

KIC 010489019

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})
010489019-01	OBS	No	0.781078	131.705094	4.9	8.313	11.9	3.7	3.83	7017	0.88	76513.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010489019-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_UNCERTAIN

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

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

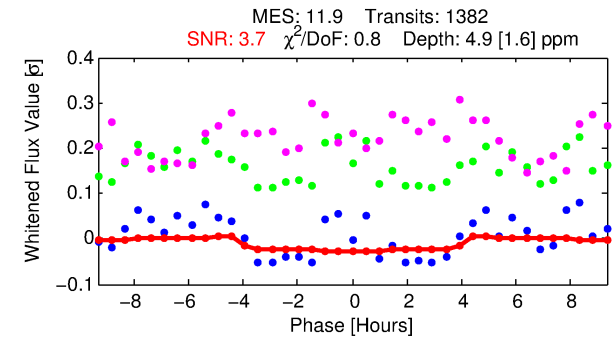
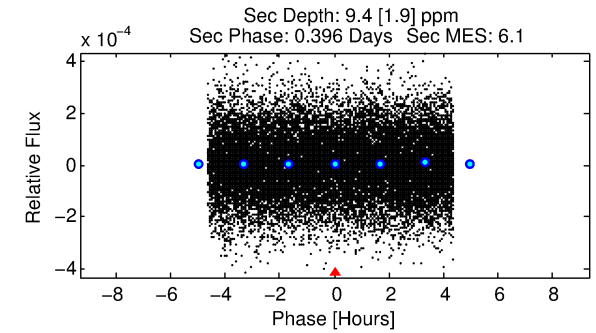
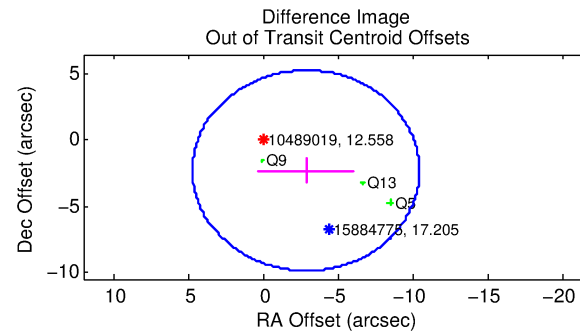
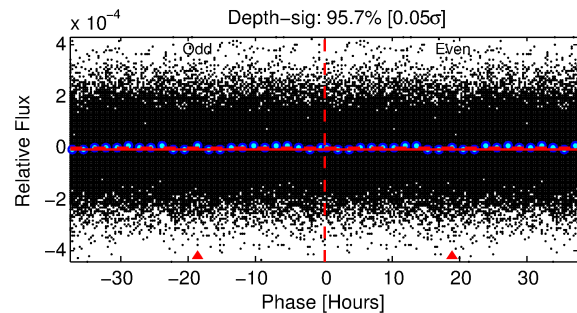
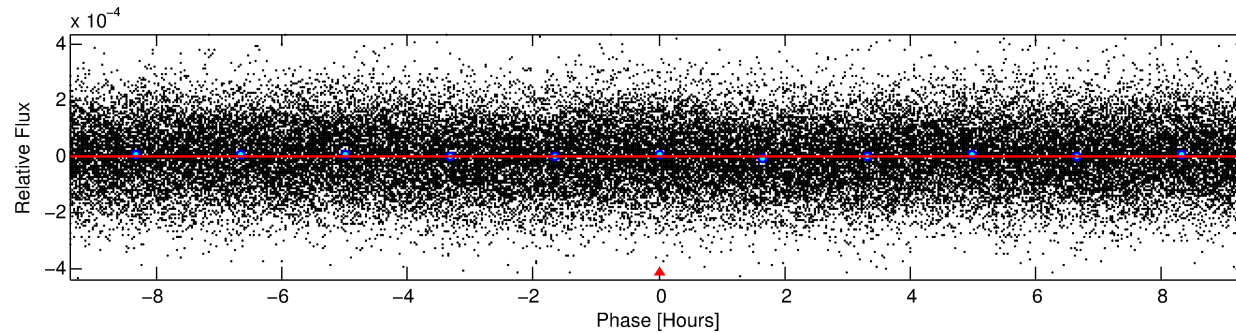
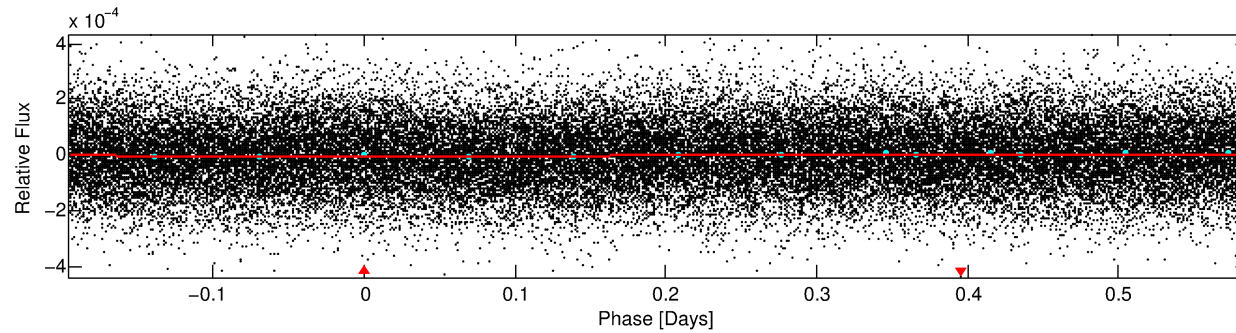
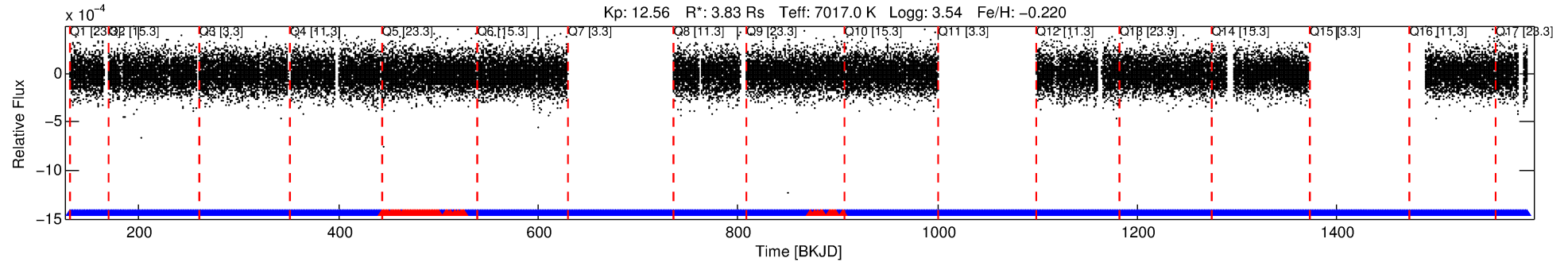
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010489019-01

No Significant Match Found

DV One-Page Summary

KIC: 10489019 Candidate: 1 of 1 Period: 0.781 d



DV Fit Results:

Period = 0.78108 [0.00004] d
Epoch = 131.7051 [0.0154] BKJD
Rp/R* = 0.0021 [0.0041]
a/R* = 1.01 [0.30]
b = 0.51 [16.57]
Seff = 76513.43 [43337.19]
Teq = 4241 [601] K
Rp = 0.88 [1.73] Re
a = 0.0204 [0.0071] AU
Ag = 2.80 [10.95] [0.16 σ]
Teffp = 8482 [8213] K [0.52 σ]

