

KIC 007692093

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})
007692093-01	OBS	3337.01	11.166165	134.971185	314.5	3.540	10.2	10.8	0.84	5552	1.66	65.31
007692093-02	OBS	3337.02	91.173432	154.954288	486.8	7.635	7.5	8.0	0.84	5552	2.25	3.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007692093-01	OBS	PC	0.97	0	0	0	0	NO_COMMENT
007692093-02	OBS	FP	0.15	1	0	0	0	INDIV_TRANS_SKYE—CENT_FEW_DIFFS

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

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

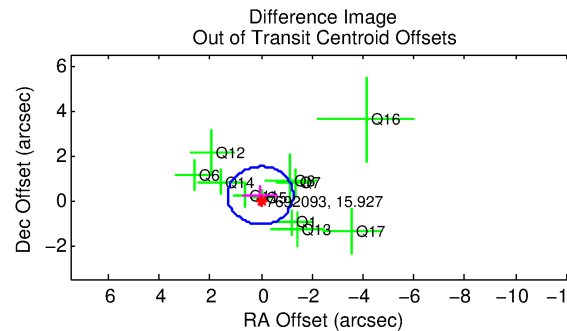
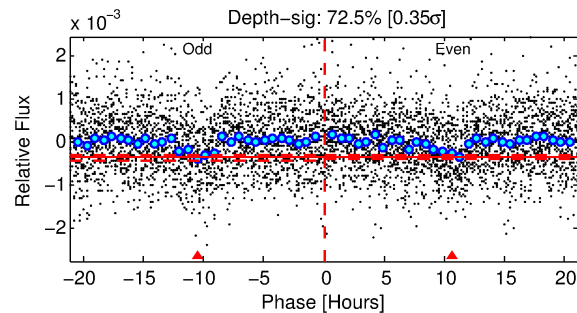
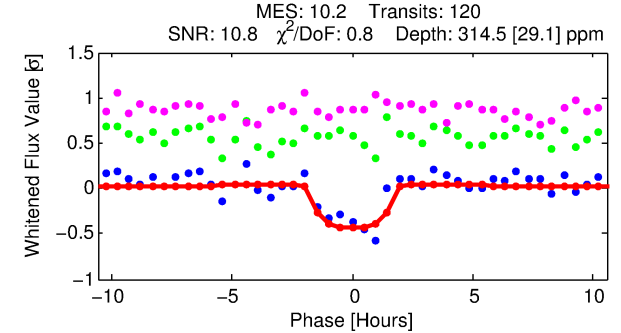
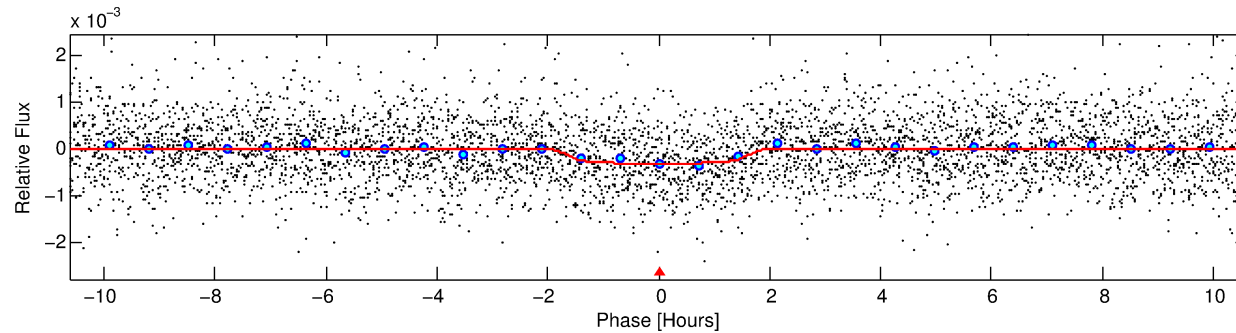
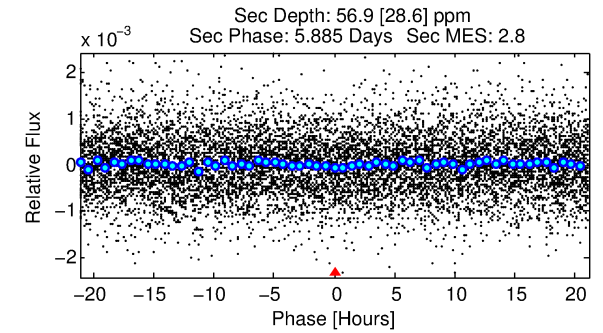
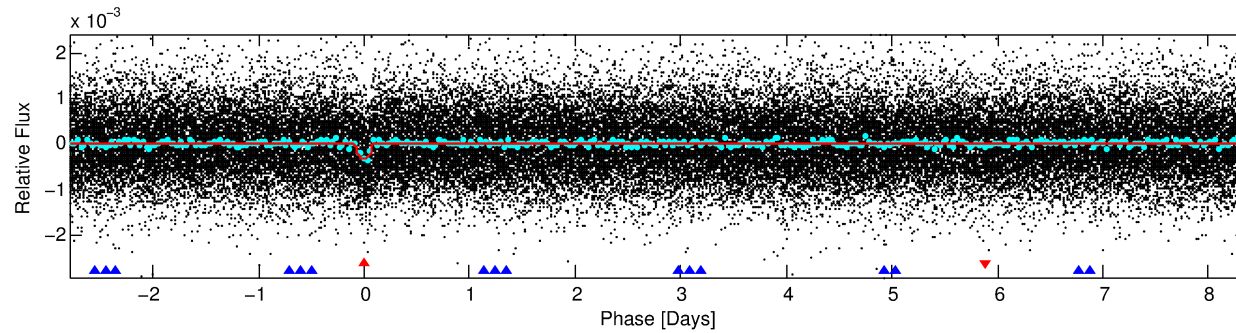
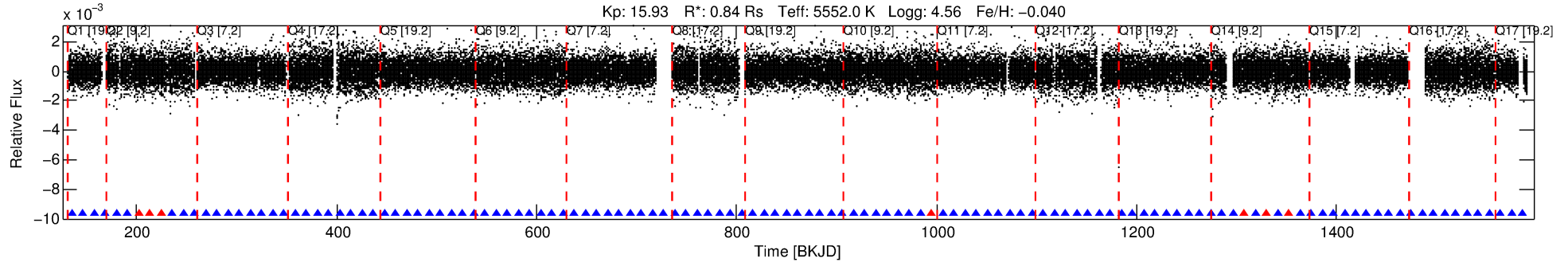
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007692093-01

No Significant Match Found

DV One-Page Summary

KIC: 7692093 Candidate: 1 of 2 Period: 11.166 d
KOI: K03337.01 Corr: 0.972



DV Fit Results:

Period = 11.16617 [0.00010] d
Epoch = 134.9712 [0.0068] BKJD
Rp/R* = 0.0182 [0.0141]
b = 0.81 [1.40]
Seff = 65.31 [20.84]
Teq = 725 [58] K
Rp = 1.66 [1.35] Re
a = 0.0954 [0.0194] AU
Ag = 103.24 [170.72] [0.60σ]
Teffp = 3572 [1457] K [1.95σ]

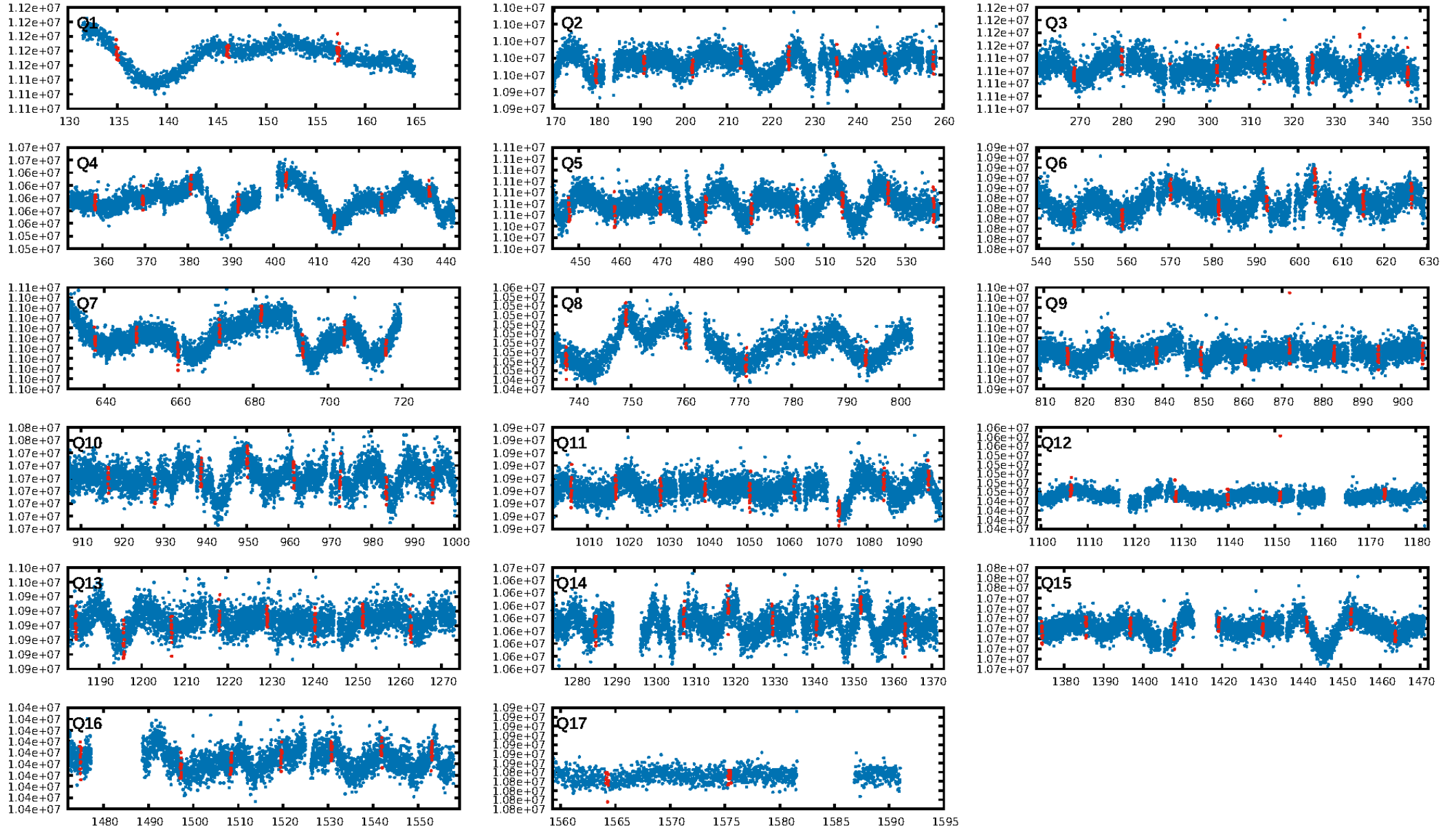
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [228.17σ]
ModelChiSquare2-sig: 96.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.22e-23
RollingBand-fgt: 0.94 [108/115]
GhostDiagnostic-chr: 5.325
Centroid-sig: 13.9%
Centroid-so: 2.083 arcsec [1.44σ]
OotOffset-rm: 0.216 arcsec [0.50σ]
OotOffset-st: 2/2/3/4 [11]
KicOffset-rm: 0.191 arcsec [0.34σ]
KicOffset-st: 2/2/3/4 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 1.00 [17/17]

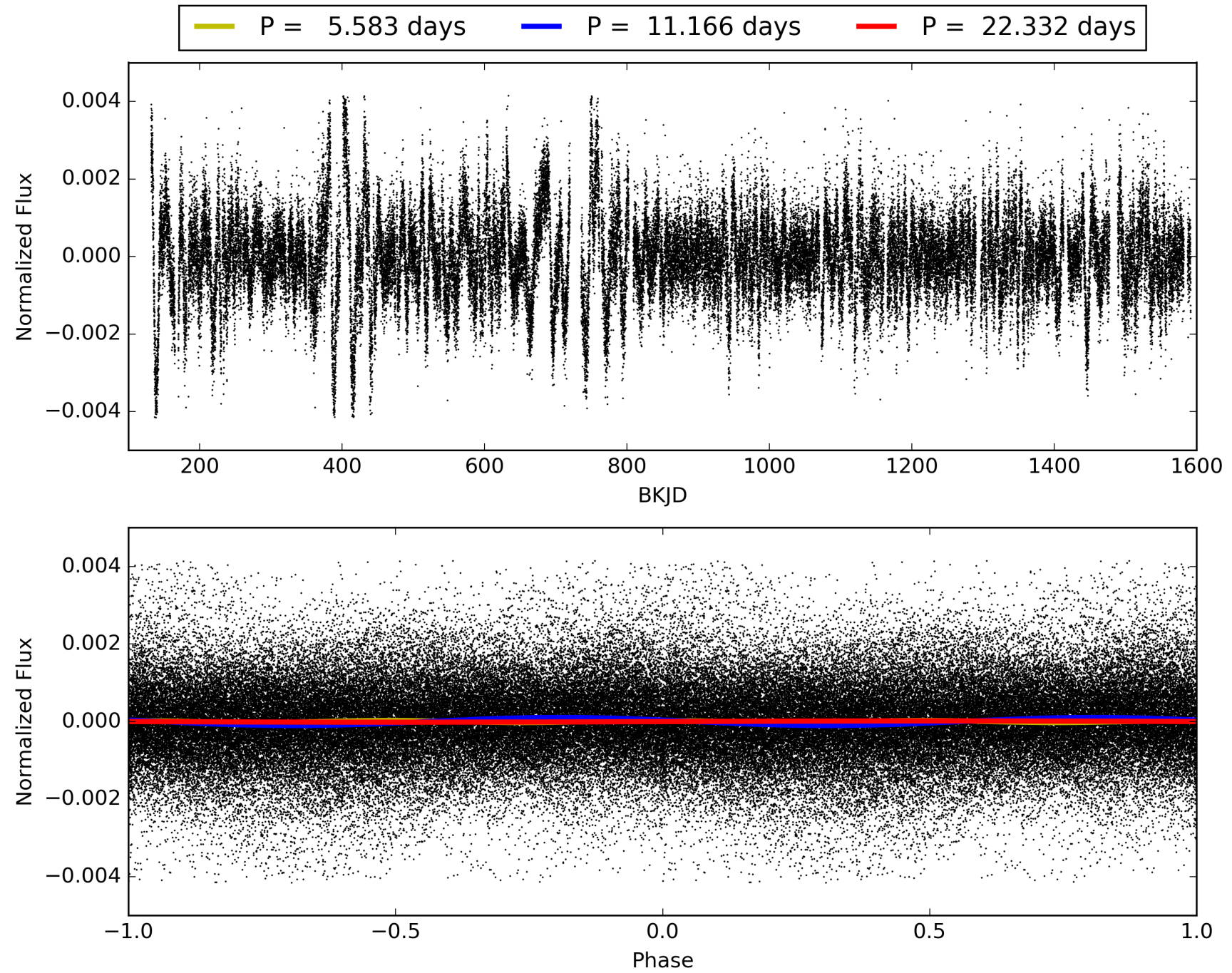
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:17:49 Z

