

KIC 010033279

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})
010033279-01	OBS	1604.01	72.491382	139.779288	1123.9	3.585	44.3	43.0	2.76	5754	13.65	56.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010033279-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_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 010033279-01

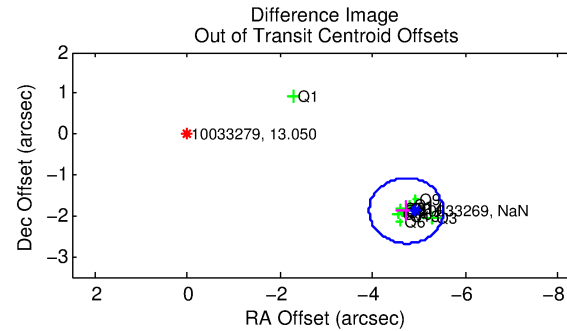
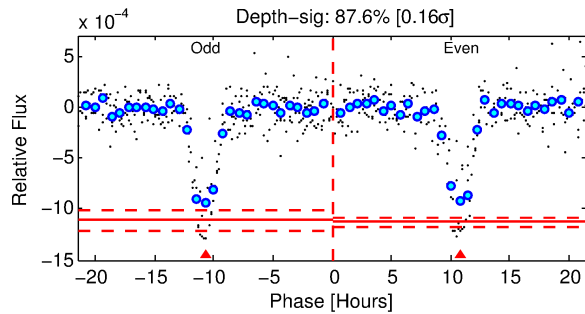
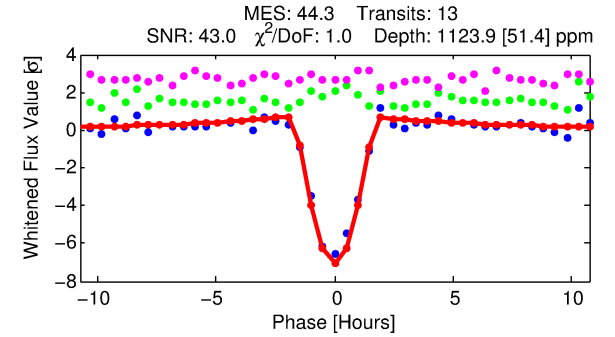
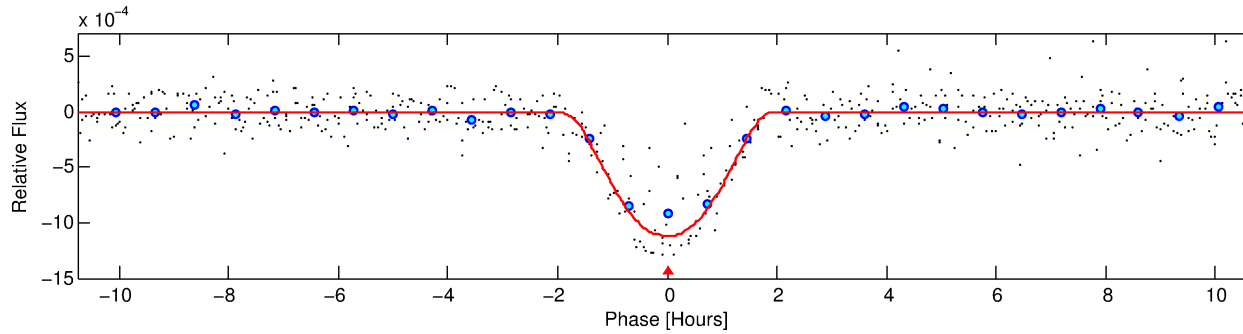
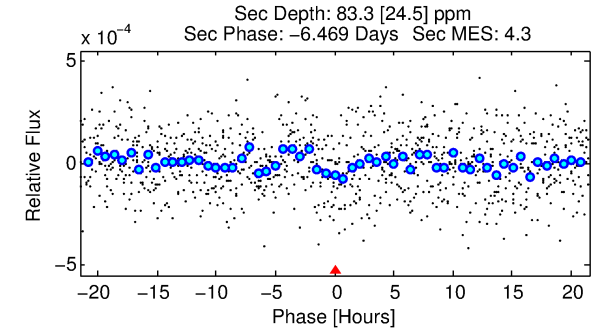
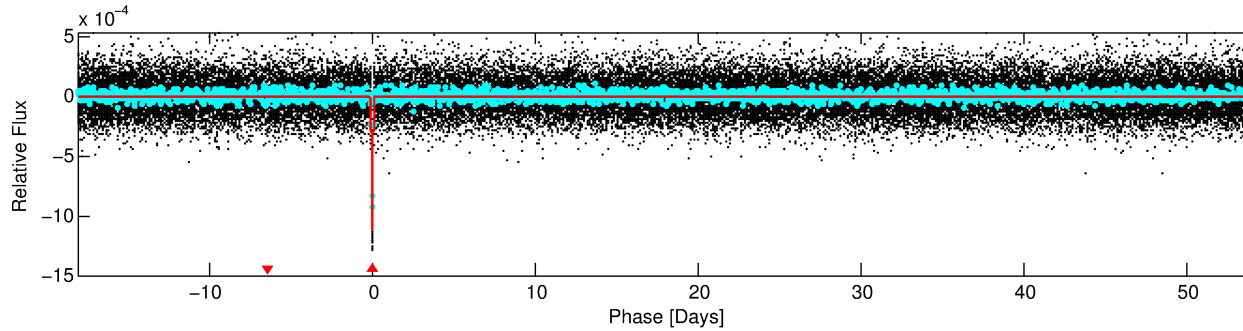
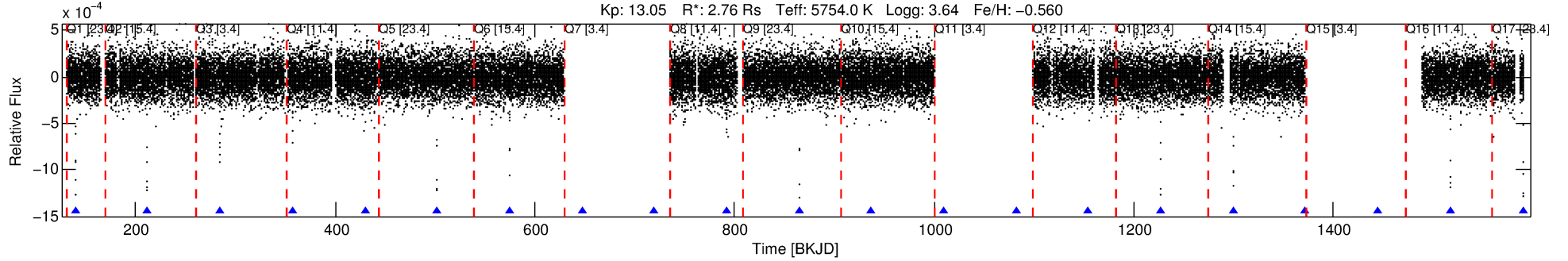
No Significant Match Found

DV One-Page Summary

KIC: 10033279 Candidate: 1 of 1 Period: 72.491 d

KOI: K01604.01 Corr: 0.991

Kp: 13.05 R*: 2.76 Rs Teff: 5754.0 K Logg: 3.64 Fe/H: -0.560



DV Fit Results:

Period = 72.49138 [0.00014] d
Epoch = 139.7793 [0.0015] BKJD
Rp/R* = 0.0453 [0.0127]
a/R* = 57.57 [6.92]
b = 0.98 [0.03]
Seff = 56.86 [28.78]
Teq = 700 [89] K
Rp = 13.65 [6.21] Re
a = 0.3625 [0.1165] AU
Ag = 32.33 [25.90] [1.21σ]
Teffp = 2581 [415] K [4.43σ]

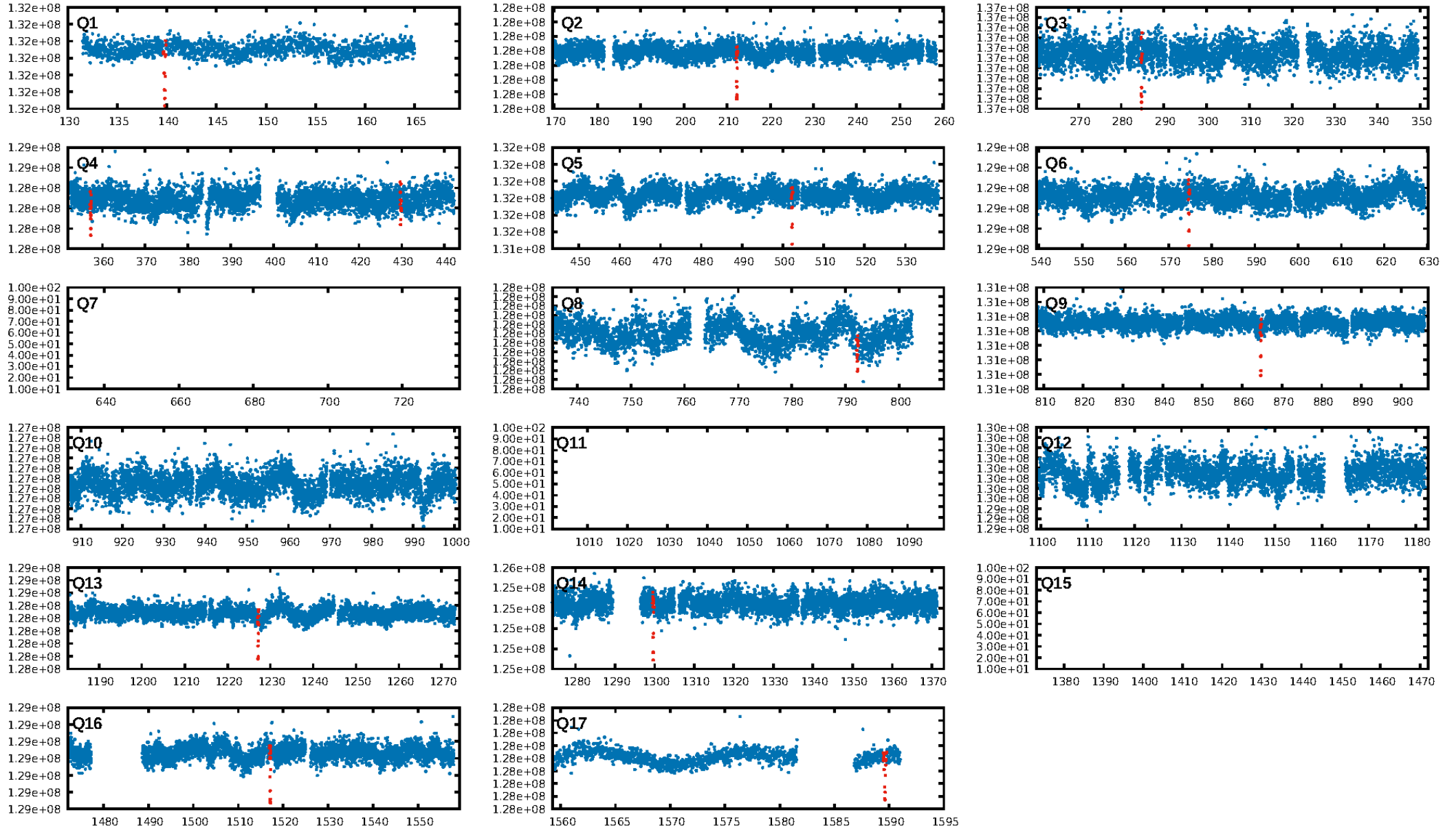
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 75.4%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 1.719
Centroid-sig: 0.0%
Centroid-so: 5.250 arcsec [21.14σ]
OotOffset-rm: 5.085 arcsec [19.05σ]
KicOffset-rm: 5.127 arcsec [18.87σ]
OotOffset-st: 3/1/3/5 [12]
KicOffset-st: 3/1/3/5 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

