

# KIC 005356349

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005356349-01	OBS	No	1.143239	132.289523	15.6	11.165	8.4	13.1	2.78	8525	1.12	46971.16

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005356349-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

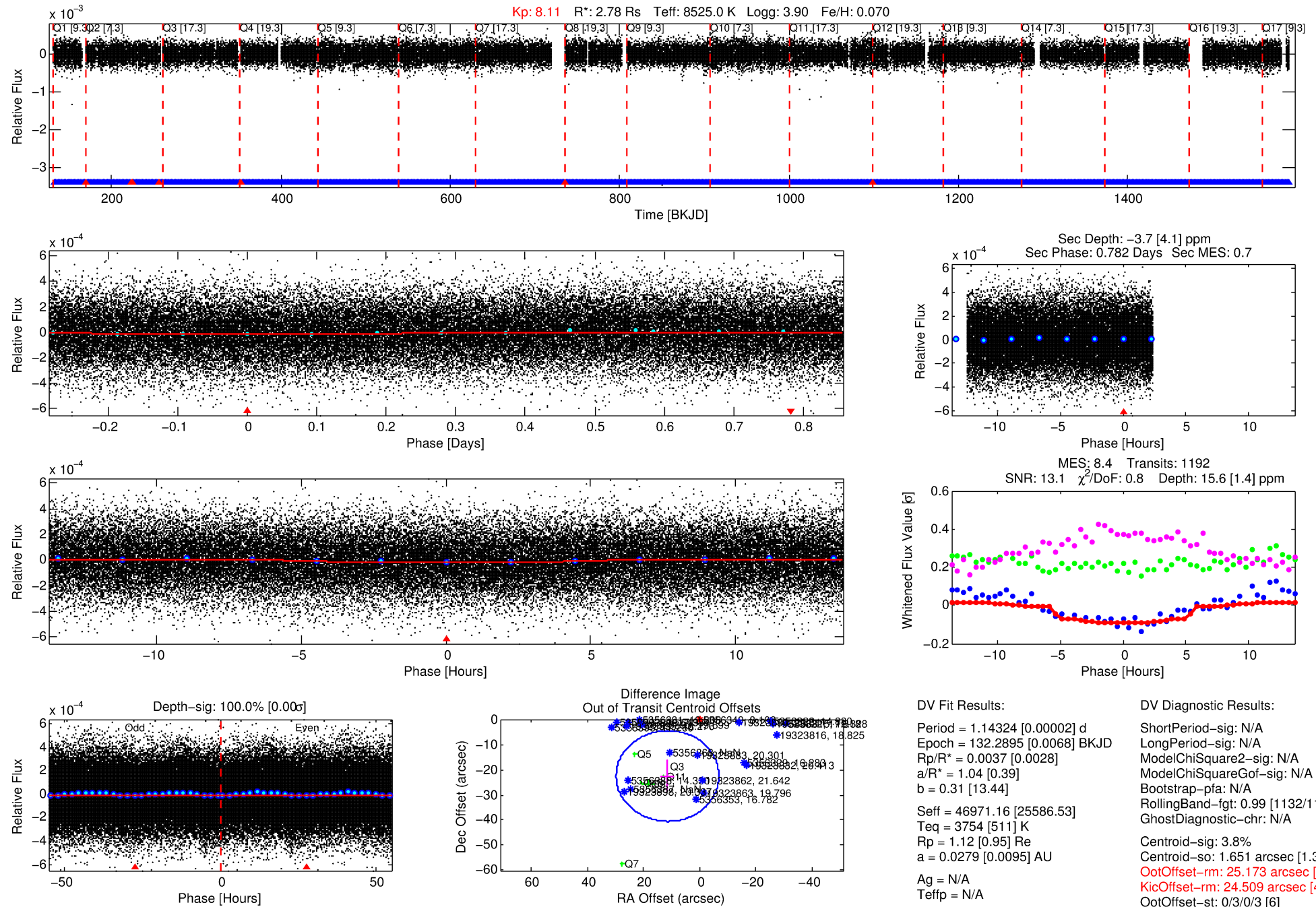
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005356349-01

No Significant Match Found

# DV One-Page Summary

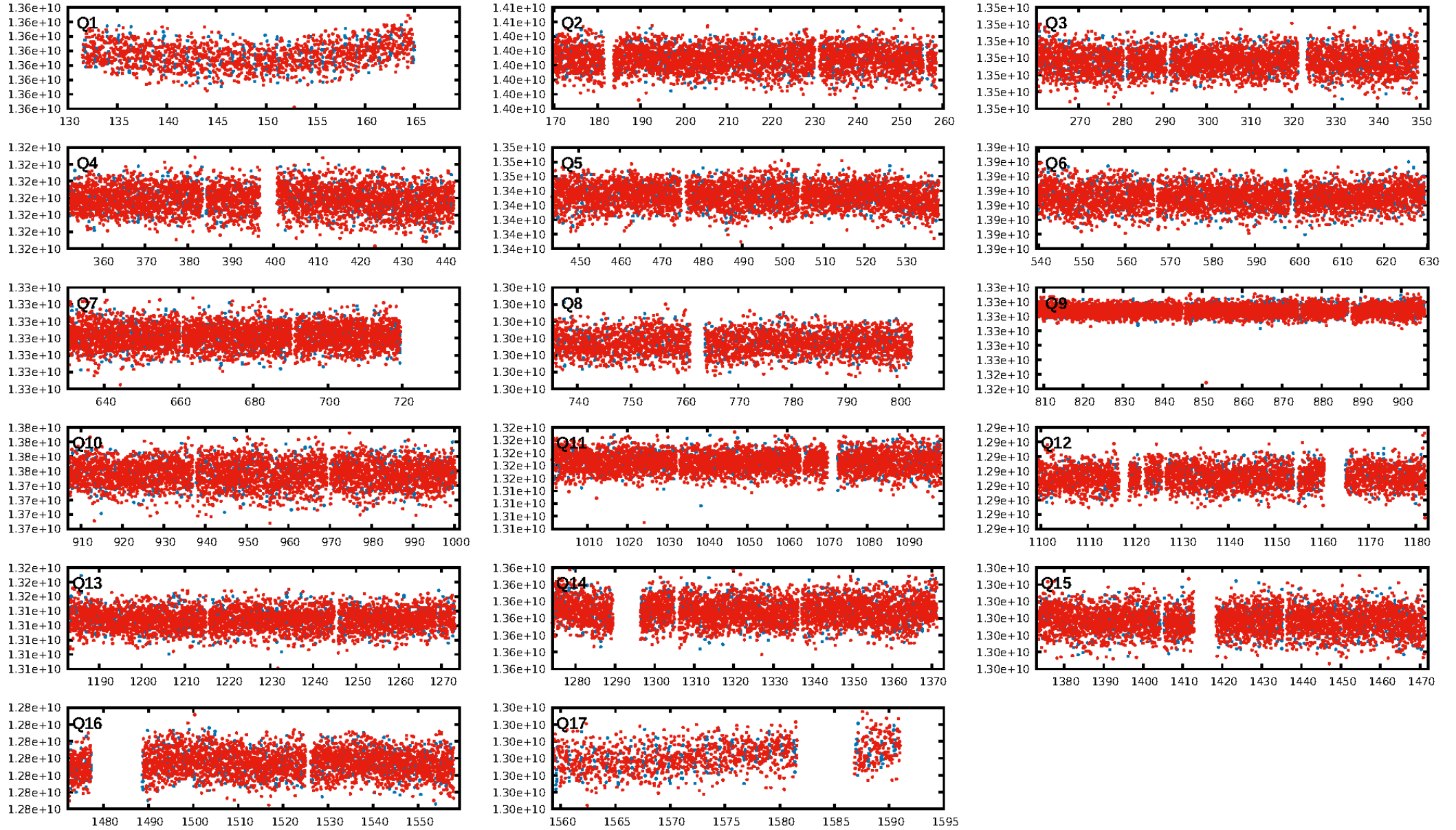
KIC: 5356349 Candidate: 1 of 1 Period: 1.143 d



