

KIC 008279417

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})
008279417-01	OBS	No	389.975413	363.123168	119.0	13.730	7.5	6.1	1.38	5916	1.71	1.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008279417-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

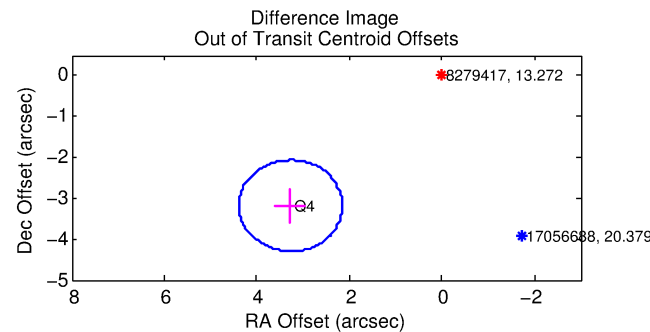
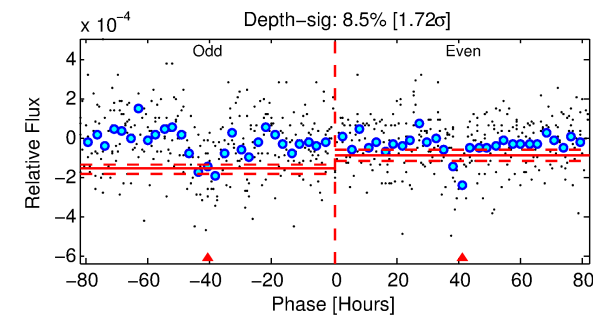
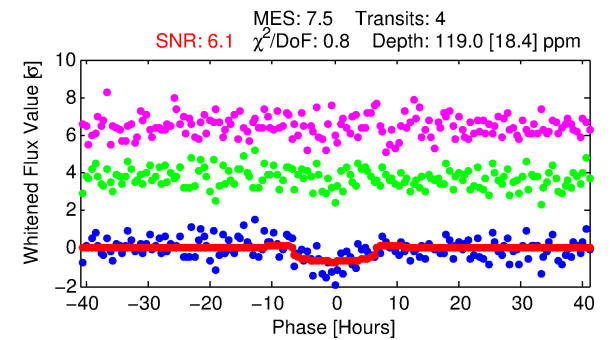
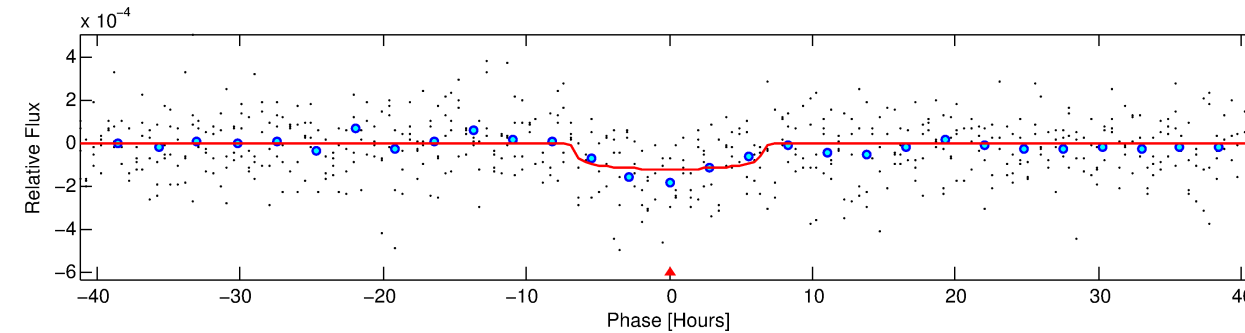
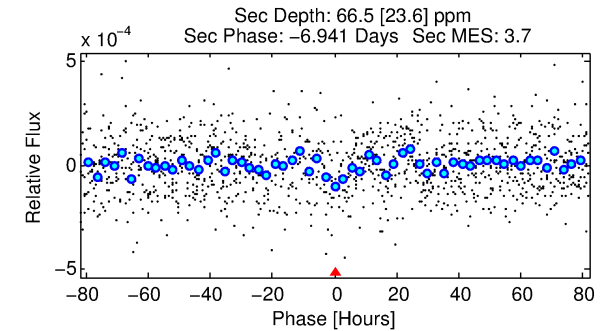
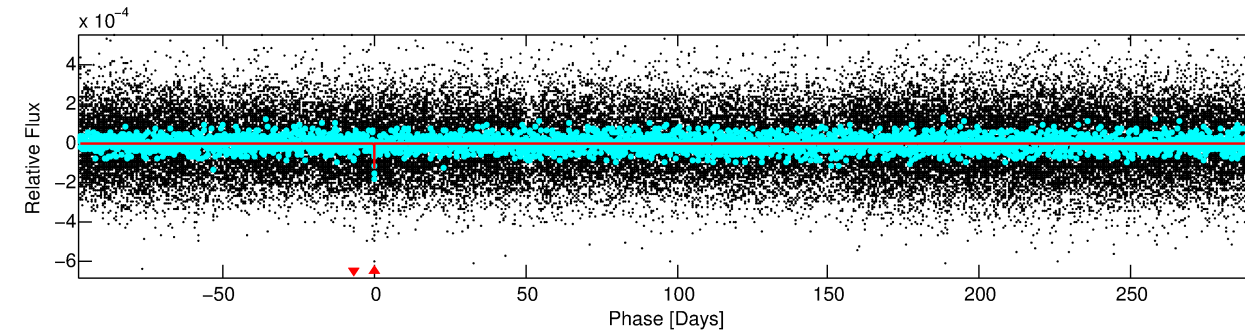
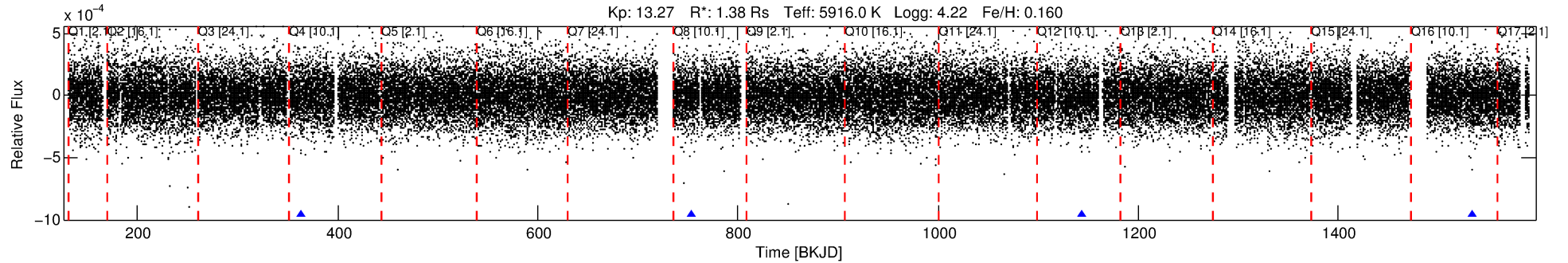
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008279417-01

No Significant Match Found

DV One-Page Summary

KIC: 8279417 Candidate: 1 of 1 Period: 389.975 d



DV Fit Results:

Period = 389.97541 [0.01521] d
Epoch = 363.1232 [0.0280] BKJD
Rp/R* = 0.0114 [0.0036]
a/R* = 120.04 [175.32]
b = 0.85 [0.49]
Seff = 1.75 [0.63]
Teq = 293 [27] K
Rp = 1.71 [0.73] Re
a = 1.0934 [0.2606] AU
Ag = 14939.53 [11954.53] [1.25σ]
Teffp = 5010 [918] K [5.13σ]

