

KIC 003946749

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})
003946749-01	OBS	No	374.465421	272.407201	12273.1	15.000	103.1	-1.0	0.83	5201	8.96	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003946749-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

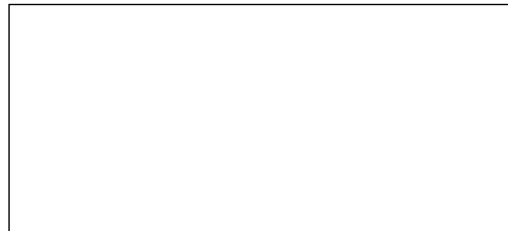
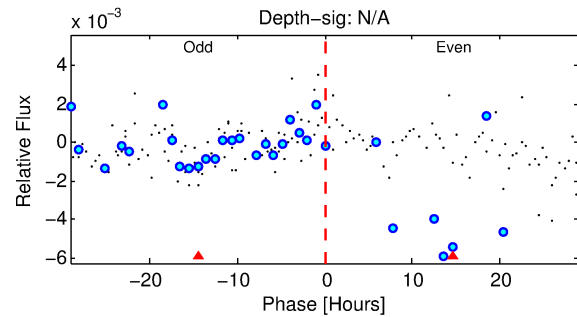
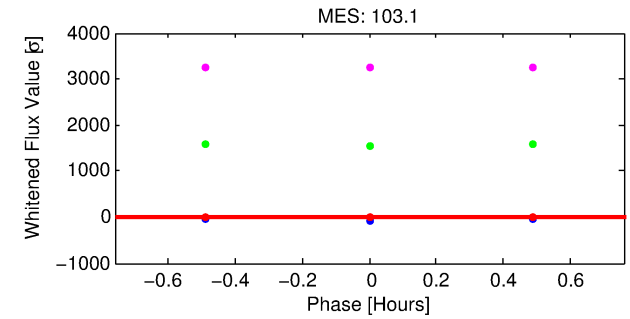
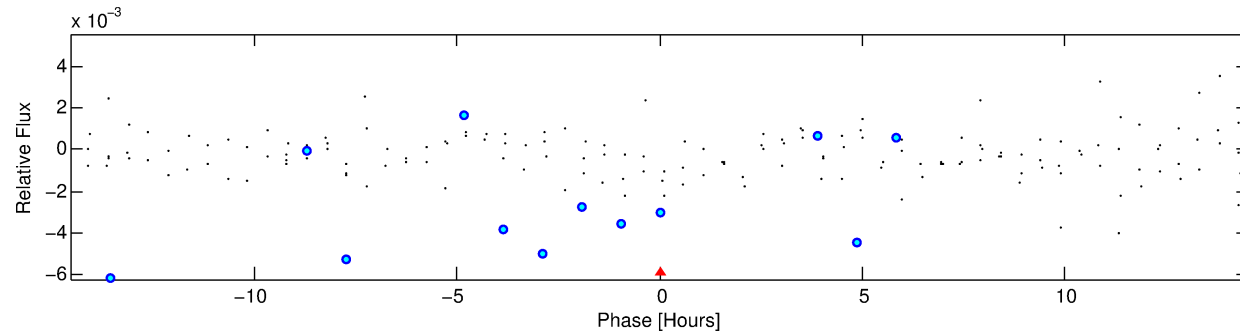
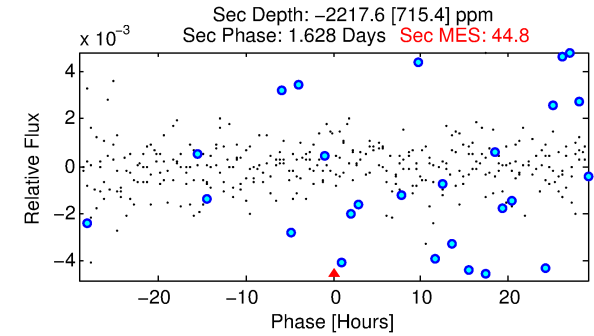
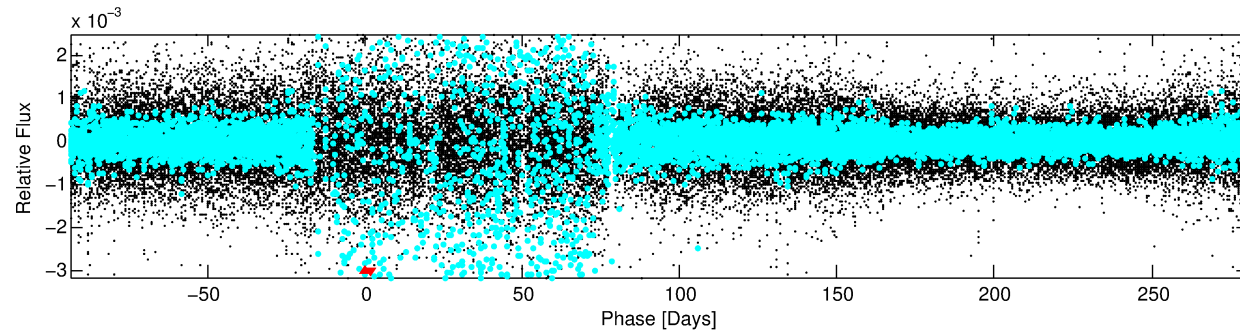
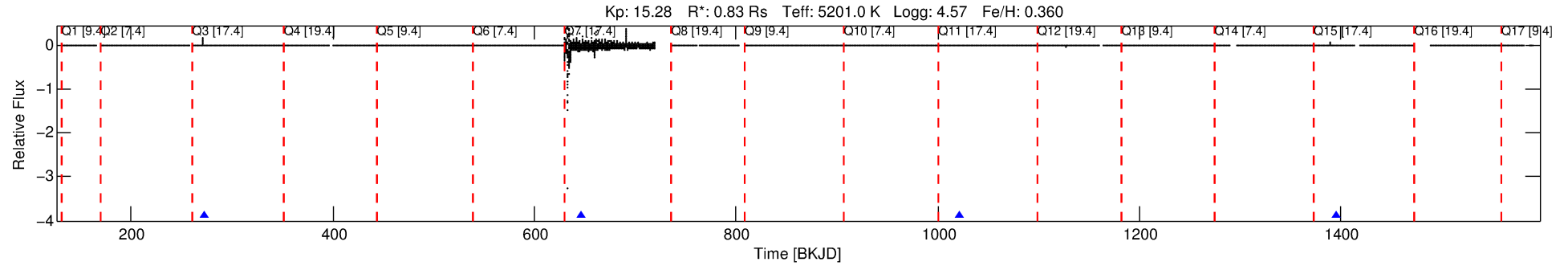
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003946749-01

No Significant Match Found

DV One-Page Summary

KIC: 3946749 Candidate: 1 of 1 Period: 374.465 d



TPS TCE Results:

