

KIC 008547322

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})
008547322-01	OBS	No	530.800618	388.456029	483.9	20.923	8.5	8.2	0.87	5361	2.05	0.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008547322-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

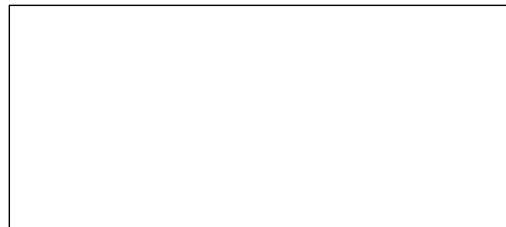
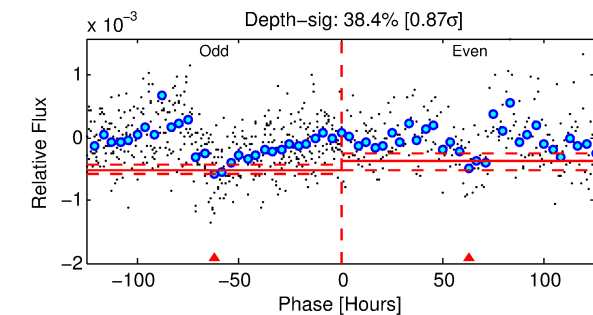
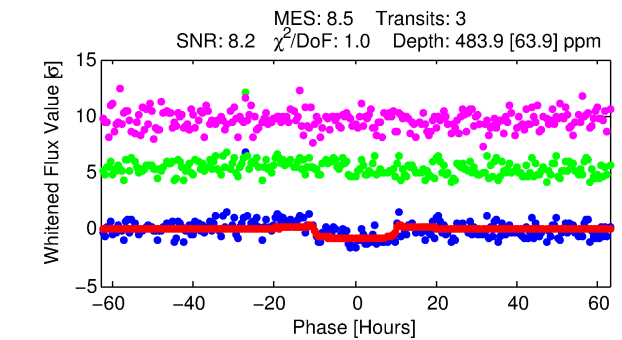
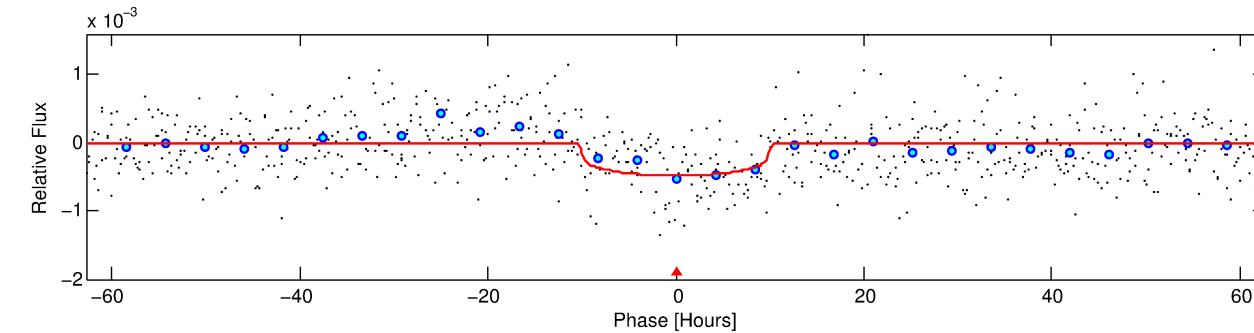
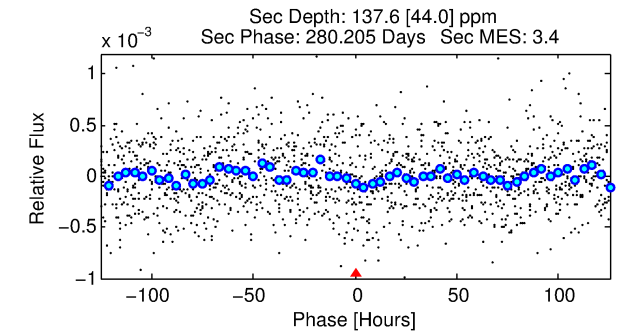
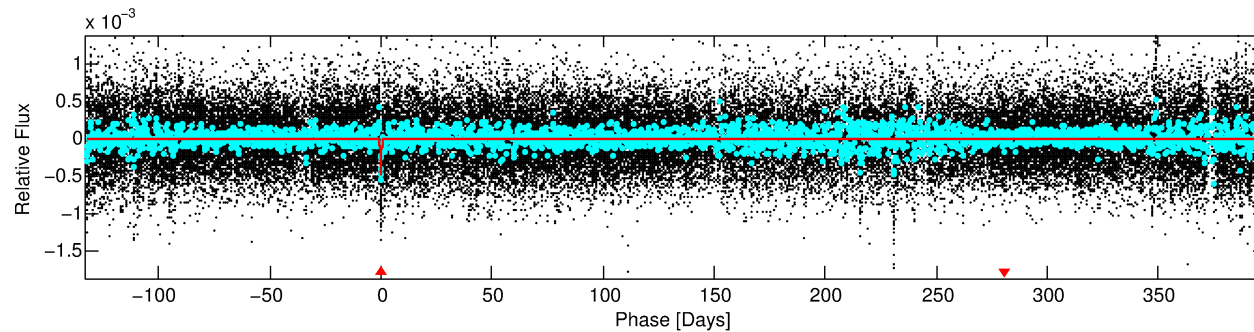
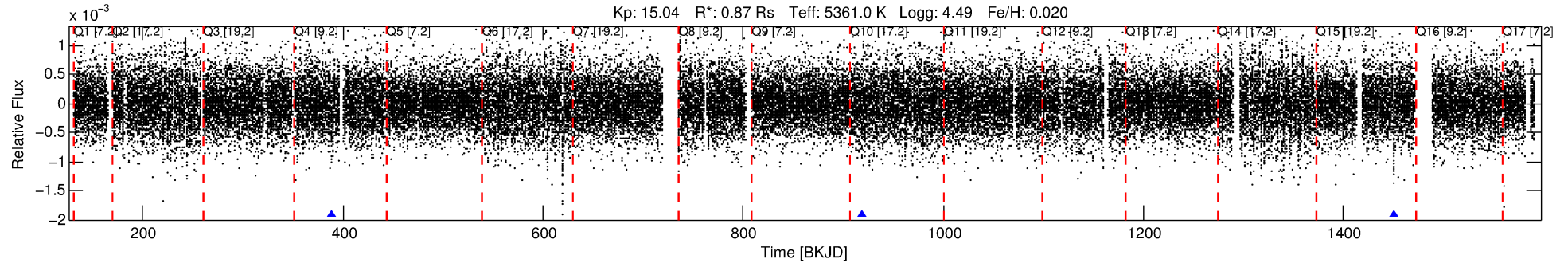
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008547322-01

