

# KIC 005564911

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005564911-01	OBS	No	0.662097	131.939488	46.0	0.806	8.1	4.3	1.03	6124	0.83	5655.46

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005564911-01	OBS	FP	0.00	1	0	1	0	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.

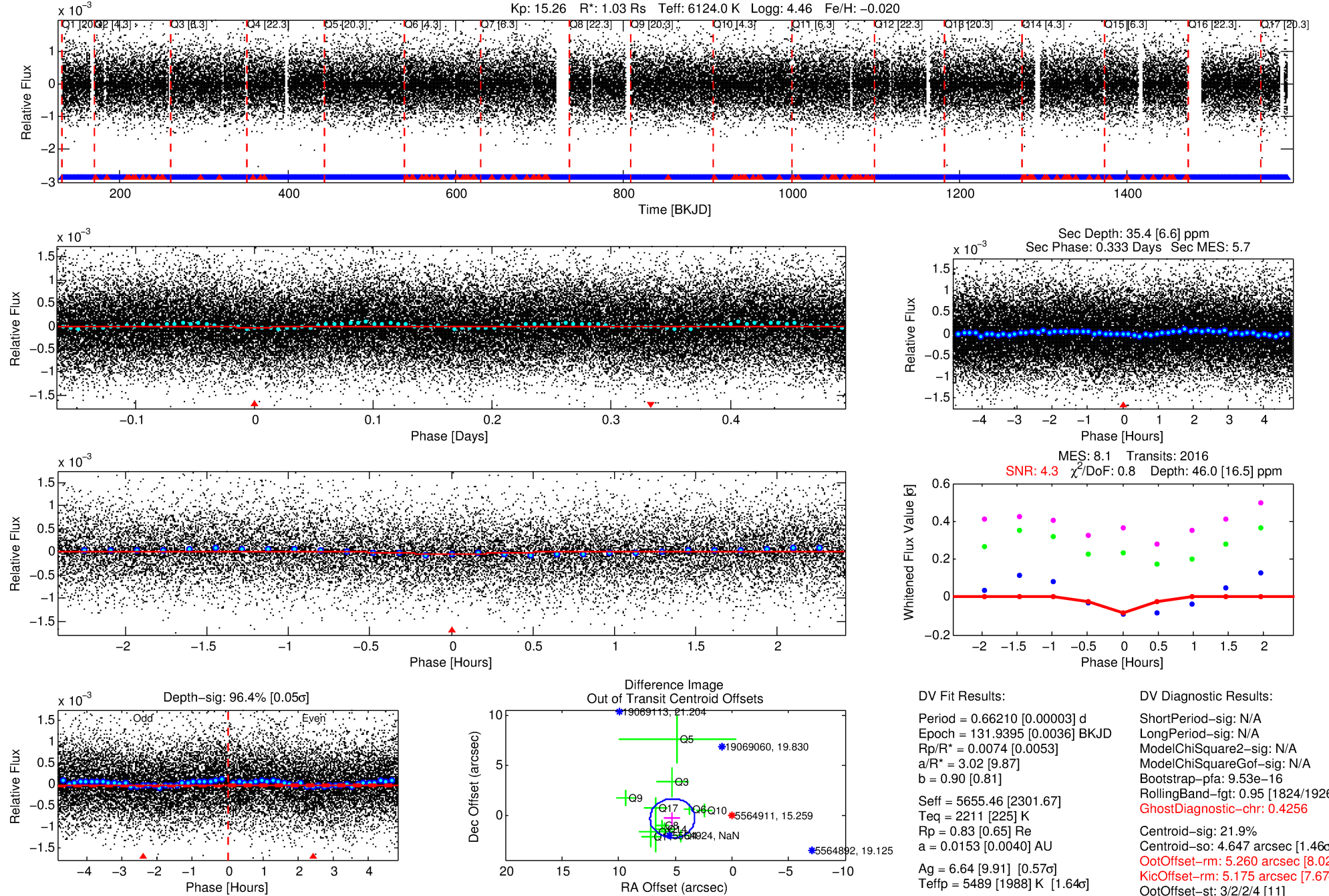
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005564911-01

No Significant Match Found

# DV One-Page Summary

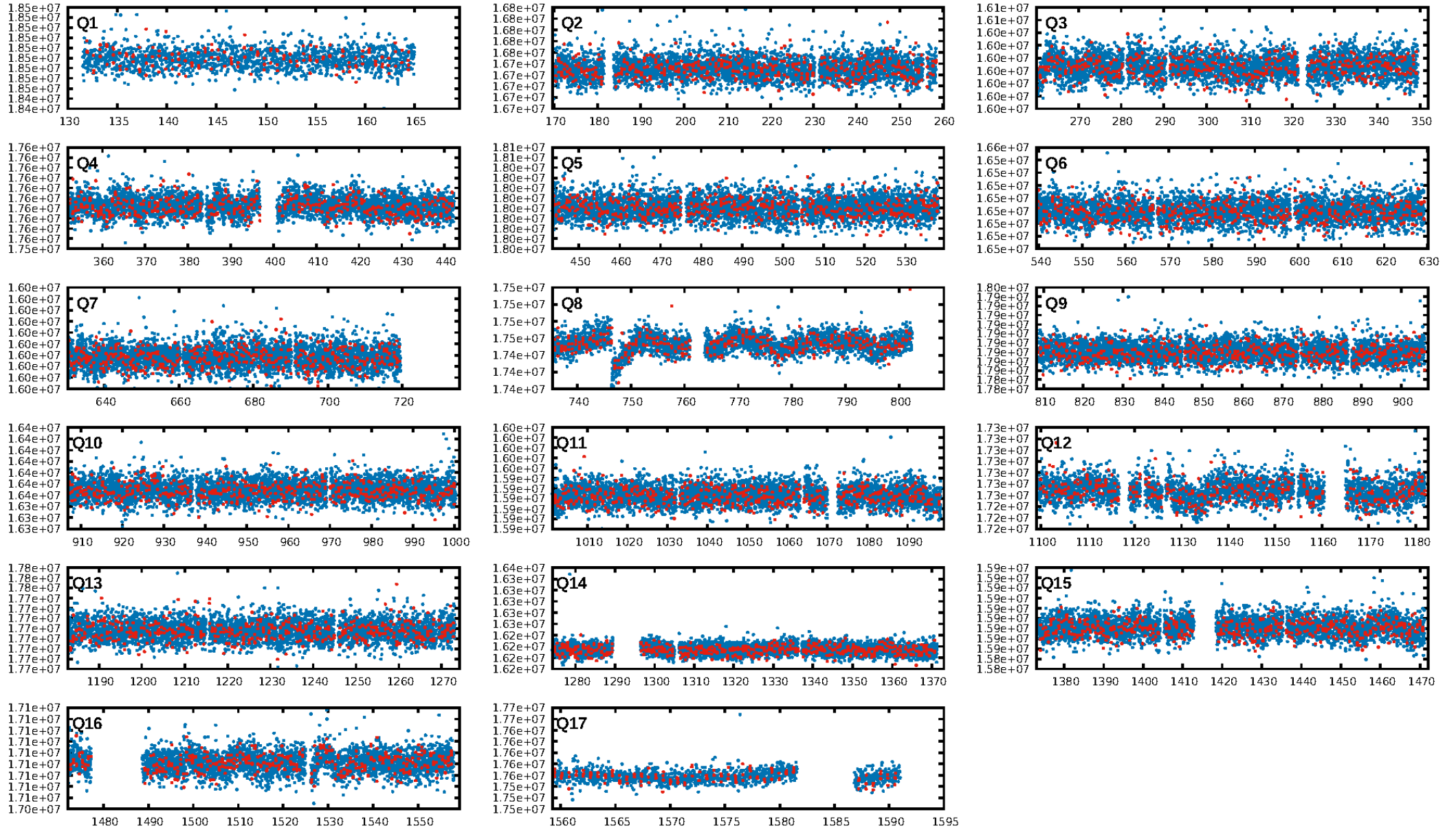
KIC: 5564911 Candidate: 1 of 1 Period: 0.662 d



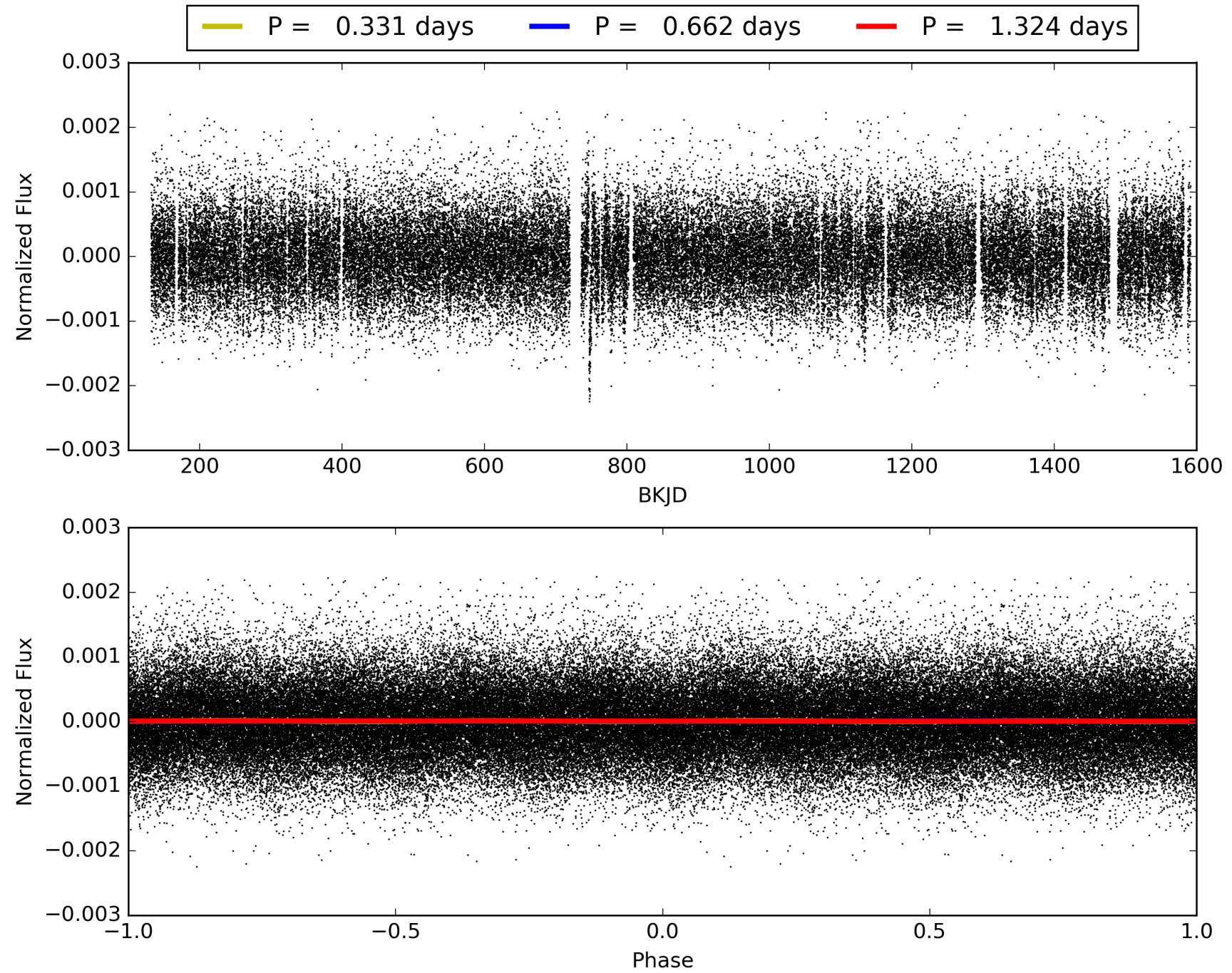
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:26:35 Z

