

KIC 007835312

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})
007835312-01	OBS	6164.01	29.513100	134.704792	209.4	6.707	8.8	9.4	1.35	5746	2.09	50.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007835312-01	OBS	PC	0.96	0	0	0	0	NO_COMMENT

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.

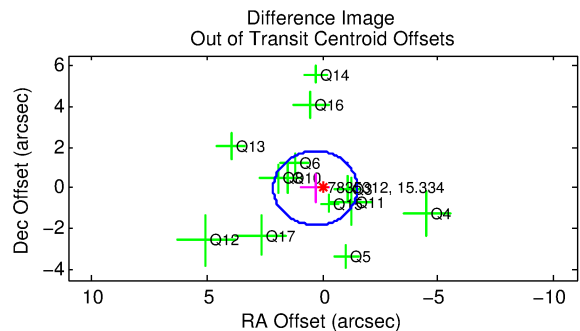
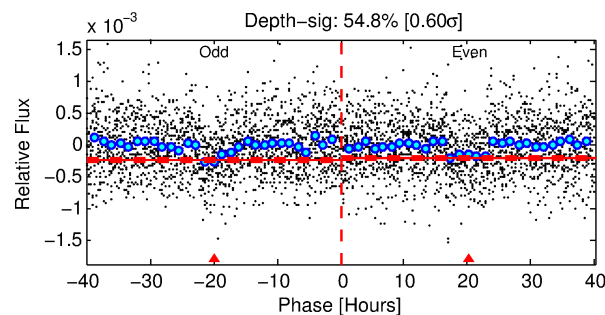
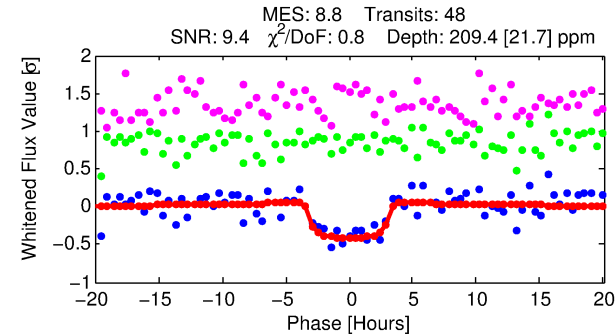
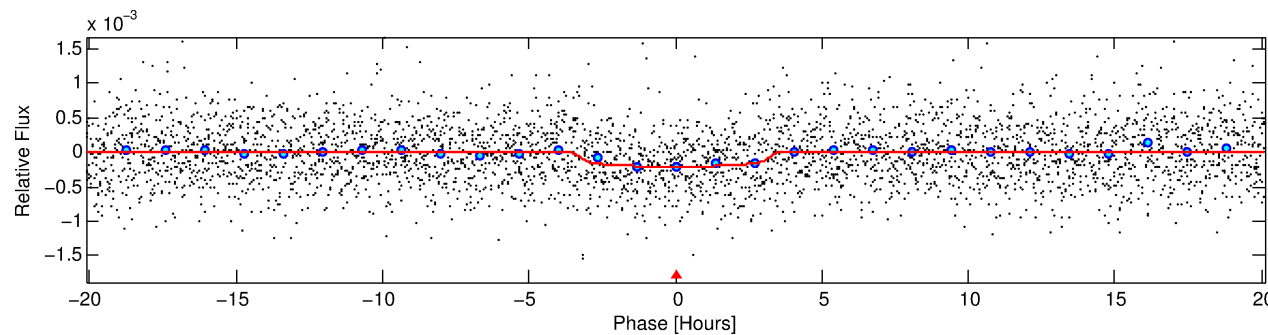
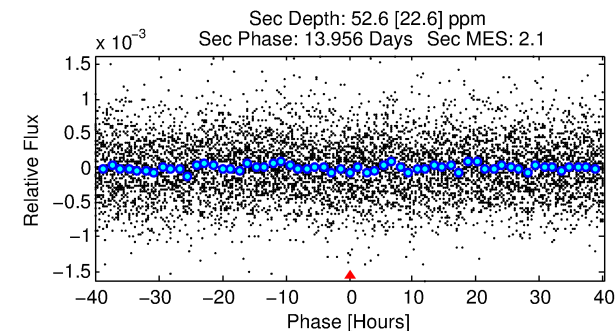
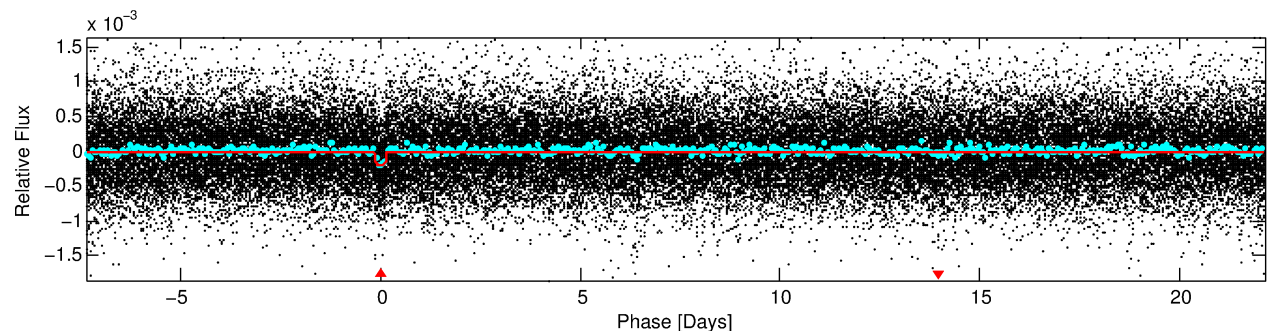
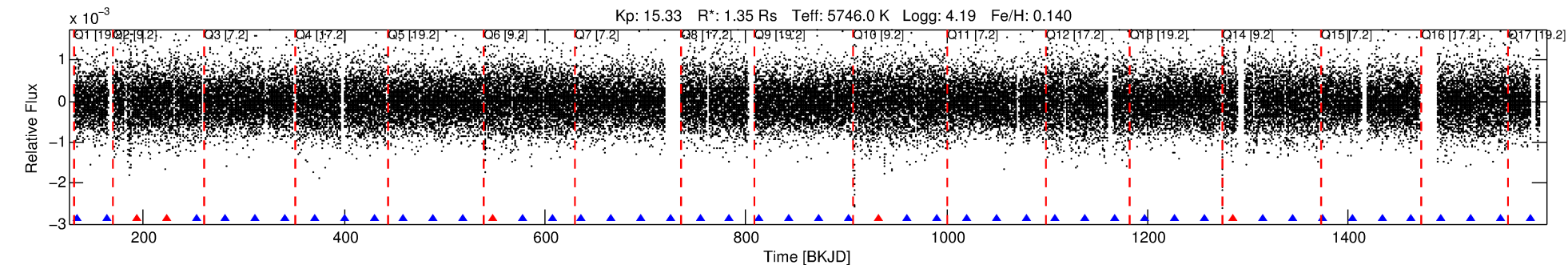
Ephemeris Match Information For 007835312-01

No Significant Match Found

DV One-Page Summary

KIC: 7835312 Candidate: 1 of 1 Period: 29.513 d

KOI: K06164.01 Corr: 0.992



DV Fit Results:

Period = 29.51310 [0.00042] d
Epoch = 134.7048 [0.0121] BKJD
Rp/R* = 0.0142 [0.0120]
a/R* = 24.36 [88.91]
b = 0.71 [2.59]
Seff = 50.05 [15.30]
Teff = 678 [52] K
Rp = 2.09 [1.81] Re
a = 0.1887 [0.0357] AU
Ag = 235.01 [415.35] [0.56σ]
Teffp = 4106 [1789] K [1.92σ]

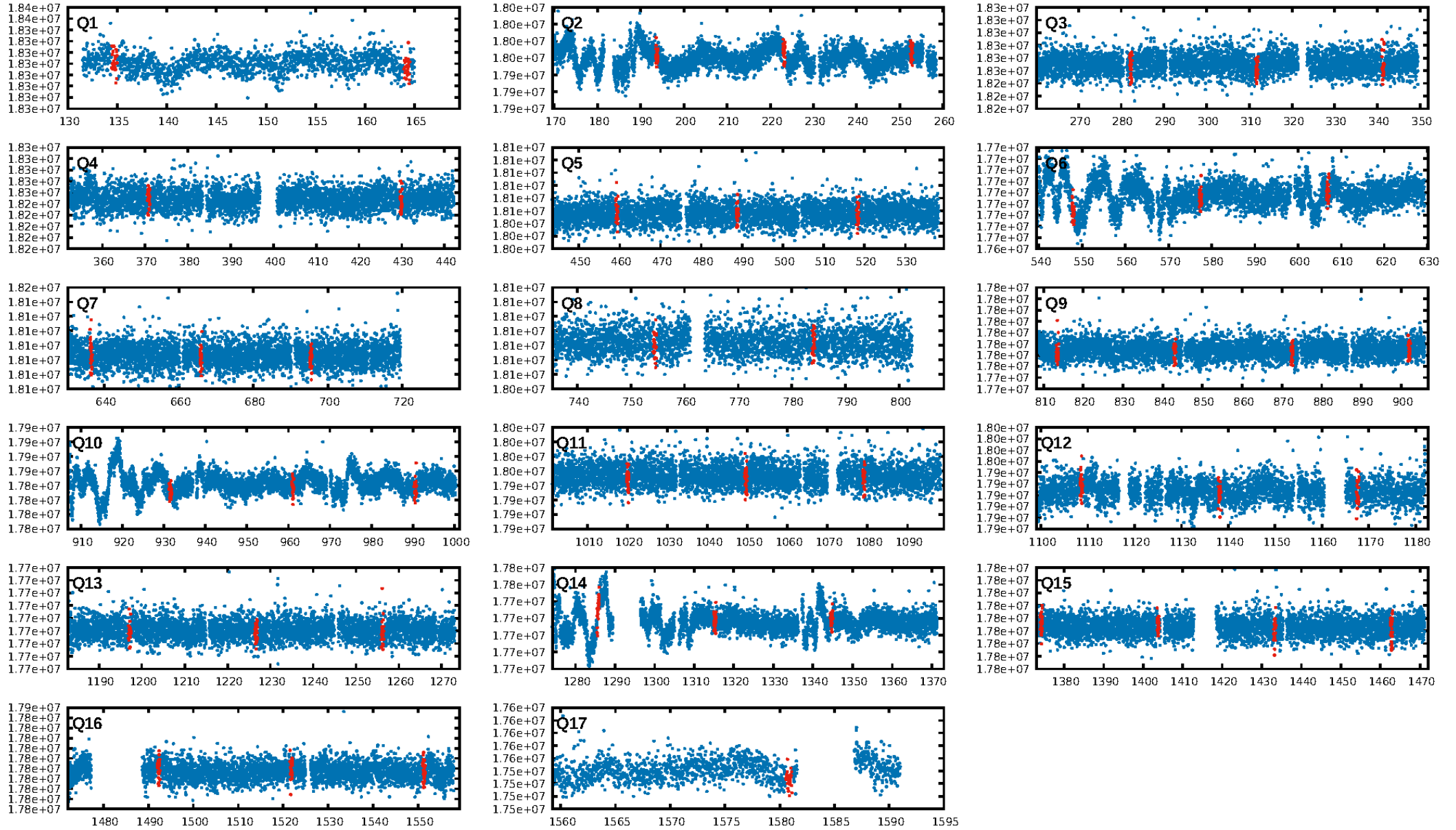
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 80.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.83e-17
RollingBand-fgt: 0.89 [40/45]
GhostDiagnostic-chr: 1.102
Centroid-sig: 7.1%
Centroid-so: 2.273 arcsec [1.23σ]
OotOffset-rm: 0.316 arcsec [0.52σ]
KicOffset-rm: 0.320 arcsec [0.48σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [17/17]

