

# KIC 008044889

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008044889-01	OBS	No	0.969706	132.461802	30.4	8.442	9.7	4.7	3.05	7884	1.70	57152.80

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008044889-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

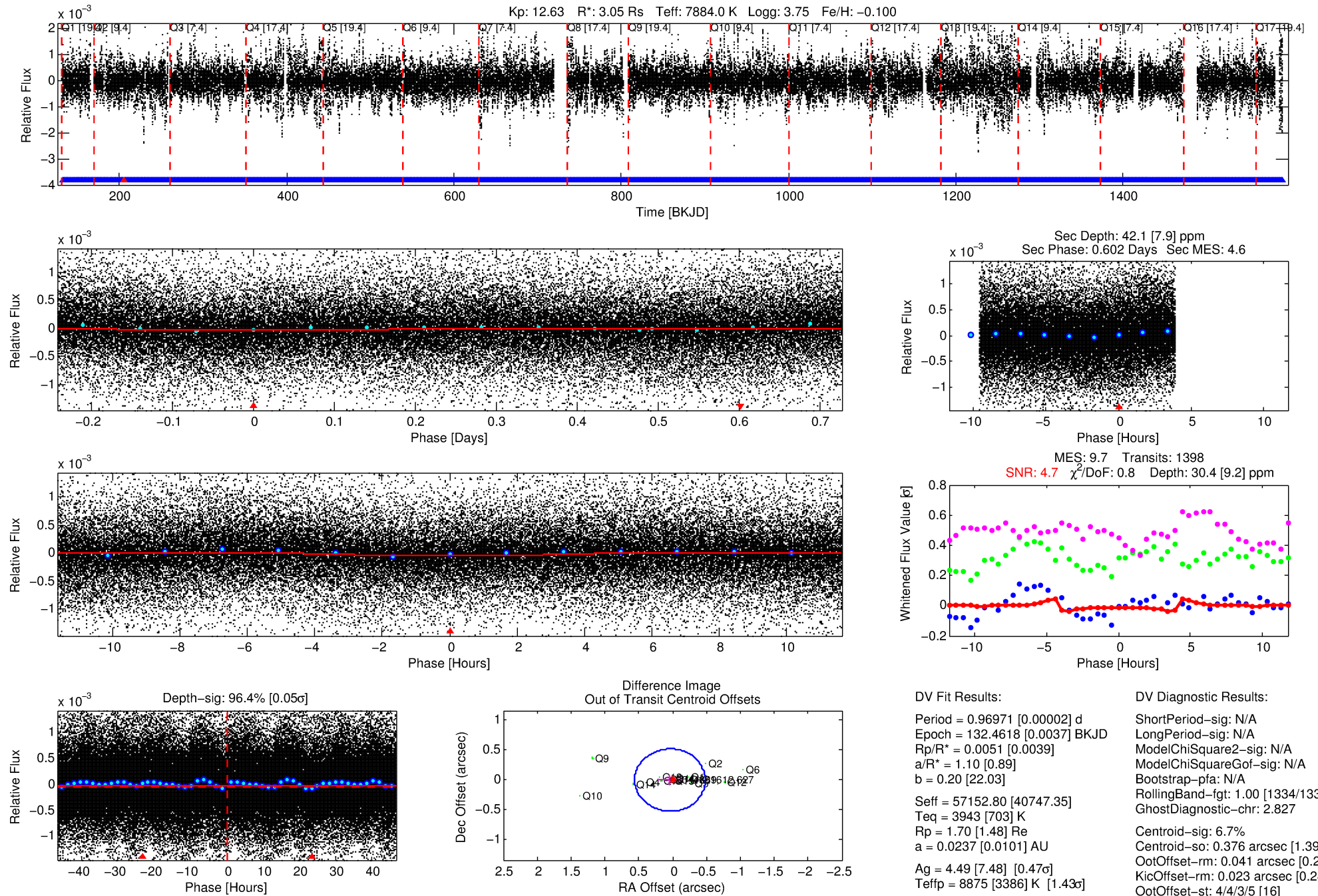
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008044889-01

No Significant Match Found

# DV One-Page Summary

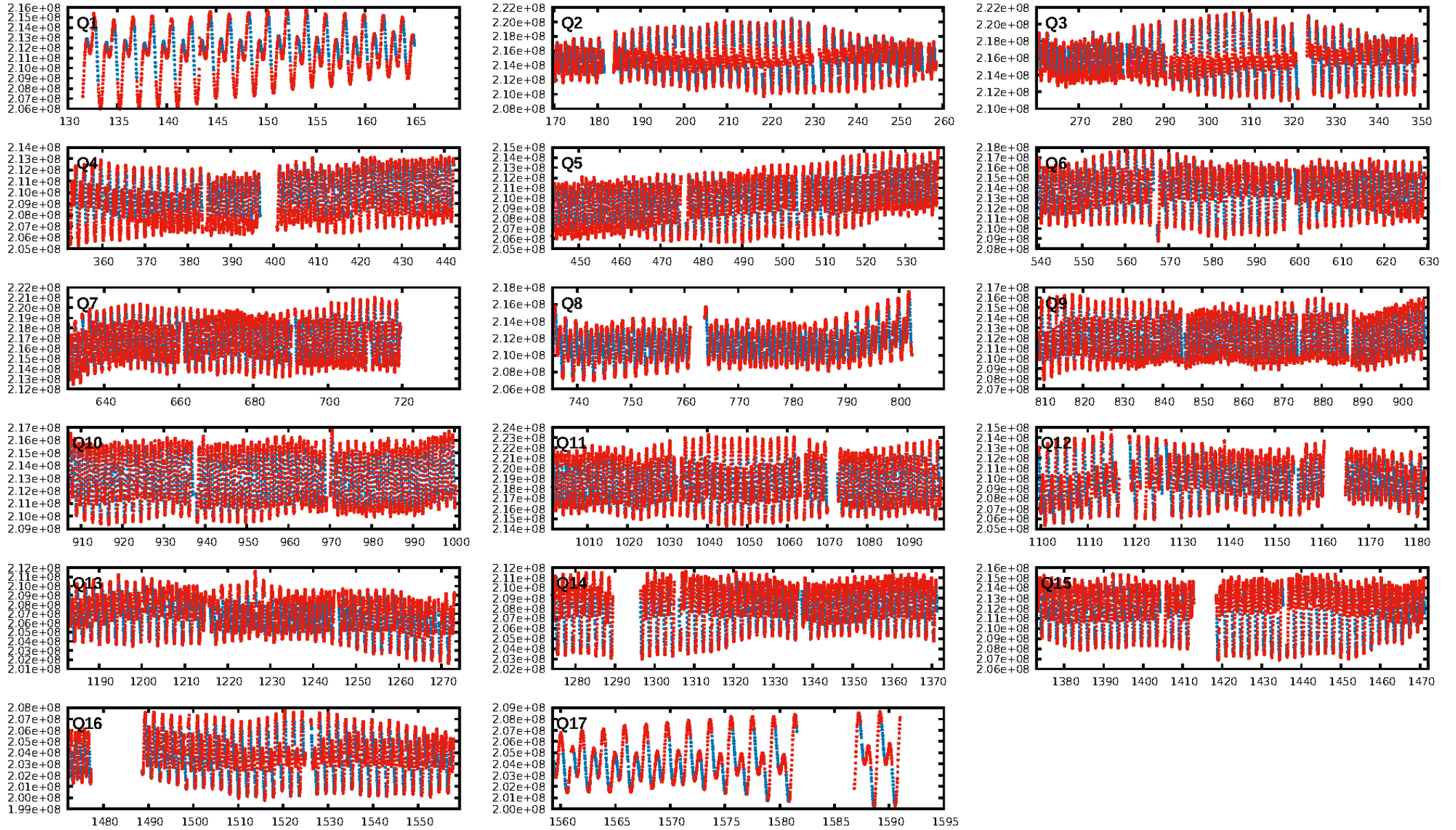
KIC: 8044889 Candidate: 1 of 1 Period: 0.970 d



Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:35:52 Z

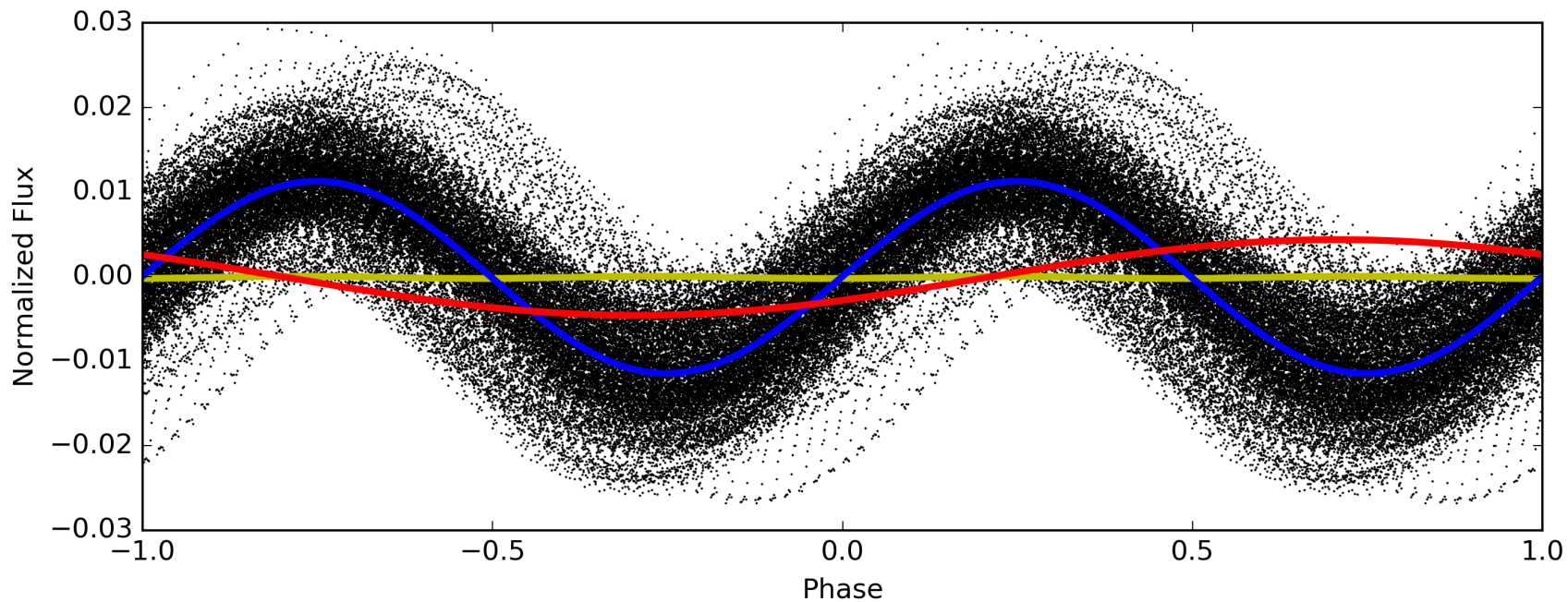
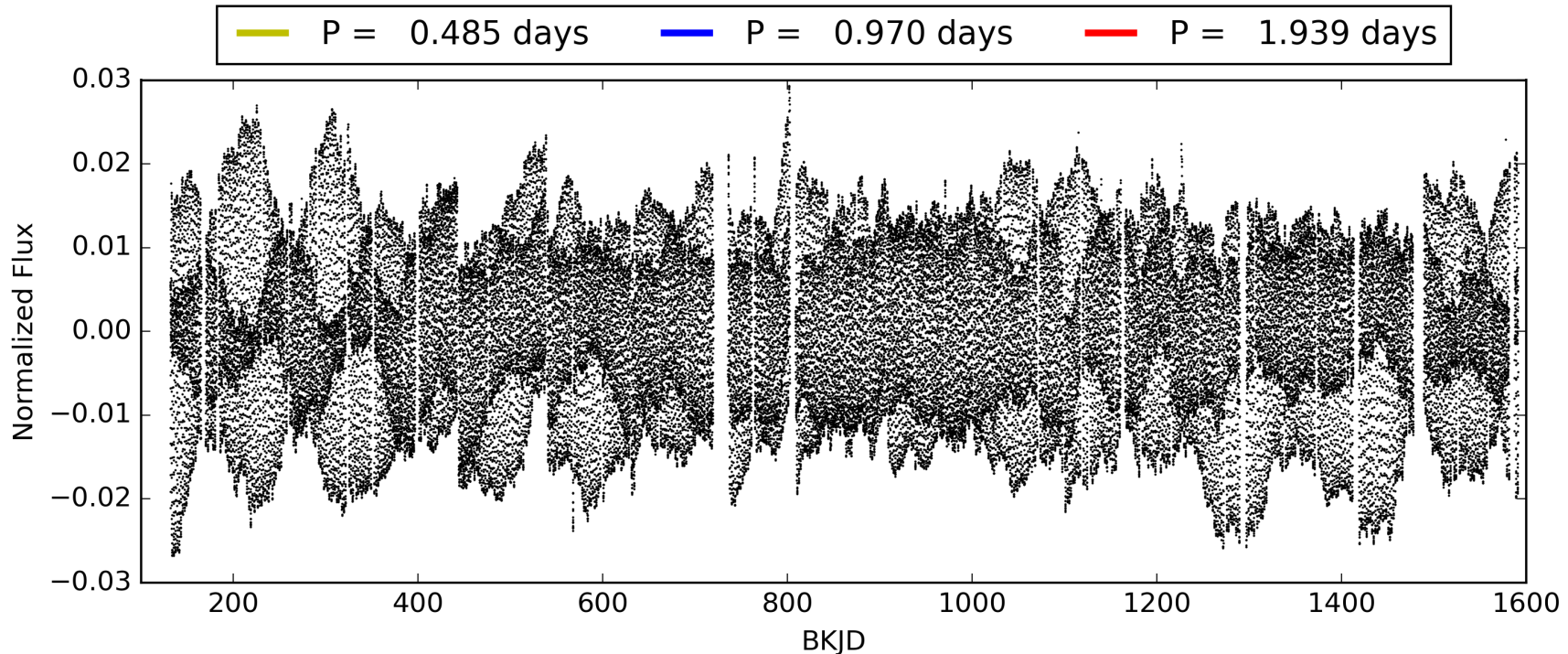
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008044889-01, PDC Light Curves