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

# TCE 005564911-01, PDC Light Curves



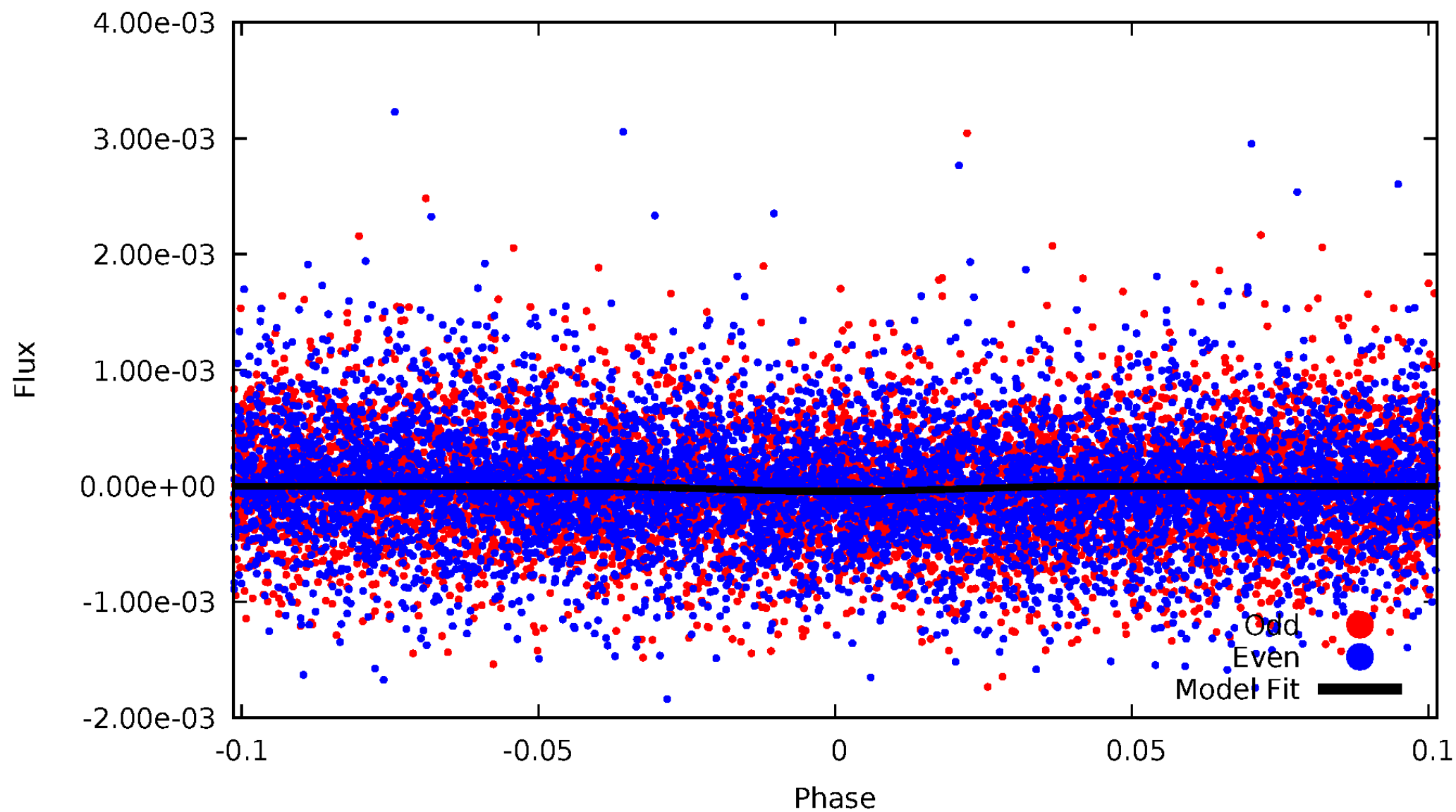
TCE 005564911-01





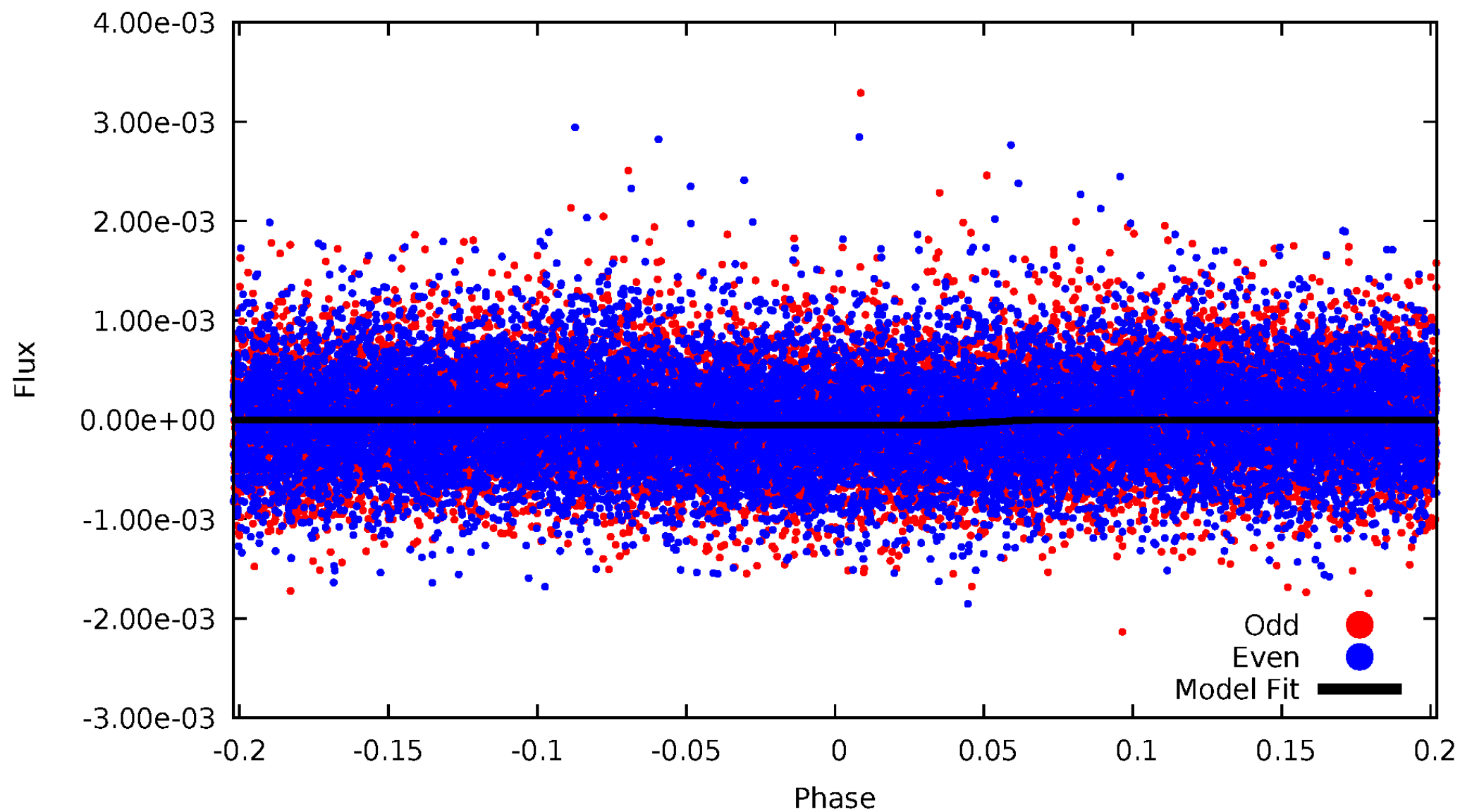
# DV Odd/Even

TCE 005564911-01

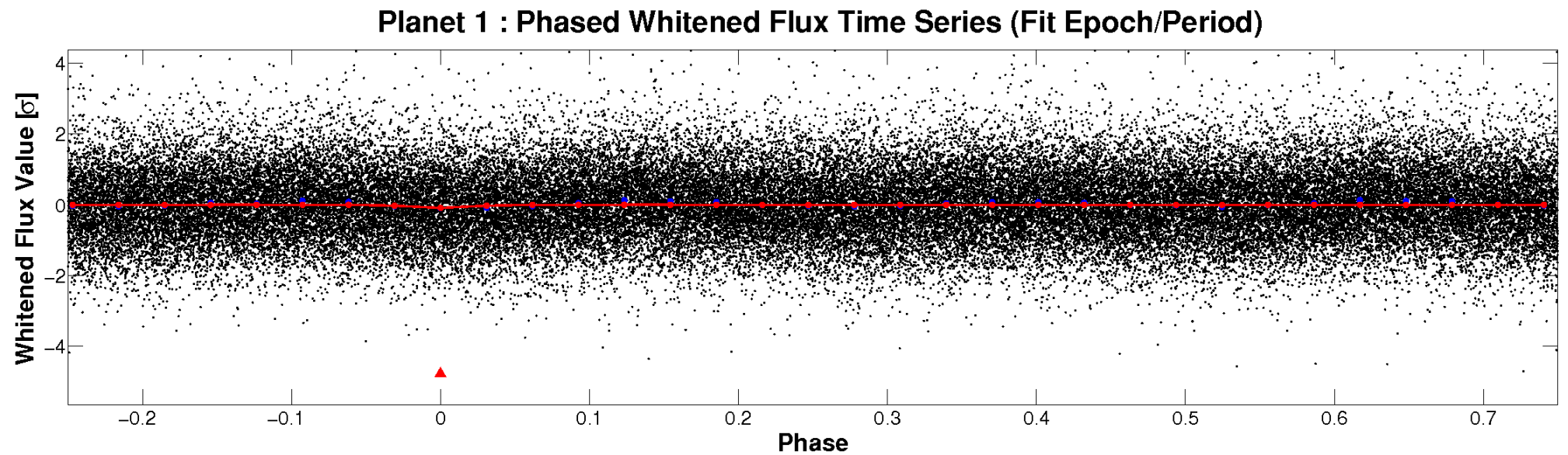
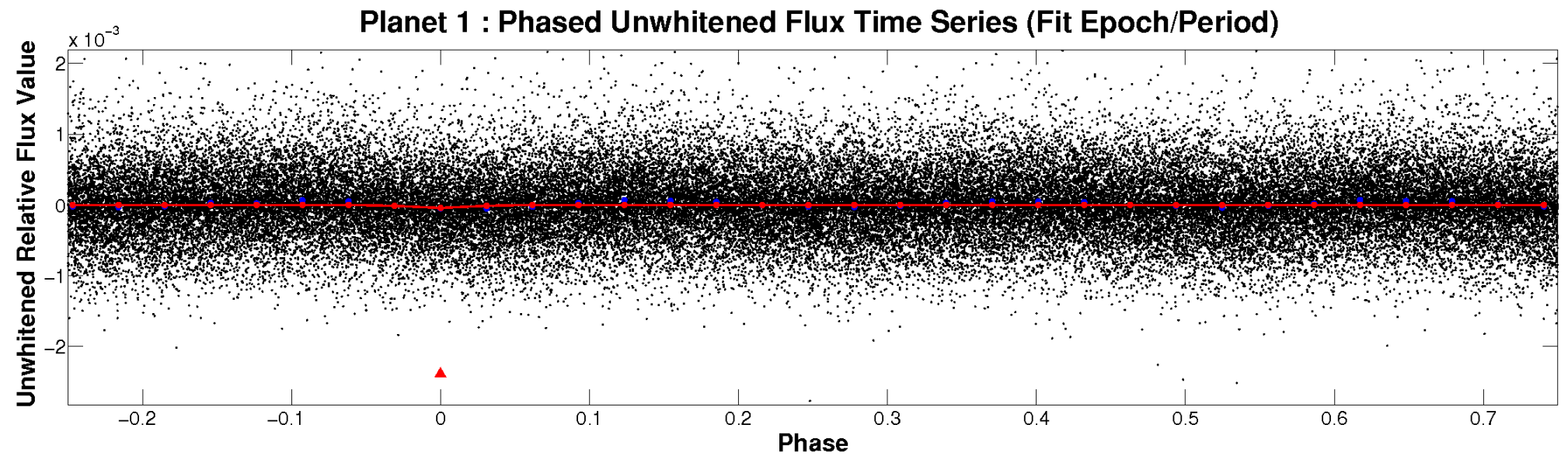


