

# KIC 006226464

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006226464-01	OBS	No	0.967631	131.591044	0.1	1.001	8.2	0.0	1.35	5470	0.06	4228.07

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006226464-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—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.

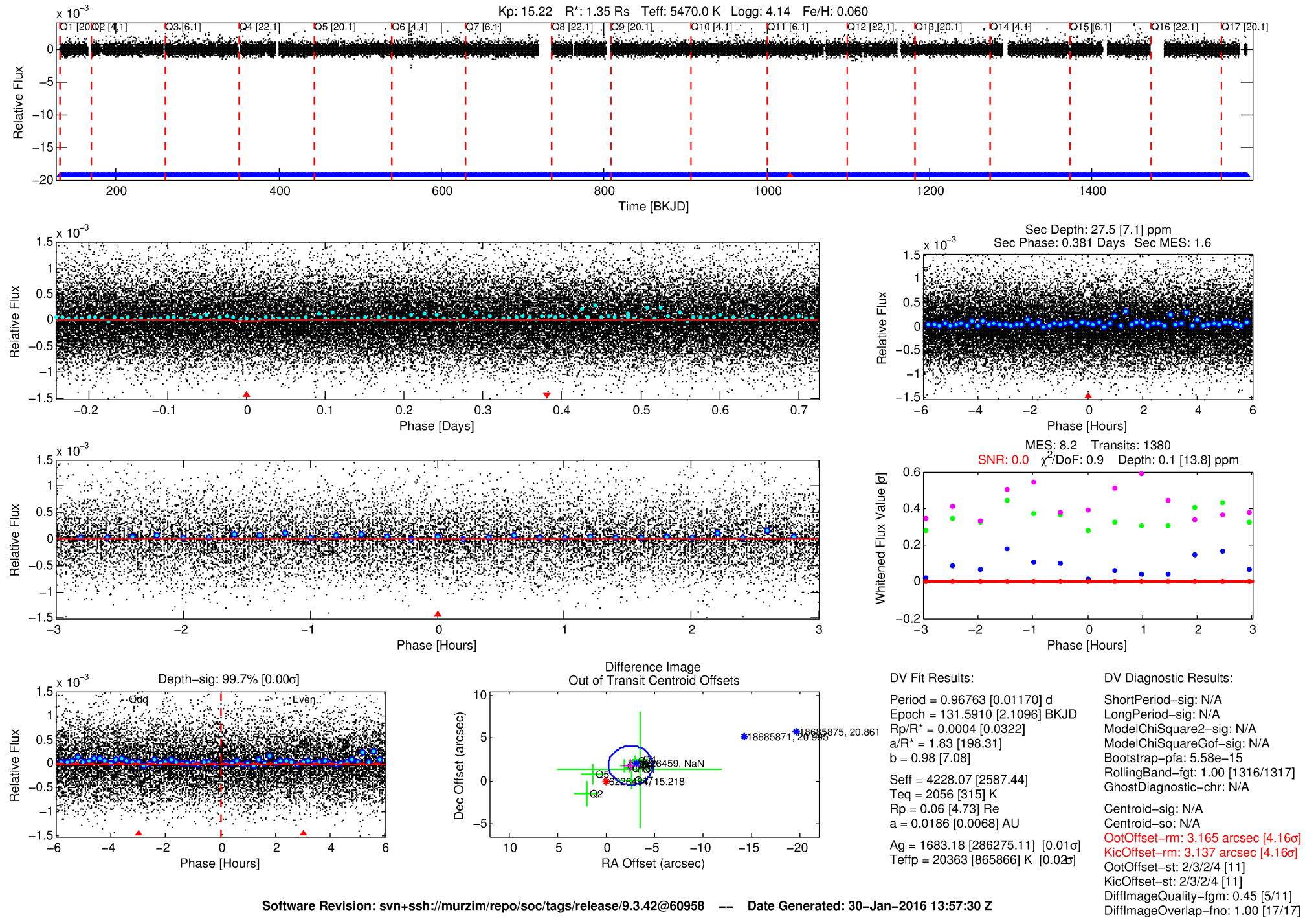
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006226464-01

No Significant Match Found

# DV One-Page Summary

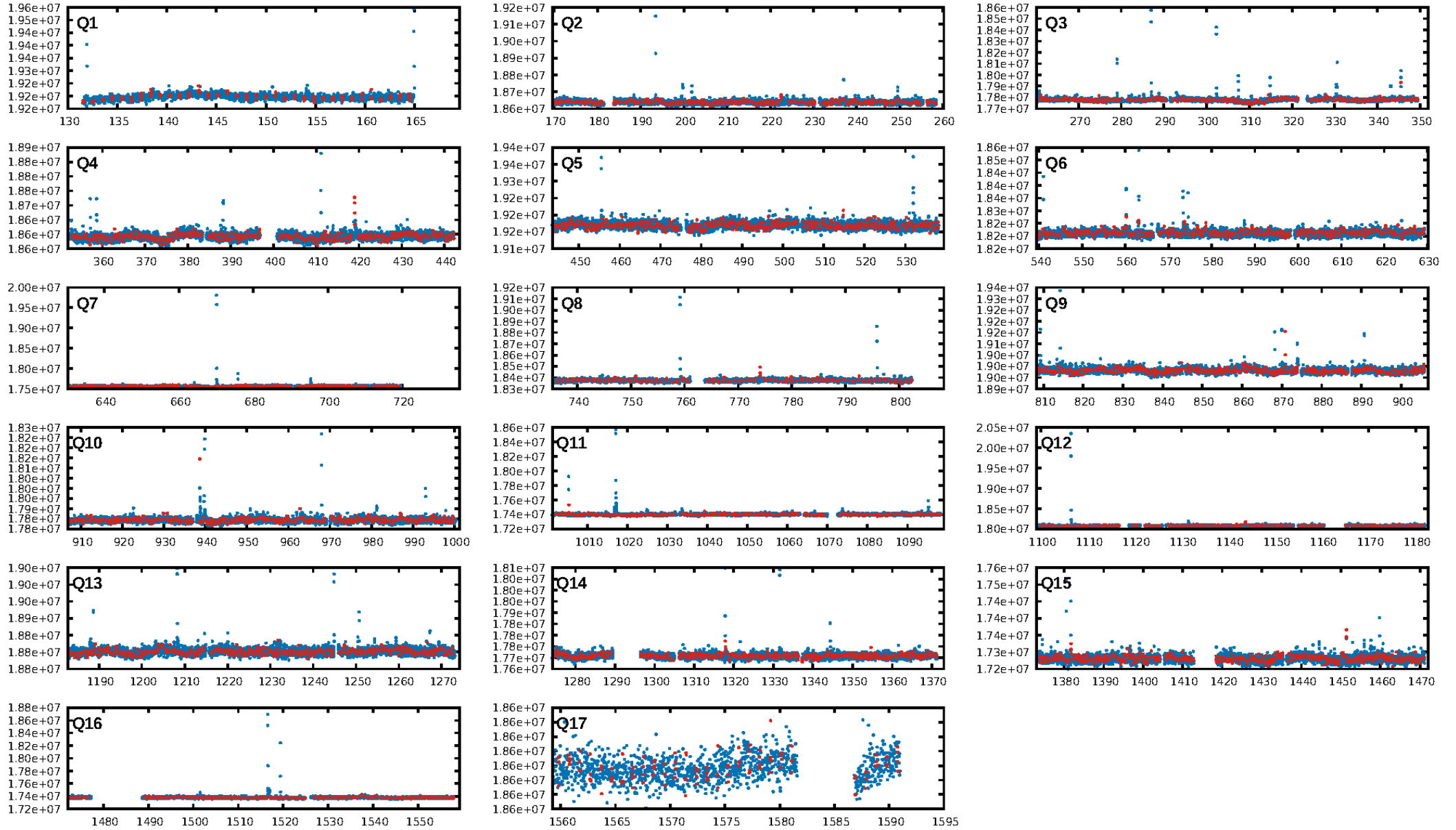
KIC: 6226464 Candidate: 1 of 1 Period: 0.968 d



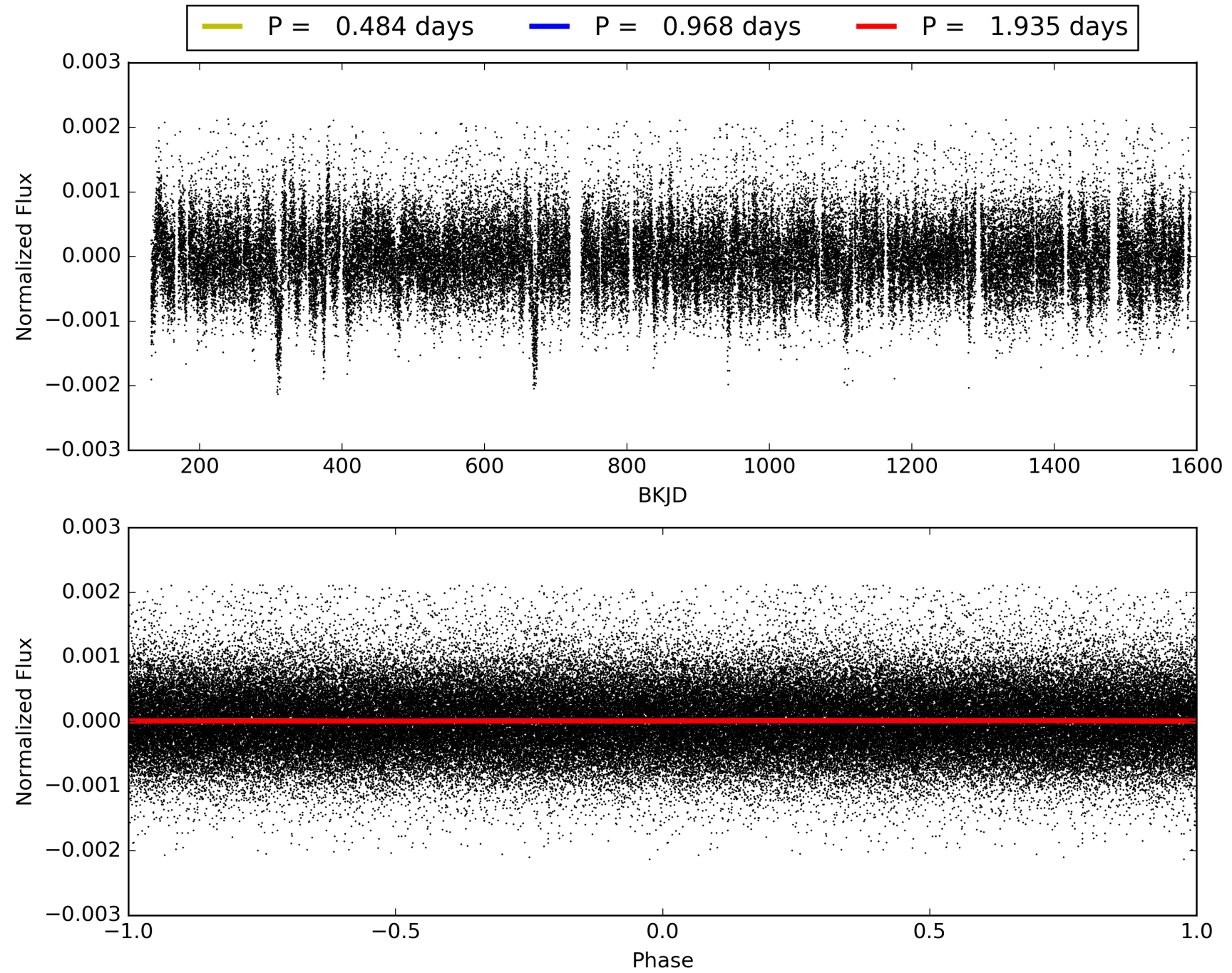
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:57:30 Z

