

KIC 009706169

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})
009706169-01	OBS	No	455.169942	188.718072	242.2	13.040	8.2	4.6	0.99	5993	1.61	0.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009706169-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

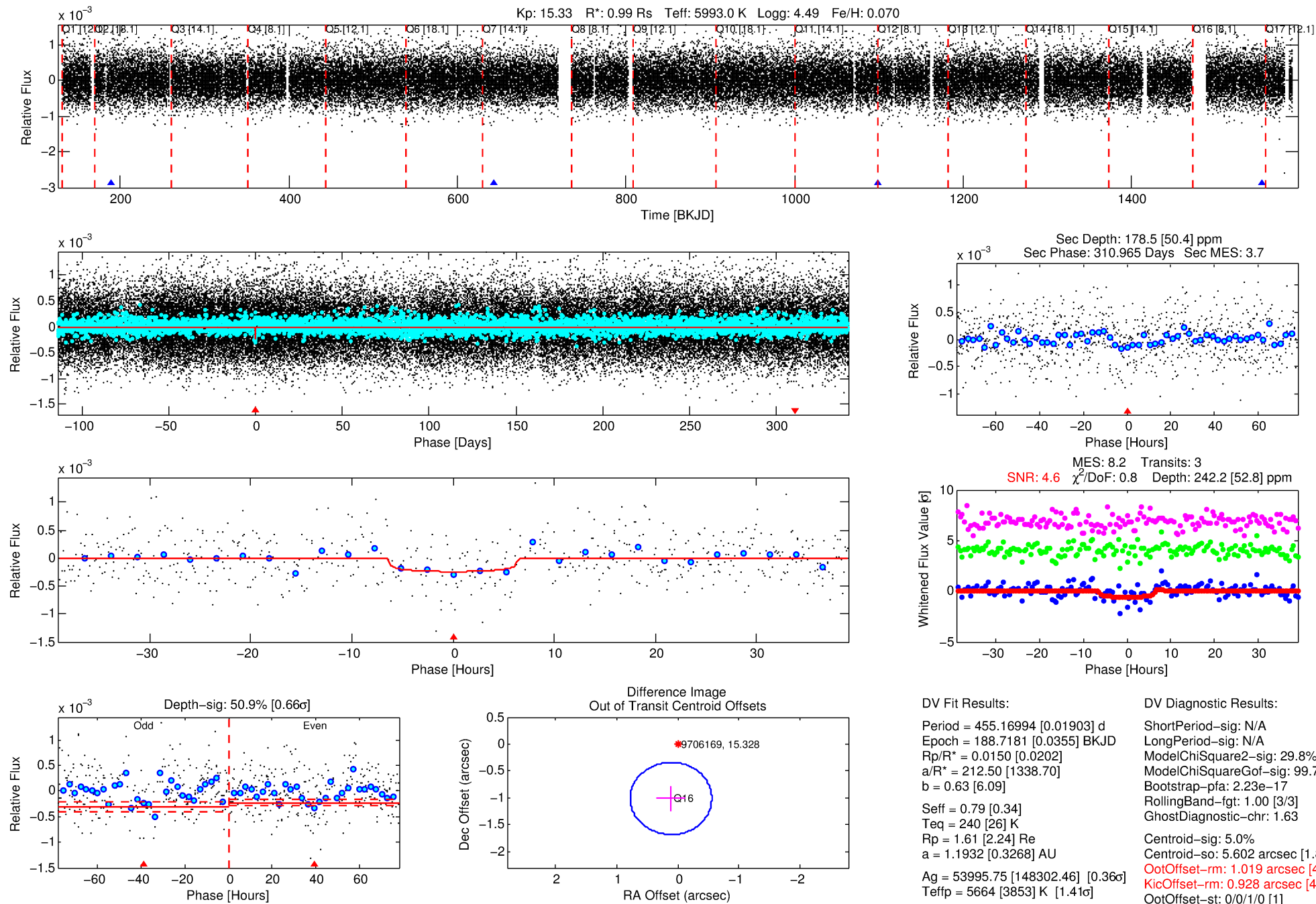
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009706169-01

No Significant Match Found

DV One-Page Summary

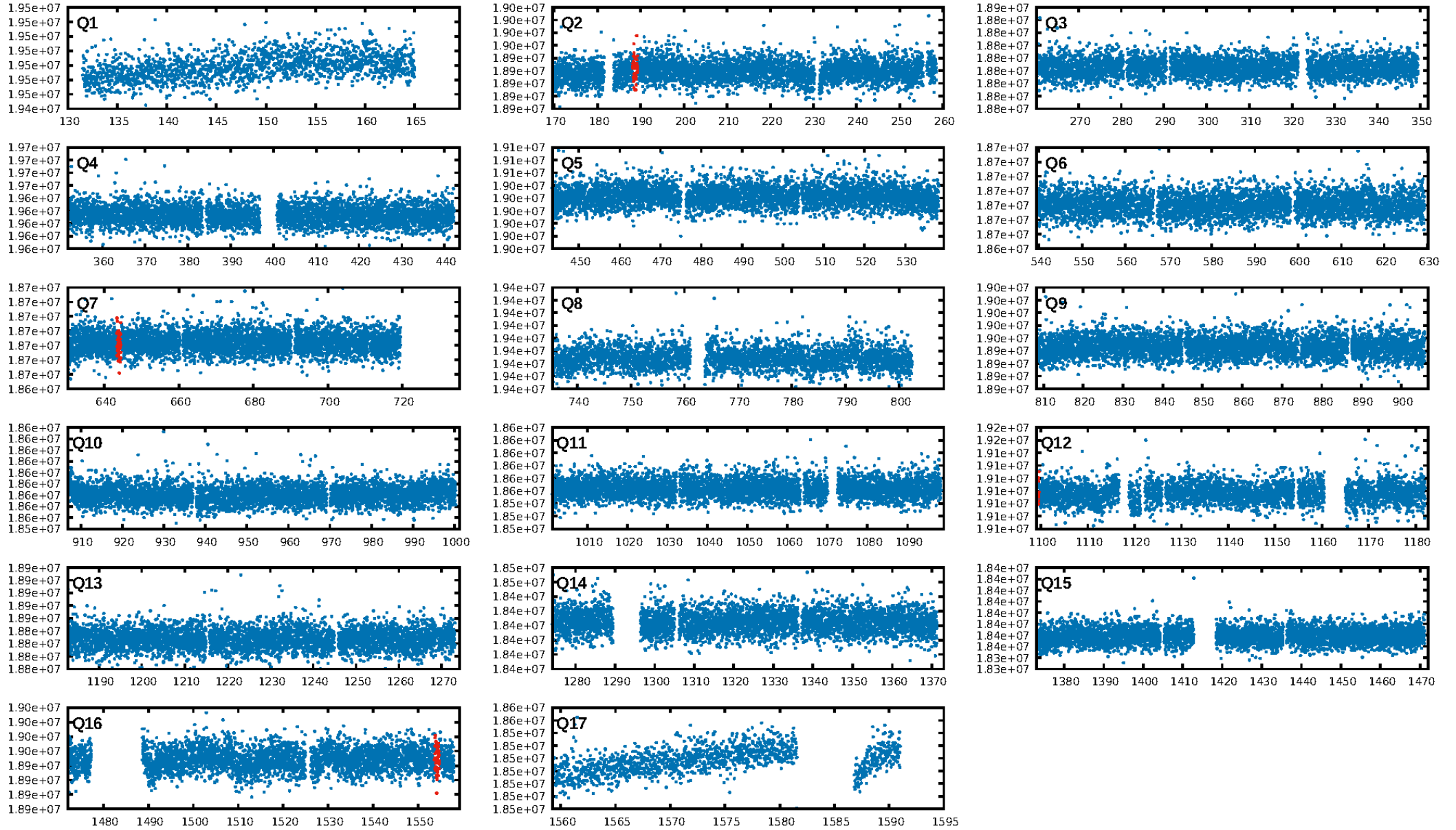
KIC: 9706169 Candidate: 1 of 1 Period: 455.170 d



