

KIC 010460668

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})
010460668-01	OBS	No	1.185782	132.604966	13.1	0.867	8.8	2.5	1.77	7244	0.74	12211.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010460668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

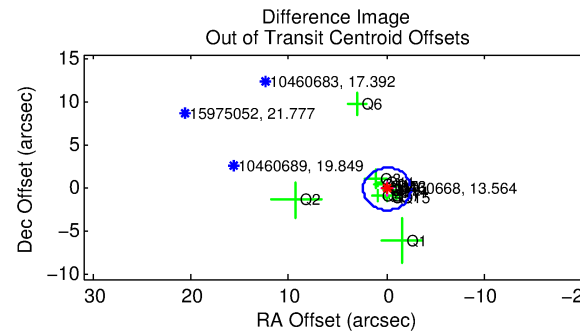
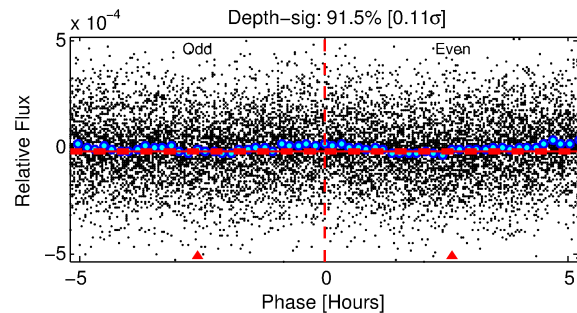
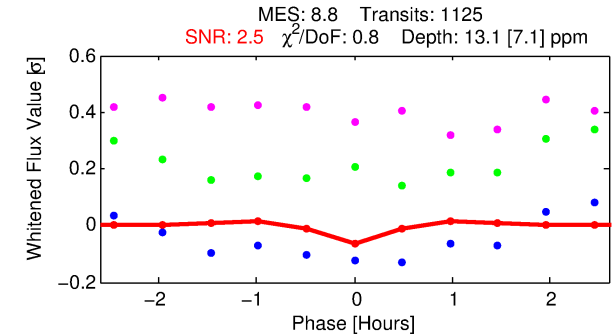
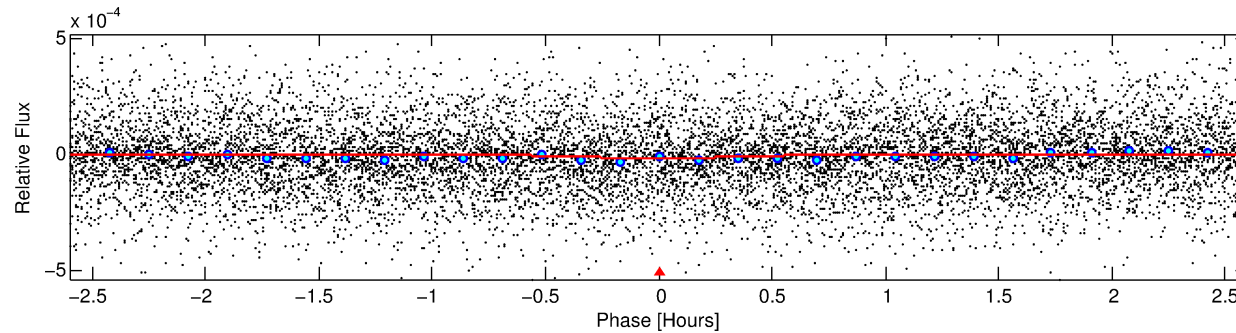
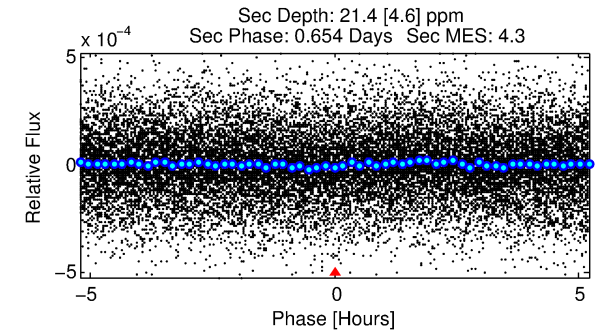
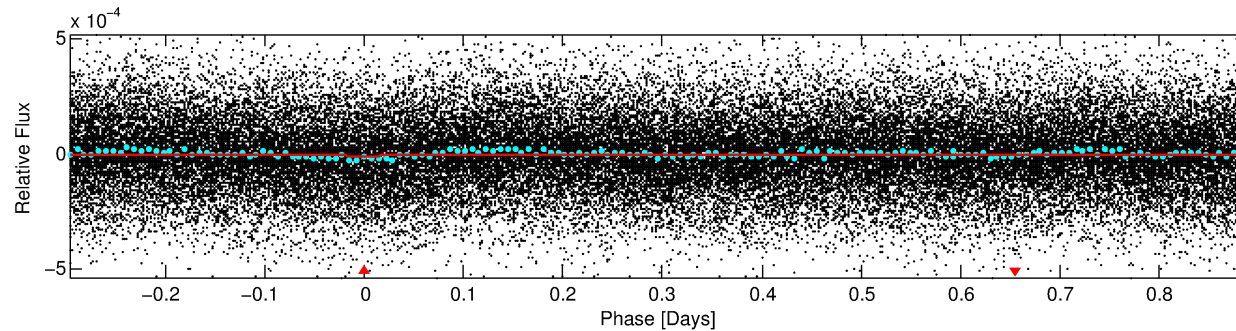
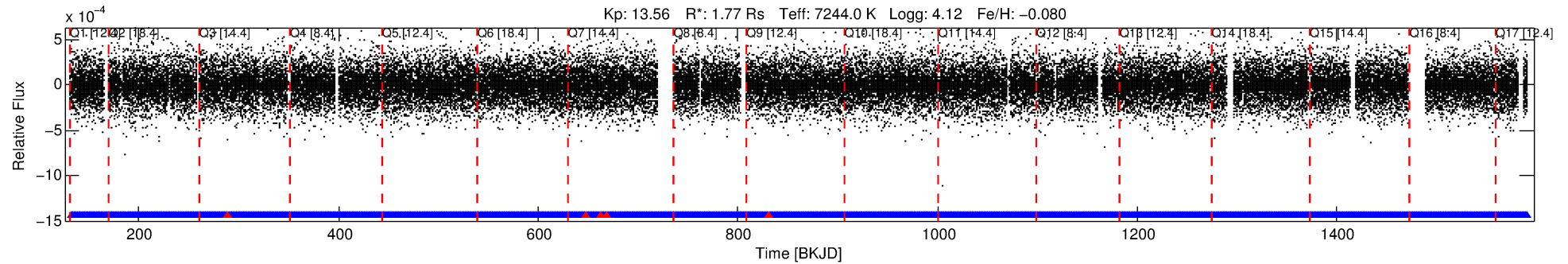
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010460668-01

No Significant Match Found

DV One-Page Summary

KIC: 10460668 Candidate: 1 of 1 Period: 1.186 d



DV Fit Results:

Period = 1.18578 [0.00004] d
Epoch = 132.6050 [0.0052] BKJD
Rp/R* = 0.0038 [0.0019]
a/R* = 5.12 [12.73]
b = 0.88 [0.67]
Seff = 12211.91 [4607.00]
Teq = 2681 [253] K
Rp = 0.74 [0.43] Re
a = 0.0252 [0.0062] AU
Ag = 13.56 [14.54] [0.86σ]
Teffp = 7953 [2050] K [2.55σ]

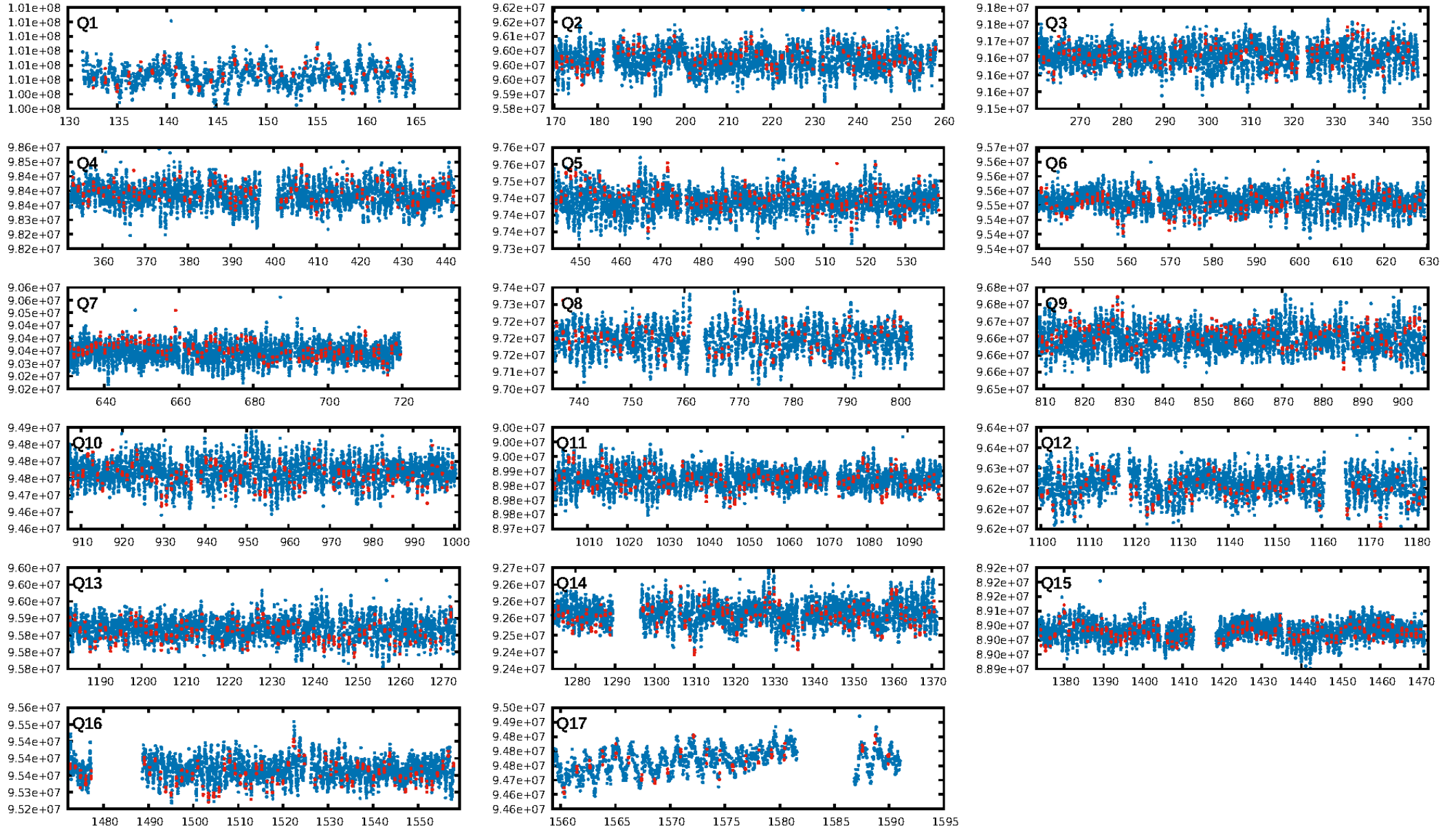
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.98e-17
RollingBand-fgt: 1.00 [1071/1076]
GhostDiagnostic-chr: 7.639
Centroid-sig: 20.0%
Centroid-so: 3.912 arcsec [1.14σ]
OotOffset-rm: 0.094 arcsec [0.12σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.178 arcsec [0.24σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

