

KIC 005305977

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})
005305977-01	OBS	No	0.691210	131.864534	11.7	1.448	8.3	9.3	3.29	8057	1.32	107649.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005305977-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

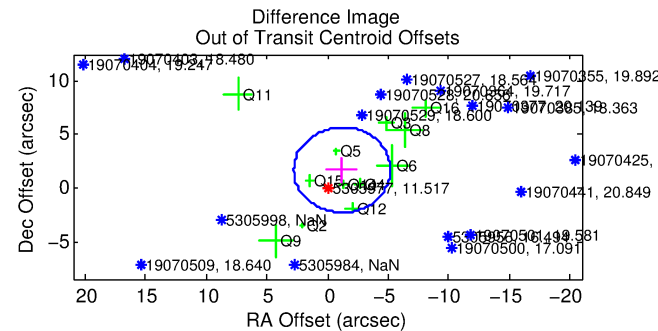
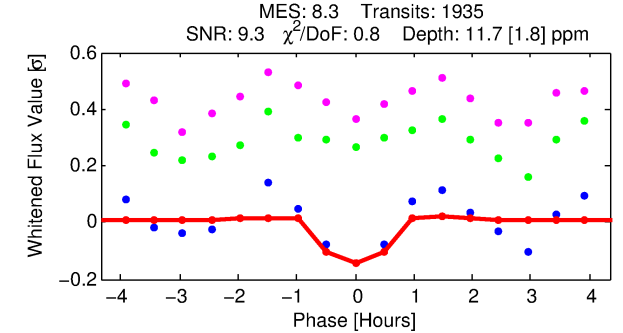
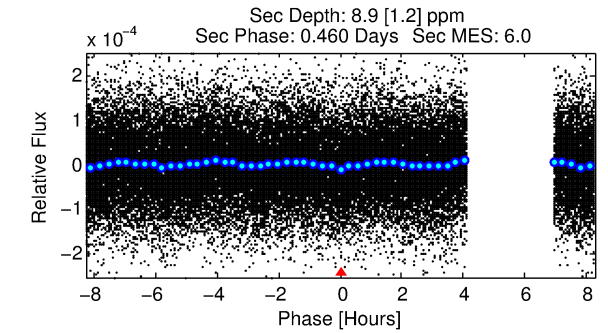
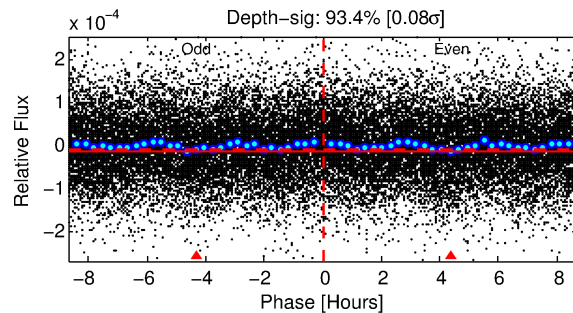
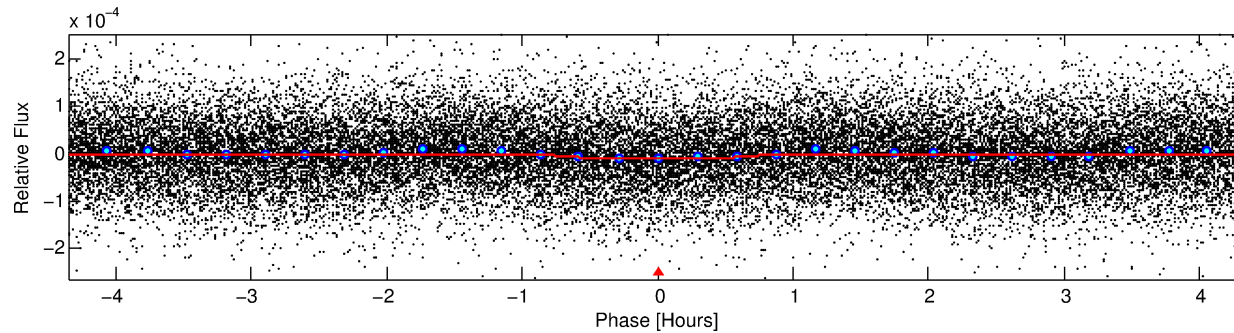
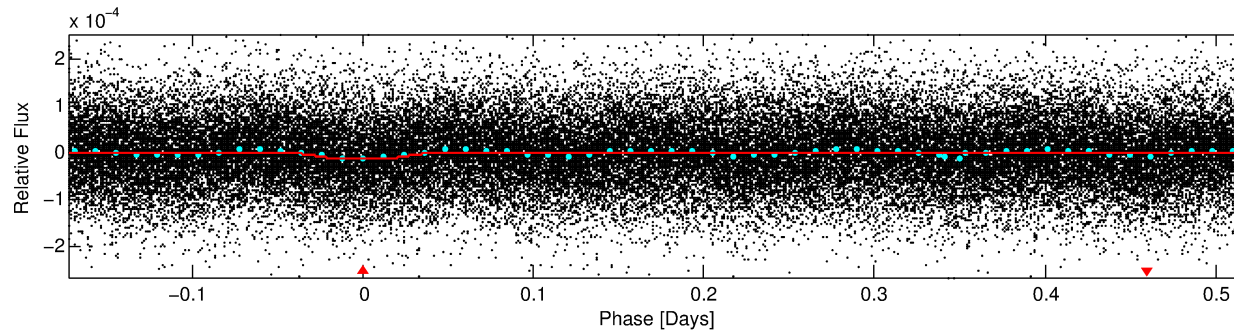
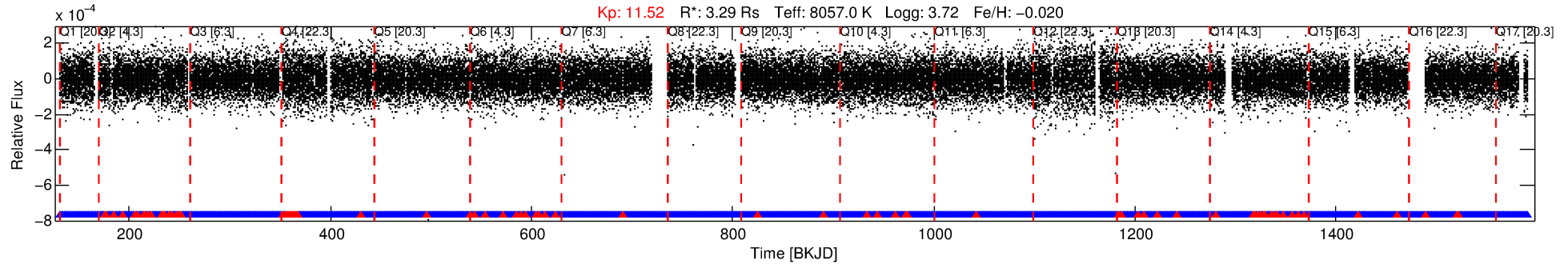
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005305977-01

No Significant Match Found

DV One-Page Summary

KIC: 5305977 Candidate: 1 of 1 Period: 0.691 d



DV Fit Results:

Period = 0.69121 [0.00001] d
Epoch = 131.8645 [0.0020] BKJD
Rp/R* = 0.0037 [0.0005]
a/R* = 1.82 [1.02]
b = 0.91 [0.16]
Seff = 107649.34 [81628.21]
Teq = 4619 [876] K
Rp = 1.32 [0.68] Re
a = 0.0195 [0.0091] AU
Ag = 1.06 [0.86] [0.07σ]
Teffp = 7245 [665] K [2.39σ]

