

KIC 009300295

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})
009300295-01	OBS	No	0.679784	131.580617	148.8	6.495	11.4	15.4	3.29	8083	4.10	112505.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009300295-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

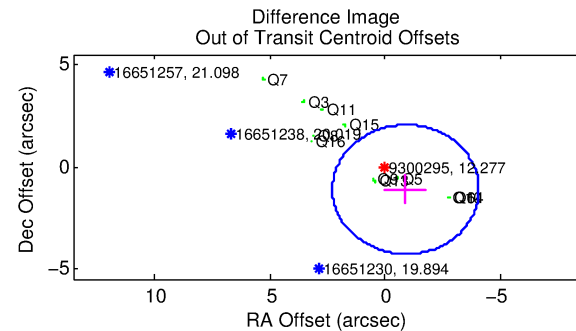
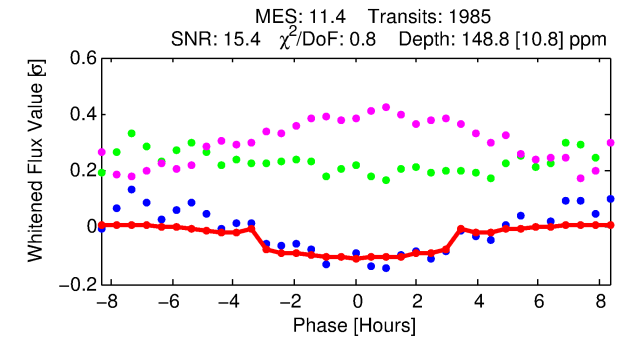
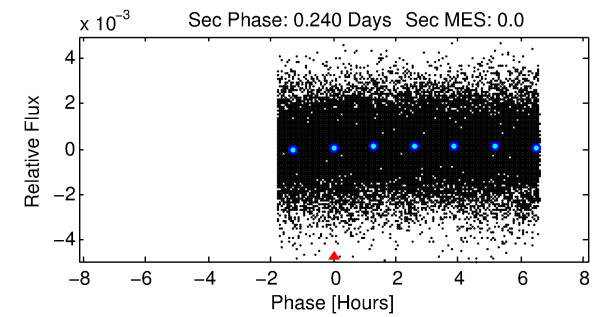
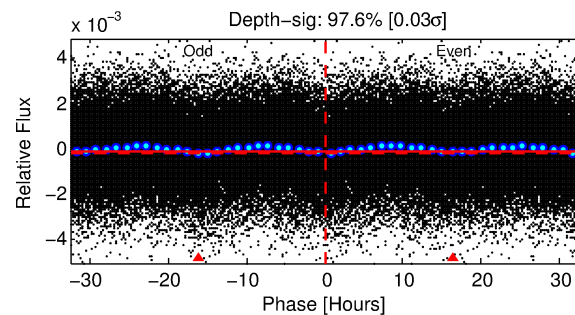
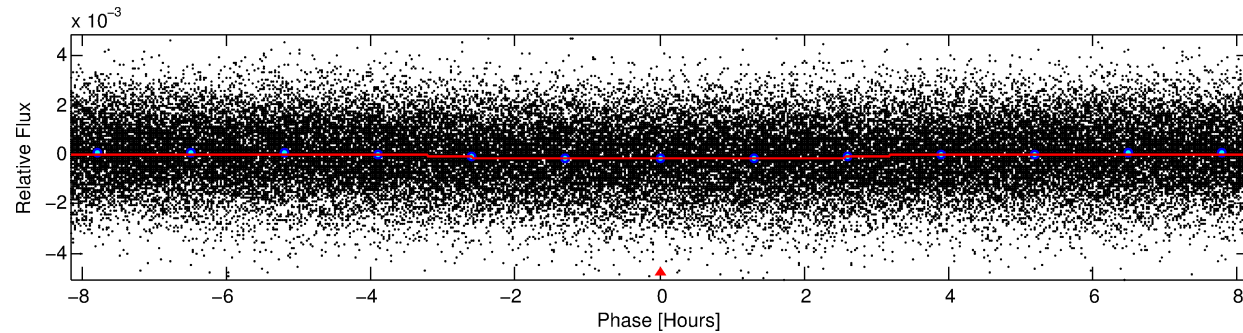
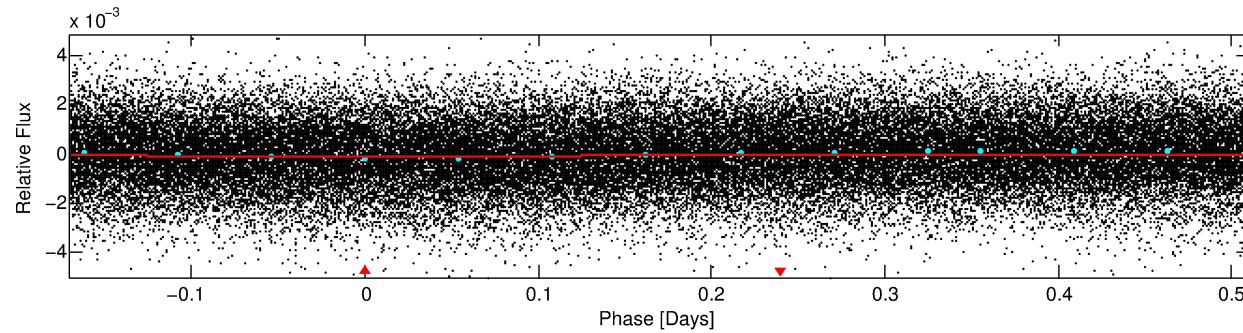
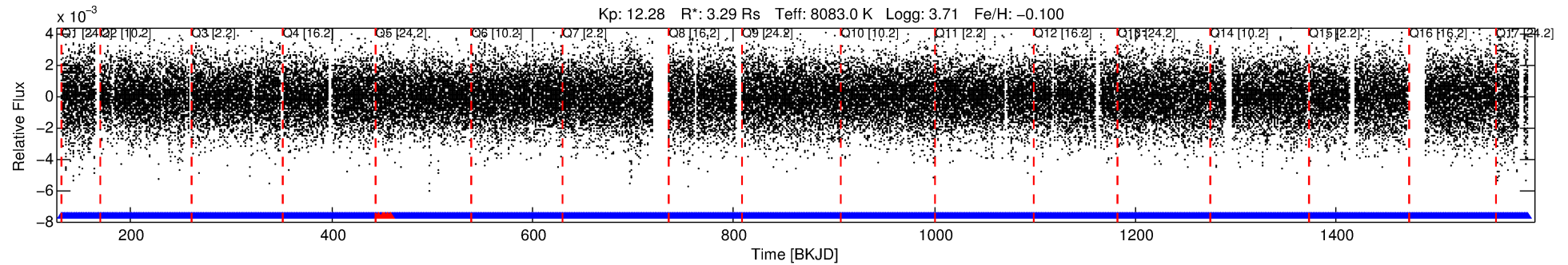
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009300295-01

No Significant Match Found

DV One-Page Summary

KIC: 9300295 Candidate: 1 of 1 Period: 0.680 d



DV Fit Results:

Period = 0.67978 [0.00001] d
Epoch = 131.5806 [0.0032] BKJD
Rp/R* = 0.0114 [0.0059]
a/R* = 1.06 [0.33]
b = 0.36 [7.14]
Seff = 112505.19 [84307.37]
Teq = 4670 [875] K
Rp = 4.10 [2.83] Re
a = 0.0192 [0.0087] AU
Ag = N/A
Teffp = N/A

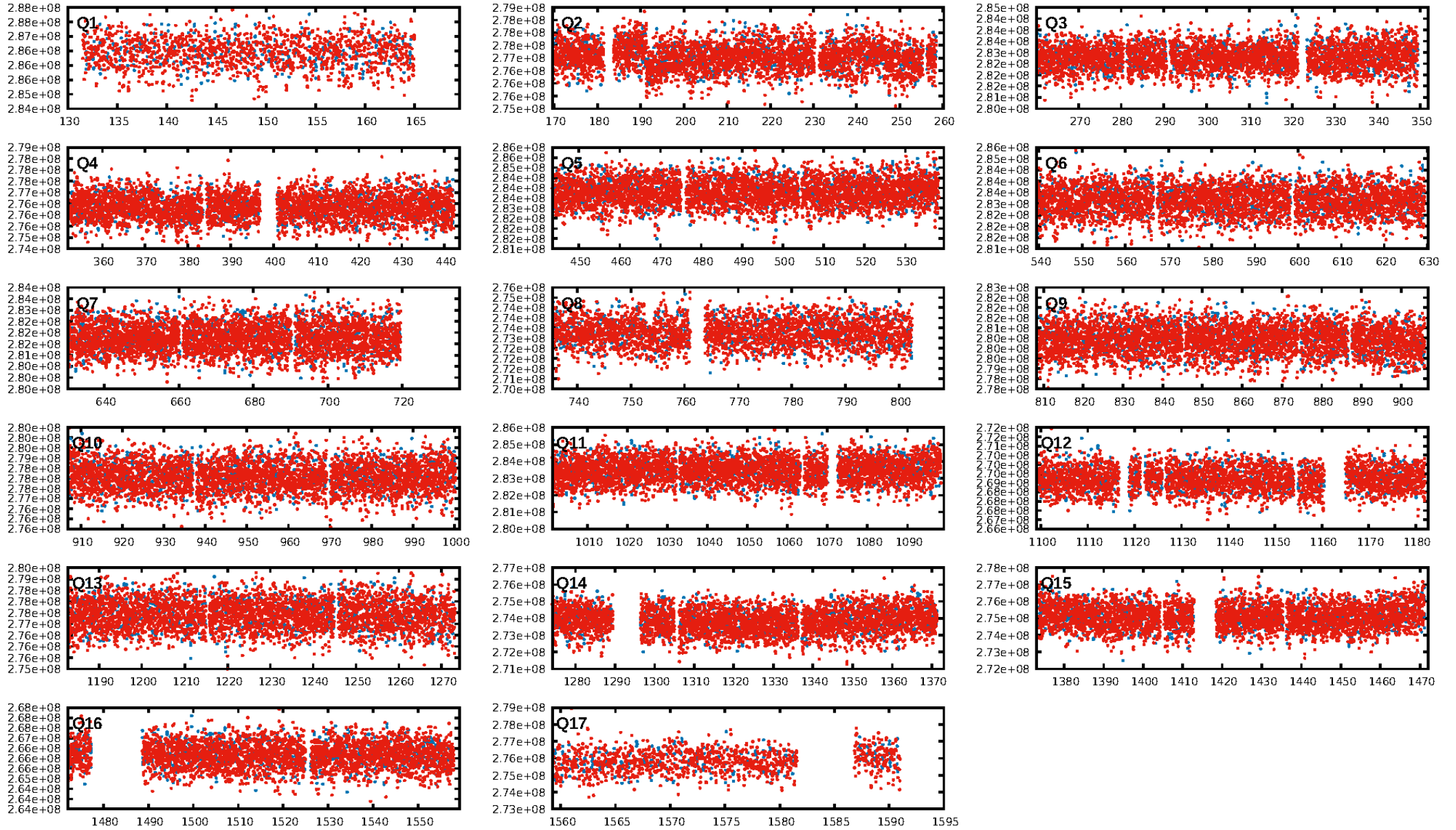
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1889/1894]
GhostDiagnostic-chr: 1.667
Centroid-sig: 67.5%
Centroid-so: 0.161 arcsec [2.27σ]
OotOffset-rm: 1.423 arcsec [1.35σ]
KicOffset-rm: 1.580 arcsec [1.72σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

