

KIC 007812893

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})
007812893-01	OBS	6919.01	8.799801	136.382871	246.0	1.871	7.1	7.8	0.68	4298	1.29	26.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007812893-01	OBS	FP	0.41	1	0	0	0	MOD_NONUNIQ_ALT

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.

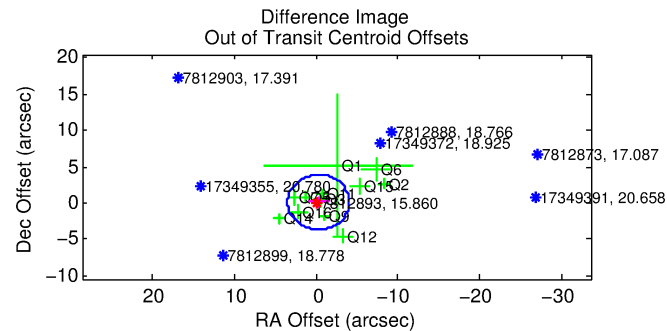
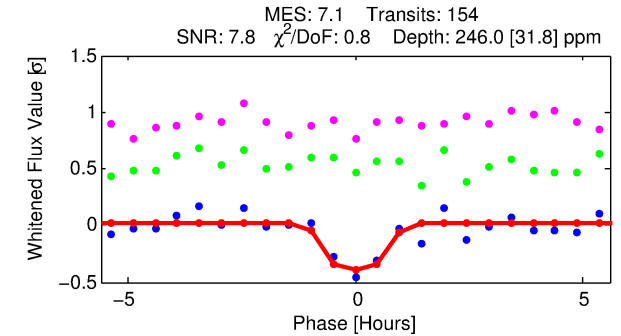
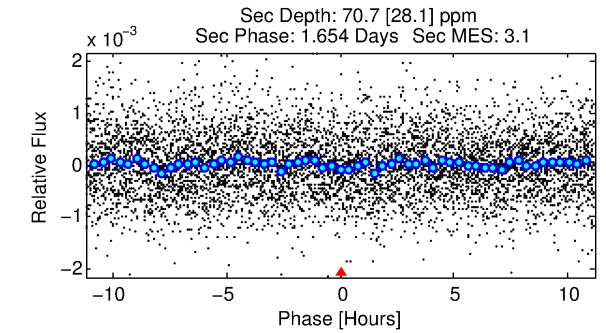
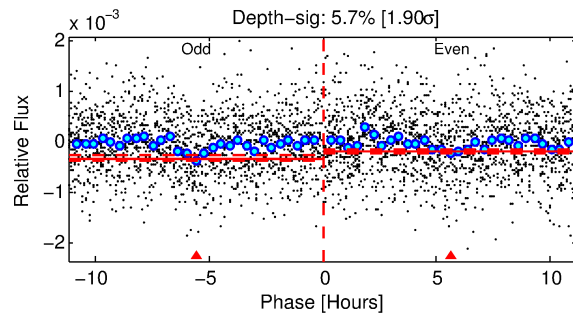
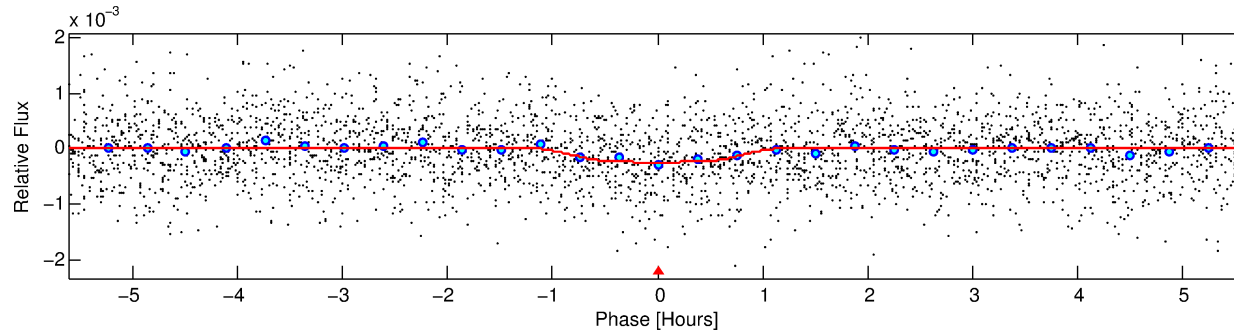
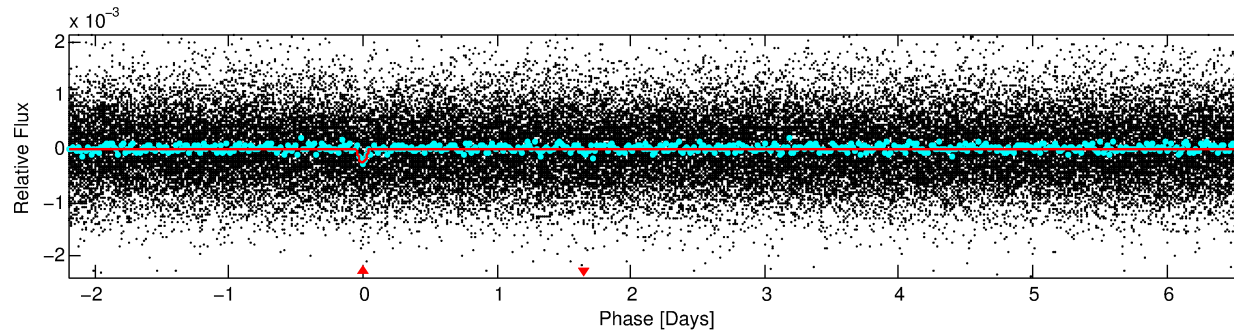
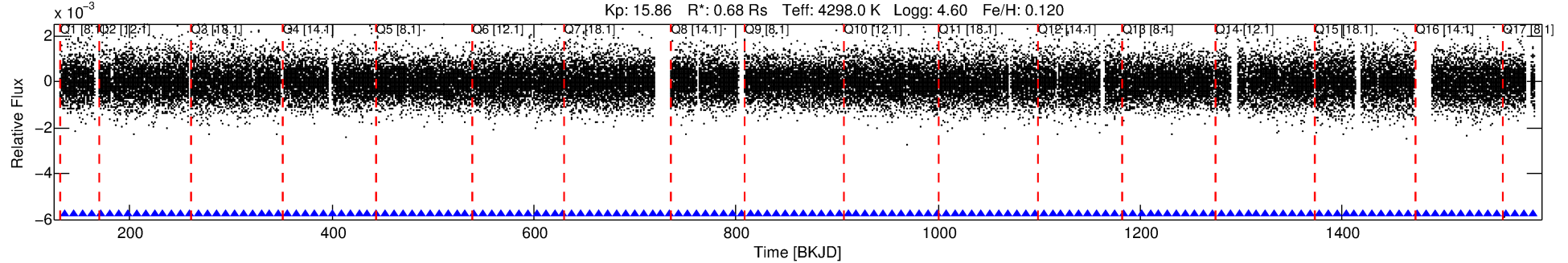
Ephemeris Match Information For 007812893-01

No Significant Match Found

DV One-Page Summary

KIC: 7812893 Candidate: 1 of 1 Period: 8.800 d
KOI: K06919 Corr: No Ephemeris Match

Kp: 15.86 R*: 0.68 Rs Teff: 4298.0 K Logg: 4.60 Fe/H: 0.120



DV Fit Results:

Period = 8.79980 [0.00006] d
Epoch = 136.3829 [0.0053] BKJD
Rp/R* = 0.0175 [0.0235]
a/R* = 18.17 [86.70]
b = 0.88 [1.24]
Seff = 26.23 [4.33]
Teq = 577 [24] K
Rp = 1.29 [1.73] Re
a = 0.0729 [0.0051] AU
Ag = 124.91 [339.72] [0.36σ]
Teffp = 2983 [2029] K [1.19σ]

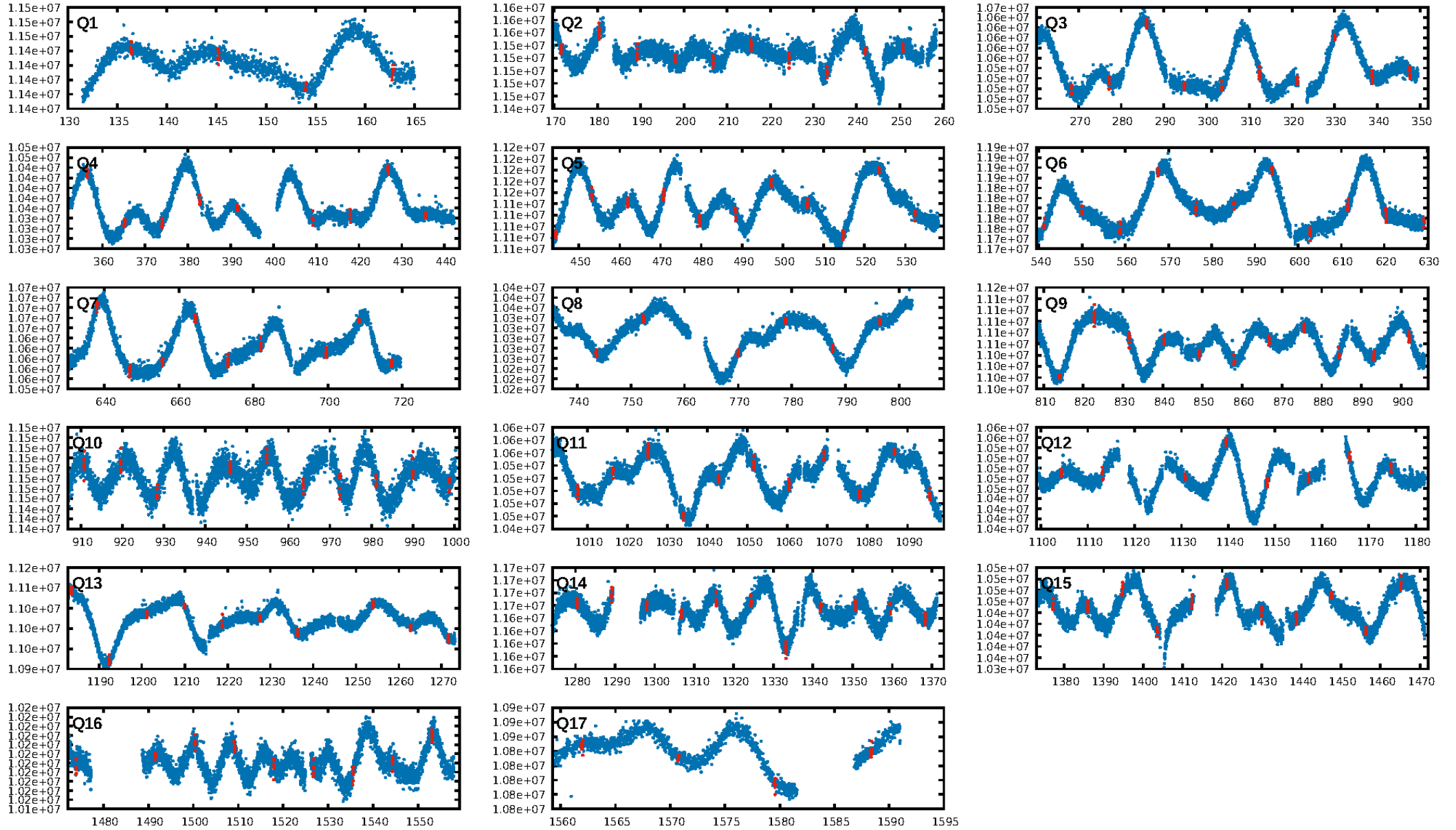
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.10e-12
RollingBand-fgt: 1.00 [146/146]
GhostDiagnostic-chr: -10.75
Centroid-sig: 16.9%
Centroid-so: 1.517 arcsec [1.04σ]
OotOffset-rm: 0.302 arcsec [0.24σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-rm: 0.441 arcsec [0.35σ]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 1.00 [17/17]

