

KIC 005783898

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})
005783898-01	OBS	No	379.065128	501.369199	789.5	19.987	7.3	7.1	0.74	5314	2.07	0.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005783898-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

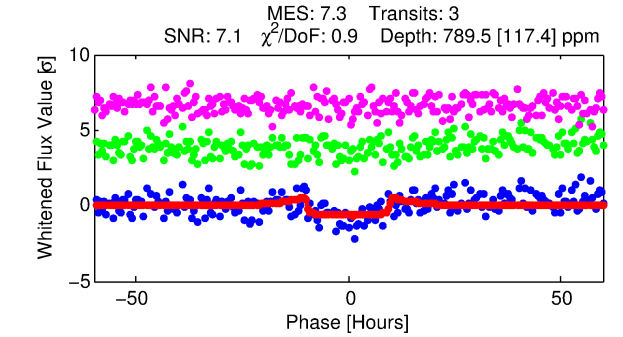
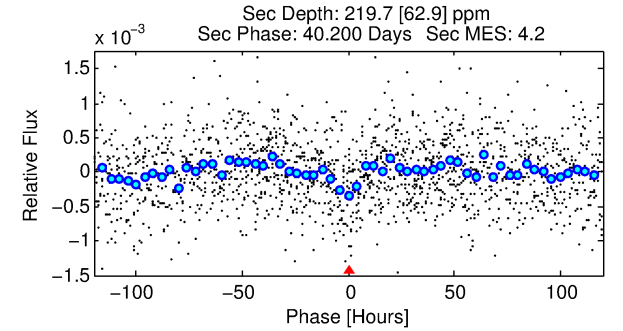
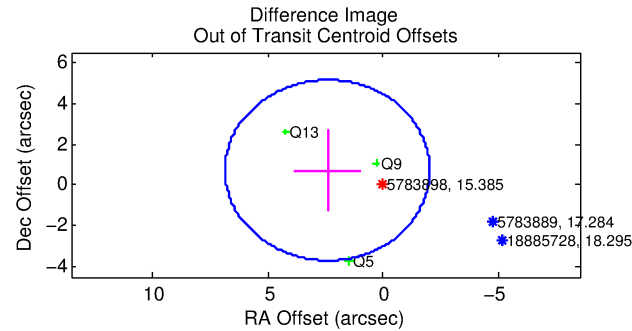
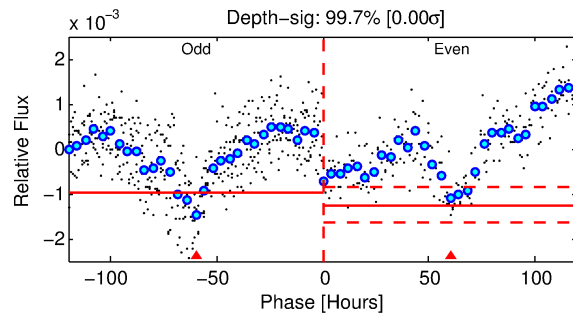
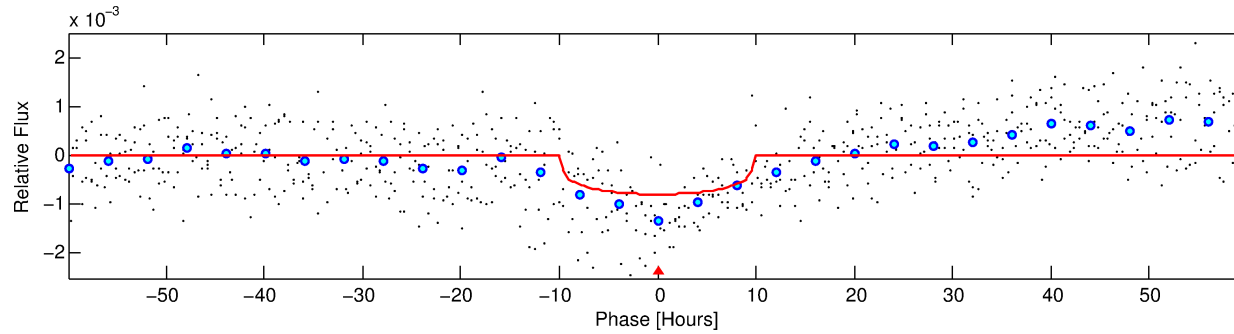
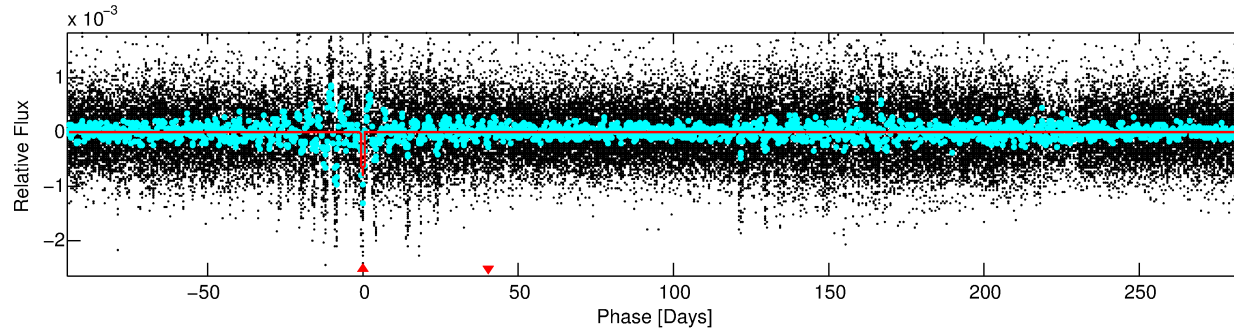
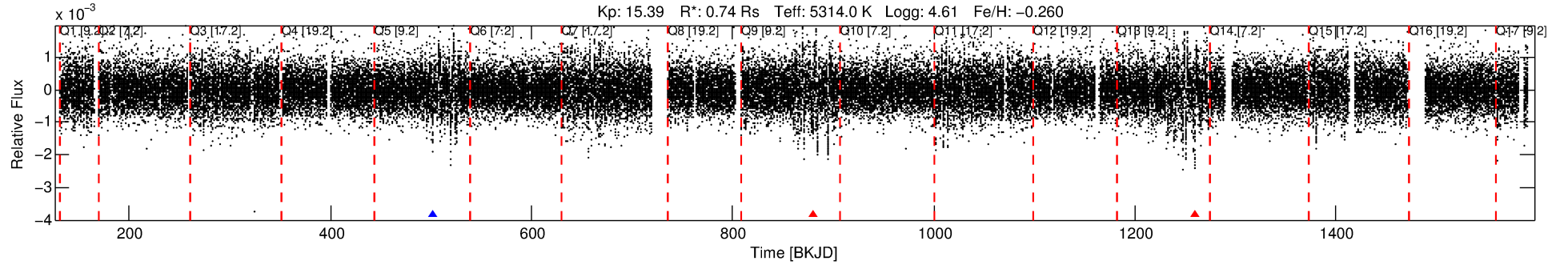
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005783898-01

No Significant Match Found

DV One-Page Summary

KIC: 5783898 Candidate: 1 of 1 Period: 379.065 d



DV Fit Results:

Period = 379.06513 [0.01491] d
Epoch = 501.3692 [0.0189] BKJD
Rp/R* = 0.0257 [0.0135]
a/R* = 138.10 [280.32]
b = 0.38 [4.59]
Seff = 0.42 [0.10]
Teq = 206 [12] K
Rp = 2.07 [1.14] Re
a = 0.9584 [0.1304] AU
Ag = 25887.69 [28537.27] [0.91 σ]
Teffp = 4035 [1101] K [3.48 σ]