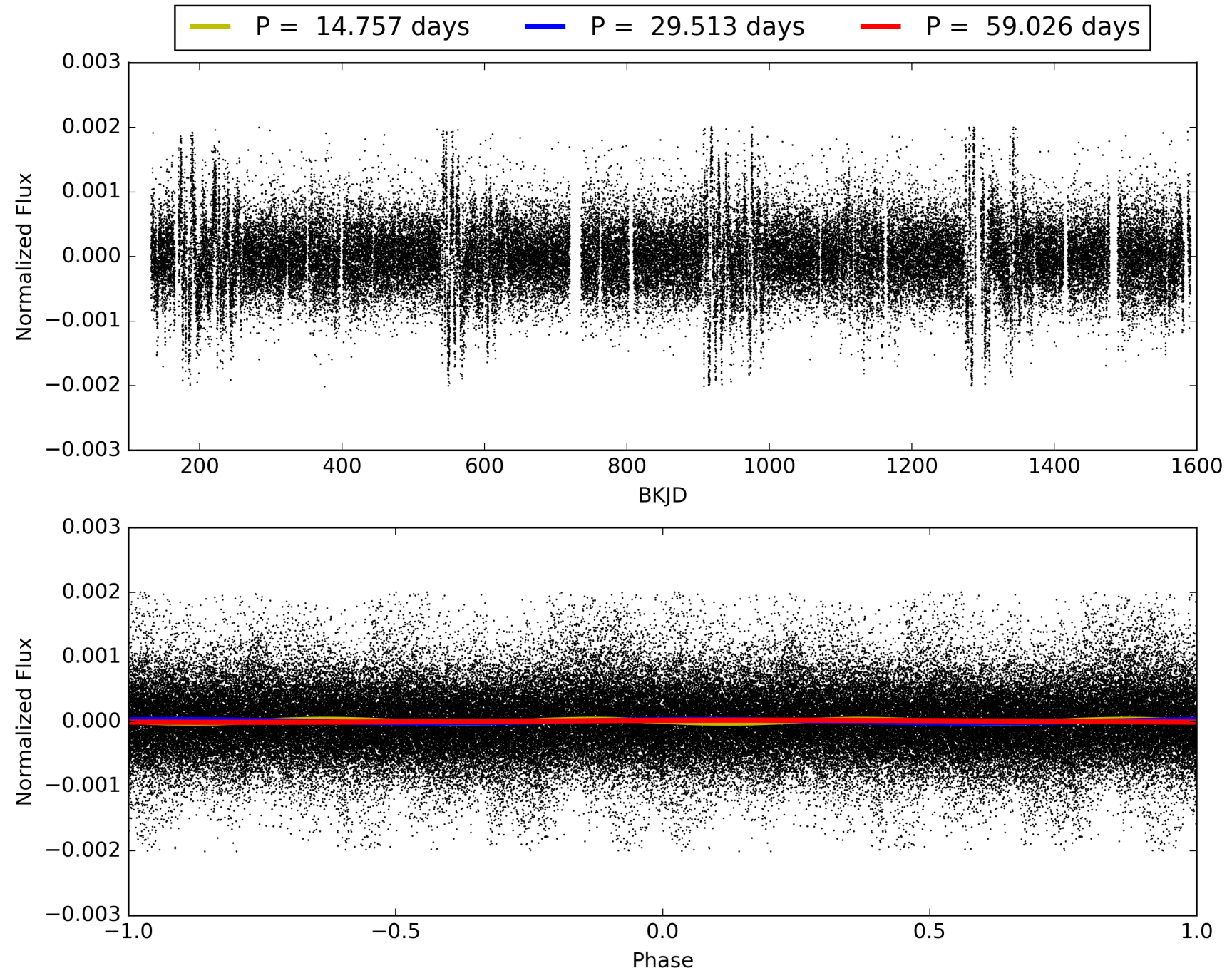
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:06:45 Z