No Significant Match Found

DV One-Page Summary

KIC: 8547322 Candidate: 1 of 1 Period: 530.801 d



DV Fit Results:

Period = 530.80062 [0.01852] d
Epoch = 388.4560 [0.0244] BKJD
Rp/R* = 0.0215 [0.0086]
a/R* = 145.20 [222.07]
b = 0.69 [1.15]
Seff = 0.38 [0.10]
Teq = 200 [14] K
Rp = 2.05 [0.91] Re
a = 1.2180 [0.2019] AU
Ag = 26827.86 [24117.38] [1.11σ]
Teffp = 3964 [865] K [4.35σ]

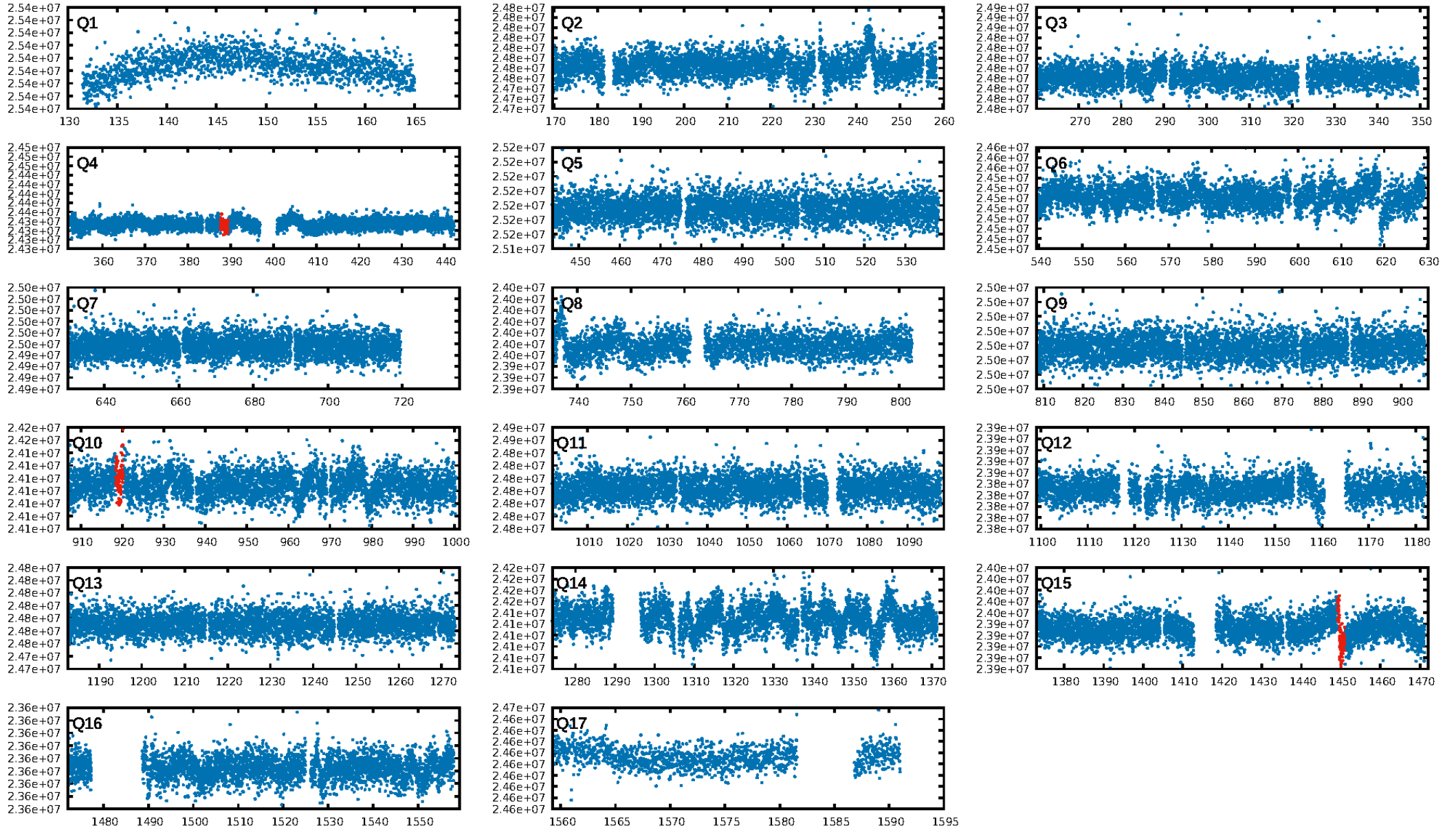
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 4.43e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.238
Centroid-sig: 1.0%
Centroid-so: 3.452 arcsec [1.79σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