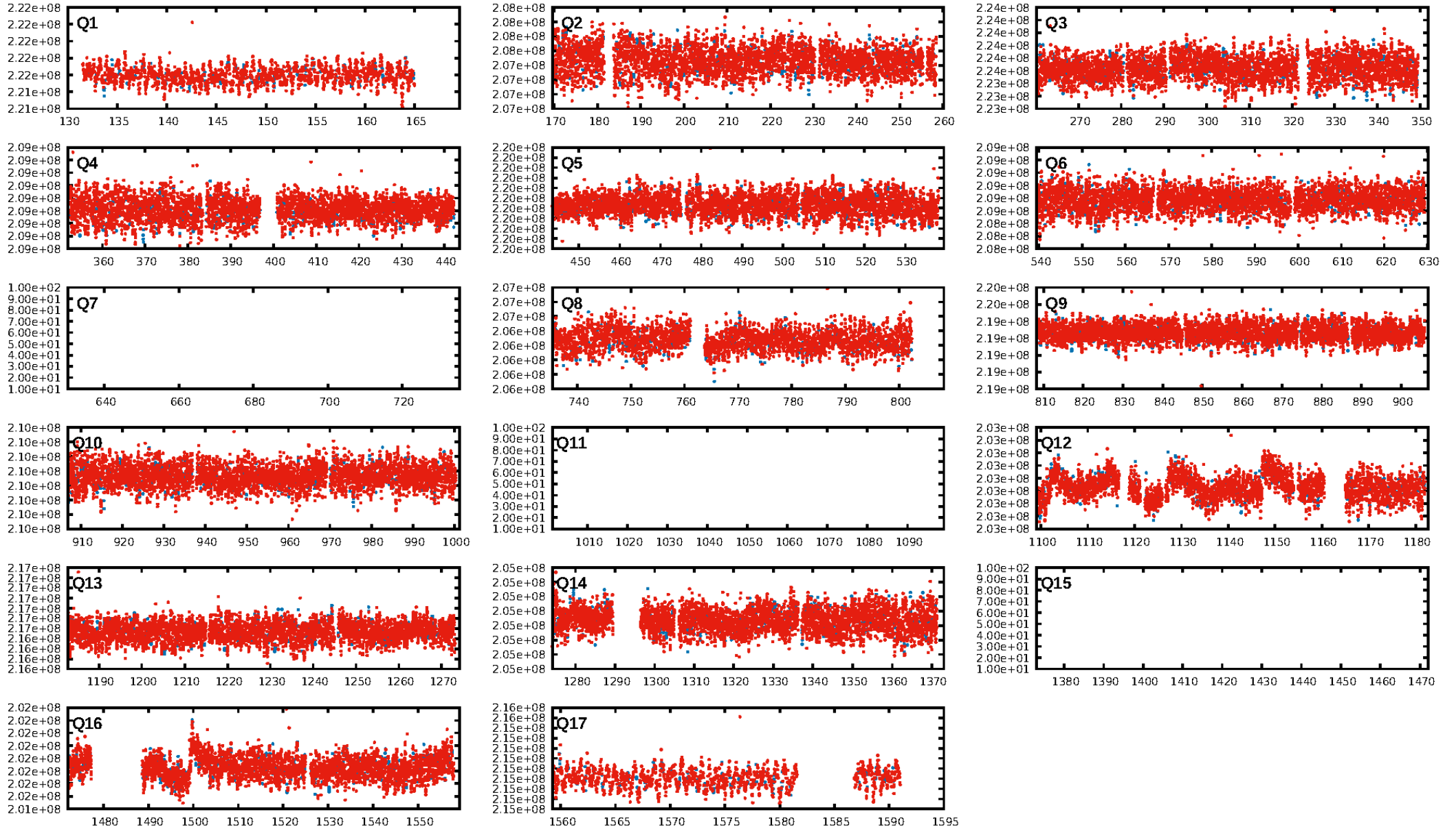
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [1225/1304]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.683 arcsec [1.46 σ]
KicOffset-rm: 3.835 arcsec [1.53 σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [14/14]

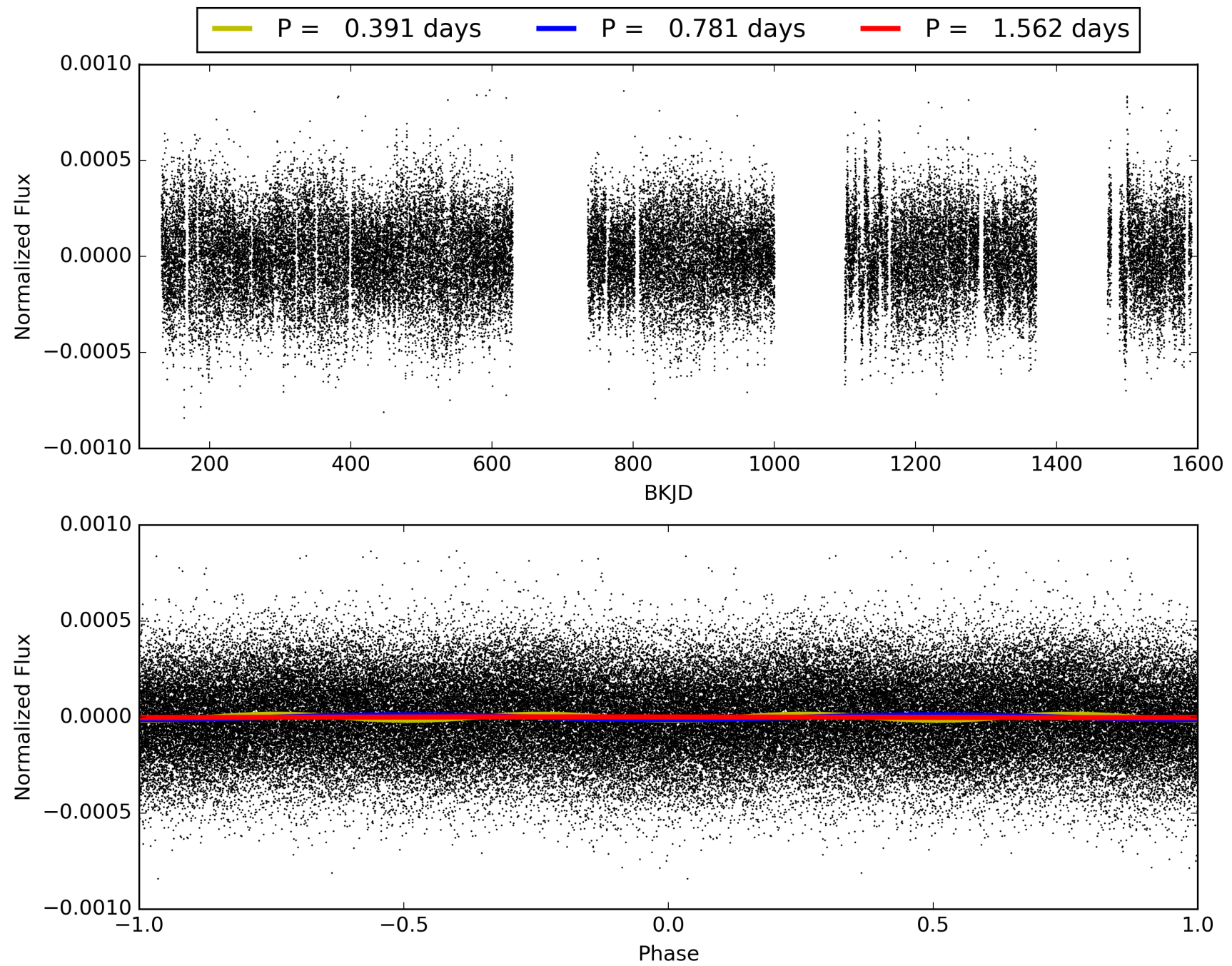
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:30:13 Z