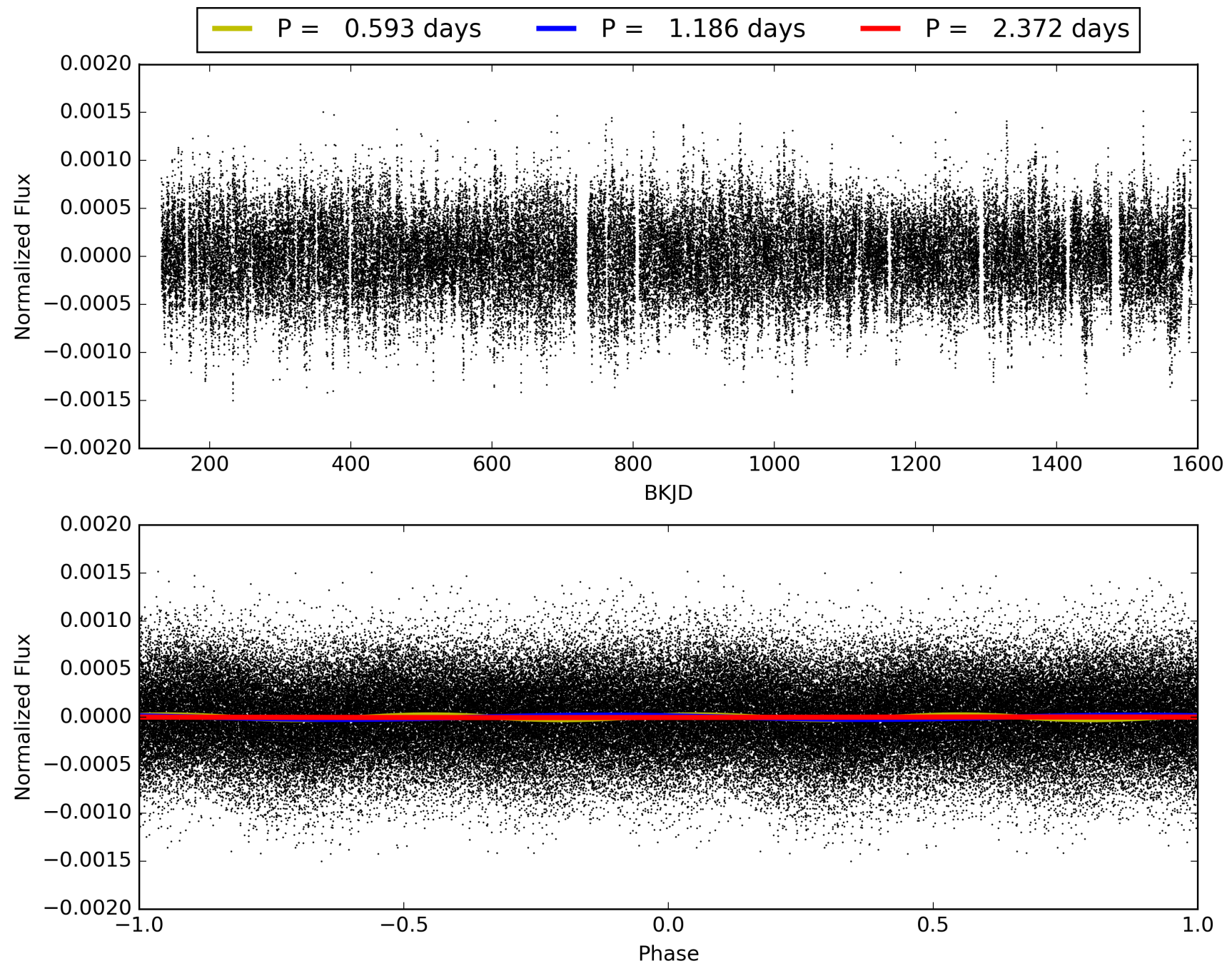
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:07:46 Z