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

TCE 007835312-01, PDC Light Curves

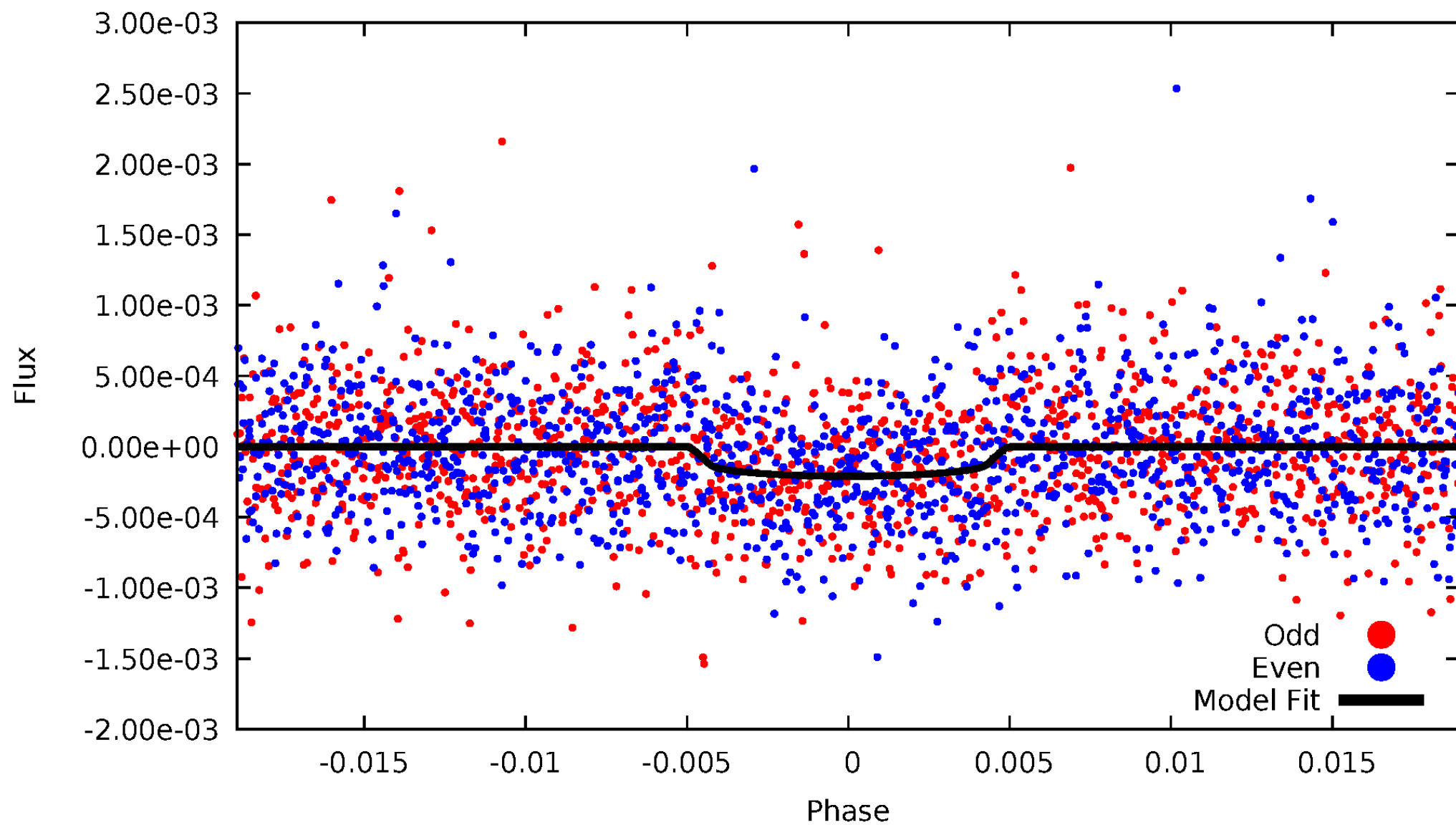


TCE 007835312-01



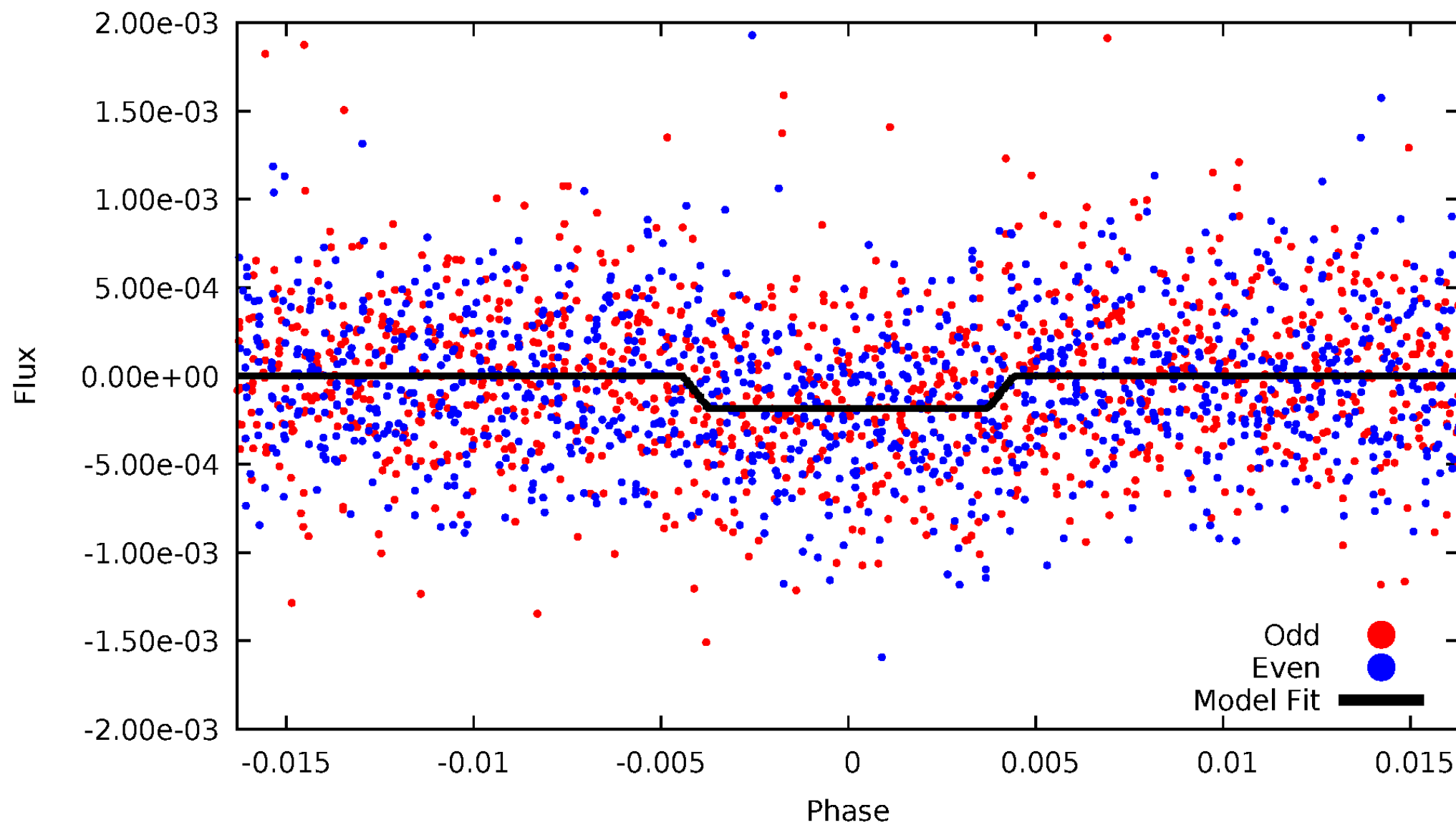
DV Odd/Even

TCE 007835312-01



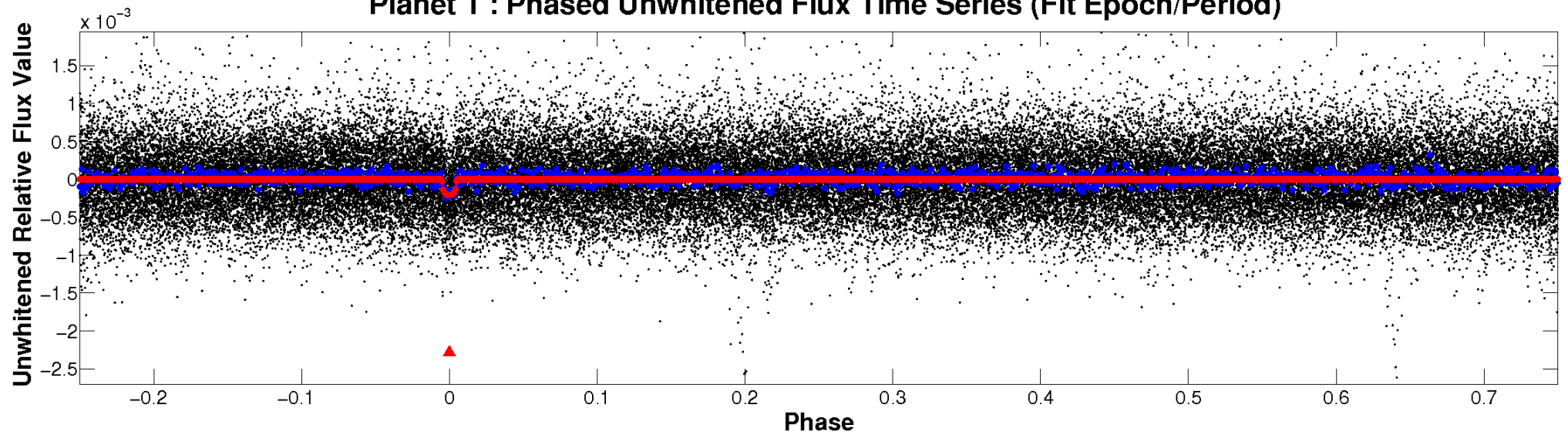
ALT Odd/Even

TCE 007835312-01

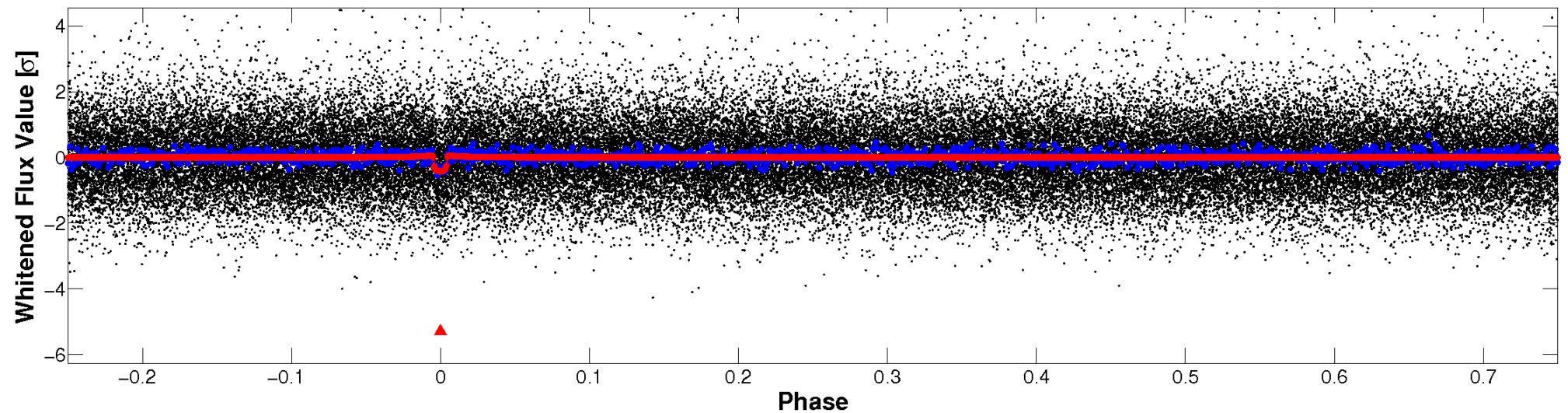


Non-Whitened Vs. Whitened Light Curve

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

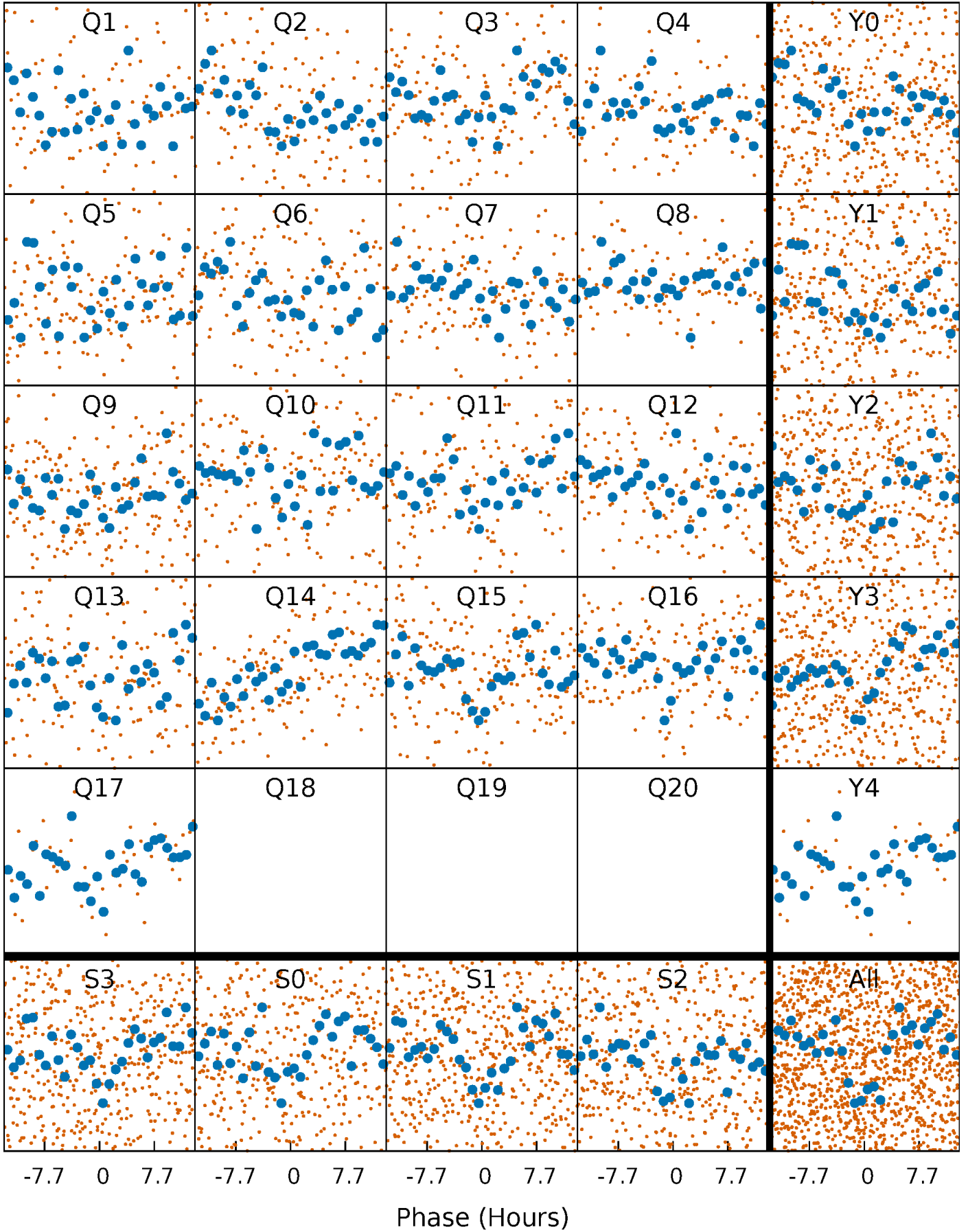


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



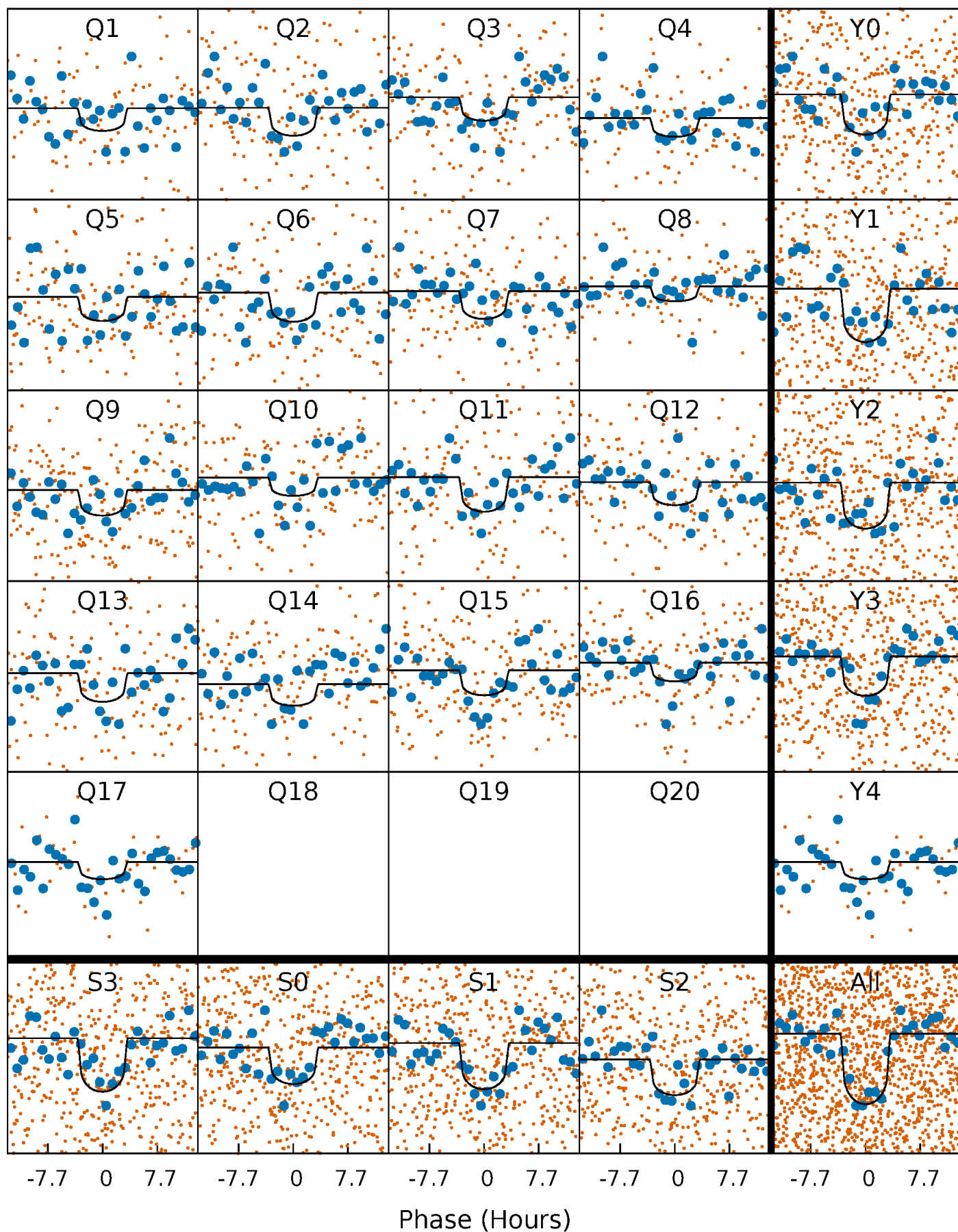
PDC Quarter-Phased Transit Curves

TCE 007835312-01 P= 29.513100 Days $T_0=134.704792$ (BKJD)



