

KIC 007129686

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})
007129686-01	OBS	No	228.660090	270.562463	1352.4	7.285	9.0	8.8	0.63	4427	2.60	0.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007129686-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_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.

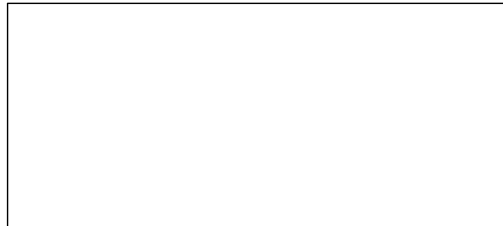
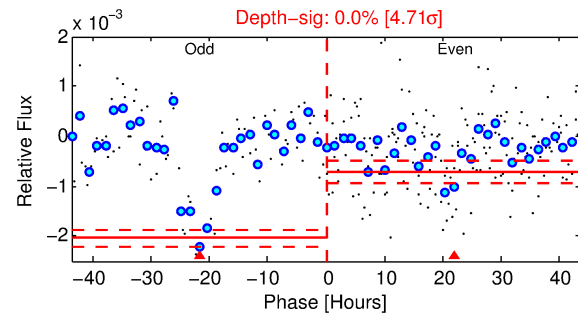
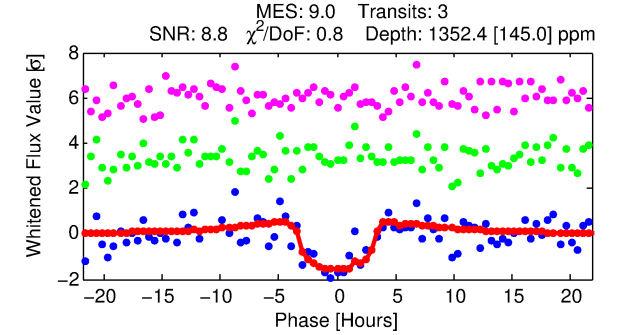
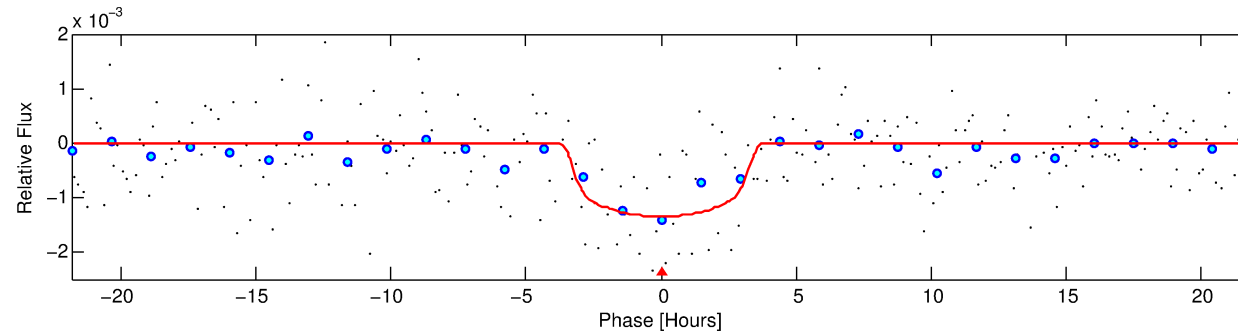
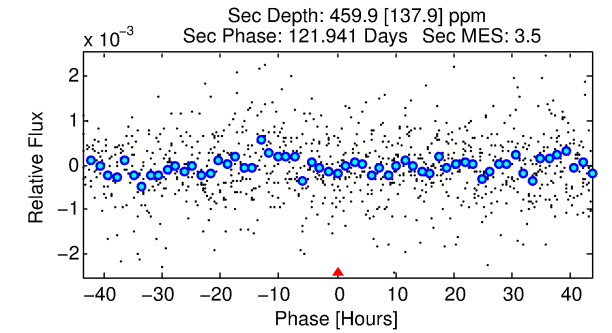
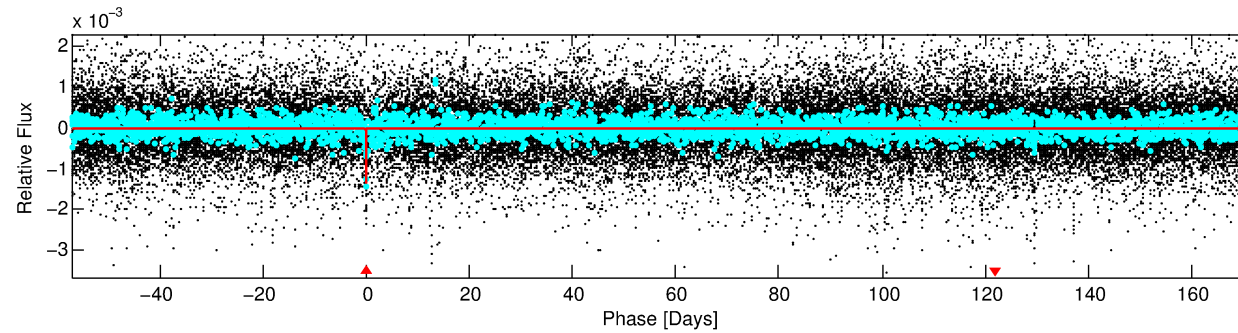
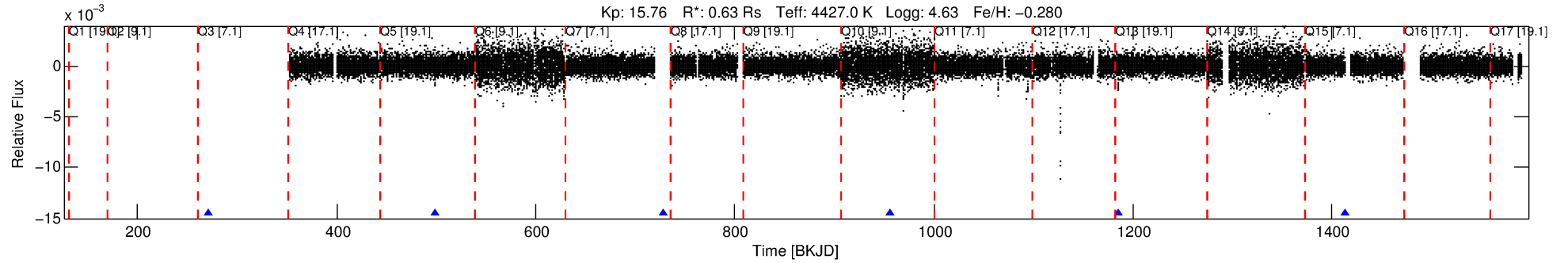
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007129686-01

No Significant Match Found

DV One-Page Summary

KIC: 7129686 Candidate: 1 of 1 Period: 228.660 d



DV Fit Results:

Period = 228.66009 [0.00534] d
Epoch = 270.5625 [0.0175] BKJD
Rp/R* = 0.0377 [0.0125]
a/R* = 159.98 [180.36]
b = 0.79 [0.53]
Seff = 0.35 [0.06]
Teq = 197 [9] K
Rp = 2.61 [0.90] Re
a = 0.6239 [0.0472] AU
Ag = 14511.77 [10668.28] [1.36σ]
Teffp = 3338 [619] K [5.07σ]

