



Stellar Parameters For KIC 011093203

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7471^{+235}_{-314}	$3.971^{+0.228}_{-0.152}$	$-0.040^{+0.200}_{-0.350}$	$2.255^{+0.540}_{-0.660}$	$1.732^{+0.185}_{-0.317}$	$0.213^{+0.294}_{-0.095}$
	+3%/-4%	+6%/-4%	+500%/-875%	+24%/-29%	+11%/-18%	+138%/-44%
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 011093203-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$16.41^{+19.40}_{-11.56}$	5084^{+367}_{-402}	5132^{+51177}_{-51796}	$0.799^{+165.483}_{-128.004}$
Alt.	-20 ± 1	$15.72^{+19.37}_{-11.40}$	5067^{+372}_{-476}	-4183^{+739}_{-297}	$0.015^{+0.179}_{-0.012}$

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

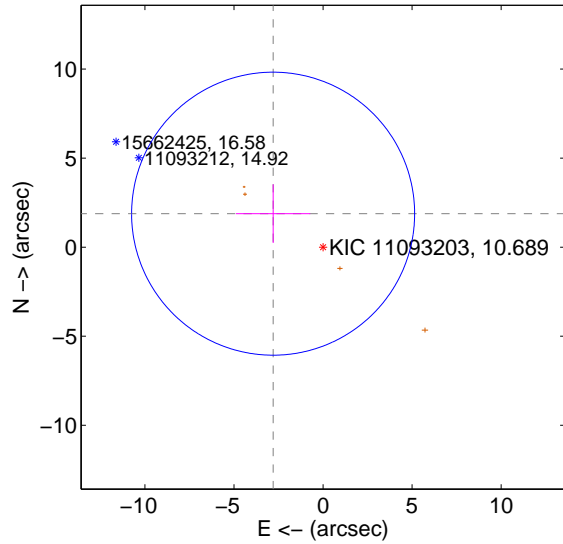
Supplemental centroid analysis for 011093203-01. **Kepler magnitude: 10.69.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

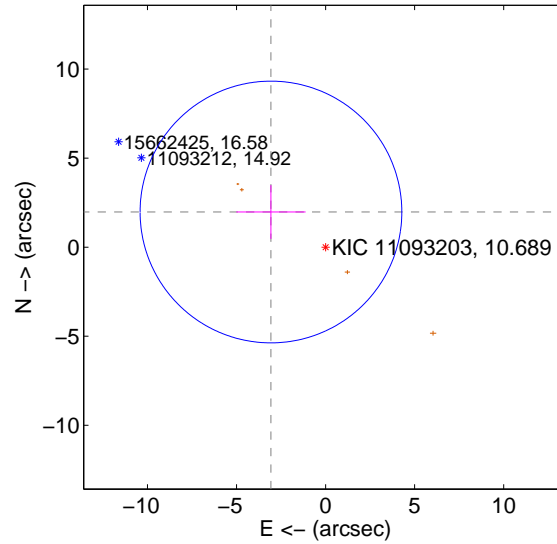
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.376 ± 2.649	1.27	2.804 ± 2.089	1.881 ± 1.644
PRF-fit source offset from KIC position	3.648 ± 2.450	1.49	3.068 ± 1.944	1.975 ± 1.508
photometric centroid source offset	0.40 ± 0.27	1.52	0.18 ± 0.27	0.36 ± 0.26

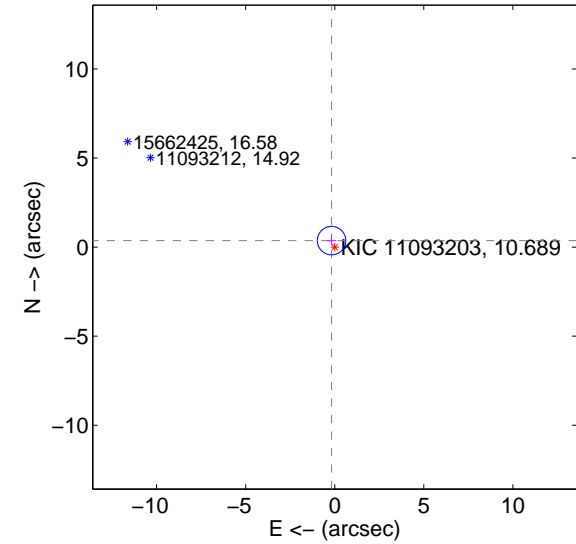
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

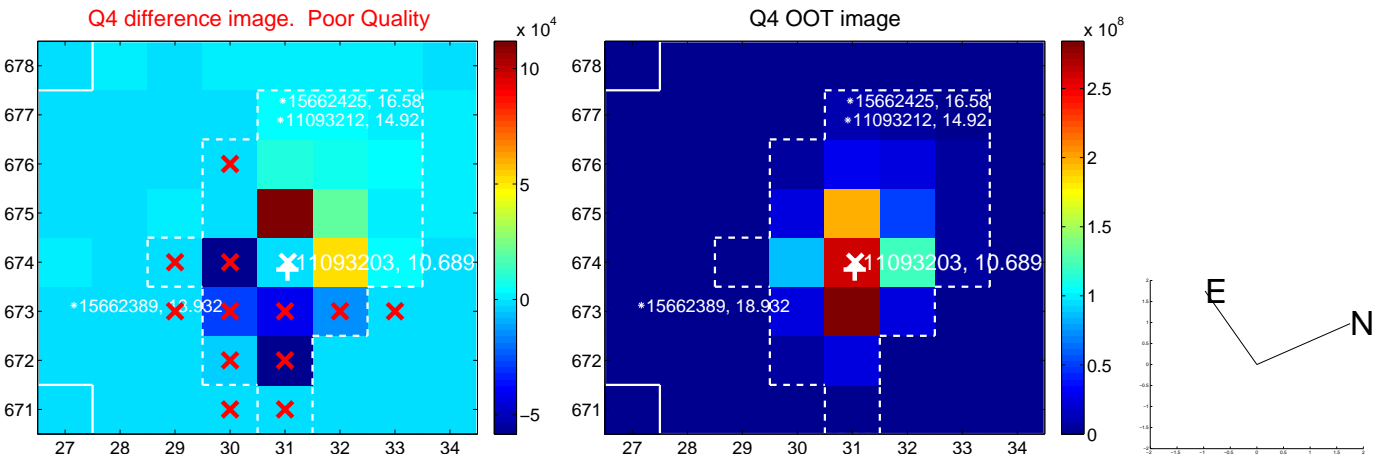
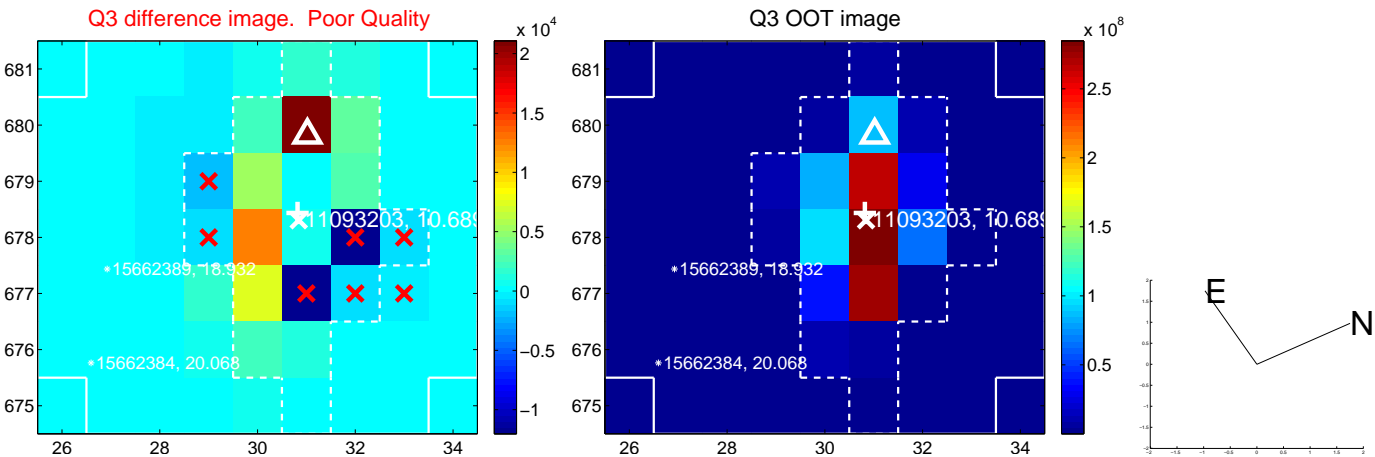
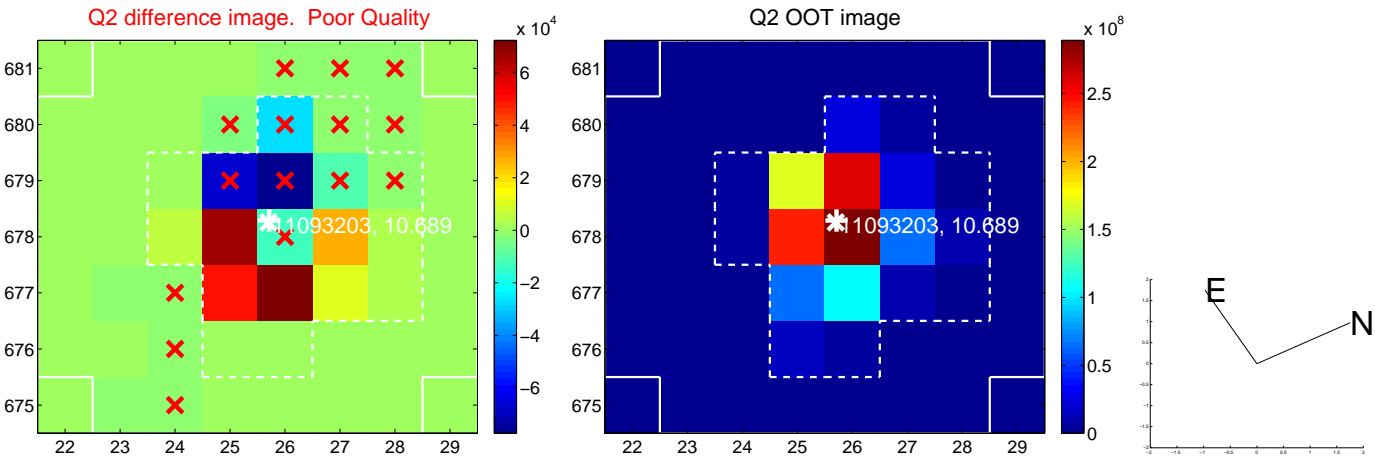
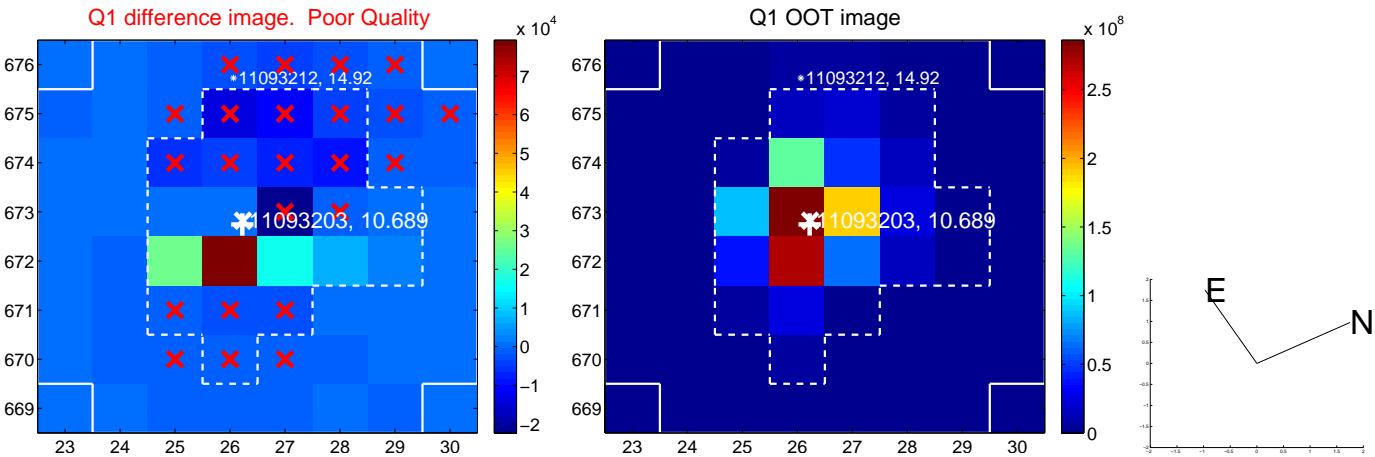