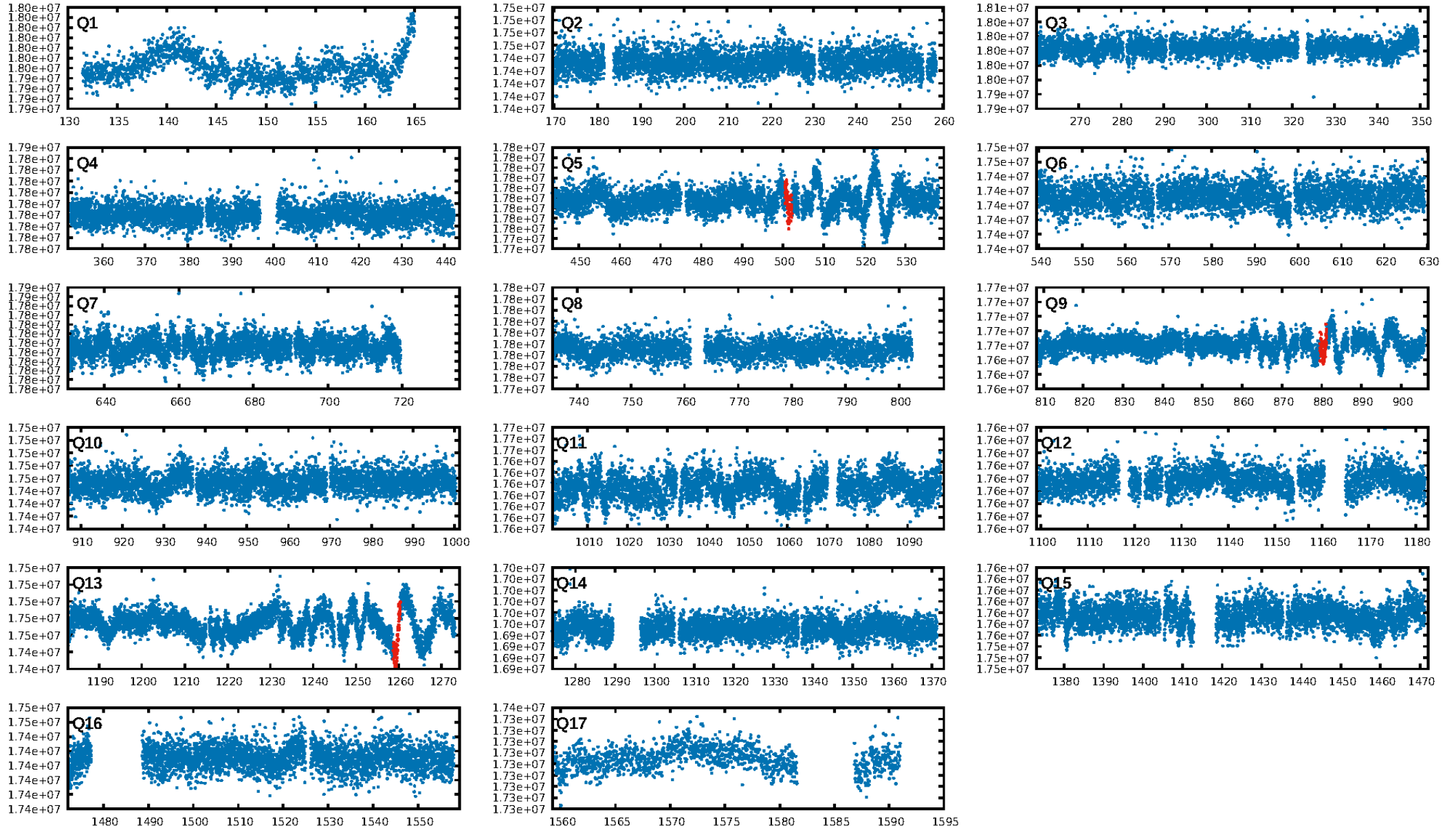
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.80e-08
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 1.643
Centroid-sig: 15.3%
Centroid-so: 3.629 arcsec [1.13 σ]
OotOffset-rm: 2.523 arcsec [1.71 σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 2.513 arcsec [1.70 σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

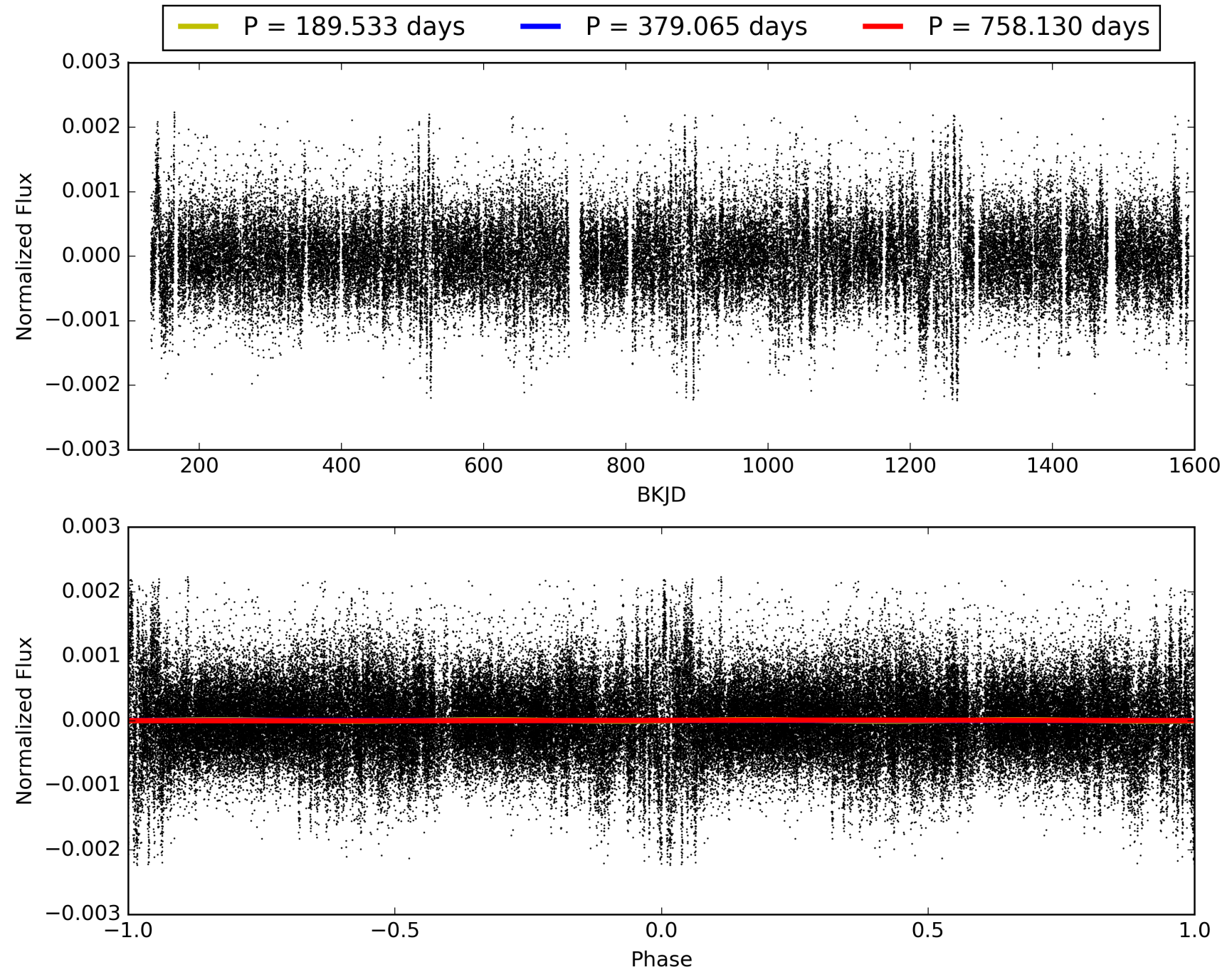
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:25:20 Z