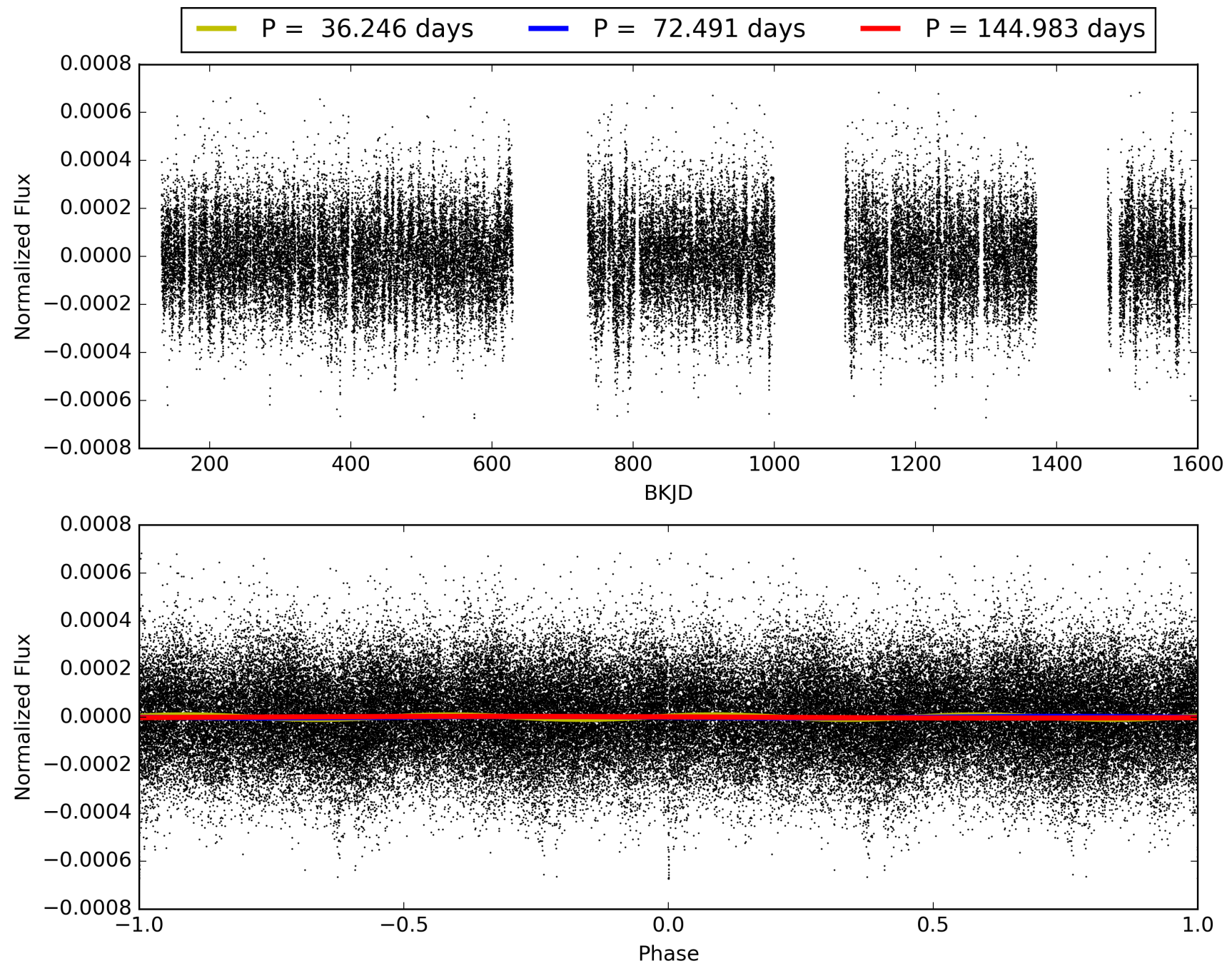
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:56:25 Z

