

KIC 005305240

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})
005305240-01	OBS	3239.01	1.070992	131.979410	41.3	1.380	14.4	16.6	1.43	5717	1.10	4801.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005305240-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

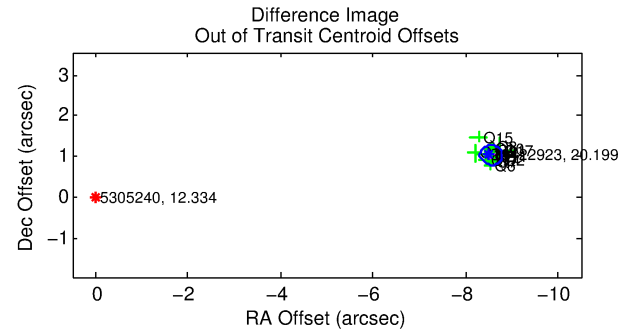
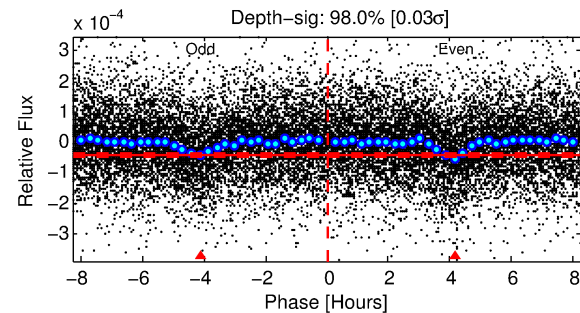
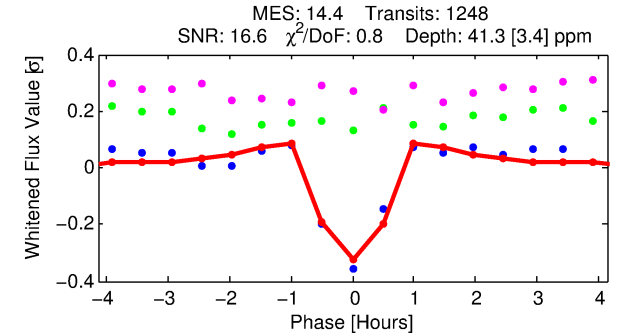
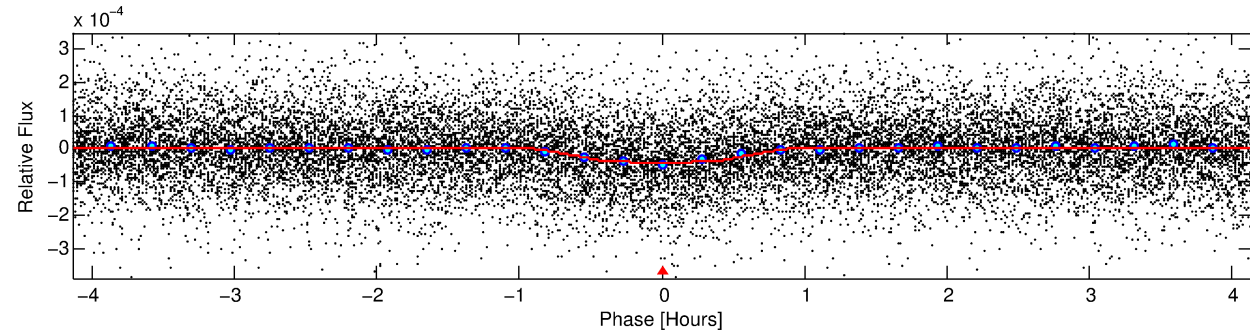
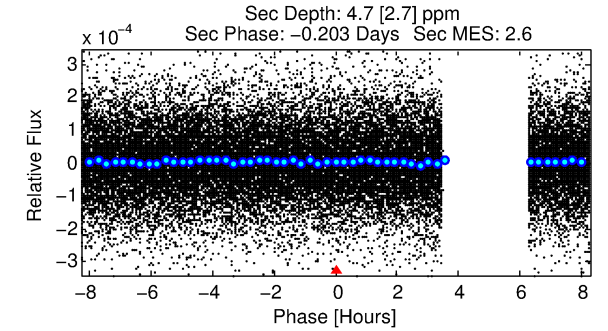
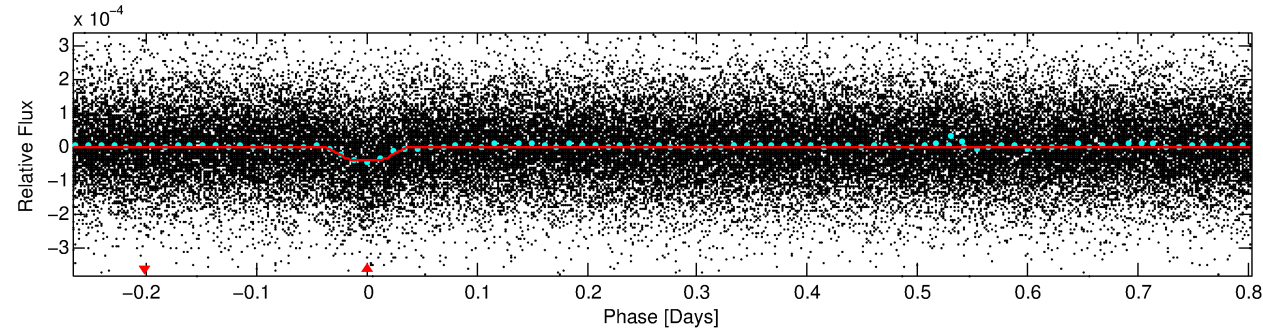
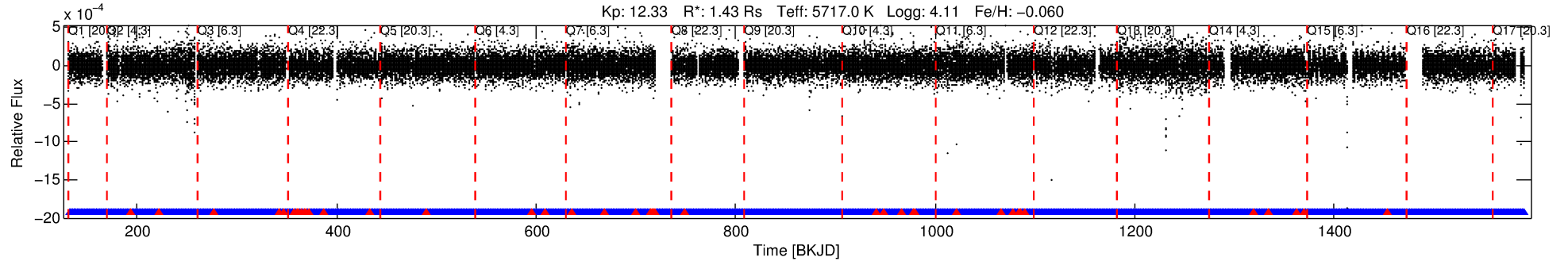
Ephemeris Match Information For 005305240-01

No Significant Match Found

DV One-Page Summary

KIC: 5305240 Candidate: 1 of 1 Period: 1.071 d
KOI: K03239.01 Corr: 0.865

Kp: 12.33 R*: 1.43 Rs Teff: 5717.0 K Logg: 4.11 Fe/H: -0.060



DV Fit Results:

Period = 1.07099 [0.00001] d
Epoch = 131.9794 [0.0010] BKJD
Rp/R* = 0.0070 [0.0016]
a/R* = 2.82 [2.70]
b = 0.90 [0.23]
Seff = 4801.20 [2836.34]
Teq = 2123 [313] K
Rp = 1.10 [0.44] Re
a = 0.0202 [0.0070] AU
Ag = 0.87 [0.82] [-0.16σ]
Teffp = 3171 [592] K [1.56σ]

