

KIC 007430876

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})
007430876-01	OBS	3193.01	32.612263	144.549601	1344.5	2.802	19.5	20.3	1.00	5780	6.15	25.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007430876-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—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 007430876-01

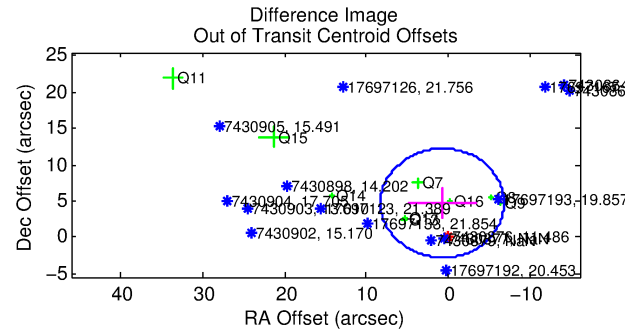
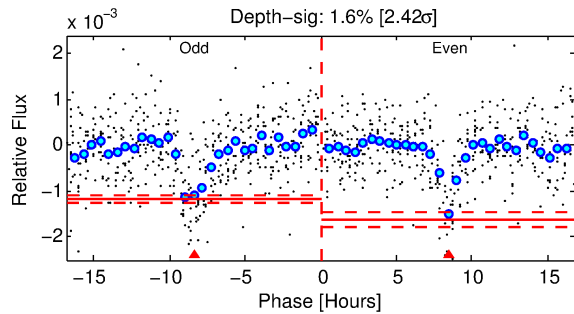
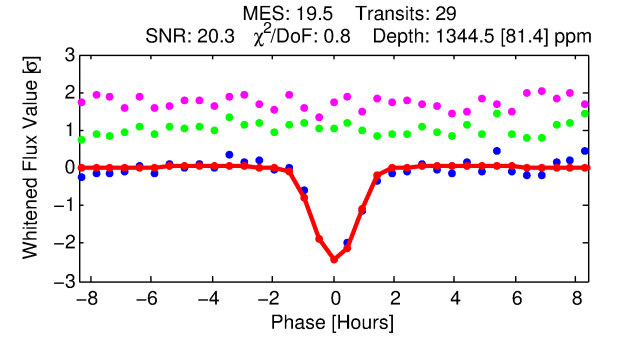
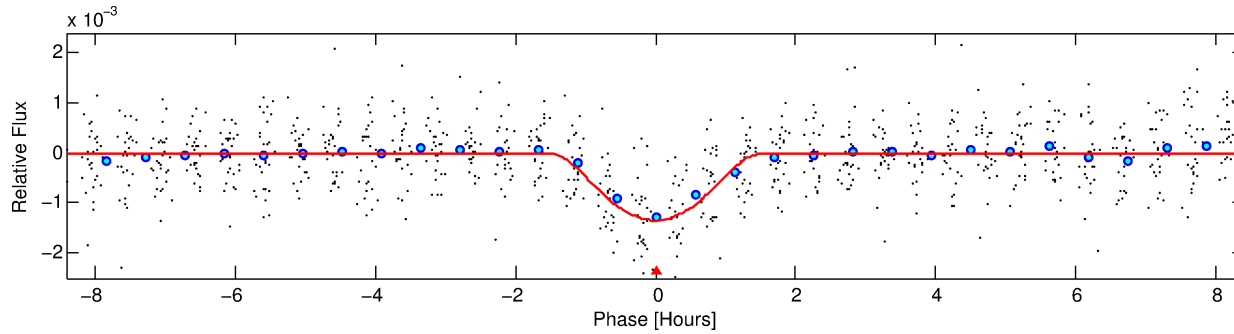
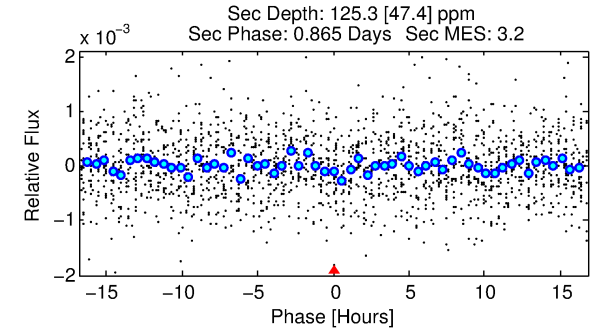
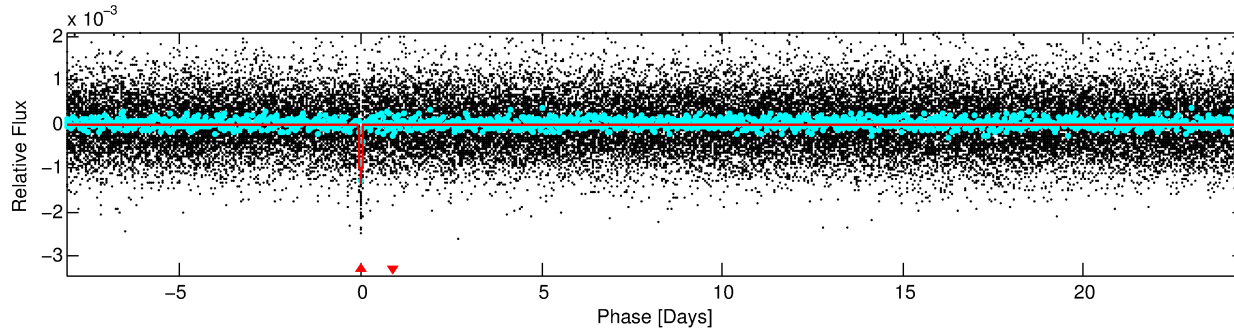
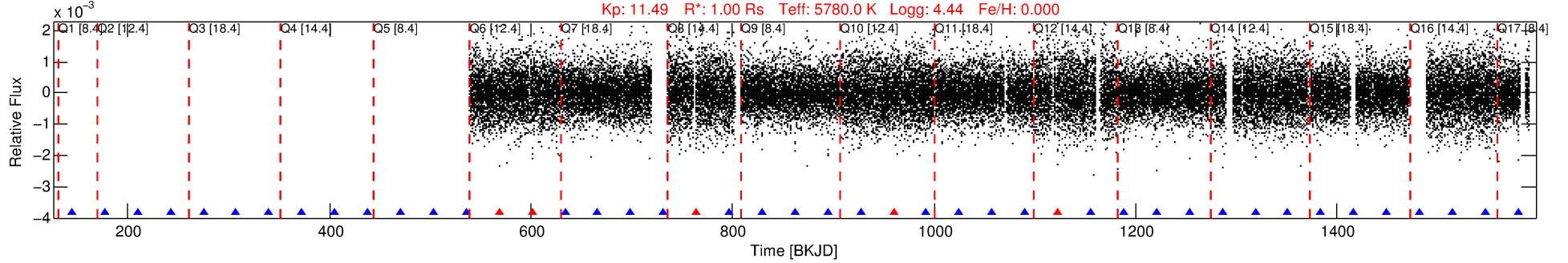
No Significant Match Found

DV One-Page Summary

KIC: 7430876 Candidate: 1 of 1 Period: 32.612 d

KOI: K03193.01 Corr: 0.962

Kp: 11.49 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 32.61226 [0.00020] d
Epoch = 144.5496 [0.0060] BKJD
Rp/R* = 0.0564 [0.0863]
a/R* = 33.74 [15.27]
b = 0.99 [0.14]
Seff = 25.05 [0.00]
Teq = 570 [0] K
Rp = 6.15 [9.42] Re
a = 0.1998 [0.0000] AU
Ag = 72.73 [224.37] [0.32σ]
Teffp = 2576 [1987] K [1.01σ]

