

KIC 007301014

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})
007301014-01	OBS	No	2.582212	132.744421	2.3	24.735	12.1	6.2	4.88	7531	0.82	30644.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007301014-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

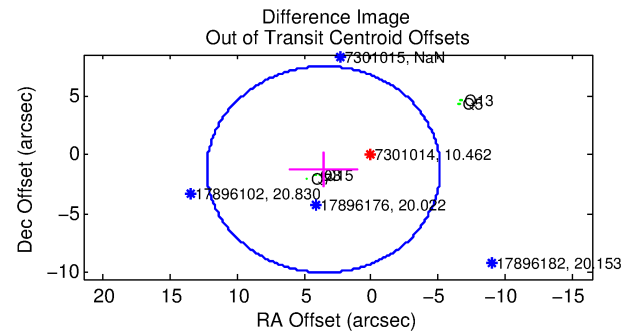
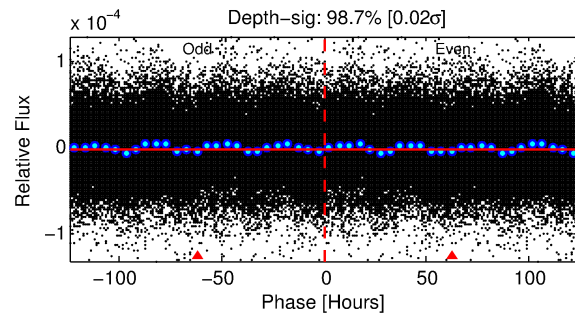
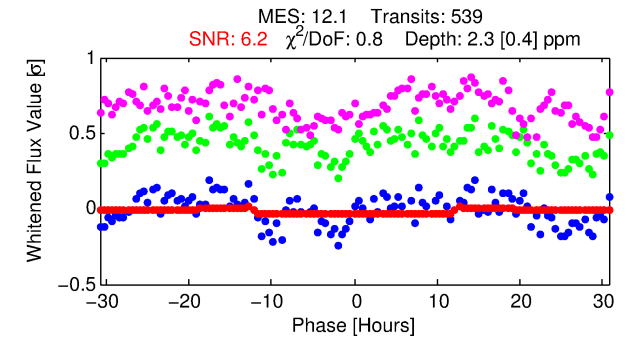
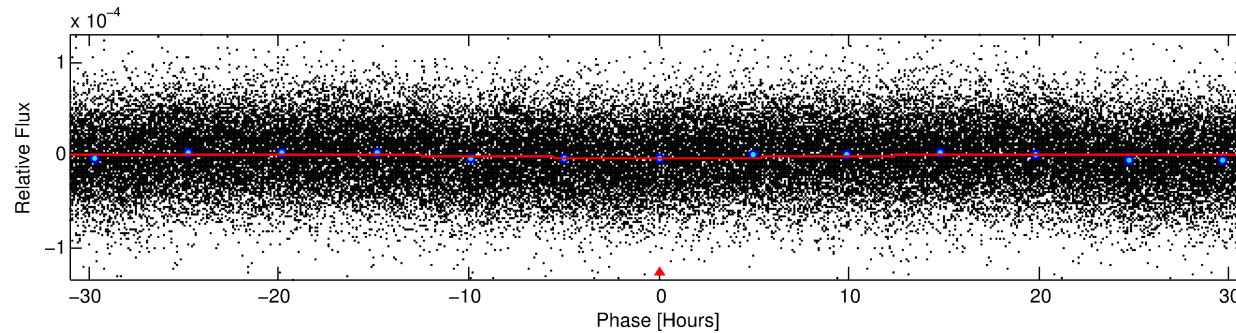
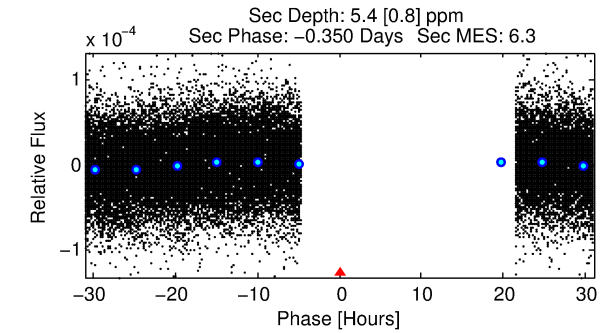
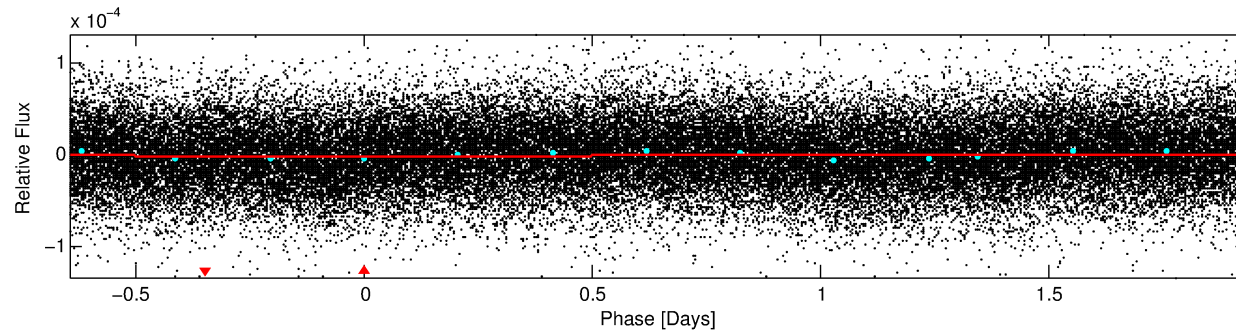
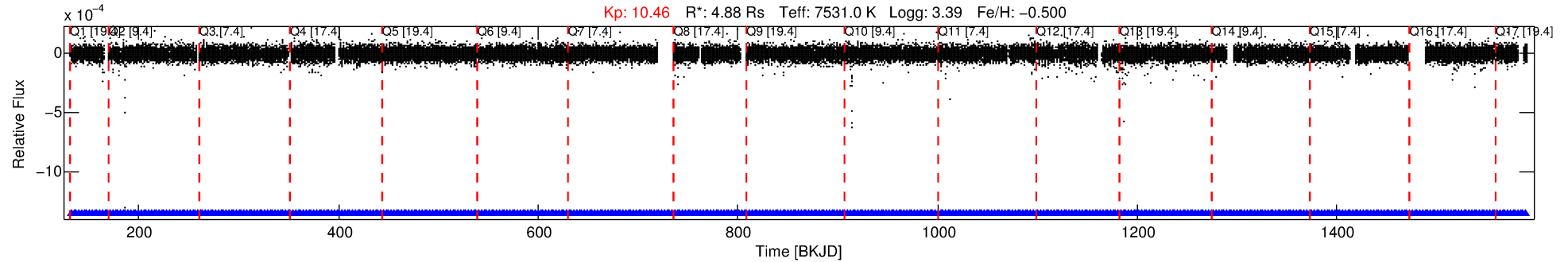
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007301014-01

No Significant Match Found

DV One-Page Summary

KIC: 7301014 Candidate: 1 of 1 Period: 2.582 d



DV Fit Results:

Period = 2.58221 [0.00009] d
Epoch = 132.7444 [0.0196] BKJD
Rp/R* = 0.0015 [0.0011]
a/R* = 1.02 [0.17]
b = 0.81 [1.85]
Seff = 30644.89 [38866.82]
Teq = 3374 [1070] K
Rp = 0.82 [0.82] Re
a = 0.0473 [0.0357] AU
Ag = 10.00 [18.74] [0.48σ]
Teffp = 9276 [3246] K [1.73σ]