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

TCE 010460668-01, PDC Light Curves

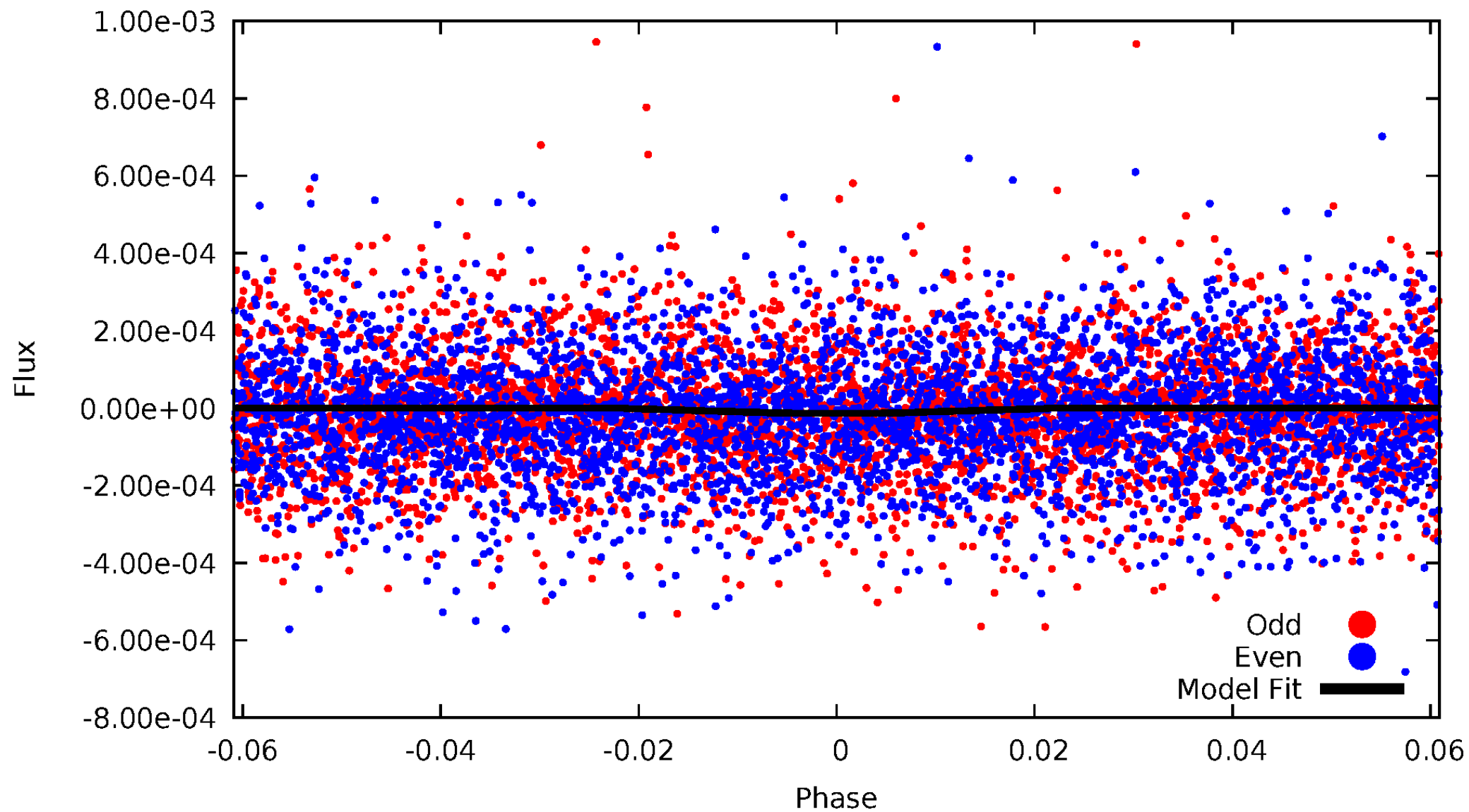


TCE 010460668-01



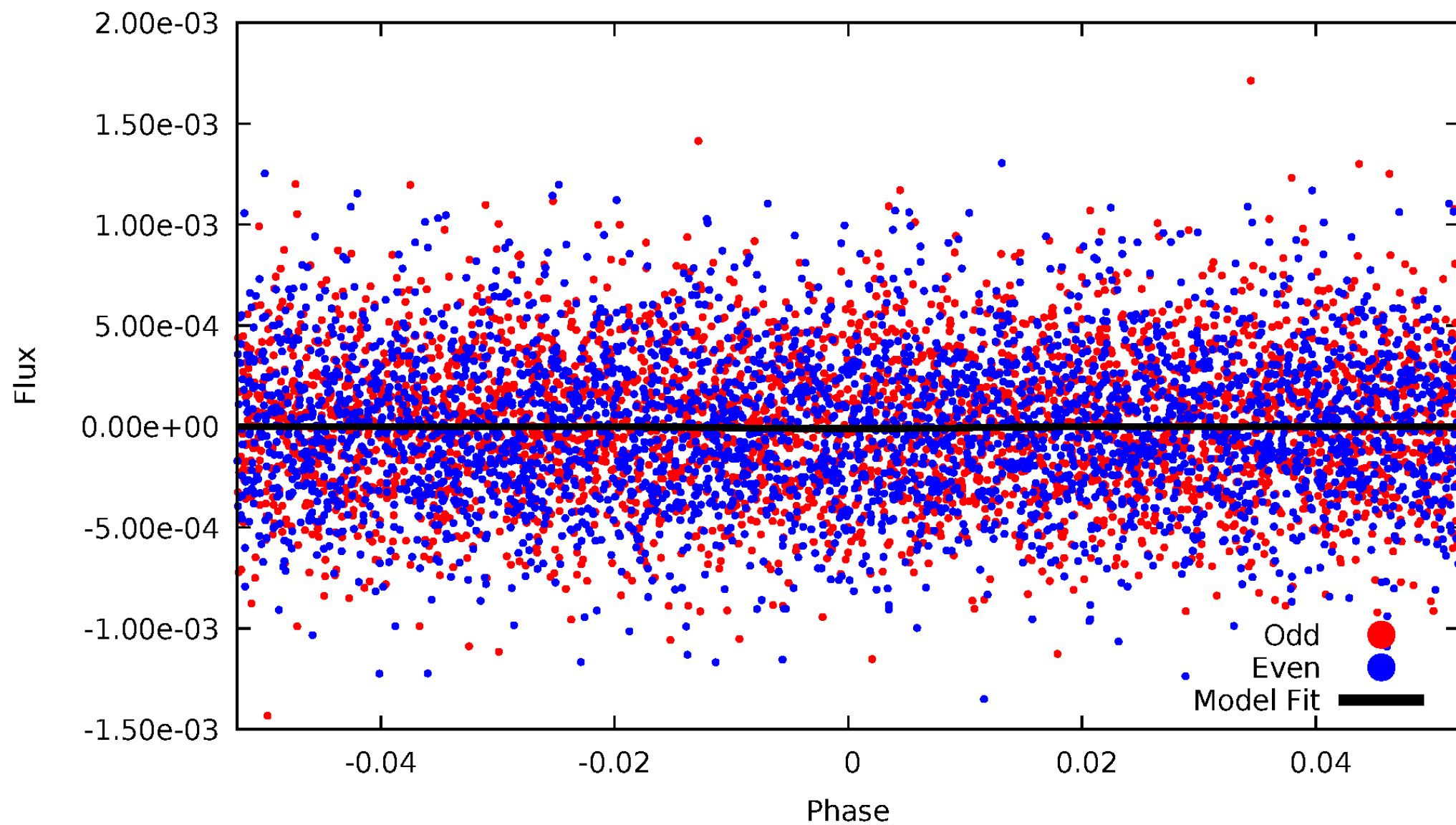
DV Odd/Even

TCE 010460668-01



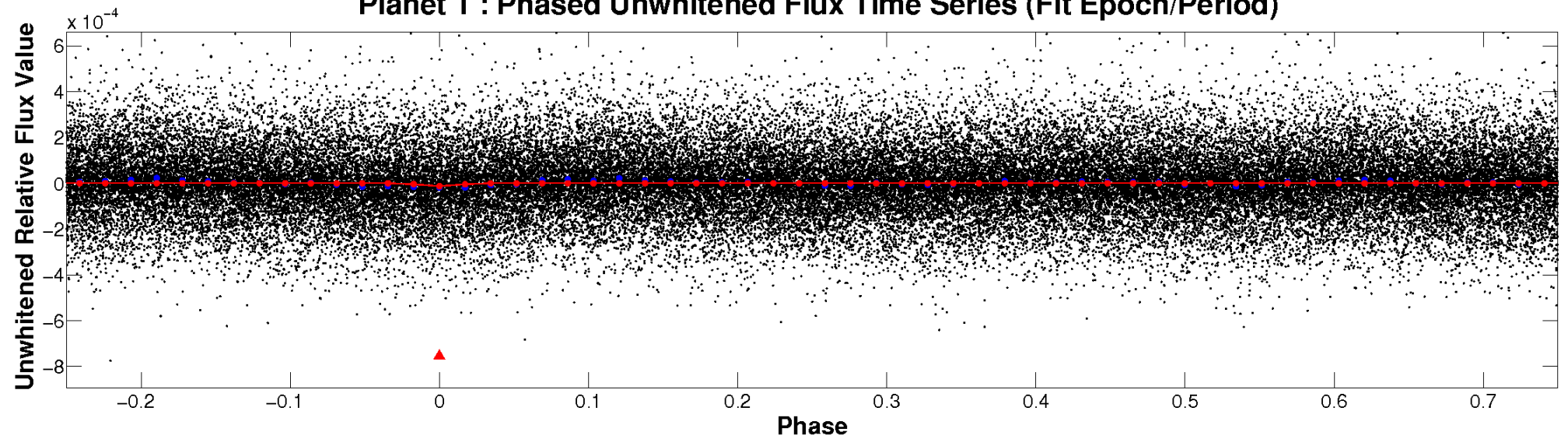
ALT Odd/Even

TCE 010460668-01

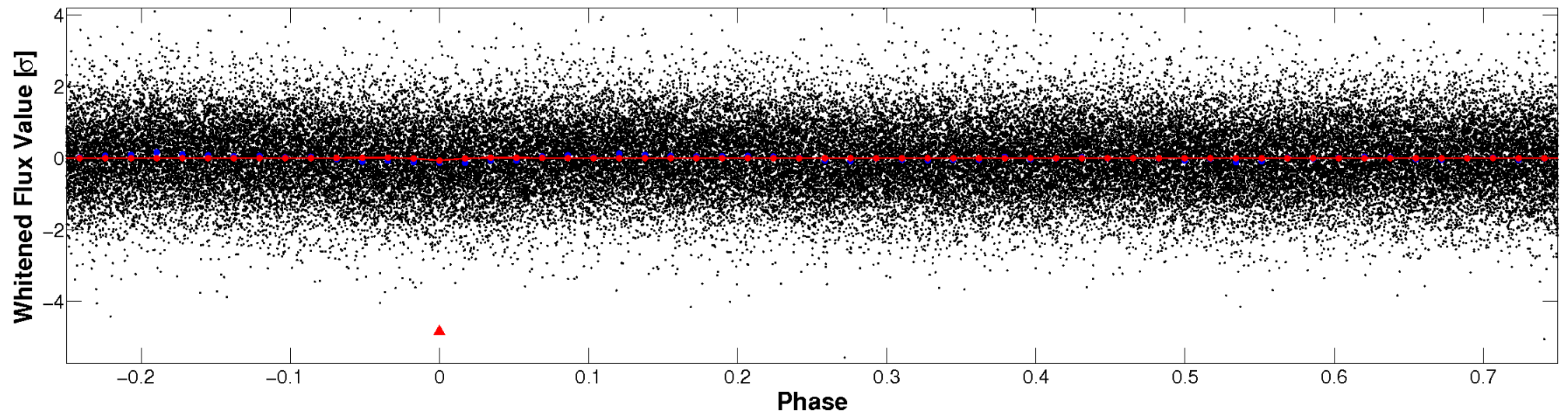


Non-Whitened Vs. Whitened Light Curve

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

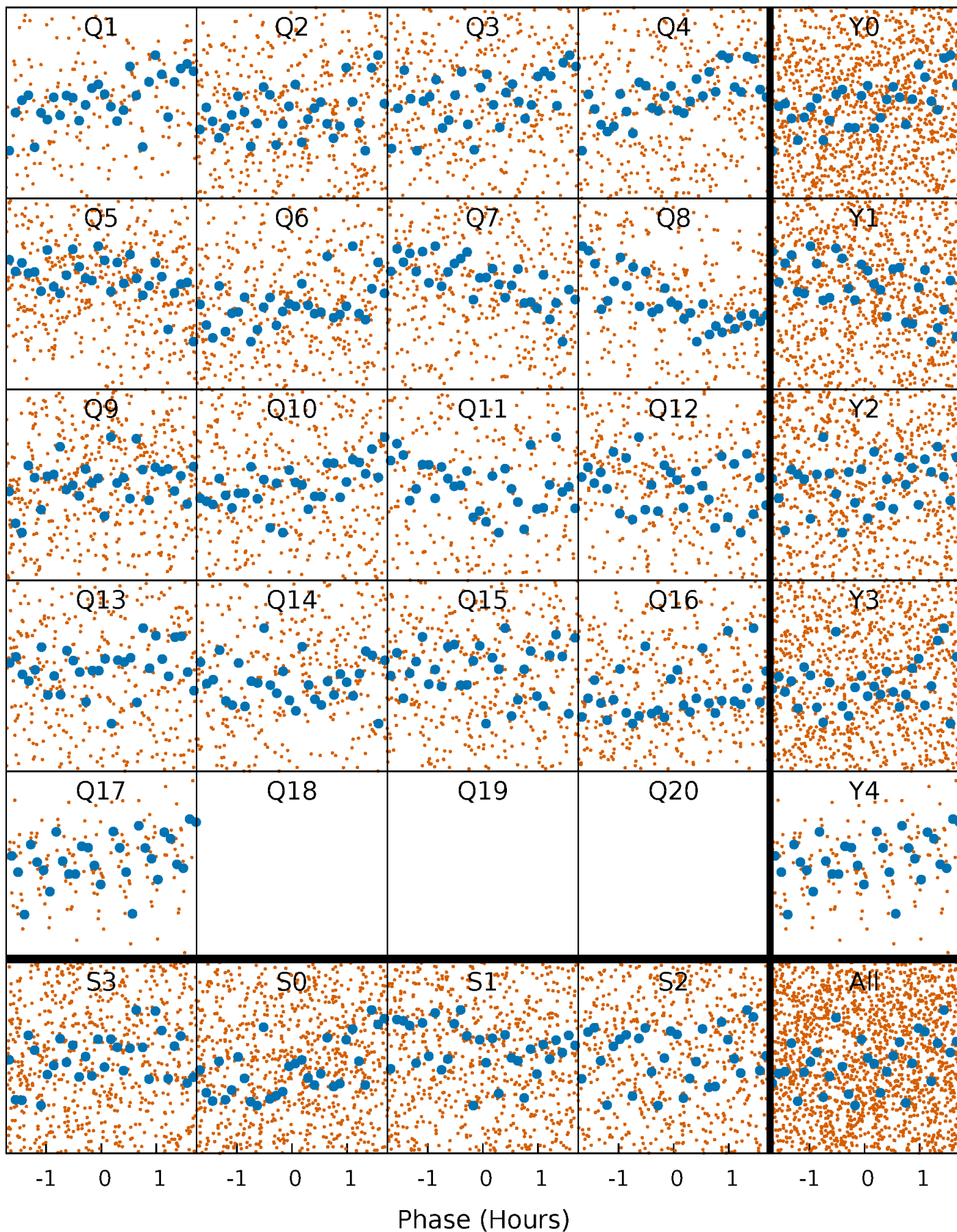


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



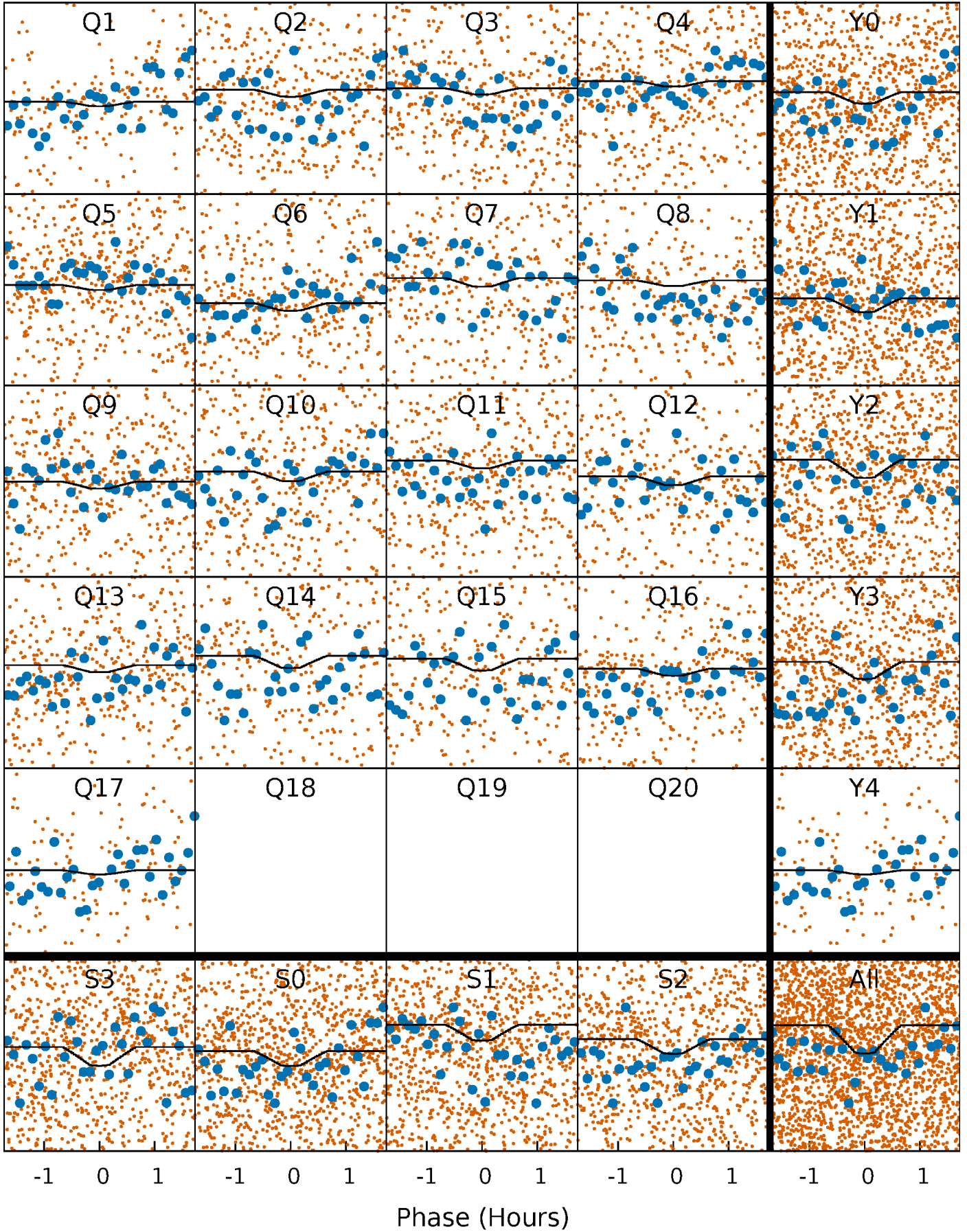
PDC Quarter-Phased Transit Curves

TCE 010460668-01 P= 1.185782 Days $T_0=132.604966$ (BKJD)