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

# TCE 006226464-01, PDC Light Curves

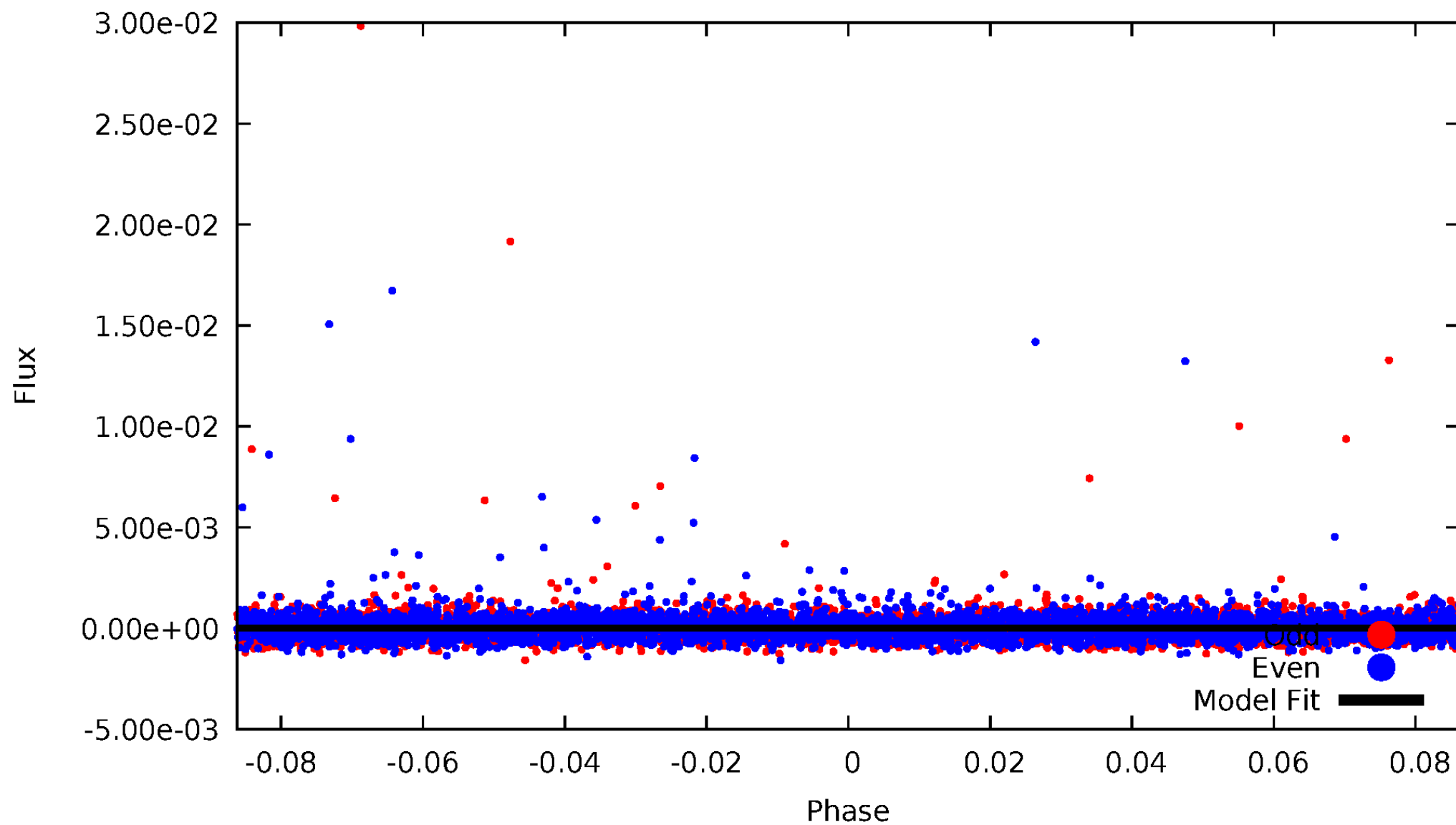


TCE 006226464-01



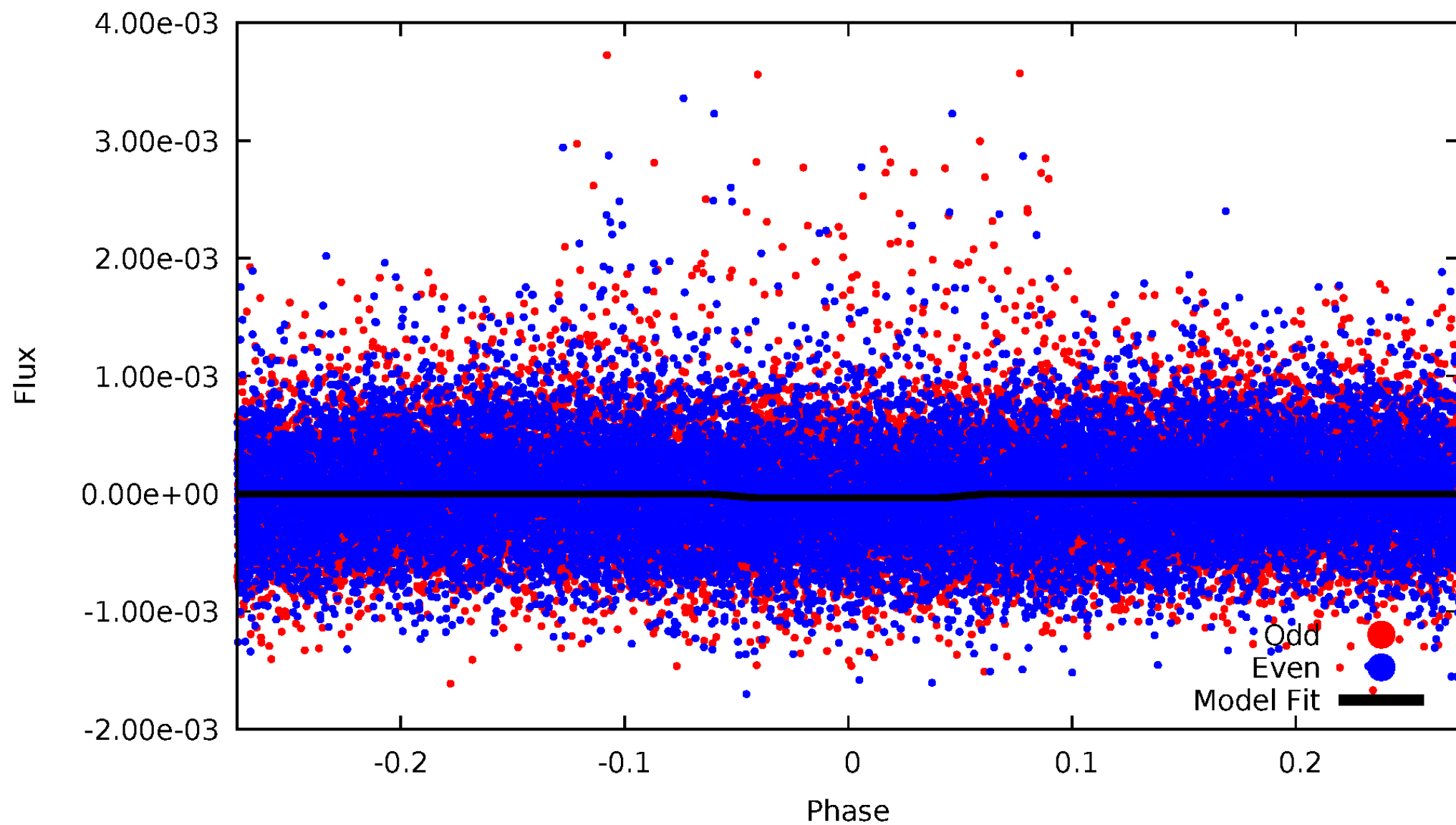
# DV Odd/Even

TCE 006226464-01



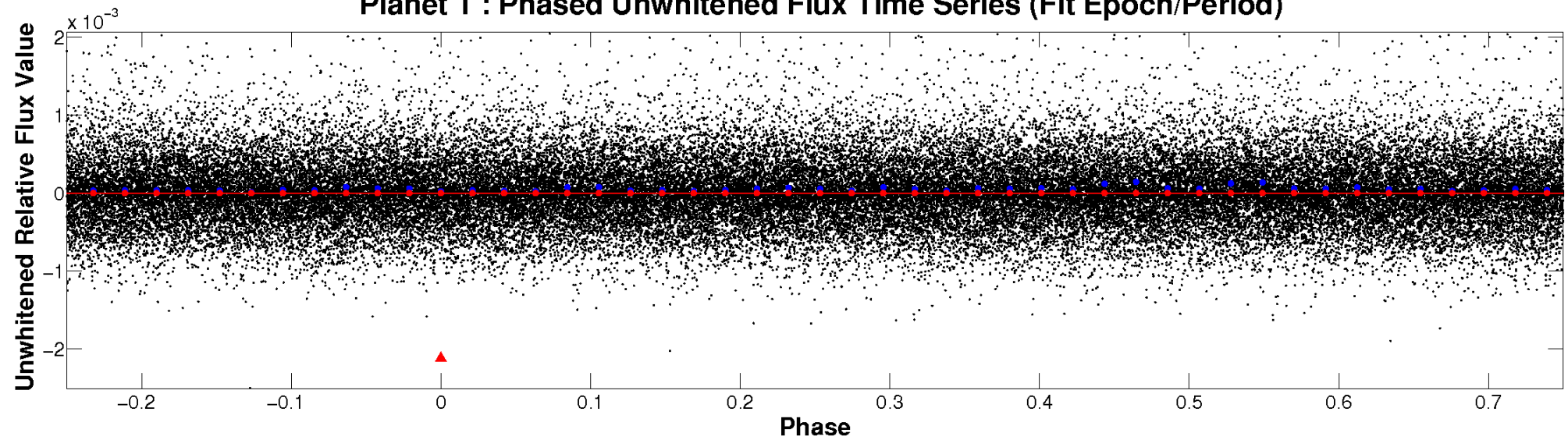
# ALT Odd/Even

TCE 006226464-01

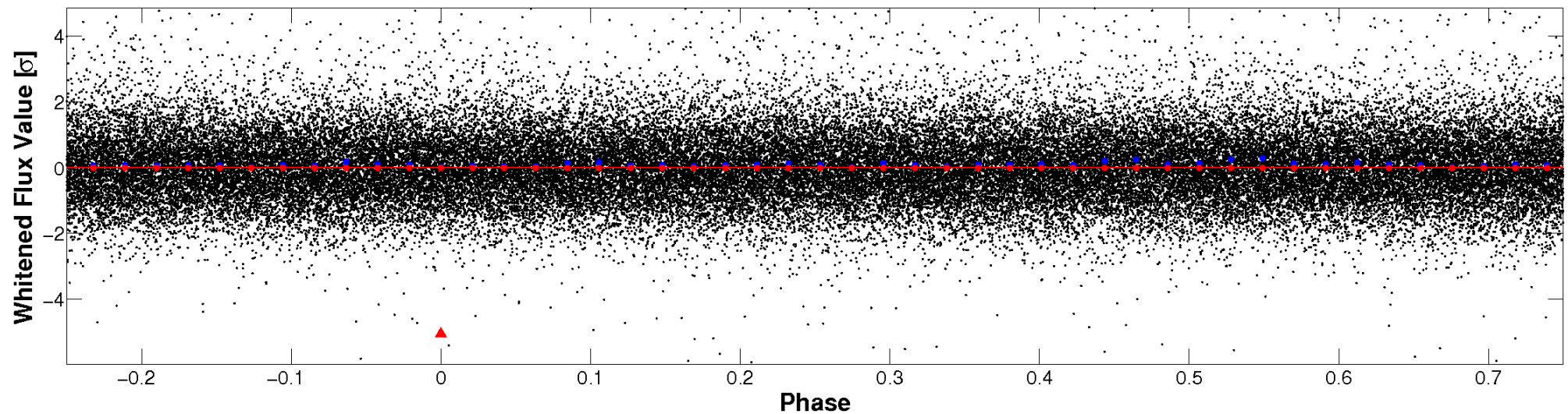


