

KIC 011187057

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})
011187057-01	OBS	No	415.562298	260.060226	1533.3	4.442	19.6	4.7	0.64	5263	2.55	0.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011187057-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

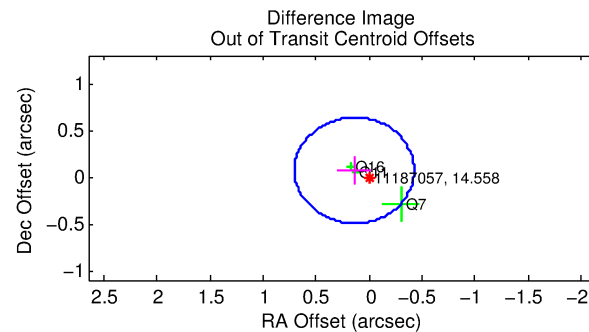
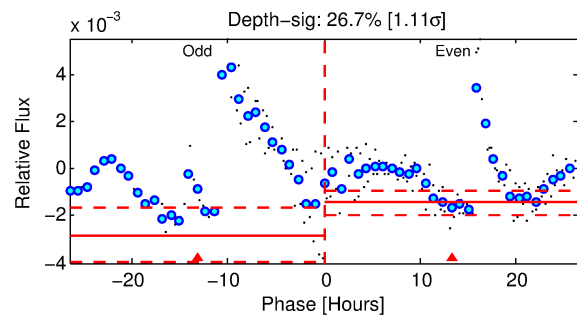
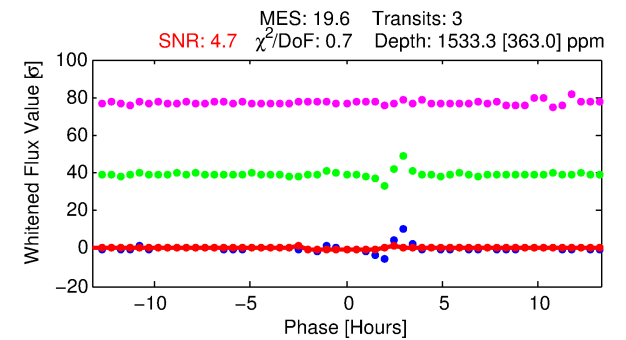
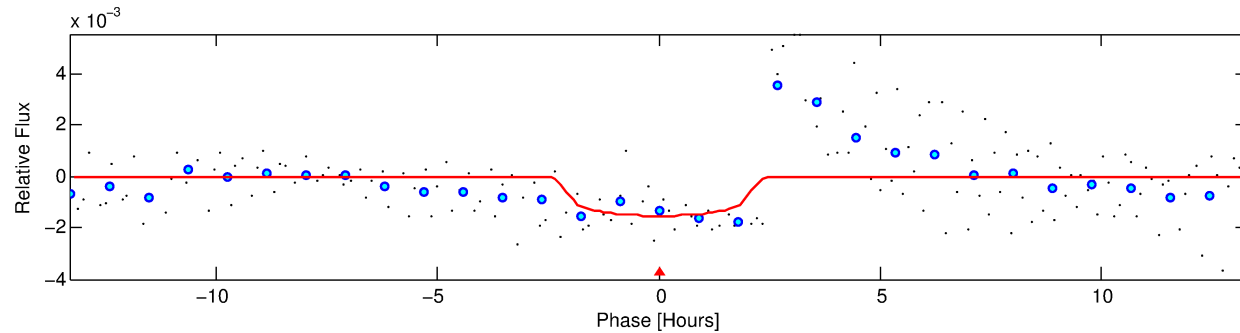
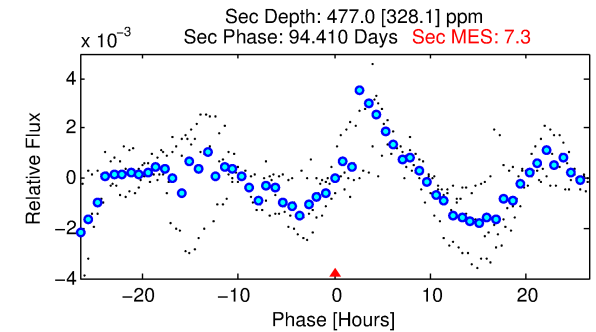
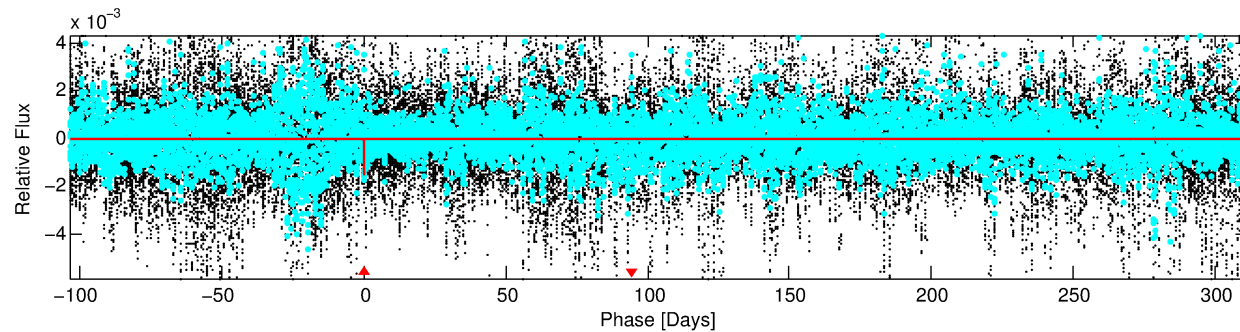
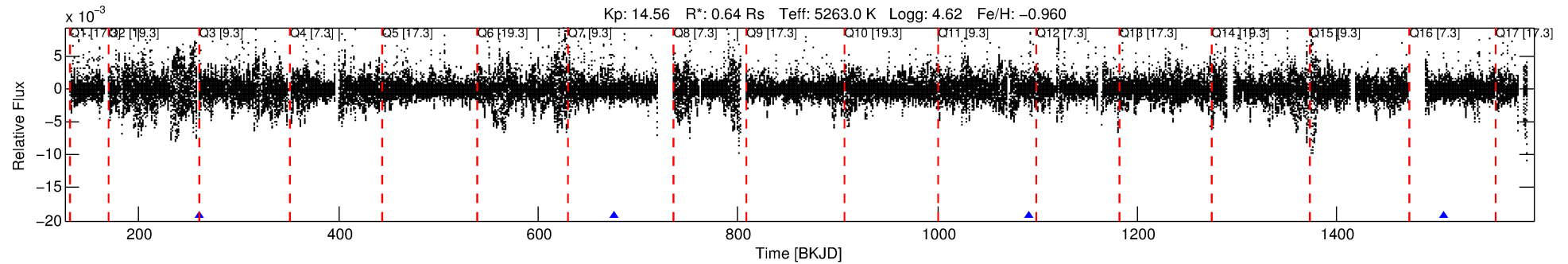
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011187057-01

No Significant Match Found

DV One-Page Summary

KIC: 11187057 Candidate: 1 of 1 Period: 415.562 d



DV Fit Results:

Period = 415.56230 [0.00504] d
Epoch = 260.0602 [0.0116] BKJD
Rp/R* = 0.0363 [0.0358]
a/R* = 677.14 [2808.21]
b = 0.42 [8.24]
Seff = 0.33 [0.06]
Teq = 193 [8] K
Rp = 2.55 [2.53] Re
a = 0.9345 [0.0833] AU
Ag = 35350.84 [74024.96] [0.48 σ]
Teffp = 4083 [2137] K [1.82 σ]