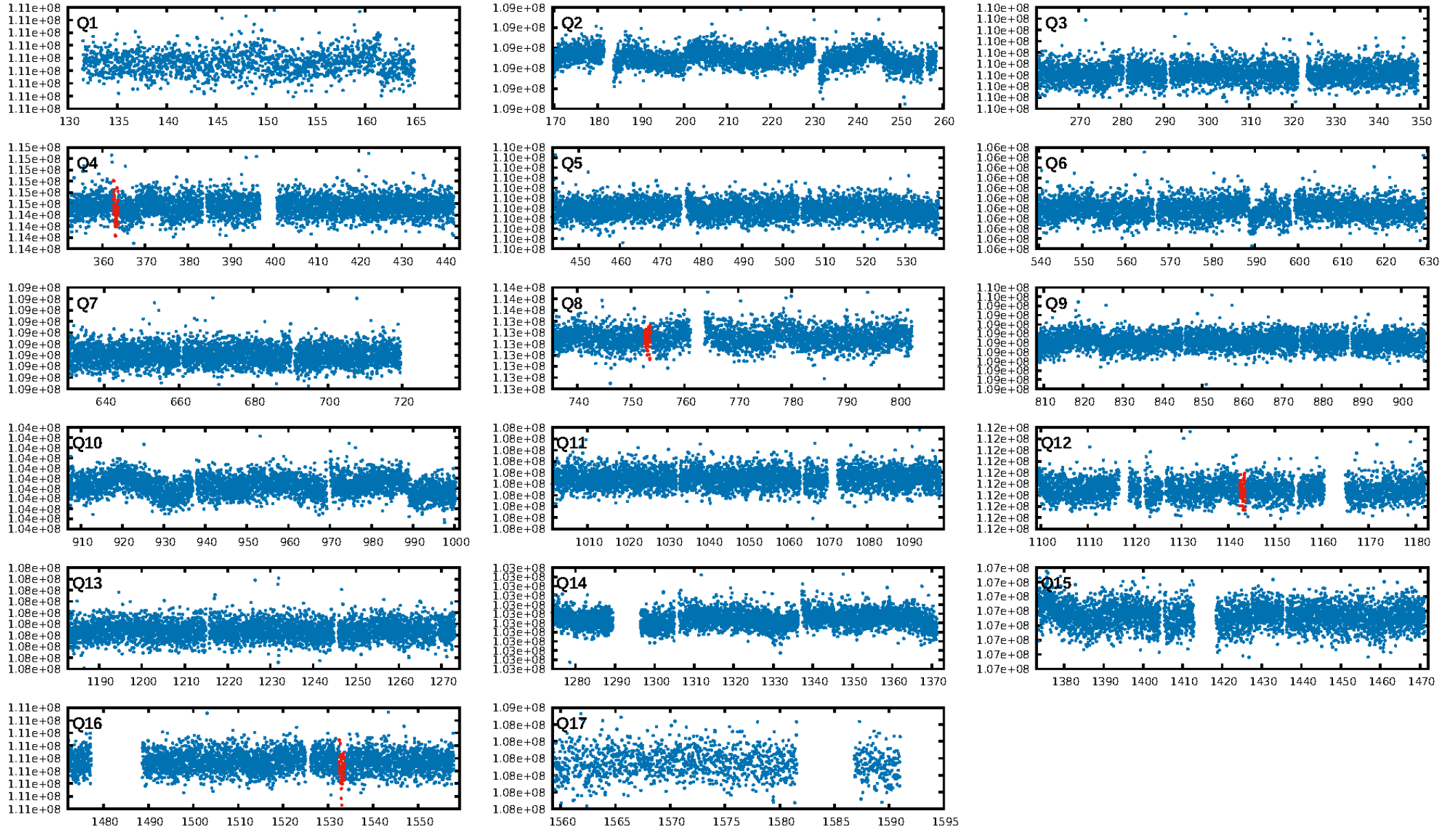
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.82e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.359
Centroid-sig: 4.8%
Centroid-so: 3.333 arcsec [1.45σ]
OotOffset-rm: 4.566 arcsec [12.25σ]
KicOffset-rm: 4.579 arcsec [12.32σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

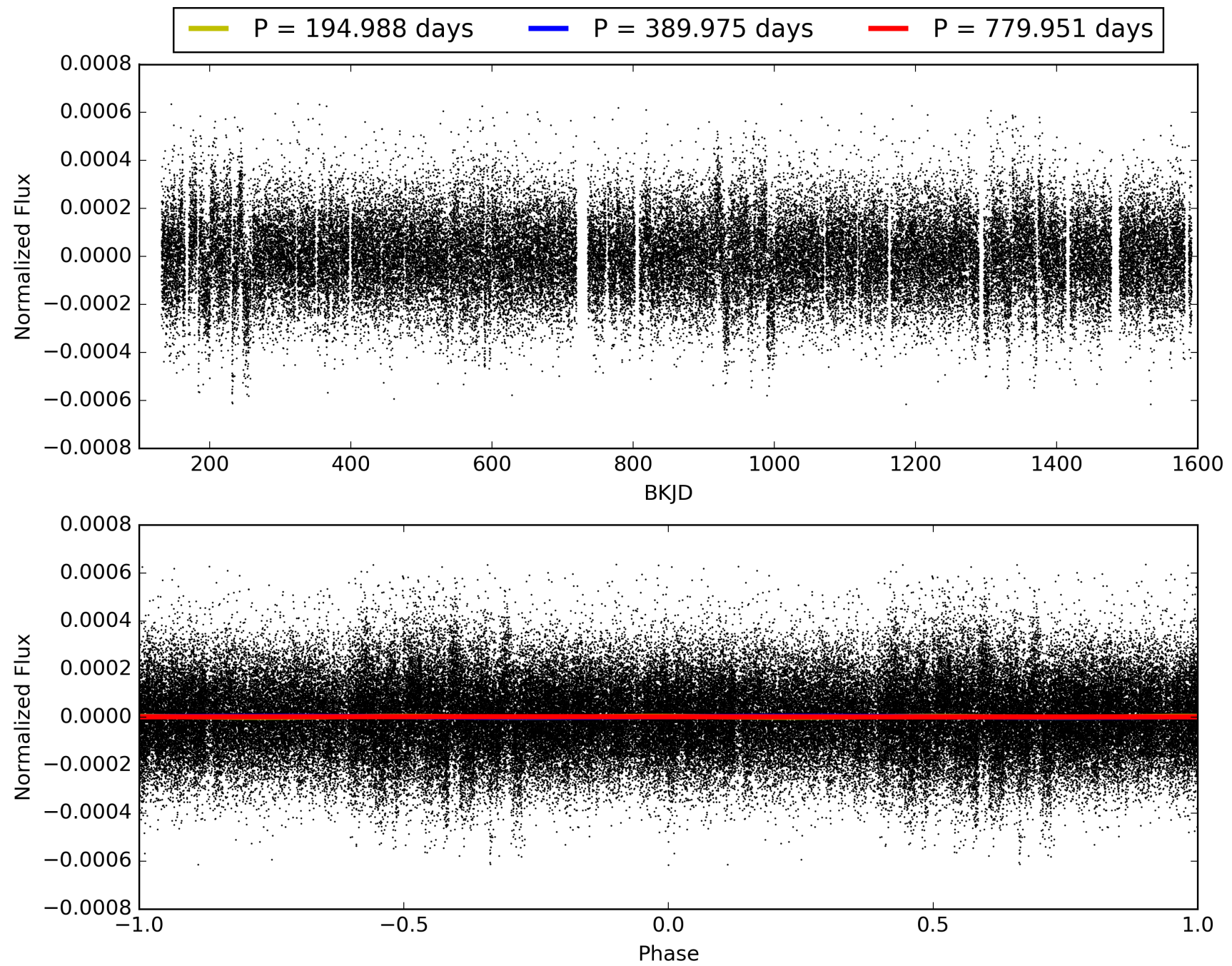
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:34:08 Z