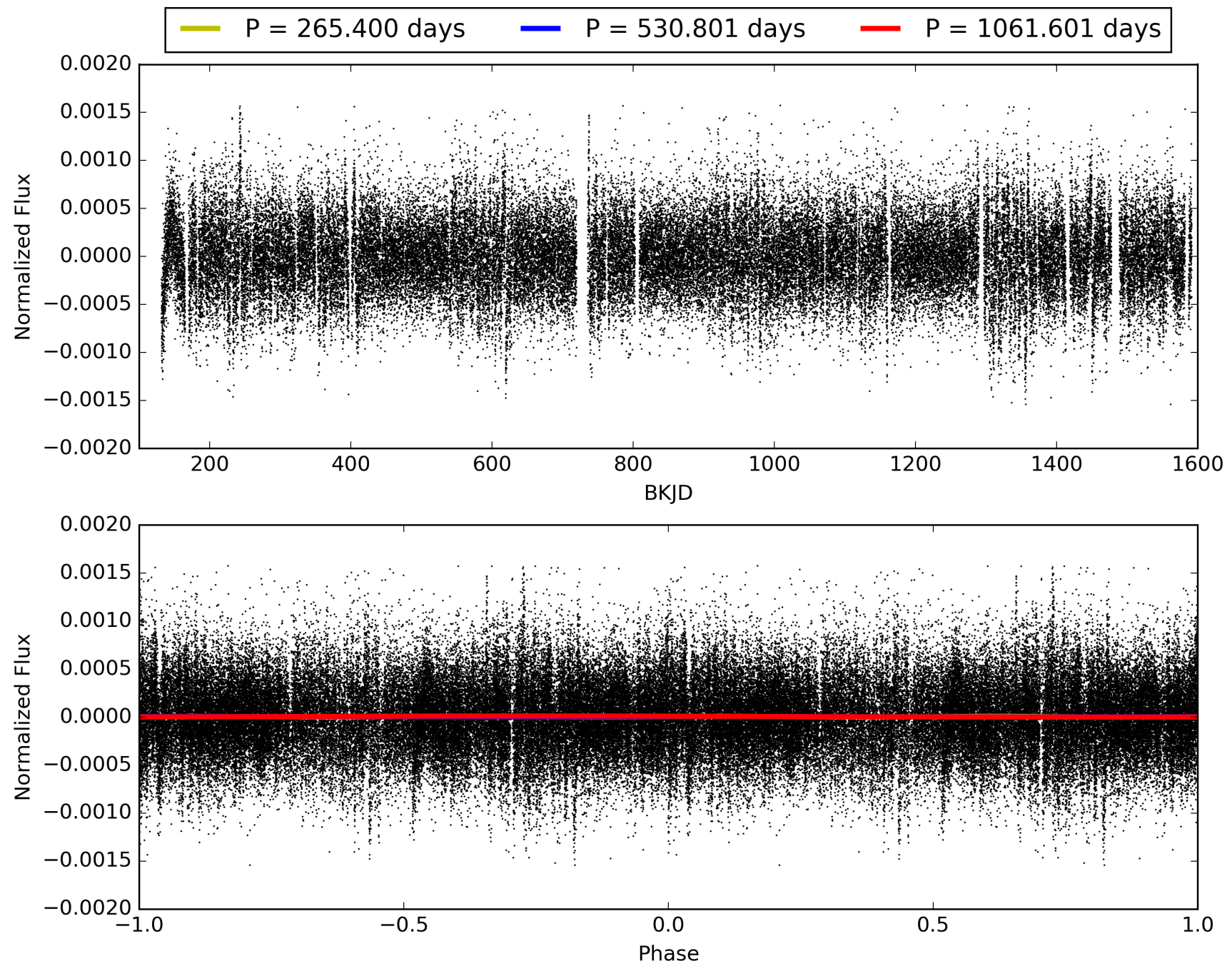
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:16:30 Z