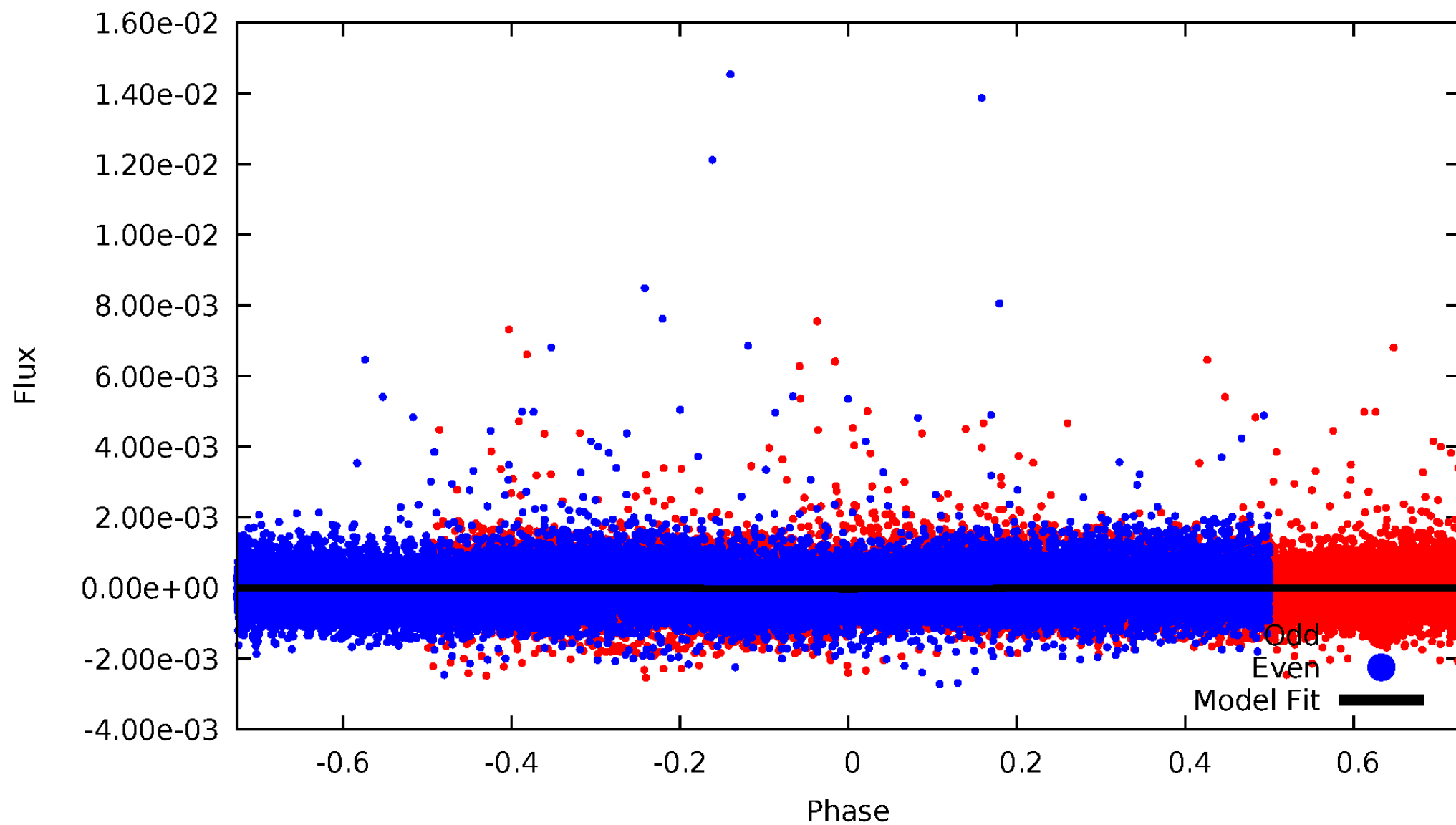


TCE 008044889-01



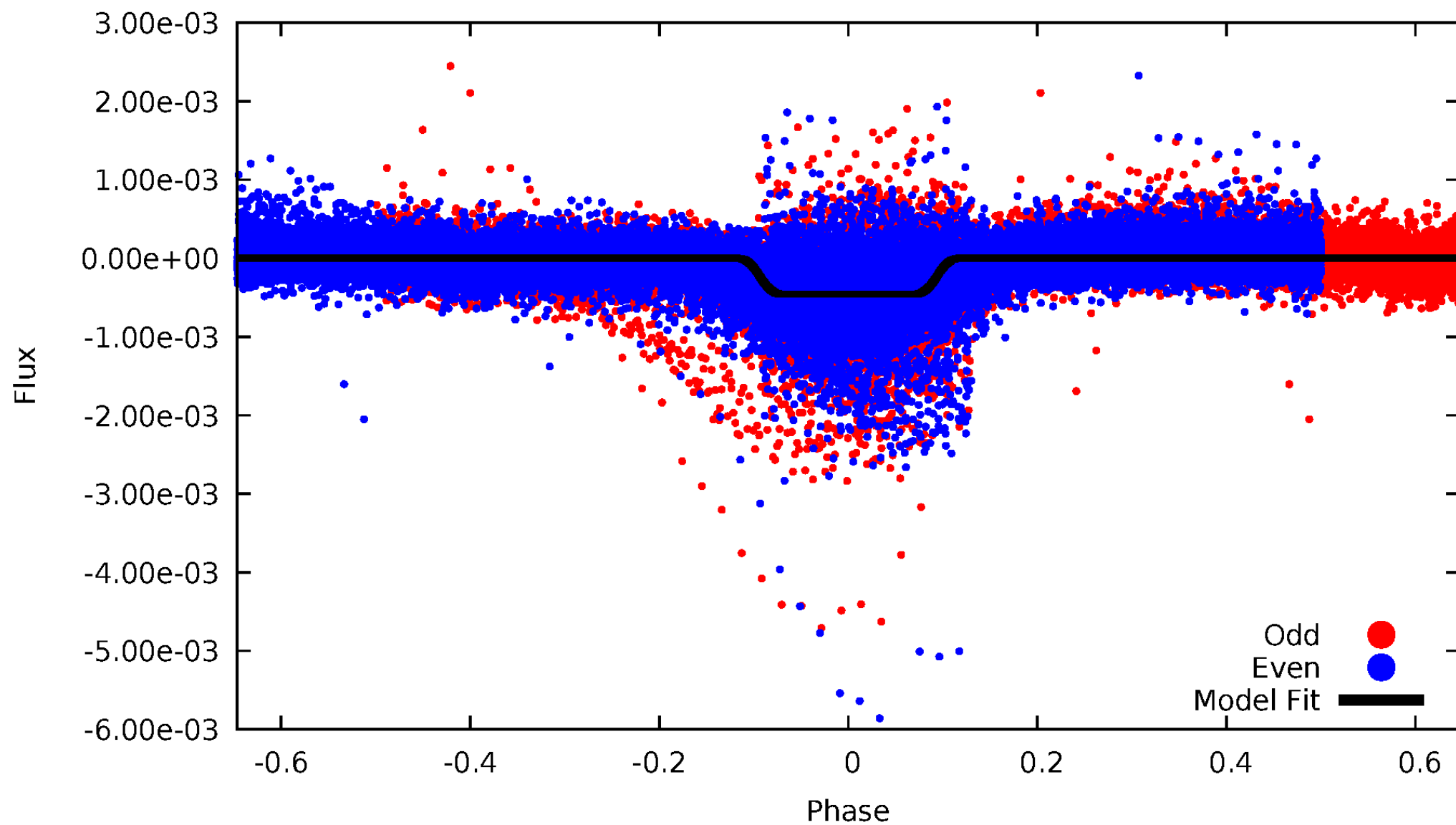
# DV Odd/Even

TCE 008044889-01



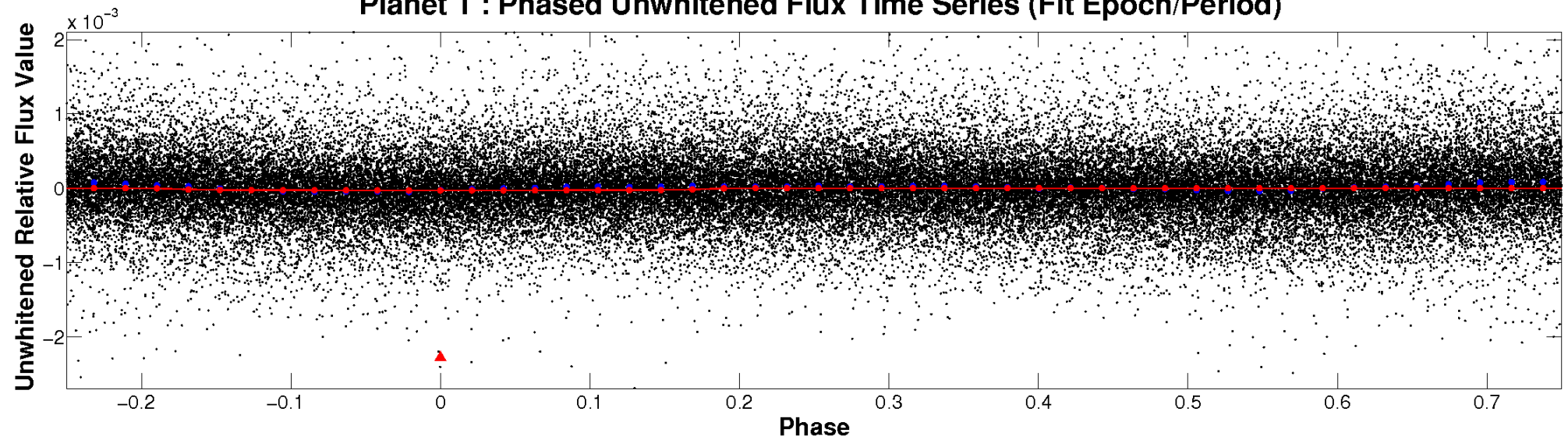
# ALT Odd/Even

TCE 008044889-01

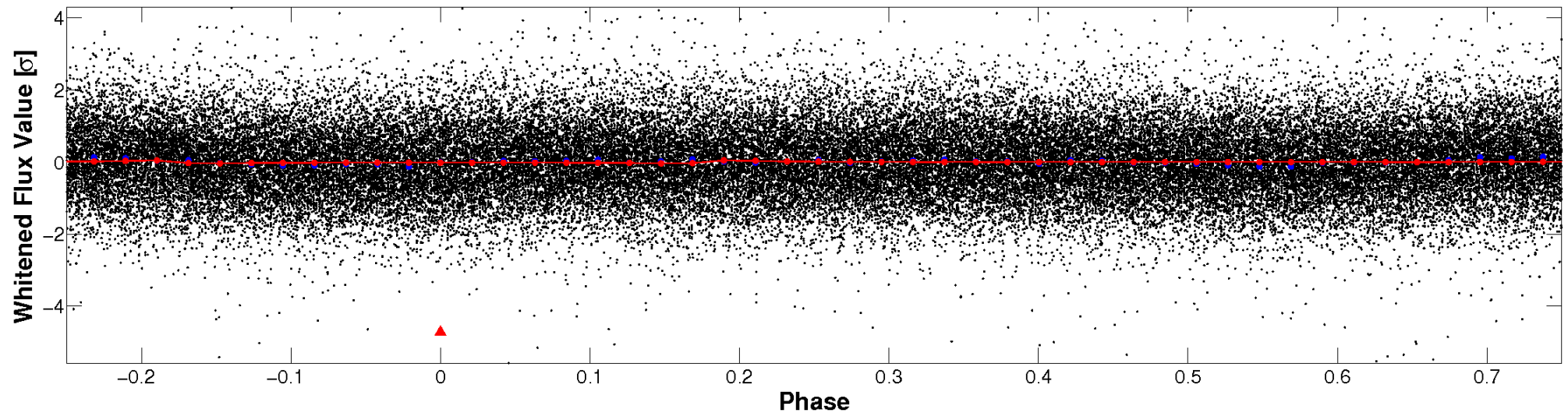


# Non-Whitened Vs. Whitened Light Curve

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



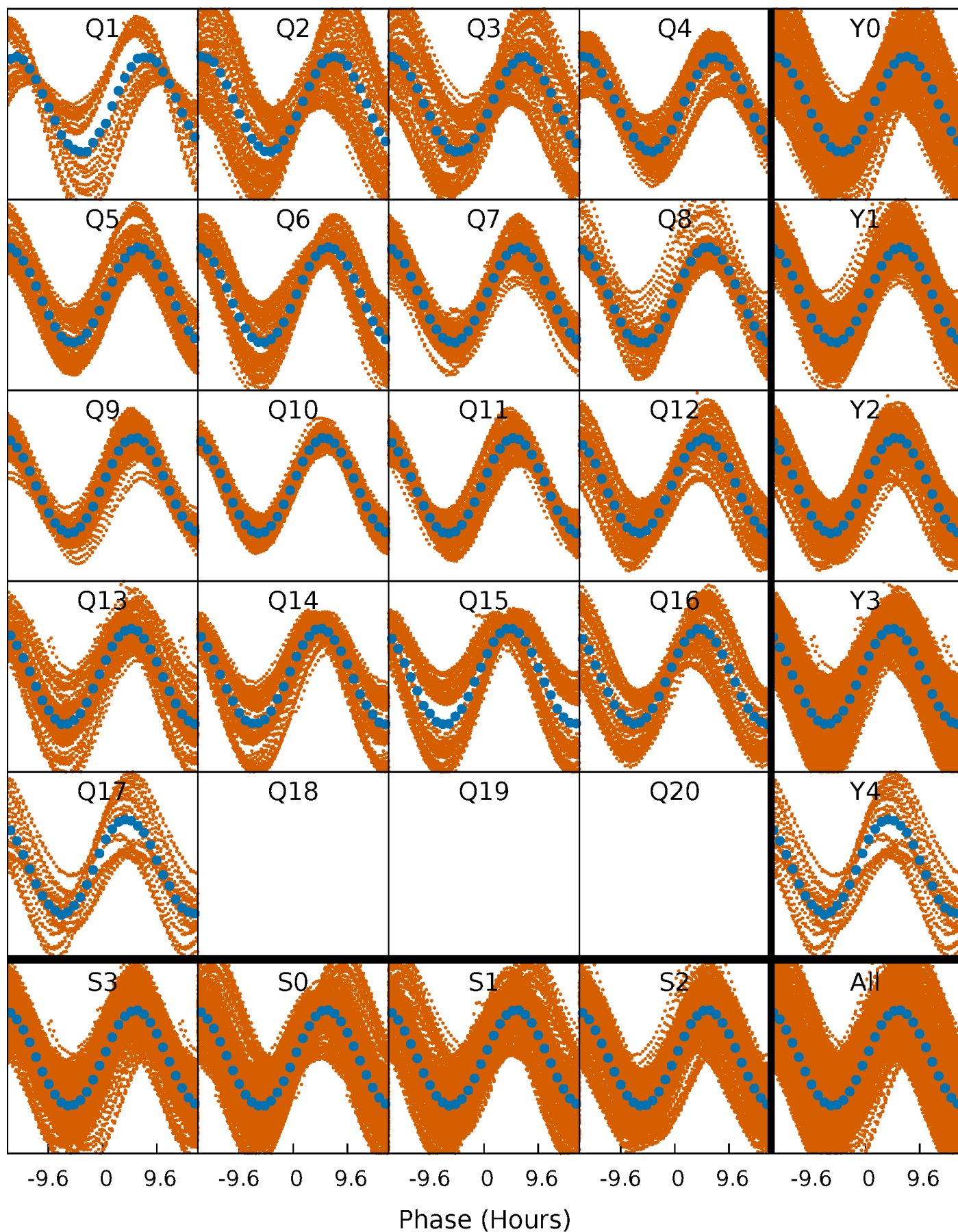
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

