

KIC 008557469

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})
008557469-01	OBS	No	374.854279	132.756587	1561.8	73.899	11.5	20.2	1.02	6000	7.49	1.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008557469-01	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH

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.

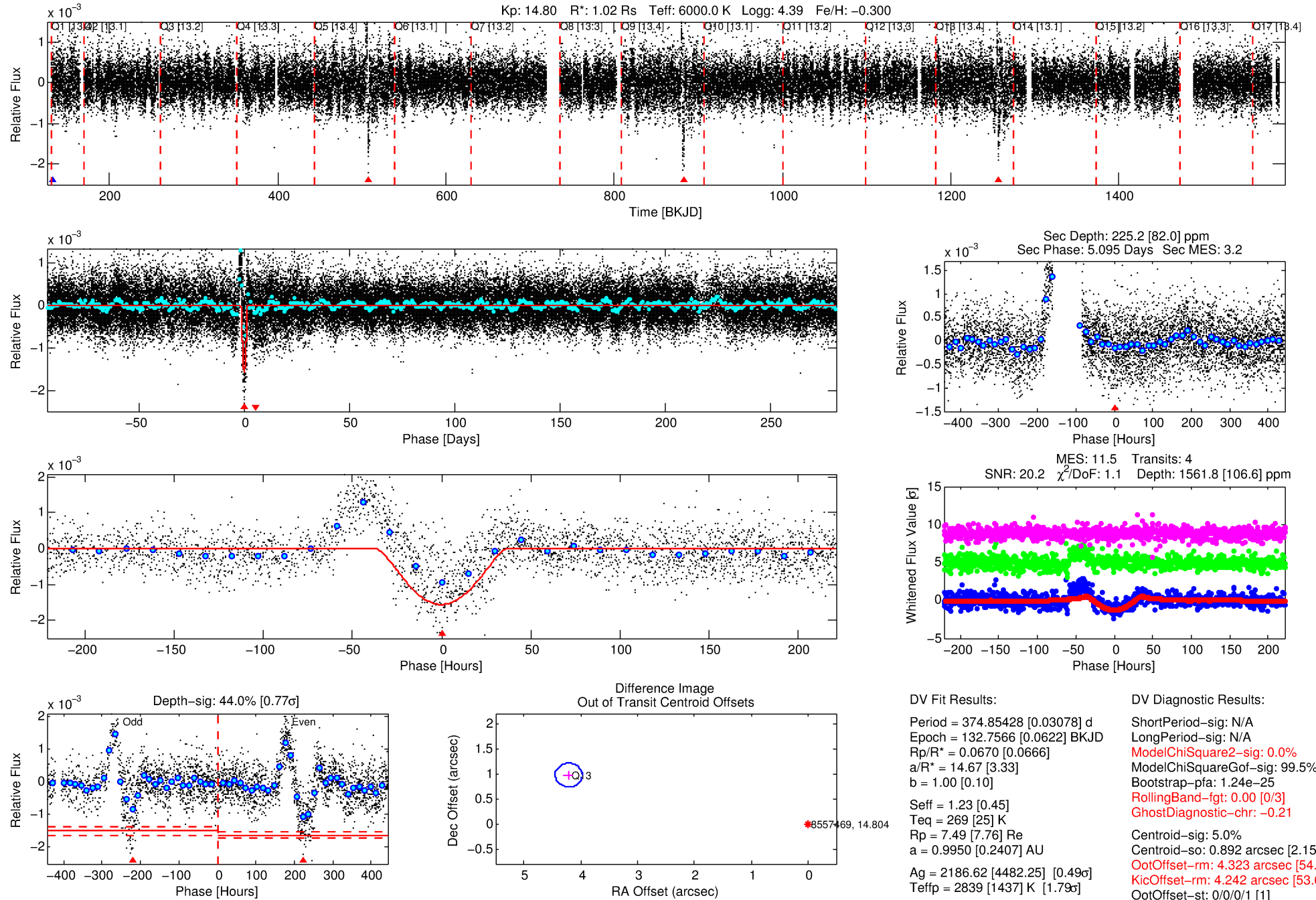
Ephemeris Match Information For 008557469-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (\prime)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008557469-01	8557469	008557304-01	8557304	1:1	163.9	-41	-1	15.94	14.81	1.86	Col-Anomaly	1	2.49	0.30

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

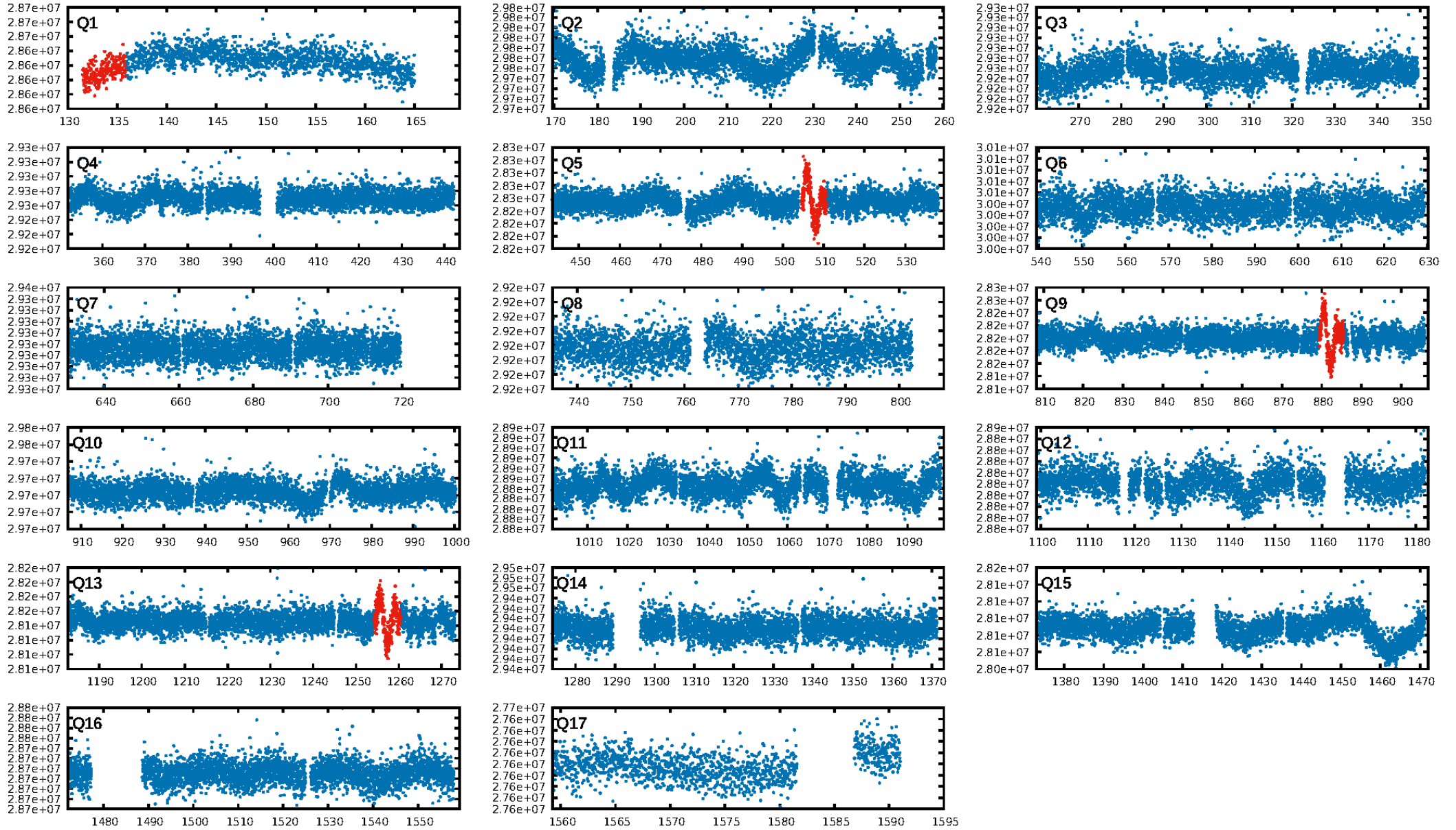
KIC: 8557469 Candidate: 1 of 1 Period: 374.854 d