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

TCE 008547322-01, PDC Light Curves

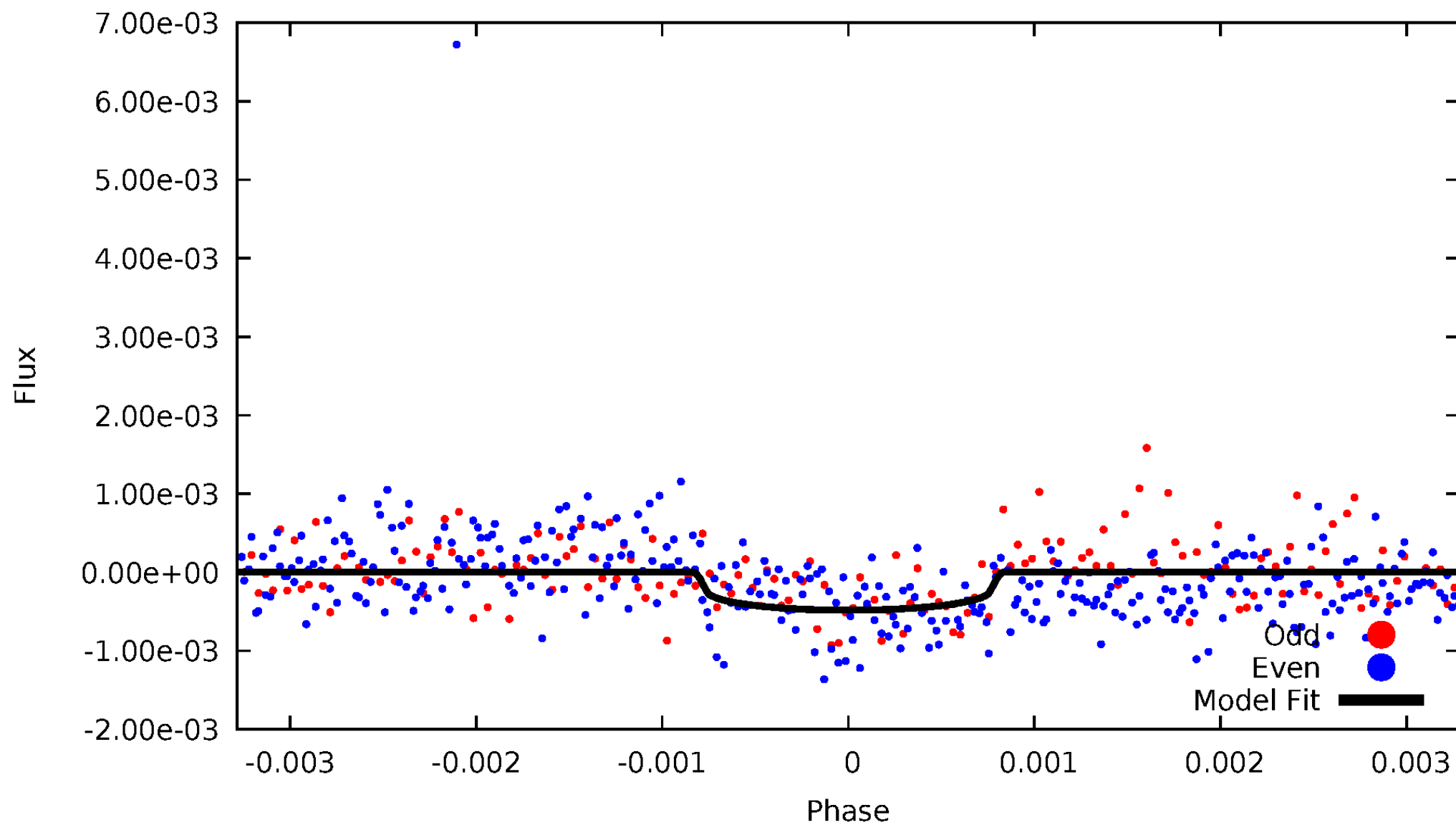


TCE 008547322-01



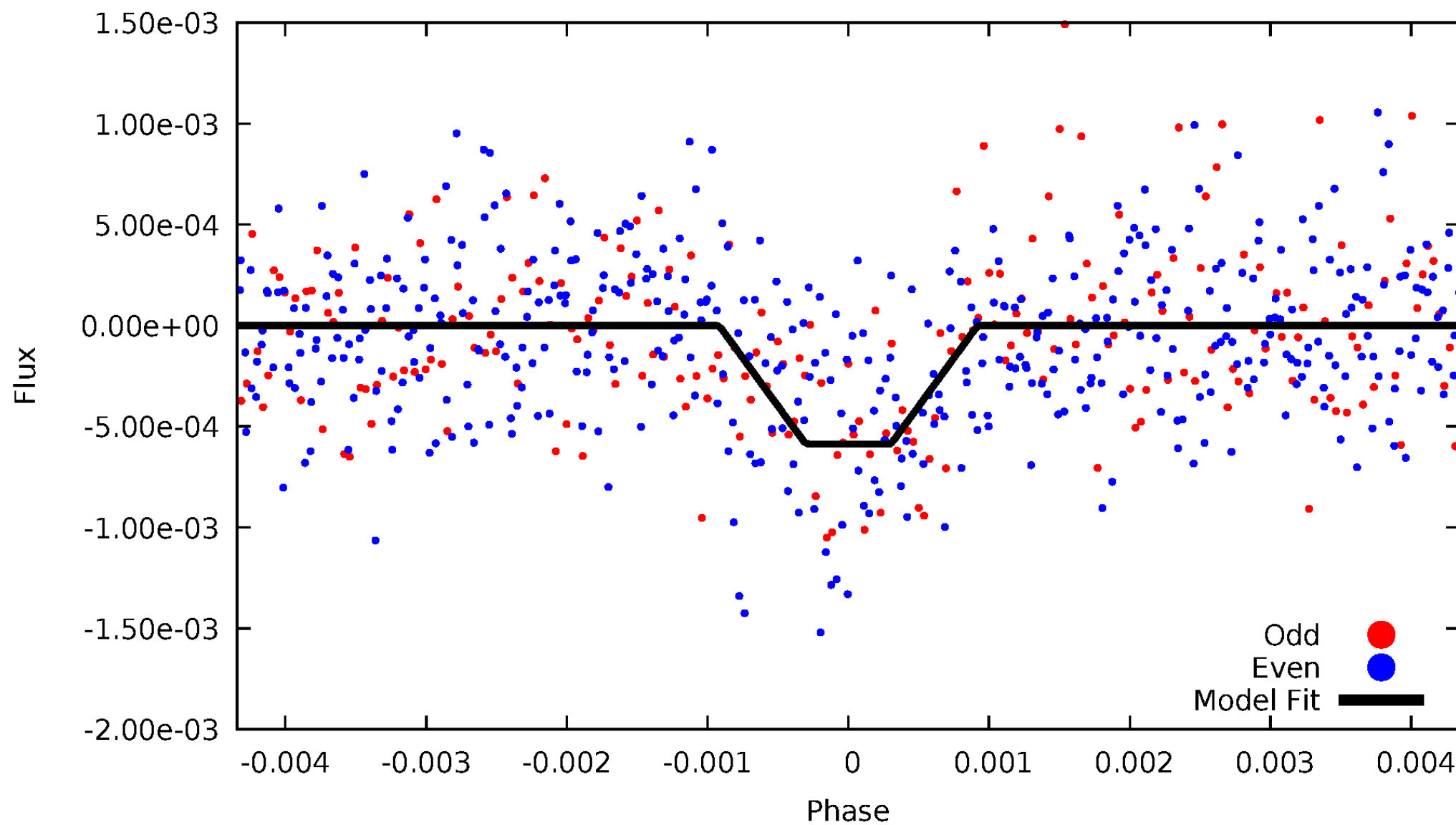
DV Odd/Even

TCE 008547322-01



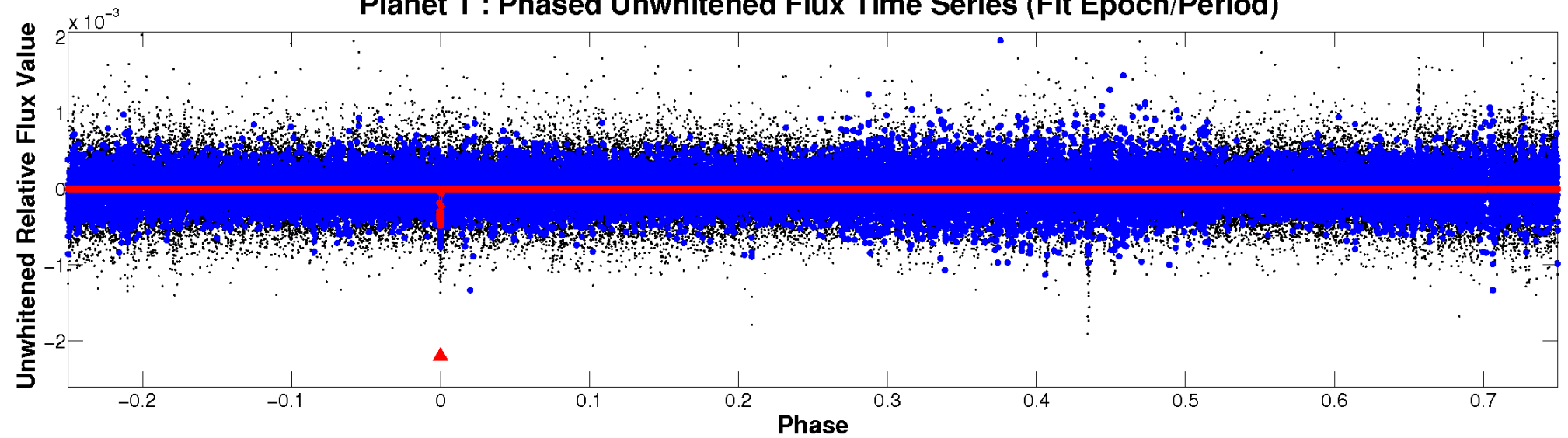
ALT Odd/Even

TCE 008547322-01

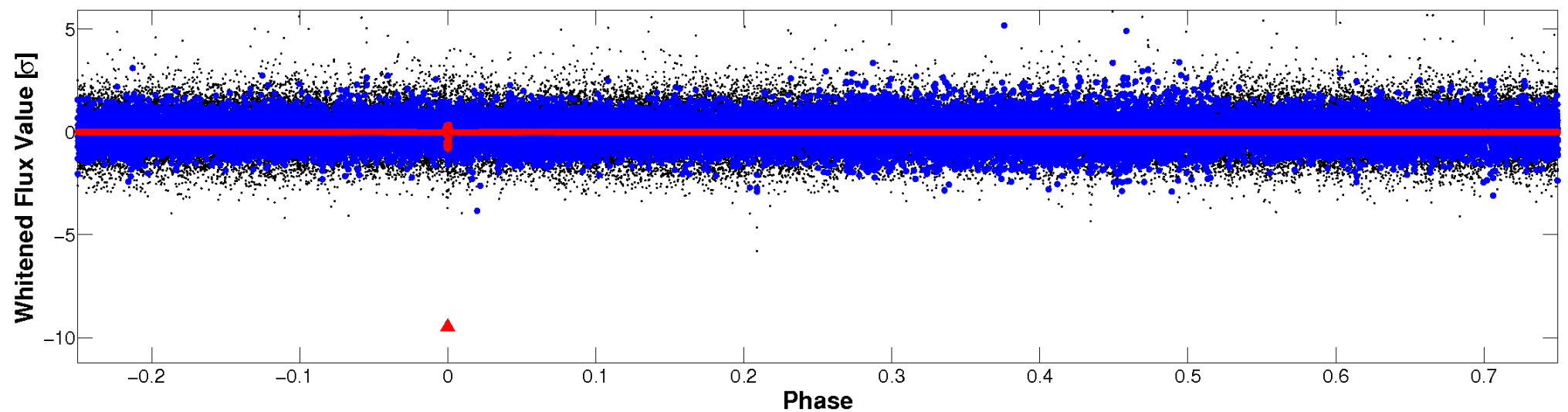


Non-Whitened Vs. Whitened Light Curve