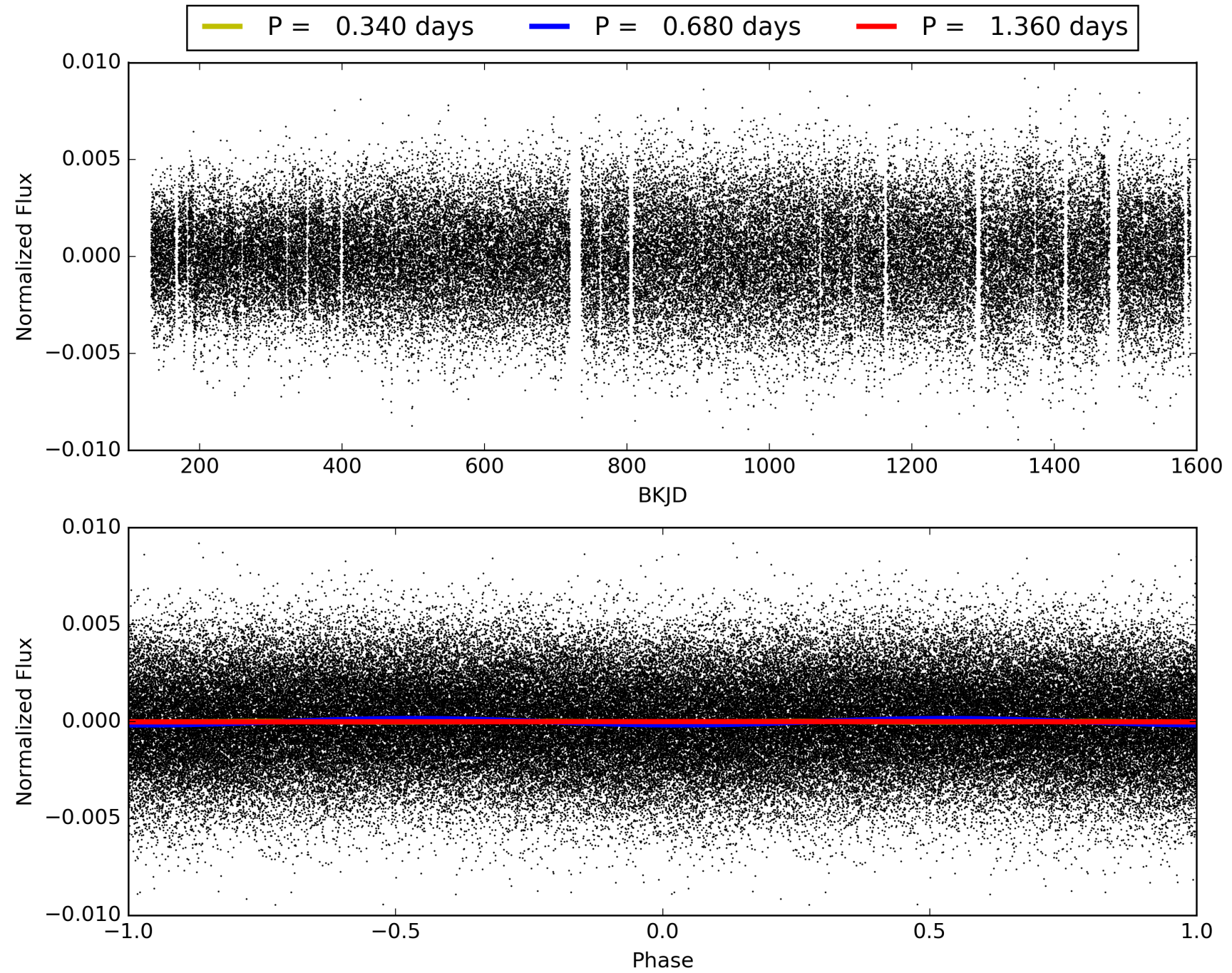
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:50:28 Z

