

KIC 005896353

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})
005896353-01	OBS	No	1.271605	131.805611	45.2	10.722	13.6	10.9	3.10	6197	2.23	18841.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005896353-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

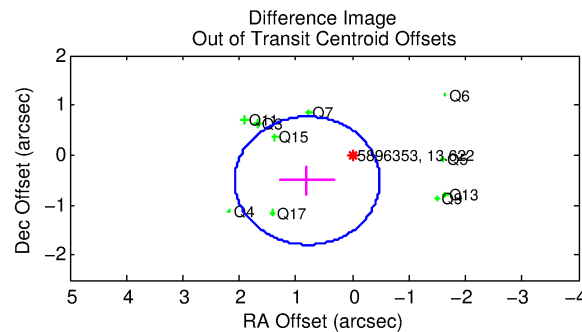
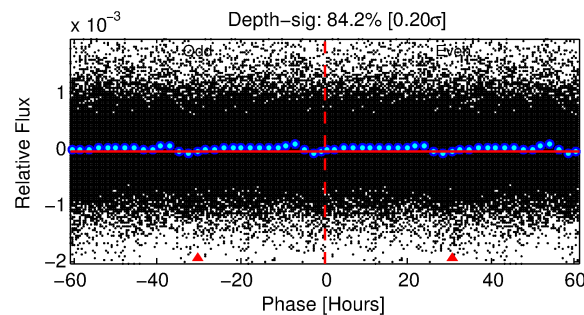
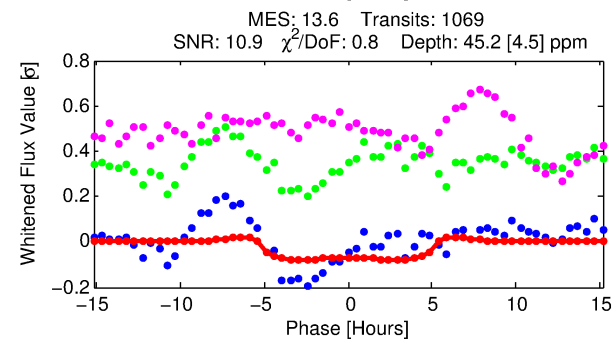
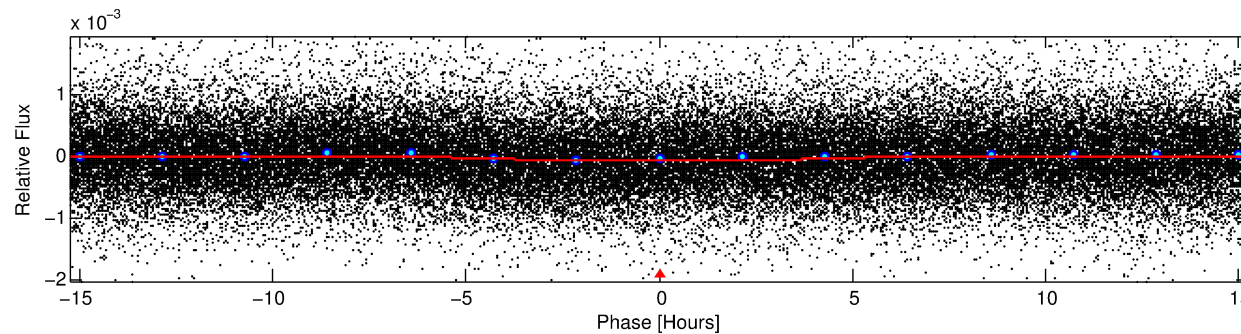
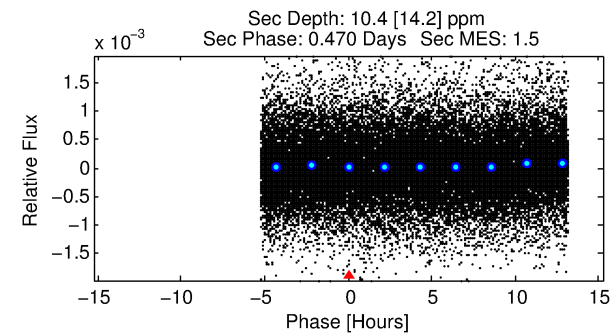
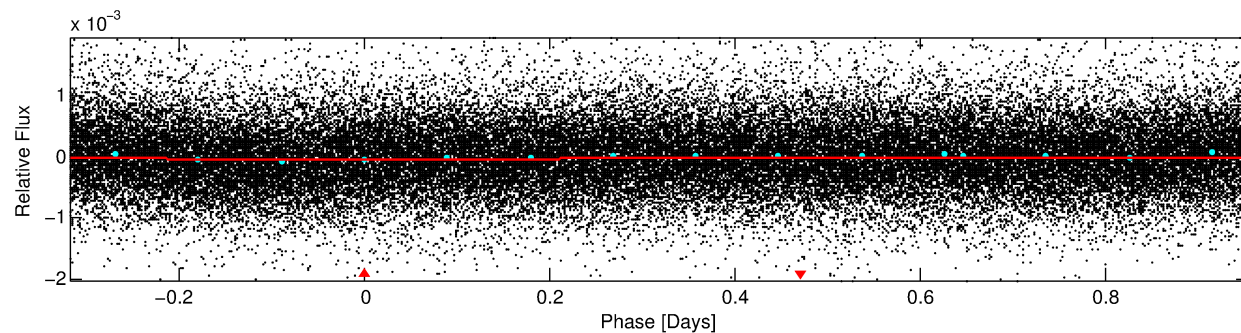
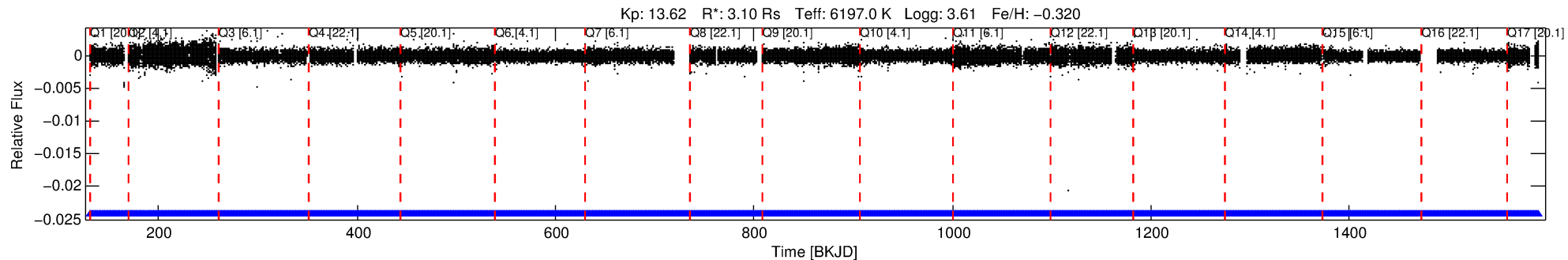
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005896353-01

No Significant Match Found

DV One-Page Summary

KIC: 5896353 Candidate: 1 of 1 Period: 1.272 d



DV Fit Results:

Period = 1.27161 [0.00002] d
Epoch = 131.8056 [0.0079] BKJD
Rp/R* = 0.0066 [0.0051]
a/R* = 1.07 [0.55]
b = 0.70 [3.03]
Seff = 18841.32 [20915.13]
Teff = 2987 [829] K
Rp = 2.23 [2.21] Re
a = 0.0259 [0.0171] AU
Ag = 0.77 [1.81] [-0.12σ]
Teffp = 4334 [2241] K [0.56σ]

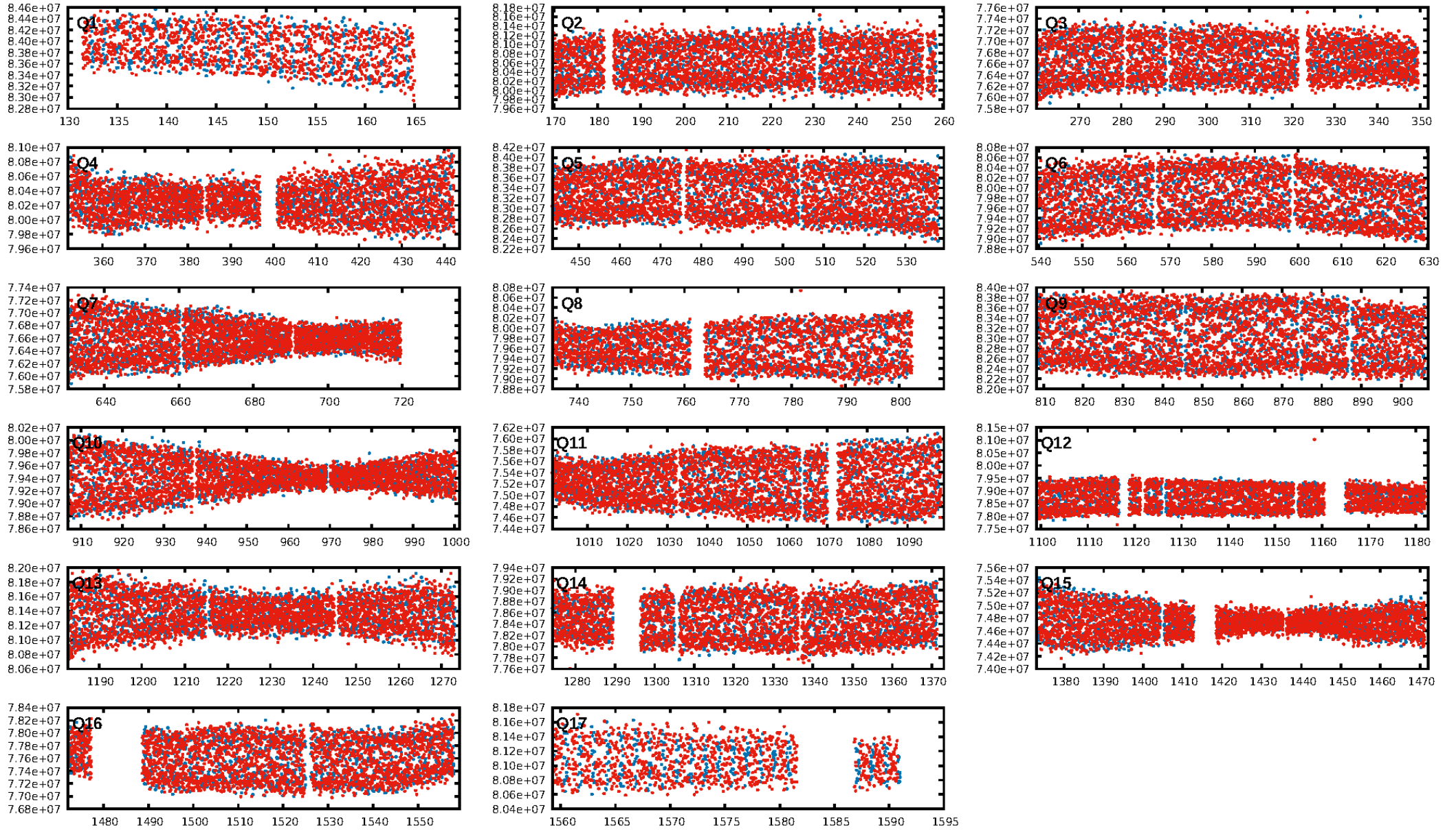
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1021/1021]
GhostDiagnostic-chr: 0.4955
Centroid-sig: 9.3%
Centroid-so: 0.739 arcsec [1.89σ]
OotOffset-rm: 0.949 arcsec [2.22σ]
KicOffset-rm: 0.920 arcsec [2.02σ]
OotOffset-st: 1/4/1/4 [10]
KicOffset-st: 1/4/1/4 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [17/17]