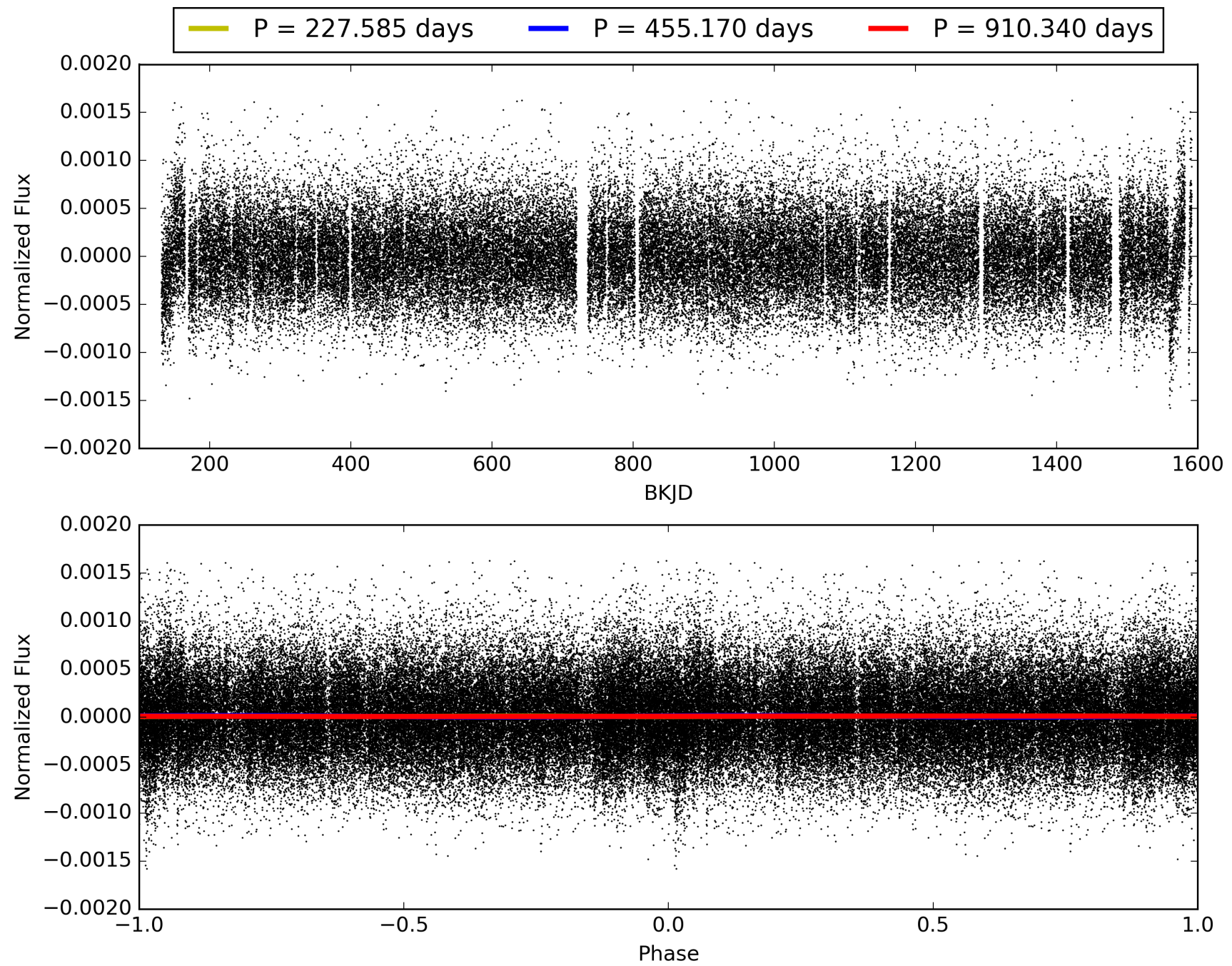
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:52:58 Z