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

TCE 010489019-01, PDC Light Curves

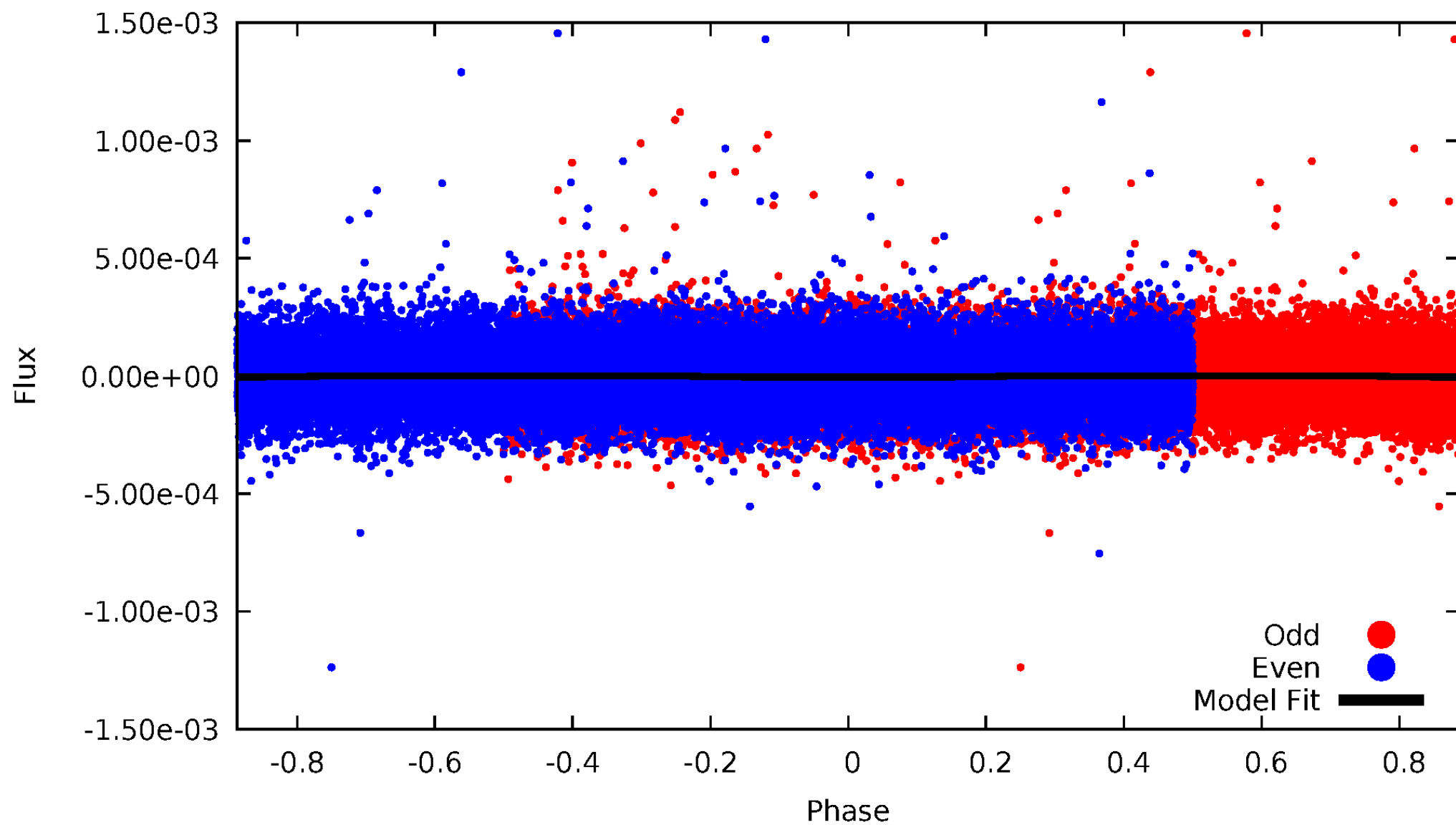


TCE 010489019-01



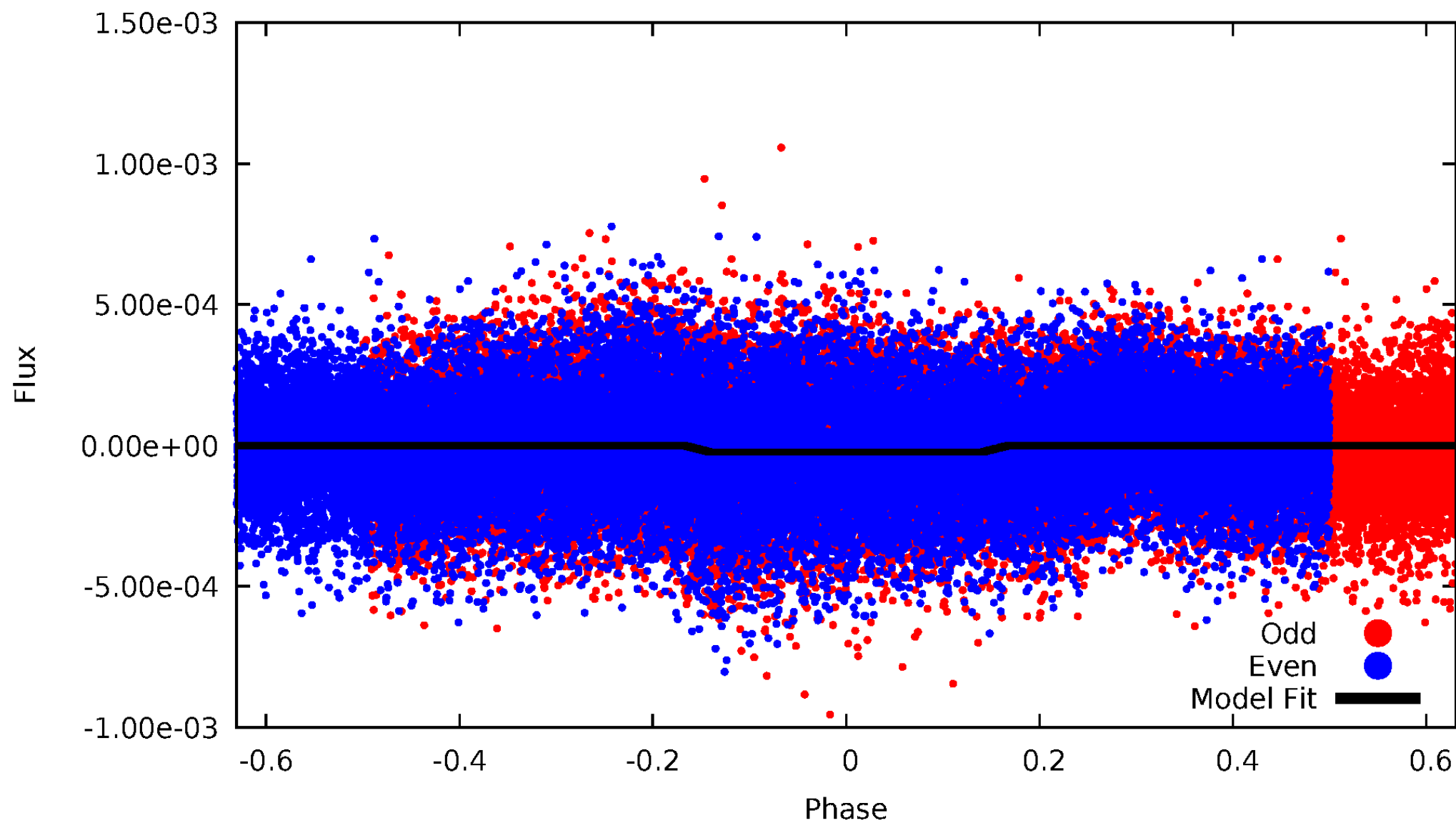
DV Odd/Even

TCE 010489019-01

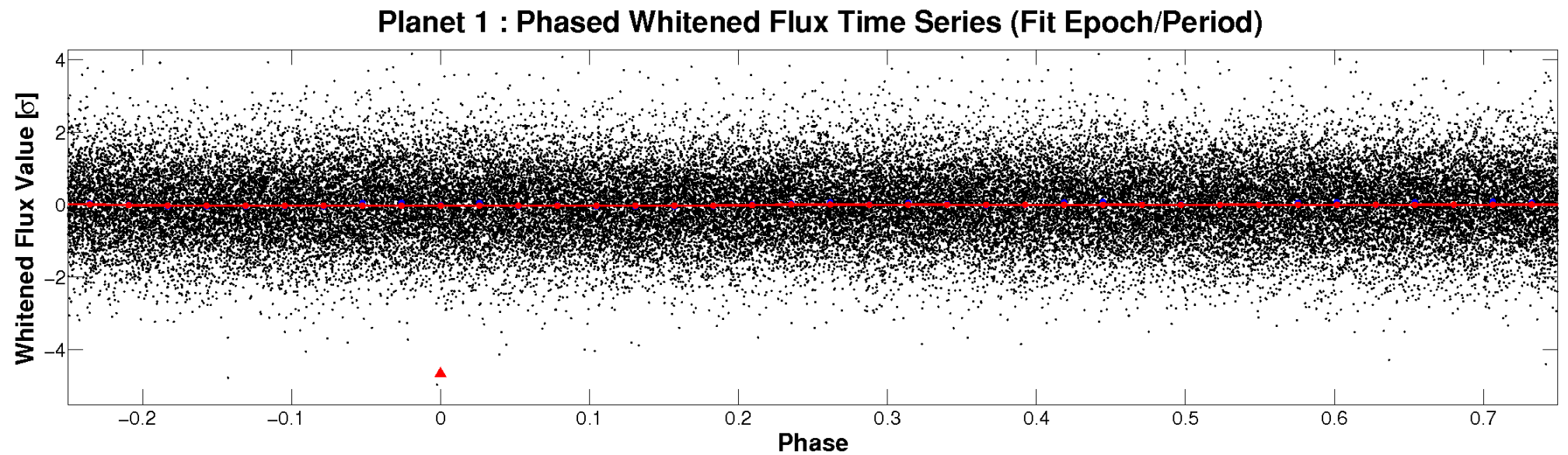
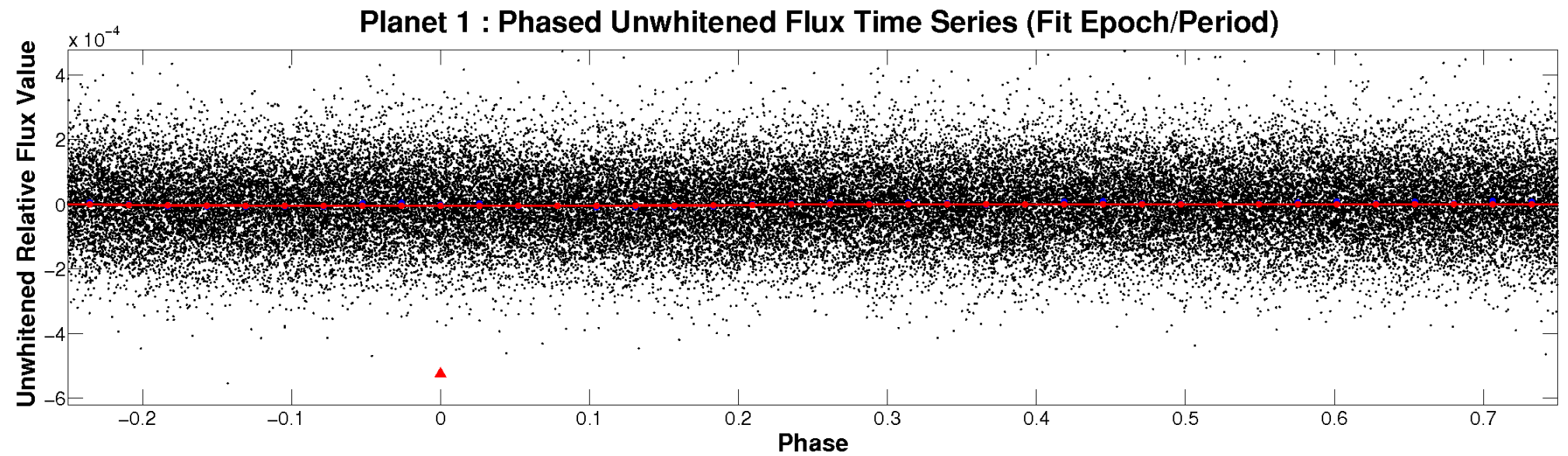