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

TCE 010033279-01, PDC Light Curves

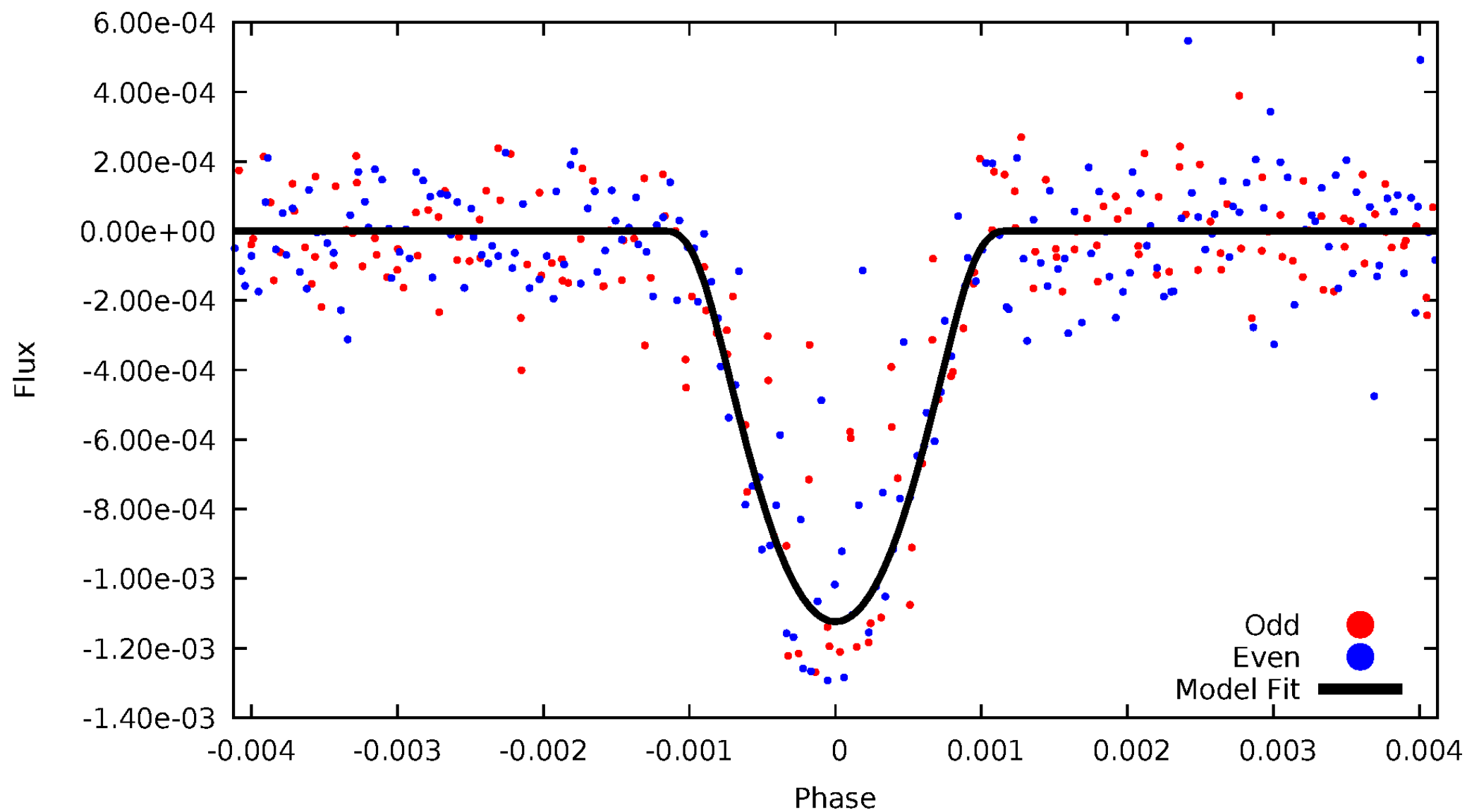


TCE 010033279-01



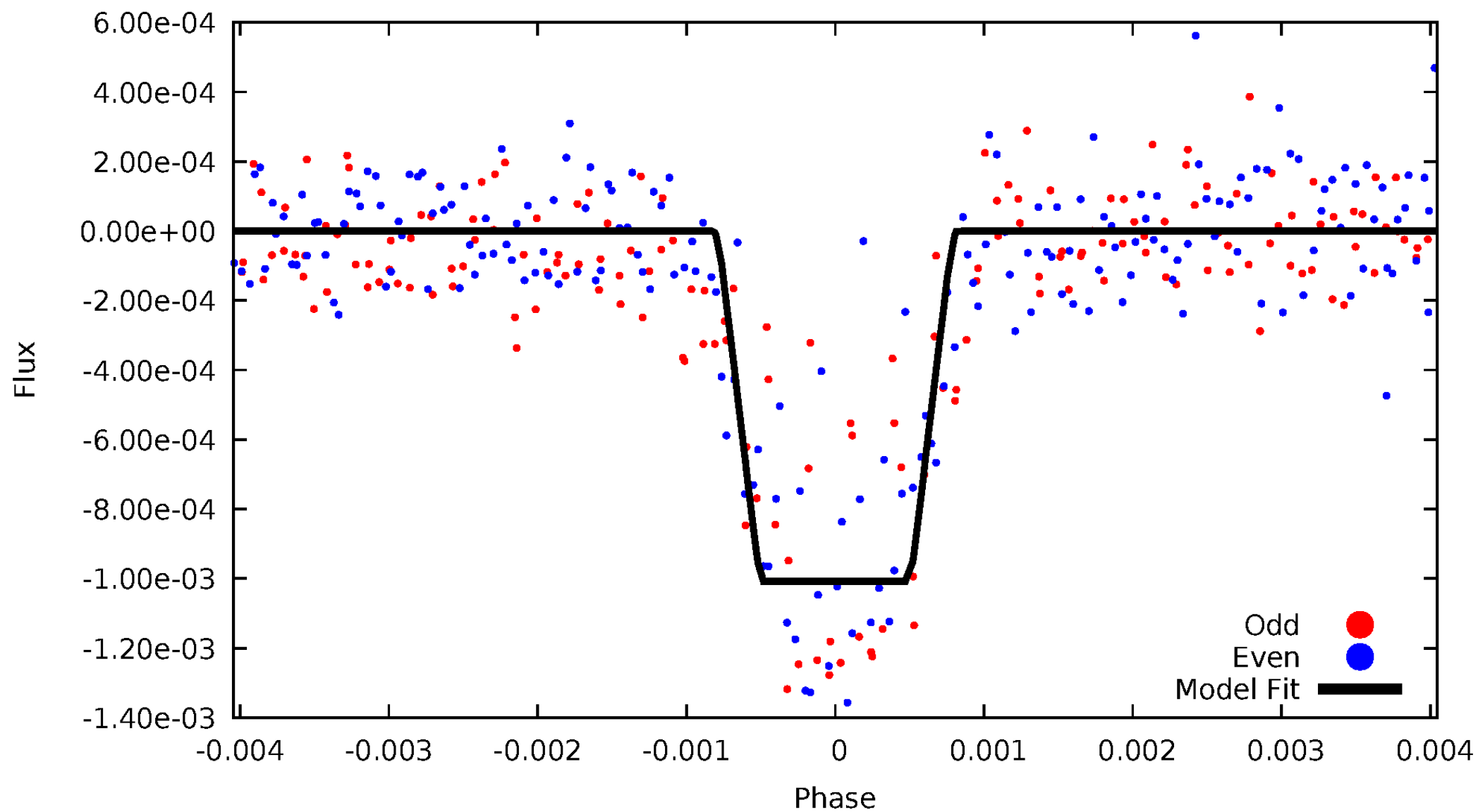
DV Odd/Even

TCE 010033279-01

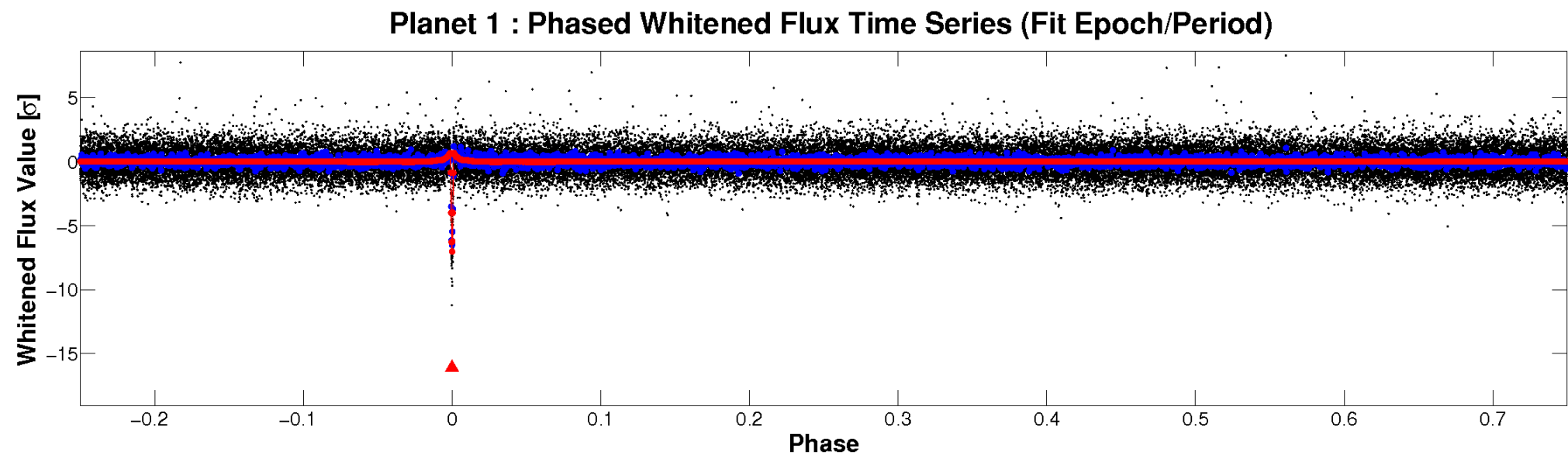
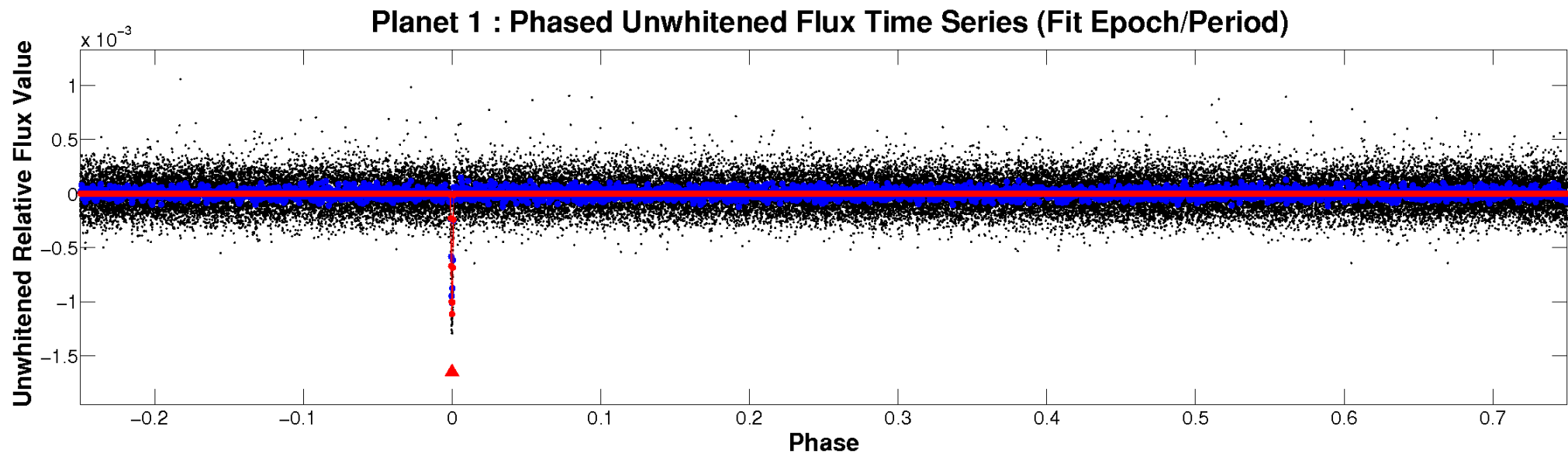