Period = 374.46542 d
Epoch = 272.4072 BKJD

DV fit results are unavailable

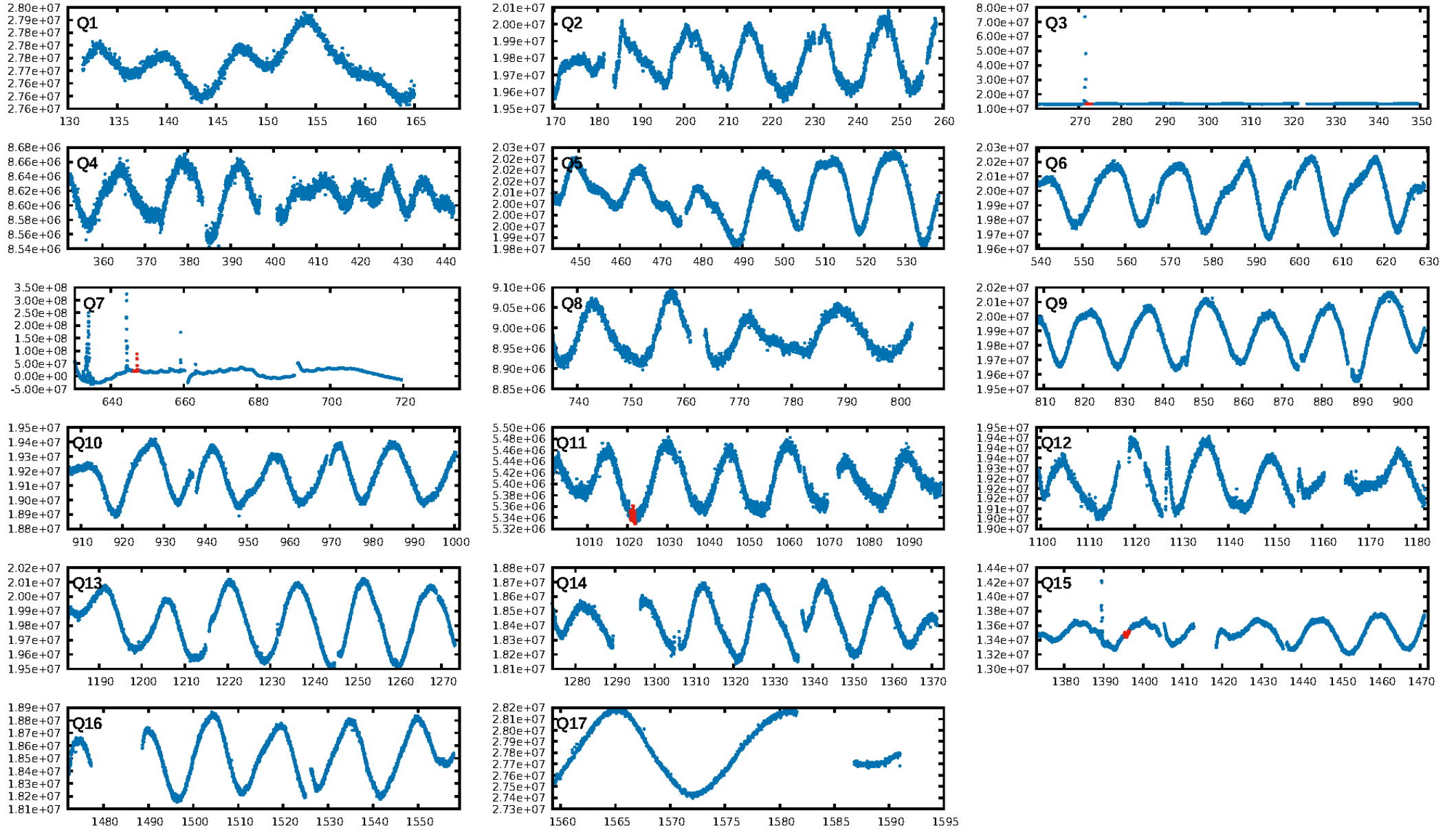
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.72e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.01368
Centroid-sig: N/A
Centroid-so: 8.139 arcsec [2.64σ]
QotOffset-rm: N/A
QotOffset-st: 0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [4/4]

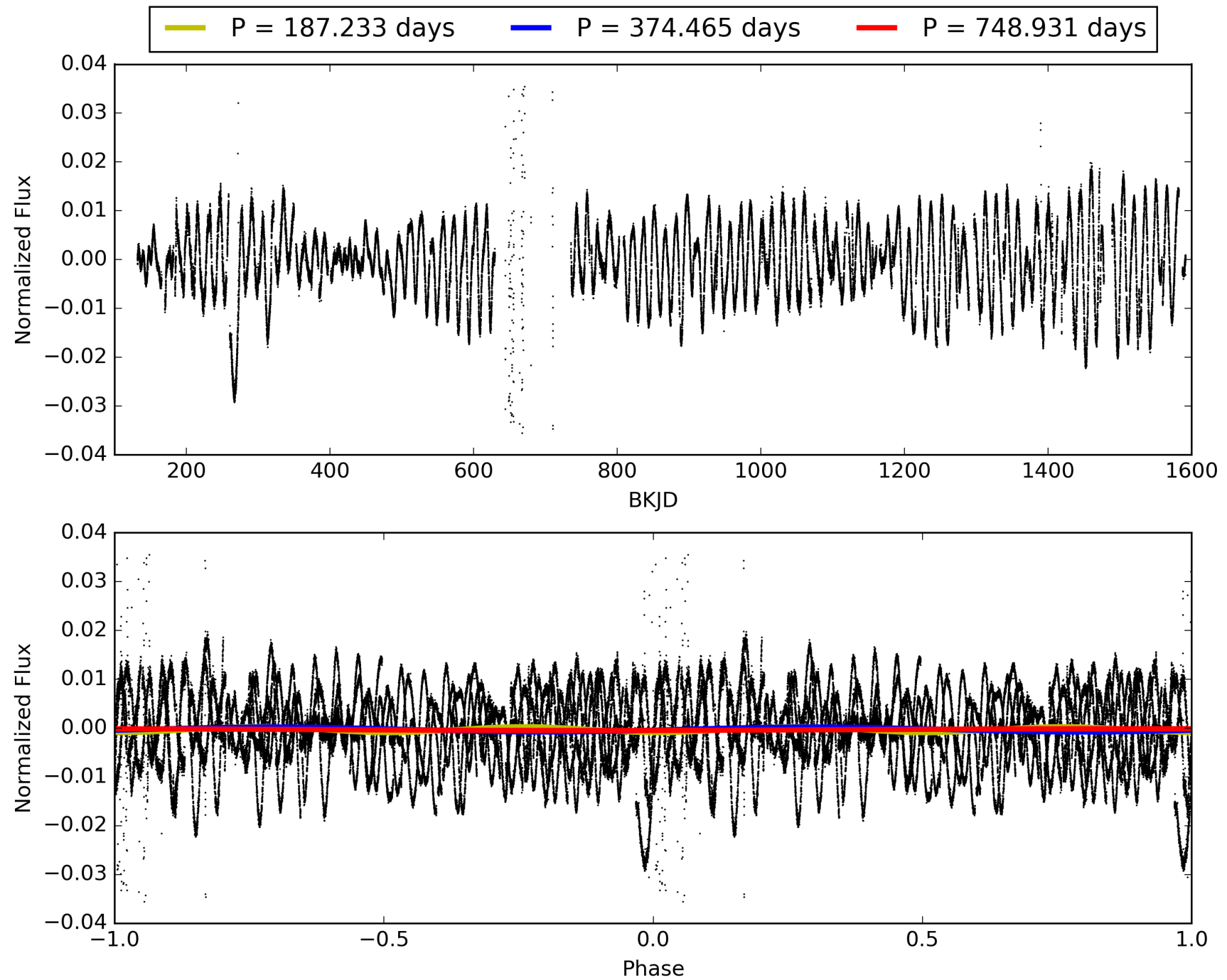
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 17:38:25 Z

