

KIC 003859628

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})
003859628-01	OBS	1191.01	8.172397	132.375549	845.7	3.987	31.6	33.7	0.91	5705	3.31	128.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003859628-01	OBS	PC	1.00	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 003859628-01

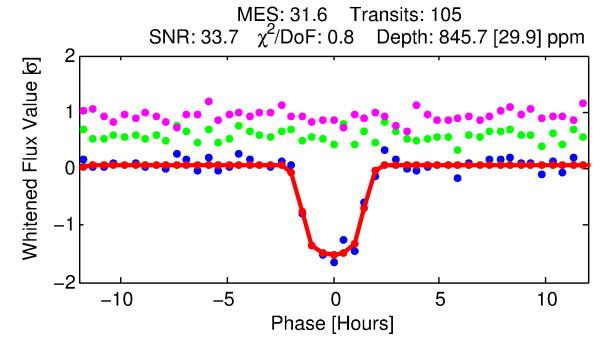
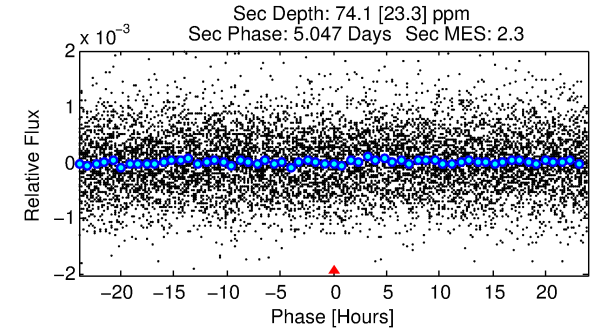
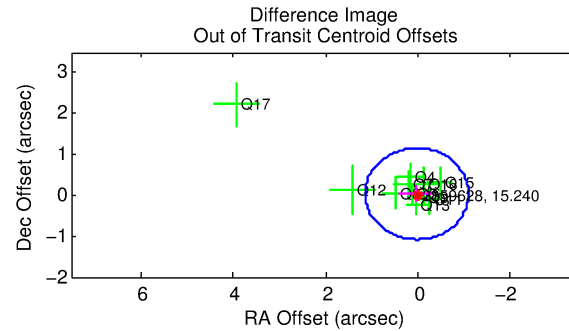
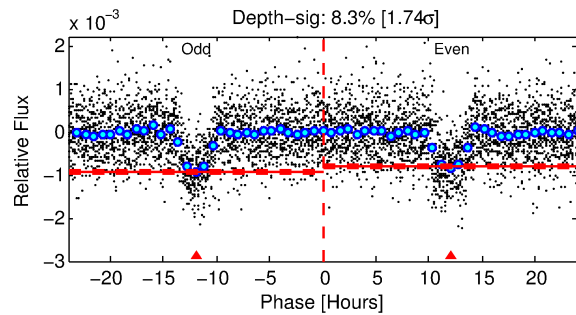
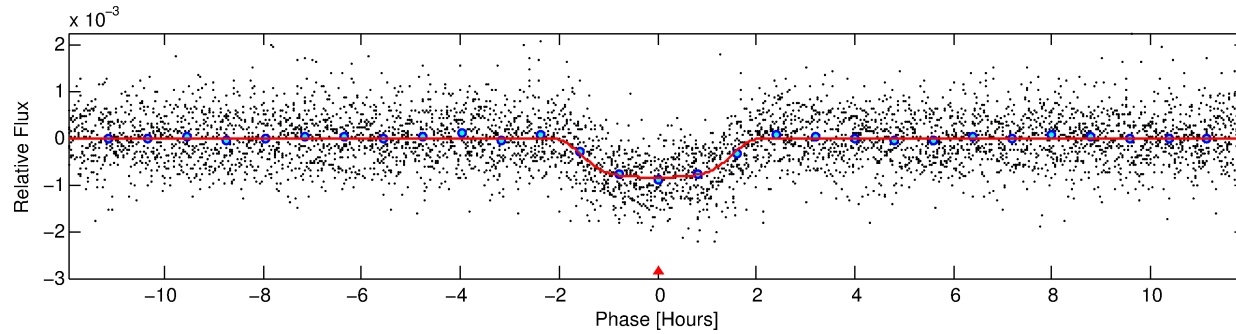
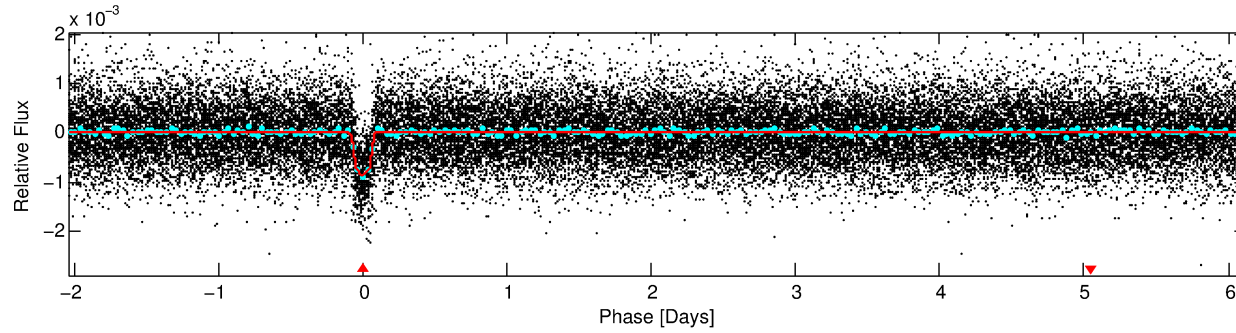
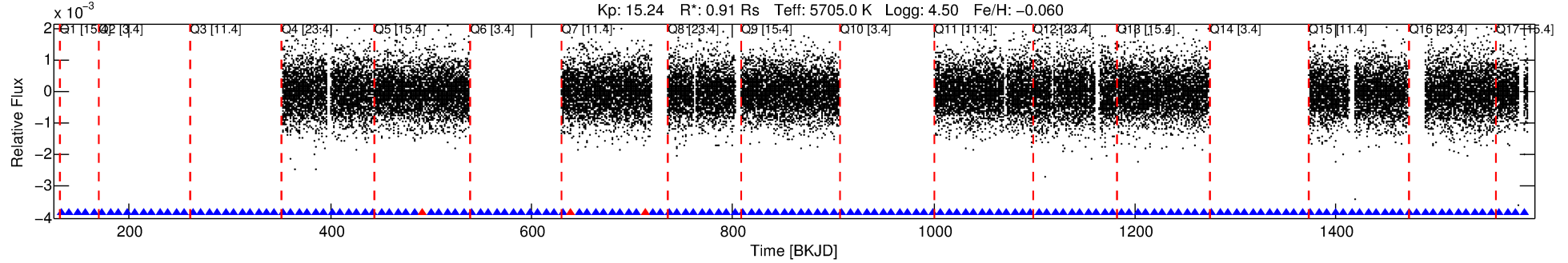
No Significant Match Found

DV One-Page Summary

KIC: 3859628 Candidate: 1 of 1 Period: 8.172 d

KOI: K01191.01 Corr: 0.966

Kp: 15.24 R*: 0.91 Rs Teff: 5705.0 K Logg: 4.50 Fe/H: -0.060



DV Fit Results:

Period = 8.17240 [0.00003] d
Epoch = 132.3755 [0.0033] BKJD
Rp/R* = 0.0335 [0.0012]
a/R* = 6.73 [0.77]
b = 0.94 [0.01]
Seff = 128.20 [25.92]
Teq = 858 [43] K
Rp = 3.31 [0.46] Re
a = 0.0779 [0.0097] AU
Ag = 22.54 [8.48] [2.54σ]
Teffp = 2891 [236] K [8.48σ]

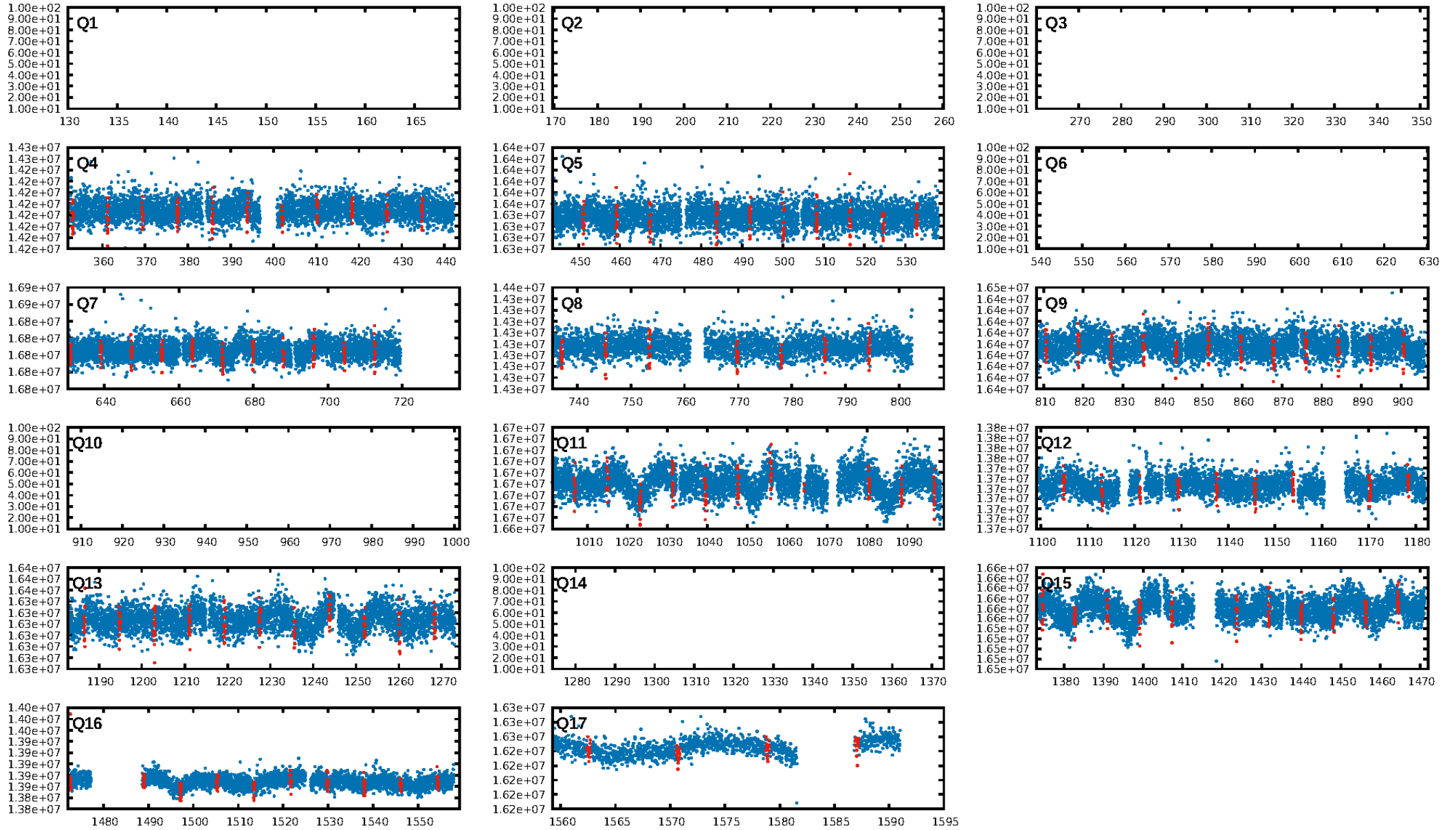
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.60e-211
RollingBand-fgt: 0.97 [98/101]
GhostDiagnostic-chr: 3.836
Centroid-sig: 6.7%
Centroid-so: 0.429 arcsec [1.01σ]
OotOffset-rm: 0.045 arcsec [0.12σ]
OotOffset-st: 0/3/4/4 [11]
KicOffset-rm: 0.058 arcsec [0.14σ]
KicOffset-st: 0/3/4/4 [11]
DiffImageQuality-fgm: 0.91 [10/11]
DiffImageOverlap-fno: 1.00 [11/11]