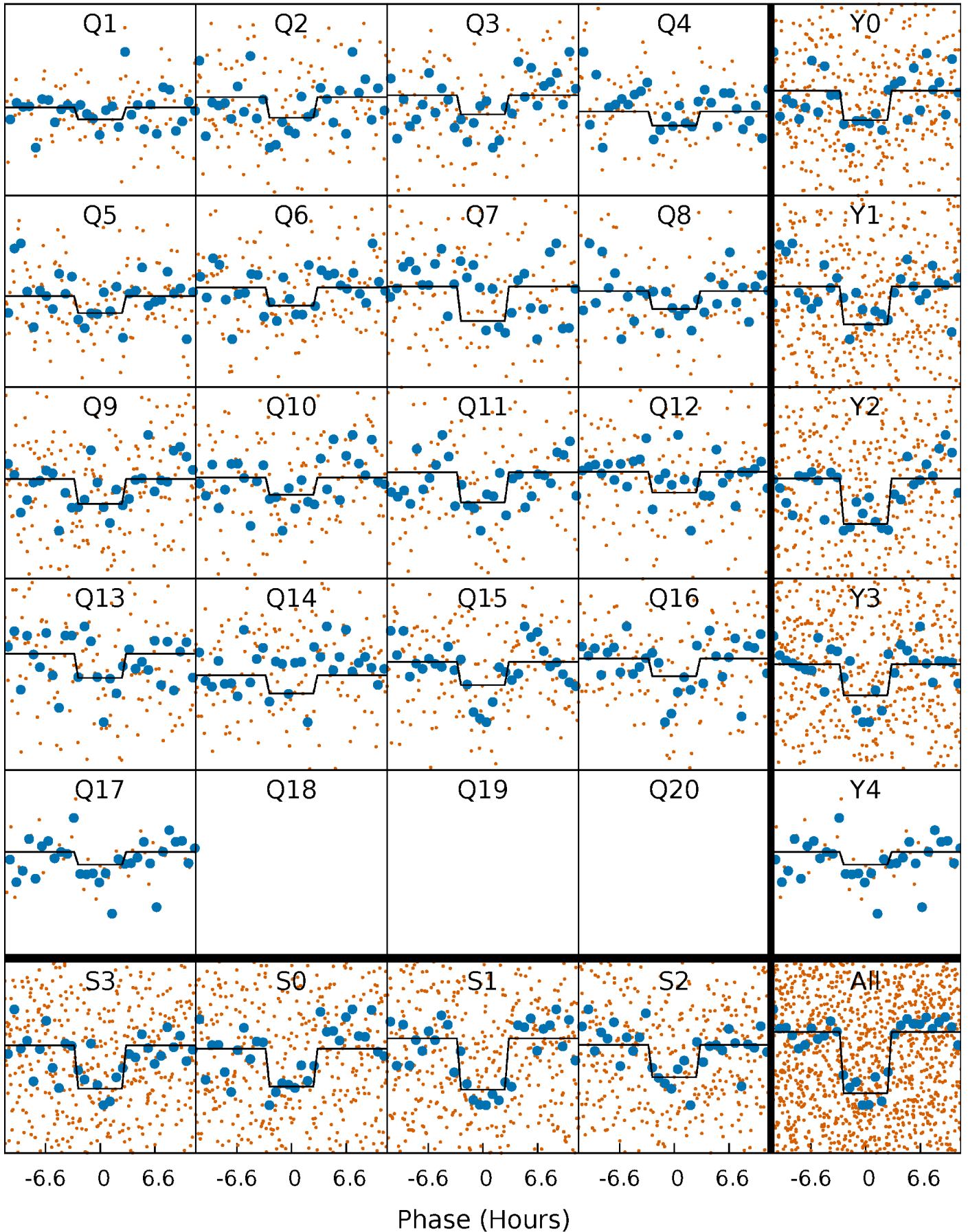
DV Quarter-Phased Transit Curves

TCE 007835312-01 P= 29.513100 Days $T_0=134.704792$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

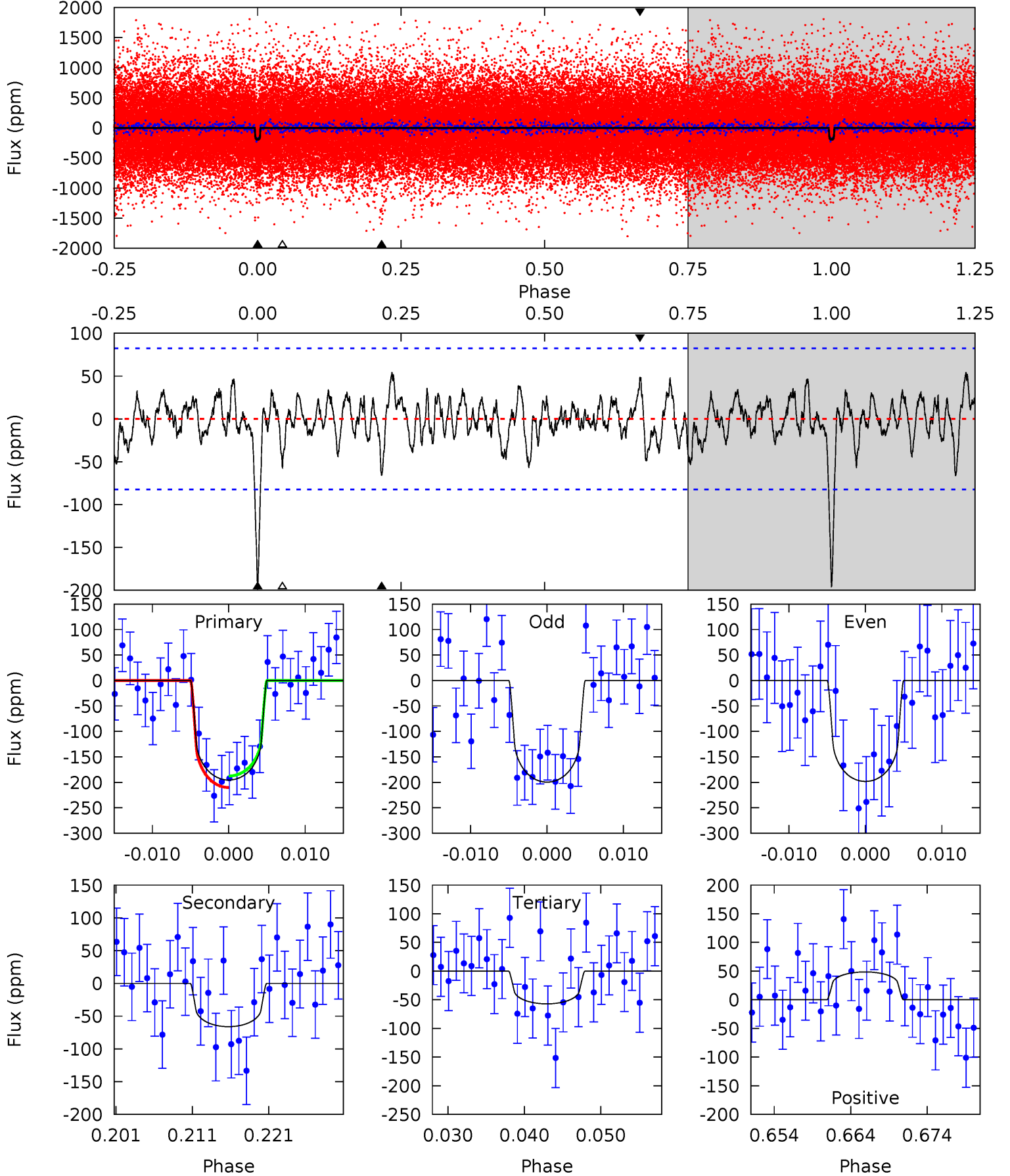
TCE 007835312-01 P= 29.512043 Days $T_0=134.734512$ (BKJD)



DV Model-Shift Uniqueness Test

007835312-01, P = 29.513100 Days, E = 105.191692 Days

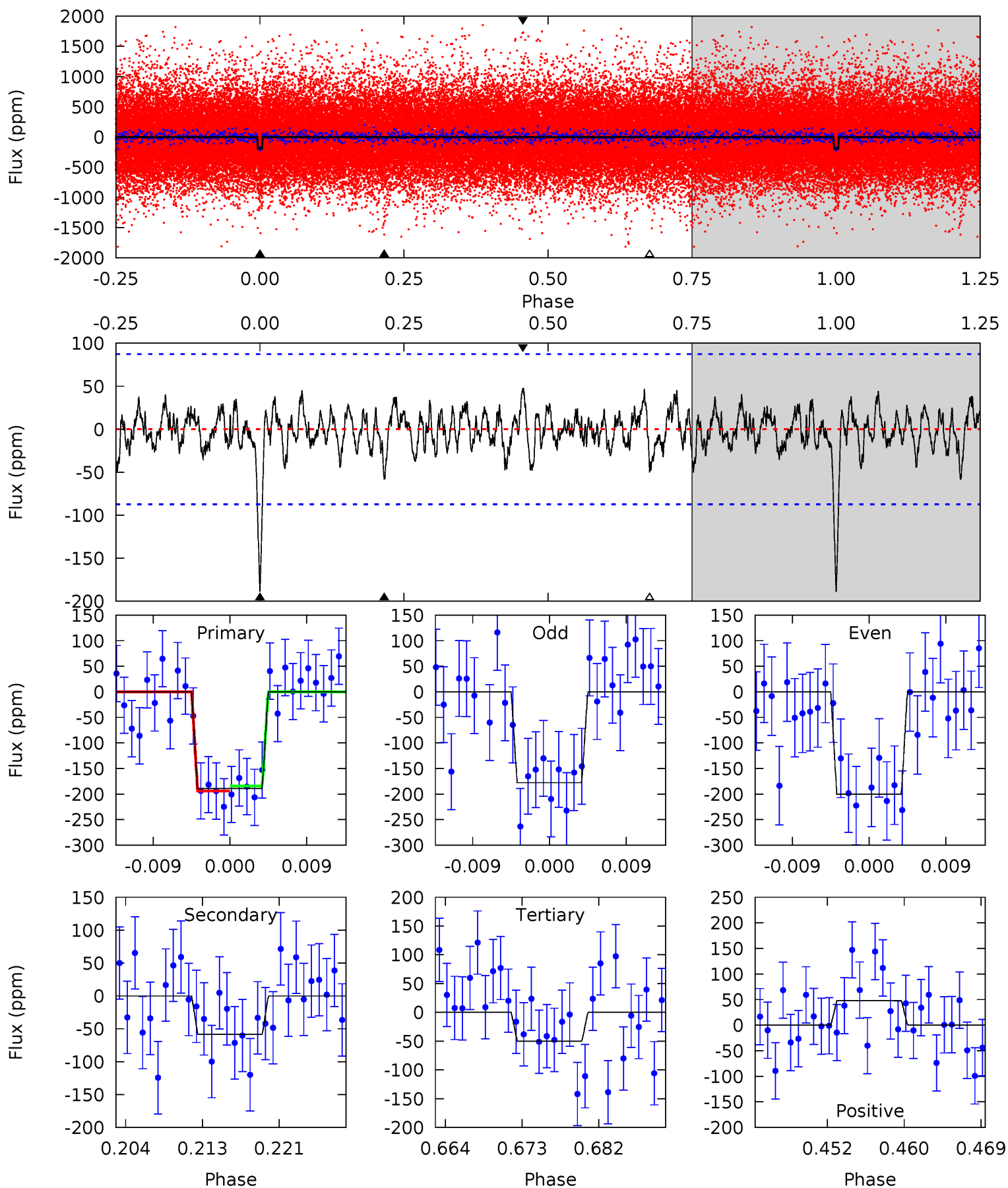
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	4.03	3.49	2.96	5.03	2.57	1.20	8.44	8.96	0.54	1.07	0.04	1.10	0.22	0.69