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

TCE 007692093-01, PDC Light Curves

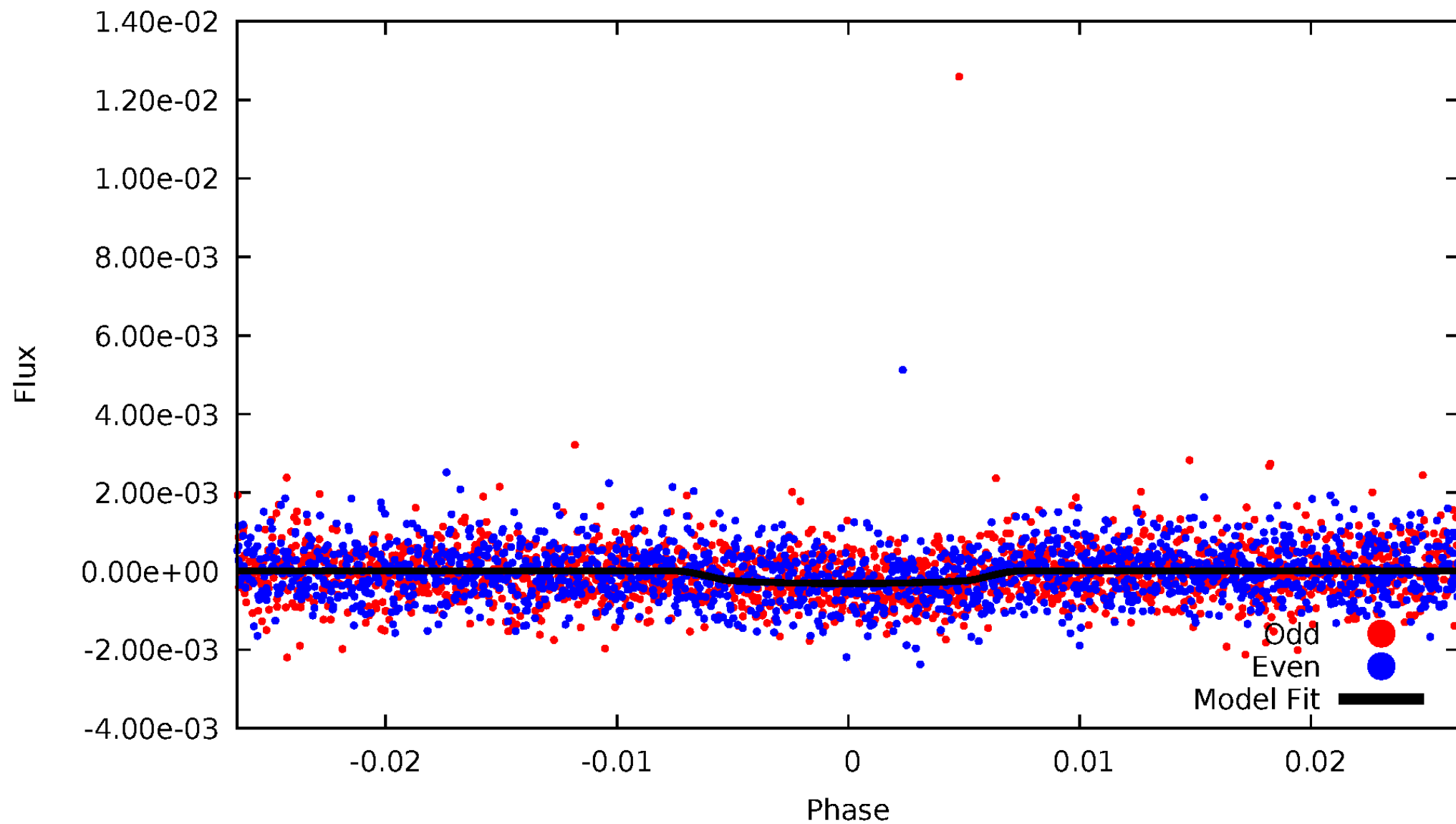


TCE 007692093-01



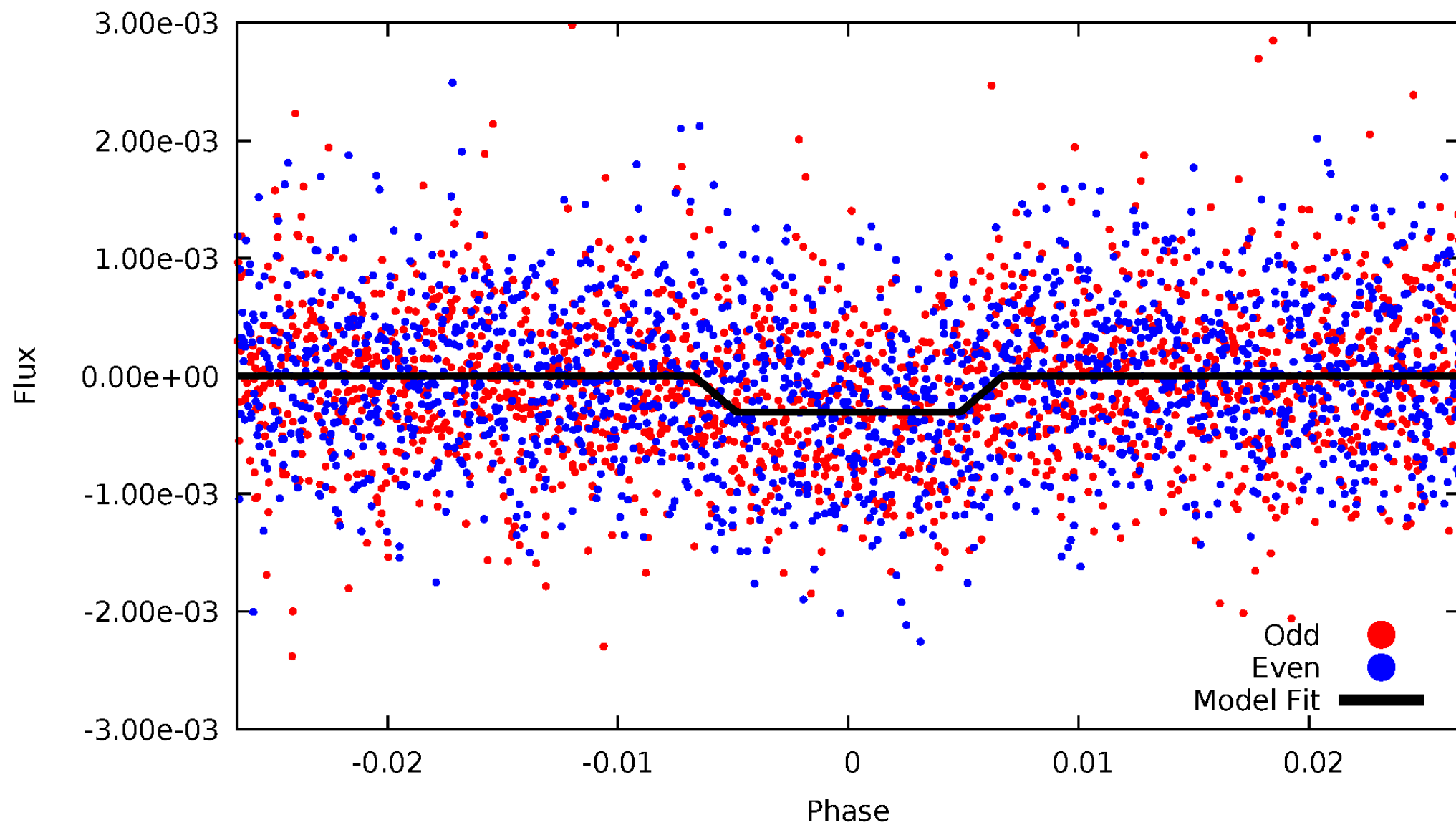
DV Odd/Even

TCE 007692093-01



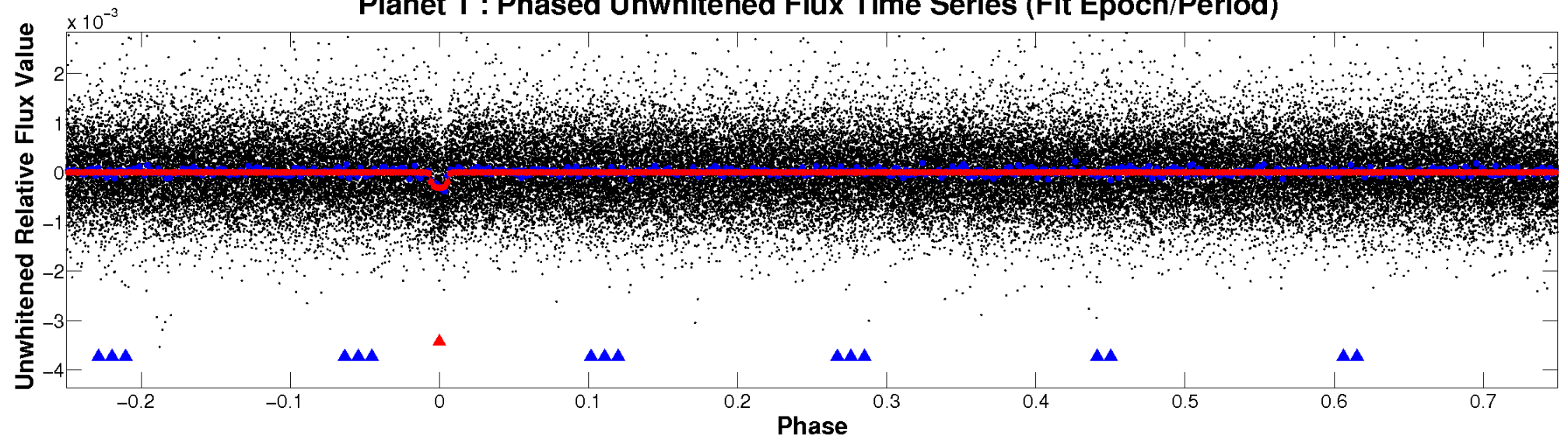
ALT Odd/Even

TCE 007692093-01

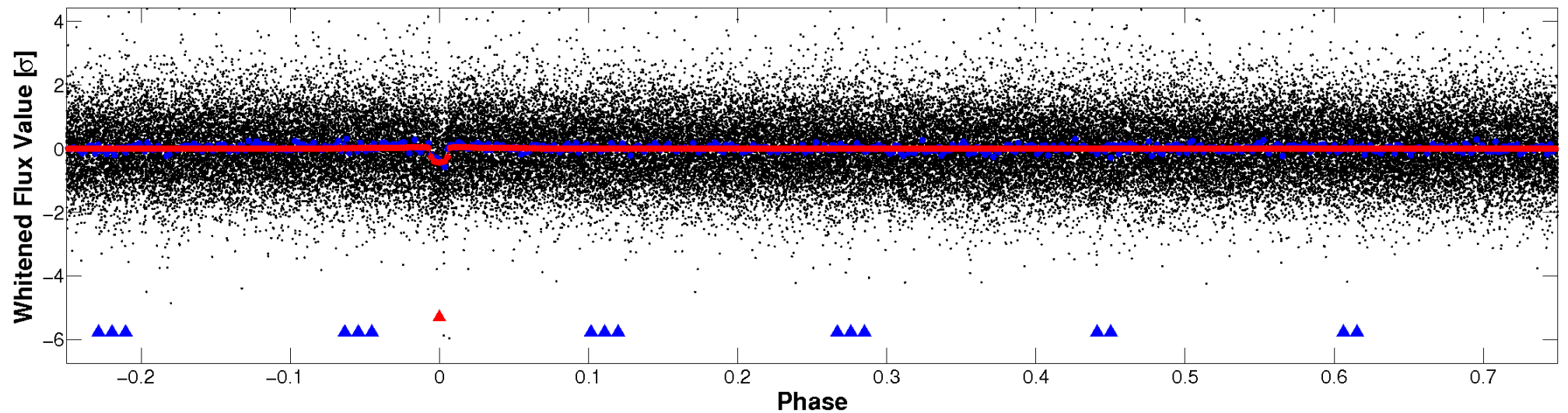


Non-Whitened Vs. Whitened Light Curve

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

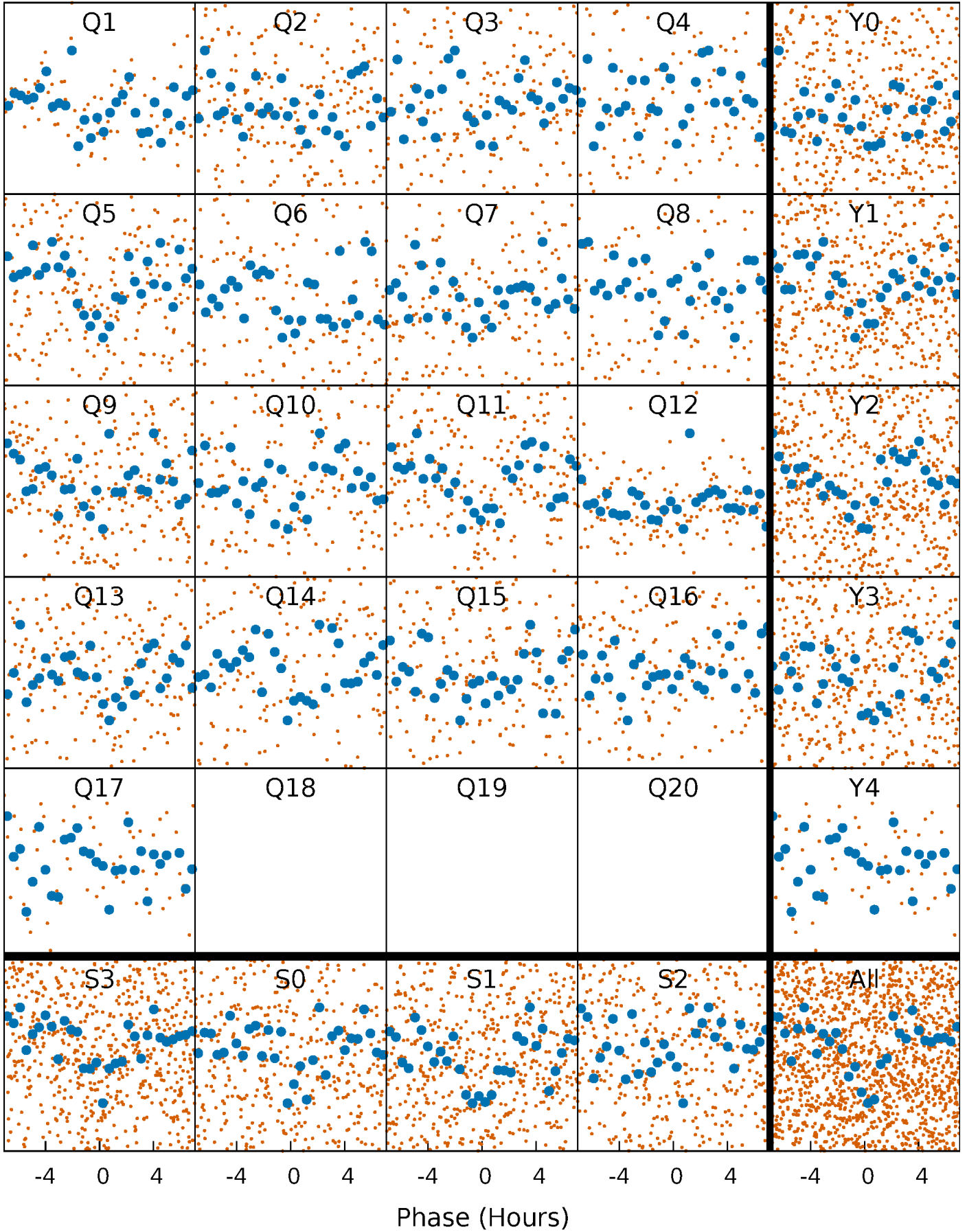


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



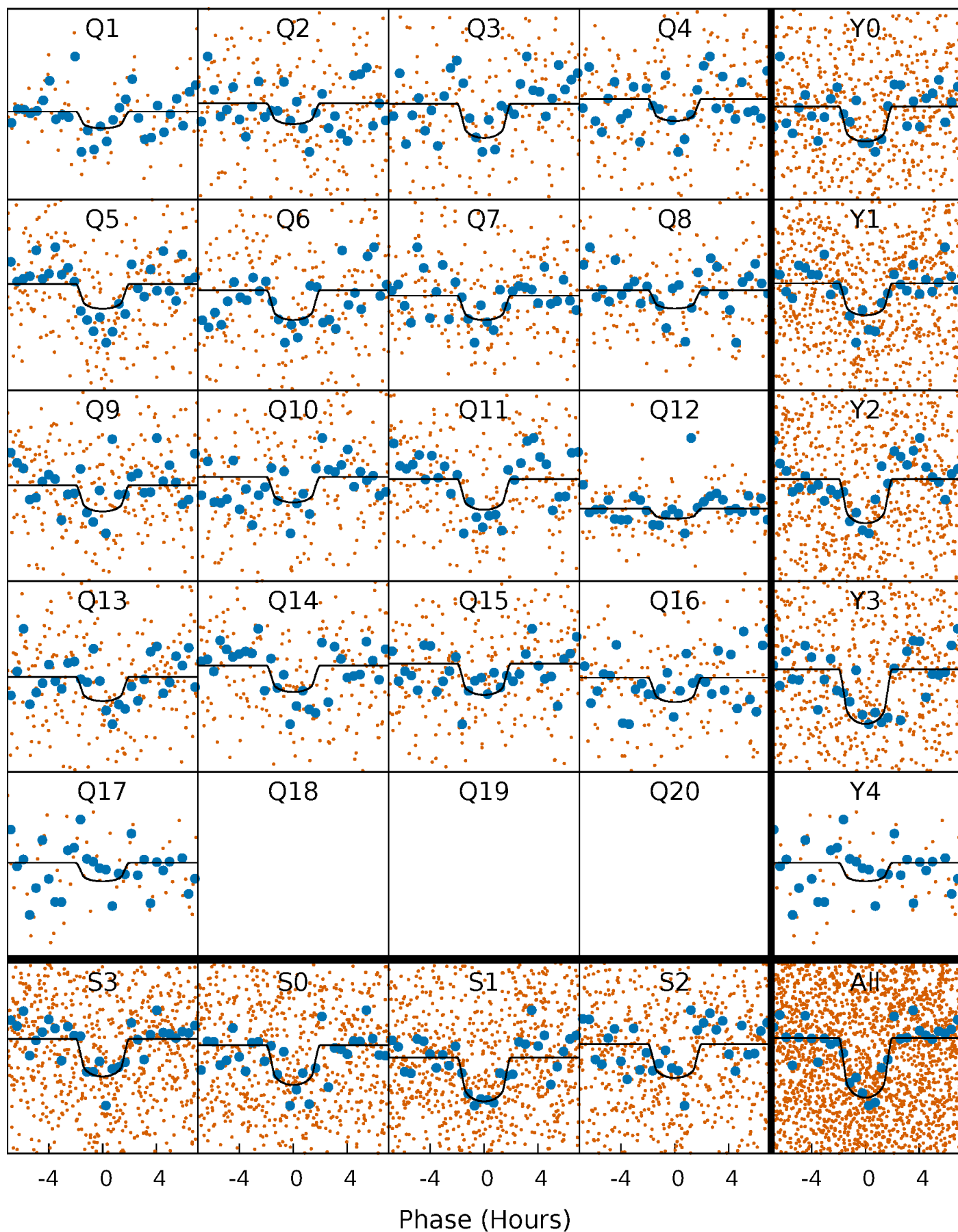
PDC Quarter-Phased Transit Curves

TCE 007692093-01 P= 11.166165 Days $T_0=134.971185$ (BKJD)



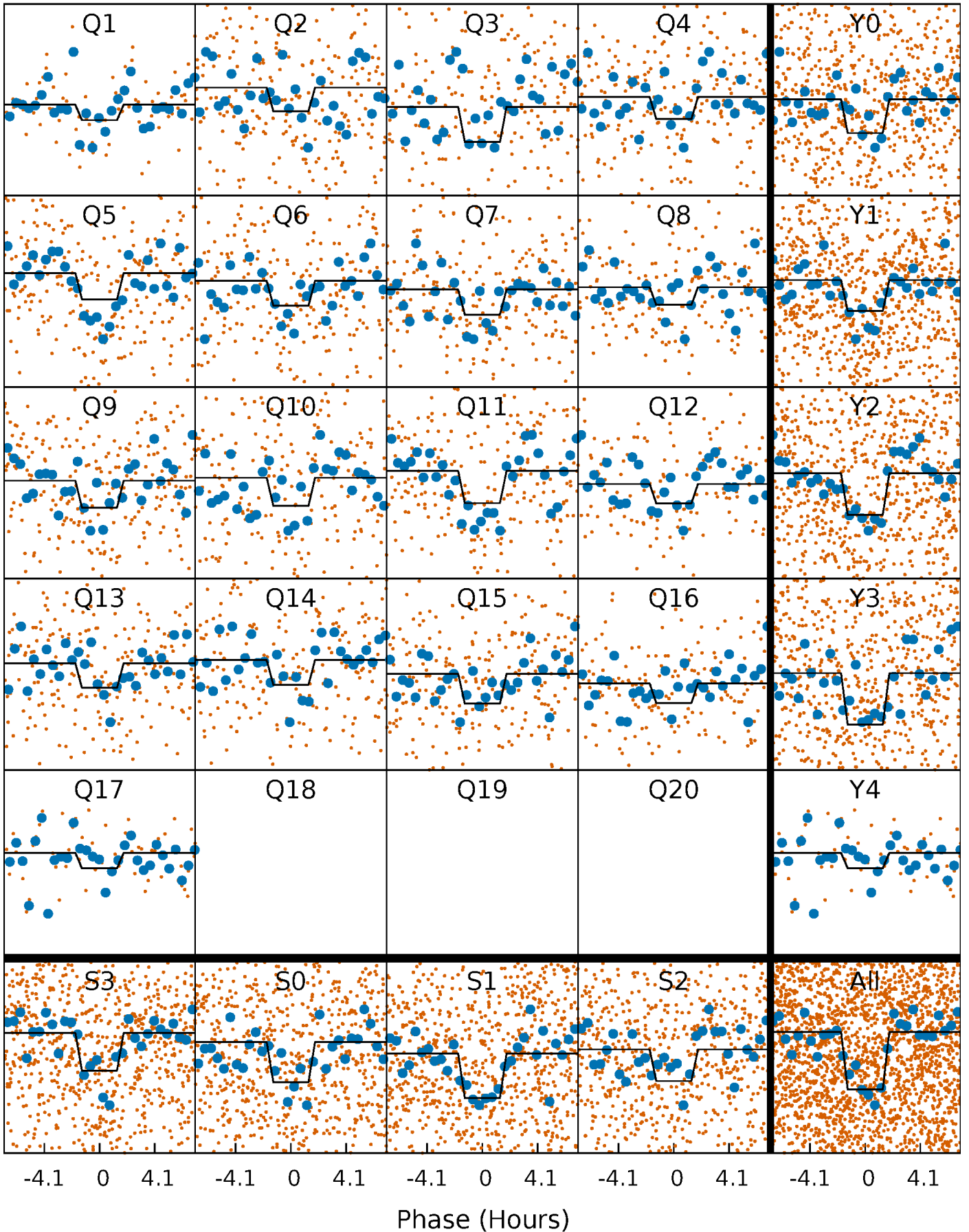
DV Quarter-Phased Transit Curves

TCE 007692093-01 P= 11.166165 Days $T_0=134.971185$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

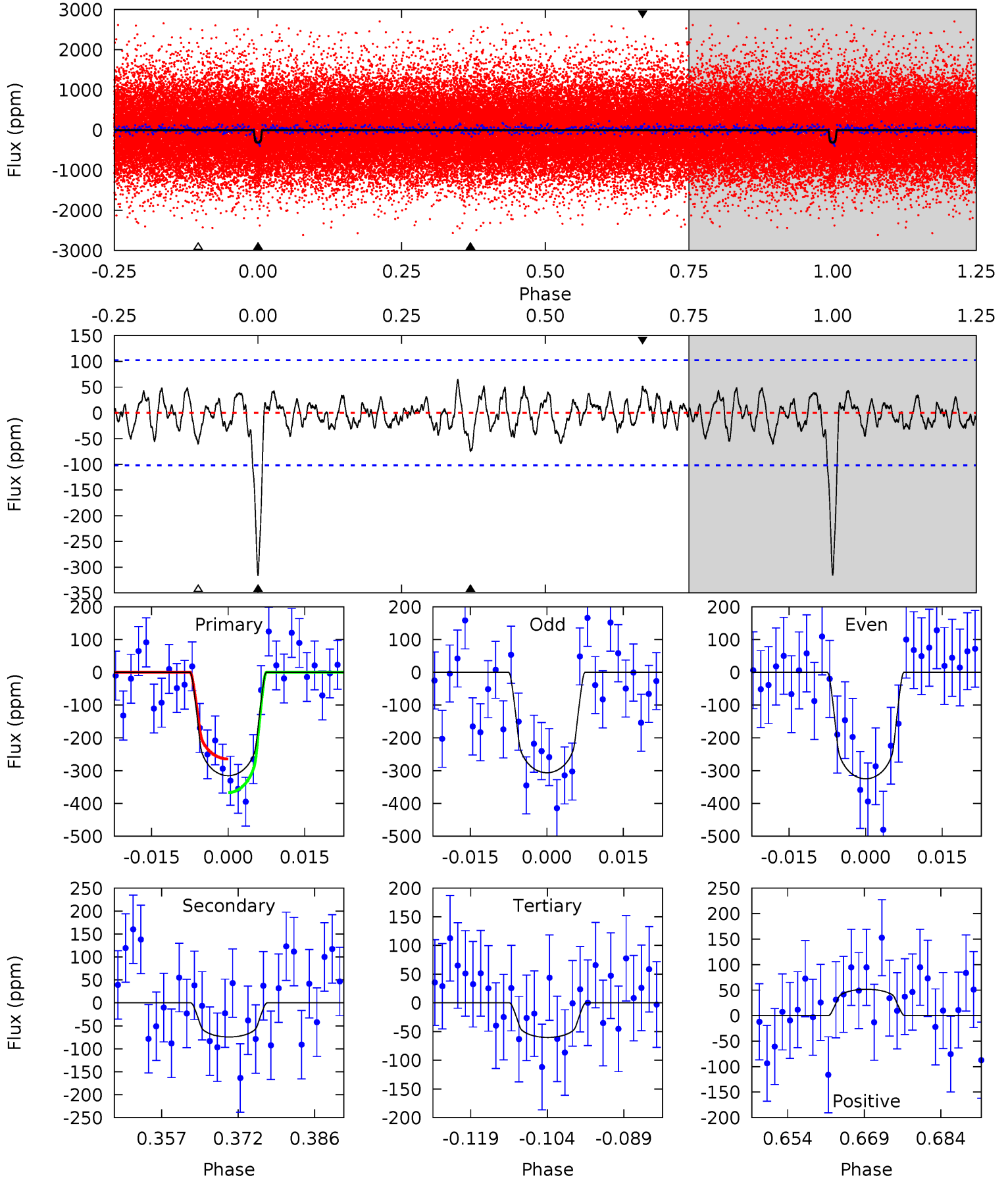
TCE 007692093-01 P= 11.166229 Days $T_0=134.967518$ (BKJD)



