

KIC 005985708

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})
005985708-01	OBS	No	534.478955	282.754026	162.3	10.123	7.6	7.2	2.11	5750	3.01	2.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005985708-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

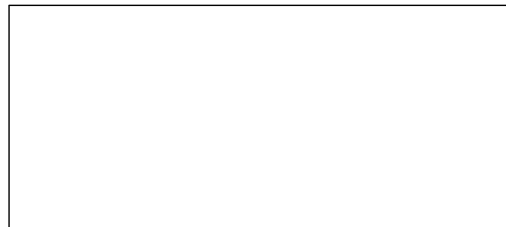
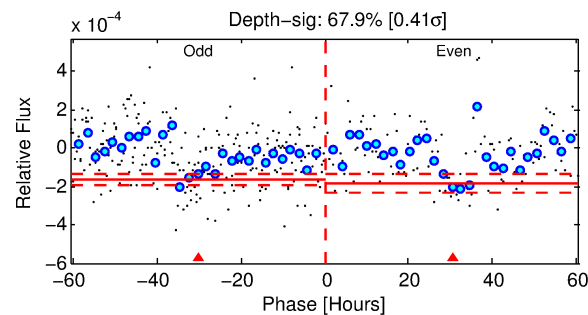
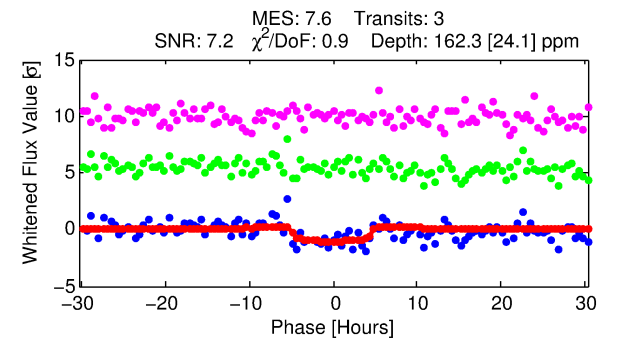
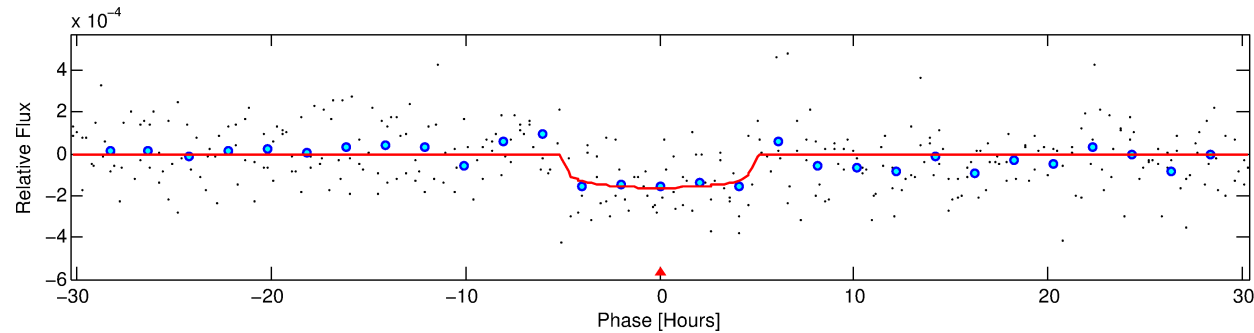
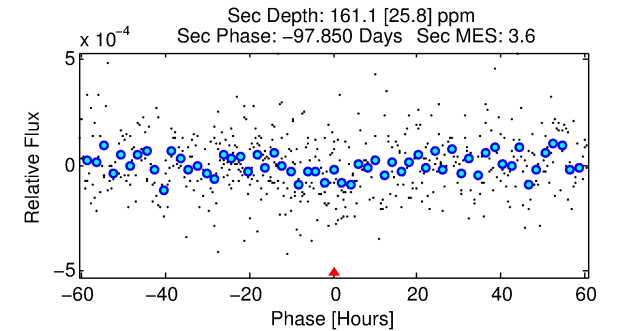
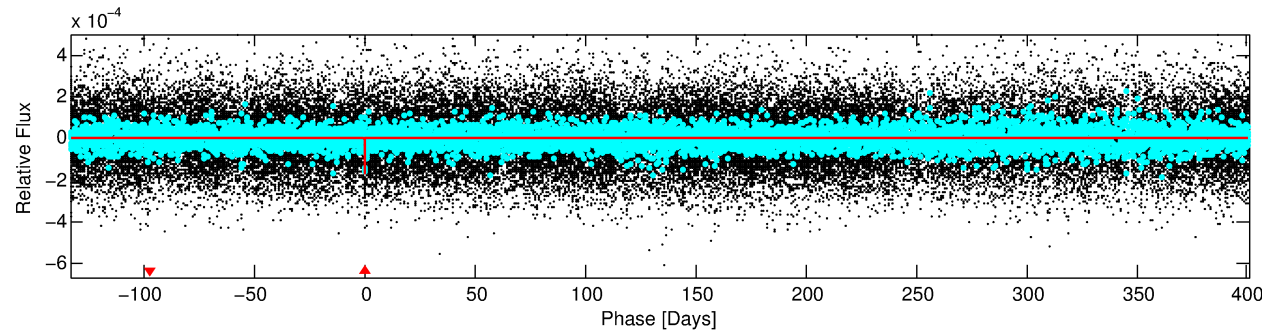
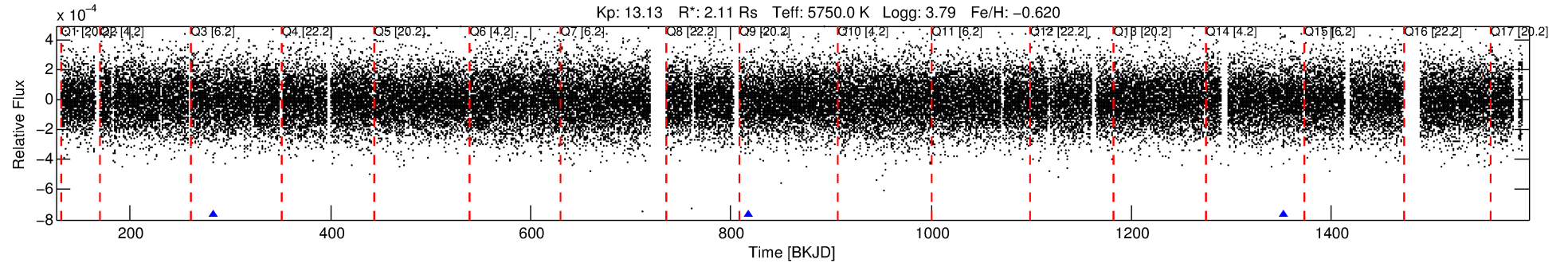
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005985708-01

No Significant Match Found

DV One-Page Summary

KIC: 5985708 Candidate: 1 of 1 Period: 534.479 d



DV Fit Results:

Period = 534.47896 [0.01415] d
Epoch = 282.7540 [0.0196] BKJD
Rp/R* = 0.0131 [0.0059]
a/R* = 235.81 [525.66]
b = 0.83 [0.86]
Seff = 2.64 [1.21]
Teq = 325 [37] K
Rp = 3.01 [1.63] Re
a = 1.2832 [0.3629] AU
Ag = 16115.57 [16393.16] [0.98σ]
Teffp = 5661 [1302] K [4.10σ]