Alt Model-Shift Uniqueness Test

007835312-01, P = 29.512043 Days, E = 105.222469 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.38	2.91	2.77	5.05	2.62	1.05	8.02	8.16	0.48	0.61	0.65	1.06	0.20	0.28



Stellar Parameters For KIC 007835312

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5746^{+78}_{-78}	$4.189^{+0.176}_{-0.095}$	$0.140^{+0.150}_{-0.150}$	$1.351^{+0.219}_{-0.268}$	$1.027^{+0.090}_{-0.065}$	$0.587^{+0.485}_{-0.196}$
	+1%/-1%	+4%/-2%	+107%/-107%	+16%/-20%	+9%/-6%	+83%/-33%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007835312-01 / KOI 6164.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-66 ± 16	$2.34^{+1.48}_{-1.42}$	942^{+39}_{-52}	4320^{+2144}_{-751}	244^{+1268}_{-159}
Alt.	-58 ± 17	$2.21^{+1.71}_{-1.27}$	945^{+39}_{-50}	4244^{+2041}_{-753}	229^{+1115}_{-160}

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 $A_{obs} \gg 1.0$

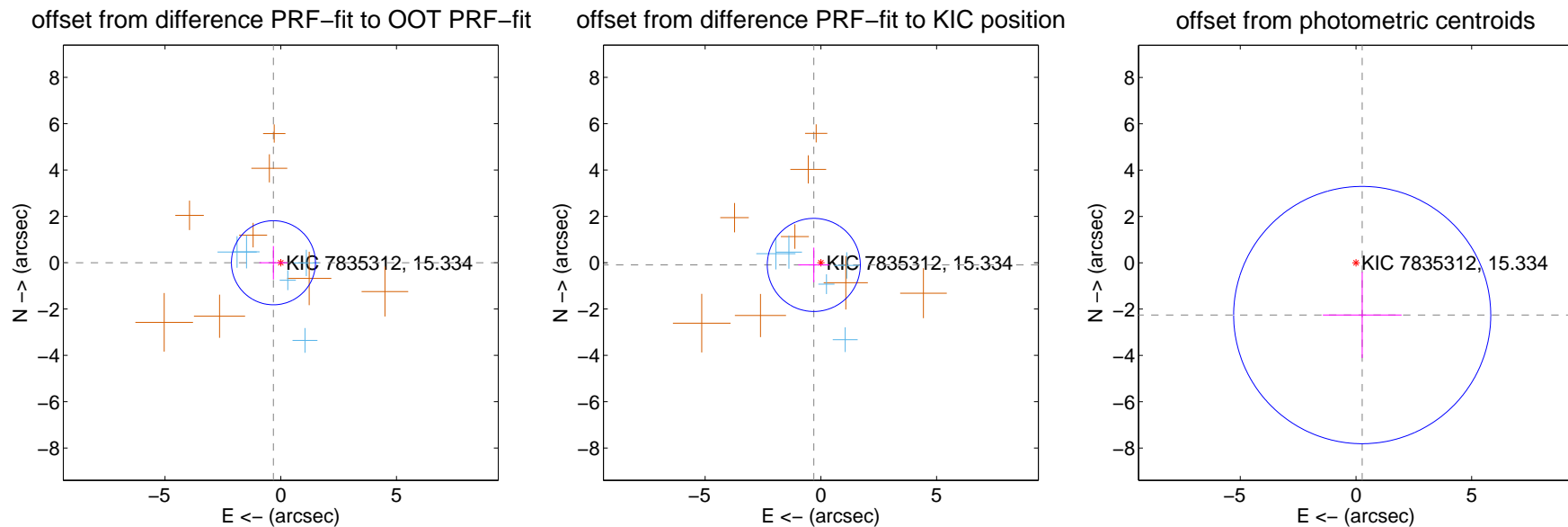
DV Centroid Data

Supplemental centroid analysis for 007835312-01. Kepler magnitude: 15.33. Transit SNR 9.44

There are 5 quarters with good PRF difference image offsets

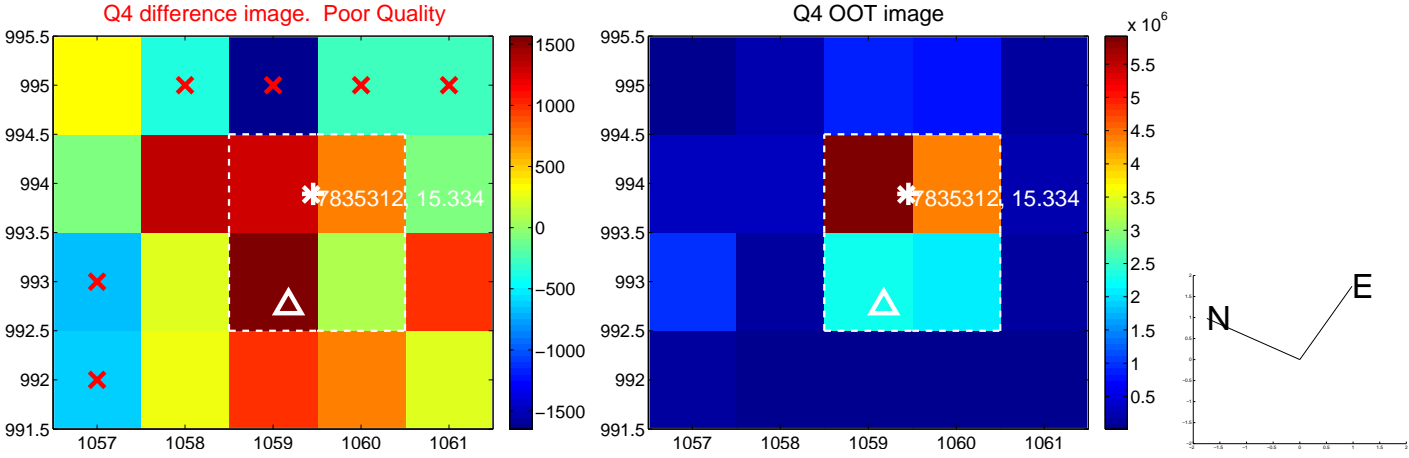
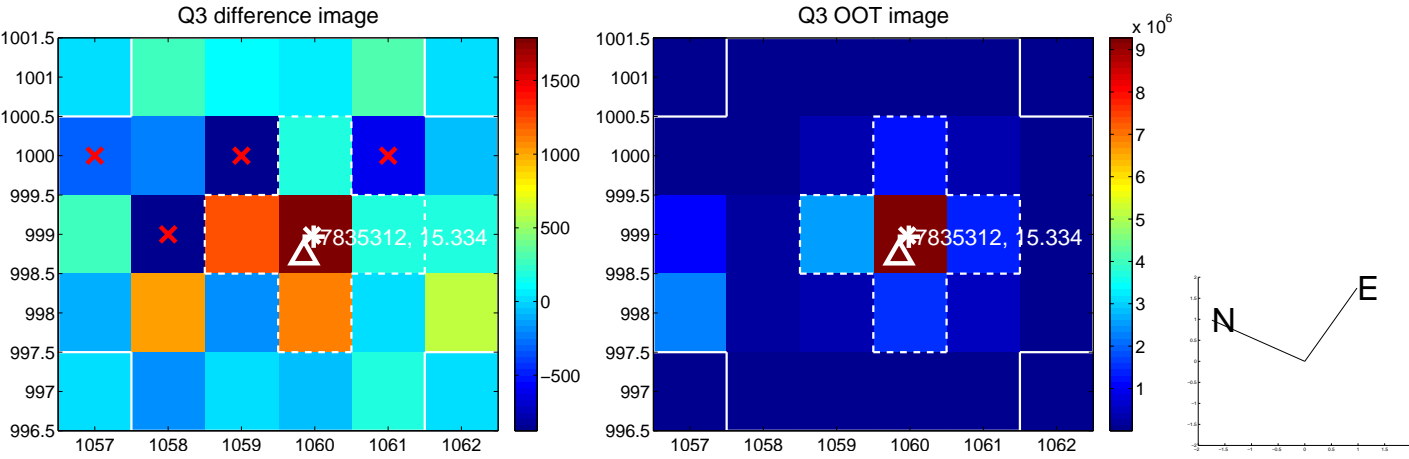
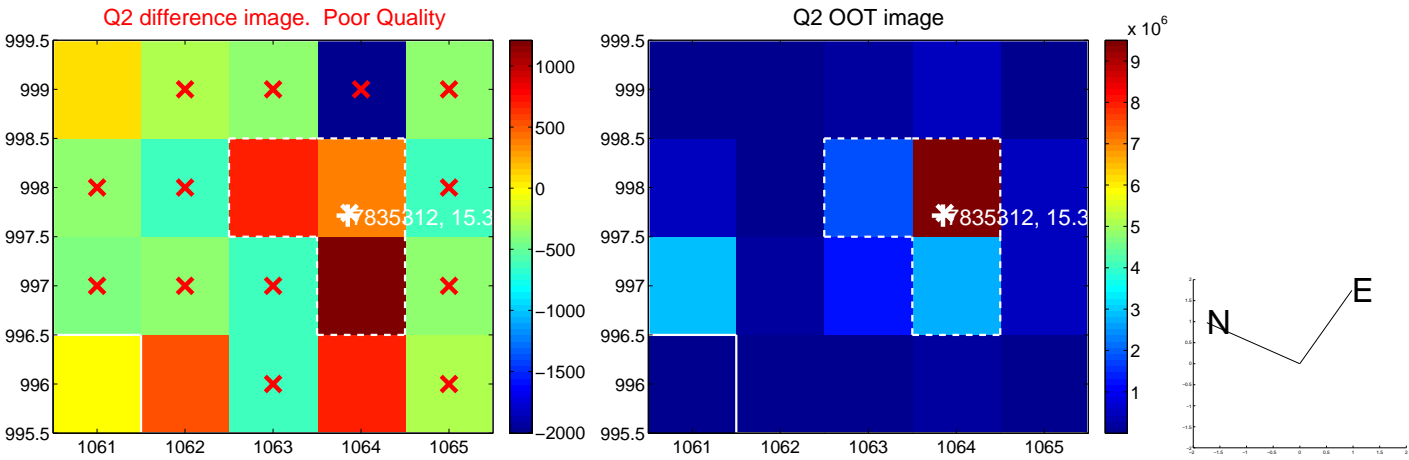
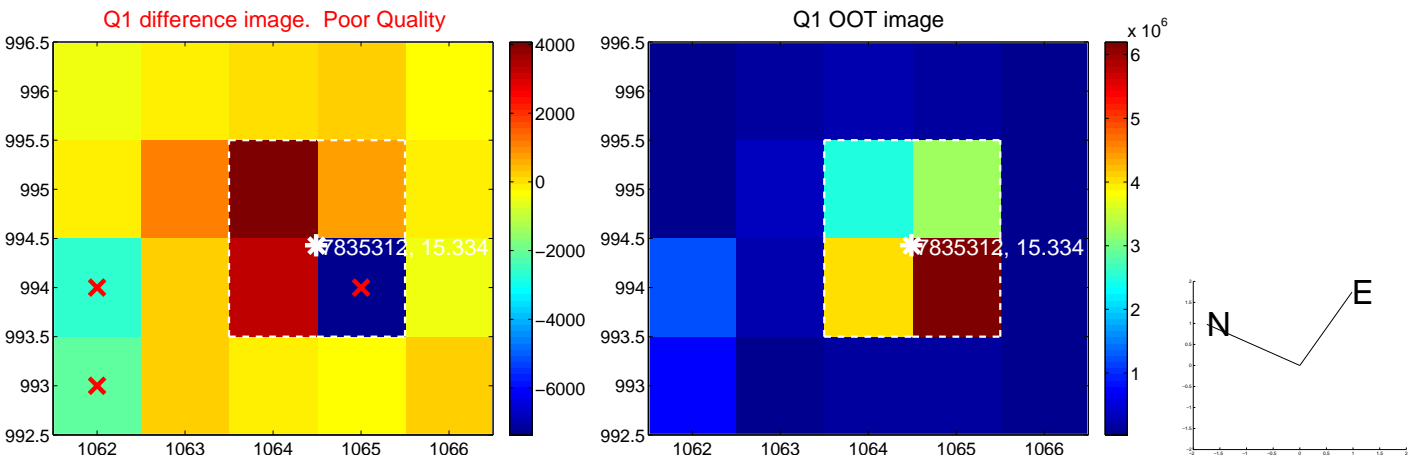
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.316 ± 0.605	0.52	0.316 ± 0.606	-0.003 ± 0.722
PRF-fit source offset from KIC position	0.320 ± 0.670	0.48	0.305 ± 0.669	-0.096 ± 0.747
photometric centroid source offset	2.27 ± 1.85	1.23	-0.27 ± 1.70	-2.26 ± 1.85