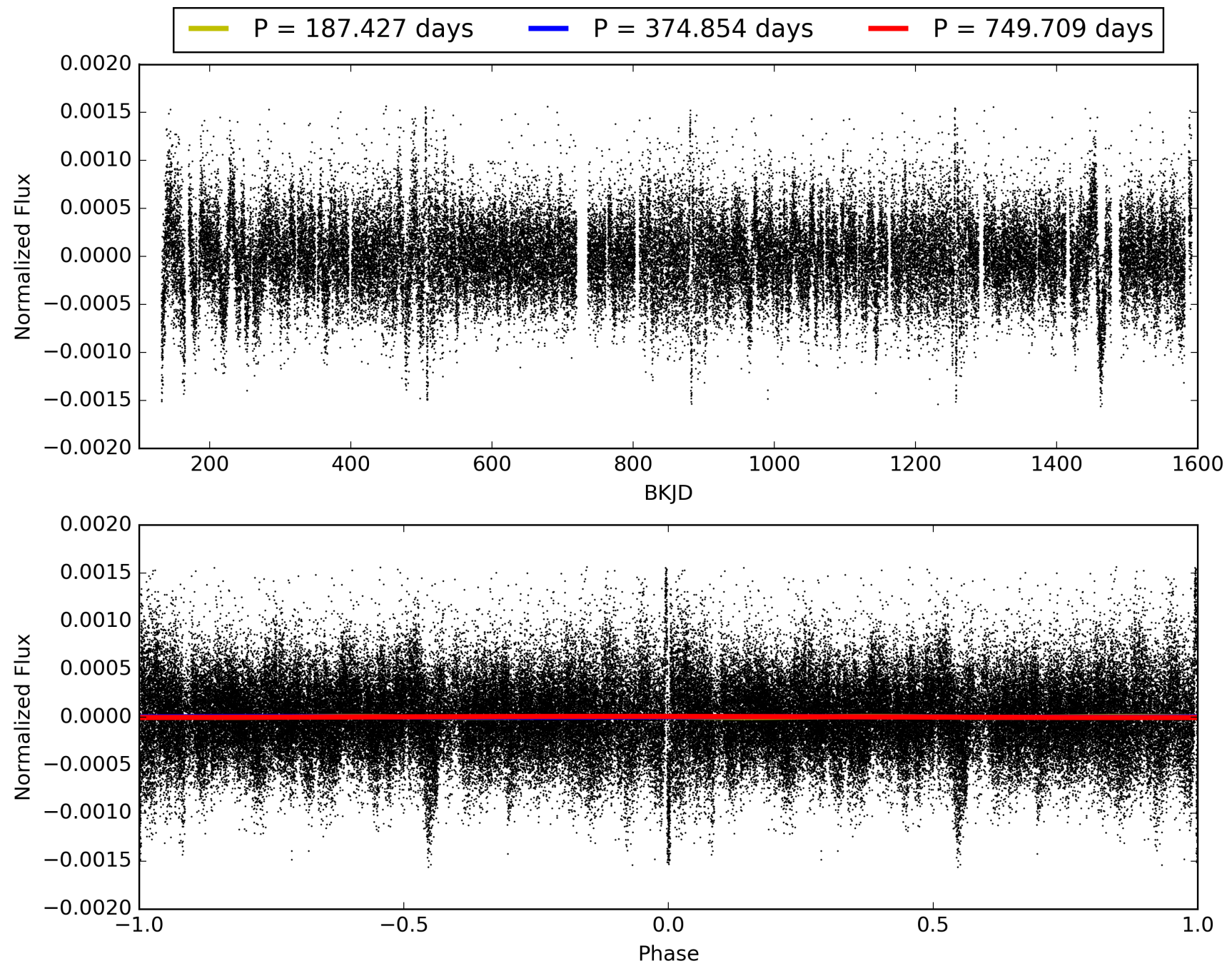
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:11:28 Z