ALT Odd/Even

TCE 010033279-01

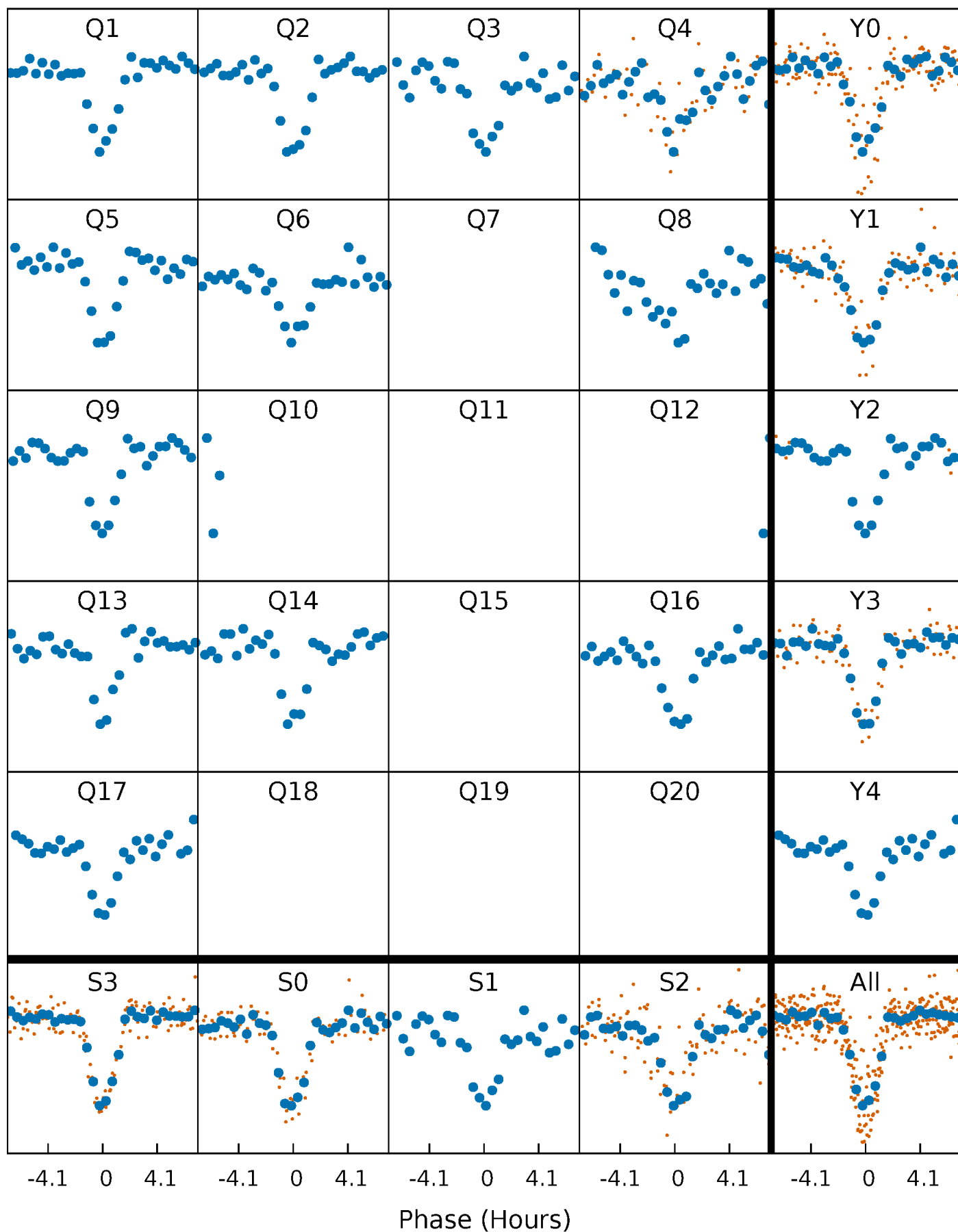


Non-Whitened Vs. Whitened Light Curve



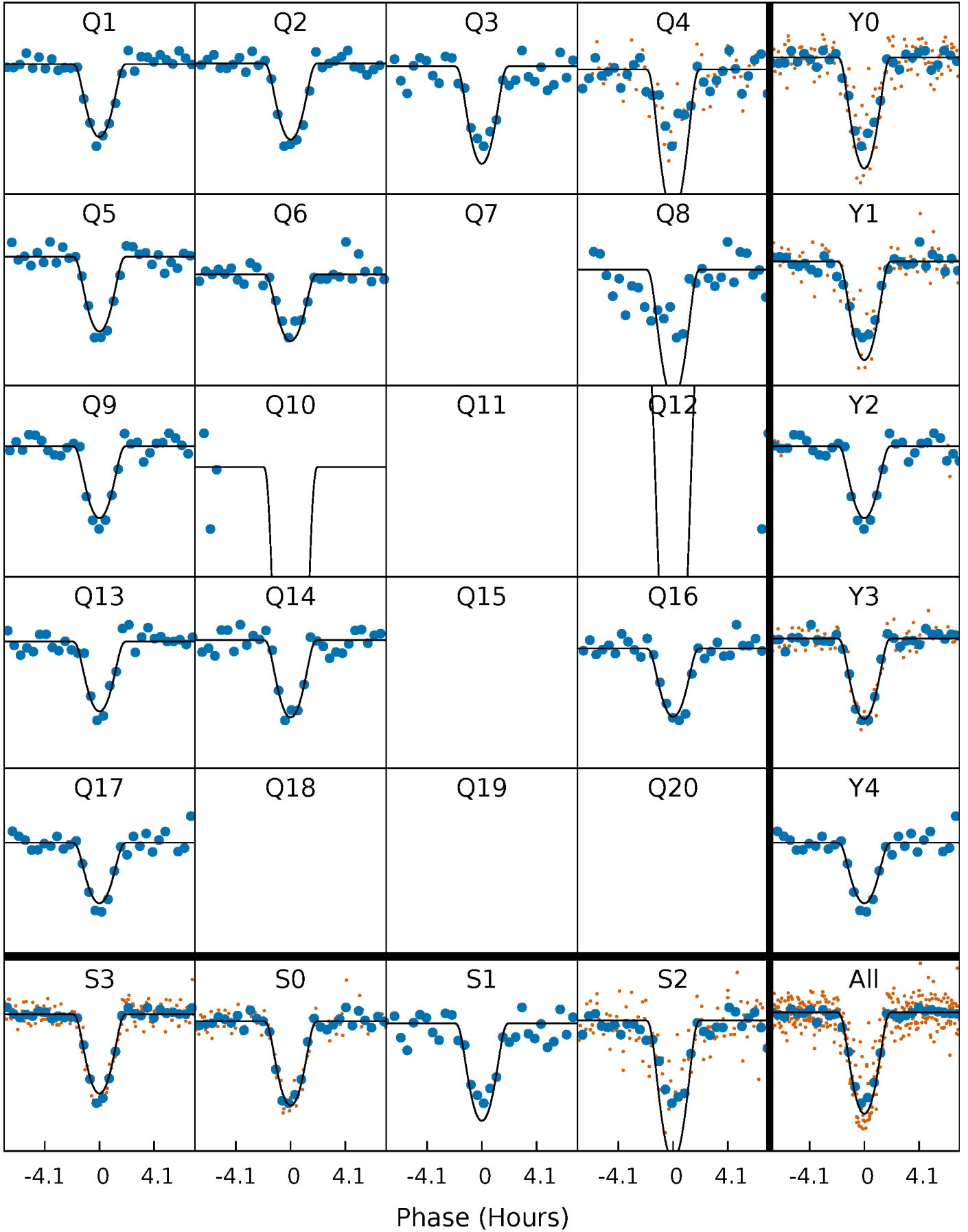
PDC Quarter-Phased Transit Curves

TCE 010033279-01 P= 72.491382 Days $T_0=139.779288$ (BKJD)



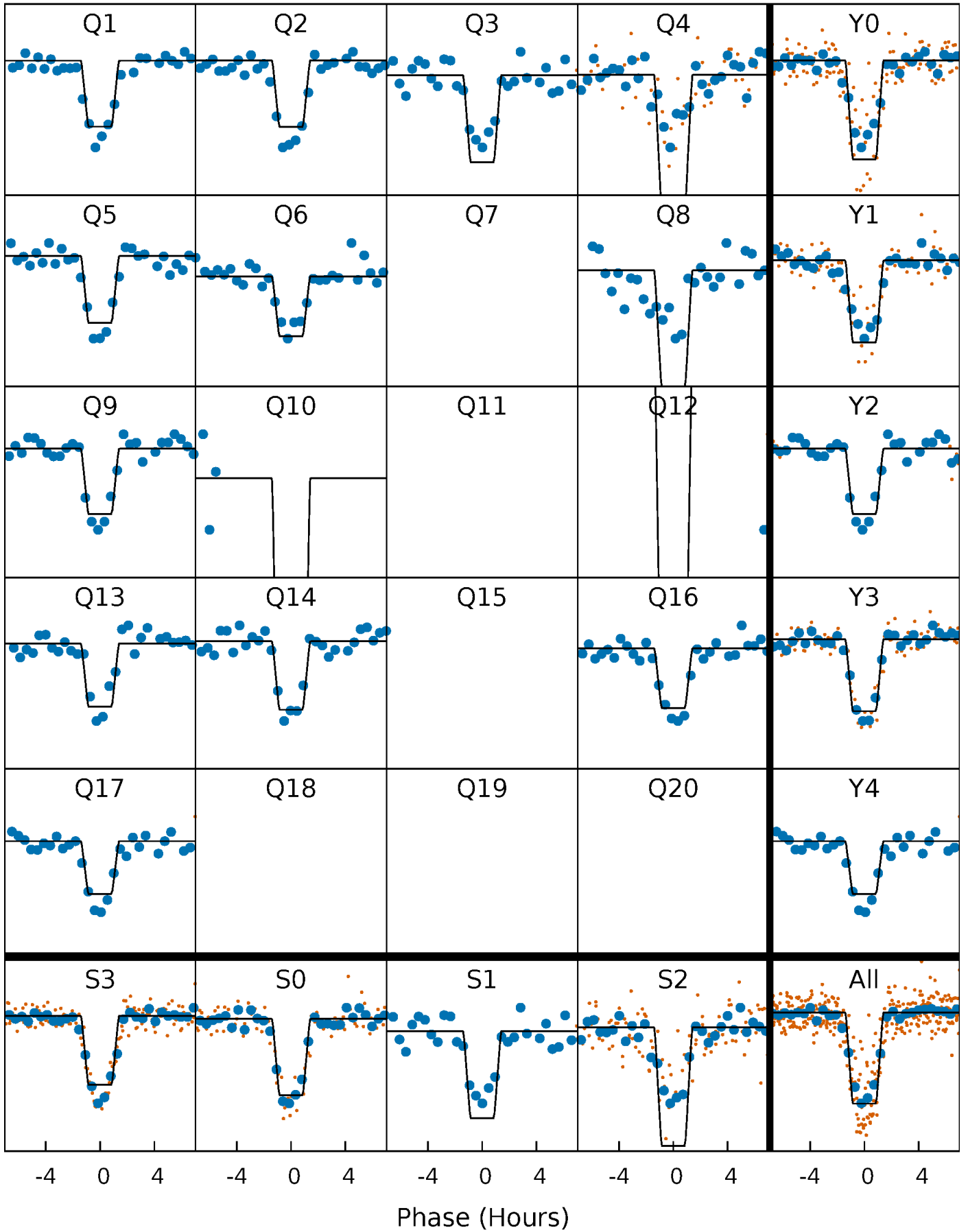
DV Quarter-Phased Transit Curves

TCE 010033279-01 P= 72.491382 Days $T_0=139.779288$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

