

KIC 003629430

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})
003629430-01	OBS	No	0.853409	131.718233	40.7	3.449	10.9	11.6	0.79	5792	0.58	2223.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003629430-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

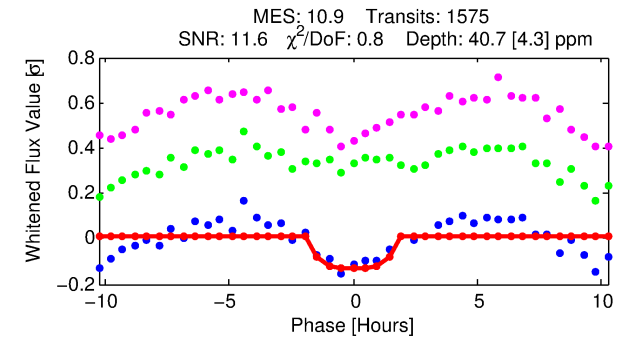
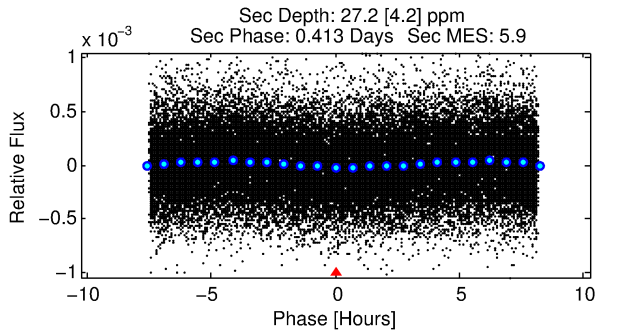
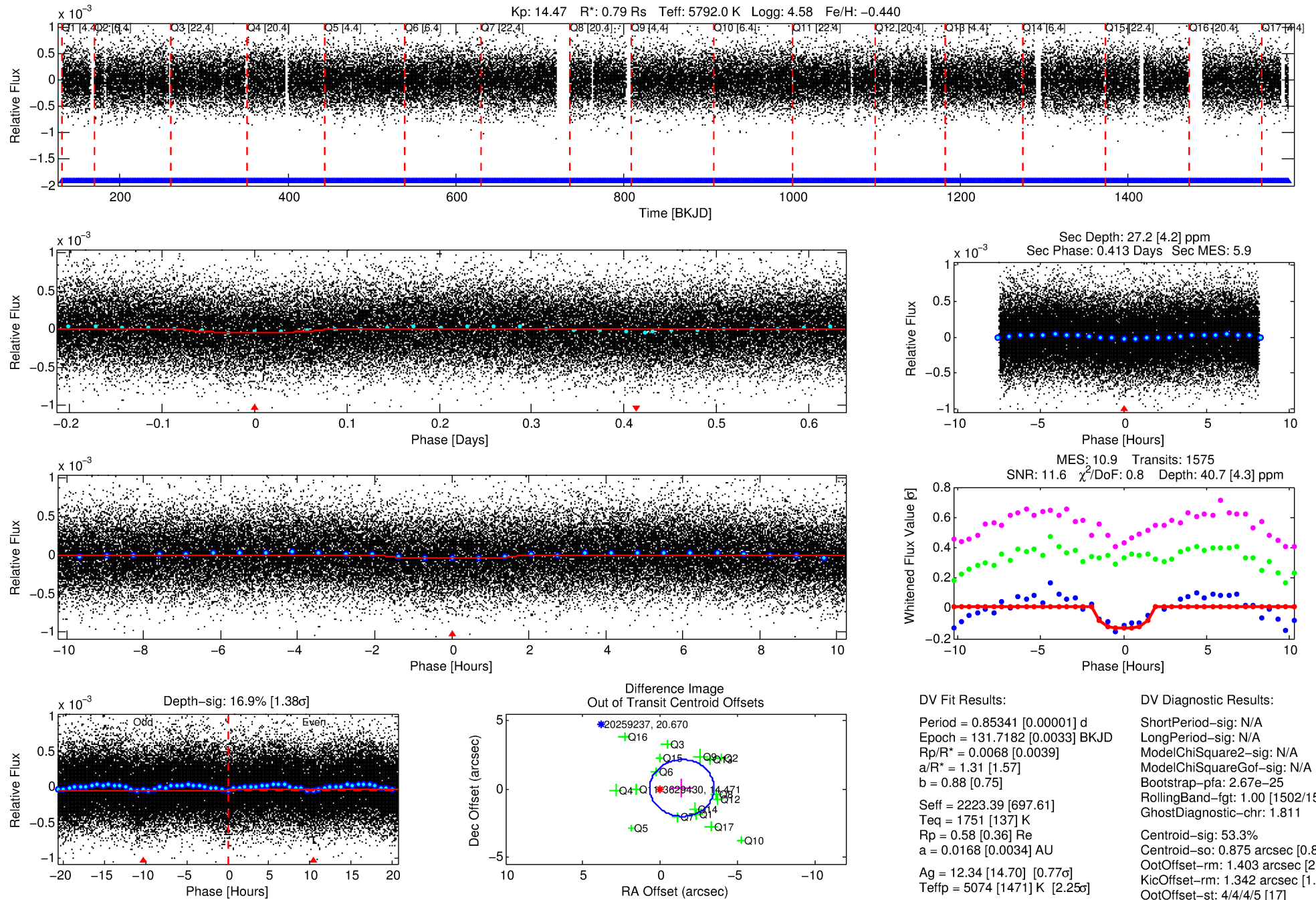
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003629430-01

No Significant Match Found

DV One-Page Summary

KIC: 3629430 Candidate: 1 of 1 Period: 0.853 d



DV Fit Results:

Period = 0.85341 [0.00001] d
Epoch = 131.7182 [0.0033] BKJD
Rp/R* = 0.0068 [0.0039]
a/R* = 1.31 [1.57]
b = 0.88 [0.75]
Seff = 2223.39 [697.61]
Teq = 1751 [137] K
Rp = 0.58 [0.36] Re
a = 0.0168 [0.0034] AU
Ag = 12.34 [14.70] [0.77 σ]
Teffp = 5074 [1471] K [2.25 σ]

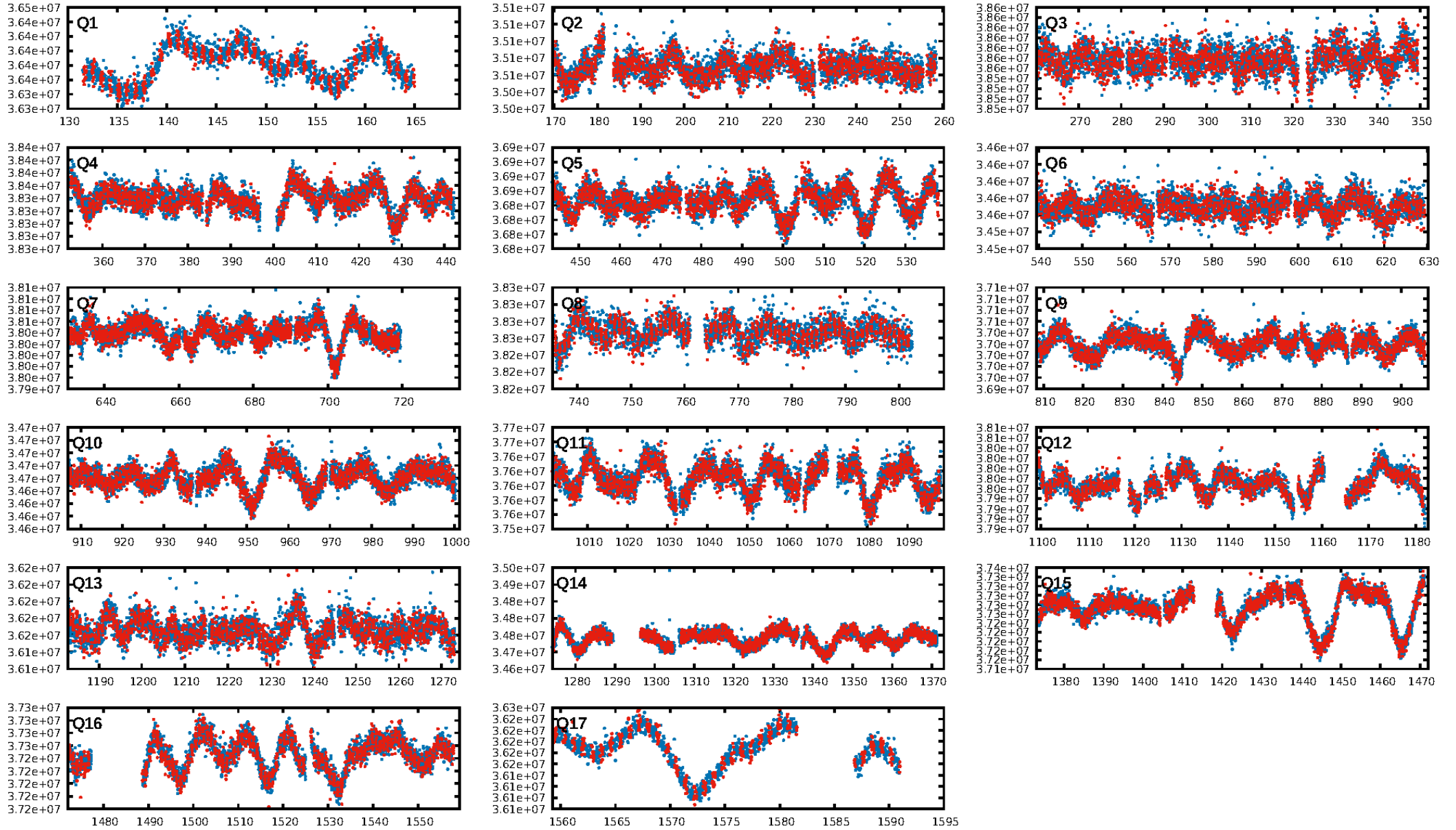
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.67e-25
RollingBand-fgt: 1.00 [1502/1502]
GhostDiagnostic-chr: 1.811
Centroid-sig: 53.3%
Centroid-so: 0.875 arcsec [0.82 σ]
OotOffset-rm: 1.403 arcsec [2.02 σ]
KicOffset-rm: 1.342 arcsec [1.97 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