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

TCE 005783898-01, PDC Light Curves

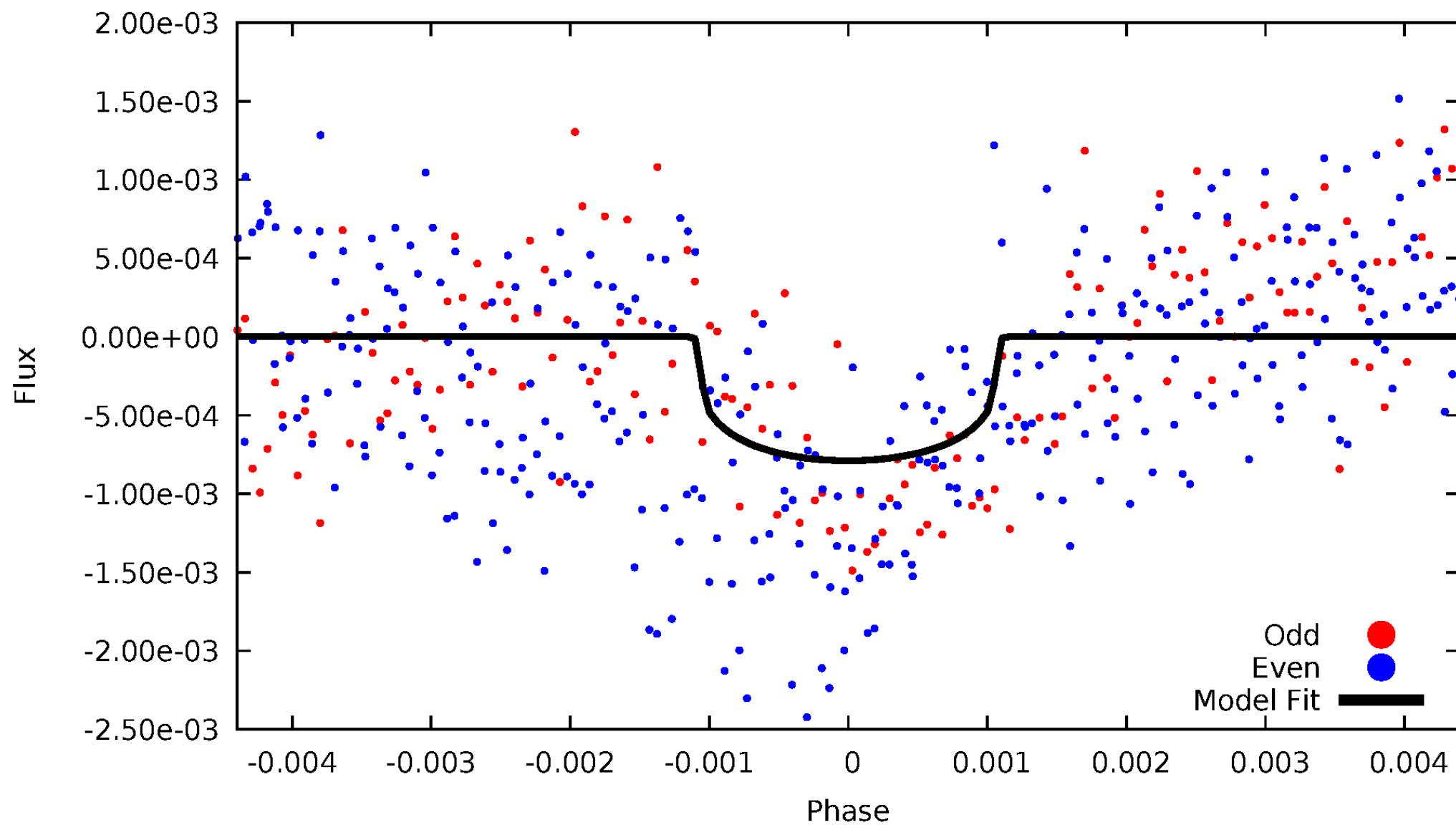


TCE 005783898-01



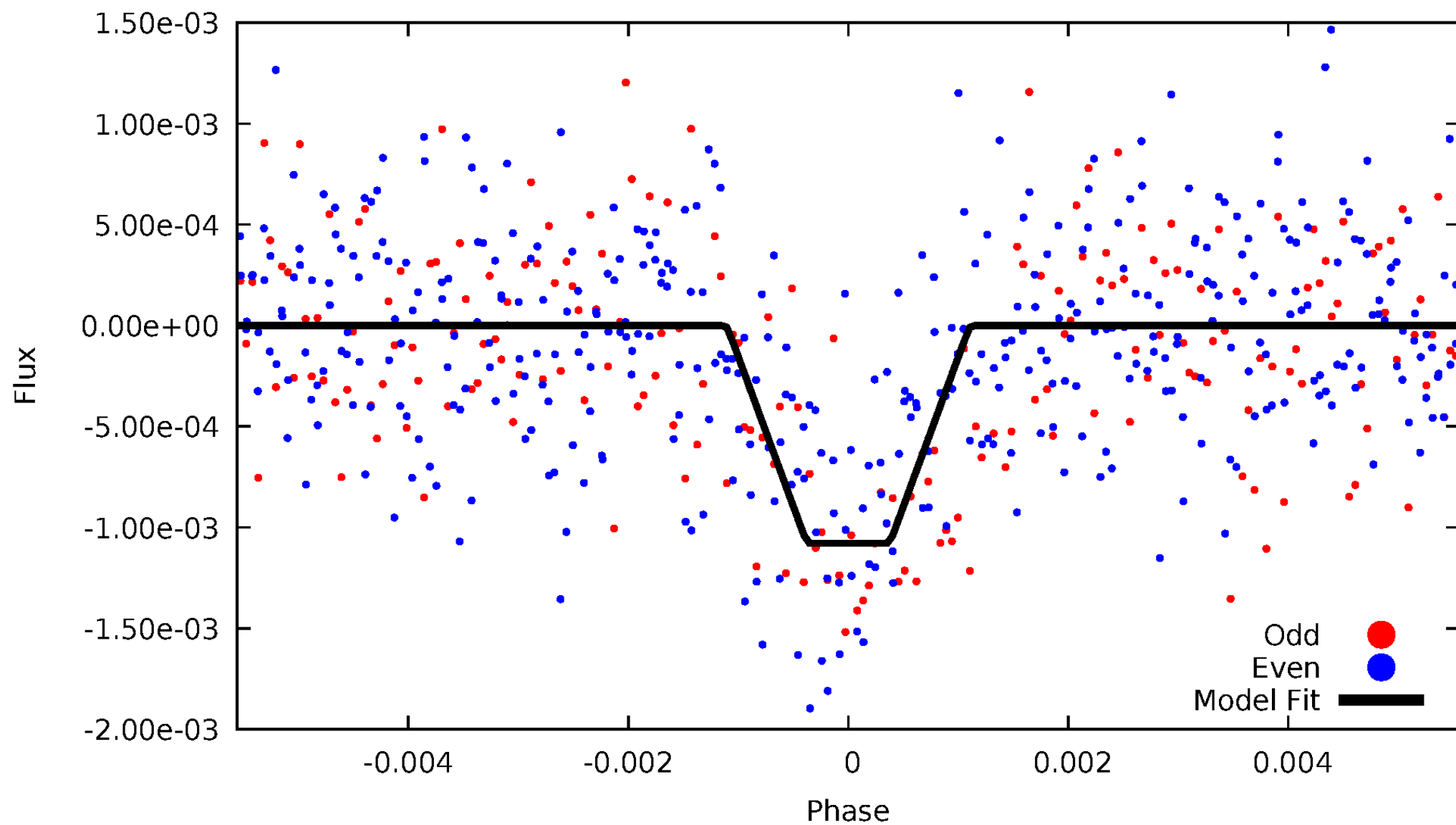
DV Odd/Even

TCE 005783898-01



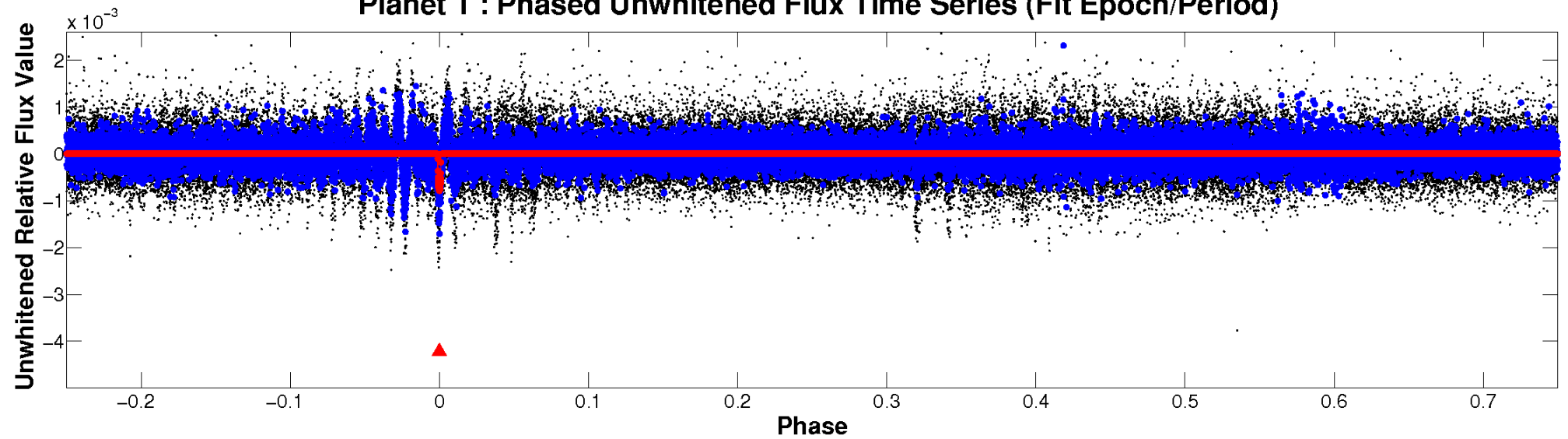
ALT Odd/Even

TCE 005783898-01

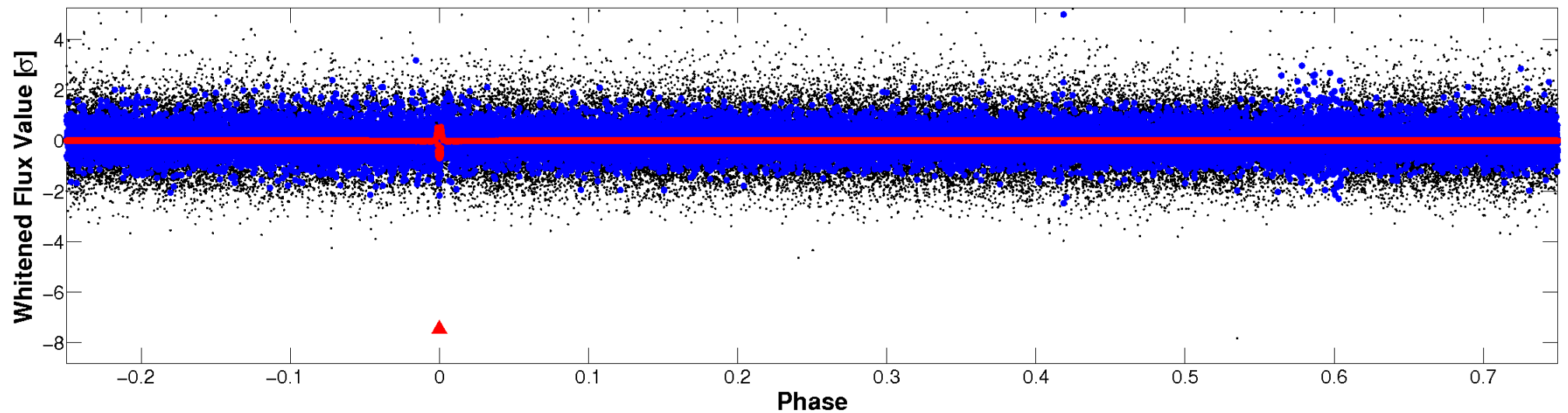