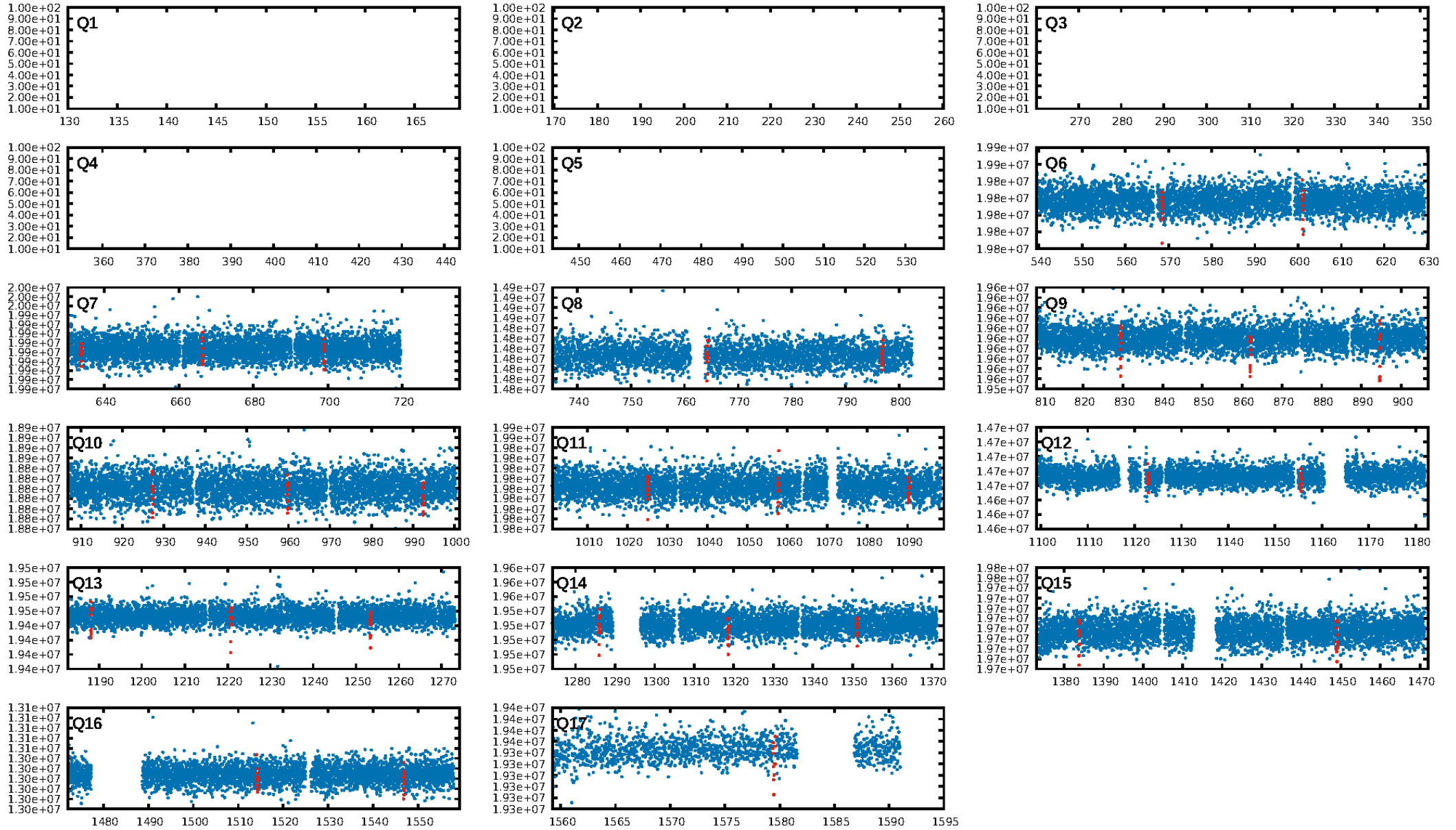
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.71e-84
RollingBand-fgt: 0.82 [23/28]
GhostDiagnostic-chr: 2.093
Centroid-sig: 0.0%
Centroid-so: 5.632 arcsec [7.59σ]
OotOffset-rm: 4.758 arcsec [1.90σ]
OotOffset-st: 1/3/2/3 [9]
KicOffset-rm: 7.904 arcsec [6.66σ]
KicOffset-st: 1/3/2/3 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [12/12]

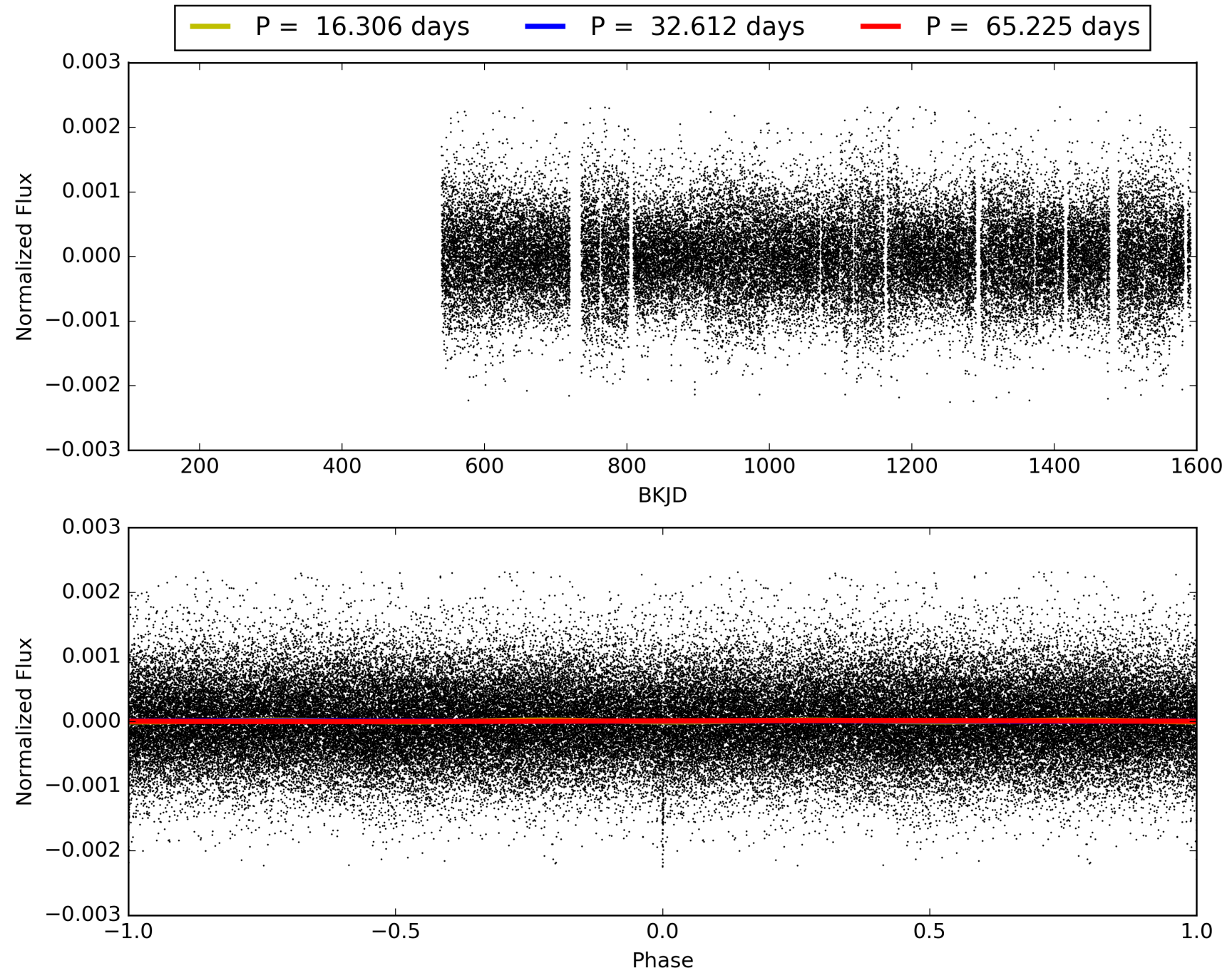
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:35:06 Z