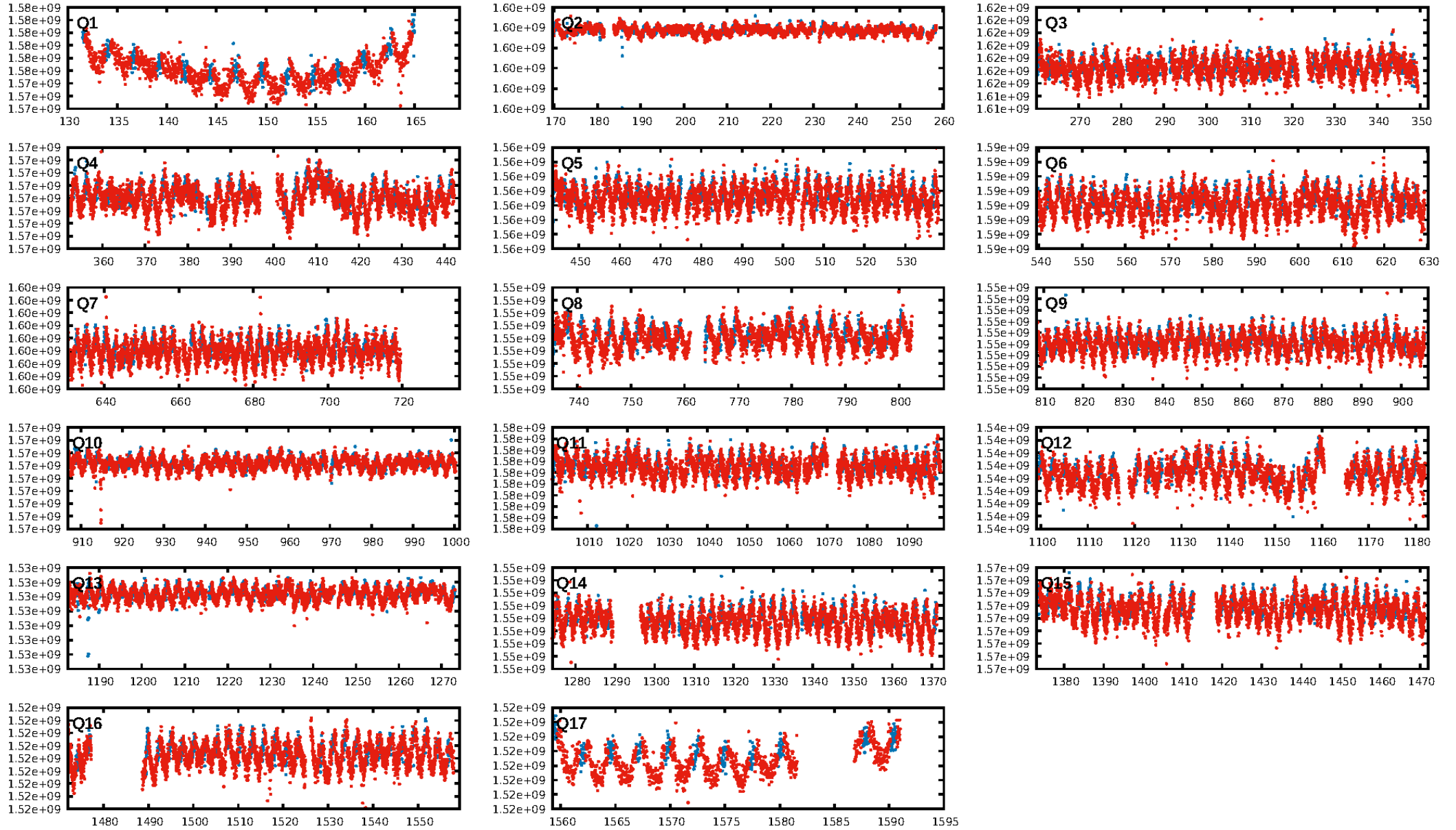
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [515/515]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.756 arcsec [1.29σ]
KicOffset-rm: 4.358 arcsec [1.82σ]
OotOffset-st: 0/3/0/2 [5]
KicOffset-st: 0/3/0/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [17/17]

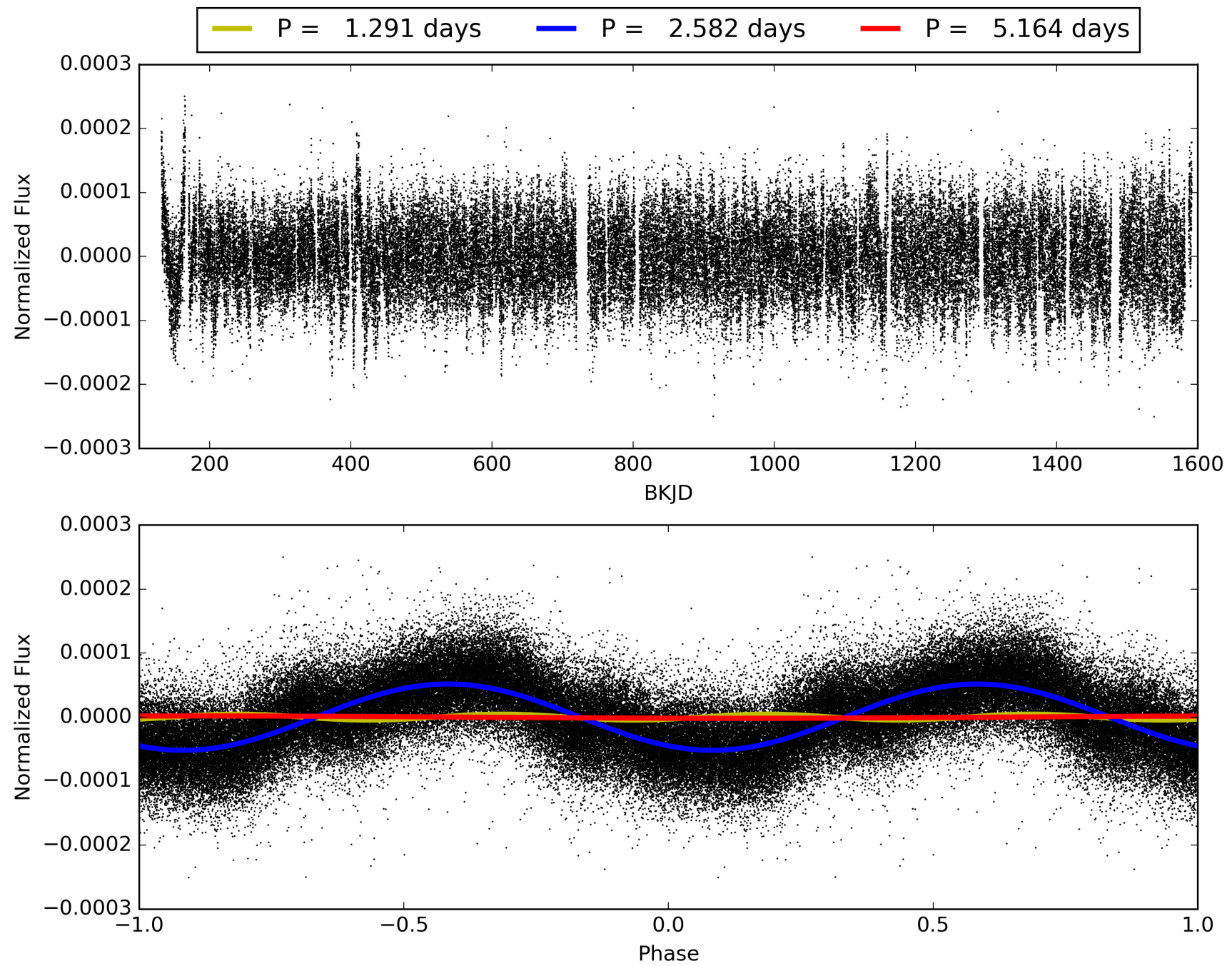
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:28:13 Z