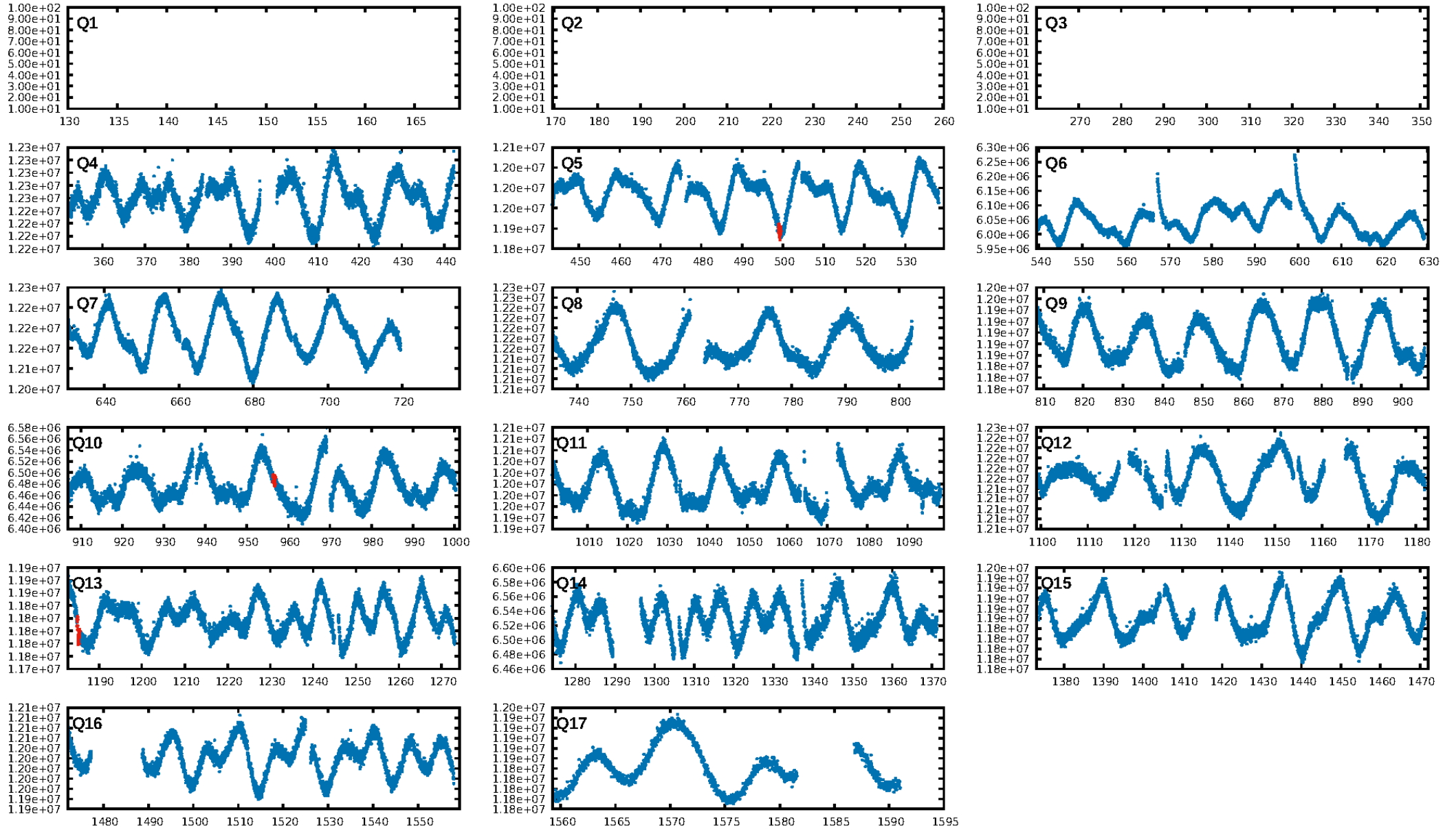
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
Bootstrap-pfa: 3.73e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.4498
Centroid-sig: 32.7%
Centroid-so: 0.896 arcsec [1.08σ]
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 [2/2]

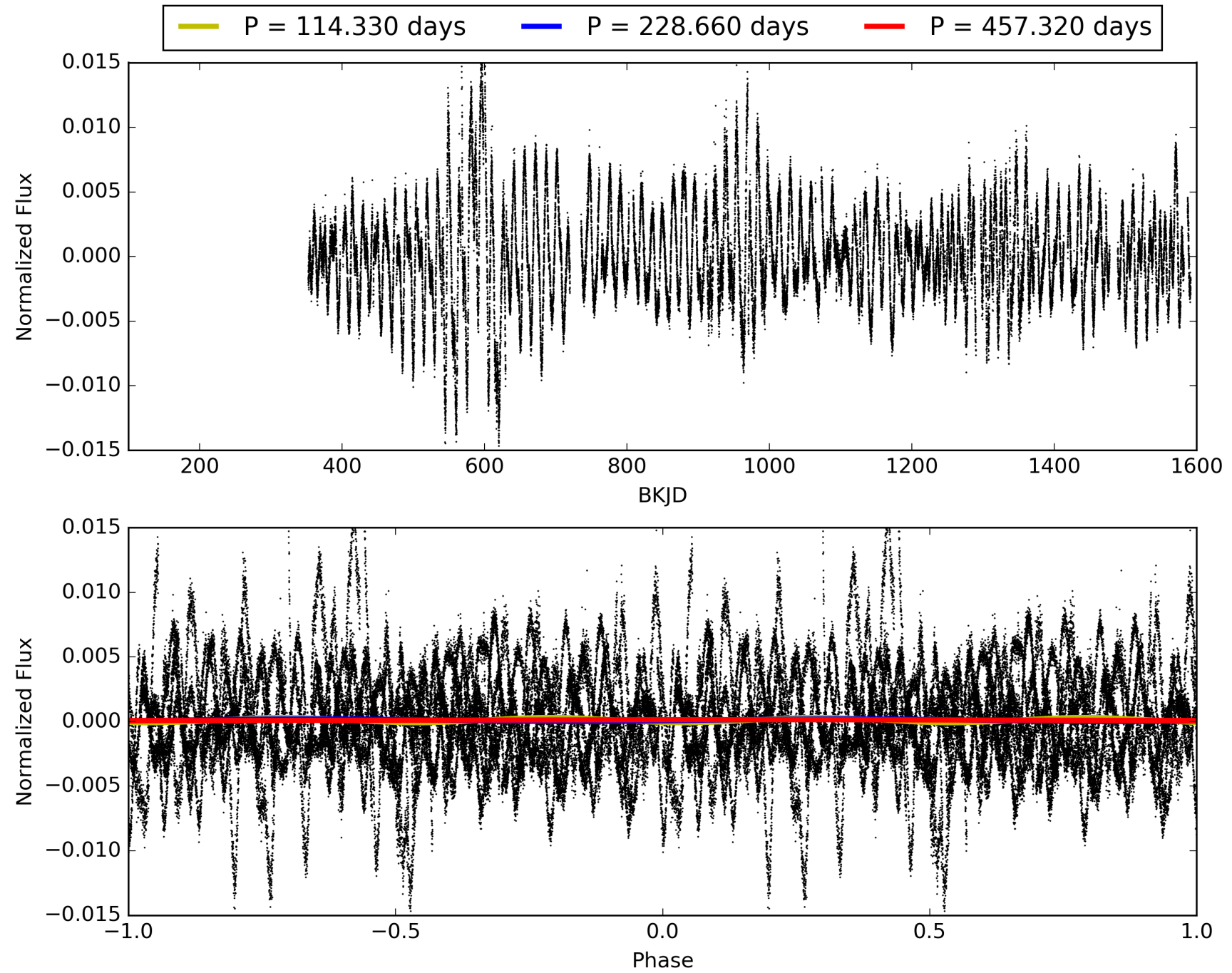
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:18:22 Z