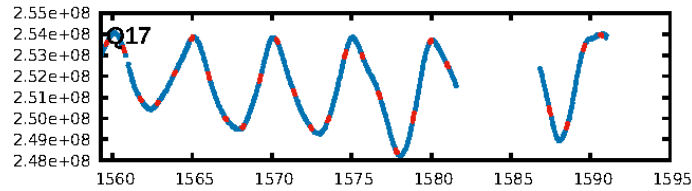
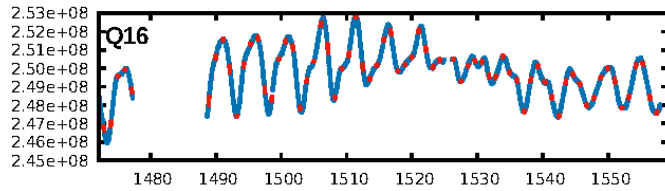
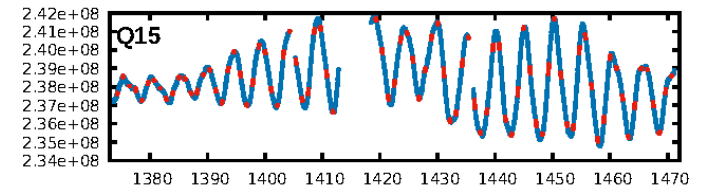
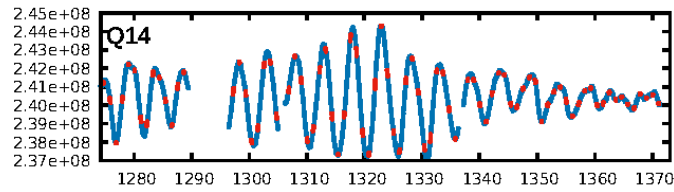
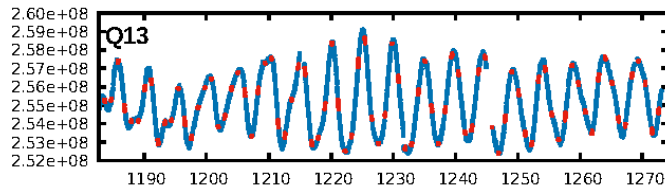
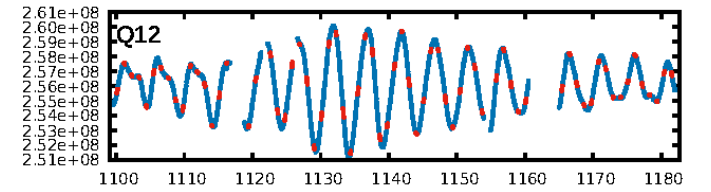
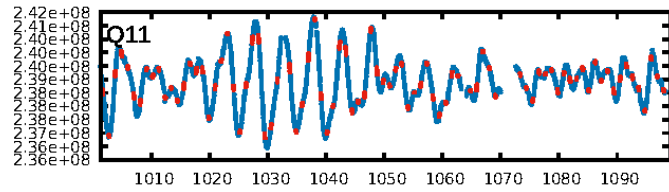
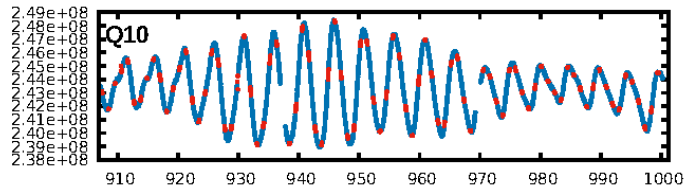
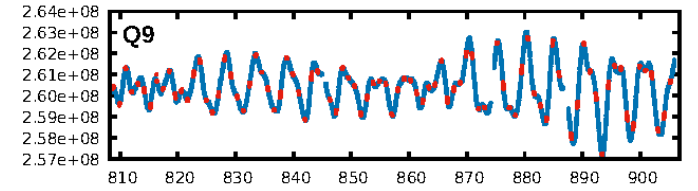
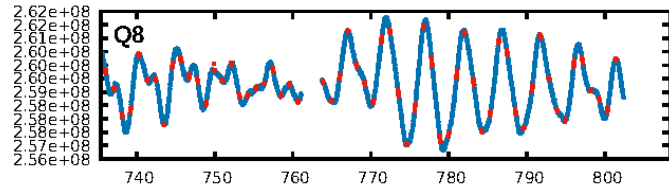
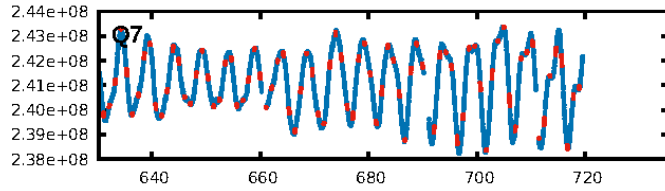
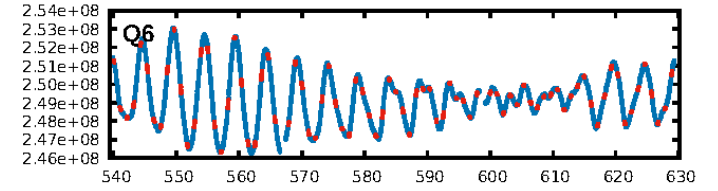
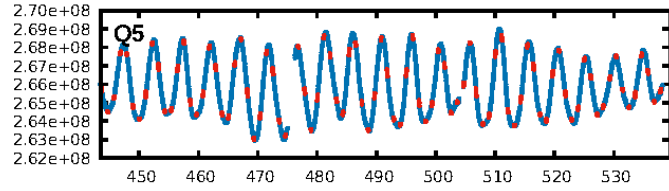
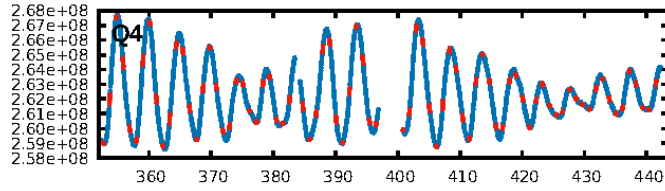
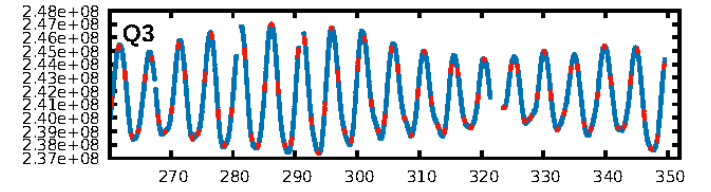
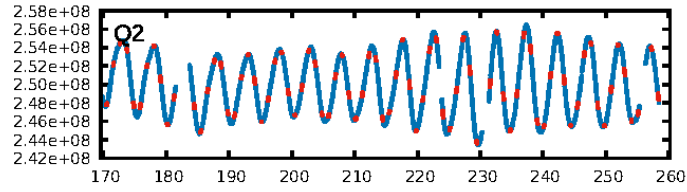
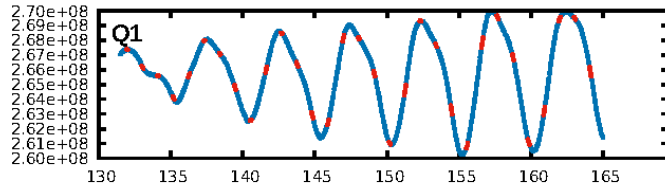
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 7.47e-44
RollingBand-fgt: 0.96 [1148/1192]
GhostDiagnostic-chr: -0.1325
Centroid-sig: 0.0%
Centroid-so: 11.970 arcsec [16.47σ]
OotOffset-rm: 8.616 arcsec [107.23σ]
KicOffset-rm: 8.515 arcsec [105.98σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 1.00 [17/17]

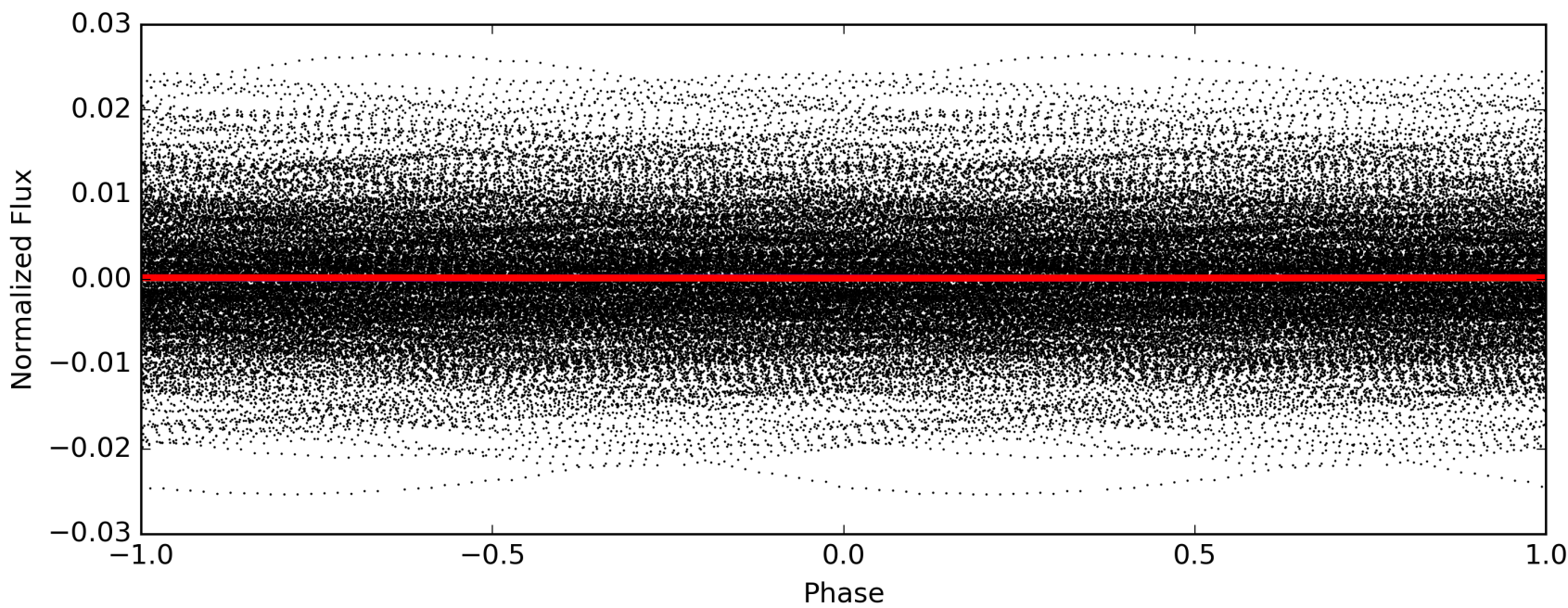
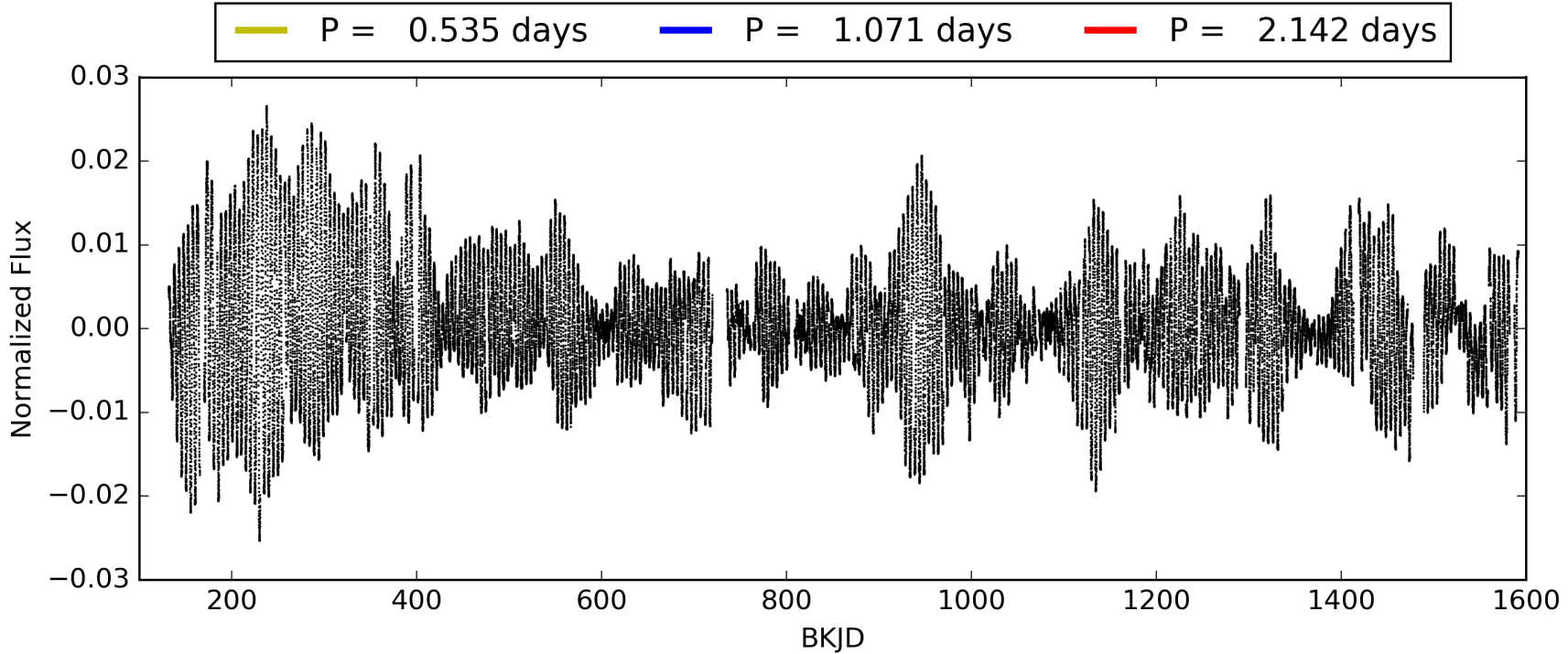
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:06:54 Z