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

TCE 008279417-01, PDC Light Curves

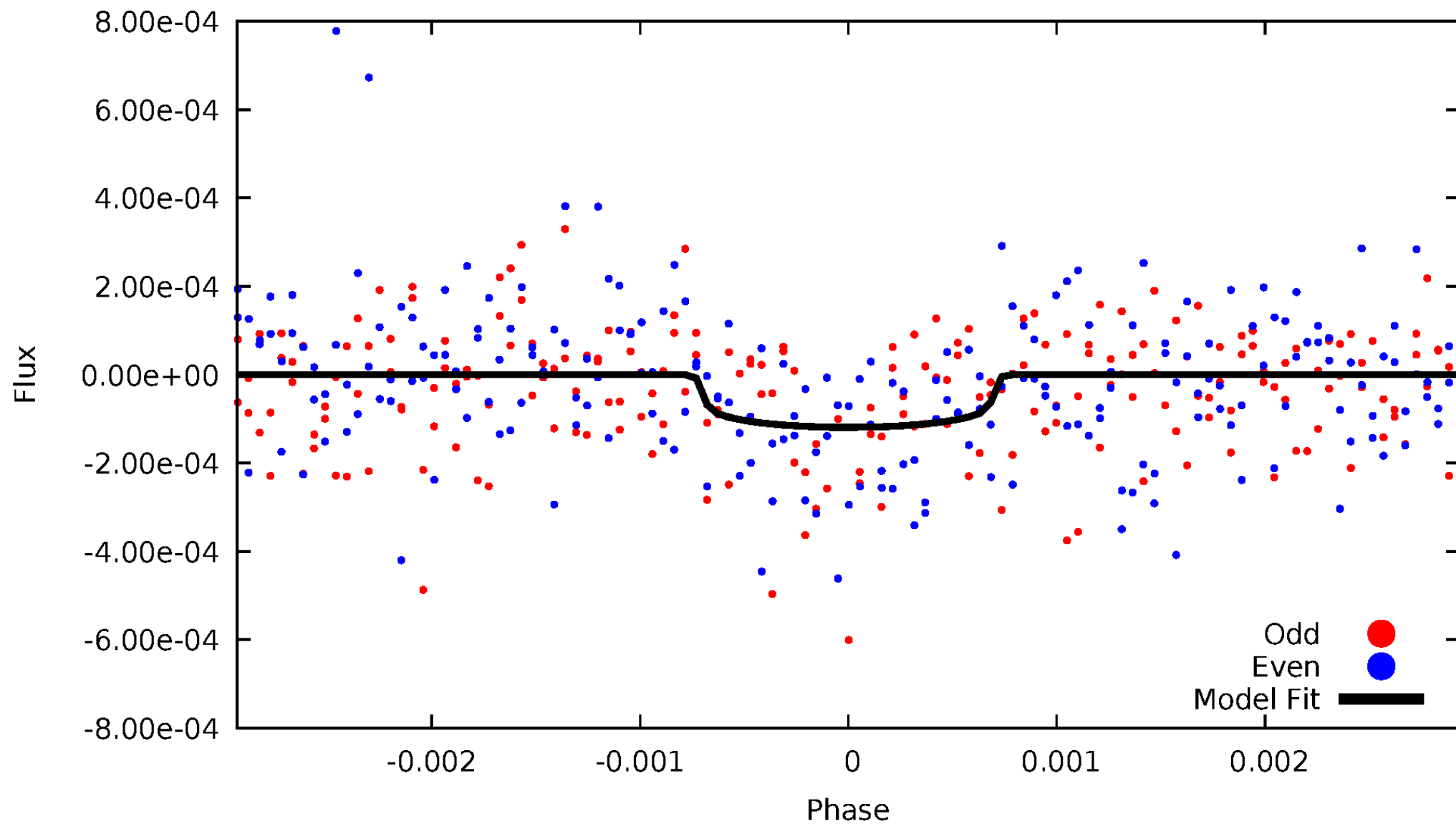


TCE 008279417-01



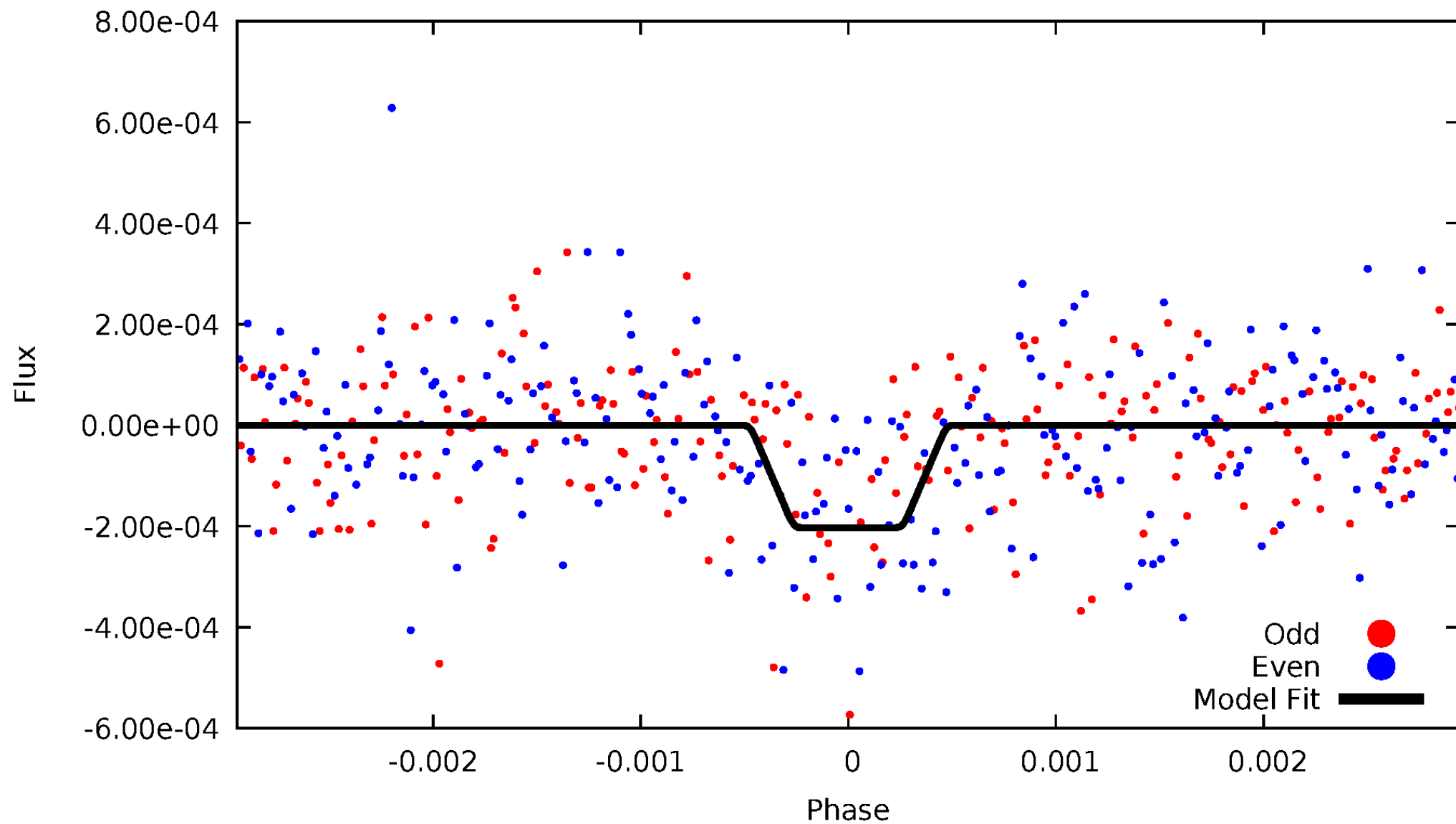
DV Odd/Even

TCE 008279417-01



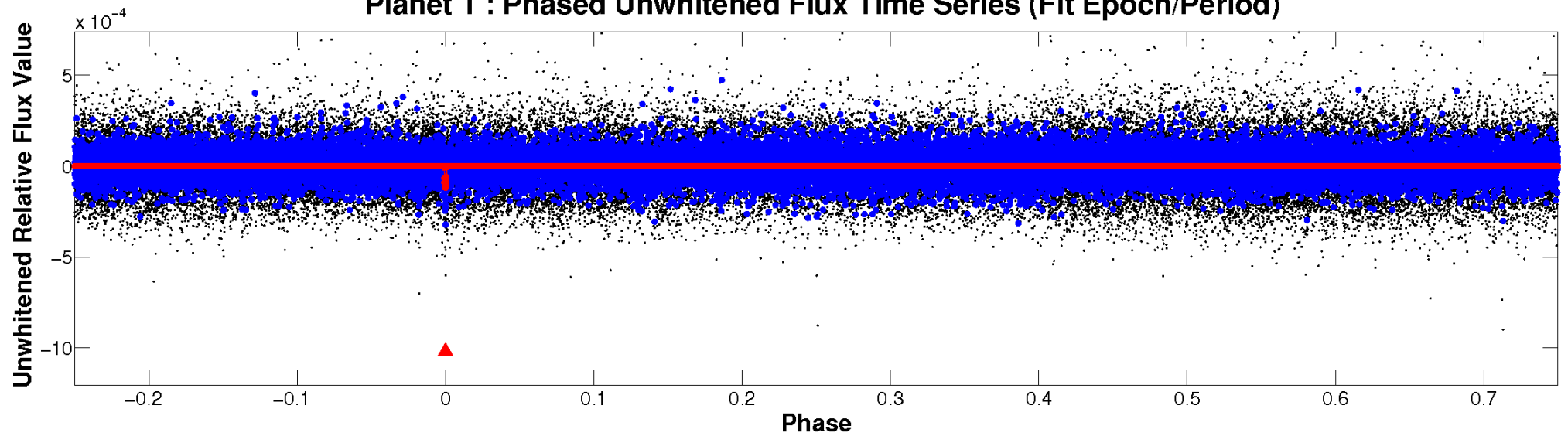
ALT Odd/Even

TCE 008279417-01