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

TCE 007129686-01, PDC Light Curves

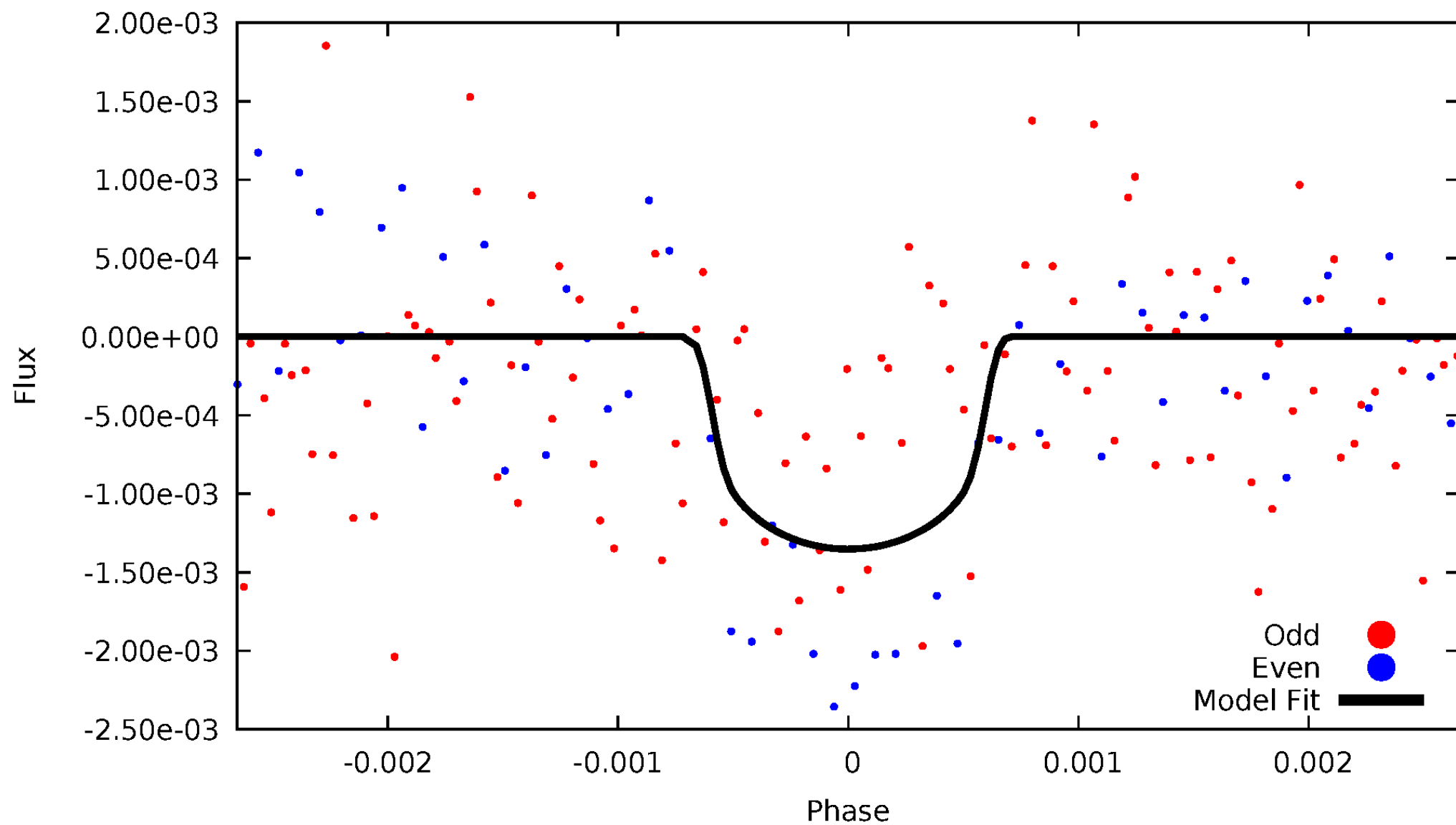


TCE 007129686-01



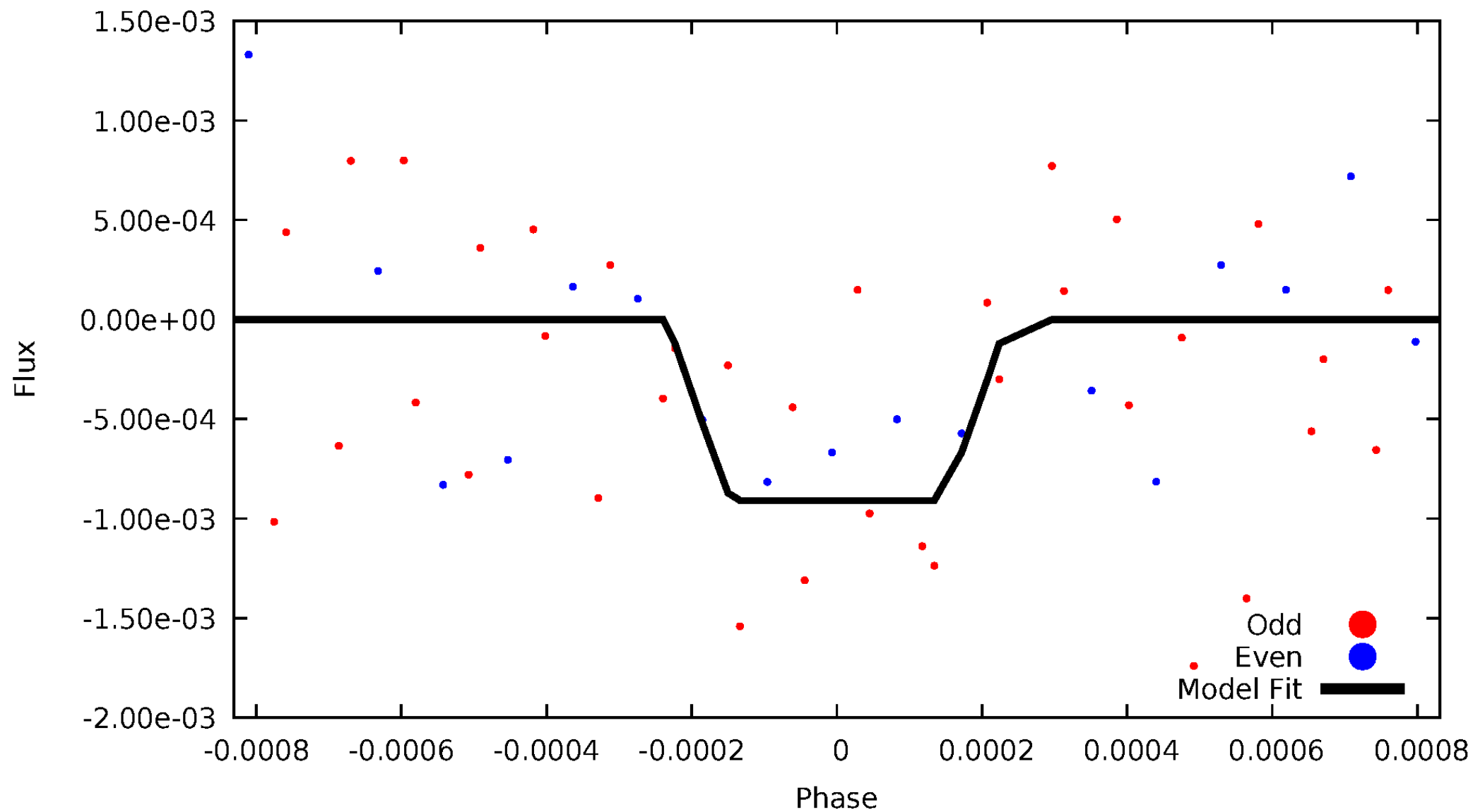
DV Odd/Even

TCE 007129686-01



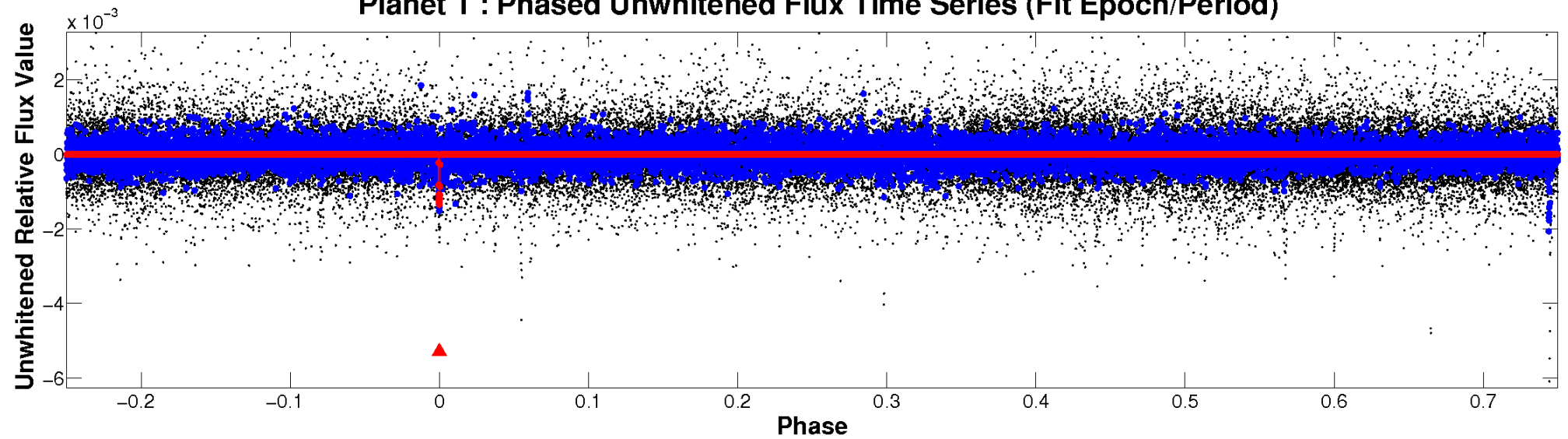
ALT Odd/Even

TCE 007129686-01