ALT Odd/Even

TCE 010489019-01

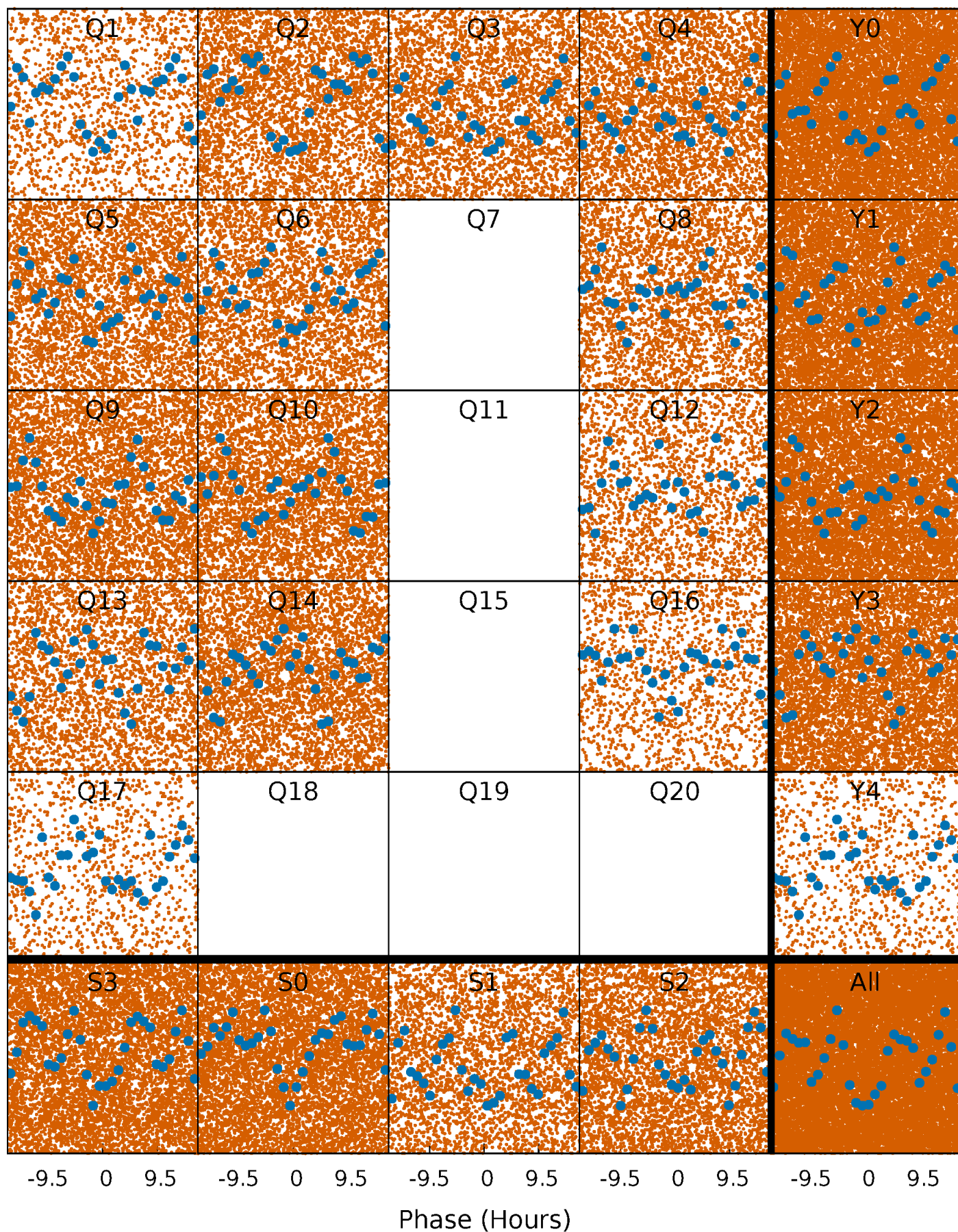


Non-Whitened Vs. Whitened Light Curve



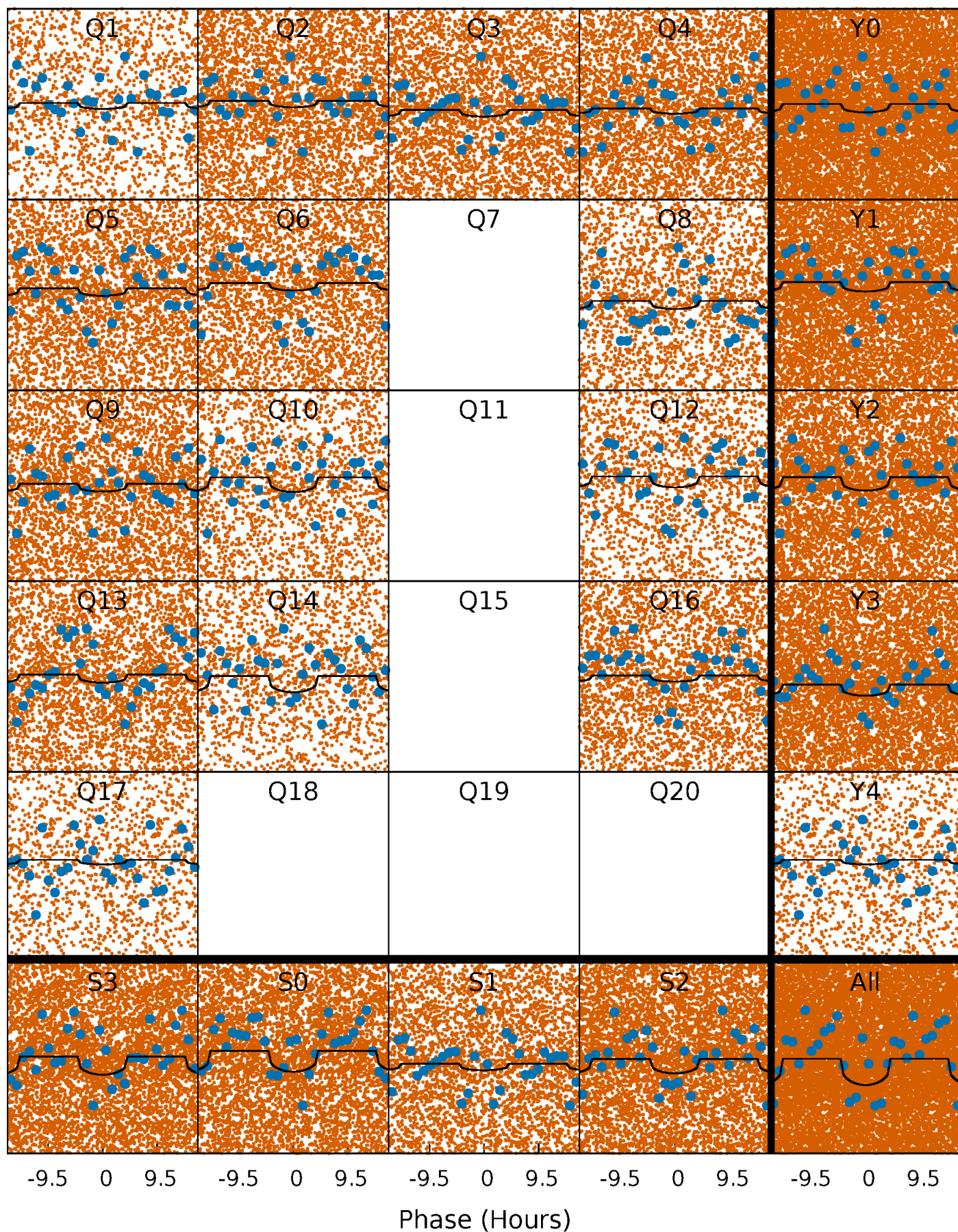
PDC Quarter-Phased Transit Curves

TCE 010489019-01 P= 0.781078 Days $T_0=131.705094$ (BKJD)