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

TCE 008557469-01, PDC Light Curves

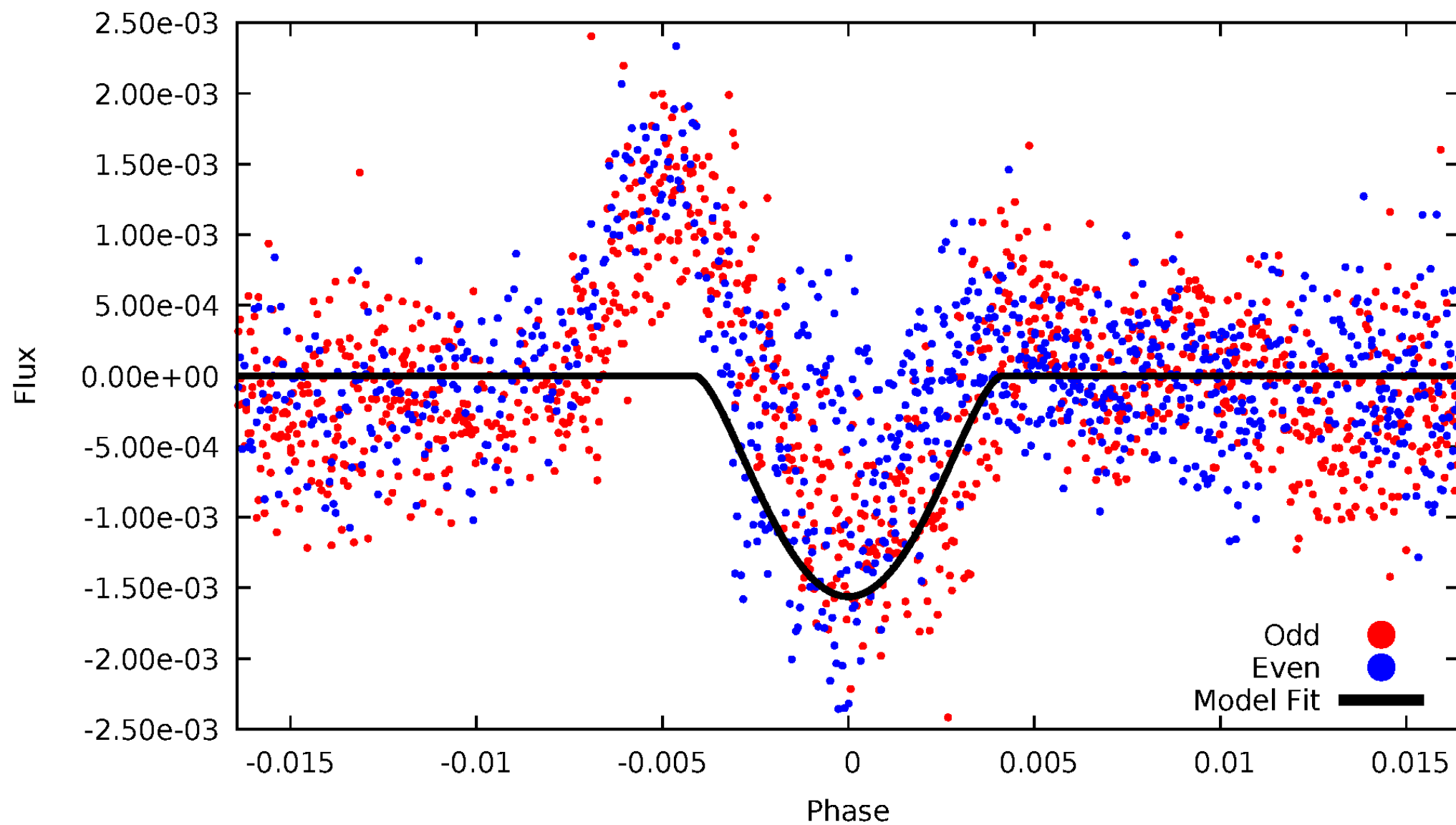


TCE 008557469-01



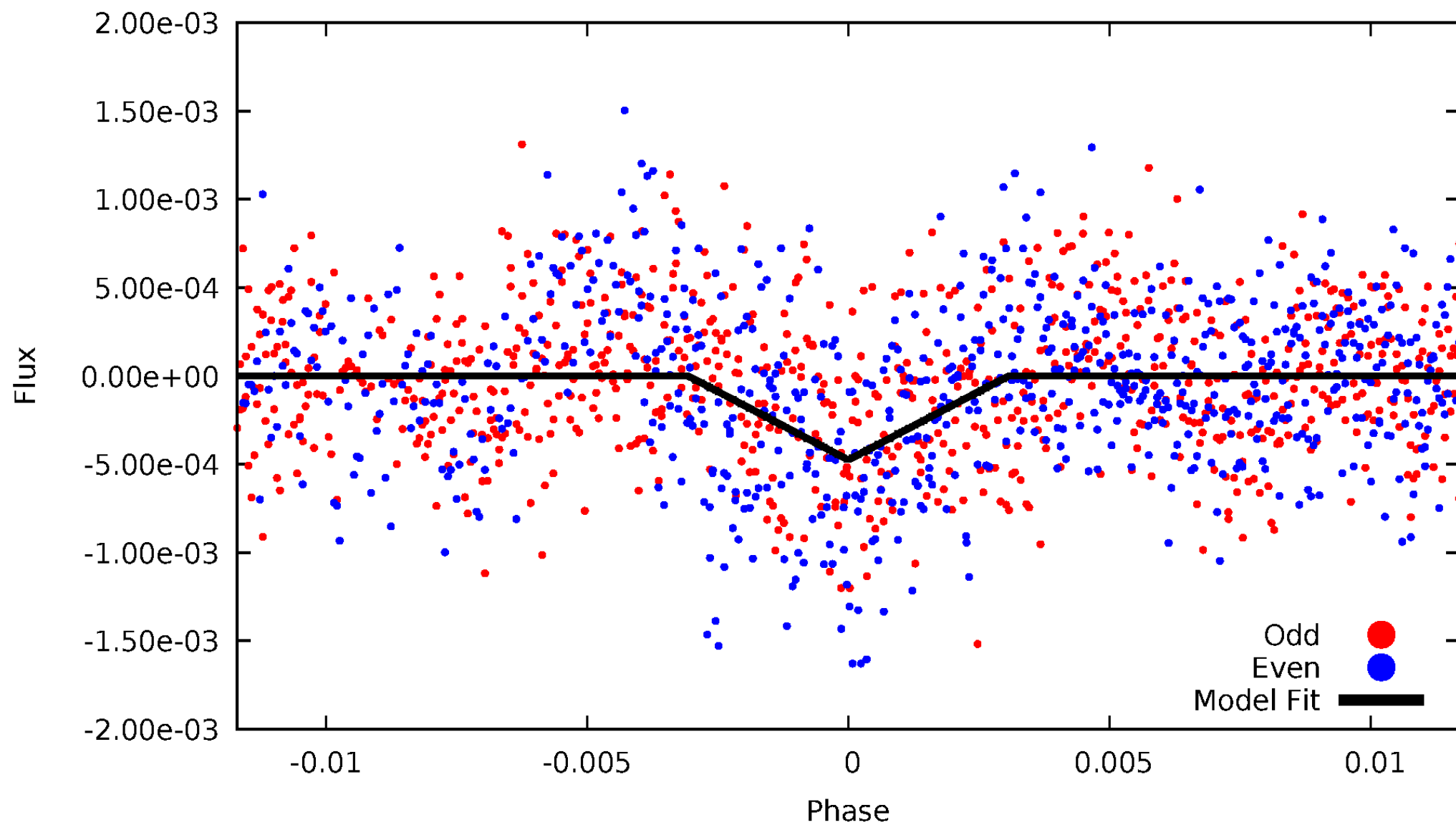
DV Odd/Even

TCE 008557469-01