Non-Whitened Vs. Whitened Light Curve

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

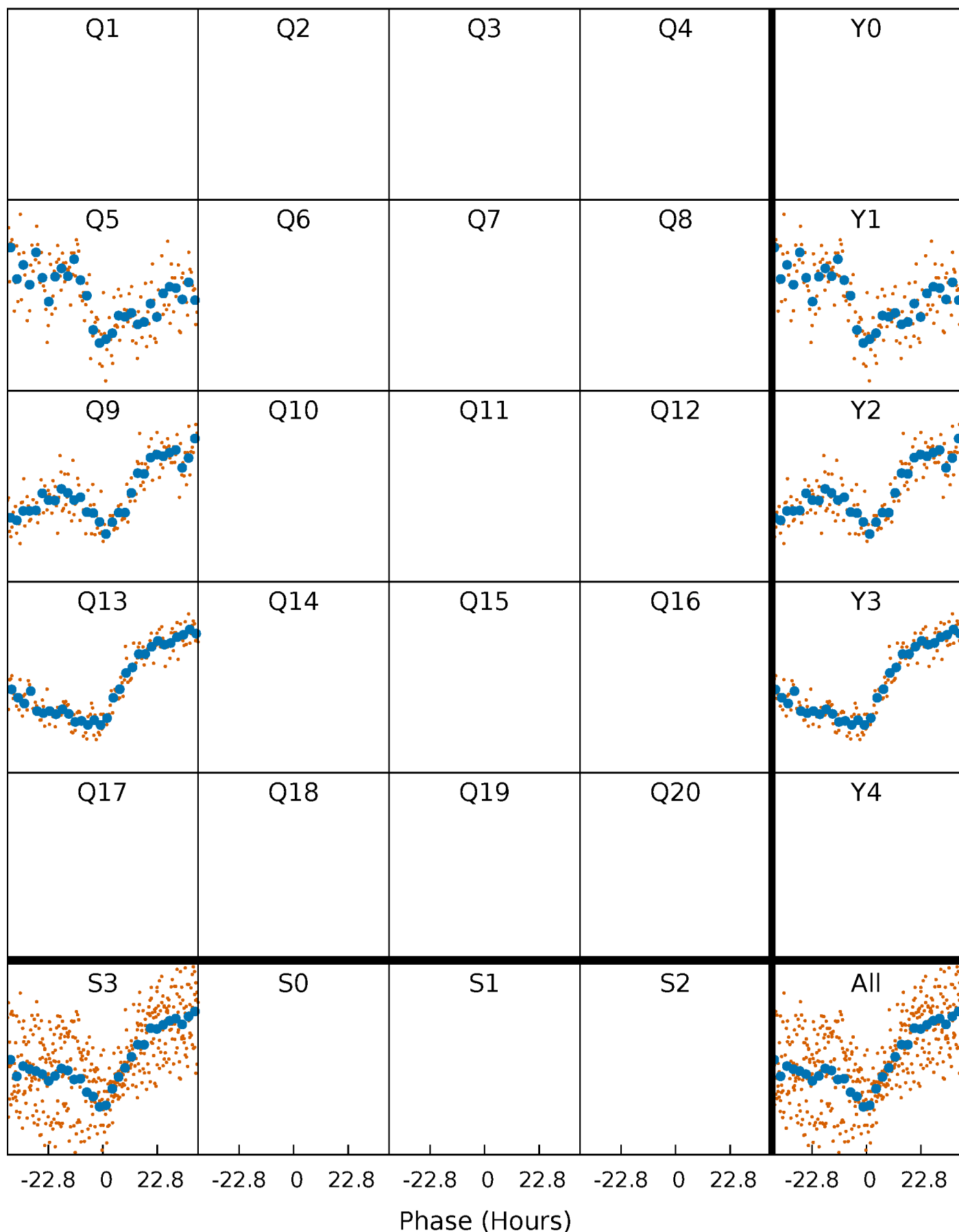


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



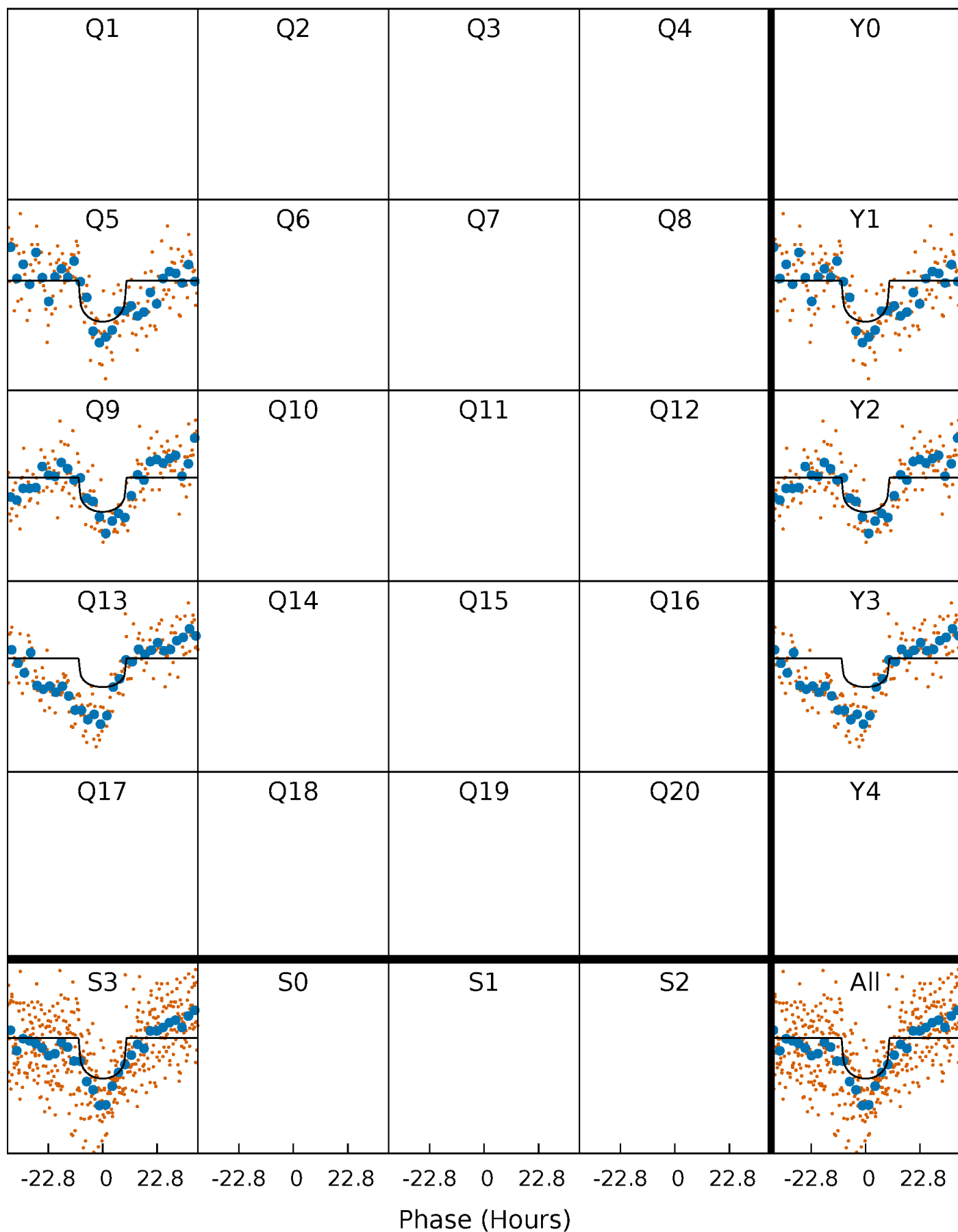
PDC Quarter-Phased Transit Curves

TCE 005783898-01 $P=379.065128$ Days $T_0=501.369199$ (BKJD)