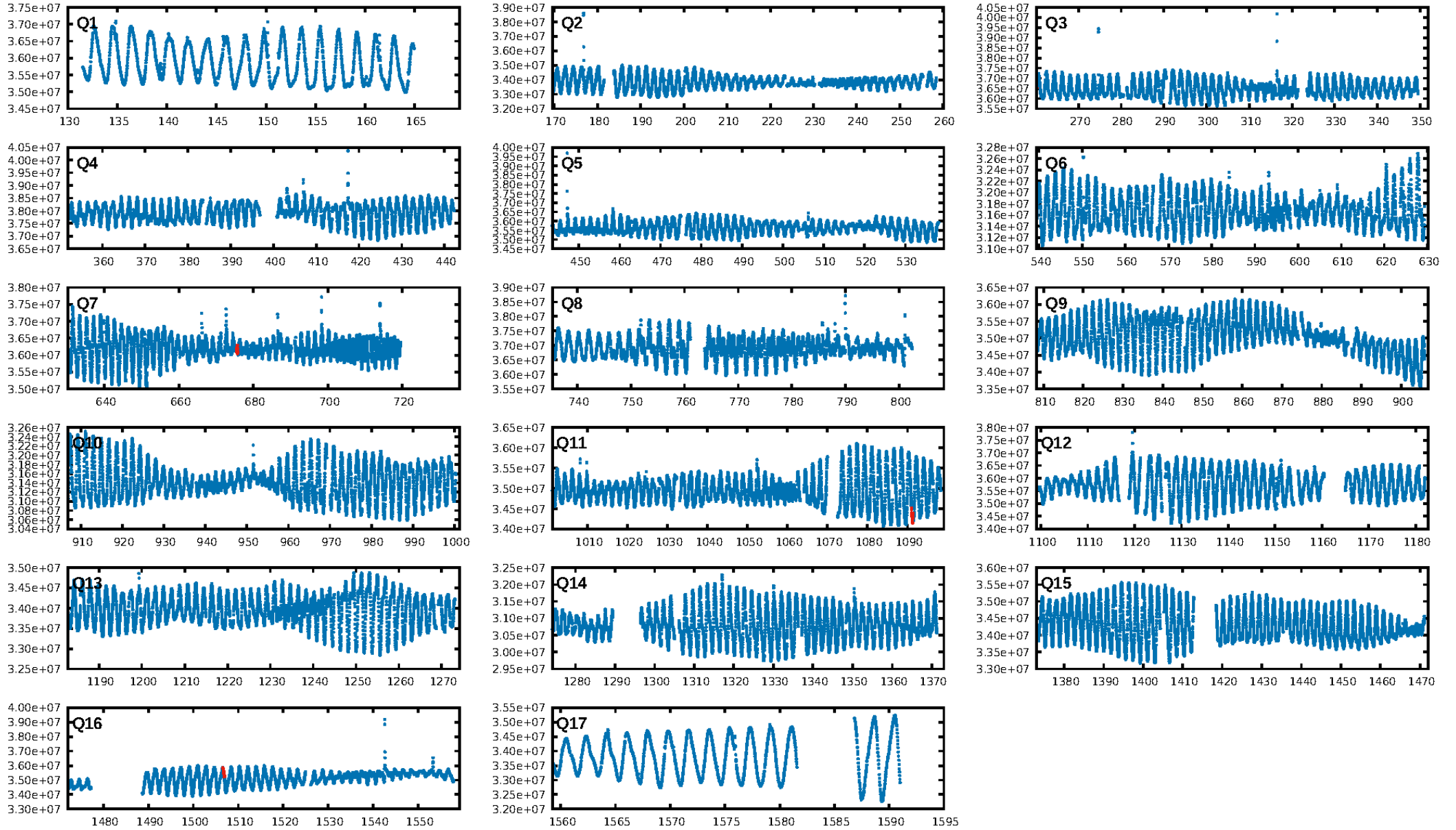
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 61.2%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 5.97e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3254
Centroid-sig: 35.7%
Centroid-so: 0.467 arcsec [0.65 σ]
OotOffset-rm: 0.157 arcsec [0.83 σ]
KicOffset-rm: 0.136 arcsec [1.48 σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

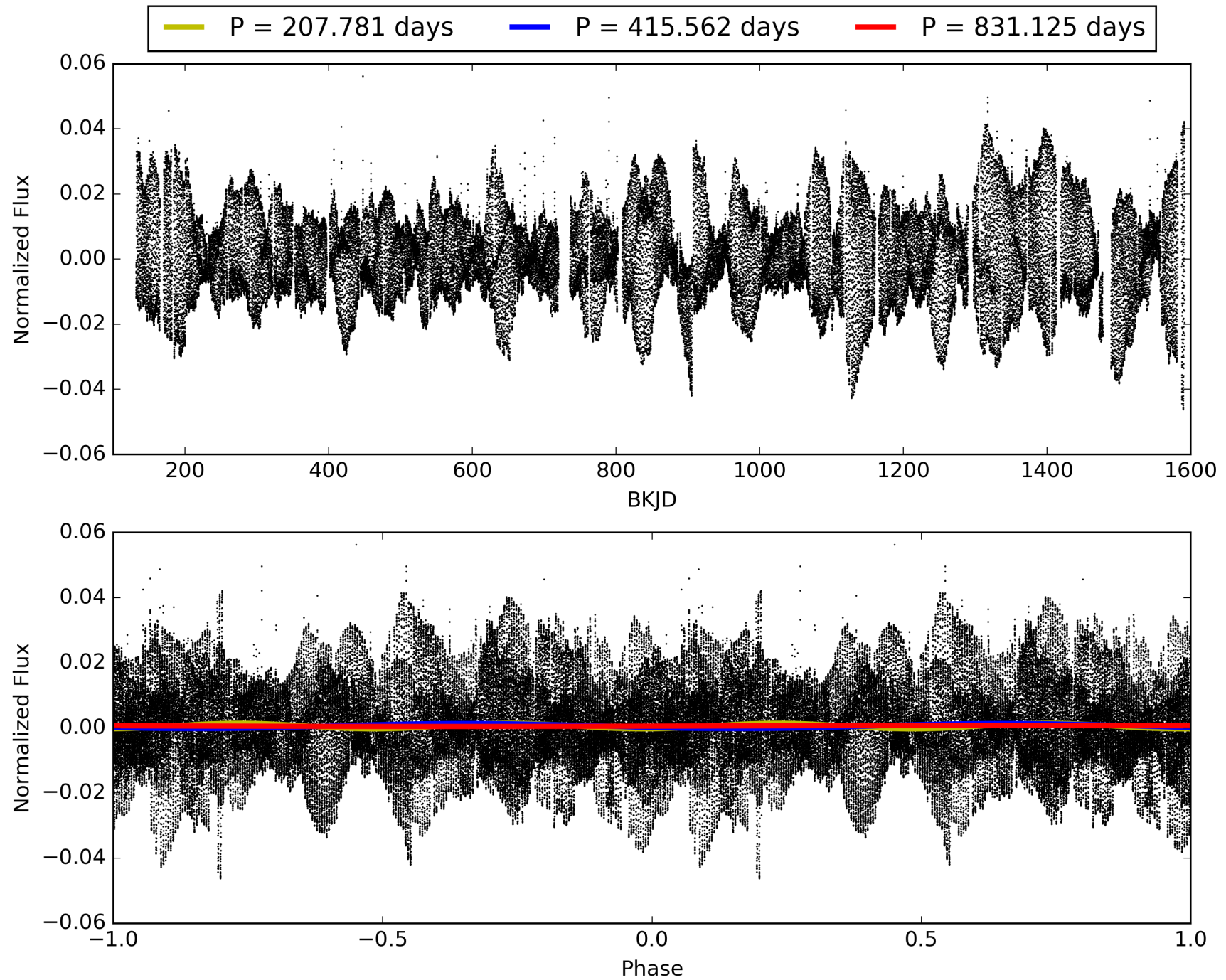
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:21:20 Z