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

TCE 005305240-01, PDC Light Curves

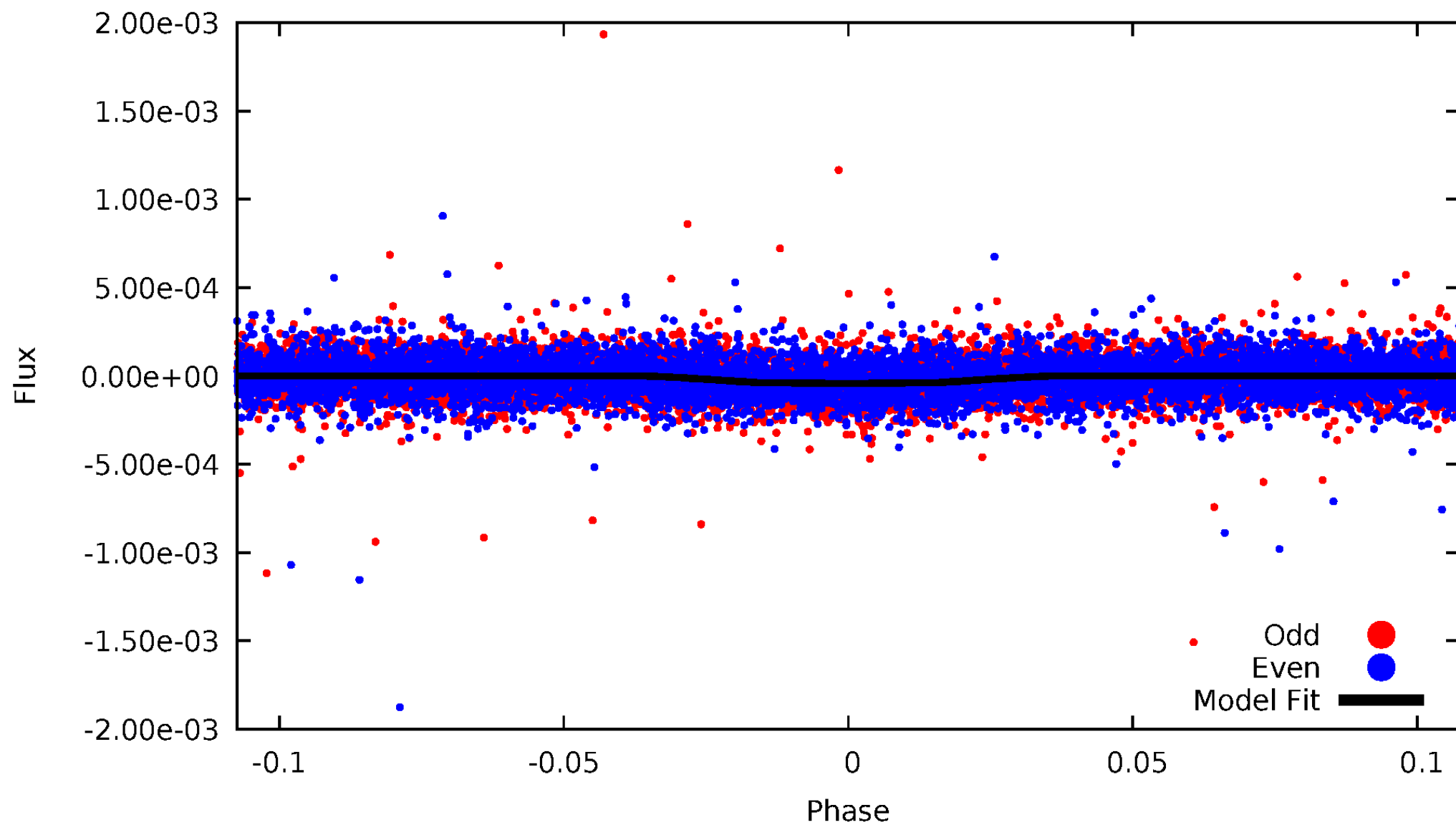


TCE 005305240-01



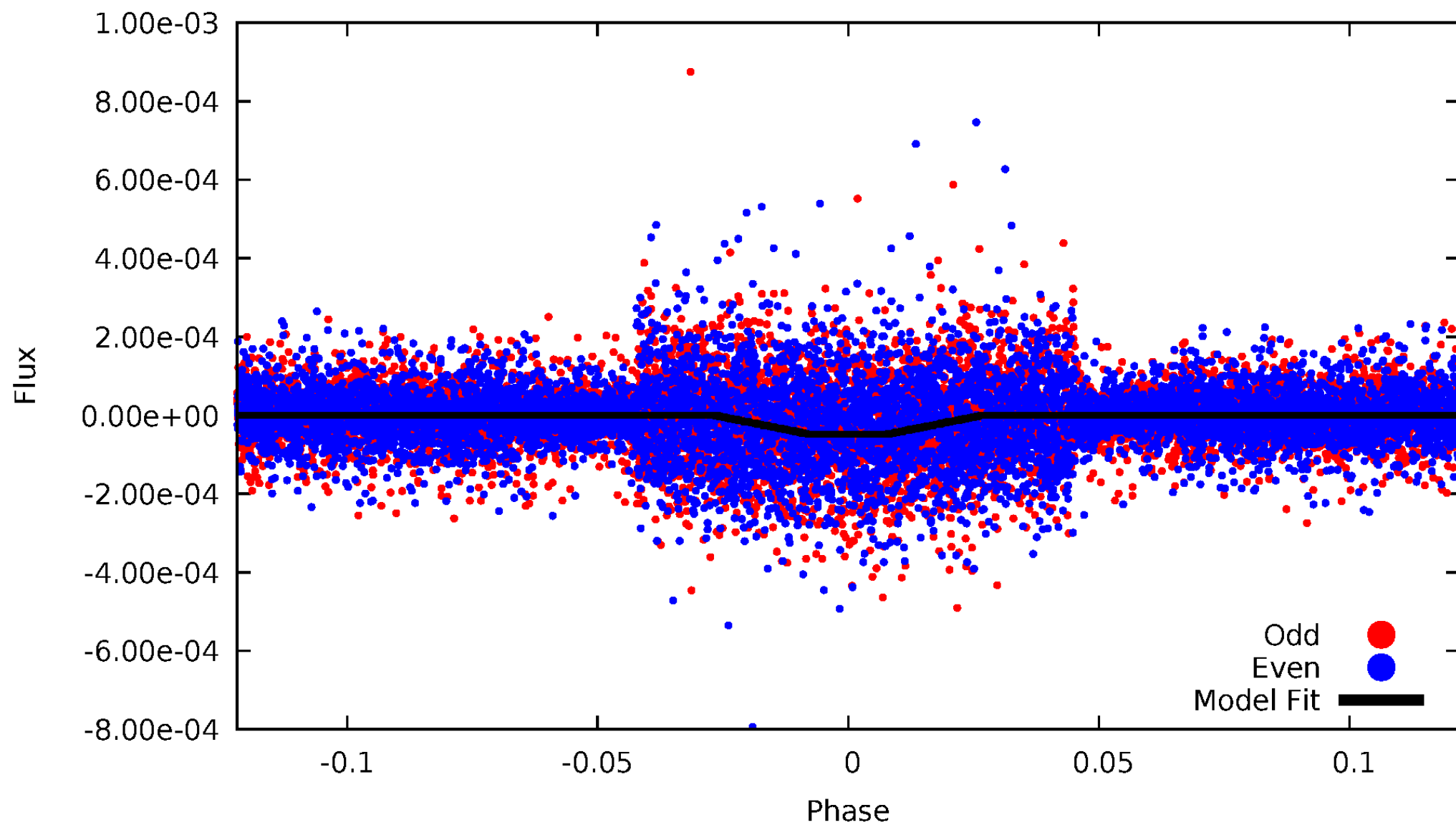
DV Odd/Even

TCE 005305240-01



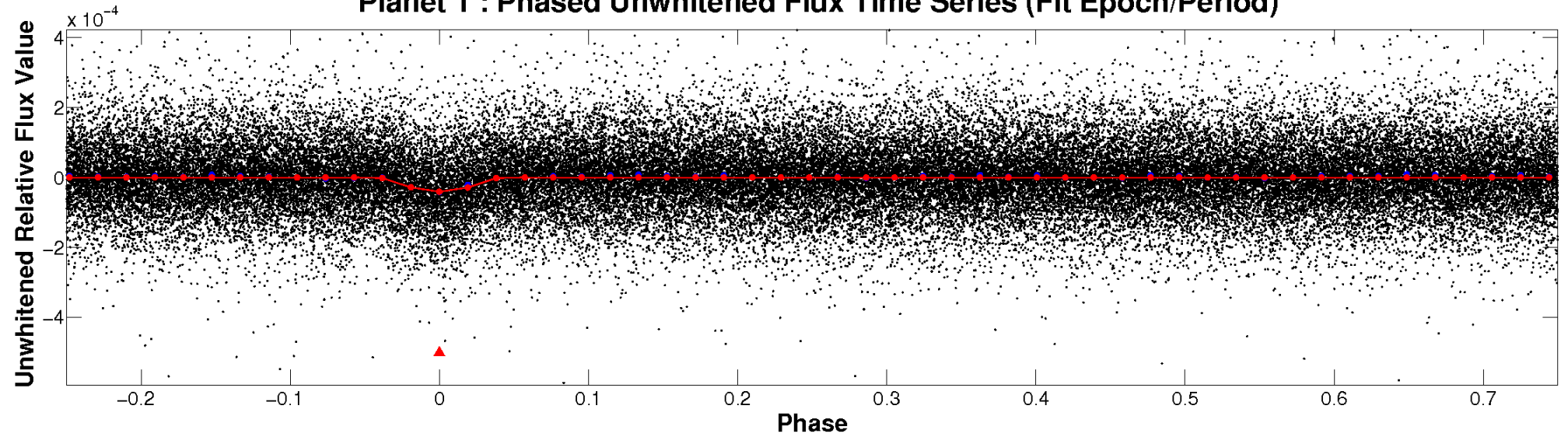
ALT Odd/Even

TCE 005305240-01

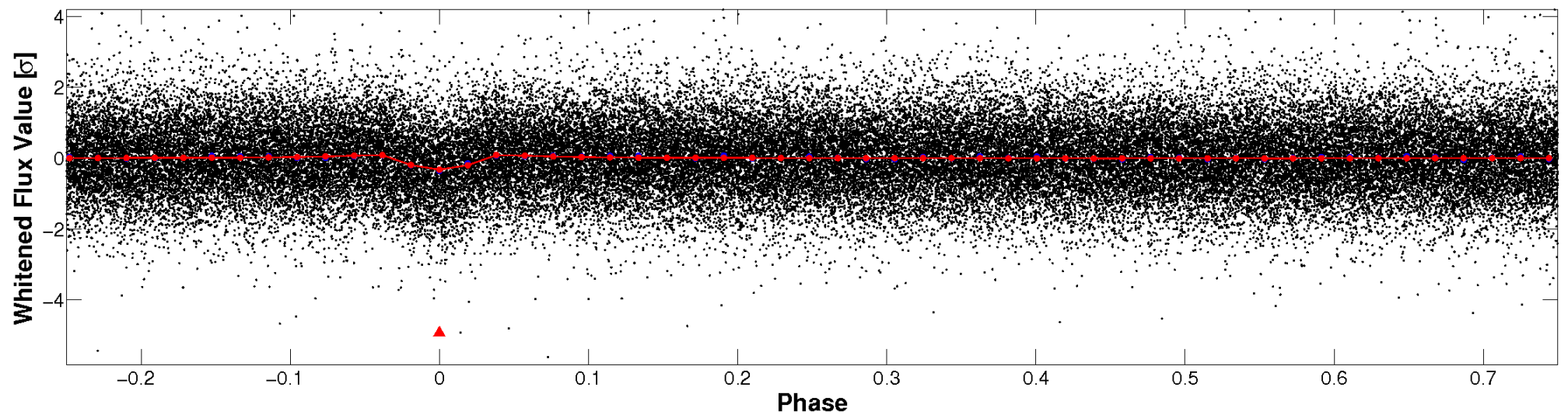


Non-Whitened Vs. Whitened Light Curve

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