# Non-Whitened Vs. Whitened Light Curve

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

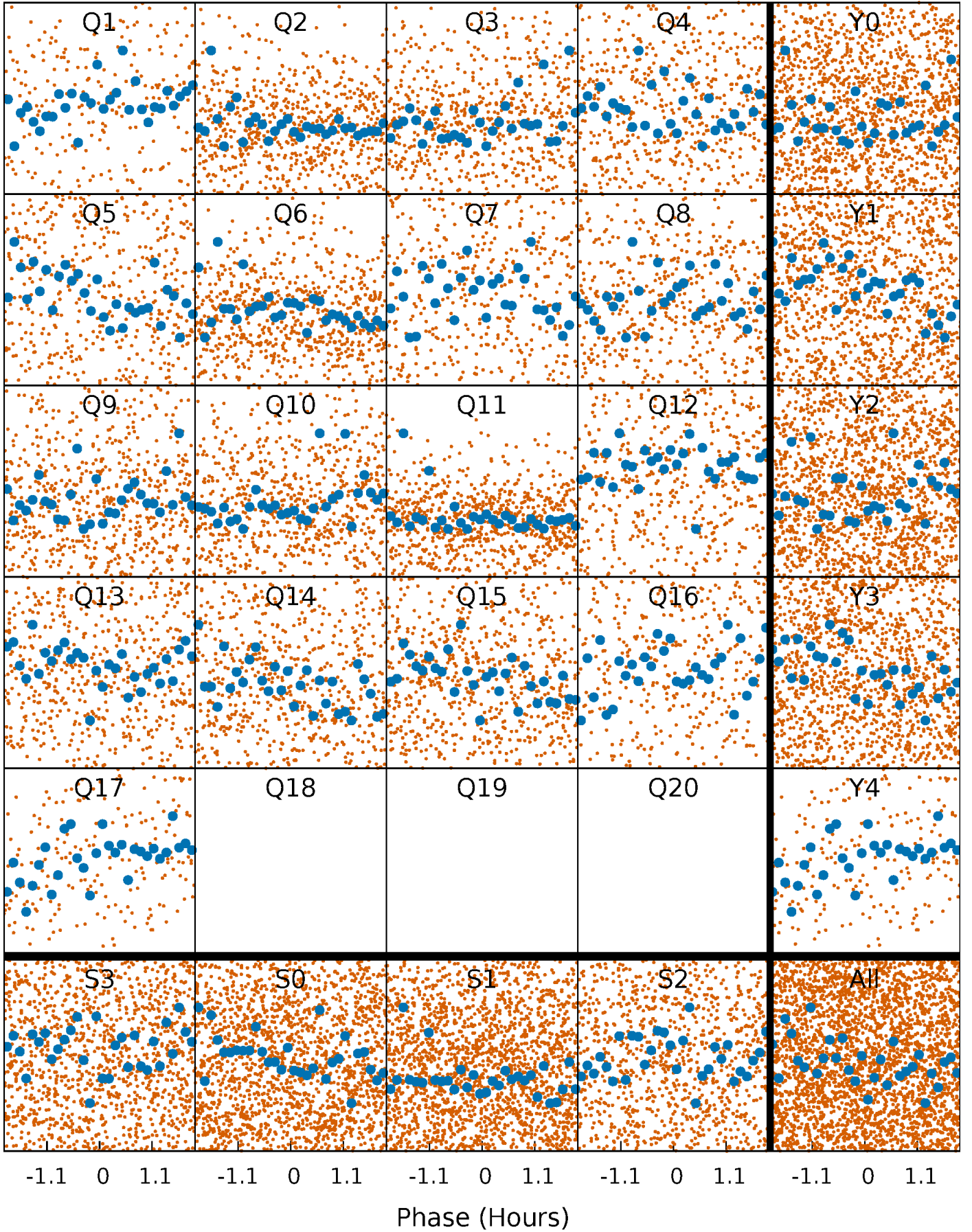


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



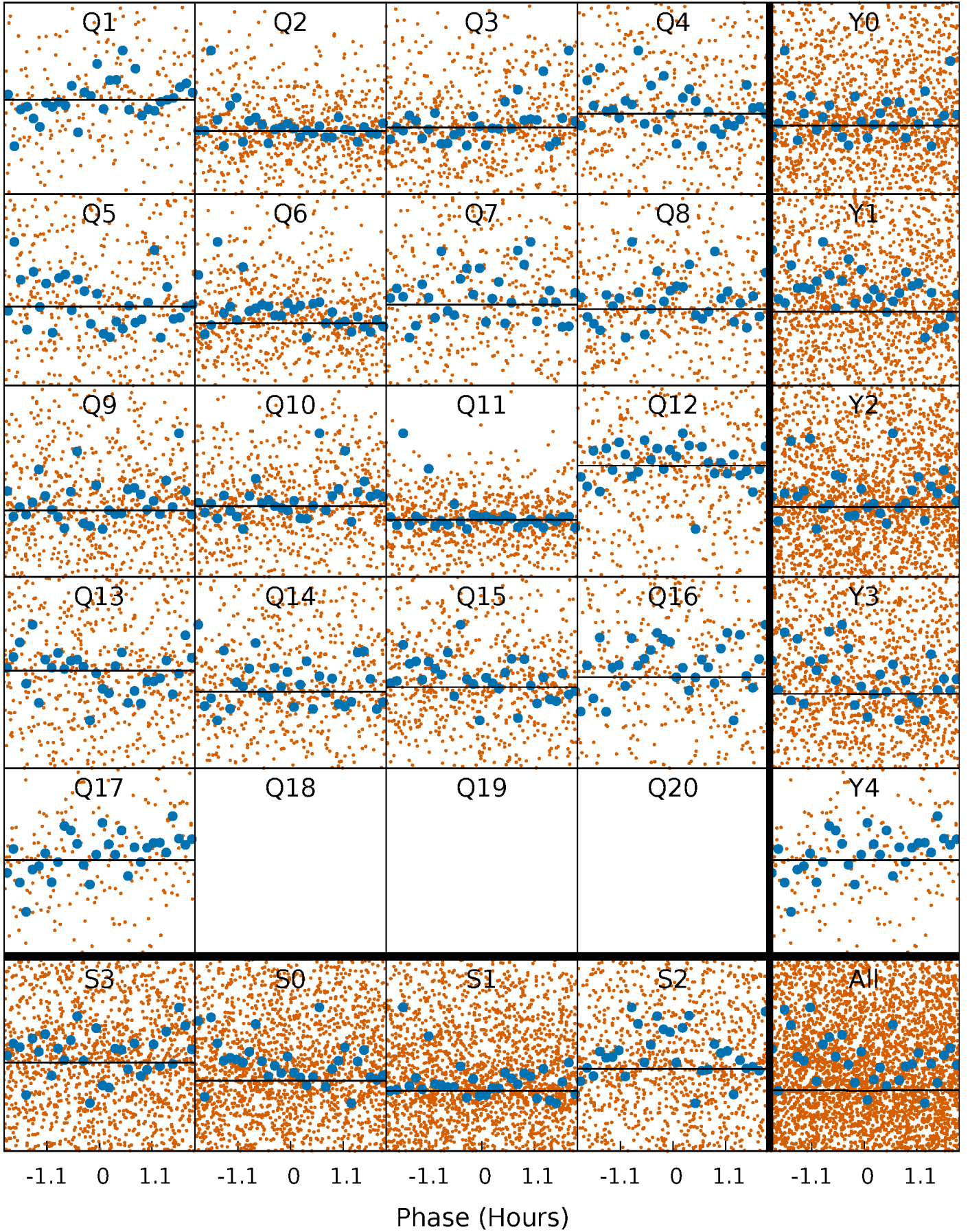
# PDC Quarter-Phased Transit Curves

TCE 006226464-01   P= 0.967631 Days    $T_0=131.591044$  (BKJD)