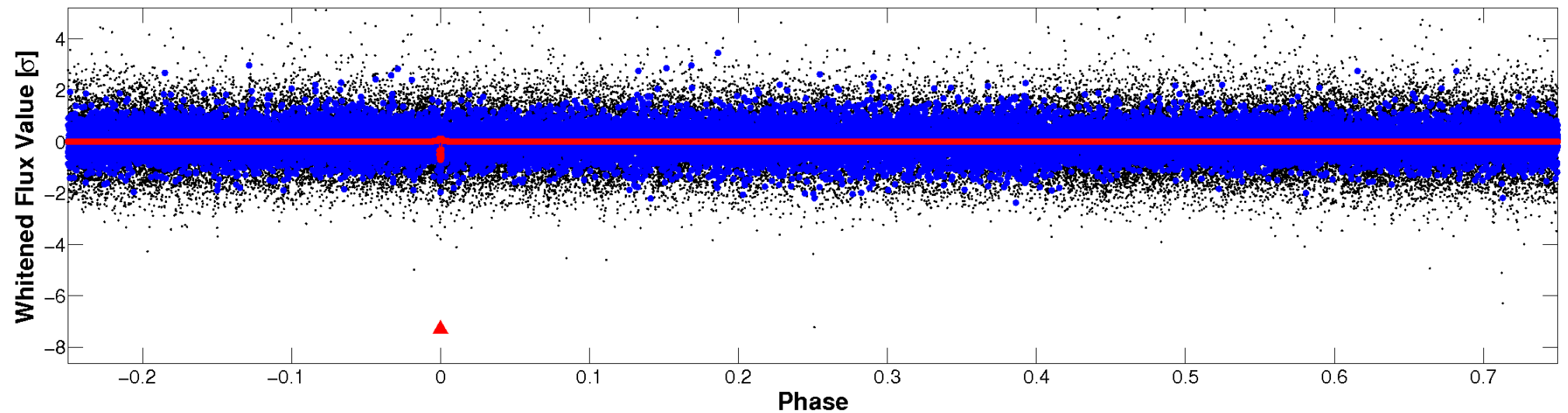


Non-Whitened Vs. Whitened Light Curve

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



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



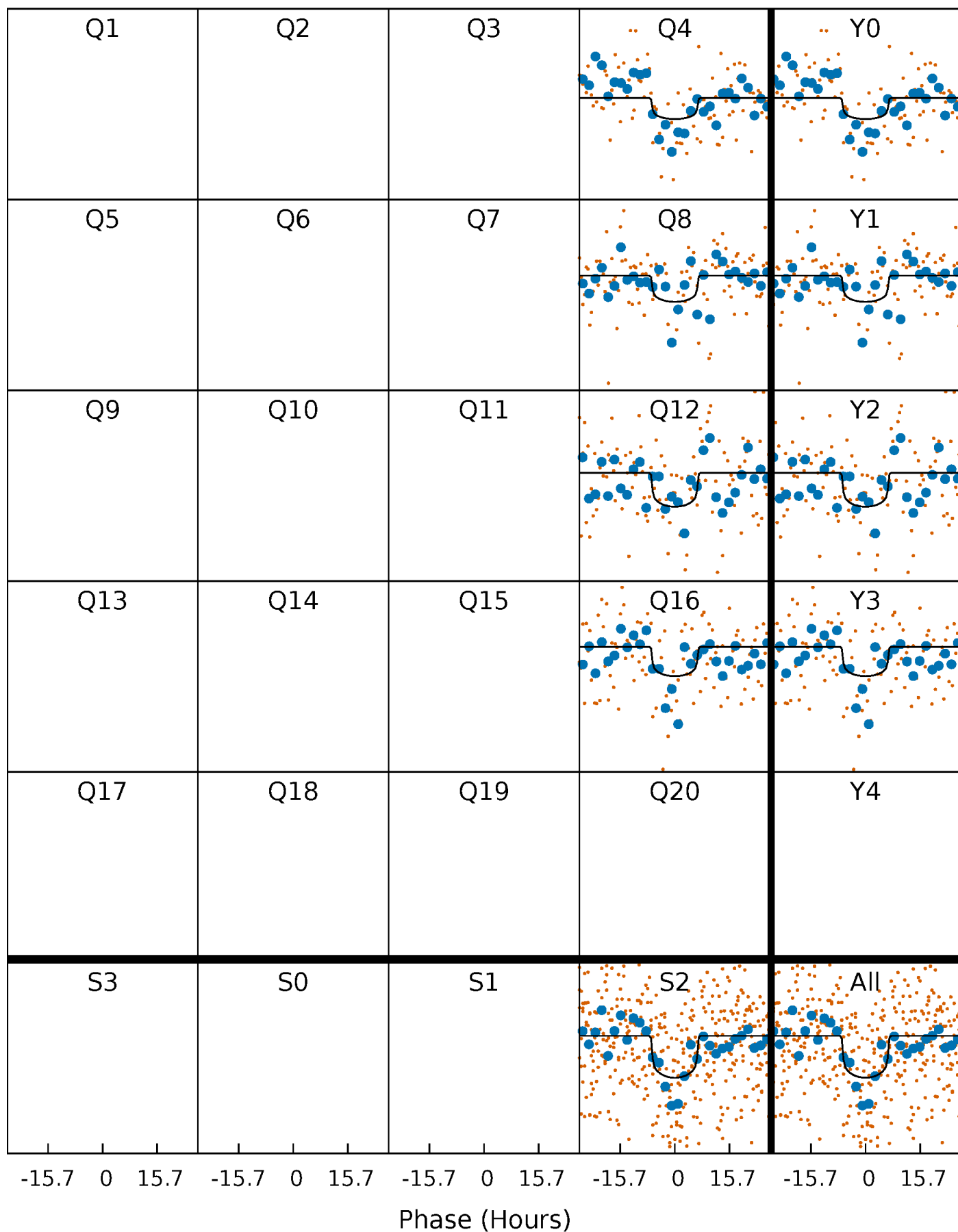
PDC Quarter-Phased Transit Curves

TCE 008279417-01 P=389.975413 Days $T_0=363.123168$ (BKJD)