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

TCE 003946749-01, PDC Light Curves

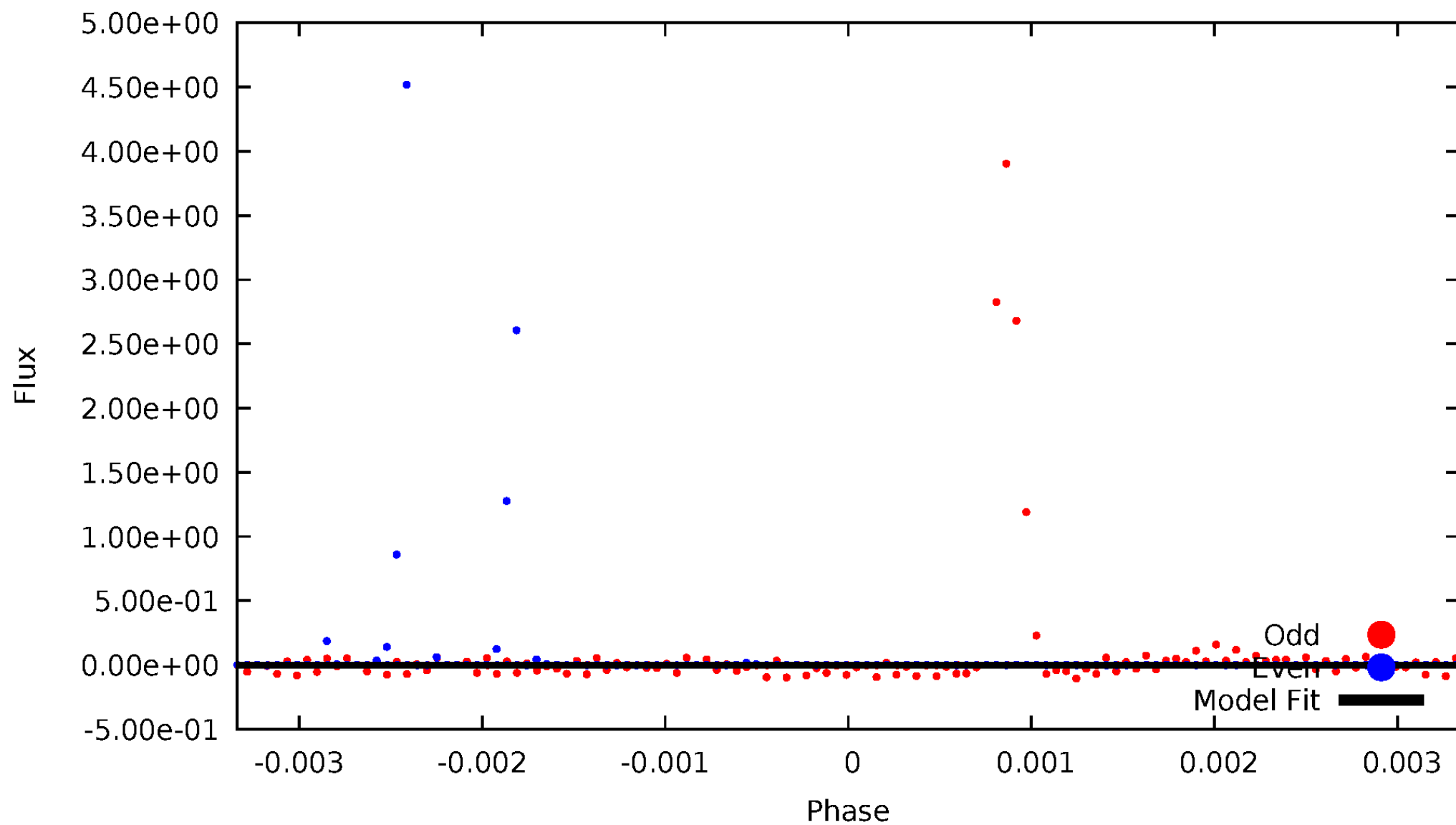


TCE 003946749-01



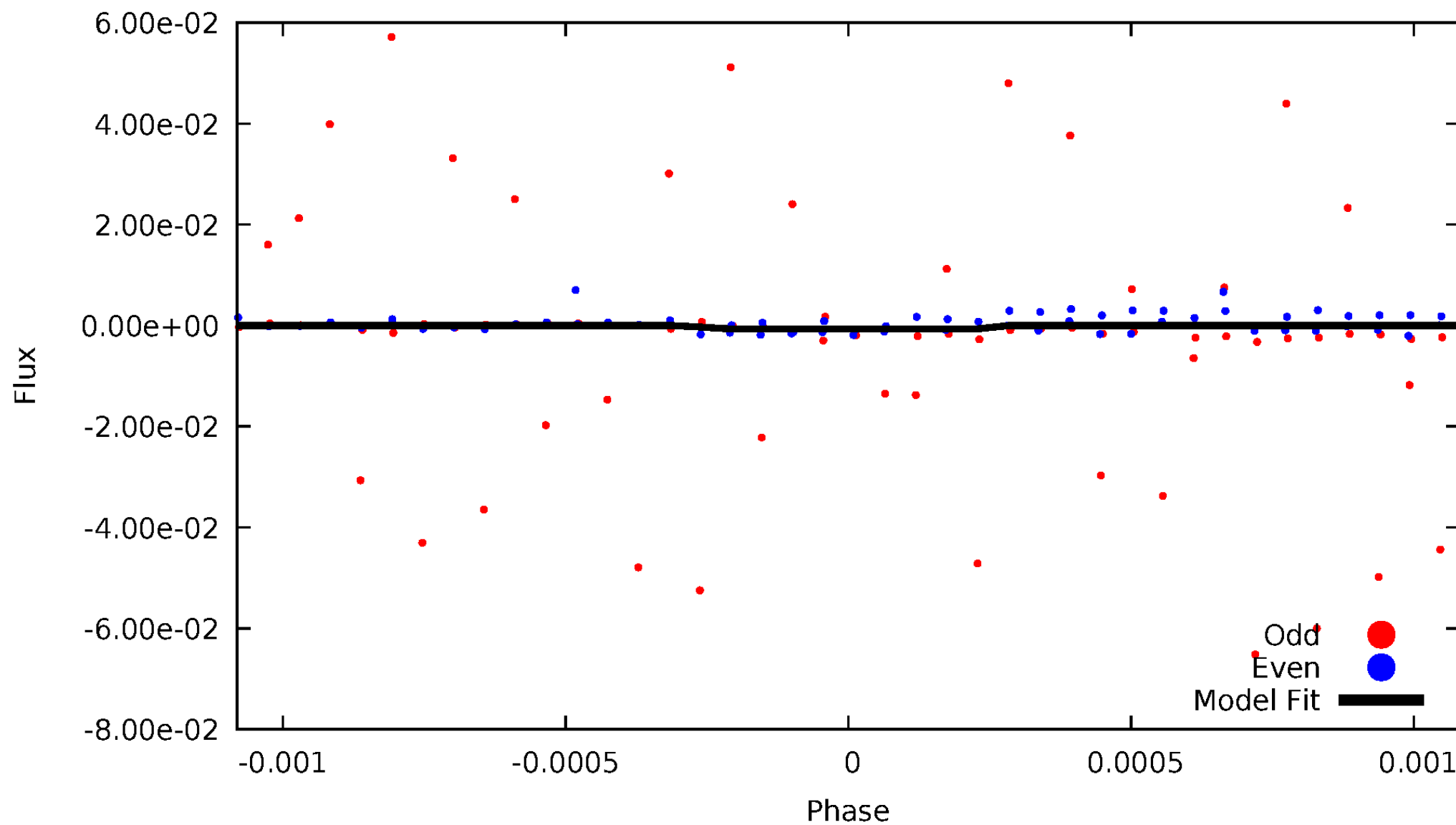
DV Odd/Even

TCE 003946749-01



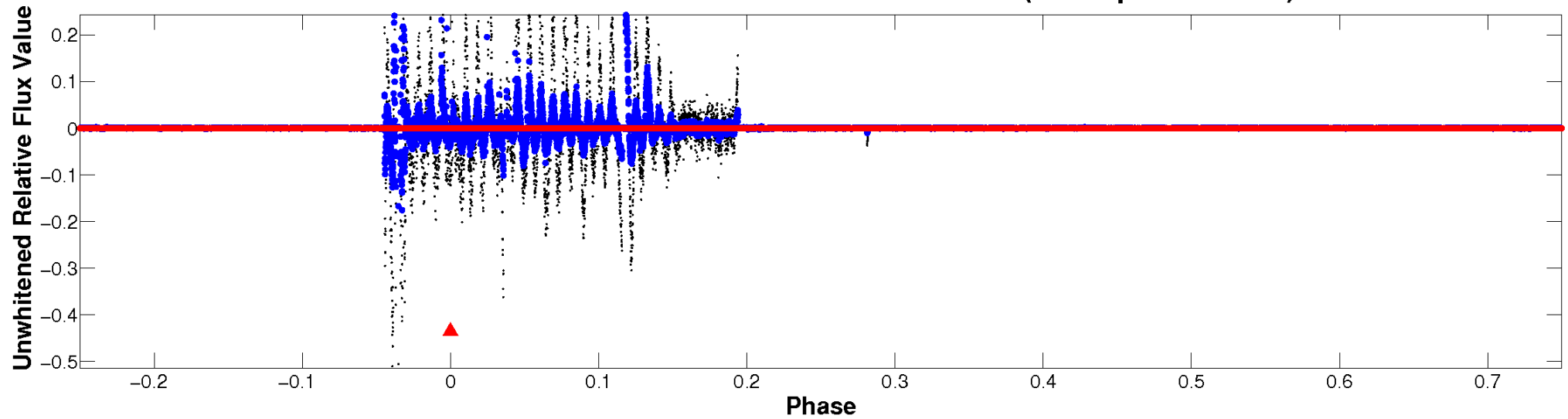
ALT Odd/Even

TCE 003946749-01

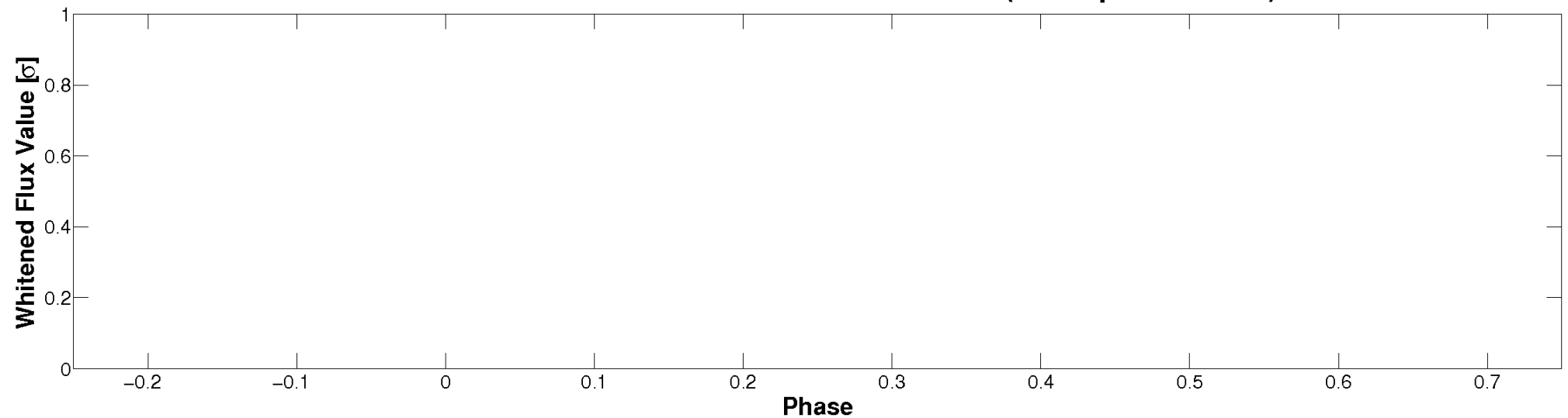