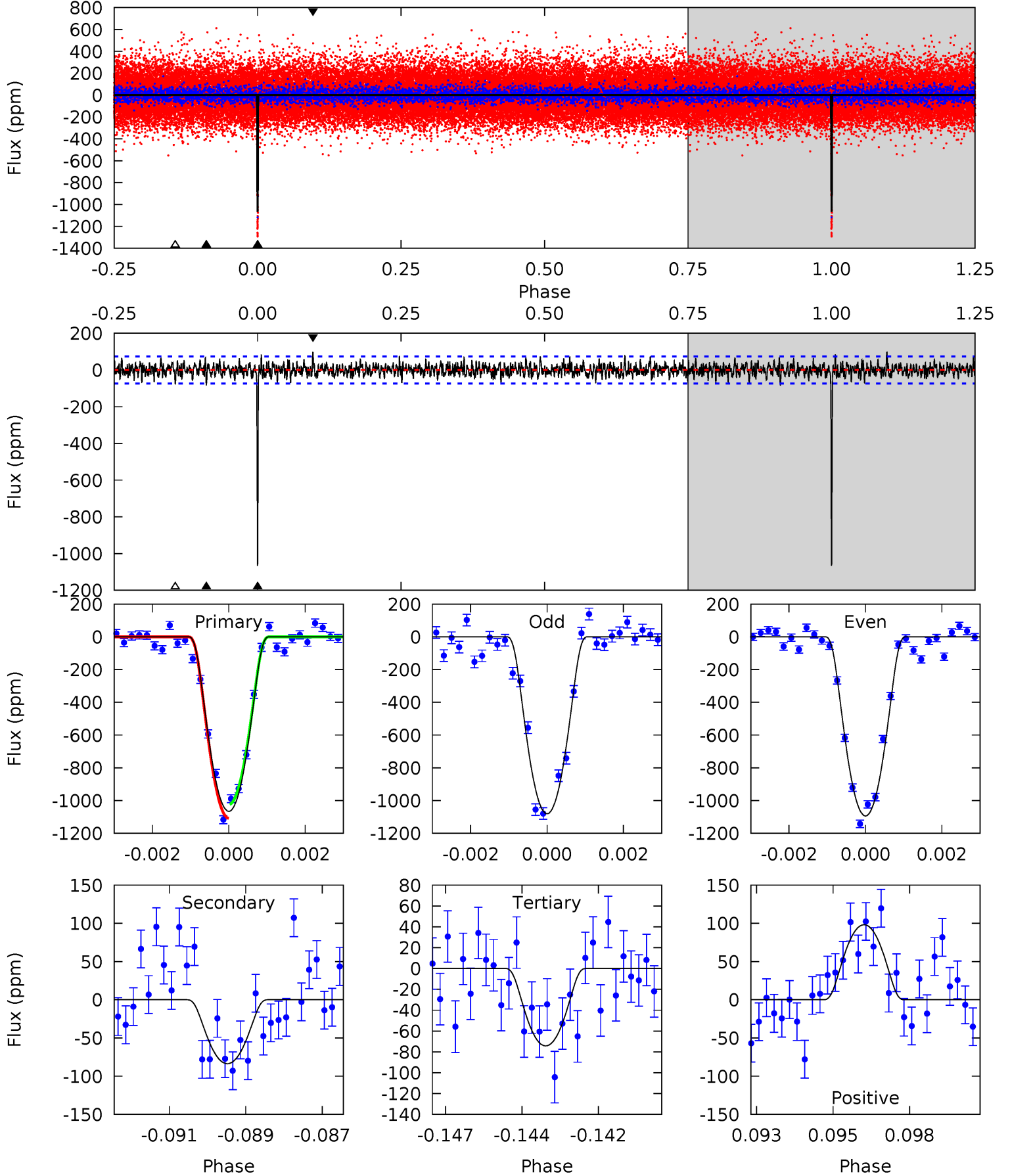
TCE 010033279-01 P= 72.491301 Days $T_0=139.779345$ (BKJD)



DV Model-Shift Uniqueness Test

010033279-01, P = 72.491382 Days, E = 67.287906 Days

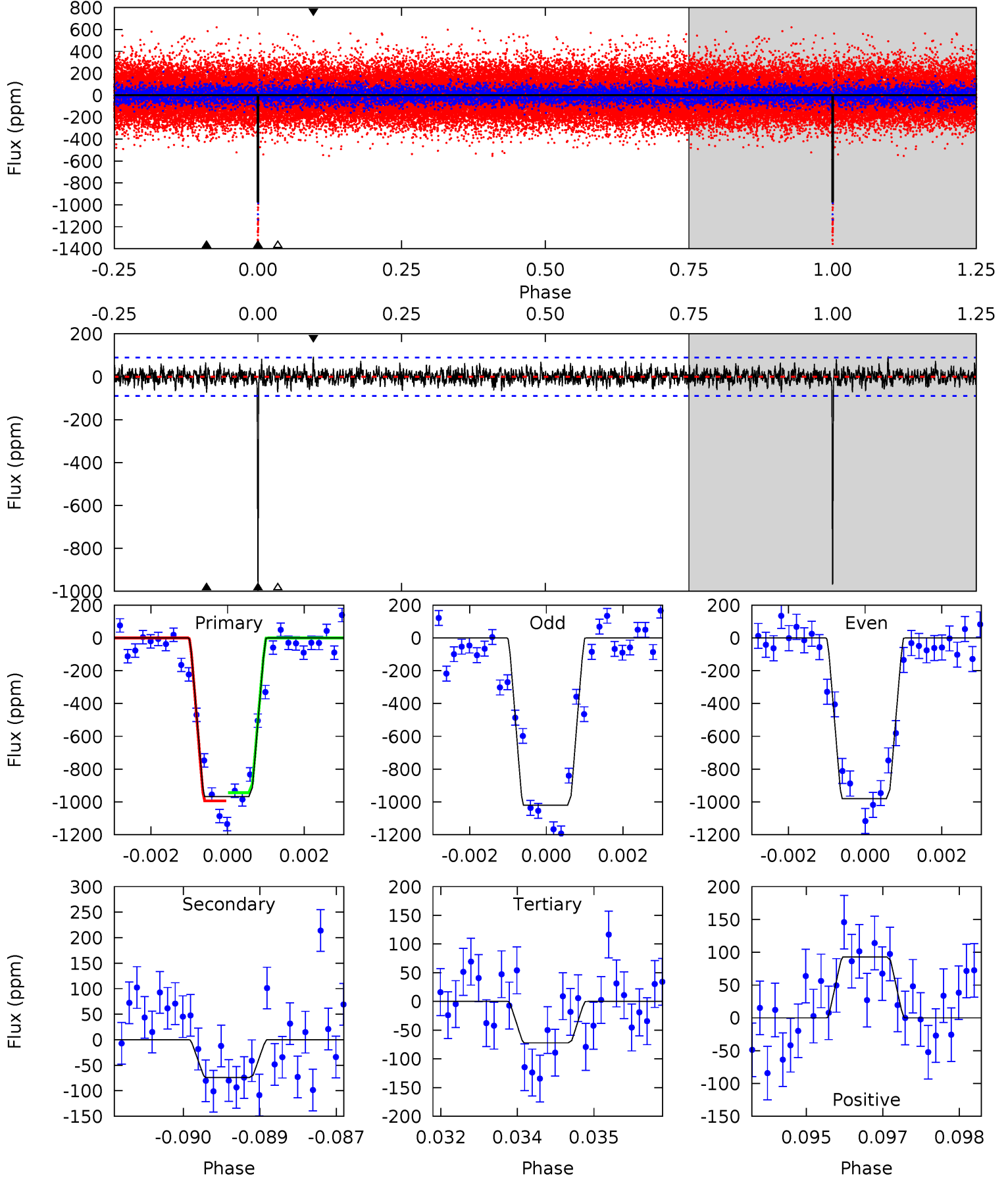
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
77.2	6.05	5.38	7.11	5.31	3.06	1.73	71.8	70.1	0.68	-1.05	0.49	0.90	0.08	3.10



Alt Model-Shift Uniqueness Test

010033279-01, P = 72.491301 Days, E = 67.288044 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.1	4.43	4.33	5.57	5.37	3.15	1.33	53.8	52.6	0.10	-1.14	1.17	0.89	0.09	1.49



Stellar Parameters For KIC 010033279

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5754^{+155}_{-173}	$3.639^{+0.280}_{-0.120}$	$-0.560^{+0.300}_{-0.300}$	$2.758^{+0.532}_{-0.988}$	$1.209^{+0.157}_{-0.291}$	$0.081^{+0.166}_{-0.031}$
	+3%/-3%	+8%/-3%	+54%/-54%	+19%/-36%	+13%/-24%	+204%/-38%
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 010033279-01 / KOI 1604.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-84 ± 14	$13.17^{+4.29}_{-4.31}$	964^{+64}_{-88}	3155^{+364}_{-218}	34^{+43}_{-15}
Alt.	-74 ± 17	$8.94^{+4.13}_{-3.81}$	968^{+61}_{-86}	3475^{+675}_{-351}	65^{+124}_{-36}