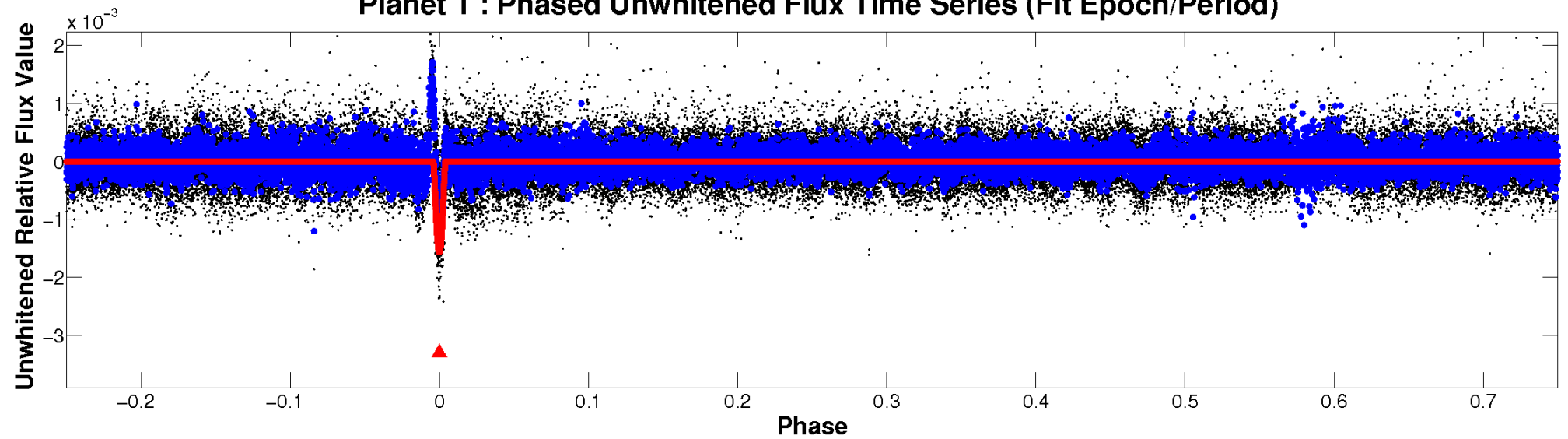
ALT Odd/Even

TCE 008557469-01

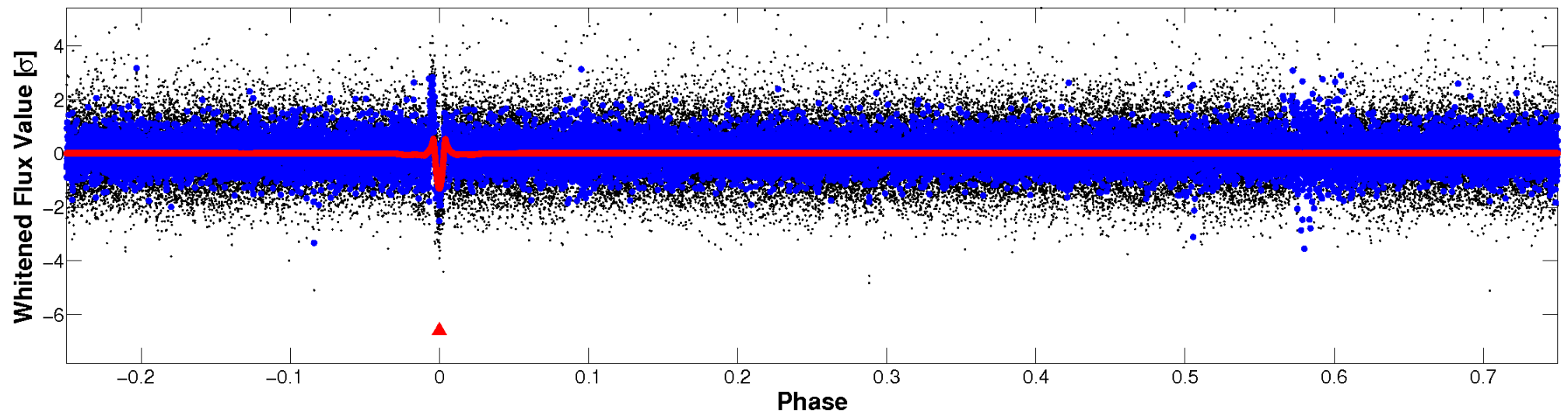


Non-Whitened Vs. Whitened Light Curve

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

