

KIC 005300719

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})
005300719-01	OBS	No	0.514325	131.815499	30.5	1.490	8.7	11.0	4.46	6513	2.49	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005300719-01	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.

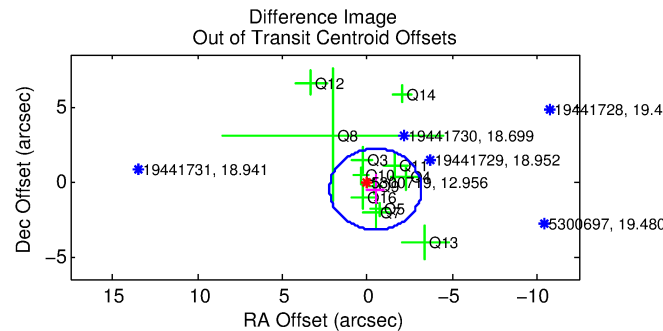
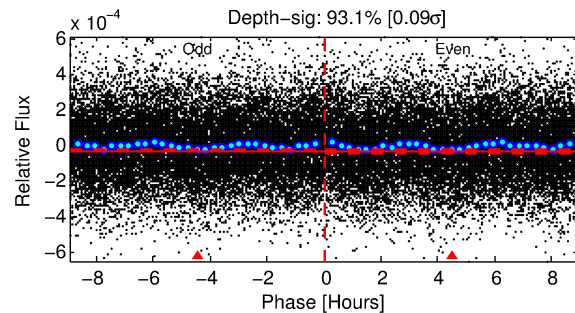
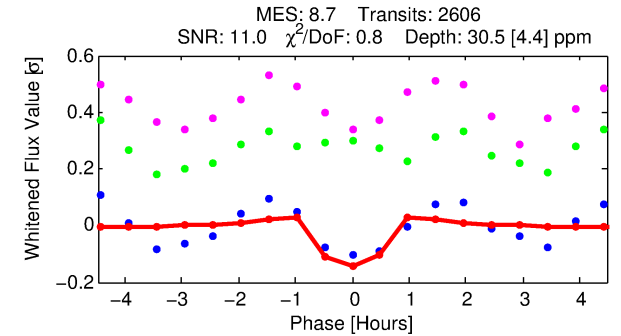
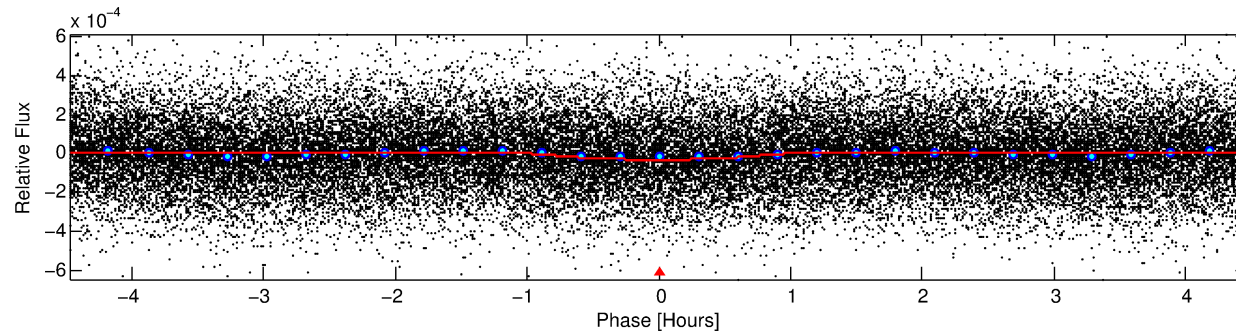
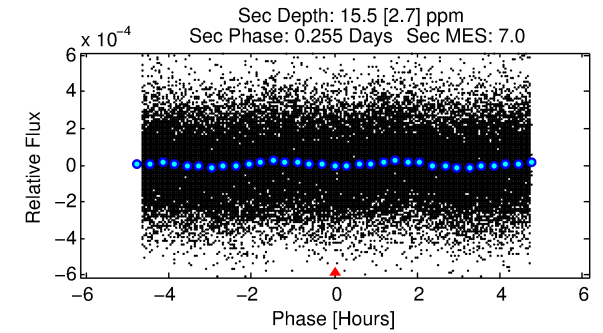
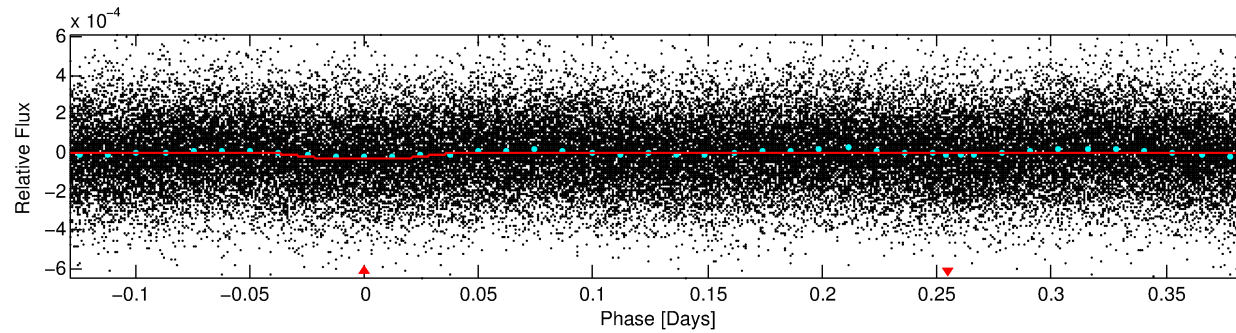
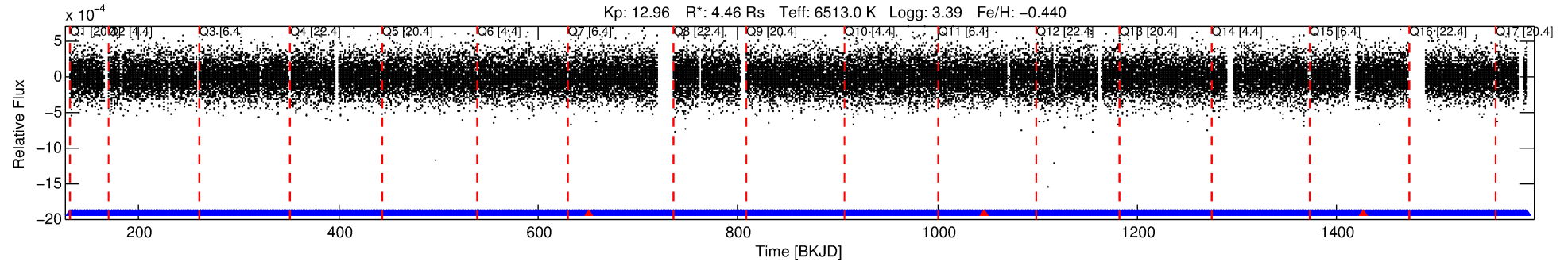
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005300719-01

No Significant Match Found

DV One-Page Summary

KIC: 5300719 Candidate: 1 of 1 Period: 0.514 d



DV Fit Results:

Period = 0.51433 [0.00001] d
Epoch = 131.8155 [0.0016] BKJD
Rp/R* = 0.0051 [0.0035]
a/R* = 2.71 [8.48]
b = 0.07 [54.08]
Seff = N/A
Teq = N/A
Rp = 2.49 [2.07] Re
a = N/A
Ag = N/A
Teffp = N/A

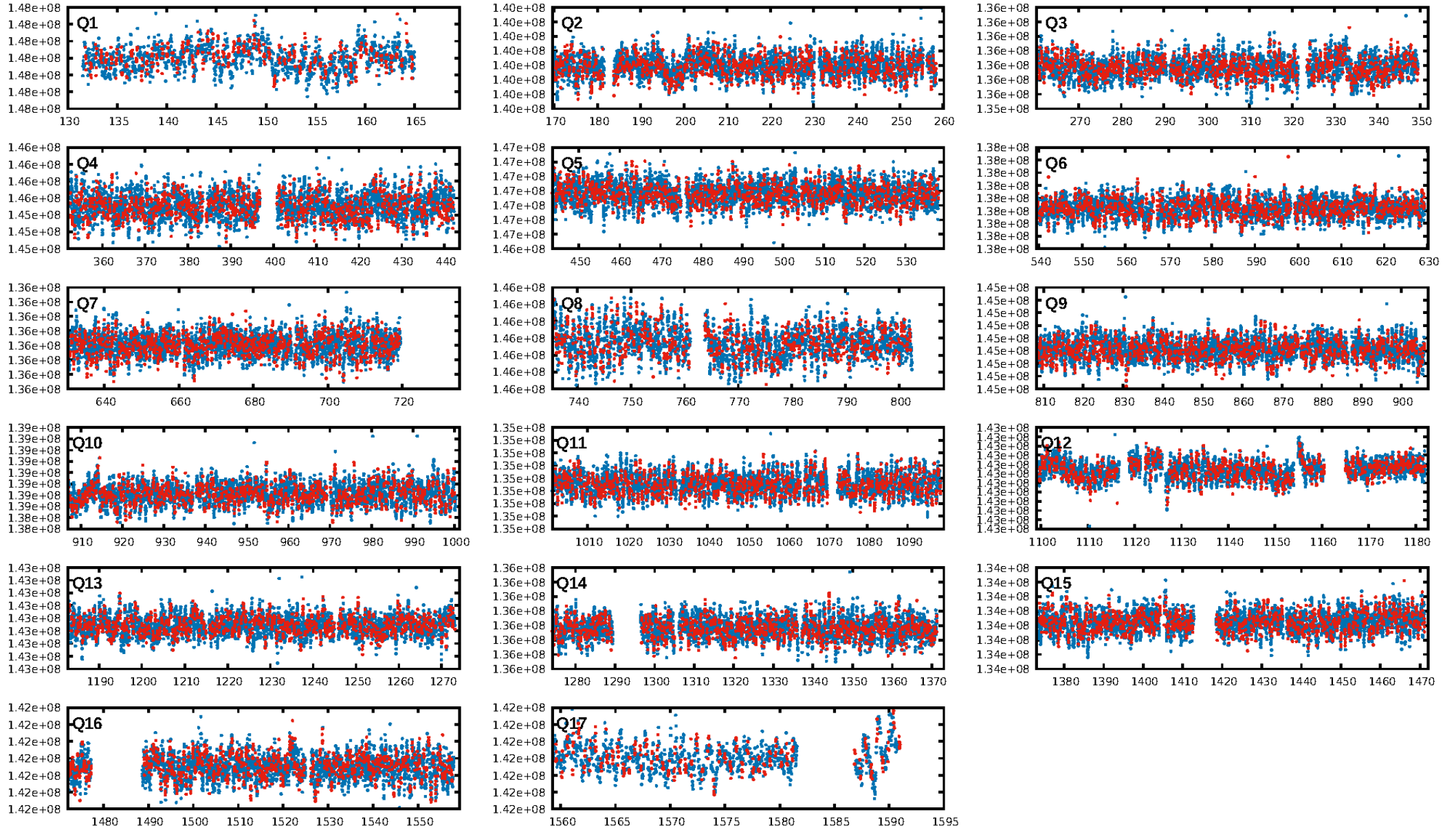
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.69e-15
RollingBand-fgt: 1.00 [2485/2489]
GhostDiagnostic-chr: 1.784
Centroid-sig: 2.5%
Centroid-so: 1.230 arcsec [1.70σ]
OotOffset-rm: 0.709 arcsec [0.79σ]
KicOffset-rm: 0.749 arcsec [0.79σ]
OotOffset-st: 2/3/4/3 [12]
KicOffset-st: 2/3/4/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

