

KIC 007039026

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})
007039026-01	OBS	No	9.943878	134.964444	34.0	31.863	11.7	14.8	1.44	7143	1.69	453.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007039026-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

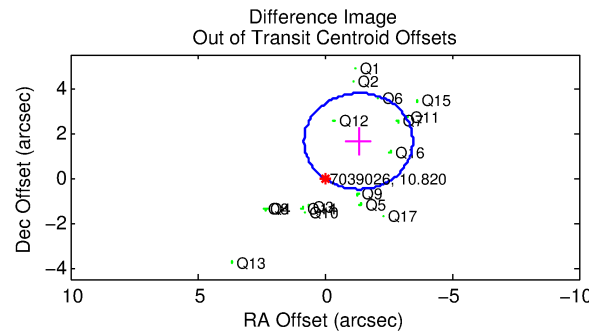
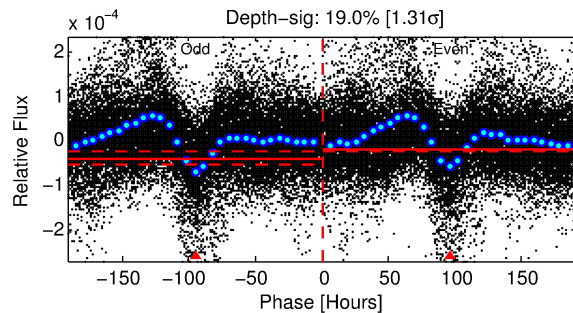
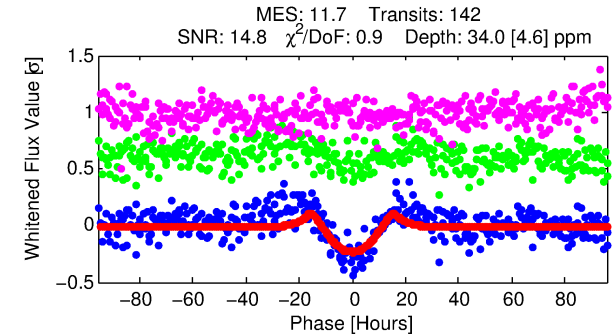
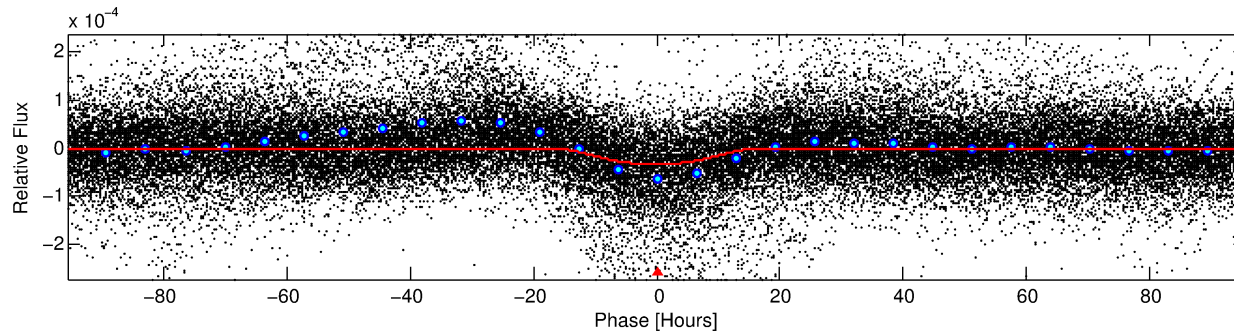
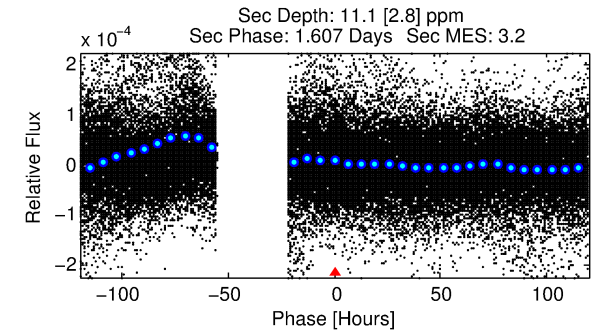
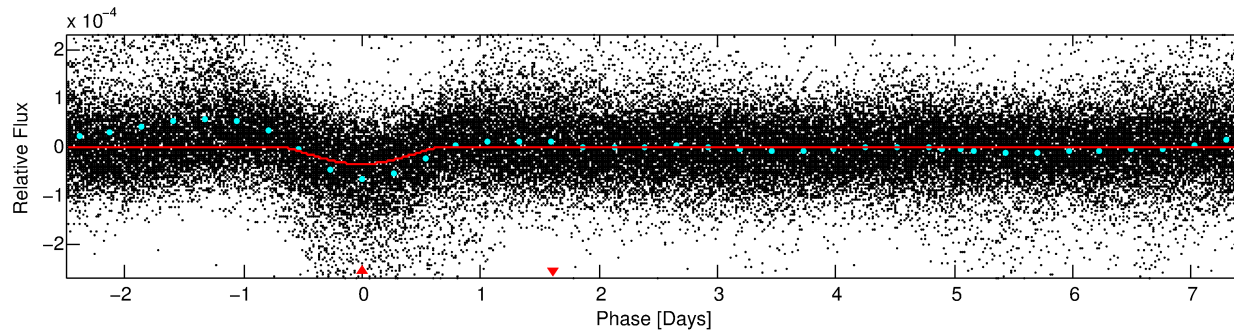
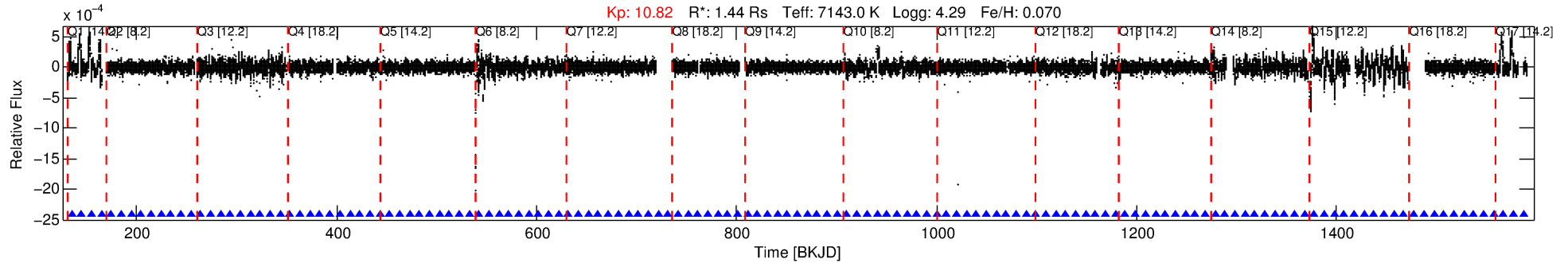
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007039026-01

No Significant Match Found

DV One-Page Summary

KIC: 7039026 Candidate: 1 of 1 Period: 9.944 d



DV Fit Results:

Period = 9.94388 [0.00045] d
Epoch = 134.9644 [0.0350] BKJD
Rp/R* = 0.0108 [0.0092]
a/R* = 1.06 [0.02]
b = 1.00 [0.01]
Seff = 453.72 [132.88]
Teq = 1177 [86] K
Rp = 1.69 [1.48] Re
a = 0.1033 [0.0169] AU
Ag = 22.66 [39.58] [0.55σ]
Teffp = 3970 [1725] K [1.62σ]