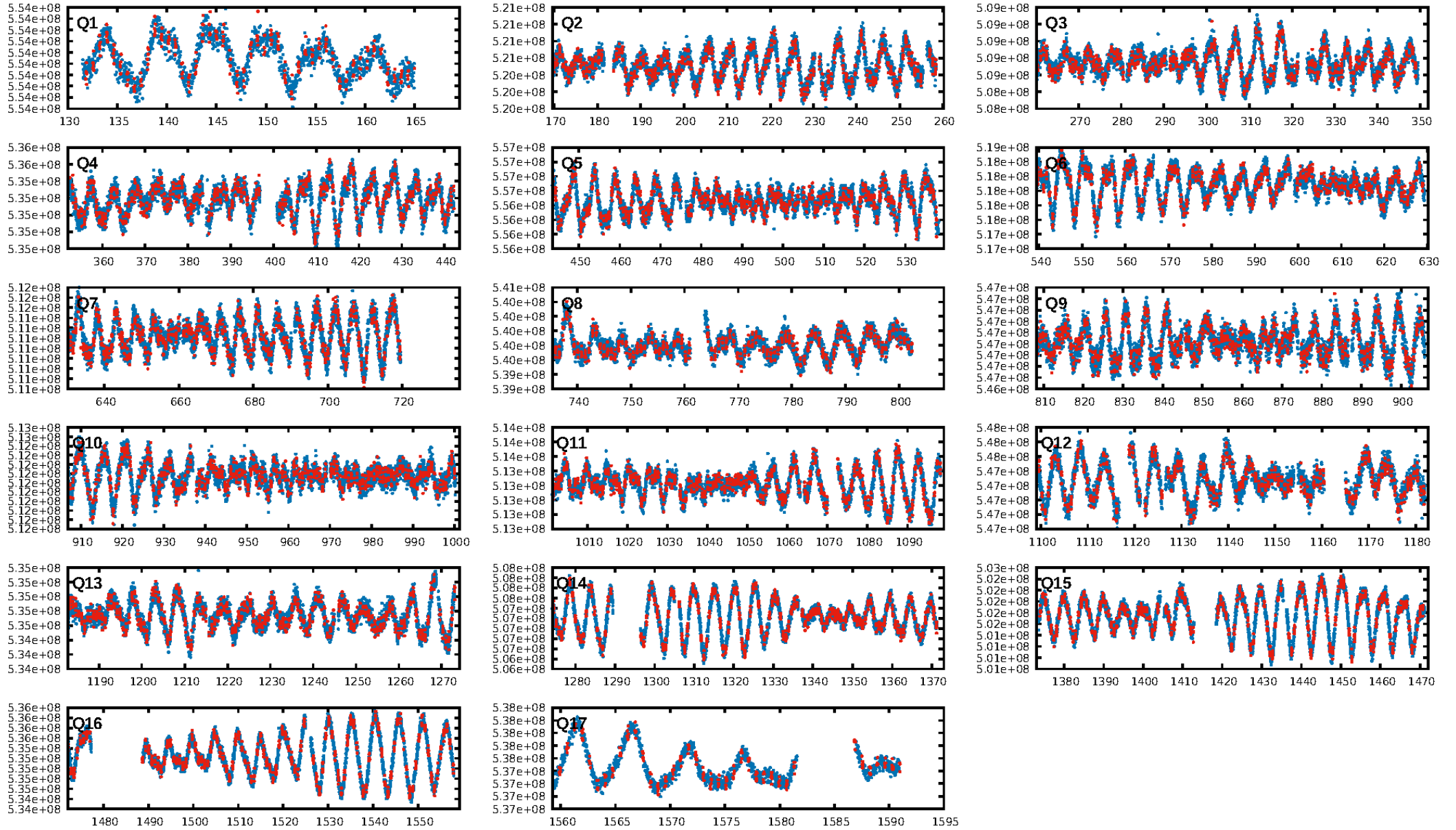
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-14
RollingBand-fgt: 0.96 [1768/1847]
GhostDiagnostic-chr: -1.343
Centroid-sig: 3.5%
Centroid-so: 1.660 arcsec [1.45σ]
OotOffset-rm: 2.073 arcsec [1.56σ]
KicOffset-rm: 2.089 arcsec [1.55σ]
OotOffset-st: 3/3/4/2 [12]
KicOffset-st: 3/3/4/2 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 1.00 [17/17]

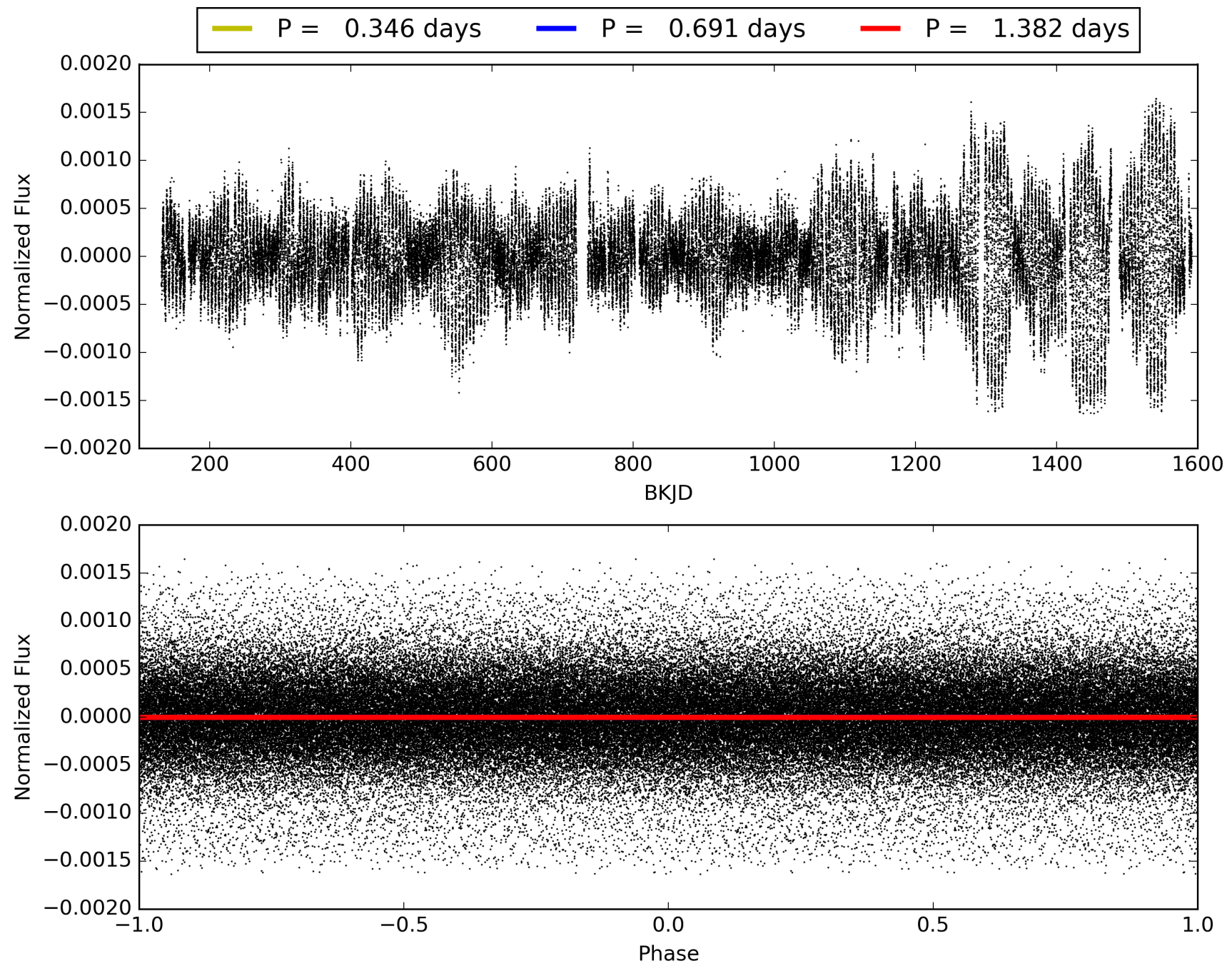
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:45:36 Z