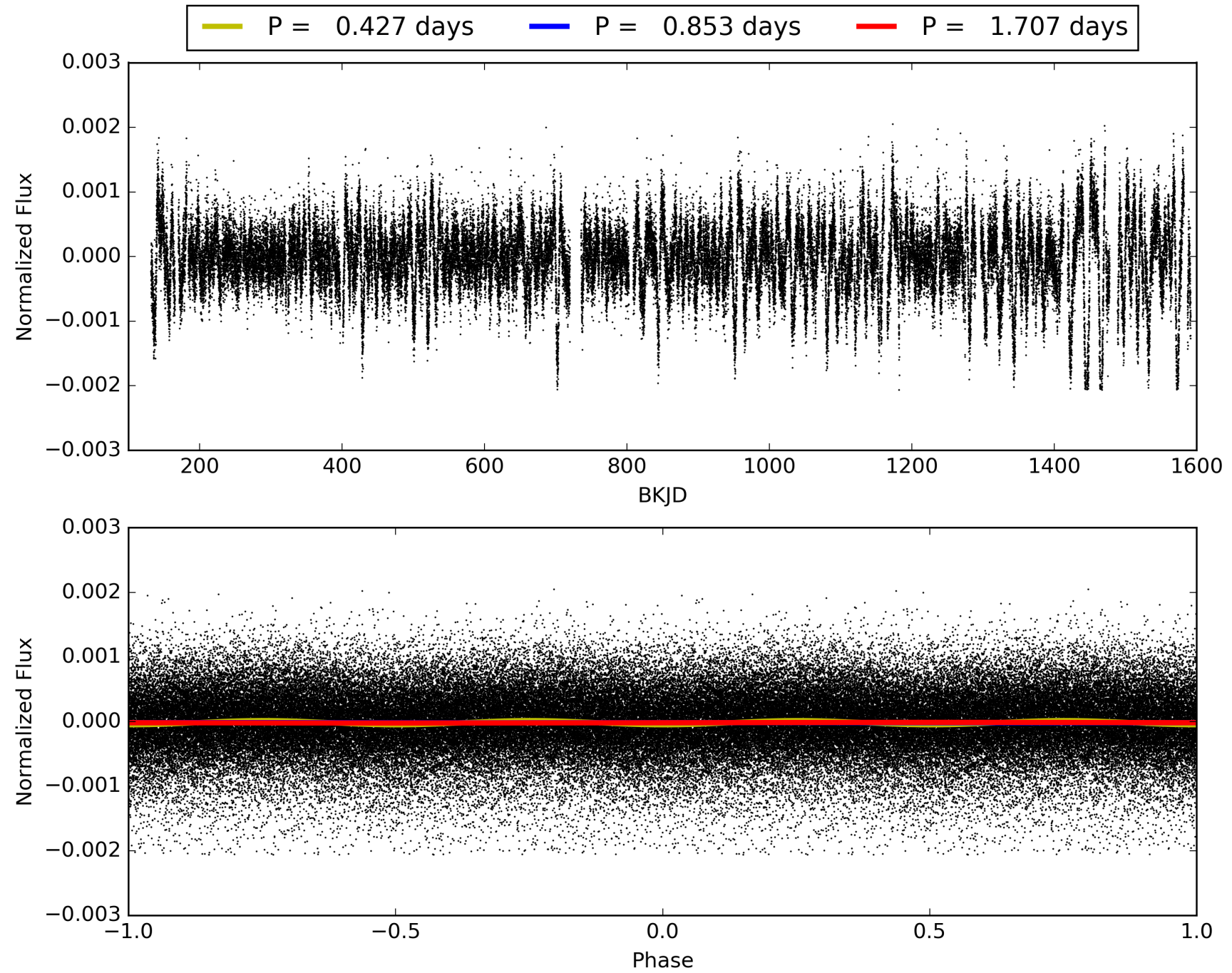
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:55:52 Z