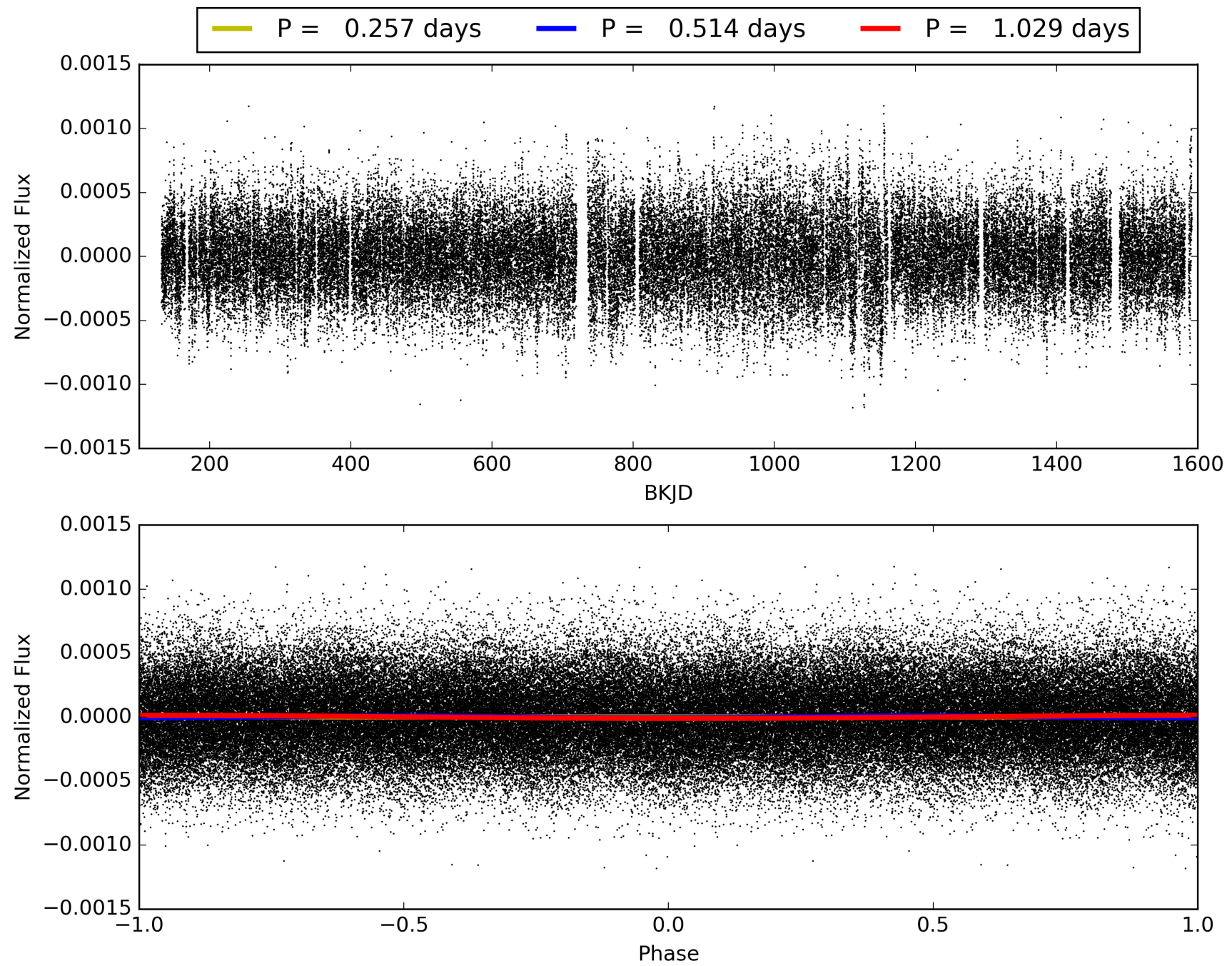
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:01:05 Z