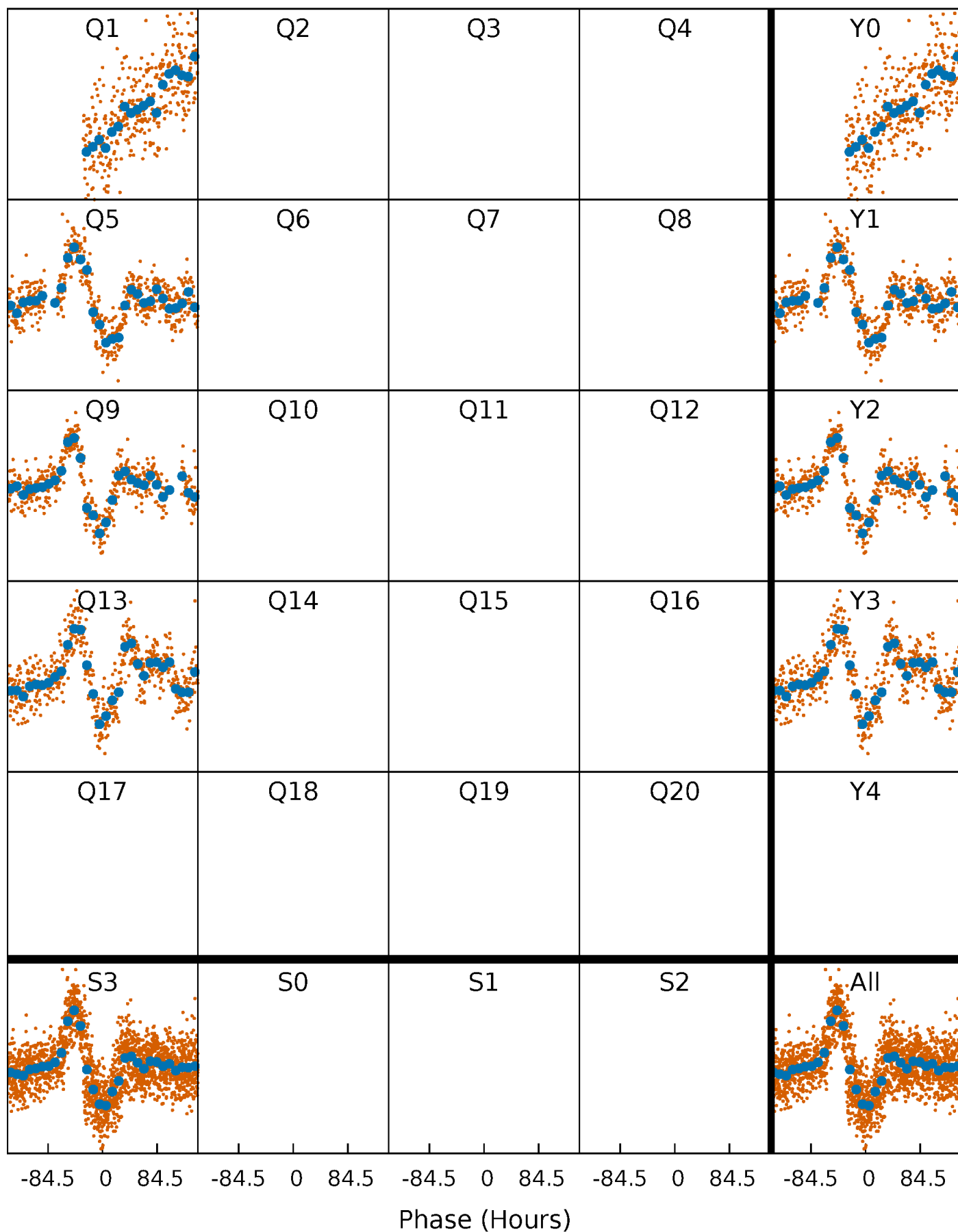


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



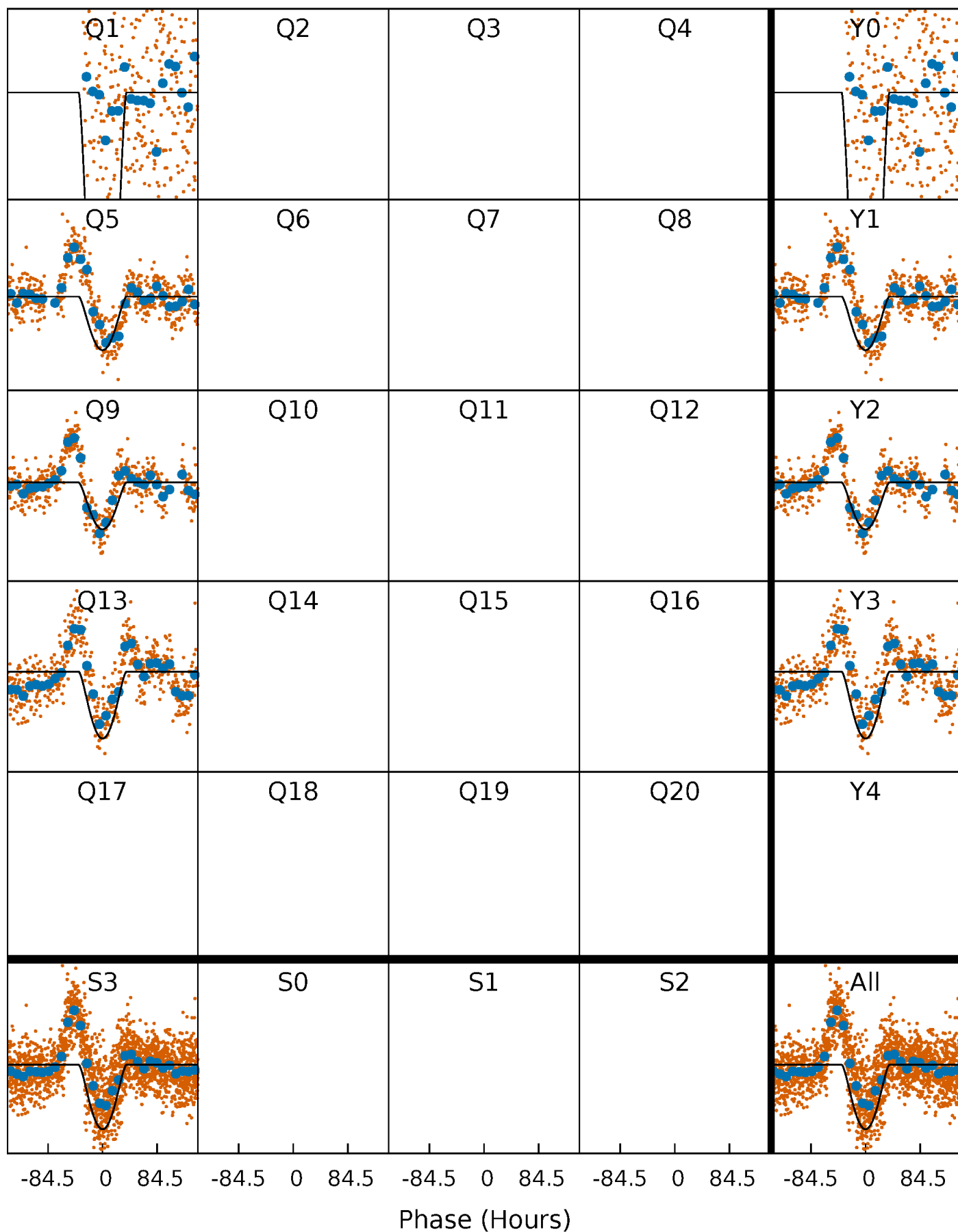
PDC Quarter-Phased Transit Curves

TCE 008557469-01 P=374.854279 Days $T_0=132.756587$ (BKJD)