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

TCE 003629430-01, PDC Light Curves

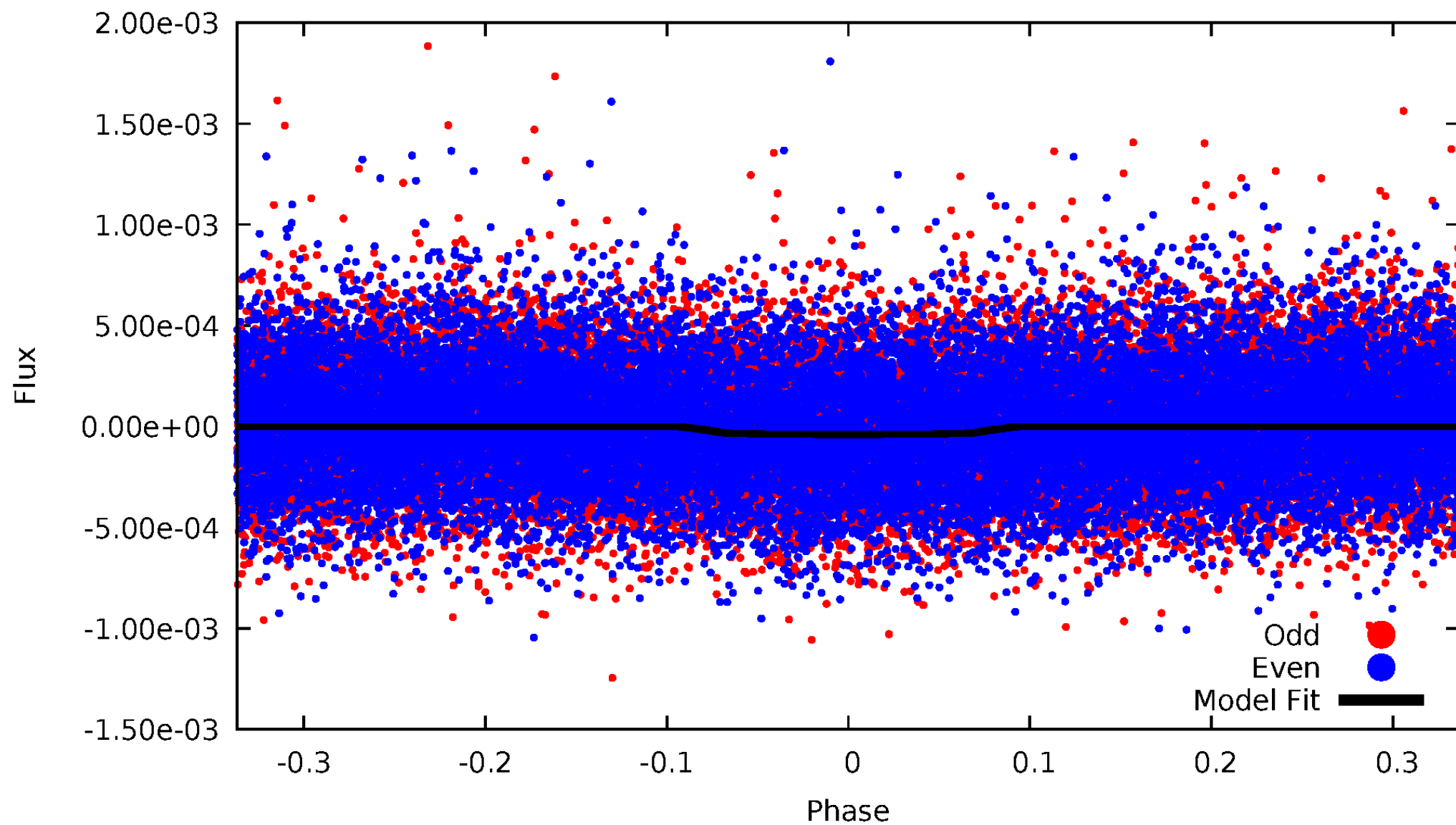


TCE 003629430-01



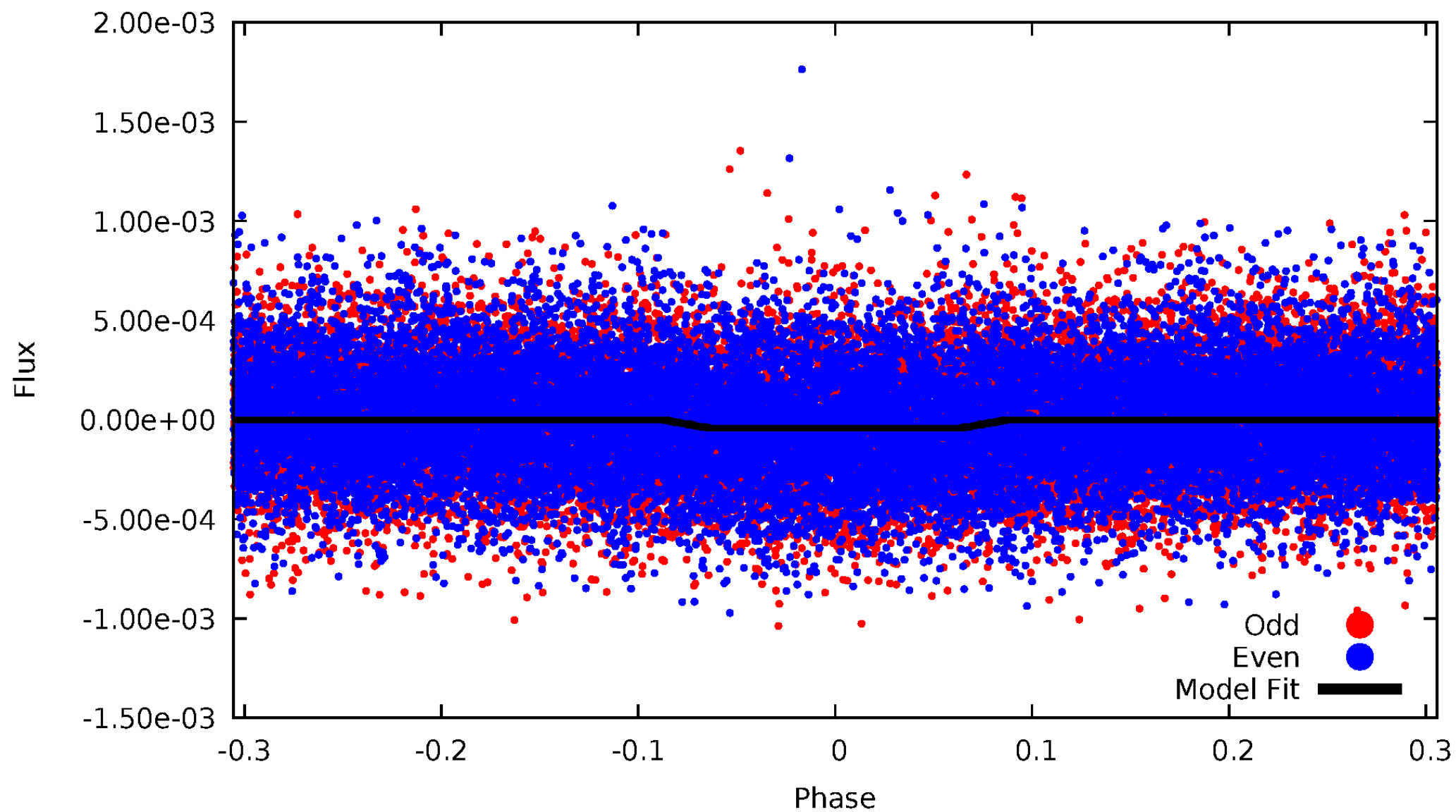
DV Odd/Even

TCE 003629430-01



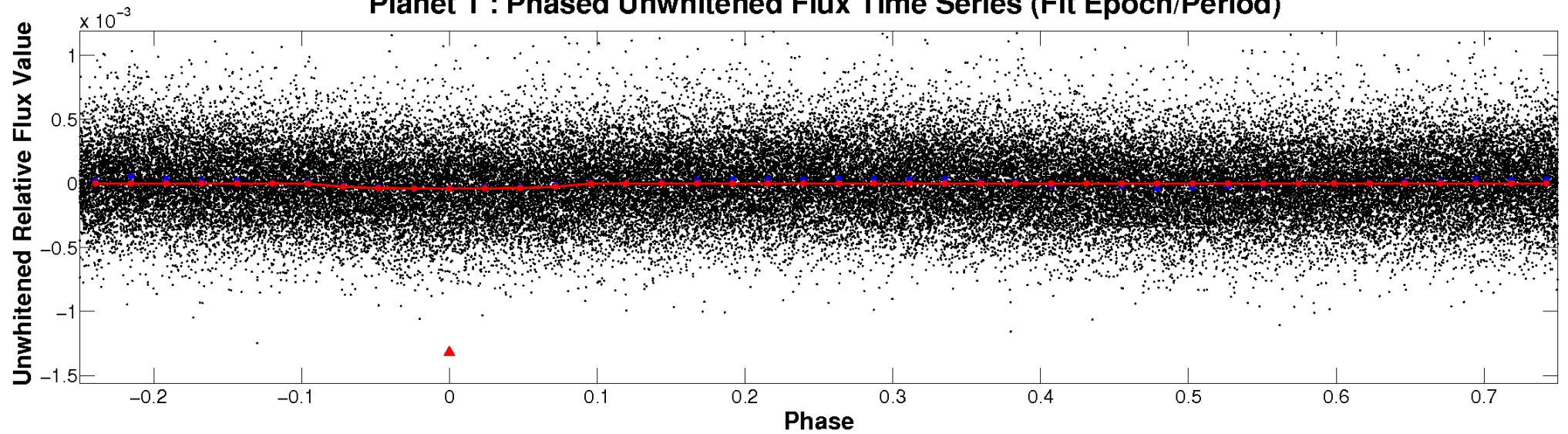
ALT Odd/Even

TCE 003629430-01

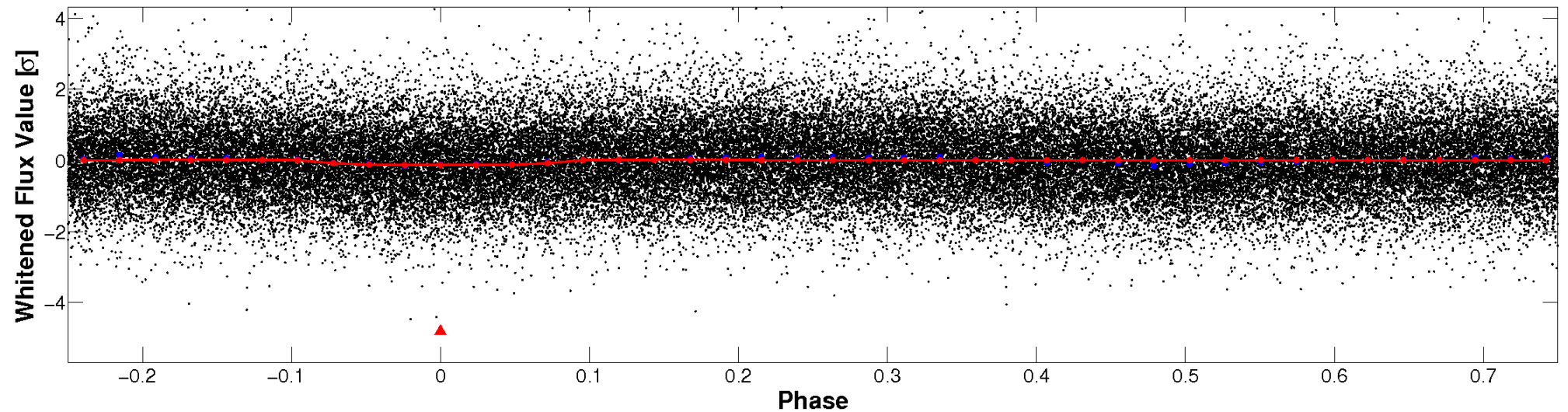


Non-Whitened Vs. Whitened Light Curve

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