offset from photometric centroids

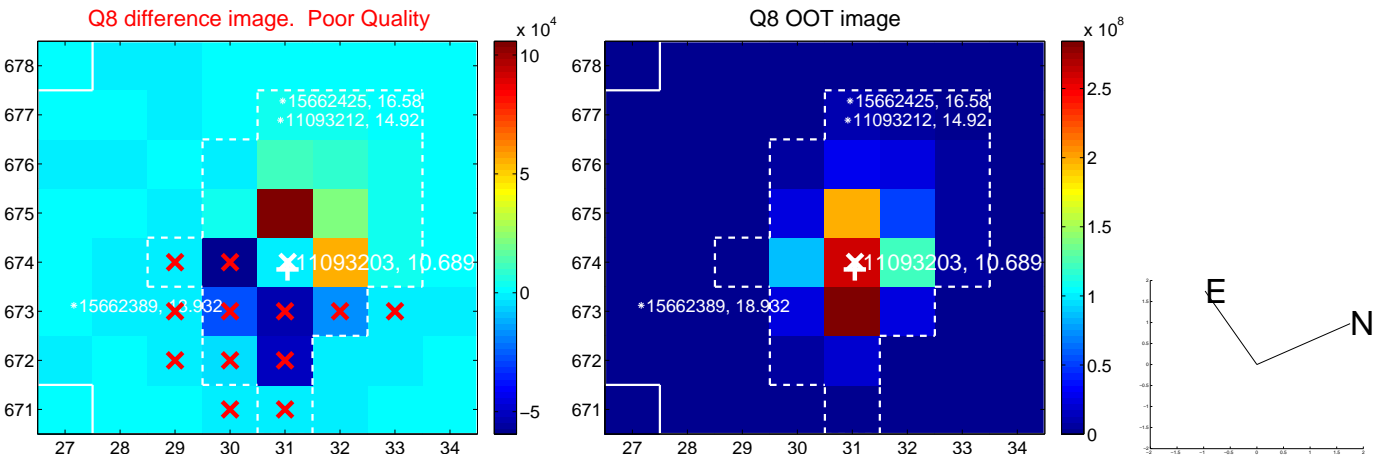
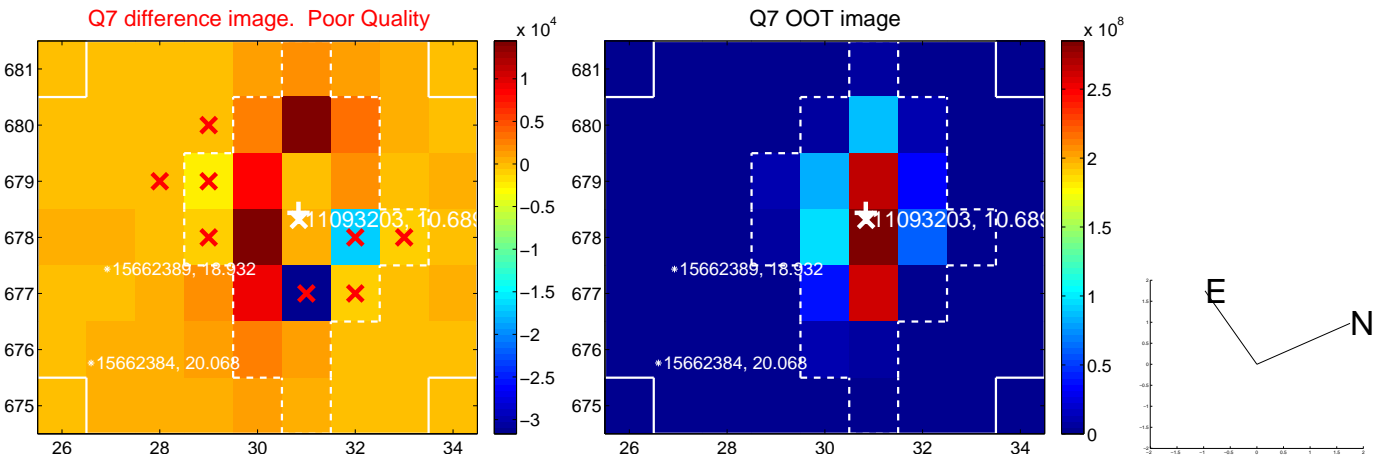
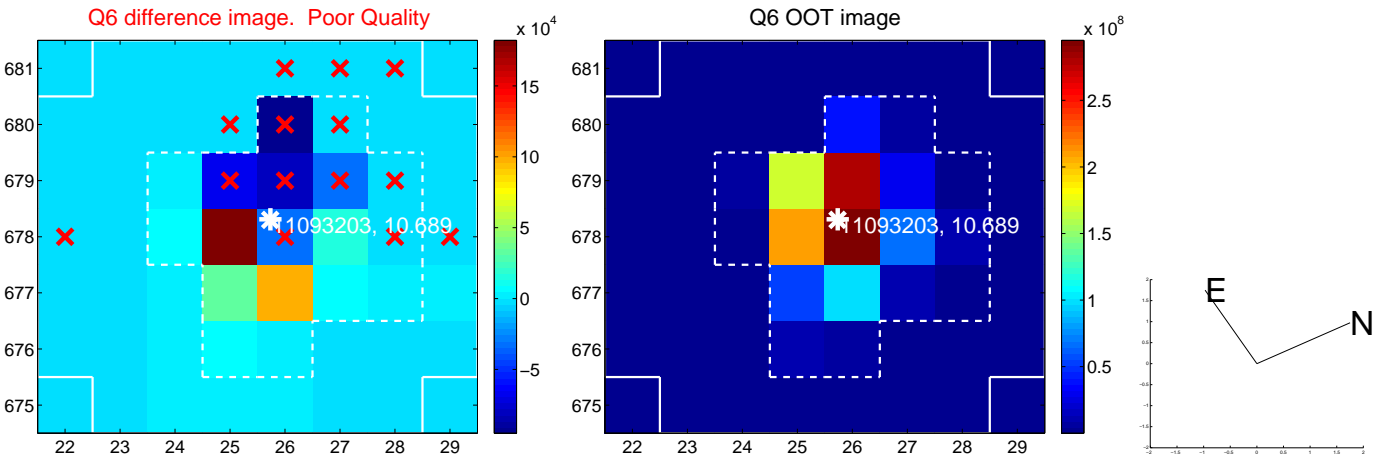
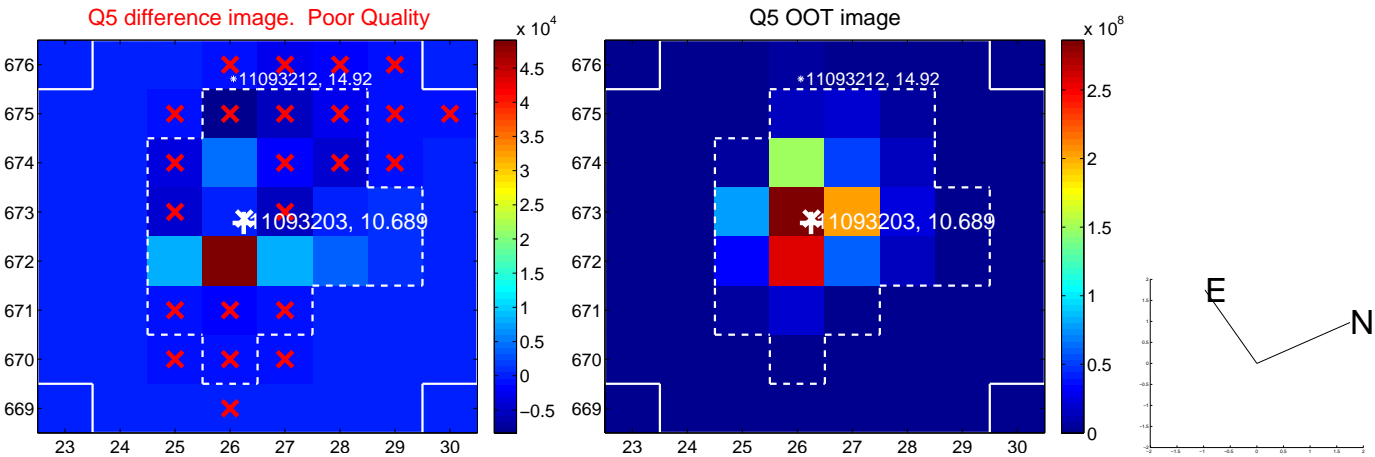


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

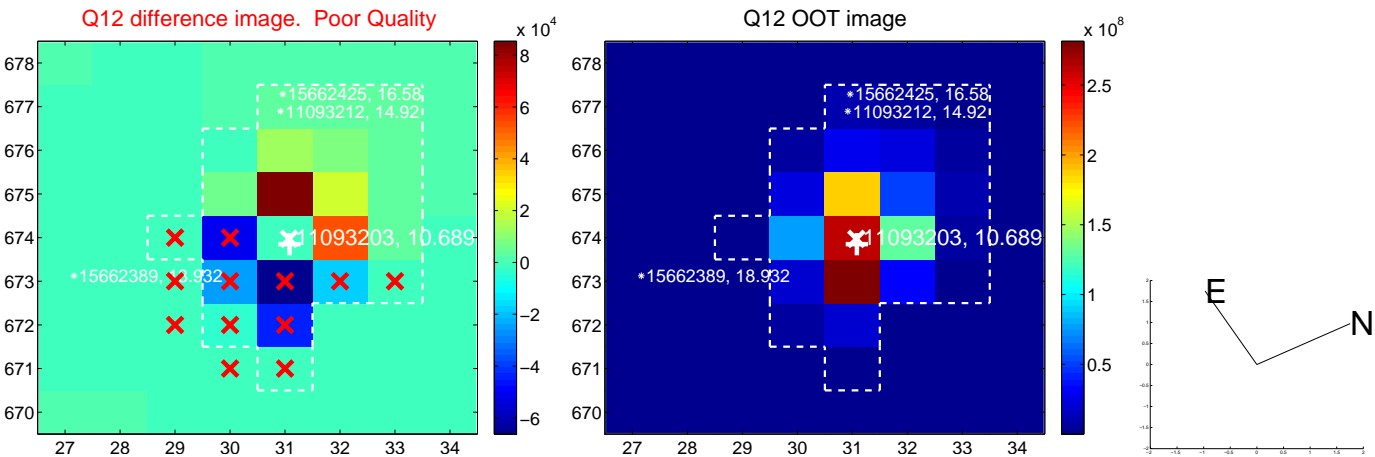
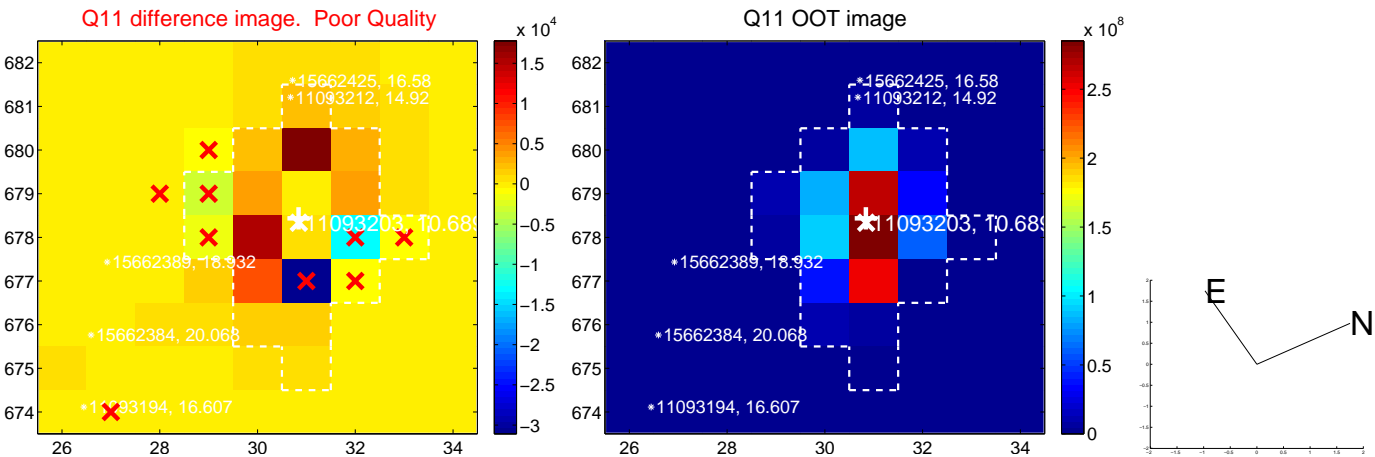
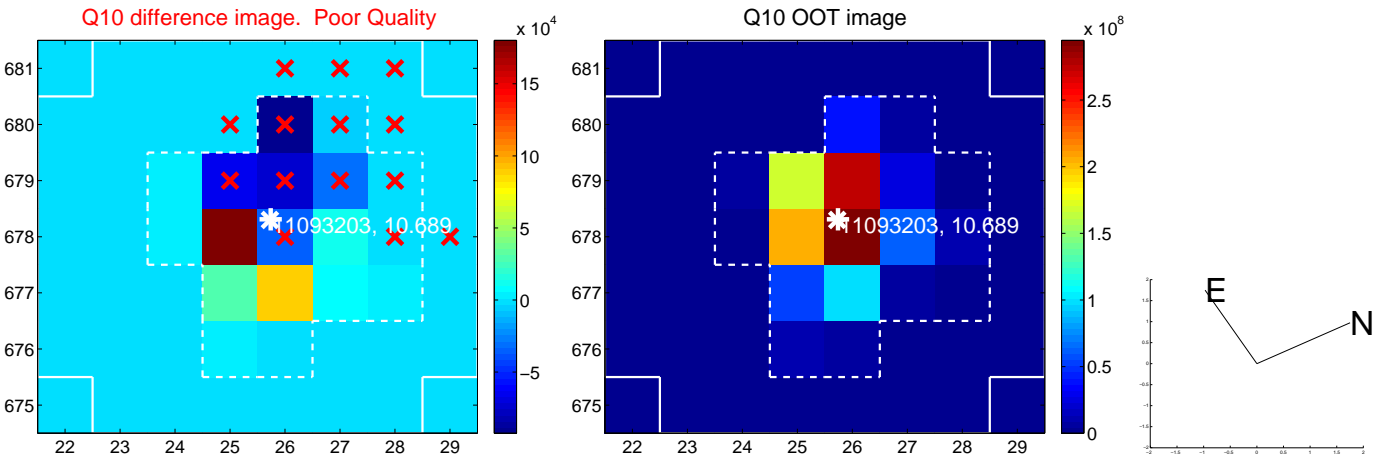
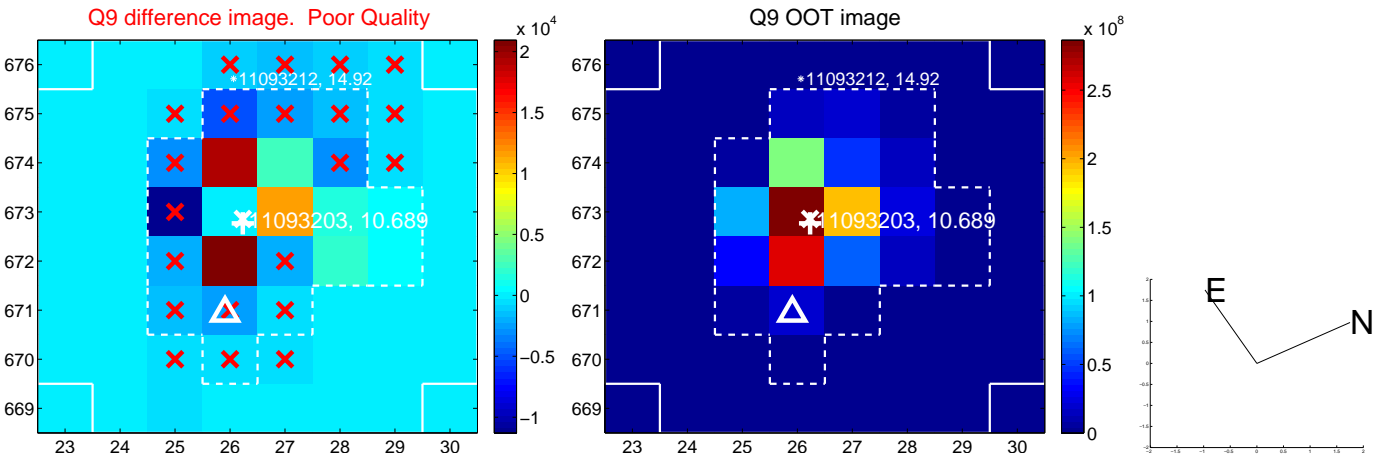
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