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

TCE 007301014-01, PDC Light Curves

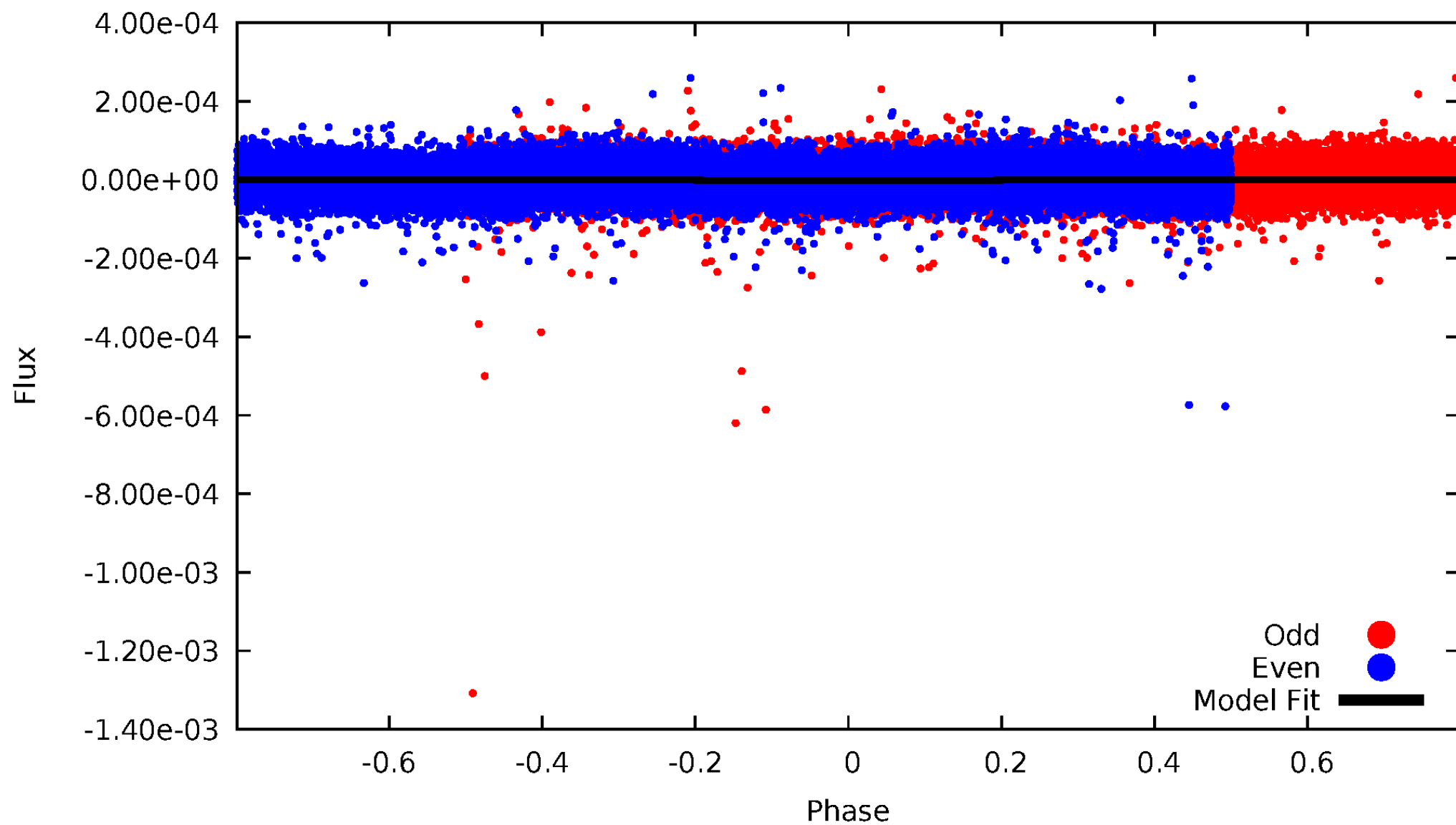


TCE 007301014-01



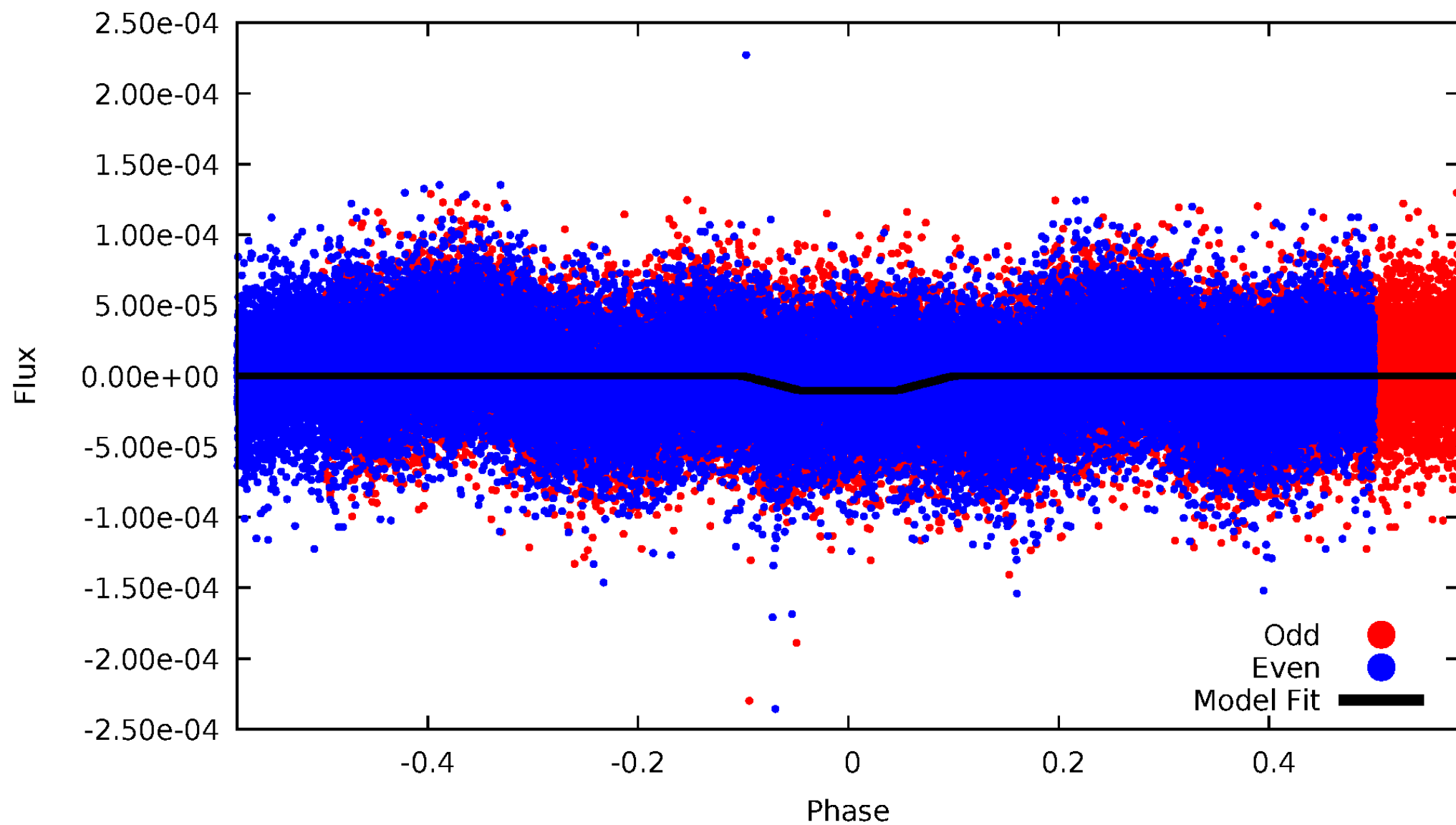
DV Odd/Even

TCE 007301014-01



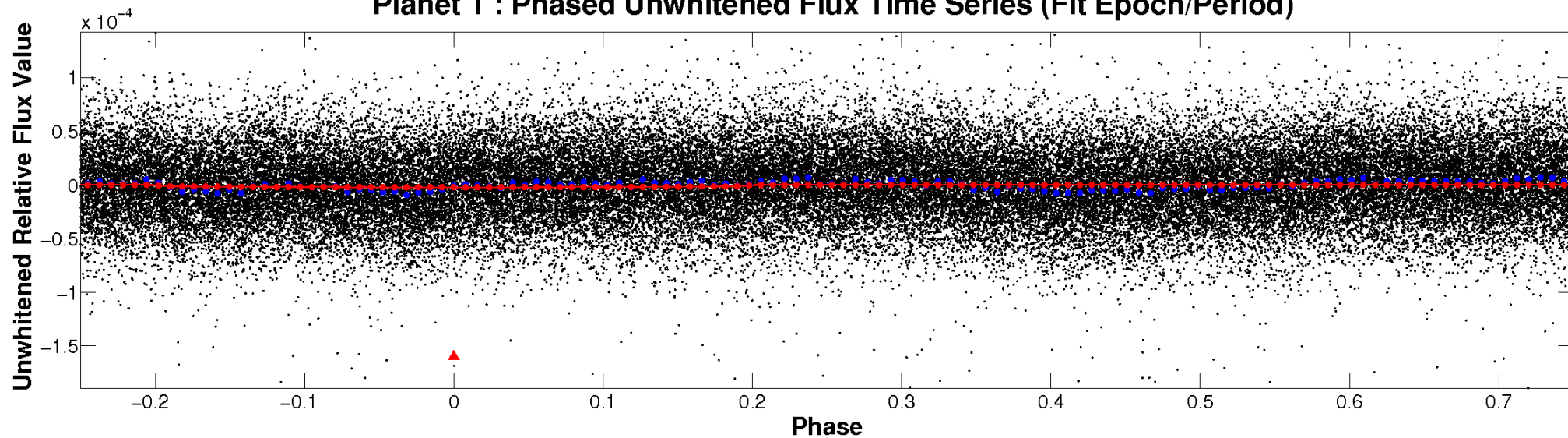
ALT Odd/Even

TCE 007301014-01

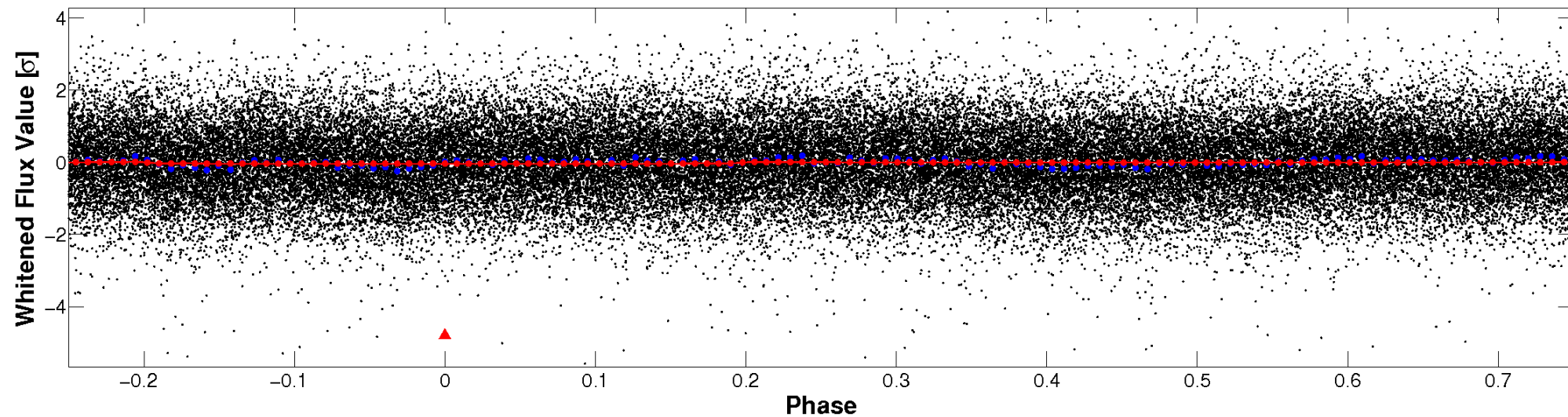