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

TCE 007430876-01, PDC Light Curves

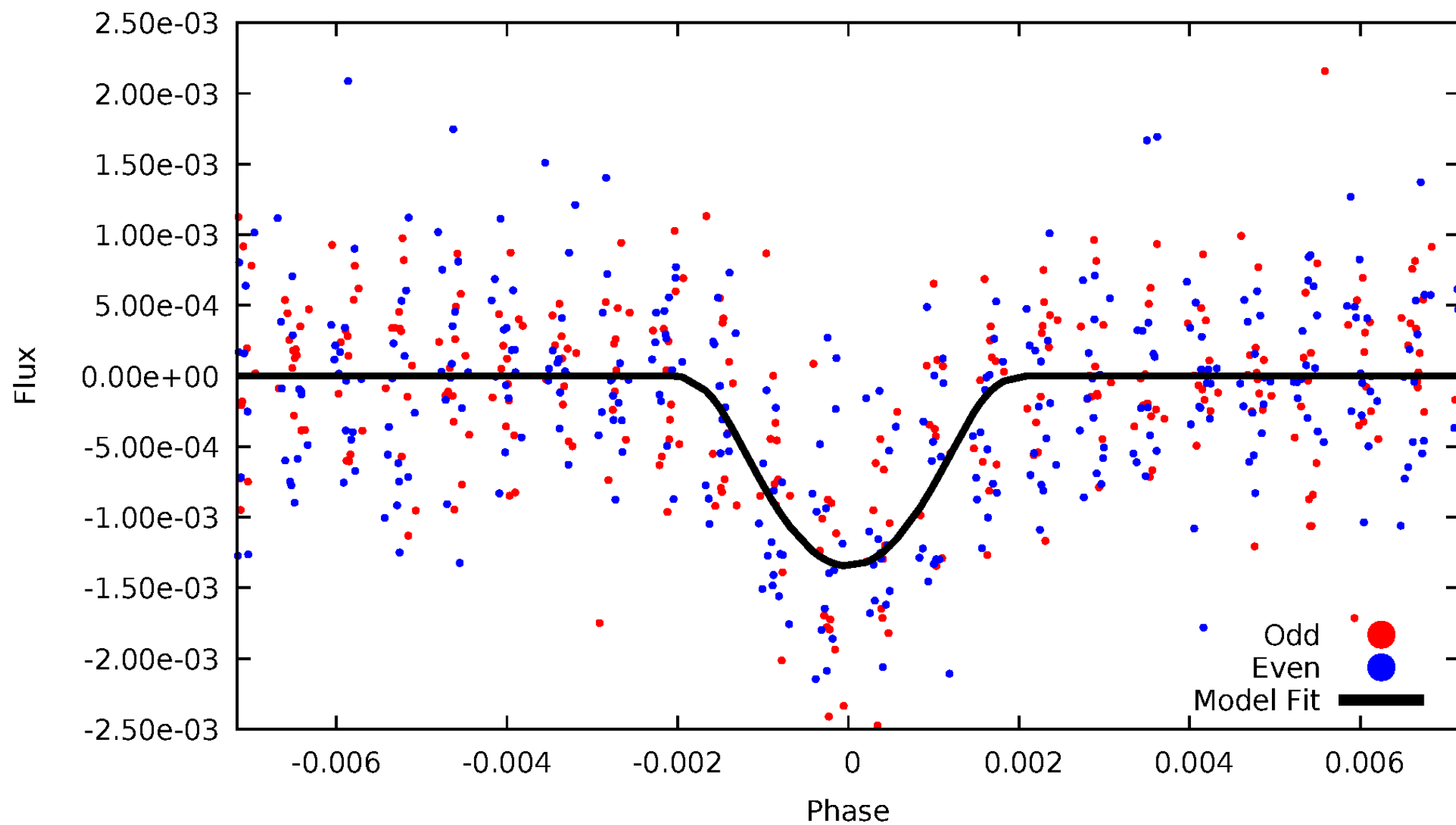


TCE 007430876-01



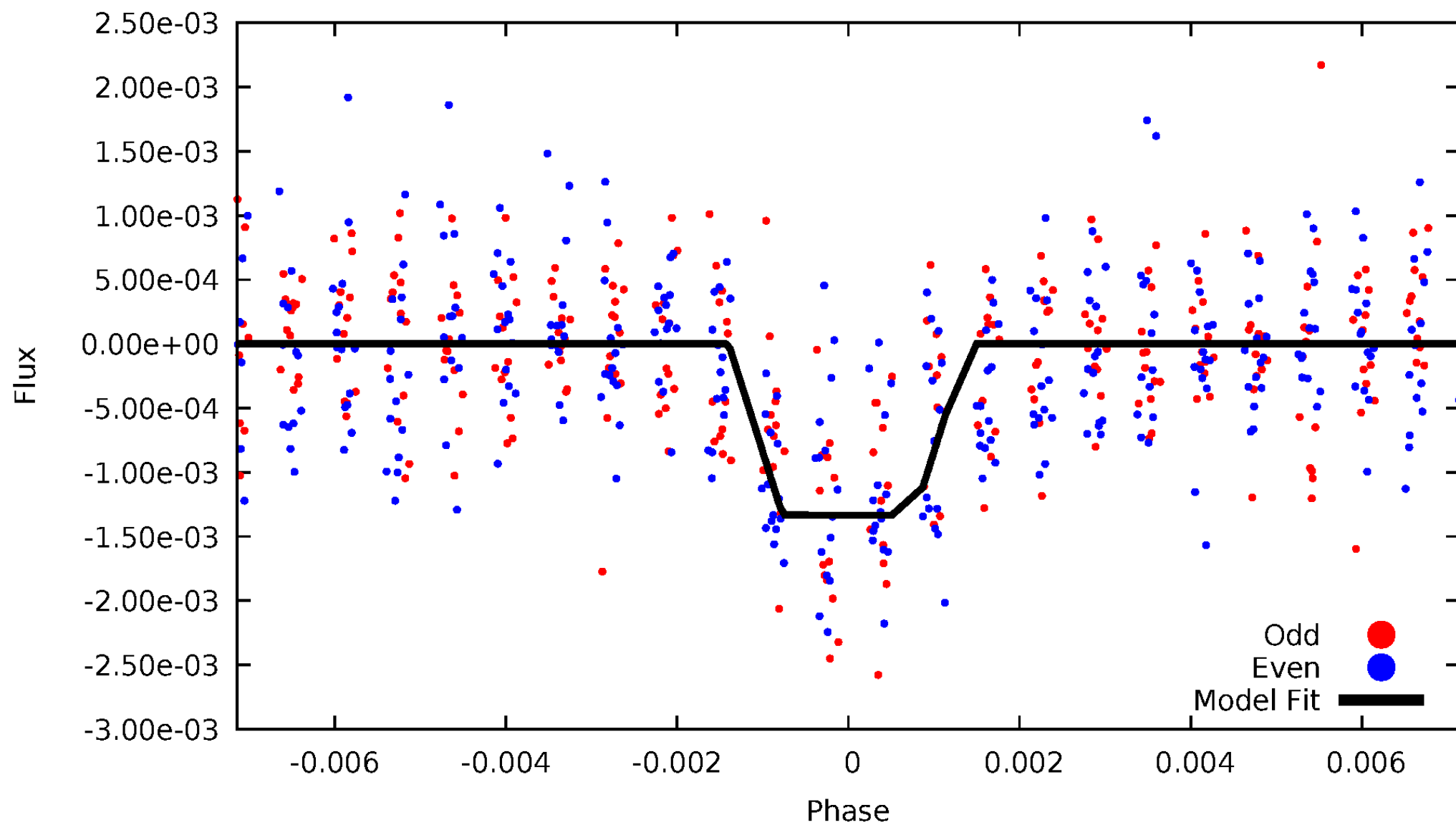
DV Odd/Even

TCE 007430876-01

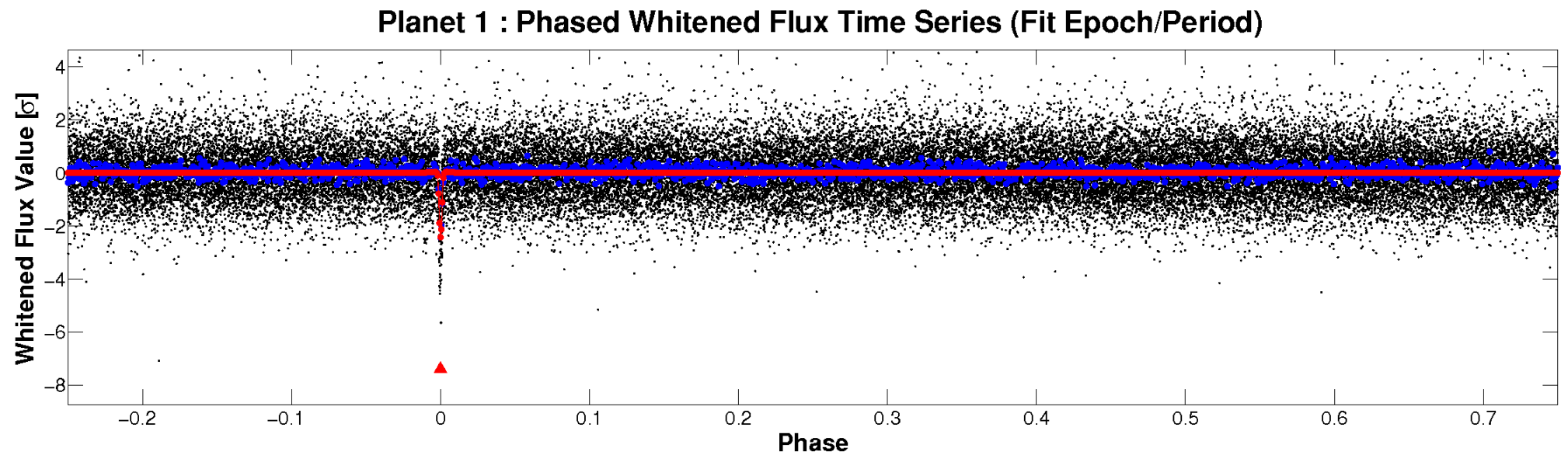
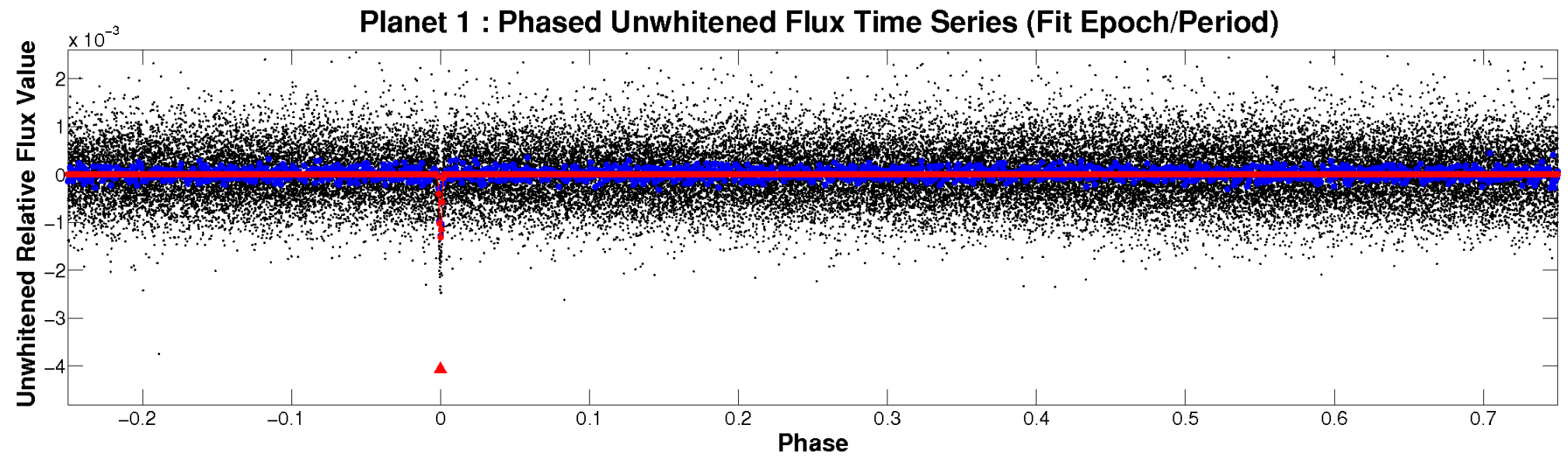