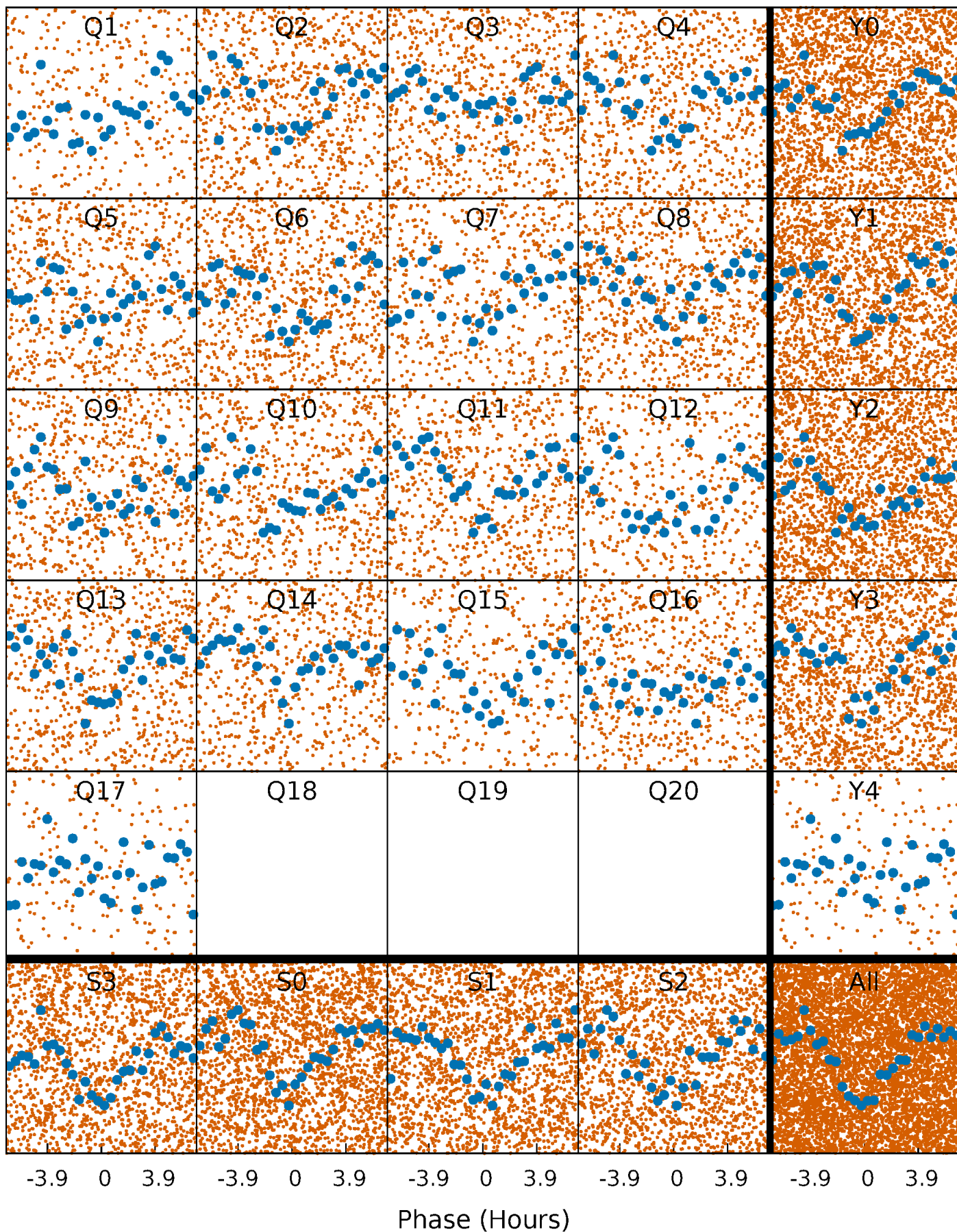


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



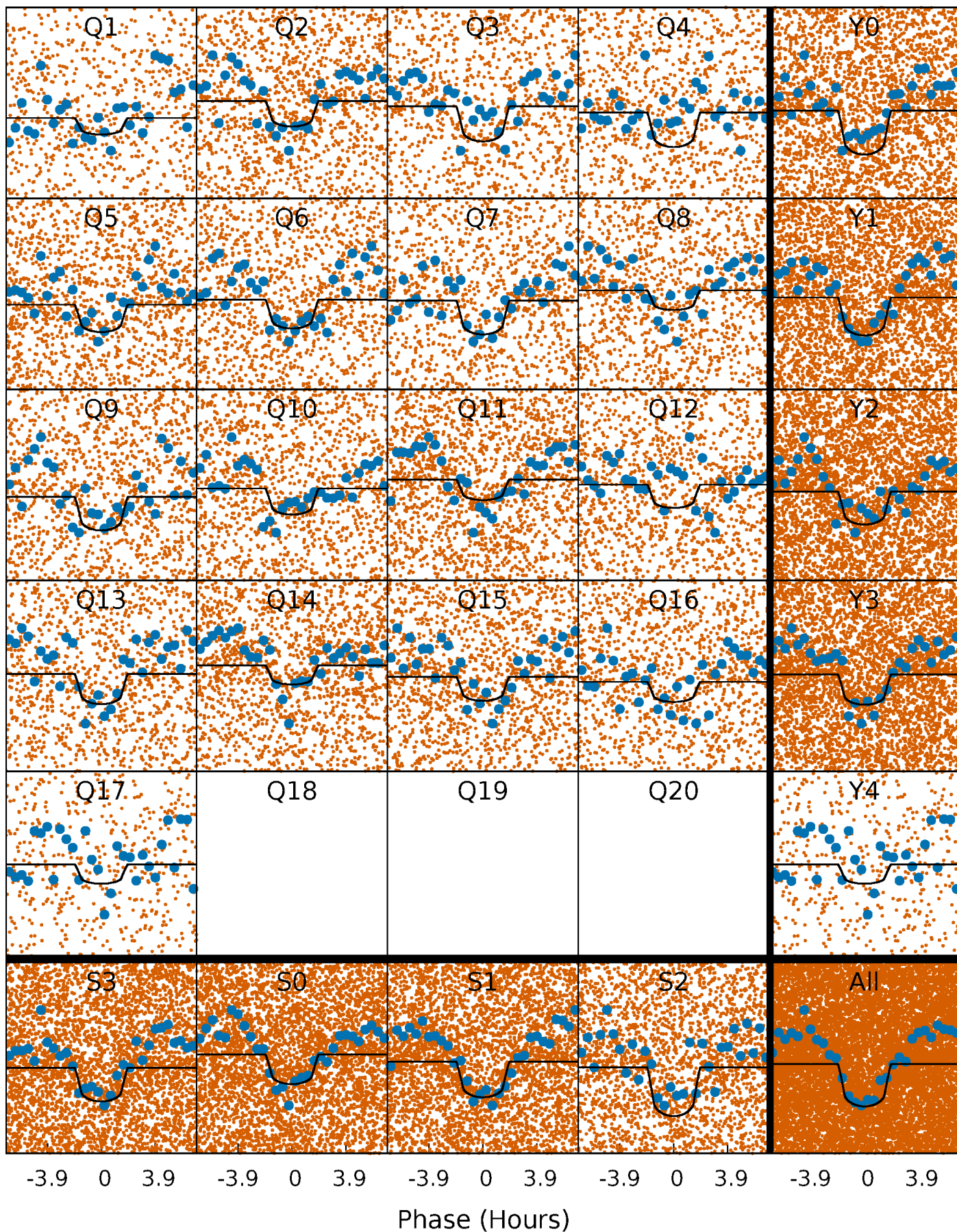
PDC Quarter-Phased Transit Curves

TCE 003629430-01 P= 0.853409 Days $T_0=131.718232$ (BKJD)



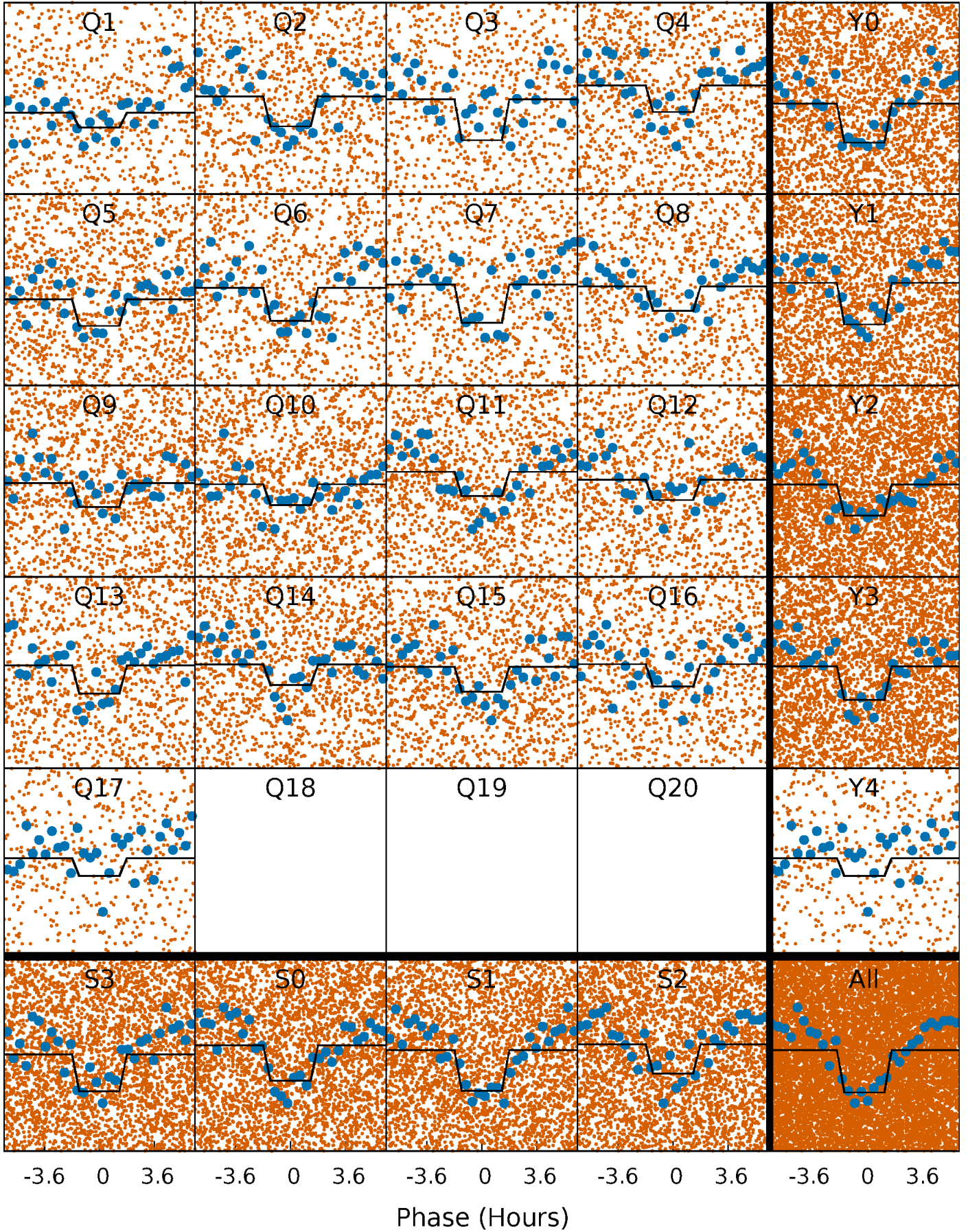
DV Quarter-Phased Transit Curves

TCE 003629430-01 P= 0.853409 Days $T_0=131.718232$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