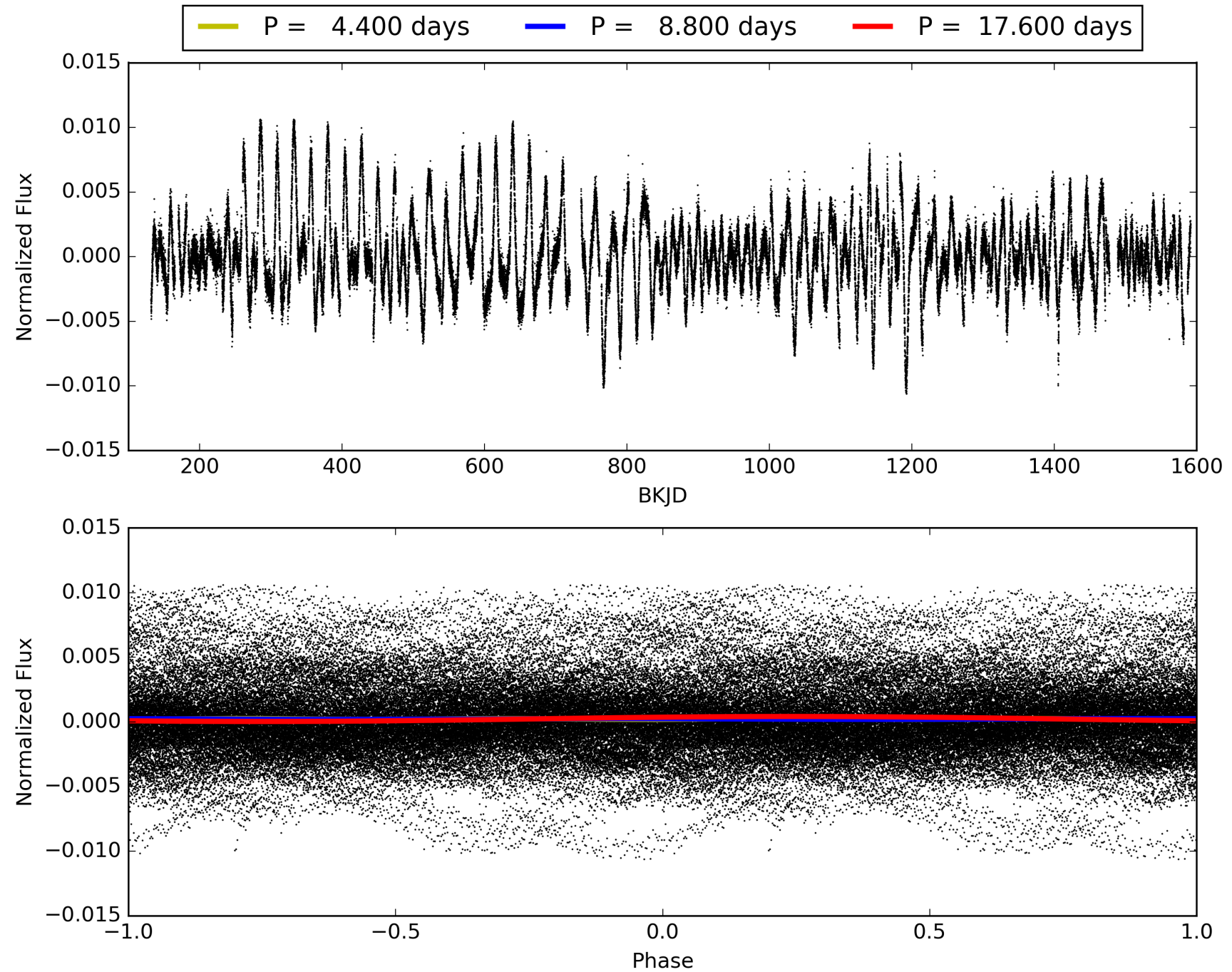
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:00:57 Z