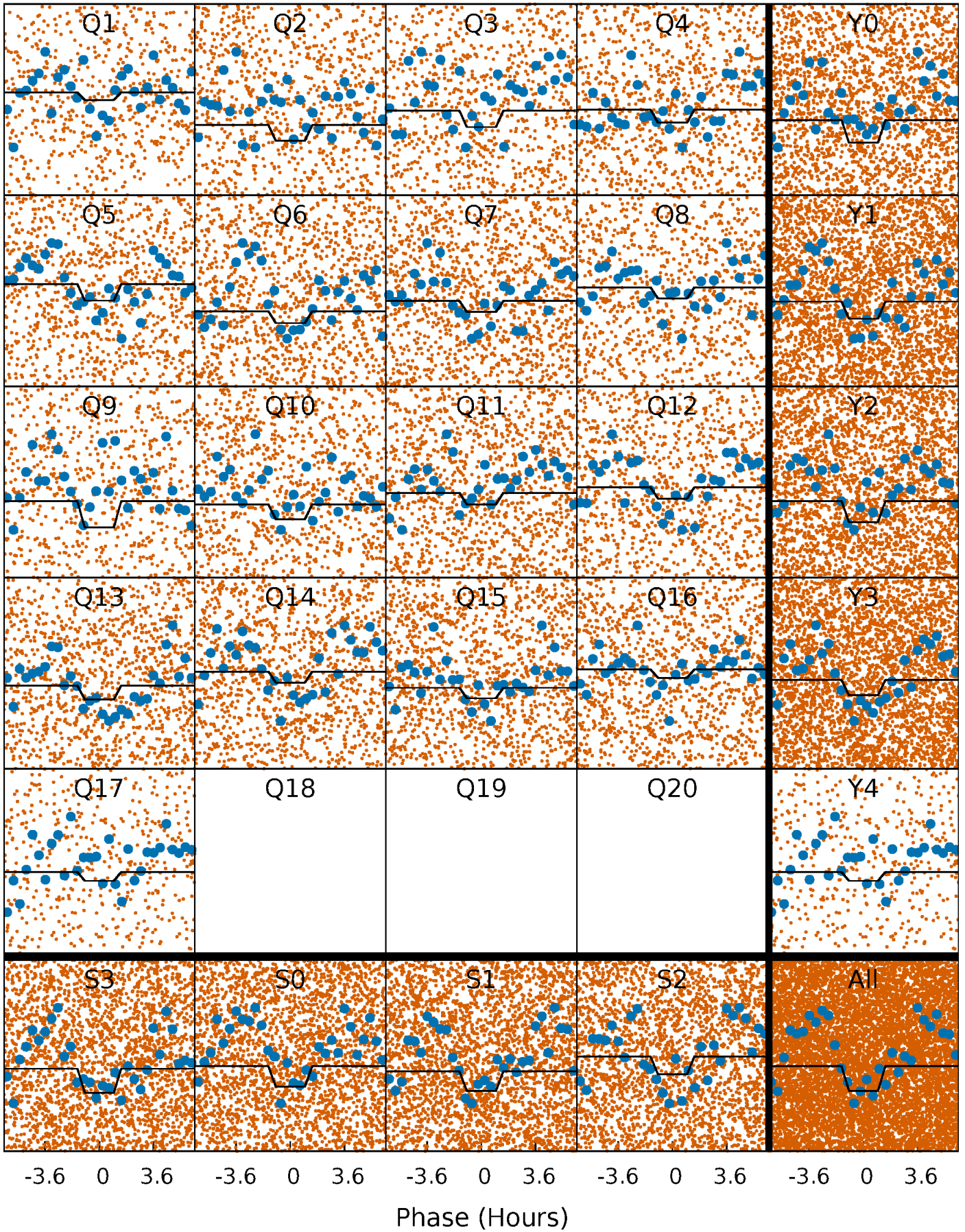
# DV Quarter-Phased Transit Curves

TCE 006226464-01   P= 0.967631 Days    $T_0=131.591044$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

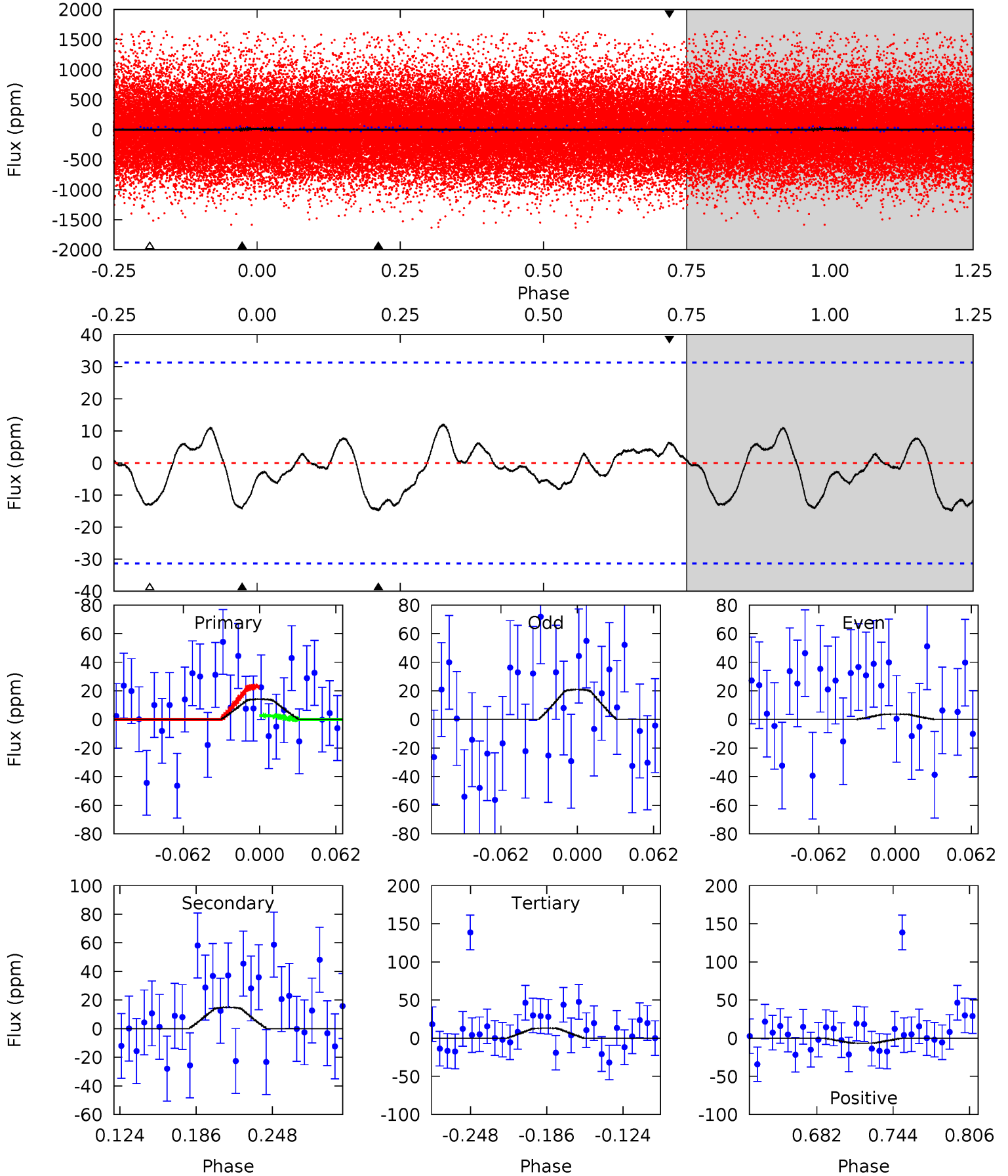
TCE 006226464-01 P= 0.968005 Days  $T_0=131.526293$  (BKJD)



# DV Model-Shift Uniqueness Test

006226464-01, P = 0.967631 Days, E = 130.623413 Days

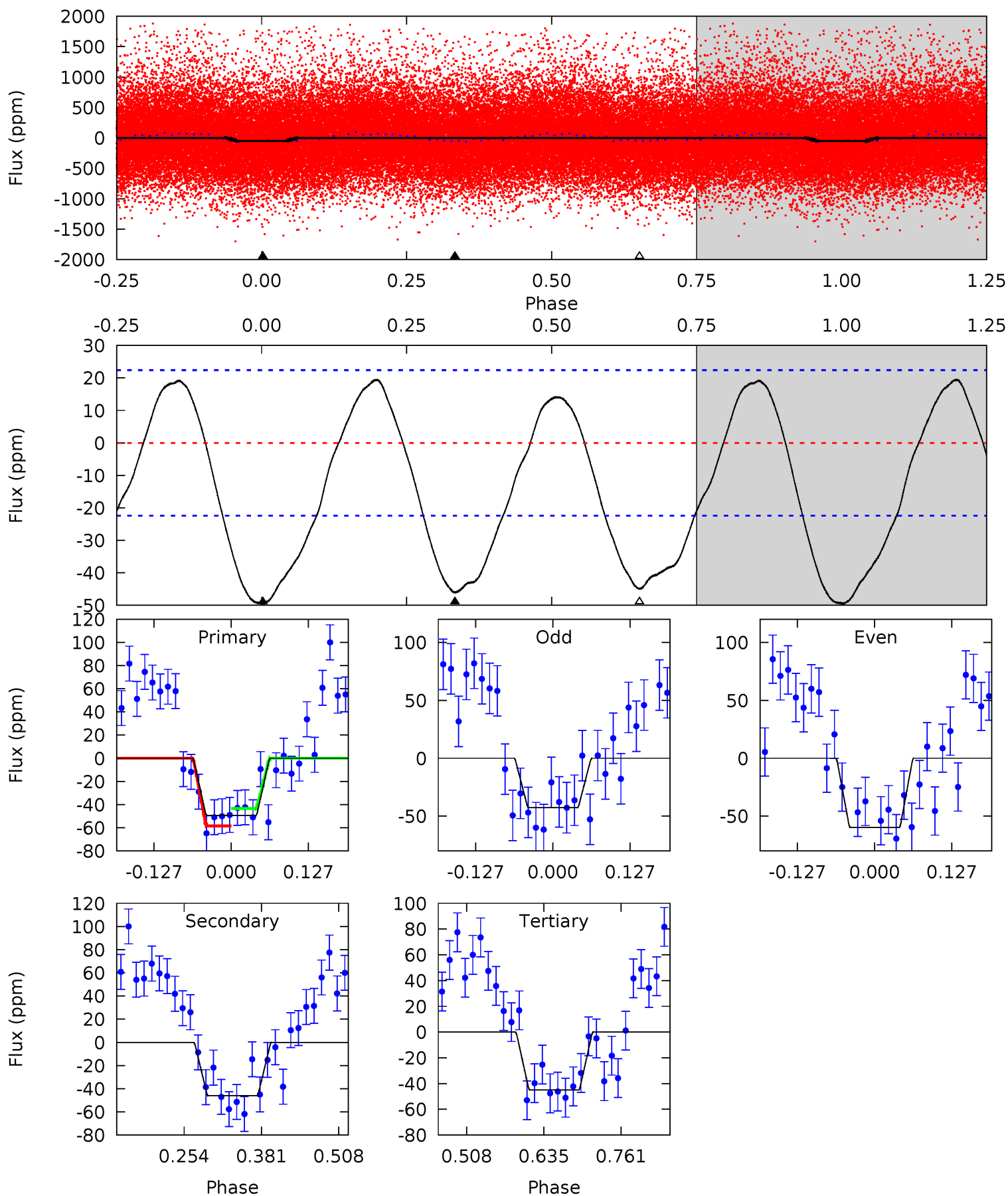
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.12	2.23	1.97	0.97	4.66	1.87	0.75	0.15	1.15	0.26	1.26	1.28	-9.56	0.45	1.52