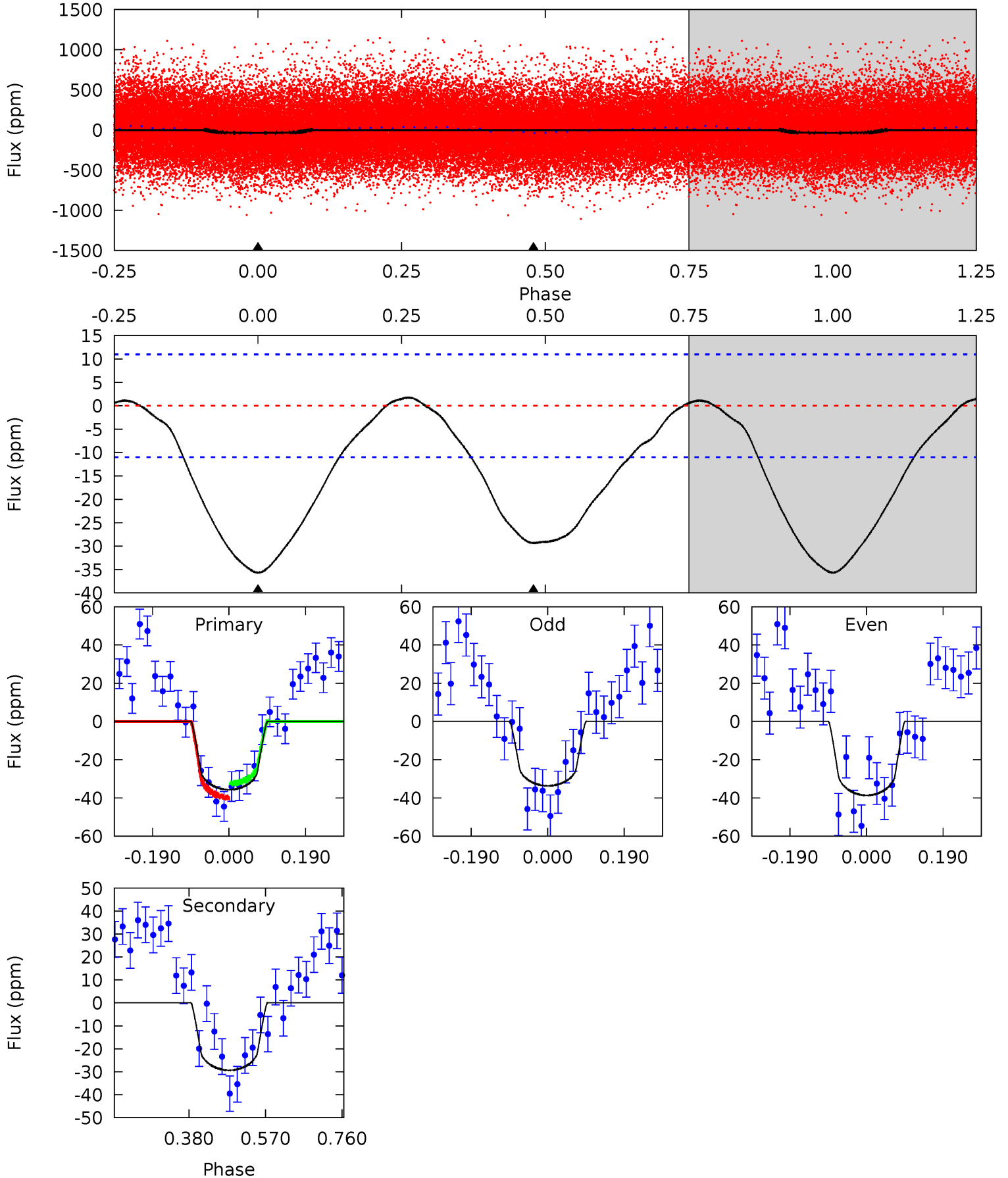
TCE 003629430-01 P= 0.853423 Days $T_0=131.702881$ (BKJD)



DV Model-Shift Uniqueness Test

003629430-01, P = 0.853409 Days, E = 130.864823 Days

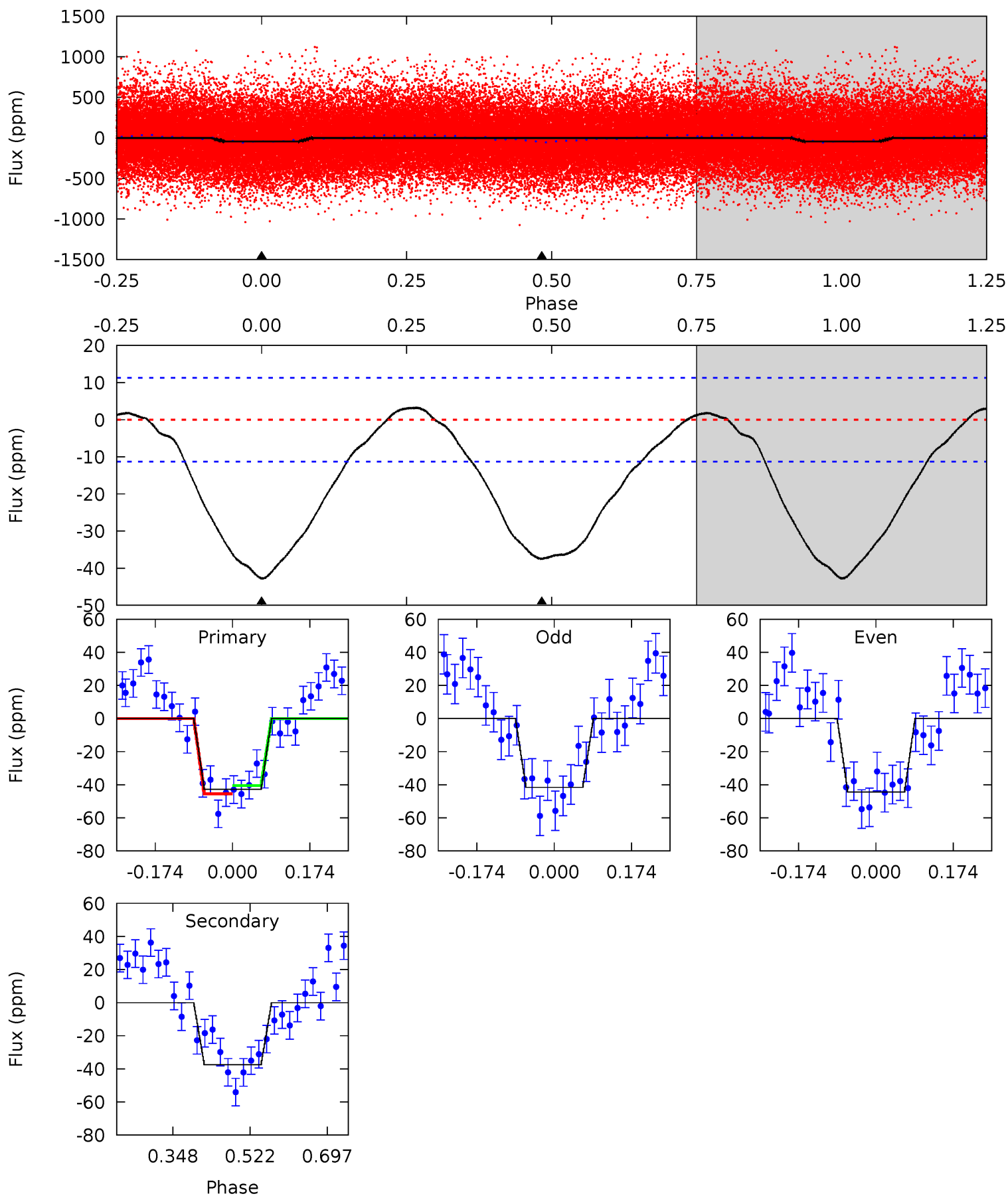
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	11.8	0	0	4.43	1.31	1.09	14.4	14.4	11.8	11.8	1.01	0.93	0.05	1.48



Alt Model-Shift Uniqueness Test

003629430-01, P = 0.853423 Days, E = 130.849458 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	14.8	0	0	4.45	1.36	1.39	16.9	16.9	14.8	14.8	0.56	0.88	0.07	0.99



Stellar Parameters For KIC 003629430

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5792^{+155}_{-155}	$4.582^{+0.040}_{-0.160}$	$-0.440^{+0.300}_{-0.300}$	$0.788^{+0.193}_{-0.064}$	$0.877^{+0.087}_{-0.096}$	$2.524^{+0.406}_{-1.139}$
	+3%/-3%	+1%/-3%	+68%/-68%	+24%/-8%	+10%/-11%	+16%/-45%
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 003629430-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-29 ± 2	$0.63^{+0.34}_{-0.33}$	2492^{+134}_{-103}	5128^{+2267}_{-912}	11^{+37}_{-7}
Alt.	-38 ± 3	$0.61^{+0.34}_{-0.31}$	2487^{+140}_{-98}	5486^{+2737}_{-992}	16^{+51}_{-10}