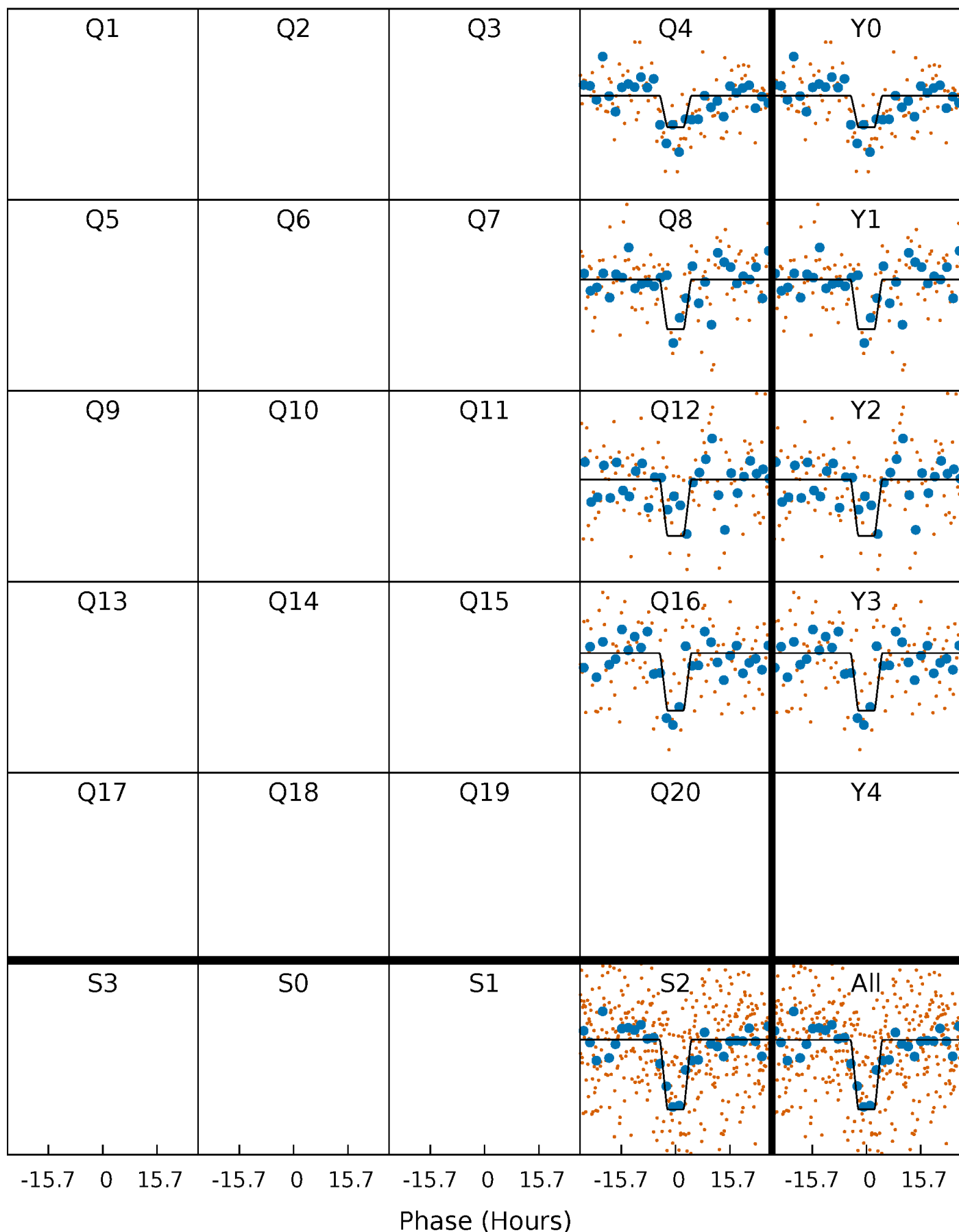
DV Quarter-Phased Transit Curves

TCE 008279417-01 P=389.975413 Days $T_0=363.123168$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

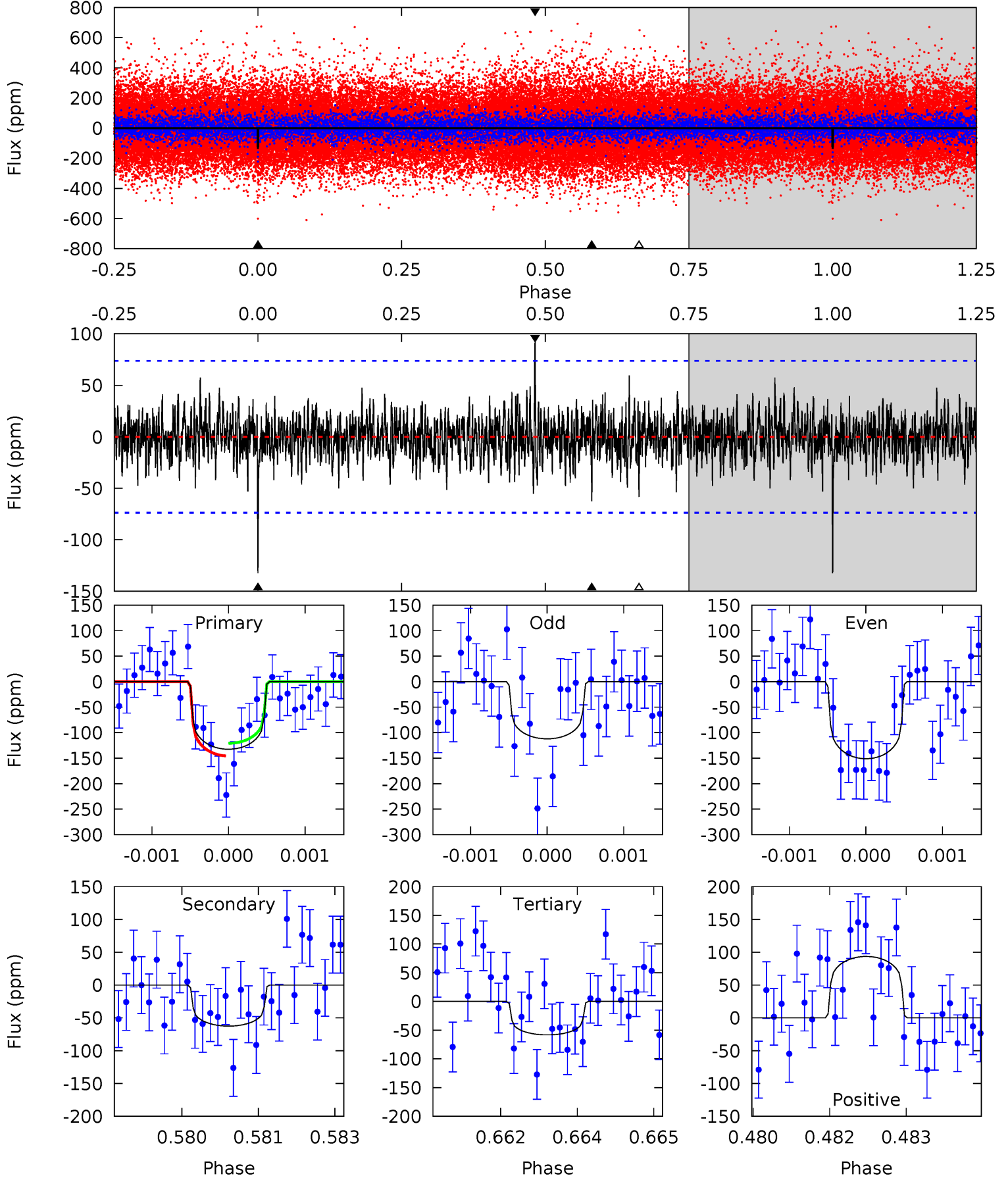
TCE 008279417-01 P=389.988115 Days $T_0=363.083149$ (BKJD)