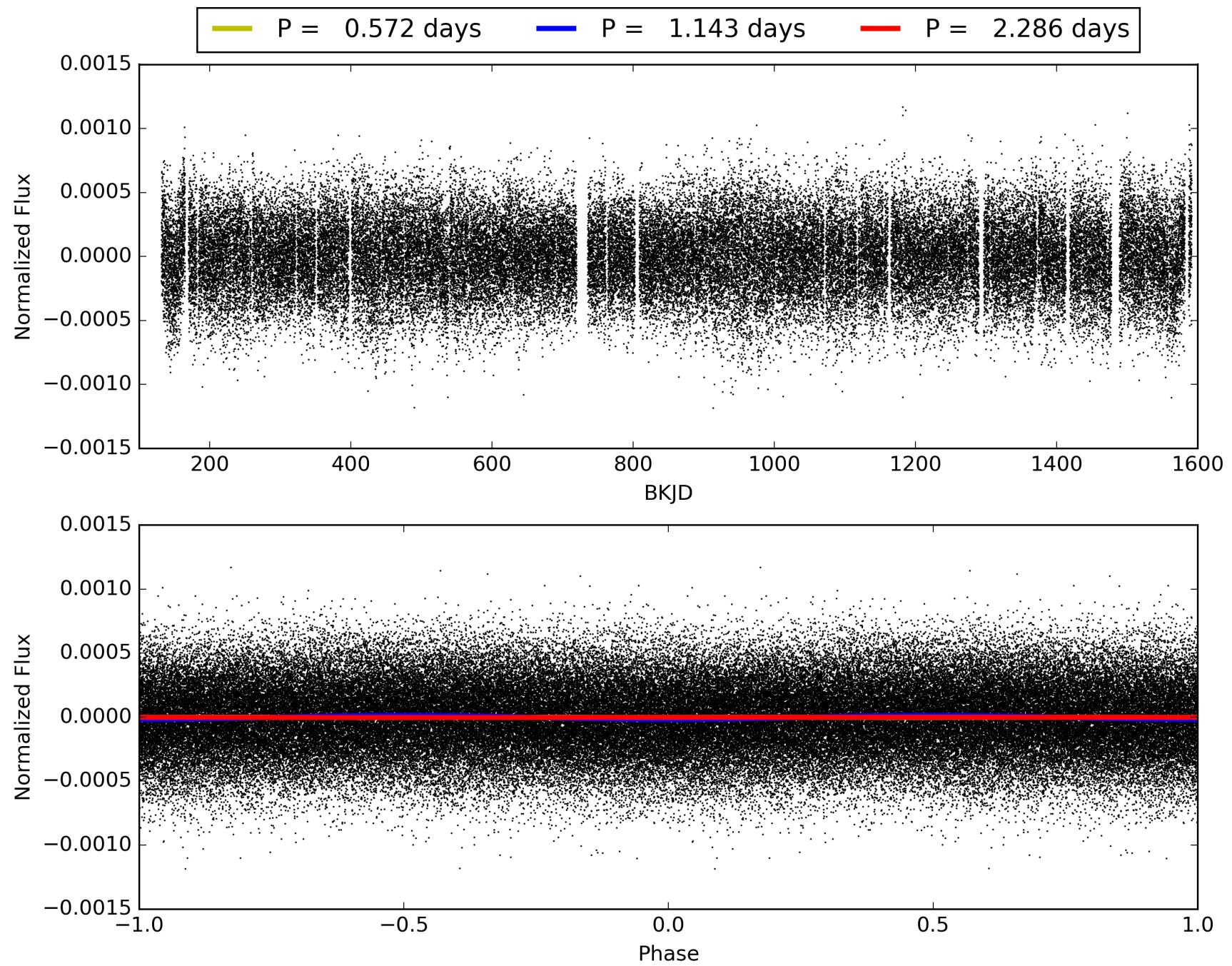
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:00:44 Z