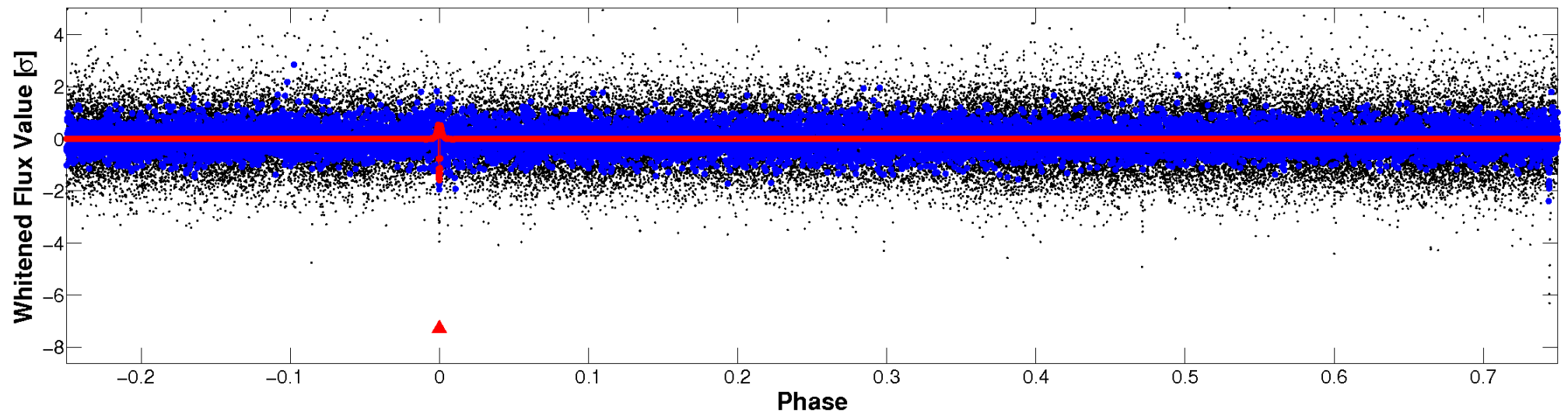


Non-Whitened Vs. Whitened Light Curve

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

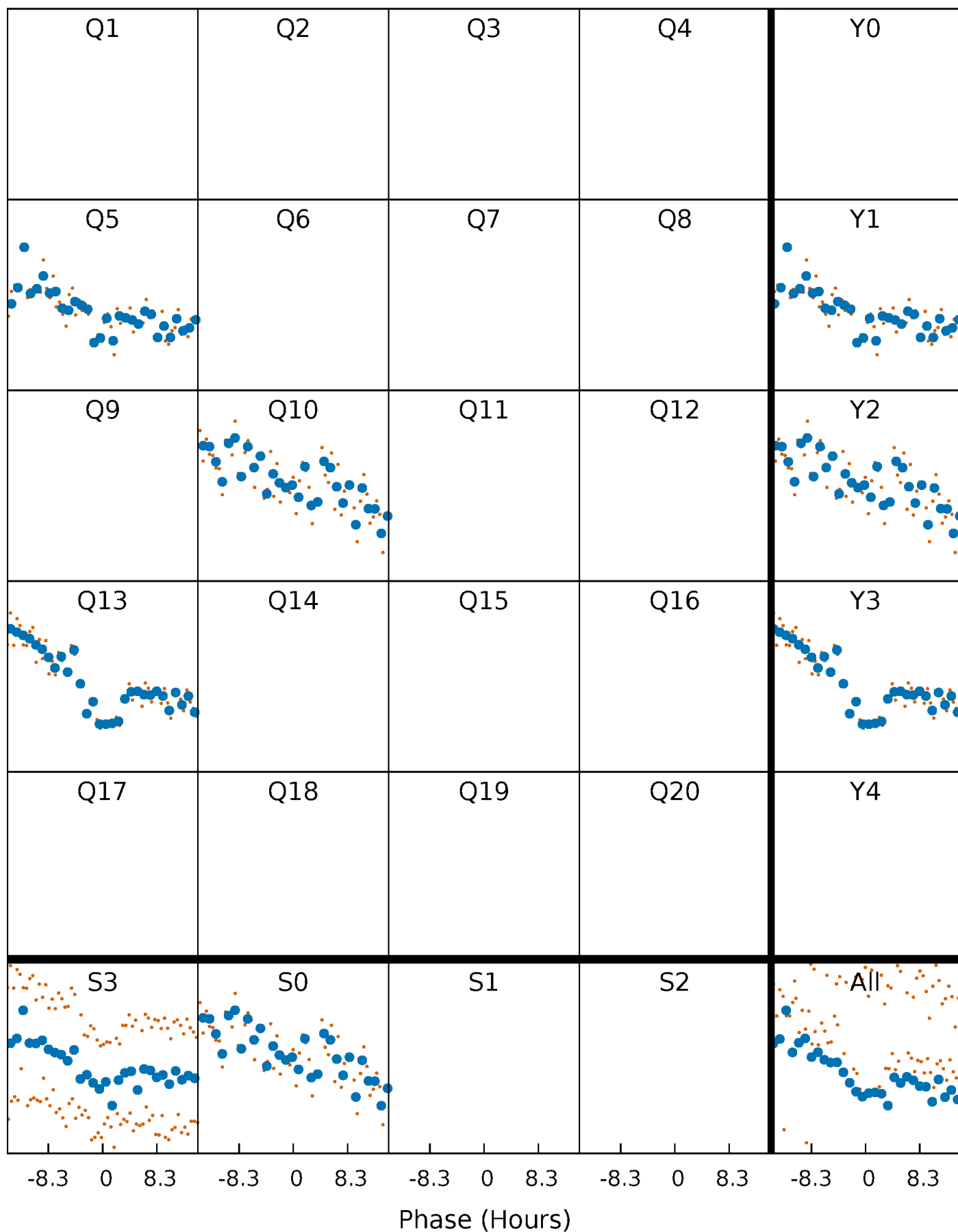


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



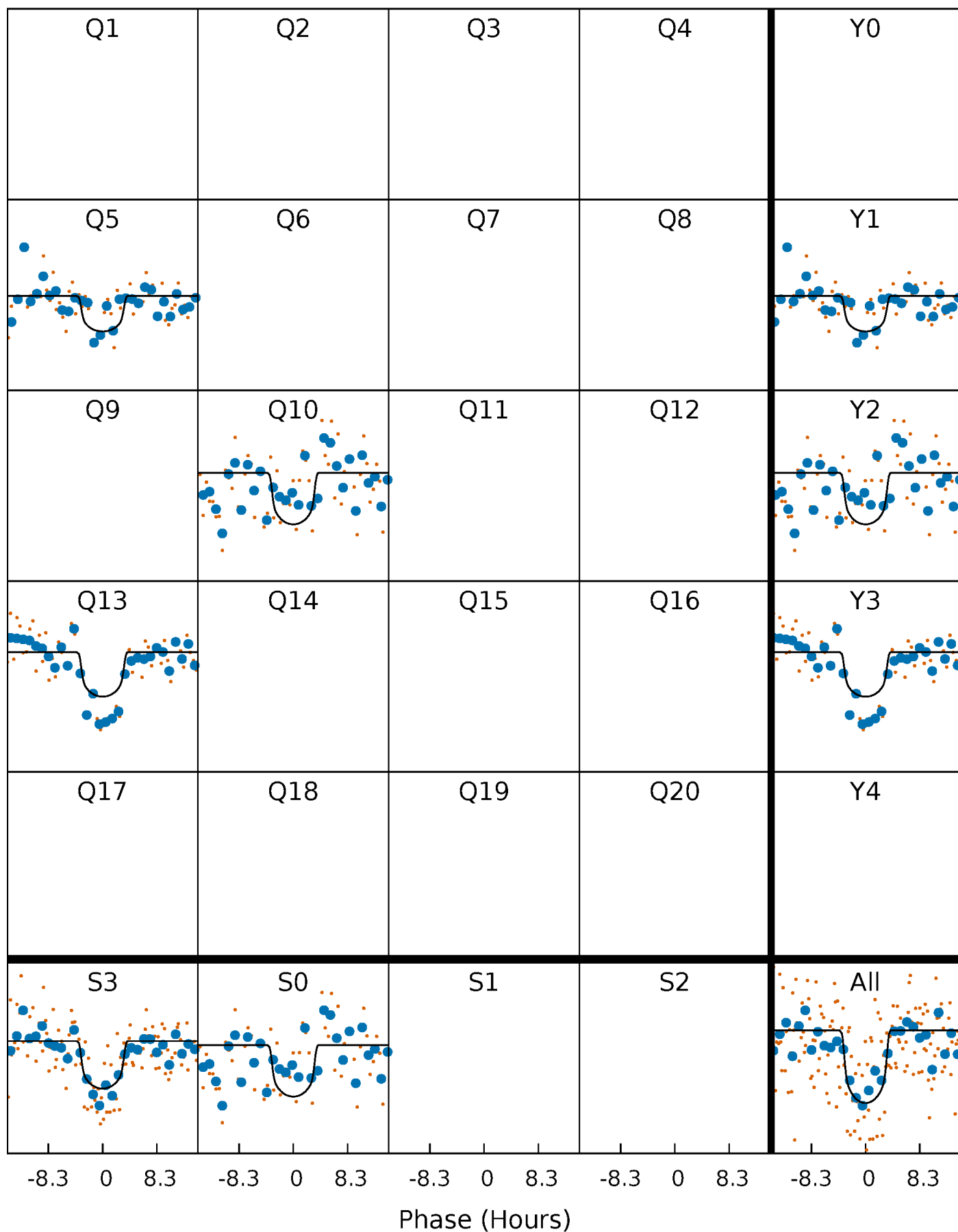
PDC Quarter-Phased Transit Curves