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 008547322-01 $P=530.800618$ Days $T_0=388.456029$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008547322-01 P=530.800618 Days $T_0=388.456029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

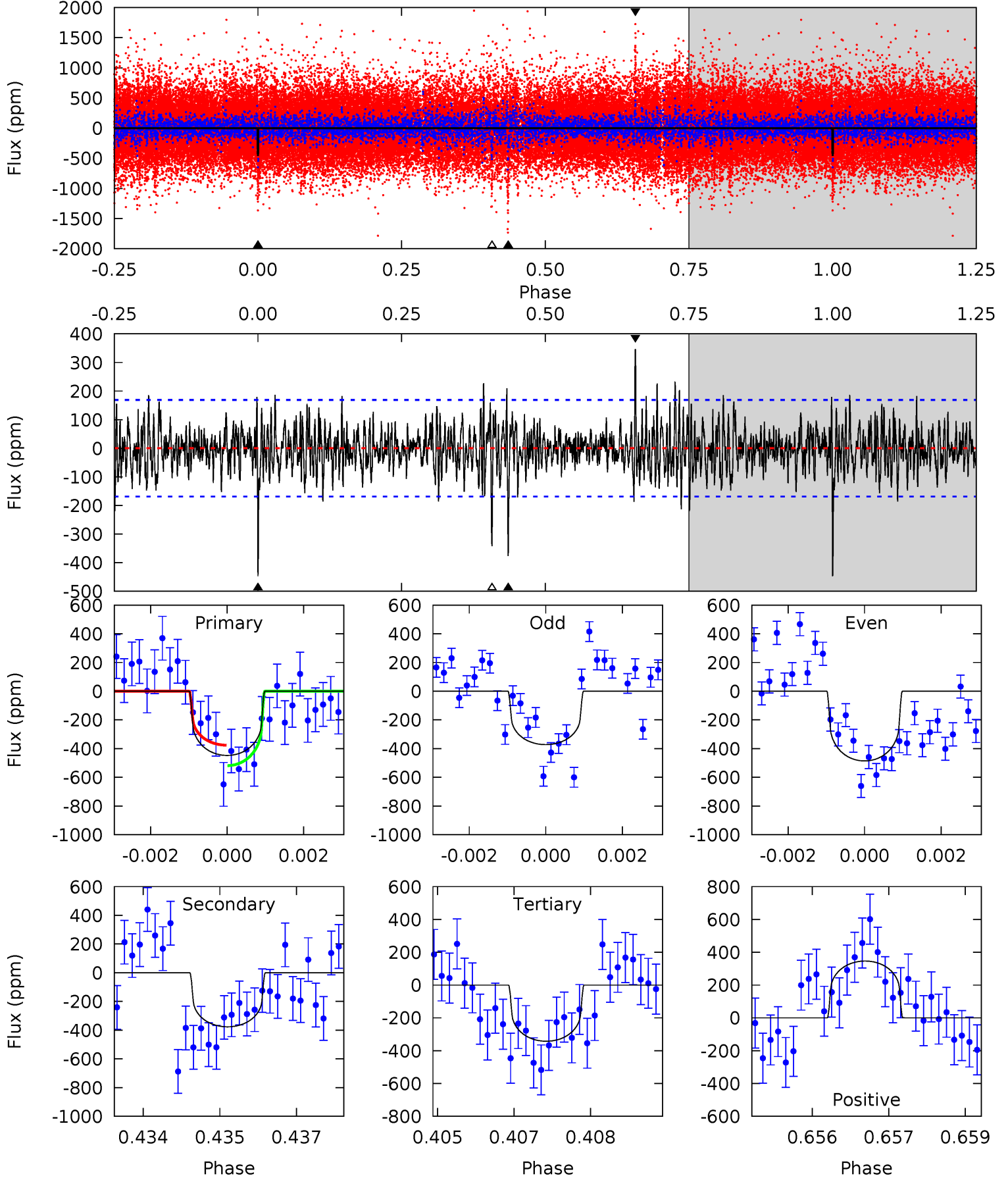
TCE 008547322-01 P=530.802588 Days $T_0=388.488076$ (BKJD)