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

TCE 007812893-01, PDC Light Curves

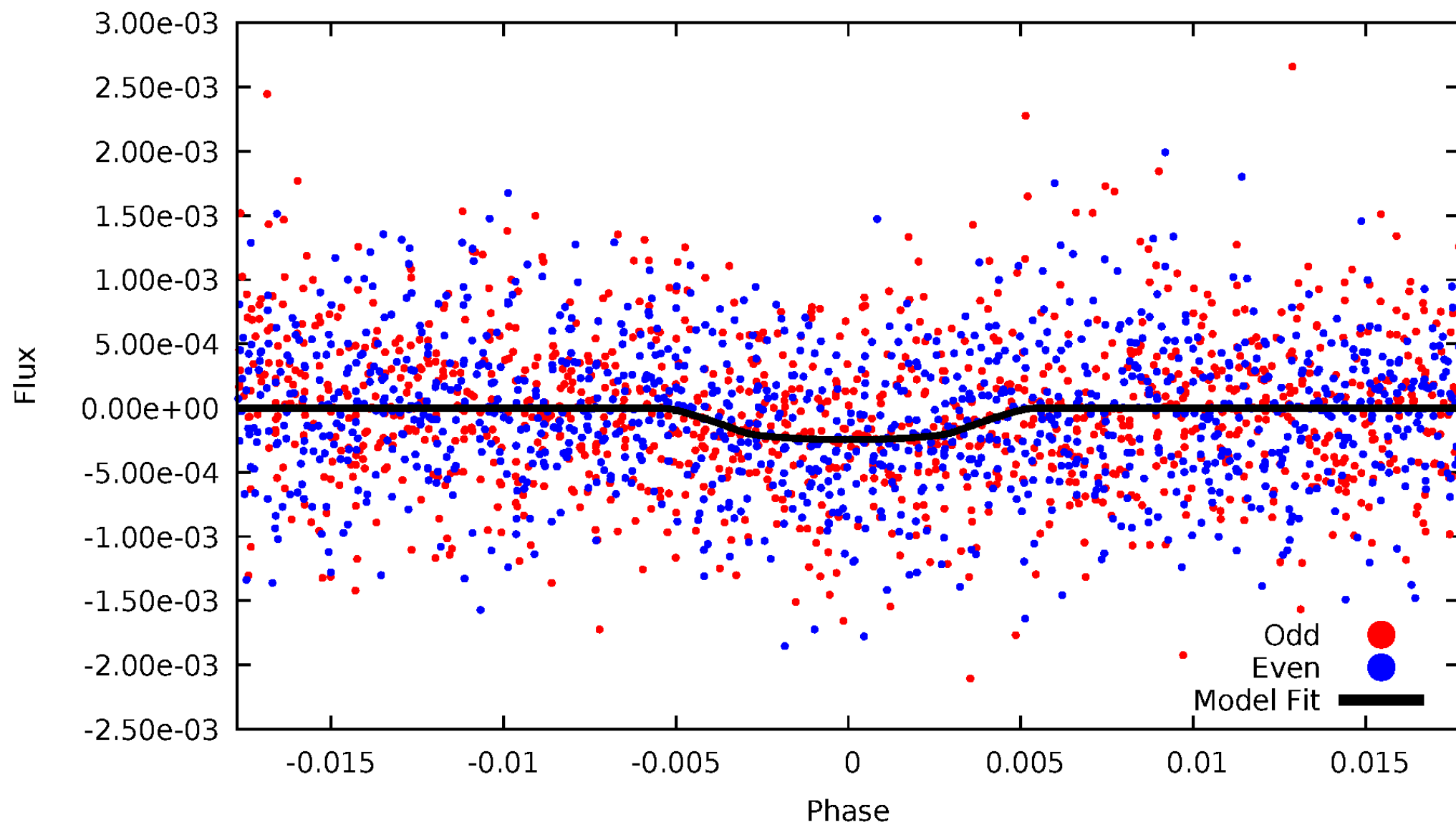


TCE 007812893-01



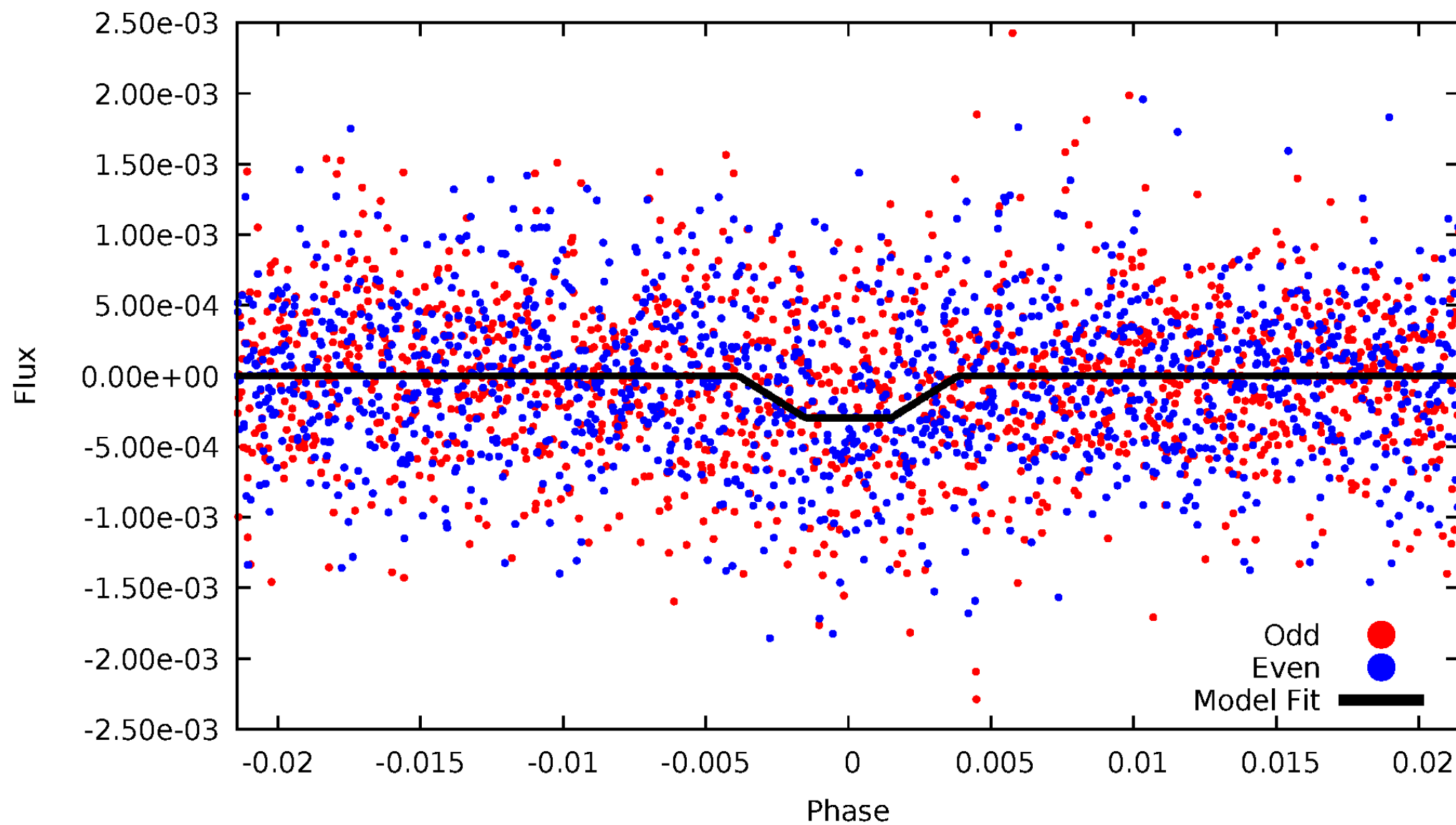
DV Odd/Even

TCE 007812893-01

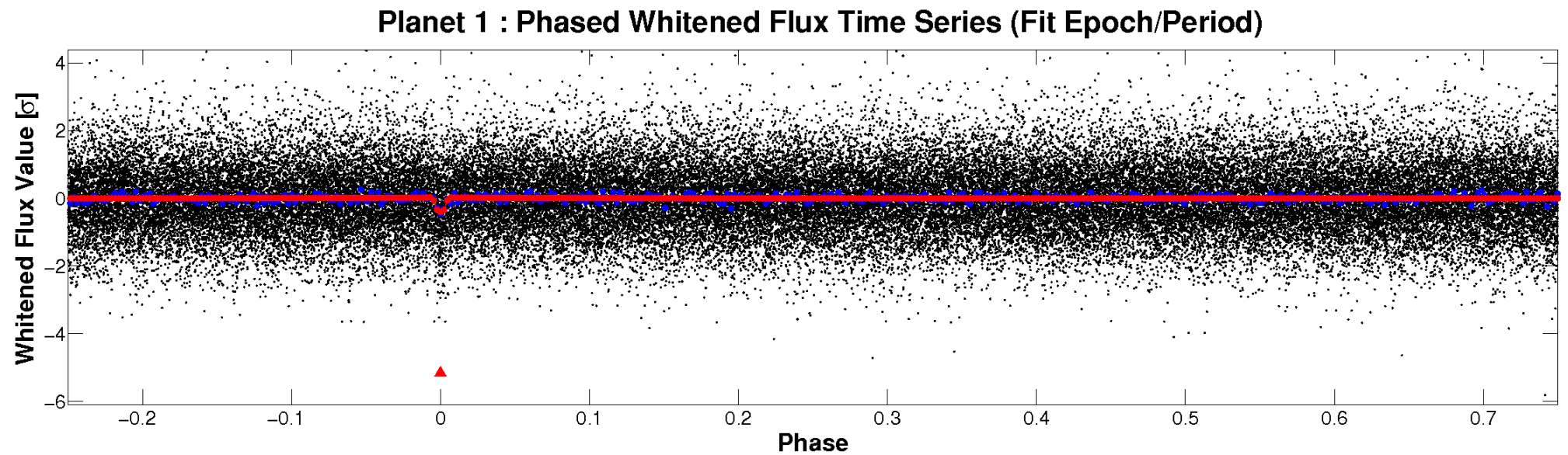
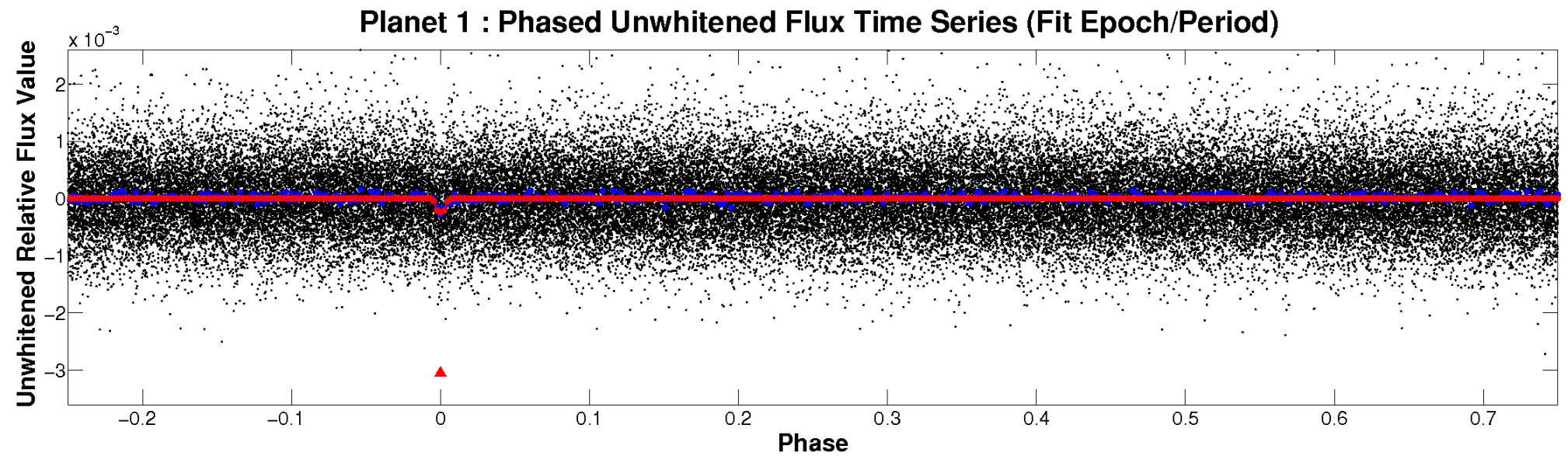


ALT Odd/Even

TCE 007812893-01

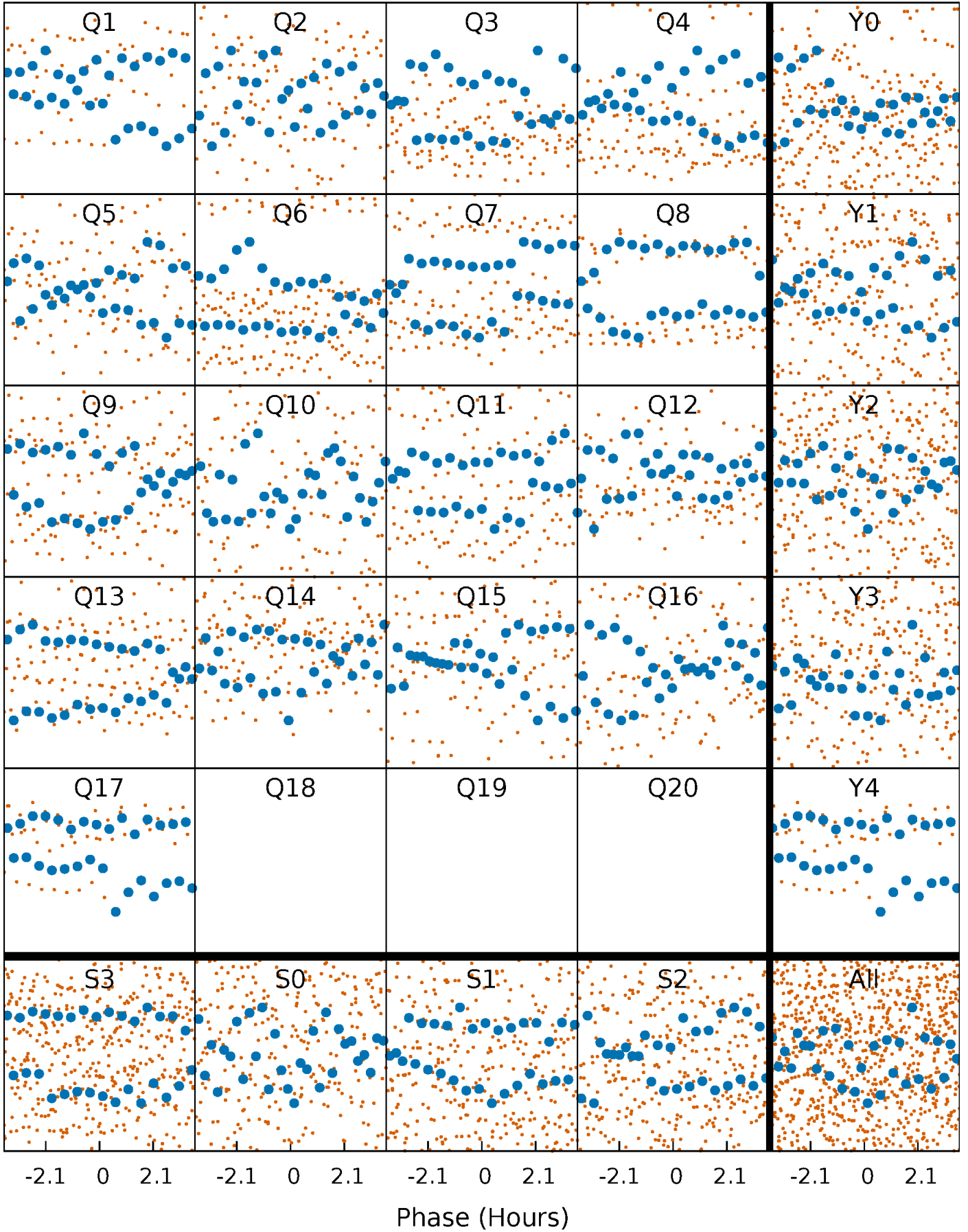


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007812893-01 P= 8.799801 Days $T_0=136.382871$ (BKJD)