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

TCE 005305977-01, PDC Light Curves

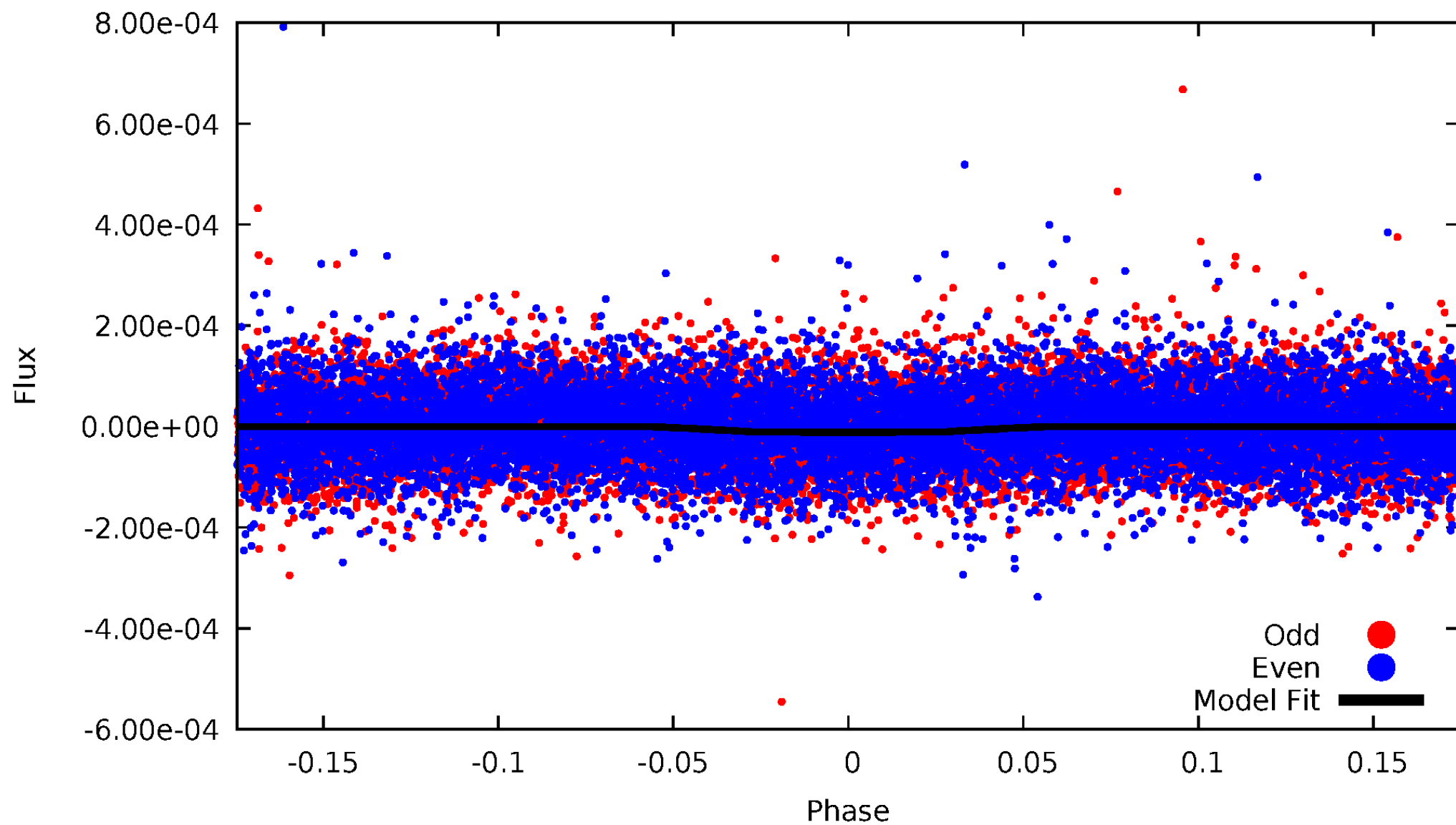


TCE 005305977-01



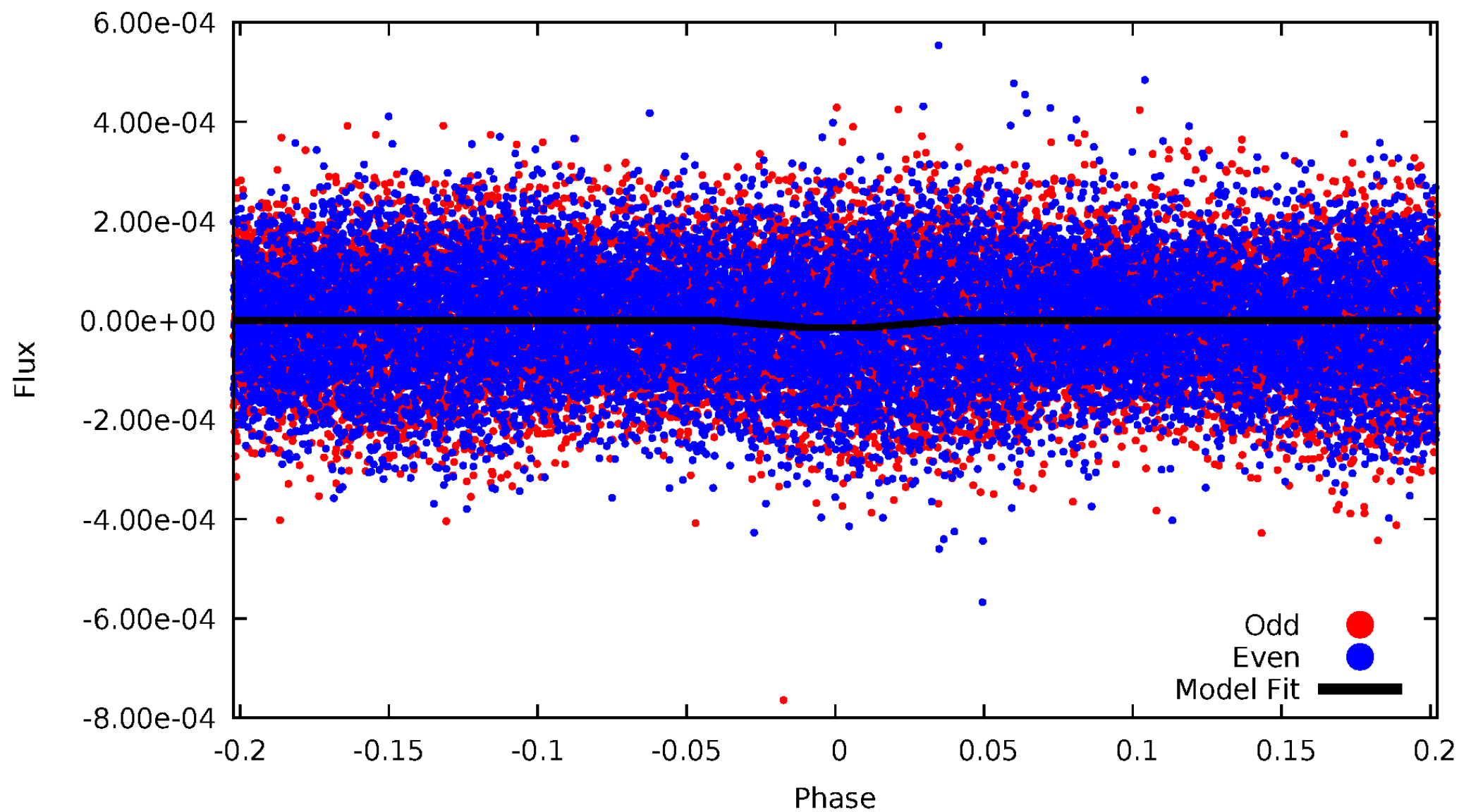
DV Odd/Even

TCE 005305977-01



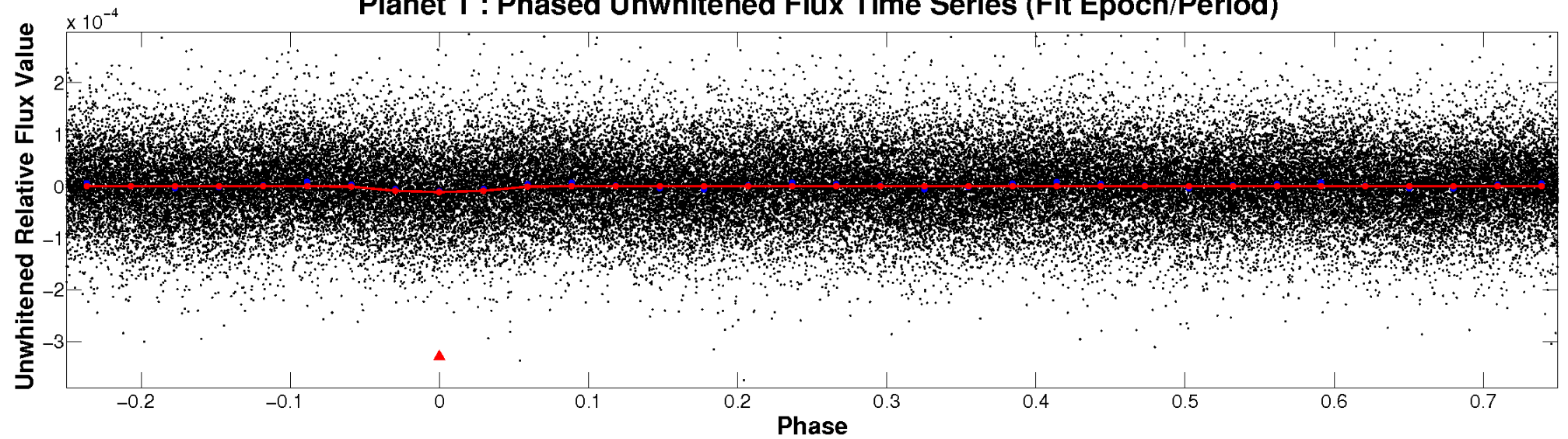
ALT Odd/Even

TCE 005305977-01

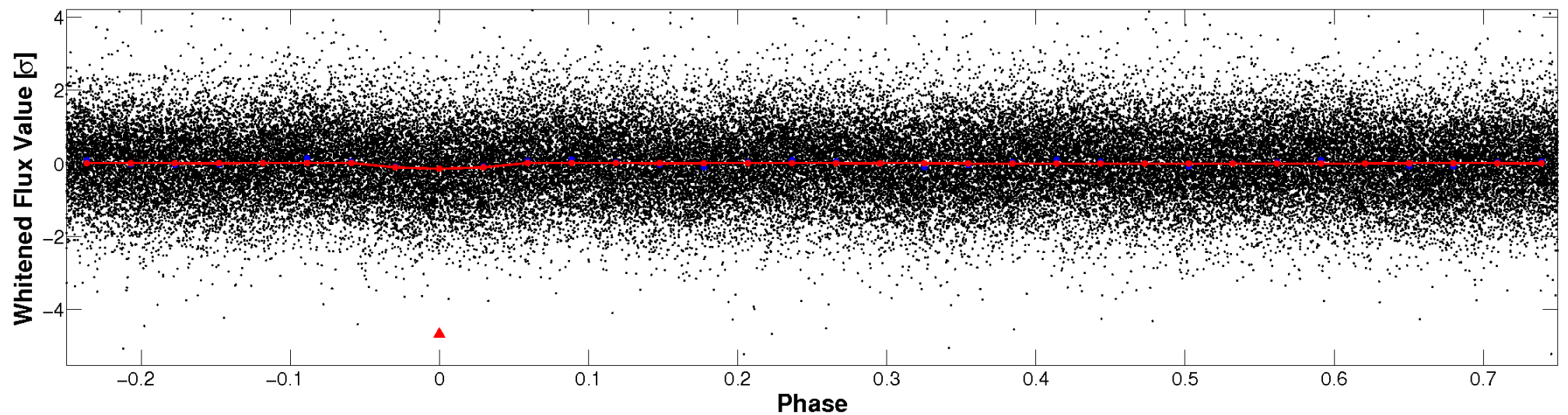


