

KIC 010056931

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})
010056931-01	OBS	No	2.272927	132.098769	63.8	27.275	10.5	19.0	2.72	7803	2.83	13481.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010056931-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

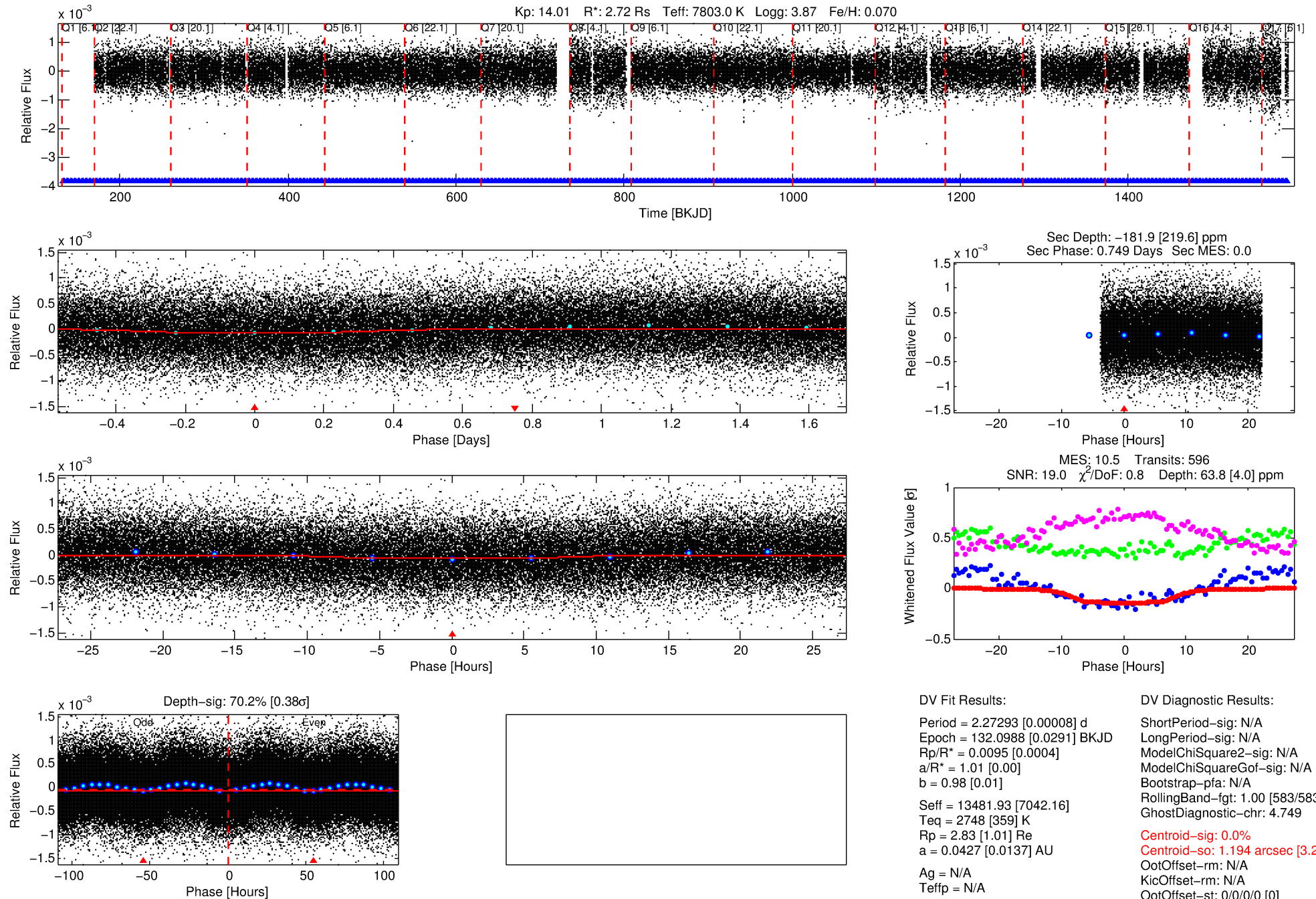
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010056931-01

No Significant Match Found

DV One-Page Summary

KIC: 10056931 Candidate: 1 of 1 Period: 2.273 d



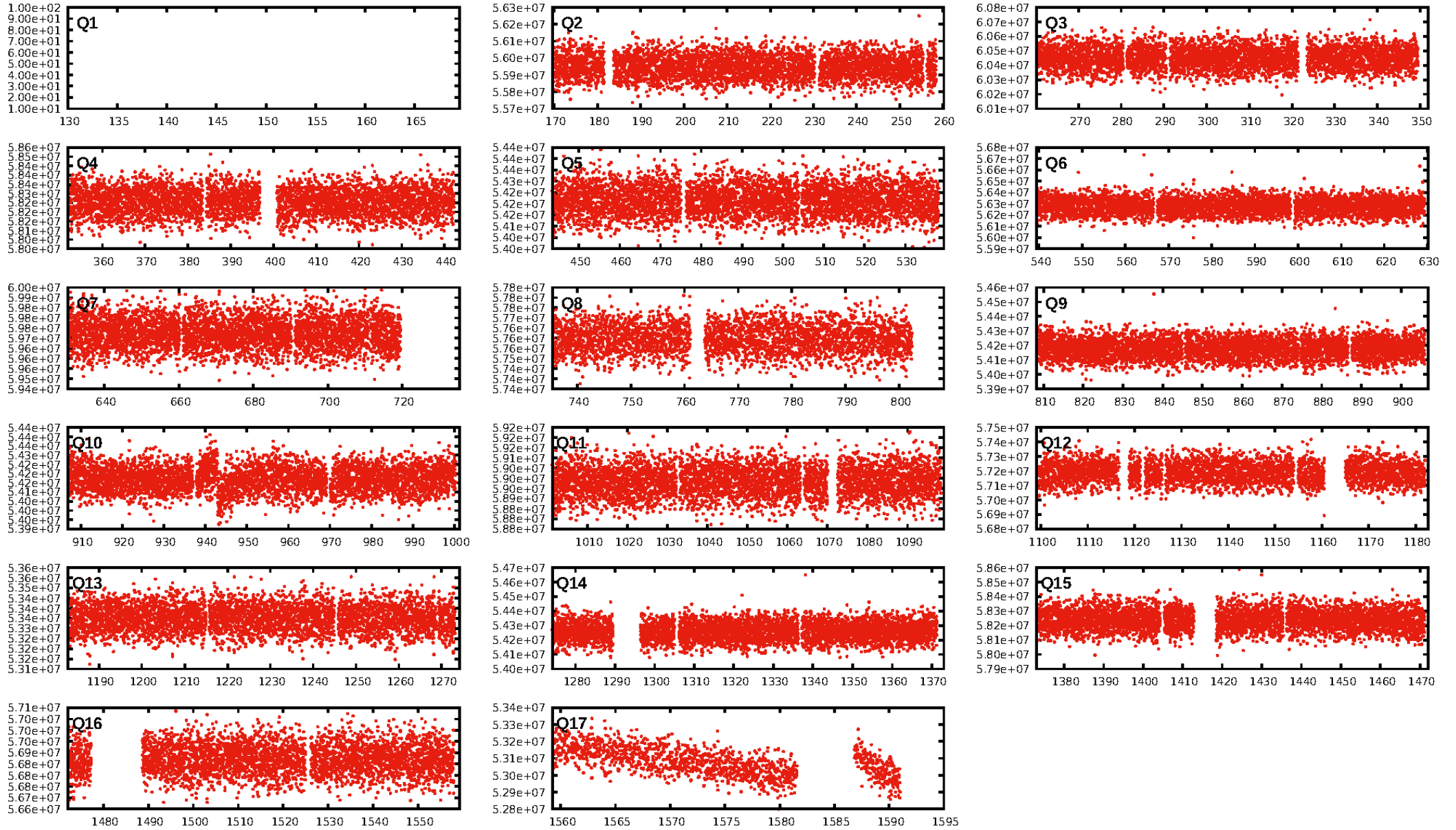
DV Fit Results:

Period = 2.27293 [0.00008] d
Epoch = 132.0988 [0.0291] BKJD
Rp/R* = 0.0095 [0.0004]
a/R* = 1.01 [0.00]
b = 0.98 [0.01]
Seff = 13481.93 [7042.16]
Teff = 2748 [359] K
Rp = 2.83 [1.01] Re
a = 0.0427 [0.0137] AU
Ag = N/A
Teffp = N/A

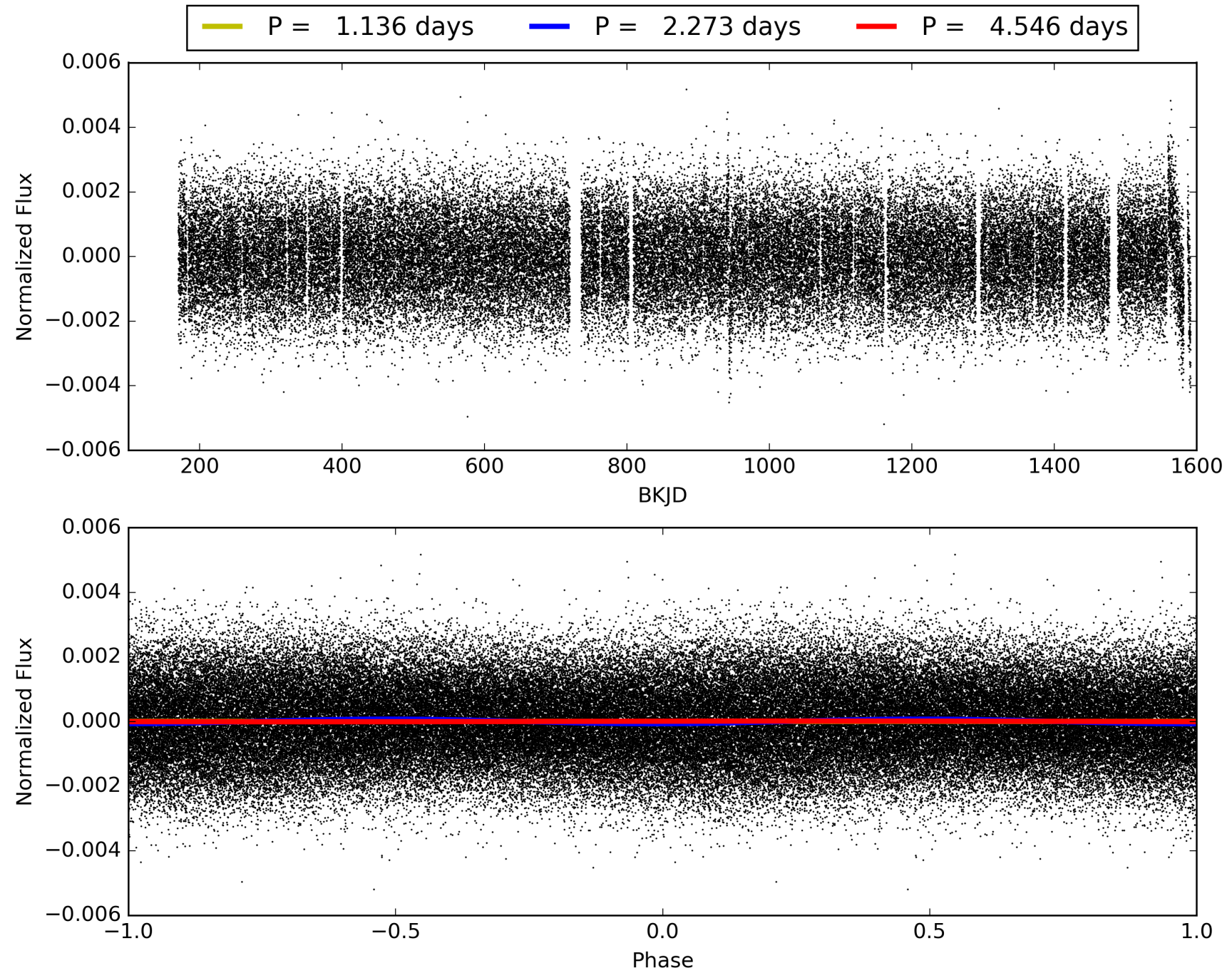
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [583/583]
GhostDiagnostic-chr: 4.749
Centroid-sig: 0.0%
Centroid-so: 1.194 arcsec [3.23 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [16/16]