DV Model-Shift Uniqueness Test

008279417-01, P = 389.975413 Days, E = 363.123168 Days

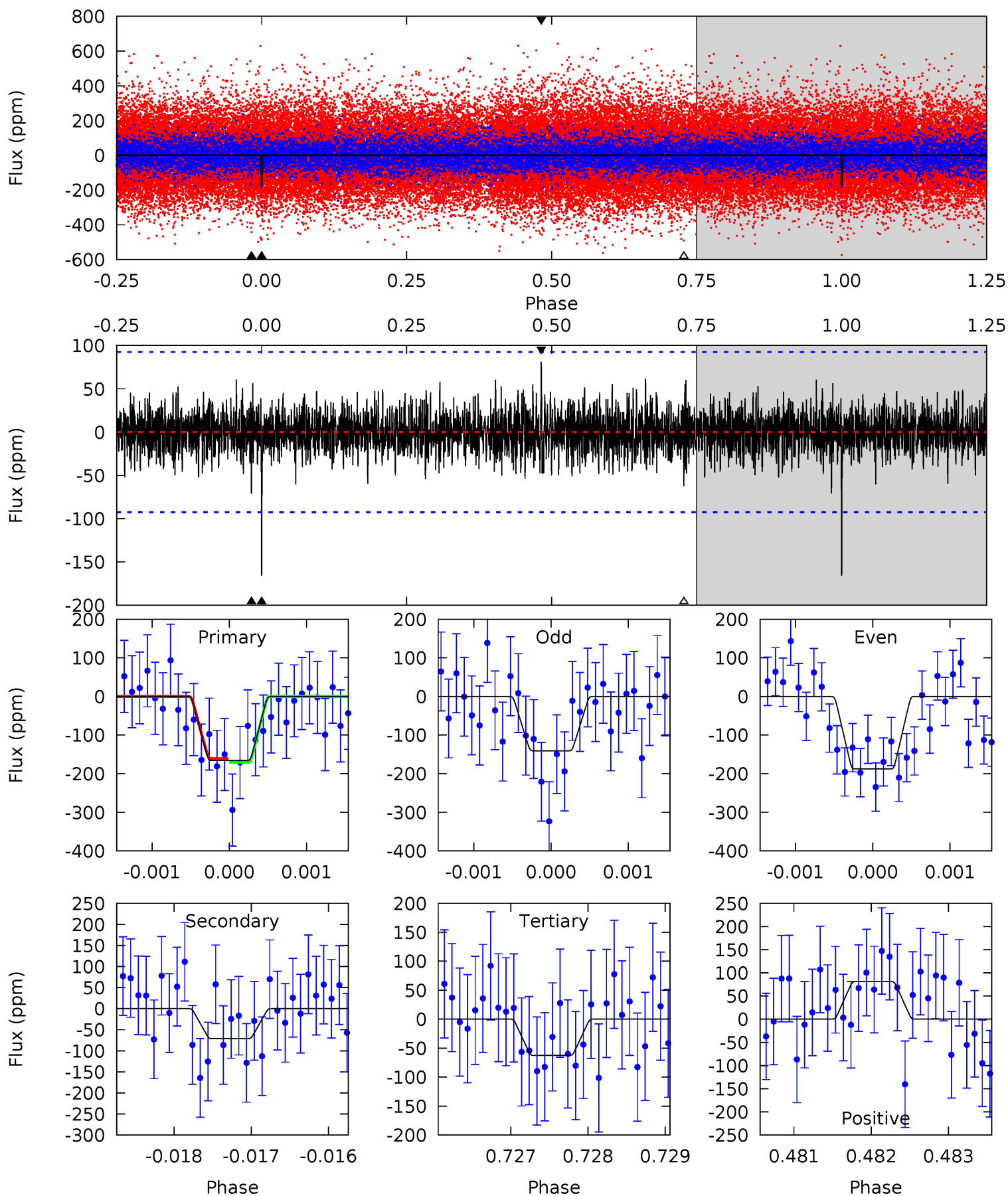
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.66	4.56	4.24	6.82	5.38	3.18	1.23	5.42	2.84	0.32	-2.26	1.43	1.00	0.41	0.90



Alt Model-Shift Uniqueness Test

008279417-01, P = 389.988115 Days, E = 363.083149 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.78	4.20	3.69	4.79	5.46	3.30	1.10	6.09	4.99	0.51	-0.59	1.39	1.17	0.33	0.31



Stellar Parameters For KIC 008279417

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5916^{+160}_{-178}	$4.218^{+0.185}_{-0.185}$	$0.160^{+0.200}_{-0.300}$	$1.379^{+0.396}_{-0.360}$	$1.150^{+0.128}_{-0.176}$	$0.618^{+0.699}_{-0.284}$
	+3%/-3%	+4%/-4%	+125%/-188%	+29%/-26%	+11%/-15%	+113%/-46%
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 008279417-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-63 ± 14	$1.67^{+0.63}_{-0.52}$	409^{+33}_{-26}	5012^{+962}_{-606}	14194^{+17190}_{-7043}
Alt.	-71 ± 17	$2.19^{+0.64}_{-0.62}$	408^{+31}_{-27}	4647^{+717}_{-480}	9701^{+10785}_{-4400}

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

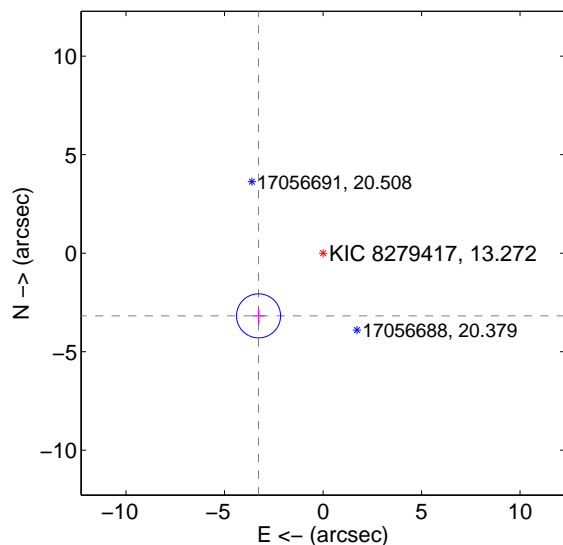
Supplemental centroid analysis for 008279417-01. Kepler magnitude: 13.27. Transit SNR 6.14

There are 1 quarters with good PRF difference image offsets

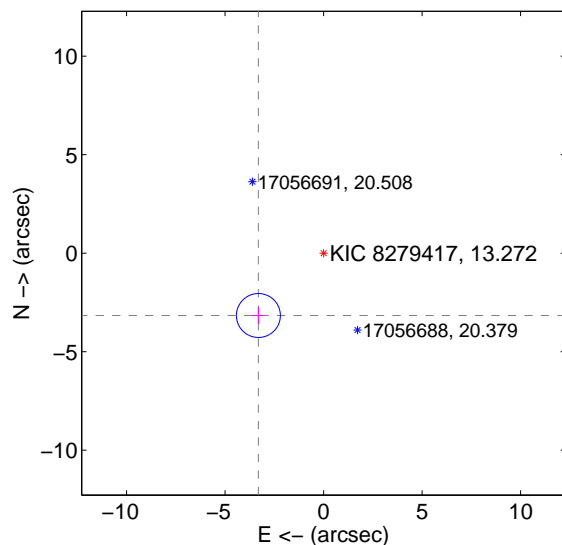
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.566 \pm 0.373	12.25	3.274 \pm 0.320	-3.182 \pm 0.421
PRF-fit source offset from KIC position	4.579 \pm 0.372	12.32	3.310 \pm 0.320	-3.165 \pm 0.421
photometric centroid source offset	3.33 \pm 2.30	1.45	2.79 \pm 2.46	-1.83 \pm 1.87