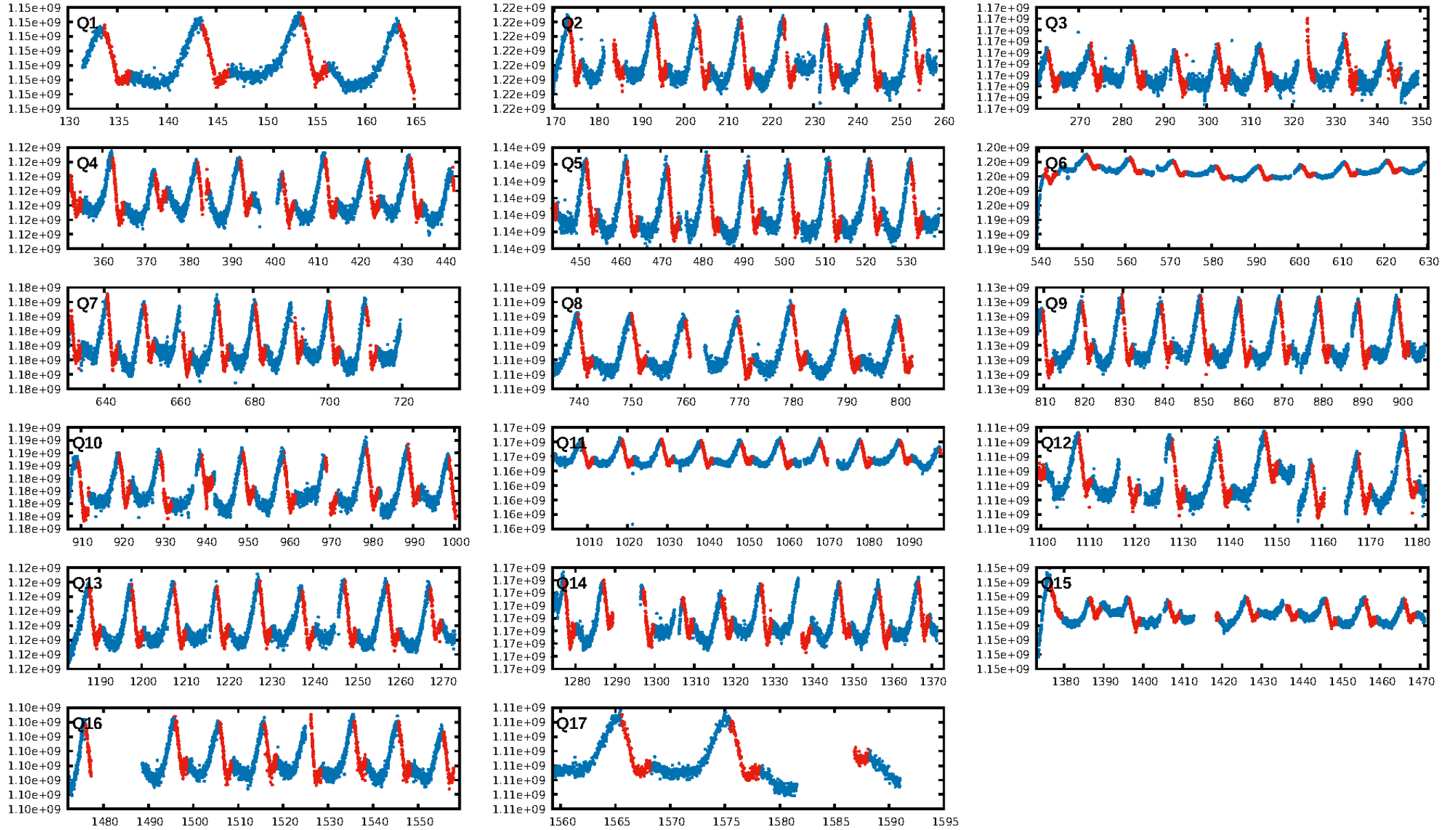
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.36e-32
RollingBand-fgt: 1.00 [135/135]
GhostDiagnostic-chr: 6.323
Centroid-sig: 0.6%
Centroid-so: 2.186 arcsec [1.87σ]
OotOffset-rm: 2.105 arcsec [2.95σ]
KicOffset-rm: 1.910 arcsec [2.57σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

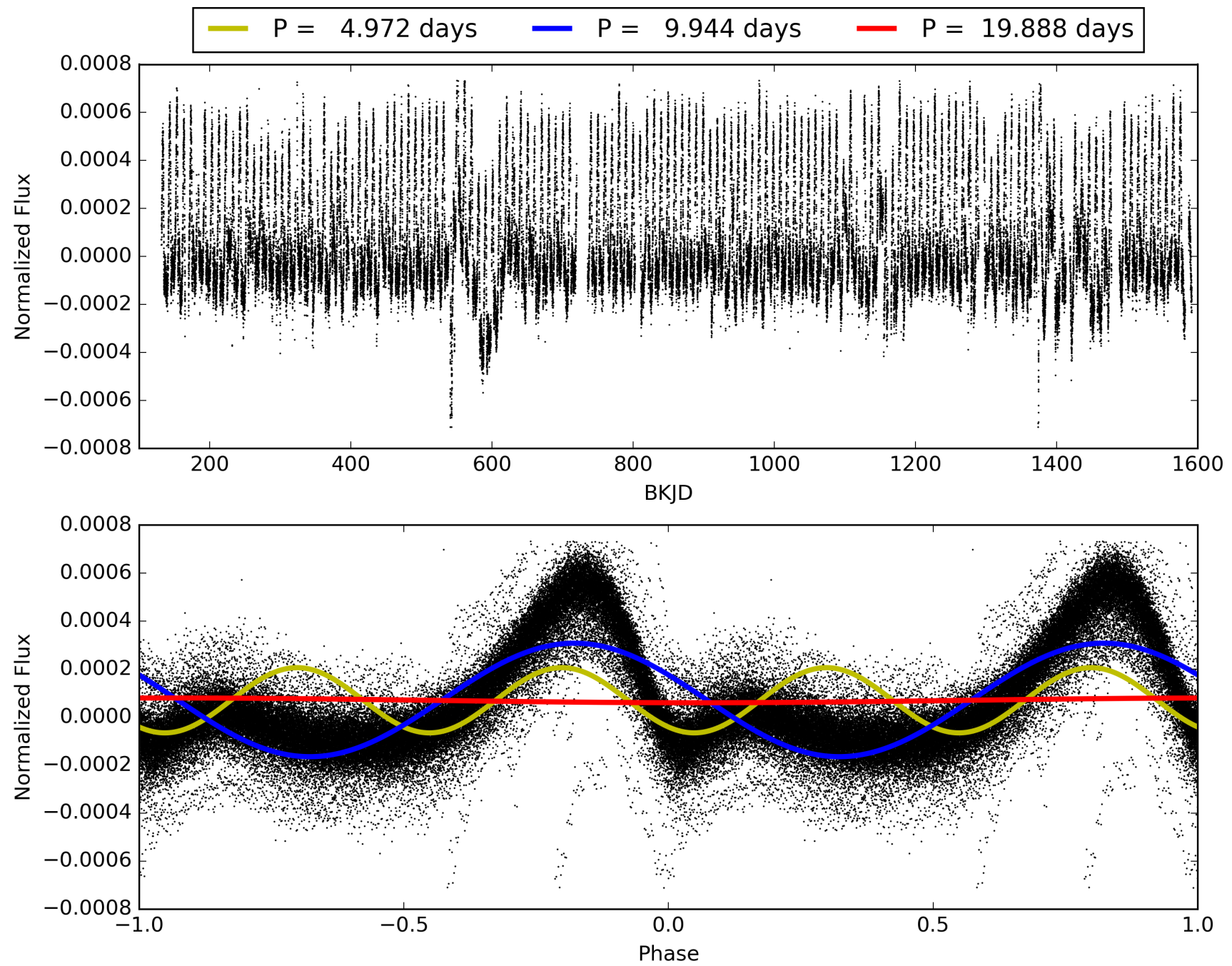
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:16:26 Z