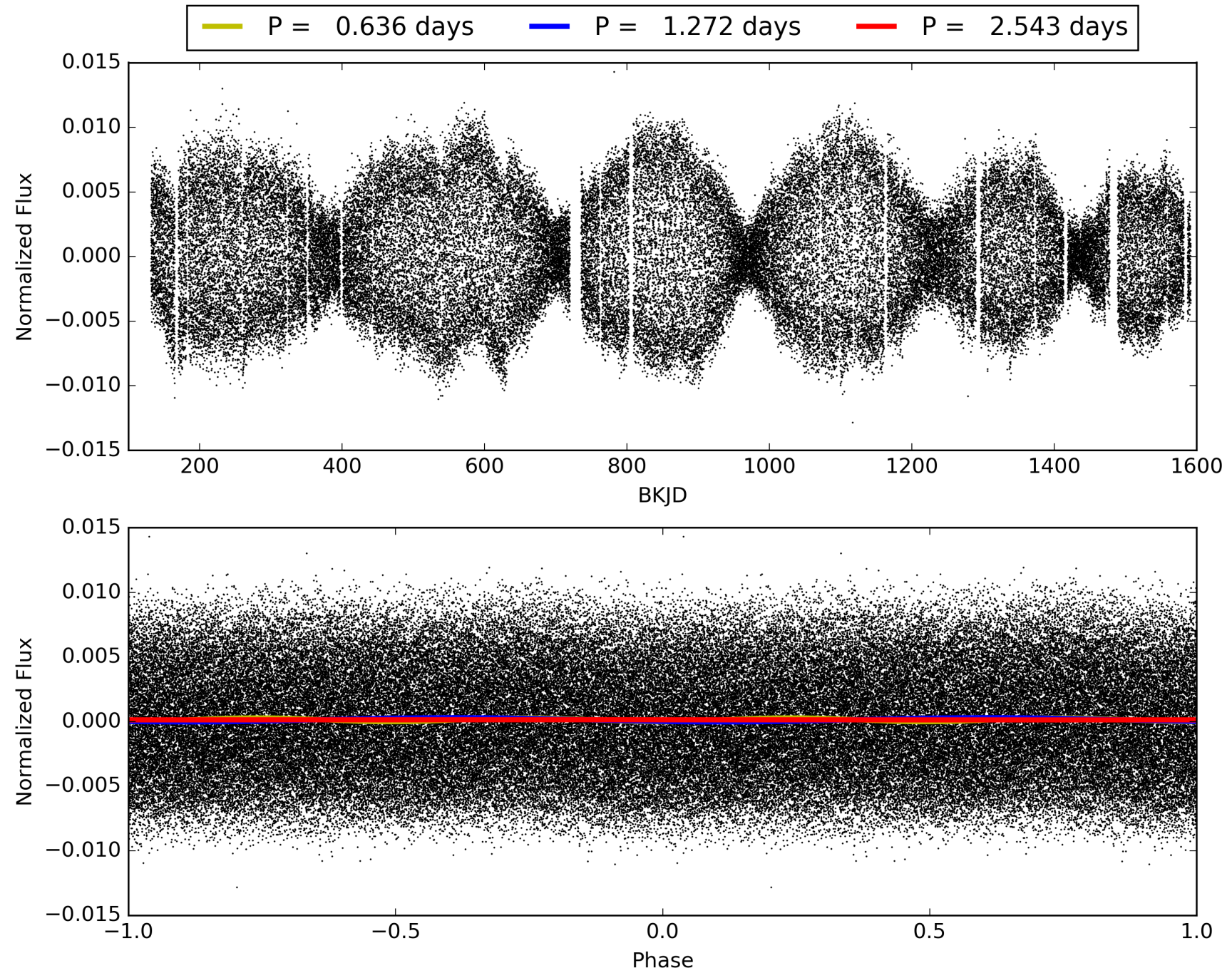
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:29:50 Z