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

# TCE 005356349-01, PDC Light Curves

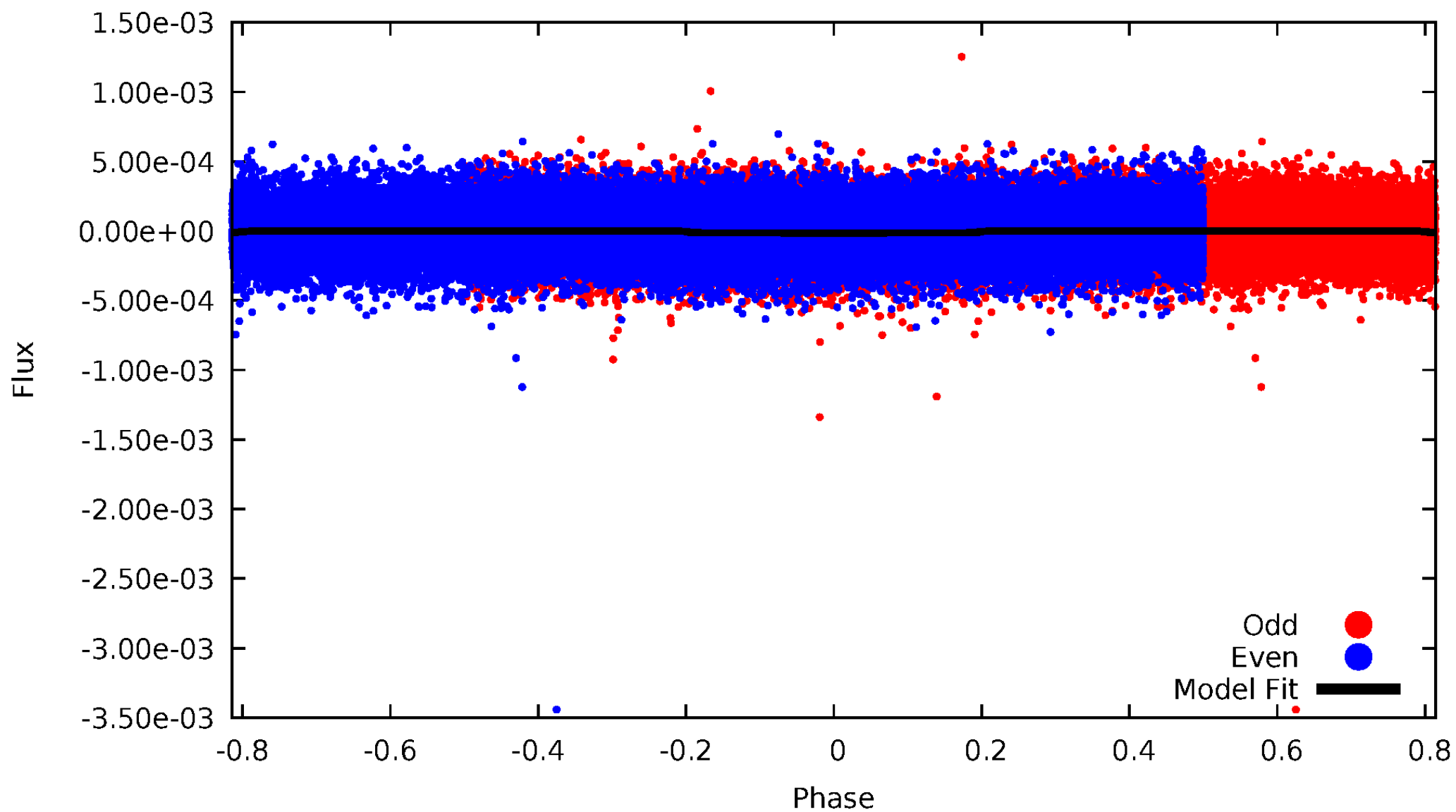


TCE 005356349-01



# DV Odd/Even

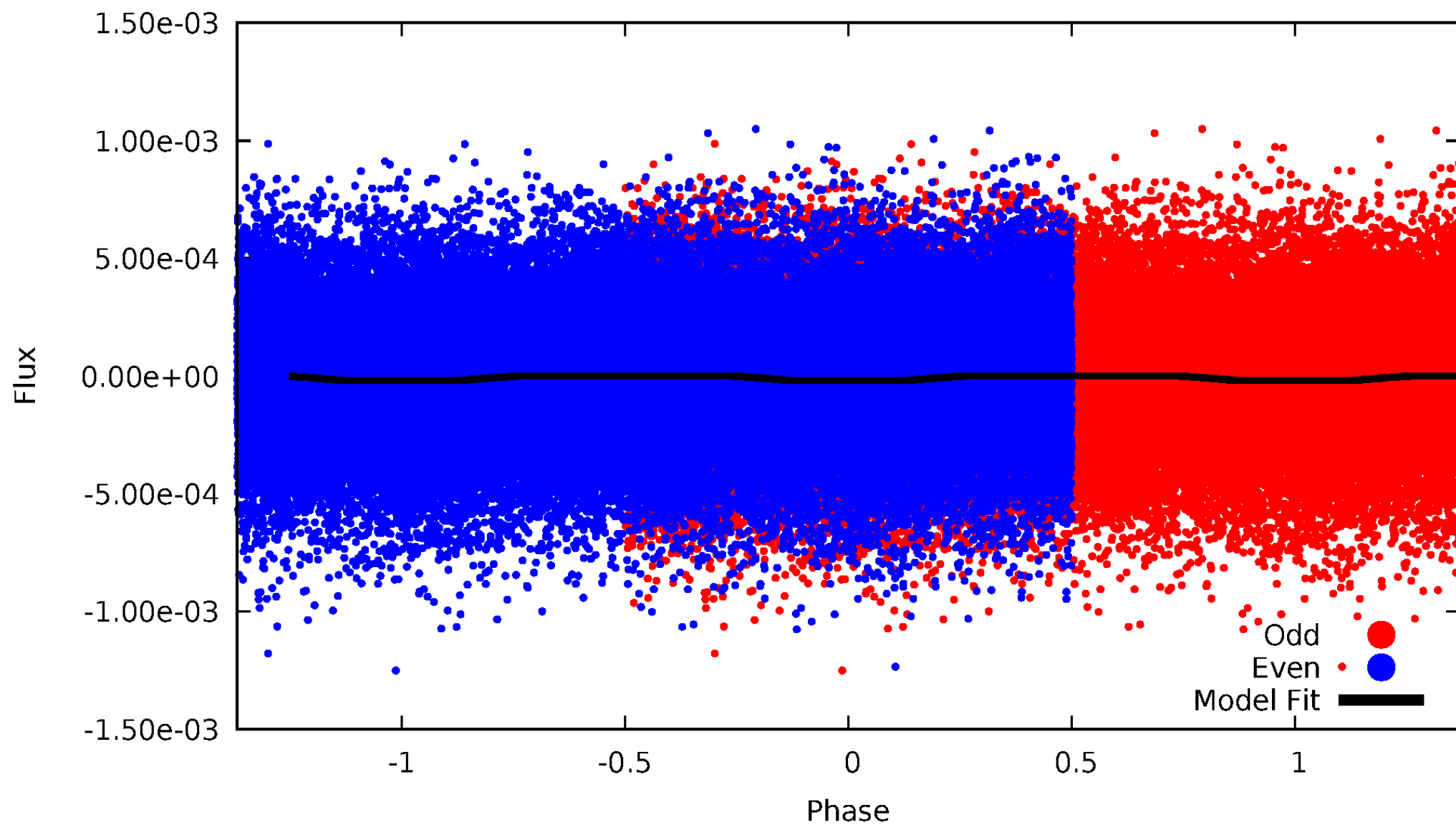
TCE 005356349-01



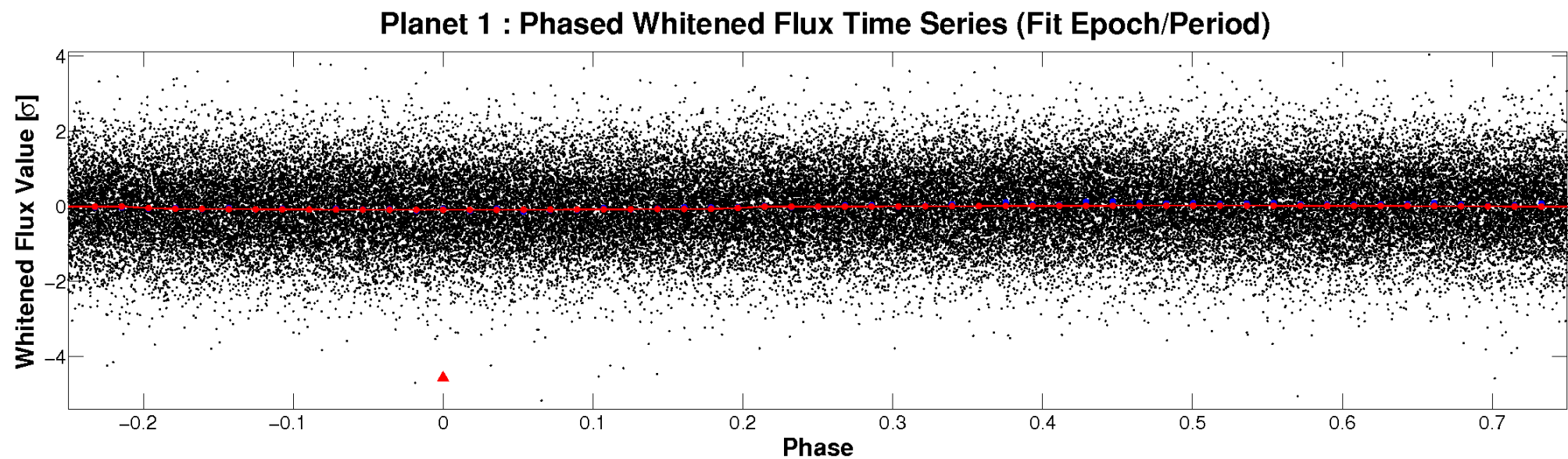
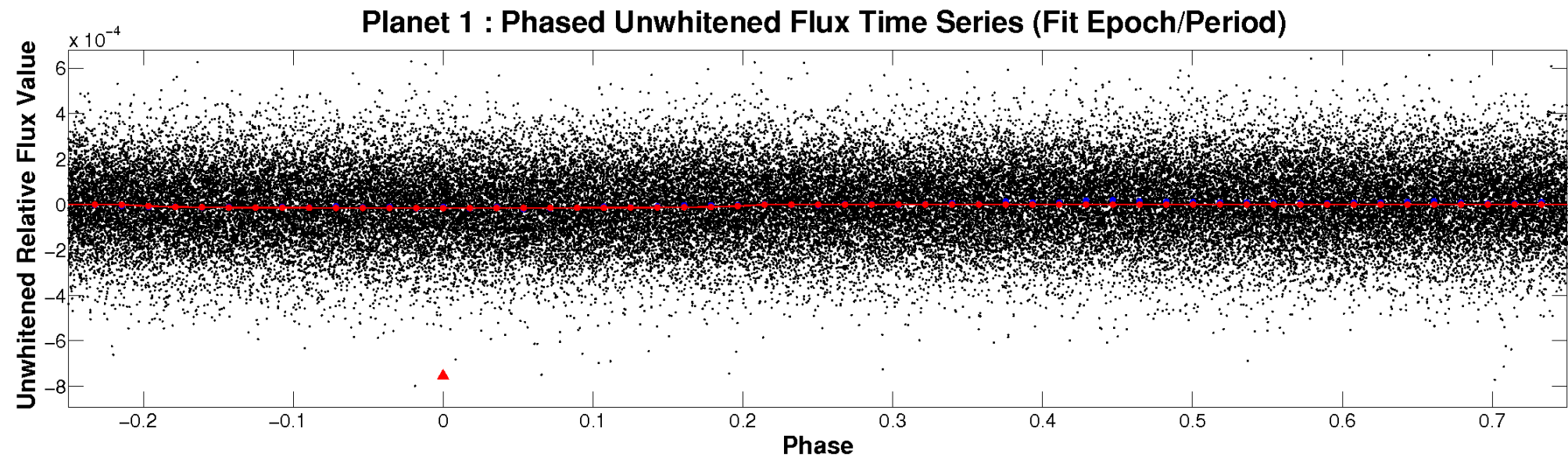