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 $A_{obs} \gg 1.0$

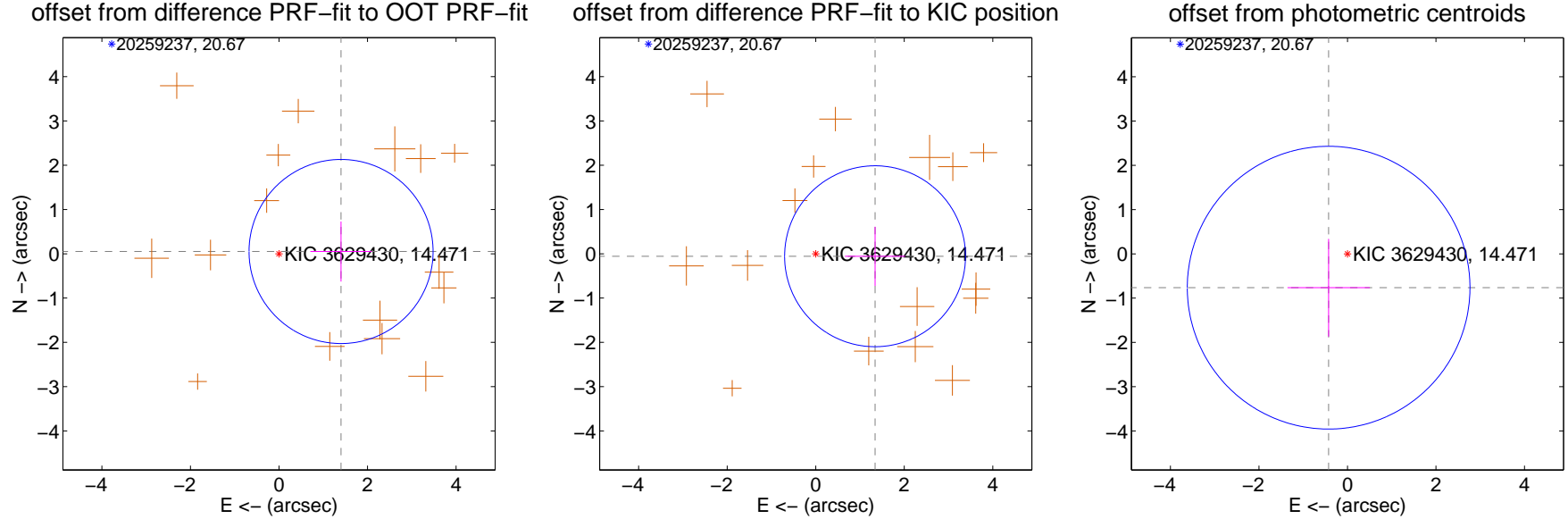
DV Centroid Data

Supplemental centroid analysis for 003629430-01. Kepler magnitude: 14.47. Transit SNR 11.57

There are 0 quarters with good PRF difference image offsets

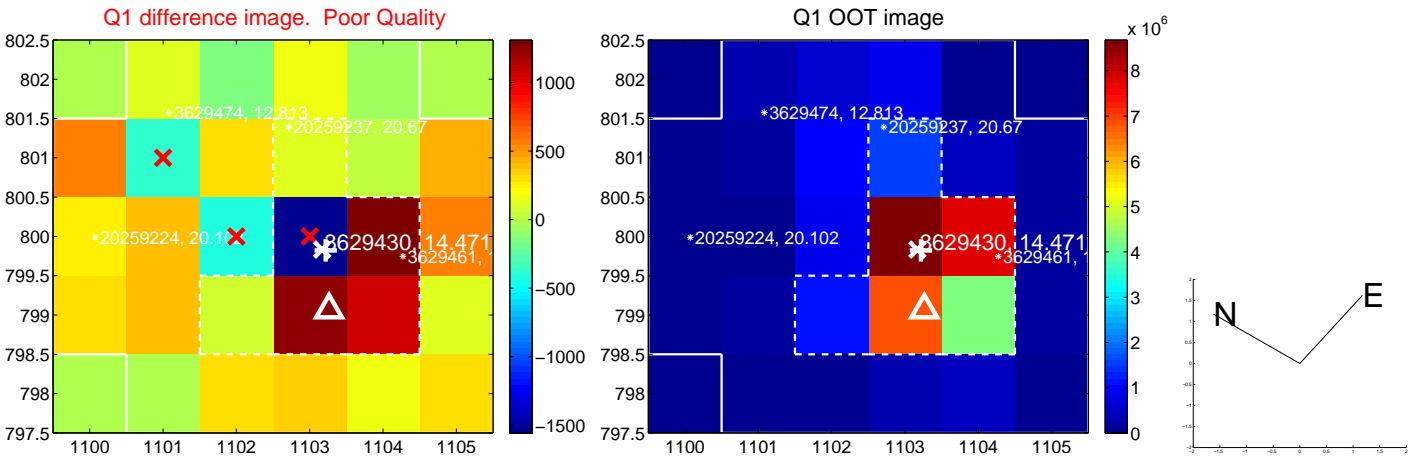
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.403 ± 0.693	2.02	-1.402 ± 0.693	0.051 ± 0.679
PRF-fit source offset from KIC position	1.342 ± 0.681	1.97	-1.340 ± 0.681	-0.056 ± 0.668
photometric centroid source offset	0.87 ± 1.06	0.82	0.43 ± 0.93	-0.76 ± 1.10

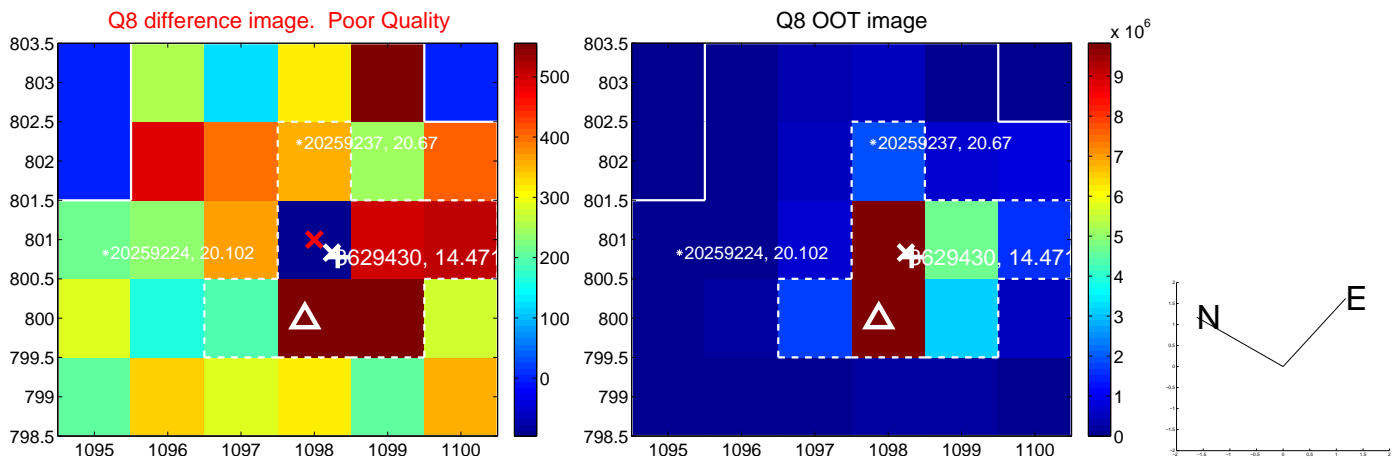
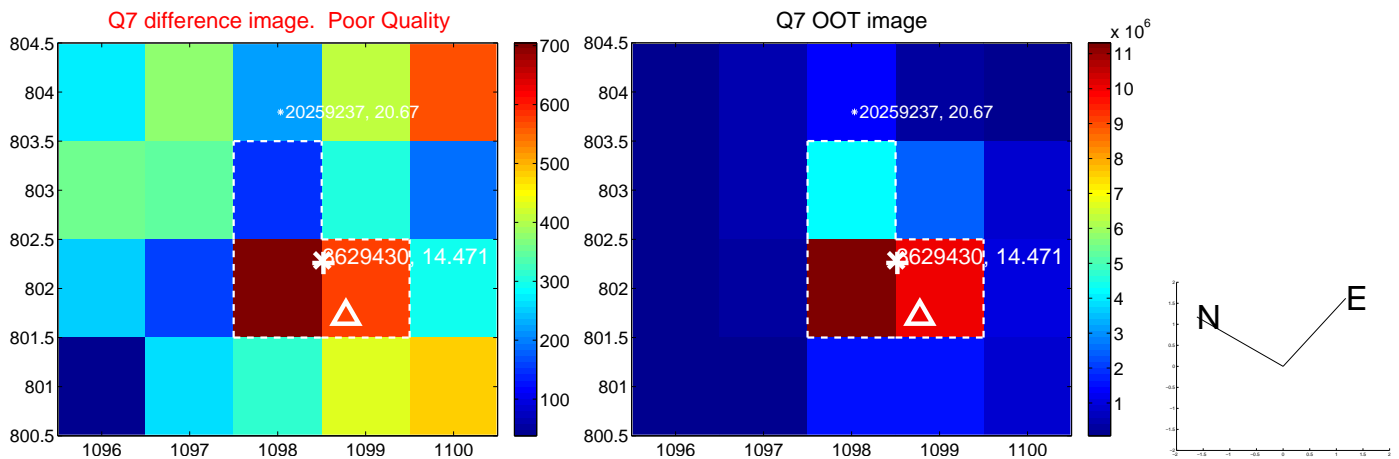
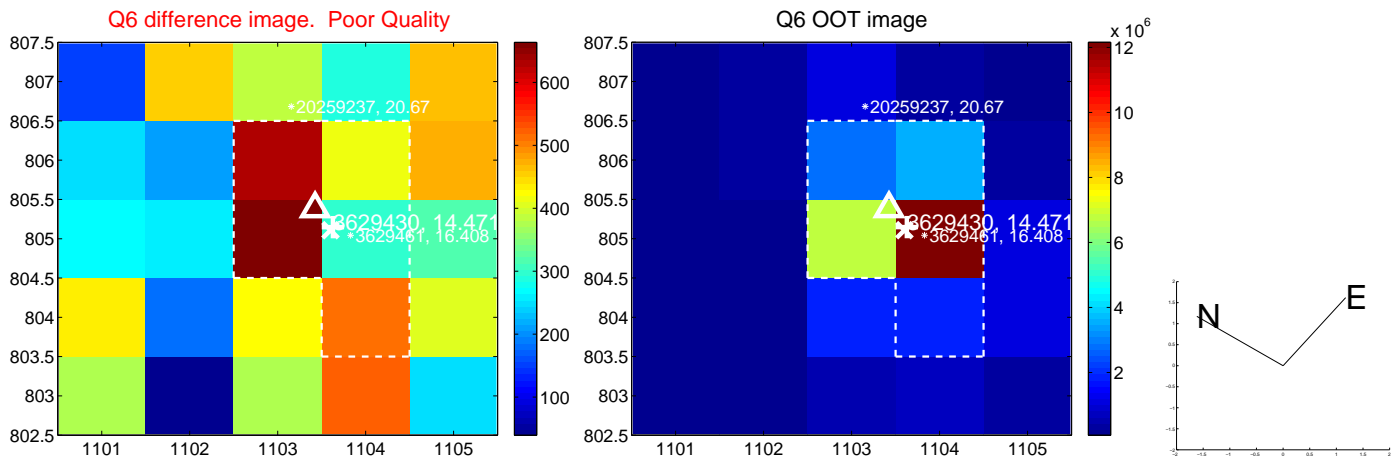
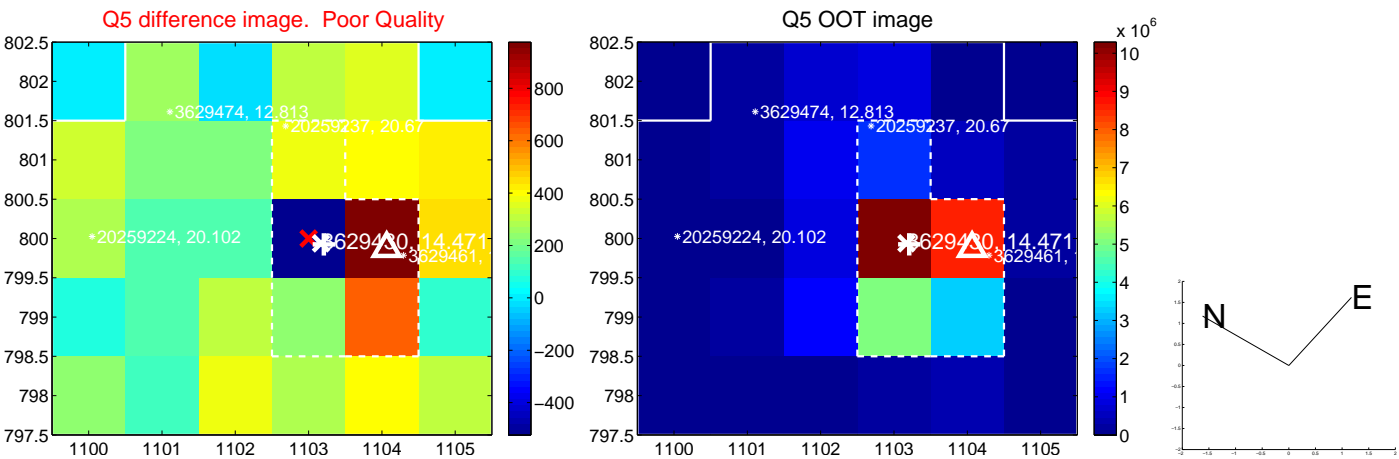