DV Model-Shift Uniqueness Test

007692093-01, P = 11.166165 Days, E = 123.805020 Days

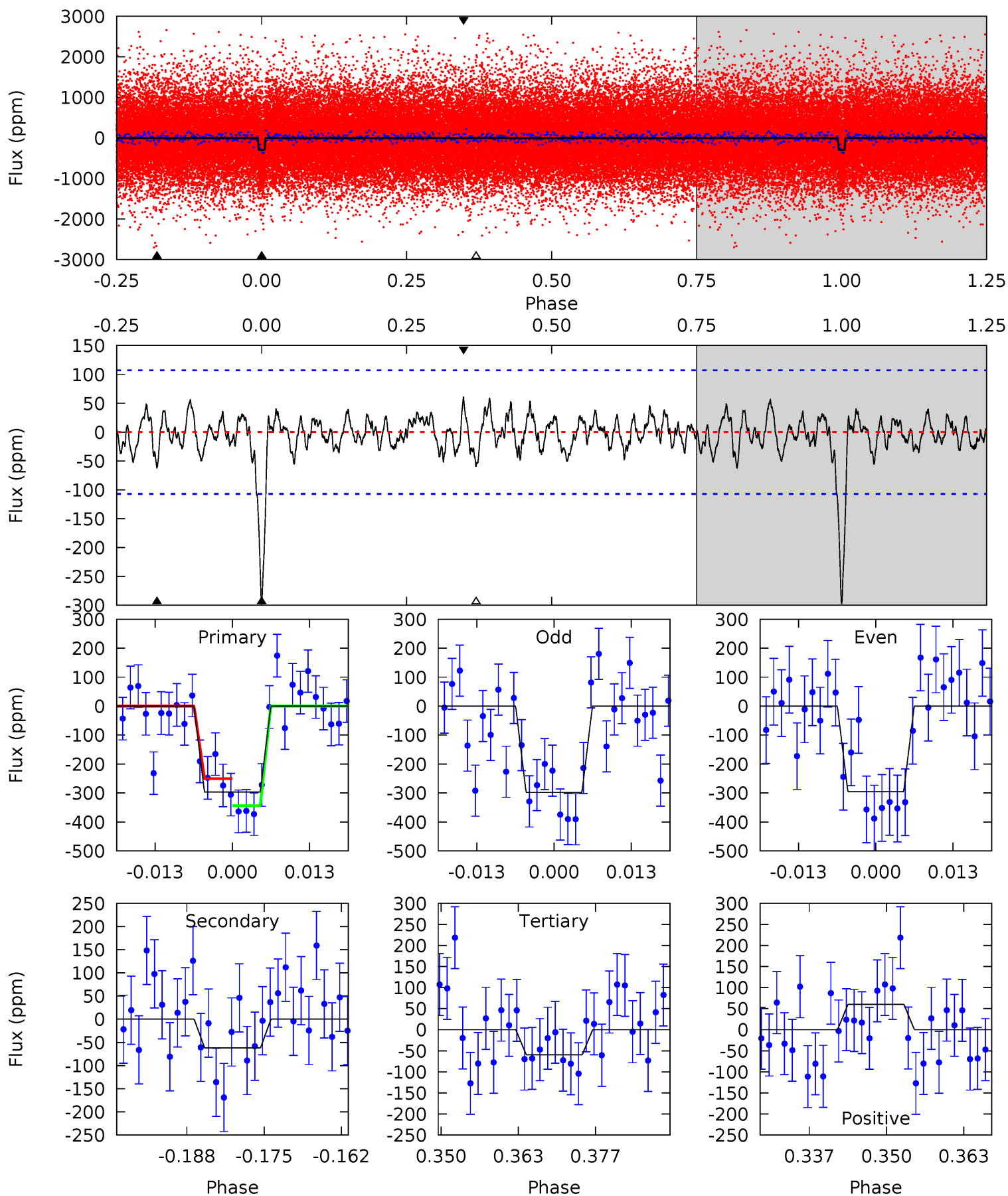
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	3.60	2.92	2.50	4.95	2.44	1.14	12.3	12.8	0.68	1.10	0.45	0.90	0.17	2.48



Alt Model-Shift Uniqueness Test

007692093-01, P = 11.166229 Days, E = 123.801289 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	2.88	2.77	2.81	4.97	2.47	1.06	11.0	11.0	0.11	0.07	0.06	1.11	0.17	2.17



Stellar Parameters For KIC 007692093

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5552^{+166}_{-166}	$4.562^{+0.038}_{-0.162}$	$-0.040^{+0.300}_{-0.300}$	$0.836^{+0.201}_{-0.067}$	$0.931^{+0.081}_{-0.102}$	$2.248^{+0.454}_{-1.000}$
	+3%/-3%	+1%/-4%	+750%/-750%	+24%/-8%	+9%/-11%	+20%/-44%
Source	PHO1	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 007692093-01 / KOI 3337.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-74 ± 21	$1.92^{+1.17}_{-1.11}$	1035^{+56}_{-45}	3974^{+1530}_{-628}	103^{+433}_{-67}
Alt.	-62 ± 22	$1.87^{+1.27}_{-1.10}$	1033^{+56}_{-44}	3883^{+1558}_{-659}	88^{+427}_{-60}

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

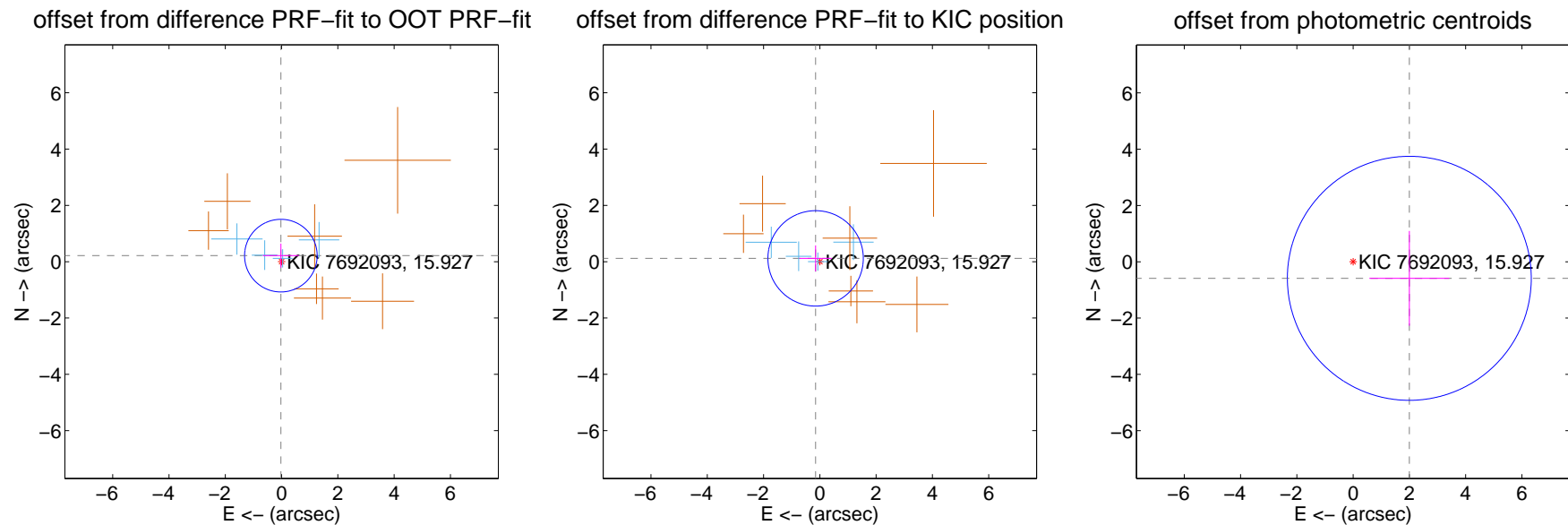
DV Centroid Data

Supplemental centroid analysis for 007692093-01. Kepler magnitude: 15.93. Transit SNR 10.82

There are 4 quarters with good PRF difference image offsets

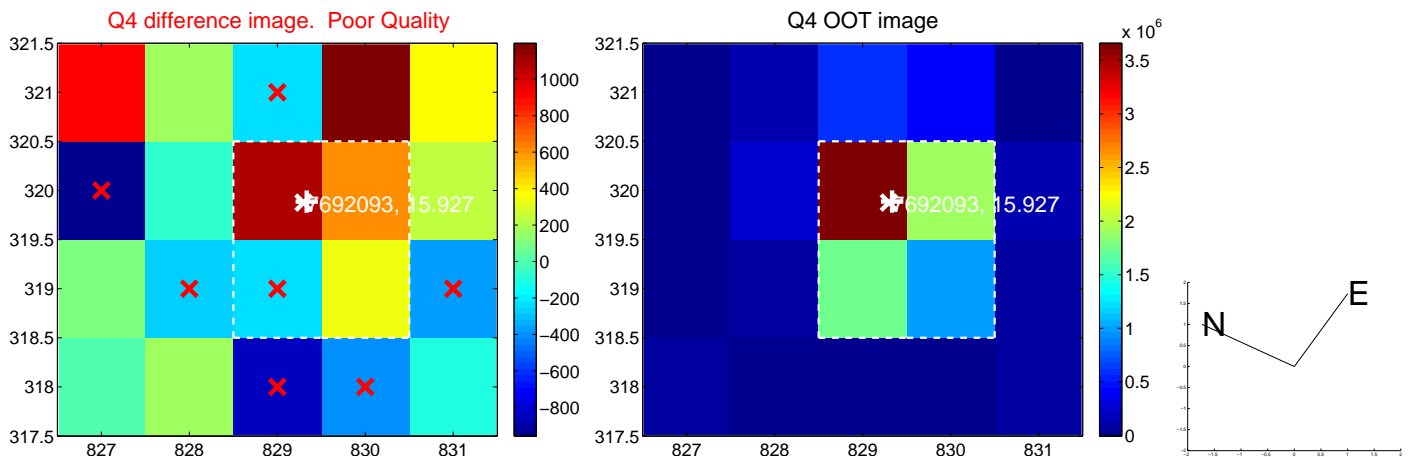
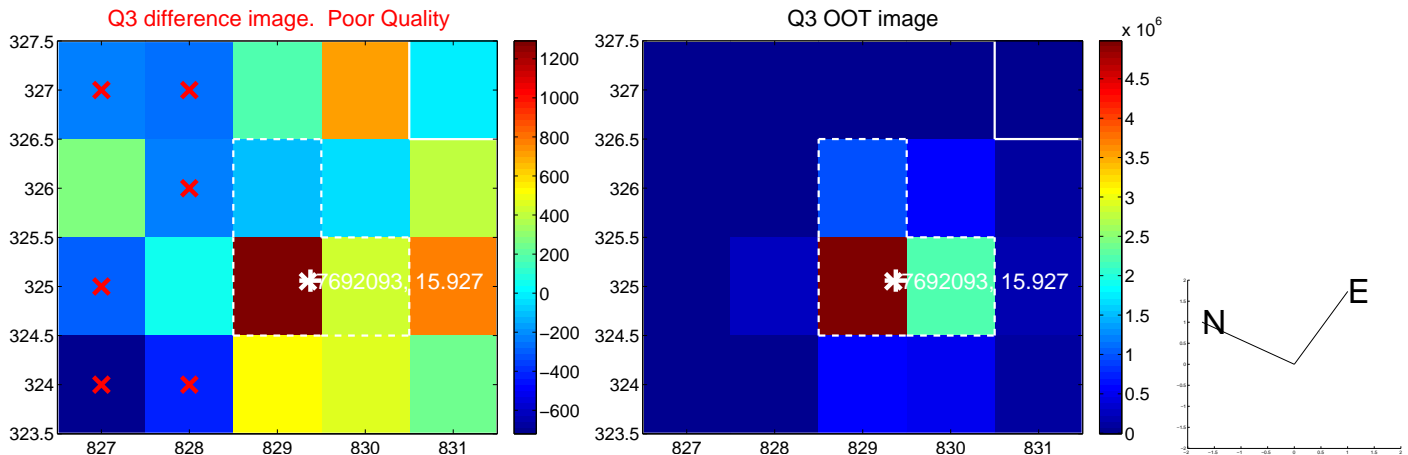
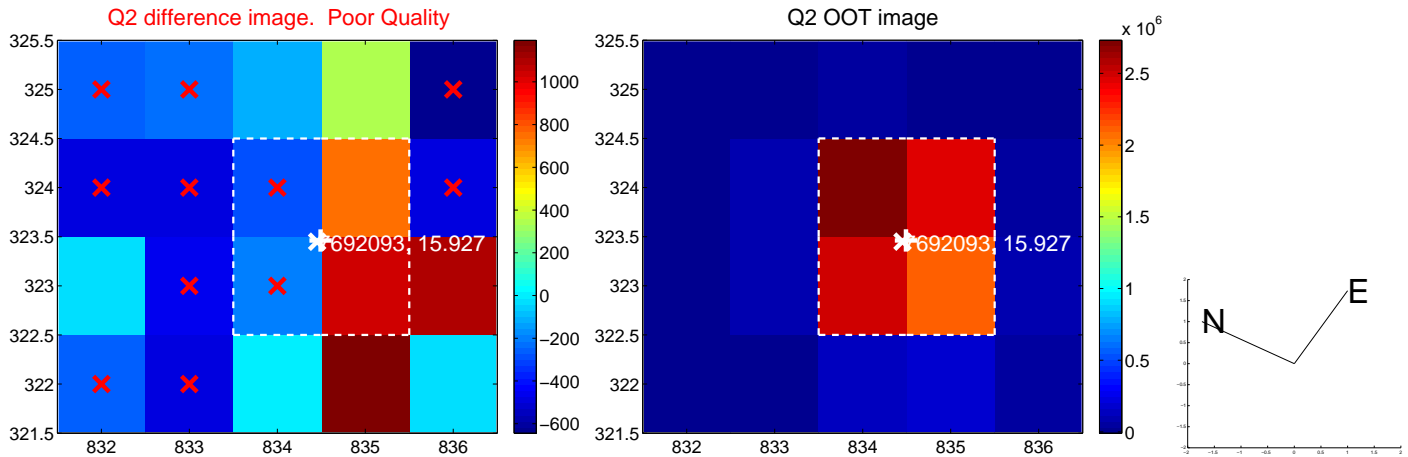
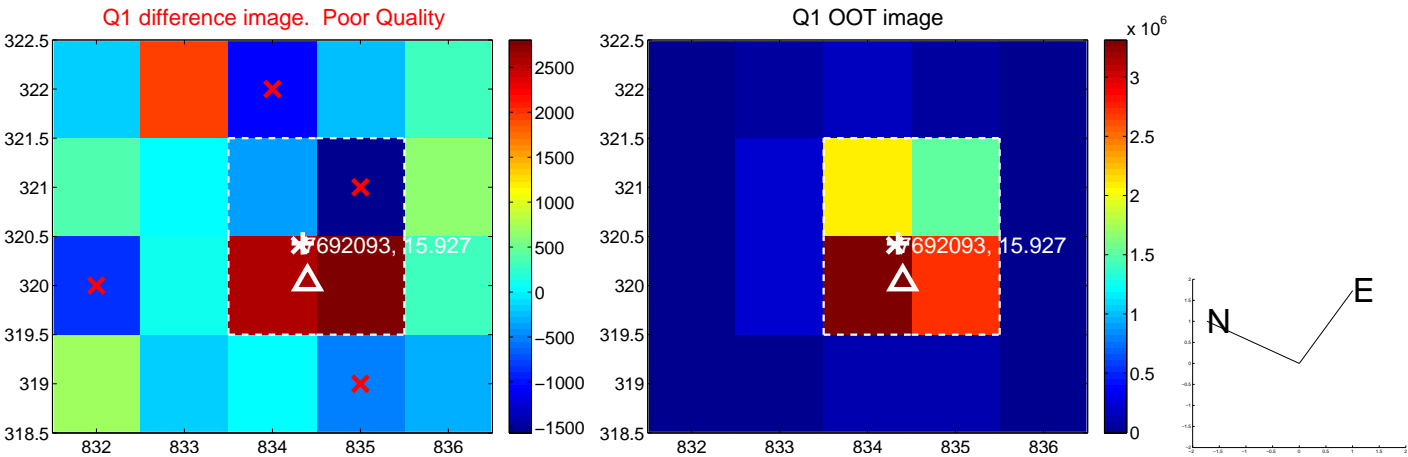
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.216 ± 0.430	0.50	0.025 ± 0.640	0.215 ± 0.429
PRF-fit source offset from KIC position	0.191 ± 0.565	0.34	0.151 ± 0.576	0.118 ± 0.461
photometric centroid source offset	2.08 ± 1.44	1.44	-2.00 ± 1.42	-0.59 ± 1.68

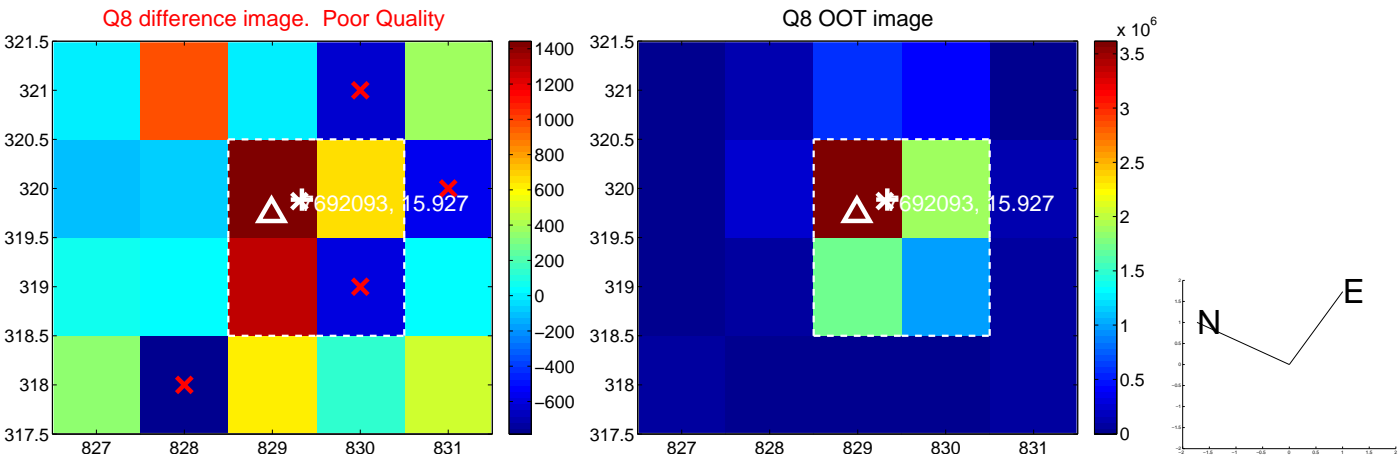
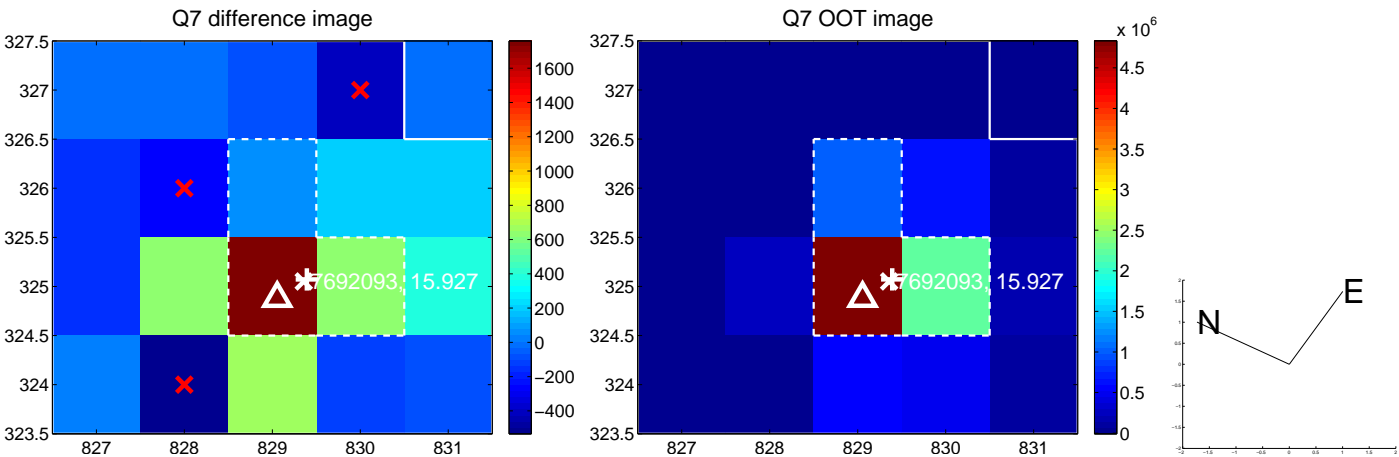
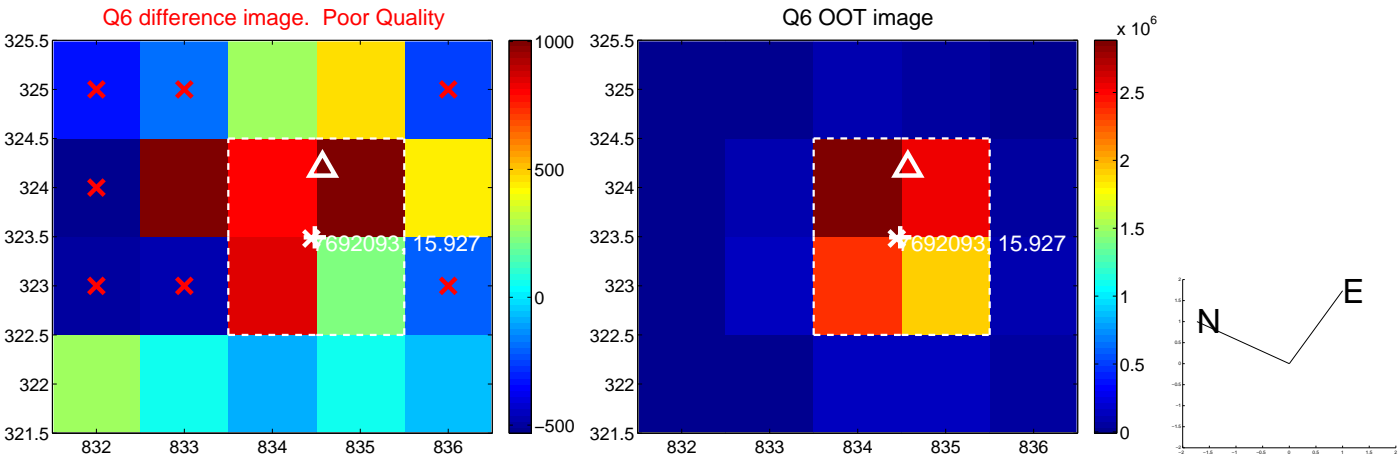
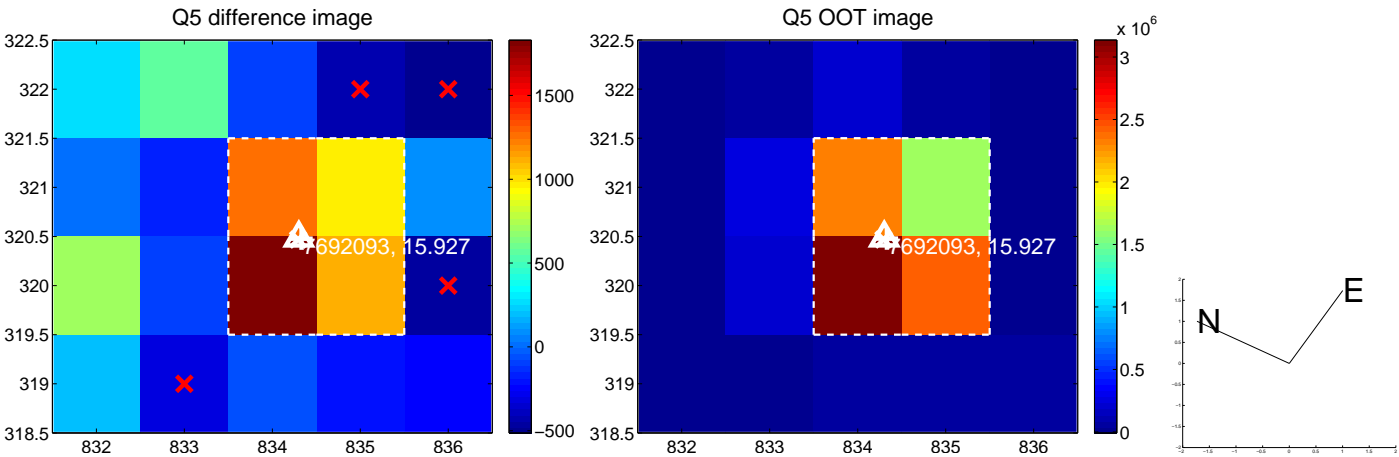