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

TCE 005896353-01, PDC Light Curves

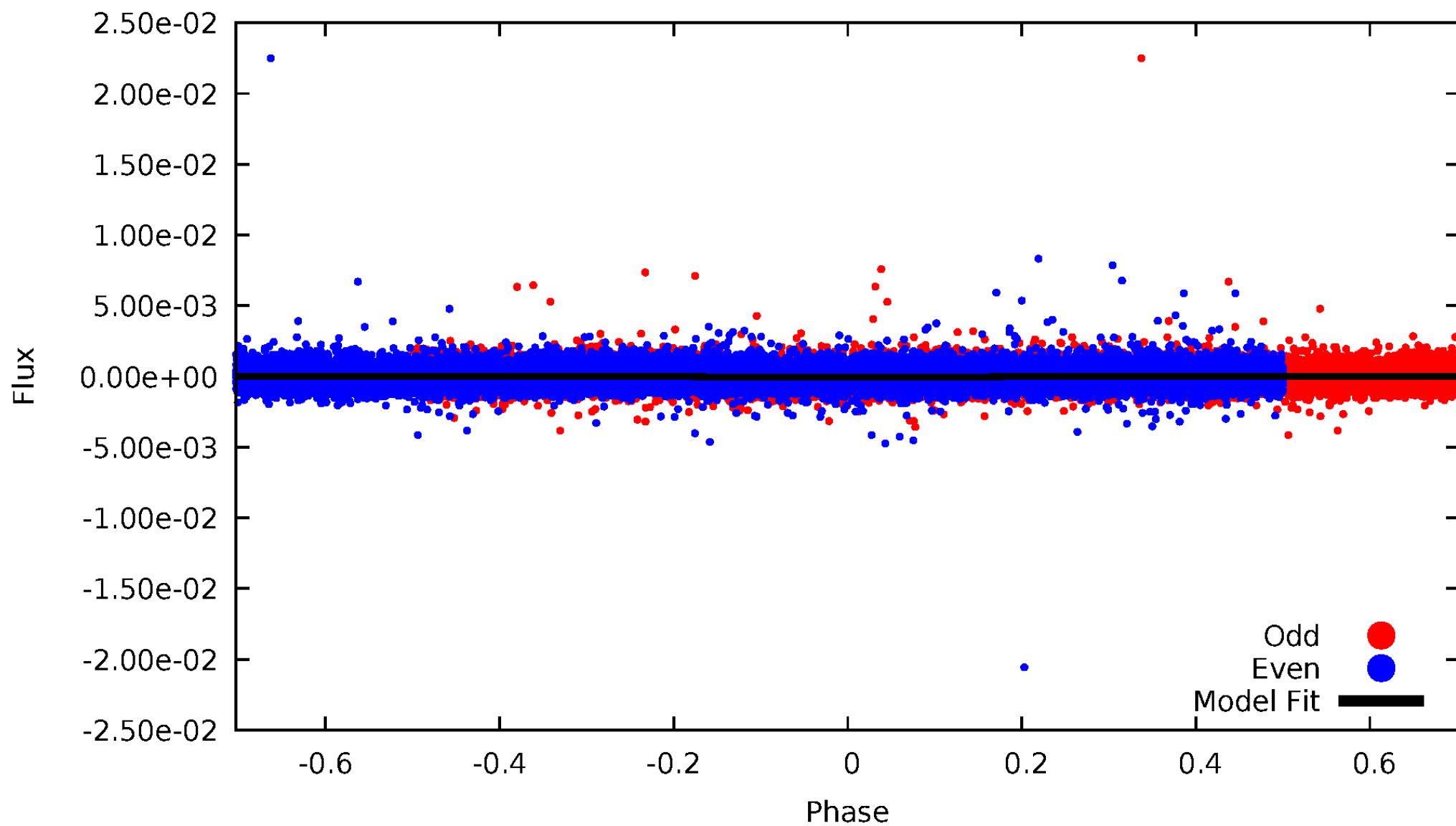


TCE 005896353-01



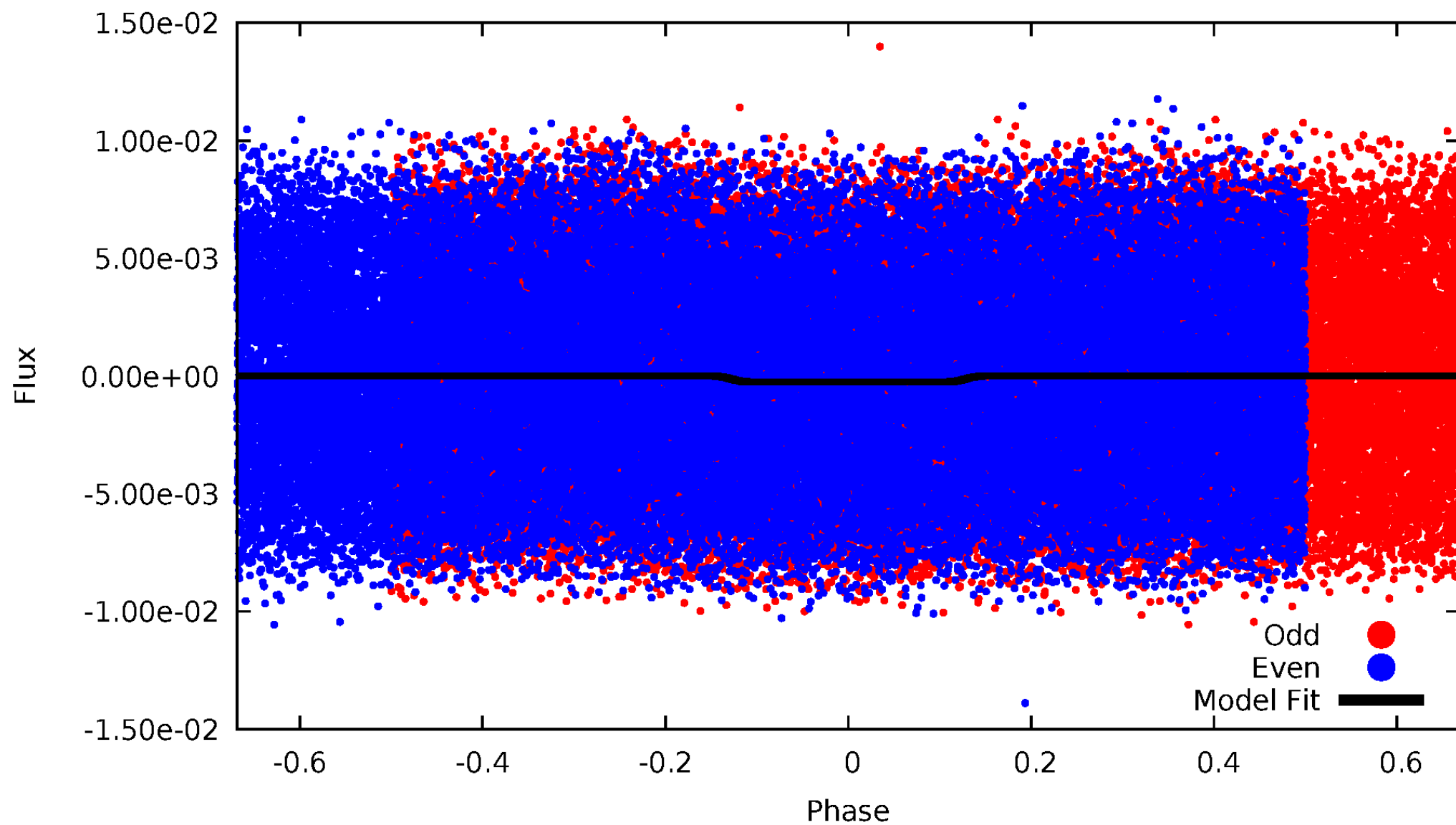
DV Odd/Even

TCE 005896353-01



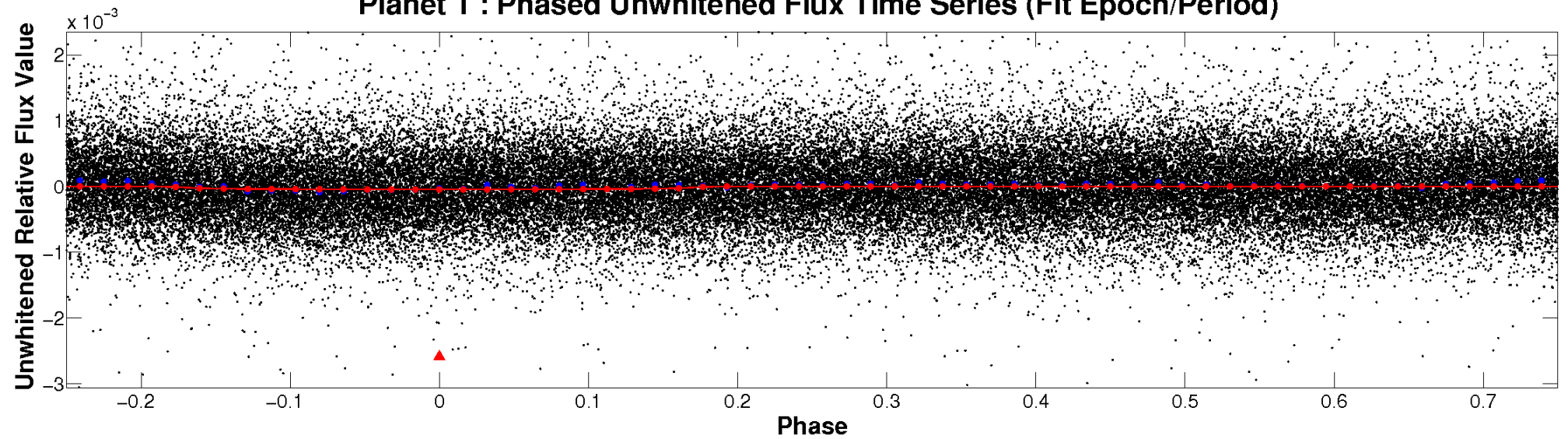
ALT Odd/Even

TCE 005896353-01

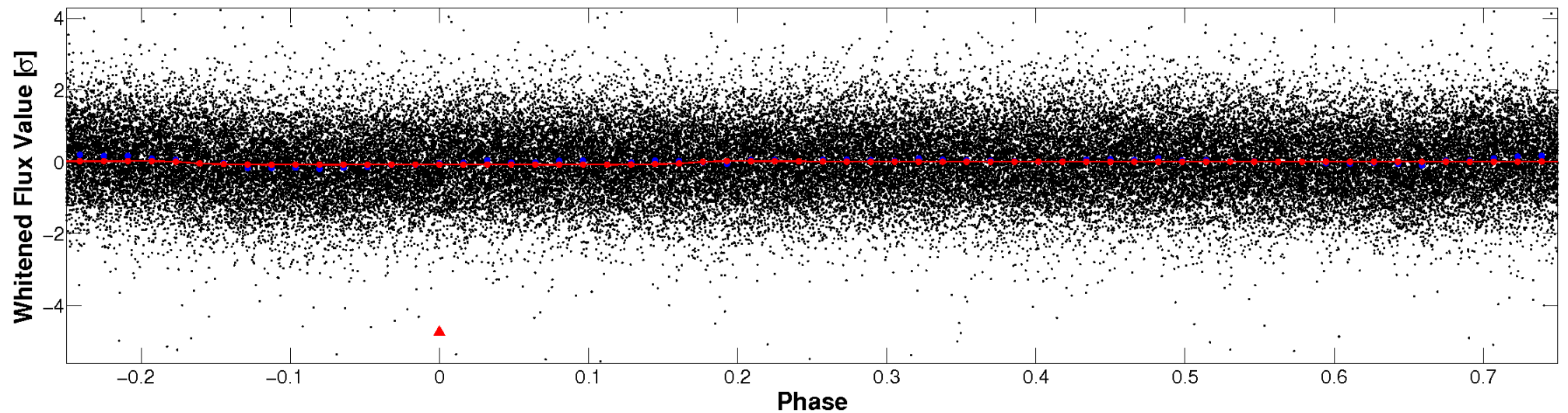


Non-Whitened Vs. Whitened Light Curve

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