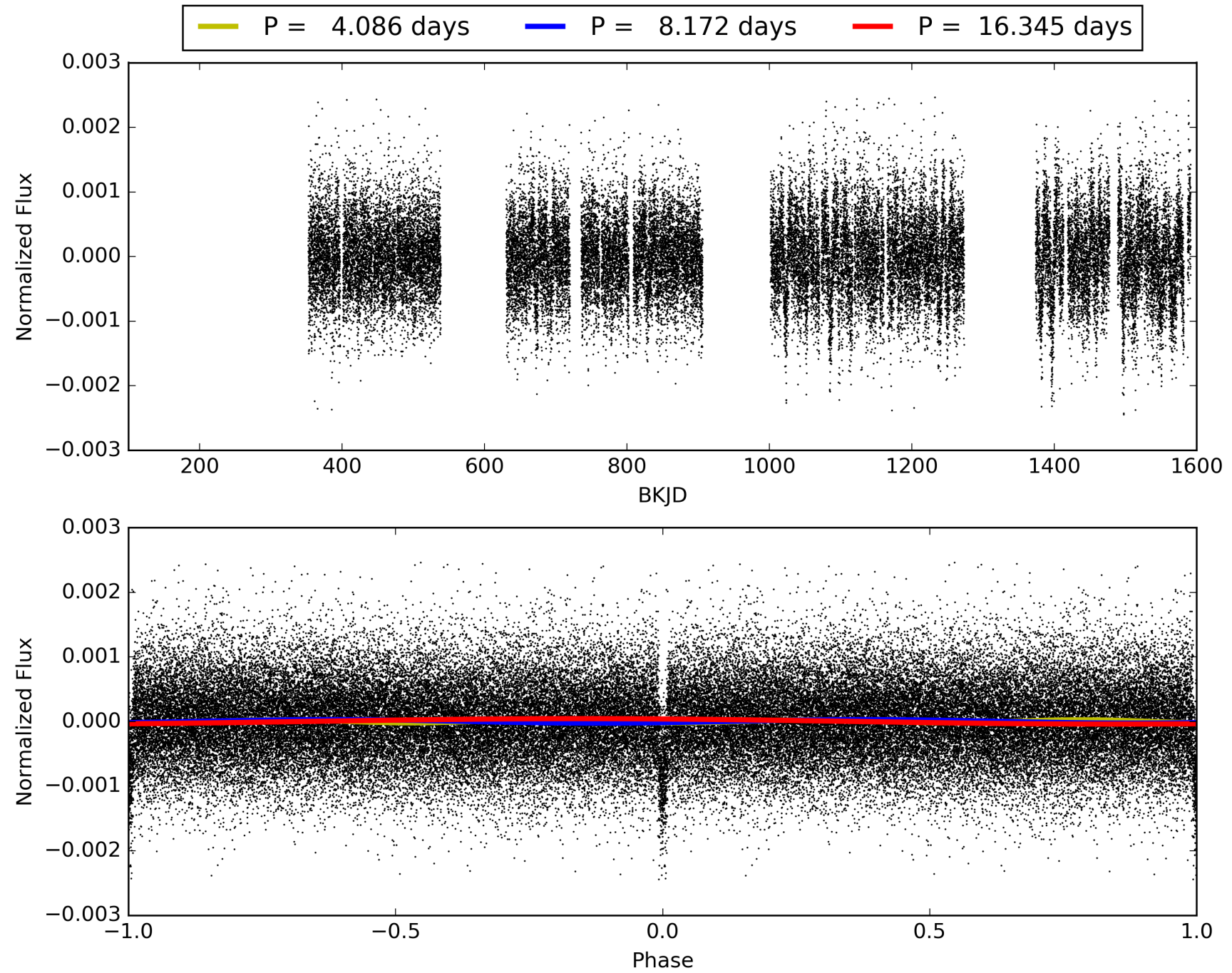
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:24:32 Z