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

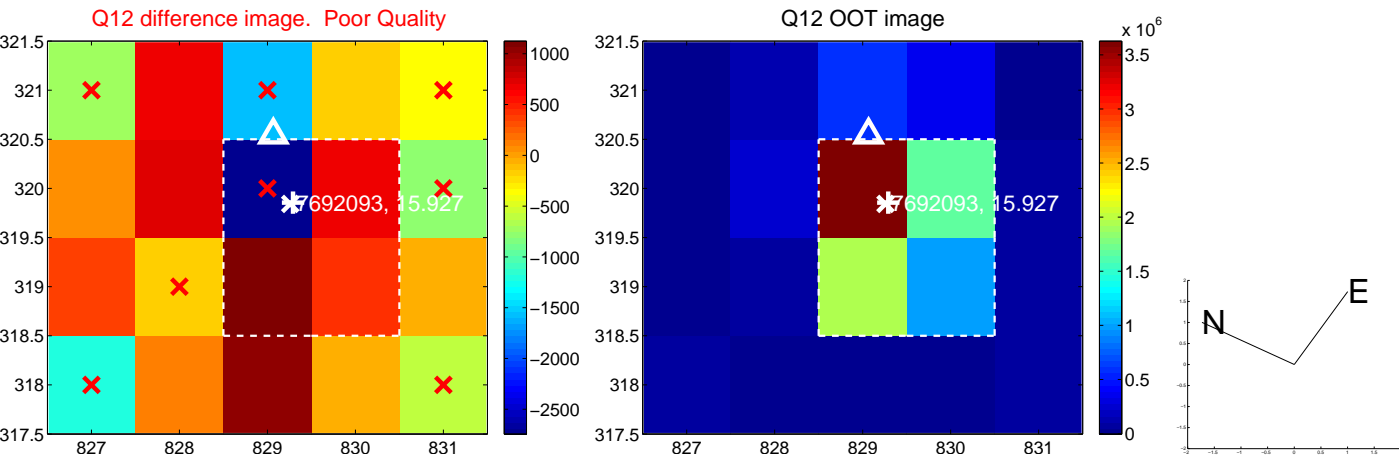
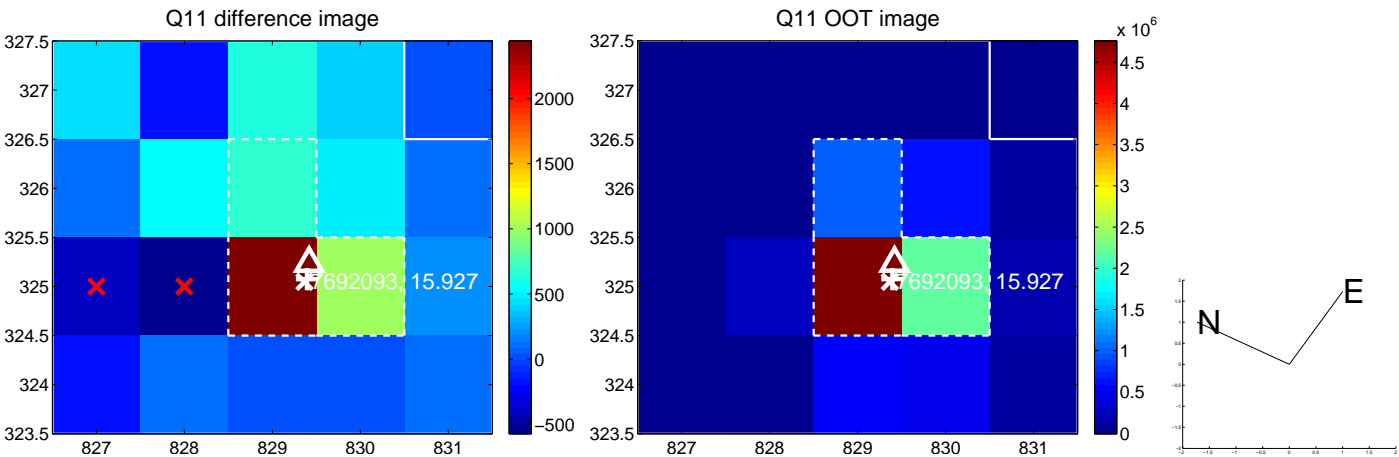
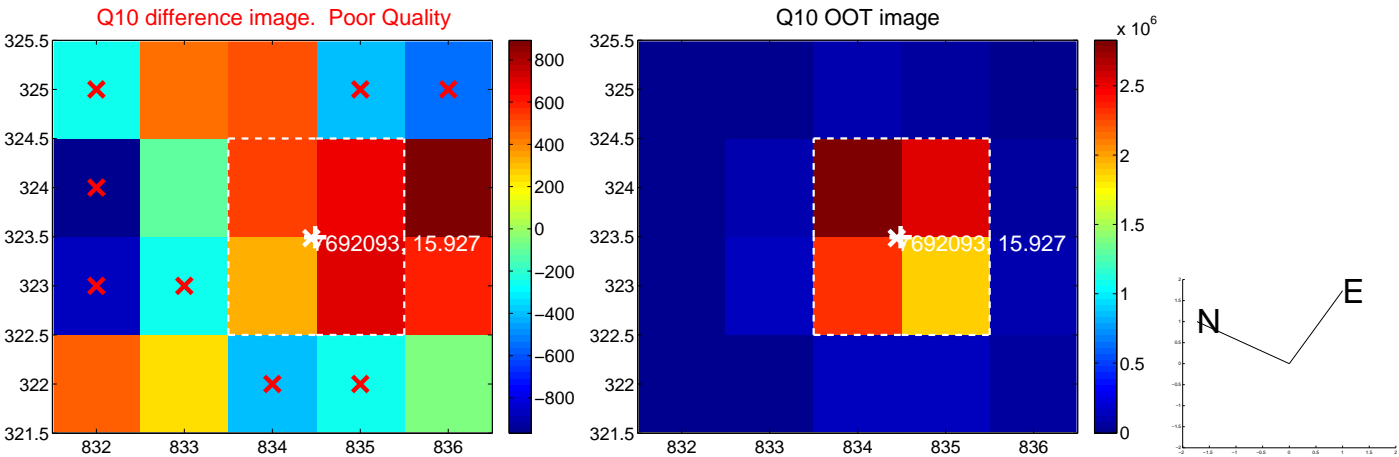
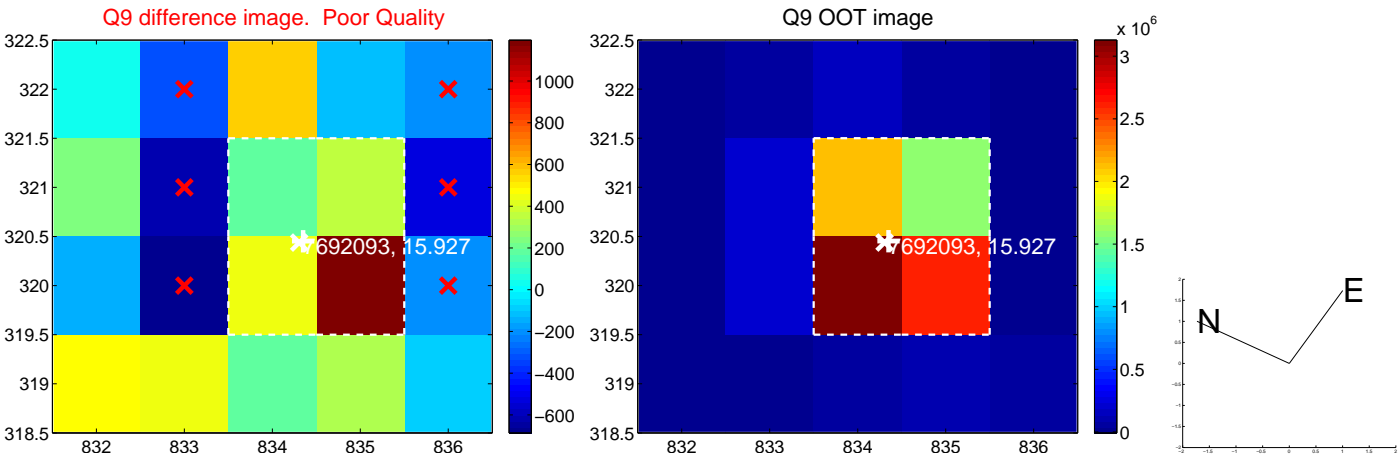
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



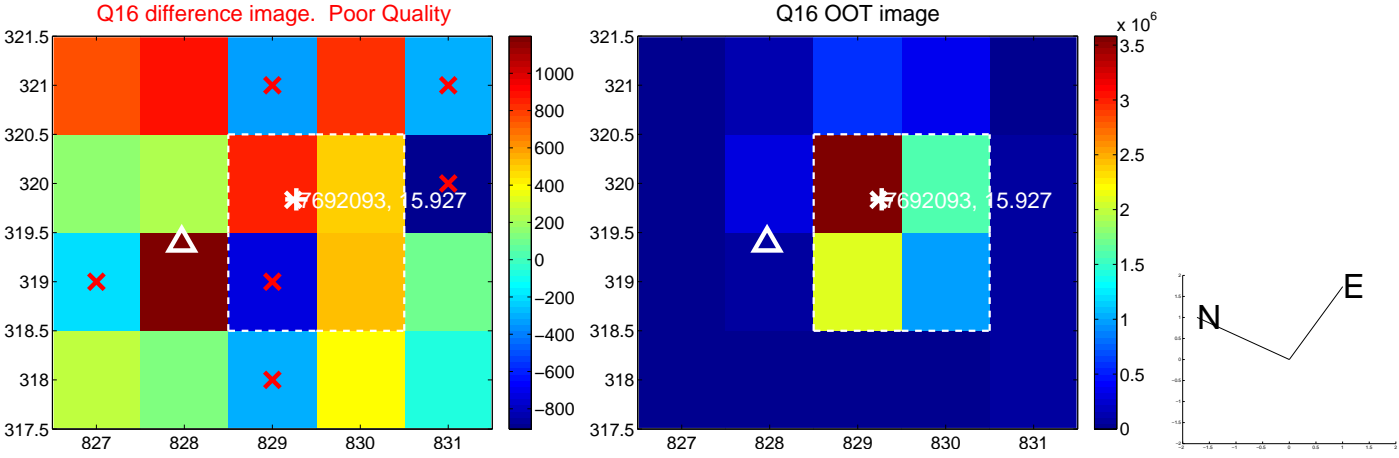
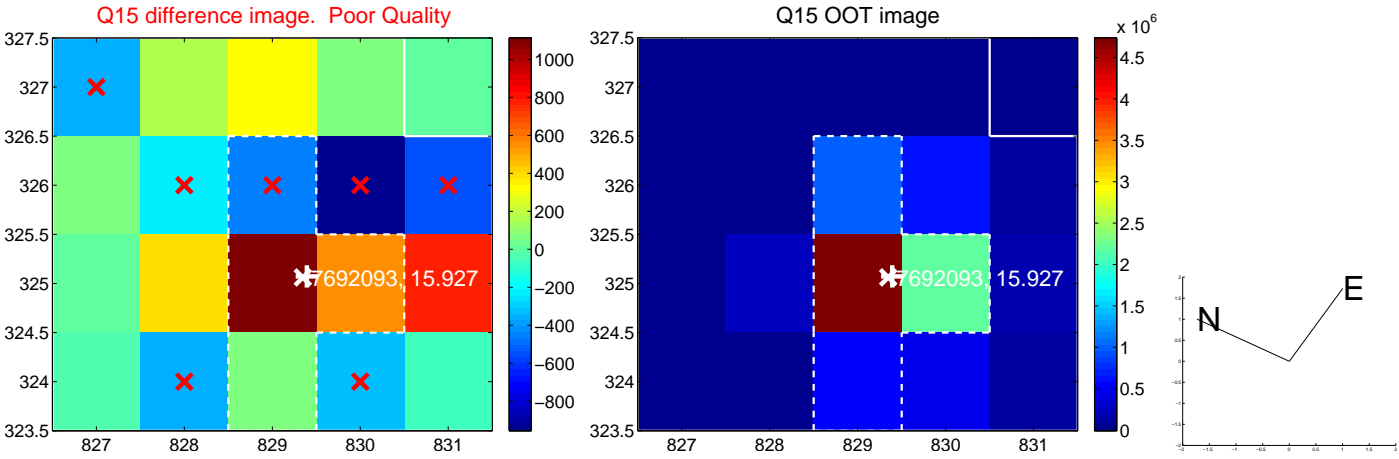
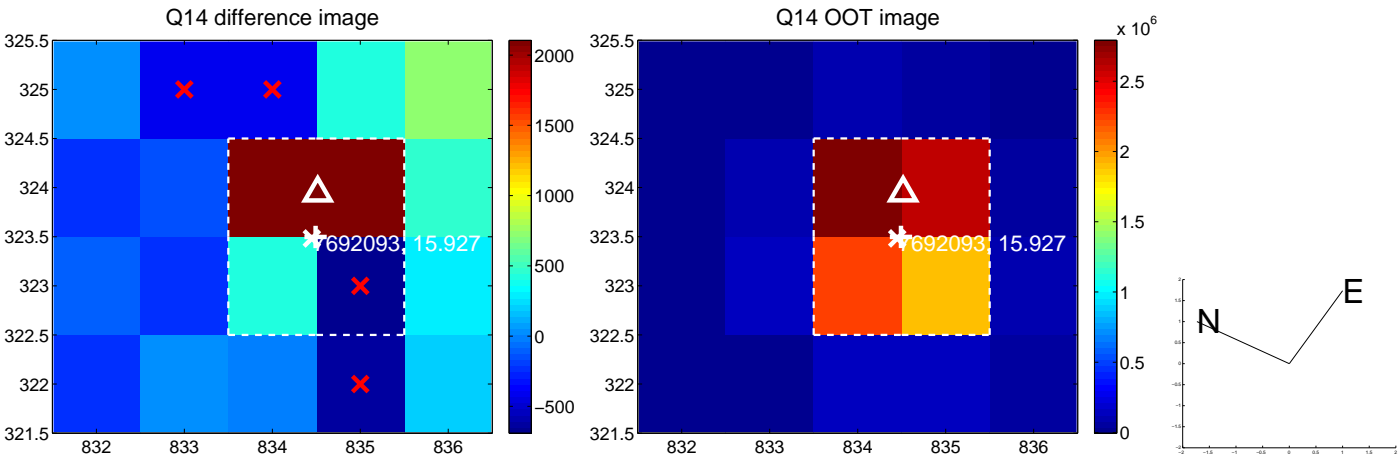
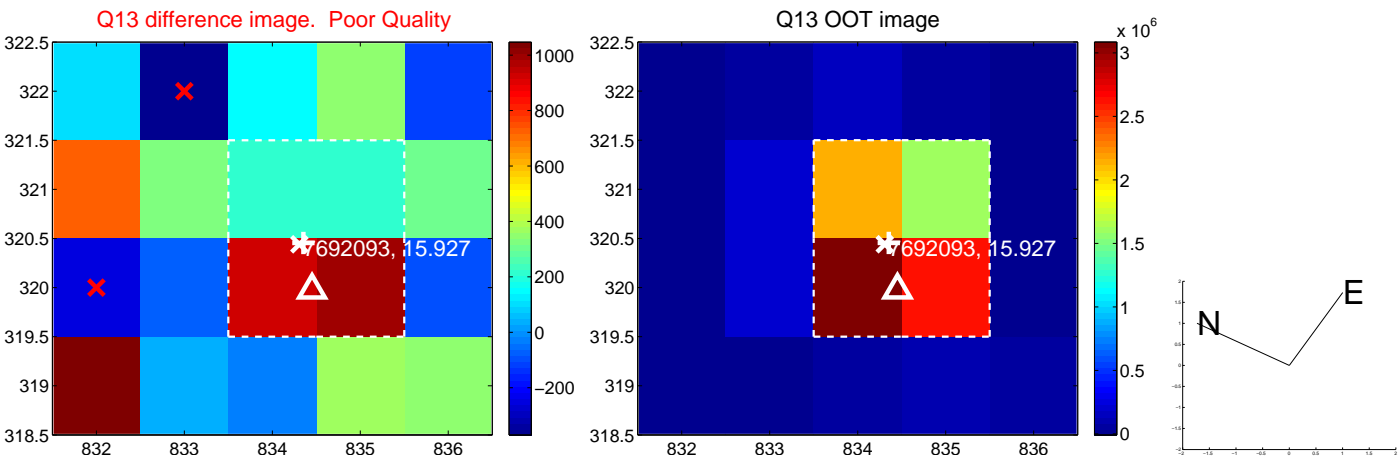
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



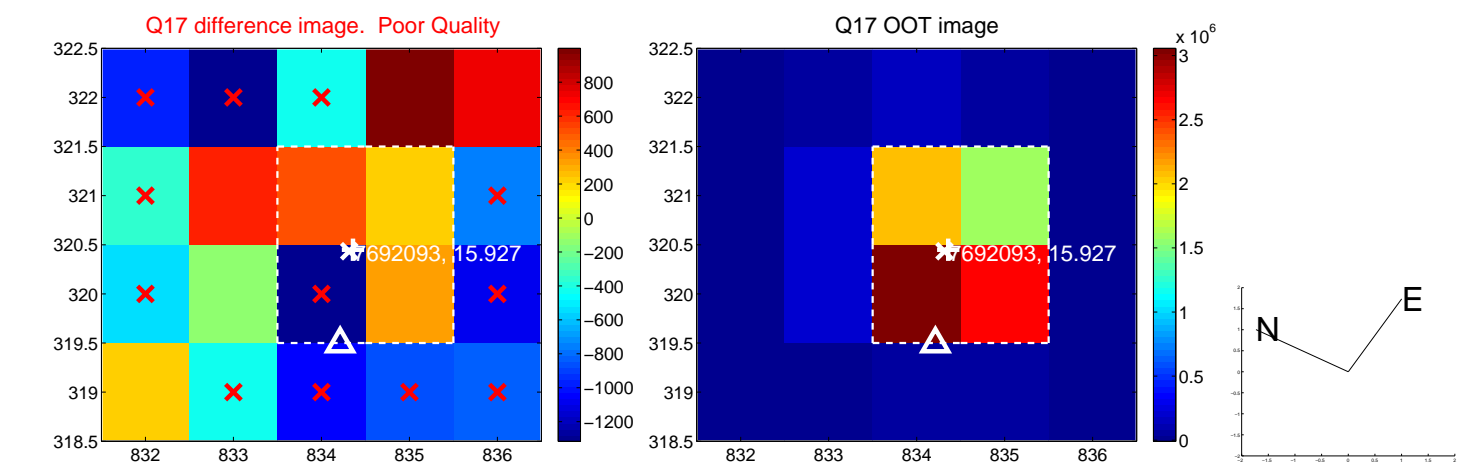
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