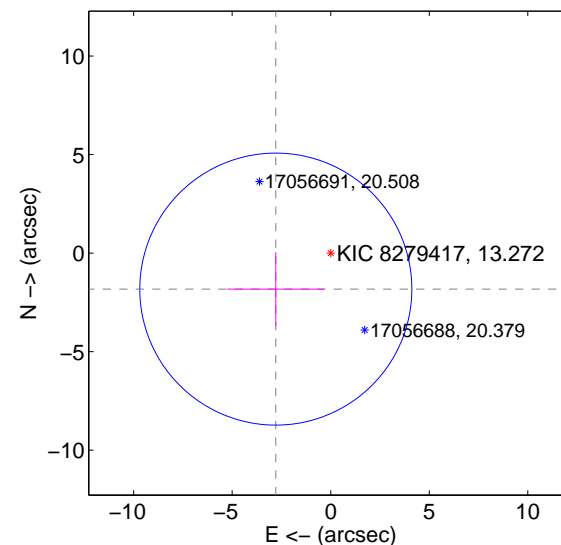
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

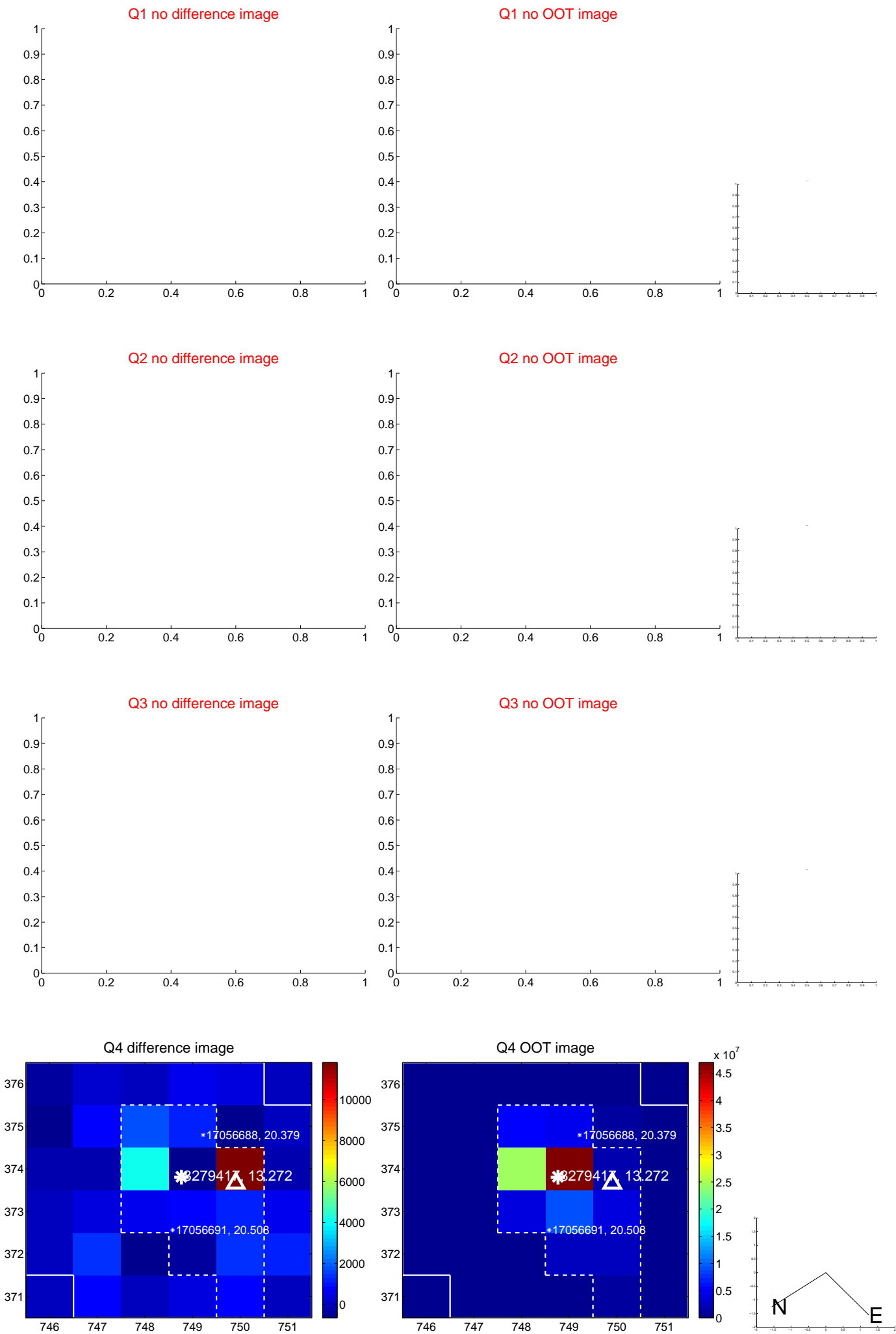


offset from photometric centroids

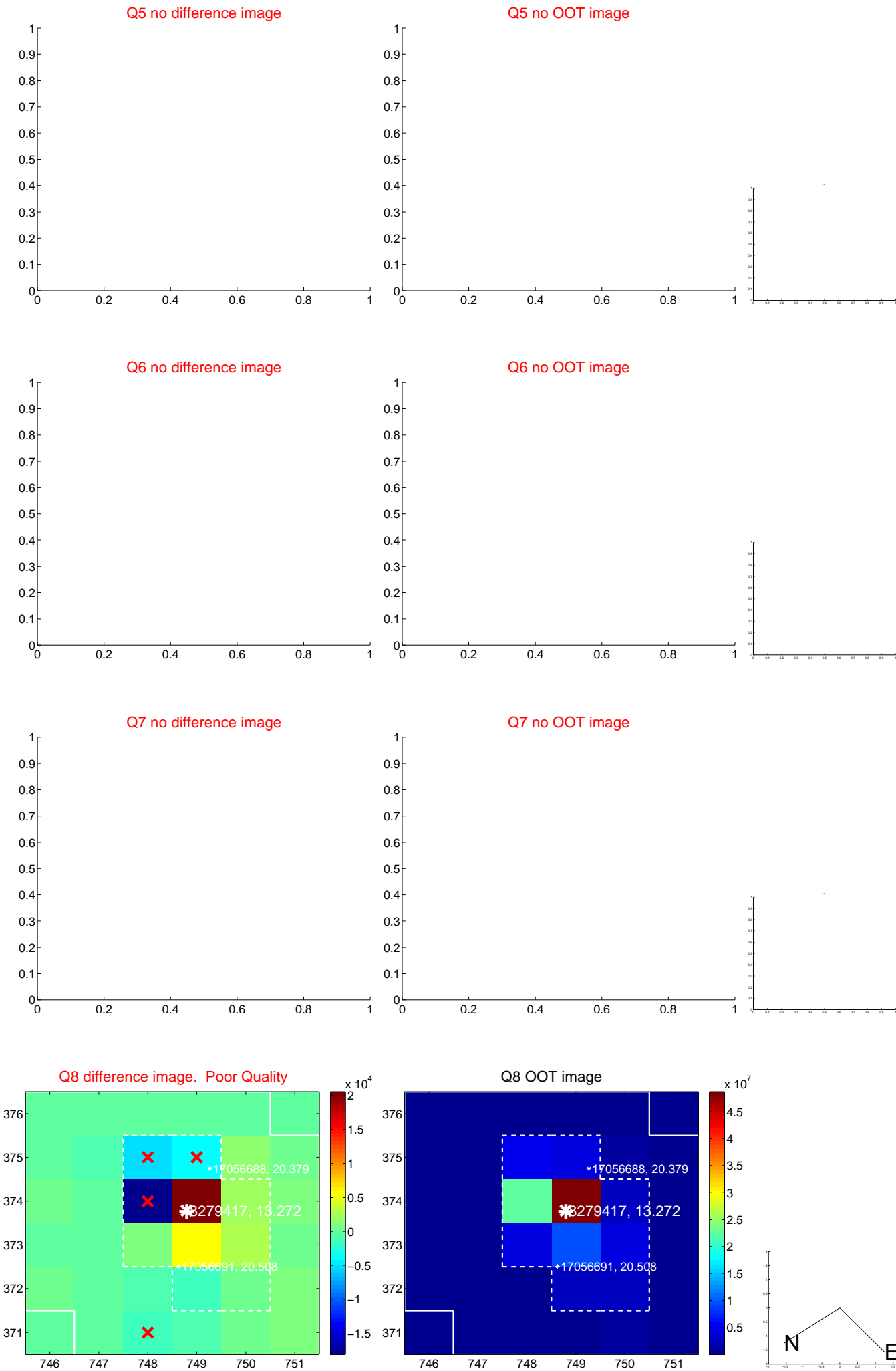