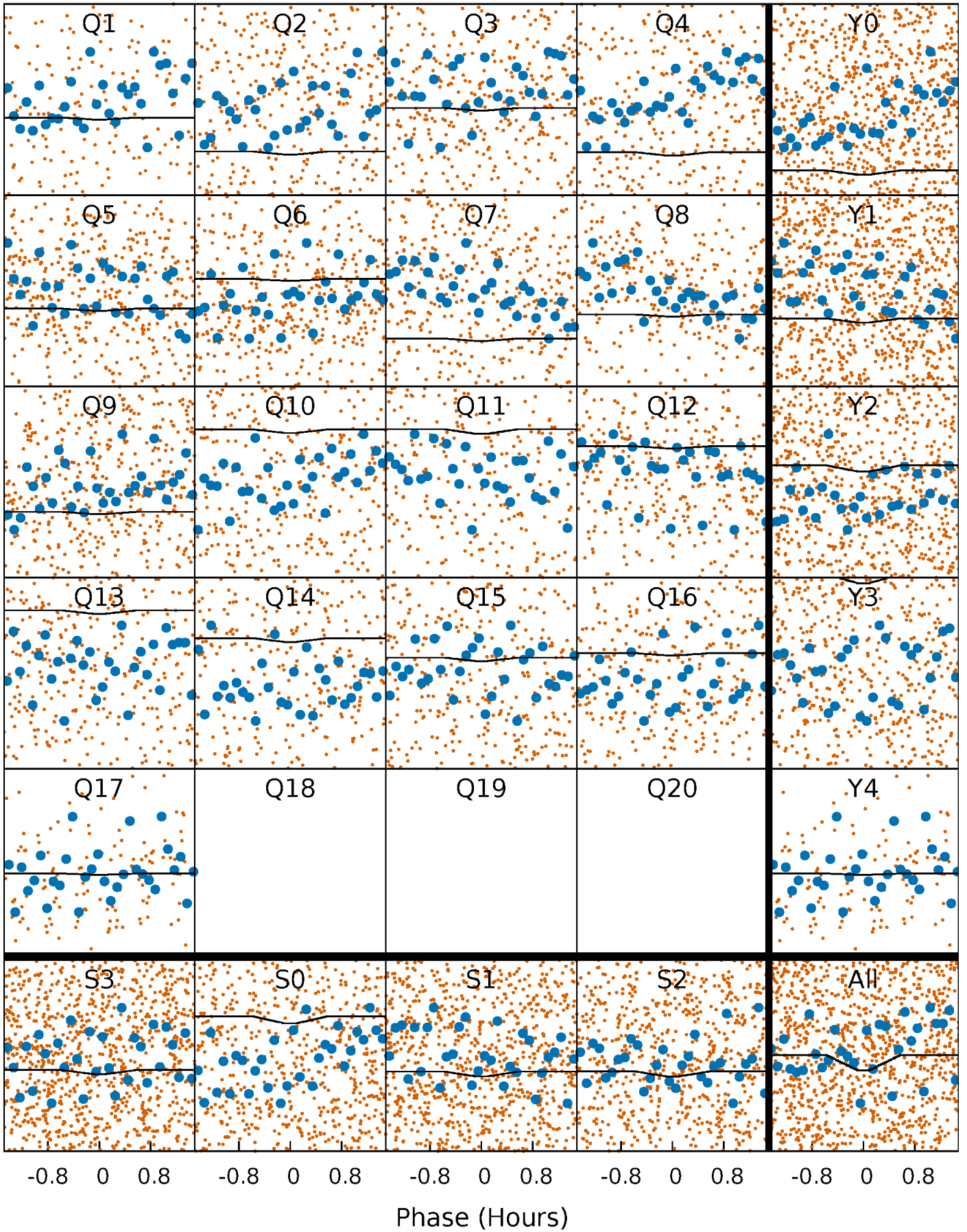
DV Quarter-Phased Transit Curves

TCE 010460668-01 P= 1.185782 Days $T_0=132.604966$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

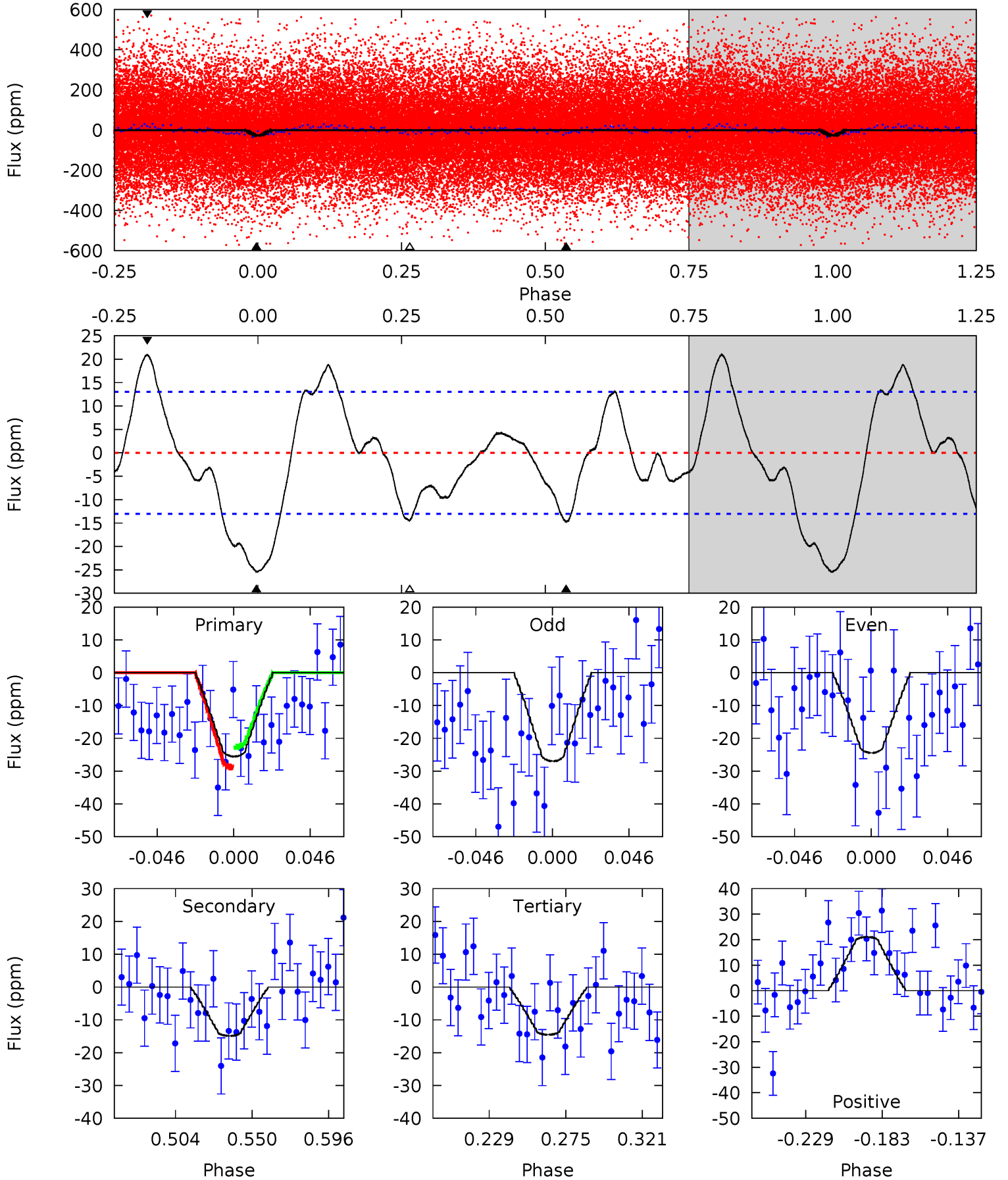
TCE 010460668-01 P= 1.185771 Days $T_0=132.605032$ (BKJD)



DV Model-Shift Uniqueness Test

010460668-01, P = 1.185782 Days, E = 131.419184 Days

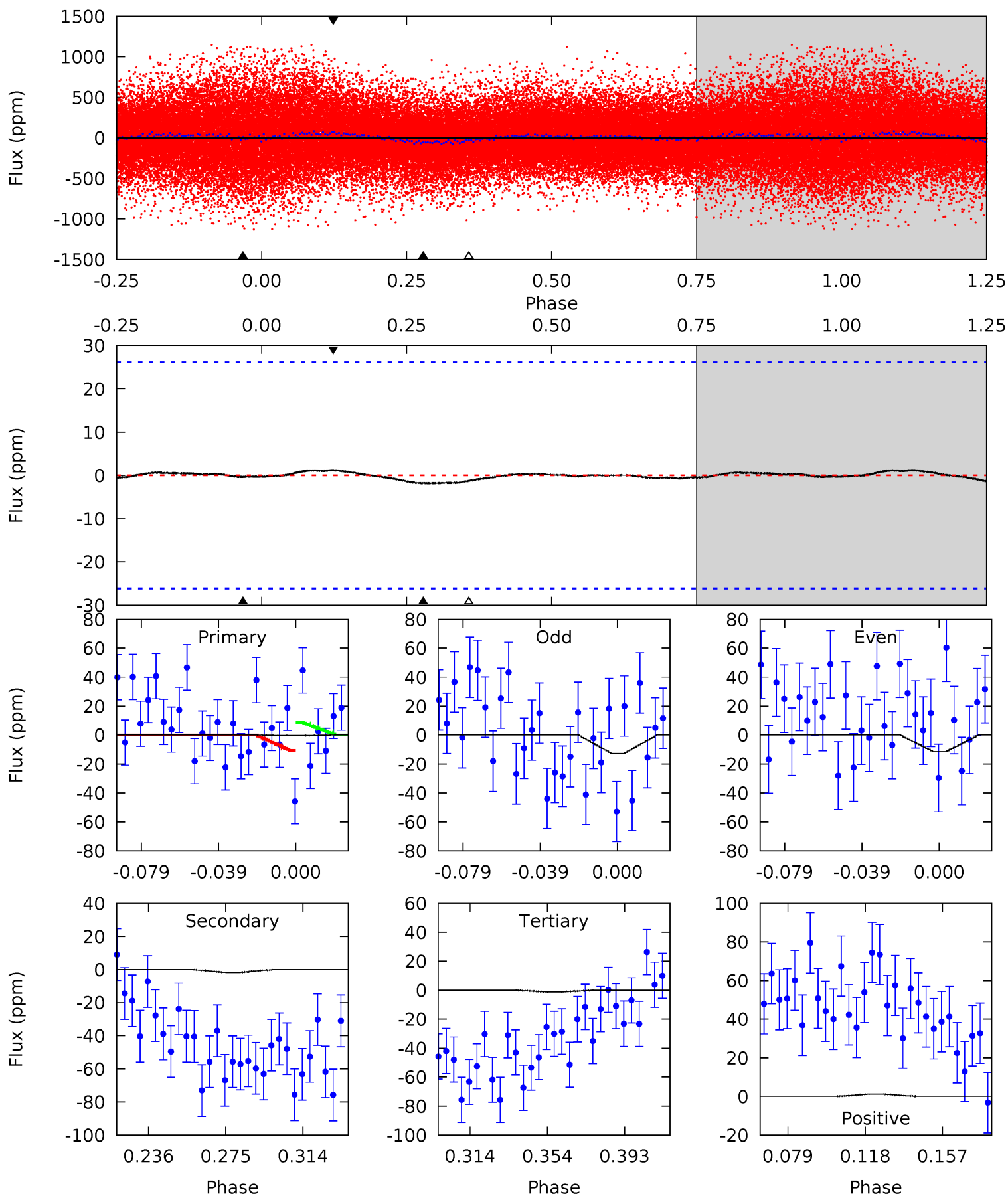
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.25	5.39	5.26	7.63	4.73	2.00	3.08	3.99	1.62	0.13	-2.23	0.46	1.00	0.45	1.13