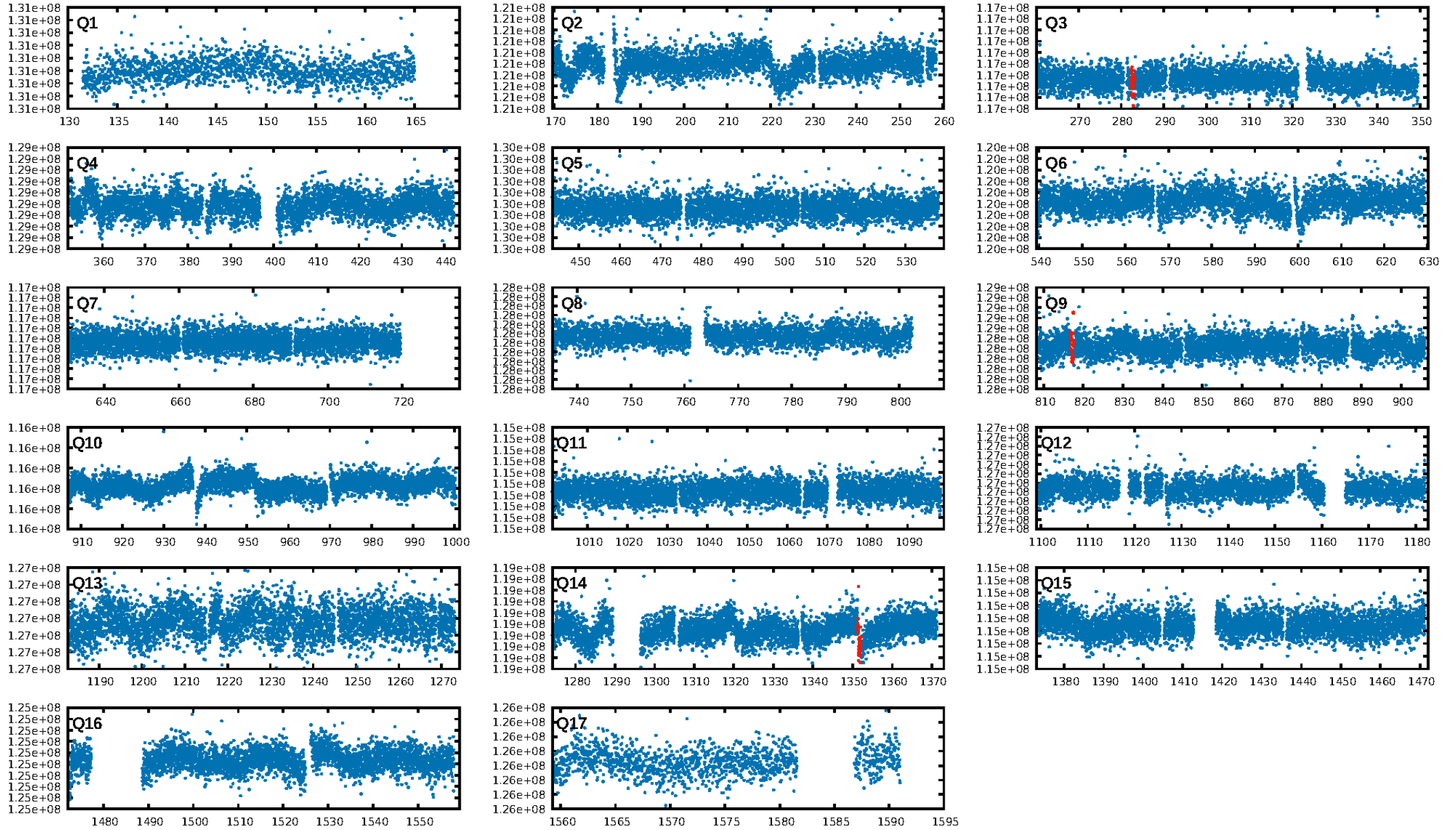
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.4%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: 9.94e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.289
Centroid-sig: 50.2%
Centroid-so: 1.635 arcsec [0.76σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

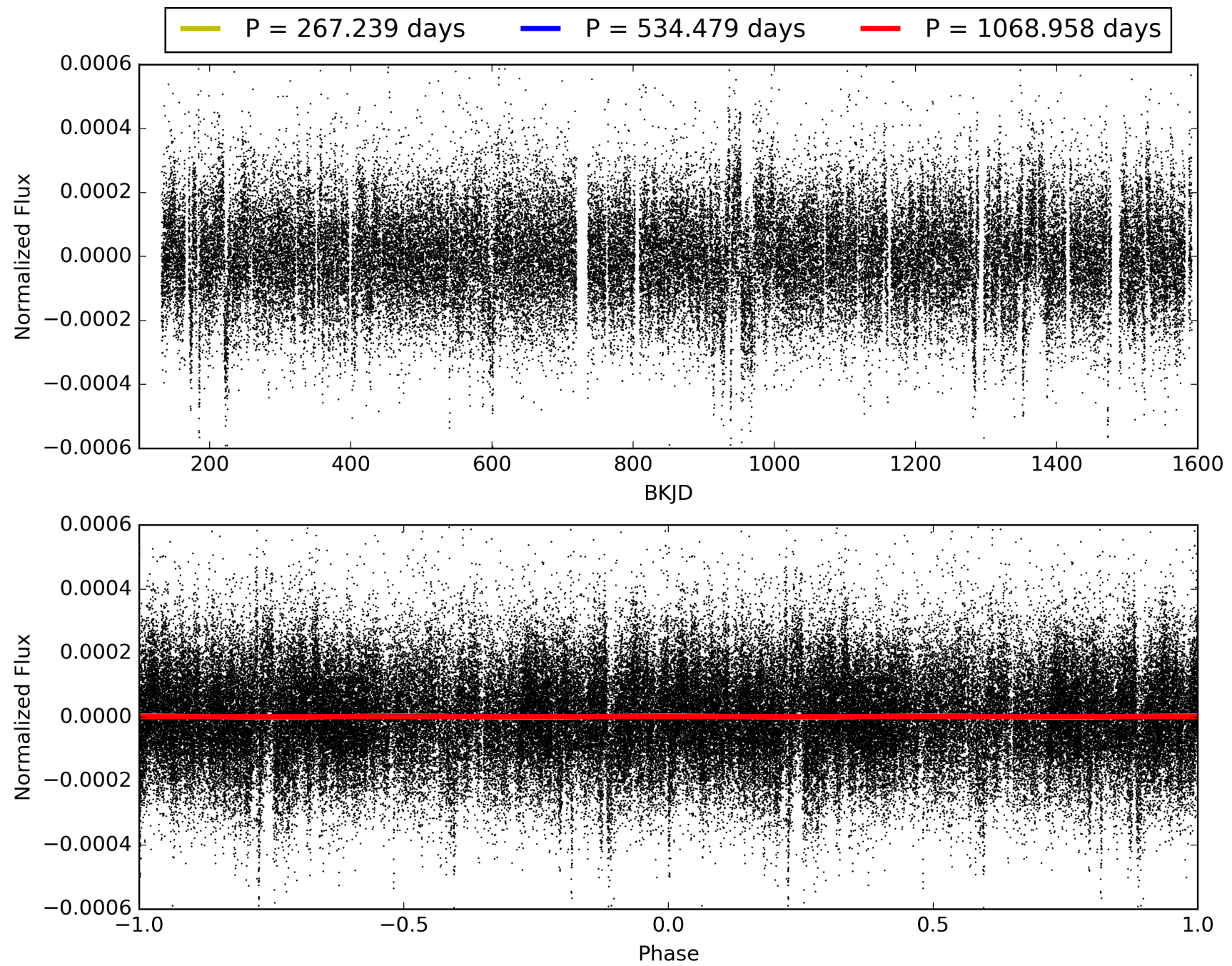
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:48:51 Z