Non-Whitened Vs. Whitened Light Curve

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

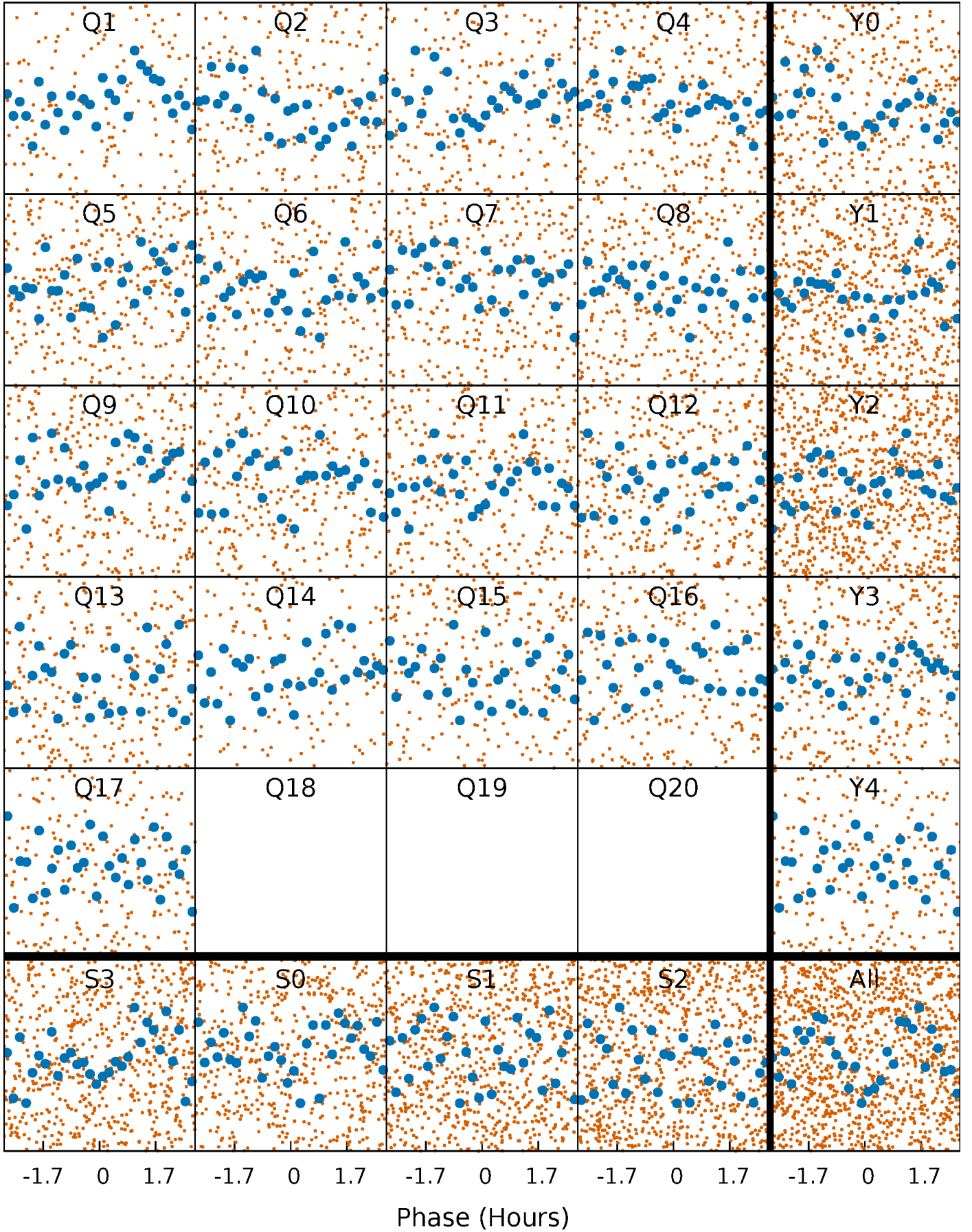


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



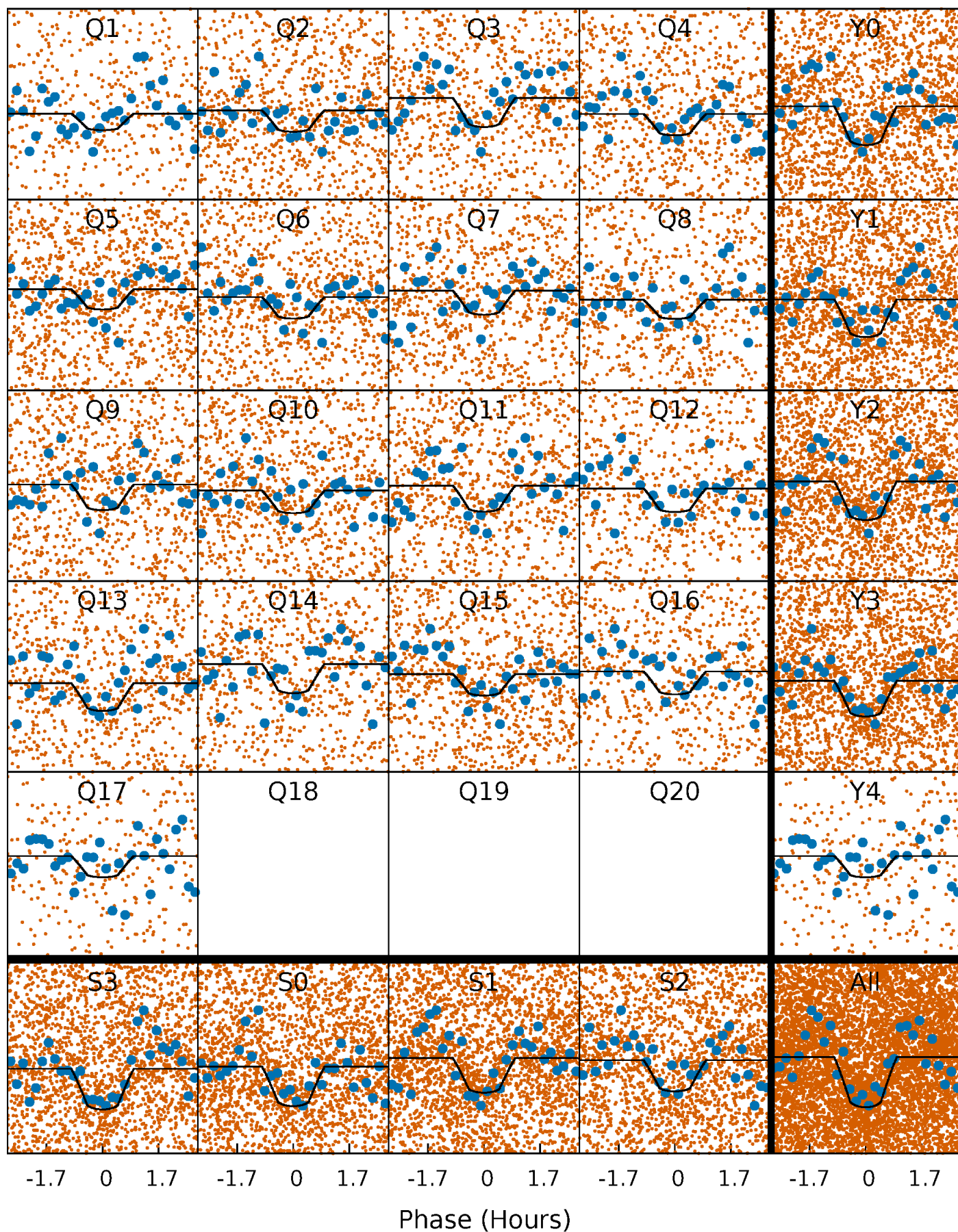
PDC Quarter-Phased Transit Curves

TCE 005305977-01 P= 0.691210 Days $T_0=131.864534$ (BKJD)



