

KIC 005307568

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})
005307568-01	OBS	2804.01	2.628354	131.628653	94.9	3.253	13.9	15.0	1.07	5884	1.25	846.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005307568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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.

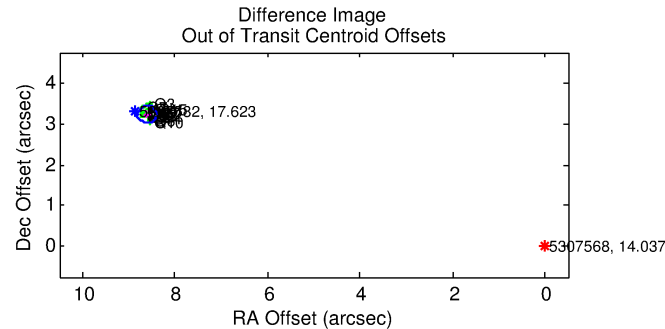
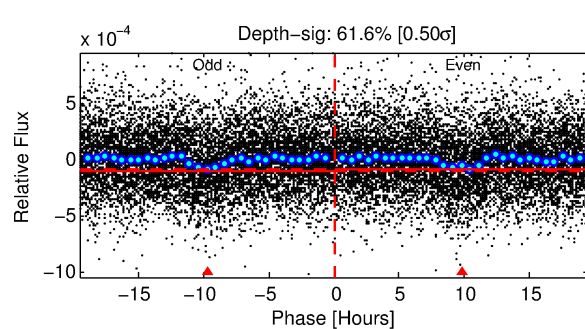
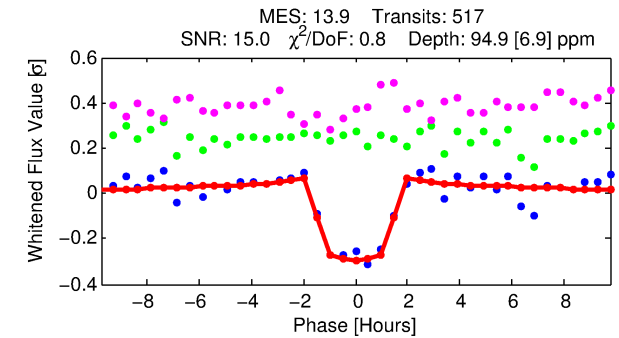
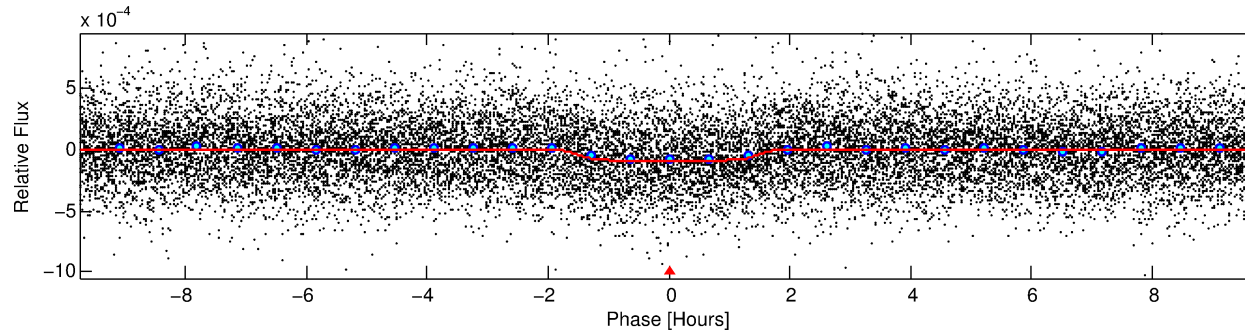
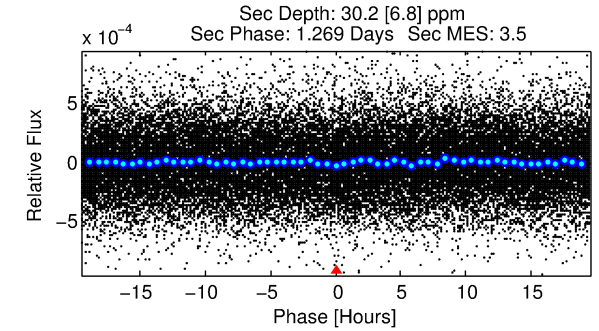
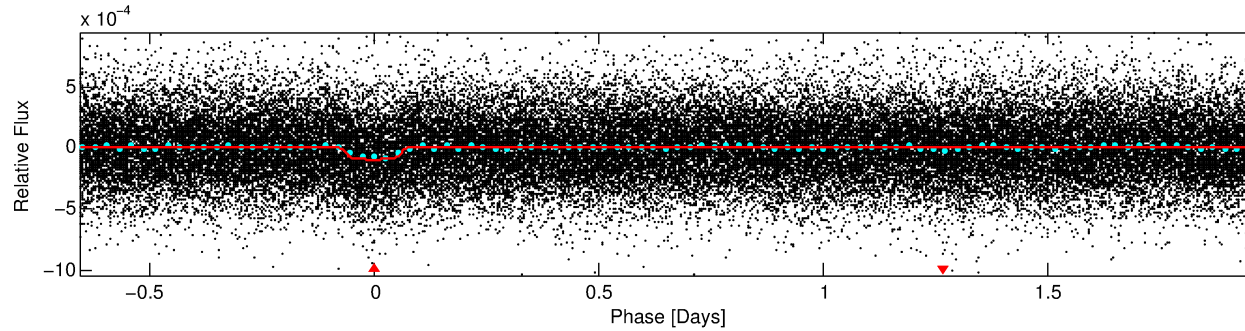
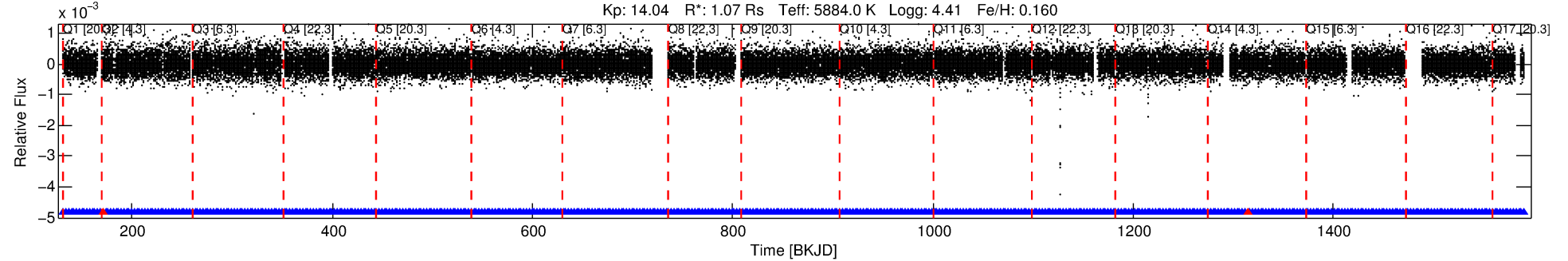
Ephemeris Match Information For 005307568-01

No Significant Match Found

DV One-Page Summary

KIC: 5307568 Candidate: 1 of 1 Period: 2.628 d
KOI: K02804.01 Corr: 0.970

Kp: 14.04 R*: 1.07 Rs Teff: 5884.0 K Logg: 4.41 Fe/H: 0.160



DV Fit Results:

Period = 2.62835 [0.00001] d
Epoch = 131.6287 [0.0027] BKJD
Rp/R* = 0.0107 [0.0037]
a/R* = 2.93 [4.33]
b = 0.91 [0.34]
Seff = 846.44 [321.17]
Teq = 1375 [130] K
Rp = 1.24 [0.56] Re
a = 0.0381 [0.0093] AU
Ag = 15.58 [12.54] [1.16σ]
Teff = 4225 [775] K [3.63σ]

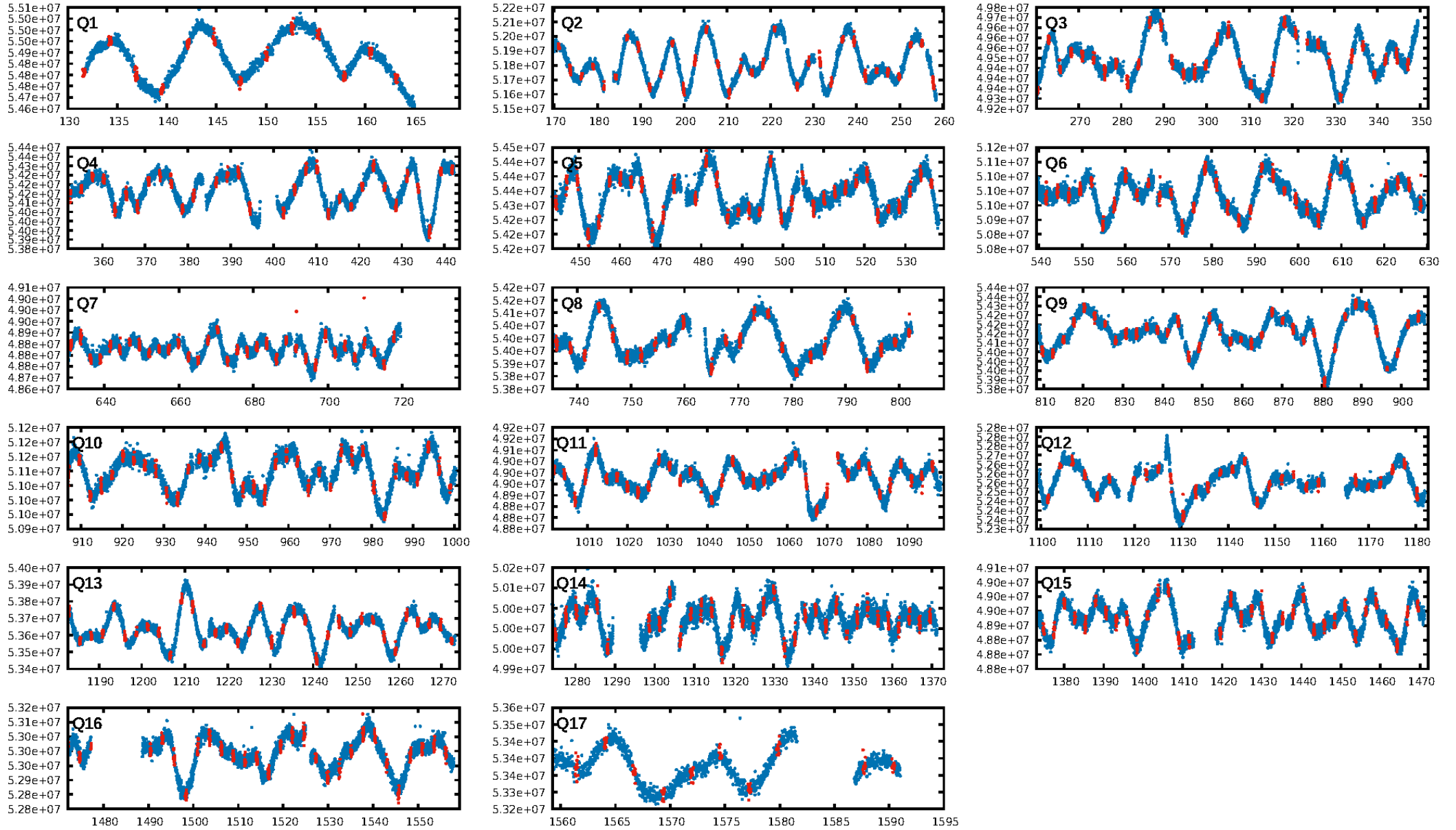
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.41e-41
RollingBand-fgt: 1.00 [492/494]
GhostDiagnostic-chr: -0.5712
Centroid-sig: 0.0%
Centroid-so: 18.935 arcsec [26.01σ]
OotOffset-rm: 9.189 arcsec [130.87σ]
KicOffset-rm: 9.288 arcsec [131.12σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