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

TCE 003859628-01, PDC Light Curves

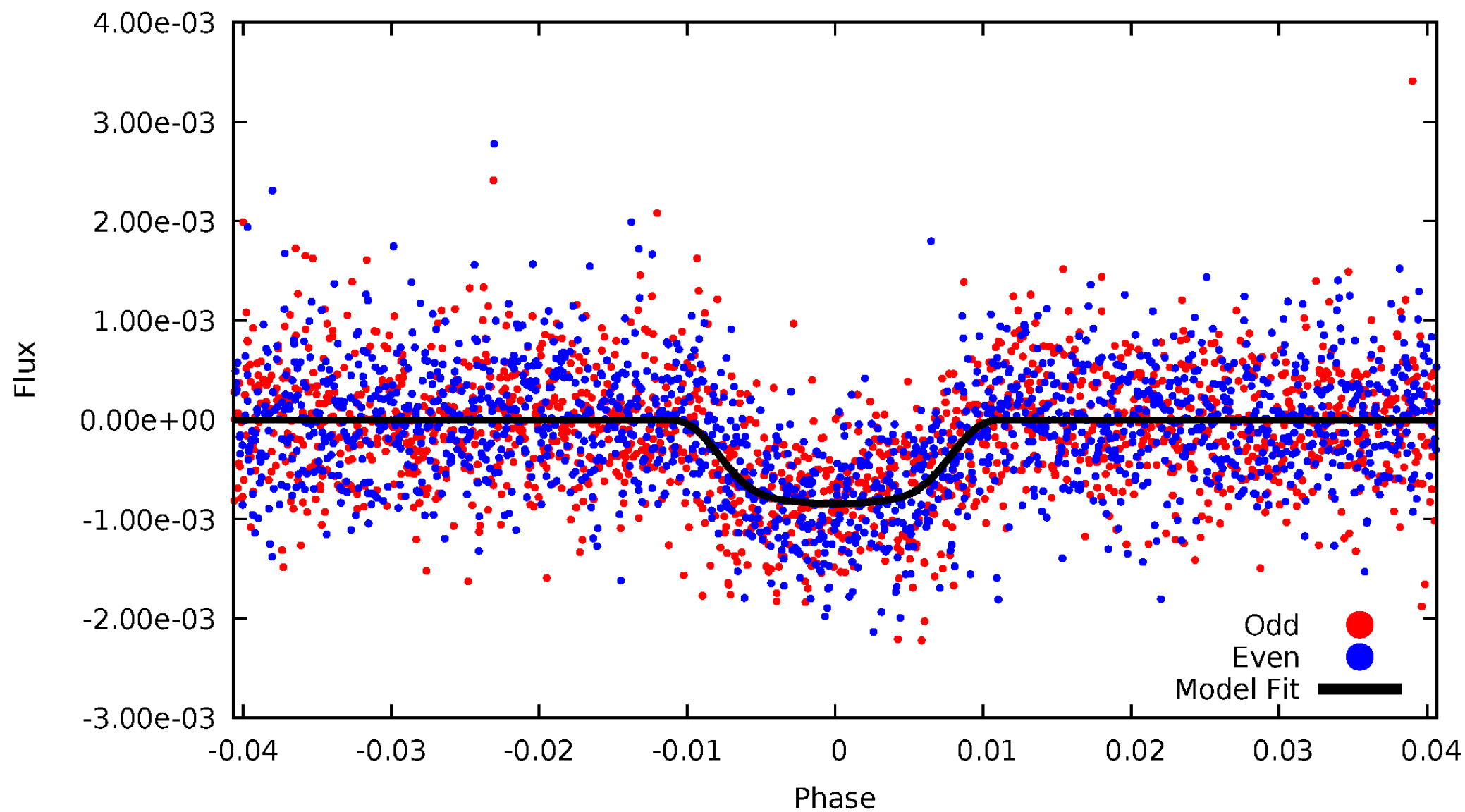


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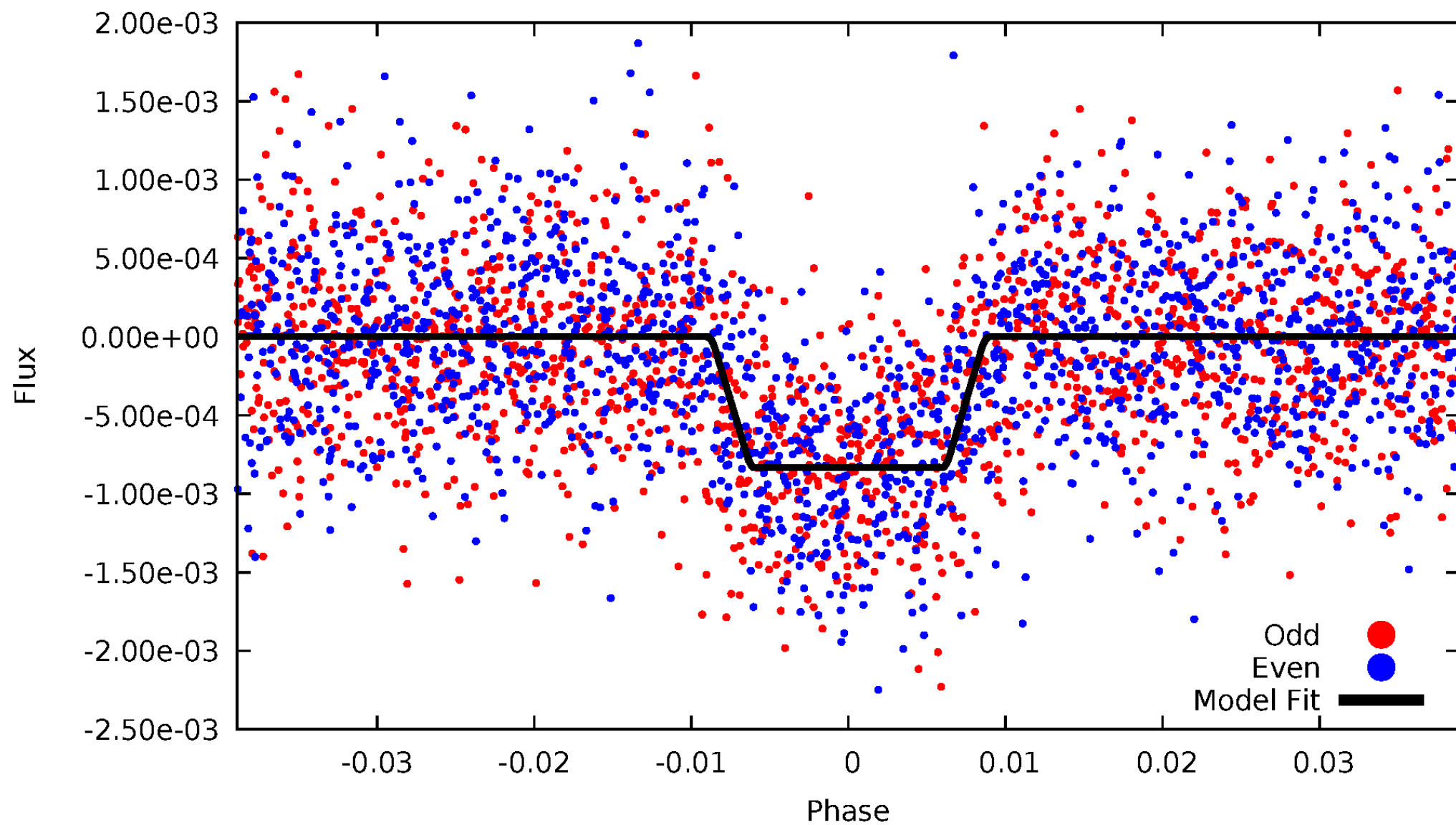
DV Odd/Even

TCE 003859628-01

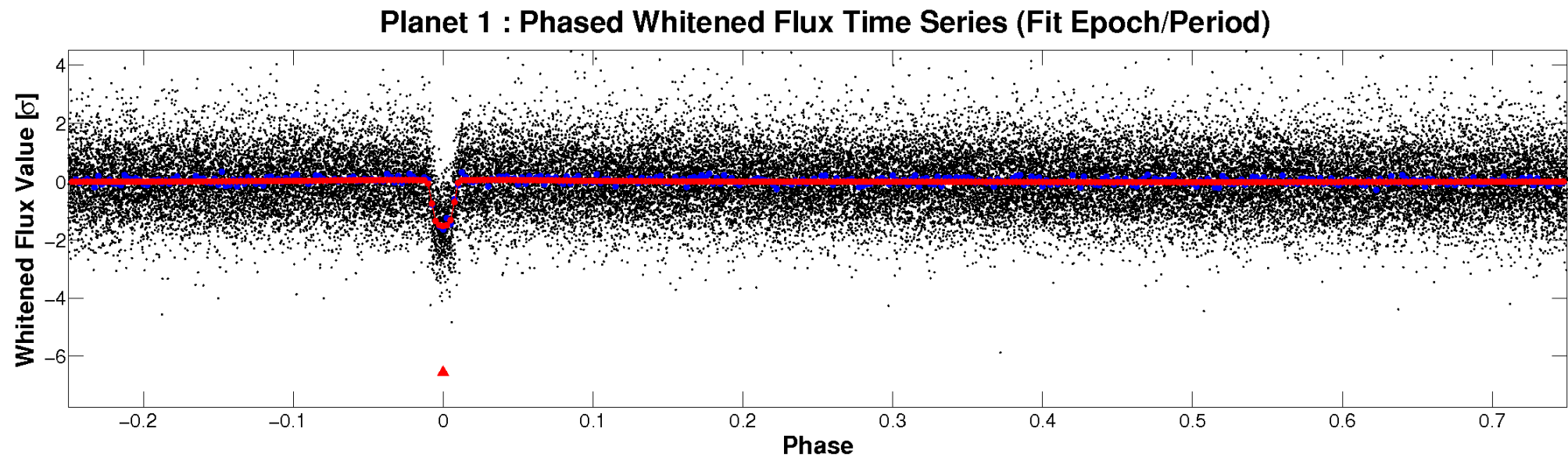
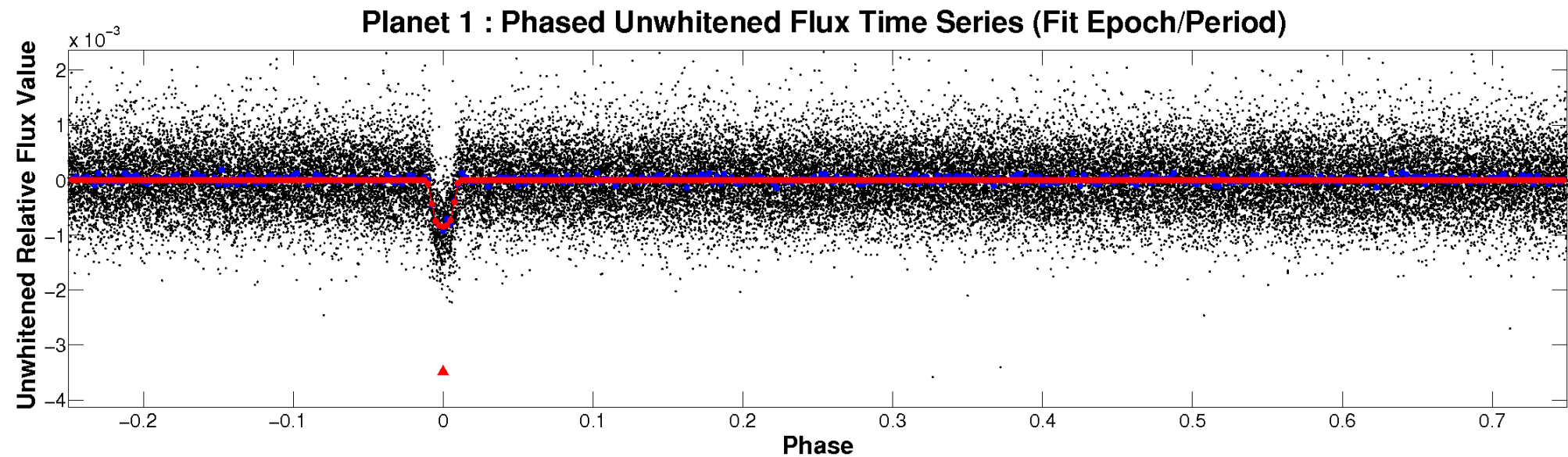