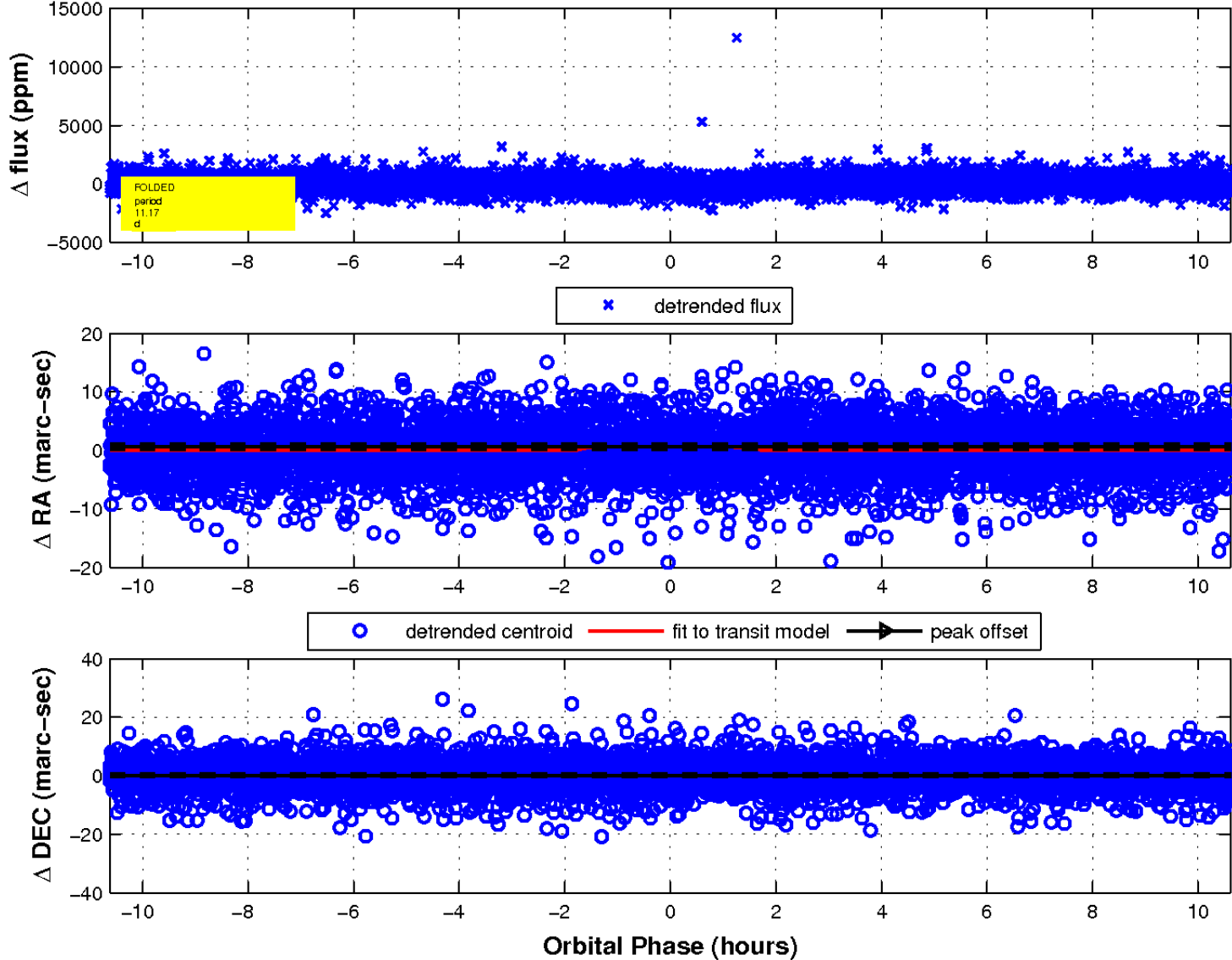
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

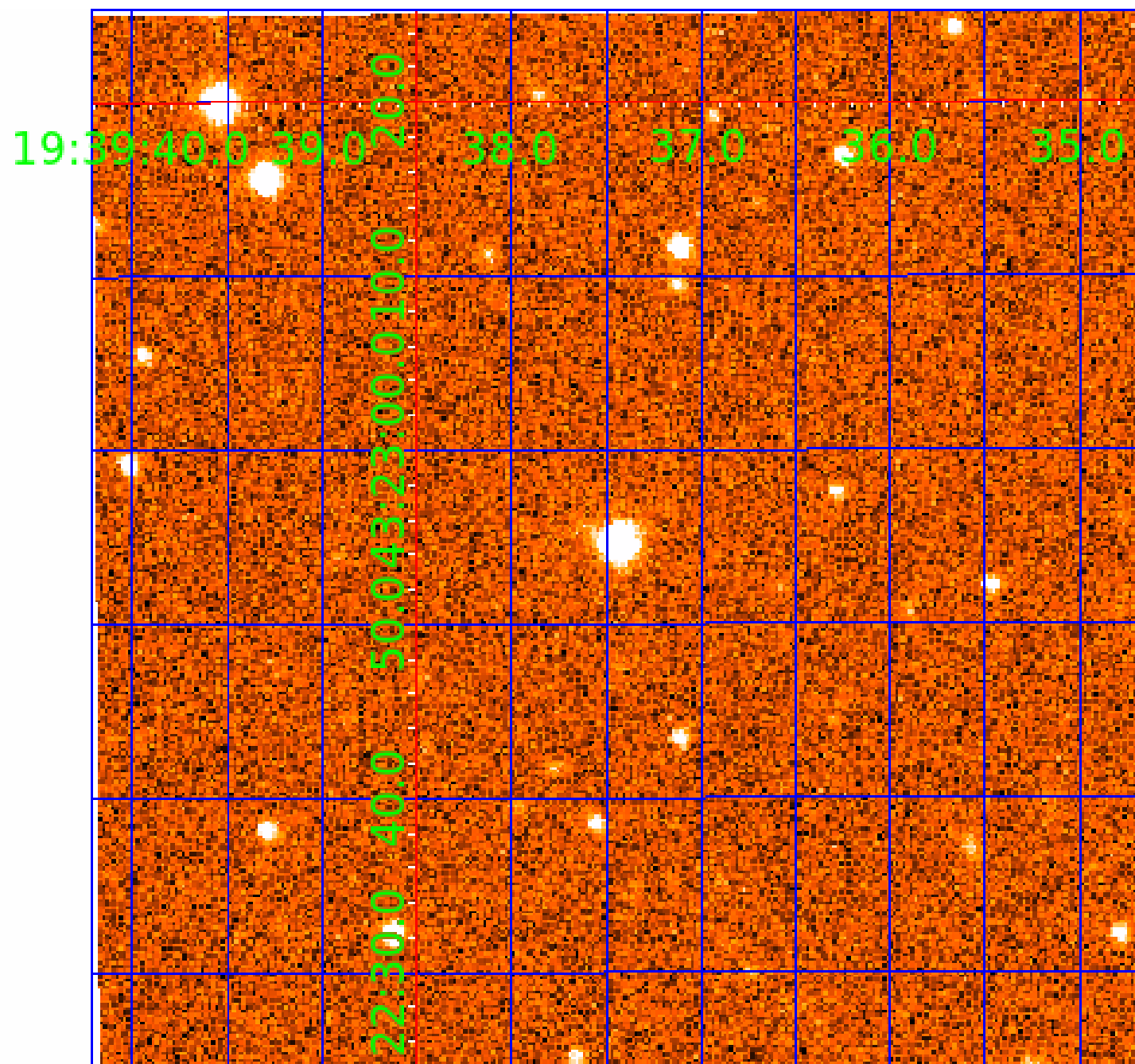


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 007692093

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})
007692093-01	OBS	3337.01	11.166165	134.971185	314.5	3.540	10.2	10.8	0.84	5552	1.66	65.31
007692093-02	OBS	3337.02	91.173432	154.954288	486.8	7.635	7.5	8.0	0.84	5552	2.25	3.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007692093-01	OBS	PC	0.97	0	0	0	0	NO_COMMENT
007692093-02	OBS	FP	0.15	1	0	0	0	INDIV_TRANS_SKYE—CENT_FEW_DIFFS

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.

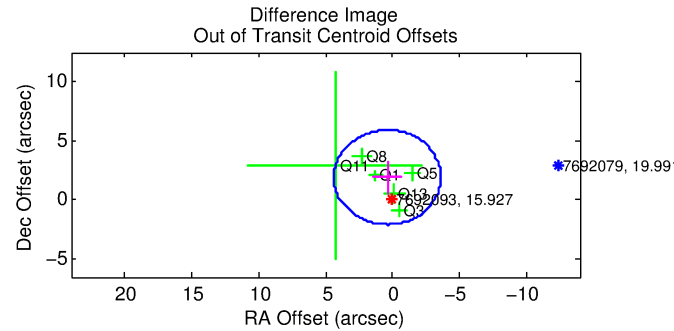
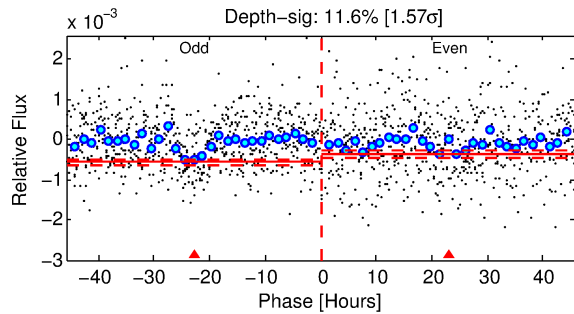
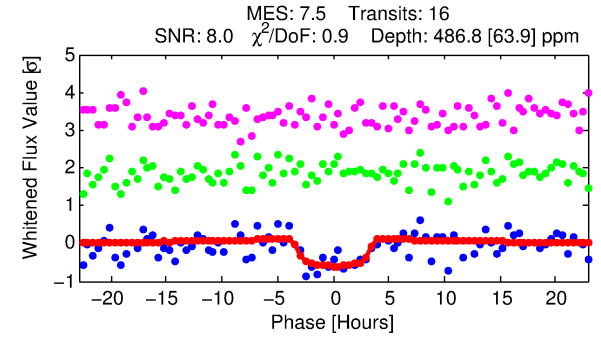
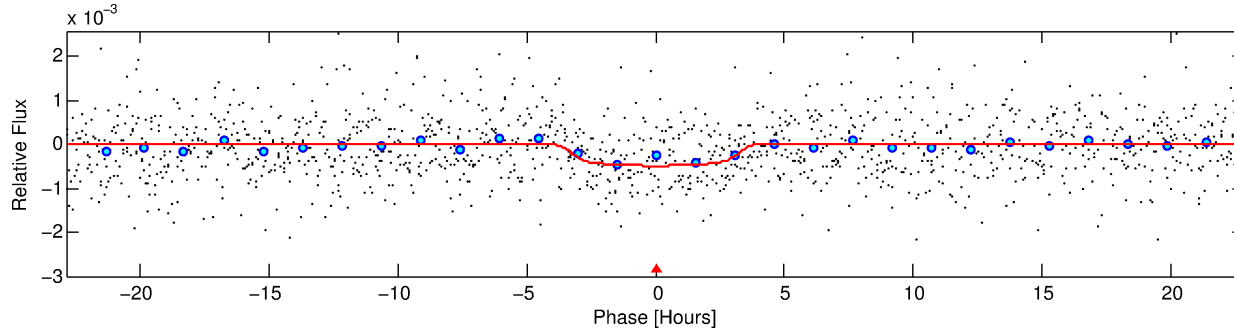
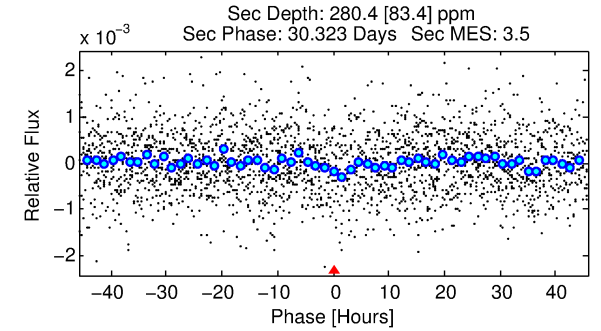
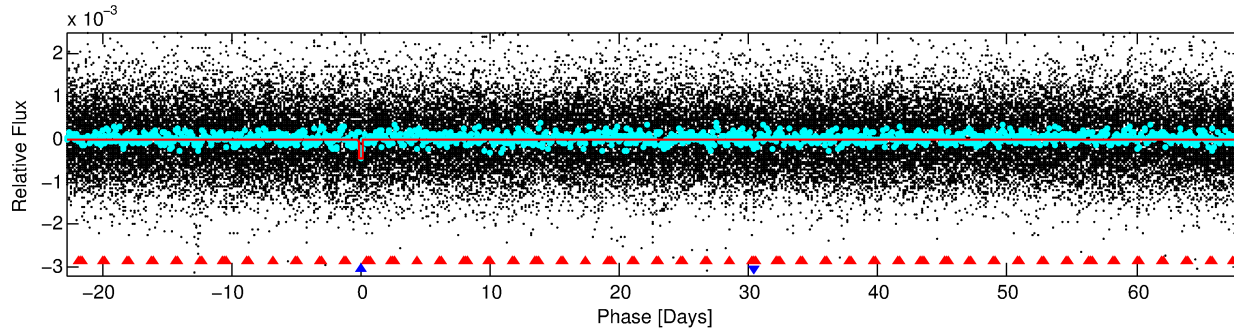
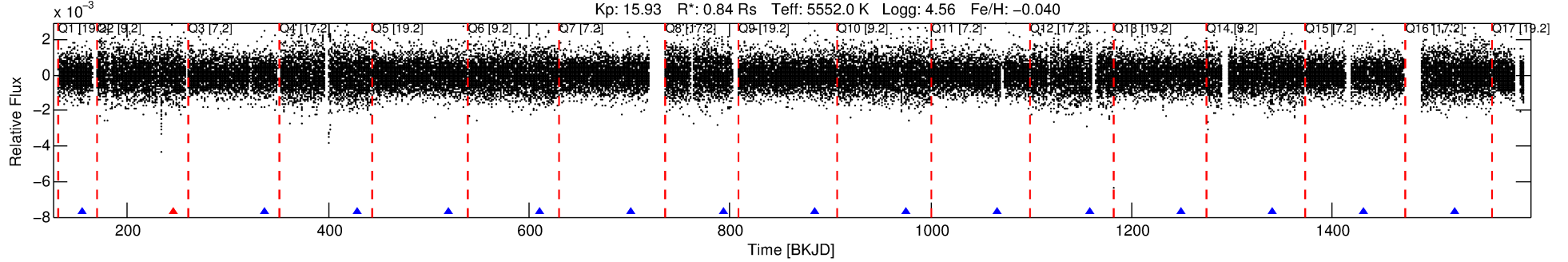
Ephemeris Match Information For 007692093-02

No Significant Match Found

DV One-Page Summary

KIC: 7692093 Candidate: 2 of 2 Period: 91.173 d
KOI: K03337 Corr: No Ephemeris Match

Kp: 15.93 R*: 0.84 Rs Teff: 5552.0 K Logg: 4.56 Fe/H: -0.040



DV Fit Results:

Period = 91.17343 [0.00200] d
Epoch = 154.9543 [0.0179] BKJD
Rp/R* = 0.0247 [0.0038]
a/R* = 41.46 [25.09]
b = 0.92 [0.11]
Seff = 3.97 [1.27]
Teq = 360 [29] K
Rp = 2.25 [0.65] Re
a = 0.3870 [0.0785] AU
Ag = 4552.22 [2379.85] [1.91σ]
Teffp = 4572 [511] K [8.23σ]

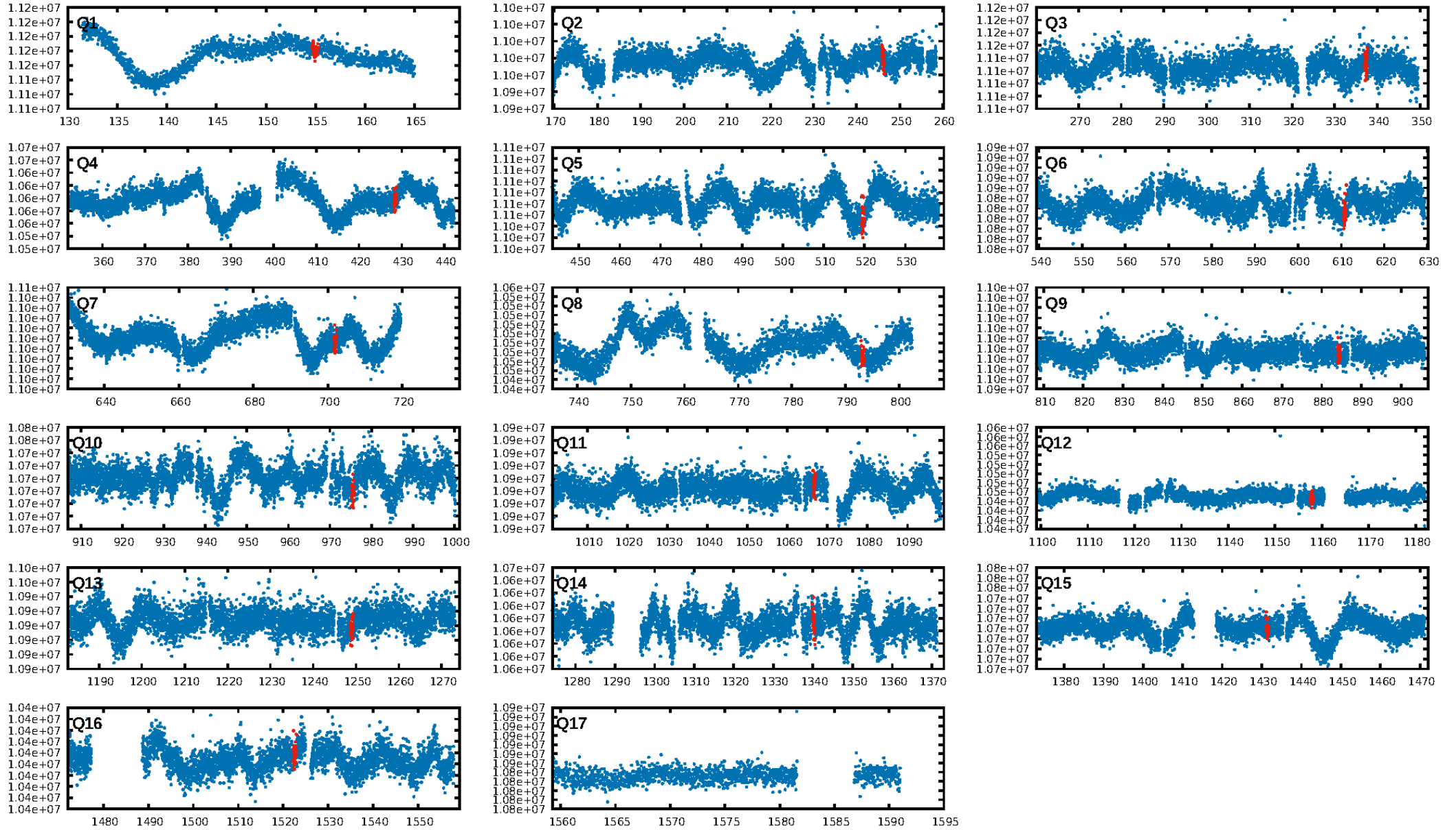
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [228.17σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.80e-11
RollingBand-fgt: 0.93 [14/15]
GhostDiagnostic-chr: -0.9873
Centroid-sig: 20.7%
Centroid-so: 1.871 arcsec [0.89σ]
OotOffset-rm: 1.964 arcsec [1.48σ]
KicOffset-rm: 1.909 arcsec [1.44σ]
OotOffset-st: 0/2/1/3 [6]
KicOffset-st: 0/2/1/3 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 0.93 [14/15]

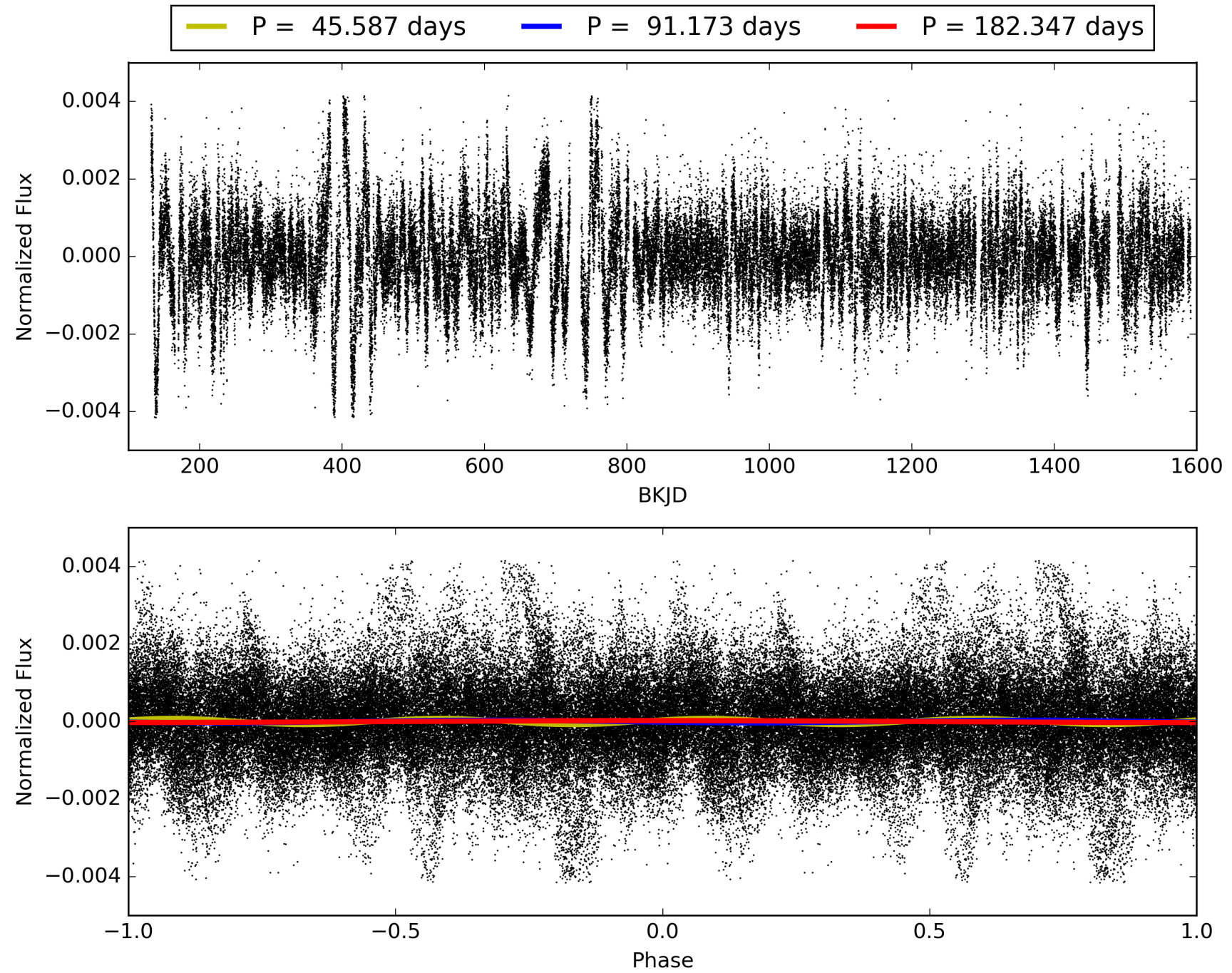
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:17:56 Z