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

TCE 009706169-01, PDC Light Curves

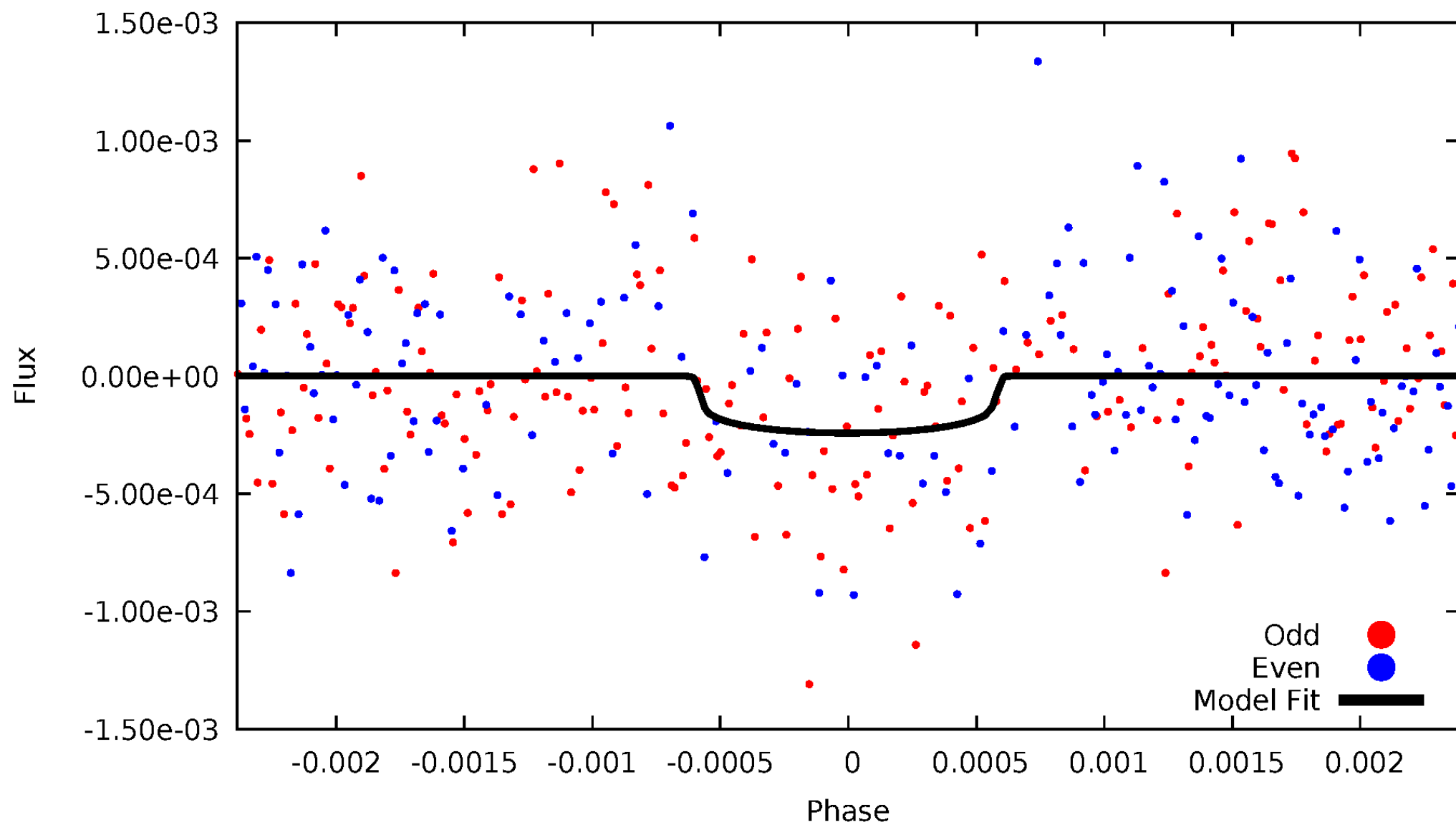


TCE 009706169-01



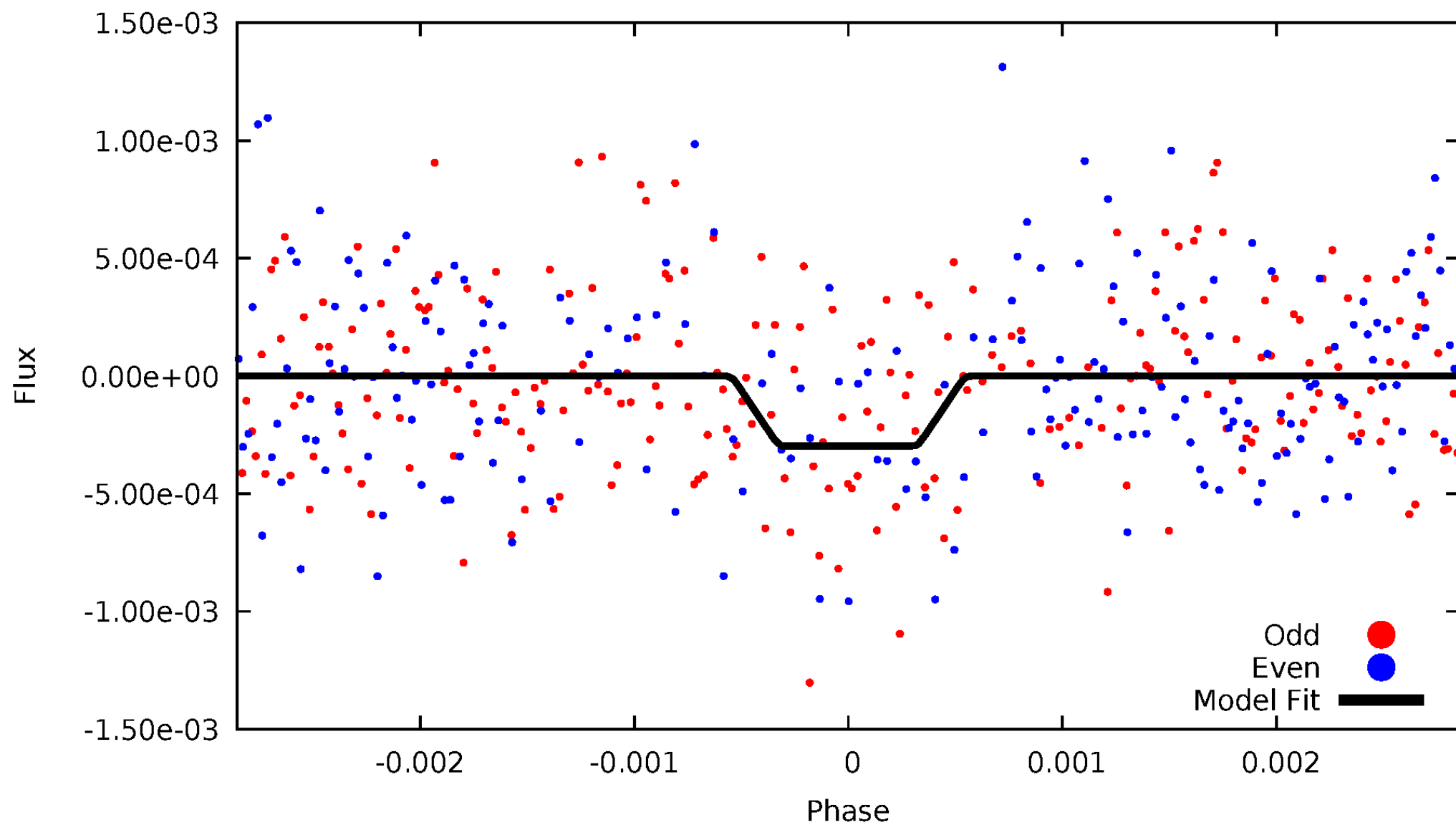
DV Odd/Even

TCE 009706169-01



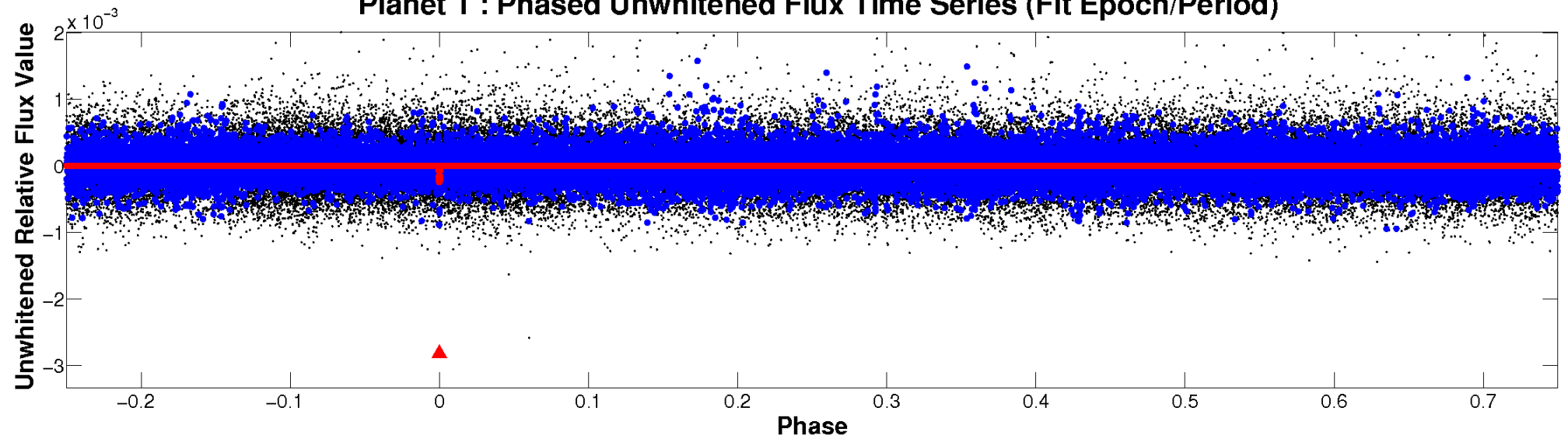
ALT Odd/Even

TCE 009706169-01

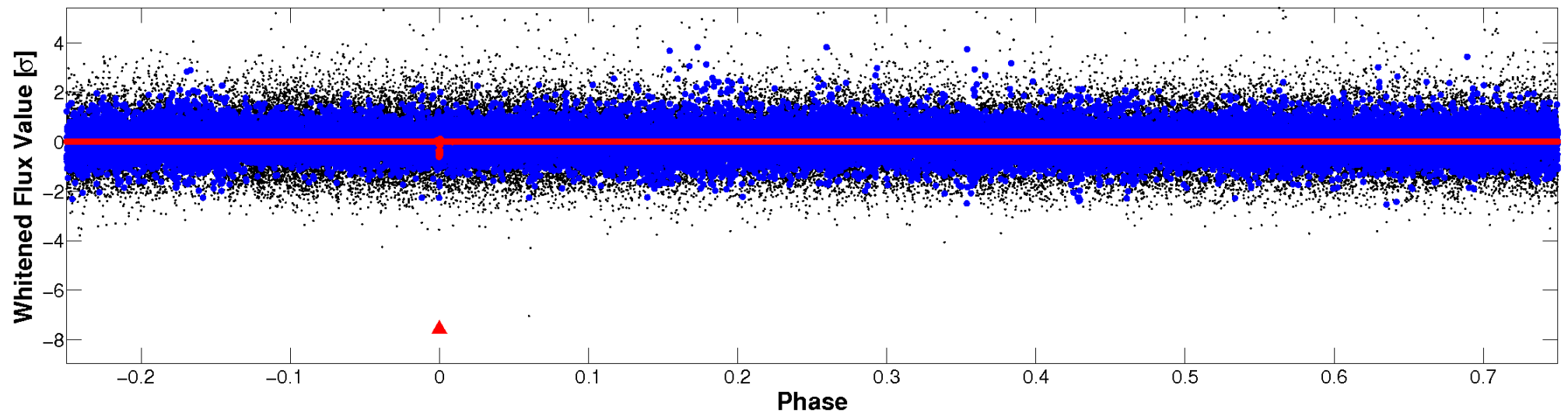