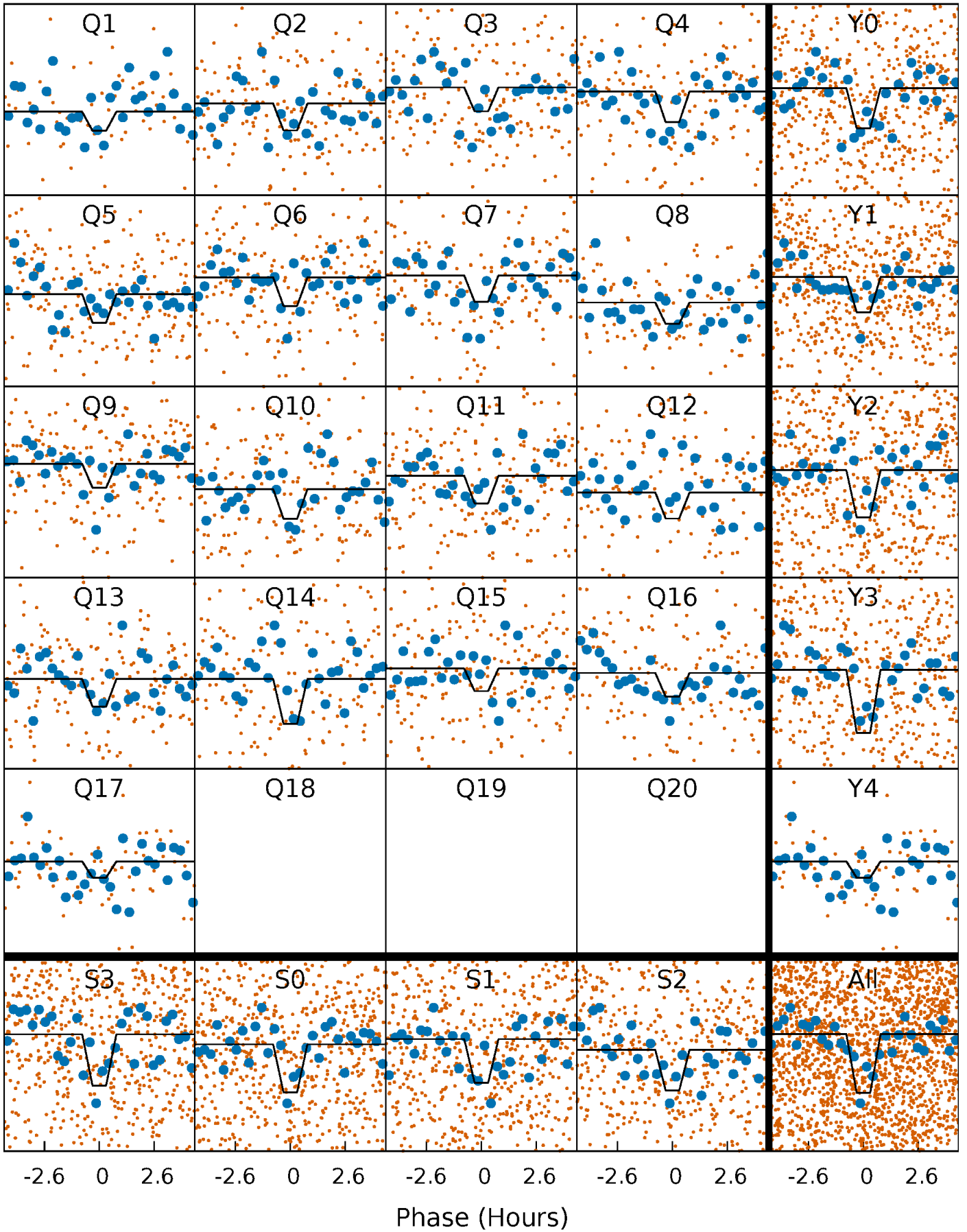
DV Quarter-Phased Transit Curves

TCE 007812893-01 P= 8.799801 Days $T_0=136.382871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

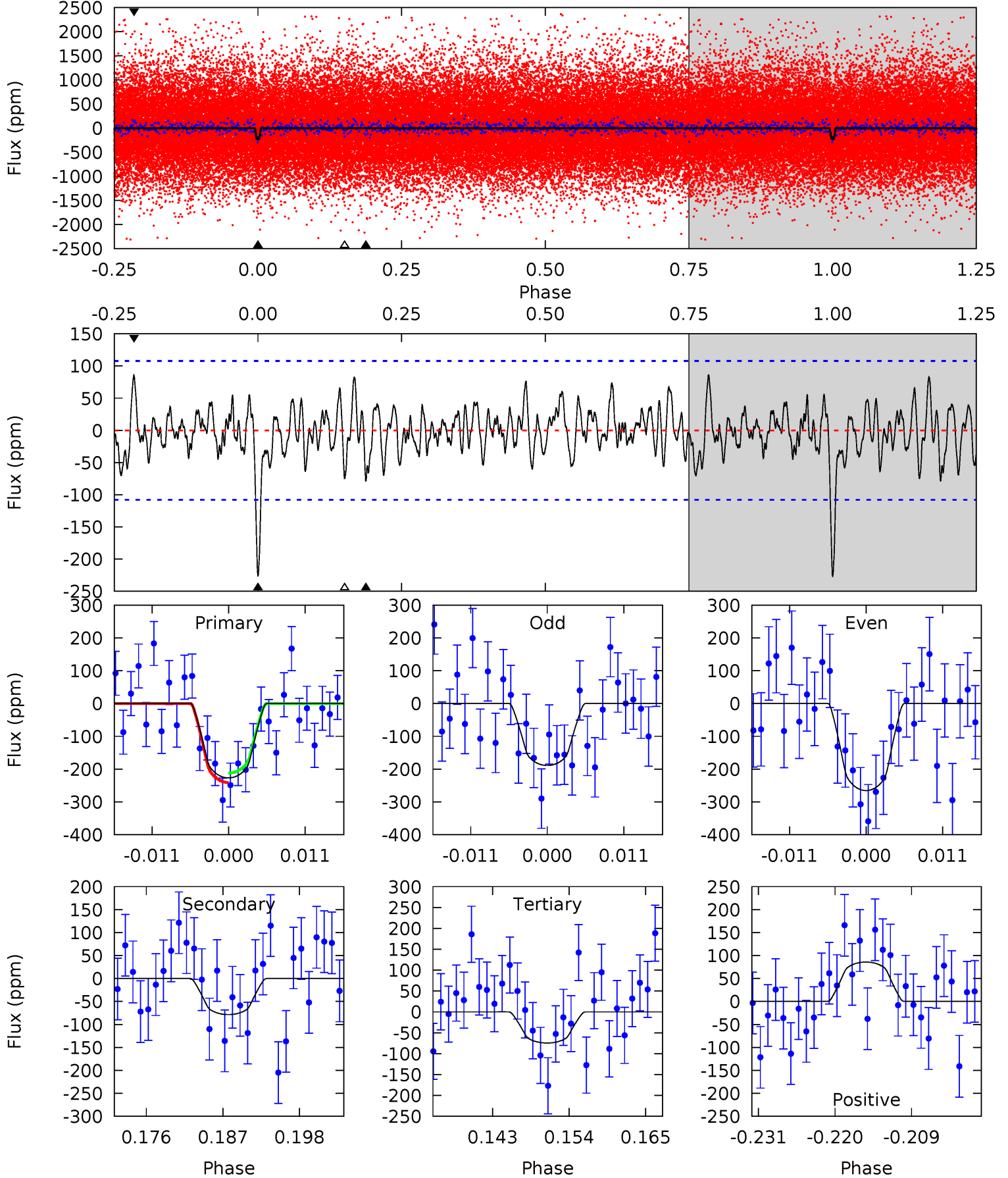
TCE 007812893-01 P= 8.799675 Days $T_0=136.392918$ (BKJD)



DV Model-Shift Uniqueness Test

007812893-01, P = 8.799801 Days, E = 127.583070 Days

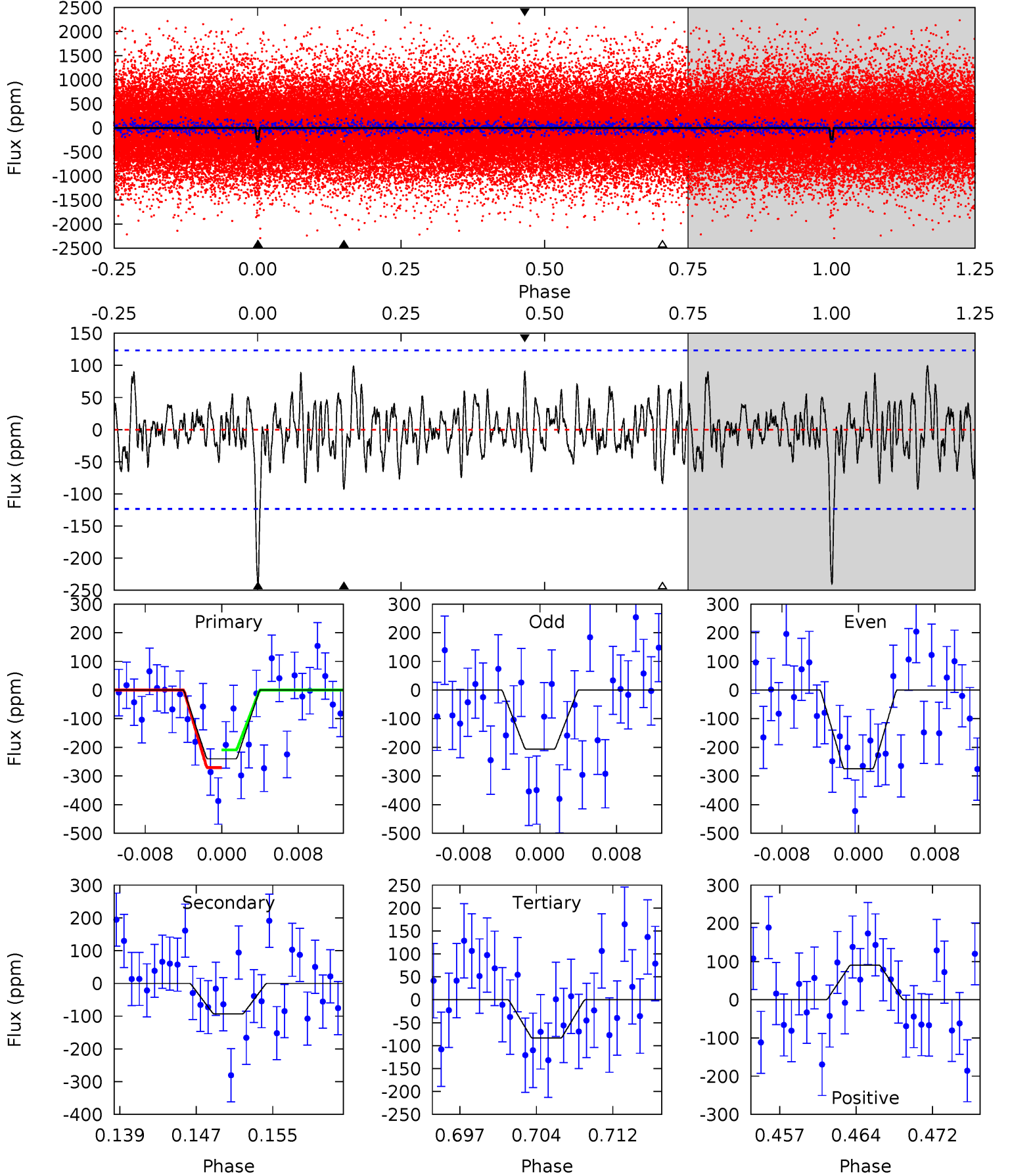
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	3.65	3.46	3.99	5.01	2.54	1.34	7.07	6.55	0.19	-0.34	1.78	0.93	0.27	0.67