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

TCE 005985708-01, PDC Light Curves

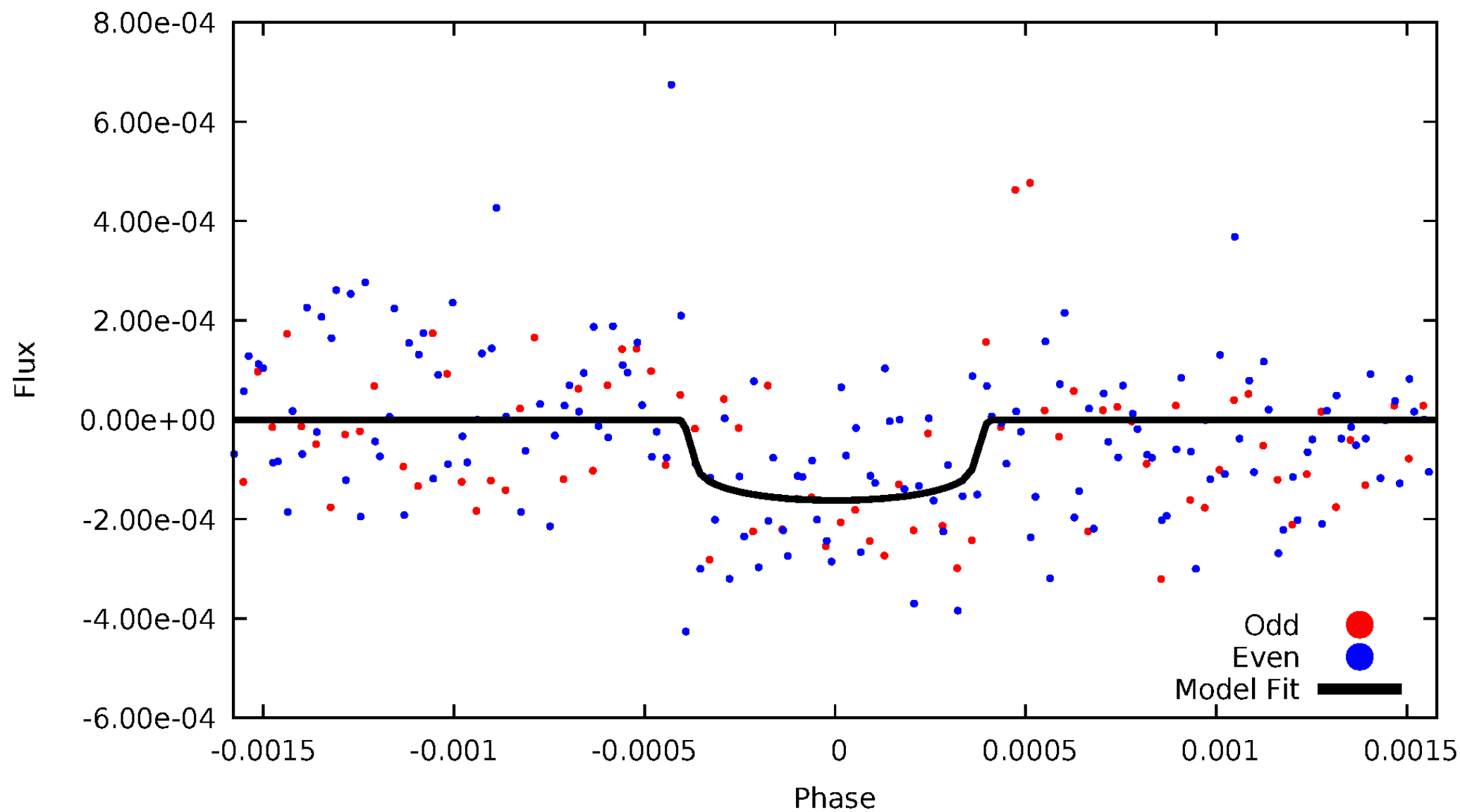


TCE 005985708-01



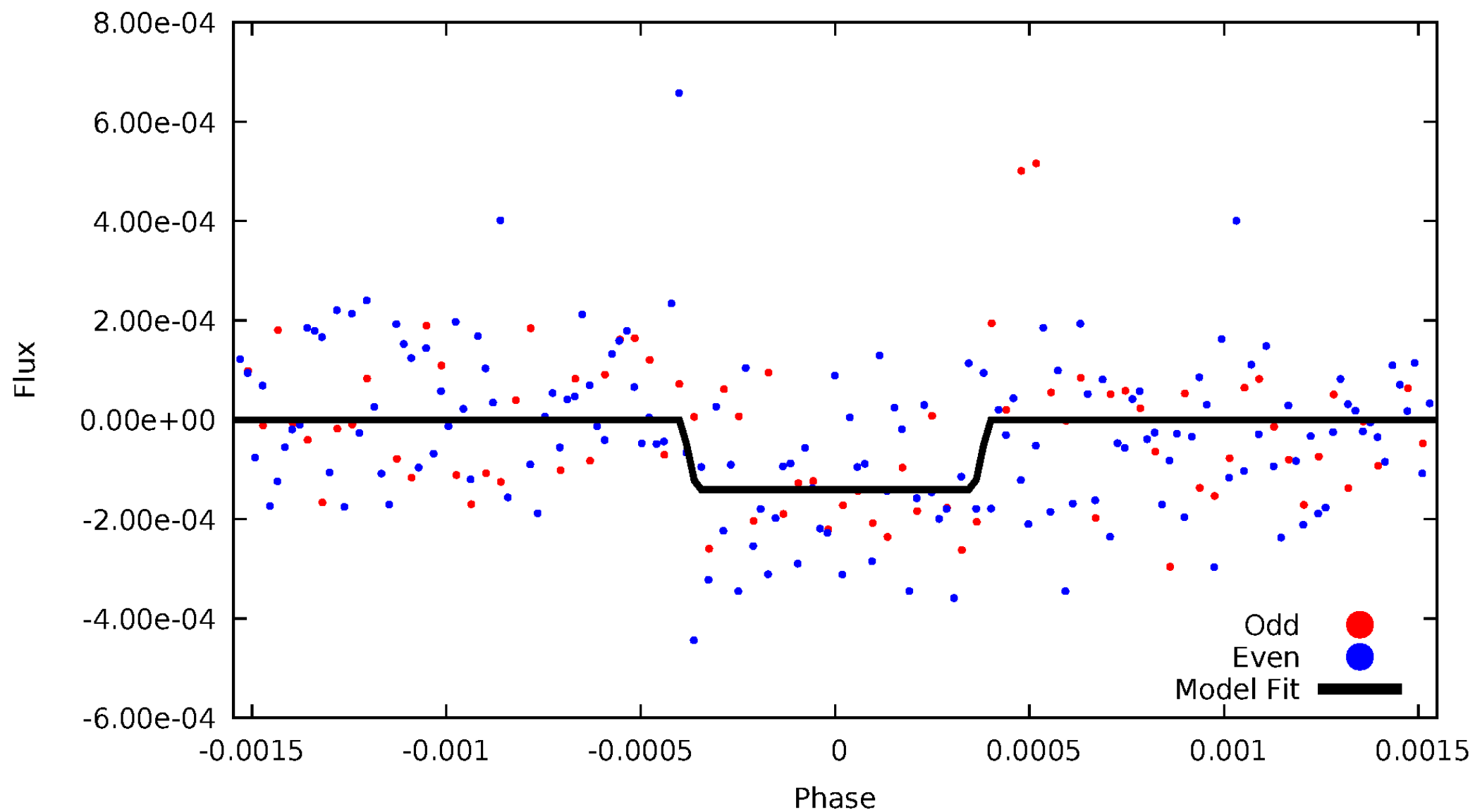
DV Odd/Even

TCE 005985708-01

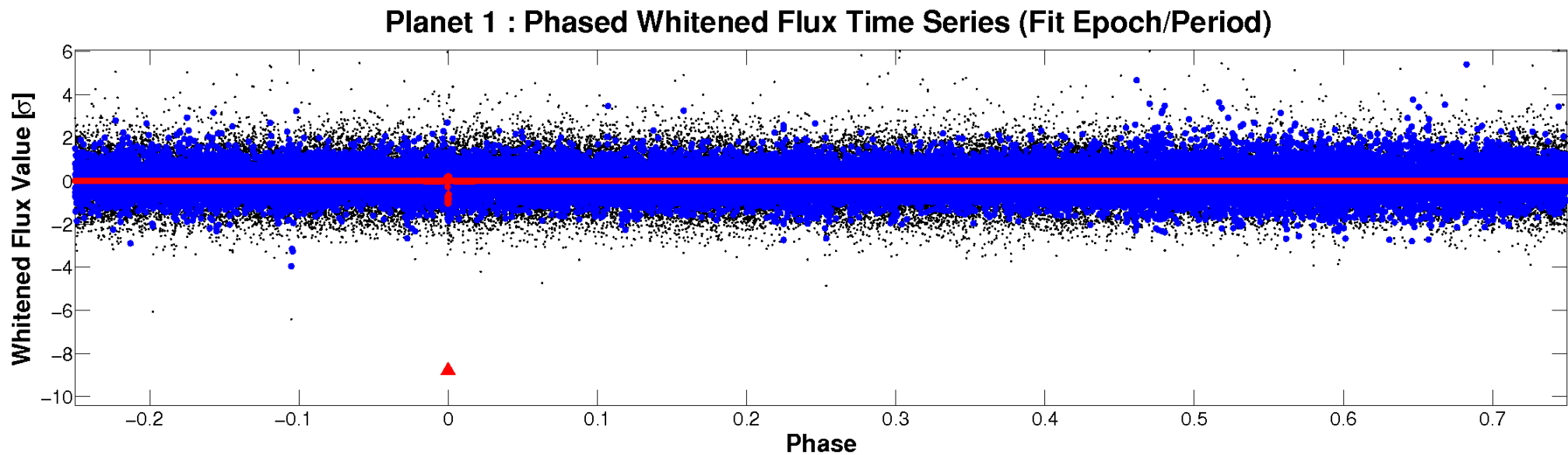
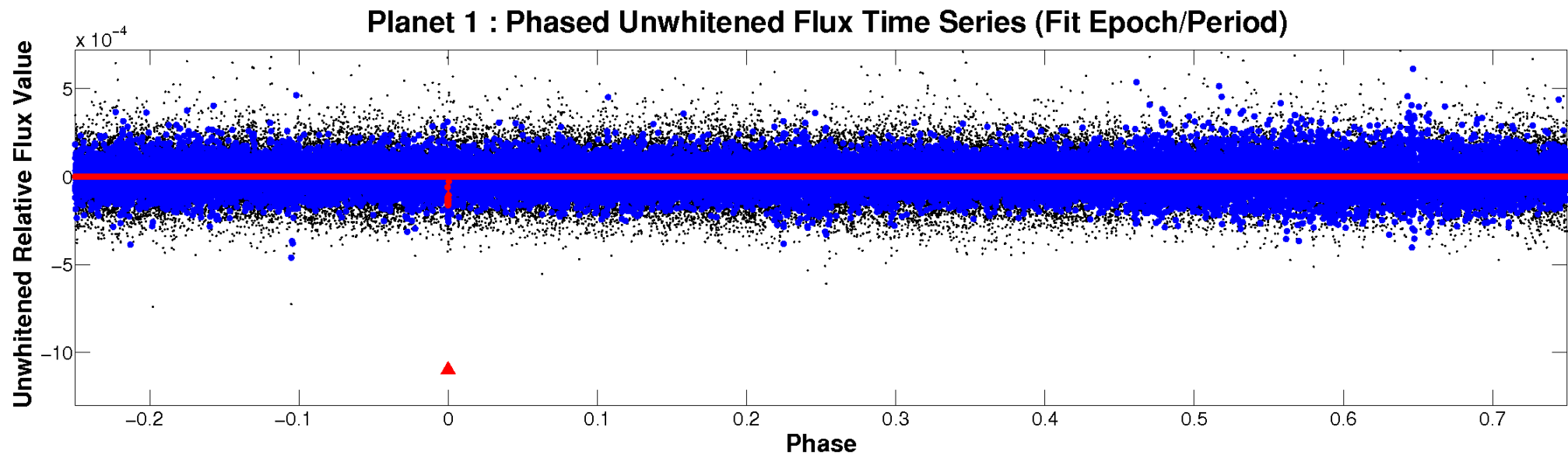