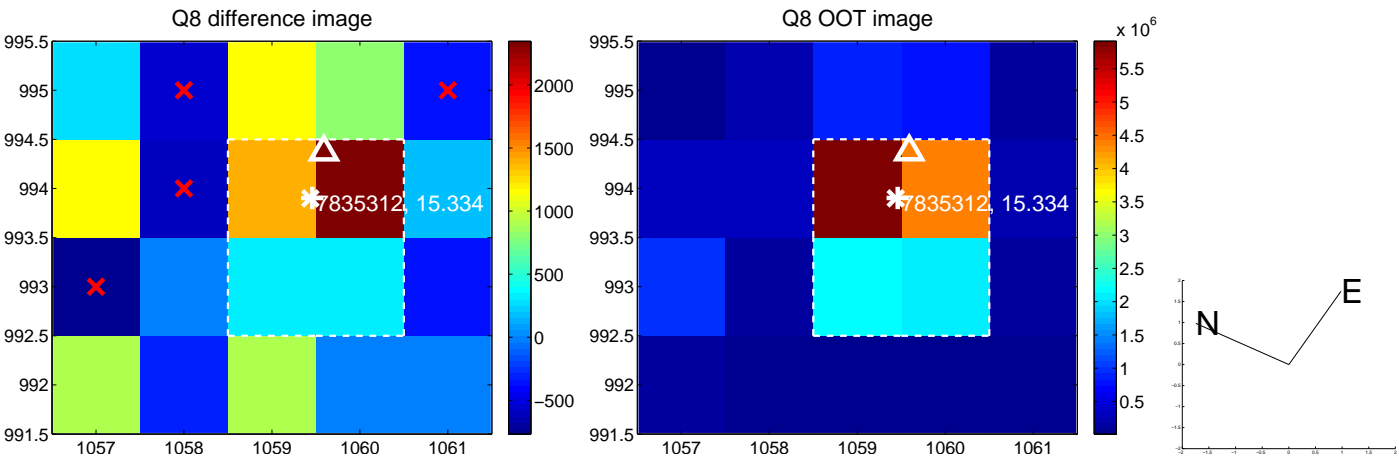
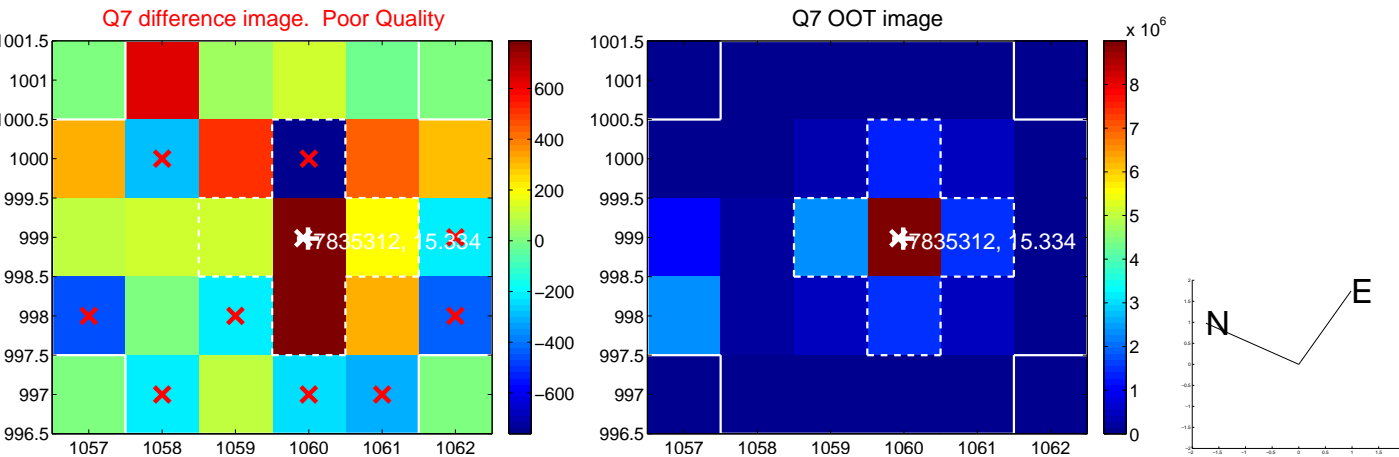
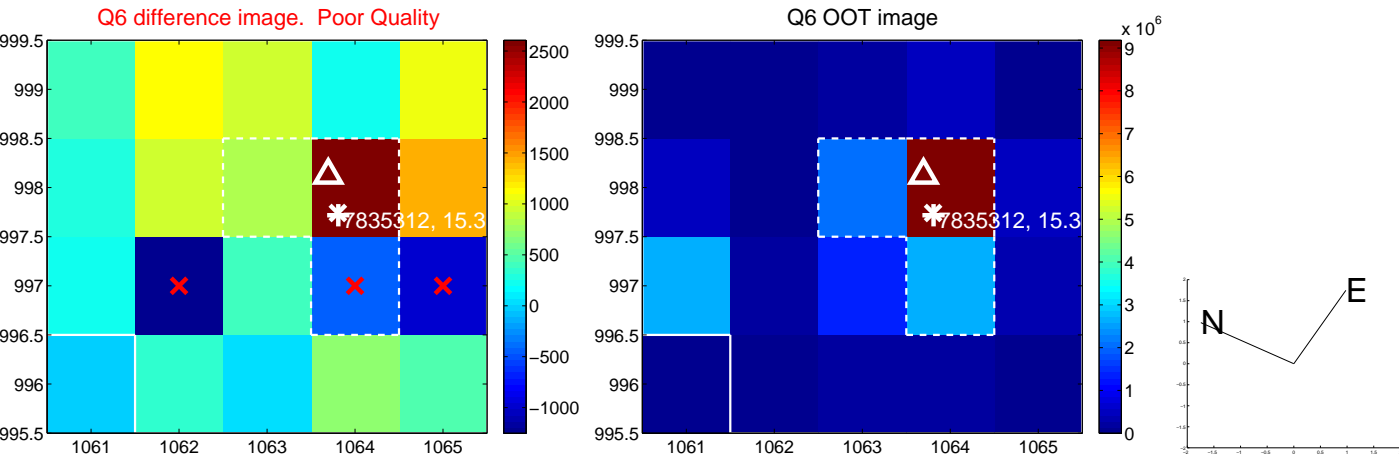
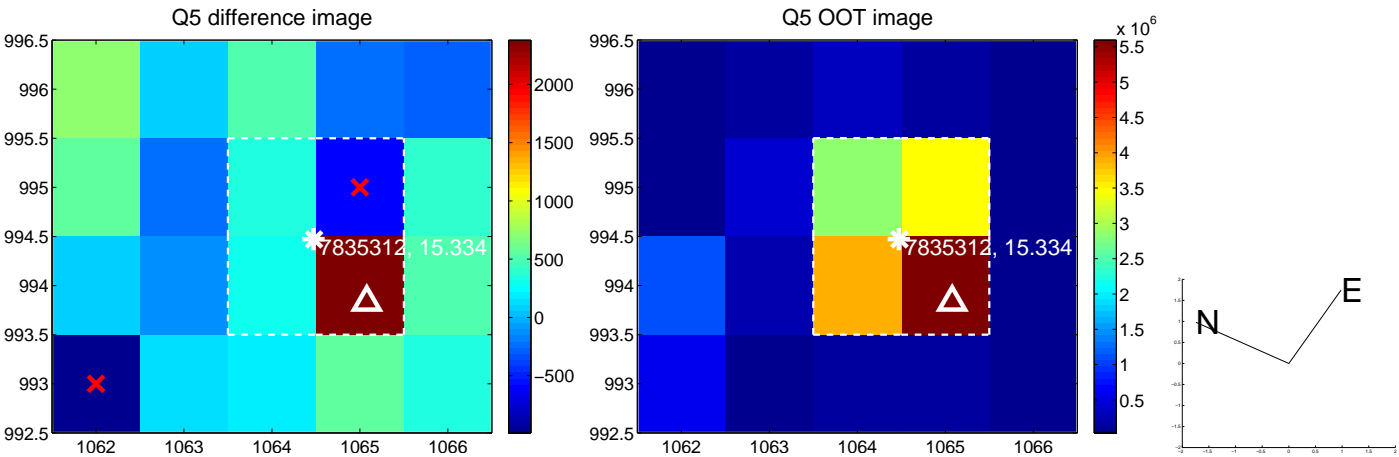