Alt Model-Shift Uniqueness Test

010460668-01, P = 1.185771 Days, E = 131.419261 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.07	0.33	0.23	0.22	4.76	2.06	0.11	-0.16	-0.15	0.10	0.12	0.12	0.44	0.40	0.18



Stellar Parameters For KIC 010460668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7244^{+201}_{-302}	$4.121^{+0.144}_{-0.176}$	$-0.080^{+0.200}_{-0.350}$	$1.770^{+0.541}_{-0.406}$	$1.508^{+0.221}_{-0.243}$	$0.383^{+0.297}_{-0.194}$
	+3%/-4%	+3%/-4%	+250%/-438%	+31%/-23%	+15%/-16%	+77%/-51%
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 010460668-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 3	$0.73^{+0.44}_{-0.35}$	3754^{+288}_{-266}	7163^{+4078}_{-1460}	$9.424^{+27.388}_{-5.714}$
Alt.	-2 ± 5	$0.64^{+0.38}_{-0.34}$	3749^{+276}_{-251}	4087^{+2942}_{-9925}	$0.997^{+7.954}_{-4.717}$

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 $A_{obs} \gg 1.0$

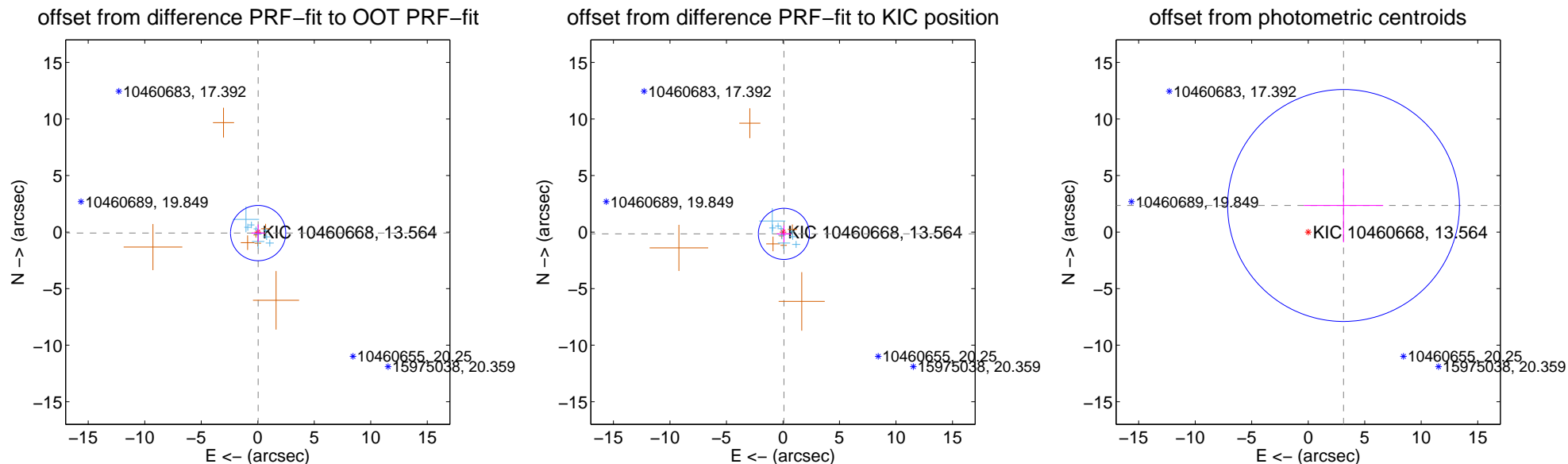
DV Centroid Data

Supplemental centroid analysis for 010460668-01. Kepler magnitude: 13.56. Transit SNR 2.54

There are 9 quarters with good PRF difference image offsets

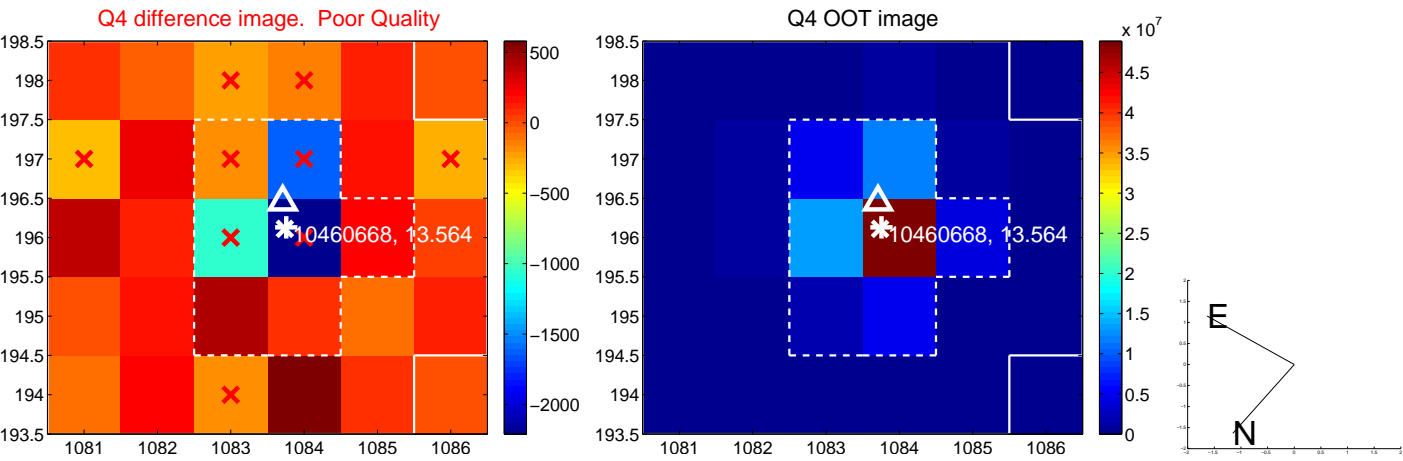
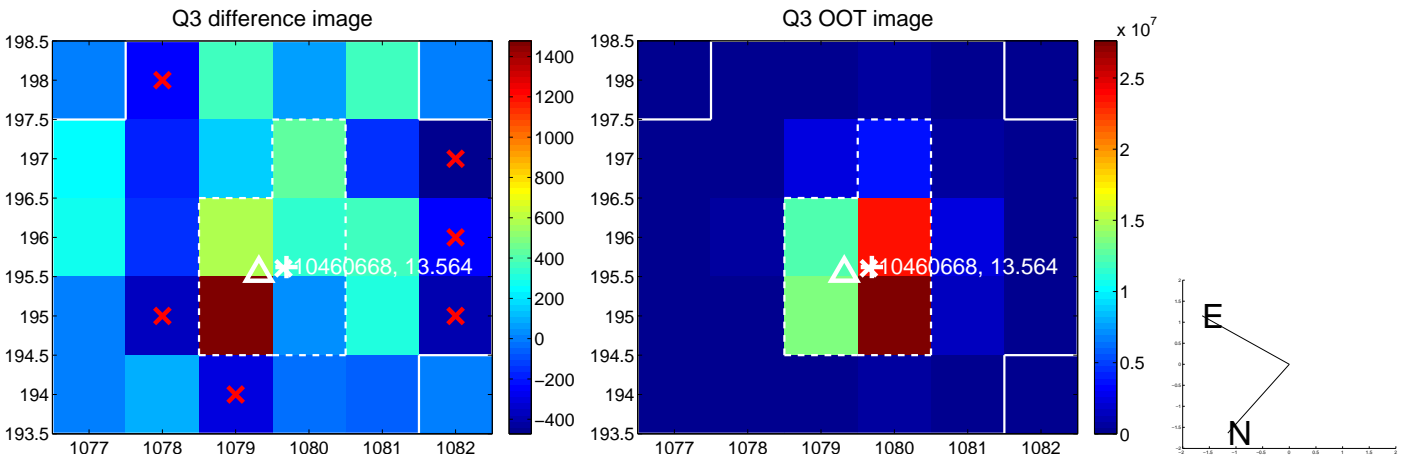
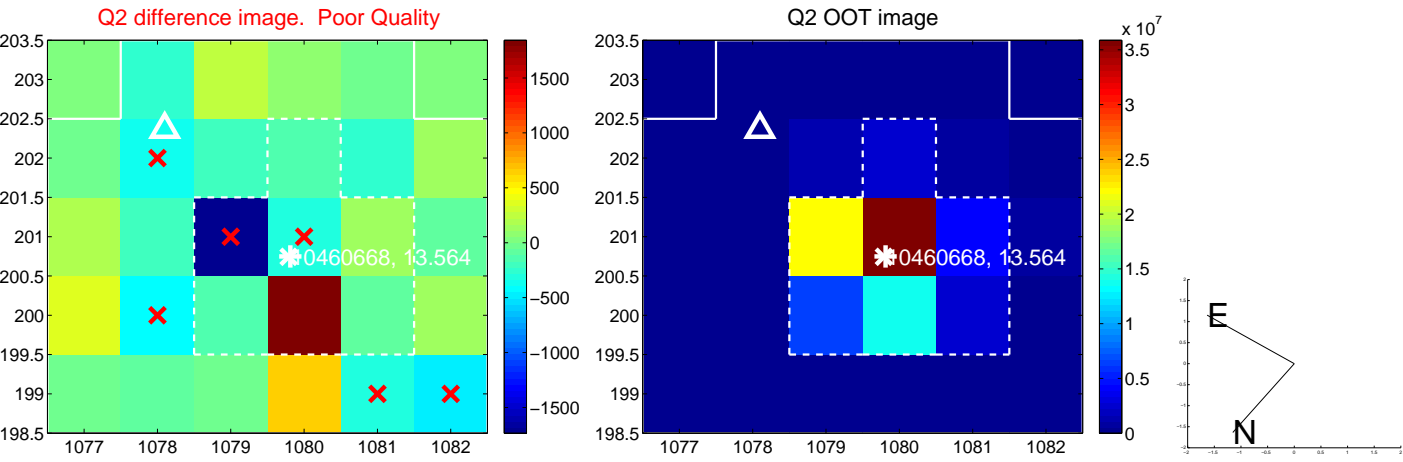
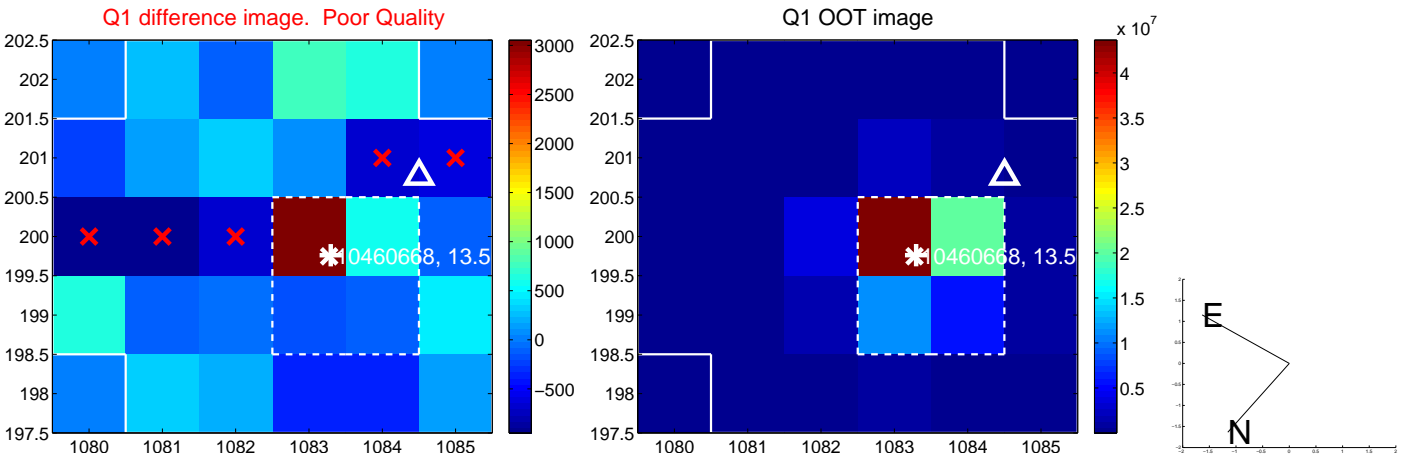
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.094 ± 0.815	0.12	-0.034 ± 0.594	-0.087 ± 0.763
PRF-fit source offset from KIC position	0.178 ± 0.754	0.24	-0.081 ± 0.626	-0.158 ± 0.737
photometric centroid source offset	3.91 ± 3.42	1.14	-3.13 ± 3.50	2.35 ± 3.26