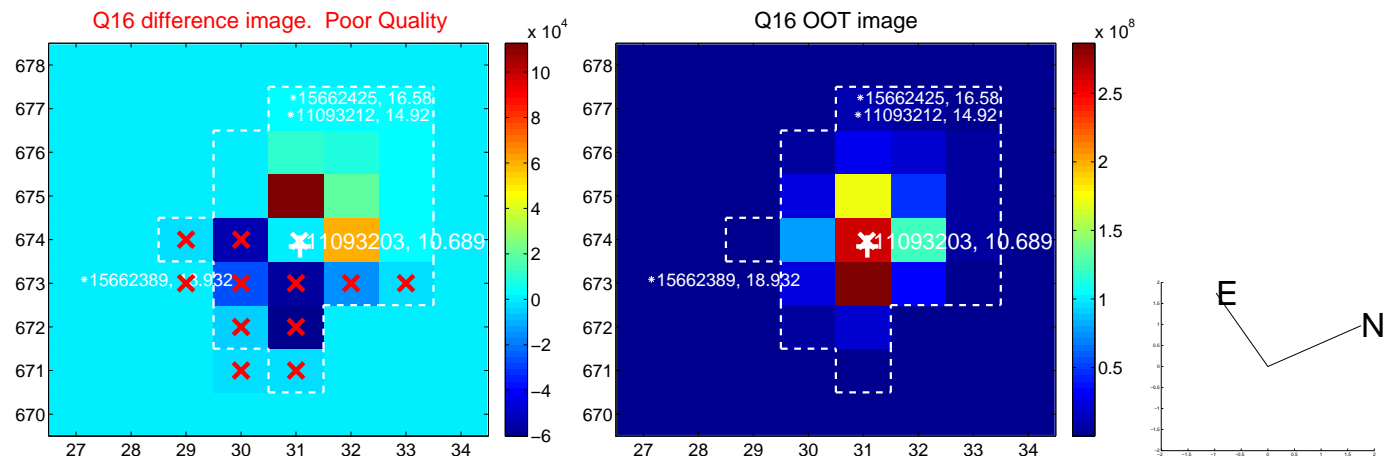
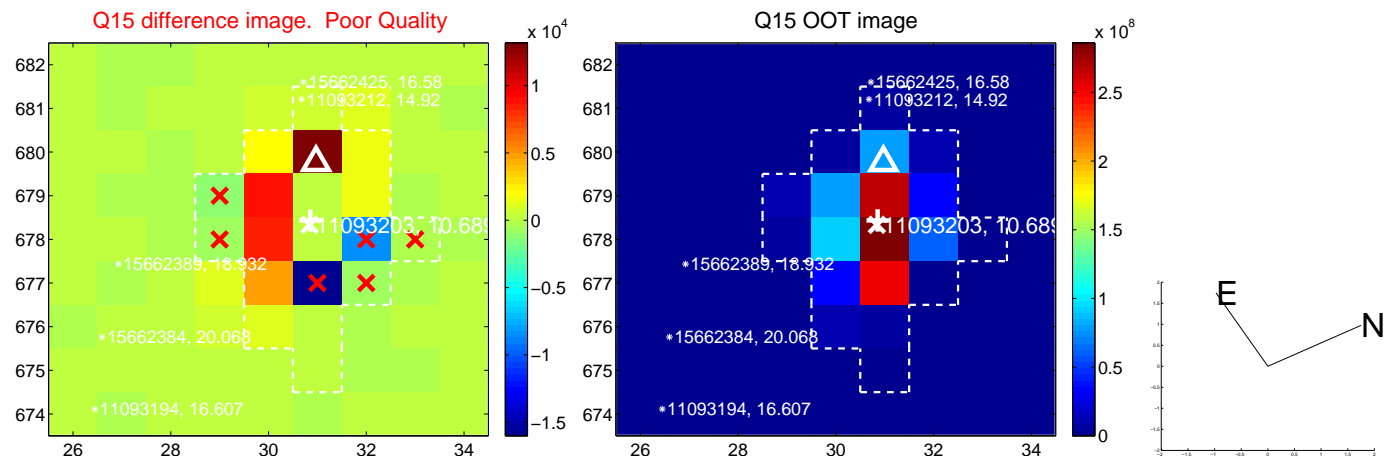
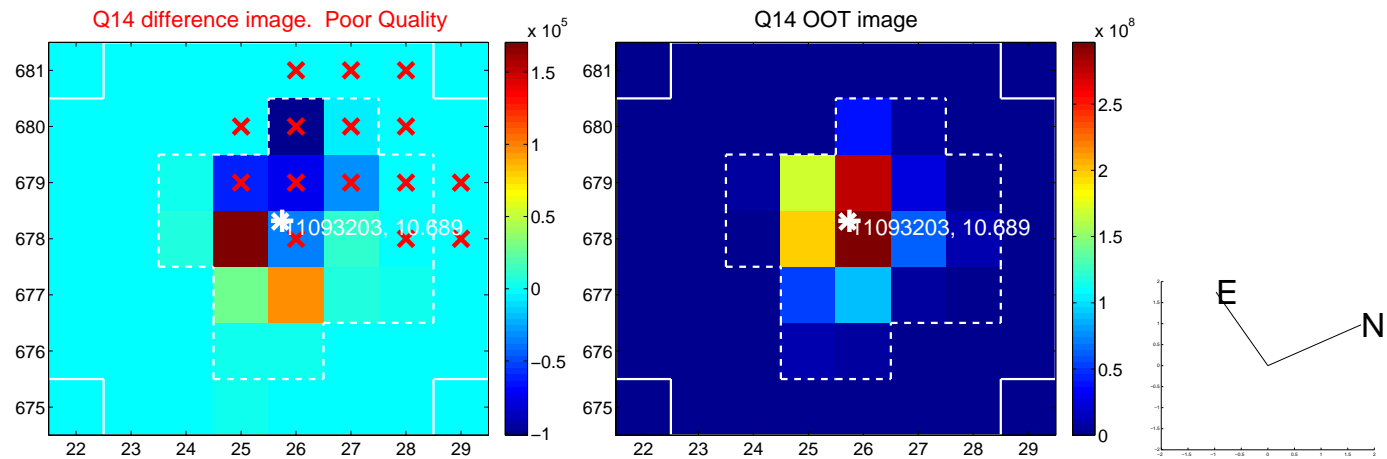
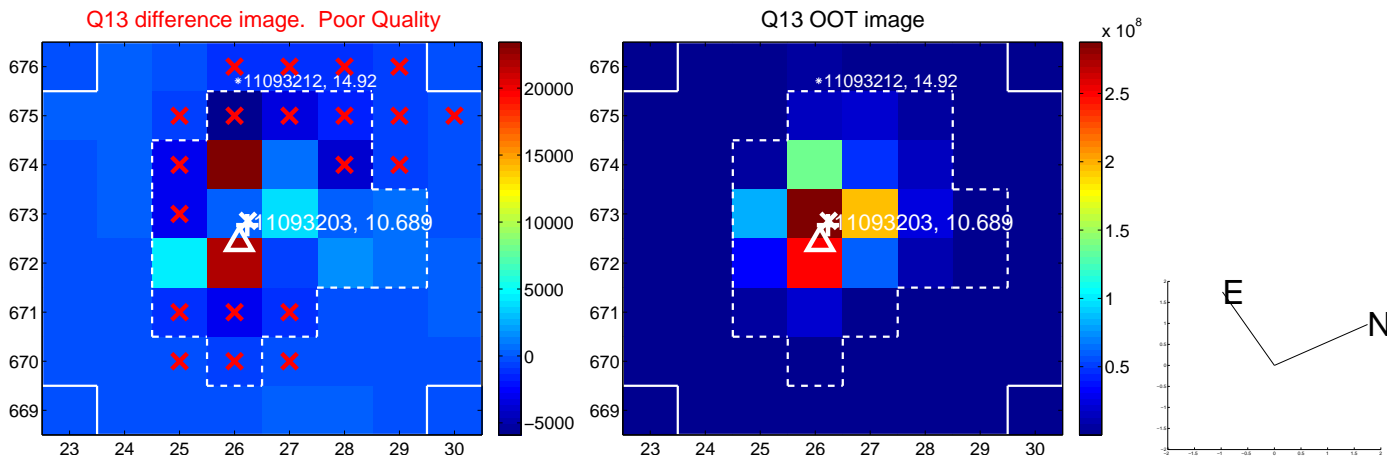
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



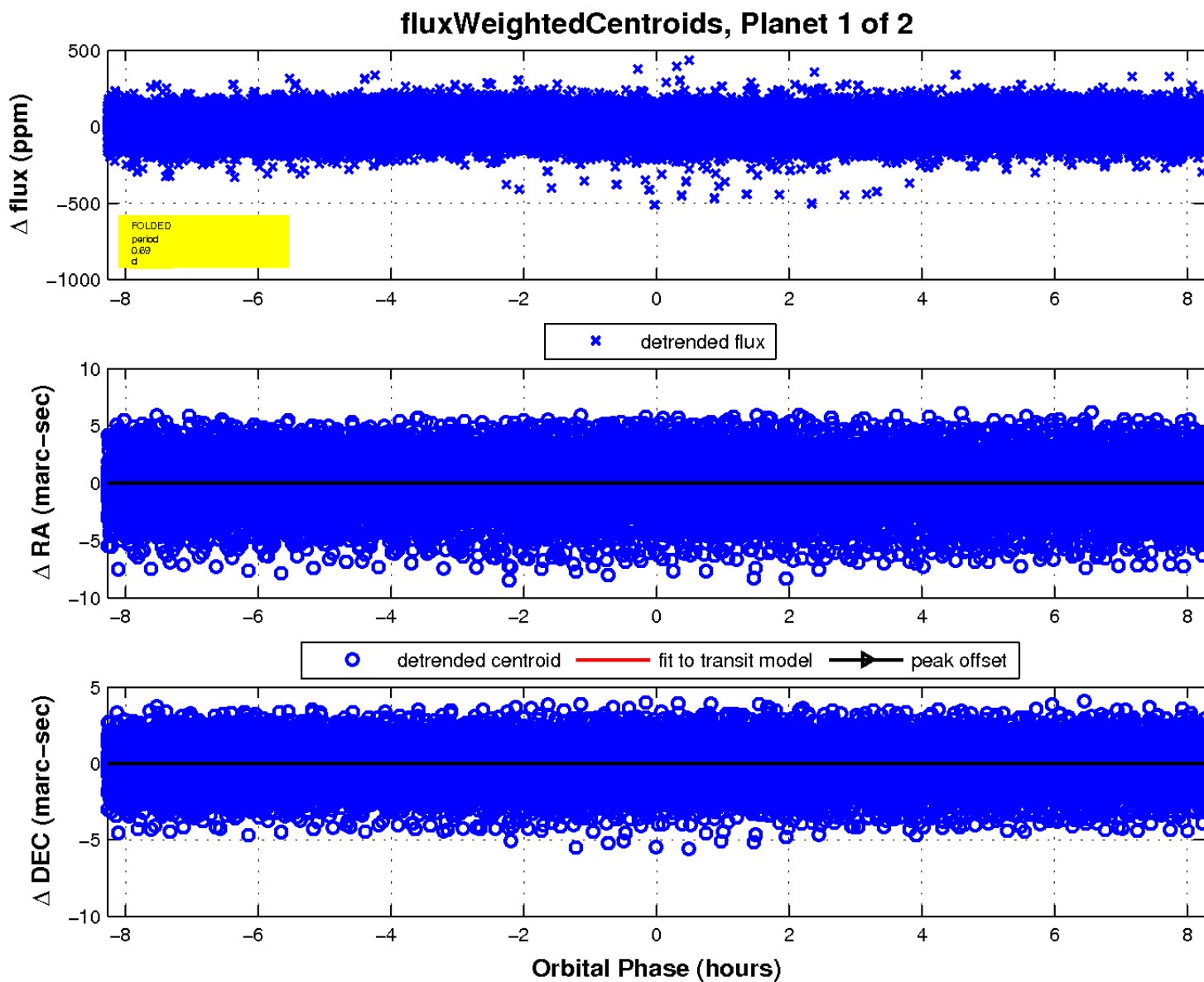
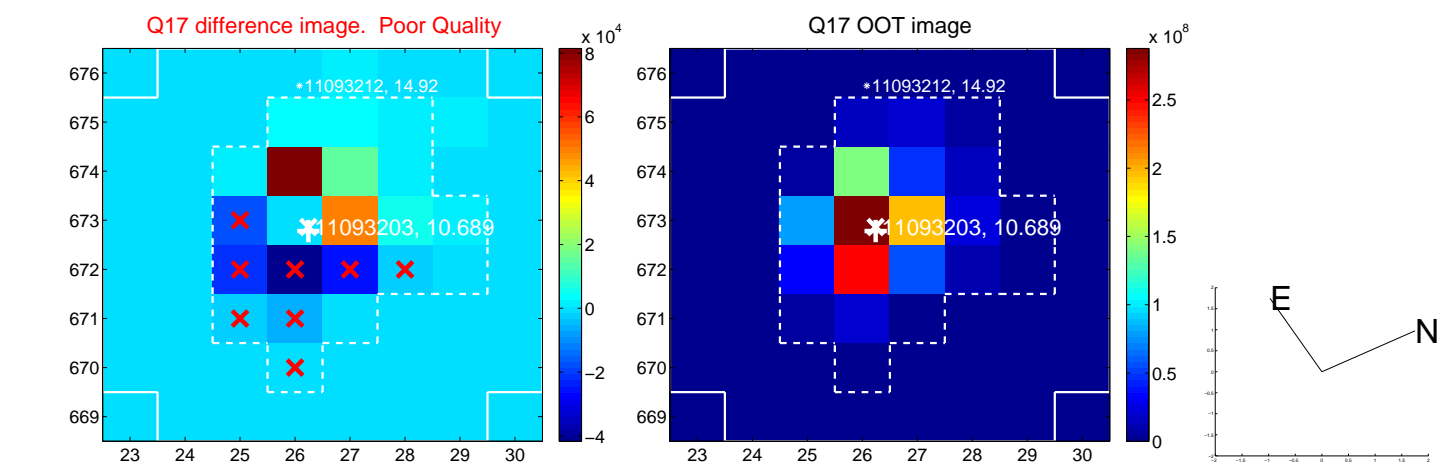
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



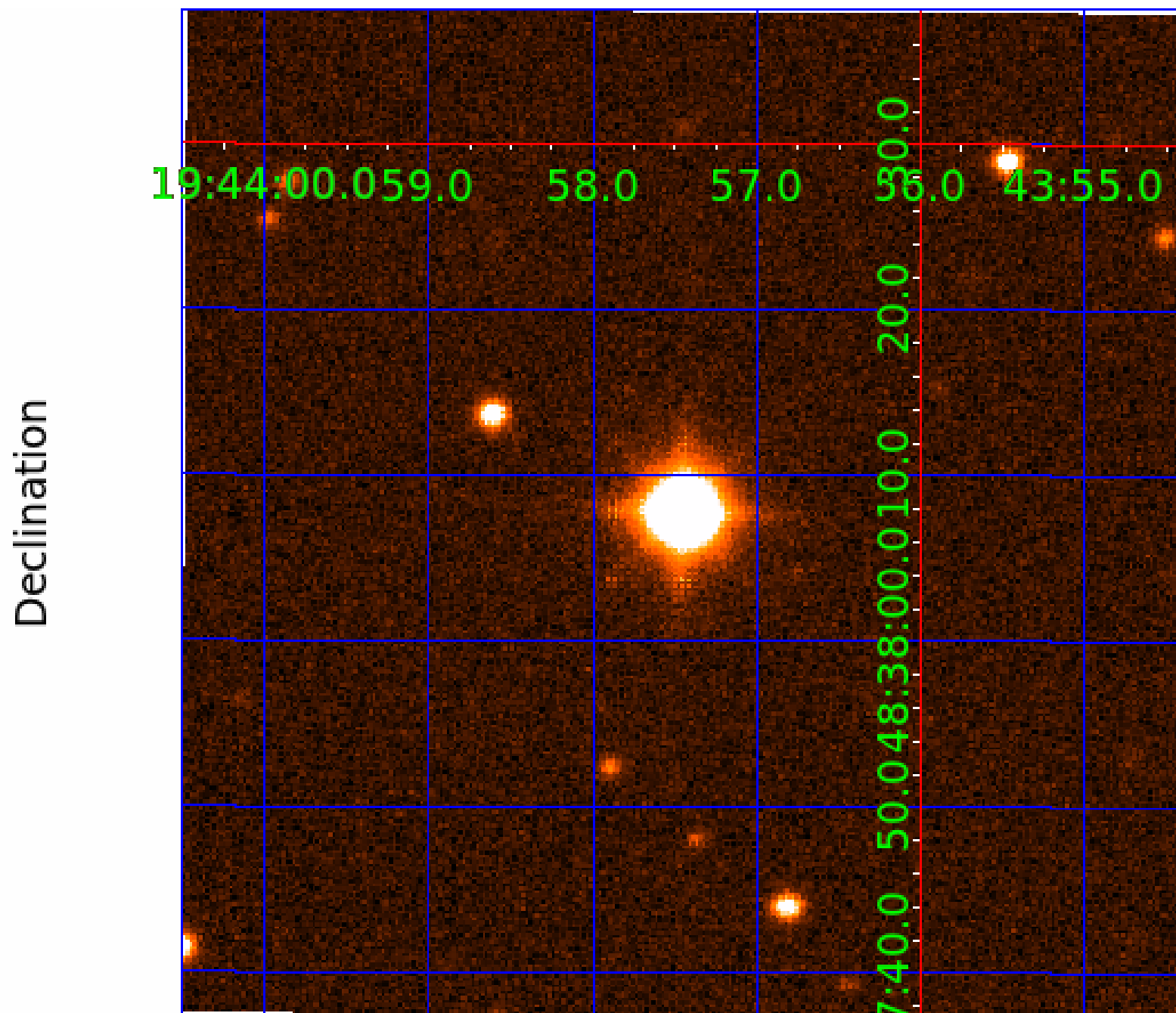
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011093203

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})
011093203-01	OBS	No	0.689326	131.839119	66.0	2.500	9.0	-1.0	2.25	7471	1.86	42131.56
011093203-02	OBS	No	0.689300	132.227114	3.8	4.996	10.3	5.5	2.25	7471	0.46	42133.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011093203-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
011093203-02	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.