ALT Odd/Even

TCE 003859628-01

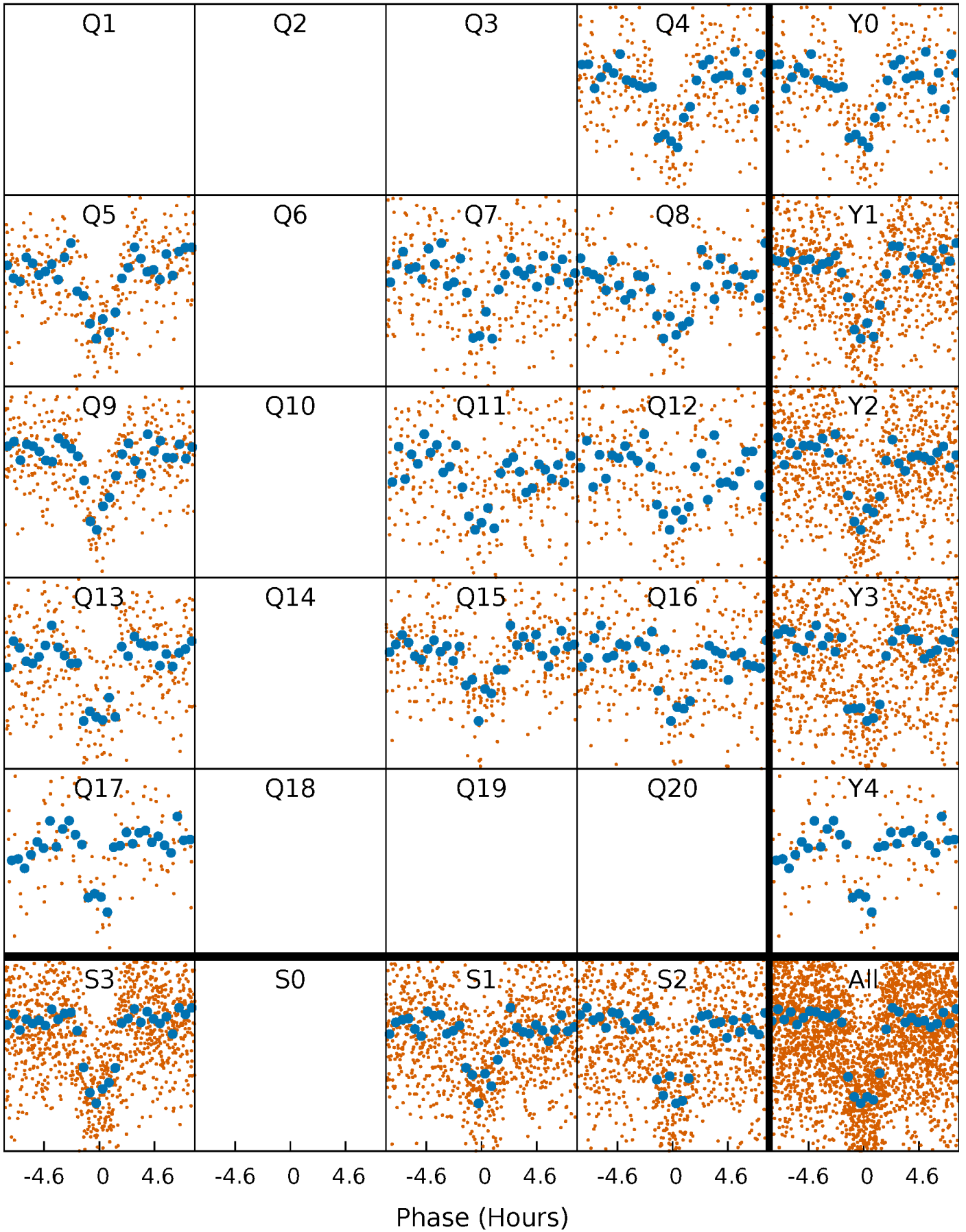


Non-Whitened Vs. Whitened Light Curve



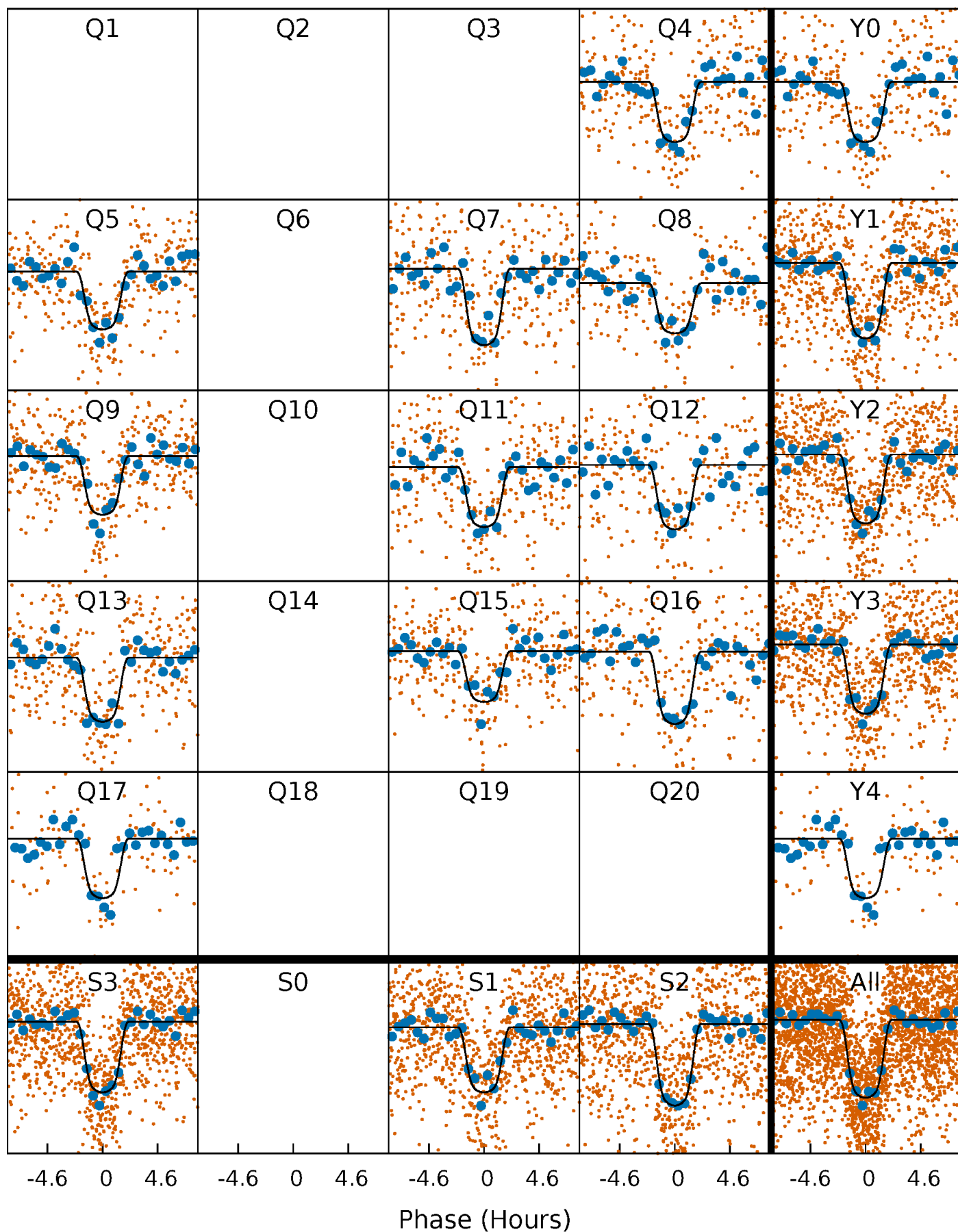
PDC Quarter-Phased Transit Curves

TCE 003859628-01 P= 8.172397 Days $T_0=132.375549$ (BKJD)



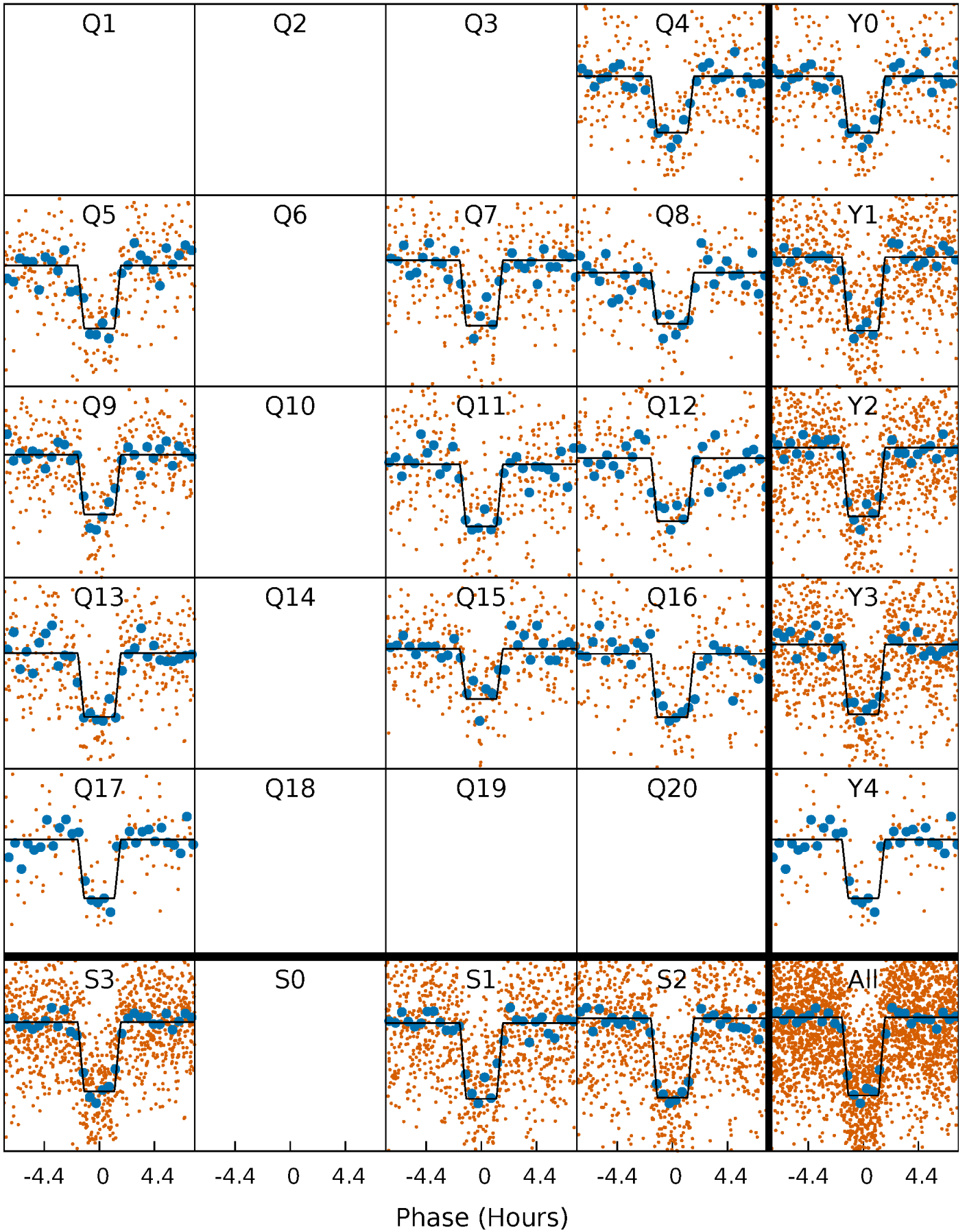
DV Quarter-Phased Transit Curves

TCE 003859628-01 P= 8.172397 Days $T_0=132.375549$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

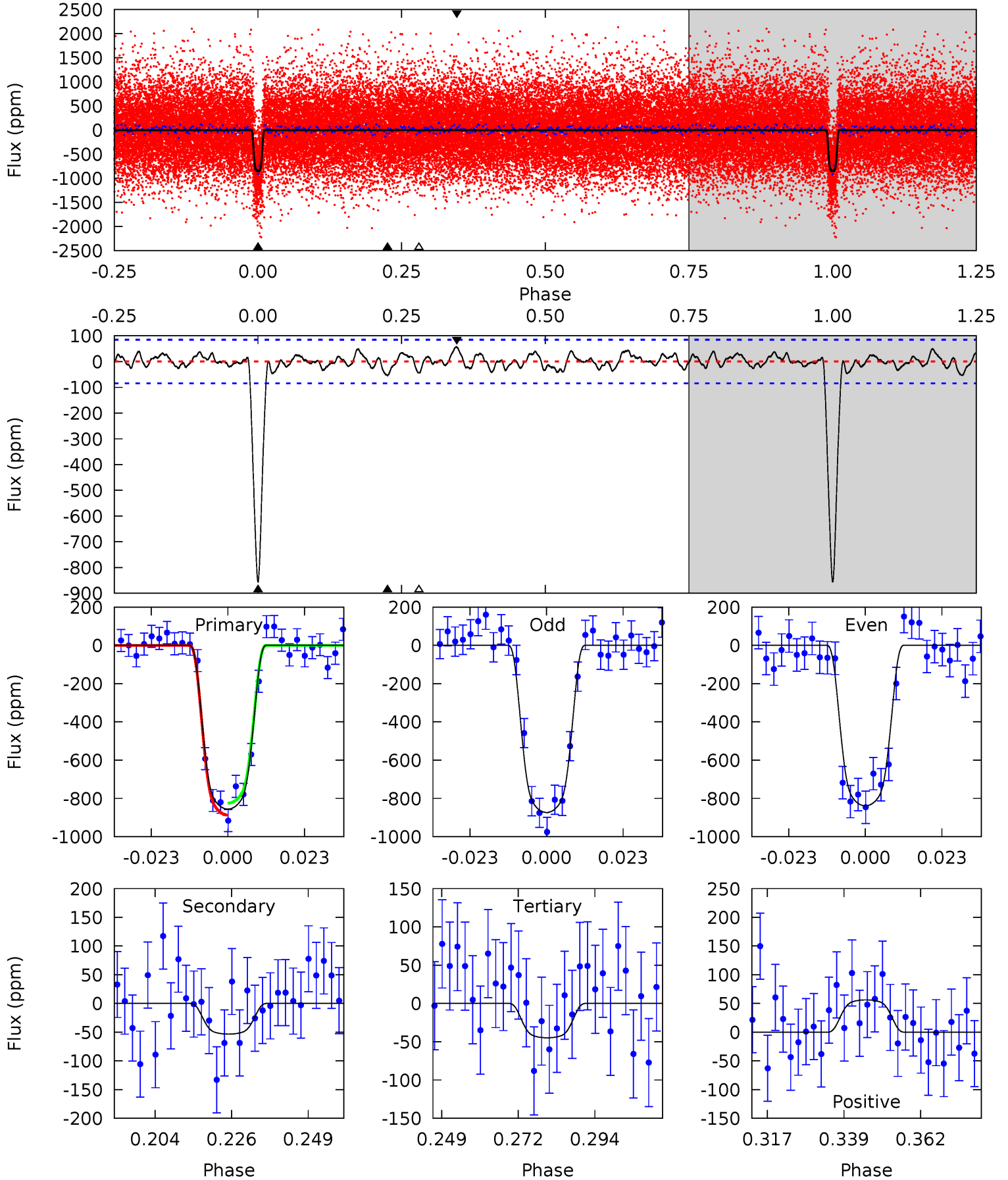
TCE 003859628-01 P= 8.172337 Days $T_0=132.382952$ (BKJD)