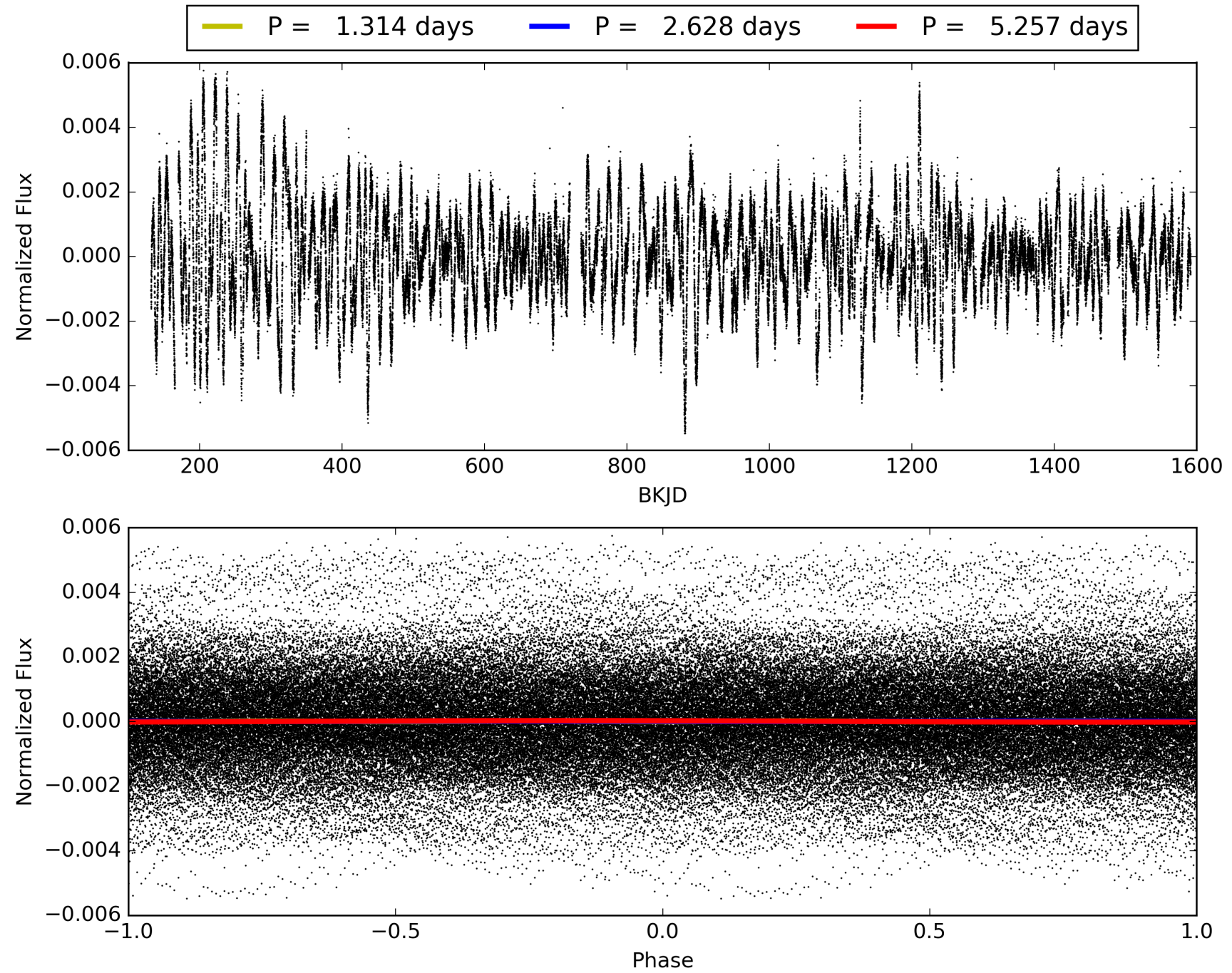
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:20:13 Z