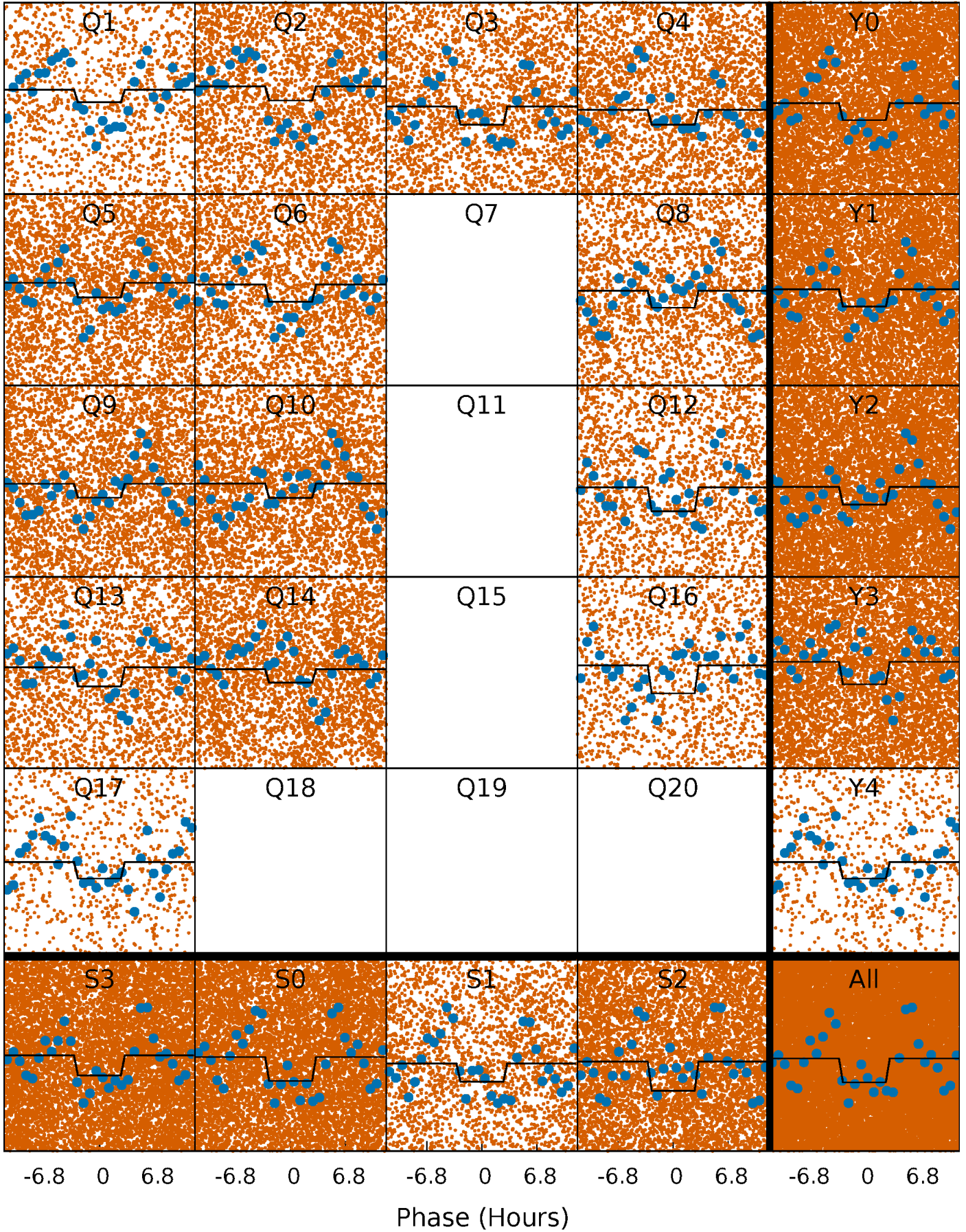
DV Quarter-Phased Transit Curves

TCE 010489019-01 P= 0.781078 Days $T_0=131.705094$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

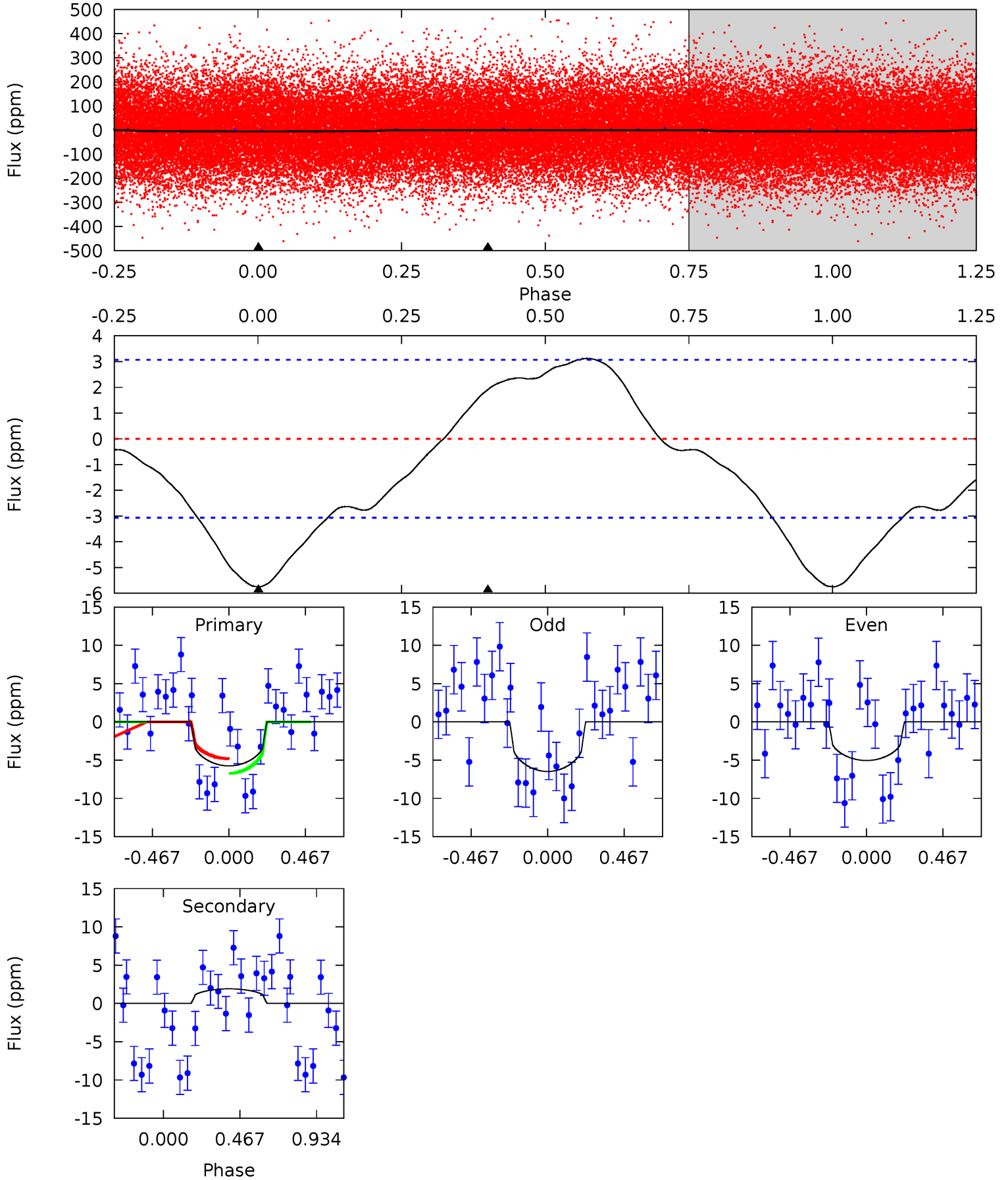
TCE 010489019-01 P= 0.781172 Days $T_0=131.642832$ (BKJD)