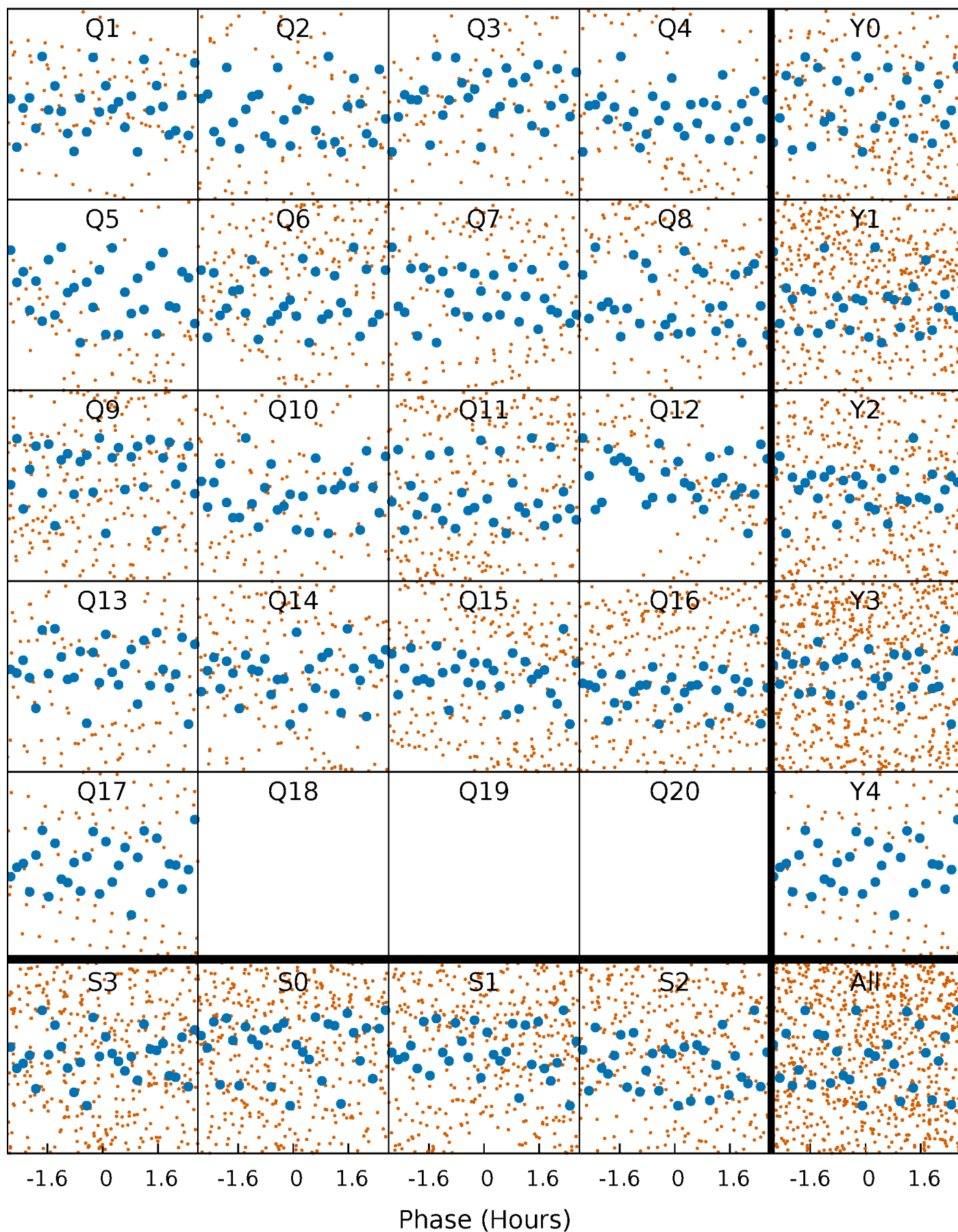


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



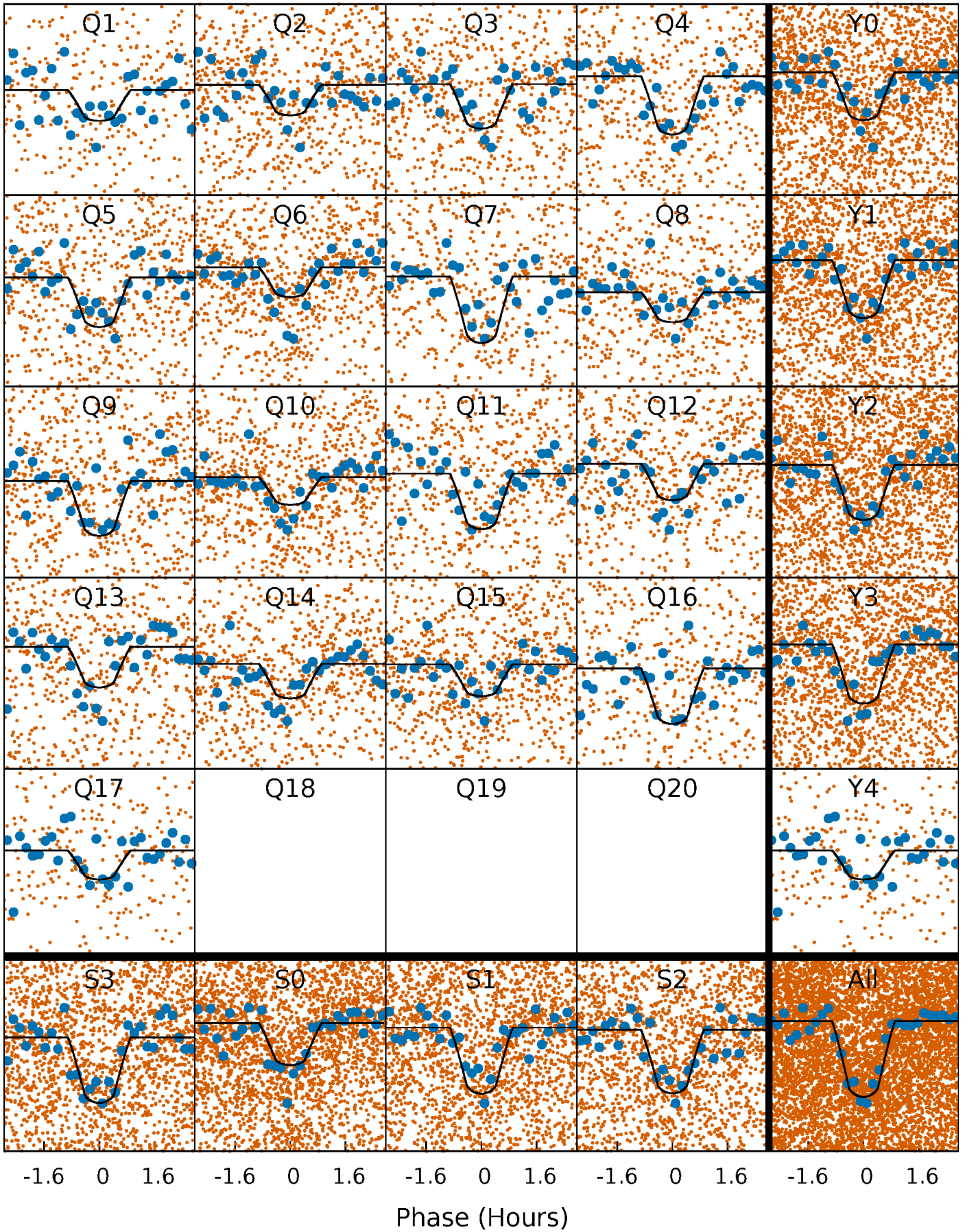
PDC Quarter-Phased Transit Curves

TCE 005305240-01 P= 1.070992 Days $T_0=131.979410$ (BKJD)



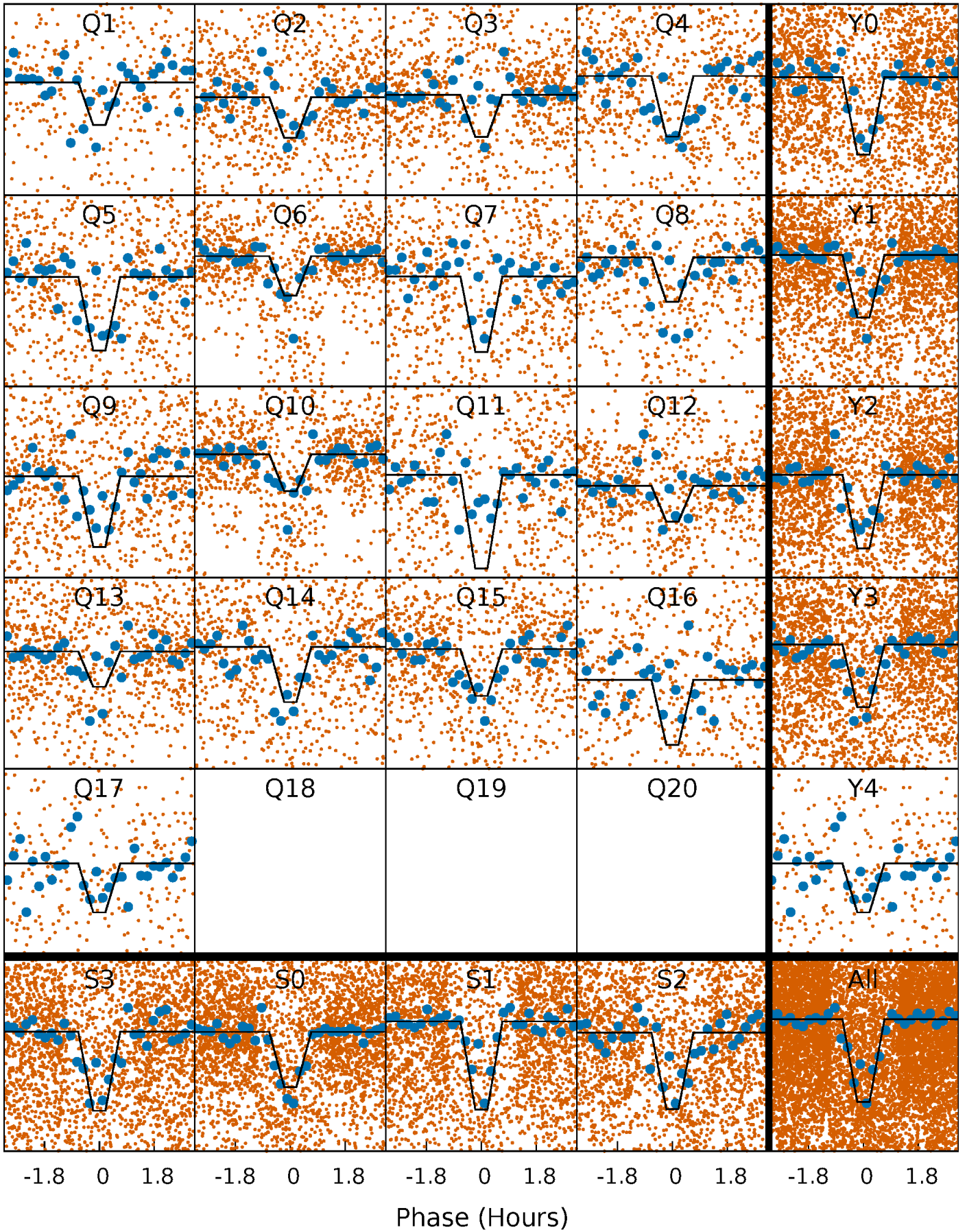
DV Quarter-Phased Transit Curves

TCE 005305240-01 P= 1.070992 Days $T_0=131.979410$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