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

TCE 005307568-01, PDC Light Curves

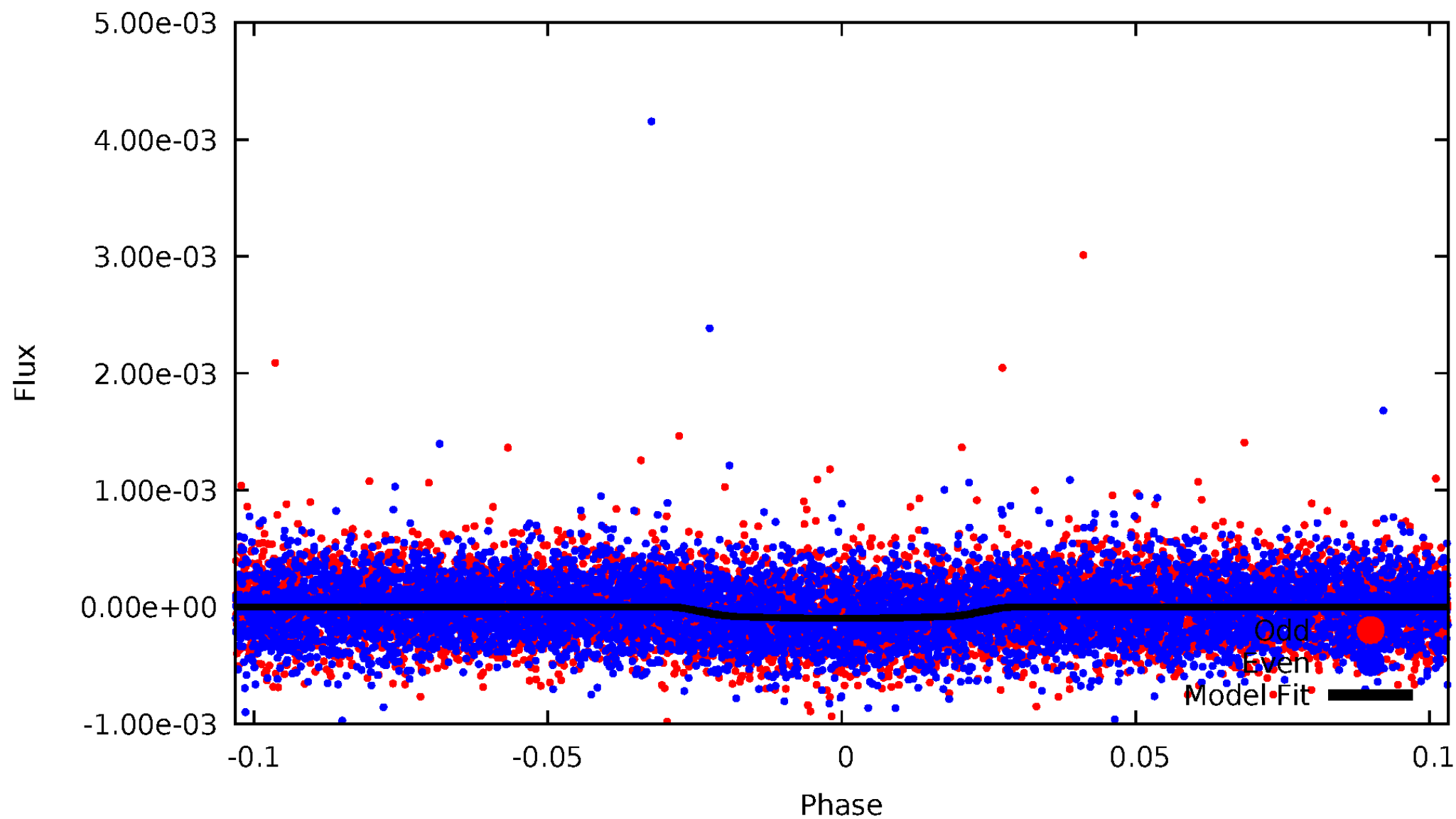


TCE 005307568-01



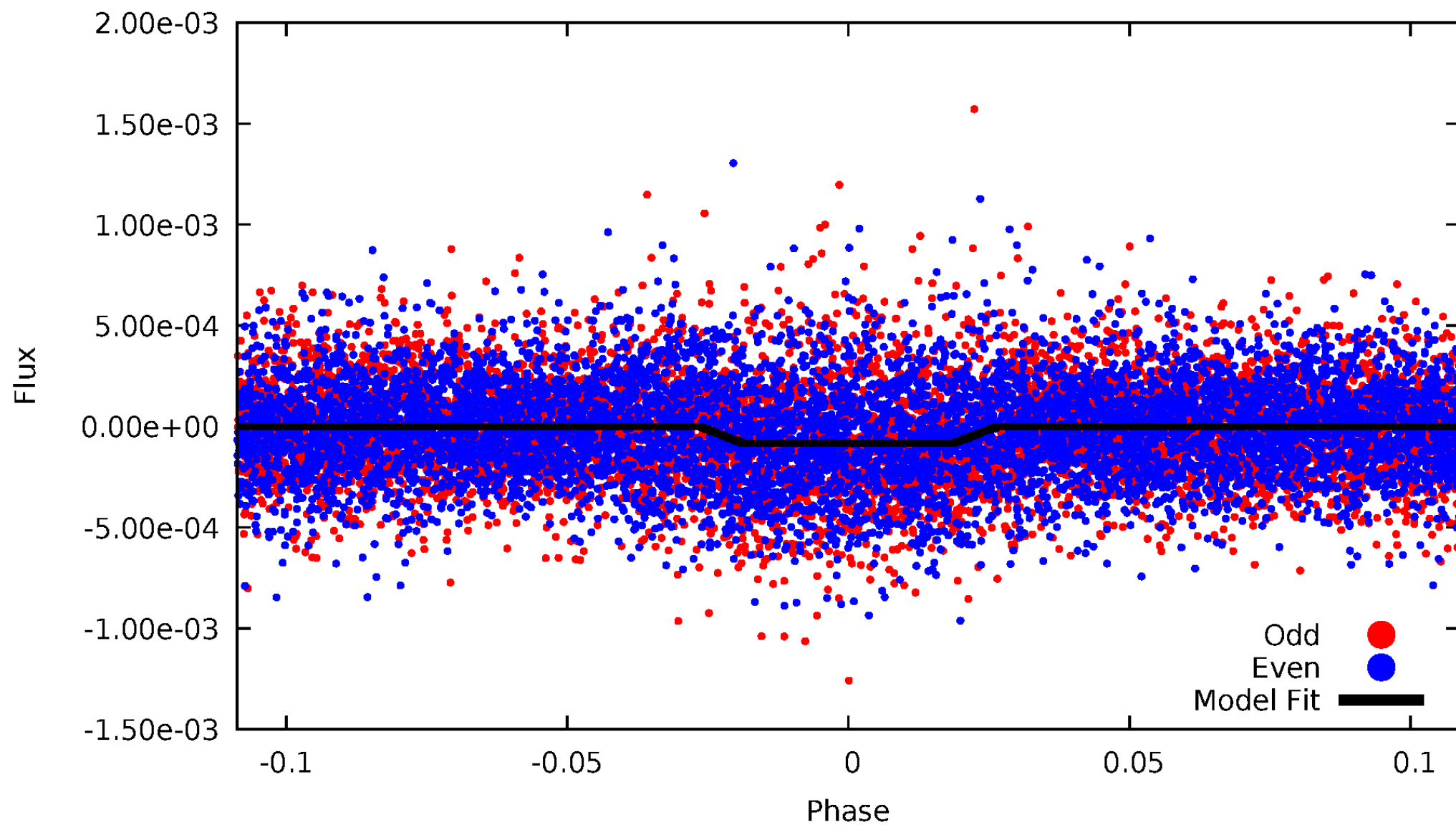
DV Odd/Even

TCE 005307568-01



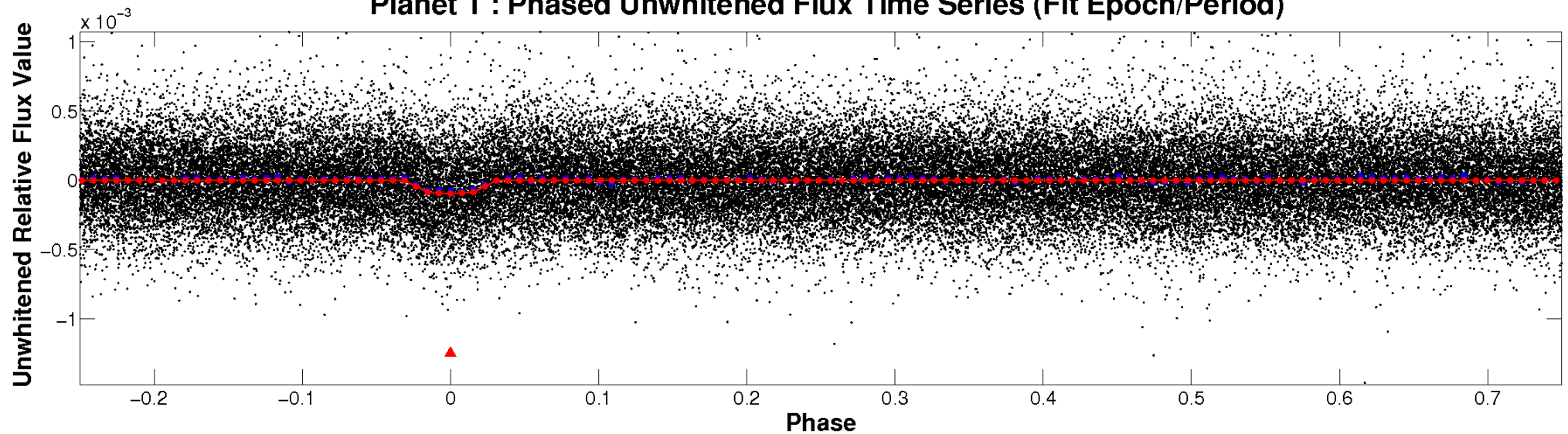
ALT Odd/Even

TCE 005307568-01

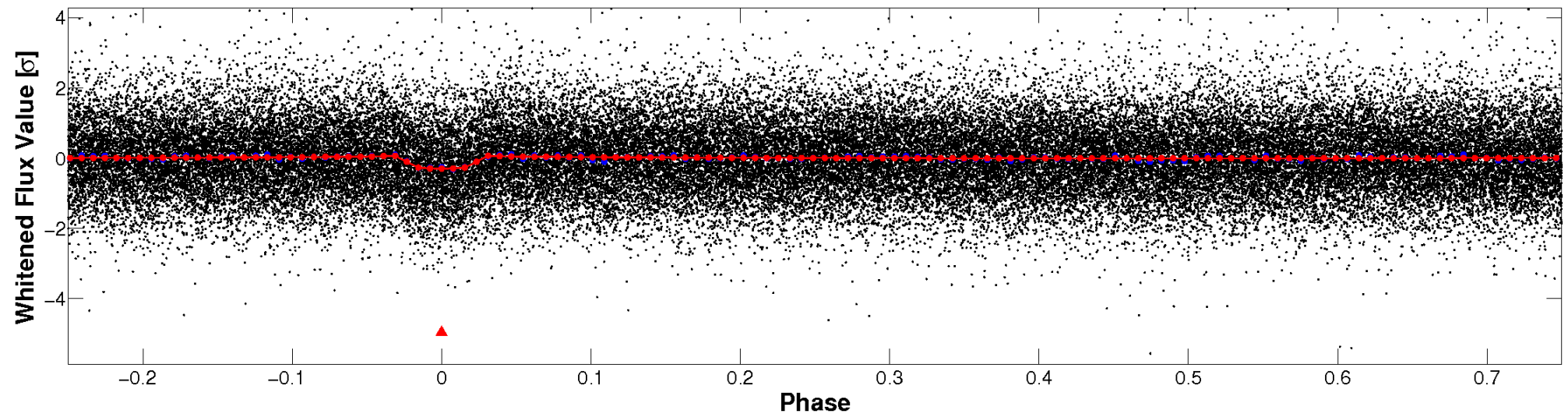


Non-Whitened Vs. Whitened Light Curve

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

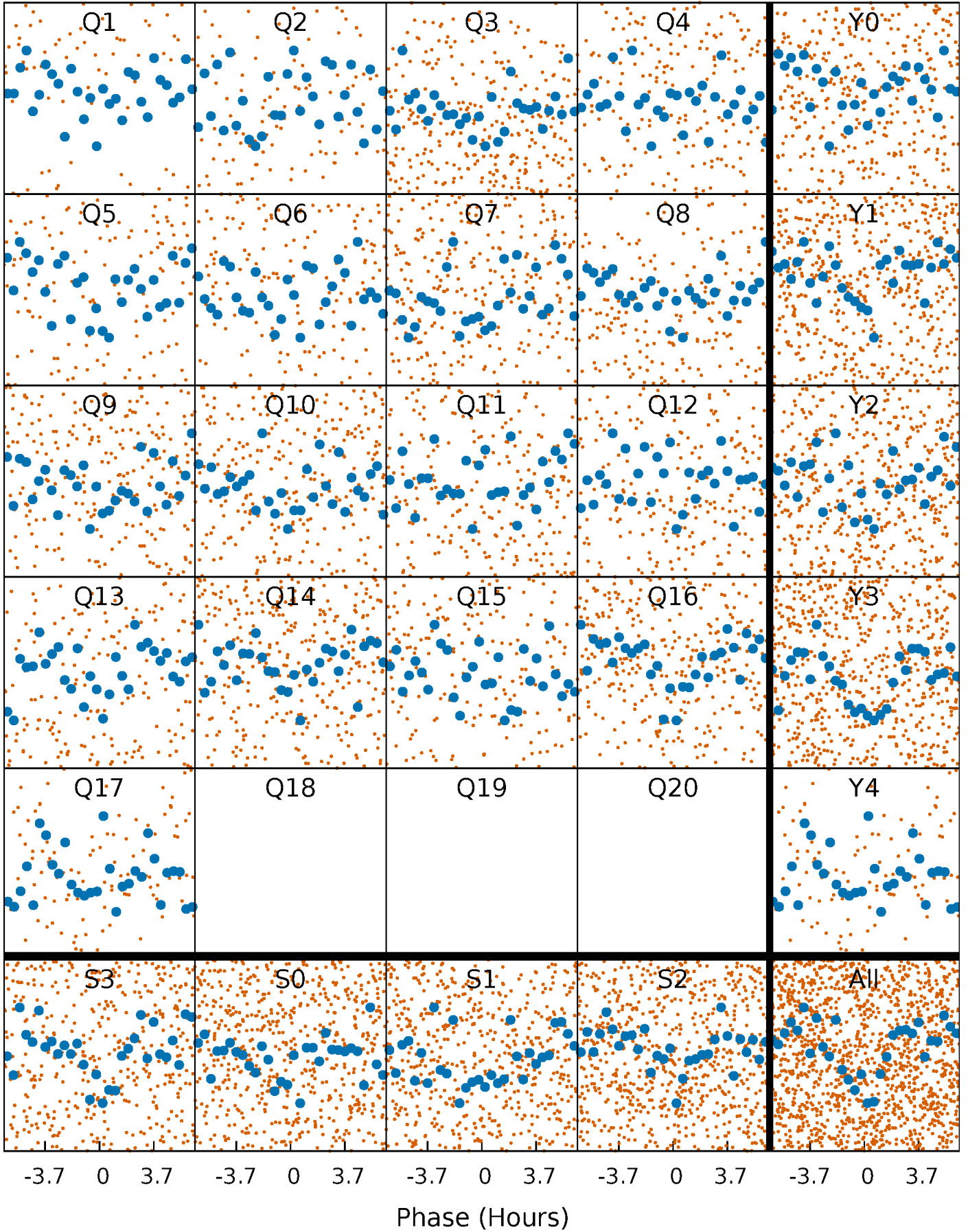


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



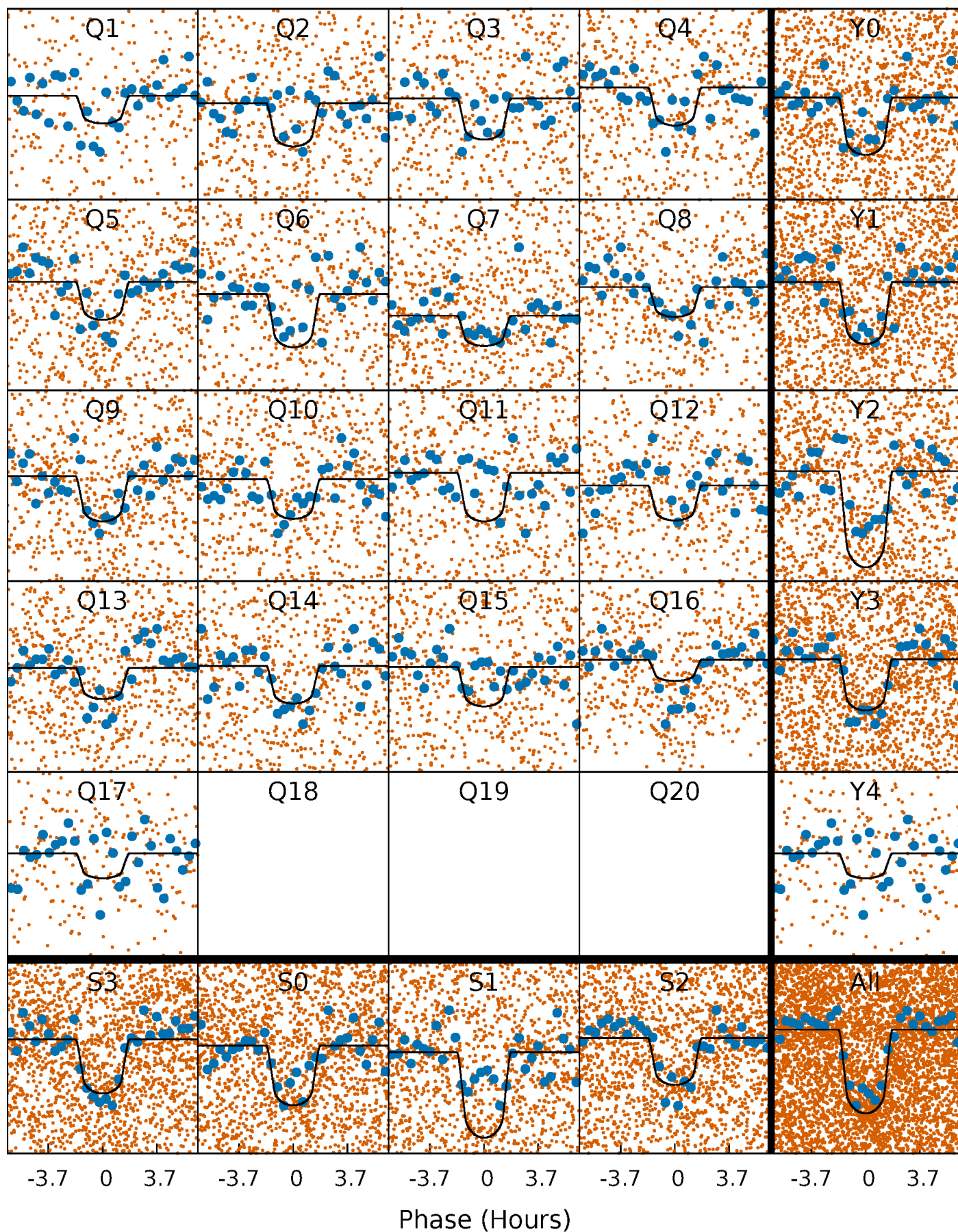
PDC Quarter-Phased Transit Curves

TCE 005307568-01 P= 2.628354 Days $T_0=131.628653$ (BKJD)