DV Model-Shift Uniqueness Test

010489019-01, P = 0.781078 Days, E = 130.924016 Days

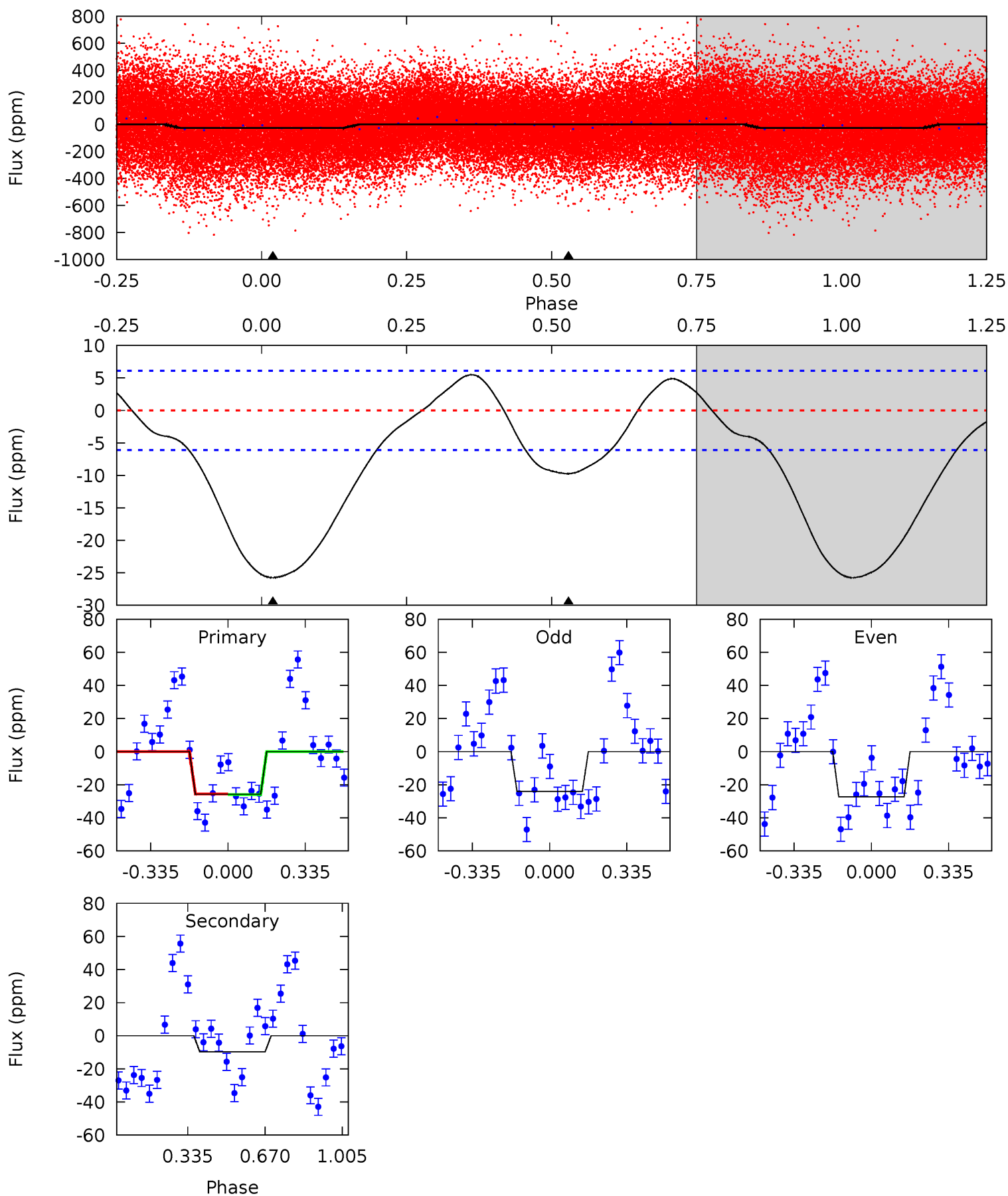
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.93	-2.64	0	0	4.23	0.73	0.89	7.93	7.93	-2.64	-2.64	0.99	0.89	0.35	1.34



Alt Model-Shift Uniqueness Test

010489019-01, P = 0.781172 Days, E = 130.861660 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	6.89	0	0	4.30	0.96	0.87	18.2	18.2	6.89	6.89	1.14	1.04	0.18	0.12



Stellar Parameters For KIC 010489019

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7017^{+189}_{-231}	$3.540^{+0.320}_{-0.080}$	$-0.220^{+0.300}_{-0.250}$	$3.826^{+0.253}_{-1.431}$	$1.850^{+0.194}_{-0.332}$	$0.047^{+0.106}_{-0.011}$
	+3%/-3%	+9%/-2%	+136%/-114%	+7%/-37%	+10%/-18%	+229%/-24%
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 010489019-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 1	$1.35^{+1.46}_{-0.88}$	5836^{+294}_{-490}	-5425^{+473}_{-2531}	$-0.217^{+0.166}_{-1.646}$
Alt.	-10 ± 1	$2.18^{+1.54}_{-1.32}$	5834^{+298}_{-479}	4204^{+3924}_{-8374}	$0.459^{+2.494}_{-0.294}$

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 $A_{obs} \gg 1.0$

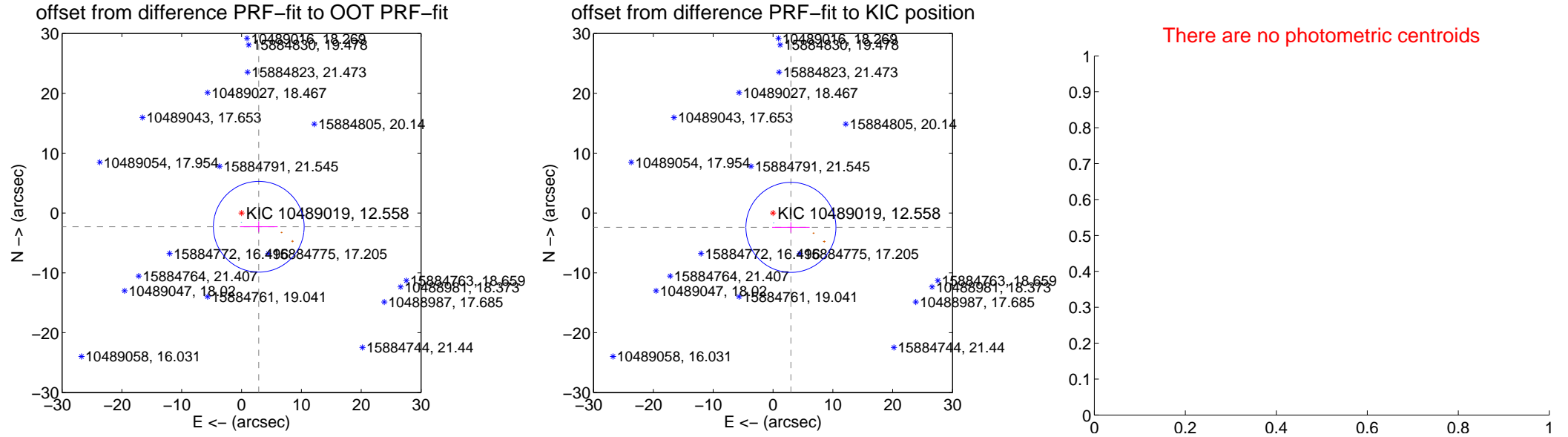
DV Centroid Data

Supplemental centroid analysis for 010489019-01. Kepler magnitude: 12.56. Transit SNR 3.66