Alt Model-Shift Uniqueness Test

007812893-01, P = 8.799675 Days, E = 127.593243 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.88	3.83	3.43	3.72	5.08	2.66	1.27	6.45	6.16	0.40	0.10	1.41	1.02	0.29	1.27



Stellar Parameters For KIC 007812893

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4298^{+129}_{-142}	$4.603^{+0.053}_{-0.018}$	$0.120^{+0.250}_{-0.300}$	$0.675^{+0.028}_{-0.057}$	$0.668^{+0.052}_{-0.052}$	$3.053^{+0.702}_{-0.243}$
	+3%/-3%	+1%/-0%	+208%/-250%	+4%/-8%	+8%/-8%	+23%/-8%
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 007812893-01 / KOI 6919.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-79 ± 22	$1.84^{+1.49}_{-1.17}$	800^{+26}_{-30}	3047^{+1281}_{-480}	68^{+489}_{-48}
Alt.	-93 ± 24	$1.72^{+1.43}_{-1.15}$	799^{+28}_{-28}	3186^{+1494}_{-518}	91^{+759}_{-64}

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

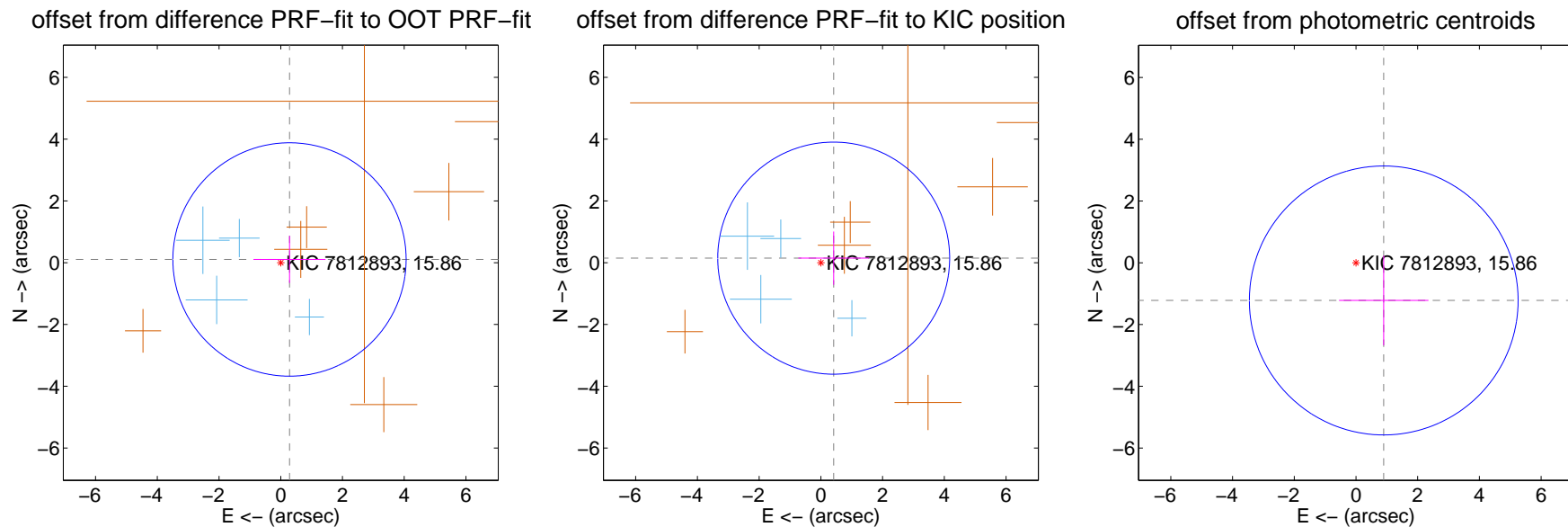
DV Centroid Data

Supplemental centroid analysis for 007812893-01. Kepler magnitude: 15.86. Transit SNR 7.83

There are 4 quarters with good PRF difference image offsets

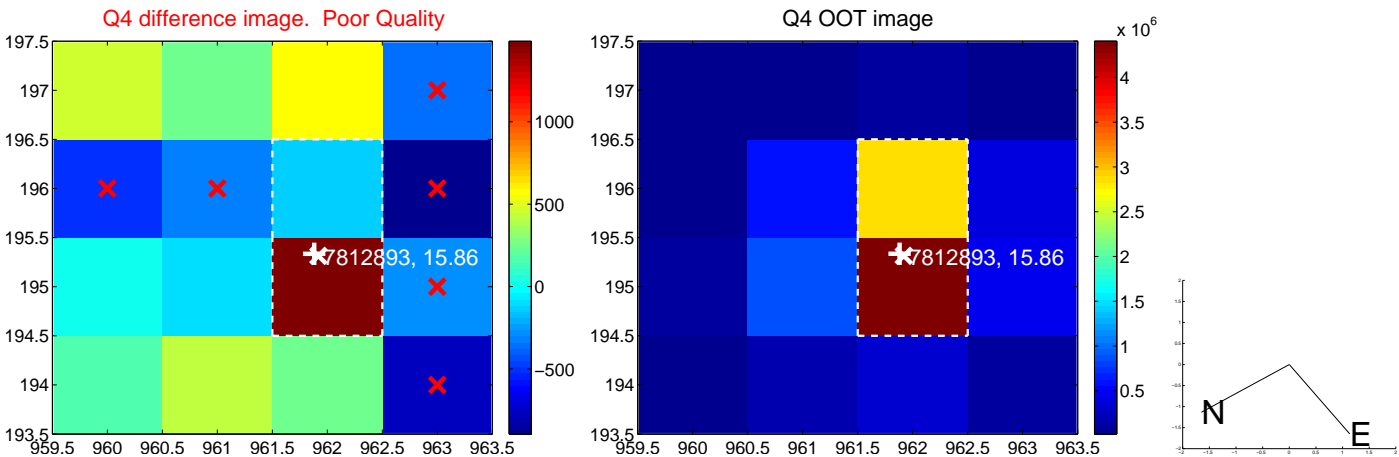
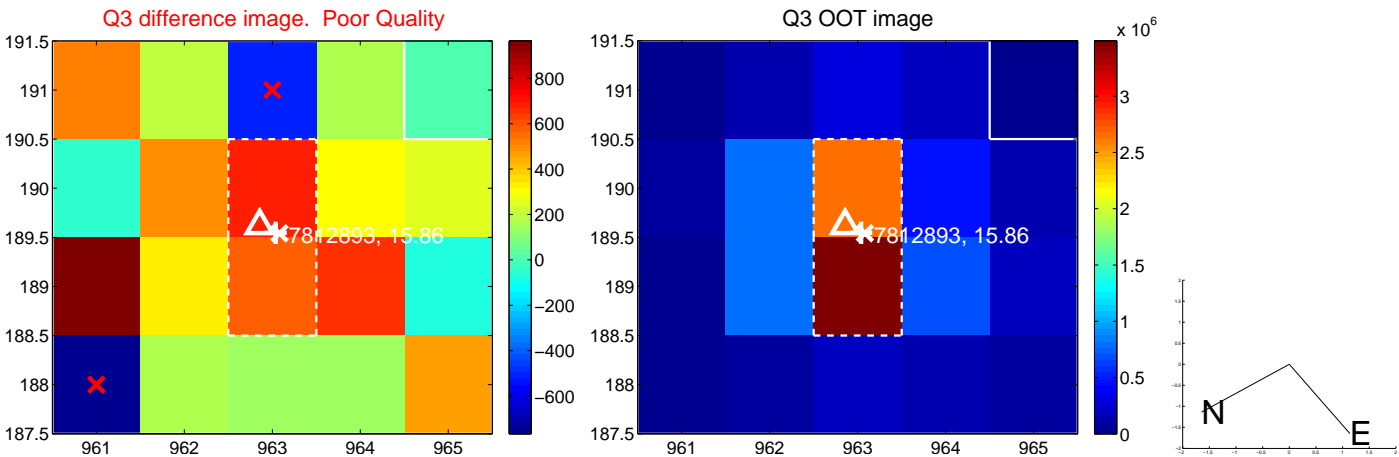
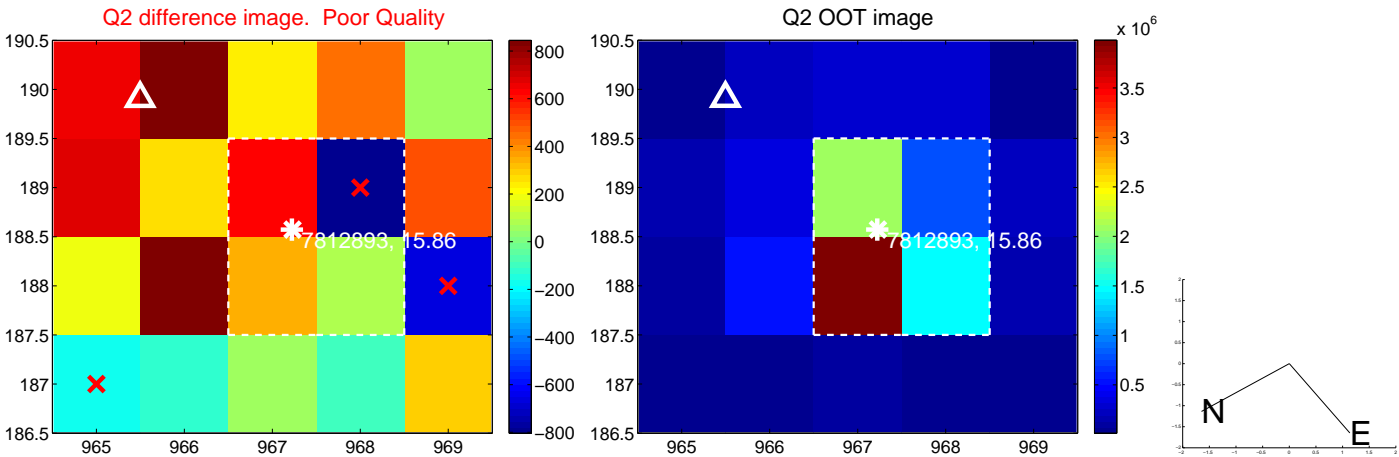
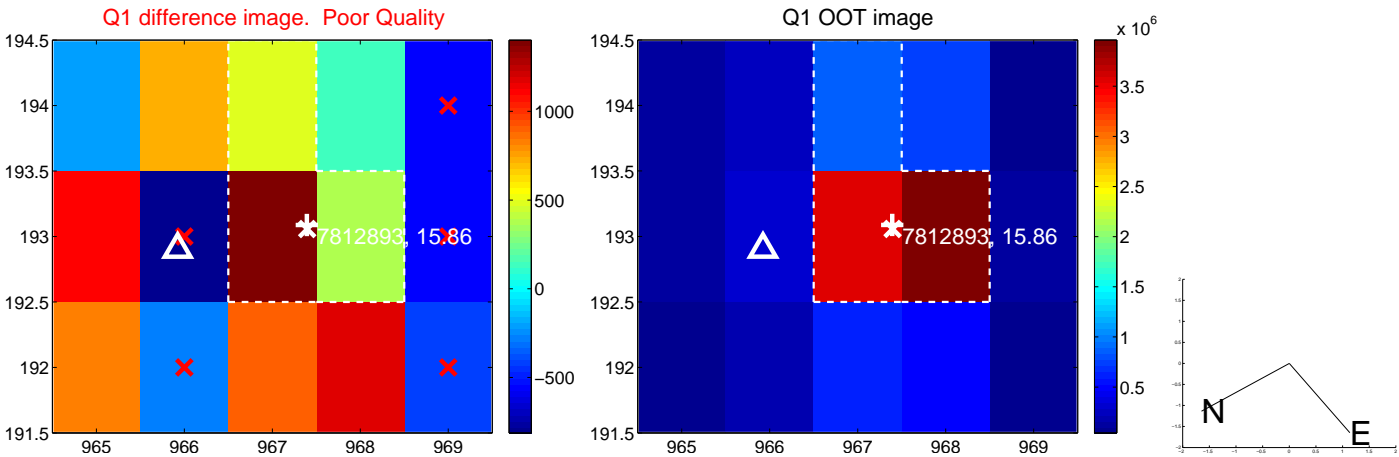
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.302 ± 1.260	0.24	-0.284 ± 1.165	0.104 ± 0.760
PRF-fit source offset from KIC position	0.441 ± 1.252	0.35	-0.416 ± 1.145	0.147 ± 0.862
photometric centroid source offset	1.52 ± 1.45	1.04	-0.90 ± 1.45	-1.22 ± 1.45