TCE 007129686-01 P=228.660090 Days $T_0=270.562463$ (BKJD)



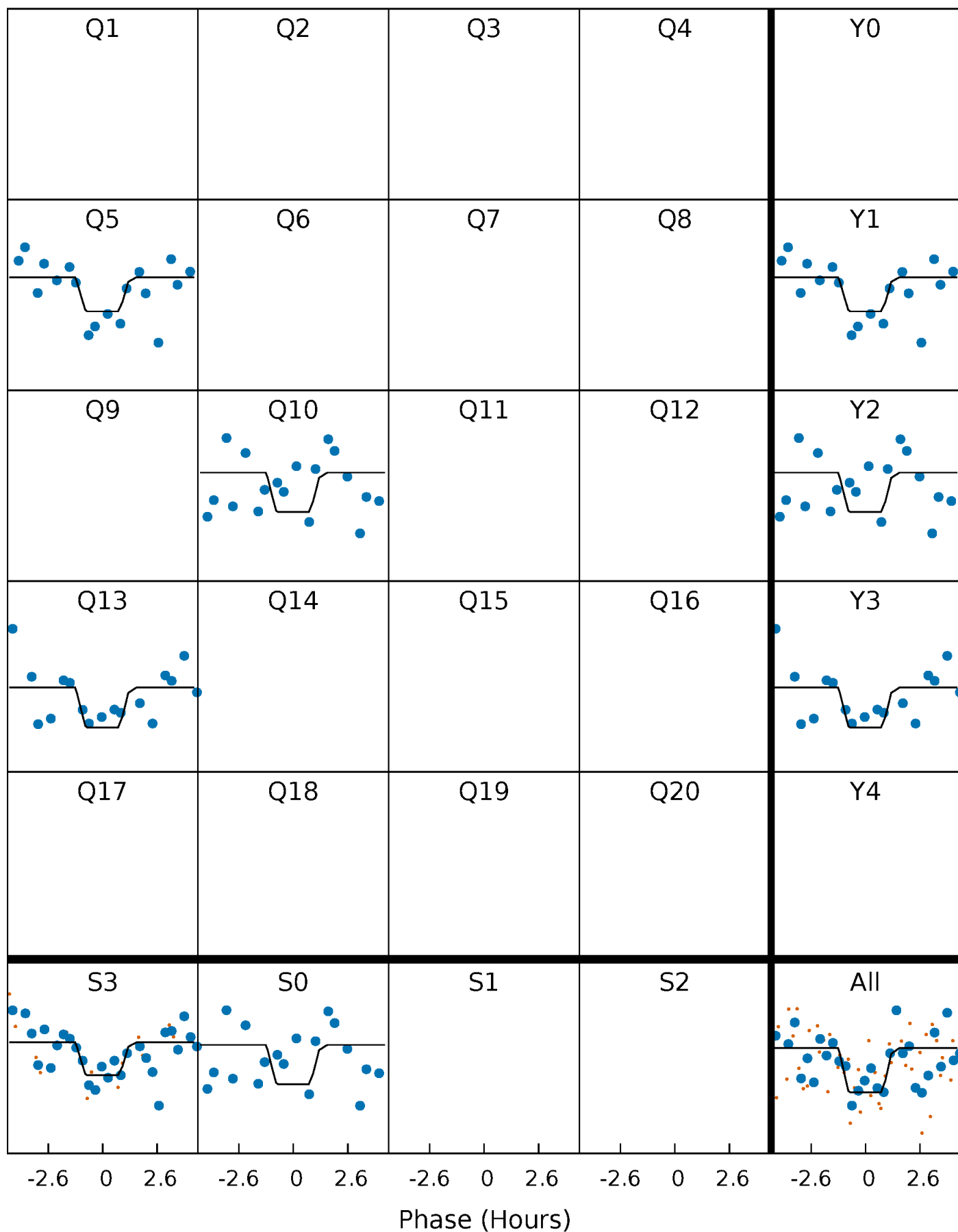
DV Quarter-Phased Transit Curves

TCE 007129686-01 P=228.660090 Days $T_0=270.562463$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

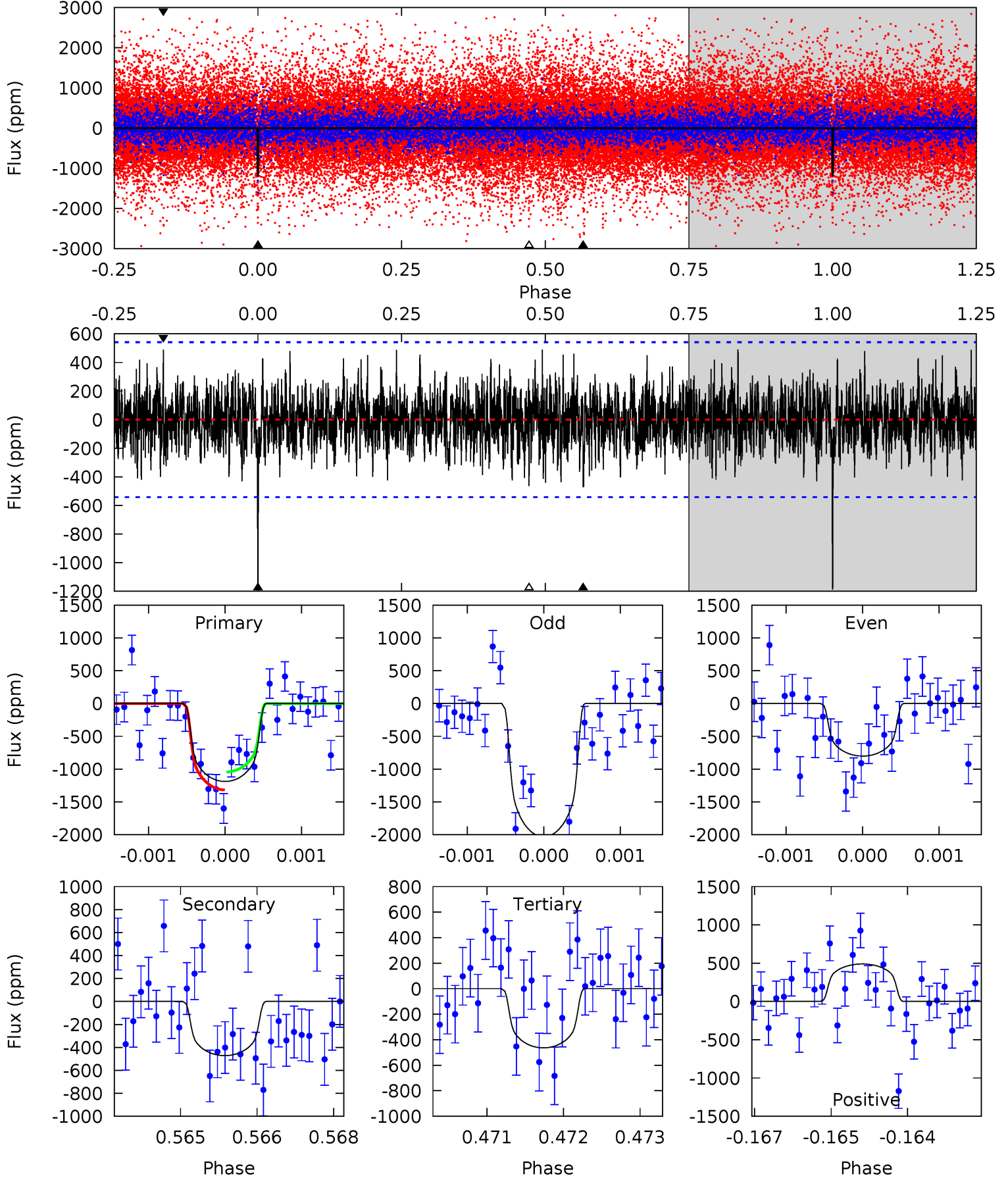
TCE 007129686-01 P=228.675555 Days $T_0=270.508301$ (BKJD)