There are 1 quarters with good PRF difference image offsets

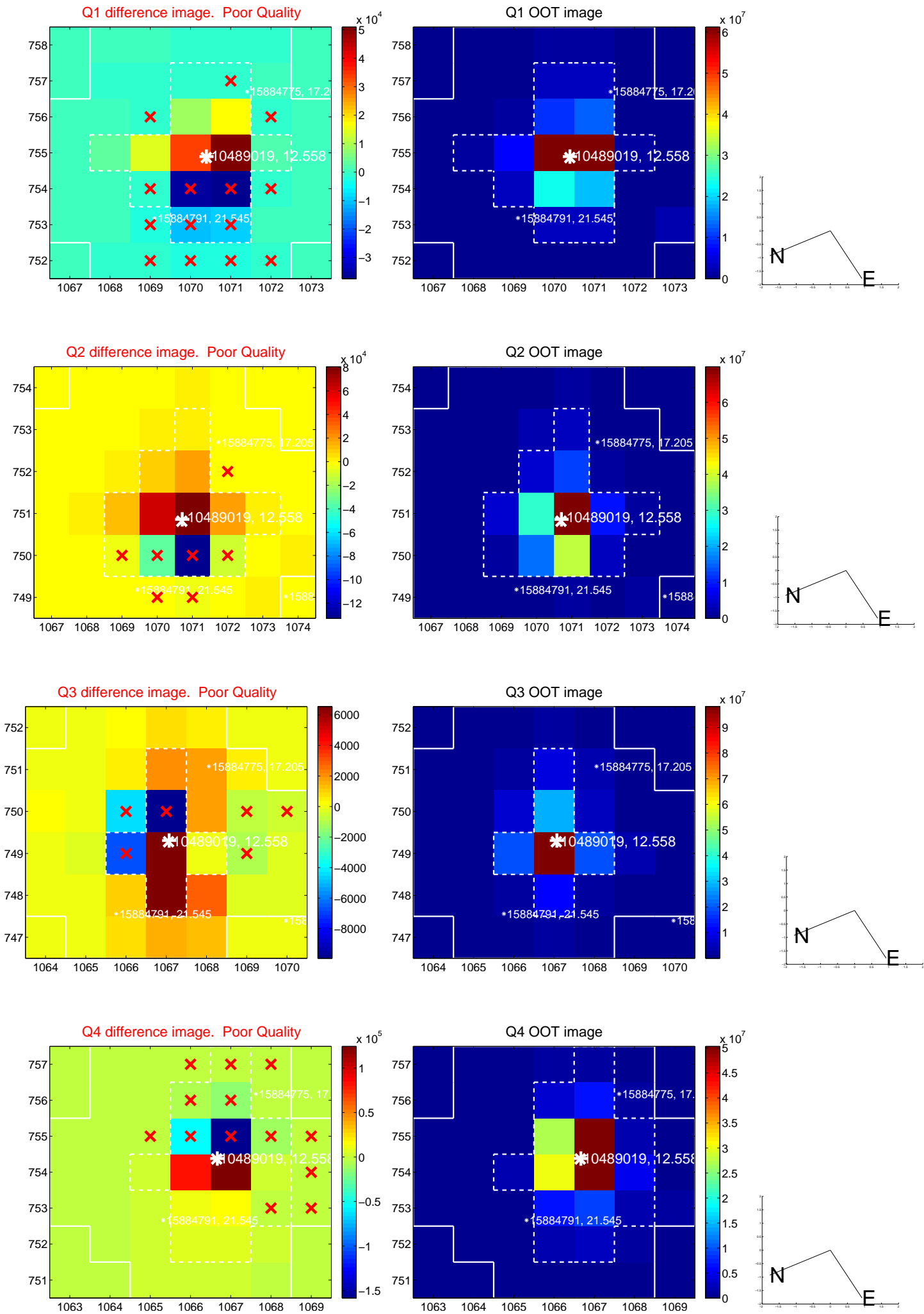
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.683 ± 2.528	1.46	-2.880 ± 3.157	-2.296 ± 0.881
PRF-fit source offset from KIC position	3.835 ± 2.508	1.53	-2.992 ± 3.137	-2.399 ± 0.877
photometric centroid source offset	—	—	—	—