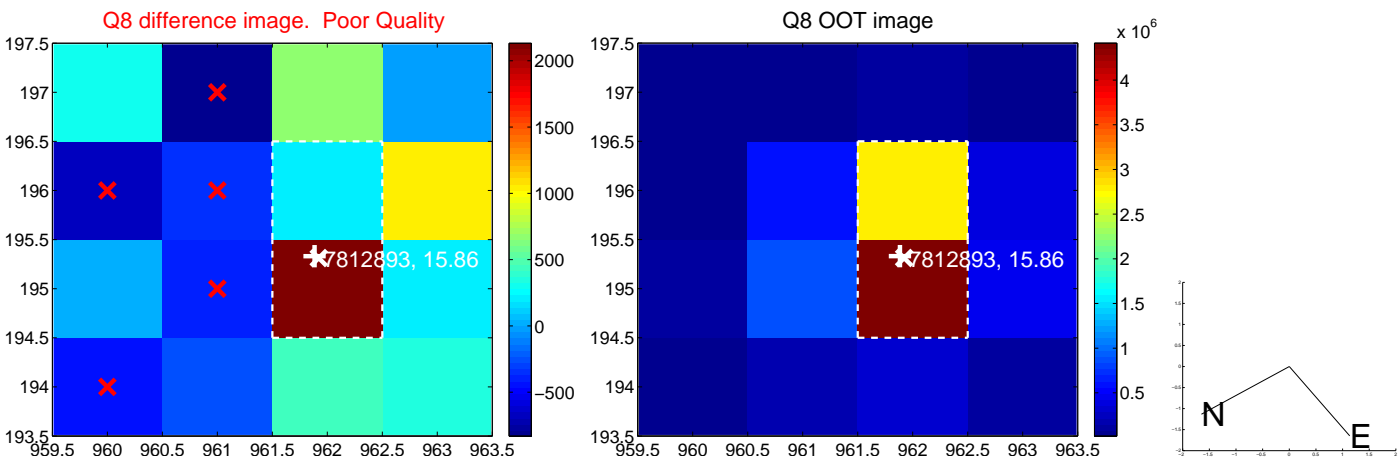
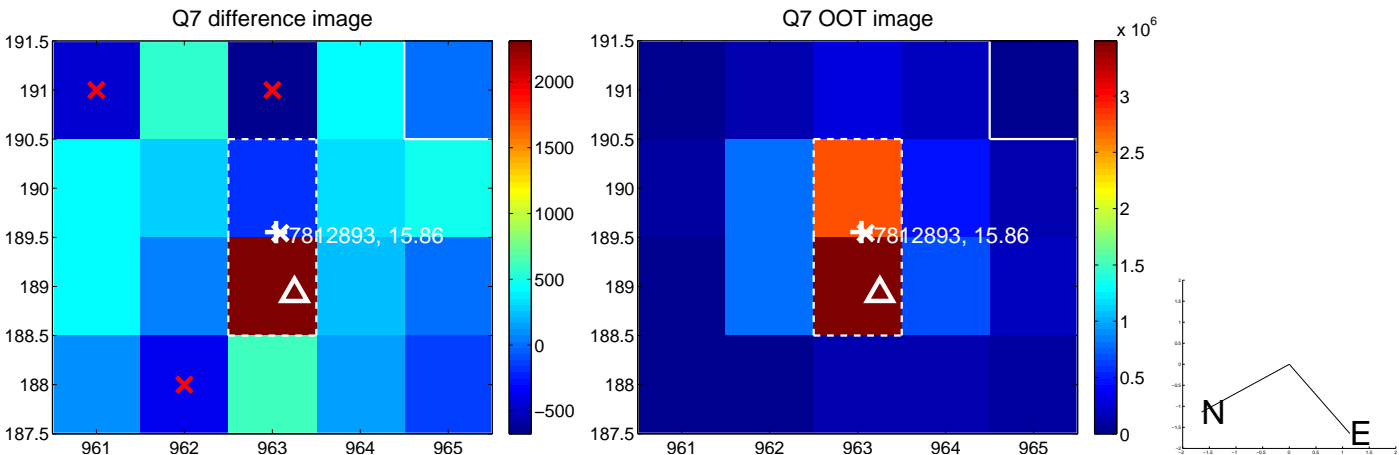
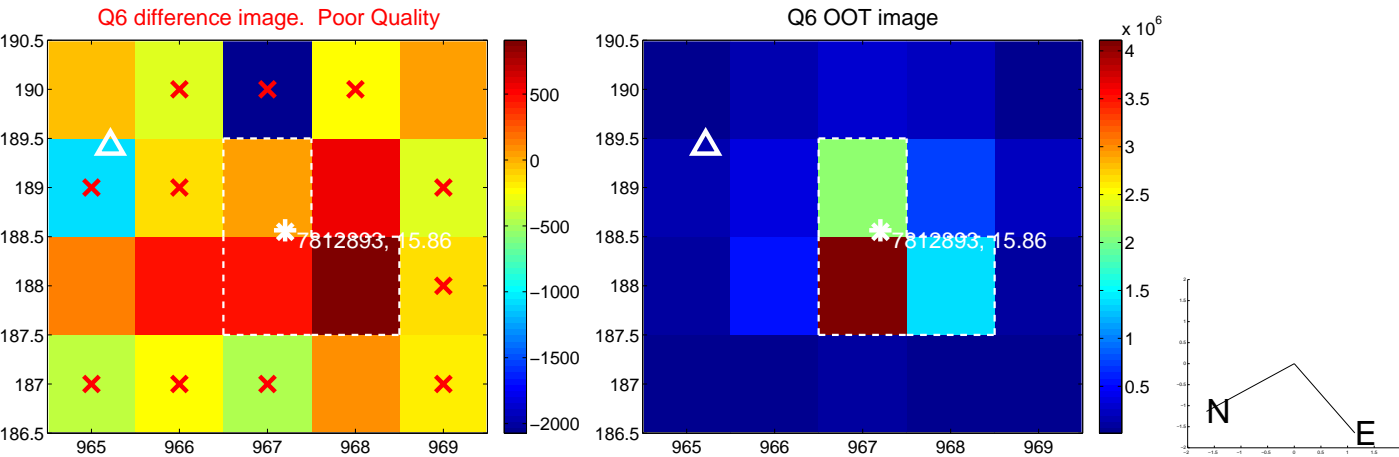
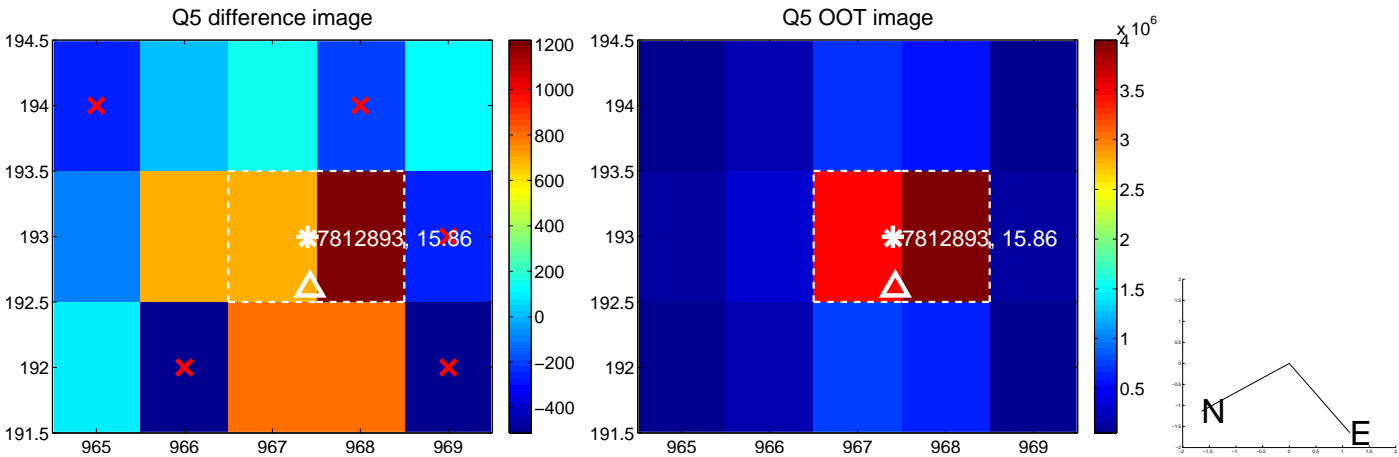