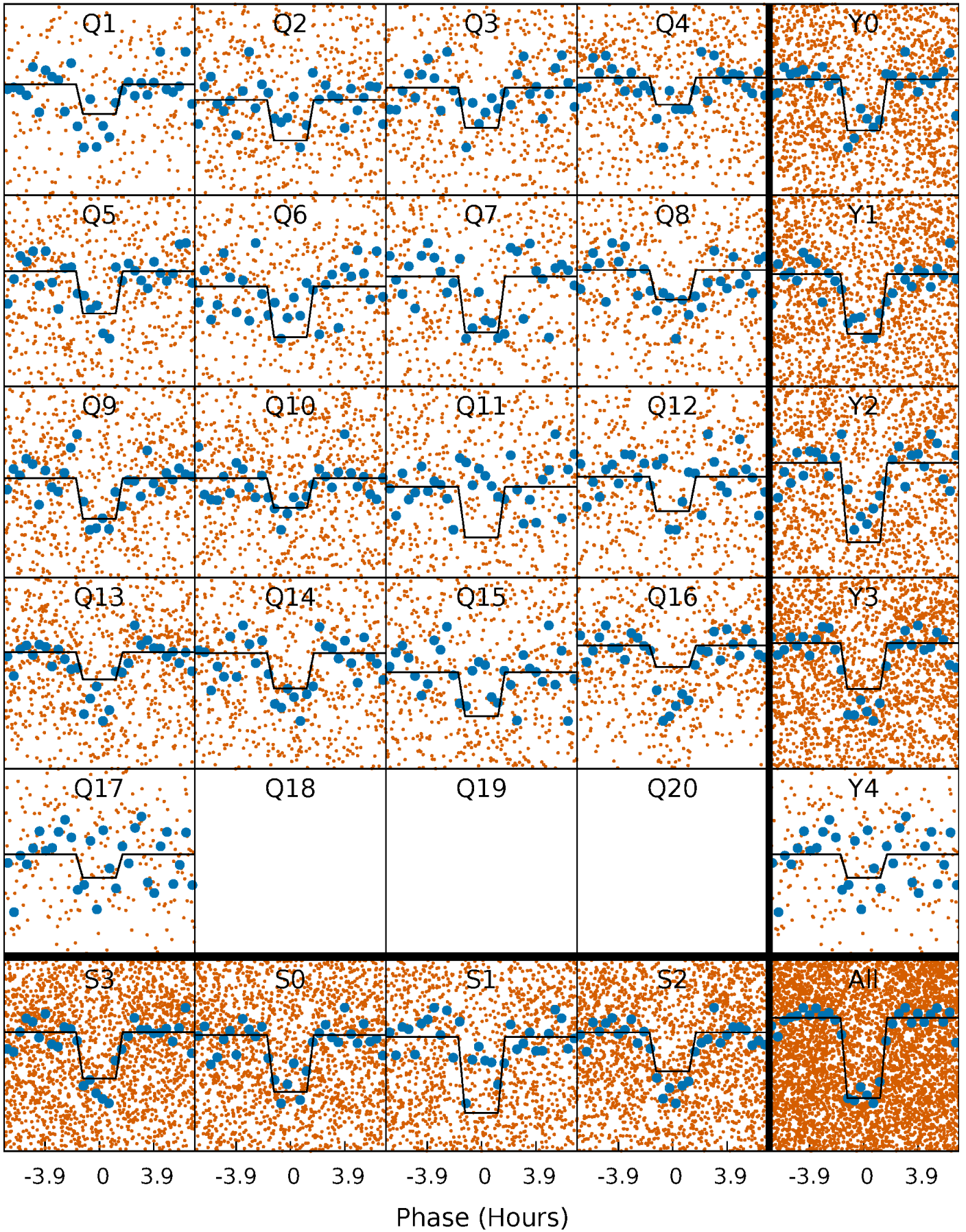
DV Quarter-Phased Transit Curves

TCE 005307568-01 P= 2.628354 Days $T_0=131.628653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

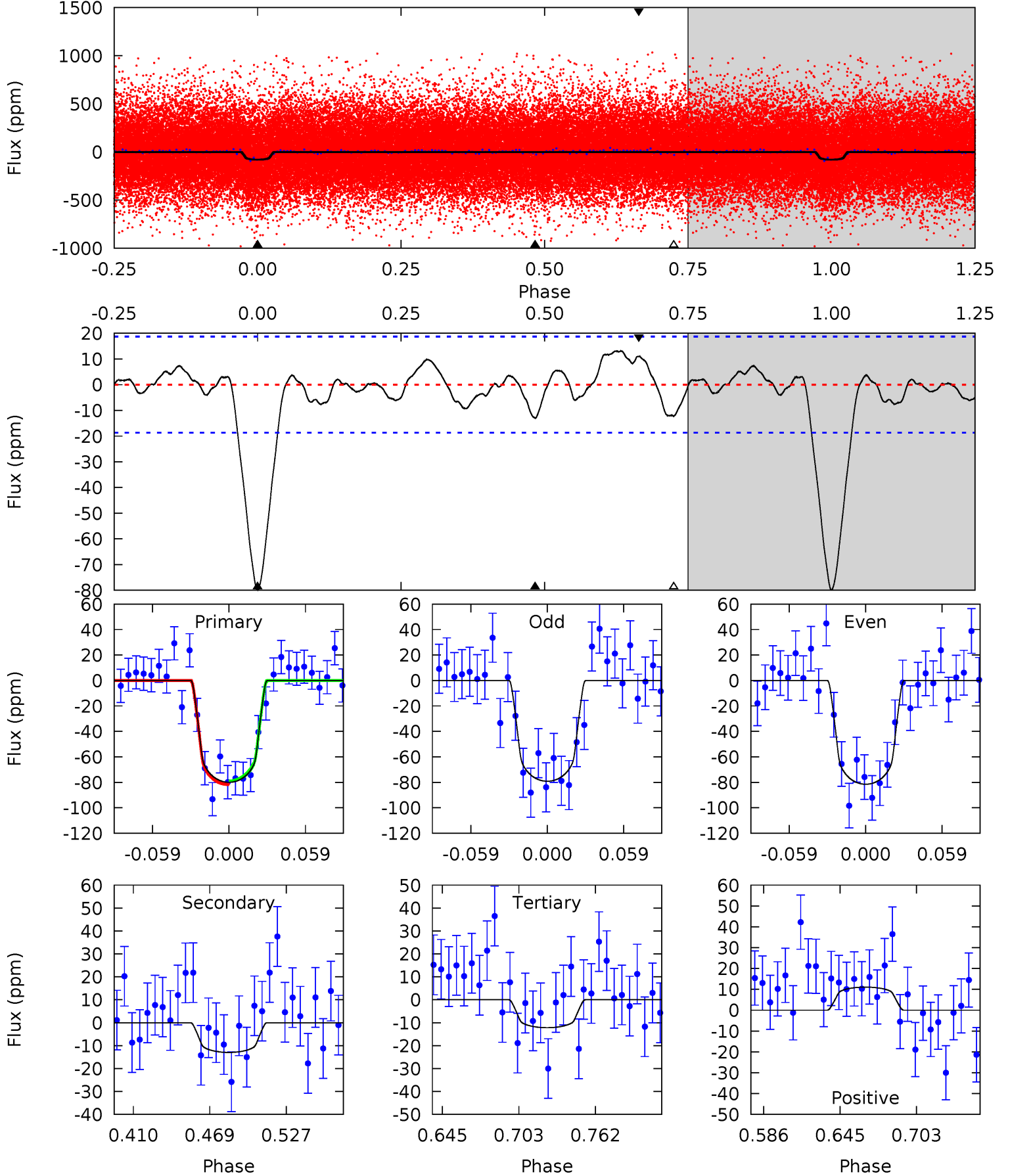
TCE 005307568-01 P= 2.628373 Days $T_0=131.622786$ (BKJD)



DV Model-Shift Uniqueness Test

005307568-01, P = 2.628354 Days, E = 129.000299 Days

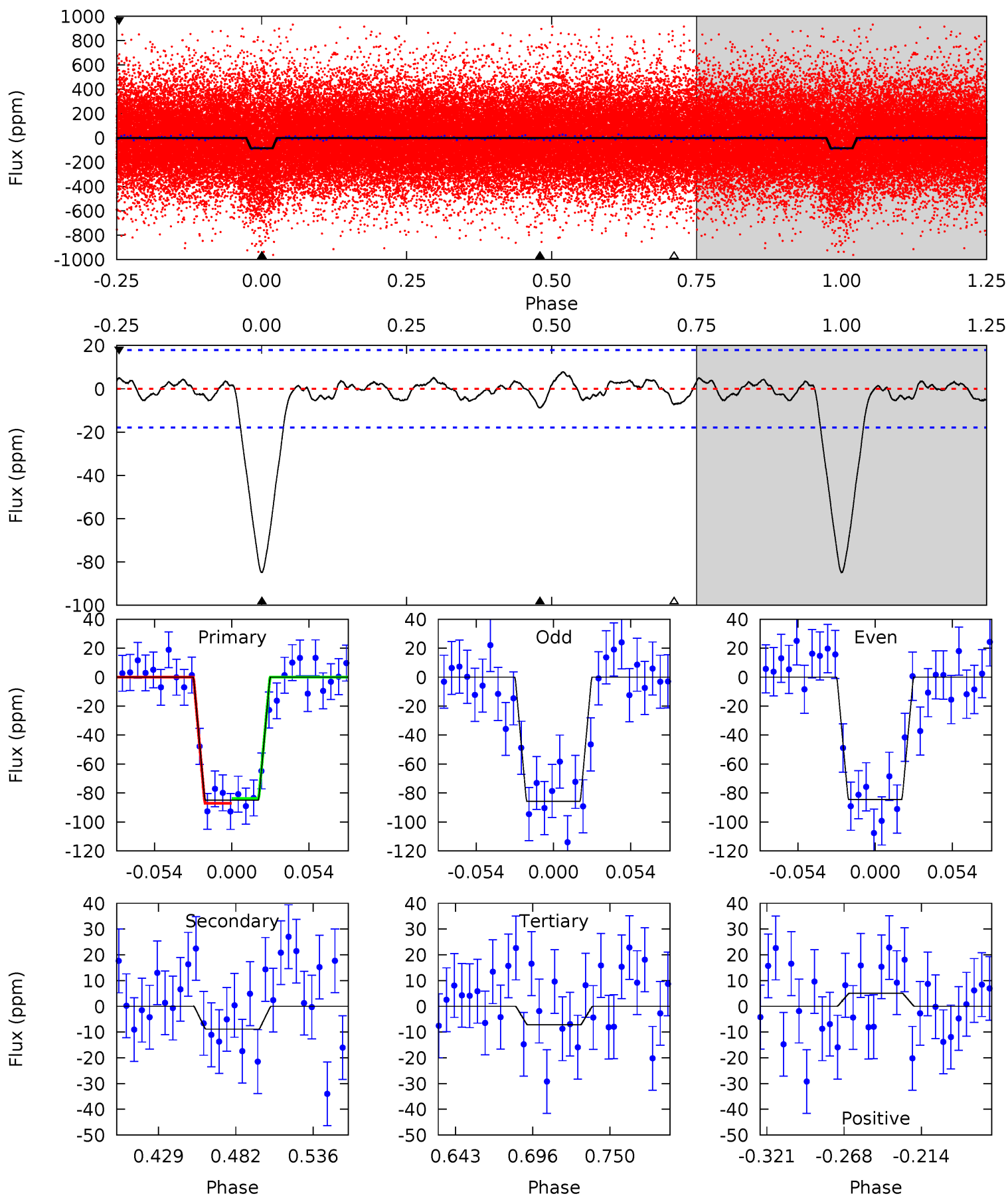
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	3.25	3.05	2.77	4.68	1.89	1.45	17.0	17.2	0.20	0.48	0.29	0.94	0.14	0.35