ALT Odd/Even

TCE 005985708-01

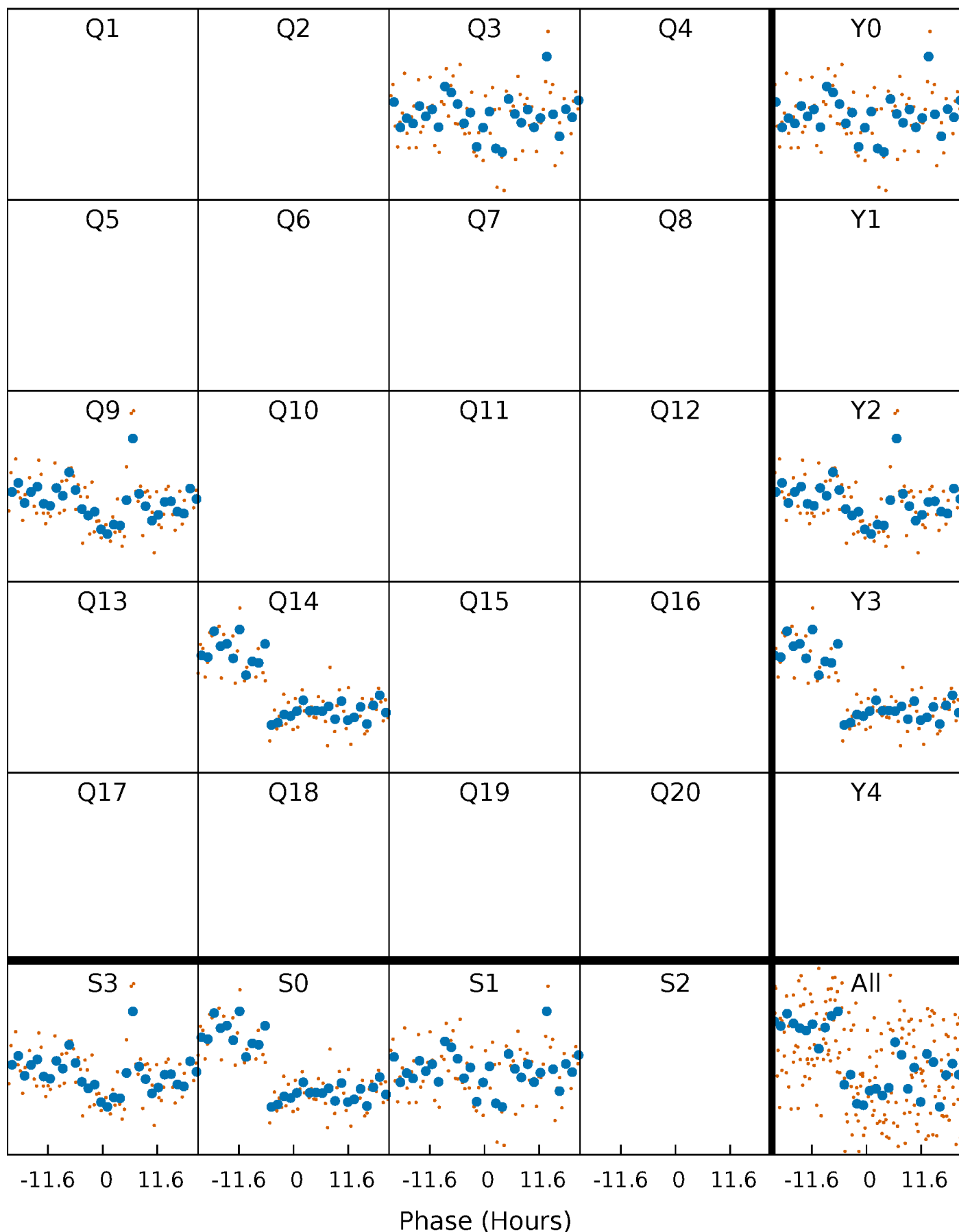


Non-Whitened Vs. Whitened Light Curve



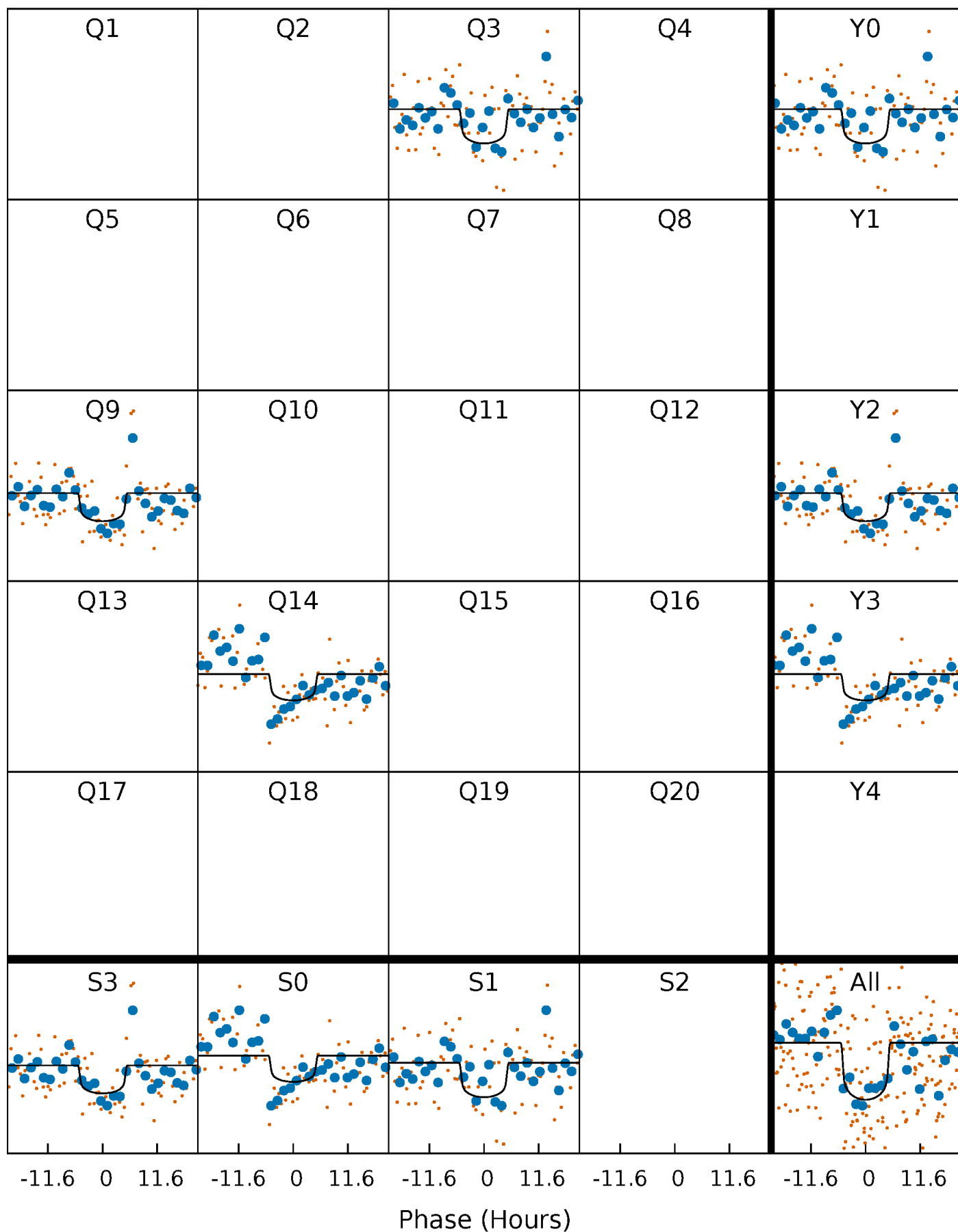
PDC Quarter-Phased Transit Curves

TCE 005985708-01 $P=534.478955$ Days $T_0=282.754026$ (BKJD)