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

TCE 007692093-02, PDC Light Curves

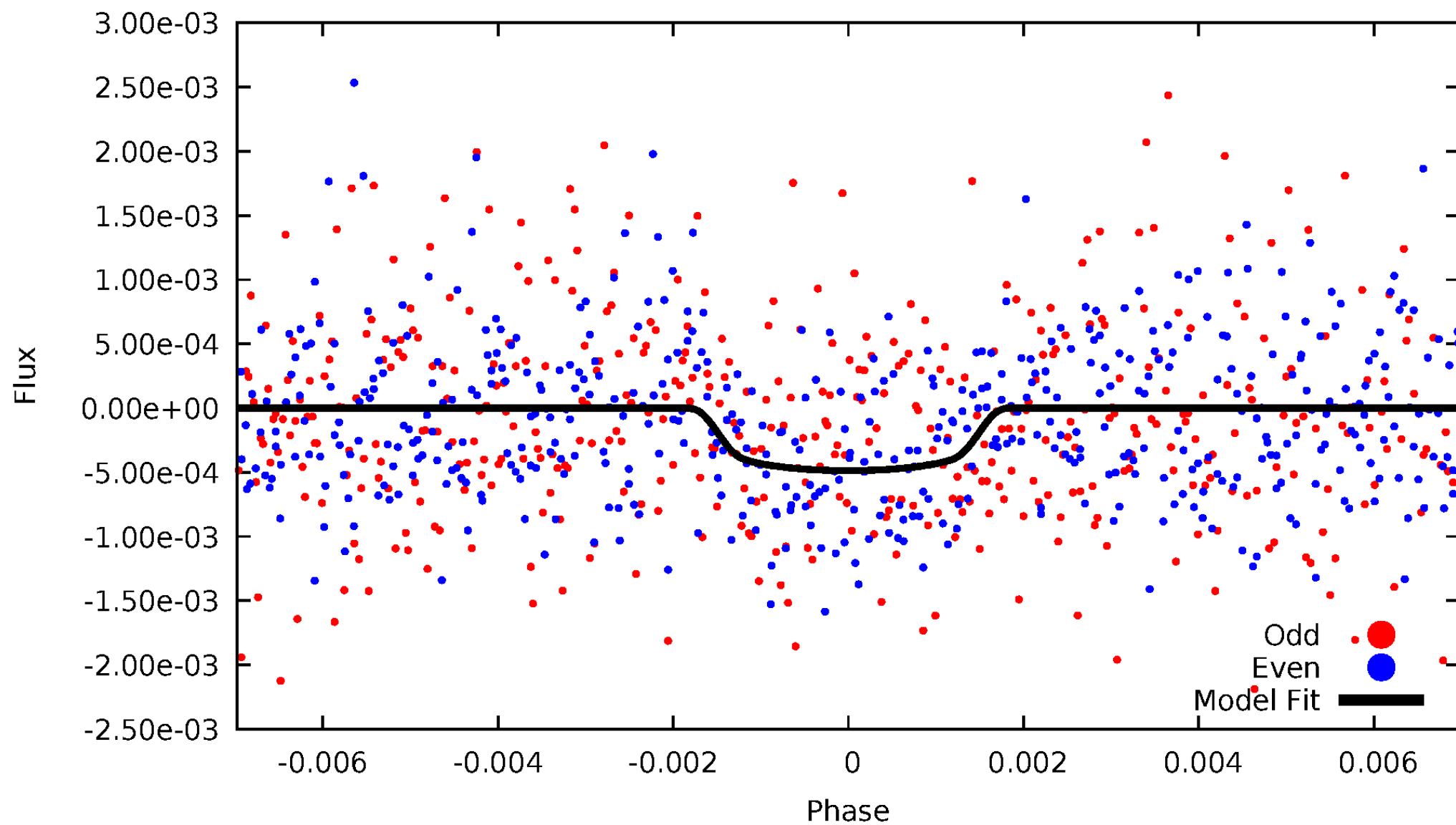


TCE 007692093-02



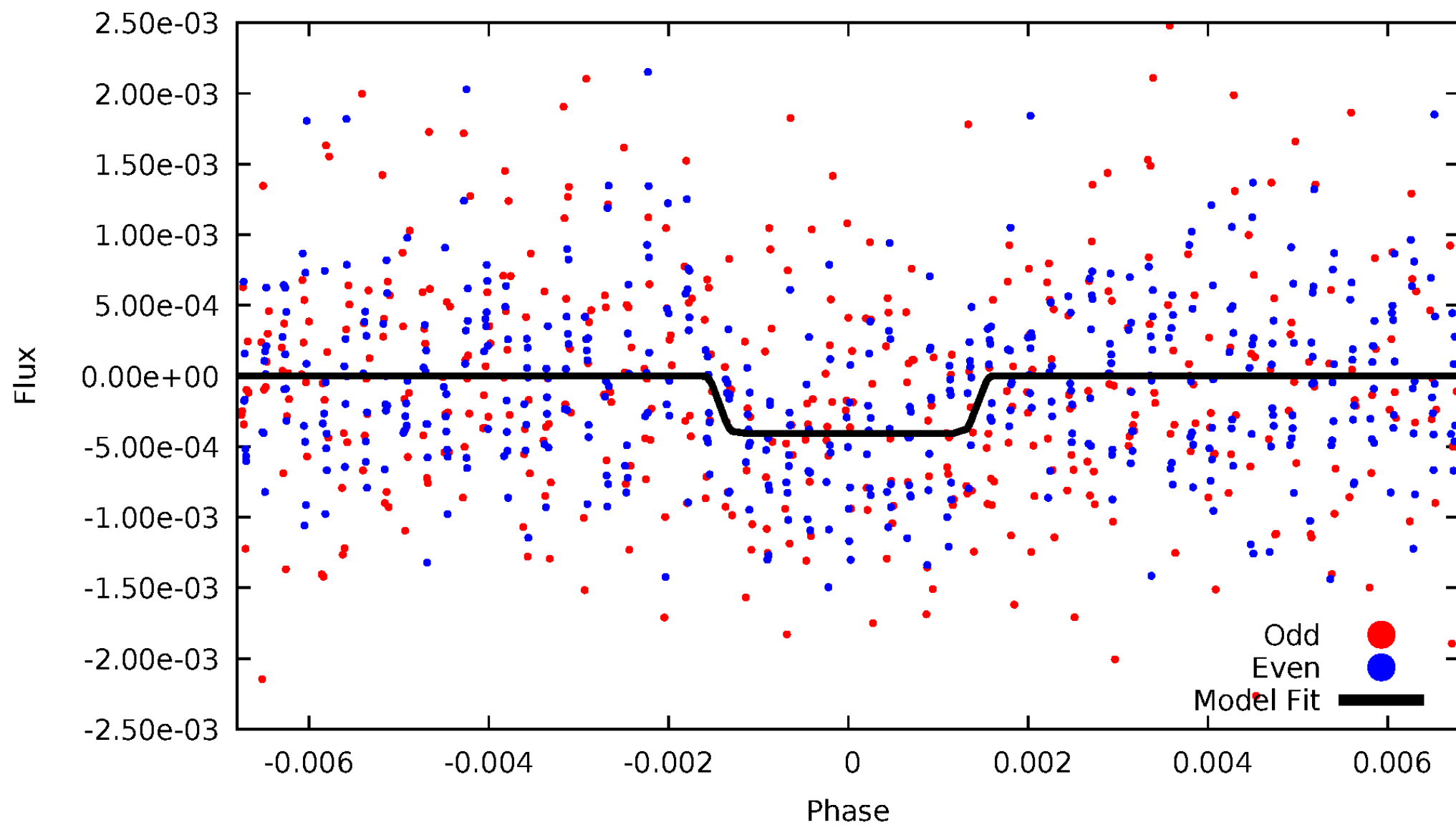
DV Odd/Even

TCE 007692093-02



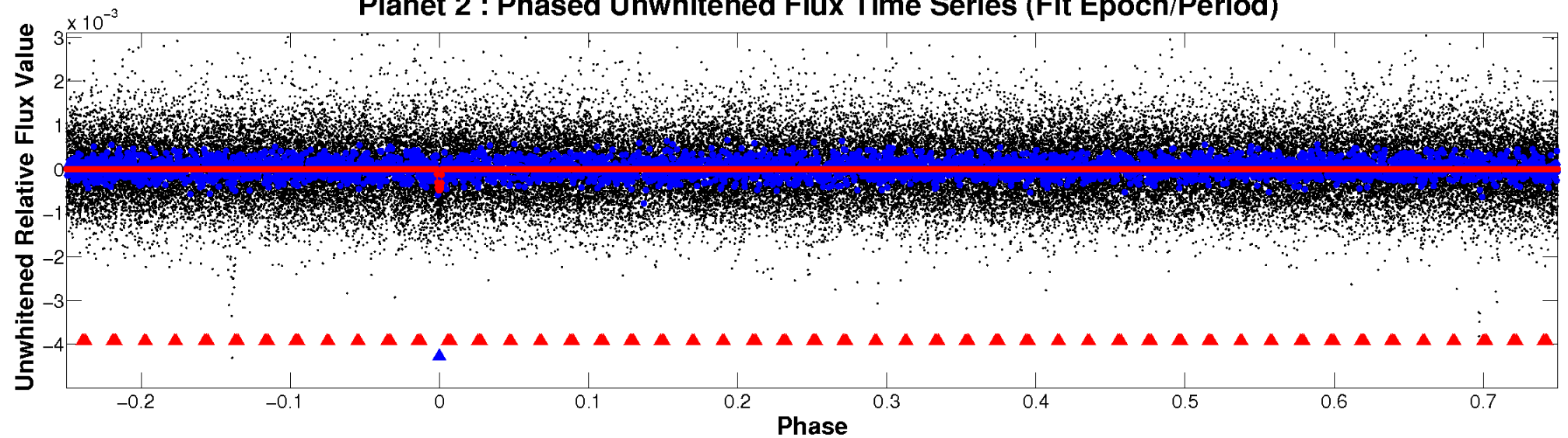
ALT Odd/Even

TCE 007692093-02

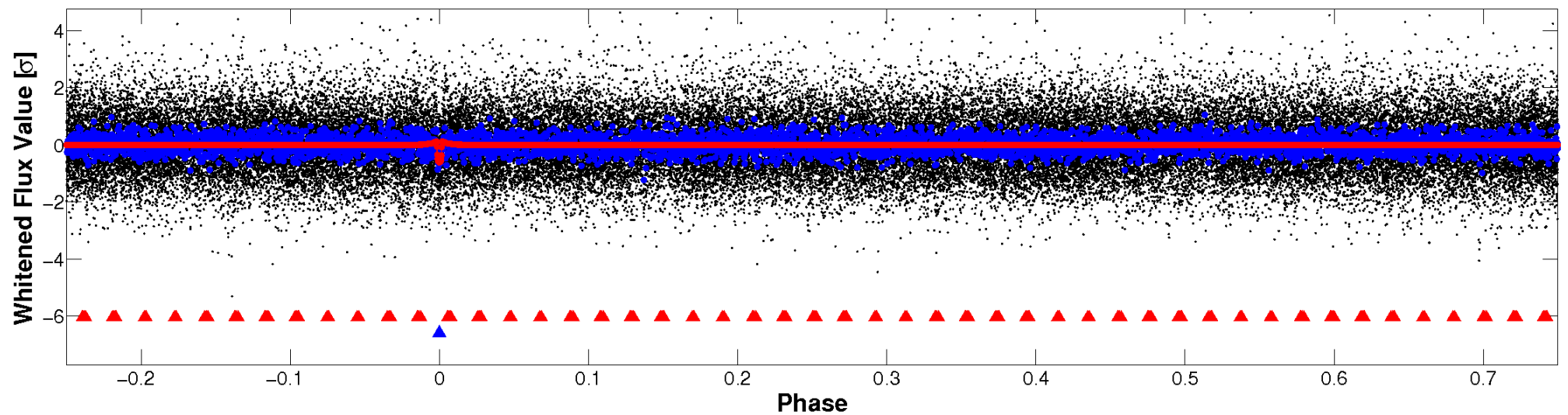


Non-Whitened Vs. Whitened Light Curve

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

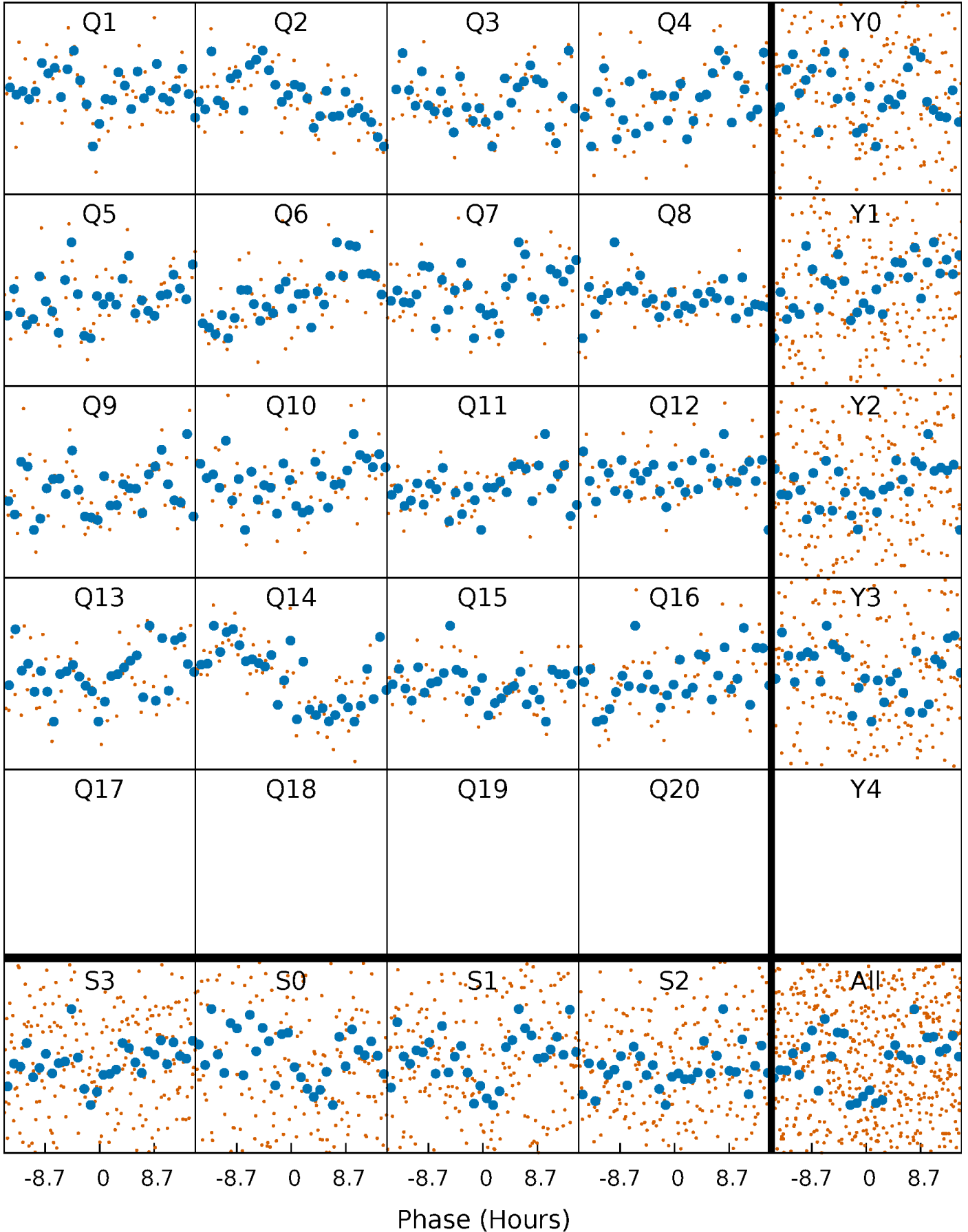


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



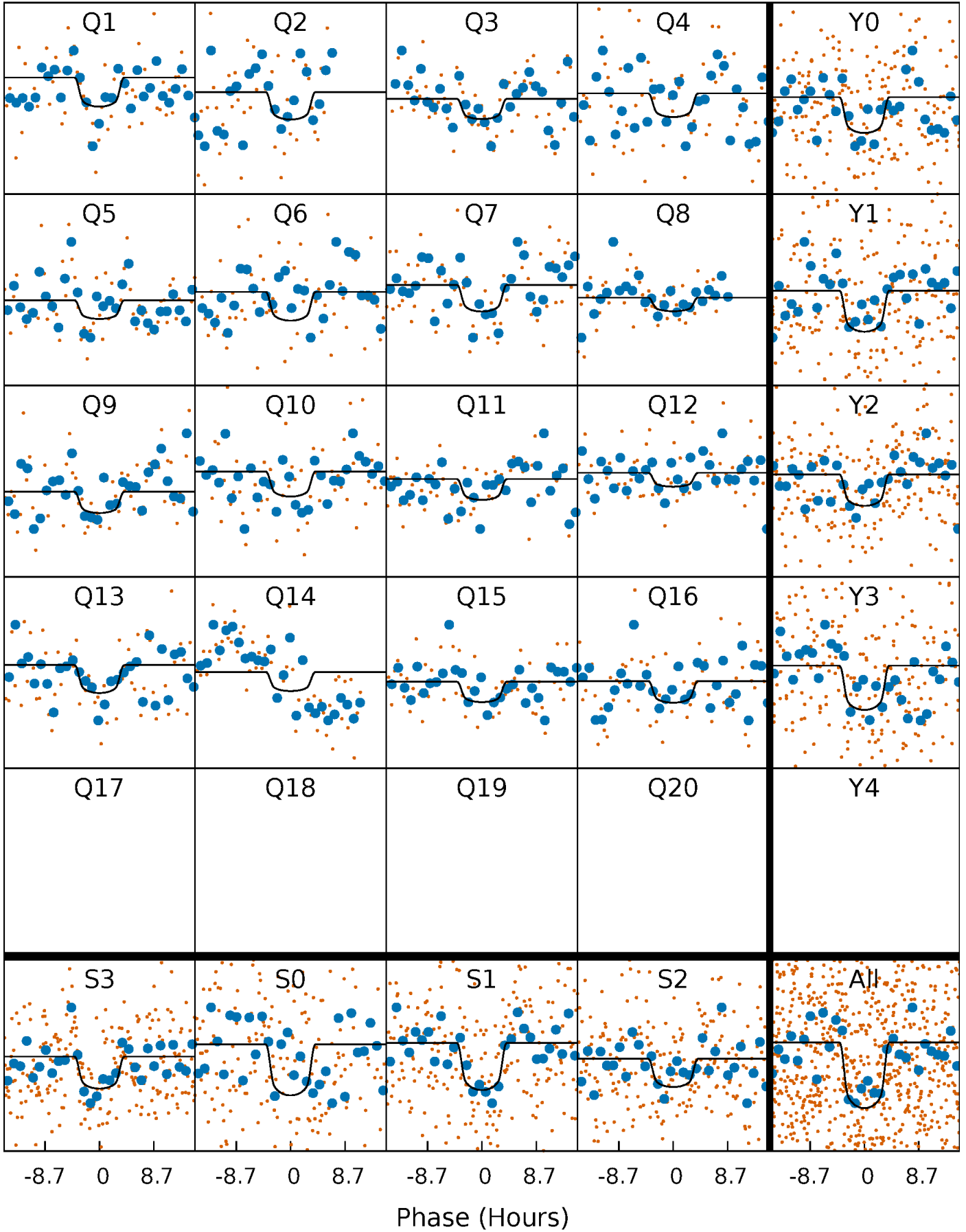
PDC Quarter-Phased Transit Curves

TCE 007692093-02 $P = 91.173432$ Days $T_0 = 154.954288$ (BKJD)



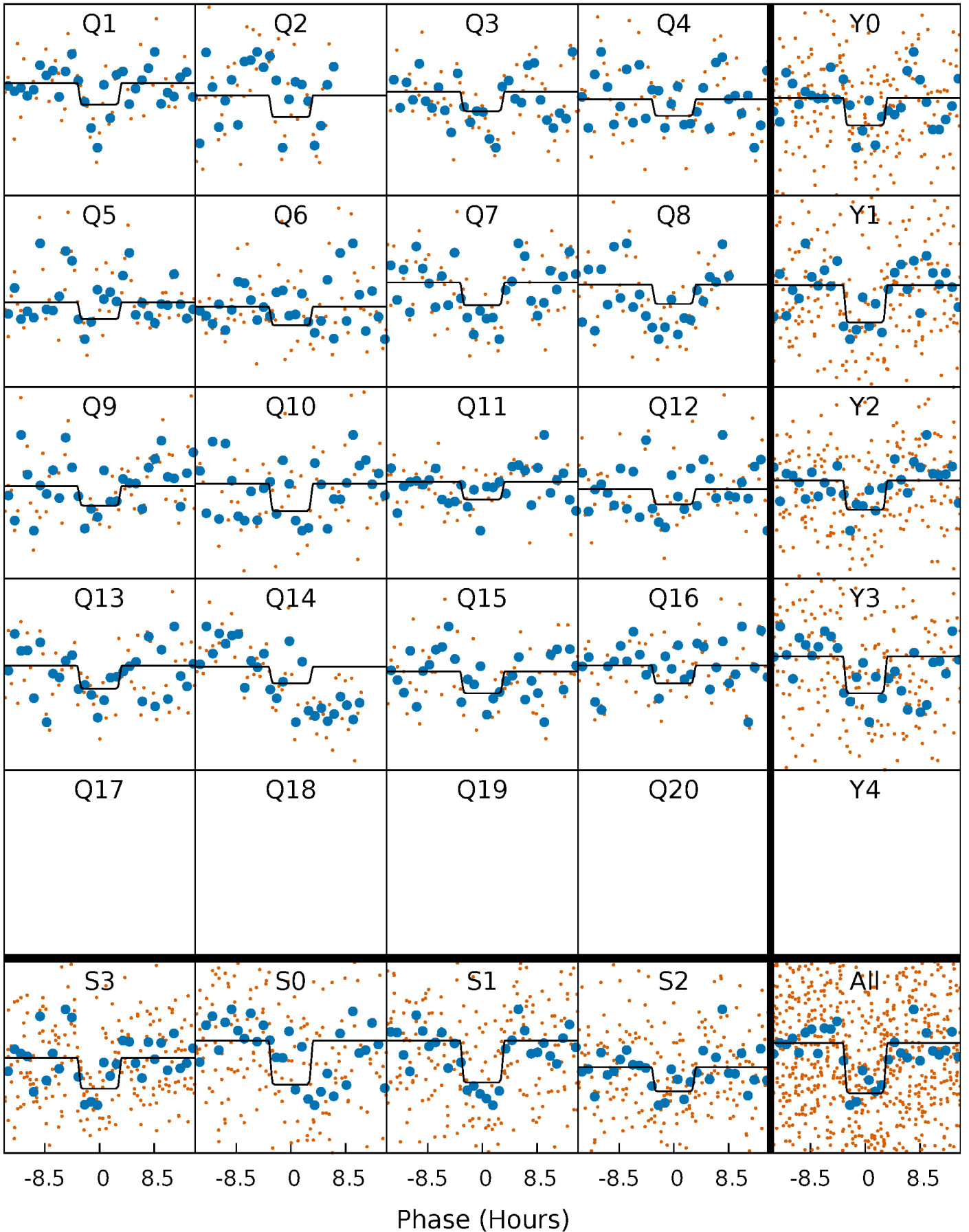
DV Quarter-Phased Transit Curves

TCE 007692093-02 P= 91.173432 Days $T_0=154.954288$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