Alt Model-Shift Uniqueness Test

005307568-01, P = 2.628373 Days, E = 128.994413 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	2.33	1.89	1.32	4.69	1.93	0.81	20.4	21.0	0.44	1.00	0.18	0.91	0.08	0.43



Stellar Parameters For KIC 005307568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5884^{+156}_{-191}	$4.408^{+0.084}_{-0.196}$	$0.160^{+0.200}_{-0.300}$	$1.070^{+0.307}_{-0.141}$	$1.070^{+0.122}_{-0.136}$	$1.229^{+0.451}_{-0.638}$
	+3%/-3%	+2%/-4%	+125%/-188%	+29%/-13%	+11%/-13%	+37%/-52%
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 005307568-01 / KOI 2804.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 4	$1.30^{+0.47}_{-0.47}$	1936^{+141}_{-95}	3740^{+684}_{-421}	$5.947^{+9.061}_{-2.982}$
Alt.	-9 ± 4	$1.10^{+0.49}_{-0.46}$	1953^{+136}_{-105}	3685^{+875}_{-528}	$5.405^{+11.801}_{-3.184}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

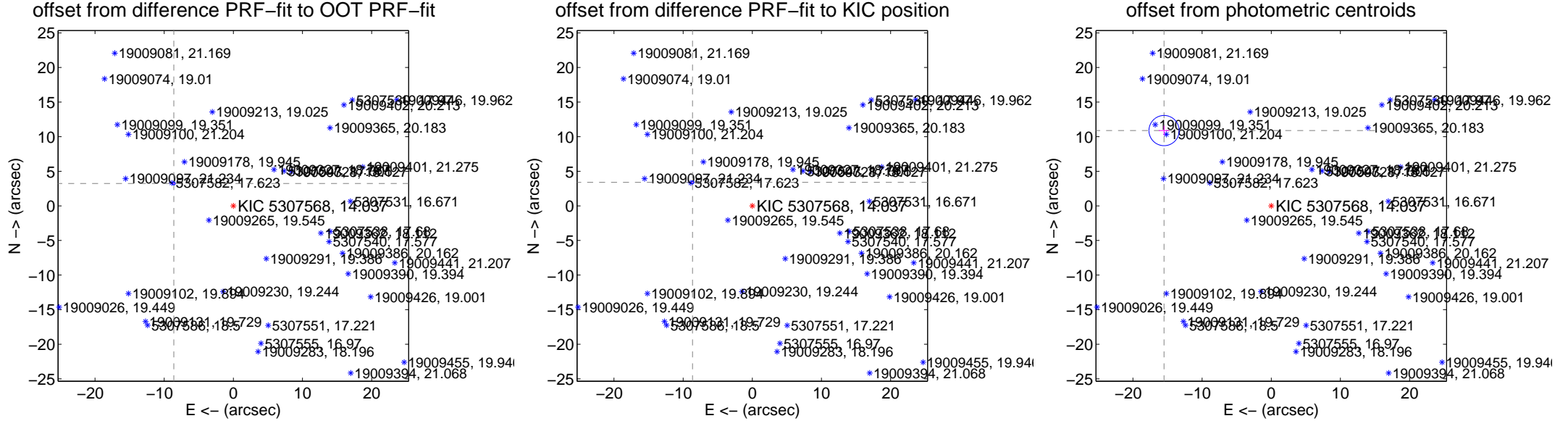
A_{obs} = Observed Albedo (Assuming $T=0$)

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

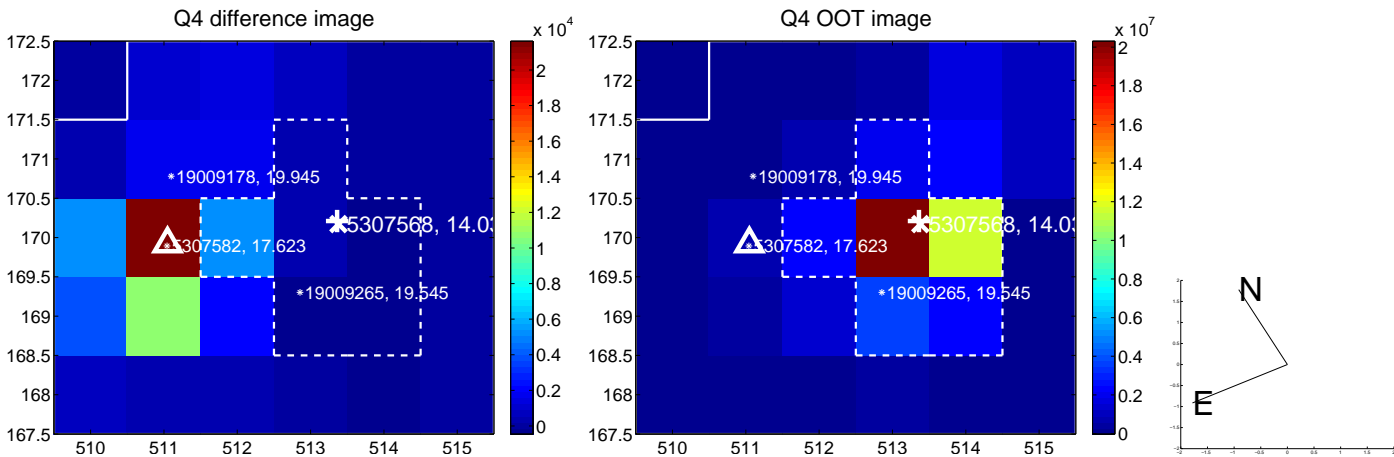
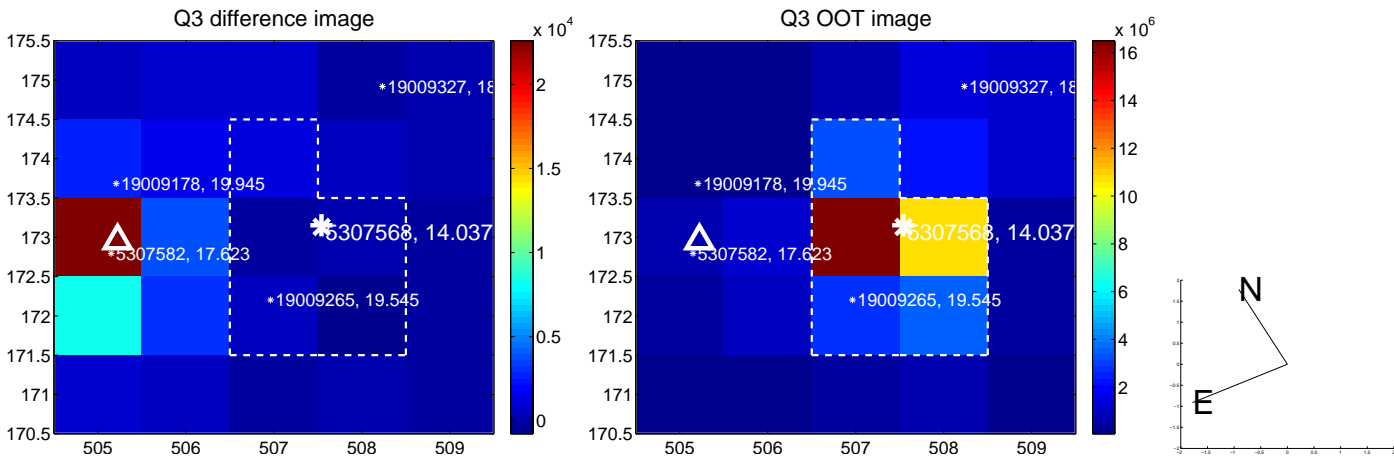
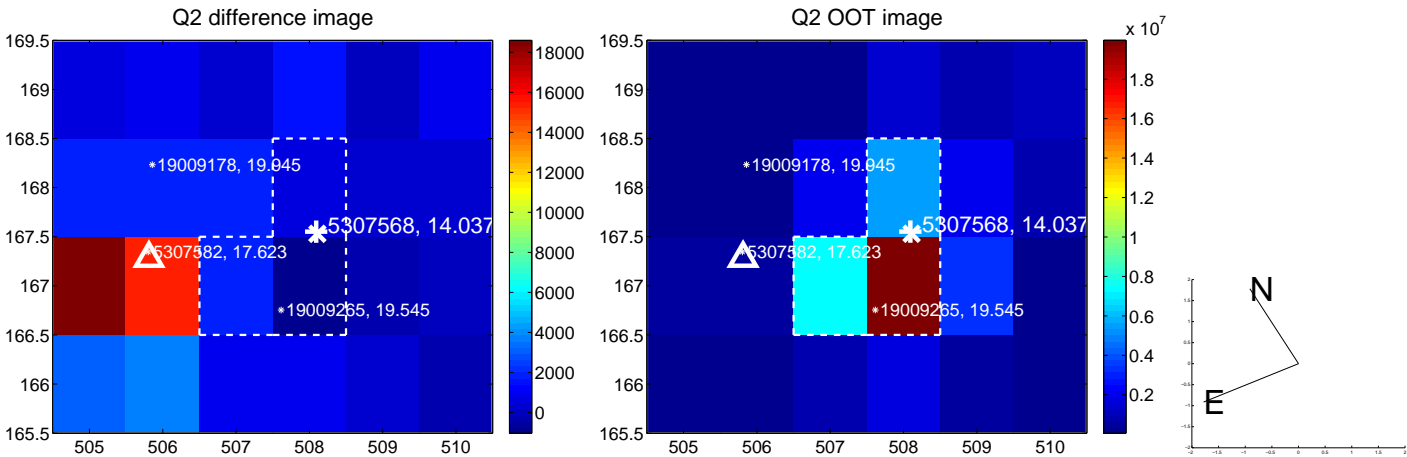
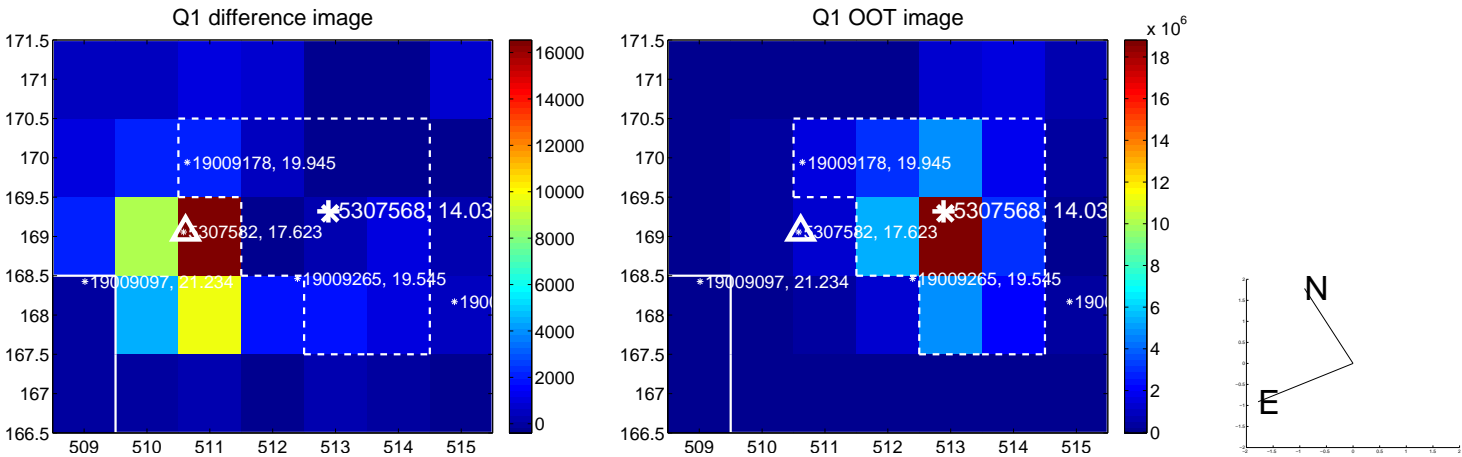
Supplemental centroid analysis for 005307568-01. Kepler magnitude: 14.04. Transit SNR 15.03
 There are 17 quarters with good PRF difference image offsets
 The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.189 \pm 0.070	130.87	8.602 \pm 0.069	3.233 \pm 0.073
PRF-fit source offset from KIC position	9.288 \pm 0.071	131.12	8.643 \pm 0.070	3.400 \pm 0.073
photometric centroid source offset	18.93 \pm 0.73	26.01	15.50 \pm 0.74	10.88 \pm 0.70