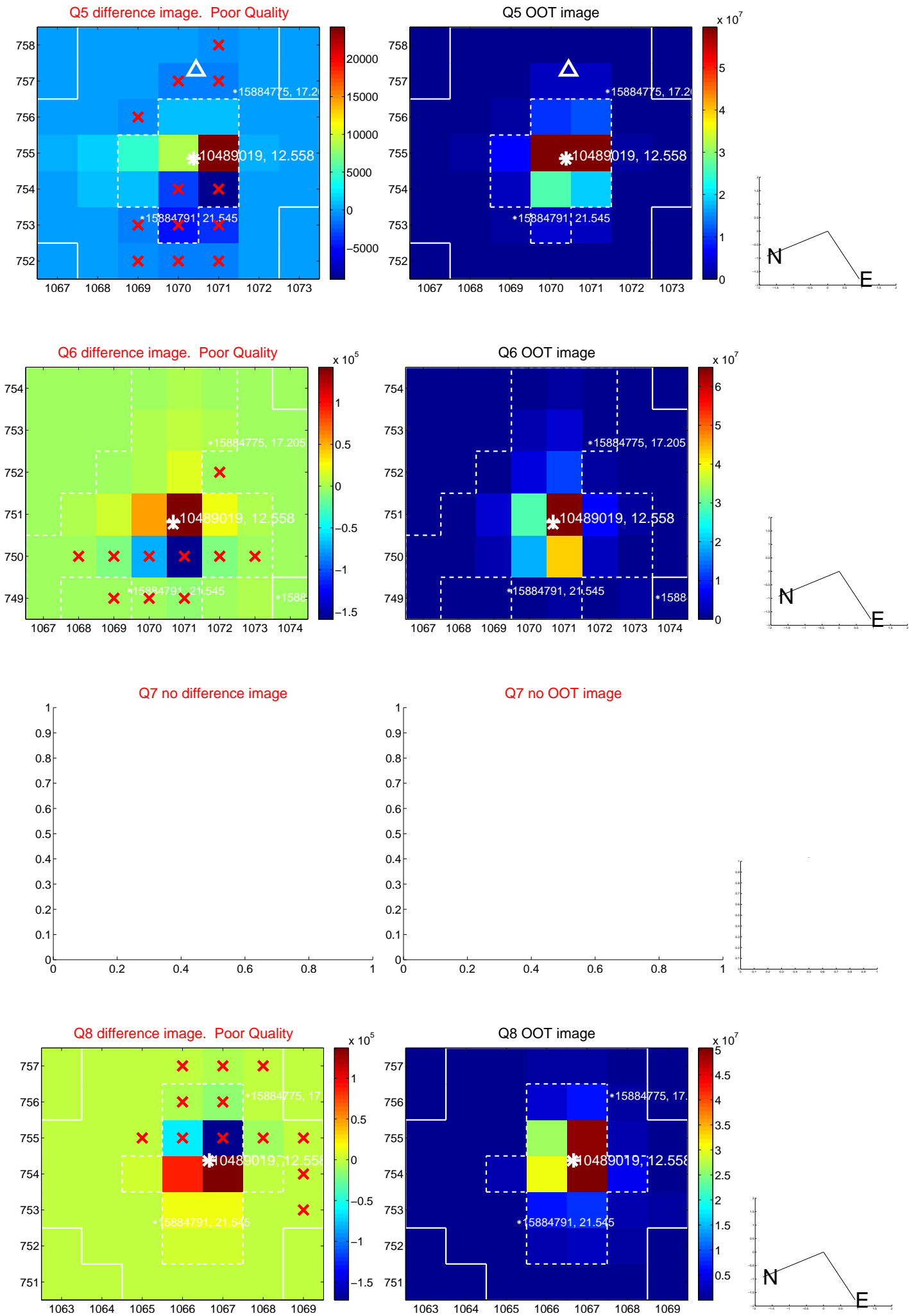


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

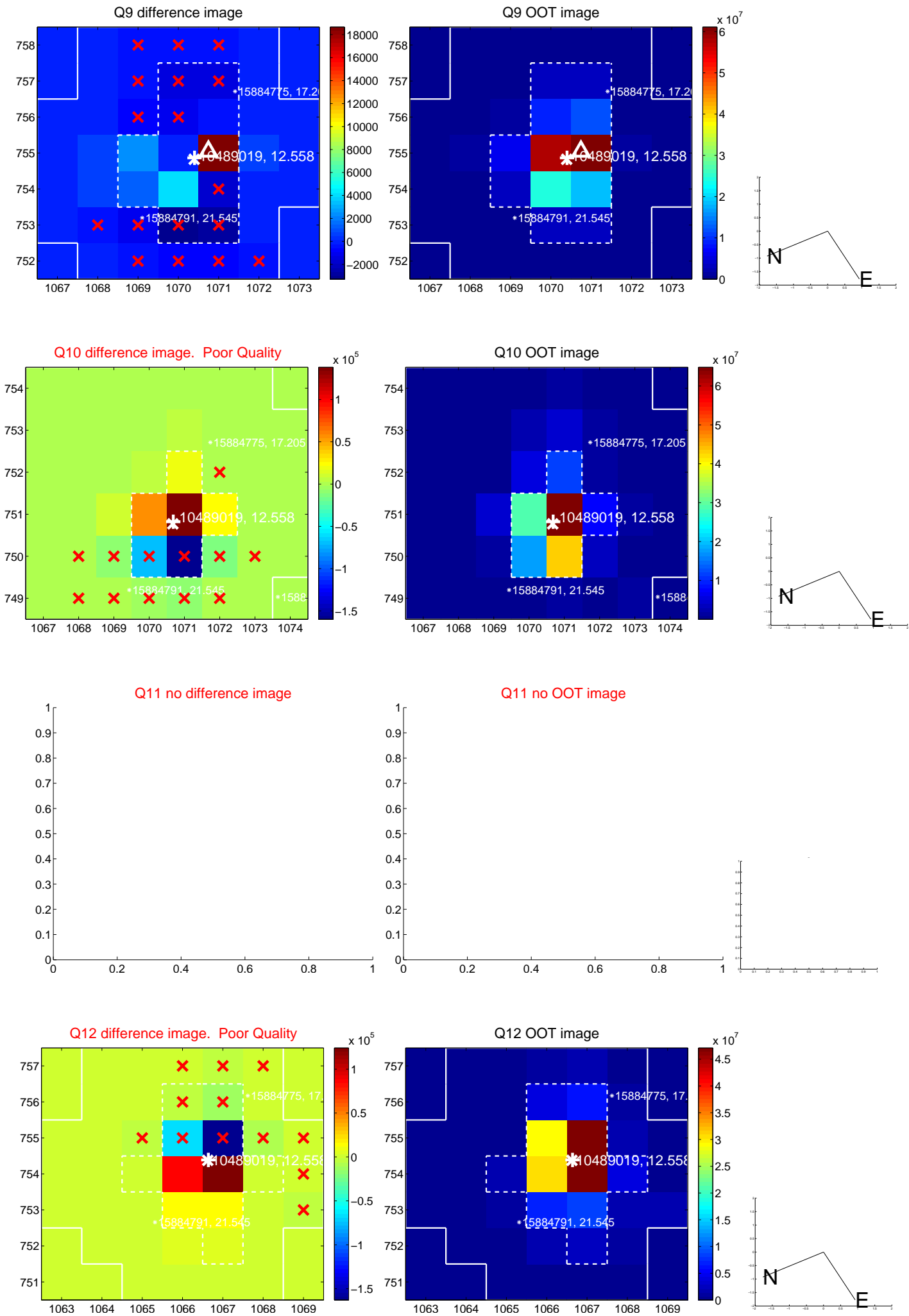
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



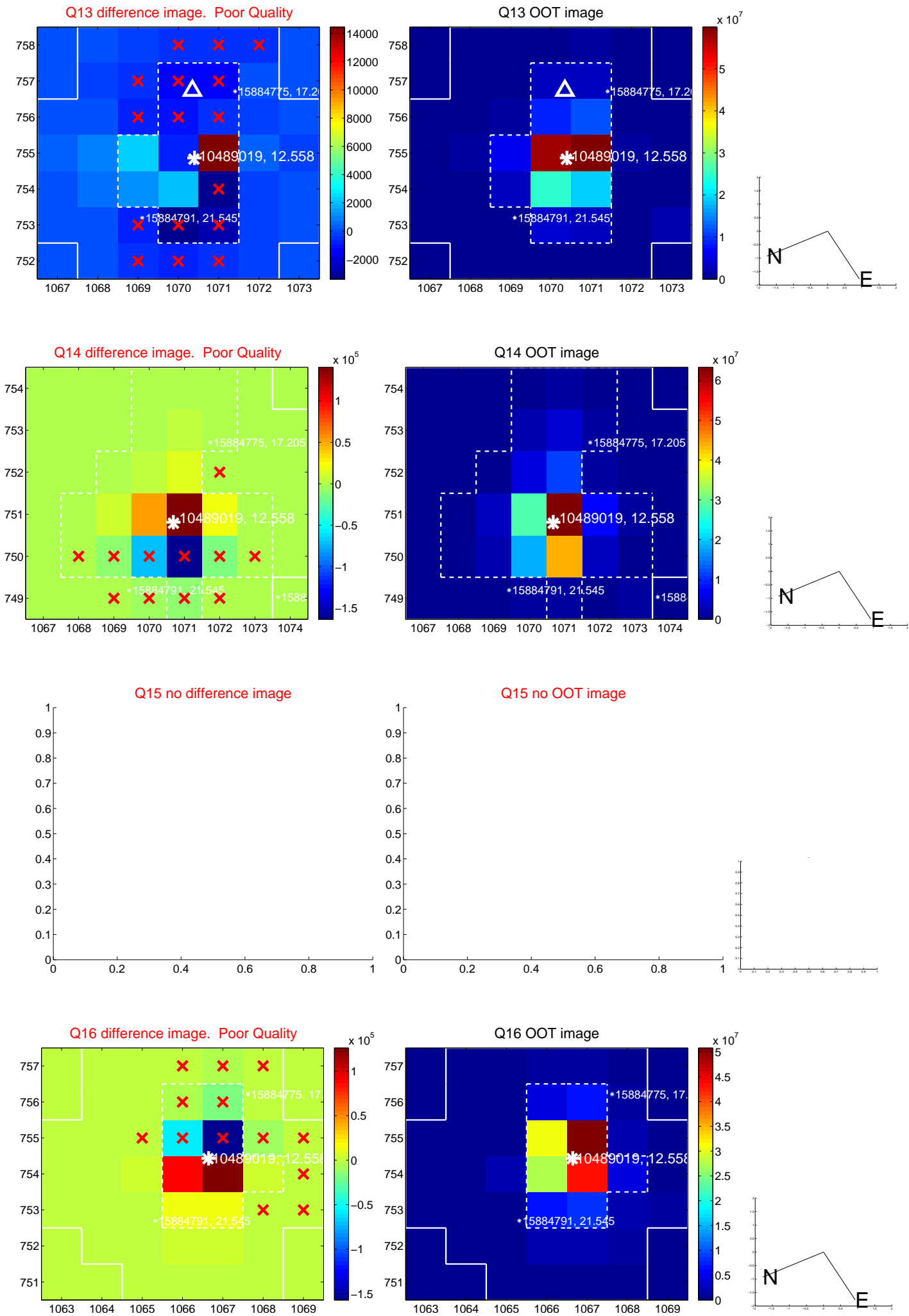
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



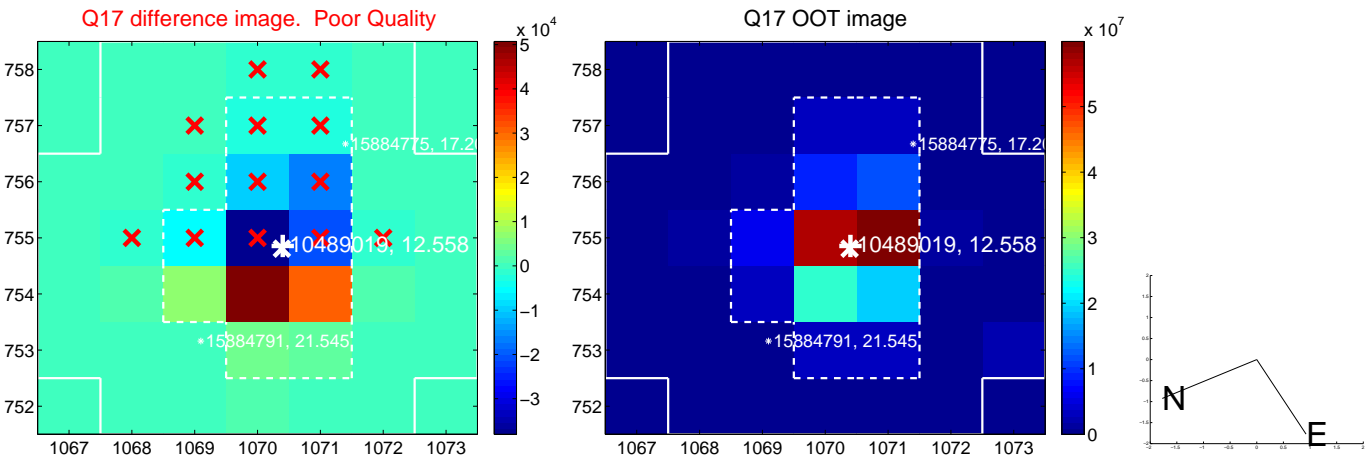
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