Non-Whitened Vs. Whitened Light Curve

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

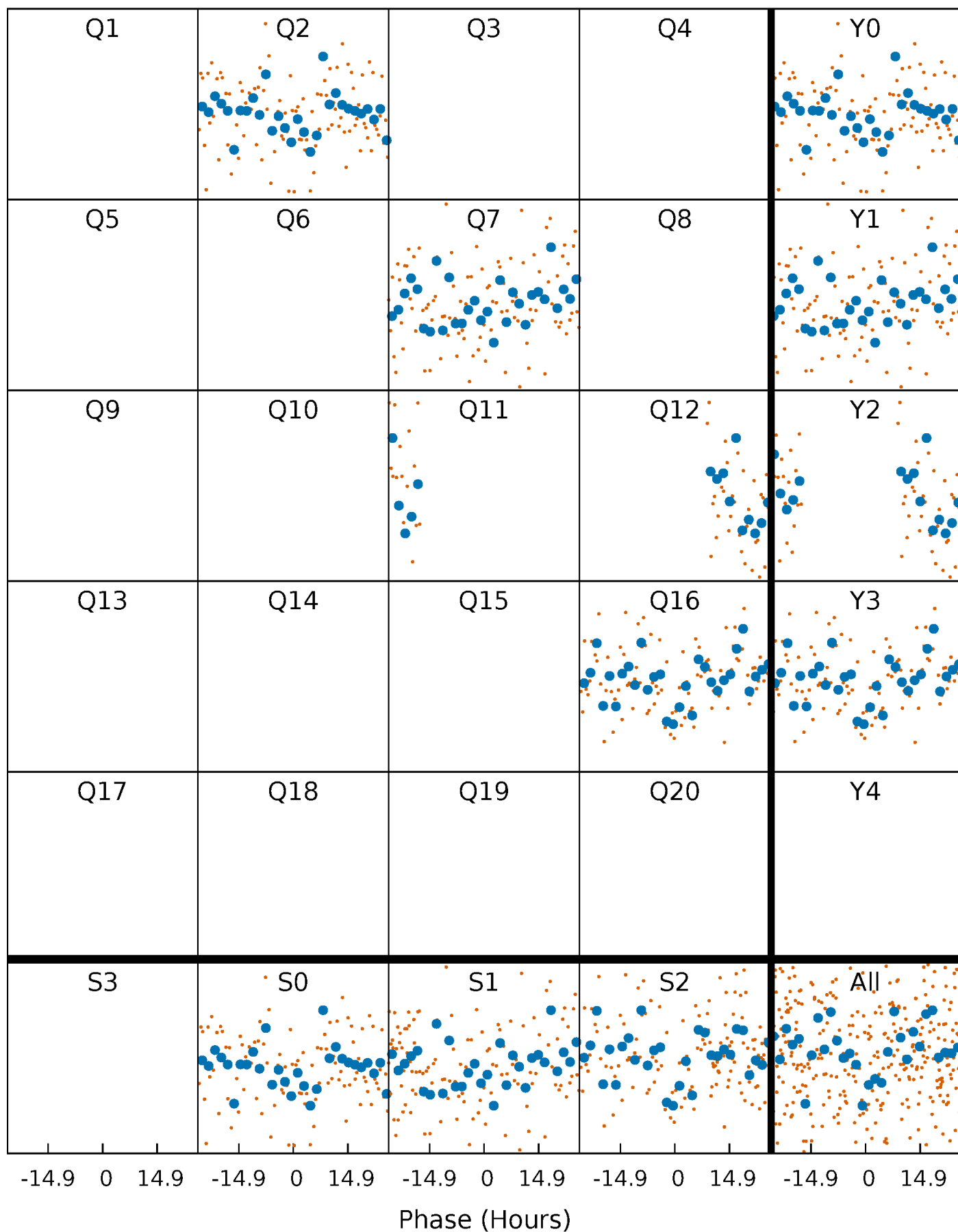


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



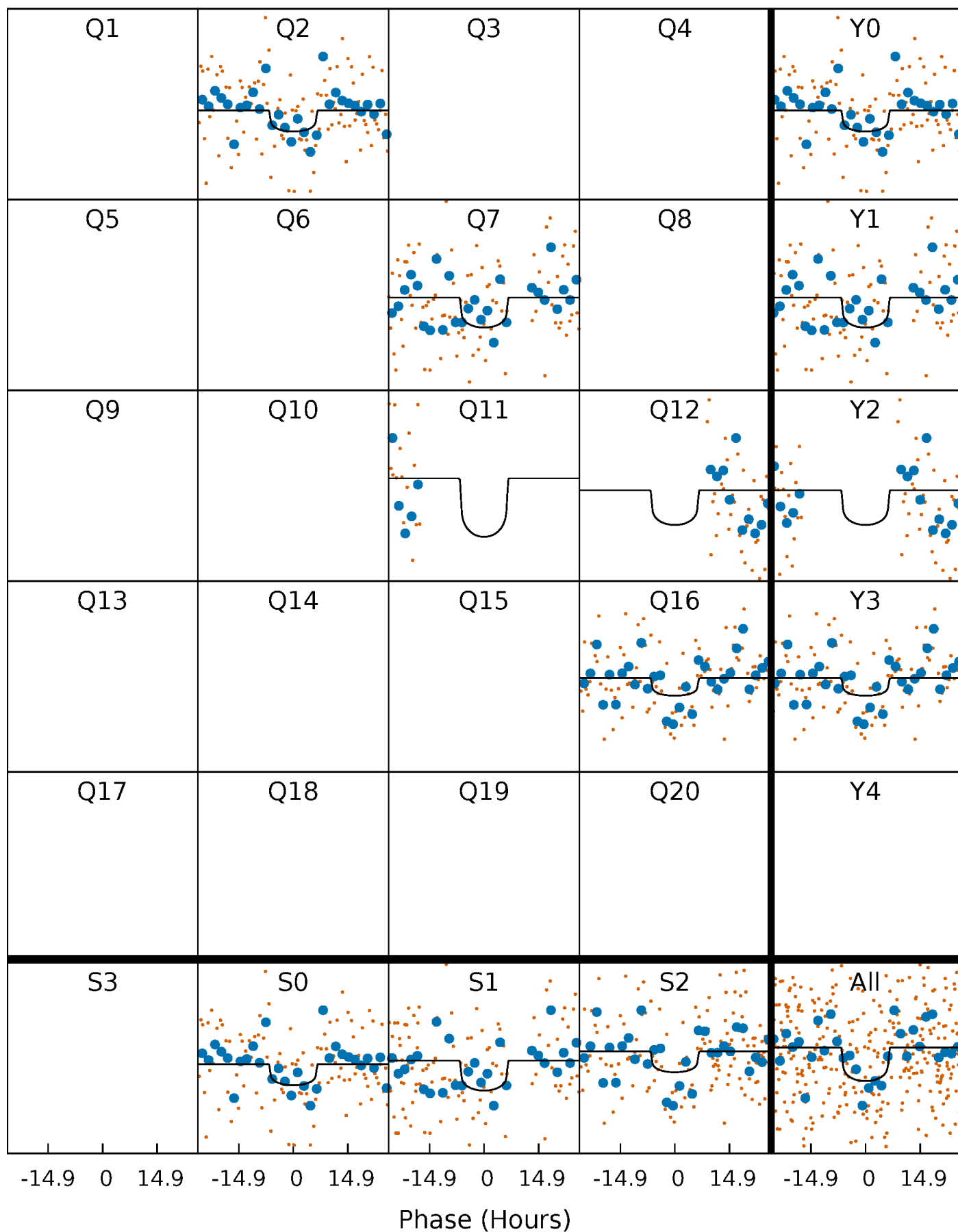
PDC Quarter-Phased Transit Curves

TCE 009706169-01 P=455.169942 Days $T_0=188.718072$ (BKJD)