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

TCE 011187057-01, PDC Light Curves

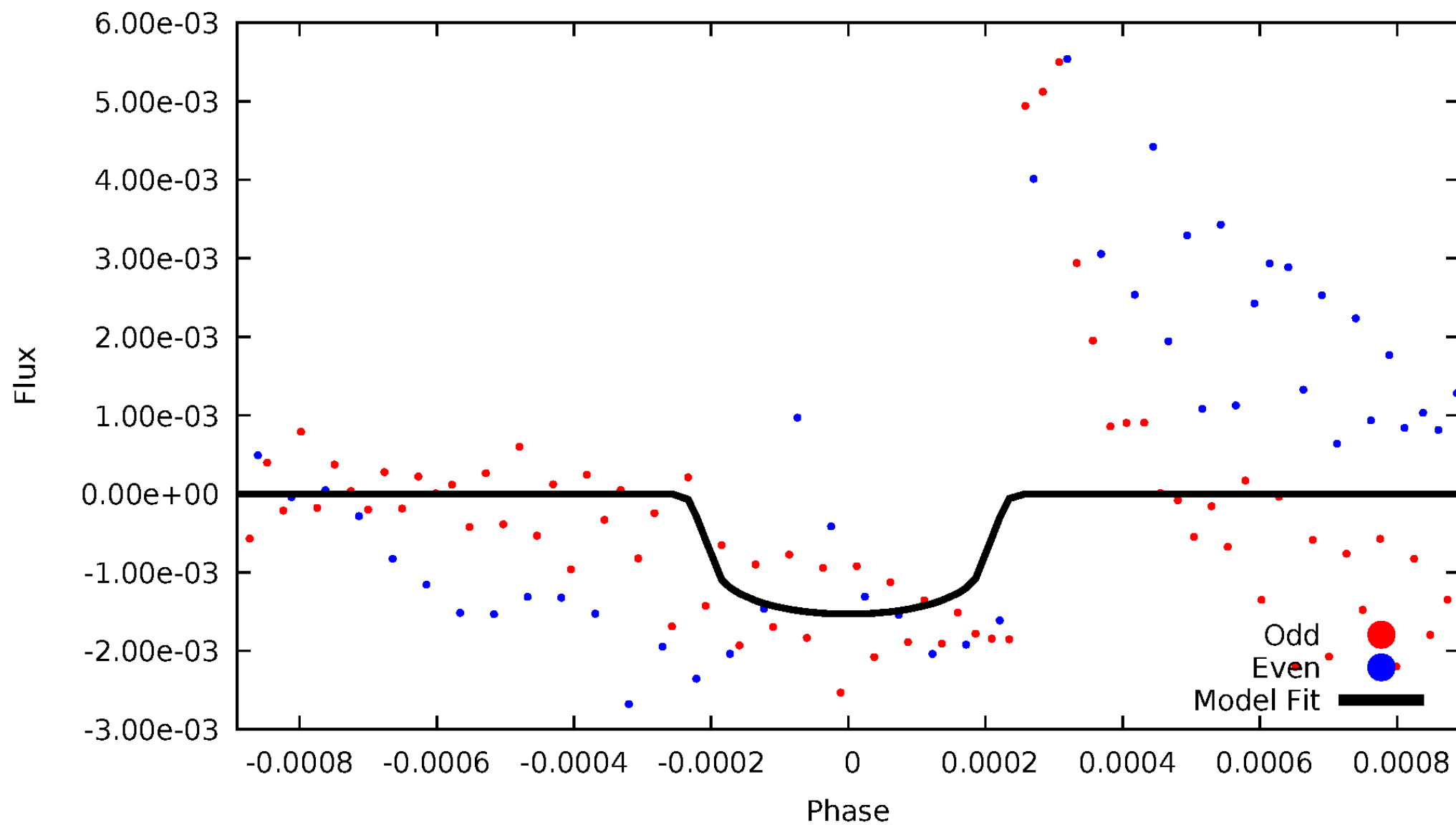


TCE 011187057-01



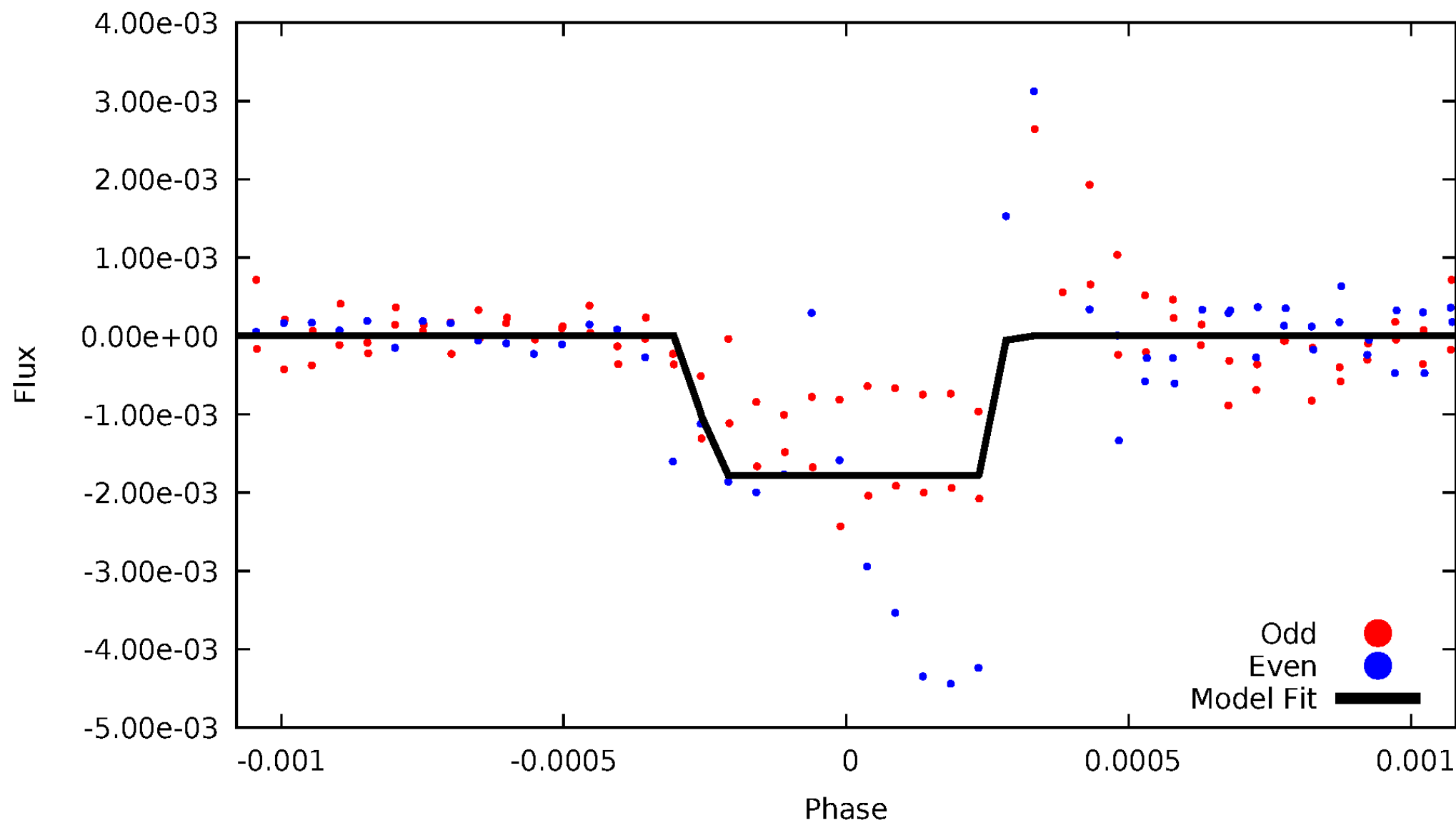
DV Odd/Even

TCE 011187057-01



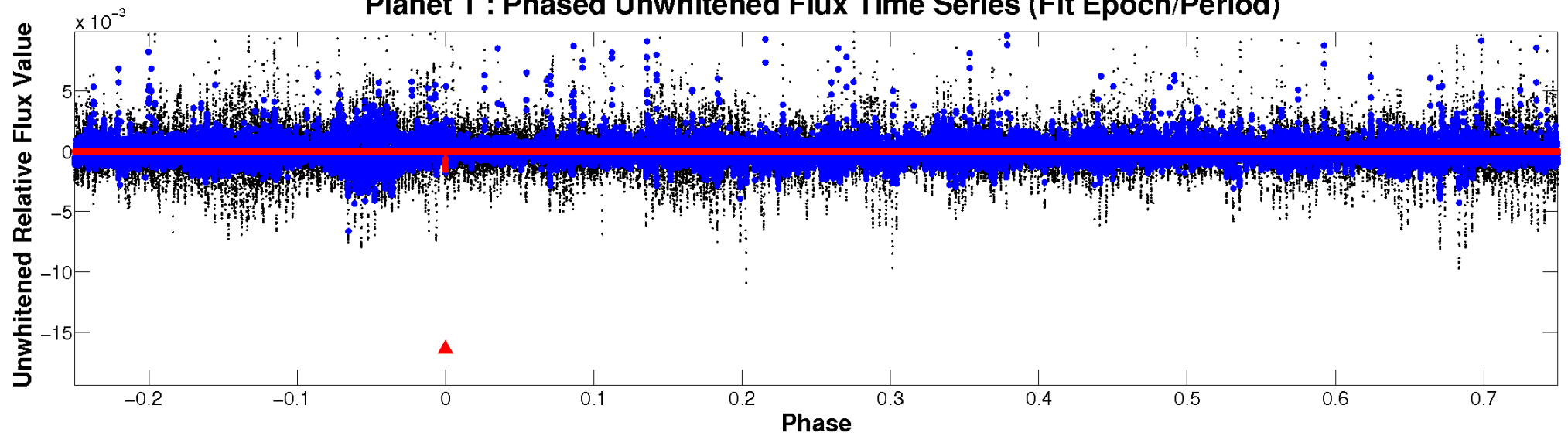
ALT Odd/Even