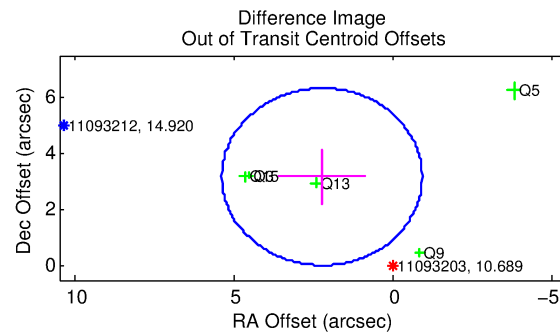
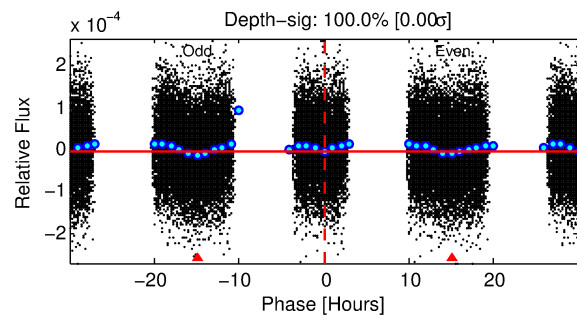
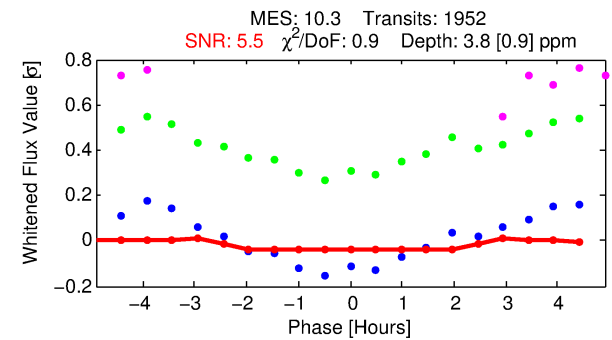
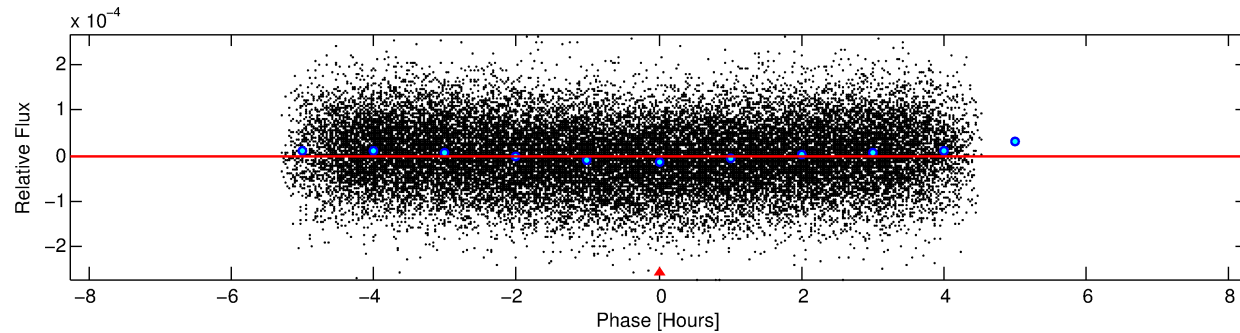
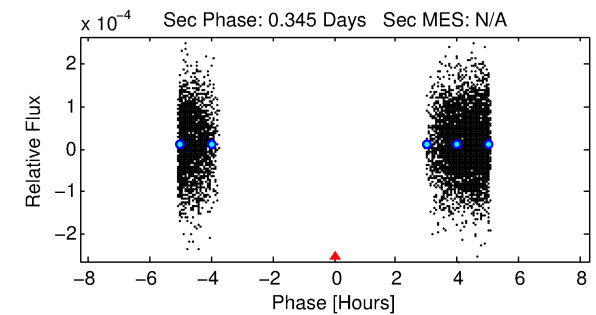
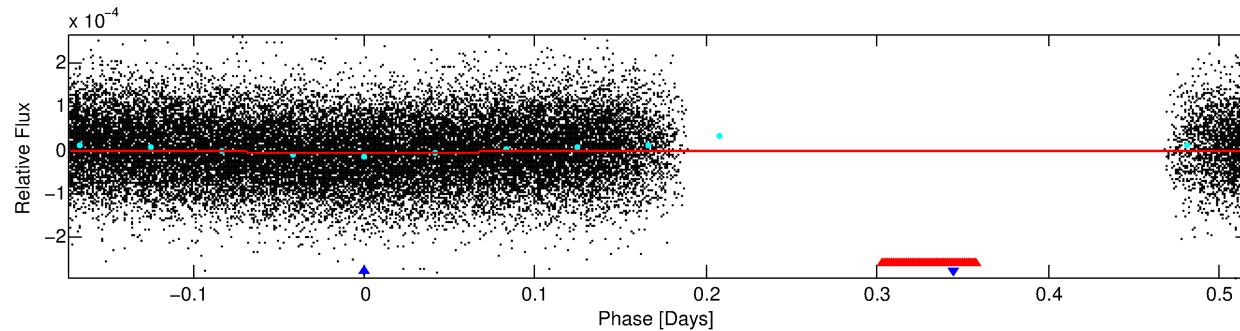
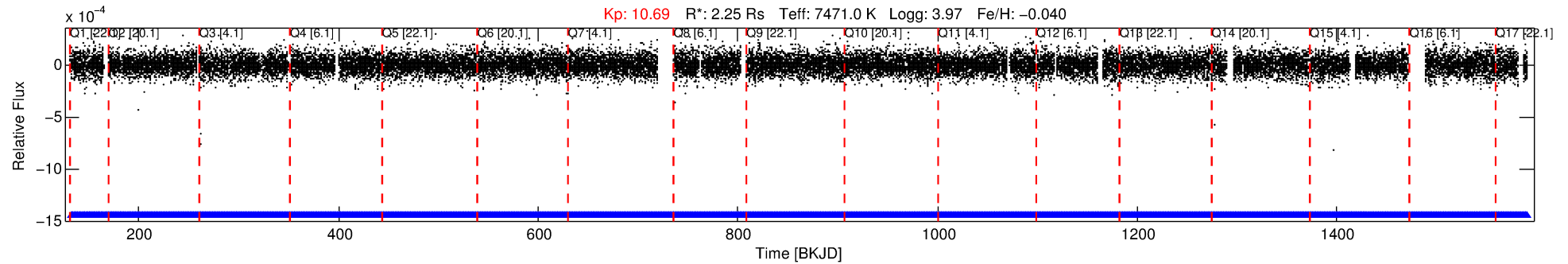
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011093203-02

No Significant Match Found

DV One-Page Summary

KIC: 11093203 Candidate: 2 of 2 Period: 0.689 d



DV Fit Results:

Period = 0.68930 [0.00003] d
Epoch = 132.2271 [0.0076] BKJD
 $R_p/R^* = 0.0019$ [0.0010]
 $a/R^* = 1.18$ [1.15]
 $b = 0.50$ [5.23]
 $S_{\text{eff}} = 42133.66$ [18309.04]
 $T_{\text{eq}} = 3653$ [397] K
 $R_p = 0.46$ [0.29] R_{e}
 $a = 0.0184$ [0.0048] AU

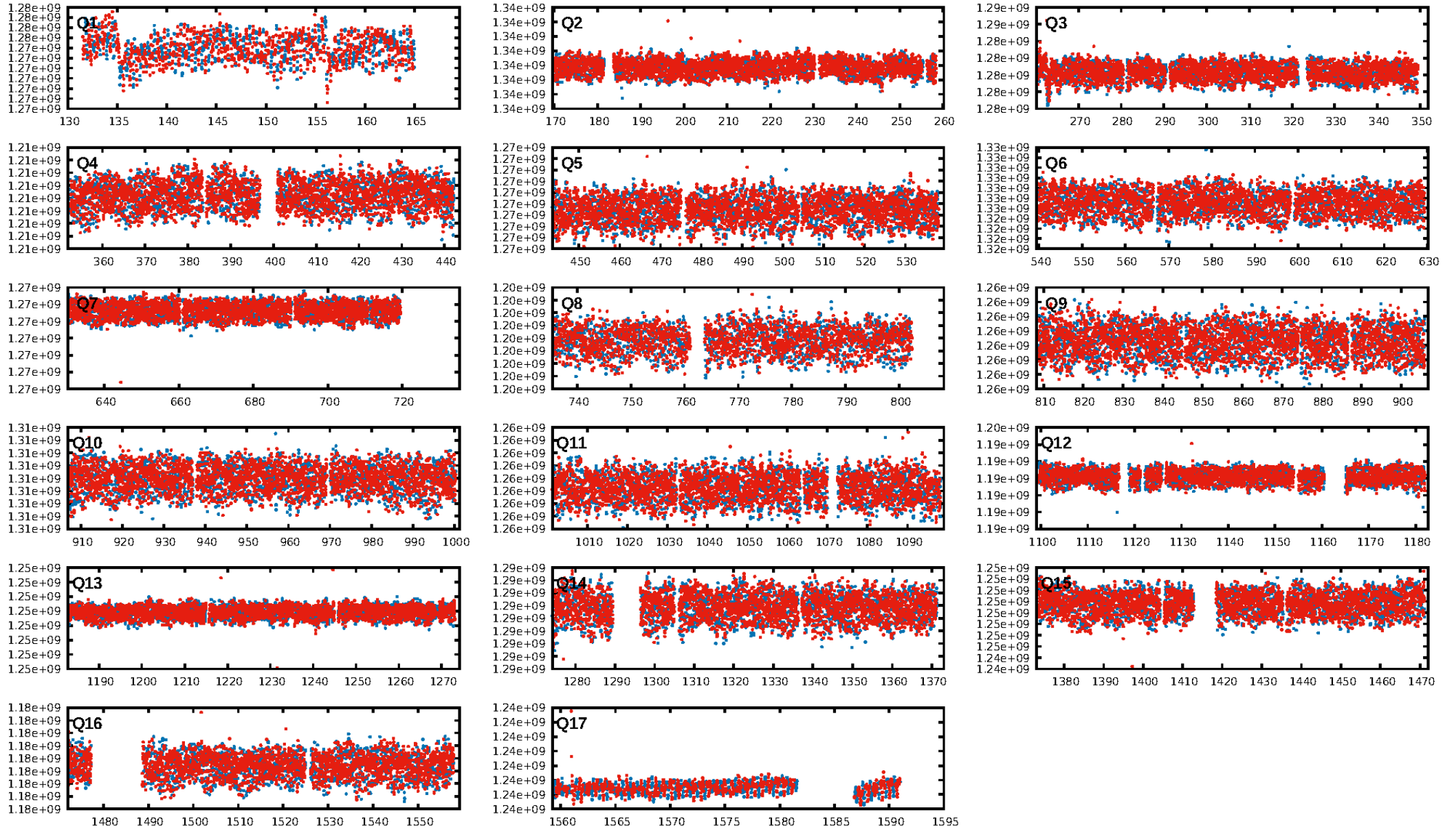
DV Diagnostic Results:

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 [1865/1865]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.881 arcsec [3.69σ]
KicOffset-rm: 4.084 arcsec [3.71σ]
OotOffset-st: 0/2/0/3 [5]
KicOffset-st: 0/2/0/3 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.00 [0/17]

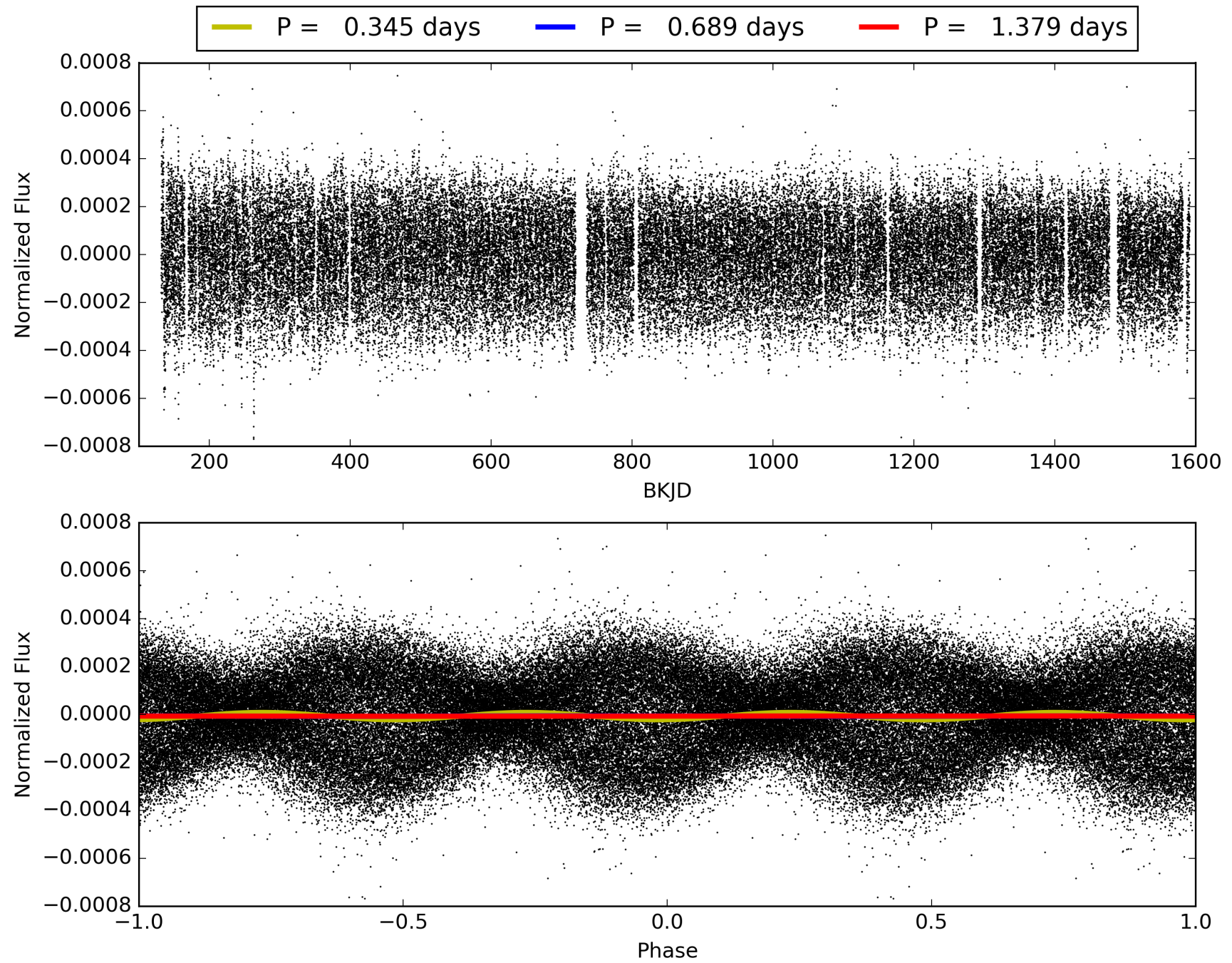
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:48:52 Z