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

TCE 005300719-01, PDC Light Curves

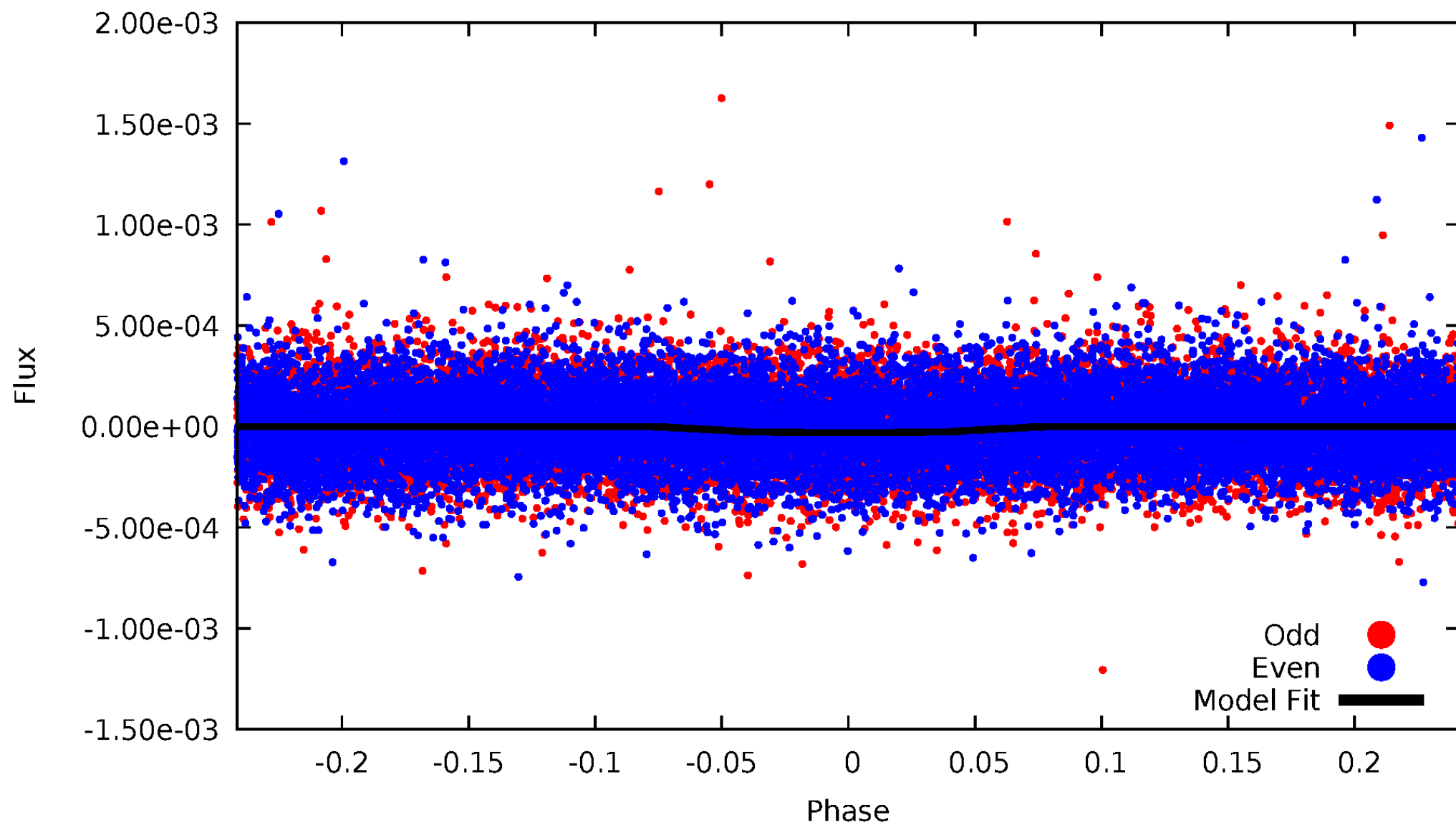


TCE 005300719-01



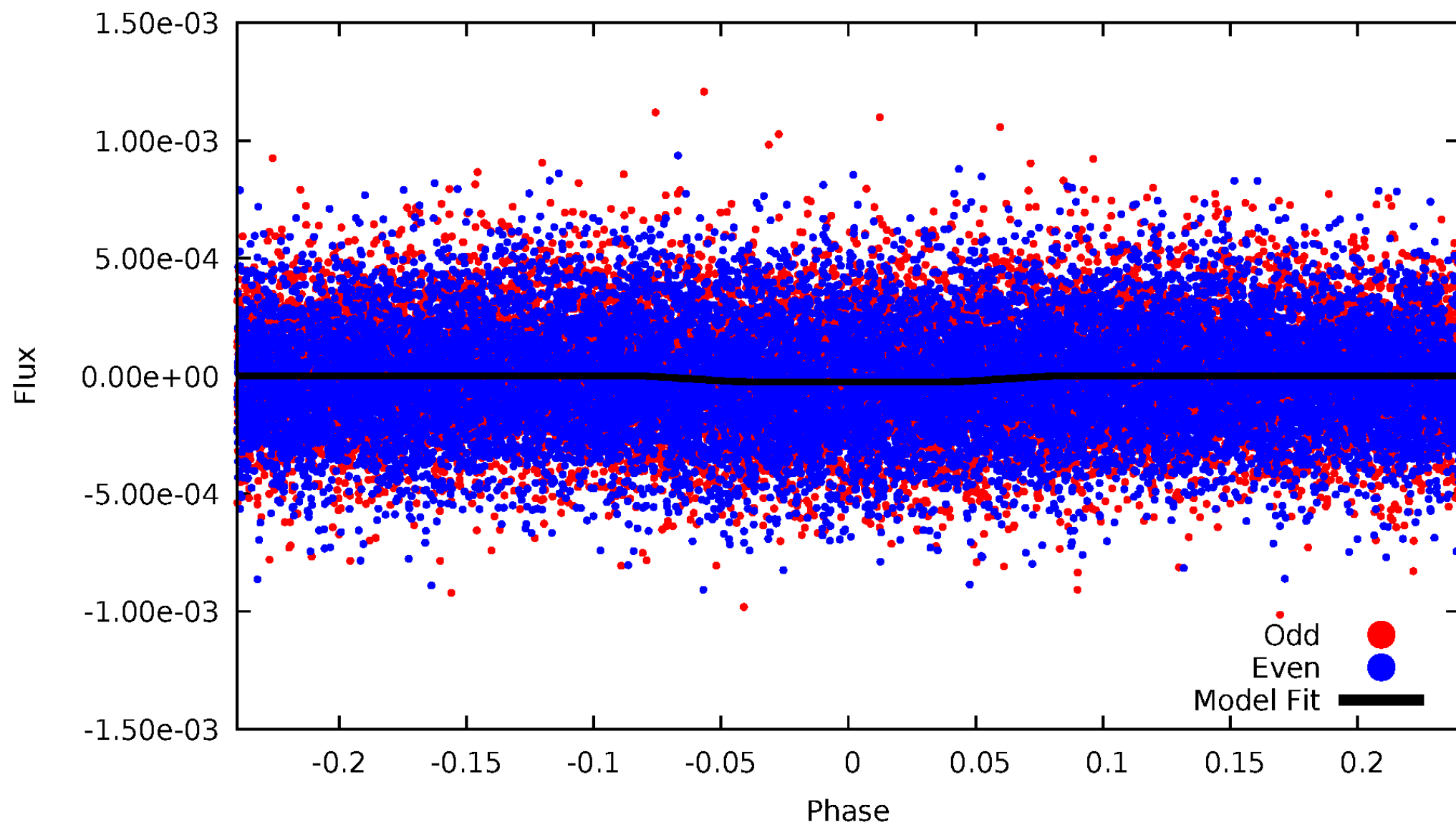
DV Odd/Even

TCE 005300719-01



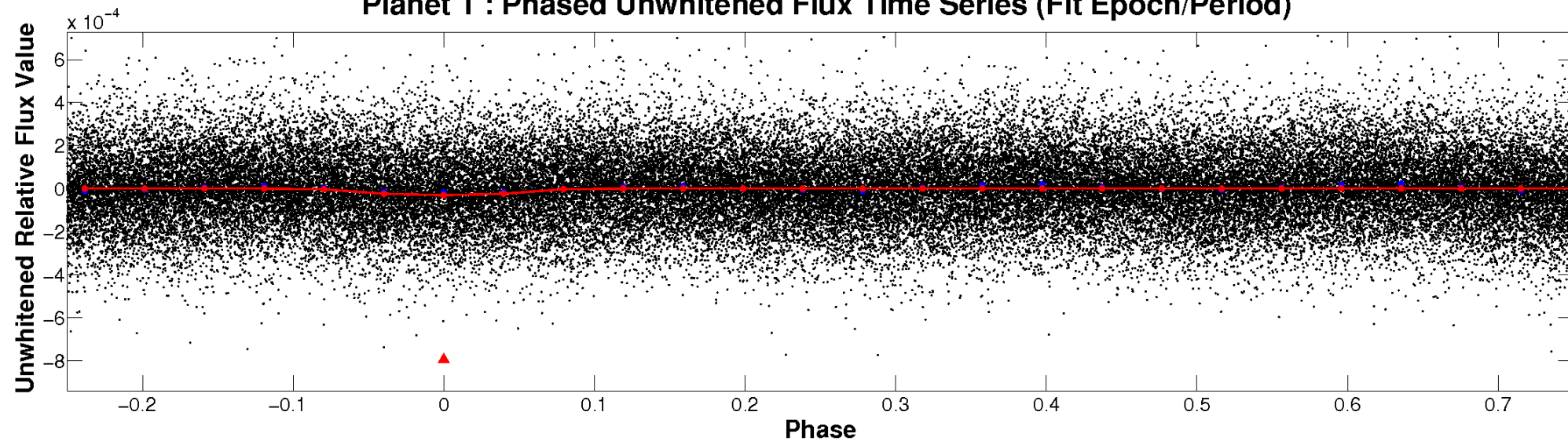
ALT Odd/Even

TCE 005300719-01

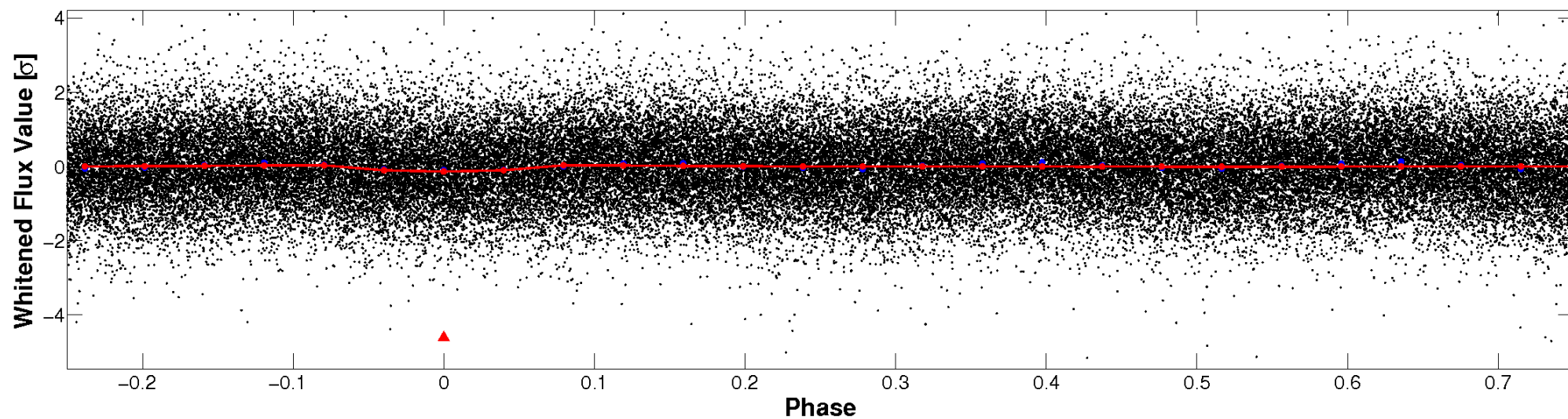


Non-Whitened Vs. Whitened Light Curve

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

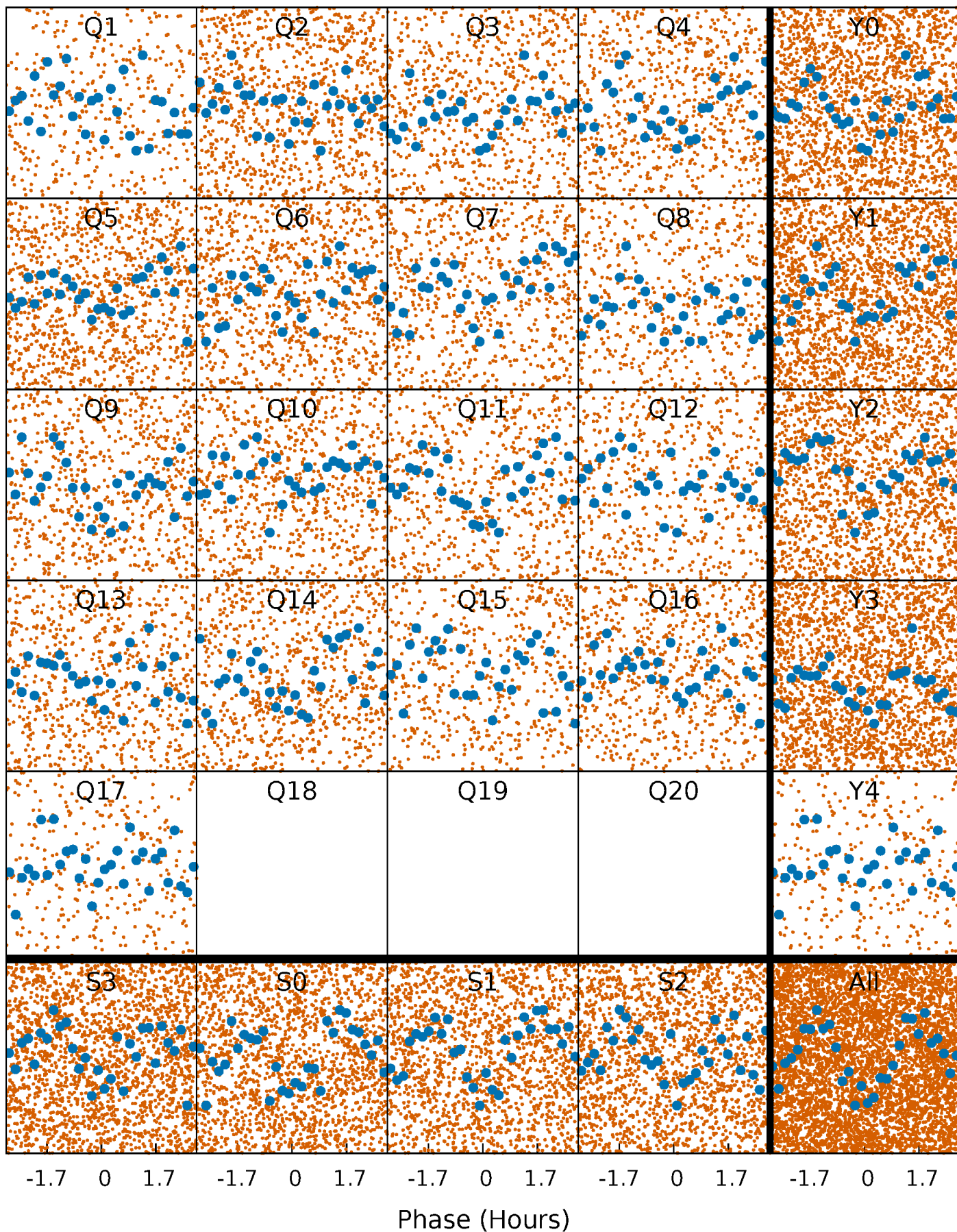