ALT Odd/Even

TCE 007430876-01

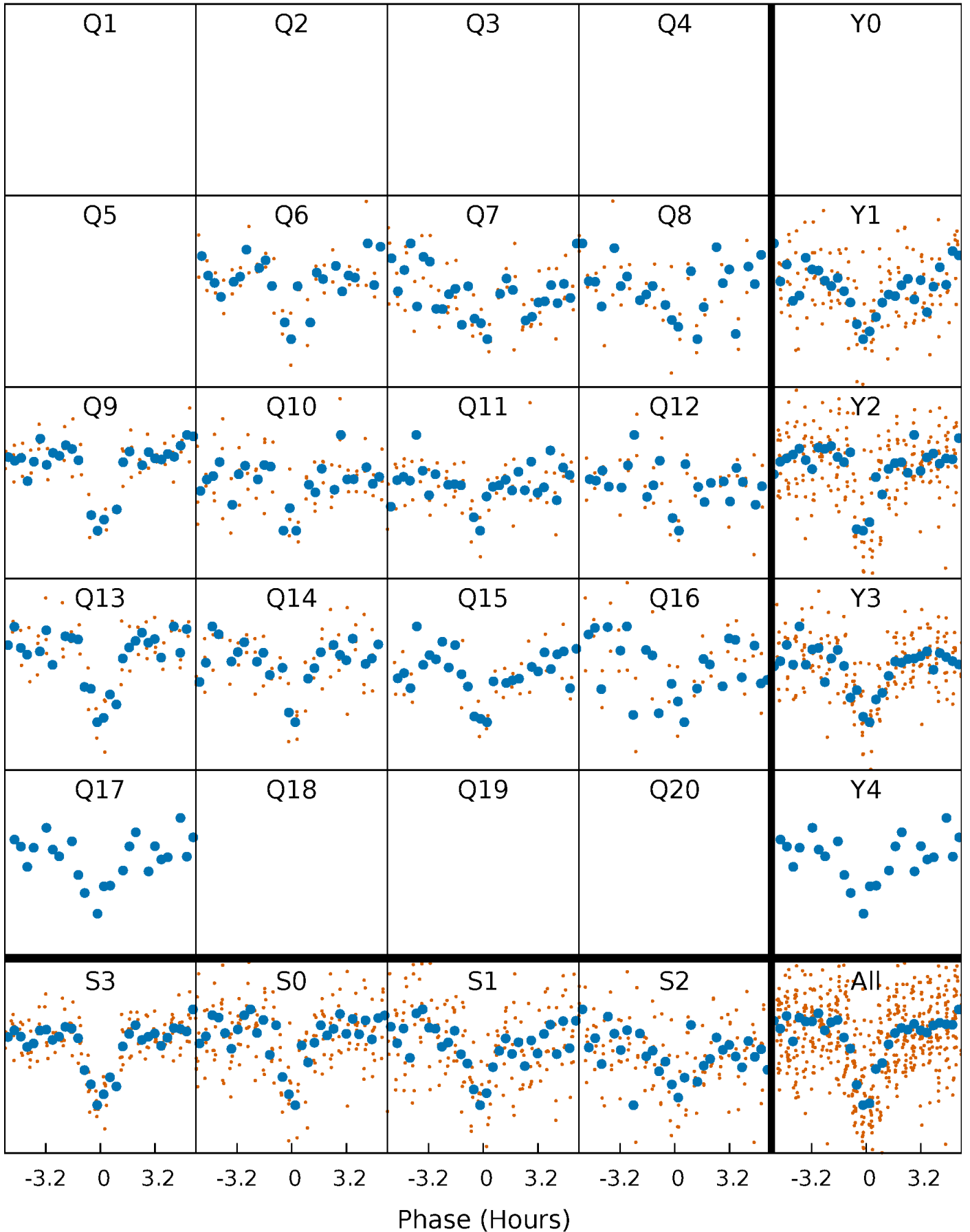


Non-Whitened Vs. Whitened Light Curve



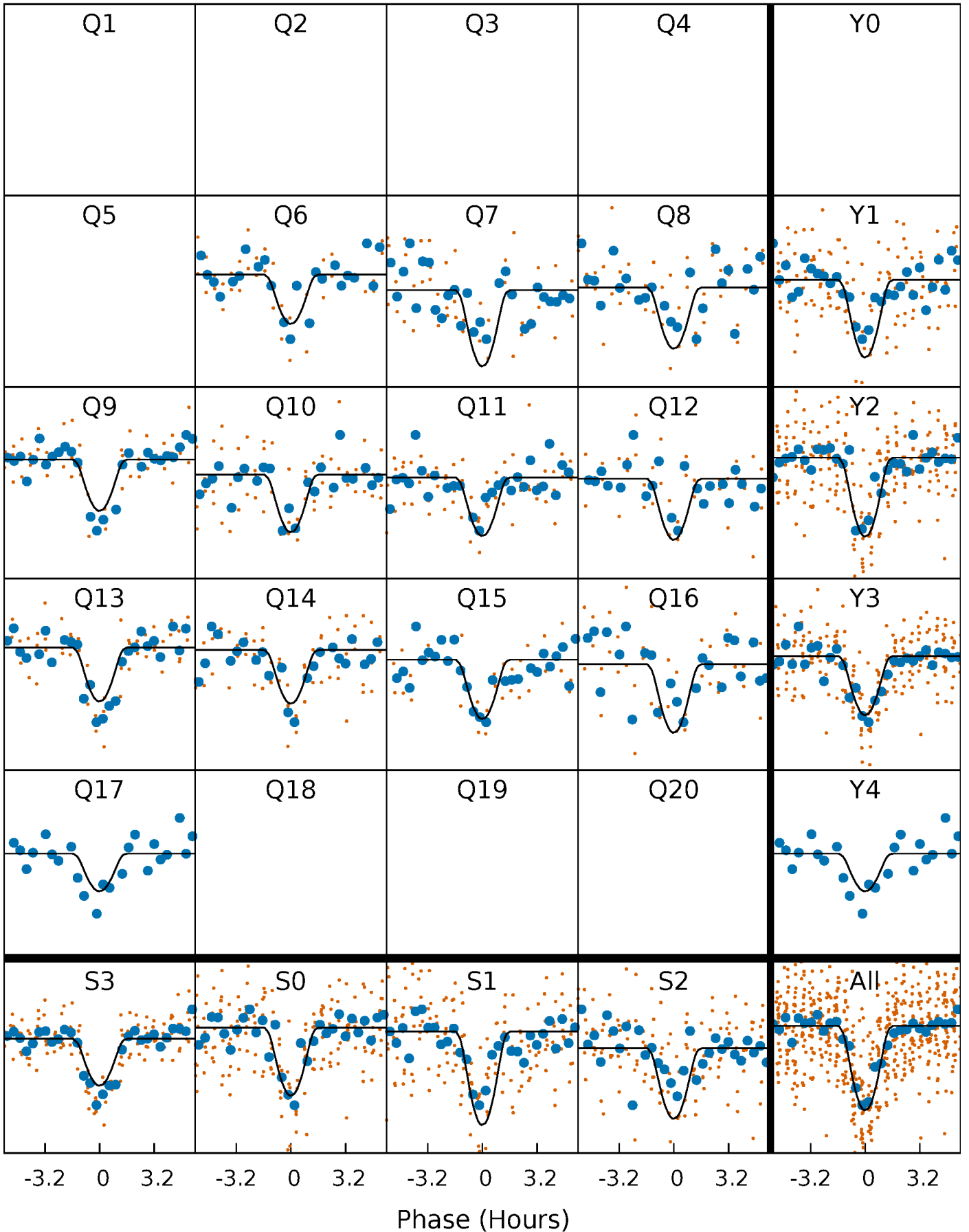
PDC Quarter-Phased Transit Curves

TCE 007430876-01 P= 32.612263 Days $T_0=144.549601$ (BKJD)



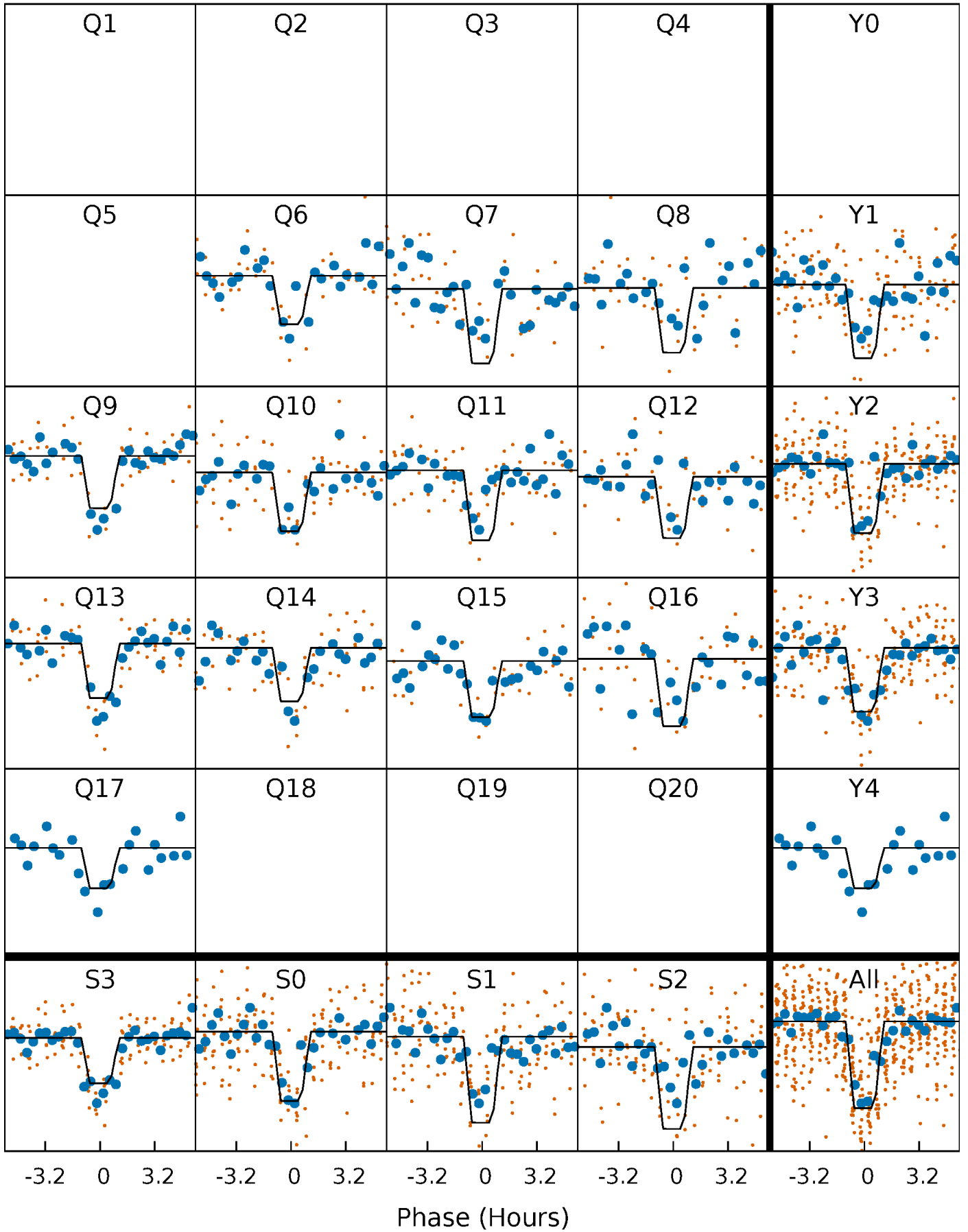
DV Quarter-Phased Transit Curves

TCE 007430876-01 P= 32.612263 Days $T_0=144.549601$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