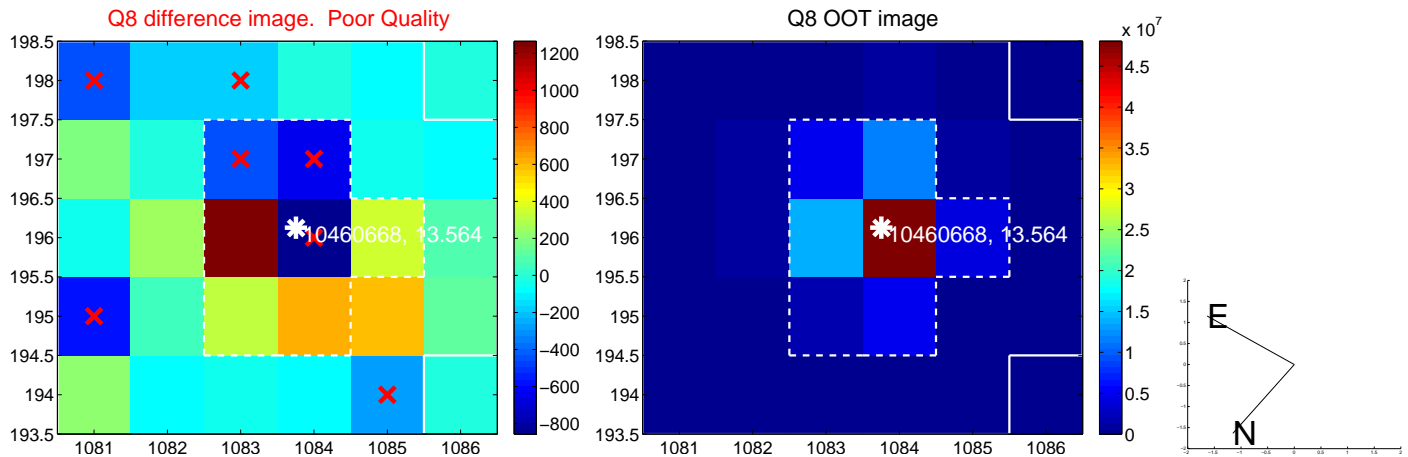
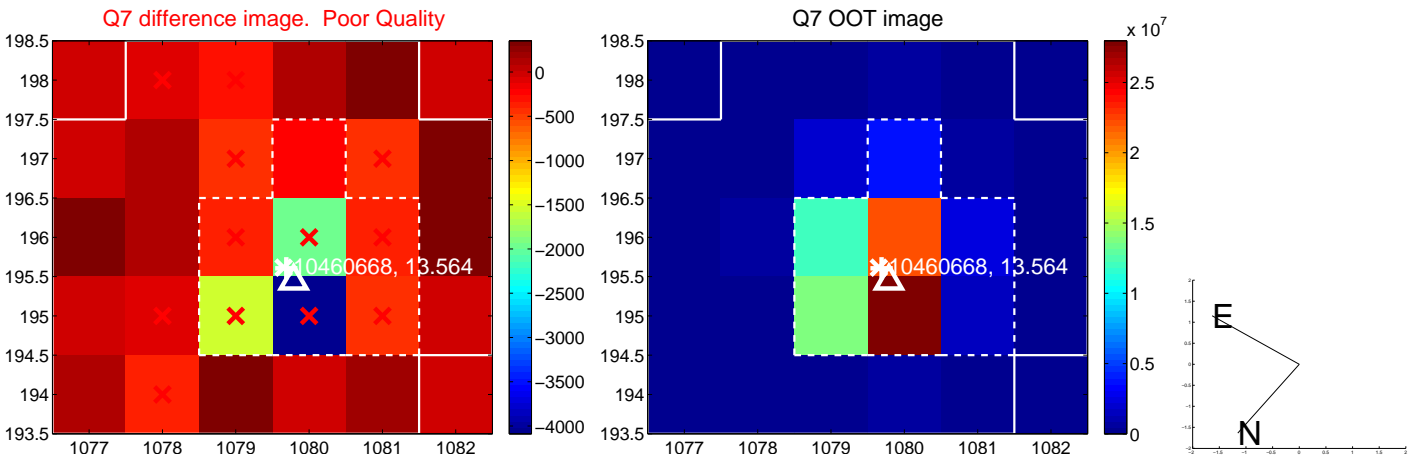
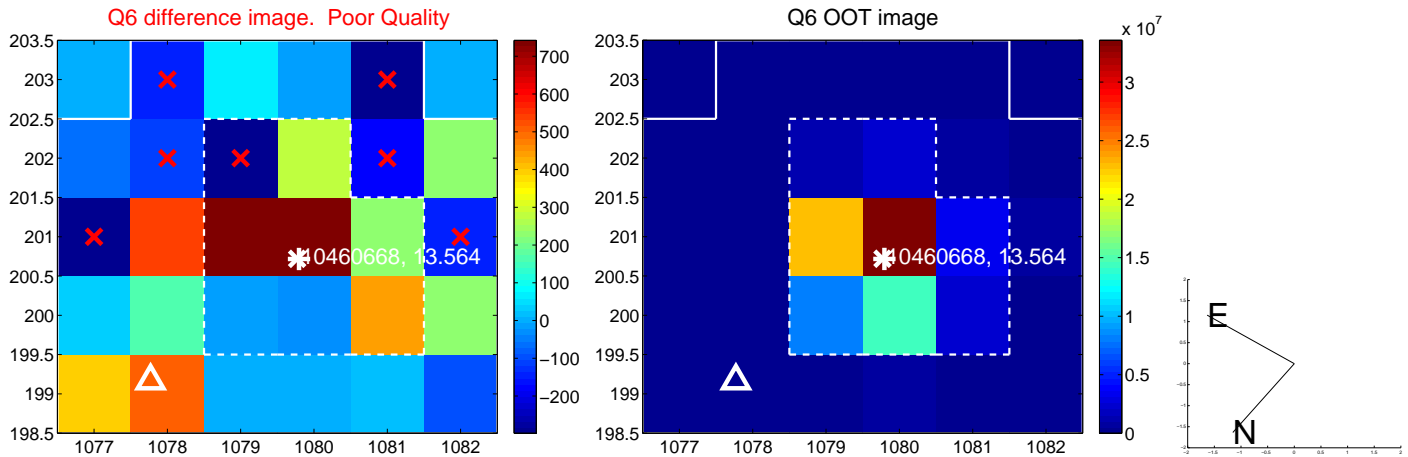
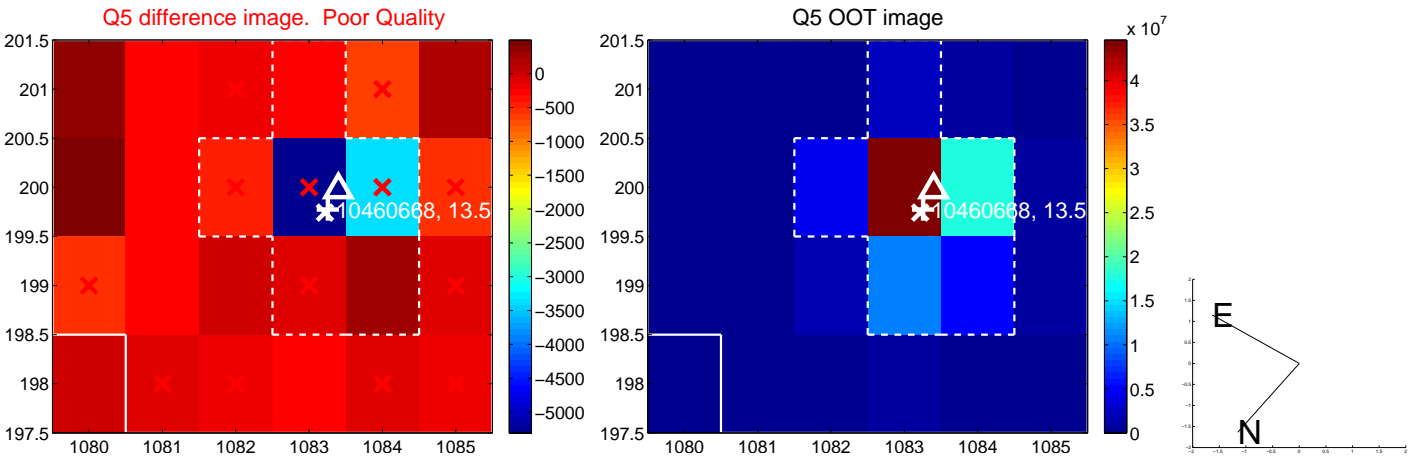