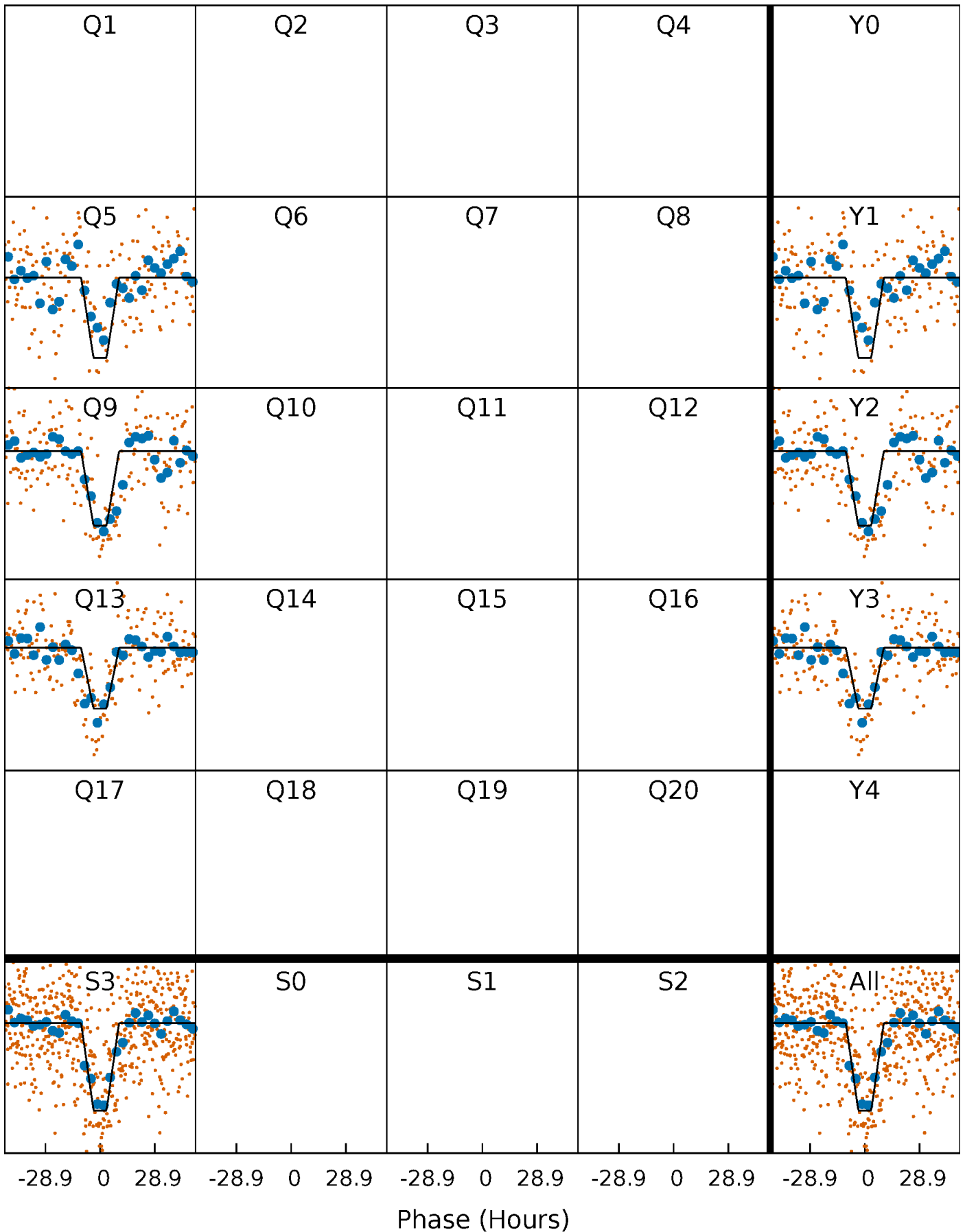
DV Quarter-Phased Transit Curves

TCE 005783898-01 $P=379.065128$ Days $T_0=501.369199$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

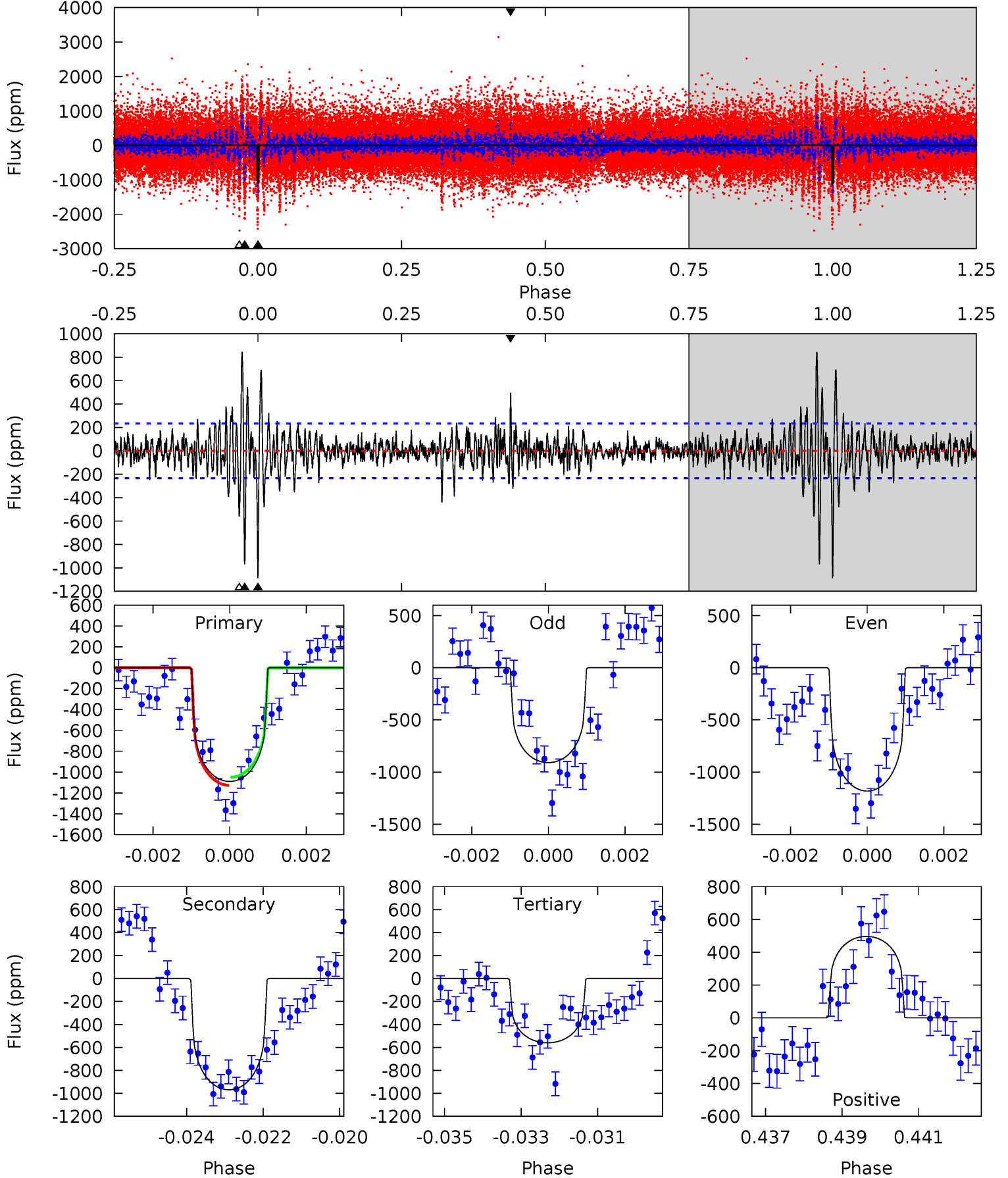
TCE 005783898-01 P=379.062972 Days $T_0=501.392661$ (BKJD)