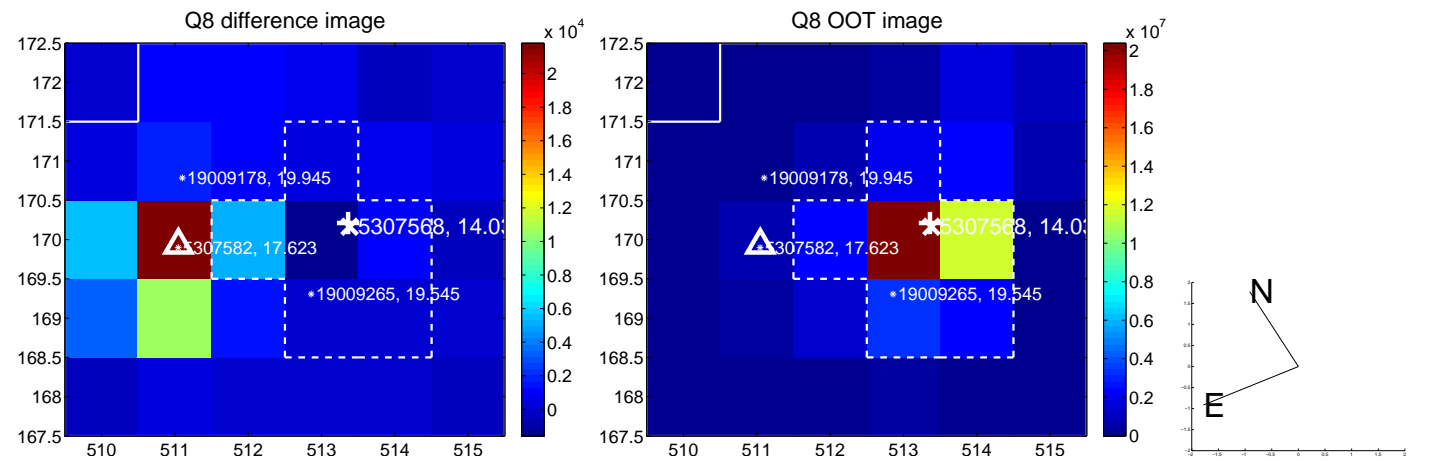
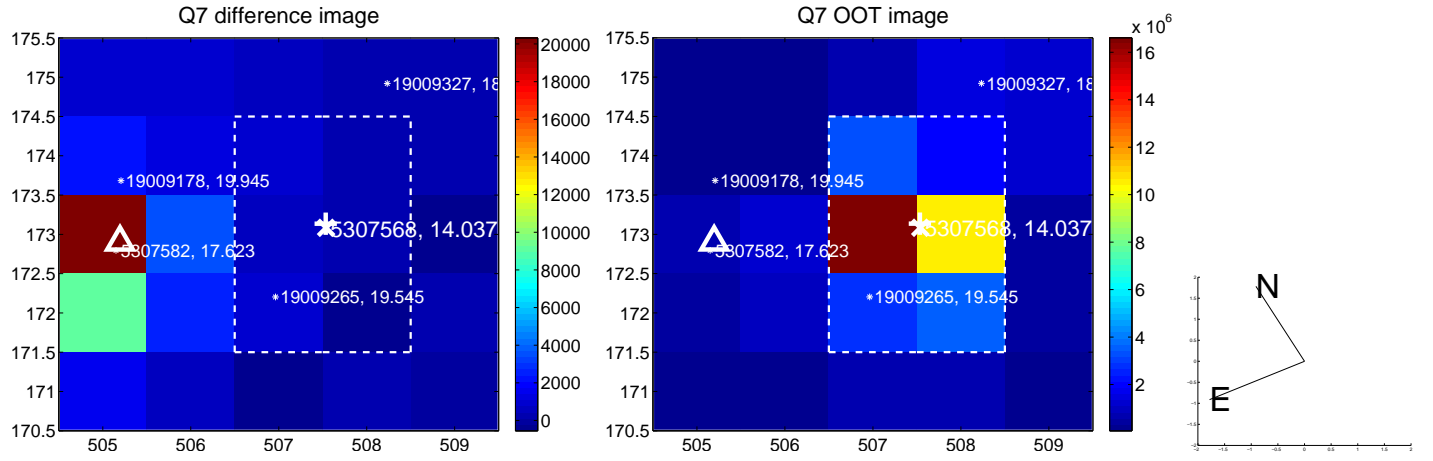
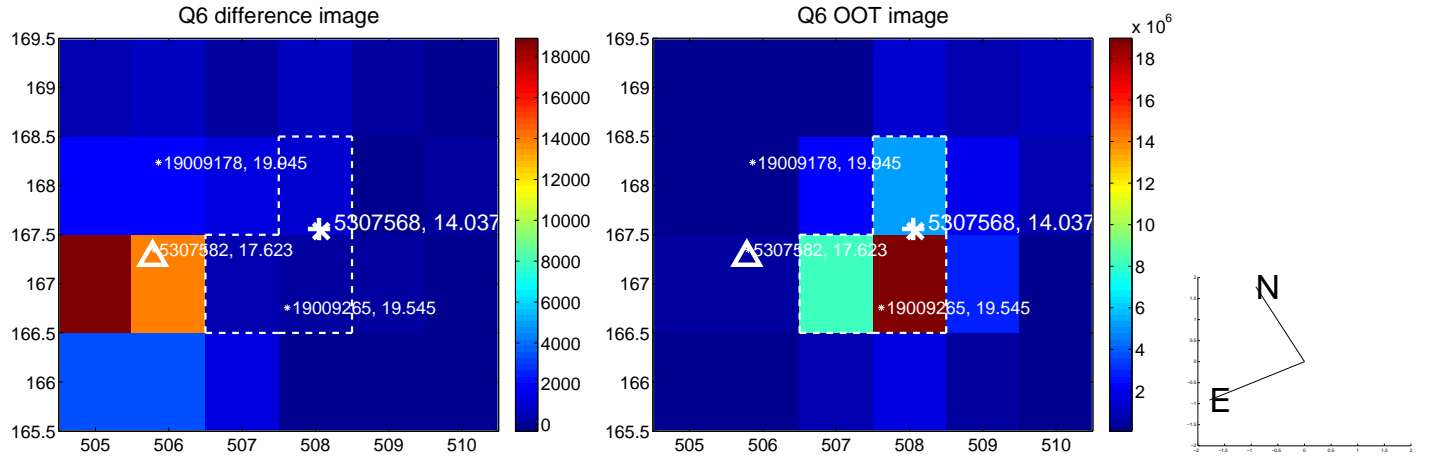
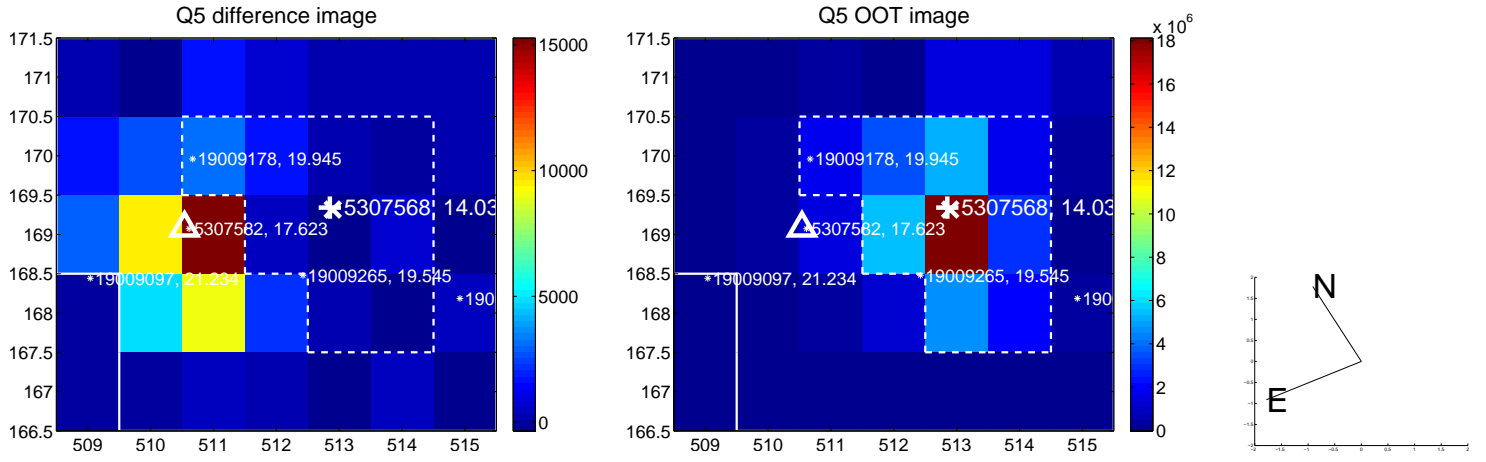