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



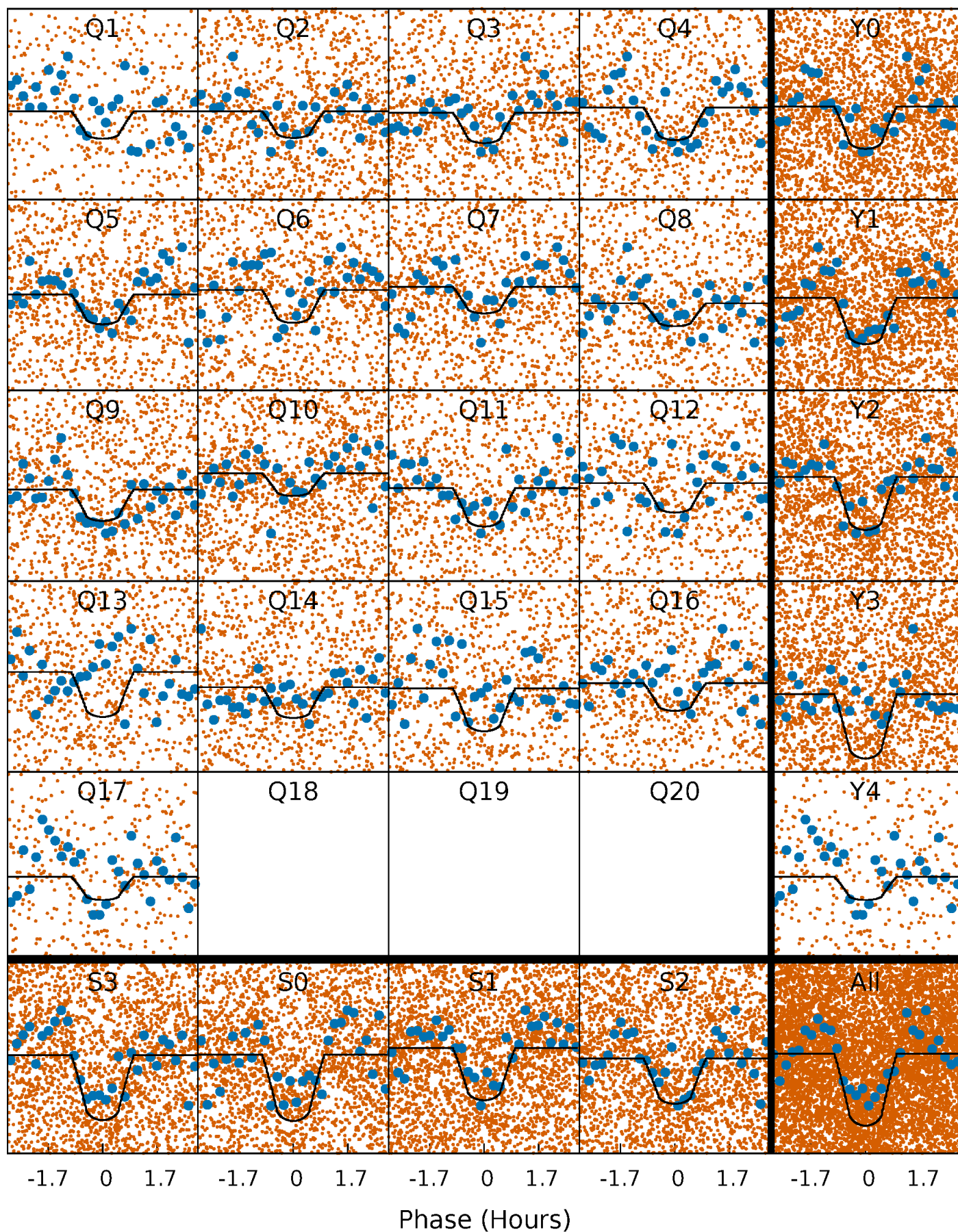
PDC Quarter-Phased Transit Curves

TCE 005300719-01 P= 0.514325 Days $T_0=131.815499$ (BKJD)



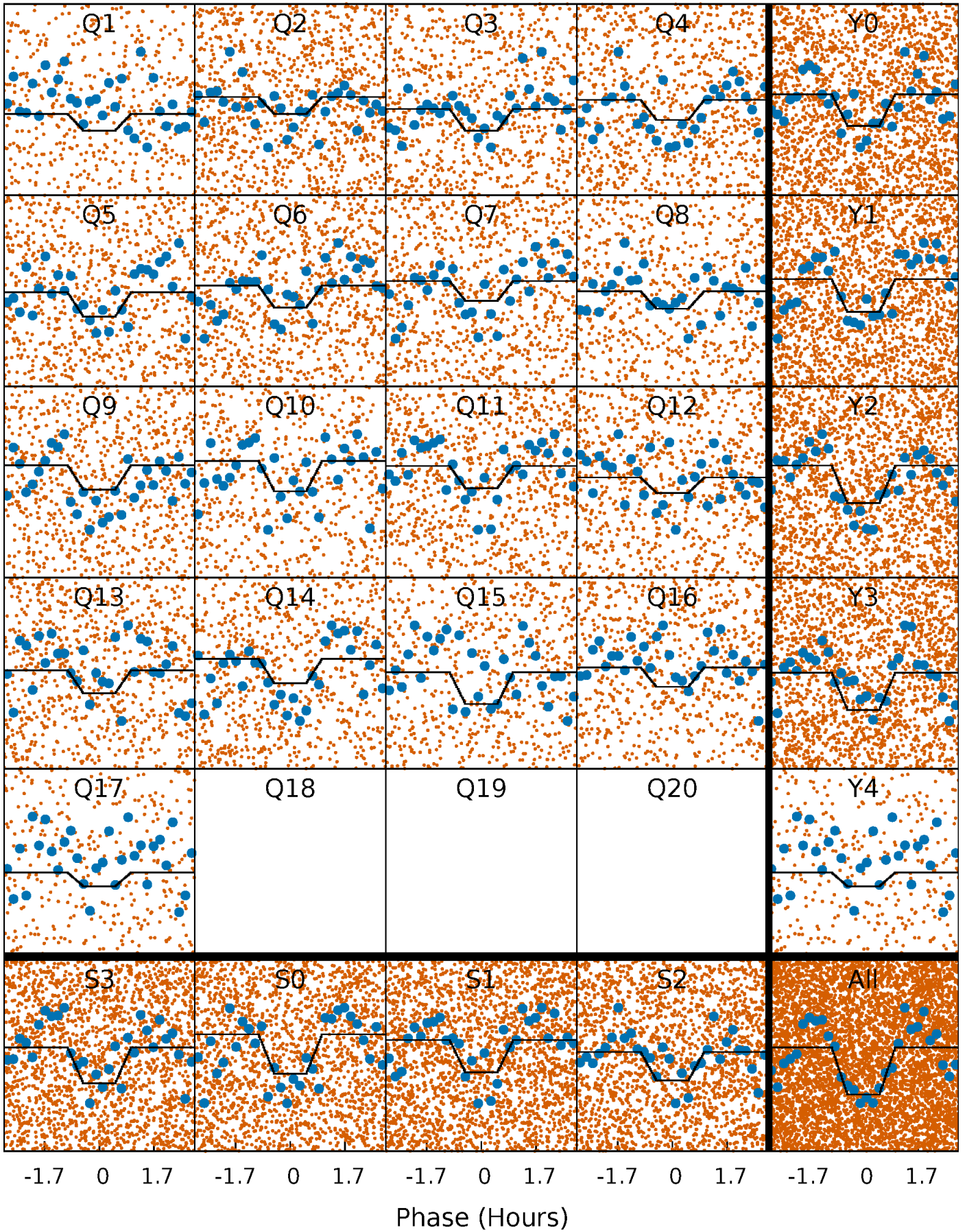
DV Quarter-Phased Transit Curves

TCE 005300719-01 P= 0.514325 Days $T_0=131.815499$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

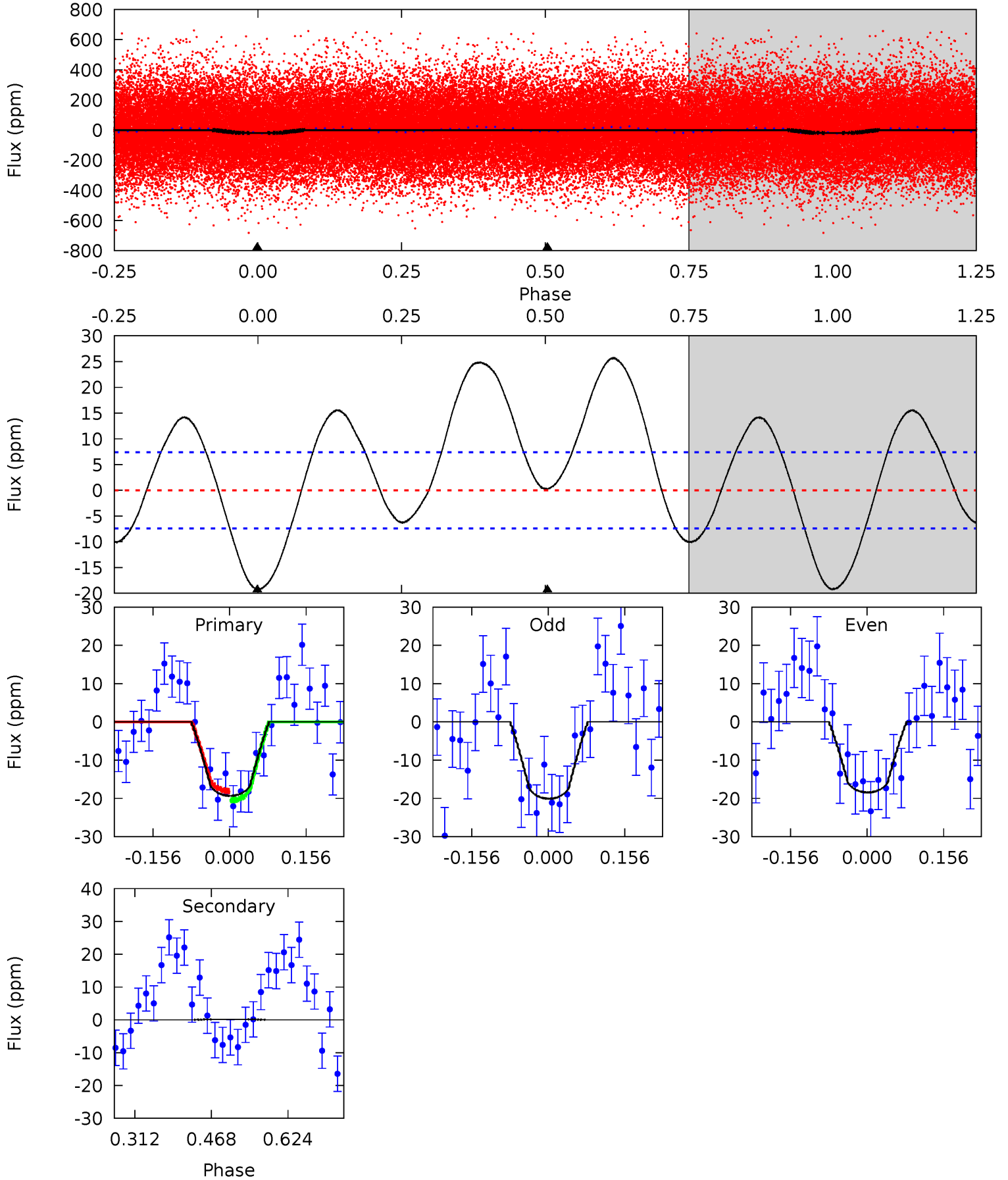
TCE 005300719-01 P= 0.514326 Days $T_0=131.815423$ (BKJD)