Non-Whitened Vs. Whitened Light Curve

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

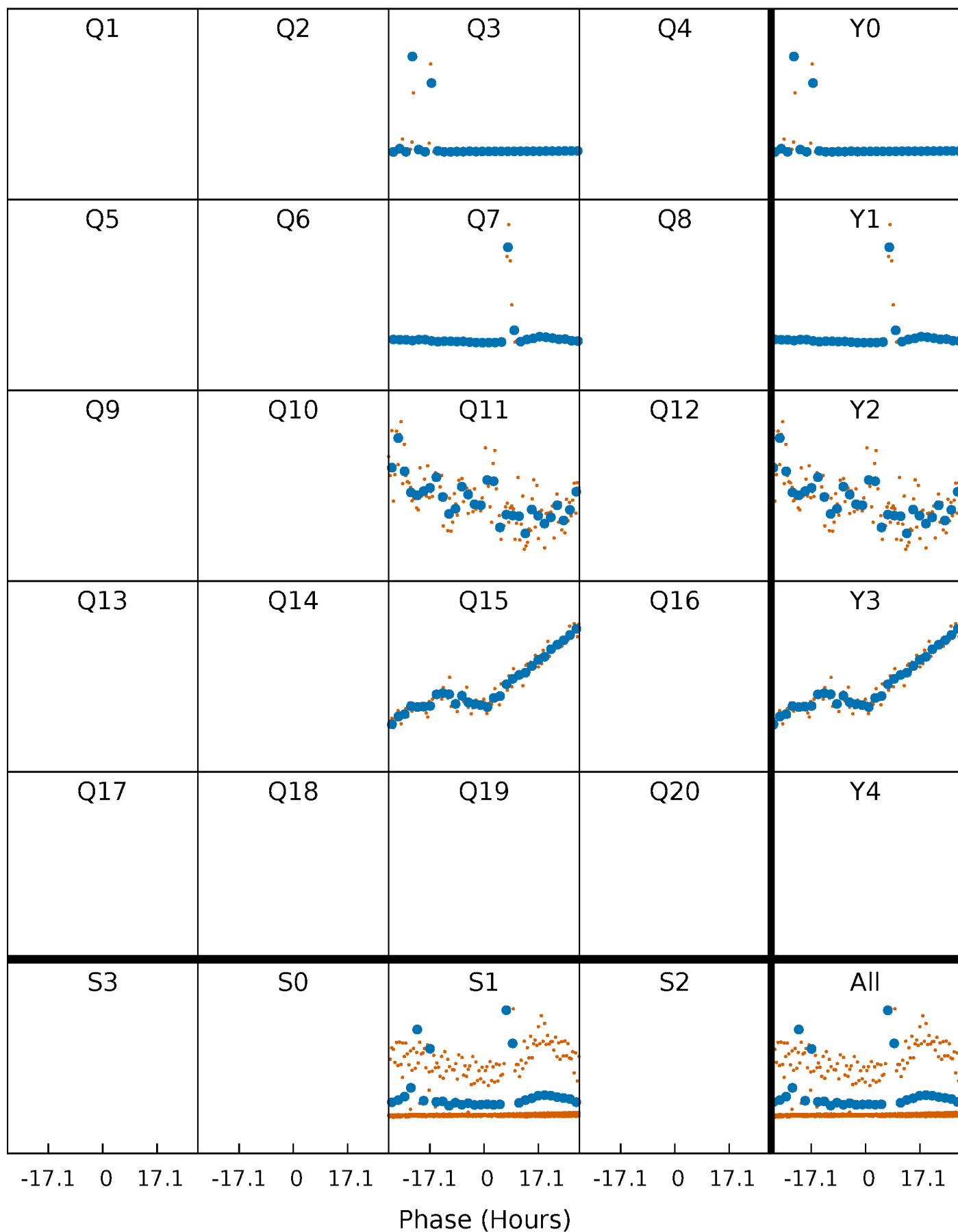


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



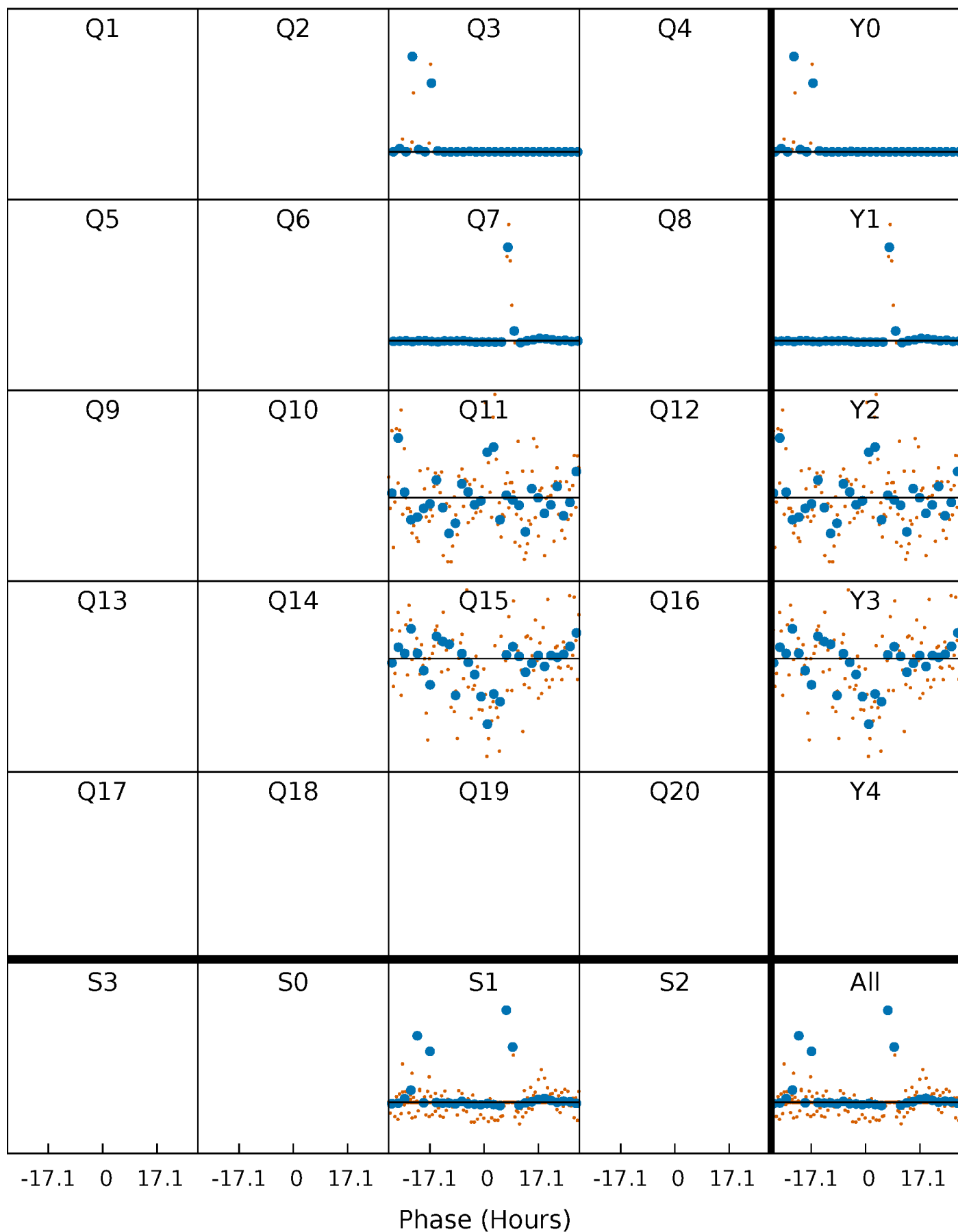
PDC Quarter-Phased Transit Curves

TCE 003946749-01 P=374.465420 Days $T_0=272.407201$ (BKJD)