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

TCE 009300295-01, PDC Light Curves

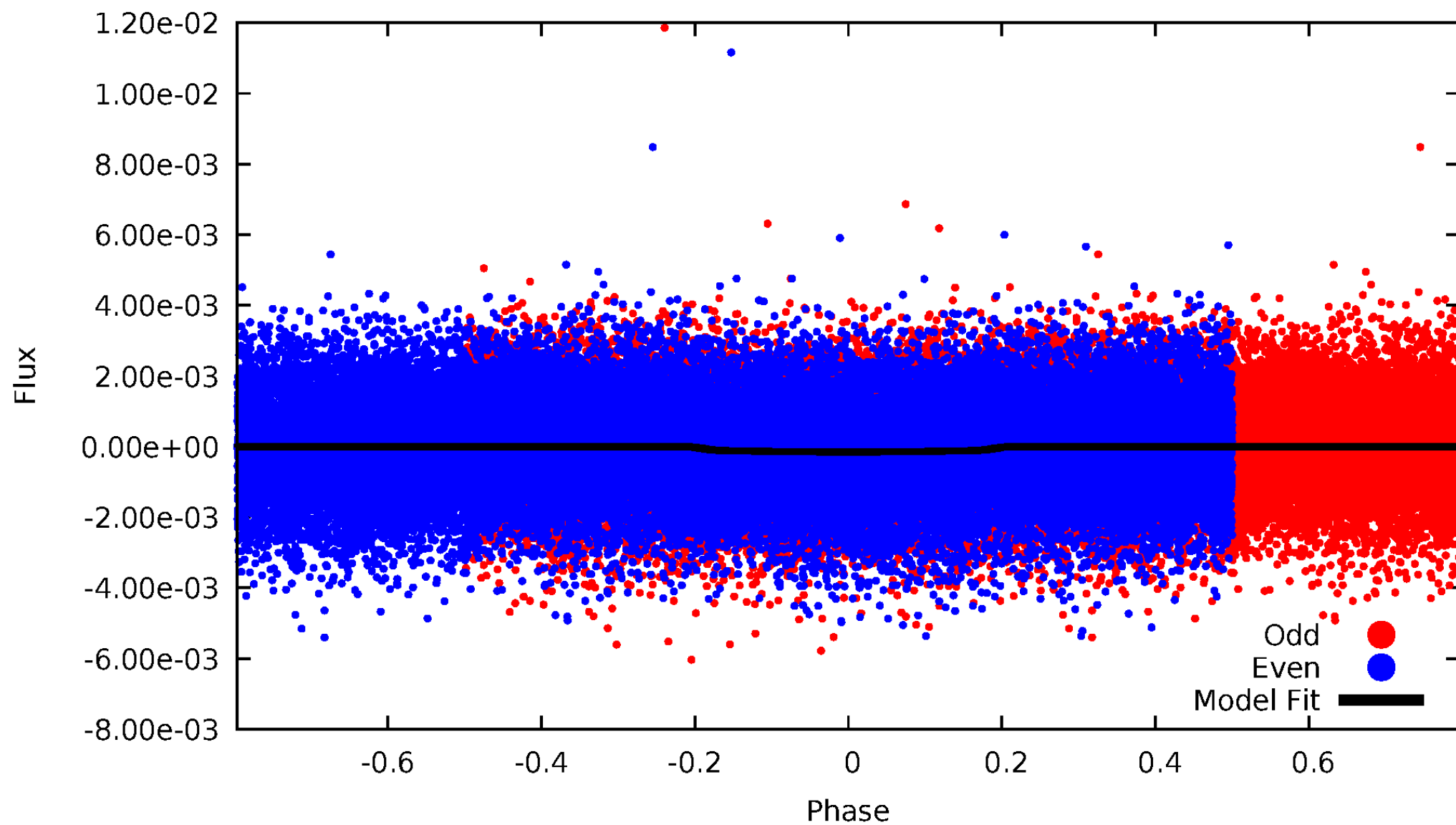


TCE 009300295-01



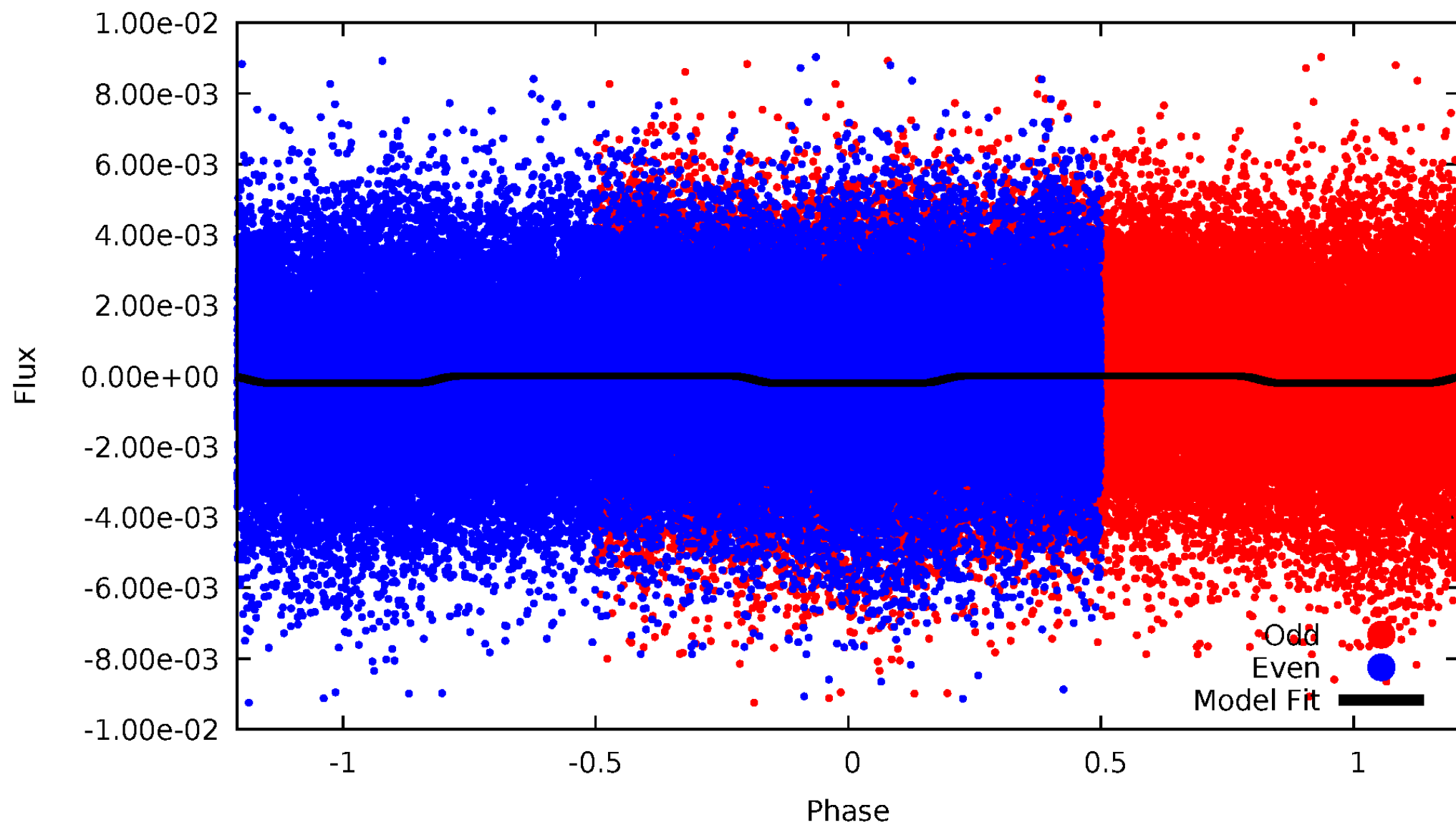
DV Odd/Even

TCE 009300295-01

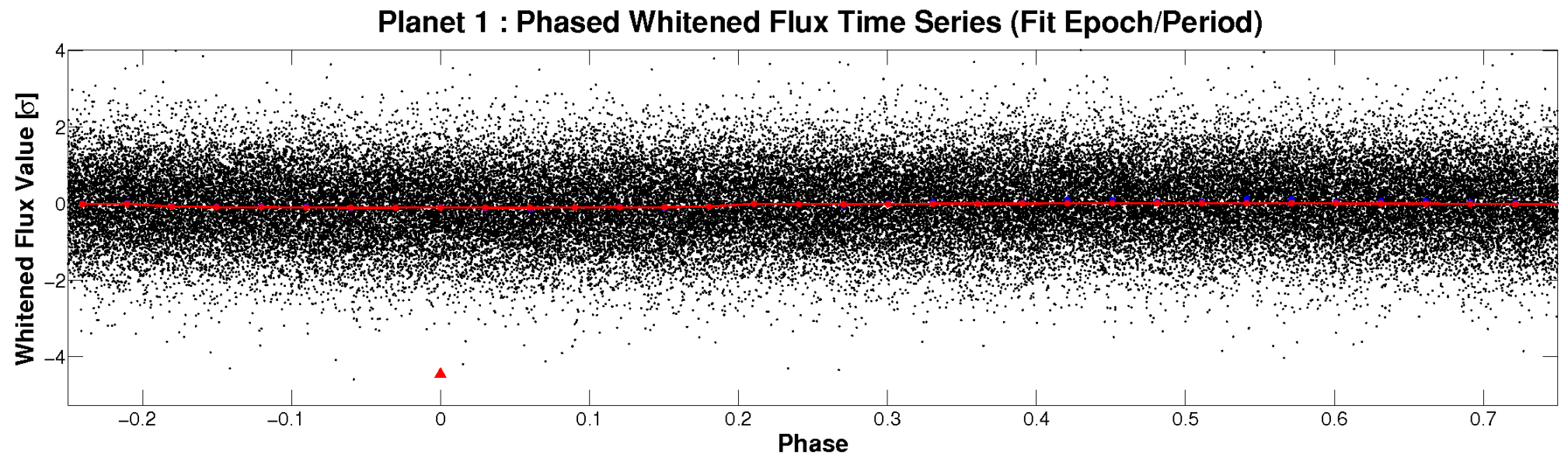
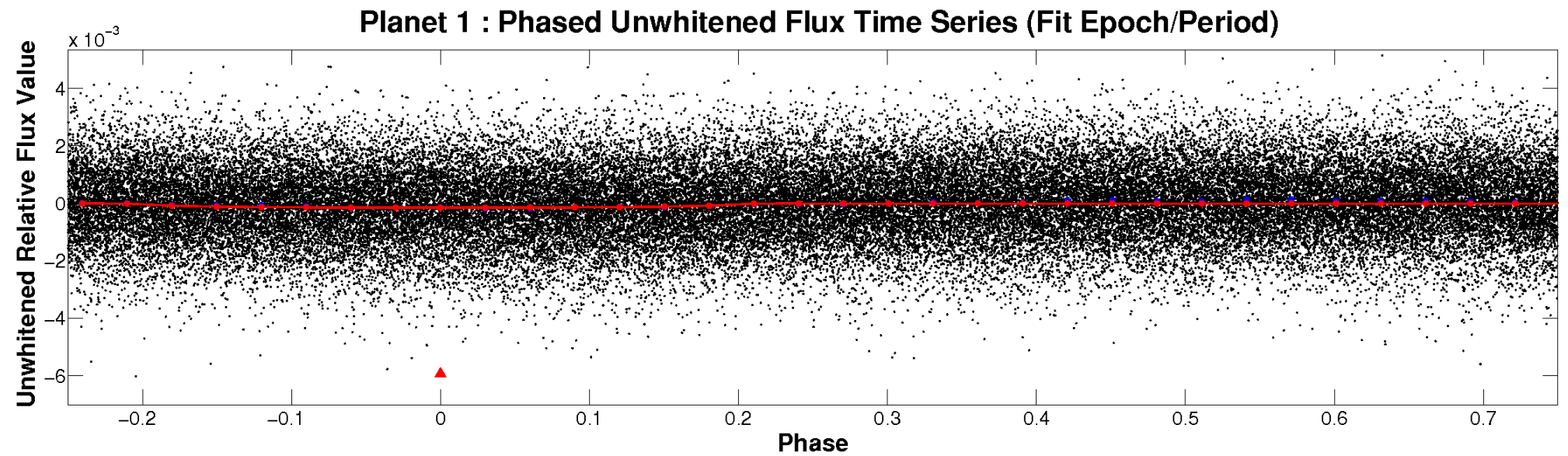