# ALT Odd/Even

TCE 005564911-01

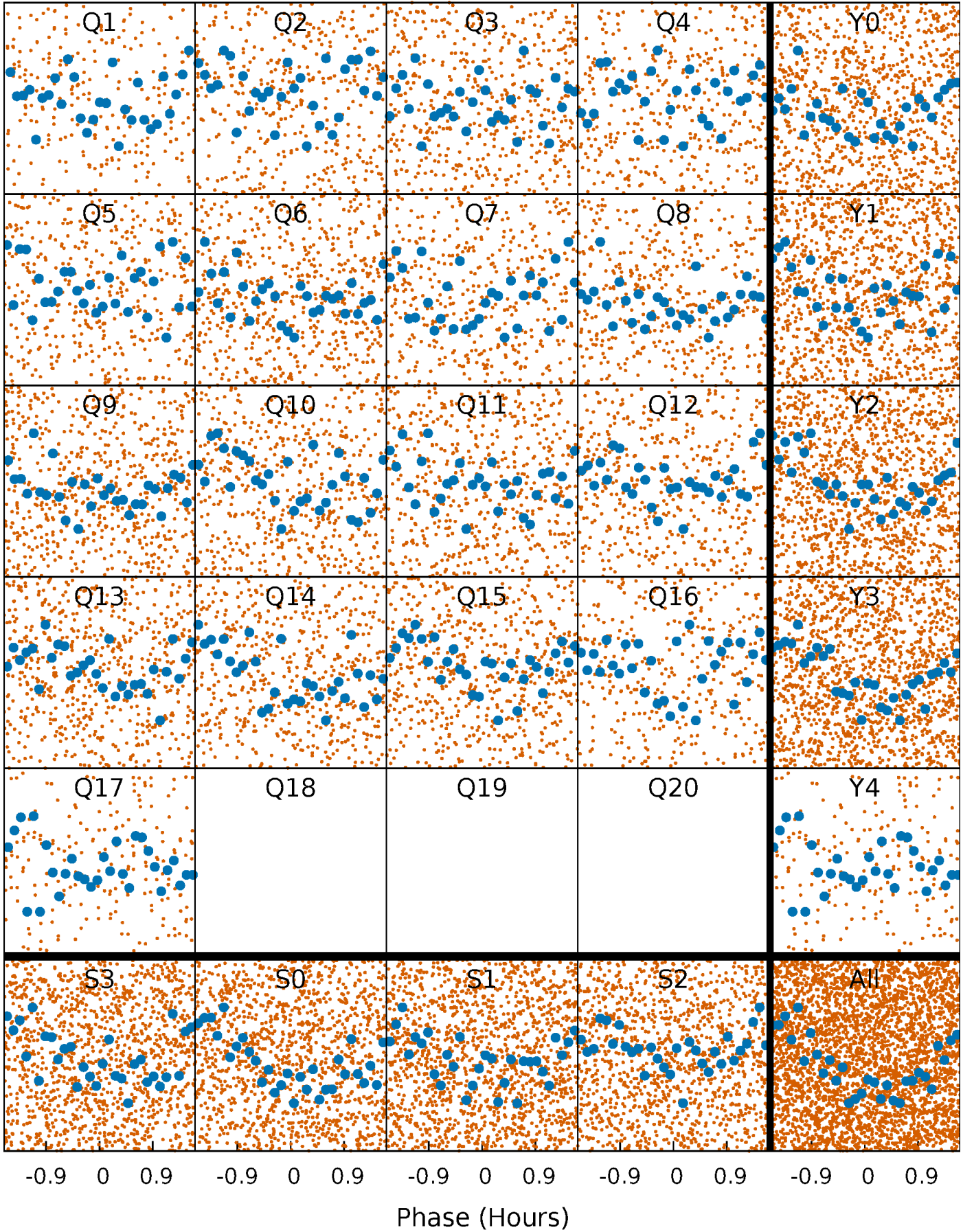


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

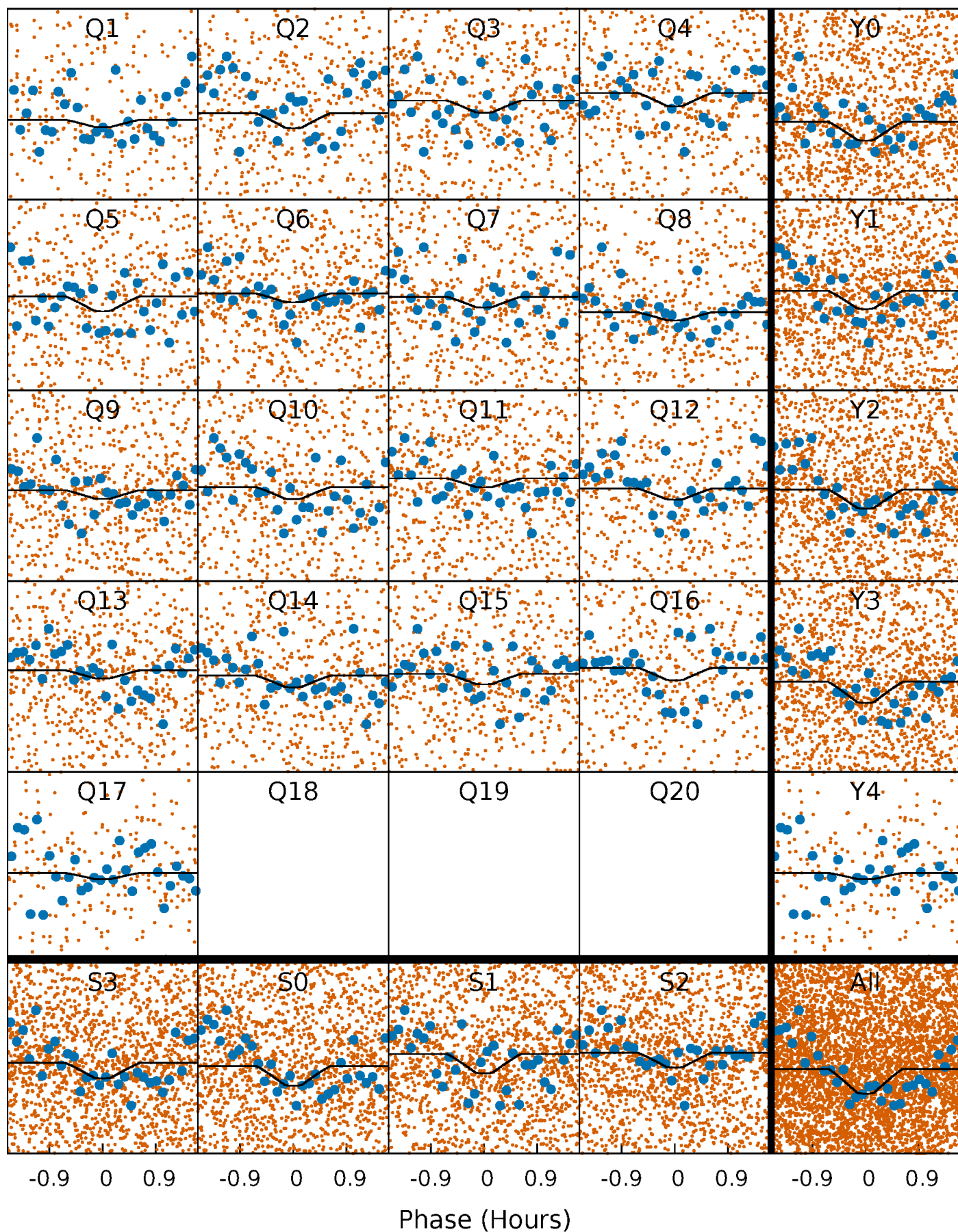
TCE 005564911-01 P= 0.662097 Days  $T_0=131.939488$  (BKJD)