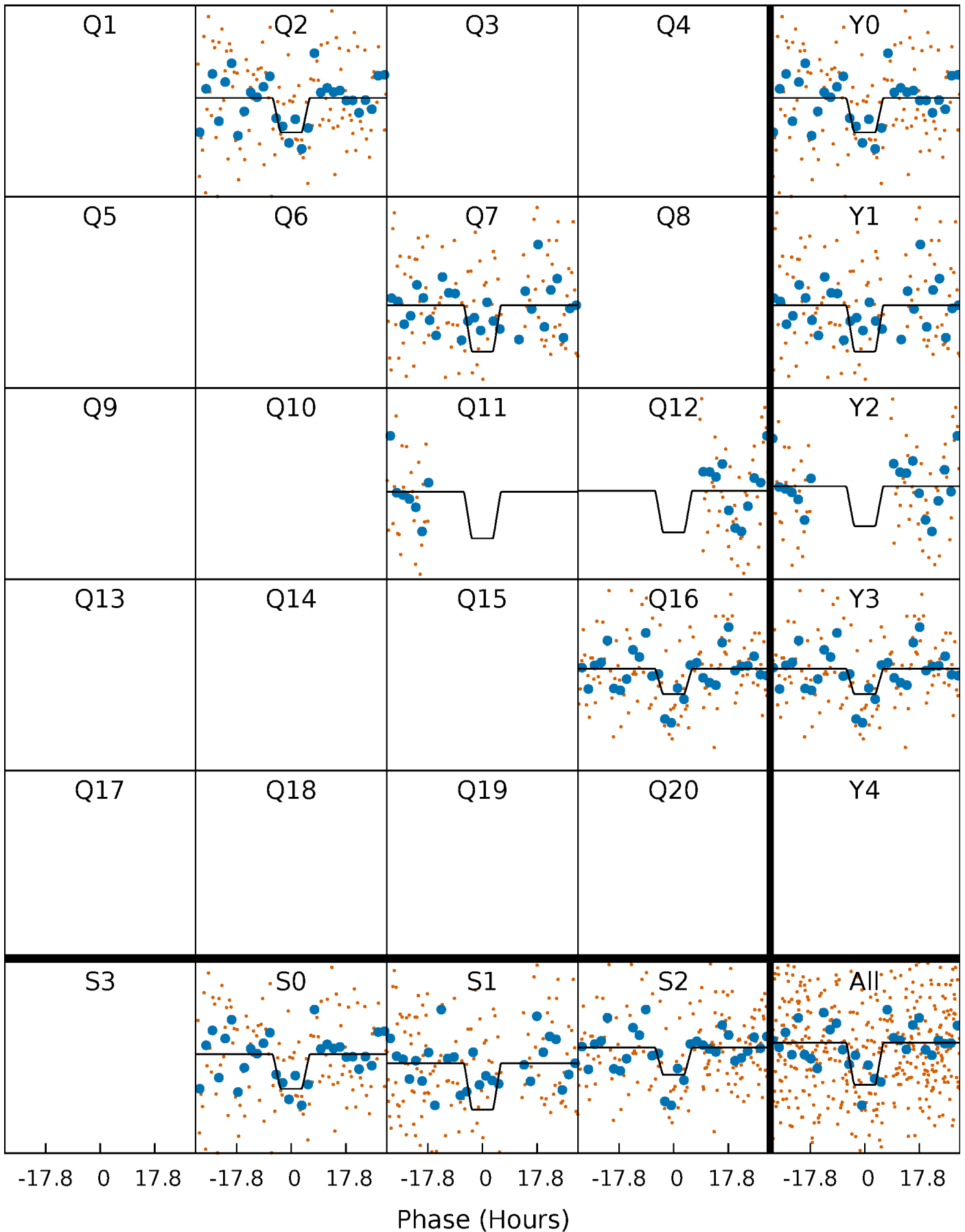
DV Quarter-Phased Transit Curves

TCE 009706169-01 P=455.169942 Days $T_0=188.718072$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

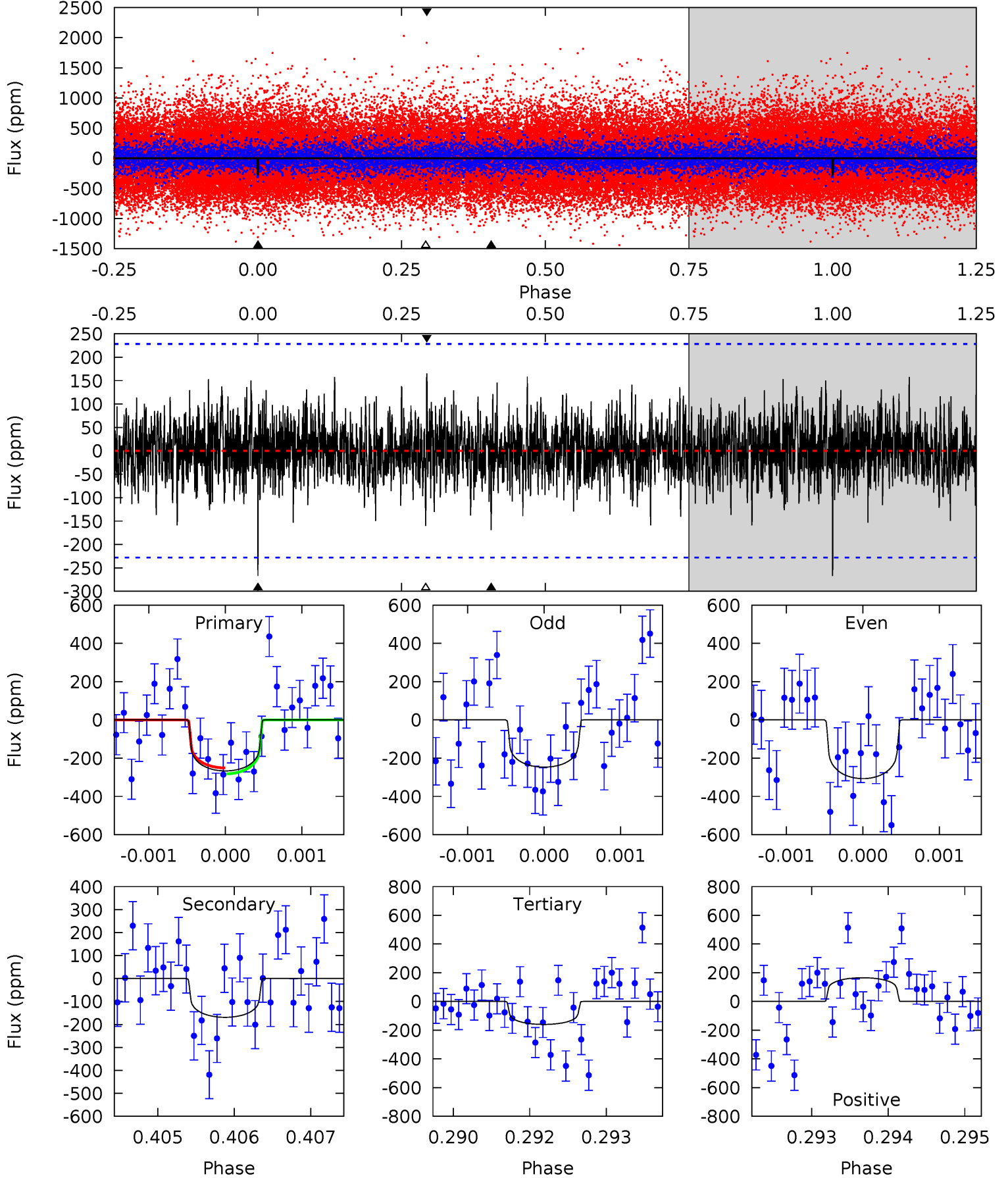
TCE 009706169-01 P=455.171171 Days $T_0=188.727414$ (BKJD)