# ALT Odd/Even

TCE 005356349-01

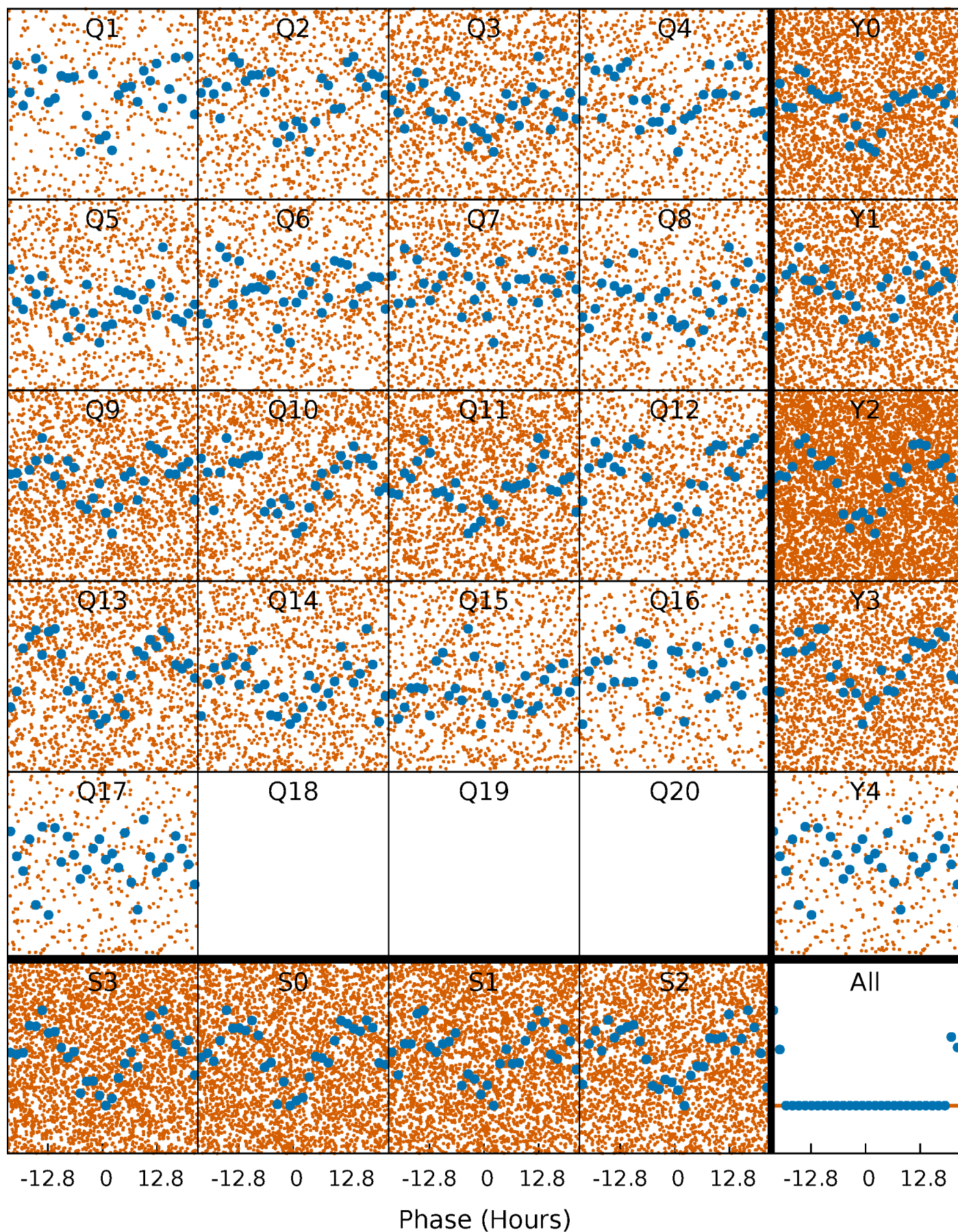


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

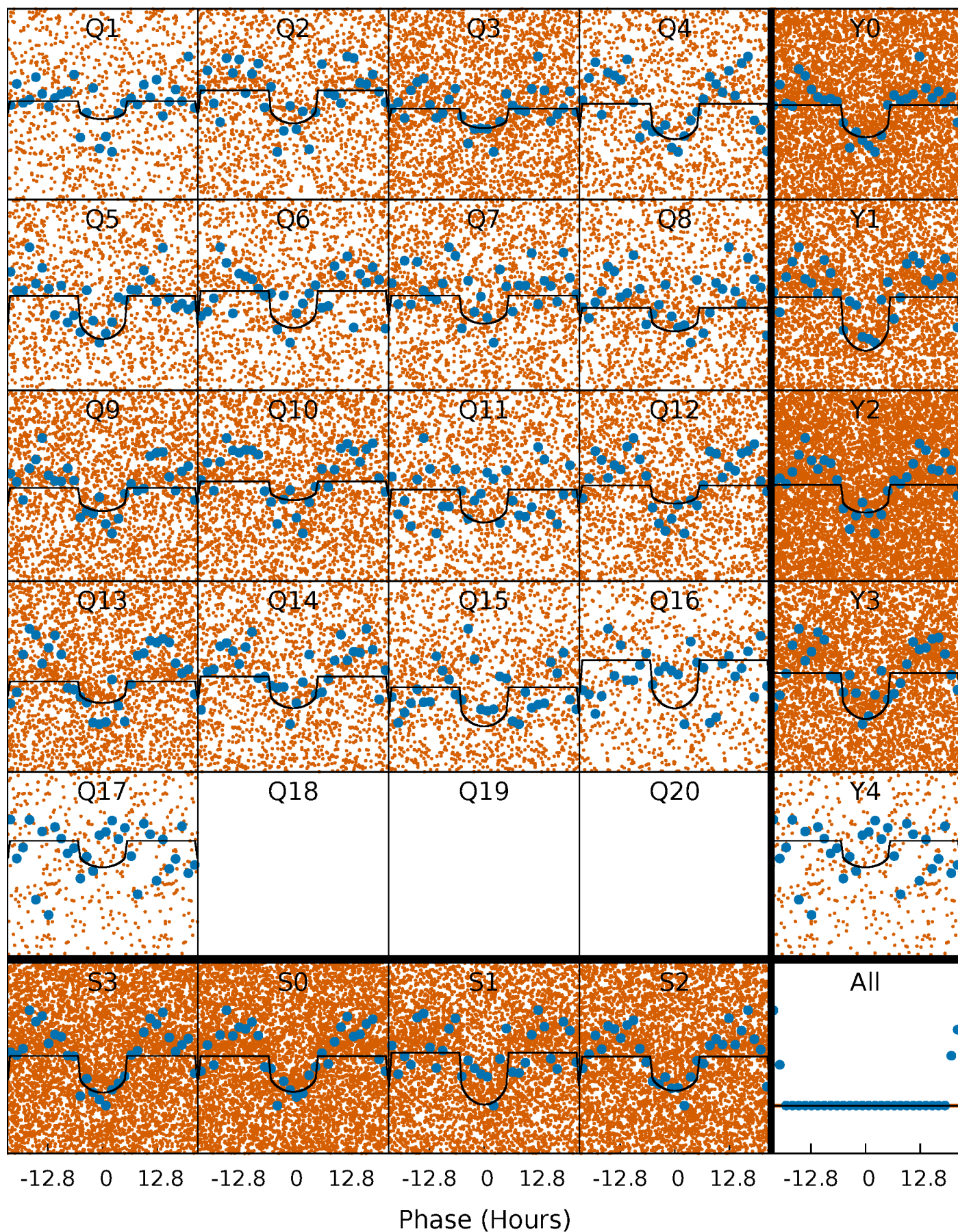
TCE 005356349-01 P= 1.143239 Days  $T_0=132.289523$  (BKJD)





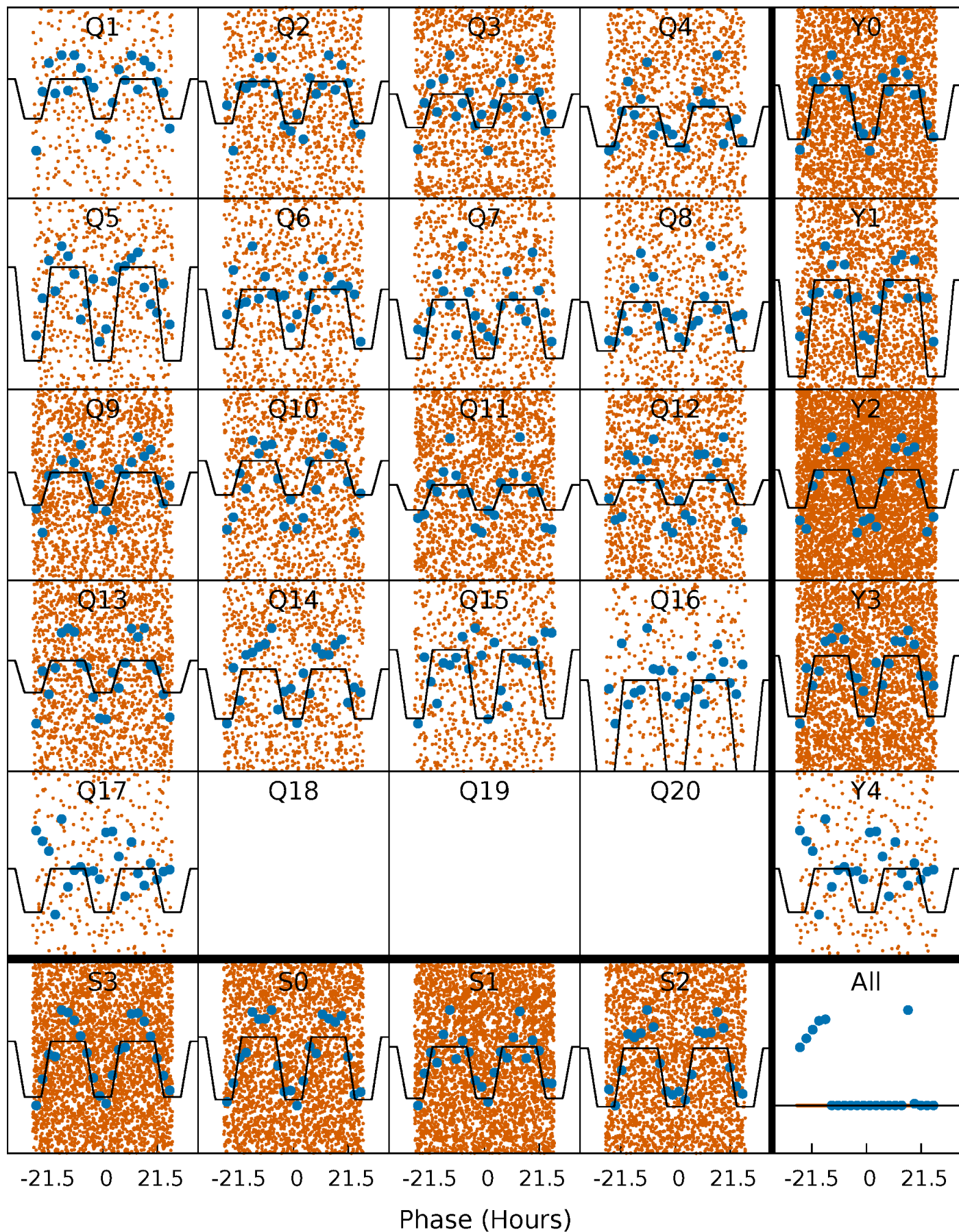
# DV Quarter-Phased Transit Curves

TCE 005356349-01 P= 1.143239 Days  $T_0=132.289523$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 005356349-01 P= 1.143217 Days  $T_0=132.283695$  (BKJD)