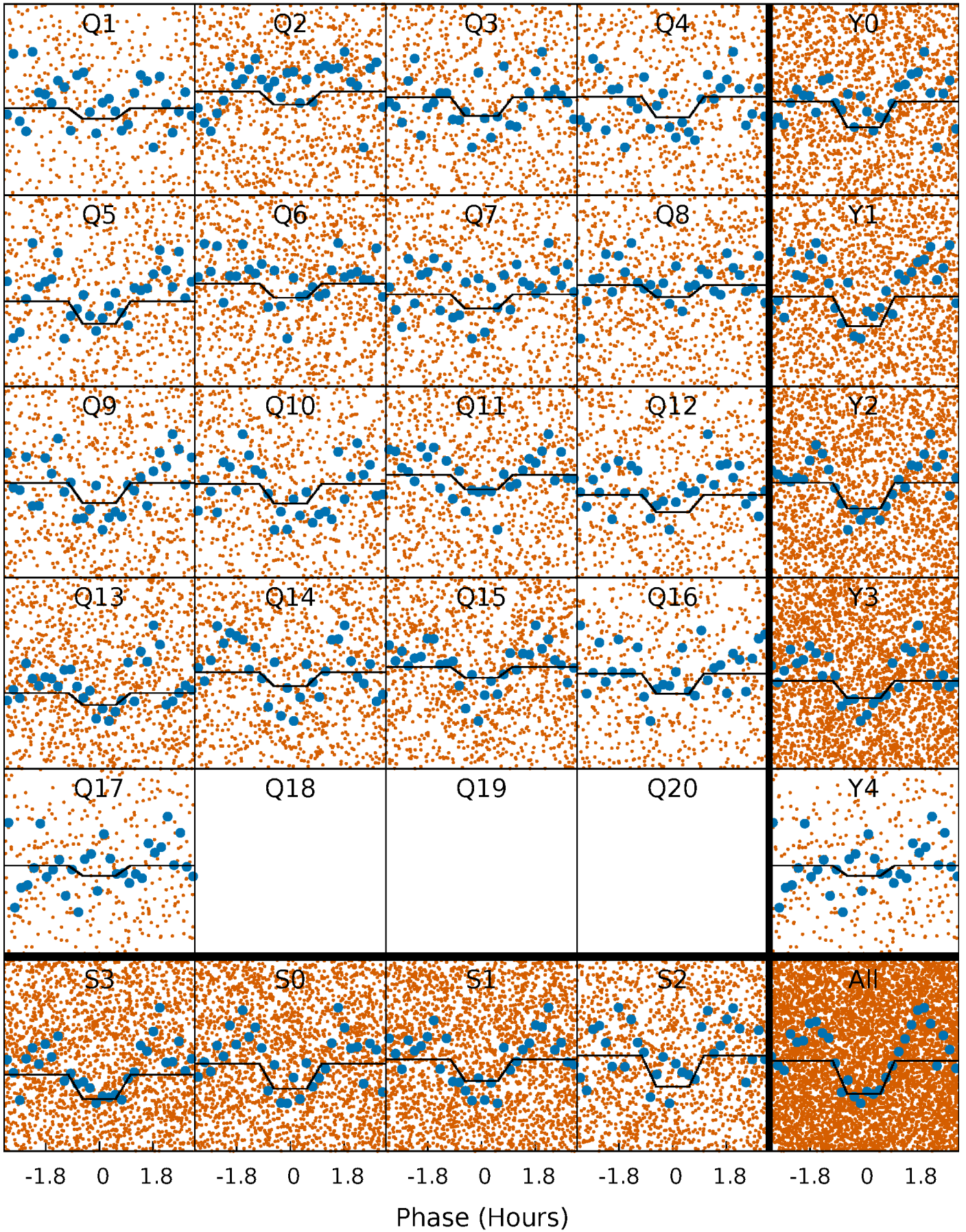
# DV Quarter-Phased Transit Curves

TCE 005564911-01 P= 0.662097 Days  $T_0=131.939488$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

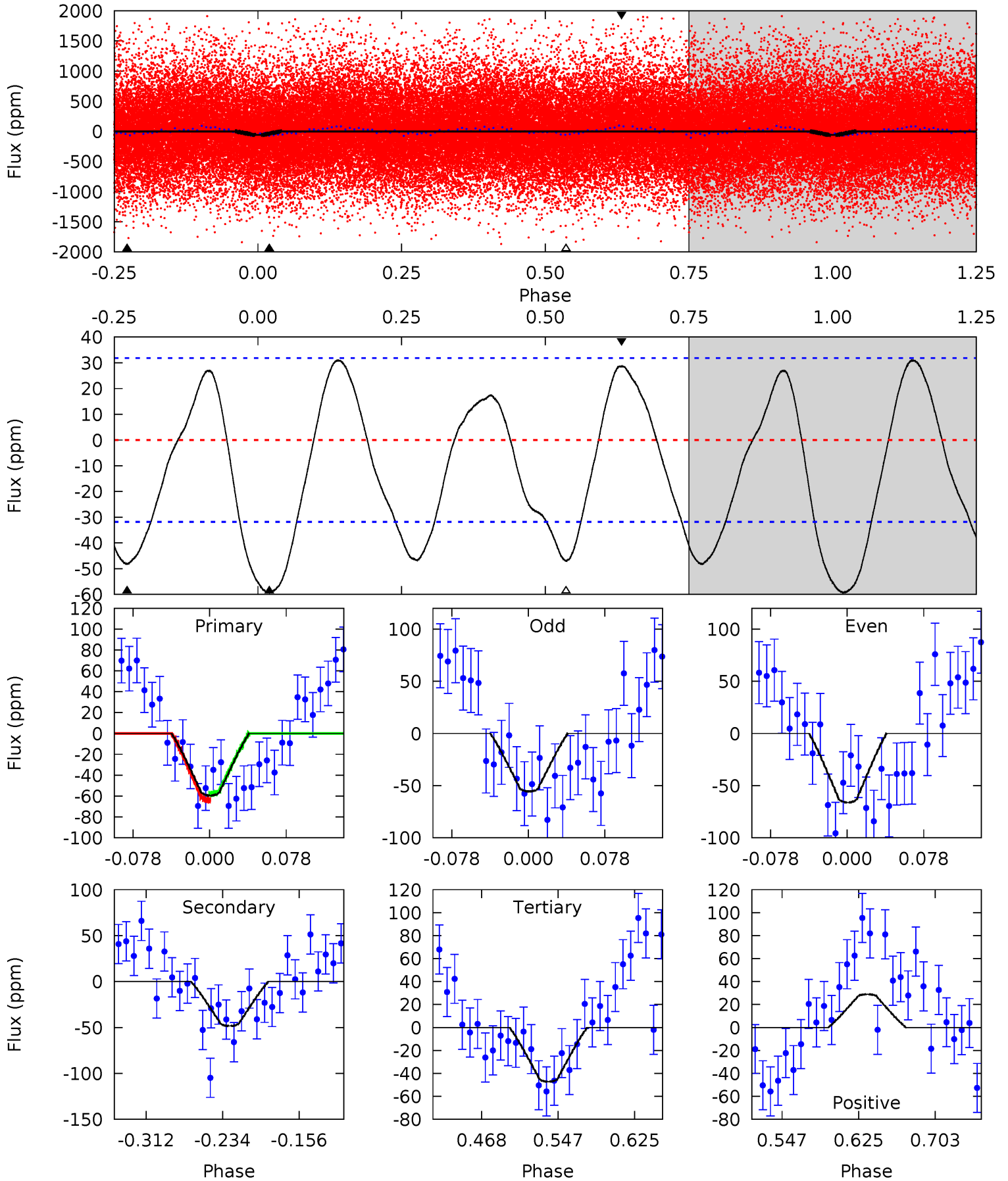
TCE 005564911-01 P= 0.662107 Days  $T_0=131.938843$  (BKJD)



# DV Model-Shift Uniqueness Test

005564911-01, P = 0.662097 Days, E = 131.277391 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
8.63	7.02	6.86	4.19	4.62	1.76	3.49	1.78	4.44	0.17	2.83	0.77	0.75	0.34	0.44

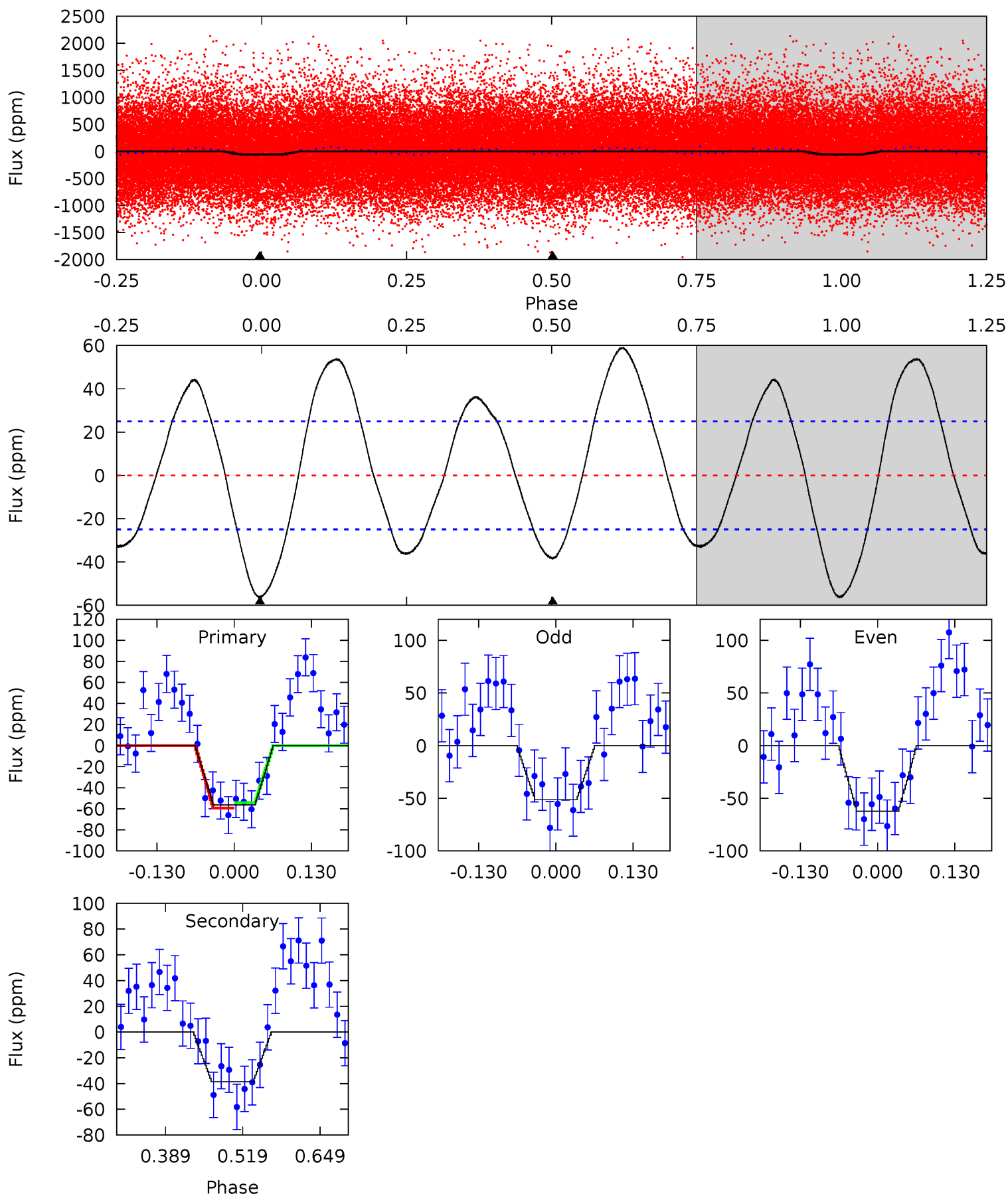




# Alt Model-Shift Uniqueness Test

005564911-01, P = 0.662107 Days, E = 131.276736 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
10.2	6.97	0	0	4.51	1.52	5.11	10.2	10.2	6.97	6.97	0.99	0.85	0.51	0.46