DV Model-Shift Uniqueness Test

009706169-01, P = 455.169942 Days, E = 188.718072 Days

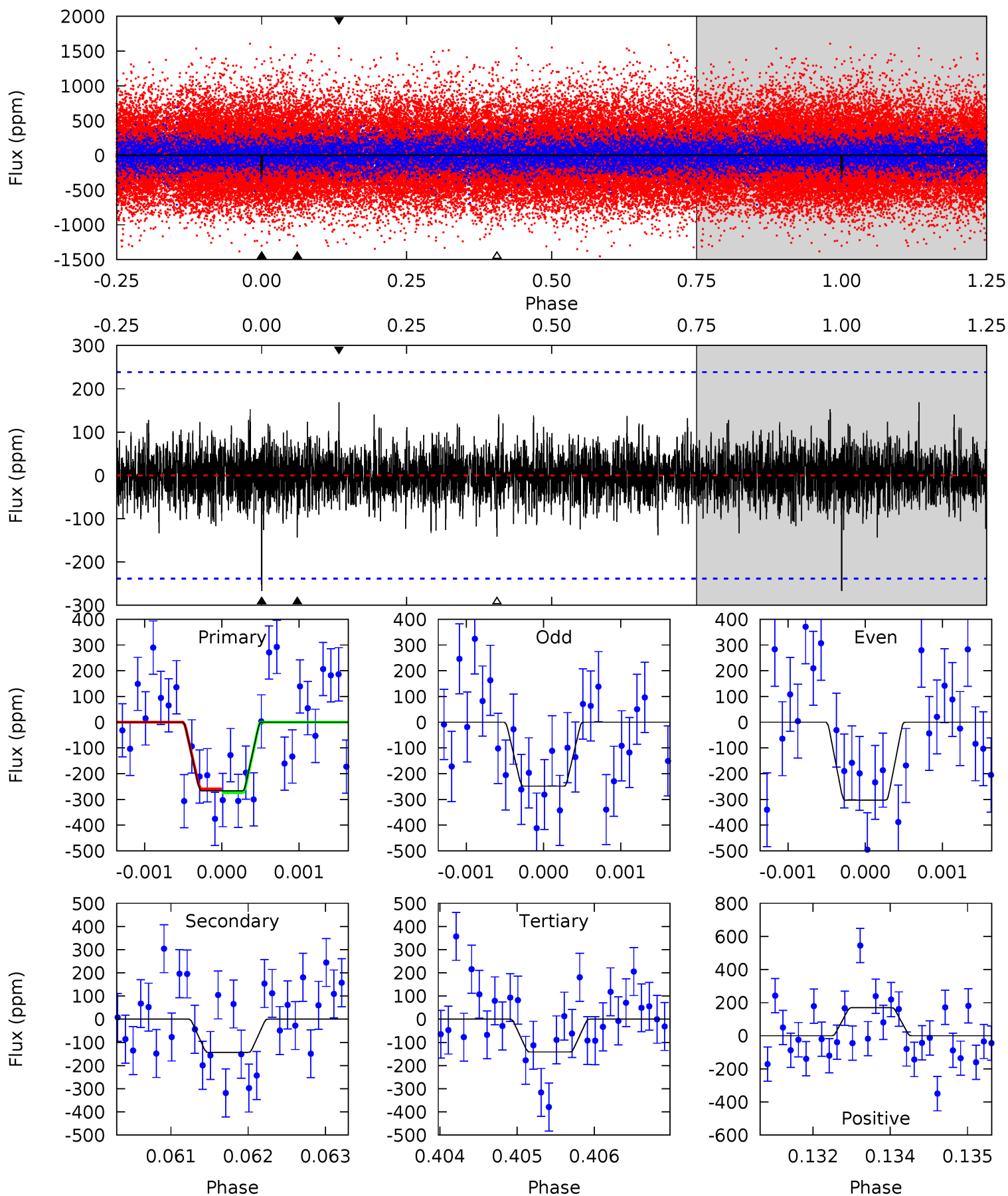
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.33	4.01	3.80	3.92	5.41	3.23	1.10	2.53	2.41	0.21	0.09	0.68	0.87	0.38	0.37



Alt Model-Shift Uniqueness Test

009706169-01, P = 455.171171 Days, E = 188.727414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.07	3.26	3.22	3.85	5.43	3.26	0.93	2.85	2.23	0.04	-0.59	0.58	0.89	0.39	0.16



Stellar Parameters For KIC 009706169

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5993^{+169}_{-211}	$4.489^{+0.039}_{-0.221}$	$0.070^{+0.250}_{-0.300}$	$0.986^{+0.318}_{-0.106}$	$1.093^{+0.134}_{-0.147}$	$1.607^{+0.355}_{-0.887}$
	+3%/-4%	+1%/-5%	+357%/-429%	+32%/-11%	+12%/-13%	+22%/-55%
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 009706169-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-169 ± 42	$2.27^{+2.06}_{-1.54}$	345^{+23}_{-18}	4923^{+3843}_{-1072}	$25553^{+212702}_{-18841}$
Alt.	-143 ± 44	$2.50^{+2.14}_{-1.66}$	347^{+24}_{-17}	4625^{+3245}_{-973}	$17102^{+141963}_{-12436}$

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

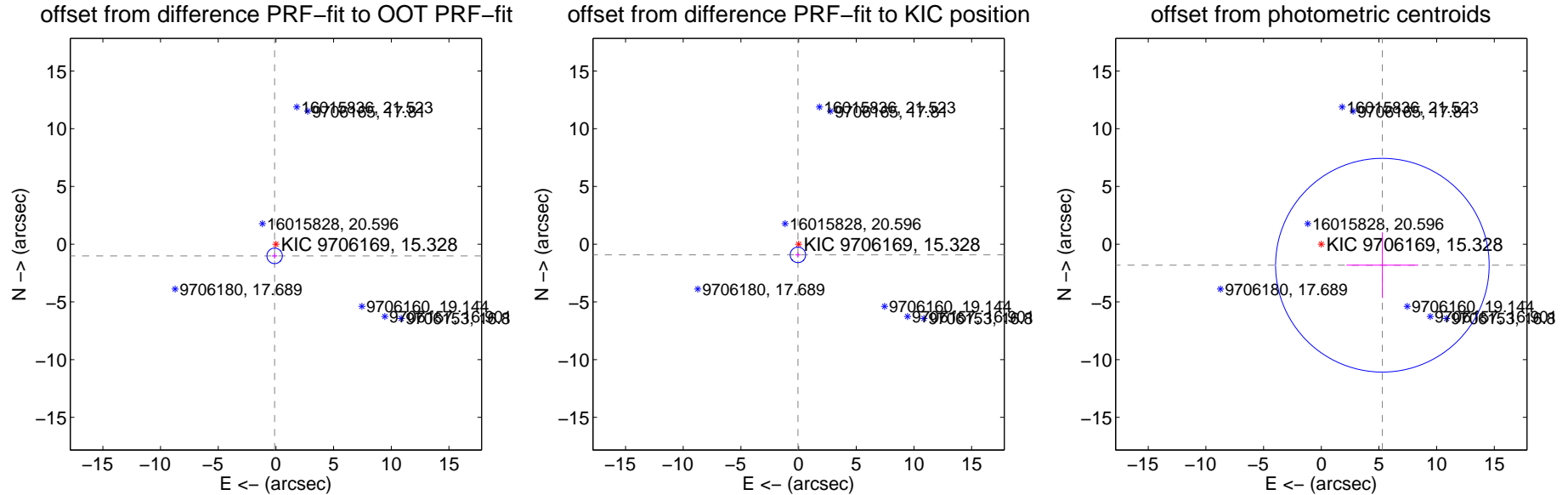
DV Centroid Data

Supplemental centroid analysis for 009706169-01. Kepler magnitude: 15.33. Transit SNR 4.57