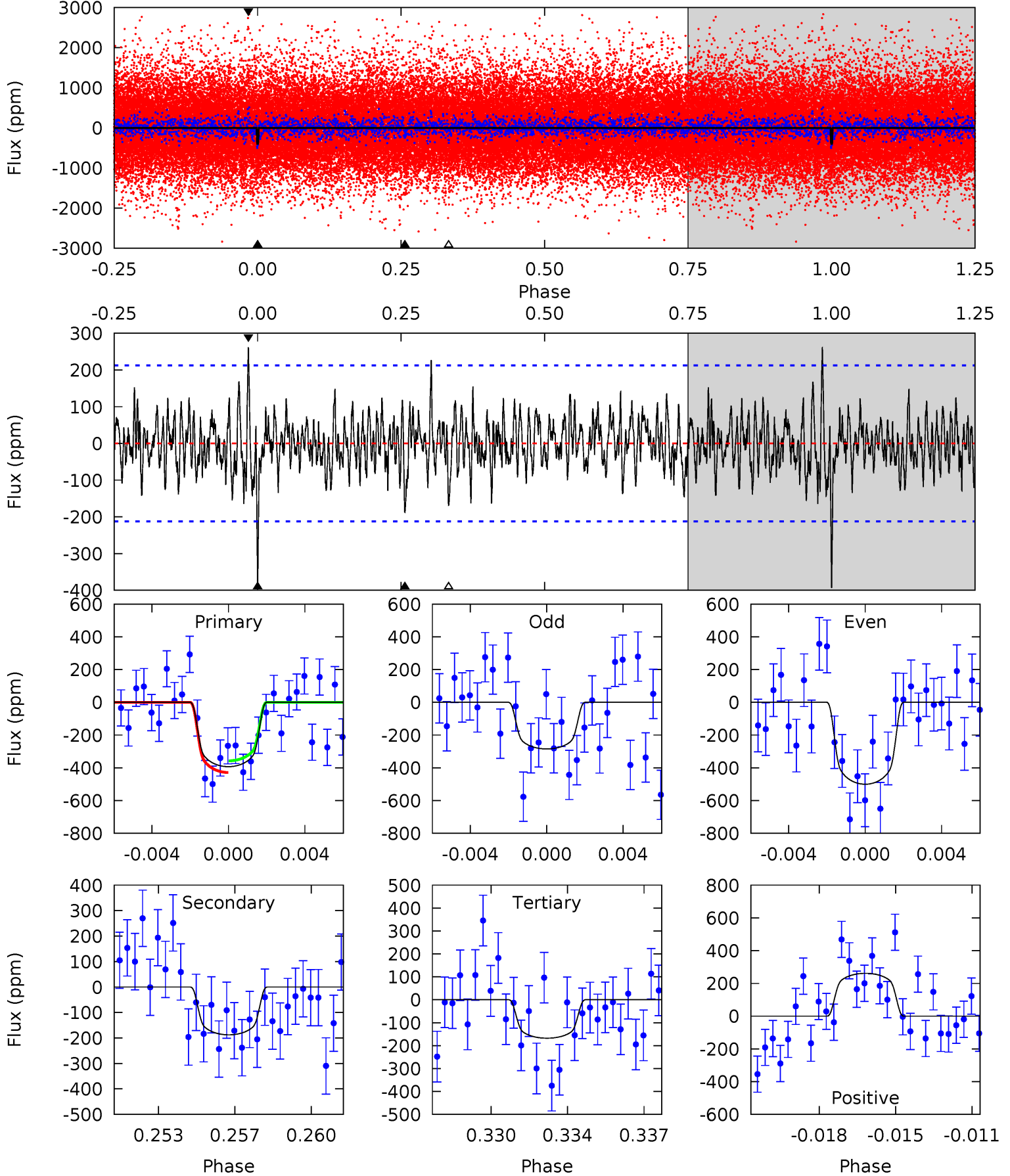
TCE 007692093-02 P= 91.174477 Days $T_0=154.950142$ (BKJD)



DV Model-Shift Uniqueness Test

007692093-02, P = 91.173432 Days, E = 63.780856 Days

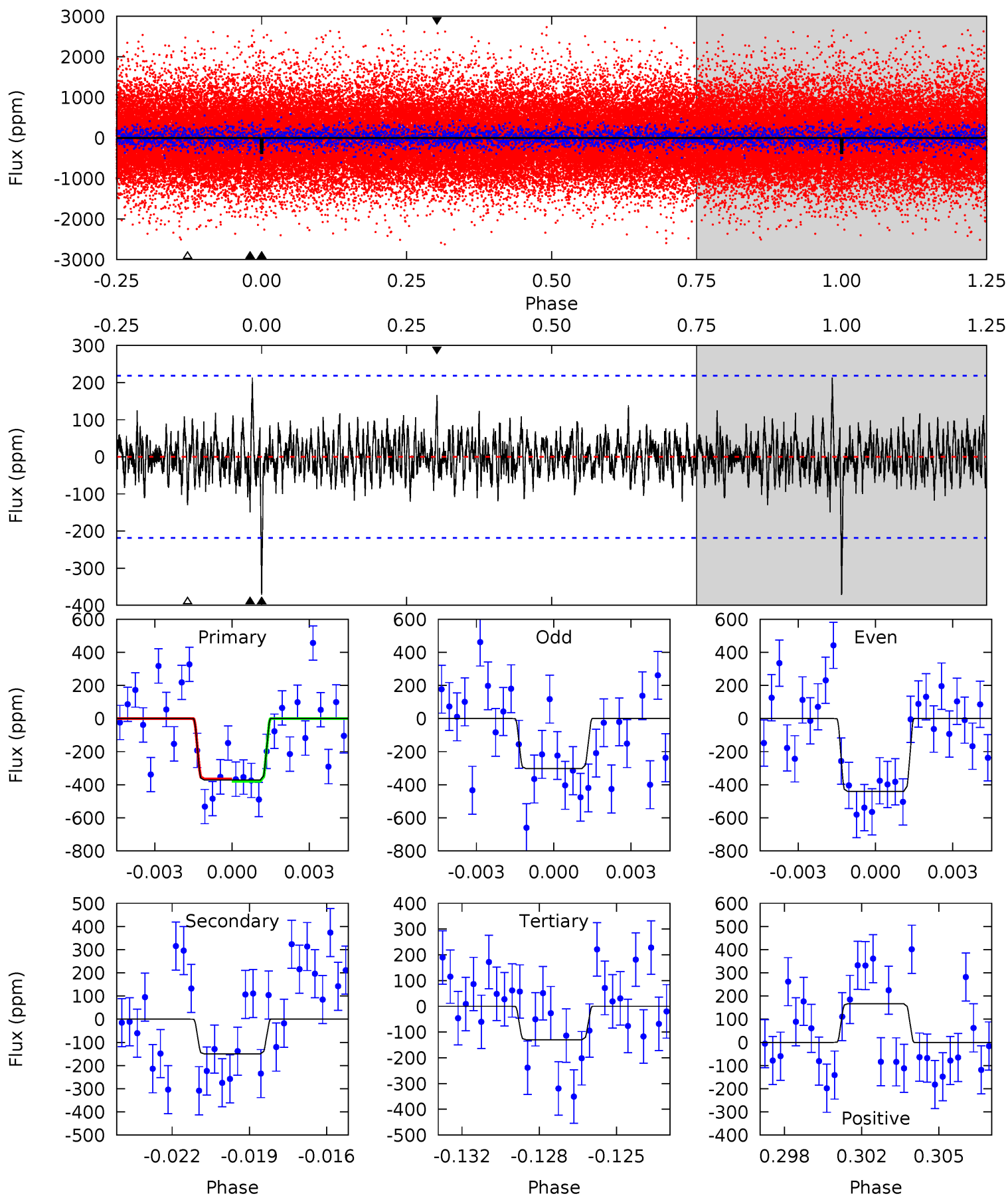
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.65	4.60	4.11	6.41	5.22	2.91	1.45	5.53	3.23	0.49	-1.81	2.65	0.95	0.40	0.88



Alt Model-Shift Uniqueness Test

007692093-02, P = 91.174477 Days, E = 63.775665 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.93	3.59	3.11	4.00	5.24	2.95	1.01	5.82	4.93	0.48	-0.41	1.66	1.07	0.36	0.16



Stellar Parameters For KIC 007692093

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5552^{+166}_{-166}	$4.562^{+0.038}_{-0.162}$	$-0.040^{+0.300}_{-0.300}$	$0.836^{+0.201}_{-0.067}$	$0.931^{+0.081}_{-0.102}$	$2.248^{+0.454}_{-1.000}$
	+3%/-3%	+1%/-4%	+750%/-750%	+24%/-8%	+9%/-11%	+20%/-44%
Source	PHO1	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 007692093-02 / KOI 3337.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-188 ± 41	$2.34^{+0.43}_{-0.39}$	513^{+30}_{-23}	4327^{+364}_{-301}	2729^{+1512}_{-939}
Alt.	-150 ± 42	$1.92^{+0.43}_{-0.39}$	514^{+28}_{-22}	4465^{+527}_{-403}	3146^{+2348}_{-1232}

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

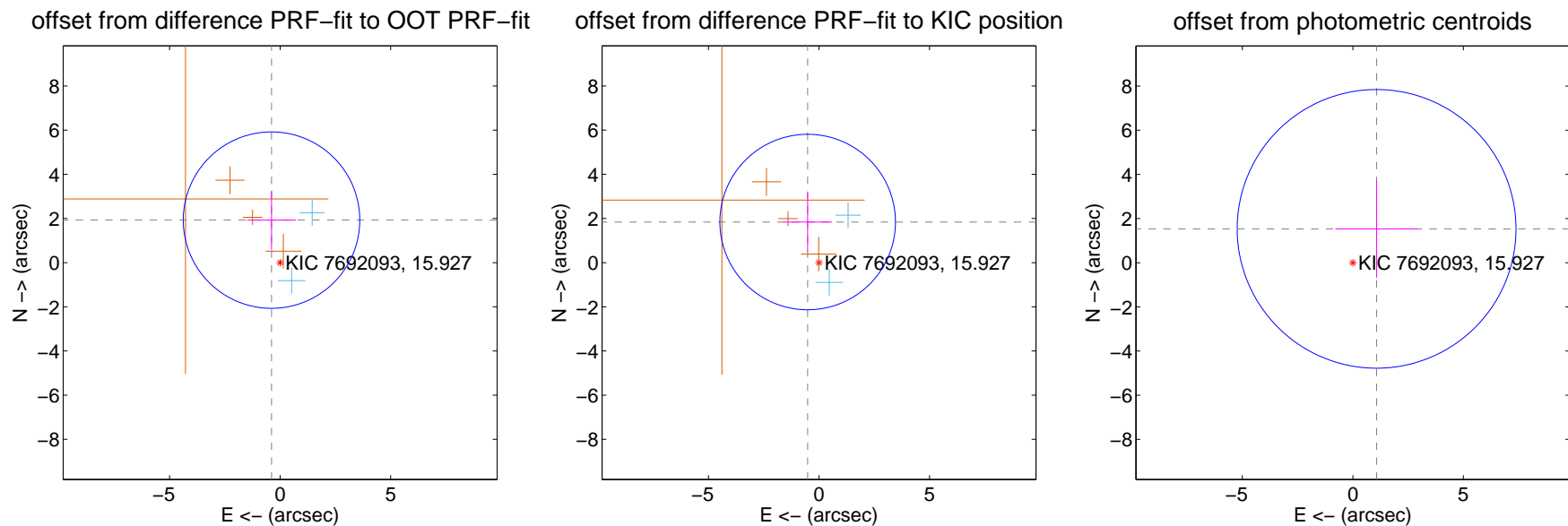
DV Centroid Data

Supplemental centroid analysis for 007692093-02. Kepler magnitude: 15.93. Transit SNR 7.95

There are 2 quarters with good PRF difference image offsets

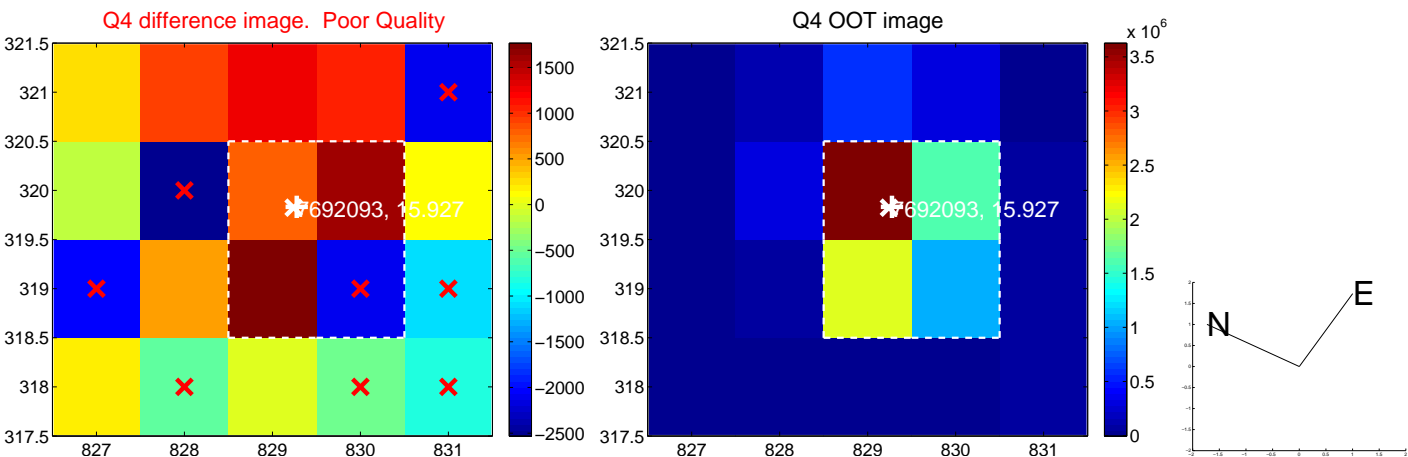
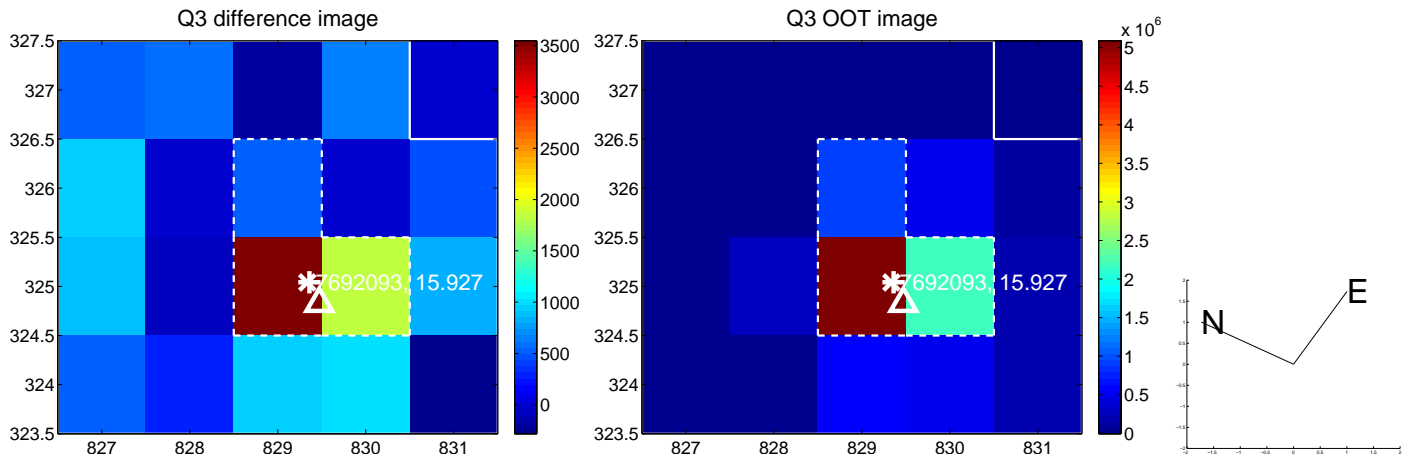
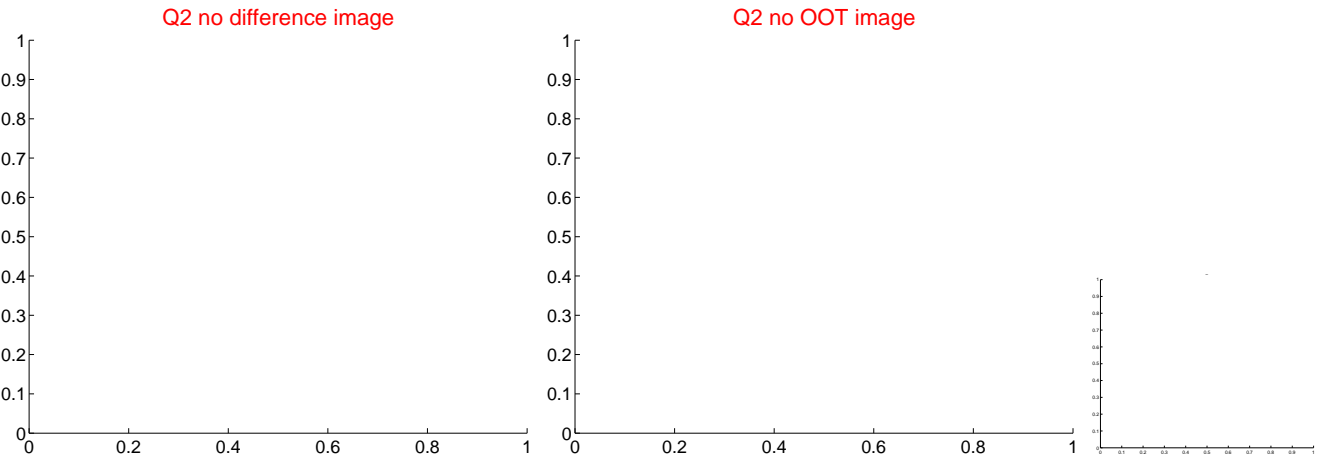
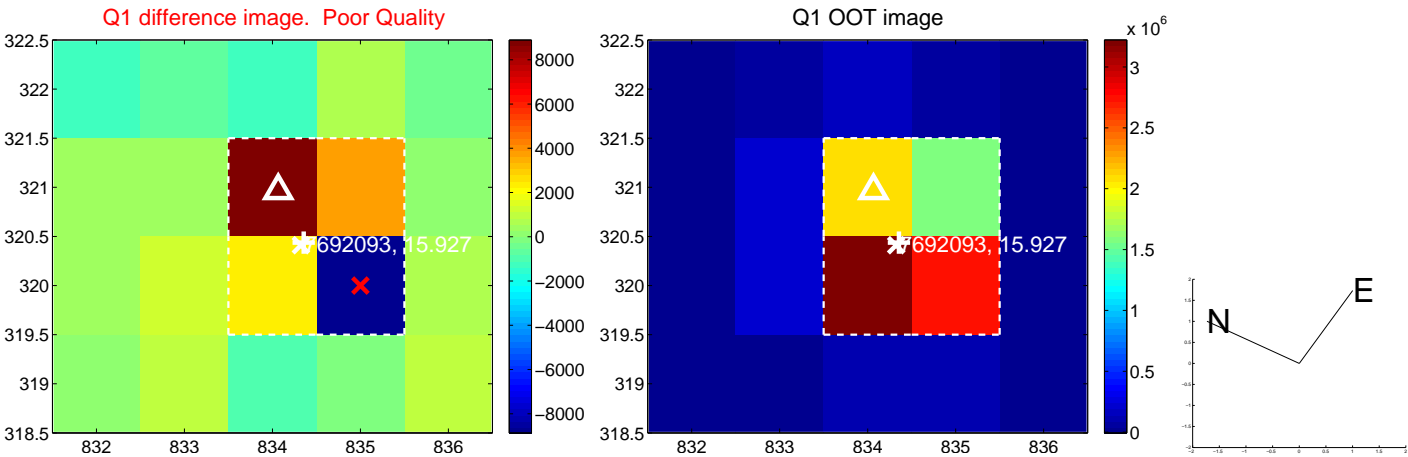
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.964 ± 1.331	1.48	0.389 ± 1.104	1.925 ± 1.340
PRF-fit source offset from KIC position	1.909 ± 1.324	1.44	0.512 ± 1.104	1.839 ± 1.340
photometric centroid source offset	1.87 ± 2.10	0.89	-1.07 ± 1.87	1.53 ± 2.21