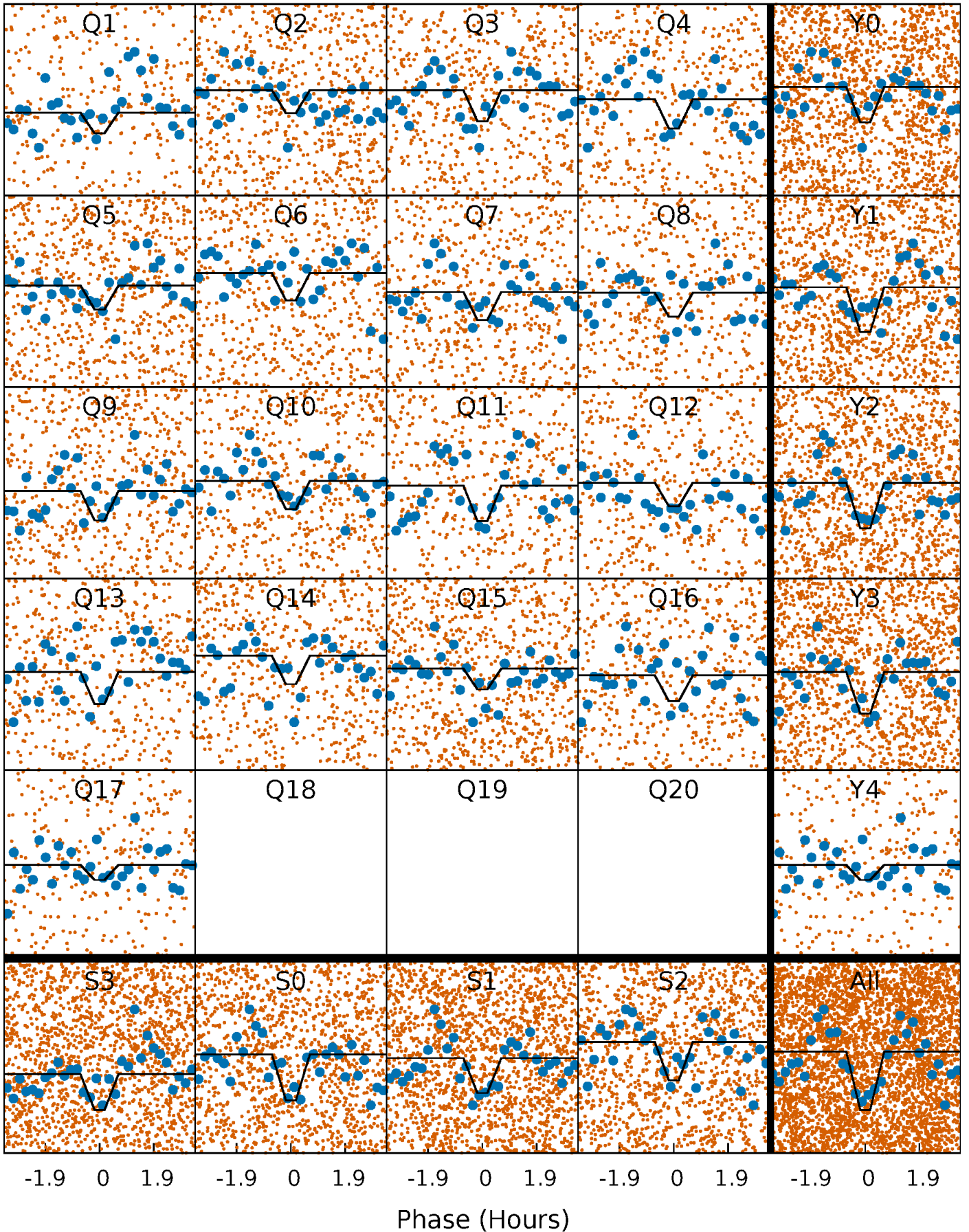
DV Quarter-Phased Transit Curves

TCE 005305977-01 P= 0.691210 Days $T_0=131.864534$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

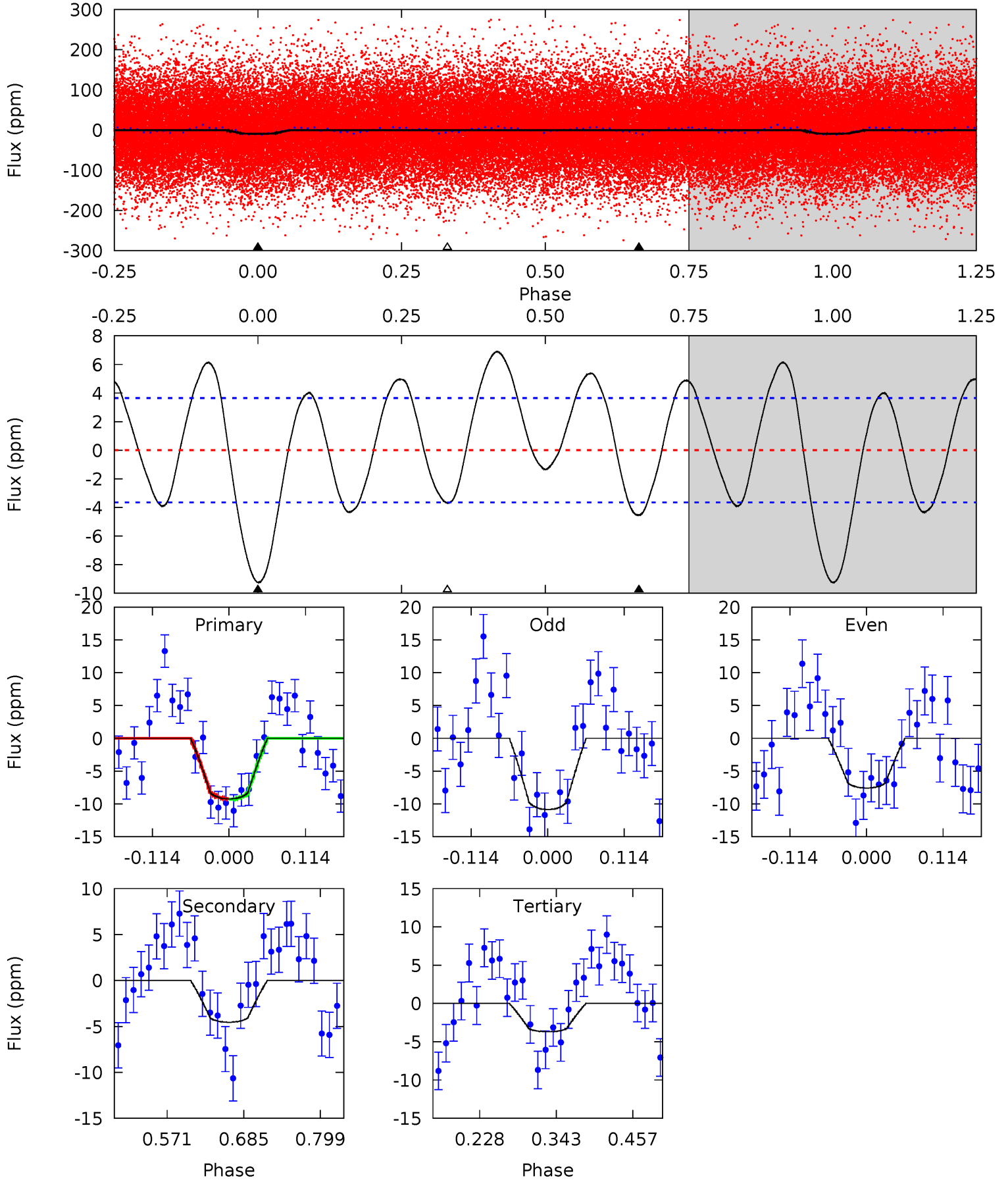
TCE 005305977-01 P= 0.691210 Days $T_0=131.863578$ (BKJD)



DV Model-Shift Uniqueness Test

005305977-01, P = 0.691210 Days, E = 131.173324 Days

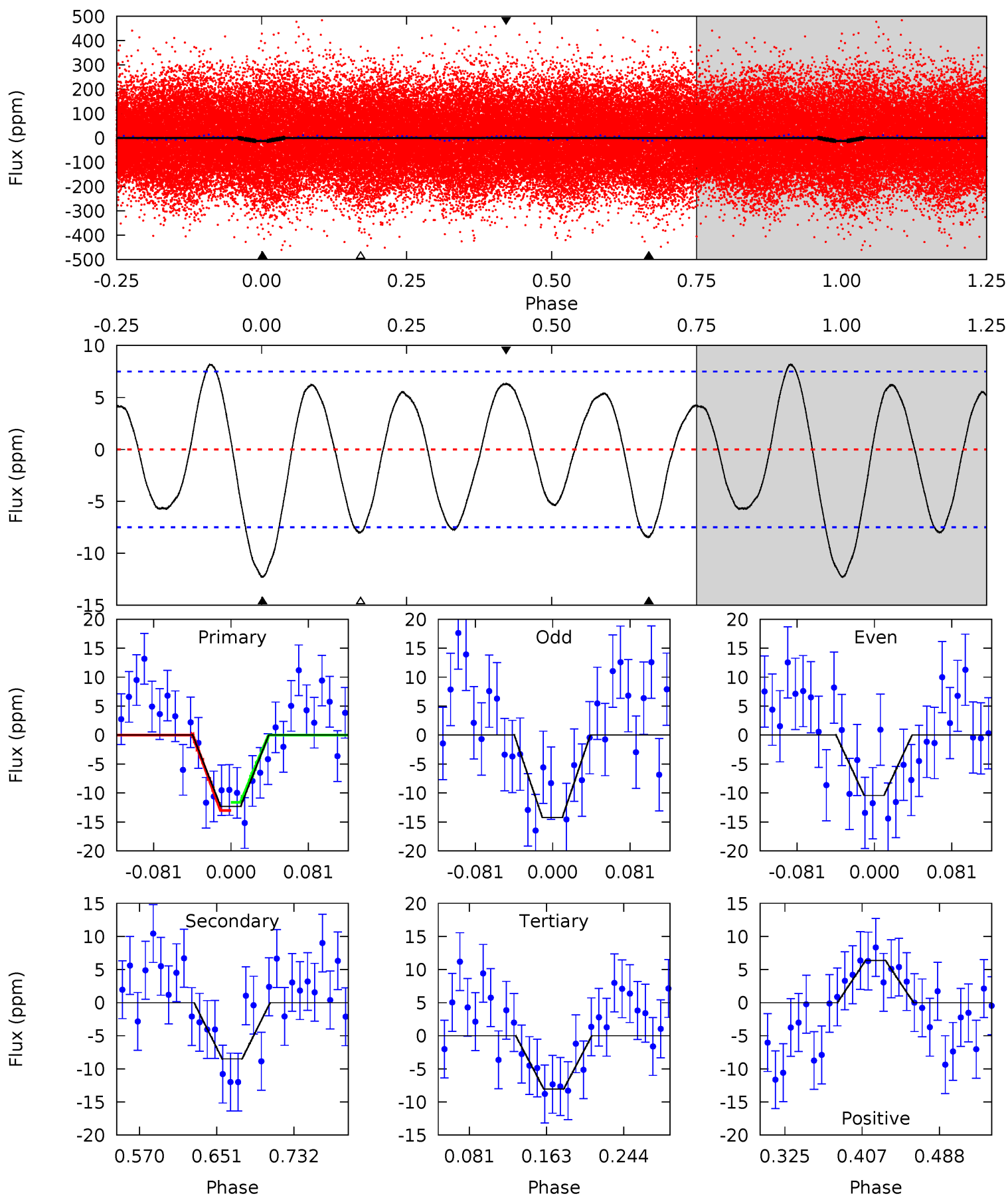
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	5.66	4.59	0	4.54	1.58	3.99	6.92	11.5	1.07	5.66	2.06	0.91	0.43	0.06