ALT Odd/Even

TCE 009300295-01

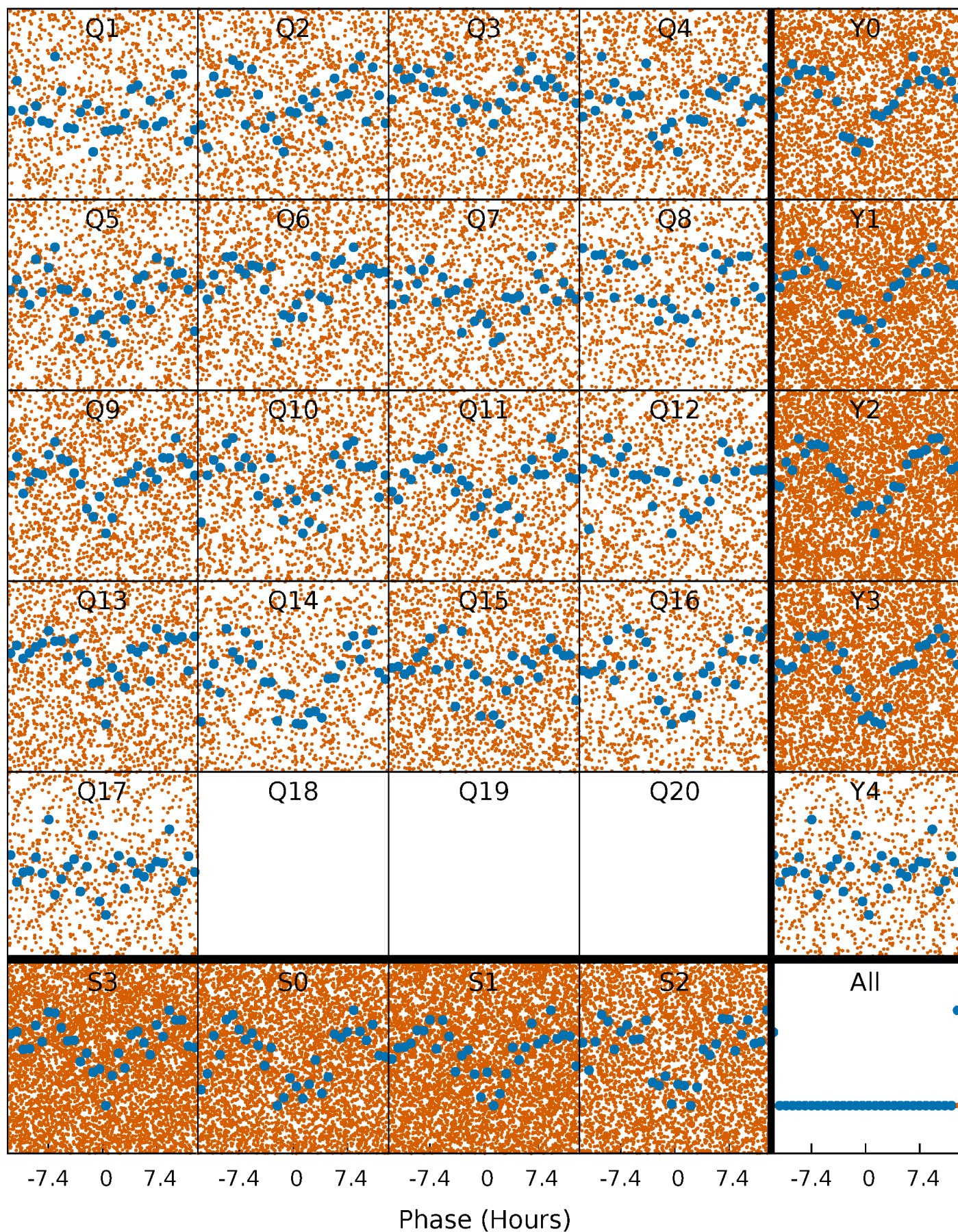


Non-Whitened Vs. Whitened Light Curve



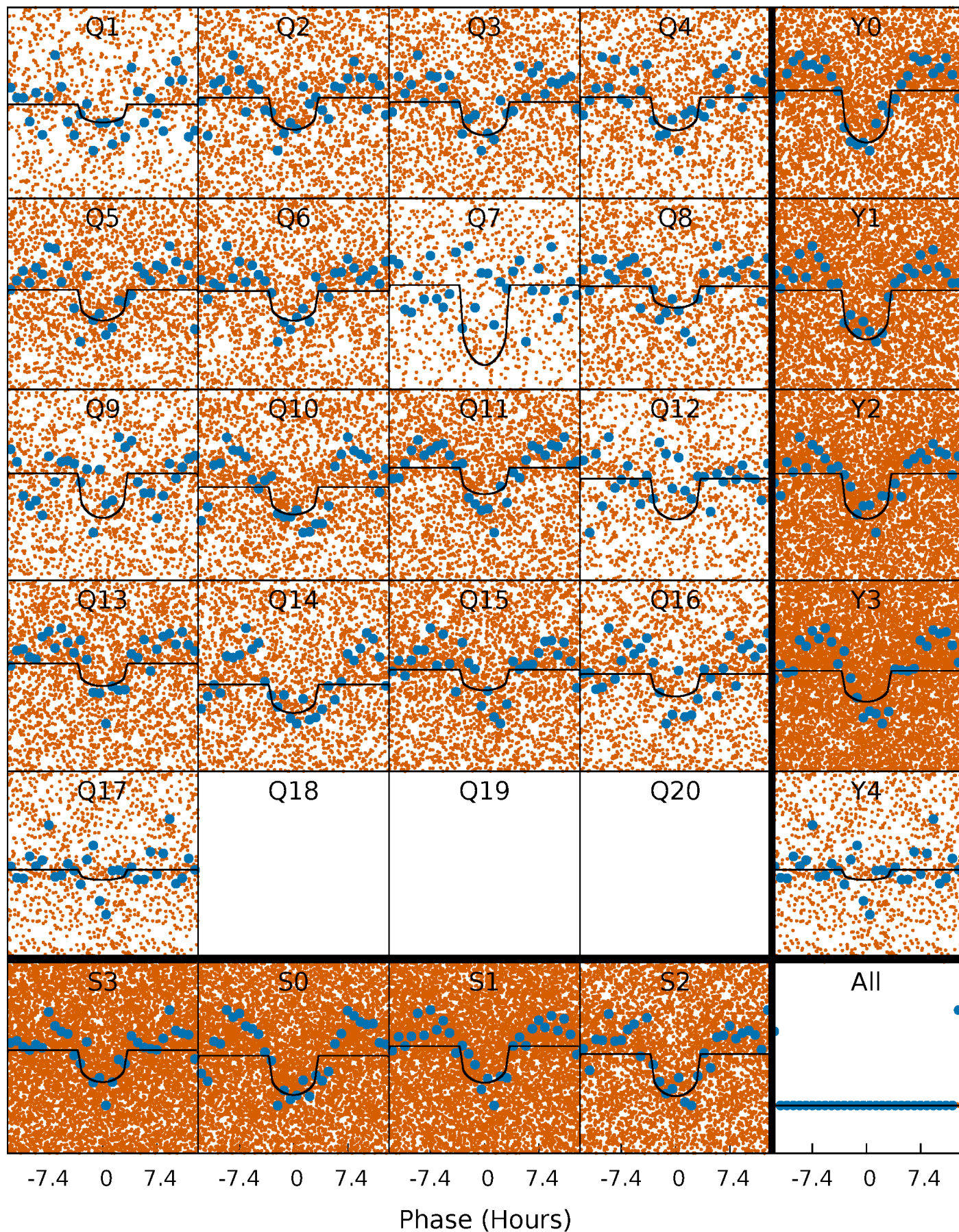
PDC Quarter-Phased Transit Curves

TCE 009300295-01 P= 0.679784 Days $T_0=131.580617$ (BKJD)



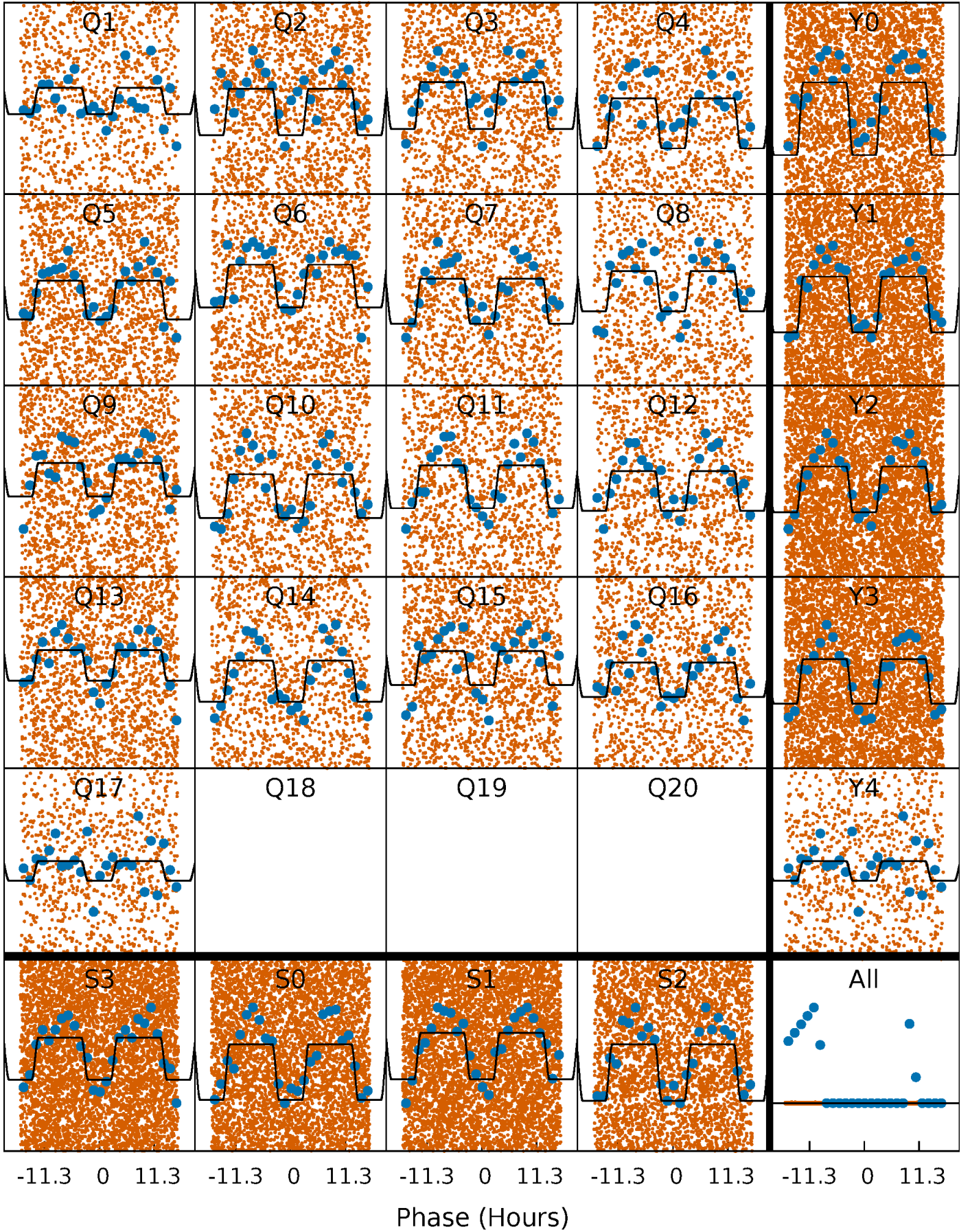
DV Quarter-Phased Transit Curves

TCE 009300295-01 P= 0.679784 Days $T_0=131.580617$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