There are 1 quarters with good PRF difference image offsets

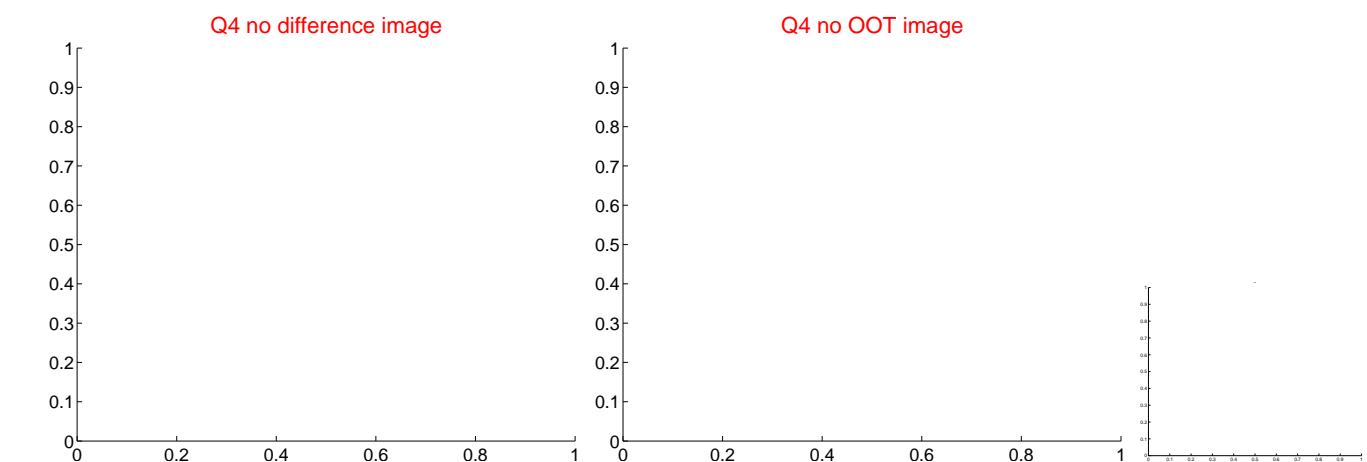
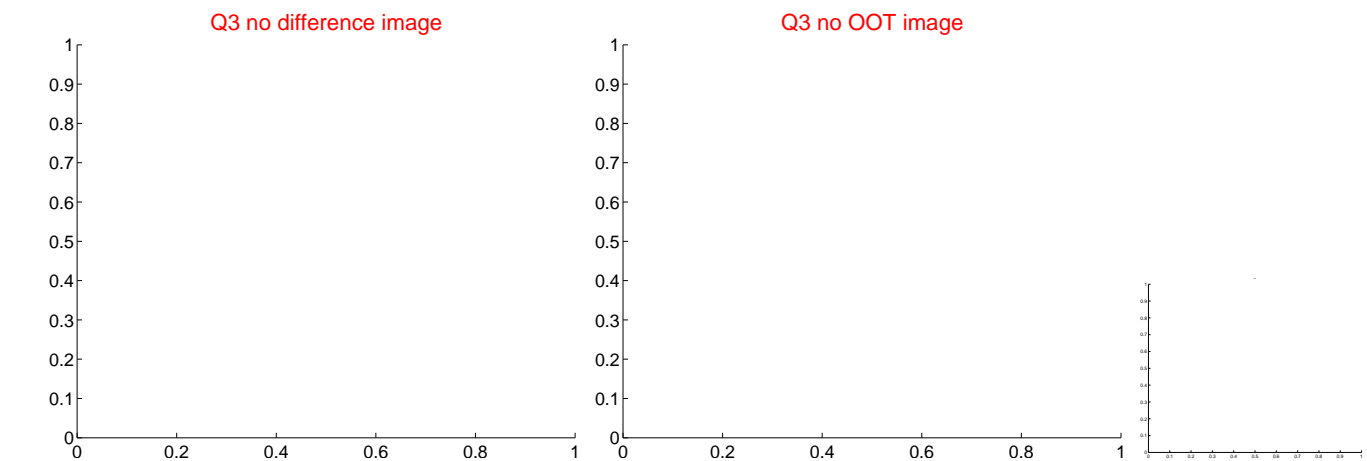
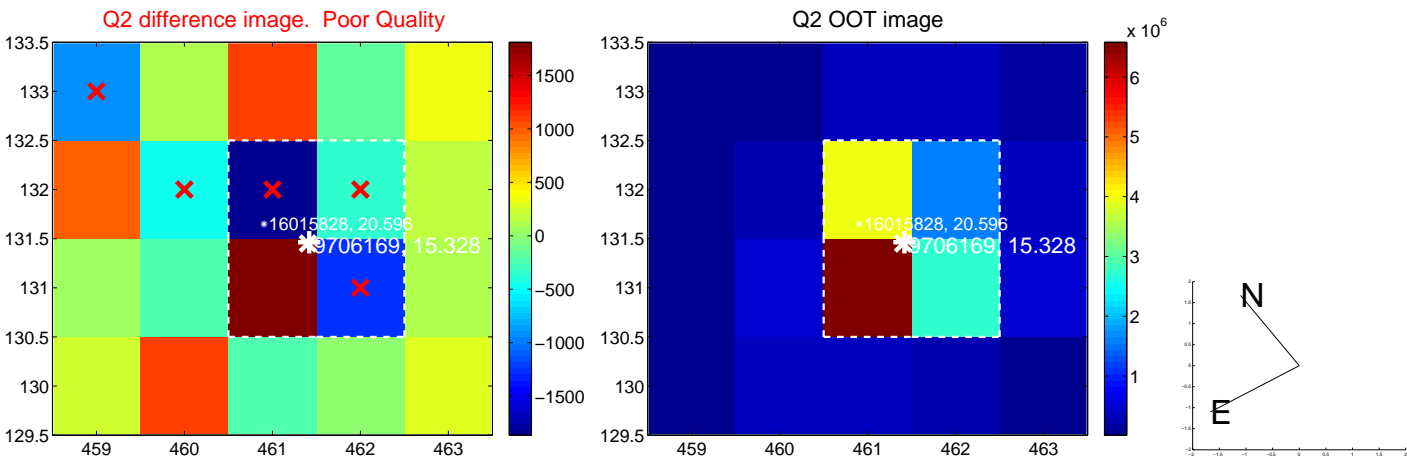
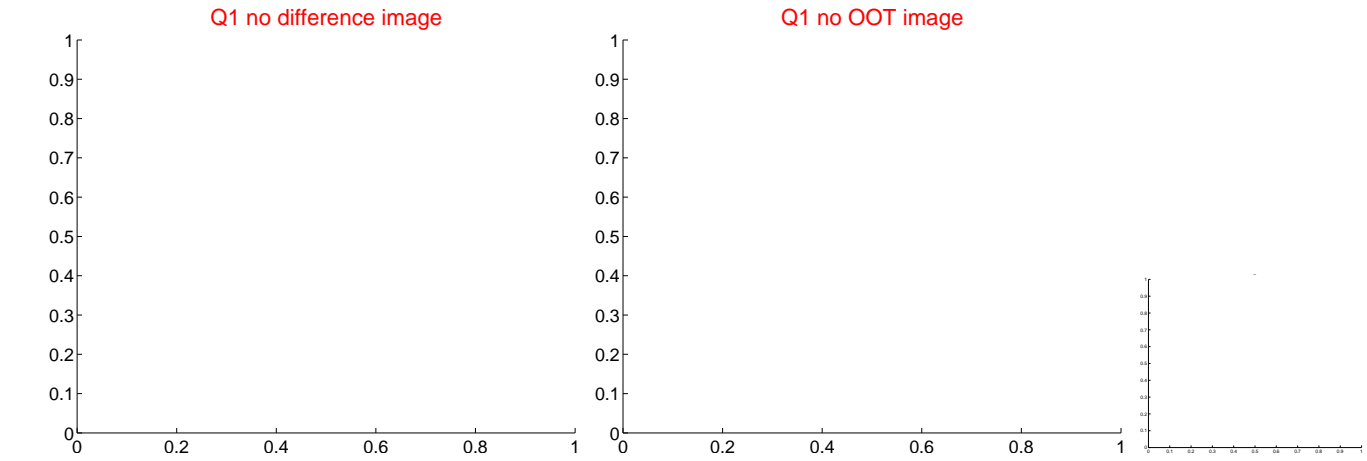
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.019 ± 0.223	4.56	0.111 ± 0.225	-1.013 ± 0.223
PRF-fit source offset from KIC position	0.928 ± 0.223	4.15	0.058 ± 0.225	-0.926 ± 0.223
photometric centroid source offset	5.60 ± 3.09	1.82	-5.30 ± 3.11	-1.82 ± 2.84



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.