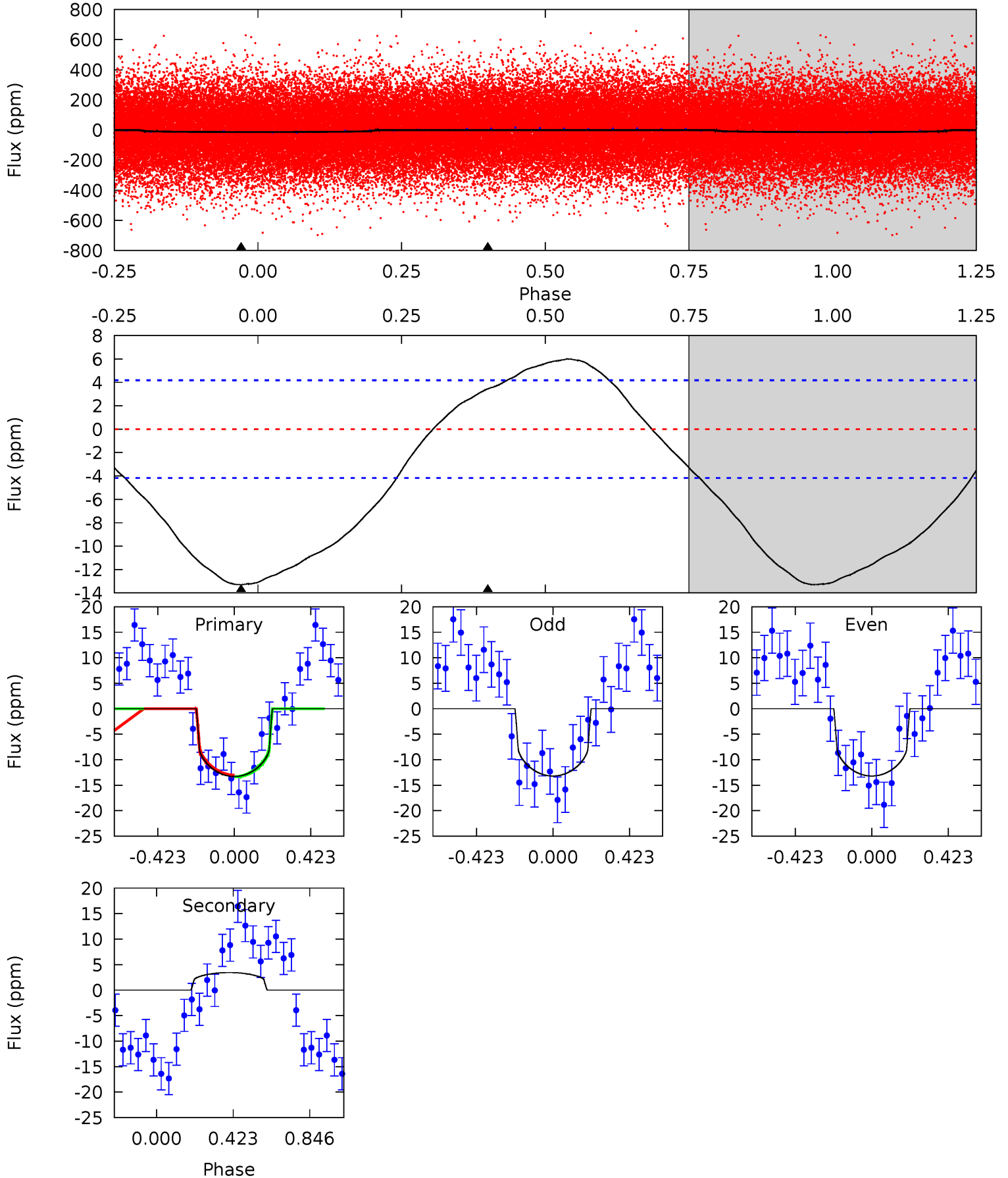




# DV Model-Shift Uniqueness Test

005356349-01, P = 1.143239 Days, E = 131.146284 Days

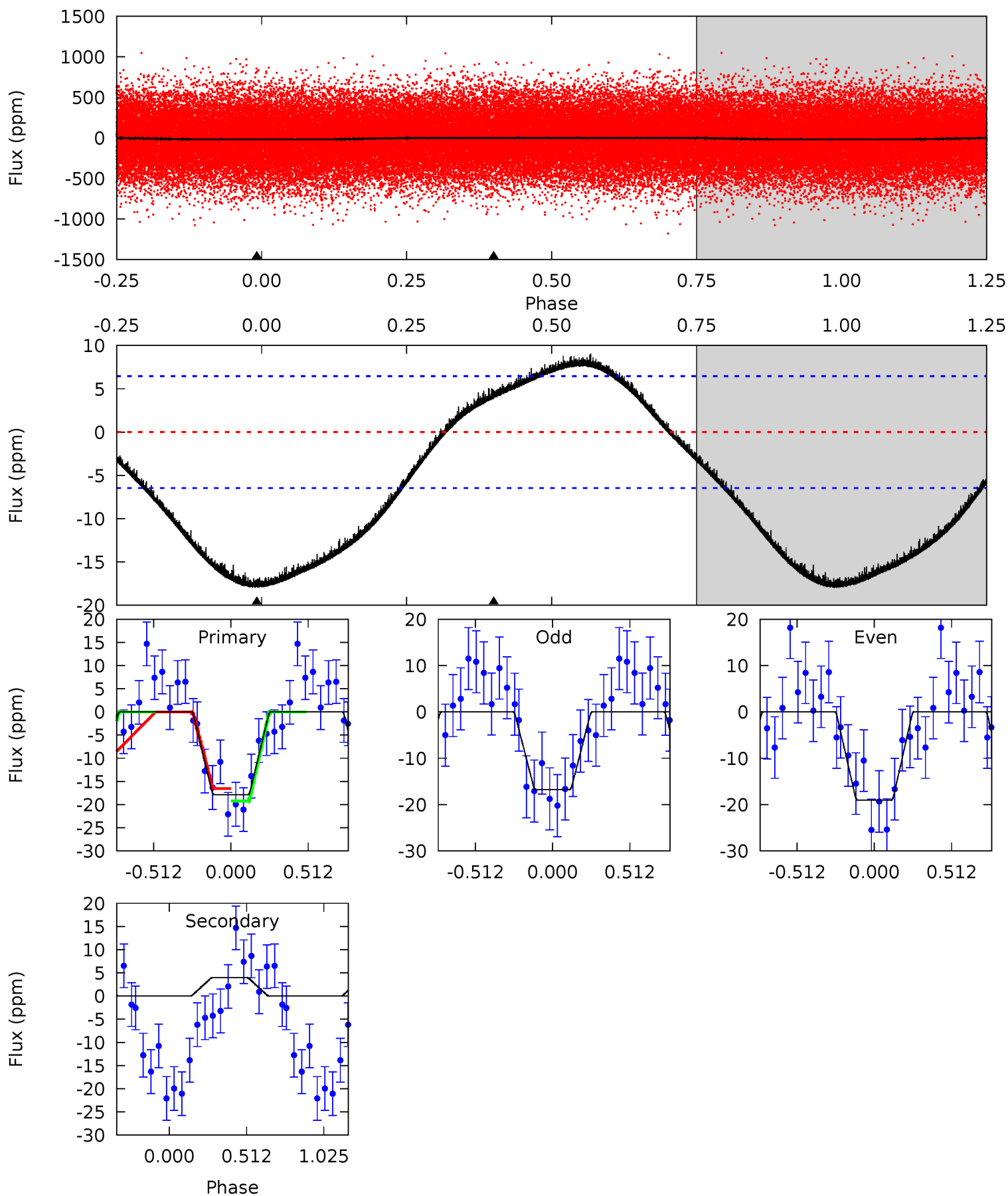
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	-3.51	0	0	4.25	0.80	1.61	13.5	13.5	-3.51	-3.51	0.00	1.05	0.31	0.17



# Alt Model-Shift Uniqueness Test

005356349-01, P = 1.143217 Days, E = 131.140478 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
11.6	-2.58	0	0	4.21	0.66	1.41	11.6	11.6	-2.58	-2.58	0.74	1.61	0.34	0.88





### Stellar Parameters For KIC 005356349

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$8525^{+234}_{-402}$	$3.896^{+0.287}_{-0.123}$	$0.070^{+0.250}_{-0.600}$	$2.783^{+0.721}_{-1.081}$	$2.224^{+0.339}_{-0.630}$	$0.145^{+0.327}_{-0.059}$
	+3%/-5%	+7%/-3%	+357%/-857%	+26%/-39%	+15%/-28%	+225%/-40%
Source	KIC0	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 005356349-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$3 \pm 1$	$1.12^{+0.76}_{-0.68}$	$5109^{+401}_{-490}$	$-5933^{+937}_{-3393}$	$-1.143^{+0.765}_{-5.963}$
Alt.	$4 \pm 2$	$1.34^{+0.78}_{-0.74}$	$5092^{+403}_{-460}$	$-5738^{+821}_{-2385}$	$-0.904^{+0.588}_{-3.764}$

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

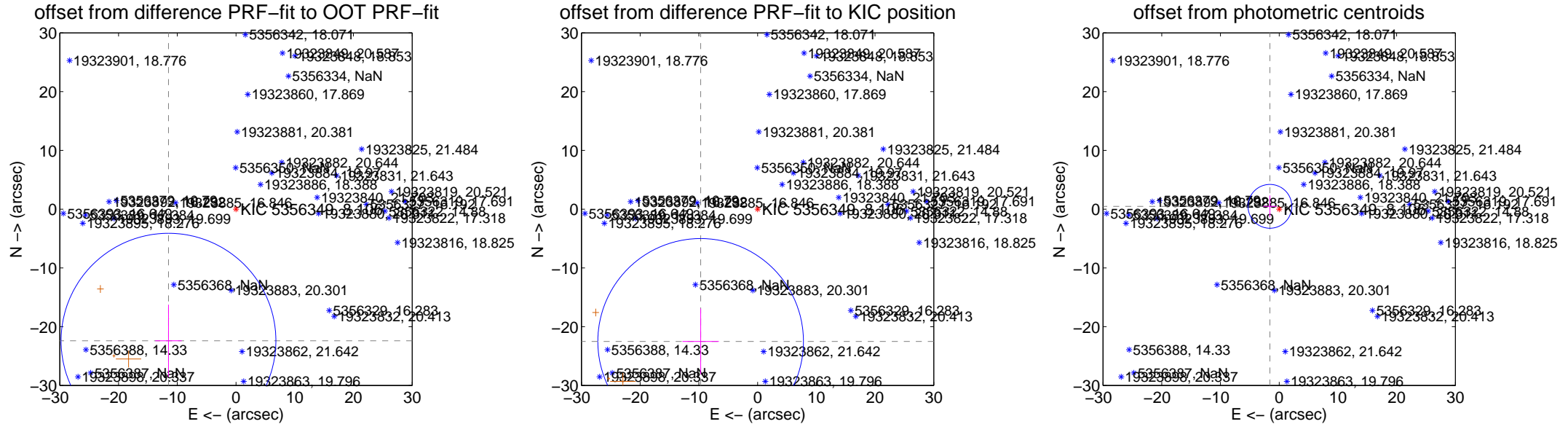
## DV Centroid Data

Supplemental centroid analysis for 005356349-01. **Kepler magnitude: 8.11.** Transit SNR 13.15