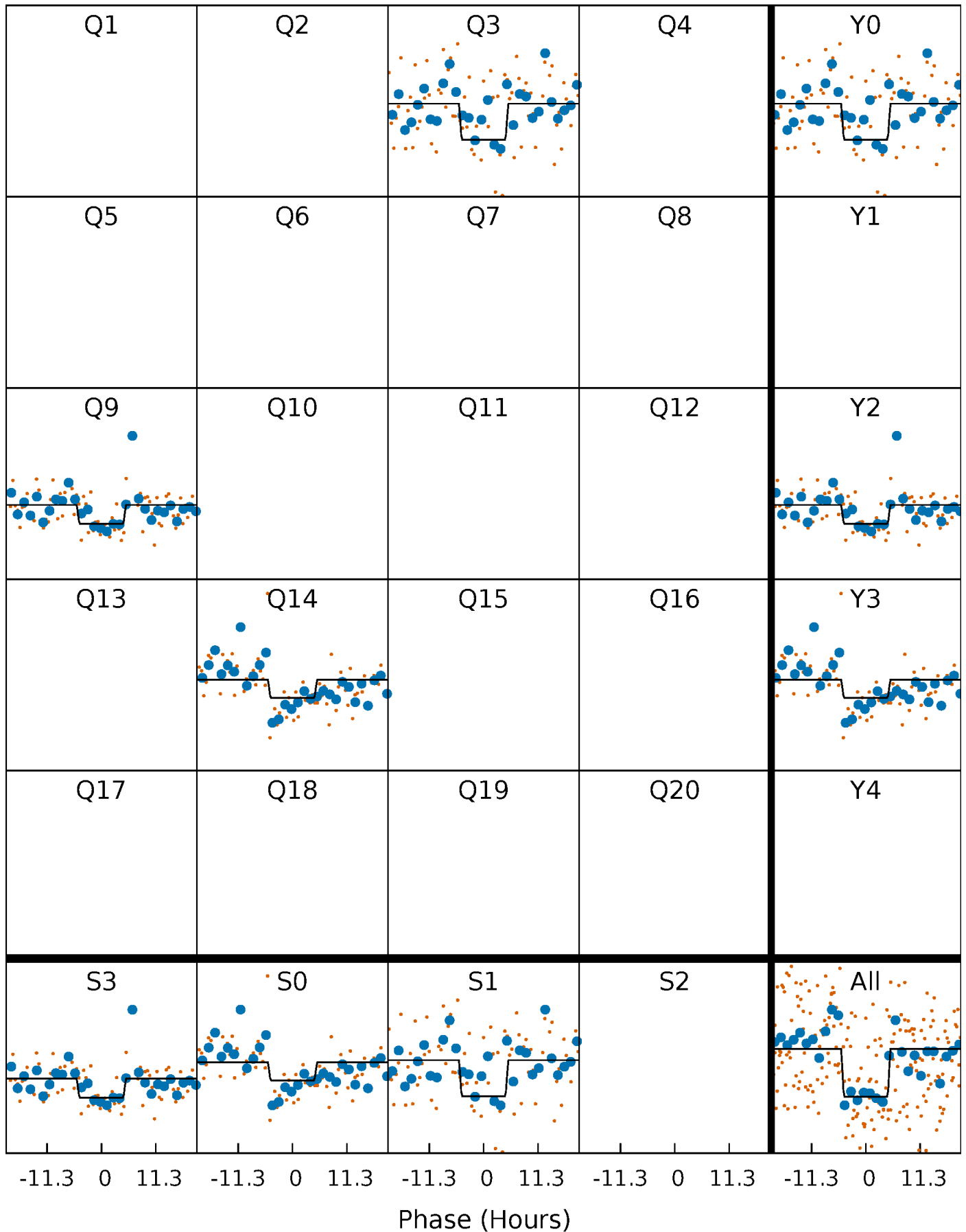
DV Quarter-Phased Transit Curves

TCE 005985708-01 $P=534.478955$ Days $T_0=282.754026$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

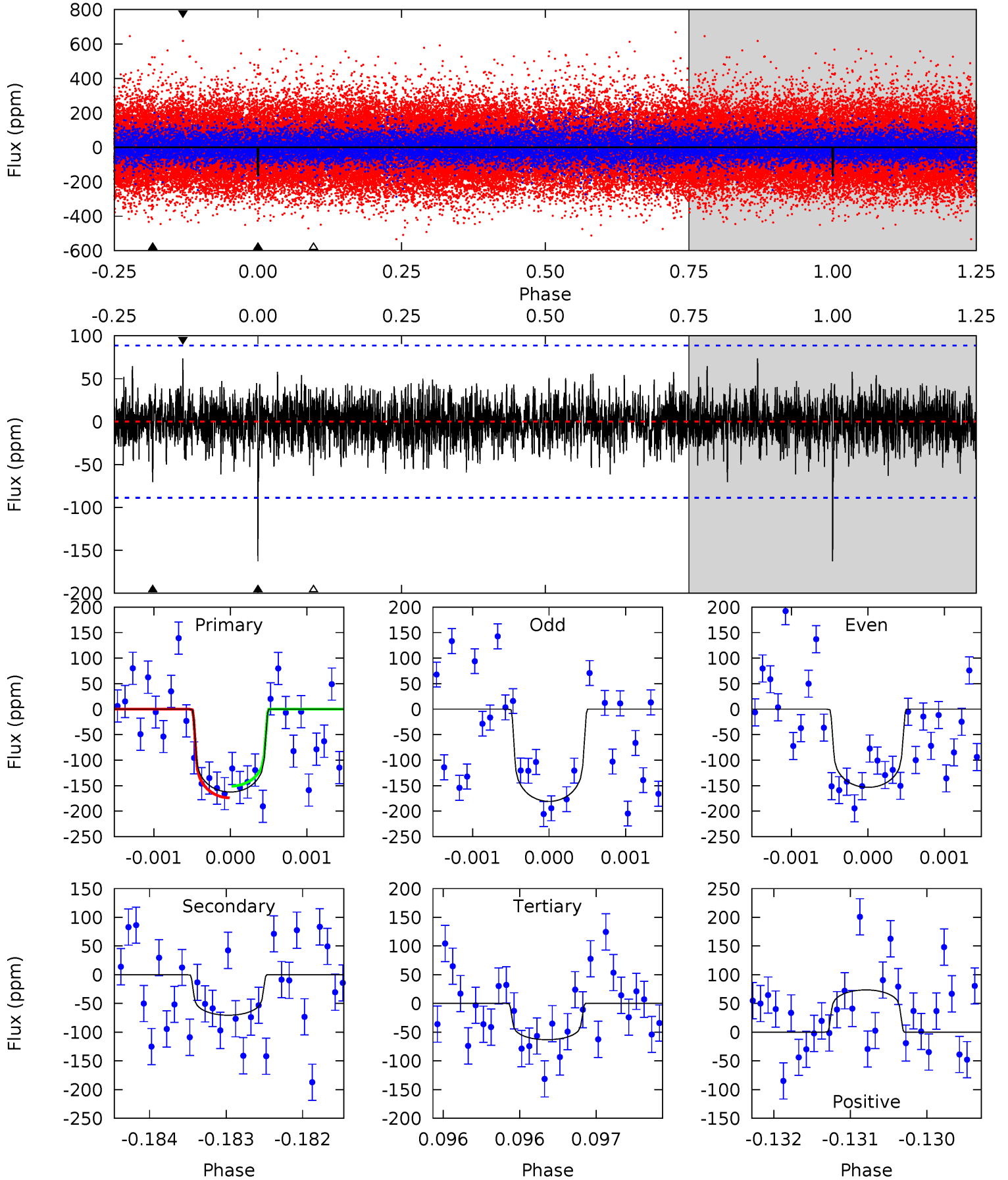
TCE 005985708-01 P=534.467007 Days $T_0=282.763057$ (BKJD)