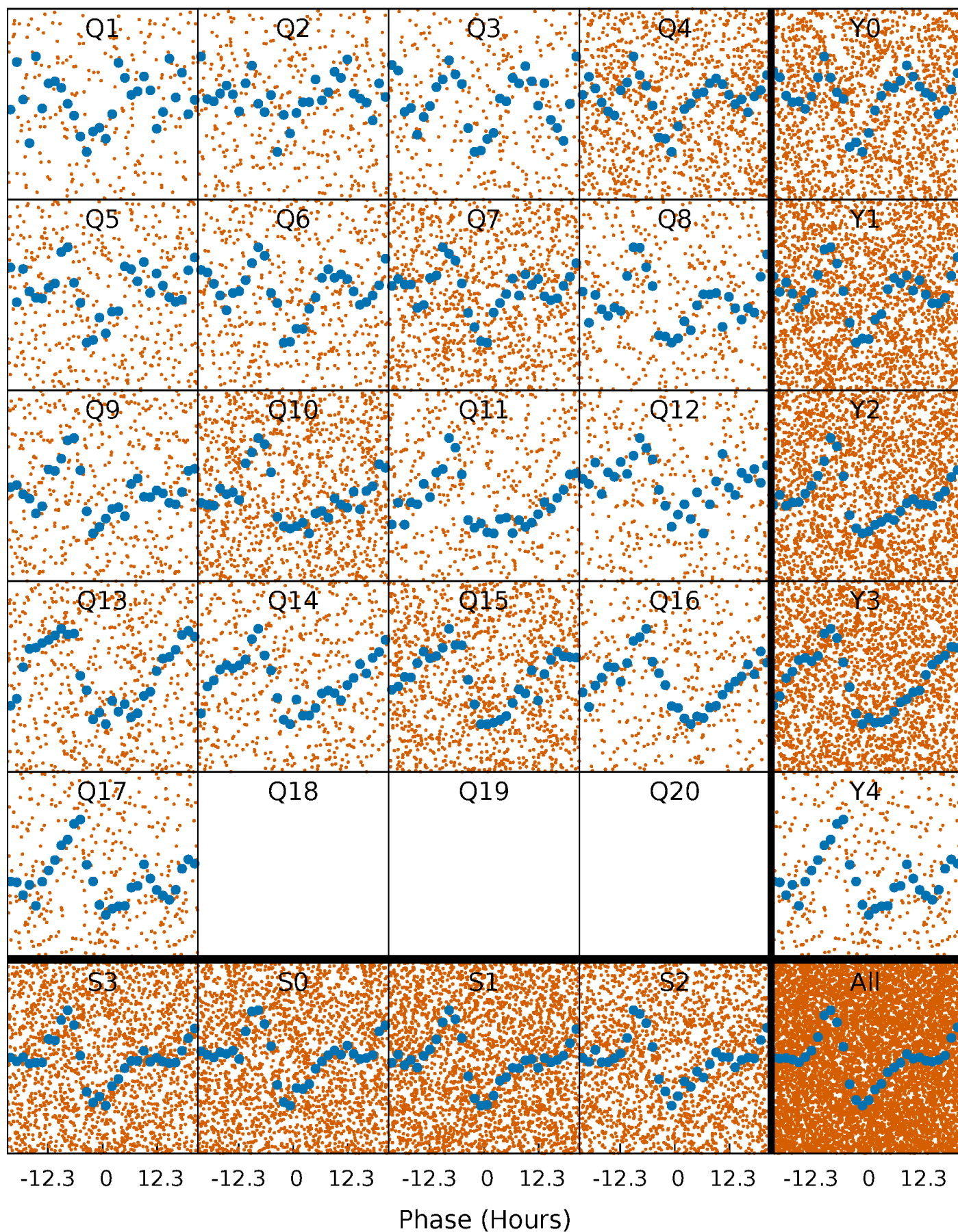


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



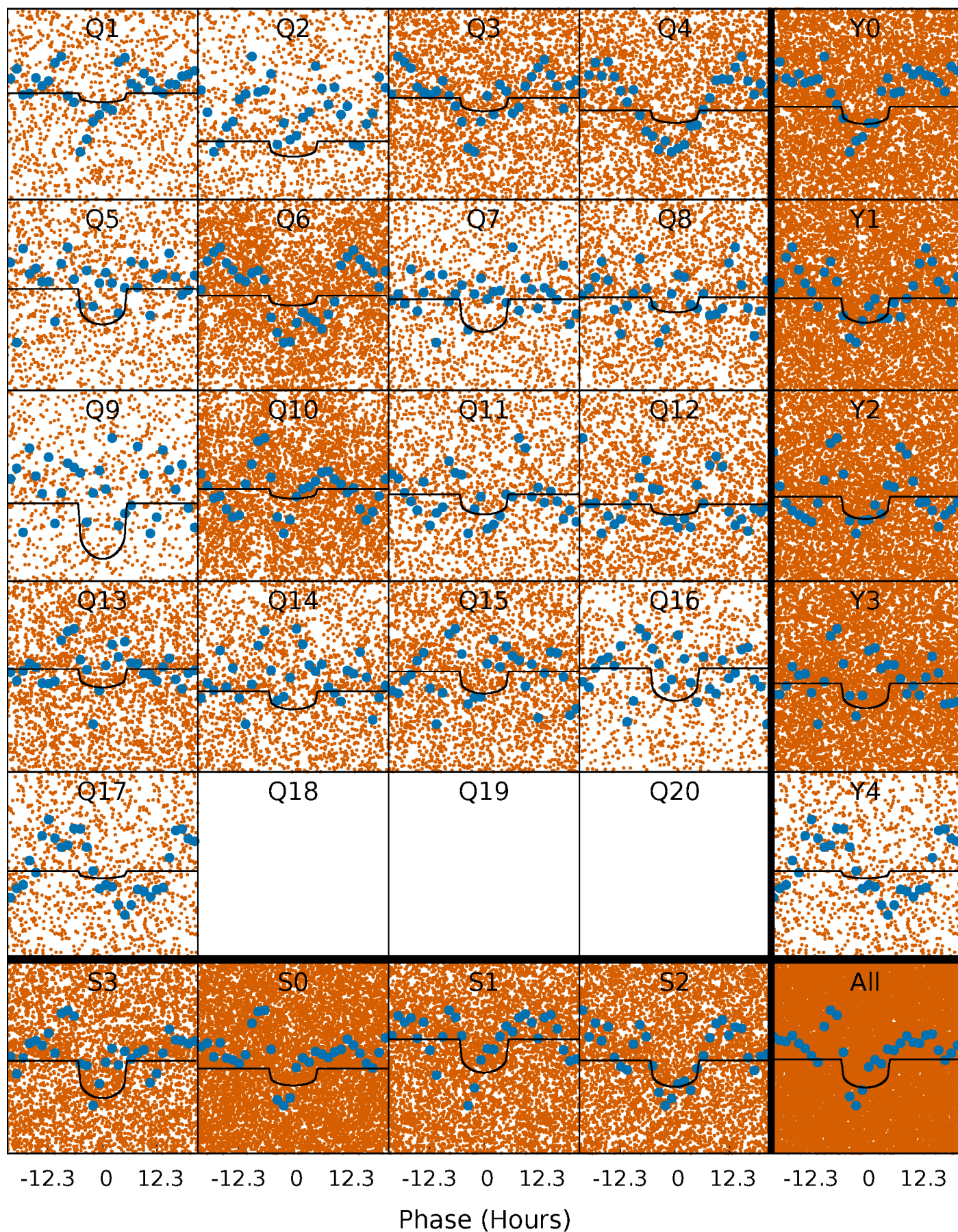
PDC Quarter-Phased Transit Curves

TCE 005896353-01 P= 1.271605 Days $T_0=131.805611$ (BKJD)



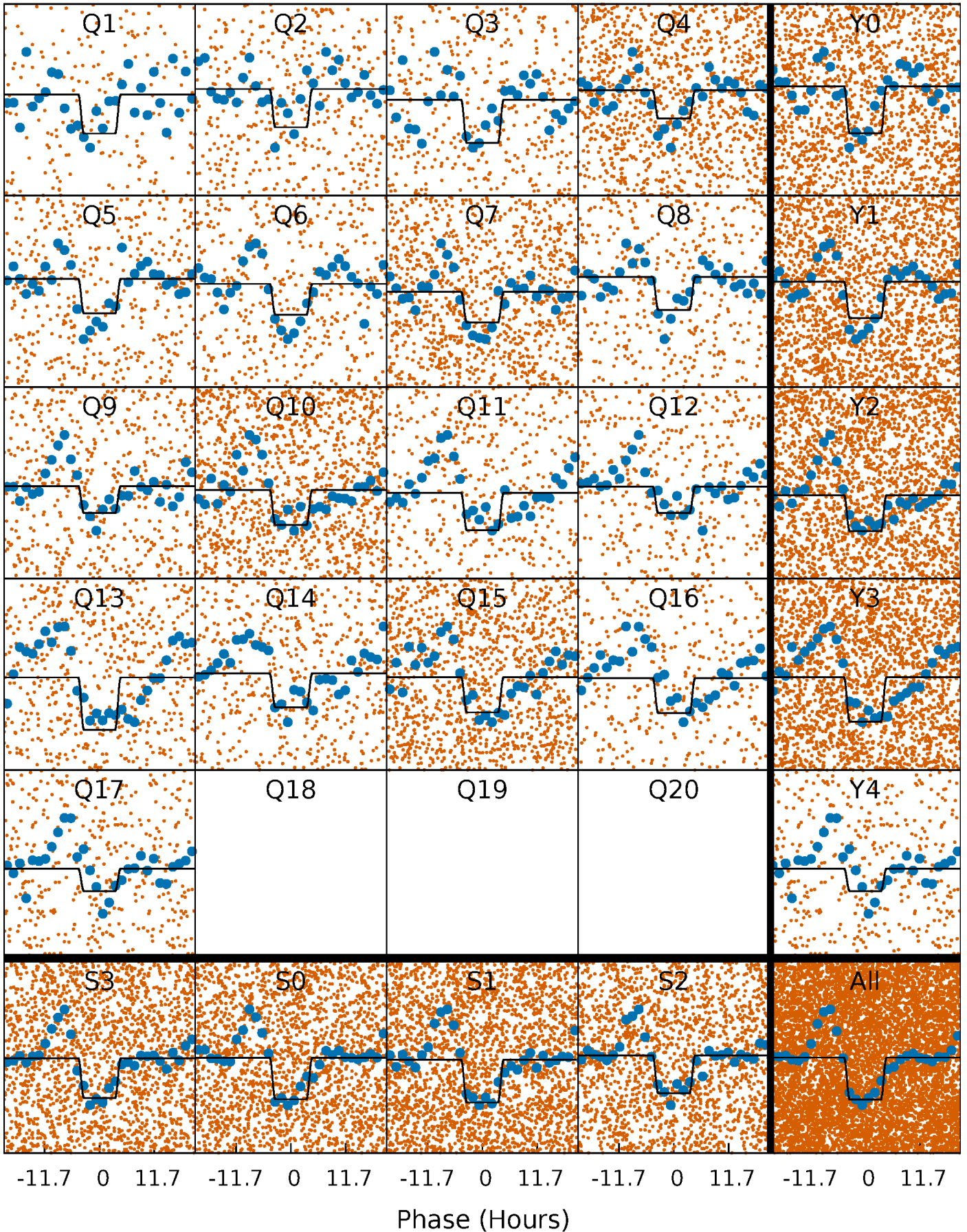
DV Quarter-Phased Transit Curves

TCE 005896353-01 P= 1.271605 Days $T_0=131.805611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