DV Model-Shift Uniqueness Test

007129686-01, P = 228.660090 Days, E = 270.562463 Days

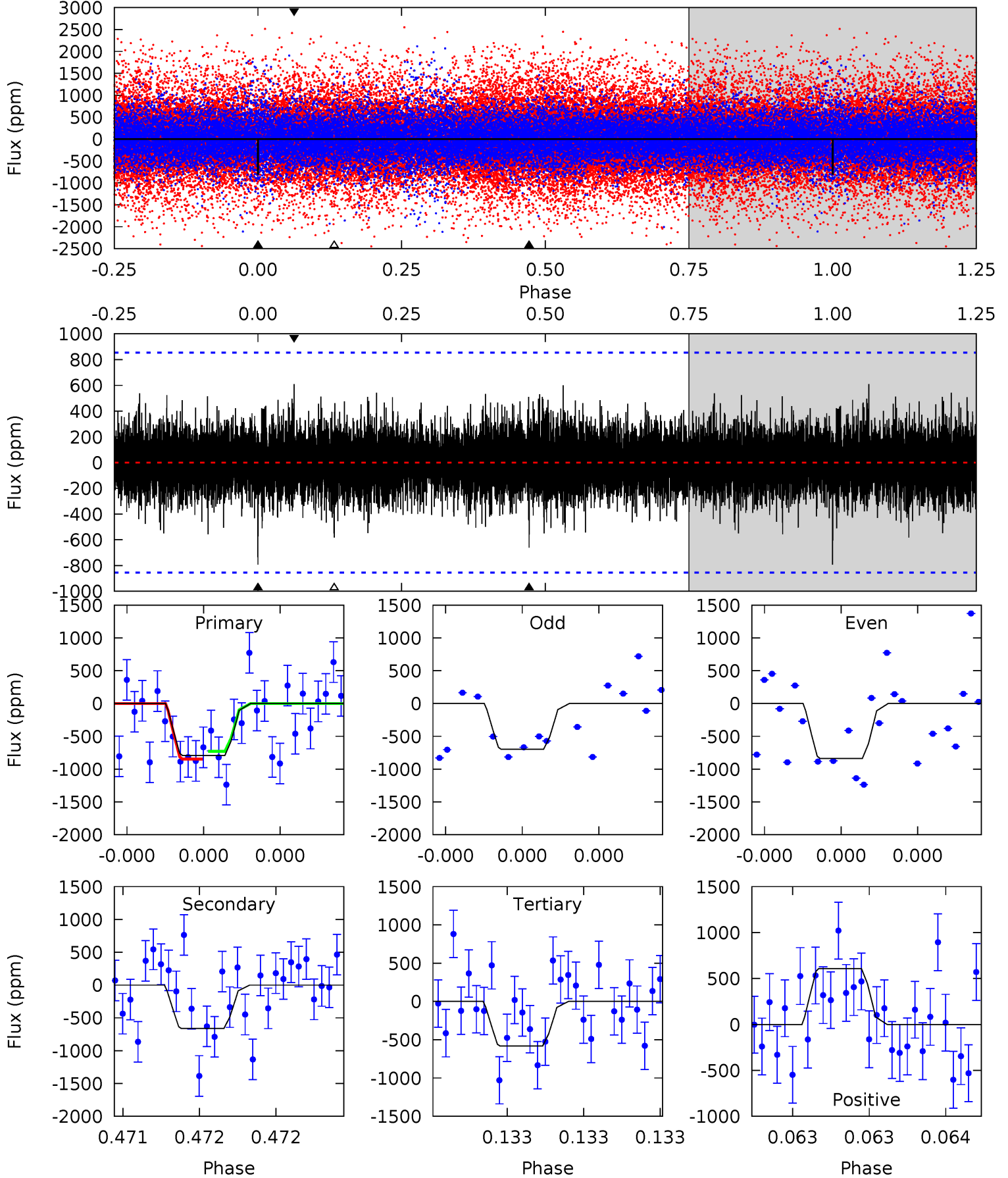
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	4.71	4.63	4.89	5.40	3.21	1.40	7.23	6.97	0.08	-0.18	6.14	1.22	0.29	1.36



Alt Model-Shift Uniqueness Test

007129686-01, P = 228.675555 Days, E = 270.508301 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.17	4.32	3.80	3.97	5.58	3.49	0.99	1.36	1.20	0.52	0.35	0.45	1.13	0.43	0.38



Stellar Parameters For KIC 007129686

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4427^{+159}_{-159}	$4.627^{+0.052}_{-0.024}$	$-0.280^{+0.300}_{-0.300}$	$0.633^{+0.051}_{-0.061}$	$0.619^{+0.076}_{-0.051}$	$3.443^{+0.860}_{-0.389}$
	+4%/-4%	+1%/-1%	+107%/-107%	+8%/-10%	+12%/-8%	+25%/-11%
Source	KIC0	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 007129686-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-472 ± 100	$2.57^{+0.85}_{-0.92}$	274^{+10}_{-12}	3666^{+632}_{-354}	15654^{+22361}_{-7091}
Alt.	-662 ± 153	$2.14^{+0.81}_{-0.94}$	274^{+11}_{-12}	4153^{+1011}_{-509}	32124^{+63966}_{-16482}

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

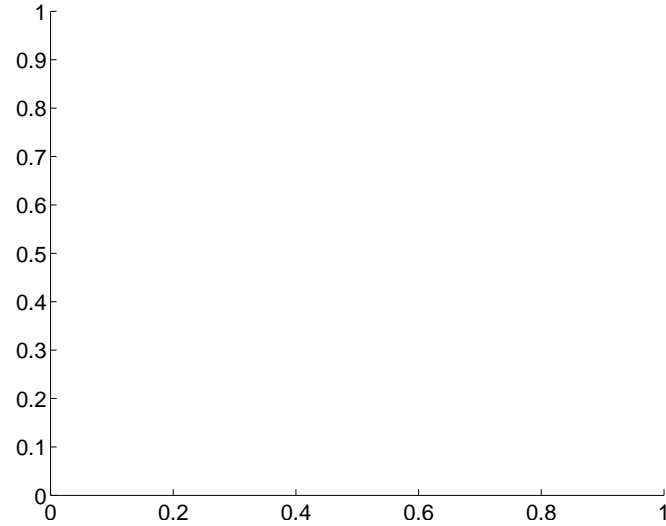
Supplemental centroid analysis for 007129686-01. Kepler magnitude: 15.76. Transit SNR 8.85