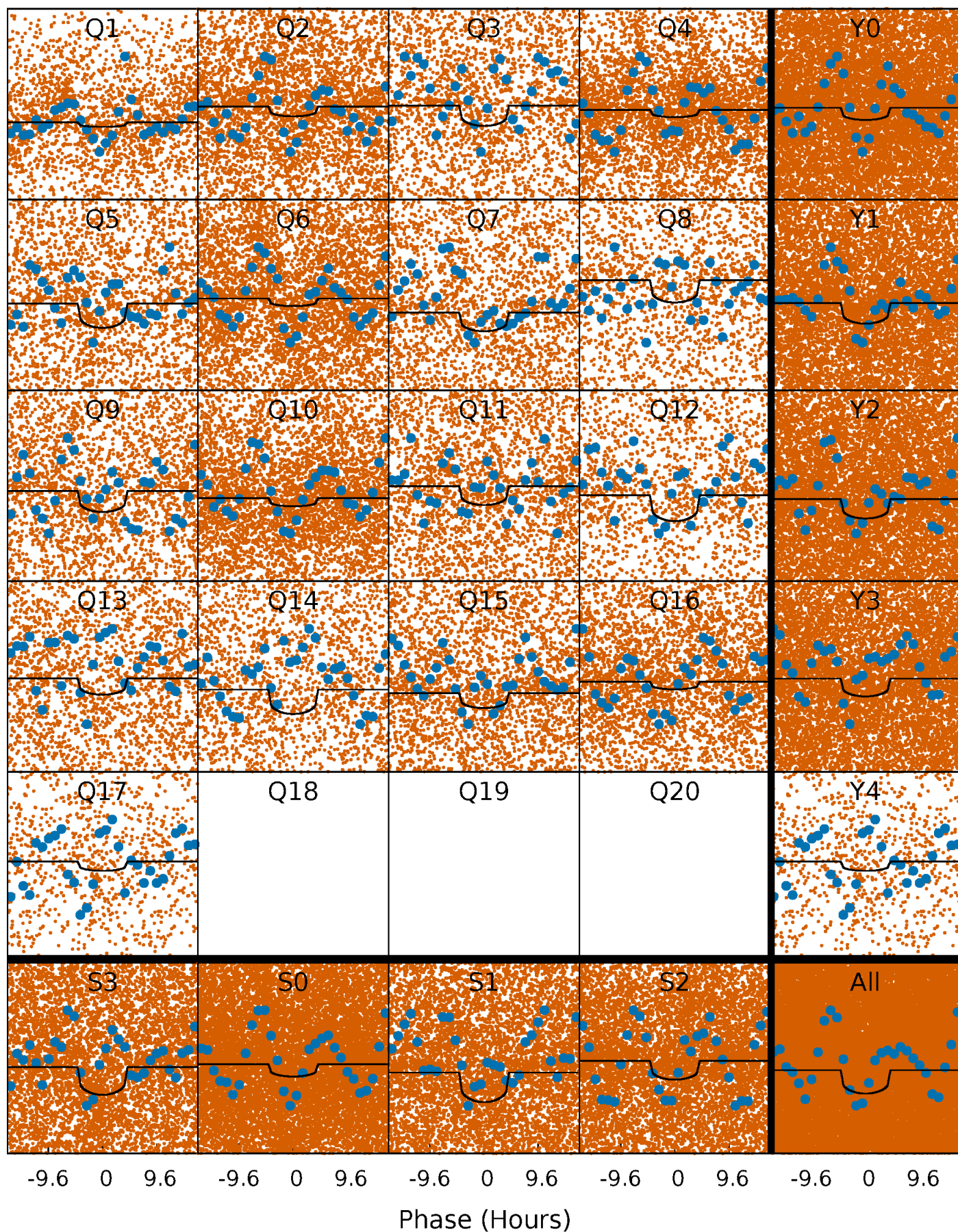
TCE 008044889-01 P= 0.969706 Days  $T_0=132.461802$  (BKJD)





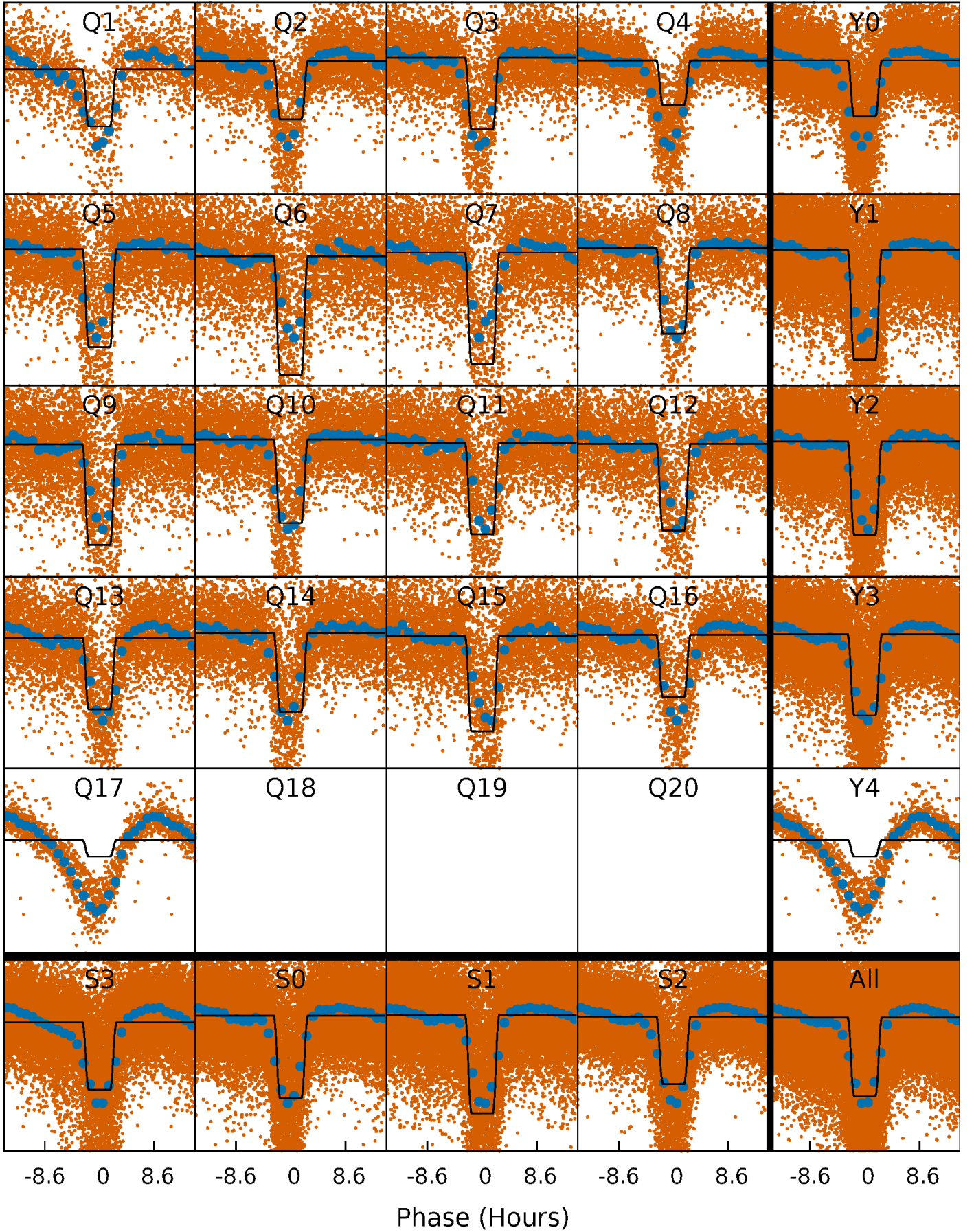
# DV Quarter-Phased Transit Curves

TCE 008044889-01 P= 0.969706 Days  $T_0=132.461802$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

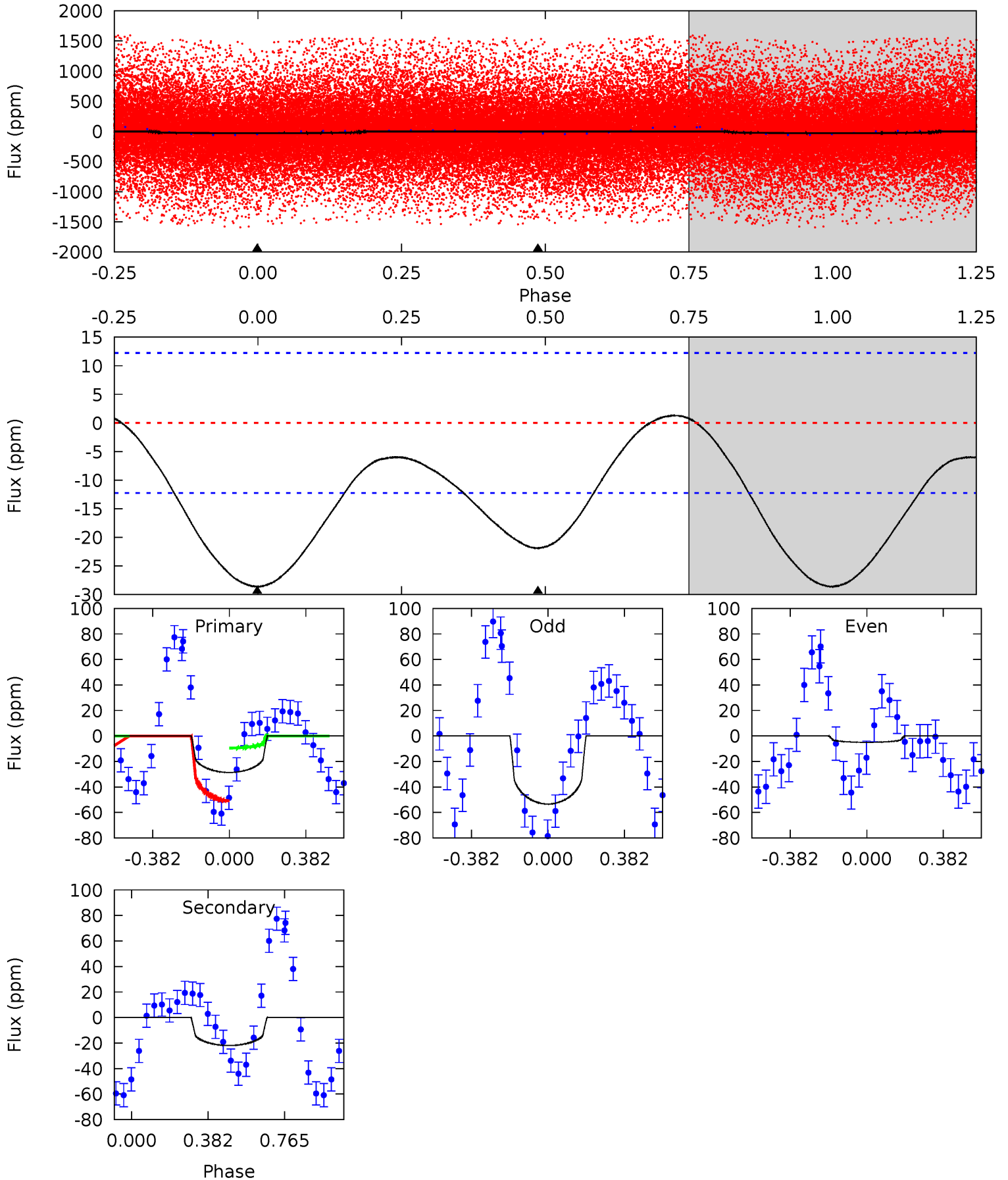
TCE 008044889-01   P= 0.969592 Days    $T_0=132.455338$  (BKJD)



# DV Model-Shift Uniqueness Test

008044889-01, P = 0.969706 Days, E = 131.492096 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
10.0	7.65	0	0	4.27	0.87	1.17	10.0	10.0	7.65	7.65	8.63	0.49	0.04	7.70