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

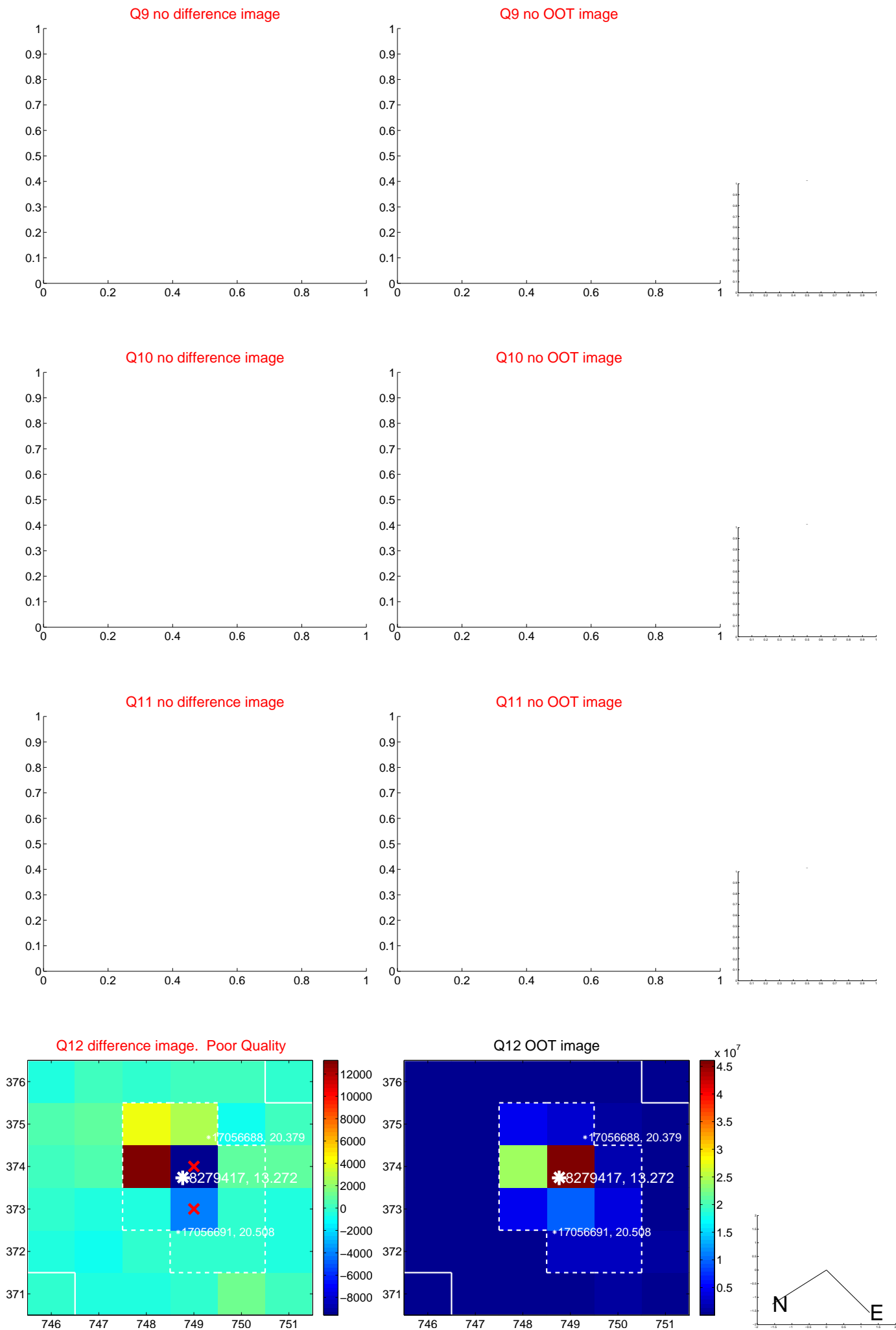
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



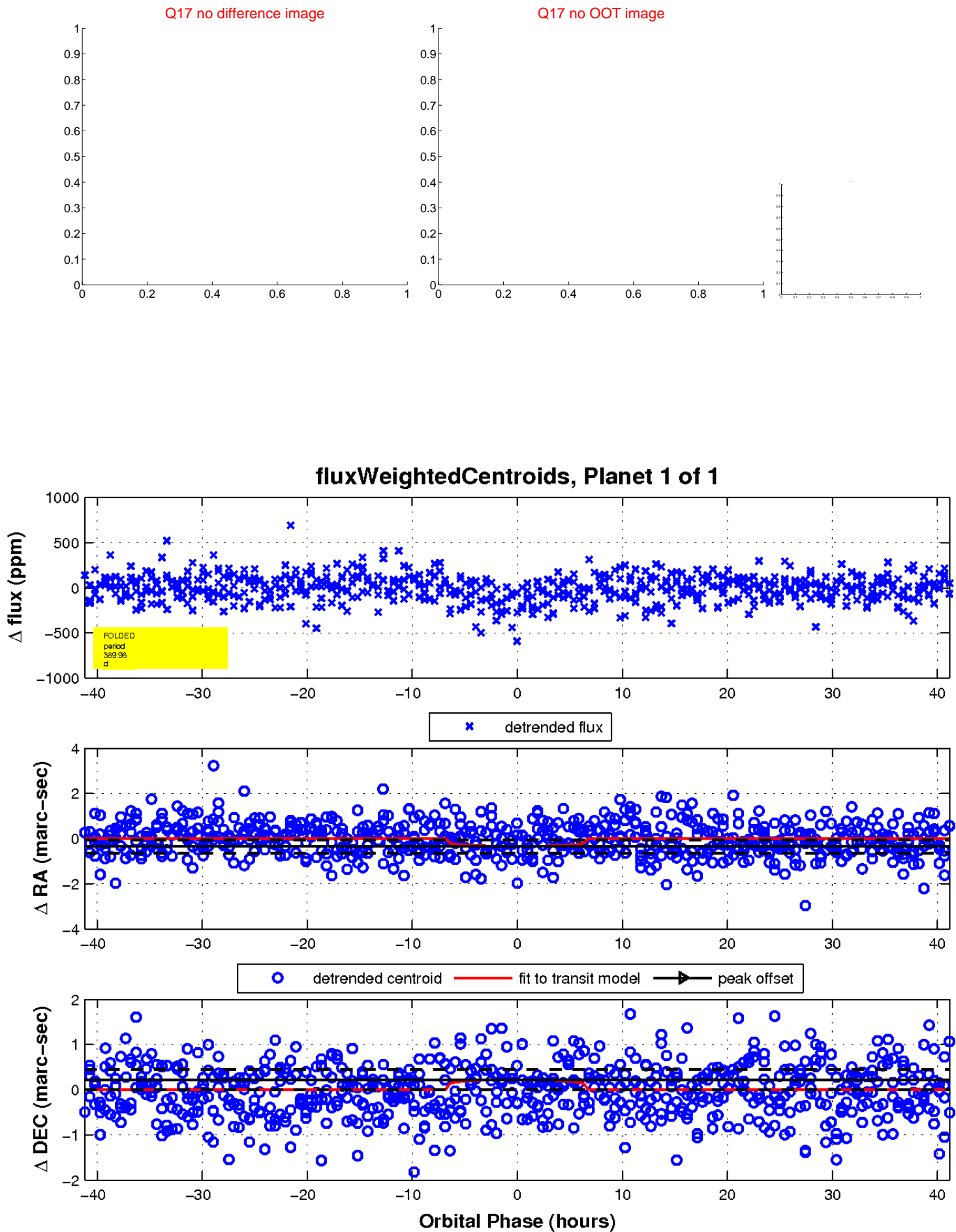
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