There are 0 quarters with good PRF difference image offsets

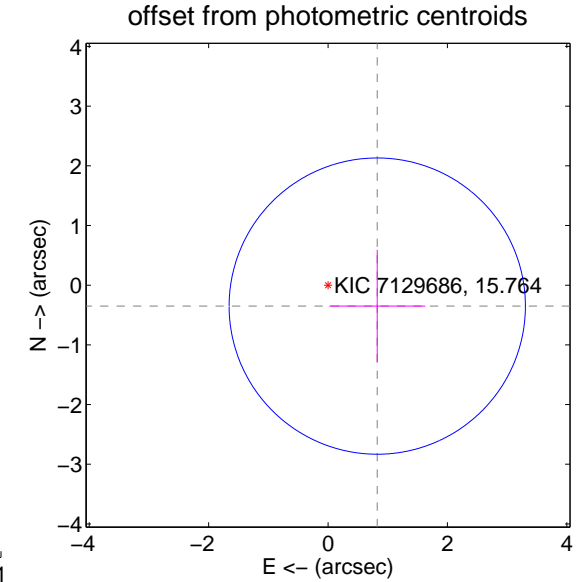
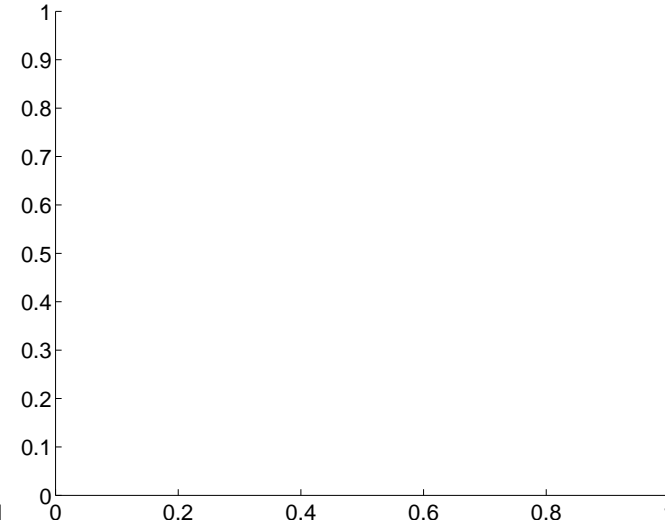
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.90 ± 0.83	1.08	-0.82 ± 0.80	-0.35 ± 0.94