DV Model-Shift Uniqueness Test

005300719-01, P = 0.514325 Days, E = 131.301174 Days

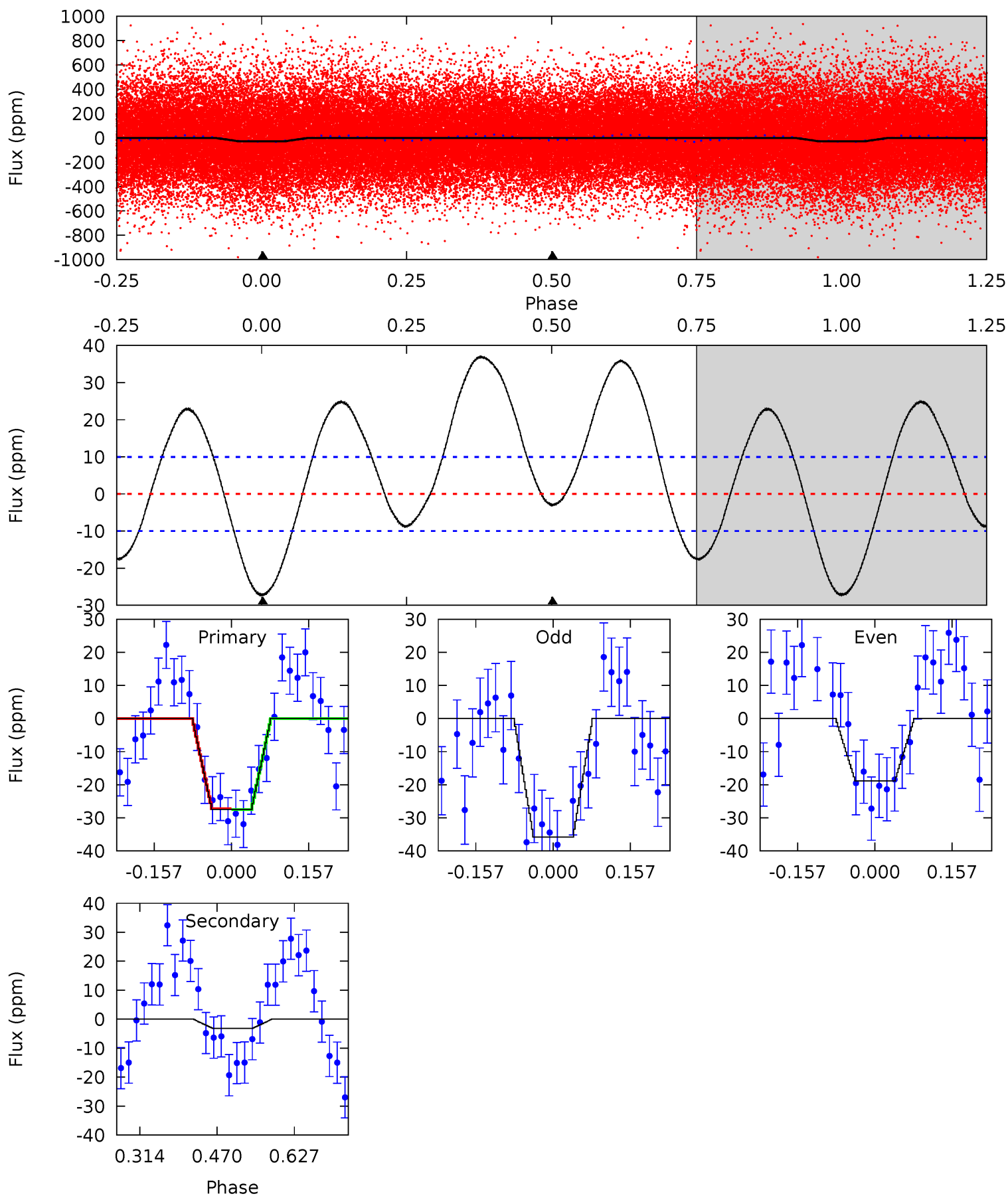
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	-0.10	0	0	4.47	1.42	4.71	11.7	11.7	-0.10	-0.10	0.50	0.84	0.57	0.73



Alt Model-Shift Uniqueness Test

005300719-01, P = 0.514326 Days, E = 131.301097 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	1.43	0	0	4.47	1.42	5.49	12.3	12.3	1.43	1.43	3.81	0.84	0.57	0.06



Stellar Parameters For KIC 005300719

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6513^{+210}_{-233}	$3.389^{+0.408}_{-0.072}$	$-0.440^{+0.400}_{-0.300}$	$4.459^{+0.636}_{-2.035}$	$1.776^{+0.153}_{-0.459}$	$0.028^{+0.103}_{-0.007}$
	+3%/-4%	+12%/-2%	+91%/-68%	+14%/-46%	+9%/-26%	+364%/-24%
Source	PHO1	FLK73	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 005300719-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 2	$2.41^{+1.62}_{-1.36}$	6655^{+441}_{-705}	-5490^{+699}_{-450}	$-0.003^{+0.041}_{-0.053}$
Alt.	-3 ± 2	$2.44^{+1.73}_{-1.37}$	6654^{+429}_{-745}	-5078^{+7484}_{-502}	$0.057^{+0.245}_{-0.044}$

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 $A_{obs} \gg 1.0$

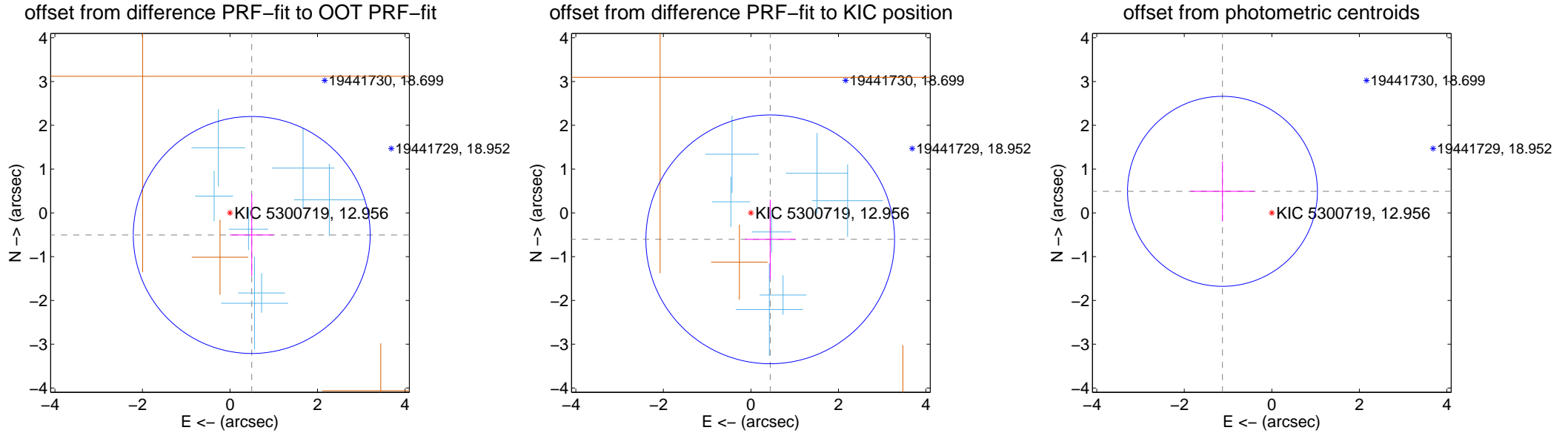
DV Centroid Data

Supplemental centroid analysis for 005300719-01. Kepler magnitude: 12.96. Transit SNR 10.98

There are 7 quarters with good PRF difference image offsets

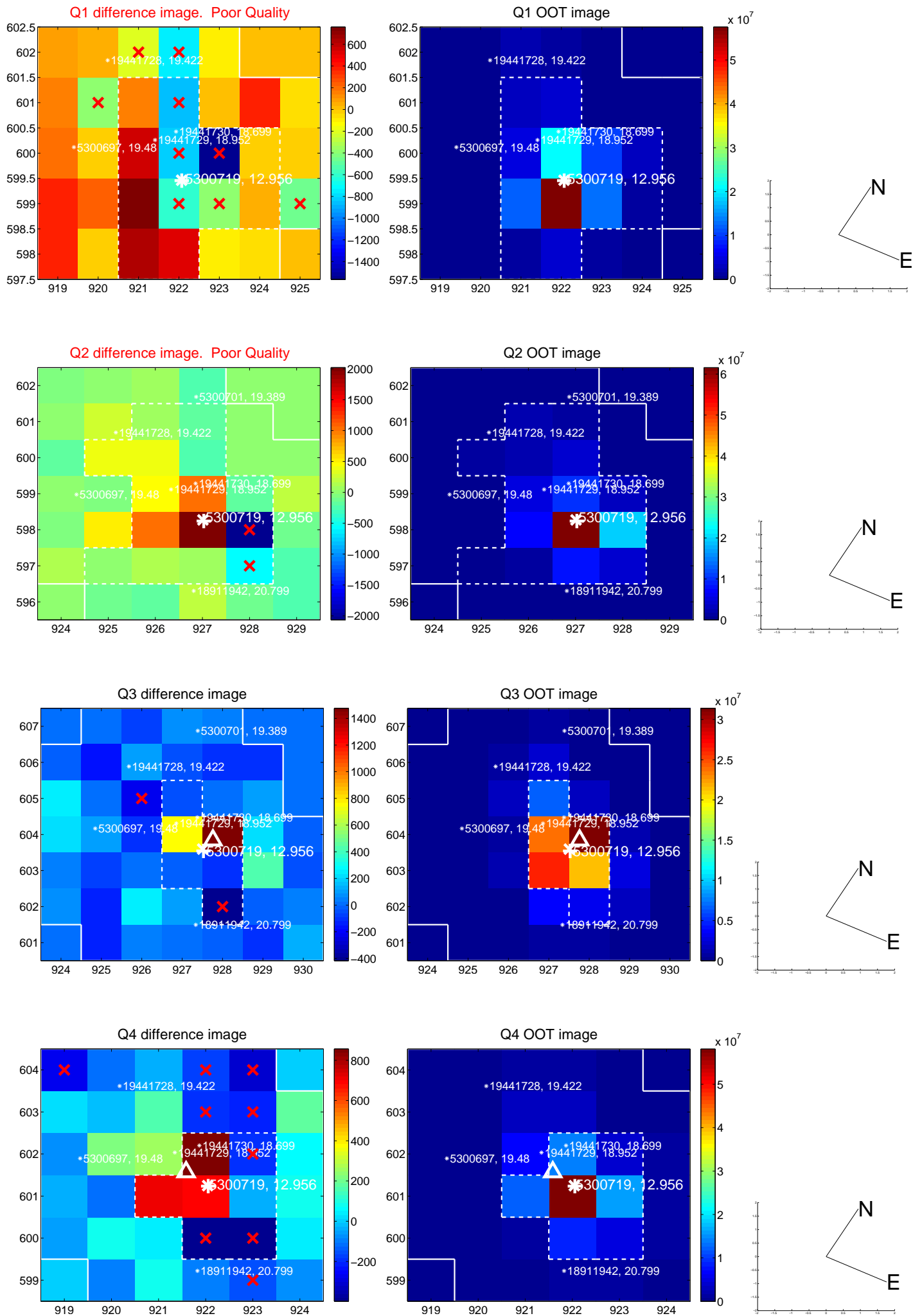
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.709 ± 0.902	0.79	-0.497 ± 0.498	-0.505 ± 0.934
PRF-fit source offset from KIC position	0.749 ± 0.947	0.79	-0.442 ± 0.578	-0.605 ± 0.905
photometric centroid source offset	1.23 ± 0.72	1.70	1.13 ± 0.73	0.49 ± 0.68