TCE 011187057-01

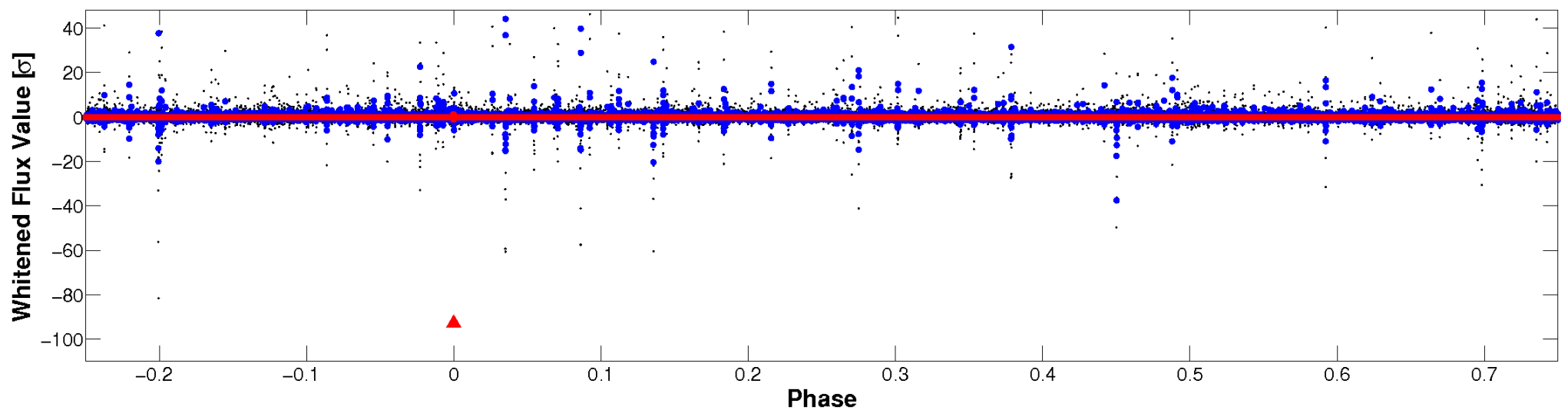


Non-Whitened Vs. Whitened Light Curve

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

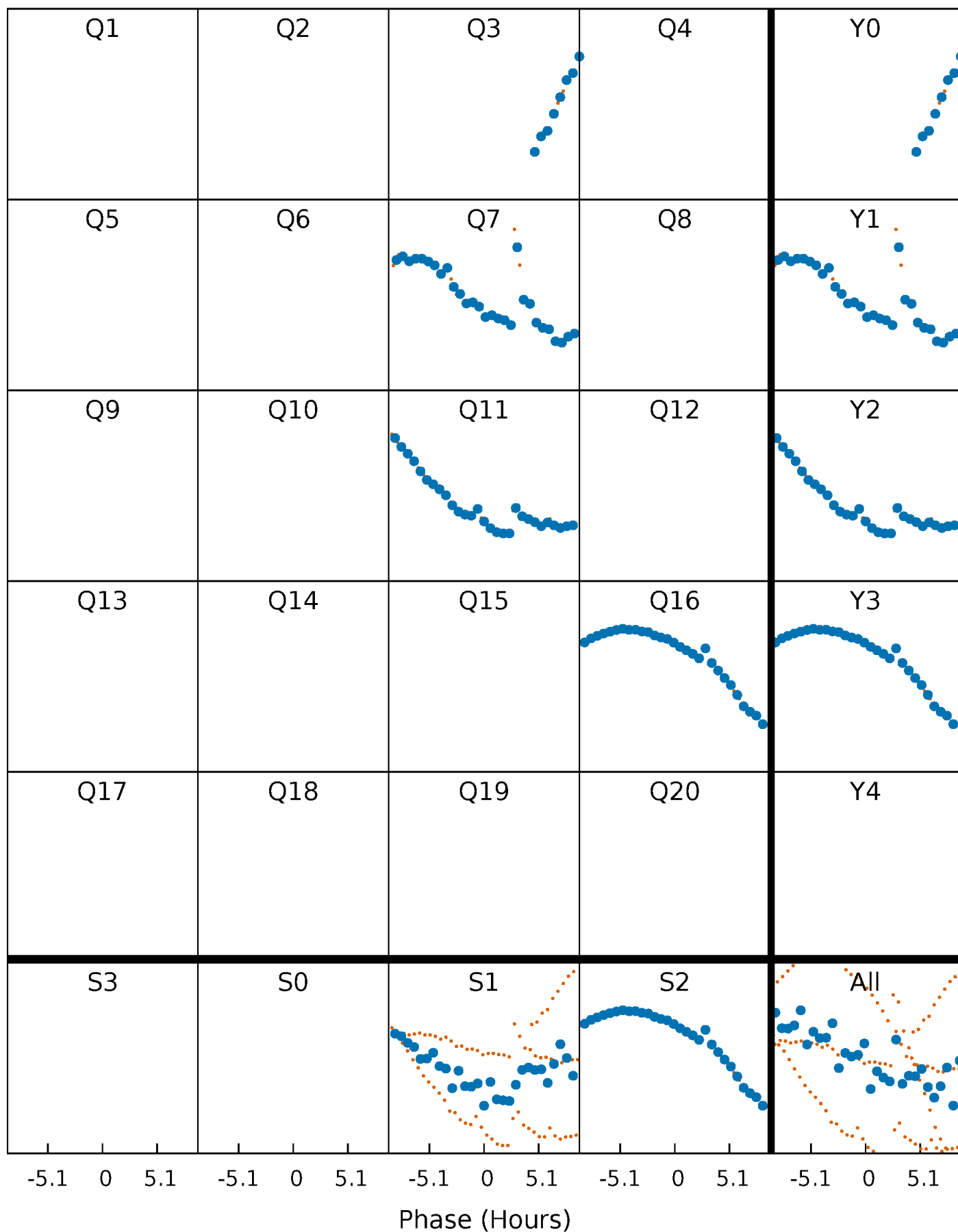


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



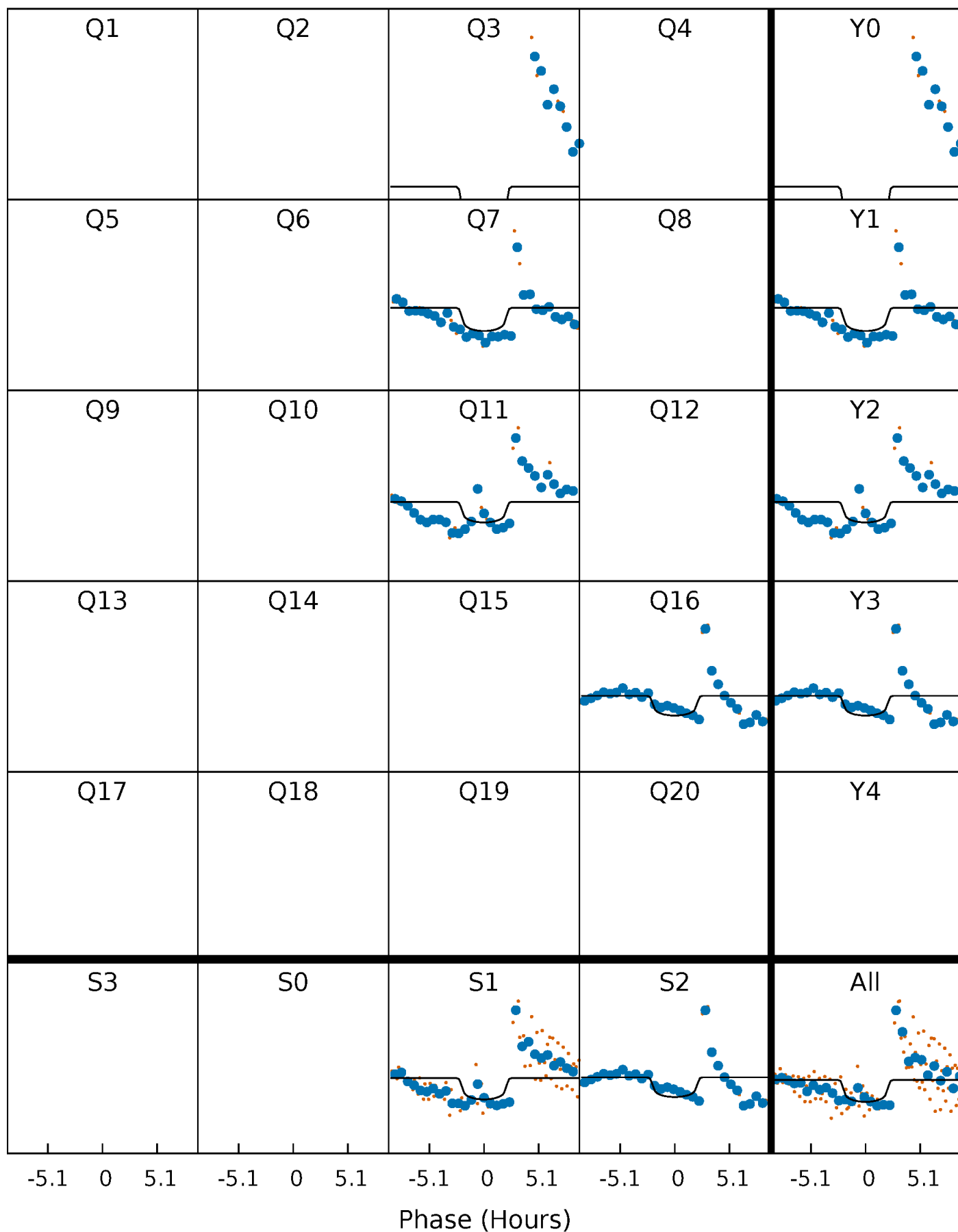