# Alt Model-Shift Uniqueness Test

006226464-01, P = 0.968005 Days, E = 130.558288 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.97	9.28	9.06	0	4.51	1.53	4.49	0.91	9.97	0.22	9.28	1.75	0.61	0.28	1.52



### Stellar Parameters For KIC 006226464

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5470^{+164}_{-164}$	$4.138^{+0.358}_{-0.193}$	$0.060^{+0.250}_{-0.250}$	$1.347^{+0.398}_{-0.486}$	$0.908^{+0.101}_{-0.082}$	$0.523^{+1.356}_{-0.259}$
	+3%/-3%	+9%/-5%	+417%/-417%	+30%/-36%	+11%/-9%	+259%/-49%
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 006226464-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-15 \pm 7$	$3.15^{+3.57}_{-2.19}$	$2850^{+240}_{-281}$	$-2185^{+6269}_{-758}$	$0.273^{+2.501}_{-0.220}$
Alt.	$-46 \pm 5$	$3.28^{+3.64}_{-2.24}$	$2849^{+236}_{-276}$	$3189^{+2067}_{-5834}$	$0.807^{+7.555}_{-0.629}$

$T_{max}$  = 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  $A_{obs} \gg 1.0$

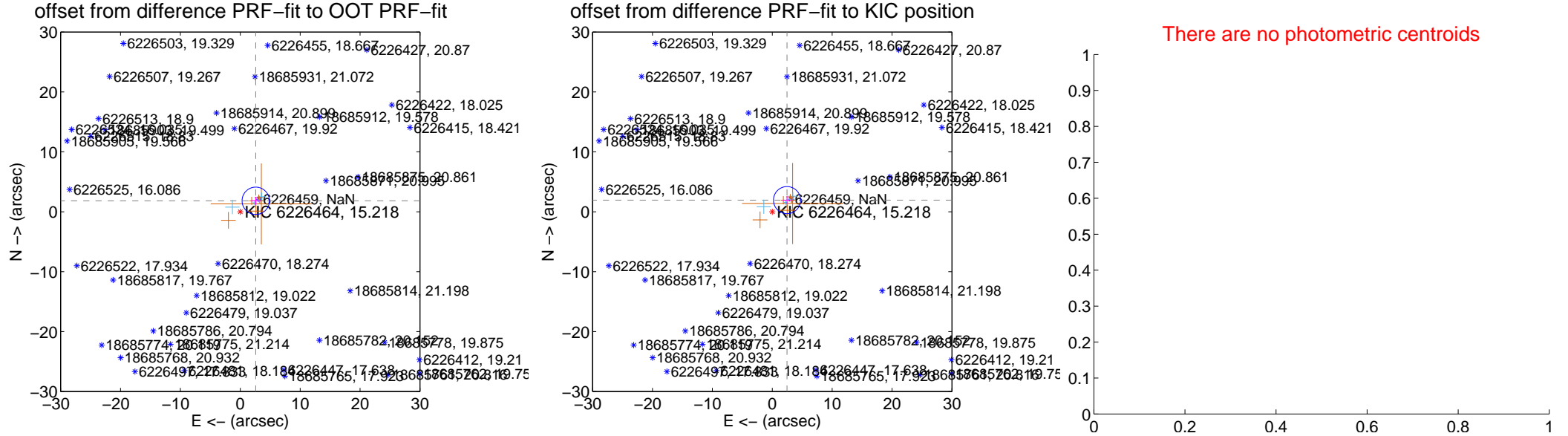
## DV Centroid Data

Supplemental centroid analysis for 006226464-01. Kepler magnitude: 15.22. Transit SNR 0.01

There are 5 quarters with good PRF difference image offsets

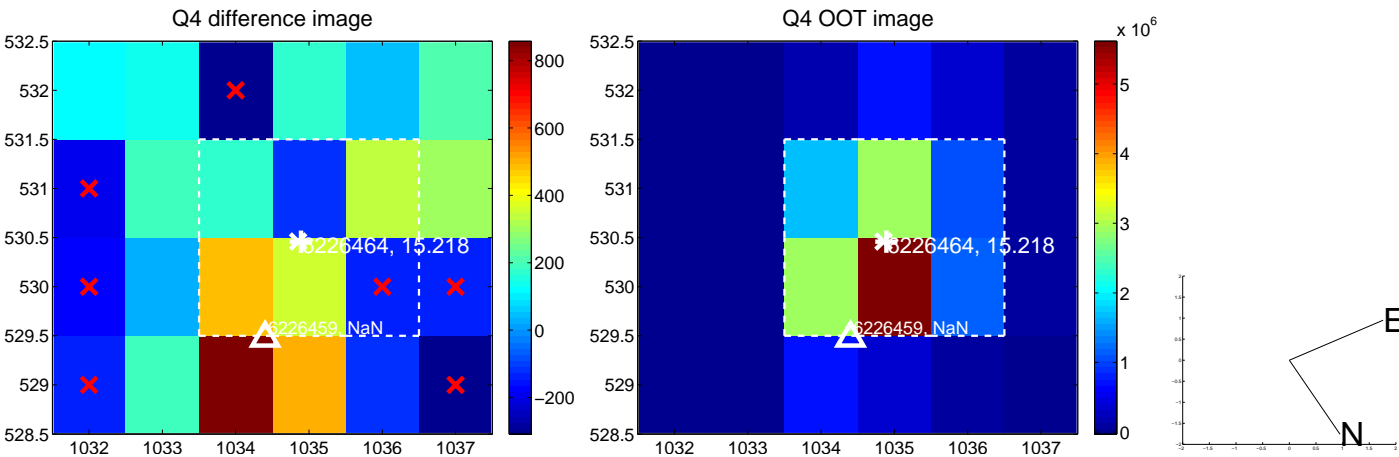
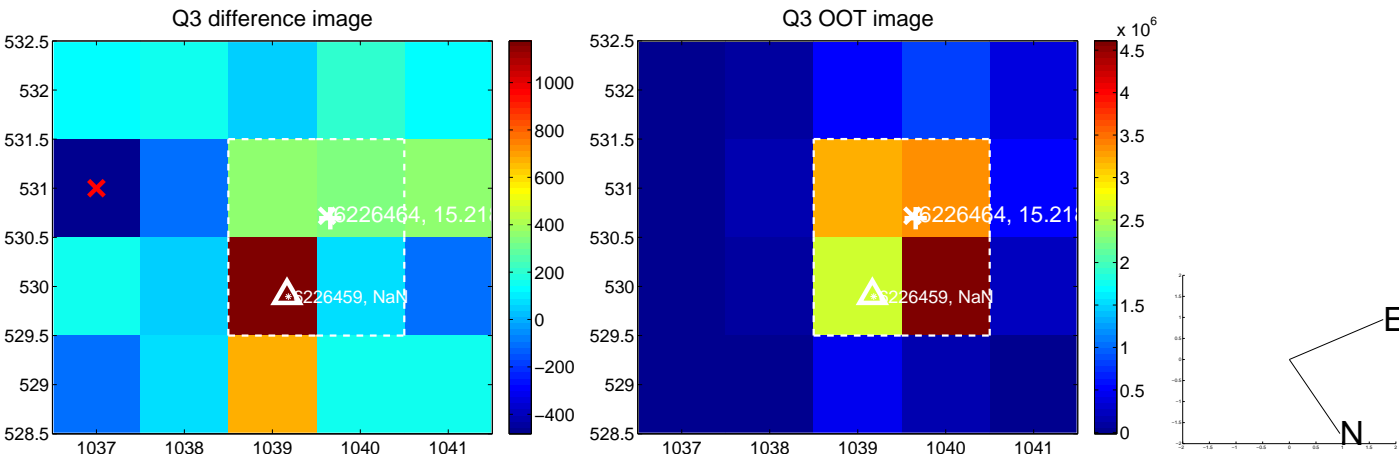
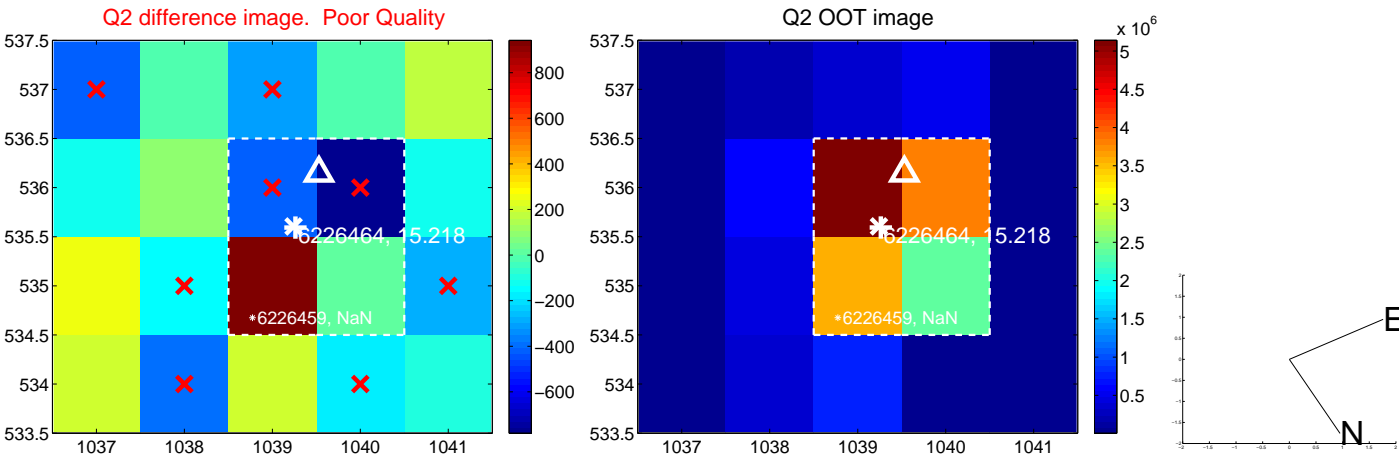
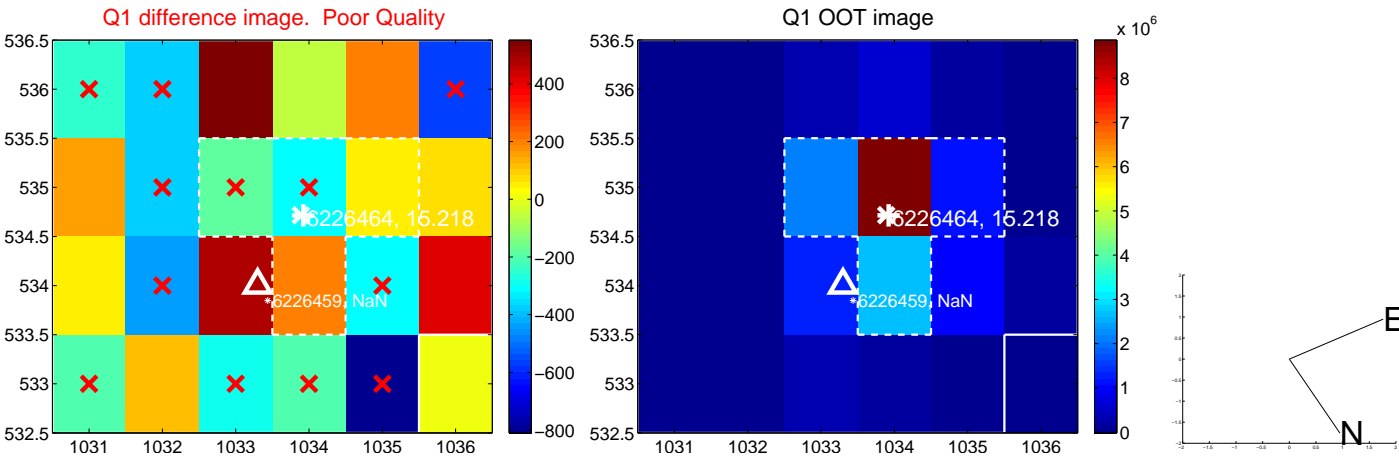
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$3.165 \pm 0.761$	4.16	$-2.582 \pm 0.808$	$1.831 \pm 0.658$
PRF-fit source offset from KIC position	$3.137 \pm 0.754$	4.16	$-2.465 \pm 0.808$	$1.940 \pm 0.658$
photometric centroid source offset	—	—	—	—