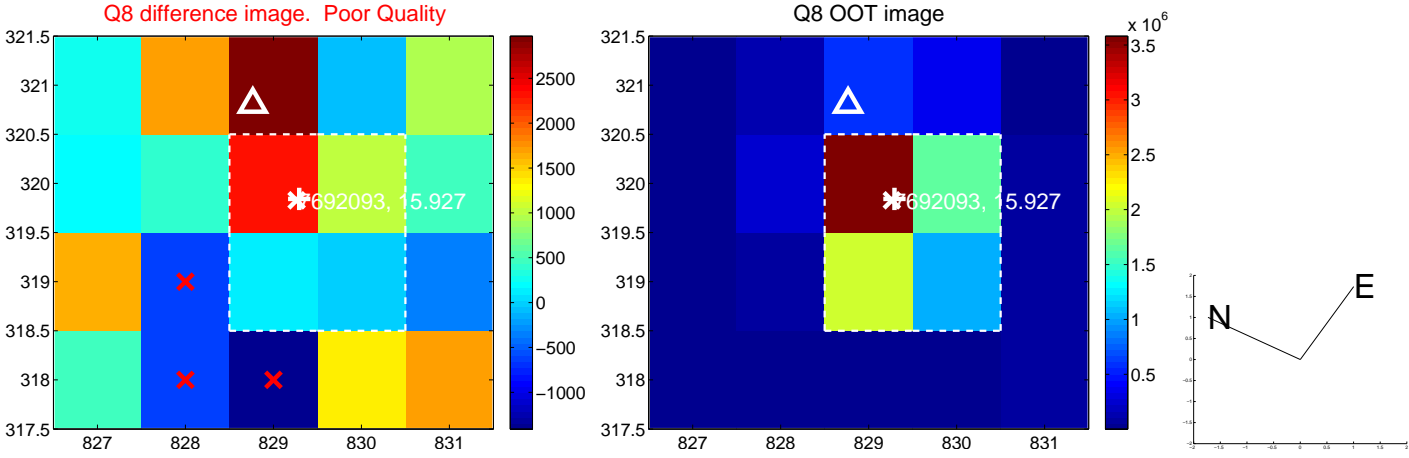
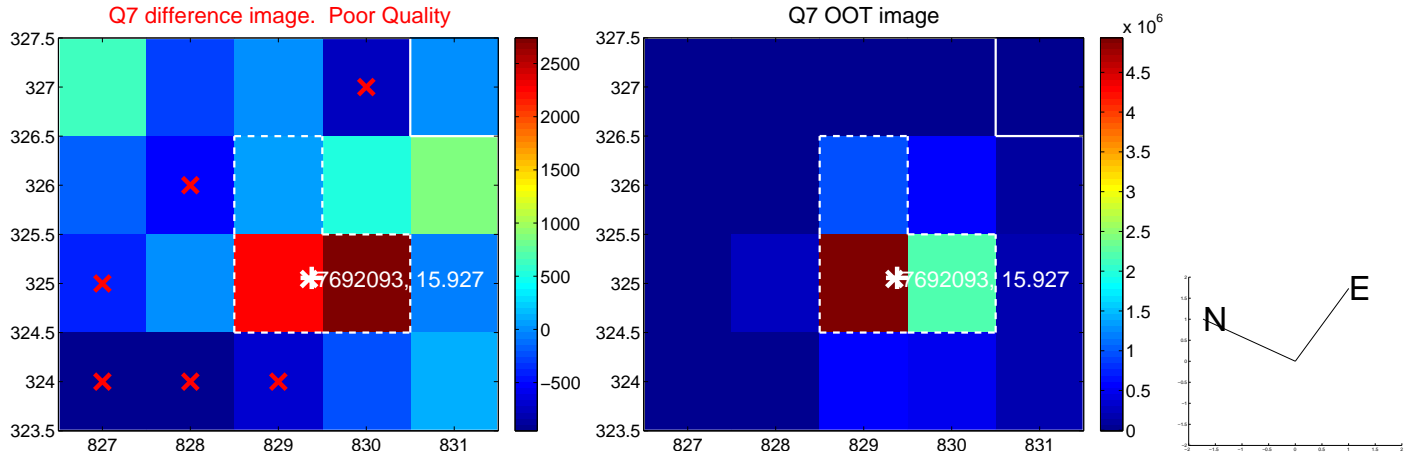
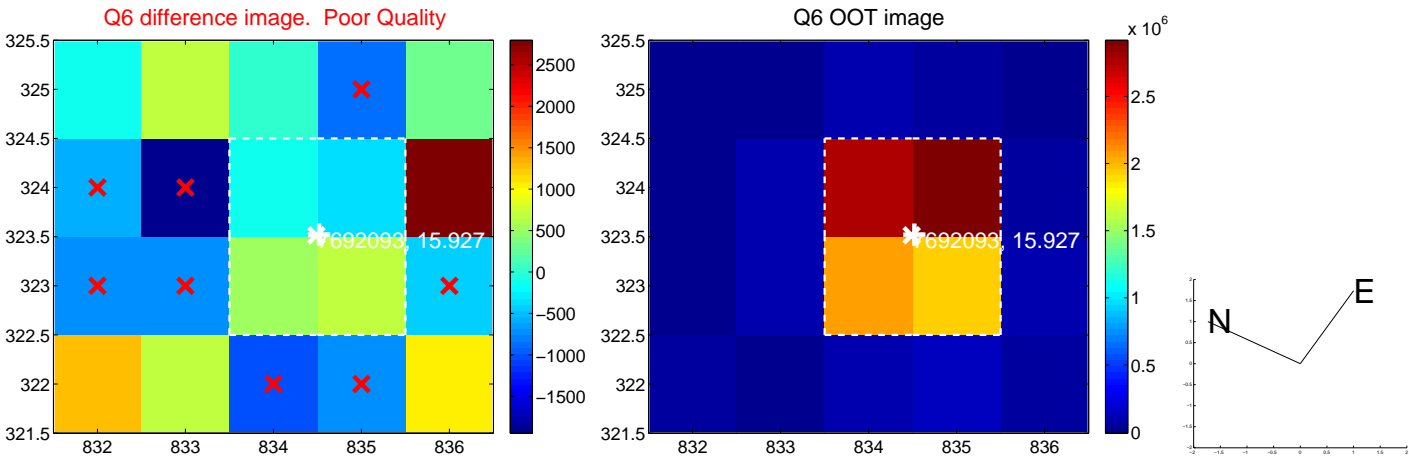
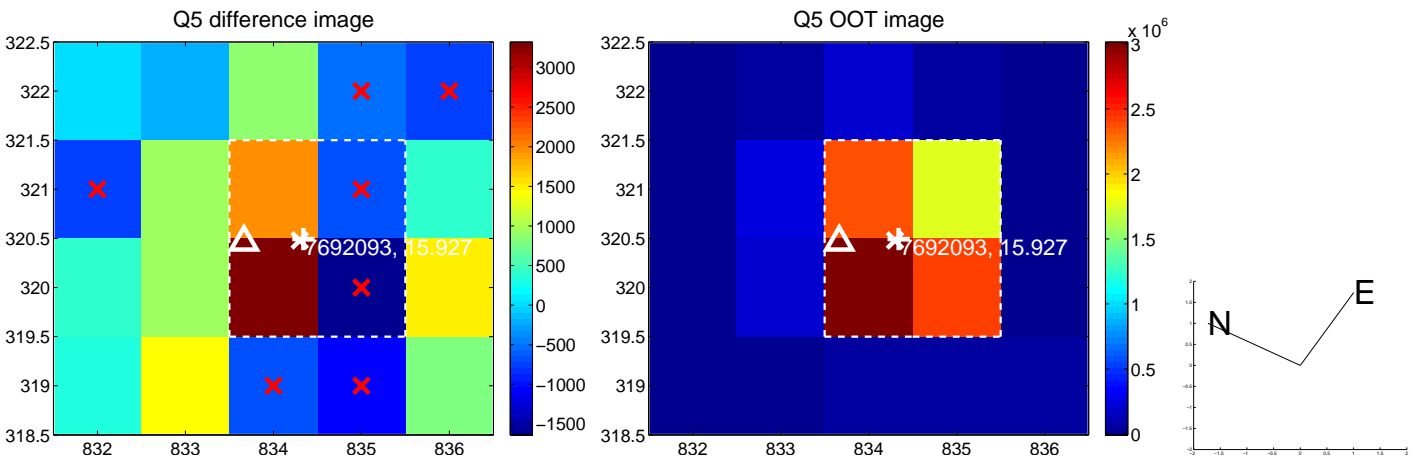


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

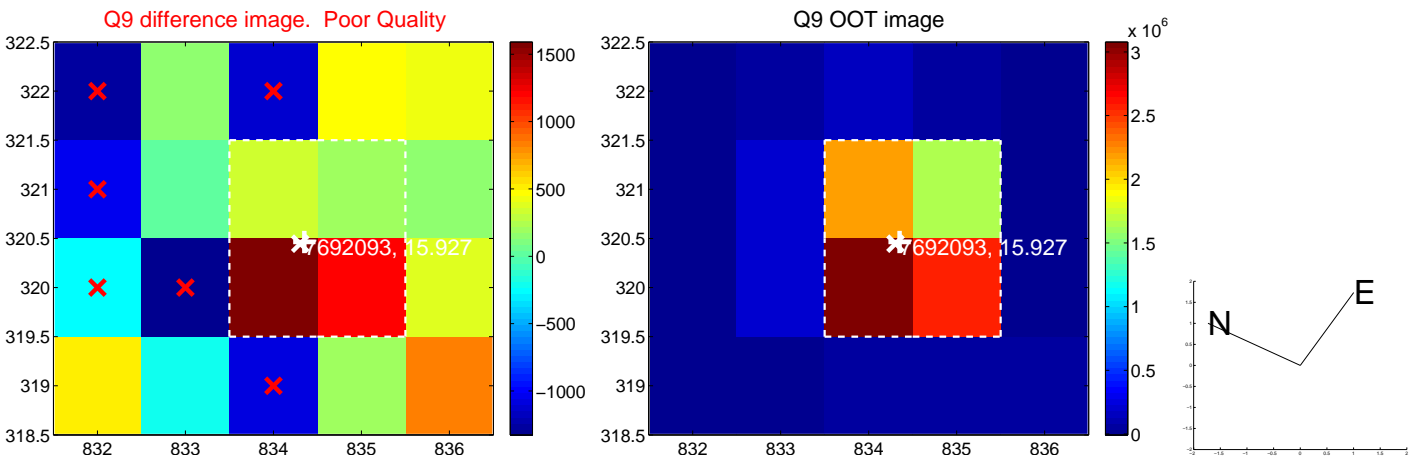
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



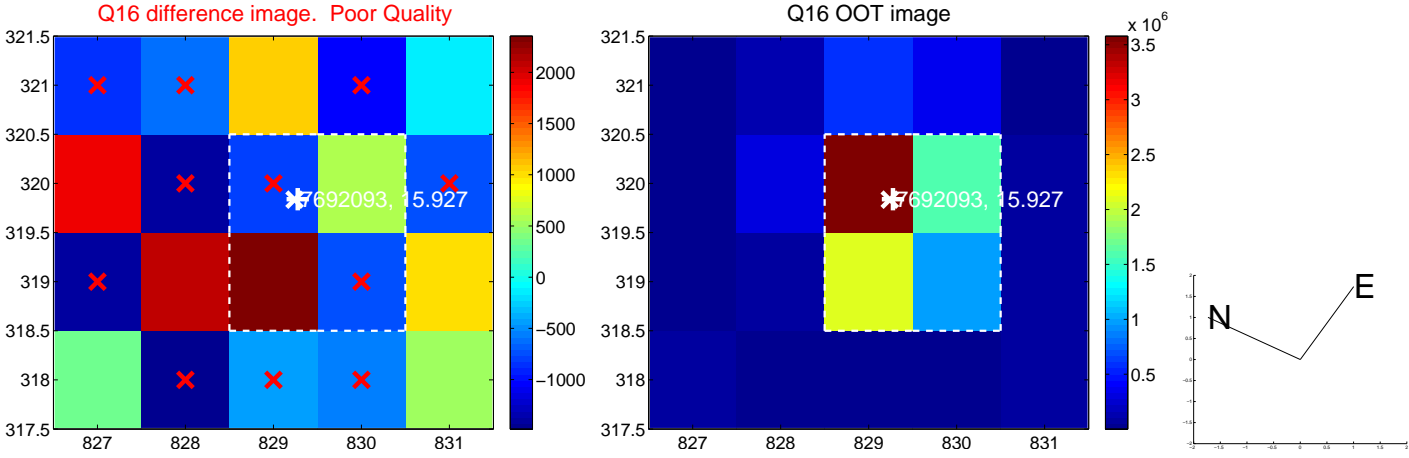
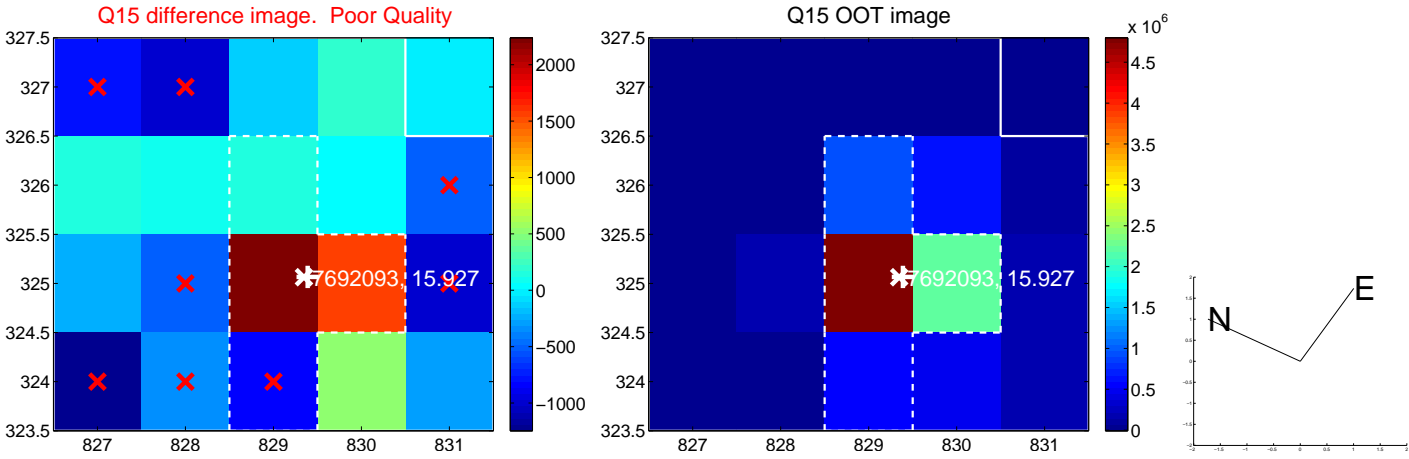
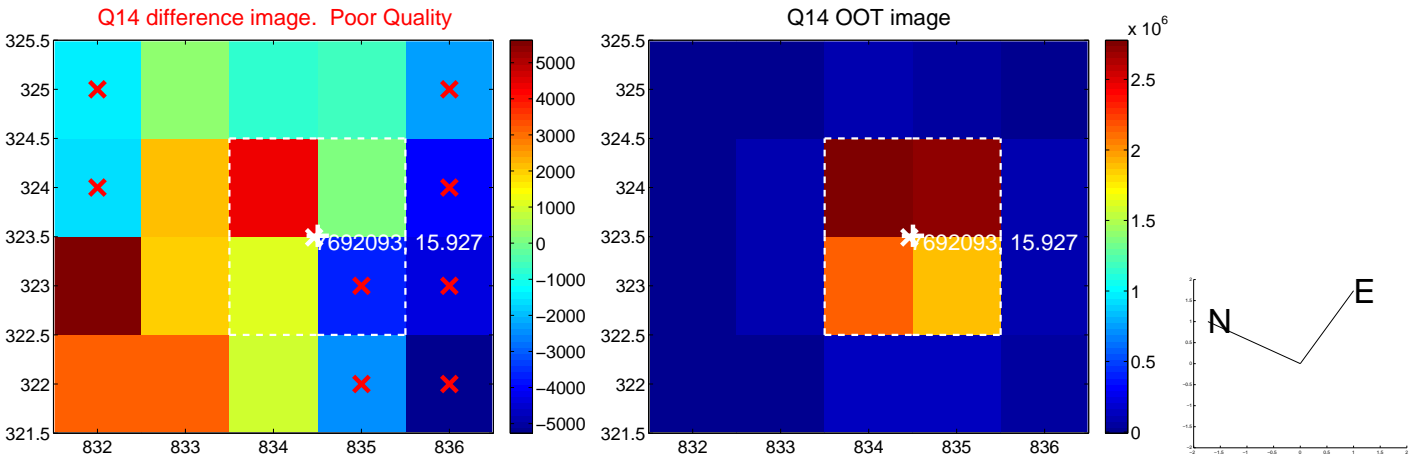
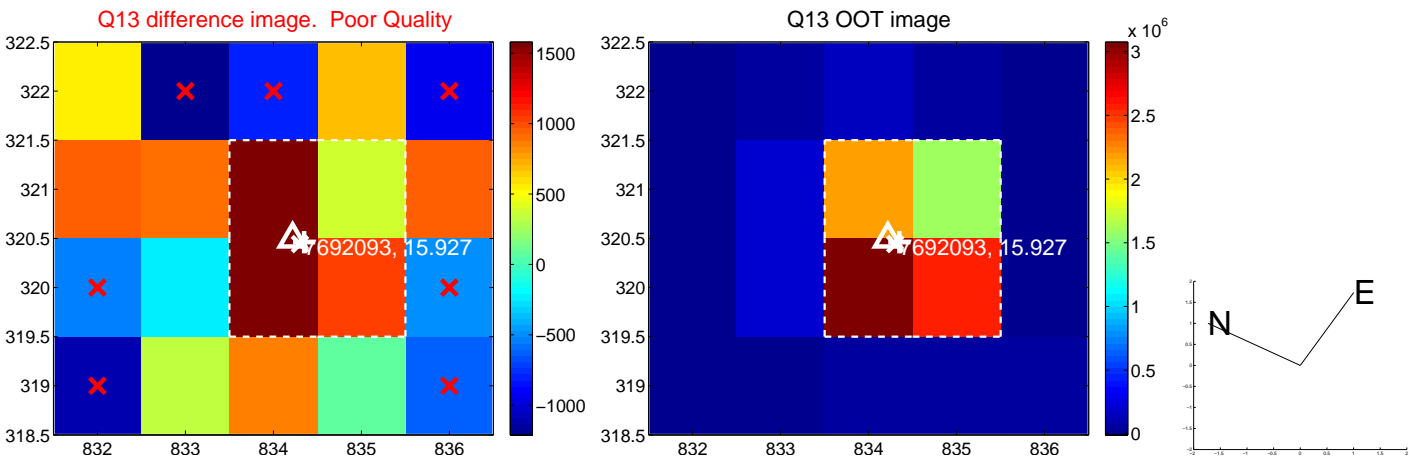
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



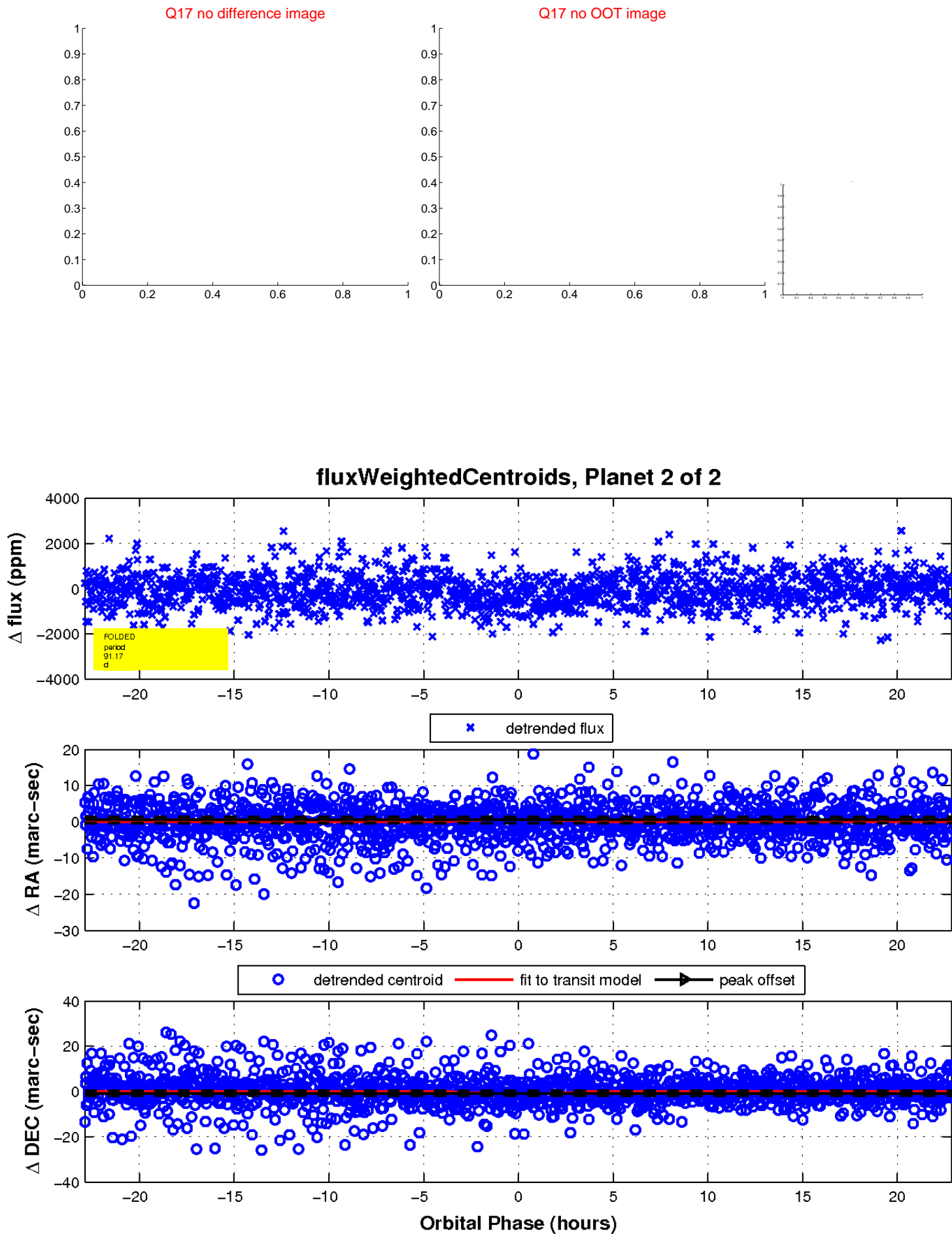
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