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 $A_{obs} \gg 1.0$

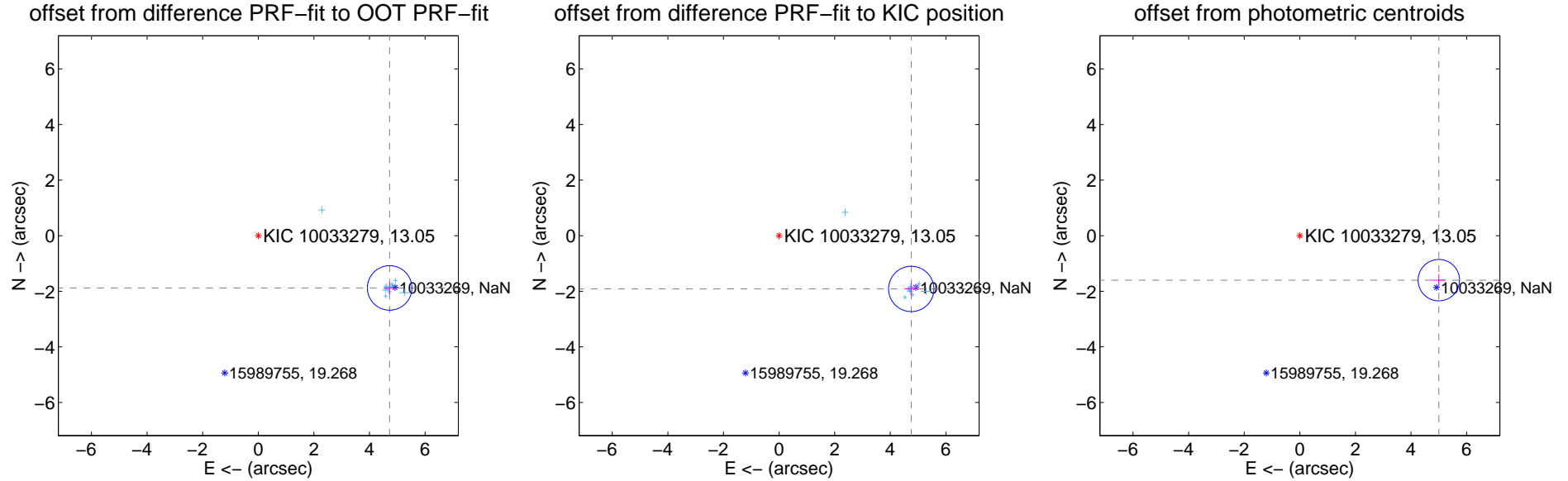
DV Centroid Data

Supplemental centroid analysis for 010033279-01. Kepler magnitude: 13.05. Transit SNR 42.96

There are 12 quarters with good PRF difference image offsets

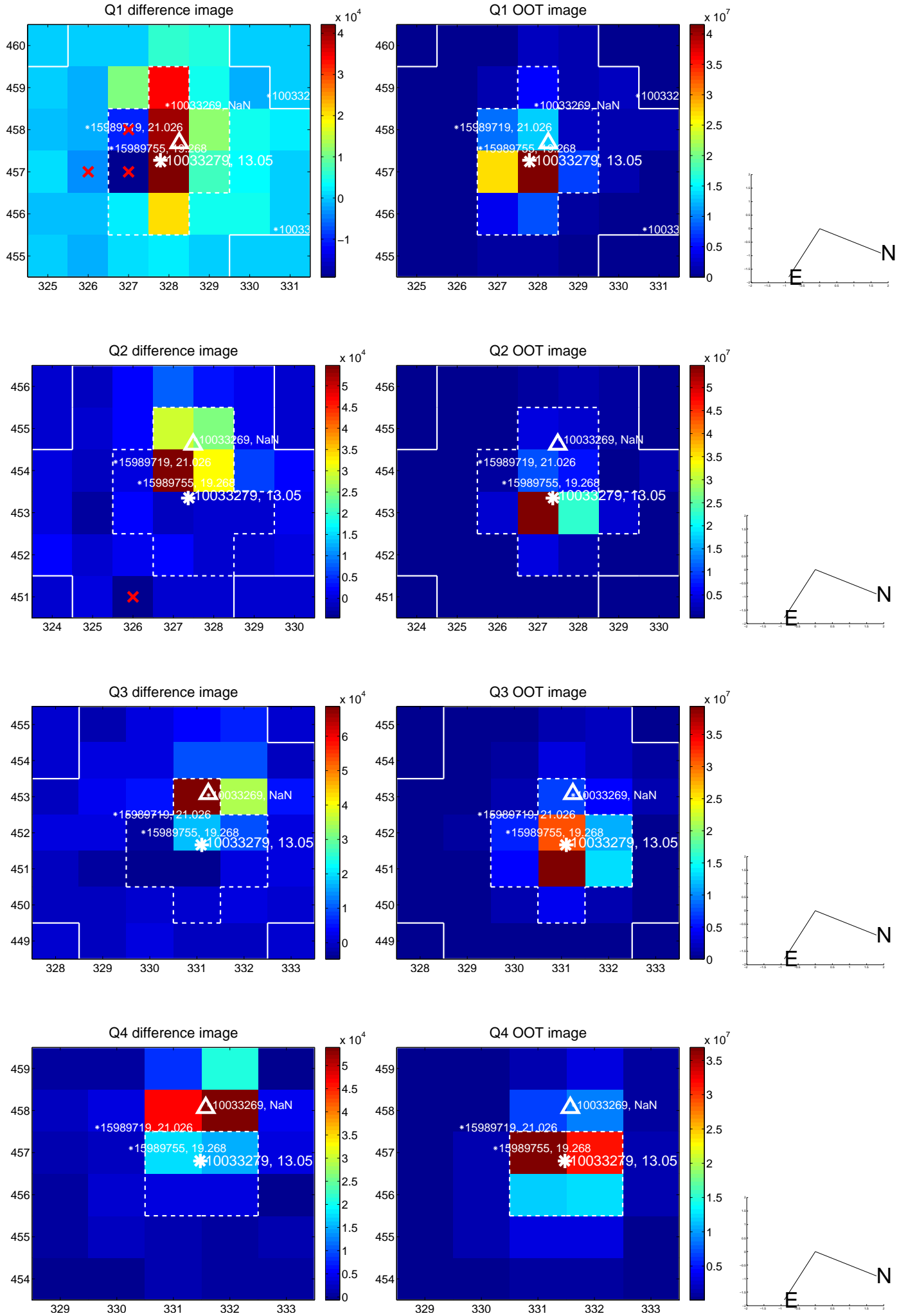
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.085 ± 0.267	19.05	-4.725 ± 0.206	-1.880 ± 0.229
PRF-fit source offset from KIC position	5.127 ± 0.272	18.87	-4.756 ± 0.214	-1.916 ± 0.220
photometric centroid source offset	5.25 ± 0.25	21.14	-5.00 ± 0.25	-1.60 ± 0.22