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

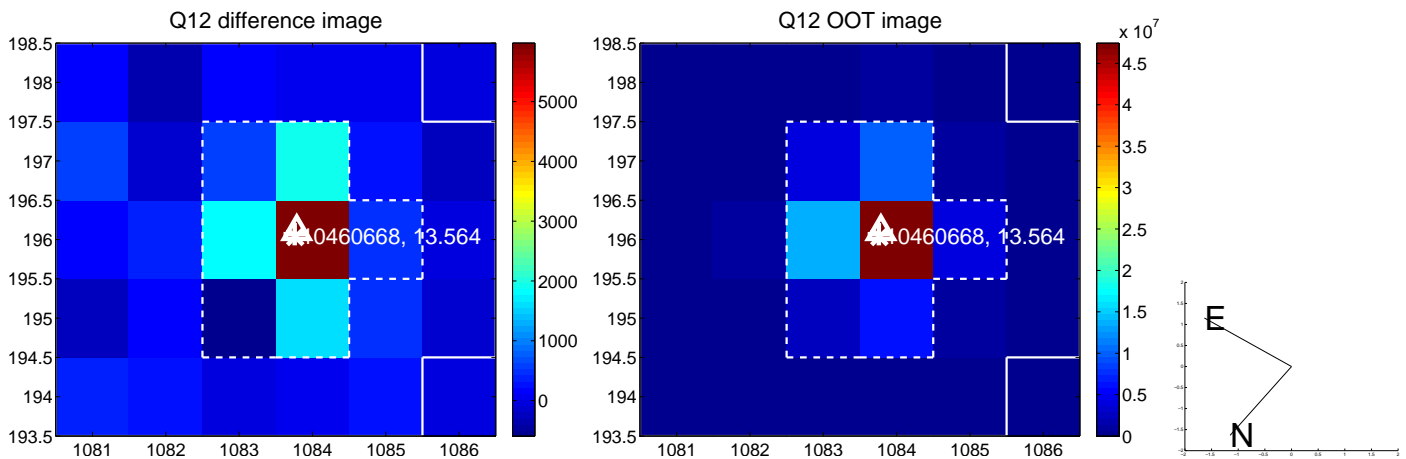
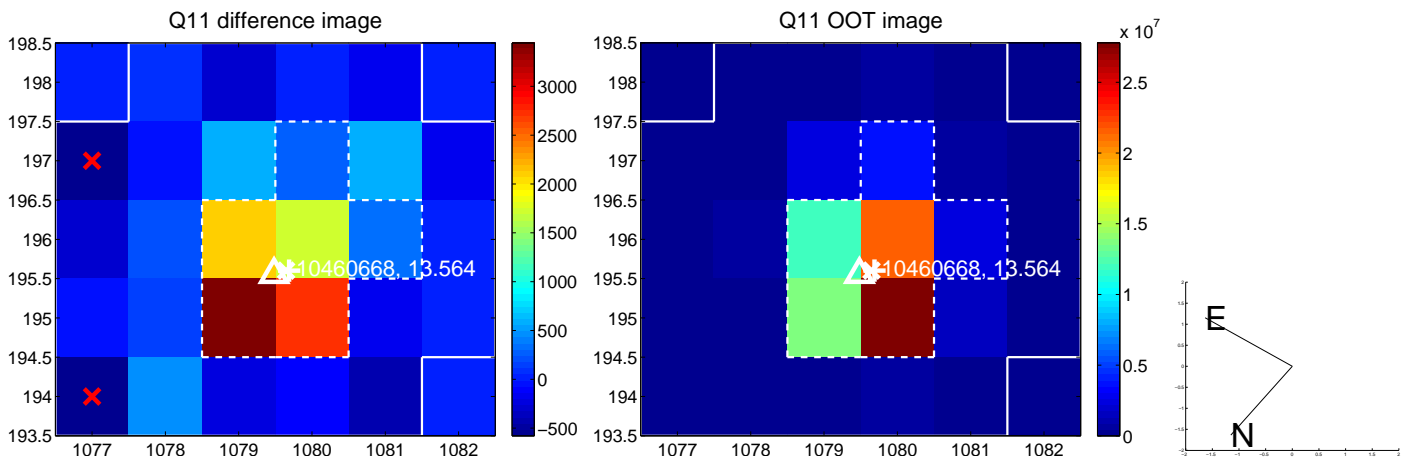
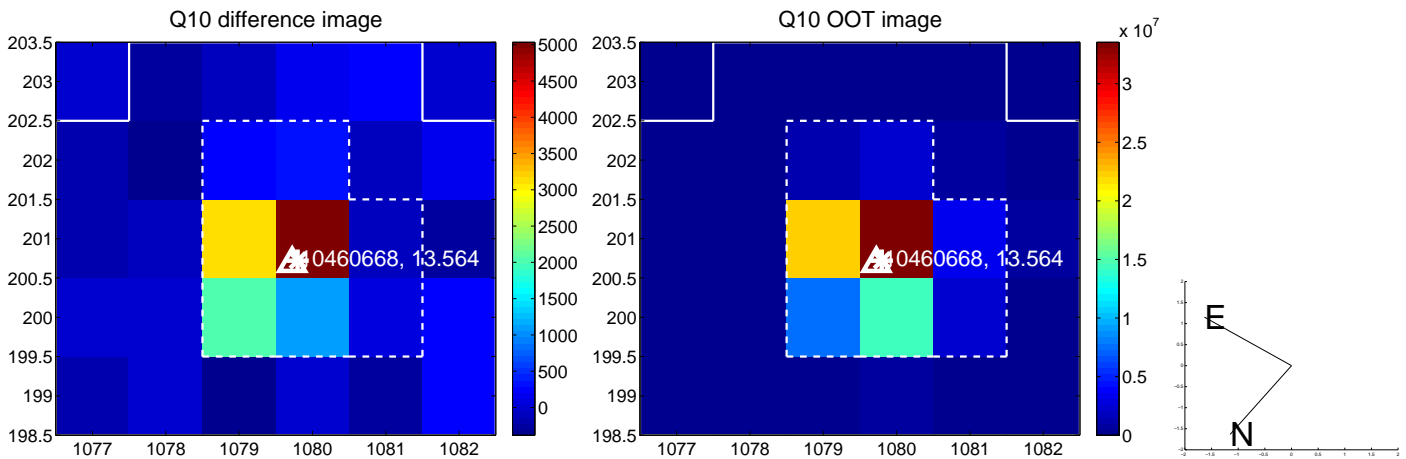
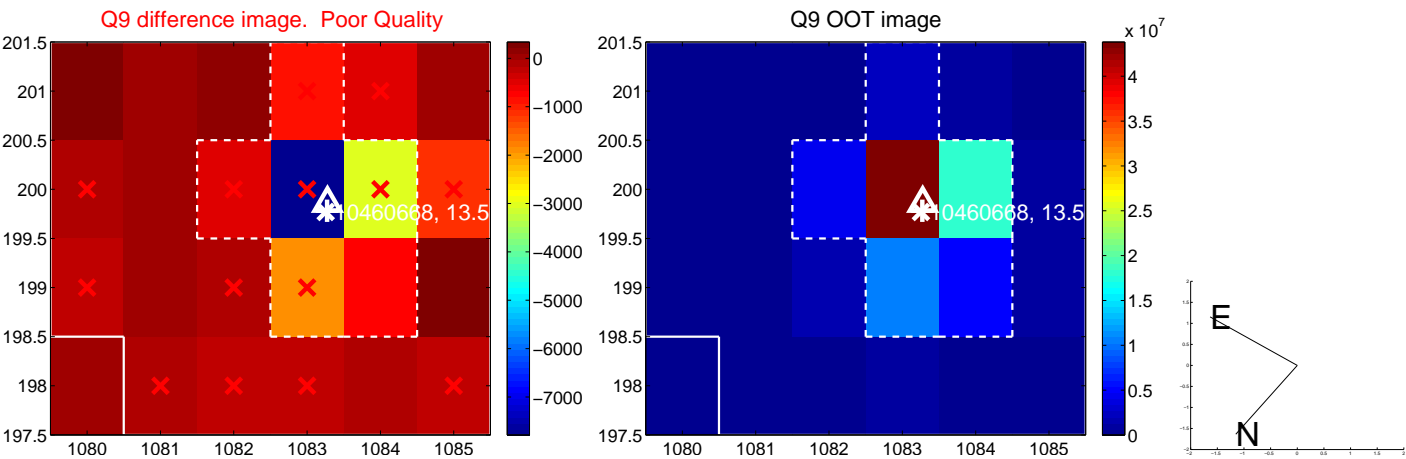
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