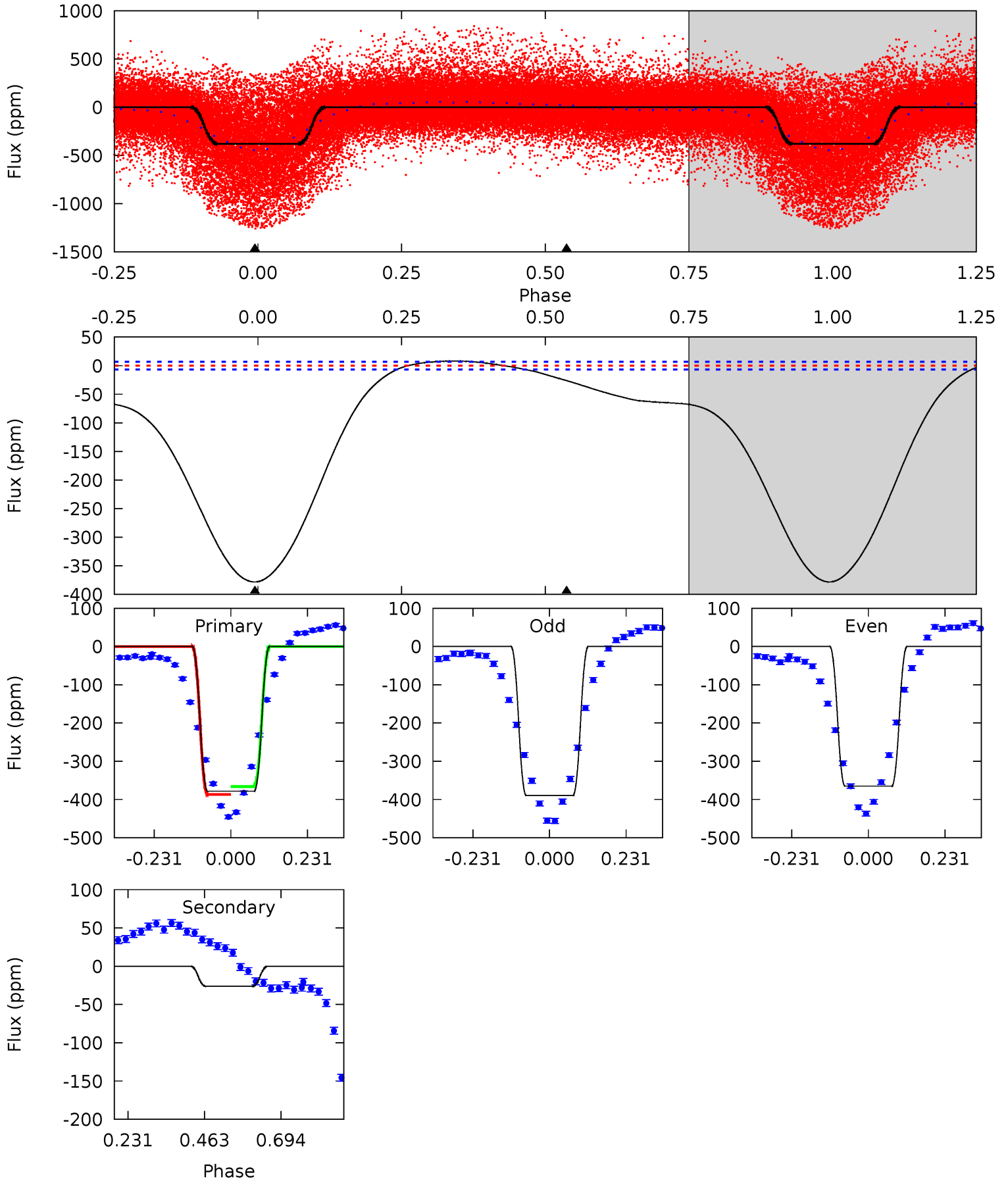




# Alt Model-Shift Uniqueness Test

008044889-01, P = 0.969592 Days, E = 131.485746 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
252.1	17.5	0	0	4.39	1.20	13.8	252.1	252.1	17.5	17.5	8.10	1.17	0.02	7.07





### Stellar Parameters For KIC 008044889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7884^{+218}_{-355}$	$3.747^{+0.408}_{-0.072}$	$-0.100^{+0.200}_{-0.350}$	$3.048^{+0.441}_{-1.322}$	$1.891^{+0.103}_{-0.410}$	$0.094^{+0.337}_{-0.028}$
	+3%/-5%	+11%/-2%	+200%/-350%	+14%/-43%	+5%/-22%	+358%/-30%
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 008044889-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-22 \pm 3$	$1.60^{+1.14}_{-0.90}$	$5288^{+344}_{-577}$	$6756^{+5713}_{-1691}$	$2.588^{+11.261}_{-1.709}$
Alt.	$-26 \pm 2$	$6.43^{+1.66}_{-1.69}$	$5286^{+387}_{-558}$	$-3686^{+6735}_{-461}$	$0.192^{+0.152}_{-0.071}$

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

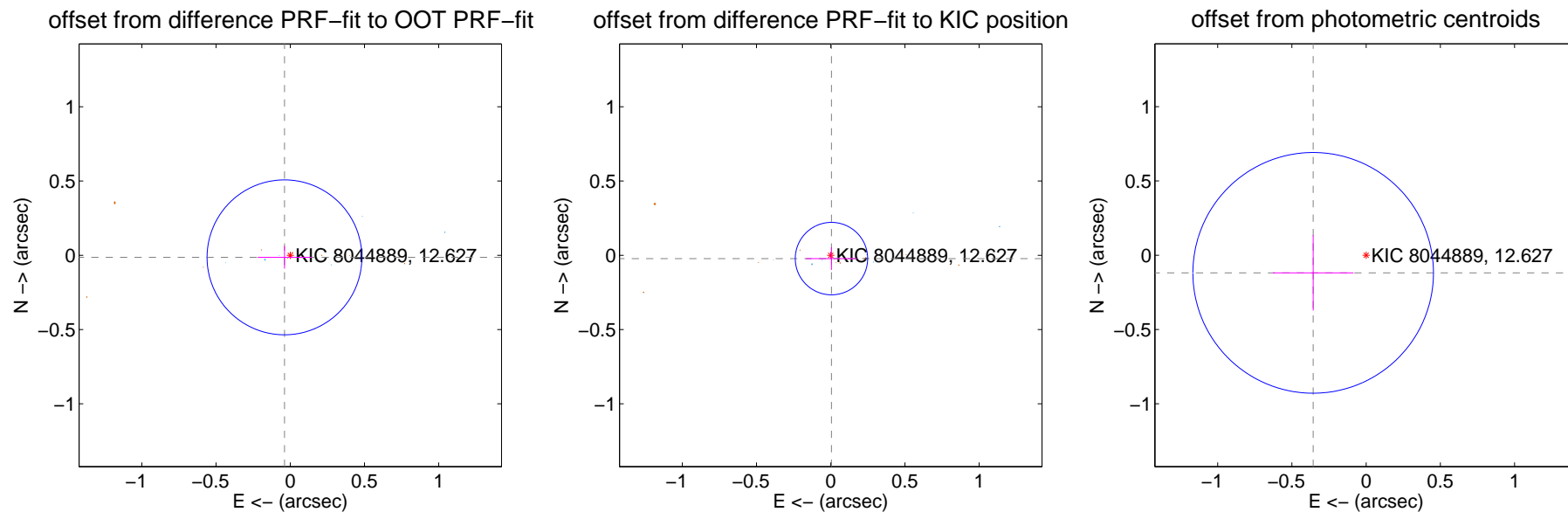
## DV Centroid Data

Supplemental centroid analysis for 008044889-01. Kepler magnitude: 12.63. Transit SNR 4.66

There are 7 quarters with good PRF difference image offsets

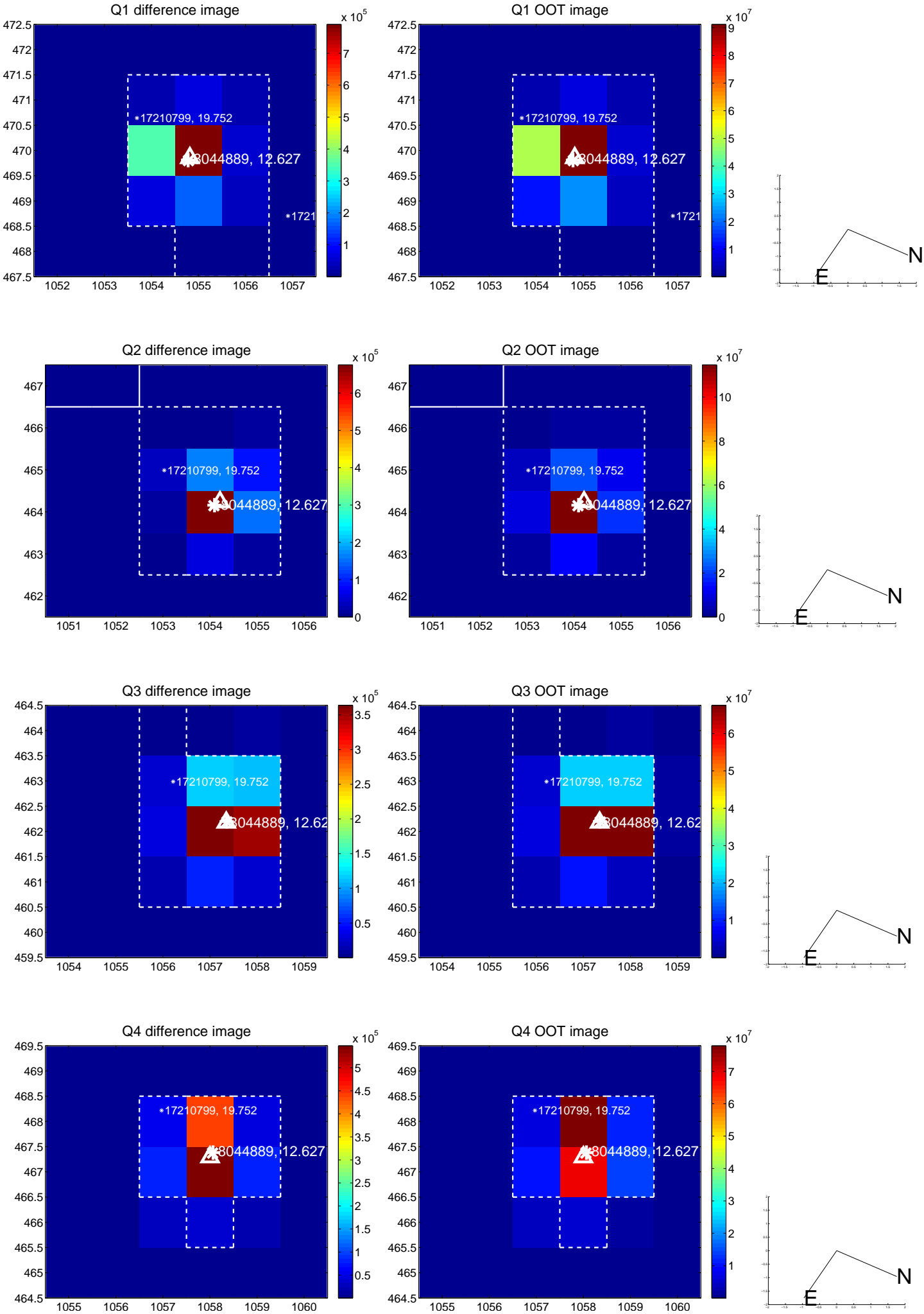
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.041 \pm 0.174$	0.24	$0.039 \pm 0.181$	$-0.014 \pm 0.076$
PRF-fit source offset from KIC position	$0.023 \pm 0.081$	0.28	$-0.005 \pm 0.173$	$-0.022 \pm 0.076$
photometric centroid source offset	$0.38 \pm 0.27$	1.39	$0.36 \pm 0.27$	$-0.12 \pm 0.25$