DV Model-Shift Uniqueness Test

003859628-01, P = 8.172397 Days, E = 132.375549 Days

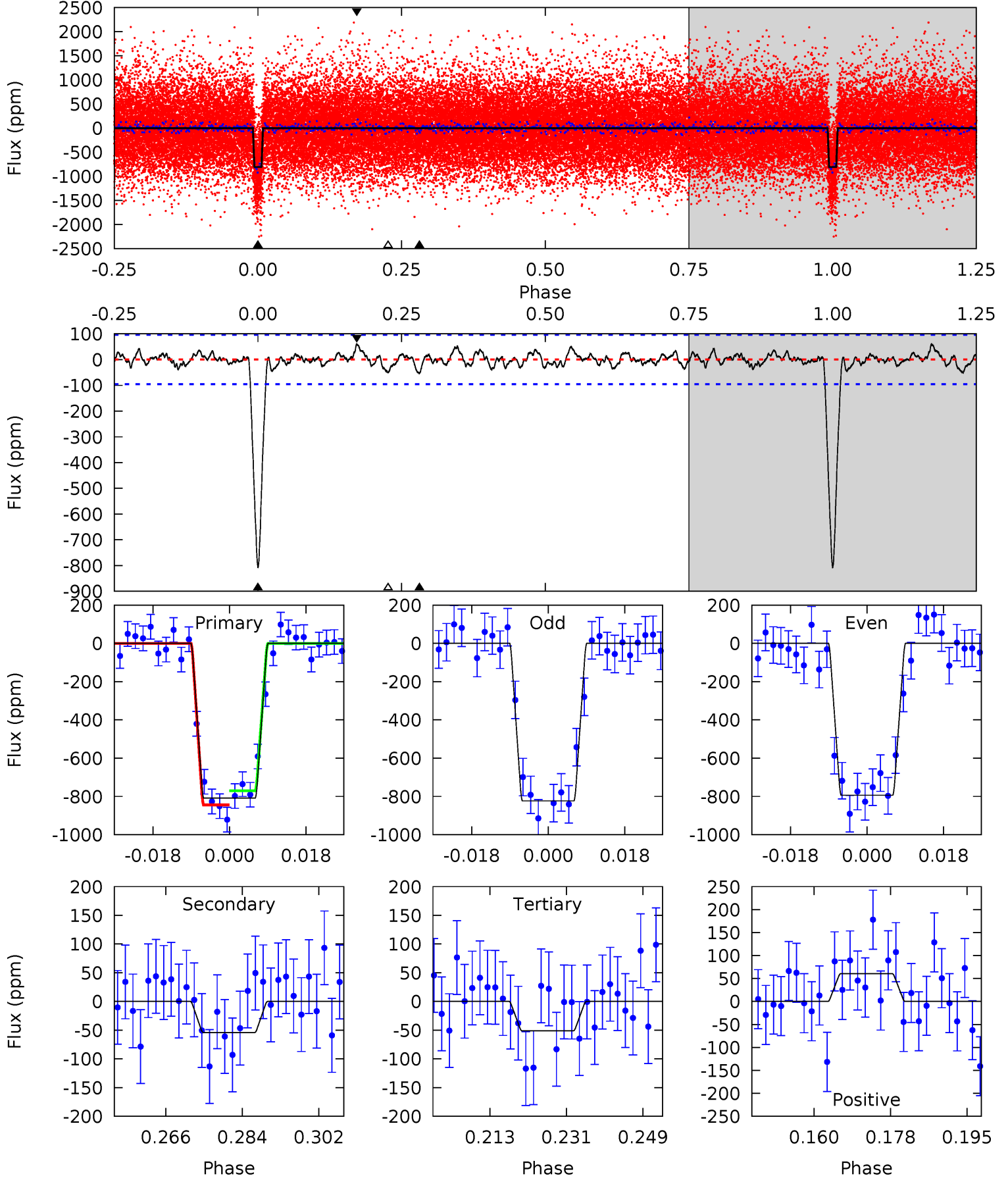
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.2	3.07	2.58	3.23	4.87	2.28	1.19	46.6	46.0	0.49	-0.17	1.00	0.98	0.06	1.79



Alt Model-Shift Uniqueness Test

003859628-01, P = 8.172337 Days, E = 132.382952 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.4	2.78	2.62	3.11	4.92	2.37	0.98	38.8	38.3	0.16	-0.33	0.75	0.99	0.07	1.90



Stellar Parameters For KIC 003859628

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5705^{+76}_{-76}	$4.499^{+0.045}_{-0.113}$	$-0.060^{+0.150}_{-0.150}$	$0.905^{+0.121}_{-0.052}$	$0.943^{+0.052}_{-0.063}$	$1.792^{+0.312}_{-0.594}$
	+1%/-1%	+1%/-3%	+250%/-250%	+13%/-6%	+6%/-7%	+17%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003859628-01 / KOI 1191.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-53 ± 17	$3.36^{+0.27}_{-0.19}$	1209^{+46}_{-31}	3226^{+159}_{-185}	16^{+6}_{-5}
Alt.	-54 ± 20	$2.89^{+0.25}_{-0.19}$	1206^{+43}_{-31}	3381^{+181}_{-242}	21^{+8}_{-8}

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

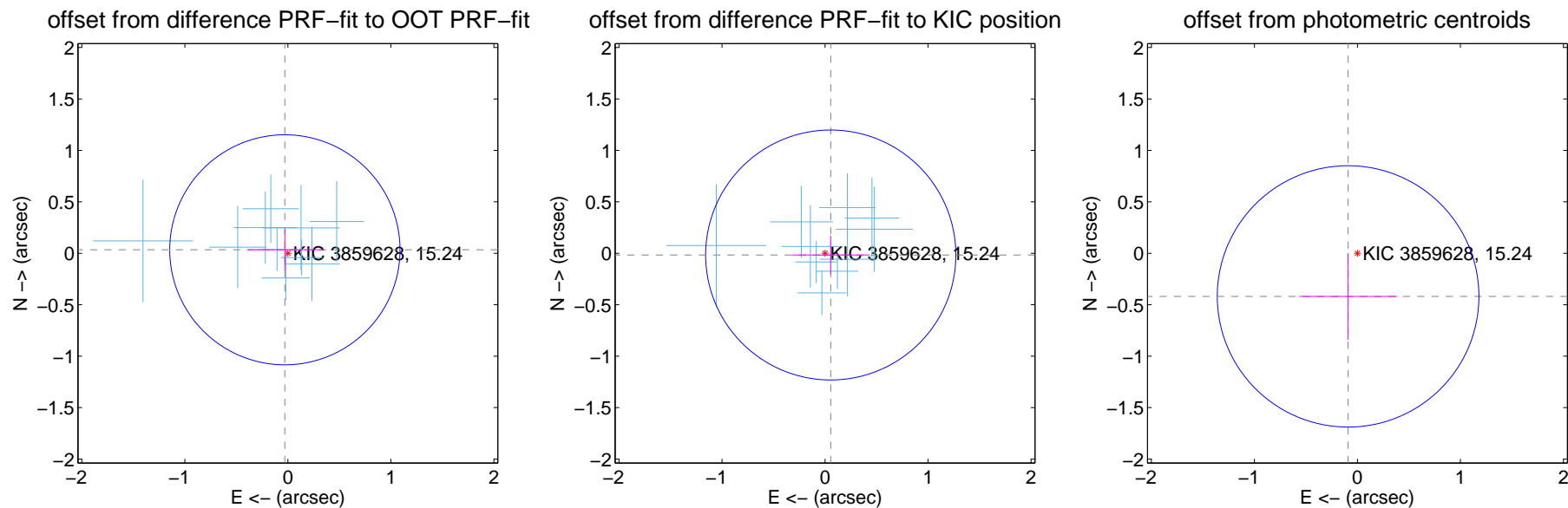
DV Centroid Data

Supplemental centroid analysis for 003859628-01. Kepler magnitude: 15.24. Transit SNR 33.73