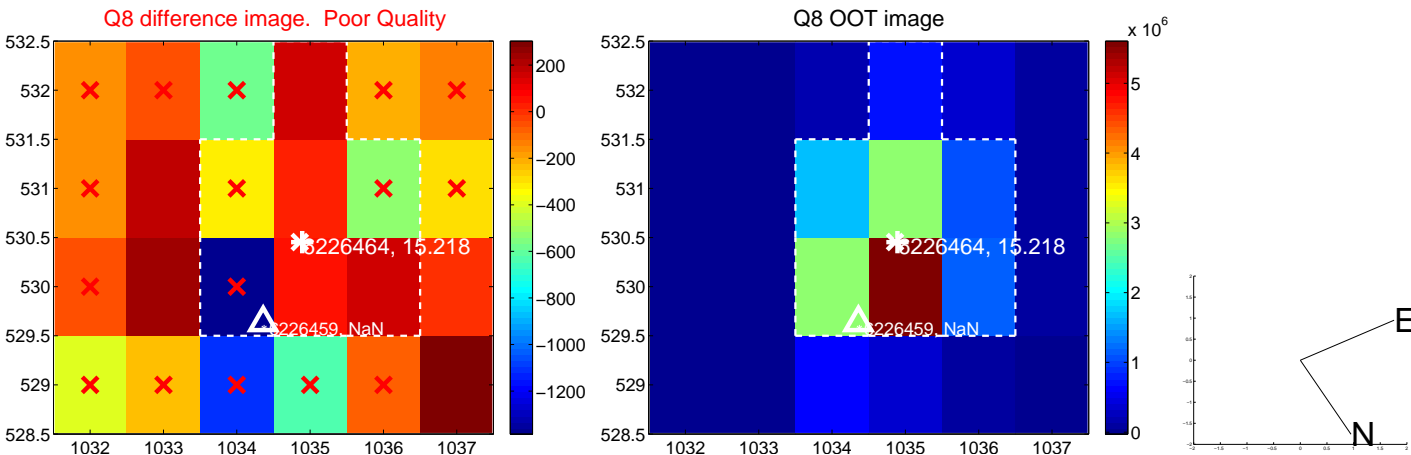
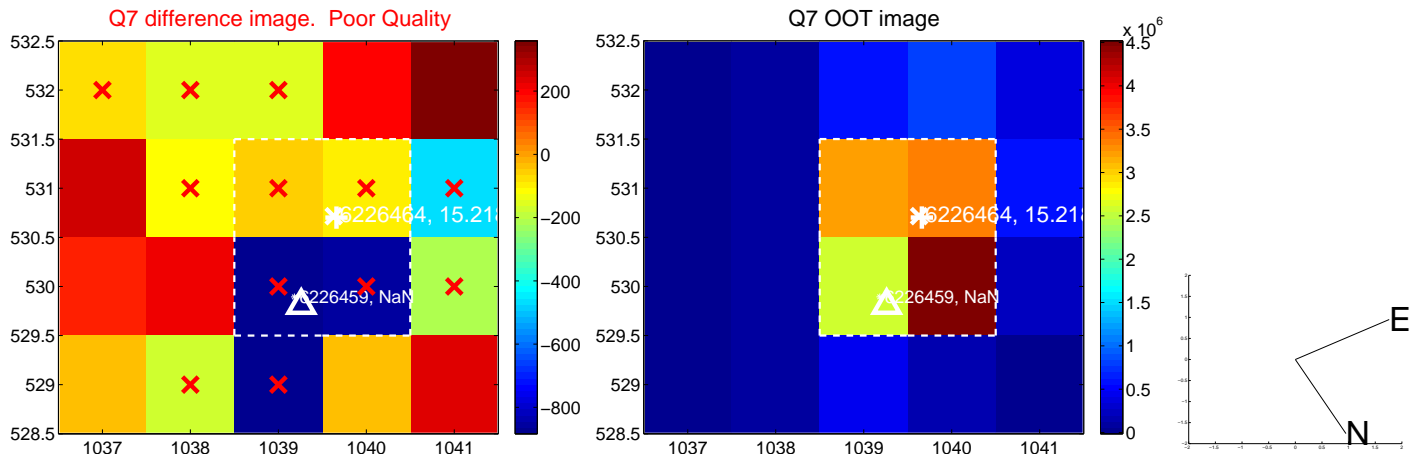
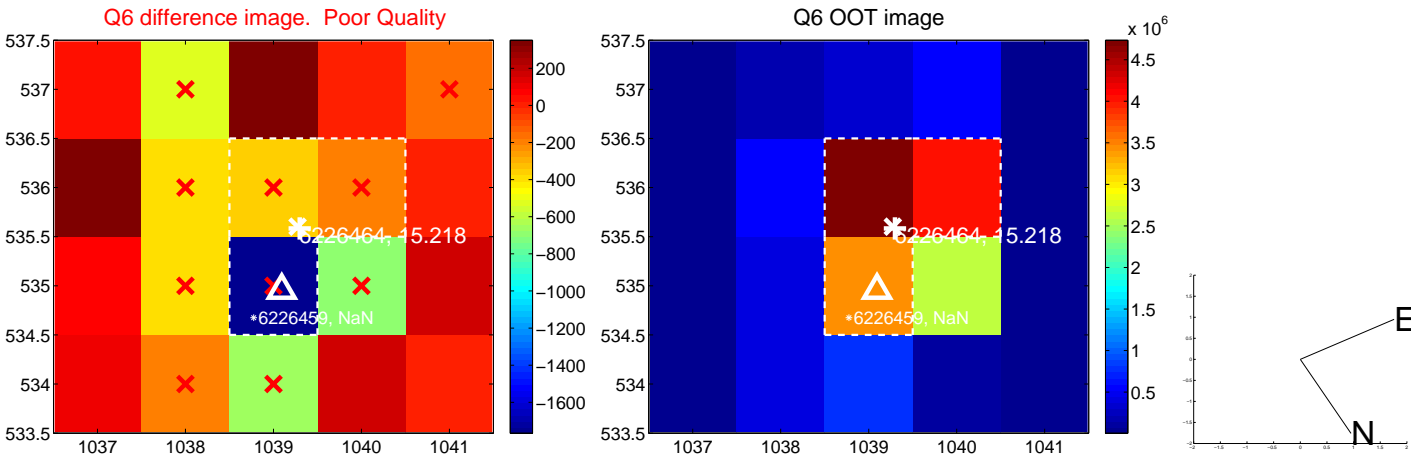
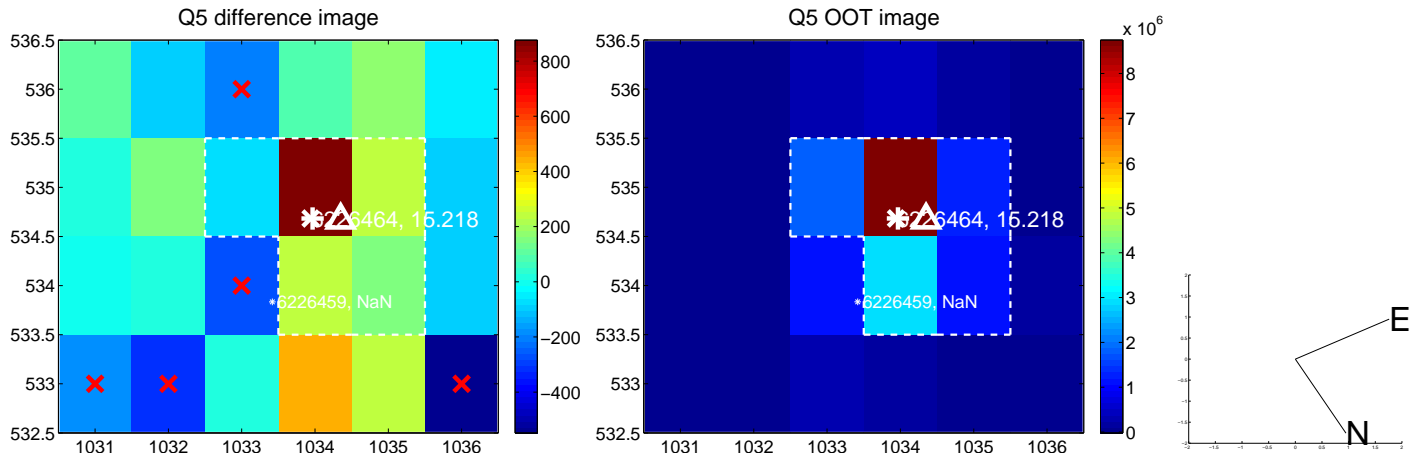