Non-Whitened Vs. Whitened Light Curve

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

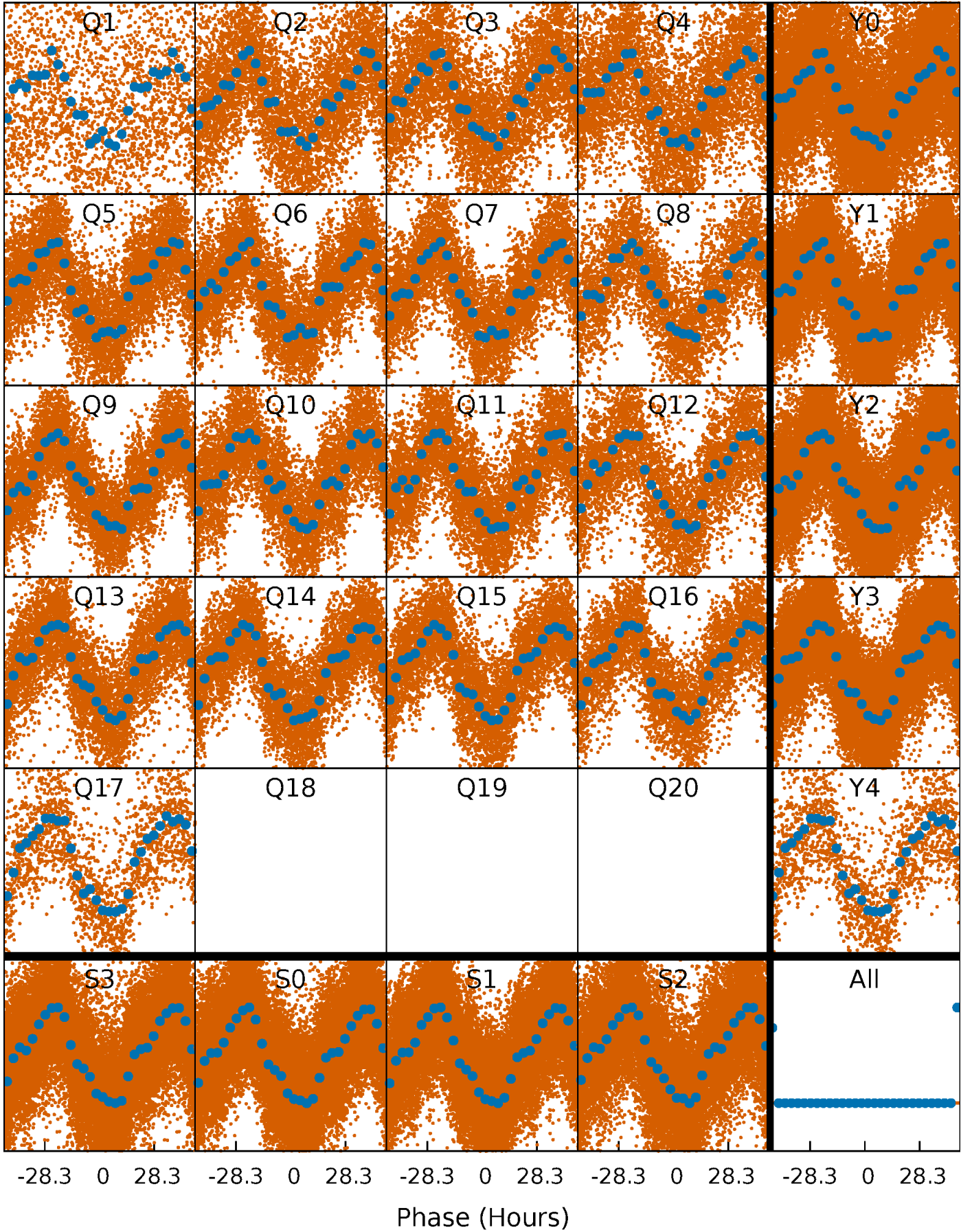


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



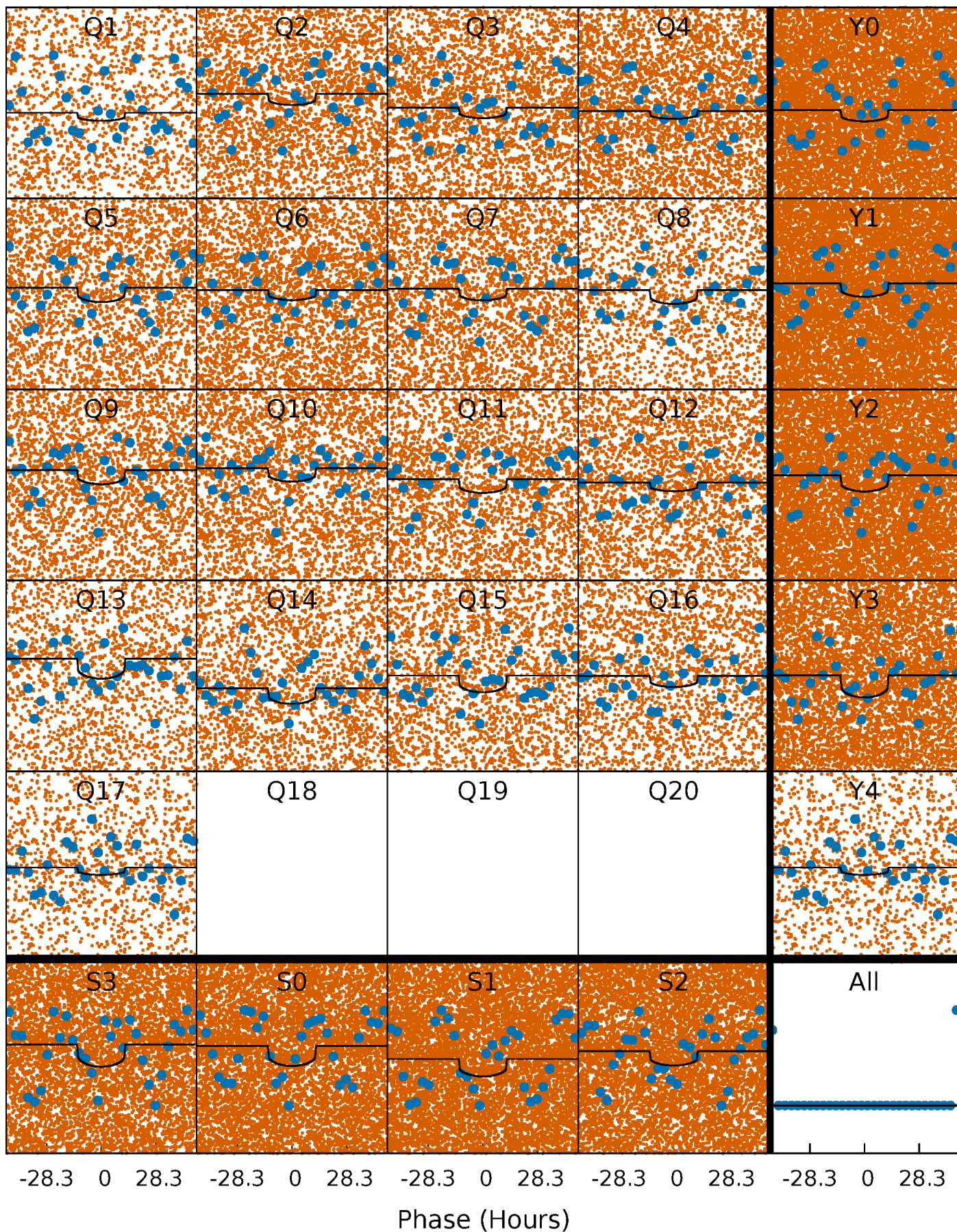
PDC Quarter-Phased Transit Curves

TCE 007301014-01 P= 2.582212 Days $T_0=132.744421$ (BKJD)