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

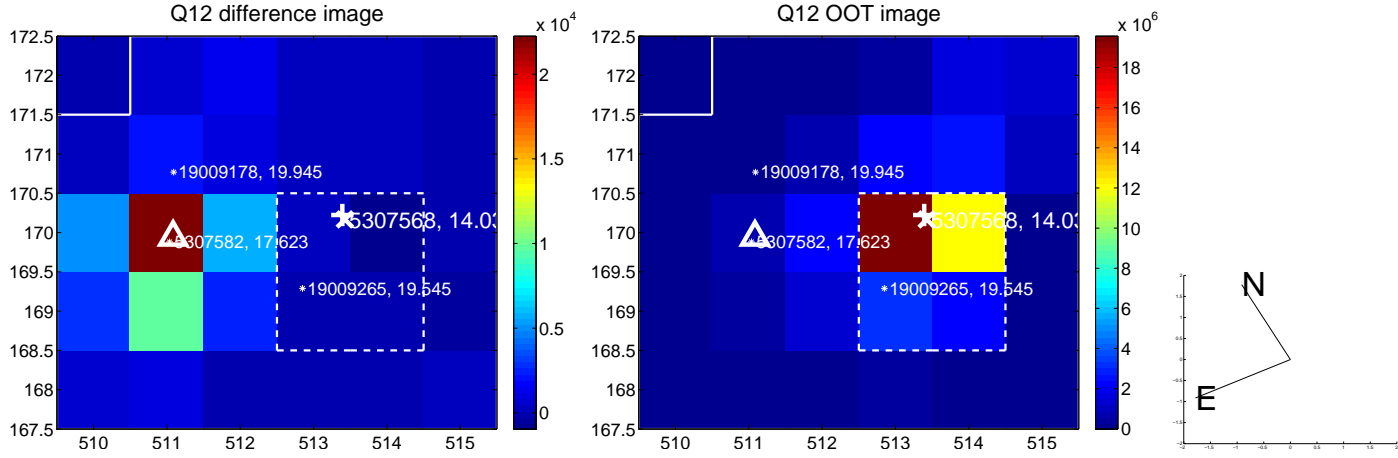
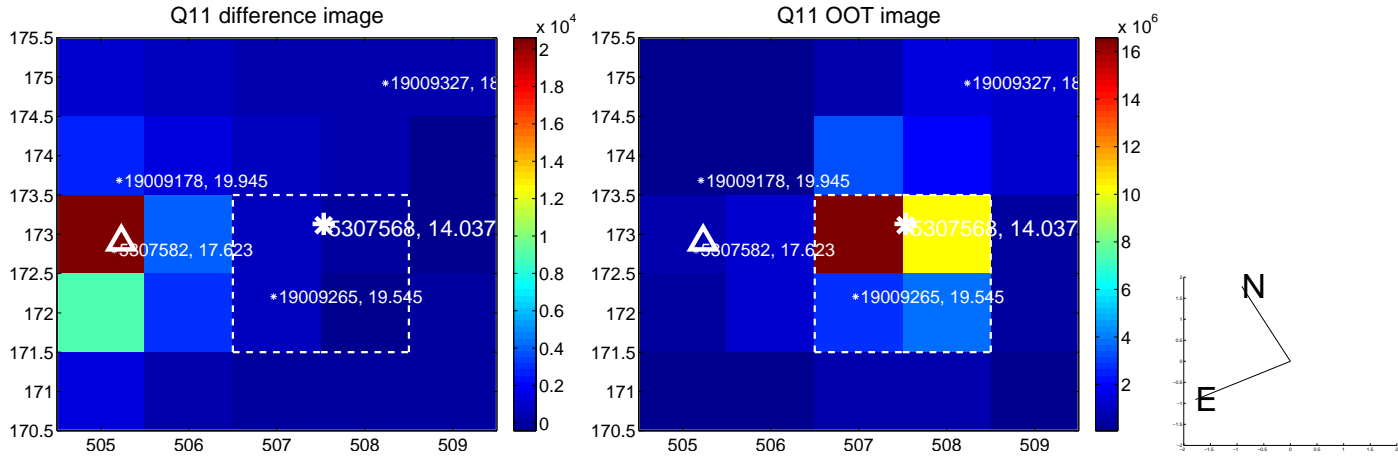
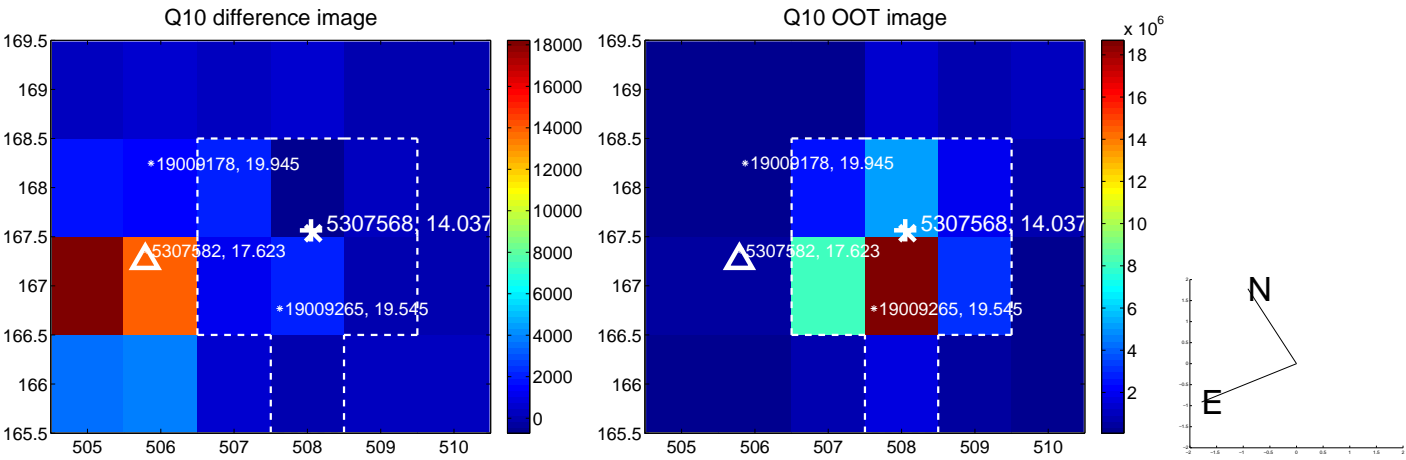
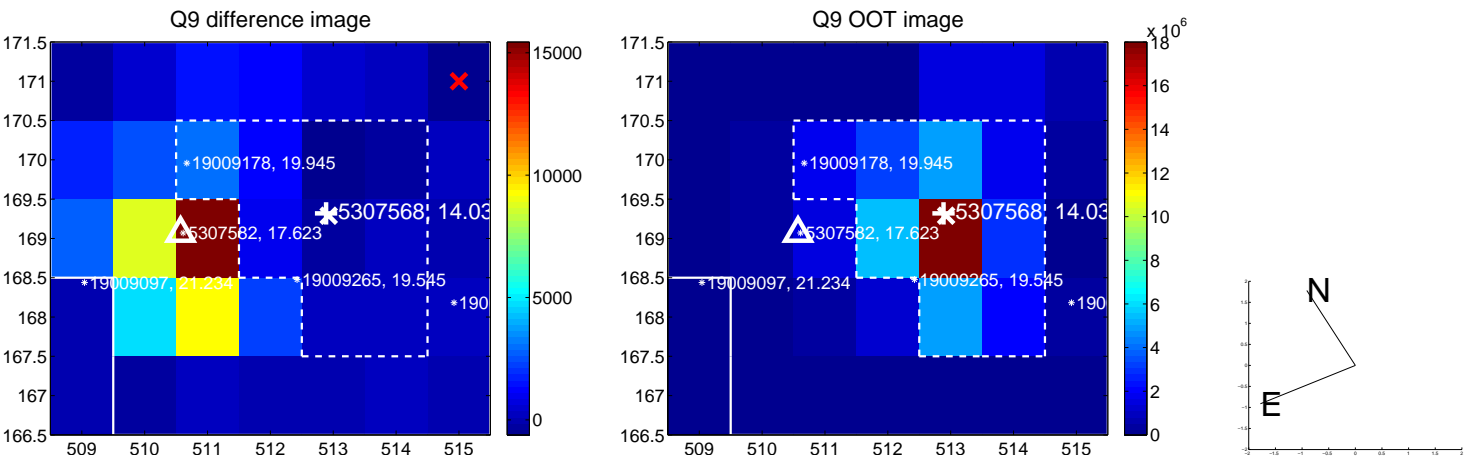
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