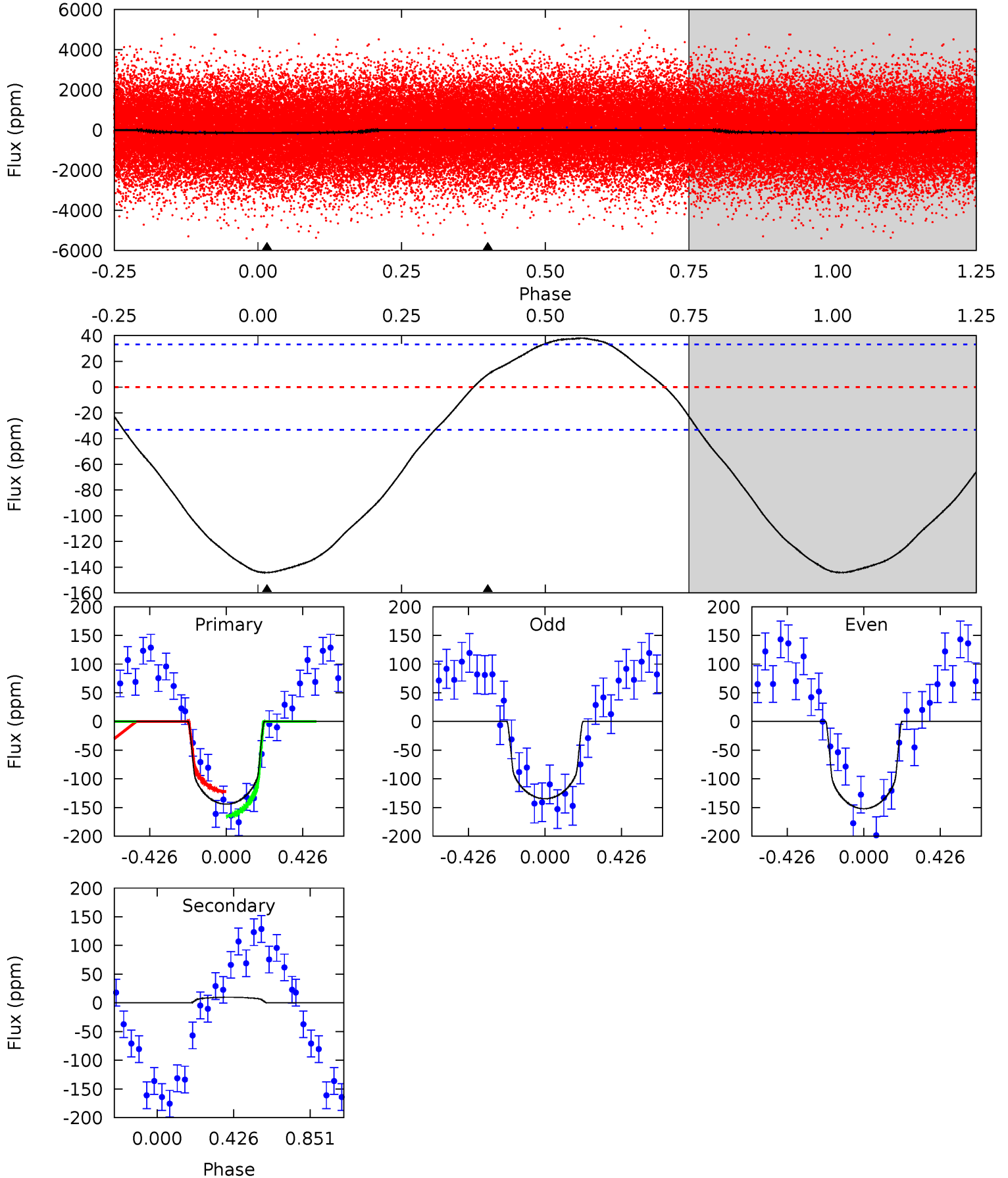
TCE 009300295-01 P= 0.679820 Days $T_0=131.547563$ (BKJD)



DV Model-Shift Uniqueness Test

009300295-01, $P = 0.679784$ Days, $E = 130.900833$ Days

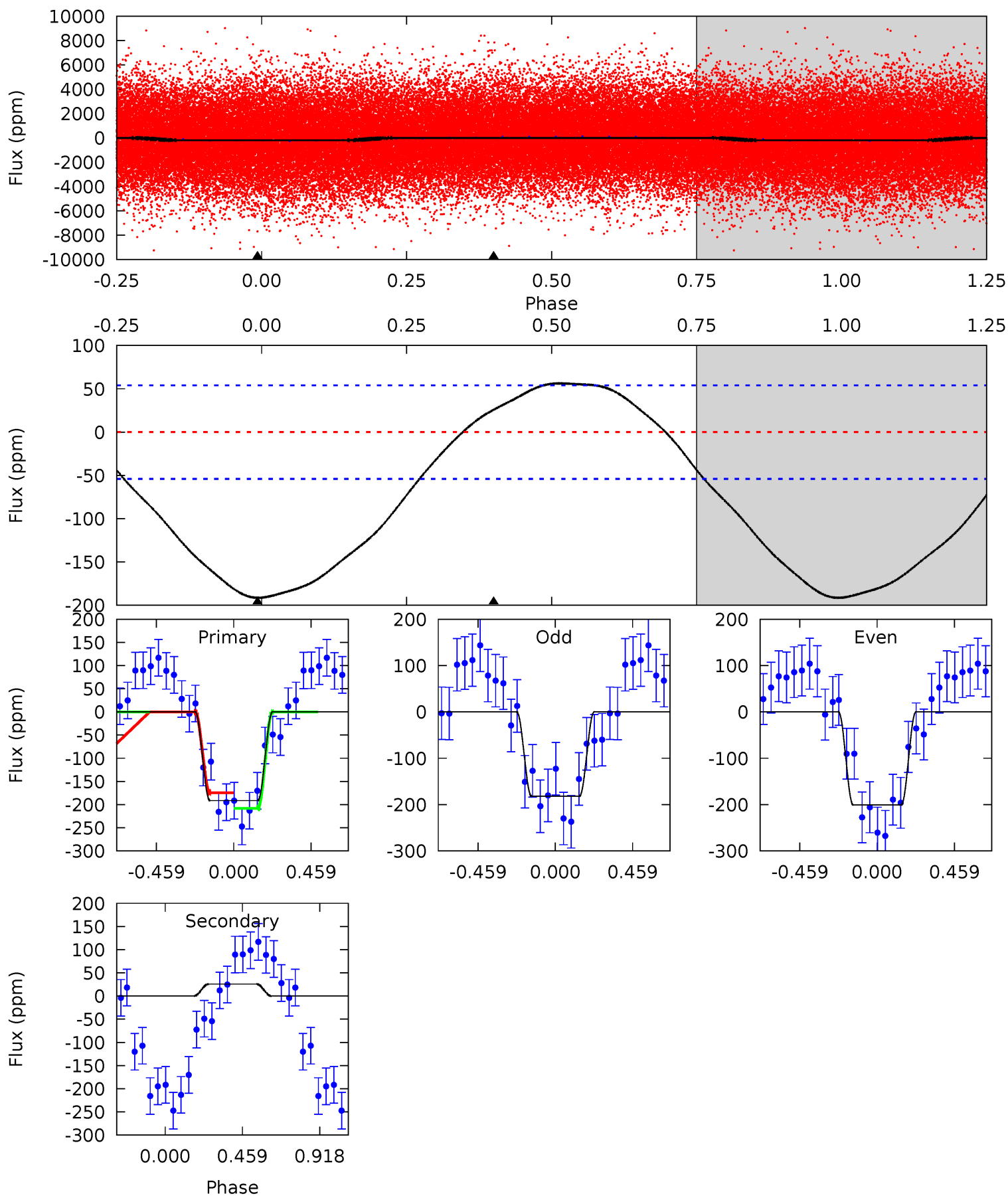
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	-1.25	0	0	4.25	0.80	1.67	18.5	18.5	-1.25	-1.25	1.12	1.17	0.21	2.72



Alt Model-Shift Uniqueness Test

009300295-01, P = 0.679820 Days, E = 130.867743 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	-2.02	0	0	4.23	0.74	1.60	15.0	15.0	-2.02	-2.02	0.74	0.98	0.23	1.25



Stellar Parameters For KIC 009300295

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8083^{+224}_{-336}	$3.713^{+0.432}_{-0.108}$	$-0.100^{+0.200}_{-0.350}$	$3.294^{+0.816}_{-1.516}$	$2.046^{+0.388}_{-0.474}$	$0.081^{+0.329}_{-0.032}$
	+3%/-4%	+12%/-3%	+200%/-350%	+25%/-46%	+19%/-23%	+408%/-39%
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 009300295-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	10 ± 8	$3.69^{+2.24}_{-1.95}$	6309^{+480}_{-744}	-5533^{+584}_{-968}	$-0.125^{+0.108}_{-0.473}$
Alt.	26 ± 13	$4.54^{+2.31}_{-2.05}$	6259^{+541}_{-702}	-5805^{+596}_{-1106}	$-0.232^{+0.147}_{-0.657}$