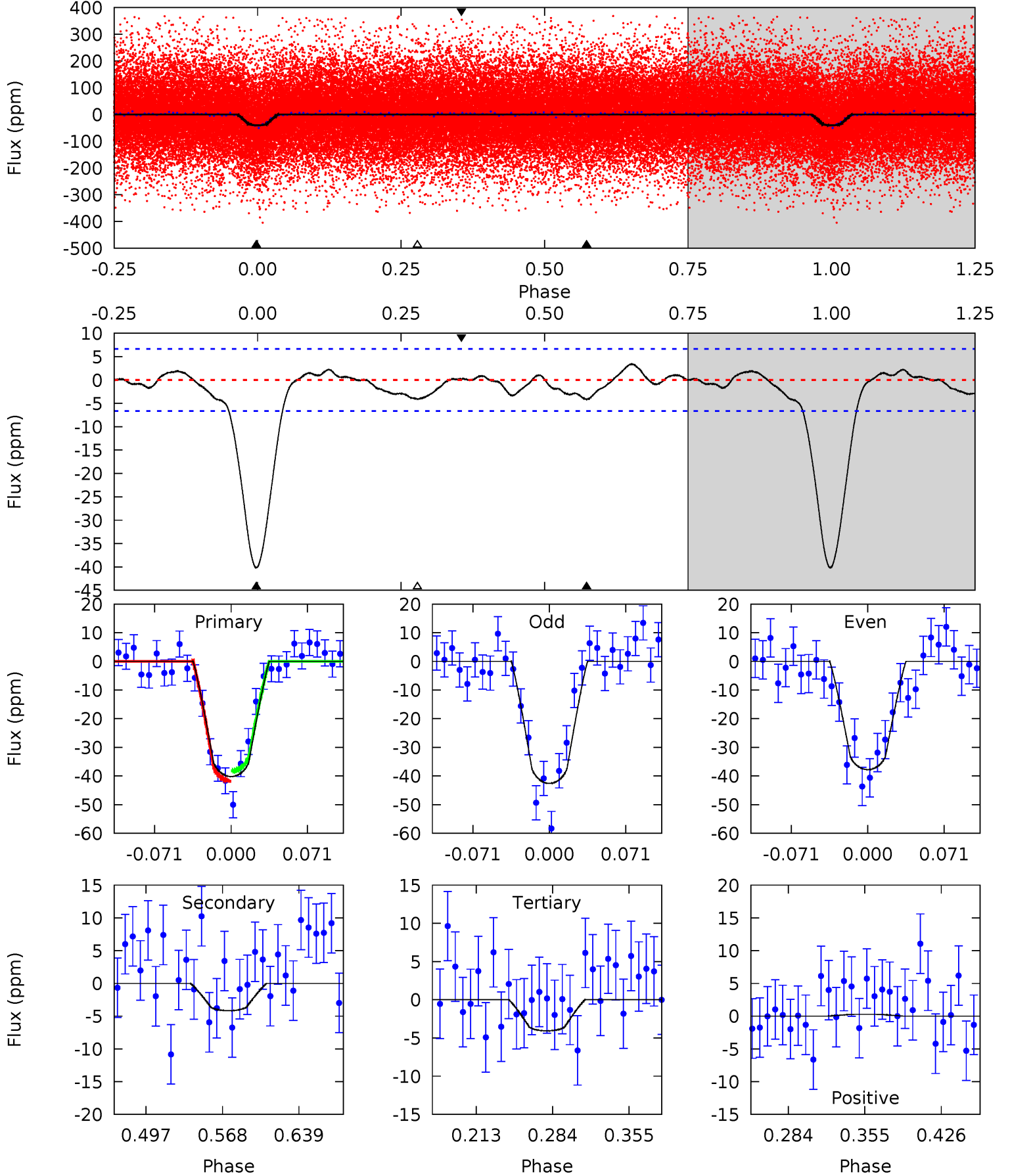
TCE 005305240-01 P= 1.070987 Days $T_0=131.980401$ (BKJD)



DV Model-Shift Uniqueness Test

005305240-01, P = 1.070992 Days, E = 130.908418 Days

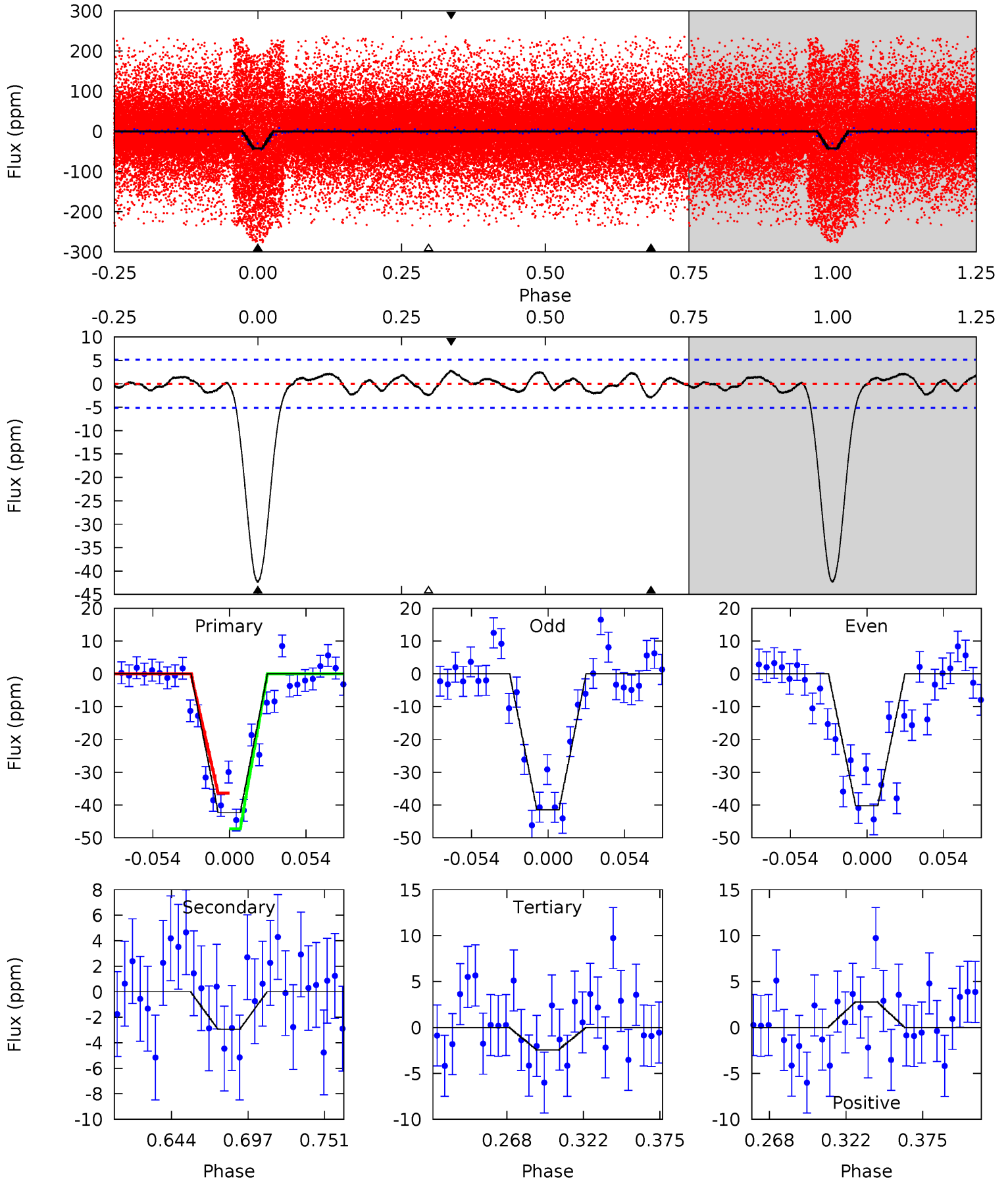
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.0	2.91	2.84	0.19	4.64	1.81	1.17	25.2	27.9	0.07	2.72	1.69	0.93	0.08	1.25



Alt Model-Shift Uniqueness Test

005305240-01, P = 1.070987 Days, E = 130.909414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.6	2.68	2.22	2.54	4.69	1.93	1.10	36.4	36.1	0.46	0.14	0.57	1.16	0.06	4.98



Stellar Parameters For KIC 005305240

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5717^{+156}_{-138}	$4.109^{+0.350}_{-0.150}$	$-0.060^{+0.300}_{-0.250}$	$1.433^{+0.344}_{-0.473}$	$0.964^{+0.125}_{-0.102}$	$0.462^{+1.034}_{-0.197}$
	+3%/-2%	+9%/-4%	+500%/-417%	+24%/-33%	+13%/-11%	+224%/-43%
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 005305240-01 / KOI 3239.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 1	$1.05^{+0.33}_{-0.29}$	2921^{+210}_{-289}	3278^{+491}_{-523}	$0.819^{+0.904}_{-0.380}$
Alt.	-3 ± 1	$1.03^{+0.33}_{-0.28}$	2933^{+225}_{-290}	3035^{+475}_{-5225}	$0.595^{+0.602}_{-0.313}$