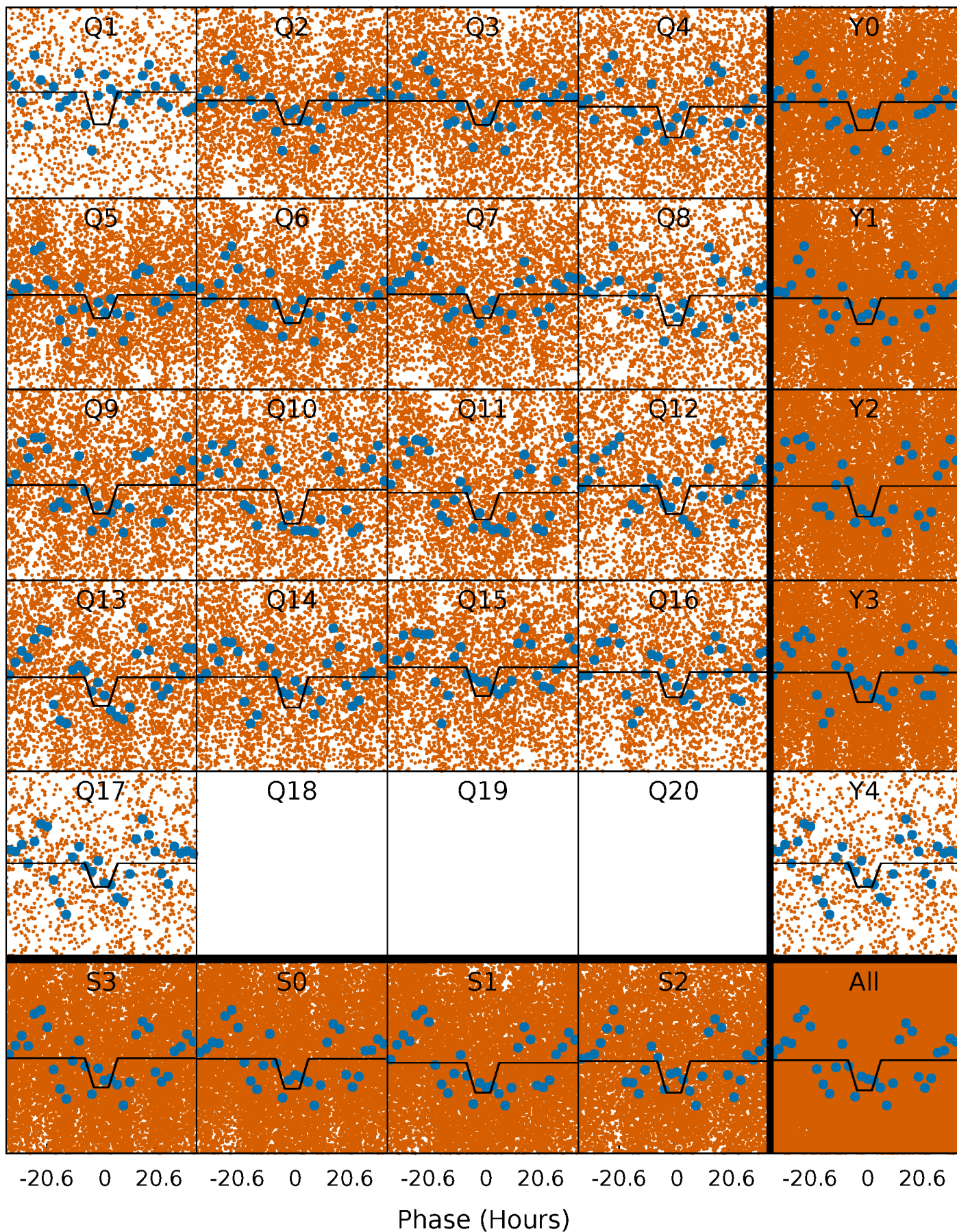
DV Quarter-Phased Transit Curves

TCE 007301014-01 P= 2.582212 Days $T_0=132.744421$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

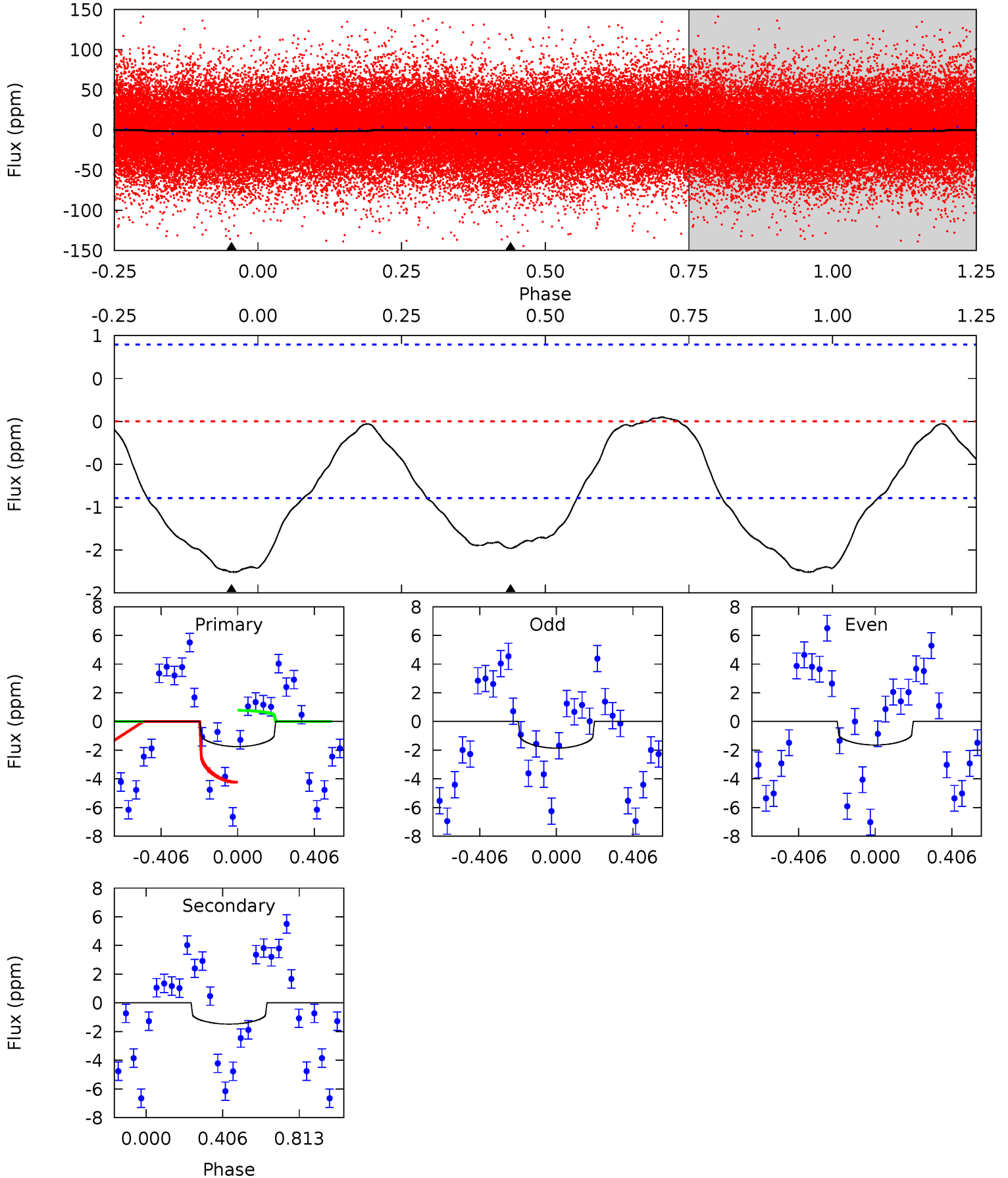
TCE 007301014-01 P= 2.582537 Days $T_0=132.762082$ (BKJD)



DV Model-Shift Uniqueness Test

007301014-01, P = 2.582212 Days, E = 130.162209 Days

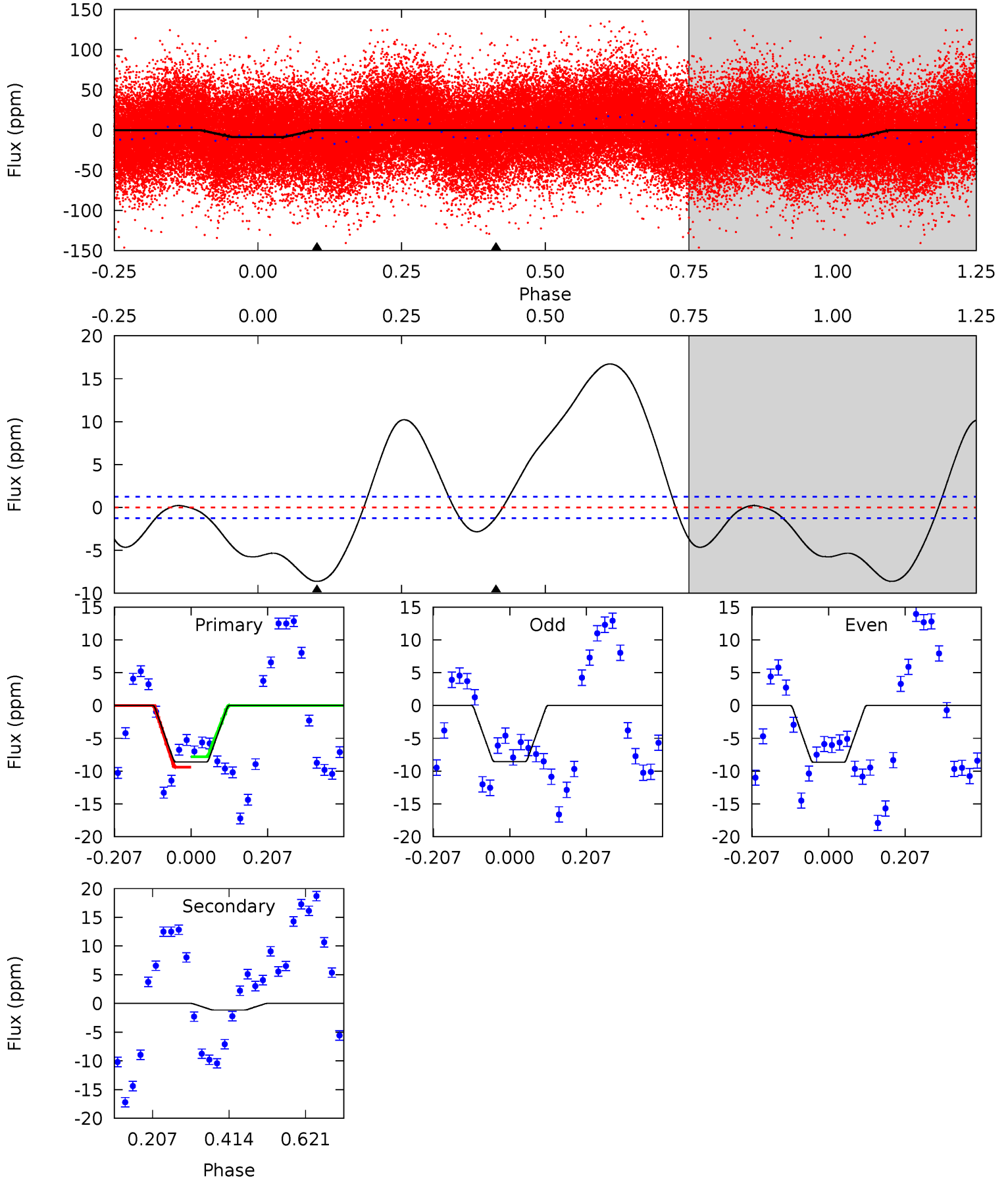
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.36	7.05	0	0	4.26	0.83	0.28	8.36	8.36	7.05	7.05	0.52	1.22	0.03	8.47