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

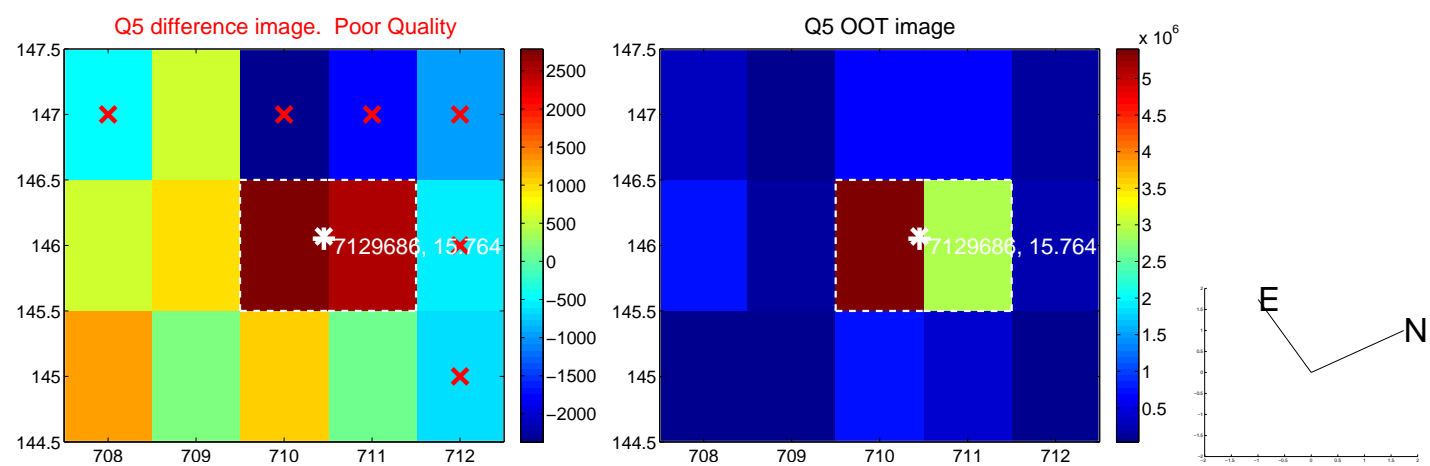


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

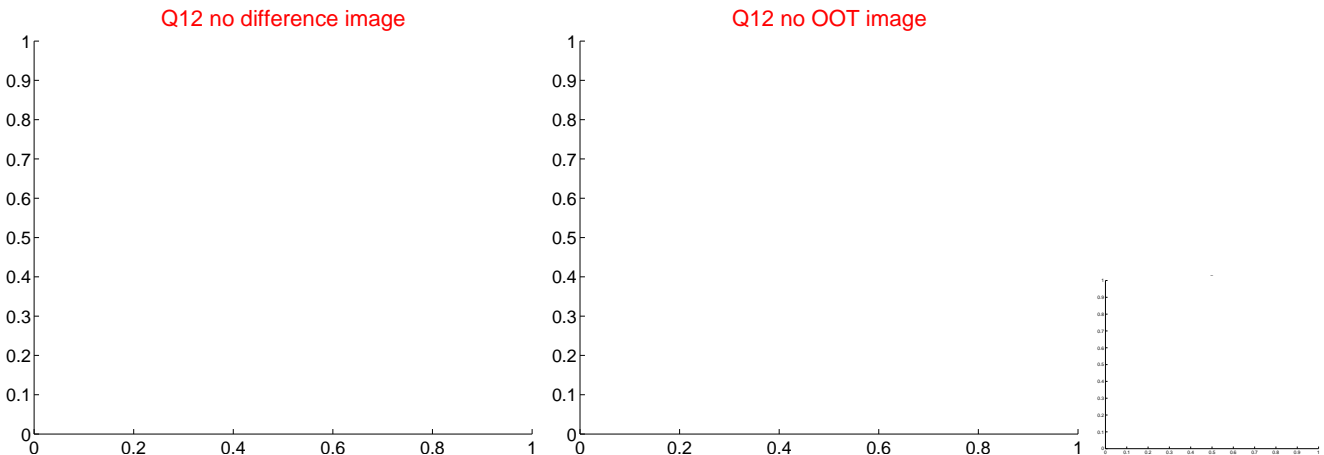
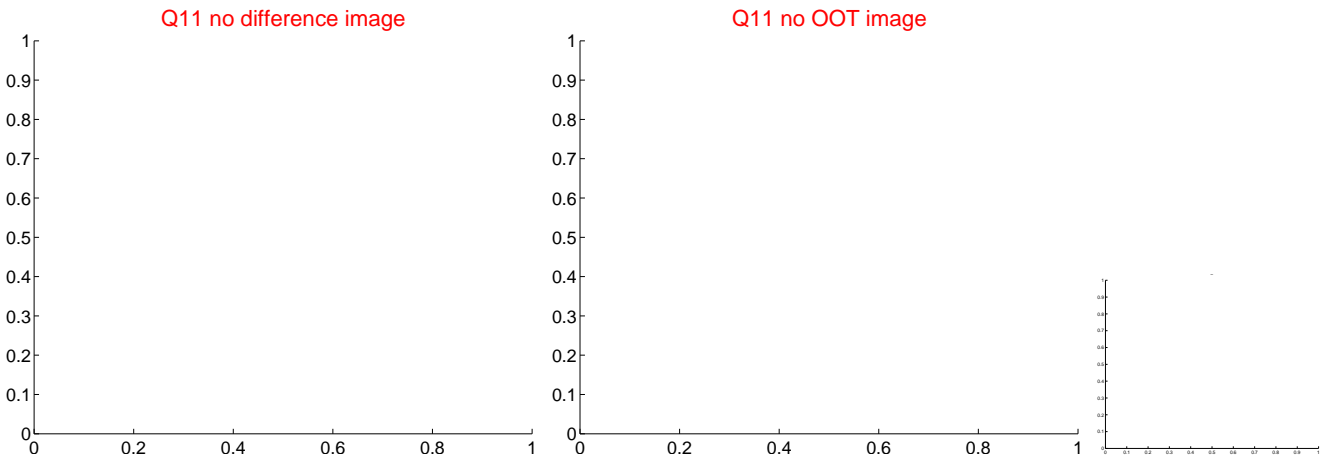
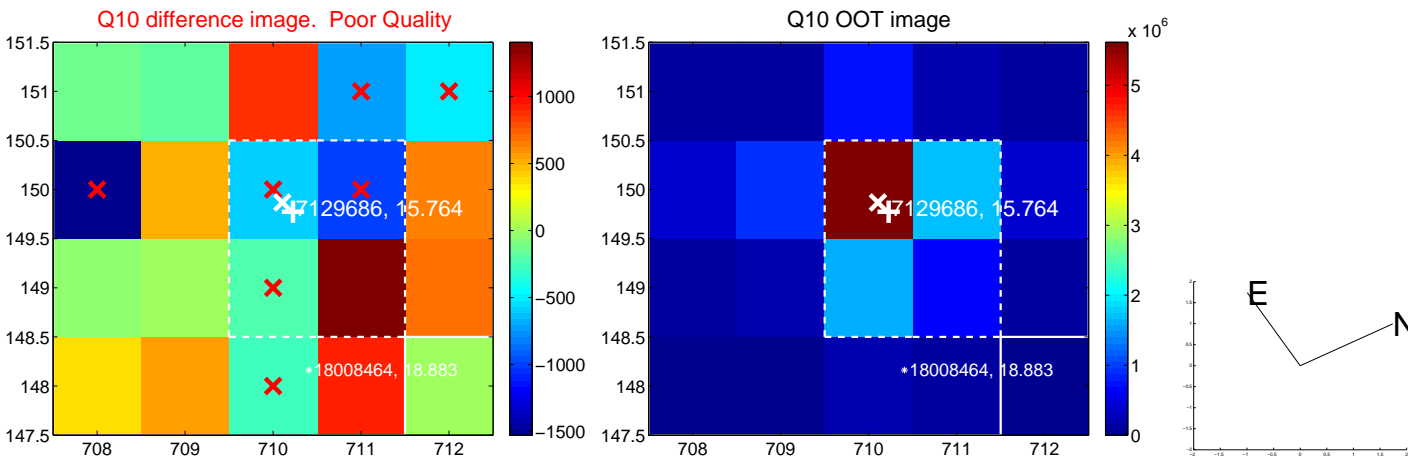
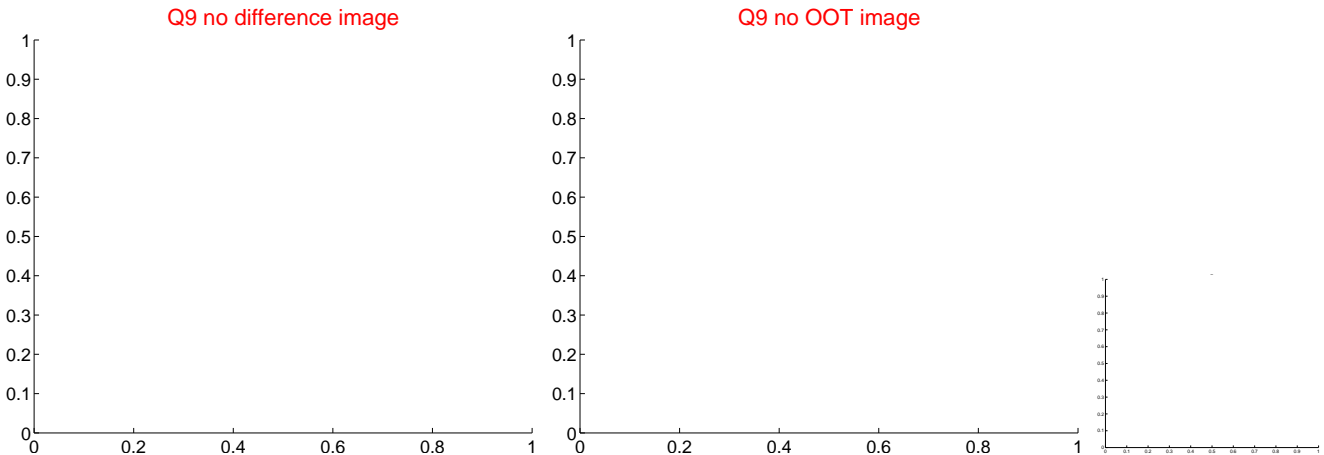
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



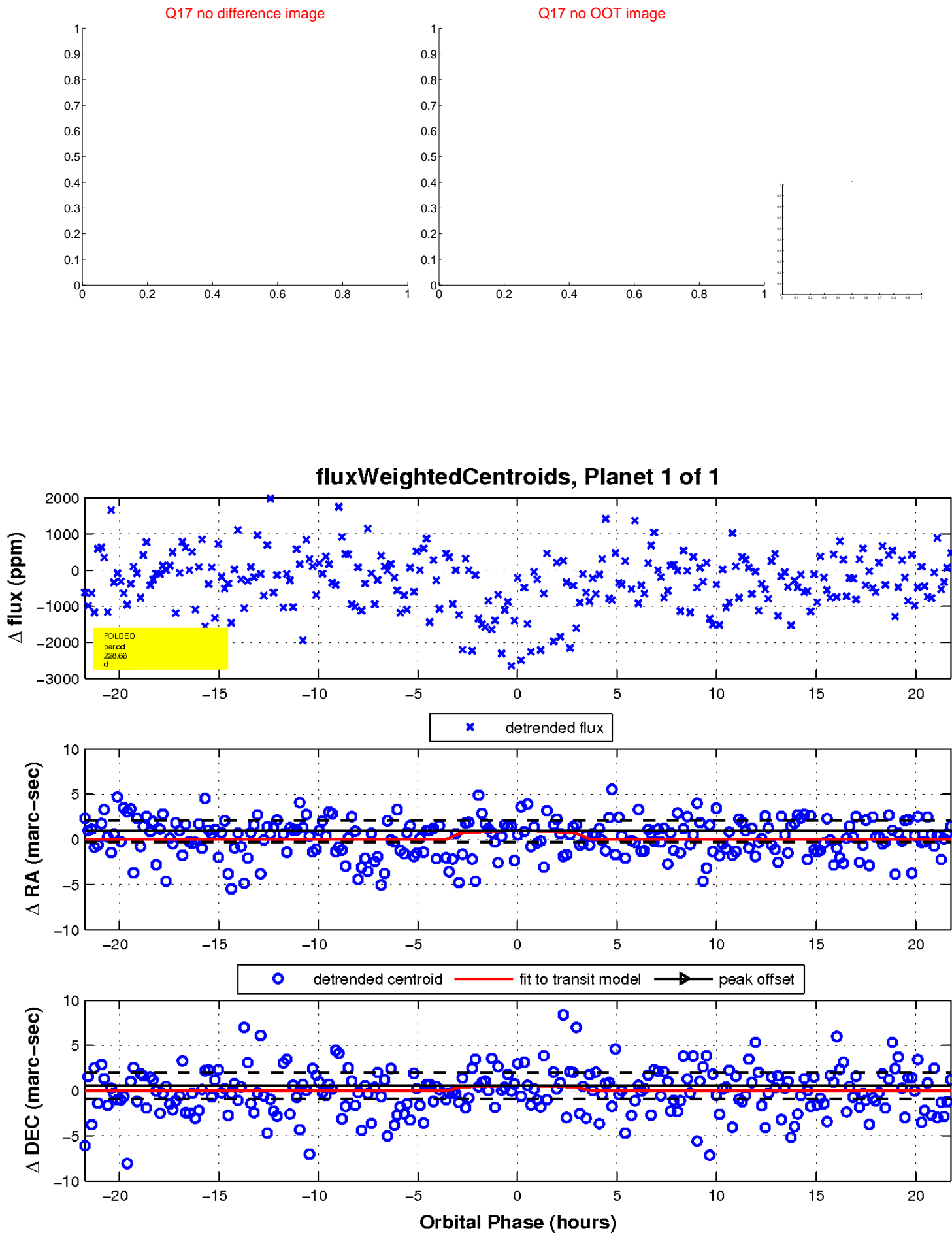
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