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

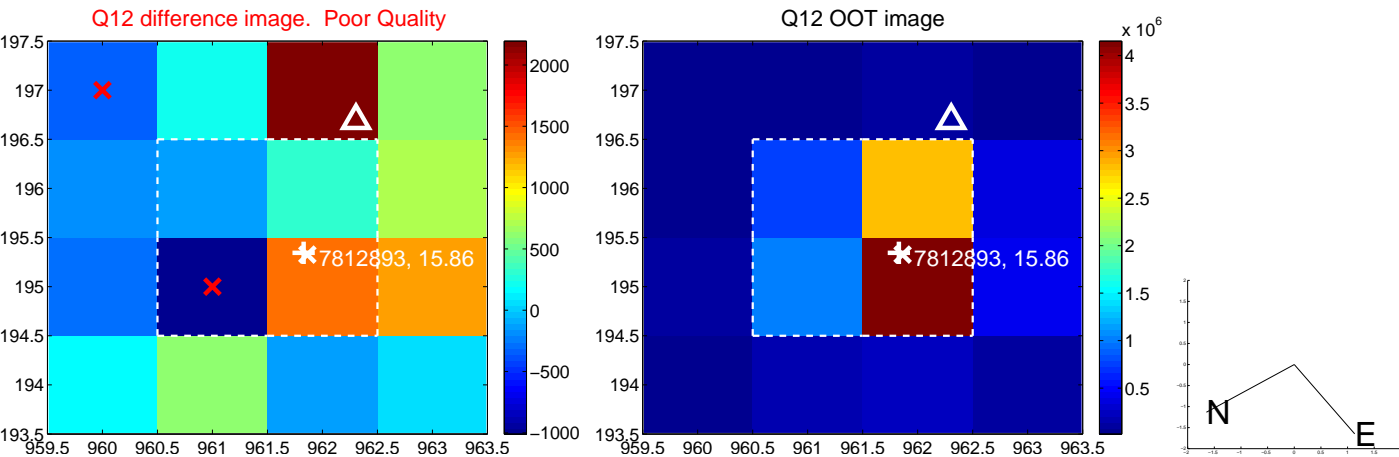
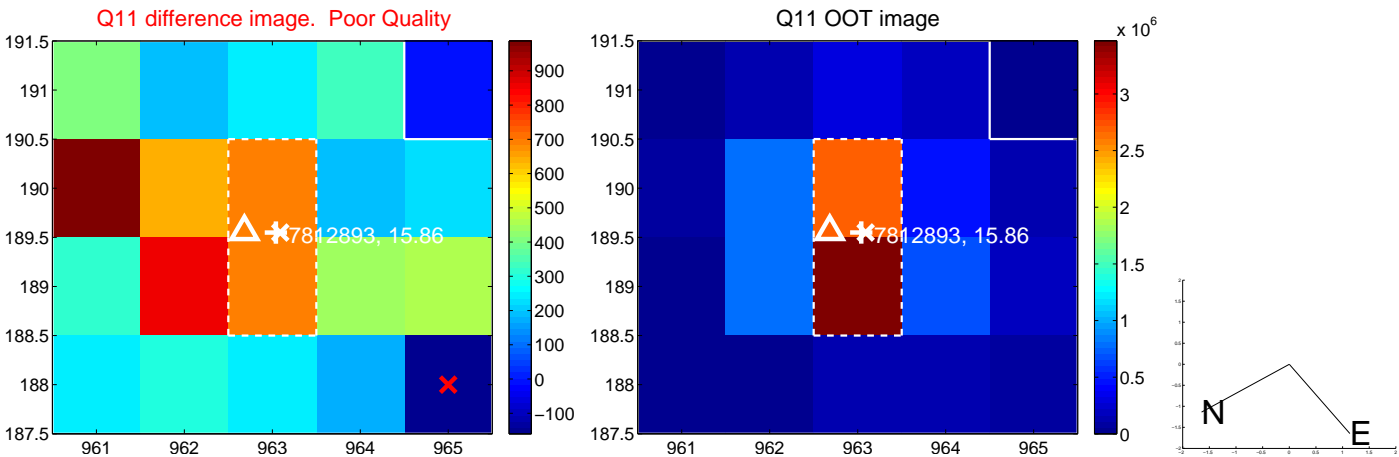
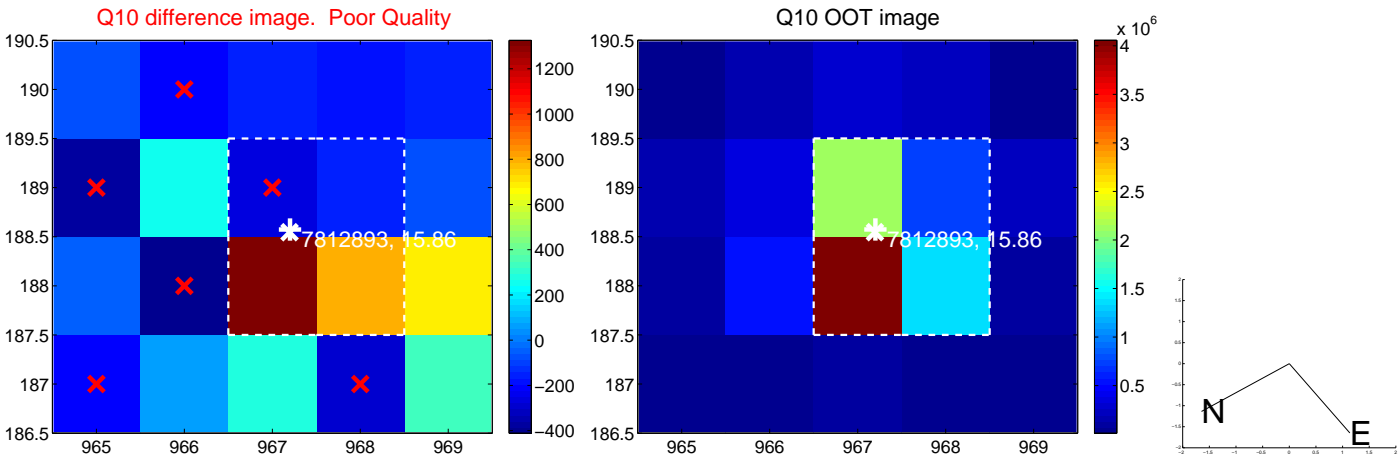
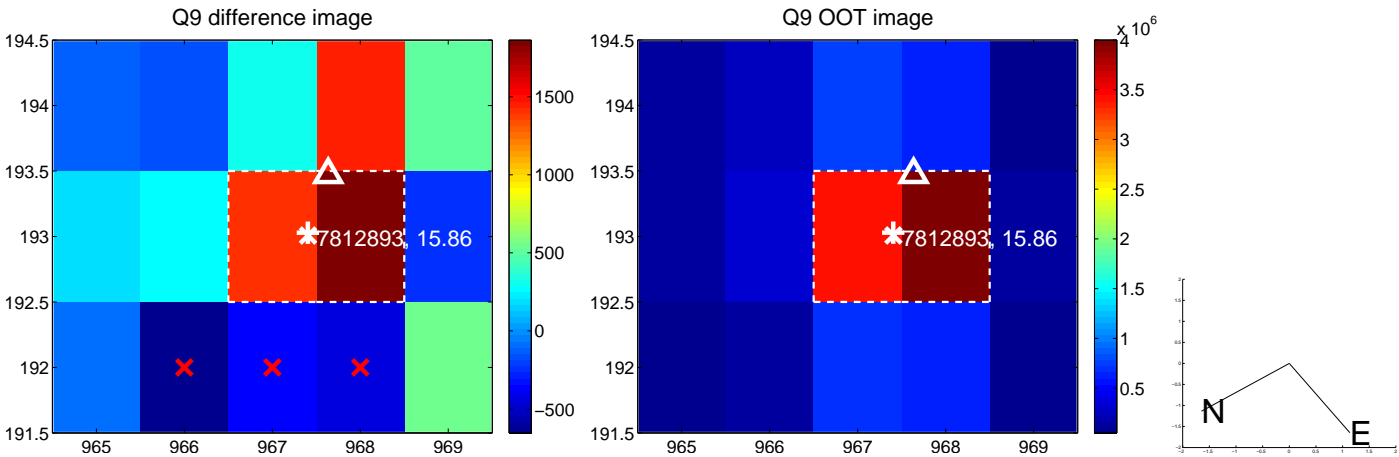
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