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

TCE 011093203-02, PDC Light Curves

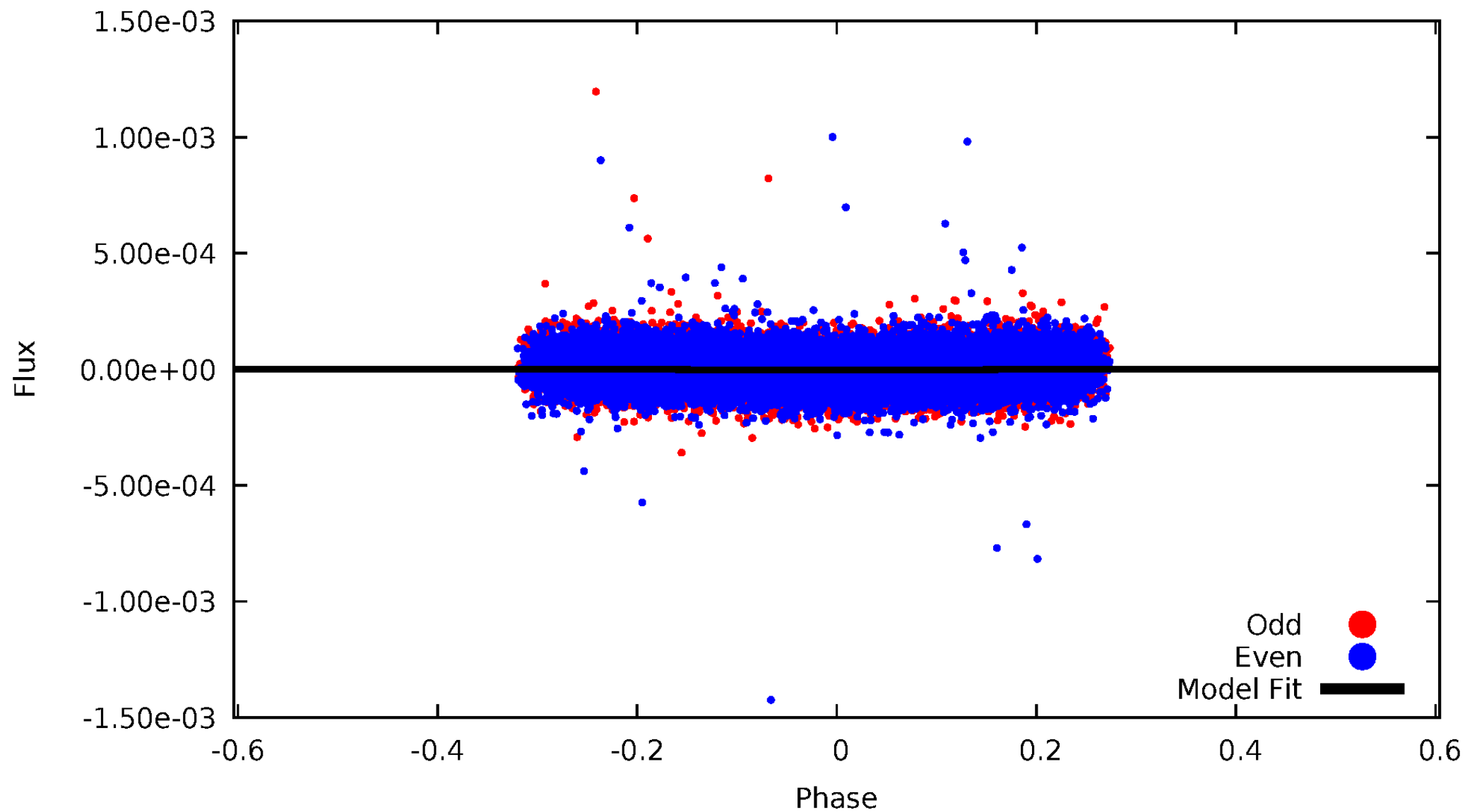


TCE 011093203-02



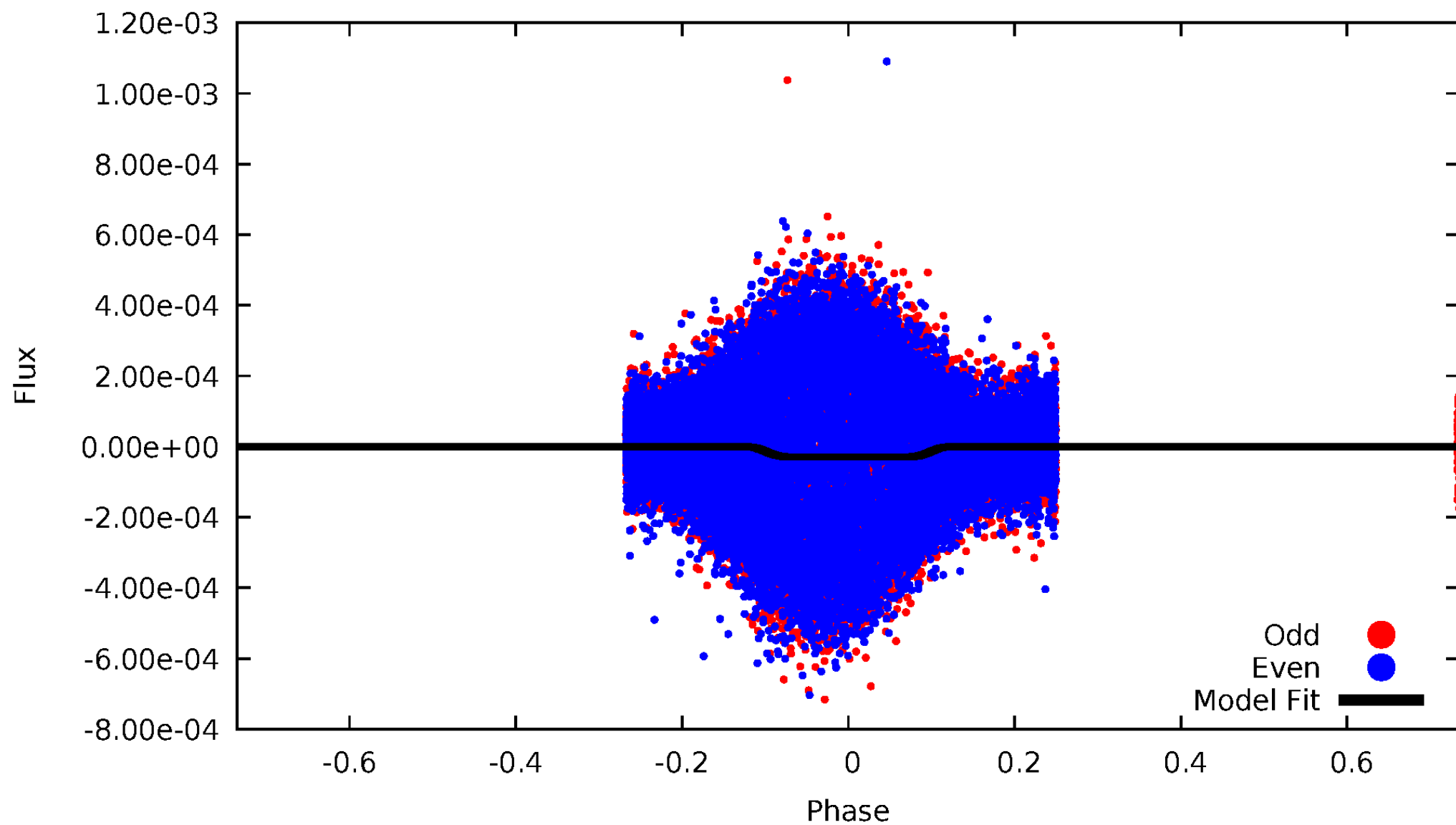
DV Odd/Even

TCE 011093203-02



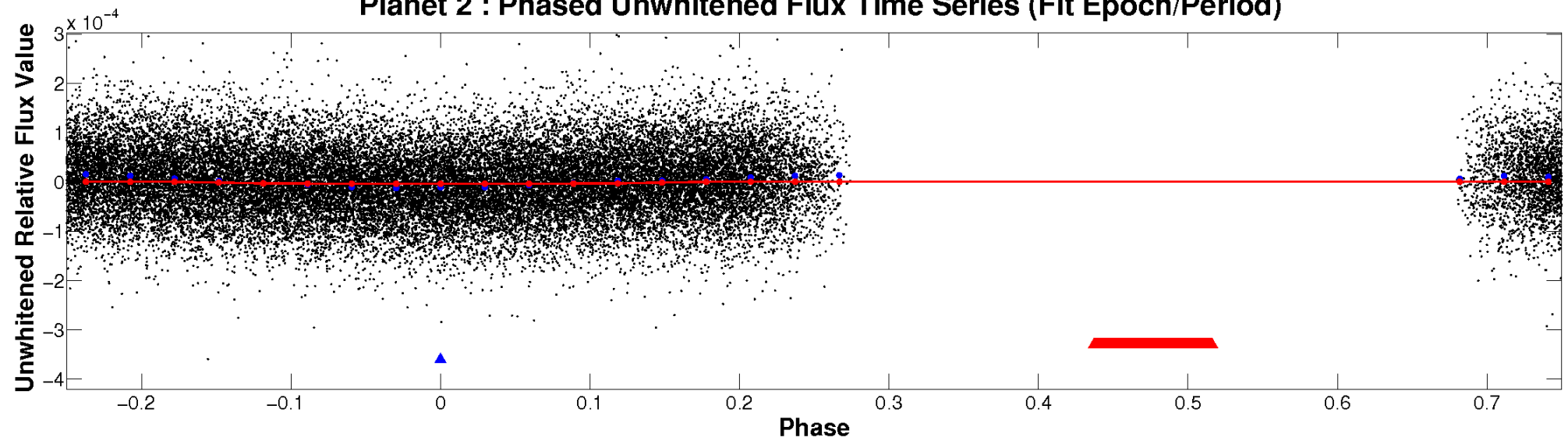
ALT Odd/Even

TCE 011093203-02

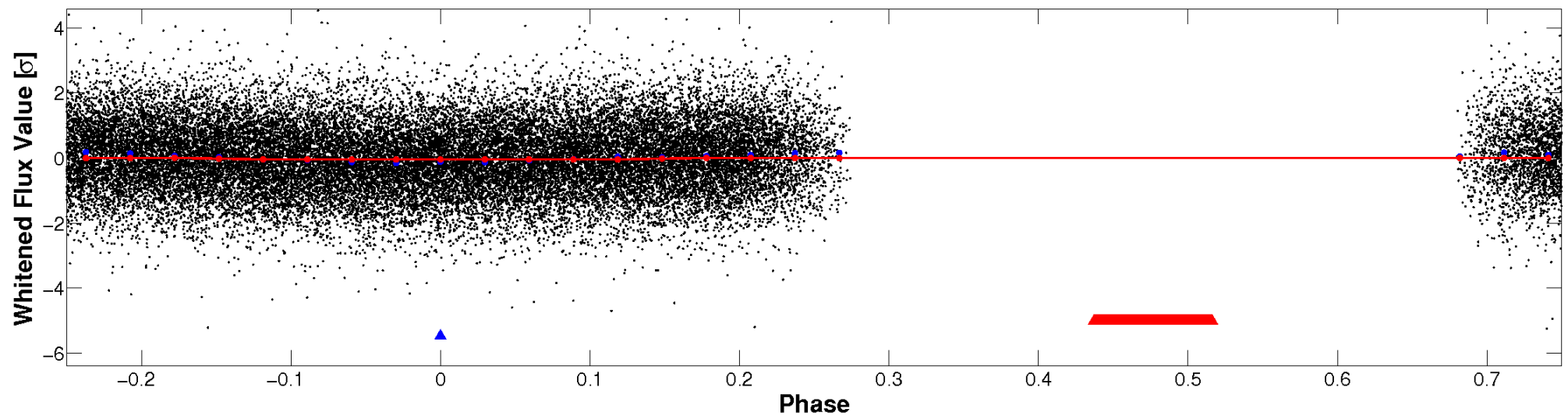


Non-Whitened Vs. Whitened Light Curve

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

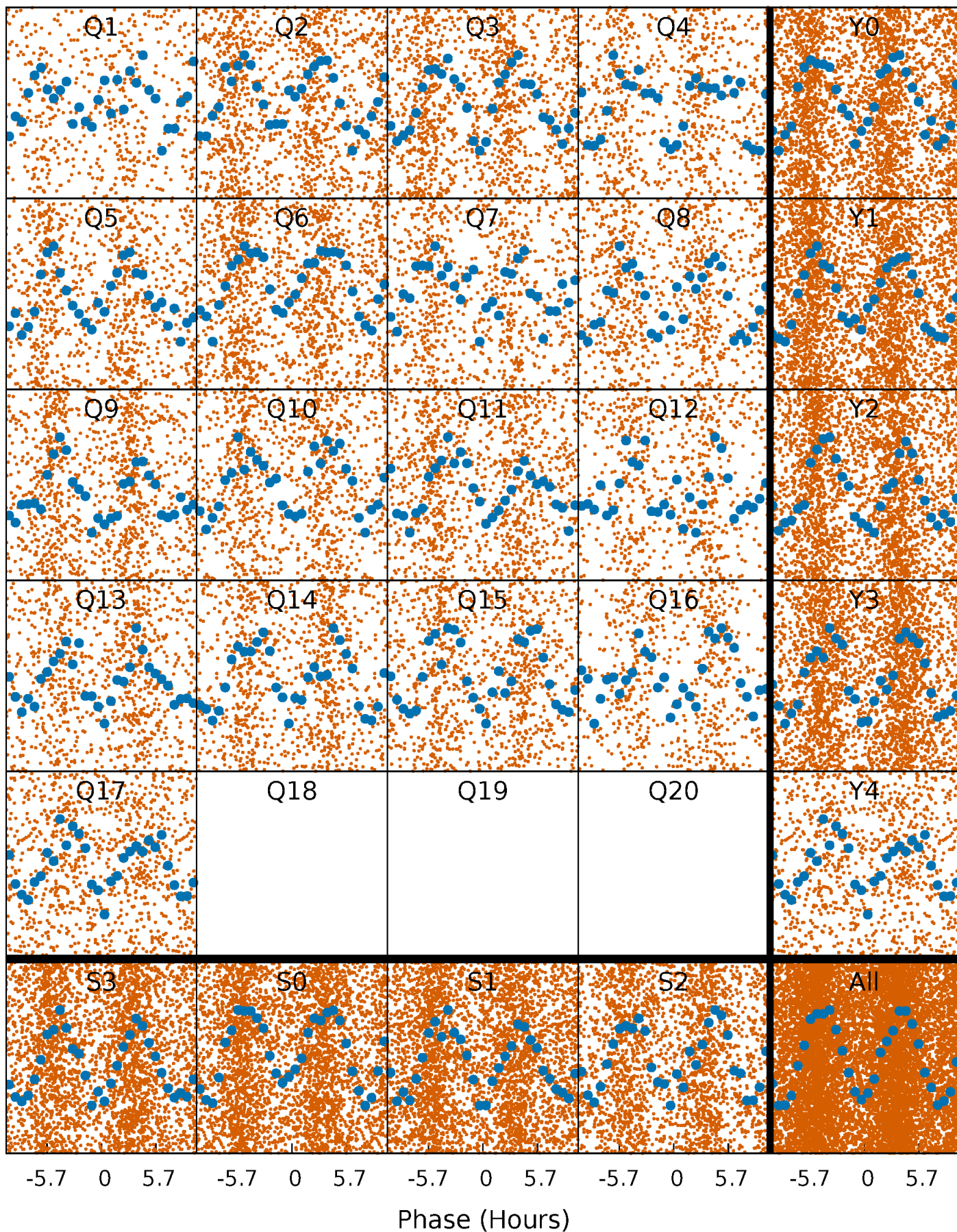


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



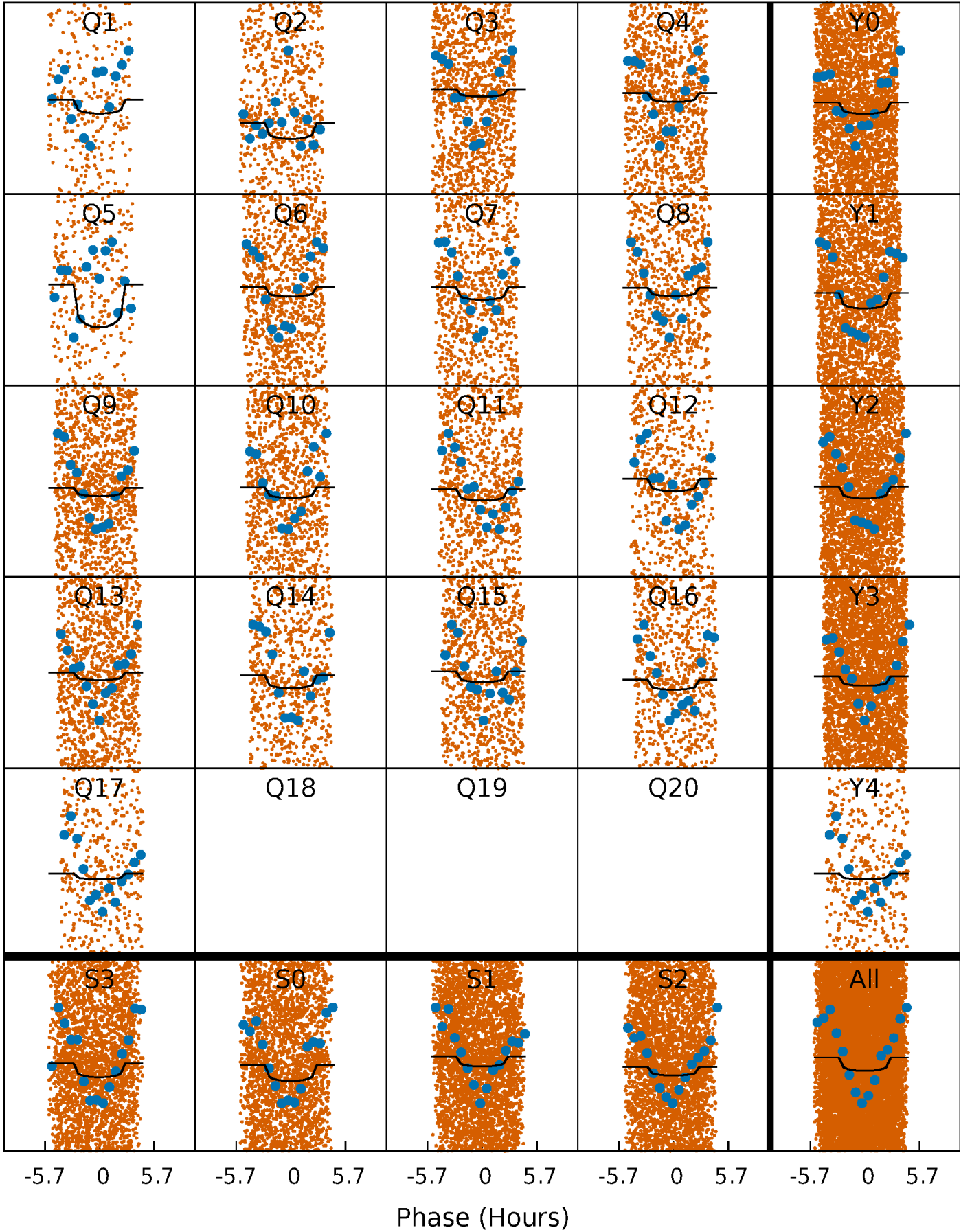
PDC Quarter-Phased Transit Curves

TCE 011093203-02 P= 0.689300 Days $T_0=132.227114$ (BKJD)