Alt Model-Shift Uniqueness Test

007301014-01, P = 2.582537 Days, E = 130.179545 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.4	4.05	0	0	4.41	1.26	23.8	30.4	30.4	4.05	4.05	0.19	1.16	0.66	2.88



Stellar Parameters For KIC 007301014

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7531^{+233}_{-311}	$3.387^{+0.756}_{-0.089}$	$-0.500^{+0.250}_{-0.300}$	$4.876^{+1.771}_{-3.542}$	$2.112^{+0.220}_{-0.878}$	$0.026^{+0.473}_{-0.012}$
	+3%/-4%	+22%/-3%	+50%/-60%	+36%/-73%	+10%/-42%	+1844%/-48%
Source	KIC0	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 007301014-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 0	$0.66^{+0.54}_{-0.38}$	4359^{+461}_{-683}	6190^{+4210}_{-1402}	$3.879^{+18.787}_{-2.618}$
Alt.	-1 ± 0	$1.29^{+0.64}_{-0.54}$	4314^{+500}_{-786}	4070^{+949}_{-1191}	$0.772^{+1.499}_{-0.431}$

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 $A_{obs} \gg 1.0$

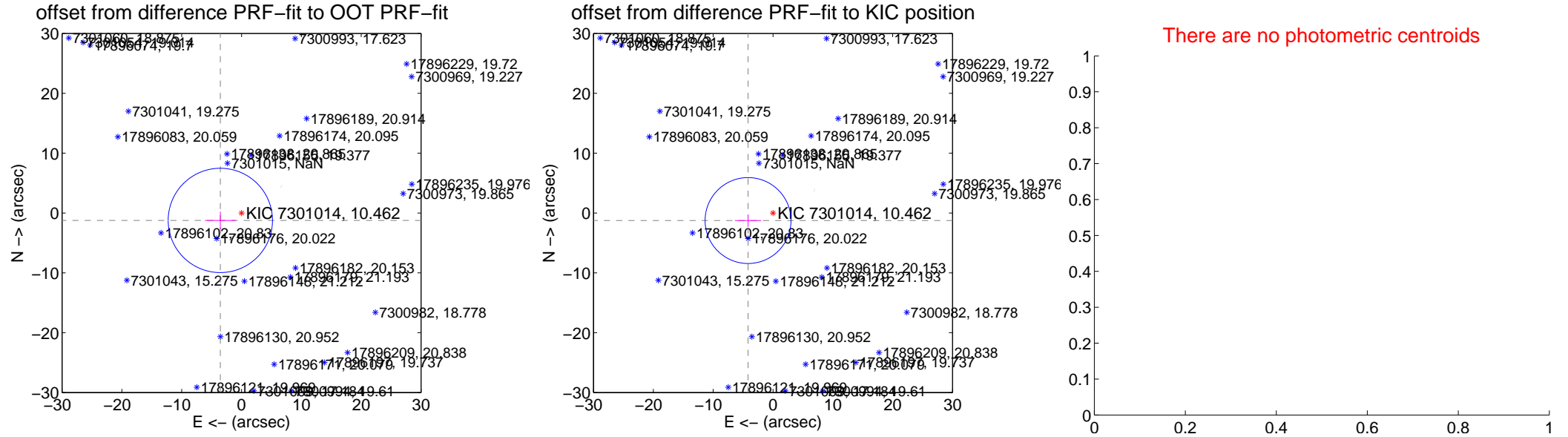
DV Centroid Data

Supplemental centroid analysis for 007301014-01. **Kepler magnitude: 10.46.** Transit SNR 6.17

There are 2 quarters with good PRF difference image offsets

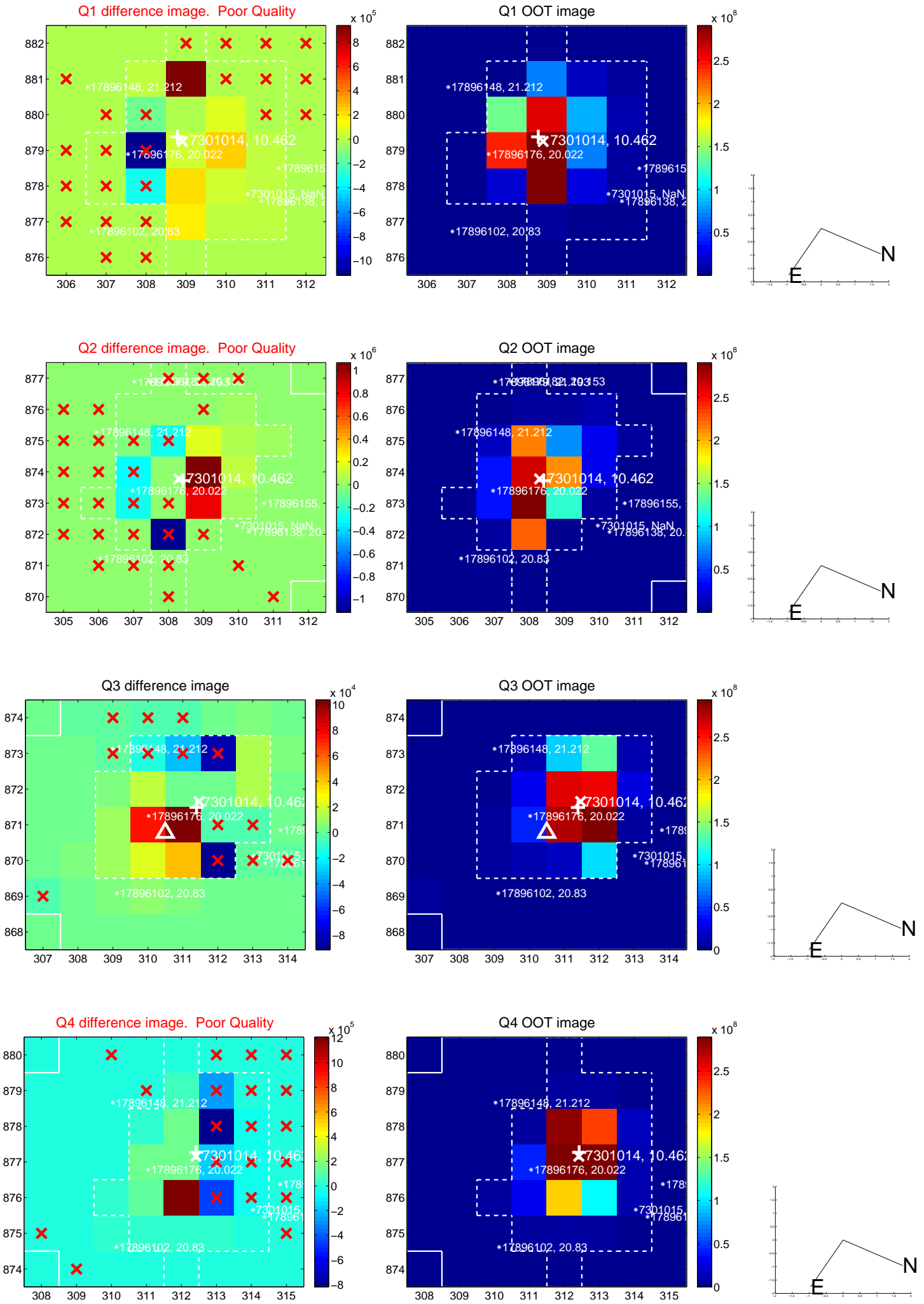
The direct PRF centroid is offset from the target star catalog position by about 0.66 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.756 ± 2.905	1.29	3.546 ± 2.562	-1.238 ± 1.478
PRF-fit source offset from KIC position	4.358 ± 2.393	1.82	4.172 ± 2.194	-1.259 ± 1.013
photometric centroid source offset	—	—	—	—