DV Model-Shift Uniqueness Test

005985708-01, $P = 534.478955$ Days, $E = 282.754026$ Days

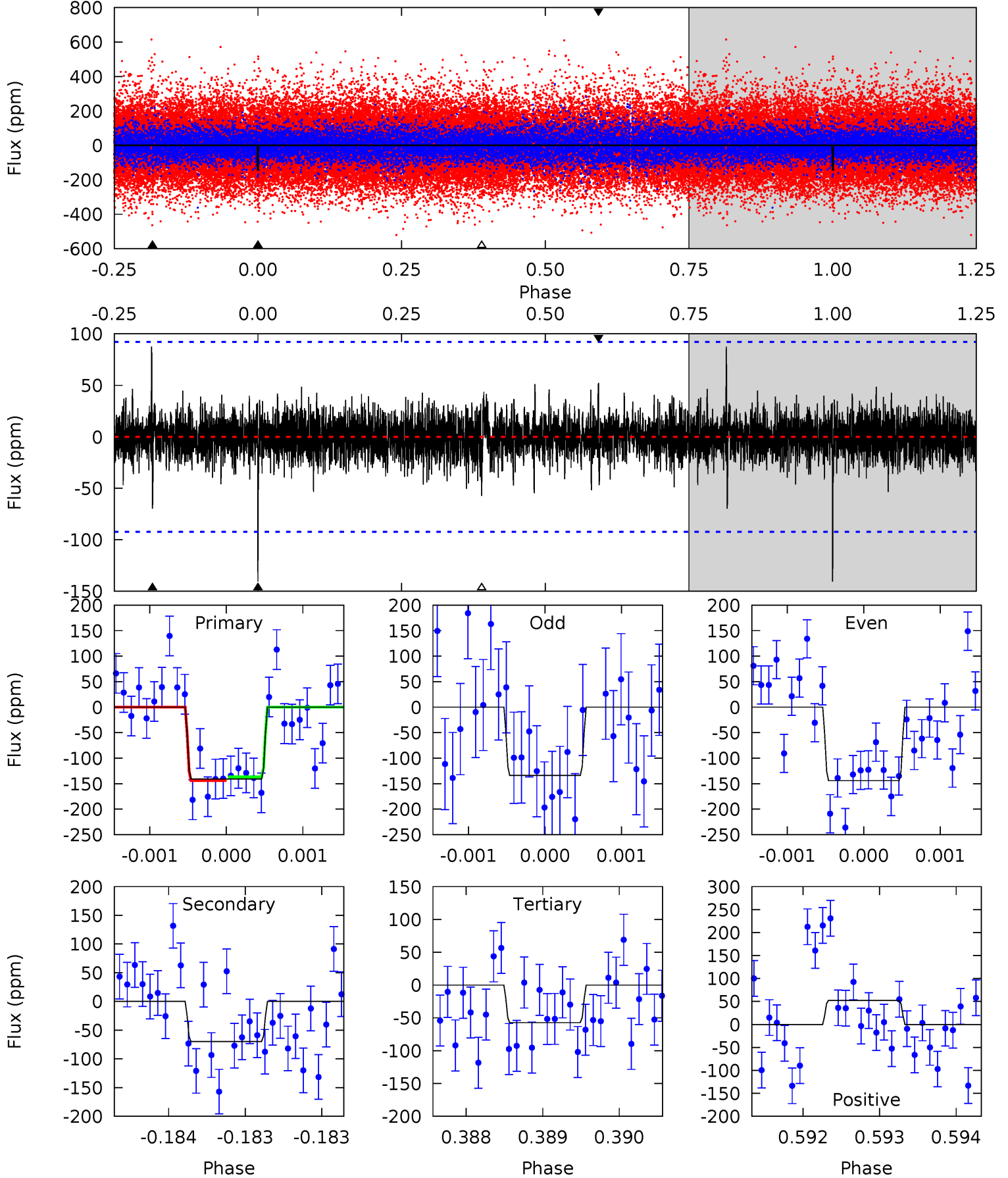
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	4.36	3.91	4.55	5.49	3.35	1.15	6.15	5.50	0.45	-0.19	0.79	0.90	0.31	0.71



Alt Model-Shift Uniqueness Test

005985708-01, P = 534.467007 Days, E = 282.763057 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.39	4.17	3.42	3.13	5.50	3.37	0.85	4.97	5.27	0.75	1.04	0.29	1.05	0.38	0.22



Stellar Parameters For KIC 005985708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5750^{+155}_{-155}	$3.785^{+0.260}_{-0.140}$	$-0.620^{+0.350}_{-0.250}$	$2.106^{+0.518}_{-0.633}$	$0.986^{+0.164}_{-0.134}$	$0.149^{+0.239}_{-0.059}$
	+3%/-3%	+7%/-4%	+56%/-40%	+25%/-30%	+17%/-14%	+161%/-40%
Source	PHO1	FLK73	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 005985708-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-70 ± 16	$2.87^{+1.58}_{-1.32}$	450^{+33}_{-37}	4741^{+1528}_{-702}	7666^{+18943}_{-4469}
Alt.	-70 ± 17	$2.65^{+1.48}_{-1.20}$	449^{+31}_{-35}	4828^{+1613}_{-678}	8313^{+22605}_{-4672}

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 $A_{obs} \gg 1.0$

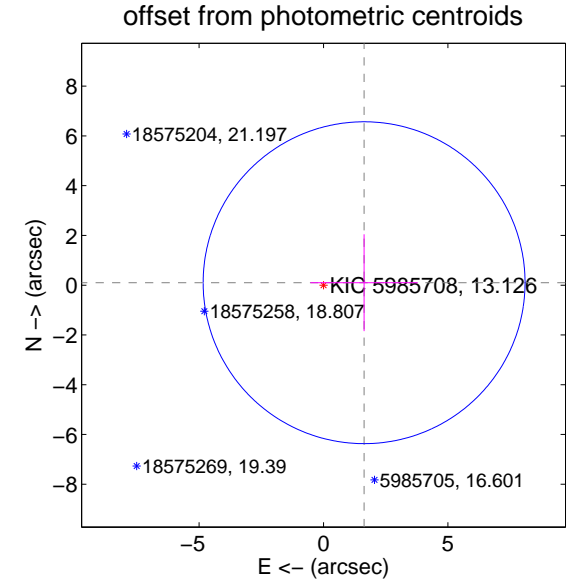
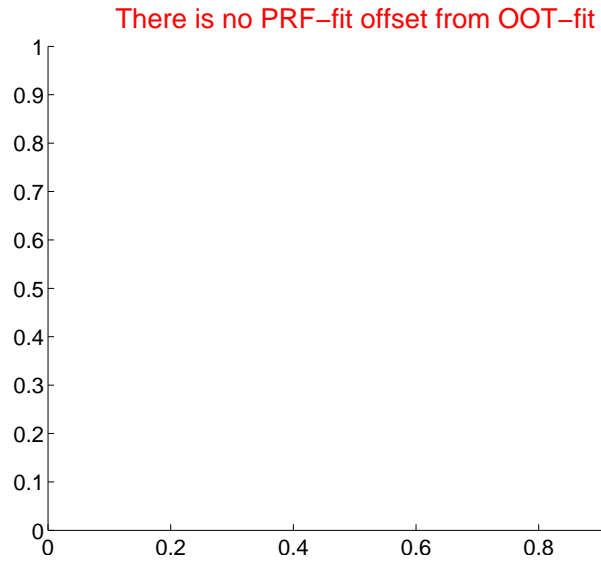
DV Centroid Data

Supplemental centroid analysis for 005985708-01. Kepler magnitude: 13.13. Transit SNR 7.23

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.64 ± 2.16	0.76	-1.63 ± 2.16	0.10 ± 1.95



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.