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

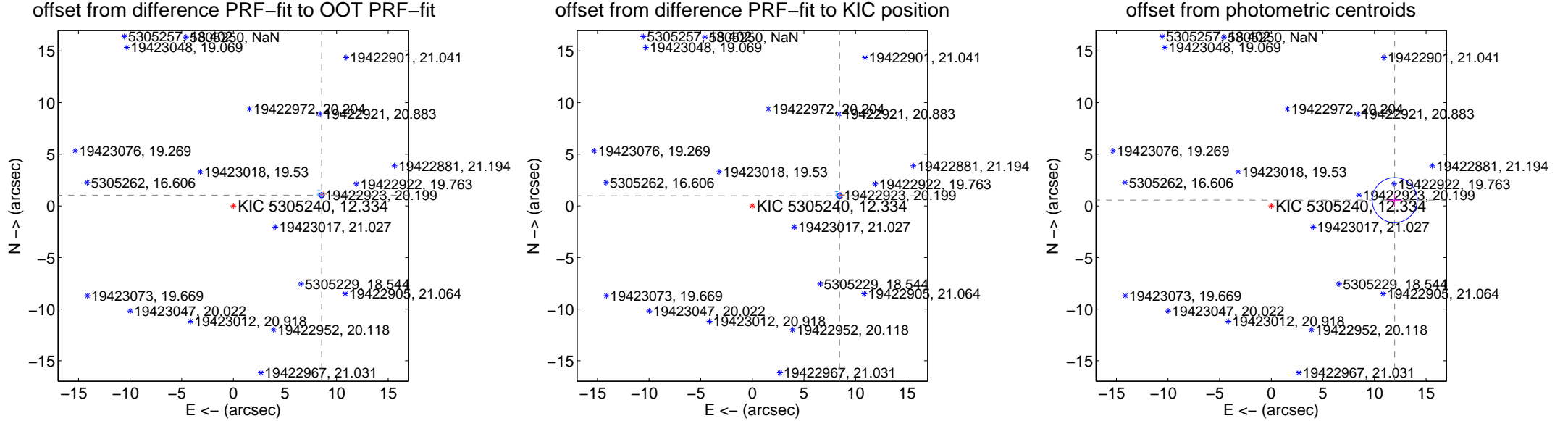
DV Centroid Data

Supplemental centroid analysis for 005305240-01. Kepler magnitude: 12.33. Transit SNR 16.62

There are 11 quarters with good PRF difference image offsets

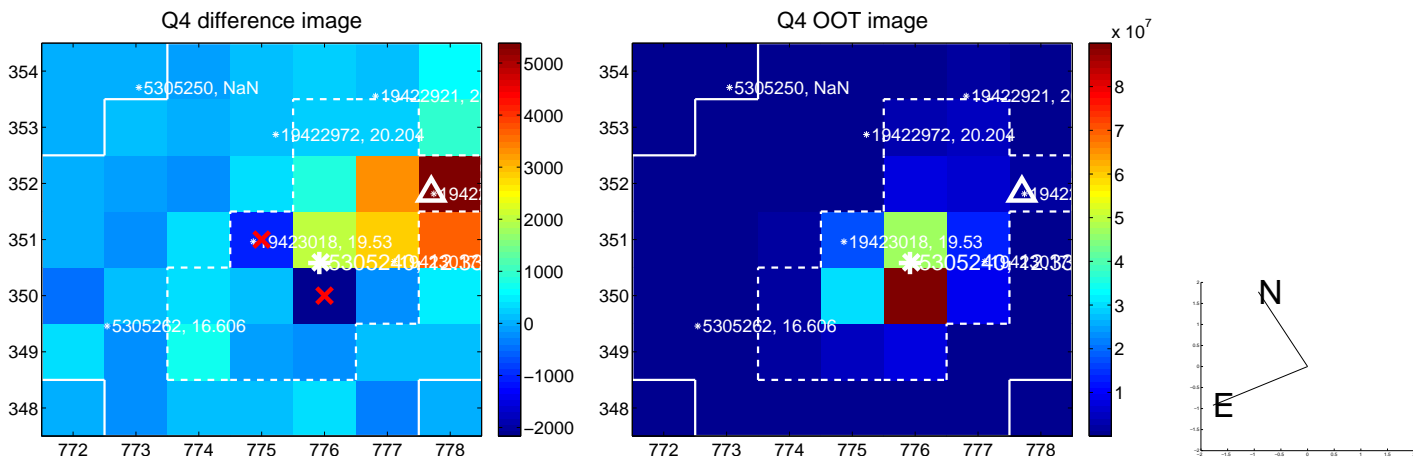
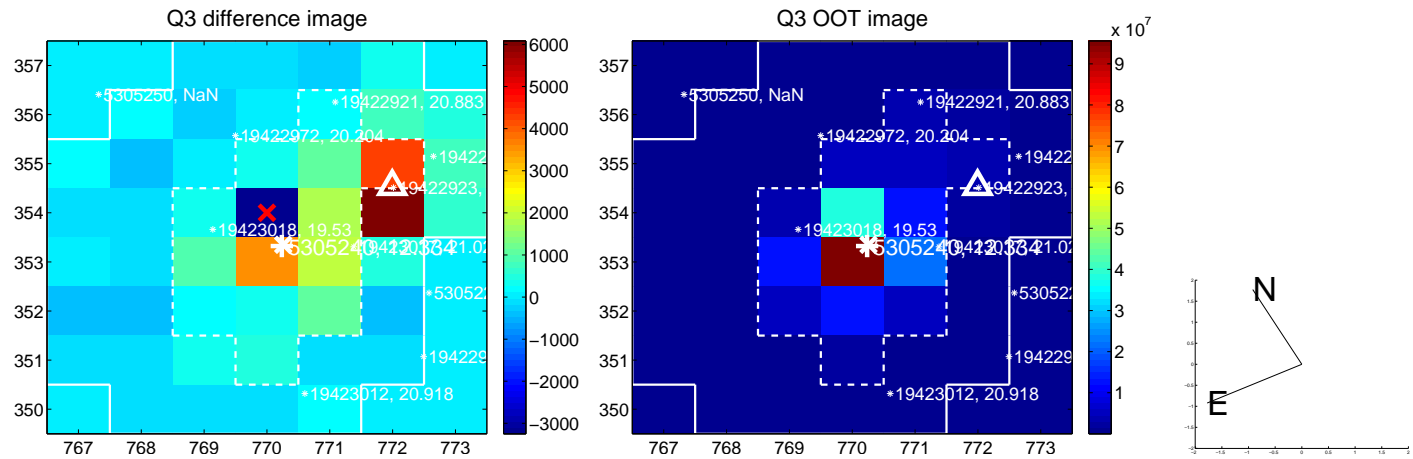
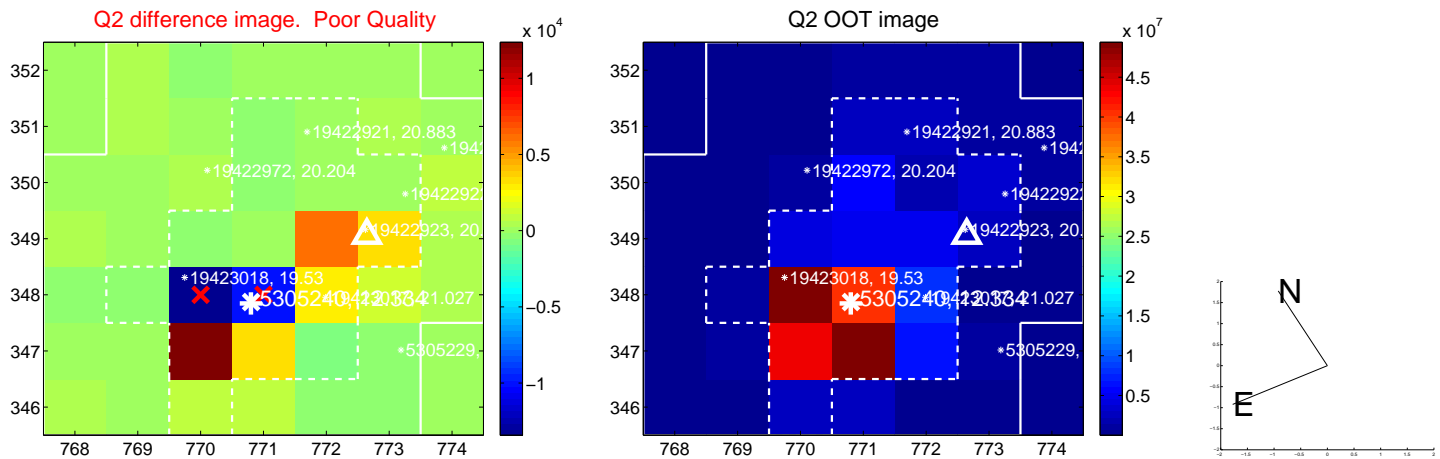
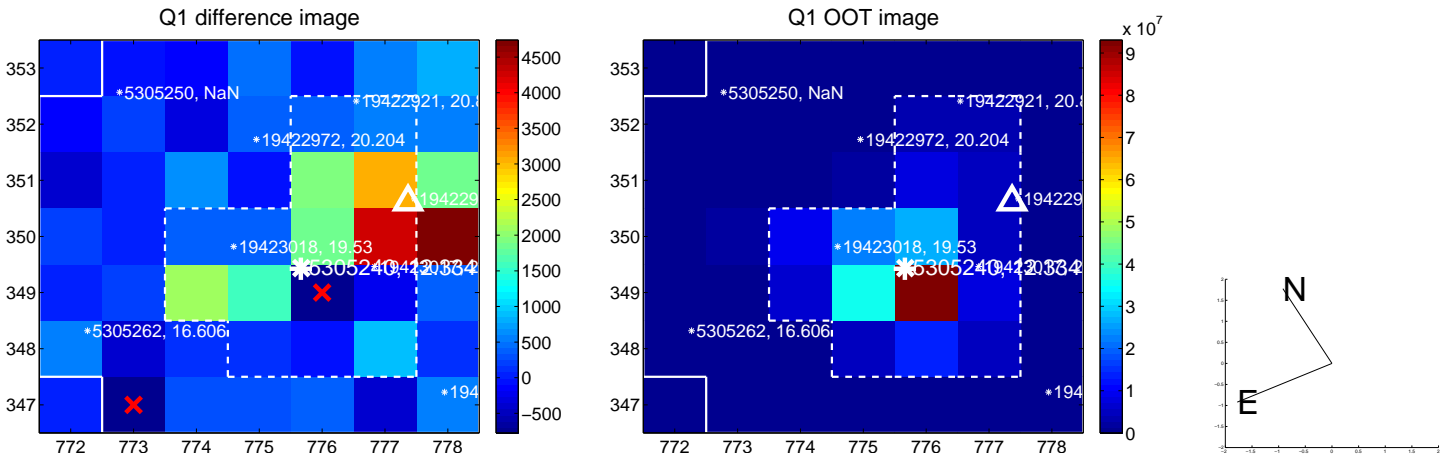
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.616 \pm 0.080	107.23	-8.554 \pm 0.080	1.032 \pm 0.077
PRF-fit source offset from KIC position	8.515 \pm 0.080	105.98	-8.458 \pm 0.080	0.980 \pm 0.077
photometric centroid source offset	11.97 \pm 0.73	16.47	-11.96 \pm 0.73	0.56 \pm 0.64