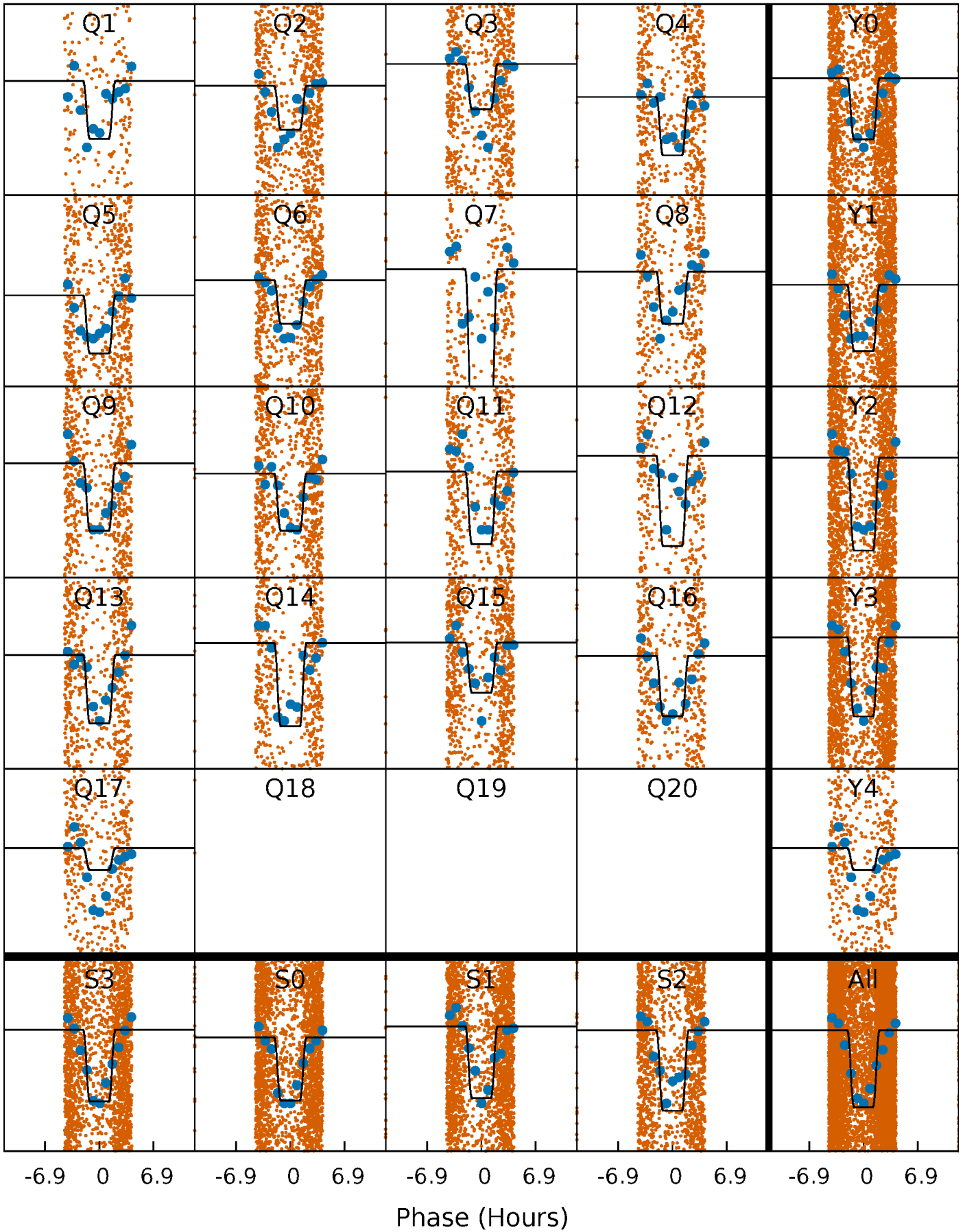
DV Quarter-Phased Transit Curves

TCE 011093203-02 P= 0.689300 Days $T_0=132.227114$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

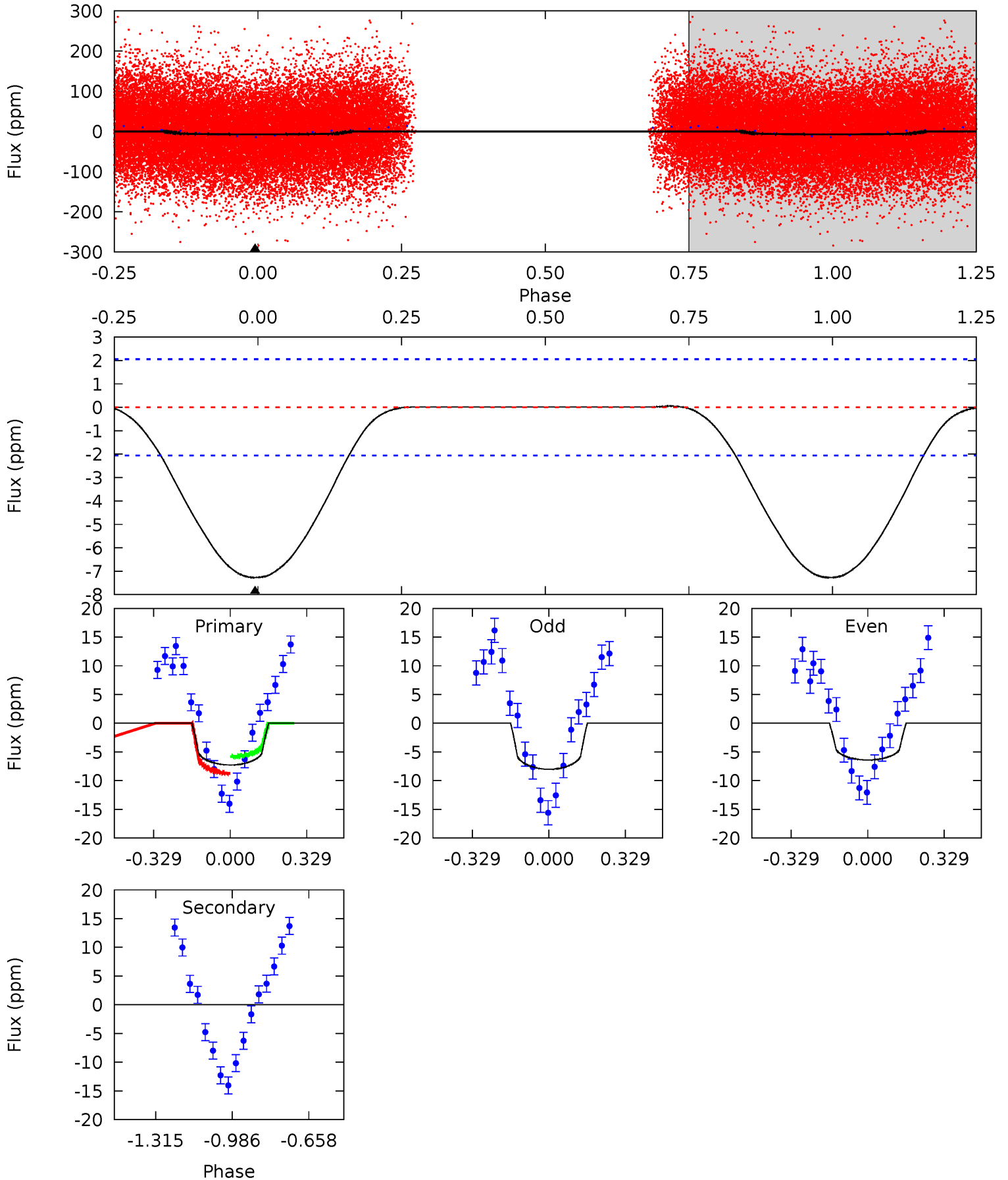
TCE 011093203-02 P= 0.689326 Days $T_0=132.189966$ (BKJD)



DV Model-Shift Uniqueness Test

011093203-02, P = 0.689300 Days, E = 130.848514 Days

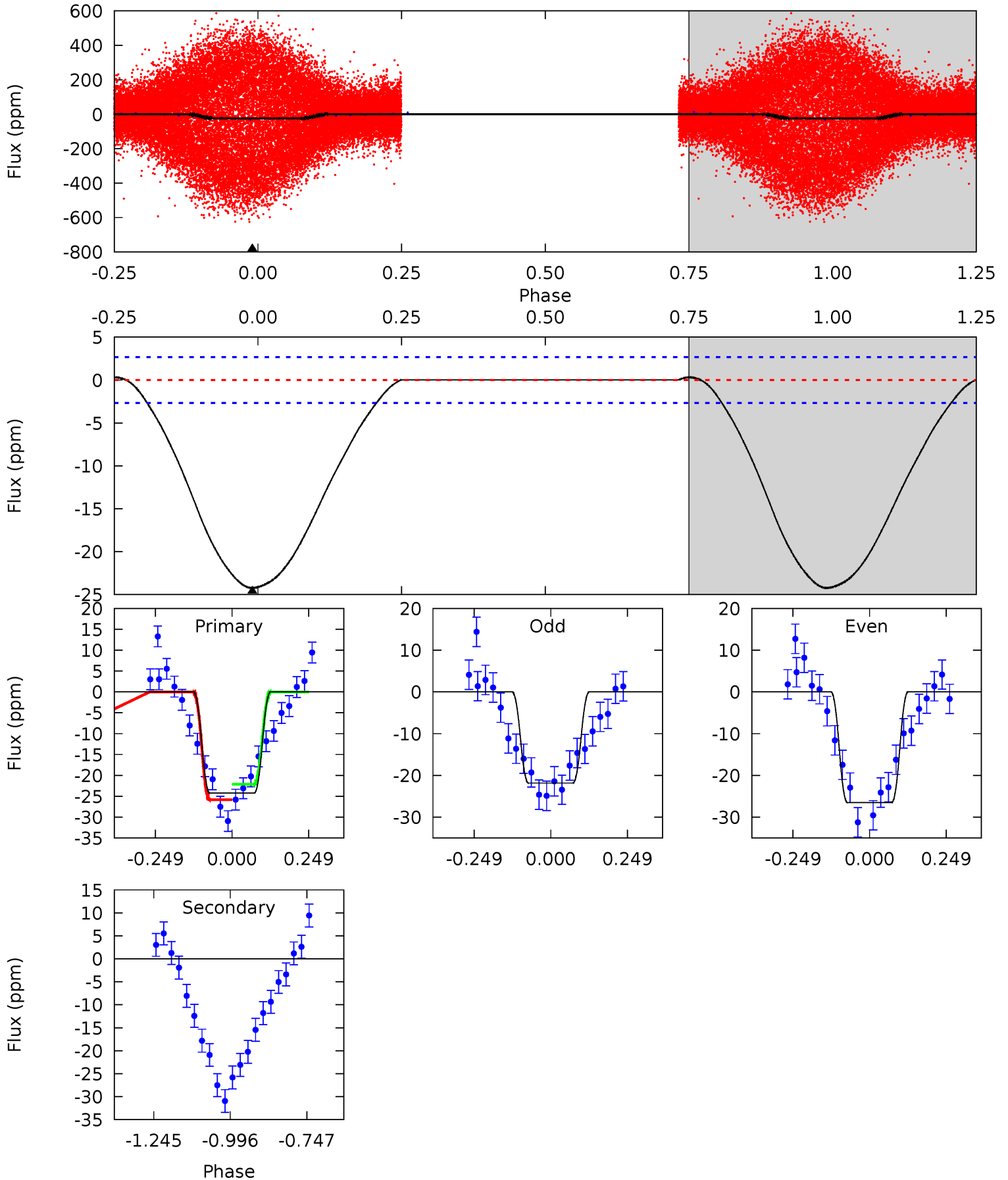
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	0	0	0	4.31	0.98	0.11	15.2	15.2	0	0	1.71	0.96	0.01	3.10



Alt Model-Shift Uniqueness Test

011093203-02, P = 0.689326 Days, E = 131.500640 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.6	0	0	0	4.37	1.15	0.83	39.6	39.6	0	0	3.79	0.76	0.01	3.08



Stellar Parameters For KIC 011093203

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7471^{+235}_{-314}	$3.971^{+0.228}_{-0.152}$	$-0.040^{+0.200}_{-0.350}$	$2.255^{+0.540}_{-0.660}$	$1.732^{+0.185}_{-0.317}$	$0.213^{+0.294}_{-0.095}$
	+3%/-4%	+6%/-4%	+500%/-875%	+24%/-29%	+11%/-18%	+138%/-44%
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 011093203-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 0	$0.45^{+0.26}_{-0.24}$	5062^{+358}_{-391}	-4391^{+8573}_{-978}	$-0.016^{+0.589}_{-0.589}$
Alt.	0 ± 1	$1.27^{+0.35}_{-0.32}$	5048^{+374}_{-424}	-4322^{+351}_{-301}	$-0.004^{+0.069}_{-0.067}$

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 $A_{obs} \gg 1.0$

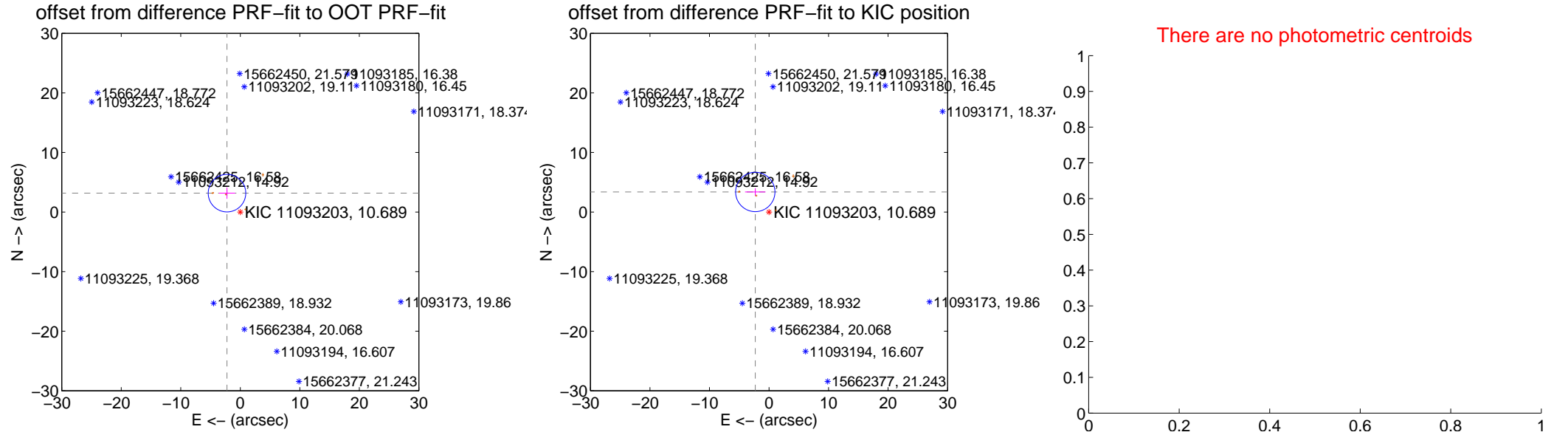
DV Centroid Data

Supplemental centroid analysis for 011093203-02. **Kepler magnitude: 10.69.** Transit SNR 5.53