DV Model-Shift Uniqueness Test

005783898-01, P = 379.065128 Days, E = 122.304071 Days

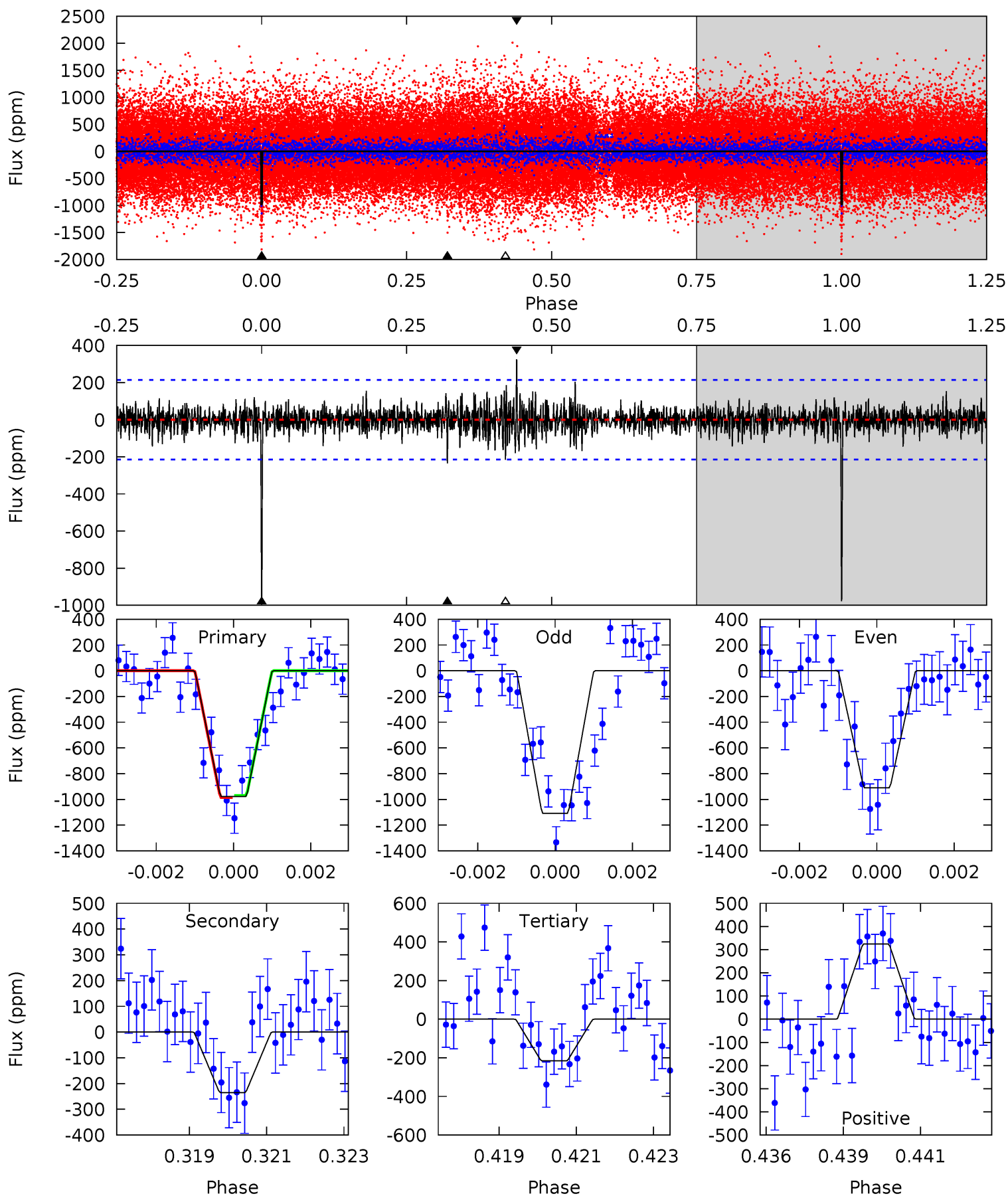
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.8	22.0	12.7	11.3	5.31	3.06	2.64	12.0	13.5	9.29	10.7	2.94	1.19	0.44	0.87



Alt Model-Shift Uniqueness Test

005783898-01, P = 379.062972 Days, E = 122.329689 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	5.82	5.35	8.04	5.31	3.06	1.24	18.8	16.2	0.47	-2.23	2.34	0.88	0.25	0.21



Stellar Parameters For KIC 005783898

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5314^{+159}_{-159}	$4.614^{+0.032}_{-0.104}$	$-0.260^{+0.300}_{-0.300}$	$0.738^{+0.122}_{-0.057}$	$0.826^{+0.078}_{-0.096}$	$2.890^{+0.434}_{-0.940}$
	+3%/-3%	+1%/-2%	+115%/-115%	+17%/-8%	+9%/-12%	+15%/-33%
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 005783898-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-969 ± 44	$2.16^{+1.08}_{-1.07}$	291^{+13}_{-11}	5805^{+2478}_{-1008}	$105351^{+308760}_{-58742}$
Alt.	-235 ± 40	$2.80^{+1.13}_{-1.11}$	293^{+13}_{-12}	3892^{+850}_{-427}	14612^{+27755}_{-7281}

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 $A_{\text{obs}} \gg 1.0$

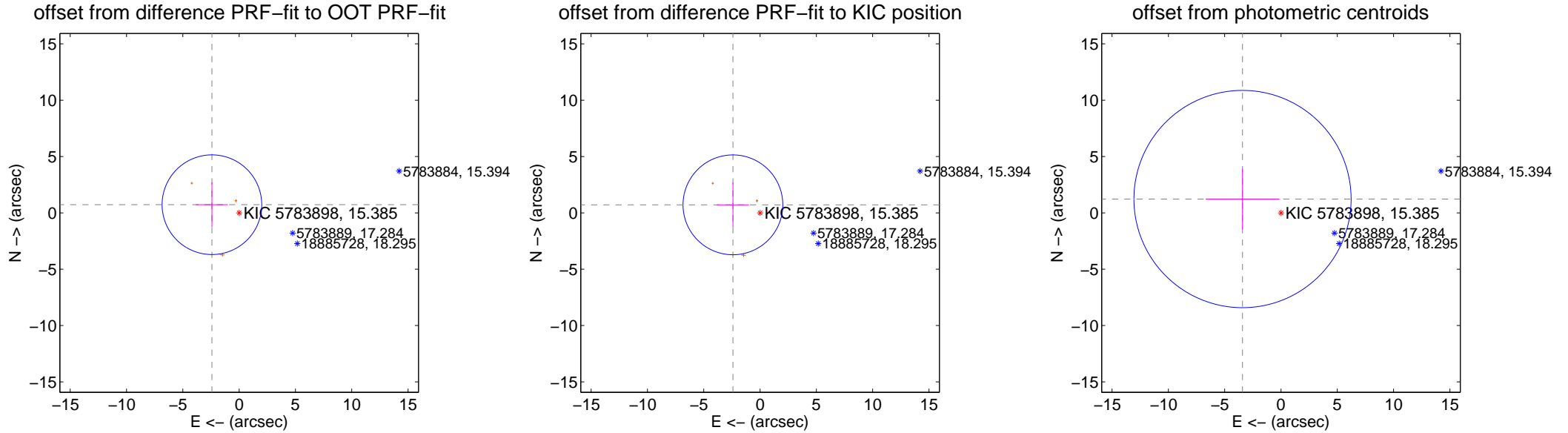
DV Centroid Data

Supplemental centroid analysis for 005783898-01. Kepler magnitude: 15.38. Transit SNR 7.11

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.523 ± 1.474	1.71	2.417 ± 1.420	0.725 ± 1.977
PRF-fit source offset from KIC position	2.513 ± 1.477	1.70	2.410 ± 1.424	0.713 ± 1.984
photometric centroid source offset	3.63 ± 3.21	1.13	3.41 ± 3.28	1.23 ± 2.69