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

TCE 007039026-01, PDC Light Curves

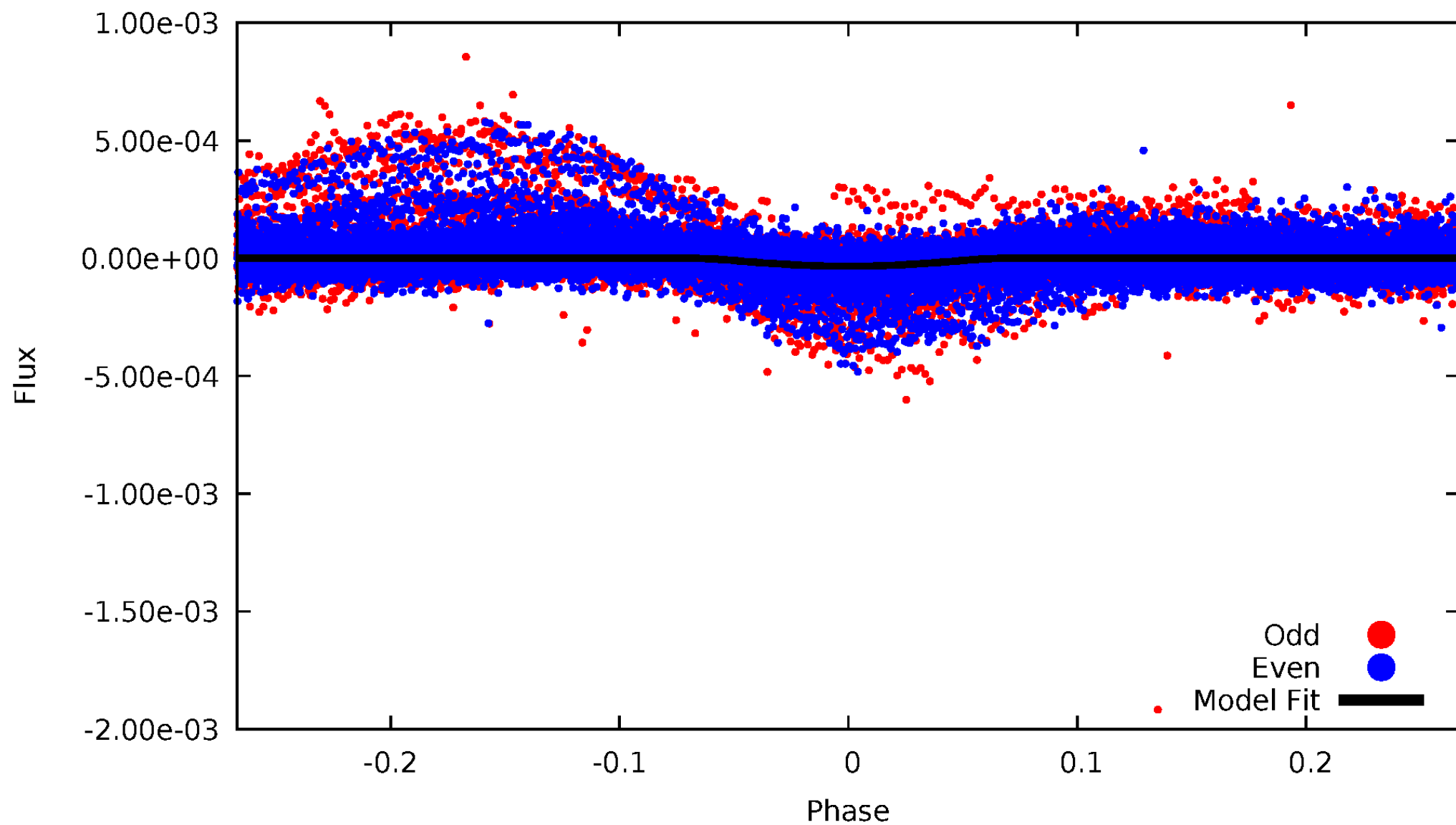


TCE 007039026-01



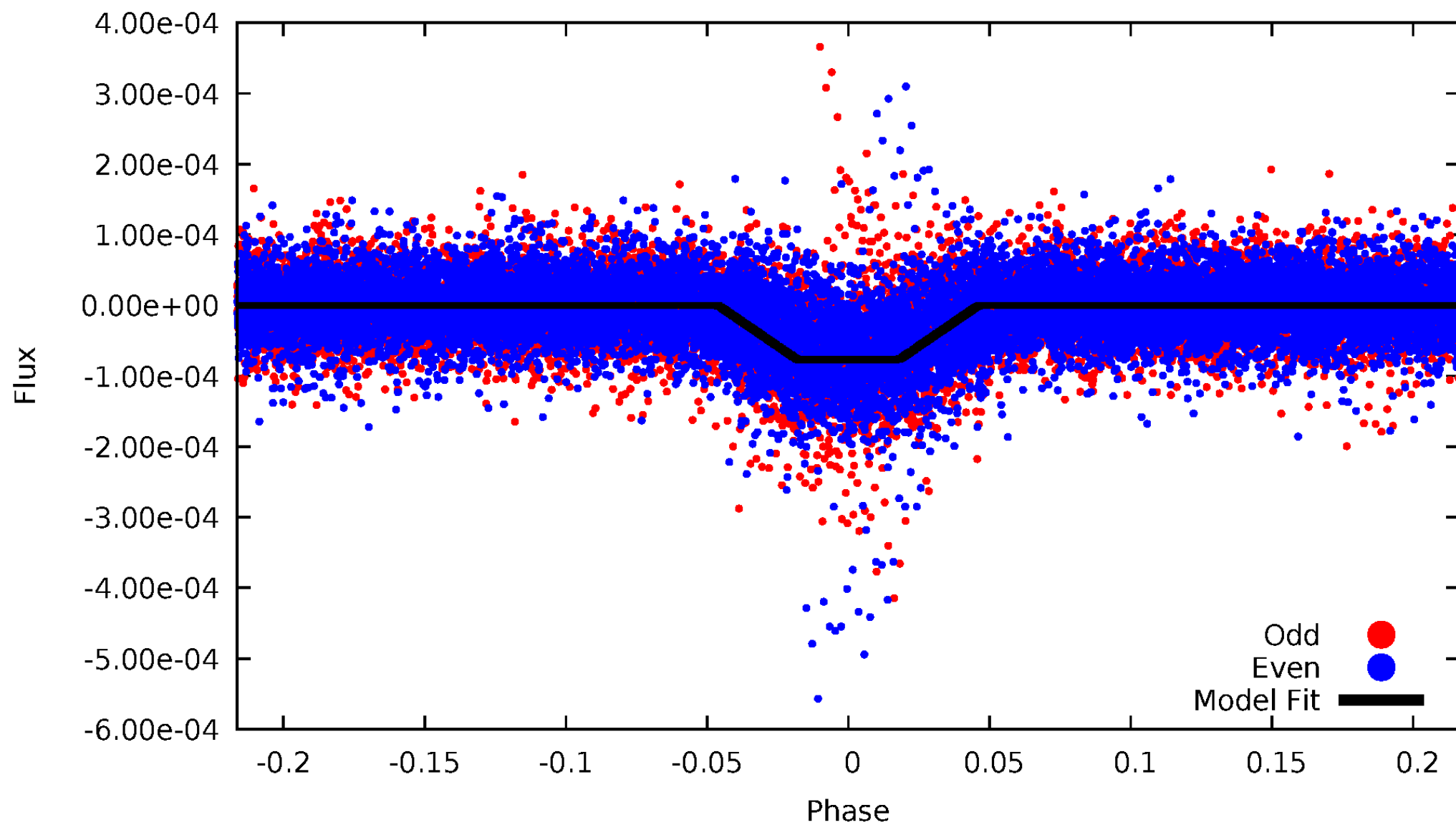
DV Odd/Even

TCE 007039026-01



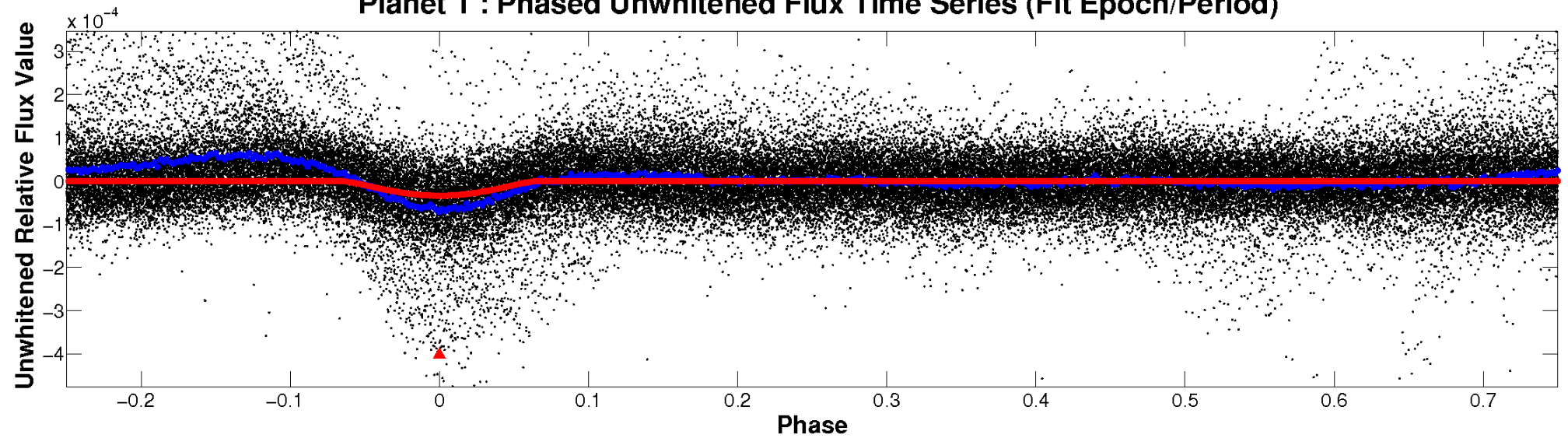
ALT Odd/Even

TCE 007039026-01

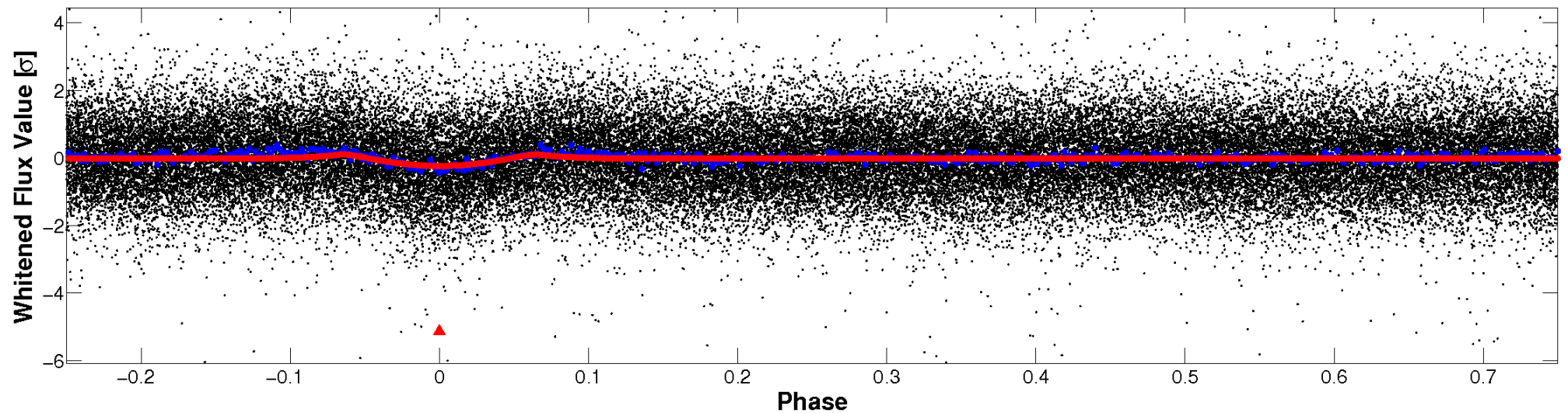