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

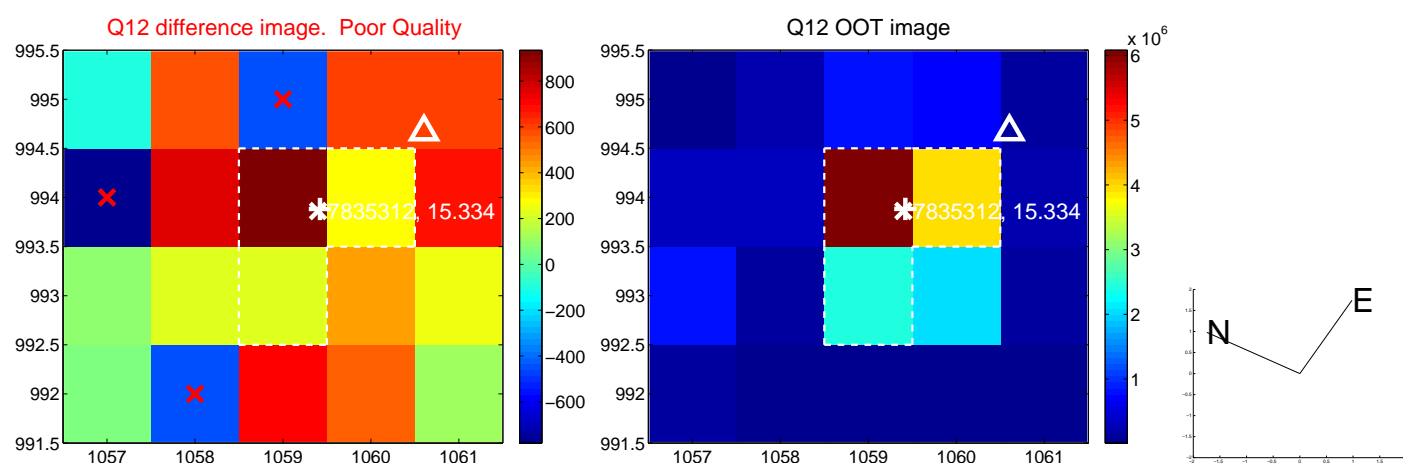
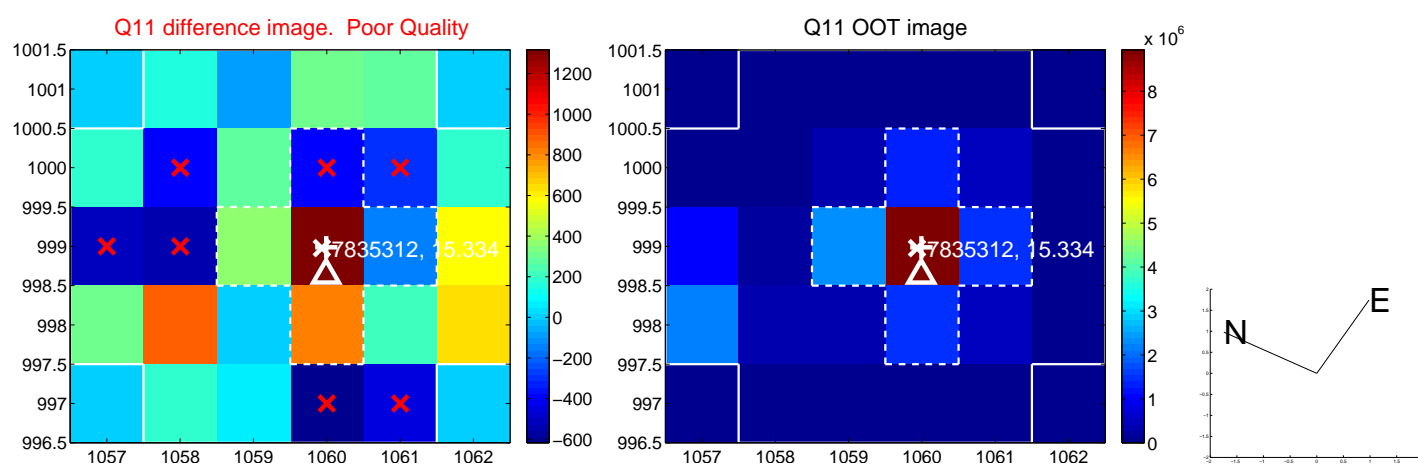
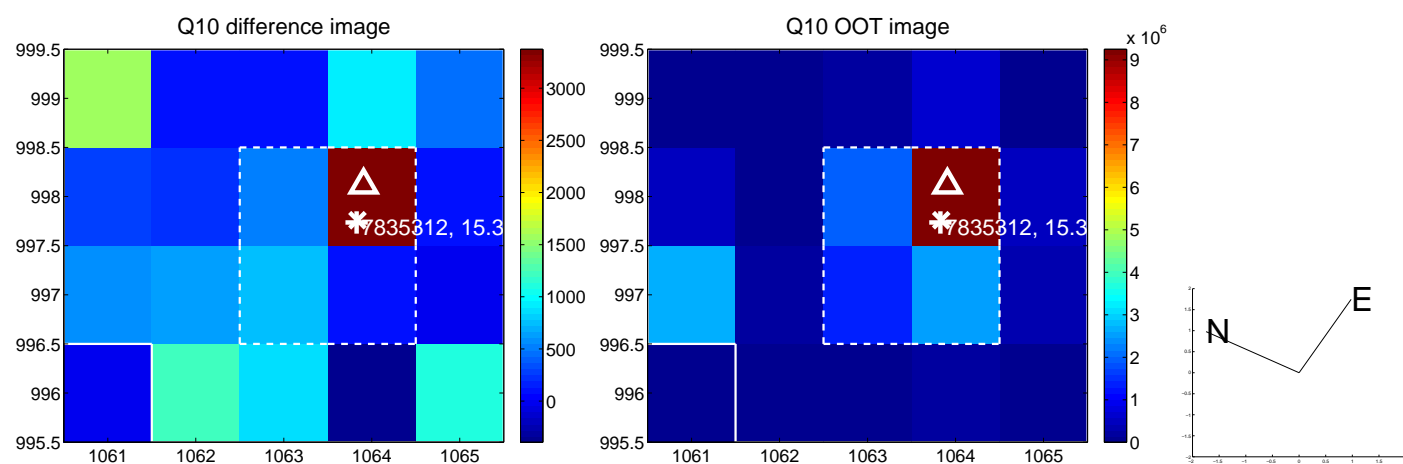
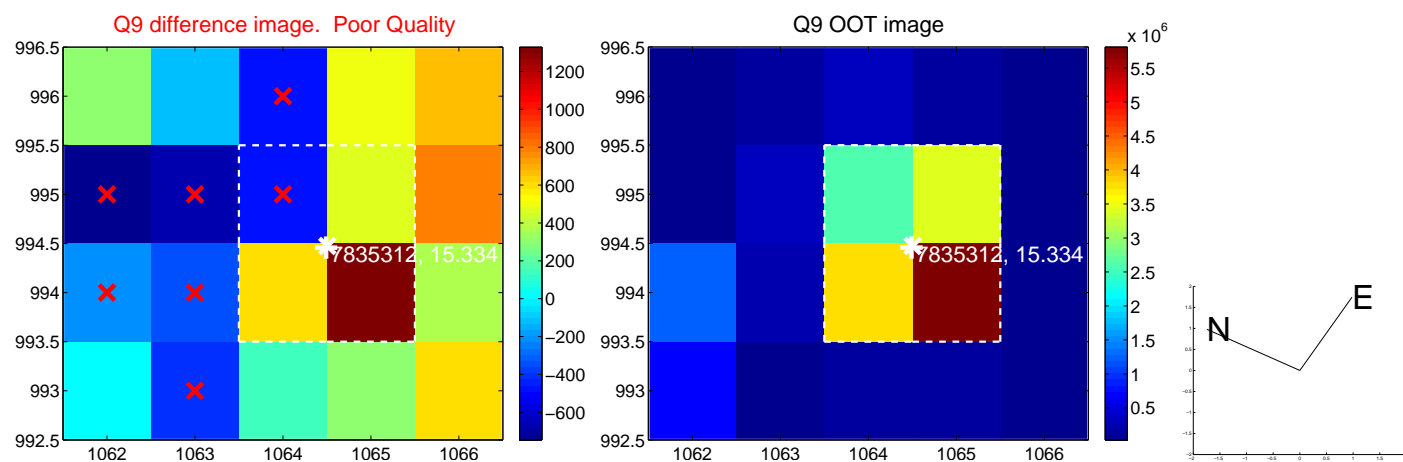
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