There are 0 quarters with good PRF difference image offsets

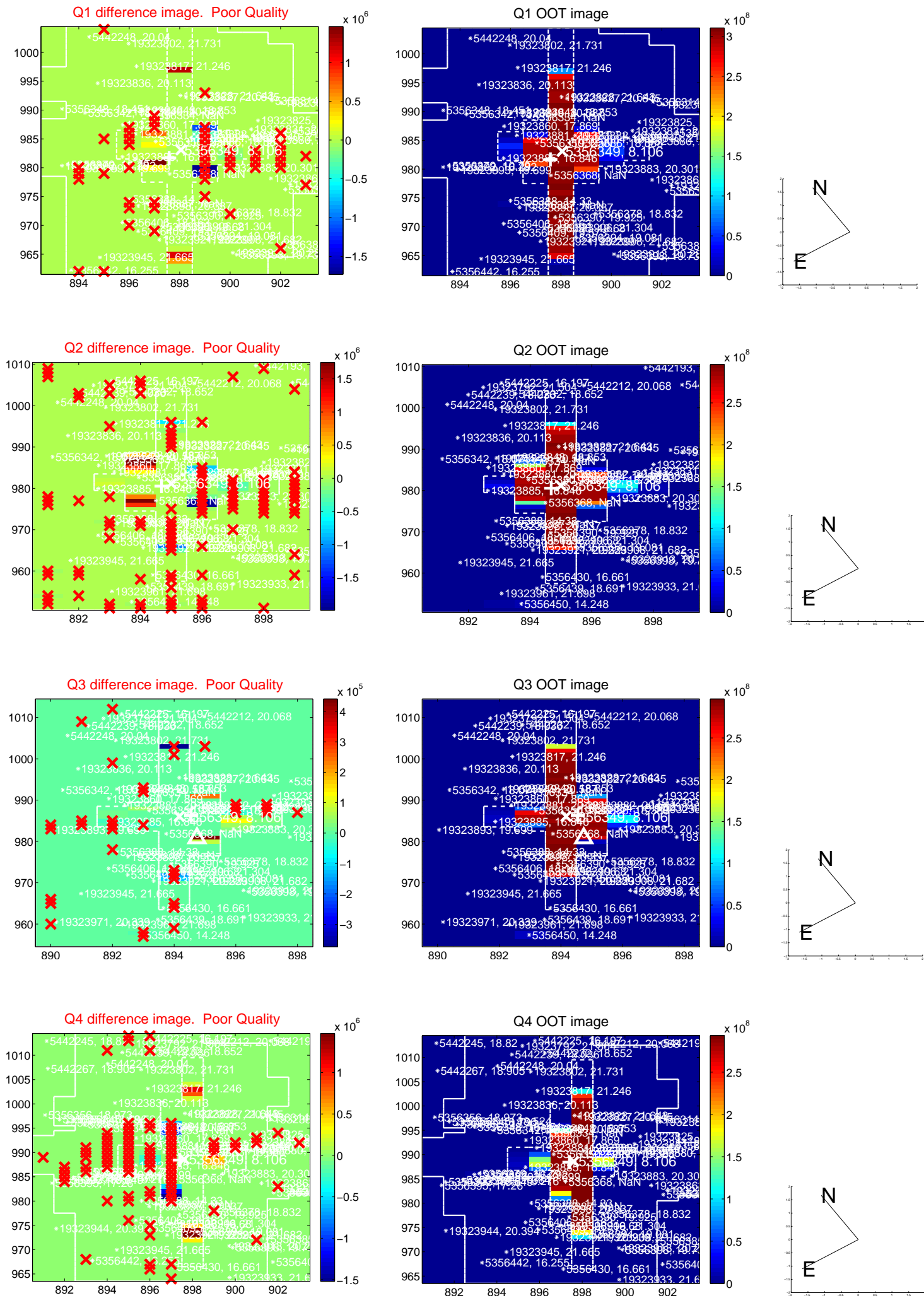
The OOT PRF centroid is offset from the target star catalog position by about 5.99 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>25.173 \pm 6.096</math></b>	<b>4.13</b>	$11.496 \pm 2.261$	$-22.394 \pm 6.152$
PRF-fit source offset from KIC position	<b><math>24.509 \pm 5.835</math></b>	<b>4.20</b>	$9.697 \pm 3.098$	$-22.510 \pm 5.599$
photometric centroid source offset	$1.65 \pm 1.24$	1.33	$1.58 \pm 1.17$	$0.48 \pm 1.85$