### Stellar Parameters For KIC 005564911

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6124^{+193}_{-214}$	$4.455^{+0.052}_{-0.208}$	$-0.020^{+0.250}_{-0.300}$	$1.028^{+0.324}_{-0.108}$	$1.097^{+0.139}_{-0.153}$	$1.424^{+0.395}_{-0.737}$
	+3%/-3%	+1%/-5%	+1250%/-1500%	+32%/-11%	+13%/-14%	+28%/-52%
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 005564911-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-48 \pm 7$	$0.89^{+0.68}_{-0.51}$	$3162^{+262}_{-166}$	$5780^{+3808}_{-1299}$	$7.819^{+32.756}_{-5.413}$
Alt.	$-39 \pm 6$	$0.91^{+0.61}_{-0.56}$	$3156^{+228}_{-157}$	$5428^{+3960}_{-1176}$	$5.844^{+31.411}_{-3.833}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = 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  $A_{\text{obs}} \gg 1.0$

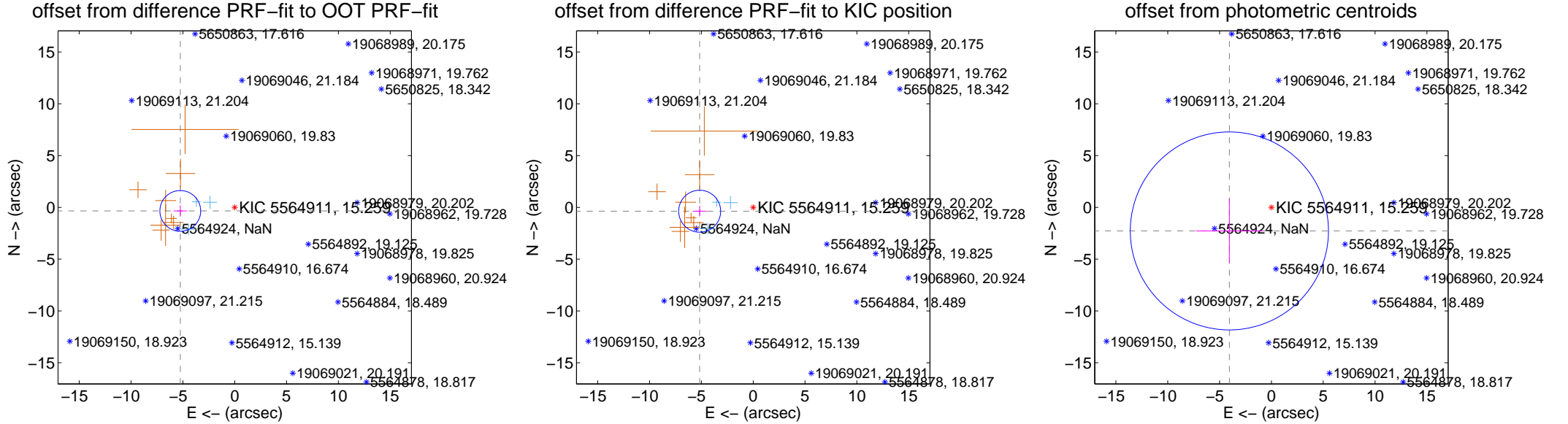
## DV Centroid Data

Supplemental centroid analysis for 005564911-01. Kepler magnitude: 15.26. Transit SNR 4.33

There are 3 quarters with good PRF difference image offsets

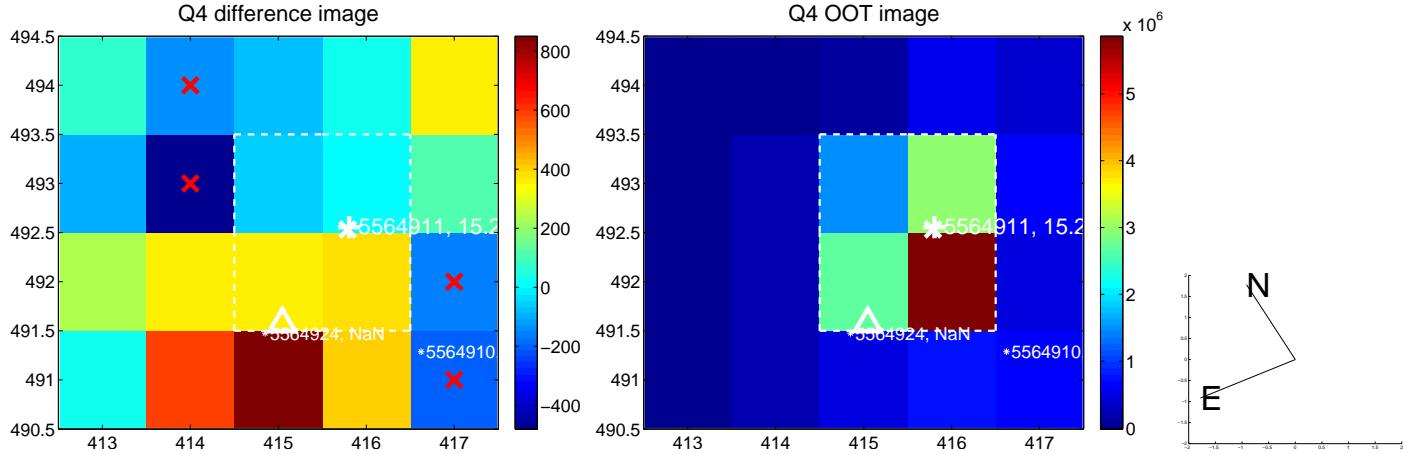
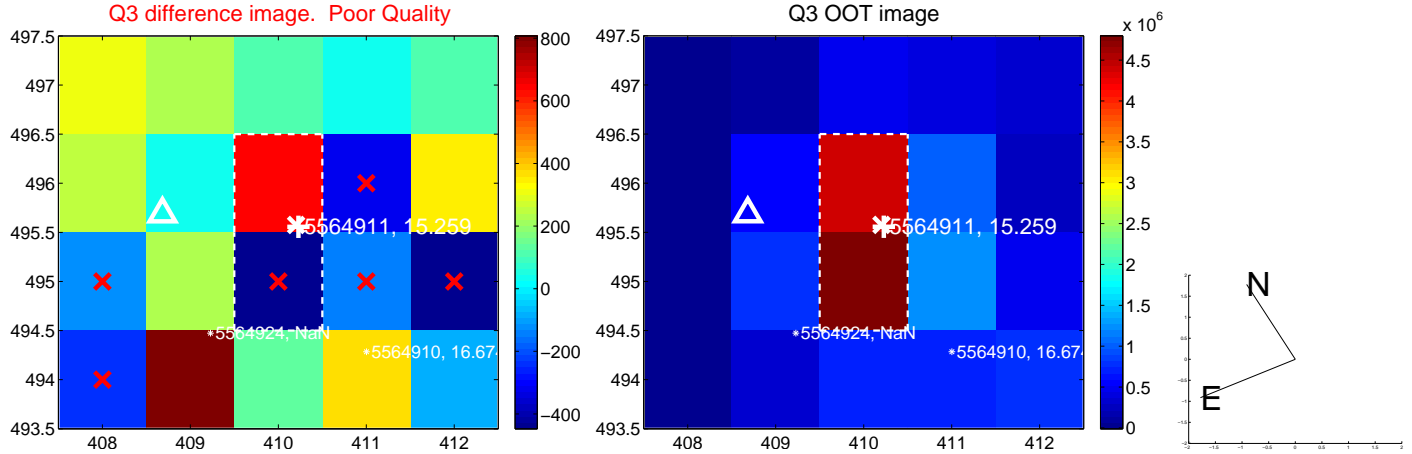
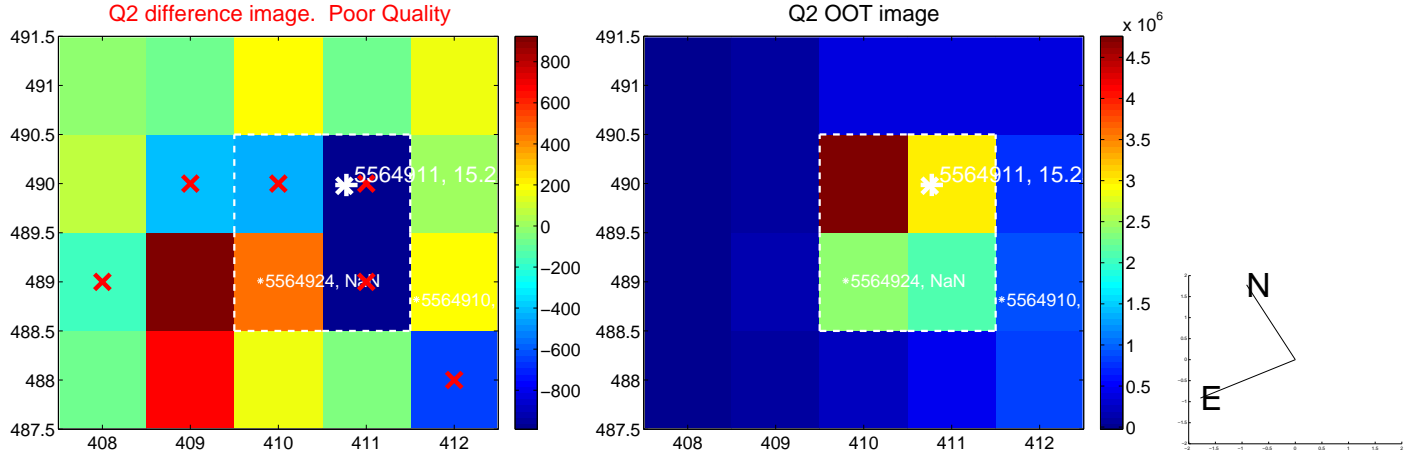
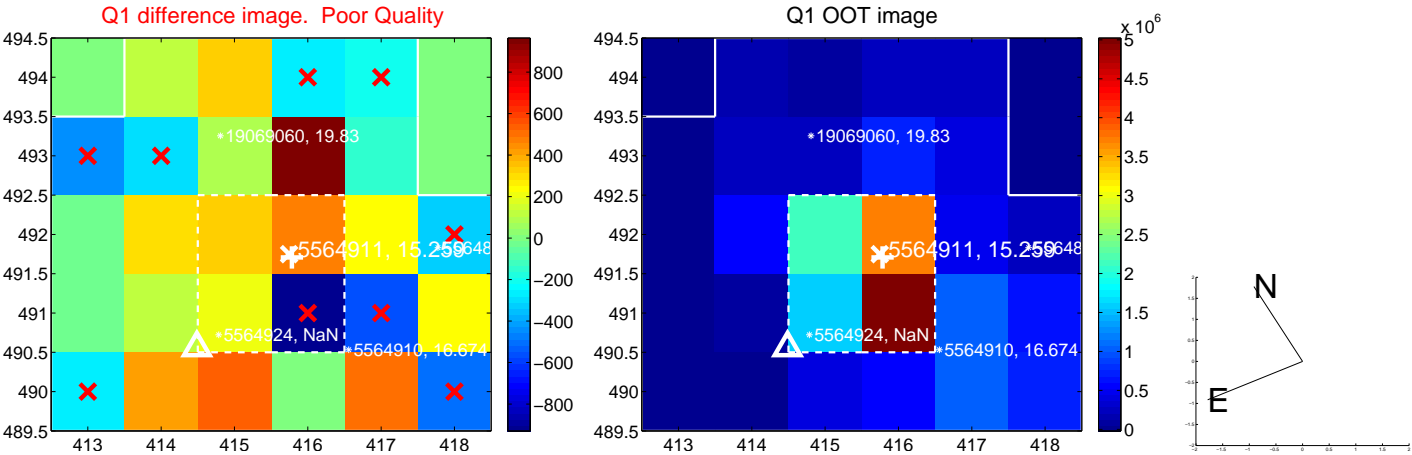
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$5.260 \pm 0.656$	8.02	$5.249 \pm 0.656$	$-0.342 \pm 0.542$
PRF-fit source offset from KIC position	$5.175 \pm 0.675$	7.67	$5.162 \pm 0.676$	$-0.371 \pm 0.516$
photometric centroid source offset	$4.65 \pm 3.18$	1.46	$4.05 \pm 3.21$	$-2.27 \pm 3.09$