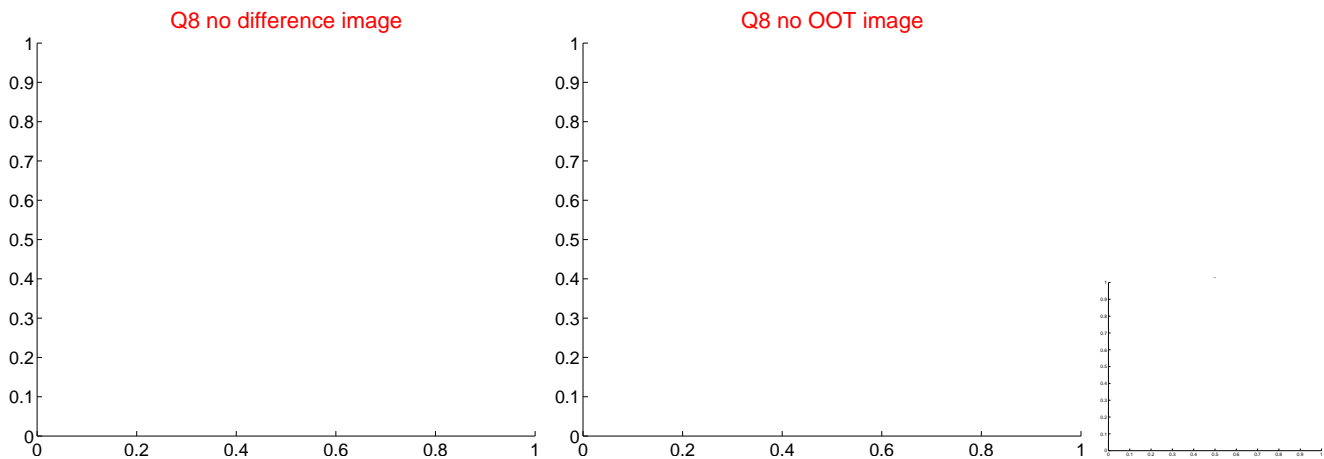
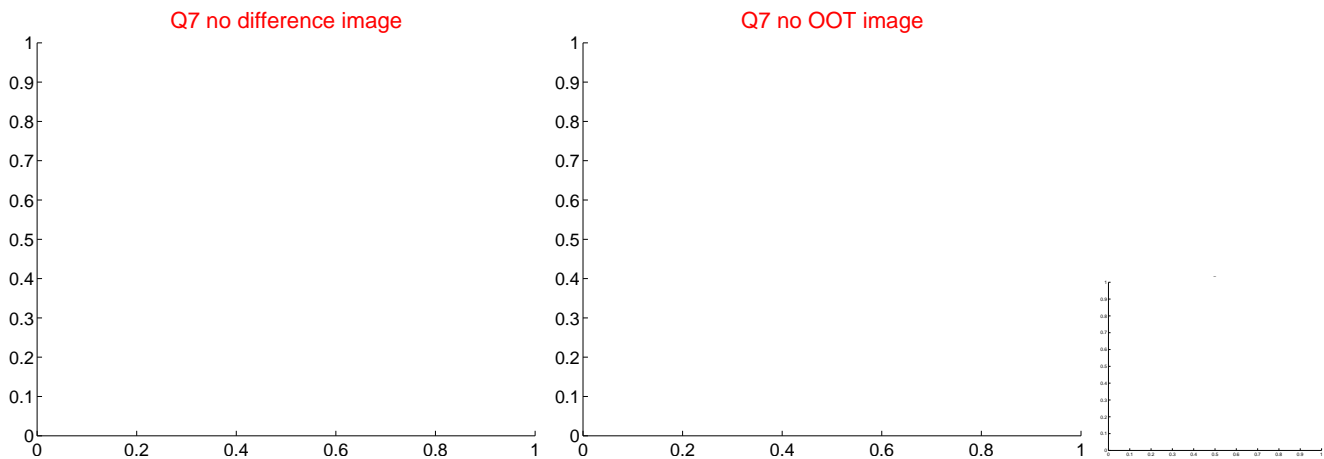
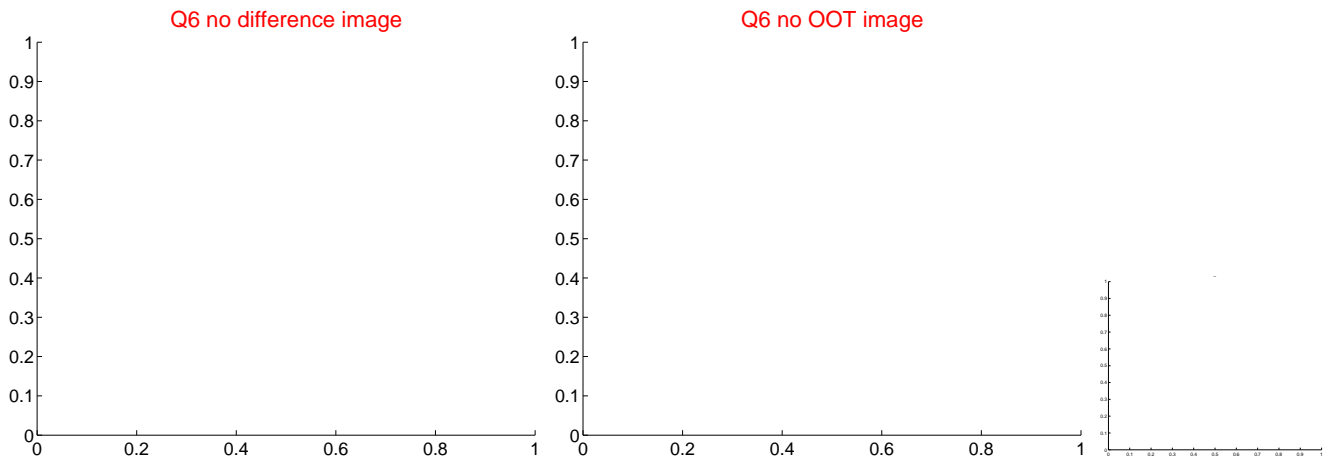
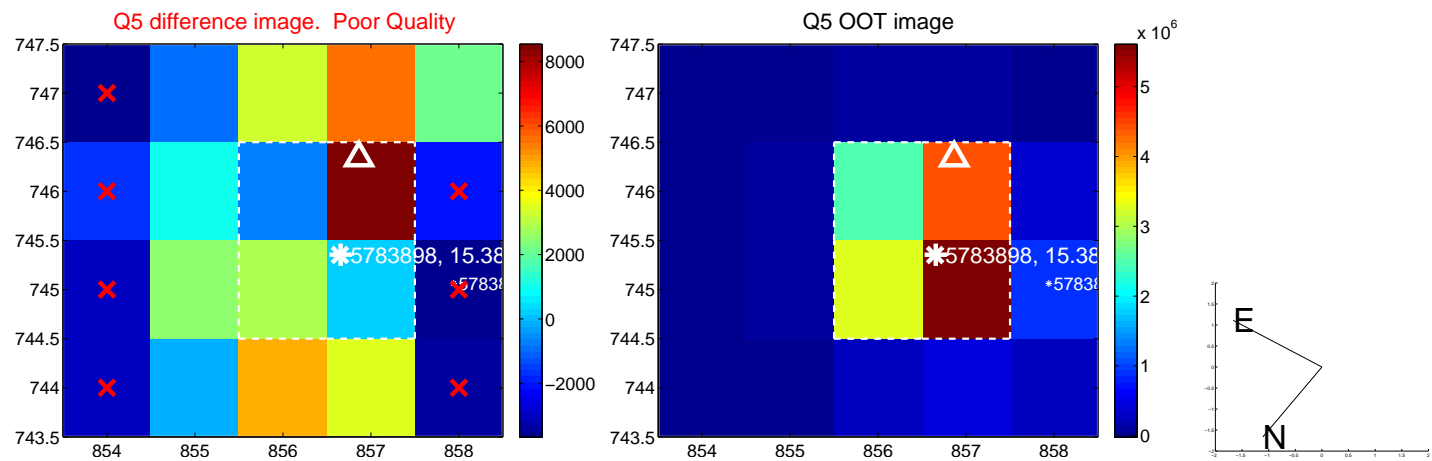


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

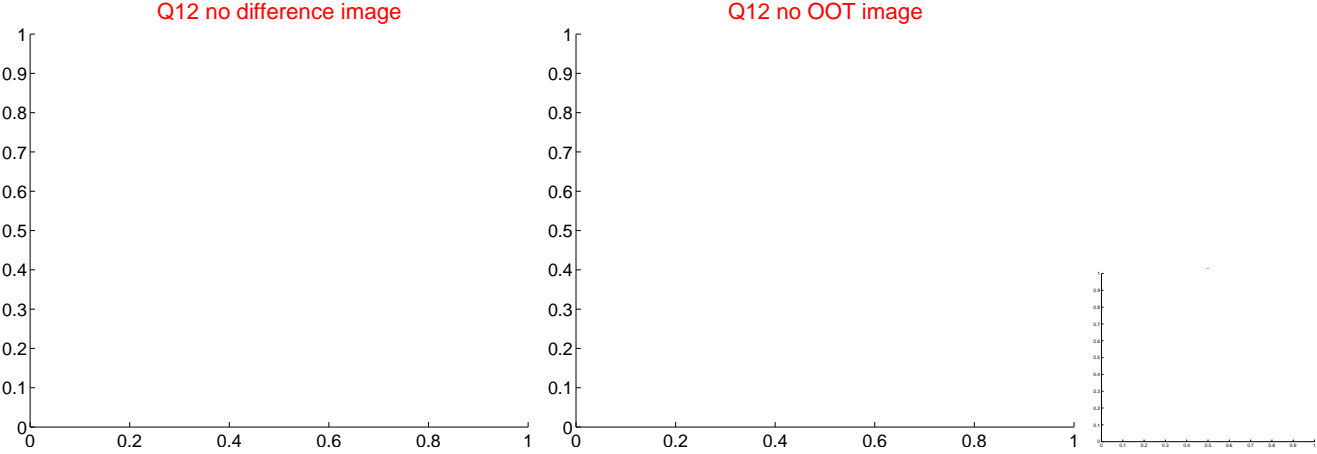
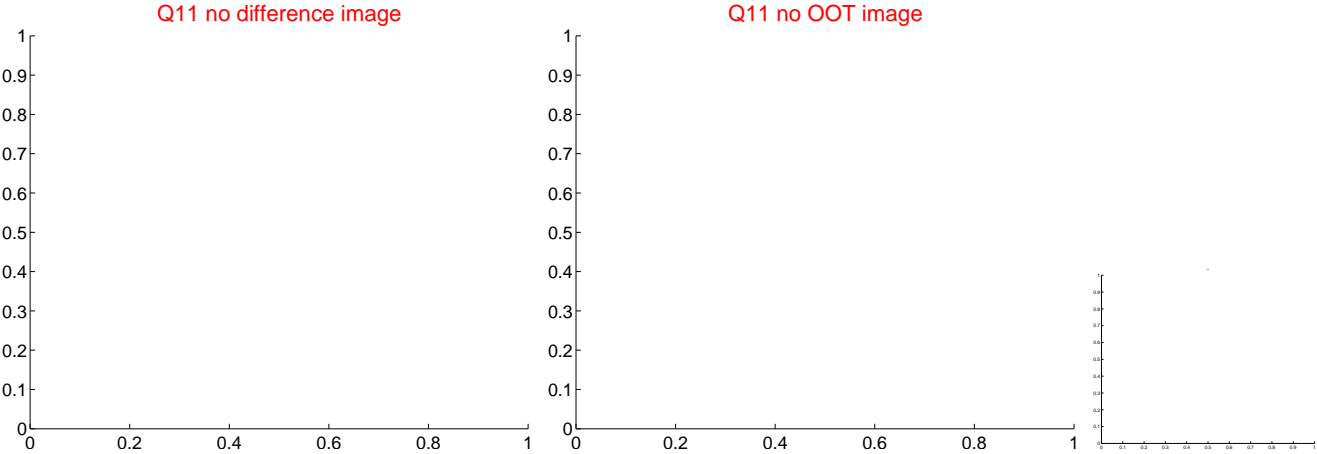
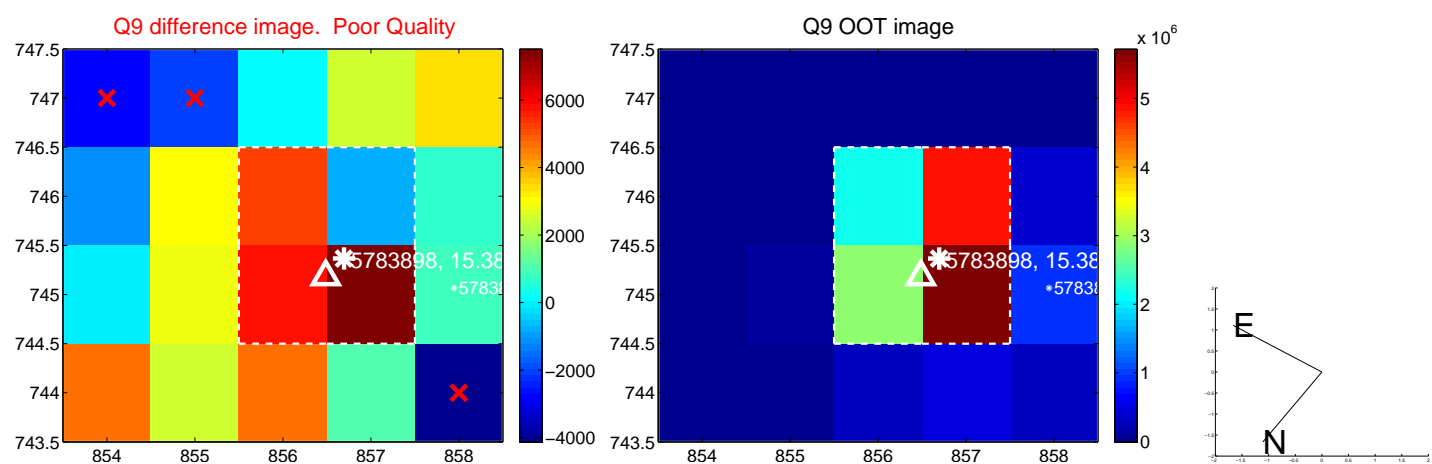
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