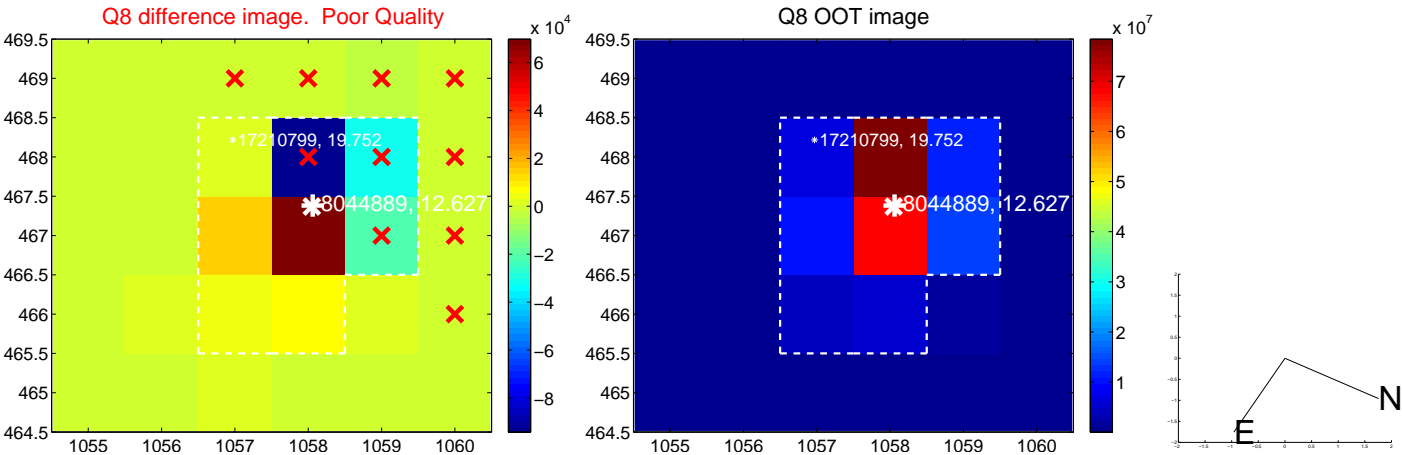
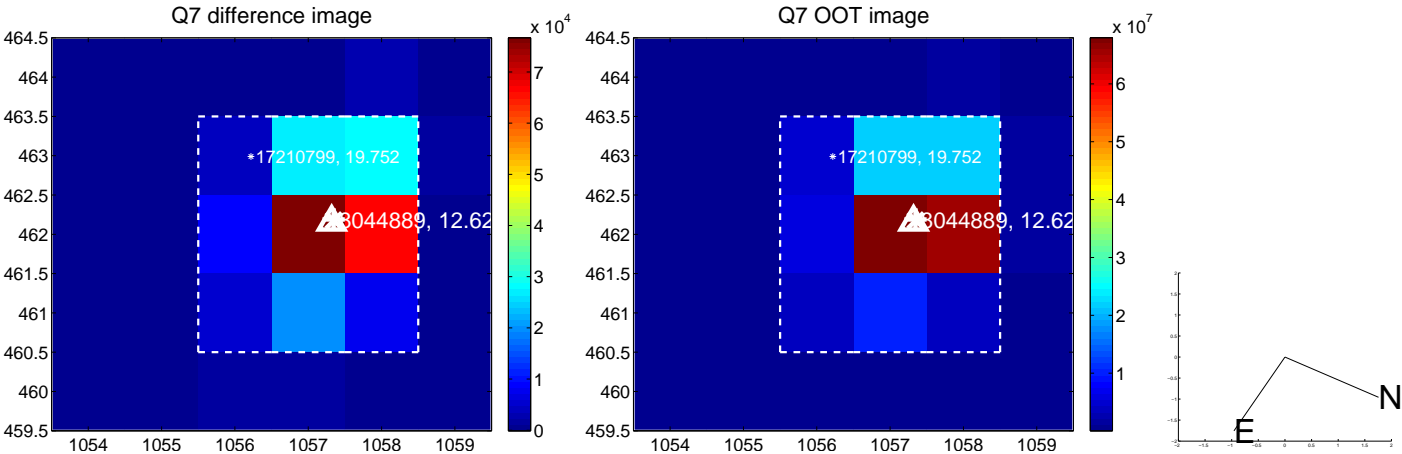
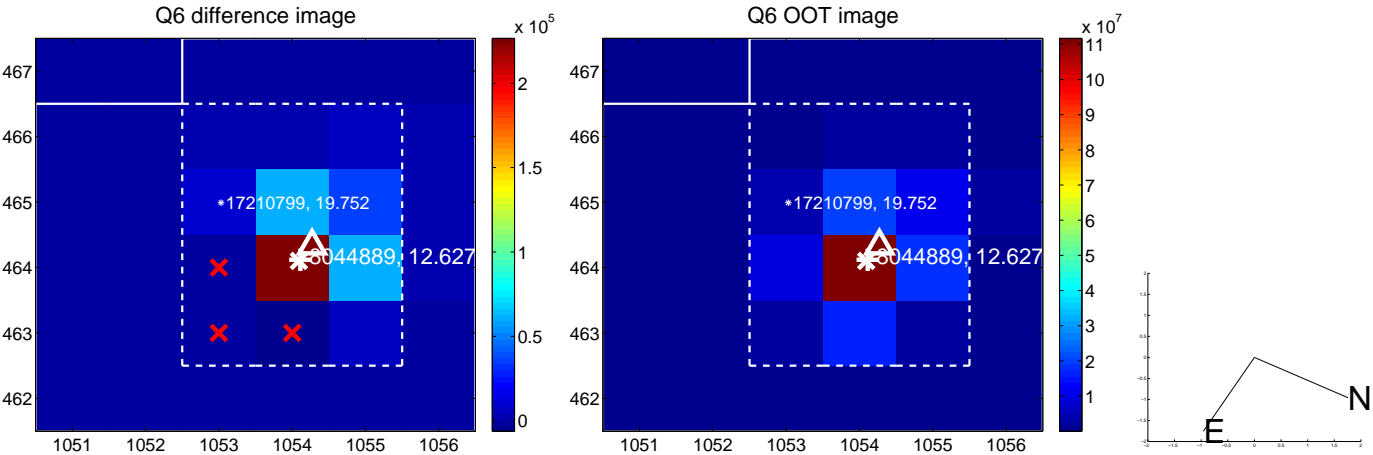
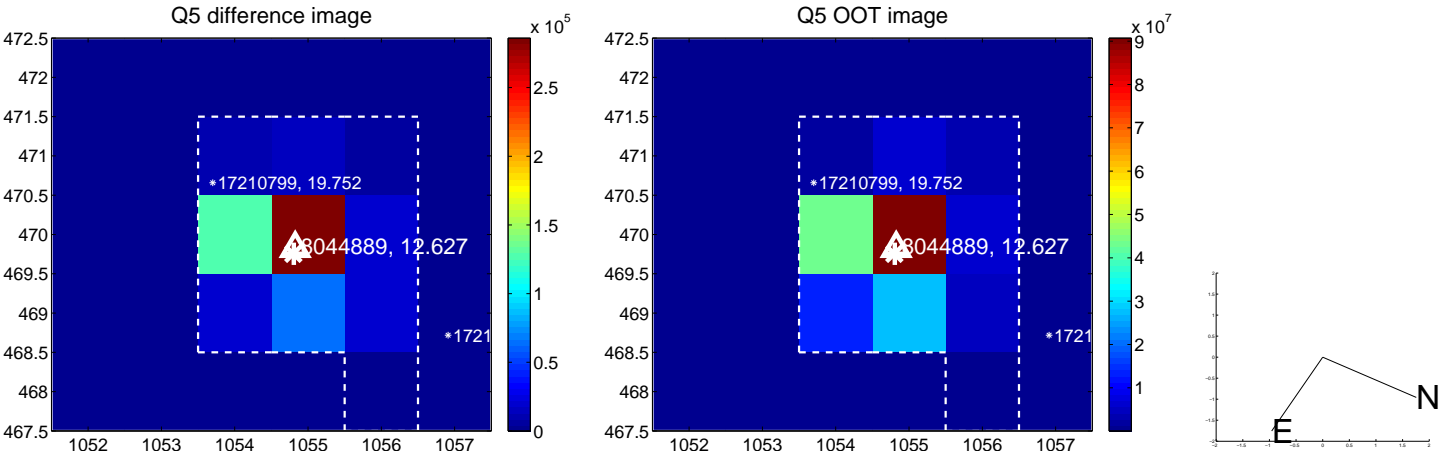