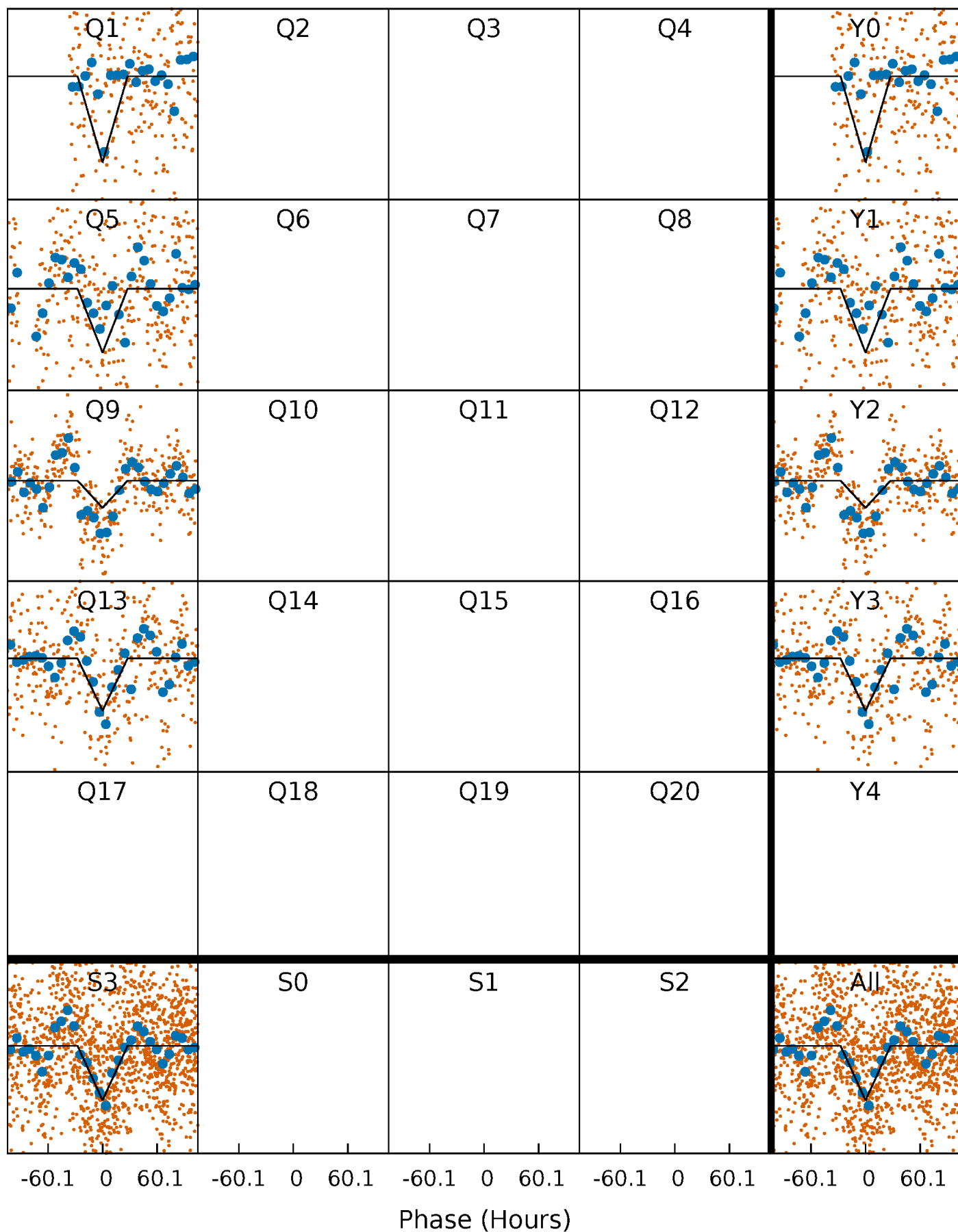
DV Quarter-Phased Transit Curves

TCE 008557469-01 P=374.854279 Days $T_0=132.756587$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

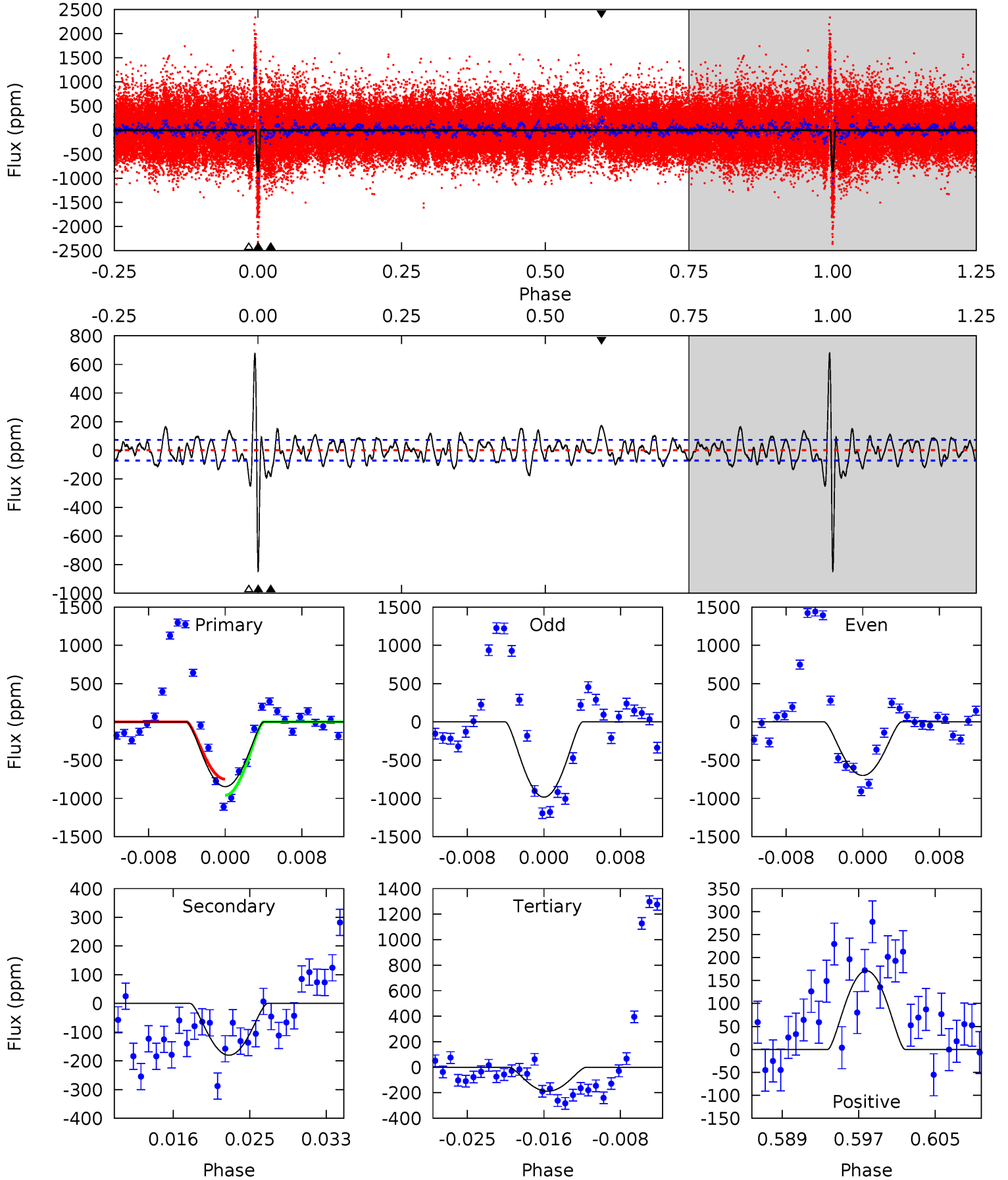
TCE 008557469-01 P=374.649323 Days $T_0=133.037306$ (BKJD)