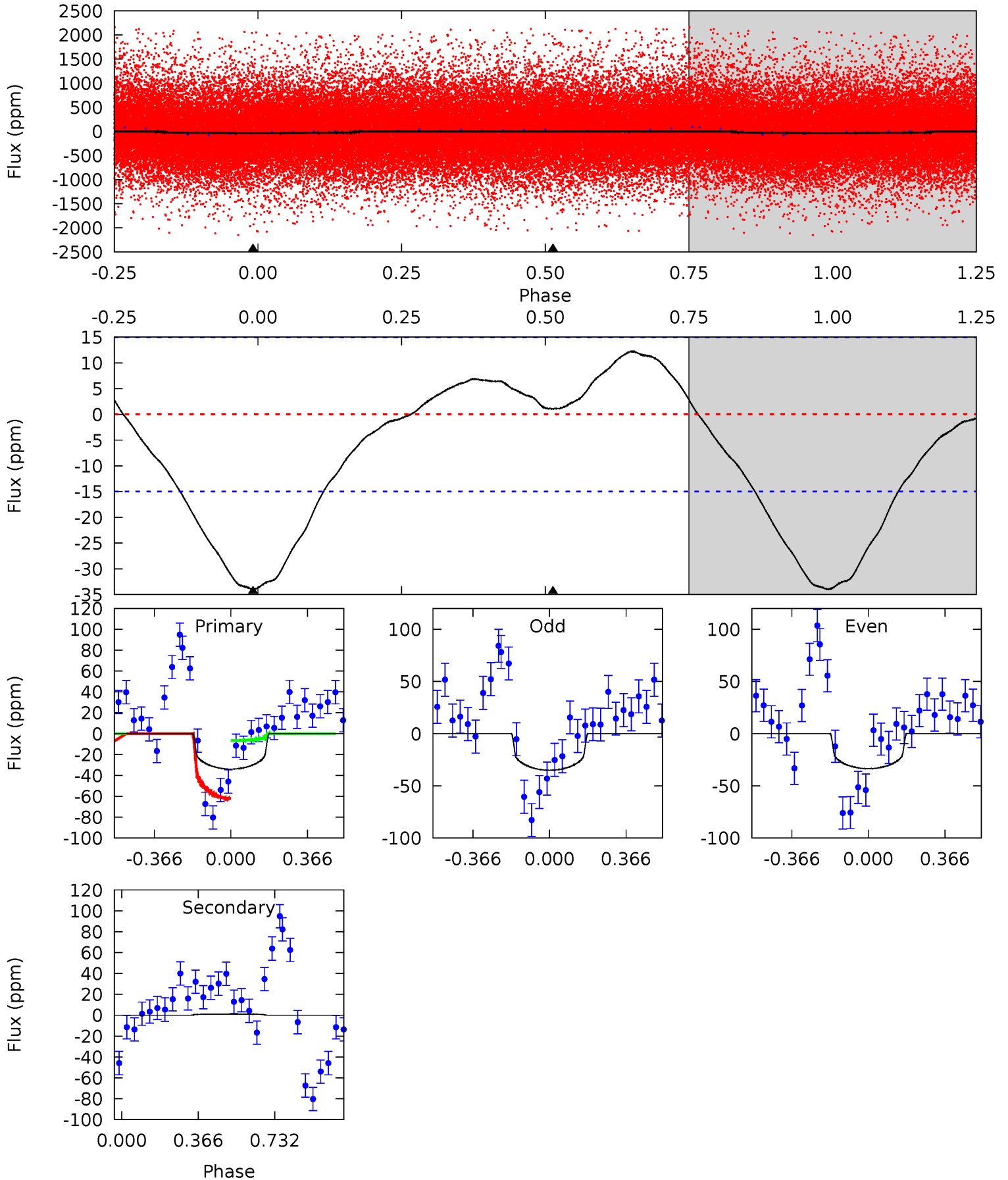
TCE 005896353-01 P= 1.271632 Days $T_0=131.796913$ (BKJD)



DV Model-Shift Uniqueness Test

005896353-01, P = 1.271605 Days, E = 130.534006 Days

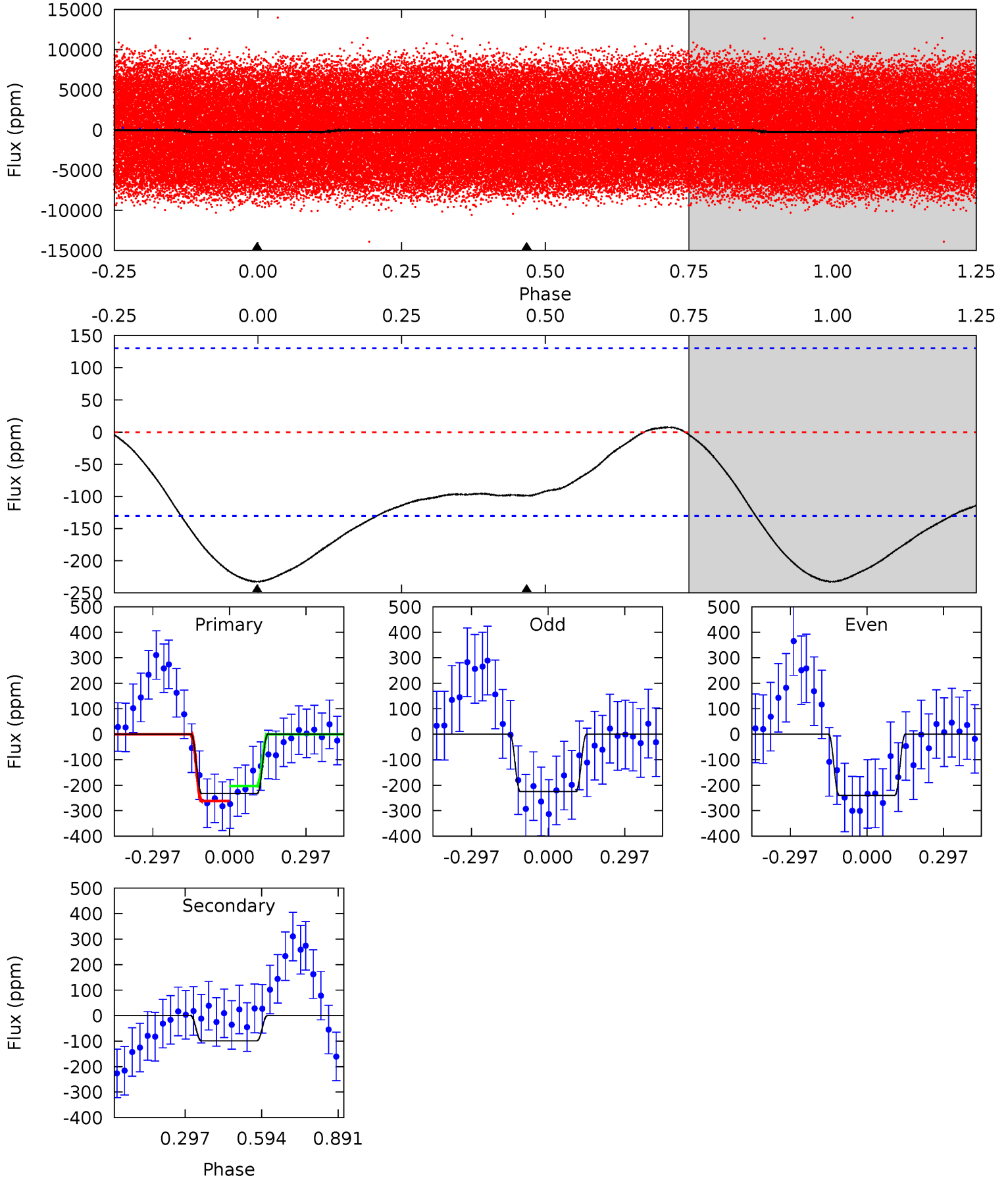
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.71	-0.31	0	0	4.28	0.90	0.50	9.71	9.71	-0.31	-0.31	0.22	0.96	0.26	8.06



Alt Model-Shift Uniqueness Test

005896353-01, P = 1.271632 Days, E = 130.525281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.72	3.28	0	0	4.33	1.04	1.60	7.72	7.72	3.28	3.28	0.23	1.02	0.03	0.97



Stellar Parameters For KIC 005896353

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6197^{+201}_{-223}	$3.614^{+0.664}_{-0.125}$	$-0.320^{+0.300}_{-0.300}$	$3.097^{+0.643}_{-1.930}$	$1.439^{+0.169}_{-0.474}$	$0.068^{+0.859}_{-0.026}$
	+3%/-4%	+18%/-3%	+94%/-94%	+21%/-62%	+12%/-33%	+1259%/-38%
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 005896353-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	1 ± 3	$2.01^{+1.79}_{-1.23}$	4017^{+361}_{-666}	-3837^{+858}_{-785}	$-0.065^{+0.265}_{-0.872}$
Alt.	-99 ± 30	$4.70^{+2.24}_{-1.87}$	4034^{+350}_{-634}	4704^{+1145}_{-829}	$1.546^{+2.732}_{-0.866}$

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

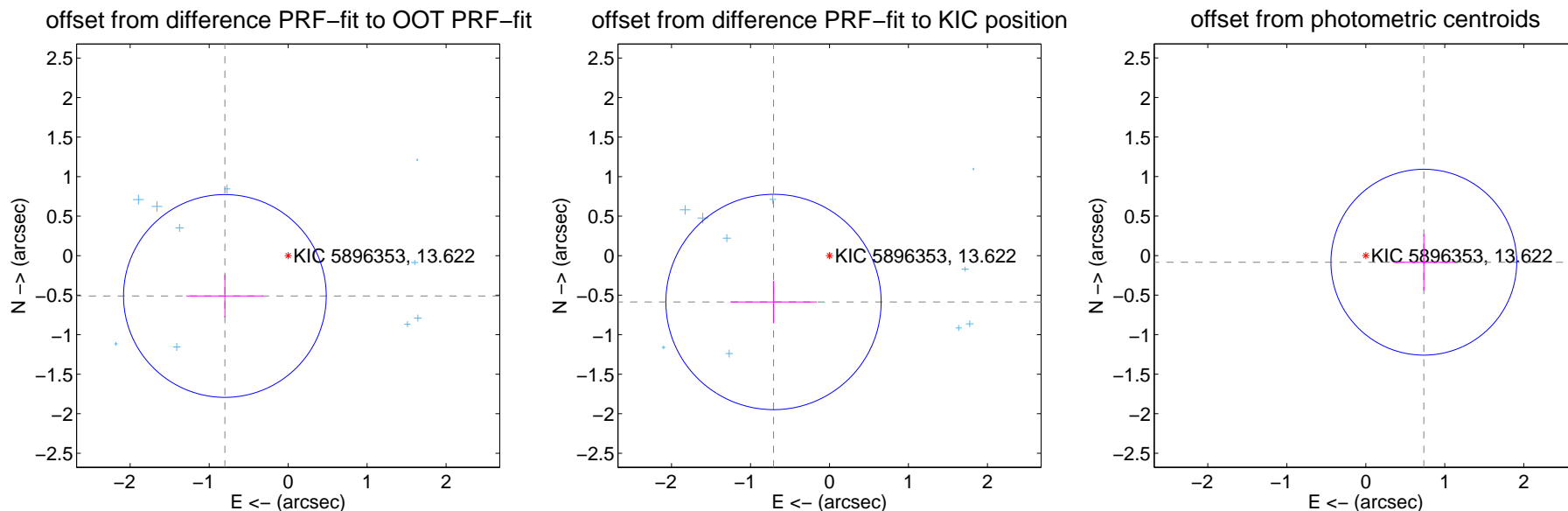
DV Centroid Data

Supplemental centroid analysis for 005896353-01. Kepler magnitude: 13.62. Transit SNR 10.85