DV Model-Shift Uniqueness Test

008547322-01, P = 530.800618 Days, E = 388.456029 Days

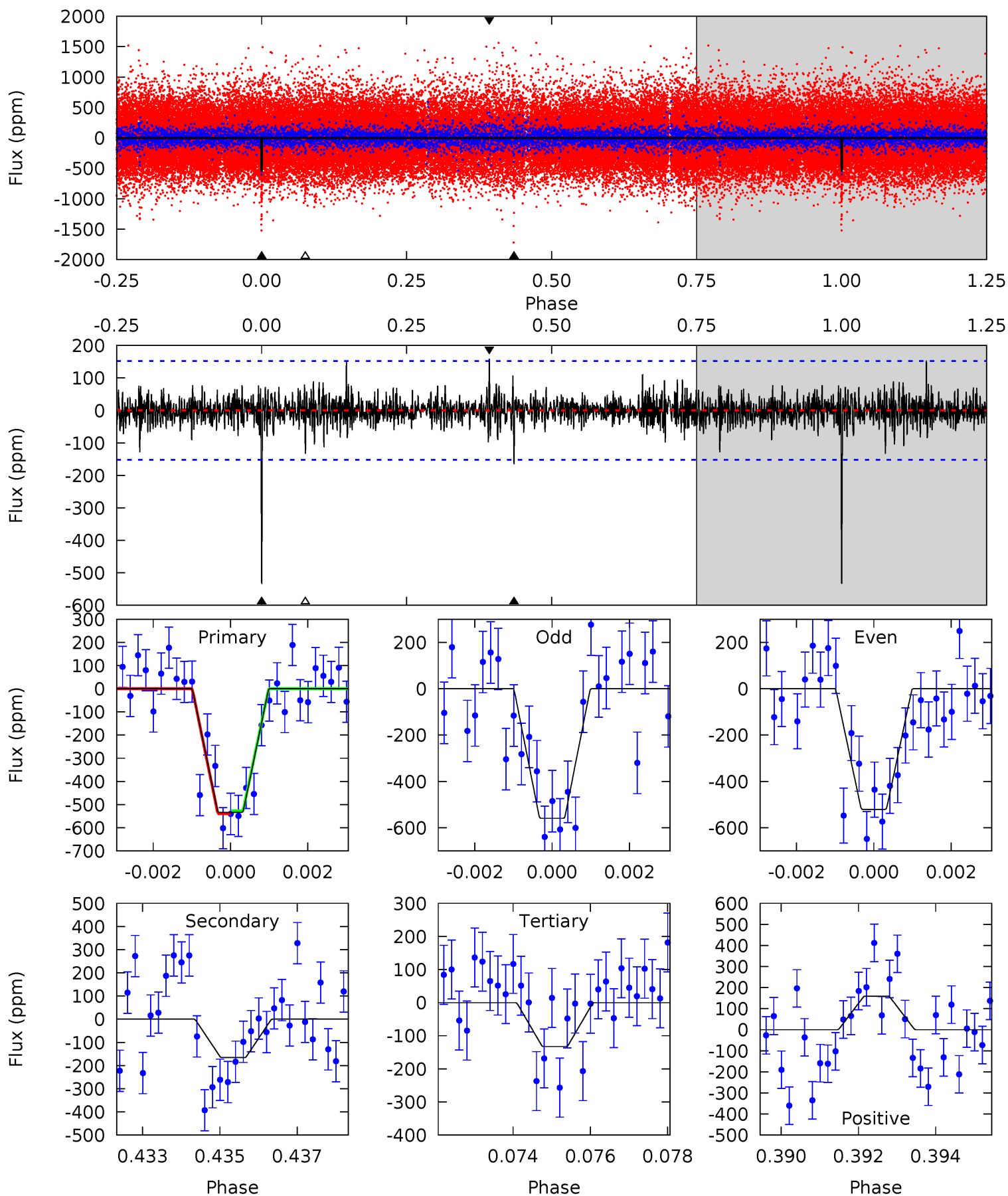
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	11.9	10.9	11.0	5.36	3.14	2.04	3.33	3.21	1.08	0.96	1.73	1.20	0.44	2.26



Alt Model-Shift Uniqueness Test

008547322-01, P = 530.802588 Days, E = 388.488076 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	5.80	4.65	5.58	5.34	3.11	1.06	14.1	13.1	1.15	0.21	0.64	0.95	0.23	0.21



Stellar Parameters For KIC 008547322

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5361^{+160}_{-160}	$4.487^{+0.074}_{-0.137}$	$0.020^{+0.250}_{-0.300}$	$0.874^{+0.168}_{-0.090}$	$0.856^{+0.097}_{-0.073}$	$1.806^{+0.568}_{-0.675}$
	+3%/-3%	+2%/-3%	+1250%/-1500%	+19%/-10%	+11%/-9%	+31%/-37%
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 008547322-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-377 ± 32	$2.12^{+0.82}_{-0.86}$	283^{+15}_{-13}	5108^{+1425}_{-633}	$69296^{+128542}_{-33733}$
Alt.	-165 ± 29	$2.39^{+0.91}_{-0.82}$	282^{+14}_{-12}	4159^{+762}_{-479}	24192^{+31115}_{-11822}

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

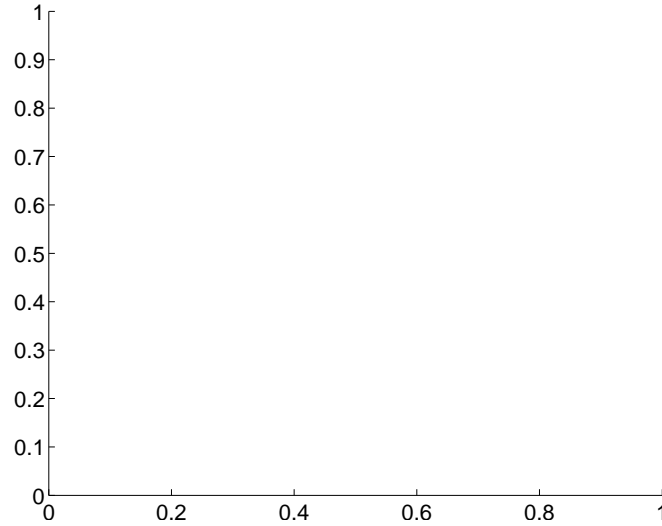
Supplemental centroid analysis for 008547322-01. Kepler magnitude: 15.04. Transit SNR 8.21