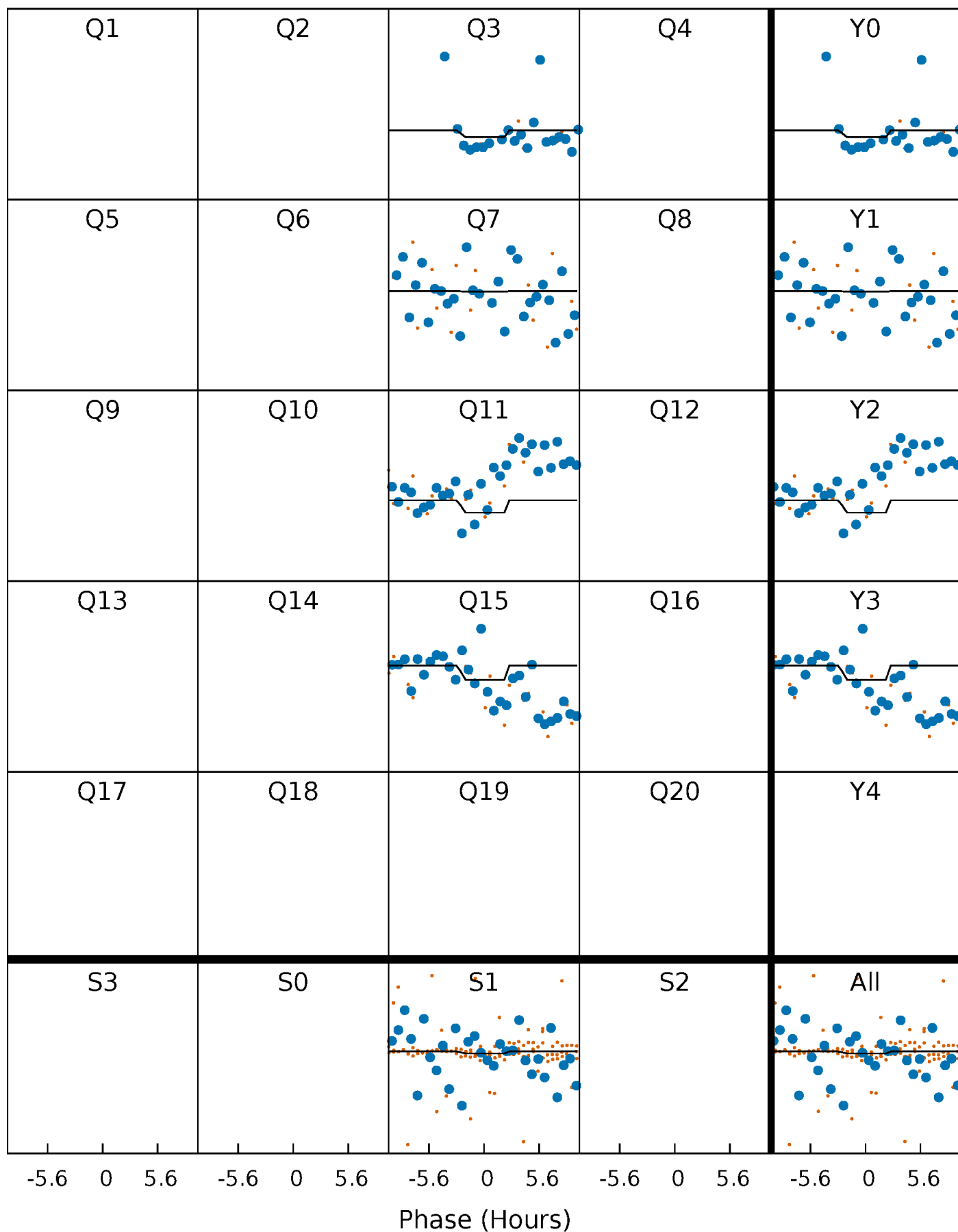
DV Quarter-Phased Transit Curves

TCE 003946749-01 P=374.465420 Days $T_0=272.407201$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

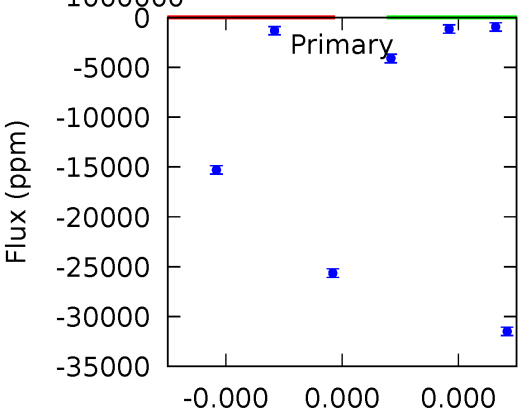
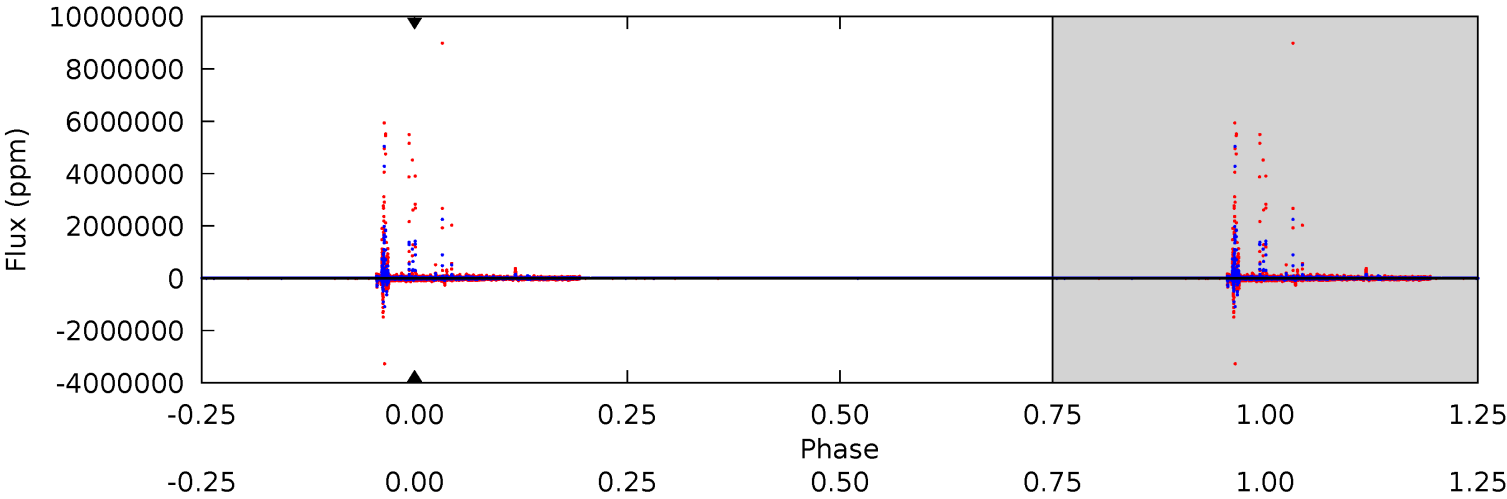
TCE 003946749-01 P=374.465420 Days $T_0=271.970418$ (BKJD)