DV Model-Shift Uniqueness Test

008557469-01, P = 374.854279 Days, E = 132.756587 Days

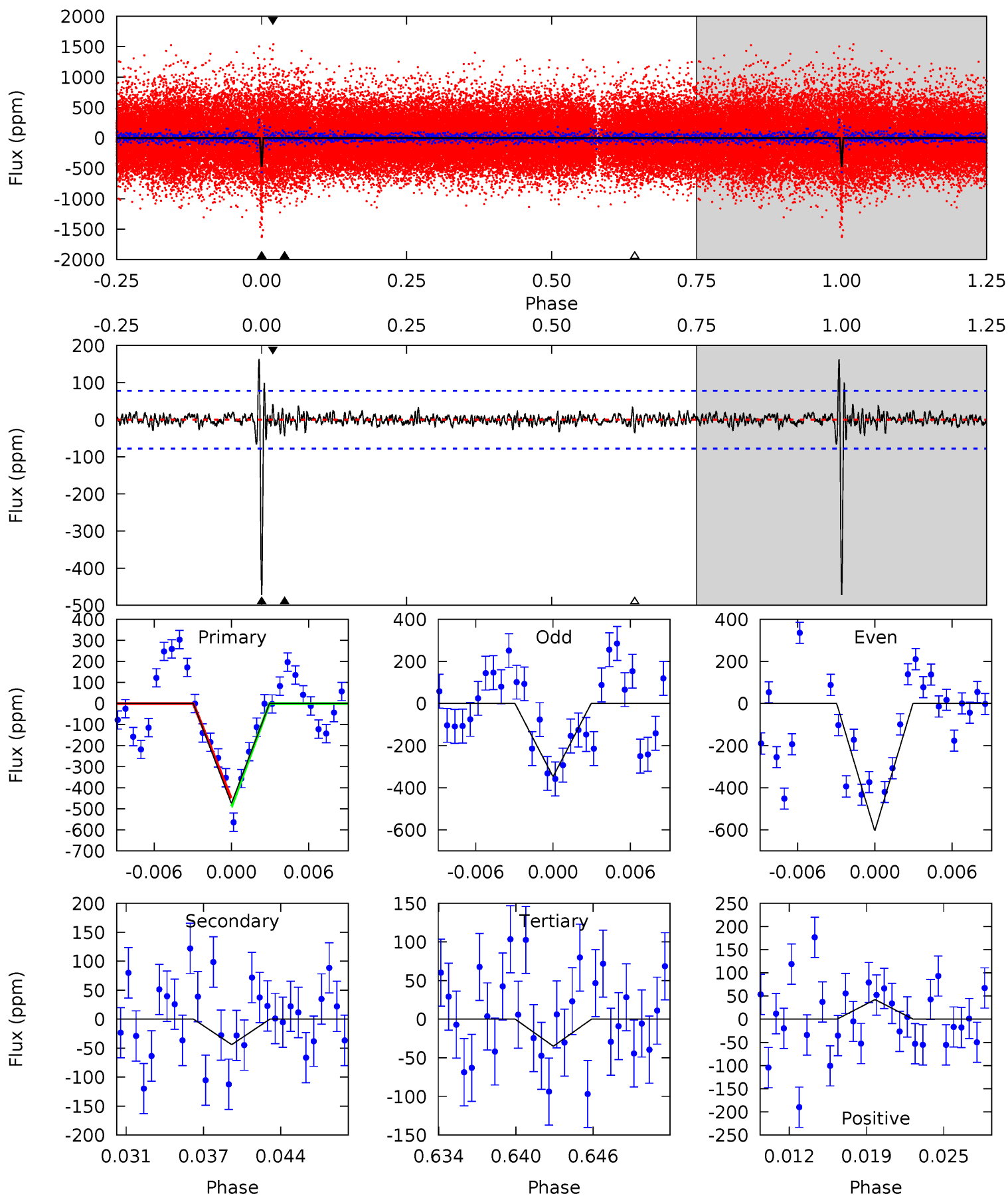
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.7	12.5	13.0	11.9	5.06	2.64	4.55	45.7	46.8	-0.52	0.64	9.91	0.86	0.45	7.22



Alt Model-Shift Uniqueness Test

008557469-01, P = 374.649323 Days, E = 133.037306 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.0	2.87	2.29	2.77	5.12	2.74	0.70	28.7	28.3	0.58	0.10	8.42	1.37	0.26	1.26



Stellar Parameters For KIC 008557469

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6000^{+163}_{-181}	$4.388^{+0.124}_{-0.186}$	$-0.300^{+0.300}_{-0.300}$	$1.024^{+0.300}_{-0.161}$	$0.934^{+0.132}_{-0.096}$	$1.226^{+0.698}_{-0.595}$
	+3%/-3%	+3%/-4%	+100%/-100%	+29%/-16%	+14%/-10%	+57%/-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 008557469-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-180 ± 14	$9.18^{+6.48}_{-6.37}$	377^{+28}_{-21}	3101^{+1521}_{-434}	1198^{+11812}_{-788}
Alt.	-44 ± 15	$6.26^{+5.75}_{-4.13}$	376^{+26}_{-22}	2794^{+1106}_{-422}	576^{+4390}_{-419}

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 $A_{obs} \gg 1.0$

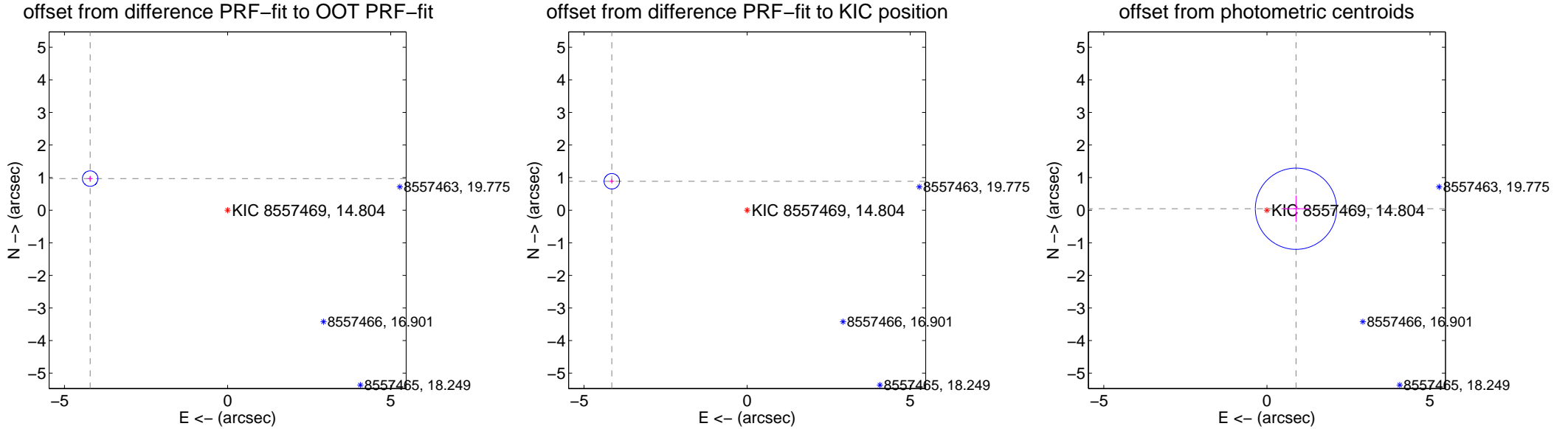
DV Centroid Data

Supplemental centroid analysis for 008557469-01. Kepler magnitude: 14.80. Transit SNR 20.21

There are 0 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	4.323 \pm 0.079	54.67	4.213 \pm 0.079	0.970 \pm 0.079
PRF-fit source offset from KIC position	4.242 \pm 0.079	53.64	4.148 \pm 0.079	0.888 \pm 0.079
photometric centroid source offset	0.89 \pm 0.42	2.15	-0.89 \pm 0.42	0.04 \pm 0.40



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.