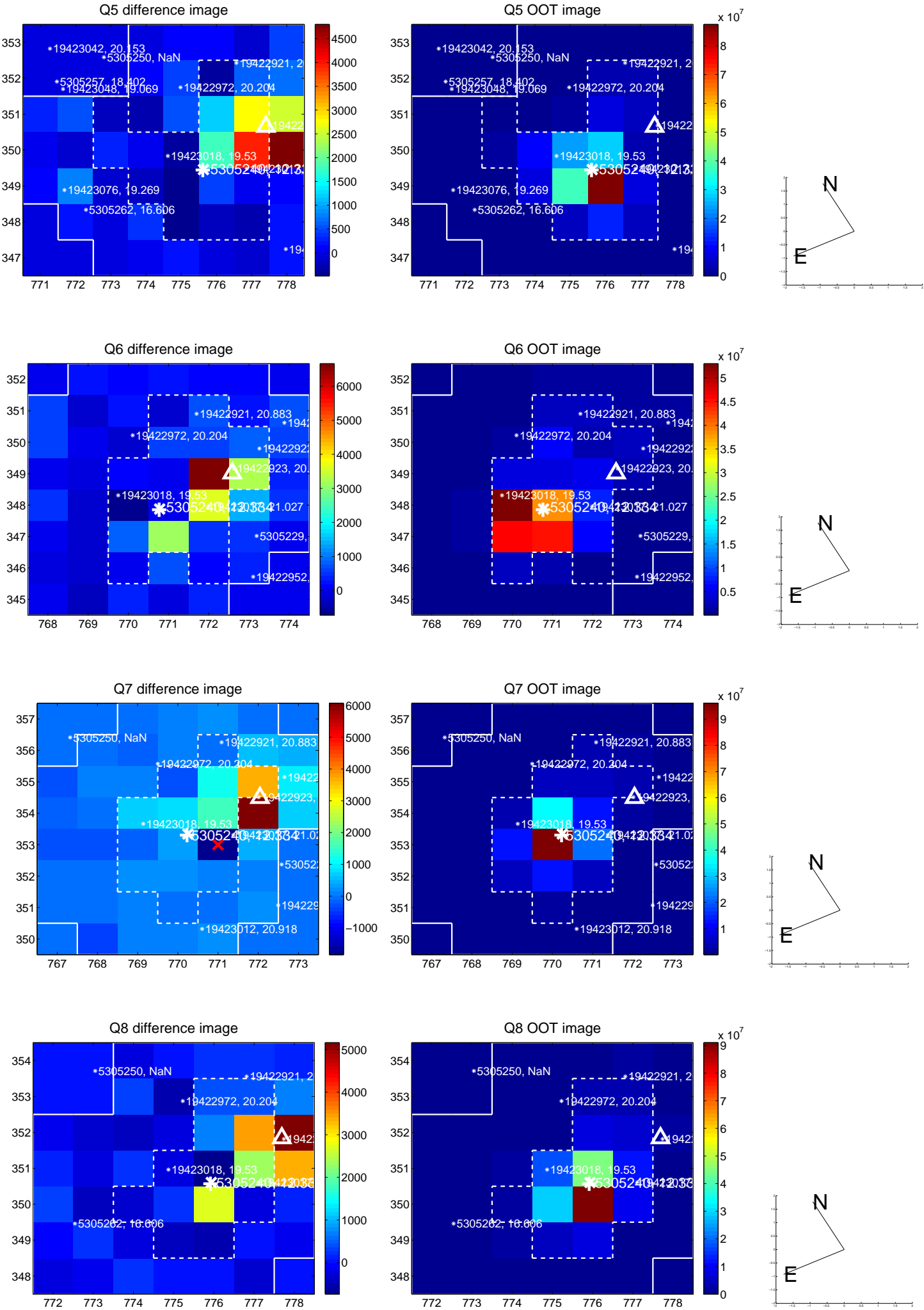


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

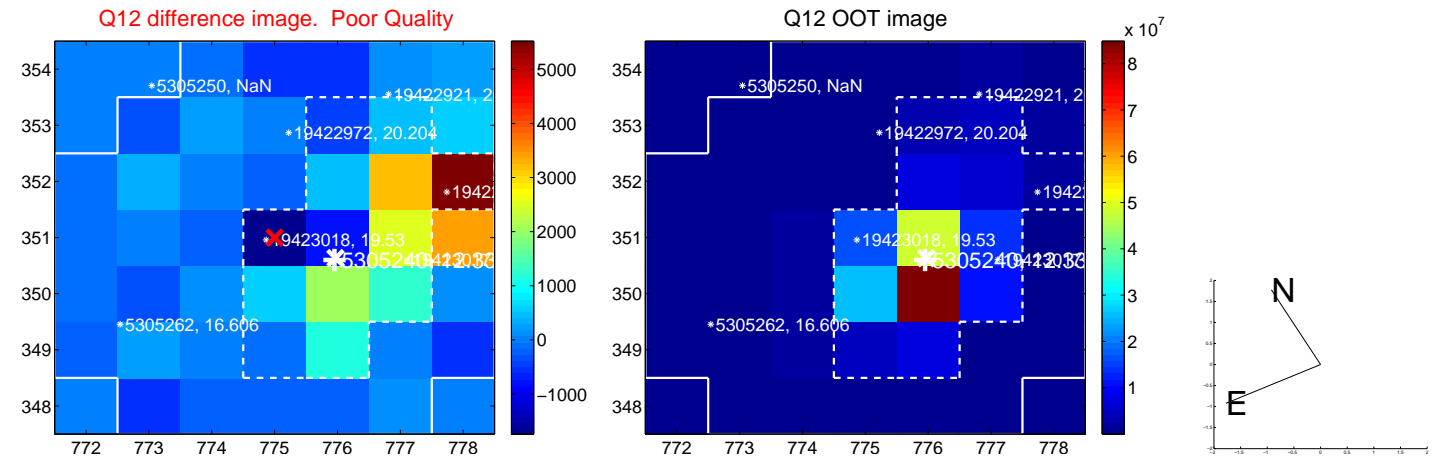
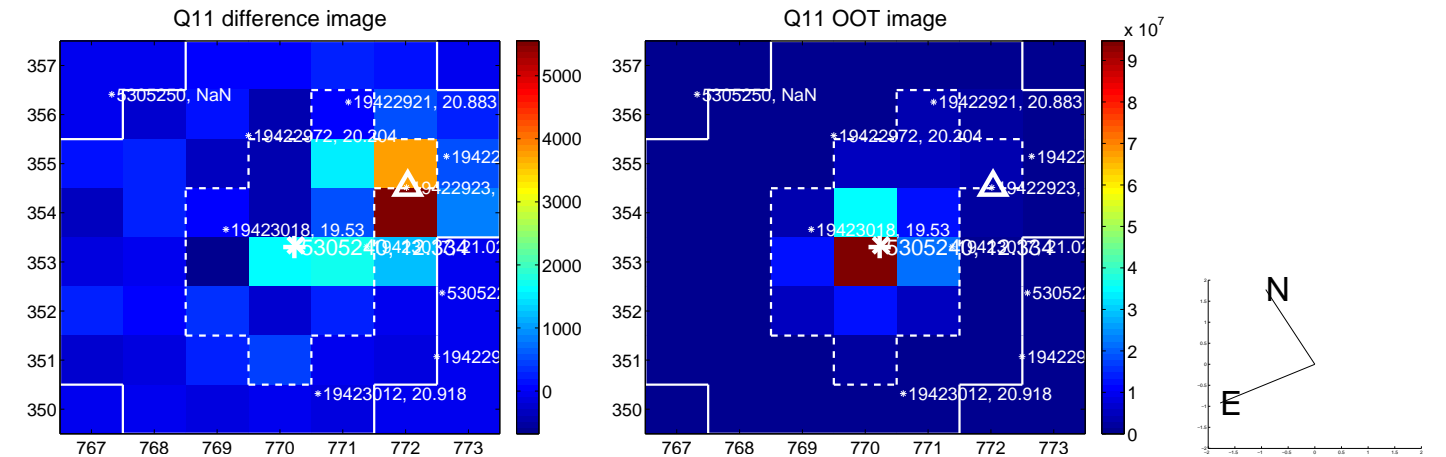
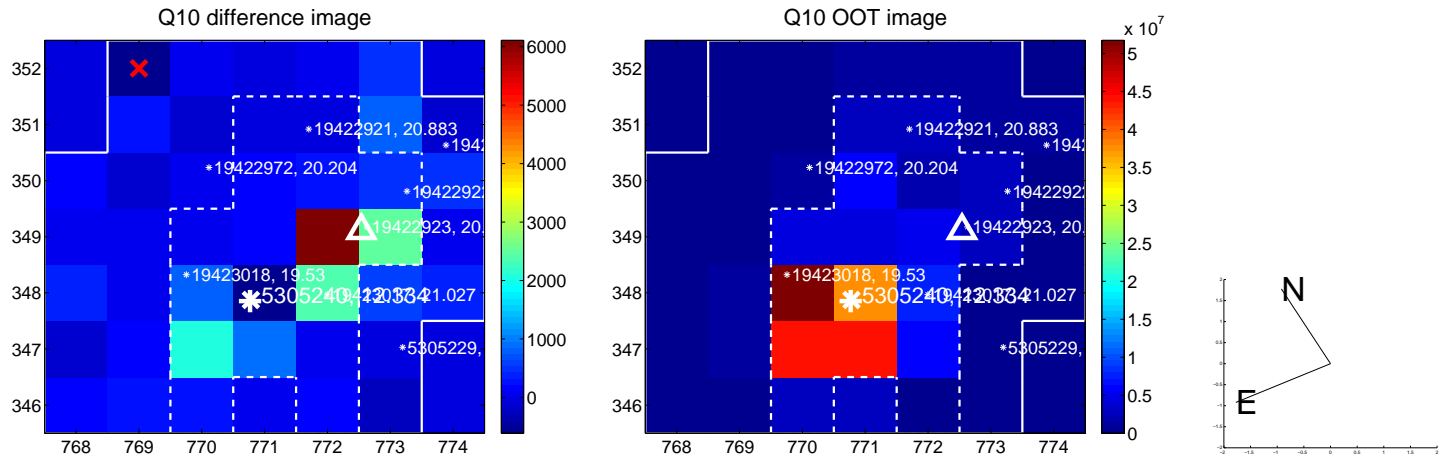
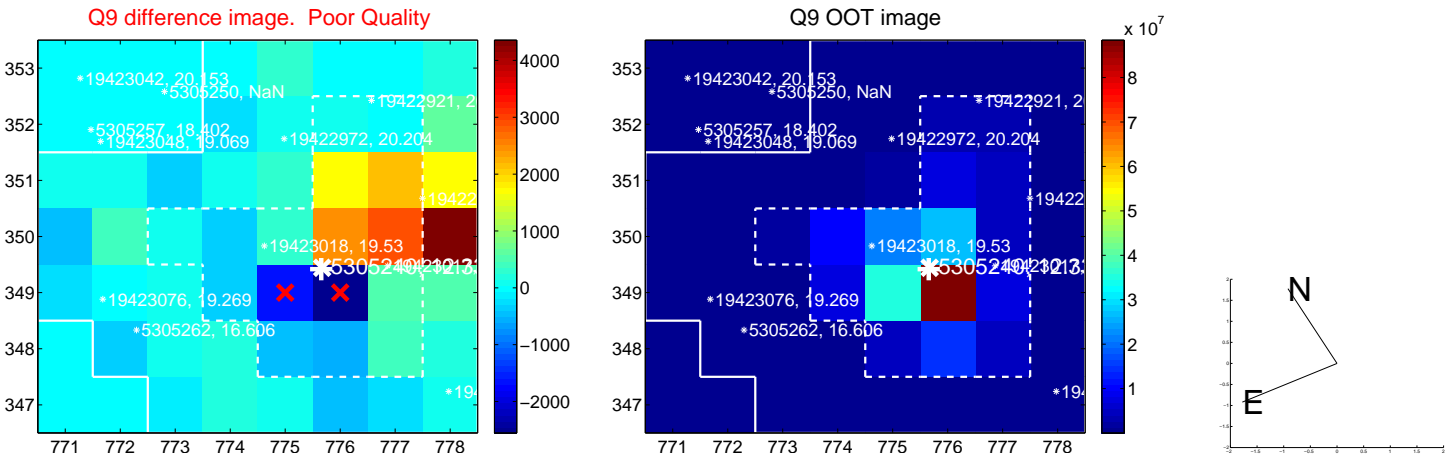
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