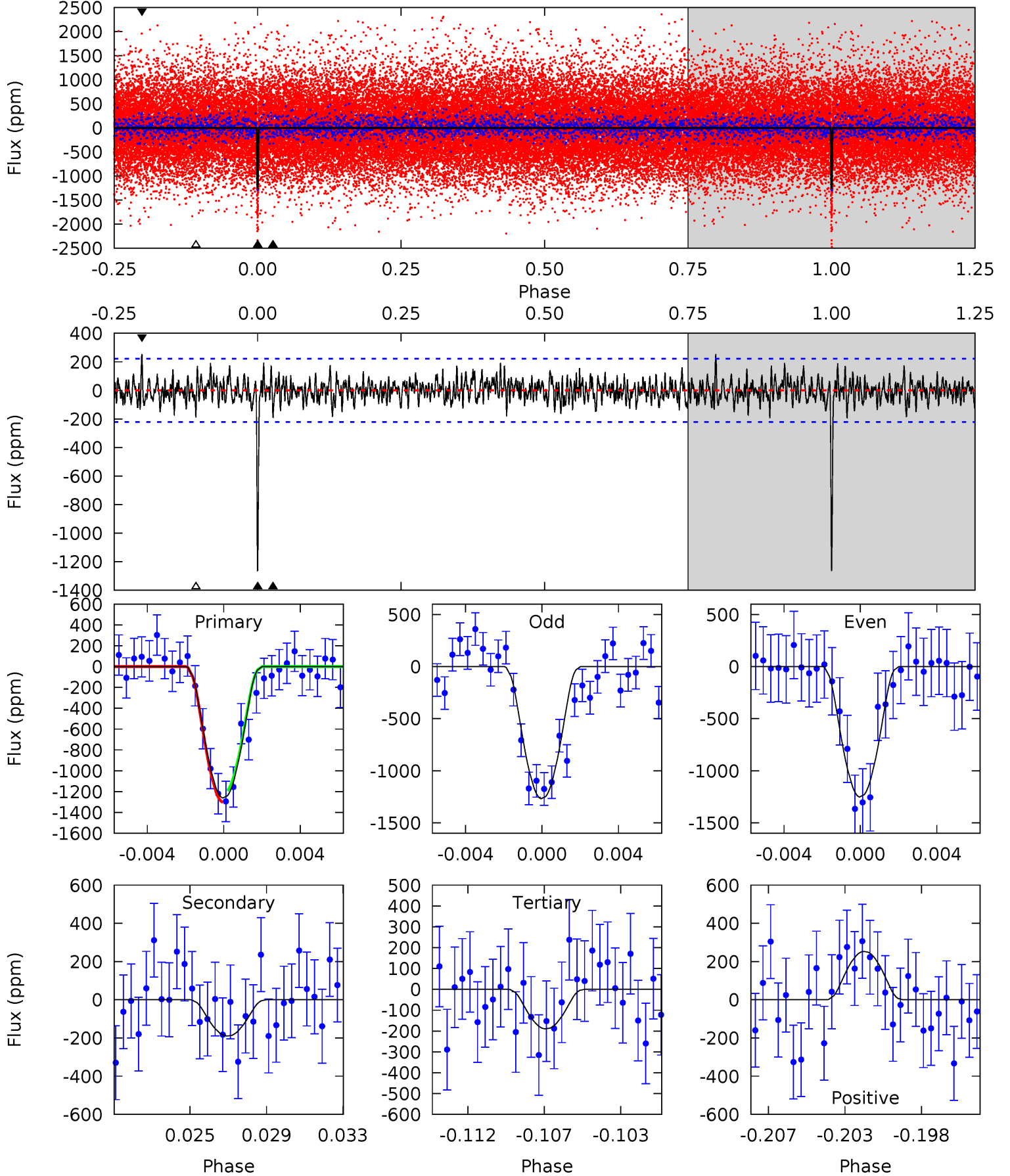
TCE 007430876-01 P= 32.612151 Days $T_0=144.553045$ (BKJD)



DV Model-Shift Uniqueness Test

007430876-01, P = 32.612263 Days, E = 144.549601 Days

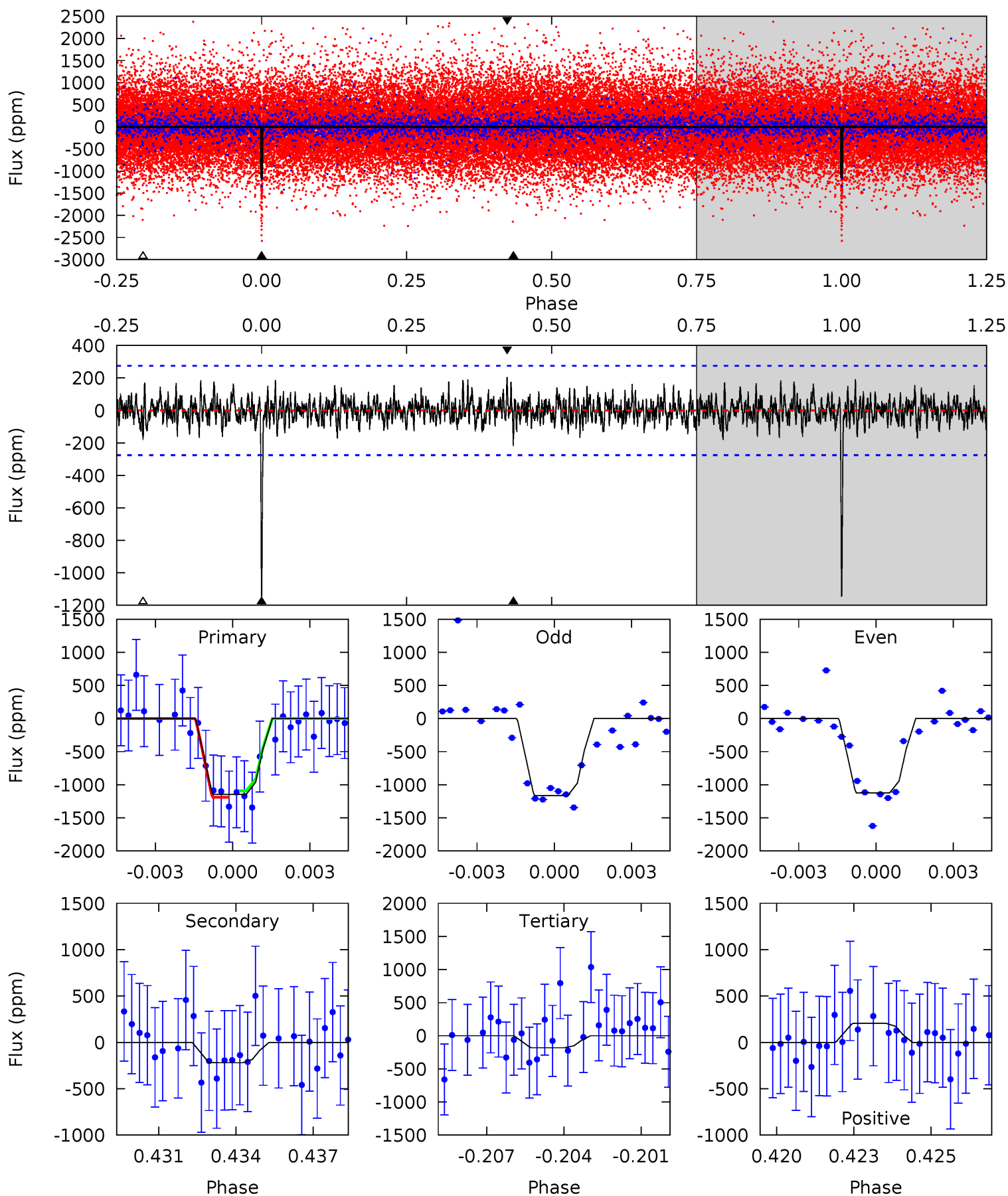
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	4.45	4.45	5.93	5.19	2.87	1.44	25.1	23.7	0.01	-1.48	0.19	0.99	0.17	1.29



Alt Model-Shift Uniqueness Test

007430876-01, P = 32.612151 Days, E = 144.553045 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	4.19	3.46	3.92	5.26	2.98	1.10	18.5	18.0	0.74	0.27	0.38	1.10	0.15	0.95



Stellar Parameters For KIC 007430876

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 007430876-01 / KOI 3193.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-190 ± 43	$9.78^{+7.30}_{-5.94}$	798^{+37}_{-36}	2942^{+1050}_{-414}	43^{+258}_{-30}
Alt.	-219 ± 52	$8.29^{+7.23}_{-5.62}$	799^{+41}_{-41}	3176^{+1544}_{-537}	74^{+602}_{-55}