TCE 010056931-01, PDC Light Curves

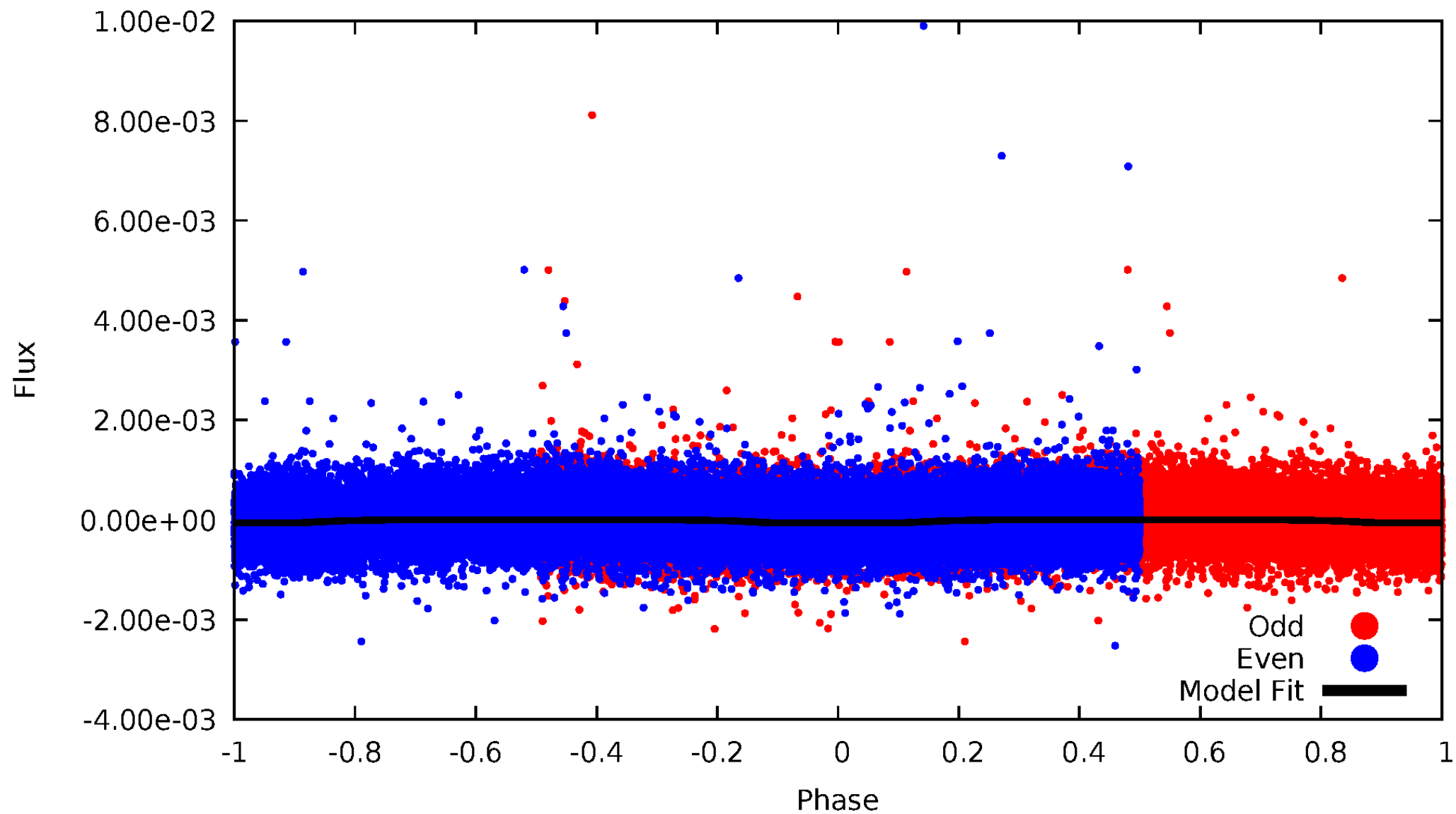


TCE 010056931-01



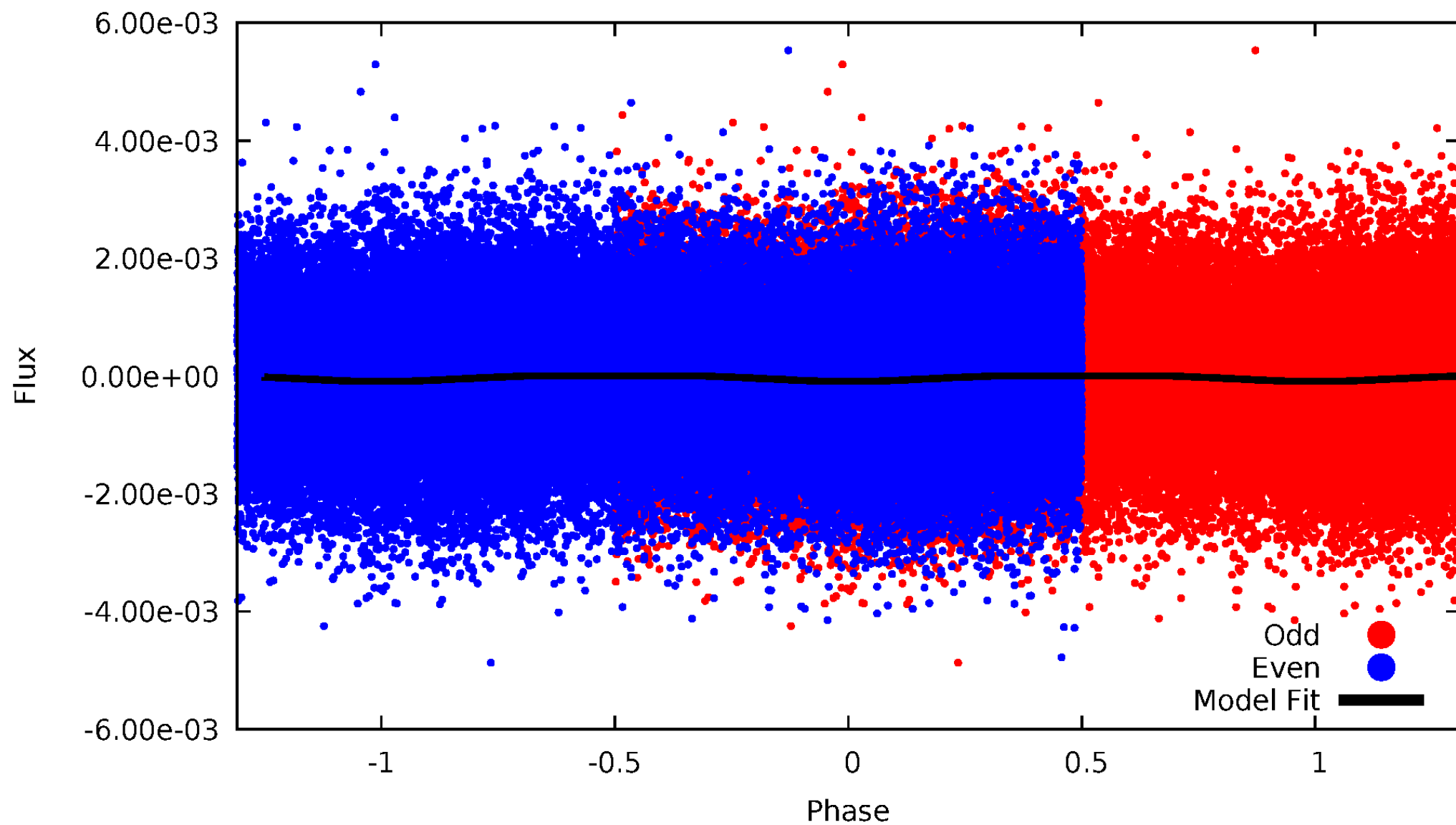
DV Odd/Even

TCE 010056931-01



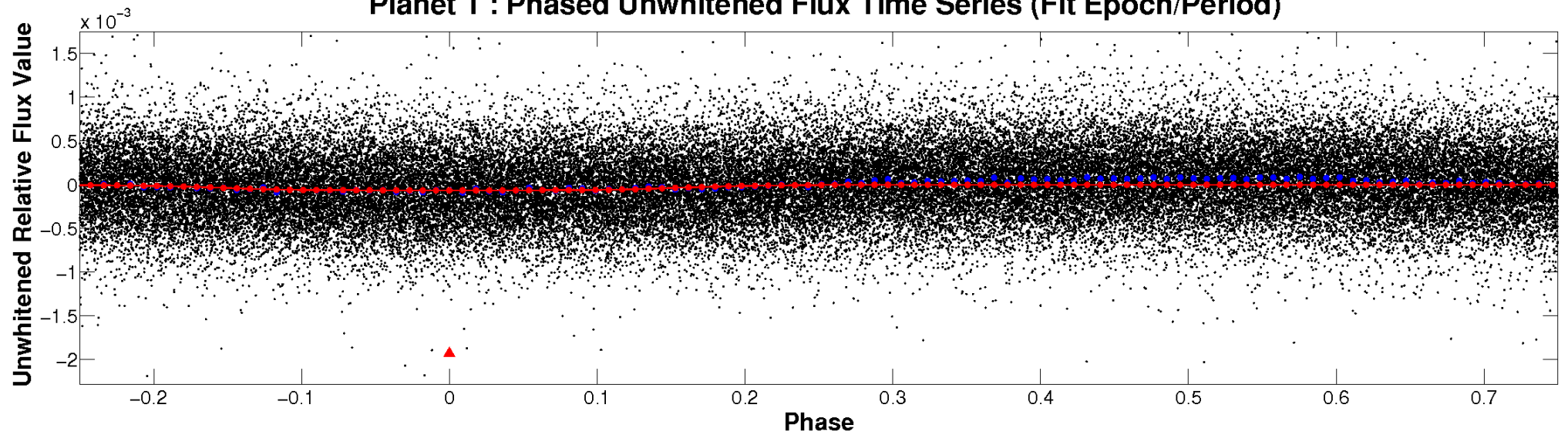
ALT Odd/Even

TCE 010056931-01

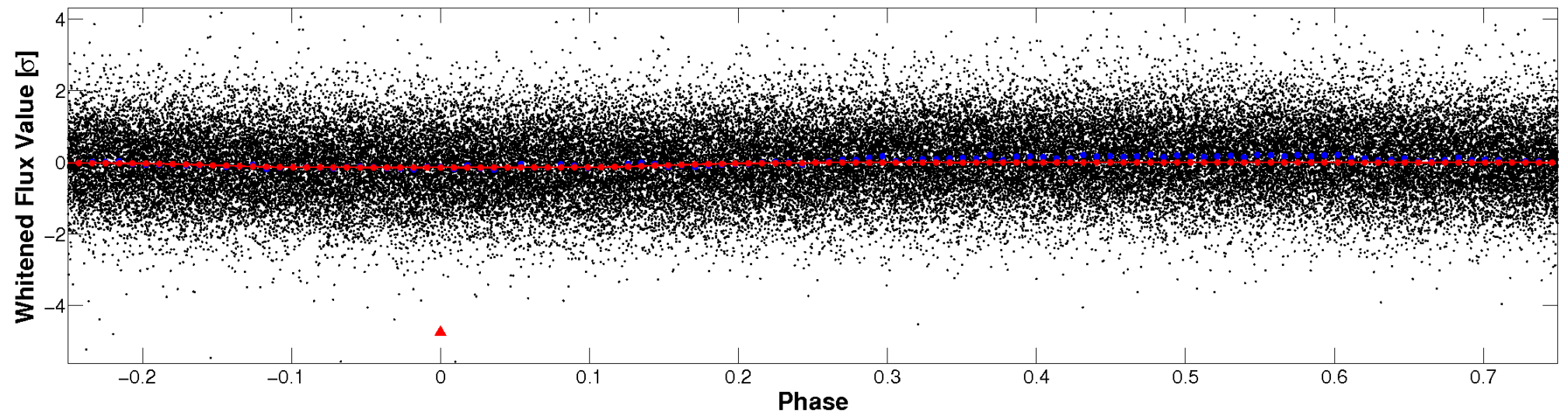


Non-Whitened Vs. Whitened Light Curve