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 $A_{obs} \gg 1.0$

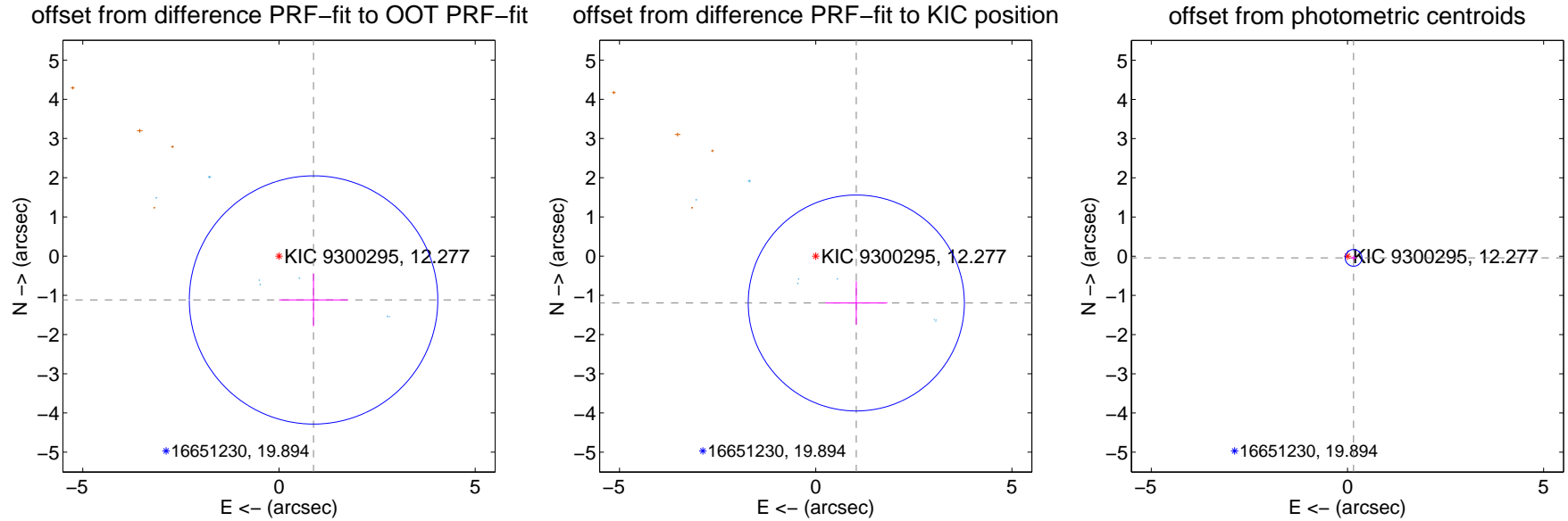
DV Centroid Data

Supplemental centroid analysis for 009300295-01. Kepler magnitude: 12.28. Transit SNR 15.41

There are 8 quarters with good PRF difference image offsets

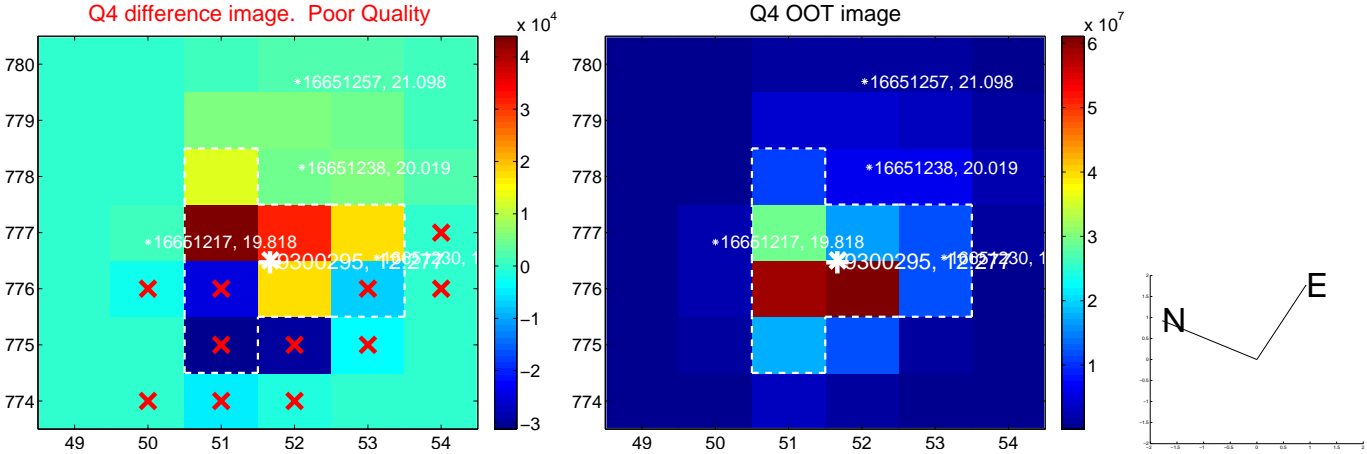
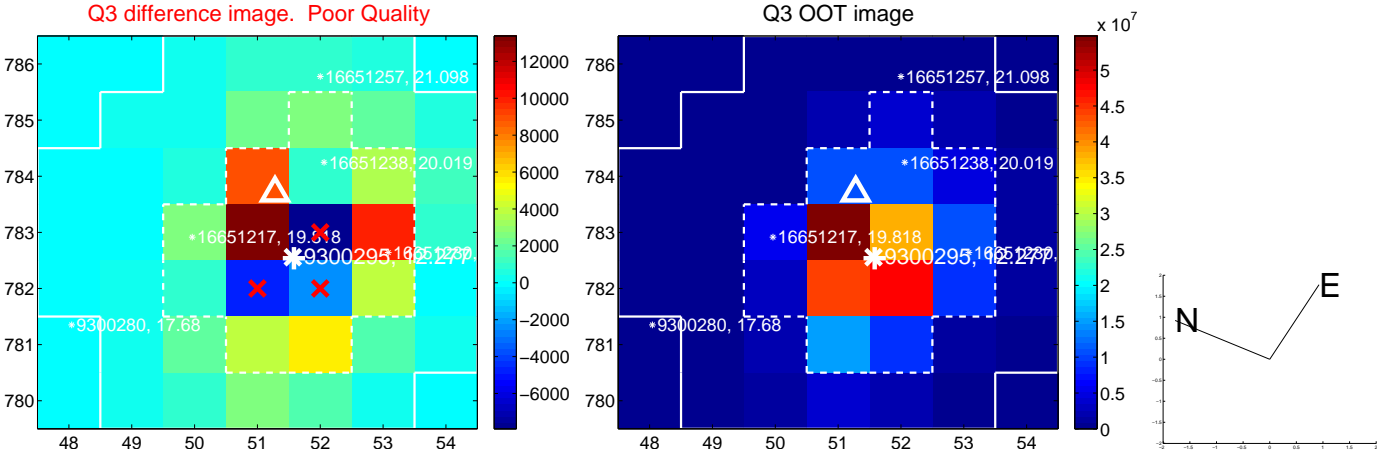
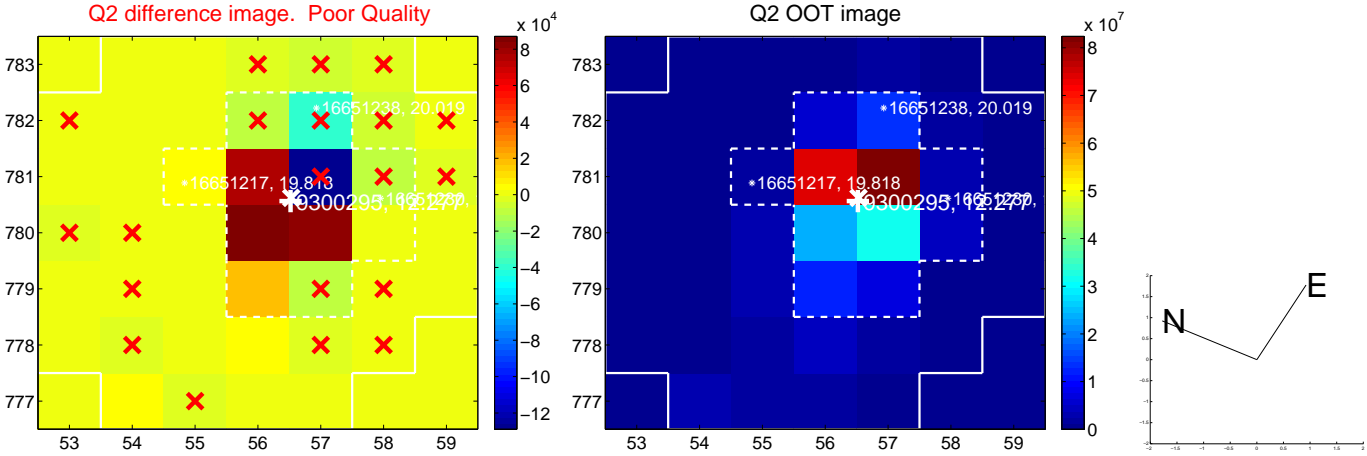
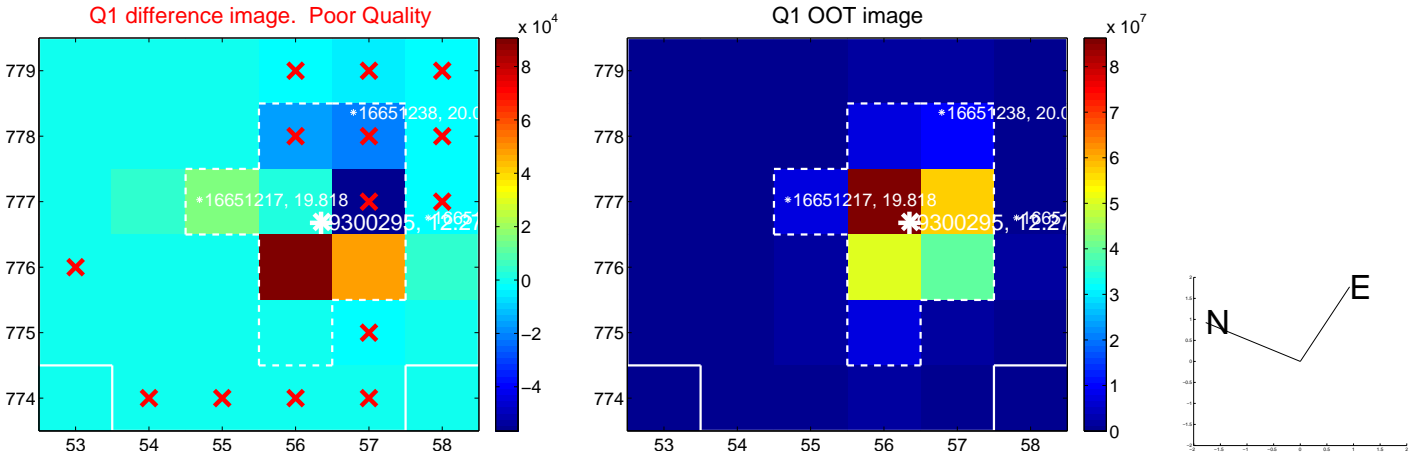
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.423 ± 1.055	1.35	-0.881 ± 0.878	-1.118 ± 0.671
PRF-fit source offset from KIC position	1.580 ± 0.918	1.72	-1.034 ± 0.789	-1.195 ± 0.553
photometric centroid source offset	0.16 ± 0.07	2.27	-0.16 ± 0.07	-0.04 ± 0.06