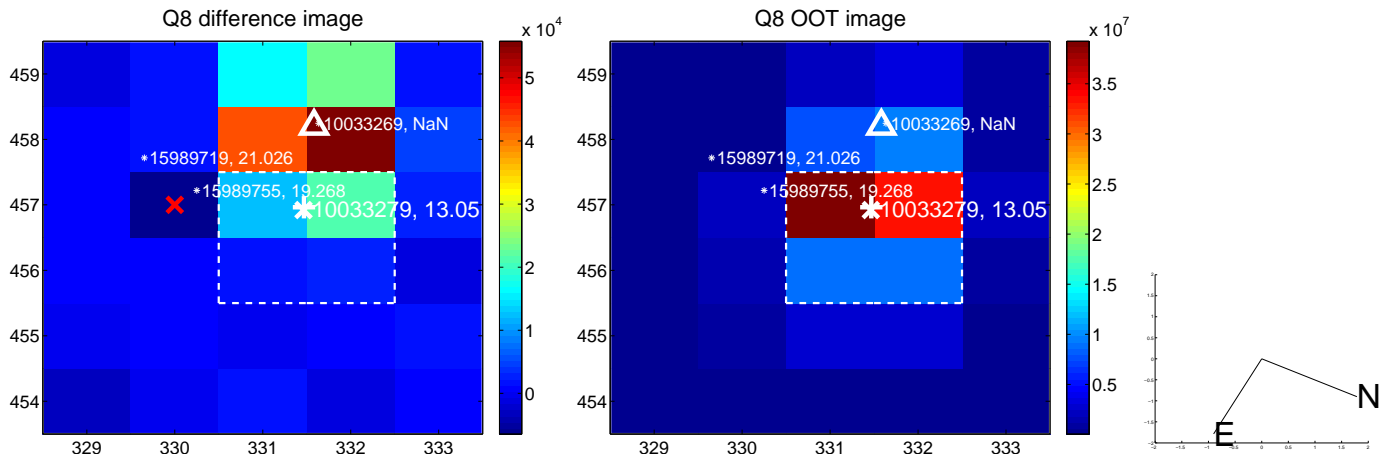
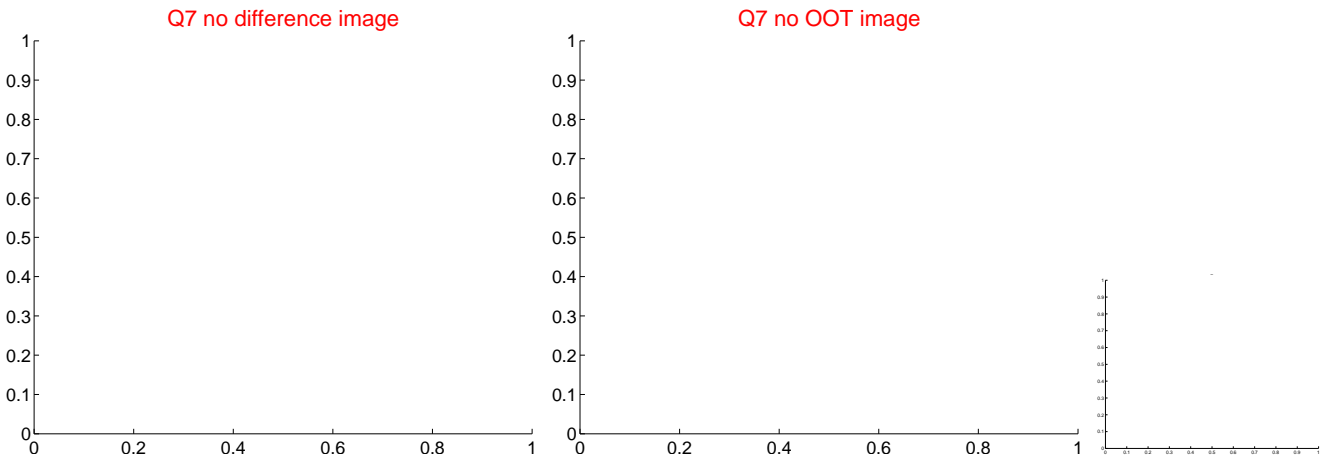
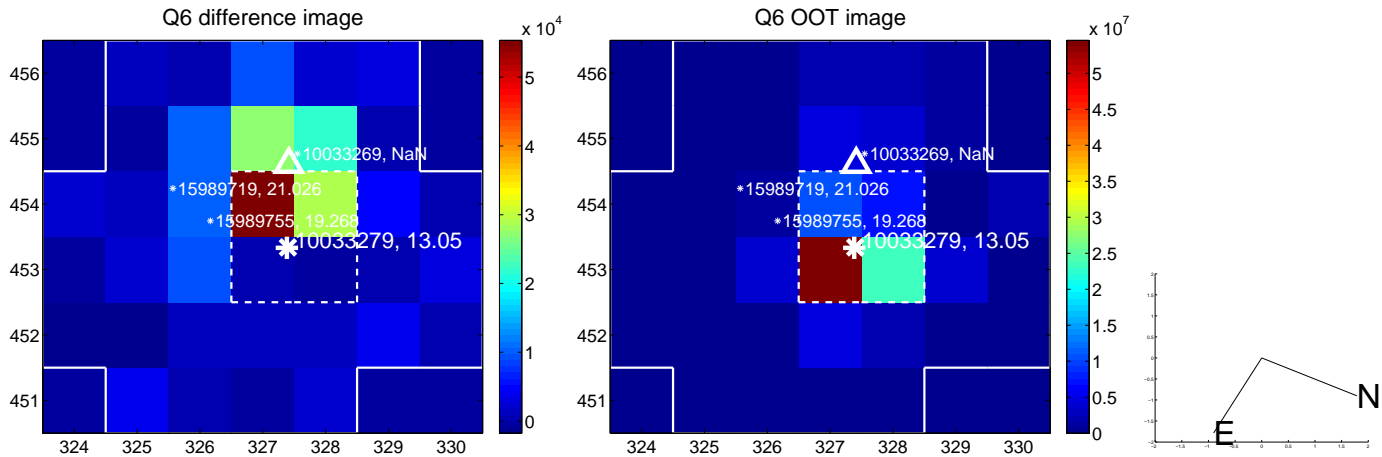
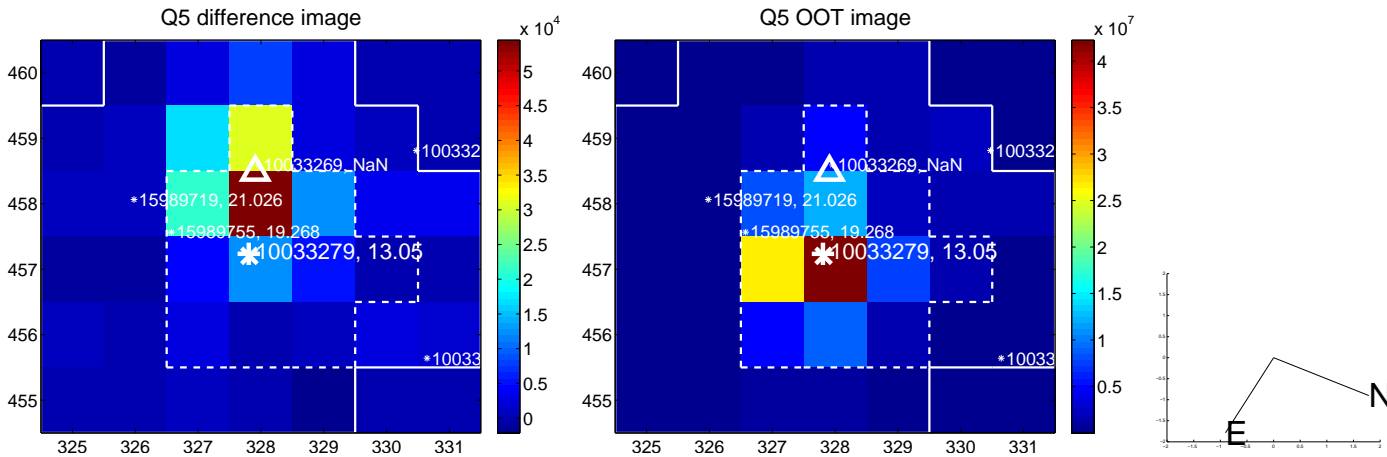


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

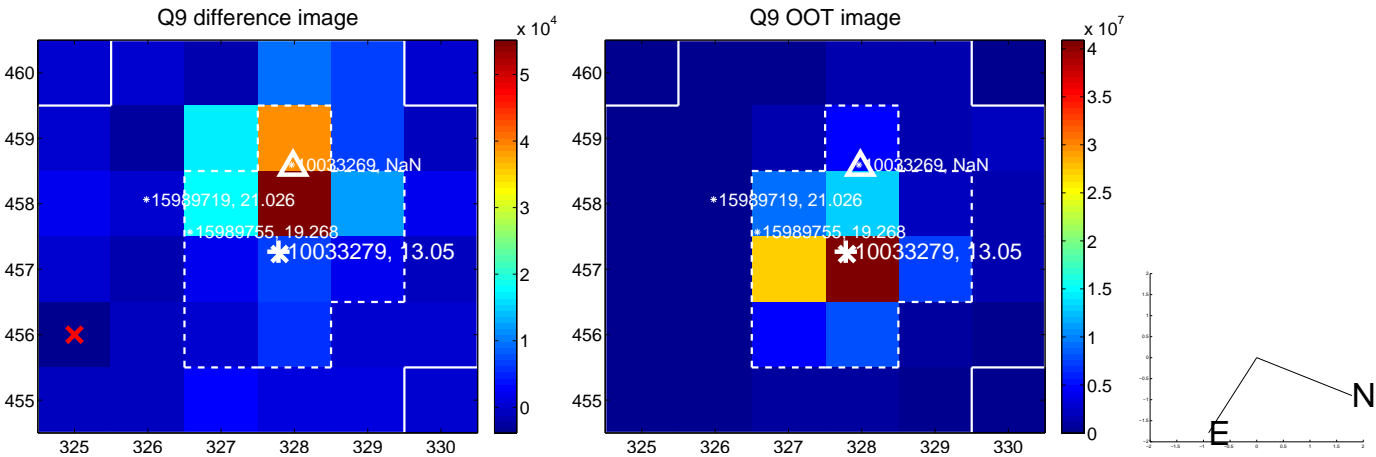
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