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

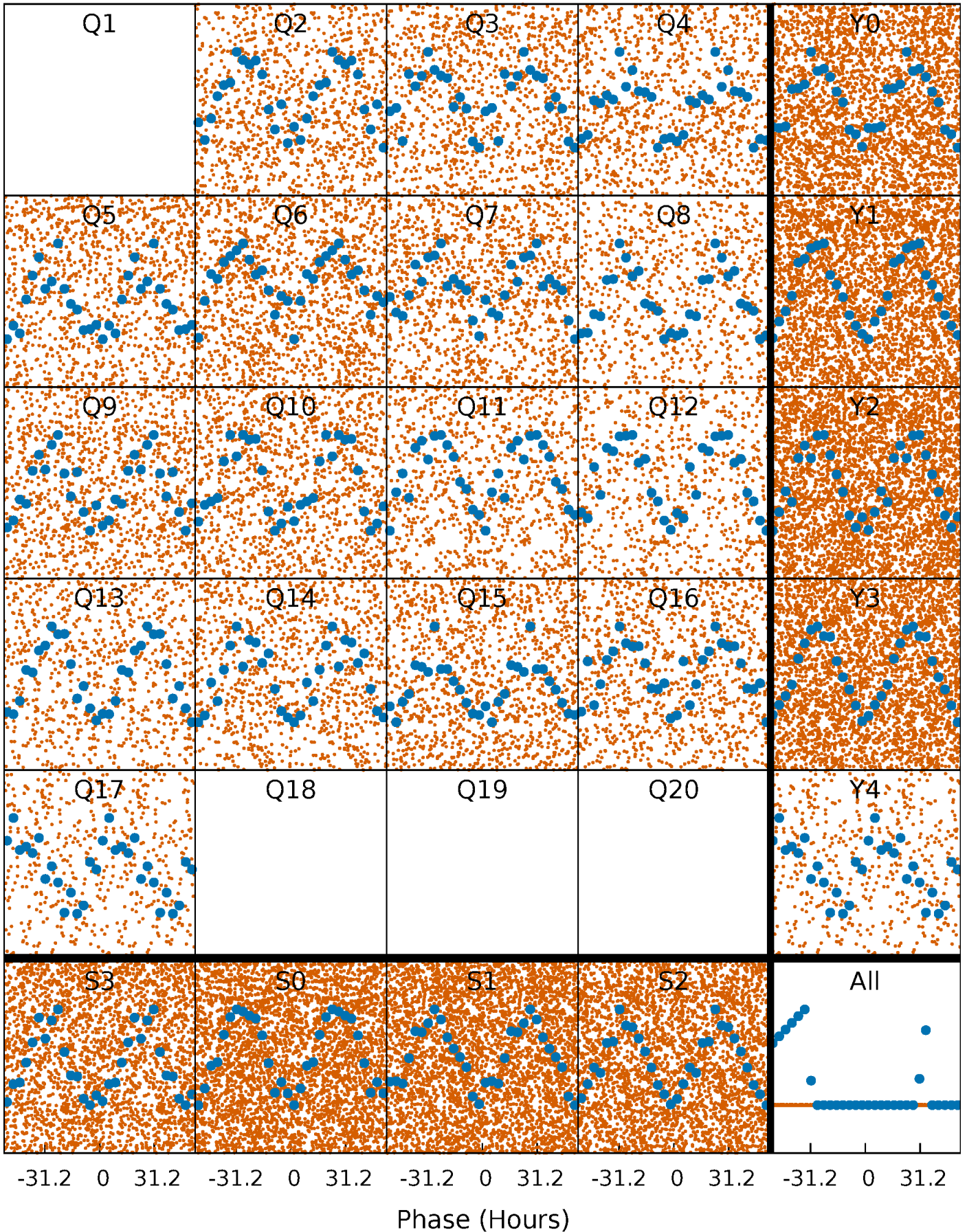


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



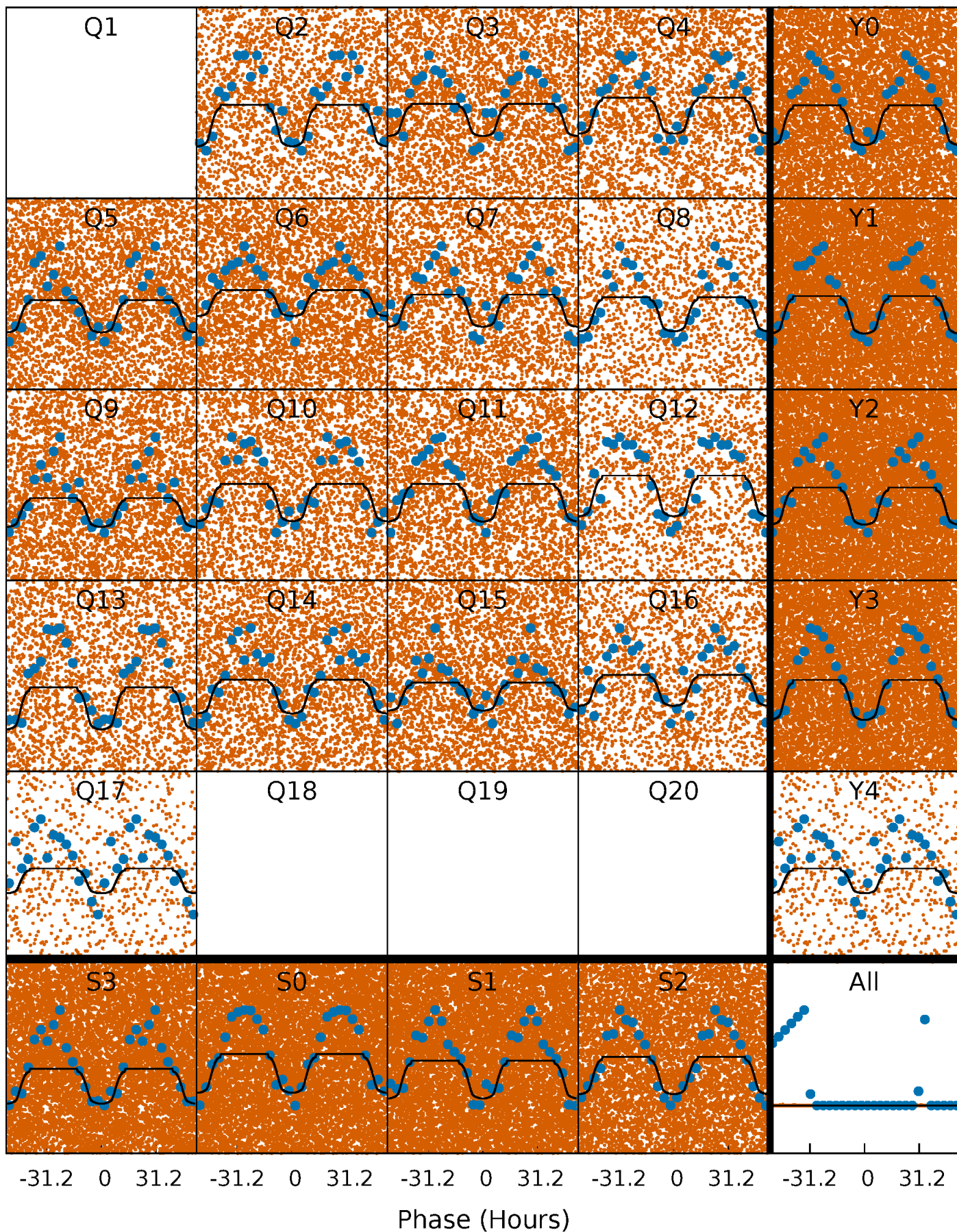
PDC Quarter-Phased Transit Curves

TCE 010056931-01 P= 2.272927 Days $T_0=132.098769$ (BKJD)