DV Model-Shift Uniqueness Test

003946749-01, P = 374.465420 Days, E = 272.407201 Days

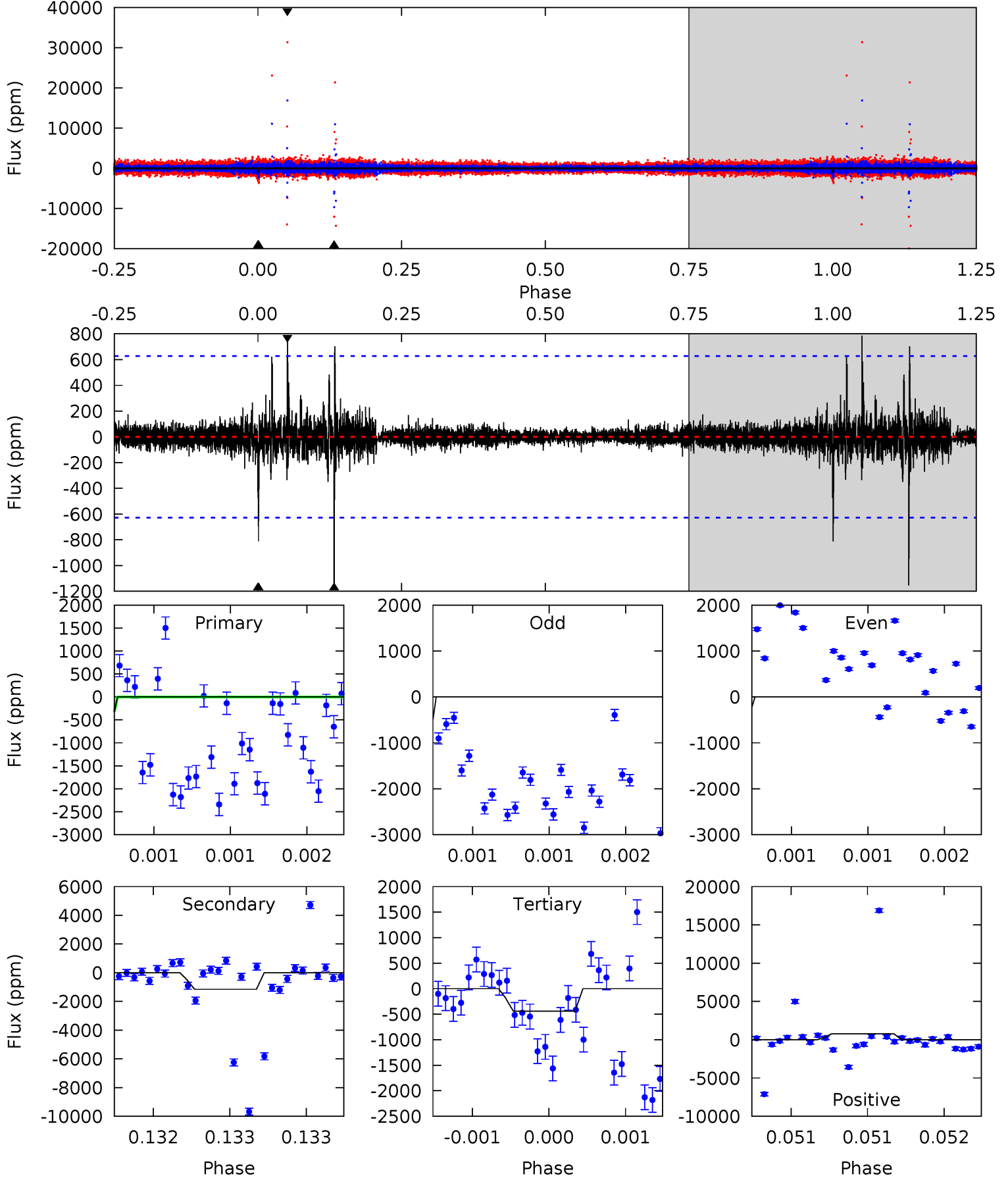
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

003946749-01, P = 374.465420 Days, E = 271.970418 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.18	10.2	3.89	6.97	5.56	3.46	0.50	3.29	0.21	6.33	3.26	0.37	1.33	0.41	0



Stellar Parameters For KIC 003946749

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5201^{+183}_{-183}	$4.573^{+0.028}_{-0.112}$	$0.360^{+0.100}_{-0.300}$	$0.834^{+0.130}_{-0.052}$	$0.948^{+0.046}_{-0.101}$	$2.304^{+0.309}_{-0.763}$
	+4%/-4%	+1%/-2%	+28%/-83%	+16%/-6%	+5%/-11%	+13%/-33%
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 003946749-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$11.31^{+8.67}_{-7.37}$	297^{+14}_{-13}	-3812^{+13960}_{-6928}	$-12220.326^{+711192.099}_{-795348.353}$
Alt.	-1154 ± 113	$7.58^{+7.04}_{-5.12}$	297^{+14}_{-12}	3726^{+2211}_{-686}	11071^{+91252}_{-8196}

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

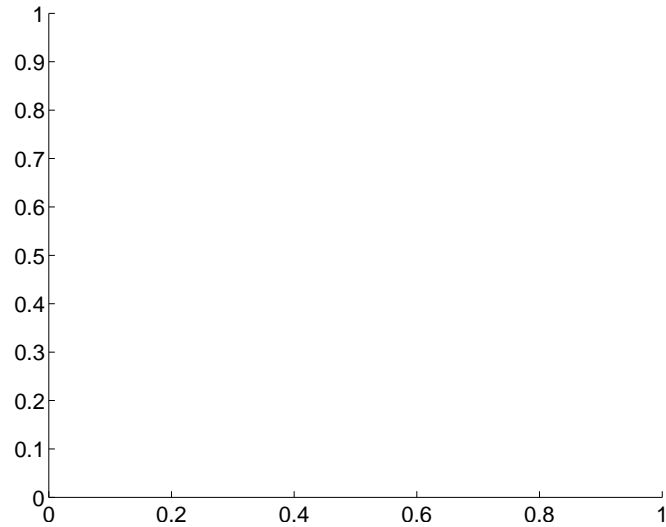
Supplemental centroid analysis for 003946749-01. Kepler magnitude: 15.29. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

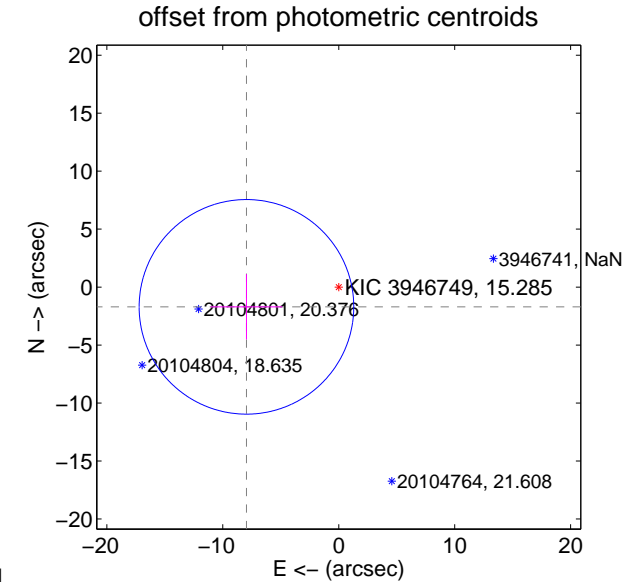
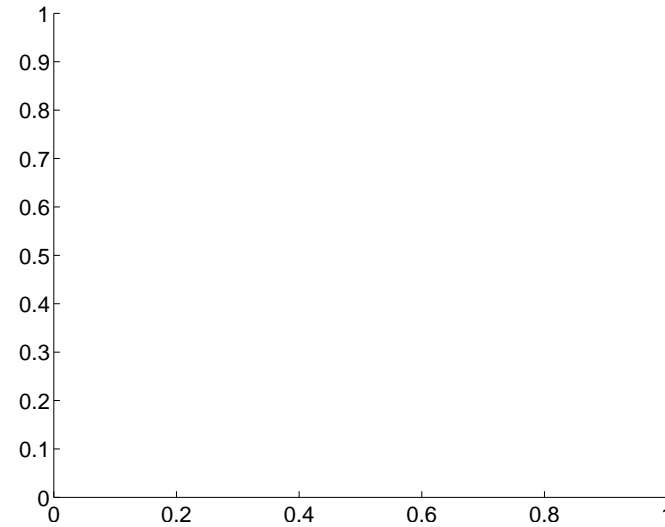
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	8.14 ± 3.08	2.64	7.96 ± 3.10	-1.70 ± 2.81