There are 10 quarters with good PRF difference image offsets

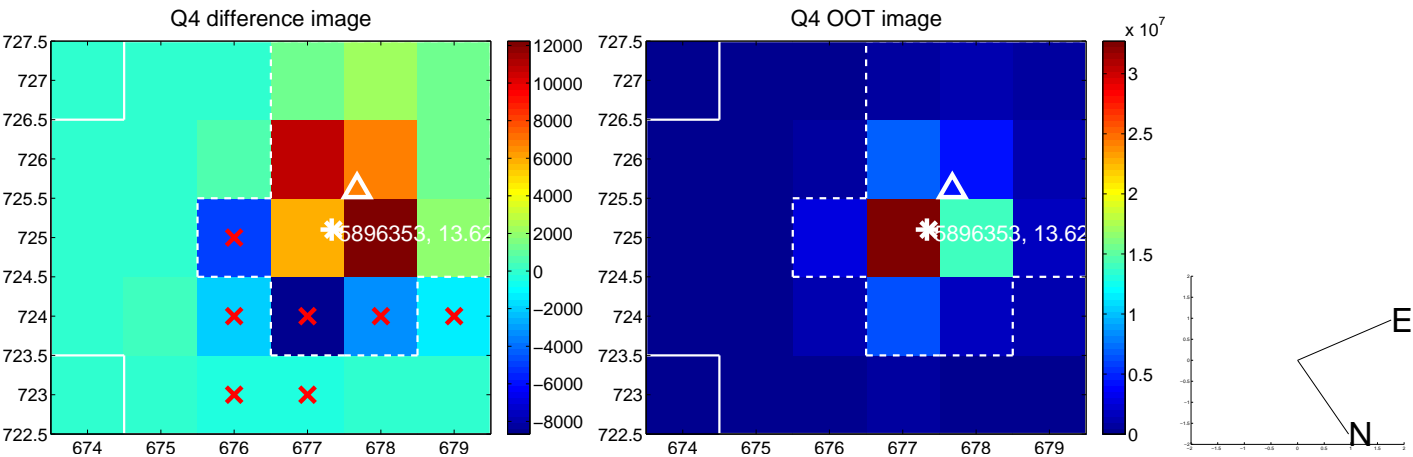
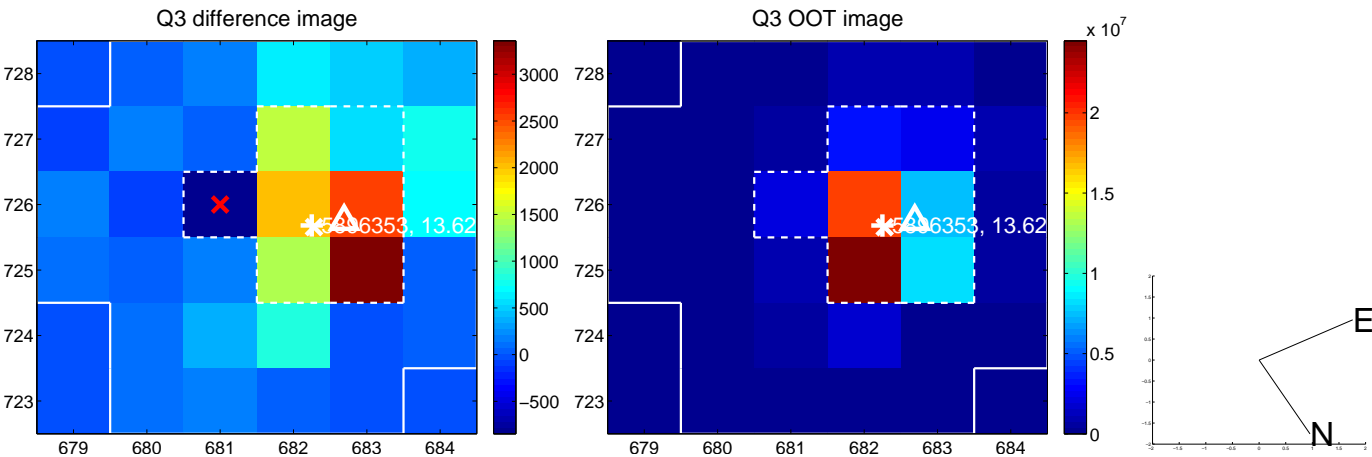
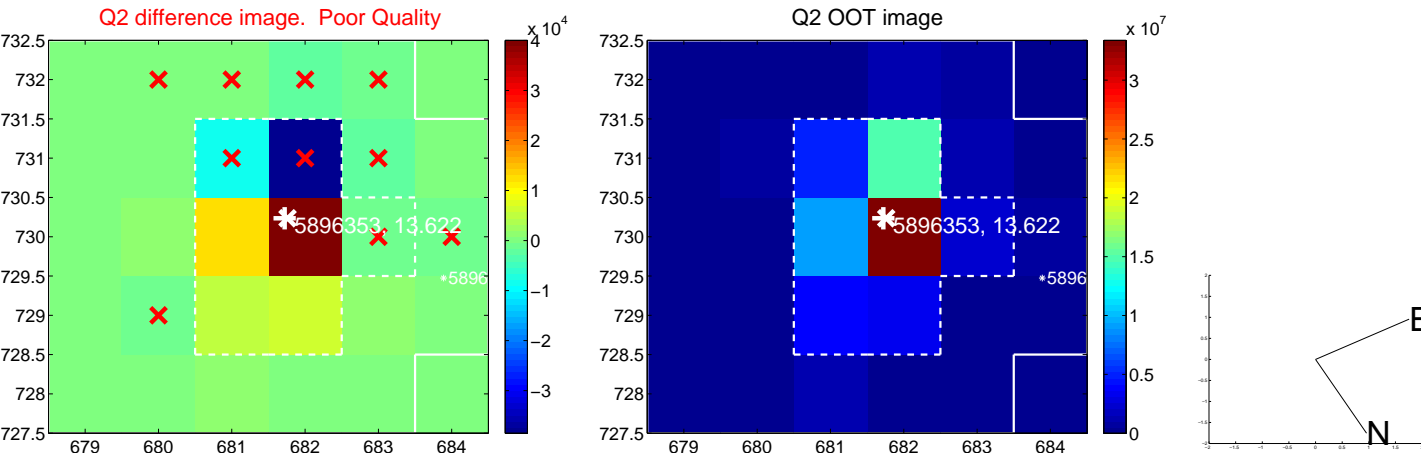
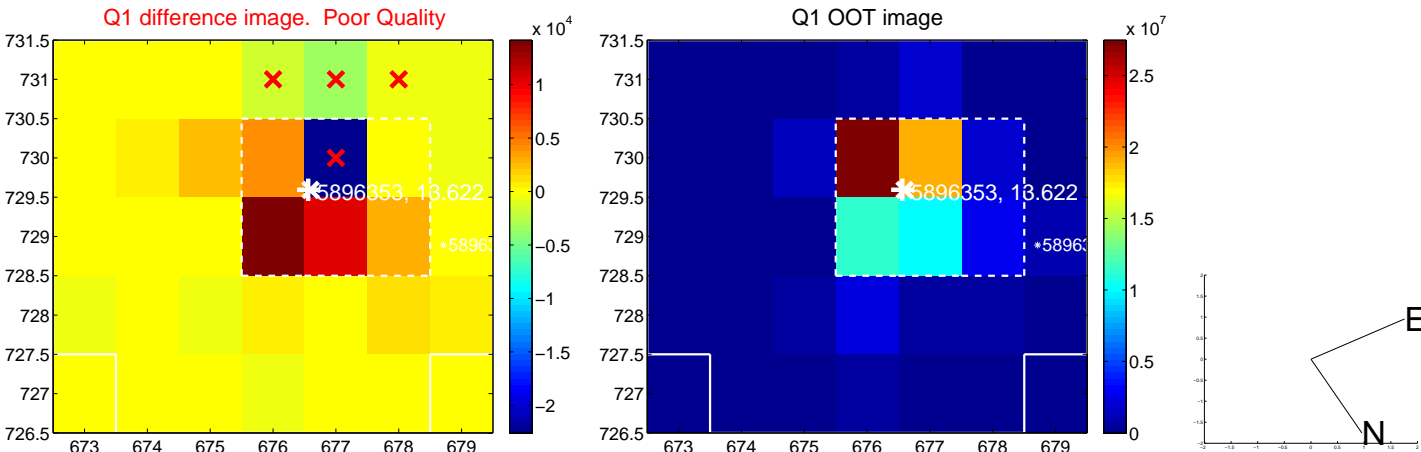
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.949 ± 0.428	2.22	0.800 ± 0.488	-0.510 ± 0.271
PRF-fit source offset from KIC position	0.920 ± 0.454	2.02	0.709 ± 0.548	-0.586 ± 0.267
photometric centroid source offset	0.74 ± 0.39	1.89	-0.73 ± 0.39	-0.08 ± 0.36