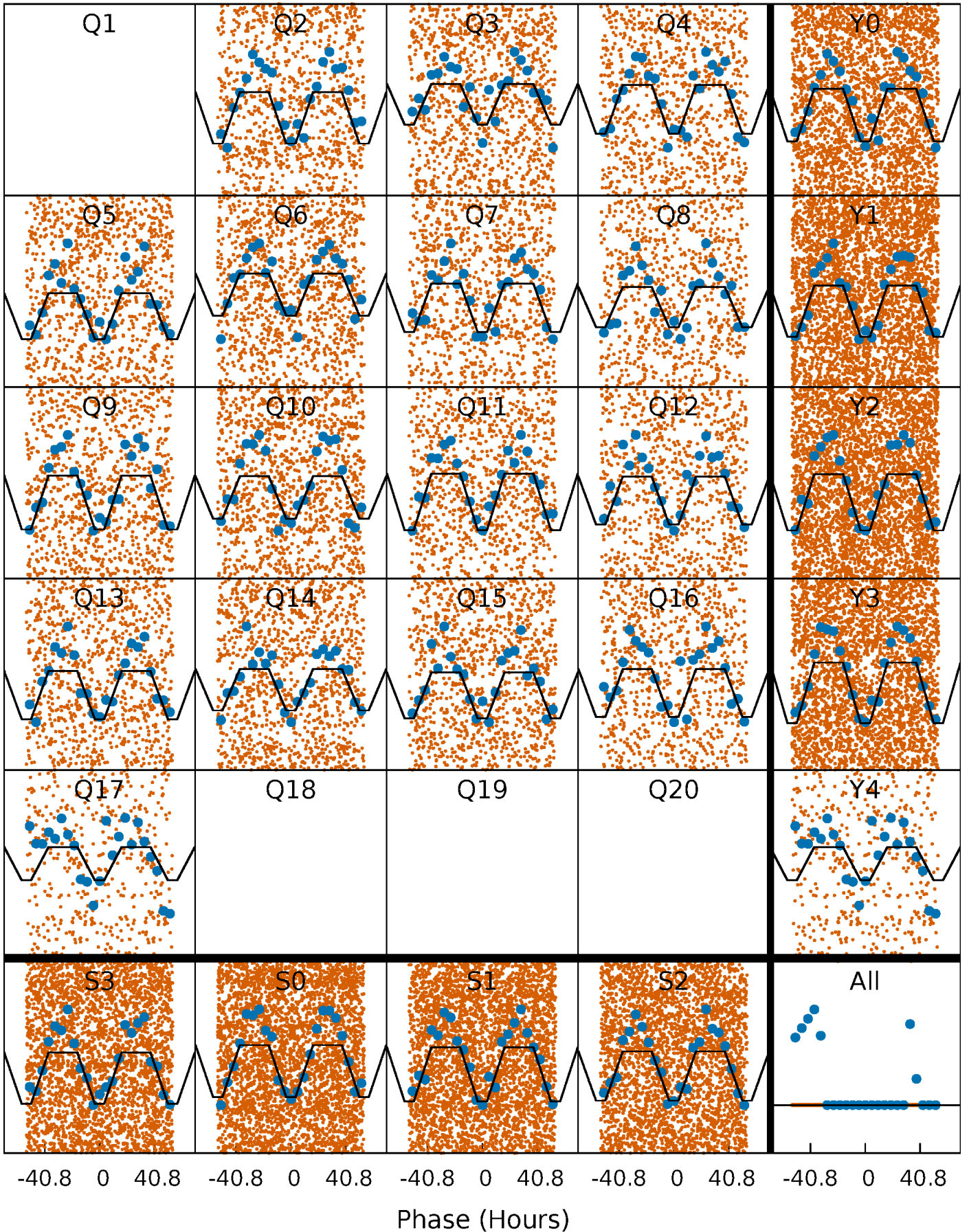
DV Quarter-Phased Transit Curves

TCE 010056931-01 P= 2.272927 Days $T_0=132.098769$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

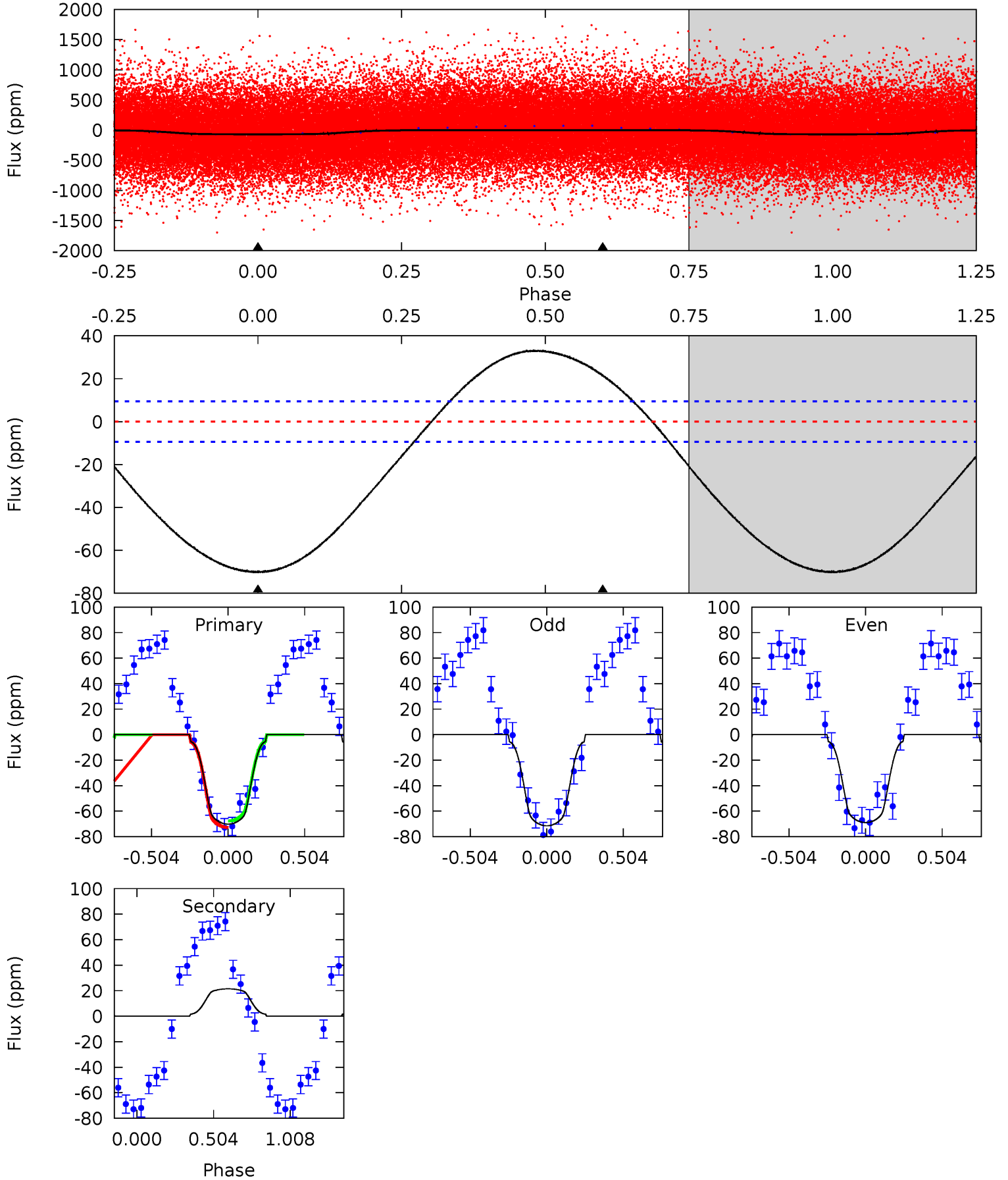
TCE 010056931-01 P= 2.273150 Days $T_0=132.003451$ (BKJD)