Q1 no difference image



Q1 no OOT image



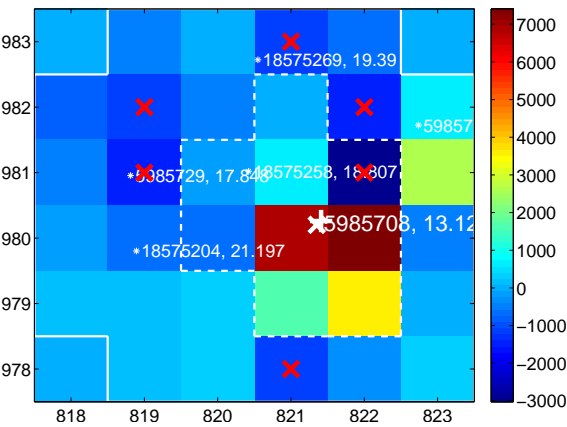
Q2 no difference image



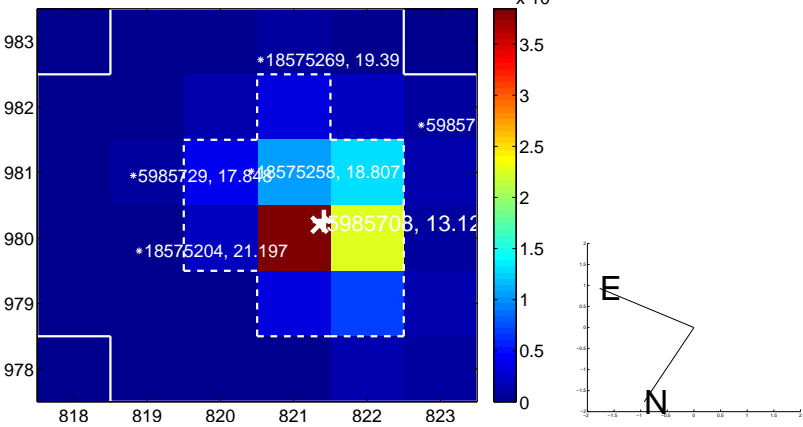
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



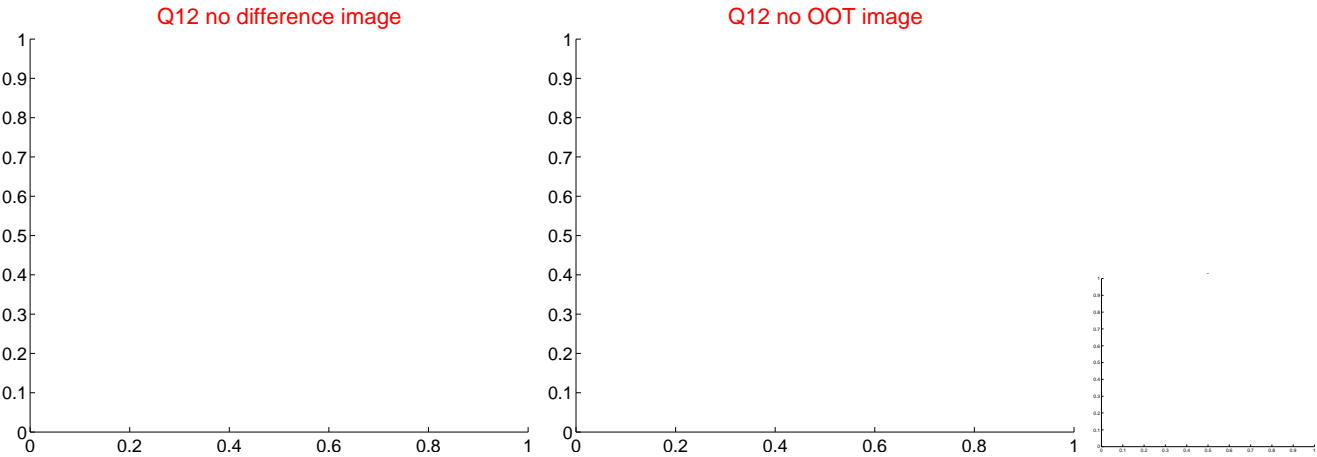
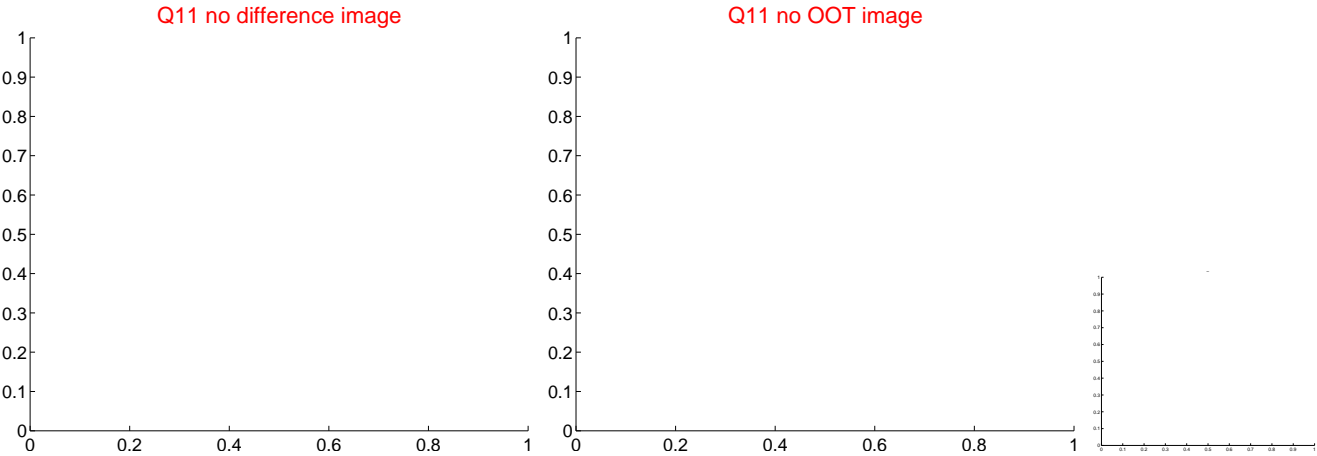
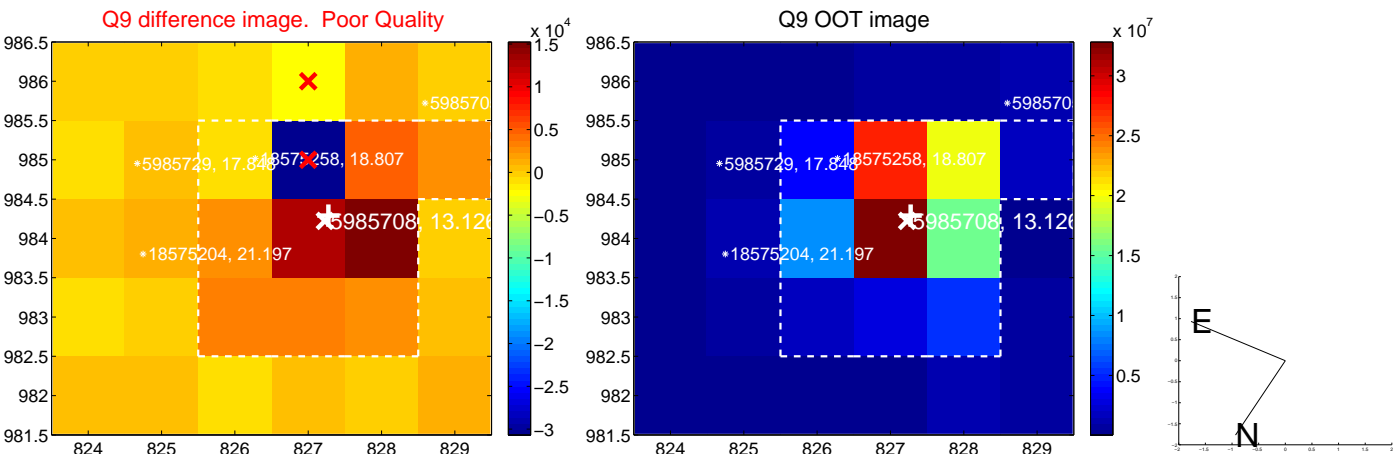
Q4 no OOT image