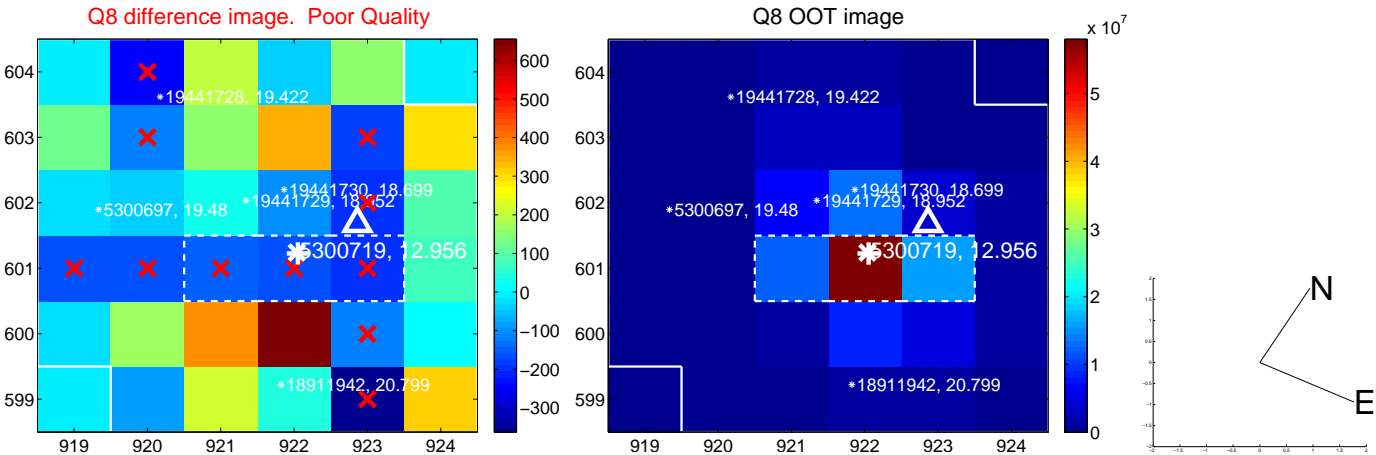
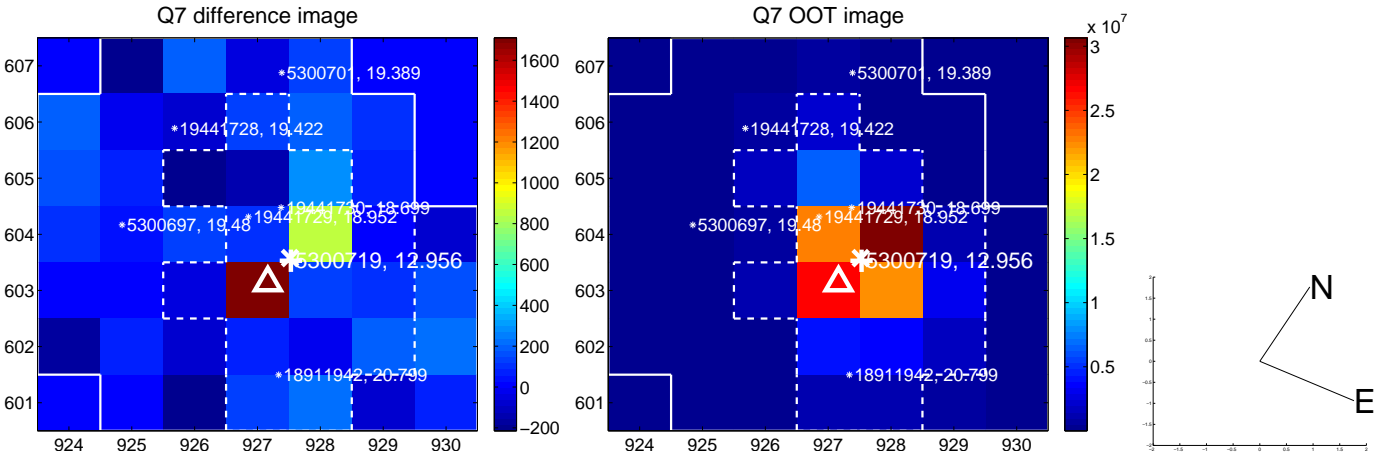
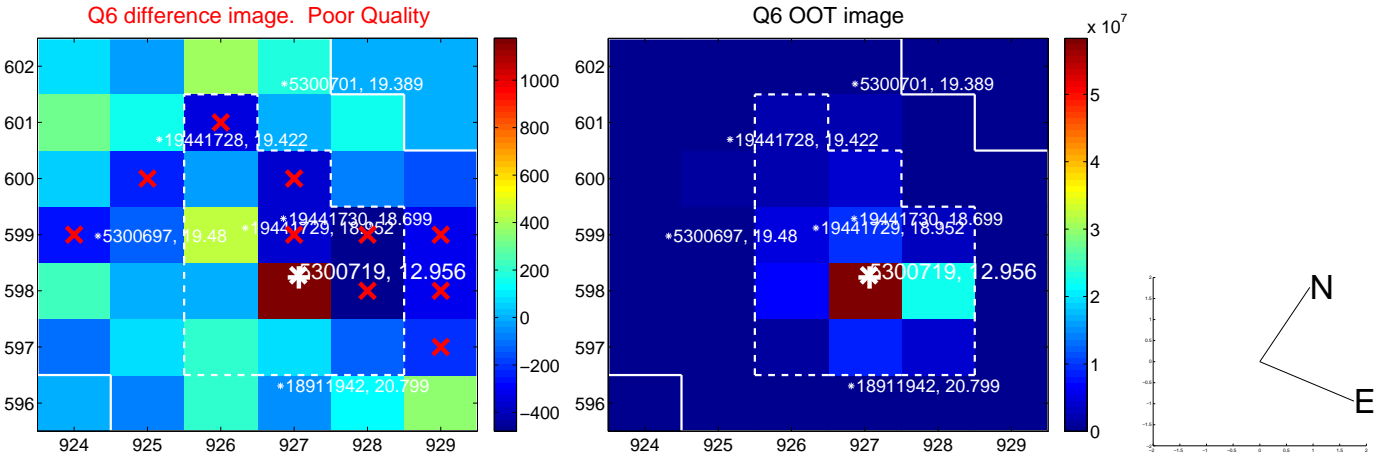
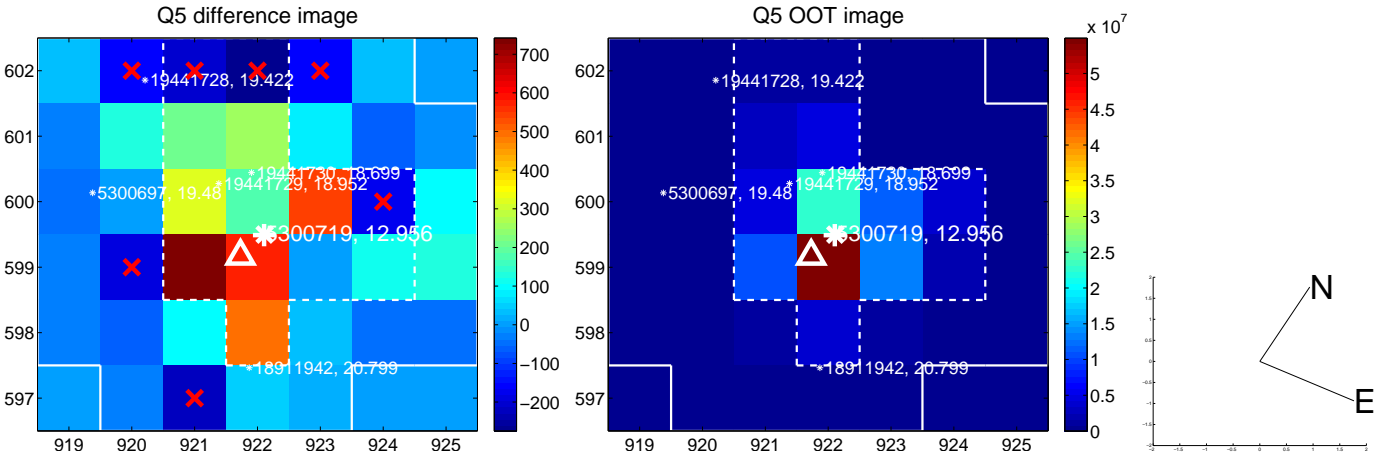