DV Model-Shift Uniqueness Test

010056931-01, P = 2.272927 Days, E = 132.098769 Days

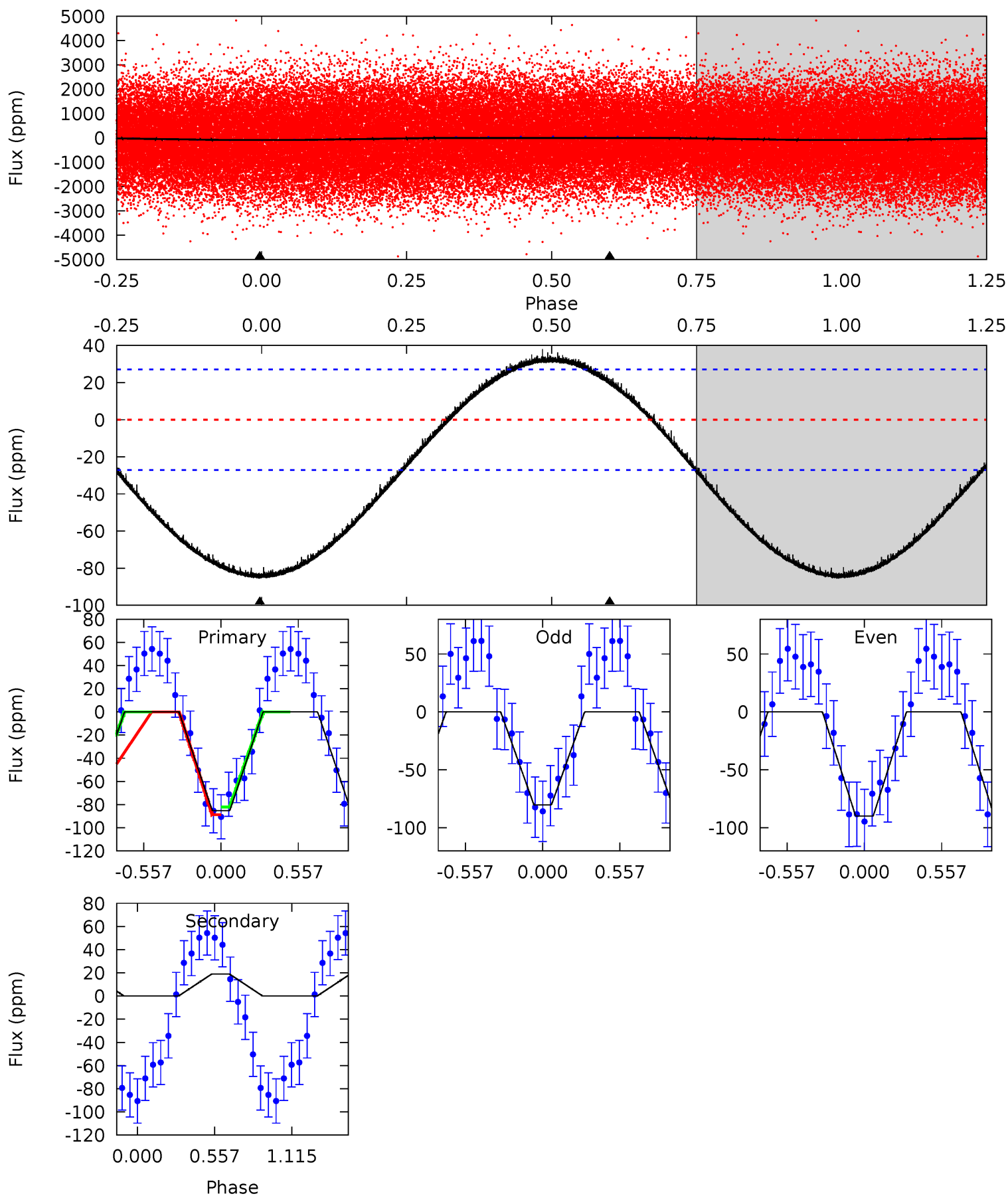
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.2	-9.56	0	0	4.21	0.67	3.91	31.2	31.2	-9.56	-9.56	0.57	0.92	0.32	1.13



Alt Model-Shift Uniqueness Test

010056931-01, P = 2.273150 Days, E = 132.003451 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	-2.94	0	0	4.19	0.59	1.43	13.2	13.2	-2.94	-2.94	0.80	1.04	0.31	0.54



Stellar Parameters For KIC 010056931

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7803^{+214}_{-349}	$3.872^{+0.280}_{-0.120}$	$0.070^{+0.200}_{-0.350}$	$2.722^{+0.446}_{-0.967}$	$2.012^{+0.260}_{-0.446}$	$0.141^{+0.290}_{-0.050}$
	+3%/-4%	+7%/-3%	+286%/-500%	+16%/-36%	+13%/-22%	+206%/-36%
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 010056931-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	21 ± 2	$2.83^{+0.33}_{-0.54}$	3773^{+259}_{-323}	-5464^{+223}_{-204}	$-2.771^{+0.623}_{-1.171}$
Alt.	19 ± 6	$2.74^{+0.34}_{-0.50}$	3779^{+237}_{-331}	-5384^{+423}_{-391}	$-2.655^{+0.950}_{-1.423}$

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 $A_{obs} \gg 1.0$

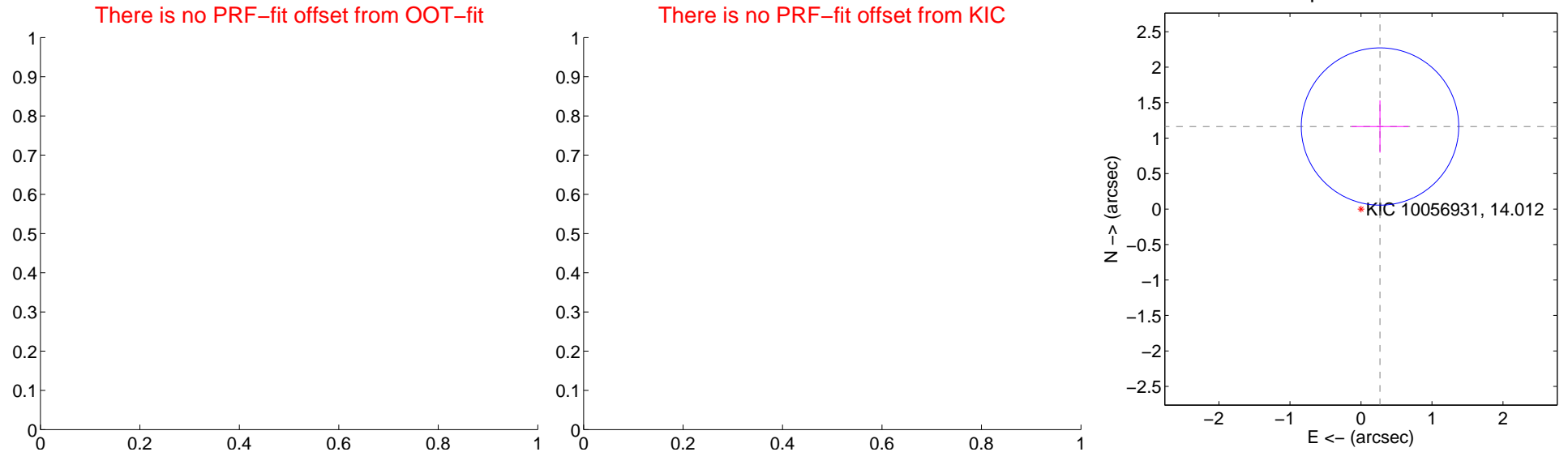
DV Centroid Data

Supplemental centroid analysis for 010056931-01. Kepler magnitude: 14.01. Transit SNR 18.99

There are 0 quarters with good PRF difference image offsets

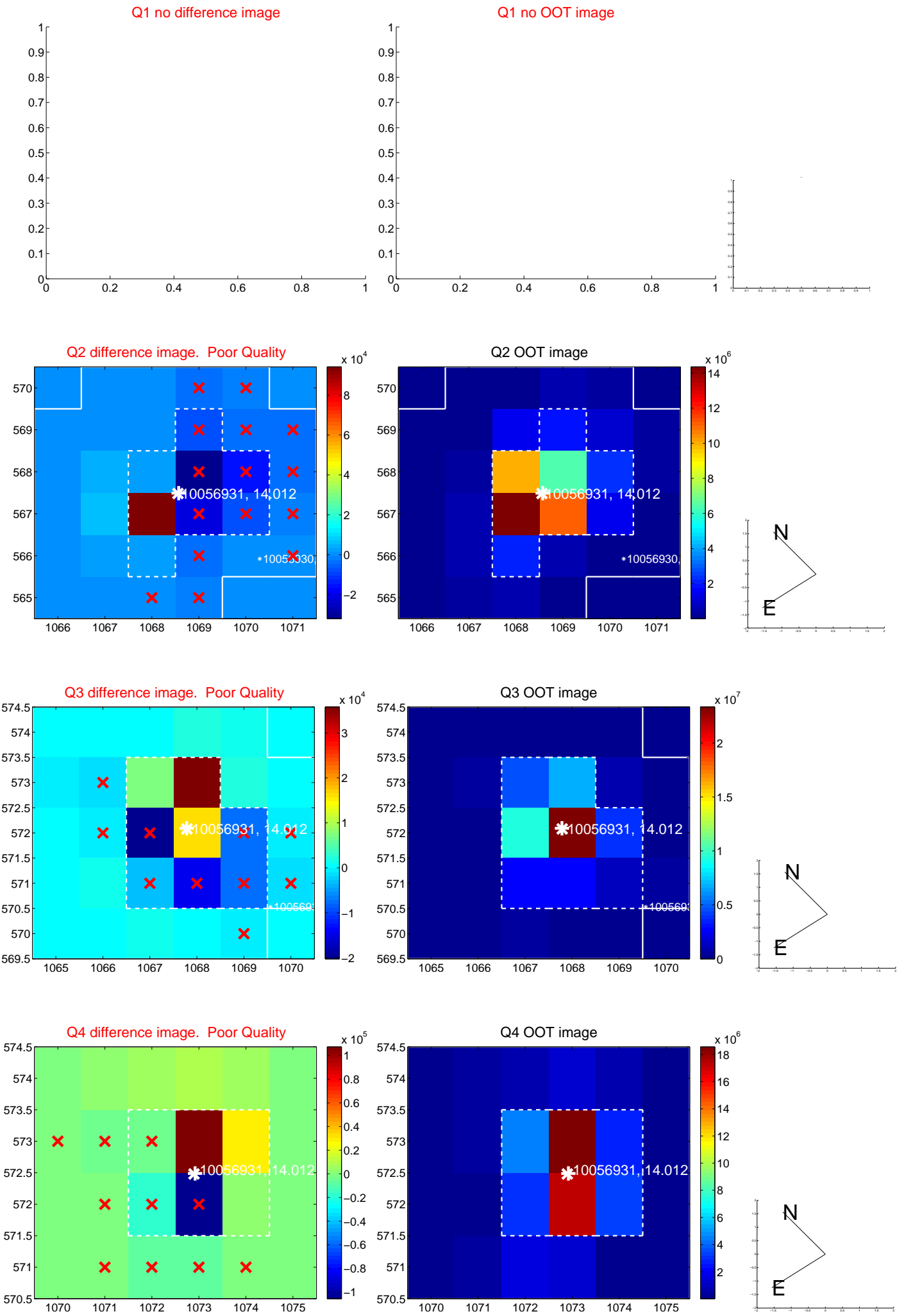
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.19 ± 0.37	3.23	-0.27 ± 0.40	1.16 ± 0.37