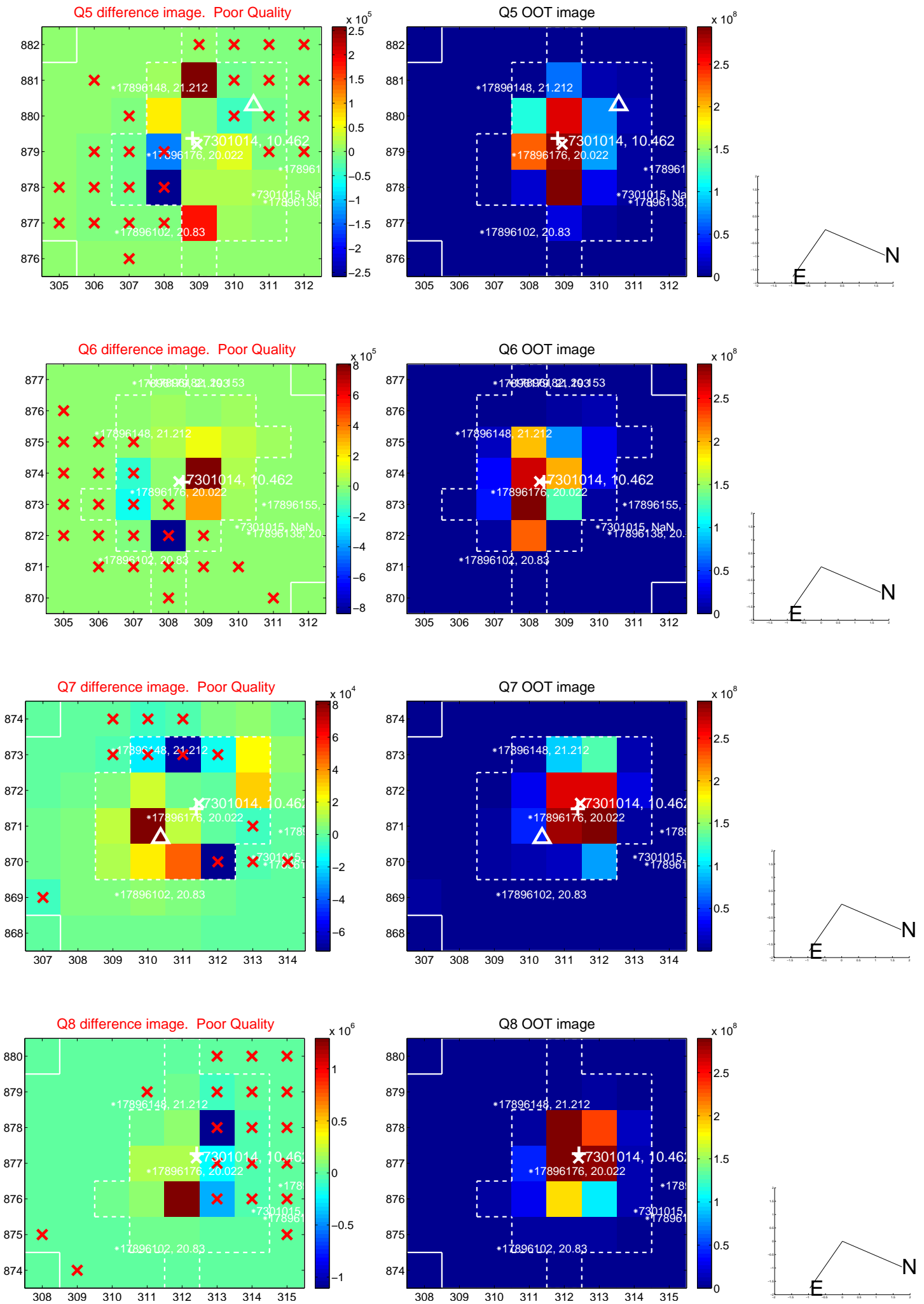


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

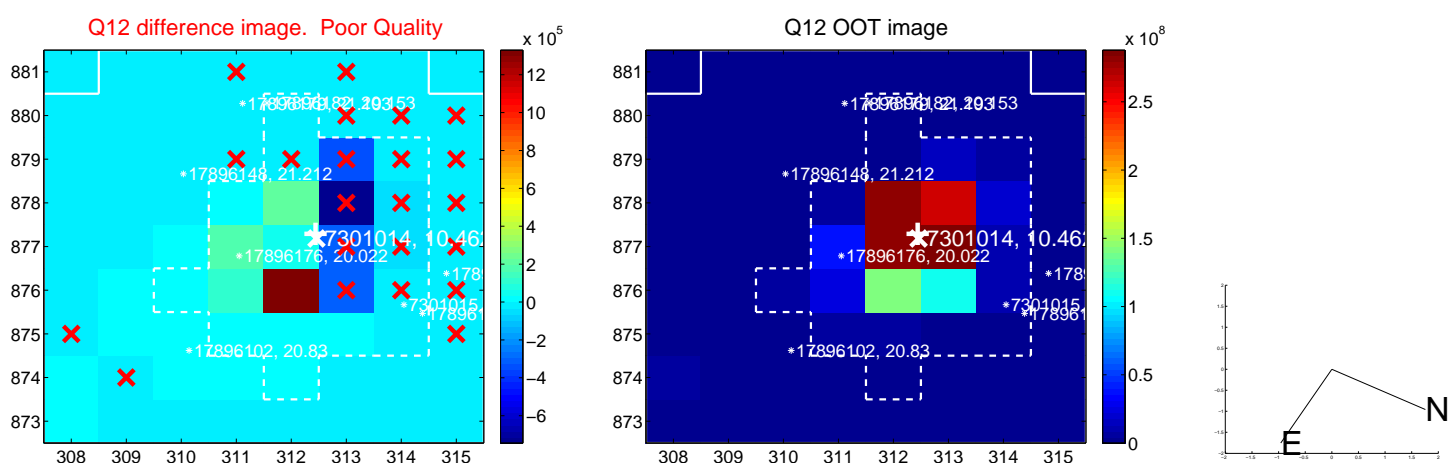
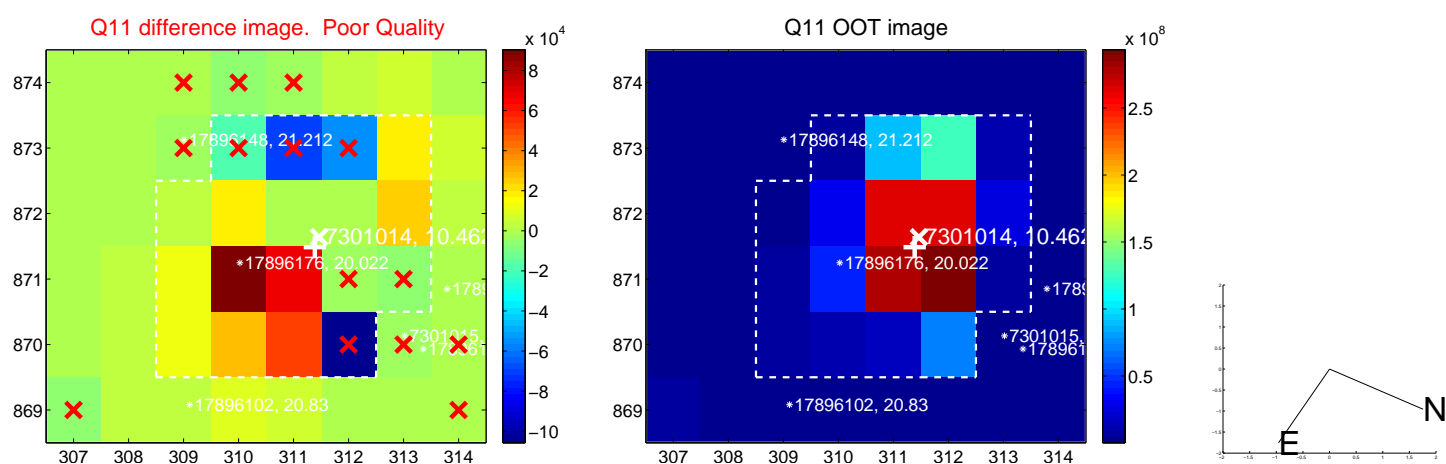
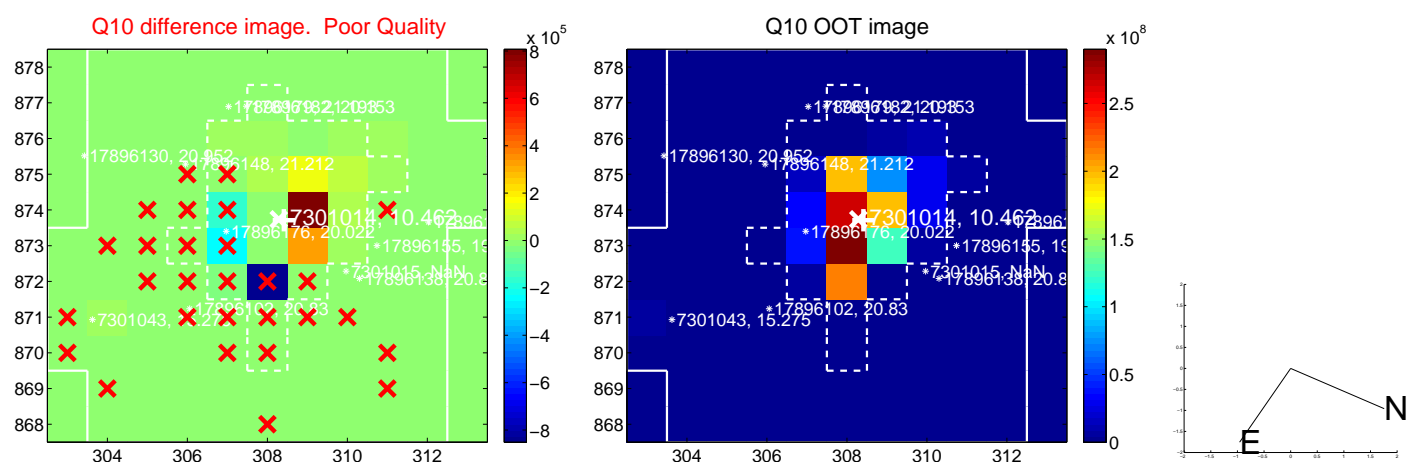
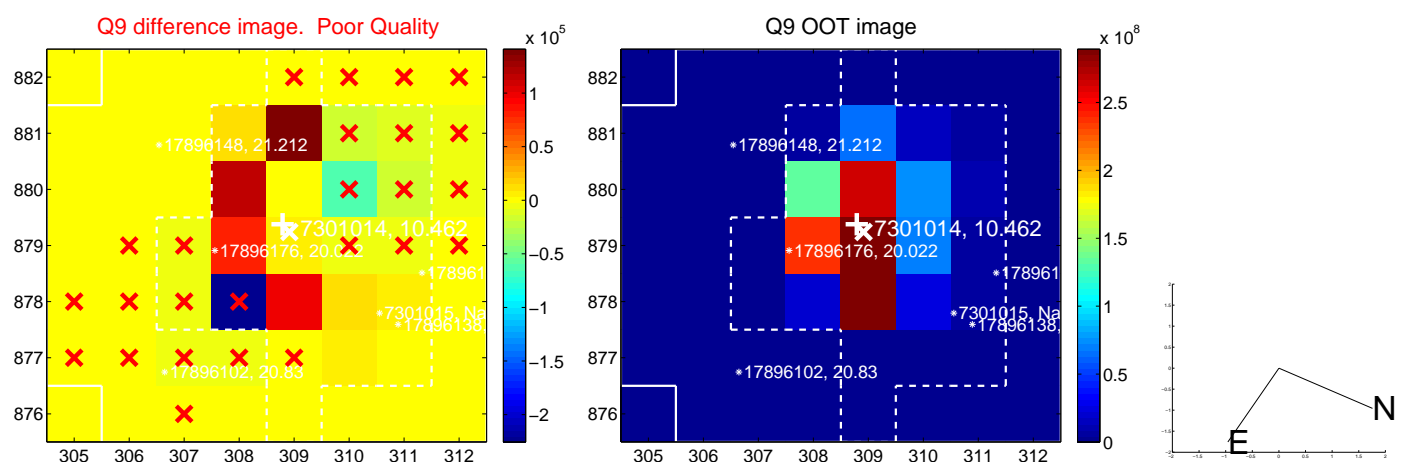
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