There are 10 quarters with good PRF difference image offsets

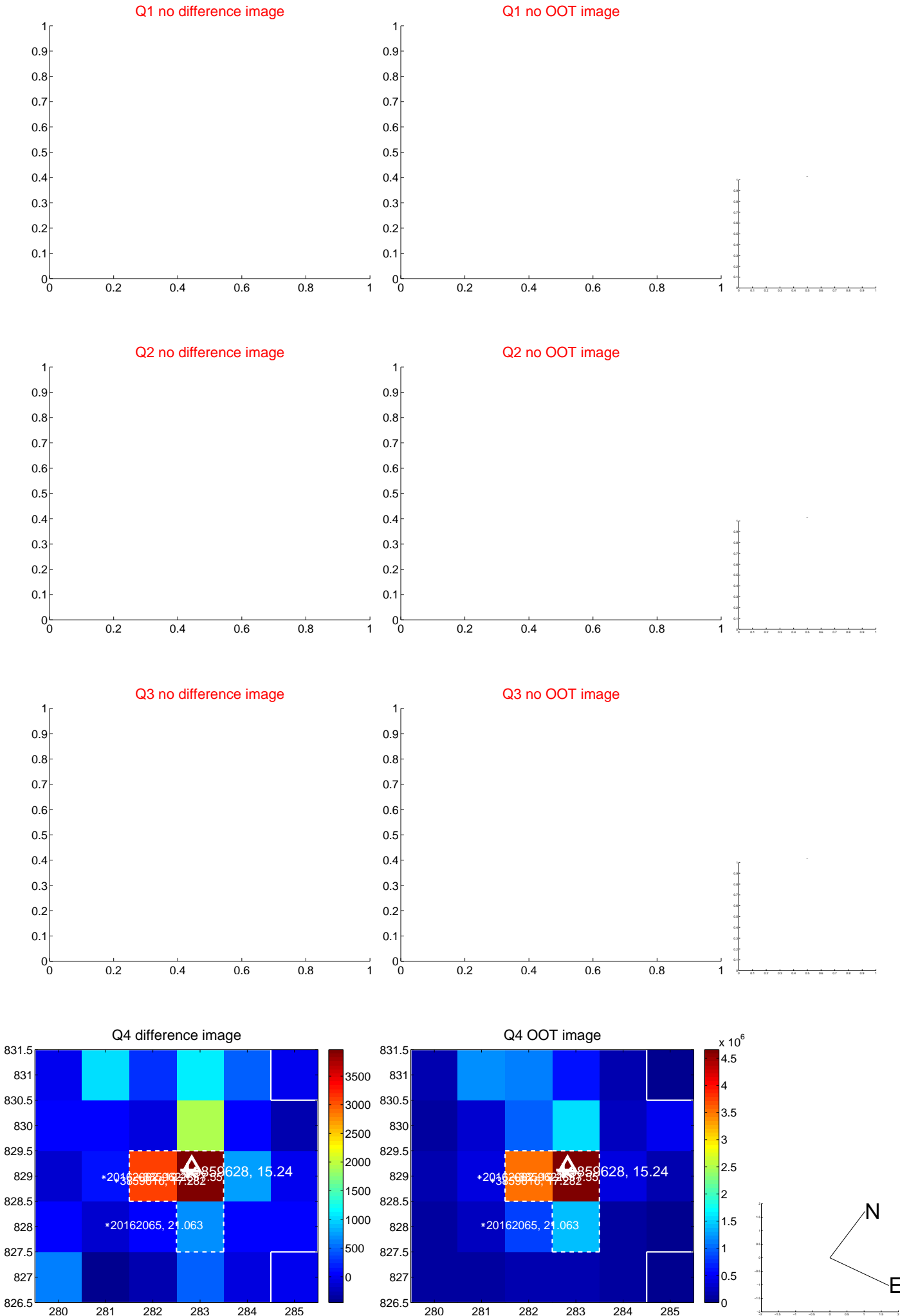
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.045 ± 0.373	0.12	0.029 ± 0.364	0.034 ± 0.200
PRF-fit source offset from KIC position	0.058 ± 0.405	0.14	-0.056 ± 0.377	-0.017 ± 0.186
photometric centroid source offset	0.43 ± 0.42	1.01	0.09 ± 0.47	-0.42 ± 0.42

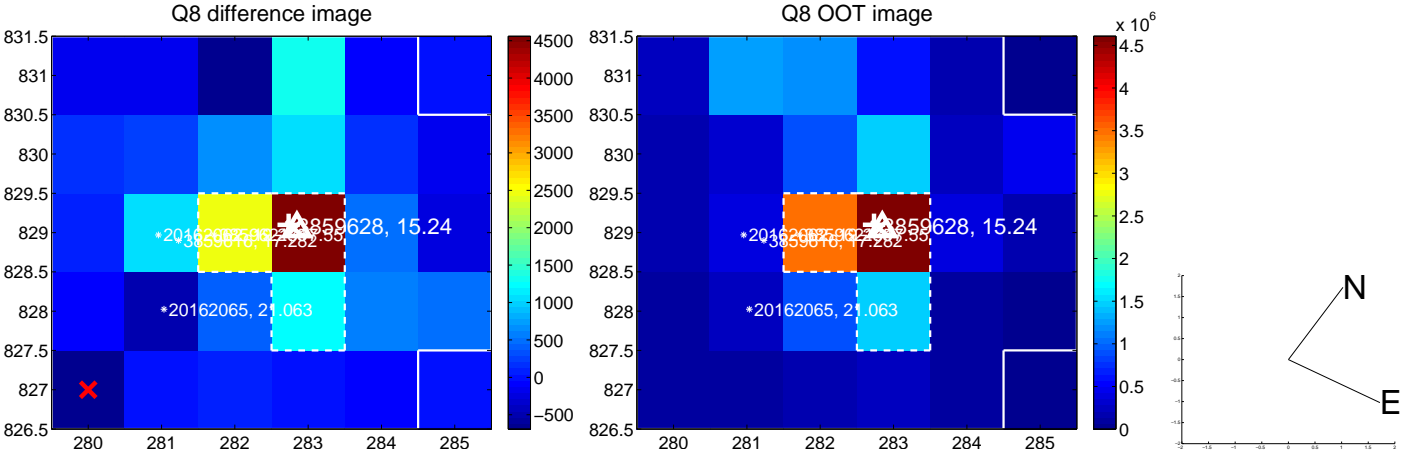
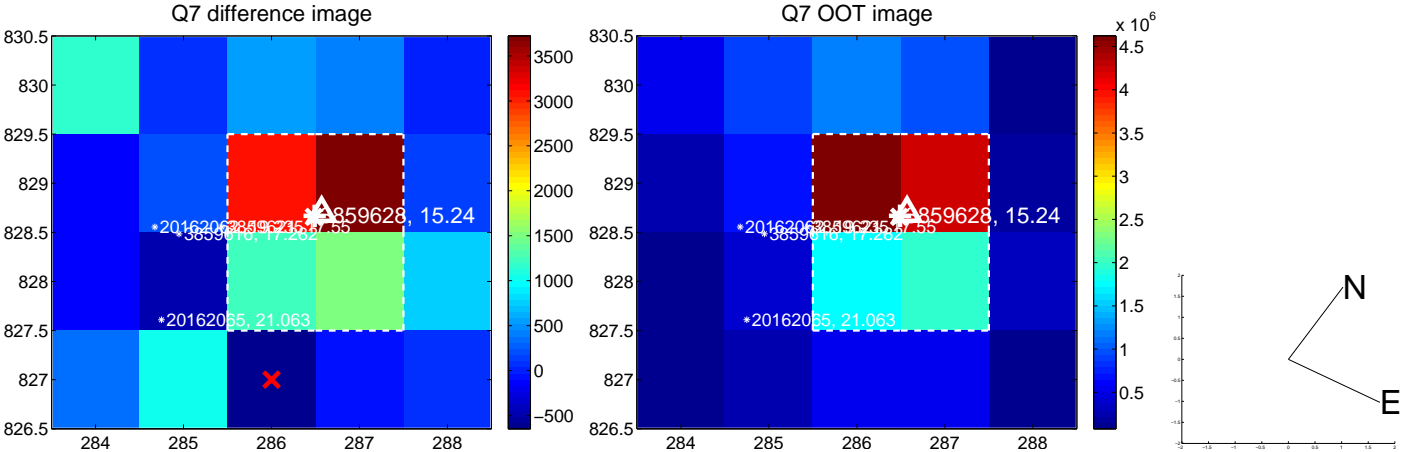
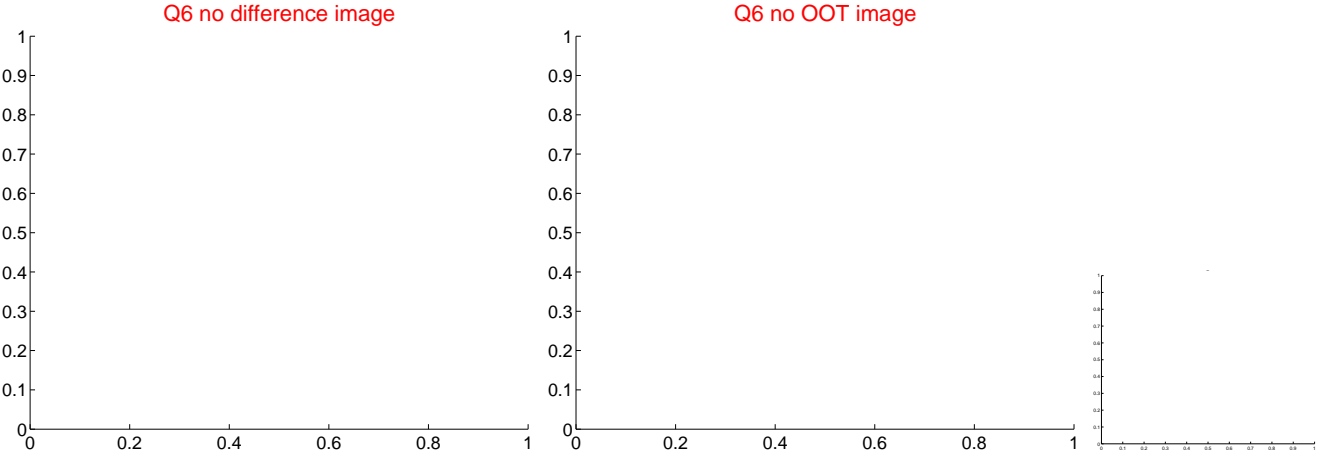
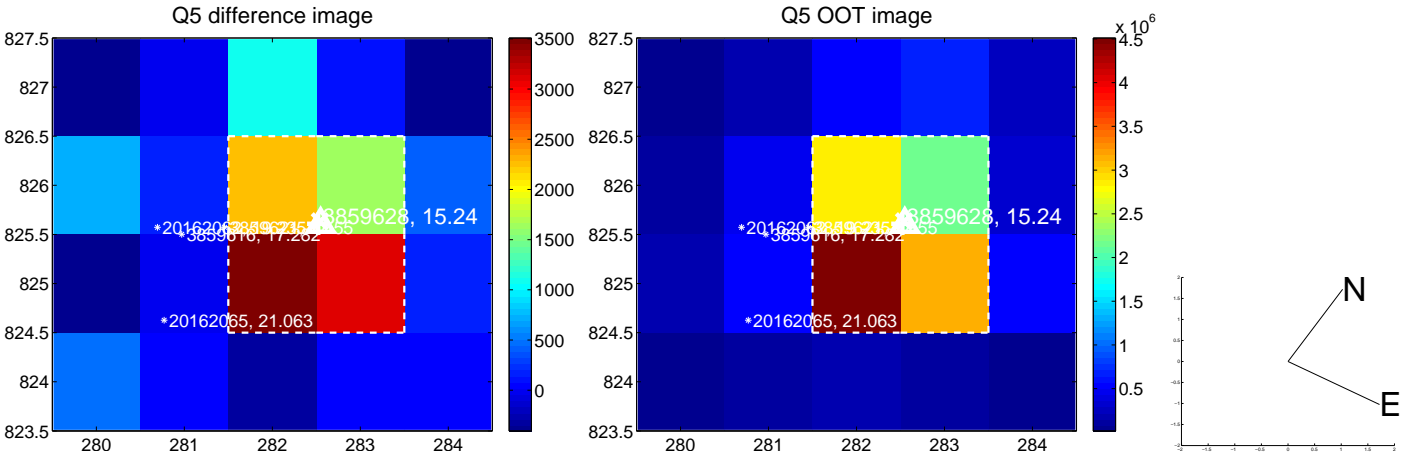