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

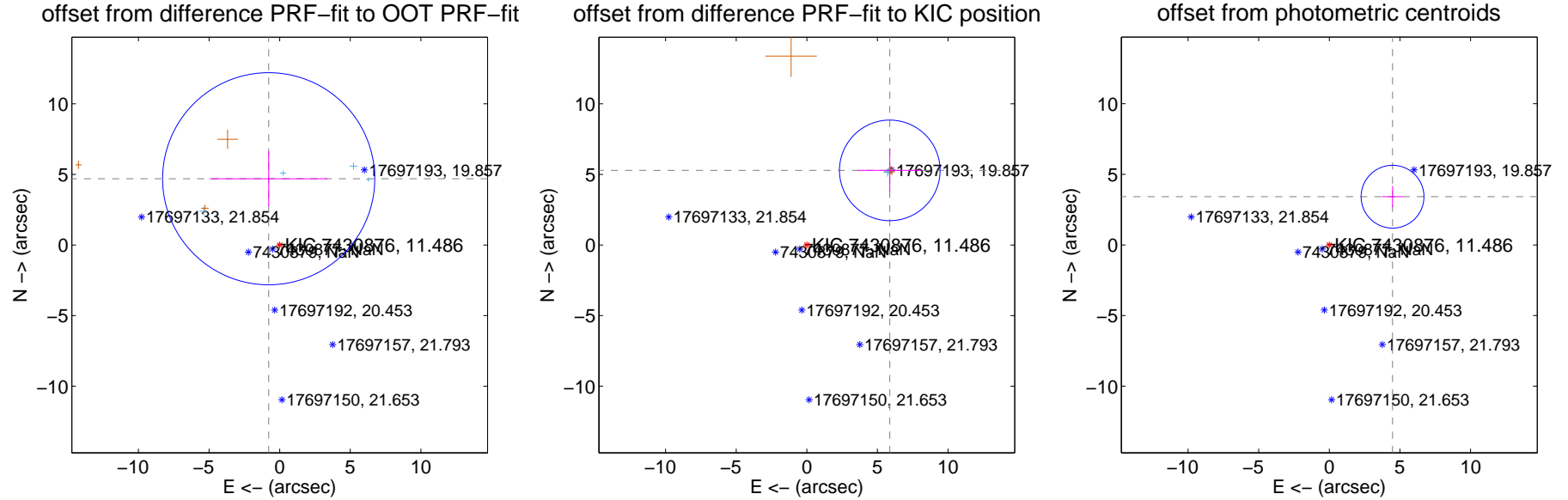
DV Centroid Data

Supplemental centroid analysis for 007430876-01. **Kepler magnitude: 11.49.** Transit SNR 20.33

There are 4 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 11.54 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.758 ± 2.504	1.90	0.779 ± 4.161	4.693 ± 1.952
PRF-fit source offset from KIC position	7.904 ± 1.188	6.66	-5.877 ± 2.282	5.286 ± 1.540
photometric centroid source offset	5.63 ± 0.74	7.59	-4.48 ± 0.74	3.42 ± 0.75