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

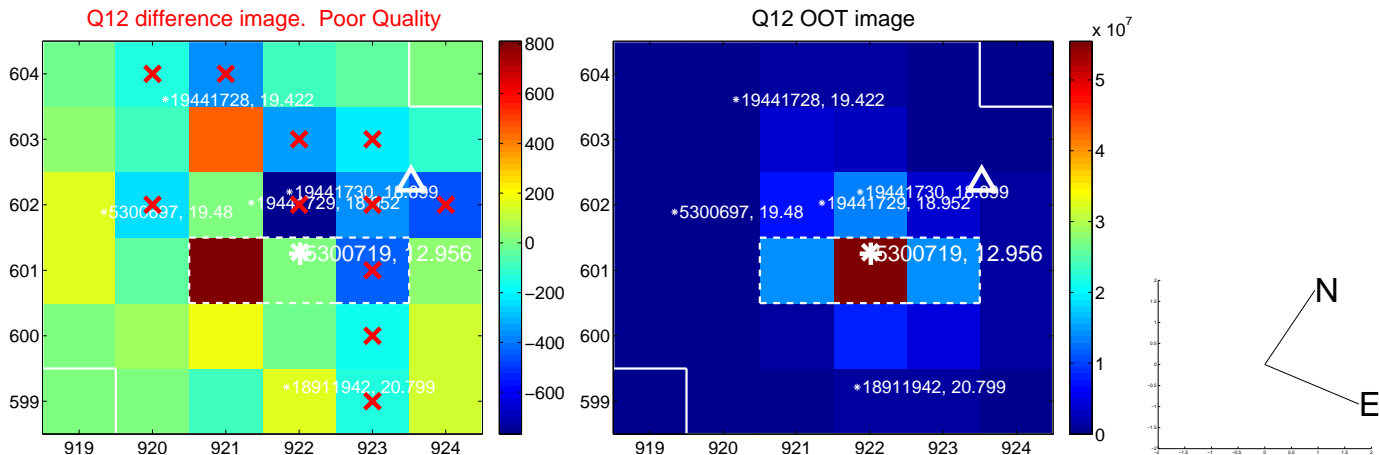
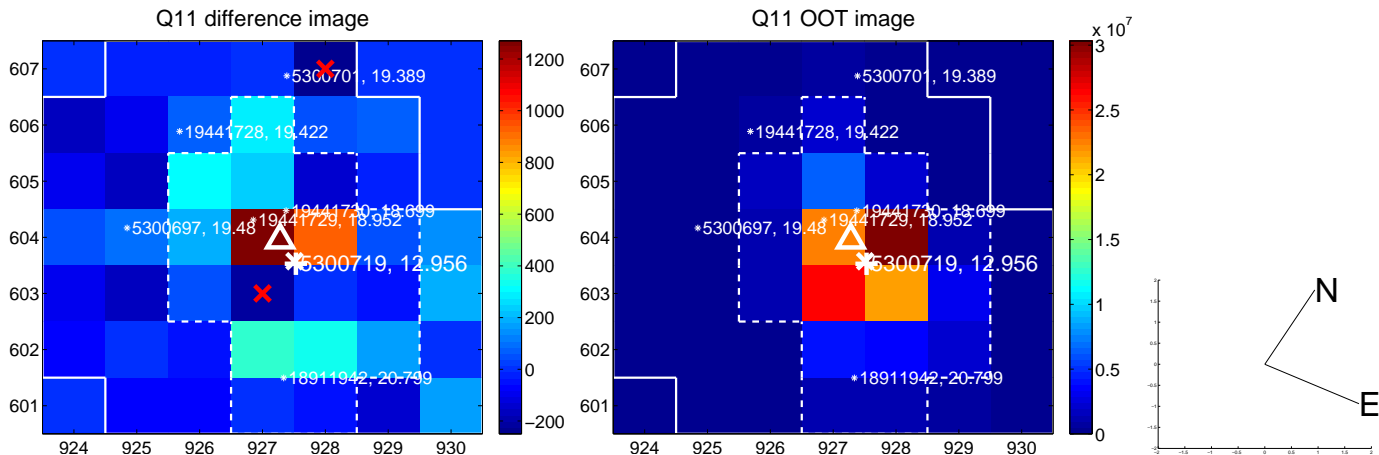
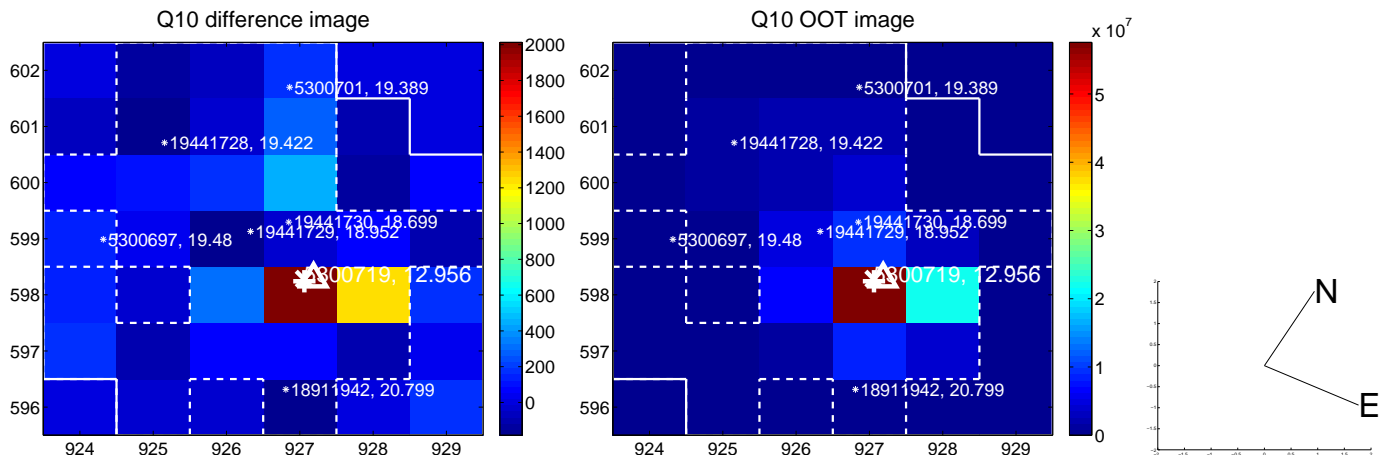
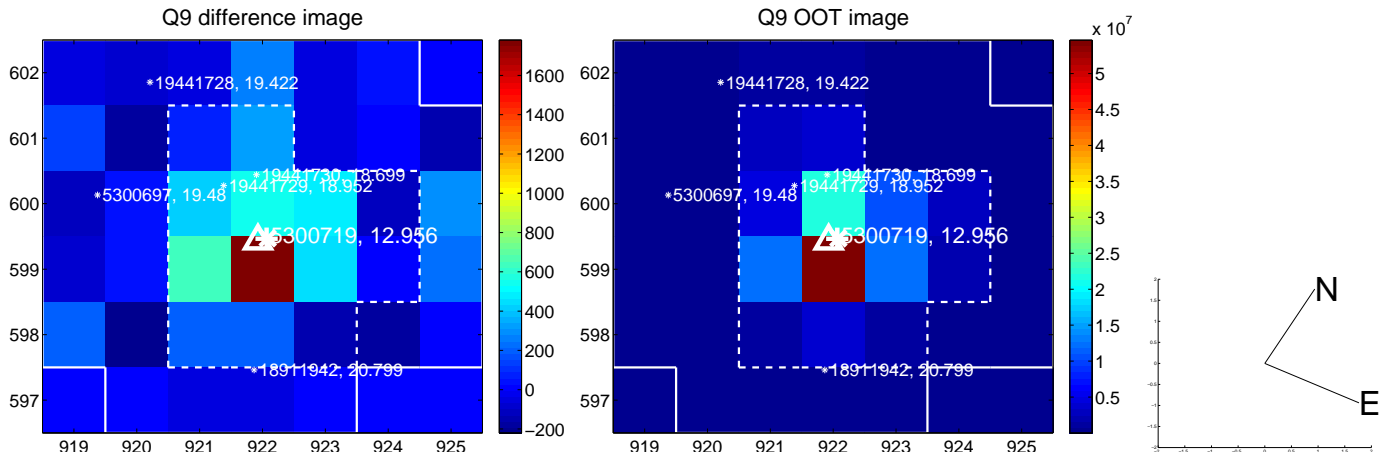
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