Non-Whitened Vs. Whitened Light Curve

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

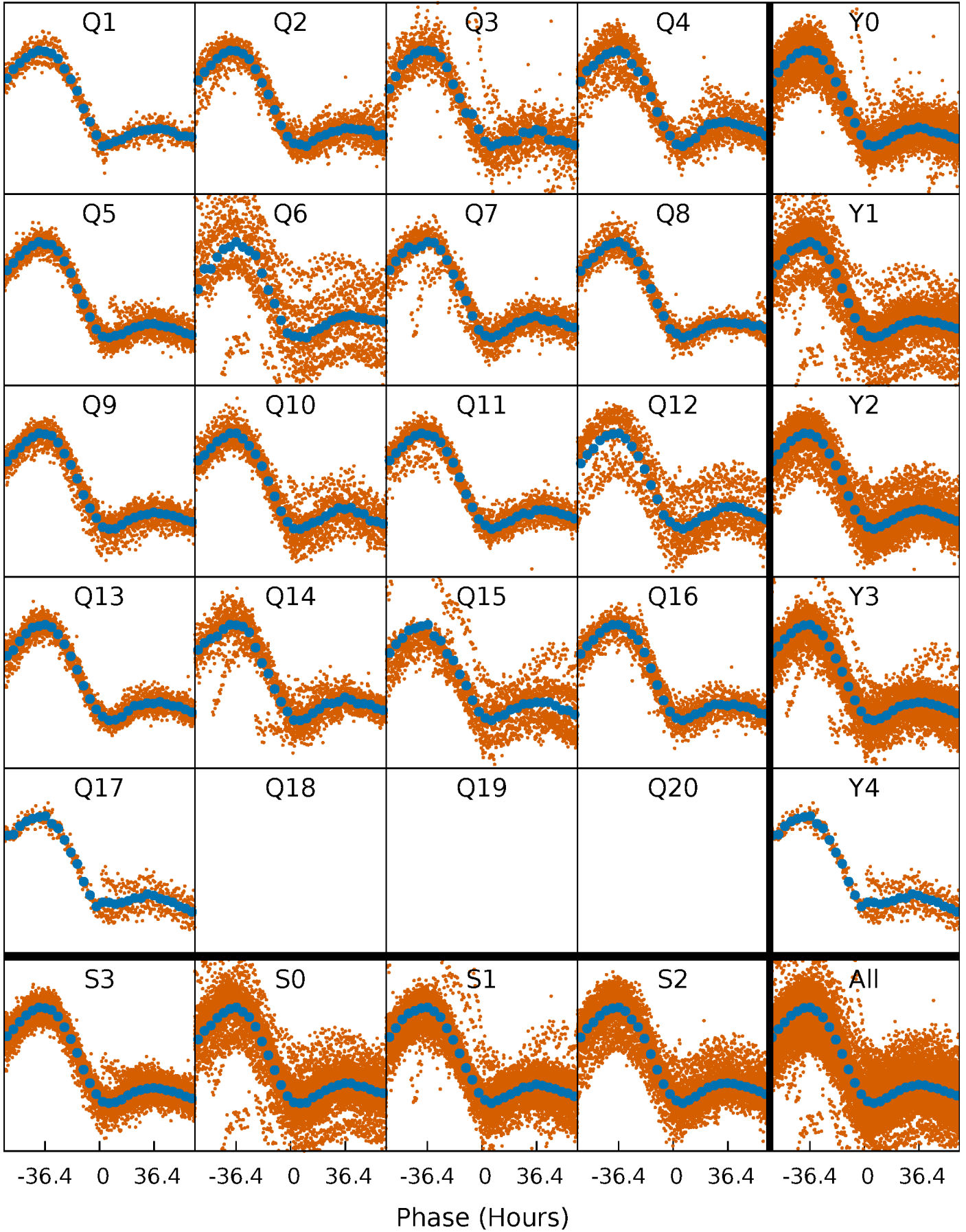


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



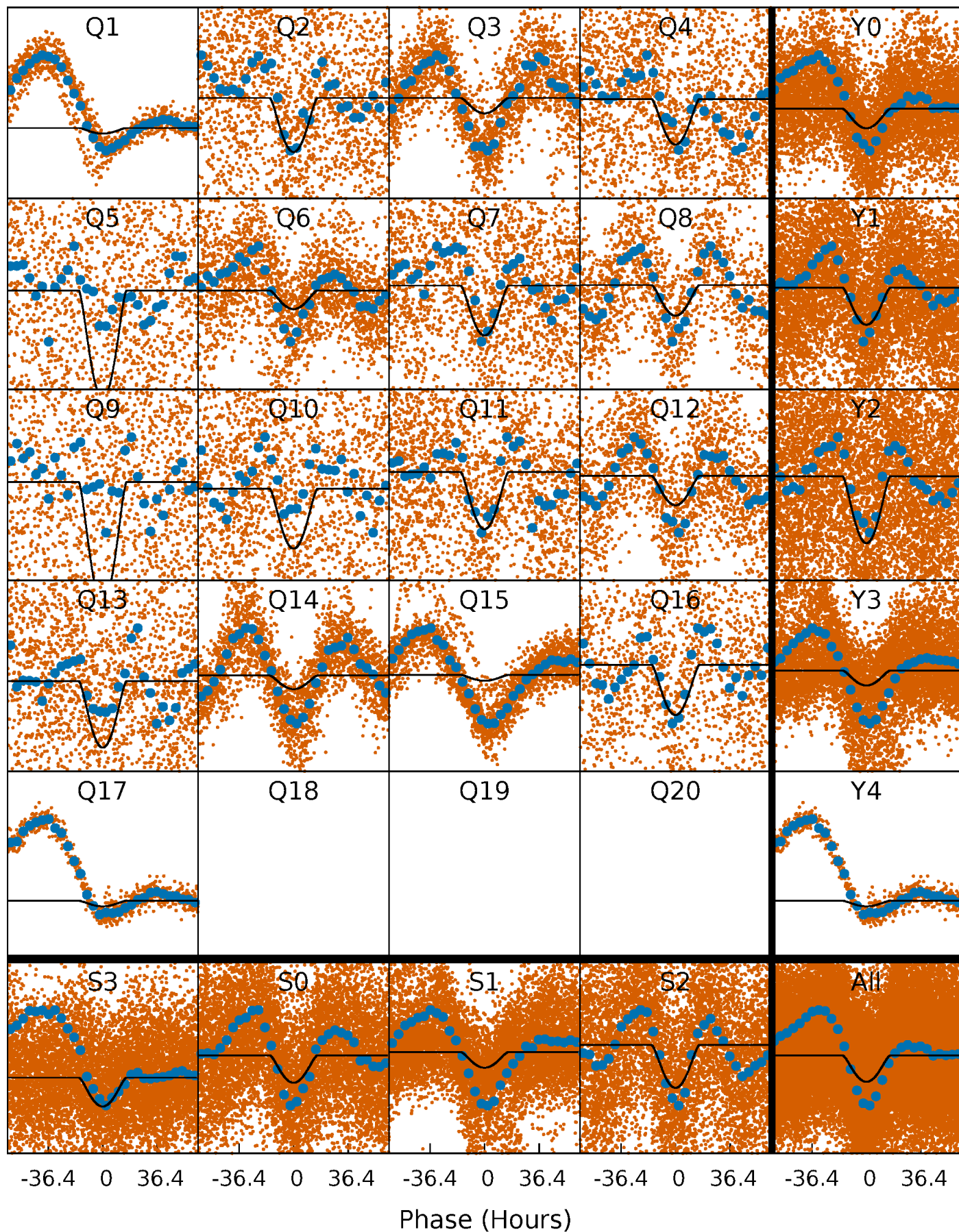
PDC Quarter-Phased Transit Curves

TCE 007039026-01 P= 9.943878 Days $T_0=134.964444$ (BKJD)