There are 0 quarters with good PRF difference image offsets

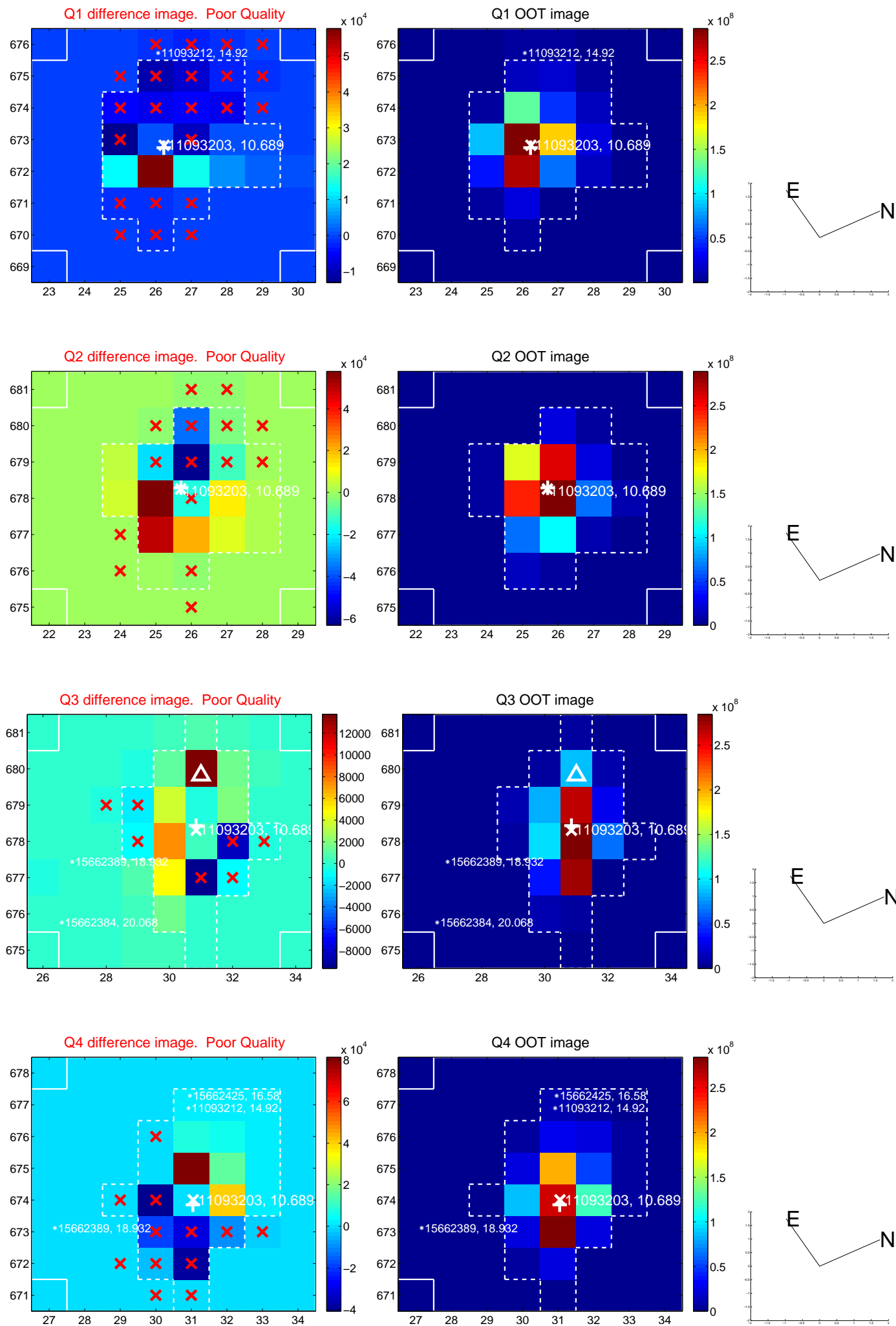
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.881 ± 1.051	3.69	2.236 ± 1.354	3.172 ± 0.946
PRF-fit source offset from KIC position	4.084 ± 1.101	3.71	2.307 ± 1.724	3.370 ± 0.622
photometric centroid source offset	—	—	—	—

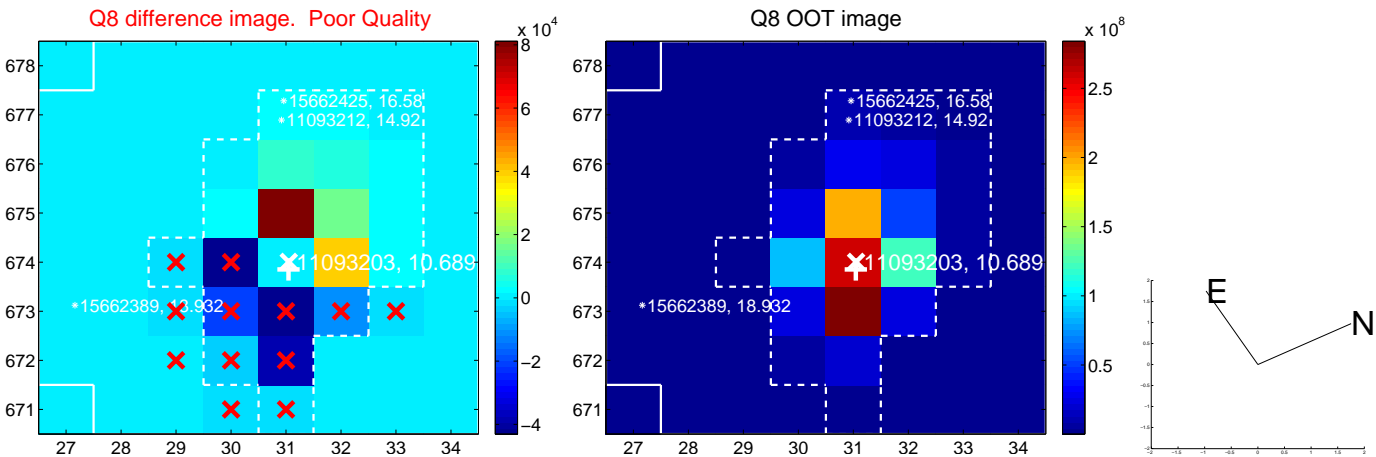
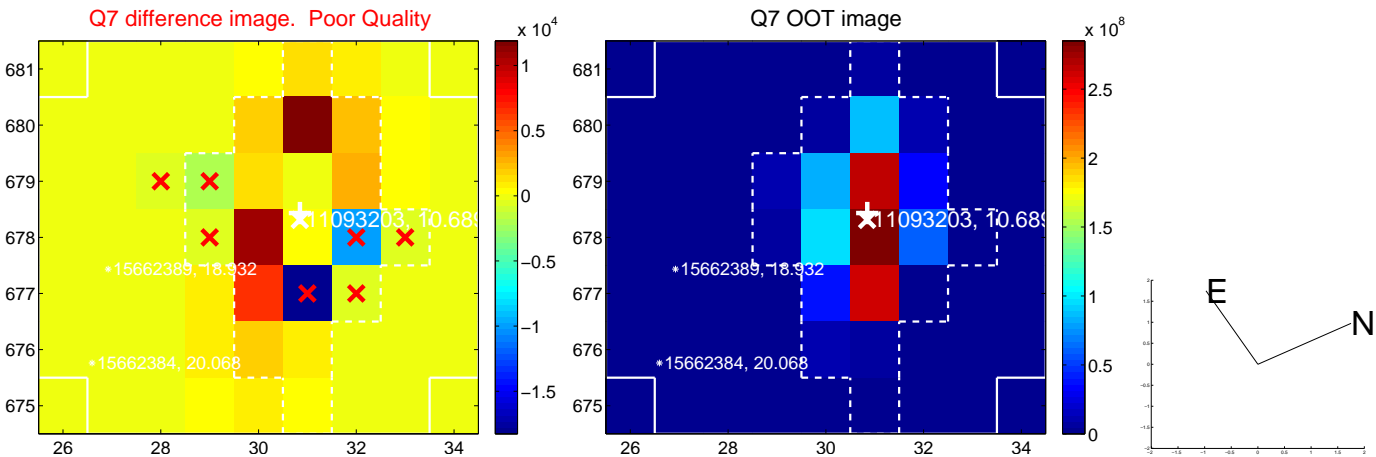
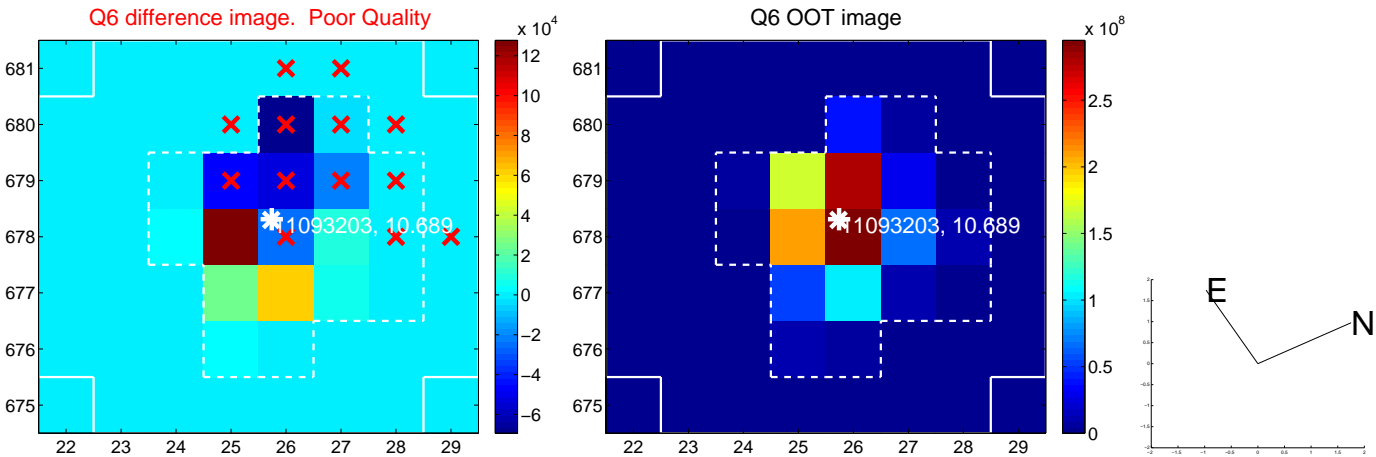
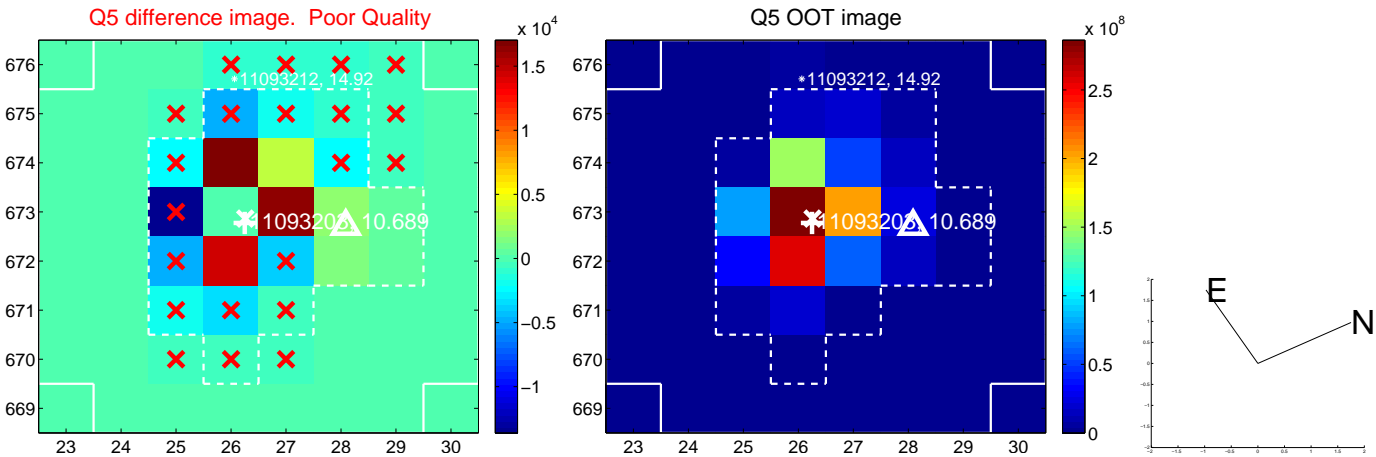