Alt Model-Shift Uniqueness Test

005305977-01, P = 0.691210 Days, E = 131.172368 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.58	5.22	4.95	3.92	4.61	1.74	2.84	2.64	3.67	0.28	1.31	1.18	1.16	0.40	0.43



Stellar Parameters For KIC 005305977

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8057^{+223}_{-335}	$3.719^{+0.432}_{-0.108}$	$-0.020^{+0.250}_{-0.400}$	$3.295^{+0.811}_{-1.621}$	$2.075^{+0.334}_{-0.501}$	$0.082^{+0.357}_{-0.033}$
	+3%/-4%	+12%/-3%	+1250%/-2000%	+25%/-49%	+16%/-24%	+437%/-40%
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 005305977-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-5 ± 1	$1.21^{+0.31}_{-0.32}$	6219^{+532}_{-751}	5157^{+842}_{-918}	$0.647^{+0.485}_{-0.239}$
Alt.	-8 ± 2	$1.27^{+0.31}_{-0.34}$	6244^{+458}_{-711}	6305^{+888}_{-801}	$1.100^{+0.896}_{-0.384}$

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

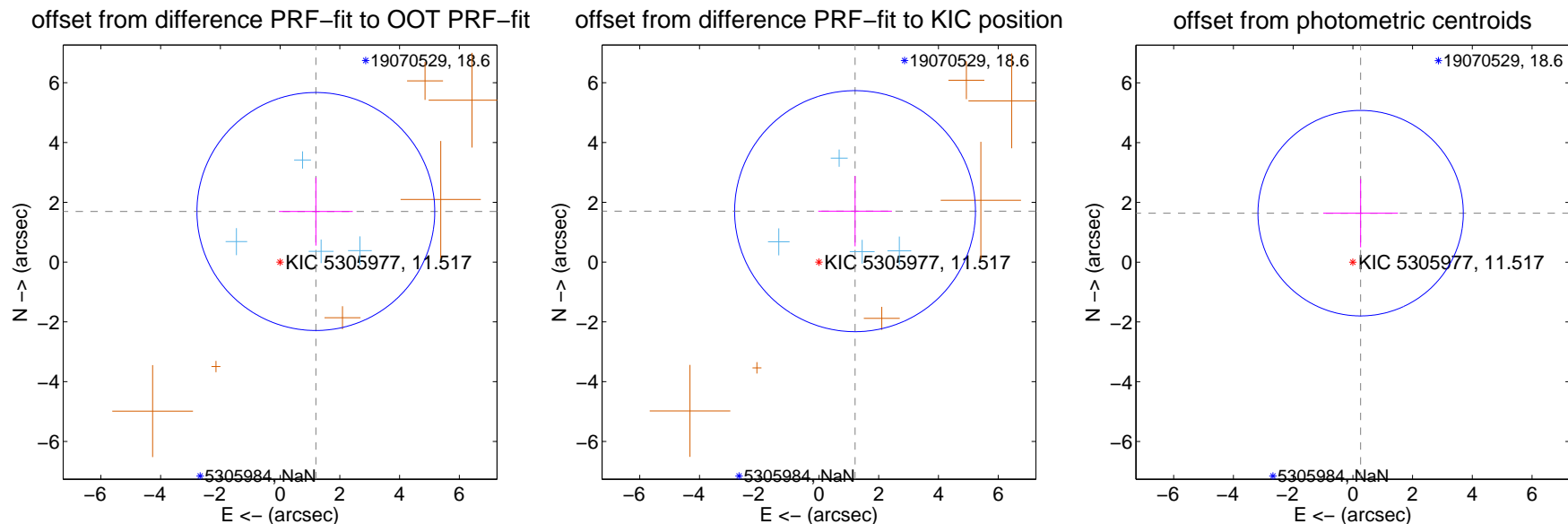
DV Centroid Data

Supplemental centroid analysis for 005305977-01. **Kepler magnitude: 11.52.** Transit SNR 9.26

There are 4 quarters with good PRF difference image offsets

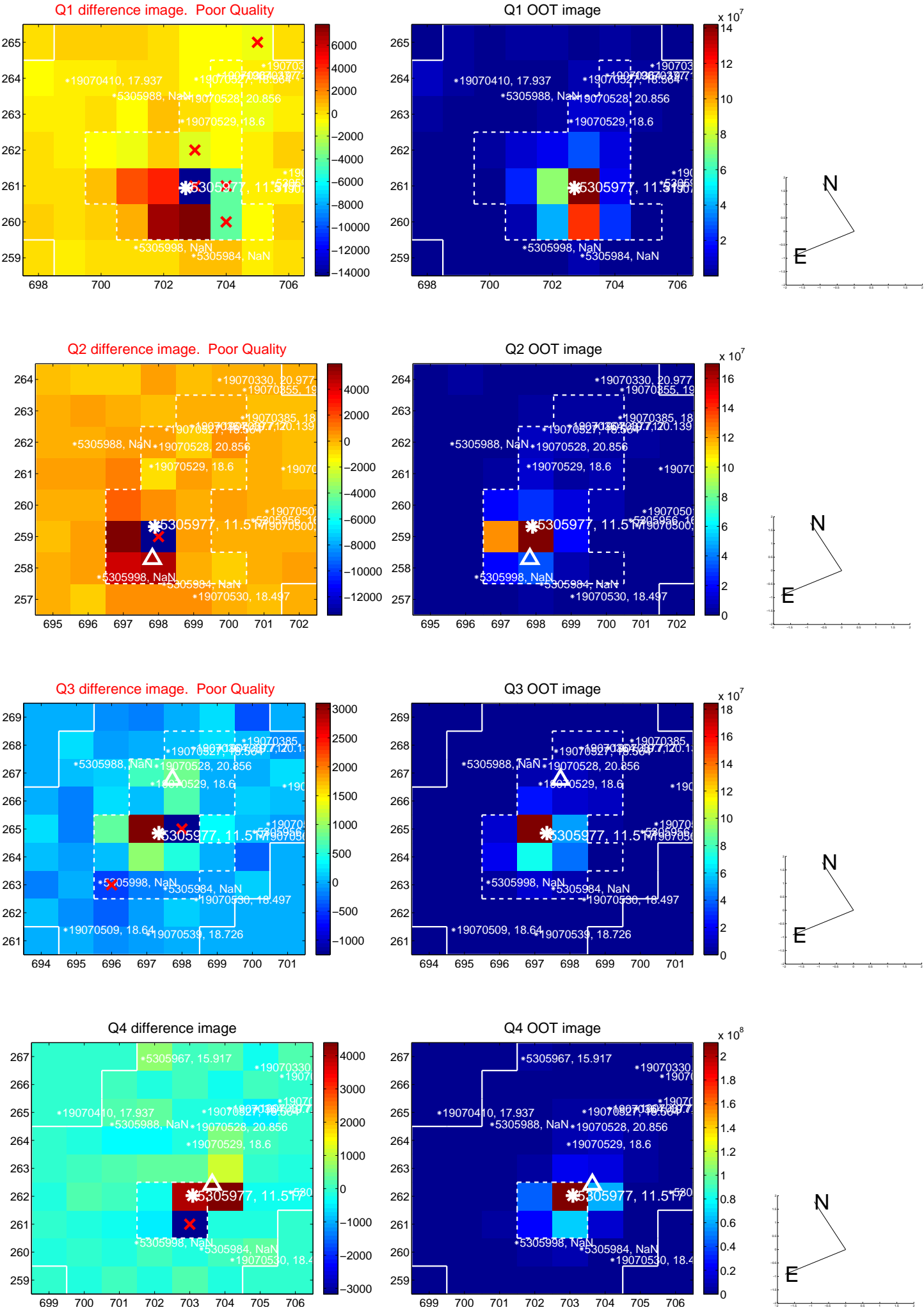
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.073 ± 1.327	1.56	-1.197 ± 1.236	1.693 ± 1.140
PRF-fit source offset from KIC position	2.089 ± 1.344	1.55	-1.208 ± 1.234	1.704 ± 1.175
photometric centroid source offset	1.66 ± 1.15	1.45	-0.26 ± 1.25	1.64 ± 1.14