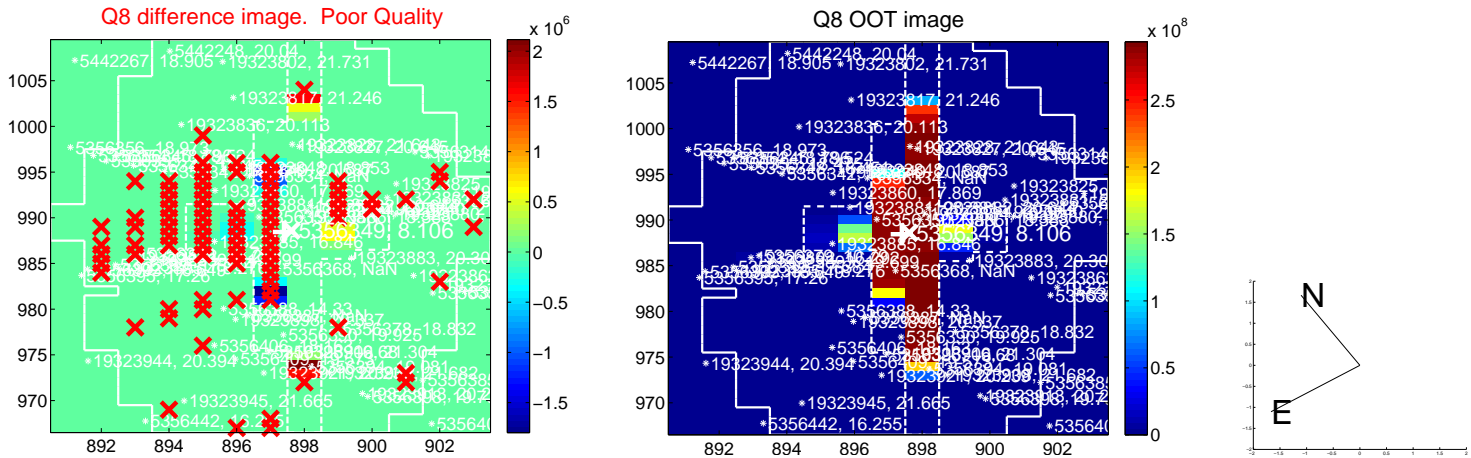
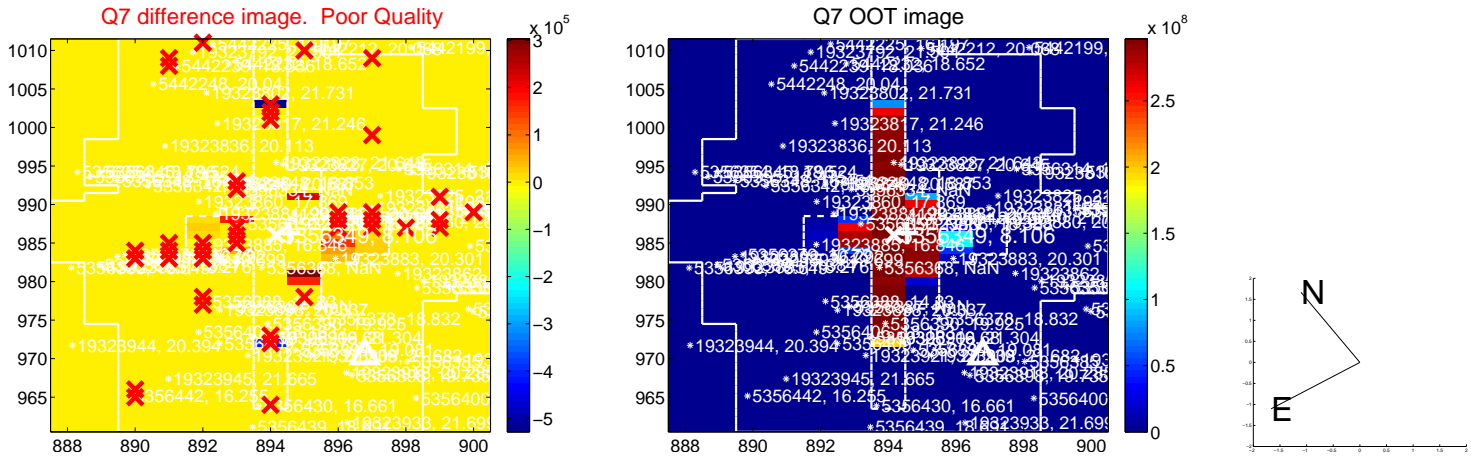
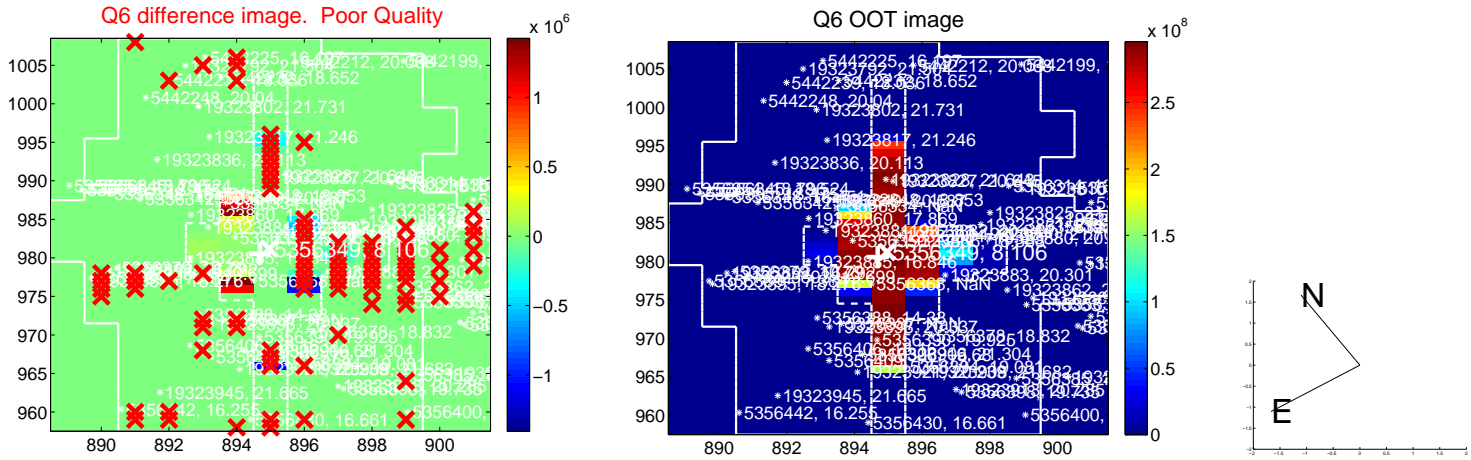
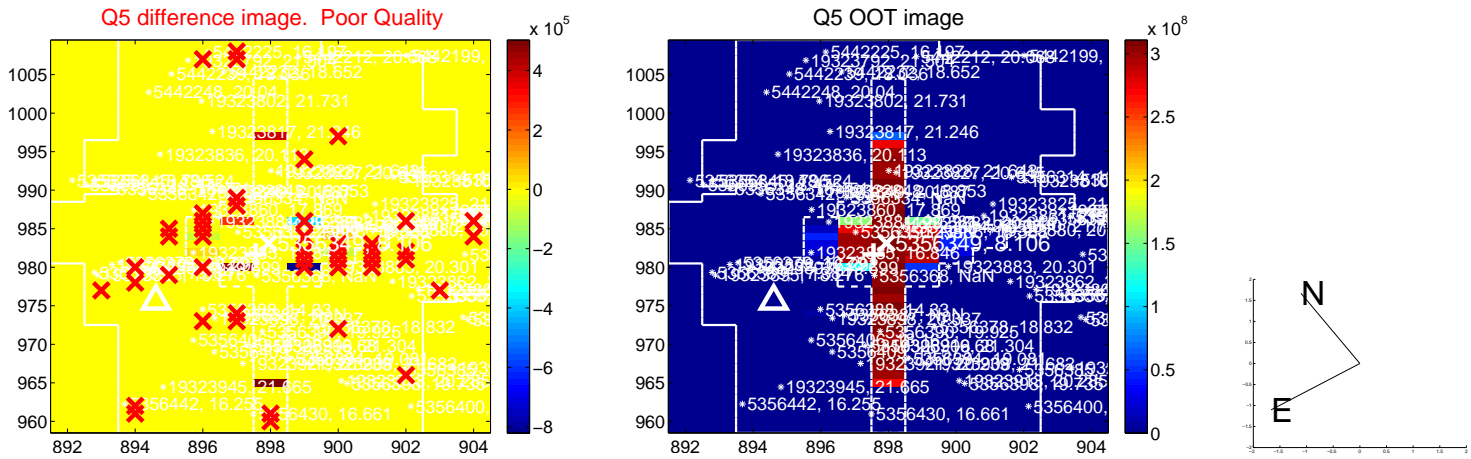