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

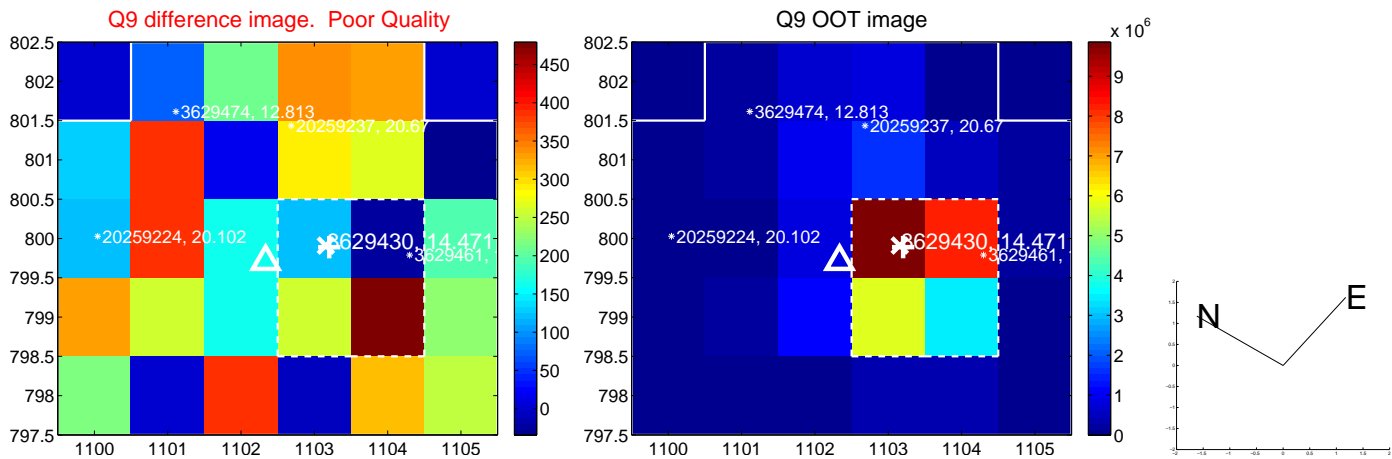
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



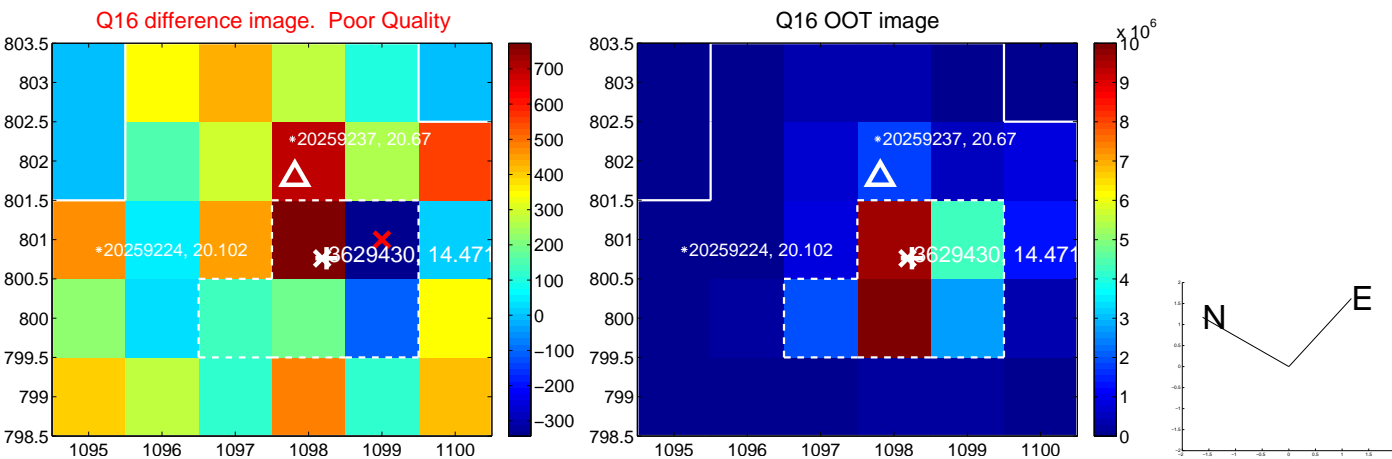
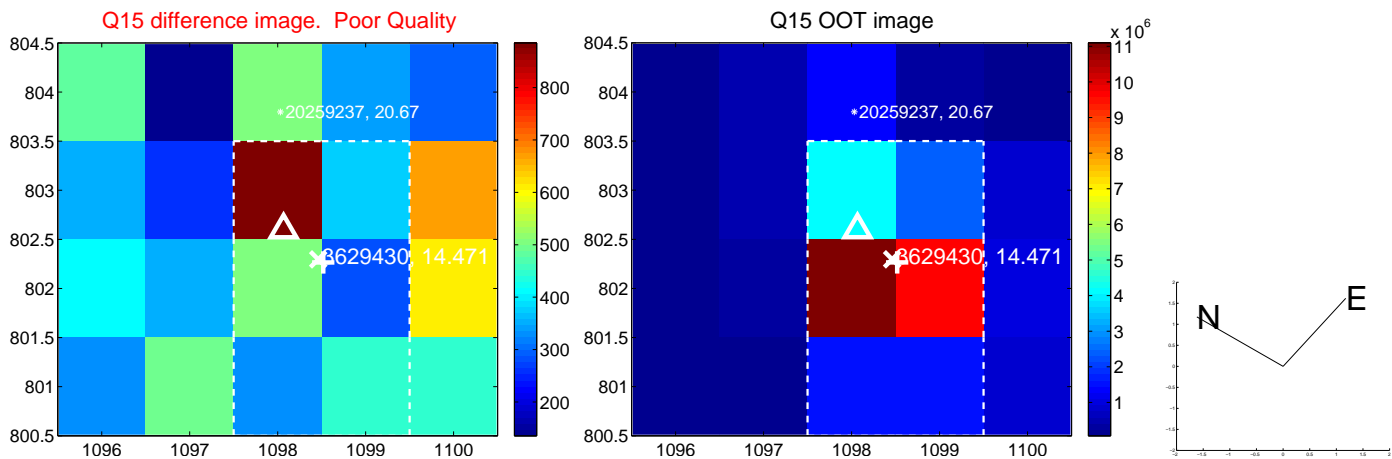
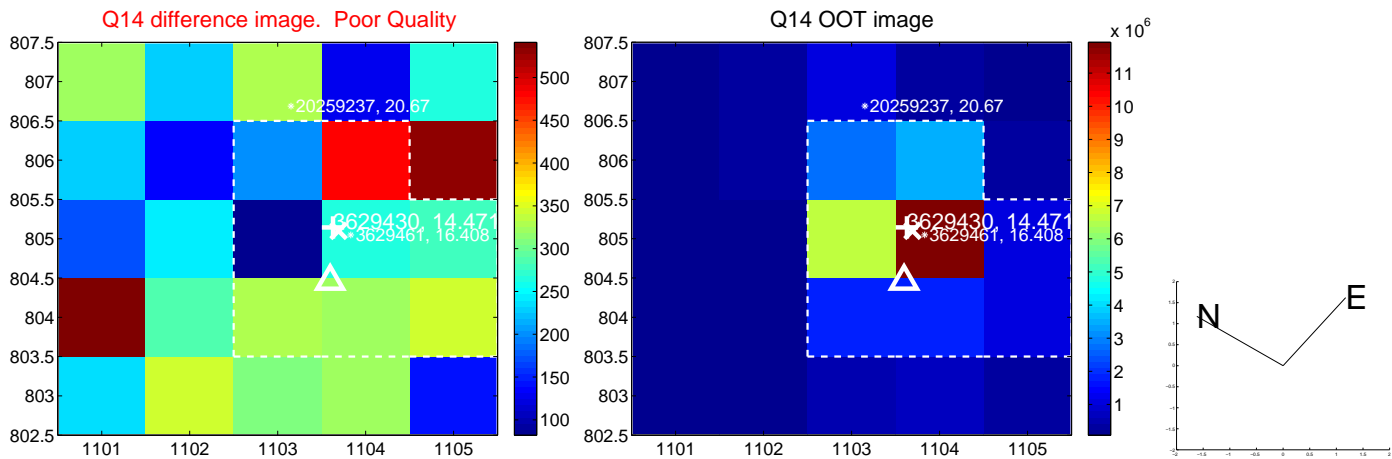
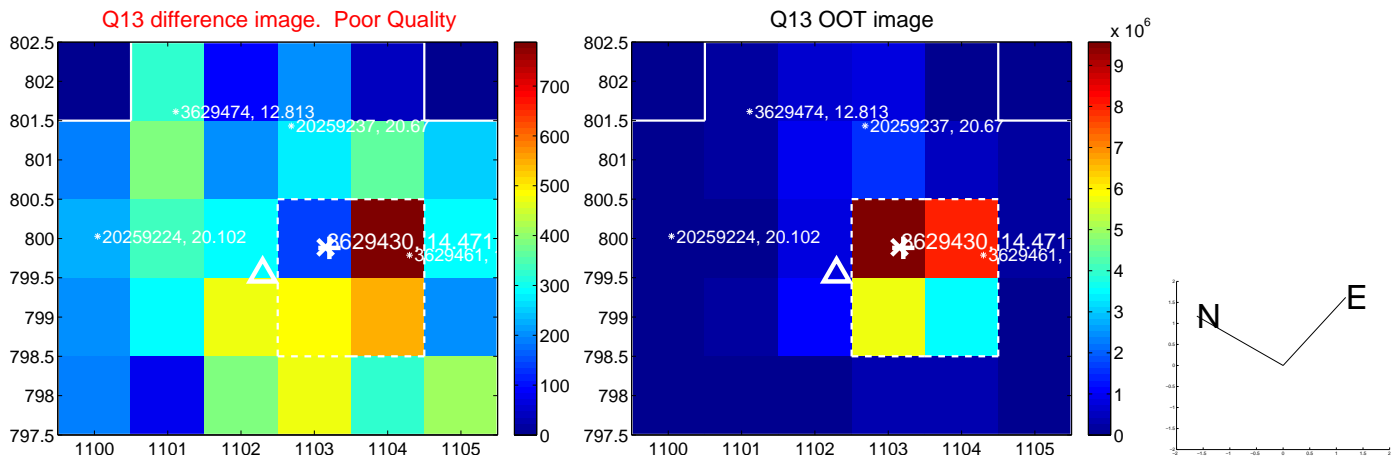
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