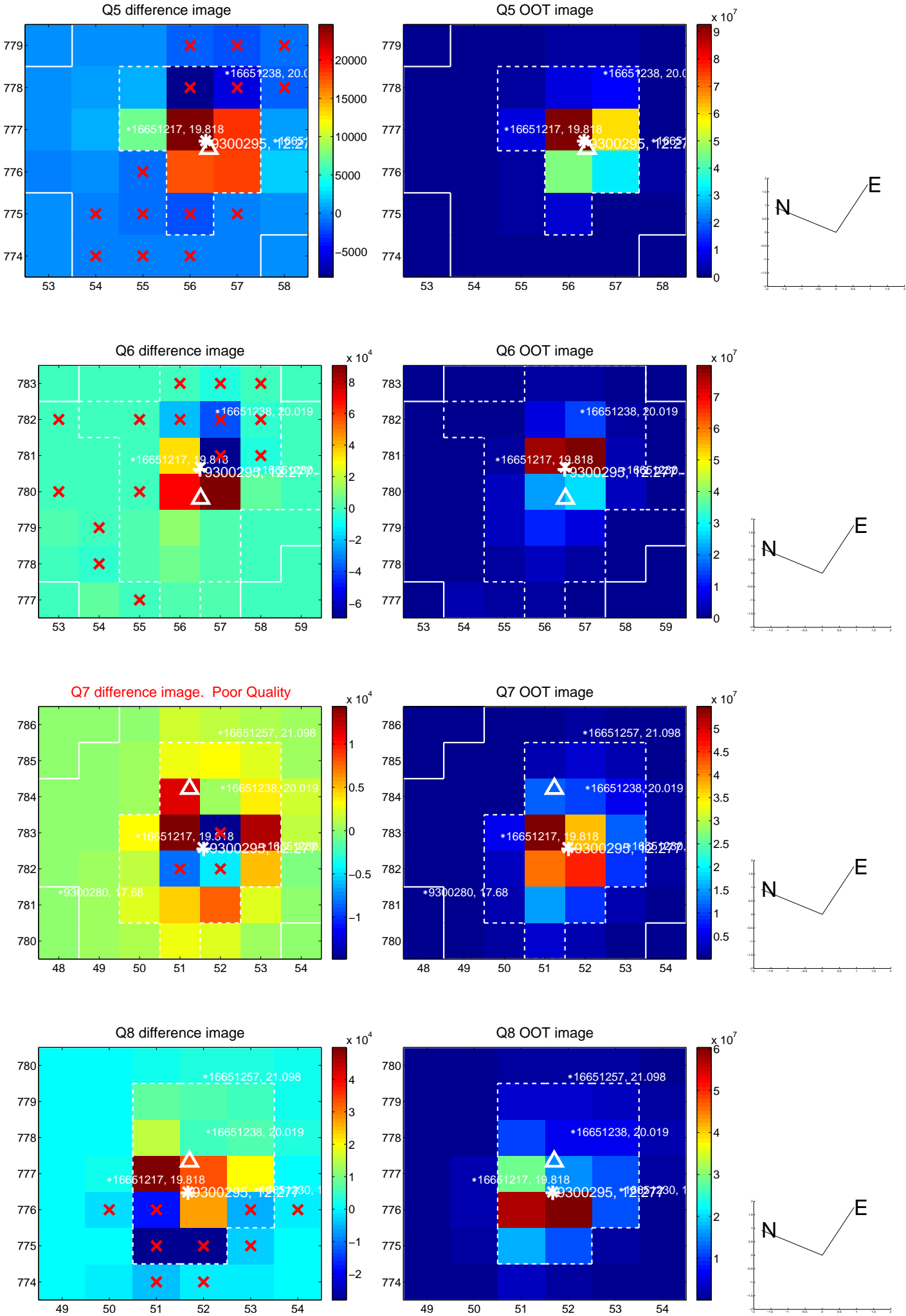


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

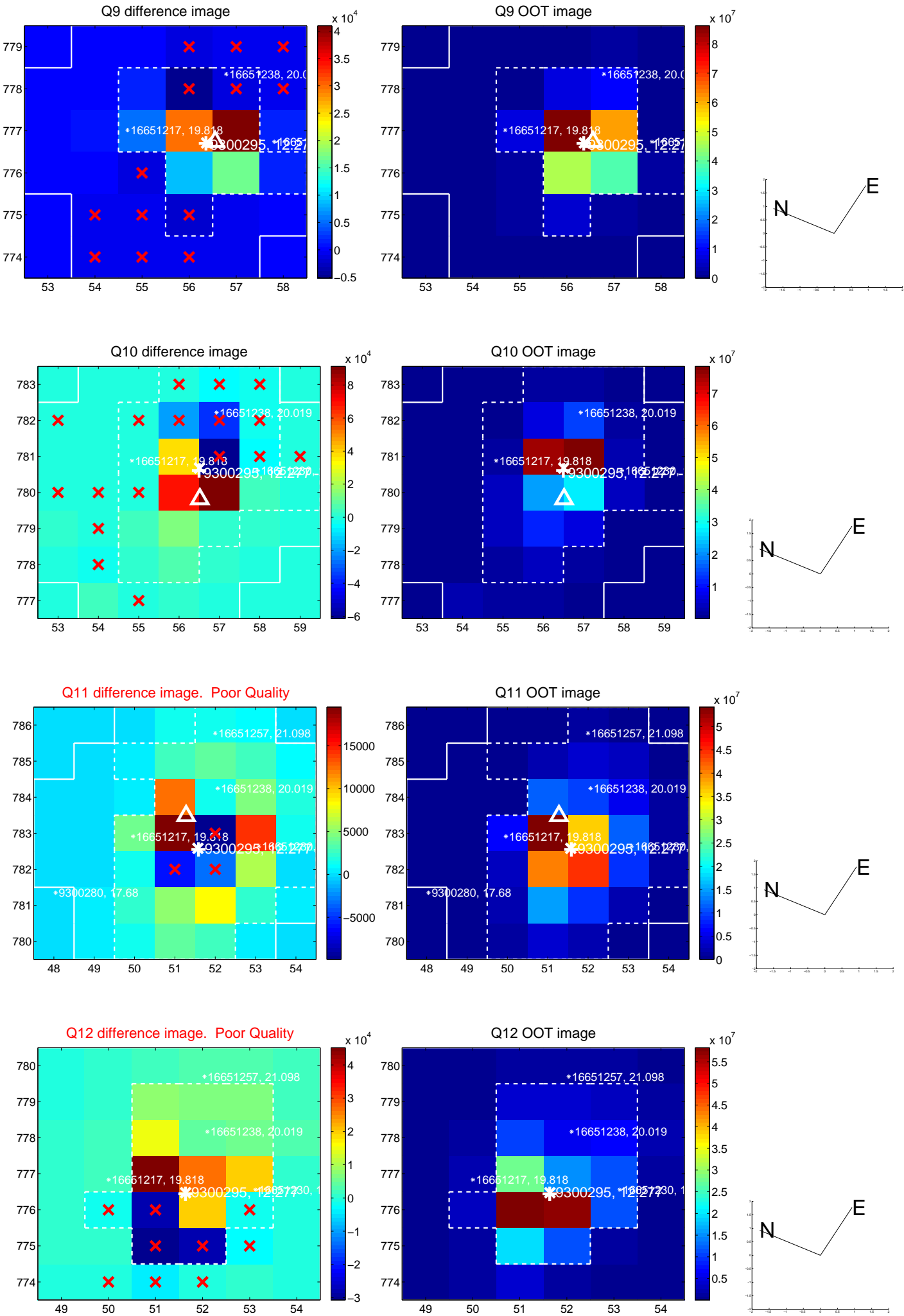
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