PDC Quarter-Phased Transit Curves

TCE 011187057-01 P=415.562298 Days $T_0=260.060226$ (BKJD)



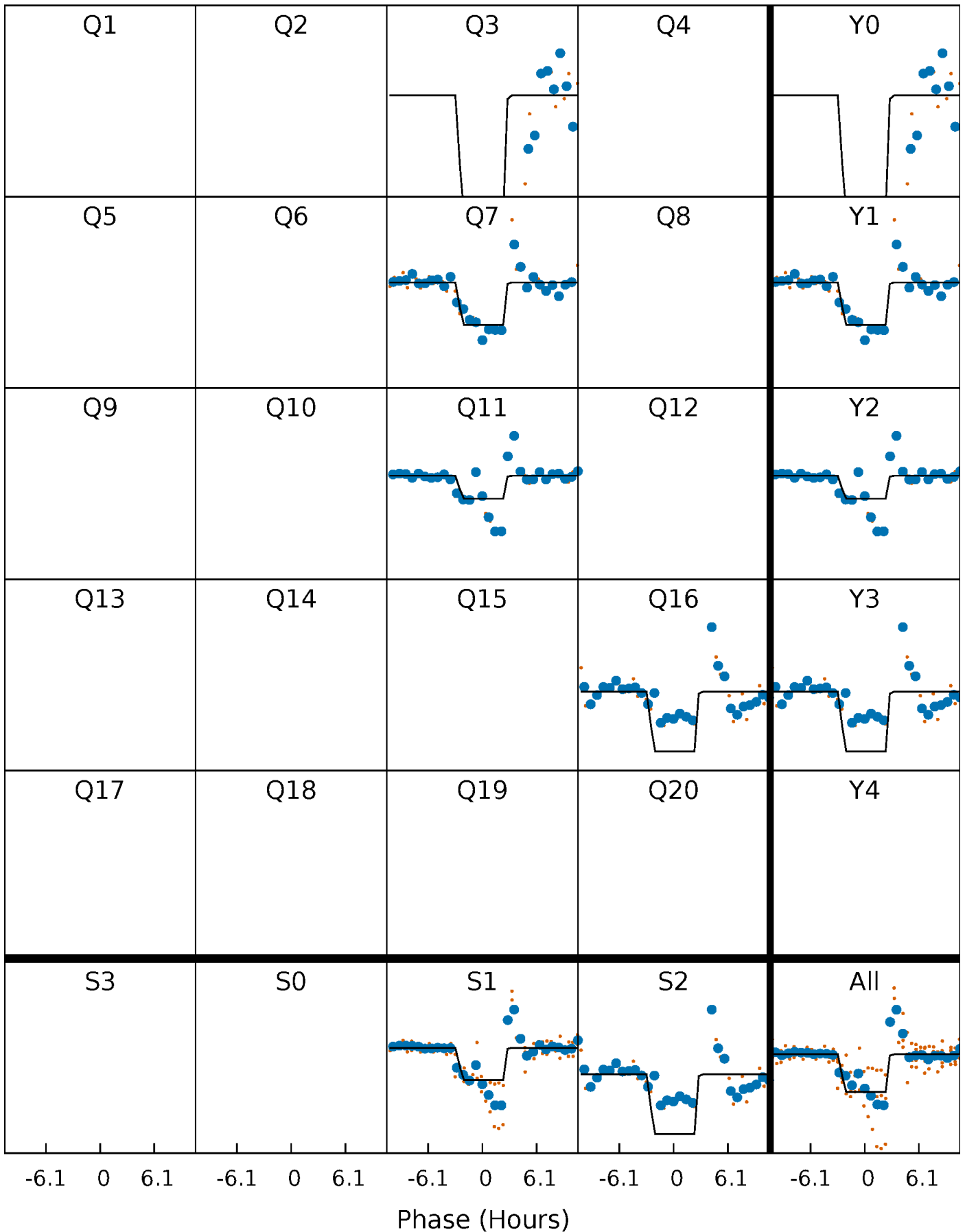
DV Quarter-Phased Transit Curves

TCE 011187057-01 P=415.562298 Days $T_0=260.060226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