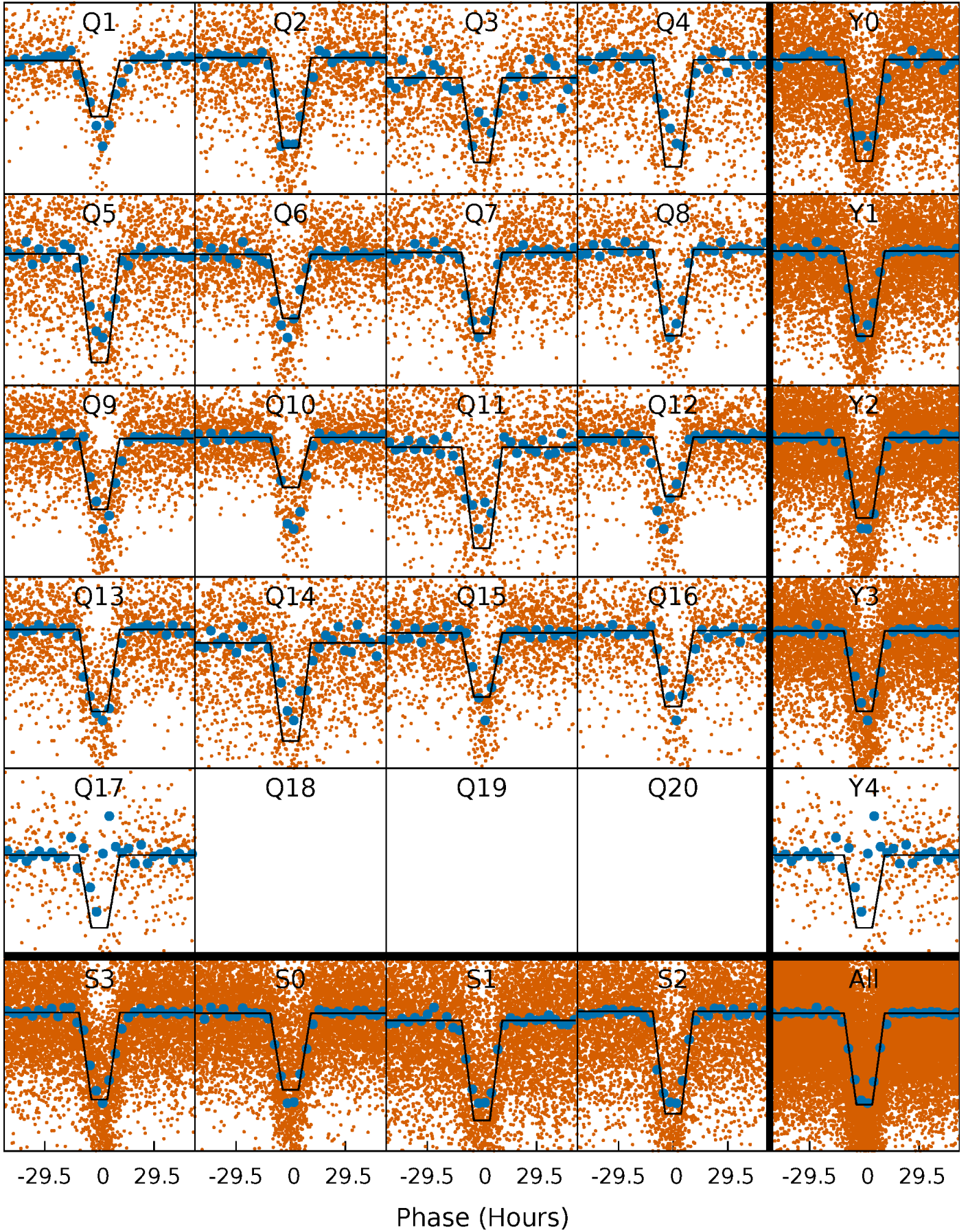
DV Quarter-Phased Transit Curves

TCE 007039026-01 P= 9.943878 Days $T_0=134.964444$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

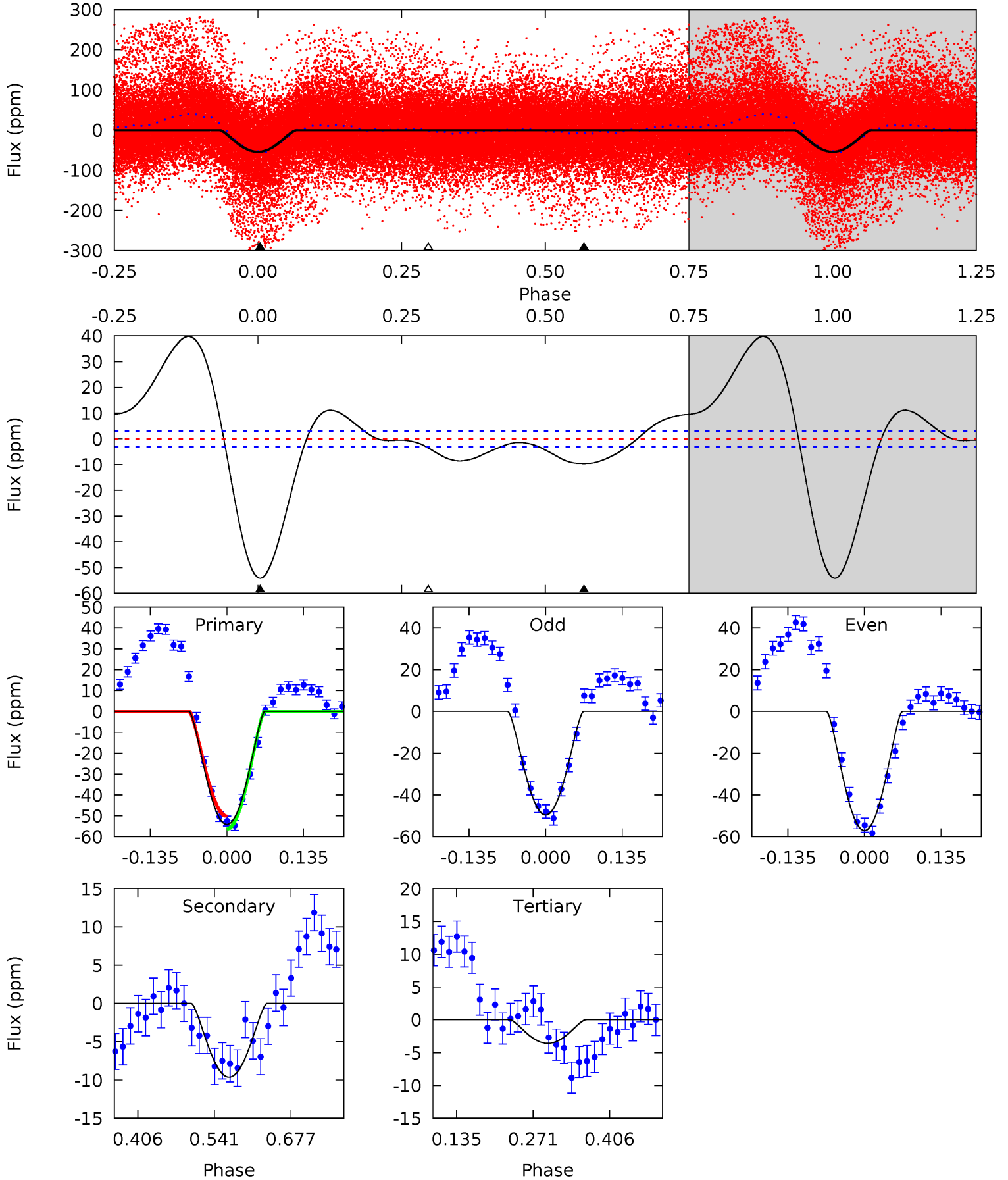
TCE 007039026-01 P= 9.943475 Days $T_0=134.984770$ (BKJD)