There are 0 quarters with good PRF difference image offsets

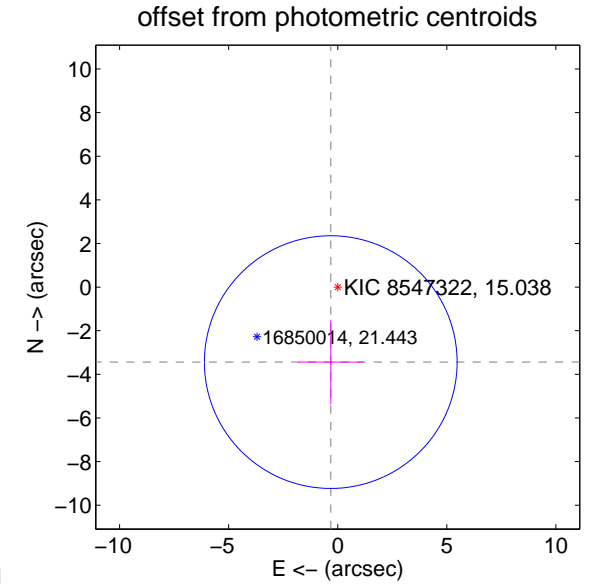
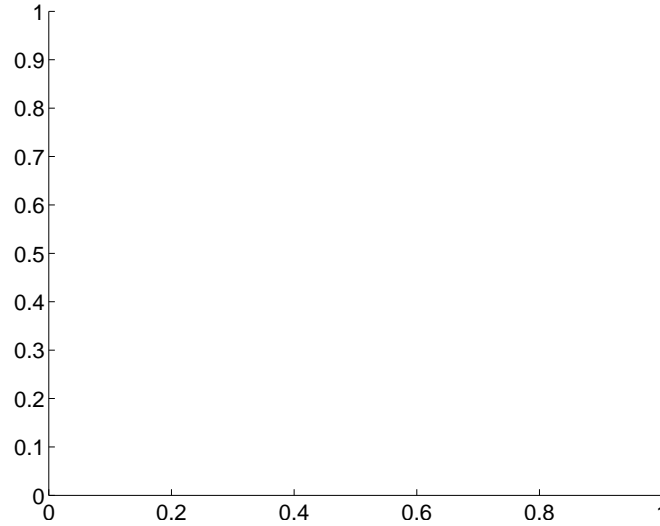
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.45 ± 1.93	1.79	0.32 ± 1.50	-3.44 ± 1.93

There is no PRF-fit offset from OOT-fit

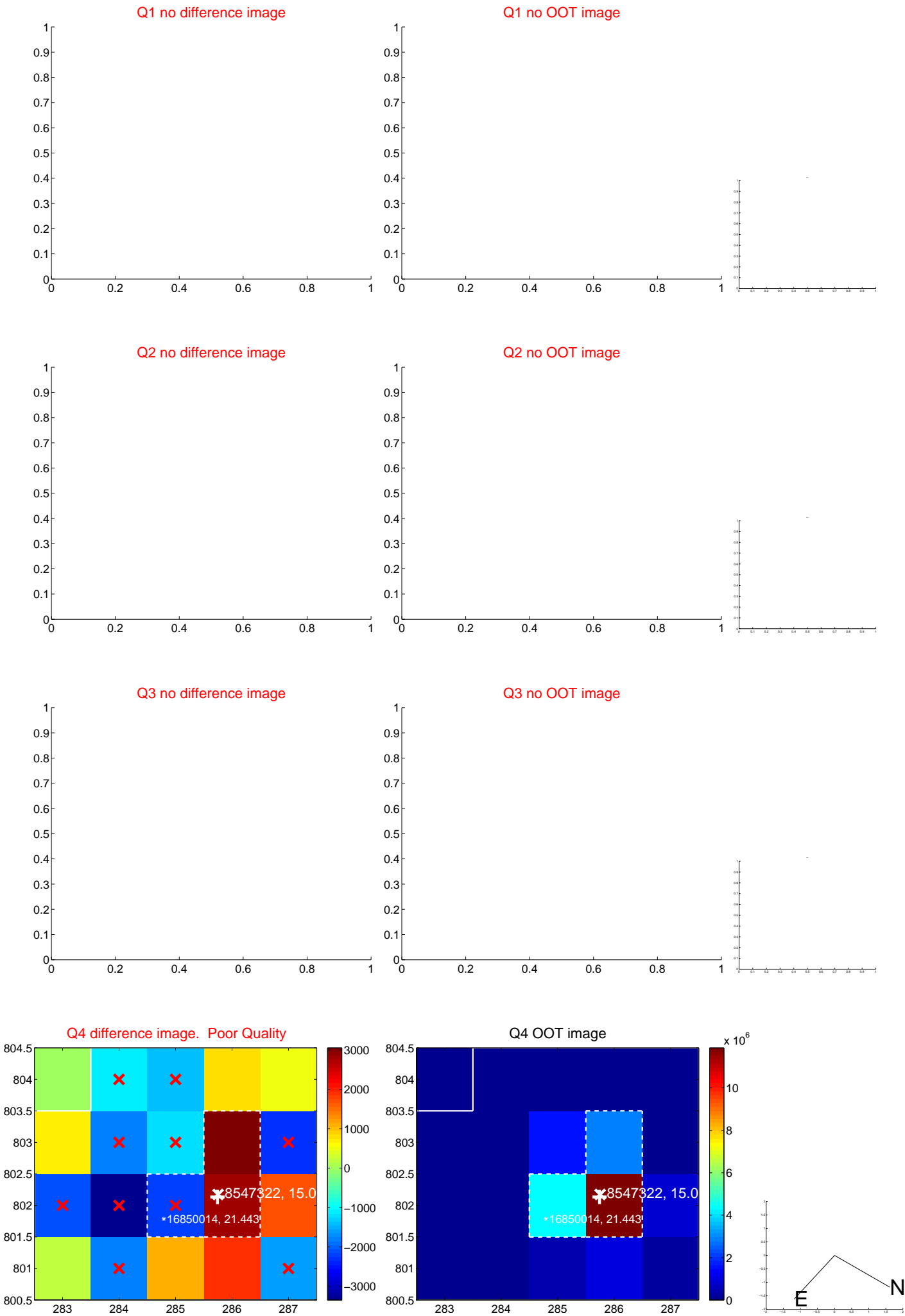


There is no PRF-fit offset from KIC



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.