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

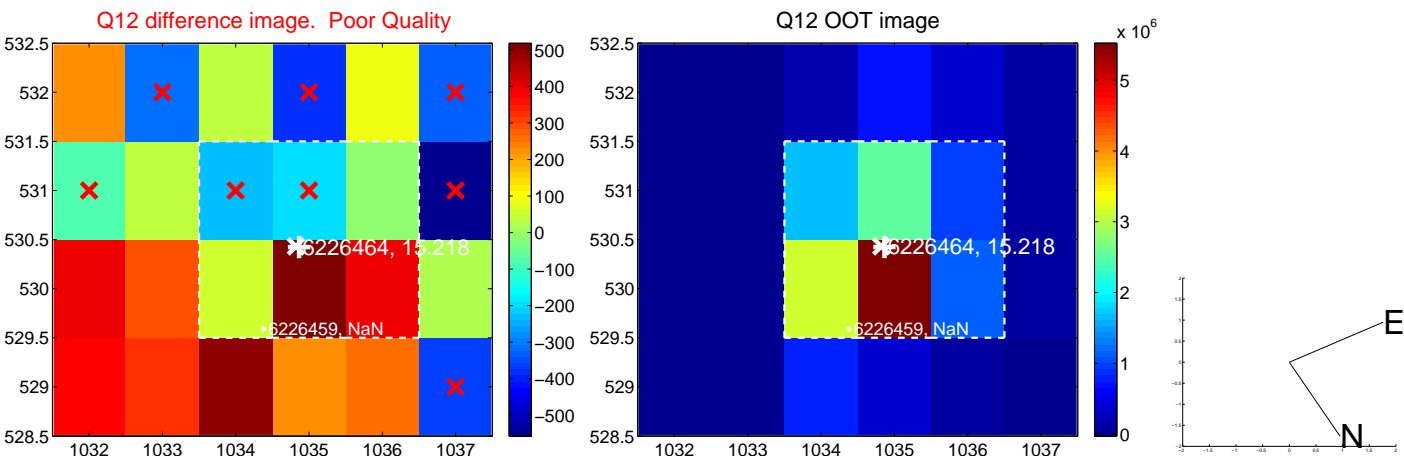
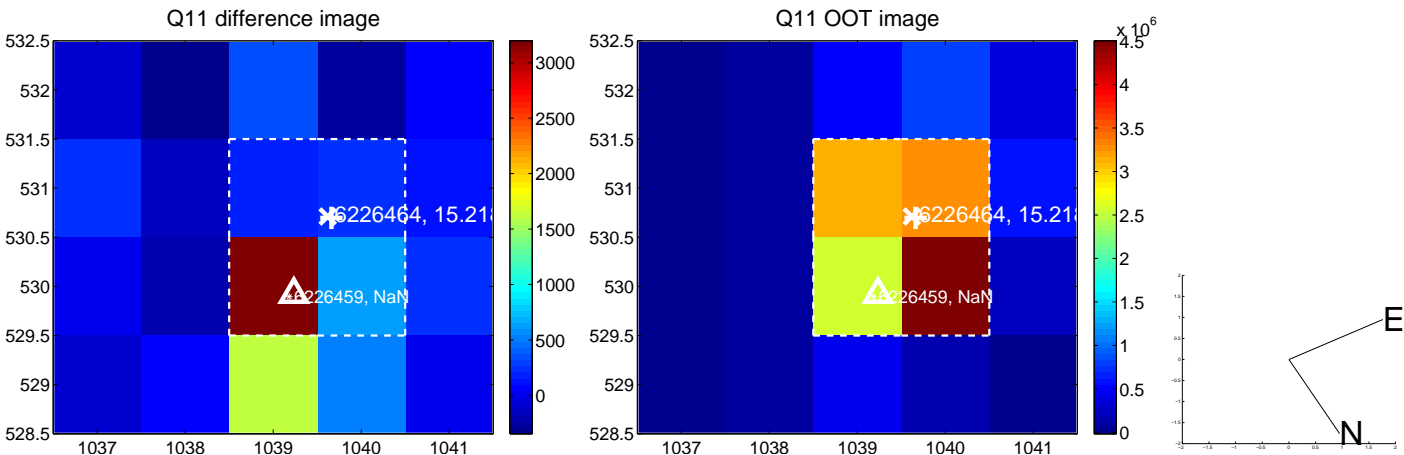
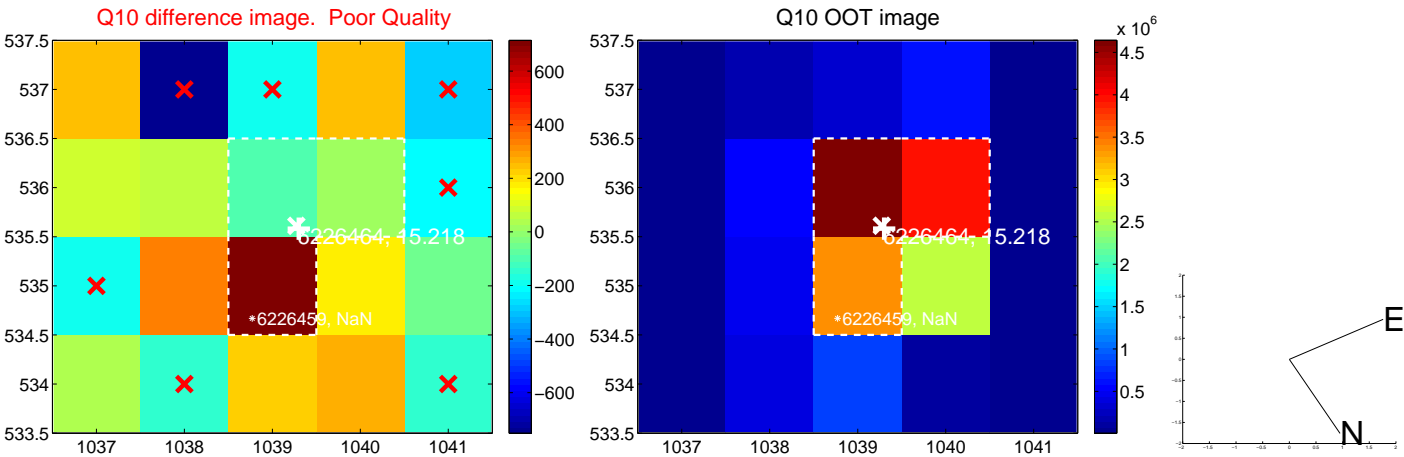
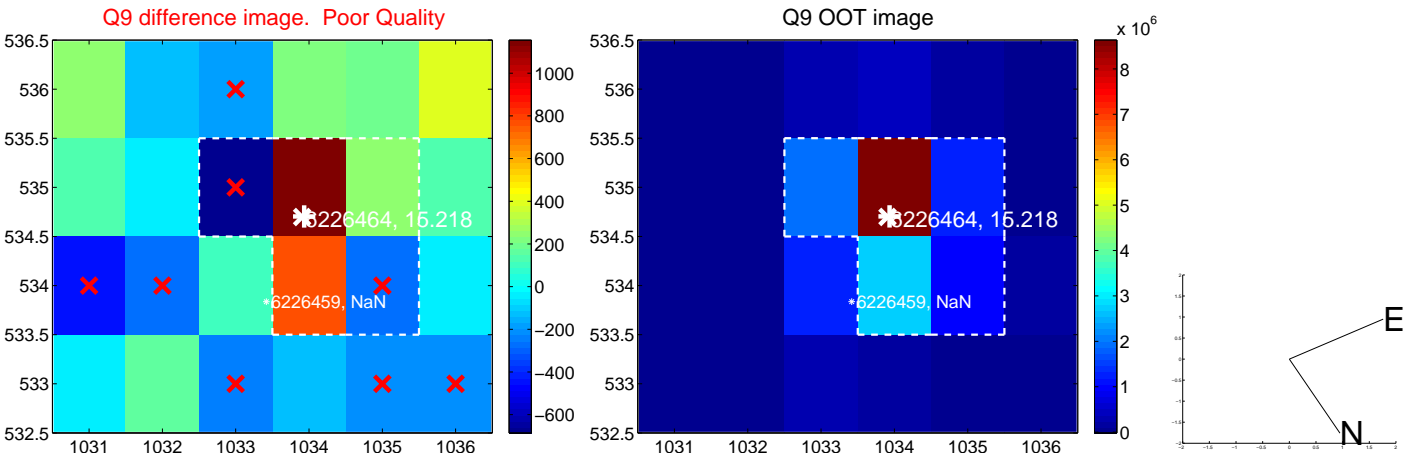
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