DV Model-Shift Uniqueness Test

007039026-01, P = 9.943878 Days, E = 125.020566 Days

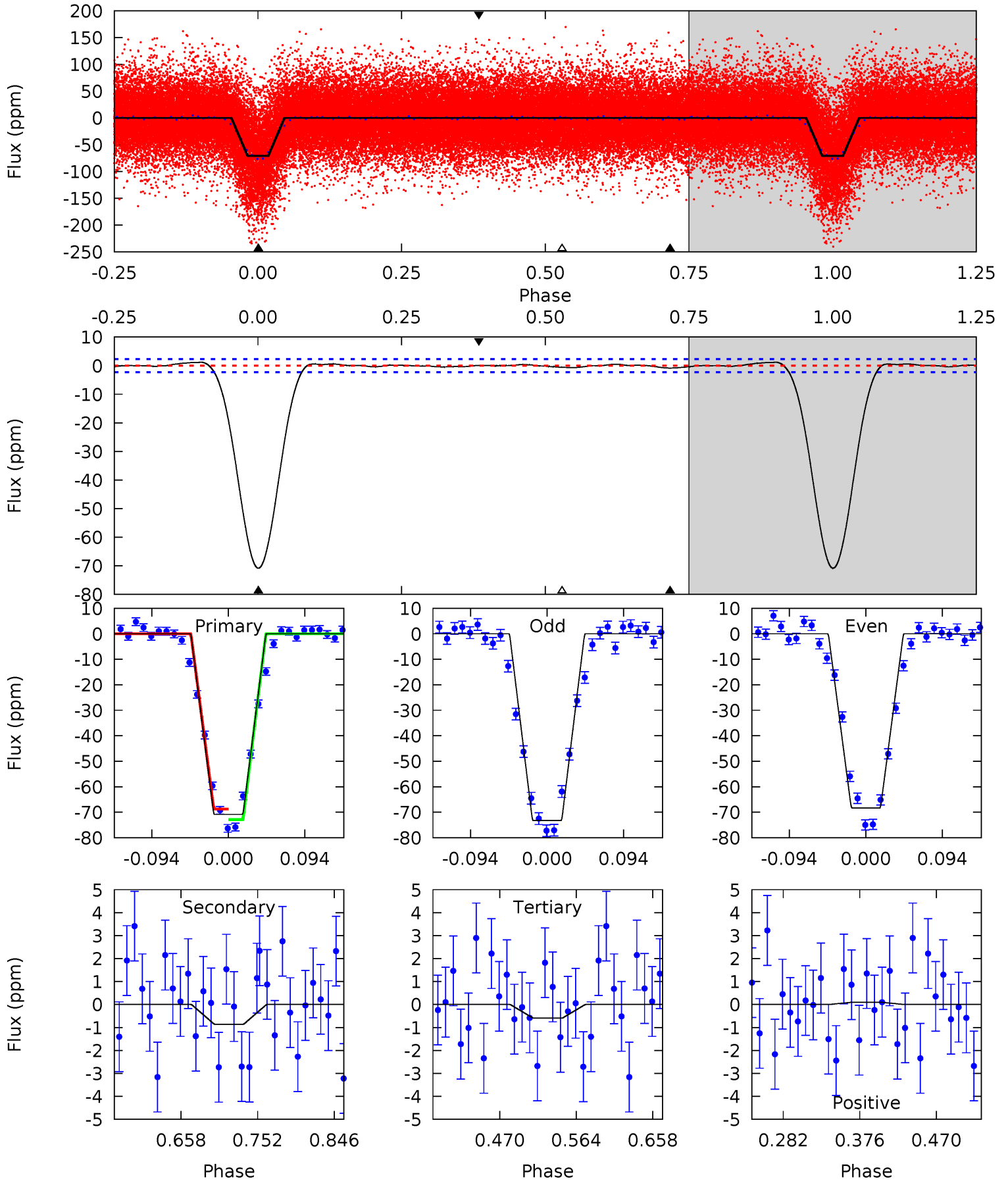
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
79.1	14.1	5.22	0	4.50	1.49	17.0	73.9	79.1	8.85	14.1	5.47	1.66	0.42	4.35



Alt Model-Shift Uniqueness Test

007039026-01, P = 9.943475 Days, E = 125.041295 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
141.2	1.72	1.18	0.20	4.58	1.67	0.80	140.0	141.0	0.53	1.52	4.95	0.98	0.02	4.07



Stellar Parameters For KIC 007039026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7143^{+170}_{-297}	$4.293^{+0.066}_{-0.133}$	$0.070^{+0.200}_{-0.400}$	$1.441^{+0.277}_{-0.185}$	$1.486^{+0.128}_{-0.219}$	$0.700^{+0.214}_{-0.274}$
	+2%/-4%	+2%/-3%	+286%/-571%	+19%/-13%	+9%/-15%	+31%/-39%
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 007039026-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 1	$1.90^{+1.50}_{-1.22}$	1656^{+86}_{-81}	3947^{+2098}_{-718}	15^{+107}_{-11}
Alt.	-1 ± 1	$1.73^{+1.28}_{-1.05}$	1659^{+84}_{-84}	2663^{+981}_{-751}	$1.460^{+8.810}_{-1.101}$

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 $A_{obs} \gg 1.0$

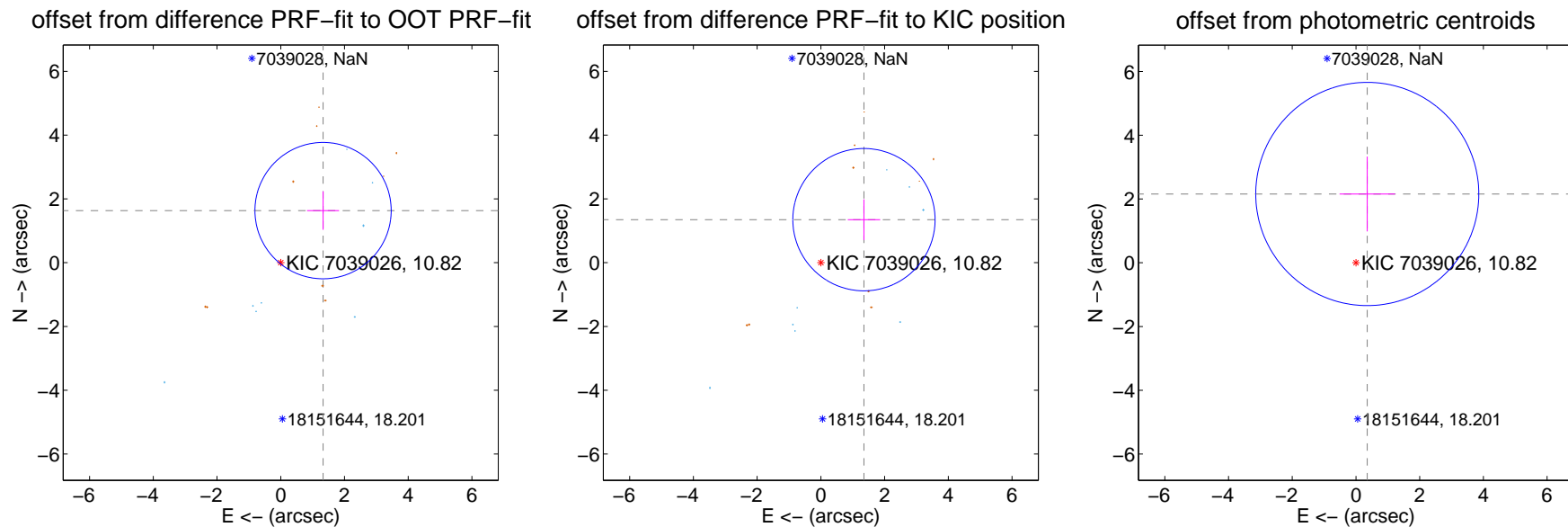
DV Centroid Data

Supplemental centroid analysis for 007039026-01. **Kepler magnitude: 10.82.** Transit SNR 14.77