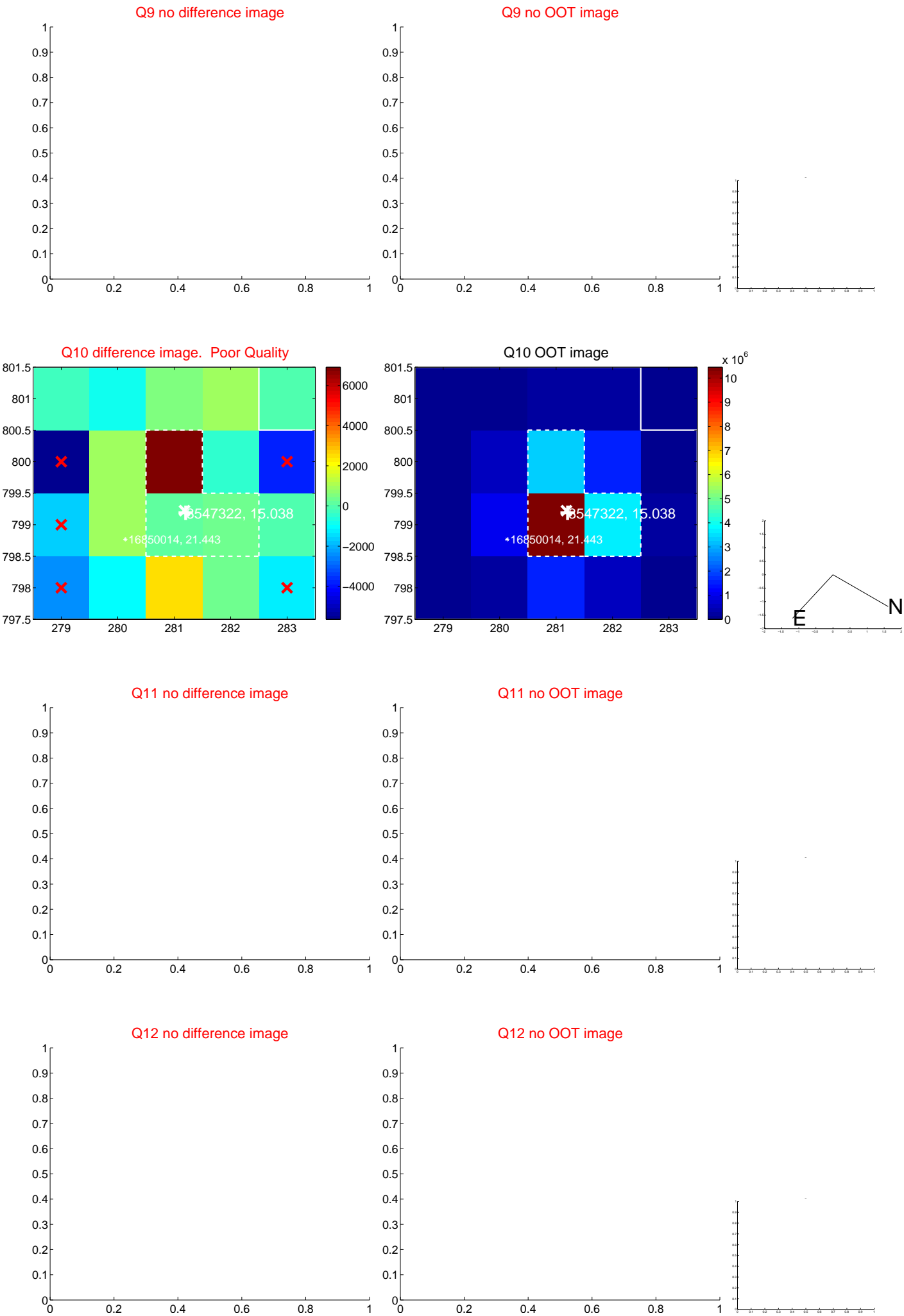
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



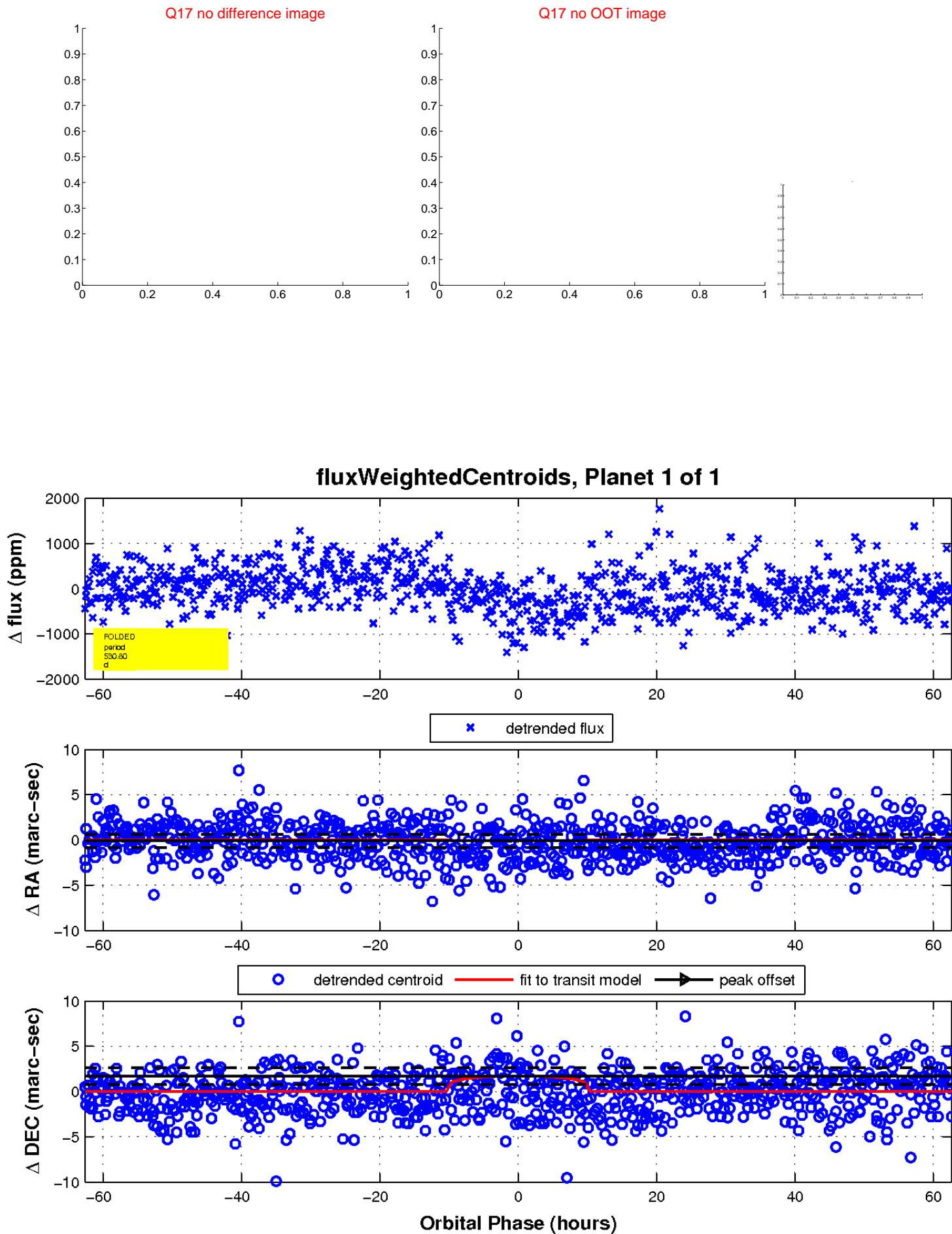
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