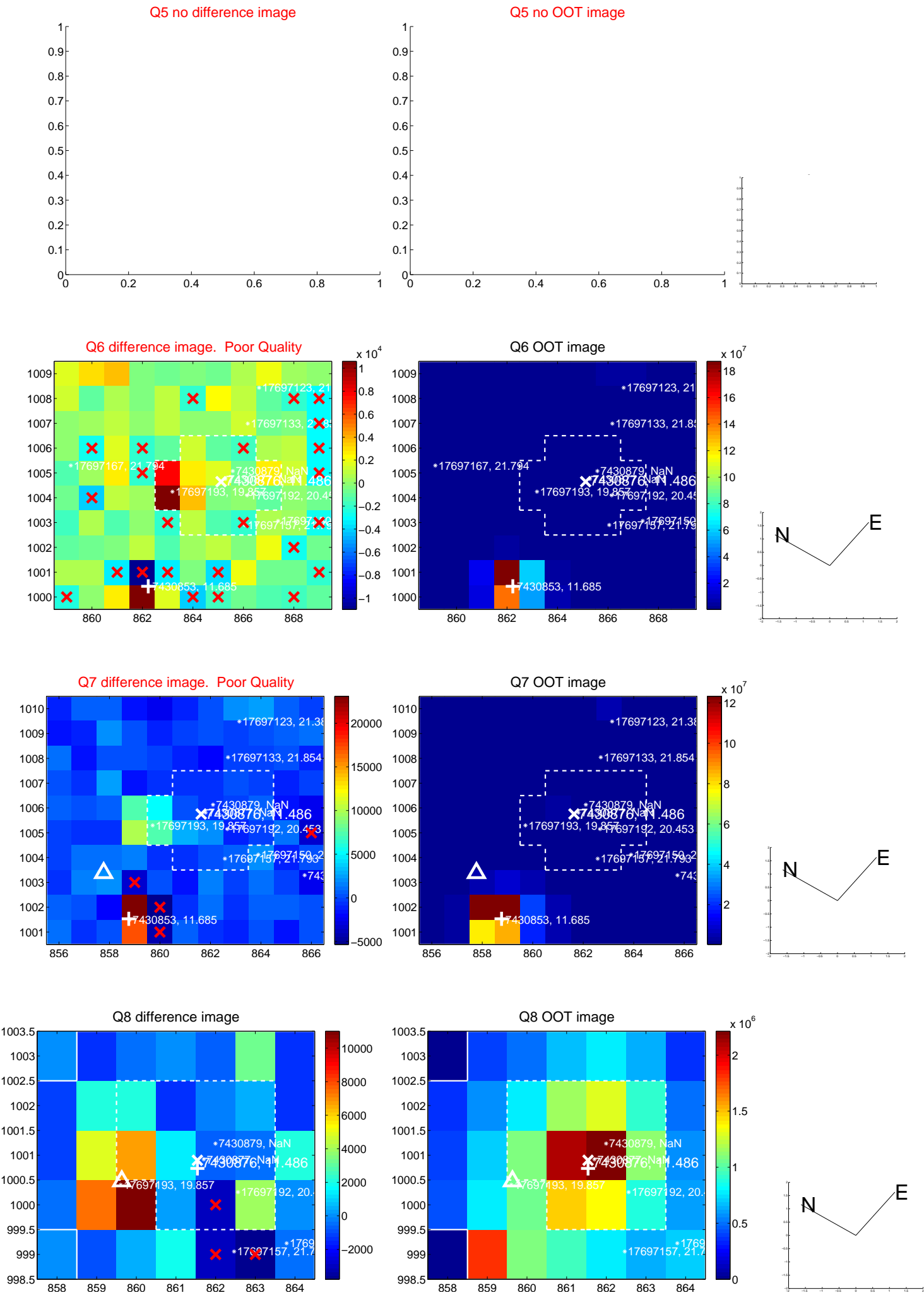


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

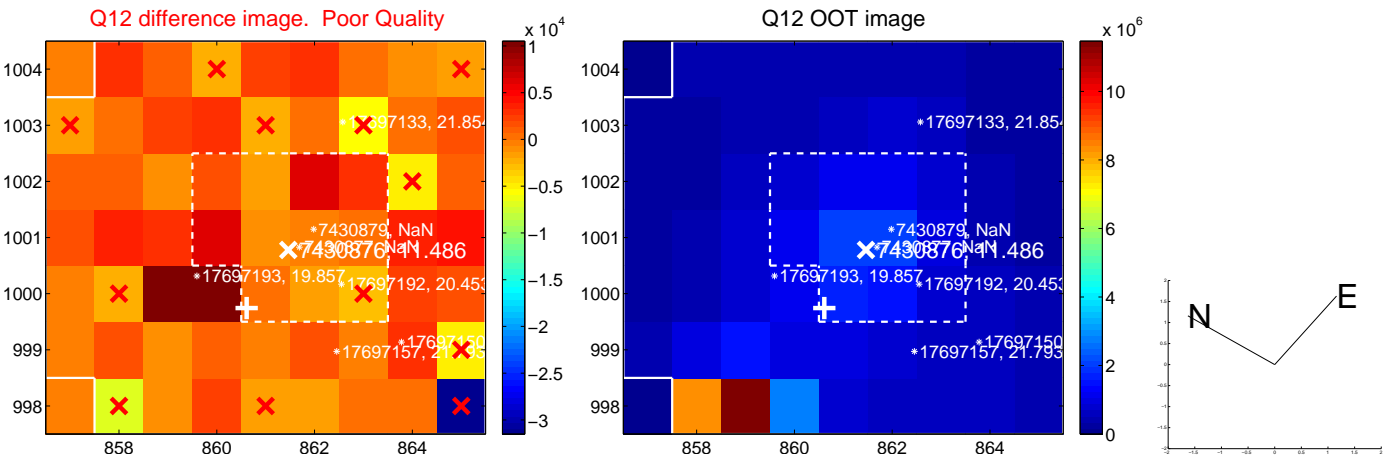
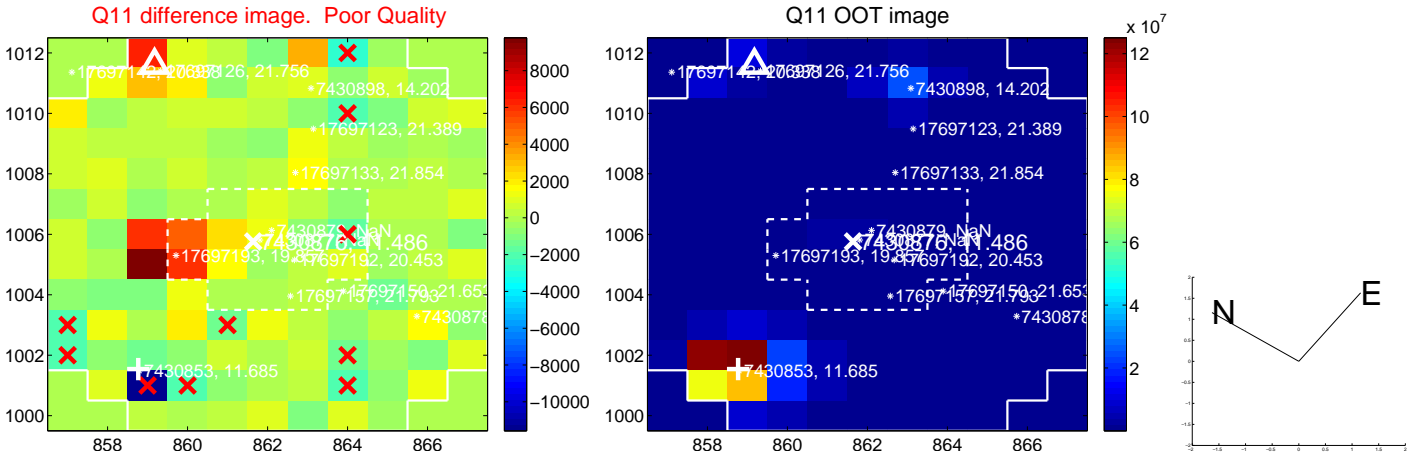
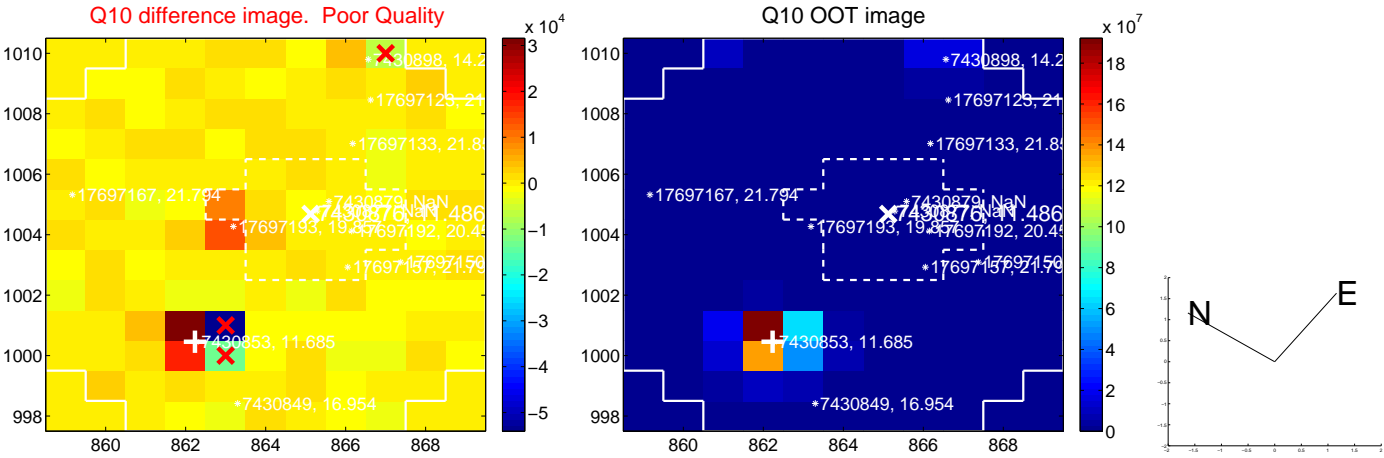