There are 8 quarters with good PRF difference image offsets

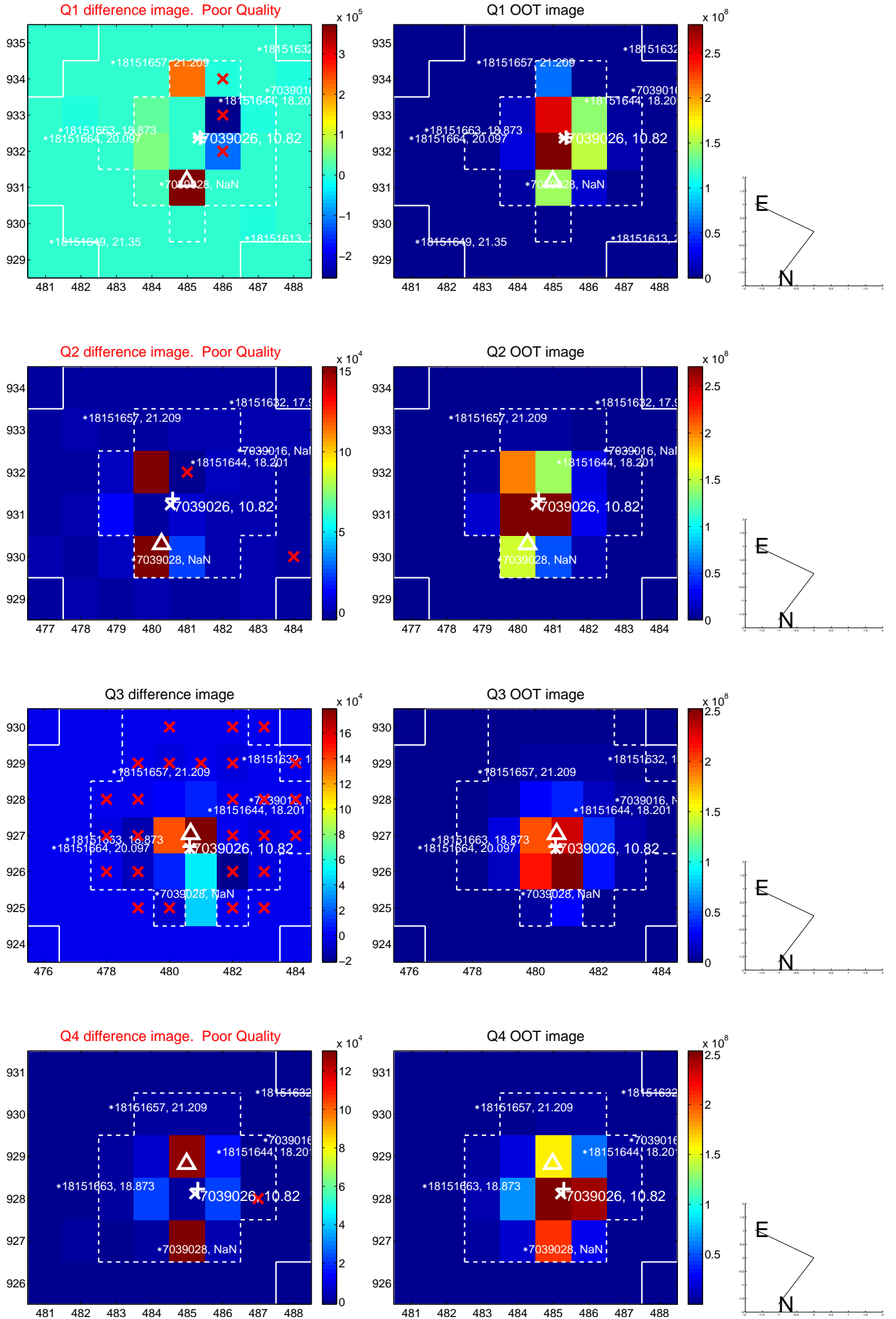
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.105 ± 0.713	2.95	-1.328 ± 0.503	1.633 ± 0.602
PRF-fit source offset from KIC position	1.910 ± 0.744	2.57	-1.352 ± 0.509	1.349 ± 0.638
photometric centroid source offset	2.19 ± 1.17	1.87	-0.35 ± 0.87	2.16 ± 1.17

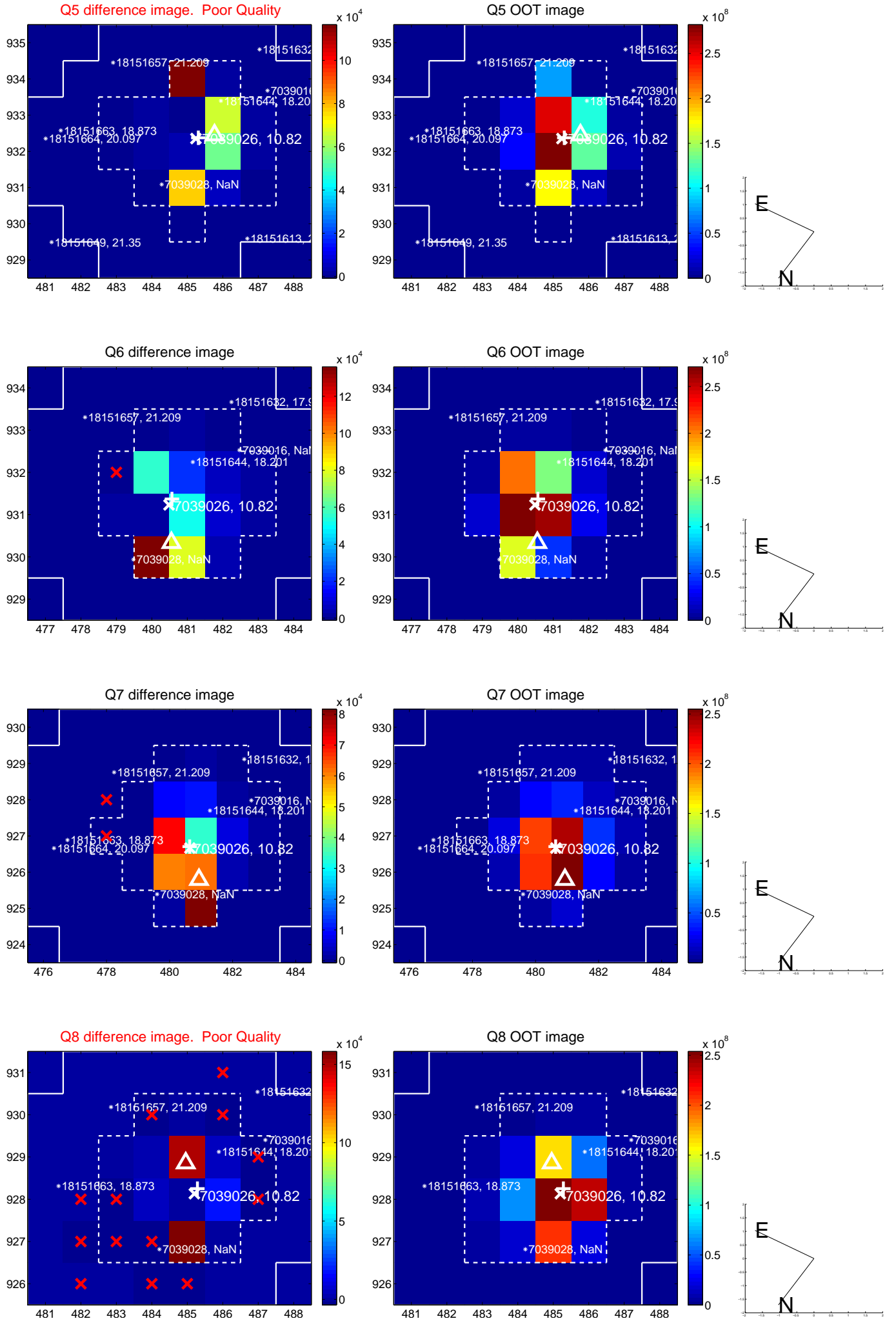


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

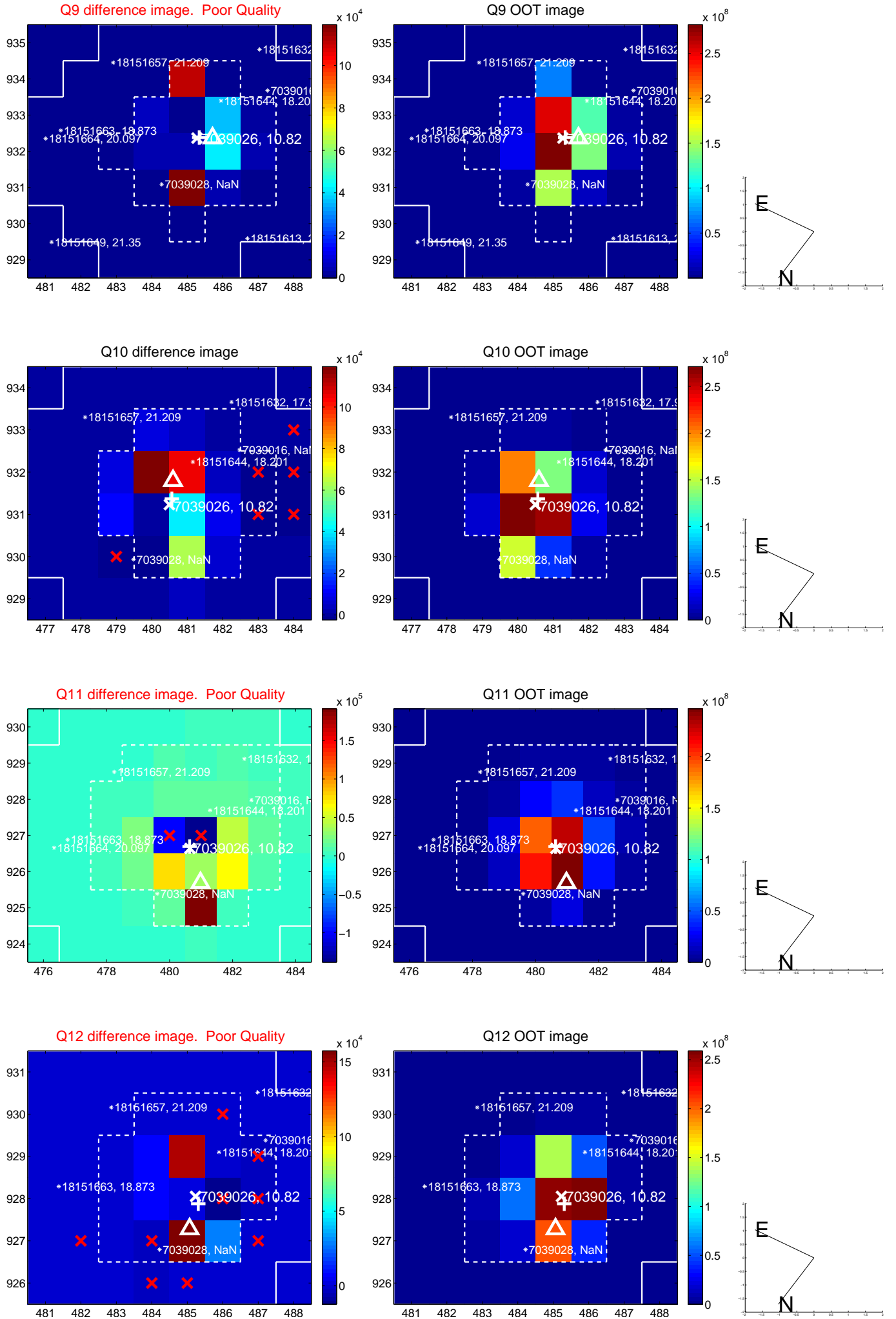
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