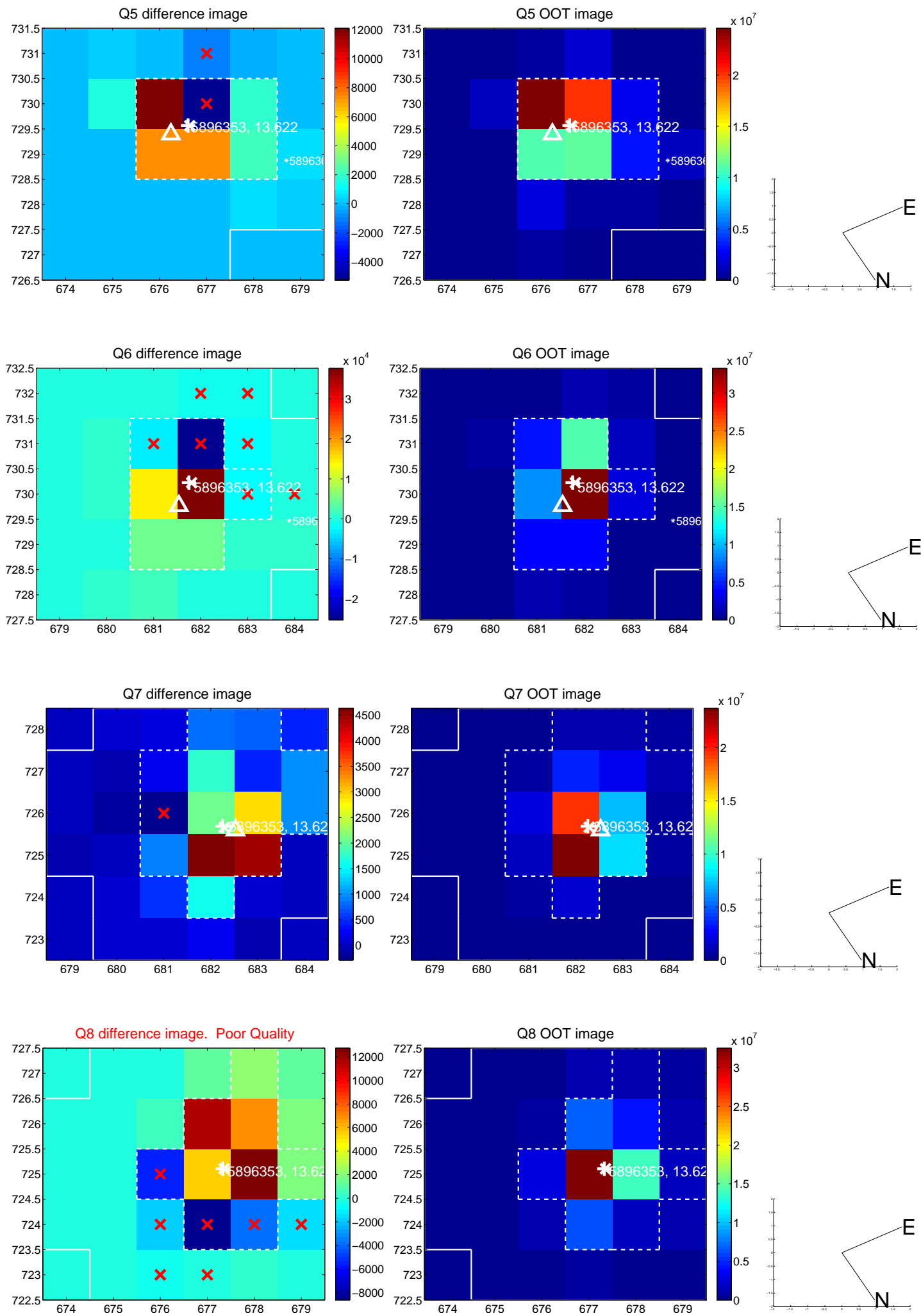


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

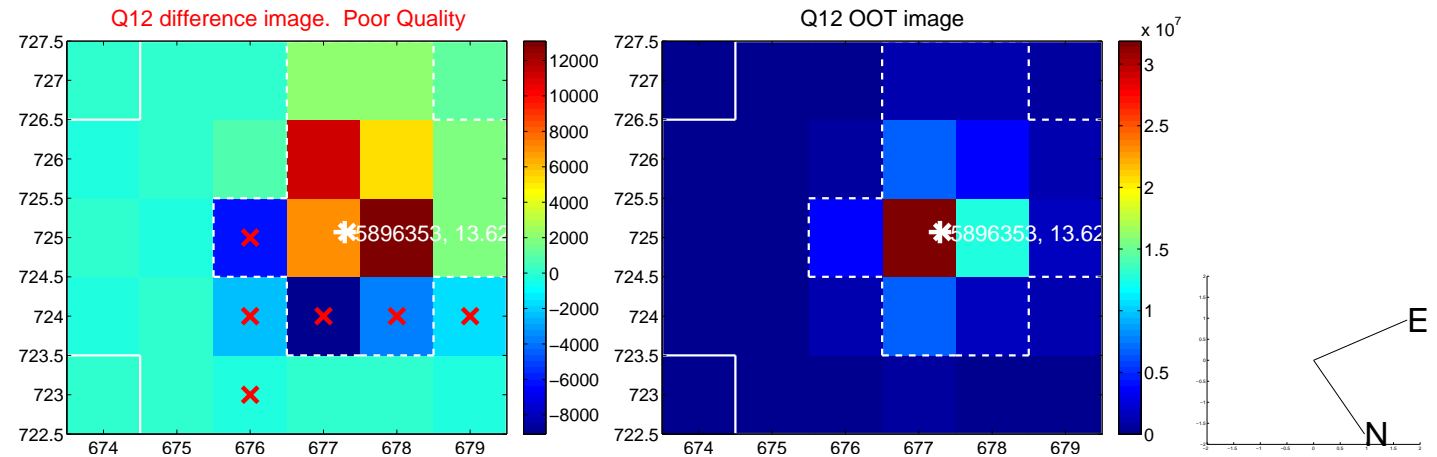
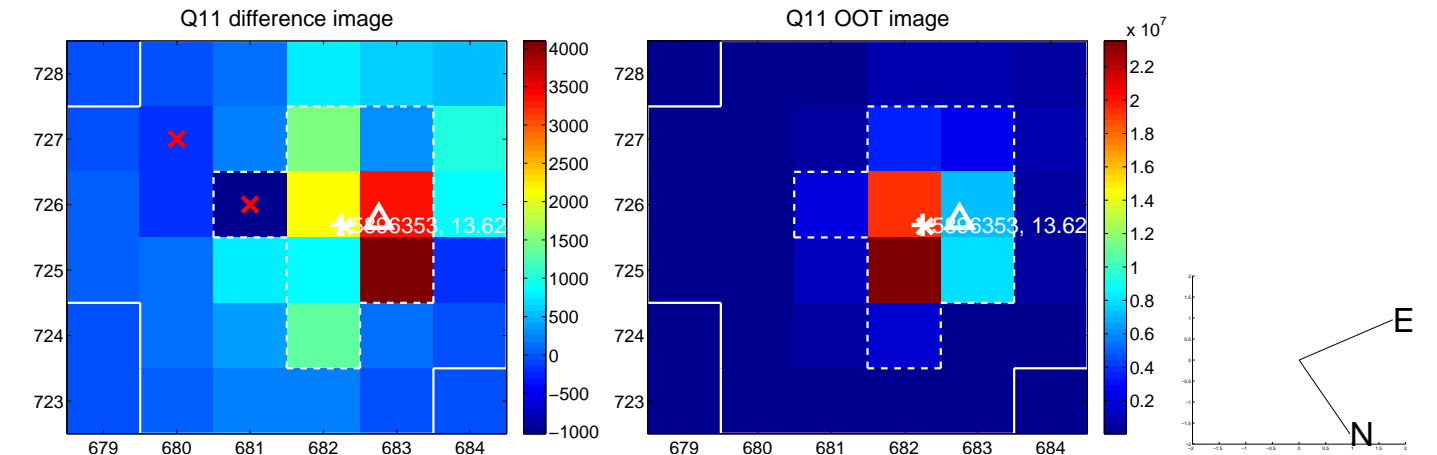
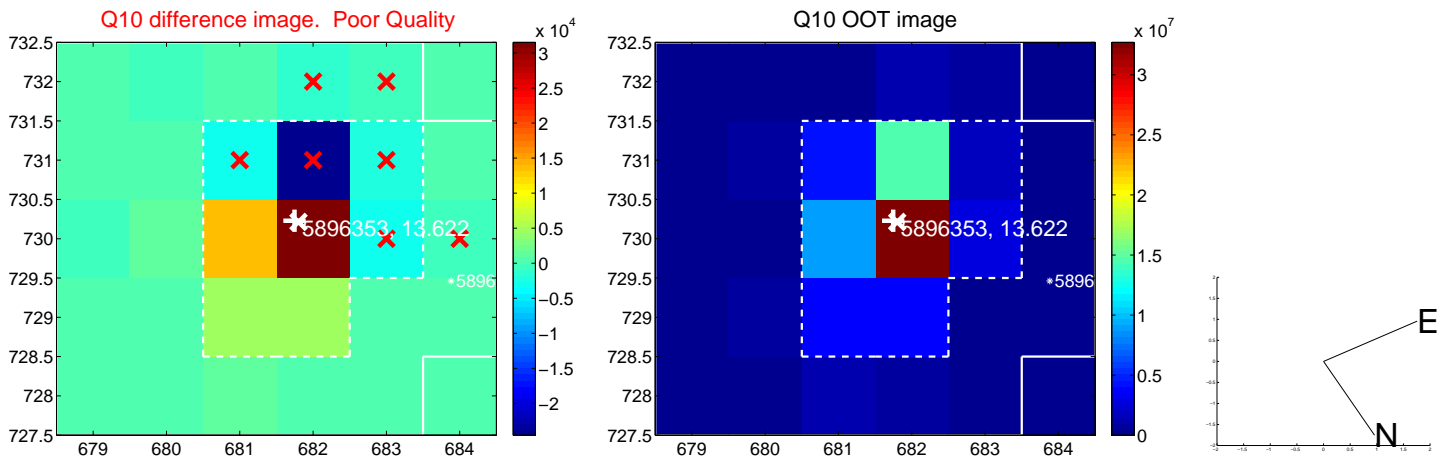
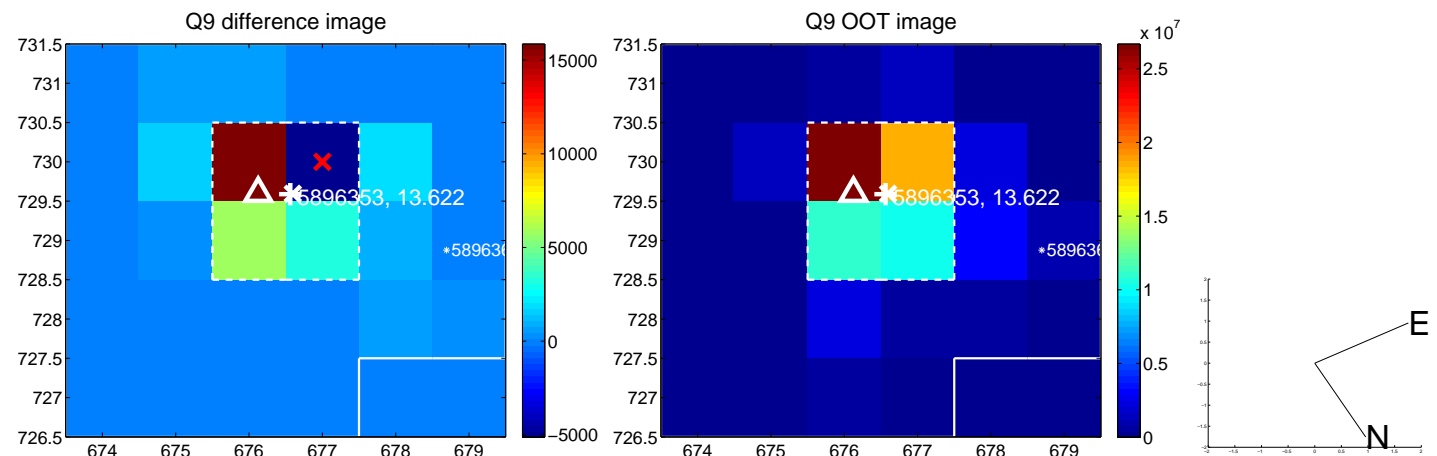
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