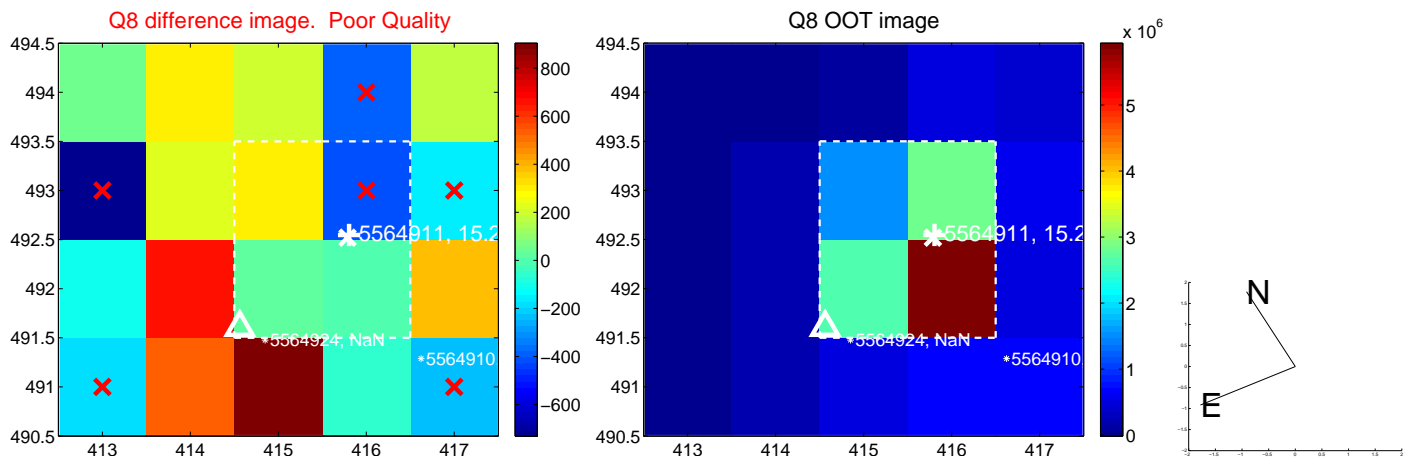
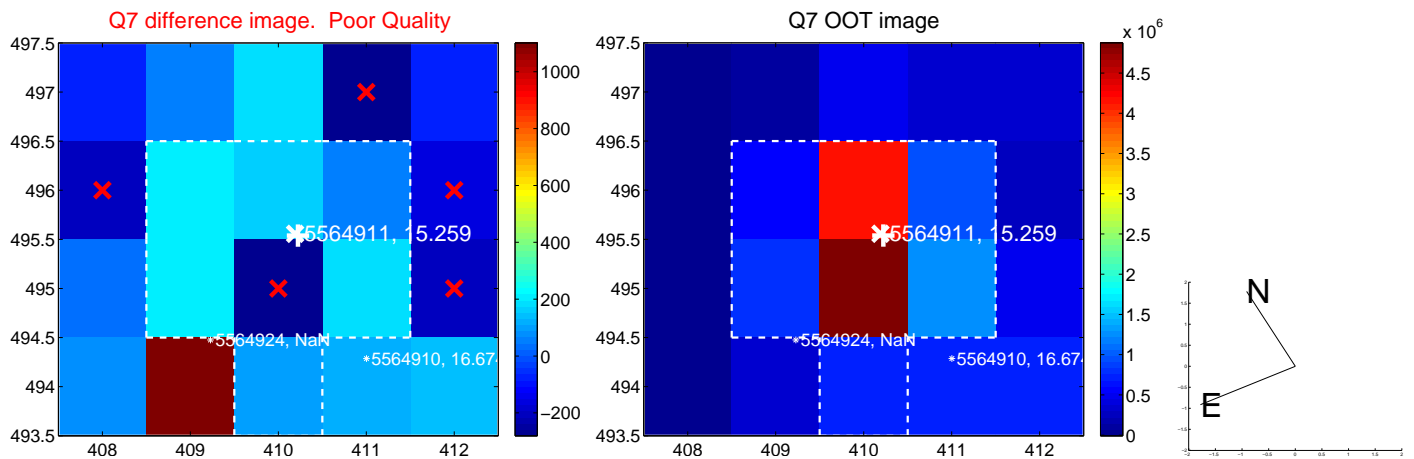
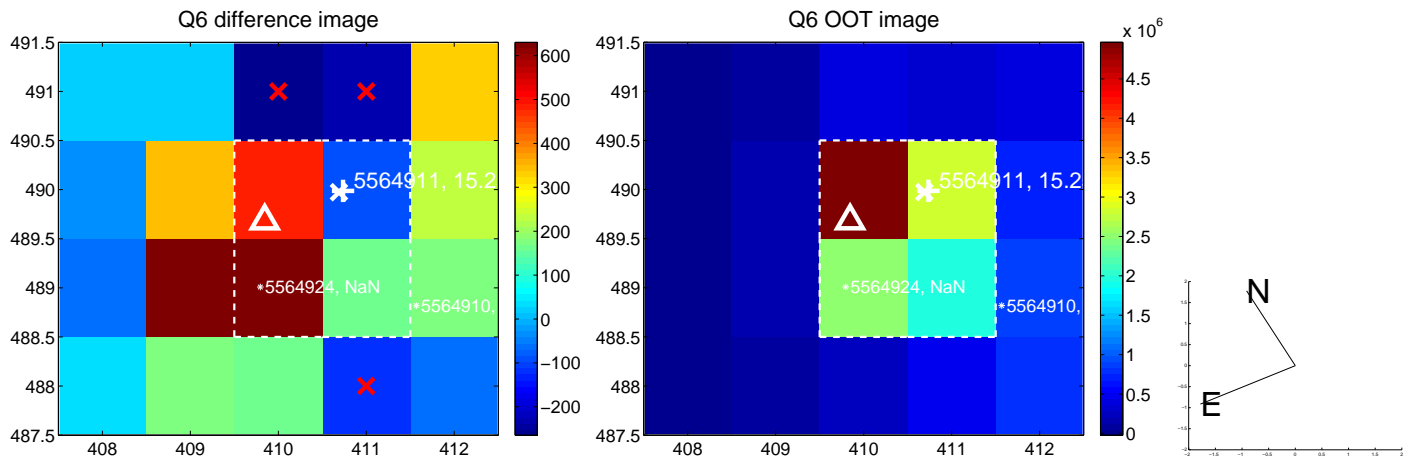
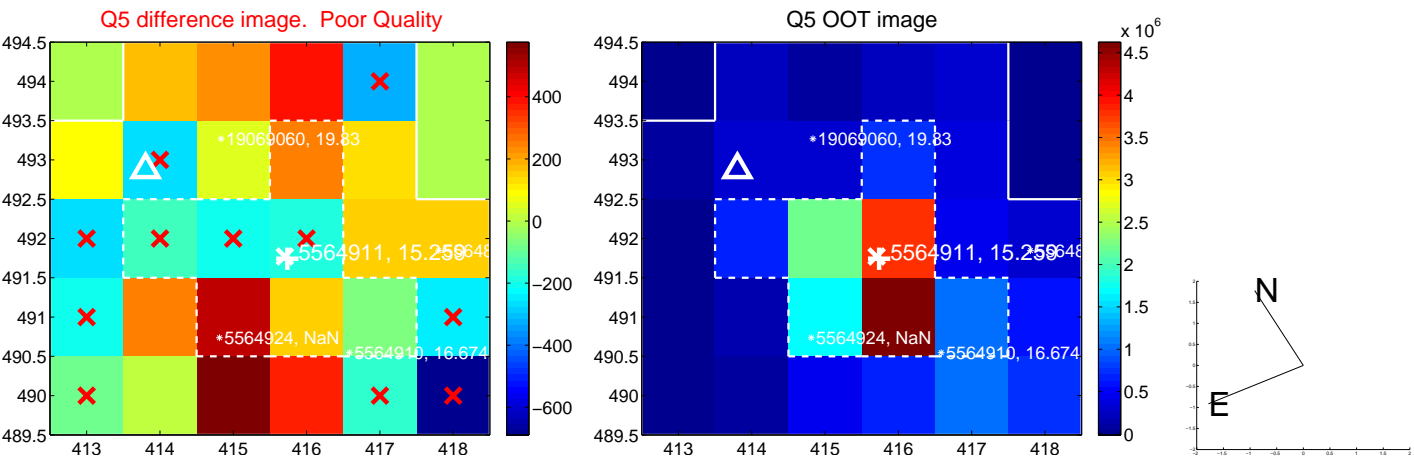