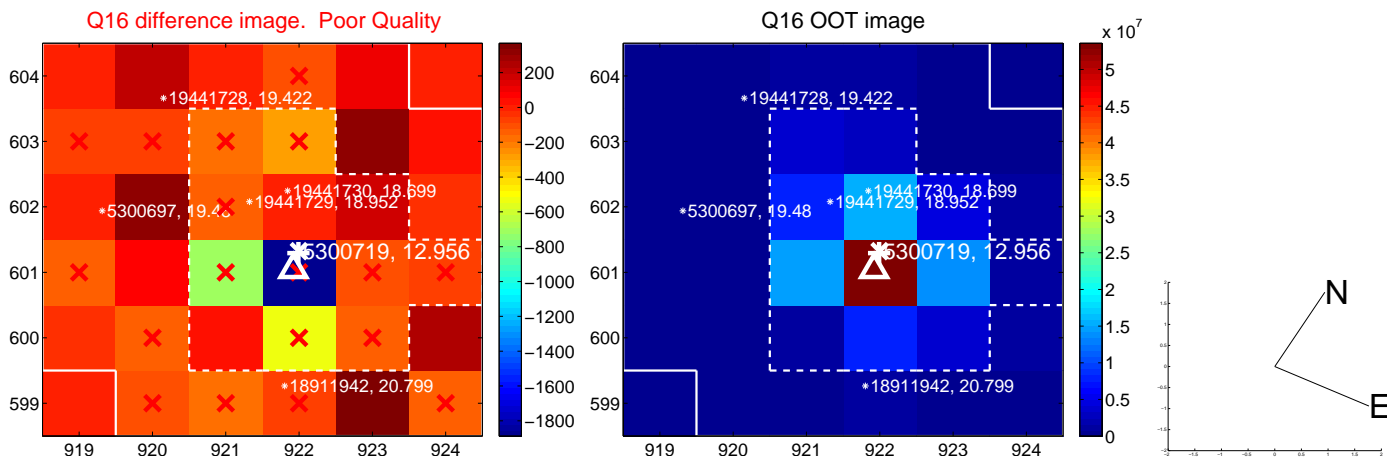
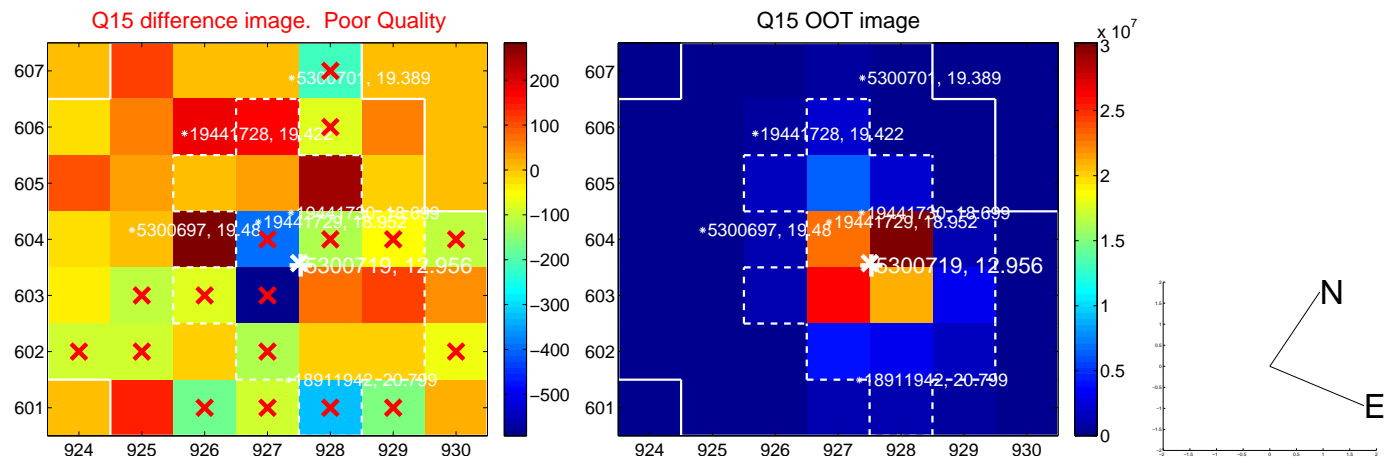
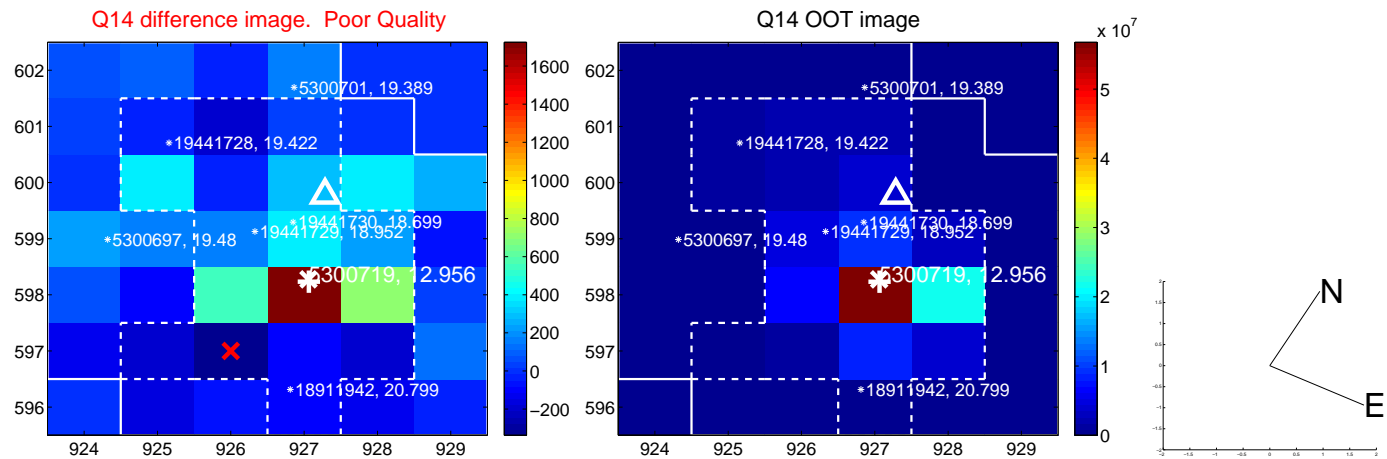
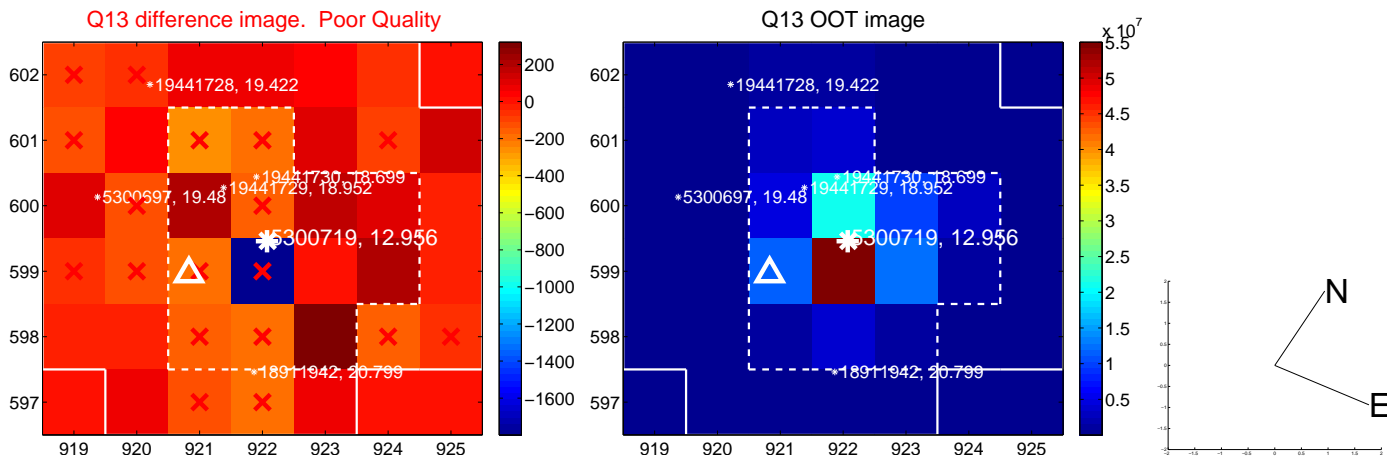
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



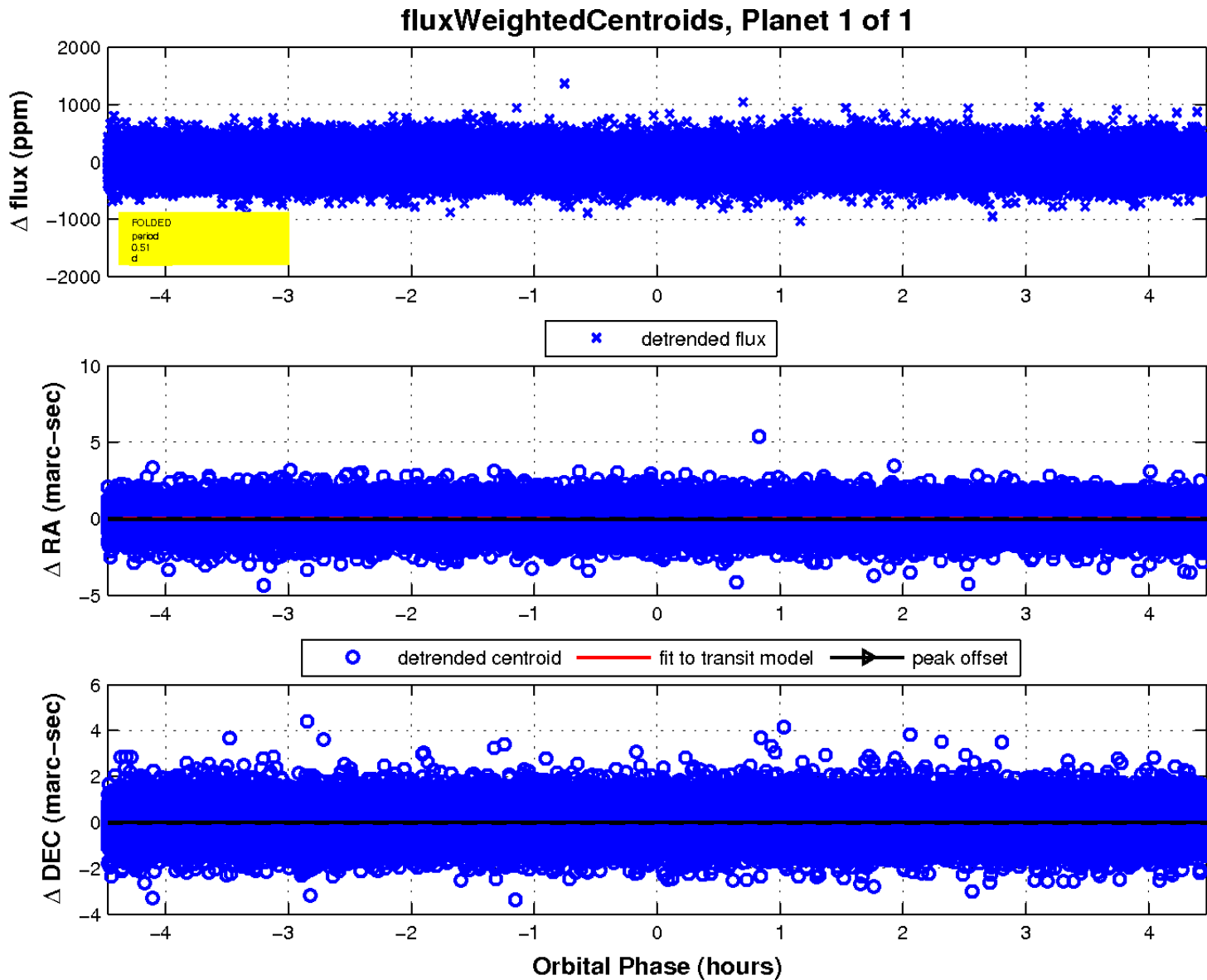
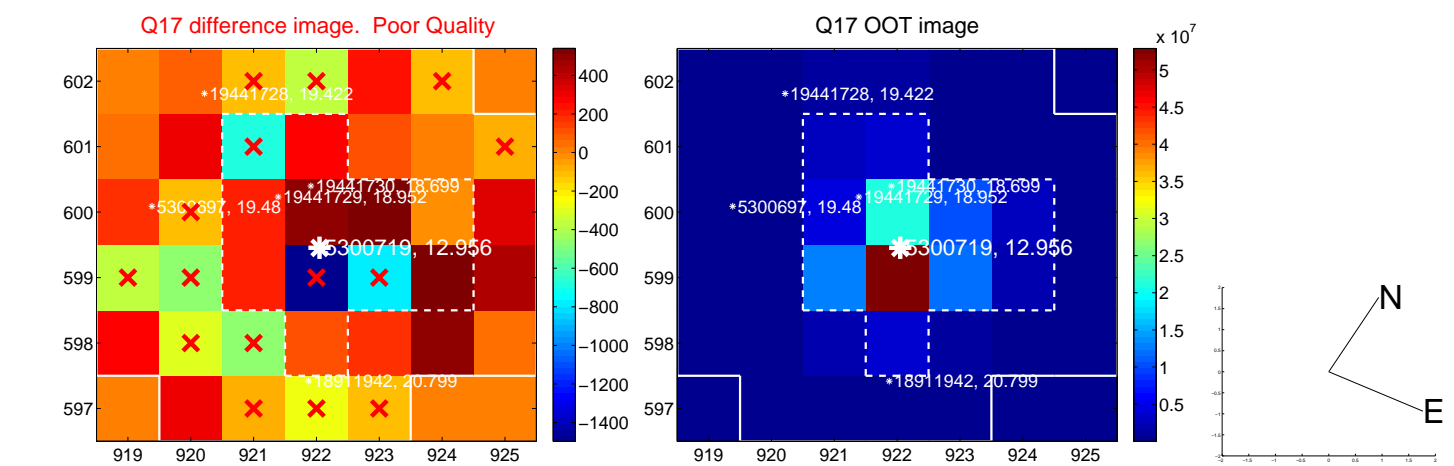
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