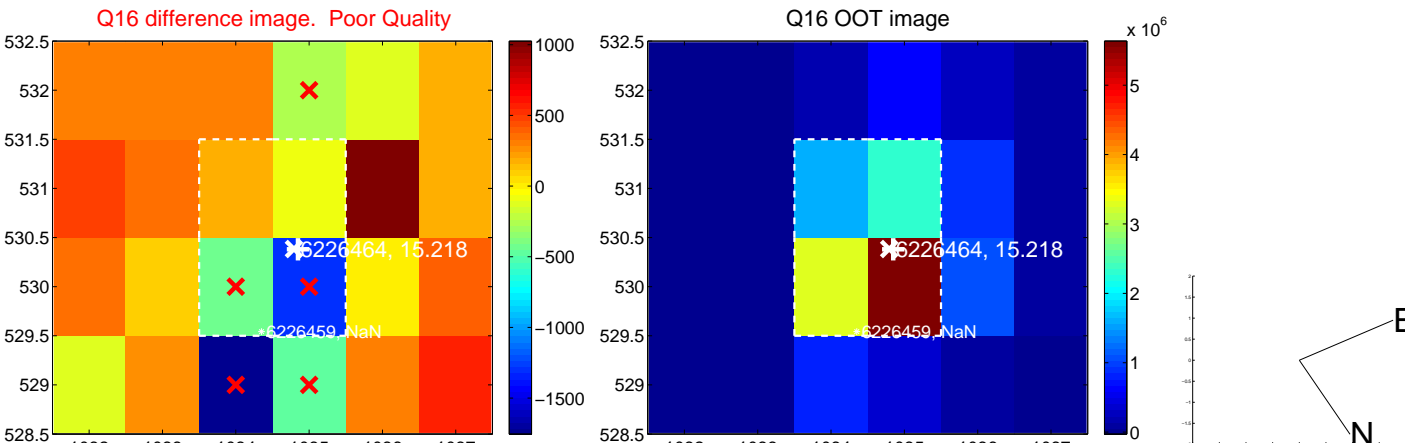
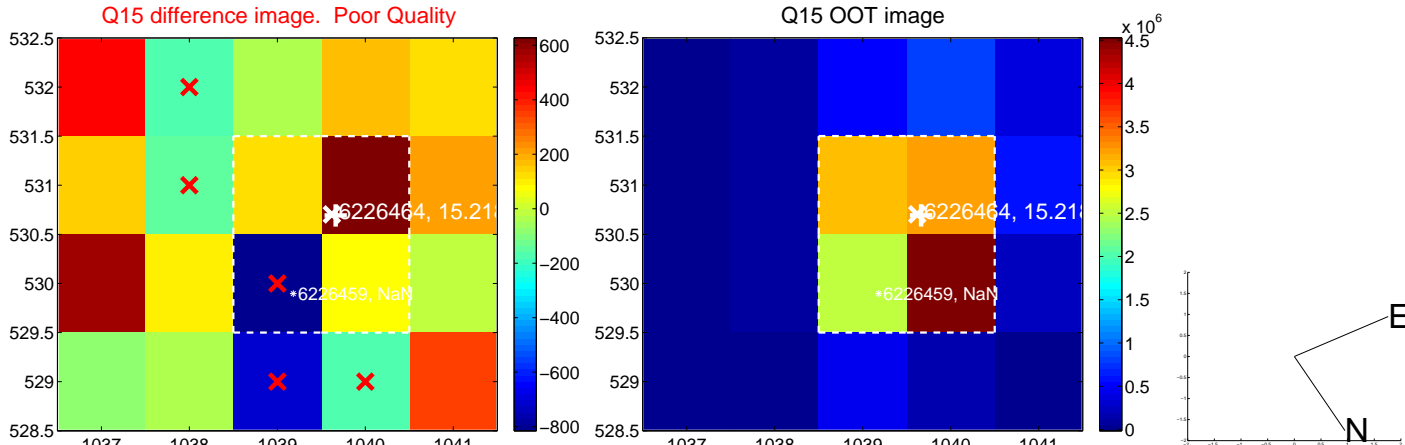
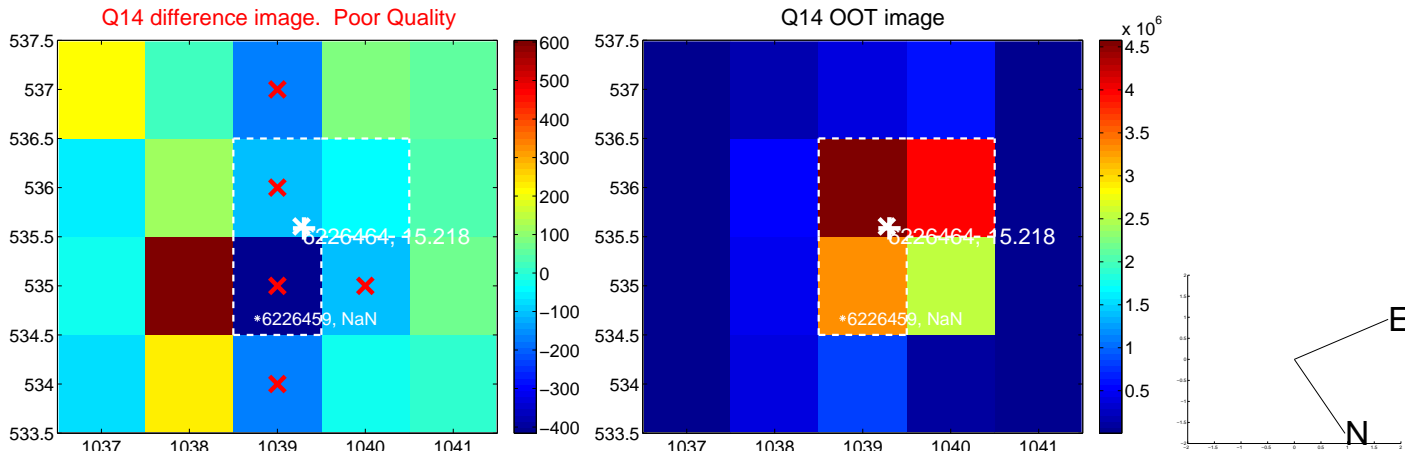
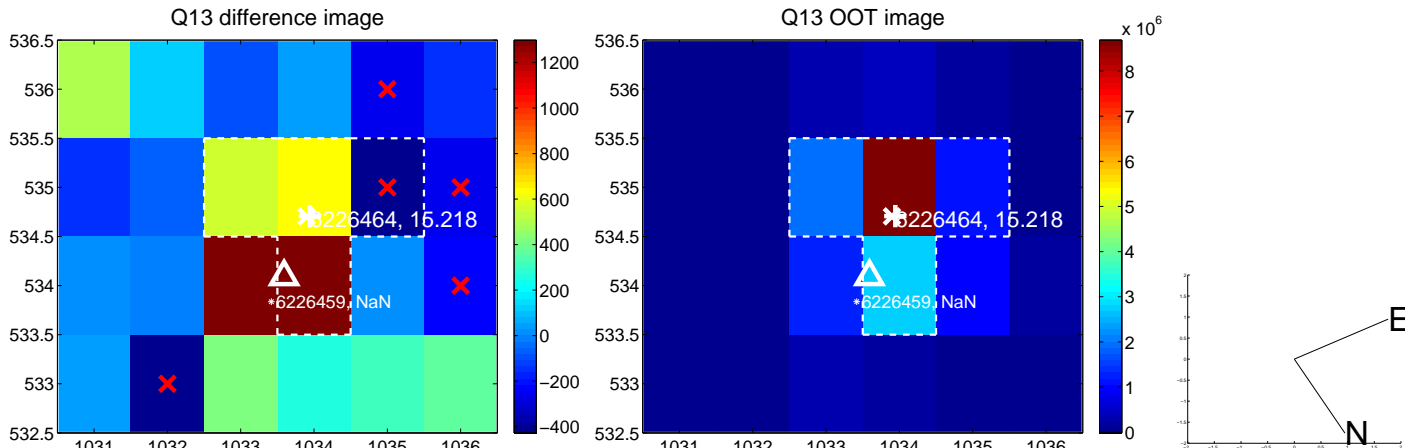
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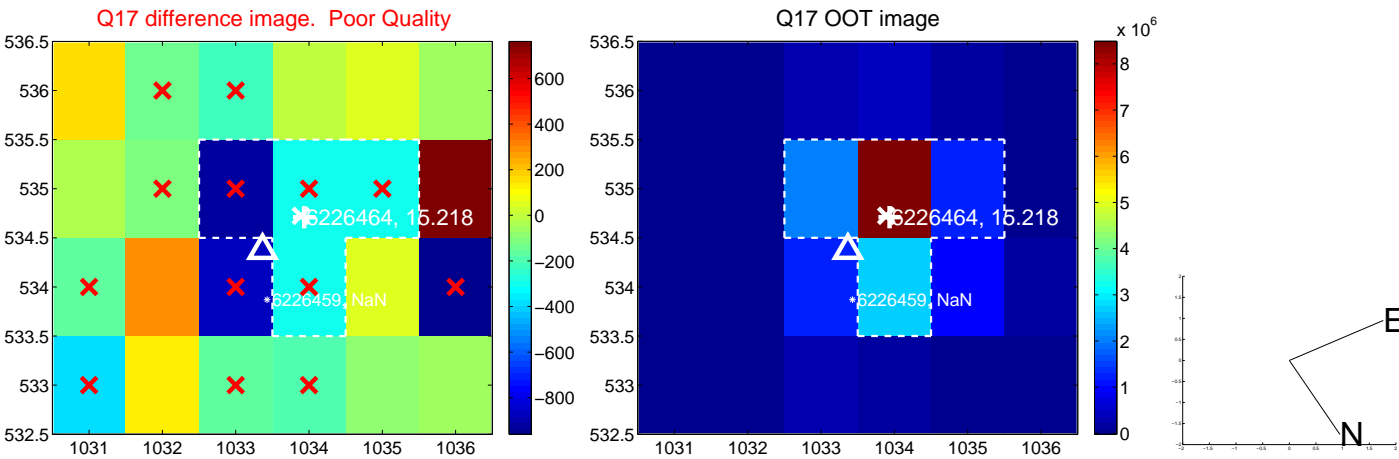
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folded centroid time series figure for this object.

UKIRT Image