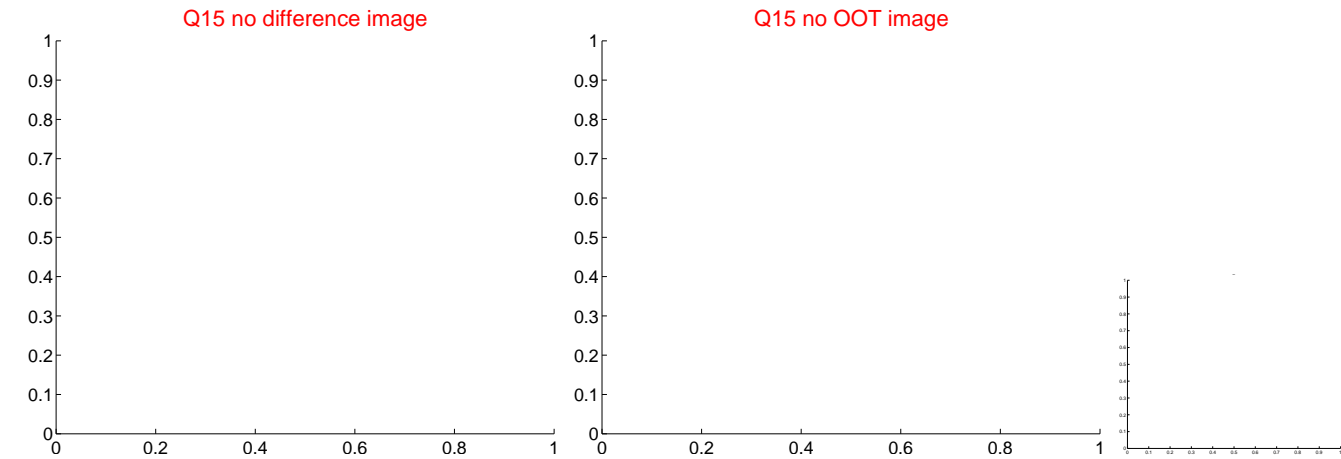
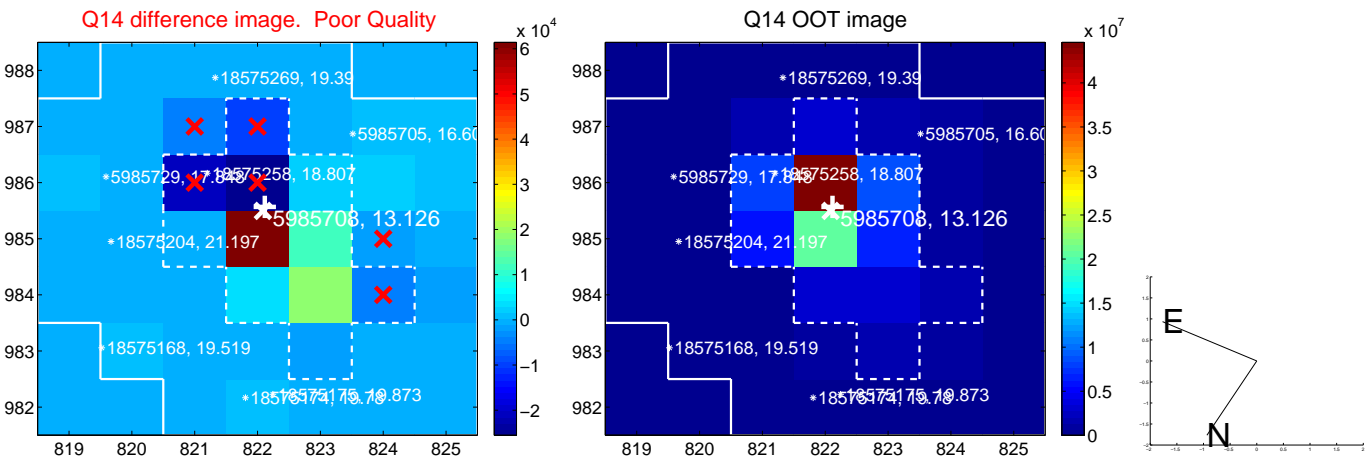
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



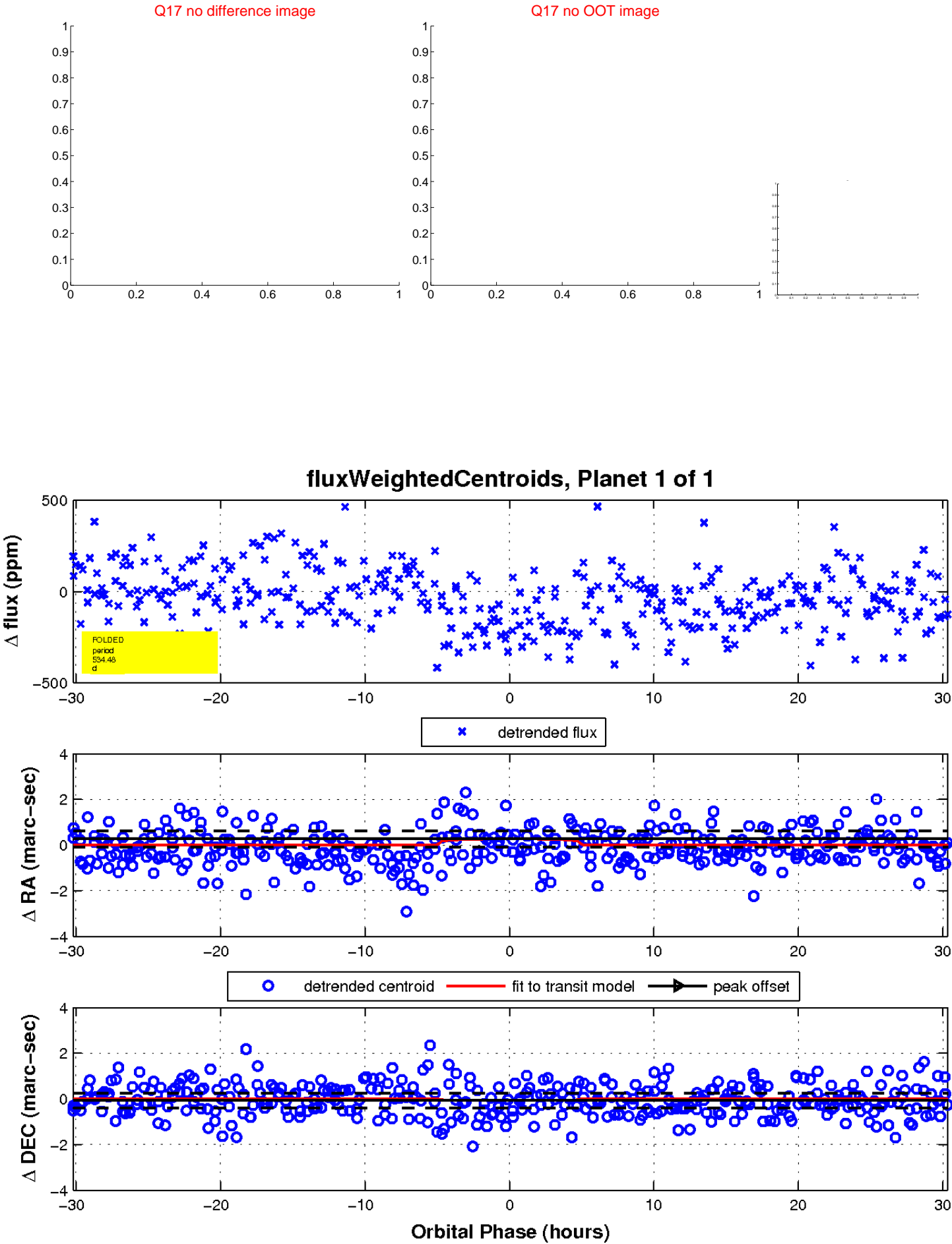
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UKIRT Image

Declination