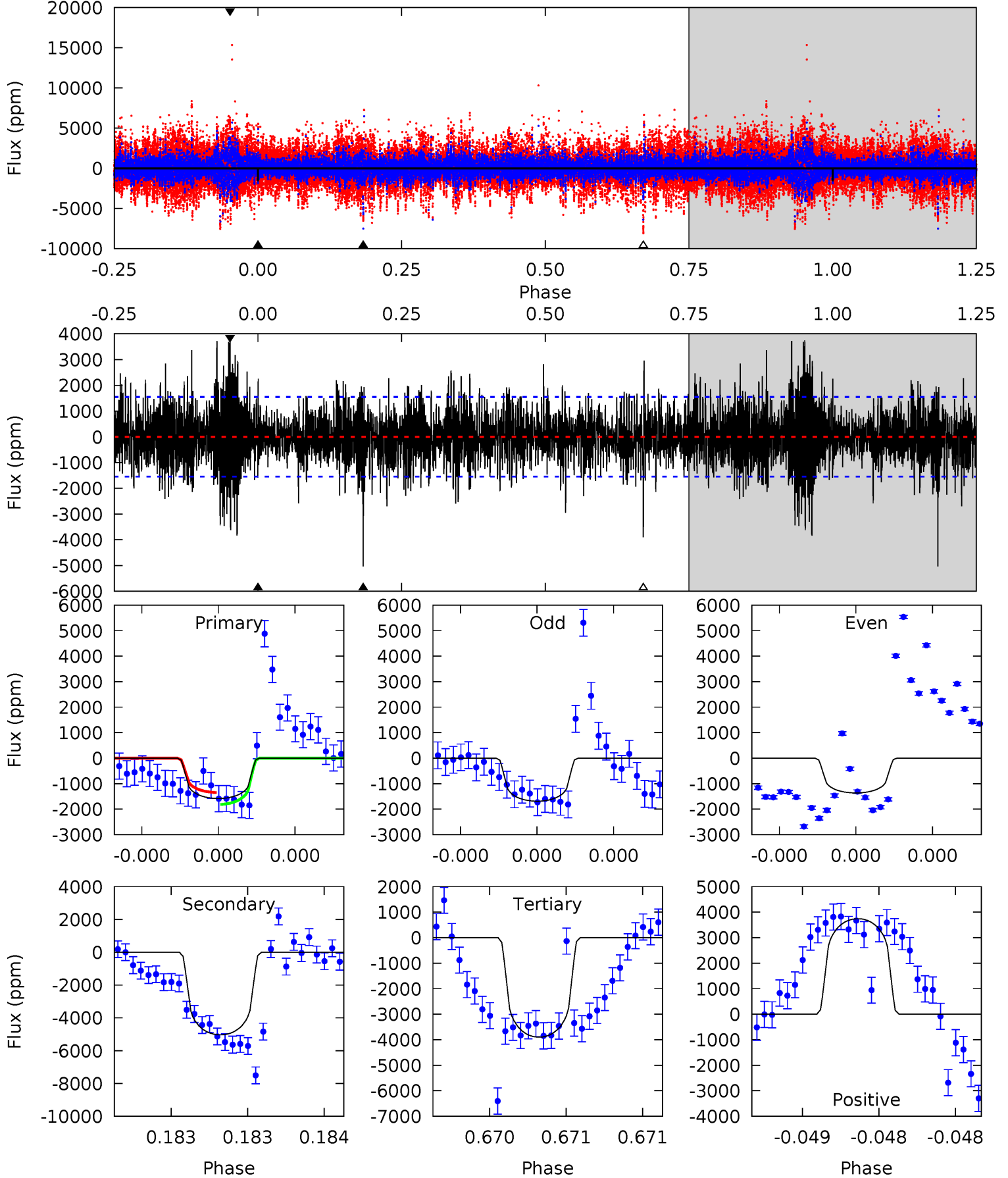
TCE 011187057-01 P=415.557310 Days $T_0=260.064778$ (BKJD)



DV Model-Shift Uniqueness Test

011187057-01, P = 415.562298 Days, E = 260.060226 Days

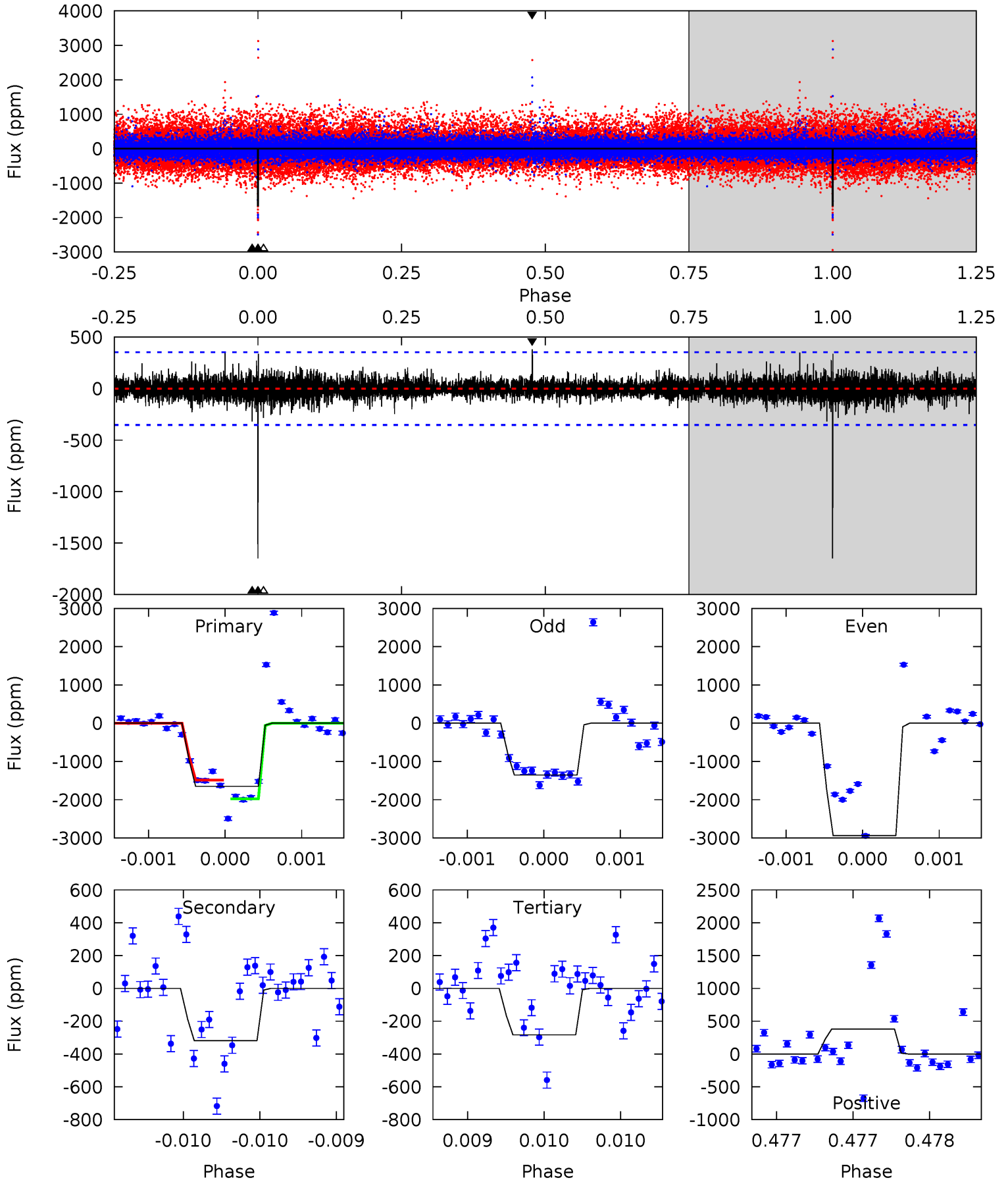
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.70	18.2	14.1	13.5	5.58	3.49	3.03	-8.36	-7.80	4.10	4.67	0.48	1.16	0.43	0.84



Alt Model-Shift Uniqueness Test

011187057-01, P = 415.557310 Days, E = 260.064778 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	5.01	4.45	5.99	5.56	3.46	0.86	21.5	19.9	0.55	-0.98	13.1	0.94	0.19	3.62



Stellar Parameters For KIC 011187057

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5263^{+157}_{-157}	$4.621^{+0.071}_{-0.065}$	$-0.960^{+0.300}_{-0.300}$	$0.643^{+0.068}_{-0.051}$	$0.631^{+0.065}_{-0.028}$	$3.337^{+0.873}_{-0.693}$
	+3%/-3%	+2%/-1%	+31%/-31%	+11%/-8%	+10%/-4%	+26%/-21%
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 011187057-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5034 ± 277	$3.10^{+2.25}_{-1.87}$	269^{+11}_{-10}	6681^{+5736}_{-1568}	$256296^{+1367095}_{-170764}$
Alt.	-318 ± 64	$3.24^{+2.45}_{-1.89}$	268^{+11}_{-10}	3658^{+1439}_{-558}	14237^{+69861}_{-9491}

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

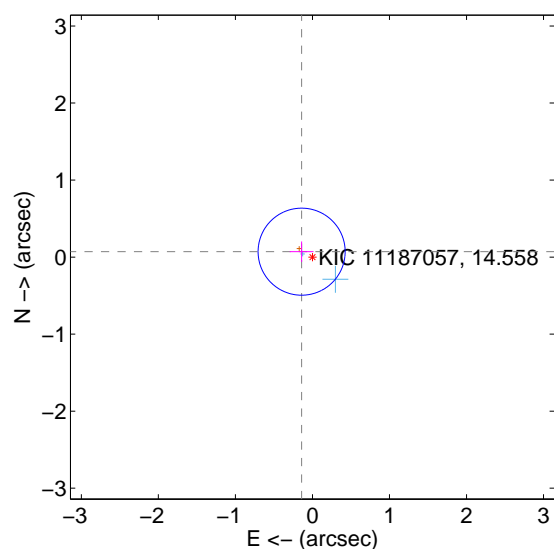
Supplemental centroid analysis for 011187057-01. Kepler magnitude: 14.56. Transit SNR 4.67