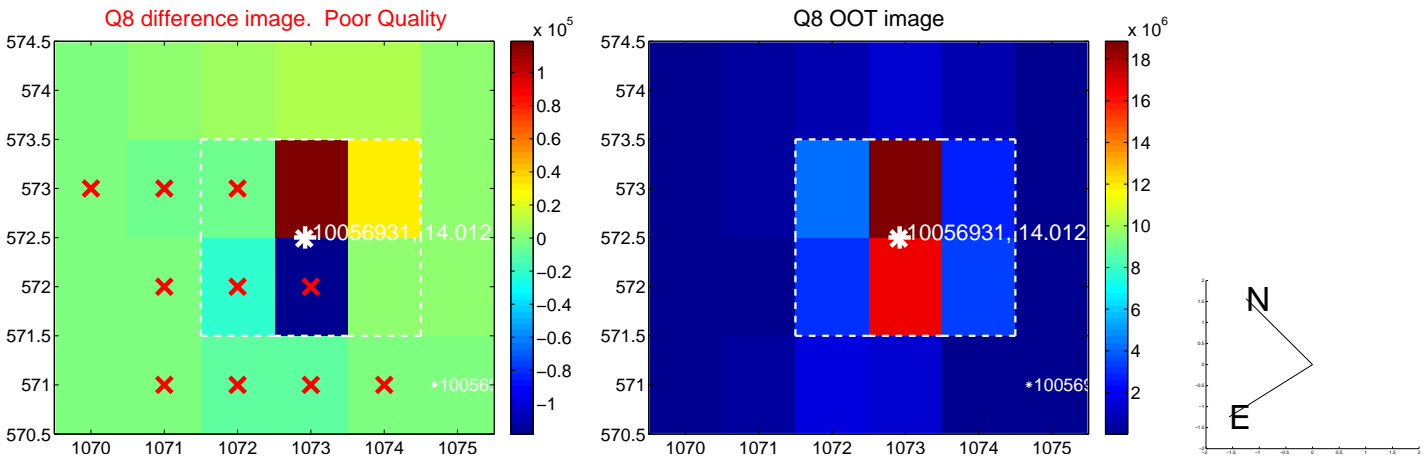
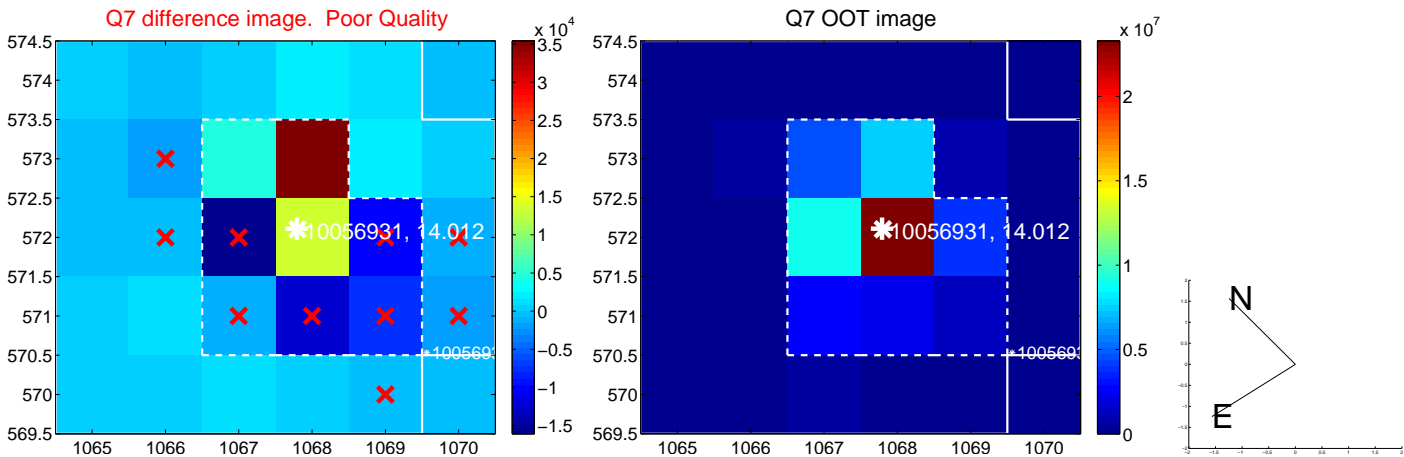
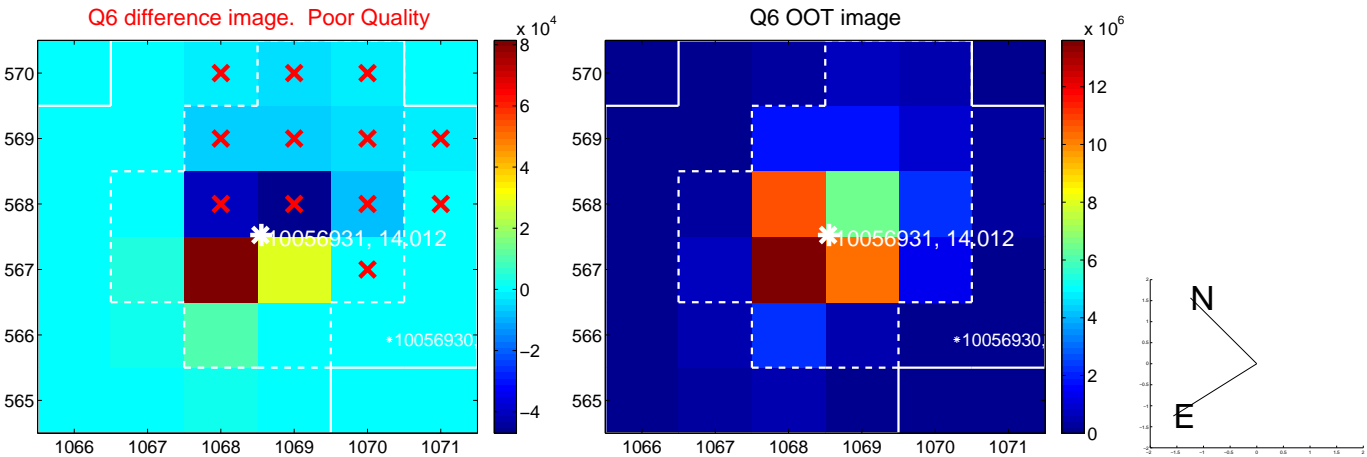
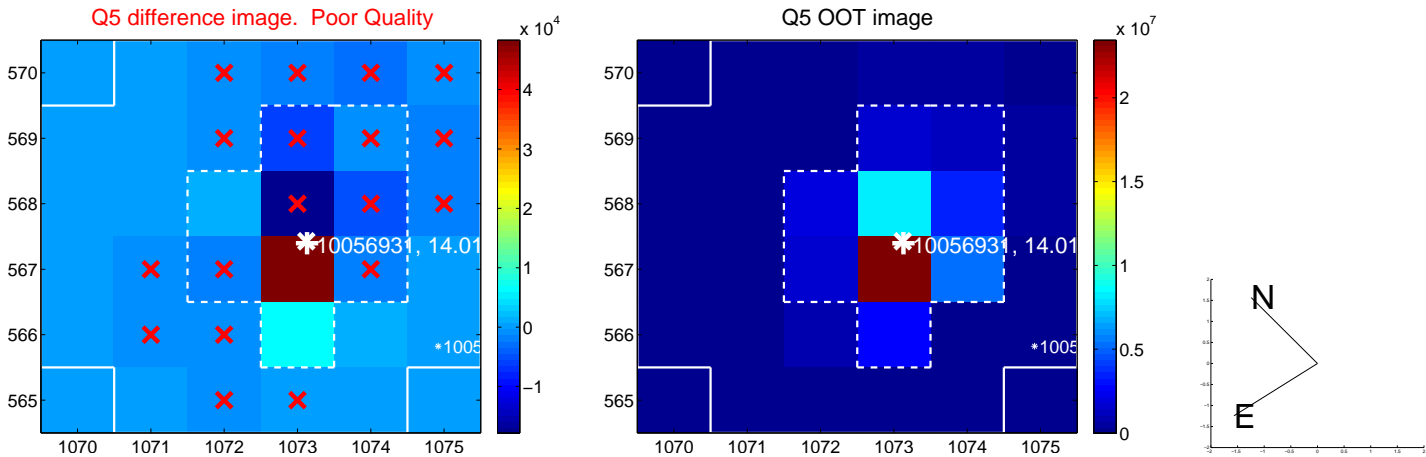