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

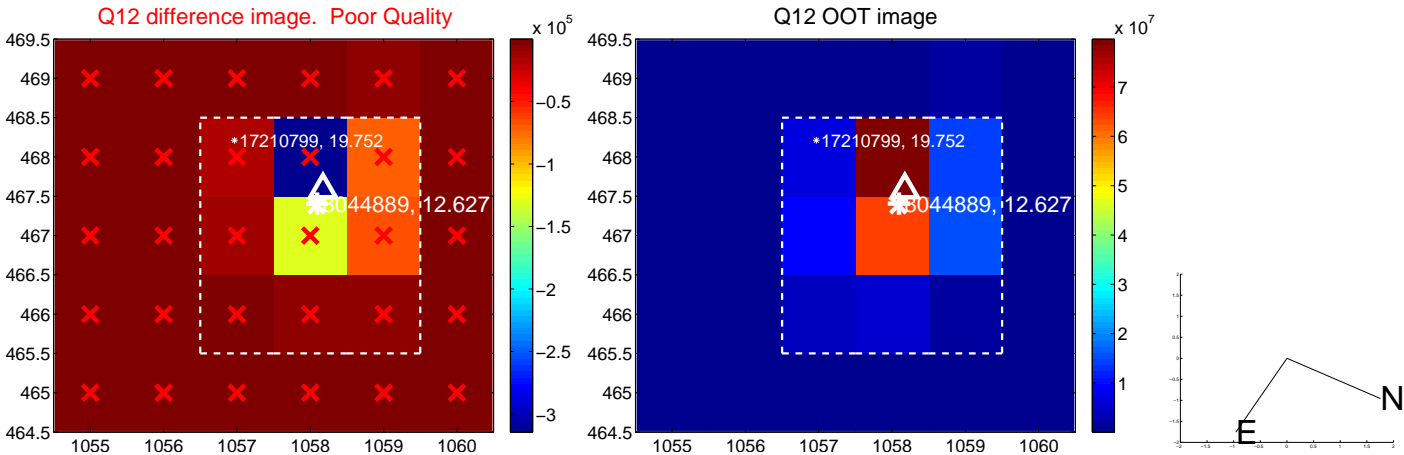
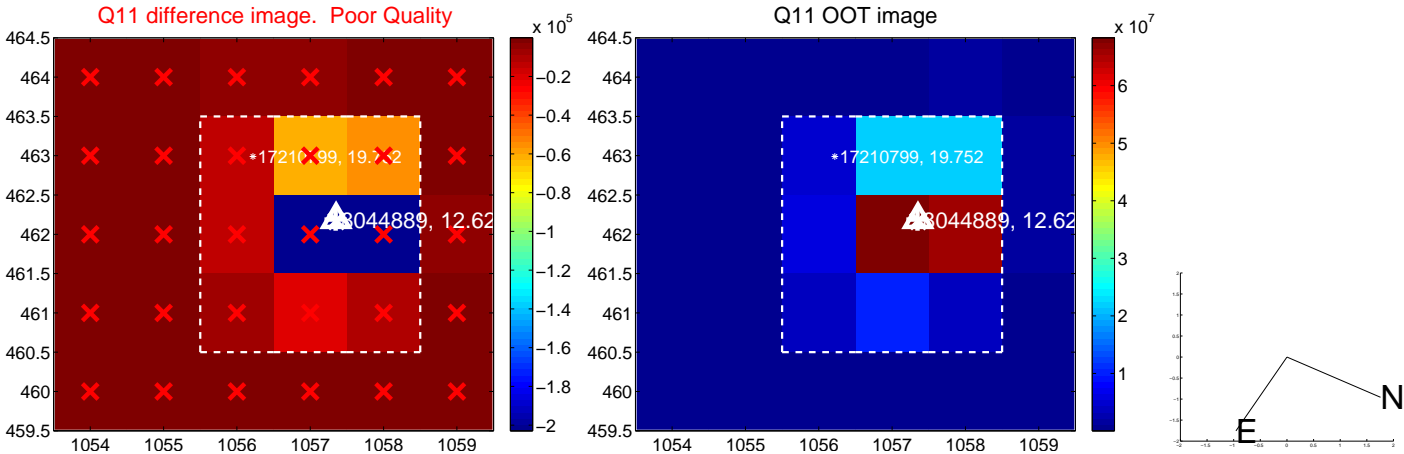
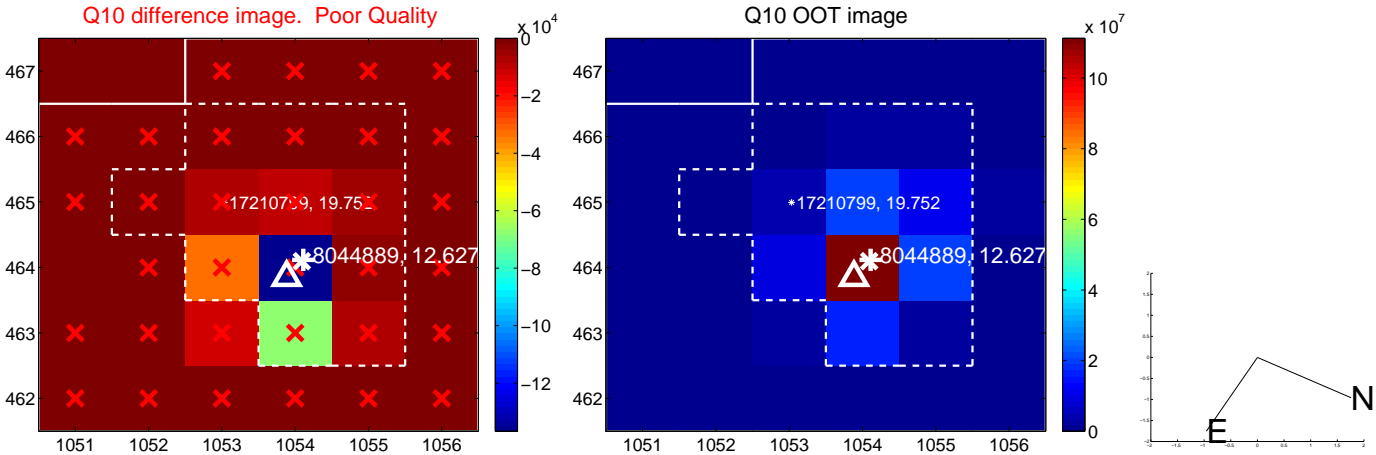
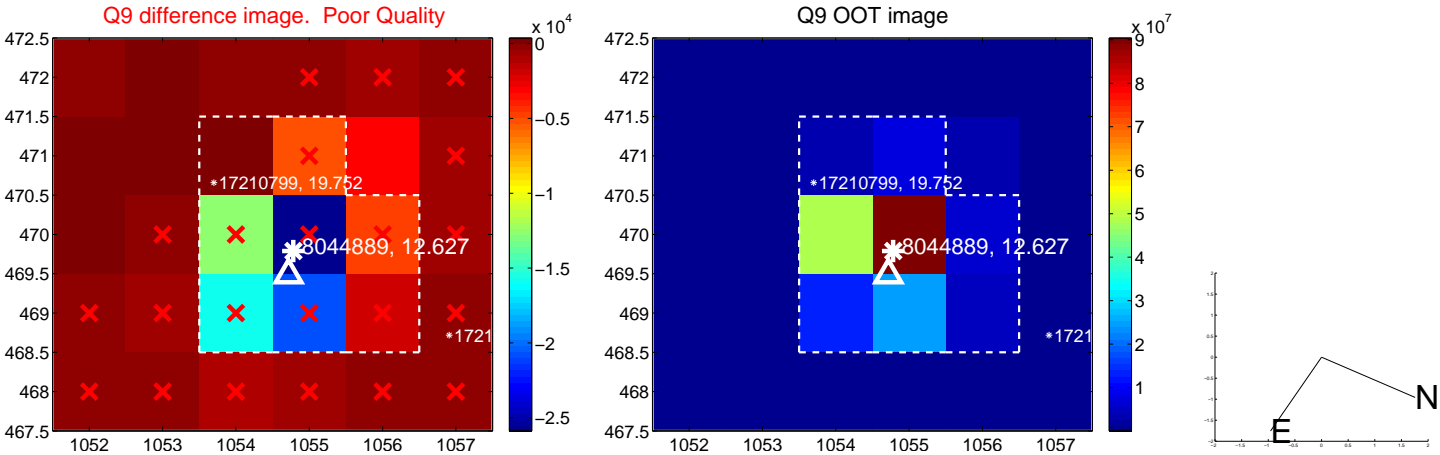