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

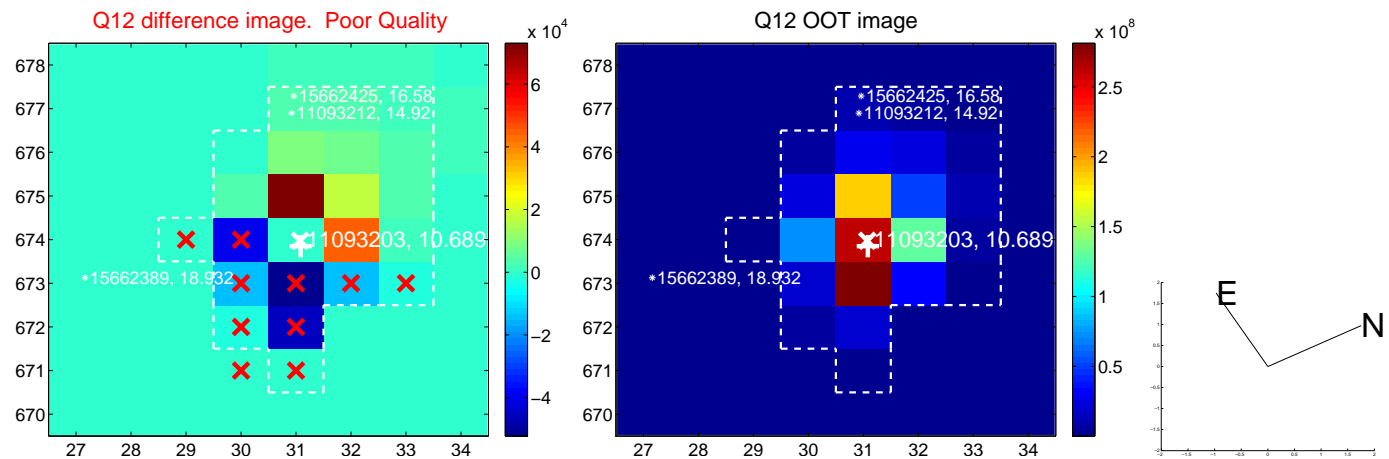
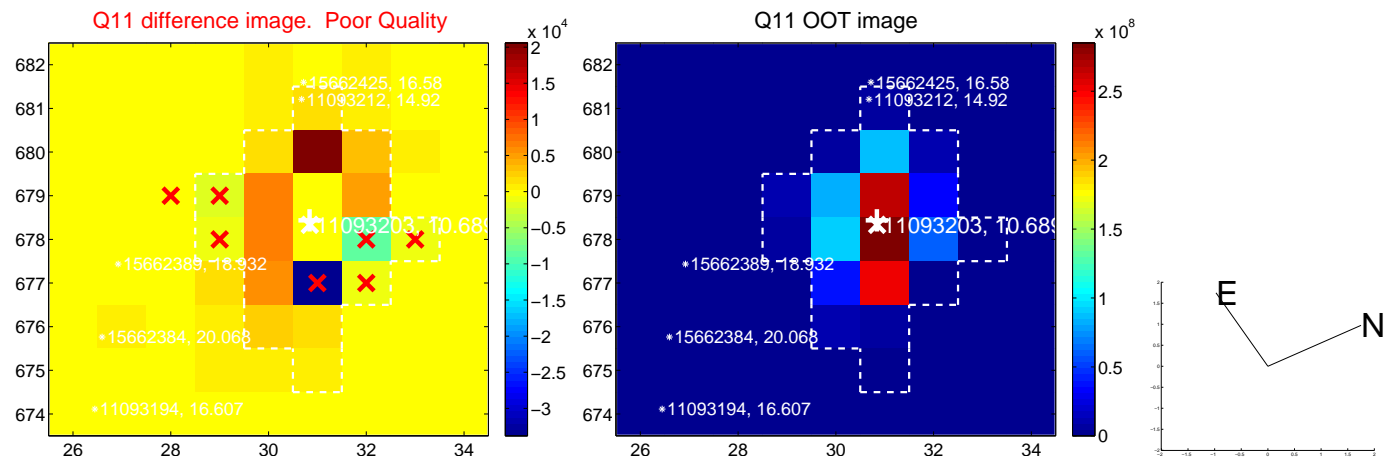
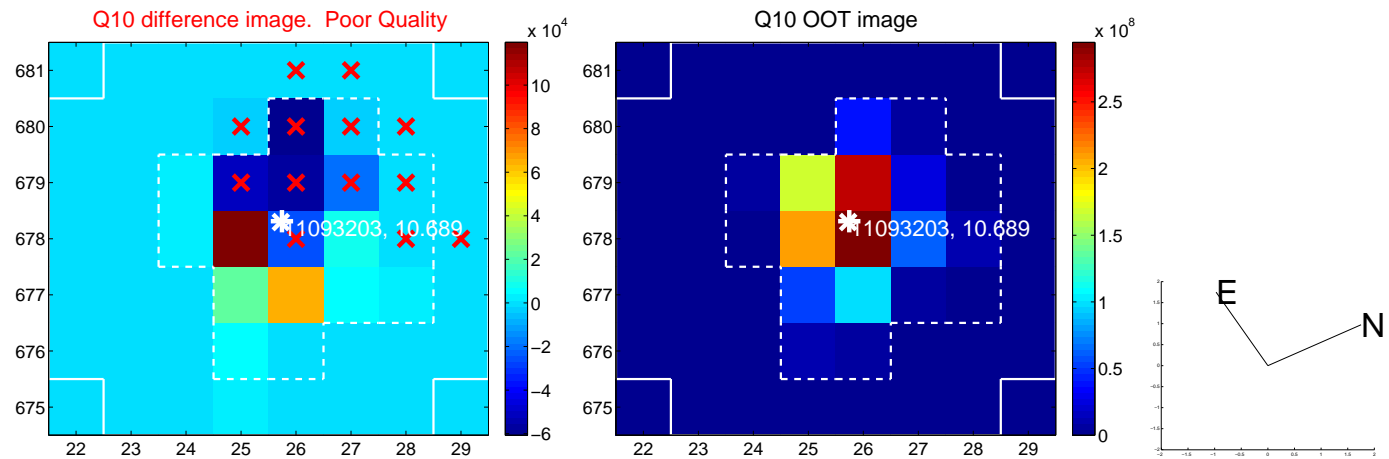
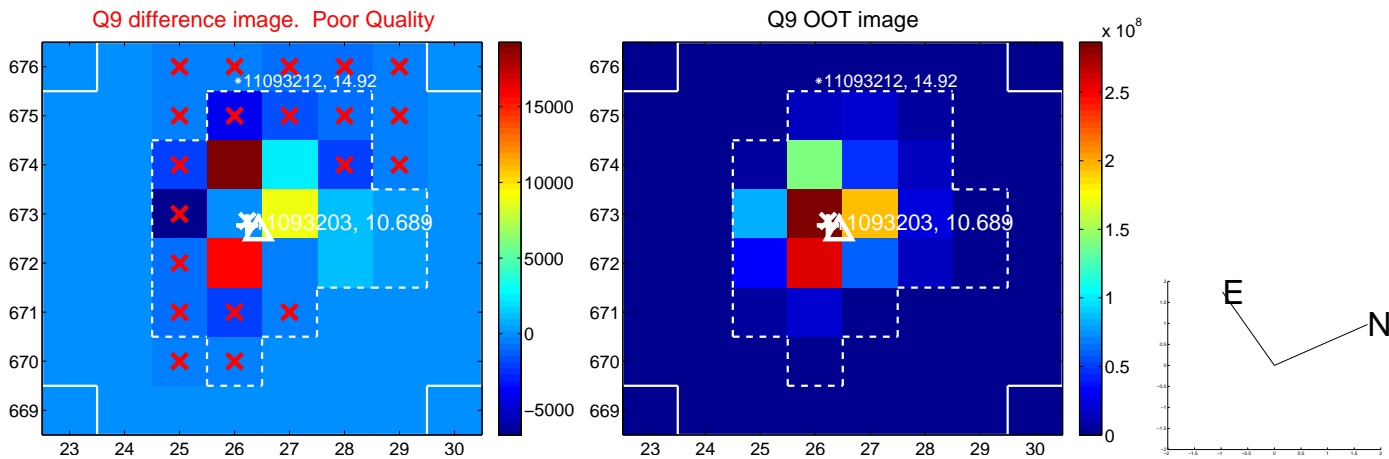
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



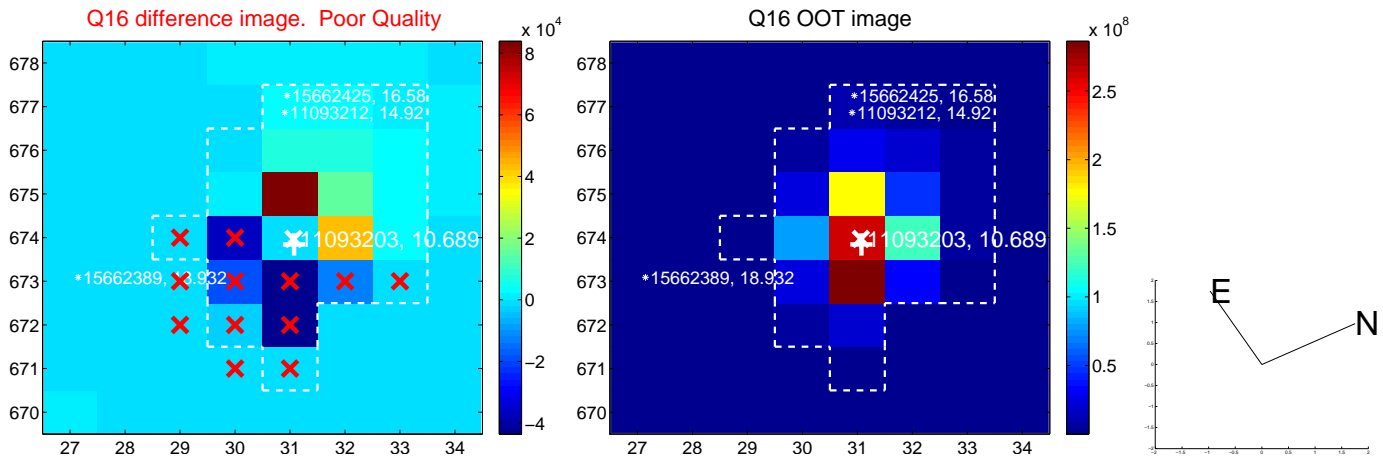
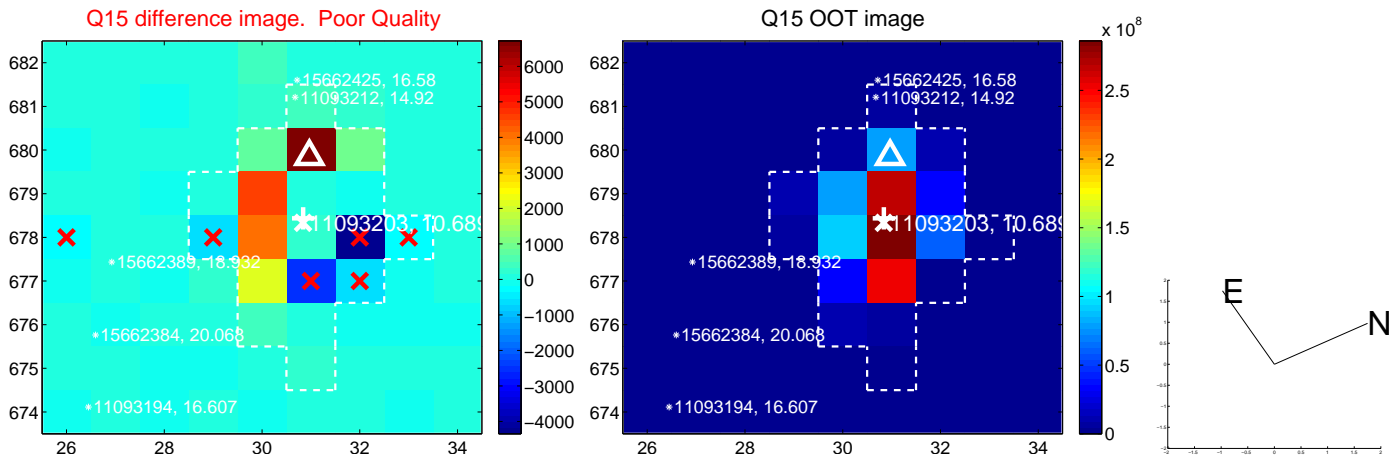
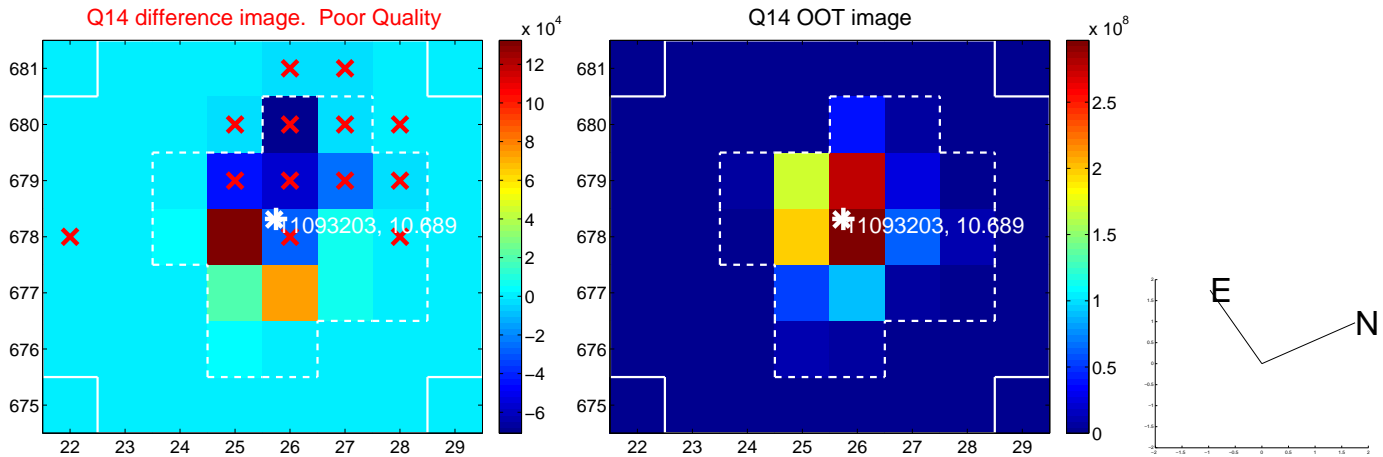
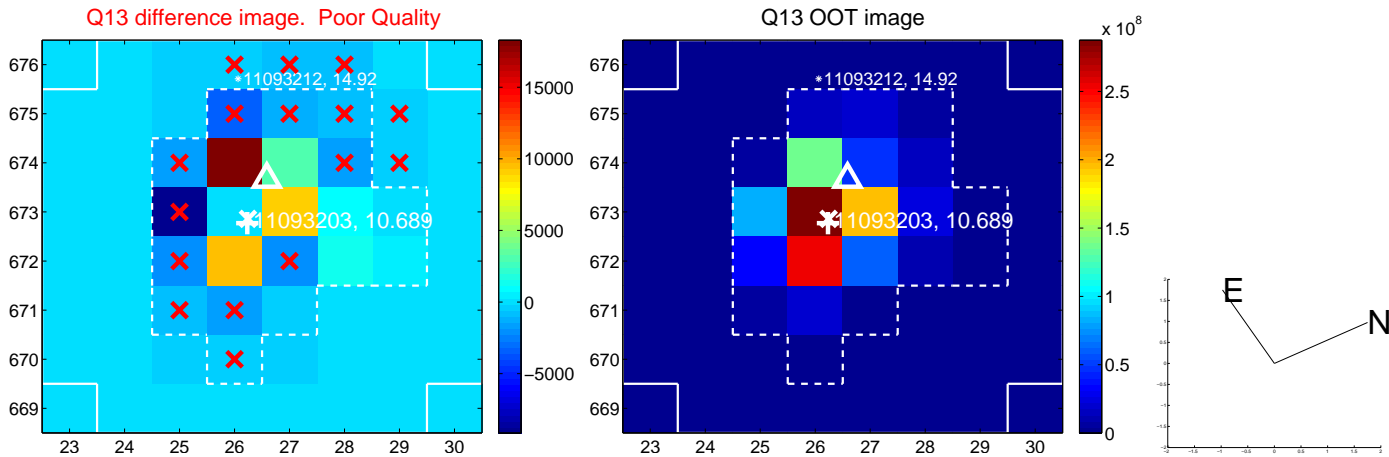
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



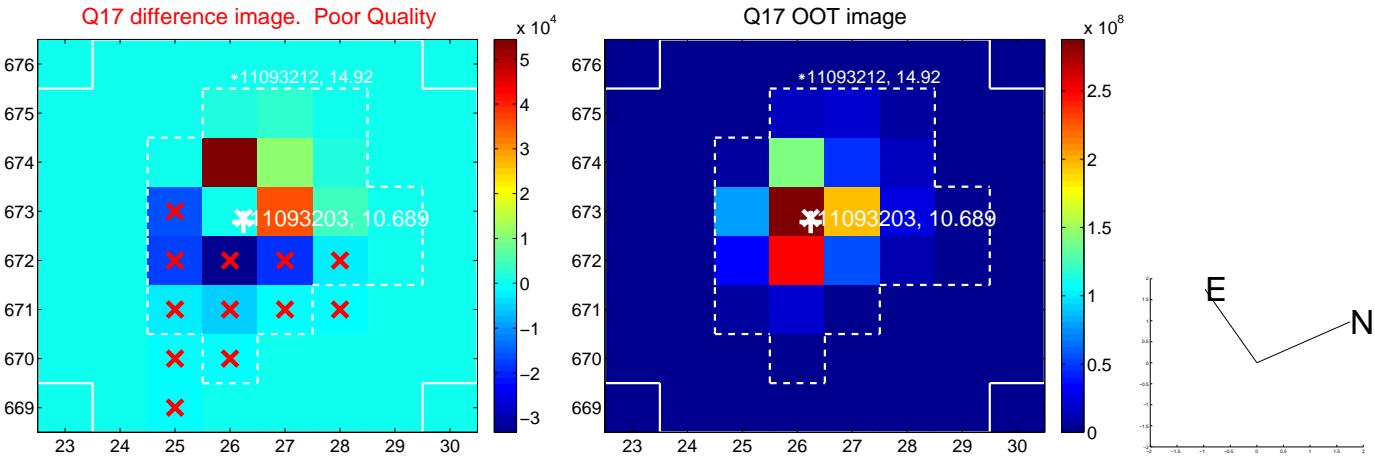
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



folded centroid time series figure for this object.

UKIRT Image