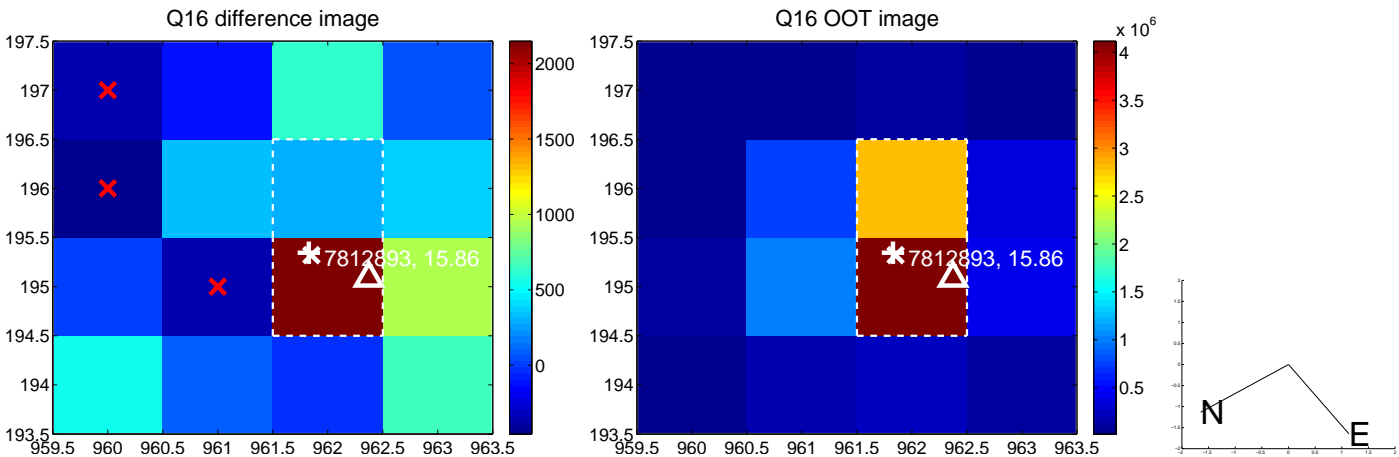
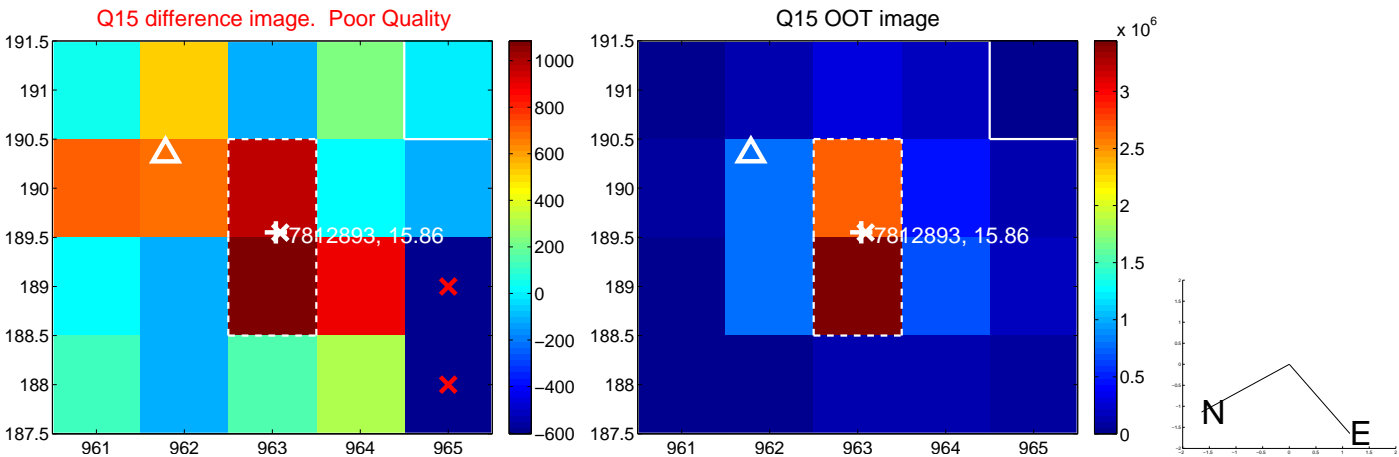
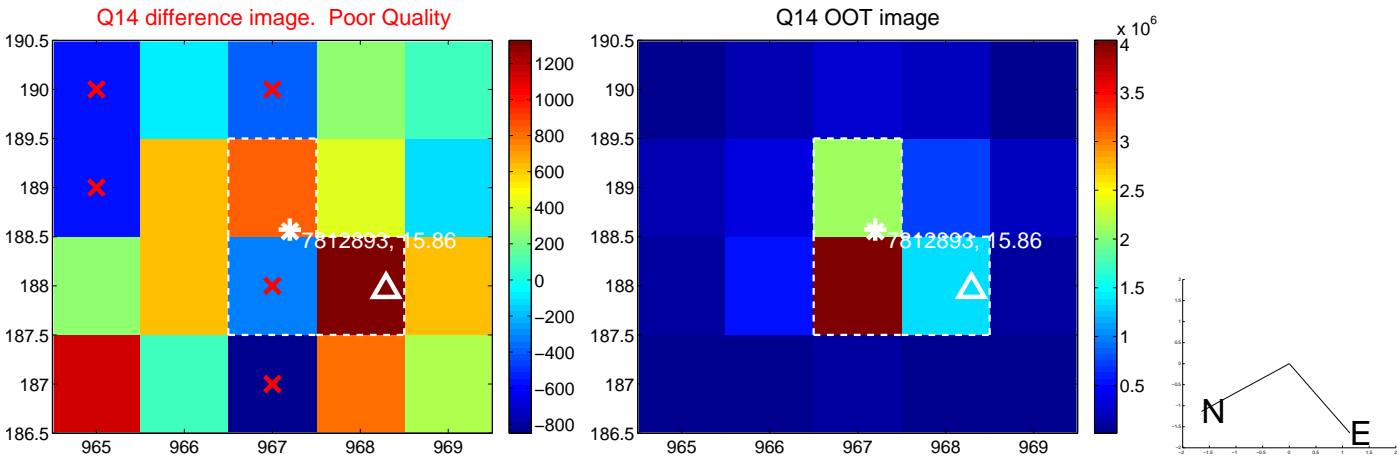
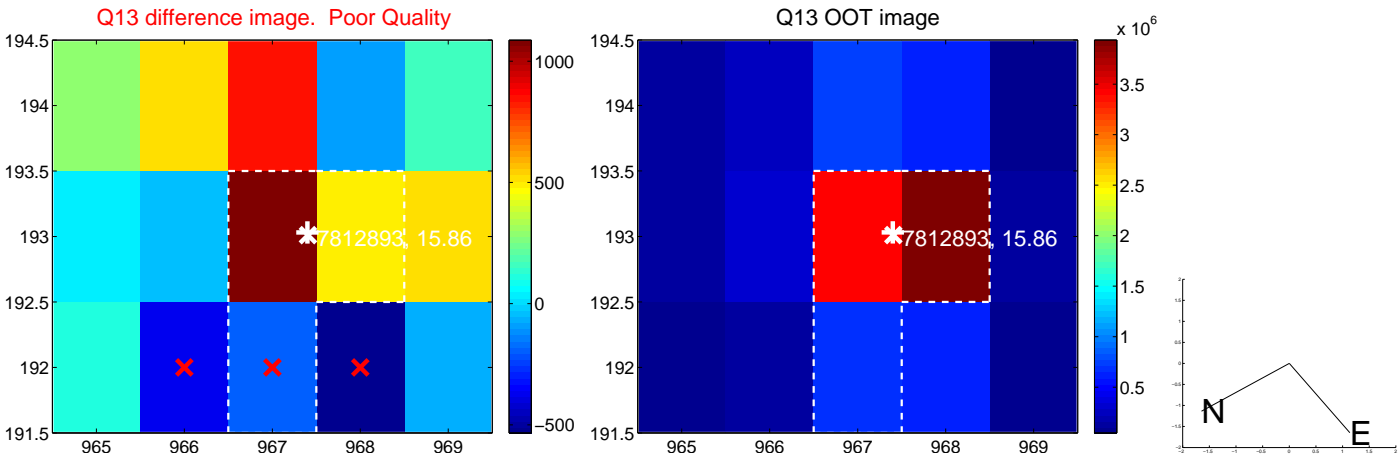
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



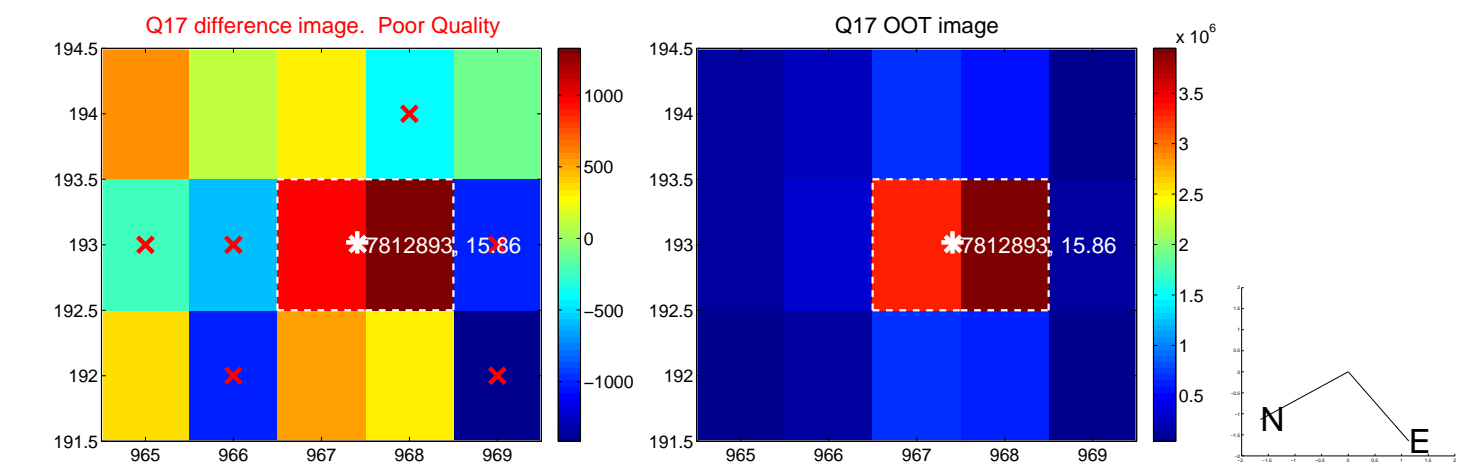
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



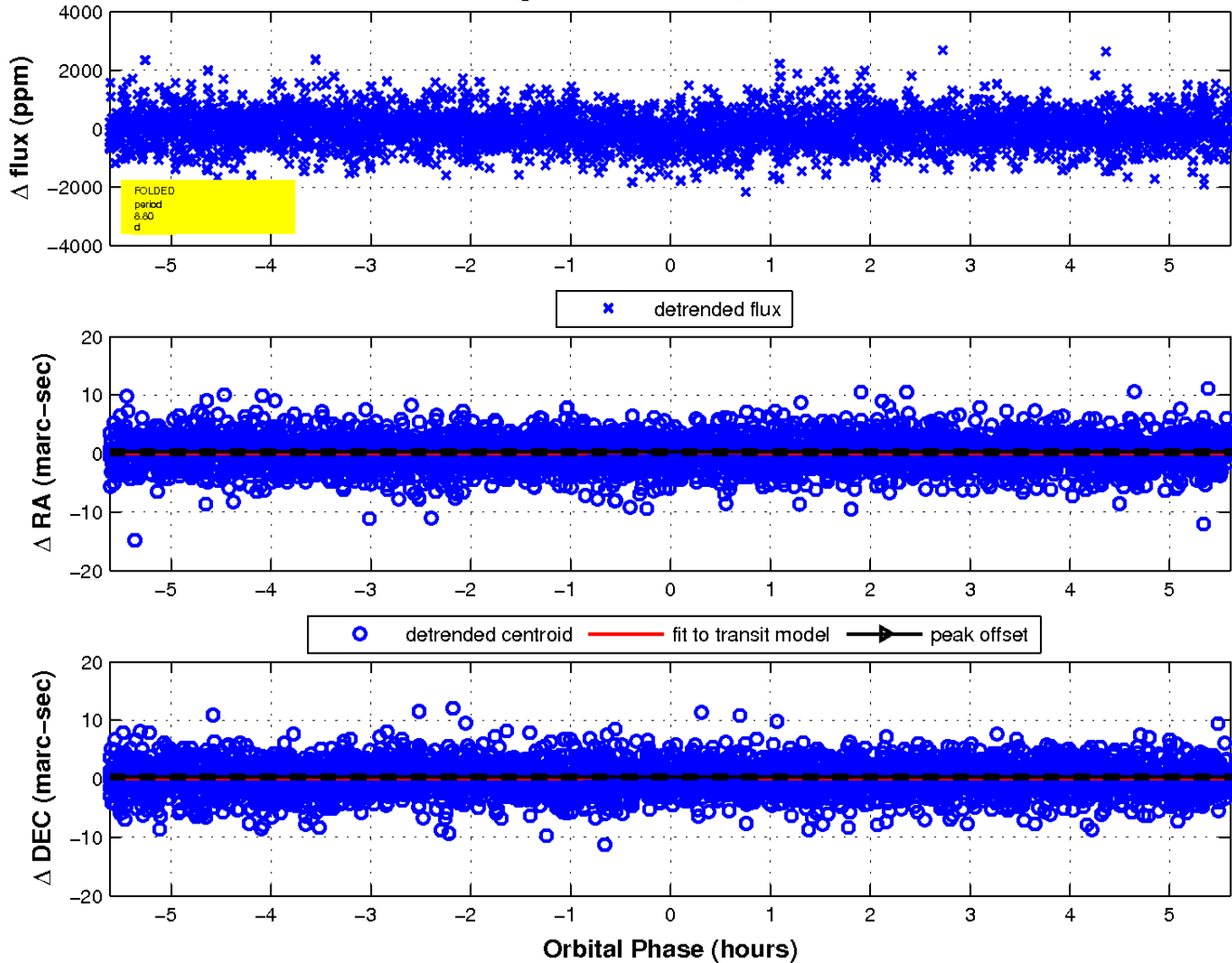
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