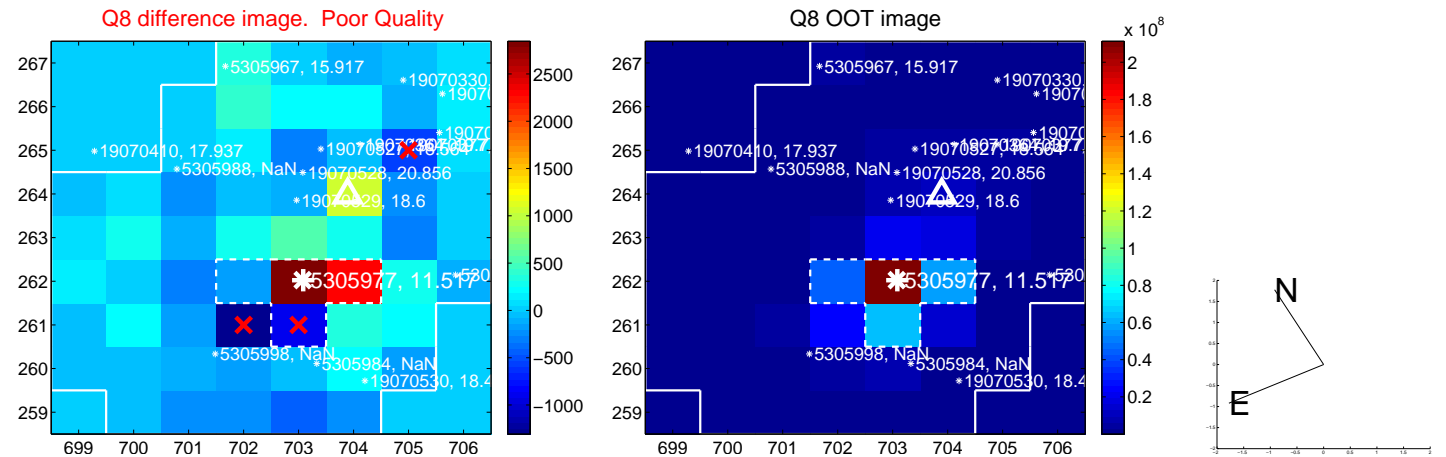
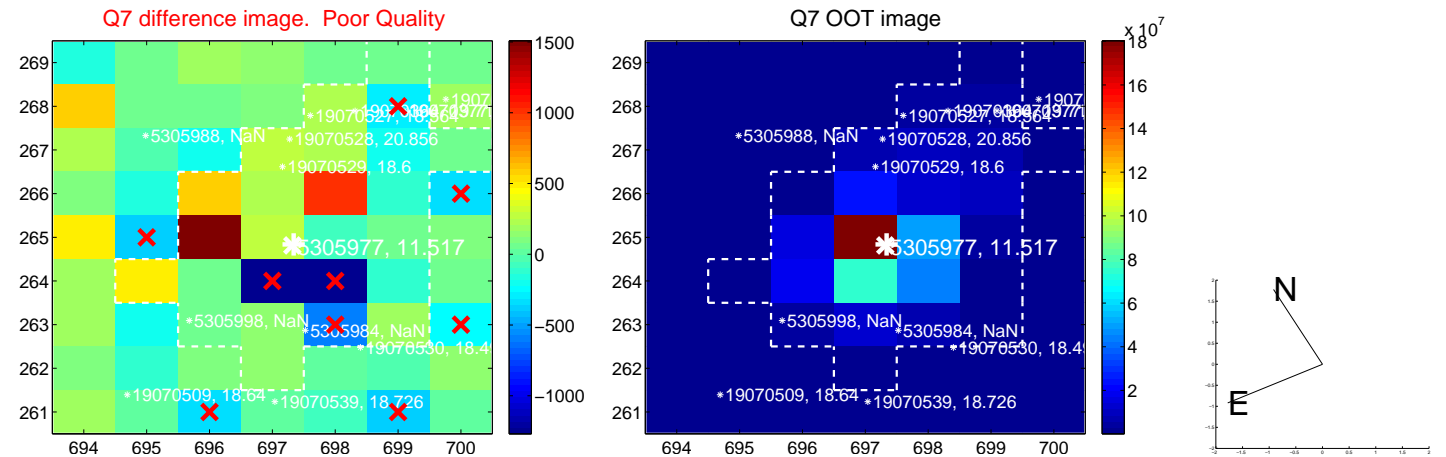
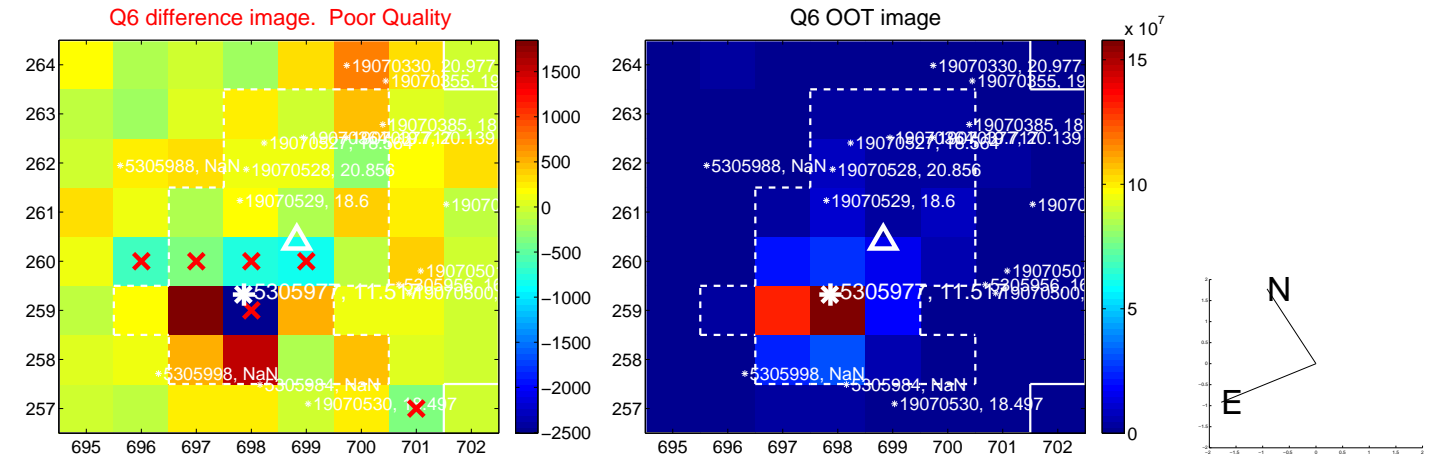
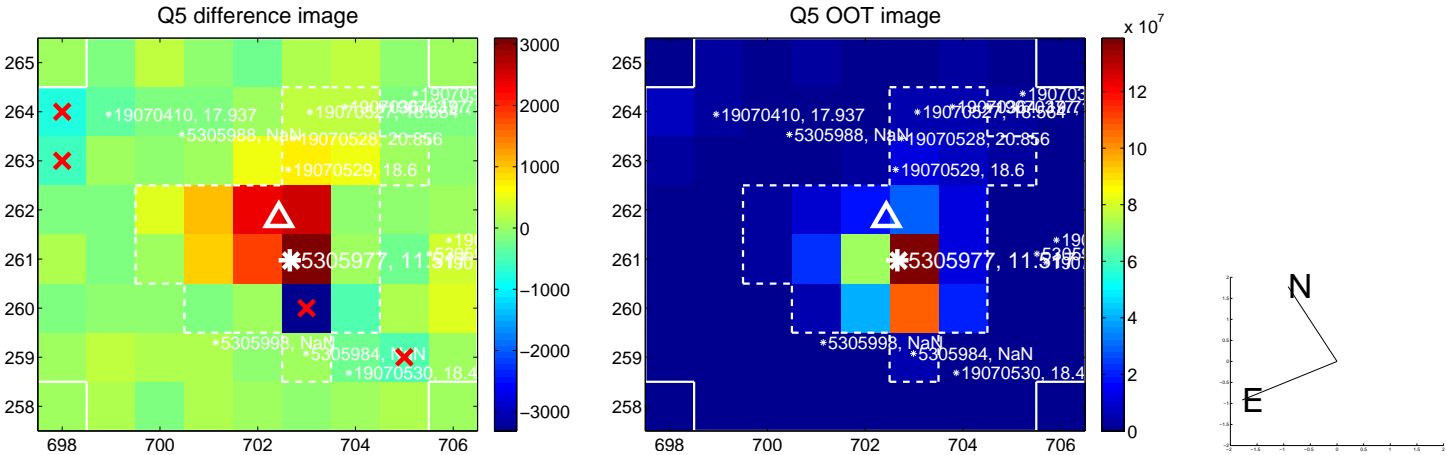