There is no PRF-fit offset from OOT-fit

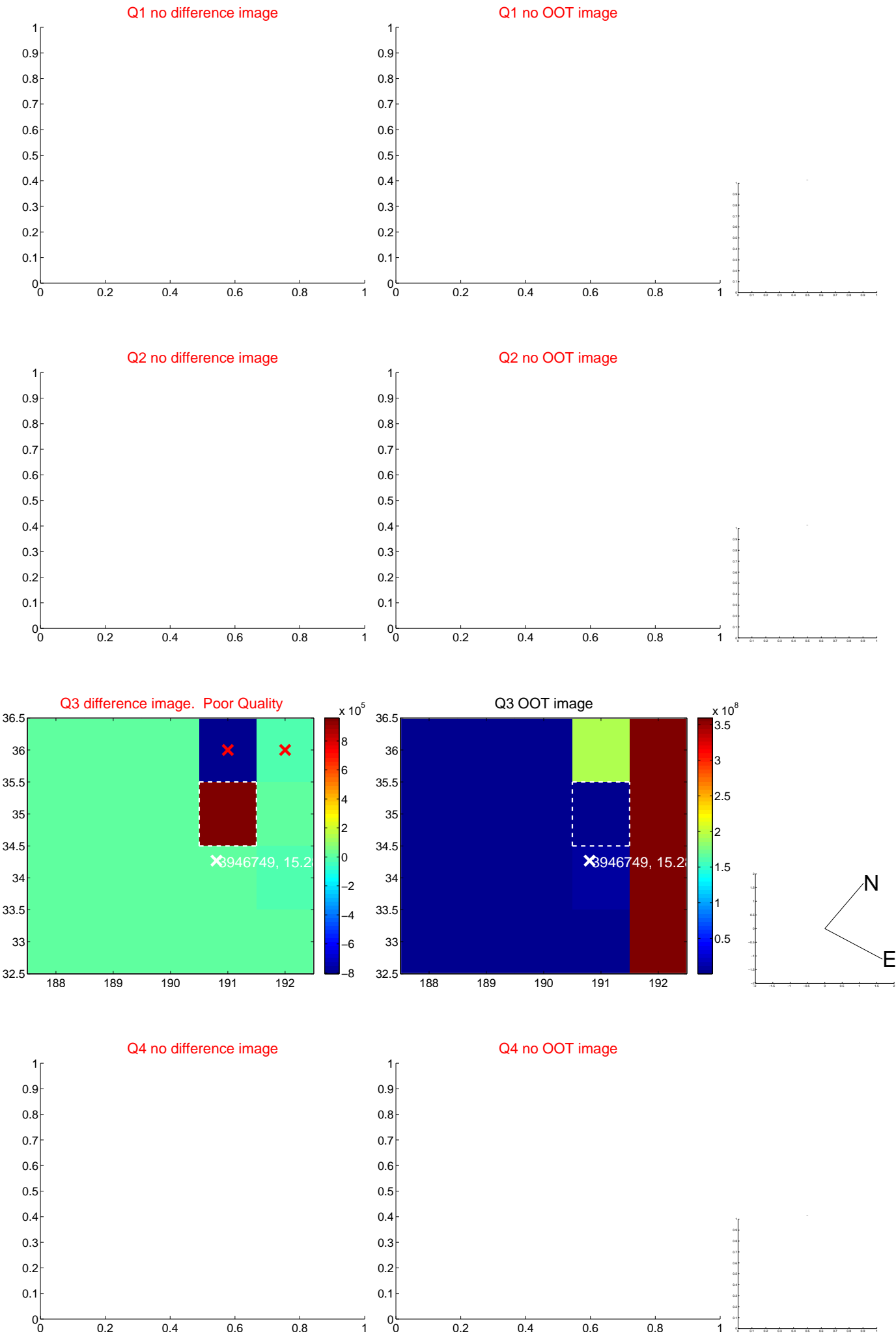


There is no PRF-fit offset from KIC

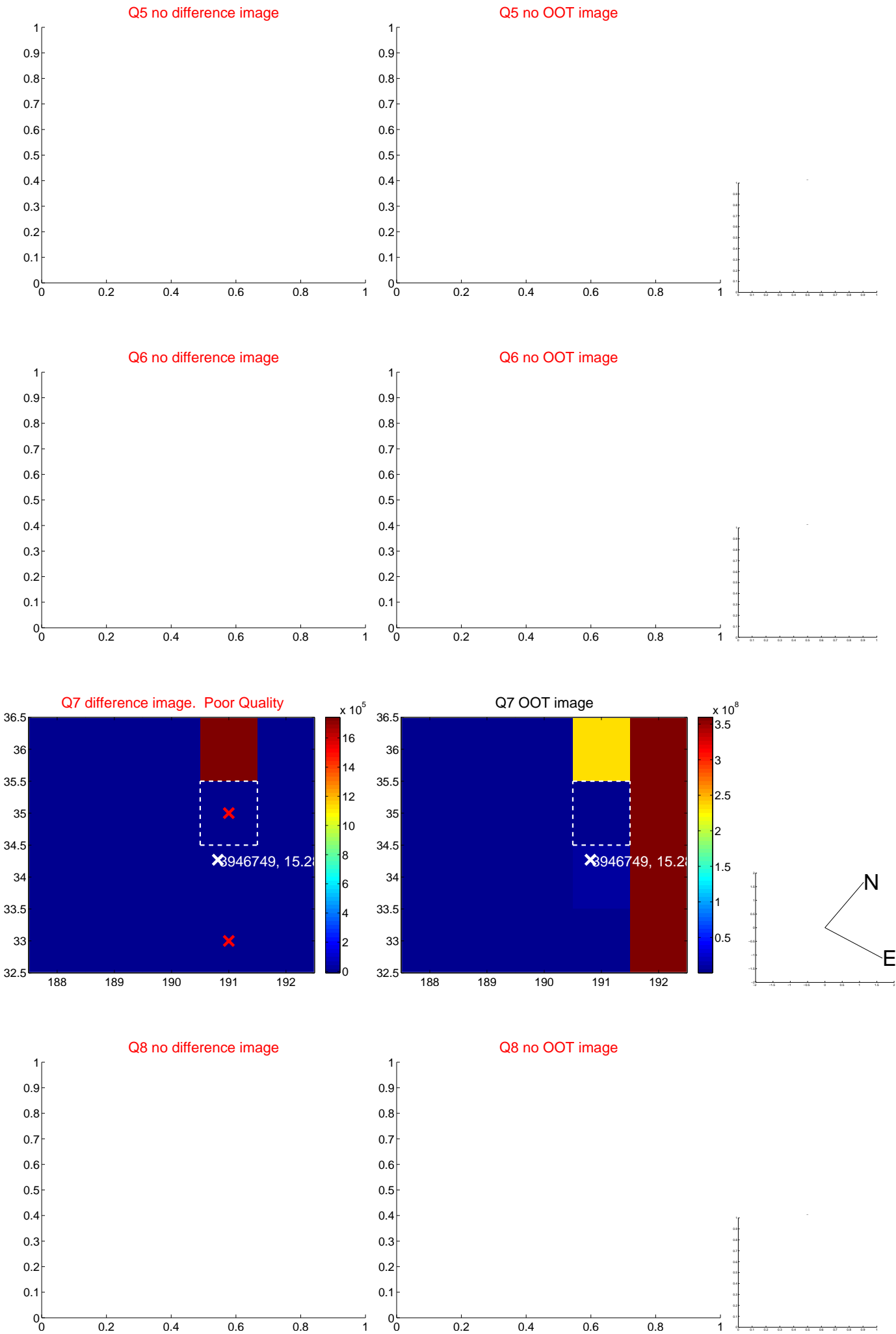


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

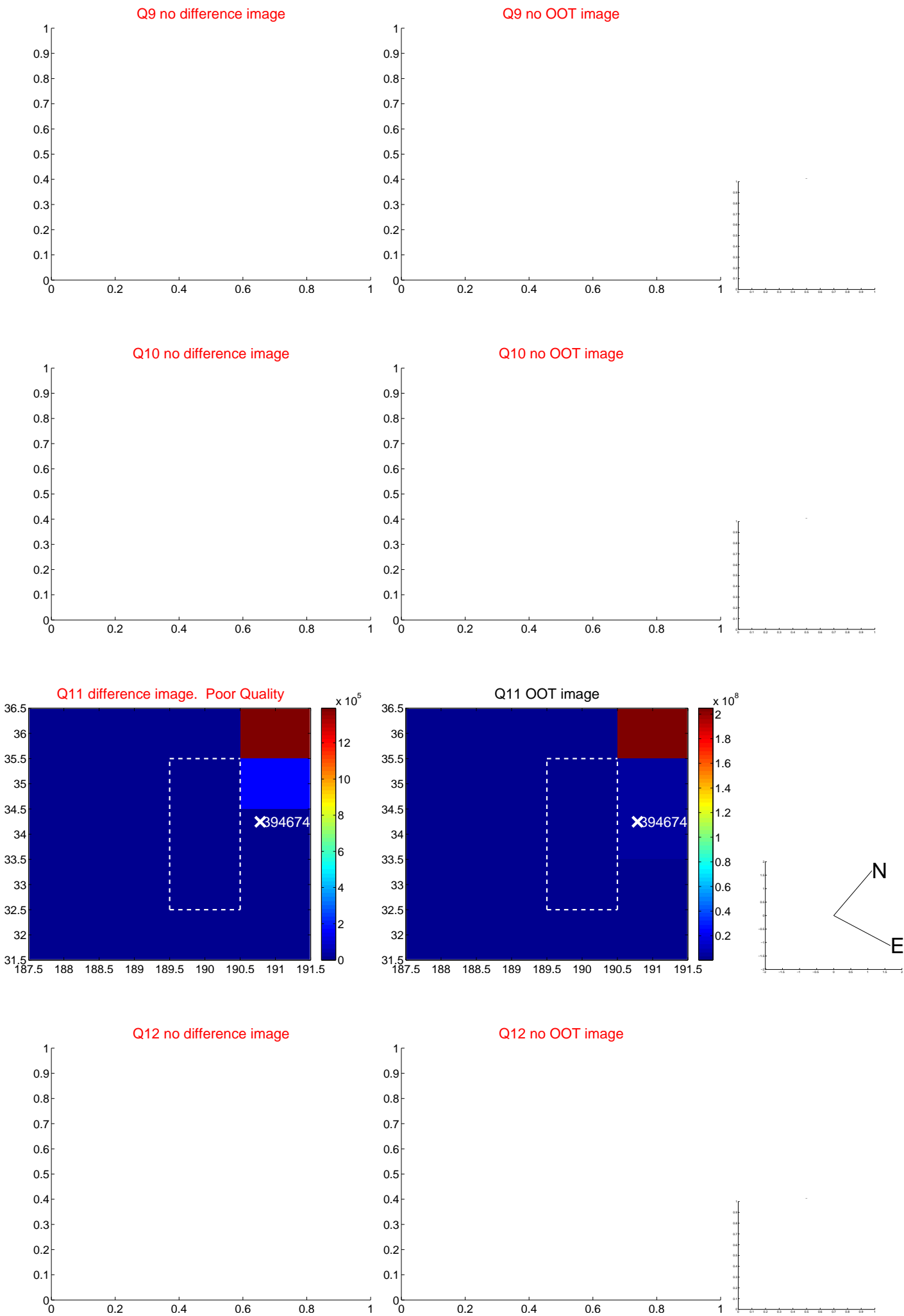
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