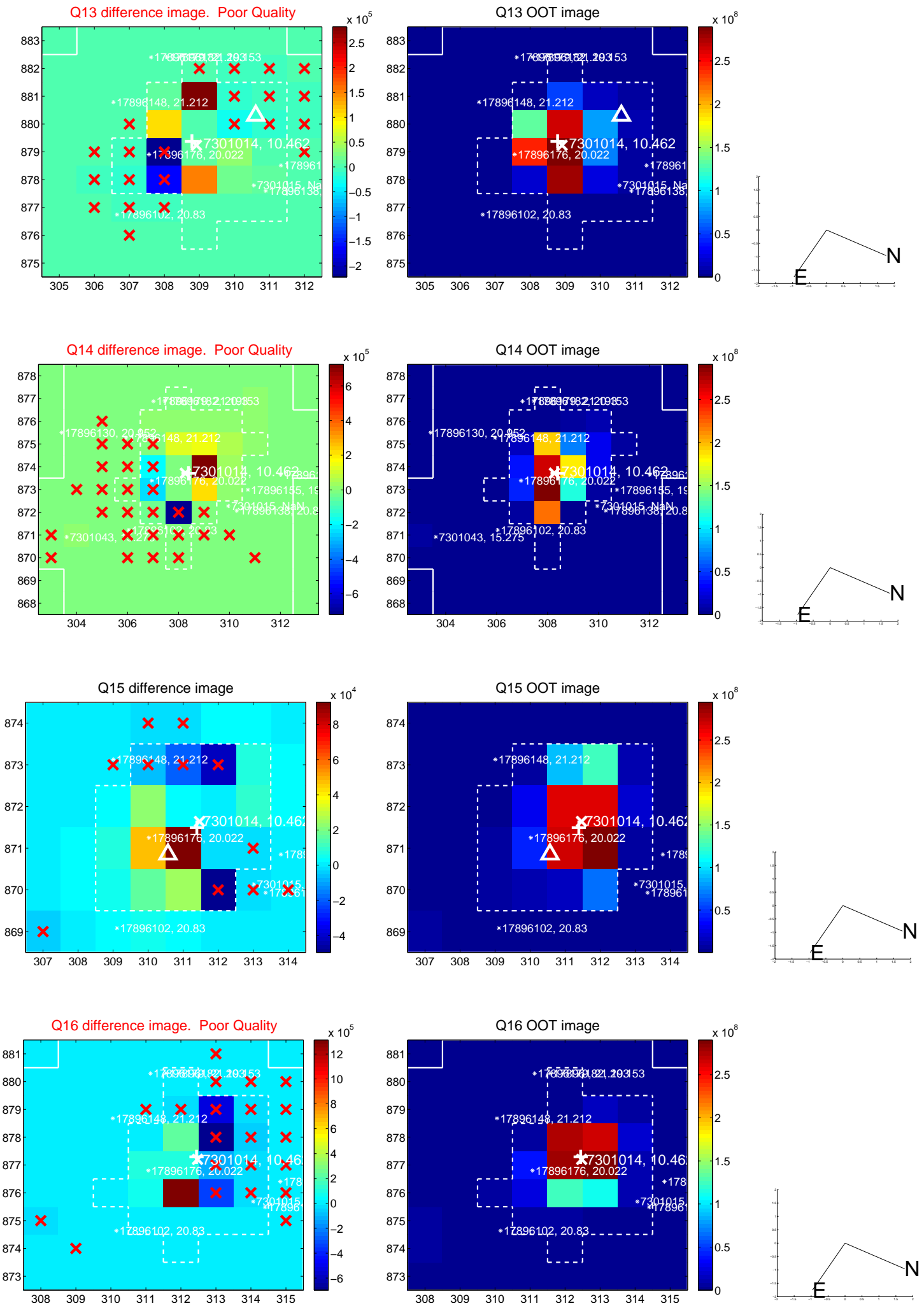
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



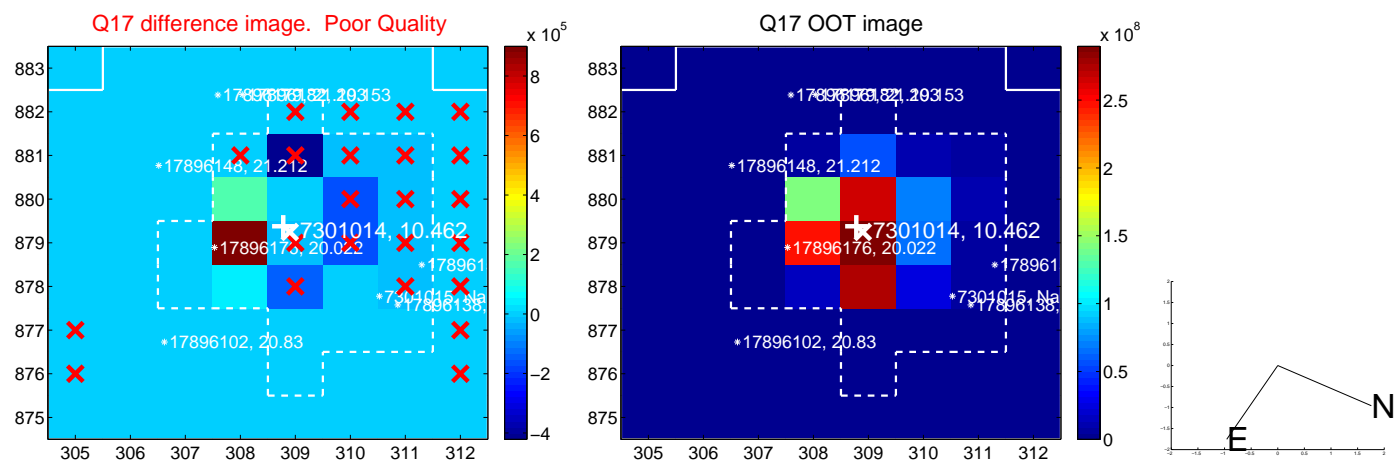
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.



UKIRT Image

Declination