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

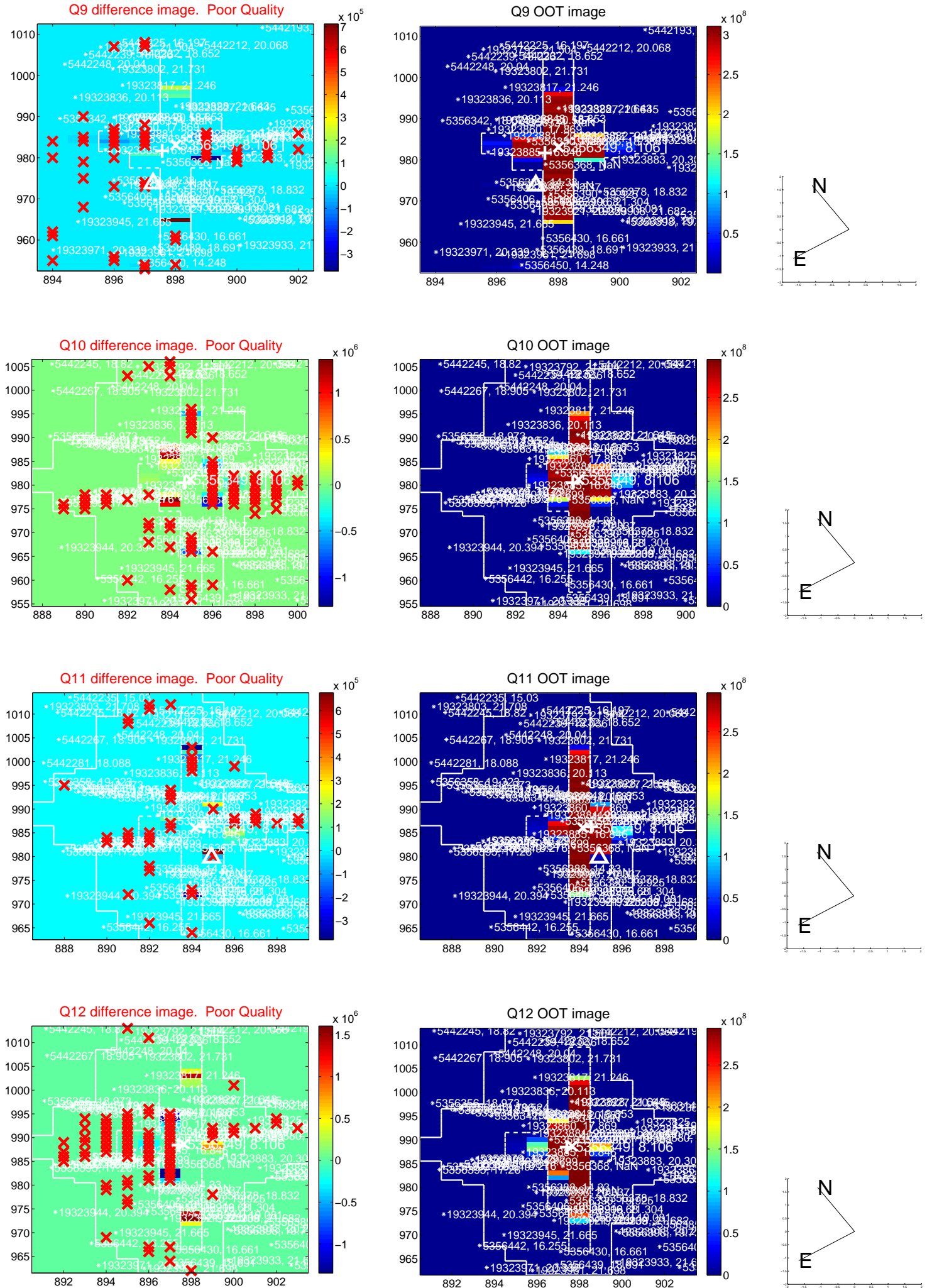


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

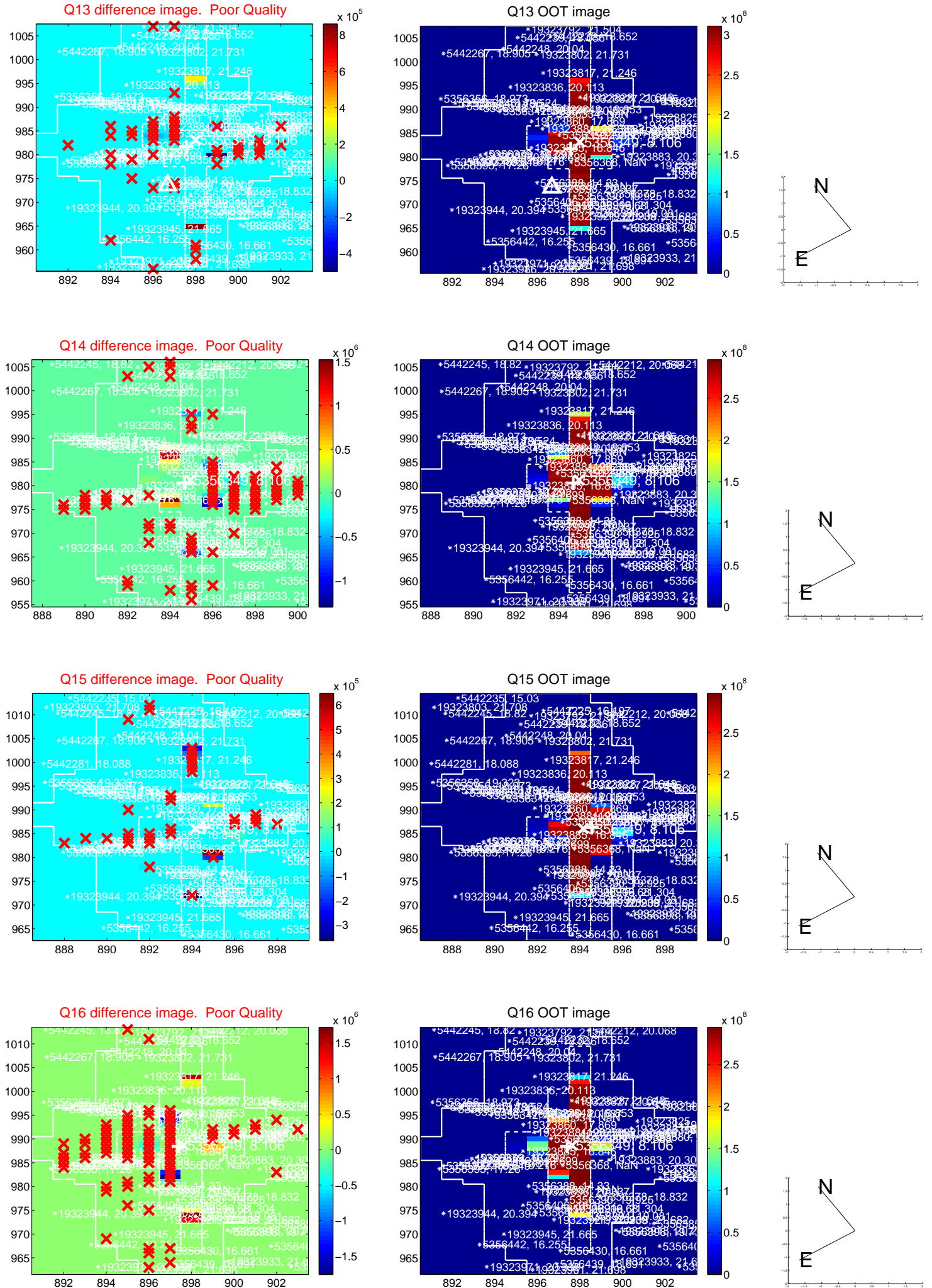




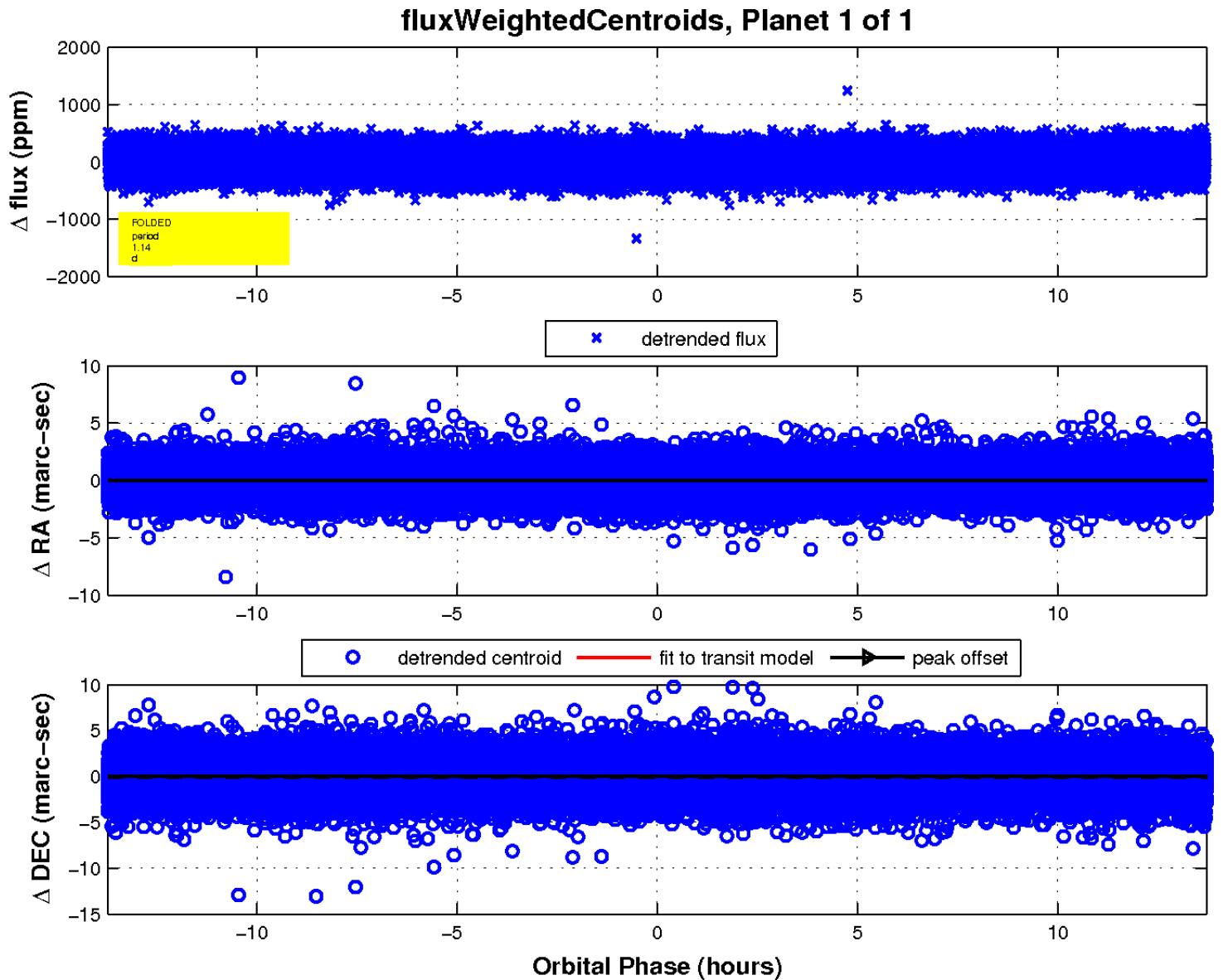
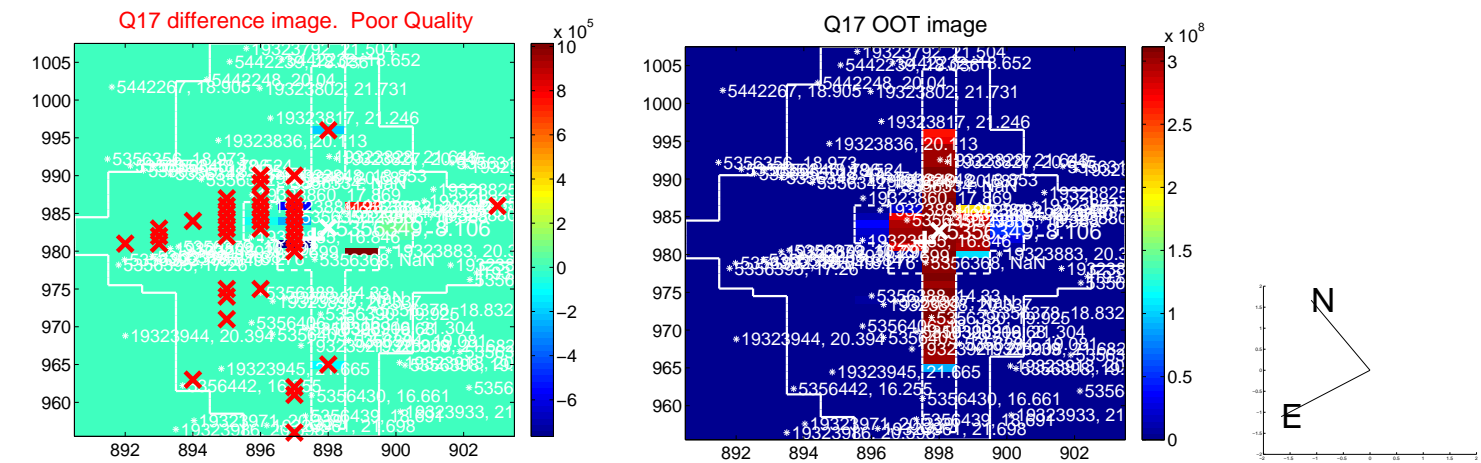
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