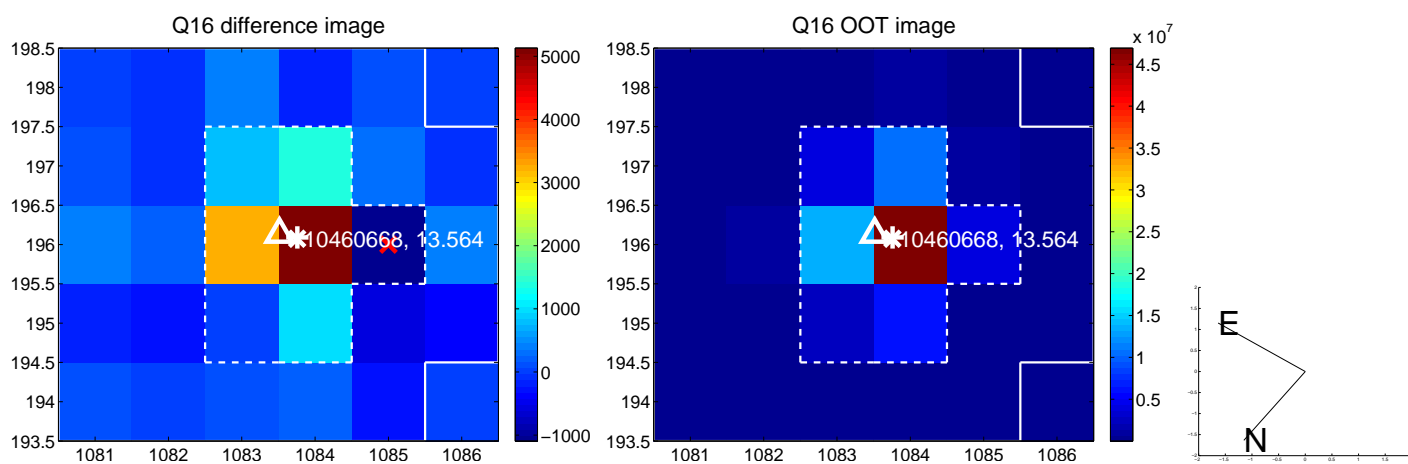
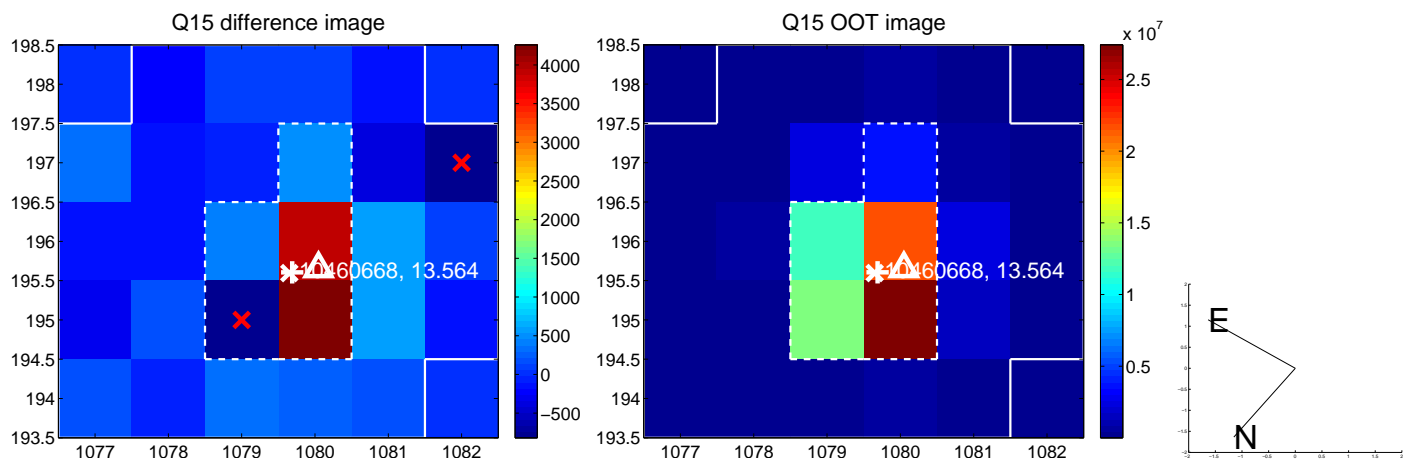
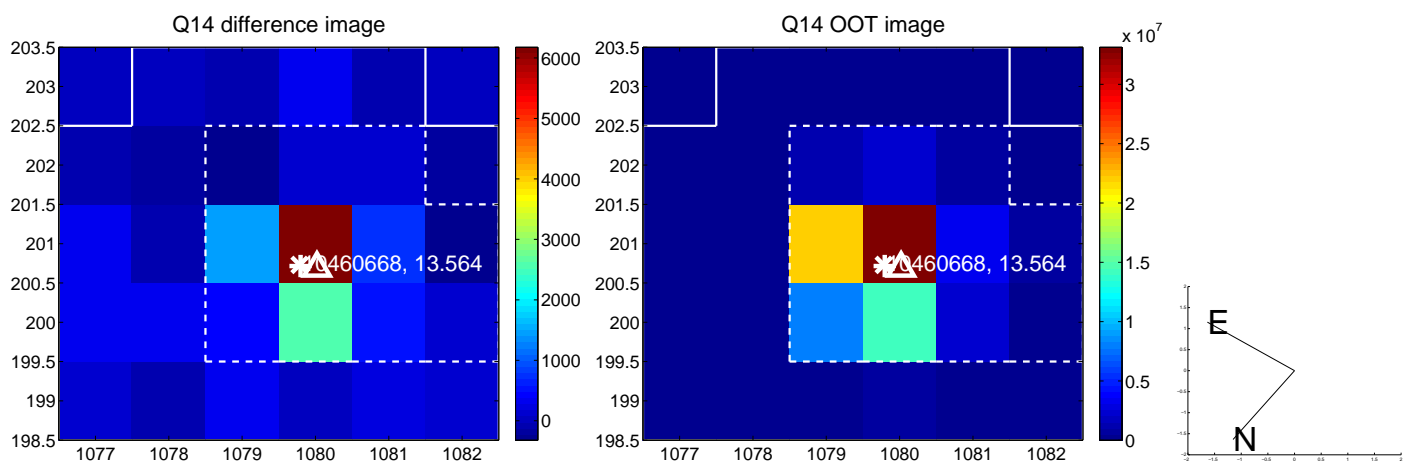
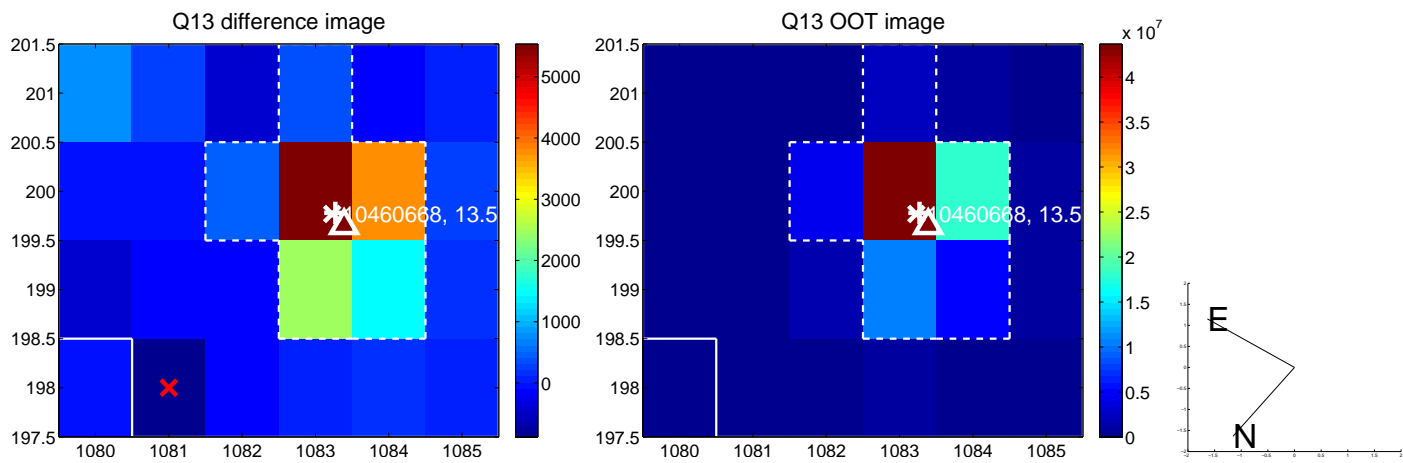
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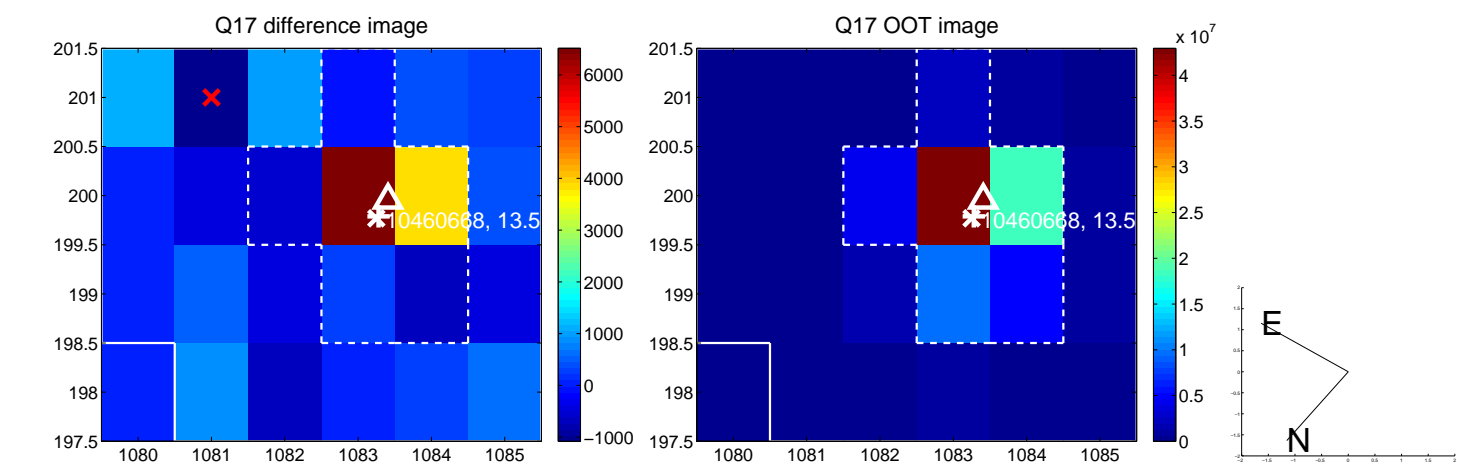
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



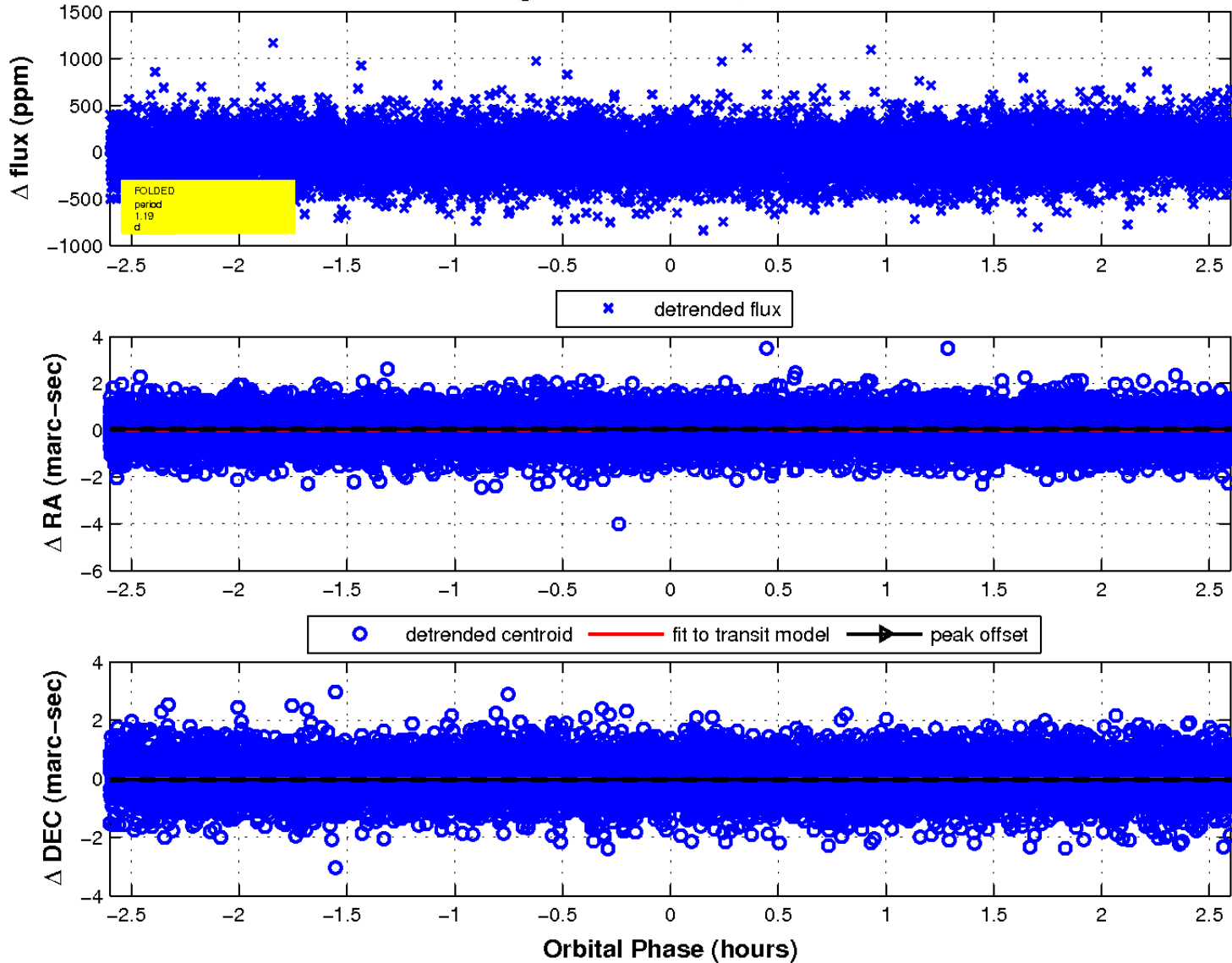
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