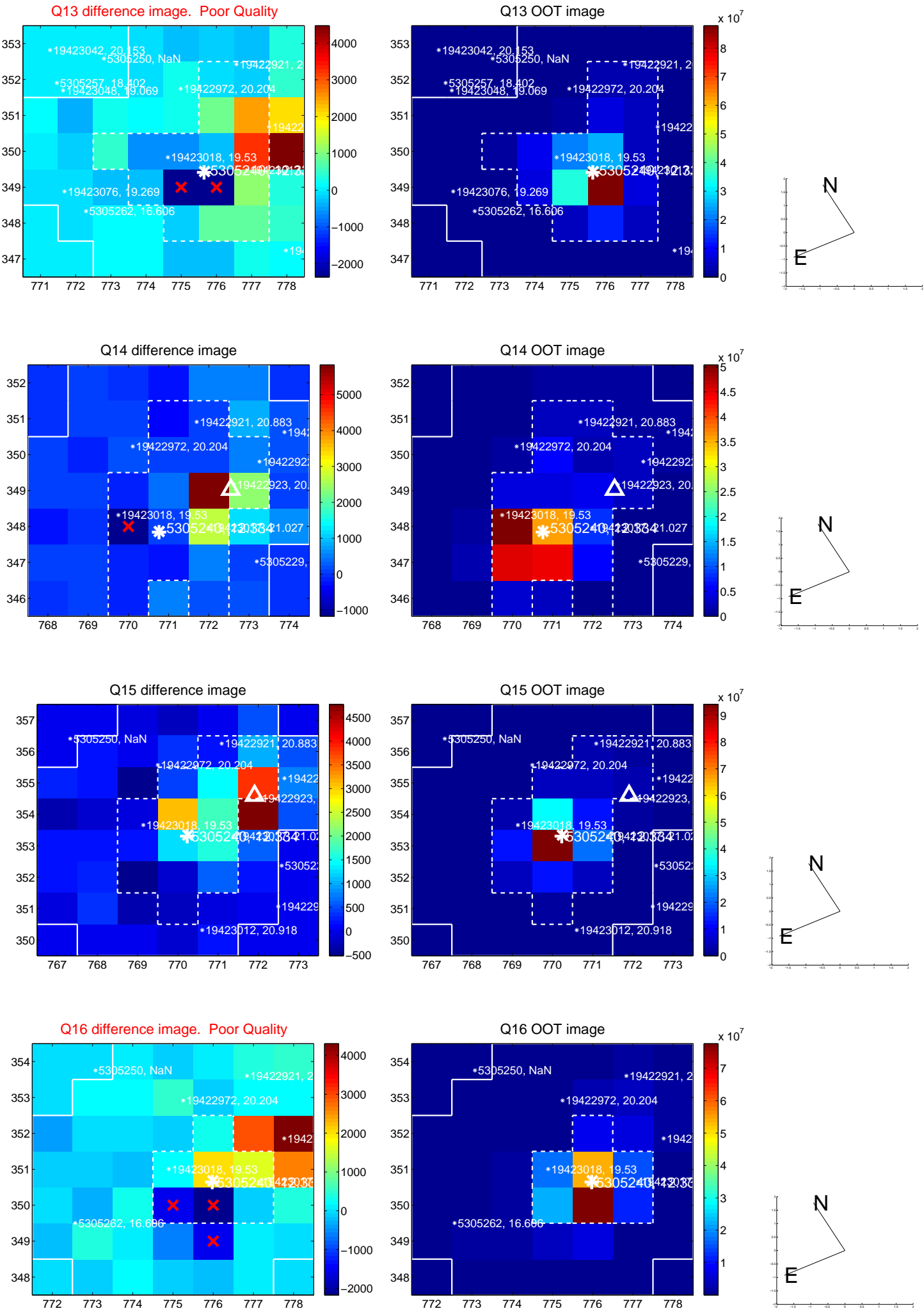
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



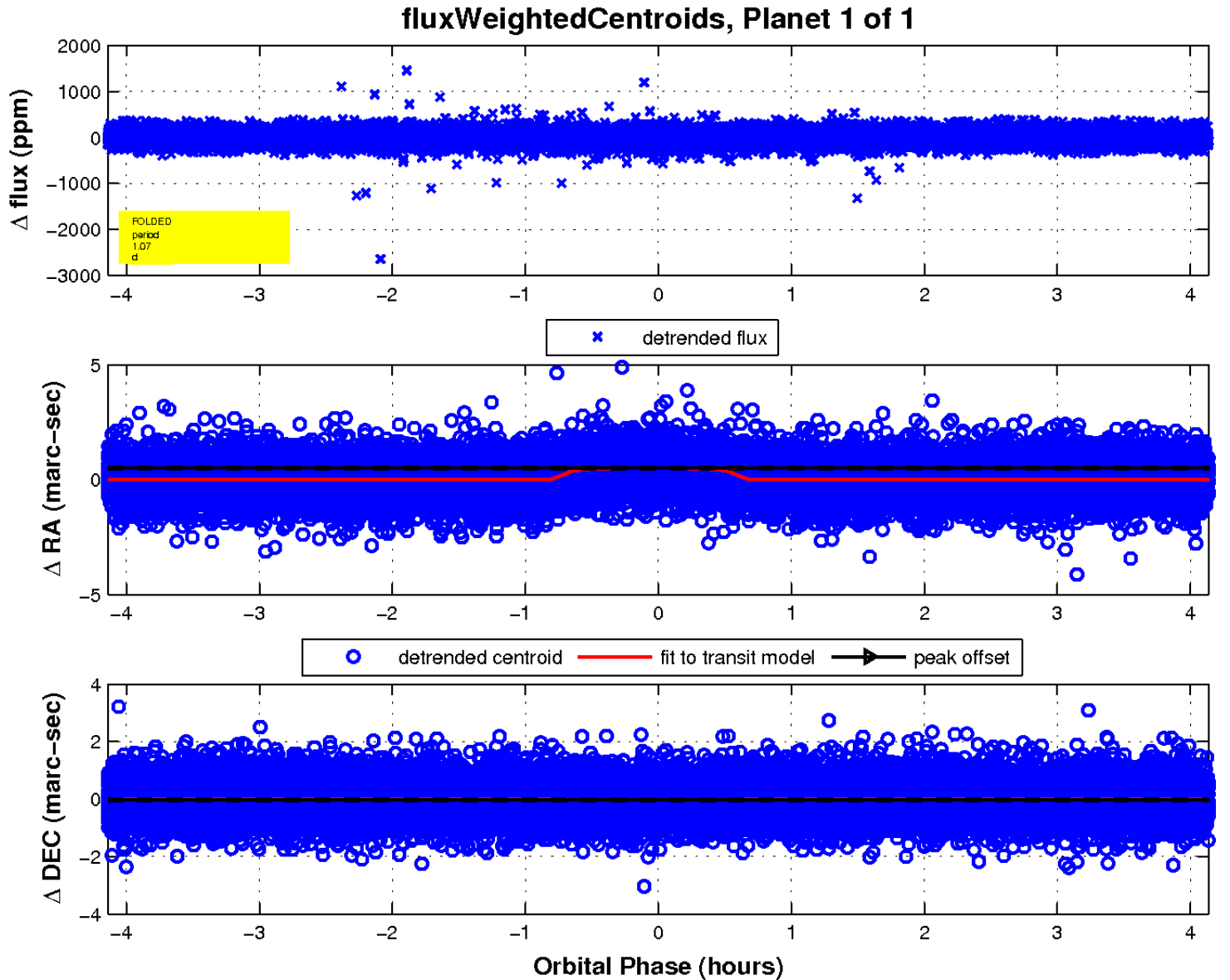
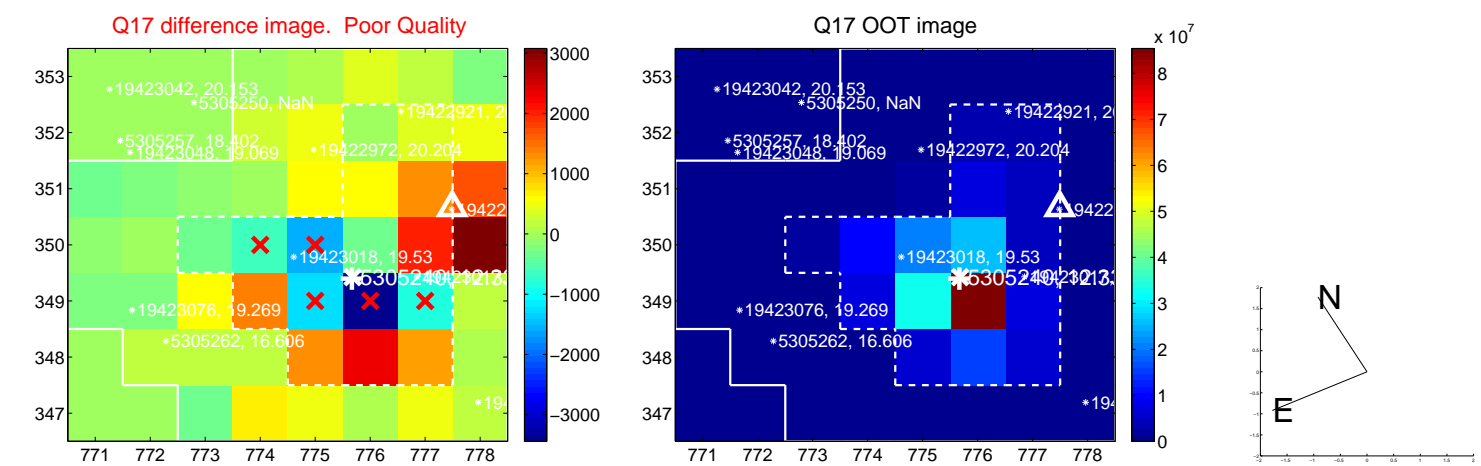
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