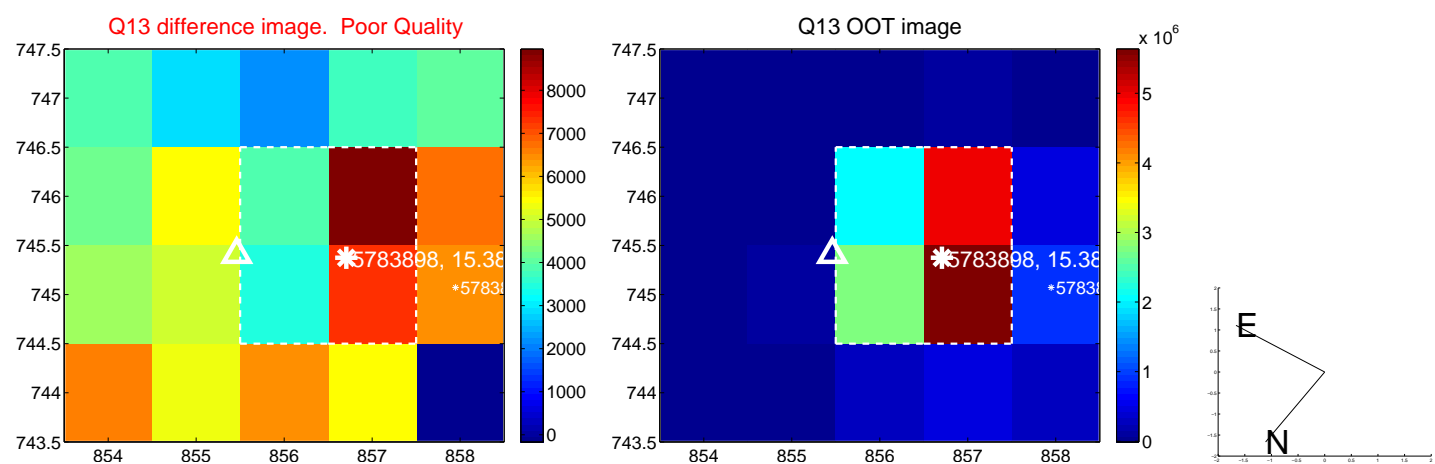
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



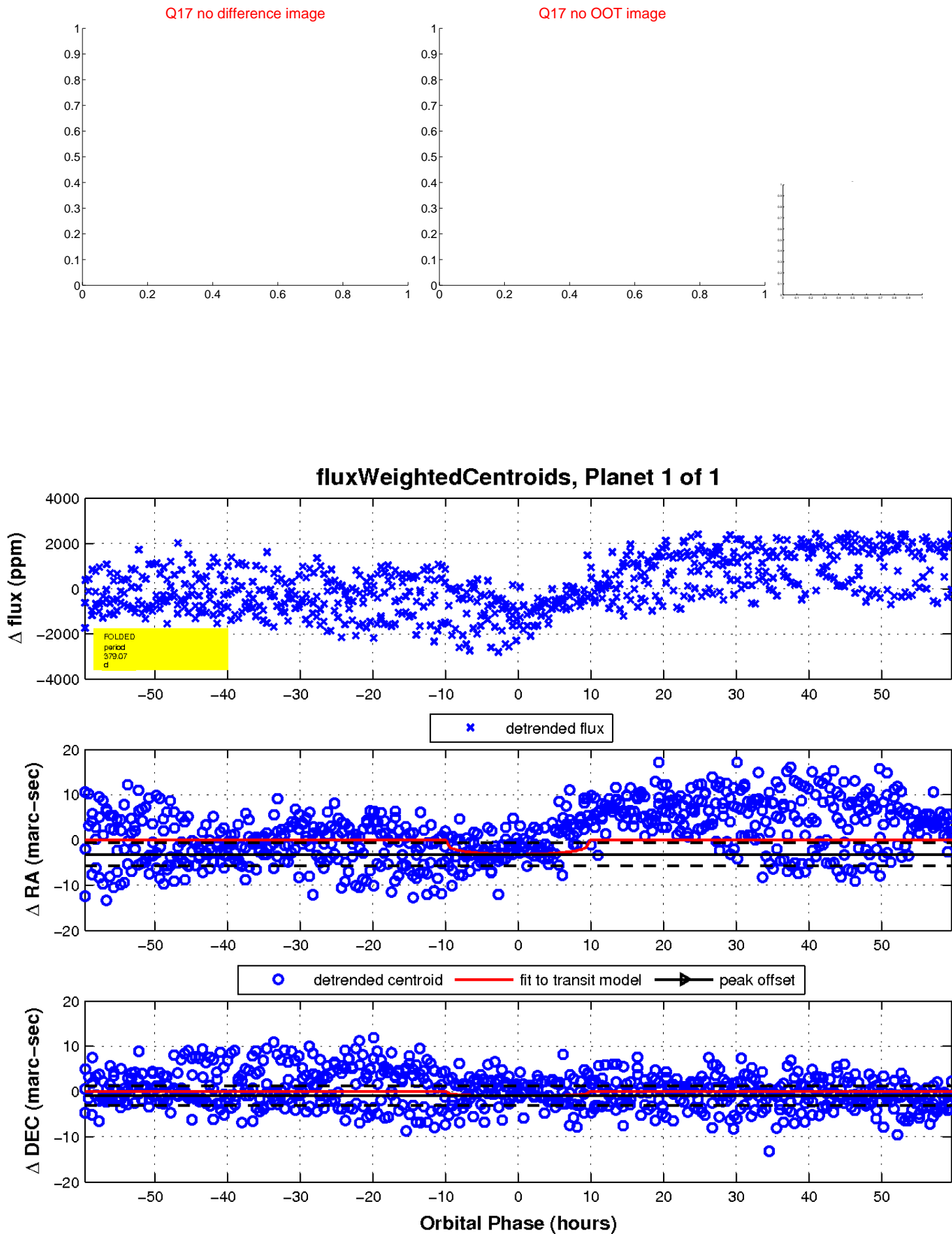
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



white ×: 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.



UKIRT Image

Declination