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

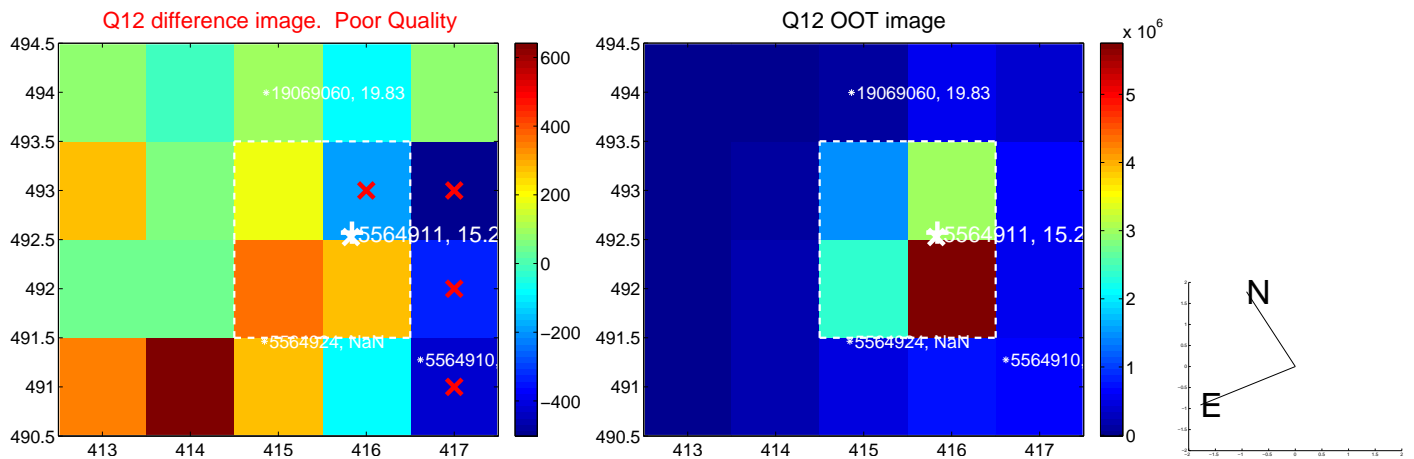
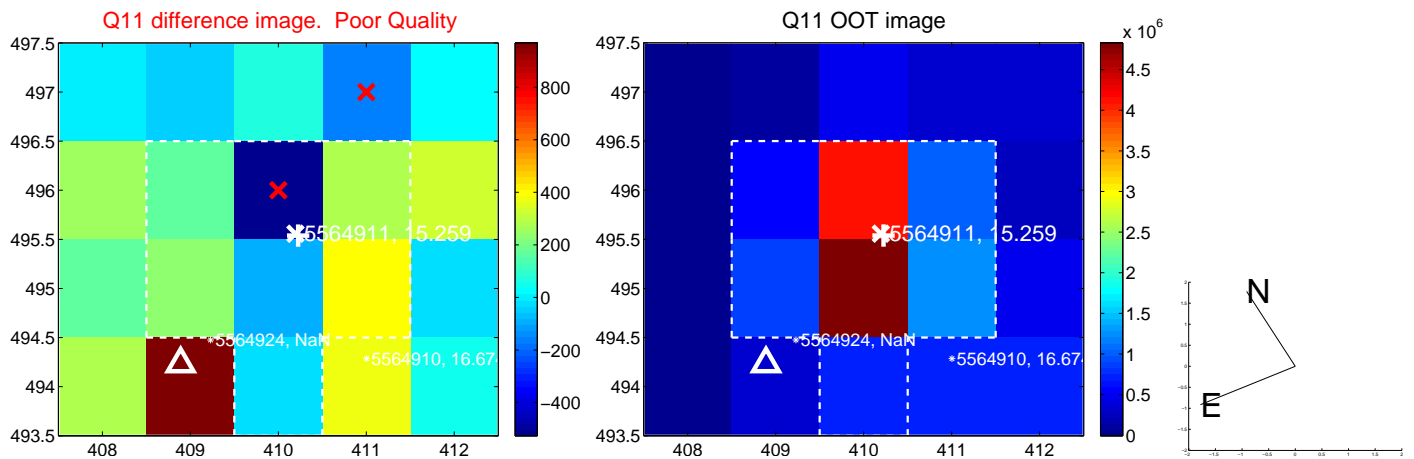
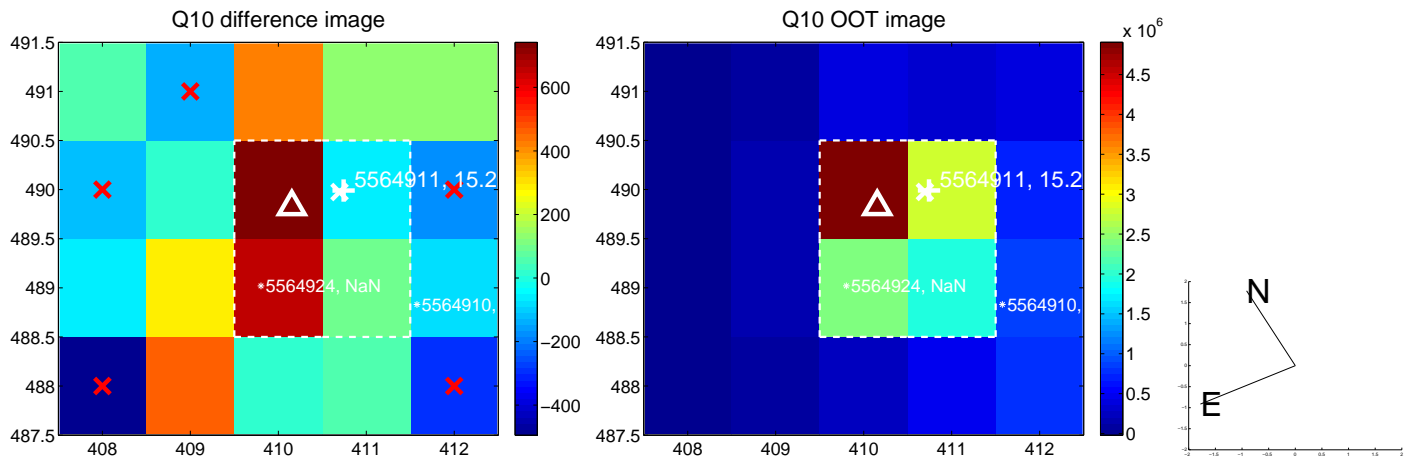
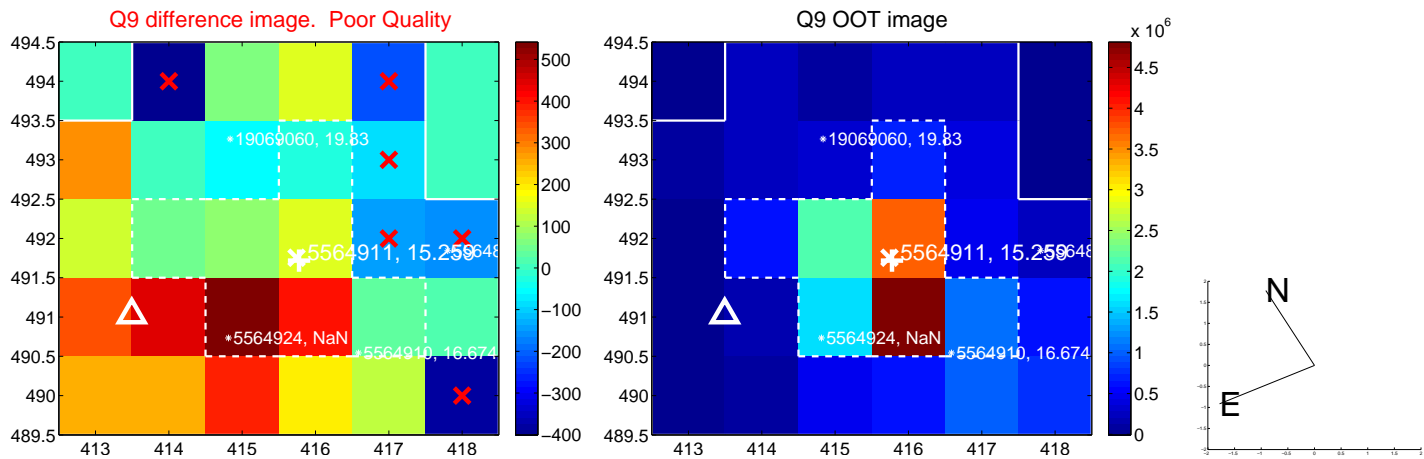