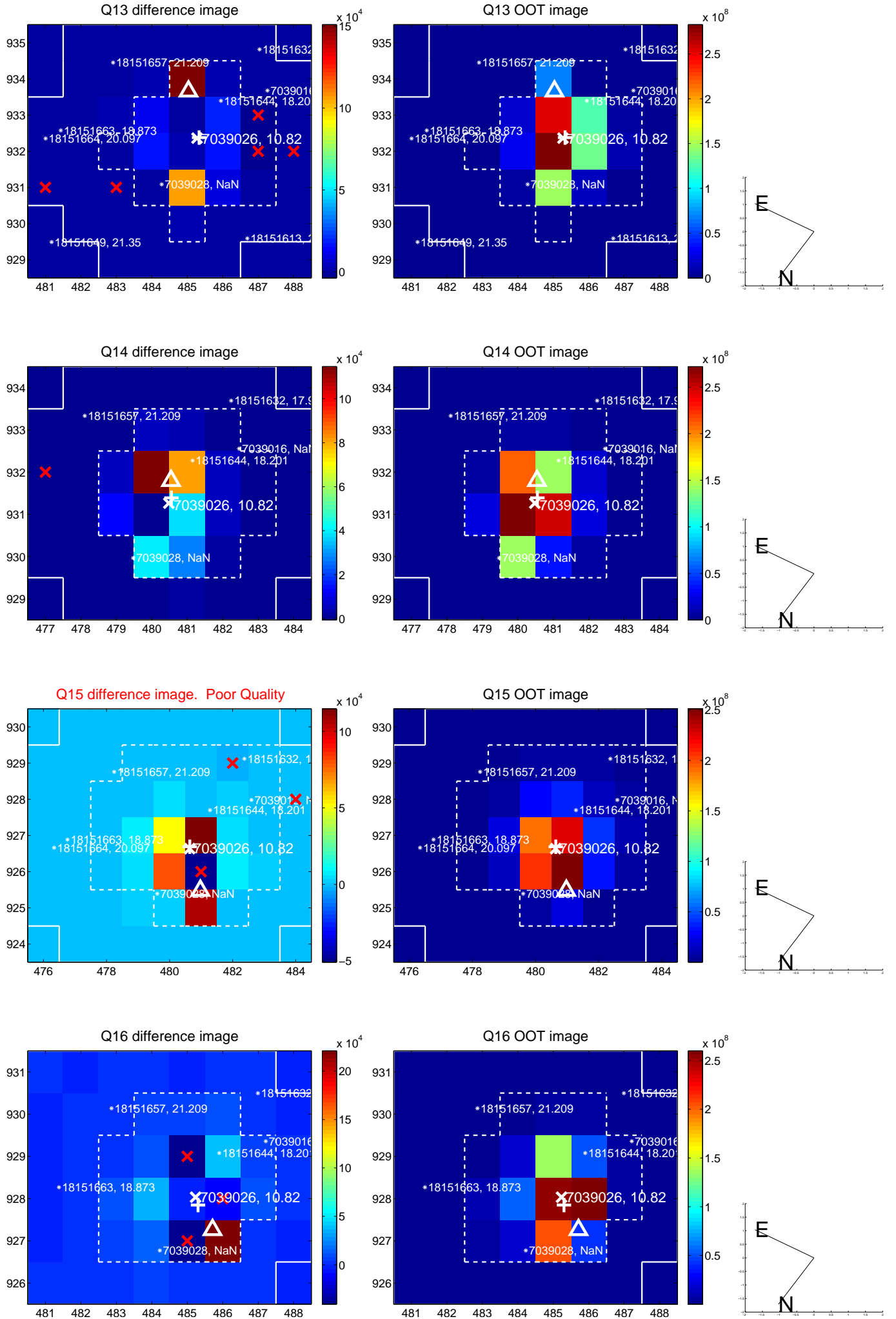
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



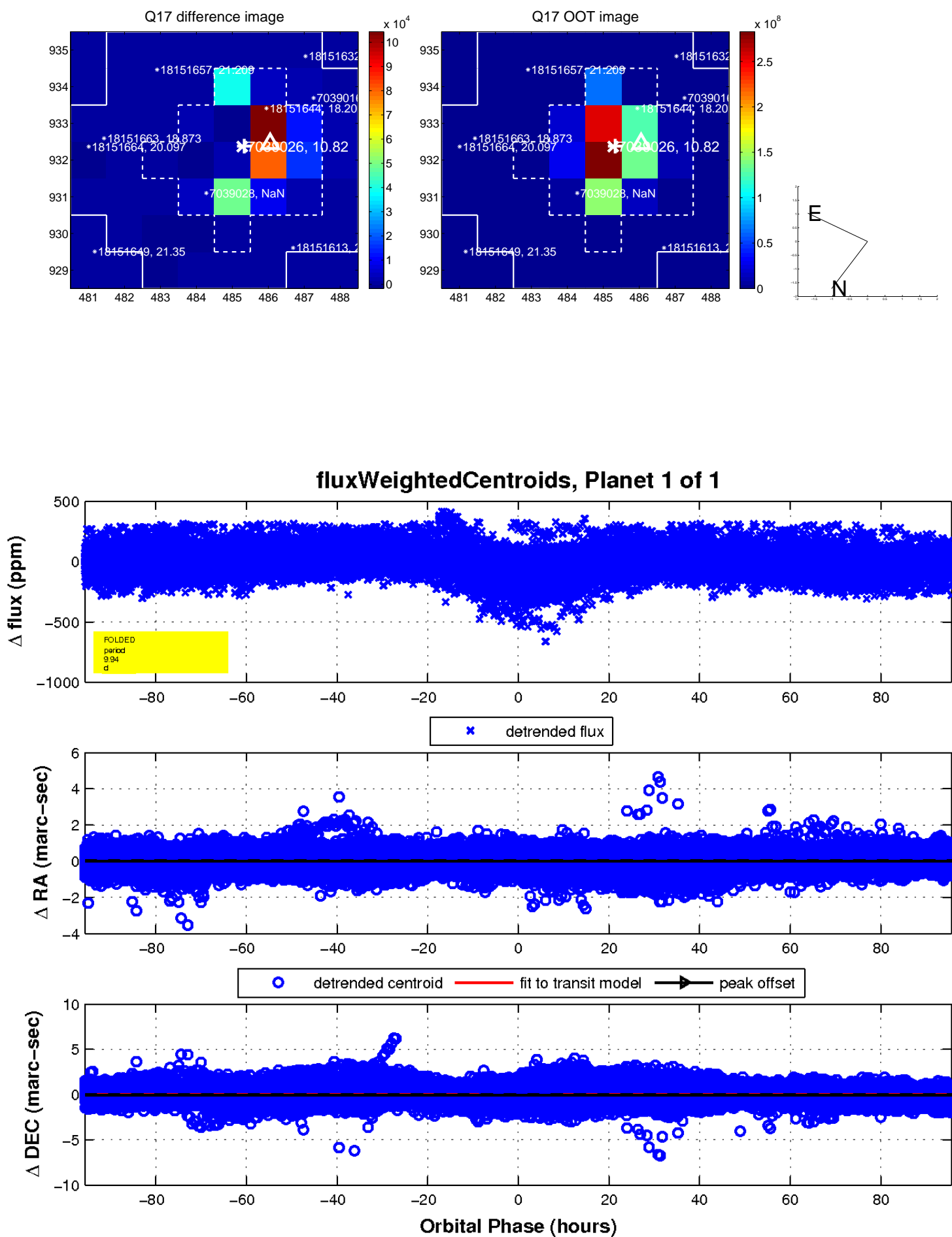
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