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

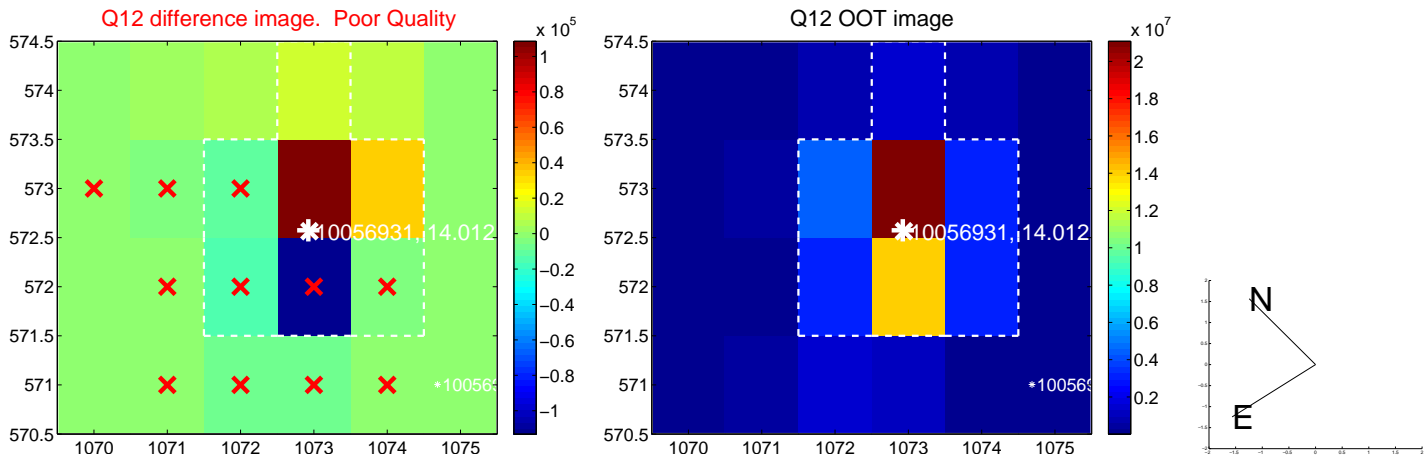
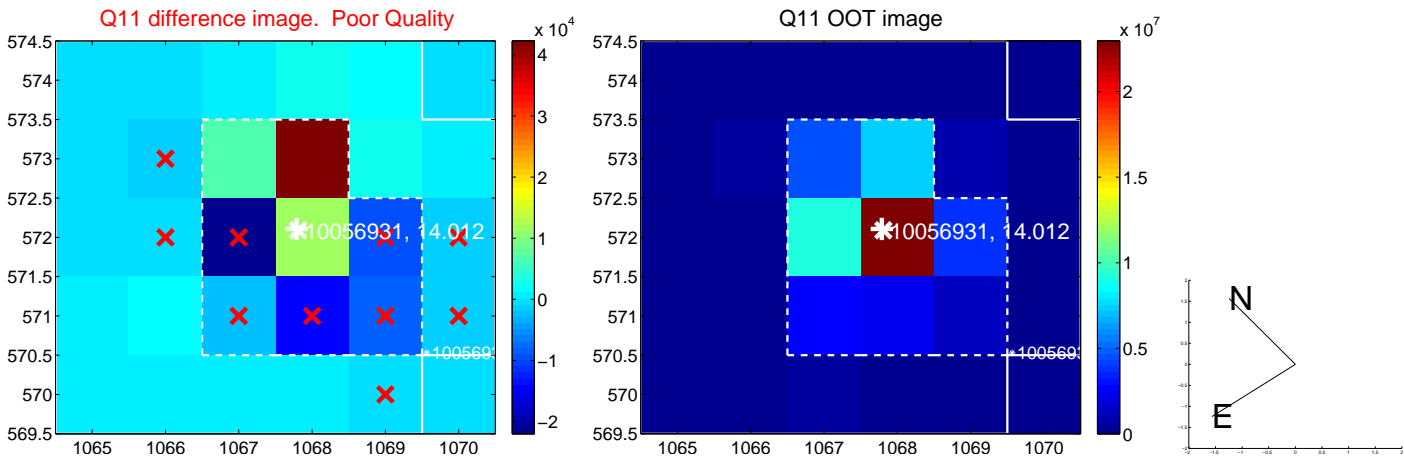
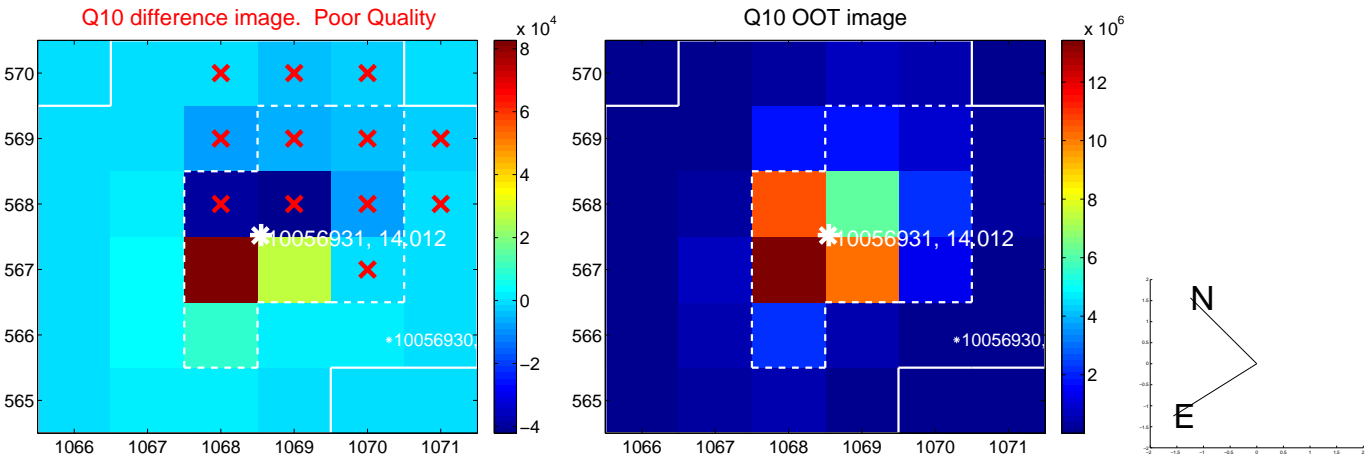
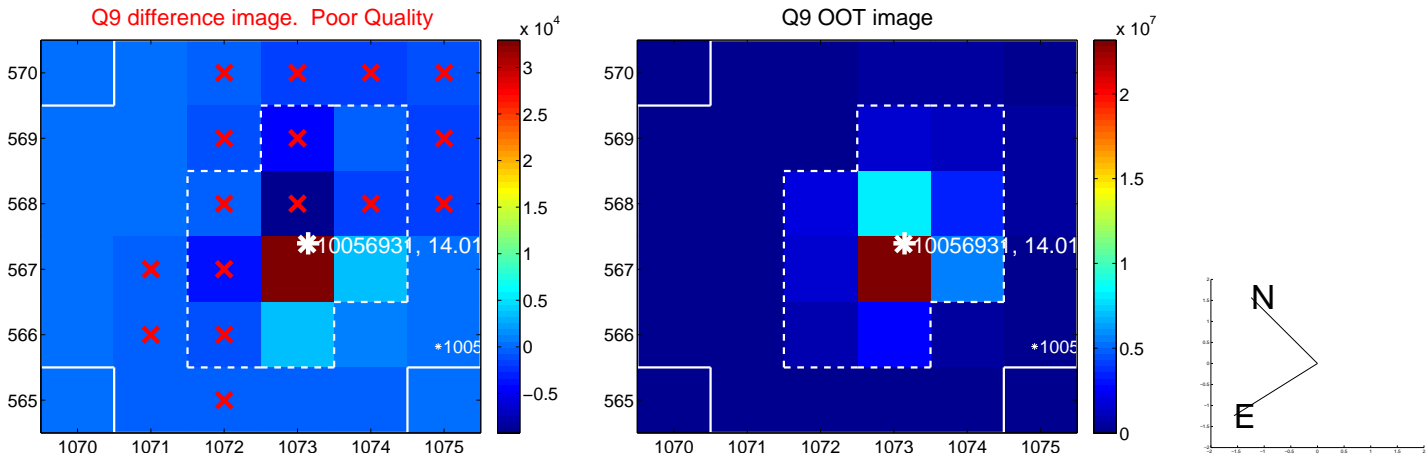
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