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

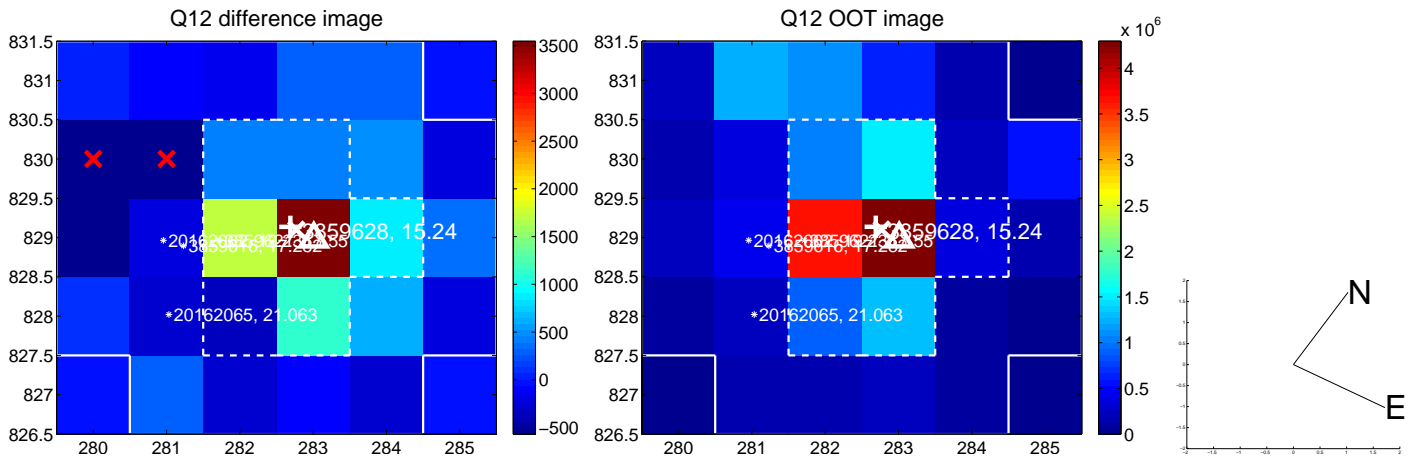
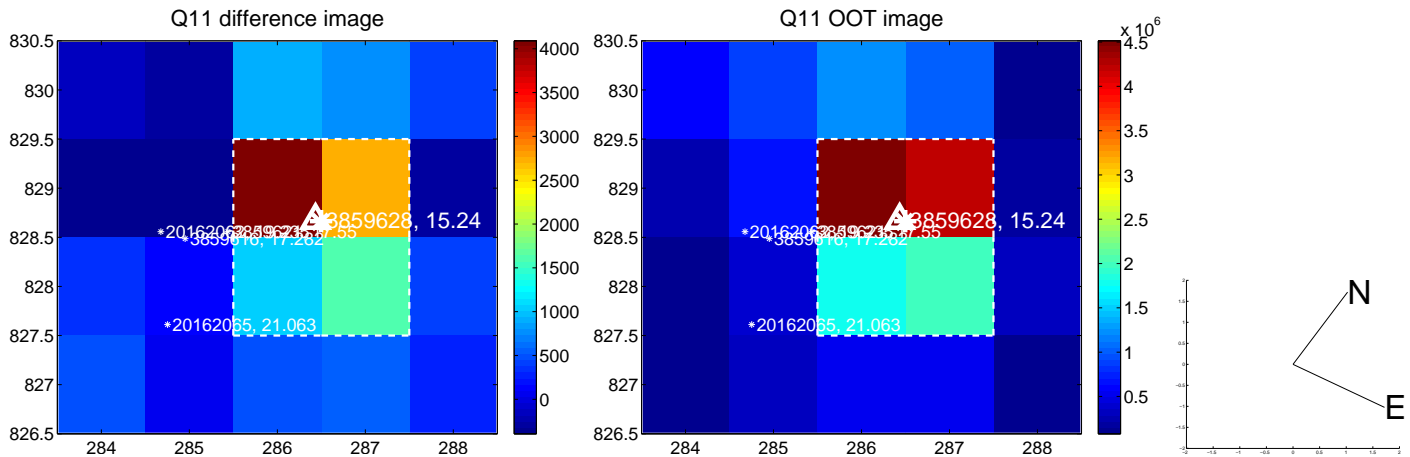
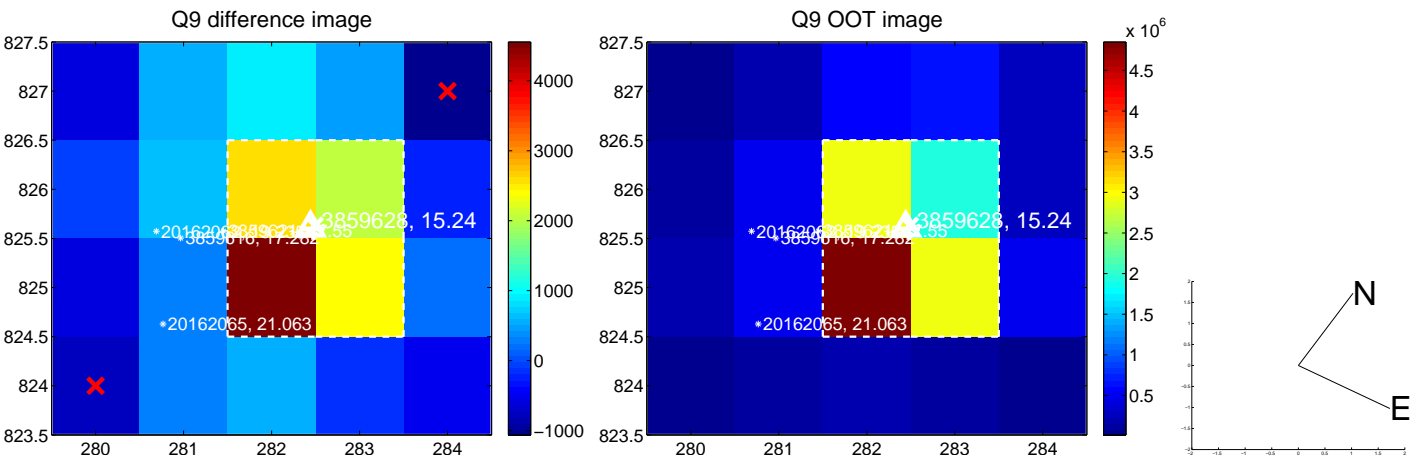
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