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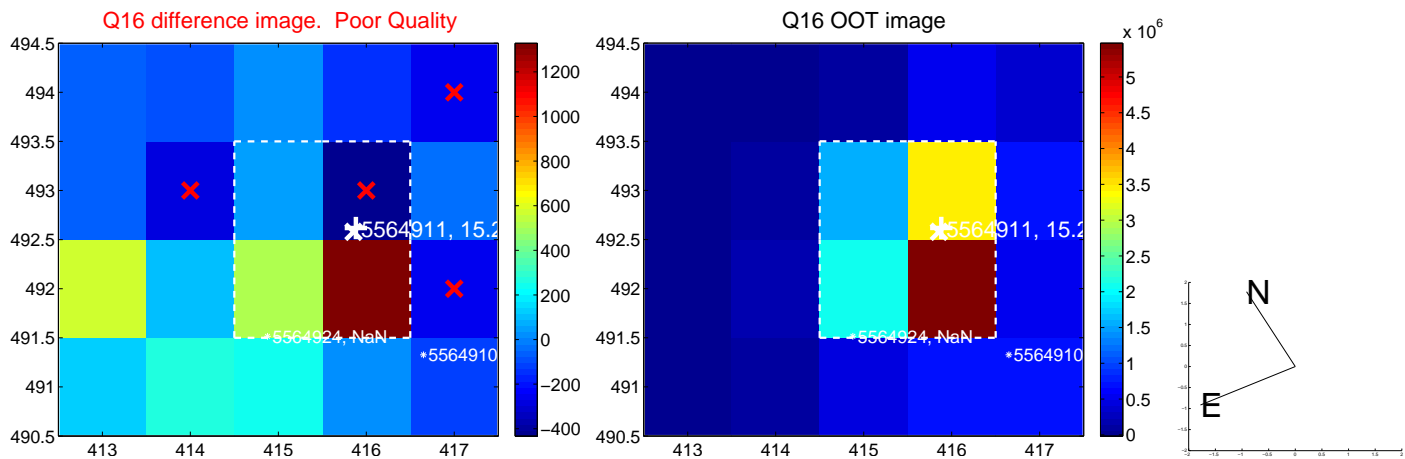
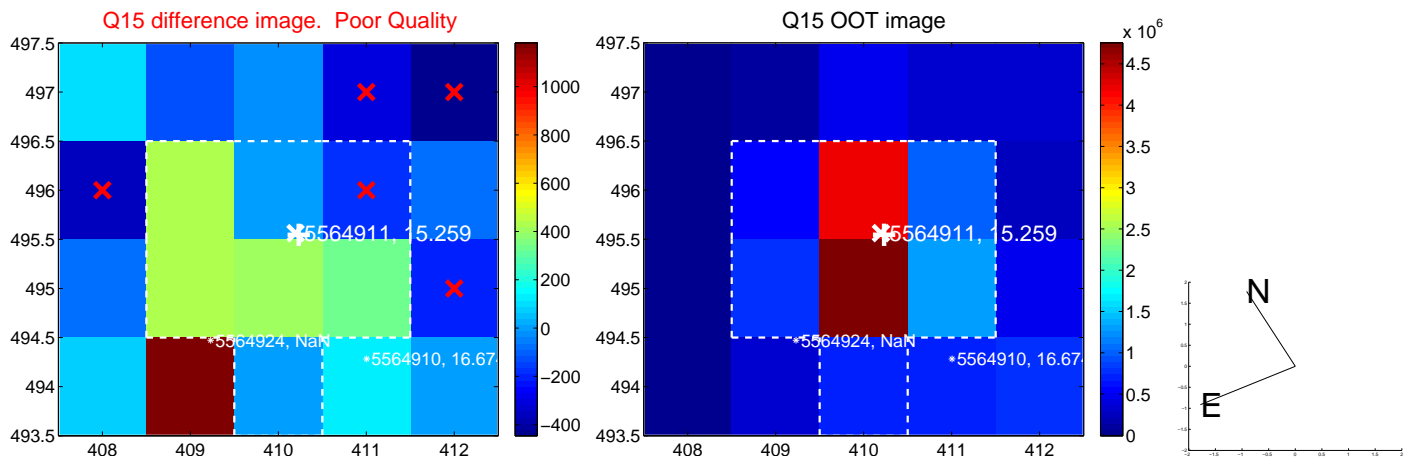
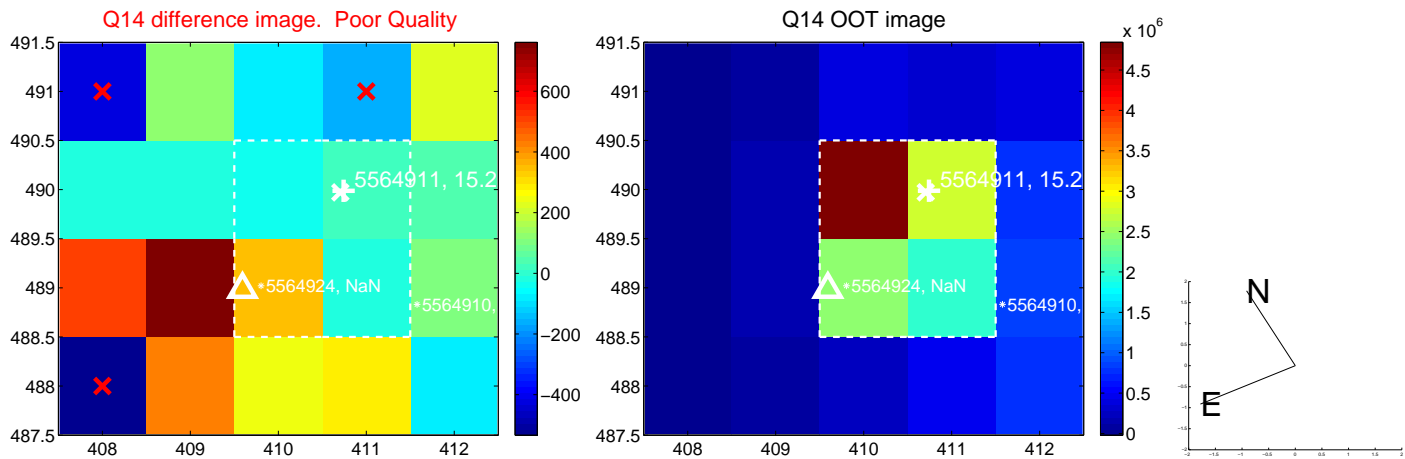
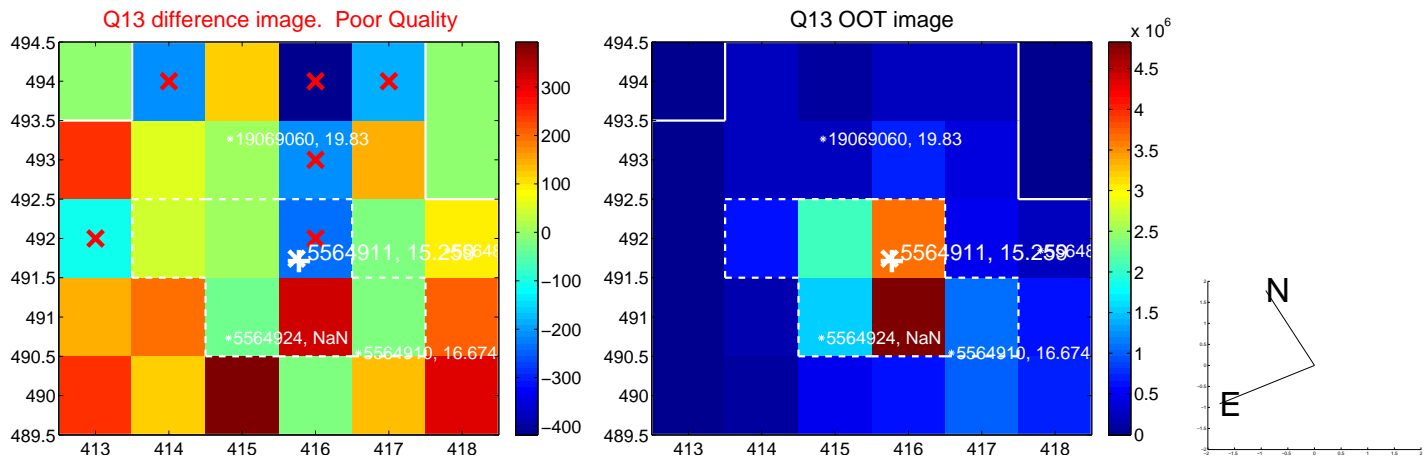




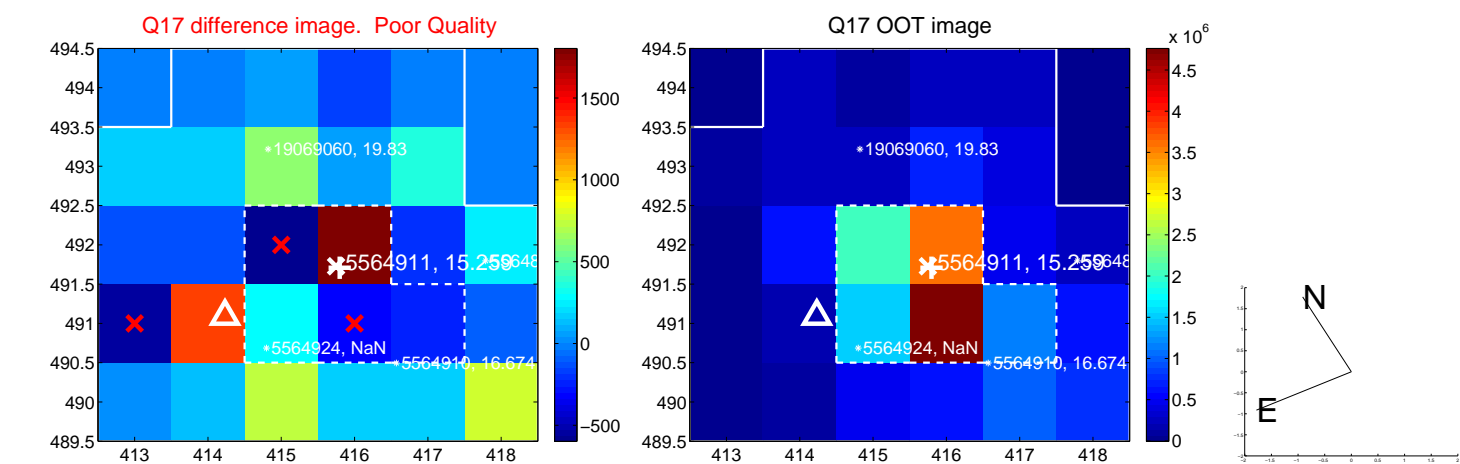
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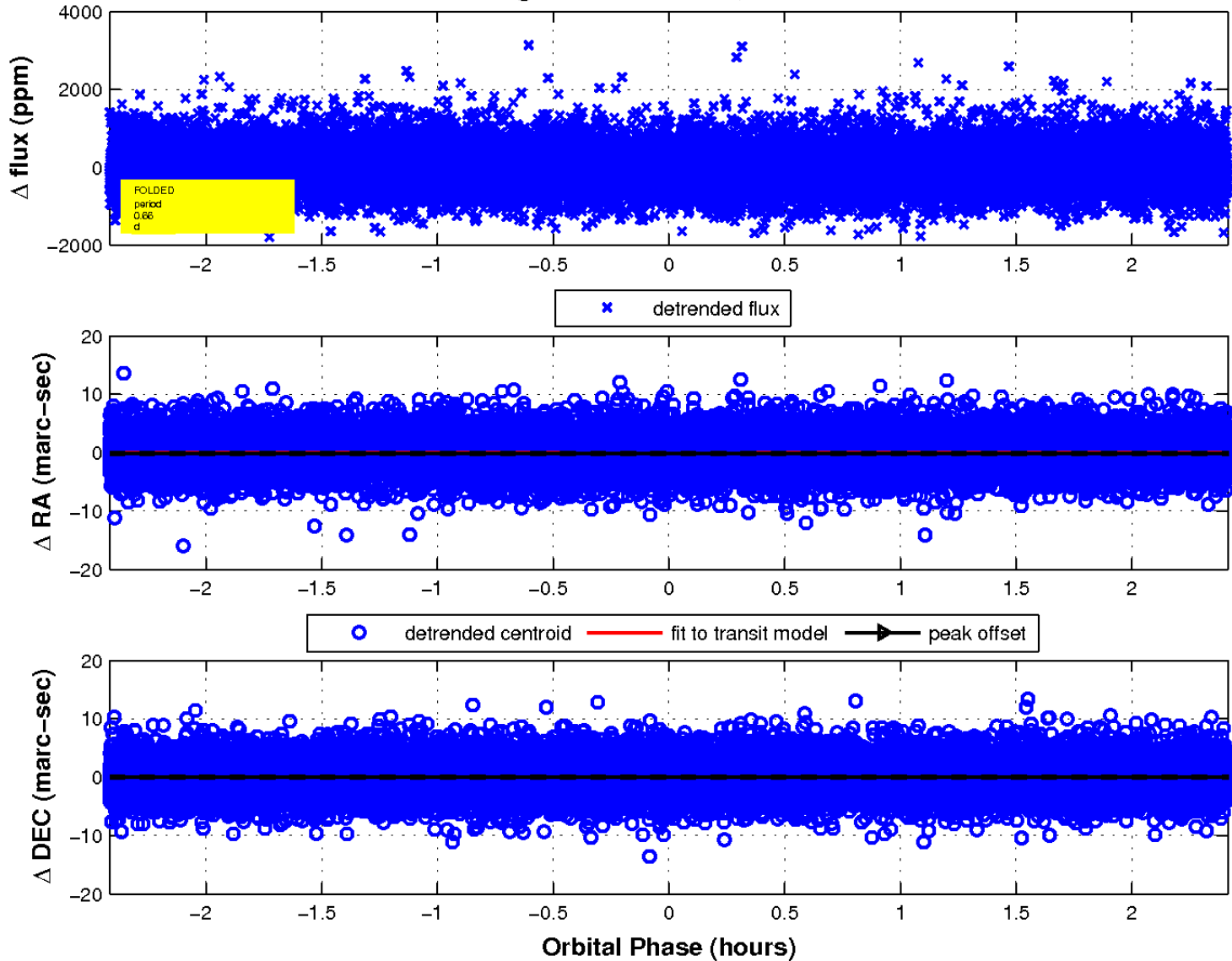
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



# UKIRT Image

Declination