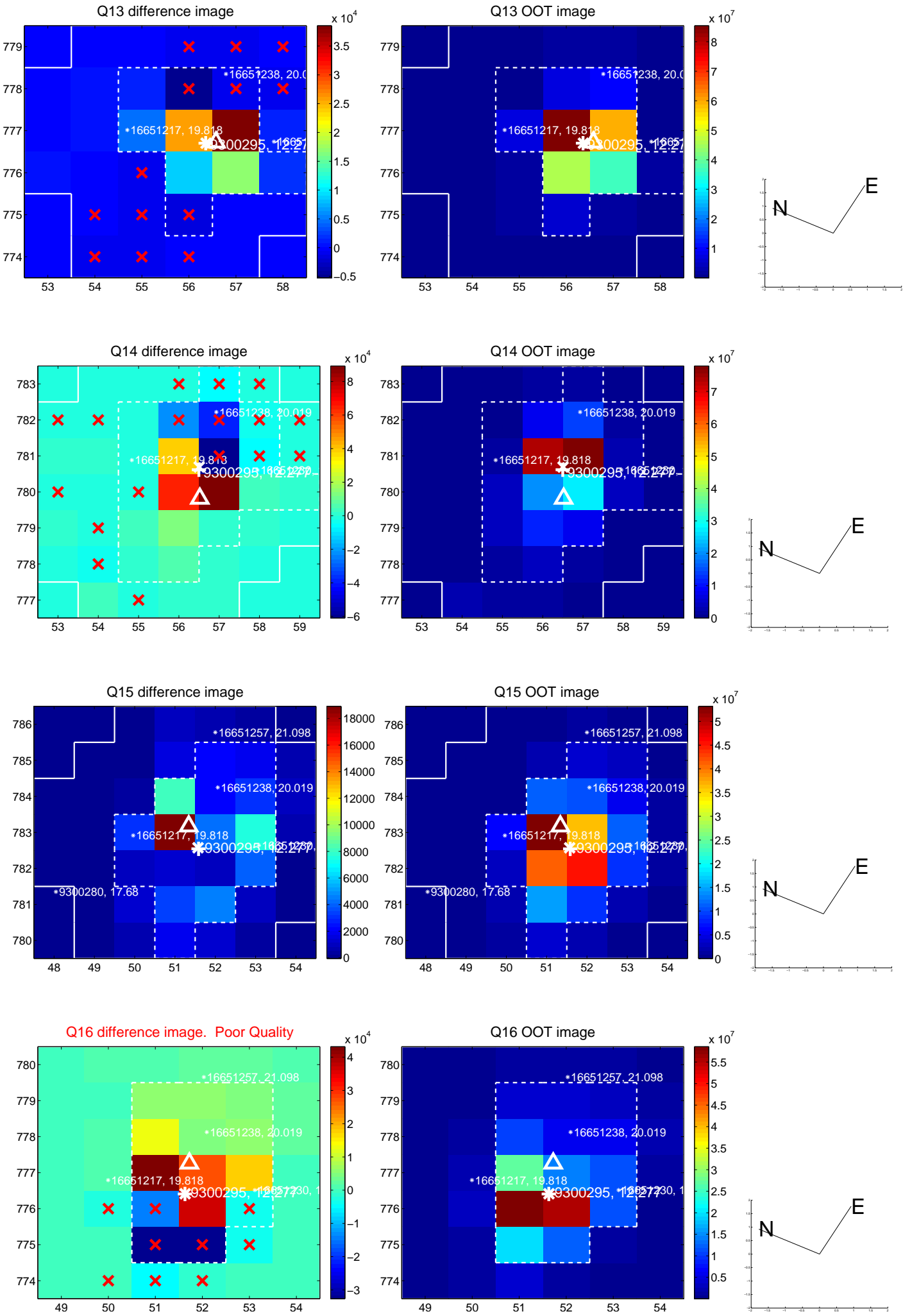
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



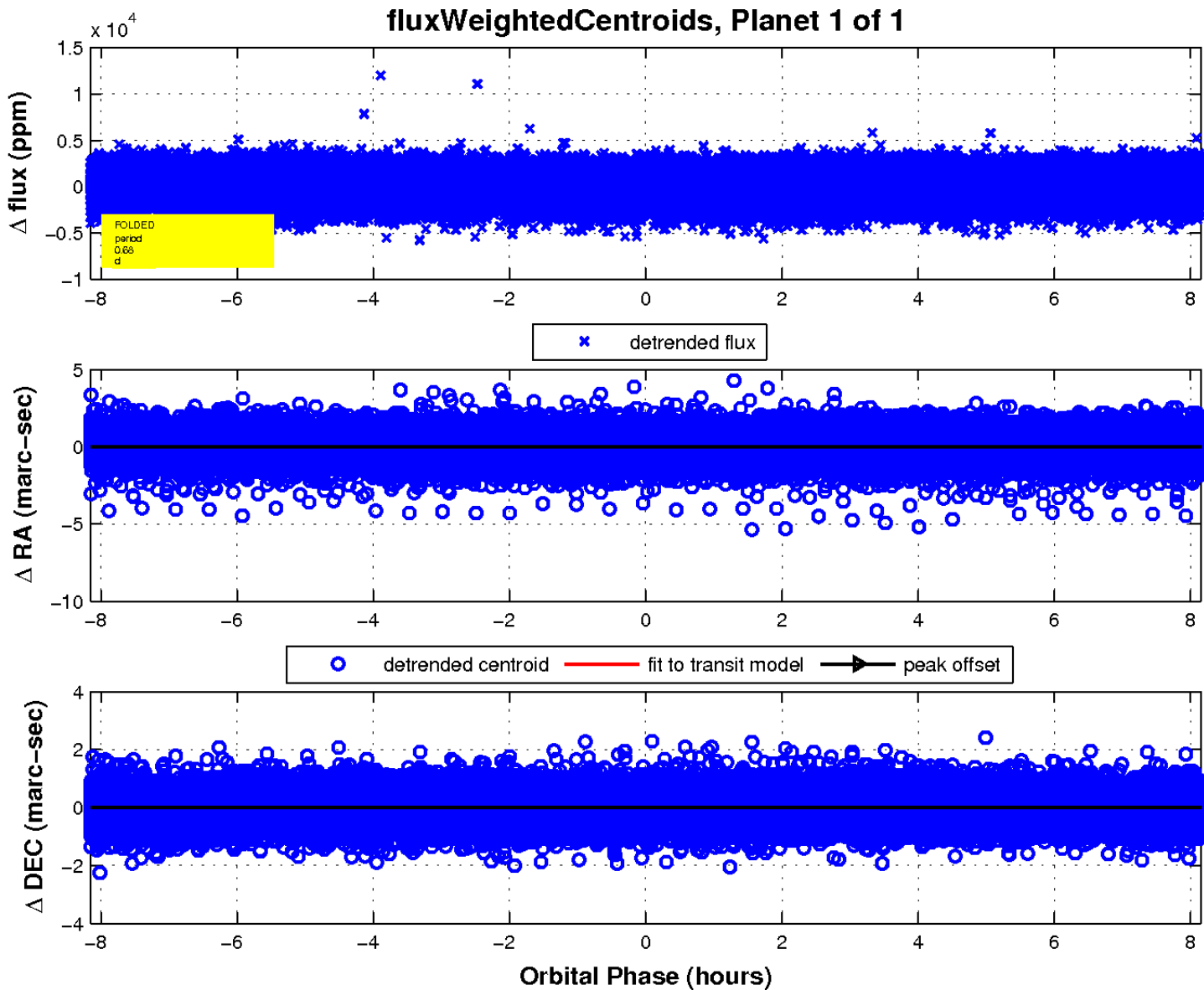
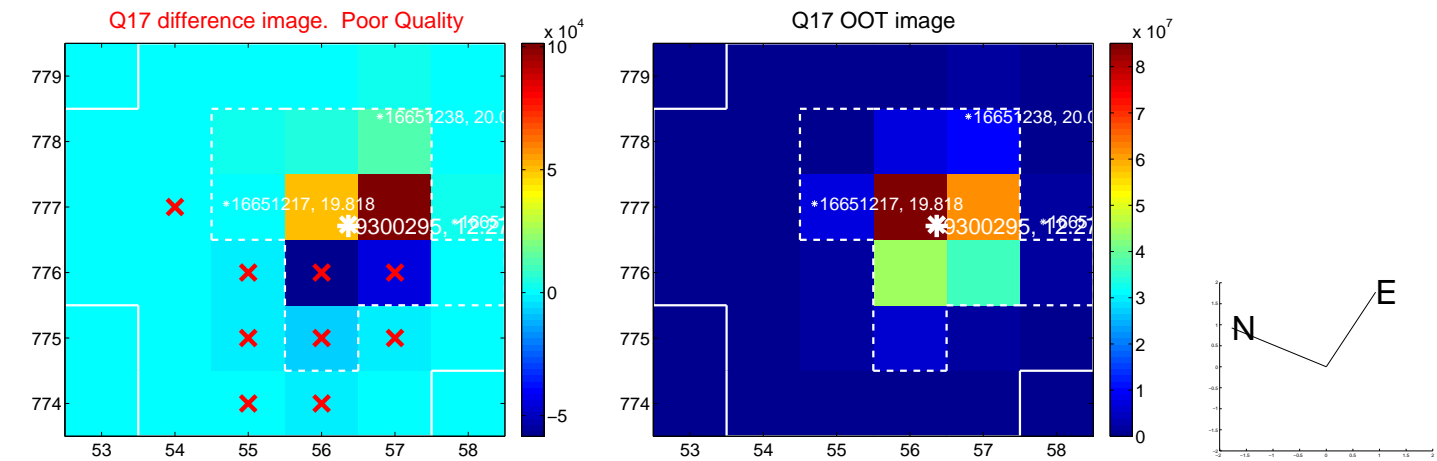
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