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

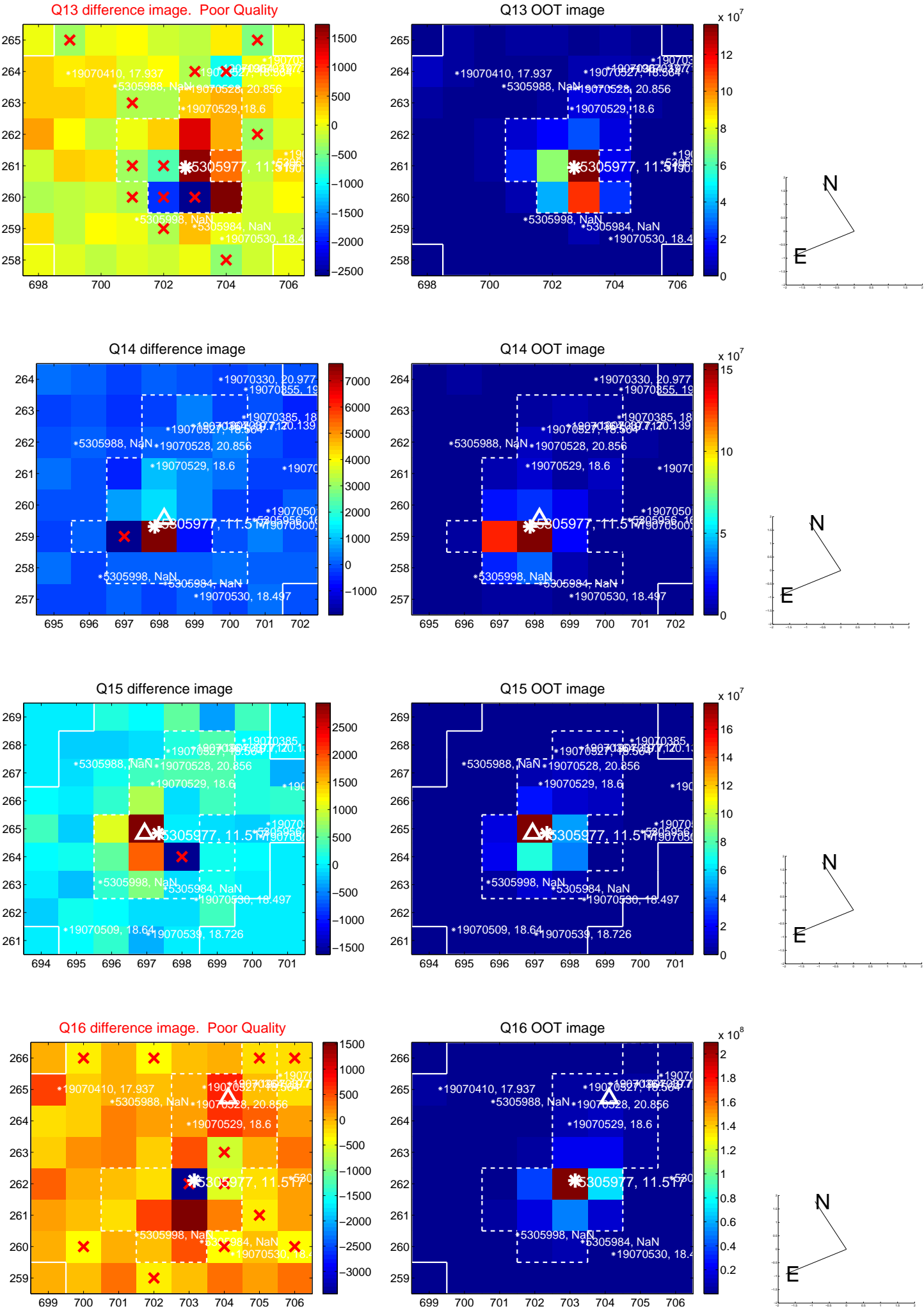
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



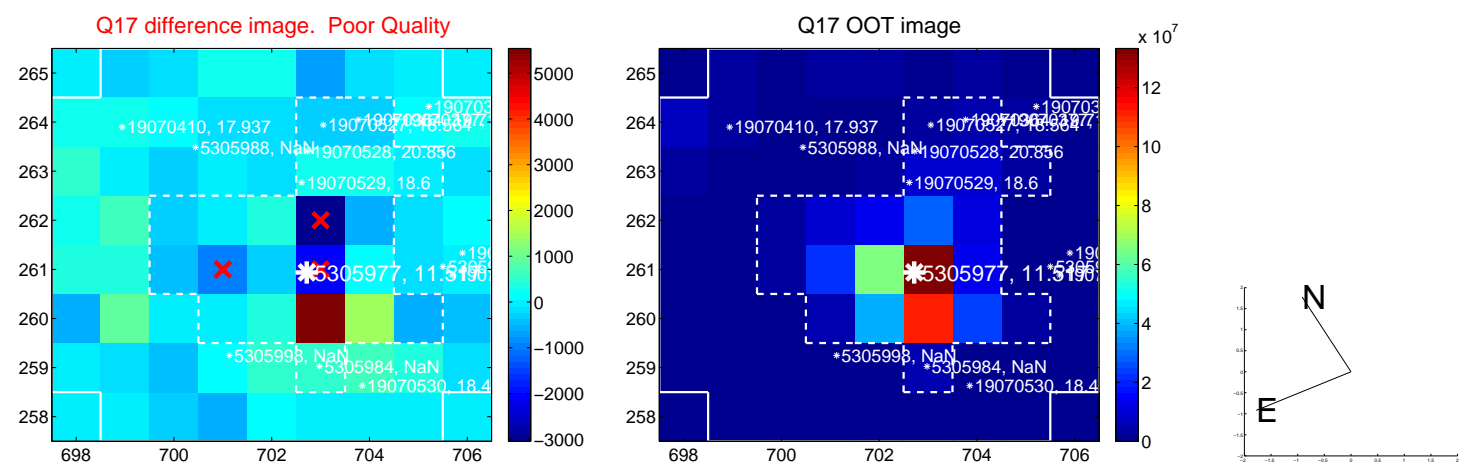
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



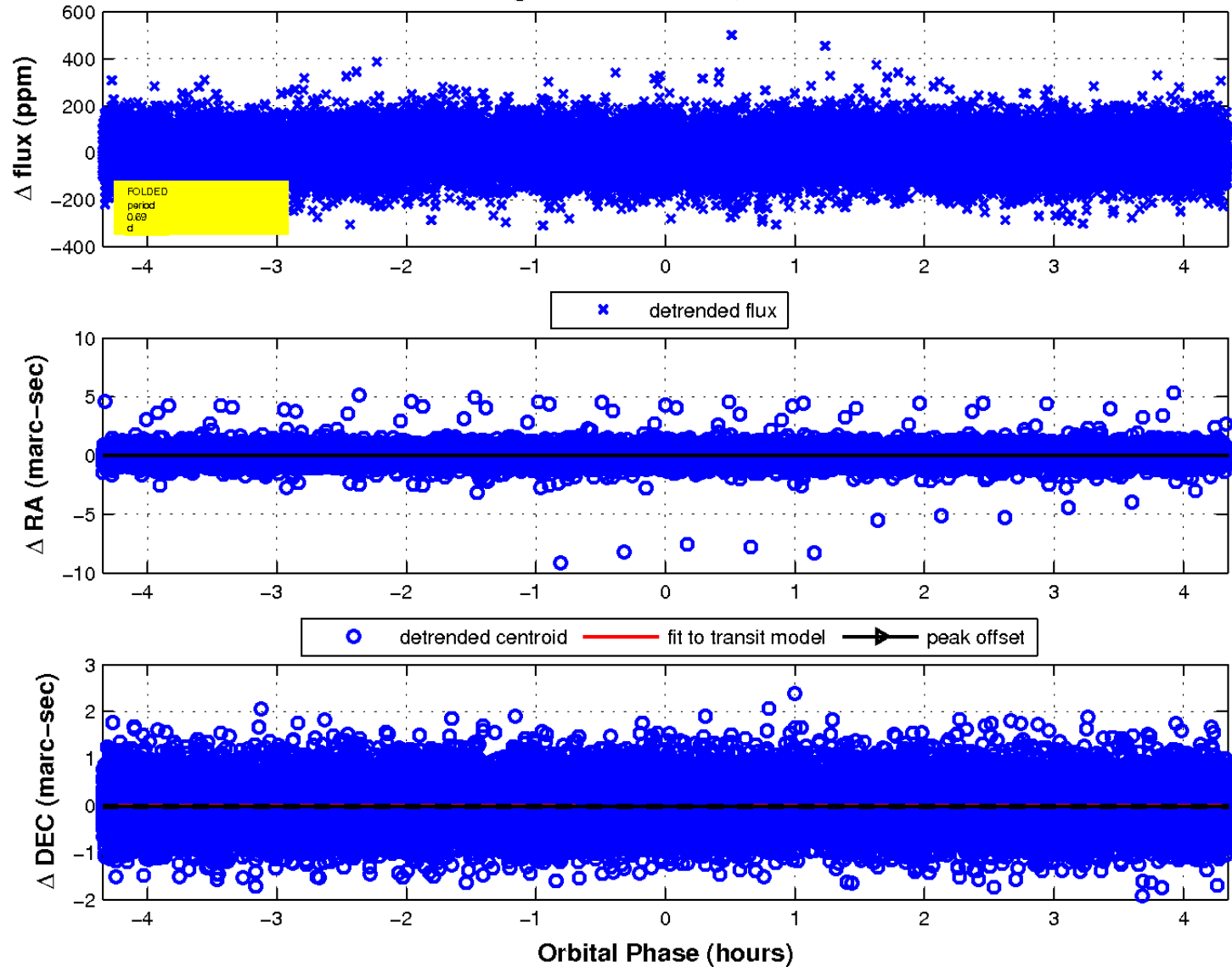
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