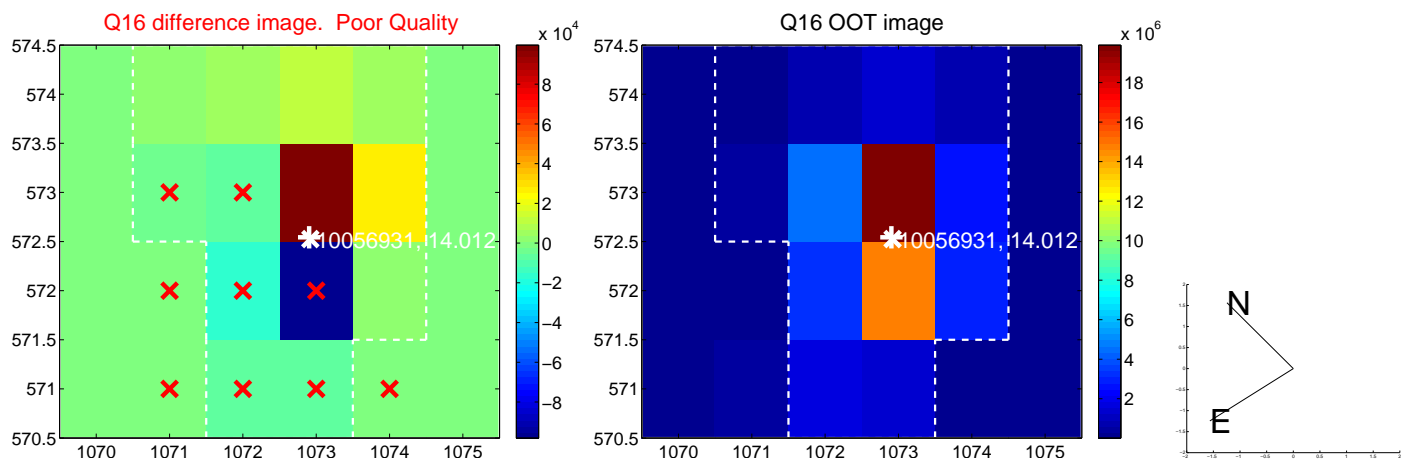
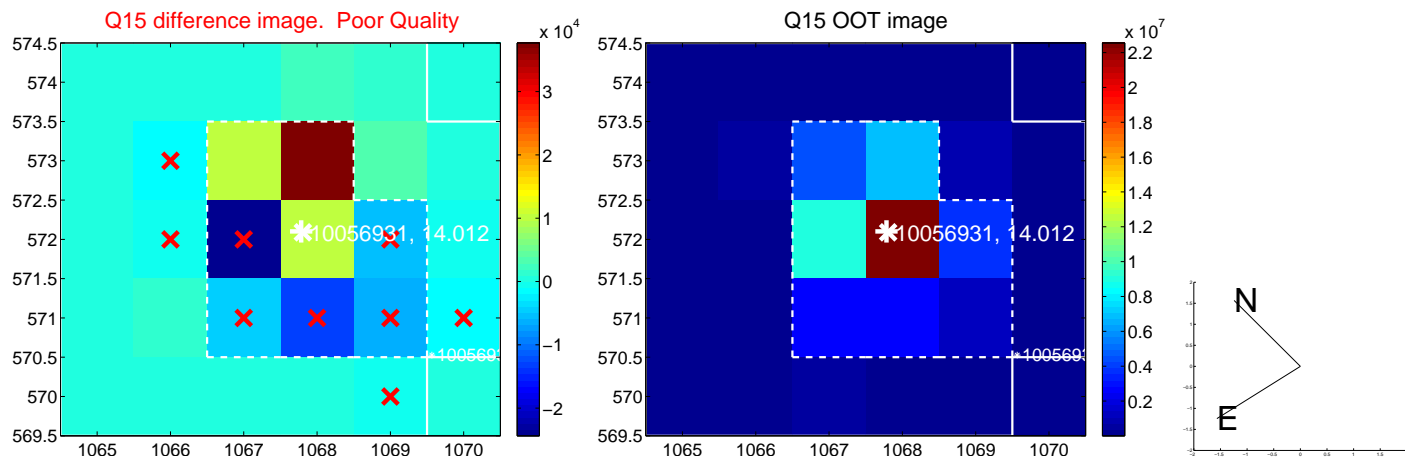
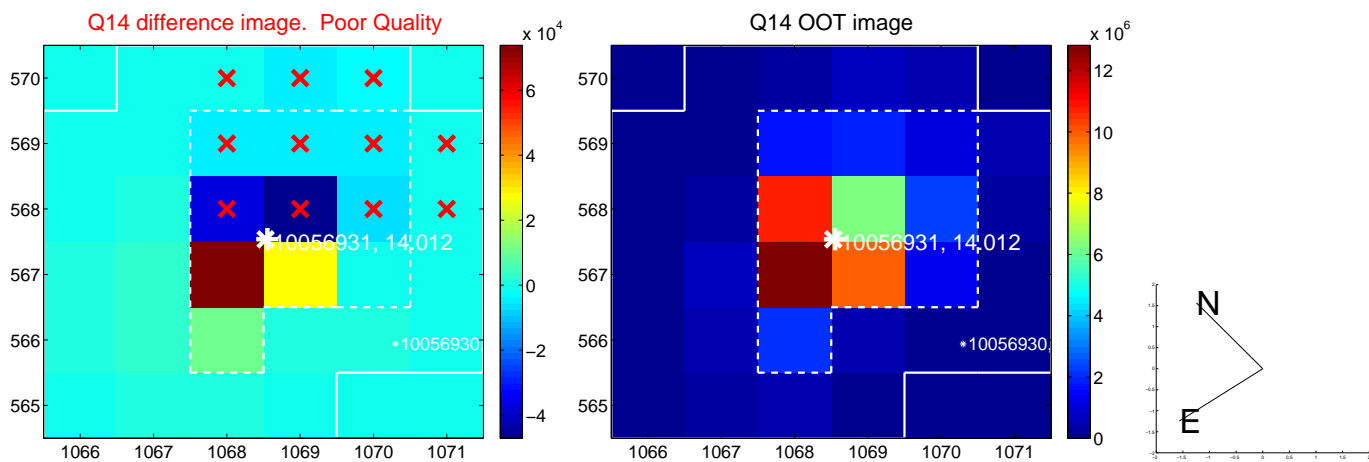
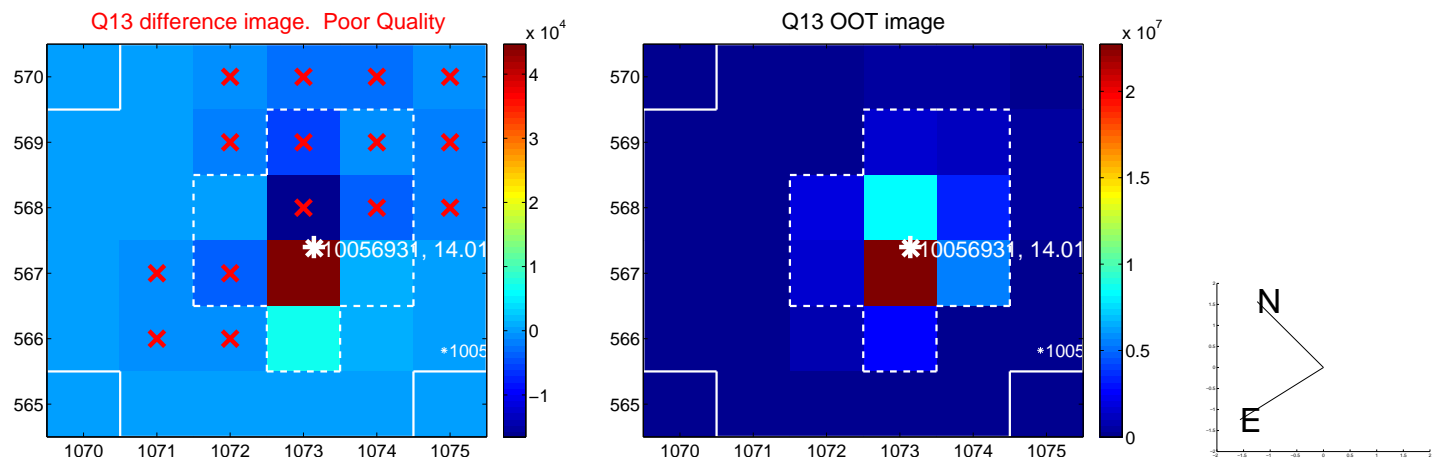
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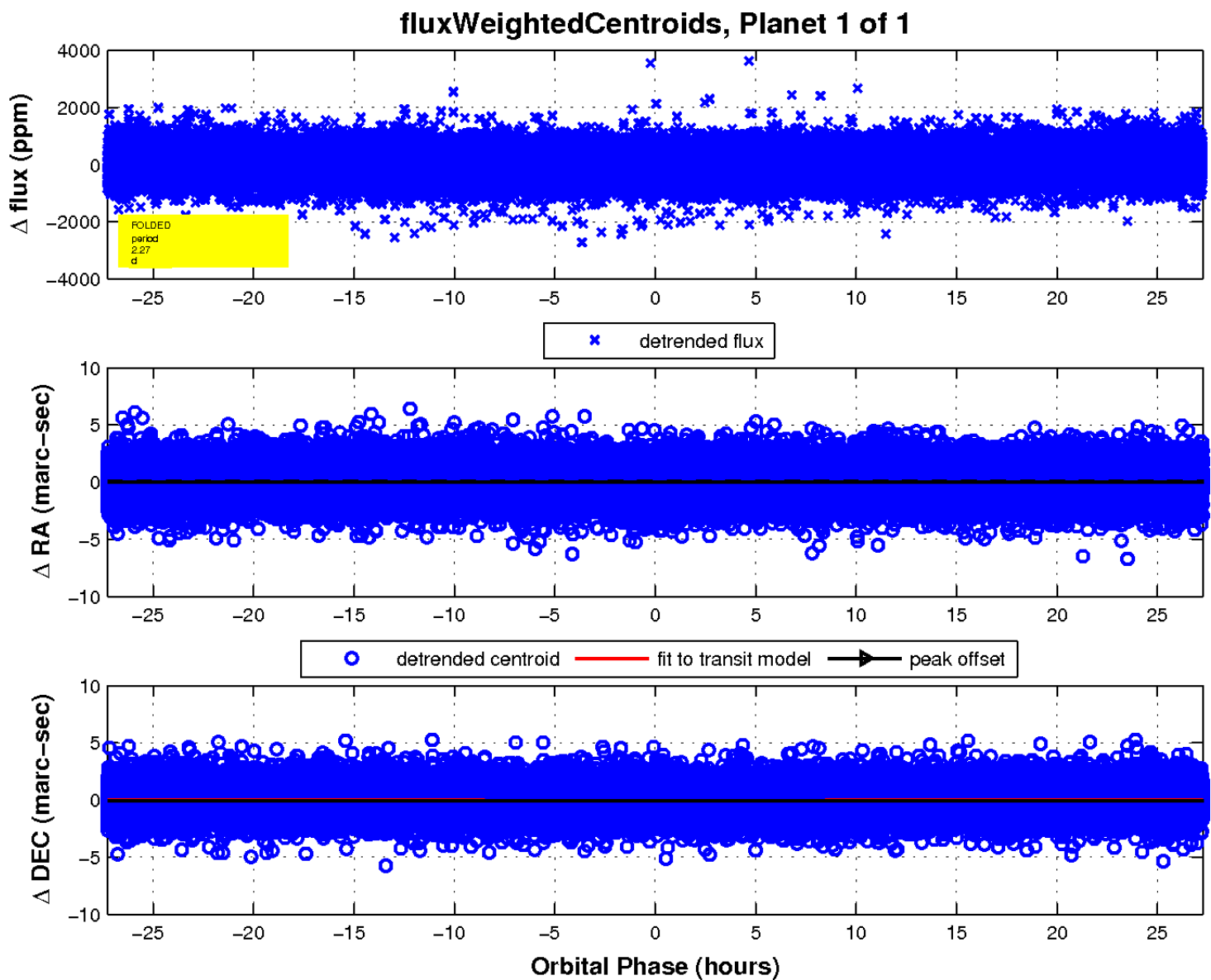
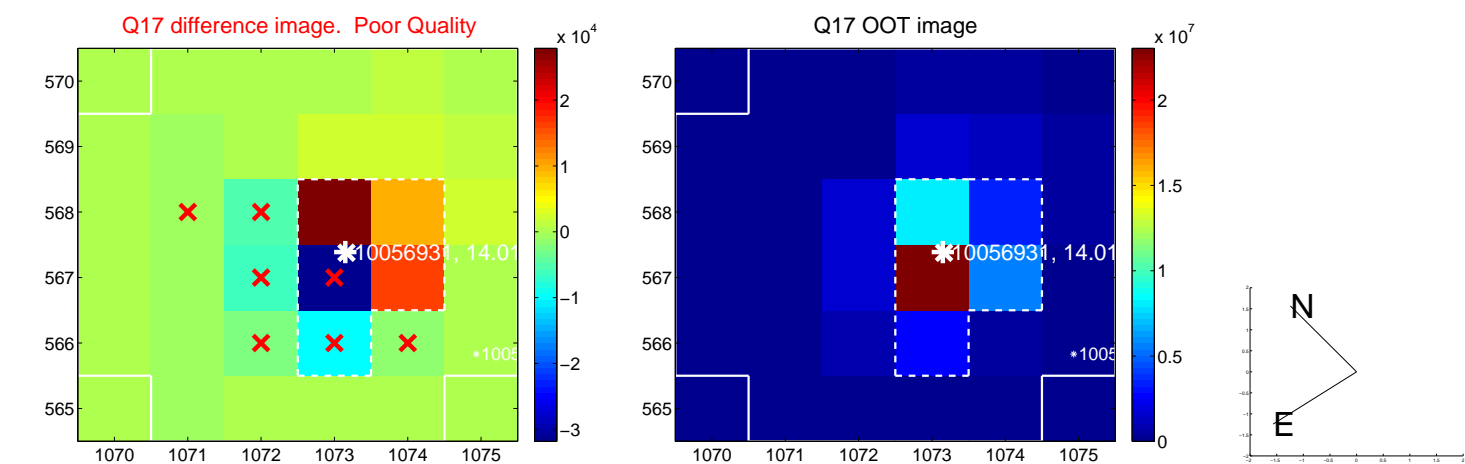
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UKIRT Image

Declination