There are 2 quarters with good PRF difference image offsets

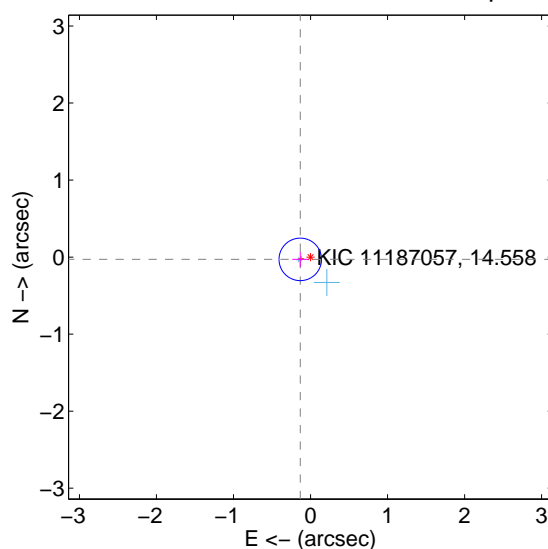
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.157 ± 0.188	0.83	0.140 ± 0.155	0.070 ± 0.133
PRF-fit source offset from KIC position	0.136 ± 0.092	1.48	0.133 ± 0.105	-0.030 ± 0.098
photometric centroid source offset	0.47 ± 0.72	0.65	0.40 ± 0.72	0.25 ± 0.70

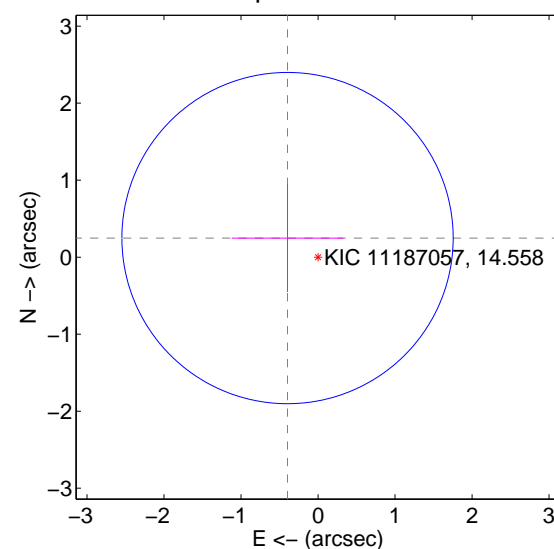
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