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

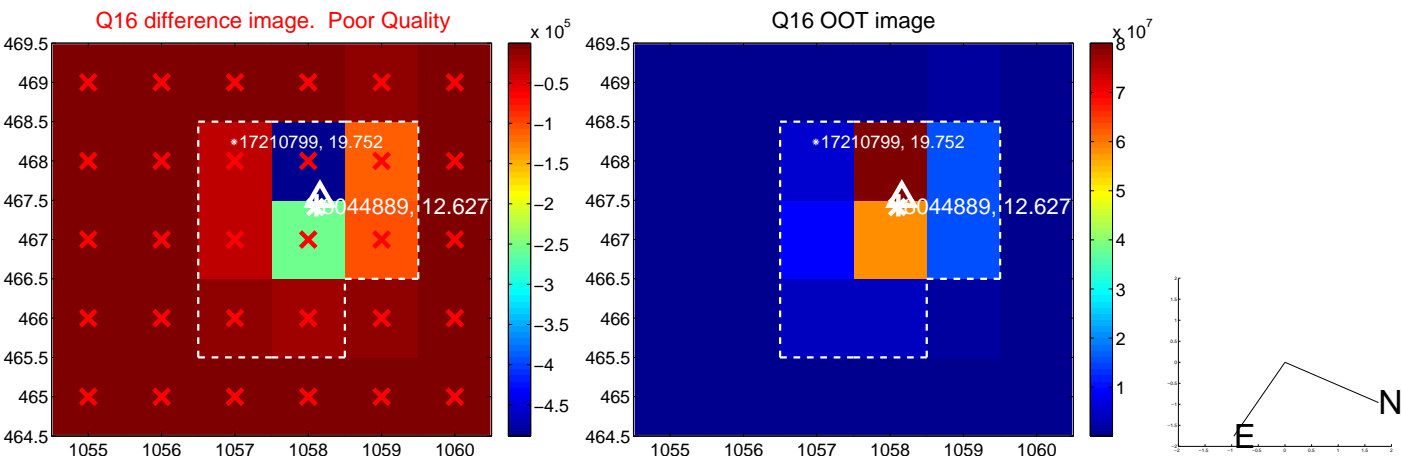
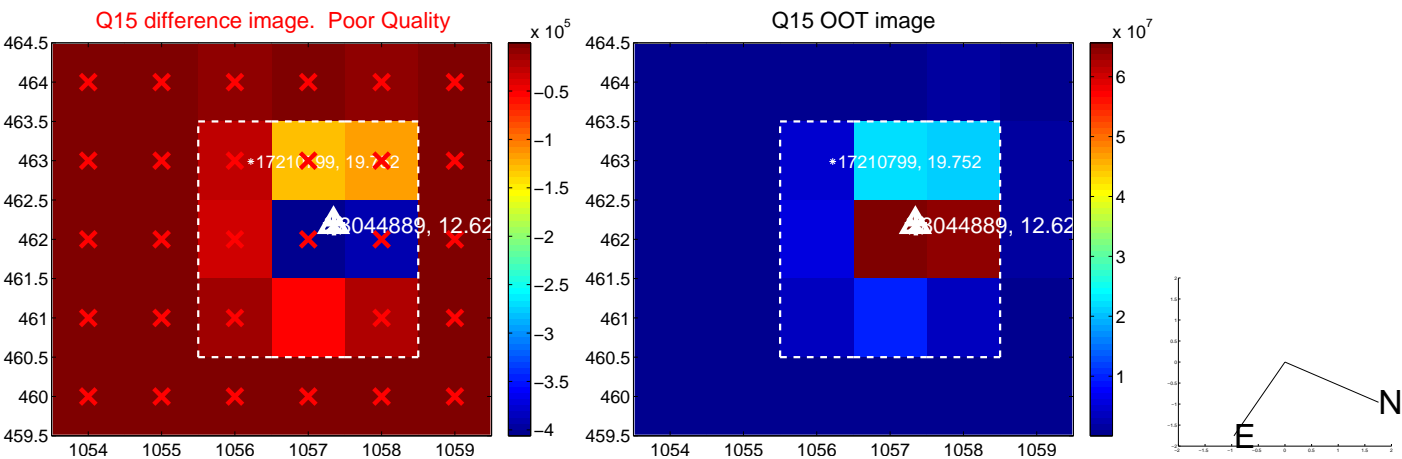
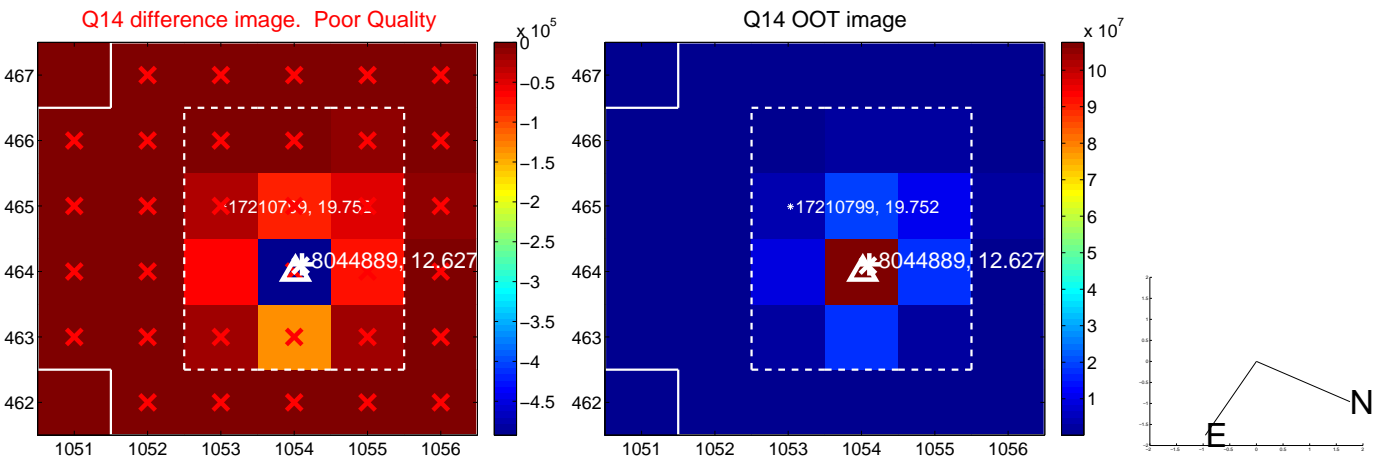
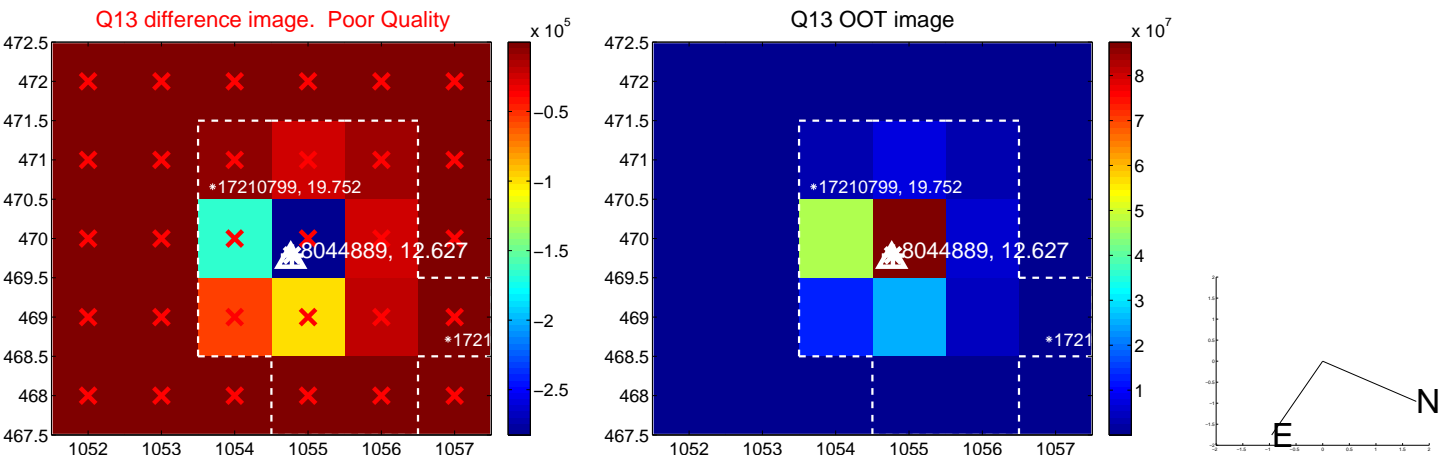




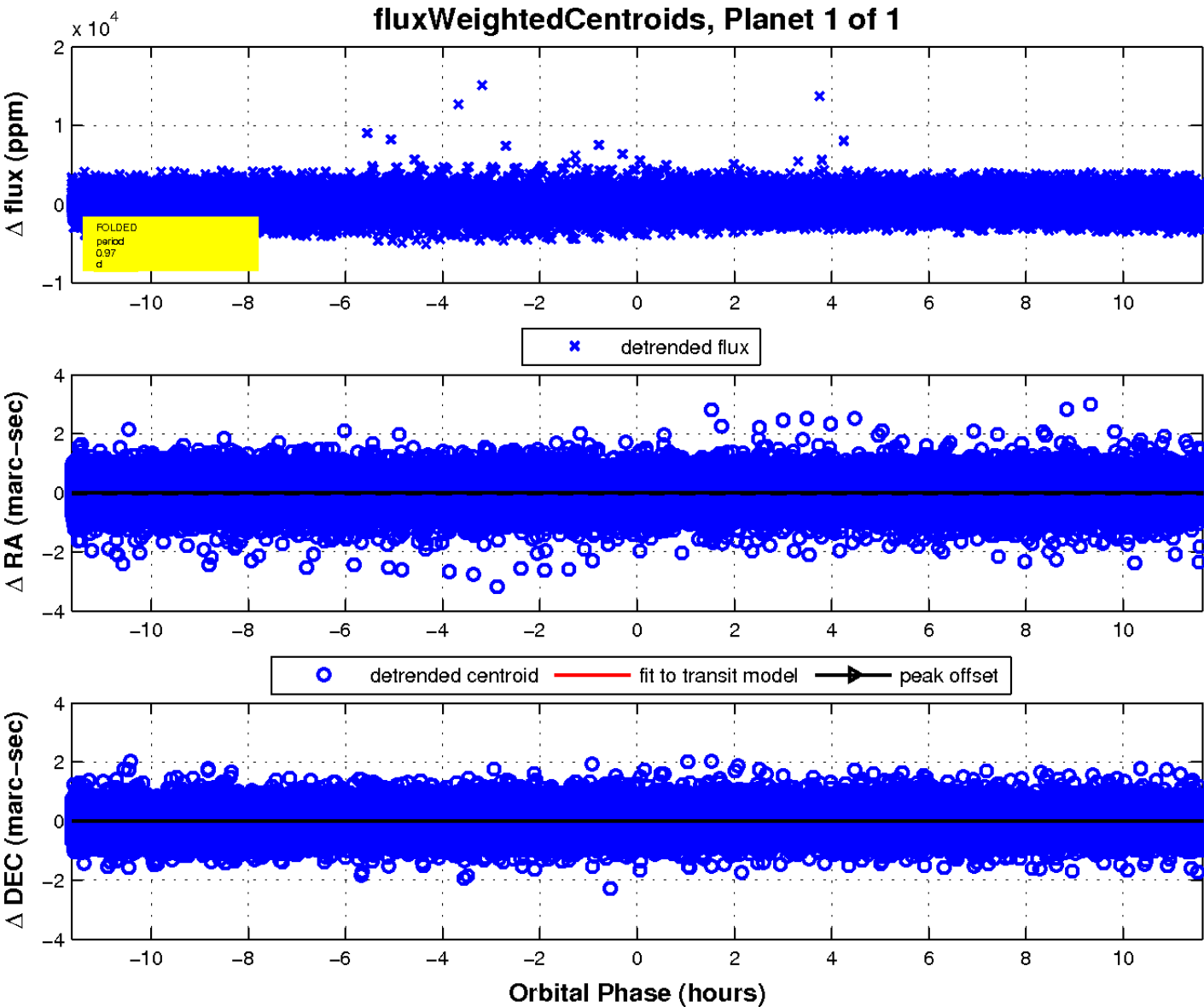
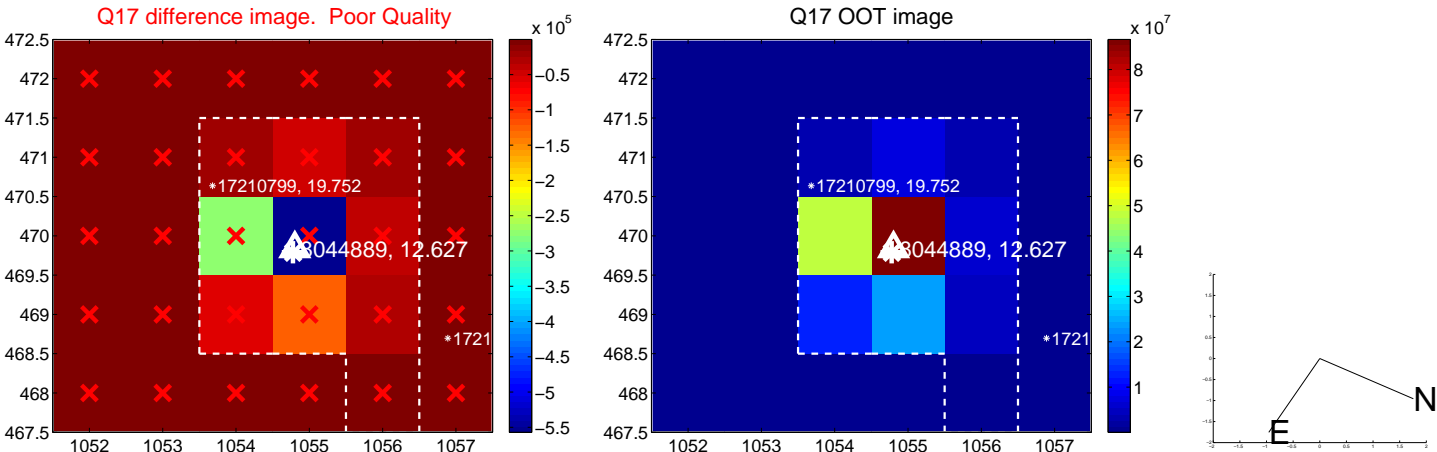
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UKIRT Image

Declination