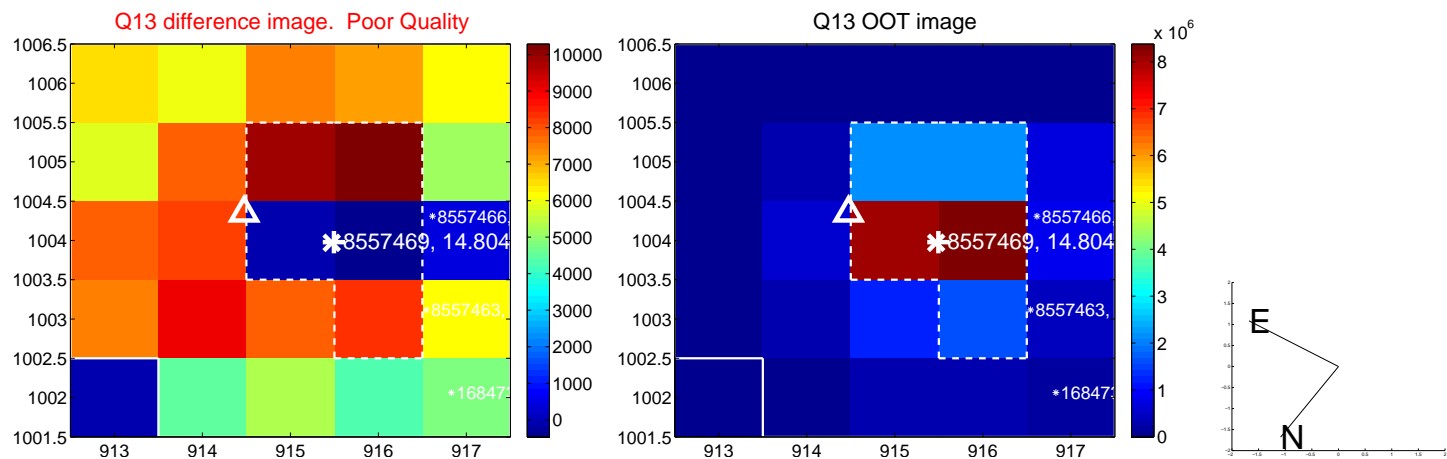
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



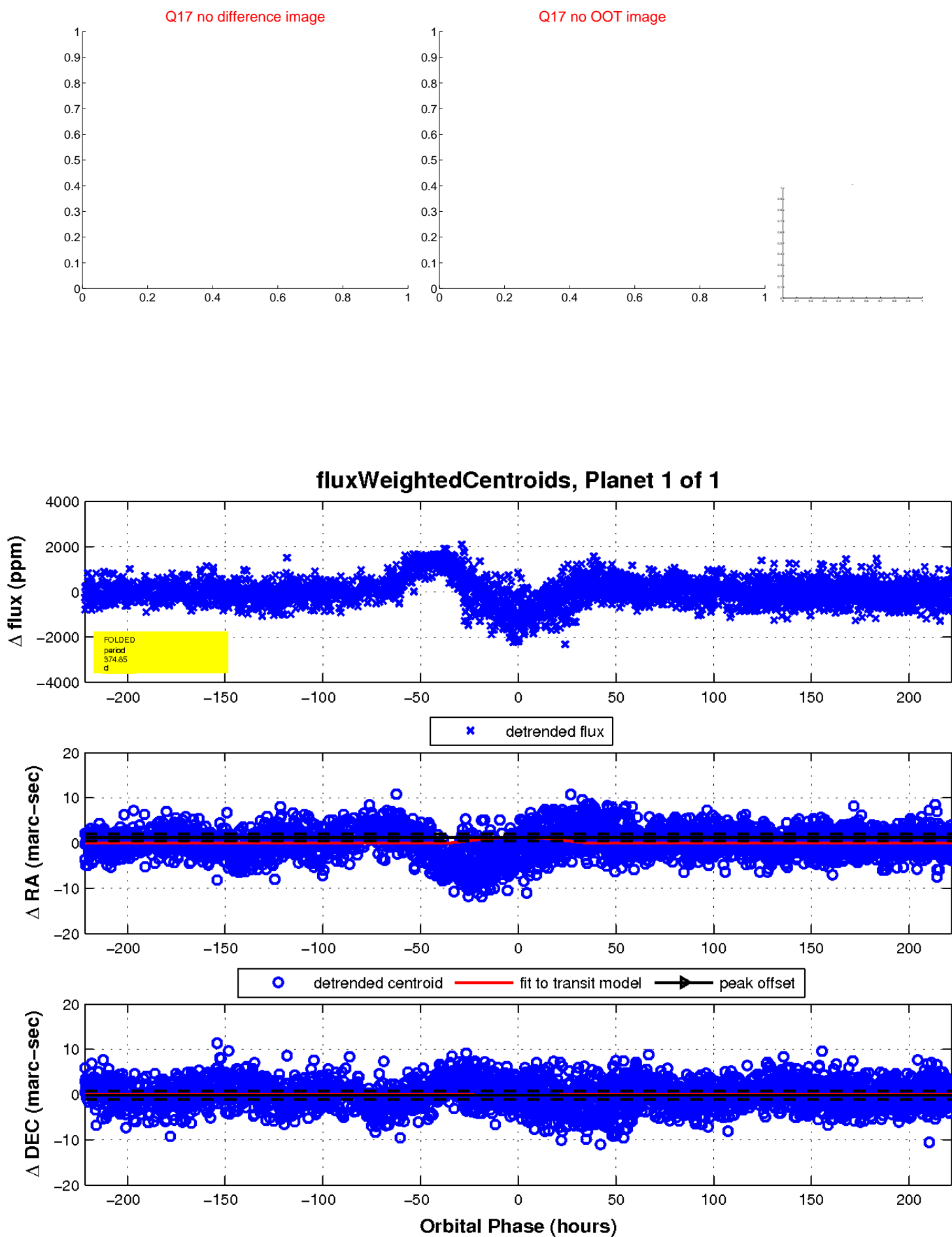
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UKIRT Image

Declination