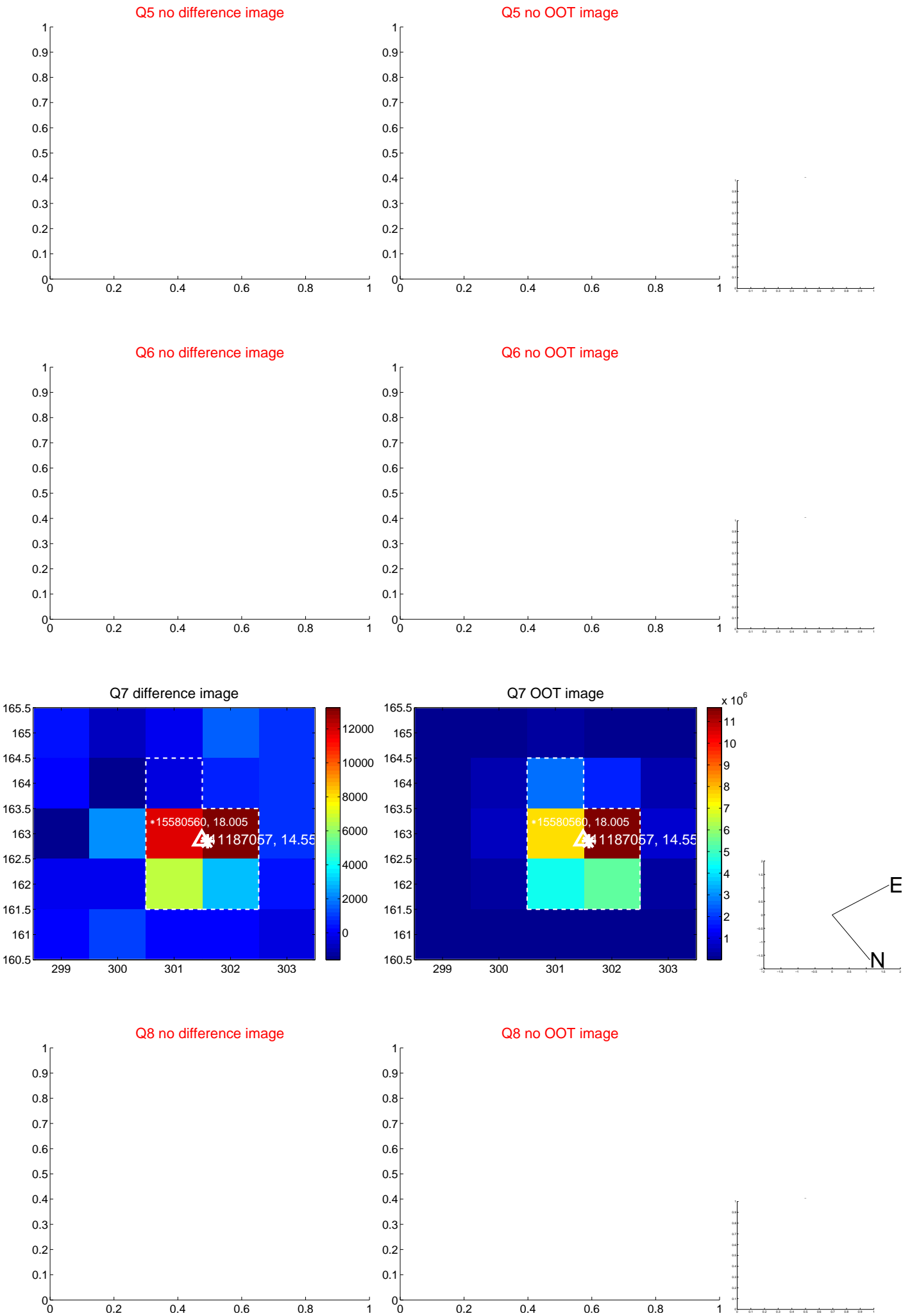


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

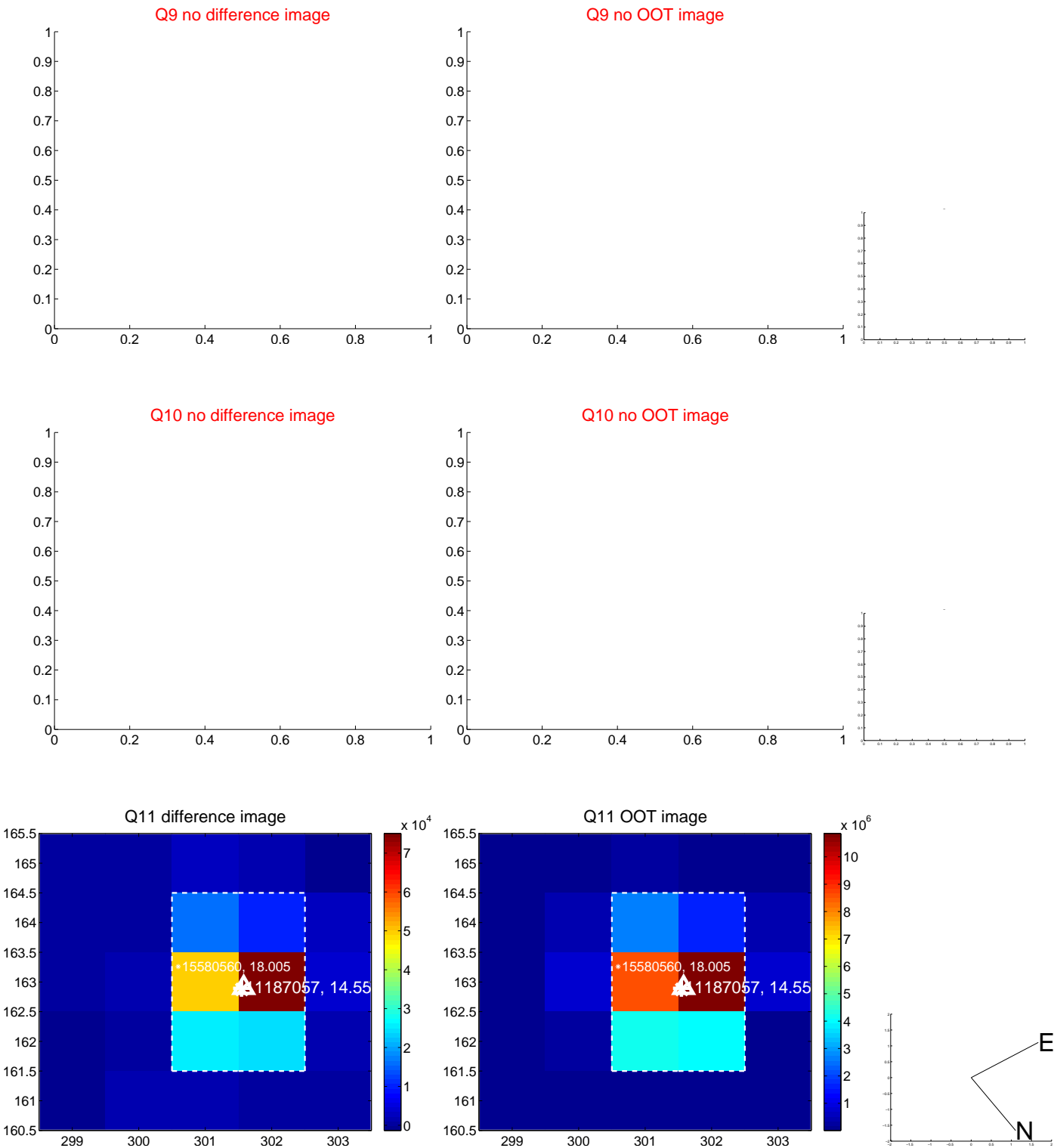
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



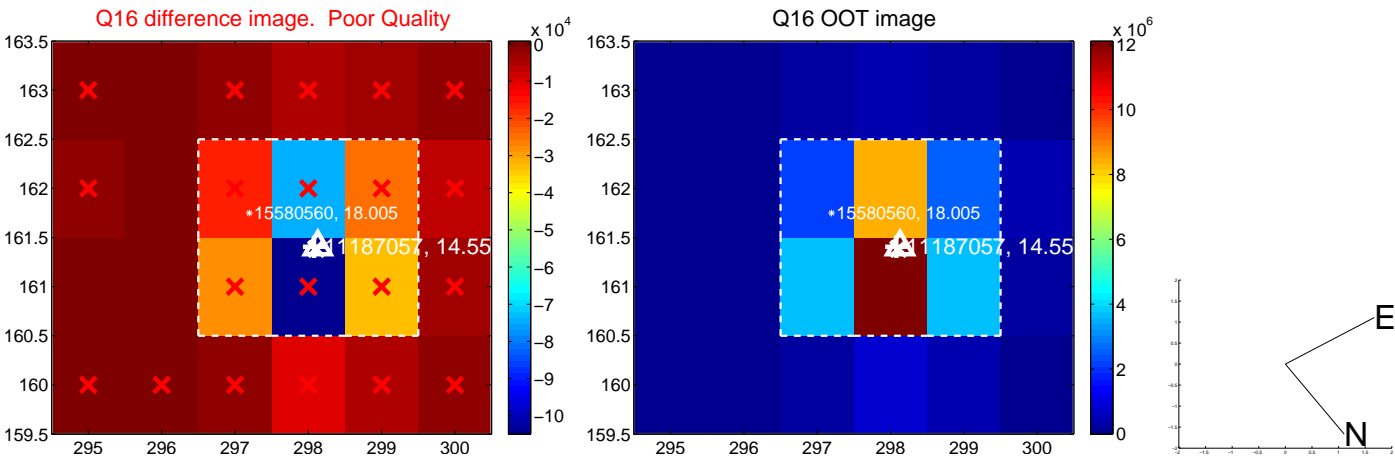
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



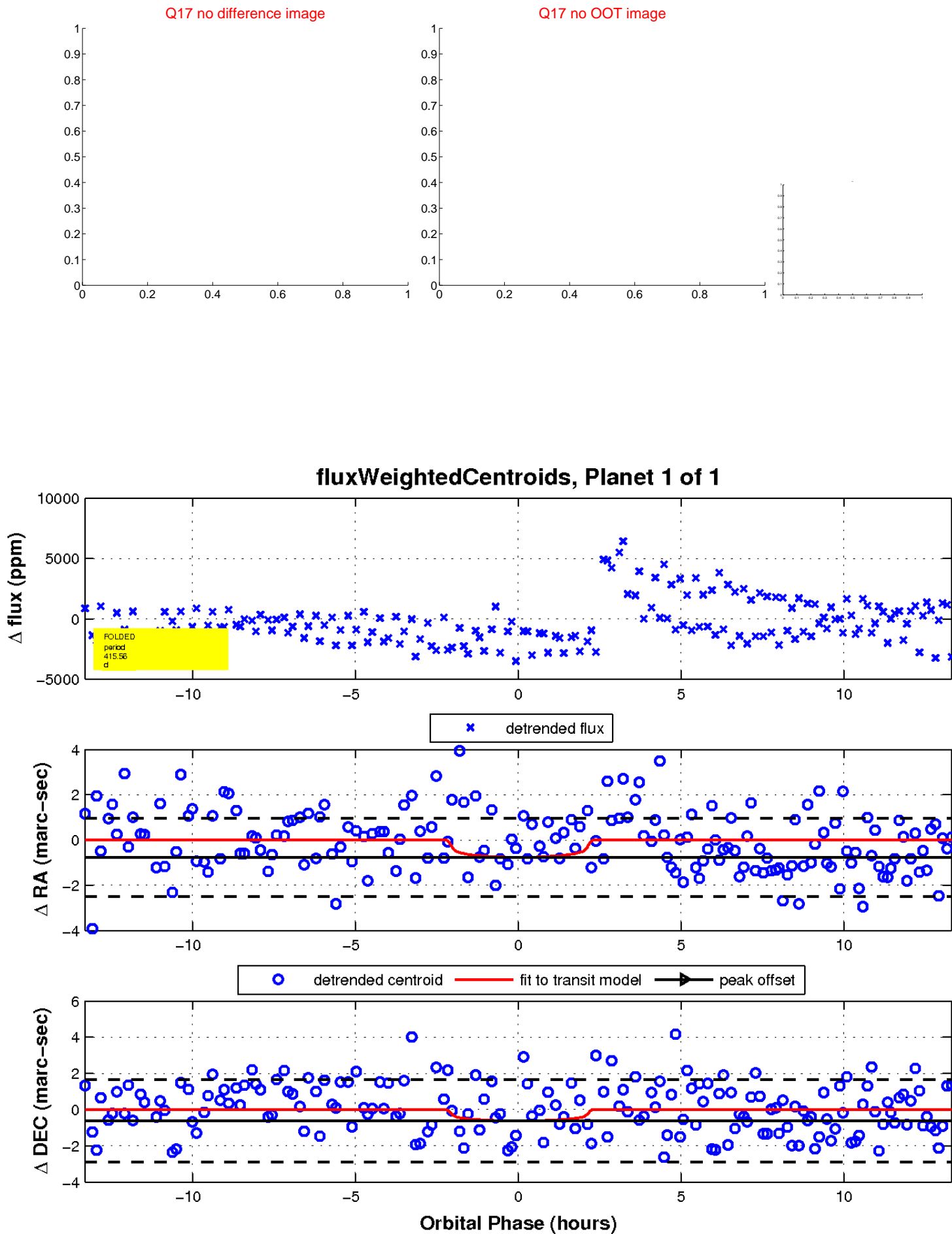
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