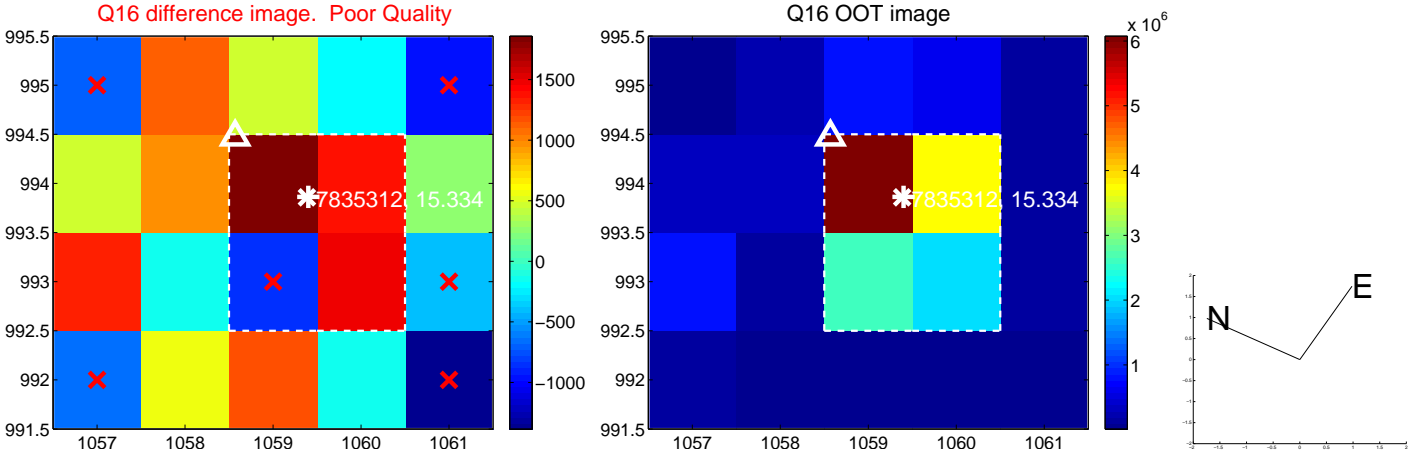
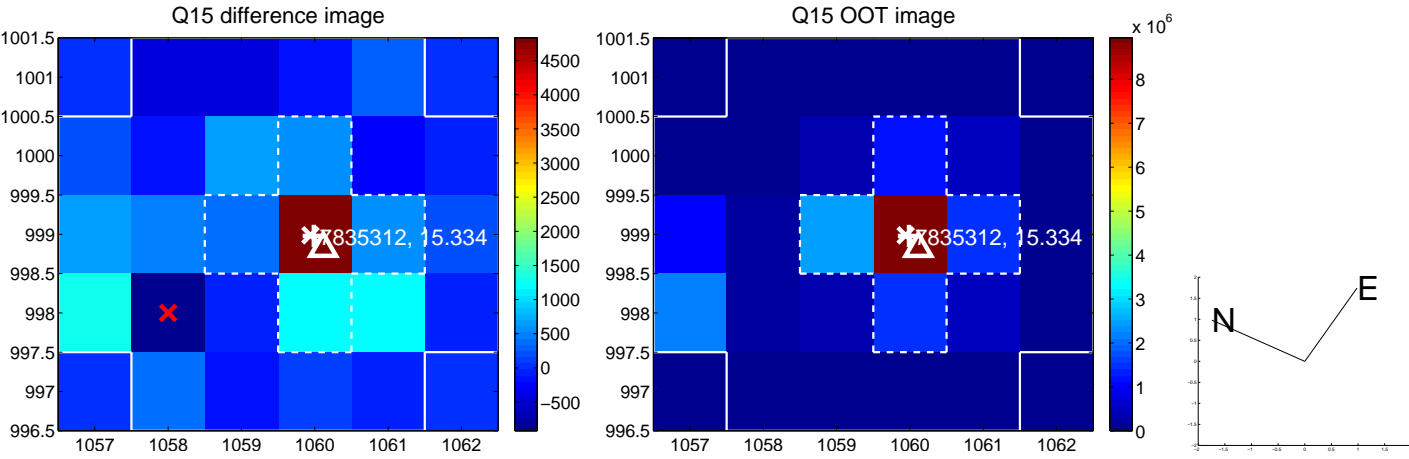
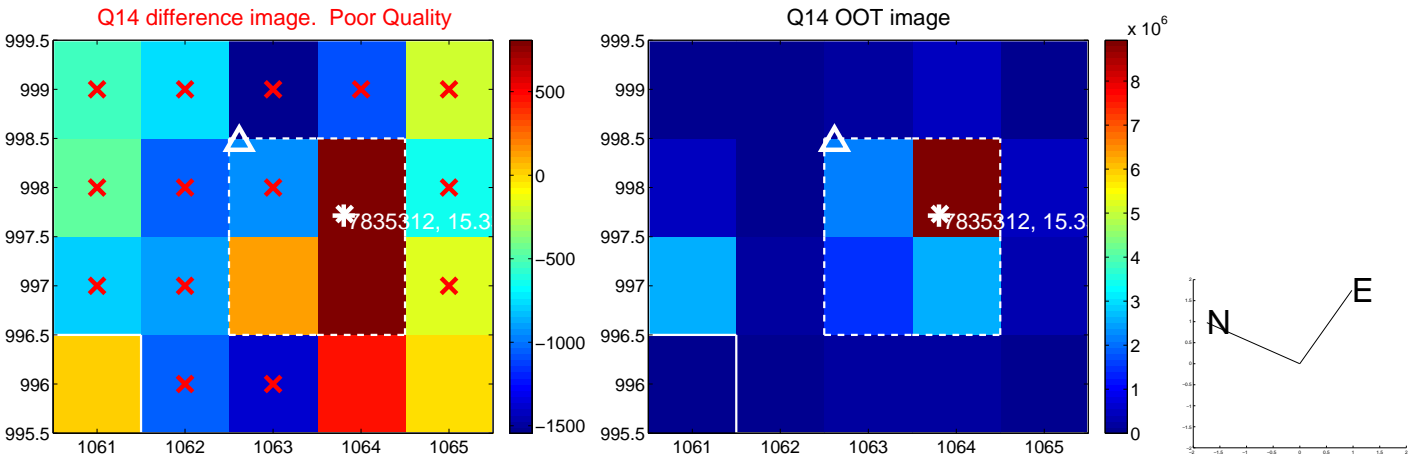
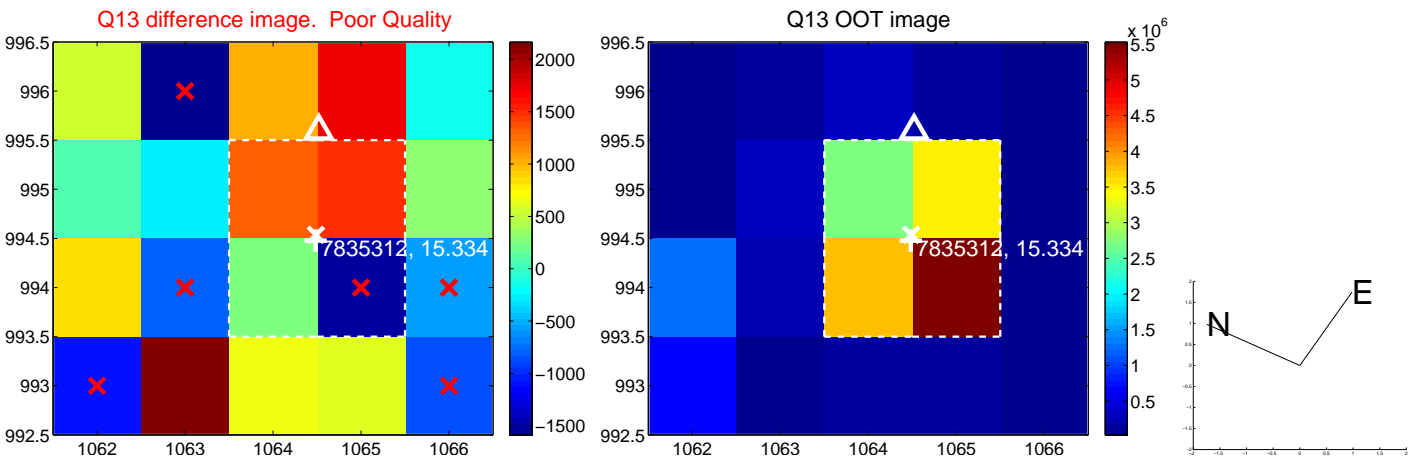
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



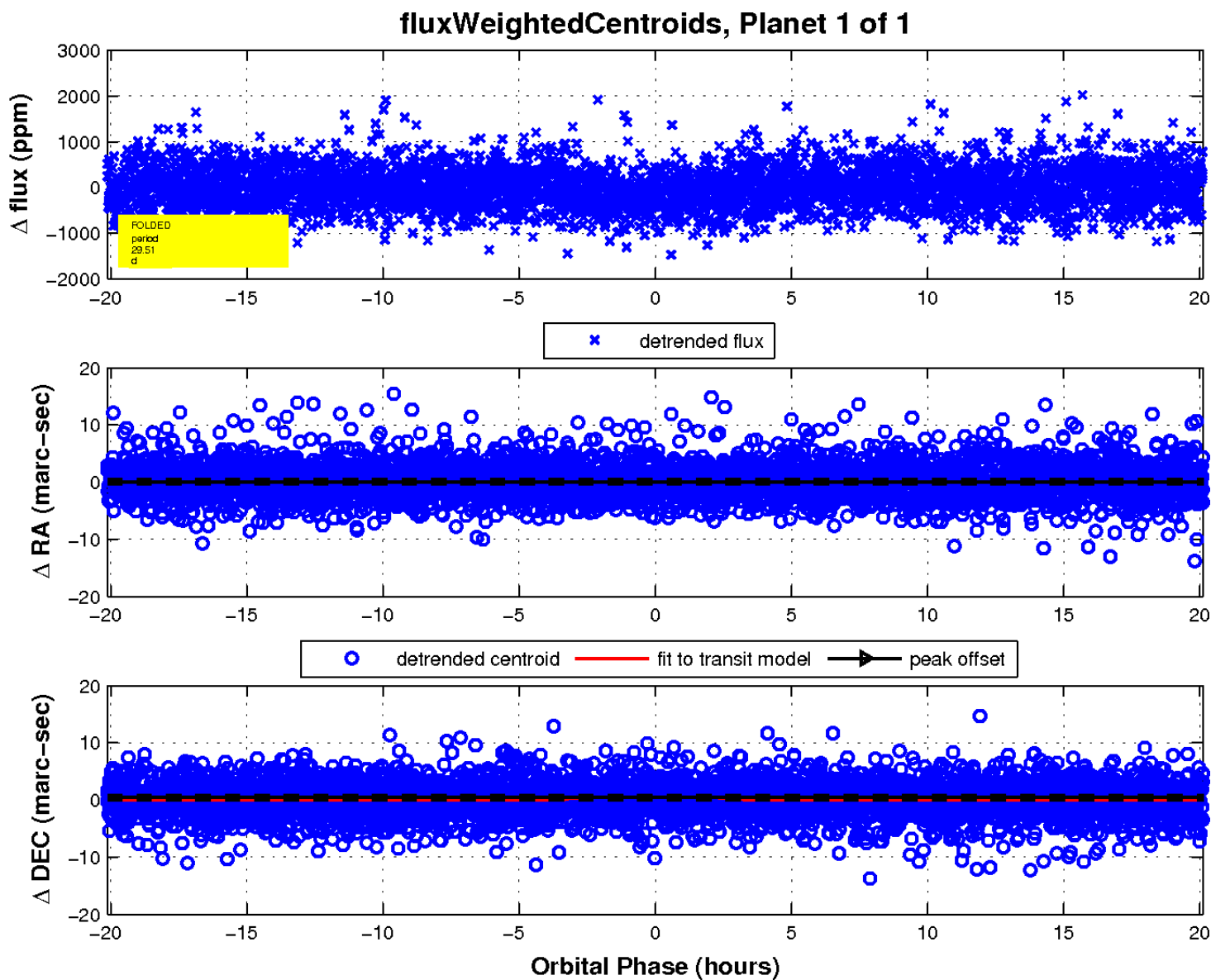
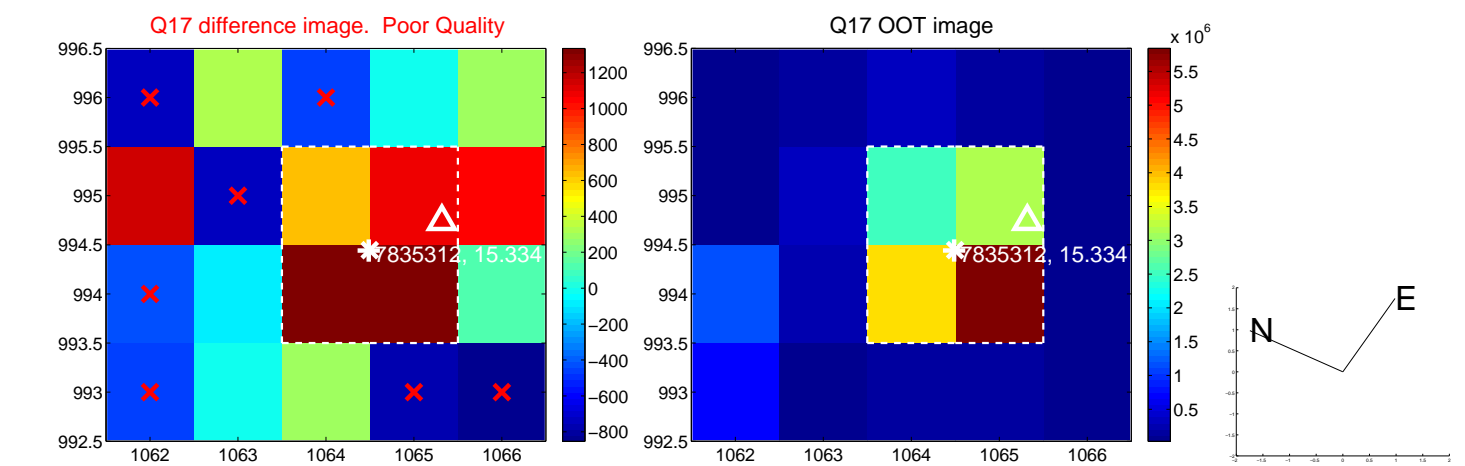
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UKIRT Image

Declination