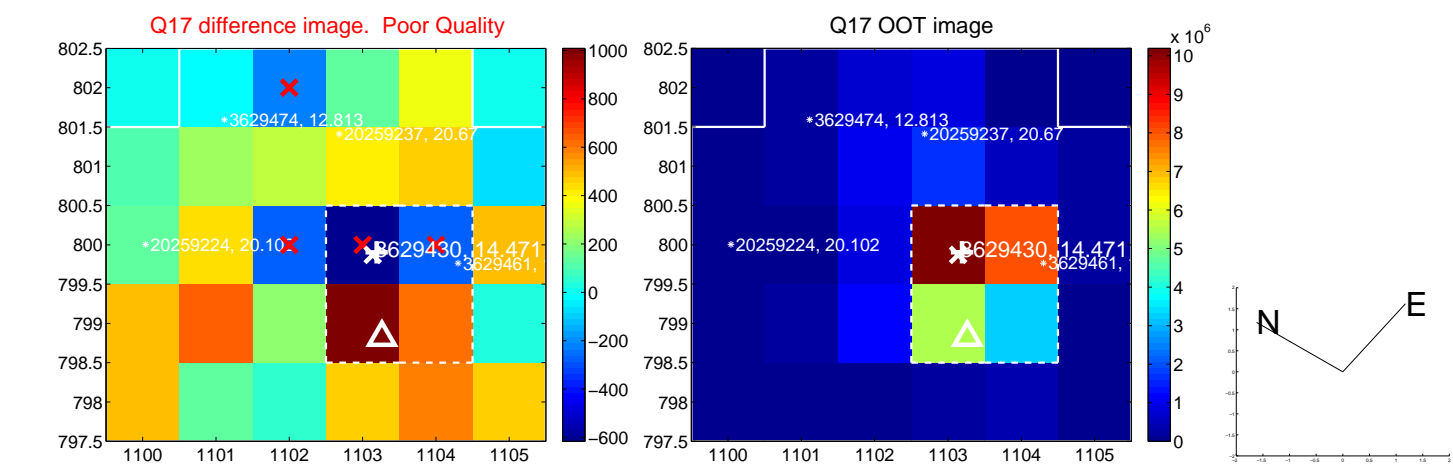
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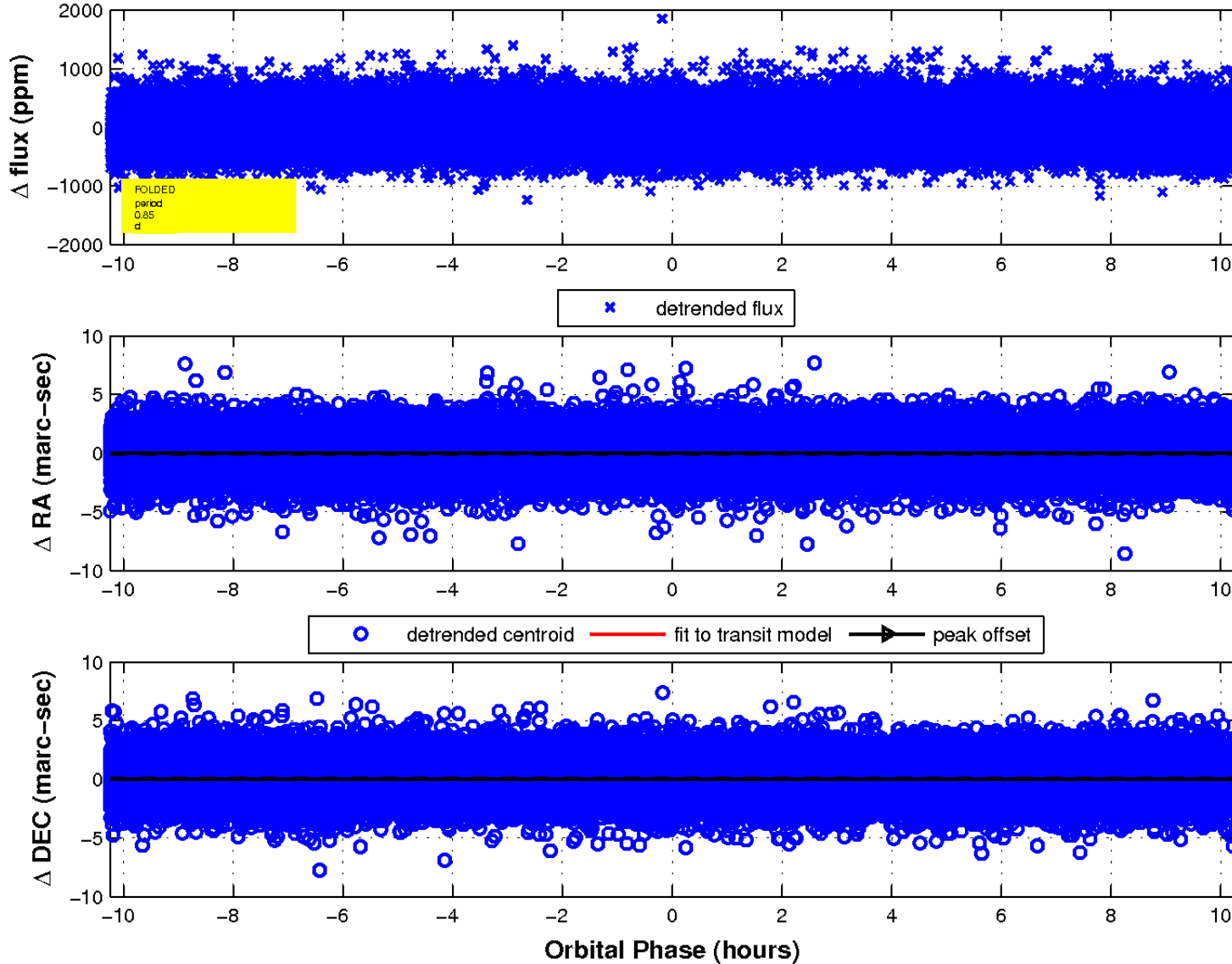
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