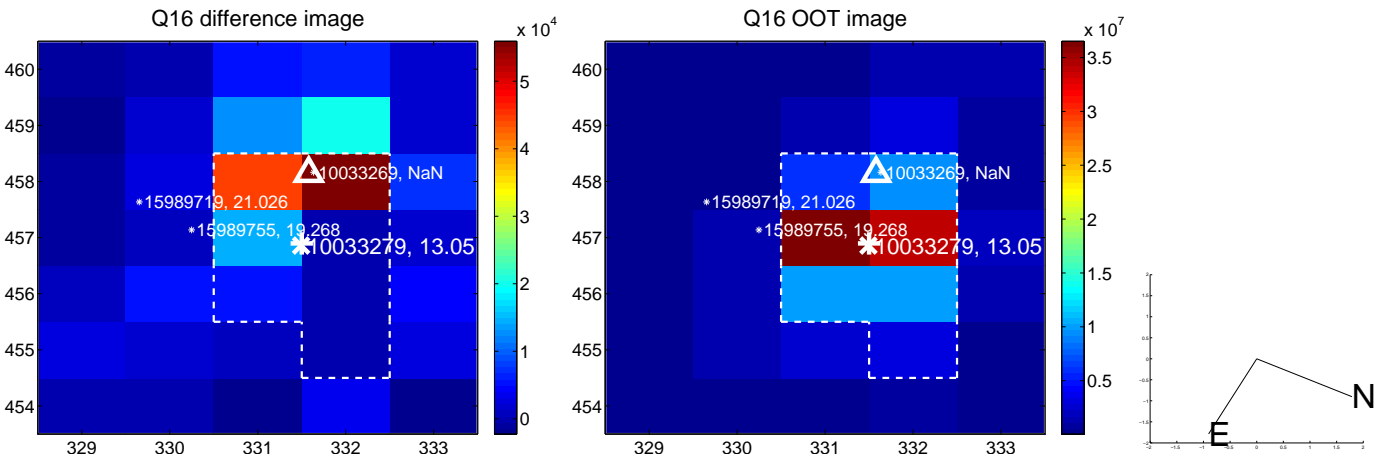
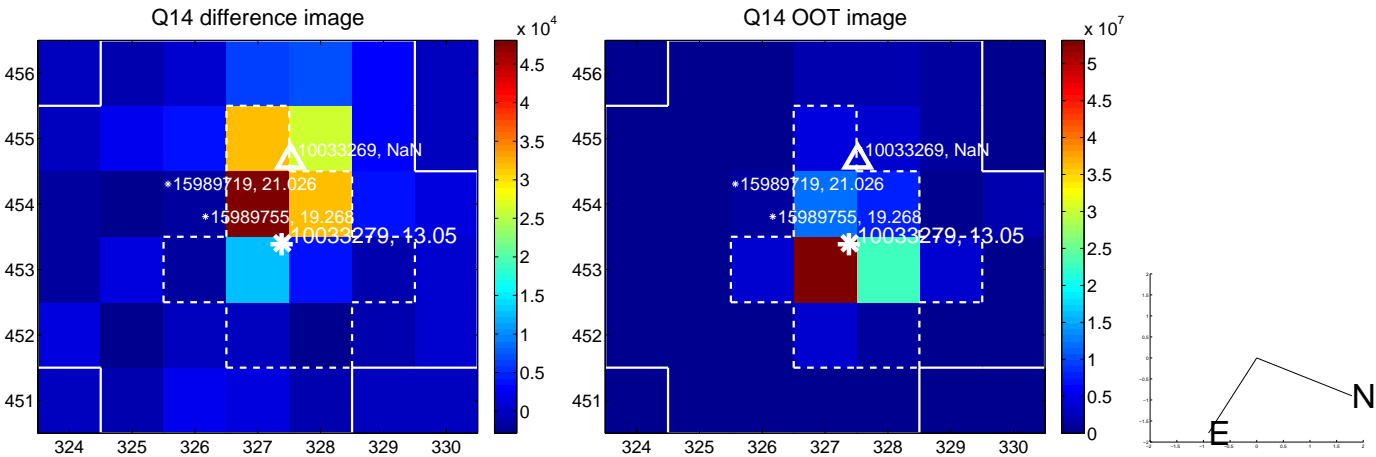
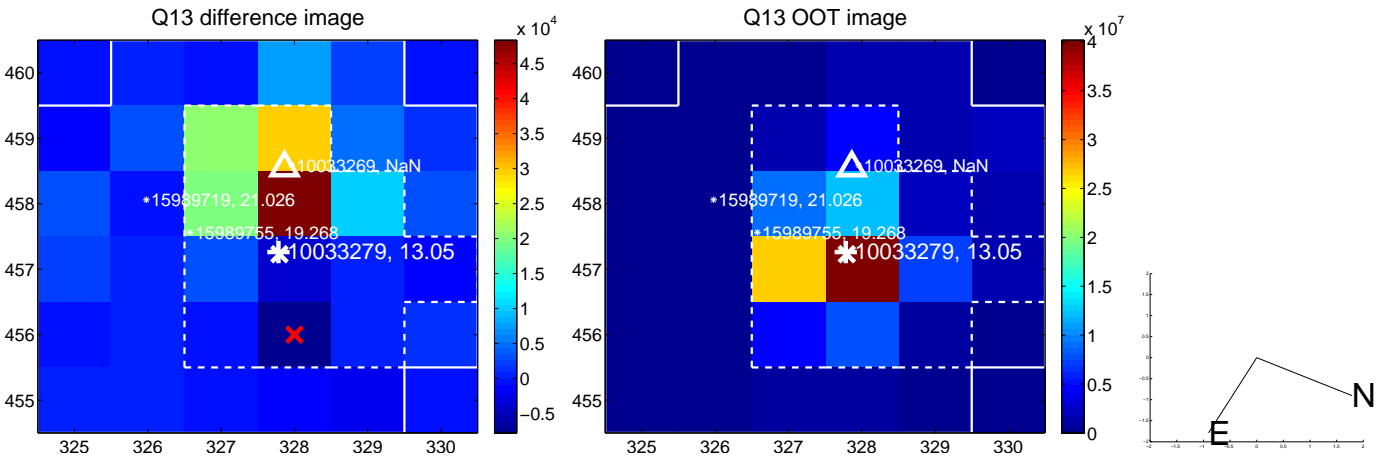
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



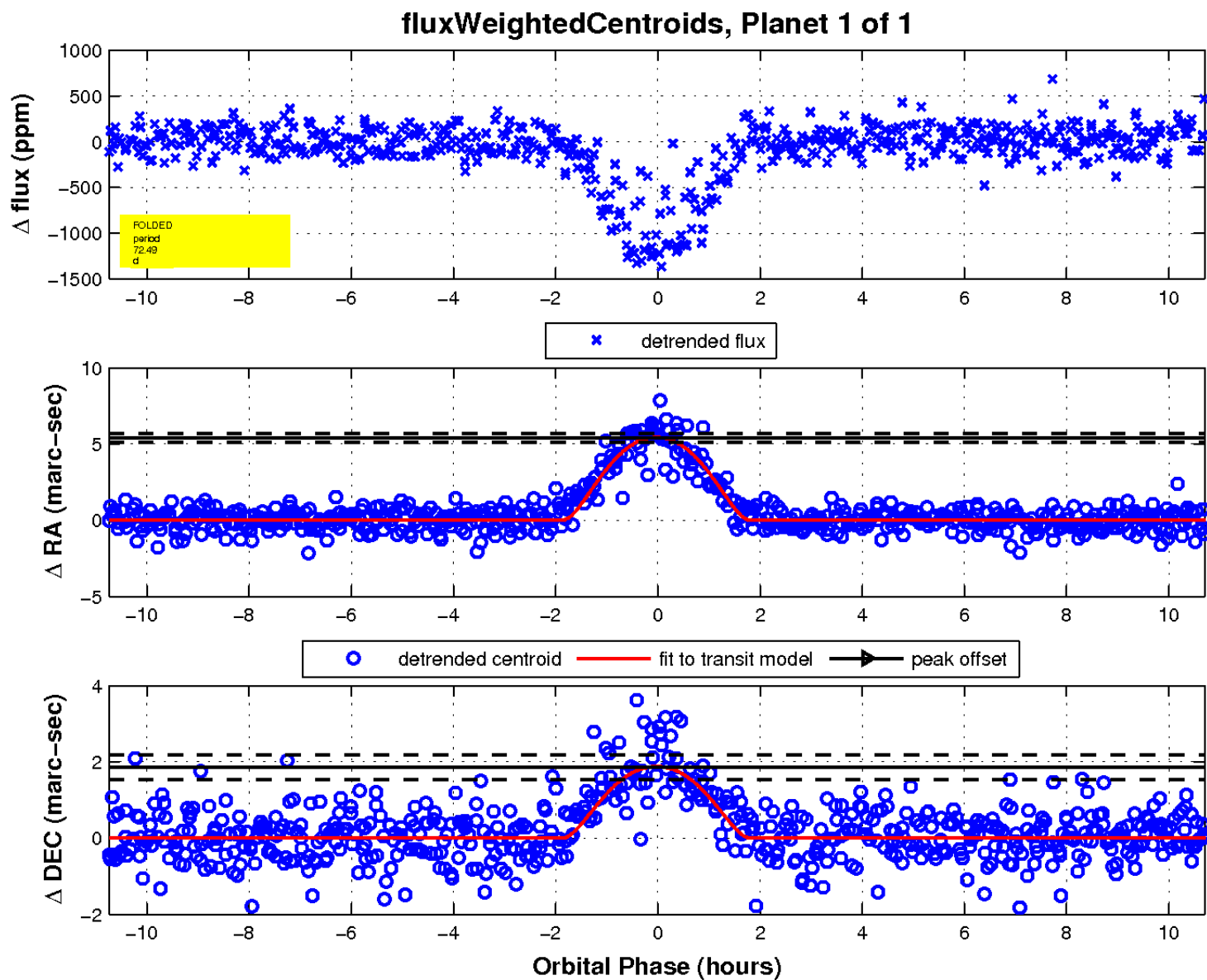
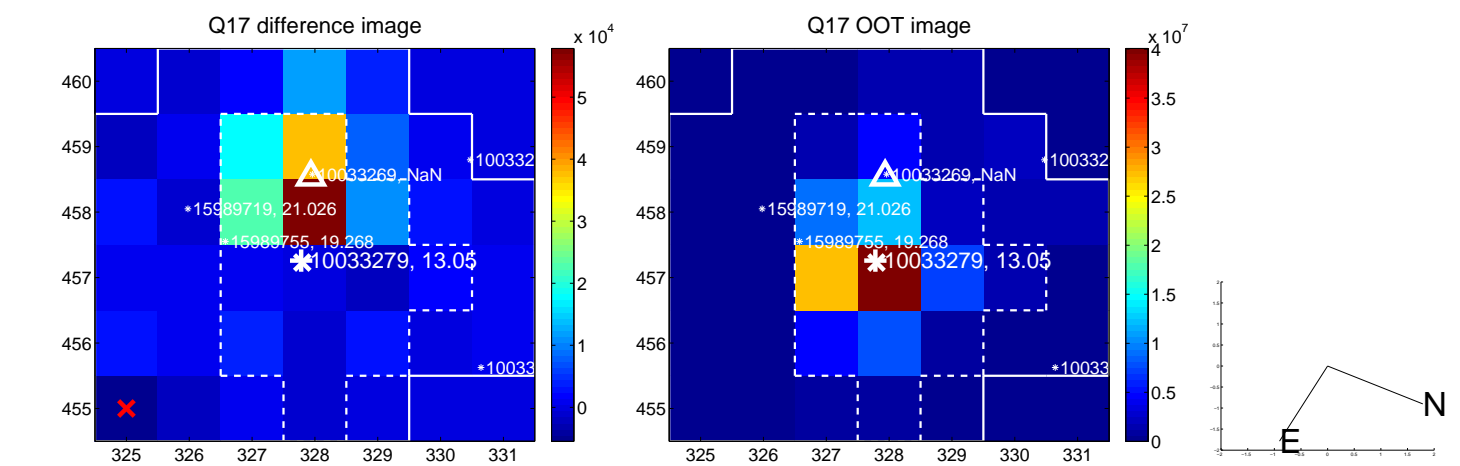
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