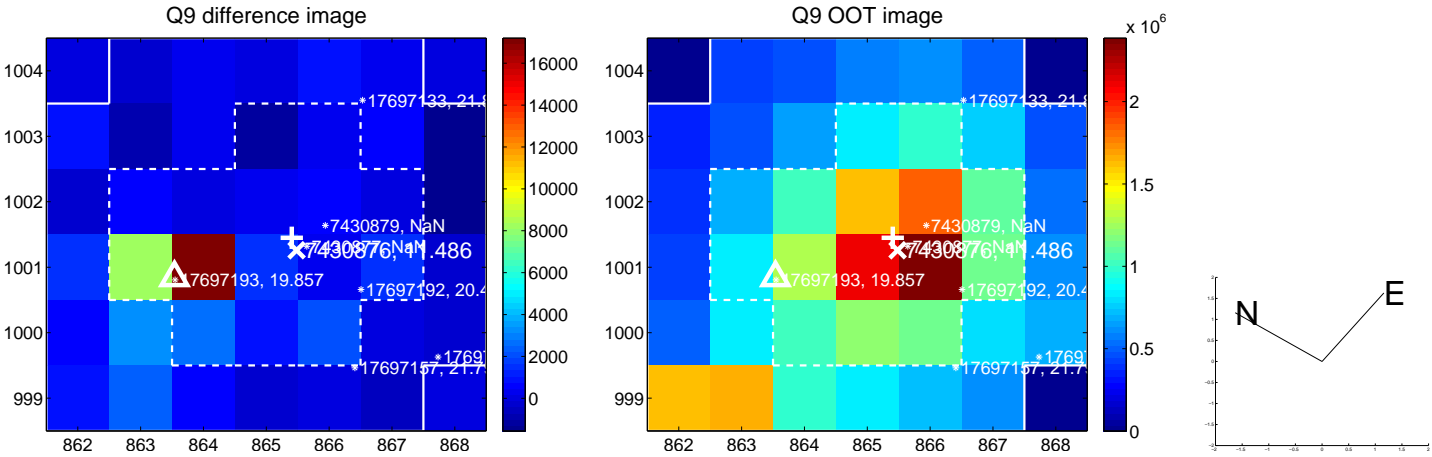
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



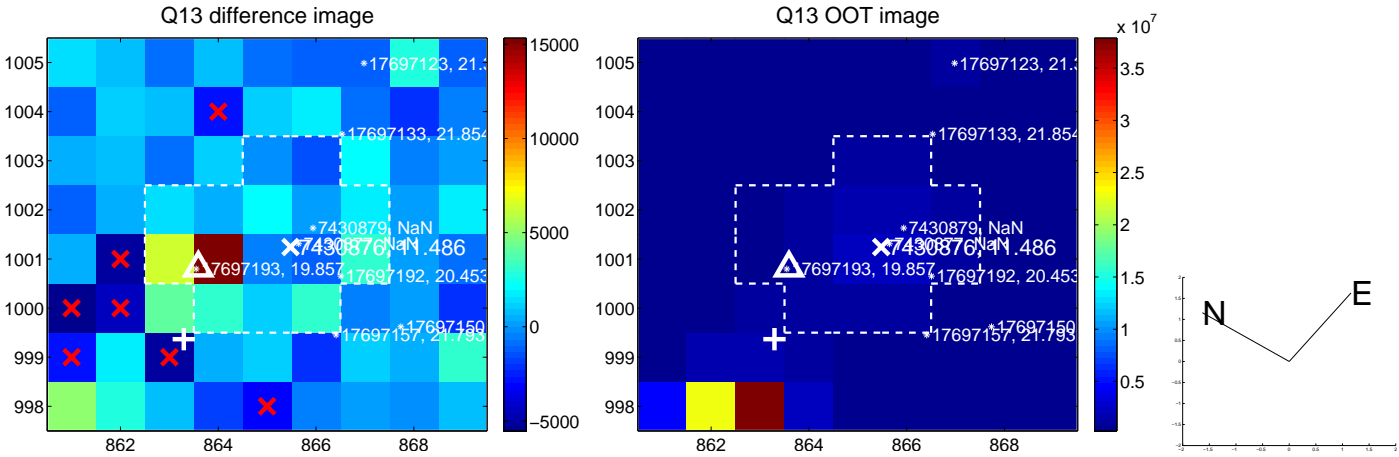
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