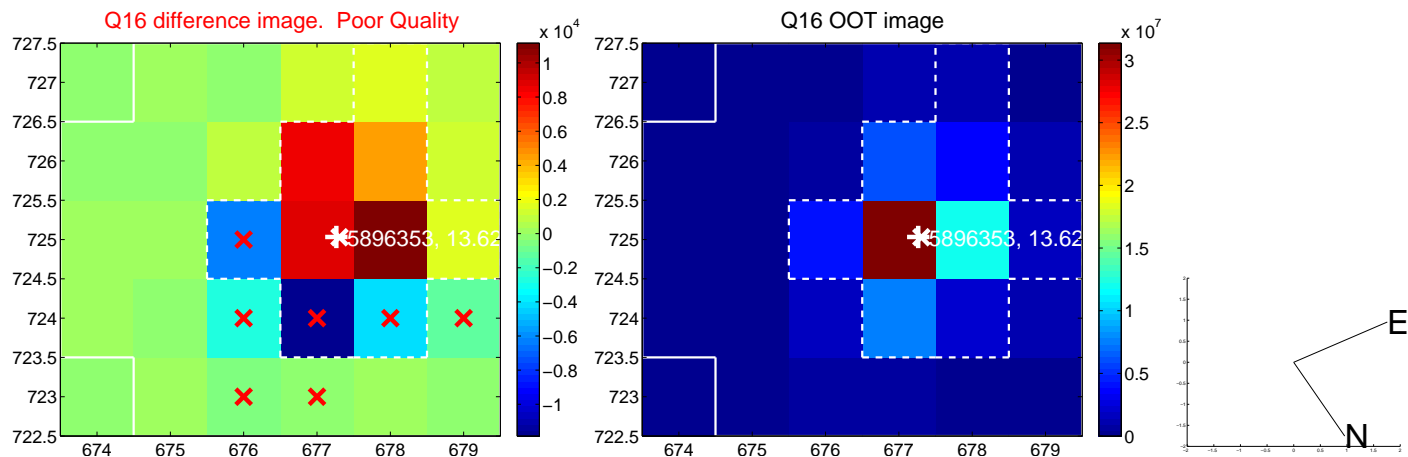
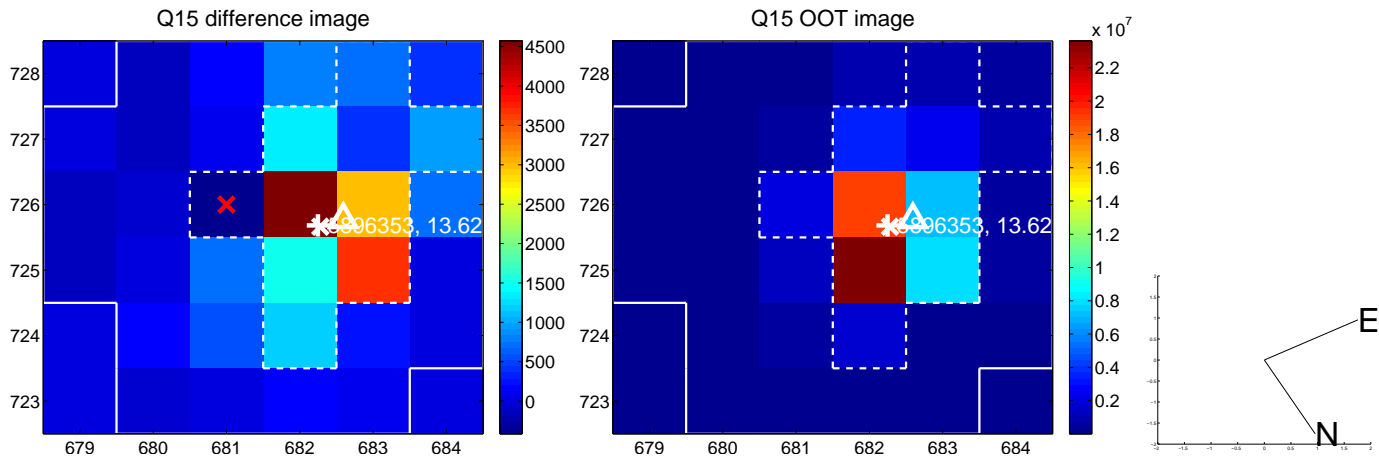
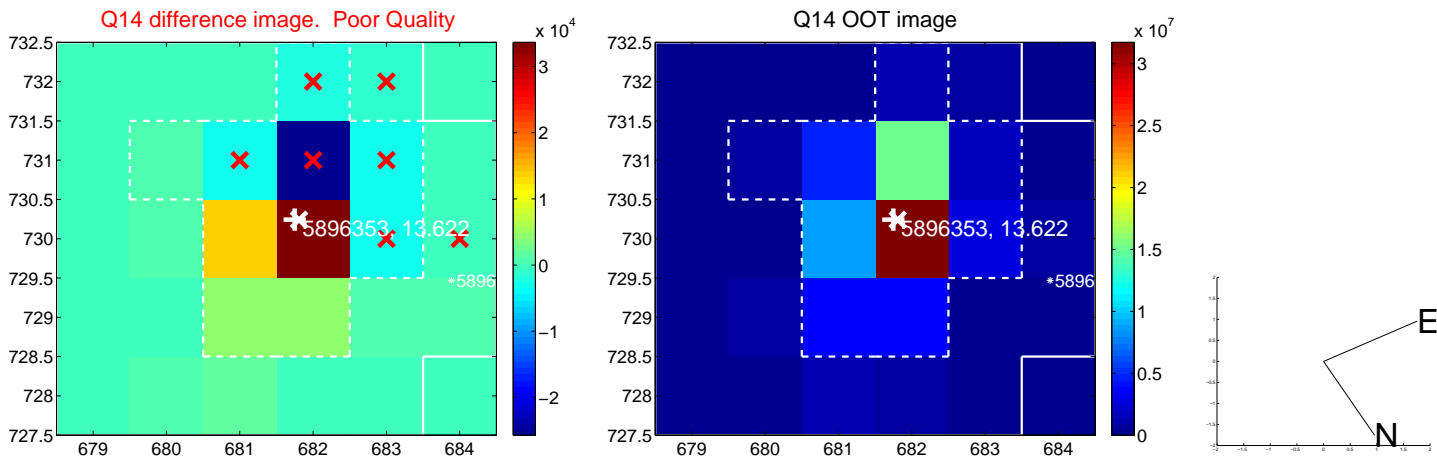
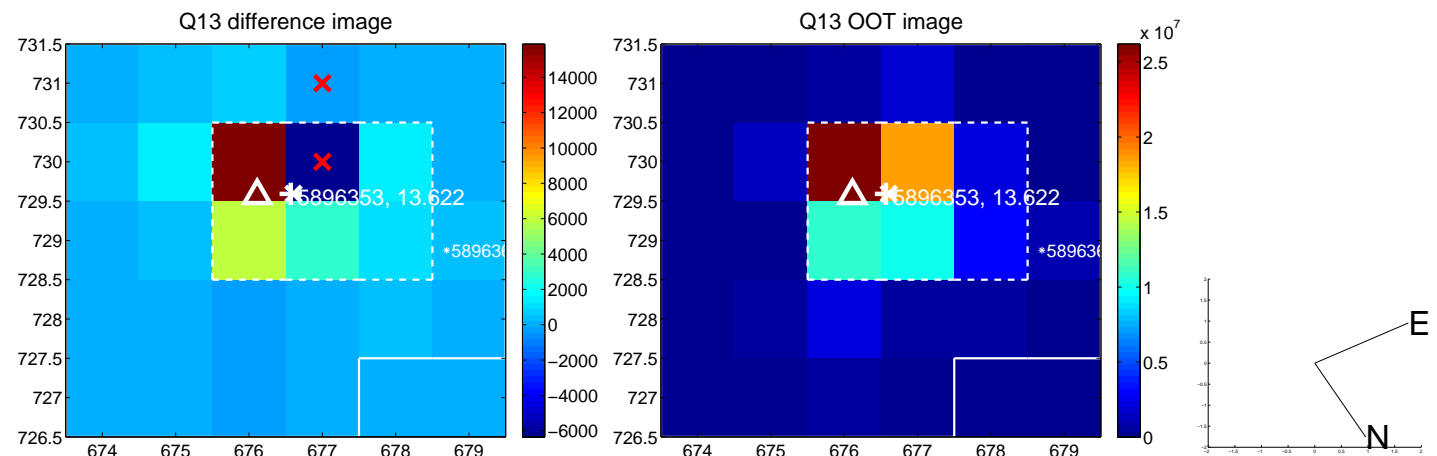
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