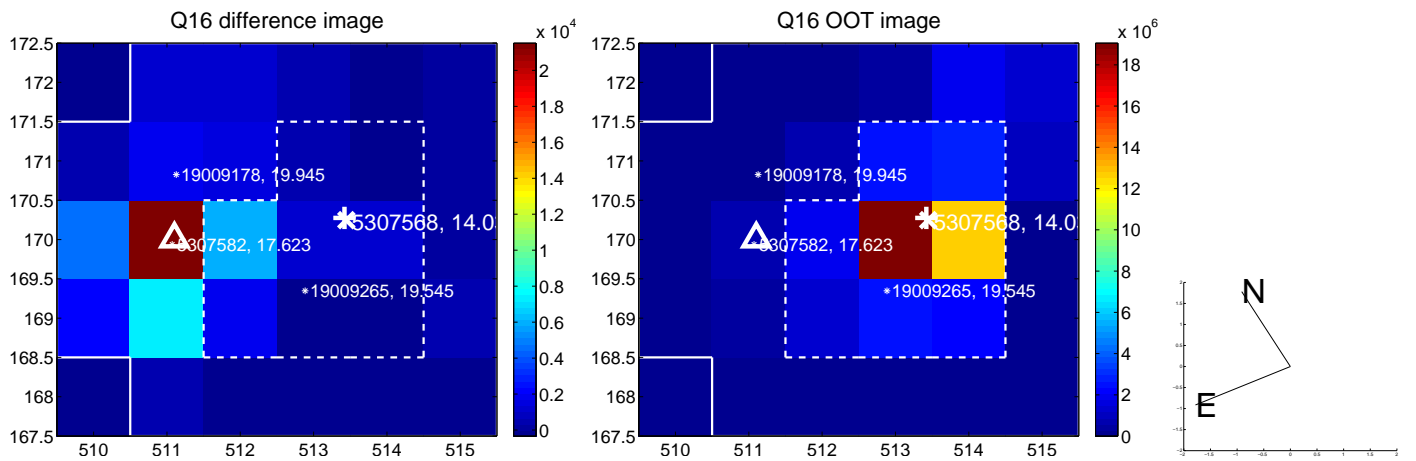
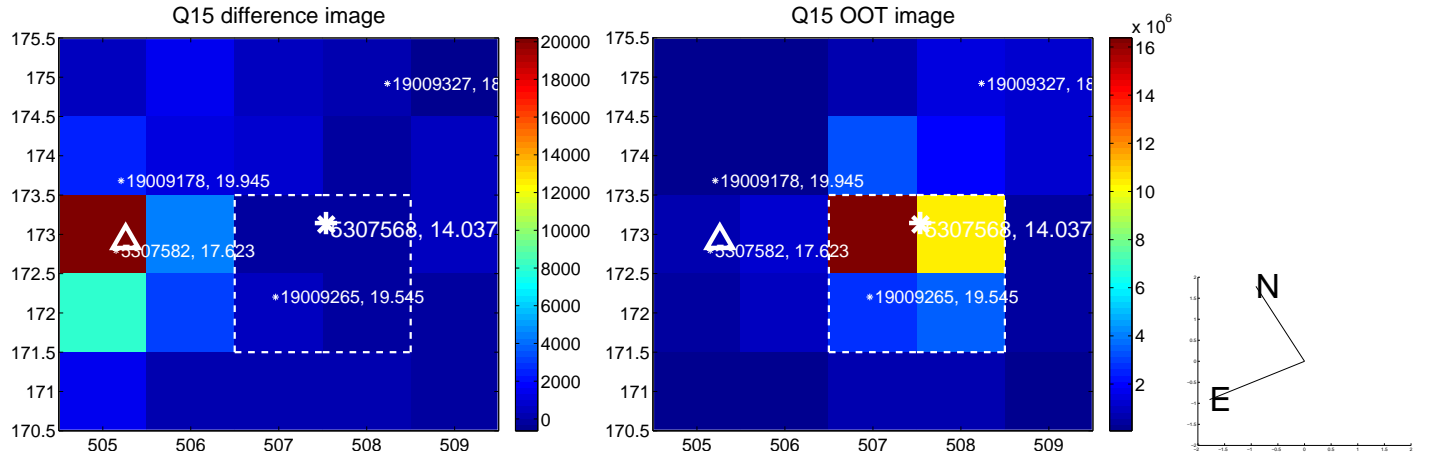
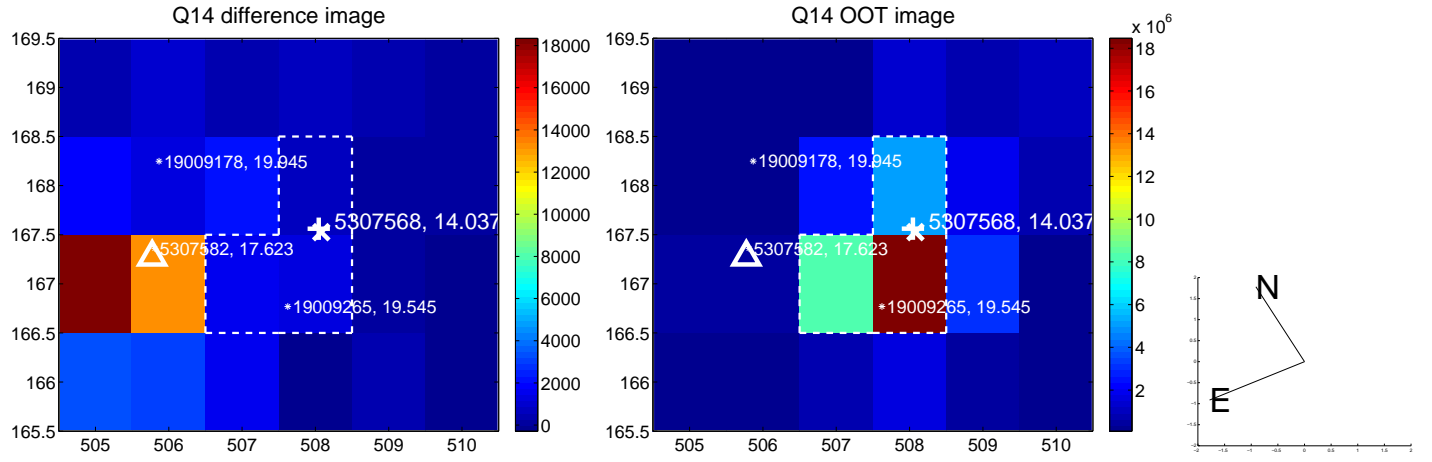
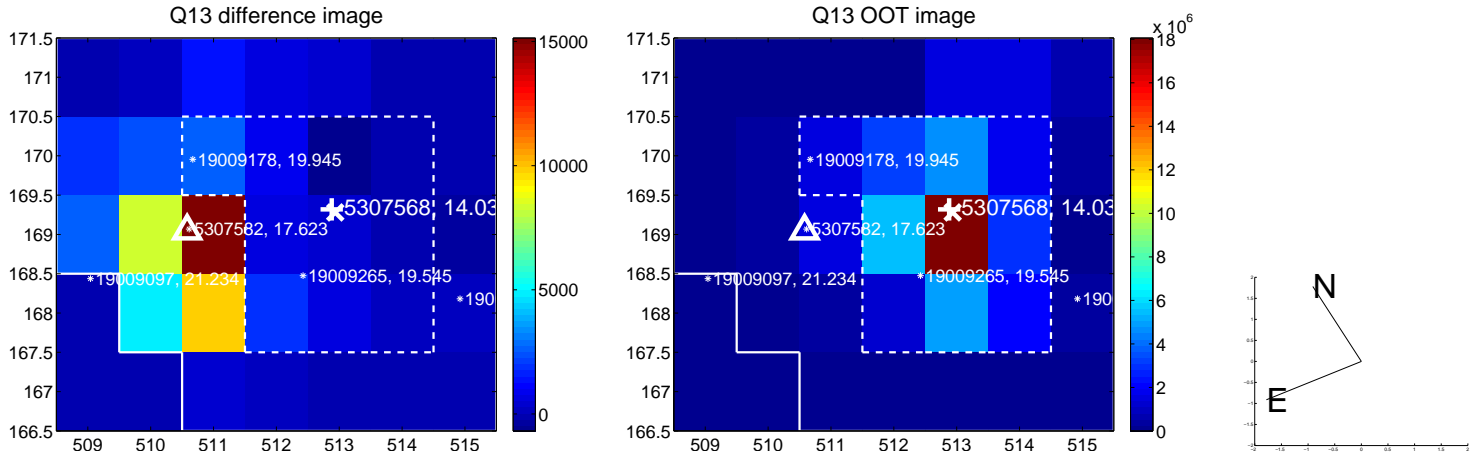
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



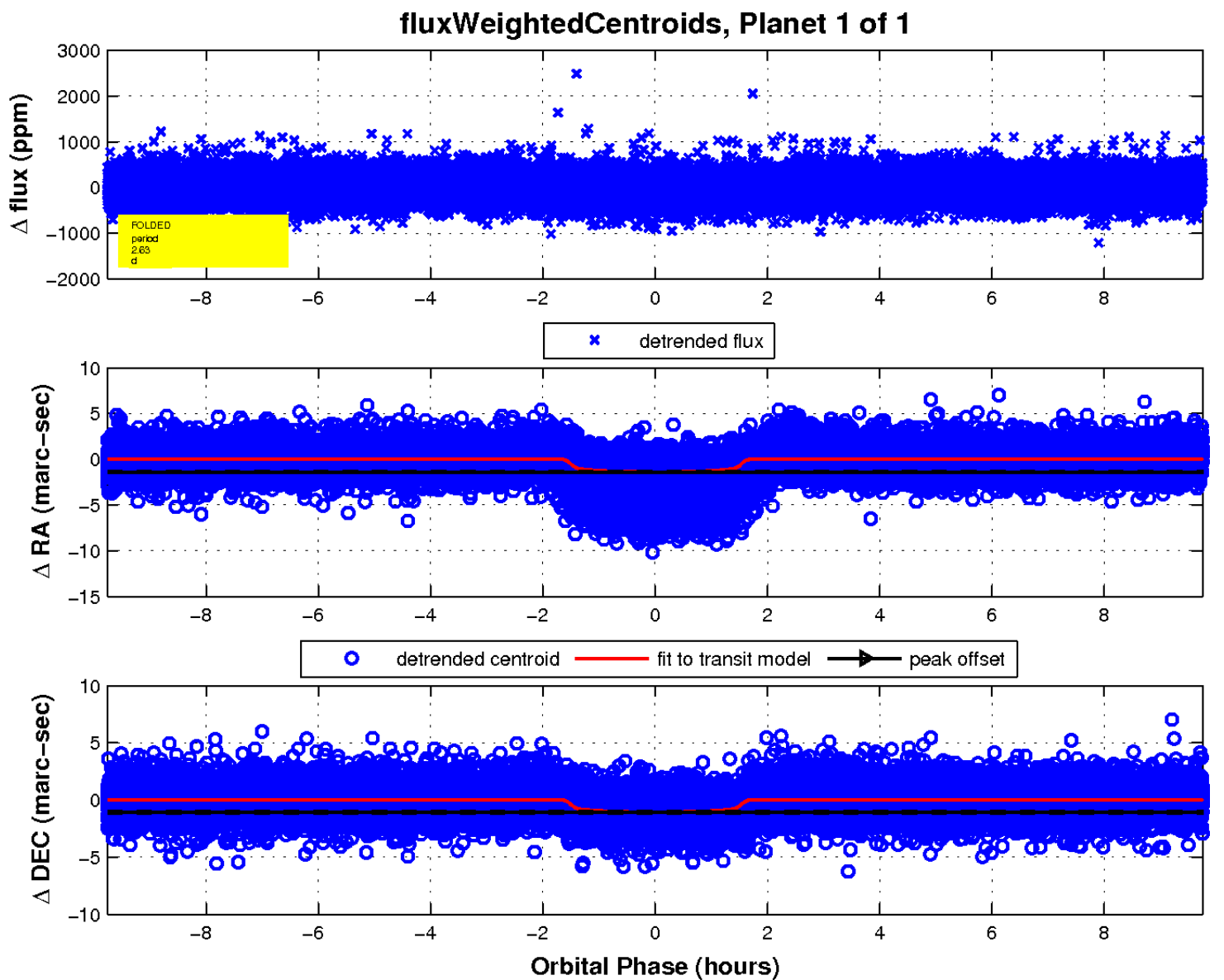
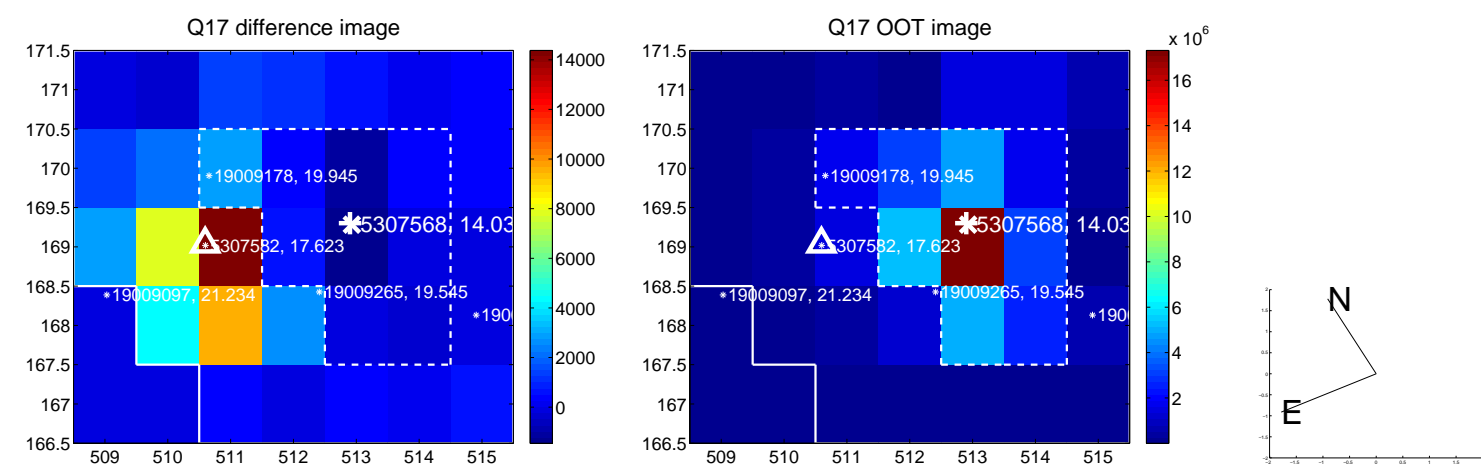
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UKIRT Image

Declination