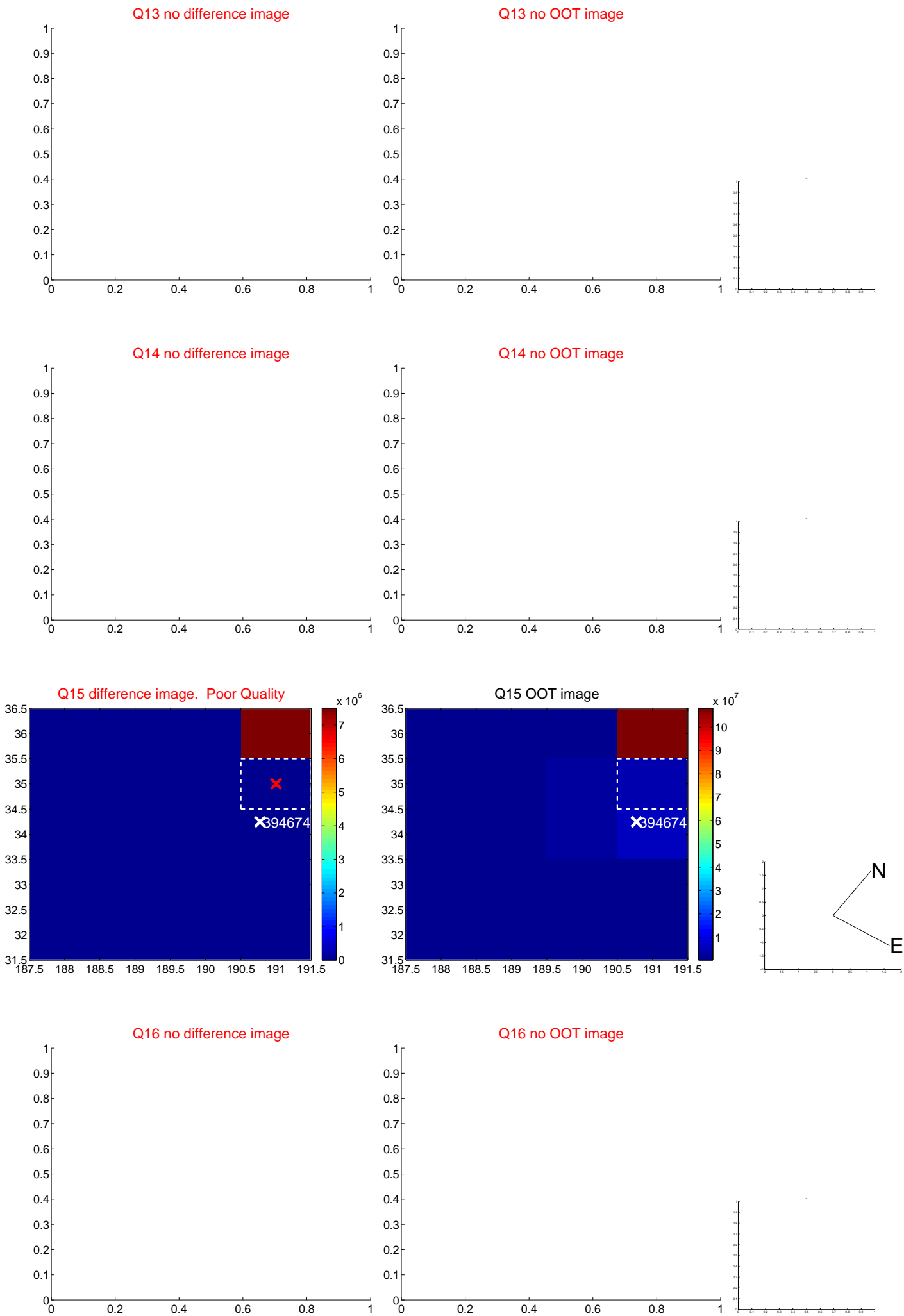
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



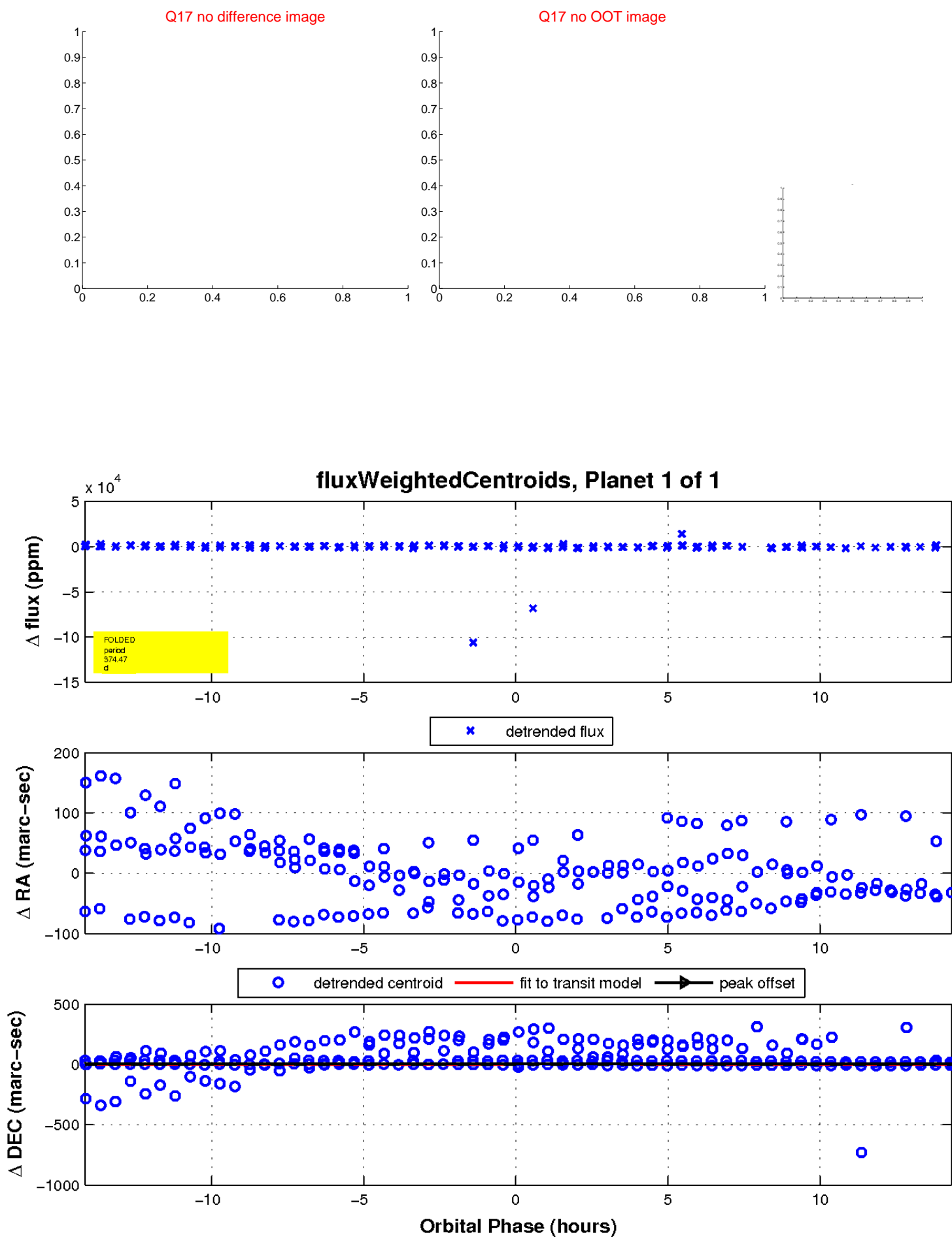
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