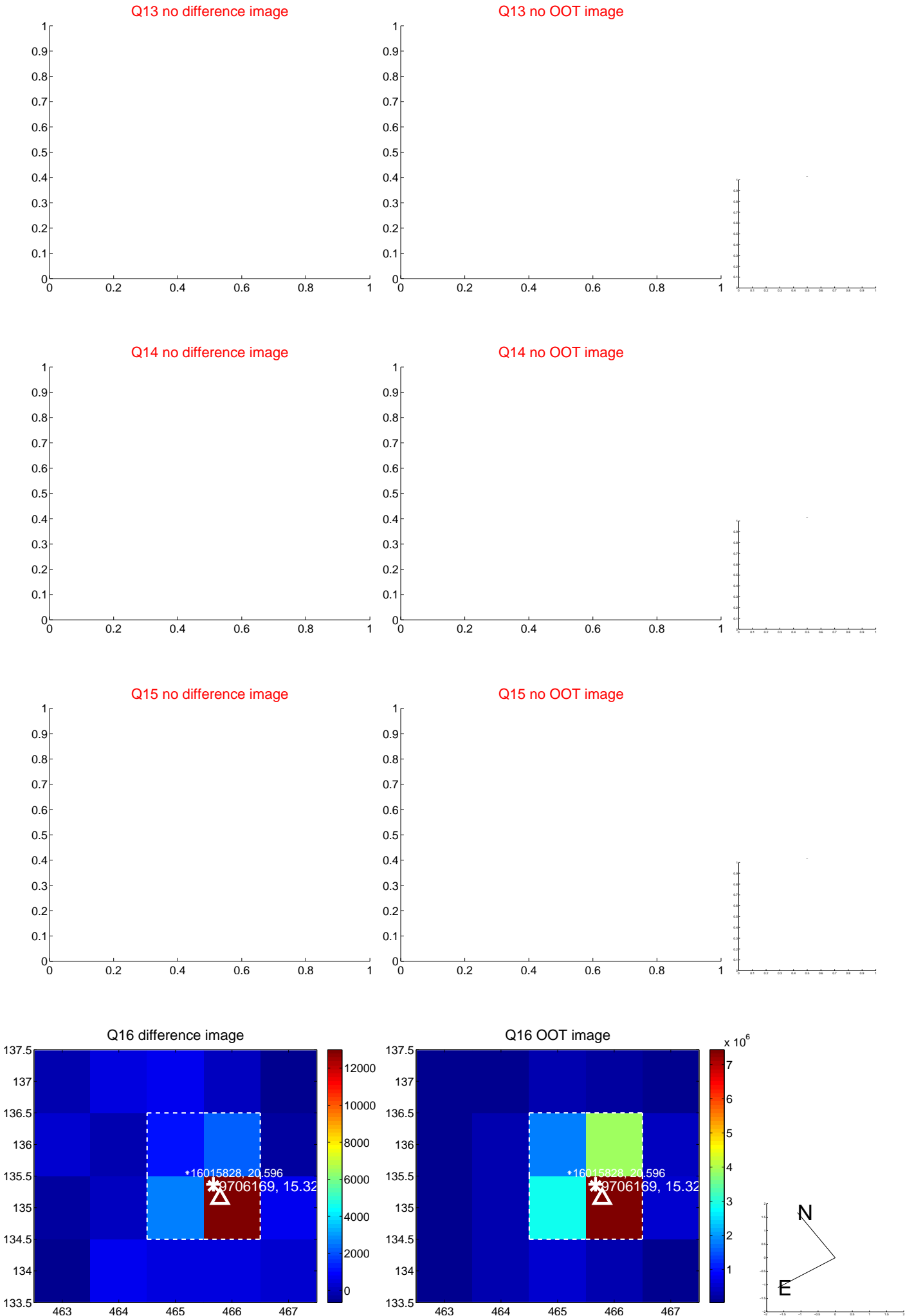
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



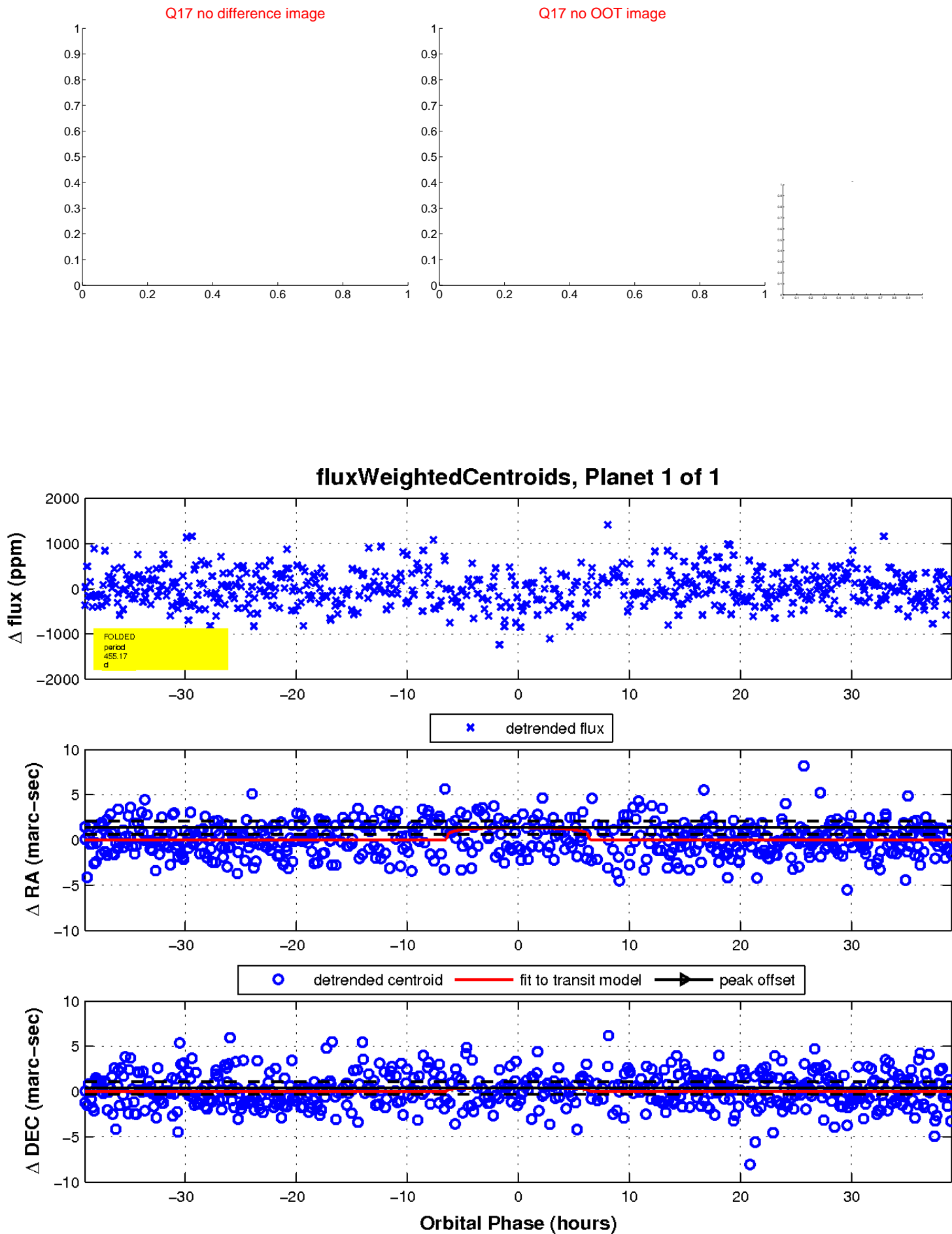
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