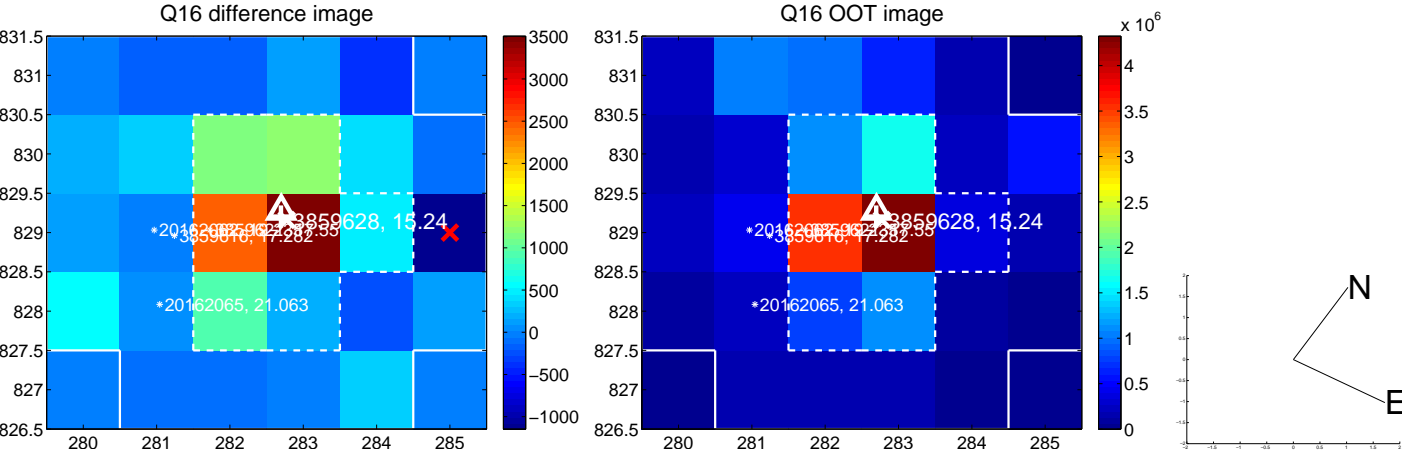
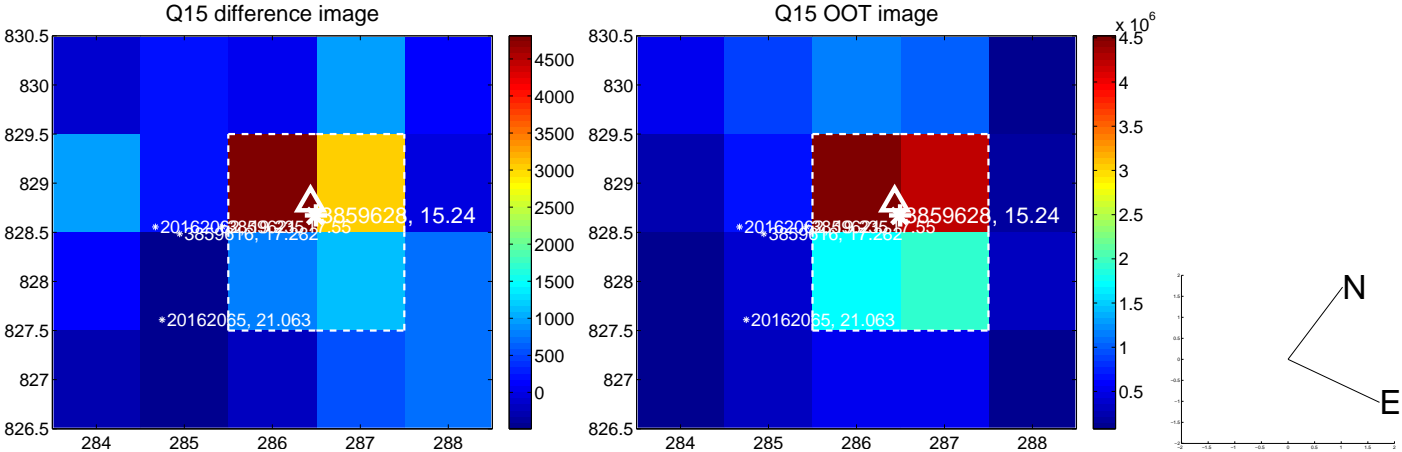
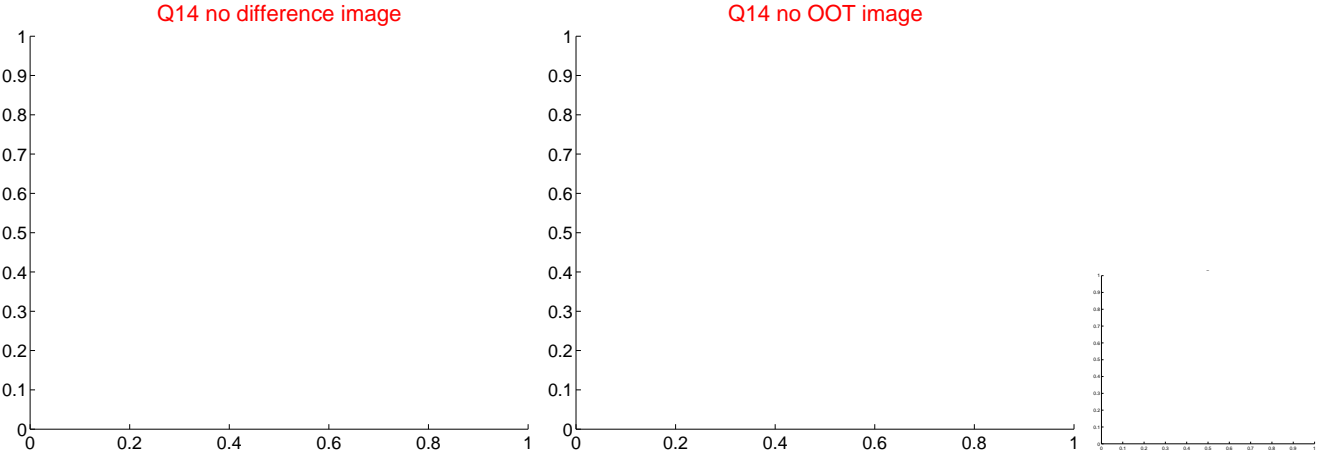
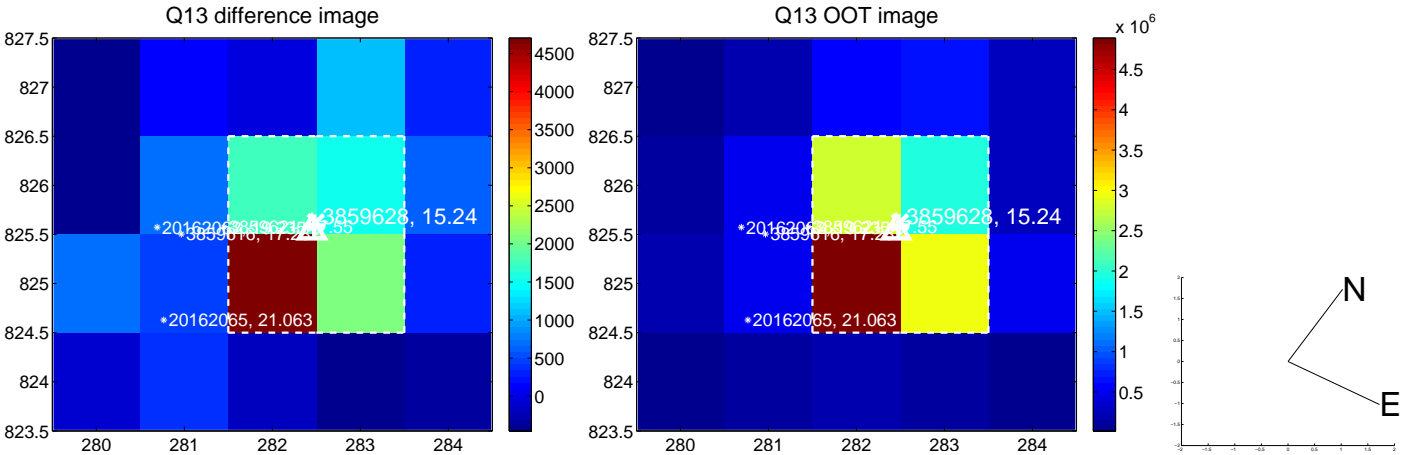
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



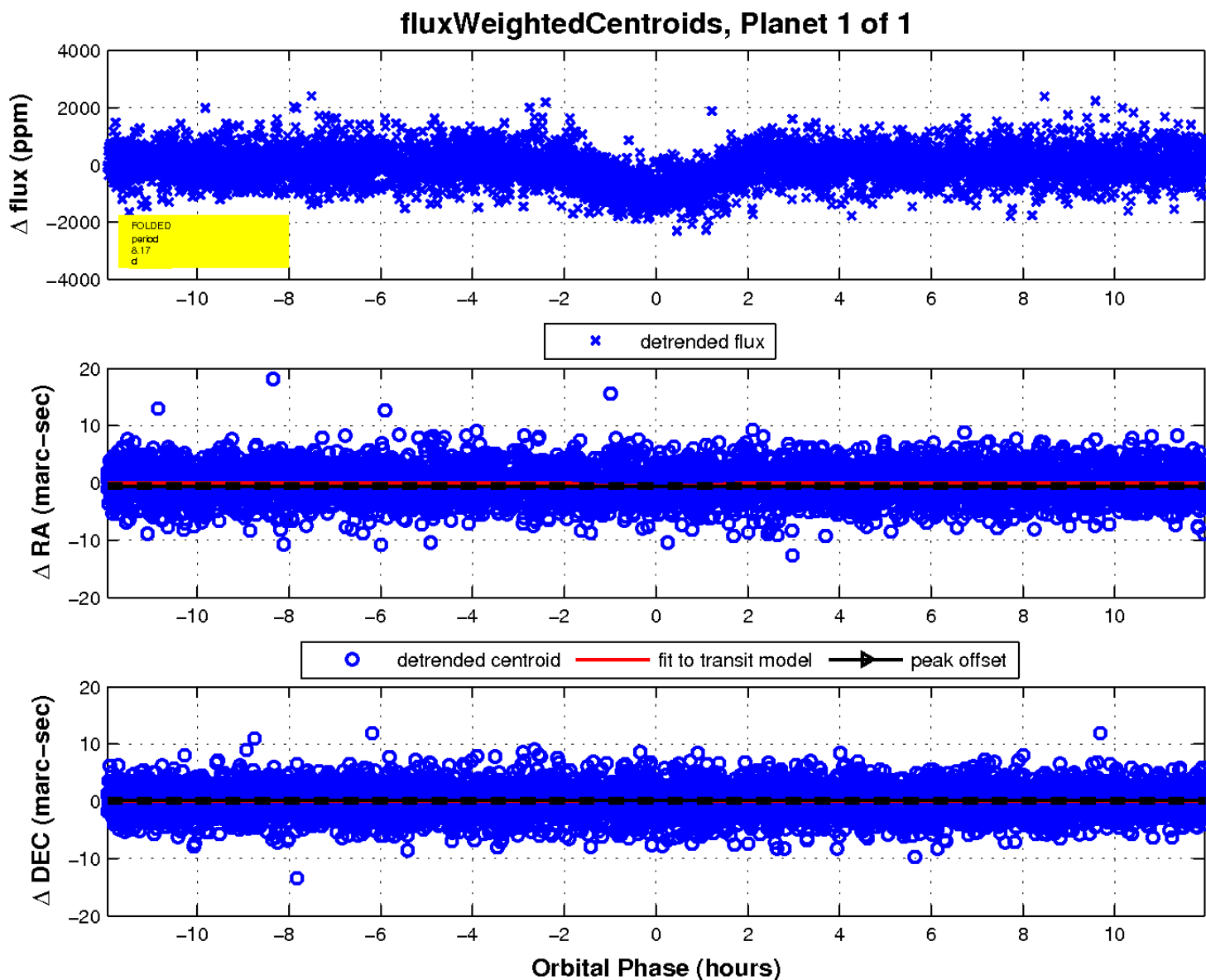
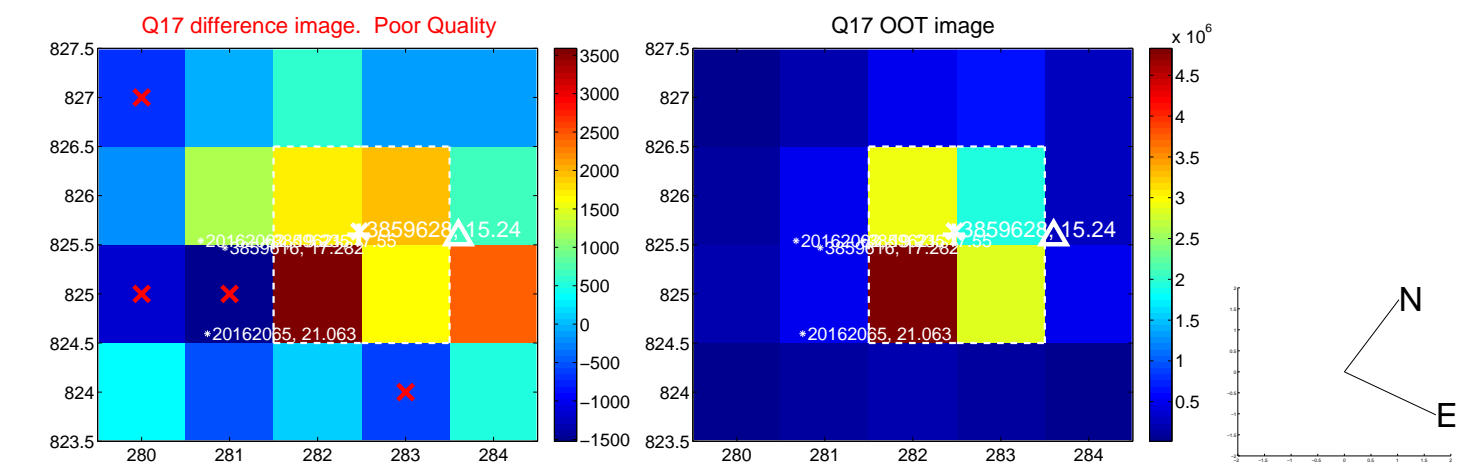
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UKIRT Image

Declination

